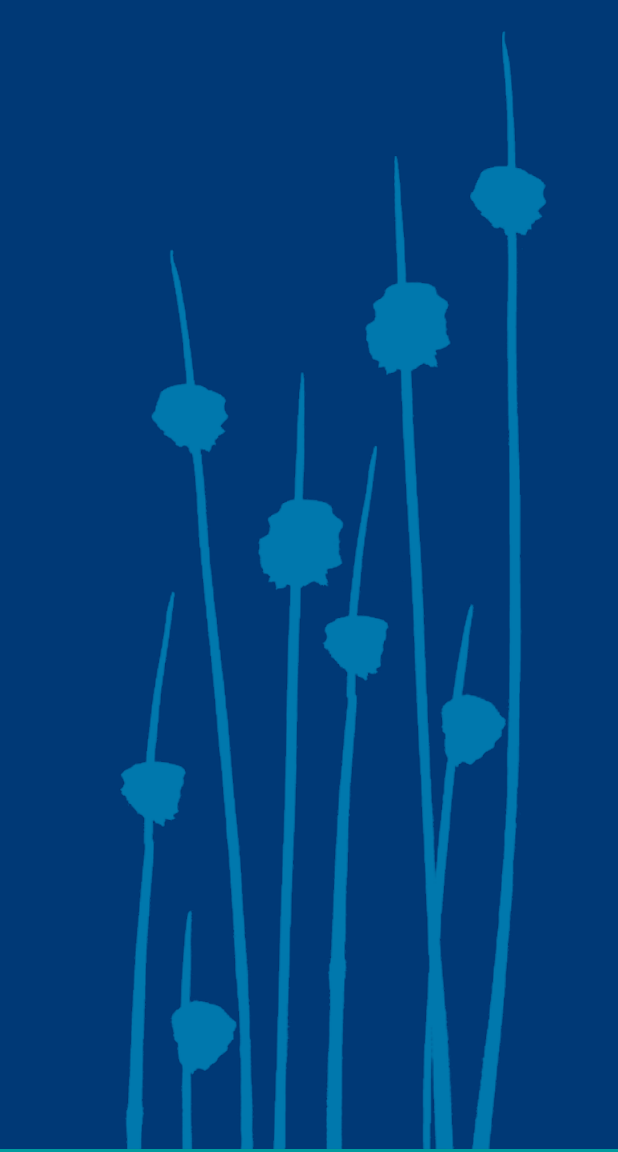


Mt Claremont Master Plan

October 2025





Acknowledgement of Country

The City of Nedlands acknowledges the traditional custodians, the Whadjuk people of the Noongar Nation, and pays respect to the Elders both past and present.

Executive Summary

The Mount Claremont Master Plan Area is a 480-hectare site located six kilometres from the Perth CBD. The area is close to passenger rail, hospitals, schools, and an abundance of open space and recreation opportunities including Bold Park, Swanbourne Beach, the UWA Sports Park, and Wembley Sports Park.

This Master Plan has been created to inform landowners, government, the wider community, and developers of the City's desired vision for the future development of the Mount Claremont Master Plan Area. The City wishes to see the Master Plan Area become a great place to live which takes full advantage of the existing community facilities, nature, and transport options. The Master Plan is not statutory in nature and will be used by the City to advocate for the desired outcomes.

The document has been named the Mount Claremont Master Plan as Mount Claremont is the predominate suburb. Smaller parts of Shenton Park, Karrakatta and Floreat also form the Master Plan Area. None of the three suburbs are fully contained in the Master Plan Area. The boundaries of the Master Plan Area are illustrated and explained on Pages 10-12.

This Master Plan has been prepared to identify the opportunities that the area has to offer in terms of urban redevelopment, enhancing active transport connections, protecting and strengthening greenways for the movement of fauna and improving vehicle permeability. Opportunities in the area are likely to increase should the existing Wastewater Treatment Buffer be reduced or removed. The Master Planning process has been undertaken in the context of the Market Led Proposal being assessed by the State Government to reduce the odour buffer and implement an encapsulation solution. It is timely that a Master Plan be prepared to identify the resulting opportunities.

The Master Plan also identifies the constraints to development, including how the existing Wastewater Treatment Plant (WWTP) buffer restricts development and what land uses will likely remain in place due to other constraints such as existing investment, and need for existing uses.

There are some sites in the area that are unlikely to be redeveloped as there may not be motivation to do so for reasons relating to their continued operation, the location preferences of the landowners or managers, or preservation of existing infrastructure. However, it is expected that as some sites develop, the redevelopment benefits to those remaining landowners could become more appealing. Because of this, the Master Plan considers that redevelopment could occur in a staged manner.

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Abbreviations

ADF	Australian Defence Force
BTR	Build-to-Rent
CCGS	Christ Church Grammar School
CoN	City of Nedlands
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DoH	Department of Health
EPA	Environmental Protection Authority
GRAFT	Graylands Reconfiguration and Forensic Taskforce
ITS	City of Nedlands Integrated Transport Strategy
LGA	Local Government Area
LPS3	Local Planning Scheme No. 3
LTN	Low Traffic Neighbourhoods
MLP	Market Led Proposal
NPS	Negotiated Planning Solution
POS	Public Open Space
PTA	Public Transport Authority
SPP	State Planning Policy
UWA	The University of Western Australia
WAIS	Western Australian Institute of Sport
WAPC	Western Australian Planning Commission
WESROC	Western Suburbs Organisation of Councils
WWTP	Wastewater Treatment Plant

Introduction

The Mount Claremont Master Plan Area incorporating part of the suburbs of Mount Claremont, Shenton Park, Karrakatta and Floreat, is on Whadjuk Noongar Boodja (land). Noongar Boodja forms a rough triangle covering the southwest corner of Western Australia from near Geraldton in the north to Esperance in the southeast. Noongar Boodja is broken down into fourteen dialectal groups. Whadjuk Noongar Boodja covers a majority of the Perth Metropolitan Area commencing north of Two Rocks, extending south to Cockburn Sound and east to Toodyay. Prior to 1829 this was further broken down into four tribal areas, each with their own leader. These areas converged at the Derbal Yerrigan (Swan River) (Garry Gillard, 2024). The Master Plan Area sits on the land of the Mooro tribe which was led by Yellagonga.

After colonisation by the British and subsequent federation, the area faced little development of intensity. The development that did occur included Mental Asylums, the Subiaco Wastewater Treatment Plant, and the Irwin Barracks. This area was once considered to be the urban fringe of Perth, and this is reflected in the land uses and large lots that still exist today. The development of the area was dominated by uses that society considered were better hidden away from residential areas. Modernisation of these uses has occurred and public perception of uses such as

Mental Health Hospitals has improved but not been fully overcome.

The Master Plan Area is located six kilometres from the Perth CBD. It has the potential to provide high residential amenity due to its proximity to established residential areas, existing shops, schools, public open space (POS), and the UWA Sports Park. A public high school and a private Pre-Kindy to Year 12 school are located within the Master Plan Area. There are several primary schools surrounding the Master Plan Area. Local attractions such as Perry Lakes, Swanbourne Beach and Bold Park add natural beauty. Two train stations along the Master Plan Area's eastern border provide strong public transport links to Perth, Fremantle, Midland, and the Airport.

The City of Nedlands Local Planning Scheme 3 (LPS3) currently zones the land to reflect existing land-uses except for some land in the northern parts of the Master Plan Area zoned as 'Urban Development'. There is no prior planning document that holistically addresses the development potential of the area in detail.

In 2017 the City's Local Planning Strategy identified that planning should take place for areas that are now included in the Master Plan. The recommendations for the areas were as follows:

"For Mount Claremont East:

- *Retain and enhance the character and streetscape of the existing residential areas.*
- *Comprehensively plan for the remaining non-residential areas.*
 - ▷ *Land uses and development within this area shall not conflict with the urban character being predominantly of sporting, research and educational facilities.*
- *Prevent the encroachment of sensitive land uses and residential development within the Subiaco WWTP odour buffer area.*
- *Consider opportunities to consolidate and improve access throughout the precinct.*

For Shenton Park:

- *Prevent the encroachment of sensitive land uses and residential development within the Subiaco WWTP odour buffer area.*
- *As a priority, comprehensively plan for the precinct to resolve land use within and surrounding the Subiaco WWTP odour buffer.*
 - ▷ *With urgency, comprehensively plan for land in proximity to the Shenton Park Hospital Redevelopment site, Lot 4 Underwood Avenue, and Bedbrook Place to resolve land use, desired built form, and reservations." (City of Nedlands, 2017)*

There are inconsistencies between the City's Local Planning Strategy, Local Planning Scheme, and the Master Plan's vision for the area. The next review of the City's Local Planning Strategy will consider the Master Plan and create a consistent vision for the future of the area.

In June 2018, Council resolved for the CEO to investigate the creation of a Local Structure Plan for the western side of the current Mount Claremont Master Plan Area. A Local Structure Plan was found to not be the appropriate instrument and as a result Council resolved to commence work on a Master Plan. A Master Plan is beneficial as it allows comprehensive planning of the site but has no statutory standing. It conveys the intended vision of a completed redevelopment before more rigid statutory instruments are implemented which would allow the redevelopment to begin. Work on a Master Plan has been intermittent since 2019 but recent development and planning activities on several sites in the Master Plan Area have made the need for a consistent vision in the area more urgent. Having a Master Plan prepared will significantly increase the value of the City's input in the planning process, should the State Government put in place an improvement or redevelopment scheme.

The largest planning activity in the area which has spurred work on the Master Plan is the submission of a Market Led Proposal (MLP) to the State Government. The MLP proposes redevelopment of a portion of the Graylands Hospital site and other unnamed lots nearby. If successful, the MLP would give the developer exclusive negotiation rights to develop land in and around the Graylands Hospital Site. As of July 2025, the status of the MLP was that

a business case was being prepared (Department of Planning Lands and Heritage, 2023).

The redevelopment of the Graylands Hospital site would be contingent on the resolution of two key planning issues that affect Mount Claremont. The first being a substantial reduction of the Subiaco Wastewater Treatment Plant Buffer Area. The second being the decision flowing from the 2021-2023 review into services at Graylands Hospital by the Graylands Reconfiguration and Forensic Taskforce (GRAFT). The State Government established the Taskforce to inform the planning and investment decisions of the Graylands site and the Selby Older Adult Mental Health Service site. A Master Plan of the Graylands site assessed by Infrastructure WA in March 2023 showed a reconfiguration on the northern portion of Graylands and no hospital development on the Southern portion (Infrastructure WA, 2023).

Regardless of the development proposal by the MLP proponent, it is judged as timely for the City to review the Mount Claremont area and create a Master Plan to identify the opportunities and constraints of the area. A Master Plan would also provide important background information to guide both decision makers and landowners in future decisions on development within the Master Plan Area.

This Master Plan should be considered a living document subject to change and modification over time. On this basis, it is recommended that this Master Plan be reviewed every five years to remain up to date.





The Master Plan Area

The borders of the Master Plan Area (Figure 1 overleaf) were created based on the character of the area and defining properties such as streets, land use and lot size. The border runs along the streets of Underwood Avenue, Selby Street and Stephenson Avenue. The Fremantle Line/Airport Line and existing residential zoned land in Mount Claremont also forms the border. Suburb boundaries did not form part of the creation of the Master Plan as the character of the Master Plan area as large lots with mostly government, community and education uses traverse several suburb boundaries. The Master Plan includes parts of the suburbs of Mount Claremont, Shenton Park, Karrakatta, and Floreat.

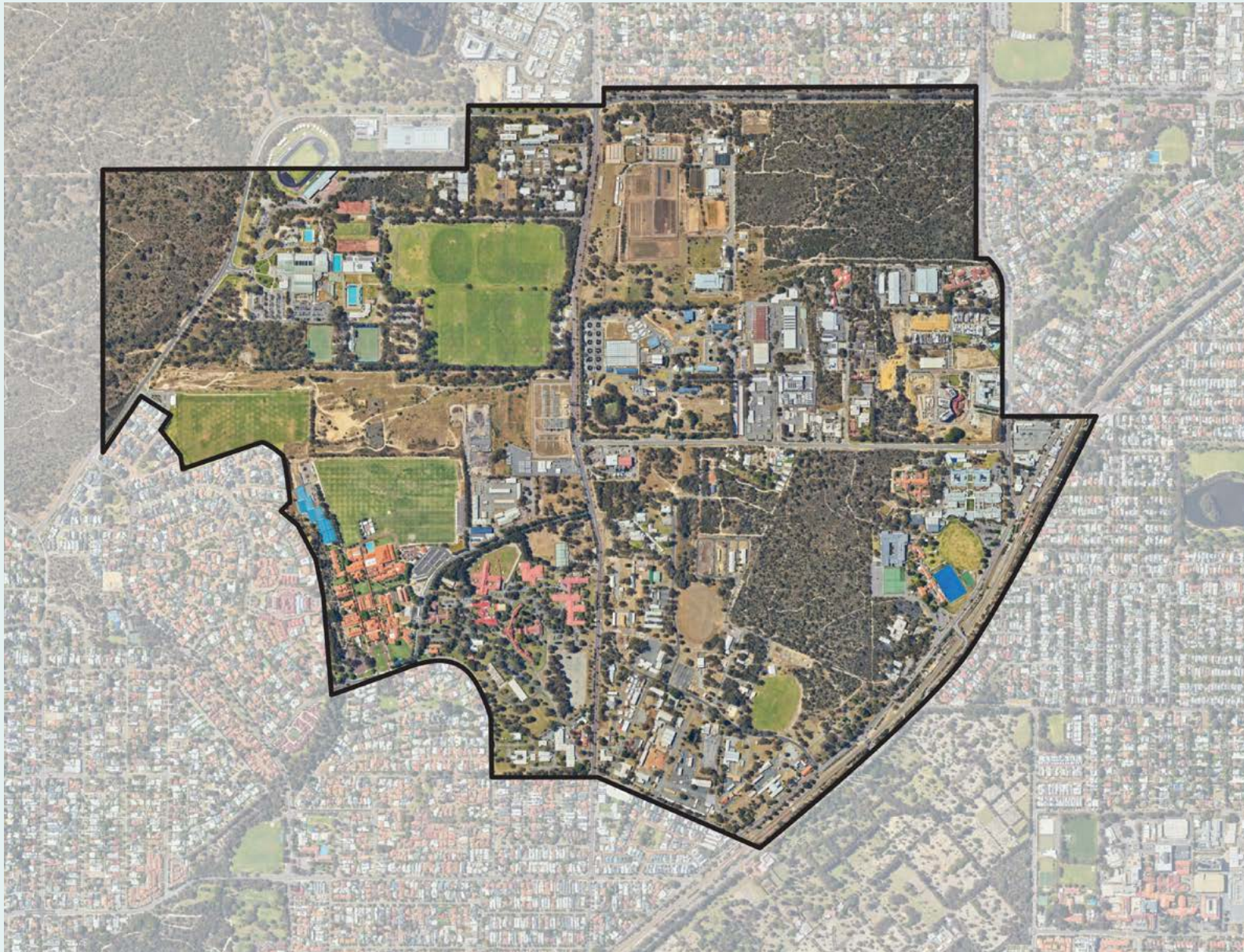
The area includes those land parcels that have development potential and associated sites that would be affected in the redevelopment process. It excludes established residential areas except for Montario Quarter which is still in the development phase and still presents opportunities to expand and better integrate with future development north of Orton Road and to the west. Montario Quarter sits on the site of the former Royal Perth Rehabilitation Hospital and is the only part of the Master Plan Area currently undergoing redevelopment.

The Master Plan Area consists of large parcels of State and Commonwealth land and several substantial community landholdings. The dominant landholdings in Mount Claremont include the Australian Defence

Force (ADF) Irwin Barracks, Graylands Hospital, two high schools (John XXIII College and Shenton College), the Christ Church Grammar School (CCGS) Playing fields, UWA playing fields and Sports Park, the Subiaco WWTP, and the CSIRO and UWA Research stations. The area also contains smaller landholding pockets along Lemnos Street and John XXIII Avenue. Some of the smaller landholdings include depots for the Public Transport Authority (PTA), a Western Power substation and depots for the City of Nedlands and other local governments. There is a range of smaller commercial, and charity uses along Lemnos Street and Bedbrook Place including the Dog's Refuge, Cat Haven, and Cancer Council.

The existing residential areas of Mt Claremont and Swanbourne to the west would not suit an increased density. The existing residential areas of Mount Claremont are located further from any significant public transport, and redevelopment in the area would have a significant impact on the existing population with increased density more likely to cause overshadowing, privacy, and traffic impacts. Additionally, there are limited opportunities to the west with the Swanbourne Barracks even more unlikely to close or relocate than the Irwin Barracks, and the Cottesloe Golf Course being a facility valued by the community.

Figure 1 - Master Plan Boundary

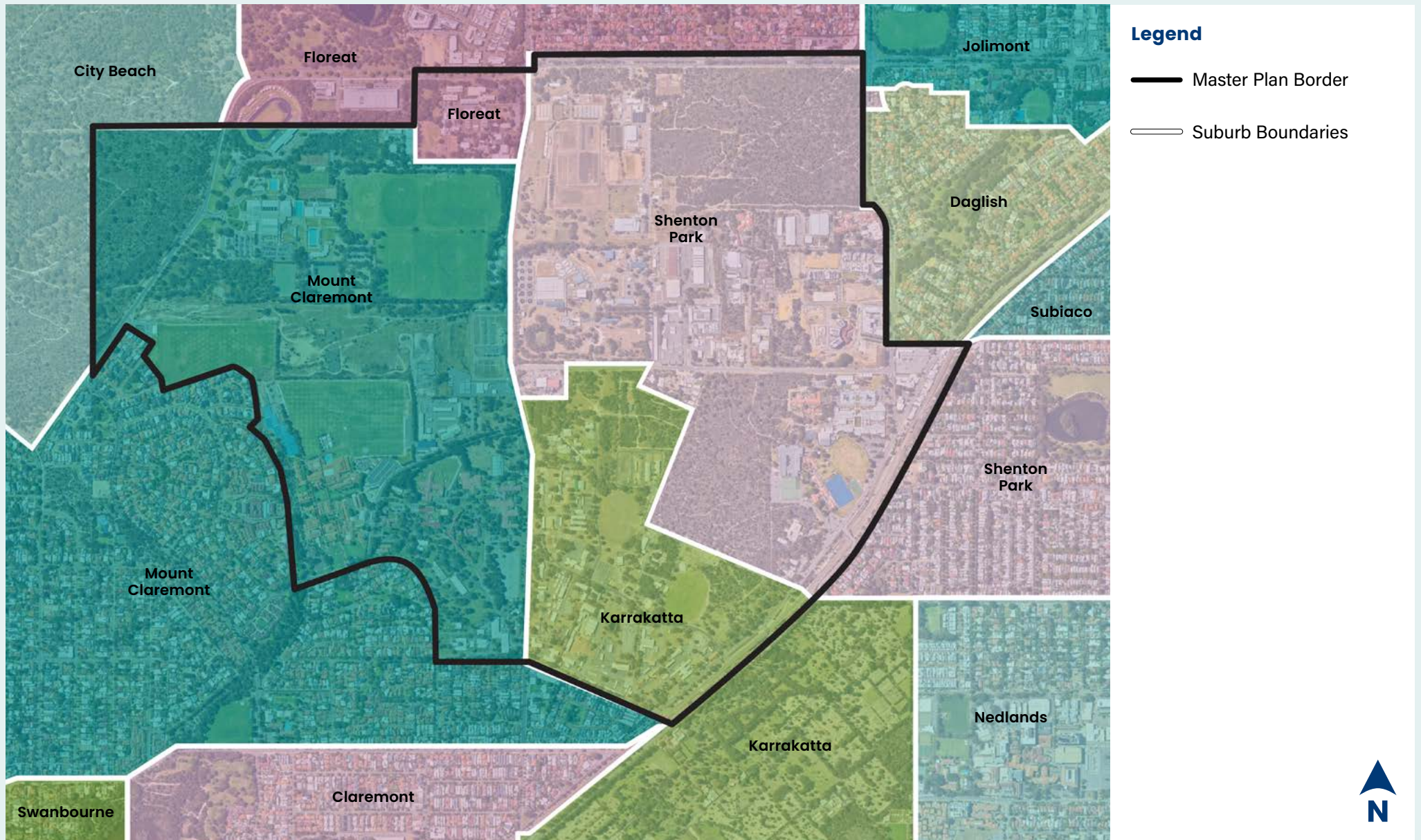


Legend

— Master Plan Border



Figure 2 - Suburb Boundaries



Regional Context

The Master Plan Area sits in the middle of the Western Suburbs and is well-placed to connect with nearby employment, retail, recreation, and education areas. The Master Plan Area itself is home to education and recreation facilities that are important to the Western Suburbs of Perth. The UWA Sports Park is of state significance as it hosts the Western Australian Institute of Sport, the WA Athletics Stadium and is the headquarters of the Perth Wildcats and the Western Force. The UWA Sports Park also hosts the Perth HPC (High Performance Centre) which is a significant indoor venue for the state hosting sporting uses and a popular concert venue.

Outside of the Master Plan Area, areas of strategic importance that are currently seeing significant infill development or planning for infill include the Claremont town centre, Subiaco Oval and at Floreat Forum. These areas are subject to Precinct Structure Plans or Redevelopment Areas. The QEII-UWA Strategic Centre and Nedlands Village developments are also close to the Master Plan Area and development there will likely have flow on effects to the Master Plan Area. The importance of Aberdare Road in connecting these precincts will become increasingly apparent. These infill areas in surrounding suburbs could be interpreted as complimentary or even competing areas depending on what issues are being considered. It should be noted that the Master Plan Area is advantageous in its large lot sizes, lack of

existing sensitive residential development and location in proximity to a railway line and recreation facilities. The DPLH is currently preparing an Improvement Scheme for the QEII-UWA Strategic Centre. Nedlands Village is subject to a Precinct Structure Plan.

Within the City of Nedlands LGA, the Nedlands Stirling Highway Activity Corridor and Hampden/Hollywood Precinct will see an increase in density and retail offerings nearby. The Master Plan Area currently relies on the surrounding suburbs for retail offerings, but a local supermarket will operate in Montario Quarter upon completion of the Shenton Quarter development (Iris Residential, n.d.). The proposed mixed-use land uses in the Master Plan should see a wider selection of retail and commercial uses, ensuring that future residents have convenient access to daily needs. In addition, a shopping centre site has been identified on the southern portion of the Graylands site. This will service the southern Master Plan Area and provide a new retail option for the existing residential areas of Mt Claremont and the St Johns Wood estate.

The Master Plan Area is host to two schools: John XXIII College and Shenton College. There are many other schools surrounding the Master Plan Area. These include Bob Hawke College, Perth Modern, Jolimont Primary, Floreat Park Primary, Mount Claremont Primary, Quintilian School, Moerlina School, Swanbourne Primary, St Thomas' Primary, Hollywood Primary, Rosalie Primary, Nedlands Primary, Freshwater Bay Primary, Christ Church Grammar, Scotch College, Newman College, Churchlands Primary, City Beach Primary and the Japanese School in Perth. These schools may be able to cater to increased populations in the western suburbs but ultimately, given the infill occurring across the Western Suburbs, more schools may be needed, and land may need to be found for schools within the Master Plan Area. Urban, and Community areas may host future schools.

There are several existing road connections to the north, east and south. There are limited connections to the west due to Bold Park forming a barrier on the western side, however, Bold Park is a feature of the area with nature walks, equine tracks, and lookouts. Perry Lakes, Karrakatta Cemetery and Kings Park are also nearby and provide quality open space. There are several smaller parks in the surrounding suburbs of Shenton Park, Daglish, Jolimont, Mount Claremont,

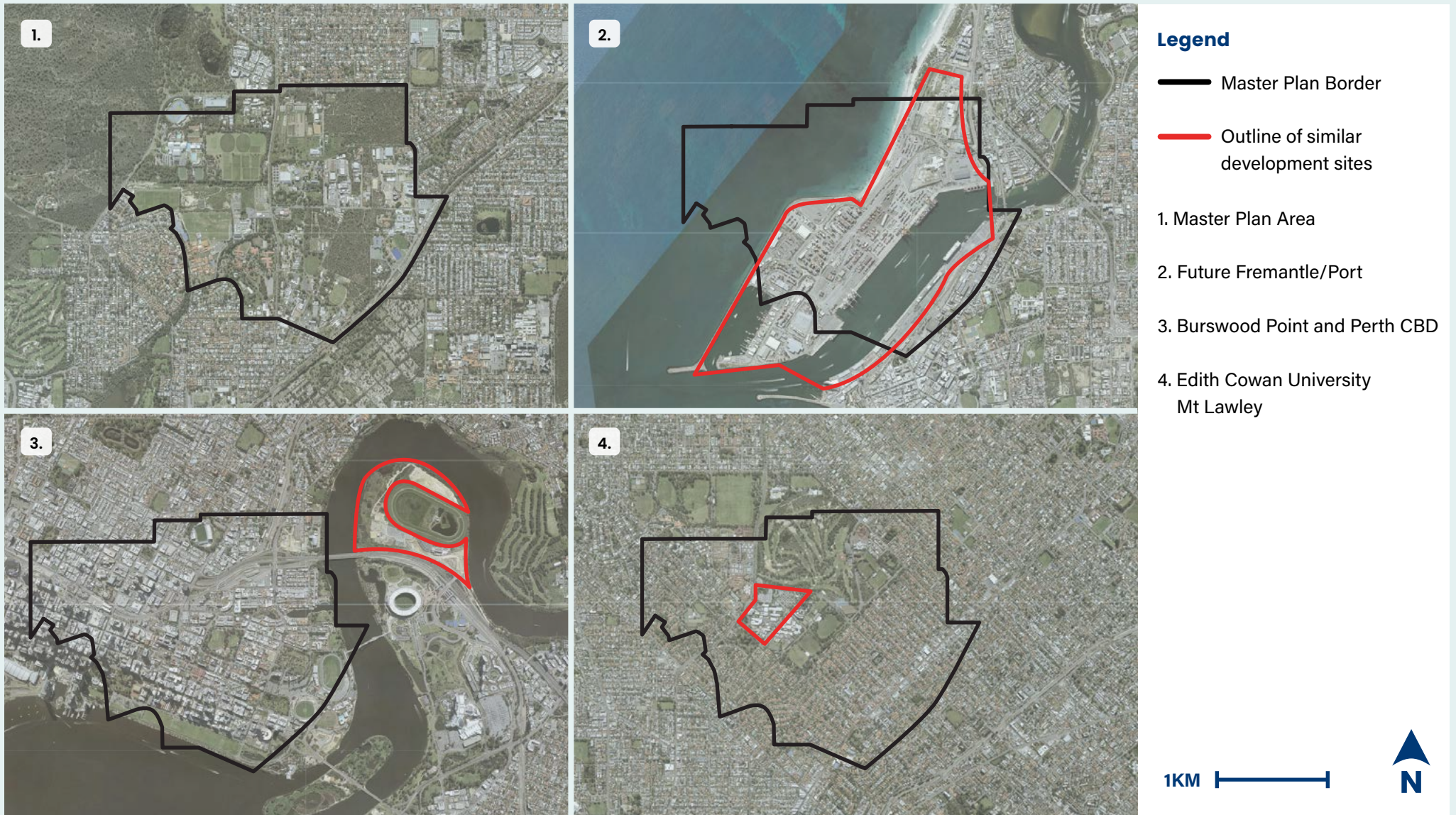
and Floreat. City Beach and Swanbourne Beach are both close by the Master Plan Area on the western side of Bold Park.

Apart from Parks, sporting recreation opportunities are in abundance with the Gold Netball Centre close by and several tennis, bowls, and croquet clubs in existing suburbs. Aquatic Facilities exist at Bold Park, Subiaco, and Claremont. Golf courses are in abundance with Claremont, Swanbourne, Cottesloe, Nedlands, Dalkeith, and Wembley Downs all hosting multiple courses. The Wembley Golf Course is the largest of these and serves as a major attractor due to its inclusion of minigolf, a restaurant and driving range.

Looking at the Perth region, it should be acknowledged that the Master Plan Area is about the same size as the Perth CBD and is currently underdeveloped. Comparable development opportunities within the Inner suburbs of Perth don't often occur at this scale. The opportunities being explored or developed are mapped on the following page. They currently include ECU Mount Lawley (16ha bottom right), Fremantle Port – North Quay (323ha top right) and Burswood Point (41ha bottom left). The Master Plan Area is 480ha.



Figure 3 - Master Plan Site Area Comparison



The Master Plan

Figure 4 (overleaf) is the complete Master Plan. It indicates proposed land uses, roads, an active transport network and the Fremantle Line/Airport Line. It provides the most complete overview of the City's vision for the area, with specific elements being broken down in subsequent figures.

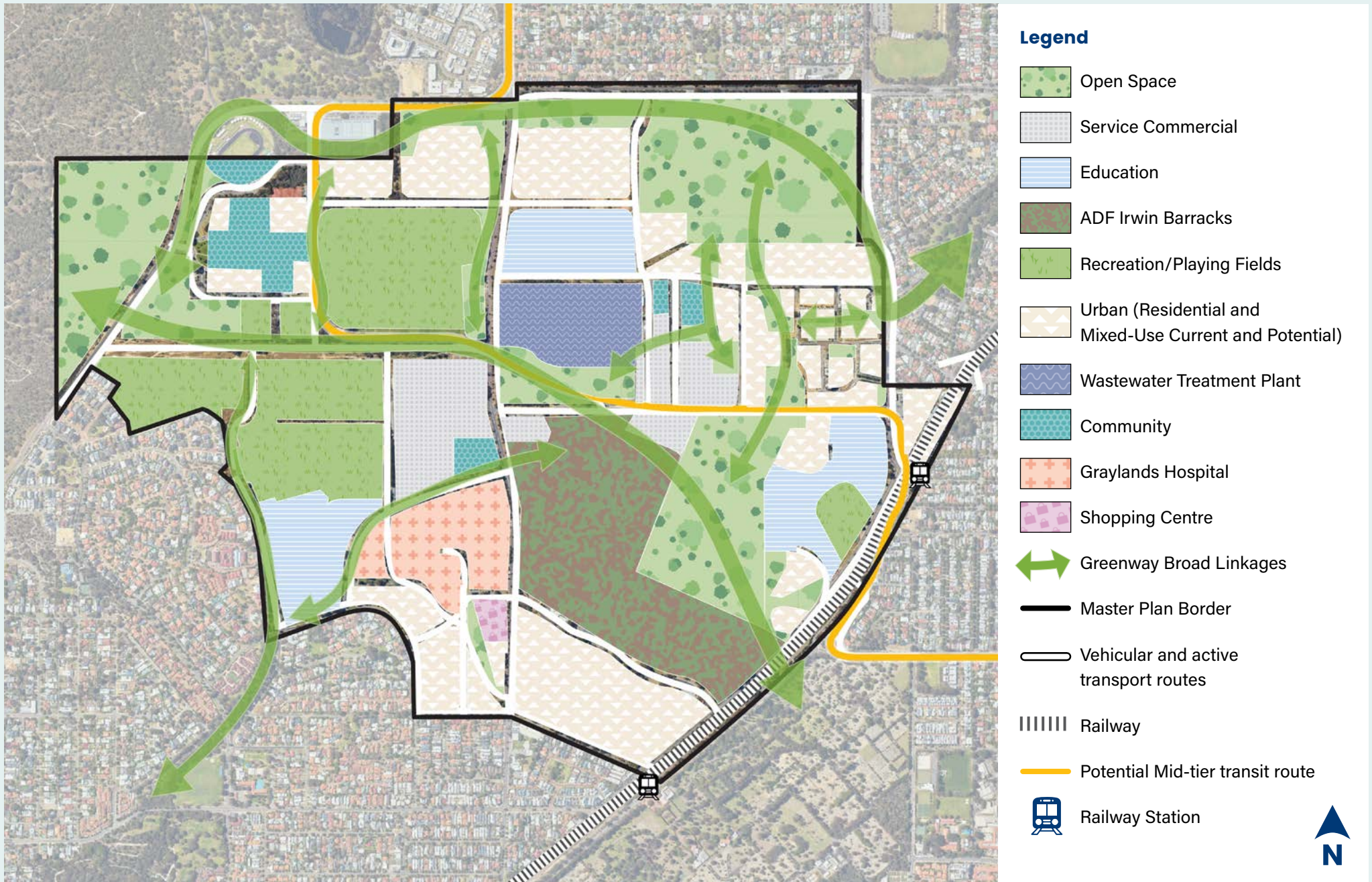
The proximity of the Master Plan Area to a rail line with a high frequency service and a significant amount of space within walkable catchments means that medium and high-density transit-oriented development would be an ideal land use for the eastern portion of the area. While the State Government encourages transit-oriented development, there are limited areas where this is currently possible. The largest site with the most potential for transit-oriented development is the ADF Irwin Barracks. This site has been identified as a constraint as the ADF has no current plans to relocate but would be suitable for redevelopment in an ideal scenario. Smaller sites that would be appropriate for transit-oriented development include the Selby Older Adult Mental Health Service site, the WA Country Health Service and Pathways site and the site bordered by Selby Street, Stubbs Terrace, and Lonnie Street. In addition, rezoning of lots on Bedbrook Place and north of Orton Road could allow those lots to be developed for transit-oriented development and integrate better into the Montario Quarter site.

The Master Plan has identified that some uses may remain in the long term. Both of the area's schools, the UWA Sports Park and both bushland sites provide valuable open space, community facilities and a sense of place, benefiting the community and endemic species. These uses are vital public assets which should be retained in any future redevelopment.

There are further remaining uses such as Western Power's Mount Claremont Substation and the Subiaco WWTP which would remain because the financial investment to relocate/close those facilities would be uneconomical.

Redevelopment in the area is proposed to be supported by enhanced vehicle and active transport networks. The plan has identified locations where roads, pedestrian paths and cycle paths could be located to provide access to development areas and enhance connectivity across the area and towards train stations. The plan proposes several east-west roads and paths and proposes enhancements around Montario Quarter and formalisation of a road network within the UWA Sports Park.

Figure 4 - Master Plan



Land Use

Preliminary investigations of the existing land uses in the Master Plan Area have indicated there are significant large land uses that will continue in the long term, or until there is a significant incentive to relocate incompatible facilities. Some of the uses that are unlikely to move include the schools, the ADF Irwin Barracks and the Subiaco WWTP. The land use plan (Figure 5) also shows the sites within the Master Plan Area that are relatively unconstrained and would be able to be redeveloped, with their future uses shown on the Plan.

Appendix 2 of the Master Plan reveals the relative spread of land ownership as a percentage of the Master Plan Area. There is no single landowner or use covering a majority of the area. The University of Western Australia (UWA) owns the largest portion of the area and there are multiple land uses under their ownership. Any redevelopment of the area would likely result from incremental changes to land use and ownership with larger owners such as UWA and the Department of Health having a more substantial role in any change. Some landowners are heavily invested in the current uses of their sites, having made recent upgrades, while others are seeking redevelopment opportunities that would be a departure from current uses.

The differing needs of the landowners means that it is unlikely that urban development would interest all stakeholders. The financial benefit or burden of relocating infrastructure, disruption to operation, and the availability and suitability of alternate sites are the factors that landowners and land managers would consider.

The Master Plan considers these issues and has identified urban development opportunities where landowners may benefit from the change in use and where land use conflicts are kept to a minimum. Existing uses that are unlikely to move are proposed for retention and urban development areas are intended to be buffered from the WWTP by service commercial uses, the UWA Shenton Park Field Station and Open Space.

It is important to note that the land uses referred to in the Master Plan do not directly align with those of LPS3. The objective of the Land Use Plan is to illustrate the future use without specifying the zoning. The Plan broadly shows the type of development that the City desires for the area. For example, areas marked as service commercial in the Master Plan may include the service commercial zone but also reserves for public purposes. For Urban areas identified in the Land Use Plan, the zonings could include Residential, Mixed Use, Local Centre, and the like. Further detailed planning of particular areas may introduce open space reserves or more specific zones such as Private Community Purpose.

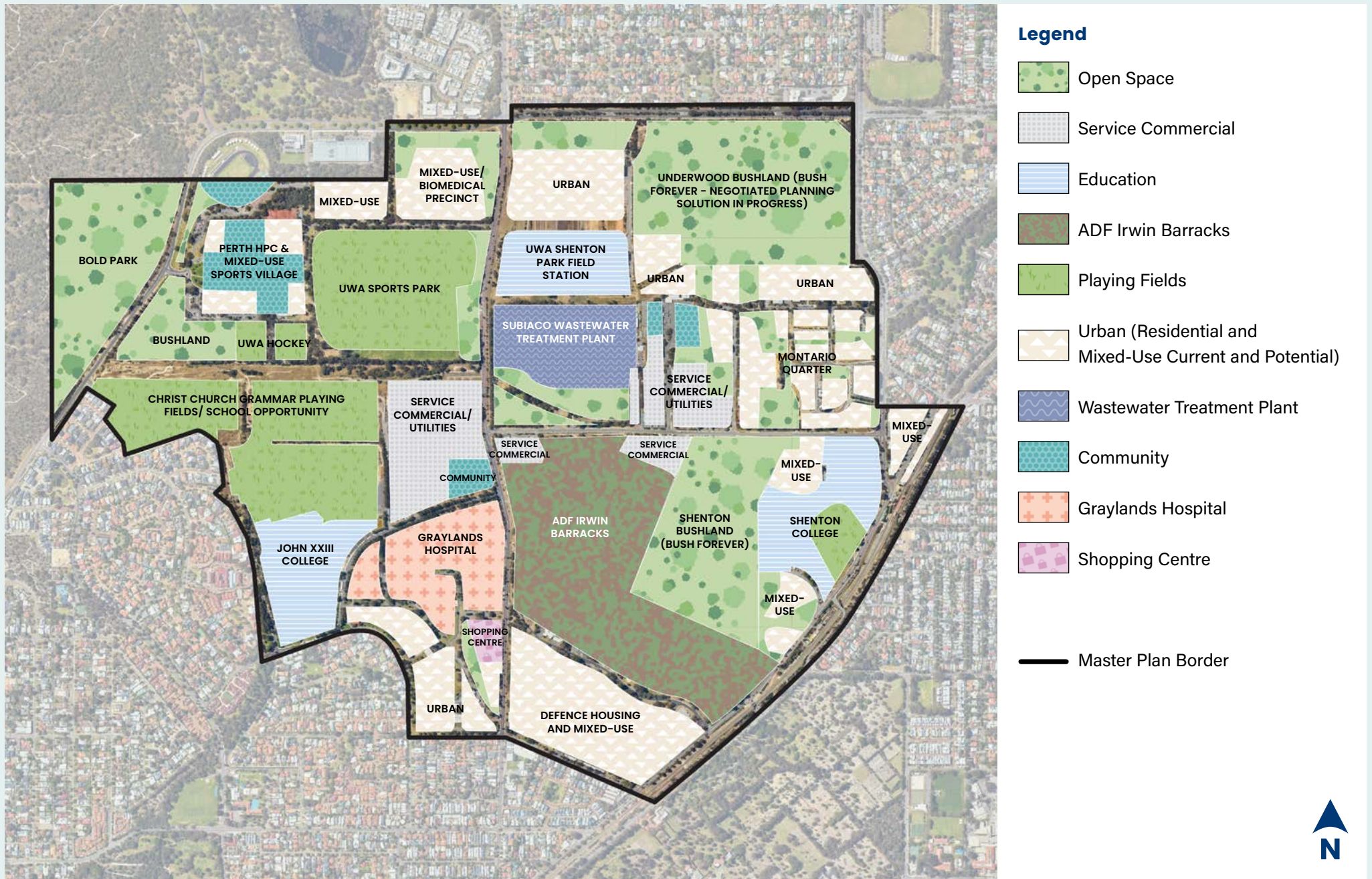
The broad land uses shown in the Master Plan have been chosen to show preference for an increased population with residential and mixed-use developments located close to public transport, existing sporting facilities and schools. Schools in particular need to be considered in the Structure Planning stage when determining land uses. The increased population that would be enabled by development sites will likely cause the need for new primary and secondary schools. Sites that may be able to accommodate schools include many of the identified urban areas and a portion of the Christ Church Grammar Playing Fields.

It is estimated that of the 480 hectares that constitutes Master Plan area there would be approximately 73.7 hectares or 15.4% of the gross Master Plan Area suitable for urban redevelopment upon removal or reduction of the WWTP buffer. This includes the existing urban development occurring in Montario Quarter which is consistent with the intent of the Master Plan and serves as inspiration for much of the identified urban opportunities.

Refer to Appendix 1 for an analysis of existing land uses and the opportunities that each site presents. Refer to Appendix 2 for measurements of the Master Plan Area, including the existing landholdings and details of their current ownership and management.



Figure 5 – Land Use Plan



Active Transport

Development in the Master Plan area should be mindful of the increase in vehicle traffic that would occur from new residents and workers. The area currently has high levels of traffic in the morning and afternoon school rush occurring around John XXIII College and Shenton College. One way of ameliorating any increase in traffic over time would be the promotion and introduction of more cycling and walking connections.

Integrated within such a network of cycling and pedestrian paths, the City's existing plans for a School Sports Circuit, yet to be implemented, would not only alleviate traffic but also provide safe movements of students within the school zones and adjoining playing fields.

The City's Integrated Transport Strategy (ITS) proposes improved walking and cycling connections to public transport. The Master Plan aligns with this objective by showing routes that could increase connectivity to Fremantle/Airport Line stations. The ITS also recommends connections be included in the City's Active Transport Forward Works Program between Montario Quarter, Shenton College, the UWA Sports Park, along Brockway Road, Selby Street and Lemnos Street, connections to all schools and Karrakatta Cemetery. The Active Transport routes shown in the Master Plan align with this recommendation but do not have an impact on delivery. The Master Plan's role with active transport is to identify potential routes and advocate for them as part of the wider vision for the area. Delivery of cycling and pedestrian infrastructure shall be undertaken through the City's various works programs, including the Active Transport Forward Works Program.

Where possible, separating pedestrian, cycle and road traffic can have safety benefits, especially in higher traffic or higher speed environments. In low speed and low traffic areas, there may be the ability to create shared spaces where pedestrians, cyclists and vehicles move through areas at the same speed and in a calm manner as dictated by the road design and a low-speed limit. Safe Active Streets are one type of shared space.

The provision of shared paths and cycle lanes increases the safety and appeal of active transport. Furthermore, the ITS recommends that the City review policy and frameworks to incorporate quality lighting and design of urban spaces and for transport projects to consider the differences in urban experiences between night and day. This recommendation is particularly important in encouraging walking, as good lighting and spaces that have good visibility, and passive security will help increase safety for pedestrians at night. For daytime travellers, shading of paths is a key consideration for the Master Plan. Tree planting along active transport routes will help address this consideration.

Paths proposed in the Master Plan Area will provide greater connectivity across the area but also will connect to areas outside the Master Plan Area. The Town of Cambridge, City of Subiaco and Town of Claremont are all located near the Master Plan's borders. Active transport routes are proposed to connect to paths already planned in these adjoining Local Government Areas (LGAs).

The Town of Cambridge's Bike Plan (Cardno, 2018) looks to bridge gaps in the existing shared path network. Their proposed paths provide good north-south connections from the Master Plan Area through Perry Lakes to Floreat and Wembley.

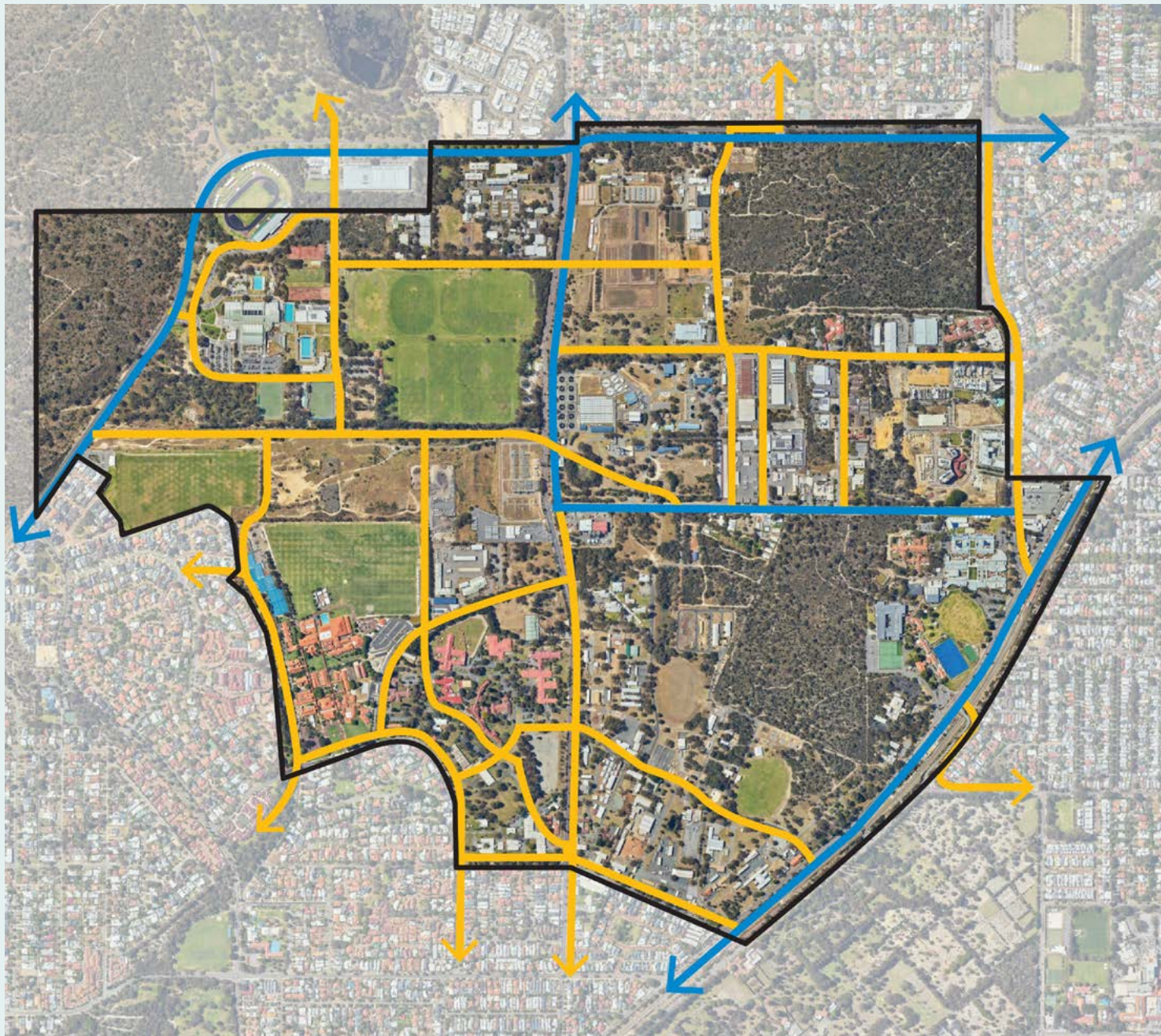
The City of Subiaco (City of Subiaco, 2021) proposes upgrades to the intersection of Underwood Avenue/ Hay Street and Selby Street along with widening of the existing shared path along Selby Street to enhance safety. A branch off Selby Street to Lake Jualbup via Stokes Lane is proposed. East-west connections along Aberdare Road and Evans Street are also proposed. These upgrades will provide improved east-west connections from the City and Subiaco to the Master Plan Area. These routes provide access to Kings Park, the QEII Medical Centre and West Perth.

To the south, the Department of Transport's Long Term Cycle Plan (Department of Transport, 2023) provides information about cycle plans through the Town of Claremont. Local routes are proposed to link the school sports circuit and Brockway Road with Scotch College, Claremont Quarter, Claremont Showgrounds and primary routes along the Fremantle Line/Airport Line and West Coast Highway.



Figure 6 A safe active street being used in Nedlands (Bicycle Network, 2022)

Figure 7 - Active Transport Network Plan



Legend

- Master Plan Border
- Potential Shared Paths
- Existing Shared Paths



Vehicle Access

The existing road network provides a good amount of north-south connection which currently funnels traffic through the Master Plan Area. However, there is a lack of connectivity in the northern sections of the Master Plan Area and a distinct lack of east-west connectivity across the whole area. Vehicle access into proposed urban areas is necessary and new links are proposed to allow this. A new east-west link proposed as part of the new CCGS Playing Fields has been included in the plan which will increase the permeability of the site. An east-west and north-south link through the Graylands site and new links into the UWA Shenton Park Field Station site from Brockway Road, Underwood Avenue, and an extension of the access road in Water Corporation's commercial area have also been proposed. The north-south road from Underwood Avenue to Lemnos Street has been refined post community consultation to maximise the retention of the Underwood Avenue Bushland. A north-south link between John XXIII Avenue and the CCGS Playing Fields access road is proposed for urban development in this area and formalisation of the road network within the Sports Park and conversion to a more grid-like layout would improve access to the Sports Park, John XXIII College and provide better east-west connectivity.

The Vehicle Access Plan (Figure 10) displays new proposed links in orange and existing roads in white. Of the orange roads, McGillivray Road, and some sections of carpark access within the UWA Sports Park are included, as it is the City's opinion that roads in those locations could serve the area well as gazetted roads in the future. These routes are reflected in the lessee's (Venues West) Master Plan for the Sports Park (Venues West, 2022).

Sections of proposed vehicle access located within existing lots illustrate an ideal outcome for the flow of traffic but can only be implemented with the support of affected landowners. Creation of vehicle access through lots may require easements or acquisition.

The Master Plan has included investigation of how the area can better integrate with existing built-up areas to the south and east. Few opportunities were found due to the steep gradients and closed off nature of the existing residential area to the west and south, and the railway line on the east being difficult to cross due to the changeable gradients of both the railway line and the existing roads on either side. Densification on the eastern side of the Master Plan may help to justify additional connections in the long term, but it is unlikely that many opportunities on the south or west will open up, given the low-density nature of Mount Claremont's existing residential areas.

Smaller connections have been proposed to help spread traffic flows across the area. This includes vehicle access between Orton Road and Bedbrook Place, allowing vehicle access from Montario Quarter to the west and formalizing access to the WACHS site to enable the division of the site in a way that preserves existing bushland. Proposed vehicle access through the ADF Irwin Barracks is included on the plan should the ADF wish to develop part of the land for defence housing.

In considering vehicle access, the Master Plan identifies that some intersections will need to be upgraded or treated to ensure that they are safe, prioritise pedestrian and cyclist movement and allow efficient movement of traffic. The intersections of Camelia Avenue and Quintilian Road with Brockway Road, John XXIII Avenue with Brockway Road and Lemnos Street with Brockway Road are three such intersections where significant upgrades would become necessary. These roads often have significant traffic levels as a result of the schools within the vicinity. Roundabouts or traffic lights may suit these locations. Additionally, the intersections along Underwood Avenue and Selby Street would increase in importance as infill requires the area to become more accessible. Underwood Avenue features two traffic lighted intersections which allow vehicles to turn right without a dedicated green arrow. This can

be dangerous in peak traffic times and upgrades would necessitate dedicated turning lanes and green arrows to avoid vehicle collisions.

The new and upgraded intersections with Brockway Road will be treated to ensure that movements are safe and do not create significant traffic backlog. Some of these intersections could be left in/left out only or alternatively may require traffic lights or roundabouts. No preferred designs have been selected at this stage. Further investigation will be needed on the preferred treatments and that would occur as part of the recommended detailed traffic modelling and planning. In this area, parking and vehicle access in and out of events is of particular concern given the presence of the Perth HPC and UWA Playing Fields. The use of this space for athletics events throughout the year, winter sport competitions and for concerts at Perth HPC mean that the Master Plan Area needs to cater to large event traffic movements. The roads need to be designed for moving traffic safely and efficiently in and out of the north-east corner of the area. Public transport in this area is proposed to be enhanced with the identification of a mid-tier route which will be able to carry large amounts of people on dedicated right of ways.

At the southern end of Brockway Road, school pickups and drop-offs will be the main consideration for

safety and traffic flow. The proposed north-south Road between the CCGS Access Road and John XXIII Ave provides alternate access to John XXIII College which is the main cause of current morning traffic backlog on Brockway Road.

Flow on affects from the Master Plan Area's proposed population increase would necessitate improvements at major intersections outside the Master Plan Area. Concentrating upgrades on the consideration of east-west traffic from coast to City will ensure that the wider area continues to effectively provide for regular commuter traffic from the suburbs of Mt Claremont, City Beach, and Swanbourne to and from the Perth CBD. Underwood Avenue and Stephenson's Avenue provide this critical function, and upgrades would be necessary at subsequent intersections of Montgomery Ave and Rochdale Road with Stephenson's Ave.

The vehicle access ways proposed in the plan should be located in wider road reserves, where possible, to be capable of hosting separate shared paths and large verge planting in strategic locations to strengthen greenways through street tree planting and Miyawaki forest planting. The proposed local links will serve infill development areas and are intended to provide much-needed vehicle access and permeability but should not encourage a high volume of vehicle use. Development within the Master Plan Area should

encourage public transport usage and active transport in the first instances, given the proximity to bus routes, rail and potential mid-tier infrastructure.

Local roads within the new urban areas have not been shown on the Master Plan, as the location of those roads is dependent on a greater level of detailed planning which would include the lot sizes, type of development and gradient of the sites. Given the Master Plan is a vision, that level of detail is not warranted yet. The Master Plan can, however, illustrate the character of those roads.

Local roads within the new urban areas should provide efficient and legible vehicle access to the developments. Cul de sacs should be reduced so that the developments remain accessible and traffic should be calmed through the use of lower speed limits, shared spaces and use of traffic calming through landscaping, use of cobble stones, reduced road widths, chicanes, and public art. The City's ITS supports the use of improved road treatments to ease traffic flows. In particular, it mentions that improved road treatments could be utilised around schools to reduce delays in peak school pick-up/drop-off times.



Figure 8
Painted Road Surface – Beazley Ave, Curtin University

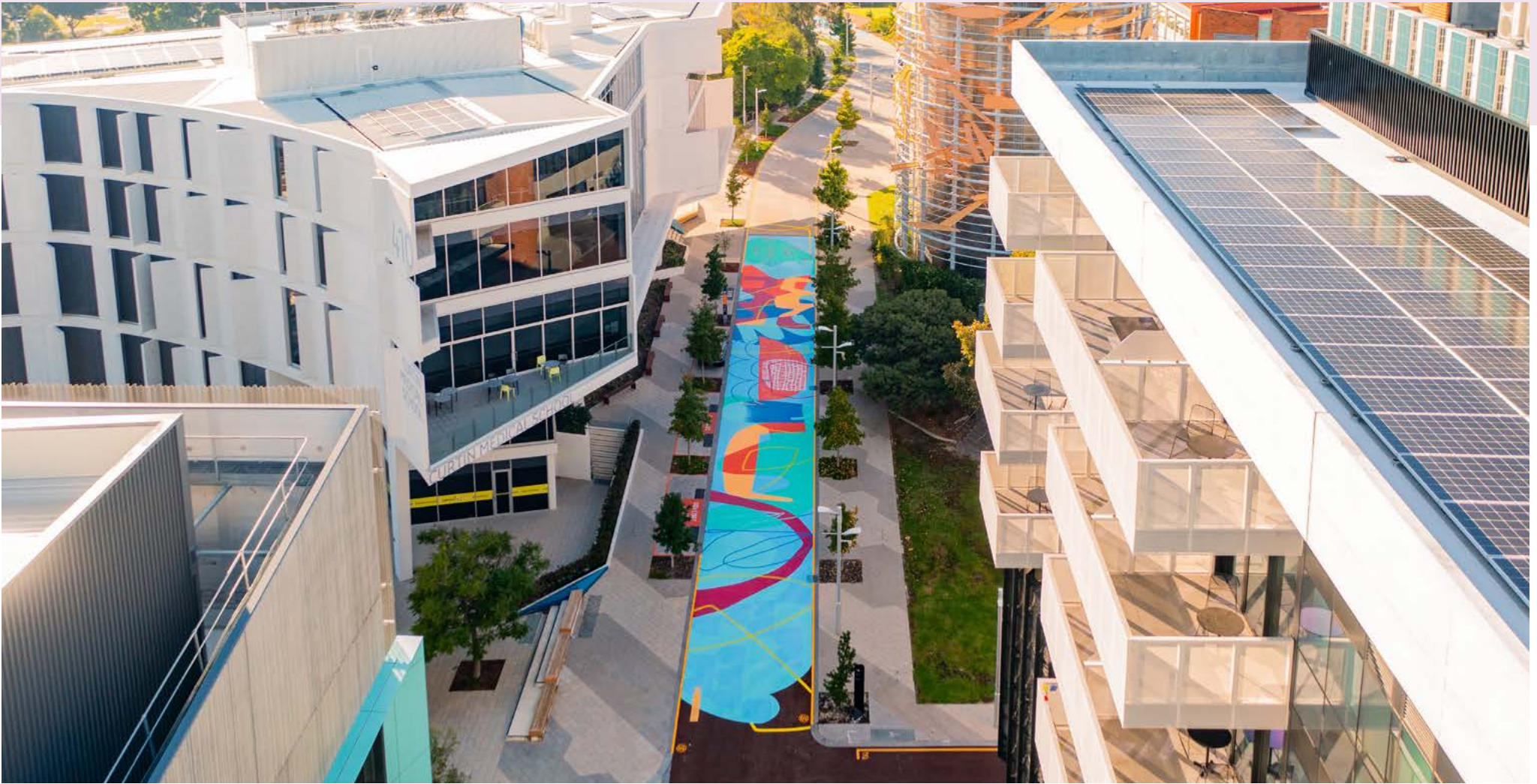
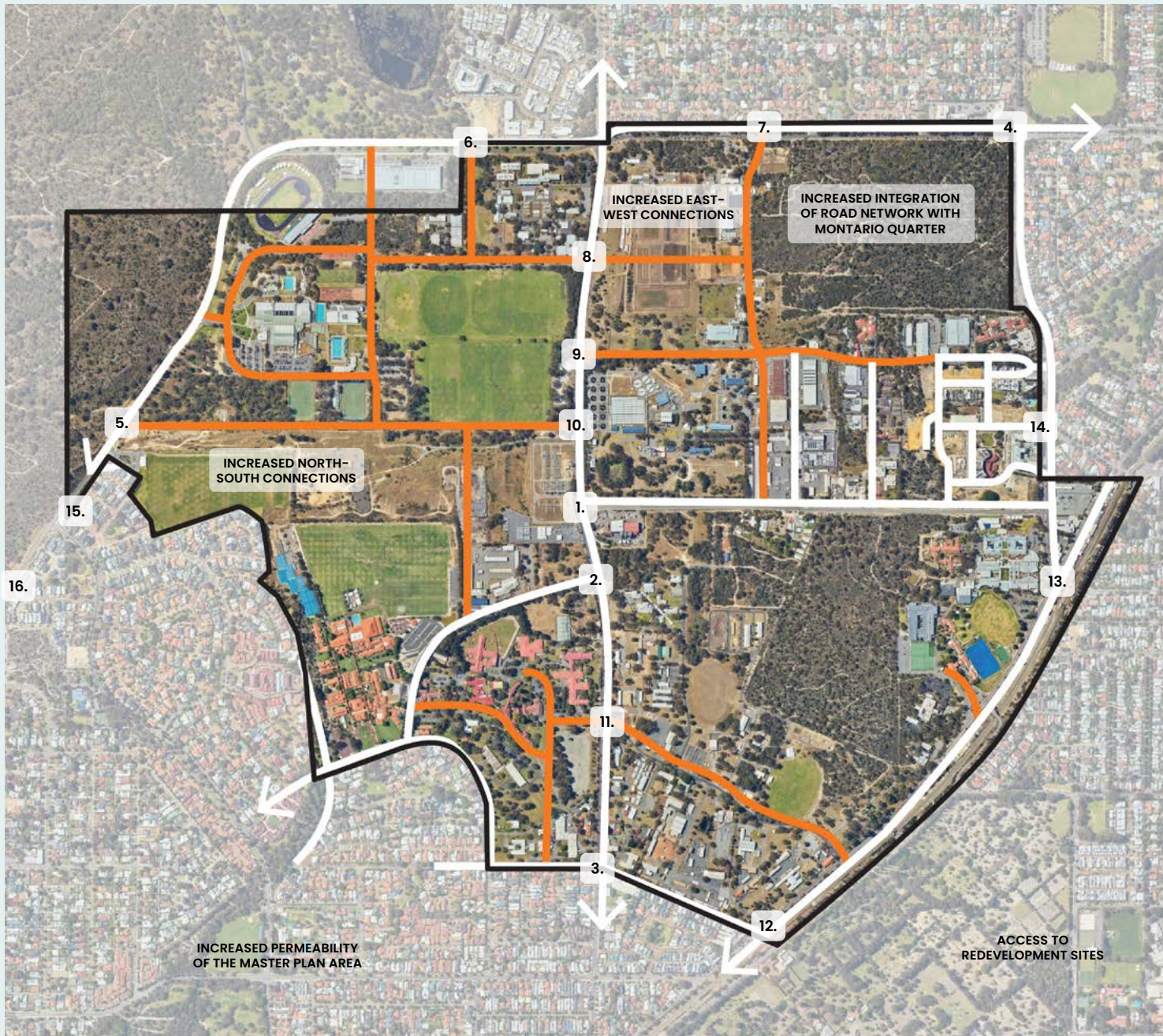





Figure 9
Painted Road Surface – Koorliny Way, Curtin University

The above photos showcase examples of murals by artist, Sioux Tempestt painted on road surfaces at Curtin University. These murals have been used to indicate slow speed areas and shared spaces. Using murals on local streets can generate interest, create a sense of place, and provide an opportunity for use of cash-in-lieu contributions received through the City's Percent for Art Local Planning Policy. Figure 8: (Sioux Tempestt, 2023) Figure 9: (Sioux Tempestt, 2022).

Figure 10 – Vehicle Access Plan



Legend

-  Master Plan Border
-  Potential Road Links
-  Existing Roads and Access

New or Improved Intersections

1. Lemnos St/Brockway Rd
2. John XXII Ave/Brockway Rd
3. Camelia Ave/Quintilian Rd Brockway Rd
4. Hay St/Underwood Ave/Selby St
5. Stephenson Ave/CCGS Rd
6. CSIRO Rd/Underwood Ave
7. Eastern N/S Rd/Underwood Ave
8. McGilvray Rd/Brockway Rd
9. WWTP Rd/Brockway Rd
10. CCGS Rd/Brockway Rd
11. Graylands-Barracks Rd/Brockway Rd
12. Quintillian Rd/Railway Ave
13. Selby St/Railway Ave
14. Selby St/Nash St
15. Montgomery Ave/Stephenson Ave
16. Rochdale Rd/Stephenson Ave



Environment

Greenways and Whadjuk Walking Trails

The Western Suburbs Regional Organisation of Councils (WESROC) has adopted the Western Suburbs Greening Plan 2020-2025 (WESROC, 2020). This plan supports the implementation of greenways originally identified in the Tingay Greening Plan 1998 (Alan Tingay and Associates, 1998). The WESROC Plan has informed the preparation of this Master Plan.

The Master Plan area sits between Kings Park and Bold Park. Council's Greenways Policy (City of Nedlands, 2019) seeks to preserve and enhance vegetation links between these two areas of ecological significance. A Strategic Plan for Perth's Greenways Final Report (Alan Tingay and Associates, 1998) identified this link as Greenway 19. The Western Suburbs Greening Plan further detailed Greenway 19 by identifying parts of the greenway that are existing regional greenways, areas where greenways should be secured and developing greenways where local governments can establish greenways through the appropriate planting of open space, streets, and active transport corridors.

The greenways plan (Figure 11) within this Master Plan incorporates, to some degree, existing regional greenways with broad linkages of existing patterns of tree canopy and natural, remnant bushland. These broad linkages are important as they allow the movement of fauna between different habitats promoting genetic diversity. In the master planning process, two broad linkages were identified; between Shenton Bushland and the Underwood Avenue Bushland, and between Lake Claremont and Brockway Road following existing canopy patterns. Two other broad linkages relating to the Western Suburbs Greening Plan have been proposed. The first following Underwood Avenue and Selby Street, and the second following McGillivray Road and Lemnos Street. Following roads and POS allows local government to design the greenways appropriately and conduct planting that would otherwise fall under the control of landowners. Although McGillivray Road is on land owned by UWA, they have expressed their support and advocacy for greenways.

The main purpose of greenways is to provide ecological support for endemic species of flora and fauna that rely on being able to move seasonally between the coast and the river. The protection of greenways and provision of associated infrastructure such as green bridges can facilitate safe movement of fauna through the suburban area, protected from vehicles and people. Green bridges may be suitable in some locations especially where doing so will provide a benefit for vehicle and pedestrian safety, connecting major greenway corridors and avoiding creating

additional traffic. A green bridge/underpass located at the intersection of Lemnos Street and Brockway Road may provide for active transport and mid-tier transit as well as a vegetated corridor to travel over or under Brockway Road. Other green bridges could be located over Stubbs Terrace and the railway line and over Stephenson's Ave to Bold Park on the west. The cost and benefit of providing green bridges may increase where such infrastructure serves multiple purposes. Design must be done carefully to avoid fauna strikes especially as this is a key aim of separating vegetated corridors from roads.

On the basis of Tingay's 1998 study, and the WESROC Western Suburbs Greening Plan 2020-2025, it is recommended when open space is planned within redeveloped areas of Mount Claremont that distribution of POS be consistent with the palette of endemic vegetation and be located in the identified broad linkages.

Recreation and active transport are secondary purposes of greenways. These links can be incorporated where designed appropriately to not detract from the main purpose. The Western Suburbs Green Plan 2020-2025 makes additional suggestions including the 'greening' of local streets through planting of street trees and landscaping of

verges and median strips. The Master Plan supports planting of gaps in the identified Greenways. Miyawaki Forests (Carbon Positive Australia, n.d.) are small patches of land planted according to a method with dense and biodiverse tree and bush growth at intervals. These could be a model for enhancing the Greenway corridors. It is important to protect greenways in the local planning framework so that potential development in the area does not inhibit the movement of fauna.

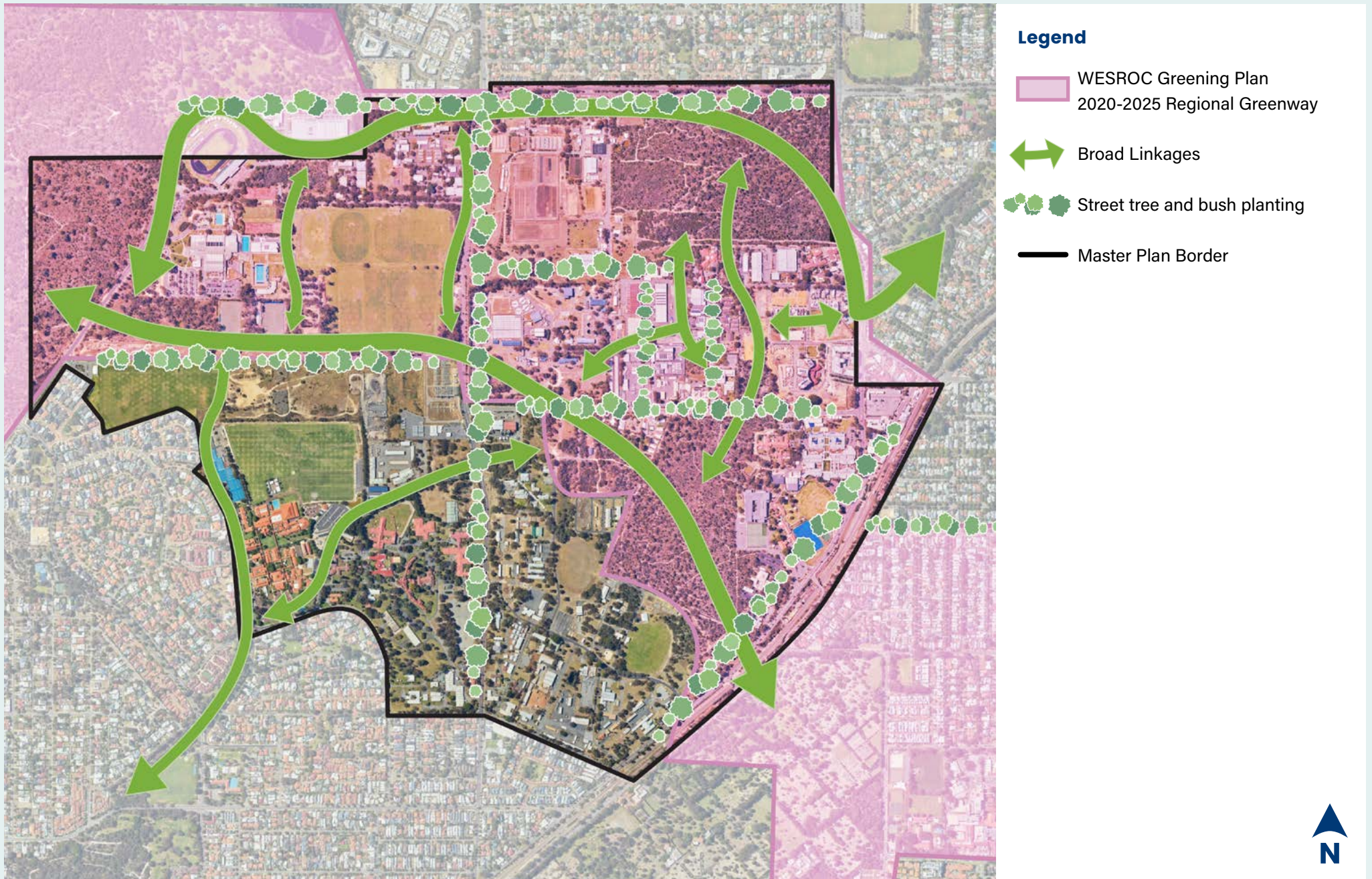
Across the Western Suburbs of Perth, including within the Master Plan area, Whadjuk Walking Trails have been established. This is a network of walking trails that exists across Perth's Western Suburbs which links together Aboriginal heritage sites, parks, and lookouts. The Whadjuk Walking Trails provide an opportunity for knowledge sharing via interpretive artworks and information panels along the trail routes. There is a correlation between these trails and greenways. The Bush to Beach Trail traverses the Master Plan area following the broad linkage from the Shenton Bushland then heading west along Lemnos Street and through the UWA Sports Park. The Yange Kep Bidi (Wetland Trail) follows the broad linkage from Lake Claremont to Mooro Drive before heading north through the Master Plan Area to the UWA Sports Park and then to Perry Lakes. A third Whadjuk Walking

Trail called the Waarlitj Bidi is planned to traverse the Master Plan Area (Artify, Development WA, 2022). Draft plans for the trail follow the greenway from the Shenton Bushland to the Underwood Avenue Bushland before continuing to the suburbs of Jolimont and Shenton Park.

There is opportunity to expand on these ideas for other planned active transport routes. The School Sports Circuit which has been integrated into the Master Plan's proposed active transport network, traverses the Master Plan from north to south. It provides the City with an opportunity for another themed walking trail focusing on natural beauty of the area and connecting sporting and education facilities.

It will largely be through redevelopment and subdivision that the opportunity will arise to reserve land for greenways and POS. The construction of additional roads will also provide opportunities for increased planting of endemic species to reinforce the greenways, though this could also occur along existing roads in the area. There could also be opportunity for new Whadjuk Trails should the Master Plan Area have increased permeability.

Figure 11 – Greenways Plan



Bush Forever

The University of Western Australia has advised no decision has been made on the future use(s) of its land holdings within the Master Plan Area. The current zoning of the Underwood Bushland is Urban Development with a portion of the site currently designated as Bush Forever under State Planning Policy 2.8 – Bushland Policy for the Perth Metropolitan Region (SPP 2.8). This policy seeks to ensure bushland protection and management issues in the Perth Metropolitan Region are addressed and properly acknowledged within land use planning with the objective of the long-term protection of biodiversity and any associated environmental values. SPP 2.8 does not prevent development where it is consistent with the policy and other planning and environmental considerations. The Department of Planning, Lands and Heritage Bush Forever Audit 2021 states the Underwood Bushland has been identified as requiring a “Negotiated Planning Solution (NPS)” which has not been progressed. An NPS aims to maximise bushland retention as part of negotiating a development footprint and design. As of July 2024, there has been no update. Other information provided in the Audit states that 13.9ha is proposed as conservation and 2ha as POS. The NPS requires federal approval under the Environmental Protection and Biodiversity Conservation Act 1999.

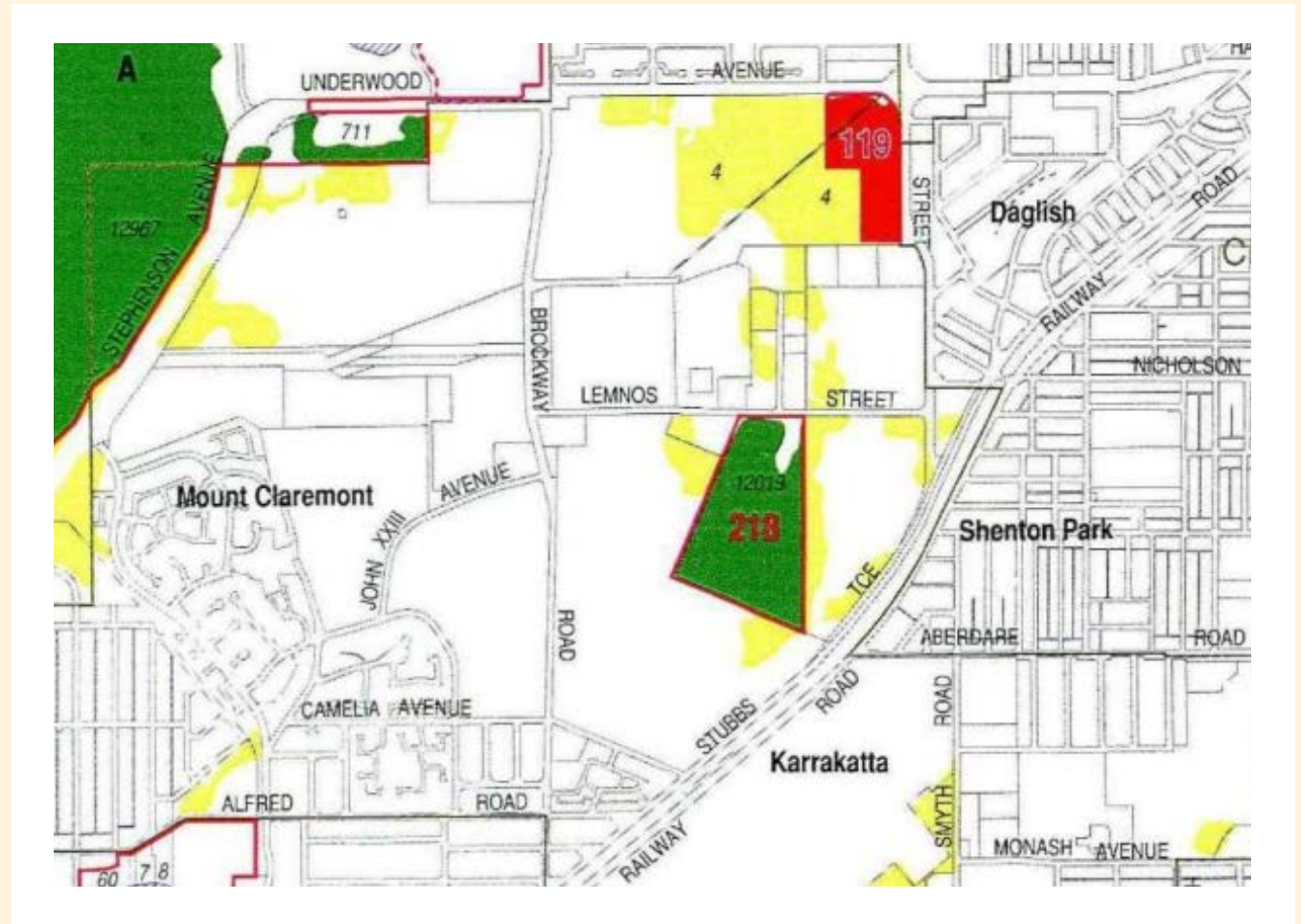


Figure 12 Negotiated Planning Solution in red on the above map.

The three key objectives of SPP 2.8 are to:

1. Establish a conservation system at the regional level (through Bush Forever areas and to operate with the clearing controls under the Environmental Protection Act 1986) that is, as far as is achievable, comprehensive, adequate and representative of the ecological communities of the Swan Coastal Plain portion of the Perth Metropolitan Region.

2. Seek to protect and manage significant bushland recommended for protection and management for conservation purposes through a range of implementation mechanisms and as a collective and shared responsibility and general duty of care on the part of government, landowners, and the community.

3. Provide a policy and implementation framework for significant bushland areas recommended for protection and management to assist conservation planning, planning assessment and decision-making processes.

It is not the place of this Master Plan to nominate areas for inclusion. However, it is important that this issue, the preservation of the native habitat advocated for by the Friends of Underwood Avenue Bushland Community Group, is understood by the City and State Government. The City should enable the preservation of a greater amount of Bushland through Master Planning by looking at existing remnant bushland as an opportunity for public open space to be considered. In allowing infill development, new homes will need to have access to green space nearby. The allowance of residential development and any significant R-Coding designation should come hand in hand with increased bushland preservation and increased justification for Bush Forever Status over bushland sites. While the Bush Forever Initiatives are led by both the Environmental Protection Authority (EPA) and the Western Australian Planning Commission (WAPC), the City can assume an advocacy position in addition to recommended Land Use designations. Advocacy on this subject may fall outside the Planning scope but is still a noble cause for the City and its residents.



Sustainability

The sparse nature of the Master Plan Area is rare within the Perth Metropolitan Area. It presents opportunities for sustainability to be considered in more aspects than just building design. Utilities such as water and electricity and the layout of the Master Plan Area can consider environmental sustainability before buildings are designed. Development WA has been experimenting with a range of technologies on smaller infill sites at White Gum Valley, Hamilton Hill, and Knutsford in Fremantle. The same could be done on a larger scale in the Master Plan Area as, ordinarily, utilities would need to be constructed to each lot prior to release of lots.

The collection and use of rainwater for toilets and washing machines and greywater-ready plumbing are two of the water saving initiatives underway at Hamilton Hill. The demolition process at Hamilton Hill has involved recovery of materials with the exception of hazardous waste. Recovered materials have been used in furniture making, and metals have been recycled. Use of timber framing has been encouraged in houses built at Hamilton Hill through the use of design guidelines and agreements with home builders (Development WA, 2023).

East Village at Knutsford has included a strata-owned bore from which groundwater has been able to be used on the area's green spaces. Strata properties within the Master Plan area may be able to achieve a similar outcome on some sites. Landscaping within the Master Plan Area should be carefully considered to make use of bore water and make contributions towards biodiversity and habitat creation. Species selected should be drought resistant and less

prone to current environmental challenges such as the polyphagous shot hole borer. Landscaping is important for creating a sense of place.

With development occurring near UWA's Crawley Campus and around the UWA Shenton Park Field Station, there is an opportunity for research and education as part of the development process, especially considering the ownership of some lots by UWA. University research partnerships have occurred at other developments such as Development WA's developments at East Village where Curtin University has set up a laboratory and is studying the outcomes of the development's sustainability initiatives (Development WA, 2024 a).

The Master Plan Area's existing utility-centric development provides an opportunity for Sustainability to consider how new development interacts with the existing services. The Western Power facilities in Mt Claremont and Shenton Park provide opportunities for innovative power solutions and the Subiaco WWTP similarly allows for innovative consideration of sewerage processing and recycled water use. Synergy has been operating Virtual Power Plant Pilot Projects at schools across WA (Synergy, 2022). The City suggests that should the Pilot Projects be successful, schools and playing fields in the Master Plan Area could be considered for any expansion of Synergy's Project.

East Village runs on 100% renewable energy. Considering the MLP proposal involves a solar power solution, there is opportunity for the Master Plan Area to also be powered by 100% renewable energy. Community batteries may need to be considered for operational resilience.

The City of Nedlands requires that certain developments consider sustainable design. Local Planning Policy 1.3: Sustainable Design provides a range of measures that can be incorporated and requires implantation of a number of elements dependent on the type of proposal and estimated cost of development. The effect of the policy is at the Development Application stage when individual proposals are assessed against the policy. Proposals need to comply with the policy by demonstrating implementation of sustainability into the design, operation and fit out of buildings. Assorted options are listed in the policy that contribute towards a favourable assessment. Examples include NatHERS certification, Car Share schemes, natural ventilation, energy and water use, bike storage, Electric Vehicle charging and toxicity testing.

In the Structure Planning Stage, the 3+30+300 Rule should be considered and followed where possible. The 3+30+300 Rule is a rule of thumb for urban greening and development coined in 2021 by the Nature Based Solutions Institute. It calls for three mature trees for each home, a thirty percent canopy cover in every neighbourhood and a maximum distance of 300m from each home to a public park or other green space (Nature Based Solutions Institute, 2025).



Figure 13 Barcelona Superblocks (Sam Jarman, 2022)

Building Form of new developments should respond to the local environmental issues. While the Master Plan remains at a higher level of planning, general aims for built form need to be identified. Higher density and building heights will be concentrated near key facilities and transport nodes, while height will taper down toward the southern boundary to respect the adjacent residential character. Lot design must provide adequate deep soil zones to support tree growth and ensure environmental health. Development will incorporate appropriate buffers and bushfire mitigation measures where adjoining bushland, along with building separations to facilitate wind flow, maintain bird corridors, and preserve

privacy. Building finishes near greenways must use solid or textured colours to reduce the risk of bird strikes (Lizzie Crook, 2022), supporting the ecological function of the area.

The Master Plan Area presents an opportunity for structure planning and traffic planning to consider adoption of low traffic neighbourhood (LTN) principles as seen in Barcelona's Superblocks and Masdar City in the UAE. These internationally recognised models demonstrate how urban design can transform residential areas into more walkable, sustainable, and community-focused environments by prioritising people over vehicles. In Barcelona, the Superblock

model restructures traffic flow by diverting through-traffic to perimeter roads, allowing internal streets to become shared spaces for pedestrians and cyclists. Similarly, Masdar City restricts car access to the edge of the development with personal autonomous electric vehicles and public transport being the only vehicles to traverse the area. It is unlikely that the Master Plan Area could go completely car free but nevertheless the same principles could be adopted to reduce car trips. Following in the path of these cases could reduce vehicle congestion and noise pollution.

Opportunities

The Opportunities Map (Figure 14) highlights those areas within the Master Plan area which could accommodate new development. This mapping exercise assumes that the WWTP buffer would be either removed or reduced to allow development. This map demonstrates the land that would be suitable for development if the buffer is reduced or removed.

Consolidating the Graylands Hospital onto the northern part of the site assumes that opportunities would be available on the south side of Graylands and on other land in the area managed by the Department of Health. In the proposed reconfiguration of Graylands, the Graylands Hospital Master Plan has only proposed works on the northern half of the hospital site (Infrastructure WA, 2023). Whilst this is the current proposal, in previous years there have been moves to close Graylands. Therefore, the Master Plan considers that an ideal scenario would involve the relocation of Graylands and redevelopment of the site.

Discussions with UWA have revealed a Master Planning process is underway for UWA's main landholdings. Plans for the Crawley Campus have been released, and some community engagement has taken place for UWA's Park Avenue Site. UWA has made some progress on a plan for the Nedlands Campus and is exploring options for its landholdings within the Mount Claremont Master Plan Area. Discussions with UWA have revealed the following may form part of their Master Plan:

1. A long-term commitment to maintaining and enhancing the UWA Sports Park. This includes considering improved access through the site from Underwood Avenue and improved permeability and legibility for users.
2. UWA owns the UWA Shenton Park Field Station to the east of Brockway Road. The CSIRO owns the site to the west of Brockway Road. The State Government has announced its intent for a Biomedical Research Hub to be established at the site since discussions occurred (Government of Western Australia, 2024a). The site remains suitable for urban development, and it is possible that a Biomedical Precinct can be co-located on the site with other uses if land is used effectively and with greater density.
3. There is an urban development opportunity if UWA consolidates the Shenton Park Field Station to the southern portion of the site. The land to the north and east would become available for urban development.
4. The existing Underwood Bushland, located to the north-west of the UWA Shenton Park Field Station site, is a well-known roosting site for the endangered Carnaby's Cockatoo. It is also significant for the endangered Forrest Red Tail Cockatoo, endangered 'Banksia Woodlands of the Swan Coastal Plain ecological community' and the critically endangered 'Tuart Woodlands and Forests of the Swan Coastal Plain ecological community'. UWA has consulted with the local community group, Friends of Underwood Avenue Bushland, and UWA's Master Plan will consider their options for this land. The City advocates for retention of as much of the Underwood Avenue Bushland as possible and strengthening of Greenways connected to the site.

At Montario Quarter, it is observed that uses along the northern and western sides of the redevelopment area were ancillary to the former Shenton Park Rehabilitation Hospital. These land uses, such as medical institutes, charities and medical accommodation, have remained in the area due to their leases, ownership and capital investment in buildings and facilities. In the longer-term, relocation or a change in use may be considered attractive.

In the railway reserve north of Shenton Park Station and east of the Shenton Park Fire Station is a strip of land leased to private operators of commercial premises by the PTA that contains several light industrial and service commercial land uses. These include panel beaters, spray painters, tyre fitters, auto electricians and mechanical workshops. These land uses have occupied the rail reserve through lease agreements for several decades; however, the zoning of this area remains Railway Reserve. The land area currently under lease is approximately 6,600m² and given its isolation from low-density residential development and proximity to Shenton Park Station, it presents an opportunity for high-density residential development. Stubbs Terrace has a road reserve that varies from 18 to 27 metres in width. There is relatively little through traffic on this road as there is only a one-way exit at the northern end. There may be scope to rationalise the relatively wide road reserve to increase the land availability for street parking, amenity treatments, greenways, or developable land. This area is close to the border with the City of Subiaco and any enhancement in this area should consider the interface with Subiaco's side and enhance connection between the two sides. It is recommended that the City collaborate with the City of Subiaco on a detailed plan for this area.

The above plan also highlights opportunities to improve walking and cycling connections and identifies where opportunities for high density development situated next to high frequency public transport services.

Housing Opportunities

The Master Plan presents a significant opportunity in contributing to alleviate Perth's housing crisis by introducing a diverse mix of accommodation types tailored to local needs. With increasing demand for affordable, accessible, and flexible living arrangements, the area is well-positioned to support innovative housing solutions that can serve both short-term and long-term populations.

A key opportunity lies in the introduction of Build-to-Rent (BTR) developments, which offer professionally managed, high-quality rental housing with long-term security of tenure. These can cater to a growing segment of the population seeking rental flexibility without compromising on amenity or location. The proximity of UWA and the QEII Medical Centre makes the Master Plan Area an ideal site for purpose-built student accommodation, accommodation for medical professionals and short-term accommodation for long term outpatients of QEII. These accommodation types would ease pressure on rental stock in surrounding suburbs and provide opportunities to live closer to employment, study, and other necessities.

Given the area includes the Perth HPC and WAIS, dedicated athlete accommodation could also be considered—offering short- and long-term options for athletes training and competing locally. Targeted housing towards these demographics will ease transport pressures and contribute to improved workforce retention and accessibility for essential services.

Importantly, the Master Plan also identifies opportunities for existing landowners to benefit from targeted upcoding, particularly those who already support social and community services, such as the Cancer Council and disability accommodation providers. Through increased density allowances or tailored zoning, these organisations could expand their offerings—providing more fit-for-purpose accommodation for patients, carers, and individuals living with disability. These initiatives not only respond to pressing social needs but also support the long-term sustainability of community service providers in the area.

Collectively, these housing initiatives embedded within the Mt Claremont Master Plan aim to deliver inclusive, diverse, and sustainable living options that reflect the evolving needs of the population, while

taking a proactive role in easing Western Australia's housing pressures.

In identifying opportunities across the Master Plan Area, the City has calculated the amount of land with urban development potential. The result is as follows:

- The existing urban development opportunities with the WWTP buffer remaining in place are limited to 29.25 hectares. This includes the Graylands South site, WA Country Health Service and Pathways site, The Selby Older Adult Mental Health Service site, the Alinea Orton Road Site, the eastern side of Bedbrook Place, the site between Selby Street and Stubbs Tce and the existing Montario Quarter development.
- With the WWTP buffer removed, there is an additional 27.66 hectares available, totalling 56.91 hectares with the above-mentioned opportunities. The additional opportunity sites that result from removing the buffer area include the CSIRO site, the UWA Shenton Park Field Station North site, the western side of Bedbrook Place and opportunities within the UWA Sports Park.
- Over time, the Defence Force may consider establishing Defence Housing on the southern portion of their site, the land available for development would increase to 73.71 hectares.

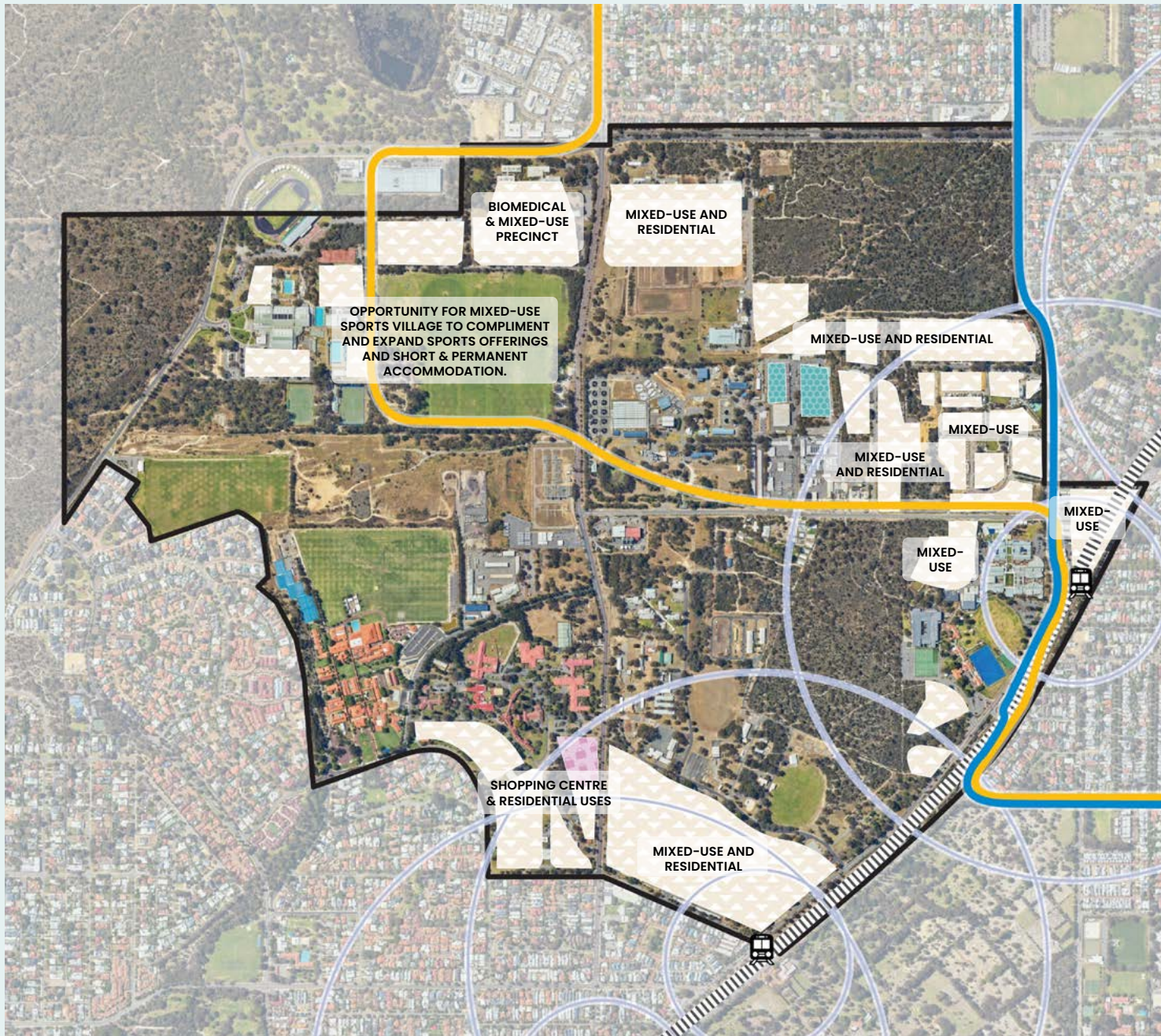
To estimate a yield for the opportunities identified, two methodologies have been proposed which consider a medium density outcome and a high-density outcome. For medium density, the methodology uses the average site area per dwelling for the R40 density code. For high density, the methodology uses the average site area per dwelling for the R80 density code. Both average site areas are for single and grouped dwellings, as multiple dwellings R40 and above have much lower site area requirements, and multiple dwellings R80 and above do not have maximum dwellings per hectare. Use of those requirements could skew results. However, it should be noted that the Master Plan Area is likely to have densities higher and lower in parts than both of the methodologies chosen. The southern portion of Graylands is likely to see lower densities, especially at the interface with Mooro Drive and Camelia Avenue. Sites on the north and east are likely to have higher densities, which could include R-AC1 near railway stations or mid-tier transit.

The yield methodology differs from the previously released Draft Master Plan as the current land use plans exclude road and open space from the sites. It should be noted that the City does not expect that Graylands Hospital to be relocated, and the ADF is unlikely to give significant weight to the Master Plan unless development opportunity significantly outweighs the strategic and operation benefits of remaining at the Irwin Barracks site. The estimated yield is as follows in the table:









Scenarios:	Amount of land available:	Medium Density Outcome Dwelling Yield:	High Density Outcome Dwelling Yield:
Scenario 1 Montario Quarter, Eastern Side of Bedbrook Place, Alinea Orton Road, SOAMHS, WACHS/ Pathways, Graylands South, Selby and Stubbs Tce site.	29.25 hectares	1329 dwellings	2437 dwellings
Scenario 2 Scenario 1 plus Western Side of Bedbrook Place, UWA Shenton Park Field Station North, CSIRO, Sports Park North and Sports Park South.	56.91 hectares	2586 dwellings	4742 dwellings
Scenario 3 Scenario 2 plus Southern portion of Irwin Barracks	73.71 hectares	3350 dwellings	6142 dwellings

Table 1 Master Plan Dwelling Yield Estimates

Figure 14 - Opportunities Map



Legend

-  Urban (Residential and Mixed-Use Current and Potential)
-  Community
-  Shopping Centre
-  Master Plan Border
-  Station Walkable Catchments (250m and 800m)
-  Mid Tier Transit
-  Railway
-  Railway Station



Constraints

The most significant constraint to the redevelopment of the area is the Subiaco WWTP buffer zone. This buffer zone affects over 55% of the Master Plan area and, in land use planning terms, sterilises that area from any form of residential development. Given the proximity of three railway stations on the Fremantle/Airport Line, this limits a legitimate planning opportunity to provide alternative transport options, reduce car dependency and reduce urban sprawl. The WWTP facility itself causes constraints as it occupies a sizeable portion of land in the middle of the Master Plan Area. Its location means that opportunities for urban development tend to be located towards the edges and are fragmented across the Master Plan Area. The outcome of this is that the Master Plan vision shows smaller development sites surrounding train stations, and the Sports Park rather than a singular precinct.

An existing constraint being currently contended with by landowners is the former landfill site between Stephenson Avenue and Brockway Road. The landfill contains contaminated soil which could have a negative impact on human health. The landfill sits under what is the proposed CCGS Playing Fields. The development application for that proposal considered the environmental implications and the determination included conditions for remediation of the site prior to commencing development. Should any more sensitive proposal be put forward for the site, it is likely that the environmental impacts would need to be reassessed in context with that use. The Map below indicates known contaminated sites in the Master Plan Area. Red sites require remediation. Green sites have been remediated for restricted use.

Another environmental constraint in the Master Plan area that needs to be kept in mind is noise generated by the Dogs' Refuge on Lemnos Street. This facility has existed in the area since 1935 and could easily go unnoticed as it has always fallen within the shadow of the Subiaco WWTP. The Dogs' Refuge houses on average 90-100 dogs at any one time in open kennels (Dogs' Refuge Home, 2024). Nearby development would have to provide a design response to address the well-known noise potential of dog kennels for as long as the Dogs' Refuge remains in the area.

Although Irwin Barracks occupies land that is ideally located within the walkable catchment of two train stations, the City understands it is unlikely to be relocated by the ADF. In 2021, the Federal Government announced that a redevelopment of the Irwin Barracks would take place to allow consolidation of some activities from the Leeuwin Barracks in East Fremantle which is in the process of being divested (Department of Defence, 2021). Works were expected to begin in mid-2023 although it is understood works have not commenced. Due to geo-political factors, the ADF have halted further sales on its Leeuwin site until broader strategic studies are completed. There have been no further updates as of September 2024.

It has also been identified that constraints can come from sites that have positive attributes. The two schools, playing fields, existing Perth HPC, Athletics Stadium and Shenton Bushland (Bush Forever) are sites that provide significant benefit. But when considering constraints, there is a significant amount of land that is not usable for development.

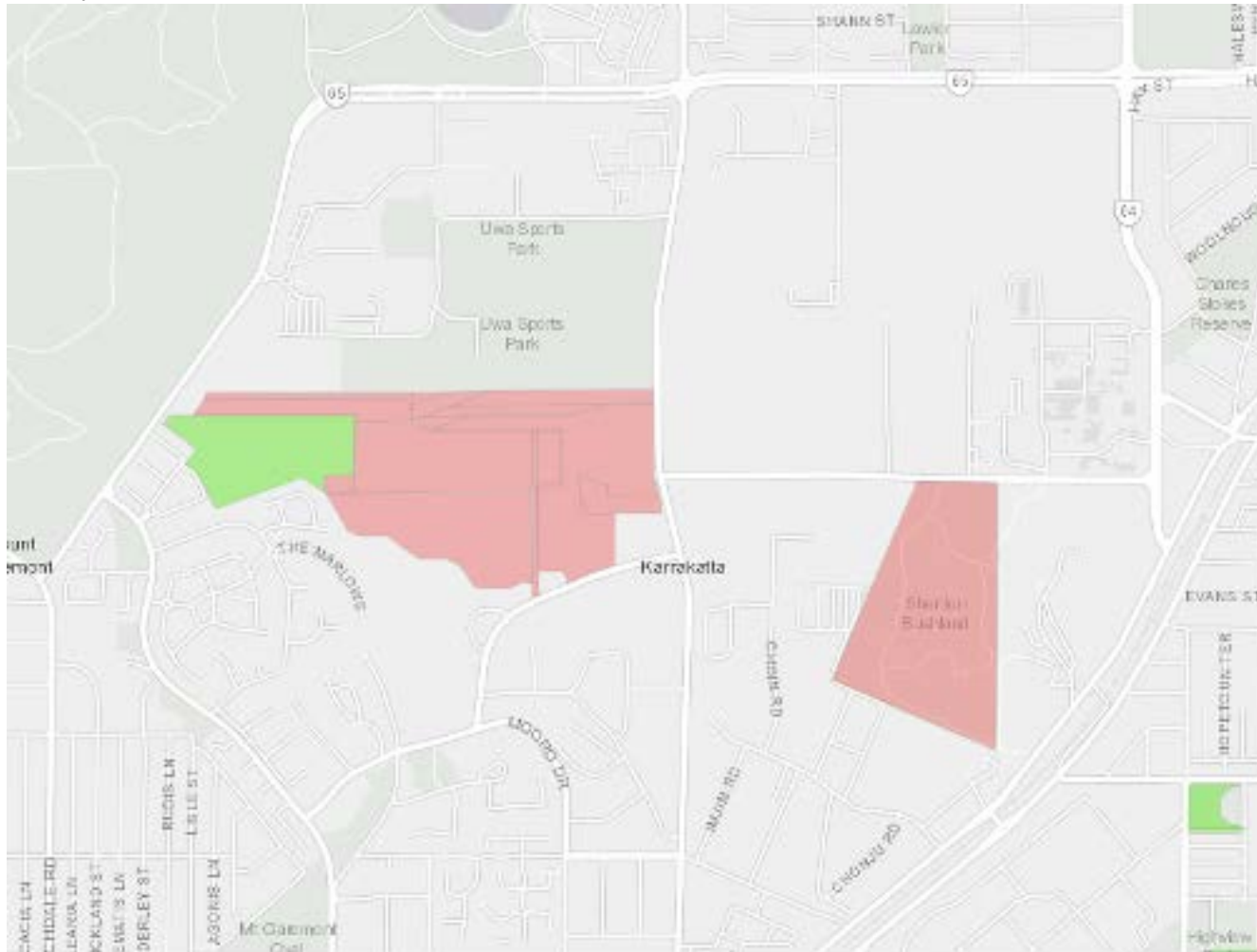
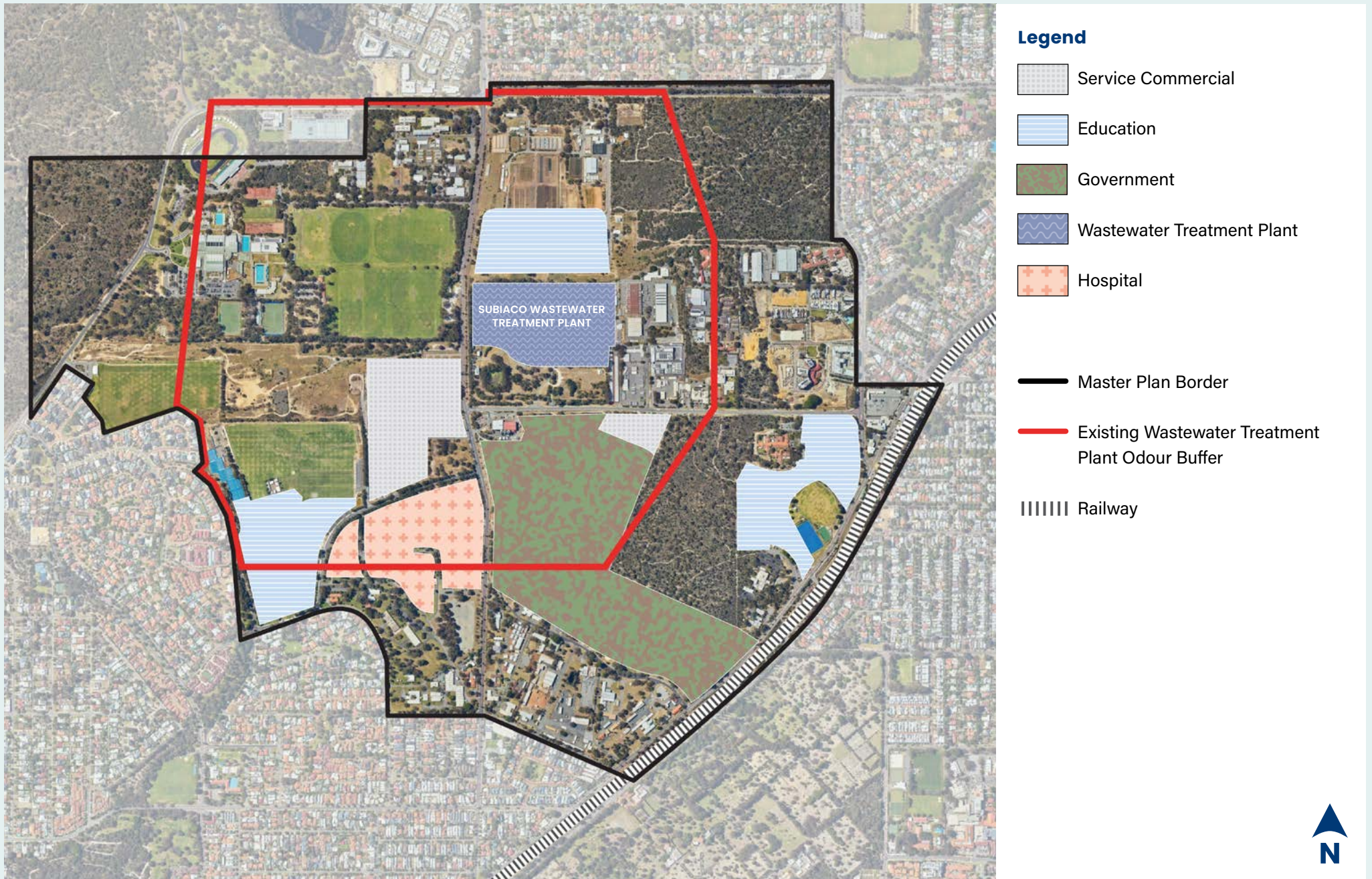


Figure 15 Contaminated Sites

The railway line is another constraint on the area. The railway, although providing strategically important access to the wider region, prevents movement at a local level between the Master Plan Area and both Nedlands and the eastern portion of Shenton Park. The railway sits in an area of challenging terrain. On the eastern side of railway line, the rail line is either above the road or level with the road. On the western side, the railway line either sits above or below the road but is rarely level with the road. Because of this changeable terrain, capping the rail or creating more crossings outside of existing crossings is difficult. It is recommended that existing crossings be taken advantage of by ensuring that active transport routes make use of those crossings by widening or upgrading them. Karrakatta, Loch Street and Shenton Park stations all have pedestrian crossings. A crossing is also located on the Shenton Park Bus Bridge. Loch Street Station's crossing is a level crossing. The City recommends this be replaced with a bridge or underpass to minimize risk of harm. Karrakatta and Shenton Park have underpasses which are narrow and in need of improved accessibility. These should all be considered as part of any future station upgrades.

The Shenton Park Bus Bridge is ideally located to allow connections to Aberdare Road and QEII Medical Centre. A path is on the bridge but, in future, an upgrade of the bridge should be considered to add a cycle path and allow for a potential mid-tier transit route to traverse the railway line here.

Figure 16 – Constraints Map



Land Ownership

The Master Plan area is formed mostly of larger lots and more consolidated land holdings compared to surrounding areas. This is primarily due to the area's use for government, community, and commercial uses. The area lacks smaller lots typical of residential uses other than a few small areas in the new Montario Quarter Development. The use of the land for government and community uses is mainly due to the existence of the Subiaco WWTP, which precludes residential development. The WWTP produces odours and, as such, there is a buffer area that covers 55% of the Master Plan area. The largest lots are owned by the following:

- The University of Western Australia
- CSIRO
- Water Corporation
- Australian Defence Force
- Department of Health WA
- The Roman Catholic Archbishop of Perth
- Christ Church Grammar School

As part of the MLP process, affected State Government departments are consulted on the proposal and its impact to their operations. The success of an MLP process means that the State Government is prepared to accommodate the proposal and that there is a reasonable prospect of the proposal succeeding.

If the MLP for this site succeeds, it is assumed that the Water Corporation and the Department of Health would both have been consulted on the impact of the MLP and that these agencies would need to make some concessions to allow the proposal to be implemented.

The City expects that success of the MLP could lead to residential development on the southern half of the Graylands site and the capping of the Subiaco WWTP. Should this result in the WWTP odour buffer being reduced, it would provide the opportunity for the diversification of land use at the UWA Shenton Park Field Station, UWA Sports Park and the west side of Bedbrook Place.

Consultation of the Master Plan will need to focus heavily on the affected landowners to gauge their future needs and interests in development options. Outside of the Master Plan Area it is particularly important to engage with landowners north and south of the Master Plan that abut the proposed land use changes. This includes engaging with constituents of the City of Subiaco and City of Cambridge. The location of their constituents close to the Master Plan border means they may be affected by future development.

Public Transport

The Master Plan has excellent public transport connections on the eastern border. The area is bordered by the Fremantle/Airport railway line on the south-east and the high frequency 998 and 999 bus service (also known as the Circle Route) on the entire eastern side.

The service provided by the railway line means that Perth, the Airport, Fremantle, Midland, and all places in between are accessible via a short train journey.

The circle route bus service provides a continuous loop through Perth's suburbs running in a circle around the CBD in both clockwise and anticlockwise directions. This service provides good north-south connections to and from the Master Plan Area. It provides frequent services to Stirling, Morley, Wembley, QEII Medical Centre, Fremantle and more.

In terms of the development opportunities that high frequency public transport brings, both transport modes are considerations for increased density and for concessions to the planning requirements. However, there is preference given to rail connections, due to speed and their regionally focused routes. Currently, the R-Codes allow for reduced parking requirements where a dwelling is located within 250m walkable catchment of a high frequency transit stop or within 800m walkable catchment of a train station on a high frequency rail route (Government of Western Australian, 2024).

The presence of both services along the eastern side of the Master Plan area presents opportunities for transit-oriented development. The current construction activity in Montario Quarter is an example of what could apply to other opportunity areas on the eastern side of the Master Plan including the two Department of Health sites and potential redevelopment opportunities in Bedbrook Place and north of Orton Road. Additionally, half of the Graylands South site falls within the 800m catchment for Karrakatta Station which may make this suitable for medium or high-density development.

The Master Plan is not only reliant on public transport; it goes a long way to enhancing it. By increasing the number of people living nearby to public transport routes, the increased demand helps to sustain the service and create demand for upgraded facilities and increased service frequency. This enhancement not only benefits the Master Plan Area but also the suburbs east of the railway line. Upgrades could make public transport more attractive for those communities, too. This topic is particularly important in the context of Karrakatta and Loch Street Stations which face some of the lowest passenger numbers of railway stations on the Transperth network (Nicolas Perpetch, 2018) (Stacy Towne, 2017), which places them at risk of potential closure.

Intensified development in the area could allow for a mid-tier transit route in the area to become viable.

At the adoption of the City's Integrated Transport Strategy 2024 at the April 2024 Ordinary Council Meeting, Council resolved to "seek support and feedback for an east-west mid-tier transport route." The proposed route would connect major destinations in and around the City including UWA, Kings Park, QEII Medical Centre, Aberdare Road, Karrakatta Cemetery, Shenton Park Railway Station, Shenton College, Lemnos Road, Brockway Road, the CCGS Playing Fields, UWA Sports Park and Bold Park. The Master Plan Area's ability to host high-density development would be enriched by implementation of this solution, especially on the western side which currently lacks quality public transport connections. Mid-tier transport would be especially important to support the ongoing use of Perth HPC as a concert venue and for the other large events hosted in the UWA Sports Park. The mid-tier route shown on the plan is indicative only and not a formalised route.

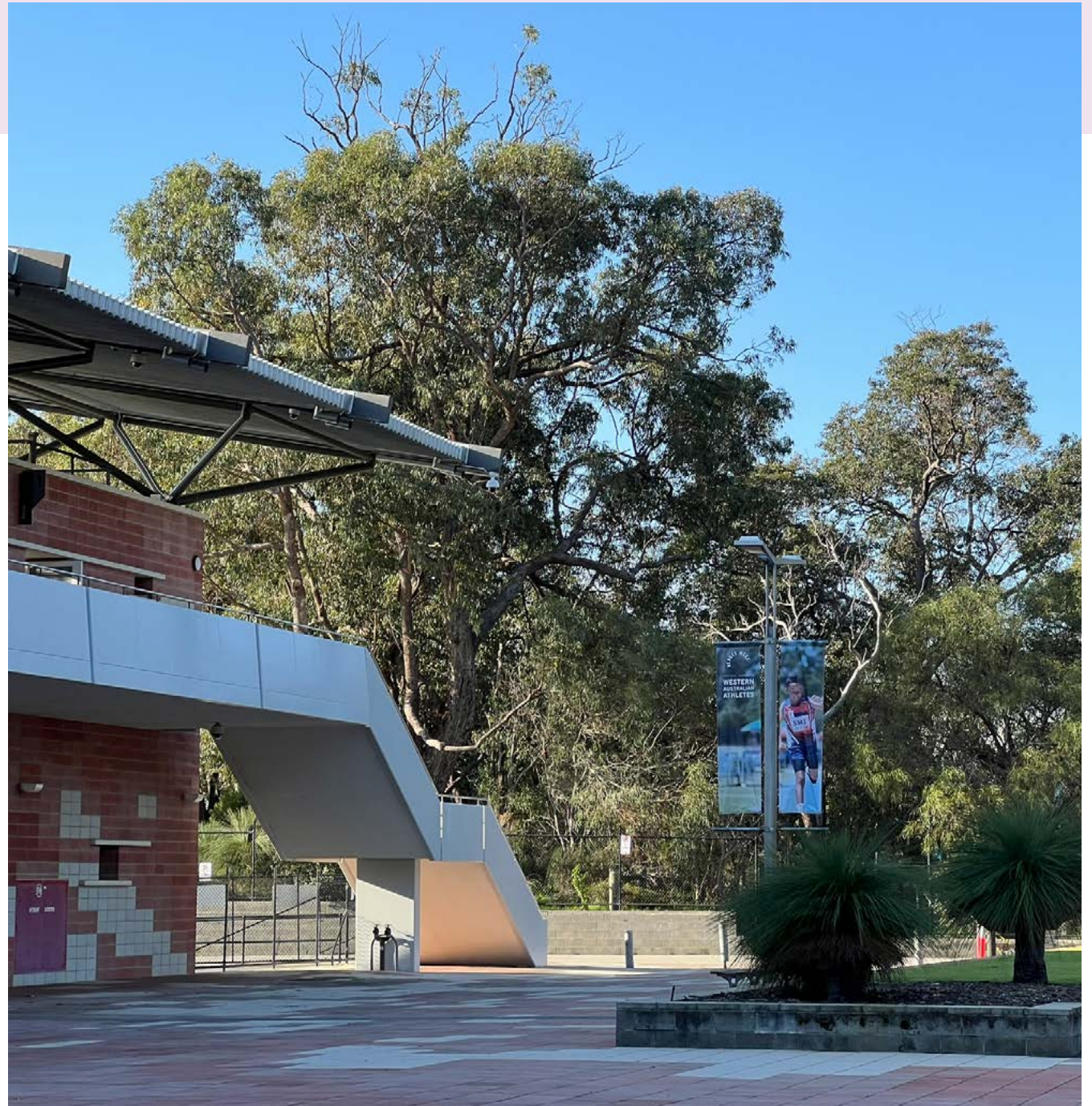
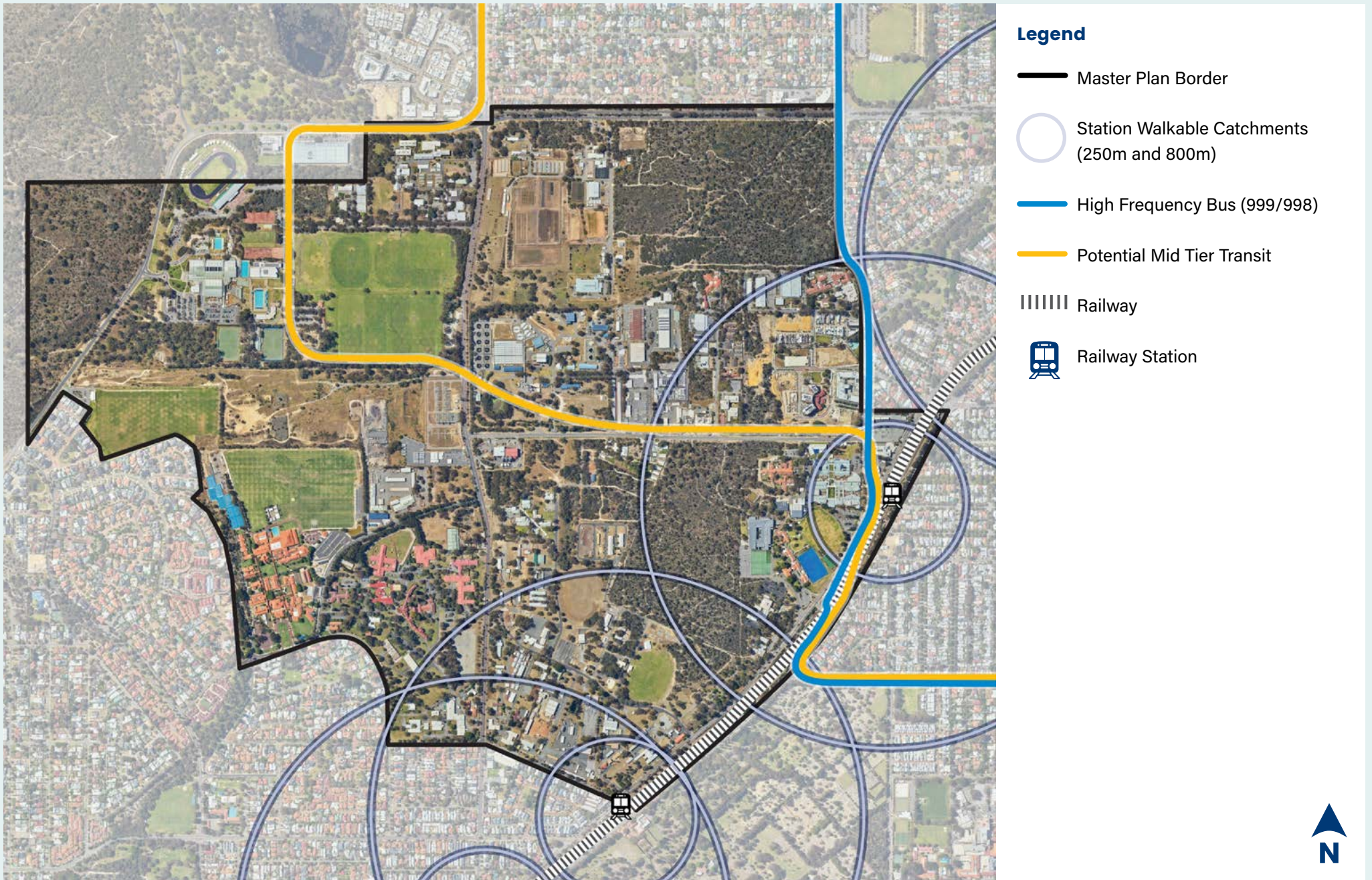


Figure 17 – Public Transport Map



Heritage

The Master Plan Area has a rich history in both First Nations and European culture. The Underwood Avenue Bushland and part of the Montario Quarter Development have been found to have historical sites. These sites are not lodged or registered places but are still recorded by the Department of Planning, Lands and Heritage for their significance.

Within the Underwood Avenue Bushland there are four heritage features. These include a scarred tree, two camps and Jarrah Trees. Further south in the Montario Quarter Hillside Park, another camp has been recorded.

The area's historic and ongoing use associated with public and community purposes has resulted in some sites having heritage listings imposed or being noted on the City's Local Heritage Survey because of their significance to the community and architectural contributions. Three heritage places have historic uses as hospitals and there is an additional heritage listed former hospital nearby, creating a strong theme for the area.

The Shenton Park Rehabilitation Hospital is on the City's Heritage List and the State Heritage List. The place includes two buildings which were retained during demolition of the Shenton Park Rehabilitation Hospital. One of the remaining buildings, Victoria House, has been restored and forms part of a Mixed-Use Development. The other remaining building,

G Block, sits vacant on a development site. Design Guidelines stipulate that at least part of the building and associated garden area and trees must be retained as part of any development (Development WA, 2024 b).

The Lemnos Hospital is a former Mental Asylum. It is a collection of buildings that has a strong association with the provision of Mental Health services for soldiers returning from both world wars. Lemnos Hospital is on the City's Heritage List and the State Heritage List. The buildings currently form part of Shenton College.

Graylands Hospital is the only one of the three hospitals that still operates under its original purpose. The heritage place includes several buildings. There are three larger hospital buildings and a rotunda and gardens included in the curtilage. The curtilage surrounds these key features. Graylands Hospital is listed on the City's Heritage List and the State Heritage List.

The ADF Irwin Barracks has been listed on the City's Heritage List and State Heritage List. It has strong significance for its rarity and its association with development of the ADF from the 1890s and through both world wars. There are a variety of buildings on site, with several from the earlier years of the Barracks being significant.

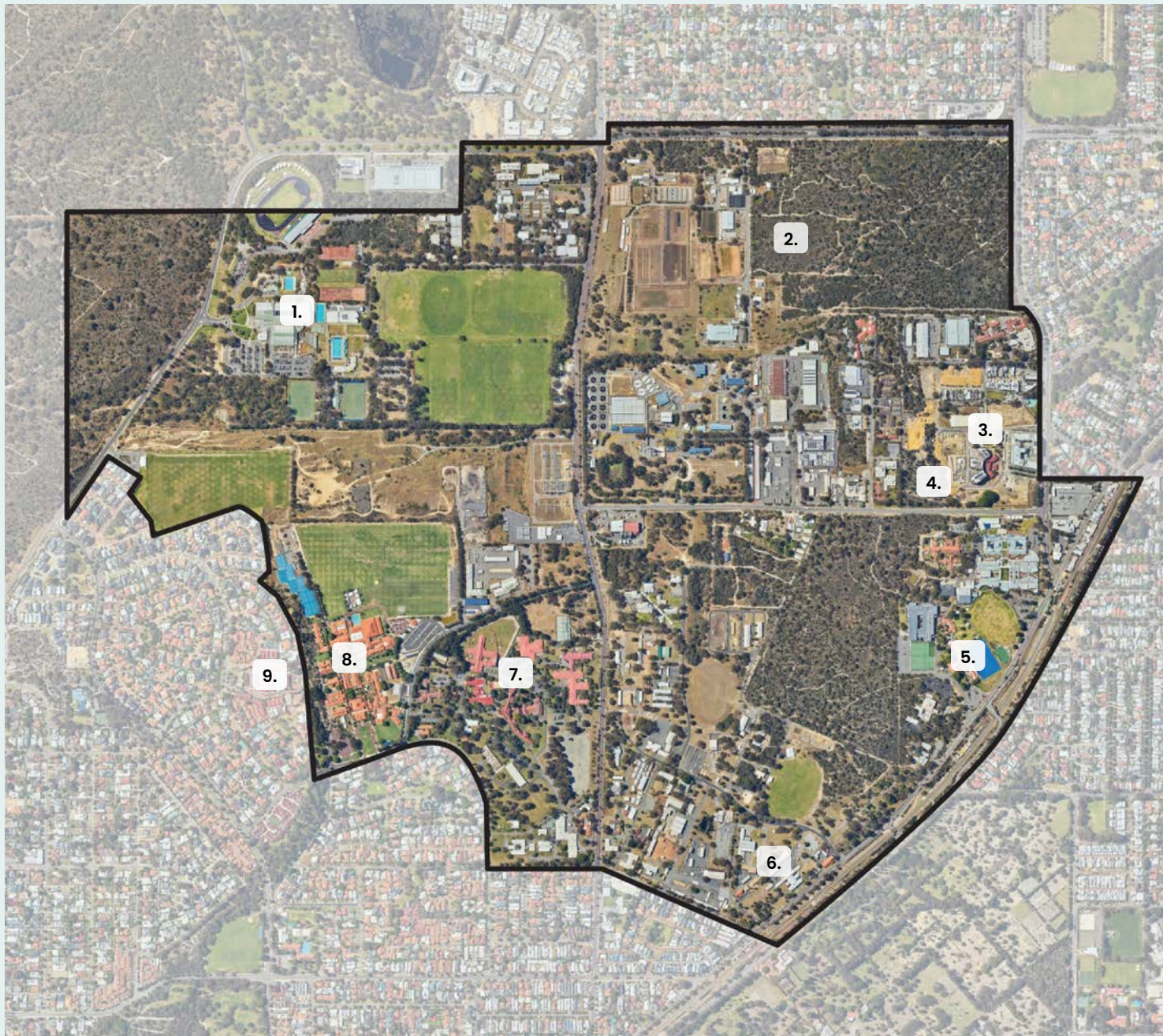
Although outside the Master Plan Area, the Swanbourne Hospital is heritage listed and should be recognised because of its view corridors over the Master Plan Area. The significant building has recently been restored and has views over John XXIII College. The site interfaces with a Broad Linkage identified in the Greenways plan between Lake Claremont and the UWA Sports Park. Planting in the vicinity of the Hospital will need to be lower to protect sightlines. There have been no development opportunities identified in the area around the Swanbourne Hospital.

In addition to heritage listing, the City periodically conducts a Local Heritage Survey to find and record potentially significant places. John XXIII College is identified on the Local Heritage Survey for its social cultural heritage value despite the age of the campus. Additionally, the Shenton Park Bushland and Perth HPC (previously known as Challenge Stadium) are listed on the inHerit website but do not currently appear on any Heritage List or Survey.

Heritage places should be seen as assets of the area and provide an opportunity for creativity. Many of the places listed above could be considered for adaptive reuse if their zonings change. The Montario Quarter Development is one such example of what is achievable in the remainder of the Master Plan Area. This development has included the conservation and adaptive reuse of Victoria House. The building now houses a popular café and commercial developments.



Figure 18 – Heritage Places



Legend

- Master Plan Border
- 1. Challenge Stadium
- 2. Aboriginal Heritage Sites in the Underwood Avenue Bushland
 - Two camps
 - Scarred Tree
 - Jarrah Trees
- 3. Shenton Park Rehabilitation Hospital
 - Victoria House
 - G-Block
- 4. Aboriginal Heritage Camp
- 5. Lemnos Hospital
- 6. Irwin Barracks
 - Colonial period buildings
 - Hobbs Artillery Park
 - WWII Buildings
 - Post WWII Buildings
- 7. Graylands Hospital
 - Fortescue House
 - Rotunda and gardens
 - Fmr ward blocks
 - Gascoyne House
 - Anderson Hall
- 8. John XXIII College
- 9. Swanborne Hospital



Recommendations

Implementation

The Mount Claremont Master Plan covers a wide range of land uses, different ownerships and includes large development opportunities. The implementation of the Master Plan is predicted to be slow, given the generous amount of developable land and the constraints that would need to be resolved. The implementation requires actions to be taken by the City so that its vision can be realised.

The actions that the City needs to take to turn vision into reality include the following:

1. Engage with the landowners, government agencies and the surrounding community on the vision and address concerns through amendments to the Master Plan and its recommendations.
2. Conduct more detailed research and planning of the Master Plan Area. This should include a review of Heritage places, an ethnographic survey, an infrastructure review, review of the City's landholdings, traffic studies, modelling and plans and plans for future utility services.
3. Amend the long-term cycle network plan to include the routes proposed in the Master Plan's Active Transport Plan. Adoption of routes in the long-term cycle plan allows the City to apply for grants for the plan's implementation.
4. Engage with landowners to prepare Memorandums of Understanding for collaborative progress on implementation of the Master Plan through structure planning. Structure planning shall respond to the identified opportunities, land use plan and sustainability solutions identified such as the 3+30+300 rule for healthier and greener cities.
5. Include elements of the Master Plan within the next Local Planning Strategy (subject to progress of the Market Led Proposal to encapsulate the Subiaco WWTP and subsequent reduction of the odour buffer).
6. Determine the capital works necessary and future service requirements and budget for them.
7. Deliver capital works once the Planning Framework is in place and as required by development progress.
8. Consider the Master Plan Area as a new suburb and undertake consultation with traditional owners and the community for establishing new suburb boundaries and name.
9. Review the Master Plan every five years or more often if required to ensure that the vision considers any development and planning progress in the area. As development and more detailed planning occurs, the increased certainty should allow future versions of the Master Plan to contain more detail and explore topics such as place planning, height and density and street design. The document may also shift from a vision plan to a detailed guide for implementation.

The process above is a broad overview of the actions that the City would need to take to realise the vision over the medium to long term. Not all of the above are appropriate to undertake at this point with so much uncertainty and the WWTP buffer zone in place. The actions relate to the City's role as a strategic planning body and provider of roads and services.

It is too soon to recommend specific capital works as it is unknown how development will progress in the area. This is because the success of the Master Plan is reliant on external factors beyond the City's control such as reduction of the WWTP odour buffer and whether individual landowners will decide to pursue development opportunities that the City can facilitate through its Local Planning Framework.

The actions listed above are not certain by any means and the City should expect that, should the State Government see benefit in the proposal and should the MLP over the WWTP and Graylands Hospital be successful, there is a chance that the State Government may seek to create an Improvement or Redevelopment Scheme over the Area, transferring planning powers to the State's land development agency, Development WA.

Advocacy

The implementation actions that the City can take are a small part of what is needed to realise the vision. A range of state government departments will be involved including more than those that have landholdings in the area. The City will need to use the Master Plan to advocate for actions to be taken by external agencies. The following recommendations are made to Council:

1. Advocate for the designation of the Underwood Bushland as Bush Forever.
2. Engage with existing landowners to encourage vehicle access and development on private property to consider and reflect the aims of the Master Plan.
3. Encourage developers to consider best practice sustainability and innovative ways of conducting development, considering the opportunity provided by the Master Plan Area being large sites in close proximity to the Perth CBD, QEII-UWA and significant utility services.
4. Seek to collaborate with the City of Subiaco on a plan for the area surrounding Shenton Park Station and the Nash Street Subway.
5. Advocate to the Minister for Transport against closure of train stations and for an upgrade/rebuild of Shenton Park, Karrakatta, and Loch Street stations. The stations should incorporate grade separated and fully accessible pedestrian crossings, have cycling facilities and allow integration into any adjacent transit-oriented development. Pedestrians should be able to cross the railway line at stations without entering the paid concourse area. Additionally, Shenton Park Station should be futureproofed to allow integration with potential Mid-tier transit.
6. Advocate to the Minister for Transport for grant funding in relation to intersection upgrades at those sites identified as priority upgrades in the Master Plan's Vehicle Access Plan.

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APPENDIX 1

Site Specific Analysis

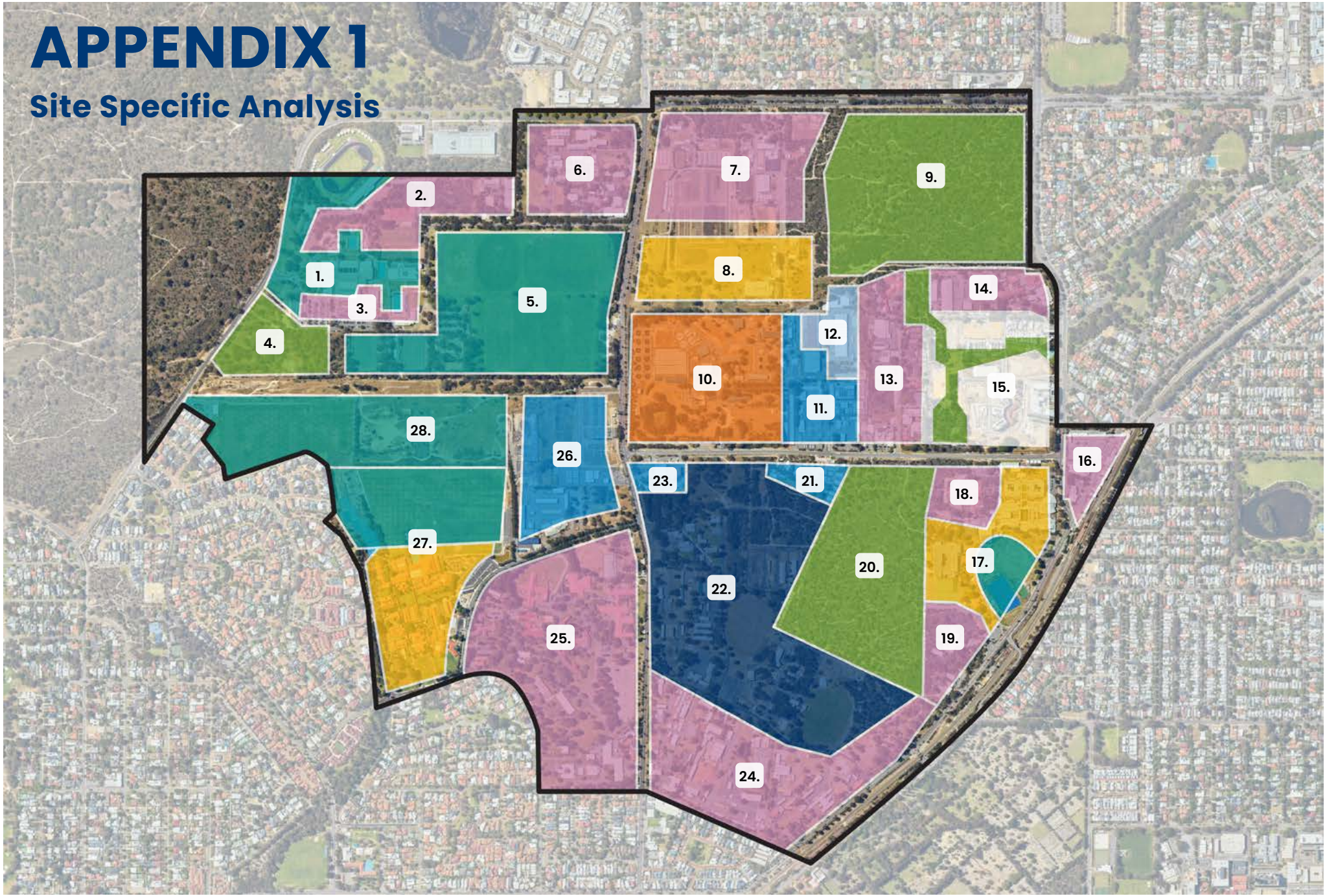


Figure 19 Appendix 1 Map

<p>1. Existing Athletics Stadium and Perth HPC</p>	<p>There are no changes proposed by the Master Plan to these facilities but an opportunity surrounding these facilities has been identified for urban and mixed-use development.</p>
<p>2. UWA Sports Park North</p>	<p>Underutilised land on this site can accommodate further sports uses, associated sports retail, consulting and can accommodate office and residential uses above. Sporting associations have their offices on this site, and they may be accommodated in new mixed-use buildings with short- and long-term accommodation above the office uses. Uses in this area will need to be carefully considered to ensure the overall sporting purpose is not compromised. Possible new uses include sports retail, gyms, studios, cafes, club rooms and sports-related consultancies and medical centres.</p>
<p>3. UWA Sports Park South</p>	<p>Like the UWA Sports Park North site, this site can also accommodate further sports uses, associated sports retail, consulting and can accommodate office and residential uses above. Sporting associations have their offices on this site too and could again be accommodated in mixed-use development.</p>
<p>4. UWA Sports Park Retainable Bushland</p>	<p>A significant amount of Bushland sits within the southwest corner of the UWA Sports Park. The City recommends this bushland be retained as it contributes towards the Broad Linkages identified in the Greenways Plan.</p>
<p>5. UWA Hockey, Playing Fields and Athletics</p>	<p>These facilities are recommended for retention. The Playing Fields, Hockey facilities and associated buildings provide an important drawcard to the area and provide recreation opportunities.</p>
<p>6. CSIRO Site</p>	<p>The CSIRO Site is earmarked for a biomedical precinct but remains suitable for mixed-use and residential development. Both purposes may be able to coexist on the site. Built form should be consistent with existing development at the former Perry Lakes Stadium site to the north.</p>
<p>7. UWA Shenton Park Field Station North</p>	<p>This site would be suitable for mixed-use and residential development. The site is south of an existing residential area and has no residential development to the south so may suit taller buildings as there will be insignificant impact from overshadowing. Consolidation of the Field Station south of this site will provide a visual buffer to the Subiaco WWTP. The north of the site will accommodate a reserve for an uninterrupted east-west greenway. A portion of the site may be ideal for establishing a new school. The proximity to infill development and the UWA Sports Park make this one of several appropriate sites.</p>
<p>8. UWA Shenton Park Field Station South</p>	<p>If UWA consolidates its research facilities on the south side of the current Field Station site, it would abut the Subiaco WWTP. This consolidation would provide a visual buffer from residential uses, noting that even if odour issues are resolved, the WWTP is still likely to have an industrial appearance.</p>
<p>9. Underwood Avenue Bushland</p>	<p>The site is currently the subject of a Negotiated Planning Solution under State Planning Policy 2.8 – Bushland Policy for the Perth Metropolitan Region (SPP 2.8). This bushland is highly valued by the local community, who have strongly advocated for its preservation. The City supports retaining the bushland.</p>

10. Subiaco WWTP	The WWTP is a significant piece of infrastructure servicing the Western Suburbs of Perth and is unlikely to close or relocate. The WWTP is the subject of an MLP process which proposes to encapsulate the facility for odour management and install solar collectors. Encapsulation of the facility may provide the opportunity to consolidate some parts of the site so that the southern edge of the site can be ceded for a reserve to allow an east-west greenway to be uninterrupted and for establishing a green underpass or bridge crossing Brockway Road.
11. Water Corporation Service Commercial Area	The City has the view that in increasing the residential population of the area, residential amenities need to be improved and there should be a reduction in industrial, and utility uses in the area. However, in proximity to the WWTP, there is little opportunity for amenity improvements and thus, consolidation of industrial and utility uses close to the WWTP should be encouraged. The City recommends that this site retain utility uses and consolidate other utility and industrial uses to allow renewal of land further from the WWTP. The site currently accommodates Water Corporation workshops, storage facilities, a bus depot, the Cat Haven, and a data centre.
12. Community Site	Consolidation of utility and industrial use in the Water Corporation Service Commercial Area will allow for repurposing or development for community use. The Community site sits centrally between Montario Quarter and the urban development opportunities north of the UWA Research Facility. An existing indoor sports and gym facility sits on this site and is recommended for retention. An office, workshop and vacant site make up the remainder of the Community site. The indoor sports facility is important for the community and adds character to the area by way of its industrial appearance, being a former workshop. This site would suit civic uses, libraries, places of worship and the like, providing a good transition between the industrial uses on the west and residential and mixed-uses on the east and north.
13. Bedbrook Place	Lots facing Bedbrook Place are proposed to have increased mixed-use and residential components that would integrate better with Montario Quarter adjacent to these lots. The existing uses include respite centres, offices, a lodge, and disability accommodation. These facilities are compatible with residential uses, and a reduction in industrial and utility uses would greatly increase the amenity of these existing uses.
14. Alinea Orton Road	Lots north of Orton Road provide an opportunity for mixed-use development that can integrate seamlessly with Montario Quarter. The owners have proposed an increase in residential uses and aged care accommodation, which is consistent with the aims of the Master Plan.
15. Montario Quarter	No change to the ongoing development of Montario Quarter is proposed. Montario Quarter is an example of the type of development that the Master Plan encourages in areas marked as Urban on the Land Use Plan.

16. Shenton Park North Site	For the site bordered by Selby Street, Stubbs Terrace, and the Local Government boundary with Subiaco, this site has a newly established substation, emergency services depot and offices for Autism WA. However, this site is within the 250m walkable catchment of Shenton Park Train Station and would be suited to high-density residential development at some point in the future. The feasibility of relocating a substation is unlikely to succeed in the short term, given examples of the difficulties of similar situations on land with more opportunity and value. Examples include the challenges faced with the relocation of a substation at the former East Perth Power Station and the unfavourable retention of the Cannington substation in the Canning City Centre. Despite the difficulties, it remains that a high-density residential development would be the highest and best use of the substation site. The two other uses may face less difficulty in relocating.
17. Shenton College	No changes proposed. The school is an important asset to the community and may need to increase capacity or be accompanied by another school to cater to an increased population in the Master Plan Area and other parts of the Western Suburbs.
18. SOAMH Site	The Master Plan supports Graylands being consolidated into the northern half of their existing site. The City would advocate for the SOAMH Facility being consolidated into Graylands, QEII or elsewhere to free up this site for transit-oriented development. This site is located close to Shenton Park Station and Montario Quarter.
19. Pathways and WACHS Site	Like SOAMH, the City expects that the current uses on this site could be consolidated into Graylands or relocated to the QEII Medical Centre. This site would also be suitable for transit-oriented development. There is also the opportunity to retain bushland between the two existing developed sites here. Bushland in this location contributes towards an identified greenway.
20. Shenton Bushland	No changes proposed. Shenton Bushland is designated as Bush Forever and shall be retained. The site contributes towards identified greenways.
21. Dogs Refuge	This site is too close to the WWTP to be suitable for residential uses and is recommended to be designated as Service Commercial. This may allow retention of the current use. Future planning may need to carefully consider this site due to potential noise issues and the spiritual and cultural value of the place which contains a pet cemetery.
22. ADF Irwin Barracks	This site is ideal for large scale residential and mixed-use development; however, it is unlikely that the facility would be relocated or closed. The Master Plan factors in the retention of the ADF Barracks and recommends defence housing on the south and eastern edges (Site 24).

<p>23. Recycling Facility</p>	<p>This site has been designated as service commercial. There is limited ability for an increase in residential amenity on this site due to its proximity to the WWTP.</p>
<p>24. ADF South</p>	<p>It is unlikely that the ADF would relocate or close the Irwin Barracks. To make use of the location close to Karrakatta Station, the City recommends defence housing and mixed-use development be located along the south and eastern edges of the site. This should be considered by the ADF to enhance their use of the site and contribute positively towards the desired future character of the area.</p>
<p>25. Graylands Hospital</p>	<p>Graylands Hospital is expected to consolidate its facilities on the northern half of the site, however, previously it had been slated for closure. The City supports medium and low density residential development on the southern portion of the site and has proposed a local shopping centre on the eastern edge of the site.</p>
<p>26. Western Power Mount Claremont, PTA, City of Nedlands, and Police Site</p>	<p>For the Western Power, Bus Depot and future Therapeutic Riding Centre along Brockway Road, the City envisions this land continuing in its current uses and being designated as service commercial. The existing Western Power substation is unlikely to relocate given the significant infrastructure on the site. Additionally, this site is less attractive for redevelopment as it is adjacent to the WWTP and currently features industrial and utility uses. The position of some vacant land within the site may make a portion of the site ideal for a mid-tier transit depot.</p>
<p>27. John XXIII College</p>	<p>No changes proposed. Like Shenton College, this school is an important asset to the community and may need to increase capacity or be accompanied by another school to cater to an increased population in the Master Plan Area and other parts of the Western Suburbs.</p>
<p>28. Christ Church Grammar Playing Fields</p>	<p>The City supports the establishment of playing fields and the proposed east-west vehicle connection through the site. The future playing fields will be an important asset to the community and contribute towards the area's status as a hub for education and sporting. Alternative scenarios could include establishing a new school campus on a portion of the site to cater to the Master Plan Area's increased population.</p>

APPENDIX 2

Site Measurements and Percentage of the Master Plan Area

The following table shows the current ownership and management of sites within the Master Plan Area. The sites referred to in this table follow existing boundary lines.

Master Plan Land Parcels		
Owner – Site	Approximate Size (ha)	Approximate percentage of Master Plan Area
UWA – Sports Park	54	12%
Sports Centre Trust – Athletics Stadium	3.2	1%
ADF – Irwin Barracks	62.6	14%
DoH – Graylands Hospital	29.1	6%
John XXIII College	23.9	5%
CCGS – Playing Fields	24.6	5%
UWA – Shenton Park Field Station	26.7	6%
UWA – Underwood Ave Bushland	35.2	8%
Water Corp – Subiaco WWTP	19.5	4%
CoN – Shenton Bushland	21.4	5%
DoE – Shenton College	14.2	3%
Various – Montario Quarter Development Area	16.3	4%
CSIRO	11.1	2%
Western Power – Substation Mount Claremont	2.9	1%
DoH – Selby Older Adults Mental Health Service	3.4	1%
DoH – WACHS and Pathways	4.3	1%
Dogs Refuge	2.2	>0%
Water Corporation – Industrial, Commercial Area and depot	10.2	2%
City of Nedlands portion of Bold Park	21.4	5%
Other Land Parcels, Roads, and Reserves	62.1	14%
Total Area	480.4	100%

Table 2 Major Land Parcel Size and Percentages

