12-20 VICTORIA CRESCENT
ABBOTSFORD VIC 3067 AUSTRALIA

TOWN PLANNING APPLICATION

PROJECT NO. 170033

ARCHITECTURAL DRAWING SCHEDULE

DRAWING NO.	DRAWING TITLE	REV
TP000	COVER PAGE	C
TP001	PROJECT DEVELOPMENT SUMMARY	C
TP005	SITE CONTEXT PLAN	E
TP050	DEMOLITION LAYOUT - PLAN	C
TP051	DEMOLITION & HERITAGE FACADE	E
TP053	HERITAGE FACADE ELEVATIONS	C
TP054	HERITAGE FACADE SECTIONS	E
TP210a	GROUND FLOOR PLAN	C
TP210b	MEZZANINE LEVEL PLAN	E
TP211	LEVEL 1 PLAN	C
TP212	OFFICE LEVEL 1 (LEVEL 2) GA PLAN	C
TP213	OFFICE LEVEL 2 (LEVEL 3) GA PLAN	C
TP214	OFFICE LEVEL 3 (LEVEL 4) GA PLAN	E
TP215	OFFICE LEVEL 4 (LEVEL 5) GA PLAN	C
TP216	OFFICE LEVEL 5 (LEVEL 6) GA PLAN	C
TP217	OFFICE LEVEL 6 (LEVEL 7) GA PLAN	E
TP218	ROOF PLAN	E
TP300	NORTH & SOUTH ELEVATIONS	E
TP301	EAST & WEST ELEVATIONS	C
TP310	GA SECTIONS	C
TP320	VEHICLE ENTRY SECTIONS	C
TP330	ENTRANCE ELEVATION	E
TP400	3D ARTIST'S IMPRESSIONS	C
TP500	SHADOW DIAGRAM 01	E
TP501	SHADOW DIAGRAM 02	C
TP502	SHADOW DIAGRAM 03	E
TP503	SHADOW DIAGRAM 04	C
TP504	SHADOW DIAGRAM 05	E
TP505	SHADOW DIAGRAM 06	C
TP506	SHADOW DIAGRAM 07	E

FIELDWORK

Cadence

Project Number
12020

Client
CADENCE

Project
12-20 VICTORIA CRESCENT
ABBOTSFORD VIC 3067 AUSTRALIA

Drawing Name
COVER PAGE

Date
[illegible]

Phase
TOWN PLANNING APPLICATION

Scale
@ A1

Drawing Number
TP000

Revision
C

GFA SCHEDULE

LEVEL	AREA
GROUND FLOOR	4,235.9
MEZZANINE LEVEL	2,111.7
LEVEL 1	3,797.0
OFFICE LEVEL 1 (L02)	2,888.0
OFFICE LEVEL 2 (L03)	2,888.0
OFFICE LEVEL 3 (L04)	2,888.0
OFFICE LEVEL 4 (L05)	1,346.3
OFFICE LEVEL 5 (L06)	1,486.2
OFFICE LEVEL 6 (L07)	1,486.2
	23,127.3 m²

OFFICE NLA SCHEDULE - BUILDING 1

STOREY	AREA
OFFICE LEVEL 1 (L02)	1,379.8
OFFICE LEVEL 2 (L03)	1,379.8
OFFICE LEVEL 3 (L04)	1,379.8
	4,139.4 m²

OFFICE NLA SCHEDULE - BUILDING 2

STOREY	AREA
OFFICE LEVEL 1 (L02)	1,183.1
OFFICE LEVEL 2 (L03)	1,183.1
OFFICE LEVEL 3 (L04)	1,183.1
OFFICE LEVEL 4 (L05)	1,183.1
OFFICE LEVEL 5 (L06)	1,324.1
OFFICE LEVEL 6 (L07)	1,215.2
	7,271.7 m²

TENANCY NLA SCHEDULE - GROUND LEVEL

TENANCY TYPE	AREA
CAFE 1	101.7
CAFE 2	85.5
OFFICE 2	667.9
	855.1 m²

CARPARK SCHEDULE

LEVEL	TYPE	STAGE	QTY
GROUND FLOOR			
	AusStd 90 Degree	STAGE 2	32
	ResCode 90 Degree	STAGE 2	23
MEZZANINE LEVEL			
	AusStd 90 Degree	STAGE 2	33
	ResCode 90 Degree	STAGE 2	22
LEVEL 1			
	AusStd 90 Degree	STAGE 1	19
	AusStd 90 Degree	STAGE 2	50
	Disabled Space	STAGE 1	2
	Disabled Space	STAGE 2	1
	ResCode 90 Degree	STAGE 1	20
	ResCode 90 Degree	STAGE 2	18
			220

EOT NUMBERS

TYPE	QTY
Bicycle	180
Locker	270
Shower	16

WASTE BINS

LOCATION	BIN TYPE	QTY
GROUND FLOOR	1100 litre bin	11

FIELDWORK

Cadence

PROJECT DEVELOPMENT SUMMARY

@ A1

TP001

C

OPEN CARPARK

NO. 22-26 TWO STOREY BRICK BUILDING

NO. 84-86 TWO STOREY BRICK BUILDING

NO. 82 TWO STOREY CONCRETE PANEL BUILDING

NO. 80 SINGLE STOREY BRICK BUILDING

NO. 78 SINGLE STOREY BRICK BUILDING

NO. 74 SINGLE STOREY BRICK BUILDING

NO. 68-70 TWO SINGLE STOREY BRICK BUILDING

LITTLE NICHOLSON ST

SUBJECT SITE
NO. 12-20
TWO STOREY
BRICK W/HOUSE

71 VICTORIA CRESCENT

VICTORIA CRESCENT

EXISTING CAR PARK

59A VICTORIA CRESCENT

57-59 NICHOLSON STREET

57 VICTORIA CRESCENT

FIELDWORK

Cadence

[illegible]

Project Number
[illegible]

Client
CADENCE

Project
12-20 VICTORIA CRESCENT
ABBOTSFORD VIC 3067, AUSTRALIA

Drawing Name
SITE CONTEXT PLAN

Date
[illegible]

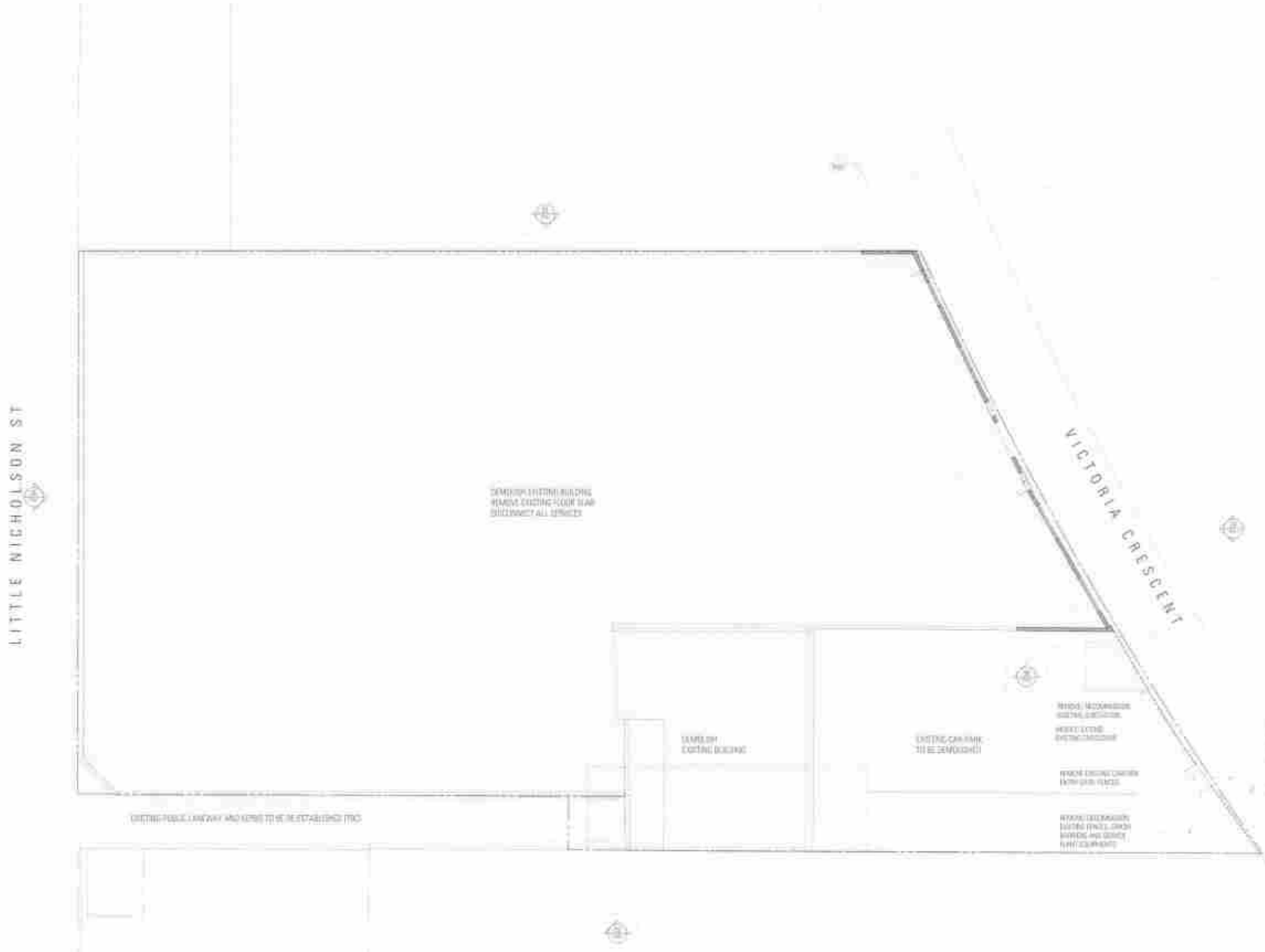
Status
TOWN PLANNING APPLICATION

Scale
1:200 @ A1

Drawing Number
TP005

Revision
C

1



FIELDWORK

Cadence

Project Number
170825

Client
CADENCE

Project
12-20 VICTORIA CRESCENT
ABBOTSFORD VIC 3067 AUSTRALIA

Drawing Name
DEMOLITION LAYOUT - PLAN

Date
5/7/2018

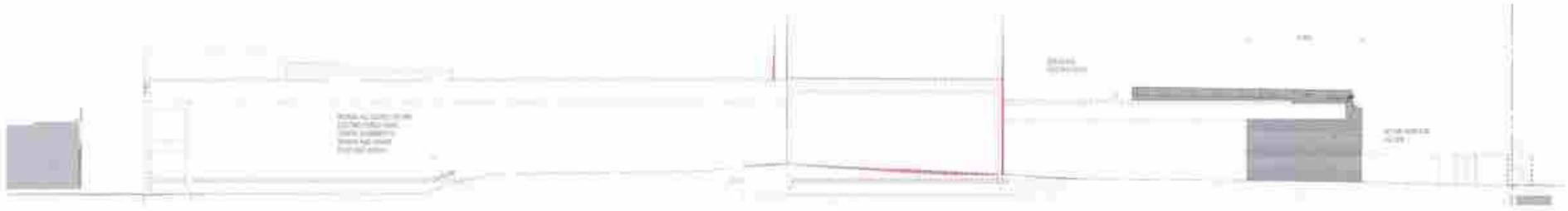
Status
TOWN PLANNING APPLICATION

Scale
1:200 @ A1

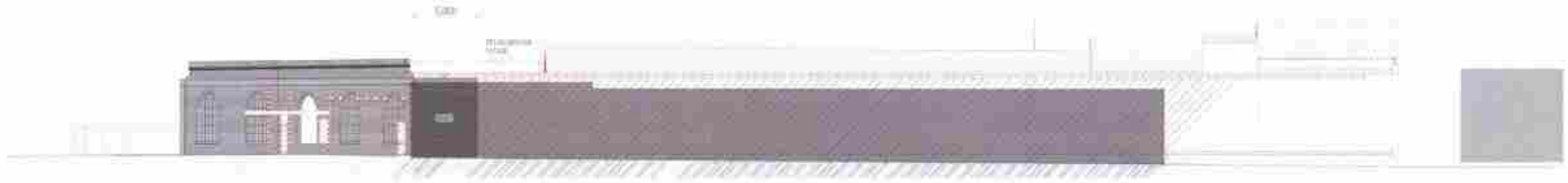
Drawing Number
TP050

Revision
C

VICTORIA CRESCENT



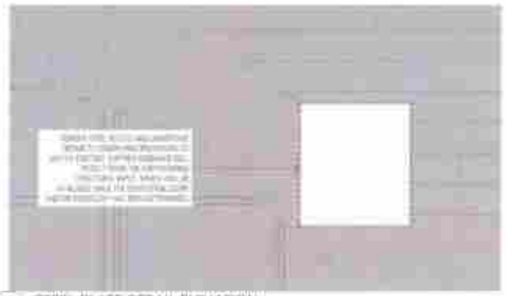
SOUTH DEMO ELEVATION
SCALE 1:200@A1



NORTH DEMO ELEVATION
SCALE 1:200@A1

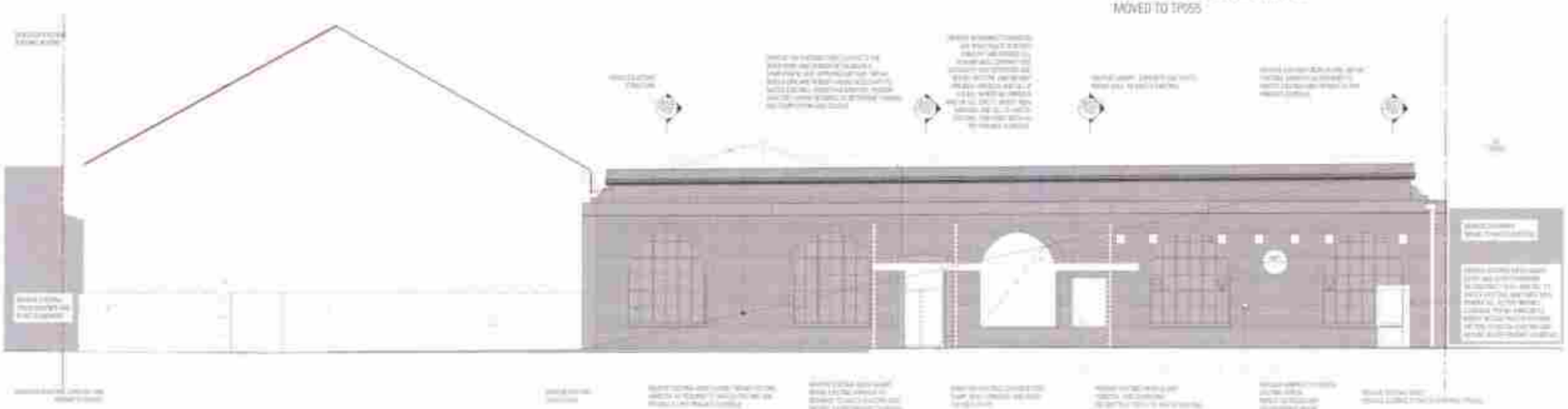
WEST DEMO ELEVATION
SCALE 1:200@A1

AIRBRICK REFERENCE IMAGE



STEEL PLATE DETAIL ELEVATION
SCALE 1:10@A1

N.B. HERITAGE FACADE - EAST ELEVATION &
HERITAGE FACADE - SOUTH ELEVATION
MOVED TO TP055



EAST DEMO ELEVATION
SCALE 1:100@A1

GROUND FLOOR HERITAGE DETAIL PLAN
SCALE 1:200@A1

FIELDWORK

Cadence

Project Number
17005

Client
CADENCE

Project
17-23 VICTORIA CRESCENT
ABBOTSFORD VIC 3067 AUSTRALIA

Drawing Name
DEMOLITION & HERITAGE FACADE

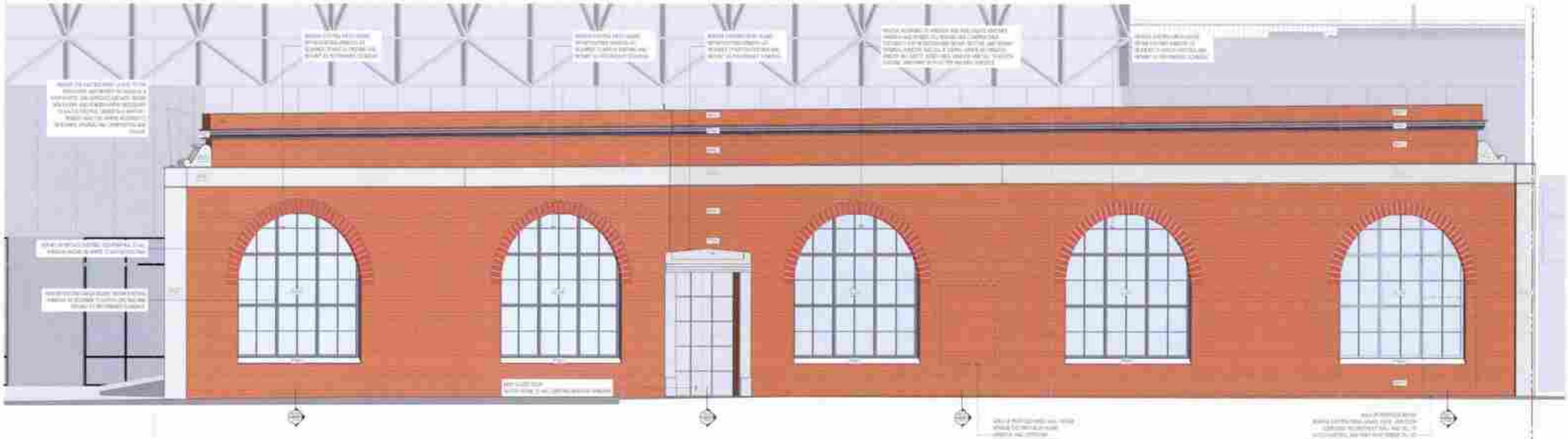
Date
22/07/2019

Status
TOWN PLANNING APPLICATION

Scale
1:200, 1:100, 1:10 @ A1

Drawing Number
TP051

Revision
C



01 HERITAGE FACADE - EAST ELEVATION
SCALE 1:50@A1

02 HERITAGE FACADE - SOUTH ELEVATION
SCALE 1:50@A1

FIELDWORK

Cadence

Project Number
12320

Client
CADENCE

Project
12 VICTORIA CRESCENT
ABBOTSFORD VIC 3067 AUSTRALIA

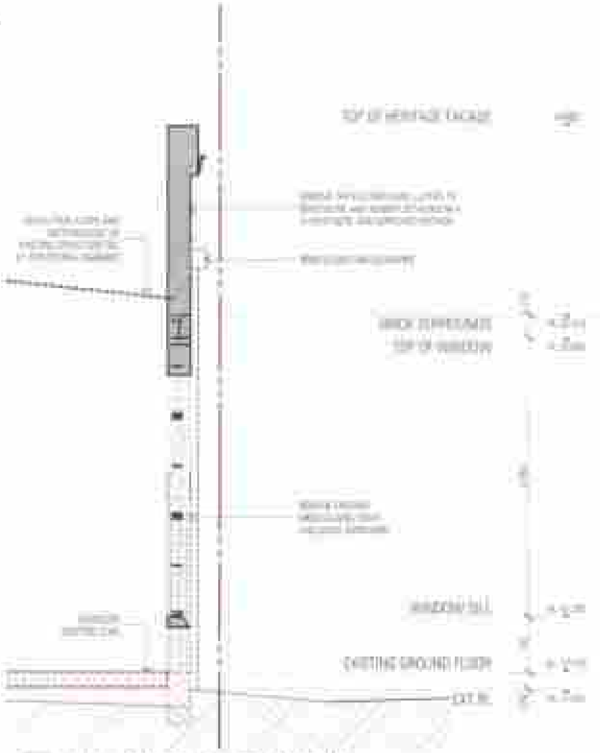
Drawing Name
HERITAGE FACADE ELEVATIONS

Date
1:50 @ A1

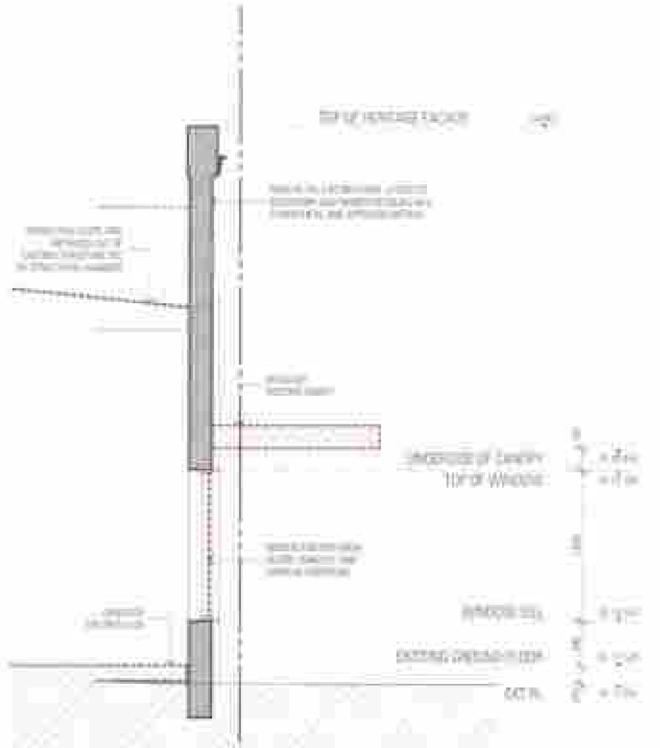
Drawing Number
TP055

Revision
C

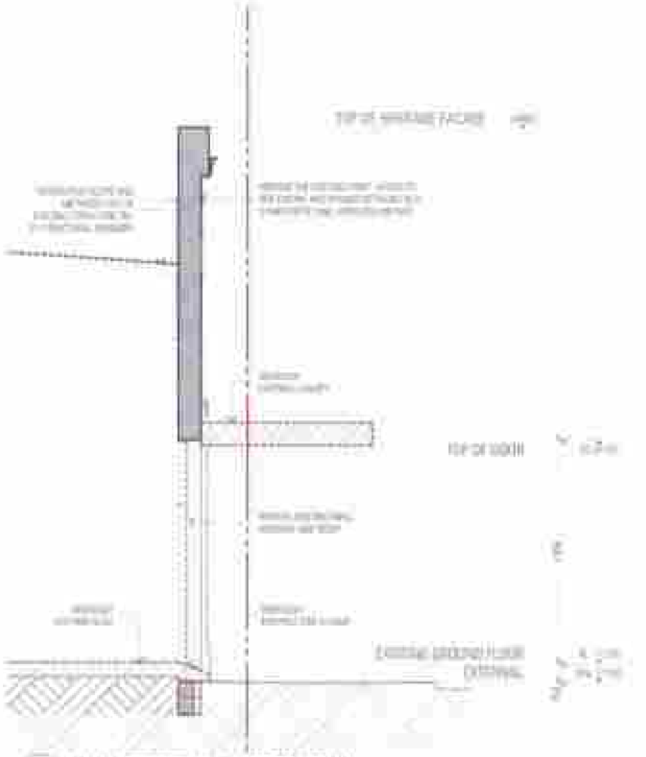
Status
TOWN PLANNING APPLICATION



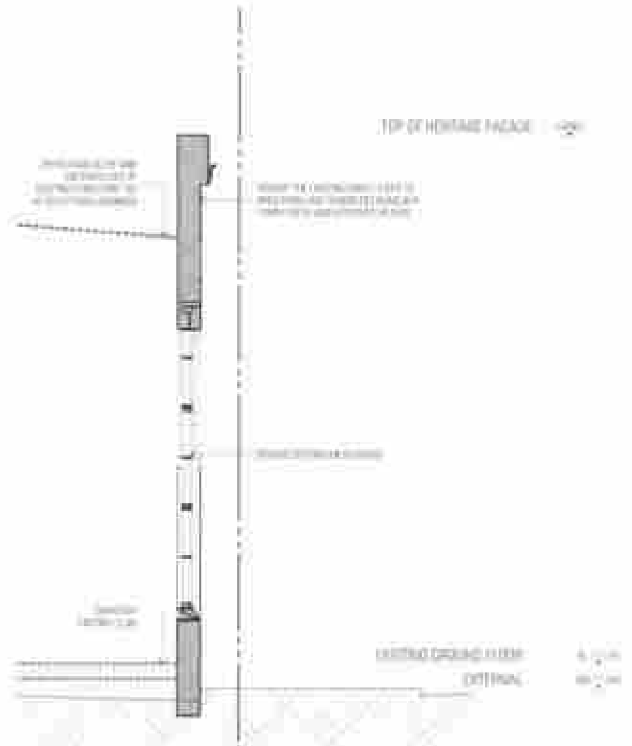
WALL SECTION 01 - DEMOLITION



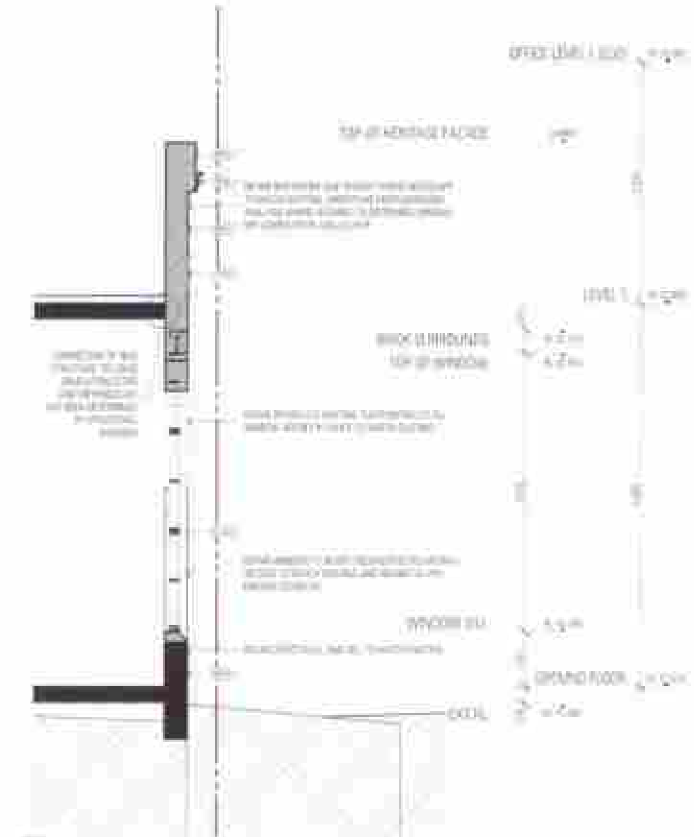
WALL SECTION 02 - DEMOLITION



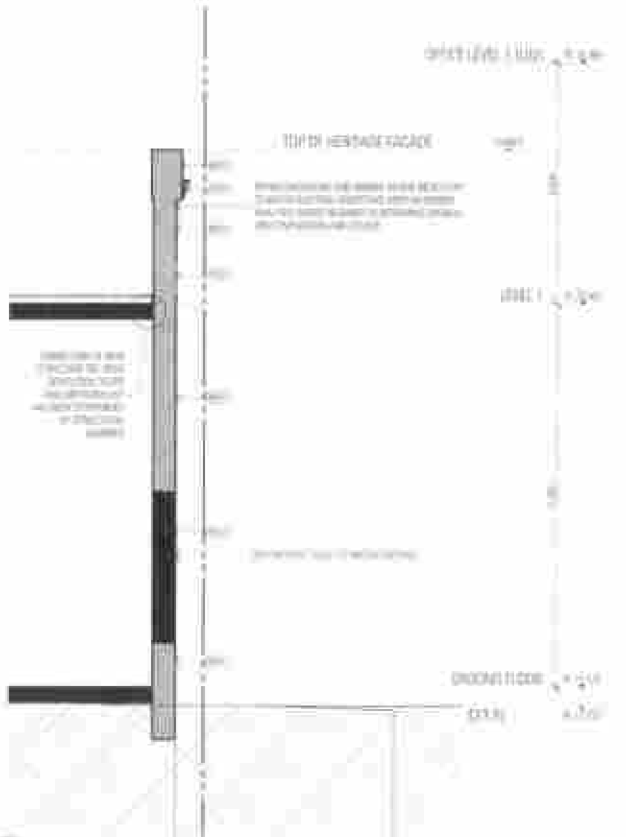
WALL SECTION 03 - DEMOLITION



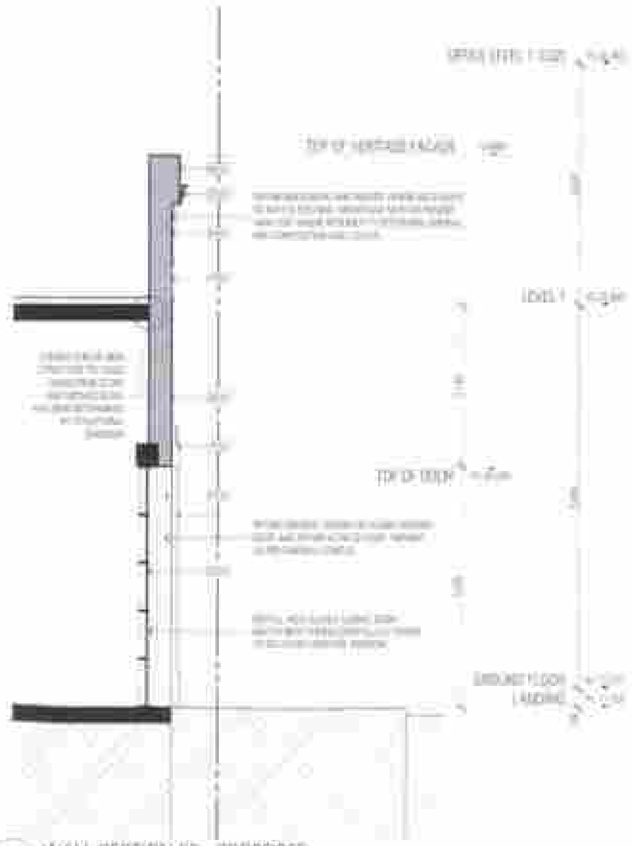
WALL SECTION 04 - DEMOLITION



WALL SECTION 01 - PROPOSED



WALL SECTION 02 - PROPOSED



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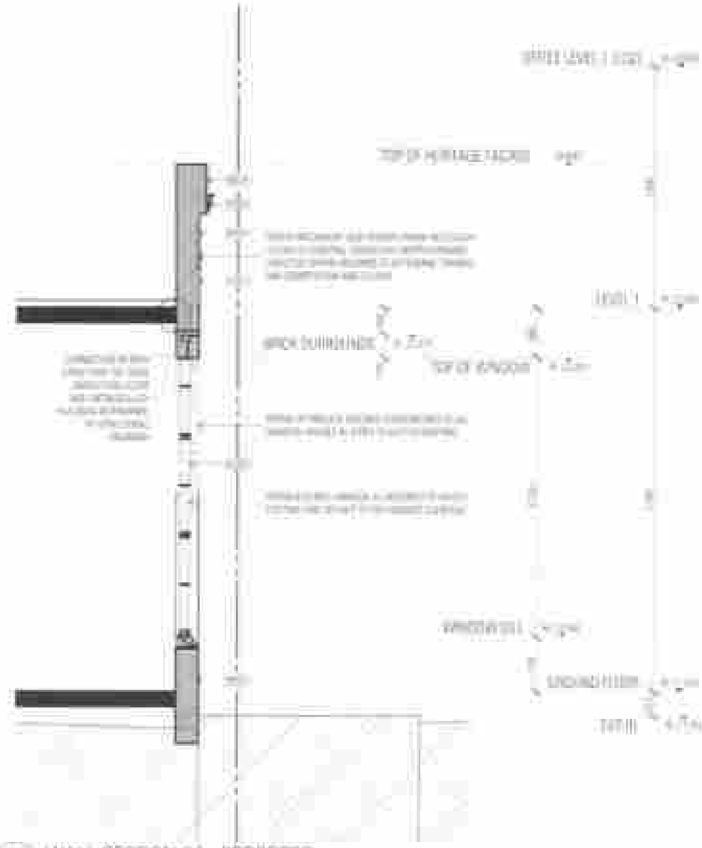


WALL SECTION 04 - PROPOSED

FIELDWORK

Cadence

Client: CADENCE

Project: 17-20 VICTORIA CRESCENT ABBOTSFORD VIC 3067 AUSTRALIA

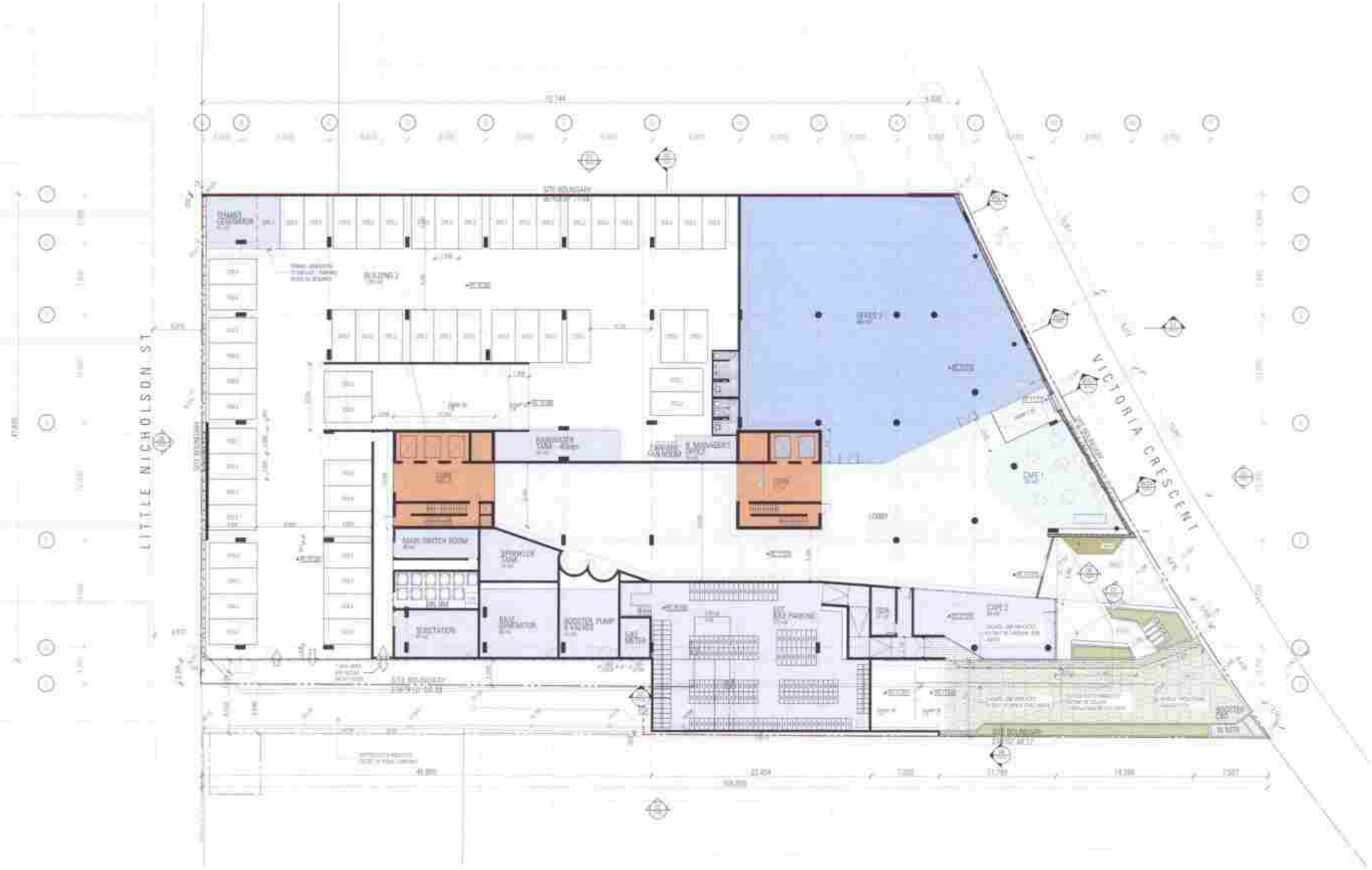
Drawing Name: HERITAGE FACADE SECTIONS

Status: TOWN PLANNING APPLICATION

Scale: 1:50 @ A1

Drawing Number: TP056

Revision: C



FIELDWORK

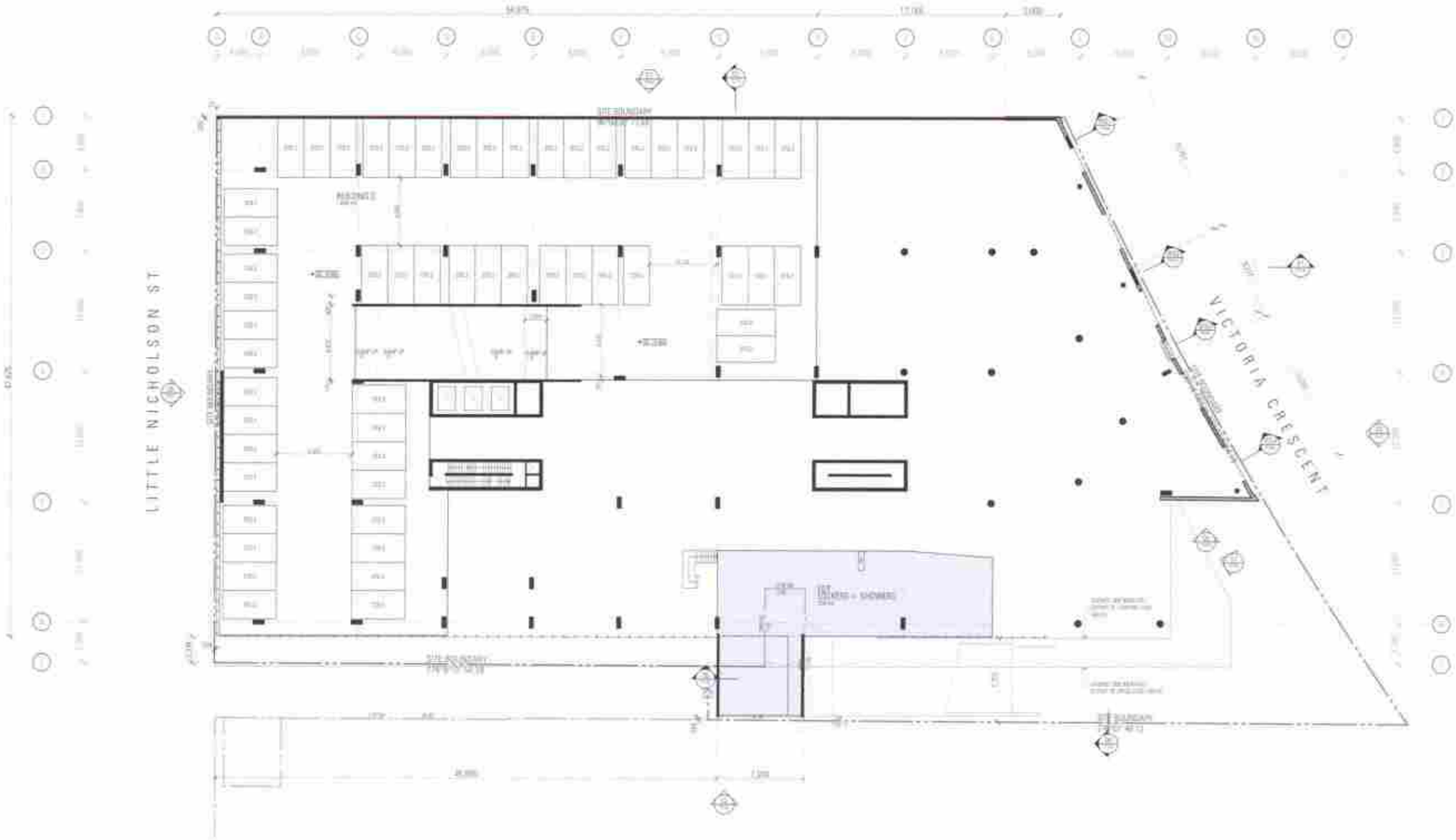
Cadence

GROUND FLOOR PLAN

1:200 @ A1

TP210a

C



FIELDWORK

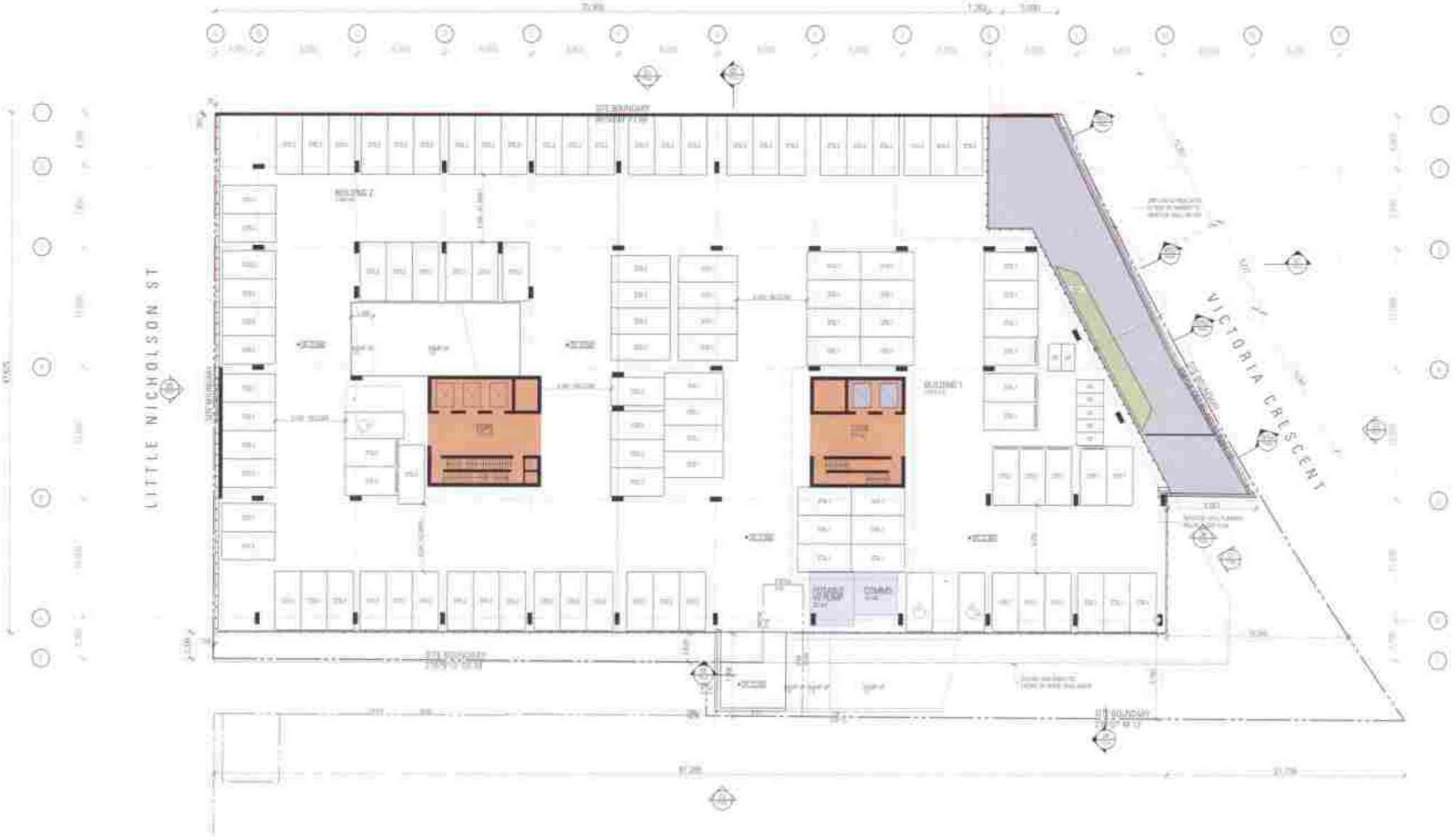
Cadence

MEZZANINE LEVEL PLAN

1:200 @ A1

TP210b

C



FIELDWORK

Cadence

LEVEL 1 PLAN

1:200 @ A1

TP211

C

FIELDWORK

Cadence

Project Number
17033

Client
CADENCE

Address
12-20 VICTORIA CRESCENT
ABBOTSFORD VIC 3067 AUSTRALIA

Drawing Name
OFFICE LEVEL 1 (LEVEL 2) GA PLAN

Size
ISO A1/A

Status
TOWN PLANNING APPLICATION

Scale
1:200 @ A1

Drawing Number
TP212

Revision
C

1

FIELDWORK

Cadence

OFFICE LEVEL 2 (LEVEL 3) GA PLAN

1:200 @ A1

TP213

C

FIELDWORK

Cadence

CADENCE

12-22 VICTORIA CRESCENT
ABBOTSFORD VIC 3067 AUSTRALIA

OFFICE LEVEL 3 (LEVEL 4) GA PLAN

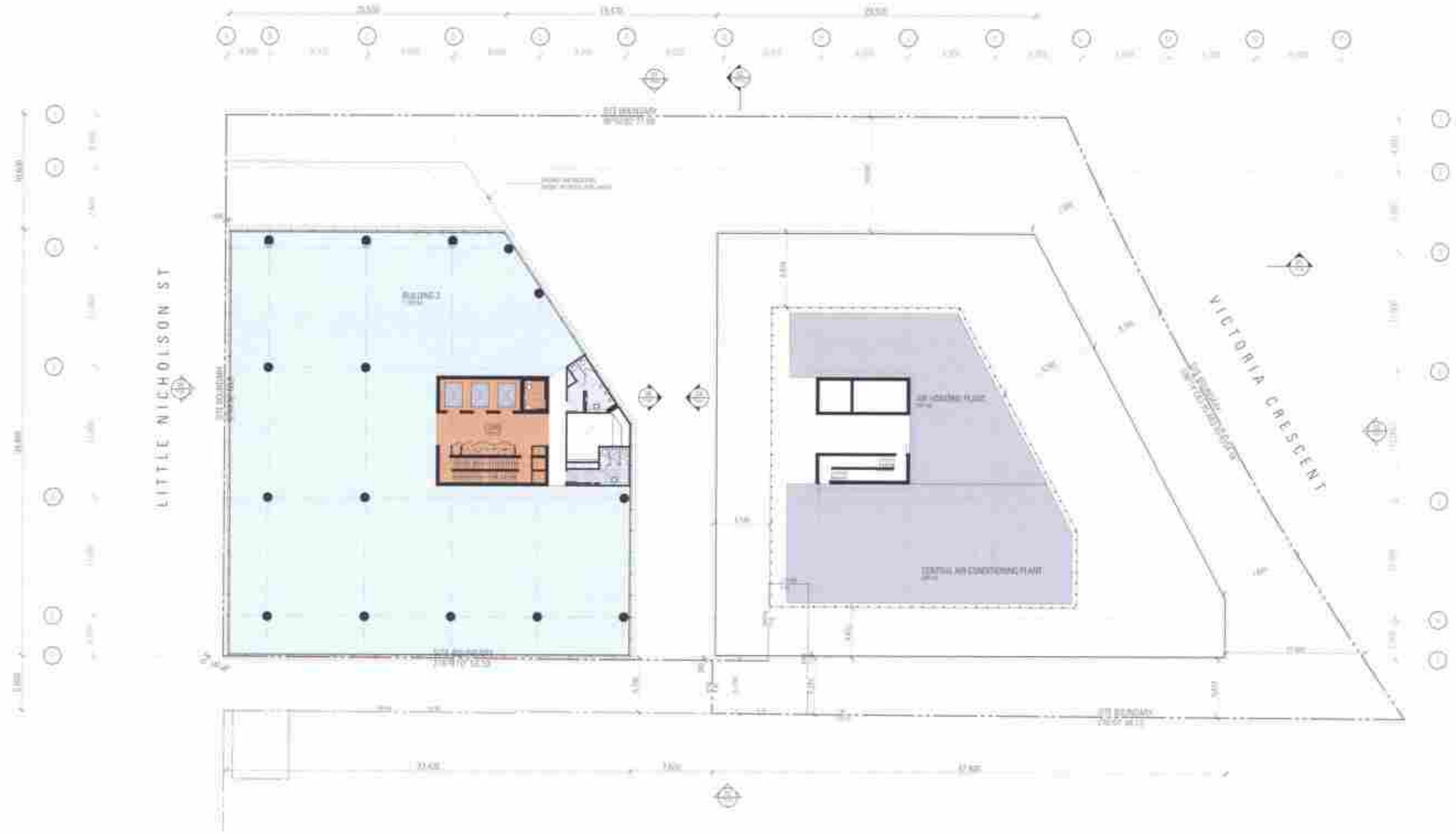
TOWN PLANNING APPLICATION

1:200 @ A1

TP214

1

C



FIELDWORK

Cadence

Project Number
13033

Client
CONFIDENT

Project
12-20 VICTORIA CRESCENT
ABBOTSFORD VIC 3067 AUSTRALIA

Drawing Name
OFFICE LEVEL 4 (LEVEL 5) GA PLAN

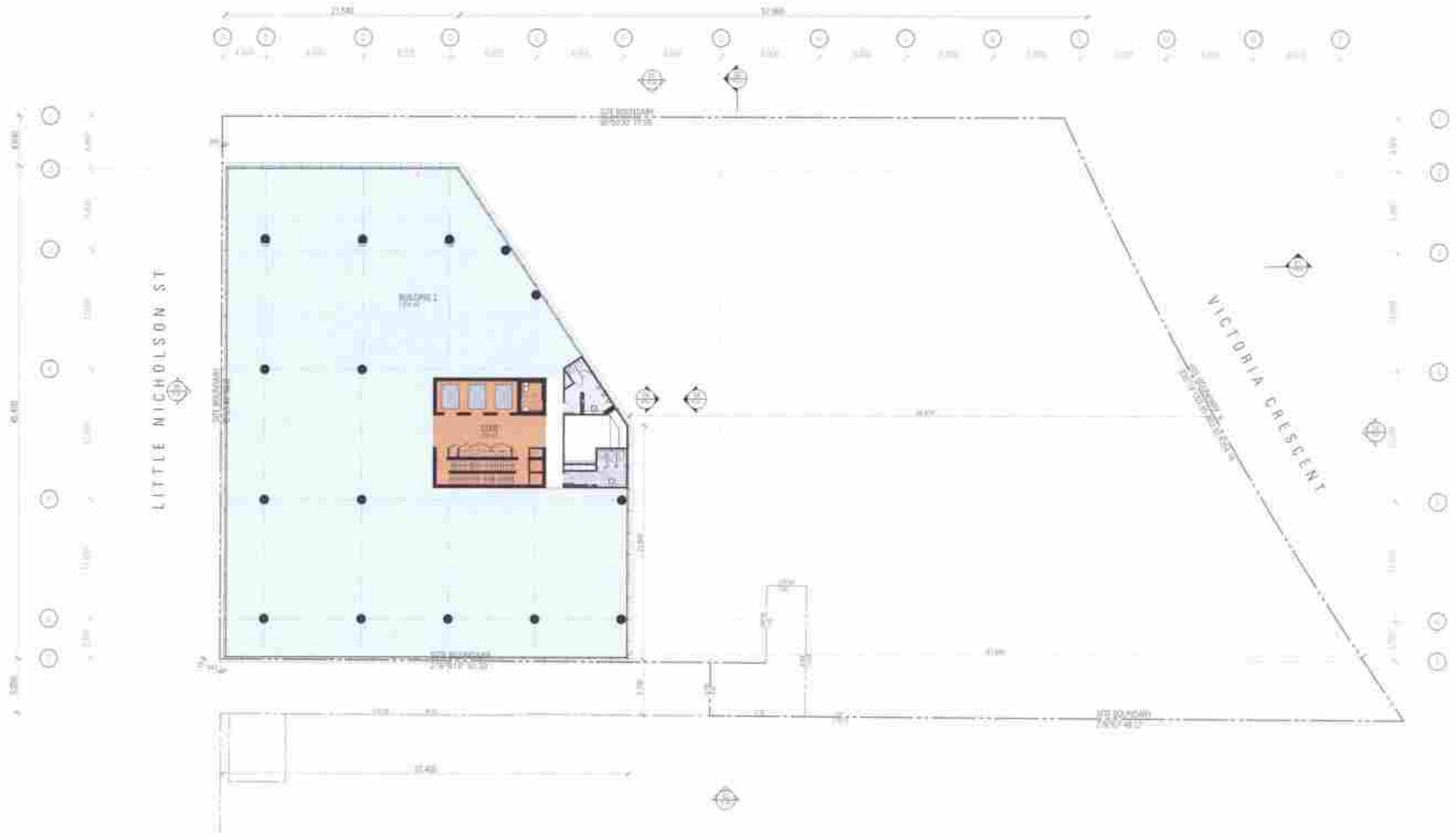
Date
04/10/2019

Status
TOWN PLANNING APPLICATION

Scale
1:200 @ A1

Drawing Number
TP215

Revision
C



FIELDWORK

Cadence

Project Number
13003

Client
CADENCE

Project
12-20 VICTORIA CRESCENT
ABBOTSFORD VIC 3067 AUSTRALIA

Drawing Name
OFFICE LEVEL 5 (LEVEL 6) GA PLAN

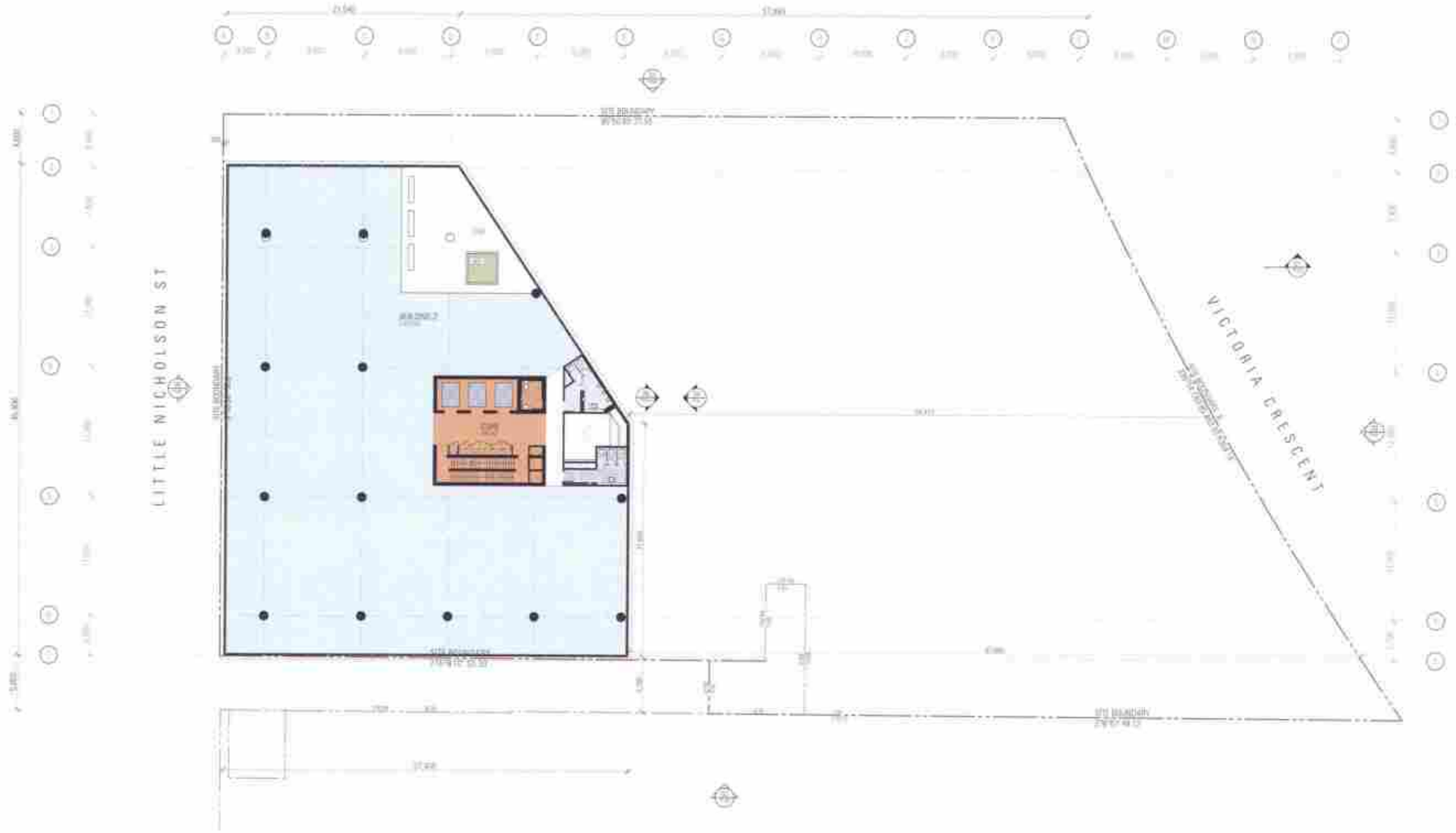
Date
[illegible]

Phase
TOWN PLANNING APPLICATION

Scale
1:200 @ A1

Drawing Number
TP216

Revision
C



FIELDWORK

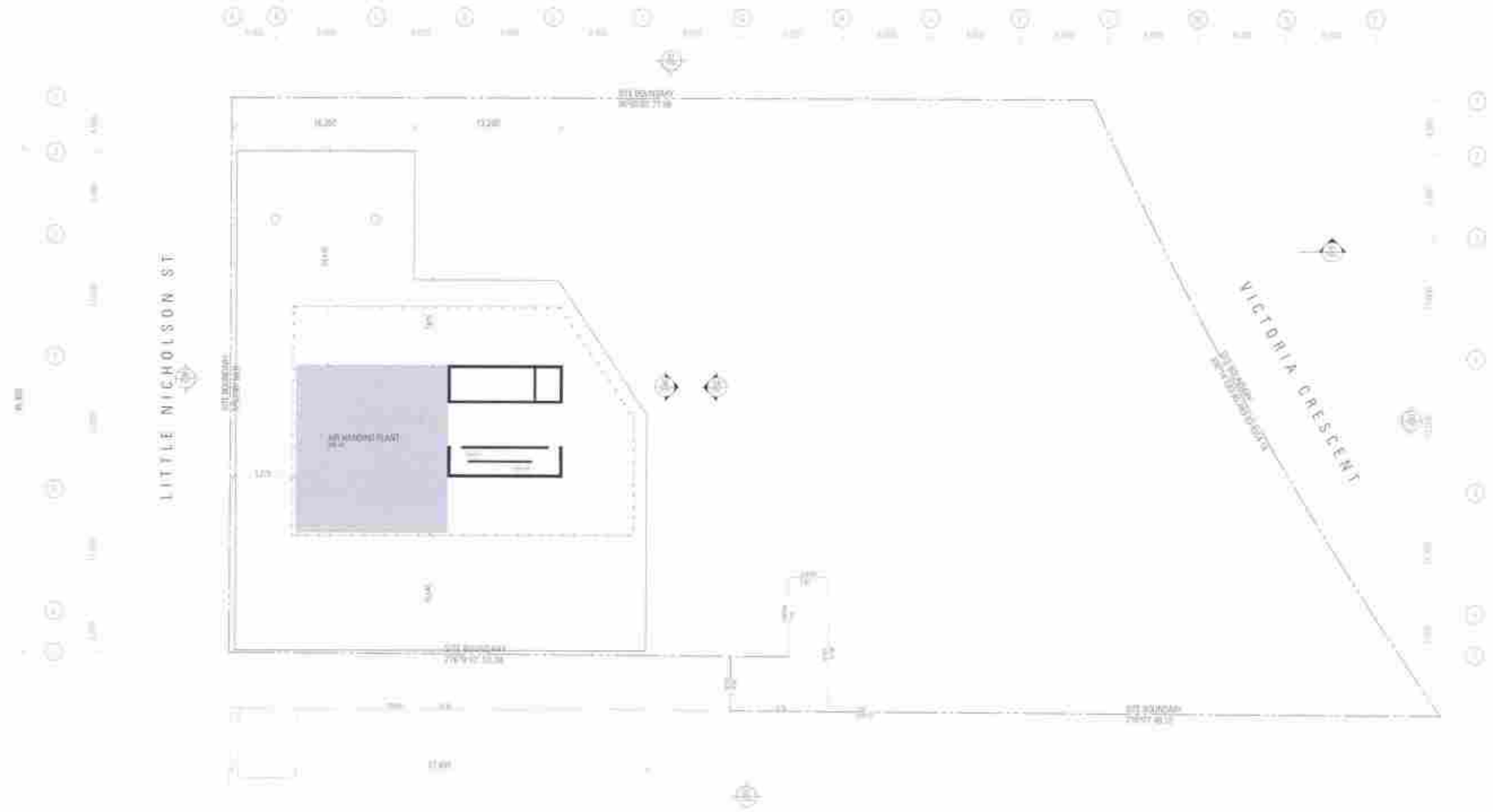
Cadence

OFFICE LEVEL 6 (LEVEL 7) GA PLAN

1:200 @ A1

TP217

C



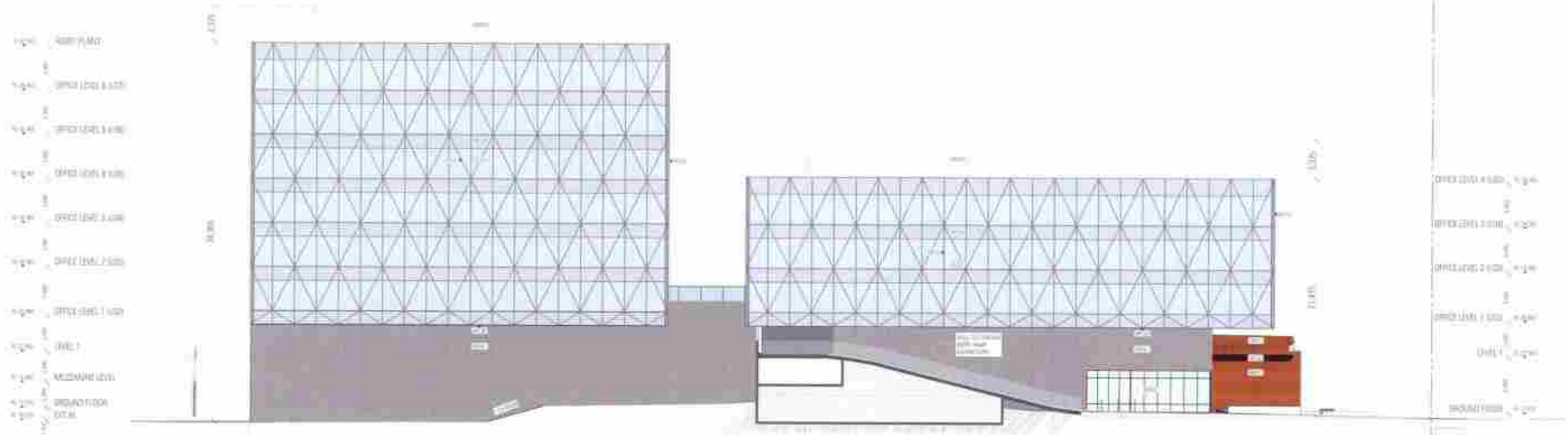
FIELDWORK

Cadence

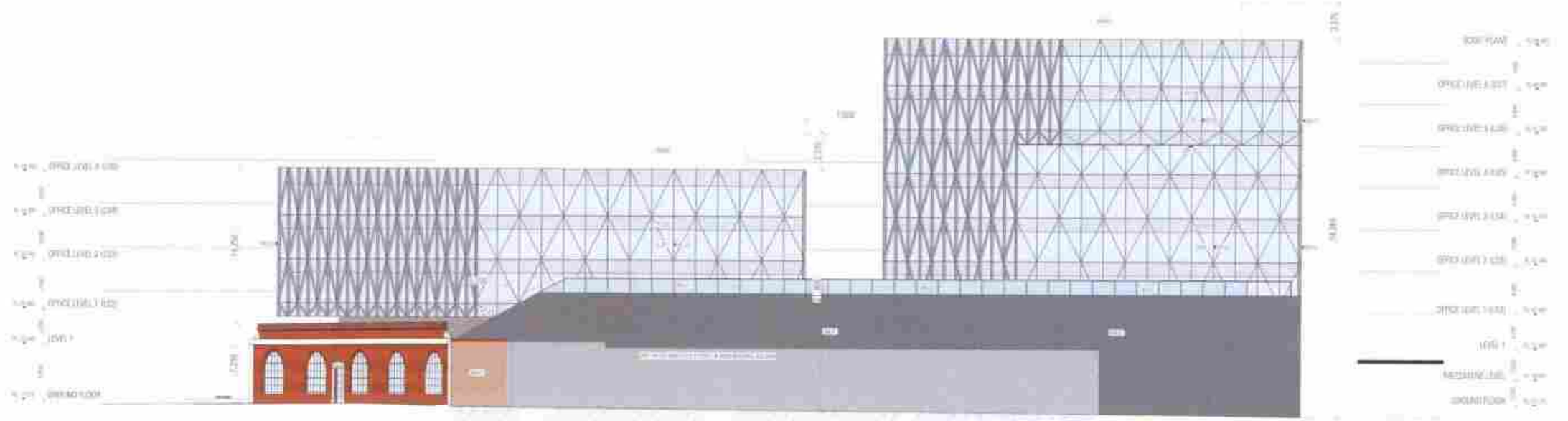
ROOF PLAN

1:200 @ A1

TP218



SOUTH ELEVATION
SCALE 1:200@A1



NORTH ELEVATION
SCALE 1:200@A1

FIELDWORK

Cadence

NORTH & SOUTH ELEVATIONS

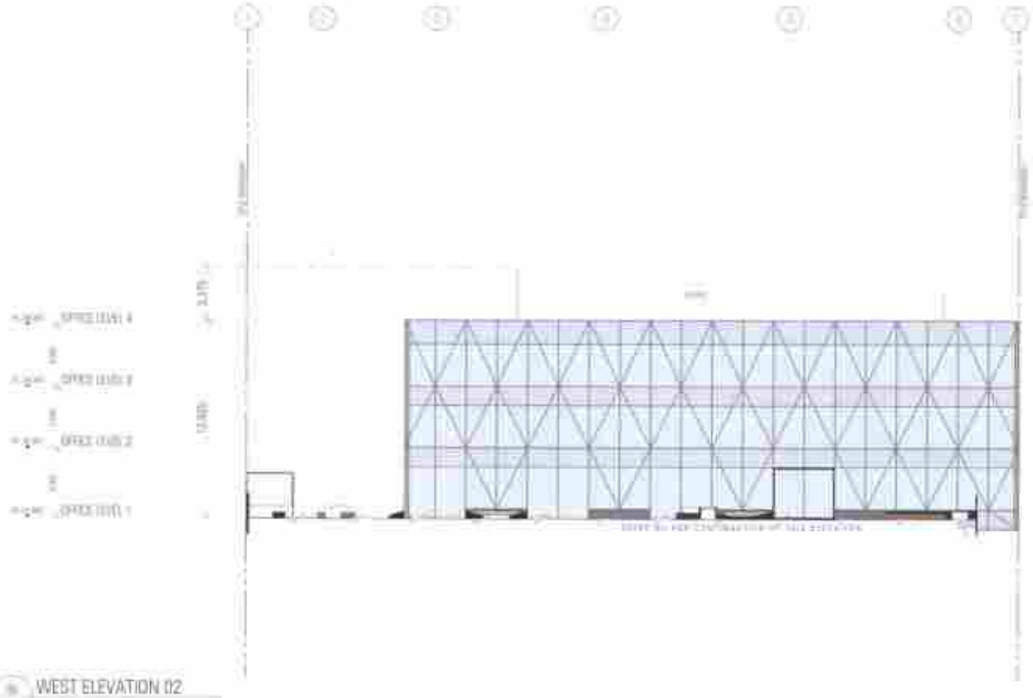
1:200 @ A1

TP300

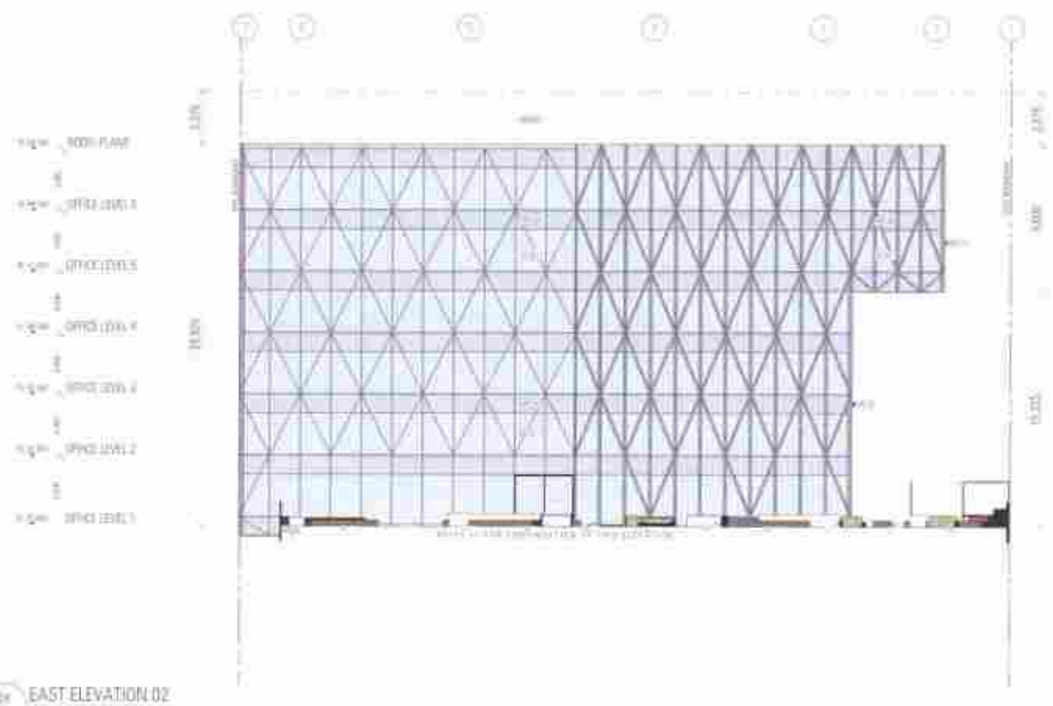
C

TOWN PLANNING APPLICATION

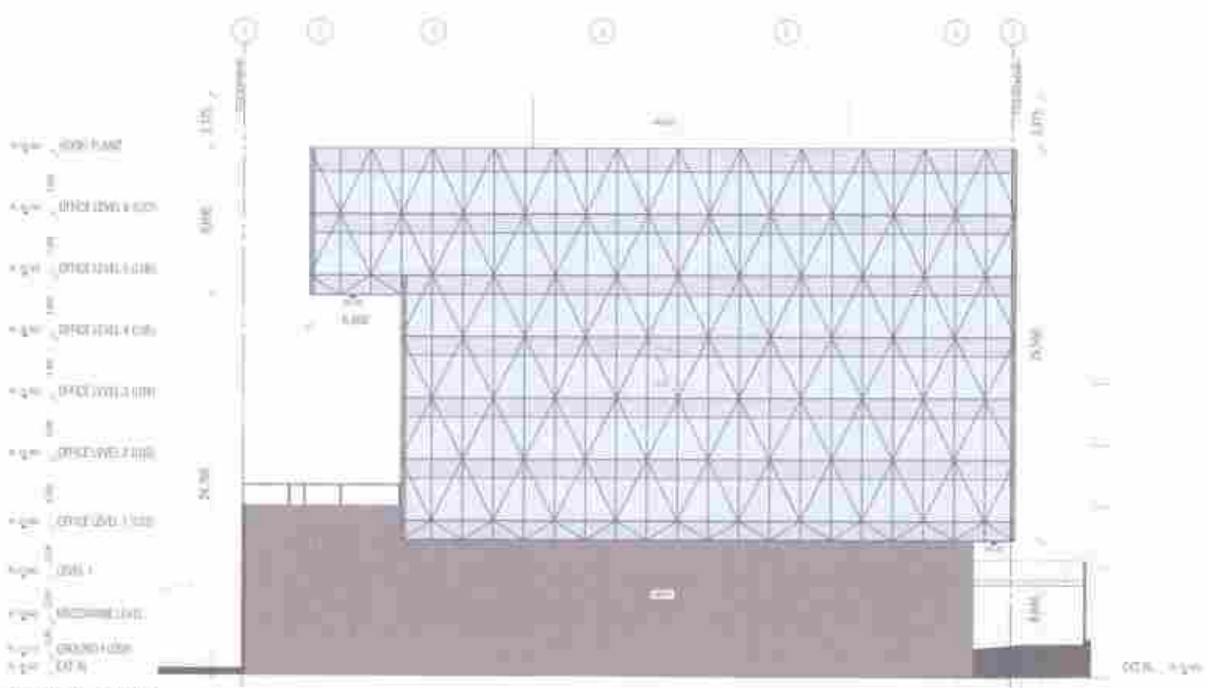
EAST ELEVATION 01



WEST ELEVATION 02



EAST ELEVATION 02



WEST ELEVATION 01

FIELDWORK

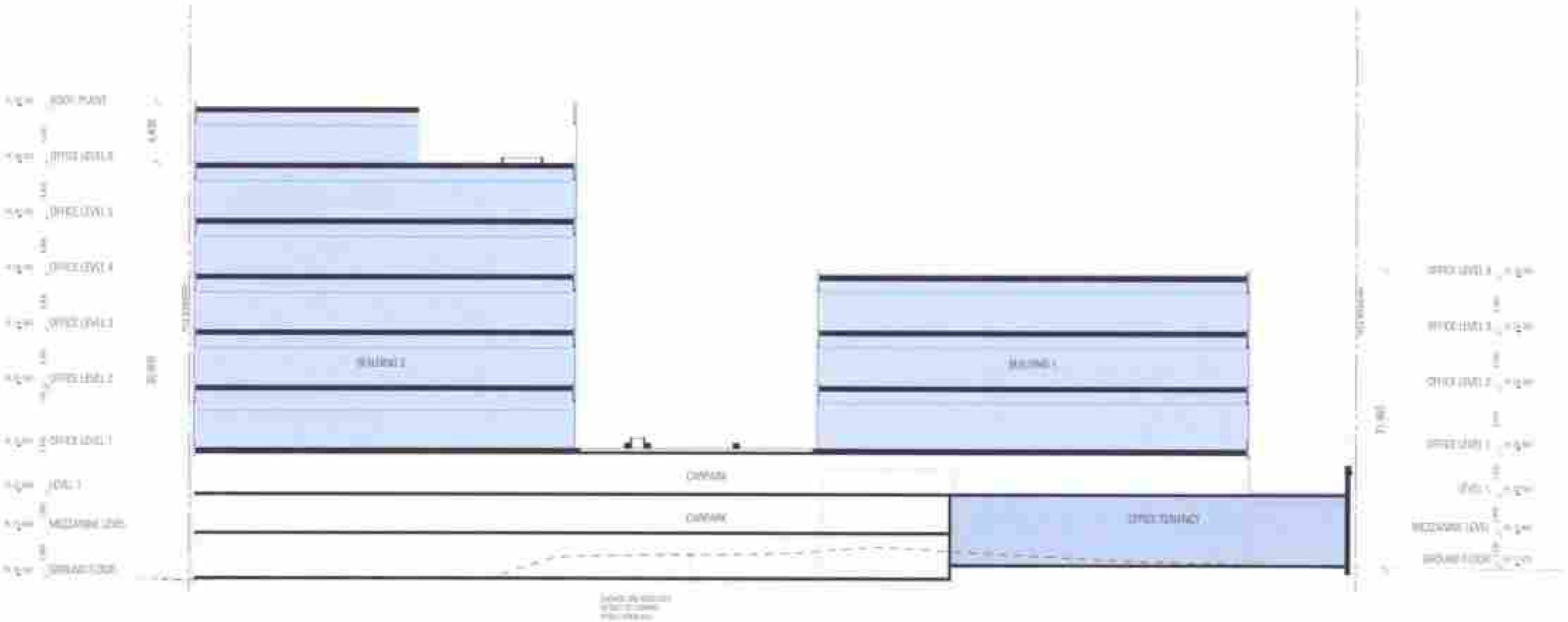
Cadence

EAST & WEST ELEVATIONS

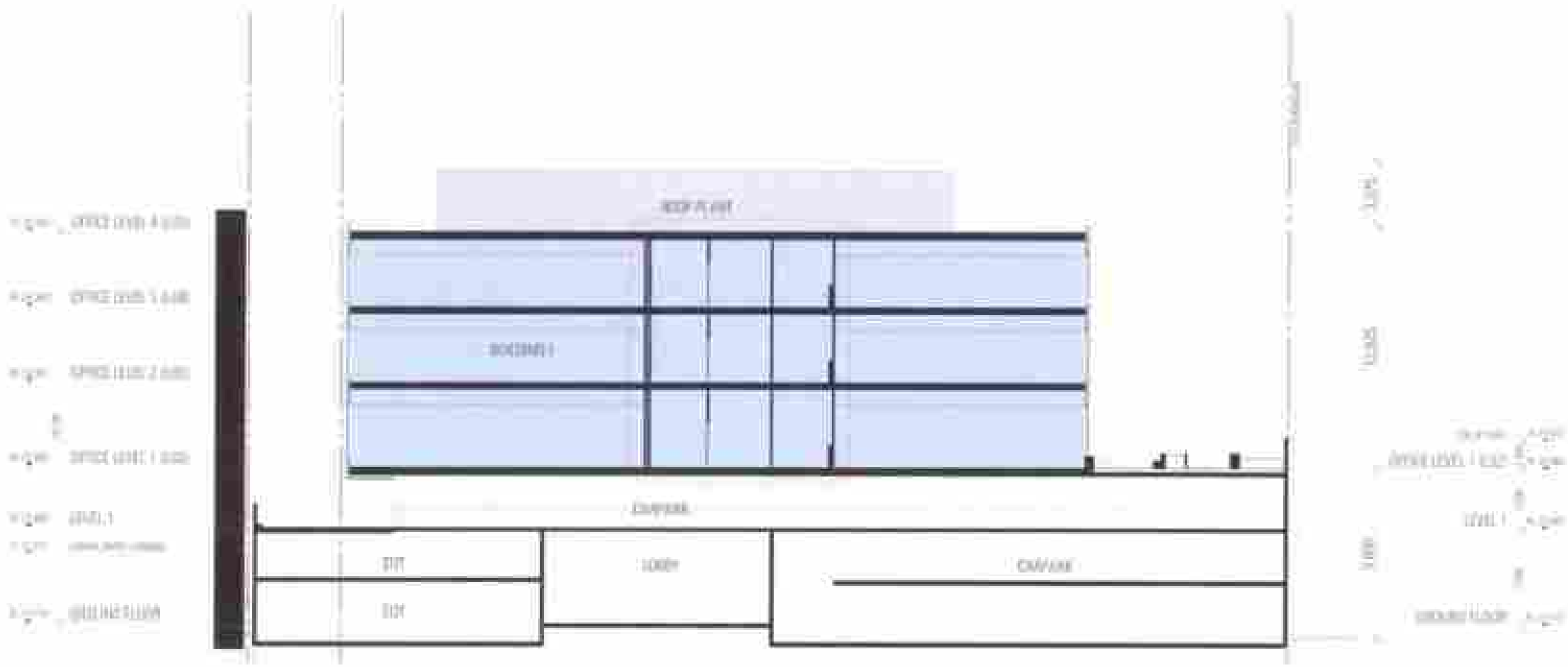
1:200 @ A1

TP301

C



SECTION 01



SECTION 02

FIELDWORK

Cadence

GA SECTIONS

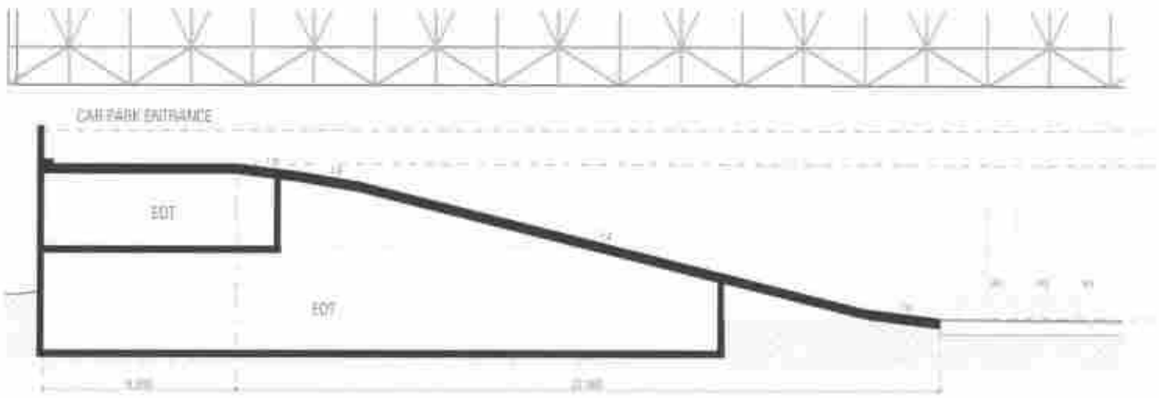
TOWN PLANNING APPLICATION

Scale 1:200 @ A1

TP310

C

04 SECTION 04
1:50 SCALE 1:100@A1



05 SECTION 05
1:50 SCALE 1:100@A1

FIELDWORK

Cadence

Project Number
11005

Client
CADENCE

Project
12-20 VICTORIA CRESCENT
ABBOTSFORD VIC 3067 AUSTRALIA

Drawing Name
VEHICLE ENTRY SECTIONS

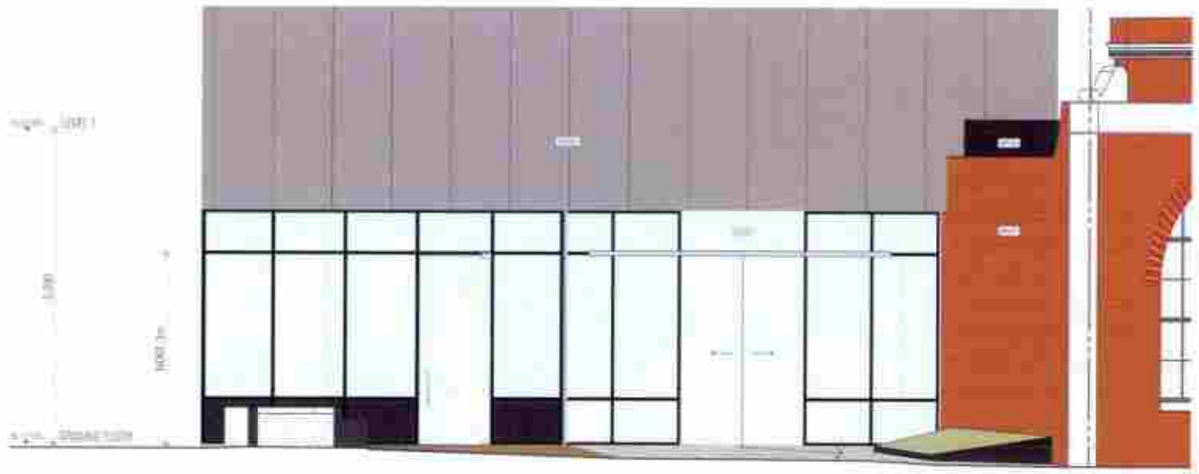
Date
5/07/2019

Status
TOWN PLANNING APPLICATION

Scale
1:50, 1:100 @ A1

Drawing Number
TP320

Revision
C



ENTRANCE ELEVATION

FIELDWORK

Cadence

Project Number
13033

Client
CADENCE

Project
12-20 VICTORIA CRESCENT
ABBOTSFORD VIC 3067 AUSTRALIA

Drawing Name
ENTRANCE ELEVATION

Date

Status
TOWN PLANNING APPLICATION

Scale
1:50 @ A1

Drawing Number
TP350

Revision
C

VIEW FROM LEVEL 2 PODIUM
SCALE 1:2 @ A1

VIEW FROM VICTORIA CRESCENT
SCALE 1:50@A1

OVERVIEW FROM VICTORIA CRESCENT
SCALE 1:500@

FIELDWORK

Cadence

[illegible]

Project Number
1153.01

Client
CADENCE

Project
12-20 VICTORIA CRESCENT
ABBOTSFORD VIC 3067 AUSTRALIA

Drawing Name
3D ARTIST'S IMPRESSIONS

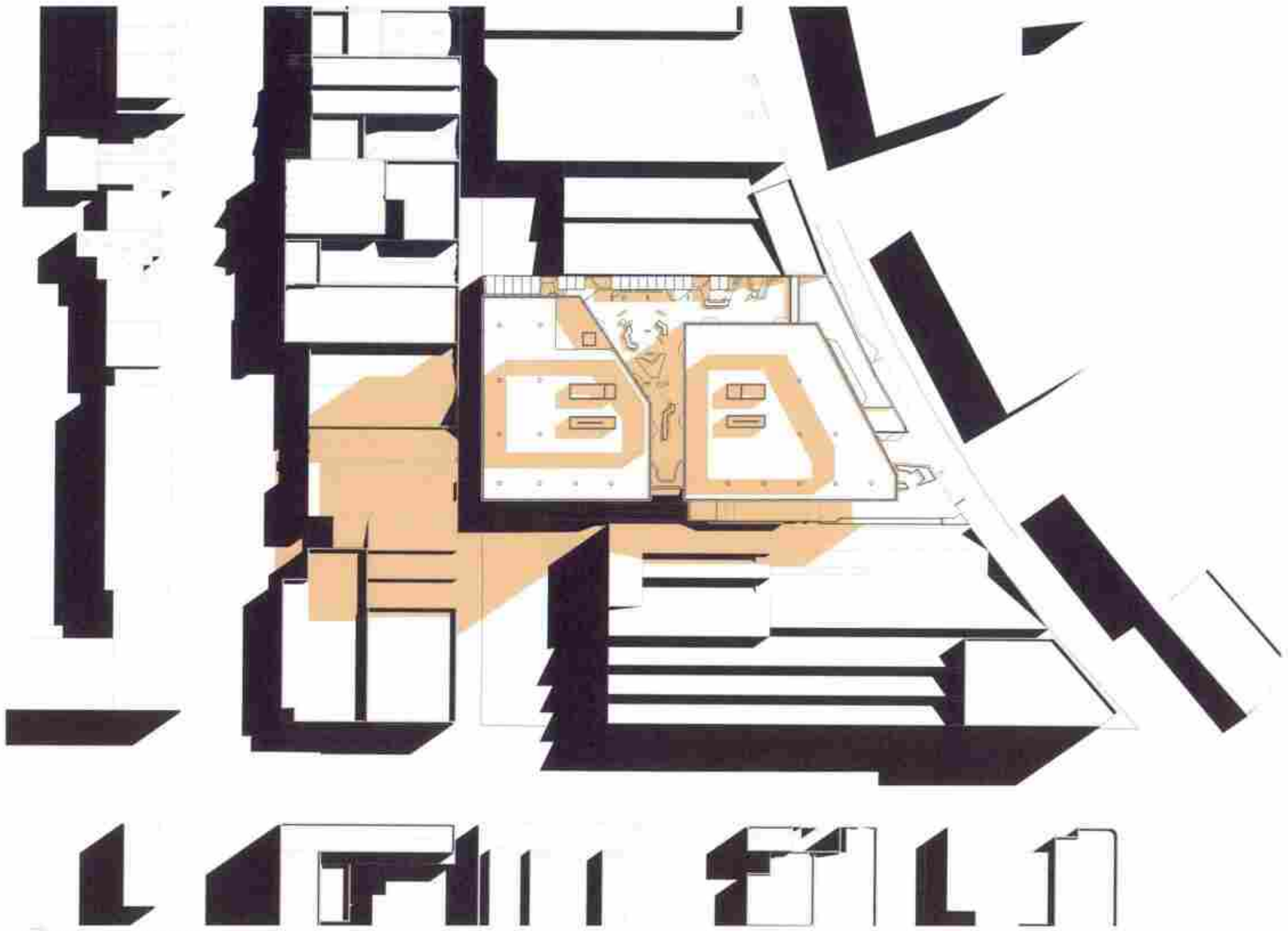
Date
22/01/2018

Status
TOWN PLANNING APPLICATION

Size
@ A1

Drawing Number
TP400

Revision
C



SHADOW DIAGRAM 9:00AM 22/09
SCALE 1:500@A1

FIELDWORK

Cadence

Project Number
13031

Client
CADENCE

Address
13-31 VICTORIA CRESCENT
ABBOTSFORD VIC 3067 AUSTRALIA

Drawing Name
SHADOW DIAGRAM 01

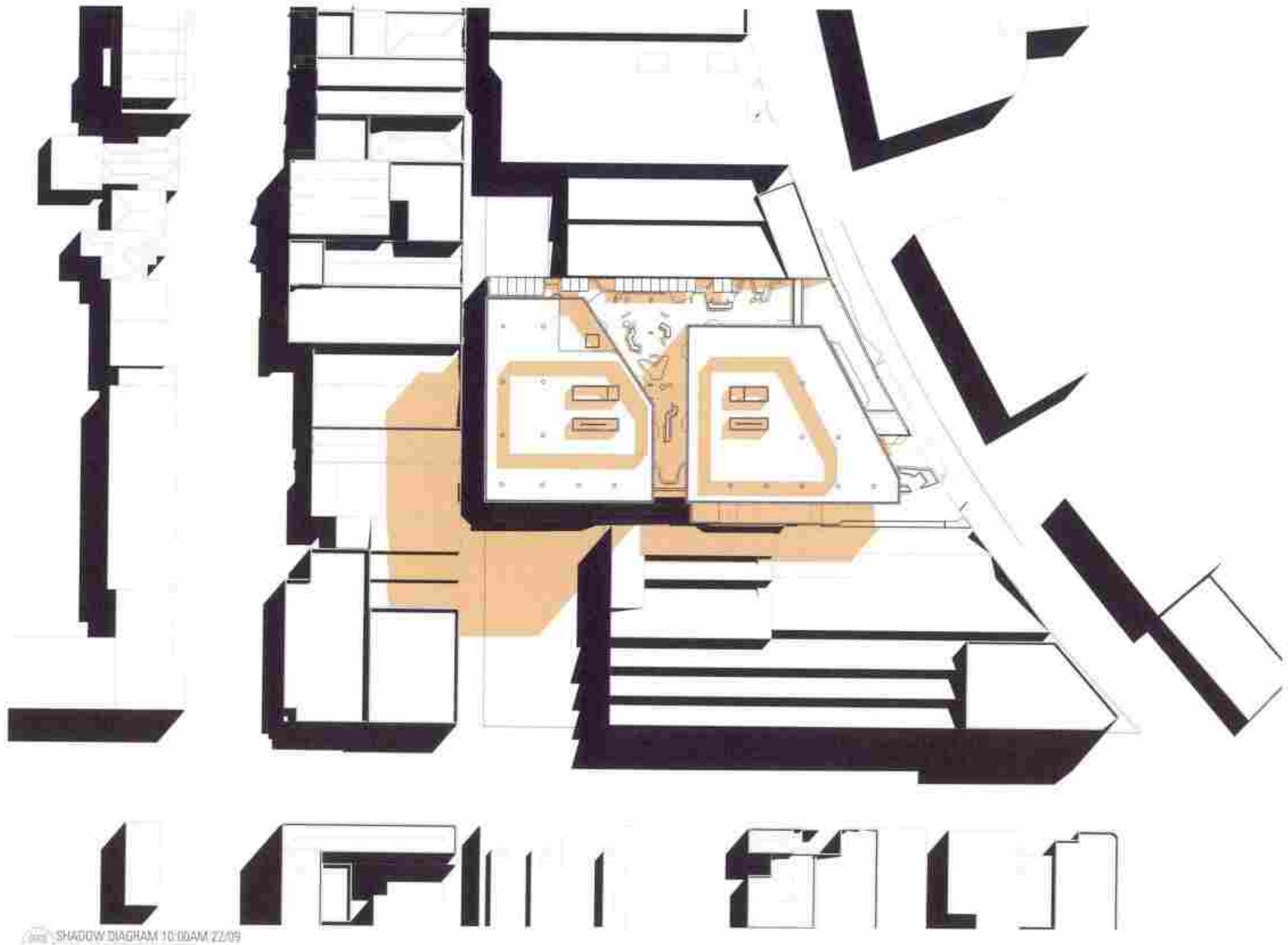
Date
5/07/2018

Status
TOWN PLANNING APPLICATION

Scale
1:500 @ A1

Drawing Number
TP500

Revision
C



SHADOW DIAGRAM 10:00AM 22/09

FIELDWORK

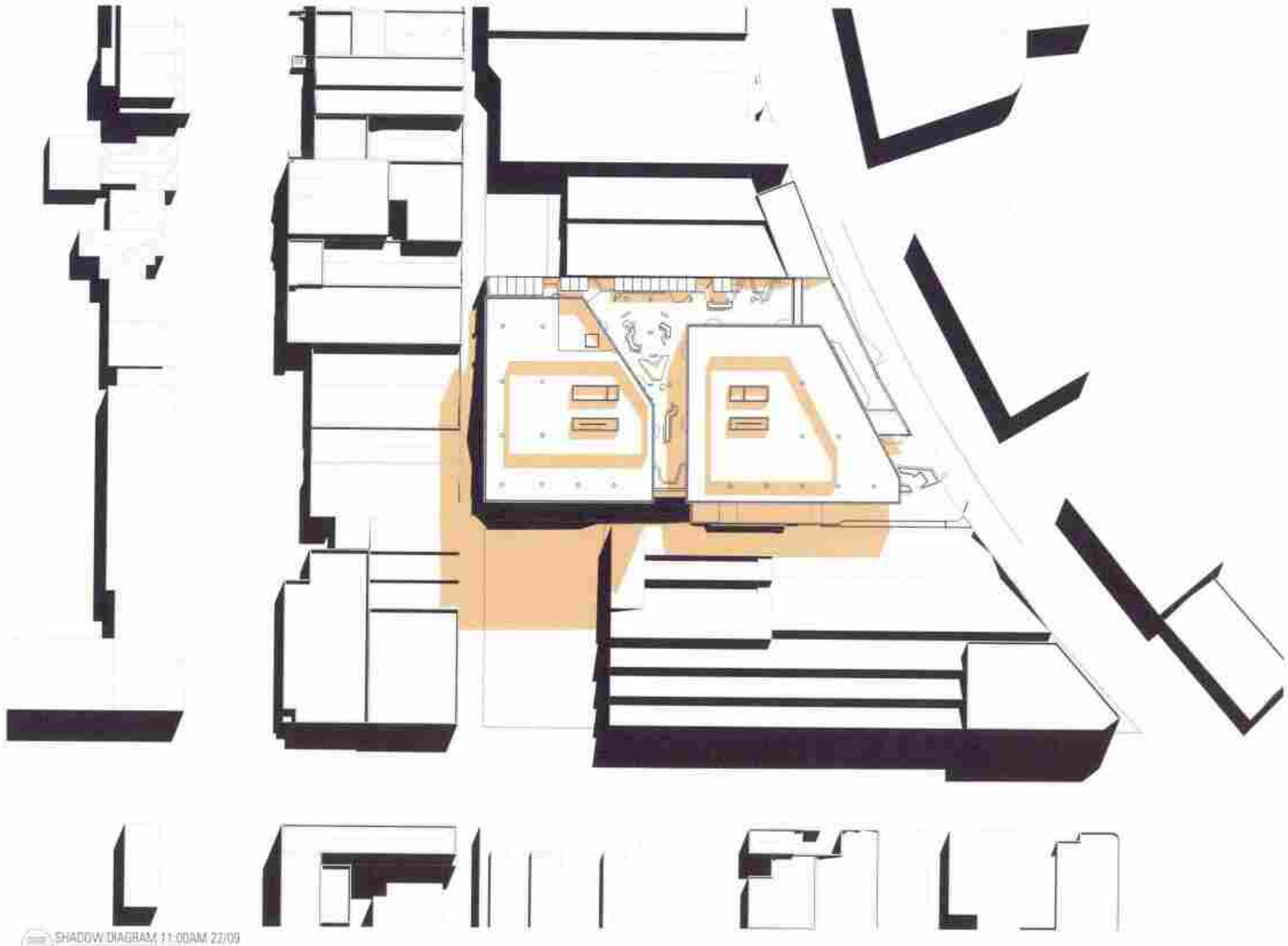
Cadence

SHADOW DIAGRAM 02

1:500 @ A1

TP501

C



SHADOW DIAGRAM 11:00AM 22/09

FIELDWORK

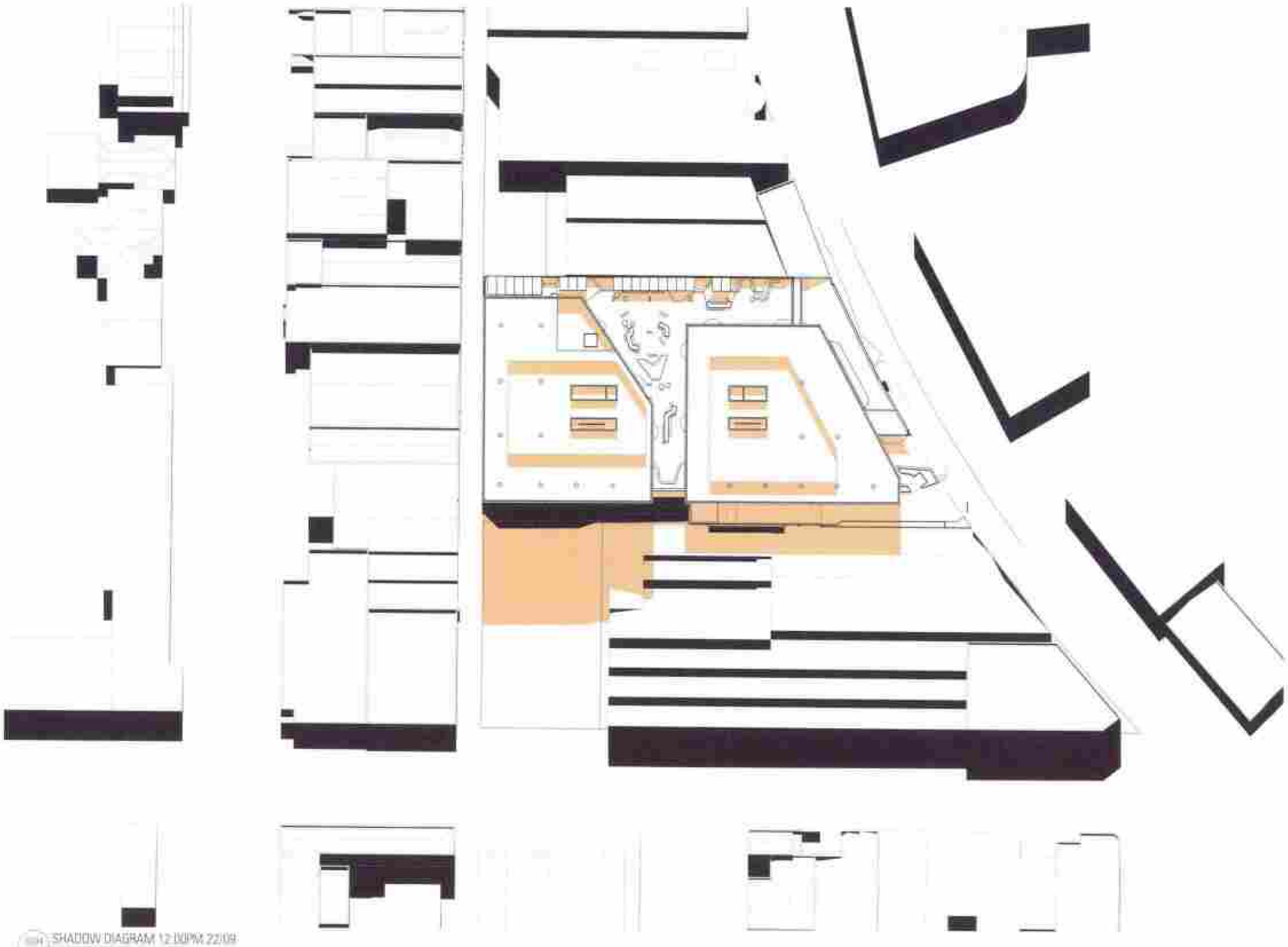
Cadence

SHADOW DIAGRAM 03

1:500 @ A1

TP502

C



SHADOW DIAGRAM 12:00PM 22/09
SCALE 1:500@A1

GENERAL LEGEND

FIELDWORK

Cadence

Project Number
170830

Client
CADENCE

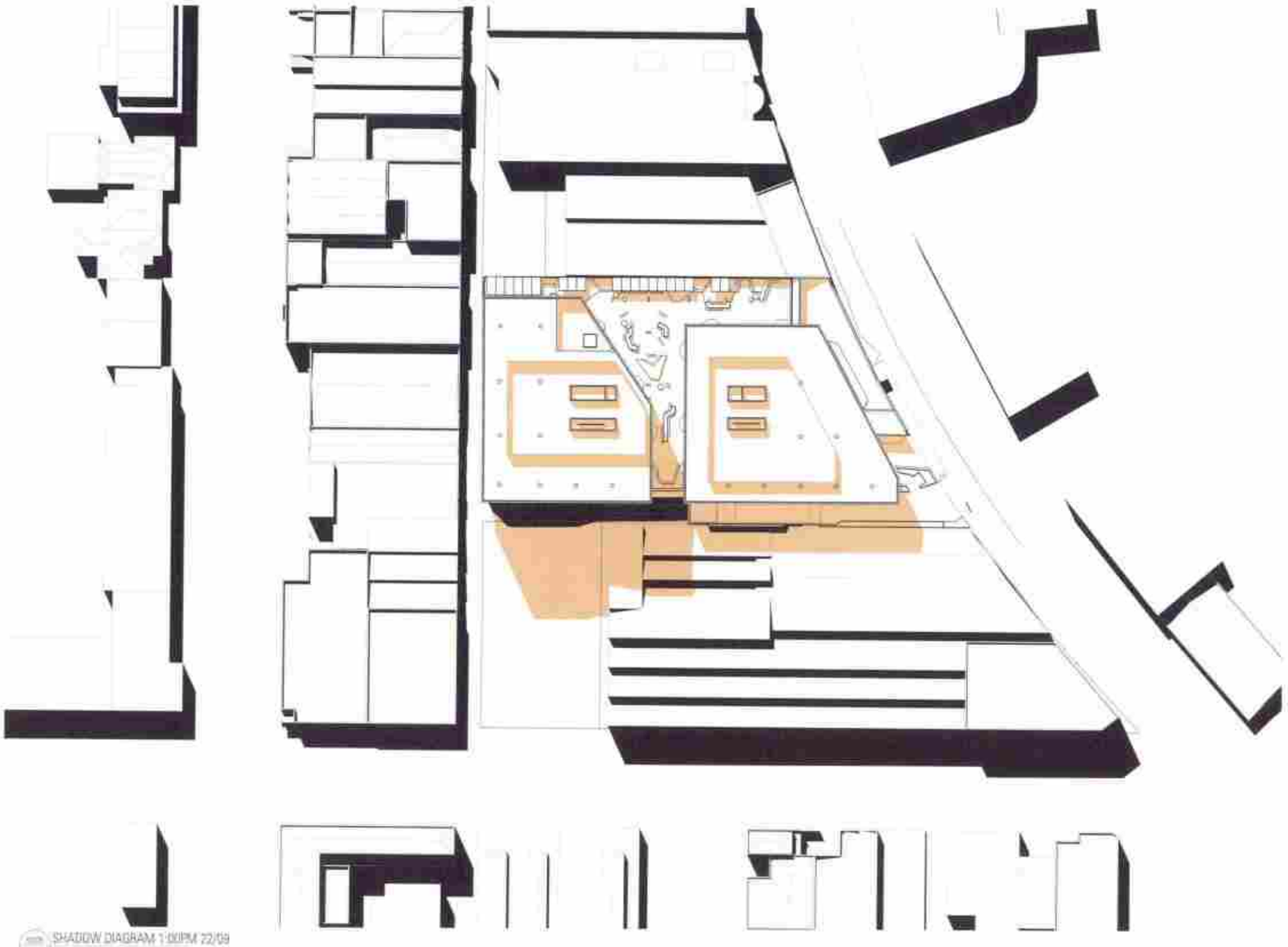
Project
12-22 VICTORIA CRESCENT
ABBOTSFORD VIC 3067 AUSTRALIA

Drawing Name
SHADOW DIAGRAM 04

Scale
1:500 @ A1

Drawing Number
TP503

Revision
C



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FIELDWORK

Cadence

Project Number
13003

Date
CADENCE

Project
12-20 VICTORIA CRESCENT
ABBOTSFORD VIC 3067 AUSTRALIA

Drawing Name
SHADOW DIAGRAM 05

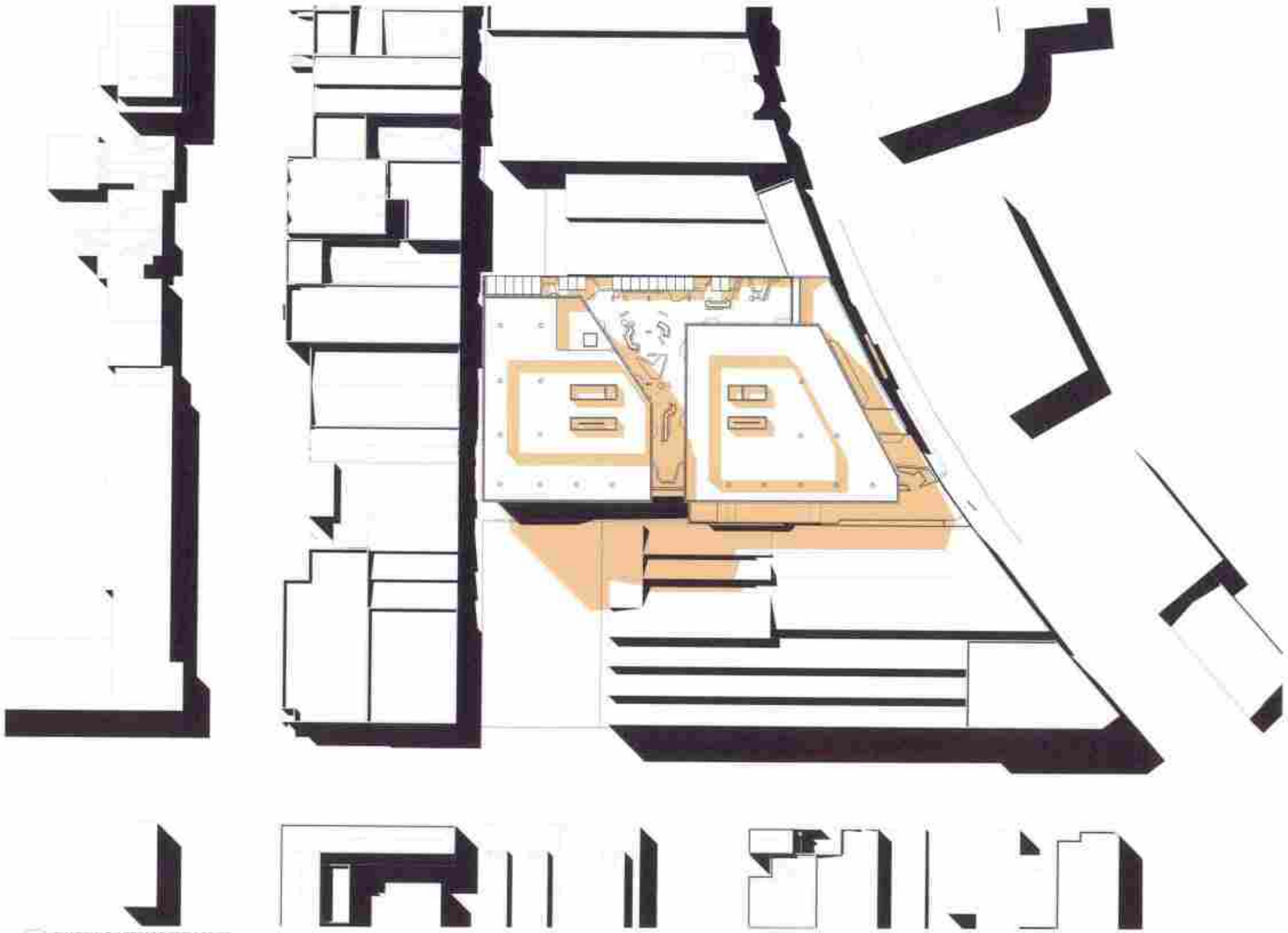
Date
5/07/2019

Status
TOWN PLANNING APPLICATION

Scale
1:500 @ A1

Drawing Number
TP504

Revision
C



2:00PM SHADOW DIAGRAM 2:00PM 22/06

FIELDWORK

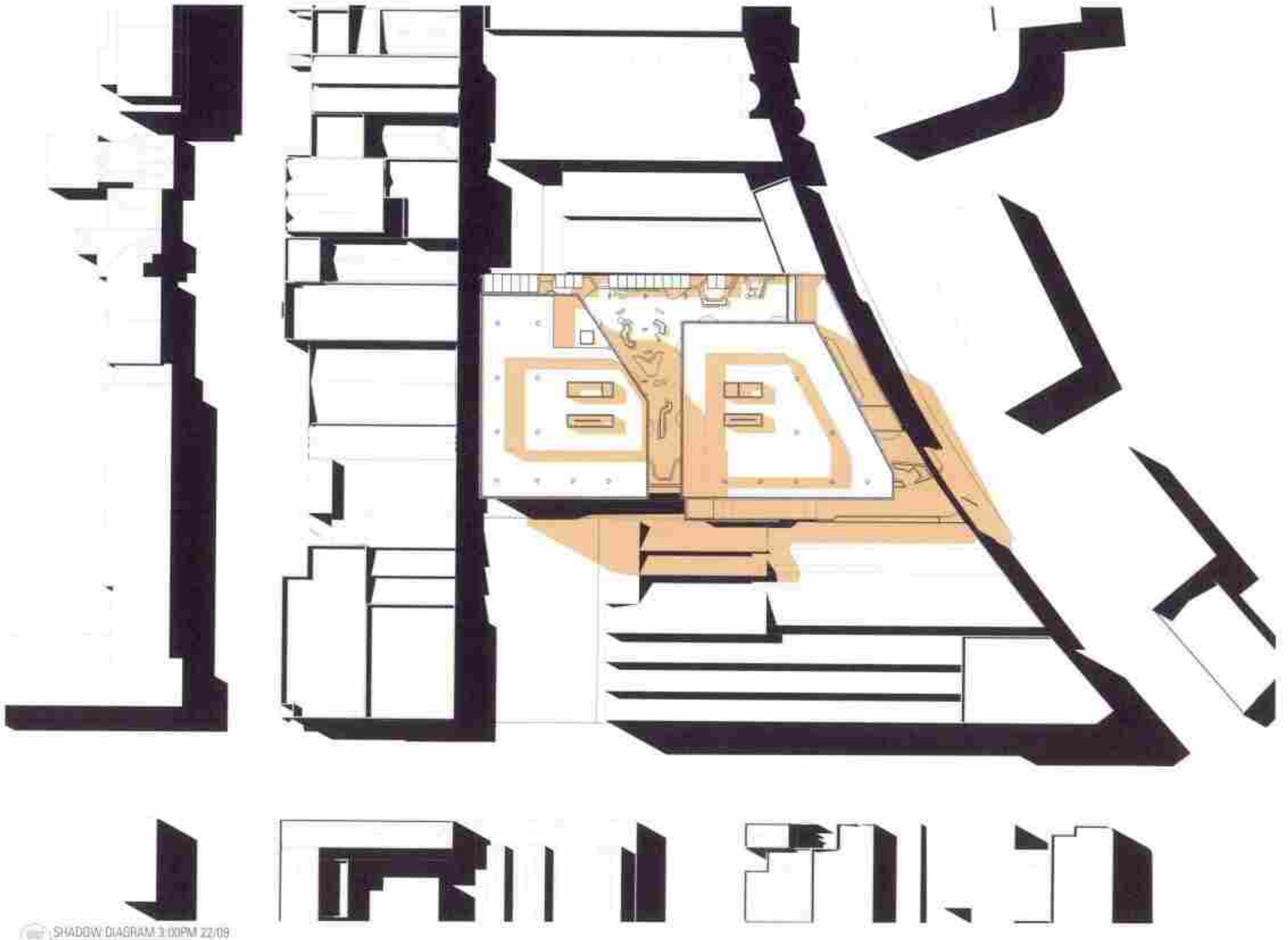
Cadence

SHADOW DIAGRAM 06

1:500 @ A1

TP505

C



SHADOW DIAGRAM 3:00PM 22/09

FIELDWORK

Cadence

Project Number
17003

Client
CADENCE

Project
12-20 VICTORIA CRESCENT
ABBOTSFORD VIC 3067 AUSTRALIA

Drawing Name
SHADOW DIAGRAM 07

Date
1:500 @ A1

Drawing No.
TP506

Revision
C

External Referrals

- **Head, Transport for Victoria;**

Internal Referrals

- **Urban Design;**
- **Heritage;**
- **Engineering Services Unit;**
- **Strategic Transport;**
- **Open Space;**
- **Streetscapes and Natural Values;**
- **Waste Services;**
- **ESD Advisor;**

External Consultants

- **Urban Design (MGS Architects);**
- **Traffic Consultant (Cardno).**

External Referrals

Head, Transport for Victoria

The Head, Transport for Victoria pursuant to Section 56(1) of the Planning an Environment Act 1987 does not object to the grant of a planning permit.

Internal Referrals

Urban Design

Existing Conditions

- *Ensure existing tree pits (including trunks) and parking bays are shown on Site Context and Demolition Layout Plans.*

Levels and Grading

- *Further detail is required, indicate grading and drainage approach and annotate proposed levels.*

- *Ensure entry grades are compliant with all relevant standards and neatly match into existing footpath levels. Note entry grade is approximately 1:32 and prohibits safe access to timber decked area (1:40 maximum cross fall required).*

Pavement selections

- *Further information is required to define proposed material palette (e.g. material type, size, colour, finish etc.)*

- *Stone sett paving should include a header course along the interface with the asphalt footpath.*

Furniture & Fixtures

Planter boxes

- *Define heights of planter boxes.*
- *Ensure all raised garden beds are irrigated.*
- *Chamfer acute angles of all exposed edges particularly adjacent to shared path access.*
- *Garden beds located in close proximity to title boundaries should be shallow in grade and make allowance for mulch set down to avoid spill over planter edge.*
- *Review and coordinate water meter location (in regard to extent of garden beds).*

Seats

- *Recommend detailing seats to be compliant to Australian Standards.*
- *Chamfer acute angles of all exposed edges particularly and pathway junctions.*

Bicycle Hoops

- *Recommend using YCC bicycle hoop for visitor bicycle parking to improve functionality and promote consistency within the municipality.*
- *Refer to City of Yarra Public Domain Manual.*

Heritage

Assessment of Proposed Works

Demolition

As the integrity of the building was never assessed at the time that the building citation was prepared, consideration of demolition is contingent upon a site inspection, moreover given that the building is assessed as being Individually significant.

The relevant policy to consider is, viz.:

> *Encourage the removal of inappropriate alterations, additions and works that detract from the cultural significance of the place.*
>
> *Generally discourage the demolition of part of an individually significant or contributory building or removal of contributory elements unless:*
>
> - *That part of the heritage place has been changed beyond recognition of its original or subsequent contributory character(s).*
> - *For individually significant building or works, it can be demonstrated that the removal of part of the building or works does not negatively affect the significance of the place.*

From my own experience industrial buildings typically, and other than for some specific industrial operations, comprise a shelter (building), often with a sawtooth truss roof to enable daylighting, over a large space which at some time contained the relevant machinery. Once the machinery is removed it is often difficult to interpret any notion of an operating factory, or in this case laundry.

It was also more typical than not for factory facades, usually the only architectural element, the remainder being utilitarian, to have been designed by an architect, in this case Bates Smart, in the context of pride in new manufacturing capabilities. Façades were also intended to advertise the enterprise.

It is also common for ad hoc alterations to have taken place over time as processes changes and new requirements are met such as an updating.

Last, depending upon the nature of the activity, there is likely to be contamination of some sort. In this event demolition is not always required for remediation although in some cases it is. The environmental investigation works report prepared by JBS&G should be provided so that an understanding of the exact nature of the contamination and remediation requirements can be understood clearly.

I have read the HIS and the CMP and the discussion about demolition appears reasonable However, this should be confirmed by a site inspection as one was never undertaken for the Allom Lovell City of Yarra Heritage Review in 1998.

On the basis that not much of any consequence remains behind the façade and south return wall portion, as discussed in the Trethowan HIS and CMP, and that everything is either utilitarian or altered or of no, or minimal, heritage interest and as to be confirmed by a site inspection, removal of most of the building other than for the façade and return wall would appear to possibly not result in a negative effect on the significance of the place. However this requires further consideration of specific aspects.

I note that there are no internal controls, so only the outer shell of the building is under consideration, and there are no controls over contents and machinery.

I have found no commentary as to why the Little Nicholson Street wall is to be demolished. If the Victoria Crescent façade can be retained despite contamination, then it is likely that the little Nicholson Street wall could be retained as well. This wall defines the industrial character of this streetscape and further consideration is required, as Yarra's industrial streetscapes are diminishing as a consequence of redevelopment in addition this is part of an Individually significant site. Further information is required.

It is typical, and good conservation practice, to retain a portion of sawtooth truss roofs on former industrial buildings so as to retain some semblance of their original form and nature. This has been a requirement for former industrial sites in Yarra (and elsewhere) and is important given that manufacturing is part of the history of the municipality. So as to mitigate a negative affect on the significance of the place it would be appropriate to retain the sawtooth truss roof over the front 6.7 – 7.64 metres (note that the dimension varies on different plans but not of any consequence) front setback which I understand is proposed to be an open forecourt. I note that the setback of the mezzanine would need to increase. If preferred the roof could be glazed provided that the sawtooth form remains clearly legible.

Built form (height/setbacks)

It is proposed to construct a 5 level tower behind the retained façade and return wall (Building 1) and an 8 storey building further back (Building 2) and with landscaping variously around. The height of the existing façade parapet is 7.25 metres and the height of Building 1 is proposed to be 14.25 metres. The new built form will be quite visible above the façade and also from vantage points along Victoria Crescent but not always in connection with a view of the façade. What is proposed is in keeping with other redevelopments of former industrial sites in Yarra, and also being mindful that the Heritage Overlay is site specific and that other sites in the vicinity could be redeveloped without a heritage constraint.

Any impact of Building 2 on Victoria Crescent will be mitigated by Building 1. However as it will be 34.365 metres high plus 3.375 metres for rooftop plant it is likely to be highly visible

from the Charles Street Precinct. I have seen no consideration of this in any of the materials supplied and some information, such as a 3D projection is required.

Other than for the above I consider that the new built form complies with the relevant heritage policies.

Colours/materials

Grey metal mesh is proposed for the lower levels. Experience in Yarra has shown that this materials is hard to maintain, and often is not maintained, and gather urban detritus and becomes unsightly, even on recently constructed building. Another material should be used. Otherwise I have no issue with the new building design and materiality.

Landscaping

I note that there is some intention of growing creepers/landscape on the new buildings. As there is nothing in the Planning Scheme which will ensure that it is maintained, unless there is an Incorporated Landscape Management plan or similar, the vegetation on the façades should not form part of the application.

Façade conservation

The approach to the façade works is acceptable and the unknowns at this point are typical. The methodology to restoration works and the permit trigger points set out in the CMP are appropriate. Nevertheless as these triggers are activated they must be referred back for heritage advice.

I inspected the paint removal test panels and note that the door surround was unpainted render which is typical. I did not see any sample panels on the vermiculated pilasters and parapet consoles. I expect that these were also unpainted render but this should be confirmed.

Nothing has been mentioned in the HIS or CMP about signage and it is probably that some painted signage on the façade would have been there. If as a result of the paint removal any signage is found, works must be adjusted to ensure that it is retained.

Conservation Management Plan

This is not a Conservation Management Plan in the accepted sense. However in the current circumstances it addresses the relevant issues and is acceptable.

Recommendation / Comments:

Approved in principle but subject to:

As the existing citation indicates that the integrity of the building was not assessed, before any works commence a site inspection should be undertaken to confirm this.

Provide a copy of the environmental investigation works report prepared by JBS&G.

Prior to any demolition an archival photographic survey must be undertaken in accord with Heritage Victoria's Technical Note Photographic Recording for Heritage Places and Objects and a copy lodged in the Collingwood Library.
https://www.heritage.vic.gov.au/__data/assets/pdf_file/0015/61521/Photographic_Recording_Tech_Note.pdf

Retain a portion of the sawtooth truss roof above the 6.7 metres setback open forecourt and behind the retained façade and south return wall portion. The retained roof could be glazed provided that the sawtooth form remains clearly legible.

Provide further information which considers the retention of the Little Nicholson Street wall.

Provide some information, such as a 3D projection, demonstrating any visual impacts with regard to the Charles Street precinct.

Delete the vegetation on the façades if there is no mechanism which ensures that it is maintained with a satisfactory appearance.

As the permit triggers set out in the CMP are activated they must be referred back for heritage advice.

Delete the metal mesh and use another material which is easy to maintain.

Confirm the original and proposed treatment of the vermiculated pilasters and parapet consoles.

Retain any original painted signage.

The existing citation in the Yarra Heritage Database should be updated to include the additional information contained in the HIS and the CMP prepared by Trethowan and also any information derived from the site inspection.

It is appropriate that the laundry be interpreted, moreover given it virtual loss and Individually significant status, as has been done by photography and/or plaques on several sites in Yarra such as the Cherry apartments, MacRobertsons in Fitzroy, Commonwealth Banks, Coles in Smith Street. The site must be interpreted in a public area and the details of any text, photographs and the like must be submitted for approval by the Responsible Authority.

Engineering Services Unit

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	*12,079 m^2*	*3 spaces per 100 m^2 of net floor area*	*362*	*220*
Food and Drink (2 Tenants)	*187 m^2*	*3.5 spaces per 100 m^2 of leasable floor area*	*6*	
		Total	***368 Spaces***	***220 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.*

The site would have a parking shortfall of 148 car spaces. 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 for the Food and Drink Uses.*

  The parking demand associated with the food and drink use would be staff parking and a rate of 1.0 space per 100 square metres of floor space is considered reasonable. Applying this rate to the food and drink use would equate to one space.

- *Parking Demand for the Office Use.*

  Parking associated with office type developments is generally long-stay parking for employees and short term parking (say up to two hours' duration) for customers and clients. The actual parking demand generated by the office is expected to be lower than the statutory parking rate of 3.5 spaces per 100 square metres of floor space, since the area has very good access to public transport services.

  If we assume that 219 spaces were to be allocated to the office, the on-site car parking provision for this use would be 1.81 spaces per 100 square metres of floor area. Throughout the municipality, a number of developments have been approved with reduced office rates, as shown in the following table:

Development Site	***Approved Office Parking Rate***
Cremorne	
60-88 Cremorne Street PLN17/0626 issued 21 June 2018	*0.85 spaces per 100 m^2 (233 on-site spaces; 27,306 m^2)*
506 & 508-510 Church Street PLN17/0278 issued 11 January 2018	*1.09 spaces per 100 m^2 (226 on-site spaces; 20,744 m^2)*
Collingwood	
2-16 Northumberland Street PLN16/1150 issued 14 June 2017	*0.89 spaces per 100 m^2 (135 on-site spaces; 15,300 m^2)*

  The proposed on-site office parking rate of 1.81 spaces is considered appropriate, having regarding to the site's good accessibility to public transport services and proximity to Melbourne.

- *Short-Stay and Long-Stay Parking Demand.*

  The short-stay parking demand associated with the site would be primarily customers and clients to the food and drinks premises. Long-stay parking demands (employees) would be accommodated on-site. Employees who are not allocated any on-site parking would make their own travel arrangements such as take public transport or ride a bicycle, as the surrounding streets have very little, if any, on-street parking for long-stay users.

- *Availability of Public Transport in the Locality of the Land.*

  The site is within walking distance of tram services operating along Victoria Street. Rail services can be accessed from Collingwood railway station.

- *Multi-Purpose Trips within the Area.*

  Customers, clients and patrons might combine their visits to the development by engaging in other activities or business whilst in the area.

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:

- *Availability of Car Parking.*
  The streets surrounding the site contain either 1P or 2P or 4P restriction. The availability of short to medium-stay parking would provide regular turnover throughout the day and allow visitors to park near the site. The lack of all-day parking in the area would serve as a disincentive for staff to commute to and from the site by private motor vehicle.

- *Relevant Local Policy or Incorporated Document.*
  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 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 waiver of parking associated with the office, and food and drink uses is considered appropriate in the context of the development and the surrounding area. Employees would have not been allocated any on-site car parking would be inclined to take public transport or ride a bicycle. Any short-stay parking overflow could be accommodated on-street.

The Civil Engineering unit has no objection to the reduction in the car parking requirement for this site.

TRAFFIC GENERATION

Trip Generation

The traffic generation for the site adopted by Impact is as follows:

Proposed Use	*Adopted Traffic Generation Rate*	*Daily Traffic*	*Peak Hour*	
			AM	*PM*
Commercial (Office/retail/ café staff)	*0.5 trips per space in each AM peak hour 0.35 trips per space in each PM peak hour**	*Not Provided*	*110*	*77*

** We would have preferred a PM peak hour rate of 0.5 trips per space. Notwithstanding, the rate of 0.35 trips in each peak hour is considered acceptable given that the site is well serviced by public transport.*

Commercial traffic directional split:

- *AM Peak – 10% outbound (11 trips), 90% inbound (99 trips); and*
- *PM Peak – 90% outbound (69 trips), 10% inbound (8 trips).*

The traffic directional split and distribution assumptions outlined in section 6.1 of the Impact Traffic Engineering report appear reasonable.

Traffic Impact of Development

Using the SIDRA intersection modelling programme, Impact Traffic Engineering had analysed the following intersection in the surrounding area:

- *Victoria Crescent/Site Access*
- *Mollison Street/Little Nicholson Street*

Traffic Distribution

The traffic distribution assumptions made by Impact for the development traffic are based existing traffic movements at the Victoria Crescent/Site Access and Mollison Street/Little Nicholson Street, and are considered reasonable.

Intersection Analysis

The two key intersections near the site were assessed using the SIDRA program, which measures intersection performance – under existing and post development conditions. SIDRA modelling works well under free flowing traffic conditions and may have limitations, such as queuing of downstream traffic. The results of the post-development modelling suggest that both the Victoria Crescent/Site Access and Mollison Street/Little Nicholson Street intersections would operate satisfactorily once the development is in use.

The post development conditions would see an increase to the traffic movements in the following intersections:

- *Right turn and left turn movements from Little Nicholson Street into Mollison Street;*
- *Right turn and left turn movements from Mollison Street into Little Nicholson Street;*
- *Right turn and left turn movements from the Site Access into Victoria Crescent; and*
- *Right turn and left turn movements from Victoria Crescent into the Site Access.*

It is agreed that the increase in traffic volumes at these movements should not adversely impact on the operation of the intersection once the development is operational.

DEVELOPMENT LAYOUT DESIGN

Layout Design Assessment

Fieldwork Drawing Nos. TP210a, TP210b, and TP211 Revision C dated 5 July 2018

Item	*Assessment*
Access Arrangements	
Development Entrance – Unnamed Laneway	*The vehicle entry off the Unnamed Laneway is not clearly shown on the drawings.*

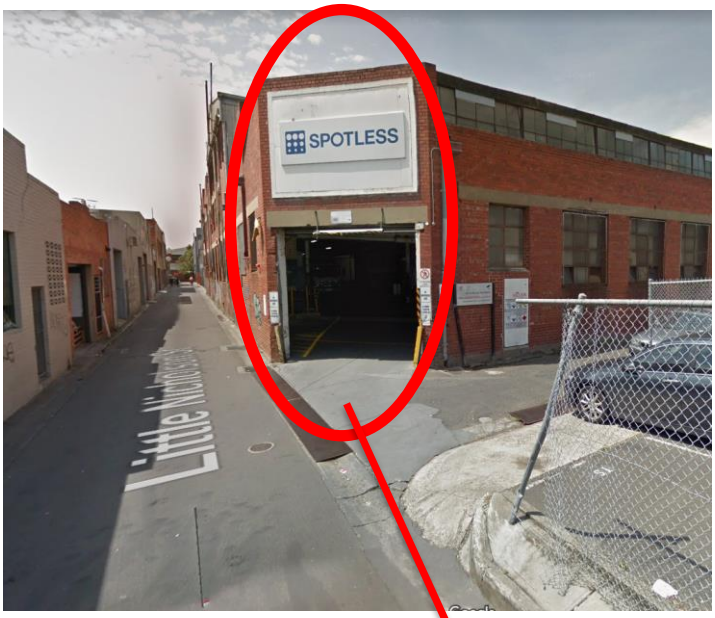
Unnamed Laneway	*The unnamed laneway has an existing carriageway width of 5.04 metres.*
Visibility – Unnamed Laneway	*A pedestrian sight triangle has not been provided for the exit lane of the entrance.*
Development Entrance – Victoria Crescent	*The vehicle entry off Victoria Crescent is not dimensioned on the drawings.*
Visibility – Victoria Crescent	*The pedestrian sight triangle is not shown on the drawings.*
Headroom Clearance	*The headroom clearance at the entrances has not been dimensioned on the drawings.*
Internal Ramped Accessways	*Widths of internal ramps have not been dimensioned.*
Car Parking Modules	
Regular Parking Spaces	*The dimensions of the parking spaces (2.6 metres by 4.9 metres) satisfy Design standard 2: Car parking spaces of Clause 52.06-9.* *The dimensions of the parking spaces on the Mezzanine Level and Level 1 must be shown on the drawings.*
Accessible Parking Spaces	*Not dimensioned on the drawings.*
Aisles	*The widths of the aisles range from 6.13 metres to 6.9 metres and satisfy Table 2: Minimum dimensions of car parking spaces and accessways of Clause 52.06-9.*
Column Depths and Setbacks	*Not dimensioned on the drawings.*
Clearances to Walls	*Not dimensioned on the drawings.*
Gradients	
Ramp Grade for First 5.0 metres inside Property	*There are no ramps proposed for the first 5.0 metres inside the property.*
Ramp Grades and Changes of Grade	*Ramp grade lengths have not been dimensioned on the drawings.*
Transition Grade at Base of 1 in 8 Ramp Section	*The ramp section of 1 in 6 and 1 in 4 at the base of the 1 in 8 ramp section is considered satisfactory for the B99 design vehicle.*

Design Items to be Addressed

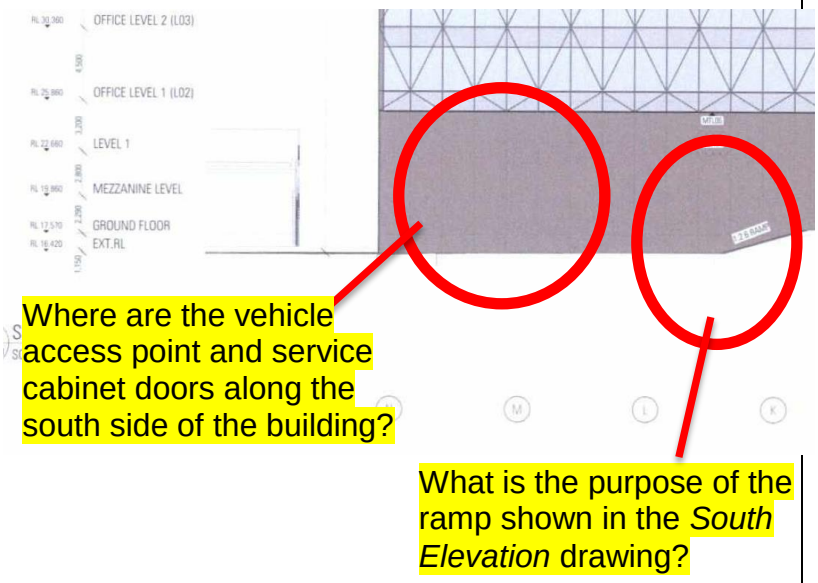
Item	*Details*
Development Entrance – Unnamed Laneway	*The entry doorway off the Unnamed Laneway must be clearly shown and dimensioned on the drawings.*

Visibility – Unnamed Laneway	*Impact has recommended the installation of a convex mirror to improve pedestrian and traffic visibility. Council has no objection with this proposal.*
Development Entrance – Victoria Crescent	*The width of the vehicle entry off Victoria Crescent must be dimensioned on the drawings.*
Visibility – Victoria Crescent	*The visibility triangles at entrance must be clearly shown and dimensioned.*
Headroom Clearance	*To be dimensioned on the drawings.*
Regular Parking Spaces – Mezzanine Level and Level 1	*To be dimensioned on the drawings.*
Accessible Parking Spaces	*To be dimensioned on the drawings.*
Column Depths and Setbacks	*To be dimensioned on the drawings. Column locations are to satisfy Diagram 1 Clearances to car parking spaces.*
Clearances to Walls	*To be dimensioned on the drawings and be no less than 300 mm.*
Ramp Grade Lengths	*Each ramp grade length to be dimensioned on the drawings.*
Internal Concrete Slab	*A 1 in 20 scale cross sectional drawing of the site's vehicular entrance must be submitted to Council, showing the internal slab; the existing bluestone invert; the lip of the bluestone channel, and the existing road profile of the Unnamed Laneway. It must be demonstrated to Council that the accessway slab and the Unnamed Laneway profile will not result in cars scraping or bottoming out.* *The plans submitted to Council must be accurately drawn, showing actual reduced levels of the invert and profile of the Unnamed Laneway. Failure to provide this information could lead to further internal modifications in the property.*
Corner Splay	*The proposed development plans show the corner splay at the south western corner of the property to be occupied by the development.* *The corner splay (Little Nicholson Street and Unanmed Laneway intersection) at ground level must remain intact. Regardless of whether the splay is in private ownership, it is deemed to be part of a Public Highway by virtue of its previous and existing use by the public (i.e. – pedestrians). The concrete apron adjacent to the splay must be demolished and reinstated with asphalt to match-in with the surrounding road surface of the surrounding streets. The splay can be occupied above ground level (i.e. first floor and upwards).*

Design Items to be Addressed

Item	*Details*
Corner Splay	
Reconstruction of Unnamed Laneway	*The laneway is to be reconstructed to Council's satisfaction and at the Permit Holder's cost, and Australian Standards. Vehicle access to abutting properties must be maintained and designed for a B99 design vehicle.* *All metal plates located in the laneway must be removed.* 

Design Items to be Addressed

Item	*Details*
South Elevation Drawing	*The South Elevation drawing appears to show an inaccurate depiction of the development.* *Is it unclear why there is a ramp shown in the laneway. The applicant is to provide details and function of this ramp.* *The vehicle access point and other building features are not depicted on the drawings.* 
Setback Area – Unnamed Laneway	*The setback area of 2.39 metres (inside the property) should be constructed in a different material to the bluestone open channel.*

ENGINEERING CONDITIONS
Civil Works

Upon the completion of all building works and connections for underground utility services,

- *The kerb and channel along the property's Victoria Crescent road frontage must be reconstructed to Council's satisfaction and at the Permit Holder's cost.*
- *The footpath along the property's Victoria Crescent road frontage must be reconstructed to Council's satisfaction and at the Permit Holder's cost. The footpath must have a cross-fall of 1 in 40 or unless otherwise specified by Council.*
- *The new vehicle crossing on the west side of Victoria Crescent must be constructed in accordance with Council's Standard Drawings, Council's Infrastructure Road Materials Policy and engineering requirements. The vehicle crossing must satisfy the ground clearance requirements for a B99 design vehicle.*
- *The redundant vehicle crossing is to be demolished and reinstated with paving, and kerb and channel to Council's satisfaction and at the Permit Holder's cost.*
- *The half-width road pavement of Victoria Crescent (from centre line of road to west kerb line) along the property frontage must be profiled and re-sheeted to Council*

standard. Any isolated areas of pavement failure shall require full depth road pavement reconstruction.

- *All redundant property drains must be removed.*

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.*

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.*

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, valves or meters on Council property will be accepted.*

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.*

Discharge of Water from Development 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.*
- *Contaminated ground water seepage into basements from above the water table must be discharged to the sewer system through a trade waste agreement with the relevant authority or in accordance with EPA guidelines.*
- *Contaminated groundwater from below the water table must be discharged to the sewer system through a trade waste agreement from the relevant sewer authority.*
- *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.*

ADDITIONAL ENGINEERING ADVICE FOR THE APPLICANT

Legal Point of Discharge	*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.*
Clearance from Electrical Assets	*Overhead power lines run along the east side of Church Street and west side of Brighton Street, close to the property boundary.* *The developer needs to ensure that the building has adequate clearances from overhead power cables, transformers, substations or any other electrical assets where applicable. Energy Safe Victoria has published an information brochure, Building design near powerlines, which can be obtained from their website:* *http://www.esv.vic.gov.au/About-ESV/Reports-and-publications/Brochures-stickers-and-DVDs*
Existing Street Tree – Victoria Crescent	*Comment from Council's Arborist in relation to the canopies of the existing street trees in relation to the new building works on the site.*
Light Pole – Victoria Crescent	*The applicant is to liaise with Citipower regarding the relocation of the light pole (20764) to accommodate the new vehicle crossing. All cost for the relocation will be at the applicant's cost.*
Electricity Substation	*The applicant is to liaise with the relevant Service Authority in relation to the relocation of the substation.*
Gas Pipe and Valve	*The applicant is to liaise with the relevant Service Authority in relation to the relocation of the gas pipe and valves.*
Road Markings – Victoria Crescent	*All road markings in Victoria Crescent to be refreshed to Council's satisfaction.*

ADDITIONAL ENGINEERING ADVICE FOR THE APPLICANT

Pedestrian/Vehicle Shared Path off Victoria Crescent	*The applicant is to provide an explanation on the purpose of the separate pathway to the EOT Bike Parking, which is adjacent to the Vehicle/Pedestrian Shared Path.* *What is the speed limit inside the shared path and how will the applicant improve the blind spot/conflict point at the entrance to the EOT Bike Parking – see Diagram 1.*

DIAGRAMS

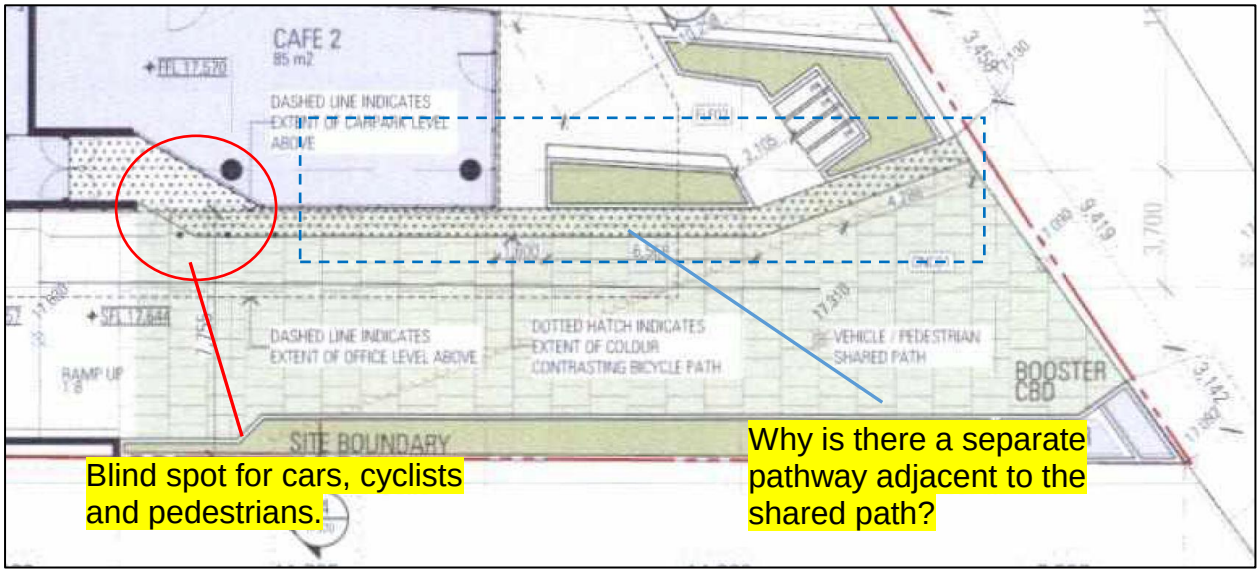


Diagram 1

Following further discussions, the following was provided on 19 November 2018 regarding traffic and access:

I refer to the above Planning Application received on 14 November 2018 and the accompanying traffic assessment reports prepared by Impact Traffic Engineering in relation to the access arrangements and traffic impact for the proposed development at 12-20 Victoria Crescent, Abbotsford. Council's Civil Engineering unit provides the following information:

Item	*Details*
Background	
Provision of Exclusive Access via Little Nicholson Street	*To assess the traffic impact of providing exclusive vehicular access via Little Nicholson Street for the development at 12-20 Victoria Crescent, Abbotsford.*
12-20 Victoria Crescent Development Proposal	*Mixed use development with road frontages off Victoria Crescent and Little Nicholson Street. Development comprises 12,079 m^2 of office and 187 m^2 of food and drink use. On-site parking for 220 spaces. Impact Traffic Engineering provided the original traffic report for the proposal (dated 4 July 2018) and provided the following volumes:* *AM peak hour volumes:* *Victoria Crescent – inbound: 55 trips outbound: 6 trips* *Little Nicholson Street – inbound: 54 outbound: 5 trips* *PM peak hour volumes:* *Victoria Crescent – inbound: 4 trips outbound: 35 trips* *Little Nicholson Street – inbound: 4 outbound: 34 trips*
Traffic Assessments by Cardno and Impact Traffic Engineering	

Cardno *Traffic Engineering Peer Review* *19 October 2018*	*Cardno has undertaken a traffic impact assessment of the subject site and has prepared traffic network diagrams for the AM and PM peak hours by incorporating traffic generation data and directional distributions for the nearby developments at 32-68 Mollison Street and 20-30 Mollison Street.* *Cardno has also undertaken SIDRA modelling of the Little Nicholson Street/Mollison Street intersection and the Mollison Street/Victoria Crescent, which would operate satisfactorily under post development conditions. For Little Nicholson Street, it is anticipated that approximately 244 vehicle trips would be generated in each peak hour:* *AM peak hour volumes – northbound: 202 trips southbound: 42 trips* *PM peak hour volumes – northbound: 43 trips southbound: 202 trips.*

Item	*Details*
Cardno *Traffic Engineering Peer Review* *(Continued)*	*Cardno had also conducted additional SIDRA modelling for the scenario where there is no vehicular access via Victoria Crescent for 12-20 Victoria Crescent. This analysis concluded that the Little Nicholson Street/Mollison Street intersection would continue to operate satisfactorily.* *In review of the option of removing the Victoria Crescent access point, Cardno provides the following information:* ▪ *Traffic generated by the site using the Little Nicholson Street access would now double.* ▪ *Little Nicholson Street already operates beyond its environmental capacity.* ▪ *Simultaneous passing movements to and from the site are recommended, but this would require the setting back of the development at 32-68 Mollison Street.* ▪ *A one-way traffic operation for Little Nicholson Street (southbound) could potentially work, however, swept paths for vehicles, including loading vehicles, for access into abutting developments would be crucial if this option were to be pursued.*
Impact Traffic Engineering Consultant Advice Notice 26 October 2018	*Impact Traffic Engineering has assessed the traffic generation of the subject site (site 1) and 32-68 Mollison Street (site 2). Traffic generated from sites 1 and 2 would result in an increase of 115 trips in Little Nicholson Street in each peak hour. Little Nicholson Street, between Gipps Street and Mollison Street, has a width of approximately 4.5 metres and has a two-way traffic operation. Impact Traffic Engineering make reference to the Australian/New Zealand Standard AS/NZS 2890.1:2004 for width requirements for a low volume connecting roadway (such as Little Nicholson Street) whereby passing opportunities should be provided every 30 metres where peak hour volumes exceed 30 vehicle trips per hour.* *Traffic counts conducted in Little Nicholson Street by Impact Traffic Engineering in August 2017 recorded peak hour*

	volumes ranging from 37 to 40 trips. The results indicate that the environmental capacity of Little Nicholson Street has been exceeded. With the addition of the post development volumes from the two sites (as well as 20-30 Mollison Street), vehicle conflict would be more evident. *For providing exclusive vehicular access via Little Nicholson Street for the subject site, Impact Traffic Engineering suggested the two following options:* *Option 1:* *Provision of four vehicle passing areas along Little Nicholson Street (each measuring 6.1 metres by 7.0 metres) at roughly 30 metre spacings.* *Option 2:* *Provide a one-way traffic operation of Little Nicholson Street in the southbound direction. With this option, it was also suggested that KEEP CLEAR road markings be provided at the intersection of Gipps Street and Little Nicholson Street to provide a gap for inbound right turn movements from Gipps Street into Little Nicholson Street.* *Traffic Impact Engineering have concluded that these two options could potentially work in the event that there is no vehicular access for the subject site via Victoria Crescent.*

Item	*Details*
Review by Council's Civil Engineering Unit	
Engineering Comments	*Originally, Little Nicholson Street was designed and constructed to provide a drainage and overland flow path for stormwater discharge from abutting properties and to provide occasional access to these properties. Both Cardno and Impact Traffic Engineering have indicated that the existing peak hour traffic volumes using Little Nicholson Street have exceeded its environmental capacity.* *The current development proposal almost evenly distributes its traffic across the Little Nicholson Street and Victoria Crescent road frontages (as opposed to a single concentrated point). Providing exclusive vehicular access for the subject site via Little Nicholson Street would highly likely exacerbate already strained conditions in Little Nicholson Street and increase the probability of vehicle conflict during peak hours.* *Although providing a one-way traffic operation in Little Nicholson Street may eliminate the problem of vehicle conflict, it may cause access or operational issues for other existing abutting commercial properties. When attempting to change the traffic operation of any road under Council's control, as a minimum a majority of support from abutting properties should be sought.* *Converting single lane width roads to having one-way traffic operations also potentially presents problems in terms of*

	intentional illegal traffic movements (in this case, by occupants of abutting properties) and the enforcement of moving traffic violations. *In light of the above, the Civil Engineering unit considers it inadvisable to concentrate all of the 12-20 Victoria Crescent's traffic generation via Little Nicholson Street, as this road's geometry would not adequately support higher traffic volumes.*

Further discussions on 26 November 2018

We would have no problem with a rate of 1.0 space per 100 square metres of office floor area.

The table below lists sites that have been approved with rates comparable to 1.0 space/100 sqm.

Cremorne	
9-11 Cremorne Street PLN16/0171 (Amended) issued 13 June 2017	*0.85 spaces per 100 m^2 (20 on-site spaces; 2,329 m^2)*
33 Balmain Street PLN15/0309 issued 21 October 2015	*0.78 spaces per 100 m^2 (14 on-site spaces; 1788.1 m^2)*
13 Cubitt Street PLN16/1022 issued 20 December 2016	*0.41 spaces per 100 m^2 (3 on-site spaces; 726.25 m^2)*
506 & 508-510 Church Street PLN17/0278 issued 11 January 2018	*1.09 spaces per 100 m^2 (226 on-site spaces; 20,744 m^2)*
Collingwood	
71-93 Gipps Street PLN16/1150 issued 30 August 2017	*0.96 spaces per 100 m^2 (86 on-site spaces; 8,923 m^2)*

2-16 Northumberland Street *PLN16/1150 issued 14 June 2017*	*0.89 spaces per 100 m^2* *(135 on-site spaces; 15,300 m^2)*

Further discussions on 27 November 2018

Assuming that the office floor area is unaltered (in this case, 12,079 m^2), this would equate to 120 spaces.

For the office's traffic generation, 120 spaces would equate to 60 trips per peak hour (using the rate of 0.5 trips per space in each peak hour). The original Impact Traffic Engineering report used a PM peak hour rate of 0.35 trips, which would equate to 42 trips in the PM peak hour). The food and drink use would also generate traffic (if assume one space is allocated to this use).

The AM peak hour traffic would reduce from 120 trips to 60 trips.
The PM peak hour would reduce from 77 trips to 42 trips.

Lowering the parking rate for the office would certainly reduce the traffic volume generated by this site.

If we were to support the deletion of the access point, the vehicle interface/access onto Little Nicholson Street needs to be better designed to provide ease of access and reduce vehicle conflict. In deleting the Victoria Crescent access point, it is suggested that Council's external urban designer provides some options for improving the site's interface/access onto Little Nicholson Street.

Further discussions on 28 November 2018

Certainly, providing a setback at ground level was what I had in mind.
Importantly, the design should allow for an exiting vehicle to have a clear sight line of a motorist exiting the development at 20-30 Mollison Street. If visibility were to be an issue, I would be suggesting a CCTV set-up for motorists exiting the subject site.

Further discussions on 29 November 2018

I would be aiming for a ground clearance height of 4.7 metres. This is based on the design clearance height of a truck (Australian Standard AS 2890.2-2002) plus 200 mm.

Anecdotally, trucks frequently use Little Nicholson Street. In the event that a travelling truck needs to pass or make a sudden movement, the headroom clearance of 4.7 metres would accommodate a truck.

Further discussions on 30 November 2018

The deletion of the Victoria Crescent access should result in the result in the reinstatement of footpath, kerb and channel along its alignment.

I would be opposed to a kerb outstand on the west side of Victoria Crescent as this would impact on drainage and channel flow.

Further discussions on 4 December 2018

For CCTV, the camera would face the junction of the Right of Way/Little Nicholson Street/the access point of 20-30 Mollison Street.

The applicant needs to:

1. *Determine if the sight lines for an exiting motorist can view the access point.*
2. *If no, then there is no need to set up a CCTV. If yes, the position of the camera and monitor need to be determined.*

Strategic Transport

Access and Safety

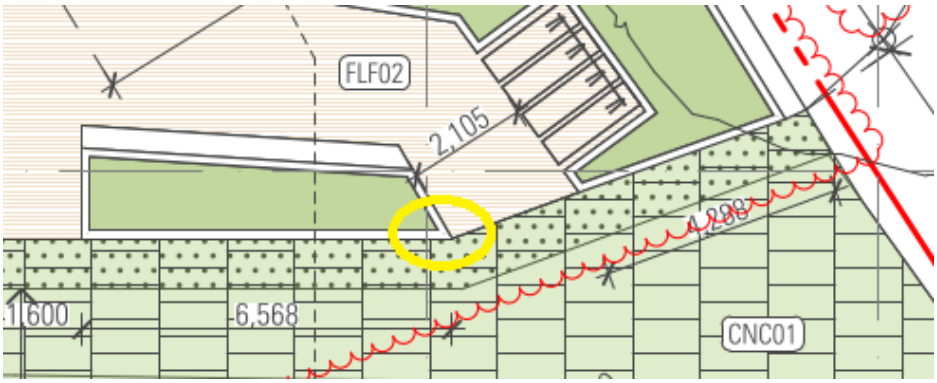
The following safety and access concerns should be addressed:

Delineated 'bicycle path'

The proposal includes a 'bike path' from Victoria Crescent through to the bicycle parking area adjacent the vehicle driveway. The path appears to be approximately 1m wide for the majority of its length, and 800mm wide at its narrowest point, which is too narrow to safely facilitate single directional travel and will not allow bi-directional travel. By including a path too narrow for purpose, the design will create a false expectation that cyclists will not enter the vehicle space.

To rectify this concern, ideally the delineated cycle-path should be widened to 2m (at minimum) to allow bi-directional travel. Failing this, no path should be delineated and the driveway should be treated as a shared vehicle/cyclist entrance.

Sharp corner adjacent 'bicycle path'



A sharp corner adjacent the 'bike path' is not supported as it is likely to cause injury in the event of a mishap.

Figure 1 (left)

Vehicle/Cyclist blind-spot

The current design of the vehicle ramp/cyclist entrance creates a blind-spot likely to result in conflict between vehicles and cyclists or pedestrians. In instances where cyclists/pedestrians are entering the building at the same time a cyclist/pedestrian is existing, the exiting cyclists will be forced onto the driveway close to the top of the ramp. A solid wall sits between the vehicle ramp and cyclists entrance which acts as a blind-spot increasing the likelihood of conflict in this situation (Figure 2).

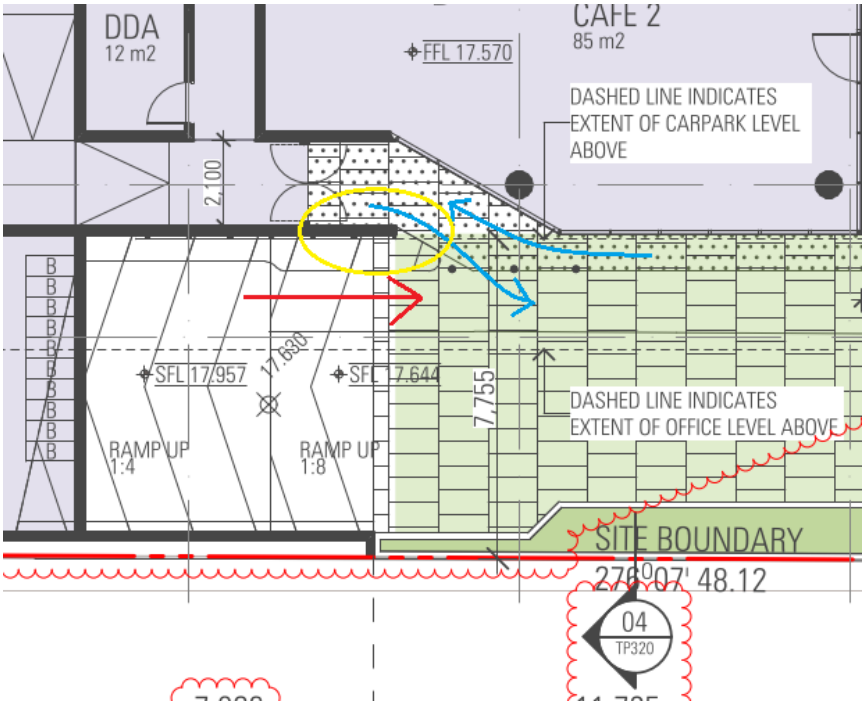


Figure 2 – Indicates a blindspot and likely conflict between vehicles and pedestrians/cyclists.

Blue indicates pedestrian cyclist movements.

Red indicates vehicle movements.

The yellow circle highlights the blindspot.

Ramp grades

A number of ramps are shown between the bicycle entrance and bicycle storage. The grade of these ramps is not noted. Pursuant to AS2890.3 it is recommend these ramps are limited to a grade of 1:12.

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)	*23127 sqm*	*1 employee space to each 300 sqm of net floor area if the net floor area exceeds 1000 sqm*	*40 employee spaces*	
		1visitor space to each 1000 sqm of net floor area if the net floor area exceeds 1000 sqm	*12 visitor spaces.*	
Retail premises (other than specified in this table)	*187 sqm*	*1 employee space to each 300 sqm of leasable floor area*	*1 employee spaces*	
		1visitor space to each 500 sqm of leasable floor area	*0 visitor spaces.*	
		Bicycle Parking Spaces Total	*41 resident / employee spaces*	*179 resident / employee spaces*

		1 visitor spaces	*4 visitor spaces*
Showers / Change rooms	*1 to the first 5 employee spaces and 1 to each additional 10 employee spaces*	*5 showers / change rooms*	*14 showers / change rooms*

The development provides a total of 38 additional employee spaces and 3 additional visitor spaces above the requirements of the planning scheme.

Adequacy of visitor spaces

4 spaces are suitable as visitor bicycle parking spaces. Whilst the 4 existing visitor spaces are appropriately designed and located; the provision of the visitor spaces is inadequate for the following reasons:

- *Whilst 4 spaces exceeds the statutory requirement of 1 spaces it does not cater for Yarra's current or predicted future cycling demand. Best-practice recommends a rate of 1 visitor spaces to each 500sqm of office floor area[1], generating a requirement of 24 visitor spaces. Therefore 24 visitor spaces should be provided.*
    - *All additional visitor spaces should be provided as horizontal, at-grade level spaces.*
    - *All spaces and accessways should comply with the requirements of AS2890.3.*
    - *Visitor spaces must be in locations readily identifiable and accessible to visitors of the site, and should not be co-located with employee spaces given the differing access and security requirements.*

Adequacy of employee spaces

Number of spaces

The provision of 179 employee spaces is appropriate for the following reasons:

- *Best-practice recommends a rate of 1 space to each 100sqm of office floor space[2], generating a recommended rate of 121 employee spaces for the office use, in addition to the statutory rate of 1 space for the retail (café) uses. The proposed number of employee spaces exceeds 122 spaces and is therefore acceptable.*
    - *One additional bike space is shown within the end-of-trip facility; however this appears to be in error and should be removed.*
- *The number of showers and change rooms is not noted on the plans, but the Sustainable Management Plan (SMP) references 14 showers / change rooms.*
    - *Either notations should be added to the plans indicating at least 14 showers / change rooms will be provided within the end-of-trip facilities, or detail of end-of-trip facility should be shown on the plans.*
- *One locker per employee bicycle space should be provided*

Design and location of employee spaces and facilities

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[1] *Category 6 of the Built Environment Sustainability Scorecard (BESS) offers this advice.*

[2] *Category 6 of the BESS offers the following for best-practice guidance for 'Non-residential buildings should provide spaces for at least 10% of building occupants.' Assuming a floor-space occupancy of 1 staff member to 10sqm (which is the maximum rate allowed under the National Construction Code for fire safety), providing bicycle spaces for 10% of occupants results in a rate of 1 space per 100sqm of floor area.*

Employee spaces are adequately located and designed for the following reasons:

- *Employee bicycle parking is provided at ground-floor in a location easily accessible to cyclists (assuming the previously noted access and safety concerns are addressed).*
- *All spaces are located within a secure facility.*
- *Approximately 31% of employee spaces appear to be provided as horizontal at-grade level spaces, exceeding the AS2890.3 requirements for at least 20% of spaces to be provided in this fashion.*
    - *However, this information is assumed based on the dimensions of the bicycle storage spaces shown. It is recommended notations be added to the plans clearly indicating the number of hanging vs. horizontal spaces, or the spaces are otherwise more clearly delineated to show which spaces are horizontal vs. hanging spaces.*
- *The walkways and storage area dimensions appear to comply with AS2890.3.*

Despite the above, it is recommended a higher percentage of horizontal spaces are provided. The existing layout of the bicycle storage area would allow an additional 38 spaces to be provided as horizontal spaces, without contravening the requirements of AS2890.3 (Figure 3). In practice horizontal spaces are far more utilised than hanging spaces in any given storage space.

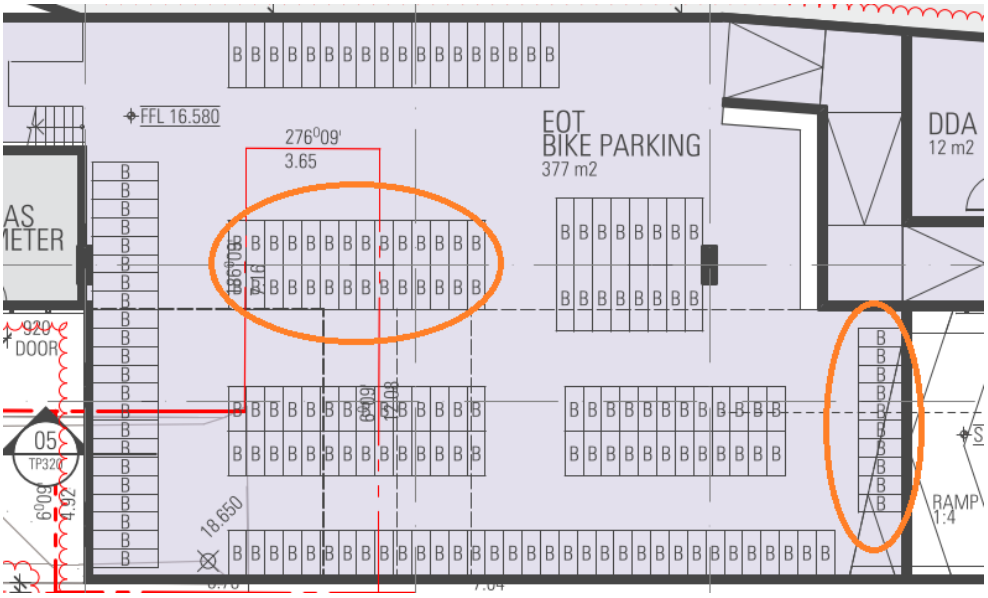


Figure 3 – The spaces circled could be converted to more accessible horizontal at-grade level spaces without contravening the requirements of AS2890.3 or unduly compromising access to any of the spaces.

Electric vehicles / share cars / other relevant topics?

Council's BESS guidelines encourage the use of fuel efficient and electric vehicles (EV). In addition, the SMP makes reference to 10 EV charging bay, however I have been unable to identify these bays on the plans. The locations of EV charging bays should be noted on the plans Additionally, to allow for easy future expanded provision for electric vehicle charging, all car parking areas should be electrically wired to be 'EV ready'. A minimum 40A single phase electrical sub circuit should be installed to these areas for this purpose.

Green Travel Plan

It is noted most required information regarding travel options is provided within the Traffic Impact Assessment, however no Green Travel Plan (GTP) has been provided. Given the development has a total non-residential floor area of more than 1,000sqm, pursuant to Clause 22.17-4 a GTP must be provided. The following information should be included:

- *(a) a description of the location in the context of alternative modes of transport;*
- *(b) employee and/or resident 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 types of bicycle storage devices proposed to be used for employee, resident and visitor spaces (i.e. hanging or floor mounted spaces);*
- *(h) the types of lockers proposed within the change-room facilities, with at least 50% of lockers providing hanging storage space, and one locker per employee bicycle space;*
- *(i) security arrangements to access the employee bicycle storage spaces;*
- *(j) signage and wayfinding information for bicycle facilities and pedestrians pursuant to Australian Standard AS2890.3;*
- *(k) Reference to EV charging points within the basement car park and provision of electrical infrastructure for future expanded provision; and*
- *(l) provisions for the Green Travel Plan to be updated not less than every 5 years.*

Recommendations

The following should be shown on the plans before endorsement:

- *The delineated bicycle path widened to at least 2m. Alternatively the delineated bicycle path should be removed, and the driveway should be treated as a shared vehicle/cyclist entrance.*
- *Chamfering of all sharp building corners adjacent the bicycle path.*
- *The blind spot between the vehicle ramp and cyclist entrance addressed.*
- *Grades of all ramps between the cyclist entrance, and bicycle storage compound. It is recommended these ramps are no steeper than 1:12.*
- *At least 24 visitor bicycle parking spaces, clearly marked as for visitor use (or an equivalent rate if the scale of the development is altered):*
  - *All visitor spaces should be provided as horizontal-at-ground-level spaces.*
  - *Visitor spaces should continue to be provided in publically accessible locations, with convenient access to building entrances, lift shafts, etc.*
  - *Access ways and storage spaces should be designed to comply with AS2890.3.*
- *The bicycle space shown within the end-of-trip facilities deleted (this appears to be an error).*
- *Detail of the end-of-trip facilities showing at least 14 showers/changerooms or notations added indicating the end-of-trip facilities will include at least 14 showers/changerooms.*
- *Notations added indicating which bicycle spaces are horizontal, at-grade spaces and which spaces are hanging spaces.*

- *The 38 bicycle spaces identified in Figure 3 which currently appear to be hanging spaces provided as horizontal, at-grade spaces.*

A Green Travel Plan should be provided with the information outlined previously.

Open Space

Landscape Plan – Pop Plant Projects – July 2018

The general requirements for a landscape plan in a planning permit are that it include –

- The proposed plant schedule with botanical and common name, mature height and spread, installation size, spacing, location and quantities.

The plant schedule provided does not show quantities or plant spacing.

Plant Selection

- Plant selection looks generally acceptable, though the Lonicera japonica Japanese Honeysuckle, is an environmental weed in Victoria and a substitute plant should be used.
- Rooftop tree – has some sort of tree anchoring or stabilisation been considered for the rooftop tree?

Details

- There are no dimensions for the raised garden beds.
- There are no details or descriptive notes for the landscape materials e.g. the seating or paving.
- There are no details of climbing structures included.
- Notes have not been included regarding maintenance – short or long term.
- Notes have not been included regarding irrigation. Is rainwater being collected for reuse?

Streetscapes and Natural Values

Tree Protection Bond

Council arborists are of the opinion that the 3 x London Plane Trees (Platanus x acerifolia) in the Victoria Crescent Road Reserve adjacent to the development site will be impacted on by the proposed restoration works to the front wall and proposed construction works behind the wall.

The 3 x London Plane Trees (Platanus x acerifolia) will be retained and must be protected during construction works. An Asset Protection Permit Bond of $30,000 (ex GST) (see table below) should be applied to the 3 trees (10K per tree) to offset the cost of repairing any damage incurred during construction and/or for non-compliance with the tree protection management plan. The table below outlines the cost of replacement of each tree. Tree 1 is the most northern London Plane Tree.

Item	*Tree 1 Cost*	*Tree 2 Cost*	*Tree 3 Cost*	*Total*
Melbourne Valuation (Loss of Amenity Value)	*$41483*	*$81306*	*$41483*	*$164272*

Item	*Tree 1 Cost*	*Tree 2 Cost*	*Tree 3 Cost*	*Total*
Removal Tree Height 12 - 16m	*$1,226.54*	*$1,226.54*	*$1,226.54*	*$3,679.62*
Stump Removal ($6.48/2.5 cm)	*$181.44*	*$272.16*	*$181.44*	*$635.04*
Hard Surface Cut Out (2m x 1m)	*$196.82*	*$196.82*	*$196.82*	*$590.46*
Supply tree 100L	*$350*	*$350*	*$350*	*$1,050*
Planting in Hard Surface cost	*$120.17*	*$120.17*	*$120.17*	*$360.51*
Supply and Install Tree Hoops x 2	*$644.34*	*$644.34*	*$644.34*	*$1,933.02*
Maintenance 2 years	*$163.68*	*$163.68*	*$163.68*	*$491.04*
Supply and Install Granitic Gravel – 100mm depth ($59.05/m2)	*$118.10*	*$118.10*	*$118.10*	*$354.30*
SUB TOTAL	*$3,001.09*	*$3,091.81*	*$3,001.09*	*$9,093.99*
GST	*$300.11*	*$309.18*	*$300.11*	*$909.40*
TOTAL	*$3301.20*	*$3400.99*	*$3301.20*	*$10003.39*

Tree Protection Plan (TMP)

A Tree Protection Management Plan (TMP) is required by the applicant that is consistent with AS4970 - Protection of Trees on Development Sites and must show how the 3 x London Plane Trees (Platanus x acerifolia) are to remain viable in the long term, post development.

Tree Planting Opportunities

There is space for one London Plane Tree (Platanus x acerifolia) to be planted in the road reserve and still maintain the existing parallel parking arrangements.

The cost to supply, plant and maintain for 2 years is $1752.42 (Including GST) (see the table below). The final cost may change in line with contract specifications and annual CPI variations.

Item	*Tree 1 Cost*
Hard Surface Cut Out (2m x 1m)	*$196.82*
Supply tree 100L	*$350*
Planting in Hard Surface cost	*$120.17*
Supply and Install Tree Hoops x 2	*$644.34*
Maintenance 2 years	*$163.68*
Supply and Install Granitic Gravel – 100mm depth ($59.05/m2)	*$118.10*
SUB TOTAL	*$1,593.11*
GST	*$159.31*
TOTAL	*$1752.42*

Waste Services

The waste management plan for 12-20 Victoria Cres, Abbotsford authored by Leigh Design and dated 26/07/2018 is not satisfactory from a City Works branch's perspective. Issues to be rectified include, but may not be limited to:

1. *Waste collection should be within the development and collected by a private contractor.*
2. *An e-waste ban is commencing from 01/07/2019. Please detail how e-waste will be separated and disposed of accordingly.*
3. *The bin room is too small and does not allow for circulation. An expanded area would be of benefit.*

ESD Advisor

The standard of the ESD meets Council's Environmental Sustainable Design (ESD) standards. 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.

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.

Applicant ESD Commitments:

- *10% improvement above the NCC thermal energy efficiency requirements for building fabric and at least a 40% reduction of greenhouse gases based on various initiatives.*
- *Increase on AS1668 air intake rates of at least 50%.*
- *Good daylight to most office areas.*
- *High efficiency VAV HVAC system, with full economy cycle and high efficiency chillers and boilers.*
- *A STORM report has been submitted with a 104% score that demonstrates best practice and relies on 2,892m2 of roof connected to 66,000 litres of rainwater storage proposed to flush toilets for equivalent of 1200 people, and an additional 550m2 of podium draining to another 4,000 litre tank captured for irrigation purposes.*
- *Energy efficient lighting.*
- *Water efficient fixtures and taps.*
- *180 bike parking spaces for ~12,349m2 of NLA.*
- *16 showers and at least 270 lockers to support cyclists riding to work.*
- *At least 10 electric vehicle charge points.*

Application ESD Deficiencies:

- *There are no outstanding ESD deficiencies identified at this time.*

Outstanding Information:

- *Please provide a completed JV3 energy modelling report, or equivalent, prior to occupation demonstrating 10% improvement in thermal energy efficiency of the building shell and at least 40% reduction in greenhouse gas emissions.*
- *Please include the type and efficiency standard of the hot water system in the JV3 energy modelling report provided to council prior to occupation.*
- *Ensure that the WMP has sufficient spaces allocated to recycling and all waste streams.*

ESD Improvement Opportunities

- *Recommend including an independent commissioning agent.*
- *Recommend a solar PV array to contribute to onsite electricity demands.*
- *Recommend providing a composting system.*

External Consultants

Urban Design (MGS Architects)

The development has a land use consistent with the ambitions sought for this precinct and the upgrading of workplace accommodation is an appropriate initiative in the light of its proximity to high concentrations of highly educated workplace talent.

Whilst the project incorporates widening of its small laneway interface to the south to accommodate two-way movement, no similar initiative has been undertaken to the more important Little Nicholson Street interface which interlinks Mollison Street connection to the south and Gipps Street to the north.

With Victoria Crescent providing an important cycle link to the adjoining Yarra River crossing and Capital City Trail network at its northern intersection with Gipps Street, maximising the utilisation of this rear laneway for car access to enterprises and minimising the impacts of intensification on Active Transport and pedestrian amenity in Victoria Crescent should be seen as a priority in the same manner that this has been sought for example along the Langridge Street and Wellington Street corridors.

The proposal in its current form suggests the inclusion of access from both Victoria Crescent and the Little Nicholson Street frontage to an expansive carpark comprising more than 220 car spaces for a proposed 1200 staff and with a lesser provision for car parking of 180 spaces noted in the planning report summary. The current arrangements are anticipated to provide a minimum of 1 car space every minute during peak periods across the western bike path.

The proposal is silent on a substantive green travel plan, an attribute of other key projects developed more recently within the municipality with success and as a direct corporately responsible initiative to limit unnecessary car use by private vehicles for enterprise purposes.

As a consequence of the current approach the proposed forecourt is primarily dedicated to vehicle access with more than 60% of the open space dedicated to this purpose providing as a consequence only modest external seating capacity and hence diminished street life

The proposal suggests a cantilever for approximately 6m to this area, building the office to between 7.76 and 7.64 m from the Victoria Crescent interface.

The development proposes an outcome with a 3 level podium car park built to the Little Nicholson Street interface with no setback, capped by office development of a further 6 levels resulting in a built form exclave of an indication of plant area of approximately RL53.7 to the top of plant or over 37m from natural ground.

The Section 1 and Level 1 plan indicates the proposed car park will interface directly with the proposed Level 1 terrace area and forecourt and the entire site perimeter.

Office Level 1 is nearly 9.5m above natural ground above this car park podium. Plan TP212 describes two separate towers divided by a landscaped area, with towers separated by a 7.6m break and with a 5.235m to 5.4m setback from its south-eastern neighbour, a setback of 10.6m from its northern neighbour in the front half of the site and a lesser 4.6m at the

uppermost two levels of the western tower. A chamfered treatment of the north east corner of the western tower amplifies the light and amenity for the space between towers and provides for substantially improved access to light and views in each instance. The setbacks proposed are substantially greater than that provided between the Building 2 tower and the southern and western neighbours with only 2.55m to the centre of the southern laneway and less than 2.4m to the centre of the western laneway.

The architecture, as could be expected from a firm of the calibre of Fieldwork, is competent generally save for the poor podium outcomes and as a consequence the absence of a strategy for an enhanced network of neighbourhood links and enabling neighbourhood regeneration initiatives.

The siting of the built form has also amplified the scale of development at interfaces with the western and southern neighbours and borrowed from the amenity and future development of these areas. One could not envisage a good outcome for either party for example with 4.8m between 30m+ buildings if development scale and use was replicated for example on the western neighbouring site.

CONCLUSION

The site offers a significant opportunity for workplace provision and urban renewal in a well located part of the municipality where these uses are welcome and where access to the regional capital city trail and nearby stations and PT networks and high density residential communities is supportive.

That said, the renewal of sites like this as early shapers of urban futures for city blocks incorporating substantial increases in workplace density, in turn need to provide the place that supports the proposed use and in its implementation needs to do this in a way that does not compromise broader State and Local policy initiatives aimed at enhanced Active Transport, place making and investment.

In this instance the precinct needs the service road network to be upgraded to maintain the primary avenues to the extent possible for people rather than unnecessary car movement and needs to invest projects with substantial green travel ambition. In this instance it is my view that the project has fallen well short of what needs to be done in this regard.

I am satisfied that Building 1 is appropriately scaled relative to the preferred future scale to the eastern side of the Street outlined in the DDO, the street width and amenity and the future character and amenity sought.

The western tower is in my view currently exhibiting major problems in regard to its siting, setbacks, resolution of detail, place making and height that need to be addressed if taller form is to be supported.

<u>Place making</u>

The southern and western laneway interfaces should in the interface with the site be amended to provide for two-way movement and pedestrian refuge to promote the western frontage as the exclusive access and egress point for motor vehicles to the site.

I accept in the short term this may mean that Little Nicholson Street movements will require a traffic management plan and holistic strategy but, like Cremorne and Fishermans Bend, in the transformation of areas such as this these initiatives are crucial to the sought after place making and reallocation of public realm space to provide for an enlarged workforce community looking to high quality external places and spaces for amenity and collaboration.

98. In the absence of this the development scale should be substantially curtailed to be able to operate exclusively from the Little Nicholson Street frontage for vehicle access without change.

This is a case that the applicant cannot rely on policy alone for support but must deliver the place and network that will ensure this ambition for intensification can be delivered without compromising the amenity and future development opportunities of others.

A proposal with over 12,000sqm of office space and 187sqm of retail space also needs a loading and dedicated waste management facility that similarly should be accessed exclusively off the western and southwestern laneway network.

Access from Victoria Crescent should be exclusively dedicated to the amenity needs of the high density workplaces and visitors increasingly using the precinct and the growing regional cycling and pedestrian population using this street. The expectation of high quality renewal of the precinct and complimentary responses on the site can deliver substantial complimentary outcomes in this location. Removal of the crossing in conjunction with overhead power and plant and fencing provides a number of exciting place upgrades. These include the following:

- *The inclusion of additional avenue tree planting to the South-east corner footpath in conjunction with a kerb outstand from the south boundary to the existing canopy street tree immediately north of the existing onsite parking zone.*

- *This space should incorporate short term bicycle parking and a new bicycle entrance and laneway extension to the site extended out to meet the regional bike path.*

- *Kerbside parking north of this existing southernmost street tree should incorporate both disability parking and share car facilities for the workforce and visiting community as part of an upgraded green travel plan. The building should have a green travel set of initiatives aimed at actively promoting PT and other active transport options through real time visible PT information and distances to destinations via the bike network as well as through enhanced pedestrian areas and linkages.*

- *A new east-west link along the southern boundary should link the existing laneway to the west with Victoria Crescent at ground level.*

- *The consequent expansion of sitting zones for the precinct for both the proposed café and the street users. The proposed treatments to the laneway interfaces of a 9m high plus inactivated wall network extended to the Victoria Crescent frontage in part ground and all first floor interfaces is not supported.*

- *Similarly the relative paucity of bicycle space provision currently provided only at a ratio of only one space to every seven staff is clearly not consistent with best practice. With one in three households in the municipality not having a car and with recent developments proposing substantially greater provisions particularly where they are in close proximity to the main capital city and regional networks, the current proposal falls short. Clearly in this instance the opportunities afforded by the location need to be significantly prioritised for other modes and activation and amenity for pedestrians over car access.*

<u>Recommendation 1</u>

Widen the Little Nicholson Street and adjoining southern laneway to a minimum of 6.5m to enable two-way movement and access for car parking and loading to the site and passing provision within the street network.

Recommendation 2

Update plans to show loading and waste management facilities within the development and revise parking layouts to delete the eastern parking ramp and to include waste management and loading facilities and enhanced laneway activation.

Recommendation 3

Provide a through-block southern pedestrian link connecting the western laneway and Victoria Crescent thereby avoiding dangerous dead-end space networks and enhancing connectivity to the adjoining railway station and PT networks.

Recommendation 4

Remove the crossover to Victoria Crescent and replace proposed vehicle crossing with a bike access crossing in conjunction with street improvements out to the bike lane zone including additional street planting, kerb outstands, short term bicycle parking, public furniture and an upgraded forecourt proposal to the satisfaction of the responsible authority.

Recommendation 5

Provide an upgraded bicycle strategy increasing the provision of bicycles on the site per employee to provide a substantially enhanced provision of bicycles for the development and reduced conflict between regional cycle paths and vehicles by deleting the Victoria Crescent crossing.

Interfaces and equitable development

The southern and western setbacks require substantial review in their provision of setback from neighbouring properties.

Similarly the Victoria Crescent frontage should not be the site for car parks to be visible at any level. The applicant should amend the upper and ground floor layouts to activate all street frontages to the Victoria Crescent to ensure that car parking is not visible at any level to this frontage.

The balance of laneway interfaces should incorporate interface treatments that activate them and address principles of safety by design and ambitions outlined in planning policy for enhanced streets and spaces. An integrated art plan should be provided as part of the design solution to these interfaces.

Recommendation 6

Provide a minimum setback at street level up to the top of carparking levels enabling a minimum 6.5m laneway width to Little Nicholson Street and the unnamed south western right angle laneway to allow two-way car and pedestrian movement and a refuge zone and manoeuvrability for loading dock areas in conjunction with revised elevations and layouts activating these interfaces.

Recommendation 7

a) *Reconfigure plans and elevations to the eastern elevations and Victoria Crescent frontage to ensure no car parking interfaces with the external frontages at any level.*

b) *To the balance of frontages reconfigure car parking and laneway interfaces to activate frontages and invest them with a high quality amenity consistent with safety by design and local policy goals.*

Recommendation 8

Provide a minimum setback of 4.5m from the centreline of the laneway for proposed upper level office space providing sufficient space between built form to enable future high environmental performance and amenity for new enterprise and mixed use development.

Recommendation 9

Provide details of the proposed soffit and boundary treatments to the revised entry forecourt to the satisfaction of the responsible authority.

Recommendation 10

Provide details of the proposed external level 6 terrace areas and of proposed plant area enclosures to the satisfaction of the responsible authority.

Landscape treatments

The Landscape plans and renderings indicate green wall growth on structures reliant on a podium level base for this planting. I am not aware of any successfully realised examples adopting this methodology anywhere in Melbourne that have been able to extend growth through the 15-16m as suggested in this instance though I agree that this softening treatment is important. Typically, successful solutions have required planting boxes every level that are well resolved regarding depth, metering of moisture and selection of plants and relied on inputs from experts. Renderings additionally show trees at level 6 and cascading planting over the heritage facades not shown on plans.

Recommendation 11

Provide upgraded landscape plans complete with expert advice from green wall consultants to demonstrate the necessary measures to implement strategies indicated on the three dimensional views of the proposal to the satisfaction of the responsible authority, demonstrating their long term efficacy and, additionally provision where depicted in renderings but not plans.

Integrated art and affordable workplace areas

The current provision of laneway interfaces and level 1 terrace interfaces with the heritage building as shown in the Overview from Victoria Crescent on TP400 indicate outcomes that fall well short of the Policy aspirations sought for streetscape interfaces.

Successful solutions that align with the needs of the municipality have included laneway interfaces that have included low rent studio spaces and commissioned high quality art programs.

In this instance these interfaces demand a substantial departure from the proposal currently adopted by the applicant for an area where a vibrant mix of small, medium and larger enterprises is sought and where the distinctive advantages of the area include its proximity

to the creative industry hubs of the inner north where enterprises are being displaced by rising rents.

Recommendation 12

Provide Laneway interface strategy and updated plans that ensures these areas are active, safe and invested with high quality urban design and placemaking solutions that build community capacity and support the proposed increased capacity and scale sought by the development wherein increased bulk and height and impacts on views to surrounding neighbourhoods is offset by the enhanced placemaking and community building and employment provided.

Considerable work needs to be undertaken on the project to strike the appropriate balance between the intensification and subsequent demand and pressures on the place and access networks sought by the applicant and the placemaking outcome required to both enable the precinct to equitably develop at the level of placemaking quality that will underpin the success.

In its current form it cannot be supported as it is an outcome that has unreasonable impacts on the orderly high quality development sought by State and Local policy and currently fails to provide the necessary resolution sought by the Planning Scheme.
I would invite the applicant to address these issues as a matter of urgency and resubmit rather than refuse at this stage

Traffic Consultant (Cardno)

Peer Review of Transport Impact Assessment

Development Proposition

A summary of the proposed development has been included in Table 1-1 and is based on plans of the development (in particular TP210a, TP210b and TP211) prepared by Fieldwork Projects Pty Ltd dated 5 July 2018.

Table 1-1 Development Schedule

Use	Description	Total Size (NLA)
Commercial (Office)		12,079m2
Retail	x2 café tenancies	187m2

Based on a review of town planning drawings, a total of 220 car parking spaces are supplied on-site across ground, mezzanine and first floors, inclusive of three (3) disabled spaces. Whilst specific allocation is not stated within the Impact report, Section 5.5.1 implies that two (2) of the 220 spaces are proposed to be allocated to retail staff, with the remainder allocated to office staff.

Additionally, Impact's traffic report and town planning drawings state that a total of 180 bicycle parking spaces are proposed within a secure bike store at ground level. Of these spaces, 56 are presented in the form of ground-mounted horizontal rails, with the remaining 124 bicycle parking spaces in the form of 'Ned Kelly' vertical wall-mounted racks (or similar).

We note the following minor observations with regard to proposed car and bicycle parking numbers:

- *A total of 179 bicycle parking "envelopes" appear to be included within the ground level bike store, with plans also indicating one (1) ground mounted horizontal rail "envelope" within the proposed "EOT Lockers + Showers" facility on the mezzanine level;*
- *Despite there appearing to be sufficient room to accommodate the proposed yield, bicycle parking envelopes appear to be shown incorrectly and should be amended to reflect layout requirements outlined in Figure B7 and Figure B5 (ci) within AS2890.3:2015;*
- *Cardno is not able to confirm the number of shower and changeroom/locker facilities proposed, given the nominated EOT store does not detail these items. It is noted that the Impact report states that "16 showers are proposed, and associated change and locker facilities."*

The adequacy of the proposed car and bicycle parking provisions, allocations and layouts will be discussed in the subsequent stages of this assessment.

Statutory Controls

Clause 52.06-9 Assessment

Cardno has reviewed Section 5.4.3 of the Impact report which relates to the development's car park layout design and access arrangements and is satisfied that the proposed car park layout has been generally designed in accordance with the relevant Planning Scheme and Australian Standard requirements, albeit noting:

As noted in Section 5.4.3.1, an area at least 50% clear of visual obstructions should be provided on the eastern side of the accessway to the unnamed laneway (ground level car park entry);

- *With regard to the ground level car park access;*
    - *Impact's swept path analysis for site access represented in sketch IMP170809-SK-02-B indicates that passing between a B99 car and B85 car will be achievable between Little Nicholson Street and the car park entry. This is considered appropriate considering the likelihood and frequency of conflicting inbound and outbound movements.*
    - *Whilst it is acknowledged that the majority of inbound movements will be generated via Mollison Street to the south, it is recommended that a swept path analysis be undertaken to confirm that inbound movements approaching the access from the north are:*
        - *Able to pass a stationary outbound vehicle; and*
        - *Able to enter the car park without the need of a corrective manoeuvre within the Unnamed Laneway.*

- *Whilst it is noted that some columns encroach the door opening areas, Cardno acknowledges that Impact's report states structural limitations often limit full compliance in these type of developments;*
- *Select columns throughout all three parking levels encroach the front clearance area. Whilst not referred to in the Impact report, we note that these spaces are generally provided access aisles in excess of the applicable statutory requirement in order to assist access; and*
- *With regard to parking spaces immediately adjacent to the western lift core on Level 1, the car space positioned between the core and adjacent 2 spaces should be offset by 300mm from these car spaces.*

Clause 52.06-5 Assessment

Acknowledging the town planning application for the subject development was submitted prior to the gazettal of Planning Scheme Amendment VC148 (which introduced an update to Clause 52.06 – Car Parking), Cardno supports Impact's assessment of the statutory car parking requirements for the proposed development.

It is agreed that, based on the above and the size and number of proposed new uses as outlined within Section 4.1 of the Impact report, the proposed development generates a statutory requirement to provide a total of 429 car parking spaces, comprised of 422 office spaces and seven (7) retail spaces. The proposal therefore represents a shortfall in the order of 209 spaces from the statutory requirement.

Accessible Parking Assessment

Based on an assessment of Part D3 to the Building Code of Australia, it is agreed that the various land uses contemplated as part of the proposed development generate a requirement for a minimum provision of three (3) disabled parking spaces on-site.

Consequently, the proposed on-site provision of thee (3) disabled spaces as stated in the Impact report is considered appropriate in this instance.

Car Parking Demand Assessment

In consideration of the various Council policies in effect, the proposed on-site parking provisions for office and retail uses are considered to be consistent with Council strategies to strongly encourage the use of alternative transport modes. Cardno is of the opinion that these rates are therefore appropriate.

Clause 52.34-3 Assessment

It is agreed that, based on the size and number of proposed new uses as outlined within Section 4.1 of the Impact report, the proposed development generates a statutory requirement to provide a total of 53 bicycle parking spaces, comprised of 41 staff and 12 visitor spaces. The provision of 180 bicycle parking spaces therefore represents a surplus of 127 spaces from the statutory requirement.
Further, based on the requirement for 41 employee bicycle parking spaces, a total of five (5) shower facilities are required. Should 16 showers and change room facilities be provided (as stated by Impact), this would comfortably exceed the associated Clause 52.34 requirement.

Traffic Considerations

Cardno has reviewed Section 6 of the Impact report which relates to the development's traffic considerations. We offer the following comments for your review.

Traffic Generation

Morning peak hour traffic generation rates adopted (0.5 movements/space) derived from case studies undertaken at two nearby commercial developments by Impact generally mirror those often presented by Cardno and other traffic engineering consultants. It is, however, noted that PM peak hour generation rates proposed by Impact (0.35 movements/space) appear to be slightly lower than those typically supported by Cardno and other consultancies (being ~0.5 movements/space – refer to Traffix Group and OneMileGrid reports for neighbouring developments). Outbound volumes across both site access points shown within Figure 9 Subject Site Traffic Generation within the Impact report suggests that a

generation rate of 0.5 has instead been applied. Cardno has conservatively adopted the higher generation rate volumes in our subsequent analysis included as appendices to this letter.

We agree that it is generally accepted that 10% of traffic will be generated in the counter peak direction. In this regard, page 23 of the Impact report states that a total of 109 inbound movements are anticipated during AM peak periods; this should in fact read 99 movements, with the 11 outbound movements forecasted constituting the net AM traffic movements anticipated to be generated by the proposed (note this appears to be only a computational error).

It is noted that the above mentioned rates have been adopted for both office and retail car spaces. It is typically argued that retail staff will arrive to and depart from a development during morning and evening peak hours, respectively (i.e. accounting for increased traffic generation levels than those allowed for by Impact). Considering only two (2) car spaces are understood to be allocated to the retail component, this represents an insignificant discrepancy.

Traffic Distribution

In consideration of the proportion of car spaces assigned to each parking level, Cardno is satisfied that a reasonable "access" distribution has been made by Impact based on stated traffic generation rates (see page 23).

We do, however, offer the following comments with the remainder of distribution assumptions and calculations:

- *Based on the minor computational error noted above, it is Cardno's opinion that the AM and PM peak hour distributional splits across Little Nicholson Street and Victoria Crescent are intended to read:*

    - *Little Nicholson Street*
      AM
      Inbound 49 vehicle movements
      Outbound 5 vehicle movements

    - *Victoria Crescent*
      AM
      Inbound 50 vehicle movements
      Outbound 6 vehicle movements

- *The Impact report doesn't provide justification as to why it has assumed that all vehicles accessing the car park via Little Nicholson Street will do so from Mollison Street to the south. Little Nicholson Street allows for two-way movements (noting it is restricted to one-way flows at any time), where it is likely that a percentage of these movements will originate from the north. Traffic surveys undertaken by Traffix Group indicate that the majority of movements within Little Nicholson Street are southbound in nature (i.e. originate from the north) during the AM peak;*

Notwithstanding, noting indiscernible differences between directional volumes noted above shown in the Impact report, Cardno's traffic network diagram attached as an appendix to this assessment provides adjusted movements for a complete analysis.

Traffic Considerations – Other Developments

Section 6.3 of the Impact report provides a review of likely traffic impacts to the surrounding road network as a result of the neighbouring redevelopments in conjunction with the proposed development. As requested by Council, Cardno has reviewed this Section of the Impact report as well as relevant traffic engineering documentation relating to nearby developments at 20-30 Mollison Street, 32-68 Mollison Street & 10 Victoria Crescent and 61-69 William Street in Abbotsford.
The locations of these developments in the context of the proposed development are shown in Figure 1-2.

Figure 1-2 Recently approved developments in the context of the proposed development

We offer the following comments for your consideration.

- *Whilst the Impact report for the 12-20 Victoria Crescent site does not state the origins of assumptions made regarding direction assignments, we note that these appear to generally be consistent with directional distributions at adjacent intersections sourced from turning movement count surveys and adopted within traffic reports for the neighbouring developments noted above;*
- *Noting the traffic engineering assessment for the proposed development at 61-69 William Street, Abbotsford has not been supplied, anticipated traffic generation and distribution associated with this development as provided within Section 4.8.2 of the Traffix Group report for the proposed 20-30 Mollison Street development has been assessed and is considered satisfactory (with regards to adopted traffic generation rates and directional distribution assumptions made by Traffix Group). See attached traffic network diagrams prepared by Cardno for a comprehensive breakdown of traffic distributions.*
- *Directional distributions either derived from survey data or stated in the associated traffic engineering reports was generally found to differ by no greater than 10%, offering a consistent analysis across the various traffic engineering assessments reviewed.*

The attached traffic network diagrams prepared by Cardno have calculated the anticipated total volumes or increase in volumes across the road network in the vicinity of the

abovementioned developments during both AM and PM weekday peak periods. A number of discrepancies were identified across the various consultant's reports relating to differences in assumptions stated and actual traffic distributions shown. Consequently, Cardno's traffic distribution assumptions rely on the latest turning movement surveys undertaken for the road network surrounding all neighbouring developments, sourced by:

- *Traffix Group: Intersection of Nicholson Street and Mollison Street, sourced on Wednesday 10th May, 2017 and Thursday 7th September, 2017; and*
- *Impact Traffic Engineering: Existing traffic movements along Victoria Crescent sourced from pneumatic tube counts undertaken between 23rd August, 2017 and 28th August, 2017.*

Traffic Impacts

Intersection Analysis

Cardno has reviewed Section 6.5 of the Impact report which relates to the anticipated traffic impacts of the proposed development in the context of recently approved neighbouring developments, supported by results obtained from the SIDRA Intersection analysis undertaken by Impact.

In order to validate the accuracy of results quoted by Impact, Cardno have created a SIDRA model for the intersection of Little Nicholson Street and Mollison Street, analysing post development AM and PM peak hour scenarios. It is noted that the accuracy of Cardno's model is limited to the available information provided within the Impact report. Discrepancies between the two models may be influenced by unknown inputs such as lane widths, gap acceptance, approach lengths and other model parameters.

Results of Cardno's SIDRA analysis comparison revealed similar outputs (negligible discrepancies) in degrees of saturation, average delays and queue lengths; we therefore consider Impact's analysis and results appropriate for this intersection. Overall, the intersection is anticipated to operate under "excellent" conditions post development, with minimal delays and queues anticipated for motorists.

It is noted that Impact's assessment did not include an analysis of the intersection of Mollison Street and Nicholson Street, situated approximately 50 metres west of the intersection of Mollison Street and Little Nicholson Street. Given a considerable amount of traffic movements attributed to the proposed development and surrounding developments will be distributed to this intersection, Cardno has also undertaken a SIDRA Intersection analysis to determine post development operating conditions of this intersection. The analysis confirmed that this intersection is also anticipated to operate under "excellent" conditions during both AM and PM peak hour scenarios. During the PM peak period (representing 'worst-case' conditions), the most heavily affected leg is predicted to be the eastern leg, with average delays and 95% queue lengths of 12 seconds and 27 metres, respectively. The post development intersection operation, including delays and queue lengths are anticipated to be manageable for motorists.

Further, Cardno is satisfied that the additional movements distributed to Victoria Crescent (namely at the intersection of Mollison Street and Victoria Crecent) will not cause detrimental impact to the operating conditions of this intersection or the surrounding road network.

Impact's SIDRA Intersection analysis of the proposed Victoria Crescent and Proposed Access intersection indicates that the intersection is anticipated to operate under excellent

conditions; a similar rating is anticipated for the proposed Victoria Crescent and proposed access intersection as part of the 32-68 Mollison & 10 Victoria Crescent development.

It is worth noting that the traffic analysis undertaken by Cardno and other traffic engineering consultants does not calculate the likely traffic volumes generated by the existing uses at each sites. Ideally, any existing traffic movements associated with the existing sites should be deducted from the post development traffic analysis. Therefore, traffic impact assessments offered to date are to some extent conservative in nature.

Operations of Little Nicholson Street (in the Vicinity of Mollison Street)

As indicated in Cardno's traffic network diagrams attached to this assessment, a total of approximately 244 vehicle movements are anticipated within Little Nicholson Street between Mollison Street and the Unnamed Laneway in both AM and PM peak hours. Of these movements:

- *202 northbound movements and 42 southbound movements are anticipated during the AM peak; and*
- *43 northbound movements and 202 southbound movements are anticipated during the PM peak.*

Considering this 50 metre section of Little Nicholson Street is proposed to provide connections to three (3) access points across three (3) different developments, it is suggested that all access points be designed to accommodate concurrent ingress and egress movements to mitigate the risk of traffic congestion within this portion of Little Nicholson Street. Considering the proposed localised widening of Little Nicholson Street as part of the 20-30 Mollison Street proposal, and acknowledging the anticipated low frequency of opposing movements, it is likely that the above will be achievable.

<u>Additional comments received on 31 October 2018 regarding moving all vehicle access to Little Nicholson Street:</u>

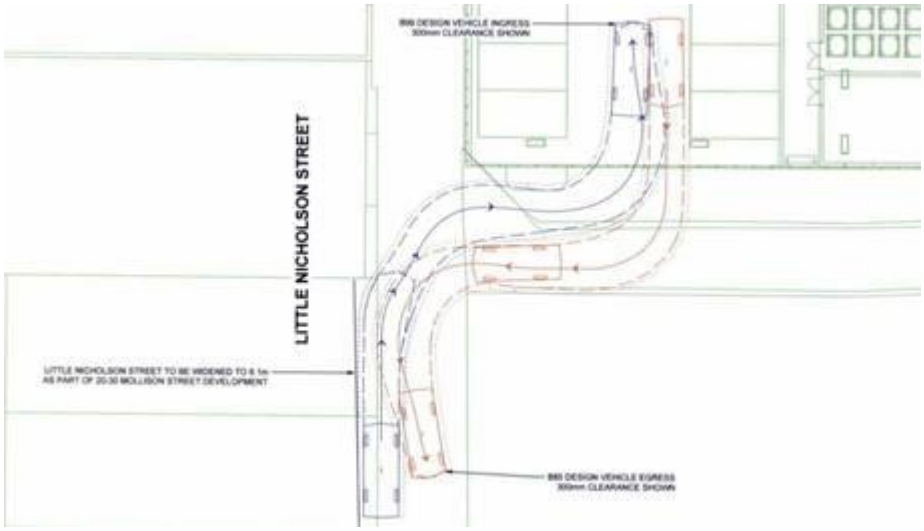
We have undertaken a preliminary updated SIDRA review adding the additional traffic to Little Nicholson Street (no vehicle access via Victoria Crescent).
Our initial analysis indicates that Little Nicholson Street and the surrounding intersections of Little Nicholson Street / Mollison Street and Mollison Street / Nicholson Street will continue to operate satisfactorily (in line with the original analysis).

You mentioned the applicant said the lane / Little Nicholson Street would fail – Do you have any further information on this from the applicant? Interested to understand how/when/why would the lane / Little Nicholson Street fail (queue lengths, conflicting movements etc.)?

Understandably, the access lane connecting to Little Nicholson Street does not currently allow simultaneous passing manoeuvres only an inbound vehicle passing a stationary outbound vehicle as shown below in Impact's swept path review.

Therefore, increasing the traffic movements to/from the site increases the probability of conflicting movements on this one way section of access lane.

Ideally, we would recommend that simultaneous passing movements are afforded to/from the site – this would likely require setbacks of the subject site and/or the adjacent building (32-68 Mollison Street).



Further comments provided on 31 October 2018 following the receipt of the applicant's additional traffic advice:

The advice notice prepared by Impact is considered appropriate, in particular the comments regarding the existing operating conditions of Little Nicholson Street noted to currently operate outside of its environmental capacity during the peak periods.

The advice notice doesn't seem to refer to the possibility of removing the Victoria Crescent access however.

Considering the possibility of removing the Victoria Crescent access and having all vehicle movements via Little Nicholson Street, we note the following:

- *Traffic movements generated by the subject site via Little Nicholson Street will essentially double.*
- *Little Nicholson Street currently operates outside of its environmental capacity during peak periods and the additional movements are unlikely to cause any additional major delays or queueing.*
- *As noted in Impact's advice notice, vehicle conflicts at Little Nicholson Street could be expected to be more pronounced however considering the majority of movements will be via the southern end of Little Nicholson Street and the accessway at this location is proposed to be widened to 6.1m, potential queuing or delays could be lessened.*
- *Office development peak hour flows (90% inbound in the AM and 90% outbound in the PM) lessen the likelihood of conflicting movements.*
- *The counter flow traffic movement is predicted to only increase by 5 movements and therefore only resulting in a minimal increase that there will be vehicles travelling in both directions on the one-lane section of road.*

Based on the above and review of the updated SIDRA analysis as well as a review of the probability of conflicting movements on a one-way roadway, vehicle access solely to/from Little Nicholson is considered okay.

Additionally, we agree that option 2 (noted in Impact's advice notice) to convert Little Nicholson Street to one-way southbound could benefit the access arrangements for the sites at the south.
Noting however, swept paths will need to be reviewed for the subject site, specifically in relation to entry manoeuvres via Little Nicholson Street and passing of exiting movements.

It's also worth noting that if we are unable to setback the adjacent site to the south, then there is no great advantage setting back the subject site as simultaneous passing manoeuvres will not be achieved, however noting setting back the subject site would improve sight lines for exiting vehicles to the south to view approaching vehicles – this could also be substituted with the use of a convex mirror/s.

Further comments on 2 November 2018:

Assuming you mean Little Nicholson Street is converted to one-way flow southbound, this arrangement is considered okay. Leaving Little Nicholson as two-way flow would likely cause congestion and issues surrounding priority and passing under the circumstances you mentioned.

Although Little Nicholson Street is operating in excess of its environmental capacity, our preliminary analysis indicates that the intersection of Mollison Street and Little Nicholson Street is anticipated to operate satisfactory with Little Nicholson Street converted to one-way southbound (i.e. all existing and anticipated traffic volumes heading south).
Preliminary results indicate queues are anticipated up to 2 vehicles in length on Little Nicholson Street and next to no queueing or delays on Mollison Street.

The one-way arrangement largely avoids two-way conflicts for the proposed developments however swept paths would need to be updated to ensure all vehicles (including loading vehicles) can ingress and egress from the three new sites.
Ingress/egress manoeuvres for the subject site in particular need to be reviewed, as mentioned, in relation to entry manoeuvres via Little Nicholson Street and passing of exiting movements.
I envisage a convex mirror or warning light system could assist subject site ingress and egress movements to function effectively and safely.

Additionally, it is worth considering pedestrians and cyclist movements through Little Nicholson Street – is it currently a heavily used route for pedestrians or cyclists?