

# 13.0/ ACCESS & MOVEMENT

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DATE 1 / 1 PLAN ..... of .....  
For and on behalf of the Responsible Authority  
Plan referred to in Permit No: .....  
relating to use/development of land.  
YARRA PLANNING SCHEME  
PLANNING & ENVIRONMENT ACT 1987

# 13.1/ TRAFFIC MOVEMENT ANALYSIS

## MOVEMENT ANALYSIS

Given the inner urban location of the site and the well connected arterial road network, the broad traffic distribution of the site will be (relatively) evenly split in all directions. Locally, traffic will be directed to use Bendigo Street in preference to the other surrounding local streets.

Based on surveyed traffic generation rates of comparable residential developments and considering the existing traffic generated by the GTV 9 operation, the proposed development is expected to generate an additional 1,000 vehicle movements per day, with these movements distributed across all streets surrounding the site.

This additional traffic can be accommodated, with estimated future daily traffic volumes on all streets surrounding the site expected to remain within the target daily volumes for comparable residential street type within the Yarra Planning Scheme.

A Traffic and Transport Analysis has been undertaken by Cardno and should be read in conjunction with this Development Plan.

Subject to approval by the Responsible Authority and any Referral Authorities at the detailed planning application stage, the Development Plan proposes the following changes to the existing road network adjacent to the subject site:

### Khartoum Street:

- Provision of a 5.5 metre wide trafficable road that allows unimpeded two-way traffic.
- Intended parking to the south side and north side at the eastern end of Khartoum Street as illustrated in Figure 01/ Proposed Road Network.

### Jago Street:

- A widening on the north-south section of Jago Street to allow north bound traffic as far as the proposed east-west laneway as illustrated in Figure 01/ Proposed Road Network.

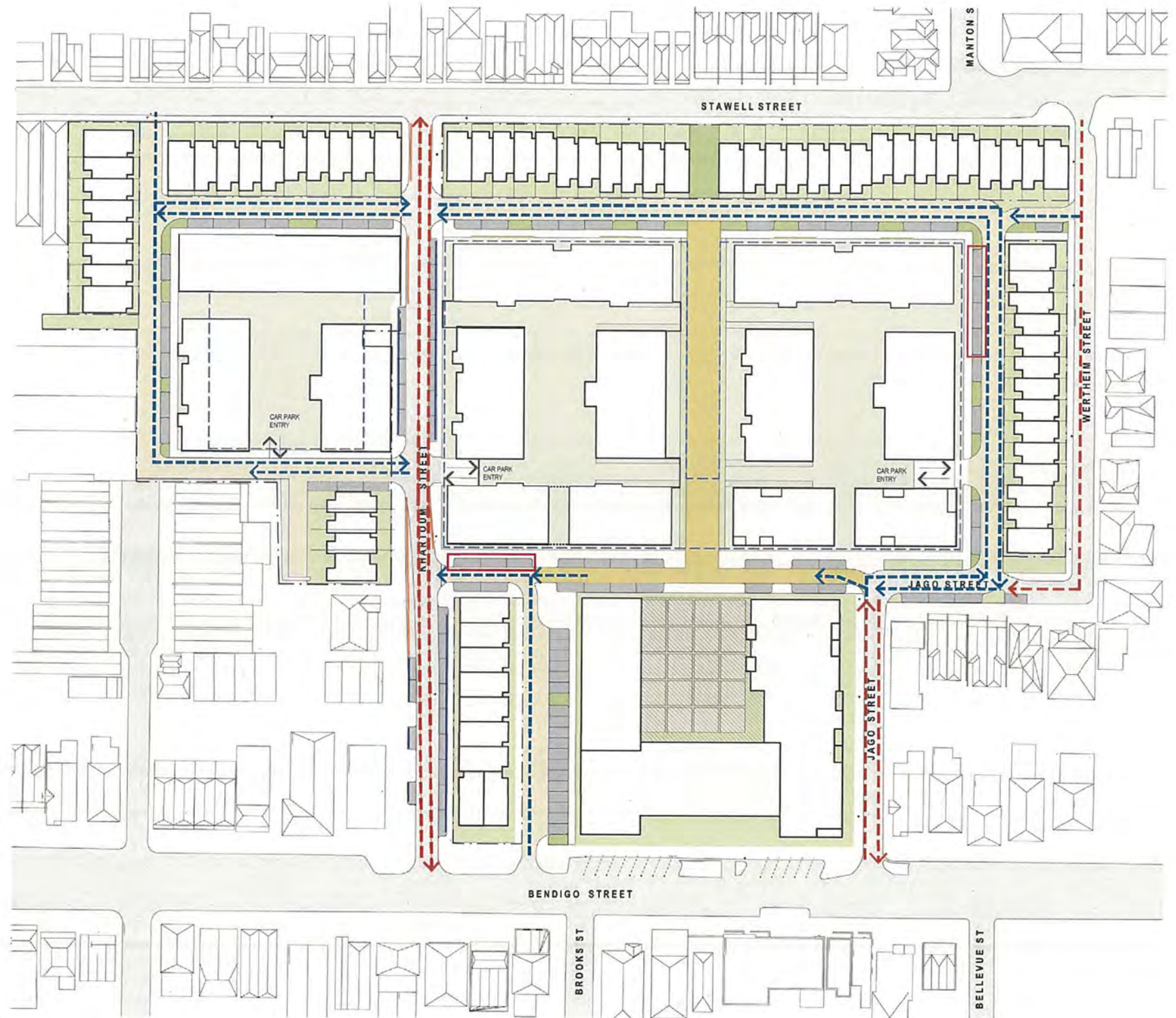
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### INTERNAL ROAD NETWORK LEGEND

	EXISTING ROAD NETWORK
	NEW PUBLIC LANEWAY
	RESTRICTED VEHICLE ACCESS PEDESTRIAN PRIORITY (SHARED ZONE)
	ALLOCATED WASTE PICK-UP ZONE
	EXISTING VEHICLE ACCESS
	NEW PUBLIC VEHICLE ACCESS



01/ PROPOSED ROAD NETWORK

# 13.2/ STREET PROFILES

## STREET PROFILES

Proposed new streets serve as access through the site as well as providing rear access to garages of the proposed townhouses.

## HANDOVER OF STREETS TO COUNCIL

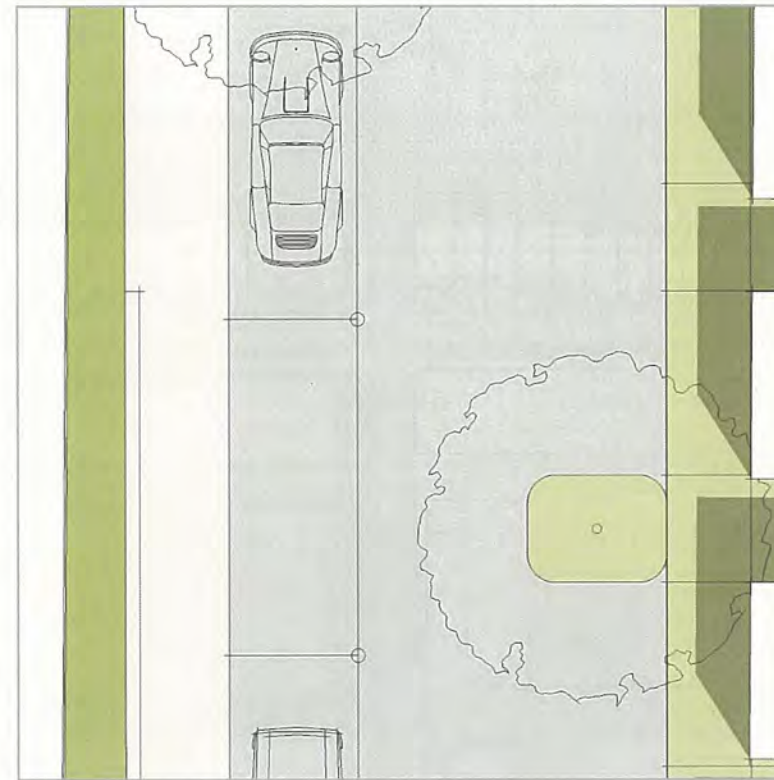
The timing of when the streets will be handed over to Council will be informed by the staging of the development. An indicative staging plan is illustrated opposite.

## PARKING RESTRICTIONS

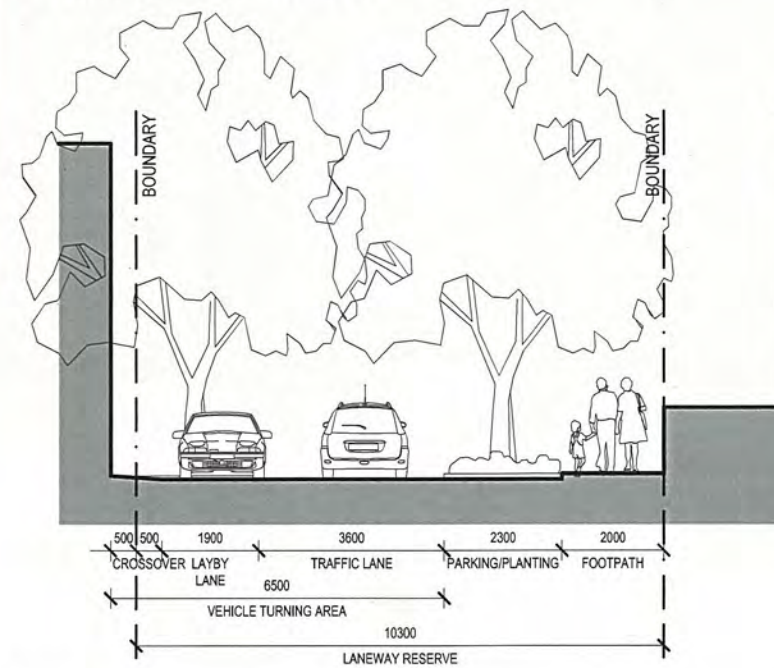
Parking restrictions for the proposed streets will be consistent with existing neighbouring streets, typically for 2 hour and 4 hour parking. The Council will enforce parking restrictions under the Roads Management Act for the new streets.

## INTEGRATED TRANSPORT PLAN

An Integrated Transport Plan (ITP) has been prepared and should be read in conjunction with this Development Plan.



**01/ PROPOSED ROAD RESERVE**  
TYPICAL 10.3M LANEWAY PLAN



**02/ TYPICAL PROPOSED ROAD RESERVE**  
TYPICAL 10.3M LANEWAY SECTION



**03/ DEVELOPMENT STAGING PLAN**

NOTE: STAGING AND TIMEFRAME IS INDICATIVE ONLY

- STAGE 1 2012-2013
- STAGE 2 2012-2014
- STAGE 3 2012-2014
- STAGE 4 2013-2015

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**04/ EXAMPLES OF STREET CHARACTER**

# 13.3/ RESIDENT AND VISITOR PARKING

## RESIDENT CAR PARKING

The following car parking spaces will be provided for residents:

- 1 Bedroom - 1 Space per dwelling
- 2 Bedroom - 1 Space per dwelling
- 3 Bedroom - 2 Spaces per dwelling

Resident car parking will be located in secure basement car parks beneath the apartment buildings and individual garages for the townhouses.

## VISITOR CAR PARKING

The following car parking will be provided for visitors:

- 1 Space per 0.12 dwellings

## COMMUNITY AND MIXED USES

The following car parking will be provided for staff associated with community and mixed uses:

- 1 Space per 100m<sup>2</sup> net usable/lettable floor area

Staff parking is proposed to be located at street level in close proximity to the proposed community and mixed uses to be located in the existing heritage building. The detailed arrangements of the staff parking provision will be further described at the detailed planning application stage and will be subject to approval by the Responsible Authority.

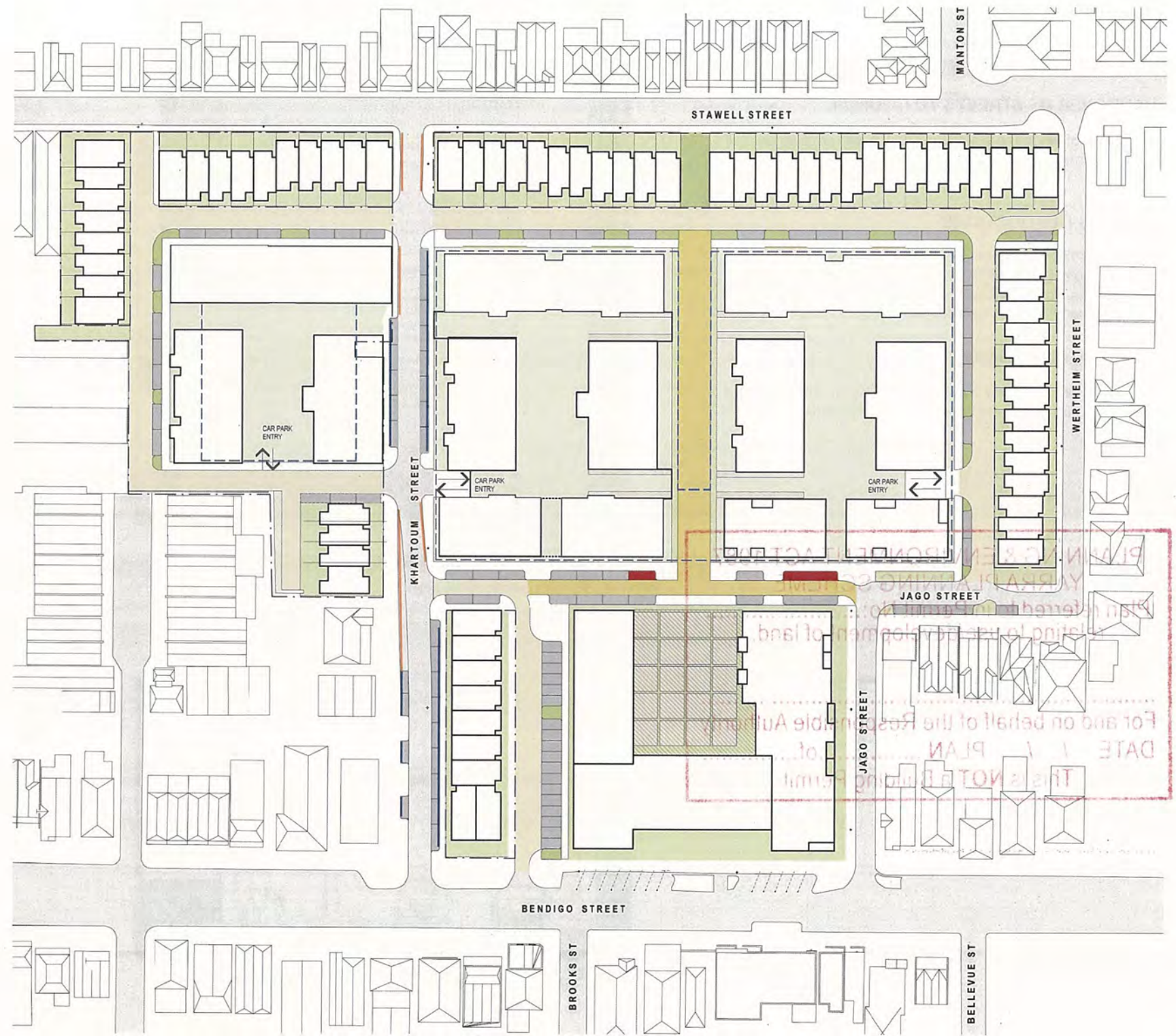
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### VISITOR PARKING LEGEND

TYPE	
PARKING	
CAR SHARE PARKING	
OUTLINE OF RESIDENT BASEMENT/PODIUM PARKING	
RESIDENTIAL PERMIT PARKING	
NO STANDING ZONE	



**01/** INDICATIVE CAR PARKING PLAN

# 13.4/ PEDESTRIANS AND BICYCLES

## PEDESTRIAN + BICYCLE ACCESS

The site will provide a well connected and permeable pedestrian and bicycle network.

As vehicle volumes and speeds on the internal streets will be low it is intended that pedestrians and cyclists will be able to share the road space with vehicle traffic. In addition footpaths will be provided along all new public laneways to allow pedestrians to move through these laneways clear of vehicle traffic. All new footpaths will connect to the existing footpath network on the surrounding streets.

The proposal will also include a central east-west pedestrian route through the centre of the northern portion of the site connecting Stawell Street and the public square to the rear of the heritage building.

## BICYCLE PARKING

Bicycle parking will be provided at a rate of 1 space per 2 dwellings for residents and 1 space per 10 dwellings for visitors.

Townhouse resident bicycle parking will be accommodated on-site within individual garages with apartment resident bicycle parking to be provided in accessible and secure areas. Visitor bicycle parking will be provided in strategic locations around the site and generally incorporate within the streetscape and landscaping.

Additional bicycle parking will be provided for staff and visitors to the community and mixed uses at a rate of 1 space per 500m<sup>2</sup> and 1500m<sup>2</sup> (NLA) respectively.

## ACCESSIBILITY

Future planning permit applicants should consider the requirements of the DDA and incorporate an access strategy that addresses the changing needs of users and access in the broadest sense to reflect the varying needs of individuals.

This approach should facilitate inclusive solutions to access and ensure that opportunities for maximizing access to all appropriate areas of the site development are identified throughout the design process.

The site will be designed to comply with AS 1428 in response to Disability Discrimination Act (DDA), enabling access to and within public buildings for all users and visitable access for mobility impaired users within new residential buildings.

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**BICYCLE PARKING LEGEND**

TYPE	DESCRIPTION
RESIDENTIAL	RESIDENTIAL
VISITOR BICYCLE PARKING	TYPICALLY 20 COVERED
RESIDENT BICYCLE PARKING	TYPICALLY 3-4 COVERED
RESIDENT BICYCLE PARKING	APARTMENTS - INTERNAL CARPARKS
TOWNHOUSES	ALL TO HAVE BICYCLE PARKING ON SITE
HERITAGE COMMUNITY/RETAIL	COMMUNITY AND RETAIL BICYCLE VISITOR PARKING
PEDESTRIAN AND BICYCLE ACCESSIBLE ROUTES	PEDESTRIAN AND BICYCLE ACCESSIBLE ROUTES

**01/ BICYCLE PARKING PLAN**



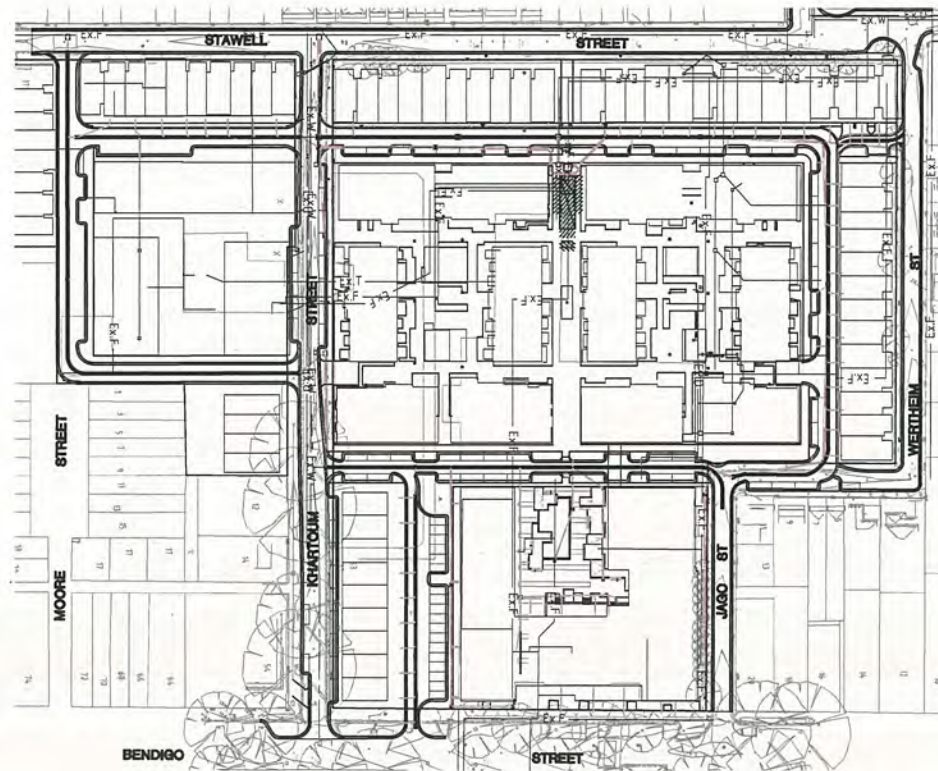
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# 14.0/ ENGINEERING & INFRASTRUCTURE

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# 14.1/ STORMWATER, WSUD AND SEWER

## 01/ PROPOSED STORM WATER DRAINAGE STRATEGY



### STORM WATER DRAINAGE

Under proposed conditions, the majority of stormwater will drain to the Stawell Street outfall drainage consistent with the catchment delineation under existing conditions.

Minor events up to the 10-year ARI are to be conveyed via an underground drainage network and major events up to the 100-year ARI are conveyed via internal roadways. The layout for the drainage system is provided with pipe sizes ranging from 300 mm to 450 mm in diameter.

The proposed drainage layout is based on the delineation of four catchments through the site. The drainage design is based on one major catchment with three minor catchments, the major catchment would be drawn upon for a stormwater harvesting system.

Overland flow conveyance for major events would be provided via roads with a minimum width of 5.5 m (kerb to kerb) a one-way cross-fall of 2% and a minimum kerb height of 130 mm.

### STORMWATER QUALITY - WATER SENSITIVE URBAN DESIGN

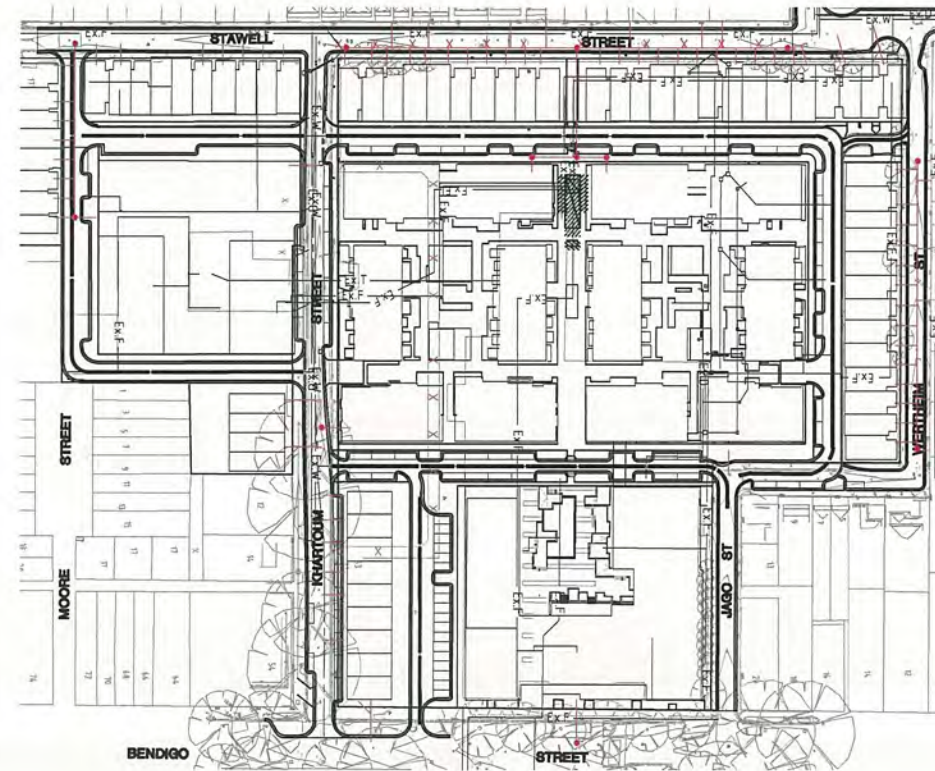
An integrated water sensitive urban response has been developed to utilise leading edge biofiltration systems to capture and harvest stormwater from roof and road surfaces and reuse locally to exceed Best Practice Standards.

An irrigation demand of over 2ML per annum will be serviced by a Biofilta Stormwater Solutions system or similar technology, which collects all sources of stormwater in a robust treatment train and filters through a spatially efficient and integrated biofiltration system.

Rainwater tanks are also provided on all townhouses to service toilet flushing.

The collection system and rainwater tanks will also serve to provide attenuation of peak storm flows by providing volume of storage on site.

## 02/ PROPOSED SEWER PLAN



### SEWER

A review of the adjacent sewerage network with the water authority sewer district planners has been undertaken which has confirmed that the proposed development can be adequately serviced (with the appropriate approvals) by the construction and re-grading of the existing gravity sewer running within easements and road reserves connecting to the existing infrastructure in the streets surrounding the site.

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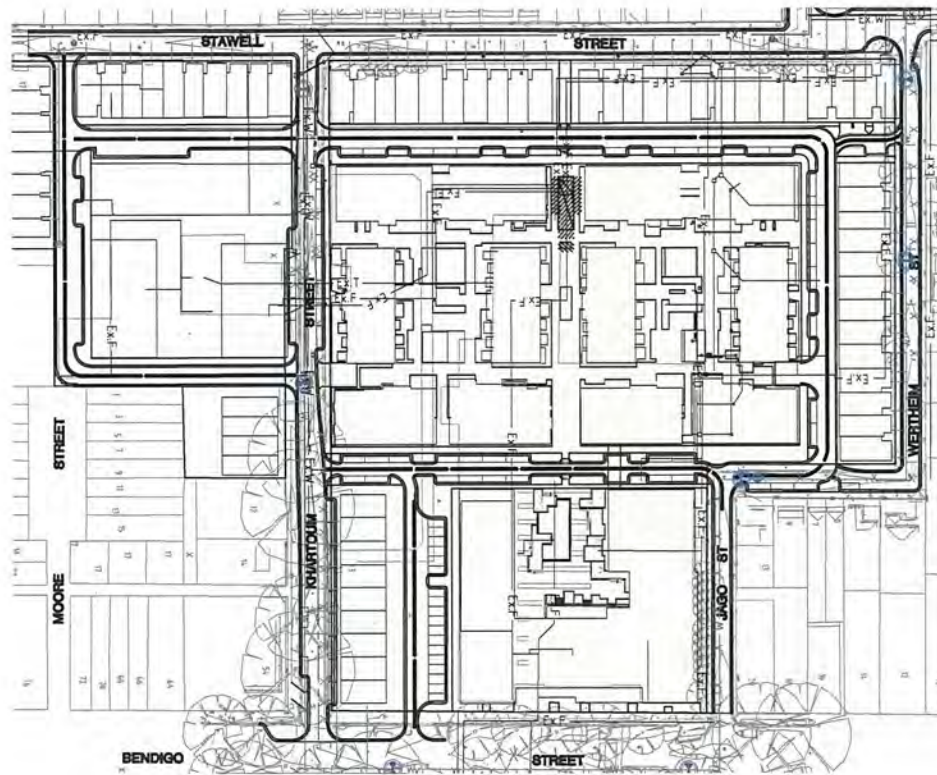
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# 14.2/ WATER AND GAS

## 01/ PROPOSED WATER PLAN

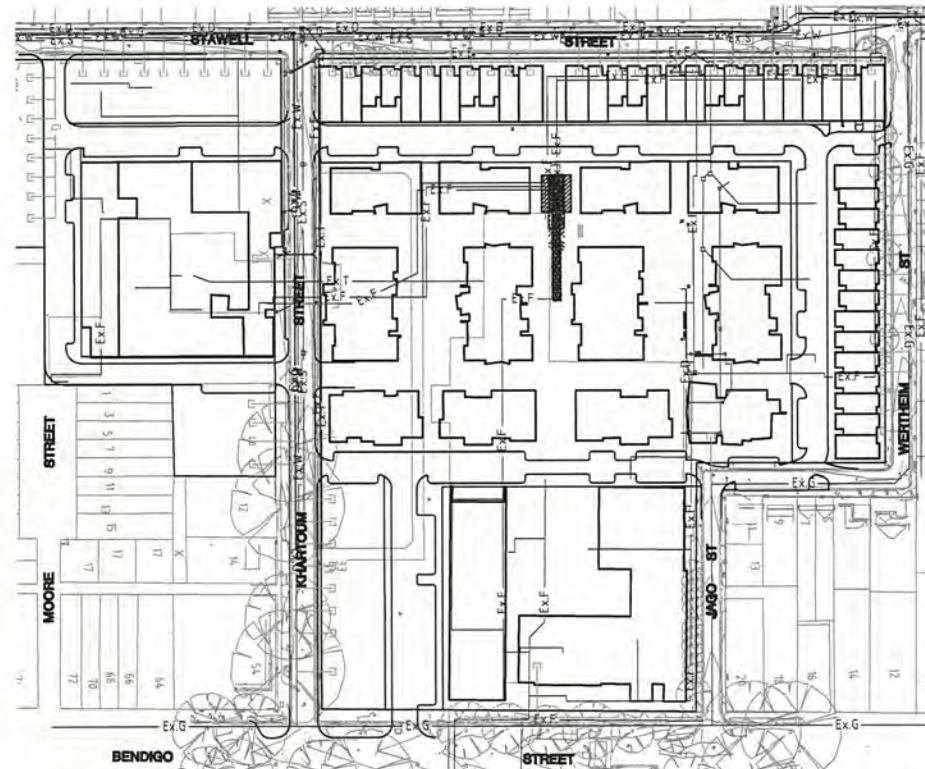


### WATER

A review of the water main network with the water authority has been undertaken, which has confirmed that the proposed development can be adequately serviced (with the appropriate approvals) by upsizing the existing water reticulation main, and the construction of an internal alternative water main link through the development connecting to the existing infrastructure in the streets surrounding the site.

The water authority district planners have highlighted a major water main upgrade beyond and outside the development located in Stawell Street. As part of their essential services renewal program this water main will be upgraded to cater for the increased number of dwellings within the district in conjunction with the proposed development.

## 02/ PROPOSED GAS PLAN



### GAS

The site is surrounded by low pressure natural gas mains which is typical for the Richmond area and adequate for the townhouse and lower rise dwellings. The site is also served with a high pressure gas main in Stawell Street which could be utilised to service the high rise part of the development.

A preliminary review of the gas main network has been undertaken with the gas authority and their retailer. The gas authority have confirmed that the proposed development can be adequately serviced (with the appropriate approvals) by upgrading the existing low pressure gas to high pressure main bounding the development.

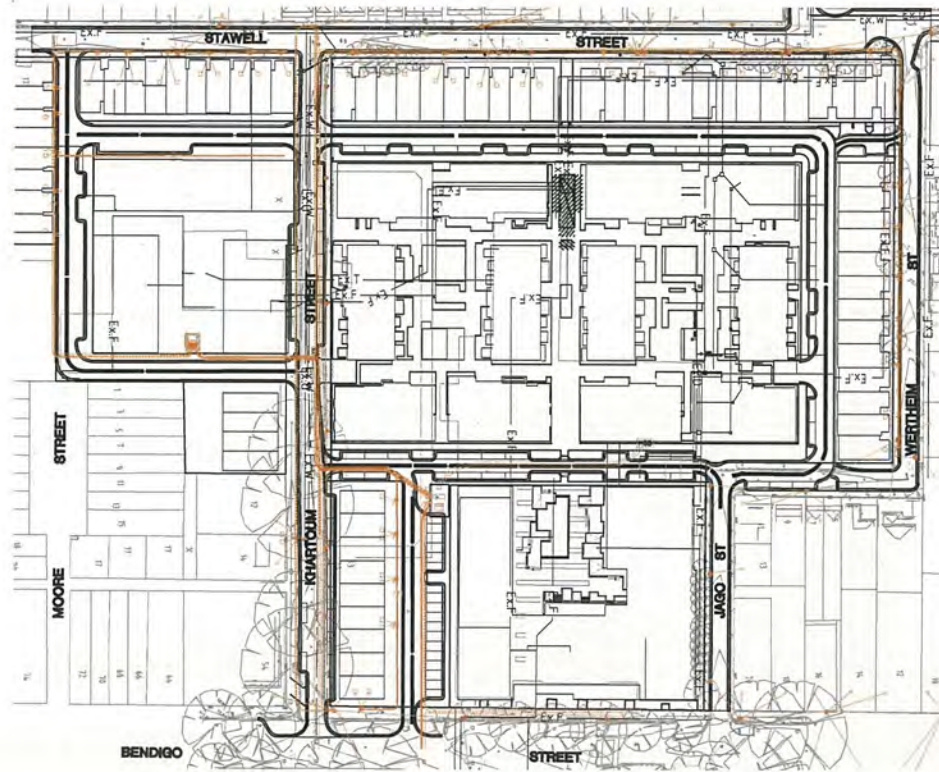
The gas authority has also advised the construction of an internal high pressure gas main will be required for reliability and be installed within easements and road reserves connecting to the existing high pressures infrastructure in Stawell Street on the western boundary.

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# 14.3/ ELECTRICAL AND COMMUNICATIONS

## 01/ PROPOSED ELECTRICAL PLAN



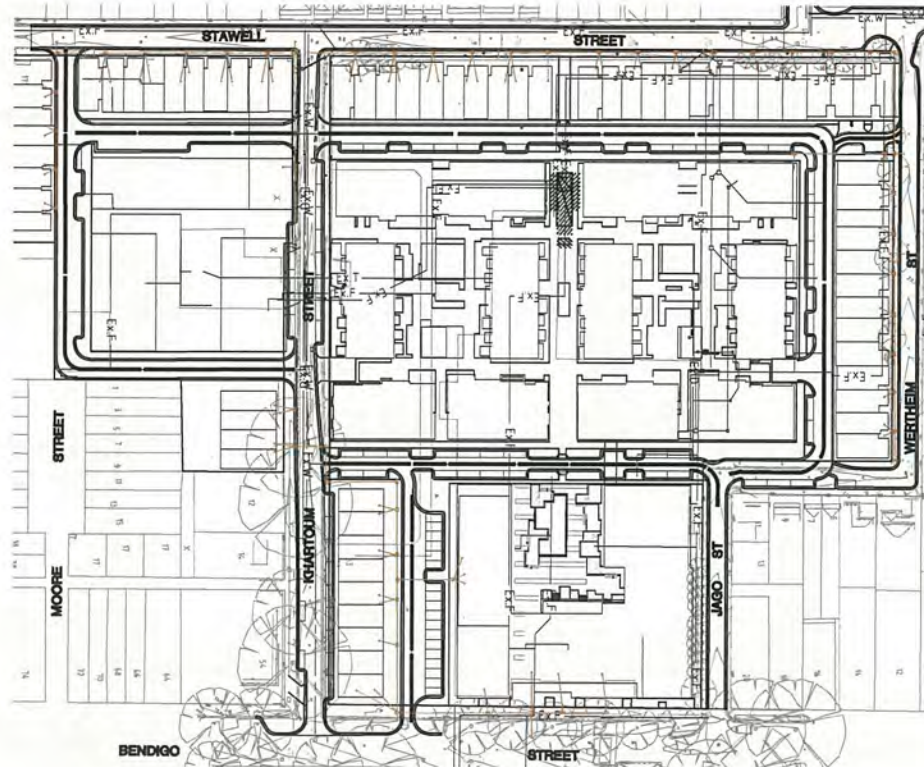
### ELECTRICAL

The existing site infrastructure comprises three (3) substations that will be decommissioned. Two (2) new kiosk substations will be provided to serve the entire site. Substations will be located to provide new low voltage supplies to each of the residential (and mixed use) development areas and to simplify the removal of existing substations and set up and energizing of new supplies.

Some undergrounding of existing electrical assets may be undertaken subject to approval by Citipower.


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## 02/ PROPOSED COMMUNICATIONS PLAN



### COMMUNICATIONS

A new network of pit and pipe (conduit) infrastructure will be laid throughout the site. A notional layout is provided on the communications infrastructure plan. The conduit network will provide access ways for both fibre and copper infrastructure cabling for the running of broadband, television and voice services to all residential apartments as required.

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3. *[Faint, illegible text]*





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# **15.0/ DEVELOPMENT STAGING**



15.01  
DEVELOPMENT  
STAGING

# 15.1/ DEVELOPMENT STAGING PLAN

## DEVELOPMENT STAGING OBJECTIVES

The development will be built in four stages as illustrated on the diagram opposite. The stages have been defined to achieve the following objectives:

- To minimise disruption to adjoining neighbours and the local street network during the construction phase
- To ensure there is minimal impact on the environment during the construction phase
- To safeguard the health and safety not only of workers and visitors to the site but also local residents
- To enable the progressive handover of public open spaces to the Council
- To facilitate the staged occupation of the development by new residents

## MANAGEMENT DURING CONSTRUCTION

Active and ongoing involvement in the management and monitoring of works during the construction phase will ensure monitoring of performance in respect to significant environmental aspects and impacts relating to site activities.

The proposed staging plan has been designed to minimise disruption to the local area and surrounding properties and ensure the safety and security of neighbouring residents.

Site working hours will be established and agreed with City of Yarra and working outside of these hours will be prohibited unless prior approval from the Council has been obtained. Perimeter hoardings will be erected to secure the site but also to contain dust and noise pollution. Night time lighting will be such that is sufficient to allow safe passage for security staff at night but without causing light pollution to adjoining neighbours.

All contractors working on site will be required to comply with a site code of conduct around the following principles:

**Considerate** – all works will be carried out with positive consideration of neighbours, local businesses and the environment.

**Environment** – noise from construction work should be kept to a minimum where practicable.

**Cleanliness** – the site will be kept clean and in good order at all times. Temporary hoardings, barriers, lights and warning signs will be maintained and dust from construction operations will be minimised

**Good Neighbours** – regular consultation with neighbours regarding the programme and nature of construction works being carried out shall be maintained.

**Respectful** – work will be carried out in a respectful manner to fellow workers and adjoining neighbours.

**Safe** – construction work will be carried out Incident and Injury Free to the general public as well as site personnel. No building activity shall be a security or safety risk to others.

**Responsible** – all construction workers will be expected to understand and comply with these principles.

Accountable – contact details for the senior construction management team on site will be made available

**A range of measures will be in place to prevent or control dust and other air emissions, such as:**

- Containment and removal of any hazardous materials in accordance with EPA Regulations
- Wheel wash facilities for all vehicles entering and exiting the site
- Regular cleaning of neighbouring streets
- Speed limits will be restricted on site to reduce dust and exhaust emissions
- Monitoring of air emissions throughout the construction process

**Similarly, noise pollution will be minimised through a range of measures, such as:**

- Control of noise at source where practicable (eg using screenings, shielding)
- Use of noise suppression covers when plant and machinery is operational
- Use of electrically powered plant where possible
- Where possible noisy plant and equipment will be kept away from sensitive noise boundaries or alternatively within enclosures
- Water pollution prevention will be managed through various measures in consultation with the Council, the EPA and Melbourne Water:
- All necessary discharge consents will be obtained for the disposal of any groundwater (de-watering) and excess water discharge to the sewerage network or surface water systems during construction
- Where appropriate drainage points will be marked to differentiate foul and surface water drains
- Water run-off will be contained and where necessary treated before discharge

- STAGE 1 2012-2013
- STAGE 2 2012-2014
- STAGE 3 2012-2014
- STAGE 4 2013-2015



## 01/ DEVELOPMENT STAGING PLAN

NOTE: STAGING AND TIMEFRAME IS INDICATIVE ONLY