

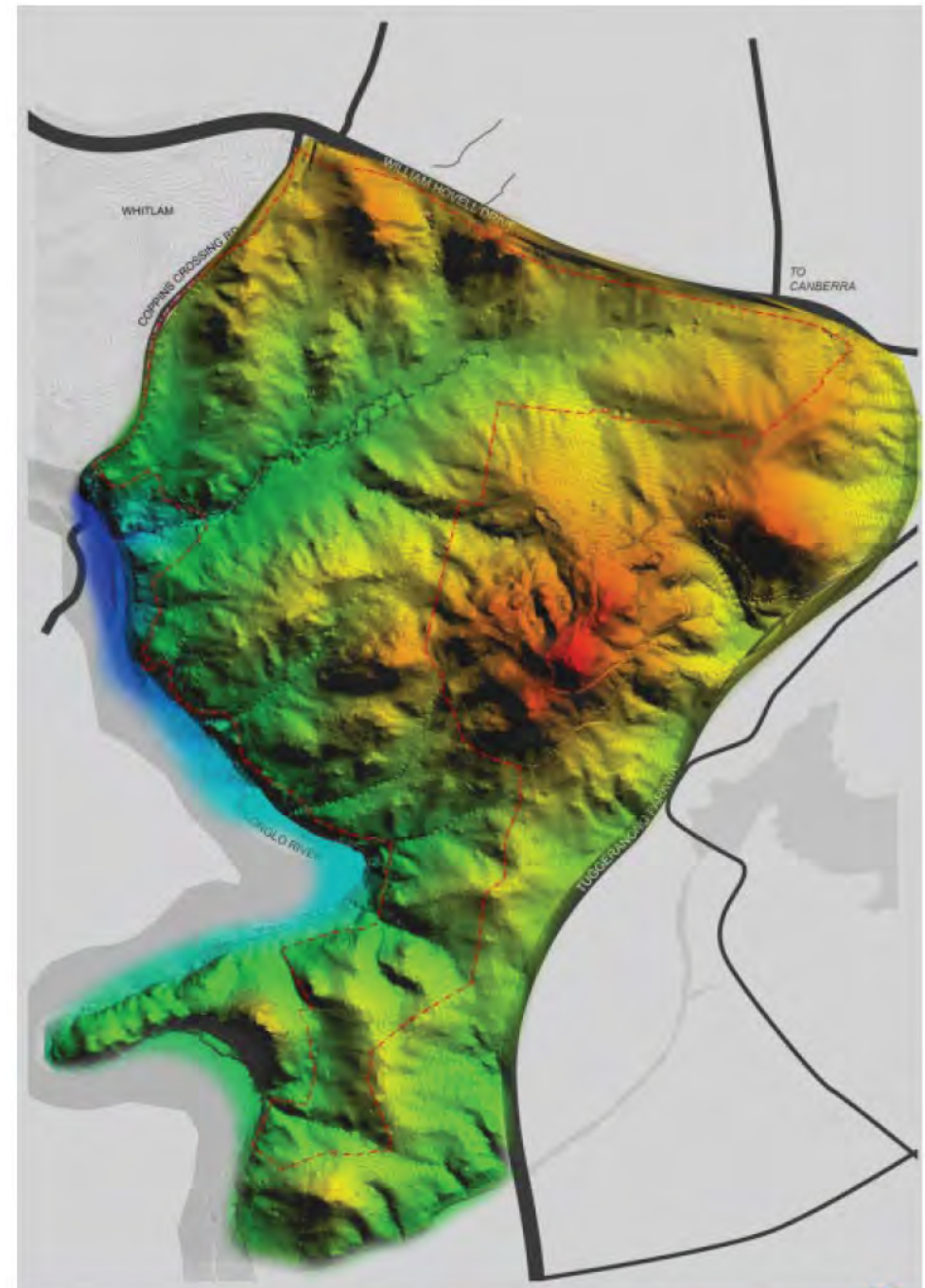
TOPOGRAPHY

BEST USE OF THE LAND

- Maintaining where possible natural gradients for roads and development
- DDA compliance
- Minimising large excavations of cut - achieving cut to fill balance
- Trails for walkers, bikes and horses, safety with regards to alignment - steep falls close to Coppins Creek and the Molonglo River / River Corridor

COPPINS CREEK

- Engineering to be sympathetic to the natural state of the creek and maintain the natural features
- Preservation of the river corridor
- Activation of the river corridor and linking previous stages of development along the corridor to the Molonglo River
- Maintaining quality of water within the creek and provide betterment (WSUD principles) where possible
- Potential flooding from Coppins Creek to the proposed surrounding development areas to be considered



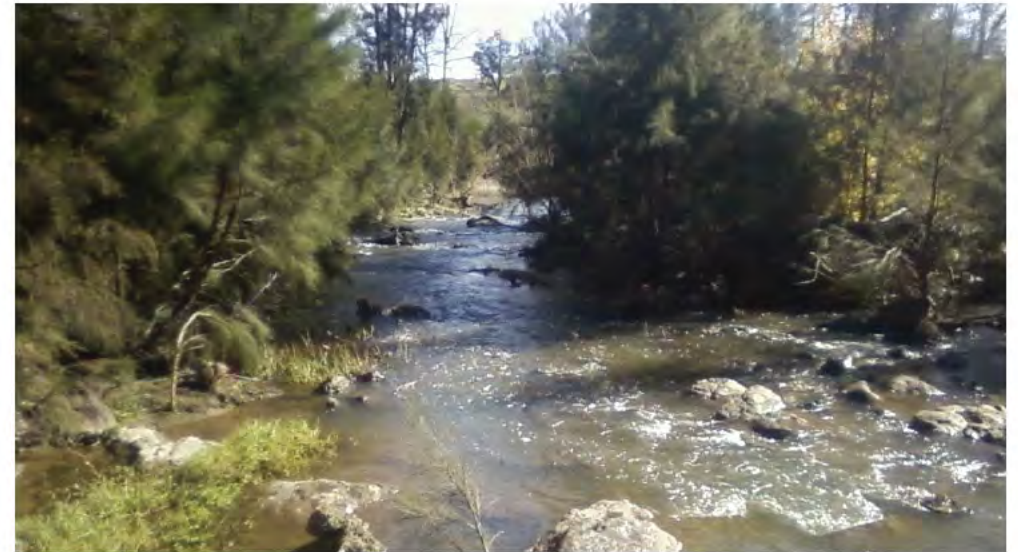
EXISTING SITE FEATURES

DIVERSIONS

- Diversions to be considered and co-ordinated with the relevant PUP Authority
- Linkage into the adjacent development of Whitlam - confirmation of adequate capacity for all services

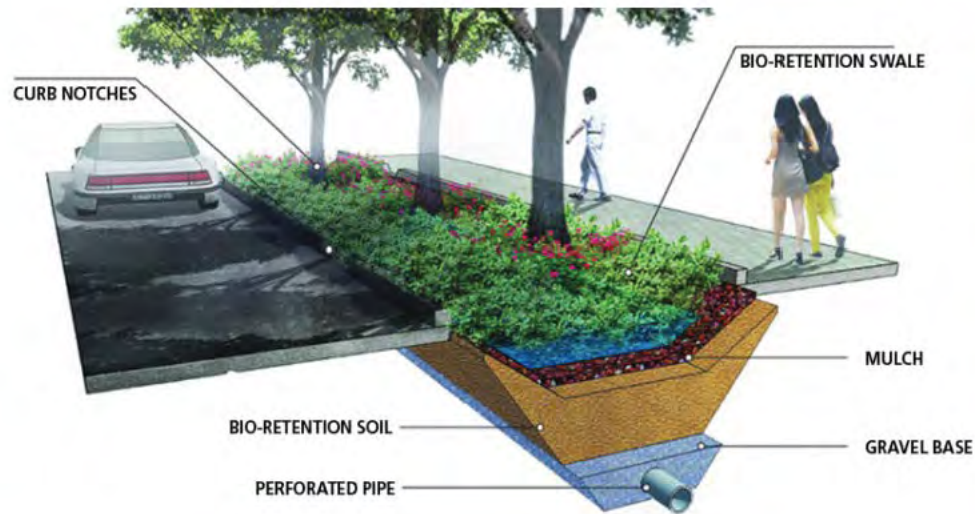
LAND USE WITH SERVICES

- Easements will always be required, but making best use of these spaces will be essential such as
- Walking or bike trails, parks or public open spaces



WATER SENSITIVE URBAN DESIGN

- End of Line Treatment
- Multiple Facilities
- Treatment trains and Rain Gardens



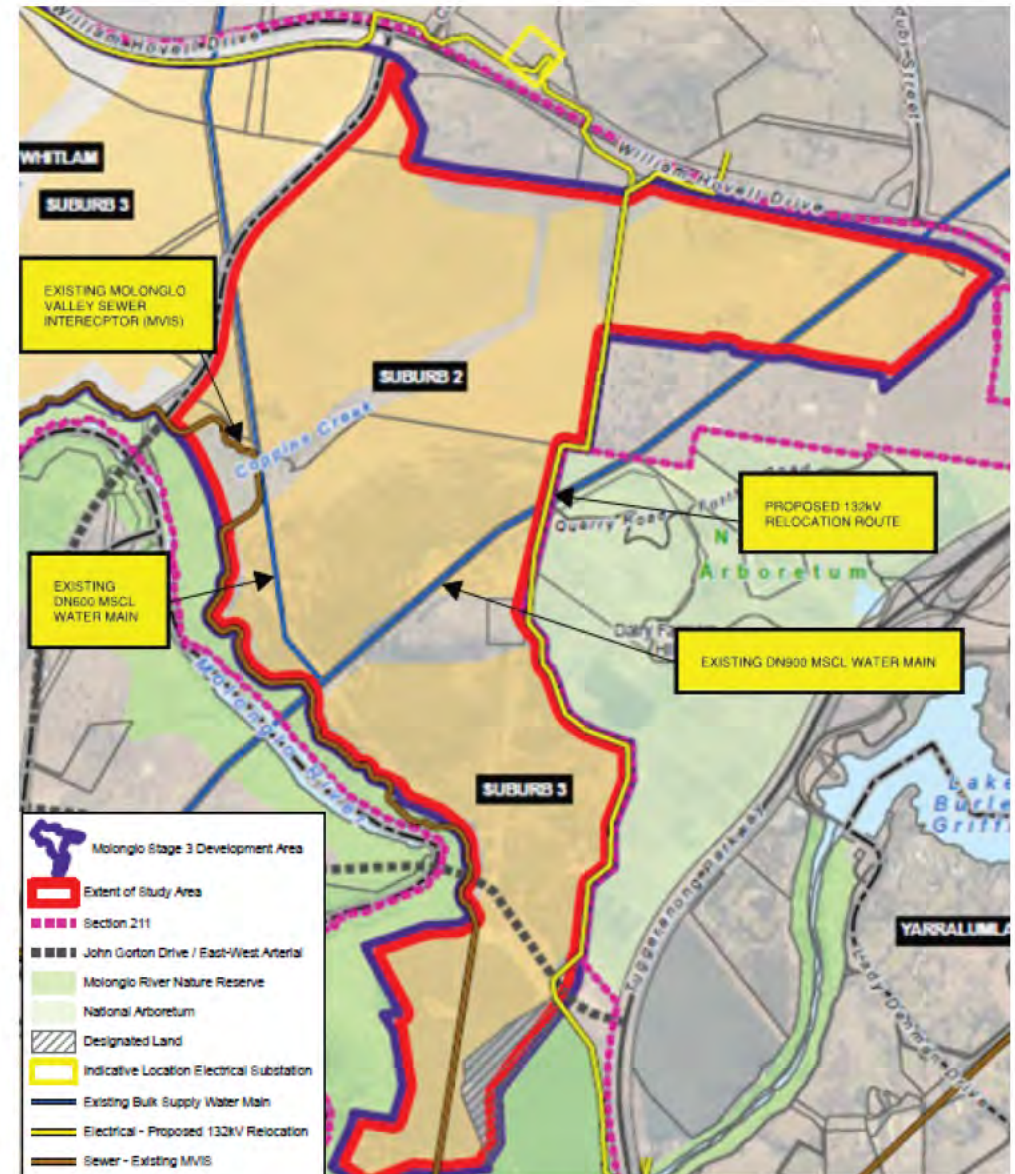
Section drawing of a rain garden



TRUNK INFRASTRUCTURE

EXISTING TRUNK INFRASTRUCTURE TO BE MAINTAINED

- End-of-line facilities such as Dams or Reservoirs provide a single point of control rather than multiple facilities across the precinct
- Easements to be considered in the development
- Alignment of roads to coincide with easements
- Open space within easements
- Easement widths to be confirmed with the relevant Public Utility Plant (PUP) Authority



Session_06

NEXT STEPS

MOLONGLO 3

RobertsDay

APPENDIX G

STAKEHOLDER PRESENTATIONS:

3 – EDGE ROADS



Molonglo 3 East

Edge Road

Treatment Memo



RobertsDay

WSP

elton
consulting

ROAD FUNCTION

The following considerations have been given to the design of the collector roads through Molonglo 3 East:

- Design speed of 60km/h.
- To accommodate a collector road with provision for a bus network, the traffic lanes should be a minimum of 4 metres.
- Likely require a prioritised pedestrian crossing (including cyclists and equestrians).
- A footpath will be provided along at least one side of the road, two sides where built up areas are situated on both sides of the road.
- On road cycle lanes of 1.5 metre width in both directions.
- Allowances for services and street tree plantings.
- Presumed not to accommodate on street parking (unless desirable based on adjacent land uses).

Acknowledging its role in the Movement and Place framework, the street will act in some instances as a Movement Corridor. Around local centres and as place functionality increases due to higher density housing and retail units, a more Vibrant Street road character would occur. To increase pedestrian amenity and encourage vibrancy, the following high-level strategies are considered:

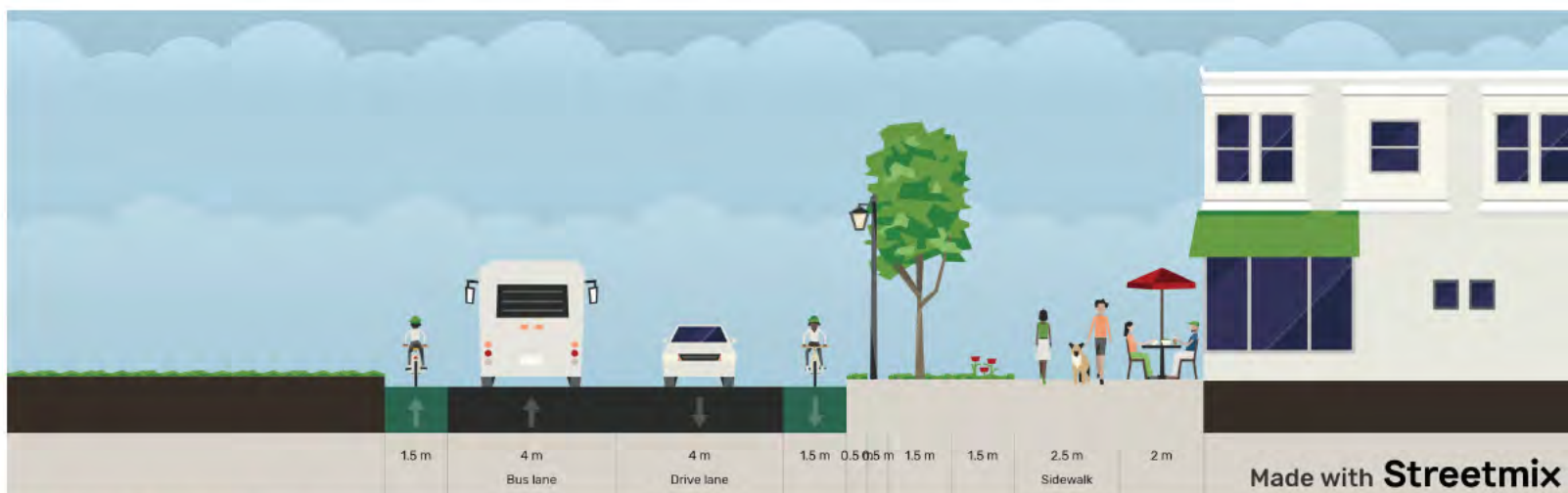
- Increase the quantity of bicycle parking spaces around the local centres and schools, to increase availability and further encourage cycling for short trips within the precinct.
- Reducing vehicle speeds on adjacent roads in pedestrian heavy areas can improve pedestrian and cyclist comfort levels, perceived safety concerns and encourage walking and cycling.
- Increase the number of pedestrian and cyclist connections across the collector roads.
- Create safe, secure and spacious environments for pedestrians to encourage foot traffic and street level activity and therefore resulting in greater lengths of stay. This may include providing wider footpaths, where possible to encourage outdoor dining areas, as well as public seating to promote more pedestrian activity.
- Increase appeal of the environment by creating a “nicer place to be” including providing trees, parklets, park benches and green spaces.

Where the corridor performs an increased Movement function, the pedestrian environment should be maintained to encourage active transport around the precinct. The traffic lane widths and presence of cycle lanes/footpaths will remain along the entirety of the corridor.

TYPICAL SECTIONS



COLLECTOR EDGE ROAD - MEDIAN



COLLECTOR EDGE ROAD - NO MEDIAN



PRECEDENTS



MEDIAN ROAD_DONOVAN BOULEVARD - GREGORY HILLS



MEDIAN ROAD WITH BIKE LANES_THE HERMITAGE - GLEDSWOOD HILLS



STANDARD ROAD_AMY ACKMAN ST - FORDE



STANDARD ROAD WITH BIKE LANES_RODEN CUTLER DRIVE - BONNER

APPENDIX G

STAKEHOLDER PRESENTATIONS:
4 – GROUP CENTRE OPTIONS



Molonglo 3 East Group Centre Options

Nov 2020



Introduction



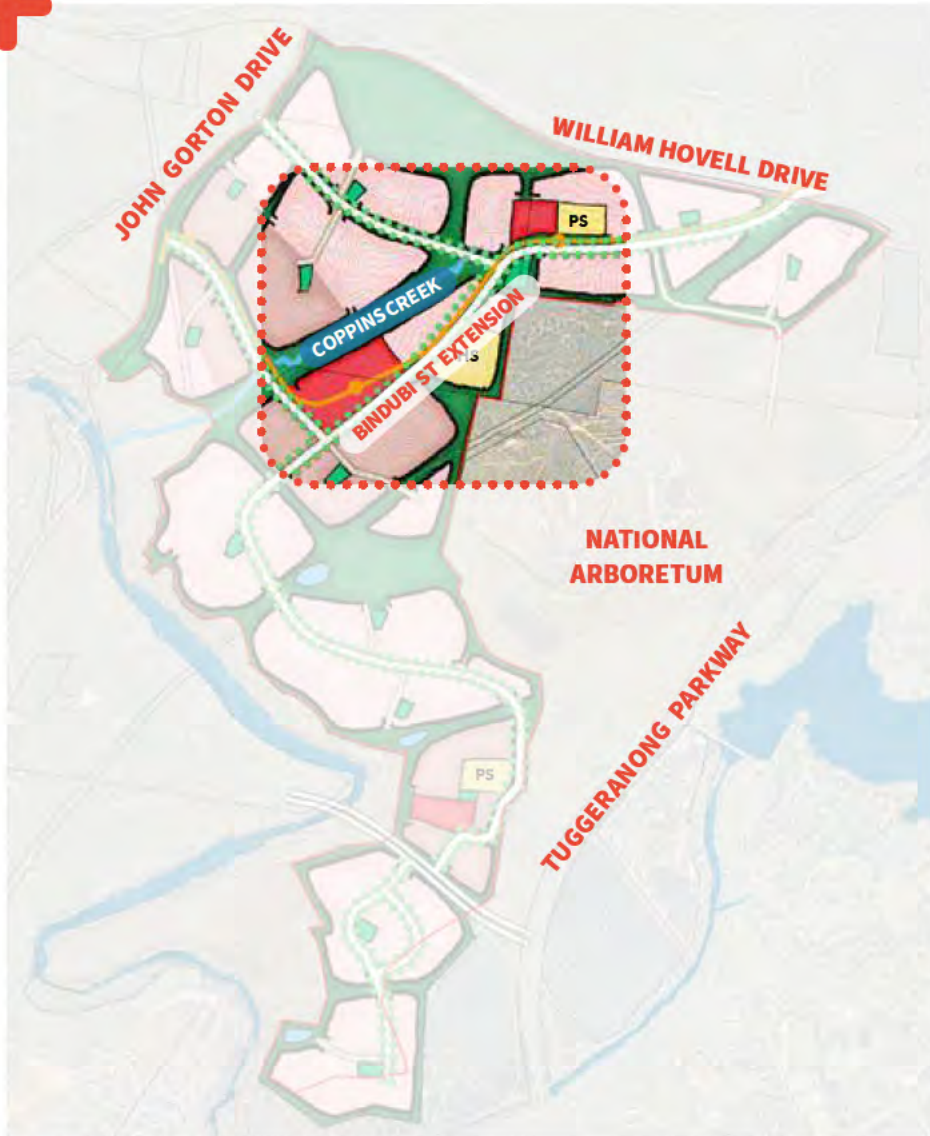
The Group Centre options undertaken are based on two of the Structure Plan Options presented during the Options Workshop.

The purpose of this report is to ensure there are considerations around place and Group Centre value as the overall transport network is considered.

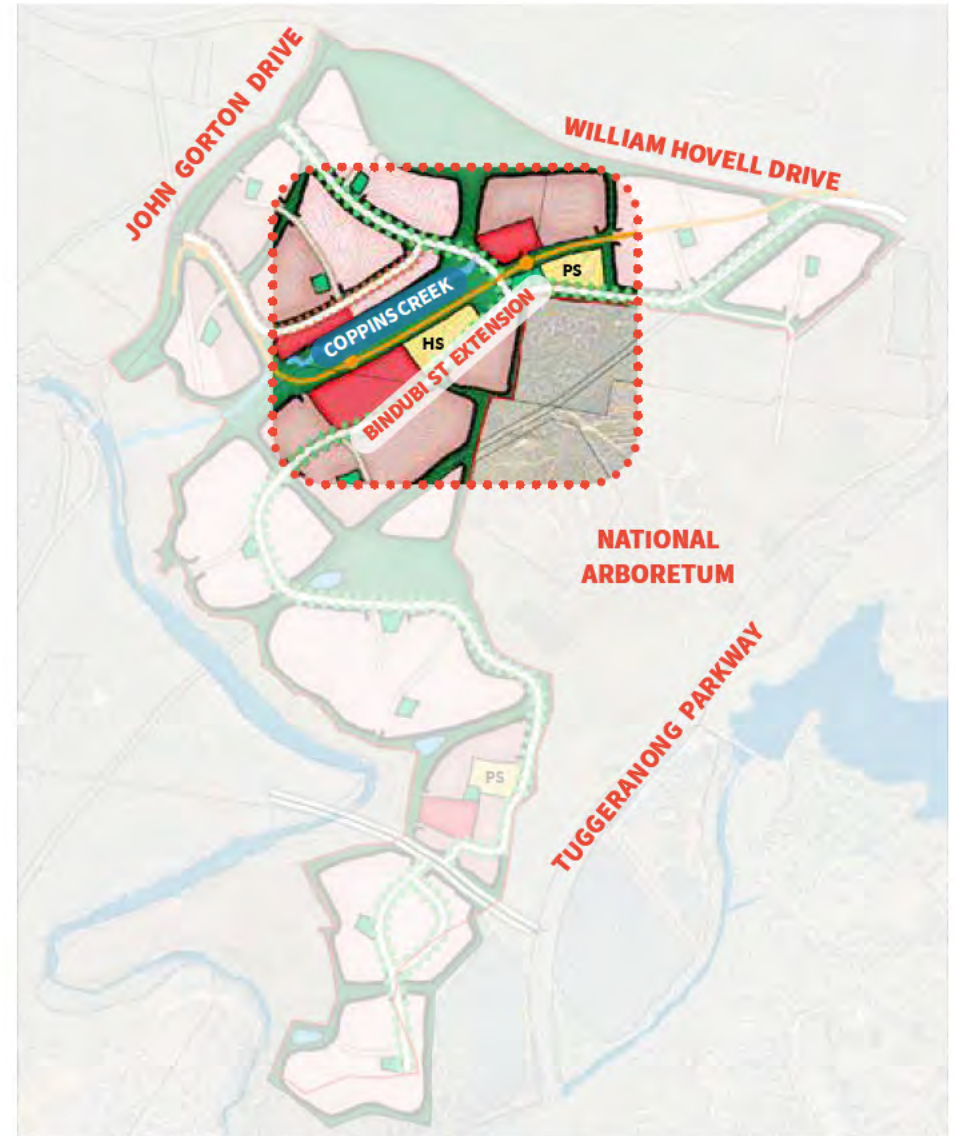
These preliminary options are designed to assist in choosing the preferred Structure Plan Option.

Once the Structure Plan Option is chosen, Hatch | Roberts Day will develop multiple 3D detailed design options and development summary info based on the preferred option.

VALUE	OPTION 1 BUSINESS AS USUAL	OPTION 2 PUBLIC TRANSPORT CREEK CROSSING
<p>ACTIVATION</p> <p>Option one offers traditional main street activation, while option two offers a more diverse series of active frontages. Use of the group centre and foreshore is likely to increase during before and after school hours.</p>		
<p>DENSITY</p> <p>Both options offer similar level of density, although option two offers a higher residential density, as it unlocks XXXXXX.</p>		
<p>COMMERCIAL VIABILITY</p> <p>While parking arrangements remain similar in both options, the likelihood of students visiting and using the group centre is significantly increased in option two, while parents may opt to meet their children here too.</p>		
<p>WALKABILITY</p> <p>Option two provides a safer and more enticing connection between the high school and group centre, and is less likely than option one to impact on the movement of vehicles (ie. Less intersections, less risk of jaywalking).</p>		
<p>QUALITY AND QUANTITY OF GREEN SPACE</p> <p>Option one offers a slightly larger green space between the school and group centre, while option two offers a more usable green space with more students likely to use it, and retail or hospitality fronting onto it.</p>		
<p>PLACE</p> <p>Both options will provide an excellent place, however option two may increase the immersive environment and experience for users.</p>		



OPTION 1 - Business As Usual



OPTION 2 - Public Transport Creek Crossing

Will the group centre be successful?



VISION

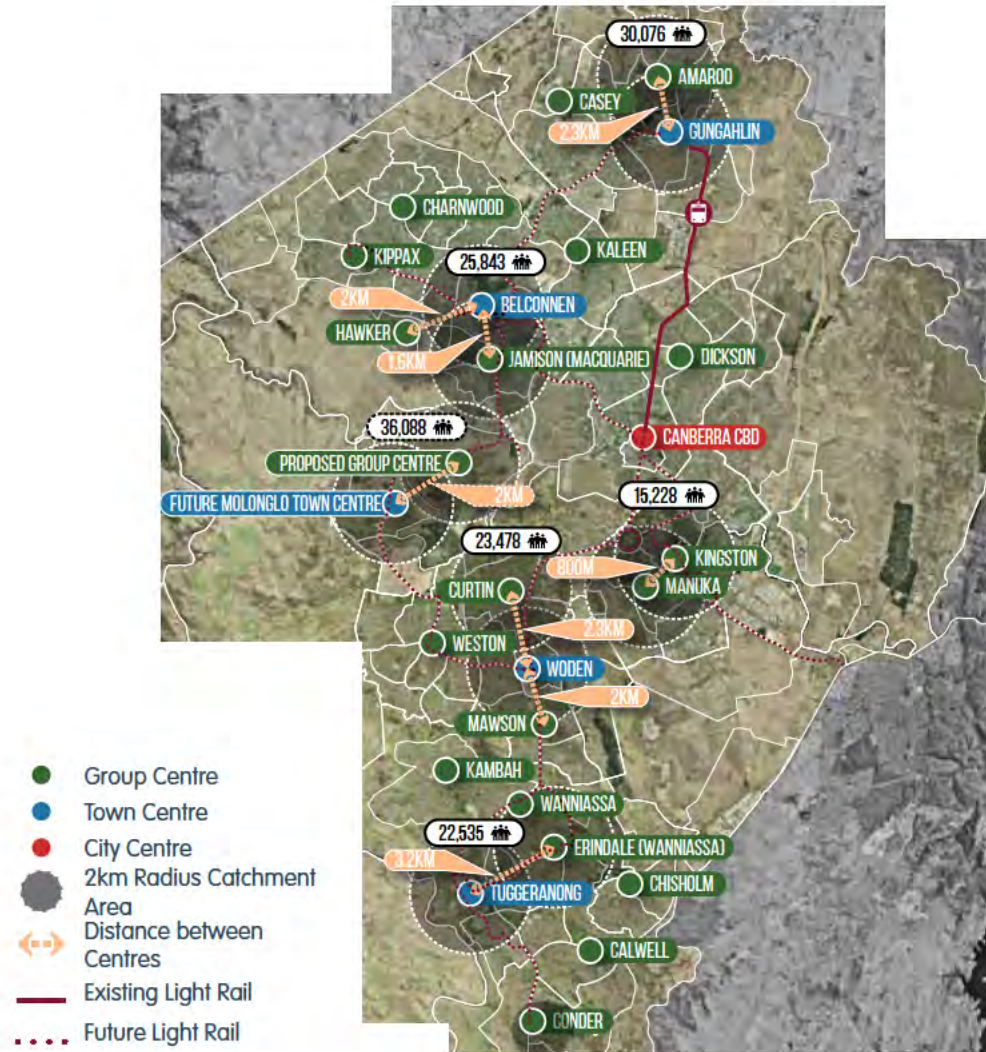
We understand that studies undertaken to date have identified a need for 2 x local centres and 1 x group centre at Molonglo 3 East.

Our team will use the RD Urbanity Index Benchmarking Tool to understand mixed use need (particularly acknowledging the proximity of the Molonglo Town Centre) in relation to the realistic population projections.

Our Urbanity Index provides a place-based overlay to conventional retail needs assessment, considering the following:

- + Criteria for success and failure of comparable suburbs/ centres
- + Evolving requirements of mixed use centres in areas benefiting from an integrated and people- focused movement system
- + Housing diversity that supports mixed use centres
- + Siting beyond that of movement economy principles with a focus on amenity, destination, identity and entertainment principles.

Economic and place perspectives

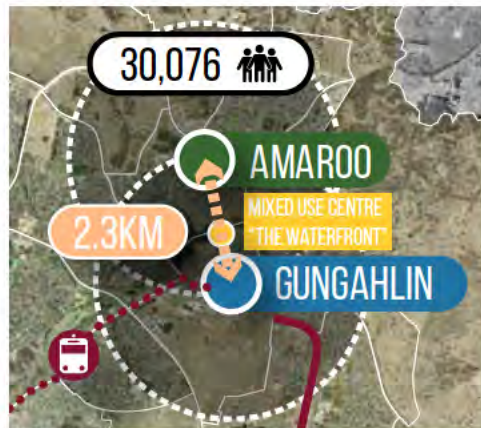


Option 1 - Business As Usual

Option 2 - Public Transport Creek Crossing

Group centre case studies

AMAROO - GUNGAHLIN

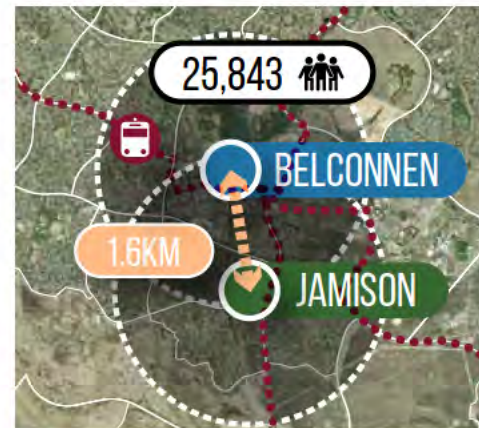


- Sufficient resident catchment/distance from neighbouring retail centres
- Light rail-connected
- Leverages off natural amenity or destination identity
- Mixed-use shop-top housing
- Colocated social infrastructure
- Low shop vacancies
- Walkscore* >80

KEY TAKEAWAYS

- Although neighbouring retail centres, Gungahlin and Amaroo, exist within close proximity, the mixed use centre, "The Waterfront", thrives due to its destinational location by the river.
- Retail centres can leverage off surrounding natural amenity to increase their attraction and customer pull.

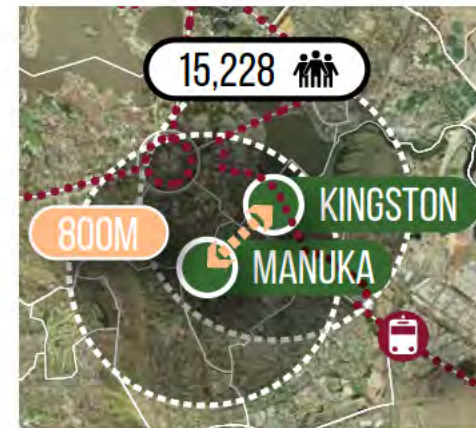
JAMISON - BELCONNEN



- Sufficient resident catchment/distance from neighbouring retail centres
- Light rail-connected
- Leverages off natural amenity or destination identity
- Mixed-use shop-top housing
- Colocated social infrastructure
- Low shop vacancies
- Walkscore* >80

- Although Jamison does not leverage off a unique destination identity, this group centre thrives within close proximity of its neighbouring town centre of Belconnen due to its full range of offering, both in terms of retail provision and its co-located social infrastructure such as the local school and sports fields. The planned light rail route bordering the centre will contribute to its continued success in the future.
- Retail centres benefit from the provision of a holistic range of retail offering, co-located social infrastructure and light rail connections.

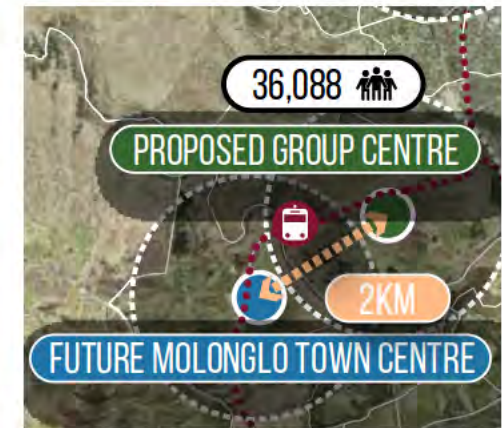
MANUKA - KINGSTON



- Sufficient resident catchment/distance from neighbouring retail centres
- Light rail-connected
- Leverages off natural amenity or destination identity
- Mixed-use shop-top housing
- Colocated social infrastructure
- Low shop vacancies
- Walkscore* >80

- While the Kingston commercial core has been experiencing vacancies, the Kingston foreshore area continues to thrive due to the lake's scenic and attractional qualities.
- With its unique identity characterised by intimate laneways, different price ranges, and a diverse retail offering from chain stores to boutique shops, the Manuka group centre continues to prosper just 800m away from the Kingston group centre.
- Retail centre success is enhanced when neighbouring centres provide a unique offering and/or experience, rather than attempting to compete with one another.

MOLONGLO



- Sufficient resident catchment/distance from neighbouring retail centres
- Light rail-connected
- Leverages off natural amenity or destination identity
- Mixed-use shop-top housing
- Colocated social infrastructure
- Low shop vacancies
- Walkscore* >80

CONCLUSION

- With sufficient resident catchment and distance from the future Molonglo town centre, there is a need for a group centre on the eastern side of the Molonglo area.
- The future success of the proposed group centre lies in its ability to become a unique destinational identity.
- This can be achieved by leveraging off the surrounding natural amenity of the creek and providing a mix of complementary uses, activities and retail offerings that is easily accessible via active transport links.

Group centre - key findings



WHAT SHOULD BE DISCOURAGED

- Vast expanse of tree-less, surface car park area
- Internally focussed big box shopping centre that has its back to natural amenity
- Isolated retail core that is mainly accessible with a car
- Car-dominant and unpleasant public realm
- Vehicular road creating a barrier between local centre and social infrastructure
- Retail offering in competition with neighbouring centre
- Mono-functional and insular zones



WHAT SHOULD BE ENCOURAGED

- Main Street or Promenade configuration
- Leveraging off natural amenity or a unique destination identity
- Unique retail offering to neighbouring centre
- Housing diversity including mixed use shop-top housing
- Range of uses and activities
- Co-located social infrastructure
- Walkability and active transport accessibility, especially easy access to light rail stops
- Car parking sleeved by active uses or slopes in topography
- Internal shared street stitching together retail centre and social infrastructure
- Comfortable micro-climate in public realm



1

Option 1

Option 01 Vision



VISION

A lively group centre will open to a beautiful foreshore to the south-west of this precinct.

The group centre will be a predominantly private car free zone, with a combination of pedestrian only streets, shared streets and delivery vehicle spaces.

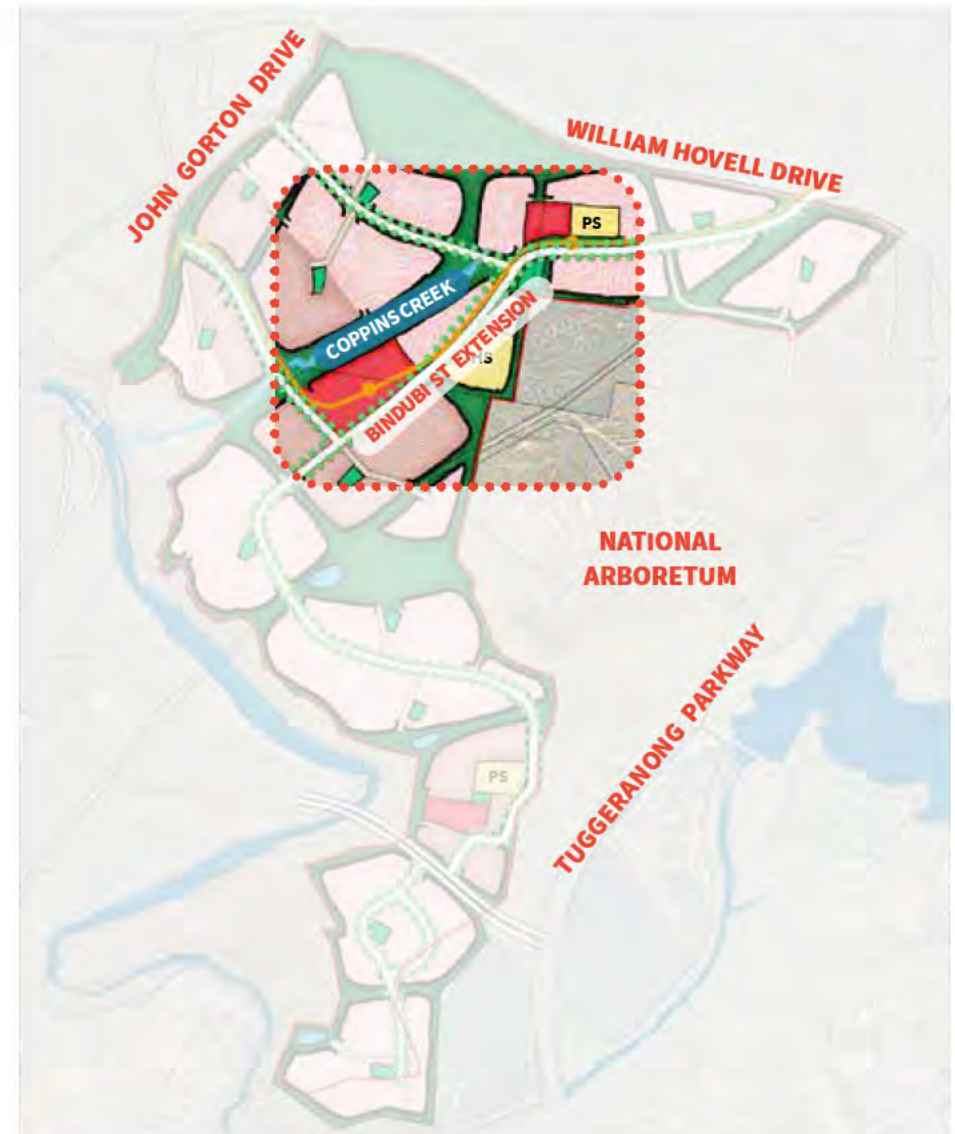
The local centre and primary school will leverage the easement required by the 132kv underground power by connecting together via a linear green link. An open space transit plaza will connect into this link and provide safe and easy access for primary school students to get to school.

PROS

- + More area is allowed for the foreshore in this option, with a smaller group centre.
- + A central open space that interfaces directly with the group centre provides opportunities for activities and events to spill out from the retail into the open space.

CONS

- + Students and residents will be required to cross the collector road to access the group centre, local centre, or foreshore.



Option 1 Key Location






Option 01 Concept

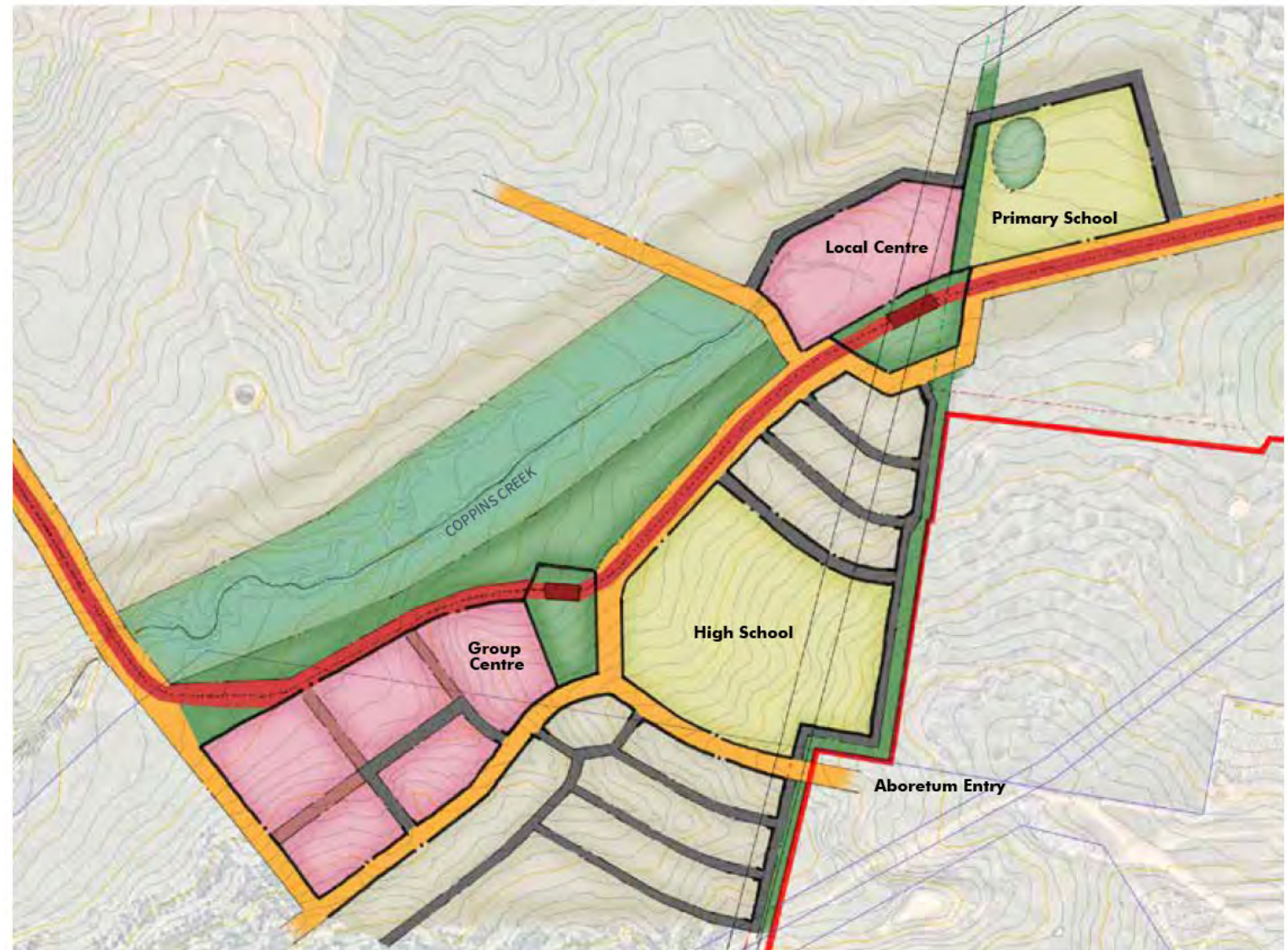


This option is based on the Option 1 Structure Plan (Proof of Concept Plan) which includes the light rail within the collector road reserve. The light rail deviates from the road corridor between the group centre and Coppins Creek corridor.

Light Rail stops are located within open space to provide a transport-oriented plaza that is shared between the retail centre and neighbouring school. The primary school is connected to the open space providing a safe access to young students.

The high school is opposite the collector road, which will likely require traffic lights with pedestrian crossings at the transition from the split road to a single road.

-  Retail Centre
-  School
-  Residential
-  Inter-town Public Transport Corridor
-  Collector Road
-  Key Open Space

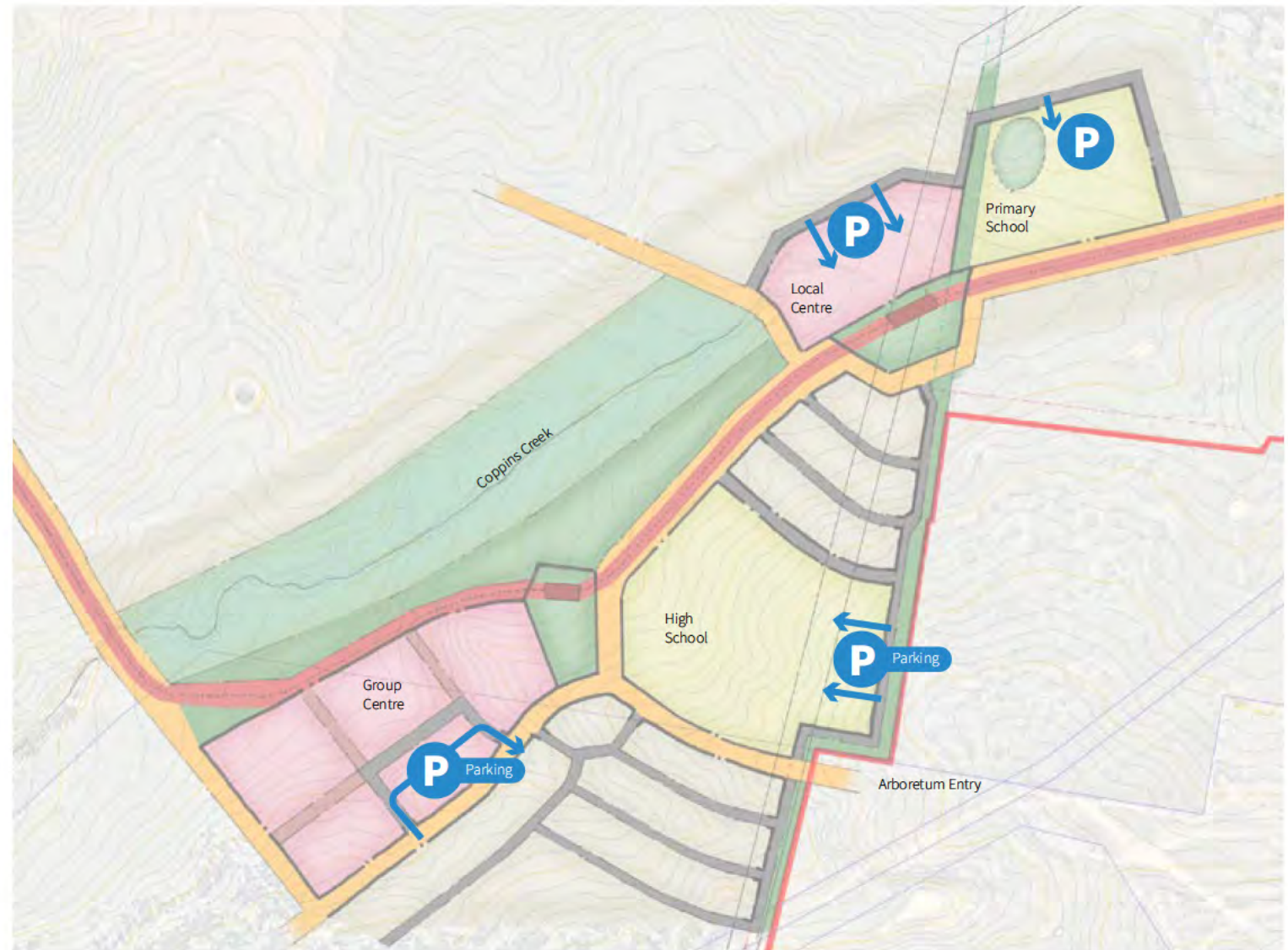


Parking



Access to parking should be via the secondary streets, not from the collector road, to limit queuing issues on the through traffic.

Parking within the group centre should be limited to the site nearest the collector road to provide a pedestrianised experience throughout most of the centre.



Active Frontage



A range of active façades and built form frontages should be applied to the site, which are organised into Active, Friendly and Mixed types.

These are benchmarked against a range of precedents for frontages in terms of:

- + Optimal design characteristics
- + Critical dimensions
- + Locational criteria
- + Primary purpose
- + Level of activation

FRONTAGE TYPE

FREQUENCY OF DOOR ENTRIES

ACTIVE



15- 20 entry doors per 100m lineal length of active frontages

FRIENDLY



10- 14 entry doors per 100m lineal length of friendly frontages

MIXED



6- 10 entry doors per 100m lineal length of mixed frontages



ACTIVE

- + Regular door openings and transition spaces
- + Expressive of activity to street with high ceilings to Ground level
- + Complementary streetscape and soft edges that promote lingering
- + Opportunities for planting and greening to pedestrian fare
- + Blurred transitions between interior and exterior spaces
- + Textured façades and a richness in façade detailing and expression of materiality



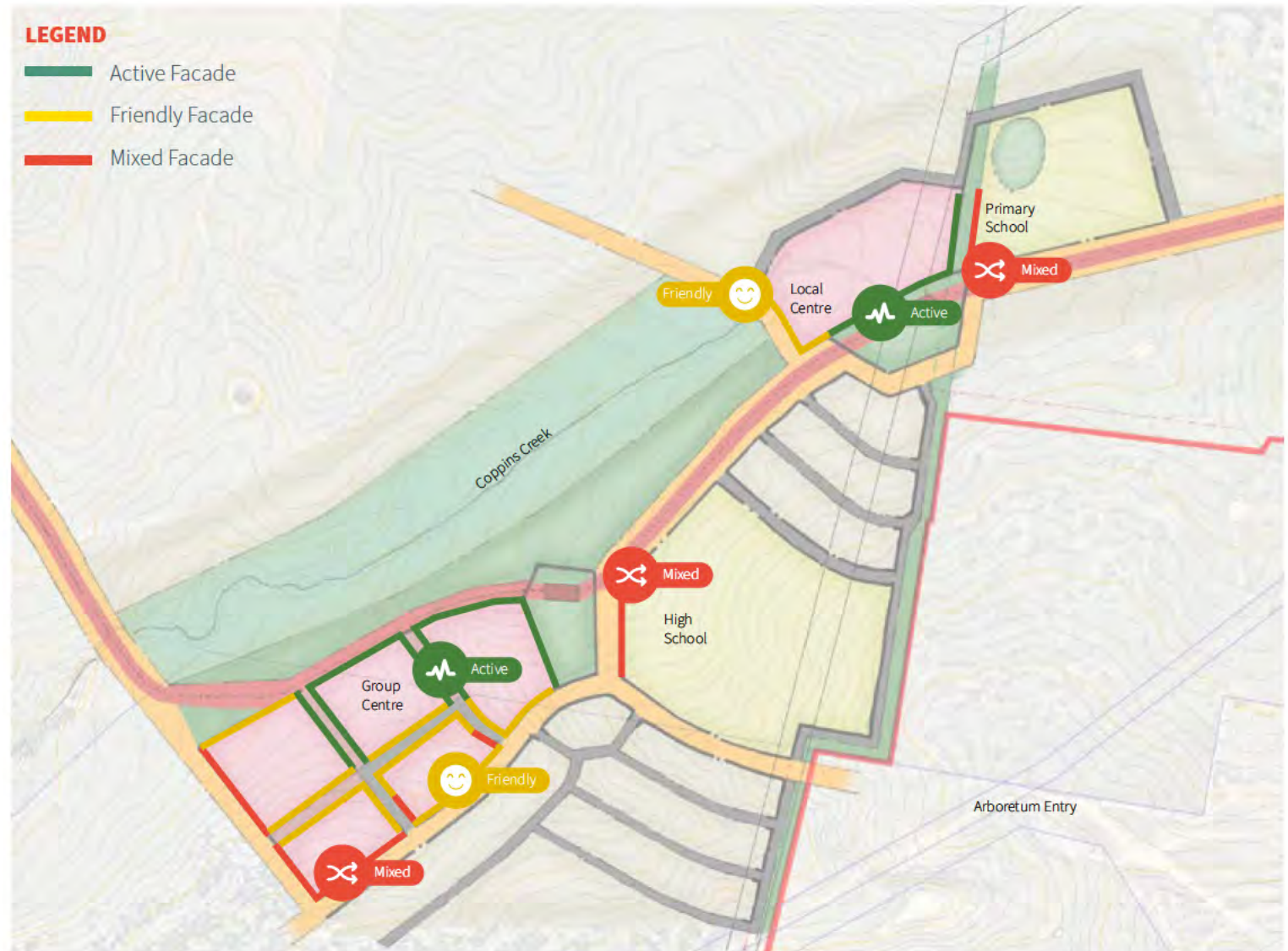
FRIENDLY

- + Less regular but highly used openings/door transitions to offices or residential
- + Variety in façade detailing and expression of materiality
- + Complementary streetscape and variety of soft and hard edges



MIXED

- + Variety of open/ introverted and extroverted expression to street and setbacks from street
- + Includes transitions for vehicle access and servicing
- + Large frontages to street/ 50% transparent



Urban Form



Built form should define the edges of the blocks, collector roads and transit plazas.

Large floor plate retail should be located adjacent the collector road to provide easy access for delivery vehicles and to limit impacts to pedestrianised streets.

The schools, where they are unlikely to require enough building space to define their block, should prioritise built form along the collector road and open space interfaces. This will enable open spaces for children to play toward the interior of the site, with greater protection and shade.

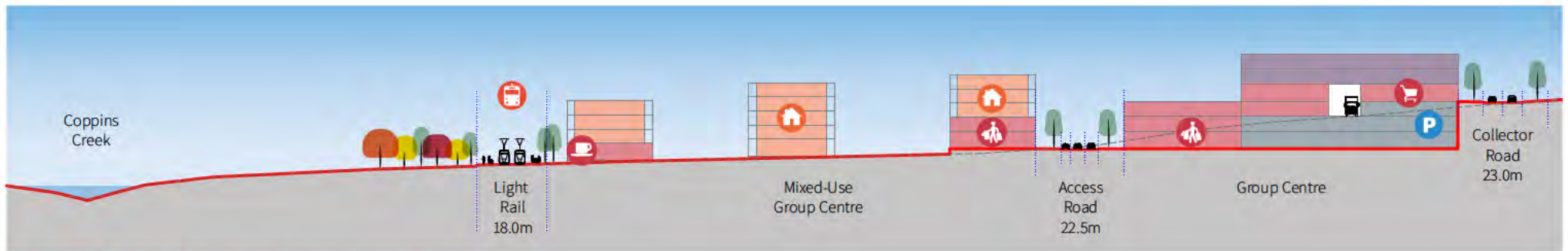
The primary schools proximity to the neighbouring local centre and light rail stop provide opportunities for facilities to be shared with both the wider community and the school, such as shared meeting rooms/halls, libraries, etc. The built form should encourage interactions with the open space and public transport plaza.





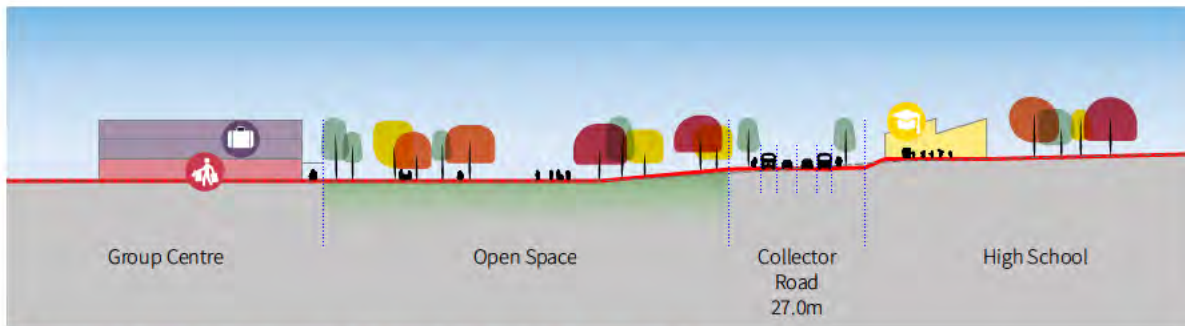
BUILT FORM AROUND CENTRAL OPEN SPACE

Site Sections



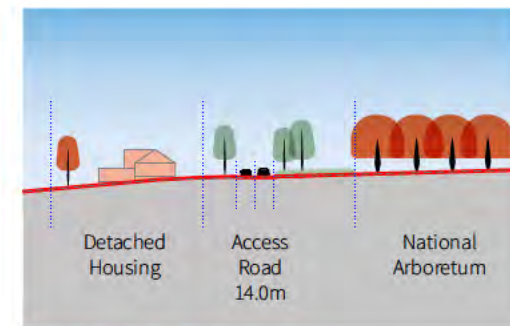
GROUP CENTRE - COLLECTOR ROAD TO LIGHT RAIL

- | | |
|--------------------------|---------------------------|
| Commercial (Employment) | Shop Top Housing |
| Food and Beverage | School |
| Large Format Supermarket | Public Transport Corridor |
| General Retail | Parking |

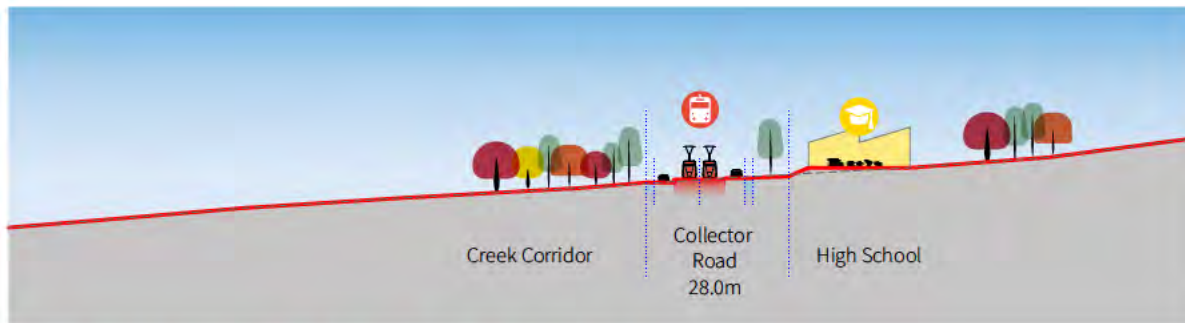


GROUP CENTRE / OPEN SPACE / HIGH SCHOOL INTERFACE

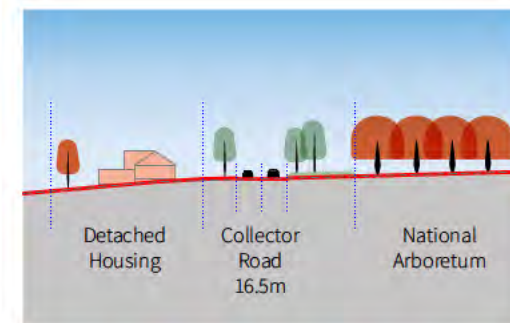
INDENTED BUS STOPS ON COLLECTOR ROAD



EDGE ROAD - ACCESS ROAD



COLLECTOR ROAD WITH LIGHT RAIL IN MEDIAN STRIP



EDGE ROAD - COLLECTOR ROAD ALTERNATIVE

2

Option 2

Option 02 Vision



VISION

By decoupling the collector road from the light rail, this option encourages a spread of use along the foreshore, with residents having direct access to the north-east, students accessing the centre, and group centre users having access to the south-west part of the foreshore.

In addition, this option creates a safer transition to the foreshore, without the need to cross the collector road.

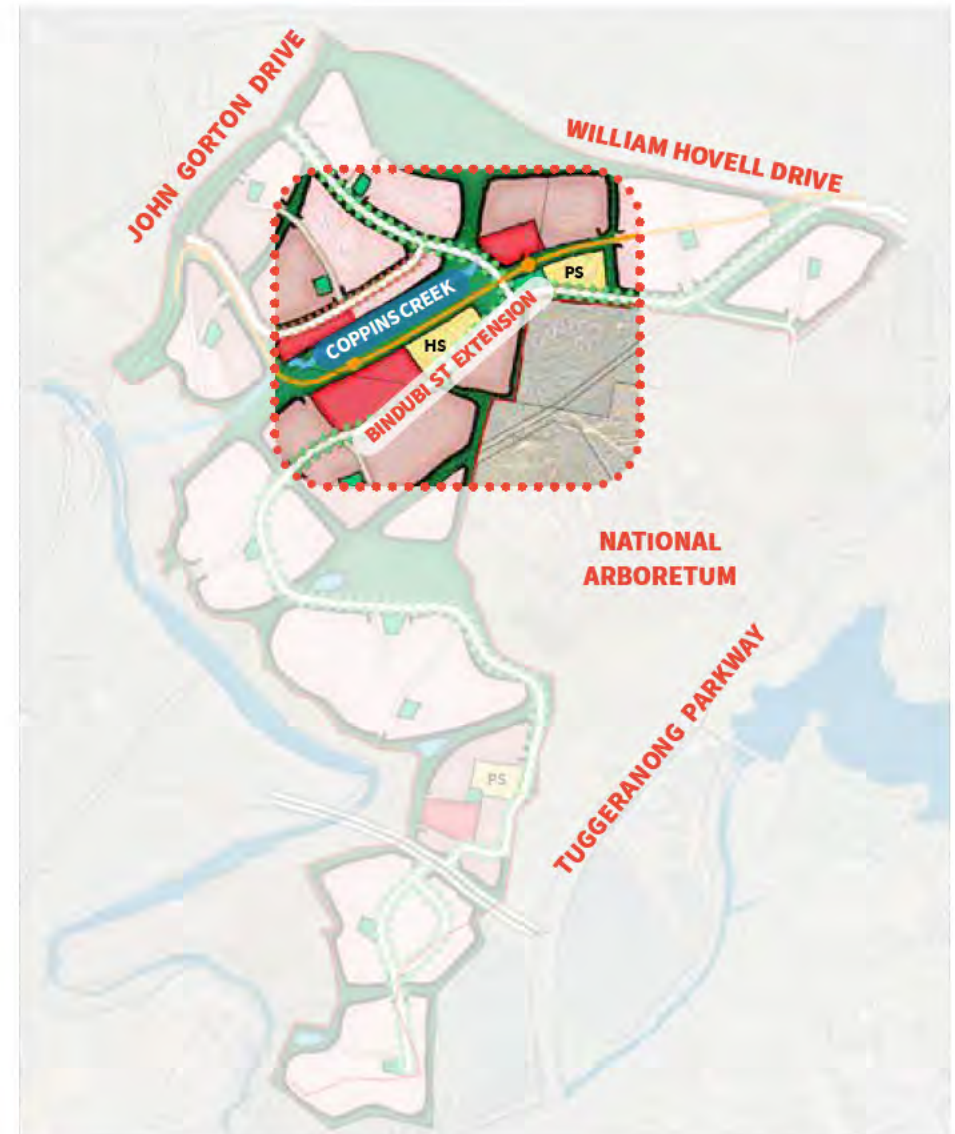
There is a greater allowance in this option for residential, with many more residents to enjoy views and direct access to the adjacent arboretum.

PROS

- + Students will easily transition to light rail stations, with no need to compete with vehicles. They are also able to transition easily between the school and group centre with no crossing required.
- + This option may allow the light rail to operate with minimal crossings or interference from vehicles (particularly during school drop off times).
- + Light Rail corridor can be developed at a later date with minimal interference

CONS

- + Private vehicles access to the wider Molonglo from John Gorton Drive is focused in the north-east and may cause traffic issues at this intersection



Option 2 Key Location

Option 02 Concept








This option decouples the light rail from the collector road reserve and provide a public transport/active travel only connection across Coppins Creek.

A linear open space is framed by the group centre and high school buildings, and provides views from the National Arboretum entry road to the light rail stop and the creek corridor.

The local centre and group centre proximity will require different and complimentary tenants at the centres to avoid an oversupply of similar retail stores.

Both schools are large enough to provide a playing field on site, with access allowed for community benefits.

-  Retail Centre
-  School
-  Residential
-  Inter-town Public Transport Corridor
-  Collector Road
-  Key Open Space



Movement



The Group Centre includes access for loading vehicles for a larger scale supermarket and retail shops via a loop road. The majority of streets would be closed to through traffic and only suitable for delivery / drop off.

Vehicles access would be prohibited from the Collector Roads, with access to the centres / school parking from side streets to limit traffic impacts from queuing vehicles.

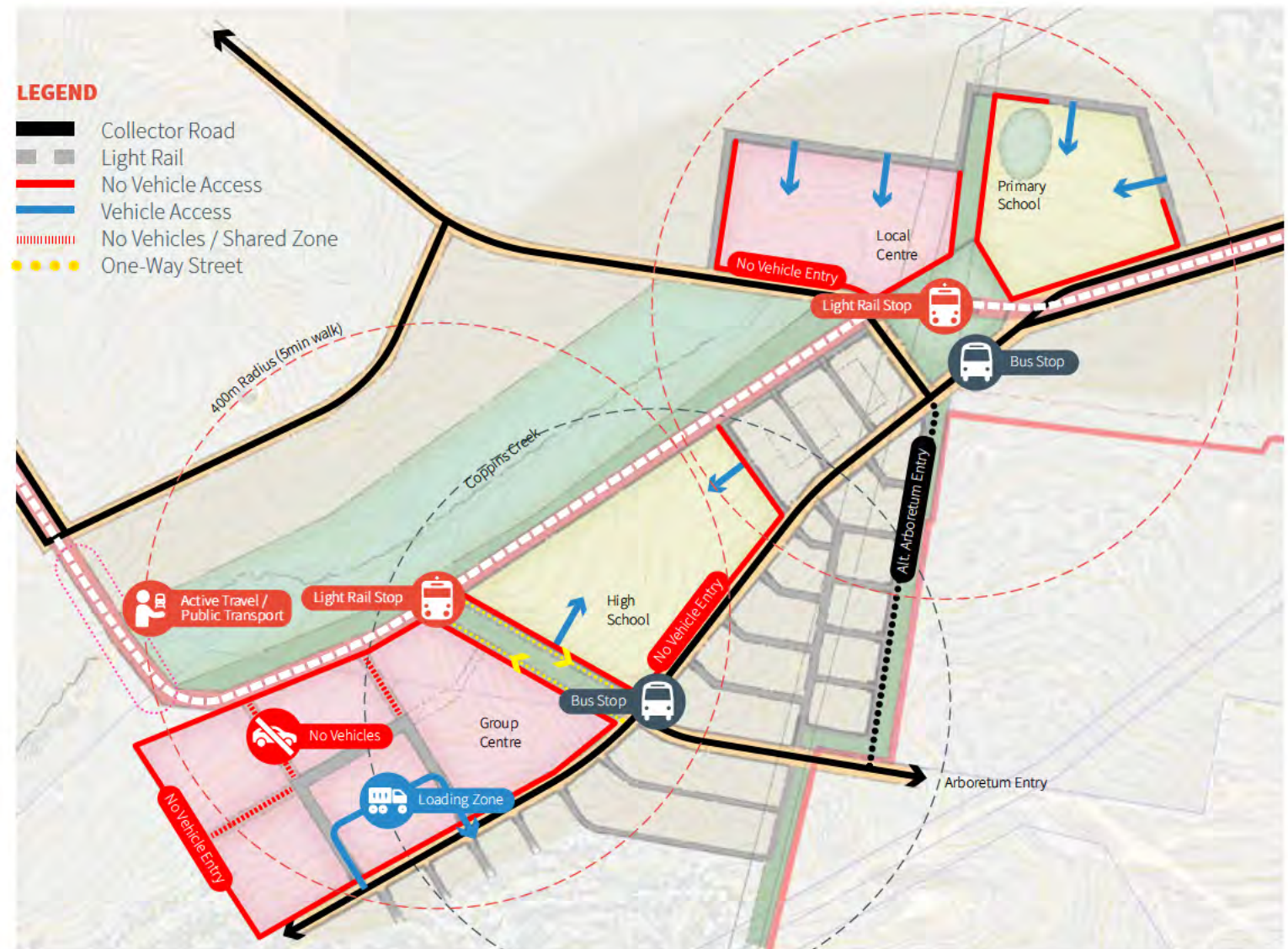
A one-way loop street with linear open space is provided between the group centre and high school. This provides opportunities for drop-off zones away from the collector street and a safe pedestrian experience along the open space.

A second access into the National Arboretum is provided heading west towards the Group Centre with views terminating at the open space.

A single private vehicle crossing over Coppings Creek is provided in the north, with public transport and active travel allowed in the south.

Indented bus stops are to be located on the collector road adjacent the open space to provide convenient access to the schools and retail centres without disrupting traffic flow.

Until the light rail is delivered, residents, high school students and group centre users will have direct access to the Coppings Creek foreshore.



Parking

Access to parking should be via the secondary streets and not from the collector road to limit queuing issues on the through traffic.

Parking within the Group centre should be limited to the site nearest the collector road to provide a pedestrianised experience throughout most of the centre.



Active Frontage



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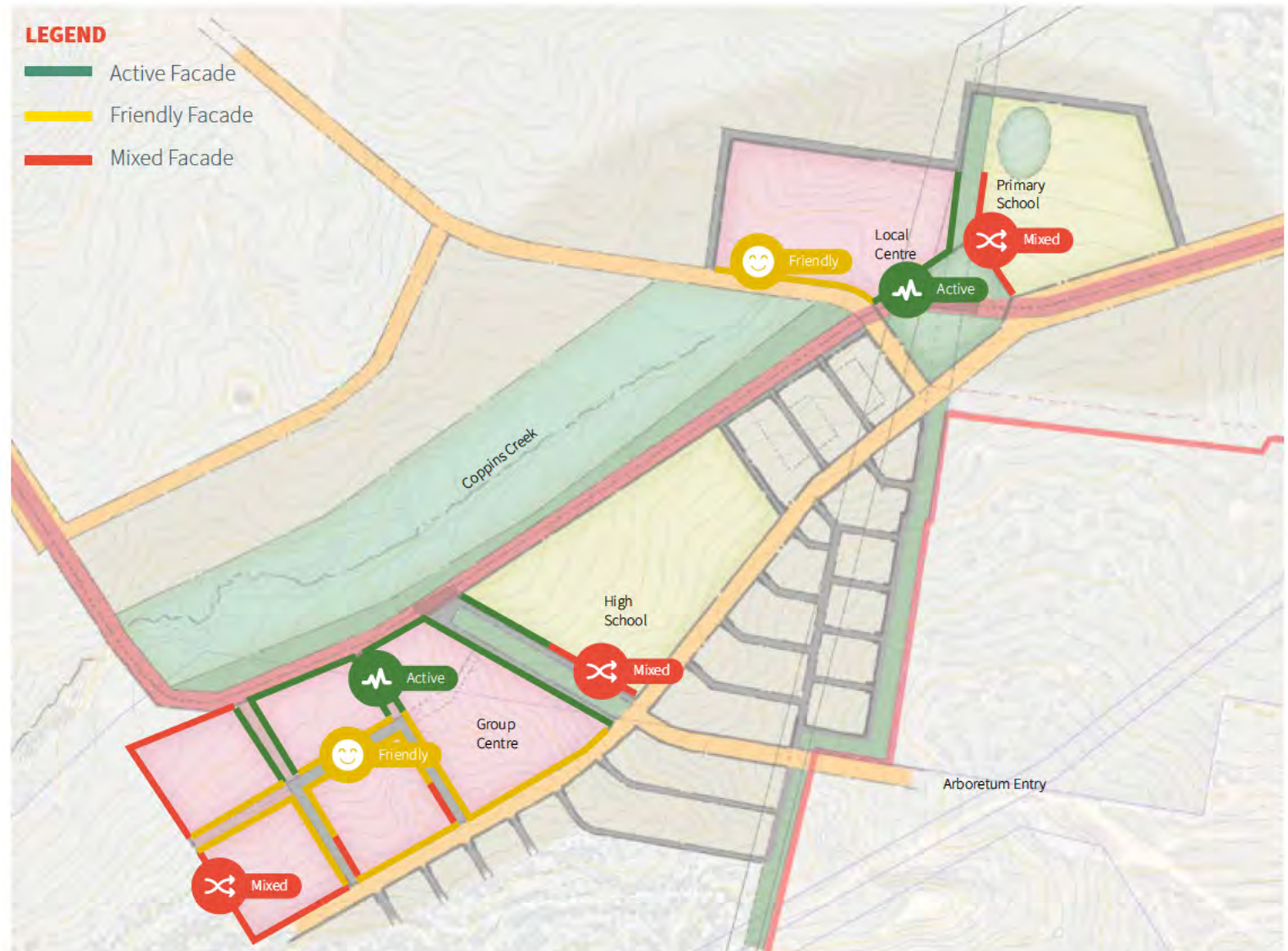
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Urban Form



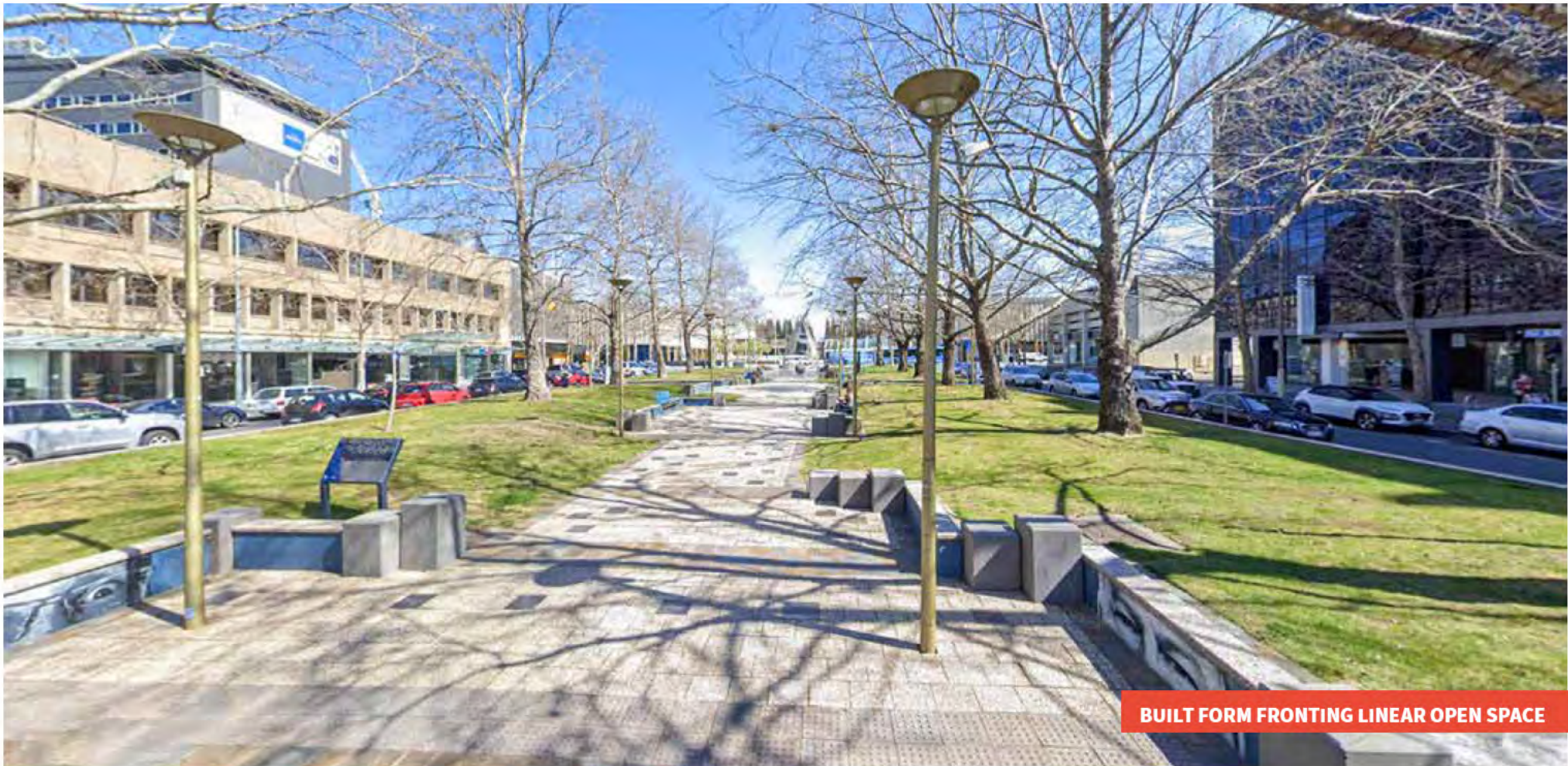
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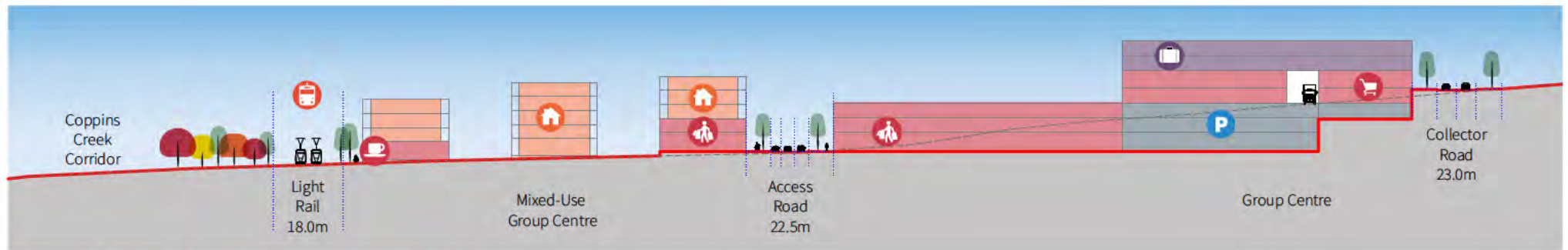
Both schools have a close proximity to the neighbouring retail centre and light rail stops, which provide opportunities for facilities to be shared with both the wider community and the school, such as shared meeting rooms/halls, libraries, childcare, town hall, etc. The built form should encourage interactions with the open space and public transport plazas.





BUILT FORM FRONTING LINEAR OPEN SPACE

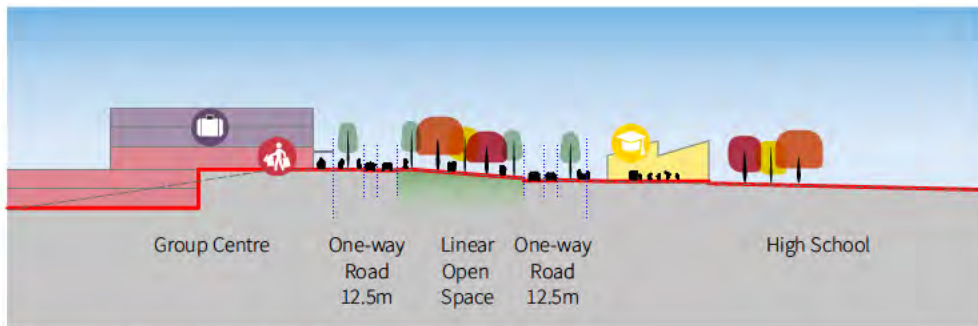
Site Sections



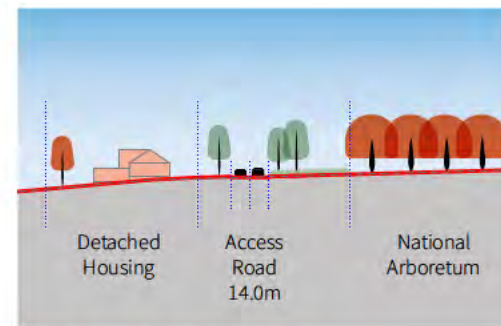
GROUP CENTRE - COLLECTOR ROAD TO LIGHT RAIL

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- School
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- Parking

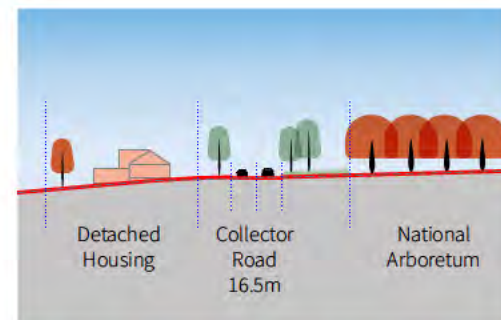
Site Sections



GROUP CENTRE / HIGH SCHOOL INTERFACE



EDGE ROAD - ACCESS ROAD



EDGE ROAD - COLLECTOR ROAD ALTERNATIVE

Molonglo 3 East Group Centre Options

