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MANLY INDUSTRIAL ZONE_ MASTER PLAN

Prepared for Manly Council
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HASSELL

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01 Summary

1.1_Project Brief

Recent development within existing industrial land of Manly has highlighted the need for a comprehensive review of the existing industrial land and controls.

Manly Council, at its meeting of 21 June 2010, resolved to prepare a Master Plan for the Manly Industrial Zone as follows:

Manly Council accede to community and three Precinct Forum requests to develop as a matter of urgency a comprehensive Master Plan for the Balgowlah/Manly Vale Industrial Zone, (Enterprise Zone as it will become known) establishing planning priorities including but not limited to:
Changes to roads, traffic management, and parking
Pedestrian and bike paths
Landscaping, tree plantings, open space and public place furniture
Diversity of land uses
Environmental impacts of large scale excavation on the water table
The General Manager advise on the possibility of rescinding the Draft LEP Amendment 79 to the Manly LEP 1988 and the implications of such a move.
Manly Council write to the Department of Planning and request that the gazettal of Amendment 79 to the Manly LEP be deferred until this Master Plan has been completed.
Manly Council request a "stop the clock" on both the Bunnings & Woolworths DAs until the additional studies on the cumulative impacts of both these DAs have been completed presented to the community and Master Plan has been completed.
Manly Council publish a "Fact Sheet" on the approval process to date and in the future for these DAs as well as the studies completed and in progress for these DAs.

HASSELL has been engaged by Manly Council ("Council") to prepare a Master Plan for existing industrial lands at Balgowlah in the north western extent of the Manly LGA. The Study area represents the total provision of zoned industrial land within the Manly LGA.

HASSELL has prepared a Master Plan which seeks to update the long term vision of the Manly Industrial Zone.

1.2_Study Area

The study precinct ("the precinct") comprises the entire extent of the Manly Industrial zone, which is located at Balgowlah within the northern metropolitan region of Sydney. The precinct contains approximately 77 allotments with a total area of 10.1 hectares.

The precinct exists within the suburb of Balgowlah, approximately 10 kilometres north east of the Sydney CBD and 2.5 kilometres west of the Manly town centre. This area accommodates a range of retail, recreational and residential uses. The town centres of Manly Vale, Balgowlah and Manly are all close proximity of the Industrial zone.

1.3_Consultation

Consultation has been undertaken with Council officers, community representatives and landowners as part of the preparation of the master plan. This consultation process provided additional material to inform the preparation of the final master plan. Details of the consultation process and analysis phase are provided in Section 3 of the master plan.

The consultation process identified the following key issues within the industrial area:

Traffic movement and function within and around the precinct is poor, given the need for large trucks to enter and exit the precinct along residential streets and the lack of adequate manoeuvrability within the precinct.
Existing **streets are considered to be at capacity** with new bulky goods development increasing demand on surrounding roads.
Traffic conflicts exist between cars and trucks within the precinct, with conflicts also existing between cars and cyclists along the Balgowlah Road interface.
Opportunities exist to **reduce traffic congestion and improve traffic function**, primarily through opening Quirk Road and/or re-configuring the Hayes Street/ Condamine Street intersection.
Pedestrian network is disjointed and limits opportunity for safe and efficient pedestrian movement. In particular, marked pedestrian crossings within the precinct are non-existent.
Amenity impacts are present, and likely to increase, through additional truck movements to and from the precinct.
There is a **lack of adequate parking opportunities** within the precinct for visitors and employees.
New development provides **opportunity for provision of improved public parking** opportunities. In particular, **public access to the Woolworths car parking area should be maximised** to ensure maximum usage and benefit
At present, the precinct generally is in **lower demand for industrial/business tenants** and **attractive for bulky goods** tenants.
Existing **streetscape is in poor condition** and does not contribute to the vitality and viability of the precinct.
There appears to be **opportunity to increase density within the central portion** of the precinct subject to adequate parking, and ensuring no additional bulk to the residential interfaces.

1.4_Constraints and Opportunities

In addition to the information collected through consultation process, detailed review and analysis of the study area has revealed a variety of constraints and opportunities for future development and use of the precinct. The constraints and opportunities are discussed in more detail at Section 4.1.

The primary constraint identified is the poor traffic function within and around the precinct. The nature of existing uses within the precinct means that many of the existing land uses generate truck movements along the internal roads of the precinct as well as the perimeter roads. The master plan seeks to improve the traffic function of precinct through redirecting traffic to main access points, and attempting to reduce traffic to lower order residential streets.

Pedestrian and cycle function and safety within the precinct is also compromised due to disjointed pedestrian network, lack of pedestrian crossing opportunities and conflict between pedestrians, cyclists and property accesses.

The streetscape of the existing industrial precinct represents a generally poorer character, which detracts from the overall streetscape quality. The existing roads present a variety of urban road standards, with resultant streetscape character often having poor response to the standard of the road and function of land uses fronting the street. The lack of quality streetscape character also exposes industrial uses to the street, particularly at the Hayes Street / Roseberry Street intersection. Likewise, existing built form is considered to be generally poorer, reducing streetscape appearance and vitality of the precinct generally.

Development surrounding Manly West Park excludes the park from the public domain and reduces opportunities for connectivity with surrounding areas. A potential view corridor and open space link has been identified between Roseberry Street and Manly West Park. At present this land is used for business purposes, however it is considered that this land should be identified as a future open space link. This is a long term outcome which can be considered during preparation of future development controls.

Several neighbourhood shops and service retail uses are established at Roseberry Street south. These properties represent established businesses which serve the needs of the industrial area as well as the adjacent residential properties. This small cluster of uses presents opportunity to promote a 'neighbourhood centre' to provide small scale service retail uses serving the needs of local employees and surrounding residents.

There is also an opportunity to establish linkages through the precinct along Roseberry Street to link the residential areas with existing retail services within the precinct.

The precinct contains generally older building stock which present long blank walls and poor articulation. This results in a poor streetscape appearance and building character within the precinct. Future development within the precinct should be encouraged to provide articulated building forms which contribute to provision of an activated street frontage, particularly along Roseberry Street and Condamine Street interfaces.

1.5_Master Plan

The analysis undertaken within this report has established five key principles which seek to update the vision for the Manly Industrial zone over the next 5-10 years. The previous strategic planning work undertaken by Council in 2009 also provides the basis for the master plan and sets out the proposed zoning approach for the precinct to be sought under the new Manly Local Environmental Plan.

The final master plan incorporates the five key principles in order to establish a future vision for the precinct. The master plan will serve as a document to guide growth and development of the precinct and importantly inform preparation of a new DCP.

Planning Context

02

2.1_Metropolitan Context

2.1.1_Sydney Metropolitan Strategy

The Metropolitan Strategy was prepared by the NSW Department of Planning in 2004 to provide for the accommodation of Sydney's expected residential and employment growth over the next 20 years. The economic and employment aims of the Metropolitan Strategy are to:

enhance liveability by seeking to improve the quality of economic centres and jobs for residents.
focus on private enterprise as the main economic driver in a competitive economy.
locate employment so it is accessible to residents, and new employment lands will be strategically located close to the labour force and linked into the transport network.
protect Sydney's environment by capitalising on existing specialist infrastructure or developing magnet infrastructure in existing centres.
improve governance by providing a framework to strengthen Sydney's economy and employment opportunities.
focus development around centres

Within the context of the Sydney Metropolitan region the Manly Industrial Zone is identified as employment land. Employment land is defined as 'the traditional industrial areas for manufacturing, warehousing, construction and repairs; business and technology parks for higher order jobs; and areas containing a mix of activities associated with transforming, storing, maintaining and repairing materials and goods.'
The Metropolitan Strategy's 2031 employment capacity target for the North East Subregion is 103,500 which is a growth of 16,263 jobs from 2004, equating to approximately 4.1% of Sydney's overall job share.

2.2_Regional Context

2.2.1_Draft North East Subregional Strategy

The Draft North East Subregional Strategy ("the draft Strategy") is an extension of the Sydney Metropolitan Strategy and applies the Department of Planning's strategic direction for the Manly, Pittwater and Warringah LGAs at a 'local' level.

The draft strategy indicates a number of key future directions are noted for employment lands:
There is a relatively limited supply of Employment Lands within the North East Subregion with only approximately 450 hectares (the Manly Industrial Zone comprises 10.1 hectares) of Industrial and Business Park zoned land.
The small pockets of industrial zones and business parks are small in comparison to other subregions, however are of strategic value to the subregion.
Light industry and urban support functions should remain in the area to support the subregion, maintain self–containment, and contribute to the specialist knowledge and skills base which sustains Sydney's national and international competitiveness.
There may be potential for intensification of Employment Lands in select precincts of the subregion. Such intensification must not undermine the integrity of the employment lands in a local and regional context.
Key challenges for council are intensification and more efficient use of Employment Lands in the North East.

The draft Strategy's target for additional employment capacity in the North East Region is revised from the target in the Metropolitan Strategy. A total growth target of 19,500 additional jobs is identified for the North East subregion in the 30 year period to 2031. The Manly LGA is identified to take up 1,000 of these additional jobs, markedly less than Warringah (12,500) and Pittwater (6,000), which generally reflects the structure of existing employment lands within the subregion.

The Manly Industrial Zone is classified as category one employment lands which are to be retained for industrial purposes. The key function of this industrial zone is for 'Urban Services', comprising activities such as Council Depots of 'which are crucial activities and need to be protected.'

The study area is located adjacent to the Manly Vale neighbourhood centre and 700 metres from the Balgowlah village centre. The draft Subregional Strategy indentifies Condamine Street as a potential Enterprise Corridor (Figure 2.2). Enterprise Corridors are described as:

areas which provide low cost accommodation for a range of local and regional services, including start–up offices, light industrial, showrooms, building supplies and retail, which benefit from high levels of passing traffic. They run along major arterial roads which generally accommodate over 50,000 vehicles per day and provide a valuable buffer between residential development and the road.

The following Draft Subregional Strategy actions are relevant to the study area:

LEPs will provide sufficient zoned commercial and employment land to meet their employment capacity target (A1.1.1).
Concentrate retail activity in centres, business development zones and enterprise corridors (B4.1)
The Department of Planning to prepare guidelines for the application of Business Development and Enterprise Corridor Zones (B4.1.3). Which states:
Business Development Zones and Enterprise Corridors should be considered to accommodate existing or emerging regional bulky goods outlet clusters. These would only be located adjacent or linked to those identified strategic centres that would benefit from supporting activity in the zone.
Small retail outlets (less than 1000 m²) may also be accommodated in parts of Enterprise Corridors where these premises benefit from exposure and support the objectives of the zone to provide lower cost employment and business start–up opportunities and buffer residential land near major traffic roads. The Enterprise Corridor Zone has been established for this purpose.
Continue to apply 'net community benefit criteria' to out–of–centre retail proposals prior to Principal LEPs adopting Standard LEP zones (B4.1.4). Which states:
The net community benefit criteria and specific criteria relating to bulky goods retail outlets included in The Right Place for Business and Services will continue to apply as a merit based test for major development applications and spot rezonings (as required by Ministerial Direction 17—Integrating Land Use and Transport).
Recognise the role of Enterprise Corridors as locations for local employment (B7).

2.2.2_SHOROC Employment Strategy

The Shore Organisation of Regional Councils (SHOROC) represents Mosman, Manly, Warringah and Pittwater Councils. The SHOROC Employment Strategy was prepared to review and analyse the current and future status of employment lands within SHOROC region.

The key objectives of the Employment Strategy were to:
Research and document existing employment in the SHOROC Region.
Identify economic, social and environmental trends that may influence employment in the Region over the study period.
Identify key strategies and principles that will enable sustainable employment and business growth across the Region up to 2031.

The Employment Strategy resulted in a number of key findings in relation to the Manly Industrial zone.
There is local government commitment to supporting employment and job containment.
There is a lack of surplus land to rezone for residential or employment related uses.
Existing industrial lands such as Balgowlah are a limited resource and have regional importance, and should be safeguarded from further encroachment of non light industrial uses.
Manly is expected to experience a 25% decline in the number of industry related jobs by 2031. This translates into a 21,300sqm reduction in demand for industrial floor space. Notwithstanding this decline, demand for floor space in 2031 (114,050sqm) will still exceed the quantum of industrial land area (101,000sqm) presently zoned within Manly.
A careful balance must be struck between the growing demand for bulky goods retail and the viability and hierarchy of traditional town centres. Therefore bulky goods should be promoted in appropriate corridors such as land fronting Condamine Street through creation of B6 Enterprise Corridor Zone.
There is a potential requirement for 2–4 supermarkets in Manly by 2031, with a net additional demand for supermarket floor space in Manly at 2,250 square metres (2016) and 5,937 square metres (2031). In this regard, new supermarkets should primarily be included in retail centres that currently lack one or comprise an undersized one, as there is growing demand for village centres to accommodate larger supermarkets operating 7 days a week and providing greater convenience through car parking and public transport provision. Therefore, planning policies need to ensure that supermarkets don't have an adverse effect on the success of neighbourhood and Regional centres.
Manly's villages such as Manly Vale should support demand for commercial uses and the development of commercial space suitable for local services i.e. finance, legal advice and property management.
The SHOROC Employment Strategy made the following recommendation for the Manly Industrial Land:
Safeguard the Precinct as an employment Precinct that supports local services and industries. Promote a B6 Enterprise Corridor Zone along the Condamine Street Corridor that provides high quality buildings with bulky goods retail at ground floor (as a minimum) and possible ancillary commercial and/or office space above ground floor level.

The SHOROC Employment Strategy recommends future zoning of the precinct as:
Sites fronting Condamine Street: Zone B6 Enterprise Corridor
_Sites to the rear of those fronting Condamine Street: Zone IN2 Light Industrial

Figure 2.1_Metropolitan Context

Figure 2.2_Draft North East Subregional Strategy

2.3_Local Context

2.3.1_Manly Local Environmental Plan 1988

Manly Local Environmental Plan 1988 ("the LEP") applies to all land within the Manly LGA. The study area is wholly zoned No. 4 Industrial.

The objectives of the No.4 zone are:

(a) to provide for suitable industrial activities in order to increase local employment opportunities,
(b) to minimise negative visual impact of development by limiting the size and scale of buildings and having regard to suitable landscaping, and
(c) to encourage the provision of industrial activities by permitting specific office and subsidiary activities in association with the primary industrial use.

The LEP also sets out permissible uses within the zone. Table 2.1 below sets out permissible and prohibited uses within the existing Zone 4 Industrial.

The LEP also provides opportunities for retailing of bulky goods to be undertaken within Zone No. 4 where there is a shortfall of appropriate zoned land within the surrounding business areas and the proposal will not detrimentally impact the integrity of either commercial or industrial land within Manly.

Table 2.1_Land Use Table

Clause	Permissible Uses	Prohibited Uses
Clause 10 - Land Use Table Zone 4 Industrial	Refreshment rooms; retail outlets for bulky goods; any purpose other than a prohibited use.	Backpacker accommodation; commercial premises other than recreational facilities and those commercial premises listed in Schedule 2; educational establishments; gas holders; generating works; heliports; institutions; junk yards; liquid fuel depots; mines; purposes listed in Schedule 3; residential uses other than ancillary residences above ground floor level used in conjunction with any permissible industry; restricted premises; retail plant nurseries; roadside stalls; shops other than those shops listed in Schedule 2.
Schedule 2 Uses	Bank; Chemists's shop; Delicatessen; Hairdressing salon; Milk bar; Newsagent's shop; Take-away food shop.	
Schedule 3 Uses		Abattoirs; Agricultural machinery manufacture; Asbestos cement products manufacture; Boilermaking; Brick, tile, pipe and pottery manufacture; Cement manufacture; Electric machinery manufacture; Extractive industries; Fireclay products manufacture; Glass products manufacture; Grain milling; Hardboard manufacture; Heavy engineering; Machinery manufacture (heavy); Metal founding; Motor body building; Motor vehicle manufacturing and assembly; Offensive or hazardous industry; Ready-mix cement manufacture; Sawmilling; Steel products manufacture; Stone cutting and crushing; Wire manufacture.

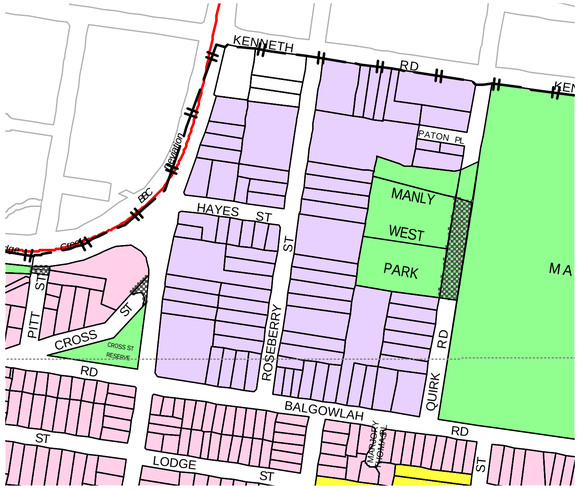


Figure 2.3_Existing Zoning

2.3.2_Manly Industrial Development Control Plan 1991

The Manly Industrial Development Control Plan 1991 ("the Industrial DCP") applies to all land within zone No. 4 Industrial under the LEP. The Industrial DCP sets out built form controls for land within the No. 4 Industrial zone.

Table 2.2_Industrial DCP Controls

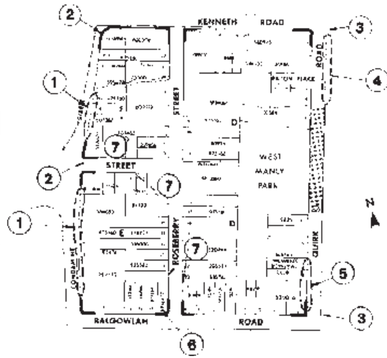
Control	Requirement
Role	Industrial area providing primarily local service function as opposed to promotion as a location for new high-technology or commercial office orientated activities.
FSR	No standards, however 1:1 is encouraged.
Height	11 metres above existing ground level.
Parking	Minimum rate of: (a) One car space per 50sqm of gross floor area for industrial use or retailing of bulky goods. (b) One car space per 100sqm of gross floor area for warehousing and storage of bulky goods.
Setbacks	4.5 metres to street frontage (minimum) This includes all buildings, and ancillary elements such as car parking. Where achievable, buildings may be built to side and rear boundaries
Landscaping	Setback areas to be landscaped with trees set in lawn or other ground cover.
Frontages to Condamine Street and Kenneth Road	Higher standard of finish to developments required along these frontages, in terms of building and landscaping.
Townscape	The Council will seek to ensure that developments comply with the principles in the attached Townscape map.

2.3.3_Advertising Signs Development Control Plan 1993

The Advertising Signs Development Control Plan 1993 ("the Advertising DCP") sets out controls for advertising and business identification signage within all zones. The Advertising DCP provides specific controls for Zone No. 4 Industrial. The key controls relating to the Industrial zone are outlined below.

Table 2.3_Advertising DCP Controls

Control	Requirement
Preferred signs	One or two larger signs which convey multiple messages, and which clearly display the street number and/or complex name. Where a building is setback from the street alignment, a freestanding illuminated or not illuminated pole sign is recommended, and where possible at an equivalent setback to that of any other existing pole signs.
Roof or sky signs	Not permitted, however Council may give consideration dependent on merit, if the proposed advertising structure gives an impression of being an ancillary part of the building.
Flush wall and end wall advertising	Should not exceed 5 sqm in area, it must not dominate the facade on which it is attached, or the streetscape, and consideration must be given to design and aesthetics, and must be in harmony with the nature of the streetscape and townscape.
Content	Advertising content must relate to the building or premises or goods sold on the premises to which it is attached.
Signs above awning height	Erection of above awning or projecting wall signs attached to the facade of a building above the awning is prohibited, or if there is no such awning, at a level above 3 metres measured above the footpath below.



L Prominent corners.
Ensure development is of a high visual quality.

1 Footpath planting to create an avenue of trees preclude footpath parking.

2 Location for identity planting safe-guarded by a barricade.

3 Notice to indicate available parking.

4 Formalize angle parking and improve bicycle way/footpath.

5 Create angle parking spaces and tree-planting.

6 Improve street frontage of building. Provide a bright focus to the corner with the shopfront. Improve parking area.

7 Plant trees or provide bollards to preclude footpath parking.

Provide sealed footpaths to all street frontages unlikely to be redeveloped

Figure 2.4_Townscape Principles Map - Industrial DCP 1991

Site Analysis

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03 Site Analysis

3.1_Regional Context

The Manly Industrial precinct is located at Balgowlah within the northern metropolitan region of Sydney, approximately 10 kilometres north east of the Sydney CBD. The surrounding region represents a range of retail, recreational and residential uses, with town centres of Manly Vale, Balgowlah and Manly within close proximity.

The Manly Vale neighbourhood centre is established along Condamine Street to the north beyond Kenneth Street in the Warringah LGA. This centre accommodates a variety of retail and commercial premises. Medium density residential and a Coles supermarket are established within the blocks east of Condamine Street.

Balgowlah Road forms the southern boundary of the precinct, with a mix of low and medium density residential to the south beyond Balgowlah Road.

Manly West Park, the Manly Golf Course and LM Graham Reserve are located to the immediate east of the study area. The alignment of Burnt Bridge Creek extends through the adjacent park and golf course precinct as a concrete channel. Condamine Street defines the western boundary of the industrial area and links with the Burnt Bridge Creek Deviation. Land on the opposite side of Condamine Street contains predominantly bulky goods retail, with some light industrial and residential uses. Residential uses extend further east beyond Condamine Street.

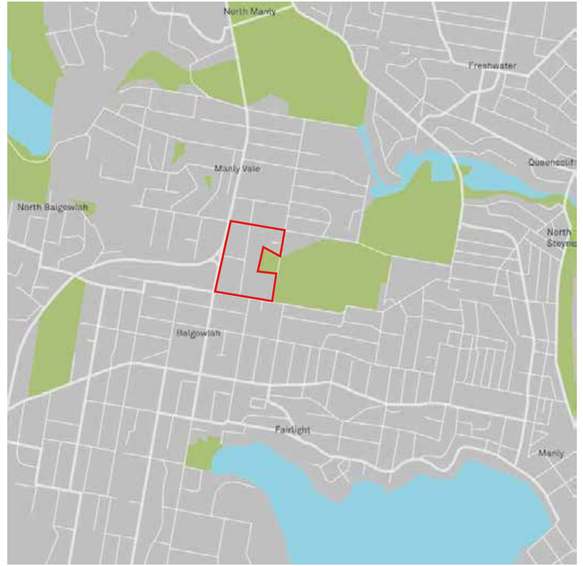


Figure 3.1_Site within a regional context

3.2_Study Area

The Manly Industrial precinct is located within the north western corner of the Manly LGA and comprises a total area of 10.1 hectares. The precinct adjoins the LGA boundary of Warringah to its northern and western boundaries and is located approximately 10 kilometres north east of Sydney's CBD and 2.5 kilometres north west of the Manly Town Centre.

The precinct is adjacent to the Warringah transport corridor which provides the primary link between the North East subregion and the Sydney CBD. The precinct is also proximate to the residential areas of Balgowlah, Seaforth, Fairlight, Manly, North Manly and Manly Vale.

The precinct comprises an established industrial area within a grid subdivision pattern. Condamine Street, Kenneth Road, Quirk Road and Balgowlah Road define the industrial precinct and open space area of Manly West Park, Roseberry Street, which extends north-south between Kenneth Road and Balgowlah Road, provides the primary corridor through the site. Hayes Street provides a link between Condamine Street and Roseberry Street.

Figure 3.2_Study area

3.3_Consultation

Consultation with community representatives, landowners and Manly Council has been undertaken as part of the master plan process. The consultation process represents an important phase of development for the master plan and provides an additional layer of information for the analysis phase.

3.3.1_Landowner Consultation

Consultation was undertaken with a number of landowner representatives during the analysis phase of the master plan.

Key issues identified from the landowner consultation process include:

Traffic
- Investigate potential opening of Quirk Road
- Investigate potential one-way traffic movement along Roseberry Street (north to south) to reduce traffic congestion and conflicts
- Investigate Hayes Street as a primary delivery access point
- Widen Roseberry Street to improve heavy vehicle movements
- Investigate introduction of a roundabout at Quirk/Balgowlah Road intersection.
- Investigate left turn slip lane from Condamine Street into Hayes Street using wide footpath area.
- Surrounding Balgowlah Road and Kenneth Road appear to be at capacity
- Retain parking along Roseberry Street
- Phasing of traffic lights at all Condamine Street intersections should be reviewed to reduce existing delays
- Existing property access points along Balgowlah Road conflict with shared bicycle/pedestrian path
- Bus stops along Balgowlah Road too frequent and interfere with traffic flow
- Proposed bus stop at Woolworths unnecessary
- Loading and delivery to industrial properties is an issue due to the frequency of deliveries and the lack of waiting/standing area
- Existing 3 tonne load limit along Balgowlah Road is prohibitive to loading needs of businesses in south of precinct

Parking
- Lack of adequate parking for employees and visitors
- Investigate provision of public parking areas within proposed Woolworths precinct
- Investigate opportunities for multi-storey parking
- Improve function of on-street parking at Quirk Street, including line-marking
- Street parking along Kenneth Road and Quirk Road causes blind spot to oncoming traffic

Land Use
- Woolworths and Bunnings proposals have changed the character of the area substantially
- Rents are too high for small light industry
- Area is attractive for bulky goods uses
- Appears that the land use is predominantly light industrial and commercial properties, particular business focus along Roseberry Street.
- There is low demand for industrial uses within the precinct, and commercial uses should be investigated
- A business focussed use could be investigated, subject to adequate parking opportunities

Built Form
- There appears to be opportunity to increase density within the central portion of the precinct subject to adequate parking
- Height limit could also be increased
- Ensuring an appropriate interface transitions to the north and south is important

Character
- Safety could be improved through implementation of pedestrian crossings within Roseberry Street
- Public access to the Woolworths car parking area should be improved to ensure maximum usage and benefit
- Preference for future land use would be bulky goods over industrial
- Difficulty in ensuring property maintenance by tenants
- Not enough critical mass for industrial units, as industries have moved out to bigger precincts with better transport services

3.3.2_Community Consultation

Consultation was undertaken with surrounding residents during the analysis phase of the master plan.

Key issues identified from the community consultation process include:

Traffic
- Investigate traffic calming to Balgowlah Road and Kenneth Street
- Investigate improvements to Hayes Street
- Development with existing industrial area and layout of existing street network causes traffic conflicts within the adjoining residential areas to the south and north (Manly Vale).
- Investigate opportunities to open Quirk Road through Manly West Park.
- Avoid increase in traffic (i.e no high visitation uses such as retail)
- Assess impact upon Roseberry/Kenneth Road roundabout generated by traffic from Manly Vale Coles and retail area.
- Roseberry Street and Kenneth Road intersection is currently subject to high traffic movements.
- The master plan should also consider traffic impacts and residential amenity for land to the north of the study area.
- There is poor visibility along Roseberry Street for cars entering and exiting properties along the street.
- Condamine Street accommodates faster traffic (i.e higher speeds and users travelling between shopping destinations).
- Trucks accessing the precinct from Balgowlah Road during early morning hours will have an detrimental amenity impact upon surrounding residents.
- Large groups of cyclists travel along Balgowlah Road during AM and PM weekday peak traffic periods which conflict with traffic flow along the street and particularly at the Balgowlah/Roseberry Street roundabout.
- Trucks dominate vehicular movements in Roseberry Street. Existing street parking along Roseberry Street hinders truck access and manoeuvrability to existing properties and loading areas.
- 'Rat-running' through residential streets is caused by congestion of key intersections surrounding the site (Condamine Street/Balgowlah Road and Balgowlah Road/Roseberry Street).

Parking
- Retain and improve on-street parking along Balgowlah Road
- The Manly Parking Scheme is currently under consideration by Council and will provide resident parking permits. This is highly contentious within the community. A more flexible approach to the scheme is needed (i.e different restrictions on weekends and/or parking on different sides of the road etc.)
- Parking should be retained along Balgowlah Road for resident parking.
- Employees are parking in residential streets and absorbing resident parking.
- On-street parking on the southern side of Kenneth Street west should be removed.
- Investigate shared pedestrian cycleway along Roseberry Street between Balgowlah and Kenneth Road.

Pedestrian
- Improve accessibility along Kenneth Road between Roseberry Street and Quirk Road.
- Opportunity for pedestrian link between Manly West Park and Roseberry Street.
- Existing pedestrian conflicts at the Balgowlah Road/Condamine Street intersection and Griffith Street/Condamine Street intersection.
- A pedestrian refuge should be provided on Roseberry Street/Balgowlah Road roundabout.
- Additional pedestrian refuge should be investigated in Roseberry Street near Hayes Street.

Streetscape
- Implement streetscape improvements along Roseberry Street including footpaths and street trees
- Poor streetscape character and parking provisions along eastern side of Roseberry street between Hayes Street and Kenneth Road.
- Electricity poles along Roseberry Street are sagging and low and consequently make a poor contribution to the streetscape.
- Existing street trees should be assessed to ensure appropriate sight lines.

Character
- Existing landscape character is poor, particularly along Roseberry Street and within Manly West Park
- Ensure improved character and appearance of future development (i.e landscaping, colours, maintenance).
- Manly West Park is in 'derelict' condition. Graffiti is noted along the rear of industrial buildings adjacent to the park and the park itself has a poor surface.
- Investigate opportunities to improve amenity and use of Manly West Park.
- Opportunities for construction management and traffic should be investigated as part of the master plan.
- Investigate opportunity to incorporate late night uses for children/adolescents such as skate park to increase evening/night use and safety through occupation.
- Upgrade street lighting to ensure improved pedestrian visibility, safety and security.

Land Use
- Lower visitation uses encouraged with the industrial area
- Potential use as a business precinct instead of industrial/retail uses (limited success of previous commercial office/business premises within the precinct also noted)
- Eastern side of Roseberry Street should be used for local retail, light industrial, commercial or non/low-visitation uses.

Built Form
- Ensure a high quality design and built character.
- Investigate opportunities for minimum lot sizes

03 Site Analysis

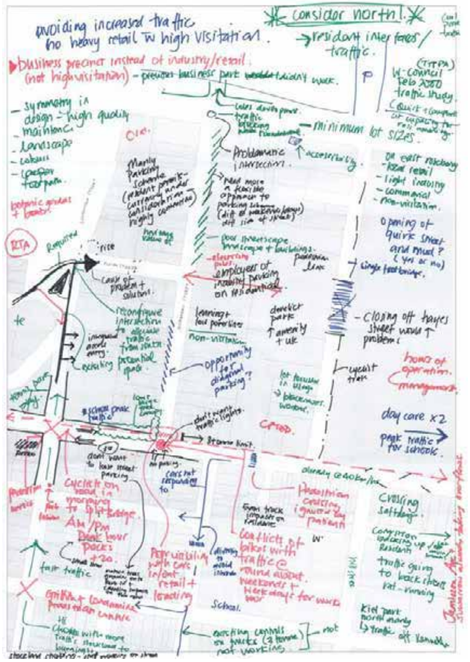


Figure 3.3_ Resident Consultation Summary Sheet

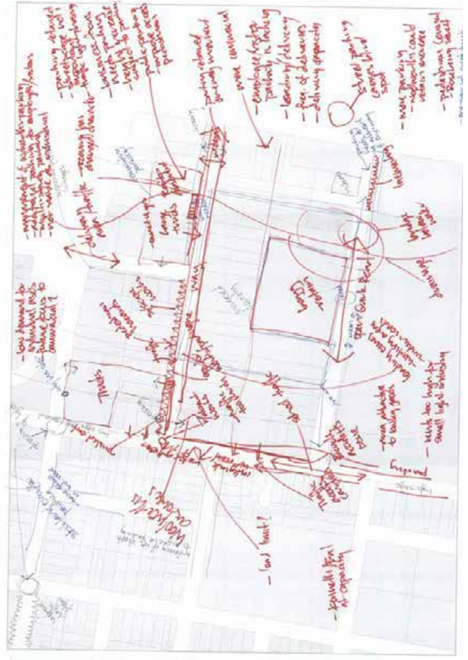


Figure 3.4_ Landowner Consultation Summary Sheet

03 Site Analysis

3.4_Urban Structure and Function

3.4.2_Lot Pattern and Ownership

The existing precinct is characterised predominantly by long narrow allotments, with several larger parcels. The structure of the precinct is defined by the generally grid-like road layout surrounding the precinct.

The precinct is predominantly privately owned. Many of the larger tenants within the precinct occupy a number of allotments, such as Harvey Norman, the approved Bunnings and Woolworths developments and the Manly Council depot. Consequently, many of allotments the precinct have been consolidated by larger scale development, reducing . Council also owns a number of other properties within the south eastern corner of the precinct, which includes the Manly Works depot.

The precinct in its present form comprises a range of land uses with varying floor plates. Whilst some floor plates are large and cover whole lots, there is also substantial areas of hard stand and yard space such as that within the Council depot, off street car parking areas and car sales yards. The current approximate gross floor area for the precinct is 94,598 square metres, excluding recent approvals of Woolworths and Bunnings which are not yet constructed.

3.4.1_Land Use

Based on a land use audit undertaken in 2008, the precinct accommodates around 93 businesses. An assessment of existing land uses has determined a clear separation between retail and industrial land uses. Industrial development is primarily concentrated to the eastern side of Roseberry Street, with retail sales including bulky goods and shops primarily established to the east of Roseberry Street, including land fronting Condamine Street. Some larger commercial properties are established along the western side of Roseberry Street amongst industrial uses.

Two large retail developments; a 3,685sqm Woolworths supermarket, ancillary offices and retail tenancies at 17-31 Roseberry Street, and an 8,060sqm Bunnings hardware and trade centre at 164 Condamine Street have recently been approved within the precinct. These developments represent new large scale redevelopment within the precinct and a change in the land use character of the precinct.

3.5_Built Form & Urban Character

3.5.1_Character

The precinct comprises a variety of industrial and bulky goods uses generally within warehouse and light industrial buildings. The precinct is characterised by a mix of large floor plate bulky goods, small scale retail uses, light industrial units and a number of commercial offices. The existing light industrial zoning allows ancillary development, such as commercial offices, to be established within the zone. Likewise, small scale retail uses have been able to develop as uses which service the daily needs of workers within the preocinct.

3.5.2_Site Coverage

Building form within the precinct is generally larger than surrounding areas, with larger building footprints. The figure ground map below demonstrates building footprints in the precinct as predominantly larger floor plates than development within the area surrounding the precinct

Figure 3.5_Land ownership and structure

Private Land
Council owned Land

Figure 3.6_Existing land use structure

Industrial/Warehouse
Business/Commercial/Retail
Open Space/Recreation

Figure 3.7_Figure ground plan

3.5.3_Building Lines

The Industrial DCP 1991 lists setback controls for development within the Industrial zone. A minimum front setback of 4.5 metres applies across the precinct, with discretion for buildings to extend to the rear and side boundaries where appropriate.

Front building lines vary throughout the precinct reflecting the different street frontages. A generally contiguous building line exists along Roseberry Street south west, Roseberry Street north east, Condamine Street south, Quirk Road north and Kenneth Road. Substantial building line variation occurs along Burnt Bridge Creek Deviation/Condamine Street north, Roseberry Street south east and north west, Balgowlah Road and Quirk Road south.

The existing building setback line map demonstrates that existing development largely complies with the existing 4.5 metre setback requirement. In some cases, development is setback in excess of this requirement.

Figure 3.8_ Existing building setback lines

Figure Ground
Front Building Wall

3.5.4_Height

The Industrial DCP 1991 also sets out height controls for development within the Industrial zone. A maximum height limit of 11 metres is specified, which equates to approximately 3 storeys.

Existing building heights vary across the precinct, ranging from smaller single storey buildings to larger two and three storey light industrial developments. A number of industrial units are single storey units with height up to 11 metres.

Buildings within the precinct are predominantly one or two storeys high, with several larger buildings, primarily within the central portion of the precinct. The precinct interface also provides substantial variation in building height, resulting in a generally inconsistent transition to smaller scale residential land to the south.

Figure 3.9_ Existing building heights

1 storey
2 storey
3 storey

3.6_Natural Systems

3.6.1_Landscape and Topography

The precinct is generally level with a gentle slope north towards Kenneth Road, with the topography rising further north beyond Kenneth Road. The north eastern portion of the precinct is generally flat, however the alignment of Kenneth Road sits above the ground level of the industrial site within this portion of the precinct. The greatest changes in topography occur along the extent of Burnt Bridge Creek to the east and west of the precinct.

3.6.2_Drainage

Stormwater drains from the precinct to existing stormwater infrastructure to the north east. Stormwater drainage is provided along streets within the industrial area.

The precinct is located within the Manly Lagoon floodplain. Burnt Bridge Creek rises in North Balgowlah, and continues under and bisects the northern portion of the industrial area. The creek runs below Condamine Street and the precinct within a constructed concrete tunnel. The tunnel is open between the rear of 26-24 Roseberry Street and Quirk Road, and continues west through the Manly Golf Course into Manly Lagoon.

Figure 3.10_ Landscape character

3.6.3_Vegetation

Scattered street trees are established along Roseberry Street, predominantly to the north beyond Hayes Street. More substantial street trees exist along either side of Balgowlah Road at the southern extent of the precinct adjoining the residential zone. The open space land lies to the east of the precinct within Manly West Park and Manly Golf Course. Limited vegetation surrounds the Burnt Bridge Creek channel within the eastern portion of the precinct.

There is existing vegetation within surrounding areas, particularly west of the precinct along the Burnt Bridge Creek alignment and within the reserve area north west of the Burnt Bridge Creek Deviation. Dense native vegetation is established along the Burnt Bridge Creek alignment to the east and west of the precinct. Dense concentrations of street trees are also observed at Balgowlah Road, Condamine Street south and Quirk Road.

Figure 3.11_ Existing vegetation

3.6.4_Hydrogeological Conditions

The site is underlain by Quaternary alluvial sediments within a narrow alluvial valley along Manly Creek. Hawkesbury Sandstone is found either side of the valley, as a medium to coarse grained sandstone with a relatively thin weathering profile.

Groundwater can be expected to be intersected in excavations as shallow as 1.5 m. In the north west area of the precinct, groundwater has been encountered at depths varying between 1.5 and 4.1 metres below ground level within the unconsolidated sedimentary materials. In the south west, groundwater has been encountered below 4.5 to 6 metres (uniformly 6.1 to 6.4 m AHD). There is some indication that the aquifer may be weakly confined, however it appears to be contiguous through the Quaternary sediments and the underlying weathered sandstone.

The variability of depth to water is a function of a fall in the topography to the north east and different times of the year. Seasonal fluctuation of groundwater levels may be up to 2 metres based on similar hydrogeological environments.

3.6.5_Contamination

No contaminated land is known to exist within the precinct, however previous studies have noted the potential for the near surface alluvial soils to contain significant proportions of pyrite which when exposed to the atmosphere can generate sulphuric acid. In turn, the sulphuric acid can mobilise trace heavy metals which may be toxic to aquatic biota.

Council has an adopted Contamination Policy which is currently under review. An assessment of land in terms of potential contamination needs to be undertaken on a site by site basis.

3.7_Traffic and Access

3.7.1_Access

The primary transit corridor of Burnt Bridge Creek Deviation and Condamine Street is located adjacent to the study area to the west. This transit corridor links the north eastern metropolitan region of Sydney to the core Sydney CBD. Vehicular access to the precinct is primarily from Condamine Street, Kenneth Road, and Balgowlah Road. Roseberry and Hayes Streets link with these roads and provide internal access to development within the precinct.

Land within the precinct on the north east and south east extents are also accessible via Quirk Road which extends from Balgowlah and Kenneth Roads, although its central portion through Manly West Park is closed to traffic. Paton Place is a small cul-de-sac road linking with the north eastern extent of Quirk Road.

Roseberry Street provides the primary spine through the precinct, between Balgowlah Road in the south and Kenneth Road in the north. Both intersections are controlled by roundabouts. Hayes Street also links Roseberry Street with Condamine Street, however does not provide direct access to the Burnt Bridge Creek Deviation.

3.7.2_Car Parking

Car parking is provided throughout the study area within off-street locations in association with existing development. This parking is predominantly in the form of surface parking or roof-top parking, however several basement parking opportunities are provided along Condamine Street and Balgowlah Road east.

On street car parking is provided throughout the industrial precinct in a number of locations along both side of Roseberry and Hayes Streets, as well as along Kenneth Road, Balgowlah Road and Quirk Road.

3.7.3_Public Transport

The precinct is serviced by a number of bus routes to the Sydney CBD, Manly, Brookvale, Dee Why and the Balgowlah town centre. The Burnt Bridge Creek Deviation is a strategic bus corridor, which accommodates a high proportion of bus routes. Several additional bus services run along Condamine Street, Balgowlah Road and Kenneth Road.

Access to bus services is provided along the perimeter of the precinct with bus stops in Balgowlah Road, Condamine Street, Burnt Bridge Creek Deviation and Kenneth Road.

3.7.4_Pedestrian and Cycle Paths

Pedestrian and cycle infrastructure is provided within and around the industrial precinct. Shared pedestrian and cycle routes are provided along Balgowlah Road and along Quirk Street north. These routes also link with surrounding land to the west and east respectively.

Pedestrian paths are provided throughout the industrial precinct, primarily along the interface with perimeter roads (Condamine Street, Balgowlah Road and Kenneth Road) and Roseberry Street. There are gaps in the pedestrian path link, particularly along Kenneth Road and Quirk Road, as well as lack of pedestrian facilities along Hayes Street.

An existing pedestrian crossing exists along Balgowlah Road, midway along the precinct, however there are no pedestrian crossings within the precinct.

Figure 3.12_ Driveways

Property Driveways

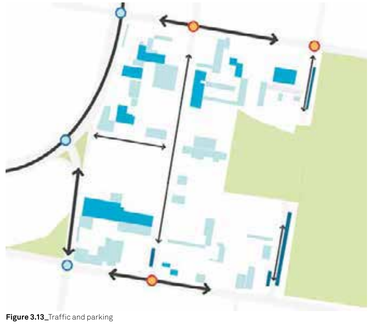


Figure 3.13_ Traffic and parking

Basement/Rooftop
Surface parking
Defined Street parking bay
Round-about
Traffic Lights
Movement

Figure 3.14_ Public transport and pedestrian movement

Bus Route
Pedestrian Path
Shared Cycle/Pedestrian path
Bus Stop

3.8_Heritage

There are no heritage items or conservation areas within the industrial precinct.

Street trees along Balgowlah Road between Condamine Street and Harland Road are identified as heritage items. The street tree plantings along Balgowlah Road in this area represent important streetscape elements and define the character of the street and surrounding context.

3.9_Views

Views within the site are minimal given the generally flat topography of the site and established industrial character. Strong view corridors are established along the primary internal streets of the precinct. A number of properties within the precinct extend above two storeys, and provide opportunities for views across the precinct and surrounding open space elements.

Views exist across the precinct from lands to the north east, which represent the highest point of the immediate area. Residential properties to the north east along Kenneth Road and Quirk Road haveviews over the precinct and to Manly West Park and Manly Golf Course.

The location of Manly West Park adjacent to the industrial area provides opportunity to exploit an underutilised visual link to Manly West Park and Manly Golf Course beyond. The alignment of this corridor with Hayes Street represents a significant opportunity to improve views to open space from within the precinct.

Figure 3.15_ Heritage conservation areas and items

Heritage Streetscape/Trees

Figure 3.16_ Key view locations

View direction

_04

4.1_Constraints and Opportunities Analysis

Analysis of the study area reveals a number of constraints and opportunities for future development and use of the precinct. A number of key outcomes have been identified for consideration in the master plan.

The primary issues identified for future development include:

Re-configuration of the Condamine Street / Hayes Street Intersection

The re-configuration of the Condamine Street /Hayes Street intersection provides substantial opportunity to improve traffic flow in and out of the precinct, and reduce vehicle pressure at the intersections of Balgowlah Road / Roseberry Street and Kenneth Road / Roseberry Street. This would also allow more efficient access for heavy vehicles.

The re-configuration could also assist with traffic flow through the site along a loop between via Hayes Street, Roseberry Street and Kenneth Road. This allows vehicles, particularly for heavy vehicles, to flow through the site in a one-way movement.

Gateway entry at Hayes Street

The location of Hayes Street at the centre of the precinct and its connection the primary regional transit corridor, presents an opportunity to establish a gateway entry to the precinct, which can include a strong visual link through to Manly West Park. The existing width of the Hayes Street corridor creates the potential to establish sealed pedestrian paths along both sides of the street and landscaping to soften the building walls and add visual interest. Refer to Figure 4.1.

_Quirk Road

Quirk Road is closed in its central portion adjacent to Manly West Park, with only a shared pedestrian and cycle path provided along the closed section of the road. This shared movement corridor should be recognised as an important regional link in any vision for the precinct, with this linkage retained and enhanced in the future.

In addition, traffic analysis has revealed that opening of Quirk Road to two-way traffic movement could assist in improving traffic flow and function within the precinct and surrounding area (see discussion within Appendix A). Consequently, there is an opportunity to open Quirk Road for its entire extent through the precinct.

Streetscape and Public Domain

The streetscape quality within the existing industrial precinct is considered generally poor due to a lack of quality landscaping, poor building articulation and lack of activity at the street level (see Figure 4.2). In addition, many industrial activities are exposed to the street, which further detract from the visual integrity of the streetscape. This poor streetscape quality has a significant impact upon the vitality and viability of the precinct overall, not helped by a number of vacant properties and older buildings within the precinct.

The public domain represents an important framework for the precinct. In particular, an improved public domain would assist in creating an improved streetscape character, and encourage vitality and improve the quality of the industrial precinct through the renewal of existing land.

A potential open space link is identified between Roseberry Street and Manly West park (see Figure 4.5). At present this land is used for business purposes, however it is considered that this land should be identified as a future link. This is a long term outcome which should be considered in any future development of the land.

Access control to properties along Condamine Street and Balgowlah Road

A significant number of driveways are identified along Condamine Street and Balgowlah Road which represent a safety concern through the potential to cause traffic conflicts as well as causing disruption to traffic flow along this arterial road corridor (see Figure 4.2). An opportunity exists for restriction of new access points along these street frontages to reduce future potential for traffic conflicts. Methods to consolidate access points into shared arrangements could also be investigated in the redevelopment of existing properties.

Neighbourhood Centre at Roseberry Street south

Several neighbourhood shops and service retail uses are established at the Roseberry Street / Balgowlah Road intersection. These businesses serve the daily needs of the industrial area as well as adjacent residential properties. An opportunity exists to promote this existing node as a 'neighbourhood centre'. Future growth of the precinct should have regard to retaining and promoting this node as an important service retail location. The future zoning controls applied to this land should preserve this opportunity through ensuring permissibility of neighbourhood shops and/or similar uses.

Improved pedestrian linkages

At present, the pedestrian network throughout the precinct is fragmented and in poor condition (see Figure 4.3). This results in a disjointed pedestrian network and compromised pedestrian safety that discourages movement through the precinct and its surrounds. There is an opportunity to improve the pedestrian network within the precinct as part of overall streetscape improvements, which will encourage greater pedestrian movements throughout the precinct. This would also improve through links from residential areas adjacent.

Improved Built Form

The precinct contains older building stock which presents poorly articulated long blank walls to the street (see Figure 4.4). This results in a poor streetscape. Future development within the precinct should be encouraged to provide articulated building forms which contribute to an activated street frontage, particularly along Roseberry Street and Condamine Street interfaces.

Figure 4.1_
Condamine Street Intersection

Figure 4.2_
Condamine Street access points

Figure 4.3_
Lack of pedestrian paths

Figure 4.4_
Older building stock

Woolworths
Approved development will provide a supermarket, retail shops and parking, including a number of public parking spaces accessible for visitors to the precinct.

Gateway Entry
Hayes Street presents an opportunity to establish a primary entry to the precinct supported by streetscape works.

Re-configured Intersection
Re-configuration of Hayes Street/ Condamine Street intersection would permit improve vehicle access to the precinct through a more efficient access arrangement. (Note: subject to RTA discussion and negotiation)

B6 Enterprise Corridor Zone
Application of a B6 Enterprise zoning to the western half of the precinct, consistent with the Strategic Planning work undertaken by Council to date.

Access Control
Driveways to properties along Condamine Street should be minimised by encouraging shared vehicle access arrangements (Future DCP control).

Bunnings
Approved development will occupy the majority of the south western corner of the precinct, including on-site parking.

Opportunity Site
Existing smaller retail shops provide the opportunity to establish a local 'neighbourhood centre' serving the needs of the adjoining residents and workers.

Potential Gateway
Potential alternative gateway entry from Kenneth Road.

Quirk Road North Roundabout
Retention of Quirk Road/Kenneth Road roundabout as an important traffic management measure.

Streetscape Works
Streetscape character along Roseberry Street can be significantly upgraded to improve streetscape character (see Section 5).

IN2 Light Industry Zone
Application of a IN1 Light Industry zoning to the eastern half of the precinct, consistent with the Strategic Planning work undertaken by Council to date.

Future Open Space Link
Establish an open space link between Roseberry Street and Manly West Park to encourage increased use of the park (Future DCP consideration).

Improved Linkage
The existing pedestrian link between Quirk Road north and south should be retained to provide an important cycle and pedestrian movement corridor. Also represents a potential road opening.

Balgowlah Road/Roseberry Street
Potential safety issues for cyclists and pedestrians. Opportunity to improve safety through introduction of pedestrian crossing opportunities, and elements to discourage high traffic movements to Balgowlah Road.

Access Control
Driveways to properties along Balgowlah Road should be minimised by encouraging shared access arrangements.

Quirk Road Traffic Management
Introduction of a new single lane roundabout could assist with managing traffic flow along Balgowlah Road.

Figure 4.5_Constraints and Opportunities Analysis

4.2_Preliminary Master Plan Options

Option 1 - Base Option

Option 1 represents the 'status quo' or base scenario, with the existing structure of the precinct in terms of traffic function and movement retained in its present form. The traffic flow and movement is unchanged throughout the precinct, with gateways proposed at the primary vehicle access points to delineate the primary access/egress points to the precinct. The land use zoning for the precinct is based on the previous strategic planning work undertaken by Council and proposes a B6 Enterprise Corridor zone to the western portion, and an IN2 Light Industry zone to the east.

Features

Retain the existing road network configuration within and surrounding the precinct.
Enhance 'gateways' at Roseberry Street north, Roseberry Street south and Hayes Street, including landscape works and raised pedestrian platform.
Promote a 'neighbourhood centre' at Roseberry Street south incorporating existing service retail uses
Undertake streetscape and public domain works including under-grounding of electricity services, upgraded pedestrian and cycle paths, on-street parking areas and street trees.
Retain existing pedestrian crossing at Balgowlah Road and add new pedestrian crossing at Kenneth Road.
Implement a B6 Enterprise Corridor to the western portion, and an IN2 Light Industry zone to the east

Option 2 - Re-configured Condamine Street intersection

Option 2 represents an amended road structure, with a reconfiguration of the Condamine/Hayes Street intersection. Traffic is encouraged to enter and exit the precinct along Hayes Street and Roseberry Street north, with movements to Roseberry Street south discouraged. Primary precinct 'gateways' are proposed at Hayes Street and Roseberry Street north to delineate the primary access points with a secondary gateway proposed at Roseberry Street south.

Features

Re-configure intersection at Condamine Street to allow north and south-bound traffic to access the precinct to Burnt Bridge Creek Deviation via Hayes Street and to permit north and south bound egress from the site to Burnt Bridge Creek Deviation.
Create primary 'gateway entry' at Hayes Street and Roseberry Street north including landscaping, pedestrian footpaths and raised pedestrian platform.
Widen Roseberry Street south to 12.8 metres to improve traffic function.
Promote a 'neighbourhood centre' at Roseberry Street south incorporating existing service retail uses
Undertake streetscape and public domain works including under-grounding of electricity services, upgraded pedestrian and cycle paths, on-street parking areas and street trees.
Retain existing pedestrian crossing at Balgowlah Road and add new pedestrian crossing at Kenneth Road.
Add new raised pedestrian platforms at Hayes Street, Roseberry Street north and Roseberry Street south, to serve as traffic calming devices and pedestrian crossing opportunities.
Retain on-street parking along Roseberry Street, including 90° angle parking at Roseberry Street south.
Implement a B6 Enterprise Corridor to the western portion, and an IN2 Light Industry zone to the east

Option 3 - Roseberry Street one-way

Option 3 proposes to open Quirk Road between Balgowlah and Kenneth Road with two-way movement and retain Roseberry Street as a 9.7 metre carriageway while restricting to one-way movement (north to south). The existing Condamine Street intersection would be retained in its current configuration. The intention of this option is to reduce the traffic flow along Balgowlah, Kenneth and Roseberry Streets by opening Quirk Road. The option also seeks to reduce traffic conflicts along the Roseberry Street corridor by retaining the existing carriageway width and limit movement in a one way direction.

Features

Open Quirk Road as two way road between Kenneth Road and Balgowlah Road
Enhance primary 'gateway entry' at Hayes Street and Roseberry Street north including landscaping, pedestrian footpaths and raised pedestrian platform..
Retain Roseberry Street south as a 9.7 metre carriageway with one-way traffic movement.
Promote a 'neighbourhood centre' at Roseberry Street south incorporating existing service retail uses
Undertake streetscape and public domain works including under-grounding of electricity services, upgraded pedestrian and cycle paths, on-street parking areas and street trees.
Retain existing pedestrian crossing at Balgowlah Road and add new pedestrian crossing at Kenneth Road.
Add new raised pedestrian platforms at Hayes Street, Roseberry Street north and Roseberry Street south, with the intention to serve as traffic calming devices and pedestrian crossing opportunities.
Retain on-street parking along Roseberry Street, including 90° angle parking at Roseberry Street south.
Implement a B6 Enterprise Corridor zone to the western portion, and an IN2 Light Industry zone to the east
Introduce a new roundabout at Quirk/Balgowlah Road intersection.

Option 4 – Roseberry Street and Quirk Road two way

Option 4 builds on the road structure of Option 3, by proposing the widening of Roseberry Street and retaining two way traffic movement. This option also seeks to reduce the traffic flow along Balgowlah, Kenneth and Roseberry through the opening Quirk Road. Widening Roseberry Street south allows two way traffic movement to function without conflict with on-street parking. The existing Condamine Street intersection would be retained in its existing configuration.

Features

Open Quirk Road as two way road between Kenneth Road and Balgowlah Road.
Construct new road bridge over Burnt Bridge Creek at Quirk Road north.
Widen Roseberry Street south to 12.8 metres to improve traffic function.
Introduce a new roundabout at Quirk/Balgowlah Road.
Enhance primary 'gateway entry' at Hayes Street and Roseberry Street north including landscaping, pedestrian footpaths and raised pedestrian platform.
Promote a 'neighbourhood centre' at Roseberry Street south incorporating existing service retail uses
Undertake streetscape and public domain works including under-grounding of electricity services, upgraded pedestrian and cycle paths, on-street parking areas and street trees.
Retain existing pedestrian crossing at Balgowlah Road and new pedestrian crossing at Kenneth Road.
Add new raised pedestrian platforms at Hayes Street, Roseberry Street north and Roseberry Street south, with the intention to serve as traffic calming devices and pedestrian crossing opportunities.
Retain on-street parking provisions along full extent Roseberry Street, including 90° angle parking at Roseberry Street south.
Implement a B6 Enterprise Corridor to the western portion, and an IN2 Light Industry zone to the east

4.3_Proposed Land Use Zoning

The master plan options propose to introduce both a B6 Enterprise Corridor zone ("B6 zone") and IN2 Light Industry zone ("IN2 zone") across the precinct. This land use structure has been informed by the *Manly Zone 4 Industrial Strategic Review* ("the Strategic Review") prepared in 2009.

The Strategic Review determined a preferred future zoning outcome which sought to ensure appropriate future development opportunities within the precinct whilst ensuring the Manly LGA met the required employment targets under the Metropolitan Strategy. The zoning proposed by the master plan is based on the recommendations of the Strategic Review.

Council are now preparing a new comprehensive Local Environmental Plan ("LEP") which will update the land use zoning across the Manly LGA.

Table 4.1 provides a proposed land use zoning table for both the B6 Enterprise Corridor zone and the IN2 Light Industry zone, which are proposed for the precinct under this master plan. The table outlines the proposed objectives and those uses which are either permissible with consent or prohibited in each zone. Permissible land uses shown in each zone are proposed based on preferred future land uses within each zone, as well as within the study precinct.

The details within the table below are under consideration by Manly Council in drafting of the new Manly Local Environmental Plan 2011, however provide a preferred basis of land use control under Council's future planning framework.

Table 4.1_Proposed Land Use Table

Zone	Objectives	Permissible Uses	Prohibited Uses
B6 Enterprise Zone	_To promote businesses along main roads and to encourage a mix of compatible uses. _To provide a range of employment uses (including business, office, retail and light industrial uses) and residential uses (but only as part of a mixed use development). _To maintain the economic strength of centres by limiting retailing activity.	Amusement centres; Bulky goods premises; Business premises; Community facilities; Drainage; Environmental facilities; Environmental protection works; Flood mitigation works; Helipad; Home business; Home occupations; Hotel or motel accommodation; Industrial retail outlets; Kiosks; Landscape and garden supplies; Light industries; Markets; Mortuaries; Neighbourhood shops; Office premises; Passenger transport facilities; Public administration building; Recreation facilities (indoor); Restaurants; Restricted premises; Roads; Signage; Service stations; Sex services premises; Shops; Take away food & drink premises; Timber and building supplies; Vehicle sales or hire premises; Warehouse or distribution centres; Water recycling facilities; Water supply systems; Wholesale supplies.	Sewage treatment plants; Water treatment facilities; Any development not specified as permitted
IN2 Light Industry Zone	_To provide a wide range of light industrial, warehouse and related land uses. _To encourage employment opportunities and to support the viability of centres. _To minimise any adverse effect of industry on other land uses. _To enable other land uses that provide facilities or services to meet the day to day needs of workers in the area. _To encourage the provision of industrial activities by permitting specific office and subsidiary activities in association with the primary industrial use. _To maintain economic strength and diversity by limiting large scale industrial activity.	Agricultural produce industries; Boat repair facilities; Depots; Flood mitigation works; Freight transport facilities; Helipad; Industrial retail outlets; Kiosks; Landscape and garden supplies; Light industries; Neighbourhood shops; Research stations; Restricted premises; Roads; Service stations; Sex services premises; Storage premises; Take away food and drink premises; Tank based aquaculture; Timber and building supplies; Transport depots; Truck depots; Vehicle body repair workshops; Vehicle repair stations; Vehicle sales or hire premises; Warehouse or distribution centres; Waste or resource management facilities; Water recycling facilities; Water supply systems; Wholesale supplies.	Bulky goods premises; Hazardous industries; Hazardous storage establishments; Heavy industries; Liquid fuel depots; Offensive industries; Offensive storage establishments; Sewage treatment plants; Any development not specified as permited

4.4_Option Assessment

4.4.1_Assessment Matrix

In order to fully assess the viability and effectiveness of each option, an assessment matrix was established to review the performance of each option against a series of key criteria. The purpose of the matrix is to test the four options to determine the suitability of the concepts proposed under each option.

The key criteria used represent the primary issues identified in the study area and through the consultation and analysis processes. The criteria selected form the primary considerations in achieving an improved vehicular function within and surrounding the industrial area, improved safety, revitalisation of the precinct and sound land use structure.

The matrix ranks each option against the criteria, scoring higher for better outcomes or lower for unacceptable or poor outcomes.

Control	Maximum	Option 1	Option 2	Option 3	Option 4
Traffic					
Improves traffic function within the precinct	5	3	3	1	4
Assists in improving traffic function of the surrounding network	5	3	4	4	4
Does not exceed capacity of the road network	5	3	1	4	4
Allows improved function for heavy vehicle movements	5	3	4	3	4
Reduces existing traffic conflicts within internal road network	5	3	4	4	4
Encourages reduced traffic along Roseberry Street	5	3	4	3	4
Improves on-street parking function	5	3	3	5	3
Provides potential to absorb traffic resulting from anticipated future growth	5	3	4	3	4
Traffic & Parking Subtotal	40	24	27	27	31
Public Domain					
Streetscape appearance is improved	5	4	4	3	4
Pedestrian safety and amenity is improved	5	3	4	3	4
Surrounding residential amenity is not compromised	5	3	4	2	3
Encourages easier pedestrian movements	5	5	5	5	5
Public Domain Subtotal	20	15	17	13	16
Timing & Works					
Total development costs are minimised	5	4	4	3	1
Able to be developed in the next 3-5 years	5	4	2	4	2
Business interruption, relocation and temporary accommodation costs are minimal.	5	4	4	3	4
Timing & Works Subtotal	15	12	10	10	7
Total	**75**	**51**	**54**	**50**	**54**
Score		**68%**	**72%**	**67%**	**72%**

Manly Industrial Master Plan

04 Master Plan Options

4.4.2_Discussion

The final master plan is based on the analysis of the site and consideration of effective future structure and function. The master plan is based on five key themes;
- enhanced road structure;
- improved land use structure;
- integrated pedestrian network;
- improved public domain; and
- built form.

Option 1

Represents the base case scenario and is considered to perform poorly in terms of overall traffic movement, function and safety. Introduction of measures to improve pedestrian function and safety assist in improving pedestrian amenity, and streetscape works will also improve visual integrity of the precinct.

Option 2

Provides an amended intersection layout which encourages improved internal and external traffic function surrounding the industrial precinct. This allows all traffic to enter and exit the precinct through a new Hayes Street gateway. However, the amended intersection results in a significantly higher traffic capacity along Hayes Street and Condamine Street. This is likely to result in an unacceptable traffic capacity over and above the capacity of the road network. The option is adequate in terms of costs for Council, however would require substantial negotiation and discussion with the RTA to be implemented which may prolong timing of new traffic arrangements.

Option 3

While this option reduces potential for internal truck and vehicle conflicts, overall it results in the lowest score for improvements to internal traffic function given that one-way movement along Roseberry Street would result in higher traffic conflicts at intersections, particularly at Balgowlah Road, and reduces the flow of traffic along the primary internal spine of the precinct.

Option 4

Ranks highest in terms of traffic and parking function given that opening Quirk Road two-way would reduce pressure on Roseberry Street as well as the Roseberry Street /Balgowlah Road intersection and Condamine Street / Balgowlah Road intersection. However, the option ranks the lowest in terms of timing and works given the substantial capital and works required to open and upgrade Quirk Road and the difficulty in achieving this in the short term.

4.4.3_Summary

In summary, Options 2 and 4 rank highest, while Option 3 ranks fourth, which is a lower score than the 'base case' scenario (Option 1).

Option 2 ranks consistently high under all three criteria, however Option 4 scores much lower that the other three in terms of timing and works. The lower score is a result of the higher works and costs involved with opening Quirk Road and does not necessarily reflect this concept as being the weakest option to implement.

Option 2 requires substantial investigation and discussions with the RTA and would subsequently result in large scale intersection works, with the cost to be borne by the RTA. Option 4 would involve large scale roadworks to Quirk Road, including bridgeworks, to be borne by Council. Implementation of the major road infrastructure upgrades under either Option 2 or 4 would most likely take several years.

The base case scenario demonstrates that the existing street network configuration is unsustainable. It can be determined from the assessment that the combination of the opening of Quirk Road as a two-way street and retaining Roseberry Street as a widened two-way street has considerable benefits for traffic function within the industrial precinct. It also allows opportunities to reduce capacity along Balgowlah Road and key intersections with Roseberry Street and Condamine Street.

However, opening of Quirk Road presents potential amenity and safety impacts to future use of Manly West Park. This would result in the park being constrained between blank industrial building walls and a highly trafficked street. This would reduce the effectiveness of the park linkage and reduce the use and function of the park. Manly West Park also functions as a detention basin for the precinct in flood events. Introduction of a new road on the edge of the park will have implications on the movement and collection of flood waters in such events.

Detailed traffic modelling based on the future traffic generated by new bulky goods developments determines that an amended Condamine Street and Hayes Street intersection layout would result in saturation of the intersection leading to an unacceptable capacity within the existing network. Notwithstanding this, the benefits of an amended intersection are considered to be worthy of additional future investigation.

Under all four options, provision of a consolidated pedestrian network and raised platforms would result in a safer and more functional pedestrian network. The addition of new street tree plantings and general streetscape works would also improve streetscape appearance and public domain, and are achievable in the short term.

The timing and cost aspect represent the greatest challenges for implementation, and this is reflected in the assessment matrix. Options 2 and 4 which rank highest on traffic and public domain criteria rank the lowest on timing and works criteria. Despite the lower scores, these options are not necessarily weakest in terms of implementation.

4.4.4_Preferred Option

Based on the assessment undertaken of all four options, it is considered that Options 2 and 4 represents the strongest future options for the precinct. These represents the strongest option overall, and importantly, rank highest against key traffic and parking criteria.

Rather than proceed with a single option, it is considered that the master plan should be based on combination of the most effective elements identified through preparation of the four options.

Master Plan

_05

05 Master Plan

5.1_Master Plan

The master plan is based on five key principles; enhanced movement network, improved land use structure, integrated pedestrian network, upgraded public domain and improved built form. These principles are considered to best represent the intended future vision of the industrial precinct.

The options considered in Section 4 have identified measures to achieve an effective future structure and function for the precinct. An assessment of the options against a list of key criteria determined that two options perform highest against the criteria overall. However, each of these options include elements which vary against particular criterion. As such, the master plan has been developed based on the most effective elements of the two highest ranking master plan options.

A number of development applications have recently been approved within the Industrial precinct. These new developments have implications on how the precinct will operate and function in the future, and also present some opportunities for improvements to the precinct.

At its meeting 12 December 2011, Council resolved that the draft Master Plan for Balgowlah Industrial Zone be adopted, subject to the following amendments:

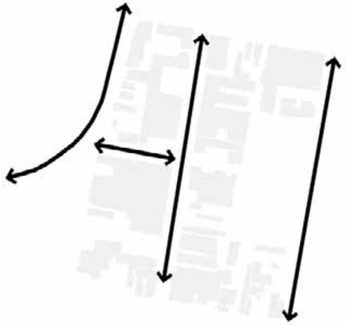
a) Council not give further consideration to the new works connecting Quirk Road between Balgowlah Road and Kenneth Road;
b) the issue of new pedestrian crossing infrastructure and primary or secondary 'gateways' at Roseberry Street (north and south) and in Hayes Street as well as Roseberry Street road widening be referred to the Local Traffic Committee with a view to progressing more detailed design and costing;
c) the recommendations regarding new floor space ratio and height controls be deferred, pending further consultation on land use zoning in the exhibition of the new LEP;
d) other planning controls and guidelines recommended in the master plan be refered to the LEP/DCP Working Group for incorporation into the new DCP;
e) other matters raised in submissions be referred to the Local Traffic Committee for consideration and implementation.
f) Council to write to RMS requesting that a plan for Hayes Street slip lane be developed to provide access into the industrial area.

This masterplan is amended in accordance with Council's resolution.

Figure 5.1_Master Plan

5.2_Master Plan Principles

The final master plan is informed by five key principles which have been identified as part of the analysis and consultation phase and through the formation of master plan options. These key principles assist in establishing the vision for the precinct over the next 5 - 10 years and underpin the development of the final master plan vision.



01_Enhanced Road Network

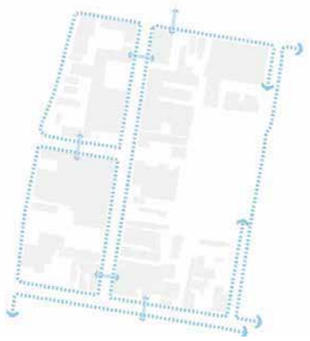
An improved road network underpins the master plan, and seeks to encourage greater efficiency of traffic flow and function along internal and perimeter roads. Key road infrastructure upgrades are identified for detailed future investigation; a re-configuration of the Hayes Street and Condamine Street intersection. These two options are likely to improve traffic flow and function within and around the precinct.

Traffic function entering the precinct will be improved by a new left turn slip lane from Condamine Street into Hayes Street. This was required as a condition of consent for the recently approved Woolworths development. While amendments to the development consent have subsequently deleted this Condition Council has resolved (212/11) to 'write to RMS requesting that a plan for Hayes Street slip lane be developed to provide access into the industrial area'. A new roundabout is also proposed at the intersection of Balgowlah Road and Quirk Road to improve traffic function and safety.

Vehicle movement within the precinct will be improved through widening of the Roseberry Street carriageway to 12.8 metres, which allows parking opportunities along both sides of Roseberry Street to be retained (except for the eastern side north of Hayes Street).

02_Improved Land Use Structure

Land use is proposed to ensure consistency with the Industrial Land Strategic Review completed in 2009, and meet the targets set out by the Sydney Metropolitan Strategy. This results in a B6 Enterprise Corridor zone to the western portion of the precinct, and a IN2 Light Industry zone to the eastern portion. This zoning is recommended and would be achieved through the preparation of the new comprehensive Manly Local Environmental Plan.



03_Pedestrian Movement

An integrated pedestrian network is a key element of the master plan to ensure improved connectivity within the precinct and linkages with the surrounding area. The pedestrian path network is supported by new pedestrian crossing infrastructure at Roseberry Street north and south, Hayes Street and Kenneth Road. These are proposed initially as raised crossings, however will be investigated further for designation as marked crossings.

Manly Industrial Master Plan

05 Master Plan

04_Improved Public Domain

The master plan proposes substantial public domain works within the precinct to improve streetscape character and lead regeneration of the precinct. Provision of a new public domain is considered a catalyst to future renewal and improvement of the precinct, and is critical in the future vision of the precinct.

A longer term opportunity for an open space link between Roseberry Street and Manly West Park has been identified. This is noted for future investigation as part of future detailed planning controls.

05_Built Form

The master plan explores changes to the built form of the precinct to encourage improved building appearance within the precinct. The basis of the changes are derived from previous strategic planning work undertaken by Manly Council.

The Floor Space Ratio ("FSR") may be considered for an increase to 1.5:1 across the eastern and part of the central portion of the precinct. This increased FSR would cover all land to be zoned B6 Enterprise Zone and part of the light industry lands within the central precinct.

Building height within the precinct is proposed to respond to the future FSR identified. Consequently, a height up to 14 metres within the central areas of the precinct may be considered in future recomendations to encourage greater future building articulation. A maximum height of 11 metres could be retained along the residential interfaces of the precinct at Kenneth Road and Balgowlah Road to ensure protection of residential amenity.

In Conclusion, the future FSR and height will be further reviewed through the new Comprehensive LEP.

5.3_Design Elements

5.3.1_Streetscape Strategy

A major component of the master plan involves streetscape within the precinct. Given the variation in uses, built form and function of particular areas within the precinct, a series of streetscape character areas have been identified. These allow a streetscape typology to be prepared to guide future development along all streets within the precinct. Figure 5.2 identifies the streetscape character areas identified within the precinct.

Precinct Gateways

The master plan identifies three precinct 'gateway' points at Hayes Street, Roseberry Street north and Roseberry Street south. The purpose of these gateways is to provide clear delineation of the precinct entry points, and to create a sense of arrival. The gateways are achieved through streetscape works, however are proposed to serve as functional elements in traffic and pedestrian movement in and around the precinct.

Primary Gateways

The purpose of the primary gateway is to encourage the majority of traffic movements into and out of the precinct. Two primary gateways are proposed for the precinct, being Hayes Street and Roseberry Street north. The provision of these two gateways will encourage the majority of traffic movements through the northern portion of the precinct between these two points.

Secondary Gateways

The purpose of the secondary gateway is to identify the interface of the precinct with the surrounding road network, and discourage primary traffic flow. One secondary gateway is proposed, being Roseberry Street south. This treatment is necessary to prevent further traffic increases to the lower order residential street of Balgowlah Road. The gateway design will include a raised crossing and landscape treatment to discourage traffic movements to this intersection.

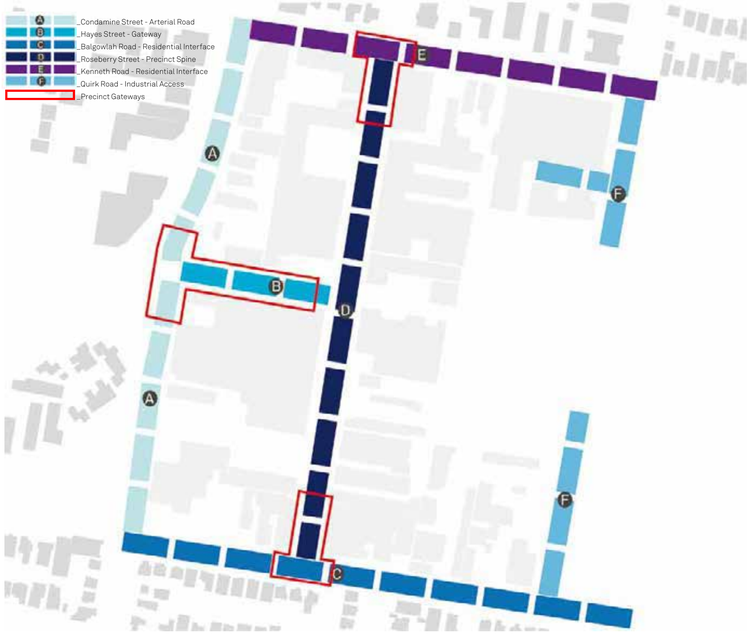


Figure 5.2 - Streetscape Typology Map

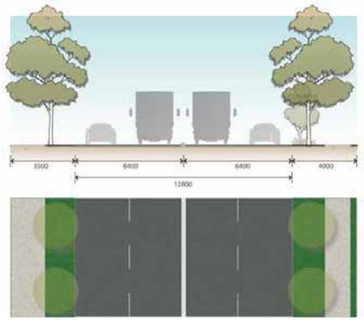
5.3.2_Streetscape Typologies

Perimeter Roads

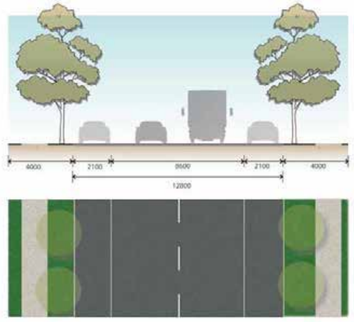
Three roads extend along the perimeter of the precinct in the south (Balgowlah Road), north (Kenneth Road) and west (Condamine Street). Balgowlah Road and Kenneth Road extend east-west and serve predominantly as links between Pittwater Road in the east and Burnt Bridge Creek Deviation/Condamine Street. These two roads also serve primary access to a number of residential localities.

Condamine Street represents an arterial road which extends from Pittwater Road at Brookvale to Balgowlah Heights. Both the Manly Vale and Balgowlah town centres exist along this extent of Condamine Street, with the Burnt Bridge Creek Deviation branching from the Condamine Street alignment adjacent to the existing Manly Industrial area.

As such, the perimeter roads serve a variety of functions, with varying levels of vehicle movements and varied traffic modes. The concept sketches below seek to establish a future typology of these perimeter roads adjacent to the precinct.



Streetscape A
Condamine Street south



Streetscape C
Balgowlah Road East

Streetscape E
Kenneth Road

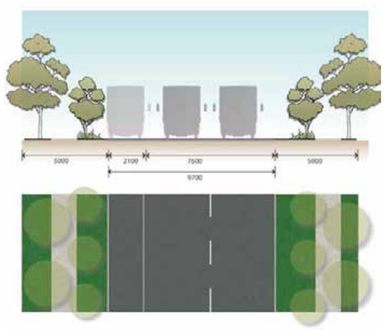
5.3.2_Streetscape Typologies

Internal Roads

The existing precinct includes four internal roads; Roseberry Street, Hayes Street, Quirk Road and Paton Place.

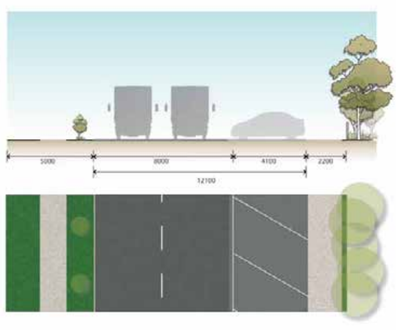
Roseberry Street is primary internal road and extends north-south between Kenneth Road and Balgowlah Road. Hayes Street serves as a connection between Condamine Street and Roseberry Street, and accesses a number of industrial properties. Quirk Road exists as a north-south road, however is closed in its central portion, adjacent to Manly West Park. Paton Place extends from Quirk Road north and serves as an access road to a number of industrial properties.

The internal roads primarily provide property access, however also serve important links between adjacent residential locations to the north and south, with opportunities to improve pedestrian and vehicle links through the site. The concept sketches below seek to establish a future typology of internal roads with an emphasis on improving traffic flow, retaining on-street parking where appropriate and improving pedestrian linkages.



Streetscape B
Hayes Street

Streetscape D
Roseberry Street



Streetscape F
Quirk Road

5.3.3_Land Use Zoning

Manly Council has recently embarked on a process to update the environmental planning instruments applicable to the Manly LGA to accord with the standard template Local Environmental Plan ("LEP") prepared by the NSW Department of Planning. This involves preparation of a new comprehensive LEP for the entire Manly LGA, including the existing industrial precinct.

The Manly Industrial Zone Strategic Review ("the Strategic Review") was prepared in 2009 to inform preliminary investigations into the new LEP. The Strategic Review determined a preferred future zoning outcome which sought to ensure appropriate future development opportunities within the precinct whilst ensuring the Manly LGA met the required employment target under the Metropolitan Strategy. The zoning proposed by the master plan is based on the recommendations of the Strategic Review. See also discussion of proposed land use zoning controls in Section 4.3.

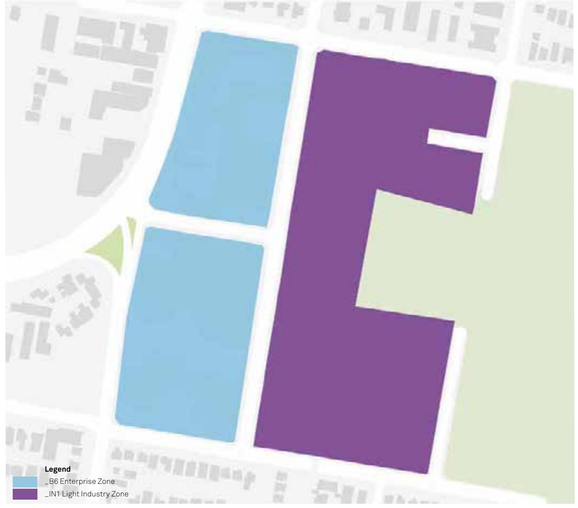


Figure 5.3 - Proposed Land Use Zoning

5.3.6_Car Parking Strategy

Traffic movement and function within the precinct is a vital element of the master plan. Car parking is also important to enure efficient movement and function, and to remove potential conflicts. Recent approvals of larger developments within the precinct will likely have an impact of demand for parking and traffic movements.

On-street parking will be retained along most internal streets, however parking along the northern side of Hayes Street and western side of Roseberry Street north is proposed to be removed in order to improve traffic movement along these streets and reduce conflicts between two-way traffic movement. Roseberry Street south is proposed to be widened, with parking to both sides retained. The approved Woolworths development also includes a new public parking area at the Hayes/Roseberry Street intersection, which will provide a centralised parking area to serve all land within the precinct.

Figure 5.6 - Proposed Car Parking Strategy

5.3.7_Street Setbacks

Street setbacks within the existing Industrial DCP 1991, require a blanket 4.5 metre setback across the entire precinct, including Condamine Street. Side and rear setbacks for the precinct are currently subject to merit assessment of particularly proposals, however allow buildings to be built to the boundary.

The master plan proposes to retain the existing setback controls within the precinct, however increase front setback lines along Condamine Street to 6 metres given the potential increased scale which will be permissible along this interface. Side and rear setbacks are proposed to be reviewed under preparation of a future Development Control Plan applying to the precinct.

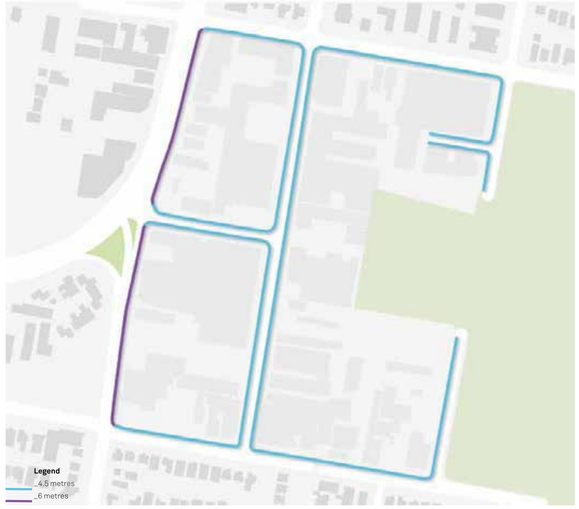


Figure 5.7 - Proposed Building Setbacks

5.3.8_Public Domain and Movement

The public domain represents an important element of the master plan seeks to establish a system of movement through the site which improves existing internal linkages, increases efficiency of pedestrian movements through the site and enhances the use of existing open space elements. The master plan recognises the need to encourage greater pedestrian movement through the site, and to important open space and recreation locations, such as Manly West Park.

The master plan seeks to encourage through movement of vehicles and pedestrians along Roseberry Street and Quirk Road. This allows greater linkages to the site from the surrounding area, and also links the residential lands to the south with service retail uses within the precinct and further north in Manly Vale. Likewise, linkages between lands to the north and services within the precinct are to be improved. The master plan also preserves future opportunities to encourage a visual and physical open space link between Roseberry Street and Manly West Park.

Figure 5.8 - Proposed Public Domain Strategy

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