



Croydon MAC Structure Plan Refresh Project
Issues and Opportunities Paper-
Urban Design Background Report
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1. Introduction

This report has been prepared to inform and provide input to the Issues and Opportunities Paper of the Croydon MAC Structure Plan Refresh Project. It provides a review and analysis of the urban design characteristics of Croydon- primarily its constituent elements of landform, landscape, urban structure and built form along with associated issues, opportunities, and actions (implemented and not) from previous reports. A series of precincts are identified, based upon common existing land uses and building types and providing the framework for review of urban design interventions- implemented, planned or required. A review of environment topics identifies actions or measures to improve environmental performance and values within the activity centre.

1.1 Pre- & Post-European Settlement

The area now known as Croydon is on the traditional lands of the Wurundjeri people of the Kulin Nations. It is understood that the traditional owners did not occupy the area for extended periods due to the lack of a permanent water source. In the 1840s the area was known as White Flats by early settlers from Melbourne and neighbouring areas and used for grazing cattle. After parts of White Flats were surveyed in 1868 many parcels of land were bought, and the first shelters were built. The land supported sheep, beef cattle and dairy farming. Pea crops grew particularly well, and orchards produced excellent cherries, apples, pears, plums and peaches due to the fertility of the soil and amenable climate.

The first constructed road through the area led to Mount Dandenong and was known as Sawmill Road, probably named after a nearby sawmill that produced building timber. This road was later called Oxford Road, then given its current name of Mount Dandenong Road.

The railway was constructed through White Flats to Lilydale in 1882 enabling people to travel to Melbourne in an hour and a half. Electric trains were in service between Ringwood and Croydon in 1924, in 1925 the service was extended from Croydon to Lilydale.

From 1885 the first shops in Croydon were built on land in Main Street and from 1921 shops were no longer built from timber when Main Street was declared a 'brick' area.

2. Centre Wide Themes

2.1 Topography and landscape

Croydon Major Activity Centre is located at the foothills of the Dandenong Ranges in a south facing valley that drains to the Taralla Creek, then into Dandenong Creek and onwards to Port Phillip Bay. The activity centre is nestled in a bowl between the Dandenongs foothills to the east, the Wicklow Range to the west and around a substantial area of active and passive recreational space (approx. 35Ha) on the central spine of lower lying land. Attractive views to surrounding tree covered hills are gained from many vantage points in streets and other public spaces within the centre. The centre's sense of enclosure mixed with views to distant hills are significant factors in Croydon's distinctive and valued character. (Refer Fig 1.)

2.2 Urban Structure

Unlike other major activity centres in Melbourne, Croydon MAC has an unusual urban structure as the main retail and commercial area/s are located on a street separate from major or arterial roads. Being shielded from these roads has contributed to the look, feel and function of Croydon's centre, and its distinctive character. Main Street was established in proximity to the rail station, parallel to the train line and built upon the importance of rail to the early development of the township long before the arrival of motor vehicles. Main Street's low traffic volumes and speeds are significant contributors to the valued "village feel" of Croydon and, potentially, a factor in the prevalence and endurance of the many narrow frontage, fine-grained, locally owned shops and businesses. (Refer Fig 2.)



Figure 1. Croydon MAC Topography and landscape



Figure 2. Croydon MAC urban structure and built form



2.3 Movement network:

Mt Dandenong Rd was the first road constructed in the area connecting the eastern areas of Melbourne to the Dandenong Ranges. It bisects the activity centre in an east-west direction. The train line to Lilydale runs diagonally through the centre along the contours at the foot of hills on the western side of the activity centre forming a barrier between its two sides. Subsequent streets generated in a grid-based pattern have filled in between these two early movement corridors. The distance, or frequency, between street intersections varies between 100m and 200m which could act as a disincentive to active transport modes such as walking or cycling. Dorset Road runs along the eastern side of the activity centre providing a major north-south connection between Lilydale and Ferntree Gully. Bayswater Road provides another southward connection from its intersection with Mt Dandenong Rd adjacent to its crossing of the Lilydale train line. A network of walking and cycling paths within the central parklands connect with the regional shared trails in Taralla Creek and to the Carrum-Warburton path.

Actions to Continue: improve convenient, safe and amenable access to and within the MAC for active transport modes and people using mobility aids; mitigate barrier effects for active transport modes of high volume roads and the train line; implement recommendations from previous transport studies, pedestrian and pram crossing audits; implement street tree planting and renewal; develop and implement local and regional safe on-road and shared path cycle network. (Refer Fig 3)

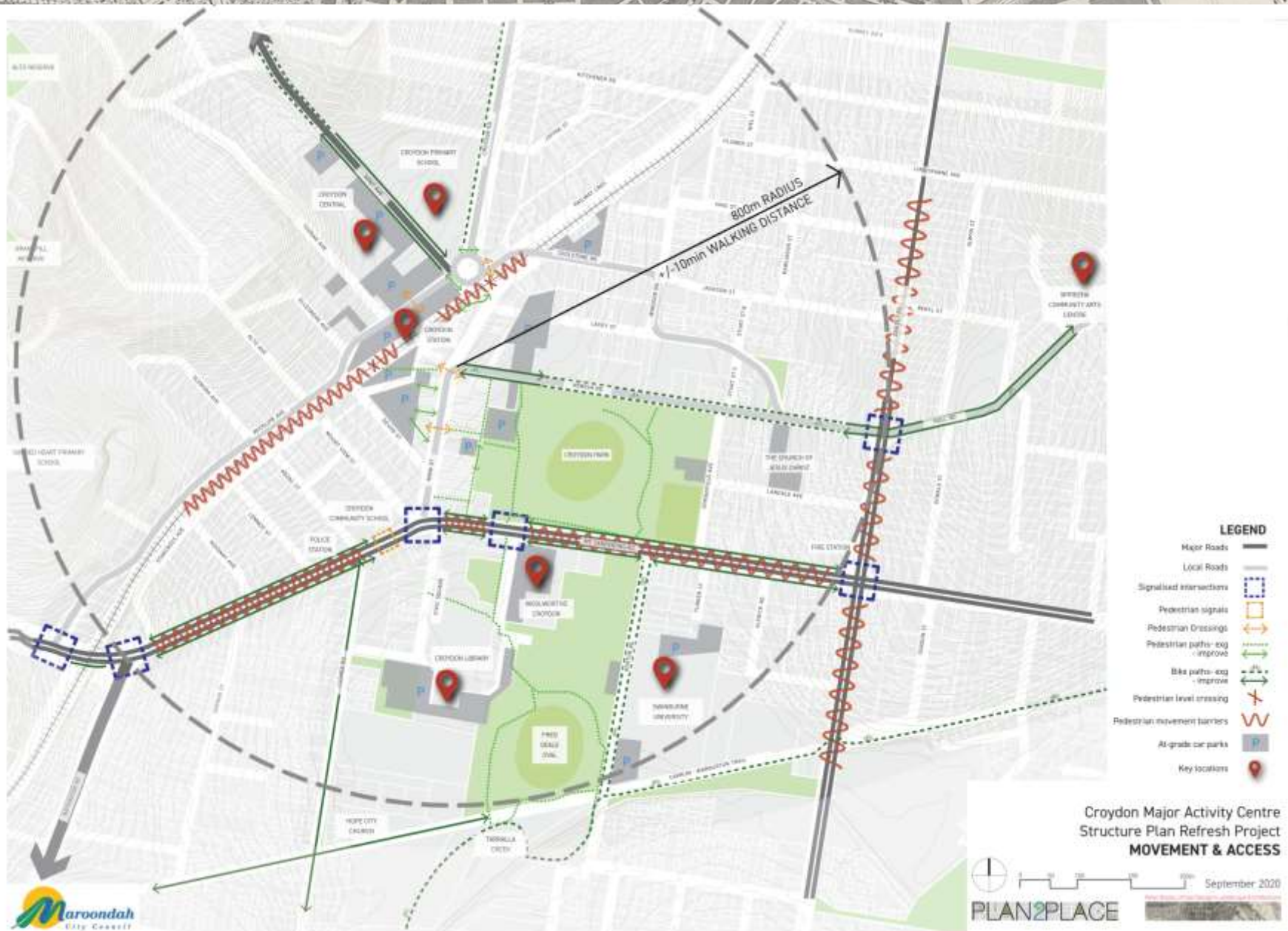


Figure 3: Movement and Access



2.4 Open Space

A major area of parkland of approximately 35 Ha is strategically located at the heart of the activity centre. It contains community and recreation facilities supporting diverse and inclusive activities for a broad cross-section of users. The parklands also link into important corridors including Taralla Creek and the Carrum to Warburton shared trail. As a key environmental resource, the parklands play an important role in the community and cultural life of Croydon including public health. Located in the bowl between the surrounding hills they will continue to play an increasingly valuable role in mitigating climate change impacts including heat island effects, storm water movement, capture and mitigation, and provision of habitat for many species of plants and wildlife.

Actions to Continue: fine tune the master plan for the redevelopment of community facilities and services in Croydon Park; implement storm water management and mitigation works to address impacts from major rain events; improve local and regional connections and access for pedestrians and cyclists within and beyond the MAC; adapt to and manage changing climate impacts on natural and man-made assets and facilities; facilitate activity for as wide a range of users, especially women and children, for active and passive recreation, community and cultural pursuits; improve interfaces to open spaces of existing blank or inactive building edges. (Refer Fig 4)



Figure 4: Public Spaces



2.5 Land Uses

The activity centre is comprised of distinct areas or precincts defined by their land uses and built form (Refer Figure 5). These include residential, retail, commercial, at-grade car parking, light industrial, community facilities, education, open space, and public transport uses. The draft precincts are:

- 1 Main Street Shopping Centre
- 2 North East Industrial-Commercial Precinct
- 3 Western Residential Precinct
- 4 Croydon Market Precinct
- 5 South-west Residential Precinct
- 6 Croydon Park Precinct
- 7 Arndale Shopping Centre Precinct
- 8 Croydon Community & Civic Precinct
- 9 South East Industrial Precinct
- 10 Swinburne University Precinct
- 11 Croydon Station and Transport Interchange Precinct

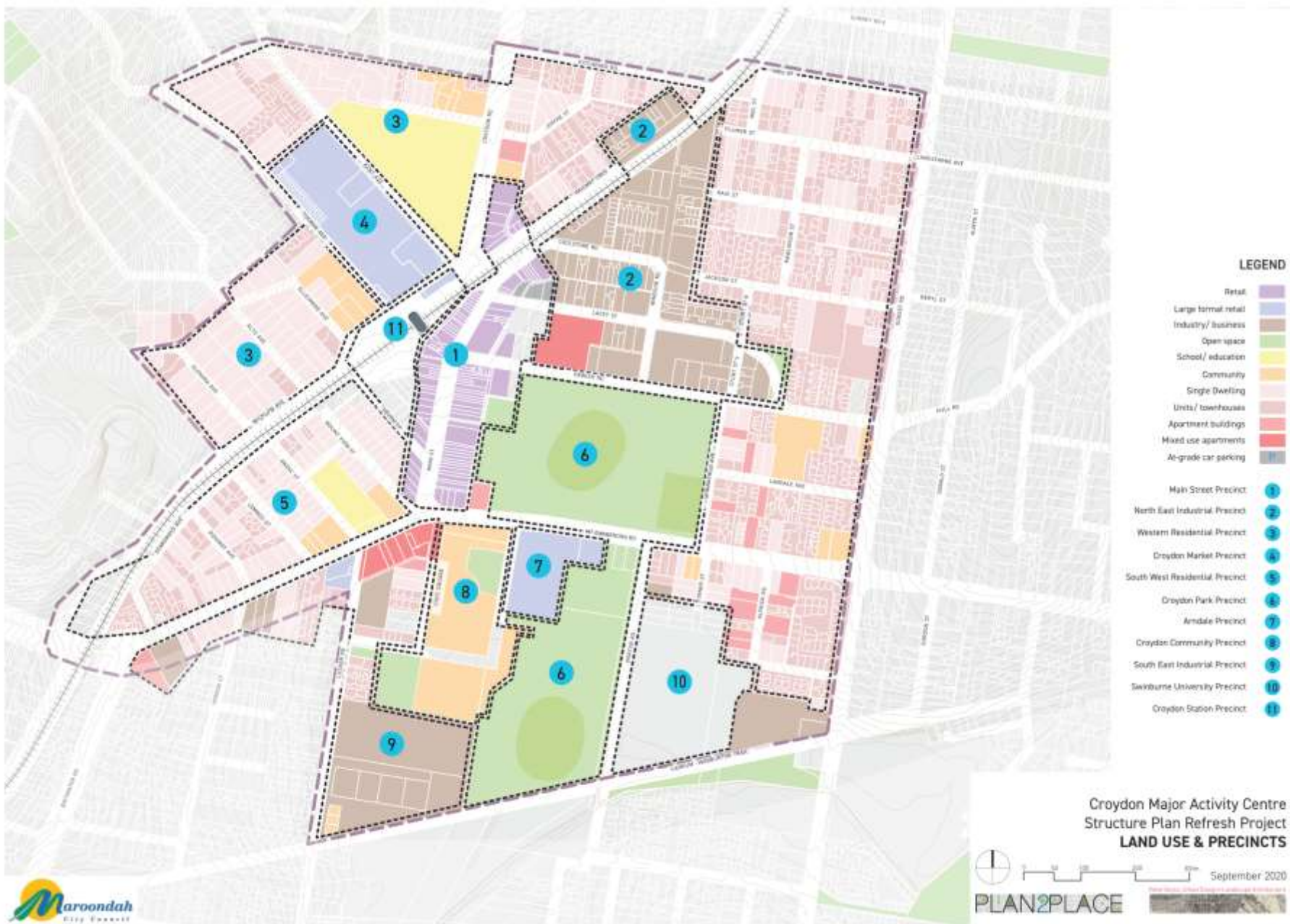


Figure 5: Land Use & Precincts



2.6 Built Form

Croydon MAC's built form is generally a reflection of the land uses contained within the buildings and displays the following general characteristics (Refer Figs 2 and 5):

Residential- are mainly single or double storey, free standing, single and multi-dwelling houses from mid-20th century to present day, with some more recent 3-4 storey apartment buildings. Many residential allotments in streets surrounding the MAC have been subdivided providing residential intensification and diversity.

Retail and Commercial- mainly single and double storey shops along Main St spine with some upper level commercial uses, masonry construction with metal roofs; two standalone supermarkets with associated convenience retail- Arndale (Woolworths) on east and Croydon Market (Coles and Aldi) on the west of the MAC. Both have been undergoing redevelopment and upgrading; some single and double storey office development is located on the fringes of Main St.

Education- Croydon Primary School, Croydon Community School to be relocated, Swinburne University of Technology- generally single storey pavilion buildings in grounds.

Community- a variety of administrative and sporting facilities providing community and recreation services. Generally single storey of a range of styles and materials, a number in central parklands pending redevelopment as part of masterplan project.

Light Industrial- many buildings generally older than 30 years, a range of scales and footprints from small factoryettes to large warehouses, single storey, set back from streets, mainly of steel framework and cladding and masonry walls.

The 2006 Structure Plan encouraged taller buildings to a maximum height of 4 storeys within identified areas that included Main St, the Croydon Market and Arndale shopping centre sites, housing intensification areas and sites at key intersections. Most recent developments and planning applications have been generally consistent with the preferred building heights for the centre. Future proposals for taller built form are expected on opportunity sites and should be able to be accommodated subject to compliance with built form controls that ensure moderation of off-site impacts such as interface issues and protection or emphasis of key view lines.

2.7 Residential Densities

The density of housing in Croydon has increased over recent decades in response to changing demographics and market demands with the redevelopment of single detached dwellings into multi dwellings of units, townhouses, and apartments. This trend has been happening across Melbourne and is expected to continue in Croydon with its population increasing, aging and with reduced household sizes creating further demand for more compact forms of housing.

The 2006 Structure Plan encouraged the development of medium and higher density housing in identified locations within the activity centre in the form of apartments, mixed use developments and shop-top housing. The Neighbourhood Character Study Review, 2019 supports this direction recommending change to planning provisions to allow buildings of 4 storeys within the residential area bounded by Mt Dandenong Rd and the railway line.

The growth and evolution of Croydon's residential fabric should continue to provide more diverse and compact forms of housing supporting the change in the composition of households, their age, size and type, whilst protecting the valued landscape and environmental character of the centre. Providing for a



range of housing types that make more efficient use of land within the activity centre is key to good density. At the same time, maintaining and extending Croydon's tree canopy can help alleviate the perceptions of new or different forms of buildings.



Figure 6: Trees can soften perceptions of building density

3. Precincts

3.1 Main Street Shopping Centre Precinct

Description: A traditional shopping street with a clear identity through defined entries, a slight curve adding to its sense of containment and a gentle gradient. It includes mainly single storey buildings wide, brick paved footpaths with deciduous street trees and angle parking on both sides of the street. Other streetscape improvements include street furniture and underground power lines. Commercial uses are located on the first floor of some buildings. Mainly “local” operators rather than national or franchise brands of shops, with few vacancies evident. At grade carparks at the rear of shops with laneway connections to the street, some of which have been upgraded. Recent construction of a new public space, Croydon Town Square providing improved connections between the station and Main St with enhanced amenity and safety.



Figure 7: Main St Shopping Precinct

Summary of previous reports: *Croydon Town Centre Structure Plan (2006)* supports its continued role as the retail and commercial centre of Croydon MAC including after-hours economy; whilst new retail opportunities are limited, supports increased development density including buildings up to four storeys; retain rhythm of narrow shopfronts; improve appearance and activation of rear of buildings and laneways; establish new public space opposite Hewish Rd (completed); improve pedestrian and cycle connections from surrounding precincts to Main St.

Croydon Pedestrian Priority Plan, 2009; Draft Croydon MAC Parking Strategy, 2019; Croydon Main St Enhancement Project

Key projects: *Croydon Main St Enhancement Project;*

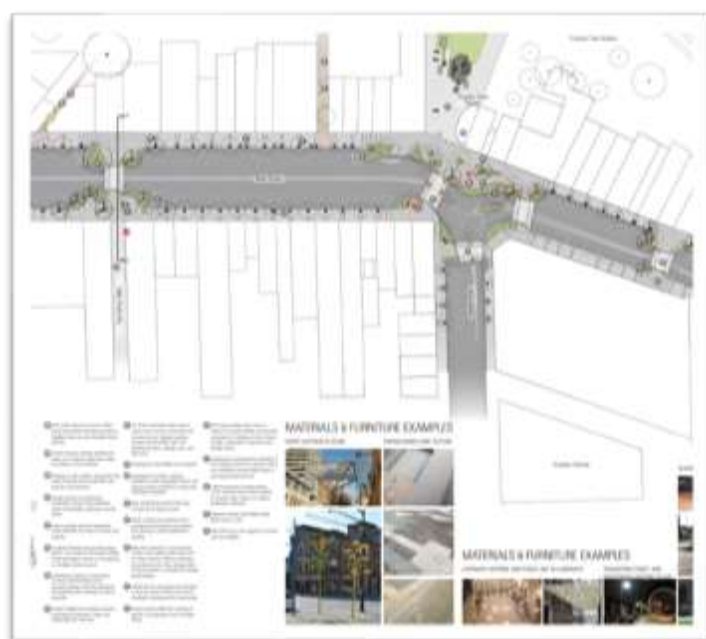


Figure 8. Extract from Croydon Main Street Enhancement Project-Draft Plan

Key Issues and Opportunities: Improve laneway connections between carparks, station and parkland and Main Street to enhance access, amenity, and safety and personal security. Encourage development of upper storey commercial or residential uses. Pursue development of mixed uses, including affordable housing, on priority sites including appropriate Council owned carparks; continue to activate rear interfaces of commercial buildings with public realm; refresh Main St streetscape treatments to address maintenance and safety concerns providing enhanced opportunities for cultural and community activities

3.2 North East Industrial-Commercial Precinct

Description: An 11.5 Ha area of light industrial and commercial uses in the north-east corner of the activity centre, centred on Coolstore Rd and bounded by the train line, Hewish Rd, Lacey St and the rear of residential properties along its eastern boundary. Several properties are also located north of the rail line along Railway Pde. Lots are mainly rectangular, 800m² and above, with many sites subdivided into multiple lots. Uses include numerous auto sales and repairs, bus depot, trade supplies, and some professional services. Buildings are generally single storey, utilitarian structures of masonry walls and metal roofing with front setbacks providing off-street parking. Streets are 15-18m wide accommodating two lanes of traffic, parallel parking, footpath, and nature strip on each side of the street. Where street trees occur, they are small and pruned to avoid overhead power lines. Flooding along Windsor Rd has occurred in major rain events with potential to cause property damage.



Figure 9: North-East Industrial/Commercial Precinct

Summary of previous reports: *Croydon Town Centre Structure Plan (2006)*, supports the ongoing role of the precinct with potential to transition to higher value activities including mixed uses south of Coolstore Rd and north of the rail line. Transition to sensitive uses would require environmental auditing. New buildings could be up to four storeys with appropriate design of sensitive interfaces.

Croydon MAC- Stormwater Management Background Report, 2019 identifies recent flooding within the precinct including Lacey St and Central Park.

Key projects: implementation of flood mitigation measures.

Key Issues and Opportunities: maintain employment role of the precinct; redevelopment/transition to higher value employment and mixed use activities; improve streetscape amenity through coordinated street tree planting and frontage landscape treatment/maintenance; implementation of WSUD/flood mitigation measures.

3.3 Croydon Market Precinct

Description of the precinct: A standalone shopping centre west of the railway station on site of former Croydon Market and opposite Croydon Primary School. Currently being redeveloped it includes two supermarkets, convenience and speciality shops, food court, at grade and under-cover parking. Former

Aldi supermarket site to be redeveloped for mixed uses over +/-4 levels fronting Wicklow and Kent Avenues. Townhouses have been developed fronting Toorak Ave on deck over the former market site.



Figure 10: Croydon Market Precinct

Summary of previous reports: *Croydon Town Centre Structure Plan (2006)*- recommended improving the role and mix of uses of the centre (though not to include extra retail floorspace), its functional and commercial relationship to Main St, improve its presentation to the surrounding streets with active frontages, landscaping, and pedestrian connections.

Key projects

Key Issues and Opportunities- ensure proposed mixed-use development addresses and activates Kent and Wicklow Ave frontages; improve pedestrian connections to station precinct and Main St; ensure at-grade carpark improvements address WSUD and urban heat island effects; upgrade street tree planting to integrate with character of backdrop of Wicklow Hills.

3.4 Western Residential Precinct

Description of the precinct: Elevated residential area to the west of the train line wrapping around the Croydon Market and Croydon Primary School. Larger residential lots with free standing houses, some subdivided for unit and townhouse developments particularly between Croydon Rd and Railway Crescent. Established native tree canopy evident particularly at Croydon Primary School and west of Market site.



Figure 11: Western Residential Precinct

Summary of previous reports: *Maroondah Neighbourhood Character Study Review, 2009* recommends new neighbourhood and landscape character objectives for Wicklow Hills Lower Slopes to protect existing qualities. Precinct was not included within the 2006 Structure Plan boundary.

Key projects: Ongoing redevelopment of Croydon Market site

Key Issues and Opportunities: ensure Croydon Market redevelopment minimises off-site impacts in terms of building scale and presentation, viewlines and operation; maintain and supplement tree canopy and vegetation with locally appropriate species.

3.5 South-west Residential Precinct:

Description: a triangular area (approx. 11.5Ha) extending from the junction of Mt Dandenong Rd and the train line to the west side of Main St shopping centre. Intact lot sizes range from 600sq.m up to 1200sq.m providing generous garden areas supporting established vegetation. Dwellings in this precinct are mainly from the mid-late 20th century, detached, single storey, offset to one side of the lot with houses addressing the street. Subdivision of some lots, particularly on corner sites and facing the train corridor has occurred for dual occupancy and unit developments. Building materials are either brick or weatherboard with tiled pitched roofs. Frontage treatments tend to be open with no, or low, front fences and simple, low maintenance gardens. Street trees are variable in size and species and tend to occur on the side of the street without overhead cables.



Figure 12: South-West Residential Precinct

Summary of previous reports: *Croydon Town Centre Structure Plan (2006)*- identified this as an Incremental Change Area with potential for increasing housing diversity whilst respecting the existing patterns of low scale suburban development.

Neighbourhood Character Assessment, 2018- Recommends rezoning from GR22 to RG22 allowing a maximum height of 4 storeys.

Key Issues and Opportunities: potential for higher density residential redevelopment in a range of housing typologies (up to four storeys) due to proximity to Main St, public transport, community facilities, open space and arterial road network; improve streetscape amenity with new street trees and enhanced pedestrian connectivity.

3.5 Community & Civic Precinct- Croydon Park/Fred Geale Oval

Description of the precinct: Approximately 35Ha of public open space comprising a broad range of civic and community uses and active and passive recreation facilities. The area is bisected by Mt Dandenong Rd and includes numerous buildings housing council activities and services as well as sporting and recreational pavilions and facilities such as indoor and outdoor pools and their associated vehicle access and parking areas. The precinct connects with Taralla Creek south of the Fred Geale Oval and the shared path connection along Dandenong Ck to Carrum and eastward to Mt Evelyn and the Yarra Valley.



Figure 12: Community and Civic Precinct

Summary of previous reports: *Croydon Town Centre Structure Plan (2006)* recommended a coordinated urban design strategy to address the variety of civic and community uses, rationalising their buildings; improve the quality, performance and facilities of public spaces, activate built edges and improve access for disabled persons, pedestrians and cyclists; integrate with Swinburne University in terms of activities, facilities and access including to Main St and the station. Council has undertaken a masterplan process for the precinct addressing the issues identified in the structure plan.

Croydon Community Precinct Masterplan, May 2020- redevelopment of the precinct including buildings, facilities, spaces and access.

Croydon MAC- Stormwater Management Background Report, 2019.

Croydon MAC Structure Plan Background Study- Infrastructure, April 2020- identifies the need for redevelopment of some sporting, recreational and community infrastructure within the precinct over the short-medium term.

Key projects: *Croydon Community Precinct Masterplan, Reimagining Taralla Creek, Stormwater Management Background Report findings*

Key Issues and Opportunities: review and fine tuning of the masterplan directions to ensure integrated and holistic redevelopment of redundant Council buildings and facilities; improved, continuous and convenient local and regional connections for disabled persons, pedestrians, and cyclists; continued, consistent upgrading of hard and soft landscaping; activation or enhancement of built edges to improve presentation of buildings and perceptions of safety; Implementation of WSUD/flood mitigation measures; implementation of Safer by Design principles.



Figure 13. Croydon Community Precinct Master Plan Concept

3.6 Arndale Shopping Centre Precinct

Description of the precinct: 1.6 Ha site containing early type of standalone shopping centre set back from streets with large at grade carparking facing Mt Dandenong Rd and Civic Square Dve; centre includes Woolworths supermarket and associated convenience retail (currently being upgraded) fronting the carpark; the east and south sides present blank walls to the adjacent open space and Civic Square Dve; loading bay presents directly to Civic Square Dve.



Figure 14: Arndale Shopping Centre Precinct

Summary of previous reports: *Croydon Town Centre Structure Plan (2006)*- upgrade the range and offer of retail in the centre, improve interface with adjacent properties and land uses, improve pedestrian access to and through the centre.

Croydon Community Precinct Masterplan, May 2020- changes to the buildings, spaces and access within the adjacent precinct.

Croydon MAC- Stormwater Management Background Report, 2019- WSUD and flood mitigation measures on adjacent parkland.

Key projects – *Croydon Community Precinct Masterplan*,

Key Issues and Opportunities: poor presentation to site boundaries including loading bay and blank walls to the adjacent parklands and streets; improve pedestrian and disabled safety and accessibility to and through the site; improve landscape treatments to address WSUD and urban heat island effects of surface carpark; potential redevelopment should include mixed uses over multiple levels including residential to take advantage of proximity to open space and mid and distant views to surrounding hills.

3.7 South East Industrial Precinct

Description: A small area (2.8 Ha) of light industrial land located on Jesmond and Taylors Roads between Taralla Ck and surrounding housing. Uses include auto related, light engineering, services, electronics, and a substation. Many sites are subdivided into smaller lots potentially limiting potential for redevelopment or renewal. Buildings are single storey with masonry walls and metal roofing, generally well maintained with landscaped front setbacks, some of which contain carparking. Access to most buildings is from the side.

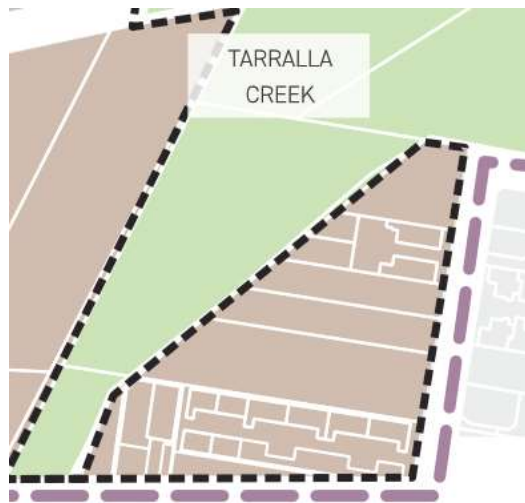


Figure 14: South East Industrial Precinct

Summary of previous reports: *Croydon Town Centre Structure Plan (2006)* supported the continuation of its industrial role.

Key projects: *Reimagining Taralla Creek*

Key Issues and Opportunities: Implementation of WSUD/flood mitigation measures; improve presentation and maintenance of public interfaces of properties.

3.8 South West Industrial Precinct

Description: Located on the east side of Lusher Rd and backed by Fred Geale Oval and Taralla Creek. Large former industrial sheds, several aging and now divided into smaller tenancies for warehousing, self-storage, auto servicing and repair, and two churches. Access to buildings generally from the sides and rear with associated large areas of hard stand. Narrow, front setbacks generally well landscaped. Interfaces with open space are variable, northern properties well landscaped, southern properties less so. Precinct is prone to flooding including along Lusher Rd.



Figure 15: South West Industrial Precinct

Summary of previous reports: *Croydon Town Centre Structure Plan (2006)* recommends avoiding subdivision of large land parcels to protect opportunities for future transition to higher density residential



precinct. Support adaptable, multi-purpose buildings in the short term. Future residential development to be 2-3 storeys and designed to benefit from proximity to parkland and Main St.

Croydon MAC- Stormwater Management Background Report, 2019 identifies recent flooding within the precinct including Lacey St and Central Park.

Key projects: *Reimagining Taralla Creek*, Implementation of flood mitigation measures

Key Issues and Opportunities: Rezone land to support transition to higher density residential precinct with more intense built form than anticipated by 2006 Structure Plan; implementation of WSUD/flood mitigation measures; improve interfaces with adjacent open spaces and streets including

3.9 Swinburne University Precinct

Description of the precinct- a TAFE facility providing important role and activity located in the south eastern corner of the MAC opposite the Fred Geale Oval and Town Park. Pedestrian connections from the campus through Town and Croydon Parks to Main Street and the rail station have been recently upgraded with improved pathways and lighting.



Figure 16: Swinburne University Precinct

Summary of previous reports- *Croydon Town Centre Structure Plan (2006)-*

Key projects- *Reimagining Taralla Creek, Croydon Community Precinct Masterplan*

Key Issues and Opportunities- continued fostering of relationships with council, local partners and businesses to support the role of the University; parking demand; pedestrian and cycling safety and access to MAC and Taralla Creek networks;

3.10 Croydon Station and Transport Interchange Precinct

Description of the precinct- central focus of the activity centre, yet the rail corridor that includes commuter carparking and bus interchanges, creates a functional border and barrier between precincts; bus stops are located on both sides of the station; level crossing provided for vehicles and pedestrians at Coolstore Rd and pedestrians either end of the platforms; the rear of Main St buildings form an unattractive eastern border; some island commercial buildings remain on Kent Ave.



Figure 17: Croydon Station and Transport Interchange Precinct

Summary of previous reports- *Croydon Town Centre Structure Plan (2006)*- recommended establishment of multi-storey, mixed-use activities within the precinct to tie the two sides of the corridor together; improve pedestrian connections, amenity and safety; increase commuter car parking supply.

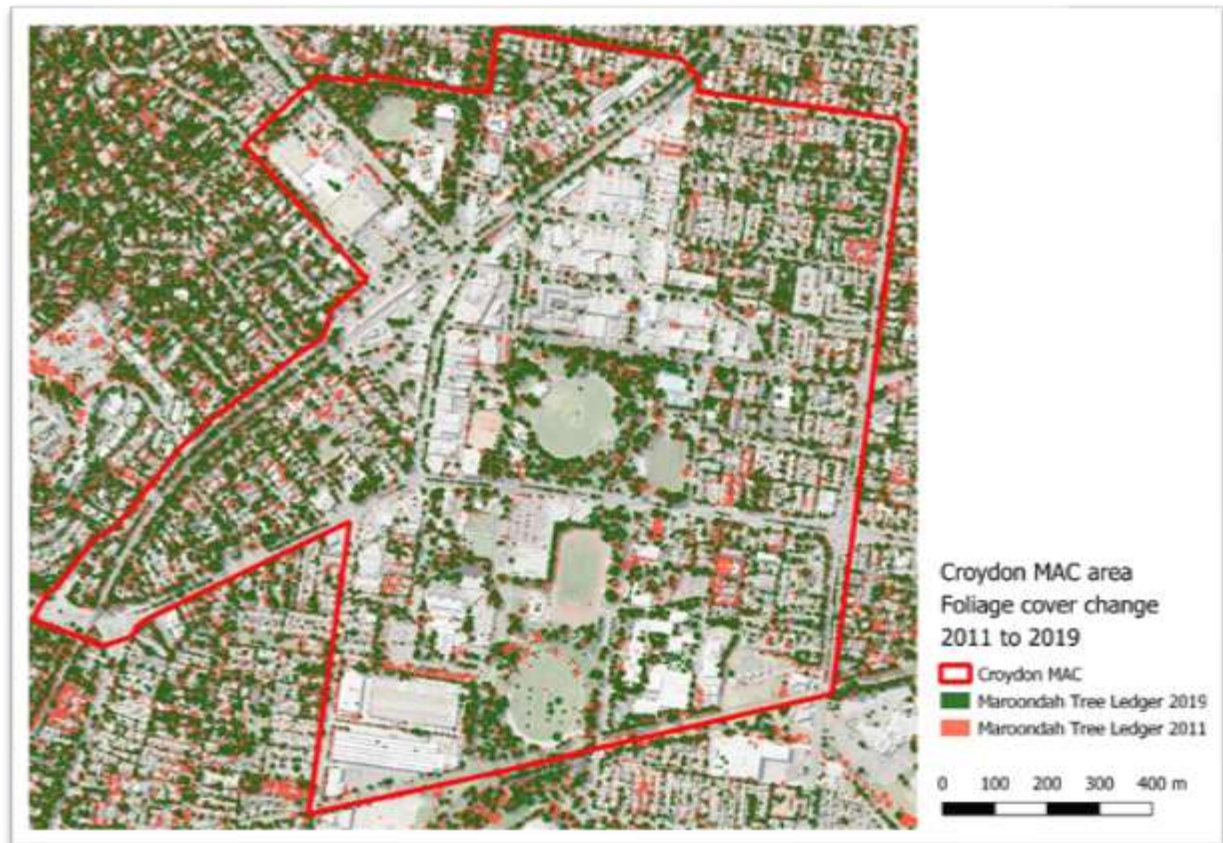
Key projects- implementation of *Croydon Town Square project 2019-20*, implementation of Devon St multi-deck commuter carpark; Council investigation of potential level crossing removal and associated urban redevelopment.

Key Issues and Opportunities- compromised pedestrian access, amenity and safety within the precinct (in particular north end of Pierson Dve); improve interface with rear of Main St properties including access, parking, waste and other back-of-house activity, land ownership and maintenance responsibilities; improve bus movements, route integration, bus-stop amenity, comfort, and safety; removal of level crossing is doubtful and would require demonstration of adverse safety record and significant congestion levels, LCR if delivered would provide significant urban development and access opportunities. . Ensure integration of Devon St multi-deck carpark with adjacent land uses and streets in terms of active interfaces, built form scale and materiality.

4. Thematic Issues

4.1 Environment

Vegetation- Council has undertaken analysis of foliage cover between 2011-2019 within the MAC that shows a trend towards a net reduction of vegetation over that period.



Tree Ledger™ map outputs for 2011 and 2019 - the red areas represent foliage cover that was present in 2011 but not in 2019. The green areas represent foliage cover present in 2019.

Figure 18. Foliage Cover Change- 2011-2019

Maroondah Vegetation Strategy 2020-2030: Adopted by Council in Mar 2020 the strategy is directed towards achieving more vegetation, especially an extensive canopy of trees connecting bush and urban environments. Actions include amending (strengthening) planning scheme schedules and decision guidelines, community and industry education, increased penalties for removal of significant vegetation, a 10yr rolling street and park tree planting program, identification of appropriate and suitable species for different settings, water sensitive design treatments on public and private land. It includes Priority Action: 3.2- Use the preparation of structure plans for activity centres to trial collaborative green infrastructure planning, design, and implementation approaches. Approximately 80% of the municipality is presently covered by a Significant Landscape Overlay or Vegetation Protection Overlay, neither of which apply to a significant degree within the Croydon MAC study area. The SLO and VPOs seek to protect, conserve, and expand the tree canopy as a significant contributor to the character of the municipality. A permit is required to remove, destroy, or lop vegetation with some conditions. Refer figure below of SLO extent.

Implementation of the Vegetation Strategy will make a key contribution to the Structure Plan Refresh by supporting improved environment, habitat, urban amenity and character, moderating the perceived effects of new built form and mitigating climate change impacts.

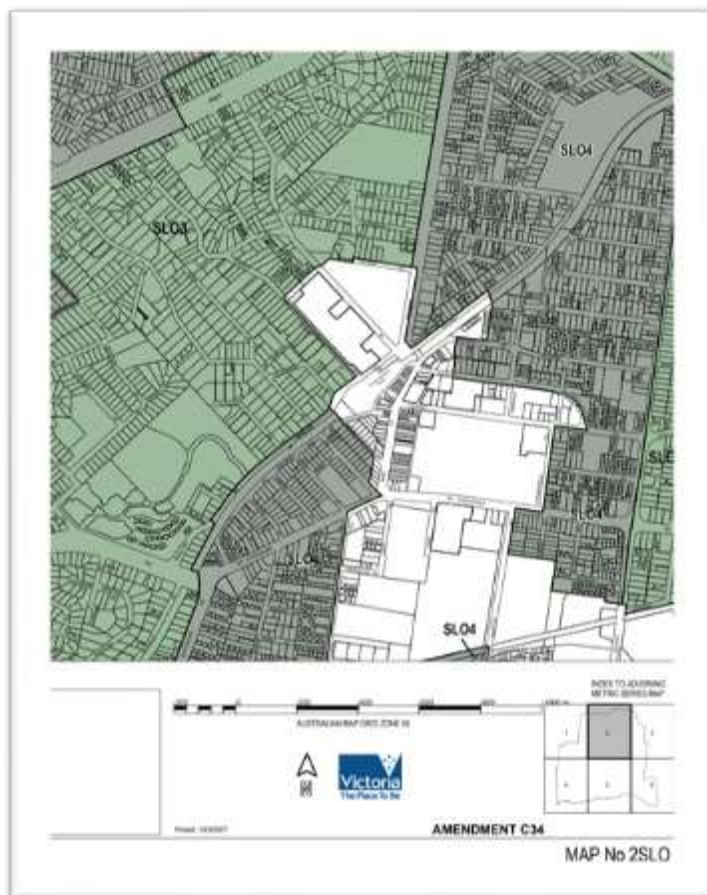


Figure 19. Extent of Significant Landscape Overlays within the MAC

Blue-Green Infrastructure (BGI) Discussion Paper- discusses bringing vegetated landscapes supported by non-mains water supply to urban areas to address issues associated with development such as: loss of tree canopy and associated habitat, increased hard surfaces leading to increased storm water run-off and degradation of creeks. The paper suggests the Croydon MAC Structure Plan process may provide the opportunity to educate and inspire the public about the benefits of BGI. It proposes amending the planning scheme, (perhaps unrealistically) as the most appropriate mechanism to improve built outcomes through measures such as larger water tanks, green roofs and walls. Rather, the project for the greatest BGI impact would appear to be within the public realm in the *Reimagining Taralla Creek Project* and WSUD works within the Croydon Park precinct as an important component of the master plan implementation.

Central sections of the study area are subject to inundation in major storm events under existing conditions. Figure 10 illustrates the extent of flooding and, correspondingly, locations for targeted mitigation works to better manage impacts within existing reserves and open space. Retention of storm water in these locations would provide a valuable irrigation resource for sporting fields and parkland whilst providing an enhanced parkland setting.



Figure 20: Flooding in Lusher Road

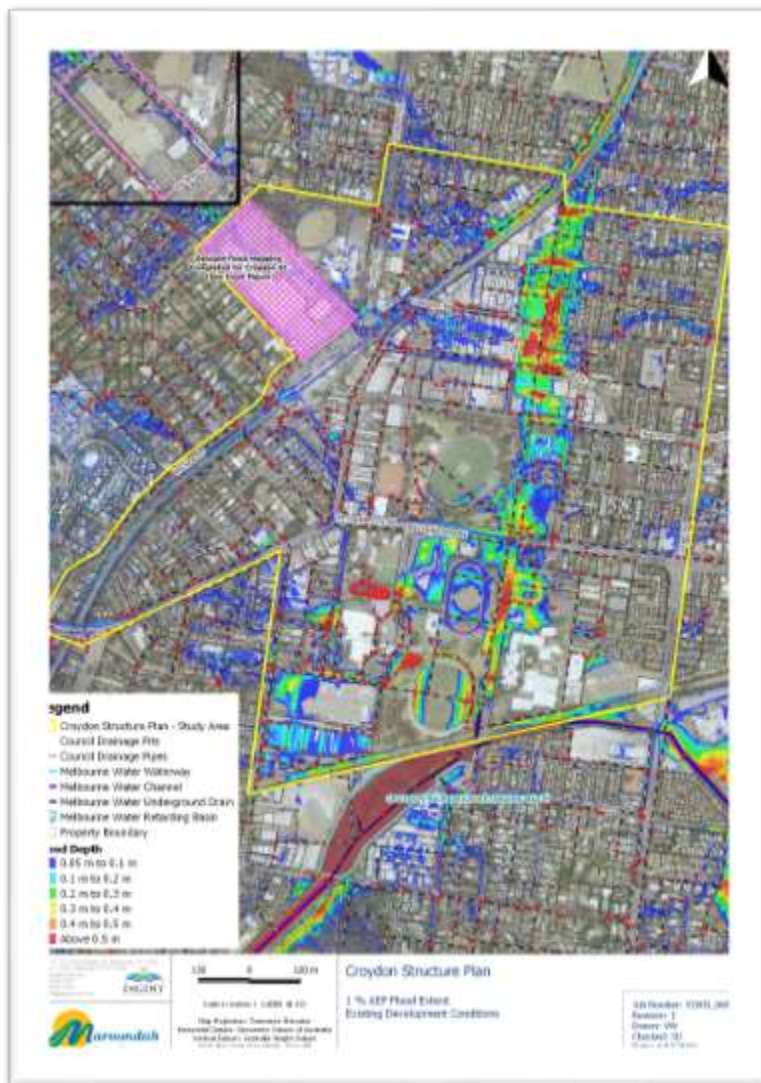


Figure 21. MAC areas subject to inundation

4.2 Pedestrian and Cycle Movement

Croydon Pedestrian Priority Plan 2009 identified issues of pedestrian safety, comfort and convenience within the MAC and consequent priority areas or locations for improvements.

The *Active and Sustainable Transport Study (ASTS)* was prepared in early 2020 as a background report for the MAC Structure Plan refresh. It recognized the improvements made to the network and that work remains to be done to optimize conditions for pedestrians and cyclists within the centre.

Identified improvements include addressing the ongoing barrier effects of major roads, intersections and the rail corridor, discontinuity or gaps within the pedestrian and cycle networks, the quality and condition of the walking and cycling network including within and through car parking areas, activation of building interfaces with pedestrian networks, and quality and safety of the network for people with a disability and the aging. These are clearly important issues for the future vitality, attractiveness and safety of the MAC and should be recognised within the Structure Plan refresh project.

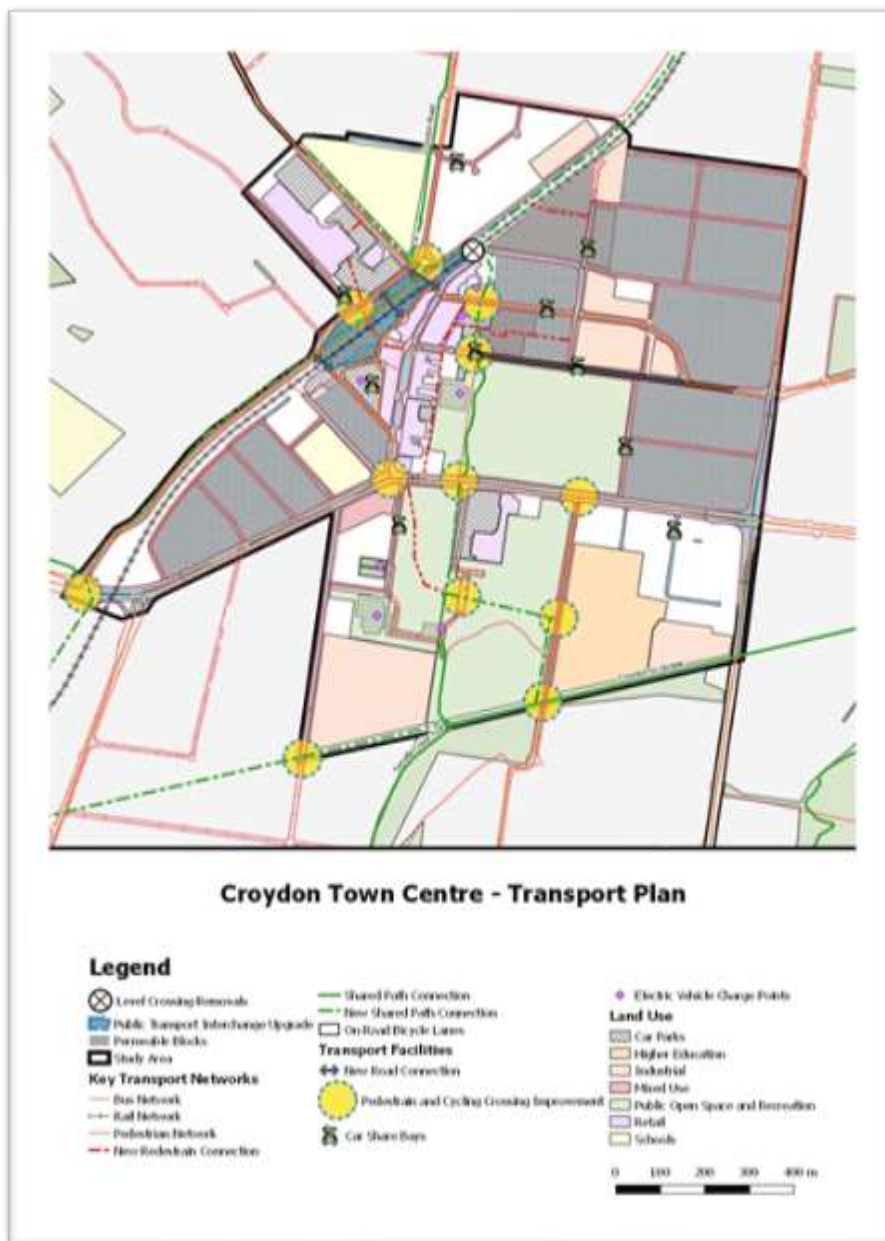


Figure 22. Active and Sustainable Transport Study Summary, 2020

The findings of the ASTS were further reinforced in the *Transport and Movement Assessment Report 2020*, Martyn Group recommending a variety of actions to improve the walking and cycling environment to and through the activity centre and as outlined in the image below. Actions include

- i. A pedestrian network comprising of new and upgraded links.
- ii. A continuous, connected local and regional cycling network.
- iii. Proposed changes to the bus network to better service the town centre and civic centre
- iv. Assessment of car parking supply, and identification of areas of existing at-grade car parking which may hold future potential for redevelopment and land use change.
- v. Recognition and retention of the role of the local street network ...but reprioritisation towards sustainable transport modes in areas of highest activity and demand.
- vi. An assessment of the potential benefits and opportunities associated with a grade separated rail crossing at Coolstore Road.





5. Conclusion

The extensive background reports and analysis Council has undertaken for the refresh of the Croydon MAC Structure Plan provide an inventory of site-specific issues and actions for the future planning of the centre. From an urban design perspective, they combine under the following broad themes or headings:

- Encourage the development of different house typologies on identified opportunity sites including medium-rise residential buildings (4-6 storeys) suited to a range of household sizes and types.
- Support the transition from light industrial to mixed-uses to encourage new forms of employment and residential development.
- Support the redevelopment of light industrial areas with multi-storey commercial buildings capable of supporting more intensive employment activity with appropriate interfaces with the public realm or adjacent uses.
- Encourage upper-level development of Main St buildings for commercial and residential uses that protect the existing enclosed, fine-grain qualities of the street.
- Improve the convenience, amenity, and safety of the overall movement network for the most vulnerable road users including disabled people, pedestrians, and cyclists travelling to and through the centre.
- Implement public realm improvements using a consistent approach to design, details and materials that celebrate and reinforce Croydon's heritage, identity and evolving character.
- Maintain existing and increase provision of locally appropriate trees and other vegetation in the streets, public spaces, and parks.
- Work with property owners to improve the presentation of their buildings and sites that address the public realm particularly the sides and backs.
- Implement measures on public and private land to mitigate impacts from major storm or rain events and improve environmental and habitat values.
- Work with landowners and agencies to improve environmental values within the activity centre including biodiversity, water harvesting and re-use, urban heat island reduction, and energy use.
- Work with State Government to improve the function, comfort, presentation, and safety of the station precinct including removal of the Coolstore Rd level crossing.
- Develop urban design guidance to outline the preferred intensity, form and character for new buildings within the MAC.



Fig 24. Key Urban Design Opportunities