



Agenda

Planning Decisions Committee

6.30pm, Tuesday 2 May 2023

Richmond Town Hall

The Planning Decisions Committee

The Planning Decisions Committee is a delegated committee of Council with full authority to make decisions in relation to planning applications and certain heritage referrals. The committee is made up of three Councillors who are rostered on a quarterly basis.

Participating in the Meeting

Planning Decisions Committee meetings are decision-making forums and only Councillors have a formal role. However, Council is committed to ensuring that any person whose rights will be directly affected by a decision of Council is entitled to communicate their views and have their interests considered before the decision is made.

There is an opportunity for both applicants and objectors to make a submission to Council in relation to each matter presented for consideration at the meeting.

Before each item is considered, the meeting chair will ask people in attendance if they wish to make submission. Simply raise your hand and the chair will invite you to come forward, take a seat at the microphone, state your name clearly for the record and:

- Speak for a maximum of five minutes;
- direct your submission to the chair;
- confine your submission to the planning permit under consideration;
- If possible, explain your preferred decision in relation to a permit application (refusing, granting or granting with conditions) and set out any requested permit conditions
- avoid repetition and restating previous submitters;
- refrain from asking questions or seeking comments from the Councillors, applicants or other submitters;
- if speaking on behalf of a group, explain the nature of the group and how you are able to speak on their behalf.

Once you have made your submission, please remain silent unless called upon by the chair to make further comment or to clarify any aspects.

Following public submissions, the applicant or their representatives will be given a further opportunity of two minutes to exercise a right of reply in relation to matters raised by previous submitters. Applicants may not raise new matters during this right of reply.

Councillors will then have an opportunity to ask questions of submitters. Submitters may determine whether or not they wish to take these questions.

Once all submissions have been received, the formal debate may commence. Once the debate has commenced, no further submissions, questions or comments from submitters can be received.

Arrangements to ensure our meetings are accessible to the public

Planning Decisions Committee meetings are held at the Richmond Town Hall. The following arrangements are in place to ensure they are accessible to the public:

- Entrance ramps and lifts (via the entry foyer).
- Interpreting assistance is available by arrangement (tel. 9205 5110).
- Auslan interpreting is available by arrangement (tel. 9205 5110).
- A hearing loop and receiver accessory is available by arrangement (tel. 9205 5110).
- An electronic sound system amplifies Councillors' debate.
- Disability accessible toilet facilities are available.

1. Appointment of Chair

Councillors are required to appoint a meeting chair in accordance with the City of Yarra Governance Rules 2020.

2. Statement of recognition of Wurundjeri Woi-wurrung Land

“Yarra City Council acknowledges the Wurundjeri Woi Wurrung people as the Traditional Owners and true sovereigns of the land now known as Yarra.

We acknowledge their creator spirit Bunjil, their ancestors and their Elders.

We acknowledge the strength and resilience of the Wurundjeri Woi Wurrung, who have never ceded sovereignty and retain their strong connections to family, clan and country despite the impacts of European invasion.

We also acknowledge the significant contributions made by other Aboriginal and Torres Strait Islander people to life in Yarra.

We pay our respects to Elders from all nations here today—and to their Elders past, present and future.”

3. Attendance, apologies and requests for leave of absence

Anticipated attendees:

Councillors

Cr Stephen Jolly

Cr Herschel Landes

Cr Sophie Wade

Council officers

Michelle King (Acting Co-ordinator Statutory Planning)

John Theodosakis (Principal Planner)

Cindi Johnston (Governance Officer)

4. Declarations of conflict of interest

Any Councillor who has a conflict of interest in a matter being considered at this meeting is required to disclose that interest either by explaining the nature of the conflict of interest to those present or advising that they have disclosed the nature of the interest in writing to the Chief Executive Officer before the meeting commenced.

5. Confirmation of Minutes

RECOMMENDATION

That the minutes of the Planning Decisions Committee held on Tuesday 28 February 2023 be confirmed.

6. Committee business reports

Item		Page	Rec. Page
6.1	PLN22/0679 - 10 - 32 Duke Street, Abbotsford - Buildings and works associated with the construction three buildings (up to eight storeys plus roof plant) for the purpose of office and food and drink premises (cafés) and a reduction in car parking requirement of the Yarra Planning Scheme.	5	52

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- 6.1 PLN22/0679 - 10 - 32 Duke Street, Abbotsford - Buildings and works associated with the construction three buildings (up to eight storeys plus roof plant) for the purpose of office and food and drink premises (cafés) and a reduction in car parking requirement of the Yarra Planning Scheme.
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Executive Summary

Purpose

1. This report provides Council with an assessment of planning application PLN22/0679 which relates to land at No.10 – 32 Duke Street, in Abbotsford. The report recommends approval subject to conditions.

Key Planning Considerations

2. Key planning considerations include:
 - (a) Clause 15.01 – Urban Environment;
 - (b) Clause 21.05 – Built Form;
 - (c) Clause 22.10 – Built Form and Design Policy;
 - (d) Clause 22.05 – Interface Uses Policy;
 - (e) Clause 33.01 – Industrial 1 Zone; and
 - (f) Clause 52.06 – Car Parking.

Key Issues

3. The key issues for Council in considering the proposal relate to:
 - (a) Strategic and policy support;
 - (b) Built form and use (food and drink premises);
 - (c) Off-site amenity impacts;
 - (d) Car parking, traffic, access and bicycle provision;
 - (e) Waste management; and
 - (f) Objector concerns.

Submissions Received

4. Thirty-five (35) objections were received to the application, the grounds of which can be summarised as:
 - (a) Excessive height poor transition and overdevelopment of the site;
 - (b) Reduction in the car parking provision;
 - (c) Increased traffic congestion on surrounding streets;
 - (d) Off-site amenity impacts (overlooking, reduced sunlight, overshadowing, noise, excessive trading hours and loss of views);
 - (e) Structural damage of surrounding buildings and noise during the construction phase;
 - (f) Devaluation of surrounding properties; and
 - (g) Impacts on surrounding heritage buildings.

Conclusion

5. Based on the following report, the proposal is considered to comply with the relevant planning policy and should therefore be supported subject to the full spectrum of conditions detailed in the “Recommendation”.

CONTACT OFFICER: John Theodosakis
TITLE: Principal Planner
TEL: 9205 5307

6.1 [PLN22/0679 - 10 - 32 Duke Street, Abbotsford - Buildings and works associated with the construction three buildings \(up to eight storeys plus roof plant\) for the purpose of office and food and drink premises \(cafés\) and a reduction in car parking requirement of the Yarra Planning Scheme.](#)

Reference D23/95441
Author John Theodosakis - Principal Planner
Authoriser Senior Coordinator Statutory Planning

Ward:	Langridge
Proposal:	Buildings and works associated with the construction three buildings (up to eight storeys plus roof plant) for the purpose of office and food and drink premises (cafés) and a reduction in car parking requirement of the Yarra Planning Scheme.
Existing use:	Commercial
Applicant:	Medley Property Group Pty. Ltd.
Zoning / Overlays:	Industrial 1 Zone (IN1Z) Development Contributions Plan Overlay (DCPO1)
Date of Application:	5 th September 2022
Application Number:	PLN22/0679

Background

- The following is relevant background information:

[Original Application](#)

- The original application was lodged on 5th September 2022 for the development of the land with three eight (8) storey buildings (comprising office and retail, permit required uses) with a reduction in the car parking requirement of the Yarra Planning Scheme.
- The application was advertised with a total of 4,488 letters sent to surrounding owners and occupiers and display of three signs on site. A total of 39 objections were received from the public.

[Sketch plans](#)

- On 28 October 2022, the permit applicant provided copies a Location Plan, Existing Site Plan, Proposed Site Plan, Cross Section - Overlooking diagrams, an Environmental Sustainability Development memorandum in response to referral advice and a cover letter addressing concerns raised by the Objectors and referral advice provided by Council officers and external consultants. This information has been provided for information purposes and is an attachment to this report.
- The information and responses provide improvements and aspects that the permit applicant has agreed with for the adoption of conditions that respond to items requested by Council Officers, the assessment will have regard to these as necessary and a formal submission of documents will be required via permit conditions, should Council be of the mind to support the development.

[Planning Scheme Amendments](#)

[Amendment C269 – Rewrite of local policies](#)

6. Amendment C269 proposes to update the local policies in the Yarra Planning Scheme (the Scheme) by replacing the Municipal Strategic Statement (MSS) at Clause 21 and Local Planning Policies at Clause 22 with a Municipal Strategic Strategy and Local Policies within the Planning Policy Framework (PFF), consistent with the structure recently introduced by the State Government.
7. Amendment C269 was on public exhibition between 20 August 2020 and 4 December 2020 and proceeded to a panel hearing in October 2021. The Panel report was released on 18 January 2022. Council resolved on 19 April 2022 that having considered the Panel report, to submit the adopted Amendment to the Minister for Planning for approval in accordance with section 31(1) of the Act. As such, Amendment C269 is a seriously entertained planning policy and relevant to the consideration of this application.

Of particular relevance to this application, Amendment C269 proposes:

Proposed C269 Local Policy reference	Brief Assessment
Clause 02.04 – Strategic Framework Plan	The Site is formally identified as being located within an Industrial 1 Zone, in an area that can be described as a more robust former warehouse and industrial precinct.
Clause 13.07-1L – Interfaces and Amenity	The policy aspirations of this clause is addressed under the off-site amenity and on-site amenity assessments below.
Clause 15.01-1L – Urban Design	Built form and design is discussed extensively in the officer assessment below and concludes that the proposal exhibits high quality architectural and urban design.
Clause 15.01-2L – Building Design	Built form and design is discussed extensively in the officer assessment below and concludes that the proposal exhibits high quality architectural and urban design.
Clause 15.02-1L – Environmentally Sustainable Development	The proposal achieves ESD commitments (subject to condition).
Clause 17.01-1L – Employment	The proposal features a mix of land uses, consisting of offices and retail (food and drinks premises). These offerings will provide a positive contribution to employment opportunities within this precinct.
Clause 18.02-1L – Sustainable Transport	The provision of bicycle facilities and reduction of car parking proposed will ensure this policy is met.
Clause 18.02-4L – Car Parking	The proposal seeks a reduction of the car parking requirements to reduce reliance on private vehicle usage. A car parking management plan has been included with the proposal.

Clause 19.03-2L – Development Contributions	This is addressed via permit conditions.
Clause 19.03-3L – WSUD	The proposal is consistent with this policy, as outlined in the submitted Sustainable Management Plan. Implementation is required by permit condition with further improvements that can be addressed by condition.
Clause 19.03-5L – Waste	Waste management is discussed in the assessment section of this report and addressed via a Waste Management Plan that will be implemented by permit condition.

[Amendment C215 – Rewrite of local policies](#)

8. VC215 was published in the Government Gazette on 3 March 2023 and is of particular relevance to the City of Yarra. It provides greater clarity and certainty for the supply and viability of commercial and industrial land within Yarra. The State Government sought targeted consultation on the draft Plan over November and December 2019 and it was finalised in 2020.
9. The Plan provides an assessment of current and future needs for industrial and commercial land, puts in place a planning framework to support future employment and industry needs. These include actions for future review of employment zones, stronger planning policy and guidance, a more sophisticated methodology to assess supply and demand for industrial land and the development of local industrial land use strategies.
10. Amendment VC215 is required to implement the directions provided in the *Melbourne Industrial and Commercial Land Use Plan* (the Plan) to ensure consistent and up to date state and regional policy for industrial and commercial land and support informed decision making.
11. VC215 sets a strategic planning framework for the protection, growth, and transformation of metropolitan industrial and commercial precincts. It will provide greater clarity and certainty for the supply and viability of commercial and industrial land, which is paramount to Victoria's economic prosperity.
12. The new policy identifies three areas as regionally significant industrial land (RSIL) in Yarra: Cremorne Employment Precinct, Gipps Street Employment Precinct and the industrial land along the Yarra River Abbotsford (CUB). The new regional policies also provide some precinct specific direction, such as encouraging creative industries in Cremorne and Collingwood; and the transition of traditional manufacturing to other employment generating uses in the industrial area along the Yarra River. Amongst others, the amendment introduces a new clause [17.03-3R Regionally significant industrial land – Metropolitan Melbourne – Inner Metro Region](#) which has a strategy to:
 - (a) *Support the transition of industrial land along the Yarra River in Abbotsford from traditional manufacturing, to a range of other employment generating uses.*
13. *Other changes to the scheme include introducing the Melbourne Industrial and Commercial Land Use Plan (Department of Environment, Land, Water and Planning, 2020) as a policy reference document to several clauses associated with the Local Planning Policy Framework. The subject site's zone will not be impacted by the proposal.*

The Proposal

14. The application proposes to develop the site in two stages through the construction of three office buildings (with two forming part of the Stage 1 development process and one building forming part of the Stage 2 development process as indicated on the ground floor plan below), with retail areas (food and drinks premises – cafes) at ground floor and a reduction in car parking requirements. The three buildings are separated, with no connections between from each other.

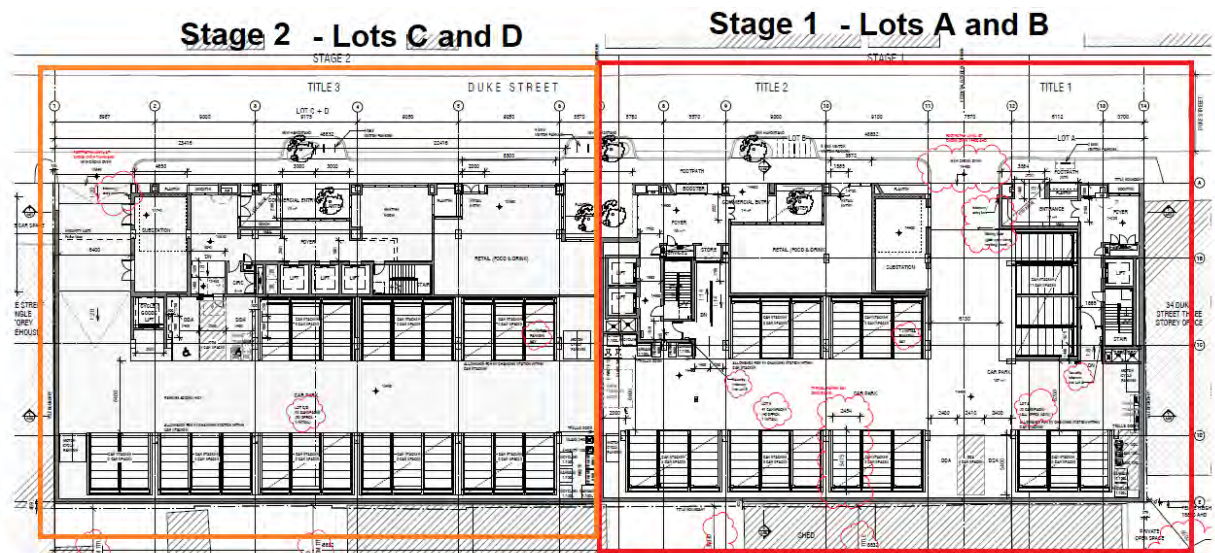


Figure 1. Proposed Ground floor plan identifying the staged development.

15. For ease of reference, and with three buildings anticipated, the northern-most will be identified as the Lot A building, followed by the Lot B building and the Lot C and D building. The key elements of the development can be summarised as follows:

Use

16. Overall, the buildings combined would contain up to 10,590sq.m. of office floor areawith operating hours of 7.00am to 8.00pm – Monday to Sunday.
17. The retail (food and drinks premises – café) at the ground would equate to a total area of 214sq.m. and would operate from 7.00am to 10.00pm – Monday to Sunday.

Lot A and B buildings (Stage 1)



Figure 2. Proposed Duke Street elevation with Stage 1 highlighted

18. Lot A Building (Stage 1) would contain the following:

Layout

- (a) Shared vehicular access is provided from Duke Street to individual car parking areas, located at ground floor in the form of a car stacker arrangement that further extends into a basement of each building;
 - (b) A pedestrian entrance located at the ground floor would provide immediate access into a foyer with one lift servicing the upper levels including a stairwell;
 - (c) Services, waste rooms, substations and a switch room are also spread across the ground floor and the basement;
 - (d) A provision of up to 20 car spaces within a car stacker arrangement on the ground floor and up to 29 on-site bicycle parking spaces in the basement (with 27 bicycle spaces for the office and retail component and two for visitors) with end-of-trip facilities / change rooms;
 - (e) 1,591sq.m. of office space is provided over seven levels. .
19. The Lot B Building (also forming part of the Stage 1 development process) would be located south of the Lot A Building and would contain the following:
- (a) A retail (food and drinks premises – café) occupies 214sq.m. of the ground floor area.
 - (b) A pedestrian entrance located at the ground floor would provide immediate access into a foyer with two lifts servicing the upper floors including a stairwell;
 - (c) Services, waste rooms, substations and a switch room are also spread across the ground floor and the basement of each building;
 - (d) A provision of up to 41 car spaces within a car stacker arrangement on the ground floor and up to 44 on-site bicycle parking spaces in the basement (with 38 bicycle spaces for the office and retail component and with 6 for visitors) with end-of-trip facilities / change rooms;
 - (e) On-site motorcycle parking is also provided in the south-east corner at the ground floor;
 - (f) 3,733sq.m. of office space is provided over seven levels.

Lot C and D Building (Stage 2)



Figure 3. Proposed Duke Street elevation with Stage 2 highlighted

20. The Lot C and D building (Stage 2) would contain the following:

- (a) Vehicular access is provided from Duke Street to 63 car spaces, located at ground floor in the form of a car stacker arrangement that further extends into a basement;
- (b) The retail (food and drinks premises – café) component would occupy 120sq.m. of the ground floor area. The building has a pedestrian entrance at the ground floor that would provide immediate access into a foyer with three lifts and stairwell to the upper floors;
- (c) Services, waste rooms, substations and a switch room are also spread across the ground floor and the basement of the building;
- (d) 67 bicycle spaces are provided in the basement with end-of-trip facilities / change rooms;
- (e) On-site motorcycle parking is also provided in the south-east corner of the car parking area at the ground floor;
- (f) 5,266sq.m. of office space is provided over seven levels.

Overall Building Massing (collectively – all buildings)

- (g) The development would produce an overall building height of 8 storeys (plus roof plant) and would range between 30.45m to 31.95m to the highest point of the saw-tooth roof forms of the Lot B and Lot C and D buildings as measured above the natural ground level (NGL), respectively due to the north-south land gradient.

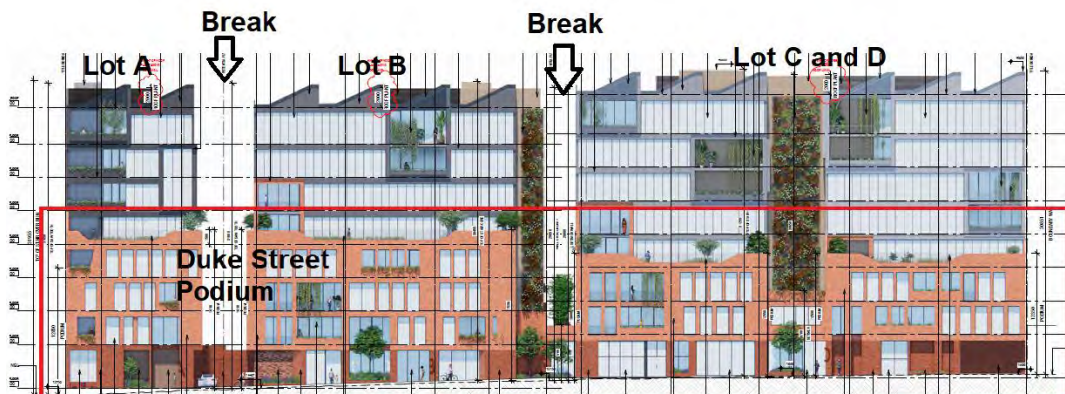


Figure 4. Proposed Duke Street elevation with podium emphasised and building breaks

- (h) At the Duke Street interface, a part-three part-four storey street wall is proposed (i.e. 12.3m transitioning to a height of 16.1m above the NGL) as this progresses from the south to the north. Breaks of 4.5m are provided between the Lot A and B building towers, and of a minimum 3m between the Lot B and Lots C and D building towers above the ground floor. The podiums are punctuated with shopfront windows, upper level fenestration and terraces.
- (i) Above the part three and part four-storey podium facing Duke Street (west side), are seven upper levels with roof plant (presenting 8 storeys with a plant area) with setbacks that range between 3.5m and 3.7m. behind the podium with the exception terraces that would extend into these setbacks.
- (j) The rear (east-side) of the development would interface several commercial buildings, and secluded areas of private open space associated with dwellings zoned Industrial 1. On-boundary walls would extend across the full length of the title boundaries combined, with a height of up to 16.1m proposed across the shared boundaries (i.e. graduating from three to four storeys) above the NGL. Above that, the development is setback between 3m and 3.6m.
- (k) The Lot A building would extend across the northern boundary with on-boundary wall heights ranging between 12.6m in the north-east corner, 12.9m in the north-west corner and an overall wall height of 31.6m, all as measured above the NGL.
- (l) The Lots C and D building would extend across the southern boundary with on-boundary wall heights ranging between 12.3m in the south-west corner, 11.4m in the south-east corner and an overall height of 29.9m, all as measured above the NGL.

Materials and Finishes

- (m) The podiums will be constructed of recycled brick and glazing and above that, the buildings will be finished with clear external glazing, steel shade extrusions and aluminium powder-coat finishes with industrial saw tooth roof forms.
The northern and southern elevations would feature significant use of precast concrete panelling above and below masonry walls.

ESD Features

21. Collectively the development would incorporate the following ESD commitments (amongst others):
- (n) A total BESS score of 71% with no mandatory category (IEQ, Energy, Water, Stormwater) below 50%;
 - (o) The proposed design response has extensive external shading, with all glazing elements on the western and eastern facades provided with an external shading screen, and awnings provided to all terrace spaces except level 4. This amounts to approximately 70% of all glazing to the northern, eastern, and western facades of the project provided with external shading;
 - (p) An on-site commitment to a minimum 40 kW rooftop PV system;
 - (q) Water efficient fittings and fixtures are applied throughout;
 - (r) Water efficient landscaping shall be included within the design response for landscape amenity. Irrigation supply shall be sourced from non-potable supplies or plant species selected which limit demand for landscape irrigation;
 - (s) A STORM report with a score of 100% has been submitted that relies on 1,800 sqm of rooftop area diverted to a total of 48,000-litres of rainwater storage connected for re-use in toilets and landscape irrigation;
 - (t) In total, 132 tenant bicycle spaces are to be provided within the basement, and 16 visitor bicycle parking spaces are to be provided on the ground floor;
 - (u) End-of-trip facilities for building staff are provided on the basement level and contain 18 Showers and 148 Lockers;

- (v) Minimum 1 EV charging space and e-scooter charging points provided in the basement; and
- (w) A total of 1,339m² of communal external terrace areas throughout the site.

Existing Conditions

Subject Site

22. The subject site is located on the east side of Duke Street, is rectangular in shape and comprises the following four land titles:

Address	Title Vol/ Folio number	Easements or restrictions
10 – 32 Duke Street, Abbotsford	Vol. No. 04740 Fol. No. 968 Vol. No. 04740 Fol. No. 269 Vol. No. 03329 Fol. No. 766 Vol. No. 09423 Fol. No. 272	Party wall easements.

23. Combined, the site has a frontage to Duke Street (west) of approximately 97.8m, with a depth of 28.6 and a site area of approximately 2,801.9sq.m.
24. The site is occupied by a mix of single and double-storey warehouses and at-grade car spaces, including the car park to the north and that to the south. The warehouses are predominantly built to the front, rear and side boundaries, with the exception of the northern-most warehouse which has grade parking in the front setback.



Figure 5. Subject site (extracted from Urban Context Report)



Picture 1 12 Duke Street

Source: Urbis



Picture 2 14 Duke Street

Source: Urbis



Picture 3 16-28 Duke Street



Picture 4 16-28 Duke Street

Figure 6. Photos of existing buildings as seen from Duke Street to the west (extracted from permit applicant's Town Planning report)

25. Buildings are generally constructed of painted masonry with industrial windows on each floor level with flat roofs and in some instances, under-crofts and car parking spaces. There are several vehicle crossovers and pedestrian entrances across the Duke Street interface. The subject site is zoned Industrial 1.
26. The land gradient drops by up to approximately 2m as the land proceeds south to north across Duke Street. The land gradient also drops east to west, through the site, by approximately 470mm. There are no restrictive covenants on any of the titles, but these do include boundary wall easements.

Surrounding Land

27. The site is located within an industrial neighbourhood generally bounded by Church Street, Nelson Street, Victoria Street and the Yarra River. The Carlton and United Brewery factory complex occupies a significant portion of the neighbourhood, approximately 135m to the northwest of the site. The surrounding land predominately contains a mixture of large format warehouses, with a significant degree of hard-edged built form directly abutting Duke Street. Land to the east beyond Grosvenor Street and towards Victoria Street, has been developed with large, multi-storey residential developments. The Victoria Garden Shopping complex is located approximately 580m to the south-east of the subject site.



Figure 7: Aerial image extracted from VicPlan identifying surrounding zoning

28. The immediate interfaces are as follows:

North

29. To the north, is a three-storey office building that is constructed hard-edged at the upper floor to the street and the shared boundary, presenting a blank concrete wall to the subject site. Further north is a two-storey building of four warehouses encompassing food and beverage producers, equipment rental and a shoe wholesaler. The scale along Duke Street is characterised by building heights of generally between 1-4 storeys, and the 6 storey Kodak building to the northwest.
30. Further to the north, at the end of Duke Street, is the Yarra River.

East

31. To the east, the subject site abuts the following properties fronting onto Grosvenor Street that are zoned Industrial 1 (starting from the southern end):

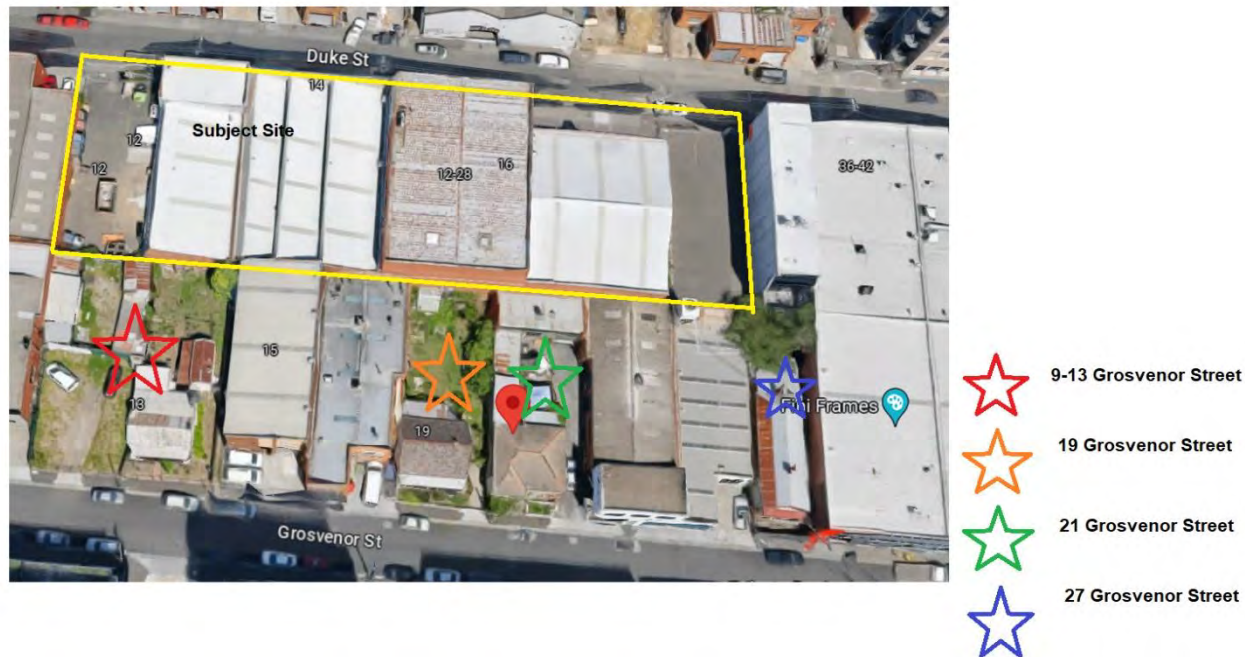


Figure 8: Aerial image identifying subject site and residential properties zoned IN1 to the immediate east

- (a) Property No. 9-13 Grosvenor Street which is occupied by a number of outbuildings and a dwelling. This site is covered by a heritage overlay (i.e. HO13) and is graded individually significant. HO13 should apply to this site however a mapping error incorrectly applies the heritage overlay to number 15. The schedule to the zone and incorporated heritage documents correctly refer to the address as number 13. It is highlighted that Council does not have any records of any of these dwellings have had existing use rights established for their use (noting that attempts have been made but incomplete).



Figure 9: Property No. 9 – 13 (extracted from Google – Image capture Nov. 2021)

- (b) Property No. 15 Grosvenor Street which is occupied by a double-storey warehouse built to the side and rear boundaries, with some at-grade car parking to the street frontage. The property has a heritage overlay applied to it, but this appears to be a mapping error as indicated above;
- (c) Property No. 17 Grosvenor Street which is occupied by a single storey warehouse with some at-grade car parking to the street frontage;
- (d) Property No. 19 Grosvenor Street which is occupied by a single-storey dwelling with a large private open space area to the rear, adjacent the common boundary. The site has a heritage overlay (HO14) applying to the property, and is graded individually significant;



Figure 10: Property No's. 17 – 19 (extracted from Google – Image capture Nov. 2021)

- (e) Property No. 21 Grosvenor Street which is occupied by a single storey dwelling with a workshop and storage area to the rear. The workshop is built across the full length of the common boundary;
- (f) Property No. 23 Grosvenor Street which is occupied by a double-storey warehouse with some under-croft car parking to Grosvenor Street, and built form that extends to the shared boundaries;
- (g) Property No. 25 Grosvenor Street which is occupied by a single-storey warehouse with some at-grade car parking to Grosvenor Street, and built form built that extends to the shared site boundaries; and
- (h) Property No. 27 Grosvenor Street which is also occupied by a dwelling with private open space at the rear.

South

- 32. Immediately to the south of the site is a single-storey warehouse building of masonry construction. The building is generally built to all boundaries with the exception of the recessed north-west corner. South of this, is a double-storey warehouse building also of masonry construction that is built hard-edge to Duke Street.
- 33. The area has undergone further change as a result of the emergence of more recent built form and approvals establishing a more robust and varied character. Within the immediate area the following developments have been approved in more recent times (extracted from Council's Urban Design consultant's advice):

- 4 Southampton Crescent & 27-29 Duke Street – 9 storeys approved;
- 18 Grosvenor Street – 5 storeys constructed;
- 11 Flockhart Street – 8 and 9 storeys constructed;
- 601 Victoria Street – 6 and 11 storeys constructed;
- X Flockhart Street – 6 storeys constructed;
- 1 Shamrock Street & 16 Flockhart Street – 12 storeys constructed;
- 42-50 Flockhart Street – 5 storeys approved;
- 10 Shamrock Street – 10 storeys constructed;
- 609-611 Victoria Street – 7 storeys constructed; and
- 619-627 Victoria Street – 10 and 11 storeys constructed.



Surround development trajectory, showing approved (white circle) and constructed (black circle) developments with no. of storeys shown

Figure -11: Surrounding development approvals and buildings constructed (extracted from Council's Urban Design consultant's advice)

34. More broadly, the section of Victoria Street closest to Hoddle Street is known as the Victoria Street strip shopping centre, which is a designated an 'Activity Centre'. Major roads servicing the subject site are Victoria Street, a major arterial road linking the city with Melbourne's eastern suburbs, and Burnley Street which provides a north-south link between Richmond and the Monash Freeway. The subject site has excellent access to public transport with Tram Route 24 (North Balwyn) and Tram Route 109 (Port Melbourne) servicing Victoria Street. The nearest metropolitan railway station is North Richmond, approximately 1.3km west of the site, directly accessible by tram.
35. Duke Street is a local road generally north-south, running between Southampton Crescent in the north and Victoria Street in the south. In the vicinity of the site, kerbside parking on either side of the road is generally unrestricted but more broadly, streets such as Grosvenor Street, are blanketed with 1h – 2h parking restrictions and no standing zones.

Planning Scheme Provisions

Zoning

Industrial 1 Zone

36. Pursuant to Clause 33.01-1 of the Yarra Planning Scheme (the Scheme), a planning permit is required:

- (a) for the use of the land for offices and retail premises (food and drinks premises – café) as these are both Section 2, permit required uses.

37. Pursuant to Clause 34.02-4 of the Scheme, a planning permit is required to construct a building or to construct or carry out works.

Overlays

Development Contributions Plan Overlay (Schedule 1) (DCPO1)

38. The Development Contributions Plan applies to the proposed additional floor area, requiring the developer to pay a cash contribution towards essential city infrastructure like roads and footpaths.
39. Pursuant to Clause 45.06-1 a permit granted must:
- (a) *Be consistent with the provisions of the relevant development contributions plan.*
 - (b) *Include any conditions required to give effect to any contributions or levies imposed, conditions or requirements set out in the relevant schedule to this overlay*
40. Schedule 1 of the Development Contributions Plan Overlay (DCPO1) applies to the proposal. The development infrastructure levy is applicable to the office and retail floor space.
41. A planning permit is not required for works under the overlay. The requirements of the DCPO have been included as a condition in the recommendation.

Particular Provisions

Clause 52.06 – Car parking

42. Clause 52.06-1 of the Scheme prescribes that a new use must not commence or the floor area of an existing use must not be increased until the required car spaces have been provided on the land. The table below outlines the car parking requirements for the proposed office and retail use (pursuant to Table 1 at Clause 52.06-5), the proposed car parking provision on site and the resultant car parking reduction.

Land Use	Units/Area proposed	Rate	No. required	No. proposed	Reduction sought
Office	10,590sq.m. net floor area	3 car parking spaces per 100sq.m. of net floor area	317	122	195
Retail Premises	214sq.m.	3.5 car spaces per 100sqm of leasable floor area	7	2	5
Total			324	124	200

43. As shown in the table above, the development requires a planning permit for a car parking reduction pursuant to Clause 52.06-3. A reduction of 200 spaces is sought.

Clause 53.18 – Stormwater Management in Urban Development

44. This clause applies to an application under a provision of a zone to construct a building or construct or carry out works. An application to construct a building or to construct or carry out works:

- (a) Must meet all of the objectives of Clauses 53.18-5 and 53.18-6.
- (b) Should meet all of the standards of Clauses 53.18-5 and 53.18-6.

Clause 52.34 – Bicycle facilities

45. A new use must not commence or the floor area of an existing use must not be increased until the required bicycle facilities and associated signage has been provided on the land. The table below outlines the bicycle parking requirements for the proposed use.

Land Use	Units/Area proposed	Rate	No. required	No. proposed	Surplus
Office	10,590 sq.m. net floor area	<i>Employee spaces</i> 1 space to each 300m ² net floor area (if the net floor area exceeds 1000m ²)	35		
		<i>Visitor spaces</i> 1 visitor space to each 1000sq.m. of net floor area (if the net floor area exceeds 1000m ²)	10		
Retail Premises	214sq.m.	<i>Employee spaces</i> 1 space to each 300m ² leasable floor area	0		
		<i>Customer spaces</i> 1 visitor space to each 500sq.m. of leasable floor area	0		
TOTAL		<i>Employee Spaces</i>	35	132	97
		<i>Visitor Spaces</i>	10	16	6
		<i>Showers / Change Rooms</i> (1 to the first 5 employee spaces and 1 to each additional 10 employee spaces)	4	20	16

46. As detailed in the above table, the proposal provides a surplus of 97 employee spaces, a surplus of 6 visitor spaces and a surplus of 16 showers / change rooms exceeding the requirements of Clause 52.34 of the Scheme. In addition to these services, the proposal provided up to 148 lockers.

General Provisions

47. The decision guidelines outlined at Clause 65 of the Scheme are relevant to all applications. Before deciding on an application, the Responsible Authority must consider a number of matters. Amongst other things, the Responsible Authority must consider the relevant State Planning Policy Frameworks, Local Planning Policy Frameworks and any local policy, as well as the purpose of the zone, overlay or any other provision.

Planning Policy Framework (PPF)

48. Relevant clauses are as follows:

Clause 11.01-1R - Settlement - Metropolitan Melbourne

49. Relevant strategies include:

- (b) Develop a network of activity centres linked by transport; consisting of Metropolitan Activity Centres supported by a network of vibrant major and neighbourhood activity centres of varying size, role and function.*
- (c) Create mixed-use neighbourhoods at varying densities, including through the development of urban-renewal precincts that offer more choice in housing, create jobs and opportunities for local businesses and deliver better access to services and facilities.*

Clause 11.02 - Managing Growth

Clause 11.02-1S - Supply of Urban Land

50. The objective is *to ensure a sufficient supply of land is available for residential, commercial, retail, industrial, recreational, institutional and other community uses.*

Clause 15.01 - Built Environment and Heritage

51. This clause outlines the following guidelines:

- (d) Planning should ensure all land use and development appropriately responds to its surrounding landscape and character, valued built form and cultural context.*
- (e) Planning must support the establishment and maintenance of communities by delivering functional, accessible, safe and diverse physical and social environments, through the appropriate location of use and development and through high quality buildings and urban design.*
- (f) Planning should promote development that is environmentally sustainable and should minimise detrimental impacts on the built and natural environment.*
- (g) Planning should promote excellence in the built environment and create places that:*
 - (i) Are enjoyable, engaging and comfortable to be in.*
 - (ii) Accommodate people of all abilities, ages and cultures.*
 - (iii) Contribute positively to local character and sense of place.*
 - (iv) Reflect the particular characteristics and cultural identity of the community.*
 - (v) Enhance the function, amenity and safety of the public realm.*

Clause 15.01-1S - Urban design

52. The objective is *to create urban environments that are safe, functional and provide good quality environments with a sense of place and cultural identity.*

Clause 15.01-1R - Urban design - Metropolitan Melbourne

53. The objective is *to create distinctive and liveable city with quality design and amenity.*

Clause 15.01-2S - Building Design

54. The objective is *to achieve building design outcomes that contribute positively to the local context and enhance the public realm.*

55. The strategies of this clause are:

- (a) *Ensure the site analysis provides the basis for the consideration of height, scale and massing of new development.*
- (b) *Ensure development responds and contributes to the strategic and cultural context of its location.*
- (c) *Minimise the detrimental impact of development on neighbouring properties, the public realm and the natural environment.*
- (d) *Ensure the form, scale, and appearance of development enhances the function and amenity of the public realm.*
- (e) *Ensure buildings and their interface with the public realm support personal safety, perceptions of safety and property security.*
- (f) *Ensure development provides safe access and egress for pedestrians, cyclists and vehicles.*
- (g) *Ensure development provides landscaping that responds to its site context, enhances the built form and creates safe and attractive spaces.*

Clause 15.01-4R - Healthy neighbourhoods - Metropolitan Melbourne

56. The strategy is *create a city of 20 minute neighbourhoods, that give people the ability to meet most of their everyday needs within a 20 minute walk, cycle or local public transport trip from their home.*

Clause 15.01-5S - Neighbourhood character

57. The objective is *to recognise, support and protect neighbourhood character, cultural identity, and sense of place.*

58. Strategies are:

- (a) *Ensure development responds to cultural identity and contributes to existing or preferred neighbourhood character.*
- (b) *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 emphasising the:*
 - (i) *Pattern of local urban structure and subdivision.*
 - (ii) *Underlying natural landscape character and significant vegetation.*
 - (iii) *Heritage values and built form that reflect community identity.*

Clause 17 - Economic development

59. The clause states that *planning is to contribute to the economic wellbeing of the state and foster economic growth by providing land, facilitating decisions and resolving land use conflicts, so that each region may build on its strengths and achieve its economic potential.*

Clause 17.01-1S - Diversified economy

60. The objective is *to strengthen and diversify the economy.*

61. Relevant strategies are:

- (c) *Protect and strengthen existing and planned employment areas and plan for new employment areas.*
- (d) *Improve access to jobs closer to where people live.*

Clause 17.02-1S - Business

62. The objective is *to encourage development which meet the communities' needs for retail, entertainment, office and other commercial services.*

63. Relevant strategies include:

- (a) *Plan for an adequate supply of commercial land in appropriate locations.*
- (b) *Ensure commercial facilities are aggregated and provide net community benefit in relation to their viability, accessibility and efficient use of infrastructure.*
- (c) *Locate commercial facilities in existing or planned activity centres*

Clause 17.03-1S Industrial land supply

64. The objective is *to ensure the availability of land for industry.*

Clause 18.02-1S – Walking

65. The objective is *to facilitate an efficient and safe walking network and increase the proportion of trip made by walking.*

Clause 18.02-2S – Cycling

66. The objective is *to facilitate an efficient and safe bicycle network and increase the proportion of trips made by cycling.*

Clause 18.02-3S – Public Transport

67. The objective is *to facilitate an efficient and safe public transport network and increase the proportion of trips made by public transport.*

Clause 18.02-3R - Principal Public Transport Network

68. A relevant strategy of this clause is *to maximise the use of existing infrastructure and increase the diversity and density of development along the Principal Public Transport Network, particularly at interchanges, activity centres and where principal public transport routes intersect.*

[Local Planning Policy Framework \(LPPF\)](#)

69. Relevant clauses are as follows:

Clause 21.04-3 - Industry, office and commercial

70. The objective of this clause is *to increase the number and diversity of local employment opportunities.*

71. The clause also acknowledges that *Yarra's commercial and industrial sectors underpin a sustainable economy and provide employment. Yarra plans to retain and foster a diverse and viable economic base.*

Clause 21.05-2 - Urban design

72. The relevant objectives and strategies are:

- (a) *Objective 16 To reinforce the existing urban framework of Yarra;*
- (b) *Objective 17 To retain Yarra's identity as a low-rise urban form with pockets of higher development.*
 - (i) Strategy 17.2 encourages new development to be no more than five – six storeys unless it can be demonstrated that the development can achieve specific benefits.
- (c) *Objective 18 To retain, enhance and extend Yarra's fine grain street pattern;*
- (d) *Objective 20 To ensure that new development contributes positively to Yarra's urban fabric;*
- (e) *Objective 21 To enhance the built form character of Yarra's activity centres;*
 - (i) Strategy 21.1 Require development within Yarra's activity centres to respect and not dominate existing built form; and
- (f) *Objective 22 To encourage the provision of universal access in new development.*

Clause 21.05-4 - Public environment

73. The relevant objective and strategies are:

- (a) *Objective 28 To provide a public environment that encourages community interaction and activity:*
 - (i) Strategy 28.1 Encourage universal access to all new public spaces and buildings.
 - (ii) Strategy 28.2 Ensure that buildings have a human scale at street level.
 - (iii) Strategy 28.3 Require buildings and public spaces to provide a safe and attractive public environment.

Clause 21.05-3 - Built form character

74. The relevant objective is *to improve the interface of development with the street in non-residential areas (Objective 27).*

Clause 21.06 - Transport

75. This clause builds upon the objectives outlined at clause 18, promoting cycling, walking and public transport as alternatives to private motor vehicle usage.

Clause 21.06-1 - Walking and cycling

76. This clause builds upon the Objectives outlined at Clause 18, promoting cycling, walking and public transport as alternatives to private motor vehicle usage.

- (a) *Objective 30 To provide safe and convenient pedestrian and bicycle environments:*
 - (i) Strategy 30.2 Minimise vehicle crossovers on street frontages.

Clause 21.06-2 - Public transport

77. The relevant objective is *to facilitate public transport usage.*

Clause 21.06-3 - The road system and parking

78. The relevant objective is *to reduce the reliance on the private motor car.*

Clause 21.07-1 - Environmentally sustainable development

79. The relevant objective is to promote ecologically sustainable development (objective 43) through the application of the following strategy:

- (ii) *Strategy 34.1 Encourage new development to incorporate environmentally sustainable design measures in the areas of energy and water efficiency, greenhouse gas emissions, passive solar design, natural ventilation, stormwater reduction and management, solar access, orientation and layout of development, building materials and waste minimisation;*

Clause 21.08-2 Neighbourhoods – Abbotsford

80. The following relevant commentary is offered at this clause:

- (a) *Abbotsford is a highly varied neighbourhood with a substantial number of industrial and commercial buildings of various types and eras. The residential precincts are surrounded by industrial development located in the vicinity of Hoddle Street and the Yarra River.*
- (b) *There is a large industrial precinct centred around Carlton United Beverages. Due to requirements under SEPP N-1 the viability of this industrial precinct has the potential of being undermined by new residential development located too close. The introduction of offices does not present a similar threat and would aid the development of underutilised land to the west of Victoria Crescent south of Gipps Street.*
- (c) *Similarly, east of Grosvenor Street there is an opportunity to develop underutilised sites along the Yarra River for commercial as well as residential development. So that residential development in this location does not bring CUB into non-compliance with SEPP N-1, any rezoning must be accompanied by a DDO which addresses noise.*

Relevant Local Policies

81. Relevant clauses are as follows:

Clause 22.05 - Interface Uses Policy

82. The relevant policy is that *new non-residential use and development within Business and Mixed Use and Industrial Zones are designed to minimise noise and visual amenity impacts upon nearby, existing residential properties.*

Clause 22.10 - Built form and design policy

83. This policy applies to all new development that is not included within a heritage overlay. The policy comprises design elements to guide the scale, form and appearance of new development, of which the following are relevant to this application:

- (a) Setbacks and building heights;
- (b) Street and public space quality;
- (c) Environmental sustainability;
- (d) On-site amenity;
- (e) Off-site amenity;
- (f) Landscaping and fencing; and
- (g) Parking, traffic and access.

84. The policy has the following objectives:

- (a) *Ensure that new development positively responds to the context of the development and respects the scale and form of surrounding development where this is a valued feature of the neighbourhood.*
- (b) *Ensure that new development makes a positive contribution to the streetscape through high standards in architecture and urban design.*
- (c) *Limit the impact of new development on the amenity of surrounding land, particularly residential land.*
- (d) *Design buildings to increase the safety, convenience, attractiveness, inclusiveness, accessibility and 'walkability' of the City's streets and public spaces.*
- (e) *Encourage environmentally sustainable development.*

Clause 22.11 - Victoria Street East Precinct Policy

85. The City of Yarra developed the Victoria Street East Precinct, Richmond Urban Design Framework 16 November 2005 (UDF) to guide change in the area, to support Council and State policies including Melbourne 2030 and to enable development to fit comfortably with established areas within the Precinct. The principles of the UDF provide a guide for future development within the Precinct, particularly in relation to the treatment of the interface between new development and the Yarra River and its environs, the Abbotsford industrial area and established residential neighbourhoods. The subject site is identified in an area with an "Employment Focus" on the Map 1 Victoria Street East precinct Framework Plan.
86. Relevant key objectives that relate to the site are:
- (a) *To encourage the use of public transport, cycling and walking for access within the Victoria Street Precinct and between it and other parts of Melbourne.*
 - (b) *To provide for adequate access to, from and within redevelopment sites that contributes to the development of an integrated pedestrian and cycling network within the Precinct.*
 - (c) *To reduce vehicular traffic conflicts with tram services in Victoria Street without the requirement of future road widening.*
 - (d) *To ensure new development contributes to the provision of appropriate physical and social infrastructure to support the change of uses in the Precinct*
 - (e) *To maximise opportunities for new development on former industrial sites and other disused sites while protecting the amenity of the surrounding area and enhancing the landscape character of the River corridor*
 - (f) *To protect existing industrial activities in the Industrial 1 Zone adjacent to the Precinct, while supporting opportunities for a shift from industrial activity to business activity within the Precinct*
 - (g) *To create new local employment opportunities and protect existing ones, especially in the nearby CUB precinct*
 - (h) *To ensure that the development or redevelopment of this precinct protects the character and amenity of neighbouring residential areas.*
 - (i) *To ensure access to sunlight and amenity is maintained in public spaces and that sensitive community facilities are protected from overshadowing and other detrimental impacts -*
 - (j) *To protect views to important landmarks, such as the 'Skipping Girl' sign.*

Clause 22.16 Stormwater Management (Water Sensitive Urban Design)

87. This policy applies to (as relevant) new buildings and contains the following objectives:
- (a) *To achieve the best practice water quality performance objectives set out in the Urban Stormwater Best Practice Environmental Management Guidelines, CSIRO 1999 (or as amended).*
 - (b) *Currently, these water quality performance objectives require:*
 - (i) *Suspended Solids - 80% retention of typical urban annual load*
 - (ii) *Total Nitrogen - 45% retention of typical urban annual load*
 - (iii) *Total Phosphorus - 45% retention of typical urban annual load*
 - (iv) *Litter - 70% reduction of typical urban annual load*
 - (c) *To promote the use of water sensitive urban design, including stormwater re-use.*
 - (d) *To mitigate the detrimental effect of development on downstream waterways, by the application of best practice stormwater management through water sensitive urban design for new development.*
 - (e) *To minimise peak stormwater flows and stormwater pollutants to improve the health of water bodies, including creeks, rivers and bays.*
 - (f) *To reintegrate urban water into the landscape to facilitate a range of benefits including microclimate cooling, local habitat and provision of attractive spaces for community use and well being.*

Clause 22.17 - Environmentally Sustainable Design

88. The overarching objective is that development should achieve best practice in environmentally sustainable development from the design stage through to construction and operation. The considerations are energy performance, water resources, indoor environment quality, storm water management, transport, waste management and urban ecology.

[Other Documents](#)

Plan Melbourne

89. The plan outlines the vision for Melbourne's growth to the year 2050. It seeks to define what kind of city Melbourne will be and identifies the infrastructure, services and major projects which need to be put in place to underpin the city's growth. It is a blueprint for Melbourne's future prosperity, liveability and sustainability.
90. It is policy to create mixed-use neighbourhoods at varying densities to offer more choice in housing and create opportunities for local businesses and new jobs whilst also delivering better access to local services and facilities. It is acknowledged that the application of the Mixed Use Zone can facilitate diverse housing and a greater mix of uses at varying densities.
91. The strategy promotes '20-minute neighborhoods' where there is access to local shops, schools, parks, jobs and a range of community services within a 20 minute trip from your residence.

Urban Design Guidelines for Victoria (DELWP)

92. These guidelines are policy guidelines within the State Planning Policy Framework of the Victoria Planning Provisions. The guidelines must be considered when assessing the design and built form of new development where relevant. The guidelines use best practice knowledge and advice underpinned by sound evidence.

Spatial Economic and Employment Strategy (SEES)

93. The Spatial Economic and Employment Strategy (SEES) was adopted by Council in September 2018 and includes 6 directions which will inform future policy for the Scheme.
94. The strategic direction contained within the SEES supersedes that contained within the Yarra Business and Industrial Land Strategy (BILS), adopted by Council in June 2012.
95. The SEES acknowledges a decline in industrial use and identifies that *the Abbotsford precinct contains the largest remaining manufacturer, Carlton United Brewery (CUB), along with a number of other more traditional manufacturing employment*. It goes on to further acknowledge that *the Abbotsford precinct is capable of providing opportunities for employment, retail, community uses and/or housing in the longer term, beyond the 15-year planning horizon of this strategy*.

Yarra Economic Development Strategy 2020 – 2025

96. The Yarra Business and Industrial Land Strategy (BILS) was adopted by Council in June 2012. This strategy sets out a 10-15 year direction for Yarra's business and industrial areas, and aims to ensure that its local residents have access to high quality employment opportunities and that the municipality can retain a vibrant local economy.
97. The subject site is identified as being within a 'Core Industrial or Business Node' (CIB). CIB's are identified as relatively large (approximately 2 hectares or greater in area) and consolidated industrial or business nodes. Internal areas of the nodes provide opportunities for a range of businesses to operate with minimal sensitive interfaces.
98. The site is identified specifically within *Precinct 'CIB 7 - Abbotsford East Cluster'* of the BILS. The BILS notes for sites with Yarra River frontage, activities which complement the open space, recreation and landscape values of the Yarra River corridor, such as offices, cafes and tourism orientated facilities should be encouraged.

Melbourne Industrial and Commercial Land Use Plan (Department of Environment Land, Water and Planning, 2020).

99. The Victorian Government has strong policies and strategies in place to protect employment land, deliver local jobs and improve Melbourne's economic performance and productivity.
100. Ensuring enough well-priced industrial and commercial land is available in the right locations will help drive investment and provide jobs for our growing population. The *Melbourne Industrial and Commercial Land Use Plan (2020)* builds on policies and actions from the metropolitan planning strategy, Plan Melbourne 2017-2050 and its five-year implementation plan.
101. The plan – known as MICLUP – provides an assessment of current and future needs for industrial and commercial land across metropolitan Melbourne, putting in place a planning framework to support state and local government to more effectively plan for future employment and industry needs. The subject site is identified as being located within what is identified as *Regionally Significant Industrial Land*. This also includes the CUB site and is part of a cluster of properties. The subject site's zoning will be maintained and protected as this aspect will remain unchanged and will continue form part of this identified cluster. Despite the office use proposed, the zone will continue to anticipate industrial land use that is as-of-right (non-permit required).

Advertising

102. The application was advertised under the provisions of Section 52 of the *Planning and Environment Act (1987)* by 2,558 letters sent to surrounding owners and occupiers and by three signs displayed on site. Thirty-nine (39) objections were received to the application, the grounds of which can be summarised as:

- (a) Excessive height poor transition and overdevelopment of the site;
- (b) Reduction in the car parking provision;
- (c) Increased traffic congestion on surrounding streets;
- (d) Off-site amenity impacts (overlooking, reduced sunlight, overshadowing, noise, excessive trading hours and loss of views);
- (e) Structural damage of surrounding buildings and noise during the construction phase;
- (f) Devaluation of surrounding properties; and
- (g) Impacts on surrounding heritage buildings.

103. A planning consultation meeting was not held.

Referrals

External Referrals

104. The application was referred to:

- (a) Head, Transport for Victoria pursuant to 66.02-11 (land Use and transport integration) of the Scheme, due to the office floor area exceedance above 10,000sq.m. of leasable floor area.

Internal Referrals

105. The application was referred to the following units within Council:

- (a) Urban Design;
- (b) Engineering Services Unit;
- (c) Strategic Transport;
- (d) Waste Services; and
- (e) ESD Advisor.

External Consultants

106. The application was referred to the following external consultants:

- (a) Urban Design (Hansen Partnership Pty. Ltd.); and
- (b) Wind (Vipac Engineers and Scientists Ltd.).

107. Referral comments are an attachment to this report.

OFFICER ASSESSMENT

108. The primary considerations for this application are as follows:

- (a) Policy and Strategic Support;
- (b) Land Use;
- (c) Built Form and Design;
- (d) On Site Amenity;
- (e) Off Site Amenity;
- (f) Car Parking, Traffic, Loading and Waste;

- (g) Bicycle Facilities;
- (h) Other Matters; and
- (i) Objector Concerns.

Policy and Strategic Support

109. For the purpose of this assessment all three buildings will be addressed as one building, given that these form part of the one application (noting that the site will be developed in two stages). With this in mind, the subject site is located within an IN1Z. The IN1Z has the objective *to provide for manufacturing industry, the storage and distribution of goods and associated uses in a manner which does not affect the safety and amenity of local communities*.
110. A planning permit is required under the IN1Z for buildings and works, office use and retail (food and drinks premise) and a reduction in the car parking requirement with strong strategic support for a development of the scale proposed over the subject site. State and Local policies encourage the concentration of development in and around activity centres and intensifying development on sites well connected to public transport to ensure efficient use of existing infrastructure.
111. The application proposes the construction of three, eight-storey office buildings with food and drink premises at the ground floor on an overall site which is currently underutilized. The development proposal is highly consistent with the purpose of the zone and strategic intent for this area that seek to encourage intensification of commercial uses.
112. The proposed intensification of the land is also consistent with the SEES, which forecasts a decline in industry based uses, further reflecting a long term decline in *traditional manufacturing* industries. The SEES acknowledges that as industrial uses migrate out of old industrial zoned land, *a diverse urban economy which spans both services and old industrial sectors has emerged*. The SEES foreshadows a decline over the next 15 years, *by around 25%*. It is therefore considered that the proposal is consistent with the foreshadowing of the SEES, and therefore the purpose of the zone and strategic intent for this area that seek to encourage intensification of commercial uses. It is highlighted that the *Melbourne Industrial and Commercial Land Use Plan (Department of Environment Land, Water and Planning, 2020)* identifies the subject site as one within a cluster that are of regional significance. The subject site's zone will remain, and despite the office use proposed, this is not prohibited in the IN1Z.
113. The site is well connected to public transport infrastructure being in proximity to train and tram services along Victoria Street, hence encouraging the use of alternative modes of transport to and from the site rather than reliance on motor vehicles, are encouraged by clauses 18.02 – *Movement Networks*; 21.06-3 – *The Road System and Parking*; and 21.03 – *Vision* of the Scheme.
114. The proposal is also consistent with the policy direction for the area at Clause 21.08-1 (Abbotsford) of the Scheme. This clause essentially notes that the introduction of offices in the industrial precinct would not pose the same risk to the ongoing operation of the industrial precinct as residential development. The subject site is noted as being within the 'non-residential areas' built form character type in the Built form character map at Clause 21.08-1, where the direction is to *"Improve the quality of the environment and the interface of development with the street"*.

115. While there may be strong strategic direction for intensified development and car parking reductions within the subject site, the built form policy and direction under clauses 22.05 – *Interface uses* and 22.10 - *Built Form and Design Policy* of the Scheme also outline that consideration must be given to the design of the building and its interfaces with the surrounding area. Further considerations of land use are provided under the *Off-Site Amenity* heading, with regard to noise, air borne emissions, light spill and glare.

Land Use

116. In accordance with the purpose of the both the IN1 and the relevant State and Local Planning Policy Provisions, as outlined earlier, the land use component can be supported given that:
- (a) Both uses will help support and broaden the mixed-use function and economic viability of this precinct;
 - (b) Both uses will provide for a mix of business land use on the one site with industrial land use that is foreshadowed and trending to decline as outlined in the SEES;
 - (c) Both uses provide employment opportunities as required by Objective 8 at Clause 21.04-3 (Industry, Office and Commercial) of the Scheme;
 - (d) The hours of (i.e. 7am to 10 pm for the retail (food and drinks premises – café) 7 days , and 7am to 8pm for the office - 7 days) will ensure that the use of the land is limited to primary day-time operating hours that are largely commensurate with the hours of other surrounding commercial land uses.
 - (e) The retail (food and drinks premises) is also seen as an ancillary component to the broader spectrum of the development and is well removed from the dwellings to the east with access only from Duke Street to the west, and back-of-house services within the development acting as a buffer. Furthermore, there is no liquor licence proposed that would otherwise dictate are more restricted outcome compared to that put before Council.
 - (f) The noise generated by the office and the retail (food and drinks premises) is expected to be limited to arriving and leaving staff and clients and patrons and will otherwise be contained within the building. Due to the nature of both uses and surrounding land zones that prohibit dwellings, it is expected that these will generate limited noise volumes / impacts and are compliant with policy at Clause 22.05 (Interface Uses policy) of the Scheme; and
 - (g) Generally in accordance with the policy guidelines at Clause 22.05-4.3, rubbish and recycling must be managed to ensure no adverse impact on surrounding land. Therefore, it is necessary that all rubbish is stored on site and concealed from external view, does not spill out onto the street reserves and waste collection is restricted to between 7.00am and 8.00pm, on any day. These requirements will be addressed via Council's standard conditions.

Built Form and Design

117. This section of the report considers the built form of the proposed development and is guided principally by the decision guidelines of the IN1Z at Clause 33.01-4 and local policy at clauses 21.05-2 – Urban design, 22.05 – Interface Uses Policy and 22.10 – Built form and design policy.
118. These provisions and policies seek a development that responds to the existing or preferred neighbourhood character and provides a contextual urban design response reflective of the aspirations of the area. Particular regard must be given to the site context, building height, massing, architectural response, the pedestrian experience and the development's interface with any existing sensitive uses. These will be considered in the following paragraphs.

Site Context

119. The existing character of the surrounding area is predominantly one and two storeys in height with taller built forms interspersed (between three and six storeys) and significant residential developments (up to 12 storeys) east of Grosvenor Street beyond the immediate properties to the east of the subject site. Most commercial buildings are built hard to the street with limited, or no setbacks and in some instances under-crofts. Commercial buildings within proximity to the site also provide high site coverage, with a number of these constructed hard-edged to Duke Street. Heights range from single to six-storeys, with robust industrial-style designs.
120. The direct interfaces to the subject site include hard-edged walls of one and three-storey commercial buildings to the north and south, and opposite sides of Duke Street to the west. To the east, the site is abutted by single and double-storey walls of industrial buildings including the secluded areas of private open spaces of four dwellings, all zoned IN1Z, and addressed to Grosvenor Street. On the opposite side of Grosvenor Street are residential developments significant in scale, ranging in heights from four to ten-storeys, with large building footprints and high site coverage extending south, forming part of a cluster of residential apartment buildings with others addressed to Victoria Street. These larger scale development form part of the Priority Development Zone.
121. The subject site, together with surrounding land to the immediate north, south and east, including that on the opposite side of Duke Street, is zoned IN1Z. This includes the four dwellings that immediately abut the subject site to the east, and despite being sensitive land uses, are not afforded with the same amenity protection as those zoned residential. Land to the east of Grosvenor Street, beyond the immediate eastern properties, is zoned Commercial 1, through to Victoria Street.
122. The subject site includes commercial buildings of one and two storeys and at-grade car parking areas that will be demolished to make way for the construction of three, eight-storey buildings with commercial uses. The proposed building would be taller than the buildings immediately interfacing the site, however this is consistent with the strategic direction provided by policy in an area which is generally underutilised and to a greater extent, low in its scale (with the exception of the land within the Priority Development Zone south-east of up to 12 storeys).
123. Given the site's industrial zoning it is expected that higher built form would take place especially if development is to achieve strategic policy of increased development and employment opportunities near activity centres and public transport as outlined earlier in this report. While this may be the case, the site's context requires careful consideration with the built form objectives for its presentation to Duke Street.

Height, scale and massing of the development

124. It is important for any assessment of building height, scale, massing and neighbourhood character to balance the range of influencing factors affecting this area, including policy provisions, existing height characteristics of nearby built form and preferred future character for the area.
125. The Scheme provides guidance to assist in determining whether the proposed height is acceptable within the site context. In relation to the PPF, building heights are best derived from specific design objectives; being contextual design, the aspirations for urban consolidation and issues of minimising adverse off-site amenity impacts rather than outlining specific height limits.

126. With regard to policy direction under the Scheme, clause 21.05 – *Urban Design* contains Objective 17: *to retain Yarra's identity as a low-rise urban form with pockets of higher development*. Strategy 17.2 reads as follows:
- (a) *Development on strategic redevelopment sites or within activity centres should generally be no more than 5-6 storeys unless it can be demonstrated that the proposal can achieve specific benefits such as (as relevant):*
 - (i) *Significant upper level setbacks;*
 - (ii) *Architectural design excellence;*
 - (iii) *Best practice environmental sustainability objectives in design and construction;*
and
 - (iv) *Positive contribution to the enhancement of the public domain.*
127. Based on the policy above, the proposed development must be able to demonstrate specific benefits to gain policy support for a height greater than 6 storeys. In response to the policy framework applicable to the site and the objectives describing the preferred future character of this precinct, the proposal at 8 storeys plus plant area, whilst greater in height than the immediate surrounding buildings will be commensurate with other buildings approved and constructed in more recent years and is therefore responsive to this shift in built form. The area has seen and is continuing to undergo substantial change in terms of taller built forms (both constructed and under construction and further encouraged by the Priority Development Zone) and it is considered that the design has been considered in relation to its context and within the IN1Z where more robust built form such as that proposed, are becoming more readily visible in the skyline.
128. Urban design advice was sought externally from Hansen Partnerships (Hansen). Hansen were supportive of greater development on the site and acknowledged that current and future built forms in the area dictate higher built form outcomes by turning their mind to context and approved developments ranging between 5 – 12 storeys. The referral advice is an attachment to this report and for emphasis, the following is quoted:
- (a) *The proposed maximum building height of 9 storeys (ranging between 30.45 and 31.95m) is considered to be acceptable in this location. We note that within the surrounding context the presence of 10-12 storey residential developments to the south-east, defining the northern side of Victoria Street, to the east. We also acknowledge that recently, Council approved a 9 storey mixed-use office building on the opposite side of Duke Street, at the rear of the heritage Kodak building (at 27-29 Duke Street). Therefore, we consider that the proposal will be consistent with the emerging development trajectory of both the broader area and also within the northern end of Duke Street.*
 - (b) *The proposed 3-4 storey street wall scale is considered appropriate for the more robust character of Duke Street, whereby a more enclosed streetscape is acceptable. This scale also broadly accords with recent infill development within Duke Street, noting the 3 storey presentation contemporary office buildings on single sites at 25, 34 and 58 Duke Street.*
 - (c) *The site is well separated from the Yarra River (approx. minimum 220m from the northern edge of the proposed buildings to the riparian zone), and at that distance, we consider that building height and upper-level visual bulk does not need to be tempered to respond to the river environs.*
 - (d) *Given the sites and abutting land to the easts INZ1 zoning, offsite amenity considerations are tempered. Particularly, in relation to the existing abutting dwellings which front Grosvenor Street. Therefore, despite the stark contrast in built form scale, between these neighbouring single storey houses and this 9 storey proposal such an abut transition is acceptable from a zoning and strategic ambition context.*
-

However, there is potential that from a heritage perspective that the rear of Building D could be too forceful rising above and behind the individually significant heritage dwelling at 13 Grosvenor. Therefore, we would defer such visual considerations to Council's heritage advisors.

129. With regard to the above, it is important to highlight that whilst Hansen references a “9 storey” building height, this is factoring in the plant room. In addition, the last paragraph has regard to the dwelling at No. 13 Grosvenor Street, deferring visual consideration to a Heritage Advisor. No. 13 Grosvenor Street is underdeveloped with very little development other than a single-storey dwelling confined to the front half of this site and a substantially open site. This site is also deep (approximately 30m) and any development on the subject site, will appear recessive from Grosvenor Street and appear in the skyline behind this and other low scale buildings. As such, given the context of these dwellings and low built form more broadly, Council Officers did not seek further input from a heritage advisor. In this instance, it is the dwellings that are anomalous to the zone, that under current circumstances, prohibits these, regardless of their protection under the heritage overlay. Off-site amenity impacts in relation to these dwellings is considered under its own heading later in this assessment.
130. With regard to Duke Street, the podium design has been adequately rationalised and provides a transitional response as it is expressed across the site from the north to south. The ground floor has been recessed in pockets to allow for sheltered entrances planters, and services. The streetscape presentation of the proposed development is considered to have succeeded architecturally as confirmed by the following comments by Hansen's advice:
- (a) *The proposed street wall presentation to Duke Street is architecturally successful, comprising an appropriate robust brick material which reflects the surrounding area's built form character. This consistent masonry material unifies the series of buildings into a coherent overall form, while comprising sufficient variation in modulation, articulation and fenestration to appropriately divide up the proposal linear presentation. The darker tone brick subtly defines the Ground Floor level, while the lighter tone brick ensures a consistent podium appearance.*
 - (b) *The vertical windows within the podium levels provide an appropriate solid to void ratio and their deep window reveals create a clear expression, provide depth to the façade and also contribute a simple, integrated external shadow devices. The varied street wall profile, both in terms of transitioning up (or effectively holding the consistent datum as land falls away) from a 3 storey to 4 storey form (heading north) and its integrated metal balustrades adds further visual interest to the parapet profile.*
 - (c) *The incorporation and integration of landscape treatments within recessed/undercroft areas, is well considered and emphasises the proposal's main entrances and reinforces the distinctions between the buildings.*
 - (d) *The rising form of the upper levels is clearly distinct from the base elements, both by way of a spatial set back (varying between 3.5 and 3.7m) and its contrasting and highly glazed presentation. This relationship is considered appropriate and will reinforce the street wall base. Architectural variation is afforded to the rising forms, within dual height recesses with integrated landscaping and the saw-tooth roofline profile. We consider this architectural reference to nearby and surrounding industrial forms to be a positive attribute. It will ensure a visually dynamic contribution to the emerging Abbotsford skyline profile.*



Figure 12. Western- Duke Street elevation of proposed development

131. The proposal creates a façade that will read at three and four storeys, between 12.3 and 16.7m in height as measured above the footpath, with an added four and five storeys above that, that will be setback a minimum 3.5m from the title boundary. The podium is punctuated with shop-front and meeting room windows, recessed entries and areas imbedded for landscaping including vehicle entrances at the ground floor with fenestration above and terraces. Each building will be seen in the round with the relative overall height of 31.6m above the NGL unavoidably appreciated from multiple angles to the north, south, west and east due to the significantly low building height of surrounding buildings.
132. Each building has been suitably arranged into a series of smaller buildings, with distinguishable vertical division with a minimum spacing of 3m and suitably broken down through a combination of materials, forms, massing and detailing. Hansen has provided comments in support of the design approach to the street, stating that *the clear architectural and spatial distinction between the building's robust brick base and highly glazed rising form successfully 'grounds' the proposal within its streetscape context, while also contributing positively to a dynamic and contemporary skyline. The subtle variations within architectural expression, results in a well-articulated design fit for this context.*
133. The surrounding physical context can comfortably absorb the height and zero setbacks without appearing dominating and creating visual bulk (as is evidence of the renders provide below) because surrounding buildings already have zero setbacks to their frontages and are constructed to their side and rear boundaries. In this regard that proposal is considered to have been contextually designed to reference poignant existing elements of surrounding buildings that are hard-edged, with zero setbacks, constructed of masonry, and commercial in use. The extent of glazing above the street podium is considered to soften the overall massing of each building, and despite a greater height being adopted, collectively the subject site is a large site, that has the ability to be developed with more volume, mass and height.



Figure 13. Render / Photo Montage looking North along Duke Street.



Figure 14. Render / Photo Montage looking South along Duke Street.

134. The podium and its interaction with the public domain is considered to have achieved the policy direction under Clause 22.10-3.4 – *Street and Public Space Quality* of the Scheme which requires developments to provide pedestrian/human scaled designs at street level. A three and four-storey podium effect is acceptable in this particular instance, where there is policy direction for a more robust design approach and taller building as has also been confirmed by comments of support provided by Hansen. The proposal provides two retail areas (food and drink premises) and in this regard will make an improved contribution to the activation and pedestrian experience along Duke Street at ground level. The upper levels are also well activated as a result of the terraces and fenestration. The plans also include a generous display of landscaping, further adding to street and public space quality and therefore, the positive experience of the development from a streetscape perspective.

Equitable Development

135. The Lot A and B buildings would produce wall heights of up to 16.1m across the shared boundary to the east and have been appropriately massed above that to offer a setback of 3m at Level 4 with the exception of terraces that will extend into this setback – see Figure 15. The Lot C and D would produce boundary wall heights of up to approximately 12.6m across the shared boundary to the east and will be setback 3m at level 3 with the exception of terraces that would extend into this setback - see Figure 15.



Figure 15. East elevation identifying the boundary wall of each building with existing buildings to Grosvenor Street in the foreground.

136. The setbacks to the east would provide a transitional response where there is lower building height and more sensitive land uses (despite these properties being zoned IN1Z). The setbacks will also be landscaped and will further assist in breaking down the massing of the development as seen to the east and from the secluded areas of private open space of the adjoining dwellings. The development is considered to meet the intent of the IN1Z, and as the adjoining sites in all directions are also zoned IN1, it is an expectation that these will also be developed in the future and could provide a similar built form outcome to the subject site in terms of locations of built form walls and mass. The walls to the north and south of the Lot A and C and D Buildings, would be constructed to their respective boundary for their full height and Hansen has supported this arrangement.



Figure 16. North elevation identifying boundary windows.

137. The northern elevation contains north-facing windows (see Figure 16) which despite Hansen's comments of support, will be deleted, consistent with Council's broad position on the provision of on-boundary windows which are not supported on a shared boundary.

138. The proposed buildings will be amongst the tallest structures within the immediate surrounds however, their adopted height is considered to be acceptable due to their location, surrounding land, zoned IN1, the emerging character of the area, and strategic redevelopment potential of the site as a result of this being staged and consolidated. The site is located within an area undergoing transition which has resulted in a mixture of heights approved and constructed and these have been previously listed.
139. The adopted height is appropriate within the context of the area and in this regard is also in accordance with the objectives at clause 22.10-3.3 (Setbacks and Building height) of the Scheme. Due to the lack of restrictions and the IN1Z, it is expected that as time goes on, the area will increasingly become developed with multi-level commercial buildings contributing to the economic viability of this part of Abbotsford with pockets of high built forms and array of commercial uses (albeit reduction of industrial land use which is in decline within the inner city).

Architectural Quality

140. The development is considered to be of high architectural quality and in that regard responds to the design objectives of clause 15.01-2S of the Scheme. The contemporary design is appropriate and responds well to this part of Abbotsford with the design offering a modern built form that revitalises the street frontage through generously sized openings, communal areas and the provision of several building entrances along all street frontages.
141. The proposed development succeeds in responding to the street character of Duke Street through the adoption of:
- (a) A part three and part four street podium, with a robust expression that is derivative of other masonry buildings in the area and hence a lower-scale 'anchor' street wall; and
 - (b) A glazed 'main' tower façade with emphasised modulation and saw-tooth roof form as a further reference to the context of surrounding former industrial buildings.

Council's Urban Design consultant was highly supportive of the proposal and made no recommendations for any significant design changes to the buildings for further improvement. Further cross-sections to address overlooking and public realm improvements were recommended and are considered under separate headings (i.e. *Off-Site Amenity and Light, Shade and Public Realm*). The Urban Context Plan provides renders and the architectural plans provide details in relation to the materials utilised for the development and will ensure a high architectural quality.

142. To further improve the interfaces to the north and south, where the development shares a property boundary (i.e. the northern elevation of the Lot A Building and the southern elevation of the Lot C and D Building), a condition will require the concrete panelling above the red masonry, to be further treated with a combination of colour and/or the adoption of an engraved pattern. This will assist in reducing the visual bulk of the concrete panelling and in responding with a more visually appealing outcome, particularly as these walls would be highly exposed due to the lower scale adjoining buildings. Furthermore, the Lot B Building will also be required to be treated to its southern side, given that the development is intended to be staged, and the uncertainty that this presents with regard to its exposure in the interim and prior to the construction of the Lot C and D Building south of this.

Landmarks, Views and Vistas

143. It is policy at Clause 15.01-2S of the Scheme that important landmarks, views and vistas be protected or enhanced. The impact on long range views and vistas are only relevant where they form part of an identified character of an area (within planning policy) and typically apply to landscapes or natural features.

144. The proposed development does not compete with any identified landmarks given its location and is considered to be an acceptable response to the local policy direction under Clause 22.03-4 of the Scheme.

Light, Shade and Public Realm

145. This principle requires the design of interfaces between buildings and public spaces to enhance the visual and social experience of the user. In this respect, the proposal represents a significant improvement in streetscape, public space quality and perceived safety.
146. Council is supportive of the construction of the proposed development with active tenancies at the ground floor and improved outdoor spaces by way of terraces. Through the activation of the ground floor, the building will provide interaction to Duke Street where this is minimal are present. This satisfies public realm, pedestrian spaces and street and public space quality policies at Clauses 15.01-2S (Building design) and 22.10-3.4 (Street and Public Space Quality).
147. In terms of light and shade to the public realm, the proposal will cast shadows over Duke Street in the morning and as the day progresses the shadows would be cast to the east, and over the commercial buildings and dwellings (zoned IN1Z) to the east and the west side of Grosvenor Street. The Duke Street shadows are unavoidable and as these are morning shadows and would be cast into the public domain, are acceptable. Similarly, shadows to the west side of Grosvenor are comparable to the shadow cast by existing lower-scale buildings along this side of the street. The amenity expectations of the surrounding properties to the south and east must be tempered against the zoning of the land. This is a consideration point under the *Overshadowing* heading within the *Off-Site Amenity* section of this assessment.

Site Coverage

148. The level of site coverage proposed is well above the maximum of 80 percent as directed by Clause 22.10-3.6 (Site coverage) of the Scheme, that applies to new development not within a Heritage Overlay. However, as the existing level of site coverage in the surrounding (and immediate) area and within zoning that encourages higher density development (IN1Z) is similar, it is acceptable. Commercial buildings in this precinct traditionally have high levels of site coverage with this characteristic being evident throughout Abbotsford and Richmond.

Landscape architecture (internal to the site)

149. Whilst landscaping is not a typical feature of commercial buildings in Abbotsford, the proposal includes visible landscaping within the adopted setbacks at the ground level to Duke Street, the spine between the Lot B and Lot C and D buildings at Level 1, and planter boxes and garden beds within terraces above that. Vertical gardens are also evident within the south-west corner of the Lot B Building, and in the mid-section setback of the Lot C and D building to Duke Street (see Figure 17 below).



Figure 17. West elevation identifying vertical gardens.

150. The landscape plans include many native plants within the areas identified for the “greening” of the development and this is supported. Separate conditions for amended landscape and public domain plans will also be included to ensure that details are reflective of the Public Realm Improvement Plan with further details relating to:

- (a) Clarification of soil depth, slab setdown and wall heights and of “deep soil” planters.
- (b) Provide typical details for the proposed irrigation.
- (c) Provide typical details of timber furniture and all materials and surfaces on the ground level.
- (d) Provide a maintenance schedule, including tasks details and frequency; for multi-storey development and planting, maintenance access will need to be provided for.
- (e) Load bearing weights for the building structure need to be checked and confirmed by a suitably qualified structural engineer against the saturated bulk density of soil media, planter box and plant mass being proposed.

151. It is considered that the above is reasonable to ensure the long-term viability of vegetation and can form conditions of permit.

Landscape architecture (external to the site)

152. Council’s Urban Design Unit were generally supportive of the proposal but raised concerns with the proposed kerb outstands due to drainage implications, and with the quantity of the street trees citing these as inadequate for the length of the development’s frontage. Council’s Urban Design Unit have indicated potential for up to 8 street trees (with road-way cut-outs), combined with parallel parking spaces and bicycle coral spaces. To inform their proposal, their advice was accompanied by an appendix that marked this up as shown at Figure 18 below:

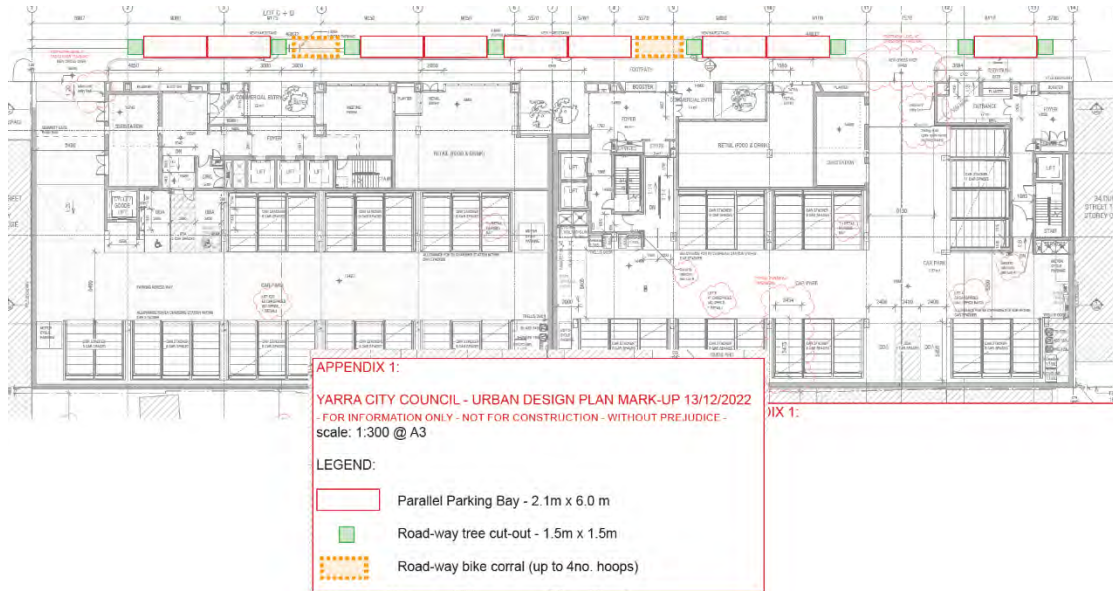


Figure 18. Urban Design Plan Mark-up Plan provided by Council’s Urban Design Unit.

153. Council’s Urban Design Unit’s advice together with the marked-up plan were provided to the permit applicant who has since responded agreeing to a condition for a Public Realm Improvement Plan. A condition will be included that references the marked-up plan and will ensure that this is done to Council’s satisfaction prior to endorsement. The Public Realm Improvement Plan will include (but not limited to) the following details:

- (a) *The location of all existing, proposed and/or relocated infrastructure, such as, drainage pits, light/electrical poles, street signs, parking meters, parking bays, kerb/channel, trees, street furniture, bins, bike hoops etc.*
- (b) *All existing and proposed levels and surface grading.*
- (c) *Proposed civil/drainage design to accommodate any design elements that will alter the conditions of the existing stormwater drainage (such as kerb outstands/footpath extensions).*
- (d) *All proposed parallel parking bays, including dimensions as per the following:*
 - (i) *Parking lane minimum width – 2.1m*
 - (ii) *Parking bay enclosed/obstructed on both ends – 6.0m length*
 - (iii) *Parking bay enclosed/obstructed on one end – 5.5m length*
 - (iv) *Parking bay open on both ends – 5.0m length*
- (e) *Dimensions (length and width) of proposed kerb outstands, tree squares, and footpath width.*

154. A monetary contribution relating to street tree planting as detailed within that advice will also be included, given that Duke Street is identified as a priority street for tree planting under Council's endorsed Urban Forest Strategy.

On-Site Amenity

155. The redevelopment of the site would make efficient use of existing infrastructure and services on site with numerous public transport modes which reduce employees and visitors from relying on private vehicles. Policy at clauses 21.07 (Environmental Sustainability), 22.16 (Stormwater Management (Water Sensitive Urban Design)) and 22.17 Environmentally Sustainable Development) of the Scheme, encourage ecologically sustainable development, with regard to water and energy efficiency, building construction and ongoing management.

156. The development is considered to achieve a high level of on-site amenity through the following:

- (a) A total BESS score of 71% with no mandatory category (IEQ, Energy, Water, Stormwater) below 50%;
- (b) The proposed design response has extensive external shading, with all glazing elements on the western and eastern facades provided with an external shading screen, and awnings provided to all terrace spaces except level 4. This amounts to approximately 70% of all glazing to the northern, eastern, and western facades of the project provided with external shading;
- (c) An on-site commitment to a minimum 40 kW rooftop PV system;
- (d) Water efficient fittings and fixtures are applied throughout;
- (e) Water efficient landscaping shall be included within the design response for landscape amenity. Irrigation supply shall be sourced from non-potable supplies or plant species selected which limit demand for landscape irrigation;
- (f) A STORM report with a score of 100% has been submitted that relies on 1,800 sqm of rooftop area diverted to a total of 48,000-litres of rainwater storage connected for re-use in toilets and landscape irrigation;
- (g) In total, 132 tenant bicycle spaces are to be provided within the basement, and 16 visitor bicycle parking spaces are to be provided on the ground floor;
- (h) End-of-trip facilities for building staff are provided on the basement 1 level and contain 18 Showers and 148 Lockers;
- (i) Minimum 1 EV charging space and e-scooter charging points provided in the basement; and
- (j) A total of 1,339m² of communal external terrace areas throughout the site.

157. The following have been identified as areas of outstanding information or improvement opportunities by Council's ESD Advisor and can be addressed with conditions:

- (a) *Clarify provision of outdoor air / mechanical ventilation to all areas. Innovation credit targets Ventilation Systems Reduced CO2 concentrations (600ppm CO2 concentrations), please clarify which is being targeted*
- (b) *Provide more information on eave and façade design, glazing and material selection used to optimise daylight.*
- (c) *Provide preliminary daylight modelling to confirm benchmarks are being met*
- (d) *Provide further information on any modelled GHG Reduction*
- (e) *Please provide information on hot water system, consider using a high-efficiency heat pump*
- (f) *Provide further information on any modelled reduction in peak demand*
- (g) *Please provide more information on HVAC system. Consider 3 pipe VRF*
- (h) *Confirm that post-development stormwater flows will not exceed pre-development levels*
- (i) *On Plan A100 (SMP p. 41), please fix discrepancy between tanks annotated on plan and Stormwater notes. Stormwater notes state that tanks have a capacity of 8kL, 20kL, and 27kL, respectively.*
- (j) *Clarify whether recycled materials (E.g., bricks) or products with post-consumer content (E.g., insulation) are to be used to reduce the environmental impact of the development.*
- (k) *Clarify whether steel reinforcement and concrete mixes to be prepared using energy reducing strategies*
- (l) *Clarify whether project timber will be from recycled or sustainable sources*
- (m) *Provide a Green Travel Plan with targets and actions around transitioning towards sustainable transport modes*
- (n) *Provide information on the approach to building tuning*
- (o) *Confirm whether Head Contractor will be accredited*
- (p) *Confirm whether an Environmental Management Plan be developed by the building contractor to monitor and control activities undertaken during construction*
- (q) *Consider a small pallet of materials and construction techniques that can assist in disassembly*
- (r) *Consider pipes, cabling, flooring to do not contain PVC or meeting best practice guidelines for PVC*
- (s) *Consider incorporating a car share space and at a minimum provide details of surrounding car share locations within the Building Users Guide and/or Green Travel Plan*
- (t) *Consider setting landfill diversion target to 90% in line with best practice.*
- (u) *Consider benchmarking the landscape approach with the Green Factor Tool. <greenfactor.com.au>*
- (v) *Consider light colour roofs and planter boxes.*

158. These matters are all considered reasonable, and conditions can require these to be included in an amended SMP and annotated on the plans (where relevant). It is considered that the proposal will achieve a high level of environmentally sustainable design and greater internal amenity for future occupants. This satisfies a number of clauses including 18.02 (Movement Networks), 21.06 (Transport) and 21.07 (Environmental Sustainability).

159. To further ensure that the development achieves a high standard, a condition will also require a Sustainable Management Plan Implementation Report, which is required to be submitted to and approved by the Responsible Authority after completion of each stage of the development proposal but before the occupation of each building.

Off-Site Amenity

160. Clause 15.01-2S (Building Design) of the Scheme aims to provide building design that minimises the detrimental impacts on neighbouring properties, the public realm and the natural environment, with potential impacts relating to overshadowing of SPOS, loss of daylight to windows, visual bulk and overlooking of sensitive areas. The relevant policy framework for amenity considerations is contained within clauses 22.05 (Interface Uses Policy) and 22.10 (Built Form and Design Policy) as well as the decision guidelines of the IN1Z at Clause 33.01-4 (Buildings and works).
161. As previously identified, the subject site is located on land zoned IN1Z as are the dwellings to the immediate east. Despite the adjoining sensitive land uses to the east, the dwellings are not afforded with the same amenity protection as those zoned residential. In fact, the closest residential uses within a residential zone, are located approximately 105m to the south and opposite side of Victoria Street (zoned General Residential), and approximately 112m to the east (within the Priority development Zone). Given the separation distances and buffer provides by land zoned IN1Z, Commercial 1 and 2, the proposed development would not impact these properties in the way of any immediate material detriment.

Daylight to windows

162. The closest habitable room windows (for a dwelling in a residential zone) is over 100m and to the south of Victoria Street. The dwellings to the east are well removed from the shared boundary with generously sized areas of secluded private open spaces within a minimum dimension of 9m in between that will protect their windows with regard to daylight access. This is despite the fact that these dwellings are not afforded with the same amenity protection due to their IN1 zoning.

Overshadowing

163. Between 1pm to 3pm (at the equinox), the existing structures on the subject site overshadow the properties to the east, including the backyard spaces of dwellings. The proposal will increase the overshadowing impacts in the afternoon across the entirety of these private open spaces. However, this extent of overshadowing is considered acceptable in this context and within the zone.
More importantly, is that these shadows do not extend all the way across Grosvenor Street and therefore do not impact the apartments on the eastern side of that street that are zoned Commercial 1.
164. With respect to solar energy facilities, there are none located within proximity to the subject site and thus the development is not anticipated to generate any problematic shadowing in this respect.
165. In the above considerations, the proposal satisfies the decision guidelines of the IN1Z and local policy at Clause 22.10-3.8 (Off-site Amenity) with regard to overshadowing, noting that the secluded areas of private open spaces of the adjoining dwellings would continue to benefit from their northern orientation given that new walls are located to their west. In addition, the proposal satisfies the provisions of Clause 22.05 (Interface Uses Policy), where the viability of commercial areas is a consideration in tempering expectations of conflicting land uses between residential properties and commercial land uses. Again it is highlighted that the IN1Z favours commercial land use over residential, with the latter being a prohibited use.

Overlooking

166. Local policy at Clauses 22.10 (Built Form and Design Policy) and 22.05 (Interface Uses Policy) call for new development to consider overlooking impacts to nearby residential properties (noting that these are not zoned residential). Clause 22.10 offers the following guidelines for mitigation of overlooking:
- (a) *New residential development that contains a habitable room window, balcony, terrace, deck or patio with a direct view into a habitable room window of an existing dwelling or a dwelling's secluded private open space located within a horizontal distance of 9 metres (measured at ground level) of the window, balcony, terrace, deck or patio, should be either:*
 - (i) *Offset a minimum of 1.5 metres from the edge of one window to the edge of the other.*
 - (ii) *Have sill heights of at least 1.7 metres above floor level.*
 - (iii) *Have fixed obscure glazing in any part of the window below 1.7 metres above floor level.*
 - (iv) *Have permanently fixed external screens to at least 1.7 metres above floor level and be no more than 25% transparent.*
167. The above policy is not applicable to the proposed development as it is not a residential development. However, it can be used as a guide for the purpose of assessing overlooking impacts.
168. The abutting properties to the east which are considered to be the most sensitive from an overlooking perspective are the three currently comprising dwellings. Being, No's. 9-13, 19 and 21 Grosvenor Street. Of the three, No. 21 Grosvenor is considered to be the least sensitive, given that much of its rear yard comprises a workshop building, with an area of open space set back approximately 10m from the subject site. No. 9-13 Grosvenor Street comprises two distinct areas of rear yard abutting the common boundary, one being behind the dwelling and the other associated with a series of outbuildings. Neither space appears to be currently utilised as backyard space and is therefore considered to represent a less sensitive space. The rear yard at 19 Grosvenor is both the largest of the abutting spaces and still appears to be utilised as a backyard space.
169. Council's external Urban Design Consultant, Hansen, indicated that the plans omitted details demonstrating the overlooking arrangements in relation to the properties at No's. 9-13, 19 and 21 Grosvenor Street. The permit applicant responded with revised sections in an email dated 25 January 2023 which is an attachment to this report. The sections demonstrate that there is some overlooking beyond the 9m threshold into the backyards of these dwellings. However, given this exceedance, overlooking cannot be addressed and requires to be tempered against the zoning of the land that is zoned IN1.
170. With the above in mind, it considered that overlooking has been adequately addressed. The proposed development has been designed to sensitively locate terraces at the upper levels that rely on their distances and in some instances planters to create separation and reduce overlooking impacts. To this extent it is considered that the proposed development mitigates overlooking impacts in accordance with the decision guidelines of the IN1Z and local policy at Clause 22.10 of the Scheme ensuring that overlooking within 9m is adequately addressed.
171. The nearest residentially zoned dwellings as previously identified are well removed from the subject site, and hence well protected from any offsite amenity impacts in terms of overlooking.

Visual Bulk

172. Clause 22.10 (Built Form and Design Policy) calls for new development to be well designed in terms of both massing and materiality to minimise visual bulk impacts to nearby sensitive uses such as dwellings. The closest dwellings are located to the east of the subject site and whilst part three and part four-storey walls are proposed on the boundaries, these have been designed to read as a series with breaks in between, rather than one continuous wall (see Figure 19 below). The walls would sit as a backdrop to the dwellings and industrial / commercial buildings addressed to Grosvenor Street. Furthermore, and as discussed at length in earlier sections, the dwellings are zoned IN1Z, whereby there is an expectation that dwellings are non-conforming uses that are prohibited in that zone, and commercial uses and associated development takes precedence. Despite this, the proposed development is considered to be adequately respectful to these dwellings.
173. Clause 22.10-3.3 has a design guideline which states that *the height of new development abutting land in a Heritage Overlay should:*
- (a) *Adopt a façade height to the street frontage which is no higher than the adjacent building within the Heritage Overlay;*
 - (b) *Design and site taller structures so that they do not visually dominate surrounding heritage places; and*
 - (c) *Match the floor levels of the adjacent heritage building.*
174. In this instance, these walls will be located at the very rear of these dwellings, would be recessive and significantly removed from the primary street frontage to Grosvenor Street, and hence will not visually dominate these dwellings. Furthermore, the development is not considered to match the floor level of these dwellings as the subject site is addressed to Duke Street whilst the dwellings are located to the rear and addressed to Grosvenor Street i.e. the policy is aimed at heritage buildings that are located adjacent to a subject site on the same street and not at the rear facing another street.



Figure 19. Eastern elevation identifying varies on-boundary walls by way of height and breaks with Grosvenor Street buildings in the forefront.

Noise Impacts

175. Clause 13.05-1S (Noise Management) states that community amenity should not be reduced by noise emissions. Similarly, local policy at clause 22.05-3 (Policy) of the Scheme calls for commercial development to consider noise attenuation in its design response.

176. The application proposes two different uses – retail at the ground floor of the Lot B and the Lot C and D Buildings, with the floor levels above used for office throughout the remainder of the development (all buildings). Both uses are Section 2 uses under the IN1Z and therefore require a planning permit (and as such, conditions can be placed on a permit to restrict the operational capacity of these uses with regard to hours that will mitigate any noise related issues). In any case, the proposed office use is a benign use and is not associated with problematic noise impacts that could otherwise be permitted with the absence of controls relating to any use that is as-of-right i.e. such as Industry. The proposed retail use of the ground floor will address Duke Street and will not affect the nearest residential properties to the immediate east and evidently those located within a residential zone.
177. With respect to proposed development itself, noise emissions are anticipated to be low given that:
- (a) The application proposes an enclosed car park at the ground floor;
 - (b) Noise emissions associated with the roof level plant are unlikely to be problematic given their location high above the footpath level;
 - (c) The lack of nearby residentially zoned dwellings; and
 - (d) The surrounding commercial context and site's location within in an area with a significant employment focus (as identified at *Map 1 Victoria Street East Precinct Framework Plan* at Clause 22.11-4 (Reference Document) of the Scheme).
178. Notwithstanding the above, a condition will require the development to comply at all times with the EPA noise regulations that apply to commercial developments (the EPA Noise Protocol). These measures will ensure minimal noise impacts arising from the development in accordance with State and Local planning policy.

Wind Impacts

179. Wind impacts relate to the public realm (with a particular focus on potential impacts to pedestrians using the public realm) and also onsite amenity for any external areas such as balconies or terraces. A desktop assessment was undertaken which found that the proposed development would be expected to result in wind conditions where:
- (a) Locations immediately outside the building entrances are expected to satisfy the recommended standing comfort criterion;
 - (b) The wind condition on the outdoor terraces would be expected to satisfy the walking comfort criterion;
 - (c) Wind conditions to surrounding properties would also be expected to satisfy the walking comfort criterion.
180. Council's wind consultant was supportive of the wind report, confirming that the permit applicant's wind report used the proper analysis and methodology to analyse the wind effect on the pedestrian level surrounding the proposed development and on some selected terraces in detail. The report found that the proposed design would have an acceptable wind environment within the recommended wind comfort criteria.
181. In relation to the eastern adjoining properties, the following paragraphs are extracted from pages 13 and 14 of the Environmental Wind Assessment prepared and authored by MEL Consultants dated 22 July 2022 (which is an attachment to this application) for reference:
- (a) *Some wind flow onto the north face of the Lot A building of the Development would be expected to separate off the building's northeast corner and flow down onto the roofs of adjacent buildings on the east side of the Development.*

The Development's 3m setback from the east face at Level 4 would assist in deflecting most of this downward induced wind above pedestrian level with the remaining induced flow being deflected by the rooftops of the neighbouring buildings to the east

- (b) Some wind flow onto the south face of the Lot C+D building of the Development would be expected to separate off the building's southeast corner and flow down onto the adjacent building rooftops on the east side of the Development and into Grosvenor Street. The Development's 3m setback from the east face at Level 3 would assist in deflecting the majority of wind above pedestrian level and reduce the amount of downwash that would impact the adjacent buildings and Grosvenor Street.
- (c) Based on the above scenarios, the wind conditions in the adjacent buildings on the east side of the Development and along the pedestrian streetscapes of Grosvenor Street would be expected to satisfy the walking comfort criterion as well as the safety standard. These wind conditions would, however, be higher than the existing conditions.

182. In summary, the development will mitigate wind impacts satisfactorily. A general condition will also require any amended development plans required at Condition 1 and its requirements to show any relevant detail required within the wind assessment report such as the provision of 1.8m high balustrade to the west side of level 4 terrace of the Lot A Building (which at present is shown to have a 1.5m height above their respective floor level on the architectural set of plans).

Car Parking, Vehicle Access, Traffic, Loading and Waste

Provision of car parking

183. The proposed development would provide 124 on-site car parking spaces across the three buildings. As previously outlined, the proposal triggers a car parking reduction of 200 spaces.
184. The following attributes work in favour for less car reliance:
- (a) The site has good access to a wide range of retail and commercial services within the Victoria Gardens Shopping complex, and further to the west, within the Victoria Street Major Activity Centre;
 - (b) The site is within walking distance of tram services operating along Victoria Street;
 - (c) The proposal includes a good proportion of bicycle parking spaces in excess of rates specified within the Scheme, with end-of-trip facilities incorporated into the design; Future employees would be able to take advantage of the nearby bicycle infrastructure, with the Yarra River bicycle trail within close range;
 - (d) Employee or visitor parking permits will not be issued for the development, which will discourage people from driving to the site. This is a welcome sustainable option in lieu of on-site car parking and consistent with Clauses 18.02-1S and 21.06-1 of the Scheme;
 - (e) Whilst a generous car parking rate is provided, the office use is particularly conducive to encouraging those with a car to not drive, given trips are made in peak public transport availability periods, trips are planned in advance and the lack of on-site and off-site parking availability is known in advance. These factors support employees to use other modes of transport;
 - (f) Visitors would be aware of the car parking constraints in the area which would discourage driving for alternative modes such as public transport, cycling or taxis;

- (g) The proposed development is considered to be in line with the objectives contained in Council's *Strategic Transport Statement*. The site is ideally located with regard to sustainable transport alternatives;
- (h) On-street parking in the Abbotsford area is very high during business hours. Council's Engineers have rightfully pointed out the high parking demand in the Abbotsford area that would be a disincentive for visitors, customers or employees to drive;
- (d) The Local planning policy at clauses 18.02 (Movement Networks), 21.03 (Vision), 21.06-3 (The road system and parking) and 21.07 (Environmental Sustainability) encourage reduced rates of car parking provision for development sites within close proximity to public transport routes and activity centres;
- (e) Traffic is a key issue affecting the road network. Providing fewer car spaces will ensure that the development does not generate any unreasonable increase in traffic levels for the surrounding road network;
- (f) Council's Engineering Services Unit reviewed the proposed car parking reduction (i.e. that associated with the advertised plans) and raised no issue to the proposed reduction given the site's location. Further, Council's Engineering Services Unit highlighted that the proposed office parking rates of 1.07 to 1.26 spaces per 100 square metres of floor area are considered appropriate as the site has very good access to public transport and seeks to encourage more sustainable forms of transport.

Vehicle Access

185. The application seeks to provide access to the ground floor car parks / stackers from Duke Street via one crossover that will serve both Lot A and B Buildings, and one crossover in the south-west corner that will serve the Lot C and D Building. Other than requesting additional information to be shown on the plans, Council's Engineering Services Unit did not raise any issues with vehicle access and safety from Duke Street. The following recommendations were made by Council's Engineering Services Unit:
- (a) The provision of convex mirrors at the development entrances;
 - (b) The headroom clearances at the entrances dimensioned;
 - (c) The floor to ceiling heights and pit depths dimensioned on the drawings;
 - (d) Details of the stacker model type and the specifications of the vehicle clearance heights of each stacker level;
 - (e) Dimensions of the motorcycle spaces;
 - (f) Swept path diagrams for a 6.41 metre long waste collection vehicle entering and exiting the development entrances via Duke Street.
186. A number of additional recommendations were made by Council's Engineering Services Unit; these relate to various infrastructure requirements immediately surrounding the site that should be undertaken to Council's satisfaction and at the Permit Holder's cost, as follows:
- (a) The footpath along the property's Duke Street frontage to be reconstructed. The new footpaths must have a cross-fall (the slope between the kerb and the property line) of no steeper than 1 in 40 or unless otherwise specified by Council;
 - (b) All redundant property drain outlets are to be demolished and reinstated to Council's satisfaction and at the Permit Holder's cost;
 - (c) All redundant vehicle crossings must be demolished and reinstated with paving, kerb and channel to Council's satisfaction and at the Permit Holder's cost;
 - (d) Detailed engineering design drawings of all infrastructure works, including the drain extension in Duke Street, are to be submitted to Council for assessment and approval; and
 - (e) Provision of a Public Lighting Plan must provide that includes details (amongst other requirements) relating to public lighting installations at entrances, new poles and luminaires with relevant CitiPower technical requirements addressed, regard to the light spillage into the windows of existing and proposed residences avoided or minimised.

187. The full spectrum of recommendations are detailed within the referral advice (which is an attachment to this report) and captured under general infrastructure, drainage and construction management conditions and/or notes that are usually placed on a permit of this type and this scale.
188. The requirement for the drain to be constructed from the development to the existing drain at the intersection of Duke Street and Southampton Crescent was responsive of the extended kerbs shown on the proposed ground floor plan that are not supported by Council's Urban Design Unit and would have resulted in significant civil subterranean changes to drains. As such, this requirement will not be imposed as the kerb and channel will be modified to that recommended by Council's Urban Design Unit, which as a consistent north-south alignment.
189. In addition to the above, the views of the relevant road authority are part of the decision guidelines for this zone as the office floor area exceeds 10,000sq.m. With this in mind, the application was referred to the Department of Transport (in accordance with Clause 66.02-11 – Land Use and Transport Integration) who provided comments with no objection to the issue of a planning permit. This response is also an attachment to this report.

Traffic

190. The traffic report submitted with the application made the following findings:
- (a) The proposed 124 on-site car spaces would generate 68 vehicle trips per peak hour;
 - (b) Staff vehicle trips are anticipated to be split 95/5% in/out in the AM peak and 5/95% in/out in the PM peak.
191. Council's Engineering Services Unit indicated that the traffic distribution assumptions as indicated in section 9.2 of the One Mile Grid traffic report are considered reasonable and that the traffic generated by the development should not have a detrimental impact on the traffic operation of the surrounding road network.

Loading, unloading and waste

192. The Scheme does not provide any requirements for loading bays, rather Council must consider loading and unloading as relevant to the application. With regard to the retail (food and drinks premises – café) component, Council's Engineers raised no objection to small vehicles parking on-street to make deliveries to the site. A condition will require swept path diagrams to be provided for a 6.41m long waste collection vehicle entering and exiting the development entrances via Duke Street.
193. Waste collection will occur from within the driveways of each car park via a private collection service. This will ensure that Duke Street remains unaffected by stationary waste vehicles during collection. The submitted Waste Management Plan (WMP) and the ground floor plan shows waste storage areas for each building, with space for five different waste streams (garbage, co-mingled recycling and food/organic waste, glass recycling and e-waste). The frequency of waste collections is detailed on page 10 of the WMP.
194. The WMP has been assessed by Council's Civil Works Unit, who required details of the sizes of the bin size rooms and swept path diagrams to be assessed by Council's Engineering Services Unit (with the request for swept path diagrams by Council's Engineers coinciding with this request). As such, a condition will be included referencing an amended WMP. The permit applicant in their email response to Council dated 25 January, has agreed to provide an updated Waste Management Plan by condition of permit. The updated Waste Management Plan will include a notation that clarifies that with regard to *Lots C and D that in order for the waste truck to turnaround and exit in a forward direction, the truck must utilise the DDA space and shared area. Bin collections will therefore need to be scheduled outside of office hours while the parking spaces is vacant.*

Signage will be provided informing that the space must be left vacant outside of office hours and management can ensure the correct usage of the DDA spaces.

Bicycle Facilities

195. With regards to visitor spaces, the development will provide a total of 148 spaces (132 spaces for employees and 16 for visitors); equating to a surplus of 97 additional employee spaces and 6 visitor spaces above the requirements of the Scheme. Council's Strategic Transport Unit was supportive of the proposed numbers having regard to:
- (a) *The reduction of 198 car parking spaces being sought (38% of the statutory requirement).*
 - (b) *The subject site is located in an inner-urban area with already high cycling-to-work demand, and trends indicate demand will continue to increase; and*
 - (c) *Both local and state planning policies include objectives to promote sustainable transport modes, including cycling.*
196. Council's Strategic Transport Unit has referred to a reduced rate at point (a) noting 198 car parking spaces, when in fact it is 200 car spaces. This is a small discrepancy and is considered inconsequential to their assessment. Further comments of support were also provided with regard to the location of the bicycle spaces within the basement but recommended that updated plans identifying the design and dimensions of bicycle parking with further details of the lift sizes and door openings are provided to confirm that all dimensions would adequately accommodate the bicycle arrangements anticipated. Another requirement was for at least 43 of the employee spaces (40% of the total) to be provided in a horizontal arrangement and provision for at least four electric bicycle charging points provided adjacent to one of the horizontal employee bicycle hoops. These requirements can be facilitated with further conditions.
197. It is highlighted that the permit applicant in responding to the referral advice on 9th April, indicated that they would agree to the provision of 26 horizontal spaces within the development in lieu of the 43, particularly as this is the requirement of the Australian Standard. The exceedance is a requirement by Council's Strategic Transport Unit and is arbitrarily applied. As such, the condition will relate any number required by the Australian Standard.
198. A Green Travel Plan (GTP) has also been requested and a further condition has also been included addressing this.

Objector Concerns

199. The objector issues have been discussed throughout this report as follows:
- (a) *Excessive height poor transition and overdevelopment of the site;*
200. This has been discussed at paragraphs 124 to 134.
- (b) *Reduction in the car parking provision;*
 - (c) *Increased traffic congestion on surrounding streets;*
201. This has been discussed at paragraphs 183 to 194.
- (d) *Off-site amenity impacts (overlooking, reduced sunlight, overshadowing, noise, excessive trading hours and loss of views);*
202. Off-site amenity impact have been discussed at paragraphs 160 to 165.

(e) *Structural damage of surrounding buildings and noise during the construction phase;*

203. Structural damage of surrounding buildings and noise during the construction phase is a matter that is dealt with under the Building Permit process. Notwithstanding this, a condition has required a Construction Management Plan which will ensure that the development will be constructed to Council's best practice standards.

(f) *Devaluation of surrounding properties.*

204. The devaluation of surrounding properties is not a planning consideration.

(g) *Impacts on surrounding heritage buildings.*

205. Heritage related matters in relation to the adjoining properties to the east have been considered at length at paragraphs 128 to 129, 148, 173 to 174.

RECOMMENDATION

That having considered all objections and relevant planning policies, the Committee resolves to issue a Notice of Decision to Grant a Planning Permit PLN22/0679 for Buildings and works associated with the construction three buildings (up to eight storeys plus roof plant) for the purpose of office and food and drink premises (cafés) and a reduction in car parking requirement of the Yarra Planning Scheme at No. 10 – 32 Duke Street, Abbotsford subject to the following conditions:

1. Before the development commences (excluding demolition, bulk excavation and site preparation work), 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 this permit. The plans must be drawn to scale with dimensions and three copies must be provided. The plans must be generally in accordance with the decision plans prepared by BKK Architects and dated 05 and 06 October 2022 but modified to show:
 - (a) The northern elevation of the Lot A Building, the southern elevation of the Lot B Building and the southern elevation of the Lot C and D Building, treated with a varied colour scheme and/or engraved pattern;
 - (b) The deletion of on-boundary windows to the north of the Lot A Building;
 - (c) The provision of convex mirrors at the development vehicle entrances;
 - (d) The headroom clearances at the vehicle entrances dimensioned;
 - (e) The floor to ceiling heights and pit depths of the car parking areas dimensioned ;
 - (f) Details of the car stacker model type and the specifications of the vehicle clearance heights of each stacker level;
 - (g) Dimensions of the motorcycle spaces;
 - (h) Swept path diagrams for a 6.41m long waste collection vehicle entering and exiting the development entrances via Duke Street.
 - (i) Provision of horizontal bicycle parking in accordance with the requirements of the Australian Standard.

Reports and Plans

- (j) Any requirement of the endorsed Façade Strategy and Materials and Finishes Plan (Condition 6) (where relevant to show on plans);
- (k) Any requirement of the endorsed Landscape Plan (condition 8) (where relevant to show on plans);

- (l) Any requirement of the endorsed Sustainable Management Plan (condition 10) (where relevant to show on plans);
 - (m) Any requirement of the endorsed Wind Tunnel Report (condition 13) (where relevant to show on plans);
 - (n) Any requirement of the endorsed Public Lighting Plan (condition 15) (where relevant to show on plans);
 - (o) Any requirement of the endorsed Waste Management Plan (condition 17) (where relevant to show on plans);
 - (p) Any requirement of the endorsed Green Travel Plan (condition 19) (where relevant to show on plans);
 - (q) Any requirement of the endorsed Public Realm Plan(s) / Works / Road Infrastructure / Street trees (condition 21) (where relevant to show on plans).
2. In conjunction with the amended plans and reports required at Condition 1 and its requirements, a Staging Plan must be submitted to and be approved to the satisfaction of the Responsible Authority. The Staging Plan must include, but not limited to:
- (a) plans clearly detailing the staging of buildings;
 - (b) information detailing the timing and delivery of all public realm works as part of each stage;
 - (c) proposed temporary treatment of the vacant land;
 - (d) Details of securing the various stages.
- The development must proceed in order of the stages as shown on the endorsed plan(s), unless otherwise agreed to in writing by the Responsible Authority.
3. The development as shown on the endorsed plans must not be altered (unless the Yarra Planning Scheme specifies that a permit is not required) without the prior written consent of the Responsible Authority.

Hours of Operation

- 4. Except with the prior written consent of the Responsible Authority, the office use authorised by this permit may operate between 7.00am to 8.00pm - Monday to Sunday.
- 5. Except with the prior written consent of the Responsible Authority, the retail (food and drinks premises – cafés) use authorised by this permit may operate between 7.00am to 10.00pm - Monday to Sunday.

Façade Strategy and Materials and Finishes Plan

- 6. In conjunction with the submission of development plans under condition 1, a Façade Strategy and Materials and Finishes 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 form part of this document. This must detail:
 - (a) Elevations at a scale of 1:20 or 1:50 illustrating typical entries and doors;
 - (b) Section drawings to demonstrate façade systems, including fixing details and joints between materials or changes in form;
 - (c) Information about how the façade will be maintained; and
 - (d) A materials schedule and coloured drawings and renders outlining colours, materials and finishes and measures to limit (to the extent possible) graffiti adhesion on walls to the street, including doors, perforations and upper levels (where necessary).

Ongoing architect involvement

7. As part of the ongoing progress and development of the site, BKK Architects or another architectural firm to the satisfaction of the Responsible Authority must be engaged to:
 - (a) oversee design and construction of the development; and
 - (b) ensure the design quality and appearance of the development is realised as shown in the endorsed plans or otherwise to the satisfaction of the Responsible Authority.

Landscape Plan

8. In conjunction with the submission of development plans under Condition 1, an amended Landscape Plan to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the Landscape Plan will be endorsed and will form part of this permit. The Landscape Plan must be generally in accordance with the Landscape Plan prepared by Junglify and Loci Design Collective with revision date 30 August 2022 but modified to show:
 - (a) Clarification of soil depth, slab setdown and wall heights and of “deep soil” planters.
 - (b) Provide typical details for the proposed irrigation.
 - (c) Provide typical details of furniture and all materials and surfaces on the ground level.
 - (d) Provide a maintenance schedule, including tasks details and frequency; for multi-storey development and planting, maintenance access will need to be provided for.
 - (e) Load bearing weights for the building structure with regard of the saturated bulk density of soil media, planter box and plant mass being proposed.

Ongoing Landscape Plan

9. Before the buildings are occupied at each stage, or by such later date as approved in writing by the Responsible Authority, the landscaping works shown on the endorsed Landscape Plan must be carried out and completed to the satisfaction of the Responsible Authority. The landscaping shown on the endorsed Landscape Plan must be maintained by:
 - (a) implementing and complying with the provisions, recommendations and requirements of the endorsed Landscape Plan;
 - (b) not using the areas set aside on the endorsed Landscape Plan for landscaping for any other purpose; and
 - (c) replacing any dead, diseased, dying or damaged plants, to the satisfaction of the Responsible Authority.

Amended Sustainable Management Plan

10. In conjunction with the submission of development plans under Condition 1, an amended Sustainable Management Plan to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the amended Sustainable Management Plan will be endorsed and will form part of this permit. The amended Sustainable Management Plan must be generally in accordance with the *10-32 Duke Street, Abbotsford, Vic, 3067, Sustainability Management Plan* prepared by Stantec and dated 02 September but modified to include / confirm:
 - (a) Clarification for the provision of outdoor air / mechanical ventilation to all areas.

- (b) Details of eave and façade design, glazing and material selection used to optimise daylight;
- (c) Daylight modelling to confirm that benchmarks are being met;
- (d) Information on any modelled GHG Reduction;
- (e) Information on hot water systems, with use of a high-efficiency heat pump;
- (f) Information on any modelled reduction in peak demand;
- (g) Information on HVAC system;
- (h) Confirmation that post-development stormwater flows will not exceed pre-development levels;
- (i) Water tanks to coincide with stormwater notes;
- (j) Clarification of recycled materials (E.g., bricks) or products with post-consumer content (E.g., insulation) are to be used to reduce the environmental impact of the development;
- (k) Whether steel reinforcement and concrete mixes use energy reducing strategies;
- (l) Whether project timber will be from recycled or sustainable sources;
- (m) Information on the approach to building tuning;
- (n) Whether Head Contractor will be accredited
- (o) Whether an Environmental Management Plan be developed by the building contractor to monitor and control activities undertaken during construction
- (p) Provision of a small pallet of materials and construction techniques that can assist in disassembly
- (q) Provision of pipes, cabling, flooring that do not contain PVC or meeting best practice guidelines for PVC;
- (r) A landfill diversion target to 90% (as practicable) in line with best practice;
- (s) Benchmarking the landscape approach with the Green Factor Tool;
- (t) Provision of light colour roofing and planter boxes.

Prior to occupation Sustainable Management Plan

11. Prior to the occupation of the development at each stage approved under this permit, a report from the author of the sustainable management plan, approved pursuant to this permit, or similarly qualified person or company, must be submitted to the Responsible Authority. The report must be to the satisfaction of the Responsible Authority and must confirm that all measures specified in the sustainable management plan have been implemented in accordance with the approved plan.

Ongoing Sustainable Management Plan

12. The provisions, recommendations and requirements of the endorsed Sustainable Management Plan must be implemented and complied with to the satisfaction of the Responsible Authority.

Wind Tunnel Report

13. In conjunction with the submission of development plans under Condition 1, a Wind Tunnel Report to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the Wind Tunnel Report will be endorsed and will form part of this permit. The Wind Tunnel Report must be generally in accordance with the Wind Impact Assessment prepared by titled 10 – 32 Duke Street, Abbotsford dated 22 July 2022 and letter dated 01 September 2022 prepared by MEL Consultants, but modified to include or verify:
- (a) Reference to the amended plans required by Condition 1.
 - (b) Wind mitigation measures to the west-facing terraces.
 - (c) Landscaping is not to be used as a wind mitigation measure.

Ongoing Wind Tunnel Report

14. The provisions, recommendations and requirements of the endorsed Wind Tunnel Report must be implemented and complied with to the satisfaction of the Responsible Authority.

Public Lighting Plan

15. Before the development commences (excluding demolition, bulk excavation and site preparation work), a Public Lighting Plan to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. The Public Lighting Plan must address lighting along the curtilage of the building and the entrances within the site. When approved, the Public Lighting Plan will be endorsed and will form part of this permit. The Public Lighting Plan must provide for:
- (a) all pedestrian access to the proposed development must be lit by public lighting installations as specified in the Australian Standard AS 1158.3.1:2020 *Lighting for roads and public spaces*.
 - (b) new poles and luminaires must be sourced from the relevant power authority's standard energy efficient luminaires list and comply with relevant CitiPower technical requirements;
 - (c) consultation with affected property owners to be undertaken by the developer with respect to the location of any new pole/s and light/s (if required);
 - (d) light spillage into the windows of existing and proposed residences must be avoided or minimised and should comply with the requirements of Australian Standard AS 4282 – 2019 *Control of the obtrusive effects of outdoor lighting*;
 - (e) the locations of any new light poles must not obstruct vehicular access into private properties; and
 - (f) the provisions, recommendations and requirements of the endorsed Public Lighting Plan must be implemented and complied with at no cost to Council and to the satisfaction of the Responsible Authority.
 - (g) A maintenance regime for the lighting scheme within the curtilage of the property; and
 - (h) The use of energy efficient luminaries and/or solar lighting technologies to reduce carbon emission if possible

Ongoing Public Lighting Plan

16. The provisions, recommendations and requirements of the endorsed Public Lighting Plan must be implemented and complied with at no cost to Council and to the satisfaction of the Responsible Authority.

Amended Waste Management Plan

17. In conjunction with the submission of development plans under Condition 1, an amended Waste Management Plan to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the amended Waste Management Plan will be endorsed and will form part of this permit. The amended Waste Management Plan must be generally in accordance with the Waste Management Plan prepared by One Mile Grid and dated 02 September 2000 but modified to:
- (a) Assess the proposal as amended under Condition 1 and its requirements.
 - (b) Include details of the size of the bin storage areas and the total footprint of the proposed bins in each M2;

- (c) The scheduling of bin collections outside of office hours and when the DDA car spaces and shared area associated with the Lots C and D building is not in use and management of this; and
- (d) Swept path diagrams for a 6.41m long waste collection vehicle entering and exiting the development entrances via Duke Street.

Ongoing Waste Management Plan

18. The provisions, recommendations and requirements of the endorsed Waste Management Plan must be implemented and complied with to the satisfaction of the Responsible Authority.

Green Travel Plan

19. Before the development is occupied at each stage, a Green Travel Plan to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the Green Travel plan will be endorsed and will form part of this permit. The Green Travel Plan must include, but not be limited to, the following:
- (a) a description of the location in the context of alternative modes of transport;
 - (b) employee welcome packs (e.g. provision of myki/transport ticketing);
 - (c) sustainable transport goals linked to measurable targets, performance indicators and monitoring timeframes;
 - (d) a designated 'manager' or 'champion' responsible for coordination and implementation;
 - (e) details of bicycle parking and bicycle routes;
 - (f) details of GTP funding and management responsibilities;
 - (g) the specific design of bicycle storage devices proposed to be used for employee spaces, including demonstration of their suitability for parking cargo bikes, electric bikes and recumbent bikes;
 - (h) the types of lockers proposed within the change-room facilities, with at least 50% of lockers providing hanging storage space;
 - (i) security arrangements to access the employee bicycle storage spaces; and
 - (j) signage and wayfinding information for bicycle facilities and pedestrians pursuant to Australian Standard AS2890.3;
 - (k) Reference to a minimum 40A single phase electrical sub circuit should be installed to the car park areas for 'EV readiness'.
 - (l) provisions for the Green Travel Plan to be updated not less than every 5 years.

Ongoing Green Travel Plan

20. The provisions, recommendations and requirements of the endorsed Green Travel Plan must be implemented and complied with to the satisfaction of the Responsible Authority.

Public Realm Plan(s) / Works / Road Infrastructure

21. Within six months of commencement of the development (excluding demolition, bulk excavation and site preparation work) or by such later date as is approved by the Responsible Authority, Detailed Design plans (Civil and Landscape) for the Duke Street frontage must be prepared, submitted and approved by the Responsible Authority. When approved, the plan will be endorsed and will then form part of the permit. The Detailed Design plans must reference Appendix 1 of the referral advice provided by Council's Urban Design Unit dated 13 December 2022, but not be limited to, the following:

- (a) The location of all existing, proposed and/or relocated infrastructure, such as, drainage pits, light/electrical poles, street signs, parking meters, parking bays, kerb/channel, trees, street furniture, bins, bike hoops etc.
 - (b) All existing and proposed levels and surface grading.
 - (c) Proposed civil/drainage design to accommodate any design elements that will alter the conditions of the existing stormwater drainage (such as kerb outstands/footpath extensions).
 - (d) All proposed parallel parking bays, including dimensions as per the following:
 - (v) Parking lane minimum width – 2.1m
 - (vi) Parking bay enclosed/obstructed on both ends – 6.0m length
 - (vii) Parking bay enclosed/obstructed on one end – 5.5m length
 - (viii) Parking bay open on both ends – 5.0m length
 - (e) Dimensions (length and width) of proposed kerb outstands, tree squares, and footpath width.
 - (f) The reinstatement of the Duke Street footpath and (outside the property's frontage) kerb and channel and reinstatement of any portion of damaged road outside the property's frontage;
 - (g) Longitudinal sections along the property boundary, back of kerb and invert of the channel;
 - (h) Cross sections from property boundary to property boundary at 5 metre intervals indicating existing and proposed levels at changes in grade;
 - (i) Stormwater drainage in accordance with the Council approved Stormwater Management plan, including design computations, longitudinal sections, pit schedule and details;
 - (j) Detailed layout (size, depth, location) of existing and proposed service utilities, including private property connections to each type;
 - (k) Signage & line marking plan;
 - (l) All surfaces must be designed in accordance with DDA requirements;
 - (m) Distinct delineation between public and private land along all interfaces;
 - (n) All private aspects / infrastructure must be located within the private property boundary and not protrude into the public road reserve; and
 - (o) Existing surface levels must not be altered unless approved by the Responsible Authority. To obtain DDA compliant surface grades the finished surface levels within the private property must be adjusted.
22. Before each building is occupied, or by such later date as approved in writing by the Responsible Authority, the works shown on the endorsed Public Realm Plan(s) / Works / Road Infrastructure Plan required by Condition 21 must be carried out at the permit holder's cost and completed to the satisfaction of the Responsible Authority.
23. Before the development starts, the permit holder must provide a monetary contribution of \$11,240 (inclusive of GST and subject to annual CPI increase) for the provision of 8 new street trees to the Responsible Authority.
24. Before each building is occupied, or by such later date as approved in writing by the Responsible Authority and the City of Yarra, any damage to public infrastructure (footpath, kerb and channel, etc) caused by connection works for underground utility services, must be reconstructed:
- (a) at the permit holder's cost; and
 - (b) to the satisfaction of the Responsible Authority.

25. Before each building is occupied, or by such later date as approved in writing by the Responsible Authority, any damage to Council infrastructure resulting from the development must be reinstated:
 - (a) at the permit holder's cost; and
 - (b) to the satisfaction of the Responsible Authority.
26. Before each building is occupied, or by such later date as approved in writing by the Responsible Authority the relocation of any service poles, structures or pits necessary to facilitate the development must be undertaken:
 - (a) at the permit holder's cost; and
 - (b) to the satisfaction of the Responsible Authority.
27. Before each building is occupied, or by such later date as approved in writing by the Responsible Authority, any redundant vehicular crossing must be demolished and re-instated as standard footpath and kerb and channel:
 - (a) at the permit holder's cost; and
 - (b) to the satisfaction of the Responsible Authority.
28. Before each building is occupied, or by such later date as approved in writing by the Responsible Authority, the removal of any kerbside parking sensors and any reinstatement of parking sensors will require the Permit Holder to pay Council the cost of each parking sensor taken out from the kerb/footpath/roadway. Any costs associated with the reinstatement of road infrastructure due to the removal of the parking sensors must also be borne by the Permit Holder.

Civil work and drainage design plans

29. Before the Stage 1 development (Lot A and B Buildings), Civil Work and Drainage Design Plans prepared to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. Once the plan is approved, it will be endorsed and will then form part of the permit. The Civil Work and Drainage Design Plans must provide:
 - (a) Be consistent with the public realm plan required under Condition 21.
 - (b) Provide for all civil and drainage works that are required to the abutting road frontages, as part of the development and proposed public realm works;
 - (c) Include a stormwater and flooding analysis and catchment plan as it relates to the development, proposed public realm works and drainage scheme to ensure no 'ponding' or retention of water in the roadways;
 - (d) Be in accordance with Council's engineering standards and requirements.
 - (e) Be DDA compliant to the satisfaction of Council.
 - (f) Show all existing and proposed street fixtures and furniture including but not limited to service authority assets, street lighting, signs and line-marking abutting the development.
 - (g) Surface material finishes shown and specified to the satisfaction of the responsible authority;
 - (h) Provide street lighting in accordance with Council standards.

Civil work and drainage design plans

30. Before the Stage 2 (Lot C and D Building) development commences, Civil Work and Drainage Design Plans prepared to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. Once the plan is approved, it will be endorsed and will then form part of the permit. The Civil Work and Drainage Design Plans must provide:

- (i) Be consistent with the public realm plan required under Condition ###.
 - (j) Provide for all civil and drainage works that are required to the abutting road frontages, as part of the development and proposed public realm works;
 - (k) Include a stormwater and flooding analysis and catchment plan as it relates to the development, proposed public realm works and drainage scheme to ensure no 'ponding' or retention of water in the roadways;
 - (l) Be in accordance with Council's engineering standards and requirements.
 - (m) Be DDA compliant to the satisfaction of Council.
 - (n) Show all existing and proposed street fixtures and furniture including but not limited to service authority assets, street lighting, signs and line-marking abutting the development.
 - (o) Surface material finishes shown and specified to the satisfaction of the responsible authority;
 - (p) Provide street lighting in accordance with Council standards.
31. Before each building is completed or at a later date as agreed in writing by the Responsible Authority, all associated works shown on the endorsed Stormwater Analysis, Catchment and Drainage Plan must be fully constructed and completed by the permit holder, all to the satisfaction of the Responsible Authority.

Car Parking

32. Before each building is occupied, or by such later date as approved in writing by the Responsible Authority, the area set aside on the endorsed plans for the car parking spaces, access lanes, driveways and associated works must be:
- (a) constructed and available for use in accordance with the endorsed plans;
 - (b) formed to such levels and drained so that they can be used in accordance with the endorsed plans;
 - (c) treated with an all-weather seal or some other durable surface; and
 - (d) line-marked or provided with some adequate means of showing the car parking spaces,
- all to the satisfaction of the Responsible Authority.
33. Before the development commences (excluding demolition, bulk excavation and site preparation work), a Car Park Management Plan to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the Car Park Management Plan will be endorsed and will form part of this permit. The Car Park Management Plan must address, but not be limited to, the following:
- (a) the number and location of car parking spaces, including DDA spaces;
 - (b) the management of car parking spaces and security arrangements for employees of the development;
 - (c) details of way-finding, cleaning and security of end of trip bicycle facilities;
 - (d) policing arrangements and formal agreements;
 - (e) a schedule of all proposed signage including directional arrows and signage, informative signs indicating location of disabled bays and bicycle parking, exits, restrictions, pay parking system etc;
 - (f) details regarding the management of loading and unloading of goods and materials; and
 - (g) Instructions to employees and patrons that they must only use the car parking facilities provided on site or which are otherwise available to the public.
34. The provisions, recommendations and requirements of the endorsed Car Park Management Plan must be implemented and complied with to the satisfaction of the Responsible Authority.

35. Before each building is occupied, or by such later date as approved in writing by the Responsible Authority, a notice showing the location of car parking must be placed in a clearly visible position near the entry to the land. The notice must be maintained thereafter to the satisfaction of the Responsible Authority.

General

36. The amenity of the area must not be detrimentally affected by the use or development, including through:
- (a) the transport of materials, goods or commodities to or from land;
 - (b) the appearance of any buildings, works or materials;
 - (c) the emission of noise, artificial light, vibration, smell, fumes, smoke, vapour, steam, soot, ash, dust, waste water, waste products, grit or oil, or
 - (d) the presence of vermin,
- to the satisfaction of the Responsible Authority.
37. The loading and unloading of vehicles and the delivery of goods to and from the land must be conducted entirely within the land to the satisfaction of the responsible authority.
38. Except with the prior written consent of the Responsible Authority, delivery and collection of goods to and from the land may only occur between 7am and 10pm Monday to Saturday, or after 9am on a Sunday or public holiday except for those allowed under any relevant local law.
39. The development must comply at all times with the noise limits specified in the Environment Protection Regulations under the Environment Protection Act 2017 and the incorporated Noise Protocol (Publication 1826.4, Environment Protection Authority, May 2021).
40. Finished floor levels shown on the endorsed plans must not be altered or modified without the prior written consent of the Responsible Authority.
41. Before each building is occupied, any wall located on a boundary facing public property must be treated with a graffiti proof finish to the satisfaction of the Responsible Authority.
42. Before each building is occupied, or by such later date as approved in writing by the Responsible Authority, all new on-boundary walls must be cleaned and finished to the satisfaction of the Responsible Authority.
43. All buildings and works must be maintained in good order and appearance to the satisfaction of the Responsible Authority.
44. All pipes, fixtures, fittings and vents servicing any building on the land must be concealed in service ducts or otherwise hidden from view to the satisfaction of the Responsible Authority.
45. Before each building is occupied, or by such later date as approved in writing by the Responsible Authority, external lighting capable of illuminating access to the pedestrian and vehicular entrances must be provided on the subject site. Lighting must be:
- (a) Located;
 - (b) Directed;
 - (c) Shielded;
 - (d) Of appropriate intensity; and
 - (e) to the satisfaction of the Responsible Authority.

Development Contributions

46. Prior to the issue of a building permit, commencement of the development, or issue of a Statement of Compliance (whichever occurs first) the Development Infrastructure Levy must be paid to Yarra City Council in accordance with the approved Development Contributions Plan, or the Owner must enter into an agreement with Yarra City Council to pay the amount of the levy within a time specified in the agreement.

Construction Management Plan

47. Before the development of each stage commences, a Construction Management Plan for each relevant stage must be submitted to and approved by the Responsible Authority. When approved, the plans will be endorsed and will form part of this permit. The plan must provide for:
- (a) a pre-conditions survey (dilapidation report) of the land and all adjacent Council roads frontages and nearby road infrastructure;
 - (b) works necessary to protect road and other infrastructure;
 - (c) remediation of any damage to road and other infrastructure;
 - (d) containment of dust, dirt and mud within the land and method and frequency of clean up procedures to prevent the accumulation of dust, dirt and mud outside the land;
 - (e) facilities for vehicle washing, which must be located on the land;
 - (f) the location of loading zones, site sheds, materials, cranes and crane/hoisting zones, gantries and any other construction related items or equipment to be located in any street;
 - (g) site security;
 - (h) management of any environmental hazards including, but not limited to, :
 - (i) contaminated soil;
 - (ii) materials and waste;
 - (iii) dust;
 - (iv) stormwater contamination from run-off and wash-waters;
 - (v) sediment from the land on roads;
 - (vi) washing of concrete trucks and other vehicles and machinery; and
 - (vii) spillage from refuelling cranes and other vehicles and machinery;
 - (i) the construction program;
 - (j) preferred arrangements for trucks delivering to the land, including delivery and unloading points and expected duration and frequency;
 - (k) parking facilities for construction workers;
 - (l) measures to ensure that all work on the land will be carried out in accordance with the Construction Management Plan;
 - (m) an outline of requests to occupy public footpaths or roads, or anticipated disruptions to local services;
 - (n) an emergency contact that is available for 24 hours per day for residents and the Responsible Authority in the event of relevant queries or problems experienced;
 - (o) the provision of a traffic management plan to comply with provisions of AS 1742.3-2002 Manual of uniform traffic control devices - Part 3: Traffic control devices for works on roads;

- (p) a Noise and Vibration Management Plan showing methods to minimise noise and vibration impacts on nearby properties and to demonstrate compliance with Noise Control Guideline 12 for Construction (Publication 1254) as issued by the Environment Protection Authority in October 2008. The Noise and Vibration Management Plan must be prepared to the satisfaction of the Responsible Authority. In preparing the Noise and Vibration Management Plan, consideration must be given to:
 - (i) using lower noise work practice and equipment;
 - (ii) the suitability of the land for the use of an electric crane;
 - (iii) silencing all mechanical plant by the best practical means using current technology;
 - (iv) fitting pneumatic tools with an effective silencer;
 - (v) other relevant considerations; and
- (q) any site-specific requirements;

During the construction:

- (r) any stormwater discharged into the stormwater drainage system must be in compliance with Environment Protection Authority guidelines;
- (s) stormwater drainage system protection measures must be installed as required to ensure that no solid waste, sediment, sand, soil, clay or stones from the land enters the stormwater drainage system;
- (t) vehicle borne material must not accumulate on the roads abutting the land;
- (u) the cleaning of machinery and equipment must take place on the land and not on adjacent footpaths or roads; and
- (v) all litter (including items such as cement bags, food packaging and plastic strapping) must be disposed of responsibly.

Ongoing Construction Management Plan

- 48. The provisions, recommendations and requirements of the endorsed Construction Management Plans must be implemented and complied with to the satisfaction of the Responsible Authority.

Construction Times

- 49. Except with the prior written consent of the Responsible Authority, demolition or construction works must not be carried out:
 - (a) Monday-Friday (excluding public holidays) before 7 am or after 6 pm;
 - (b) Saturdays and public holidays (other than ANZAC Day, Christmas Day and Good Friday) before 9 am or after 3 pm; or
 - (c) Sundays, ANZAC Day, Christmas Day and Good Friday at any time.

Time expiry

- 50. This permit will expire if one of the following circumstances applies:
 - (a) the development is not commenced within two years of the date of this permit;
 - (b) the development is not completed within four years of the date of this permit;
 - (c) the use has not commenced within five years of the date of this permit.

The Responsible Authority may extend the periods referred to if a request is made in writing before the permit expires or within six months afterwards for commencement or within twelve months afterwards for completion.

Notes:

A building permit may be required before development is commenced. Please contact Council's Building Services on 9205 5555 to confirm.

A vehicle crossing permit is required for the construction of the vehicle crossing(s). Please contact Council's Construction Management Branch on 9205 5585 for further information.

Areas must be provided inside the property line and adjacent to the footpath to accommodate pits and meters. No private pits, valves or meters on Council property will be accepted.

A local law permit (e.g. Asset Protection Permit, Road Occupation Permit) may be required before development is commenced. Please contact Council's Construction Management Branch on Ph. 9205 5555 to confirm.

The applicant must apply for a Legal Point of Discharge under Regulation 133 – Stormwater Drainage of the Building Regulations 2018 from Yarra Building Services unit. Any storm water drainage within the property must be provided and be connected to the nearest Council pit of adequate depth and capacity (legal point of discharge), or to Council's satisfaction under Section 200 of the Local Government Act 1989 and Regulation 133.

Areas must be provided inside the property line and adjacent to the footpath to accommodate pits and meters. No private pits, valves or meters on Council property will be accepted.

Except with the prior written consent of the Responsible Authority, Council assets must not be altered in any way.

No parking restriction signs or line-marked on-street parking bays are to be removed, adjusted, changed or relocated without approval or authorisation from Council's Parking Management unit and Construction Management branch. Any on-street parking reinstated (signs and line markings) as a result of development works must be approved by Council's Parking Management unit.

All future employees, future owners and occupiers within the development approved under this permit will not be permitted to obtain business, resident or visitor parking permits.

These premises will be required to comply with the Food Act 1984. The use must not commence until registration, or other approval, has been granted by Council's Health Protection Unit.

Attachments

- 1 PLN22/0679 - 10 - 32 Duke Street Abbotsford - Plans
- 2 PLN22/0679 - 10 - 32 Duke Street Abbotsford - Urban Context Plan
- 3 PLN22/0679 - 10 - 32 Duke Street Abbotsford - Landscape Plan
- 4 PLN22/0679 - 10 - 32 Duke Street Abbotsford - Traffic Management Plan / Traffic Impact Assessment
- 5 PLN22/0679 - 10 - 32 Duke Street Abbotsford - Sustainability Management Plan / ESD Report
- 6 PLN22/0679 - 10 - 32 Duke Street Abbotsford - Waste Management Plan

- 7** PLN22/0679 - 10 - 32 Duke Street, Abbotsford - Wind Report
- 8** PLN22/0679 - 10 - 32 Duke Street, Abbotsford - Collated Referral Advice provided / responses
- 9** PLN22/0679 - 10 - 32 Duke Street, Abbotsford - Permit Applicant's response to referral advice and objectors.
- 10** PLN22/0679 - 10 - 32 Duke Street, Abbotsford - Overlooking Sections

10-32 DUKE STREET, ABBOTSFORD VIC

[illegible]

A000	1911-1917	1910
A001	1918-1919	1911
A002	1920-1921	1912
A003	1922-1923	1913
A004	1924-1925	1914
A005	1926-1927	1915
A006	1928-1929	1916
A007	1930-1931	1917
A008	1932-1933	1918
A009	1934-1935	1919
A010	1936-1937	1920
A011	1938-1939	1921
A012	1940-1941	1922
A013	1942-1943	1923
A014	1944-1945	1924
A015	1946-1947	1925
A016	1948-1949	1926
A017	1950-1951	1927
A018	1952-1953	1928
A019	1954-1955	1929
A020	1956-1957	1930
A021	1958-1959	1931
A022	1960-1961	1932
A023	1962-1963	1933
A024	1964-1965	1934
A025	1966-1967	1935
A026	1968-1969	1936
A027	1970-1971	1937
A028	1972-1973	1938
A029	1974-1975	1939
A030	1976-1977	1940
A031	1978-1979	1941
A032	1980-1981	1942
A033	1982-1983	1943
A034	1984-1985	1944
A035	1986-1987	1945
A036	1988-1989	1946
A037	1990-1991	1947
A038	1992-1993	1948
A039	1994-1995	1949
A040	1996-1997	1950
A041	1998-1999	1951
A042	2000-2001	1952
A043	2002-2003	1953
A044	2004-2005	1954
A045	2006-2007	1955
A046	2008-2009	1956
A047	2010-2011	1957
A048	2012-2013	1958
A049	2014-2015	1959
A050	2016-2017	1960
A051	2018-2019	1961
A052	2020-2021	1962
A053	2022-2023	1963
A054	2024-2025	1964

[illegible]

TOTAL SITE AREA: 467.3sqft
TOTAL PARKING PROVISIONS: 20
TOTAL BIKE PROVISIONS: 20
Onsite 27, Visitor 2

DATE-CORRESPONDENCE INFORMATION
RECEIVED AND APPROVED AND
SIGNED BY THE OFFICE AND STATE
OFFICIALS AND A NOTARY
PUBLIC.

TOTAL SITE AREA: 951.6 sqm
TOTAL PARKING PROVISIONS: 41
TOTAL BIKE PROVISIONS: 44
Overall 3B, Vactor 6

TOTAL SITE AREA: 1429.6m²
TOTAL PARKING PROVISIONS: 83
TOTAL BIKE PROVISIONS: 75
On-Site 67, Visitor 8

[illegible]

TOTAL SITE AREA: 2845.5m²



- ☐ AMENITIES
- ☐ CIRCULATION
- ☐ PARKING
- ☐ SERVICES
- ☐ STORAGE

Leak: The oilwater from the seal chamber area of E242 will be collected and directed via a mechanically pumped system into a 60L capacity Rainwater Tank which is to be connected to a collection Leach for leak testing.

Let 10 - The rainwater from the roof catchment area of 692.59 sq.m is to be collected and discharged via a mechanically pumped system into a 2000 capacity Rainwater Tank which is to be connected to all tanks in Let 10 for the building.

Lot 245 - The contents from the east end of room of 911-5th St to be collected and shipped to a nearby city owned yard on 2nd, capacity 100 cubic Yards which will be connected to a hole in Lot 153 to make a tunnel.

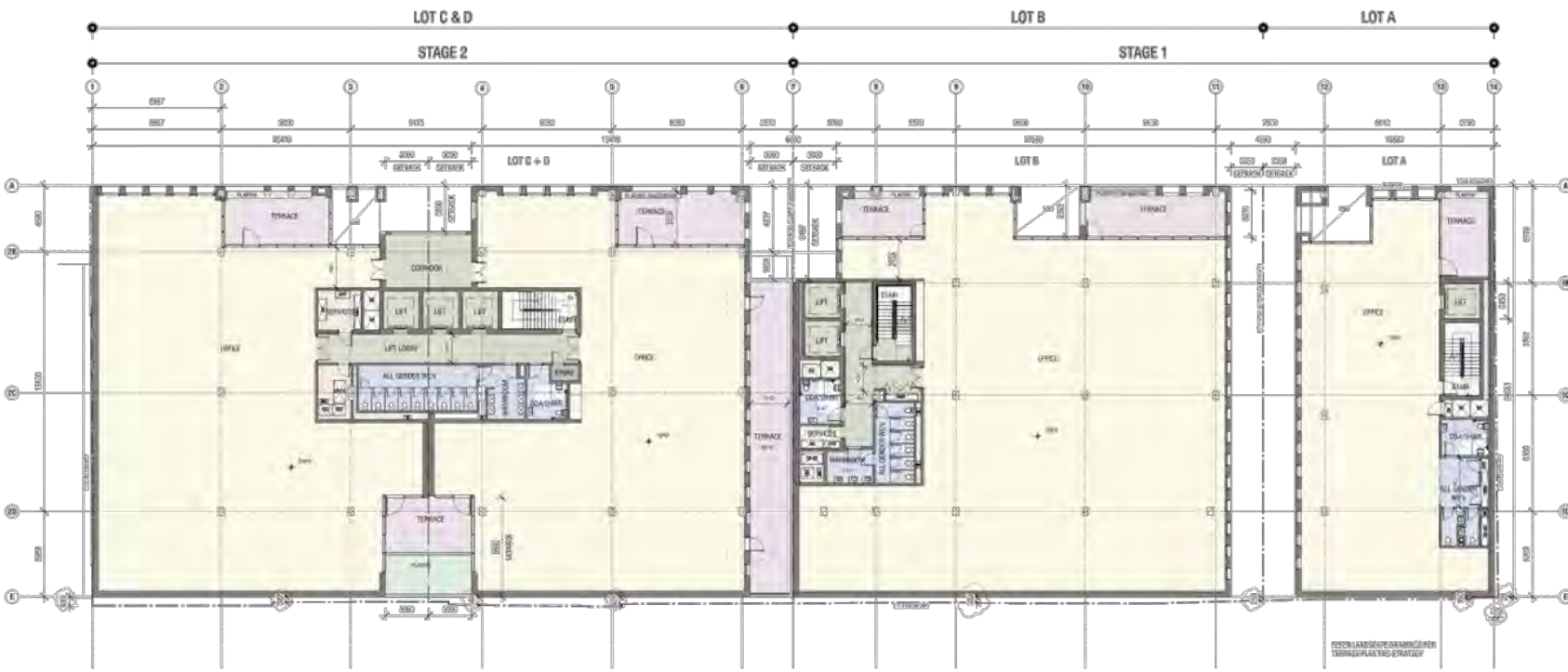
bioRxiv preprint doi: <https://doi.org/10.1101/000000>; this version posted January 1, 2016. The copyright holder for this preprint (which was not certified by peer review) is the author/funder, who has granted bioRxiv a license to display the preprint in perpetuity. It is made available under aCC-BY-NC-ND 4.0 International license.

BANKRUPT CY2005 ASSETS			BANKRUPT TGA_LF00=0			BANKRUPT TGA_LF00			BANKRUPT TGA_LF01A		
Link	Asset		Name	Asset		Name	Asset		Name	Asset	
LF00A	LF00A		LF00B			LF00			LF01A		
LF00B	LF00B		LF00C			LF01			LF01B		
LF00C	LF00C		LF00D			LF02			LF01C		
			LF00E			LF03			LF01D		
			LF00F			LF04			LF01E		
			LF00G			LF05			LF01F		
			LF00H			LF06			LF01G		
			LF00I			LF07			LF01H		
			LF00J			LF08			LF01I		
			LF00K			LF09			LF01J		
			LF00L			LF10			LF01K		
			LF00M			LF11			LF01L		
			LF00N			LF12			LF01M		
			LF00O			LF13			LF01N		
			LF00P			LF14			LF01O		
			LF00Q			LF15			LF01P		
			LF00R			LF16			LF01Q		
			LF00S			LF17			LF01R		
			LF00T			LF18			LF01S		
			LF00U			LF19			LF01T		
			LF00V			LF20			LF01U		
			LF00W			LF21			LF01V		
			LF00X			LF22			LF01W		
			LF00Y			LF23			LF01X		
			LF00Z			LF24			LF01Y		
			LF00A			LF25			LF01Z		
			LF00B			LF26			LF02A		
			LF00C			LF27			LF02B		
			LF00D			LF28			LF02C		
			LF00E			LF29			LF02D		
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			LF00K			LF35			LF02J		
			LF00L			LF36			LF02K		
			LF00M			LF37			LF02L		
			LF00N			LF38			LF02M		
			LF00O			LF39			LF02N		
			LF00P			LF40			LF02O		
			LF00Q			LF41			LF02P		
			LF00R			LF42			LF02Q		
			LF00S			LF43			LF02R		
			LF00T			LF44			LF02S		
			LF00U			LF45			LF02T		
			LF00V			LF46			LF02U		
			LF00W			LF47			LF02V		

NOT FOR CONSTRUCTION



FOR INFORMATION ONLY



Space Classification Legend

- AMENITIES
- CIRCULATION
- EXTERNAL
- LANDSCAPE
- OFFICE
- SERVICES
- STORAGE

LEVEL 1 GROSS AREA		LEVEL 2 GROSS AREA		LEVEL 3 GROSS AREA		LEVEL 4 GROSS AREA	
Lot	Area	Lot	Area	Lot	Area	Lot	Area
LOT A	2280 m ²	LOT A	2280 m ²	LOT A	2280 m ²	LOT A	2280 m ²
LOT B	1500 m ²	LOT B	1500 m ²	LOT B	1500 m ²	LOT B	1500 m ²
LOT C & D	1500 m ²	LOT C & D	1500 m ²	LOT C & D	1500 m ²	LOT C & D	1500 m ²
TOTAL		TOTAL		TOTAL		TOTAL	
2280 m ²		2280 m ²		2280 m ²		2280 m ²	
1500 m ²		1500 m ²		1500 m ²		1500 m ²	
1500 m ²		1500 m ²		1500 m ²		1500 m ²	
5280 m ²		5280 m ²		5280 m ²		5280 m ²	



-  AMENITIES
-  CIRCULATION
-  EXTERNAL
-  OFFICE
-  SERVICES
-  STORAGE

[illegible]



-  AMENITIES
-  CIRCULATION
-  EXTERNAL
-  LANDSCAPE
-  OFFICE
-  SERVICES
-  STORAGE

[illegible]



-  AMENITIES
-  CIRCULATION
-  EXTERNAL
-  LANDSCAPE
-  OFFICE
-  SERVICES
-  STORAGE

[illegible]



- ☐ AMENITIES
- ☐ CIRCULATION
- ☐ EXTERNAL
- ☐ OFFICE
- ☐ SERVICES
- ☐ STORAGE

[illegible]



- ☐ AMENITIES
- ☐ CIRCULATION
- ☐ EXTERNAL
- ☐ LANDSCAPE
- ☒ OFFICE
- ☐ PARKING
- ☐ RETAIL
- ☐ SERVICES
- ☐ STORAGE

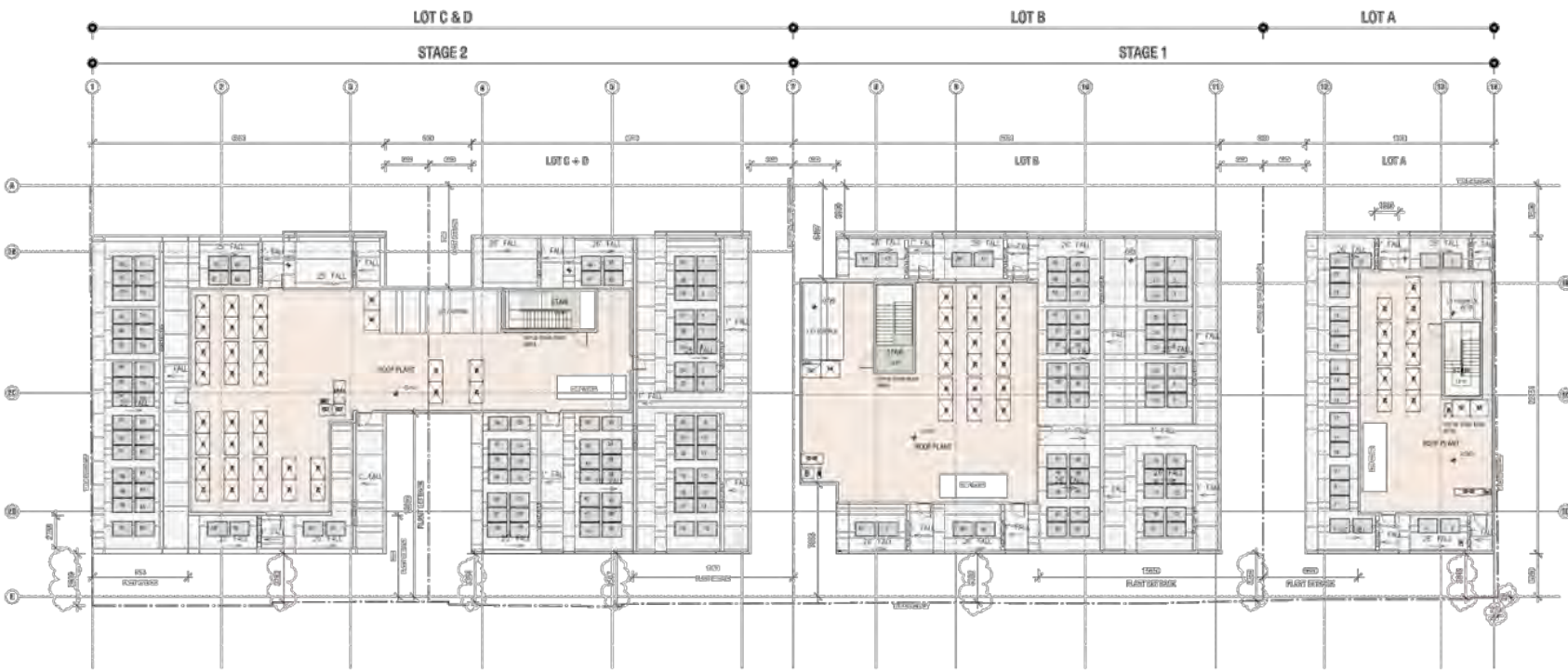
LEVEL 0 CROSS AREA		LEVEL 0A CROSS AREA		LEVEL 0B CROSS AREA		LEVEL 0C CROSS AREA	
Left	Right	Left	Right	Left	Right	Left	Right
LOF A	222 m	LOF 0A-B		LOF B		LOF A	
LOF B	233 m	SEA FENCE		SEA FENCE		SEA FENCE	
LOF 0A-B	341 m	SEA FENCE	349 m	SEA FENCE	352 m	SEA FENCE	358 m
			619 m		482 m		122 m
SEA FENCE		SEA FENCE		SEA FENCE		SEA FENCE	
SEA FENCE	66 m	SEA FENCE	125 m	SEA FENCE	130 m	SEA FENCE	130 m
SEA FENCE	142 m	SEA FENCE	149 m	SEA FENCE	150 m	SEA FENCE	150 m
SEA FENCE	157 m	SEA FENCE	167 m	SEA FENCE	168 m	SEA FENCE	168 m
SEA FENCE	174 m	SEA FENCE	184 m	SEA FENCE	185 m	SEA FENCE	185 m
SEA FENCE	191 m	SEA FENCE	199 m	SEA FENCE	200 m	SEA FENCE	200 m
SEA FENCE	208 m	SEA FENCE	216 m	SEA FENCE	217 m	SEA FENCE	217 m
SEA FENCE	225 m	SEA FENCE	233 m	SEA FENCE	234 m	SEA FENCE	234 m
SEA FENCE	242 m	SEA FENCE	250 m	SEA FENCE	251 m	SEA FENCE	251 m
SEA FENCE	259 m	SEA FENCE	267 m	SEA FENCE	268 m	SEA FENCE	268 m
SEA FENCE	276 m	SEA FENCE	284 m	SEA FENCE	285 m	SEA FENCE	285 m
SEA FENCE	293 m	SEA FENCE	301 m	SEA FENCE	302 m	SEA FENCE	302 m
SEA FENCE	310 m	SEA FENCE	318 m	SEA FENCE	319 m	SEA FENCE	319 m
SEA FENCE	327 m	SEA FENCE	335 m	SEA FENCE	336 m	SEA FENCE	336 m
SEA FENCE	344 m	SEA FENCE	352 m	SEA FENCE	353 m	SEA FENCE	353 m
SEA FENCE	361 m	SEA FENCE	369 m	SEA FENCE	370 m	SEA FENCE	370 m
SEA FENCE	378 m	SEA FENCE	386 m	SEA FENCE	387 m	SEA FENCE	387 m
SEA FENCE	395 m	SEA FENCE	403 m	SEA FENCE	404 m	SEA FENCE	404 m
SEA FENCE	412 m	SEA FENCE	420 m	SEA FENCE	421 m	SEA FENCE	421 m
SEA FENCE	429 m	SEA FENCE	437 m	SEA FENCE	438 m	SEA FENCE	438 m
SEA FENCE	446 m	SEA FENCE	454 m	SEA FENCE	455 m	SEA FENCE	455 m
SEA FENCE	463 m	SEA FENCE	471 m	SEA FENCE	472 m	SEA FENCE	472 m
SEA FENCE	480 m	SEA FENCE	489 m	SEA FENCE	490 m	SEA FENCE	490 m
SEA FENCE	497 m	SEA FENCE	505 m	SEA FENCE	506 m	SEA FENCE	506 m
SEA FENCE	514 m	SEA FENCE	522 m	SEA FENCE	523 m	SEA FENCE	523 m
SEA FENCE	531 m	SEA FENCE	539 m	SEA FENCE	540 m	SEA FENCE	540 m
SEA FENCE	548 m	SEA FENCE	556 m	SEA FENCE	557 m	SEA FENCE	557 m
SEA FENCE	565 m	SEA FENCE	573 m	SEA FENCE	574 m	SEA FENCE	574 m
SEA FENCE	582 m	SEA FENCE	590 m	SEA FENCE	591 m	SEA FENCE	591 m
SEA FENCE	599 m	SEA FENCE	607 m	SEA FENCE	608 m	SEA FENCE	608 m
SEA FENCE	616 m	SEA FENCE	624 m	SEA FENCE	625 m	SEA FENCE	625 m
SEA FENCE	633 m	SEA FENCE	641 m	SEA FENCE	642 m	SEA FENCE	642 m
SEA FENCE	650 m	SEA FENCE	658 m	SEA FENCE	659 m	SEA FENCE	659 m
SEA FENCE	667 m	SEA FENCE	675 m	SEA FENCE	676 m	SEA FENCE	676 m
SEA FENCE	684 m	SEA FENCE	692 m	SEA FENCE	693 m	SEA FENCE	693 m
SEA FENCE	701 m	SEA FENCE	709 m	SEA FENCE	710 m	SEA FENCE	710 m
SEA FENCE	718 m	SEA FENCE	726 m	SEA FENCE	727 m	SEA FENCE	727 m
SEA FENCE	735 m	SEA FENCE	743 m	SEA FENCE	744 m	SEA FENCE	744 m
SEA FENCE	752 m	SEA FENCE	760 m	SEA FENCE	761 m	SEA FENCE	761 m
SEA FENCE	769 m	SEA FENCE	777 m	SEA FENCE	778 m	SEA FENCE	778 m
SEA FENCE	786 m	SEA FENCE	794 m	SEA FENCE	795 m	SEA FENCE	795 m
SEA FENCE	803 m	SEA FENCE	811 m	SEA FENCE	812 m	SEA FENCE	812 m
SEA FENCE	820 m	SEA FENCE	828 m	SEA FENCE	829 m	SEA FENCE	829 m
SEA FENCE	837 m	SEA FENCE	845 m	SEA FENCE	846 m	SEA FENCE	846 m
SEA FENCE	854 m	SEA FENCE	862 m	SEA FENCE	863 m	SEA FENCE	863 m



- ☐ AMENITIES
- ☐ CIRCULATION
- ☐ EXTERNAL
- ☐ OFFICE
- ☐ SERVICES
- ☐ STORAGE

[illegible]

FOR INFORMATION ONLY



1 DE ROOF
1:1000

Space Classification Legend

- CIRCULATION
- SERVICES

ROOFPY VALUES: 100
LIFE A-20
LIFE B-20
LIFE C-100
CAPACITY IN CHARGE
GROSS TOTAL
NET TOTAL

ROOFPY AREA	
Lot	Area
LOT A	2500 sq
LOT B	1500 sq
LOT C-D	2500 sq

ROOFPY AREA C-D	
Lot	Area
LOT C-D	2500 sq
ROOFPY	1000 sq
NET TOTAL	1500 sq

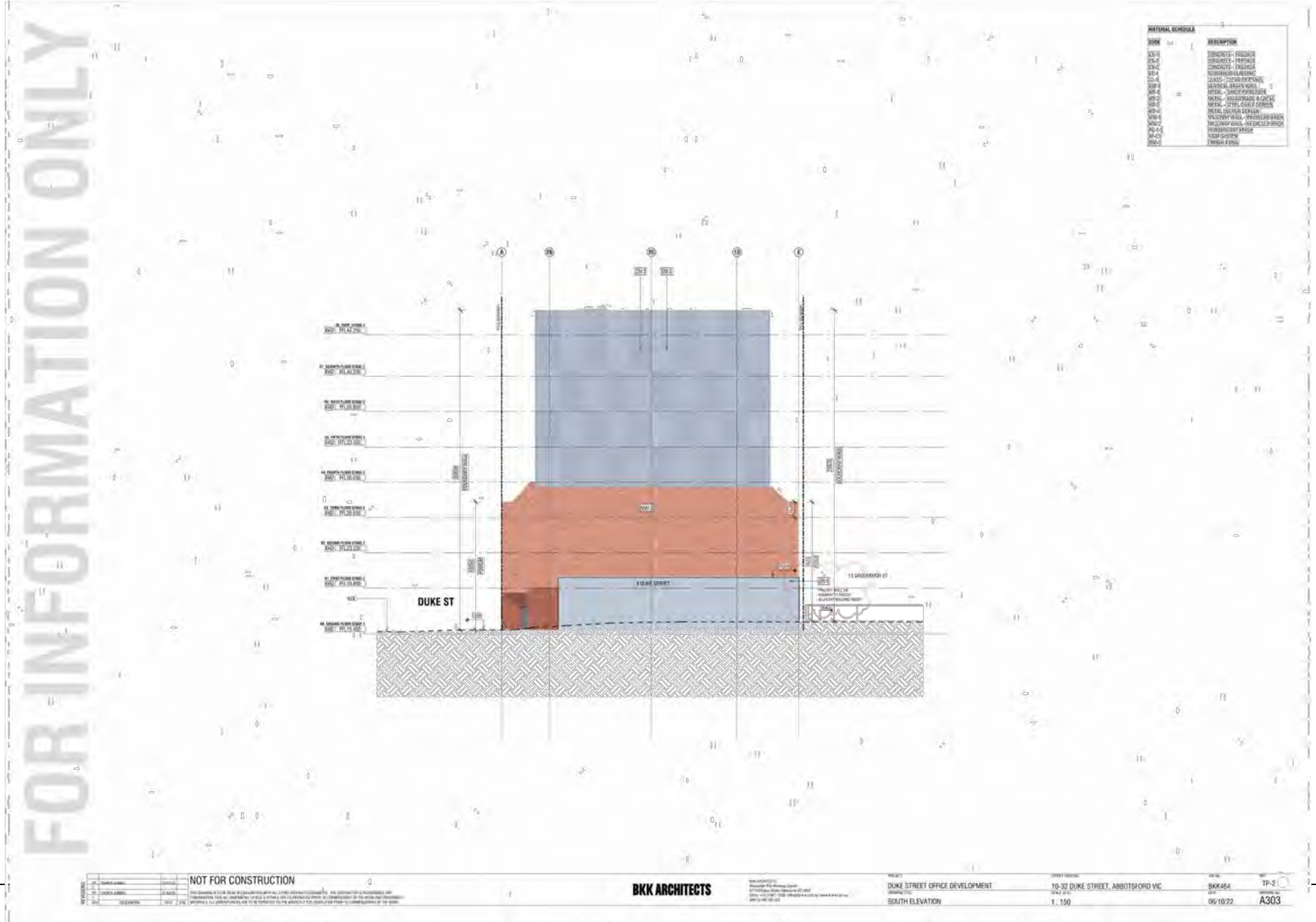
ROOFPY AREA	
Lot	Area
LOT A	2500 sq
ROOFPY	1000 sq
NET TOTAL	1500 sq

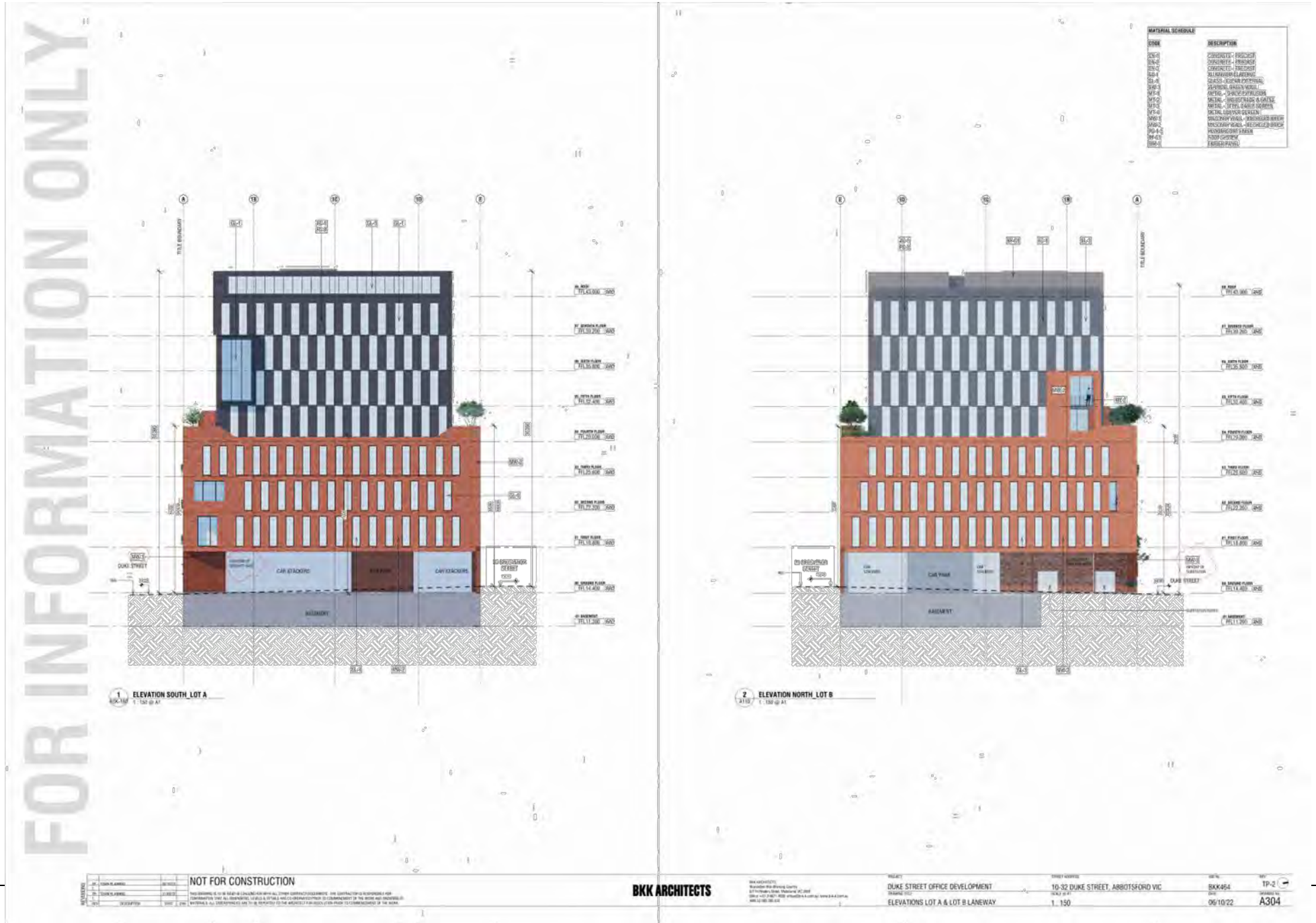
ROOFPY AREA	
Lot	Area
LOT A	2500 sq
ROOFPY	1000 sq
NET TOTAL	1500 sq













Architectural elevation drawing of the North Lot C. The drawing shows a multi-story building with a brick base and a grey upper section. The building features a series of vertical windows and a central entrance area. The drawing includes a grid system with letters A through E and numbers 1 through 11. The building is labeled "ELEVATION NORTH LOT C" at the bottom left. The drawing also includes a north arrow and a scale bar.

MATERIAL SCHEDULE	
CODE	DESCRIPTION
55-0	CERAMIC TILE - PAPER
55-1	55-2501 - MARBLE
55-2	CERAMIC TILE - PAPER
55-3	55-2502 - MARBLE
55-4	GLASS - CLEAR PAPER
55-5	GLASS - CLEAR PAPER
55-6	GLASS - CLEAR PAPER
55-7	GLASS - CLEAR PAPER
55-8	GLASS - CLEAR PAPER
55-9	GLASS - CLEAR PAPER
55-10	GLASS - CLEAR PAPER
55-11	GLASS - CLEAR PAPER
55-12	GLASS - CLEAR PAPER
55-13	GLASS - CLEAR PAPER
55-14	GLASS - CLEAR PAPER
55-15	GLASS - CLEAR PAPER
55-16	GLASS - CLEAR PAPER
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55-25	GLASS - CLEAR PAPER
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55-27	GLASS - CLEAR PAPER
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55-100	GLASS - CLEAR PAPER

[illegible]

FOR INFORMATION ONLY



Space Classification Legend

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- CIRCULATION
- LANDSCAPE
- OFFICE
- PARKING
- SERVICES
- STORAGE

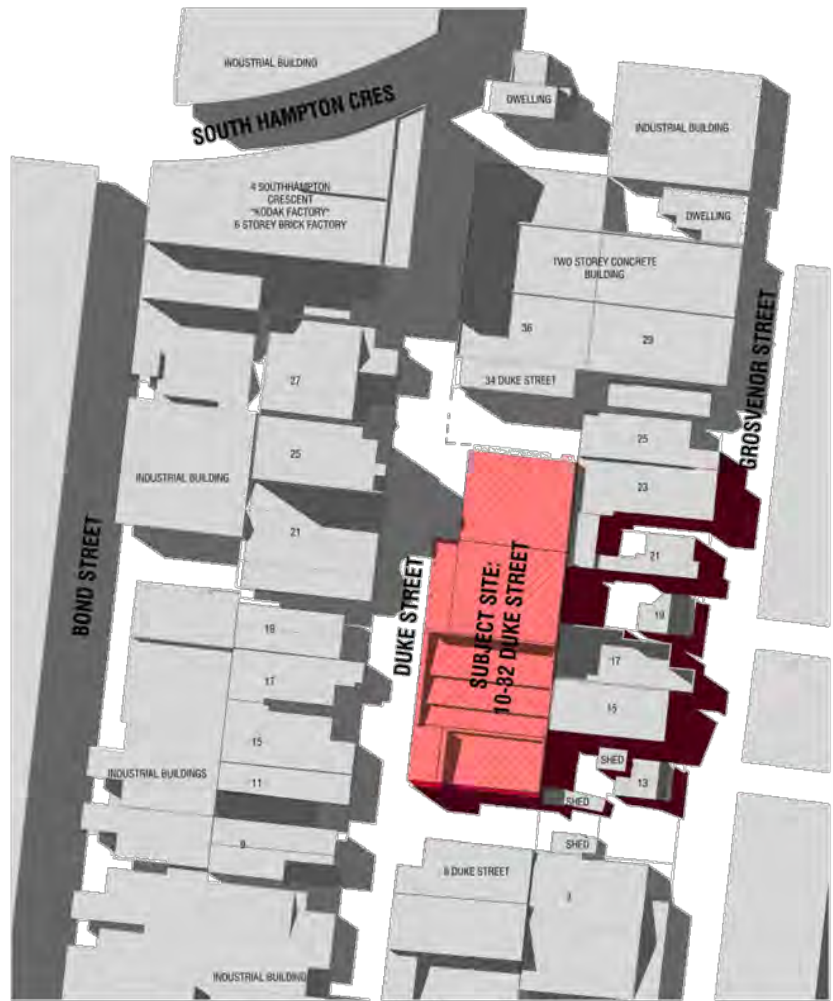
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CO-2	CONCRETE - PRECAST
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CO-97	CONCRETE - PRECAST
CO-98	CONCRETE - PRECAST
CO-99	CONCRETE - PRECAST
CO-100	CONCRETE - PRECAST



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FOR INFORMATION ONLY



1 EXISTING SHADOW DIAGRAM SEPT 22 3PM
1:1 600 G.A.



2 PROPOSED SHADOW DIAGRAM SEPT 22 3PM
1:1 600 G.A.

NOT FOR CONSTRUCTION	
DATE	06/10/22
BY	AS INDICATED
FOR	AS INDICATED

PROJECT	DATE	BY	FOR
10-32 DUKE STREET, ABBOTSFORD	06/10/22	AS INDICATED	AS INDICATED
SHADOW DIAGRAM SEPT 22 3pm	06/10/22	AS INDICATED	AS INDICATED

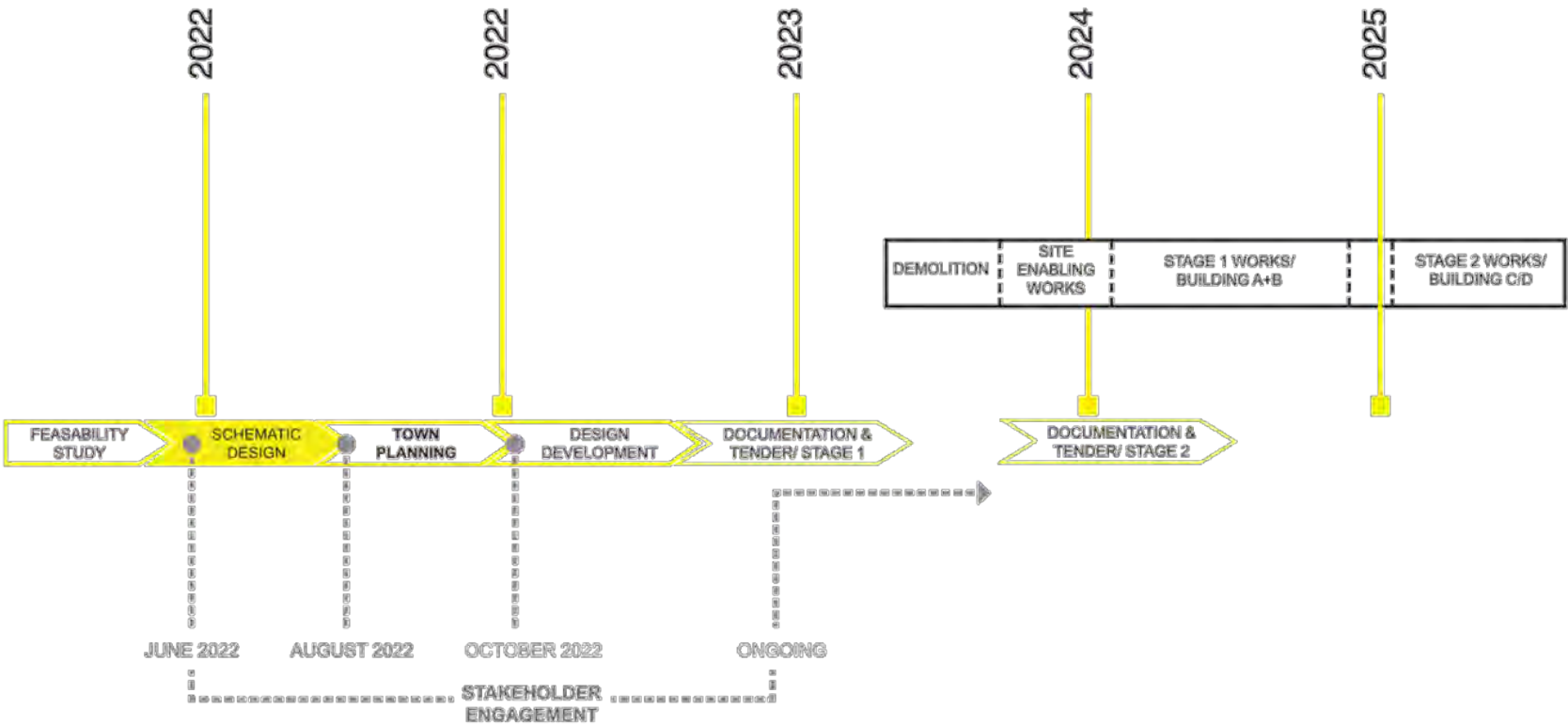


BKK Architects acknowledge the people of the Kulin Nation, Traditional Custodians of the land upon which we live and work. We pay our respects to all Elders past, present and emerging. We also recognise all Torres Strait Islander people.

At BKK, we acknowledge the Traditional Custodians of the sites of all our projects. Therefore, we recognise the Wurrundjeri people, the Traditional Custodians of Abbotsford and of the 10-32 Duke St site.



Project Time Line



ARCHITECTURAL STATEMENT

Architectural Statement

INTRODUCTION

The design of 10-32 Duke St has come out of detailed investigation and analysis of the rich cultural and social history of the area. The proposed design for 10-32 Duke St responds directly to the lively and diverse street which operates at a variety of scales all year round. This rich and diverse character has formed the basis for our proposal that fits sympathetically within the current industrial context of Duke St, whilst providing a set of buildings that stimulate the future development and character of the area whilst still building on the urban street engagement that currently exists.

WURUNDJERI ENGAGEMENT

As part of our design process, we engaged with the Wurundjeri Woi Wurrung Cultural Heritage Aboriginal Corporation in order to learn about the indigenous history of Abbotsford, The Yarra, or Birrarung, and how life was pre and post settlement.

We learnt about the significance of Birrarung (Yarra River), how it was a productive food bowl for the Traditional Owners and a place for congregation before, during and post colonisation. Within our design response we have tried to create moments that reference and pay respect to these stories told. From indigenous planting species, opportunities for integration of language and naming, to paving patterns reflective of the flowing Yarra.

We intend to continue our engagement with the Wurundjeri Woi Wurrung Cultural Heritage Aboriginal Corporation through the next stages of design so that we can continue to learn and imbed moments that reflect our understanding of building on country.

CONTEXT

The facades and typologies along Duke St are varied, consisting of predominately industrial masonry and steel buildings, with a few commercial offerings to the north of Duke St as well as the historic Kodak site that sits on the corner of Duke St and Southampton Crescent.

Masonry, whether exposed, rendered or painted brick, or concrete define the built form. There is a varied street wall condition along Duke St, with various setbacks and heights ranging from 1-6 levels. Steel and aluminium are also utilised in the upper-level forms to express the industrial/commercial nature of the area in lighter, more finely detailed forms.

DESIGN

The driving design agendas are to create a high performing building that has a key focus on sustainability and activation whilst integrating into its industrial context. The proposal acknowledges the existing context and built form of the site and its surroundings and intends to recognise this through the notion of re-use and repair. Recycling existing building materials where possible and ensuring the street scape retains the opportunity for public engagement through the generous pockets of urban landscape

The massing is set back to the east and west upper levels, creating a podium that offers more consistent street wall and provides opportunity for large landscaped terraces. The volume is then cut into a series of independent buildings, embracing the existing scale and grain of the Abbotsford context. The masonry street wall condition of Duke St is retained through the use of brick across all three buildings.

The separation of the building through these laneway cut-outs provide visual site permeability as well as access to light for the building users. It also offers landscapes opportunities at ground level that enhance the public realm and reduce heat island impacts.

The roof geometry references the industrial saw tooth profile that can be found within the area. The setback upper levels are intentionally recessive, moving away from the masonry language of the podium to a glass and metal façade with shading fins to protect from the western sun. Terraces are cut out of the façade, breaking up the volume of the upper levels whilst offering generous outdoor space and greenery.

STREETSCAPE

The ground floor frontage to Duke St is a mix of full height glazing, masonry brick and a series of landscaped planters that break up the mass and provide opportunities for respite and connection to nature. The entry to the tenancies is clearly articulated through a setback doorway with opportunities for signage on the adjacent masonry columns. The tenancies also offer areas of full height glazing and outlook onto the landscaped planters.

The main building entrances are also defined through the use of double height space, signage and setbacks creating a distinct, individual entry to each building.

EAST FACADE TREATMENT

The east facing façade of the building is presented in the same language to that of the Duke St facing elevation. The masonry podium wall is built to the boundary, with the laneway cut outs extended through above Ground level offering access to light and a shift in the top profile parapet/balustrade profile also offers a considered articulation to how it reads from Grosvenor St.

Similarity to the west the upper levels are recessed, and are glazed façade with metal shading fins. Upper-level terraces also offer views to the Yarra and break up the bulk of the façade.

LANDSCAPE

The existing streetscapes have patchy and non-cohesive street tree planting throughout Abbotsford, given it has traditionally been a light/medium industrial zone. Without a Council-initiated street tree planting, this project proposes to create a nature-based solution to the building façade on both east and west Elevations.

This will comprise a generous contribution of façade greening from these elevations for considerable impact at the neighbourhood scale higher up and with more detail and engagement at the street level. Living walls will populate the

vertical cores to full height, with planted and accessible private communal terraces from levels 1 and above. Planting will be diverse, with species selected for the right aspect and light conditions. Indigenous planting will be the predominate the selections. All façade greening will be maintained to a high standard. Junglady is a principal landscape consultant on the project to ensure the green facades are well planned, plants enabled to thrive, and maintenance effectively accounted.

BKK Architects

SITE RESEARCH

Site Location



- Subject Site: 10-32 Duke St, Abbotsford
- Victoria Street Activity Centre DDO

Indigenous History on the Yarra

The Wurundjeri-willam people of the Kulin Nation are the Traditional Owners of the land that is now known as the City of Yarra. Their relationship with the land extends back tens of thousands of years to when their creator spirit 'Bunjil' formed their people, the land and all living things.

The Kulin saw the land and the people as one continuum. Wurundjeri people called their river Birrarung, meaning 'river of mists', and it was central to their livelihood, their cultural life and their identity. They took their name from one of the trees that grew along the river - 'wurun' or manna gum, and 'djeri', a grub found in or near the tree. Colonists called the Wurundjeri the 'Yarra Tribe'.

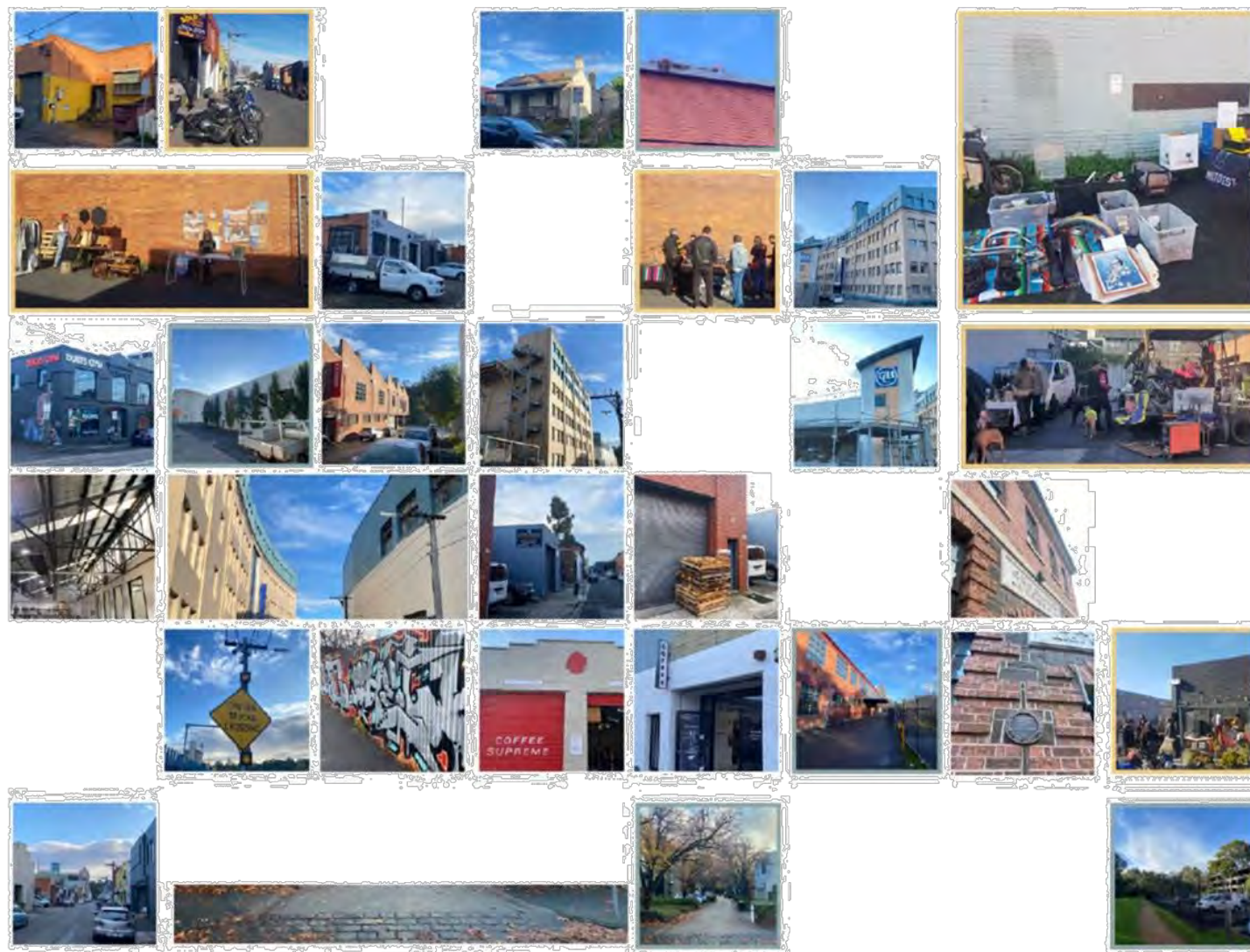
Wurundjeri dispossession of land took place not just through displacement, but also through disconnection. Land was sold, bush was cleared for the creation of roads and buildings, and wetlands were drained. Over time, even the course of the Yarra River was changed.



Evolution of Surrounding Area



Site Investigation



Today's Duke Street Precinct & Abbotsford



As the area was developed from native bush, to heavy industry through to suburban subdivision this reveals the layers of history. The variation and repetition of the landscape and human settlement is evident in the character of the area today; what remains of its industrial past is visible in a few key buildings within the immediate vicinity.



Presence of art, market and varies of activities



View from the Duke Street towards Yarra

Industrial Forms and Local Craftsmanship

How can we celebrate the robust materials and structural expression whilst embracing the legacy of the industrial past?

How can we use incorporate these ideas as we look towards a new low carbon future?



Nature Rewilding

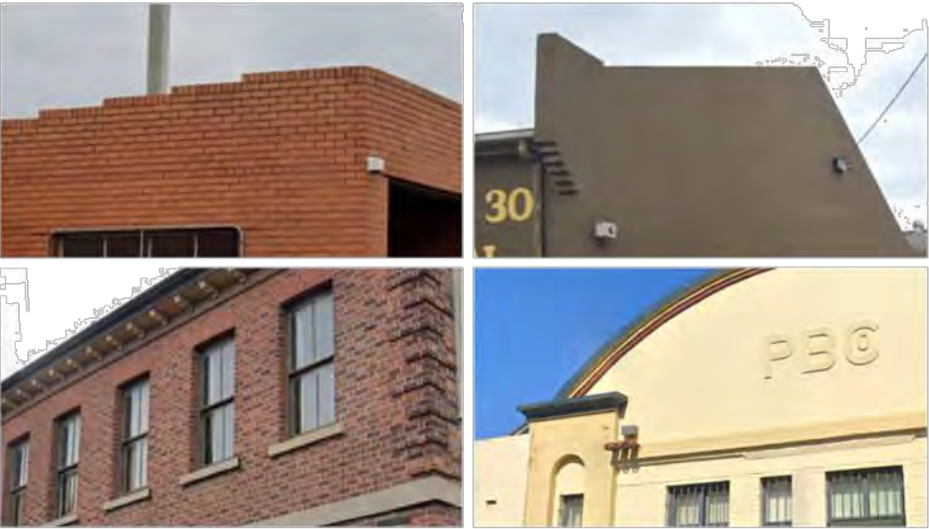


Nature in the immediate adjacency can be seen as largely fragmented and wild, interspersed with paved grounds and solid walls.

How can we incorporate ecological thinking to connect the variety and unexpected small pockets of greenery to build a greener urban environment and reduce heat island effect on the local area.

Materiality

Brick is the prevalent material in the surrounding context and a variety of details can be found, ranging from: Perforated, protruding, toothed, sloped sill, arches, bands of colored brick, painted brick, different tones of brick etc. Embracing local characters: roof pitches, parapet



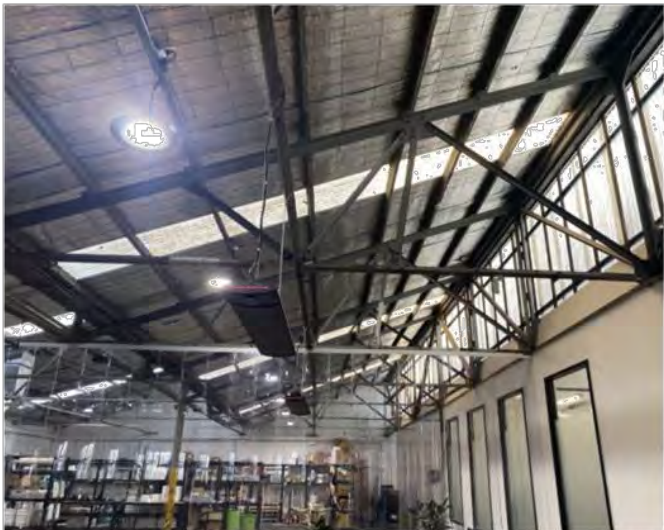
Geometric variation: sloped sill, arches, roof pitches, parapet



Colour of the bricks extracted from the surrounding context

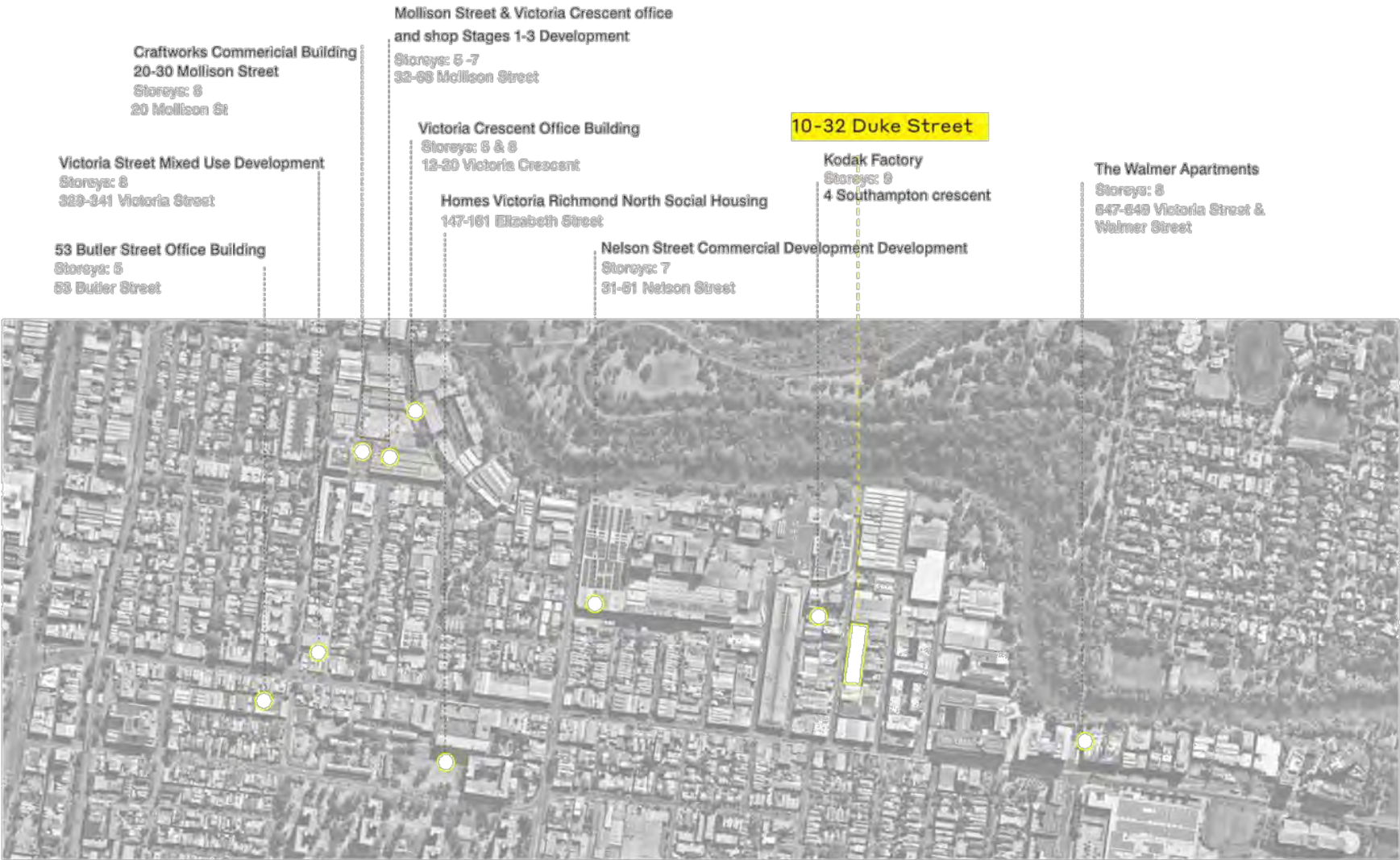
Reduce, Reuse, Recycle

Opportunities to reuse what is currently built on site, in the new building, allowing reference to the sites history



Bench made of recycle bricks from the old building

Surrounding Abbotsford Developments



Street Scape Activation

Autonomy of neighborhood activities



Local brewery



Commercial use of industrial warehouse



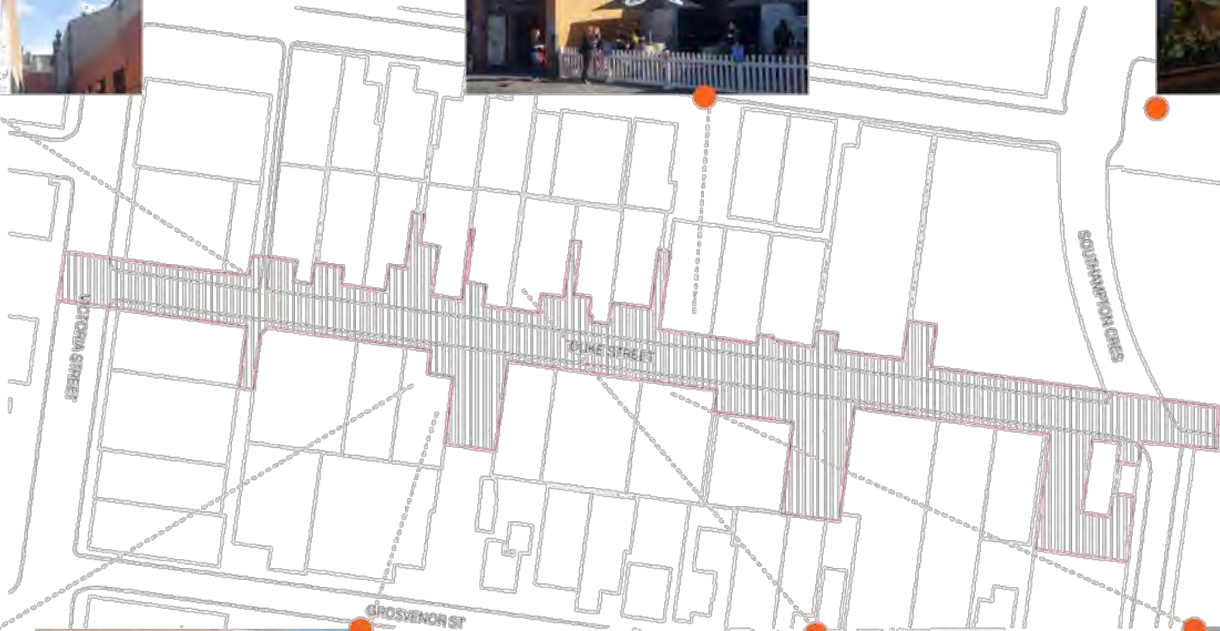
Weekend market and pop-up activities



Temporary structures, shelter and nook space



Life expand towards street side



PROPOSAL

Duke Street Streetscape Analysis

EXISTING CONDITIONS: EAST ELEVATION



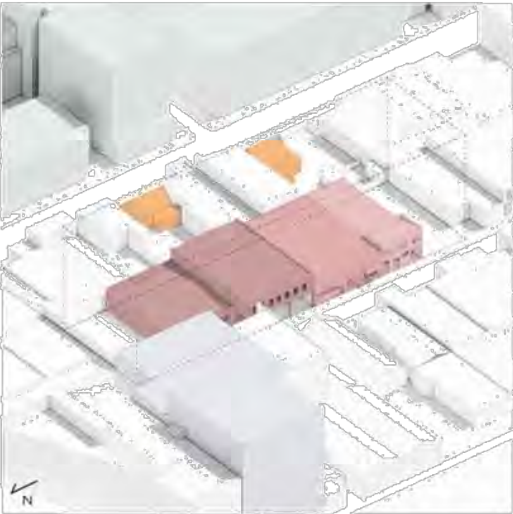
EXISTING CONDITIONS: WEST ELEVATION



PROPOSED DESIGN RESPONSE

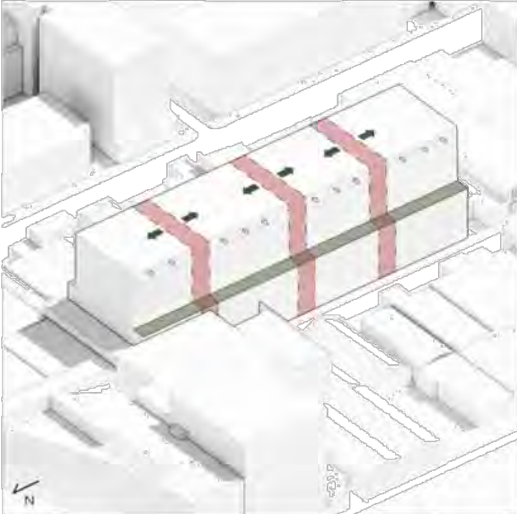


Context Response



Existing Conditions

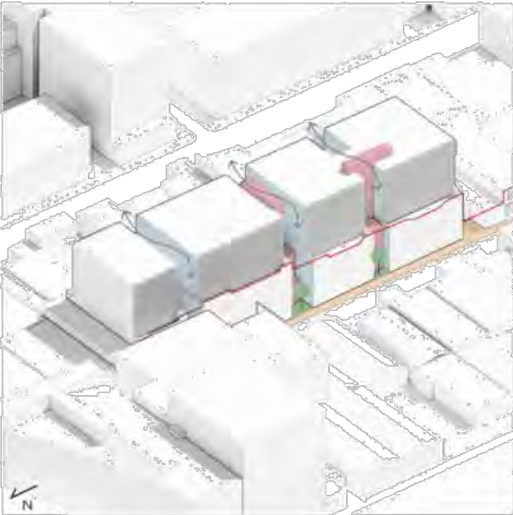
- Heritage Listed Building
- Existing Buildings on Site
- Existing 6-11 Storey Apartment
- Future 6-9 Storey Office



The geometry is set back to the east and west upper levels, creating a podium that offers more consistent street wall and provides opportunity for large landscaped terraces.

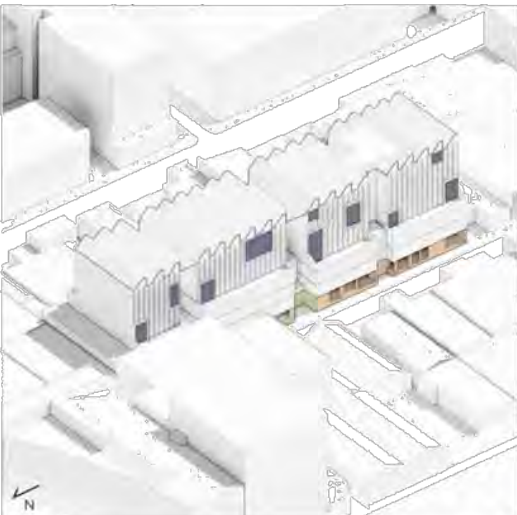
The volume is then cut into a series of independent buildings, embracing the existing scale and grain of the Abbotsford context.

● Setback & Terrace



The separation of the building through these laneways cut outs provide visual site permeability as well as access to light. It also offers landscapes opportunities at ground level that enhances the public realm.

- Cross Ventilation
- Podium Response
- Ground Activation
- Additional Light Access
- Landscape Opportunities



The roof geometry reference to the industrial saw tooth profile that can be found within the area. Terraces are cut out of the façade, breaking up the volume of the upper levels whilst offering generous outdoor space and greenery.

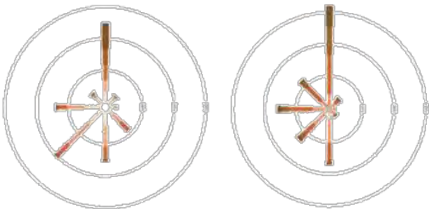
- Ground Activation
- Outlook

Orientation, Access and Outlook

Solar Orientation



Wind Direction



North/ South Prevailing Wind (Winter & Summer)

Views



1 West: Collingwood & Melbourne CBD



2 East: Yarra River & Bush Reserve

Design Principle

The driving design agendas are to create a high performing building that has a key focus on sustainability and activation whilst integrating into its industrial context. The proposal acknowledges the existing context and built form of the site and its surroundings and intends to recognise this through the notion of re-use and repair. Recycling existing building materials where possible and insuring the street scape retains the opportunity for public engagement through the generous pockets of urban landscape.

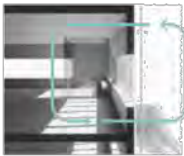


Sustainability
70% BESS Rating

The proposed building aims to surpass the 50% minimum BESS requirement and achieve 70%. Key design moves are to echo the client brief as well as Yarra City Council's SDAPP sustainability standard.



Solar Roof and Skylight
Sawtooth roof profiles offer ideal angle for solar PV panel installation, enable on-site renewable energy generation, inviting diffuse sunlight into the building.



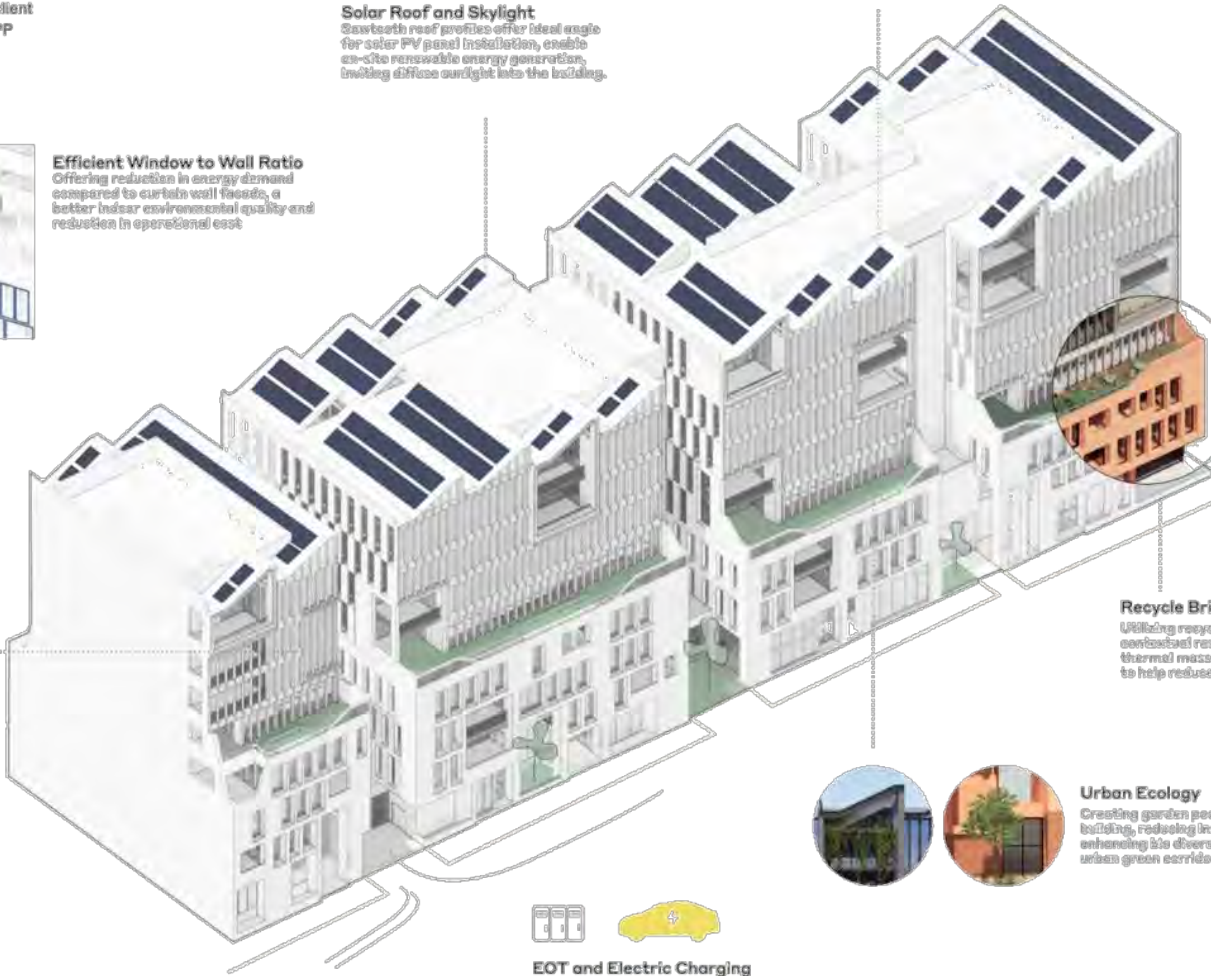
Indoor Environment Quality
Adequate day light control and Combination of active and passive ventilation helps to create good indoor environmental quality



Efficient Window to Wall Ratio
Offering reduction in energy demand compared to curtain wall facades, a better indoor environmental quality and reduction in operational cost



High Performance Glazing & Cross Flow Ventilation
High performing glazing to create better air and temperature control of indoor environment



Recycle Bricks
Utilising recycle bricks as not just contextual response, it offers great thermal mass and low embodied energy to help reduce overall CO2 emission.

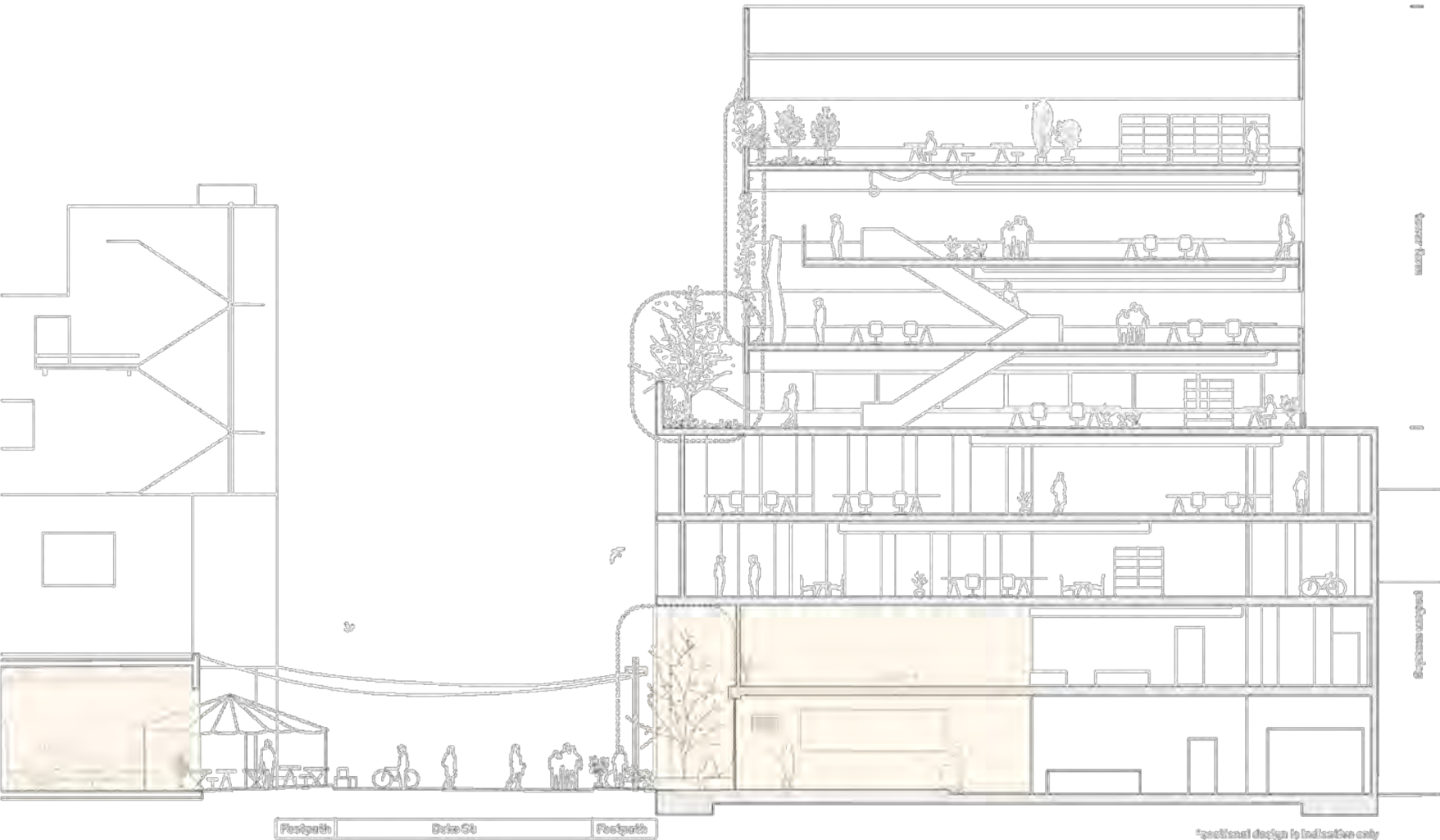


Urban Ecology
Creating garden pockets through out the building, reducing indoor temperature, enhancing bio diversity and connecting urban green corridor.

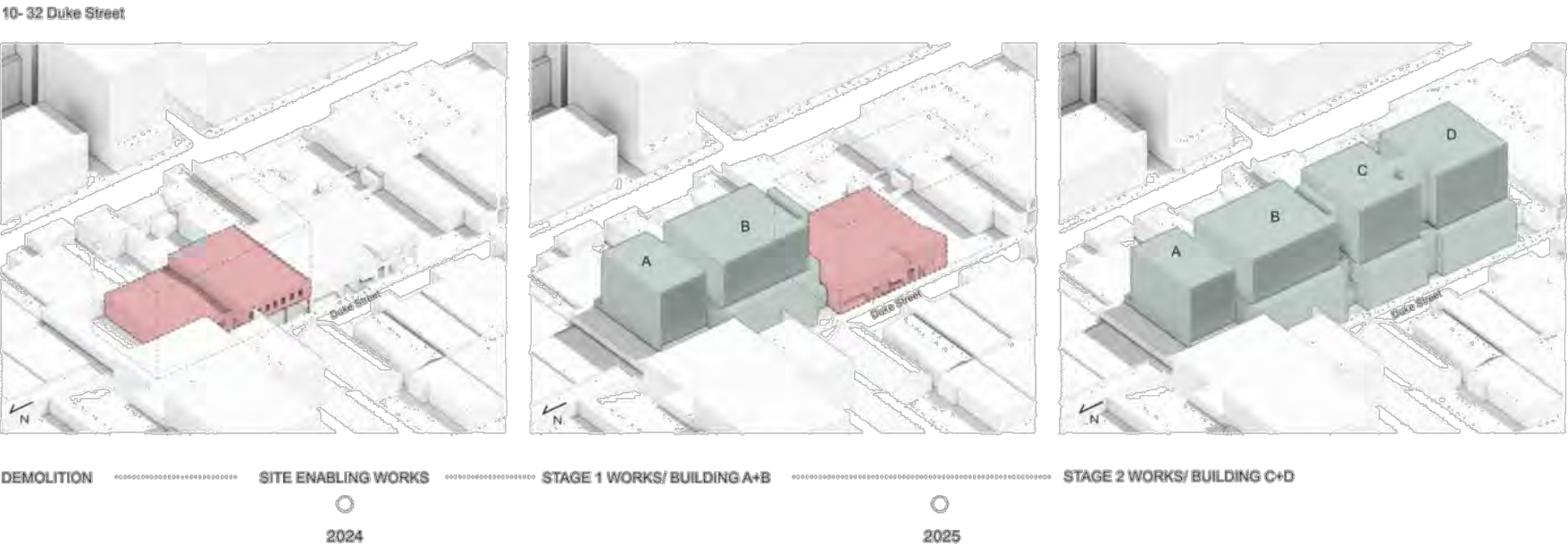


EOT and Electric Charging
Public corridor, on site end of trip facilities and charging options encouraging sustainable and renewable transport

Duke Street Activation



Construction Stages



RENDER VIEWS

Aerial West Elevation



Aerial Looking South



Aerial looking North



Aerial East Elevation



Street View Looking East From Grosvenor St



Street View Looking South 01



Street View Looking South 02



Street View Looking South 03



Street View Looking South 04



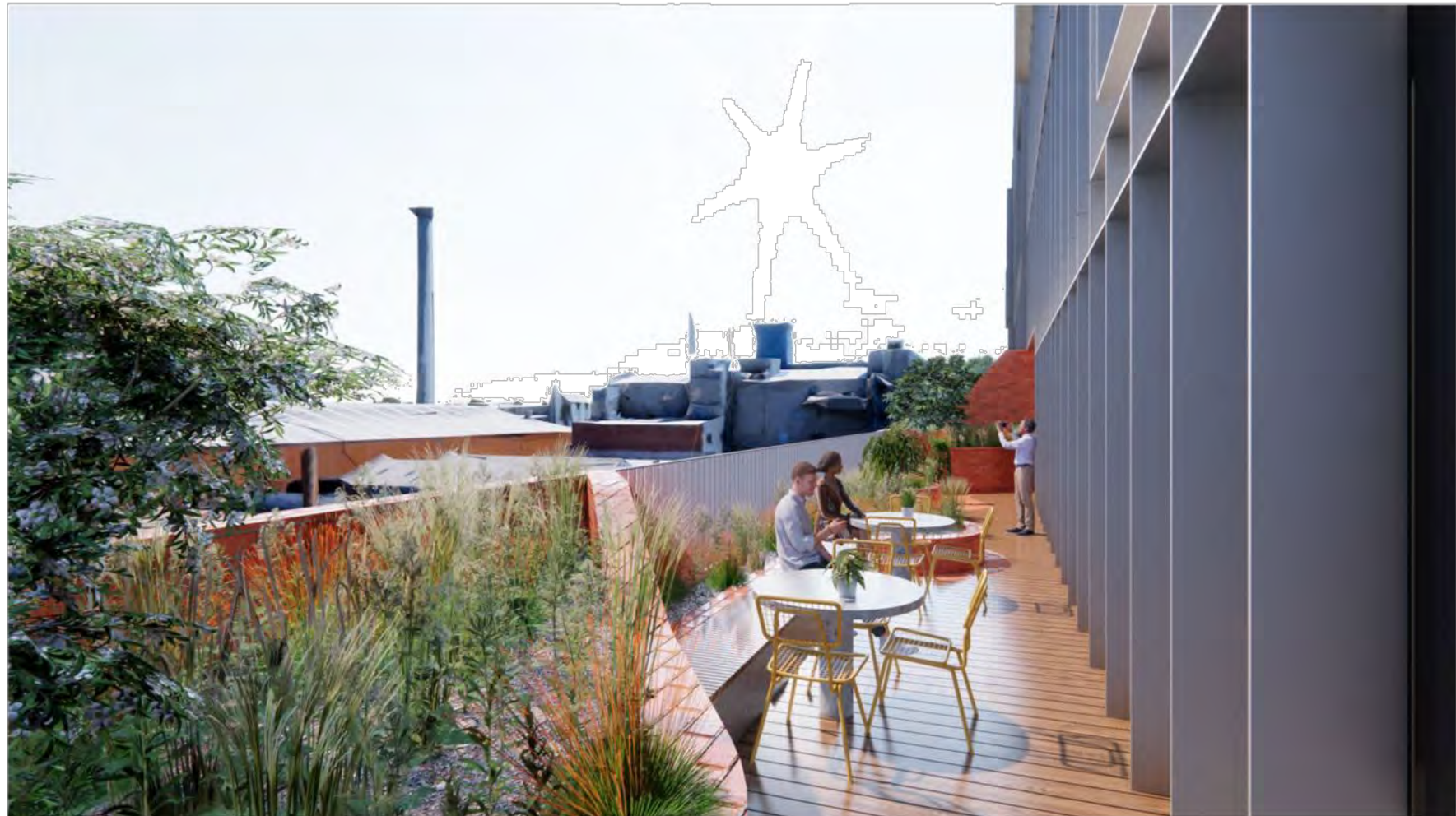
Street View Looking South 05



Street View Looking North 01



Terrace View



Terrace View 02



JUNGLEFY

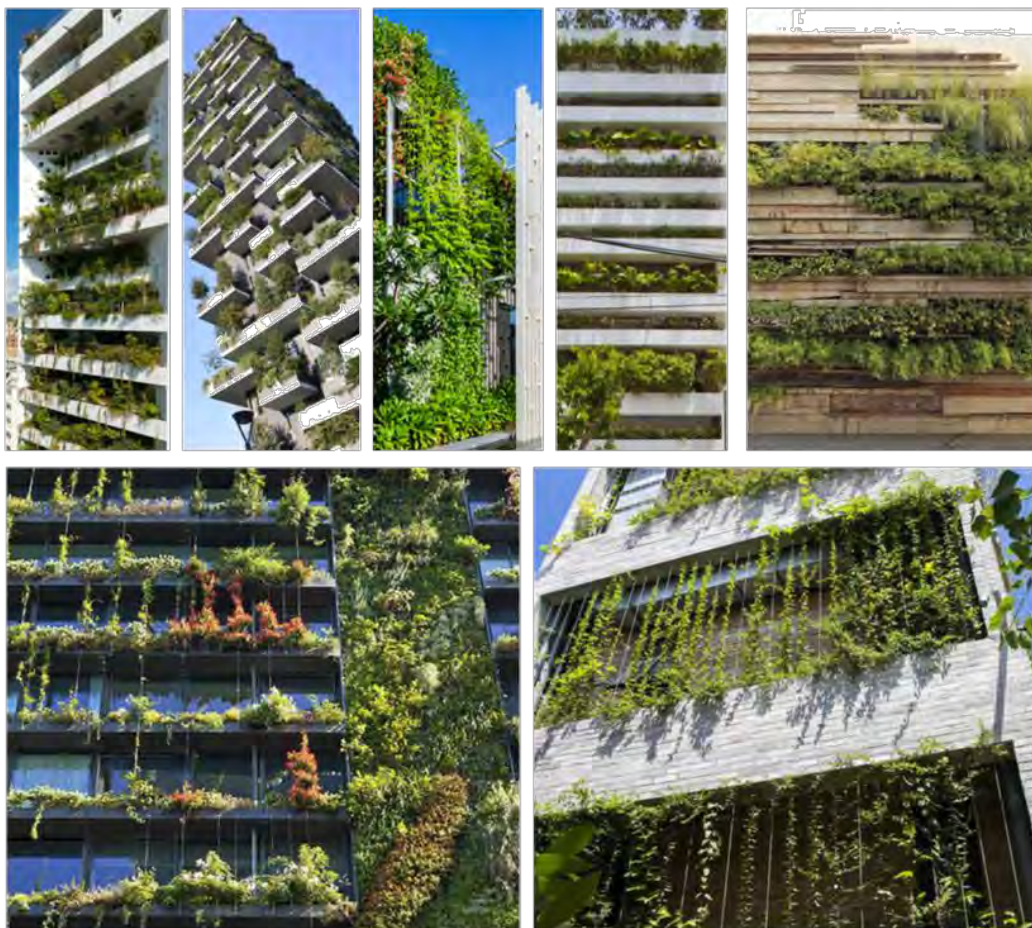
**LOCI DESIGN
COLLECTIVE**



Site Plan (with references for sections and elevations)

Duke Street ABBOTSFORD MELBOURNE
PLANNING PERMIT APPLICATION LANDSCAPE REV C PLANNING APPLICATION 30/08/22

Nature-based solutions | Project Objectives



'To design a cohesive green facade that assists the architectural design of new and existing. This establishes many sustainability initiatives and considerably impacts the current urban Abbotsford environment.'

Explore sustainable initiatives, including:

1. Urban greenery
2. Air quality improvement
3. Water use efficiency
4. Landscape and architecture facade amalgamation.
5. Urban heat island effect reduction
6. Biodiversity and habitat provision (especially from trees).
7. Stormwater reduction
8. Social amenity such as recreation and mental well-being
9. Urban food production
10. Greening of the public domain.

Objectives include:

- Construct a precedent for urban green buildings in Australia that move beyond green impact only.
- Ensure high-quality urban habitat for people and urban ecology.
- Extend the landscape experience from the public domain to the private open space and internal working environment.
- Contribute to better mental well-being by providing a nature based solution that addresses the street as well as the private commercial tenancies.
- Create a landscape that can be experienced at different scales. To see the beauty up close in detail to the impact of a green building on a large scale from Duke Street.
- Create many green breakouts and communal spaces throughout the commercial building.
- Manageability, maintenance and access are designed to be as efficient as possible.

Planting Concept | Planting Objectives + Concept



Trees to:

- Provide drama, scale and presence from the street.
- Provide a 'Nature Based Solution' to a highly urban area.
- Provide greenery to look out onto from internal spaces.
- Supplement any habitat potential that the green facade provides.
- Provide shade for external breakout spaces and a sense of green generosity.



Cascading Plants to:

- Cascading plants have proven to contribute greatly to green facades. Complement climbing plants;
- Tumble down and cloak façade; and
- Exaggerate height, accentuate form and vertical planes.
- Hanging vertically to take unique opportunity for space.
- Contributes most greenery to the facade.
- Large diversity of species, including natives and cultivars, low shrubs and cascading species.

Planting Concept | Planting Design

SCALE



- The design is based on a series of pixels that increase in size as the building's elevation increases. It is appreciated by visitors within the building and also, further away, when viewed at distance in the public domain.
- This use of pixels works with the modularity of the soil cell system for this living wall.
- The varied scales of how the living wall is experienced is an important design criteria. It is intended for the living walls to be viewed up close (micro) and from a distance (macro) across the street or further outwards within the view catchment.
- At scale or from a distance the diversity is lost, it makes sense for a bolder, simpler planting design as it can be perceived more easily from afar.

DIVERSITY & ENGAGEMENT



- Diversity also enables a greater profusion of species therefore enabling a richer experience.
- Diversity not only provides interest and curiosity for human interaction, but also ecologically for visiting or resident insects and pollinators.
- Lighting at night will be another way of creating effects that can emphasise the modular and pixel ordering for the design.

CONNECTION AND URBAN HABITAT



- Green walls and other living architecture can play a significant role in improving air quality, mitigating the impacts of the Urban Heat Island effect, as well as providing a positive contribution to local biodiversity.
- This is done by creating wildlife refuges and increasing connectivity between any existing habitat.
- This is particularly evident at increased elevations of high rise density development, where vegetation can be integrated above the 'tree line'.
- Living Infrastructure provides increased habitat and food sources within the built environment for avifauna, terrestrial fauna and invertebrates all of which play their role in an urban ecology context.
- An Integrated Pest Management (IPM) will be used to eliminate or minimise the use of pesticides by encouraging the proliferation of beneficial predatory insects (Lacewings/ Lady Beetles/Spiders, Predatory Wasps).
- This project will not be contributing to 'Bee Colony Collapse disorder'.

PLANT SELECTIONS



- The living walls will be predominantly native with some additional exotic hardy plants for long flowering periods, and support for pollinators.
- There are many examples of living walls with native plant species overseas, of relevance are walls in California and Spain with similarly dry climates to Melbourne. These are areas from which we will select exotic species.
- Due to the enormous diversity in plant species within the Melbourne and Port Philip Bay, with a diversity of flower, texture and form can be explored to give a living wall of a unique and distinct character.
- An predominance of a native species living wall has the benefits of having a broad range of species that support the urban ecology, can handle extremes of heat and are otherwise resilient after establishment.
- Most Australian plants are adapted to high sun exposure, hence the smaller leaves and compact form. As a consequence, the facade suits this type of planting.

Nature-based solutions | Green Facade Typologies

TYPE 1- MODULAR LIVING WALL CELLS



- Vertical green modules composed of engineered soil or planting media;
- Modules are 500mm x 500mm x 130mm deep.
- Modules are held together with a lightweight steel frame; Irrigation is integrated and concealed.
- Irrigation is from the top and water caught in a drip tray every four modules down;
- Modules are pre grown and replaced if necessary;
- Suitable for plant tube stock; through to 200mm pot size which creates plant cost supply efficiencies;
- A wide range of species can be used but are generally smaller groundcovers, climbing plants and small shrubs;
- Plants need to be staggered to ensure taller plants are lower down to avoid overshadowing;
- Use colour, tone and texture to create visual interest for the façade;
- Location of planting determined by microclimate and environmental zones.
- Able to withstand 2-4 weeks without irrigation which removes the risk of catastrophic failure. This also depends on facade aspect.

TYPE 2- RECESSED PLANTERS



- Recessed planters to create the forms to integrate with the architecture.
- Contributes most greenery to the facade.
- Large diversity of species, including natives and cultivars, low shrubs and cascading species..
- Soil nominally 500mm deep.
- Permanent stainless steel fall arrest system for maintenance contractors beyond the balustrade line.

Nature-based solutions | Green Facade Typologies

TYPE 1- TREE PLANTERS



There are a number of floors that will support small trees. For consistency, the soil volumes will be between 4 m³ and 6m³ of high-quality medium per tree.

Species selection will be suitable for their environments according to the aspect, available sunlight, growth rate and form. All trees will have a platypus tree rootball securing system.

TYPE 2- TENSIONED STEEL CABLES - VINES



- Planter boxes with high performance growing medium;
- Planter boxes vary in size on spatial requirements, installation, horticultural requirements and fixing.;
- Irrigation is integrated and concealed;
- Planter boxes can be installed on the slab edge, fixed to a lightweight frame or suspended from tensile cables;
- Climbing species ideally are planted to allow up to two floor levels;
- Cable systems are varied and flexible. They should all be stainless steel 316 such as Jakob. It has been proven that 150mm mesh gives the best vine and climber coverage.

Landscape | Public Domain

GF and Public Domain



1. Street level planters with 600mm depth to engage with public domain and provide a consistent character along building frontage, 400mm facing consistent with seats and 200mm set-down.
2. Tall shrubs in raised planters with 400mm depth at front and raked level to 800mm at back. Seating along street frontage provided within these green alcoves.
3. In-situ sealing with place defining finishes, by architects.
4. Tree as a focus between buildings in deep soil. On grade accessible garden addressing street. Typical custom seating and open joint paving for drainage and create an informal, relaxed character.
5. Proposed streetscape with new kerb extensions for street tree planting and consolidated streetscape paving to City of Yarra standards. Tree selection by Council.



Landscape | Plans

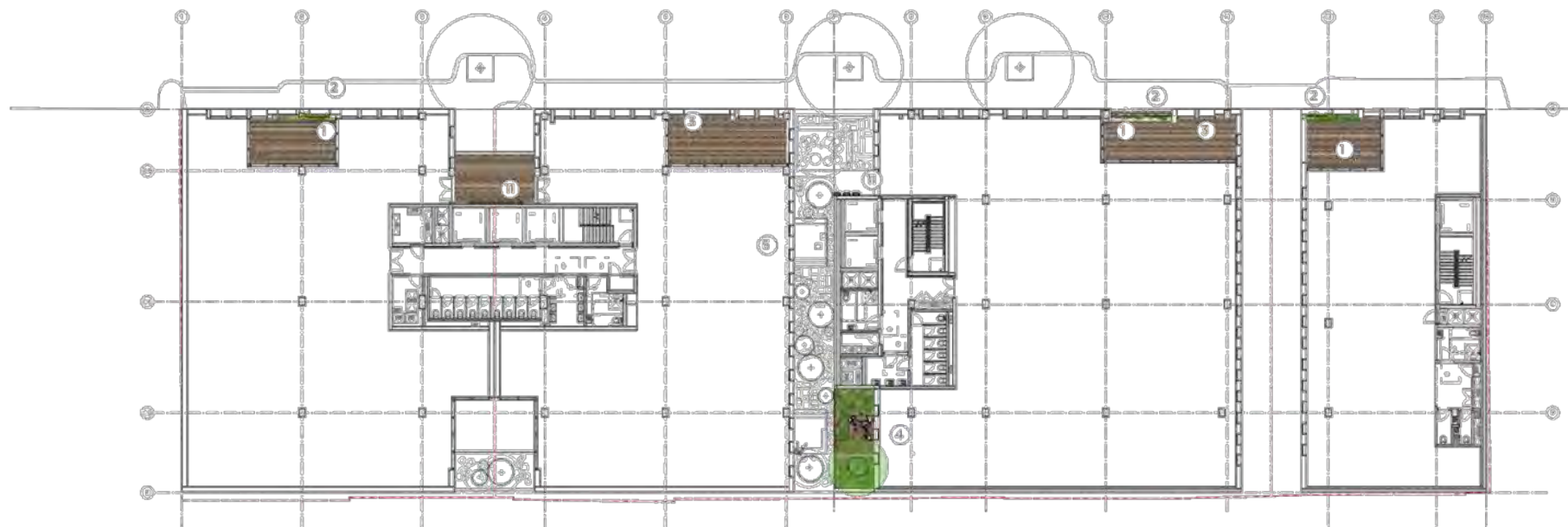
L1



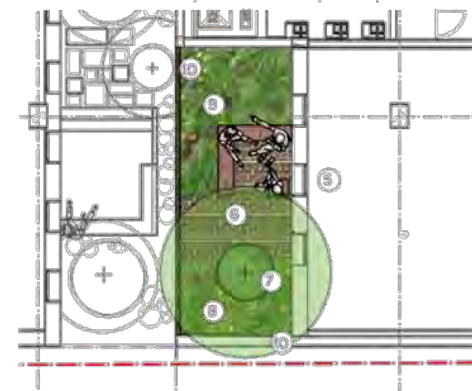
1. Communal terrace planters 1000mm depth to act as balustrades.
2. Tensioned vertical stainless steel cables for vines partially across terrace to create shade and a green outlook. Low planting continues through rest of planter, with cascading species both externally and internally. Species selected for different growing conditions.
3. Terrace without planter frontage to enable tenant engagement with the views and public domain.
4. Tree planter on eastern facade with large terrace communal space. Tree with raised planter from 1000mm depth and balustrade in front, adjacent to seating edge. Maintenance by tethered line to hard-point by specialised contractor.
5. Podium communal space with access from two points.
6. Paved flush courtyards step up to 400mm depth garden space and options for 'garden sitting'.
7. Wind tolerant clumping bamboo species in generous volume pop up planters resting on open soil cells and with rootball tapering.
8. Low shade tolerant planting between planter
9. Fixed seating options for tenants within courtyards.
10. Safety balustrade at both end of podium.



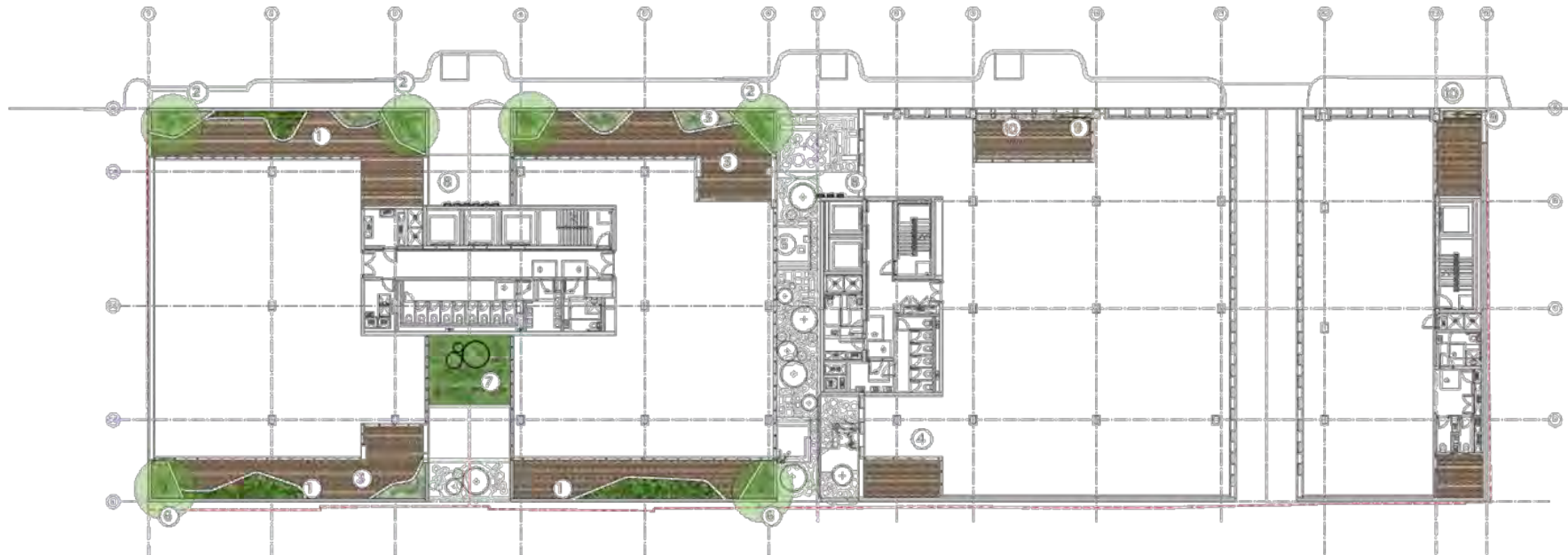
Landscape | Plans L2



1. Communal terrace planters 1000mm depth to act as balustrades.
2. Tensioned vertical stainless steel cables for vines partially across terrace to create shade and a green outlook. Low planting continues through rest of planter, with cascading species both externally and internally. Species selected for different growing conditions.
3. Terrace without planter frontage to enable tenant engagement with the views and public domain.
4. Tree planter on eastern facade with large terrace communal space. Tree with raised planter from 1000mm depth and balustrade in front, adjacent to seating edge. Maintenance by tethered line to hard-point by specialised contractor.
5. Podium communal space with access from office.
6. Paved flush courtyards step up to 400mm depth garden space and options for 'garden sitting'.
7. Small tree growing in open pop up planter of 400mm depth roof garden soil.
8. Plant selections using low indigenous species adapted to half shade and overshadowing.
9. Fixed seating options for tenants within courtyards.
10. Safety balustrade at both end of podium.
11. Full height jungle living wall on core for contribution to public domain greening.



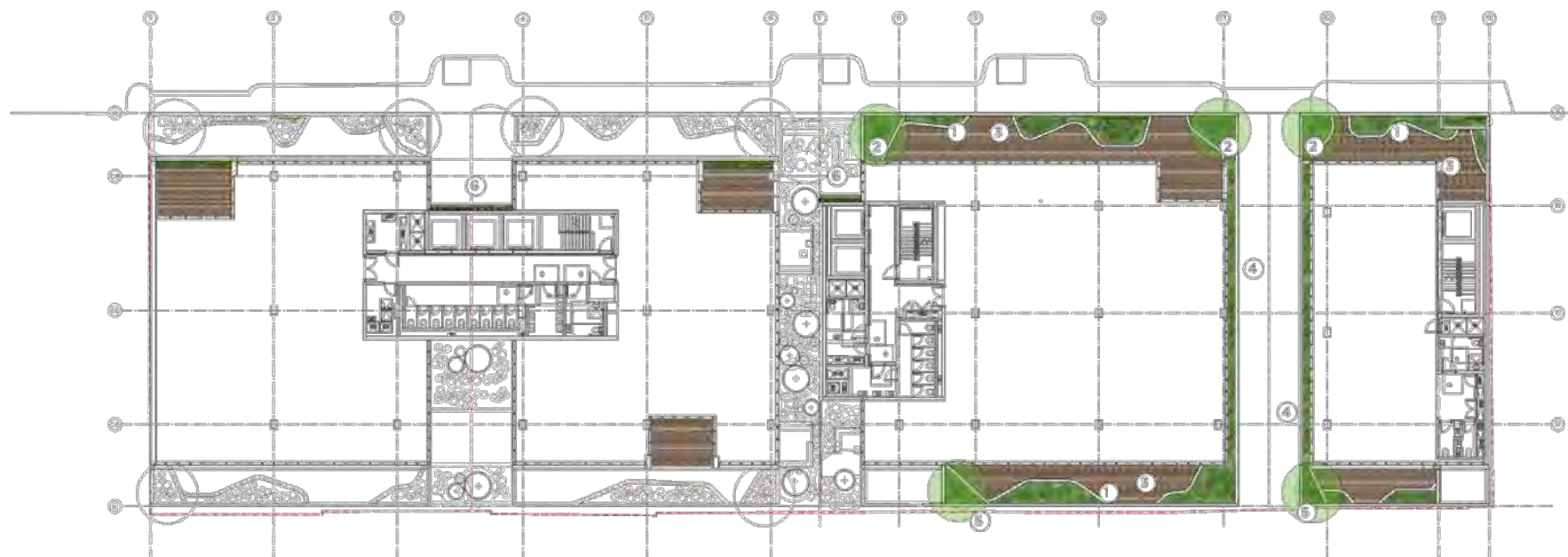
Landscape | Plans L3



1. Communal terraces with low planting and seating edges.
2. Pop up tree planters with small tree species adaptable to western exposure. 1m tall for sufficient soil volume to have presence from the public domain.
3. Outdoor spaces of different sizes for multiple and flexible use. Also staging point for rope drop access to facade above.
4. Terrace without planter frontage to enable tenant engagement with the views and public domain.
5. Podium roof garden with larger plants in raised open containers. This garden is non accessible with locked entry for maintenance only. Soil depth generally 300mm, subject to slab loading.
6. Pop up tree planters with small tree species adaptable to eastern exposure. 1m tall for sufficient soil volume.
7. Small tree growing in open pop up planter of 400mm depth roof garden soil.
8. Full height Junglesy living wall on core for contribution to public domain greening.
9. Tensioned vertical stainless steel cables for vines partially across terrace to create shade and a green outlook. Low planting continues through rest of planter, with cascading species both externally and internally. Species selected for different growing conditions.
10. Communal terrace planters 1000mm depth to act as balustrades.

- All planters will be on a centrally controlled intelligent irrigation system.
- All planters are not accessible to anyone apart from qualified maintenance staff. Fall restraints will be provided, however most maintenance will be possible from the adjacent floor level, with the exception of the living walls and planters within communal terraces will need occasional inspection from external facade.
- Planter boxes vary in size on spatial requirements, installation, horticultural requirements and fixing.
- Planters are located outside of the private terrace zones as much as possible to enable ease of access for maintenance.

Landscape | Plans L4

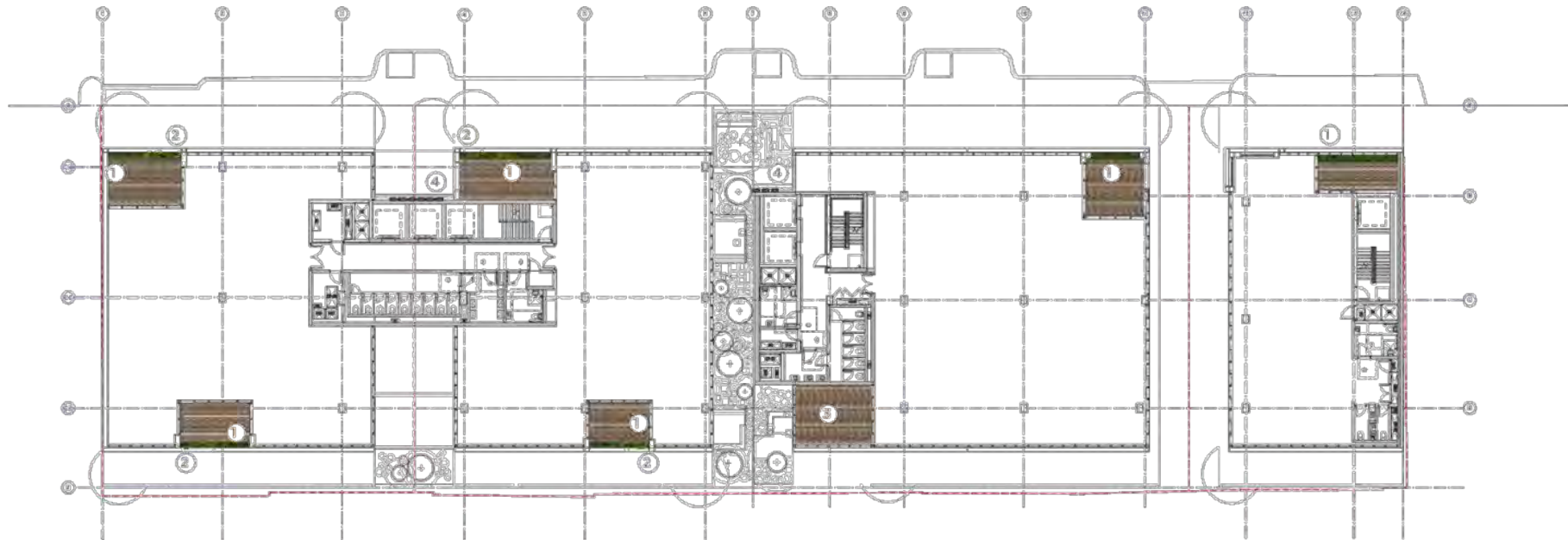


1. Communal terraces with low planting and seating edges.
2. Pop up tree planters with small tree species adaptable to western exposure. 1m tall for sufficient soil volume to have presence from the public domain.
3. Outdoor spaces of different sizes for multiple and flexible use. Also staging point for rope drop access to facade above.
4. Linear planters along slab edge with shade and wind tolerant cascading species.
5. Pop up tree planters with small tree species adaptable to eastern exposure. 1m tall for sufficient soil volume.
6. Full height Junglefy living wall on core for contribution to public domain greening.

- All planters will be on a centrally controlled intelligent irrigation system.
- All planters are not accessible to anyone apart from qualified maintenance staff. Fall restraints will be provided, however most maintenance will be possible from the adjacent floor level, with the exception of the living walls and planters within communal terraces will need occasional inspection from external facade.
- Planter boxes vary in size on spatial requirements, installation, horticultural requirements and fixing.
- Planters are located outside of the private terrace zones as much as possible to enable ease of access for maintenance.

Landscape | Plans

L5

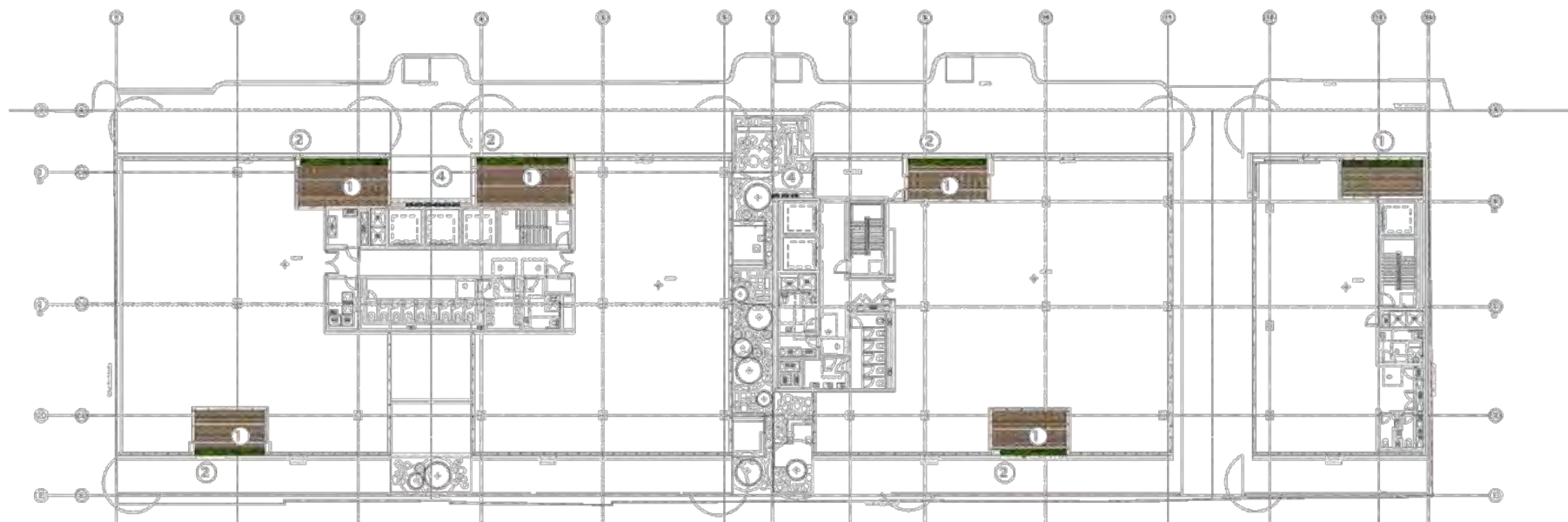


1. Communal terrace planters 1000mm depth to act as balustrades.
2. Tensioned vertical stainless steel cables for vines partially across terrace to create shade and a green outlook. Low planting continues through rest of planter, with cascading species both externally and internally. Species selected for different growing conditions.
3. Terrace without planter frontage to enable tenant engagement with the views and public domain.
4. Full height Jungley living wall on core for contribution to public domain greening.
 - Planters accessed internally for maintenance by specialised contractors. Occasional rope drop maintenance required external from davit arm at level 4 terrace.
 - Refer to planting and landscape performance specification for further detail.

- All planters will be on a centrally controlled intelligent irrigation system.
- All planters are not accessible to anyone apart from qualified maintenance staff. Fall restraints will be provided, however most maintenance will be possible from the adjacent floor level, with the exception of the living walls and planters within communal terraces will need occasional inspection from external facade.
- Planter boxes vary in size on spatial requirements, installation, horticultural requirements and fixing.
- Planters are located outside of the private terrace zones as much as possible to enable ease of access for maintenance.

Landscape | Plans

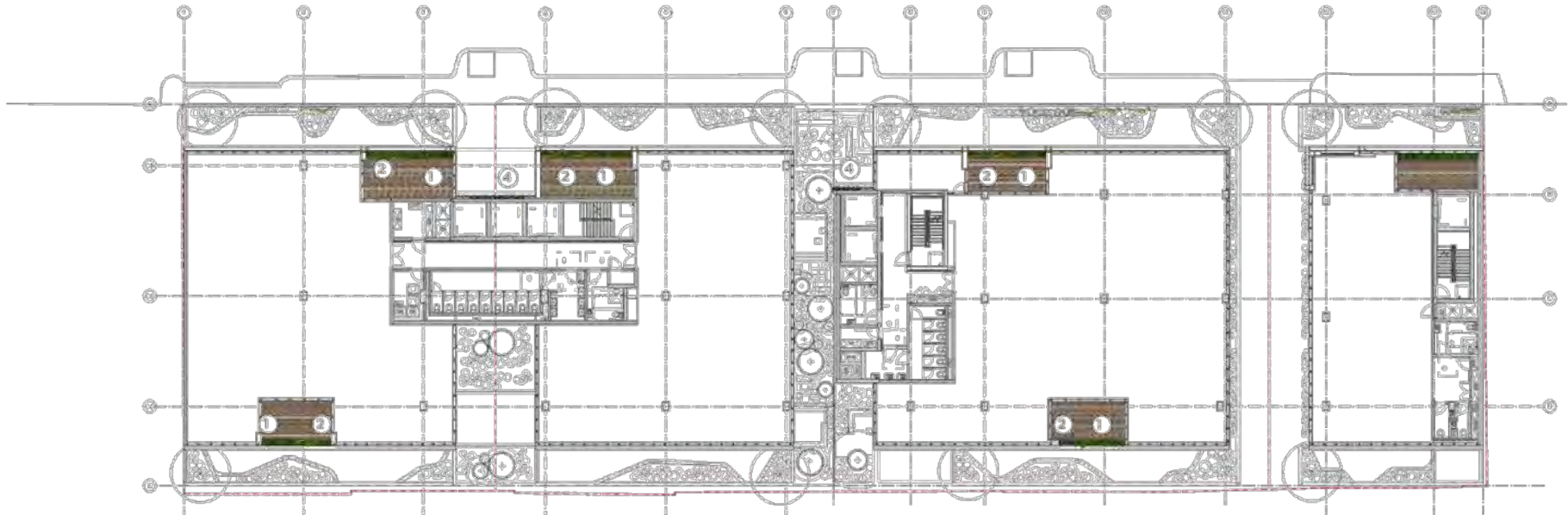
L6



1. Communal terrace planters 1000mm depth to act as balustrades.
 2. Tensioned vertical stainless steel cables for vines partially across terrace to create shade and a green outlook. Low planting continues through rest of planter, with cascading species both externally and internally. Species selected for different growing conditions.
 3. Terrace without planter frontage to enable tenant engagement with the views and public domain.
 4. Full height Junglefy living wall on core for contribution to public domain greening.
- All planters will be on a centrally controlled intelligent irrigation system.
 - All planters are not accessible to anyone apart from qualified maintenance staff. Fall restraints will be provided, however most maintenance will be possible from the adjacent floor level, with the exception of the living walls and planters within communal terraces will need occasional inspection from external facade.
 - Planter boxes vary in size on spatial requirements, installation, horticultural requirements and fixing.
 - Planters are located outside of the private terrace zones as much as possible to enable ease of access for maintenance.

Landscape | Plans

L7



1. Communal terrace planters 1000mm depth to act as balustrades.
2. Tensioned vertical stainless steel cables for vines partially across terrace to create shade and a green outlook. Low planting continues through rest of planter, with cascading species both externally and internally. Species selected for different growing conditions.
3. Terrace without planter frontage to enable tenant engagement with the views and public domain.
4. Full height Jungley living wall on core for contribution to public domain greening.

- All planters will be on a centrally controlled intelligent irrigation system.
- All planters are not accessible to anyone apart from qualified maintenance staff. Fall restraints will be provided, however most maintenance will be possible from the adjacent floor level, with the exception of the living walls and planters within communal terraces will need occasional inspection from external facade.
- Planter boxes vary in size on spatial requirements, installation, horticultural requirements and fixing.
- Planters are located outside of the private terrace zones as much as possible to enable ease of access for maintenance.

Landscape | Sections Greening Typologies

Podium

Section 01



1. Raised garden areas above adjacent floor level with access from door (refer to plan).
2. Bamboo in large containers between building blocks.
3. Open bamboo containers resting on soil cells over garden medium (to enable root access from bamboo. Bamboo may need additional rootball securing).
4. Low planting between bamboo. Paving to garden area as shown on plan.
5. Seating in outdoor terrace at office floor level.
6. Tree planters on level 4 terrace (1m depth behind building palisade).
7. Level 2 private landscape terrace.

Section 02



- All planters will be on a centrally controlled intelligent irrigation system.
- All planters are not accessible to anyone apart from qualified maintenance staff. Fall restraints will be provided, however most maintenance will be possible from the adjacent floor level, with the exception of the living walls and planters within communal terraces will need occasional inspection from external facade.
- Planter boxes vary in size on spatial requirements, installation, horticultural requirements and fixing.
- Planters are located outside of the private terrace zones as much as possible to enable ease of access for maintenance.

Landscape | Sections Greening Typologies Facade

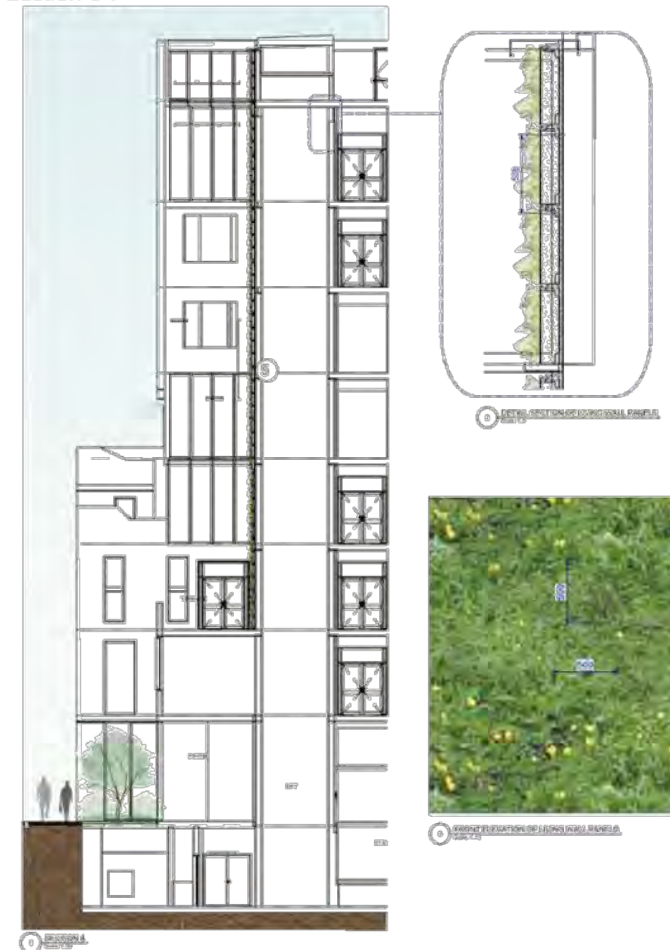
Section 03



1. Junglery full height planter insert to space required.
2. Detail of planter showing stainless steel cable connections and to second storey soffit. Planter showing automatic irrigation and drainage connections.
3. Podium terrace with low planting and drainage behind seating wall.
4. Tree planting in 1m oversized built-in container behind.
5. Junglery full height living wall.

- All planters will be on a centrally controlled intelligent irrigation system.
- All planters are not accessible to anyone apart from qualified maintenance staff. Fall restraints will be provided, however most maintenance will be possible from the adjacent floor level, with the exception of the living walls and planters within communal terraces will need occasional inspection from external facade.
- Planter boxes vary in size on spatial requirements, installation, horticultural requirements and fixing.
- Planters are located outside of the private terrace zones as much as possible to enable ease of access for maintenance.

Section 04



Planting Concept | Indicative Species Palette

Trees

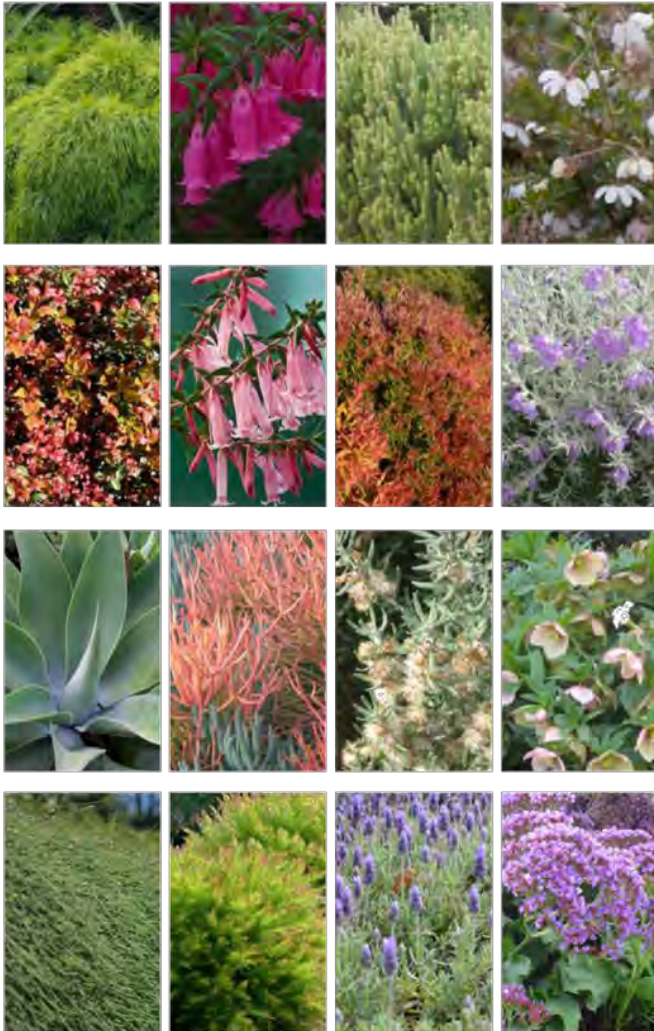


Duke Street | ABBOTSFORD - Small Trees

Type of Plant	Species	Common Name	East Façade	West Façade	Bird attracting	Insect pollinators
Small Trees Native	<i>Acmena smithii</i> 'Redhead'	Copper Wave				
	<i>Agonis flexuosa</i> 'Copper Wave'	Indigo				
	<i>Agonis flexuosa</i> 'Indigo'	Fastigate Coast Banksia				
	<i>Banksia integrifolia</i> 'Sentinel'	Silver Banksia				
	<i>Banksia marginata</i>	Ivory Curl Tree				
	<i>Buckinghamia celsissima</i>	Bottlebrush cultivar				
	<i>Callistemon citrinus</i> 'Kings Park Special'	Bottlebrush cultivar				
	<i>Callistemon viminalis</i> 'Dawson River Weeper'	Blueberry Ash				
	<i>Corymbia ficifolia</i> 'Baby Orange'	Silver leaved Mountain Gum				
	<i>Eleaocarpus reticulatus</i> pink	'Nullarbor Rose' EyEm1001				
	<i>Eucalyptus pulverulenta</i> 'Baby' Blue'	Figaro Fig				
	<i>Eucalyptus pyriformis</i> x <i>macrocarpa</i>					
	<i>Ficus obliqua</i> 'Figaro'					
	<i>Elaeocarpus eumundi</i>					
	<i>Tristaniopsis laurina</i> 'Luscious'					
Exotic	<i>Dodonea viscosa purpurea</i>	Bay Tree				
	<i>Laurus nobilis</i>	Fruitless Olive				
	<i>Olea europaea</i> 'Wilsonii'	NZ Christmas Tree				
	<i>Metrosideros thomasi</i>					

Planting Concept | Indicative Species Palette

Low Shrubs And Perennials

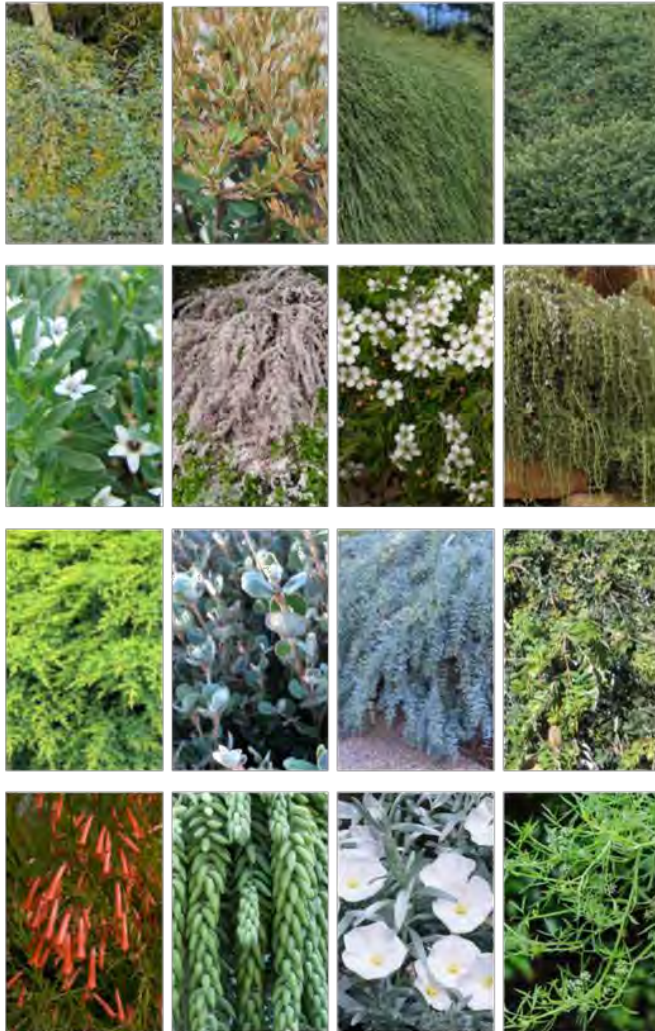


Duke Street | ABBOTSFORD - Low Shrubs and Perennials

Type of Plant	Species	Common Name	East Façade	West Façade	Bird attracting	Insect pollinators
Natives	<i>Acmena smithii</i> Allyn Magic	Allyn Magic Lili Pilli				
	<i>Adenanthos sericeus</i> compact	Dwarf Woolly Bush				
	<i>Acacia fimbriata</i> 'Crimson Blush'					
	<i>Alyxia buxifolia</i>	Seabox				
	<i>Acacia cognata</i> 'Limelight'					
	<i>Babingtonia virgata</i> nana	Dwarf Twiggy Myrtle				
	<i>Bauera rubioides</i> white	Dwarf Twiggy Myrtle				
	<i>Callistemon</i> 'Better John'	Better John Bottle brush				
	<i>Callistemon</i> Great Balls of Fire	Bottlebrush cultivar				
	<i>Cordyline petiolaris</i>	Slender Palm Lily				
	<i>Correa alba</i> compacta	White Correa compact				
	<i>Correa alba</i> compacta	White Correa compact				
	<i>Correa baeuerlenii</i>	Chefs Cap Correa				
	<i>Dampiera linearis</i> Cobalt Mound	Cobalt Mound				
	<i>Epacris impressa</i>	Common Heath				
	<i>Eriostemon buxiflorus</i>	Waxflower				
	<i>Eremophila nivea</i>	Silky Eremophila				
	<i>Leucophyta brownii</i>	Cushion Bush				
	<i>Olearia axillaris</i> 'Little Smokie'	Cushion Bush				
	<i>Westringia</i> Grey	Coastal Rosemary Cultivar				
Exotics	<i>Aeonium</i> 'velour'					
	<i>Agave attenuata</i>	Swan Neck Agave				
	<i>Capsicum annum</i>	chilli				
	<i>Ceanothus</i> x Blue Pacific	Californian Lilac				
	<i>Euphorbia characias</i> subsp wulfenii	Spurge				
	<i>Euphorbia</i> 'Firesticks'	Firesticks Spurge				
	<i>Euphorbia</i> Silver Swan	Silver Swan Spurge				
	<i>Euryops pectinatus</i>	Bush Daisy				
	<i>Nandina domestica</i> 'Gulf Stream'	Japanese Sacred Bamboo				
	<i>Phlomis fruticosa</i>	Jerusalem Sage				
	<i>Teucrium fruticans</i>	Germander				
	Cumquat	Citrus sinensis				
	<i>Helichrysum italicum</i>	curry plant				
	<i>Laurus nobilis</i> 'Miles Choice'	Bay Tree cultivar				
	<i>Lavender</i> spp	Lavender varieties				
	<i>Aspidistra elatior</i>	Cast iron plant				
	<i>Limonium perezii</i>	Statice				

Planting Concept | Indicative Species Palette

Cascading Plants



Duke Street | ABBOTSFORD - Cascading Plants

Type of Plant	Species	Common Name	East Façade	West Façade	North Façade	South Façade	Bird attracting	Insect Pollinators
Cascading Plants								
Native								
	<i>Acacia baileyana prostrate form</i>	Green Wave						
	<i>Acacia cognata waterfall</i>	Cascade Wattle						
	<i>Acacia cultriformis cascade</i>	Kuranga Cascade						
	<i>Acacia pravissima prostrate</i>	Swan River Babe						
	<i>Agonis flexuosa 'Swan River Babe'</i>	Prostrate Coast Banksia						
	<i>Banksia integrifolia Rollercoaster</i>	Prostrate Swamp Oak						
	<i>Casuarina glauca Shagpile/Cousin it</i>	Pink Blush Correa						
	<i>Correa alba pannosa</i>	Cottonheads						
	<i>Conostylis candicans</i>							
	<i>Darwinia citriodora Seaspray</i>	Rabbits foot fern						
	<i>Davalia fejeensis</i>							
	<i>Eremophila Beryl's Blue</i>							
	<i>Eremophila glabra compact</i>	Silver Ball						
	<i>Hardenbergia violacea 'Mini Ha Ha'</i>							
	<i>Myoporum parvifolium</i>	Creeping Boobialla						
	<i>Nephrolepis oblitterata 'Kimberley Queen'</i>	Boston Fern						
	<i>Grevillea 'Bronze Rambler'</i>							
	<i>Grevillea lanigera 'Mt Tamboretha'</i>							
	<i>Leptospermum Pink Cascade</i>	Pink Cascade						
	<i>Leptospermum vertical drop</i>	Vertical drop						
	<i>Persoonia chamaepitys</i>	Prostrate Geebung						
	<i>Rhagodia spinescens Silver Border</i>	Creeping saltbush						
Exotic								
	<i>Carobrutus rossii</i>	Pig Face						
	<i>Cerastium tomentosum</i>	Snow in Summer						
	<i>Convolvulus cneorum</i>	Silver Bush						
	<i>Gibasis geniculata</i>	Tahitian Bridal Veil						
	<i>Helichrysum petiolare</i>	Licorice Plant						
	<i>Juniperus conferta Blue Pacific</i>	Blue Pacific Shore Juniper						
	<i>Nephrolepis exaltata 'Bostoniensis'</i>	Boston Fern						
	<i>Nephrolepis exaltata 'Dallas'</i>	Dallas Fern						
	<i>Rosmarinus officinalis prostratus</i>	Prostrate Rosemary						
	<i>Mesybranthemum chrysalinum</i>	Orange Iceplant						
	<i>Russelia equisetiformis</i>	Firecracker Plant						
	<i>Sedum morganianum</i>	Donkeys Tail						
	<i>Tradescantia spathacea</i>	Rhoeo						

Planting Concept | Indicative Species Palette

Vines



Living walls



Duke Street | ABBOTSFORD - Vines

Type of Plant	Species	Common Name	East Façade	West Façade	Bird attracting	Insect pollinators
Vines						
Native						
	<i>Aphenopetalum resinosum</i>	Gum Vine				
	<i>Cissis antarctica</i>	Kangaroo Vine				
	<i>Clematis Southern Stars</i>	Old Mans Beard Vine				
	<i>Eustrephus latifolius</i>	Wombat Berry				
	<i>Hardenbergia comptoniana White Lace</i>	Happy wanderer				
	<i>Hardenbergia violacea Meema</i>	Happy wanderer				
	<i>Hibbertia scandens</i>	Snake Vine				
	<i>Hoya australis</i>	Wax Plant				
	<i>Kennedia rubicunda</i>	Dusky Coral Pea				
	<i>Kennedia nigracons</i>	Black Coral Pea				
	<i>Pandorea pandorana Golden Showers</i>	Bower Vine cultivar				
	<i>Pandorea jasminoides Jazzy Bells</i>	Bower Vine cultivar				
Exotic						
	<i>Mandavilla laxa</i>	Chilean Jasmine				
	<i>Solanum jasminoides</i>	White Potato Vine				
	<i>Epipremnum aureum</i>	Devils Ivy				
	<i>Muehlenbeckia complexa</i>	Maiden hair creeper				
	<i>Hoya carnosa</i>	Waxflower Vine				

Duke Street | ABBOTSFORD - Groundcovers and Living Wall

Type of Plant	Species	Common Name	West Façade	Bird attracting	Insect pollinators
Spreading Groundcovers					
Native					
	<i>Ajuga australis upright form</i>	Australian Bugle			
	<i>Astromyrtus dulcis</i>	Midgen Berry			
	<i>Blechnum cartilagineum</i>	Gristle Fern			
	<i>Brachyscome White Bliss</i>	Cut leaf Daisy Cultivar			
	<i>Dampiera stricta</i>	Blue Dampiera			
	<i>Geranium solanderi australe</i>	Austral Cranesbill			
	<i>Goodenia ovata 'Gold Cover'</i>	Gold Cover			
	<i>Lamandra filiformis</i>	Wattle Mat Rush			
	<i>Myoporum parvifolia Marceba</i>	Creebing Boobalia			
	<i>Pteris tremula</i>	Australian Brake			
	<i>Doodia aspera</i>	Rasp Fern			
	<i>Viola hederacea</i>	Native Violet			
	<i>Westringia fruticosa Mundi</i>	Prostrate Coast Rosemary			
Exotic					
	<i>Lampranthus aureus</i>	Iceplant			
	<i>Origanum vulgare</i>	Oregano			

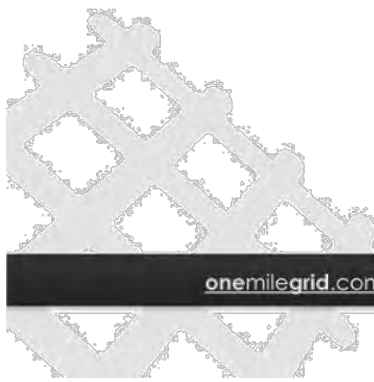


10-32 Duke Street, Abbotsford

Transport Impact Assessment



220428TIA001B.docx
2 September 2022



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DOCUMENT INFORMATION

Prepared for	Medley Property Group		
File Name	220428TIA001B.docx	Report Date	2 September 2022
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Signature		Signature	

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APPENDICES

APPENDIX A	SWEPT PATH DIAGRAMS
APPENDIX B	STACKER SPECIFICATIONS



1 INTRODUCTION

onemilegrid has been requested by Medley Property Group to undertake a Transport Impact Assessment of the proposed development at 10-32 Duke Street, Abbotsford.

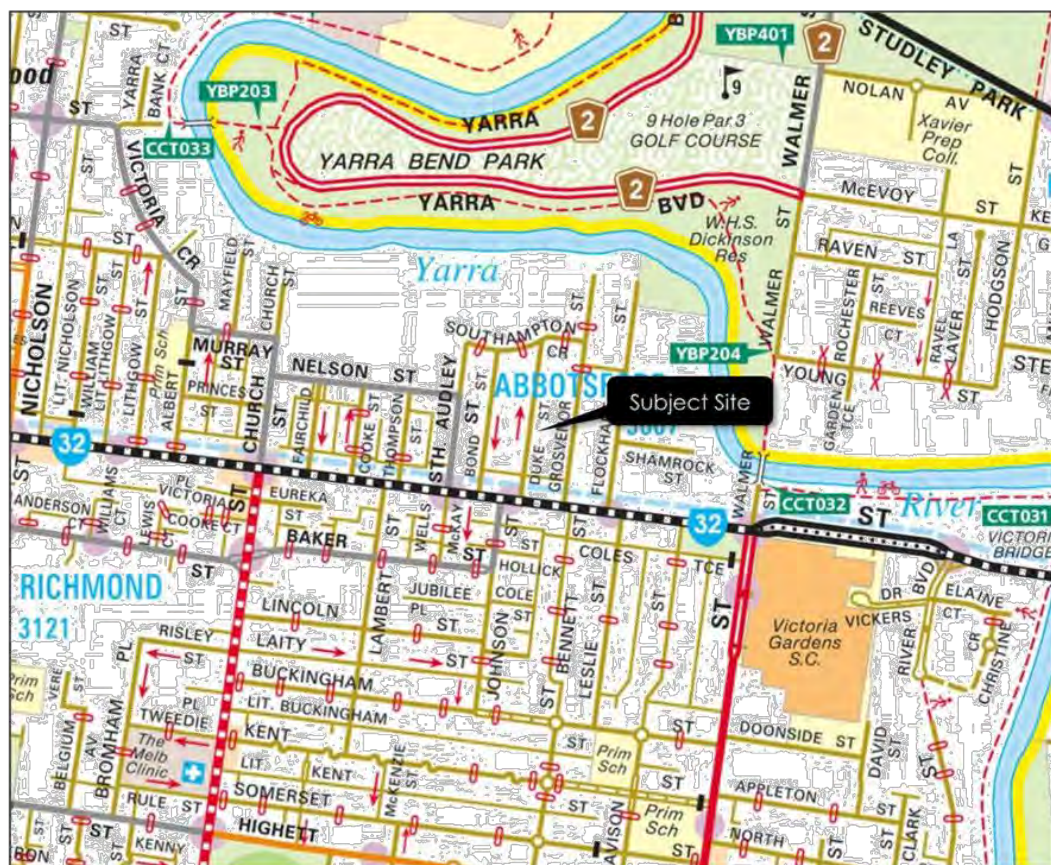
As part of this assessment the subject site has been inspected with due consideration of the development proposal and relevant background reports have been reviewed.

2 EXISTING CONDITIONS

2.1 Site Location

The subject site is addressed as 10-32 Duke Street, Abbotsford, and is located on the east side of Duke Street as shown in Figure 1.

Figure 1 Site Location



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The subject site is generally rectangular in shape with a frontage to Duke Street of approximately 100 metres and a depth of approximately 30 metres.

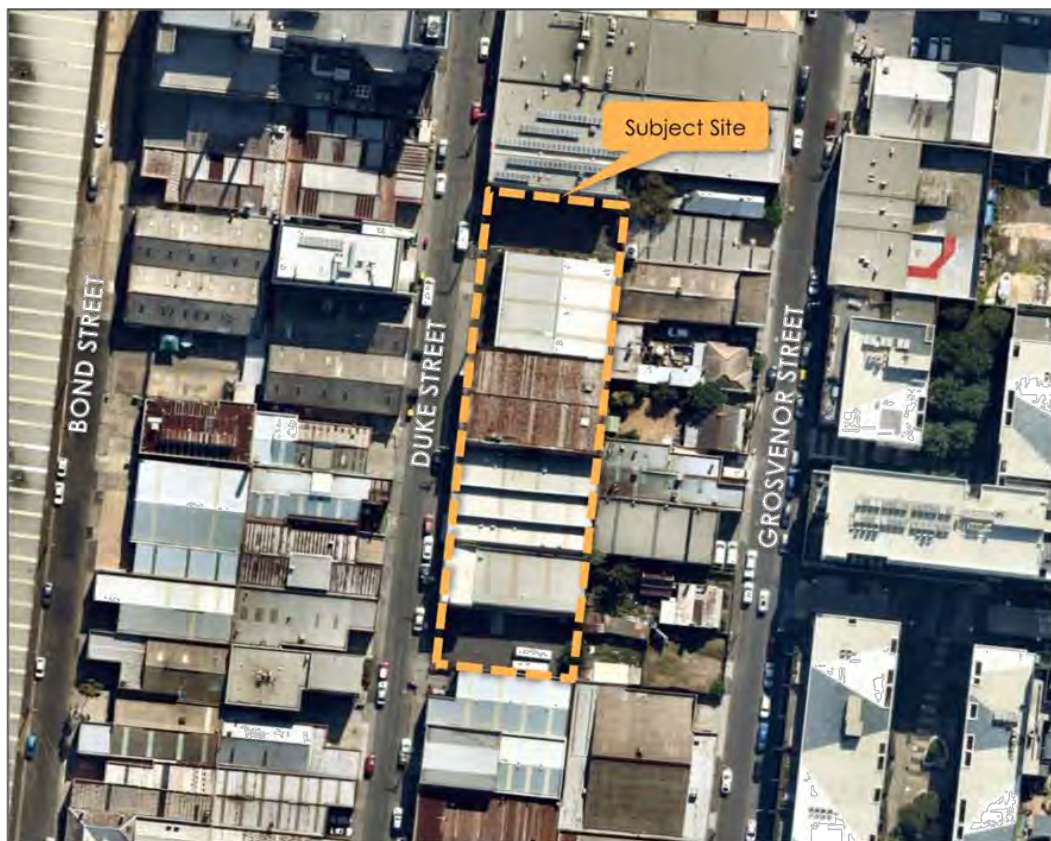
The southern portion of the site is currently occupied by a coffee roaster and takeaway coffee shop. An off-street parking area accessed from Duke Street is provided on the south side of the building, accommodating 8 parking spaces. The building is provided with two roller door loading areas accessed via two separate crossovers to Duke Street.

The northern portion of the site is currently occupied by Wow Pictures and is used as a photographic and video studio. An off-street parking area accessed from Duke Street is provided on the north side of the building, accommodating 10 parking spaces. Additionally, a total of 7 spaces can be accommodated within the front setback of the building accessed directly from Duke Street. In total the combined site has 9 existing crossovers along the frontage of the site taking up much of the street frontage. Of note only 5 cars are able to park kerbside in a parallel configuration across the 100 metre frontage.

Land use in the immediate vicinity of the site is generally commercial and industrial in nature.

An aerial view of the subject site is provided in Figure 2.

Figure 2 Site Context (14 April 2022)



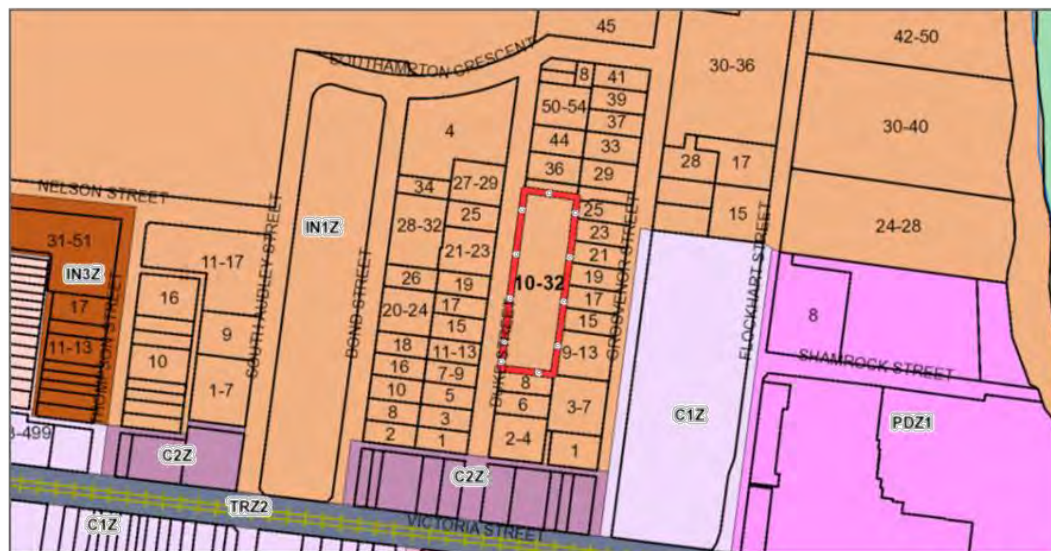
Copyright Nearmap



2.2 Planning Zones and Overlays

It is shown in Figure 3 that the site falls within the Principal Public Transport Network (PPTN) Area and that the site is located within an Industrial 1 Zone (IN1Z).

Figure 3 Planning Scheme Zones





2.3 Road Network

Duke Street is a local road generally north-south, running between Southampton Crescent in the north and Victoria Street in the south. Duke Street is a one-way road running south to north.

In the vicinity of the site, kerbside parking on either side of the road is generally unrestricted.

The default 50km/h speed limit applies to Duke Street in the vicinity of the site.

The cross-section of Duke Street at the frontage of the site is shown in Figure 4.

Figure 4 Duke Street, looking south adjacent to the subject site





3 SUSTAINABLE TRANSPORT

3.1 Public Transport

The site has very good public transport accessibility, with several tram routes servicing the vicinity of the site. North Richmond Station is located approximately 1.2 kilometres to the west of the subject site access on foot or by tram. In addition, the tram provides further connections to bus services on Hoddle Street. The full public transport provision in the vicinity of the site is shown in Figure 5 and detailed in Table 1.

Figure 5 Public Transport Provision

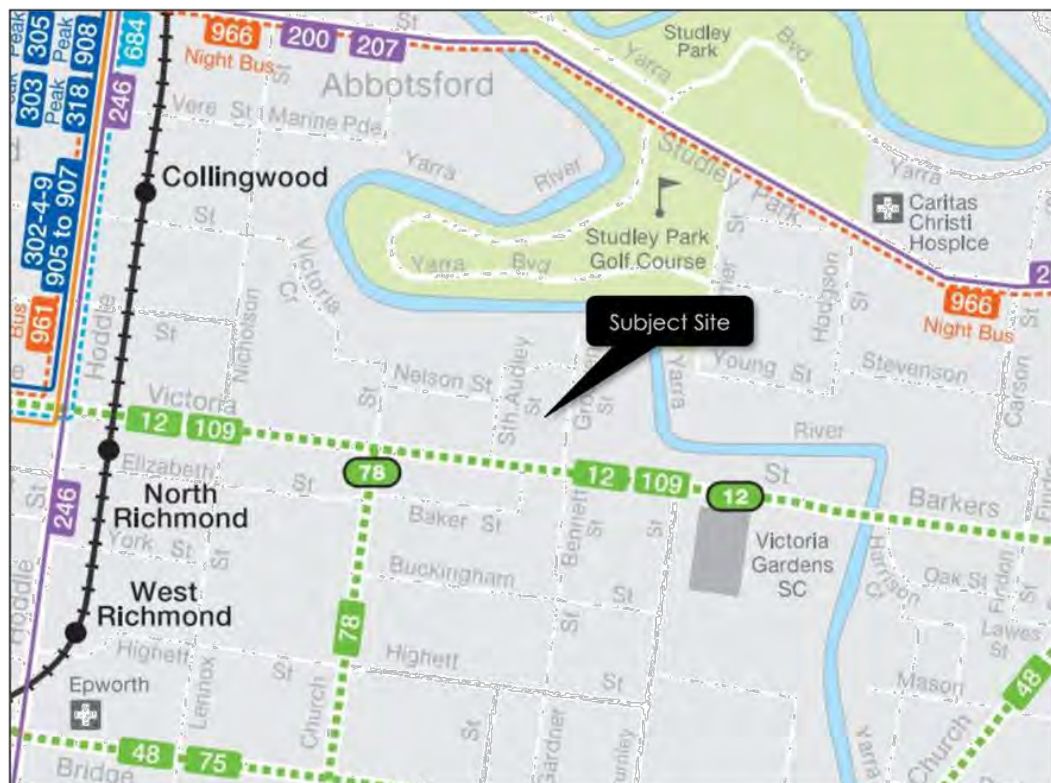


Table 1 Public Transport Provision

Mode	Route No	Route Description	Nearest Stop/Station
Train	-	Hurstbridge Line	North Richmond Station
	-	Mernda Line	
Tram	12	Victoria Gardens - St Kilda	Victoria Street
	78	North Richmond - Balacclava via Prahran	Church Street
	109	Box Hill - Port Melbourne	Victoria Street



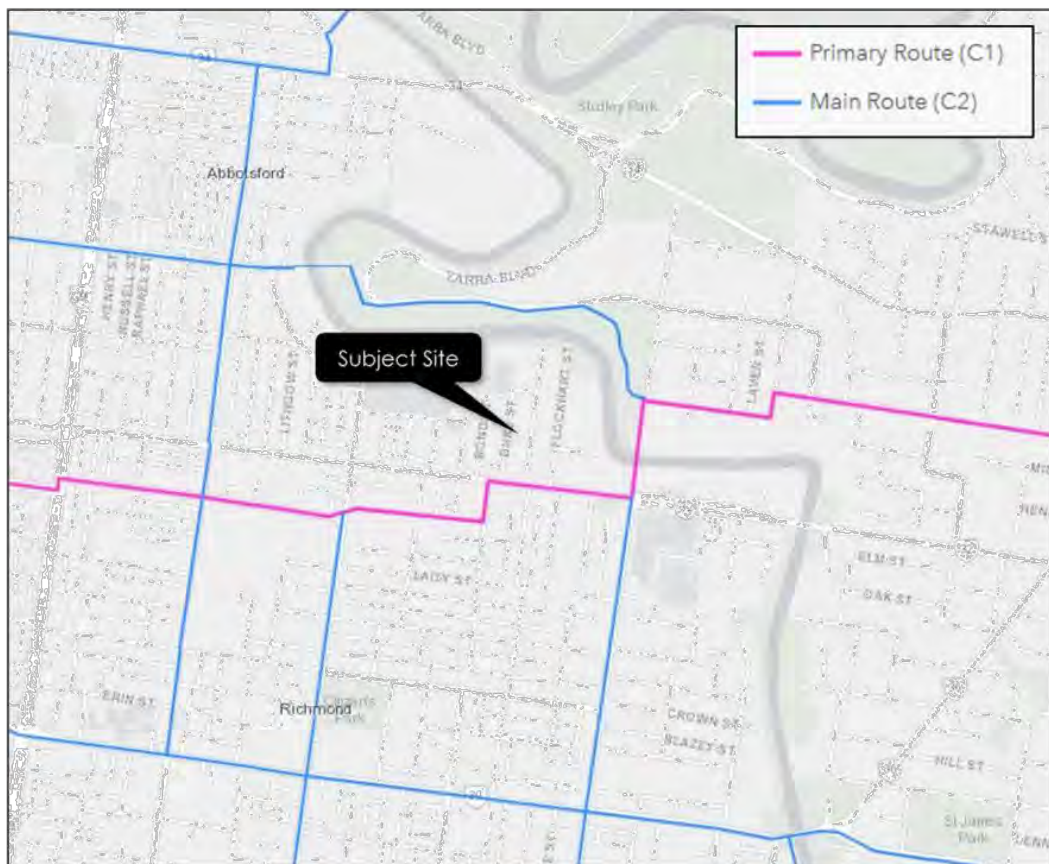
3.2 Bicycle Facilities

"Strategic Cycling Corridors are important routes for cycling for transport and link up important destinations including the Central City, National Employment and Innovations Clusters, Metropolitan Activity Centres and other destinations of metropolitan and regional significance".

Strategic Cycling Corridors (SCC) are considered to be the arterials for bicycles, and have been designed to provide connected, low stress and safe routes, intended primarily for the use of cyclists for transport (rather than recreation).

The SCCs in the vicinity of the site are shown in Figure 6.

Figure 6 Strategic Cycling Corridors



In addition, a shared path trail runs along the south side of the Yarra River, connecting between the Walmer Street bridge and Grosvenor Street.

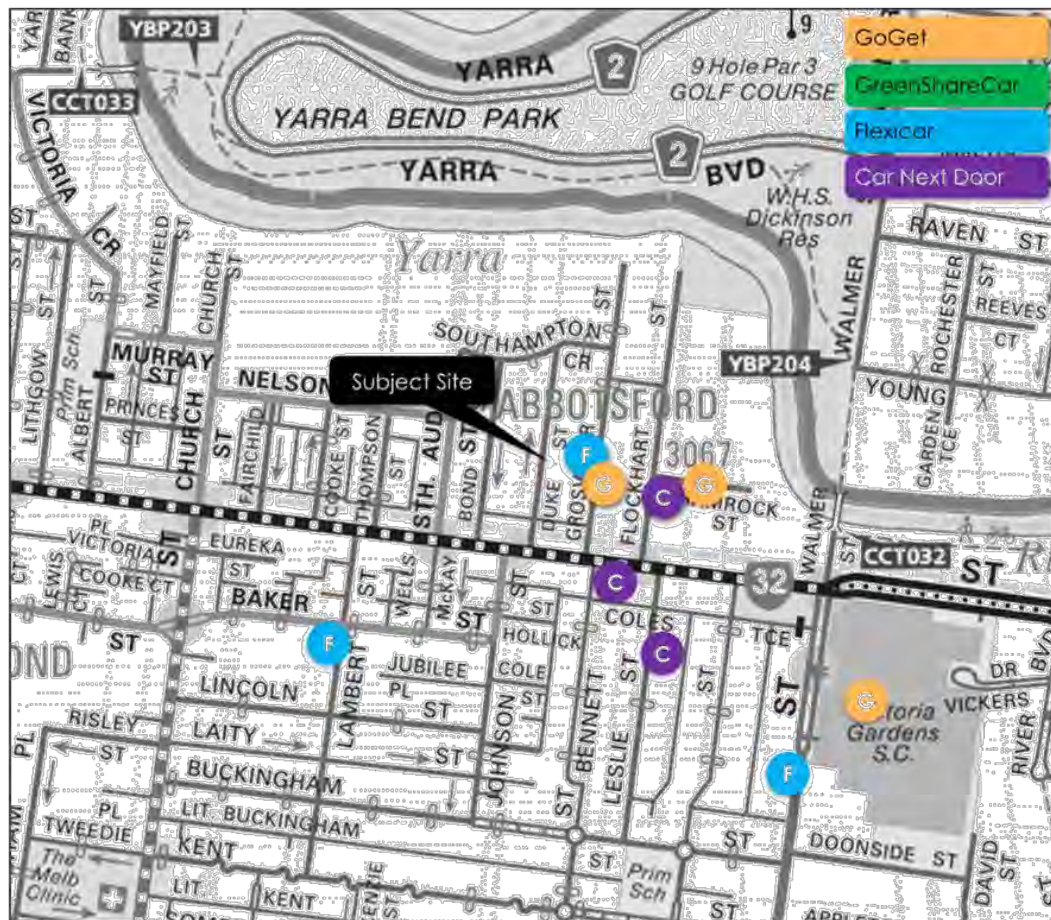


3.3 Share Cars

Car sharing is becoming increasingly popular within highly populated areas for both employees and residents, where parking is restrictive and expensive. Car sharing operates similar to a car rental company, except users join as members and are charged on an hourly rate rather than a daily.

The location of the share cars within close proximity of the site are shown in Figure 7.

Figure 7 Share Car Locations



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3.4 Pedestrian Accessibility

In addition to having good access to public transport modes, the site is well-located for pedestrian accessibility, with a number of recreation, education, shopping and employment uses located within 10 - 15 minutes' walk of the site.

The site has a Walk Score rating of 93/100 and is very walkable, with most errands able to be accomplished on foot.

Figure 8 shows a pedestrian walk time map for the site, with the major facilities in the vicinity of the site identified in Table 2.

Figure 8 Pedestrian Walk-Time Map



Courtesy of [Targomo](#)

Table 2 Site Facilities

Ref	Facility	Approx. Walk Time
A	Victoria Street commercial strip	≤ 5 minutes
B	Williams Reserve	≤ 10 minutes
C	Flockhart Reserve	≤ 10 minutes
D	Victoria Gardens Shopping Centre	≤ 10 minutes
E	Yarra Primary School	≤ 15 minutes
F	The Hive Shopping Centre	≤ 15 minutes
G	Citizens Park	≤ 15 minutes



4 PROPOSAL

4.1 Development

It is proposed to develop the subject site for the purposes of a mixed-use development comprising 3 lots, including Lot A, Lot B and Lot C+D. The development will be delivered in 2 stages with Stage 1 including Lot A and B, and Stage 2 comprising Lot C and D.

Whilst the development will be staged and across 3 lots, the development will present as a single development with two ground floor retail tenancies and office space on the levels above, as shown in Table 3.

Table 3 Proposed Development – Overall

Component	Area
Retail (Food and Drink)	214 m ²
Office	10,590 m ²

4.2 Staging

The proposed development will be delivered across 2 stages, with a further breakdown of the proposed development provided in Table 4.

Table 4 Proposed Development – Staged Breakdown

Lot	Component	Area
Stage 1 Lot A+B	Lot B Retail	94 m ²
	Lot A+B Office	5,324 m ²
	- Lot A (1,591 m ²) - Lot B (3,733 m ²)	
Stage 2 Lot C+D	Lot C Retail	120 m ²
	Lot C+D Office	5,266 m ²

4.3 Car Parking and Vehicular Access

An overall total of 124 car spaces are proposed to be provided as part of the development.

Lot A and B is proposed to be provided within a parking area, accessed via a shared driveway with a double width crossover pursuant to a carriageway easement, located toward the northern end of the site. Lot A is allocated 20 spaces (including one accessible space) located on the northern portion of the parking area, while Lot B is allocated 41 space (including one accessible space) located on the southern portion of the parking area. One space is proposed to be allocated to the Lot B retail tenancy.

Lot C and D is proposed to be provided within a shared parking area with a total of 63 spaces including two accessible spaces. One space is proposed to be allocated to the Lot C retail tenancy. Access to this car park is proposed toward the southern end of the site via a double width crossover.

All car parking spaces (apart from the accessible spaces) are proposed within mechanical car stackers using the Klaus Trendvario system (or similar). A summary of car parking provision is provided in Table 5.



Table 5 Car Parking Summary

Area	Mechanical Spaces	Accessible Spaces	Total
Lot A	19	1	20
Lot B	40	1	41
Lot C+D	61	2	63
Total	120	4	124

As part of the proposal all of the disused existing crossovers will be removed and reinstated with kerb and channel. As a result of the reinstatement and consolidation of access points, an additional provision of approximately 7 kerbside parallel parking spaces are expected to be yielded along the frontage of the site for a total of 12 kerbside spaces.

Additionally, a total of 6 motorcycle spaces are proposed across the development, including 2 spaces within Lot A+B car park and 4 spaces with Lot C+D car park.

4.4 Bicycle Parking and End-of-Trip Facilities

A total of 148 bicycle spaces are proposed to be provided as part of the development.

This includes secure compounds located within the basement level of each lot for staff and visitor spaces along the frontage of the site, as summarised in Table 6.

Table 6 Bicycle Parking Summary

Area	Staff Spaces	Visitor Spaces	Total
Lot A	27	2	29
Lot B	38	6	44
Lot C+D	67	8	75
Total	132	16	148

Additionally, end of trip facilities is provided in the basement, including change room facilities and 5 showers and 29 lockers for Lot A, 6 showers and 44 lockers for Lot B, and 9 showers and 75 lockers for Lot C+D.

Furthermore, e-bike and e-scooter charging stations are proposed in Lot B and Lot C+D bicycle rooms.

4.5 Waste Collection

Waste is proposed to be stored in the bin storage areas located in the car parking areas of each lot. It is proposed to utilise a private contractor to manage the collection and disposal of all waste streams associated with the development.

A waste management plan has been prepared by **onemilegrid**.



5 DESIGN ASSESSMENT

5.1 Yarra Planning Scheme – Clause 52.06

onemilegrid has undertaken an assessment of the car parking layout and access for the proposed development with due consideration of the Design Standards detailed within Clause 52.06-9 of the Planning Scheme. A review of those relevant Design Standards is provided in the following section.

5.1.1 Design Standard 1: Accessways

A summary of the assessment for Design Standard 1 is provided in Table 7.

Table 7 Clause 52.06-9 Design Assessment – Design Standard 1

Requirement	Comments
Be at least 3 metres wide.	Satisfied – minimum width of access is 6.1 metres
Have an internal radius of at least 4 metres at changes of direction or intersection or be at least 4.2 metres wide.	Satisfied – changes of direction between accessways are more than 4.2m wide
Allow vehicles parked in the last space of a dead-end accessway in public car parks to exit in a forward direction with one manoeuvre.	N/a – private car park, although satisfied
Provide at least 2.1 metres headroom beneath overhead obstructions, calculated for a vehicle with a wheel base of 2.8 metres.	Satisfied – a minimum height clearance of 4.15 metres is achieved within the car park
If the accessway serves four or more car spaces or connects to a road in a Transport Zone 2 or Transport Zone 3, the accessway must be designed so that cars can exit the site in a forward direction.	Satisfied – see swept paths attached in Appendix A
Provide a passing area at the entrance at least 6.1 metres wide and 7 metres long if the accessway serves ten or more car parking spaces and is either more than 50 metres long or connects to a road in a Transport Zone 2 or Transport Zone 3.	N/a – does not connect to a Transport Zone and is less than 50 metres long, although satisfied
Have a corner splay or area at least 50 per cent clear of visual obstructions extending at least 2 metres along the frontage road from the edge of an exit lane and 2.5 metres along the exit lane from the frontage, to provide a clear view of pedestrians on the footpath of the frontage road. The area clear of visual obstructions may include an adjacent entry or exit lane where more than one lane is provided, or adjacent landscaped areas, provided the landscaping in those areas is less than 900mm in height.	Partially satisfied for Lot A+B access – a planter area is provided on the south side of the accessway which extends one metre into the site. It is considered that this arrangement is acceptable as vehicles will be travelling at low speeds out of the site and traffic volumes generated by the site will be low. Satisfied for Lot C+D access
If an accessway to four or more car parking spaces is from land in a Transport Zone 2 or Transport Zone 3, the access to the car spaces must be at least 6 metres from the road carriageway.	N/a – does not connect to a Transport Zone



5.1.2 Design Standard 4: Mechanical Parking

As outlined previously, it is proposed to utilise mechanical parking systems to accommodate all parking spaces for the development. The development will utilise a Klaus TrendVario 6300 system or similar.

The 6300 system is arranged in a grid of three levels, with platforms above-ground, at ground level and below ground level. Platforms on the ground-level move horizontally, allowing platforms on the upper and lower levels to move vertically and shuffle platforms to the ground-level as required. A vacant space (i.e., no platform) remains clear on the ground-level at all times within in each 'set' of stackers to facilitate this mechanism.

Staff are allocated a specific car space within the stacker, which is reserved for their use only. As such, the driver will enter and exit the system from the same row at all times. When storing a vehicle within the system, a driver will approach the stacker system from the ROW and prop in front of their designated parking row. They will then 'call' the platform, using either a remote control or pressing the appropriate button on a control panel, and the empty space will be shuffled from within the system to the ground-level.

The gates will then open and permit access onto the car platform. Once the driver has parked, they will exit their vehicle and walk outside of the stacker, the doors will close, and the car will be shuffled into position for storage.

When retrieving a vehicle, the system will operate in the same manner, albeit in reverse, with the driver 'calling' their vehicle.

The system has been dimensioned with a total length of 5.6 metres, sufficient to accommodate vehicles up to 5.1 metres length in all spaces. Each stacker is dimensioned at 2.9 metres wide, each providing an effective platform width of 2.7 metres for all spaces. The stackers are provided an access aisle of 6.4 metres to each car space.

Whilst it is acknowledged that these dimensions do not strictly accord with those specified in the Planning Scheme for standard car spaces, the Planning Scheme states that the design and operation of stackers is to the satisfaction of the responsible authority. In this regard, swept path diagrams have been prepared, and are attached within Appendix A demonstrating satisfactory access to critical car spaces with an 85th percentile passenger vehicle (B85).

Specifications are provided within Appendix B.

A review of the stacker design against the specific Planning Scheme requirements is provided in Table 8 below.

Table 8 Clause 52.06-9 Design Assessment – Design Standard 4

Requirement	Comments
At least 25 per cent of the mechanical car parking spaces can accommodate a vehicle clearance height of at least 1.8 metres.	Satisfied – a height clearance of 4.15 metres is provided within the car park area, allowing for all ground level and upper level stacker spaces to be provided with a height clearance of at least 1.8 metres.
Car parking spaces that require the operation of the system are not allocated to visitors unless used in a valet parking situation.	Satisfied - All stacker spaces will be allocated to staff.



5.2 Accessible Parking Space

The accessible bays are provided with a length of 5.4 metres and a width of 2.4 metres, and an adjacent shared area of the same dimensions, in accordance with the Australian Standard for Off-Street Parking for People with Disabilities AS2890.6. Furthermore, a height clearance of no less than 2.5 metres is provided above the accessible bay and adjacent shared area, in accordance with the Australian Standard.

5.3 Waste Collection

Bin storage areas are provided within the car parking areas. Bins will be collected on-site by a private contractor.

Refer to the Waste Management Plan for further information.

5.4 Bicycle Parking Dimensions

Bicycle parking is proposed to be provided in a mixture of vertically mounted and staggered bicycle racks and on-ground bicycle hoops.

The vertical mounted racks have been designed in accordance with the Australian Standards; specifically, they are located at 500 mm centres, with an envelope of 1.2 metres provided for bicycles and a 1.5 metre access aisle.

The bicycle hoops have been designed in accordance with the Australian Standards; specifically, they are provided at one metre centres, with an envelope of 1.8 metres provided for bicycles and a 1.5 metre access aisle.

6 LOADING

Clause 65 (Decision Guidelines) of the Yarra Planning Scheme identifies that *"Before deciding on an application or approval of a plan, the responsible authority must consider, as appropriate: The adequacy of loading and unloading facilities and any associated amenity, traffic flow and road safety impacts."*

Given the small size of the retail tenancies and the proposed office uses, it is not considered practical or necessary to provide an on-site loading bay. It is expected that the majority of deliveries will occur via small vans and utility vehicles, which can utilise the existing on-street parking in the area.

The provision for loading is therefore considered appropriate for the proposed use.



7 BICYCLE PARKING

7.1 Planning Scheme

The bicycle parking requirements for the subject site are identified in Clause 52.34 of the Yarra Planning Scheme, which specifies the following requirements for the different components of the proposed development.

Lot A and B offices have been assessed separately, while the office floor areas for Lot C and D have been combined as they are provided with a shared bike store.

Table 9 Clause 52.34 – Bicycle Parking Requirements

Component – Use	Area	Requirement	Total
Lot B – Retail	94 m ²	1 space per 300m ² for employees 1 space per 500m ² for visitors	0 0
Lot A – Office	1,591 m ²	1 space per 300m ² for employees 1 space per 1000m ² for visitors	5 2
Lot B – Office	3,733 m ²	1 space per 300m ² for employees 1 space per 1000m ² for visitors	12 4
Lot C – Retail	120 m ²	1 space per 300m ² for employees 1 space per 500m ² for visitors	0 0
Lot C+D – Office	5,266 m ²	1 space per 300m ² for employees 1 space per 1000m ² for visitors	18 5
Total		Employees Visitors	35 11

Based on the above, the development triggers a requirement to provide a total of 46 spaces, including 35 staff spaces and 11 visitor spaces.

Furthermore, where 5 or more employee bicycle spaces are provided, employee facilities are required in accordance with Clause 52.34 of the Yarra Planning Scheme, as identified below.

Table 10 Clause 52.34 – Bicycle Facility Requirements

Component	Employee Bicycle Spaces	Requirement	Total
Lot A	5 spaces	1 shower for the first 5 employee bicycle spaces; plus 1 to each 10 employee bicycle spaces thereafter	1
Lot B	12 spaces	1 shower for the first 5 employee bicycle spaces; plus 1 to each 10 employee bicycle spaces thereafter	2
Lot C+D	18 spaces	1 shower for the first 5 employee bicycle spaces; plus 1 to each 10 employee bicycle spaces thereafter	2
Total			5



7.2 Sustainability in Design Assessment

The City of Yarra has adopted a Sustainability in Design Assessment in the Planning Process (SDAPP) guide which includes initiatives for reducing the reliance on cars and how alternative transport forms can be incorporated into developments. The guide recommends the following bicycle parking provision rates for office uses:

- Provide staff bicycle parking for at least 10% of the building occupants
- Provide visitor bicycle parking at a rate of 1 space 500 m² of net lettable area

It has been typically adopted that offices comprise one staff member per 13 square metres of floor space. The bicycle parking calculations using the SDAPP rates are detailed in Table 11.

Table 11 SDAPP Bicycle Parking Calculations

Component	User	Area/Staff	Rate	Total
Lot A	Staff	122 staff	One space for 10% of the staff	12
	Visitor	1,591 m ²	One space per 500 sqm of net lettable area	3
Lot B	Staff	294 staff	One space for 10% of the staff	29
	Visitor	3,827 m ²	One space per 500 sqm of net lettable area	8
Lot C+D	Staff	414 staff	One space for 10% of the staff	41
	Visitor	5,386 m ²	One space per 500 sqm of net lettable area	11
Total			Employees	82
			Visitors	22

* visitor calculation is based on the total net lettable area which also includes the retail tenancy for Lot B and C

Based on the above, a total of 104 bicycle spaces are recommended, including 82 staff spaces and 22 visitor spaces.

Furthermore, the guide states that lockers should be provided at a rate of one locker per staff bicycle parking space and shower per 10 staff bicycle parking spaces.

7.3 Proposed Bicycle Parking and EOT Facilities

It is proposed to provide a total of 141 bicycle parking spaces as part of the development, as summarised in Table 12.

Table 12 Proposed Bicycle Parking Provision

Area	Staff Spaces	Visitor Spaces	Total
Lot A	27	2	29
Lot B	38	6	44
Lot C+D	67	8	75
Total	132	16	148

The proposed provision of employee bicycle parking exceeds the requirements of the Planning Scheme and the SDAPP.

Regarding visitor spaces, it is proposed to provide a total of 16 spaces along the site frontage, exceeding the Planning Scheme requirements. A surplus of bicycle parking is provided within the bicycle storage rooms, which can cater for additional visitor demand if required.

Additionally, the development includes showers and lockers as summarised in Table 13.



Table 13 Proposed Shower and Locker Provision

Component	Showers	Lockers
Lot A	5	29
Lot B	6	44
Lot C+D	9	75

The provision of showers and lockers exceed the requirements of the SDAPP and is considered appropriate for the proposed development.

8 CAR PARKING

8.1 Statutory Car Parking Requirements

8.1.1 Car Parking Requirements – Clause 52.06

The car parking requirements for the subject site are identified in Clause 52.06 of the Yarra Planning Scheme, which specifies the following requirements for the different components of the proposed development. As the site is located within the Principal Public Transport Network Area, the Column B car parking rates apply to the proposed development.

Lot C and D have been combined as they are not provided with a specific parking allocation.

Table 14 Clause 52.06 – Car Parking Requirements

Component – Use	No/Area	Rate	Car Parking Measure	Total
Lot B – Retail	94 m ²	3.5	to each 100m ² of leasable floor area	3
Lot A – Office	1,591 m ²	3	to each 100m ² of net floor area	47
Lot B – Office	3,733 m ²	3	to each 100m ² of net floor area	111
Lot C – Retail	120 m ²	3.5	to each 100m ² of leasable floor area	4
Lot C+D – Office	5,266 m ²	3	to each 100m ² of net floor area	157
Total				322

Based on the above calculations, a total of 322 parking spaces are required for the proposed development.

8.1.2 Proposed Car Parking Provision

It is proposed to provide a total of 124 car parking spaces on-site, which equates to a shortfall of 198 spaces when compared to the Planning Scheme requirements. When assessing each component of the site, the following parking provision rates and shortfalls result in Table 15.

Table 15 Car Parking Rate and Shortfall

Component – Use	Parking Provision	Parking Rate	Planning Scheme Requirement	Shortfall
Lot B – Retail	1	1.06 spaces/100 m ²	3	2
Lot A – Office	20	1.26 spaces/100 m ²	47	27
Lot B – Office	40	1.07 spaces/100 m ²	111	71
Lot C – Retail	1	0.83 spaces/100 m ²	4	3
Lot C+D – Office	62	1.18 spaces/100 m ²	157	95
Total	124		322	198



In this regard, Clause 52.06-7 of the Yarra Planning Scheme indicates that an application to reduce (including reduce to zero) the requirement for car spaces must be accompanied by a Car Parking Demand Assessment. The Assessment must assess the car parking demand likely to be generated by the proposed development, having consideration to:

- The likelihood of multi-purpose trips within the locality which are likely to be combined with a trip to the land in connection with the proposed use.
- The variation of car parking demand likely to be generated by the proposed use over time.
- The short-stay and long-stay car parking demand likely to be generated by the proposed use.
- The availability of public transport in the locality of the land.
- The convenience of pedestrian and cyclist access to the land.
- The provision of bicycle parking and end of trip facilities for cyclists in the locality of the land.
- The anticipated car ownership rates of likely or proposed visitors to or occupants (residents or employees) of the land.
- Any empirical assessment or case study.

An assessment of the likely parking demands and the appropriateness of reducing the car parking provision below them is set out below.

8.2 Car Parking Demand Assessment

8.2.1 Office

It is typically recognised that the rates outlined under Clause 52.06 of the Planning Scheme are excessive for developments within the inner urban areas, where sites are generally better served by sustainable transport access.

It is noted that office parking demands are typically dictated by the availability of parking, either on-site or off-site, and if parking is constrained by either restrictions or availability, as is the case in the site's vicinity, then employees will elect to utilise alternative modes of transport to access the site.

The vast proportion of parking in the area is time restricted or permitted, and what little all-day parking is available is highly utilised during typical business hours.

In practice, the high utilisation of long-term car parking in the area substantially reduces the attractiveness and convenience of travelling to the site via private vehicle without having allocated parking available. Combined with the very good accessibility of the site by public transport and cycling amenity, it is expected that the office is unlikely to generate parking demands in excess of the provision of allocated parking.

In addition, it is understood a number of office developments throughout Collingwood with significantly reduced office car parking requirements have been supported by Yarra City Council in recent years. These developments and associated car parking rates are provided in Table 16.

Table 16 Nearby Office Developments

Development Site	Office Size	Approved Office Parking Rate
4 Brown Street, Collingwood	371m ²	1.35 spaces per 100m ²
3/29 Cromwell Street, Collingwood	640m ²	1.40 spaces per 100m ²
71-93 Gipps Street, Collingwood	8,923m ²	0.96 spaces per 100m ²
2-16 Northumberland Street, Collingwood	15,300m ²	0.89 spaces per 100m ²
122 Johnston Street, Collingwood	725m ²	0.56 spaces per 100m ²

As noted in Table 15, the office components are provided with parking at rates of 1.26, 1.07 and 1.18 spaces per 100 m² for Lot A, Lot B and Lot C+D respectively, which is considered to be



appropriate based on the location of the site with regards to public transport and general amenities.

8.2.2 Retail (Food and Drink)

The car parking demands of the retail uses can be broken up into two components: staff demand and customer demand.

In relation to staff, similar to the office component, staff who are not allocated a parking space will be encouraged to change their behaviour and utilise other modes of transport to the site.

In relation to customers, short term parking is available in the vicinity to accommodate these demands should they eventuate.

It should also be noted that a large portion of customers to the restricted retail use will consist of staff of the commercial tenancies in the vicinity of the site and will not generate parking demand.

8.2.3 Anticipated Parking Demand

Based on the above, due to the restricted parking opportunities in the vicinity of the site, it is not expected that staff without a car space will drive to the site, therefore, resulting in a demand of 124 spaces in line with the provision. In relation to customers, short term parking is available in the vicinity to accommodate any potential customer / visitor demands.

8.3 Review of Car Parking Provision

8.3.1 Impact of Parking Supply on Traffic Congestion

A previous VCAT decision (*Ronge v Moreland CC* [2017] VCAT 550 (9 May 2017)) highlighted the value of reduced car parking provision with regard to traffic congestion, identifying the potential adverse impact of providing parking to comply with Clause 52.06, as below:

"Our roads are already congested and will be unimaginably so if a 'business-as-usual' approach is accepted through until 2050. The stark reality is that the way people move around Melbourne will have to radically change, particularly in suburbs so well served by different modes of public transport and where cycling and walking are practical alternatives to car based travel.

A car parking demand assessment is called for by Clause 52.06-6 [now Clause 52.06-7] when there is an intention to provide less car parking than that required by Clause 52.06-5.

However, discussion around existing patterns of car parking is considered to be of marginal value given the strong policy imperatives about relying less on motor vehicles and more on public transport, walking and cycling. Census data from 2011 or 2016 is simply a snapshot in time, a base point, but such data should not be given much weight in determining what number of car spaces should be provided in future, for dwellings with different bedroom numbers.

Policy tells us the future must be different.

Oversupplying parking, whether or not to comply with Clause 52.06, has the real potential to undermine the encouragement being given to reduce car based travel in favour of public transport, walking and cycling."

"One of the significant benefits of providing less car parking is a lower volume of vehicle movements and hence a reduced increase in traffic movements . . ."



8.3.2 City of Yarra Climate Emergency Plan

In June 2020 the City of Yarra adopted the "Yarra Climate Emergency Plan" which sets out a number of targets, objectives and strategies for reducing the impact of the Council and its constituents on the environment.

The plan includes the development of an Integrated Transport Plan for Yarra which will aim to achieve the following transport related objectives:

- "Increase the share of trips by sustainable transport modes";
- "Identify existing and emerging issues and opportunities, including incentives or initiatives to change travel behaviours";
- "Use parking provisions, or other mechanisms, to encourage car-share and electric vehicles"; and
- "Promote efficient use of road space for walking and cycling, public transport, shared transport and zero emissions vehicle".

By providing reduced parking for the development, staff are compelled to make decisions about their travel behaviours and adopt sustainable transport modes. The provision of reduced parking for new developments will allow Council to reduce the number of personal vehicle trips undertaken by staff.

8.3.3 City of Yarra Parking Management Strategy

The purpose of the City of Yarra Parking Management Strategy "is to provide a policy framework to guide officers in the management of the parking resource."

The Action Plan 2013 – 2015 lists 16 principles which are key drivers for parking management in Yarra, including:

7. Ensure that new developments are self-sufficient in meeting their parking needs - with the exception of encouraging reduced parking or no car parking developments for sites very close to public transport stops.

This further emphasises Council's desire to reduce car usage, through encouraging reduced parking supply in appropriate locations, such as the subject site.

8.3.4 On-Street Parking Opportunities

A review of parking restrictions in the area surrounding the proposed development indicates that on-street parking is heavily restricted or heavily utilised, and there is limited opportunity for long term parking in the area.

These restrictions are therefore expected to encourage short-term parking (for visitors and customers) and ensure that staff without a parking space will be encouraged to shift their travel behaviour to sustainable transport modes, such as public transport or cycling.

8.3.5 Alternative Modes of Transport

As indicated in Section 3.1, the site has good access to Public Transport, with several tram routes in the immediate vicinity. The provision of public transport ensures that staff with no parking will have good access to alternate transportation modes.

Additionally, there are a number of share cars located in the vicinity of the site as shown in Section 3.3, providing access to cars for staff without a parking space.



Furthermore, the development proposes to provide bicycle parking in excess of the Planning Scheme requirements.

8.3.6 Adequacy of Proposed Car Parking Provision

It is expected that the proposed supply of car parking is appropriate for the proposed development, considering the following:

- The proposed development provides bicycle parking in excess of the Planning Scheme requirements, therefore providing an alternate means of transportation;
- The development is within easy walking distance of amenities, including shops, education, entertainment and recreational facilities;
- The site has excellent access to public transport, with several tram services in the immediate vicinity, providing access options for employees with no on-site parking space;
- Existing parking restrictions in the area will encourage employees to travel via alternative modes of transport, and ensure employees do not park long-term on-street;
- The removal of existing crossovers along the frontage of the site will permit an additional provision of 7 kerbside parking spaces along the frontage of the site; and
- Reduced car parking provision assists with the desired reduction in private vehicle usage, therefore minimising traffic impacts in the vicinity.

8.4 Accessible Car Parking

The Building Code of Australia (BCA) specifies the minimum requirements for provision of accessible car parking.

The proposed office development, classified as a Class 5 building, requires provision of one accessible car space for every 100 car parking spaces or part thereof.

The proposed food and drink uses, classified as a Class 6 building, requires provision of one accessible car space for every 50 car parking spaces or part thereof for the first 1,000 spaces, and then 1 space per 100 car parking spaces or part thereof in excess of 1,000 spaces.

Noting the proposed provision of 124 car spaces on-site, the proposed provision of four accessible spaces thus satisfies the BCA requirements.



9 TRAFFIC

9.1 Traffic Generation

It is expected that the level of traffic generated by the site will be a function of the turnover of parking during the morning and afternoon peak hours. In this regard, it has been our experience that during those AM and PM peak periods, staff parking 'turns over' at a rate of approximately 50-60% of the car parking spaces. The remaining spaces turnover outside of the peak hour. For the purposes of this assessment, a turnover rate of 50% (62 movements) in the peak direction and 5% (6 movements) in the counter peak direction will be adopted for the future traffic generation for the development.

Table 17 summarises the peak hour traffic generation of the development.

Table 17 Anticipated Traffic Generation

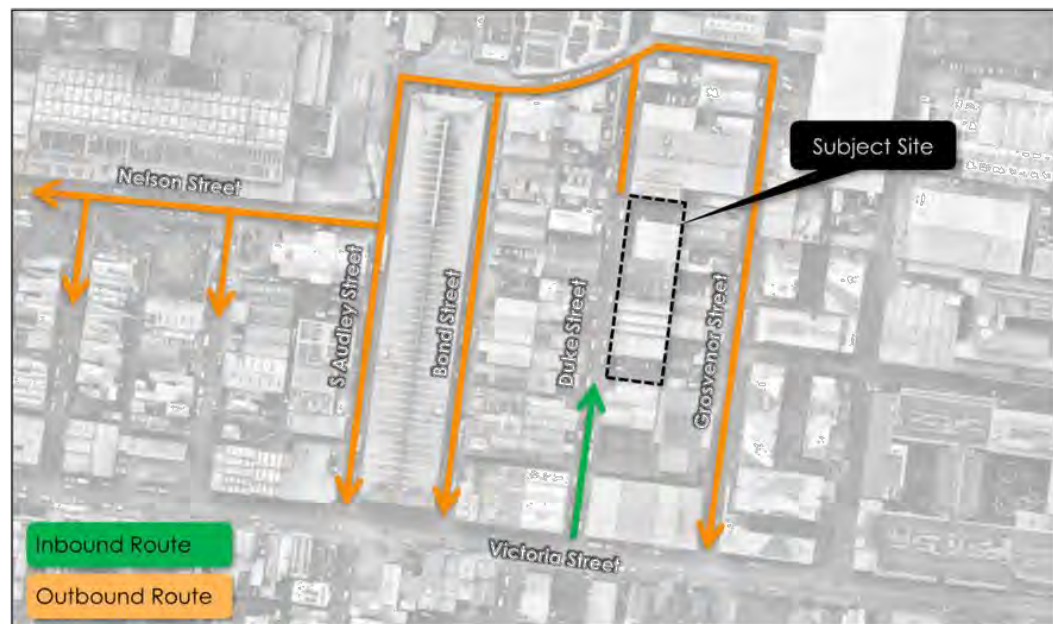
Period	Inbound	Outbound	Total
AM Peak	62	6	68
PM Peak	6	62	68

9.2 Traffic Impact

Reviewing the volumes above, it is noted that a maximum of 68 vehicle movements per hour are expected during the peak hours, equivalent to just over one vehicle every minute.

Duke Street is a one-way street in the south-north direction, therefore all inbound movements will approach from the south end of Duke Street. Regarding outbound movements, traffic generated by the site will be distributed via the various connections to Victoria Street and to Nelson Street as shown in Figure 9.

Figure 9 Generated Traffic Distribution





With the signalised intersections providing breaks in the traffic on Victoria Street, it is anticipated that the various connections to Victoria Street will have available capacity to accommodate the projected movements generated by the development.

Based on the preceding assessment, it is anticipated that the level of traffic to be generated by the proposed development will be assimilated into the surrounding road network.

9.3 Car Stacker Operation

The development proposes a total of 120 stacker spaces.

It is noted that the stackers are provided in a set of seven separate systems for Lot A/B (1x 11-space system and 6x 8 space systems) and a set of eight separate systems for Lot C/D (7x 8-space systems and 1x 5 space system).

In relation to potential delays to motorists, due to the layout of the systems with seven separate systems proposed in Lot A/B and eight separate systems proposed in Lot C/D which will operate independently of each other, the only time when there could be queuing behind each other is when there are two drivers seeking to access the same stacker. For drivers of other stacker systems, there is sufficient room for another car to drive around to access their space in another stacker system further along the aisle (aisle widths are more than sufficient for this to occur). Furthermore, during the peak hours, it is expected that staff parking 'turns over' at a rate of approximately 50% of the car parking spaces in the peak direction. For the 120 stacker spaces, this equates to 60 vehicles in the peak direction.

Waiting times for cars accessing the stackers or drivers retrieving their car are estimated to vary between 30 – 90 seconds, depending on the car space location within the stacker system. Cars parked on the ground level spaces will just simply need to wait for the gate to open, while lower and upper-level spaces will take a bit longer as they are "shuffled" to the ground-level.

Noting the above, it is considered unlikely that significant delays or queues will eventuate. As noted above there is opportunity for other vehicles to pass a waiting vehicle in the event that two cars are accessing the same stacker at the same time.



10 CONCLUSIONS

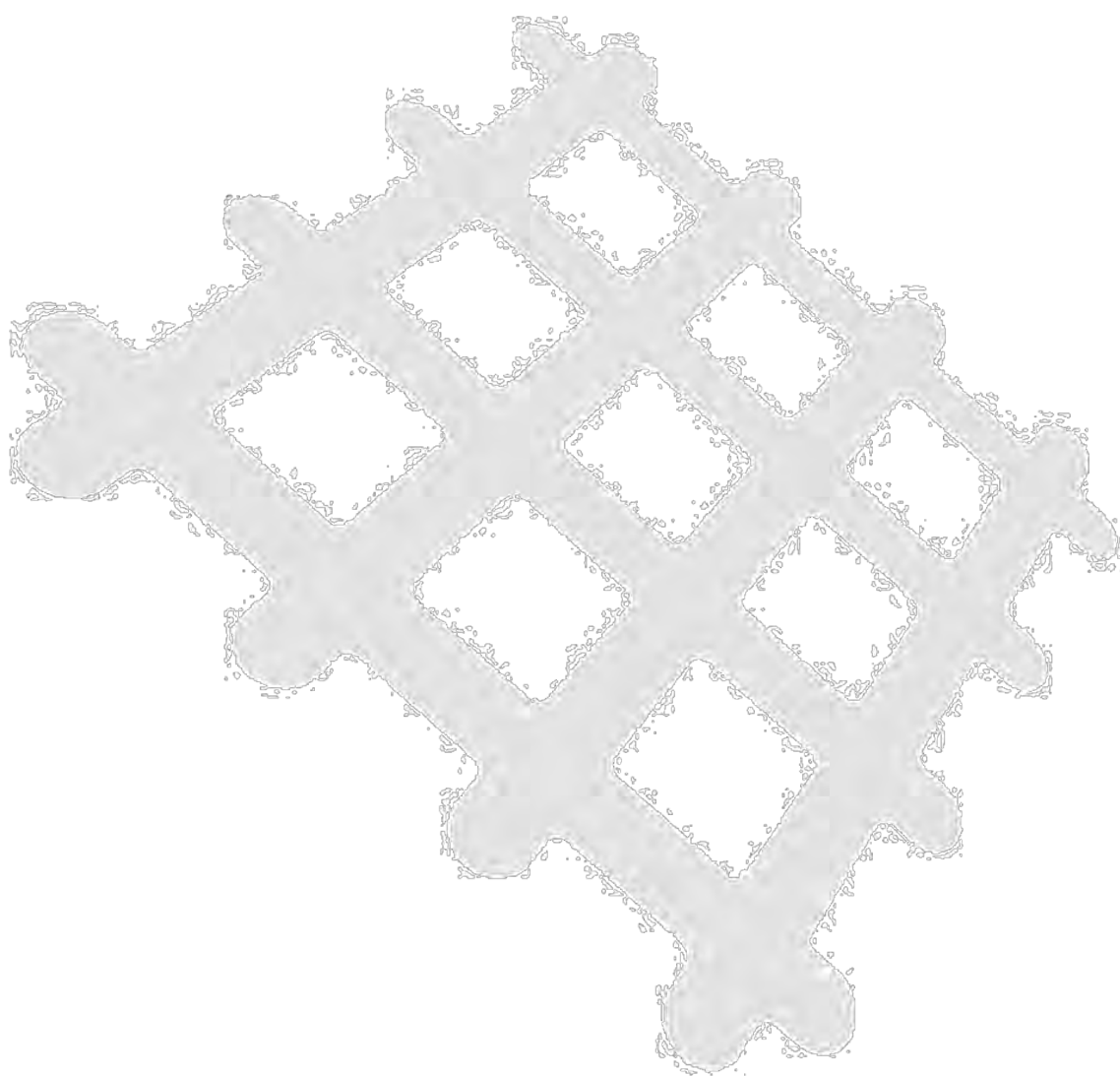
It is proposed to develop the subject site for the purposes of a mixed-use development including office and retail (food and drink) uses, with a total car parking provision of 124 spaces.

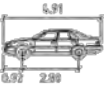
Considering the analysis presented above, it is concluded that:

- The proposed car parking, bicycle parking and access design is considered appropriate;
- The proposed provision of bicycle parking exceeds the requirements of the Planning Scheme, and is therefore considered appropriate;
- The proposed supply of car parking is appropriate for the proposed development, considering:
 - + The proposed development provides bicycle parking in excess of the Planning Scheme requirements, therefore providing an alternate means of transportation;
 - + The development is within easy walking distance of amenities, including shops, education, entertainment and recreational facilities;
 - + The site has excellent access to public transport, with several tram services in the immediate vicinity, providing access options for employees with no on-site parking space;
 - + Existing parking restrictions in the area will encourage employees to travel via alternative modes of transport, and ensure employees do not park long-term on-street;
 - + The removal of existing crossovers along the frontage of the site will permit an additional provision of approximately 45 metres of kerbside parking along the frontage of the site; and
 - + Reduced car parking provision assists with the desired reduction in private vehicle usage, therefore minimising traffic impacts in the vicinity.
- The operation of the stacker units is not expected to have a significant impact on site operation; and
- The level of traffic generated by the proposed development is not expected to have a discernible impact to the operation of the surrounding road network.

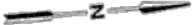


Appendix A Swept Path Diagrams





Vehicle
B65
Width : 1.87
Length : 4.31
Lock to Lock : 0.97
Steering Angle : 34.1



Showing Top
10-32 DUKE STREET, ABBOTSFORD
SITE VEHICLE ACCESS
SWEEP PATH ANALYSIS

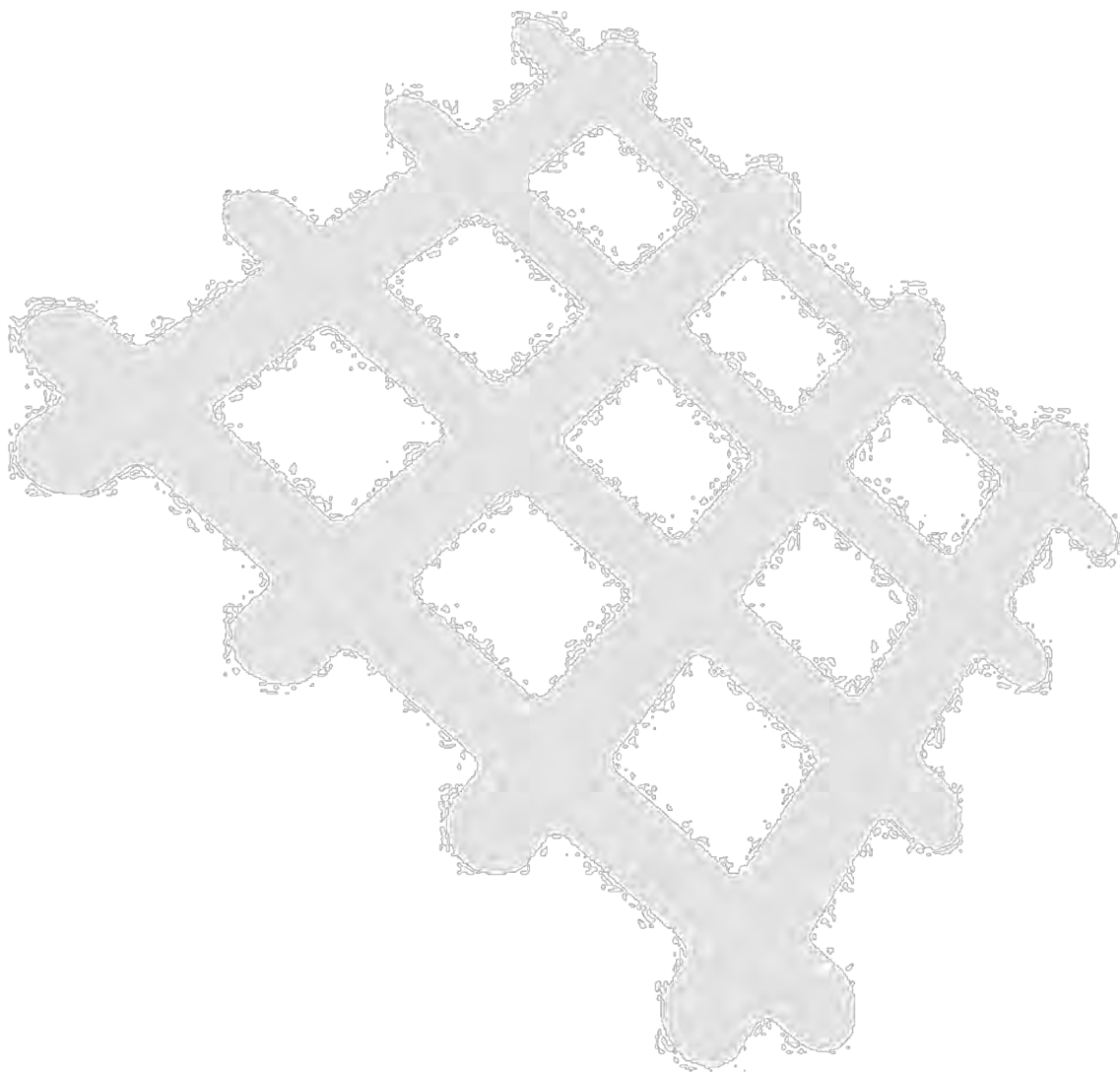
Project Name	Project No.	Client
CM	WB	44 07
Project Number	100000000	Project
22/0428	SPR100	B

Scale
1:400 @ A3





Appendix B *Stacker Specifications*





Product data

Dimensions, technical information and performance specification



trendvario 6300



[multiparking.com](https://www.multiparking.com)

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Explanation of symbols



Platforms accessible horizontally.



max. load per parking space in kg.
Upweighting over 2000 kg possible with surcharge (see "Vehicle data", page 3).



Parking space load can be subsequently upweighted (see "Vehicle data", page 3).



Traversable and can be combined with other TrendVario systems as a KombiSystem.

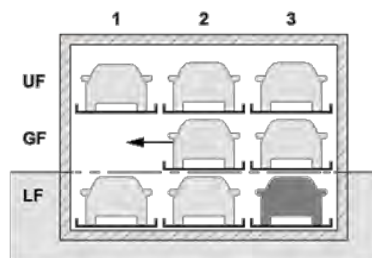


The systems provided are consistent with DIN EN 14010 and the EC Machinery Directive 2006/42/EC.
This system has also undergone a voluntary compliance test conducted by TÜV SÜD.

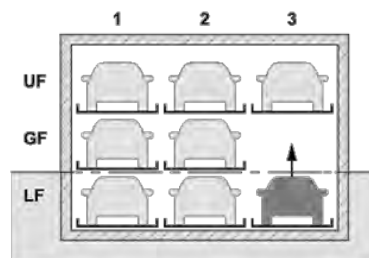
Function diagram with standard designation



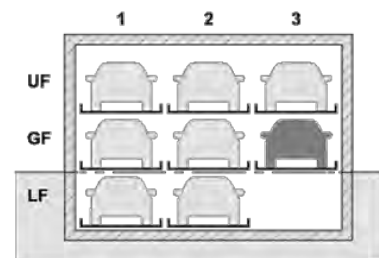
Example for vehicle on basement level (LF) of grid 3:
Selection via the control panel; all doors must be closed.
Representation of parking spaces in a row.



To remove the vehicle from the space in grid 3/LF, the GF platforms are moved to the left.



The empty space is now located above the vehicle being removed. The parking space in grid 3/LF is raised.



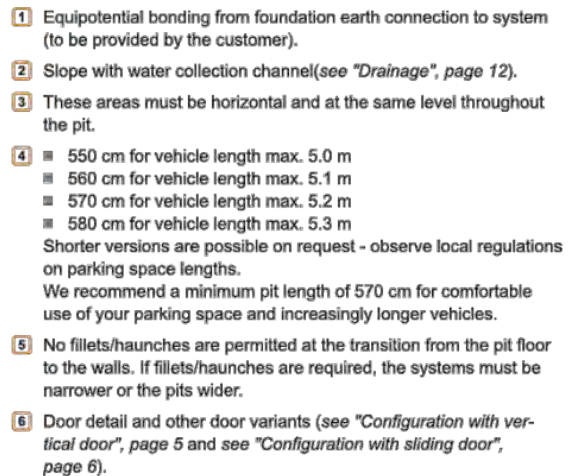
The vehicle in the space in grid 3/LF can now be removed.

Dimensions and tolerances



All dimensions and minimum final dimensions.
Tolerance for dimensions +3/-0. Dimensions in cm.
In order to adhere to the minimum final dimensions, the tolerances in accordance with the German Construction Tendering and Contract Regulations [VOB], Part C (DIN 18330 and 18331) and DIN 18202 must also be taken into account.

Building configuration with vertical door 6



If sprinklers are required, the customer must leave sufficient clearance during the construction phase.

Parking options

	UF GF LF 3		
Weight 4	2000 kg	2600 kg	3000 kg
Wheel load	500 kg	650 kg	750 kg

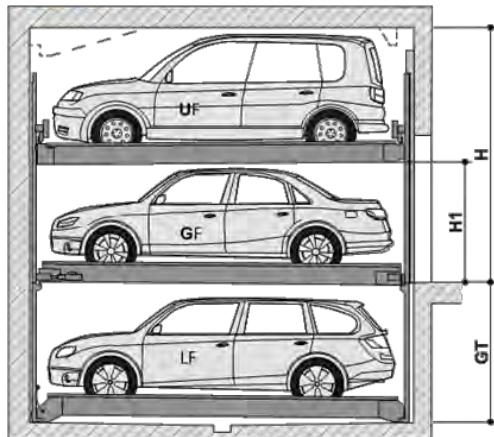
- Clearance gauge**



Overview of system types and ceiling heights



The permissible vehicle height, GF must be greater than or equal to the vehicle height, LF.



GT: Pit depth

H: Building height

H1: Headroom

Type	PD	Vehicle height, LF
6300/175	175	150
6300/180	180	155
6300/185	185	160
6300/190	190	165
6300/195	195	170
6300/200	200	175
6300/205	205	180
6300/210	210	185
6300/215	215	190
6300/220	220	195
6300/225	225	200
6300/230	230	205
6300/235	235	210
6300/240	240	215

H1	Vehicle height GF	Vehicle height UF															H - Building height
		150	155	160	165	170	175	180	185	190	195	200	205	210	215	220	
155	150	325	330	335	340	345	350	355	360	365	370	375	380	385	390	395	H - Building height
160	155	330	335	340	345	350	355	360	365	370	375	380	385	390	395	400	
165	160	335	340	345	350	355	360	365	370	375	380	385	390	395	400	405	
170	165	340	345	350	355	360	365	370	375	380	385	390	395	400	405	410	
175	170	345	350	355	360	365	370	375	380	385	390	395	400	405	410	415	
180	175	350	355	360	365	370	375	380	385	390	395	400	405	410	415	420	
185	180	355	360	365	370	375	380	385	390	395	400	405	410	415	420	425	
190	185	360	365	370	375	380	385	390	395	400	405	410	415	420	425	430	
195	190	365	370	375	380	385	390	395	400	405	410	415	420	425	430	435	
200	195	370	375	380	385	390	395	400	405	410	415	420	425	430	435	440	
205	200	375	380	385	390	395	400	405	410	415	420	425	430	435	440	445	
210	205	380	385	390	395	400	405	410	415	420	425	430	435	440	445	450	
215	210	385	390	395	400	405	410	415	420	425	430	435	440	445	450	455	
220	215	390	395	400	405	410	415	420	425	430	435	440	445	450	455	460	

Example configuration

Example configuration 1:

Vehicle, UF: 150 cm
 Vehicle, GF: 190 cm
 Vehicle, LF: 175 cm

Type: 6300/200 - 195
 Height: 365 cm

Example configuration 2:

Vehicle, UF: 160 cm
 Vehicle, GF: 160 cm
 Vehicle, LF: 180 cm

Type: 6300/205 - 165
 Height: Selection not possible!



Configuration 2 is not possible as the maximum permissible vehicle on GF is smaller than the vehicle on LF. As such, the larger vehicle, LF cannot drive in.

Width dimension and door height



We recommend platform widths of minimum 250 cm and driving lane widths of 650 cm in order that vehicles can comfortably access the Multiparking system and enter and leave without difficulty.

Narrower platforms may impede parking according to the following criteria.

- Driving lane width
- Entrance conditions
- Vehicle dimensions

1 Observe minimum driving lane width in accordance with local regulations.



For commercial use of doors with electrical drive systems, an inspection log is required in accordance with ASR A1.7 'Technical rules for workplaces' in Germany. The door must be inspected by an expert before commissioning and annually thereafter and the result entered in the inspection log. The inspection must be carried out independently of maintenance. Observe local regulations on operation of electrical doors.

Configuration with vertical door

Door versions

Supports per grid

Supports per second grid

	Clear platform width	RB 2	Supports per grid		Supports per second grid	
			B1	B2	B3	B4
Width dimensions	230	250	250	230	500	480
	240	260	260	240	520	500
	250	270	270	250	540	520
	260	280	280	260	560	540
	270	290	290	270	580	560

	max. vehicle height UF GF															
	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220	
H2	210	210	210	210	210	210	210	210	210	210	210	215	220	225	230	
H3	325	325	335	335	335	335	335	360	360	360	360	360	380	380	380	

1 Observe minimum clear height H2 in accordance with local regulations.

2 GL: building length (see "Overview of building configuration", page 3).

3 RB: grid width. These dimensions **must** be adhered to.

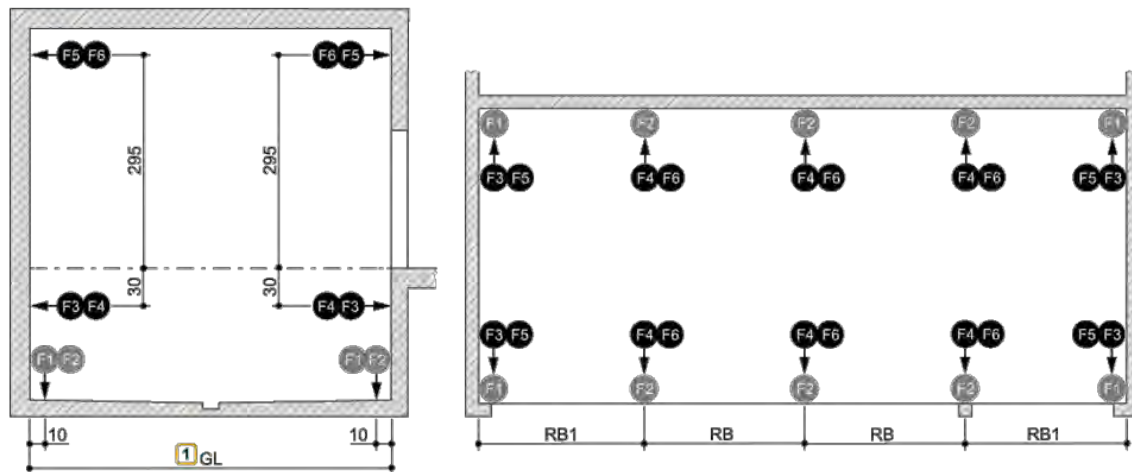
Configuration with sliding door														
	Door versions			Supports per grid					Supports per second grid					
	Sliding door behind the supports			Sliding door inside the supports					Sliding door in front of the supports					
				Not possible!										
	Sliding door in front of the supports													
	Clear platform width			Supports per grid					Supports per second grid					
	RB 3			B1 B2					B3 B4					
Width dimensions	230	250	250	250	230	500	480							
	240	260	260	260	240	520	500							
	250	270	270	270	250	540	520							
	260	280	280	280	260	560	540							
	270	290	290	290	270	580	560							
max. vehicle height UF GF														
	150	155	160	165	170	175	180	185	190	195	200	205	210	220
H2	210	210	210	210	210	210	210	210	210	210	215	220	225	235
H3	220	220	220	220	220	220	220	220	220	220	225	230	235	245
H4	210	210	210	210	210	210	210	210	210	210	215	220	225	235

- 1 Observe minimum clear height H2/H3/H4 in accordance with local regulations.
2 GL: building length (see "Overview of building configuration", page 3).
3 RB: grid width. These dimensions must be adhered to.

Loading schedule



The systems are dowelled into the ground. The drill hole depth in the floor plate is approx. 15 cm, in the walls approx. 12 cm.
The floor plate and walls must be from concrete (quality min. C20/25).
The dimensions for the bearing points have been rounded. If the precise figures are required, please consult KLAUS Multiparking.



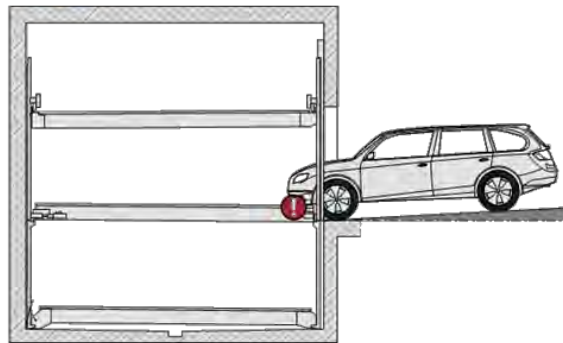
Parking space load	F1	F2	F3	F4	F5	F6	Clear platform width	RB ²	RB1
2000 kg	+ 41.0 kN - 11.8 kN	+ 54.0 kN - 23.6 kN	± 2.9 kN	± 5.8 kN	± 0.5 kN	± 1.0 kN	230	250	260
2600 kg	+ 47.0 kN - 14.2 kN	+ 94.0 kN - 28.2 kN	± 3.0 kN	± 6.0 kN	± 0.8 kN	± 1.6 kN	240	260	270
3000 kg	+ 51.0 kN - 15.8 kN	+ 102.0 kN - 31.6 kN	± 3.1 kN	± 6.2 kN	± 1.0 kN	± 2.0 kN	250	270	280
							260	280	290
							270	290	300

- ¹ GL: building length
² RB = grid width. These dimensions must be adhered to.

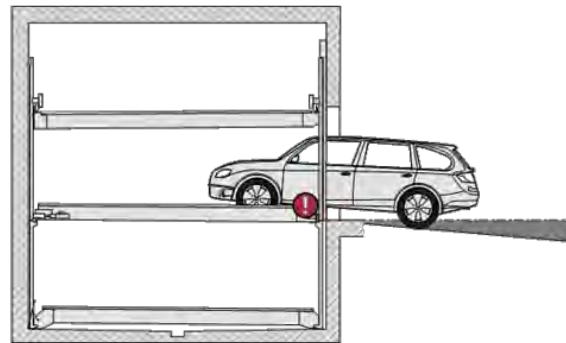
Access incline



The maximum access inclines specified in the symbol sketch must not be exceeded. Improper configuration can lead to extreme difficulty accessing the system, for which KLAUS Multiparking cannot be held liable.

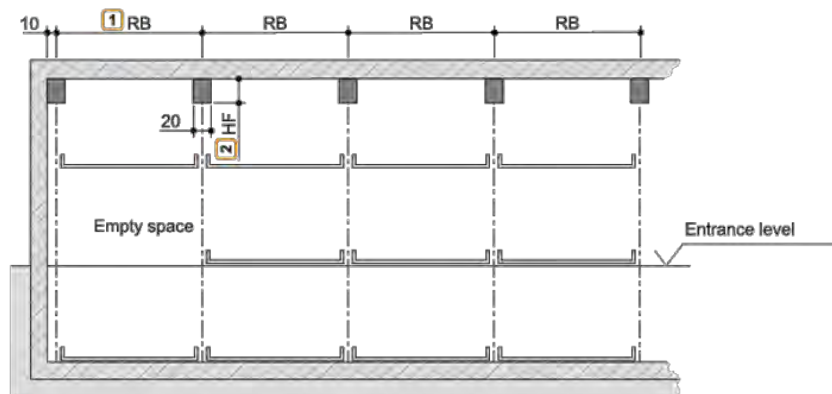


max. 3% slope



max. 5% gradient

Clearance for installations



- 1 RB: grid width. These dimensions **must** be adhered to.
- 2 HF: clearance height = building height (H) - 305 cm | where CH max. = 45 cm (see "Overview of system types and ceiling heights", page 4).
- Clearance for lengthways cable routing

Electrical installation

Switch cabinet and master switch

Access to the switch cabinet (approx. 60 x 60 x 25 cm) must be possible without danger. The lockable master switch must be positioned so that the entire entry area of the facility can be surveyed. With wall opening from switch cabinet to system (consultation with KLAUS Multiparking required).

Supply cable to master switch

Supply cable min. 5 x 2.5 mm² (3 PH+N+PE) to switch cabinet with pre-fuse 3 x 16 A (slow blow) or circuit breaker 3 x 16 A (trip characteristic K or C) to be provided by the customer. DIN/VDE and local regulations of energy-supply companies must be observed (see "Supply cable to master switch - foundation earth", page 12).

Hydraulic unit

- 3 kW, three-phase current 230/400 V / 50 Hz

Control panel with emergency-stop

- Attachment at a clear point (e.g. pillar).
- Secured against external operation.

Technical information

Usage area

The system is suitable for a fixed group of users as standard. Where users change (e.g. short-term parking in office buildings or hotels), structural modifications to the Multiparking system are required. Please request a consultation if required.

Units

Low-noise, bearing-mounted hydraulic units are installed on rubber-metal blocks. Consequently, we recommend separating the garage body from the residential building.

Parking space designation

Please consult the function diagram for the standard designation of the parking spaces (see "Function diagram with standard designation", page 2). Alternative designations are possible with a surcharge.

Please note the following specifications:

- The empty space is situated on the left as standard.
- Any alternative designations must be notified 8 to 10 weeks before delivery.

Ambient conditions

Ambient conditions for the areas around Multiparking systems: Temperature range -10 to $+40^{\circ}\text{C}$. Relative humidity 50 % to a maximum external temperature of $+40^{\circ}\text{C}$.

If ascent/descent times are specified, these relate to an ambient temperature of $+10^{\circ}\text{C}$ and with the system positioned immediately adjacent to the hydraulic unit. These times are increased at lower temperatures or with longer hydraulic lines.

Building application documents

Multiparking systems generally require approval. Please observe local regulations and stipulations.

Care

To prevent corrosion damage, please observe our special cleaning and care instructions and ensure that your garage is well ventilated.

Corrosion protection

In accordance with the 'Corrosion protection' supplement.

Electrically driven doors

For commercial use of doors with electrical drive systems, an annual inspection is required in accordance with ASR A1.7 'Technical rules for workplaces' in Germany. We urgently recommend concluding a maintenance contact as these services are included for the complete system.

CE conformity

The systems provided are consistent with DIN EN 14010 and the EC Machinery Directive 2006/42/EC. This system has also undergone a voluntary compliance test conducted by TÜV SÜD.

Noise protection

Standard noise protection:

In accordance with DIN 4109-1 Noise protection in high-rise - Section 9: Maximum sound pressure level in living and sleeping areas 30 dB (A). User noise is not subject to the requirements.

The following dimensions are required for adherence to this value:

- Noise protection package in accordance with quote/order (KLAUS Multiparking)
- Sound insulation dimension of the building structure of min. $R'w = 57\text{ dB}$ (service to be provided by the customer)

Increased sound protection (special agreement):

In accordance with DIN 4109-5 Increased noise protection in high-rise - Section 8:

Maximum sound pressure level in living and sleeping areas 25 dB (A). User noise is not subject to the requirements.

The following dimensions are required for adherence to this value:

- Noise protection package in accordance with quote/order (KLAUS Multiparking)
- Sound insulation dimension of the building structure of min. $R'w = 62\text{ dB}$ (service to be provided by the customer)

Note:

User noise is noise that can be influenced individually by the user of our Multiparking systems. This includes, e.g., accessing the platform, the slamming of vehicle doors, engine and brake noise.

Performance specification

Description

Multiparking system for independent parking of vehicles one on top of and next to one another.

Dimensions in accordance with the underlying pit, width and height dimensions.

Access to the parking spaces horizontally (installation tolerance $\pm 1\%$).

An access must be provided over the entire width of the system (minimum driving lane width in accordance with local regulations).

The parking spaces are arranged on 3 levels one on top of the other. Vehicles park on stable steel platforms.

The platforms on the basement level (LF) and upper level (UF) move vertically, the platforms on the ground level (GF) move horizontally. At entrance level (GF), there is always 1 parking space less. This empty space is used for sideways movement of the GF parking spaces to allow a parking space above on the UF or on the LF below to rise or lower to entrance level. Consequently, 5 parking spaces (2 on UF, 1 on GF, 2 on LF) is the smallest unit for this parking system.

Vehicle positioning in any parking space by positioning aid mounted on one side (to be adjusted in accordance with the operating instructions).

For safety reasons, the movement operation of the platforms always takes place behind locked doors.

All requisite safety equipment is integrated into the system. This essentially comprises a chain monitoring system, locking levers for the upper and lower platforms and locked doors. The doors can only be opened when the selected parking space has reached its parking position and all fall openings are secure.

Steel frame (secured in the pit) comprising:

- Supports (arranged in rows)
- Crossbeams and lengthways beams
- Sliding rails for the sideways moving GF platforms

Platform comprising:

- Platform profiles
- Adjustable positioning aid
- Chamfered ramp
- Side beams
- Crossbeams
- Screws, nuts, washers, spacers, etc.

Lifting equipment for platforms on the UF and LF comprising:

- Hydraulic cylinders with solenoid valves
- Chain wheels
- Chains
- Limit switches
- The platforms are each suspended at 4 points and are guided at the supports by means of plastic plain bearings

Drive unit for sideways moving platforms on GF:

- Gear motor with chain wheel
- Chains
- Sliding and guide rollers (low-noise)
- Power supply via energy chain

Hydraulic unit comprising:

- Hydraulic unit (low-noise, fitted to bracket and bearing mounted on rubber-metal block)
- Hydraulic oil tank
- Oil filling
- Internal gear pump
- Pump holder
- Coupling
- Three-phase motor
- Noise protection, motor protection switch and control fuse
- Test pressure gauge
- Pressure relief valve
- Hydraulic hoses (to attenuate noise transmission to the hydraulic pipes)

Control:

- Central control point (control panel with emergency-stop) for selecting the desired parking space
- The electrical wiring from the system cabinet is provided by the supplier

Vertical doors:

Size

Dimensions adjusted to the underlying widths and height dimensions. The door comprises two door leaves

Frame

- Frame structure with two vertical centre rungs from extruded aluminium profiles (anodised, coating thickness approx. 20 μm)
- There is a rubber lip on the closing edge for a clean seal with the building.

Door filling

Aluminium perforated plate

- Thickness 1.5 mm, RV 8-14 E6/EV1, anodised, coating thickness approx. 20 μm
- Ventilation cross-section of the filling approx. 30%

Guide rails

- The sliding rails of the doors are attached to the steel frame of the system.
- Galvanised steel guide rails (coating thickness approx. 20 μm).

Door actuation

- Electrical drive system by means of electric motor, above the door frame. For safety reasons, the movement operation of the platforms always takes place behind locked doors. An electrical signal generator is used to query the positions 'door open' and 'door closed'.

Please note:

Door apertures (at the side, covers over the sliding rails, etc.) and door suspensions are not included with the standard configuration but can be supplied as special equipment with a surcharge.

Sliding doors:

Size

- Sliding doors, size approx. 2500 mm x 2000 mm (width x height).

Frame

- Frame structure with one vertical centre rung from extruded aluminium profile (anodised, coating thickness approx. 20 µm)
- A handle shell is provided in a vertical aluminium profile for opening the doors.
- There is a rubber lip on the closing edge for a clean seal with the building.

Standard door filling

Aluminium perforated plate

- Thickness 2 mm, RV 5-8 E6/EV1, anodised, coating thickness approximately 20 µm
- Ventilation cross-section of the filling approx. 40%

Alternative door filling

Plain aluminium sheet

- Thickness 2 mm E6/EV1, anodised, coating thickness approximately 20 µm

Corrugated steel sheet

- Thickness 1 mm galvanised, coating thickness approximately 20 µm
- Additional powder coating, coating thickness approx. 25 µm on the outside and approx. 12 µm on the inside
- Colour options on the outside (building view):

RAL 1015 (light ivory)	RAL 3003 (ruby red)
RAL 5014 (pigeon blue)	RAL 6005 (moss green)
RAL 7016 (anthracite grey)	RAL 7035 (light grey)
RAL 7040 (window grey)	RAL 8014 (sepia brown)
RAL 9006 (white aluminium)	RAL 9016 (traffic white)

- Door inside in a light grey tone

Wood filling

- Nordic spruce in A sorting
- Vertical tongue and groove boards
- Colourless, pre-coated

Composite safety glass

- Composite safety glass from 8/4 mm

Wire mesh

- Mesh size 12 x 12 mm 0.5" x 0.5"
- Wire diameter 2 mm, galvanised, coating thickness approx. 20 µm
- Ventilation cross-section of the filling approx. 70%

Sliding rails

- The running gear comprises 2 double-pair roll systems per door, height-adjustable
- The sliding rails of the doors are attached to brackets with cover bushings or directly to the concrete lintel or a building-specific door suspension
- The lower guide comprises 2 plastic rollers on a base plate which is doweled to the floor
- Sliding rails, cover bushings, guide roller base plate are galvanised

Door actuation

- Electrical drive system by means of electric motor attached to the rail system in the turning point of the sliding doors. The drive pinion engages a chain attached to the door.

For safety reasons, the movement operation of the platforms always takes place behind locked doors. An electrical signal generator is used to query the positions 'door open' and 'door closed'.

Separation (if required)

- On request

Please note:

Door apertures (at the side, cover over the sliding rails, etc.) and door suspensions are not included with the standard configuration but can be supplied as special equipment with a surcharge.

Services to be provided by the customer

Barriers

Barriers that may be required in accordance with DIN EN ISO 13857 to secure the pits where there are roadways immediately in front of, adjacent to or behind the systems. This also applies during the construction stage.

Parking space numbering

Parking space numbering, if required.

Building services systems

Any lighting, ventilation, fire-extinguishing and fire-alarm systems that may be required, plus clarification and compliance with corresponding official documentation.

Lighting

The customer must observe local regulations pertaining to the illumination of parking spaces and roadways. In accordance with DIN EN 12464-1 'Light and lighting - Lighting of work places', an illumination level of min. 200 lx is recommended for the parking spaces and operating area of the system. A floating contact can be provided for actuation of parking space lighting provided by the customer.

Drainage

Functional drainage of the pit must be provided by means of, for example, a water collection channel towards the centre that is connected to the sewer system or a pump sump. The channel may contain a lateral slope, but not in the other pit areas (lengthways slope is already provided by the building dimensions). In the interests of environmental protection, we recommend coating the pit floor. Oil and/or fuel separators should be installed in accordance with local regulations.

Strip foundations

Due to structural conditions, the customer must erect an accessible platform when constructing strip foundations, level with the upper edge of the strip foundation.

Wall openings

Wall openings, if required.

Supply cable to master switch - foundation earth

The customer must lay the supply cable to the master switch during assembly. Functional capability can be checked by our engineers on site, in conjunction with the electronics engineer. If this is not possible during assembly for reasons attributable to the customer, the customer must commission an electronics engineer.

The customer must earth the steel structure with a foundation earth connection (earthing distance max. 10 m) and equipotential bonding in accordance with DIN EN 60204.

Door suspensions

Please note that if the specified clear heights (see "Width dimension and door height", page 5) are not adhered to, additional measures for door attachment (door suspensions) will be required for a surcharge.

Door apertures

Door apertures, if required. This may be requested from KLAUS Multiparking for a surcharge.

Subject to technical changes

In the course of technical progress, KLAUS Multiparking shall be entitled to use newer or different technologies, systems, processes or standards to provide the services than initially offered, provided that this does not disadvantage the customer in any way.

Product data
TrendVario 6300
589.65.760-004 | 06/2021 | English

Manufacturer:

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Hermann-Krum-Straße 2
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PARK & SMILE

multiparking.com

10-32 Duke Street, Abbotsford VIC 3067

Sustainability Management Plan

Town Planning Application Report

Prepared for: Yarra City Council

Date: 02 September 2022

Prepared by: Alex Yip

Ref: 301150948

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Revision

Issue	Date	Comment	Prepared By	Approved By
001	22/08/2022	Town Planning draft	AXY	CMC
002	02/09/2022	Town Planning Issue	AXY	CMC



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Design with community in mind

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Design with community in mind

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| ii

Executive Summary

This report has been prepared at the request of BKK Architects and is intended to provide an overview of the Environmentally Sustainable Design (ESD) initiatives in support of the Planning Permit Application for the proposed development at 10-32 Duke Street, Abbotsford VIC 3067.

This Sustainability Management Plan (SMP) has been prepared to inform Yarra City Council of the proposed development's commitment to sustainability, measured against the performance guidelines in accordance with the Yarra Planning Scheme.

As per direction from the ESD Officer as part of the pre-application meeting the Built Environment Sustainability Scorecard (BESS) has been utilised as the applicable benchmark sustainability tool in order to demonstrate compliance with ESD expectations of Council & demonstrate best practice in Ecological Sustainable Design (i.e. >50% BESS Score).

Project BESS Scorecard Summary

Based upon the performance commitments outlined within this report, the following BESS outcome has been achieved:

BESS Scorecard Summary		
Category	Required Score	Score
Management	0%	50%
Water	50%	71%
Energy	50%	66%
Stormwater	50%	100%
IEQ	50%	61%
Transport	0%	87%
Waste	0%	33%
Urban Ecology	0%	37%
Innovation	0%	100%
Overall Score	50%	71%

Disclaimer

This document may be subject to change or modification through the course of the design phase of the project. It is expected that any change or modification will not negatively impact on the overall aim of this document in accordance with performance expectations of the Yarra Council Planning Scheme. That is, to provide a strategy for the project which ensures it meets the expectations of the Authority with regards to environmentally sustainable design.

1. Overview

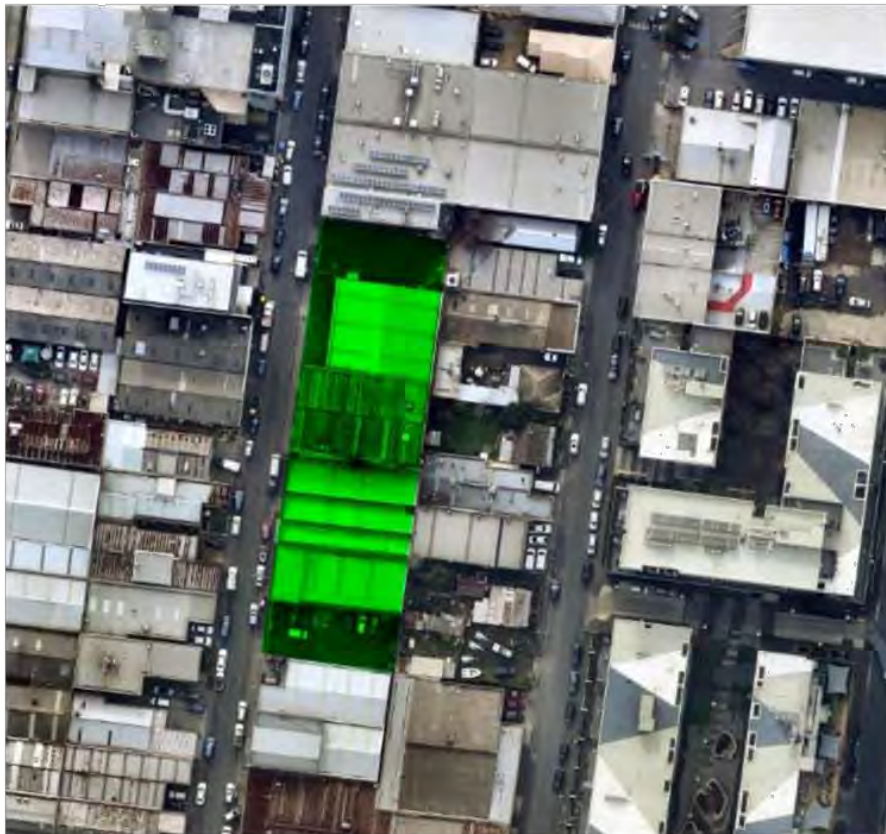
1.1 Development Summary

The proposed development is to comprise an 8-storey commercial building comprising of 1 level of basement below the ground floor containing 214m² NLA of retail space, 7 levels of commercial office space with 10,590m² NLA, a summary of which is as follows:

Floor Level	Description
Basement 1	1 level of basement containing car stacker pits for 124 car spaces, with allowance for EV charging stations within. End of trip facilities with 132 bicycle spaces, 18 showers and 148 lockers for building users, 6 motorcycle parking spaces, as well as hydraulic plant rooms, rainwater tanks, E-scooter Charging points and services.
Ground Floor	Entry to Car stackers, DDA car parking spaces, foyers, meeting room, substation, waste rooms and two retail (Food & Drink) tenancies with total NLA of 214m ² . 16 Bicycle parking spaces for visitors
Level 01- Level 08	10,590m ² of commercial office NLA and amenities and 1,339m ² of terrace spaces
Roof	Plant and Solar PV array

1.2 Development Site

The proposed development has a total site area of **2,845.5 m²**. The project site is shown in the image below.



10-32 Duke Street, Abbotsford– Sustainability Management Plan

OVERVIEW | 4

1.3 Planning Scheme Requirements

The overarching objective of clause 22.17 – *Environmentally Sustainable Development* within the Yarra Planning Scheme is that development should achieve best practice in environmentally sustainable development from the design stage through to construction and operation by encouraging innovative technology, design and processes in all development which positively influence the sustainability of buildings. This is achieved through the following objectives:

- To improve the efficient use of energy, by ensuring development demonstrates design potential for ESD initiatives at the planning stage.
- Reduce total operating greenhouse gas emissions and energy peak demand through design measures such as solar panels, appropriate building orientation and shading etc.
- To improve water efficiency and reduce total operating potable water use through the collection and reuse of stormwater.
- To achieve a healthy indoor environment quality for the wellbeing of building occupants, including the provision of fresh air intake, cross ventilation, and natural daylight.
- To achieve thermal comfort levels with minimised needs for mechanical heating, ventilation, and cooling.
- To reduce indoor air pollutants by encouraging use of materials with low toxic chemicals.
- To ensure that stormwater in urban development, including retention and reuse, is managed to mitigate the impacts of stormwater on the environment, property and public safety and incorporate the use of water sensitive urban design, including stormwater re-use
- Support low energy forms of transport such as walking and cycling
- To promote waste avoidance, reuse and recycling during the design, construction and operational stages of the development.
- To ensure durability and long-term reusability of building materials
- To protect and enhance biodiversity, provide environmentally sustainable landscapes and natural habitats, and minimise the urban heat island effect
- To encourage the planting of indigenous vegetation

This Sustainability Management Plan (SMP) has been prepared in order to provide a detailed overview of the proposed development's commitment to environmental performance outcomes with regard to the overarching Planning Scheme objectives.

1.4 Design Documentation

For further development summary information, please refer to the relevant design drawings as nominated below:

- Architectural Town Planning Drawings prepared by BKK Architects received 02 September 2022.

2. Summary of Sustainability Commitments

2.1 Sustainability Vision

The development of 10-32 Duke Street, Abbotsford aims to effectively implement sustainable design initiatives which support Yarra City Council's objectives in order to reduce the project's overall environmental impact within the municipality.

To this extent the project has sought to align with the current ESD expectations of the Council planning scheme whilst seeking to add additional value to both neighbourhood character and improved amenity of the precinct. The approach has been to facilitate high performance by exceeding minimum benchmarks & applying design principles which limit the overall ecological and GHG emission impact of the development.

2.2 Design Philosophy

- An on-site commitment to renewable energy generation – Available roof space indicates the potential to accommodate a 75.2kW solar PV system, however, further detailed design is needed to determine if all nominated areas can be used. In consideration of this, the project commits to a minimum 40 kW system.
- Efficient building form, passive thermal optimisation & climate responsive design as primary design principle. Includes upgraded fabric where required & optimised passive thermal performance via detailed energy simulation.
- Efficient building services – air-cooled system & inclusive of variable speed drives for improved energy efficiency. The system also includes allowance for BMS optimised controls & economy cycle.
- Dedicated on-site end of trip facilities and bicycle storage in order to support the adoption of sustainable transport modes, reducing transport associated emissions.
- Optimised lighting controls including facility function for lighting switching, motion sensor and detection control and optimised energy management.
- Additional green spaces in the form of terraces and green walls for reduced urban heat island impacts

2.3 Built Environment Sustainability Scorecard (BESS)

In addition to the sustainable design elements nominated above, the development has completed a Built Environment Sustainability Scorecard (BESS) assessment.

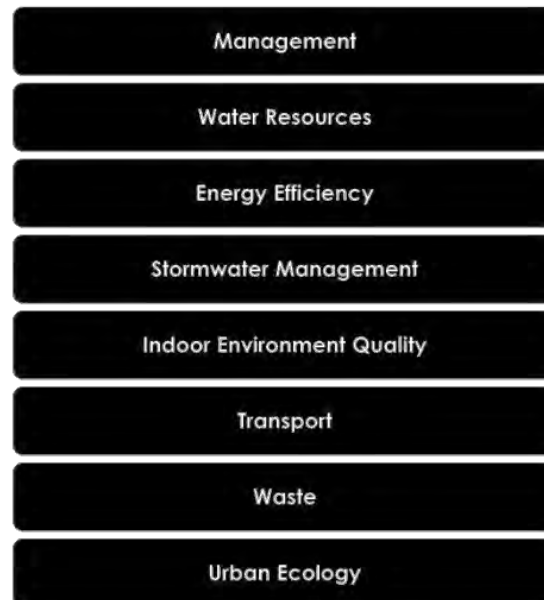
BESS assesses energy and water efficiency, thermal comfort, and overall environmental sustainability performance of a new building or alteration. It was created to assist builders and developers to demonstrate that a project meets sustainability information requirements as part of a planning permit application and is considered an acceptable tool for ESD benchmarking.

In order to achieve a 'Best Practise' score in BESS, the project must achieve a minimum score of 50% in the Water, Energy, Stormwater, and IEQ categories in addition to scoring a minimum of 50% overall.

BESS Assessment Score		
Category	Required Score	Score
Management	0%	50%
Water	50%	71%
Energy	50%	66%
Stormwater	50%	100%
IEQ	50%	61%
Transport	0%	87%
Waste	0%	33%
Urban Ecology	0%	37%
Innovation	0%	100%
Overall Score	50%	71%

3. Sustainable Management Plan

In line with the sustainability commitments and vision for this development, the sustainability management plan has been broken into 10 major categories as outlined below.



These categories provide the framework to create a development with a holistic and thorough approach to environmental sustainability. The development design details have been carefully reviewed and curated to address each category and provide innovative solutions wherever applicable.

3.1 Management

In order to create an integrated design and construction process which in turn leads to effective operational and on-going building performance, the development seeks to address this category through the following on-site initiatives.

BUILDING USERS GUIDE

- A simple easy-to-use **Building Users Guide** is to be developed and issued to building occupants.

THERMAL PERFORMANCE MODELLING

- **Preliminary NCC2019** Section J façade assessment has been undertaken for all non-residential (Office & retail spaces) in the development – refer to Appendix B for results

METERING & MONITORING

- **Separate utility meters** will be provided for all individual commercial tenants to monitor their water and electricity usage and consumption.
- **Sub-metering** of all major common area services and water consumption will be utilised to allow for ongoing building tuning works by the Facility Manager

3.2 Water Resources

With people becoming more aware of our water security issues, properties that are designed to use water more efficiently are becoming highly regarded by potential tenants. Water saving measures such as water efficient fittings and fixtures (taps, shower heads etc.) and reuse systems are key features for water efficient design.

Overall, the development will seek to address water efficiency and reduce the potable water demand for the building through the below initiatives.

WATER CONSERVATION

- **Sanitary fixtures** across all the development will adhere to the following WELS ratings below:
 - Taps – 6 Star
 - Toilets – 5 Star
 - Dishwashers – 5 Star
 - Urinals – 5 Star
 - Showers 4 Star (≥ 4.5 but ≤ 6.0 L/min)
- **Building HVAC** will be waterless (air-cooled) systems which limit the requirements for water-based heat rejection reducing overall project water demands.
- **Water efficient landscaping** shall be included within the design response for landscape amenity. Irrigation supply shall be sourced from non-potable supplies or plant species selected which limit demand for landscape irrigation.
- Potable water consumption during the testing of fire safety systems will be reduced by a minimum of 80% through the use of rainwater and / or recycling of test water.

WATER REUSE

- **Rainwater** is to be collected off suitable roofs into three separate tanks with a total combined capacity of 48,000L tank for re-use for toilet flushing and landscape irrigation

3.3 Energy Efficiency

The built environment within Australia contributes over **40%** of our total greenhouse gas emissions annually which is among the highest per capita in the world. **Intelligent design** can drastically improve energy efficiency and decrease greenhouse gas emissions associated with a building's operation.

This development has sought to include several sustainable initiatives designed in order to maximise the energy efficiency of the development. Energy efficiency initiatives proposed for inclusion within the development are outlined below:

BUILDING FABRIC

- All exposed floors and ceilings forming part of the envelope will achieve a **minimum 10% improvement in insulation levels over NCC 2019 requirements** and will meet the required glazing specifications of the NCC 2019 façade calculator.

APPLIANCES & EQUIPMENT

- All heating and cooling systems will be within one Star of the most efficient equivalent capacity unit available or have a Coefficient of Performance (COP) & Energy Efficiency ratio not less than 85% of the most efficient equivalent capacity units available.

SUSTAINABLE ENERGY SUPPLY

- Available roof space indicates the potential to accommodate a 75.2kW solar PV system, however, further detailed design is needed to determine if all nominated areas can be used. In consideration of this, the project commits to a minimum 40 kW system to offset grid electricity usage and further reduce GHG emissions associated with the building's operation.

LIGHTING

- **Lighting power density** in at least 90% of the areas will meet the requirements in Table J6.2a of the NCC2019 Vol

3.4 Stormwater Management

The design team recognises and embraces that by reducing stormwater run-off from the site the project has the potential to improve natural ecosystem health and improve natural ecology beyond the site boundary.

WATER SENSITIVE URBAN DESIGN (WSUD)

- Compliance with the integrated water and stormwater management objectives of the Yarra Planning Scheme and the *Stormwater* requirements of the BESS has been demonstrated by the development through a 100% STORM score (Refer to Appendix A).

3.5 Indoor Environmental Quality

Indoor Environment Quality (IEQ) has been defined as a key sustainable building category in order to improve indoor environments for building occupants which in turn aims to improve their overall wellbeing. Australians spend **90% or more** of their time indoors.

Therefore, consideration to improving indoor environmental quality is a vital step within the design process for any modern building. The proposed development seeks to improve the overall Indoor Environmental Quality (IEQ) for building occupants by addressing the following elements:

ACCESS TO DAYLIGHT

- Building orientation, eave and facade design, glazing and material selection have all been designed with the intent to achieve **natural daylight** to office spaces while maintaining a high thermal performance
- Although the NLA in the building receiving adequate daylight (i.e. $\geq 2\%$ Daylight Factor) would be expected to be greater if daylight availability modelling were to be undertaken, based on the Green Star hand calculation methodology at least **33% of the nominated office floor area** and **50% of retail floor area** achieving a 2% daylight factor (refer to appendix D).
- A **100% increase in outdoor air** will be supplied to regular use areas over the minimum required by AS 1668:2012
- Ventilation systems are designed to **monitor and maintain CO₂ concentration levels of 700ppm or lower**.

THERMAL COMFORT - SHADING

- The proposed design response has extensive external shading, with all glazing elements on the western and eastern facades provided with an external shading screen, and awnings provided to all terrace spaces except level 4. This amounts to approximately 70% of all glazing to the Northern, eastern, and western facades of the project provided with external shading,

INDOOR POLLUTANTS

- **Low Volatile Organic Compounds (VOC)** internally applied paints, carpets, adhesives and sealants will be selected for the project in line with the Green Star Indoor Pollutants requirements
- **Low Formaldehyde** engineered wood products (particleboard, plywood, MDF) will be selected for the project in line with the Green Star Indoor Pollutants requirements.

3.6 Transport

The development supports the adoption of sustainable transport options by both regular building occupants & staff as well as building visitors. Site proximity to major transport infrastructure also lends itself to building residents adopting and utilising sustainable methods of transport.

BICYCLE PARKING

- **132 on-site** Bicycle parking spaces for building tenants & staff, located in B1 level
- **16 Visitor** Bicycle parking spaces on the Ground floor

CAR PARKING

- A total of **124 on-site car parking spaces** are be provided.
- A total of **6 on-site** Motorcycle parking spaces are provided.

END OF TRIP FACILITIES

- **End-of-trip facilities** for building staff are provided to support the on-site transport facilities are provided on the basement 1 level and contains 18 Showers and 148 Lockers

Electric Vehicle Infrastructure

- At least **one EV charging space** and seven motorcycle parking spaces will be provided in the car parking area.
- **E-scooter charging points** have been provided in the basement

3.7 Waste

Construction and demolition activities account for a large percentage of the waste and recycling generated by a site when compared to its general operation. There is now a growing level of interest in 'green' buildings, which through careful design use less resources and energy than conventional buildings and provide healthier environments for staff.

OPERATIONAL WASTE

- Provision for different waste streams including general waste, food & garden organics, recycling & paper, cardboard, glass and e-waste will be provided in refuse room to encourage the separation of different waste types.
- A waste management plan has been developed for the site and is provided under a separate cover.

3.8 Urban Ecology

In order to protect and enhance the local biodiversity and urban ecology, the development seeks to address this ESD category through the following on-site initiatives.

COMMUNAL SPACES

The following communal spaces are to be provided within the development:

- All office spaces from Level 1 to level 8 have been provided with its own external terrace area, for a combined total of 1,339m² of external terrace spaces spread throughout the site.
- The site includes green walls on the west façade to mitigate the impact of the urban heat island effect.
- The site landscaping design which comprises of multiple plant boxes offers approximately 258 m² of vegetation.

3.9 Innovation

The project is targeting a total of 10 points worth of innovation credits as follows:

- Ultra-low VOCs (1 point) - 50% of paints by volume will have a maximum TVOC content of 5g/L
- Building Air-Tightness (1 point) - Air Permeability Testing to show that building achieves a permeability rate of 2.5m³/h/m² @50 Pa
- Improved Stormwater pollution reduction (1 point) - Stormwater Pollution reduction targets to achieve figures in column B of table 26.2 of the Green Star design and As-built handbook
- Ventilation Systems Reduced CO₂ concentrations (1 point) - Ventilation systems are designed to achieve and maintain 600ppm CO₂ concentrations
- Local Procurement (1 point) – A percentage of services and labour employed by the project to come from local area
- Green Cleaning (1 point) - Cleaning services to common areas to be in accordance with Project Green Cleaning Policy, which is to include details regarding:
 - Environmental Goals and objectives which include:
 - Strategies to ensure high standards of surface hygiene and cross-contamination prevention, including hand-hygiene education for occupants and cleaners
 - Procurement guidelines and standards for all cleaning products and equipment to minimize health risks and meet best practice environmental performance aims
 - The Use of HEPA filtration (or equivalent) in vacuum cleaner equipment
 - Set policy requirements for minimization of cleaning products usage
 - Whenever cleaning products are used, set requirements for products and methods that employ environmental best practice
 - Implementation procedures and strategies
 - Environmental performance measurements, including metrics
 - Quality assurance for ongoing improvement
 - Responsible Parties
 - Cleaning Personnel requirements (including documented monitoring and reporting procedures)
 - Review process to assess the success of the policy and to make improvements based on lessons learnt
- Occupant Engagement (1 point) - Post occupancy surveys to be undertaken, addressing occupant satisfaction, well-being and interaction within the indoor environment
- Life Cycle Assessment (2 points) – This is to be done by analysing the usage of building materials to highlight the elements with the highest amount of embodied carbon, so that alternative products can be found to replace them which can reduce the building's embodied carbon footprint and its associated environmental impacts

Appendix A – STORM Report



STORM Rating Report

TransactionID: 1443283
 Municipality: MOONEE VALLEY
 Rainfall Station: MOONEE VALLEY
 Address: (Lot A) 10-32 Duke Street

Abbotsford
 VIC 3067

Assessor: Alex Yip
 Development Type: Commercial/Retail
 Allotment Site (m2): 467.30
 STORM Rating %: 102

Description	Impervious Area (m2)	Treatment Type	Treatment Area/Volume (m2 or L)	Occupants / Number Of Bedrooms	Treatment %	Tank Water Supply Reliability (%)
Ground Floor Pavement	188.04	None	0.00	0	0.00	0.00
Rooftop (Harvestable)	176.22	Rainwater Tank	5,000.00	100	170.00	82.00
Rooftop (Plant)	103.04	Rainwater Tank	3,000.00	100	170.00	82.00

Date Generated: 02-Sep-2022

Program Version: 1.0.0



STORM Rating Report

TransactionID: 1443274
 Municipality: MOONEE VALLEY
 Rainfall Station: MOONEE VALLEY
 Address: (Lot B) 10-32 Duke Street

Abbotsford
 VIC 3067

Assessor: Alex Yip
 Development Type: Commercial/Retail
 Allotment Site (m2): 951.60
 STORM Rating %: 108

Description	Impervious Area (m2)	Treatment Type	Treatment Area/Volume (m2 or L)	Occupants / Number Of Bedrooms	Treatment %	Tank Water Supply Reliability (%)
Ground Floor Pavement	342.01	None	0.00	0	0.00	0.00
Rooftop (Harvestable)	409.54	Rainwater Tank	12,000.00	100	170.00	82.00
Rooftop (Plant)	200.05	Rainwater Tank	5,000.00	100	166.80	80.00

Date Generated: 02-Sep-2022

Program Version: 1.0.0



STORM Rating Report

TransactionID: 1443271
 Municipality: MOONEE VALLEY
 Rainfall Station: MOONEE VALLEY
 Address: (Lot CD) 10-32 Duke Street

Abbotsford
 VIC 3067

Assessor: Alex Yip
 Development Type: Commercial/Retail
 Allotment Site (m2): 1,426.60
 STORM Rating %: 105

Description	Impervious Area (m2)	Treatment Type	Treatment Area/Volume (m2 or L)	Occupants / Number Of Bedrooms	Treatment %	Tank Water Supply Reliability (%)
Ground Floor Pavement	516.21	None	0.00	0	0.00	0.00
Rooftop (Harvestable)	611.58	Rainwater Tank	18,000.00	100	170.00	82.00
Rooftop (Plant)	298.81	Rainwater Tank	5,000.00	100	153.20	72.00

Date Generated: 02-Sep-2022

Program Version: 1.0.0

Appendix B – BESS Assessment

BESS, 10-32 Duke St, Abbotsford VIC 3067, Australia 10-32 Duke Street, Abbots...

BESS Report

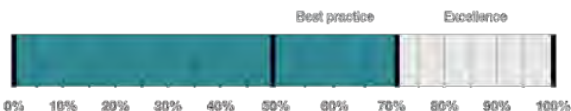
Built Environment Sustainability Scorecard



This BESS report outlines the sustainable design commitments of the proposed development at 10-32 Duke Street Abbotsford VIC 3067. The BESS report and accompanying documents and evidence are submitted in response to the requirement for a Sustainable Design Assessment or Sustainability Management Plan at Yarra City Council.

Note that where a Sustainability Management Plan is required, the BESS report must be accompanied by a report that further demonstrates the development's potential to achieve the relevant environmental performance outcomes and documents the means by which the performance outcomes can be achieved.

Your BESS Score



71%

Project details

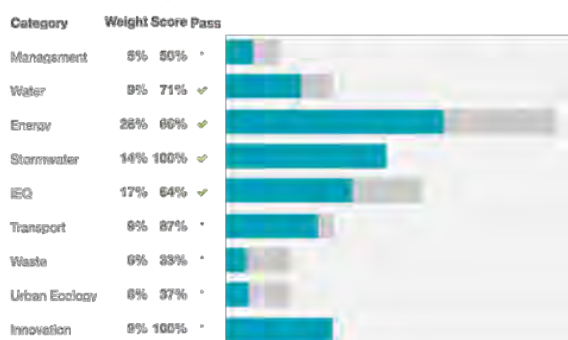
Address 10-32 Duke Street Abbotsford VIC 3067
 Project no 8DS4A07-R1
 BESS Version BESS-6

Site type Non-residential development
 Account alex.yip@stantec.com
 Application no.
 Site area 3,048.00 m²
 Building floor area 10,814.00 m²
 Date 02 September 2022
 Software version 1.7.0-B.388

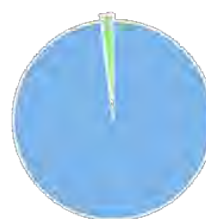


Performance by category

● Your development ● Maximum available



Building Type composition



● Office ● Shop

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BESB, 10-32 Duke St, Abbotsford VIC 3067, Australia 10-32 Duke Street, Abbots...

Buildings

Name	Height	Footprint	% of total footprint
Building 1	0	2,812 m ²	100%

Dwellings & Non Res Spaces**Non-Res Spaces**

Name	Quantity	Area	Building	% of total area
Office				
Office	1	10,604 m ²	Building 1	98%
Total	1	10,604 m²	98%	
Shop				
Retail	1	210 m ²	Building 1	1%
Total	1	210 m²	1%	

Supporting information**Floorplans & elevation notes**

Credit	Requirement	Response	Status
Management 3.2	Individual utility meters annotated	To be printed Refer to Architectural Floor Plans	✓
Management 3.3	Common area submeters annotated	To be printed Refer to Architectural Floor Plans	✓
Water 3.1	Water efficient garden annotated	To be printed Refer to Architectural Floor Plans	✓
Energy 4.2	Floor plans showing location of photovoltaic panels as described.	To be printed Refer to Architectural Roof Plans	✓
Stormwater 1.1	Location of any stormwater management systems used in STORM or MUSIC modelling (e.g. Rainwater tanks, reingarden, buffer strips)	To be printed Refer to Architectural Basement Plans	✓
Transport 1.4	All nominated non-residential bicycle parking spaces	To be printed Refer to Architectural Basement Plans	✓
Transport 1.5	All nominated non-residential visitor bicycle parking spaces	To be printed Refer to Architectural Ground floor plan	✓
Transport 1.6	Showers, change rooms and lockers as nominated	To be printed Refer to Architectural Basement Plan	✓
Transport 2.1	Location of electric vehicle charging infrastructure	To be printed Refer to Architectural Basement Plan	✓
Transport 2.3	All nominated motorbicycle parking spaces	To be printed Refer to Architectural Ground Floor plan	✓
Waste 2.2	Location of recycling facilities	To be printed Refer to Architectural Ground Floor plan	✓
Urban Ecology 1.1	Size and location of communal spaces	To be printed Refer to Architectural Floor Plans	✓

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Attachment 5 PLN22/0679 - 10 - 32 Duke Street Abbotsford - Sustainability Management Plan / ESD Report

BESS, 10-32 Duke St, Abbotsford VIC 3067, Australia 10-32 Duke Street, Abbots...


Credit	Requirement	Response	Status
Urban Ecology 2.1	Vegetated areas	To be printed Refer to Architectural Floor Plans	✓
Urban Ecology 2.3	Green facade	To be printed Refer to Architectural Elevations	✓

Supporting evidence

Credit	Requirement	Response	Status
Management 2.9a	Section J glazing assessment	To be printed Sustainability Management Plan Refer to Appendix C for glazing calculations	✓
Energy 1.1	Energy Report showing calculations of reference case and proposed buildings	To be printed None No energy modelling has beyond the facade calculator has been undertaken - Credit not claimed	✓
Energy 3.7	Provide a written description of the average lighting power density to be installed in the development and specify the lighting type(s) to be used.	To be printed Architectural Drawings Refer to Architectural Title sheet	✓
Energy 4.2	Specifications of the solar photovoltaic system(s).	To be printed Architectural Drawings Refer to Rooftop Architectural plans and Sustainable Management Plan	✓
Stormwater 1.1	STORM report or MUSIC model	To be printed Sustainability Management Plan Refer to Appendix A for STORM calculations	✓
IEQ 1.4	A short report detailing assumptions used and results achieved.	To be printed Sustainability Management Plan Refer to Sustainability Management Plan	✓

Credit summary

Management Overall contribution 4.6%

	50%
1.1 Pre-Application Meeting	0%
2.3 Thermal Performance Modelling - Non-Residential	50%
3.2 Metering - Non-Residential	100%
3.3 Metering - Common Areas	100%
4.1 Building Users Guide	100%

Water Overall contribution 9.0%

		Minimum required 50%	71%	✓ Pass
1.1 Potable water use reduction		60%		
3.1 Water Efficient Landscaping		100%		
4.1 Building Systems Water Use Reduction		100%		

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Attachment 5 PLN22/0679 - 10 - 32 Duke Street Abbotsford - Sustainability Management Plan / ESD Report

BESS, 10-32 Duke St, Abbotsford VIC 3067, Australia 10-32 Duke Street, Abbots...

Energy Overall contribution 27.8%

	Minimum required 50%	66%	✓ Pass
1.1 Thermal Performance Rating - Non-Residential	37%		
2.1 Greenhouse Gas Emissions	100%		
2.2 Peak Demand	100%		
2.3 Electricity Consumption	100%		
2.4 Gas Consumption	N/A	⊕ Scoped Out	
	No gas connection in use.		
3.1 Carpark Ventilation	N/A	⊕ Scoped Out	
	Car Stacks used in lieu of traditional car parks		
3.2 Hot Water	100%		
3.7 Internal Lighting - Non-Residential	100%		
4.1 Combined Heat and Power (cogeneration / trigeneration)	N/A	⊕ Scoped Out	
	No cogeneration or trigeneration system in use.		
4.2 Renewable Energy Systems - Solar	98%		
4.4 Renewable Energy Systems - Other	N/A	⊗ Disabled	
	No other (non-solar PV) renewable energy is in use.		

Stormwater Overall contribution 19.6%

	Minimum required 100%	100%	✓ Pass
1.1 Stormwater Treatment	100%		

IEQ Overall contribution 16.6%

	Minimum required 50%	64%	✓ Pass
1.4 Daylight Access - Non-Residential	36%	✓ Achieved	
2.3 Ventilation - Non-Residential	88%	✓ Achieved	
3.4 Thermal comfort - Shading - Non-residential	80%		
3.6 Thermal Comfort - Ceiling Fans - Non-Residential	0%		
4.1 Air Quality - Non-Residential	100%		

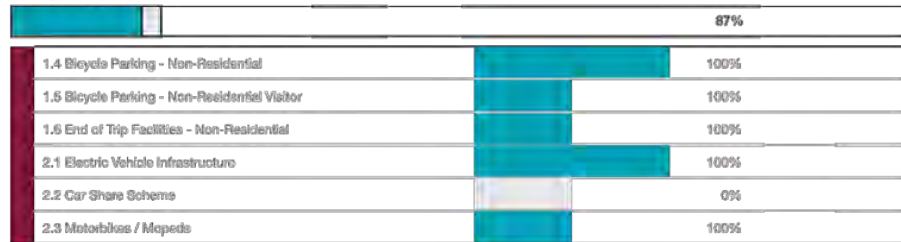
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BESS, 10-32 Duke St, Abbotsford VIC 3067, Australia 10-32 Duke Street, Abbots...

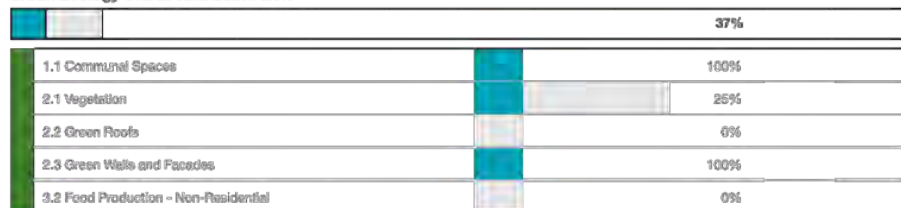
Transport Overall contribution 9.0%



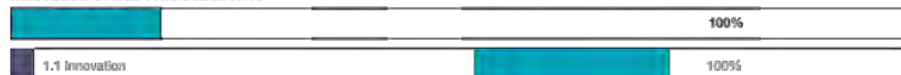
Waste Overall contribution 5.5%



Urban Ecology Overall contribution 5.5%



Innovation Overall contribution 9.0%



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BESB, 10-32 Duke St, Abbotsford VIC 3067, Australia 10-32 Duke Street, Abbots...

Credit breakdown**Management** Overall contribution 2%

1.1 Pre-Application Meeting		0%
Score Contribution	This credit contributes 37.5% towards the category score.	
Criteria	Has an ESD professional been engaged to provide sustainability advice from schematic design to construction? AND Has the ESD professional been involved in a pre-application meeting with Council?	
Question	Criteria Achieved ?	
Project	No.	
2.3 Thermal Performance Modelling - Non-Residential		50%
Score Contribution	This credit contributes 25.0% towards the category score.	
Criteria	Has a preliminary facade assessment been undertaken in accordance with NCC2019 Section J1.5?	
Question	Criteria Achieved ?	
Office	Yes	
Shop	Yes	
Criteria	Has preliminary modelling been undertaken in accordance with either NCC2019 Section J (Energy Efficiency), NABERS or Green Star?	
Question	Criteria Achieved ?	
Office	No.	
Shop	No.	
3.2 Metering - Non-Residential		100%
Score Contribution	This credit contributes 12.5% towards the category score.	
Criteria	Have utility meters been provided for all individual commercial tenants?	
Question	Criteria Achieved ?	
Office	Yes	
Shop	Yes	
3.3 Metering - Common Areas		100%
Score Contribution	This credit contributes 12.5% towards the category score.	
Criteria	Have all major common area services been separately submetered?	
Question	Criteria Achieved ?	
Office	Yes	
Shop	Yes	
4.1 Building Users Guide		100%
Score Contribution	This credit contributes 12.5% towards the category score.	
Criteria	Will a building users guide be produced and issued to occupants?	
Question	Criteria Achieved ?	
Project	Yes	

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BESB, 10-32 Duke St, Abbotsford VIC 3067, Australia 10-32 Duke Street, Abbots...

Water Overall contribution 6% Minimum required 50%

Water Approach	
What approach do you want to use for Water?:	Use the built in calculation tools:
Project Water Profile Question	
Do you have a reticulated third pipe or an on-site water recycling system?:	No
Are you installing a swimming pool?:	No
Are you installing a rainwater tank?:	Yes
Water fixtures, fittings and connections	
Building: All	Building 1
Showerhead: All	4 Star WELS (>= 4.5 but <= 6.0)
Bath: All	Scope out
Kitchen Tapic: All	>= 6 Star WELS rating
Bathroom Taps: All	>= 6 Star WELS rating
Dishwashers:	
Office:	>= 5 Star WELS rating
Retail:	Scope out
WC: All	>= 5 Star WELS rating
Urinals: All	>= 5 Star WELS rating
Washing Machine Water Efficiency: All	Scope out
Which non-potable water source is the dwelling/space connected to?: All	Combined RWT
Non-potable water source connected to Toilets: All	Yes
Non-potable water source connected to Laundry (washing machine): All	No
Non-potable water source connected to Hot Water System: All	No
Rainwater Tank	
What is the total roof area connected to the rainwater tank?: Combined RWT	1,799 m ²
Tank Size: Combined RWT	48,000 Litres
Irrigation area connected to tank: Combined RWT	258 m ²
Is connected irrigation area a water efficient garden?: Combined RWT	Yes
Other external water demand connected to tank?: Combined RWT	—

BESS, 10-32 Duke St, Abbotsford VIC 3067, Australia 10-32 Duke Street, Abbots...

1.1 Potable water use reduction		60%
Score Contribution	This credit contributes 71.4% towards the category score.	
Criteria	What is the reduction in total potable water use due to efficient fixtures, appliances, rainwater use and recycled water use? To achieve points in this credit there must be >25% potable water reduction.	
Output	Reference	
Project	18208 kL	
Output	Proposed (excluding rainwater and recycled water use)	
Project	10758 kL	
Output	Proposed (including rainwater and recycled water use)	
Project	9669 kL	
Output	% Reduction in Potable Water Consumption	
Project	46 %	
Output	% of connected demand met by rainwater	
Project	30 %	
Output	How often does the tank overflow?	
Project	Never / Rarely	
Output	Opportunity for additional rainwater connection	
Project	1970 kL	
3.1 Water Efficient Landscaping		100%
Score Contribution	This credit contributes 14.3% towards the category score.	
Criteria	Will water efficient landscaping be installed?	
Question	Criteria Achieved ?	
Project	Yes	
4.1 Building Systems Water Use Reduction		100%
Score Contribution	This credit contributes 14.3% towards the category score.	
Criteria	Where applicable, have measures been taken to reduce potable water consumption by >80% in the buildings air-conditioning chillers and when testing fire safety systems?	
Question	Criteria Achieved ?	
Project	Yes	

Attachment 5 PLN22/0679 - 10 - 32 Duke Street Abbotsford - Sustainability Management Plan / ESD Report

BESB, 10-32 Duke St, Abbotsford VIC 3067, Australia 10-32 Duke Street, Abbots...

Energy Overall contribution 18% Minimum required 50%





Use the BESS Deem to Satisfy (DTS) method for Energy?*	Yes
Do all exposed floors and ceilings (forming part of the envelope) demonstrate a minimum 10% improvement in required NCC2019 Insulation levels (total R-value upwards and downwards)?:	Yes
Does all wall and glazing demonstrate meeting the required NCC2019 facade calculator (or better than the total allowance)?:	Yes
Are heating and cooling systems within one Star of the most efficient equivalent capacity unit available, or Coefficient of Performance (CoP) & Energy Efficiency Ratios (EER) not less than 85% of the CoP & EER of the most efficient equivalent capacity unit available?:	Yes
Are water heating systems within one star of the best available, or 85% or better than the most efficient equivalent capacity unit?:	Yes
Non-Residential Building Energy Profile	
Heating, Cooling & Comfort Ventilation - Electricity - reference fabric and reference services:	-
Heating, Cooling & Comfort Ventilation - Electricity - proposed fabric and reference services:	-
Heating, Cooling & Comfort Ventilation - Electricity - proposed fabric and proposed services:	-
Heating - Wood - reference fabric and reference services:	-
Heating - Wood - proposed fabric and reference services:	-
Heating - Wood - proposed fabric and proposed services:	-
Hot Water - Electricity - Baseline:	-
Hot Water - Electricity - Proposed:	-
Lighting - Baseline:	-
Lighting - Proposed:	-
Peak Thermal Cooling Load - Baseline:	-
Peak Thermal Cooling Load - Proposed:	-
Solar Photovoltaic system	
System Size (lesser of inverter and panel capacity): PV System 1	40.0 kW peak
Orientation (which way is the system facing)?:	PV System 1 North
Inclination (angle from horizontal): PV System 1	25.0 Angle (degrees)
Which Building Class does this apply to?: PV System 1	Office
1.1 Thermal Performance Rating - Non-Residential	37%
Score Contribution	This credit contributes 44.4% towards the category score.
Criteria	What is the % reduction in heating and cooling energy consumption against the reference case (NCC 2019 Section J1)?

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BESB, 10-32 Duke St, Abbotsford VIC 3067, Australia 10-32 Duke Street, Abbots...

2.1 Greenhouse Gas Emissions	100%
Score Contribution	This credit contributes 11.1% towards the category score.
Criteria	What is the % reduction in annual greenhouse gas emissions against the benchmark?
2.2 Peak Demand	100%
Score Contribution	This credit contributes 5.6% towards the category score.
Criteria	What is the % reduction in the instantaneous (peak-hour) demand against the benchmark?
2.3 Electricity Consumption	100%
Score Contribution	This credit contributes 11.1% towards the category score.
Criteria	What is the % reduction in annual electricity consumption against the benchmark?
2.4 Gas Consumption	N/A  Scoped Out
This credit was scoped out	No gas connection in use
3.1 Carpark Ventilation	N/A  Scoped Out
This credit was scoped out	Car Stackers used in lieu of traditional car parks
3.2 Hot Water	100%
Score Contribution	This credit contributes 5.6% towards the category score.
Criteria	What is the % reduction in annual energy consumption (gas and electricity) of the hot water system against the benchmark?
3.7 Internal Lighting - Non-Residential	100%
Score Contribution	This credit contributes 11.1% towards the category score.
Criteria	Does the maximum illumination power density (W/m2) in at least 90% of the area of the relevant building class meet the requirements in Table J6.2a of the NCC 2019 Vol 1?
Question	Criteria Achieved ?
Offices	Yes
Shop	Yes
4.1 Combined Heat and Power (cogeneration / trigeneration)	N/A  Scoped Out
This credit was scoped out	No cogeneration or trigeneration system in use.
4.2 Renewable Energy Systems - Solar	98%
Score Contribution	This credit contributes 5.6% towards the category score.
Criteria	What % of the estimated energy consumption of the building class it supplies does the solar power system provide?
Output	Solar Power - Energy Generation per year
Office	51,601 kWh
Output	% of Building's Energy
Office	15 %
4.4 Renewable Energy Systems - Other	N/A  Disabled
This credit is disabled	No other (non-solar PV) renewable energy is in use.

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BESS, 10-32 Duke St, Abbotsford VIC 3067, Australia 10-32 Duke Street, Abbots...

Stormwater Overall contribution 14% Minimum required 100%

Which stormwater modelling are you using?	Melbourne Water STORM tool
1.1 Stormwater Treatment	100%
Score Contribution	This credit contributes 100.0% towards the category score.
Criteria	Has best practice stormwater management been demonstrated?
Question	STORM score achieved
Project	100
Output	Min STORM Score
Project	100

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BESB, 10-32 Duke St, Abbotsford VIC 3067, Australia 10-32 Duke Street, Abbots...

IEQ Overall contribution 11% Minimum required 50%

1.4 Daylight Access - Non-Residential		36%	✓ Achieved
Score Contribution	This credit contributes 35.3% towards the category score.		
Criteria	What % of the nominated floor area has at least 2% daylight factor?		
Question	Percentage Achieved?		
Office	36 %		
Shop	50 %		
2.3 Ventilation - Non-Residential		98%	✓ Achieved
Score Contribution	This credit contributes 35.3% towards the category score.		
Annotation	100% increase in outdoor air supply achieved through the adoption of the performance methodology within Green Star Credit 9.2		
Criteria	What % of the regular use areas are effectively naturally ventilated?		
Question	Percentage Achieved?		
Office	98 %		
Shop	100 %		
Criteria	What increase in outdoor air is available to regular use areas compared to the minimum required by AS 1668.2:2012?		
Question	What increase in outdoor air is available to regular use areas compared to the minimum required by AS 1668:2012?		
Office	100 %		
Shop	100 %		
Criteria	What CO2 concentrations are the ventilation systems designed to achieve, to monitor and to maintain?		
Question	Value		
Office	700 ppm		
Shop	700 ppm		
3.4 Thermal comfort - Shading - Non-residential		80%	
Score Contribution	This credit contributes 17.6% towards the category score.		
Criteria	What percentage of east, north and west glazing to regular use areas is effectively shaded?		
Question	Percentage Achieved?		
Office	70 %		
Shop	70 %		
3.5 Thermal Comfort - Ceiling Fans - Non-Residential		0%	
Score Contribution	This credit contributes 5.9% towards the category score.		
Criteria	What percentage of regular use areas in tenancies have ceiling fans?		
Question	Percentage Achieved?		
Office	0 %		
Shop	0 %		

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BESS, 10-32 Duke St, Abbotsford VIC 3067, Australia 10-32 Duke Street, Abbots...

4.1 Air Quality - Non-Residential		100%
Score Contribution	This credit contributes 5.9% towards the category score.	
Criteria	Do all paints, sealants and adhesives meet the maximum total indoor pollutant emission limits?	
Question	Criteria Achieved ?	
Project	Yes	
Criteria	Does all carpet meet the maximum total indoor pollutant emission limits?	
Question	Criteria Achieved ?	
Project	Yes	
Criteria	Does all engineered wood meet the maximum total indoor pollutant emission limits?	
Question	Criteria Achieved ?	
Project	Yes	

BESB, 10-32 Duke St, Abbotsford VIC 3067, Australia 10-32 Duke Street, Abbots...

Transport Overall contribution 8%

1.4 Bicycle Parking - Non-Residential		100%
Score Contribution	This credit contributes 25.0% towards the category score.	
Criteria	Have the planning scheme requirements for employee bicycle parking been exceeded by at least 50% (or a minimum of 2 where there is no planning scheme requirement)?	
Question	Criteria Achieved ?	
Office	Yes	
Shop	Yes	
Question	Bicycle Spaces Provided ?	
Office	120	
Shop	2	
1.5 Bicycle Parking - Non-Residential Visitor		100%
Score Contribution	This credit contributes 12.5% towards the category score.	
Criteria	Have the planning scheme requirements for visitor bicycle parking been exceeded by at least 50% (or a minimum of 1 where there is no planning scheme requirement)?	
Question	Criteria Achieved ?	
Office	Yes	
Shop	Yes	
Question	Bicycle Spaces Provided ?	
Office	6	
Shop	2	
1.6 End of Trip Facilities - Non-Residential		100%
Score Contribution	This credit contributes 12.5% towards the category score.	
Criteria	Where adequate bicycle parking has been provided. Is there also: * 1 shower for the first 5 employee bicycle spaces plus 1 to each 10 employee bicycles spaces thereafter, * changing facilities adjacent to showers, and * one secure locker per employee bicycle space in the vicinity of the changing / shower facilities?	
Question	Number of showers provided ?	
Office	15	
Shop	3	
Question	Number of lockers provided ?	
Office	143	
Shop	5	
Output	Min Showers Required	
Office	1	
Shop	1	
Output	Min Lockers Required	
Office	130	
Shop	2	

BESB, 10-32 Duke St, Abbotsford VIC 3067, Australia 10-32 Duke Street, Abbots...

2.1 Electric Vehicle Infrastructure	100%
Score Contribution	This credit contributes 25.0% towards the category score.
Criteria	Are facilities provided for the charging of electric vehicles?
Question	Criteria Achieved ?
Project	Yes
2.2 Car Share Scheme	0%
Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Has a formal car sharing scheme been integrated into the development?
Question	Criteria Achieved ?
Project	No
2.3 Motorbikes / Mopeds	100%
Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Are a minimum of 5% of vehicle parking spaces designed and labelled for motorbikes (must be at least 5 motorbike spaces)?
Question	Criteria Achieved ?
Project	Yes

Waste Overall contribution 2%

1.1 - Construction Waste - Building Re-Use	0%
Score Contribution	This credit contributes 33.3% towards the category score.
Criteria	If the development is on a site that has been previously developed, has at least 30% of the existing building been re-used?
Question	Criteria Achieved ?
Project	No
2.1 - Operational Waste - Food & Garden Waste	0%
Score Contribution	This credit contributes 33.3% towards the category score.
Criteria	Are facilities provided for on-site management of food and garden waste?
Question	Criteria Achieved ?
Project	No
2.2 - Operational Waste - Convenience of Recycling	100%
Score Contribution	This credit contributes 33.3% towards the category score.
Criteria	Are the recycling facilities at least as convenient for occupants as facilities for general waste?
Question	Criteria Achieved ?
Project	Yes

Attachment 5 PLN22/0679 - 10 - 32 Duke Street Abbotsford - Sustainability Management Plan / ESD Report

BESS, 10-32 Duke St, Abbotsford VIC 3067, Australia 10-32 Duke Street, Abbots...

Urban Ecology Overall contribution 2%

1.1 Communal Spaces		100%
Score Contribution	This credit contributes 12.5% towards the category score.	
Criteria	Is there at least the following amount of common space measured in square meters : * 1m² for each of the first 50 occupants * Additional 0.5m² for each occupant between 51 and 250 * Additional 0.25m² for each occupant above 251?	
Question	Common space provided	
Office	380 m²	
Shop	36.0 m²	
Output	Minimum Common Space Required	
Office	340 m²	
Shop	21 m²	
2.1 Vegetation		25%
Score Contribution	This credit contributes 50.0% towards the category score.	
Criteria	How much of the site is covered with vegetation, expressed as a percentage of the total site area?	
Question	Percentage Achieved ?	
Project	5 %	
2.2 Green Roofs		0%
Score Contribution	This credit contributes 12.5% towards the category score.	
Criteria	Does the development incorporate a green roof?	
Question	Criteria Achieved ?	
Project	No	
2.3 Green Walls and Facades		100%
Score Contribution	This credit contributes 12.5% towards the category score.	
Criteria	Does the development incorporate a green wall or green facade?	
Question	Criteria Achieved ?	
Project	Yes	
3.2 Food Production - Non-Residential		0%
Score Contribution	This credit contributes 12.5% towards the category score.	
Criteria	What area of space per occupant is dedicated to food production?	
Question	Food Production Area	
Office	0.6 m²	
Shop	0.0 m²	
Output	Min Food Production Area	
Office	213 m²	
Shop	6 m²	

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BESS, 16-32 Duke St, Abbotsford VIC 3067, Australia 16-32 Duke Street, Abbots...

Innovation Overall contribution 9%

Innovations	
Description:	
Ultra Low VOCs	60% of paints by volume will have a maximum TVOC content of 5g/L
Building Air Tightness	Air Permeability testing to show that building achieves a permeability rate of 5m3/h/m2 @50 Pa
Building Air Tightness (improved)	Air Permeability Testing to show that building achieves a permeability rate of 2.5m3/h/m2 @50 Pa
Improved Stormwater Reduction Targets	Stormwater Pollution reduction targets to achieve figures in column B of table 26.2 of the Green Star design and As-built handbook
Reduced CO2 Concentrations	Reduction of CO2 concentration to 600 PPM
Local Procurement	Services and labour employed by the project to come from local areas
Green Cleaning	Cleaning services to common areas to be in accordance with Project Green Cleaning Policy
Occupant Engagement	Post occupancy surveys to be undertaken, addressing occupant satisfaction, well-being and interaction within the indoor environment
LCA	To achieve a percentage improvement in operational embodied environmental impact benefits
Points Targeted:	
Ultra Low VOCs	1
Building Air Tightness	1
Building Air Tightness (improved)	1
Improved Stormwater Reduction Targets	1
Reduced CO2 Concentrations	1
Local Procurement	1
Green Cleaning	1
Occupant Engagement	1
LCA	2
1.1 Innovation	100%
Score Contribution	This credit contributes 100.0% towards the category score.
Criteria	What percentage of the Innovation points have been claimed (10 points maximum)?

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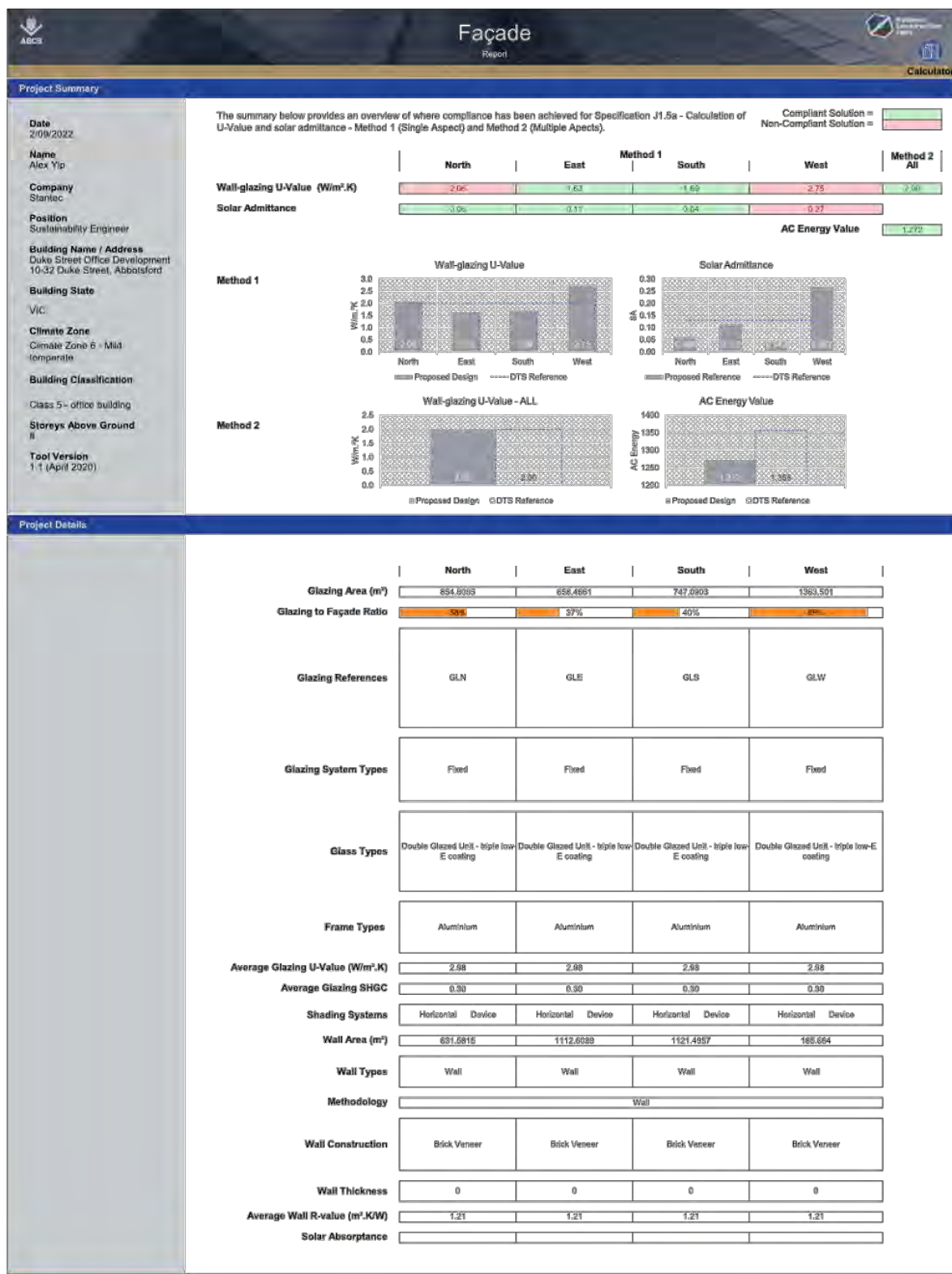
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Appendix C – 2019 Façade Glazing Calculators





Appendix D – Daylight Calculations

To understand the extent of commercial office and retail NLA that would have sufficient daylight (achieving a minimum 2% daylight factor), a hand calculation assessment was undertaken based on the *Green Star Daylight and Views Calculation Guide* for the proposed perimeter fenestration (i.e. windows & glazed doors).

As per the hand calculation methodology the zone of compliance (i.e. compliant floor area) was determined based on the following calculation methodology:

$$\begin{aligned} \text{Depth of the Zone of Compliance} &= h \times 2 \\ \text{'w' width of the Zone of Compliance} &= \text{Width of the Fenestration} \\ \text{Zone of Compliance} &= h \times 2 \times w \end{aligned}$$

This is graphically depicted in the following diagrams:



Diagram A

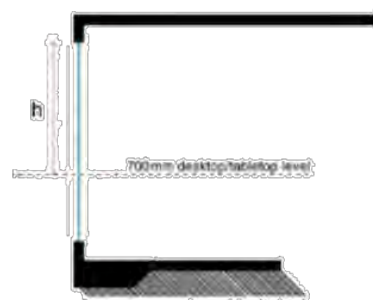
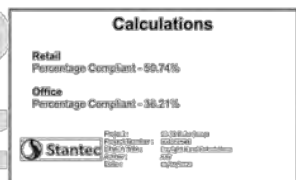


Diagram B





-  AMENITIES
-  CIRCULATION
-  PARKING
-  SERVICES
-  STORAGE

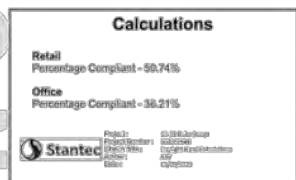
Item 6: The oil-water from the roof catchment area of 250,000 L to be collected and discharged via a mechanically pumped system into a 500 capacity Rainwater Tank which is to be connected to a retention tank for toilet flushing.

Item 3 - The sediment from the east catchment area of 682,320 lbs to be collected and discharged via a mechanically pumped system into a 100,000 capacity Sediment Tank which is to be connected to a intake in Lot 10 for lake flushing.

Intake: The minerals from the coal combustion products of 971,526,000 lbs to be collected and discharged into a mechanically pumped system into a 500,000 capacity Runwater Tank which will be connected to a water line into the 600 to total facility.

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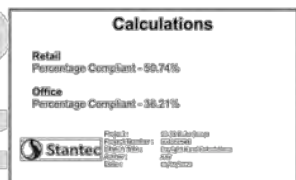


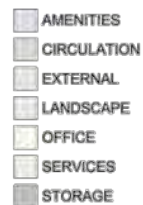
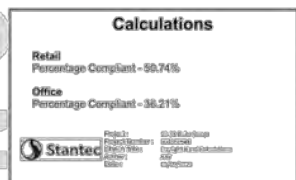


-  AMENITIES
-  CIRCULATION
-  EXTERNAL
-  LANDSCAPE
-  OFFICE
-  SERVICES
-  STORAGE

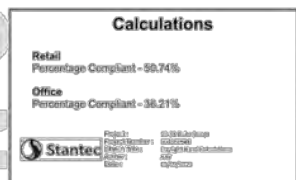
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LEVEL 4 CIRCLES AREA			LEVEL 4 AREA, CIRCLES			LEVEL 4 CIRCLES, EST'S			LEVEL 4 AREA, CIRCLES+D		
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LOW 7	LOW 7	10000	NRA EXCLUDED	NRA EXCLUDED	10000	NRA EXCLUDED	NRA EXCLUDED	10000	NRA EXCLUDED	NRA EXCLUDED	10000
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-  AMENITIES
-  CIRCULATION
-  EXTERNAL
-  OFFICE
-  SERVICES
-  STORAGE

LEVEL 5 CROSS-SECTION	
Left	Right
Left 6	202.00
Left 7	240.00
Left 8	320.00

LEVEL 00000, LUT0:0	
Name	Area
LUT0:0	
NBA_C2H0E	
Value	0x200

LEVEL 0549A, 1STB	
Name	Room
1STB	
FRA OFFICE	
Level	Room

1000.000,00 A	
Summe	Area

LÖSUNG
 1000,000
 1000,000
 1000,000
 1000,000

NETA SPLITTED	
NUMBER OF S	49 (m)
6.9%	0.2 (m)
1.8%	0.1 (m)
SEVERE	0.1 (m)
27.4%	0.1 (m)
	100 (m)

NETA SPLITTED	
NETA SPLITTED - 0.1	0.1 (m)
NETA SPLITTED - 0.2	0.2 (m)
NETA SPLITTED - 0.3	0.3 (m)
NETA SPLITTED - 0.4	0.4 (m)
NETA SPLITTED - 0.5	0.5 (m)

NEA EXCLUDED	
WHEELS	10m ²
CRS	20m ²
LET	10m ²
SEWERS	20m ²
STAIR	10m ²
	70m ²
EXTERNAL	
TRAPDOOR-E	20m ²
TRAPDOOR-W	20m ²
	40m ²

MFA RESULTS	
MINUTES	15:00
AND	15:00
STAGES	4:00
STAR	15:00
	END

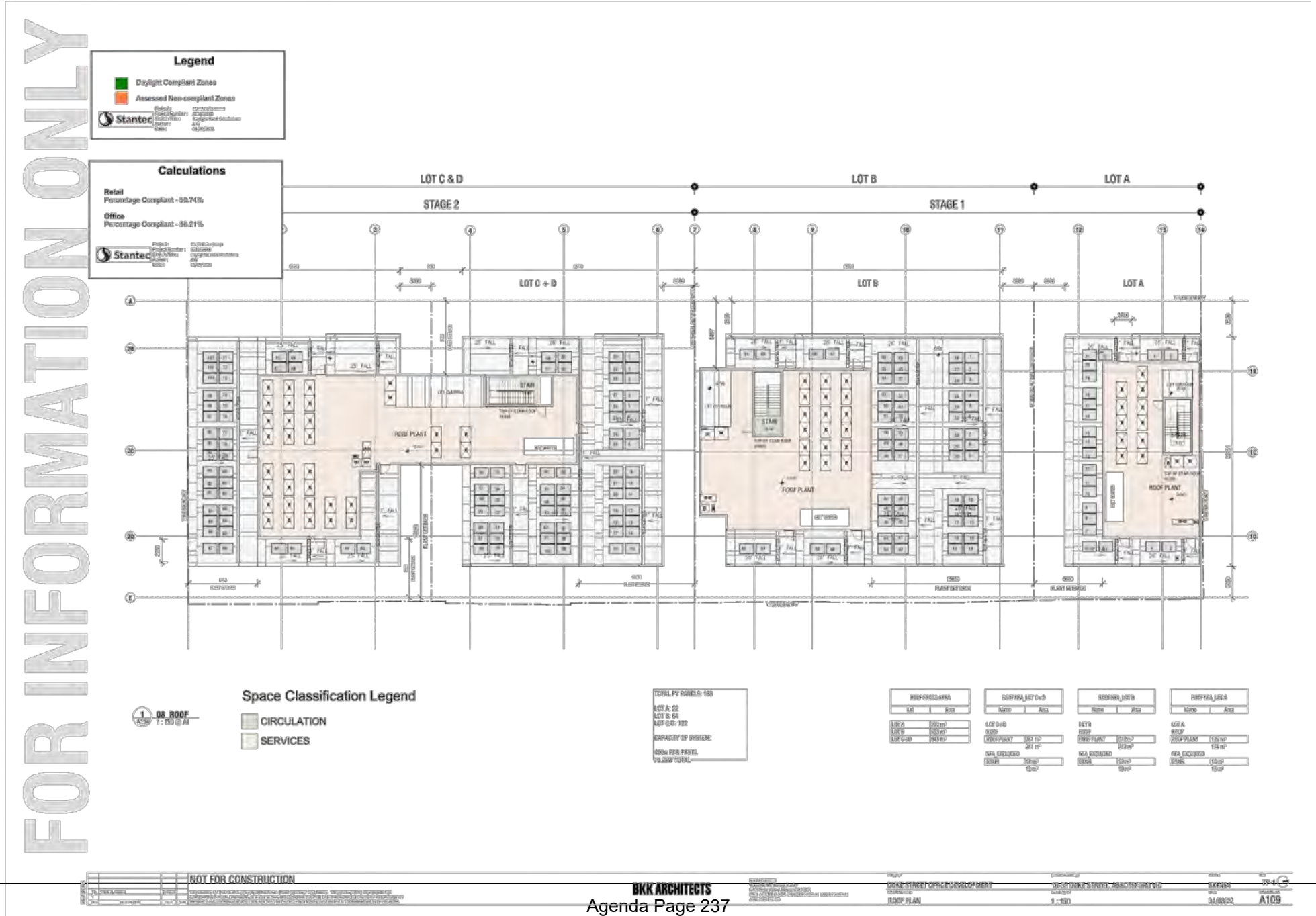
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	15:00





-  AMENITIES
-  CIRCULATION
-  EXTERNAL
-  OFFICE
-  SERVICES
-  STORAGE

[illegible]



Design with
community in mind

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Tel +61 +61 3 8554 7000
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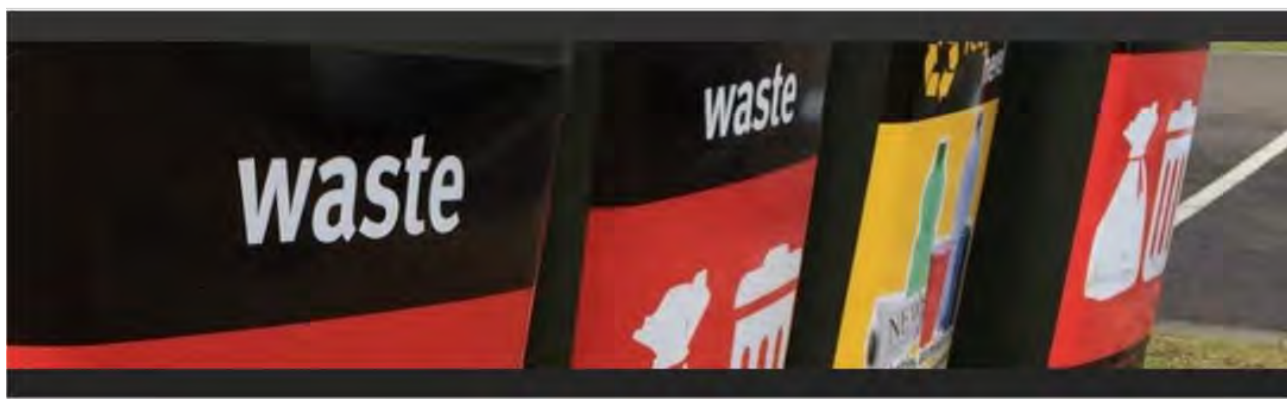
For more information please visit
www.Stantec.com





10 - 32 Duke Street, Abbotsford

Waste Management Plan



220428WMP001B-F.docx

2 September 2022



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DOCUMENT INFORMATION

Prepared for	Medley Property Group		
File Name	220428WMP001B-F.docx	Report Date	2 September 2022
Prepared by	Yoshi Campitelli	Reviewed by	Valentine Gnanakone
Signature		Signature	

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APPENDICES

APPENDIX A	SWEPT PATH DIAGRAM
APPENDIX B	BIN STORAGE AREA SCALED PLANS



1 INTRODUCTION

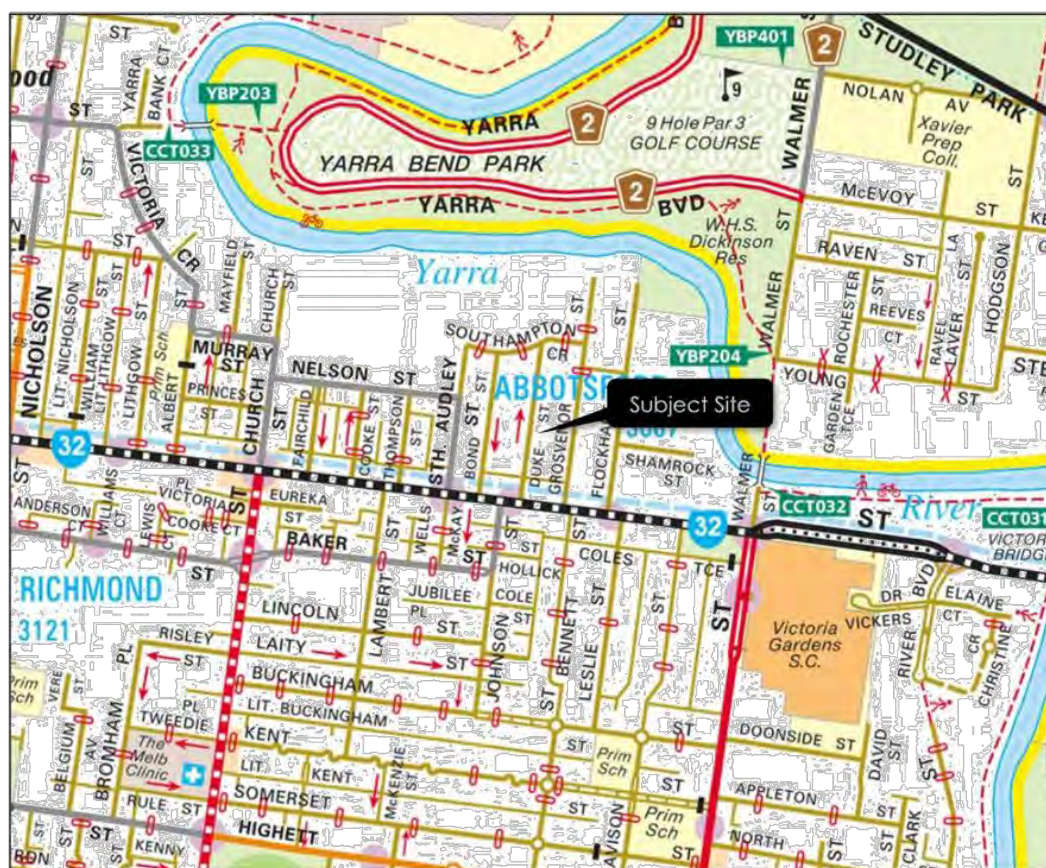
onemilegrid has been requested by Medley Property Group to prepare a Waste Management Plan for the proposed development at 10 - 32 Duke Street, Abbotsford.

The preparation of this management plan has been undertaken with due consideration of the Sustainability Victoria Better Practice Guide for Waste Management and Recycling in Multi-unit Developments and relevant Council documentation.

2 EXISTING SITE CONDITIONS

The subject site is addressed as 10 - 32 Duke Street, Abbotsford, and is located on the east side of Duke Street as shown in Figure 1.

Figure 1 Site Location



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The subject site is generally rectangular in shape with a frontage to Duke Street of approximately 100 metres and a depth of approximately 30 metres.



3 DEVELOPMENT PROPOSAL

3.1 General

3.1.1 Development

It is proposed to develop the subject site for the purposes of a mixed-use development comprising 3 lots, including Lot A, Lot B and Lot C+D. The development will be delivered in 2 stages with Stage 1 including Lot A and B, and Stage 2 comprising Lot C and D.

Whilst the development will be staged and across 3 lots, the development will present as a single development with two ground floor retail tenancies and office space on the levels above, as shown in Table 1.

Table 1 Proposed Development – Overall

Component	Area
Retail (Food and Drink)	214 m ²
Office	10,590 m ²

3.1.2 Staging

The proposed development will be delivered across 2 stages, with a further breakdown of the proposed development provided in Table 2.

Table 2 Proposed Development – Staged Breakdown

Lot	Component	Area
Stage 1 Lot A+B	Lot B Retail	94 m ²
	Lot A+B Office	
	- Lot A (1,591 m ²)	5,324 m ²
	- Lot B (3,733 m ²)	
Stage 2 Lot C+D	Lot C Retail	120 m ²
	Lot C+D Office	5,266 m ²

3.1.3 Car Parking and Vehicular Access

An overall total of 124 car spaces are proposed to be provided as part of the development.

Lot A and B is proposed to be provided within a parking area, accessed via a shared driveway with a double width crossover pursuant to a carriageway easement, located toward the northern end of the site. Lot A is allocated 20 spaces (including one accessible space) located on the northern portion of the parking area, while Lot B is allocated 41 space (including one accessible space) located on the southern portion of the parking area. One space is proposed to be allocated to the Lot B retail tenancy.

Lot C and D is proposed to be provided within a shared parking area with a total of 63 spaces including two accessible spaces. One space is proposed to be allocated to the Lot C retail tenancy. Access to this car park is proposed toward the southern end of the site via a double width crossover.



3.2 Waste Management

It is proposed to utilise a private contractor to manage the collection and disposal of all waste streams associated with the development.

Bins for Lot A and B will be provided with separate bin storage areas within their respective ends of the Lot A/B car park area. Lot C and D will be provided with a shared bin storage area located at the northern end of the Lot C/D car park area.

The waste collection vehicle, a 6.4 m rear-lift waste collection vehicle (mini-loader), will enter each car park area and prop adjacent the bin stores, from where the bins will be transferred directly to the waiting truck for emptying. The bins will be returned to the bin storage areas immediately following collection. Swept path diagrams showing the movements of the waste collection vehicle are attached in Appendix A.

The collection location and expected transfer route is shown in Figure 2 and Figure 3. Waste collection will occur outside of business hours therefore, the waste truck can utilise the vacant accessible spaces in Lot C/D car park to turnaround.

Figure 2 Lot A and B Bin Storage Room and Collection Details

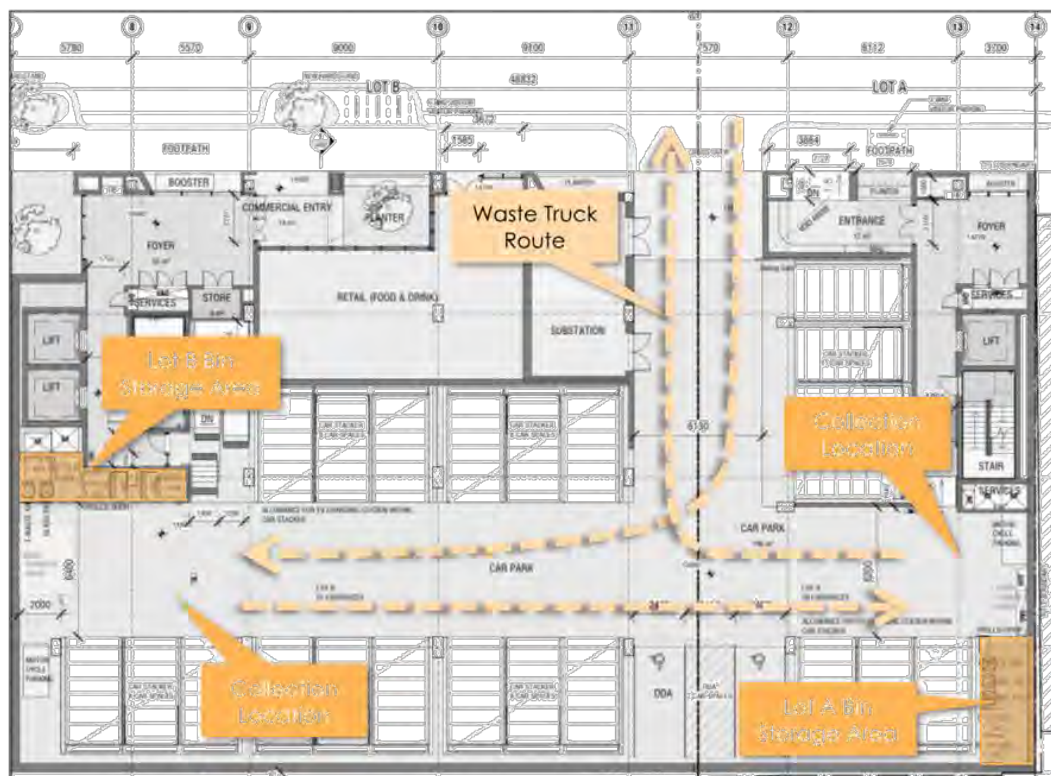
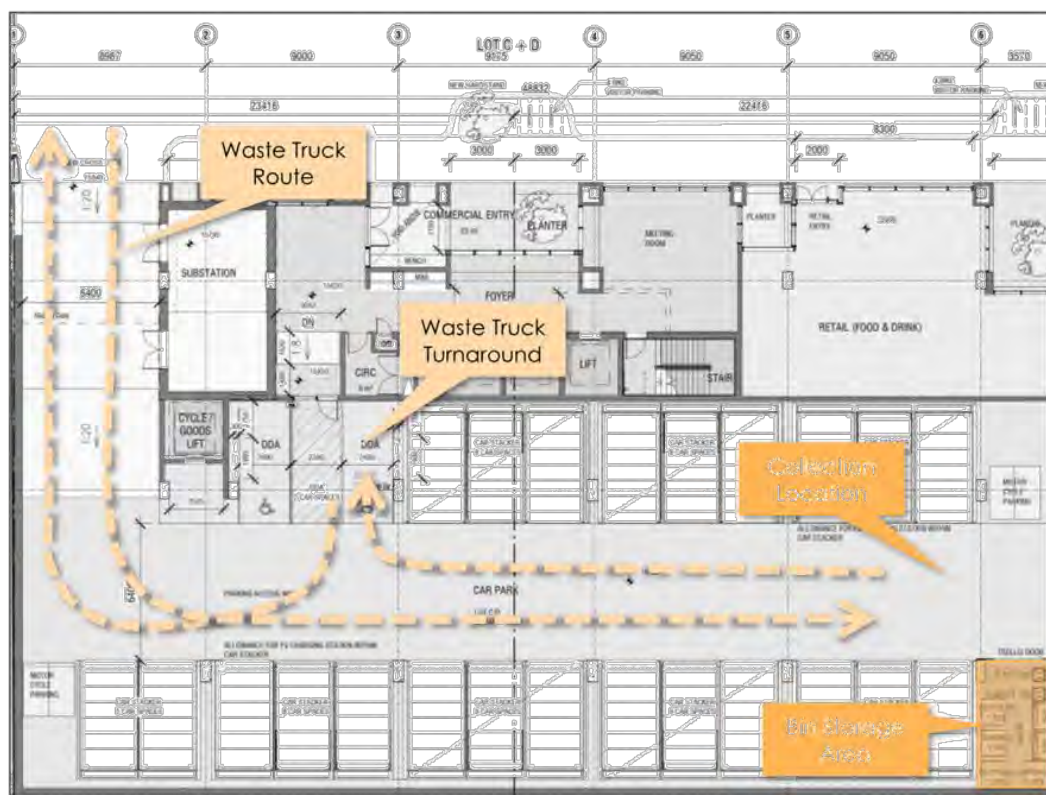




Figure 3 Lot C and D Bin Storage Room and Collection Details





4 WASTE GENERATION

4.1 Sustainability Victoria Recommended Rates

Sustainability Victoria's "Better Practice Guide for Waste Management and Recycling in Multi-unit Developments" recommends adoption of the following rates for commercial uses, based on the rates published by the City of Melbourne.

Table 3 Sustainability Victoria Recommended Rates – Commercial

Use	Garbage Rate	Recycling Rate
Café	300L per 100 m ² per day	200L per 100 m ² per day
Offices	10L per 100 m ² per day	10L per 100 m ² per day

Furthermore, it is estimated that 50% of café garbage consists of organic waste and 10% of café recycling will consist of glass waste. Office uses are not expected to generate significant rates of organics or glass.

Based on the rates above, each lot is expected to generate the following waste, based on a 7 day per week operation of the retail uses (café) and 5 day per week operation of the offices.

Table 4 Anticipated Waste Generation

Area	Use	Garbage	Organics	Recycling	Glass
Lot A	Office	796 litres	-	796 litres	-
Lot B	Café	987 litres	987 litres	1,184 litres	132 litres
	Office	1,867 litres	-	1,867 litres	-
Lot C/D	Café	1,260 litres	1260 litres	1,512 litres	168 litres
	Office	2,633 litres	-	2,633 litres	-
Total		7,543 litres	2,247 litres	7,992 litres	300 litres

4.2 Electronic Waste (E-Waste)

E-waste includes all manner of electronic waste, such as televisions, computers, cameras, phones, household electronic equipment, batteries and light bulbs. On 1st July 2019, the disposal of E-waste to landfill will be banned by the Victorian Government.

It is recommended to provide a 120 litre electronics waste bin within each bin storage area for the development. E-waste collection will be managed by the private contractor on a 'as-needed' basis. Additionally, E-waste can be taken to the appropriate collection centre, as described below:

- Yarra Recycling Centre (168 Roseneath Street, Clifton Hill) accepts all e-waste;
- Planet Ark operate a number of E-waste recycling drop-off locations throughout Victoria (<https://recyclingnearyou.com.au/electrical>);
- Officeworks stores accept small amounts of personal E-waste;
- Aldi stores accept batteries; and
- Some Bunnings stores accept batteries.



4.3 Soft Plastics

Soft plastic waste is estimated to contribute approximately 20% of landfill waste volumes, and includes such things as bread bags, plastic bags, bubble wrap and snap lock bags.

Soft plastics can be recycled via REDcycle bins located at most Coles and Woolworths supermarkets, including Coles Victoria Gardens in the vicinity of the site.

No specific bin provision is required for soft plastic recycling, though it is recommended that staff are made aware of soft plastic recycling and are encouraged to facilitate the collection and deposit of soft plastics at REDcycle bin locations.

4.4 Hard Waste

Hard waste collections will be managed by the building manager and collected by the private contractor. The hard waste will be stored within the respective tenancies or temporarily stored within the bin storage areas.

5 BIN REQUIREMENTS

5.1 Bin Provision and Specifications

It is proposed to utilise a private waste contractor for all waste services for the proposed development.

Consequently, the following bins will be required for the proposed development.

Table 5 Bin Provision

Area	Stream	Total Waste/Week	Bin Size	Collection Frequency	Bins Required
Lot A	Garbage	796 litres	1,100 litres	Once a week	1 bin
	Recycling	796 litres	1,100 litres	Once a week	1 bin
	Organics	-	120 litres	Once a week	1 bin
	Glass	-	120 litres	As required	1 bin
	E-waste	-	120 litres	As required	1 bin
Sub-total					5 bins
Lot B	Garbage	2,854 litres	1,100 litres	Twice a week	2 bins
	Recycling	3,051 litres	1,100 litres	Twice a week	2 bins
	Organics	987 litres	660 litres	Once a week	2 bins
	Glass	132 litres	240 litres	Once a week	1 bin
	E-waste	-	120 litres	As required	1 bin
Sub-total					8 bins
Lot C+D	Garbage	3,893 litres	1,100 litres	Twice a week	2 bins
	Recycling	4,145 litres	1,100 litres	Twice a week	2 bins
	Organics	1,260 litres	660 litres	Once a week	2 bins
	Glass	168 litres	240 litres	Once a week	1 bin
	E-waste	-	120 litres	As required	1 bin
Sub-total					8 bins
Total					21 bins



Bin size specifications are detailed below.

Table 6 Bin Specifications

Capacity	Width	Depth	Height	Area
120 litres	0.50m	0.55m	0.95m	0.28m ²
240 litres	0.60m	0.75m	1.10m	0.45m ²
660 litres	1.25m	0.80m	1.30m	1.00 m ²
1,100 litres	1.25m	1.10m	1.35m	1.38 m ²

Bin lids will be colour coded to the Australian Standard (AS4123) or to the standard colour specifications of the private contractor.

5.2 Bin Storage

As indicated in Figure 2, bins for Lot A and B will be provided with separate bin storage areas within their respective ends of the Lot A/B car park area, while Lots C and D will be provided with a shared bin storage area located at the northern end of the Lot C/D car park area.

The layout of each bin storage area is shown in Figure 4 to Figure 6, which demonstrates that the area is capable of accommodating the required bins, as calculated in Table 5.

Some additional area is also provided within the bin storage area to allow for the temporary storage of bulk items and packaging, under the control of the operator.

Furthermore, the bin storage room is located appropriately for access by staff and is secured from the common areas.

The bin storage room should be vermin proof, and have appropriate ventilation, lighting and drainage, and shall be cleaned regularly by the operator or waste collection contractor, to minimise odour.

Figure 4 Lot A Bin Storage Area Layout

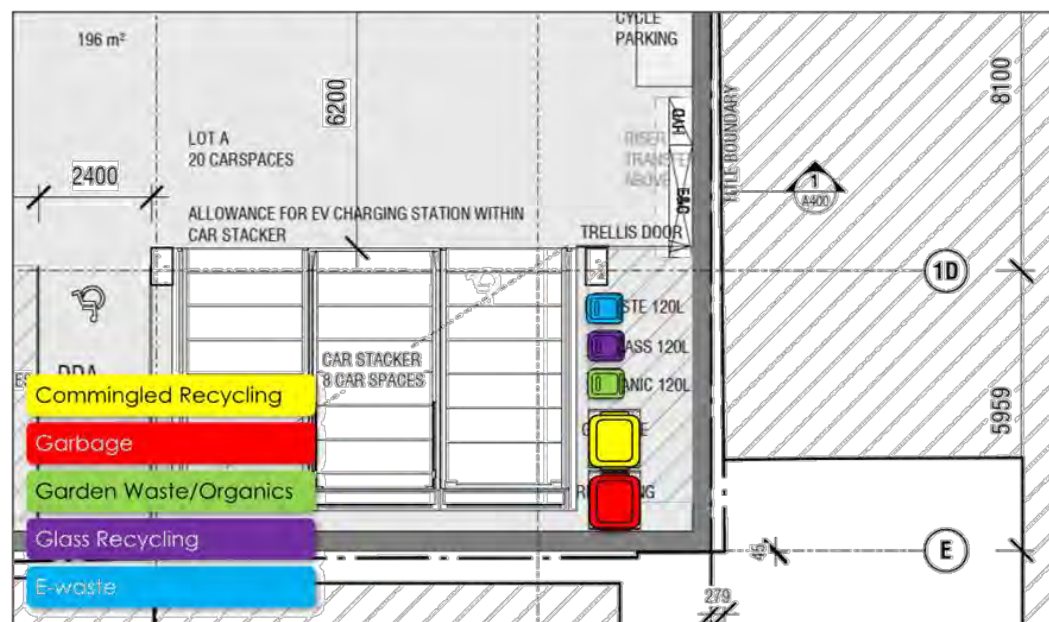




Figure 5 Lot B Bin Storage Area Layout

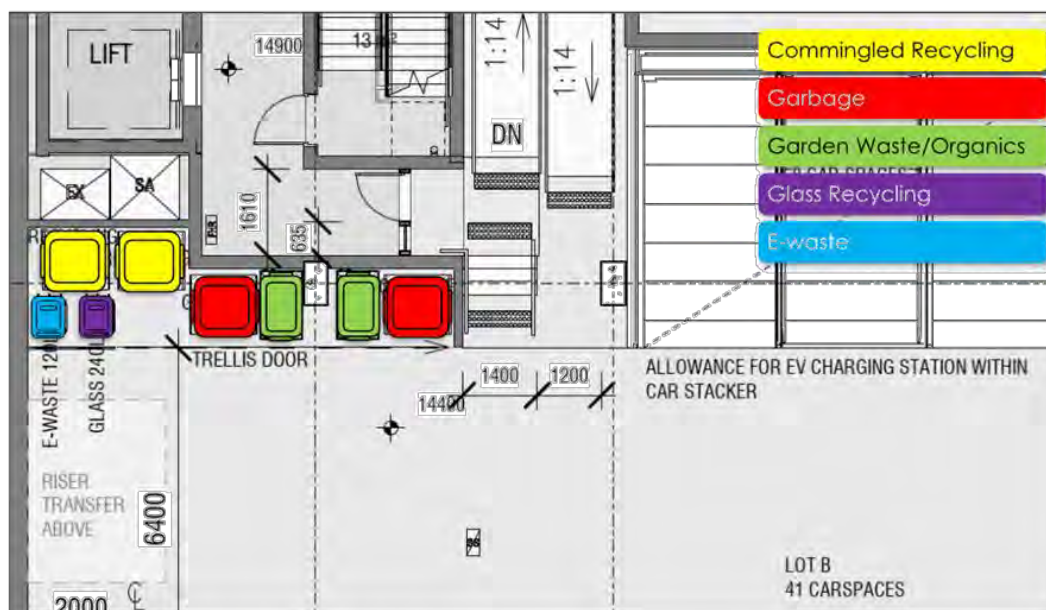
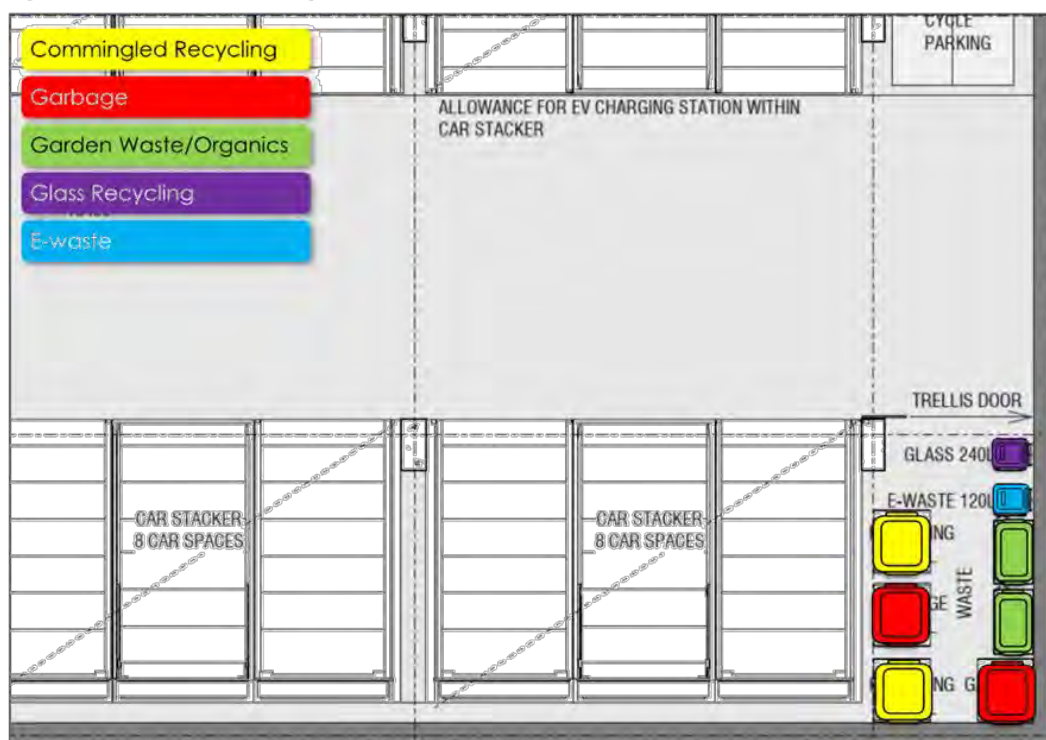


Figure 6 Lot C/D Bin Storage Area Layout





5.3 Bin Collection

The waste collection vehicle, a 6.4 m rear-lift waste collection vehicle (mini-loader), will enter each car park area and prop adjacent the bin stores, from where the bins will be transferred directly to the waiting truck for emptying. The bins will be returned to the bin storage areas immediately following collection.

Swept path diagrams showing the movements of the waste collection vehicle are attached in Appendix A.

Waste collection will occur outside of business hours, therefore, the waste truck can utilise the vacant accessible spaces in Lot C/D car park to turnaround.

5.4 Bin Cleaning

The operator shall ensure that the bins are kept in a clean state, to minimise odours and to discourage vermin. This may include regular cleaning by a third party, cleaning by the waste contractor, bin swapping by the waste contractor, or maintenance by residents.

A bin cleaning area should be provided within the bin storage area, with a drain connected to sewer.

Where cleaning is to be undertaken on-site, it should only occur in a designated bin cleaning area, provided with a drain connected to sewer.



6 WASTE MANAGEMENT

6.1 Best Practice Waste Management

Best Practice Waste Management is an initiative designed to reduce the amount of waste generated through encouraging a change of behaviour and action on waste management and moreover recycling.

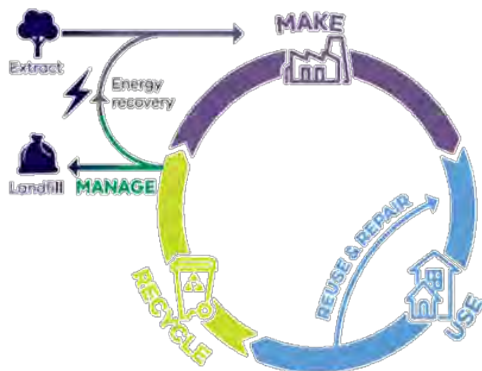
The benefits of reducing waste generation are far reaching and have been identified as significantly important by Council and the Victorian Government.

Recycling Victoria: A New Economy is a policy and 10-year action plan, prepared by the Victoria Government, to "deliver a cleaner, greener Victoria, with less waste and pollution, better recycling, more jobs and a stronger economy".

Four overarching goals have been identified in order to achieve a circular economy in relation to waste, as below:

1. MAKE – Design to last, repair and recycle;
2. USE – Use products to create more value;
3. RECYCLE – Recycle more resources;
4. MANAGE – Reduce harm from waste and pollution.

Figure 7 Resource Flows in a Circular Economy



In relation to the proposed development, recycling is of key importance, and in this regard, the operator shall encourage staff to participate in minimising and reducing solid waste production by:

- Promoting the waste hierarchy, which in order of preference seeks to:
 - + Avoid waste generation in the first place;
 - + Increase the reuse and recycling of waste when it is generated; and
 - + Recover, treat or contain waste preferentially to;
 - + Its disposal in Land Fill (which is least desirable).
- Providing information detailing recyclable materials to ensure that non-recyclable materials do not contaminate recycling collections;
- Providing information regarding safe chemical waste disposal methods and solutions, including correct battery and electronics disposal methods;
- Providing tips for recycling and reusing waste, including encouraging the disposal of reusable items in good condition via donations to Opportunity Shops and Charities.



6.2 Café Waste Minimisation

Restaurants can do a lot to minimize or reduce waste, by incorporating simple recycling and waste reduction programs and procedures that will eliminate much of the waste otherwise disposed of. These can include the following:

- Avoid over-purchasing. Over-purchasing causes spoilage and waste. Take inventory frequently and adjust orders where necessary;
- Store items in the order you purchase them. Use older items first. Place newly purchased items at the back of the shelves and train employees on the order of use;
- Inspect deliveries. Many deliveries include unusable meats and perishable items which may have opened or spilled during shipment;
- To avoid spoilage, store food tightly and appropriately, eliminating air in containers;
- Use storage containers that can be reused and request that food be delivered in reusable and recyclable containers;
- Use up all of a food product by reviewing your menu; and
- Consider the use of composting for all perishable items instead of discarding them as waste.

6.3 Bin Usage

Commercial tenants will dispose of recyclables and bagged garbage and in their individual bins, stored within each tenancy. Cardboard boxes should be flattened, and containers rinsed and cleaned prior to disposal in the provided bins.

Organic waste and glass recycling should be separated and disposed of in the respective bins,

6.4 Common Property Litter and Waste Removal

The proposed development includes a number of common property areas, including foyers, hallways, parking areas and the bin storage area.

The operator shall ensure that all common areas are kept clear of litter, and that all waste is removed from common areas on a regular basis. This includes the bin storage area in particular, to discourage vermin.

6.5 Signage

To avoid contamination between garbage streams, bin lids will be colour coded generally in accordance with contractor standards, to ensure the bin type is easily distinguishable. Furthermore, bins should include typical signage (preferably on the bin lid) to reinforce the appropriate materials to be deposited in each bin. Example signage available from [Sustainability Victoria](#) is shown below.



Figure 8 Example Waste Signage



6.6 Waste Management Plan Implementation

The implementation, coordination and funding of the Waste Management Plan is the responsibility of the operator, and should be a dynamic document, reflecting changes in on-site and off-site conditions e.g., varying bin requirements, or changing waste collection methodology. As such, the plan should be regularly revisited and amended to provide the most accurate and relevant information to achieve the desired objectives of effectively managing the storage and disposal of waste generated on-site.

Should any significant operational changes occur on-site, a new or amended Waste Management Plan prepared by a suitable qualified and experienced person or firm may be required, detailing changes to the storage and disposal of the general, recyclable and e-wastes, responsibility in management and maintenance of the bins, location and area of bin rooms, etc.

7 OCCUPATIONAL HEALTH & SAFETY RESPONSIBILITIES

The Owners Corporation/site operator shall ensure compliance to all relevant OH&S regulations and legislation, including the following:

- Worksafe Victoria Guidelines for Non-Hazardous Waste and Recyclable Materials



8 CONTACT INFORMATION

8.1 Council

Yarra City Council

Phone: (03) 9205 5555 (Customer Service)

Web: www.yarracity.vic.gov.au

Email: info@yarracity.vic.gov.au

8.2 Equipment

Eco-Safe Technologies (odour control equipment)

Phone: 0411 335 753

Web: <https://eco-safe.com.au/>

Email: info@eco-safe.com.au

8.3 Others

Sustainability Victoria

Services: Sustainable Waste Management initiatives and information

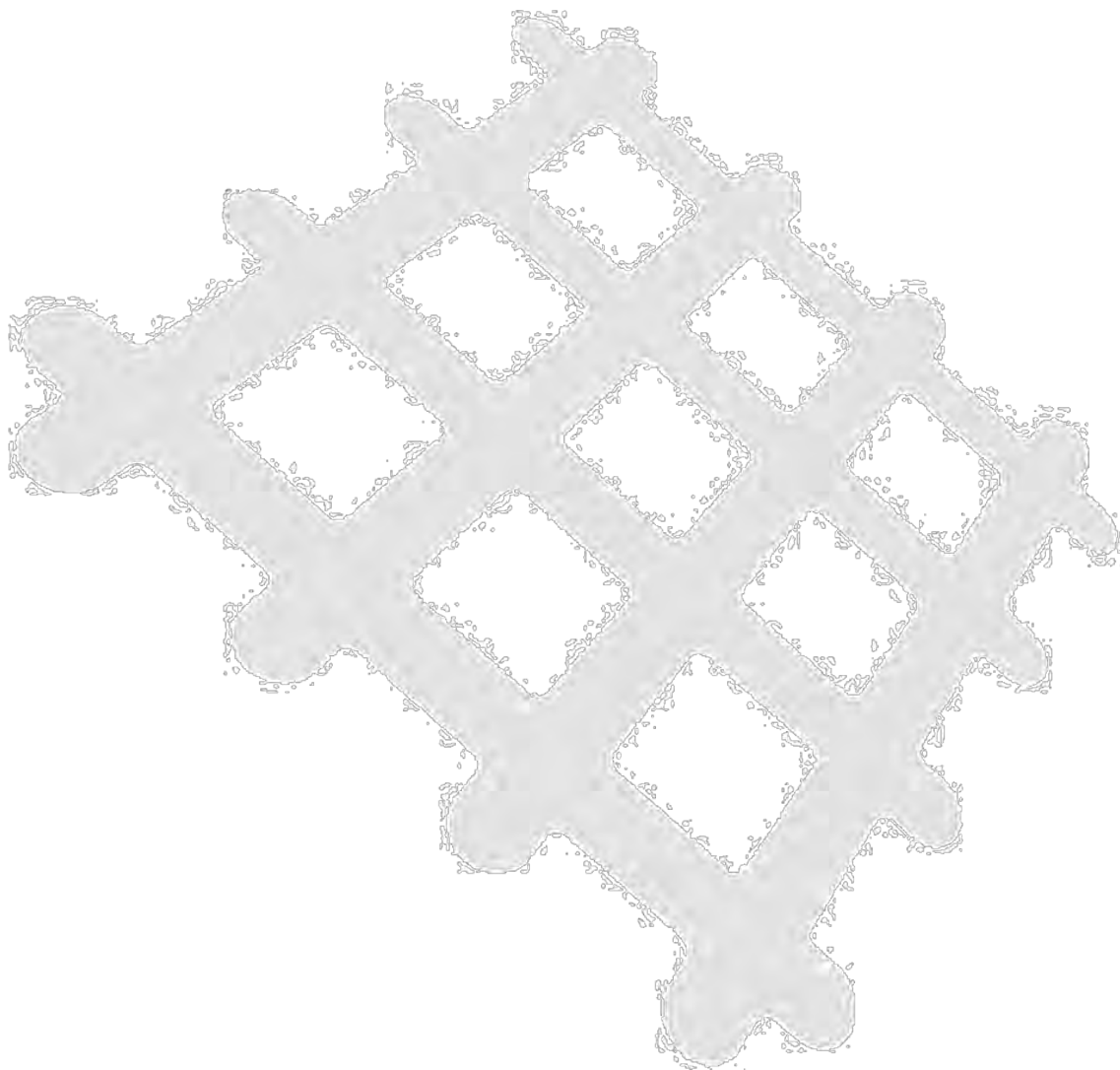
Phone: 1300 363 744 (Energy, Waste and Recycling)

Web: www.sustainability.vic.gov.au

Email: info@sustainability.vic.gov.au



Appendix A Swept Path Diagram

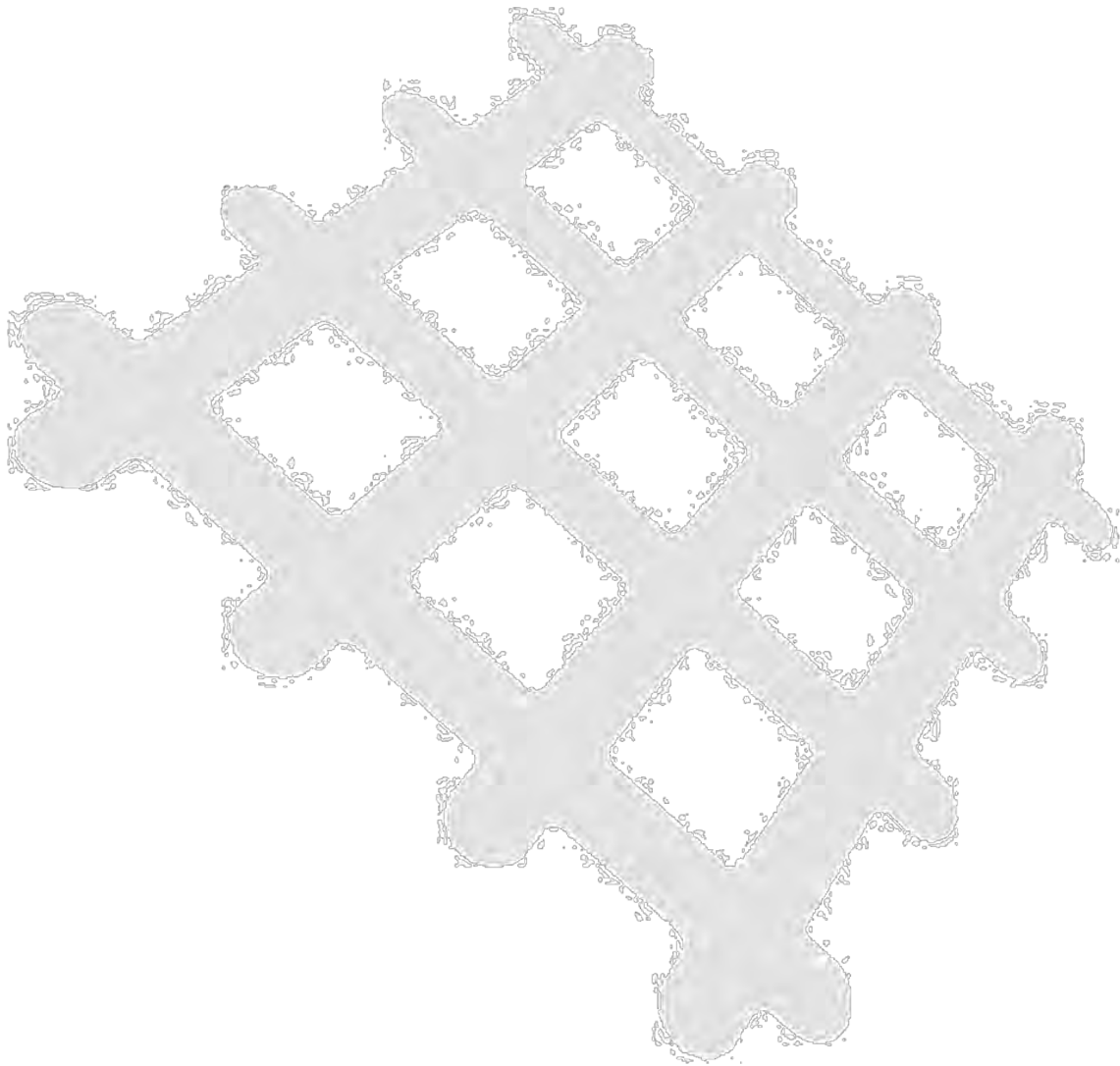




Project Title 19-32 DUKE STREET, ABBOTSFORD SITE VEHICLE ACCESS SWEPT PATH ANALYSIS		
Original CM	Revised VG	Drawn by 4467
Project Number 220428	Drawing Number SPA363	Revision B



Appendix B Bin Storage Area Scaled Plans





1

10-32 DUKE STREET, ABBOTSFORD

ENVIRONMENTAL WIND ASSESSMENT

by
J. Tan



Report: 94-22-DE-EWA-00



CONTENTS

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1. INTRODUCTION

The proposed 10-32 Duke Street Development would consist of three new eight storey office buildings located along the east side of Duke Street between Victoria Street and Southampton Crescent, in Abbotsford, as shown in Figure 1.

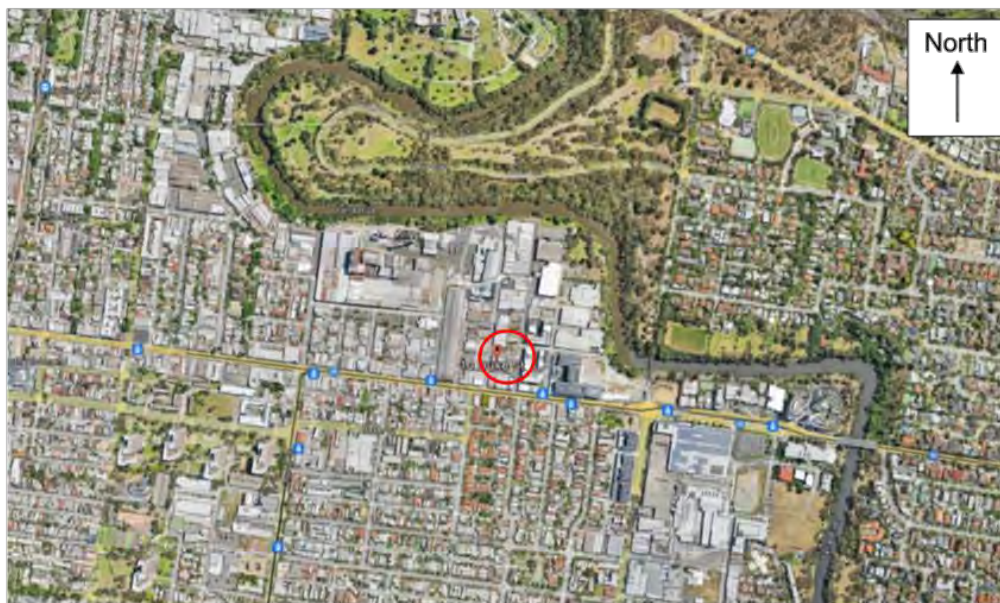


Figure 1: Location of the proposed 10-32 Duke Street Development, Abbotsford (highlighted by red circle)

This assessment is based on a review of drawings prepared by BKK Architects, (refer to Appendix A) and only considers current existing surrounds and under construction buildings (i.e. no proposed future buildings). This desktop environmental wind assessment is based on MEL Consultants knowledge of wind flow around buildings and structures from undertaking numerous wind tunnel model studies, no wind tunnel study has been undertaken for this study.

2. ASSESSMENT CRITERIA

To assess whether the predicted wind conditions are likely to be acceptable or not, wind criteria, safety and comfort, from the Yarra Planning Scheme Section 58.04-4 will be applied or used (Note: although Section 58.04-4 is specified for apartment developments and not office buildings, it defines criteria for user comfort in external environs that would be expected to be the same regardless of development usage). The definition of the criteria is as follows:

58.04-4 Wind Impacts Objective

To ensure the built form, design and layout of development does not generate unacceptable wind impacts within the site or on surrounding land.

Standard D32

Development of five or more storeys should:

- *not cause unsafe wind conditions specified in Table D6 in public land, publicly accessible areas on private land, private open space and communal open space; and*
- *achieve comfortable wind conditions specified in Table D6 in public land and publicly accessible areas on private land*

within a distance of half the greatest length of the building, or half the total height of the building measured outwards on the horizontal plane from the ground floor building façade, whichever is greater.

Trees and landscaping should not be used to mitigate wind impacts. This does not apply to sitting areas, where trees and landscaping may be used to supplement fixed wind mitigation elements.

Wind mitigation elements, such as awnings and screens should be located within the site boundary, unless consistent with the existing urban context or preferred future development of the area.

Table D6 Wind Conditions

Unsafe	Comfortable
<i>Annual maximum 3 second gust wind speed exceeding 20 metres/second with a probability of exceedance of 0.1% considering at least 16 wind directions.</i>	<i>Hourly mean wind speed or gust equivalent mean speed (3 second gust wind speed divided by 1.85), from all wind directions combined with probability of exceedance less than 20% of the time, equal to or less than:</i> <ul style="list-style-type: none">• 3 metres/second for sitting areas• 4 metres/second for standing areas• 5 metres/second for walking areas

The above criteria are pass/fail criteria as they only assess the summation of probabilities of exceedance across all wind directions to determine whether a location passes or fails the threshold criterion i.e. the criteria assess the average wind conditions.

3. RECOMMENDED WIND COMFORT CRITERIA

The following wind comfort criteria are recommended:

Streetscapes	Walking
Building Entrances	Standing (short exposure)
Outdoor Terraces	Walking

The wind conditions on the outdoor terraces have been recommended to satisfy the walking comfort criterion as these spaces could be considered elective when external conditions would be perceived as acceptable for the desired activity. Users of these terraces will need to be educated on the wind effects and loose objects should not be left on an unattended terrace.

4. THE DEVELOPMENT

The proposed 10-32 Duke Street Development would consist of three new eight storey (height $\approx 31.5\text{m}$) office buildings with ground level retail. The main entrances are located along Duke Street, as shown in Figure 2.

The Development maintains a similar planform for Levels 1 and 2 (Figures 3 and 4, respectively). At Level 3 (Figure 5) the Lots C + D buildings sets back by approximately 3.5m from the western edge of the podium, and approximately 3m from the eastern edge of the podium to create outdoor terraces. Similarly, at Level 4 (Figure 6) the Lots A and B buildings sets back by approximately 3.5m from the western edge of the podium, and approximately 3m from the eastern edge of the podium. The floor plan for Levels 5 to 8 (Roof) are shown in Figures 7 and 8. Figures 9 and 10 show the west and north elevations, respectively.

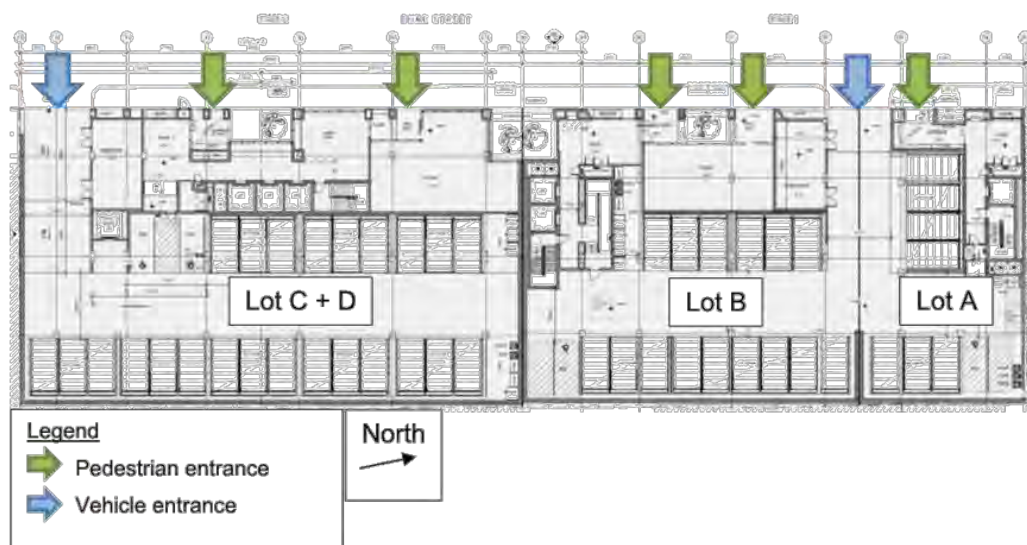


Figure 2: Ground level floor plan

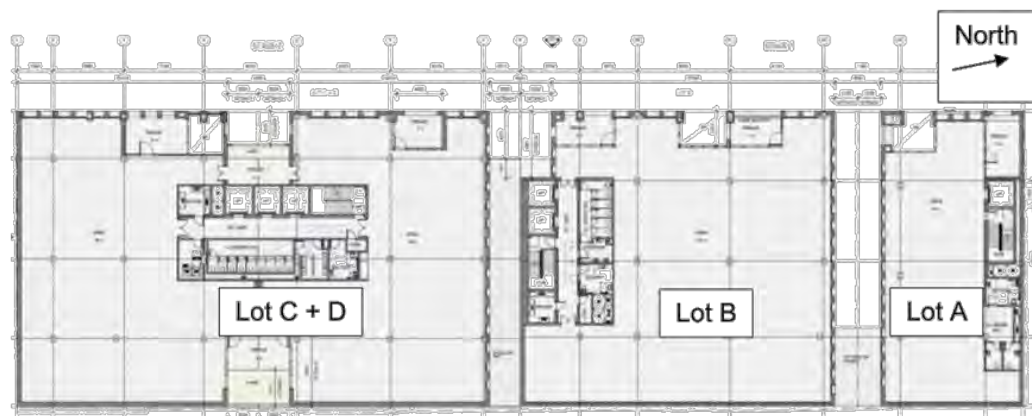


Figure 3: Level 1 floor plan

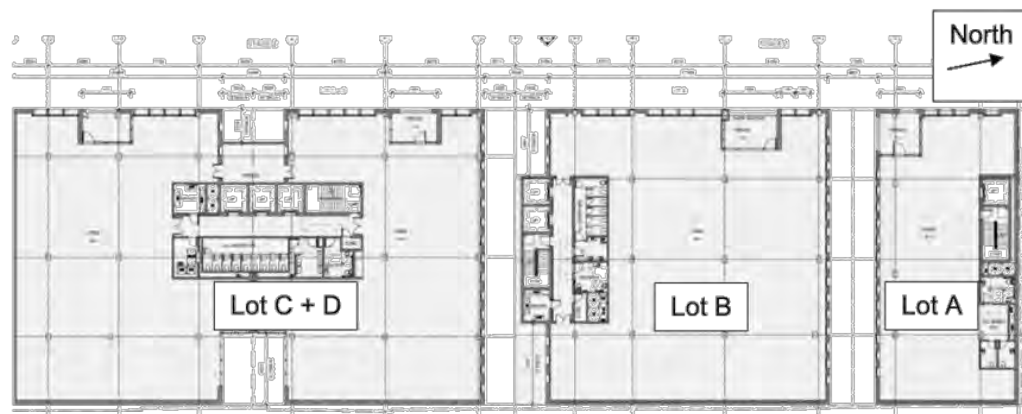


Figure 4: Level 2 floor plan

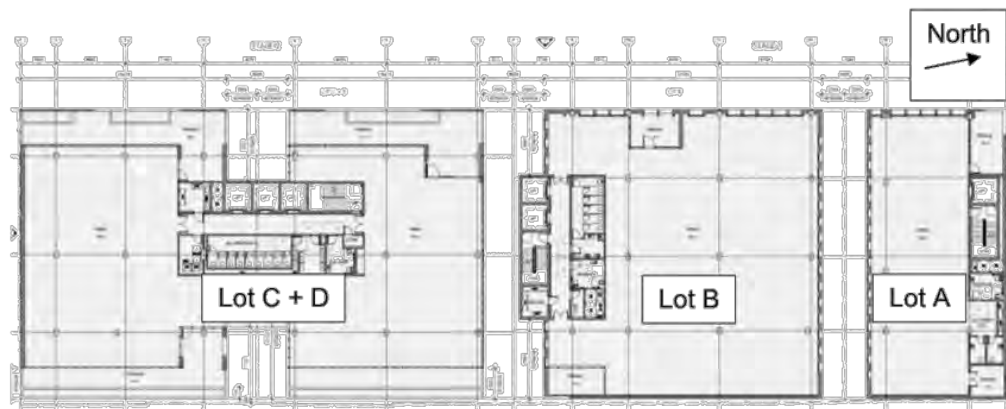


Figure 5: Level 3 floor plan

9

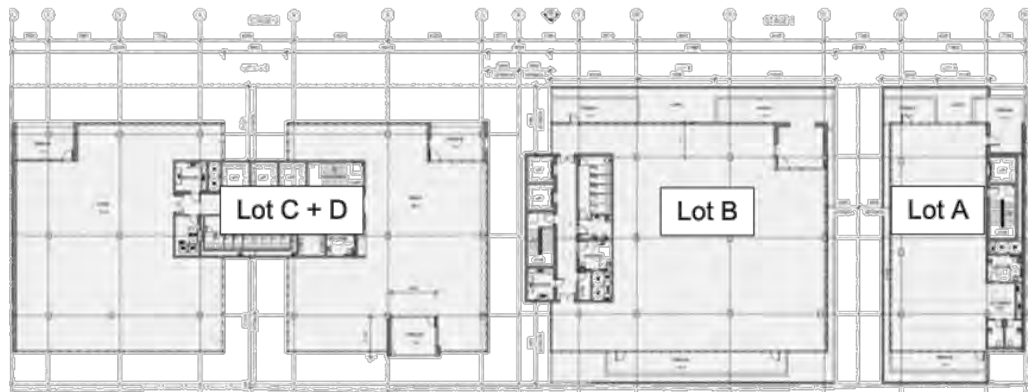


Figure 6: Level 4 floor plan

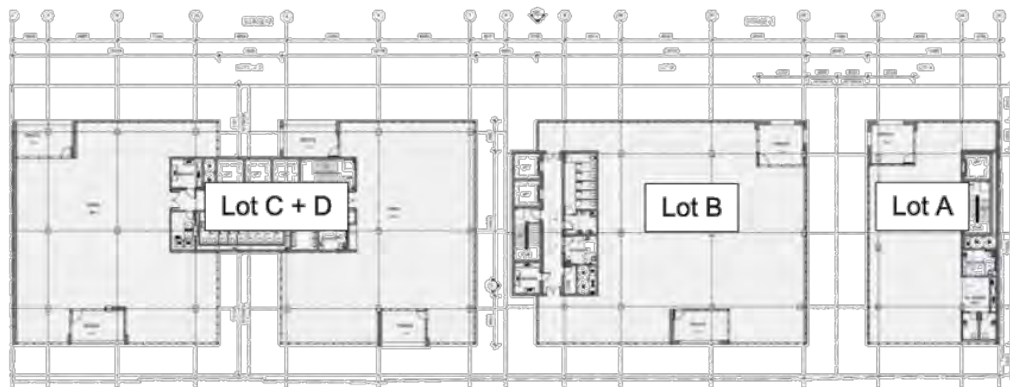


Figure 7: Level 5 to 7 typical floor plan

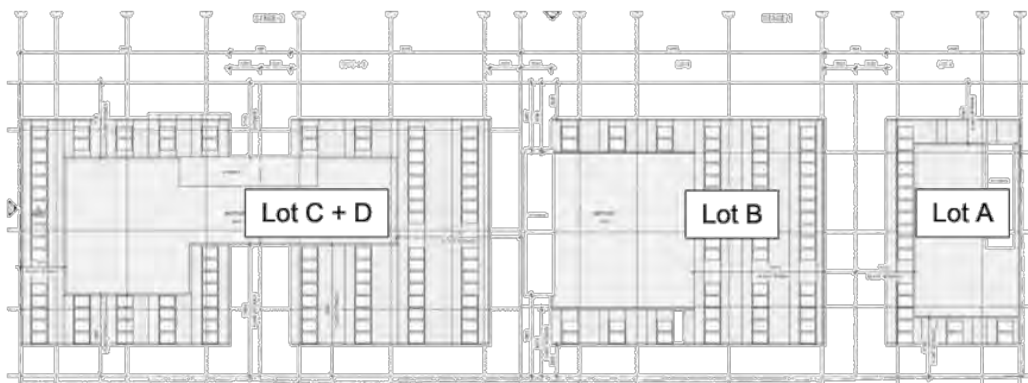


Figure 8: Roof plan

10



Figure 9: West Elevation

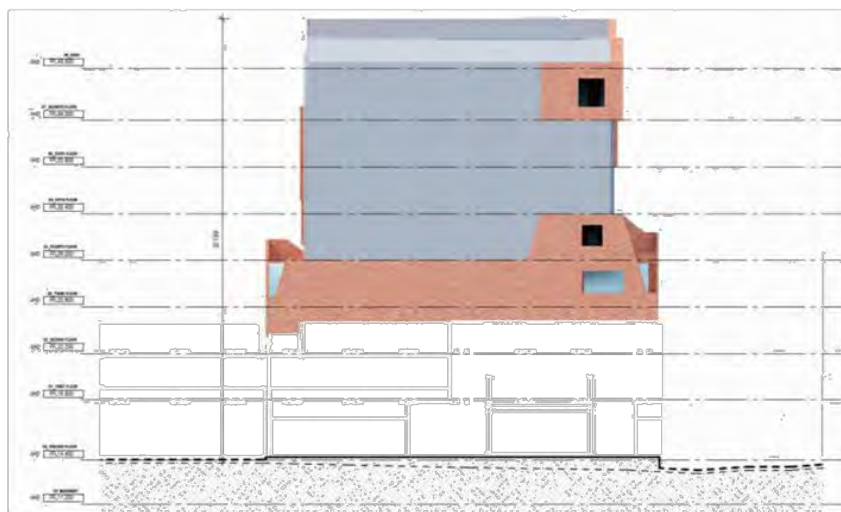


Figure 10: North Elevation

5. WIND CLIMATE AND EXPOSURE

The strongest and most frequent winds in the Melbourne Region come from the north and west sectors with secondary strong winds coming from the south sector; east sector winds are relatively light and infrequent.

The proposed Development will be located amongst mainly low-rise housing and industrial buildings of 1 to 3 levels high. The Carlton and United Breweries, and the Kodak factory buildings to the northwest of the proposed Development would provide shielding for up to 6 levels of the proposed Development. The Precinct apartment buildings (5 to 10 levels) located along Grosvenor Street would provide significant shielding for winds from the east to southeast directions.

Based on the above, the upper levels (i.e. Levels 4 onwards) of the north, south and west faces of the proposed Development would have exposure to direct wind flow.

6. WIND ASSESSMENT

6.1 Duke Street

The pedestrian streetscapes along Duke Street would be influenced by wind flow separating off the northwest and southwest corners of the proposed Development for some north and south sector wind directions, and also by wind flow induced down by the west face of the building for the westerly wind directions.

Wind flow onto the north face of the Lot A building of the Development would be expected to separate off the building's northwest corner and flow down into Duke Street. The Development's 3.5m setback from the west face at Level 4 would assist in deflecting the majority of this wind flow above pedestrian level and reduce the amount of downwash that would be induced into Duke Street.

The winds incident to the west face of the Development would be expected to induce additional wind flow down towards lower levels (i.e. Duke Street), which would then flow towards the northwest and southwest corners of the Development. The Development's 3.5m setback from the west face at Level 4, as discussed above, would assist in deflecting the majority of this downward induced wind flow above pedestrian level. Additionally, flow through the east-west gaps between the buildings of Lots A, B and C+D would assist in reducing the amount of downwash towards lower levels from the westerly and easterly winds.

Wind flow onto the south face of the Lot C+D building of the Development would be expected to separate off the building's southwest corner and flow down into Duke Street. The Development's 3.5m setback from the west face at Level 3 would assist in deflecting the majority of wind above pedestrian level and reduce the amount of downwash that would be induced into Duke Street.

Based on the above scenarios, the wind conditions on the pedestrian streetscapes along Duke Street would be expected to satisfy the walking comfort criterion as well as the safety standard. These wind conditions would, however, be higher than the existing conditions.



The entrances into the Development, located along Duke Street, are recessed from the building façade which would assist in improving the wind conditions outside these entrances. Therefore, the wind conditions outside these entrances would be expected to satisfy the recommended standing comfort criterion and the safety standard.

6.2 Adjacent buildings to the east and Grosvenor Street

The adjacent buildings to the east of the proposed Development and the pedestrian streetscapes along Grosvenor Street would be influenced by wind flow separating off the northeast and southeast corners of the Development by some north and south sector wind directions, respectively, and also by wind flow induced down by the east face of the building for the easterly wind directions.

Some wind flow onto the north face of the Lot A building of the Development would be expected to separate off the building's northeast corner and flow down onto the roofs of adjacent buildings on the east side of the Development. The Development's 3m setback from the east face at Level 4 would assist in deflecting most of this downward induced wind above pedestrian level with the remaining induced flow being deflected by the rooftops of the neighbouring buildings to the east

For the easterly winds, as discussed in Section 5, the Precinct apartment buildings (5 to 10 levels) located along Grosvenor Street would provide significant shielding for winds from the east to southeast directions. Additionally, the east sector winds are relatively light and infrequent.

Some wind flow onto the south face of the Lot C+D building of the Development would be expected to separate off the building's southeast corner and flow down onto the adjacent building rooftops on the east side of the Development and into Grosvenor Street. The Development's 3m setback from the east face at Level 3 would assist in deflecting the majority of wind above pedestrian level and reduce the amount of downwash that would impact the adjacent buildings and Grosvenor Street.

Based on the above scenarios, the wind conditions in the adjacent buildings on the east side of the Development and along the pedestrian streetscapes of Grosvenor Street would be expected to satisfy the walking comfort criterion as well as the safety standard. These wind conditions would, however, be higher than the existing conditions.

6.3 Outdoor terraces

The design of the proposed Development has outdoor terraces on the west face of the Development (i.e. Lots A, B and C+D buildings) at all levels, and on the east face of the Development from Levels 3 onwards.

As discussed in Sections 6.1 and 6.2, the outdoor terraces on Level 3 of Lots C+D, and Level 4 of Lot A, would assist in deflected the majority of downwash of the Development. Therefore, the wind conditions on these terraces would be expected to satisfy the walking comfort criterion but approach the safety standard. The proposed balustrades (recommended to be at least 1.8m in height) that divides the west facing terraces on Level 4 of the Lot A building is an important wind mitigation feature in ensuring that the wind conditions at this northwest corner satisfies the walking comfort criterion and the safety standard.

The wind conditions on the other remaining terraces on other levels would be expected to satisfy the walking comfort criterion and the safety standard, with those located away from building corners, and those that are only open to one direction expected to satisfy the standing comfort criterion.

It would be recommended that users be educated on the wind impacts on balconies and that any objects to be left permanently on the balconies would be tethered/ fixed securely to the balconies and the fixing/ tethers inspected regularly for damage/ corrosion. Any loose items should not be left on the balconies when unattended.

7. CONCLUSIONS

The proposed 10-32 Duke Street Development has been assessed based on the design by BKK Architects received up to the 20th July, 2022.

The wind conditions in the streetscapes surrounding the proposed Development have been assessed as satisfying the walking comfort criterion with locations immediately outside all building entrances expected to satisfy the recommended standing comfort criterion.

The wind conditions on the outdoor terraces would be expected to satisfy the walking comfort criterion.

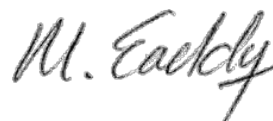
The wind conditions at all locations would be expected to satisfy the pedestrian safety standard.

Prepared by



J. Tan

Released by



M. Eaddy

22 July 2022

Appendix A – Drawing Register

Sheet Number	Sheet Name	Date
A100	Basement Plan	14/07/2022
A101	Ground Floor	14/07/2022
A102	Level 1 Floor	14/07/2022
A103	Level 2 Floor	14/07/2022
A104	Level 3 Floor	14/07/2022
A105	Level 4 Floor	14/07/2022
A106	Level 5 Floor	14/07/2022
A107	Level 6 Floor	14/07/2022
A108	Level 7 Floor	14/07/2022
A109	Roof Plan	14/07/2022
A300	West Elevation	14/07/2022
A301	East Elevation	14/07/2022
A302	North Elevation	14/07/2022
A303	South Elevation	14/07/2022



Department of Transport

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Melbourne VIC 3001 Australia
Telephone +61 3 9651 9999
www.transport.vic.gov.au
DX 201292

Ref: 41593/22

John Theodosakis
Statutory Planning
City of Yarra

E: planningadmin@yarracity.vic.gov.au

Dear Mr Theodosakis

YARRA PLANNING SCHEME
PLANNING APPLICATION NO: RFIL0000980
PROPOSAL: OFFICE DEVELOPMENT
ADDRESS: 10-32 DUKE ST, ABBOTSFORD

Thank you for your email dated 15th November 2022 referring the above application to the Head, Transport for Victoria pursuant to Section 55 of the *Planning and Environment Act 1987*.

The Head, Transport for Victoria, pursuant to Section 56(1) of the *Planning and Environment Act 1987* **does not object** to the grant of a planning permit.

Should you require any further clarification, please feel free to contact James Noy on email james.noy@transport.vic.gov.au.

Yours sincerely

JAMES NOY
Senior Statutory Planner
Delegate of the Head, Transport for Victoria
06/12/2022



City Strategy – Urban Design Formal Referral Response



Application Information:

Referral Officer:	Daniel Perrone
Officer:	John Theodosakis
Council Reference:	PLN22/0679
Address:	10-32 Duke St, Abbotsford VIC 3067
Proposal:	Buildings and works associated with the construction three buildings (up to eight storeys plus roof plant) for the purpose of office with operating hours of 7am to 8pm, Monday to Sunday, food and drink premises (cafés) with operating hours of 7am to 10pm, Monday to Sunday; and a reduction in the number of car parking spaces associated with the Yarra Planning Scheme.
Comments Sought:	Click here to view referral memo: D22/316937 - IREF22/01650 - Internal Referral - Planning Formal Request
Disclaimer:	Council's Urban Designer provides the following information which is based on the information provided in the referral request memo referenced above.

Recommendation

- The proposal is supported in principle, subject to changes.

Comment Summary

- The public realm interface is generally supported.
- Streetscape works to Duke St are not supported in their current form, and further information is required to assess an alternative solution.
- The application should be referred back to Urban Design before a decision is made.

Further Information Required

- The following drawing sheets are missing from the advertised drawing sets:
- A010, A011, A01, A013
- Provide existing and proposed levels within public realm and at entrances/ interfaces between building and footpath to ensure smooth transition.
- Provide Public Realm Improvement Plan for review and approval by Council – details provided below.

Public Realm Interface

- Public realm interface is generally supported.
- Pedestrian and vehicle entrances are clearly defined, and façade is well articulated to provide a good level of activity.

Planter boxes:

- Planter boxes are not to drain/overflow into the public realm. Ensure all planter boxes have subsurface connection or similar back to stormwater/LPD. Provide details for review.

Levels:

- Provide existing and proposed spot levels at all interfaces between building entrances and public realm to ensure compliance with DDA.
- Note that where steps/ramps are required, all associated handrails, tactile indicators, landings etc. must be accommodated within the title boundary of the subject site and must not protrude into the public realm in any way.

Streetscape and Capital Works

- Council supports the greening and public realm improvement to Duke Street as part of the proposed development, however further information is required to properly assess the proposal. Refer to sub-sections below for detailed information.
- In order to support the growth of the proposed street trees, as well as improve the overall amenity of the street, it is recommended that the applicant undertakes aerial bundling of the overhead powerlines for the length of the subject site.

Public Realm Improvement Plan:

- The applicant is to provide a Public Realm Improvement Plan for review and approval by Council, including, but not limited to, the following details:
 - The location of all existing, proposed and/or relocated infrastructure, such as, drainage pits, light/electrical poles, street signs, parking meters, parking bays, kerb/channel, trees, street furniture, bins, bike hoops etc.
 - All existing and proposed levels and surface grading.
 - Proposed civil/drainage design to accommodate any design elements that will alter the conditions of the existing stormwater drainage (such as kerb outstands/footpath extensions).
 - All proposed parallel parking bays, including dimensions as per the following:
 - Parking lane minimum width – 2.1m
 - Parking bay enclosed/obstructed on both ends – 6.0m length
 - Parking bay enclosed/obstructed on one end – 5.5m length
 - Parking bay open on both ends – 5.0m length
- Dimensions (length and width) of proposed kerb outstands, tree squares, and footpath width.

Kerb Outstands:

- Generally, Council does not support mid-block kerb outstands due to the drainage implications they create. Boxed/grated culverts are not supported due to the high maintenance they require.
- As there is no underground stormwater drainage located along Duke St adjacent the subject site, the proposed kerb outstands are not supported.

Visitor Bike Parking:

- As aforementioned, the proposed outstands in their current form are not supported due to the drainage implications, meaning the proposed kerb outstand bike hoop locations are also not supported.
- The northern-most bike hoop is shown within the existing footpath, parallel to the kerb. The footpath along Duke St is too narrow to support a bike hoop in this configuration, and therefore is also not supported. Minimum footpath width required to support parallel bike hoops is 2.7m.
- As an alternative, bike corrals may be installed within the roadway (in the parking lane) provided they do not obstruct drainage flow and are sufficiently protected from oncoming vehicles (through installation of vehicle bollards).
- Up to 4no. bike hoops may be installed in a row, spaced a minimum of 1.2m apart (centre-to-centre), with up to a total of 8no. bike hoops across the frontage of the whole development.
- Council's urban design unit is happy to work with the applicant to develop a solution for the proposed site that satisfies both parties requirements.

Street Tree Planting:

- Duke Street is identified as a priority street for tree planting under Council's endorsed Urban Forest Strategy.
- Therefore, Council is supportive of the proposal for street tree planting along Duke St, however, the quantity of trees (3no.) indicated on the plans is inadequate considering the length of the development's frontage.
- Eight (8no.) new possible street tree locations have been identified along the frontage of the subject site and are indicated on the attached plan mark-up (**Appendix 1**).
- The applicant is requested to contribute the following amount for this planting:
 - **\$11,248.00 (inc. GST)** for eight (8no.) trees in a roadway location (to cover tree sourcing, planting, and 2 years' establishment maintenance).
- Tree species and final locations will be determined by Council.
- Council's tree planting contractor will source and plant the trees, and provide establishment maintenance.
- Please keep Council updated as the project progresses regarding planning approval and construction timeframes to ensure trees can be sourced and available for planting when construction is completed.
- Please refer to the following tree location checklist. Street trees are not recommended in the following locations:
 - within 1m of a vehicle crossover;
 - within 1m of a stormwater drain;
 - within 1m of a residential water/gas service or ferule connection to water mains;
 - within 2m of a fire hydrant or drainage pit;
 - within 1m of an inspection pit;
 - within 3m of an electricity pole (includes Yarra Tram Poles, light poles etc.);
 - within 1.5m directly beneath overhead service wires to properties;
 - directly in front of pedestrian access to properties;
 - where the planting will interfere with the flow of pedestrian, bicycle or motor vehicles; and
 - over incoming gas and water services.
- **Note: it is the responsibility of the applicant to check for underground services in the proposed tree locations.**

Footpath Reinstatement:

- Along the full length of the subject site, the Duke St footpath is to be reinstated as asphalt footpath with concrete kerb and channel as per Yarra's Road Materials Policy and Yarra Standard Drawings.
- All redundant crossovers are to be removed and reinstated as asphalt footpath.
- All proposed vehicle crossovers to be as per Yarra Standard Drawings.
- Footpath levels and crossfall are to comply with DDA requirements and Council standard drawings – refer advice from Council's Engineering team.

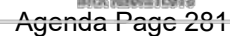
These comments exclude comments from the following teams, and they will be providing separate referral comments:

- Open Space
- Arboriculture & Streetscapes

Capital Works:

There are no known planned / approved capital works around the site being led by the Urban Design Team.

Urban Designer: Daniel Perrone
Date: 13 December 2022



Development Engineering Formal Referral Response



Application Information:

Referral Officer:	Mark Pisani
Officer:	John Theodosakis
Council Reference:	PLN22/0679
Referral Number:	IREF22/01645
Address:	10-32 Duke Street, Abbotsford
Proposal:	Mixed Use Development; Construction of three buildings
Comments Sought:	Referral - Internal – Development Engineering
Disclaimer:	Council's Development Engineering unit, provides the following advice based on information provided in the referral request memo referenced above.

Comments and Recommendations

Drawings and Documents Reviewed

	Drawing No. or Document	Revision	Dated
BKK Architects	A100 Basement Plan	TP-2	5 October 2022
	A101 Ground Plan	TP-2	5 October 2022
	A403 Section – Cross BLDG C+D	TP-1	5 October 2022
One Mile Grid	Transport Impact Assessment		2 September 2022

CAR PARKING PROVISION**Proposed Development**

Under the provisions of Clause 52.06-5 of the Yarra Planning Scheme, the development's parking requirements are as follows:

Proposed Use	Quantity/ Size	Statutory Parking Rate*	No. of Spaces Required	No. of Spaces Allocated
Office	Lot A – 1,591 m ²	3.0 spaces per 100 m ² of net floor area	47	20
	Lot B – 3,733 m ²		111	40
	Lot C+D – 5,266 m ²		157	62
Retail	Lot B - 94 m ²	3.5 spaces per 100 m ² of leasable floor area	3	1
	Lot C - 120 m ²		4	1
Total			322 spaces	124 spaces

* Since the site is located within the Principal Public Transport Network Area, the parking rates in Column B of Clause 52.06-5 now apply.

To reduce the number of car parking spaces required under Clause 52.06-5 (including to reduce to zero spaces), the application for the car parking reduction must be accompanied by a Car Parking Demand Assessment.

Car Parking Demand Assessment

In reducing the number of parking spaces required for the proposed development, the Car Parking Demand Assessment would assess the following:

Parking Demand Consideration	Details
<i>Parking Demand for Office Use</i>	<p>The proposed offices would be supplied with on-site parking at rates ranging from 1.07 spaces to 1.26 spaces per 100 square metres of floor area. Office developments throughout the municipality have been approved by Council with reduced rates. A few examples include:</p> <ul style="list-style-type: none"> 71-93 Gipps Street, Collingwood – 0.96 spaces/100 m² 506 & 508-510 Church Street, Cremorne – 1.09 spaces/100m² 2-16 Northumberland Street, Collingwood – 0.89 spaces/100m² <p>The proposed office parking rates of 1.07 to 1.26 spaces per 100 square metres of floor area are considered appropriate as the site has very good access to public transport and seeks to encourage more sustainable forms of transport.</p>
<i>Parking Demand for Retail Use</i>	<p>To assess the car parking demand of the retail use, a staff parking rate of 1.0 space per 100 square metres of floor area could be adopted. Each retail premises is providing one on-site space, which is considered appropriate.</p>

Parking Demand Consideration	Details
<i>Availability of Public Transport in the Locality of the Land</i>	The following public transport services can be accessed to and from the site by foot: <ul style="list-style-type: none"> Victoria Street trams – 210 metre walk Church Street buses – 550 metre walk
<i>Multi-purpose Trips within the Area</i>	Customers and clients to the development could combine their visit by engaging in other activities or business whilst in the area.
<i>Convenience of Pedestrian and Cyclist Access</i>	The site is very well positioned in terms of pedestrian access to public transport nodes, businesses and other essential facilities. The site also has good connectivity to the on-road bicycle network.

Appropriateness of Providing Fewer Spaces than the Likely Parking Demand

Clause 52.06 lists a number of considerations for deciding whether the required number of spaces should be reduced. For the subject site, the following considerations are as follows:

Consideration	Details
<i>Availability of Car Parking</i>	The level of on-street parking in this part of Abbotsford is very high during business hours. The area surrounding the subject site is blanketed in time based parking restrictions. The high parking demand in the surrounding streets would be a disincentive for employees to drive.
<i>Relevant Local Policy or Incorporated Document</i>	The proposed development is considered to be in line with the objectives contained in Council's <i>Strategic Transport Statement</i> . The site is ideally located with regard to sustainable transport alternatives and the reduced provision of on-site car parking would potentially discourage private motor vehicle ownership and use.

Adequacy of Car Parking

From a traffic engineering perspective, the car parking provision for the office and retail uses is considered appropriate in the context of the development and the surrounding area.

The operation of the development should not adversely impact on the existing on-street parking conditions in the area.

The Engineering Referral team has no objection to the reduction in the car parking requirement for this site.

TRAFFIC IMPACT

Trip Generation

The trip generation for the site adopted by One Mile is as follows:

Proposed Use	Adopted Traffic Generation Rate	Daily Traffic	AM Peak Hour	PM Peak Hour
Commercial (Office and Retail)	0.55 trips per space in each peak hour	Not Provided	68 trips	68 trips

Directional Split and Traffic Distribution

The proposed peak hour directional split is as follows:

- AM Peak Hour: 95% IN (62 trips) and 5% OUT (6 trips)
- PM Peak Hour: 95% OUT (54 trips) and 10% IN (6 trips)

The traffic distribution assumptions as indicated in section 9.2 of the One Mile Grid traffic report are considered reasonable.

It is agreed that the traffic generated by the development should not have a detrimental impact on the traffic operation of the surrounding road network.

DEVELOPMENT LAYOUT DESIGN**Layout Design Assessment**

Item	Assessment
Access Arrangements	
Development Entrance	The two development entrances have widths of 6.13 metres and 6.4 metres, which satisfy the Australian/New Zealand Standard AS/NZS 2890.1:2004.
Visibility	Pedestrian sight triangles have not been provided at the exit lanes of the two entrances, as required by <i>Design standard 1 – Accessways</i> of Clause 52.06-9.
Headroom Clearance	The headroom clearance at the development entrances have not been dimensioned.
Car Parking Modules and Mechanical Parking	
Accessible Parking Space	The dimensions of the accessible parking space and shared area (each 2.4 metres by 5.4 metres) satisfy the Australian/New Zealand Standard AS/NZS 2890.6:2009.
Aisles	The 6.4 metre wide aisle satisfies <i>Table 2: Minimum dimensions of car parking spaces and accessways</i> of Clause 52.06-9.
Car Stacker Device	The development would be provided with seven shuffle type car stackers (Trendvario 4300). Each stacker platform has a clear length of 5.1 metres and a useable platform width of 2.4 metres.
Floor to Ceiling Height and Pit Depth	Not dimensioned on the drawings.
Vehicle Clearance Heights	Not known, as the specific model type of stacker has not been specified in the drawings or the Traffic Impact Assessment report.
Motorcycle Spaces	Not dimensioned on the drawings.
Gradients	
Ramp Grade for the first 5.0 metres inside the Property	The south entrance is provided with a 1 in 20 grade section for the first 2.0 metres inside the property, which satisfies <i>Design standard 3: Gradients</i> . The ramp grade inside the north entrance is flat.
Ramp Grades and Changes of Grade	The ramp grades and changes of grade satisfy <i>Table 3 Ramp Gradients</i> of Clause 52.06-9.
Swept Path Assessment	
Vehicle Turning Movements End Stacker Spaces SPA100* Rev B	The swept path diagrams for a B85 design vehicle entering and exiting the end car stacker spaces are considered satisfactory.
Waste Collection Vehicle Movements SPA101 Rev B	The swept path diagrams of a 6.41 metre long waste collection vehicle manoeuvring into and out of the bin storage areas are considered satisfactory.

Item	Assessment
Waste Collection Vehicle Entry and Exit Movements	Swept path diagrams for a waste collection vehicle entering and exiting the two development entrances via Duke Street have not been provided.
Other Items	
Loading Arrangements	Given the small scale of the retail premises, deliveries of goods to the site would be undertaken by small vans or small commercial vehicles. There is no objection to these vehicles parking on-street to make deliveries to the site.
Vehicle Crossing Ground Clearance	A vehicle crossing ground clearance check is to be undertaken for each new vehicle crossing by the applicant's designer to confirm that a B99 design vehicle can enter and exit the property without scraping out (Please see under 'Engineering Advice for Design Items to be Addressed by the Applicant' section).

* One Mile Grid swept path diagram drawing number.

Engineering Advice for Design Items to be Addressed by the Applicant

Item	Details
Visibility	Convex mirrors are to be provided at the development entrances.
Headroom Clearances	The headroom clearances at the entrances are to be dimensioned on the drawings
Floor to Ceiling Heights and Pit Depths	The floor to ceiling heights and pit depths are to be dimensioned on the drawings.
Vehicle Clearance Heights	The applicant is to select the stacker model type and specify the vehicle clearance heights for each stacker level.
Motorcycle Spaces	To be dimensioned on the drawings.
Waste Collection Vehicle Entry and Exit Movements	Swept path diagrams are to be provided for a 6.41 metre long waste collection vehicle entering and exiting the development entrances via Duke Street.
Vehicle Crossing Ground Clearance	<p>To assist the applicant, a <i>Vehicle Crossing Information Sheet</i> has been appended to this memo. The ground clearance check (for each new vehicle crossing) requires the applicant to obtain a number of spot levels which include the reduced level 2.0 metres inside the property, the property boundary level, the bottom of kerb (invert) level, the edge of the channel level and a few levels on the road pavement – in this case, Duke Street.</p> <p>These levels are to be shown on cross sectional drawings with dimensions, together with the B99 design vehicle ground clearance template demonstrating access and exit movements.</p> <p>Providing the ground clearance checks early in the design phase can also determine whether further modification works are required, such as lowering the finished floor level inside the property or making any adjustments to Council's footpaths or road infrastructure.</p>

INFRASTRUCTURE ITEMS AND CONSTRUCTION ACTIVITIES

The following comments have been provided by Council's Civil Infrastructure team (John Ghasperidis):

Item	Details
General	
Impact on Council Road Assets during Construction	<p>The construction of the new buildings, the provision of underground utilities and construction traffic servicing and transporting materials to the site will impact on Council assets. Trenching and areas of excavation for underground services invariably deteriorates the condition and integrity of footpaths, kerb and channel, laneways and road pavements of the adjacent roads to the site.</p> <p>It is essential that the developer rehabilitates/restores laneways, footpaths, kerbing and other road related items, as recommended by Council, to ensure that the Council infrastructure surrounding the site has a high level of serviceability for employees, visitors and other users of the site.</p>
Infrastructure	
Drainage	Duke street along the frontage of the development falls towards the north. There is no drainage along the frontage of the development. The nearest drain is located at the intersection of Duke Street and Southampton Street. The introduction of kerb outstands. will require extension of drainage from Southampton Street. Extension of drainage will also assist with the Legal Point of Discharge (LPD) for the development.
Detailed Engineering Design Drawings	<p>Detailed Engineering plans be submitted showing new drainage infrastructure to accommodate kerb outstands. Drain to be located along the existing kerb and channel alignment. Hence kerb and channel, and footpath to be fully reconstructed.</p> <p>Detail engineering plans must also show the location of vehicle entry points on the opposite side of the development and ensure access is not compromised because of the proposed kerb outstands. Swept path diagrams are to be provided for vehicle turning movements into and out of the properties opposite the development (i.e. – on the west side of Duke Street).</p> <p>Plans are to show the location and depth of all existing underground utility services relative to the proposed drainage. The applicant must ensure spacing of proposed kerb outstands provide for full parking spaces.</p>
Vehicle Crossings	Vehicle crossings are to be designed in accordance with Council's current standards with the street channel continuing across the vehicle crossings and with 600 mm splays (not radials as shown on plans).
Reconstruction of Footpath outside Development Frontage	Footpaths must be DDA compliant.
Removal of Redundant Vehicle Crossings	All redundant vehicle crossings are to be demolished and reinstated with paving, kerb and channel.
Removal of Redundant Property Drains	Redundant property drains under the footpaths must be removed and reinstated to Council's satisfaction.

ENGINEERING CONDITIONS

Civil Works

Upon the completion of all building works and connections for underground utility services,

- The footpath along the property's Duke Street frontage must be reconstructed and satisfy the following:
 - All footpath adjacent to the property must be reconstructed in accordance with Council standards;
 - The footpath must be constructed in compliance with DDA requirements: maximum crossfall – 1 in 40 (including the footpath in front of the vehicle crossing);
 - Internal finished floor levels (FFL) must be aligned to the proposed DDA compliant footpath levels at the interface with the property boundary;
 - The alignment and level of existing kerb and channel is not to be altered unless agreed upon with Council;
 - The longitudinal grade of the footpath abutting the property and on the approaches must not be altered unless agreed upon with Council;
 - Existing and proposed service pits within the footpath area must be adjusted to match the reconstructed footpath grades; and
 - The footpath is to be reconstructed at the Permit Holder's cost.
- All redundant property drain outlets are to be demolished and reinstated to Council's satisfaction and at the Permit Holder's cost.
- All redundant vehicle crossings must be demolished and reinstated with paving, kerb and channel to Council's satisfaction and at the Permit Holder's cost.
- A drain is to be constructed from the development to the existing drain at the intersection of Duke Street and Southampton Crescent to Council's satisfaction and at the Permit Holder's cost.
- Detailed engineering design drawings of all infrastructure works, including the drain extension in Duke Street, are to be submitted to Council for assessment and approval. A signage and line marking plan must also be included with the detailed engineering design.

Provision of Public Lighting

- Before the development commences, a Public Lighting Plan to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. The Public Lighting Plan must address lighting along the frontages roads and entrances to the approved building. When approved, the Public Lighting Plan will be endorsed and will form part of this permit. The Public Lighting Plan must provide for:
 - (a) All pedestrian access to the proposed development must be lit by public lighting installations as specified in the Australian Standard AS 1158.3.1:2020 *Lighting for roads and public spaces*.
 - (b) New poles and luminaires must be sourced from the relevant power authority's standard energy efficient luminaires list and comply with relevant CitiPower technical requirements;
 - (c) Consultation with affected property owners to be undertaken by the developer with respect to the location of any new pole/s and light/s (if required);
 - (d) Light spillage into the windows of existing and proposed residences must be avoided or minimised and should comply with the requirements of Australian Standard AS 4282 - 2019 *Control of the obtrusive effects of outdoor lighting*;

- (e) The locations of any new light poles must not obstruct vehicular access into private properties; and
- (f) The provisions, recommendations and requirements of the endorsed Public Lighting Plan must be implemented and complied with at no cost to Council and to the satisfaction of the Responsible Authority.

Vehicle Crossings

- At the design phase of the development (before construction), the finished floor levels of the slab or accessway must be first designed/determined by taking into account the relative adjacent road and footpath infrastructure levels, in order to provide satisfactory vertical access (i.e. - vehicle ground clearance) into and out of the site.
- Before the development commences, or by such later date as approved in writing by the Responsible Authority, a vehicle crossing design must be submitted to Council's Engineering department for approval, and:
 - Demonstrate satisfactory access into and out of the site with a vehicle ground clearance check using the B99 design vehicle; and
 - Be fully dimensioned with actual reduced levels (to three decimal places) and comply with design requirements set out in Yarra City Council's Vehicle Crossing Information Sheet.
- Prior to the occupation of the development, or by such later date as approved in writing by the Responsible Authority, any new vehicle crossing(s) must be constructed:
 - In accordance with any requirements or conditions imposed by Council;
 - At the permit holder's cost; and
 - To the satisfaction of the Responsible Authority.

Road Asset Protection

- Any damaged roads, footpaths and other road related infrastructure adjacent to the development site as a result of the construction works, including trenching and excavation for utility service connections, must be reconstructed to Council's satisfaction and at the developer's expense.

Impact of Assets on Proposed Development

- Any services poles, structures or pits that interfere with the proposal must be adjusted, removed or relocated at the owner's expense after seeking approval from the relevant authority.
- Areas must be provided inside the property line and adjacent to the footpath to accommodate pits and meters. No private pits, boundary traps, valves or meters on Council property will be accepted.

Construction Management Plan

- A Construction Management Plan must be prepared and submitted to Council. The Plan must be approved by Council prior to the commencement of works. A detailed dilapidation report should detail and document the existing and post construction conditions of surrounding road infrastructure and adjoining private properties.

Discharge of Water from Development

- Only roof runoff, surface water and clean groundwater seepage from above the water table can be discharged into Council drains.

- Council will not permit clean groundwater from below the groundwater table to be discharged into Council's drainage system. Basements that extend into the groundwater table must be waterproofed/tanked.

Removal, Adjustment, Changing or Relocation of Parking Restriction Signs

- No parking restriction signs or line-marked on-street parking bays are to be removed, adjusted, changed or relocated without approval or authorisation from Council's Parking Management unit and Construction Management branch.
- Any on-street parking reinstated as a result of development works must be approved by Council's Parking Management unit.
- The removal of any kerbside parking sensors and any reinstatement of parking sensors will require the Permit Holder to pay Council the cost of each parking sensor taken out from the kerb/footpath/roadway. Any costs associated with the reinstatement of road infrastructure due to the removal of the parking sensors must also be borne by the Permit Holder.

ADDITIONAL ENGINEERING ADVICE FOR THE APPLICANT

Item	Assessment
Legal Point of Discharge	The applicant must apply for a Legal Point of Discharge under Regulation 133 – Stormwater Drainage of the <i>Building Regulations</i> 2018 from Yarra Building Services unit. Any storm water drainage within the property must be provided and be connected to the nearest Council pit of adequate depth and capacity (legal point of discharge), or to Council's satisfaction under Section 200 of the <i>Local Government Act</i> 1989 and Regulation 133.

Engineer: Mark Pisani

Signature: 

Date: 11 January 2023

VEHICLE CROSSING INFORMATION SHEET

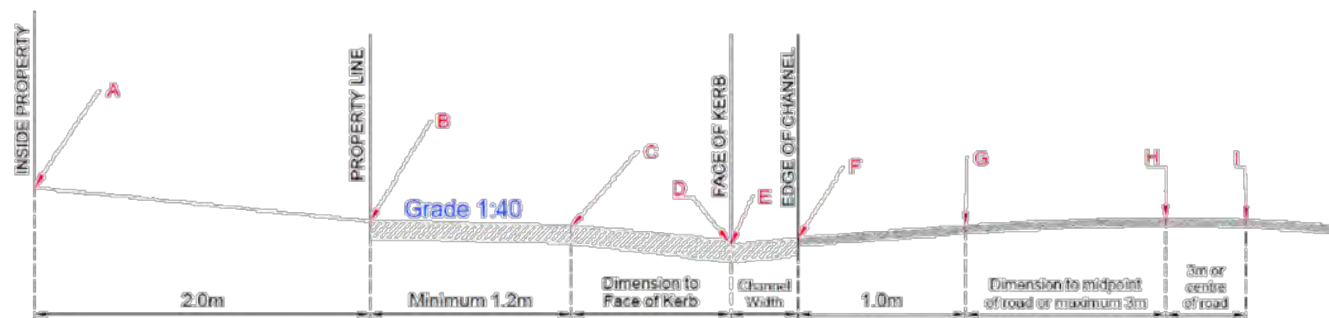
Vehicle Crossing – Cross Section



The designer is to submit a 1:20 scale cross section for each proposed vehicle crossing showing the following items:

- | | |
|----------------------------------------------------------|--------------------------------------------------|
| A. Finished floor level 2.0 metres inside property | E. Surface level at the bottom of the kerb |
| B. Property line surface level | F. Surface level at the edge of channel |
| C. Surface level at change in grade (if applicable) | G. Road level 1.0 meter from the edge of channel |
| D. Bullnose (max height 60mm) – must be clearly labelled | H, I. Road levels |

- Please note the cross section must be fully dimensioned. As shown in the sketch below.
- Please show both the existing and proposed surface.
- The maximum allowable cross-fall between points B and C is 1:40 (2.5%).
- A bullnose (max 60mm) is permitted at point D, however not compulsory.
- The levels shown must be exact reduced levels, to three decimal points. Interpolation of levels is not acceptable.
- The designer must demonstrate that an 85th or 99th percentile vehicle profile can traverse the design cross section as per the Australian/New Zealand Standard ground clearance template (AS/NZS 2890.1:2004).
- Significant level changes to the existing footpath level B to C will require additional level design either side of the proposed crossing.
- Please include any additional levels or changes in grade that are not shown in the diagram.



Lev Shinkasky, Senior Development Engineer
Date: 19 July 2017
Reviewed: 20 February 2020

Strategic Transport Formal Referral Response



Application Information	
Referral Officer	USERID
Officer	Philip Mallis
Council Reference	PLN22/0679
Address	10 – 32 Duke Street, Abbotsford VIC 3067
Proposal	<p>Buildings and works associated with the construction three buildings (up to eight storeys plus roof plant) for the purpose of office with operating hours of 7am to 8pm, Monday to Sunday and food and drink premises (cafés) with operating hours of 7am to 10pm, Monday to Sunday.</p> <p>A reduction in the number of car parking spaces associated with the Yarra Planning Scheme is sought.</p>
Comments Sought	<ul style="list-style-type: none"> • Access and Safety • Bicycle Parking Provision • Adequacy of car parking / bicycle parking spaces provided (and waiver/reduction sought) • Design and location of car parking / bicycle parking spaces and facilities • Electric vehicles / share cars / other relevant topics • Impact on Yarra's key bicycle corridors • Impact on Yarra's bicycle lanes • City Works

Council's Strategic Transport unit provides the following information which is based on the information provided in the Statutory Planning referral request memo referenced above.

Comments

Bicycle Parking Provision

Statutory Requirement

Under the provisions of Clause 52.34-3 of the Yarra Planning Scheme, the development's bicycle parking requirements are as follows:

Proposed Use	Quantity/ Size	Statutory Parking Rate	No. of Spaces Required	No. of Spaces Allocated
Office (other than specified in the table)	214 sqm	1 employee space to each 300 sqm of net floor area if the net floor area exceeds 1000 sqm	1 employee spaces	132 employee spaces, and 16 visitor spaces
		1 visitor space to each 1000 sqm of net floor area if the net floor area exceeds 1000 sqm	0 visitor spaces.	
Retail premises (other than specified in this table)	10,590 sqm	1 employee space to each 300 sqm of leasable floor area	35 employee spaces	
		1 visitor space to each 500 sqm of leasable floor area	11 visitor spaces.	
Bicycle Parking Spaces Total			36 resident / employee spaces	132 resident / employee spaces
			11 visitor spaces	16 visitor spaces
Showers / Change rooms		1 to the first 5 employee spaces and 1 to each additional 10 employee spaces	4 showers / change rooms	20 showers / change rooms

The development provides a total of 96 additional employee spaces and 5 additional visitor spaces above the requirements of the Scheme.

Adequacy of visitor spaces

16 spaces are noted as visitor bicycle parking spaces on architectural plans provided along the sites frontage to Duke Street. These spaces are set within proposed kerb outstands to be constructed.

Dimensions of the kerb outstands and bicycle parking spaces are to be provided on plans to show that bicycle parking can be accommodated without obstructing the pedestrian path.

The quantum of visitor spaces is adequate.

Adequacy of employee spaces

Number of spaces

The quantum of employee bicycle parking exceeds that required by Clause 52.34 of the Yarra Planning Scheme.

The proposed surplus of 96 employee spaces above the requirements of the planning scheme is considered appropriate and required having regard for:

- The reduction of 198 car parking spaces being sought (38% of the statutory requirement).
- the subject site is located in an inner-urban area with already high cycling-to-work demand, and trends indicate demand will continue to increase; and
- both local and state planning policies include objectives to promote sustainable transport modes, including cycling.

Design and location of employee spaces and facilities

Employee bicycle parking spaces are located within the basement level of the development within three secure compounds (one in each building).

Access to the basement level requires use of lifts between Ground and Basement levels. Dimensions of the lift car is not specified on plans. Details of the lift size and door opening is required to be shown on plans in order to confirm that lifts provide suitable dimensions to accommodate a bicycle.

Access to the lifts at ground level can be achieved through the car park, which is considered appropriate and provides appropriate gradients for cycle access.

Given the tidal nature of employees accessing the building a minimum 1.5m corridor width is considered sufficient to cater for cycle access between the car park and lift (at ground level) and between the lift and end of trip facilities (at basement level).

No dimensions of bicycle parking are identified on architectural plans. Updated plans identifying the design and dimensions of bicycle parking are required to be provided. It is however noted that the Transport Impact Assessment report identifies that bicycle parking spaces will be designed in accordance with Australian Standard AS2890.3.

Architectural plans identify of the 132 staff parking spaces, that 10 spaces will be provided as horizontal spaces with the remainder provided as vertical spaces. This represents a proportion of only 7.5% of employee spaces being provided as horizontal spaces. This does not accord with Australian Standard AS2890.3 which requires a minimum of 20% of

spaces being provided as horizontal facilities. In addition, given the location of the site in an inner urban location with high and increasing demand for cycling, it is considered that a higher percentage (40%) is appropriate for this site. The design of bicycle parking is required to be amended to show at least 43 employee bicycle parking spaces in a horizontal arrangement.

Plans identify provision for charging of electric bikes within each of the three bicycle parking compounds. This is supported.

Electric vehicles

Council's BESS guidelines encourage the use of fuel efficient and electric vehicles (EV). Architectural plans identify "allowance for EV charging station within car stacker". This is considered acceptable.

In addition, at least four electric bicycle charging points should be provided adjacent to one of the horizontal employee bicycle parking hoops provided.

Green Travel Plan

Given the development has a total non-residential floor area of more than 1,000sqm, pursuant to Clause 22.17-4 a Green Travel Plan (GTP) must be provided.

Recommendations

The following must be shown on the plans before endorsement:

1. Dimensions of the kerb outstands and bicycle parking spaces on Duke Street to show that bicycle parking can be accommodated without obstructing the pedestrian path, in compliance with AS2890.3.
2. Details of the lift size and door opening in order to confirm that lifts provide suitable dimensions to accommodate a bicycle.
3. Design and dimensions of all bicycle parking spaces.
4. A minimum of 43 employee bicycle parking spaces in a horizontal arrangement.
5. Installation of at least four electric bicycle charging points adjacent to horizontal bicycle parking spaces

A Green Travel Plan must be provided.

Principal Strategic Transport Planner (Strategic Transport Unit): Philip Mallis

Signature: 

Date: 19/12/2022

City Works Formal Referral Response



Application Information:

Referral Officer:	Atha Athanasi
Officer:	John Theodosakis
Council Reference:	PLN22/0679
Address:	10-32 Duke St, Abbotsford VIC 3067
Proposal:	Buildings and works associated with the construction three buildings (up to eight storeys plus roof plant) for the purpose of office with operating hours of 7am to 8pm, Monday to Sunday, food and drink premises (cafés) with operating hours of 7am to 10pm, Monday to Sunday; and a reduction in the number of car parking spaces associated with the Yarra Planning Scheme.
Comments Sought:	Click here to view referral memo: Record D22/316935: IREF22/01646 - Internal Referral - Planning Formal Request
Disclaimer:	Council's City Works Unit provides the following information which is based on the information provided in the referral request memo referenced above.

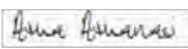
Comments

The waste management plan for 10 - 32 Duke Street, Abbotsford authored by One Mile Grid and dated 2/9/2022 is not satisfactory from a City Works Branch's perspective.

Issues to be rectified include, but may not be limited to the following:

1. To assess whether enough space has been allocated to form an effective waste system please include the total footprint of the bins allocated and the space available in each bin storage area in M²
2. The swept path diagrams need to be assessed by the traffic team; I note the turning manoeuvre relies on an accessibility space to be vacant.

Waste Management Officer: Atha Athanasi

Signature: 

Date: 6/12/2022

ESD Formal Referral Response



Application Information:

Referral Officer:	Gavin Ashley
Officer:	John Theodosakis
Council Reference:	PLN22/0679
Address:	10-32 Duke St, Abbotsford VIC 3067
Proposal:	Buildings and works associated with the construction three buildings (up to eight storeys plus roof plant) for the purpose of office with operating hours of 7am to 8pm, Monday to Sunday, food and drink premises (cafés) with operating hours of 7am to 10pm, Monday to Sunday; and a reduction in the number of car parking spaces associated with the Yarra Planning Scheme.
Comments Sought:	Click here to view referral memo: D22/316934
Disclaimer:	Council's ESD Officer provides the following information which is based on the information provided in the referral request memo referenced above.

ESD comments were requested on the following:

- New referral
- SMP

In assessing this application, the following documents were reviewed:

- SMP prepared by Stantec dated 02 September 2022
- Waste Management Plan prepared by Onemilegrid dated 02 September 2022
- Landscaping Plan prepared by Junglefy dated 30 August 2022

Comments

The standard of the submitted ESD does not meet Council's Environmentally Sustainable Design (ESD) standards.

Furthermore, it is recommended that all ESD commitments (1), deficiencies (2) and the outstanding information (3) are addressed in an updated SMP report and are clearly shown on Condition 1 drawings. ESD improvement opportunities (4) have been summarised as a recommendation to the applicant.

Should a permit be issued, the following ESD commitments (1) and deficiencies (2) should be conditioned as part of a planning permit to ensure Council's ESD standards are fully met:

1. Applicant ESD Commitments

- Building envelope a minimum 10% higher than NCC requirements and will meet the required glazing specification of the NCC 2019 façade calculator (SMP, p. 10).
- The project achieves a total BESS score of 71% with no mandatory category (IEQ, Energy, Water, Stormwater) below 50% (SMP, p. 8).
- Daylight modelling has been conducted that indicates 33% of office building floor area, and 50% of shop floor area achieves DF>2 (SMP, p. 12).
- A 100% increase in outdoor air will be supplied to regular use areas over the minimum required by AS 1668:201 (SMP, p. 12).
- Ventilation systems are designed to monitor and maintain CO2 concentration levels of 700ppm or lower (SMP, p. 12).
- The proposed design response has extensive external shading, with all glazing elements on the western and eastern facades provided with an external shading screen, and awnings provided to all terrace spaces except level 4. This amounts to approximately 70% of all glazing to the northern, eastern, and western facades of the project provided with external shading (SMP, p. 12).
- HVAC system – air-cooled system & inclusive of variable speed drives for improved energy efficiency. The system also includes allowance for BMS optimised controls and economy cycle (SMP, p. 8).
- An on-site commitment to a minimum 40 kW rooftop PV system. (SMP, p. 8).
- Lighting power density in at least 90% of the areas will meet the requirements in Table J6.2a of the NCC2019 Vol (SMP, p. 10).
- Water efficient fittings and fixtures are applied throughout (SMP, p. 10).
- Water efficient landscaping shall be included within the design response for landscape amenity. Irrigation supply shall be sourced from non-potable supplies or plant species selected which limit demand for landscape irrigation (SMP, p. 10).
- A STORM report with a score of 100% has been submitted that relies on 1,800 sqm of rooftop area diverted to a total of 48,000-litres of rainwater storage connected for re-use in toilets and landscape irrigation (SMP, p. 10).
- Low-VOC paints, sealants and adhesives; low formaldehyde engineered wood products throughout (SMP, p. 12).
- In total 132 tenant bicycle spaces are to be provided within the basement, and 16 visitor bicycle parking spaces are to be provided on the ground floor (SMP, p. 13).
- End-of-trip facilities for building staff are provided on the basement 1 level and contain 18 Showers and 148 Lockers (SMP, p. 13).
- Minimum 1 EV charging space and e-scooter charging points provided in the basement (SMP, p. 13).
- Total 124 car parking spaces in the form of stackers, and 6 on-site motorcycle parking spaces (SMP, p. 13).
- A total of 1,339m2 of communal external terrace areas throughout the site (SMP, p. 13).
- A simple easy-to-use Building Users Guide is to be developed and issued to building occupants (SMP, p. 9).
- Separate utility meters will be provided for all individual commercial tenants to monitor their water and electricity usage and consumption (SMP, p. 9).

2. Application ESD Deficiencies

- List condition and reasons

3. Outstanding Information

- Clarify provision of outdoor air / mechanical ventilation to all areas. Innovation credit targets Ventilation Systems Reduced CO2 concentrations (600ppm CO2 concentrations), please clarify which is being targeted
- Provide more information on eave and façade design, glazing and material selection used to optimise daylight. Provide preliminary daylight modelling to confirm benchmarks are being met
- Provide further information on any modelled GHG Reduction
- Please provide information on hot water system, consider using a high-efficiency heat pump
- Provide further information on any modelled reduction in peak demand
- Please provide more information on HVAC system. Consider 3 pipe VRF
- Confirm that post-development stormwater flows will not exceed pre-development levels
- On Plan A100 (SMP p. 41), please fix discrepancy between tanks annotated on plan and Stormwater notes. Stormwater notes state that tanks have a capacity of 8kL, 20kL, and 27kL, respectively.
- Clarify whether recycled materials (E.g., bricks) or products with post-consumer content (E.g., insulation) are to be used to reduce the environmental impact of the development.
- Clarify whether steel reinforcement and concrete mixes to be prepared using energy reducing strategies
- Clarify whether project timber will be from recycled or sustainable sources
- Provide a Green Travel Plan with targets and actions around transitioning towards sustainable transport modes
- Provide information on the approach to building tuning
- Confirm whether Head Contractor will be accredited
- Confirm whether an Environmental Management Plan be developed by the building contractor to monitor and control activities undertaken during construction

4. ESD Improvement Opportunities

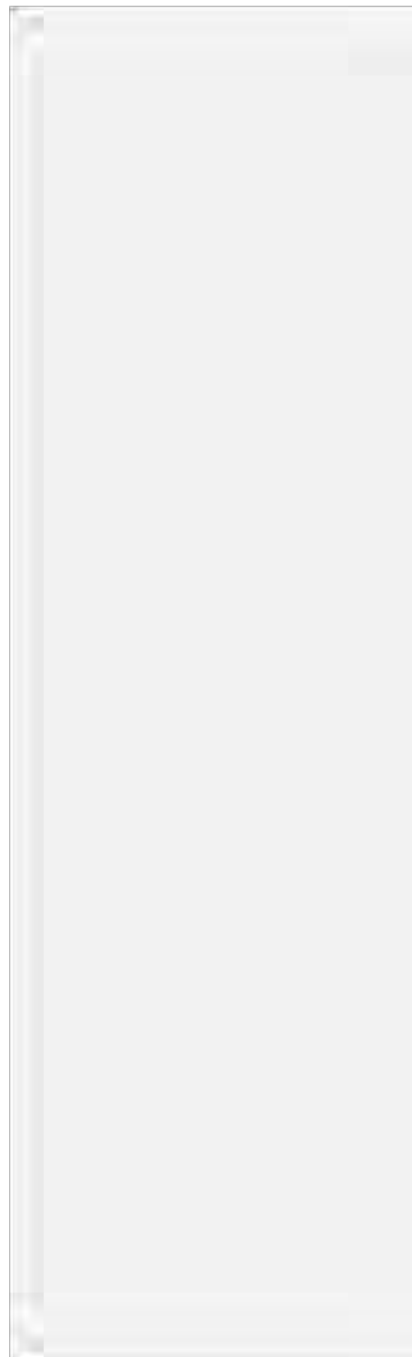
- Consider a small pallet of materials and construction techniques that can assist in disassembly
- Consider pipes, cabling, flooring to do not contain PVC or meeting best practice guidelines for PVC
- Consider incorporating a car share space and at a minimum provide details of surrounding car share locations within the Building Users Guide and/or Green Travel Plan
- Consider setting landfill diversion target to 90% in line with best practice.
- Consider benchmarking the landscape approach with the Green Factor Tool. <greenfactor.com.au>
- Consider light colour roofs and planter boxes

Recommendations

The applicant is required to address the items listed as ESD Deficiencies (2) or Outstanding Information (3) and it is recommended that ESD Improvement Opportunities (4) are considered for inclusion to improve the environmental performance of the development.

Engineer: ASHLEYG

Signature: Gavin Ashley
Date: 07 December 2022





Applicant Response Guidelines

Project Information:

Applicants should state the property address and the proposed development's use and extent. They should describe neighbouring buildings that impact on or may be impacted by the development. It is required to outline relevant areas, such as site permeability, water capture areas and gross floor area of different building uses. Applicants should describe the development's sustainable design approach and summarise the project's key ESD objectives.

Environmental Categories:

Each criterion is one of the 10 Key Sustainable Building Categories. The applicant is required to address each criterion and demonstrate how the design meets its objectives.

Objectives:

Within this section the general intent, the aims and the purposes of the category are explained.

Issues:

This section comprises a list of topics that might be relevant within the environmental category. As each application responds to different opportunities and constraints, it is not required to address all issues. The list is non-exhaustive and topics can be added to tailor to specific application needs.

Assessment Method Description:

Where applicable, the Applicant needs to explain what standards have been used to assess the applicable issues.

Benchmarks Description:

The applicant is required to briefly explain the benchmark applied as outlined within the chosen standard. A benchmark description is required for each environmental issue that has been identified as relevant.

How does the proposal comply with the benchmarks?

The applicant should show how the proposed design meets the benchmarks of the chosen standard through making references to the design brief, drawings, specifications, consultant reports or other evidence that proves compliance with the chosen benchmark.

ESD Matters on Architectural Drawings:

Architectural drawings should reflect all relevant ESD matters where feasible. As an example, window attributes, sun shading and materials should be noted on elevations and finishes schedules, water tanks and renewable energy devices should be shown on plans. The site's permeability should be clearly noted. It is also recommended to indicate water catchment areas on roof- or site plans to confirm water re-use calculations.



ESD in the Planning Permit Application Process

Yarra City Council's planning permit application process includes Environmentally Sustainable Development (ESD) considerations. This is now supported by the ESD Local Policy Clause 22.17 of the Yarra Planning Scheme, entitled *Environmentally Sustainable Development*.

The Clause 22.17 requires all eligible applications to demonstrate best practice in ESD, supported by the Built Environment Sustainability Scorecard (BESS) web-based application tool, which is based on the Sustainable Design Assessment in the Planning Process (SDAPP) program.

As detailed in Clause 22.17, this application is a 'large' planning application as it meets the category Non-residential 1, 1,000m² or greater.

What is a Sustainable Management Plan (SMP)?

An SMP is a detailed sustainability assessment of a proposed design at the planning stage. An SMP demonstrates best practice in the 10 Key Sustainable Building Categories and;

- Provides a detailed assessment of the development. It may use relevant tools such as BESS and STORM or an alternative assessment approach to the satisfaction of the responsible authority; and
- Identifies achievable environmental performance outcomes having regard to the objectives of Clause 22.17 (as appropriate); and
- Demonstrates that the building has the design potential to achieve the relevant environmental performance outcomes, having regard to the site's opportunities and constraints; and
- Documents the means by which the performance outcomes can be achieved.

An SMP identifies beneficial, easy to implement, best practice initiatives. The nature of larger developments provides the opportunity for increased environmental benefits and the opportunity for major resource savings. Hence, greater rigour in investigation is justified. It may be necessary to engage a sustainability consultant to prepare an SMP.

Assessment Process:

The applicant's town planning drawings provide the basis for Council's ESD assessment. Through the provided drawings and the SMP, Council requires the applicant to demonstrate best practice.

1. Indoor Environment Quality (IEQ)

Objectives:

- to achieve a healthy indoor environment quality for the wellbeing of building occupants
- to provide a naturally comfortable indoor environment will lower the need for building services, such as artificial lighting, mechanical ventilation and cooling and heating devices

Issues	Applicant's Design Responses	Council Comments	CAR*
Natural Ventilation and Night Purging	<p>A 100% increase in outdoor air will be supplied to regular use areas over the minimum required by AS 1668:2012.</p> <p>Ventilation systems are designed to monitor and maintain CO2 concentration levels of 700ppm or lower.</p>	Clarify provision of outdoor air / mechanical ventilation to all areas. Innovation credit targets Ventilation Systems Reduced CO2 concentrations (600ppm CO2 concentrations), please clarify which is being targeted	3
Daylight & Solar Access	<p>Building orientation, eave and facade design, glazing and material selection have all been designed with the intent to achieve natural daylight to office spaces while maintaining a high thermal performance.</p> <p>Although the NLA in the building receiving adequate daylight (i.e. ≥2% Daylight Factor) would be expected to be greater if daylight availability modelling were to be undertaken, based on the Green Star hand calculation methodology at least 33% of the nominated office floor area and 50% of retail floor area achieving a 2% daylight factor (refer to appendix D).</p>	Provide more information on eave and facade design, glazing and material selection used to optimise daylight. Provide preliminary daylight modelling to confirm benchmarks are being met.	3
External Views	No information provided.	Satisfactory for Class 5	1
Hazardous Materials and VOC	<p>Low Volatile Organic Compounds (VOC) internally applied paints, carpets, adhesives and sealants will be selected for the project in line with the Green Star Indoor Pollutants requirements.</p> <p>Low Formaldehyde engineered wood products (particleboard, plywood, MDF) will be selected for the project in line with the Green Star Indoor Pollutants requirements.</p>	Satisfactory.	1
Thermal Comfort	The proposed design response has extensive external shading, with all glazing elements on the western and eastern facades provided with an external shading screen, and	Satisfactory	1

	<i>awnings provided to all terrace spaces except level 4. This amounts to approximately 70% of all glazing to the northern, eastern, and western facades of the project provided with external shading.</i>		
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*** Council Assessment Ratings:**

- 1 – Design Response is **SATISFACTORY**
- 2 – Design Response is **NOT SATISFACTORY**
- 3 – **MORE INFORMATION** is required
- 4 – **ESD IMPROVEMENT OPPORTUNITIES**

References and useful information:

- SDAPP Fact Sheet: [1. Indoor Environment Quality](#)
- Good Environmental Choice Australia Standards www.geca.org.au
- Australian Green Procurement www.greenprocurement.org
- Residential Flat Design Code www.planning.nsw.gov.au
- Your Home www.yourhome.gov.au

2. Energy Efficiency

Objectives:

- to ensure the efficient use of energy
- to reduce total operating greenhouse emissions
- to reduce energy peak demand
- to minimize associated energy costs

Issues	Applicant's Design Responses	Council Comments	CAR*
NCC Energy Efficiency Requirements	All exposed floors and ceilings forming part of the envelope will achieve a minimum 10% improvement in insulation levels over NCC 2019 requirements and will meet the required glazing specifications of the NCC 2019 façade calculator.	Satisfactory	1
Thermal Performance	Preliminary NCC2019 Section J façade assessment has been undertaken for all non-residential (Office & retail spaces) in the development.	Satisfactory	1
Greenhouse Gas Emissions	Credit 2.1 Greenhouse Gas Emissions claimed in BESS, however % reduction not stated.	Provide further information on any modelled GHG Reduction.	3
Hot Water System	No information has been provided.	Please provide information on hot water system, consider using a high-efficiency heat pump.	3 / 4
Peak Energy Demand	Credit 2.2 Peak Demand claimed in BESS, however % reduction not stated.	Provide further information on any modelled reduction in peak demand.	3
Effective Shading	The proposed design response has extensive external shading, with all glazing elements on the western and eastern facades provided with an external shading screen, and awnings provided to all terrace spaces except level 4. This amounts to approximately 70% of all glazing to the northern, eastern, and western facades of the project provided with external shading.	Satisfactory	1
Efficient HVAC system	Efficient building services - air-cooled system & inclusive of variable speed drives for improved energy efficiency. The system also includes allowance for BMS optimised controls & economy cycle. All heating and cooling systems will be within one Star of the most efficient equivalent capacity unit available or have a Coefficient of Performance (COP) & Energy Efficiency ratio not less than 85%	Please provide more information on HVAC system. Consider 3 pipe VRF.	3 / 4

	of the most efficient equivalent capacity units available.		
Car Park Ventilation	Car stackers used in lieu of traditional car parks.	Satisfactory	1
Efficient Lighting	Lighting power density in at least 90% of the areas will meet the requirements in Table J6.2a of the NCC2019 Vol. Optimised lighting controls including facility function for lighting switching, motion sensor and detection control and optimised energy management.	Satisfactory	1
Electricity Generation	Available roof space indicates the potential to accommodate a 75.2kW solar PV system, however, further detailed design is needed to determine if all nominated areas can be used. In consideration of this, the project commits to a minimum 40 kW system to offset grid electricity usage and further reduce GHG emissions associated with the building's operation.	Satisfactory	1
Other			

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- 4 – **ESD IMPROVEMENT OPPORTUNITIES**

References and useful information:

- SDAPP Fact Sheet: [2. Energy Efficiency](#)
- House Energy Rating www.makeyourhomegreen.vic.gov.au
- Building Code Australia www.abcb.gov.au
- Window Efficiency Rating Scheme (WERS) www.wers.net
- Minimum Energy Performance Standards (MEPS) www.energyrating.gov.au
- Energy Efficiency www.resourcesmart.vic.gov.au

3. Water Efficiency

Objectives:

- to ensure the efficient use of water
- to reduce total operating potable water use
- to encourage the collection and reuse of rainwater and stormwater
- to encourage the appropriate use of alternative water sources (e.g. grey water)
- to minimise associated water costs

Issues	Applicant's Design Responses	Council Comments	CAR*
Minimising Amenity Water Demand	Sanitary fixtures across all the development will adhere to the following WELS ratings below: - Taps – 6 Star - Toilets – 5 Star - Dishwashers – 5 Star - Urinals – 5 Star - Showers 4 Star (≥ 4.5 but ≤ 6.0 L/min)	Satisfactory	1
Water for Toilet Flushing	Rainwater is to be collected off suitable roofs into three separate tanks with a total combined capacity of 48,000L tank for re-use for toilet flushing and landscape irrigation	Satisfactory	1
Water Meter	Separate utility meters will be provided for all individual commercial tenants to monitor their water and electricity usage and consumption. Sub-metering of all major common area services and water consumption will be utilised to allow for ongoing building tuning works by the Facility Manager.	Satisfactory	1
Landscape Irrigation	Water efficient landscaping shall be included within the design response for landscape amenity. Irrigation supply shall be sourced from non-potable supplies or plant species selected which limit demand for landscape irrigation.	Satisfactory	1
Other	Potable water consumption during the testing of fire safety systems will be reduced by a minimum of 80% through the use of rainwater and / or recycling of test water	Satisfactory	1

* Council Assessment Ratings:

- 1 – Design Response is **SATISFACTORY**
- 2 – Design Response is **NOT SATISFACTORY**
- 3 – **MORE INFORMATION** is required
- 4 – **ESD IMPROVEMENT OPPORTUNITIES**

References and useful information:

- SDAPP Fact Sheet: [3. Water Efficiency](#)
- Water Efficient Labelling Scheme (WELS) www.waterrating.gov.au
- Water Services Association of Australia www.wsaa.asn.au
- Water Tank Requirement www.makeyourhomegreen.vic.gov.au
- Melbourne Water STORM calculator www.storm.melbournwater.com.au
- Sustainable Landscaping www.ourwater.vic.gov.au

4. Stormwater Management

Objectives:

- to reduce the impact of stormwater runoff
- to improve the water quality of stormwater runoff
- to achieve best practice stormwater quality outcomes
- to incorporate Water Sensitive Urban Design principles

Issues	Applicant's Design Responses	Council Comments	CAR*
STORM Rating	Compliance with the integrated water and stormwater management objectives of the Yarra Planning Scheme and the Stormwater requirements of the BESS has been demonstrated by the development through a 100% STORM score.	Satisfactory	1
Discharge to sewer	A passing STORM score doesn't specify reduction in stormwater flows (like MUSIC does).	Confirm that post-development stormwater flows will not exceed pre-development levels.	3
Stormwater Diversion	Lot A - A rooftop catchment area of 279.3m ² provided and annotated on plans Lot B - A rooftop catchment area of 609.59m ² provided and annotated on plans Lot C&D - A rooftop catchment area of 611.58m ² provided and annotated on plans Total capacity of 48,000L claimed.	Satisfactory. On Plan A100 (SMP p. 41), please fix discrepancy between tanks annotated on plan and Stormwater notes. Stormwater notes state that tanks have a capacity of 8kL, 20kL, and 27kL, respectively.	3
Stormwater Detention	Lot A - A 8kL rainwater tank is provided and annotated on plans Lot B - A 17kL rainwater tank is provided and annotated on plans Lot C&D - A 23L rainwater tank is provided and annotated on plans	Satisfactory	1
Stormwater Treatment	Total 48,000L rainwater tanks are proposed and annotated on plans. Improved Stormwater pollution reduction (1 point) - Stormwater Pollution reduction targets to achieve figures in column B of table 26.2 of the Green Star design and As-built handbook	Satisfactory	1
Others			

* Council Assessment Ratings:

- 1 – Design Response is **SATISFACTORY**
- 2 – Design Response is **NOT SATISFACTORY**
- 3 – **MORE INFORMATION** is required

- 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:

- SDAPP Fact Sheet: 4. [Stormwater Management](#)
- Melbourne Water STORM calculator www.storm.melbournewater.com.au
- Water Sensitive Urban Design Principles www.melbournewater.com.au
- Environmental Protection Authority Victoria www.epa.vic.gov.au
- Water Services Association of Australia www.wsaa.asn.au
- Sustainable Landscaping www.ourwater.vic.gov.au

5. Building Materials

Objectives:

- to minimise the environmental impact of materials used by encouraging the use of materials with a favourable lifecycle assessment

Issues	Applicant's Design Responses	Council Comments	CAR*
Reuse of Recycled Materials	No specific information provided	Clarify whether recycled materials (E.g., bricks) or products with post-consumer content (E.g., insulation) are to be used to reduce the environmental impact of the development.	3
Embodied Energy of Concrete and Steel	No specific information provided	Clarify whether steel reinforcement and concrete mixes to be prepared using energy reducing strategies	3
Sustainable Timber	No specific information provided	Clarify whether project timber will be from recycled or sustainable sources	3
Design for Disassembly	No specific information provided	Consider a small pallet of materials and construction techniques that can assist in disassembly.	4
PVC	No specific information provided	Consider pipes, cabling, flooring to do not contain PVC or meeting best practice guidelines for PVC	4

*Council Assessment Ratings:

- 1 – Design Response is **SATISFACTORY**
- 2 – Design Response is **NOT SATISFACTORY**
- 3 – **MORE INFORMATION** is required
- 4 – **ESD IMPROVEMENT OPPORTUNITIES**

References and useful information:

- SDAPP Fact Sheet: [5. Building Materials](#)
- Building Materials, Technical Manuals www.yourhome.gov.au
- Embodied Energy Technical Manual www.yourhome.gov.au
- Good Environmental Choice Australia Standards www.geca.org.au
- Forest Stewardship Council Certification Scheme www.fsc.org
- Australian Green Procurement www.greenprocurement.org

6. Transport

Objectives:

- to minimise car dependency
- to ensure that the built environment is designed to promote the use of public transport, walking and cycling

Issues	Applicant's Design Responses	Council Comments	CAR*
Minimising the Provision of Car Parks	Mechanical car stacker system (124 spaces) proposed in Basement 1.	Satisfactory	1
Bike Parking Spaces	A total of 6 on-site Motorcycle parking spaces are provided. 132 on-site Bicycle parking spaces for building tenants & staff, located in B1 level. 16 Visitor Bicycle parking spaces on the Ground floor.	Satisfactory	1
End of Trip Facilities	End-of-trip facilities for building staff are provided to support the on-site transport facilities are provided on the basement 1 level and contains 18 Showers and 148 Lockers.	Satisfactory	1
Car Share Facilities	No information has been provided.	Consider incorporating a car share space and at a minimum provide details of surrounding car share locations within the Building Users Guide and/or Green Travel Plan.	4
Electric vehicle charging	At least one EV charging space and seven motorcycle parking spaces will be provided in the car parking area. E-scooter charging points have been provided in the basement.	Satisfactory	1
Green Travel Plan	No Green Travel Plan presented at time of assessment.	Provide a Green Travel Plan with targets and actions around transitioning towards sustainable transport modes	3

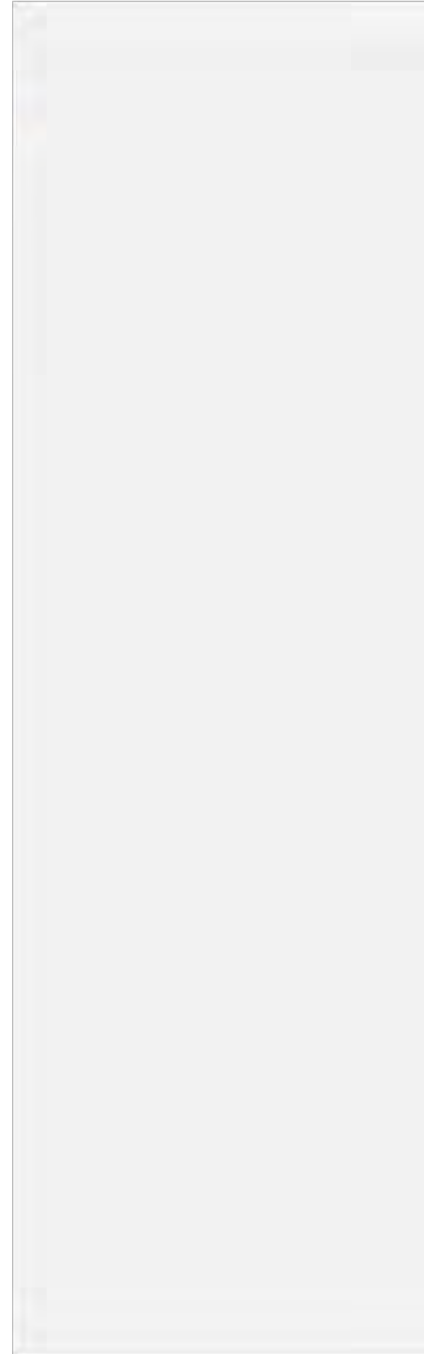
*Council Assessment Ratings:

- 1 – Design Response is **SATISFACTORY**
- 2 – Design Response is **NOT SATISFACTORY**
- 3 – **MORE INFORMATION** is required
- 4 – **ESD IMPROVEMENT OPPORTUNITIES**

References and useful information:

- SDAPP Fact Sheet: [6. Transport](#)
- Off-setting Car Emissions Options www.greenfleet.com.au
- Sustainable Transport www.transport.vic.gov.au/doi/internet/icy.nsf

- Car share options www.yarracity.vic.gov.au/Parking-roads-and-transport/Transport-Services/Carsharing/
- Bicycle Victoria www.bv.com.au



7. Waste Management

Objectives:

- to ensure waste avoidance, reuse and recycling during the design, construction and operation stages of development
- to ensure long term reusability of building materials.
- to meet Councils' requirement that all multi-unit developments must provide a Waste Management Plan in accordance with the *Guide to Best Practice for Waste Management in Multi-unit Developments 2010*, published by Sustainability Victoria

Issues	Applicant's Design Responses	Council Comments	CAR*
Construction Waste Management	No information has been provided.	Consider setting landfill diversion target to 90% in line with best practice.	4
Operational Waste Management	Site specific WMP provided. Provision for different waste streams including general waste, food & garden organics, recycling & paper, cardboard, glass and e-waste will be provided in refuse room to encourage the separation of different waste types. It is proposed to utilise a private waste contractor for all waste services for the proposed development	Satisfactory	1
Storage Spaces for Recycling and Green Waste	Recycling: Two types of bins shall be provided. One type of bin for glass and a second type for all other recyclables (paper, cardboard, aluminium, steel and plastics). Organics: It is estimated 50% of café garbage consists of organic waste. Organic waste bins provided for the development E-Waste: Bins provided and to be collected on a 'as-needed' basis. Lot A, B, and C/D bin storage layout marked on WMP.	Satisfactory	1
Others			

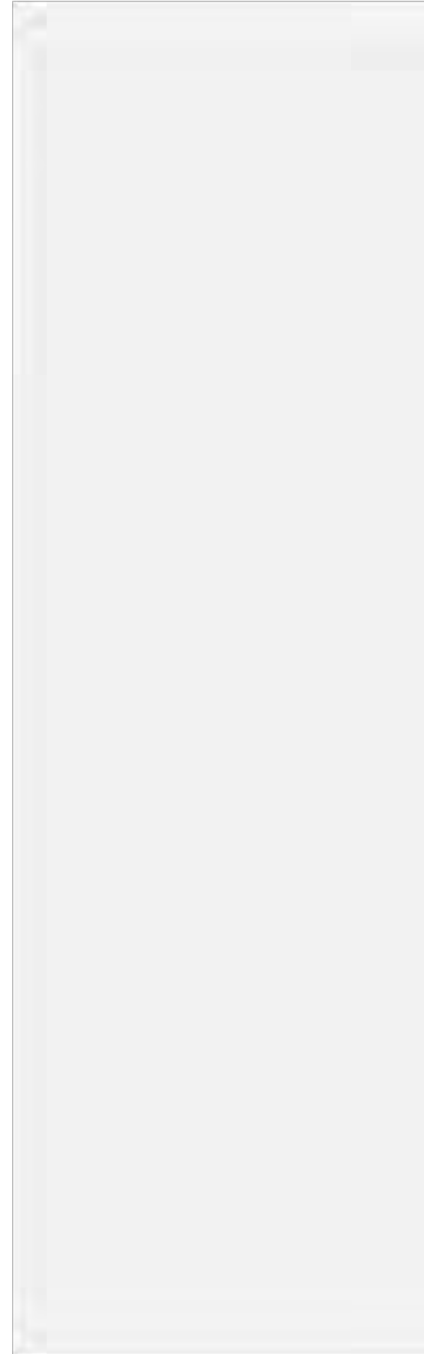
*Council Assessment Ratings:

- 1 – Design Response is **SATISFACTORY**
- 2 – Design Response is **NOT SATISFACTORY**
- 3 – **MORE INFORMATION** is required
- 4 – **ESD IMPROVEMENT OPPORTUNITIES**

References and useful information:

- SDAPP Fact Sheet: [7. Waste Management](#)
- Construction and Waste Management www.sustainability.vic.gov.au
- Preparing a WMP www.epa.vic.gov.au
- Waste and Recycling www.resourcesmart.vic.gov.au

- Better Practice Guide for Waste Management in Multi-Unit Dwellings (2002) www.environment.nsw.gov.au
- Waste reduction in office buildings (2002) www.environment.nsw.gov.au



8. Urban Ecology

Objectives:

- to protect and enhance biodiversity
- to provide sustainable landscaping
- to protect and manage all remnant indigenous plant communities
- to encourage the planting of indigenous vegetation

Issues	Applicant's Design Responses	Council Comments	CAR*
On Site Topsoil Retention	Site is 'previously developed'.	Satisfactory	1
Maintaining / Enhancing Ecological Value	The site landscaping design which comprises of multiple plant boxes offers approximately 258 m2 of vegetation.	Consider benchmarking the landscape approach with the Green Factor Tool. <greenfactor.com.au>	4
Heat Island Effect	The site includes green walls on the west façade to mitigate the impact of the urban heat island effect.	Satisfactory. Consider light colour roofs and planter boxes	1 / 4
Green wall, roofs, facades	The site includes green walls on the west façade to mitigate the impact of the urban heat island effect.	Satisfactory	1

*Council Assessment Ratings:

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- 2 – Design Response is **NOT SATISFACTORY**
- 3 – **MORE INFORMATION** is required
- 4 – **ESD IMPROVEMENT OPPORTUNITIES**

References and useful information:

- SDAPP Fact Sheet: [8. Urban Ecology](#)
- Department of Sustainability and Environment www.dse.vic.gov.au
- Australian Research Centre for Urban Ecology www.arcue.botany.unimelb.edu.au
- Greening Australia www.greeningaustralia.org.au
- Green Roof Technical Manual www.yourhome.gov.au

9. Innovation

Objectives:

- to encourage innovative technology, design and processes in all development, which positively influence the sustainability of buildings

Issues	Applicant's Design Responses	Council Comments	CAR*
Local Procurement	Local Procurement (1 point) – A percentage of services and labour employed by the project to come from local area.	Satisfactory	1
Air-Tightness	Building Air-Tightness (1 point) - Air Permeability Testing to show that building achieves a permeability rate of 2.5m3/h/m2 @50 Pa.	Satisfactory	1
VOCs	Ultra-low VOCs (1 point) - 50% of paints by volume will have a maximum TVOC content of 5g/L.	Satisfactory	1
Ventilation Systems	Ventilation Systems Reduced CO2 concentrations (1 point) - Ventilation systems are designed to achieve and maintain 600ppm CO2 concentrations.	Satisfactory	1
Green Cleaning	Green Cleaning (1 point) - Cleaning services to common areas to be in accordance with Project Green Cleaning Policy.	Satisfactory	1
Stormwater	Improved Stormwater pollution reduction (1 point) - Stormwater Pollution reduction targets to achieve figures in column B of table 26.2 of the Green Star design and As-built handbook.	Satisfactory	1
Occupant Engagement	Occupant Engagement (1 point) - Post occupancy surveys to be undertaken, addressing occupant satisfaction, well-being and interaction within the indoor environment.	Satisfactory	1
Life Cycle Assessment	Life Cycle Assessment (2 points) – This is to be done by analysing the usage of building materials to highlight the elements with the highest amount of embodied carbon, so that alternative products can be found to replace them which can reduce the building's embodied carbon footprint and its associated environmental impacts.	Satisfactory	1

Commented [AG1]:

*Council Assessment Ratings:

- 1 – Design Response is **SATISFACTORY**
- 2 – Design Response is **NOT SATISFACTORY**
- 3 – **MORE INFORMATION** is required
- 4 – **ESD IMPROVEMENT OPPORTUNITIES**

References and useful information:

- SDAPP Fact Sheet: [9. Innovation](#)
- Green Building Council Australia www.gbca.org.au
- Victorian Eco Innovation lab www.ecoinnovationlab.com
- Business Victoria www.business.vic.gov.au
- Environment Design Guide www.environmentdesignguide.com.au

10. Construction and Building Management

Objectives:

- to encourage a holistic and integrated design and construction process and ongoing high performance

Issues	Applicant's Design Responses	Council Comments	CAR*
Building Tuning	No information has been provided	Provide information on the approach to building tuning.	3
Building Users Guide	A simple easy-to-use Building Users Guide is to be developed and issued to building occupants	Satisfactory	1
Contractor has Valid ISO14001 Accreditation	No information has been provided	Confirm whether Head Contractor will be accredited	3
Construction Management Plan	No information has been provided	Confirm whether an Environmental Management Plan be developed by the building contractor to monitor and control activities undertaken during construction	3
Others:			

*Council Assessment Ratings:

- 1 – Design Response is **SATISFACTORY**
- 2 – Design Response is **NOT SATISFACTORY**
- 3 – **MORE INFORMATION** is required
- 4 – **ESD IMPROVEMENT OPPORTUNITIES**

References and useful information:

- SDAPP Fact Sheet: [10. Construction and Building Management](#)
- ASHRAE and CIBSE Commissioning handbooks
- International Organization for standardization – ISO14001 – Environmental Management Systems
- Keeping Our Stormwater Clean – A Builder's Guide www.melbournewater.com.au



Applicant Response Guidelines

Project Information:

Applicants should state the property address and the proposed development's use and extent. They should describe neighbouring buildings that impact on or may be impacted by the development. It is required to outline relevant areas, such as site permeability, water capture areas and gross floor area of different building uses. Applicants should describe the development's sustainable design approach and summarise the project's key ESD objectives.

Environmental Categories:

Each criterion is one of the 10 Key Sustainable Building Categories. The applicant is required to address each criterion and demonstrate how the design meets its objectives.

Objectives:

Within this section the general intent, the aims and the purposes of the category are explained.

Issues:

This section comprises a list of topics that might be relevant within the environmental category. As each application responds to different opportunities and constraints, it is not required to address all issues. The list is non-exhaustive and topics can be added to tailor to specific application needs.

Assessment Method Description:

Where applicable, the Applicant needs to explain what standards have been used to assess the applicable issues.

Benchmarks Description:

The applicant is required to briefly explain the benchmark applied as outlined within the chosen standard. A benchmark description is required for each environmental issue that has been identified as relevant.

How does the proposal comply with the benchmarks?

The applicant should show how the proposed design meets the benchmarks of the chosen standard through making references to the design brief, drawings, specifications, consultant reports or other evidence that proves compliance with the chosen benchmark.

ESD Matters on Architectural Drawings:

Architectural drawings should reflect all relevant ESD matters where feasible. As an example, window attributes, sun shading and materials should be noted on elevations and finishes schedules, water tanks and renewable energy devices should be shown on plans. The site's permeability should be clearly noted. It is also recommended to indicate water catchment areas on roof- or site plans to confirm water re-use calculations.



Urban Design Memo

To:	John Theodosakis	Date:	4 th January 2023
Company:	City of Yarra	From:	Hansen Urban Design Team
Re:	10-32 Duke Street, Abbotsford		

INTRODUCTION

Thank you for the opportunity to review the application package of the proposed mixed use and multiple building development at **10-32 Duke Street, Abbotsford**. Following our site inspection, we have reviewed the relevant background drawings and planning policy, undertaken an analysis of urban context and our own intimate knowledge of the broader Abbotsford area. This review assessed the architectural plans prepared by BKK Architects dated 05/10/2022. We provide the following independent urban design assessment of the proposal.

SITE CONTEXT & INTERFACES

The subject site consists of four consolidated allotments forming a regular rectangular shaped site on the eastern side of Duke Street, in a mid-block position. It has a property depth of approximately 28.6m and a 97.8m frontage, resulting in a total site area of approximately 2,845m². The site currently comprises a mix of 1-2 storey warehouses and at grade car parking areas. The warehouses are generally constructed to the front, rear and side boundaries. The site falls gradually towards the north, down towards the Yarra River, with a drop of approximately 2m across the site's broad street frontage.

The subject site is located within the industrial area of Abbotsford. The sites' surrounding urban fabric is a mixed use and commercial (employment) area that has seen some recent growth, particularly to the east and along the northern side of Victoria Street. The site is situated in close proximity of the Victoria Street Major Activity Centre and within walking distance of various public transport options with tram routes (12 & 109) located along Victoria Street.



10-32 Duke Street Site Context (nearmap)

The key site interface conditions are as follows:

- To the immediate **north** is 34 Duke Street, which comprises a 3 storey office building, with a recessed Ground Floor and cantilevered upper levels. The building presents a sheer blank concrete wall along the common boundary.
- Further north is 36-44 Duke Street (and connecting through to 29-33 Grosvenor Street), which comprises four 2 storey warehouses, built to their property boundaries.
- To the immediate **west** is Duke Street, an approximately 11.5m wide road reserve permitting one-way traffic (northbound), with parallel kerbside parking. Pedestrian footpaths are situated on either side.
- Directly opposite is seven properties, as follows:
 - 11-13 Duke Street, comprising single storey rendered commercial building, occupied by Parks Hydraulic Service,
 - 15 Duke Street, comprising single storey brown brick commercial building, occupied by GHD,
 - 17 Duke Street, comprising single storey brick commercial building, occupied by Moon Dog
 - 19 Duke Street, comprising single storey brick commercial building, setback approximately 5m, also occupied by Moon Dog
 - 21-23 Duke Street, comprising a single storey rendered warehouse;
 - 25 Duke Street, comprising a contemporary 4 storey office building; and
 - 27 Duke Street, comprising a single storey brick commercial building. However, this site is consolidated with land to its north, which has approval for a 9 storey mixed use (office) development.
- To the immediate **south** is 8 Duke Street, comprising a single storey warehouse, occupied by a Motorcycle workshop.
- Further south is 6 Duke Street, comprising a 2 storey brick warehouse/office building.
- Abutting to the **east** is eight properties as follows:
 - 9-13 Grosvenor Street, comprising an individually significant heritage dwelling dating from 1867 with a number of outbuildings,
 - 15 Grosvenor Street, comprising a 2 storey brown brick warehouse,
 - 17 Grosvenor Street, comprising a single storey brick warehouse,
 - 19 Grosvenor Street, comprising an individually significant heritage dwelling dating from the 1860s, with a large rear yard and an outbuilding,
 - 21 Grosvenor Street, comprising a single storey dwelling with a workshop to its rear,
 - 23 Grosvenor Street, comprising a 2 storey brick warehouse,
 - 25 Grosvenor Street, comprising a single storey brick warehouse, and
 - 27 Grosvenor Street, comprising a single storey dwelling with a rear yard.

In terms of the surrounding context, it comprises an established industrial precinct that includes both the large Carlton United Beverages Abbotsford Plant, and also a number of smaller warehouses. Further to the south-east, on the eastern side of Grosvenor Street and northern side of Victoria Street, a number of multi-storey residential buildings have been developed over the past decade.



Subject site



North – 34 Duke Street and 36-44 Duke Street



West – 11 to 19 Duke Street



South – 8 Duke Street



East – 9-13 Grosvenor Street



East – 15 to 27 Grosvenor Street

RECENT APPROVALS

Within the surrounding context the following recent approvals and constructed developments are noted:

- 4 Southampton Crescent & 27-29 Duke Street – 9 storeys approved;
- 18 Grosvenor Street – 5 storeys constructed;
- 11 Flockhart Street – 8 and 9 storeys constructed;
- 601 Victoria Street – 6 and 11 storeys constructed;
- X Flockhart Street – 6 storeys constructed;
- 1 Shamrock Street & 16 Flockhart Street – 12 storeys constructed;
- 42-50 Flockhart Street – 5 storeys approved;
- 10 Shamrock Street – 10 storeys constructed;
- 609-611 Victoria Street – 7 storeys constructed; and
- 619-627 Victoria Street – 10 and 11 storeys constructed.



Surround development trajectory, showing approved (white circle) and constructed (black circle) developments with no. of storeys shown

PLANNING POLICY

The subject site is located within the **Industrial 1 Zone (IN1Z)** which seeks to:

- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To provide for manufacturing industry, the storage and distribution of goods and associated uses in a manner which does not affect the safety and amenity of local communities.

The site is affected by the **Development Contributions Overlay – Schedule 1 (DCOP1)**

The following State and Local planning policies are considered relevant:

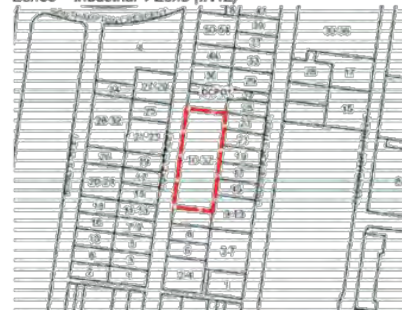
- Clause 11 – Settlement;
- Clause 15 – Built Environment and Heritage;
- Clause 16 – Housing;
- Clause 17 – Economic Development;
- Clause 18 – Transport;
- Clause 21.03 – Vision;
- Clause 21.04 – Land Use;
- Clause 21.05 – Built Form;
- Clause 21.06 – Transport;
- Clause 21.08 – Neighbourhoods;
- Clause 22.03 – Landmarks & Tall Structures; and
- Clause 22.17 – Environmentally Sustainable Development.

Other relevant documents include:

- City of Yarra Urban Design Strategy (2011);
- City of Yarra Built form Review (2003);
- Victorian Urban Design Charter (2010); and
- Urban Design Guidelines for Victoria (2017).



Zones – Industrial 1 Zone (IN1Z)



Development Contributions Plan Overlay (DCPO)



Other surrounding Overlays

PLANNING SCHEME AMENDMENT:

Amendment C269 introduces local policies to improve the planning decision framework and reflect the needs of a growing and evolving city. It presents them in a new format (a State format) to simplify the planning policy and rules. The Amendment is now considered to be a seriously entertained amendment, having been tested at an independent Planning Panel hearing during October 2021 and having received a supportive (subject to recommendations) Panel Report in January 2022. The Council has since refined the Amendment documentation in response and submitted it to the Minister for approval.

The Amendment incorporates a Strategic Framework Plan, which identifies the subject site and surround land as designated for Industrial development, with Victoria Street comprising a Tram route. Land within close proximity to the south (and east) is identified as 'Major Activity Centre' following the Victoria Street corridor.



Extract – Strategic Framework Plan, showing subject site location

Clause 15.01-2L: Building heights – ‘ensure the height of new buildings respond to the height of adjoining development unless indicated otherwise’; and ‘ensure that development reflects the predominant low-rise character of the area, except in: Activity Centres; Employment areas; Major regeneration area; or Boulevards’. Also, ‘avoid high-rise development unless specified by a schedule to the Design and Development Overlay’.

The subject site is not specified for ‘high-rise’ development by a DDO. It is also not located within an Activity Centre, an Employment Area, it is also not identified as a major regeneration area. It is also positioned in a side street location. Therefore, it is considered not a candidate for high-rise development.

THE PROPOSAL

This proposal seeks for the demolition of the existing buildings, and buildings and works associated with multi buildings to be constructed over two stages. More specifically, key components of the site are as follows:

- Construction of three commercial buildings, referred to as Lot A, Lot B and Lot C + D, each building will rise to 8 storeys above 1 Level of basement:
 - Lot A building has a maximum overall height of 31.95m and will comprise a 4 storey street wall;
 - Lot B building has a maximum overall height of 30.45m and will also comprise a 4 storey street wall;
 - Lot C building has a maximum overall height of 31.25m and will comprise a 3 storey street wall; and
 - Lot D building has a maximum overall height of 30.85m and will also comprise a 3 storey street wall;
 - A total net lettable area of 10,590m²;
 - Two Ground Floor Food and Drink retail tenancies, fronting Duke Street, totalling 210m²;
 - A total of 124 car spaces provided via car stackers at Basement and Ground Floor levels;
 - Consolidation of existing cross-overs into two;
 - A total of 148 bicycle parking spaces, including 16 visitor spaces and End of Trip facilities at Basement level;
 - A total of 6 motorcycle spaces;
 - Landscape provision including, allowance for 3 proposed street trees, 1 feature tree in front of Lot B building entrance, landscape features within Ground Floor undercroft spaces and planters integrated into upper level terraces and green walls facing Duke Street;
 - 3-4 street walls to be presented in recycled brick, with rising form generally setback 3.5m and expressed with clear glazing with steel shade extrusions and aluminium powdercoat finishes and rooftops defined by saw tooth profiles.

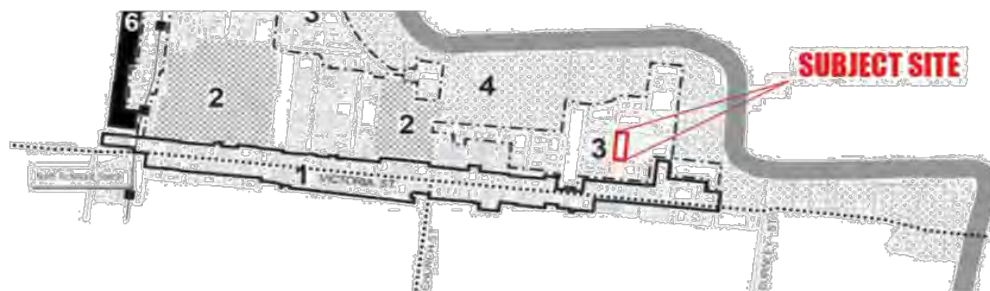


Duke Street render, prepared by BKK Architects

URBAN DESIGN ASSESSMENT

STRATEGIC CONTEXT AND URBAN FORM

- At a strategic level, the proposal appears to be generally consistent with the policy direction for the area at *Clause 21.08-1 Abbotsford*. This clause essentially notes that the introduction of offices in the industrial precinct would not pose the same risk to the ongoing operation of the industrial precinct as residential development. The subject site is noted as being within the 'non-residential areas' built form character type in the Built form character map (Figure 6) at Clause 21.08-1, where the direction is to *"Improve the quality of the environment and the interface of development with the street"*.



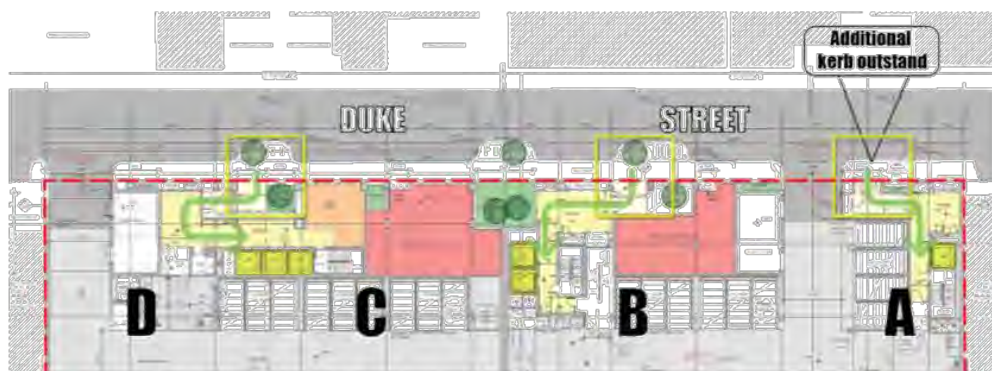
Extract Clause 21.08-1 Fig 6 with subject site identified

- The proposal also sufficiently aligns with the relevant policy at *Clause 21.05-3 Built form character*, where the objective for Non residential areas is *"To improve the interface of development with the street in non-residential areas"* and with strategies being *"Allow flexibility in built form in areas with a coarse urban grain (larger lots, fewer streets and lanes)"* and *"Require new development to integrate with the public street system"*.

SITE LAYOUT

- This consolidated site, represents a relatively rare opportunity within the generally fine to moderate grain industrial pocket of Abbotsford. Comprising a notable 97.8m street frontage the proposal has the opportunity to transform a large portion of the Duke Street streetscape. Importantly, the proposal appropriately responds to this responsibility by proposing to present a series of buildings and not a single monolithic form. The resulting four proposed buildings are considered to comprise an appropriate 'grain' of future built form as well as subtle variation within the Ground Floor footprints and presentation to create a visually dynamic, but clearly architecturally related expression.
- The rationalisation of cross-overs is supported and with the provision of two in total, greater public realm provision to the benefit of people is to be afforded. Given the current car dominated environment of Duke Street, the creation of kerb outstands and the provision three street trees will enhance the public realm amenity in front of the proposal and enable a more continuous flow of pedestrian movements along the eastern side of the street.
- The staged nature of the proposal is also considered appropriate and will result in two completed, separable projects, both with their own cross-over, substation and Ground Floor retail tenancy. Ensuring appropriate future independence between the stages.
- The provision of two Ground Floor retail (food and drink premises) stagger along the site's broad Duke Street frontage will offer sufficient opportunity for streetscape activation and engagement, given the rather robust nature of the street.

- The proposal incorporates numerous integrated planters and recessed (undercroft) spaces within its Ground Floor façade, to effectively broaden the public realm experience, add depth and provide for a varied experience for pedestrians traversing the footpath and soften the proposal's masonry expression. We support this technique and consider it both reflective of existing character and an appropriate way to add an expanded public realm sense within a mixed use/urban industrial streetscape.
- The proposed nexus between the main building entrances (to Buildings B and C-D) and the proposed street trees further emphasises the threshold location within the streetscape and should aid legibility of the entrances within the otherwise consistent podium expression. However, **we recommend to provision of a further kerb outstand and street tree be provided in association with the main entry of Building A, to provide a consistent relationship within Duke Street, to all building entries.**



Duke Street Ground Floor streetscape interface diagram based on A101 TP-2, showing additional kerb outstand recommendation

STREETSCAPE PRESENTATION

- The proposed street wall presentation to Duke Street is architecturally successful, comprising an appropriate robust brick material which reflects the surrounding area's built form character. This consistent masonry material unifies the series of buildings into a coherent overall form, while comprising sufficient variation in modulation, articulation and fenestration to appropriately divide up the proposal linear presentation. The darker tone brick subtly defines the Ground Floor level, while the lighter tone brick ensures a consistent podium appearance.
- The vertical windows within the podium levels provide an appropriate solid to void ratio and their deep window reveals create a clear expression, provide depth to the façade and also contribute a simple, integrated external shadow devices. The varied street wall profile, both in terms of transitioning up (or effectively holding the consistent datum as land falls away) from a 3 storey to 4 storey form (heading north) and its integrated metal balustrades adds further visual interest to the parapet profile.
- The incorporation and integration of landscape treatments within recessed/undercroft areas, is well considered and emphasises the proposal's main entrances and reinforces the distinctions between the buildings.
- The rising form of the upper levels is clearly distinct from the base elements, both by way of a spatial set back (varying between 3.5 and 3.7m) and its contrasting and highly glazed presentation. This relationship is considered appropriate and will reinforce the street wall base. Architectural variation is afforded to the rising forms, within dual height recesses with integrated landscaping and the saw-tooth roofline profile. We consider this architectural reference to nearby and surrounding industrial forms to be a positive attribute. It will ensure a visually dynamic contribution to the emerging Abbotsford skyline profile.

HEIGHT

- The proposed maximum building height of 9 storeys (ranging between 30.45 and 31.95m) is considered to be acceptable in this location. We note that within the surrounding context the presence of 10-12 storey residential developments to the south-east, defining the northern side of Victoria Street, to the east. We also acknowledge that recently, Council approved a 9 storey mixed-use office building on the opposite side of Duke Street, at the rear of the heritage Kodak building (at 27-29 Duke Street). Therefore, we consider that the proposal will be consistent with the emerging development trajectory of both the broader area and also within the northern end of Duke Street.
- The proposed 3-4 storey street wall scale is considered appropriate for the more robust character of Duke Street, whereby a more enclosed streetscape is acceptable. This scale also broadly accords with recent infill development within Duke Street, noting the 3 storey presentation contemporary office buildings on single sites at 25, 34 and 58 Duke Street.
- The site is well separated from the Yarra River (approx. minimum 220m from the northern edge of the proposed buildings to the riparian zone), and at that distance, we consider that building height and upper-level visual bulk does not need to be tempered to respond to the river environs.
- Given the sites and abutting land to the easts INZ1 zoning, offsite amenity considerations are tempered. Particularly, in relation to the existing abutting dwellings which front Grosvenor Street. Therefore, despite the stark contrast in built form scale, between these neighbouring single storey houses and this 9 storey proposal such an abut transition is acceptable from a zoning and strategic ambition context. However, there is potential that from a heritage perspective that the rear of Building D could be too forceful rising above and behind the individually significant heritage dwelling at 13 Grosvenor. Therefore, we would defer such visual considerations to Council's heritage advisors.



Extract of A301 TP-2 showing notable change in built form scale between abutting Grosvenor Street properties and rear profile of proposal

OFFSITE AMENITY MATTERS

- As the subject site and surround properties are located within an Industrially Zoned pocket of Abbotsford, the amenity expectations (or rights) of adjoining dwellings is significantly tempered. Effectively, policy does not recognise these properties as dwellings and discourages their continued use, as such. Therefore, in terms of matter relating to visual bulk, overlooking and overshadowing the impacts are not applicable.

Visual Bulk

- In terms of visual bulk, we consider that the 9 storey mass of the proposal, has been suitably arranged into a series of smaller buildings, with distinguishable vertical division between each. This arrangement appropriately breaks up the rather broad nature of the site, resulting in a series of related architectural forms. The clear architectural and spatial distinction between the building's robust brick base and highly glazed rising form successfully 'grounds' the proposal within its streetscape context, while also contributing positively to a dynamic and contemporary skyline. The subtle variations within architectural expression, results in a well-articulated design fit for this context.
- While, the southern elevation does comprises a sheer and blank profile, we do accept that it will enable a more efficient and equitable development opportunity to 8 Duke Street and accept that its proposed architectural treatment is acceptable in the interim period.

Overlooking

- The abutting properties to the east which are considered to be the most sensitive from an overlooking perspective are the three currently comprising dwellings. Being, 9-13, 19 and 21 Grosvenor Street. Of which, 21 Grosvenor is considered to be the least sensitive, given that much of its rear yard comprises a workshop building, with an area of open space set back approximately 10m from the subject site. 9-13 Grosvenor Street, comprises two distinct areas of rear yard abutting the common boundary, one being behind the dwelling and the other associated with a series of outbuildings. Neither space appears to be currently utilised as backyard space and is therefore considered to represent a less sensitive space. The rear yard at 19 Grosvenor is both the largest of the abutting spaces and still appears to be utilised as a backyard space. Therefore, noting the zoning, consideration of potential overlooking should be considered.
- It is not readily assessable from the plans provided to understand the potential overlooking impacts on these abutting private open spaces, associated with existing dwellings. Ideally, **we would recommend that cross sections be prepared to demonstrate the overlooking arrangements in relation to 9-13, 19 and 21 Grosvenor Street.**
- We are most concerned about the potential overlooking impacts from the Level 1 and Level 3 terrace in Lot D and on 9-13 Grosvenor Street and the Level 1 terrace in Lot C and Levels 2 and 3 terraces in Lot B on 19 Grosvenor Street. We are not concerned about potential impacts on 21 Grosvenor Street.



Extract of A301 TP-2 showing instances of potential overlooking

Overshadowing

- In terms of overshadowing impacts given the INZ1 zoning the amenity expectations of the surrounding properties is tempered. Particularly the existing dwellings abutting to the east.
- It is noted that at 3pm (at the equinox) that the existing structures on the subject site notably overshadow the properties to the east, including the backyard spaces of the three dwelling. The proposal will resulting increased overshadowing impacts with proposed shadows extending across the entirety of these private open spaces. However, this extent of overshadowing is considered acceptable in this context.
- Importantly, these shadows do not extend all the way across Grosvenor Street and therefore do not impact the recently constructed apartments on the eastern side of that street, which fall within the C1Z.



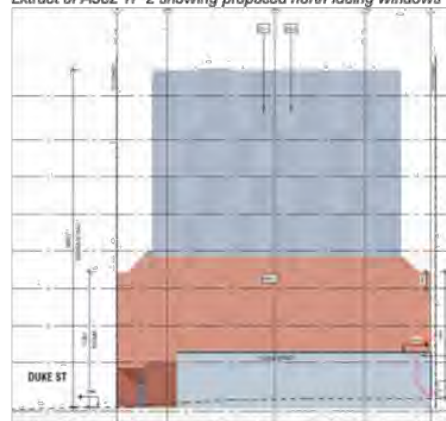
Extract of A802 TP-2 showing existing and proposed overshadowing extents at 3pm.

EQUITABLE DEVELOPMENT CONSIDERATIONS

- The building is to be built essentially 'on boundary' at the northern and southern boundaries, directly abutting 34 and 8 Duke Street, with no windows at on the southern boundary. On the northern boundary between Levels 3 and 7 a single window is proposed in the north-west corner of the office (according to the north elevation). However, these windows do not appear on the floor plans. It therefore, needs to be confirmed if these windows are proposed, or not.
- If they are proposed, their impact on matters of equitable development is considered acceptable. This is because the abutting development (at 34 Duke Street) is relatively recent and comprises only a 3 storey office building on a small property. Therefore, it is unlikely (within the foreseeable future) for further development (or height) to occur on this neighbouring property which would impact these proposed windows.
- To the southern side interface with 8 Duke Street, the proposal seeks to be constructed 'sheer' to the boundary at all levels. Presently 8 Duke Street comprises a single storey warehouse on a single site. However, much like the subject site it could be consolidated with other properties to its north. Therefore, the future and further development of 8 Duke Street is a reasonably likely prospect. The proposed blank wall on boundary approach will allow for 8 Duke Street to similarly develop to the boundary of that site. Assuming a potential office development on 8 Duke Street, windows would be positioned at the street frontage and rear of that site.
- To the east, the proposal abuts numerous properties which front Grosvenor Street and many of these have clear redevelopment potential. Only those covered by individual heritage overlays would be considered as constrained. Despite the irregular (slightly staggered) alignment of the eastern property boundary, the proposal proposes a linear built form condition, effectively straightening the rear property line. At podium levels it comprises a sheer brick blank wall (generally) on the common boundary, with upper levels set back approximately 3m to the glazing line.
- If future development to the east were to reflect this arrangement, it would result in an equitable development outcome, maximising floorspace within the podium and resulting in a minimum separation (between buildings) at upper level, allowing for access to amenity.
- Therefore, we consider the proposal to provide for future equitable development outcomes on abutting properties.



Extract of A302 TP-2 showing proposed north facing windows



Extract of A303 TP-2 showing proposed southern elevation

CONCLUSION

In summary, we are broadly supportive of the proposal in its current form. Given this site's consolidated nature it represents a notable redevelopment opportunity within this pocket of Industrial land in Abbotsford. The proposed built form scale, massing arrangement and architectural expression are considered an appropriate response to both policy and the surrounding context. It will positively contribute to the Duke Street streetscape, rationalising the existing cross-overs and introduces new kerb outstands, enhancing the public realm condition. Its site planning is sound and will suitably engage with and offer enhanced activation of the streetscape. However, we suggest an additional kerb outstand and street tree provision to ensure all building entrances are afforded equal streetscape gestures.

In terms of off-site amenity impacts we find the proposals to successfully addresses matters of visual bulk, overshadowing and equitable development. We only raise a few queries in relation to overlooking of existing abutting backyards and seek more information to fully understand the impact. However, downward overlooking (if considered necessary) could be addressed by way of privacy screening or revised planter locations.

Our recommendations are as follows:

- **provision of a further kerb outstand and street tree be provided in association with the main entry of Building A, to provide a consistent relationship within Duke Street, to all building entries;**
- **that cross sections be prepared to demonstrate the overlooking arrangements in relation to 9-13, and 19 Grosvenor Street.**

Should you have any further enquiries regarding this advice, please don't hesitate to contact the Hansen Urban Design Team on 9664 8844.

Yours faithfully,

Urban Design Team

Hansen Partnership Pty Ltd



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City of Yarra

30 November 2022

Ref: 30N-22-0453-GCO-46601-0

Statutory Planning Branch

PO BOX 168 Richmond VIC

Dear John Theodosakis,

PLN22-0679 - 10-32 Duke Street

This peer review of the MEL Consultants environmental wind assessment (MEL Consultants Amendment on 94-22-DE-EWA-00) is based on Vipac's experience as a wind-engineering consultancy.

Vipac have reviewed the relevant documents (see the received document in the attachment). Our comments are as follows:

- i. The MEL Consultants Wind assessment Amendment has been prepared based on their experience to the 31th Aug 2022 Drawings by ARM Architecture.
- ii. The report compared the current design with July 2022 design which was assessed in the report of 94-22-DE-EWA-00, and concluded that "the minor changes to the floor plans have maintained a similar shape and built form massing, and therefore the environmental wind assessment would be expected to be similar to those detailed in Mel Consultants Report 94-22-DE-EWA-00".
- iii. Vipac reviewed the previous town planning report and understands that Mel Consultants had the following assessment conclusions in their Report.

Locations immediately outside the building entrances are expected to satisfy the recommended standing comfort criterion. The wind conditions on the outdoor terraces would be expected to satisfy the walking comfort criterion.

With respect to any wind related effects to adjoining properties to the east and Grosvenor Street, the wind conditions in the adjacent buildings on the east side of the Development and along the pedestrian streetscapes of Grosvenor Street would be expected to satisfy the walking comfort criterion as well as the safety standard.

- iv. Vipac reviewed the drawings provided and agreed that the assessment conclusions are valid for the current design.

In conclusion, the MEL Consultants Environmental Wind Assessment has used the correct methodology to compare current design to the previous ones and concluded that the design on 31th Aug 2022 would be expected to have an acceptable wind environment. We agree with the conclusions.



City of Yarra
PLN22-0679 - 10-32 Duke Street
Review of a Wind Assessment Report

Yours sincerely,

Vipac Engineers & Scientists Ltd

Zhuyun Xu

Principal Wind Engineer

Eric Yuen

Wind Group Leader

Attachments:

1. *J.Tan, M Eaddy*, Mel Consultants, 10-32 Duke Street, Abbotsford, Environmental Wind Assessment (Amendment on 94-22-DE-EWA-00), Sep 2022
2. Medley Property Group, 10-32 Duke Street, Abbotsford, Town Planning Report, Sep 2022.



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MELBOURNE VIC 3000**

URBIS.COM.AU
Urbis Pty Ltd
ABN 50 105 256 228

25 January 2023

John Theodosakis
Statutory Planning Branch
PO Box 168
Richmond VIC
Via email: john.theodosakis@yarracity.vic.gov.au

Dear John,

REFERRAL AND OBJECTOR RESPONSE PLN22/0679 - 10-32 DUKE STREET, ABBOTSFORD

Urbis Pty Ltd continues to act on behalf of Medley Property Group (the permit applicant) in relation to the planning permit application PLN22/0679 at 10-32 Duke Street, Abbotsford (subject site).

We enclose the following documentation to support the application:

- Cross Section – Overlooking diagrams prepared by BKK Architects, dated 09/01/23
- Copies of sheets A10, A11 and A13
- Memorandum – ESD advice in response to council referral comments, provided by Stantec.

The following letter provides a response to address matters raised by Council, referral authorities and objectors.

1. DEVELOPMENT ENGINEERING REFERRAL RESPONSES

Council's Development Engineering unit has provided a response to the proposed development. The referral provides advice as follows:

Engineering Advice for Design Items to be Addressed by the Applicant

- **Visibility:** *Convex mirrors are to be provided at the development entrances.*
- **Headroom Clearances:** *The headroom clearances at the entrances are to be dimensioned on the drawings*
- **Floor to Ceiling Heights and Pit Depths:** *The floor to ceiling heights and pit depths are to be dimensioned on the drawings.*
- **Vehicle Clearance Heights:** *The applicant is to select the stacker model type and specify the vehicle clearance heights for each stacker level.*
- **Motorcycle Spaces:** *To be dimensioned on the drawings.*

10-32 Duke Street Abbotsford Referral and Objector Response



- **Waste Collection Vehicle Entry and Exit Movements:** Swept path diagrams are to be provided for a 6.41 metre long waste collection vehicle entering and exiting the development entrances via Duke Street.
- **Vehicle Crossing Ground Clearance:** Levels are to be shown on cross sectional drawings with dimensions, together with the B99 design vehicle ground clearance template demonstrating access and exit movements.

Response: It is considered all of these items are achievable and could be applied to the proposal via condition 1 plans for endorsement.

In addition to the proposed recommendations, a series of conditions were proposed. Subject to a further review of all consolidated draft conditions of permit, the proposed engineering conditions are accepted apart from those listed below:

Civil Works

- *A drain is to be constructed from the development to the existing drain at the intersection of Duke Street and Southampton Crescent to Council's satisfaction and at the Permit Holder's cost*
 - **Response:** By adopting the proposed Internal Urban Design referral response to the public realm, which removes the kerb outstands and allows for a kerb and channel, the construction of a drain to the intersection of Duke Street and Southampton Crescent is no longer considered necessary.

2. DEPARTMENT OF TRANSPORT REFERRAL RESPONSES

Department of Transport (DoT) have provided a response to the proposed development. DoT does not object to the grant of a planning permit and did not provide any further comments or recommendations.

3. ENVIRONMENTALLY SUSTAINABLE DESIGN REFERRAL RESPONSE

Council's ESD officer has provided a response to the proposed development. The officer has recommended that:

- *All ESD commitments, deficiencies and outstanding information are to be addressed in an updated SMP report and shown on Condition 1 drawings.*
 - **Response:** The applicant agrees to provide an updated Sustainability Management Plan as a condition of the permit, should a permit be granted. Where required ESD measures can be shown on condition 1 architectural drawings.

Where clarifications or further details have been sought by council's ESD officer, responses by the applicants ESD consultant, Stantec, have been provided as a separate memo to provide council certainty the required measures can be achieved. In order to avoid the need for re-referral of these comments please note Urbis requests that these details can be provided in an updated SMP as a condition of the permit, should it be granted.

4. INTERNAL URBAN DESIGN REFERRAL RESPONSES

Council's Urban Design unit has provided a response to the proposed development. The proposal is supported in principle subject to changes. The referral provides advice as follows:



Further Information Required

- *The following drawing sheets are missing from the advertised drawing sets: A010, A011, and A013*
 - **Response:** These are provided with this response.
- *Provide existing and proposed levels within public realm and at entrances/ interfaces between building and footpath to ensure smooth transition*
 - **Response:** This can be provided via condition 1 plans for endorsement.
- *Provide Public Realm Improvement Plan for review and approval by Council – details provided below.*
 - **Response:** Council's Urban Design team has provided a 'without prejudice public realm improvement plan' which has deleted the previously proposed kerb outstands and includes spaces for 9 on-street car park spaces, spacing for 8 trees and 2 bike corrals of up to 4 bike hoops each. The applicant consents to a standalone condition on permit, should one be issued, which requires a Public Realm Improvement Plan to be submitted for endorsement within six months of the commencement of works.

5. STRATEGIC TRANSPORT REFERRAL RESPONSE

Council's Strategic Transport unit has provided a response to the approval. The proposal is generally supported and considered appropriate. The recommendations are as follows:

1. *Dimensions of the kerb outstands and bicycle parking spaces on Duke Street to show that bicycle parking can be accommodated without obstructing the pedestrian path, in compliance with AS2890.3*
2. *Details of the lift size and door opening in order to confirm that lifts provide suitable dimensions to accommodate a bicycle.*
3. *Design and dimensions of all bicycle parking spaces.*
4. *A minimum of 43 employee bicycle parking spaces in a horizontal arrangement.*
5. *Installation of at least four electric bicycle charging points adjacent to horizontal bicycle parking spaces*
6. *A Green Travel Plan must be provided.*

Response: The applicant agrees to provide items 2, 3, 5 and 6 via conditions on any permit to be issued.

We submit that the requirement for Item 1 is no longer required given the suggested revised Public Realm Improvement by Council's internal Urban Designer as bike corrals will be provided.

Regarding item 4, the applicant agrees to provide the Australian Standard of 26 horizontal spaces within the development as a condition of the permit, should one be granted. Noting that the Australian Standard accounts for inner city locations, it is not considered reasonable to request a greater amount of horizontal spaces.



6. EXTERNAL URBAN DESIGN REFERRAL RESPONSE

An external Urban Design memo was prepared by Hansen Partnership.

Hansen Partnership confirm their support for the proposal and considered it appropriate from a strategic and design standpoint. We note that the proposed height, street wall and setbacks are all considered an appropriate response to the site context.

Their recommendations were minor and are as follows:

- *Provision of a further kerb outstand and street tree be provided in association with the main entry of Building A, to provide a consistent relationship within Duke Street, to all building entries;*
 - **Response:** This requirement will be negated by the change in kerb design suggested by Council's internal Urban Designer.
- *That cross sections be prepared to demonstrate the overlooking arrangements in relation to 9-13, and 19 Grosvenor Street.*
 - **Response:** Cross sections that demonstrate overlooking arrangements have been provided. Some overlooking exists from the terrace of level 3, Buildings C & D into the private open space of 13 Grosvenor Street and from the terrace of level 2, Building B into the private open space 19 Grosvenor Street. Other terraces can remain unscreened without affecting the amenity of the neighbours. Noting the limited overlooking, that these residential uses are prohibited in the zone and that the industrial zoning does not protect residential standards of amenity, we submit that the response is appropriate. Further to this, given the height of these terraces and the proposed balustrade/wall height, there is no unreasonable overlooking.

Hansen Partnership also queried whether the windows on level 3 and 4 against the northern boundary were proposed. These windows are proposed as part of the development as windows to the terrace areas. As these spaces and any of the adjacent spaces are not reliant on the windows for light, the applicant agrees to a 'no right to light' condition should the neighbouring property wish to develop on boundary against those windows.

7. WASTE REFERRAL RESPONSES

Council's City Works Unit has raised the following issues in its referral comments:

1. *To assess whether enough space has been allocated to form an effective waste system please include the total footprint of the bins allocated and the space available in each bin storage area in M2*
2. *The swept path diagrams need to be assessed by the traffic team; I note the turning manoeuvre relies on an accessibility space to be vacant.*

Response: The applicant agrees to provide an updated Waste Management Plan as a condition of the permit, should a permit be granted. The updated Waste Management Plan will include a notation for Lots C and D that in order for the waste truck to turnaround and exit in a forward direction, the truck must utilise the DDA space and shared area. Bin collections will therefore need to be scheduled outside of office hours while the parking spaces is vacant. Signage will be provided informing that the space must be left vacant outside of office hours and management can ensure the correct usage of the DDA spaces.



the site. Instead it is likely office staff will choose another mode of transport. We submit that the proposed car parking provision is acceptable given the site's context. The site is located adjacent to a large activity centre generating considerable employment, with access to convenient and efficient public transport. Additionally, there is strong council policy support for substantial parking reductions in activity centres and where sustainable transport initiatives are supported in a development. The Tribunal's decision in *KM Tram Enterprise Pty Ltd v Boroondara CC [2018] VCAT 1237* further reinforced the appropriateness of carparking reductions in such areas, arguing:

'[29] In this context of a change from the 'business as usual' approach, I agree with Ms Dunstan that office workers are prime candidates for a mode change given their commuting patterns of travel to and from work during peak times. This is the time when public transport services run at highest frequencies and when Melbourne's roads are most congested. The combination of carrot' and 'stick' makes it viable for many office workers commuting to a site such as this to change from private vehicle to public transport.'

We note that council's Strategic Transport and Engineering Services Units found the proposed parking reduction to be appropriate.

As indicated above, Council has numerous policies relating to providing an appropriate amount of car parking below the statutory requirement in appropriate locations such as the subject site, including the Climate Emergency Plan and Parking Management Strategy. The proposal includes 124 on site car parks, which is sufficient to supply demand for the facility. Under the adopted internal urban design referral Public Realm Plan, 9 on street visitor car parks will be provided which is sufficient for visitor access to the site.

▪ Traffic

- Response: We submit that the proposed development will generate only moderate traffic, which can be readily accommodated in the nearby road network. The limited on-site parking will restrict the traffic generation for the site in both the AM and PM peaks. The traffic assessment assumes in the AM and PM peaks a turnover of 50% in the peak direction and 5% in the counter peak direction. This equates to 68 movements per peak hour. As the signalised intersections on Victoria Street provide breaks in traffic, it is anticipated that the various connections to Victoria Street will have available capacity to accommodate the projected movements generated by the development.

▪ Height

- Response: A number of submissions referenced the 8 storey proposal as being too high, with the potential to impact natural light to dwellings facing Grosvenor Street and devalue dwellings which have their city view blocked.

Whilst we note that the proposed maximum height is taller than abutting existing built form, it is comparable to recent construction in the wider Abbotsford area which is part of an emerging character towards higher built form, including the 9 storeys development to the north-east on the Kodak site. Of note, taller, higher density developments further to the south within the future DDO are anticipated, in-line with other constructed developments in the surrounds. We note that Council's External Urban Design advisor was highly supportive of the proposed height of the development.

We note that a number of submitters are located within the buildings 42m to the east within buildings of up to 10 storeys in height along Grosvenor and Flockhart Streets. These areas are



zoned Commercial 1 and Priority Development Zone, with a number of higher density buildings having been constructed.

In terms of amenity impacts, Drawing A802 prepared by BKK Architects confirms that on the September equinox at 3pm there will be no shadow impact to dwellings on the east side of Grosvenor Street.

Finally, potential "private devaluation" is not a relevant planning consideration nor is there a legal protection of views in the planning scheme, and so this is not considered a valid planning reason for a reduction in height. In *Burke v Banyule CC and Anor* [2000] VCAT 2564 and *Gatum Holdings Pty Ltd v Banyule CC* [2004] VCAT 1035 the Tribunal held that views in urban settings are fortuitously enjoyed and any loss of views was largely irrelevant in an urban situation.

- Character and landscaping

- Response: Several submitters referenced that the proposed development is not within keeping of the local area and landscape. The building has carefully selected its materials and design at both podium and upper levels to respond to the character of the area. The highly articulated masonry podium references the industrial heritage of the Abbotsford precinct and it is anticipated the existing brickwork will be able to be reused within the podium. The sawtooth roof profile is an additional reference to the industrial heritage of the precinct.

At ground level the public realm will be improved by sheltered entrances, generous landscaping within the development, the addition of street trees, new bike parking and a highly activated ground plane. These additions will be a significant improvement to the existing public realm and improve the character of the local area without significantly departing from it.

We note that Council's External Urban Design advisor was highly supportive of the form and architectural design response of the proposal. Their referral advice concluded:

In summary, we are broadly supportive of the proposal in its current form. Given this site's consolidated nature it represents a notable redevelopment opportunity within this pocket of industrial land in Abbotsford. The proposed built form scale, massing arrangement and architectural expression are considered an appropriate response to both policy and the surrounding context. It will positively contribute to the Duke Street streetscape, rationalising the existing cross-overs and introduces new kerb outstands, enhancing the public realm condition. Its site planning is sound and will suitably engage with and offer enhanced activation of the streetscape. However, we suggest an additional kerb outstand and street tree provision to ensure all building entrances are afforded equal streetscape gestures.

In terms of off-site amenity impacts we find the proposals to successfully addresses matters of visual bulk, overshadowing and equitable development. We only raise a few queries in relation to overlooking of existing abutting backyards and seek more information to fully understand the impact. However, downward overlooking (if considered necessary) could be addressed by way of privacy screening or revised planter locations.

- Availability of office use

- Response: A submission included that multiple office complexes are under construction in the same area offering similar features. This is not a relevant planning matter for consideration. However, in terms of the suitability of the land use, strategically, the Yarra Spatial Economic



and Employment Strategy has identified the area as appropriate for office and the Melbourne Industrial and Commercial Land Use Plan (MICULP) has estimated that 4 million square metres of commercial floor space will be required across the Inner Metro Region by 2031 with 548,000 square metres of commercial floor space within the City of Yarra specifically. Council's local policies also seek to increase the number and diversity of employment opportunities to foster a sustainable and viable economic base. As such, we submit that there is sufficient strategic support for the location and size of the proposed office.

▪ Residential amenity (privacy and overlooking)

- Response: A number of submitters referred to the proposed building creating a lack of privacy to existing bedrooms and balconies on the east side of Grosvenor Street. The distance between the proposed building and residential properties to the east of Grosvenor Street is more than 40m. That distance is well in excess of the residential amenity standards (typically associated with Rescode which is not applicable in this instance due to the industrial zoning of the land) for overlooking and privacy.

We note that the 2018 Tribunal decision (*Langridge and Cambridge Funding Development Pty Ltd v Yarra CC* [2018] VCAT 703) made the following comments with respect to those living in medium height buildings"

[140] We think that residents who choose to move into the medium height buildings that will become the prevailing character should expect to see other similar sized buildings and to see and be seen by their neighbours. They should expect to rely on screens and blinds to retain their privacy.

▪ Construction effects

- Response: An adjoining neighbour raised the risk of potential damage to the existing building which is built to the boundary. It is common throughout the construction industry for development to occur adjoining existing buildings. **This will be dealt with at the Building Permit stage.** A Construction Management Plan (CMP) will be required by way of condition and will manage impacts during the construction stage

▪ Hours of operation

- Response: The proposed hours of operation of 7am to 8pm for the office and 7am to 10pm for the café are reasonable for a business to operate without causing adverse amenity impacts. The proposed built form would provide a visual and noise buffer to residential properties from the other industrial activities on Duke Street. Recent office planning permits on the western side of Duke Street have recently been issued without any restriction on office hours of operation.

An office use has been considered numerous times at the Tribunal (even in instances where it is a Section 2 use) as a "benign" use and low impact nature:

O'Connell Street Developments PL v Yarra CC [2003] VCAT 448 (30 April 2003)

[163] We consider that office is a relatively benign use, and we see no reason why the office could not be used at any time. We do not consider it necessary to include a condition restricting office hours.

Pertile v Yarra CC [2019] VCAT 851



[48] As was observed in the evidence of Ms Paul, the proposed office use on the review site is one of the most benign uses the residents could hope to expect within the Industrial 3 Zone. The only real off-site amenity impact arising from the proposed use of the land as an office on the adjacent residential area, is that arising from increased traffic. I anticipate that the extent of office workers that would choose or need to work outside of the common weekday daytime working hours would be a much lower proportion of the overall number of office workers to be accommodated on the review site. I therefore anticipate that the deletion of a condition that restricts the operating hours of the office use of the review site, will actually result in a very low level of additional traffic within this industrial and residential neighbourhood in the evenings and on weekends, and thus a low level of amenity impact on the adjacent residential neighbourhood. Given the proximity of the residential neighbourhood to an industrial precinct, a certain level of amenity impact from the businesses occurring within the precinct is to be anticipated and expected. I regard the extent of likely amenity impact to result from the absence of any control over the operating hours of this office building to be sufficiently low, and to represent an appropriate outcome for this interface location.

Accordingly, we submit that the proposed hours of operation are a more conservative approach.

CONDITION WORDING

Given the subject site is not located within a heritage overlay and as such demolition does not require a planning permit, we formally request any conditions related to endorsement of documents including the working:

Before the development starts, (excluding demolition, bulk excavation and site preparation work)..

This is to allow the permit applicant to commence demolition and bulk excavation whilst the specialist consultant reports are being assessed for endorsement.

9. CONCLUSION

We trust that the above is sufficient for your purposes however should you have any questions or concerns regarding the response provided above, please do not hesitate to contact the undersigned.

Kind regards,

A handwritten signature in cursive script, appearing to read "Ewan Wymer".

Ewan Wymer
Senior Consultant
+61 3 8663 4897
ewymer@urbis.com.au

The image displays a set of architectural drawings for the Duke Street Office Development. It includes four cross-sections (01, 02, 03, 04) and two elevations (05, 06). The sections show the internal structure of the building, including floors, walls, and roof. The elevations show the exterior facade of the building, including windows, doors, and landscaping. The drawings are labeled with various dimensions and notes.

Section 01: Level 01 Terrace Overlooking
 This section shows a cross-section of the building at Level 01. It includes a terrace overlooking Duke Street. The drawing shows the internal structure of the building, including floors, walls, and roof. The terrace is shown with a flat roof and a low wall. The building is shown with a flat roof and a low wall. The drawing is labeled with various dimensions and notes.

Section 02: Level 02 Terrace Overlooking
 This section shows a cross-section of the building at Level 02. It includes a terrace overlooking Duke Street. The drawing shows the internal structure of the building, including floors, walls, and roof. The terrace is shown with a flat roof and a low wall. The building is shown with a flat roof and a low wall. The drawing is labeled with various dimensions and notes.

Section 03: Level 03 Terrace Overlooking
 This section shows a cross-section of the building at Level 03. It includes a terrace overlooking Duke Street. The drawing shows the internal structure of the building, including floors, walls, and roof. The terrace is shown with a flat roof and a low wall. The building is shown with a flat roof and a low wall. The drawing is labeled with various dimensions and notes.

Section 04: Level 04 Terrace Overlooking
 This section shows a cross-section of the building at Level 04. It includes a terrace overlooking Duke Street. The drawing shows the internal structure of the building, including floors, walls, and roof. The terrace is shown with a flat roof and a low wall. The building is shown with a flat roof and a low wall. The drawing is labeled with various dimensions and notes.

Elevation 05: Duke Street
 This elevation shows the exterior facade of the building on Duke Street. It includes a terrace overlooking Duke Street. The drawing shows the internal structure of the building, including floors, walls, and roof. The terrace is shown with a flat roof and a low wall. The building is shown with a flat roof and a low wall. The drawing is labeled with various dimensions and notes.

Elevation 06: Grosvenor Street
 This elevation shows the exterior facade of the building on Grosvenor Street. It includes a terrace overlooking Grosvenor Street. The drawing shows the internal structure of the building, including floors, walls, and roof. The terrace is shown with a flat roof and a low wall. The building is shown with a flat roof and a low wall. The drawing is labeled with various dimensions and notes.

NOT FOR CONSTRUCTION

BKK ARCHITECTS

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