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1.0 INTRODUCTION

I.I A VISION FOR COOPER STREET

KEY LOCATION FOR FUTURE EMPLOYMENT

The land adjoining Cooper Street has been identified as a key location for future employment purposes. Through preparation of these design guidelines, Council is demonstrating its commitment to the establishment of the Cooper Street Employment Area, as a high quality employment destination. The objective being to provide industrial services, functions and employment to the growing population of the northern suburbs of Melbourne.

The Cooper Street area adjoins one of three major industrial precincts within the Melbourne Metropolitan Area which are of State Significance. (SPPF clause 17.02-3)

LOCATIONAL ADVANTAGES

The major advantages of locating within the Cooper Street precinct include the retail focus of Epping Central as well as the availability of broad acre land and proximity to transport links. Cooper Street is the major East-West arterial link from High Street, Epping to the Hume Highway at Somerton. The Hume Freeway has a full interchange on Cooper Street and funding is committed for a second freeway interchange at O'Herns Road. Incorporation of a transport reservation through the plan area will assist in provision of alternative modes of transport.

PROXIMITY TO EMPLOYEES

The Cooper Street Employment Area is strategically located in relation to existing residential development and projected future residential growth within the northern suburbs of Melbourne. The area will provide for a broad range of employment generating uses. This is based upon the strategic aim to integrate local work opportunities into the growing residential areas of northern Melbourne. The development of the Cooper Street Employment Area will assist in building economic opportunities for the local area, with potential to reduce environmental pollution associated with long travel distances.

SUSTAINABILITY OBJECTIVES

A key feature in preparing the Cooper Street Employment Area Development Plan has been the incorporation of environmental objectives. Subdivisions will be designed to retain areas of environmental significance and to provide a multi-modal transport system through the provision of pedestrian and bicycle links from the Lalor residential area to Pacific Epping and along Edgars Creek. The guidelines for subdivision and built form aim to promote energy efficiency and on-site detention and treatment of stormwater thereby reducing the downstream impact of the development.



Figure 1: High quality and attractive landscaped setback that enhances the appearance of the development.



COOPER STREET EMPLOYMENT AREA DEVELOPMENT PLAN

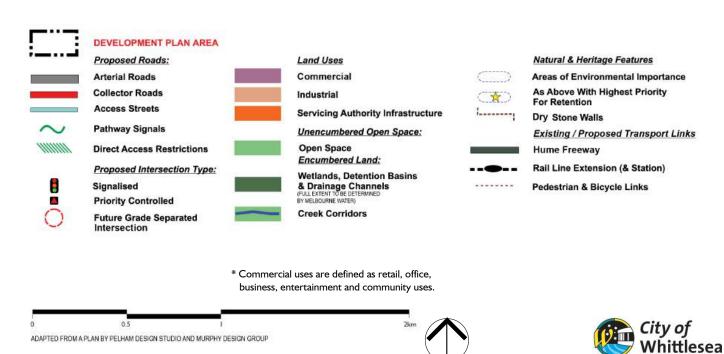


Figure 2: Cooper Street Employment Area Development Plan

1.2 OBJECTIVES OF THE GUIDELINES

Council's overall objective is to encourage the development of quality designed and landscaped industrial and commercial developments that are suitably located. This will help to ensure a co-ordinated design approach that will enhance the investment of those choosing to locate and work within the Cooper Street Employment Area.

The objectives of the guidelines are:

- To guide the design, layout and management of each site in a way that serves to enhance each site and the overall appearance of the Employment Area.
- To provide guidance and assistance to achieve the objectives of the Cooper Street Employment Area Development Plan.
- To protect significant vegetation, habitat areas and stream environments.
- To promote active street frontages through a reduction in front setbacks.
- To provide guidance to applicants on how to achieve a quality development in a contemporary style through the use of simple design techniques.
- To provide a subdivision design which is regular in shape with a north-south/east-west road network to promote solar access and accessibility.
- To provide bicycle and pedestrian links throughout the site and to uses such as Pacific Epping and the Northern Hospital.
- To ensure that the scale and appearance of all proposed buildings and works is consistent with the zone, site location and surrounding land uses.
- To provide an interconnected grid street pattern allowing ease of transport movement.
- To create attractive spaces and show leadership in the public realm through the use of street tree planting and other techniques.
- To allow for adequate vehicular access and on-site car parking for the proposed use.
- To provide high quality and attractive landscape and building setbacks that enhance the appearance of the development.
- To support facilities which serve the daily convenience needs of the workforce of the employment area.
- To establish quality municipal gateways on Cooper Street and O'Herns Road.

1.3 APPLICATION OF THE GUIDELINES

This document is known as the Cooper Street Employment Area Design Guidelines.

The guidelines apply to all land shown on Figure 2 that is the subject of the Cooper Street Employment Area Development Plan Overlay.

It is a requirement of the Schedule to the Comprehensive Development Zone for the Cooper Street Employment Area that the responsible authority must consider the Cooper Street Employment Area Design Guidelines before deciding on an application.

NON-COMPLIANT DEVELOPMENT

Council may refuse a proposal that does not comply with the guidelines, or may seek to modify a non-conforming development by imposing conditions designed to achieve compliance. The onus rests with the applicant, in respect of an application that does not comply with a guideline, to clearly demonstrate:

- a) understanding of the purpose of the guidelines;
- b) that the provisions are inappropriate for a particular proposal and/or development; and
- c) how the proposal will satisfy the objective of the guideline in the event that non-compliance is permitted.

Council will also consider each application on its merits, taking into account the individual circumstance of the development with regard to site attributes, surrounding character and adjoining landuses. More rigorous standards may be required for developments with the potential to have a significant environmental impact.

2.0 SUBDIVISION DESIGN GUIDELINES

2.1 ESTATE AND ROAD LAYOUT

Subdivision design is to cater for the needs of the particular activities sought within the Cooper Street Employment Area. Lot size, lot shape and frontage width, road access, car parking requirements, storage areas and service requirements vary with the intended use, however, subdivision design should:

- Protect and enhance significant existing vegetation, habitat areas and stream environments.
- Encourage estate designs that front onto open space and creek reserves.
- Provide lots with frontage to a road where adjacent to open space areas and creek reserves.
- Be serviced by sealed roads to the main road network, while actively dissuading heavy traffic from entering residential streets in Lalor and Thomastown.
- Incorporate a road hierarchy that will accommodate the anticipated traffic volume and vehicle types, and should be designed to clearly lead from the estate entrance at the major road network to major internal distributors.
- Where possible provide roads on a modified grid as they provide more efficient lots, are often more respectful of the landscape and provide easier orientation for visitors and vehicle manoeuvreability.
- Provide a north-south/east-west road network, as this promotes solar access for buildings.
- Consider whether a separation distance is required between any industrial areas and residential neighbourhoods, by using open space areas or roads.
- Locate substantial perimeter planting and landscaping around the borders of the estate.
- Incorporate stone walls and areas of environmental significance in public open space or large lots to enable their preservation.
- Provide cafes near open space for the lunchtime requirements of workers in larger estate. Public open space or creek frontages should be located close to these areas.

2.2 LOT SHAPE, SIZE AND ORIENTATION

The minimum frontage for an industrial site is 20 metres. This is the minimum effective width to provide on site loading, servicing and vehicle manoeuvring without reversing into the street.

Lot Shape

The design of a subdivision should create lots that are relatively regular in shape, although lot sizes should also be diverse to meet a range of different commercial and industrial uses. These may range from those requiring wide streets frontages and minimum depth to those that require less frontage but a greater depth.

Lot Size

The design of a subdivision should:

- Locate large lots fronting Cooper Street in the order of 9,000 - 12,000sqm, there is also potential to locate larger lots in the order of 20,000sqm to attract major developments.
- Locate lots in the order of 6,000 7000sqm internal to the subdivision to provide for factories and warehouses.
- Locate lots in the order of 12,000 15,000sqm internal to the subdivision to provide for storage and distribution uses.
- Avoid locating smaller lots, which will attract small scale industrial developments, along major roads as these tend to create a cluttered appearance.

Lot Orientation

The design of a subdivision should:

- Create lots that enable buildings to be sited and aligned for solar efficiency. A north-south/east-west road network promotes solar access for buildings.
- Avoid creating views from the Hume Freeway to storage areas and long blank walls.
- Orientate lots to encourage and allow for the design of buildings that face the street. This is to avoid long blank walls dominating the streetscape.



Figure 3: Stone walls incorporated into landscape treatment.

2.3 DESIGN FOR STORMWATER

BACKGROUND

The land within the Cooper Street Employment Area is characterised by an area of low relief. Other than the small scale geological terrain variations such as stony rises, the Cooper Street area is relatively topographically level. The highest points on the site are stony rises of 154m adjacent to the O'Herns Road boundary in the north of the site. Between O'Herns Road and Cooper Street the land falls from 138m to 127m.

The low lying nature of this site means that careful consideration toward stormwater design is required. Any drainage easement required at the front of lots will need to be in addition to the landscaped setback. Design for drainage and stormwater should:

- maximise on-site infiltration by minimising sealed surfaces and the use of pervious/porous surfaces to reduce stormwater runoff.
- retard the flow of stormwater runoff from developed areas and preclude any potential for pollution of stormwater.
- minimise erosion of stream banks and verges.
- preserve floodplain or other land for wetlands and retention basins, so as to filter sediment and wastes from stormwater prior to its discharge into waterways.
- maintain natural drainage function, stream habitat and wildlife corridors and landscape values. Natural drainage corridors and waterways are to be retained as a vegetated buffer zone to the standard required by Melbourne Water (approximately 60 metres).
- be designed for the 1 in 20 year flood which is Councils standard for stormwater drainage.
- have a minor drainage system that prevents ponding for a prolonged period (ie greater than I hour after cessation of rainfall, unless specifically otherwise required) resulting from a stormwater flow of Annual Exceedence Probability of 50 per cent.
- have a minor drainage system designed so that any overflow will be directed to the major drainage system without causing damage to property nor affecting the safety of people.
- be a system that can be economically maintained.
- be designed by a qualified person using recognised hydrologic and hydraulic parametres and design methodology, approved by Melbourne Water and submitted with all applications for subdivision.

Open Space Calculations

Where there is a drainage scheme in place, land that forms part of the scheme will not be included in open space calculations.

Edgars Creek Drainage Scheme

The Cooper Street area contains Edgars Creek. This watercourse and its tributaries provide suitable opportunities for the establishment of drainage facilities in accordance with the Edgars Creek Drainage Scheme. Of increasing importance is the establishment of these facilities in a manner that is both environmentally and economically sustainable.

Implementation of measures outlined in the Edgars Creek Drainage Scheme are to be undertaken including retarding basins, wetlands, pipelines, gross pollutant traps and open channels. Increasingly Melbourne Water, as the authority responsible for main drainage, is favouring the establishment of wetlands systems to control water quality prior to discharge.

Stormwater Quality Control: Current best practice approaches for stormwater treatment consist of a "Treatment Train" of source control, structural control and management of receiving waters. In-transit structural control of pollutants is the main area where the Edgars Creek Drainage Scheme can influence the quality of stormwater leaving the catchment. This phase of the "Treatment Train' is the focus of the siting and sizing of Stormwater Treatment Measures.

Gross Pollutant and Sediment Traps: The Scheme allows for 19 Gross Pollutant Traps (GPTs) and 19 Primary Sediment Traps. These are generally located in combination at the ends of Scheme pipelines before discharging into open water courses or wetlands.

GPTs and Primary Sediment Traps have been allowed for on the downstream ends of drainage scheme pipes, for catchment areas greater than 60ha. Properties which have connections into the waterways but with catchment areas smaller than 60ha, have not had GPT/ sediment traps costed into the Scheme. Any offer of Drainage Conditions for such properties will require the developer to install appropriate GPTs and sediment traps at the developers' cost, as a condition of development.

Wetlands: Sites topographically appropriate for the construction of wetlands are limited within the catchment. In order to provide sufficient wetland area within the Scheme the opportunity to include wetlands within proposed retarding basin foot prints has also been taken. Wetland locations and their required sizes are shown on the Scheme drawings.

Please refer to Melbourne Water's website for further information regarding the Edgars Creek Drainage Scheme.

2.4 CONTAMINATED LAND

Current and previous uses on the land adjoining Cooper Street may have caused the contamination of soil. Land used for extractive industry and subsequently filled or farm land may have been contaminated by chemicals such as fertiliser and pesticides. When considering subdivision applications the responsible authority will require applicants to provide adequate information on the potential contamination of the land and remediation if necessary.

OBJECTIVES

- to provide the framework for integration of land contamination management into the planning and development process; and
- to ensure there is remediation of any land that has been contaminated and is proposed to be used for urban purposes, including for public open space.

Land known or reasonably suspected to be contaminated must be assessed by a qualified environmental consultant. If confirmed, the site is to be remediated in accordance with Environmental Protection Authority Guidelines and an approved Remedial Action Plan. No development may start until remediation works are complete and a validation report is accepted.

The following procedures for contaminated land are required:

- A Preliminary Site Investigation (PSI) is required to establish if a past potentially contaminating activity carried out on the site has in fact contaminated the site (Stage I).
- A full Environmental Site Assessment (ESA) and comprehensive soil sampling program is to be carried out, after removal of existing buildings on the site, if relevant.
- Preparation and submission to Council of a Remedial Action Plan (RAP) based on the findings of the ESA.
- Remediation of the site in accordance with the approved RAP.
- Validation testing during remediation and final validation tests on completion.

2.5 AREAS OF ENVIRONMENTAL SIGNIFICANCE

A detailed environmental assessment is a requirement in the submission of a planning permit for subdivision. Where appropriate the assessment must include specific management recommendations. Developers are encouraged to employ suitably qualified and experienced land rehabilitation, wetlands and grasslands practitioners to undertake this work.

The Cooper Street Employment Lands: Preliminary Vegetation Assessment (Practical Ecology 2001) and the Cooper Street Employment Area Development Plan identify sites of environmental significance on land that was able to be accessed for the study. These areas include grasslands, grassy woodland and stony rises.

Stony rises are a sensitive and valuable environmental resource for their habitat and vegetation values. These areas require a long term commitment to ongoing maintenance and an early intervention prior to construction to manage weeds and control them over the development phase. It is desirable to preserve areas of significance but, more importantly, to ensure that their long term viability and maintenance is catered for in a planned management strategy.

Stony rises will require a different approach to maintenance than other reserves because of the habitat they provide. Some areas will require protection from public access.

2.6 LANDSCAPING

Nature Strips

The developer is to be responsible for the provision of street trees in the nature strip. The nature strip requires a simple dominant treatment that will allow individual developments to be seen and the landscape within the allotments to be developed in a complementary manner.

Street Trees

The species, number and final location of trees will be determined in consultation with Council and are to be in accordance with Council's Street Tree Management Plan.

Clearances

It is critical that road reserve cross sections are of appropriate dimensions to adequately support the trees, with minimal impact on through traffic and abutting properties. Accordingly a minimum nature strip width or planting width should be 3 metres throughout the development area.

Open Space, Drainage Areas and Large Scale Landscaping

In open space areas and drainage reserves there may be an opportunity to retain or establish native grassland areas. The Kangaroo Grass (*Themeda triandra*) is indigenous to the area and generally does not require summer watering. Retarding basins may provide an opportunity to establish wetlands that provide habitat for locally occurring significant species, such as the Growling Grass Frog.



Figure 4: Street trees.



Figure 5: Landscaping within drainage reserve.

2.7 URBAN DESIGN

Treatment of Public Spaces

These guidelines are provided for the treatment of street furniture and paving for public spaces to ensure that future developments are co-ordinated and attractive. The guidelines seek to define a unique and identifiable character for the Cooper Street Employment Area whilst maintaining diversity for the areas containing different land uses.

The use of local basalt, bluestone and timber is reminiscent of the rambling dry stone walls and post and rail fences that characterise the rural landscape of the surrounding areas. The use of steel has relevance to the employment area developing around Cooper Street.

Paving

- Roundabout aprons may be paved with local basalt/ bluestone or with a material that relates to the local basalt, such as exposed aggregate concrete. Avoid brick, segmental pavers and other non-compatible materials. Roundabouts should be designed in accordance with Australian Standard design for truck movements.
- Incorporate pedestrian and bicycle paths wherever possible to connect with the Edgars Creek bicycle path and the Hume Freeway shared path.
- Pedestrian and cycling paths to be concrete constructed in accordance with Council requirements.

Seating and Bollards

- Furniture styles should reflect the location and character of the particular open space area in question. For example 'heavy' timber seating styles will be more appropriate in passive open space areas abutting conservation areas, whereas 'refined' timber or steel slat seating will be more appropriate in active recreation/urban park land areas.
- Utilising timber and local stone as predominant materials, will ensure the subdivision is in keeping with the existing character of the area.
- Incorporate adequate lighting along pathways for pedestrian safety.

Fencing

Suggested fencing styles include the use of:

- basalt walls for signage and entry structures.
- timber post and rail fencing (weathers to grey, which is reminiscent of rural fencing styles.
 Refer to Figures 3, 6.



Figure 6: Timber post and rail fencing in an industrial / commercial context

3.0 DEVELOPMENT GUIDELINES

3.1 SETBACKS AND SITING

OBJECTIVES

- To promote active street frontages through a reduction in front setbacks.
- To provide landscaped building setbacks that enhance the appearance of development.
- To achieve a "boulevard" style entry into the City of Whittlesea and the Cooper Street Employment Area.
- To maintain the attractiveness of the streetscape by locating car parking structures, driveways or open parking areas so they do not visually dominate the frontage of a site.
- To ensure that the siting of buildings provides for adequate separation between buildings for the amenity of the development and adjoining properties.
- To provide a safe environment for after hours access by employees.

Landscaping of Setbacks

All setback areas are to be landscaped to Council's satisfaction and shall be of a low maintenance type using locally indigenous plant species.

No activity such as car parking, storage of materials, garbage and the like is to occur within the setback area, and security fencing when required is to be made visibly unobtrusive by screen planting and located behind the setback area. **Refer to section 3.4 Landscaping.**

GUIDELINES - SETBACKS

Major Roads - Cooper Street and O'Herns Road

Setbacks along Cooper Street, and O'Herns Road are to provide for substantial street tree planting and footpath paving to create a boulevard style gateway entry to the City and the Cooper Street Employment Area.

For industrial developments fronting a main road, (including a service road to Cooper Street), the building setback is to include a 6 metre fully landscaped area. No other development will be permitted within this landscape area.

Other Streets

For industrial developments fronting a minor road, the building setback is to include a 4.5 metre fully landscaped area. No other development will be permitted within this landscape area.

Side Boundaries

To optimise the developable area, zero lot lines or building to the boundary will be considered by Council.

Corner Sites

For corner sites not fronting main roads, the minimum setbacks from the side street should be 4 metres for the building. This includes a 3 metre wide landscape strip.





Figures 7,8: Landscaped setbacks to buildings with interesting facades.

GUIDELINES - SITING

Landscaping

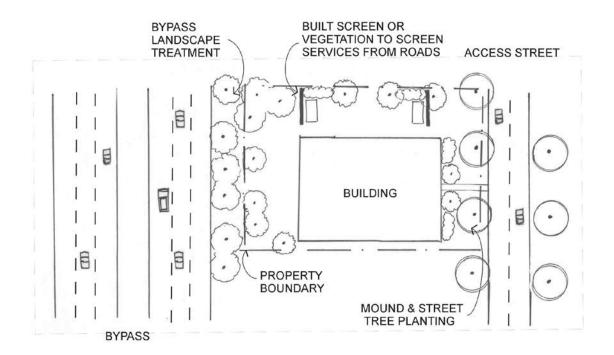
The siting of buildings is to spatially define the street and provide opportunities for landscape planting in order to improve the visual quality of the streetscape. Refer to Figures 8 and 9.

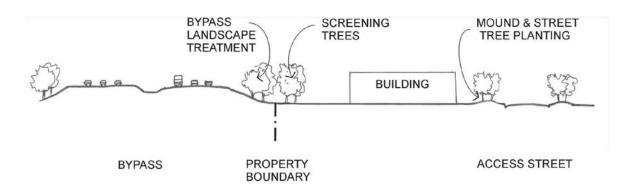
Open Space Interfaces

Incorporate buildings that front, rather than back, onto abutting public open space reserves, creeks and floodways.

Lots Adjoining the Hume Freeway

Development on lots adjoining the Hume Freeway are to be designed so that the view from the freeway is not of storage, garbage or other unsightly areas. These uses are to be located to the side of the building and screened from view. The rear of lots adjoining the Hume Freeway is to be treated with mounding and landscaped. Refer to Figures 10 and 11 for treatment of lots adjoining the freeway.





Figures 9,10: Landscaping treatment, screening and buildings siting for lots adjoining the Craigieburn Bypass

3.2 BUILT FORM

OBJECTIVES

- To encourage a high visual standard and quality of industrial and commercial development particularly on frontages to roads such as Cooper Street, O'Herns Road and Edgars Road, which are gateways to the City of Whittlesea.
- To minimise the impact of the appearance of industrial buildings on the surrounding rural and residential areas and areas of environmental significance.
- To achieve active and vibrant street frontages through the relationship between landscaping, building design and setbacks. Reducing setbacks, encouraging landscaping in the frontage and providing buildings that incorporate interesting facades will create pedestrian friendly streets.
- To achieve both functional and visually attractive buildings with a high standard of design.
- To maintain the functional integrity of the area as employment generating industrial and commercial development in form and character.=
- To reduce the impact of development on the amenity of adjoining residential areas.
- To ensure that buildings are designed to minimise embodied energy and operational energy consumption, in order to reduce lifetime greenhouse gas emissions from the development.



Figures II: High quality facade treatment.

GUIDELINES

High Profile Locations

Buildings along Cooper Street and O'Herns Road and at gateway locations should contribute to the urban design importance of the location by:

- Demonstrating excellence of design and attention to construction quality which is commensurate with the location along an entry point to the City of Whittlesea and which clearly distinguishes the Cooper Street Employment Area from industrial developments through their architectural style.
- Fronting onto Cooper Street or O'Herns Road to maintain visual interest, encourage street activity and to enhance public safety for pedestrians and cyclists.
- Incorporating landscaping that complements the landscape design of any public space at the gateway location.
- Locating and designing appropriate promotional and identification signs in these locations.
- Not incorporating large promotional signs, which are considered inappropriate in gateway locations.
- Ensure that new buildings are in scale with the dominant pattern of the adjacent buildings with respect to massing and built form.
- Matching the dominant setback from the road frontage.

Building Form

Industrial buildings, whether single purpose or multi-unit complexes, should comprise two functional elements: an office/display component, which is usually a public access zone; and an industrial/storage activity area which is a private zone.

The design of the office component is to identify it as the focal point of the development when viewed from the street, with clear definition of entry points for staff and visitors which are linked to car parking areas and pedestrian paths.

Office areas are to be located away from intrusive noise sources such as heavy machinery, loading docks, industrial equipment and sources of dust, vibration, heat, fumes, smells or other nuisances.

Council will take into consideration the potential impact from the scale of a proposal including its effects on vehicle manoeuvres, loading and unloading and the visual impact of the building on the streetscape and as viewed from a distance.

Building facades

Building facades of industrial development are to be of a simple contemporary architectural style, tidy and reflect an industrial character. Refer to Figure 13 and 14.

Building facades of office developments are to be modulated and articulated, which may include architecturally expressing structural elements of the building.

The impact of the size of the development when viewed from the street is to be reduced by avoiding bulky roof forms or extensive blank facades in a single material/colour.

Entrances

Architectural features are to be used to emphasise entrances and improve the way buildings address the primary street frontage. Refer to Figure 14.

Corner Sites

Corner site developments are to address both street frontages with articulated, quality facade treatments.



Figure 12: Visual impact of walls reduced by architectural treatment, landscaping and use of colour.



Figure 13: Articulated facade in landscaped setting

Treatment of walls

Exposed blank walls on the boundary are to be finished to the same standard as the rest of the building and minimise the potential for graffiti or other vandalism.

The visual impact of large wall expanses is to be reduced in scale by architectural treatment, landscaping and/or the use of colour. Refer to Figures 12,13.

Construction materials

The primary construction materials should be contemporary in nature, robust and of a high quality. Examples could include concrete, metal cladding, glazing, timber, textured or patterned panels and paint finishes. Office buildings should feature high levels of glazing.

Maximise the thermal performance of building envelope materials. Consider the use of recycled and low embodied energy materials.

Glazing

The maximum reflectivity of any glazing is not to exceed 20% to avoid nuisance in the form of glare to occupants of nearby buildings, pedestrians and motorists.

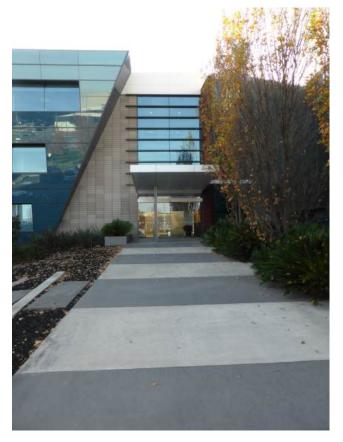


Figure 14: Articulated entry treatment

Roof Design

The roof is to provide visual interest but remain unobtrusive and compatible within an industrial and commercial environment and context.

Rooftop parking

Rooftop parking areas are to be designed to minimise the visual impact when viewed from the street.

Rooftop Structures

All rooftop or exposed structures including lift motor rooms, plant rooms etc, together with air conditioning, satellite dishes, ventilation and exhaust systems, are to be suitably screened and integrated into the building facade to ensure they do not detract from the overall appearance. Parapets can help in screening such services. Refer to Figure 16.



Figure 15: Freestanding structures screened from view.

Natural Lighting

Natural lighting must be incorporated into the roof design for large span buildings.

Exterior Elements

Exterior elements such as plumbing, heating and ventilation systems are to be integrated into the building and concealed or, in the case of freestanding structures, appropriately screened from view. Refer to figure 15.

Outbuildings

Outbuildings and/or ancillary installations are to be compatible with the design theme established by the primary building on the site.

Amenity

Developments within close proximity to residential areas are to be designed to minimise any adverse effects on the amenity of the residential area by way of overshadowing, overlooking, lighting, glare, dust, noise or fumes.

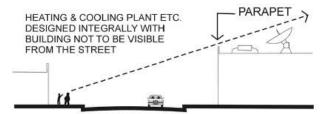


Figure 16: Rooftop structures screened from view



Figure 17: Rooftop structures screened and set back from street.

3.3 ADVERTISING AND SIGNAGE

OBJECTIVE

- To provide informative, orderly, and co-ordinated business identification which avoids clutter, is compatible with the scale and character of the development and locality and does not unduly intrude upon the amenity of adjacent residential or rural properties or public space.
- To provide lighting for site security while preventing light spill beyond the site boundaries.

GUIDELINES

Advertisements and Advertising Structures should:

- Form an integrated part of the building facade, architectural design, and scale of the building. A scheme for site advertisements is to be submitted with all development proposals for major redevelopments and new buildings. Refer to Figure 19.
- Be limited in numbers to avoid cluttering, distraction and unnecessary repetition. Total advertisement area will be dependent on the size of the premises, generally only one (I) wall sign shall be permitted per occupancy.
- In total advertisement area, generally not exceed I2sqm, except where the frontage of the site exceeds 40m in length in which case up to a maximum of 20sqm is permissible.
- Be discreet and suitably located to not intrude upon the local amenity of any adjacent residential property or public open space. No advertisement will be allowed on a building wall abutting or adjacent to a residential dwelling.





Figures 18, 19: Directional and building signage.

Advertising on multi-tenancy industrial buildings will be limited to the following:

- The building/complex name or head tenant identification. Where there is more than one major tenant, a single advertisement incorporating all major tenants is preferred.
- Central registry sign identifying all tenancies on the site. This is to be located at the entrance of the complex and is to be integrated with adjacent buildings and landscaping. A small single identification sign and unit number may be located at the entrance to individual sites.

Recommended signage

- Wall sign
- Central Registry sign

Directional Signage

Each development should provide appropriate directional signage to assist with the movement of pedestrian and vehicular traffic. Directional signage should be of a consistent type and style throughout the development (Refer to Figure 18). In general this signage should explain:

- · Site entries and exits
- · Staff and visitor car parking
- · Goods delivery and pick-up
- Reception /office areas

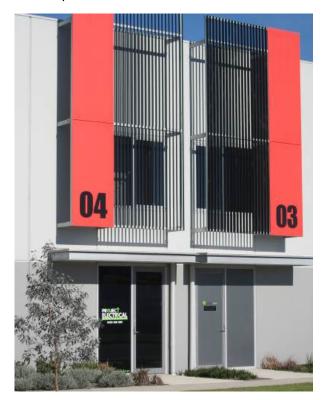


Figure 20: Integrated building signage.

3.4 LANDSCAPING

Council requires that a Landscape Plan accompany the planning permit application that:

- Provides high quality and attractive landscaping, particularly in the front setback, to enhance the setting of buildings in the streetscape.
- Ensures landscaping responds to site attributes such as streetscape character, soil type, microclimate, the natural landform, existing vegetation, views and vistas, as well as local landscape environments (eg. water courses or significant vegetation).
- Requires minimal water and is affordable to maintain in the long term.
- · Complements street tree planting.
- Provides landscaping that enhances the amenity of a development by allowing for adequate open space for employees and providing sunlight and shade.
- Maximises permeable landscaped areas to encourage on-site infiltration of stormwater.

GENERAL GUIDELINES

Species Selection:

Species selection is to favour hardy and drought tolerant planting with an emphasis on Australian native and indigenous species that are appropriate to the location and with low maintenance and low watering requirements. The location and choice of vegetation is to be consistent with the landscape theme for the site, local soil conditions and prevailing weather.

Significant trees:

Significant existing trees are to be preserved except where the applicant demonstrates to Council's satisfaction that special circumstances exist and approvals can be issued.

Setbacks to trees:

Setbacks from existing trees to be retained as part of the development proposal, or as a requirement of Council, shall be from the outside of the canopy of the trees/s so as to protect the root system.

Minimum width:

All landscaped areas must have a minimum width of two metres (planter boxes excluded) to ensure satisfactory group planting, root growth and landscape quality.

Planter Boxes:

All planter boxes are to be integrated into the building structure, provided with automatic watering systems and drained into the building's drainage system. Planter boxes are to have a minimum internal width of 600mm.

Staff Amenity Area:

Communal open space should be designed for staff recreation and informal social interaction and include:

- A private outdoor eating and sitting area for staff is to be provided on each lot. This area is to have a minimum total area of 15 square metres.
- This area should be provided with a BBQ, and be located within a landscaped setting that provides shade in summer.
- Outdoor eating areas are to be located close to indoor dining areas. This will encourage greater use of the outdoors during lunch breaks.

Staff recreation areas are to be located away from intrusive noise sources such as heavy machinery, loading docks, industrial equipment and sources of dust, vibration, heat, fumes, smells or other nuisances.

Amenity Areas associated with Commercial Premises:

Shaded courtyards or plazas with seating and quiet areas should be provided in association with commercial convenience facilities, such as take away food stores.

Landscaping to walls:

Consider using landscaping to screen large walls. This could include vertical supports for creepers and/or providing adjacent landscape areas to support the planting of trees or shrubs of suitable scale.

Substation screening:

Any electrical substation structure associated with the development is to be identified in the landscape plan and visually screened by the landscaping. Landscaping is not to inhibit access required by the utility authority.

Ongoing maintenance:

Applicants seeking a change of use/occupation of existing premises will be responsible for the ongoing maintenance and possible regeneration of existing landscaped areas, beds or planter boxes.

Landscape Bond:

Council will levy a landscape bond to ensure the provision and maintenance of all landscaping required by the planning permit.

The City of Whittlesea Landscape Guidelines for Industrial Developments provide additional information on planting techniques. Please refer to the Building, Planning and Development section of Council's website.

LOCATION SPECIFIC GUIDELINES

Landscaping of Front Setbacks:

A high standard of landscape design is required within the frontage setbacks. The landscape treatment of the front setback will impact upon the appearance of the overall development and the street. Landscaping should be designed to frame the building and improve the streetscape through the following techniques:

- Use the front setback to plant evergreen canopy trees. Clean trunked canopy trees provide a landscape setting but will also enable clear views to the building and associated signage. Select trees that are fast growing, will reach over 5m in height and develop large open crowns when mature. Install semi-advanced canopy trees that are 2m to 4m in height at time of planting.
- Massed plantings of single species are preferred rather than a mixture of various species.
- An aim of the landscaped front setback is for a seamless integration within the landscaped nature strip, therefore separating these areas with fencing is not encouraged.

Landscape buffer to building:

The 2 metre wide building buffer is to be planted with native grasses or understorey species. Refer to Figure 21.

Landscaping to Open Space:

Lots adjoining Edgars Creek, wetland areas and other areas of open space are to incorporate native vegetation in their landscaping to provide a visual and ecological connection between these areas.

Corner Sites:

Where sites have dual street frontages, landscaping is to be provided in both setbacks.

Rear setbacks:

Landscaping is to be provided in the rear setback where the site abuts access streets, service roads, public places or residential property. Where these criteria do not exist, landscaping may not be required in the rear setback.

Landscaping of Carparking Areas:

All car parking areas should be landscaped with suitable species selected to provide both shade to parked vehicles and subtle screening of vehicles from adjacent roads.

- All landscaped areas must be separated from carparking or loading areas by means of a low wall or barrier kerb so as to minimise damage caused by vehicles.
- Carparks are to have major tree planting in every fourth bay in any visitor parking area provided at the frontage. Trees are to be installed as advanced specimens of sufficient height and trunk caliper so that the canopy is above the pedestrian and vehicular view lines. These trees, with high canopies and clean trunks, will form a contrast to the landscaping installed along the frontages.
- Where large areas of car parking are proposed (in excess of 20 spaces at the side or rear of the building, 'garden bays' are to be provided at regular intervals in order to soften the appearance of these areas and to provide shade during summer. In general, a landscape area of at least 2.4 metres wide (the width of a carpark shall be provided at intervals of every 8 continuous car spaces.
- Select canopy trees, low shrubs and ground cover for 'garden bays' within car parks.

Street Furniture

The following would be appropriate to use in a commercial or industrial context:

- Simple galvanised or powdercoated steel square bollard.
- Simple slat seat set into a basalt/bluestone podium.
- Recycling bins of mild steel square perforated body to the ground or supported by a pedestal leg.
- Use of non-reflective earthy colours for all steel work.



Figure 21: Landscape buffer to building,

3.5 PAVING AND FENCING

OBJECTIVES

- to create an attractive setting for the development when viewed from the street and surrounding rural and residential areas by the use of front fences, walls and paved external areas.
- to ensure that front fences and walls complement and are compatible with the design of the development and the streetscape.
- to ensure that all paved areas are suitably stabilised and drained and have a hard-wearing surface
- to minimise the area of hard surfaces and maximise the infiltration of water.

GUIDELINES

Paving:

All areas used for parking, loading or maneuvering vehicles must be paved and sealed with a suitable stabilised and drained surface.

The use of hard paved areas within landscaped areas should be minimised to allow for natural infiltration of water.

All site works including paving is to be carried out PRIOR to the occupation of the development and in conjunction with the landscaping works.

Perimeter Fencing:

Fencing around the perimeter of each site should be minimised and not provided along the front boundary. All fencing to be provided must be specified on the planning application for each lot.

The use of basalt plinths or endwalls at corners is encouraged. Fences and gate design are to be integral to the design of buildings proposed for the site.



Figure 22: Perimeter fencing behind landscaped setback.

Security Fencing:

In the event of fencing being required for security purposes along the frontage, it should be designed to have a high degree of transparency, be provided in black steel pickets, and should be located 0.5 metres inside the building setback, behind the landscaped setback. In this way the building itself becomes part of the security solution. This is particularly important along main roads. Refer to Figure 23.

In the event of fencing being required for security purposes on the side and rear boundary, it is to be plastic coated (black) cyclone wire. Barbed wire or razor wire are not acceptable fencing materials.

Screen Fencing:

Screen fencing of a minimum height of 2.5m shall be erected and maintained around all storage areas. The style and material of screen fencing should complement the main building on the site.

Dry Stone Walls:

The use of Dry Stone Walls (1000mm high, as a form of fencing or design treatment is encouraged. This would be constructed immediately within the title boundaries of properties fronting major roads. Dry stone walls provide an identifiable symbol for the industrial estate which links the land to its recent history.

Historically, dry stone walls were used to define the title boundaries and to divide properties into smaller parcels. As such, these walls were both a method of removing surface rock from the site as well as an economic method of building a low fence around the perimeter paddocks. The construction of a dry stone wall is a unique opportunity to reinforce the history of the area and will enable the Cooper Street Employment Area to achieve a unique and recognisable identity. Existing dry stone walls are to be incorporated into road reserves and used for fencing where appropriate.



Figure 23: Fencing aligned with front facade.

3.6 CAR PARKING AND VEHICLE

ACCESS OBJECTIVES

- To ensure that all car parking generated by a particular development is accommodated on its site and in a way that does not detract from the visual character of the area.
- To promote an active street frontage by minimising large car parking areas in front of the building line.
- To provide for the safe and efficient movement of traffic into and out of properties and adjacent streets.
- To minimise the number of vehicle trips within the industrial area.
- To minimise the impact of traffic on nearby residential areas.
- To provide vehicular access routes and parking areas that are easily intelligible to motorists.
- To encourage employees within an organisation to make greater use of public transport, cycling, walking and car sharing for commuting and work related journeys.

GUIDELINES

Reduction in spaces:

Where the development is being purpose built for a known end user, Council will consider a reduction in car parking for the development where this can be justified by the applicant on the basis of staff numbers and likely client numbers. It should be noted however that this reduction, if approved, relates to the number of spaces required to be constructed in the first instance and that an additional area corresponding to the full car parking requirement will have to be reserved on the site in the event that the reduced car parking requirement proves to be inadequate for the use. Generally Council will require this future car parking area to be landscaped.

Vehicle Access:

All vehicles, including those delivering to or servicing the site, must be able to enter and leave it in a forward direction. This applies to all sites regardless of size.

Schedule of Vehicle Movements:

Where significant amounts of traffic are likely to be generated which could affect residential areas or residentially zoned land, schedules of vehicle movements and their routes must be provided and may be regulated in conditions of consent.

Truck Parking:

Land uses generating regular truck movements must provide designated truck parking in addition to spaces provided within loading bays.

Paving:

All parking bays, loading docks, driveways and vehicular turning areas are to be constructed and sealed with an all weather pavement surface and are to be adequately drained, to the satisfaction of Council.

Paving Marking:

Car parking spaces and loading docks are to have the direction of traffic movement permanently marked out on the pavement surface, in accordance with the approved parking and driveway layout, and to the satisfaction of Council's Engineering Department. Where it is proposed that a building or site be used for multiple occupation, all parking bays are to be permanently identified by corresponding consecutive numbers.

Carparking Areas:

Access way and car space dimensions are specified in the Whittlesea Planning Scheme. Car parking within the frontage setback should be minimised and preferably restricted to visitor parking. Large staff car parks should be located behind the building line.

Visitor Parking:

Any visitor car parks are to be grouped together and physically identified by suitable signs and/or pavement markings. Such spaces are to be permanently available and reserved for the exclusive use of visitors to the premises.

Use of Parking areas:

Proposed parking areas, truck docks, driveways vehicular ramps and turning areas are to be maintained clear of obstruction and used exclusively for purposes of car parking, loading or unloading and vehicular access, respectively. Under no circumstances are such areas or any portion thereof to be used for the storage of goods or waste materials.

Small Scale Industrial Units:

Where multiple small scale industrial units will occupy a site, a rear access lane providing carparking at the rear of the building is the recommended treatment. This will allow buildings to frame the street. This is particularly important for sites fronting main roads where the appearance would otherwise be of a wide expanse of carparking in front of the building line.

Green Travel Plan:

Council may impose conditions of consent to a development requiring implementation of a Green Travel Plan. At Council's discretion, requirements for on site car parking may be reduced or waived on the basis of an applicant's implementation of a Green Travel Plan.

3.7 STORAGE AND LOADING

OBJECTIVES

- To ensure that provision is made for the safe loading and unloading of goods on site, without impacting on pedestrian and vehicular traffic in the street.
- To ensure that the loading and unloading of goods and the location of storage areas is not visible from the street or surrounding residential land.
- To ensure that any activities which could adversely affect neighbouring development are suitably constrained within the site and located as far away from adjoining properties as is practical.

GUIDELINES

Loading Docks:

The industrial development must be provided with a loading dock and goods handling area to serve the intended use. Speculative development where the end user and product are not known, are to provide loading facilities for a range of truck sizes.

Design Integration:

Where possible, loading and servicing areas should be designed as an integral part of the development on each site. It is preferable that loading bays be entirely contained within buildings. Where it is not possible to internalise loading and servicing areas, external loading and servicing areas will be fully screened from view.

Each tenancy is to have separate loading facilitites.

Delivery of Goods:

Provision must be made for all loading and unloading of goods and manoeuvering of vehicles to take place in the internal docks areas and adjoining goods handling area. These areas are to be physically line marked and are to be maintained free of obstruction, for the sole use of delivery vehicles. Truck turning templates, for delivery and garbage trucks, are to be provided in accordance with the relevant Australian Standards.

All deliveries to and from the site are to be conducted from vehicles standing wholly within the site and under no circumstances from vehicles standing kerbside in laneways, rights-of-way or in any public street.

Screening:

All external storage of goods and materials, refuse collection areas and garbage skips will be fully screened from view. Screening must be in materials consistent with buildings to be constructed on the site.

Residential Amenity:

Open storage areas, truck parking areas, or uses, such as panel beaters workshops, that are likely to generate significant emissions, are to be sited no closer than 100 metres from any dwelling situated within a residential zone or residential buildings. They are to be suitably enclosed or orientated to minimise impacts on residential property.

3.8 WASTE MANAGEMENT

OBJECTIVE

 To ensure that adequate provision is made for the storage, separation, recycling and reuse of waste material generated by development

GUIDELINES

Waste Storage and Recycling Areas

Enclosed garbage and recycling storage rooms are to be provided within all premises and are to be located adjacent to the loading dock. This is to ensure that these facilities are not utilising car parking areas.

The design is to incorporate provision of a screened waste receptacle area that allows for all waste material, including paper, plastic, rubber and oil to be separated and stored on-site for collection by recycling and waste disposal contractors. These areas are to be accessible by waste removal vehicles.

Screening

The garbage holding area facility is to be fully screened from public view and is to be located clear of all landscaped areas, driveways, turning areas, truck standing areas and car parking spaces. Screening is materials are to co-ordinate with the materials used in the overall site development.

Waste Management Plan

A Waste Management Plan is required by Council for all new development/redevelopment demonstrating proposed measures for waste minimisation including recycling and reuse of waste materials.

3.9 EXTERNAL LIGHTING

- Lighting should be a simple boom and mast style powdercoated light that reflects the contemporary nature of the surrounding development. Mock Victorian/Edwardian styles should be avoided.
- All premises are to provide external lighting to ensure adequate site security.
- Car parking areas are to be provided with suitable lighting to ensure safety and security of users after dark.
- All lighting is to be located, directed and baffled to limit light spill beyond the site boundaries.

3.10 STORM WATER

OBJECTIVES

- To minimise the amount of storm water runoff produced from each lot.
- To provide an appropriate framework for the safe and effective control of storm water.
- To preserve and protect the environment and safeguard storm water quality.
- To ensure the safety of residents and the community.

GUIDELINES

Developments should be designed to minimise the amount of storm water produced by incorporation of the following measures:

- Porous surfaces: maximise on-site infiltration by the use of pervious/porous surfaces and minimisation of sealed surfaces. A minimum of 15% of the site area is to be pervious surfaces.
- Rainwater tanks: incorporation of rainwater tanks to contain water runoff from roofs, for reuse in activities such as landscaping and cleaning.
- Water Sensitive Urban Design (WSUD): Council and Melbourne Water welcome initiatives to address WSUD, however the use of WSUD within an industrial context can be problematic due to longterm maintenance issues and damage to drainage swales within road cross sections caused by heavy vehicles. Measures to address this would need to be incorporated in any proposal.
- Pollution: site trade waste and piles of waste material away from drainage channels to avoid the pollution of storm water.
- Full drainage details showing methods of stormwater disposal by a qualified hydraulic consultant are to be submitted with all applications for new development.