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| **Table 7.2.3.3.1.1 Assessable development - General industry sub-precinct** |
| **Performance outcomes** | **Examples that achieve aspects of the Performance Outcome** | **E Compliance****-Yes****-No See PO or** **NA** | **Justification for compliance** |
| **General criteria** |
| **Site cover** |  |  |
| **PO1**Building site cover allows for adequate on-site provision of:1. car parking;
2. vehicle access and manoeuvring;
3. setbacks to boundaries;
4. landscaped areas.
 | No example provided. |  |  |
| **Building height** |  |  |
| **PO2**The height of buildings reflect the individual character of the precinct. | **E2**Building heights do not to exceed that mapped on Neighbourhood development plan map - Building heights. |  |  |
| **Setbacks** |  |  |
| **PO3**Street boundary setbacks:1. minimise building bulk and visual dominance from the street;
2. provide areas for landscaping at the front of the site;
3. allow for customer parking to be located at the front of the building.

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| Note - The following diagram illustrates an acceptable design response to this outcome.Industrial site design |

 | **E3**Buildings maintain a minimum setback of:1. 6m to the street frontage;
2. 3m to the secondary street frontage;
3. 5m to land not included in the Enterprise and employment precinct.
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| **PO4**Side and rear boundary setbacks maintain views, privacy, access to natural light and the visual amenity of adjoining sensitive land uses. | **E4**Where a development adjoins Urban living precinct or Rural living precinct land, the building is setback a minimum of 3m from the property boundary and includes landscaping along the boundary appropriate for screening with a mature height of at least 3m.

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| Note - Refer to Planning scheme policy - Integrated design for determining acceptable levels of landscaping for screening purposes. |

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| **Building appearance and design** |  |  |
| **PO5**Building on highly visible sites incorporate a high standard of industrial design and construction, which adds visual interest to the streetscape and reduces the perceived bulk of the building from the street.

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| Note - The following examples illustrate an acceptable design response to this outcome.Industrial design |

 | **E5**Where fronting a main street, or visible from a neighbourhood hub, buildings provide a high level of architectural design, by incorporating:1. a range of building materials, colours and features;
2. facade articulation along street frontages;
3. design features to promote customer entry points;
4. materials that are not highly reflective.
 |  |  |
| **Staff recreation** |  |  |
| **PO6**Development provides an on-site recreation area for staff that:1. includes seating, tables and rubbish bins;
2. is adequately protected from the weather;
3. is safely accessible to all staff;
4. is separate and private from public areas;
5. is located away from a noisy or odorous activity.
 | No example provided. |  |  |
| **Landscaping** |  |  |
| **PO7**Landscaping is provided on the site to:1. visually soften the built form, areas of hardstand, storage areas and mechanical plant associated with the on-site processes;
2. complement the existing or desired streetscape;
3. minimise the impact of industrial development on adjoining lots not within the Enterprise and employment precinct.
 | **E7**Landscaping is provided and maintained in accordance with Planning scheme policy - Integrated design. |  |  |
| **Fencing** |  |  |
| **PO8**The provision of fencing on street frontages does not dominate the streetscape or create safety issues.

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| Note - The following example illustrates an acceptable design response to this outcome.Industry fencing example |

 | **E8**Where fencing is provided on the street frontage, it has a minimum transparency of 70%. |  |  |
| **Public access** |  |  |
| **PO9**The use has a safe, clearly identifiable public access separated from service and parking areas.

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| Note - The following diagram illustrates an acceptable design response to this outcome.Industrial site design |

 | **E9.1**Pedestrian linkages are provided from the street and customer car parking areas directly to the main entrance of the building. |  |  |
| **E9.2**The public access is separated from industrial service areas. |  |  |
| **Car parking** |  |  |
| **PO10**Car parking is provided on-site to meet the anticipated demands of employees and visitors and avoid adverse impacts on the external road network.

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| Note - Refer to Planning scheme policy - Integrated transport assessment for guidance on how to achieve compliance with this outcome. |

 | **E10**Car parking is provided in accordance with Schedule 7 - Car parking. |  |  |
| **PO11**The design of car parking areas:1. does not impact on the safety of the external road network;
2. ensures the safety of pedestrians at all times;
3. ensures the safe movement of vehicles within the site.
 | **E11**All car parking areas are designed and constructed in accordance with Australian Standard AS2890.1 Parking facilities Part 1: Off-street car parking. |  |  |
| **Bicycle parking and end of trip facilities**

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| Note - Building work to which this code applies constitutes Major Development for purposes of development requirements for end of trip facilities prescribed in the Queensland Development Code MP 4.1. |

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| **PO12**1. End of trip facilities are provided for employees or occupants, in the building or on-site within a reasonable walking distance, and include:
	1. adequate bicycle parking and storage facilities; and
	2. adequate provision for securing belongings; and
	3. change rooms that include adequate showers, sanitary compartments, wash basins and mirrors.
2. Notwithstanding a. there is no requirement to provide end of trip facilities if it would be unreasonable to provide these facilities having regard to:
	1. the projected population growth and forward planning for road upgrading and development of cycle paths; or
	2. whether it would be practical to commute to and from the building on a bicycle, having regard to the likely commute distances and nature of the terrain; or
	3. the condition of the road and the nature and amount of traffic potentially affecting the safety of commuters.

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| Editor's note - The intent of b above is to ensure the requirements for bicycle parking and end of trip facilities are not applied in unreasonable circumstances.  For example these requirements should not, and do not apply in the Rural zone or the Rural residential zone etc. |
| Editor's note - This performance outcome is the same as the Performance Requirement prescribed for end of trip facilities under the Queensland Development Code. For development incorporating building work, that Queensland Development Code performance requirement cannot be altered by a local planning instrument and has been reproduced here solely for information purposes. Council’s assessment in its building work concurrence agency role for end of trip facilities will be against the performance requirement in the Queensland Development Code. As it is subject to change at any time, applicants for development incorporating building work should ensure that proposals that do not comply with the examples under this heading meet the current performance requirement prescribed in the Queensland Development Code.  |

 | **E12.1**Minimum bicycle parking facilities are provided at a rate of 1 bicycle parking space for every 3 vehicles parking spaces required by Schedule 7 – Car parking.

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| Editor's note - The examples for end of trip facilities prescribed under the Queensland Development Code permit a local planning instrument to prescribe facility levels higher than the default levels identified in those acceptable solutions. This example is a combination of the default levels set for end of trip facilities in the Queensland Development Code and the additional facilities required by Council. |

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| **E12.2**Bicycle parking is:1. provided in accordance with *Austroads (2008), Guide to Traffic Management - Part 11: Parking*;
2. protected from the weather by its location or a dedicated roof structure;
3. located within the building or in a dedicated, secure structure for residents and staff;
4. adjacent to building entrances or in public areas for customers and visitors.

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| Note - Bicycle parking structures are to be constructed to the standards prescribed in AS2890.3. |
| Note - Bicycle parking and end of trip facilities provided for residential and non-residential activities may be pooled, provided they are within 100 metres of the entrance to the building. |

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| Editor's note - The examples for end of trip facilities prescribed under the Queensland Development Code permit a local planning instrument to prescribe facility levels higher than the default levels identified in those acceptable solutions. This example is an amalgamation of the default levels set for end of trip facilities in the Queensland Development Code and the additional facilities required by Council. |

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| **E12.3**For non-residential uses, storage lockers:1. are provide at a rate of 1.6 per bicycle parking space (rounded up to the nearest whole number);
2. have minimum dimensions of 900mm (height) x 300mm (width) x 450mm (depth).

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| Note - Storage lockers may be pooled across multiple sites and activities when within 100 metres of the entrance to the building and within 50 metres of bicycle parking and storage facilities. |
| Editor's note - The examples for end of trip facilities prescribed under the Queensland Development Code permit a local planning instrument to prescribe facility levels higher than the default levels identified in those acceptable solutions. This example is an amalgamation of the default levels set for end of trip facilities in the Queensland Development Code and the additional facilities required by Council. |

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| **E12.4**For non-residential uses, changing rooms:1. are provided at a rate of 1 per 10 bicycle parking spaces;
2. are fitted with a lockable door or otherwise screened from public view;
3. are provided with shower(s), sanitary compartment(s) and wash basin(s) in accordance with the table below:

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| **Bicycle spaces provided** | **Male/ Female** | **Change rooms required** | **Showers required** | **Sanitary compartments required** | **Washbasins required** |
| 1-5 | Male and female | 1 unisex change room | 1 | 1 closet pan | 1 |
| 6-19 | Female | 1 | 1 | 1 closet pan | 1 |
| 20 or more | Male | 1 | 1 | 1 closet pan | 1 |
| Female | 1 | 2, plus 1 for every 20 bicycle spaces provided thereafter | 2 closet pans, plus 1 sanitary compartment for every 60 bicycle parking spaces provided thereafter | 1, plus 1 for every 60 bicycle parking spaces provided thereafter |
| Male | 1 | 2, plus 1 for every 20 bicycle spaces provided thereafter | 1 urinal and 1 closet pans, plus 1 sanitary compartment at the rate of 1 closet pan or 1 urinal for every 60 bicycle space provided thereafter | 1, plus 1 for every 60 bicycle parking spaces provided thereafter |
| Note - All showers have a minimum 3-star Water Efficiency Labelling and Standards (WELS) rating shower head.Note - All sanitary compartments are constructed in compliance with F2.3 (e) and F2.5 of BCA (Volume 1). |

1. are provided with:
	1. a mirror located above each wash basin;
	2. a hook and bench seating within each shower compartment;
	3. a socket-outlet located adjacent to each wash basin.

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| Note - Change rooms may be pooled across multiple sites, residential and non-residential activities when within 100 metres of the entrance to the building and within 50 metres of bicycle parking and storage facilities |
| Editor's note - The examples for end of trip facilities prescribed under the Queensland Development Code permit a local planning instrument to prescribe facility levels higher than the default levels identified in those acceptable solutions. This example is an amalgamation of the default levels set for end of trip facilities in the Queensland Development Code and the additional facilities required by Council. |

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| **Loading and servicing** |  |  |
| **PO13**Service areas including loading/unloading facilities, plant areas and outdoor storage areas are screened from the direct view from public areas and land not included in the Enterprise and employment precinct.

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| Note - If landscaping is proposed for screening purposes, refer to Planning scheme policy - Integrated design for determining acceptable levels. |

 | No example provided. |  |  |
| **Waste** |  |  |  |
| **PO14**Bins and bin storage area/s are designed, located and managed to prevent amenity impacts on the locality. | **E14**Development is designed to meet the criteria in the Planning scheme policy - Waste and is demonstrated in a waste management program. |  |  |
| **Environmental impacts** |  |  |
| **PO15**Where a use is not an environmentally relevant activity under the Environmental Protection Act, the release of any containment that may cause environmental harm is mitigated to an acceptable level. | **E15**Development achieves the standard listed in Schedule 1 Air Quality Objectives, Environmental Protection (Air) Policy 2008. |  |  |
| **Lighting** |  |  |
| **PO16**Lighting is directed and shielded to not cause unreasonable disturbance to any person on adjoining land. | **E16**Artificial lighting on-site is directed and shielded in such a manner as not to exceed the recommended maximum values of light technical parameters for the control of obtrusive light given in Table 2.1 of Australian Standard AS 4282 (1997) Control of Obtrusive Effects of Outdoor Lighting.

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| Note - “Curfewed hours” are taken to be those hours between 10pm and 7am on the following day. |

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| **Hazardous Chemicals**

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| Note - To assist in demonstrating compliance with the following performance outcomes, a Hazard Assessment Report may be required to be prepared and submitted by a suitably qualified person in accordance with '*State Planning Policy Guideline - Guidance on development involving hazardous chemicals*'.Terms used in this section are defined in '*State Planning Policy Guideline - Guidance on development involving hazardous chemicals*'. |

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| **PO17**Off sites risks from foreseeable hazard scenarios involving hazardous chemicals are commensurate with the sensitivity of the surrounding land use zones. | **E17.1**Off site impacts or risks from any foreseeable hazard scenario does not exceed the dangerous dose at the boundary of land zoned for vulnerable or sensitive land uses as described below:Dangerous Dose1. For any hazard scenario involving the release of gases or vapours:
	1. AEGL2 (60minutes) or if not available ERPG2;
	2. An oxygen content in air <19.5% or >23.5% at normal atmospheric pressure.
2. For any hazard scenario involving fire or explosion:
	1. 7kPa overpressure;
	2. 4.7kW/m2 heat radiation.

If criteria E17.1 (a) or (b) cannot be achieved, then the risk of any foreseeable hazard scenario shall not exceed an individual fatality risk level of 0.5 x 10-6/year. |  |  |
| **E17.2**Off site impacts or risks from any foreseeable hazard scenario does not exceed the dangerous dose at the boundary of a commercial or community activity land use zone as described below:Dangerous Dose1. For any hazard scenario involving the release of gases or vapours:
	1. AEGL2 (60minutes) or if not available ERPG2;
	2. An oxygen content in air <19.5% or >23.5% at normal atmospheric pressure.
2. For any hazard scenario involving fire or explosion:
	1. 7kPa overpressure;
	2. 4.7kW/m2 heat radiation.

If criteria E17.2 (a) or (b) cannot be achieved, then the risk of any foreseeable hazard scenario shall not exceed an individual fatality risk level of 5 x 10-6/year. |  |  |
| **E17.3**Off site impacts or risks from any foreseeable hazard scenario does not exceed the dangerous dose at the boundary of an industrial land use zone as described below:Dangerous Dose1. For any hazard scenario involving the release of gases or vapours:
	1. AEGL2 (60minutes) or if not available ERPG2;
	2. An oxygen content in air <19.5% or >23.5% at normal atmospheric pressure.
2. For any hazard scenario involving fire or explosion:
	1. 14kPa overpressure;
	2. 12.6kW/m2 heat radiation.

If criteria E17.3 (a) or (b) cannot be achieved, then the risk of any foreseeable hazard scenario shall not exceed an individual fatality risk level of 50 x 10-6/year. |  |  |
| **PO18**Buildings and package stores containing fire-risk hazardous chemicals are designed to detect the early stages of a fire situation and notify a designated person. | **E18**Buildings and package stores containing fire-risk hazardous chemicals are provided with 24 hour monitored fire detection system for early detection of a fire event. |  |  |
| **PO19**Common storage areas containing packages of flammable and toxic hazardous chemicals are designed with spill containment system(s) that are adequate to contain releases, including fire fighting media. | **E19**Storage areas containing packages of flammable and toxic hazardous chemicals are designed with spill containment system(s) capable of containing a minimum of the total aggregate capacity of all packages plus the maximum operating capacity of any fire protection system for the storage area(s) over a minimum of 60 minutes. |  |  |
| **PO20**Storage and handling areas, including manufacturing areas, containing hazardous chemicals in quantities greater than 2,500L or kg within a Local Government “flood hazard area” are located and designed in a manner to minimise the likelihood of inundation of flood waters from creeks, rivers, lakes or estuaries. | **E20.1**The base of any tank with a WC >2,500L or kg is higher than any relevant flood height level identified in an area’s flood hazard area. Alternatively:1. bulk tanks are anchored so they cannot float if submerged or inundated by water; and
2. tank openings not provided with a liquid tight seal, i.e. an atmospheric vent, are extended above the relevant flood height level.
 |  |  |
| **E20.2**The lowest point of any storage area for packages >2,500L or kg is higher than any relevant flood height level identified in an area’s flood hazard area. Alternatively, package stores are provided with impervious bund walls or racking systems higher than the relevant flood height level. |  |  |
| **Noise** |  |  |
| **PO21**Noise generating uses do not adversely affect existing or potential noise sensitive uses.

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| Note - The use of walls, barriers or fences that are visible from or adjoin a road or public area are not appropriate noise attenuation measures unless adjoining a motorway, arterial road or rail line. |
| Note - A noise impact assessment may be required to demonstrate compliance with this PO. Noise impact assessments are to be prepared in accordance with Planning scheme policy - Noise. |

 | No example provided.  |  |  |
| **PO22**Sensitive land uses are provided with an appropriate acoustic environment within designated external private outdoor living spaces and internal areas while:1. contributing to safe and usable public spaces, through maintaining high levels of surveillance of parks, streets and roads that serve active transport purposes (e.g. existing or future pedestrian paths or cycle lanes etc);
2. maintaining the amenity of the streetscape.

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| Note - A noise impact assessment may be required to demonstrate compliance with this PO.  Noise impact assessments are to be prepared in accordance with Planning scheme policy - Noise. |
| Note - Refer to Planning Scheme Policy – Integrated design for details and examples of noise attenuation structures. |

 | **E22.1**Development is designed to meet the criteria outlined in the Planning Scheme Policy – Noise. |  |  |
| **E22.2**Noise attenuation structures (e.g. walls, barriers or fences):1. are not visible from an adjoining road or public area unless:
	1. adjoining a motorway or rail line; or
	2. adjoining part of an arterial road that does not serve an existing or future active transport purpose (e.g. pedestrian paths or cycle lanes) or where attenuation through building location and materials is not possible.
2. do not remove existing or prevent future active transport routes or connections to the street network;
3. are located, constructed and landscaped in accordance with Planning scheme policy - Integrated design.

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| Note - Refer to Planning scheme policy – Integrated design for details and examples of noise attenuation structures. |
| Note - Refer to Overlay map – Active transport for future active transport routes. |

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| **Works criteria** |  |  |
| **Utilities** |  |  |
| **PO23**All services including water supply, sewage disposal, electricity, street lighting, telecommunications and gas (if available) are provided in accordance with Planning scheme policy - Integrated design (Appendix A). | No example provided. |  |  |
| **Access** |  |  |
| **PO24**Development provides functional and integrated car parking and vehicle access, that:1. prioritises the movement and safety of pedestrians between car parking areas at the rear through to the 'main street' and the entrance to the building (e.g. Rear entry, arcade etc.);
2. provides safety and security of people and property at all times;
3. does not impede active transport options;
4. does not impact on the safe and efficient movement of traffic external to the site;
5. where possible vehicle access points are consolidated and shared with adjoining sites.

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| Note - Refer to Planning scheme policy - Centre and neighbourhood hub design for details and examples. |

 | No example provided. |  |  |
| **PO25**Where required access easements contain a driveway and provision for services constructed to suit the user’s needs. The easement covers all works associated with the access in accordance with Planning scheme policy - Integrated design. | No example provided. |  |  |
| **PO26**The layout of the development does not compromise:1. the development of the road network in the area;
2. the function or safety of the road network;
3. the capacity of the road network.

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| Note - The road hierarchy is in accordance with a Neighbourhood development plan (conceptually shown on Figure 7.2.3.2 - Movement, Major streets). |

 | **E26.1**Direct vehicle access for residential development does not occur from arterial or sub-arterial roads or a motorway.

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| Editor's note - Residential developments should consider amalgamation with the lot to the rear and gaining access via a laneway. |
| Note - The road hierarchy is in accordance with a Neighbourhood development plan (conceptually shown on Figure 7.2.3.2 - Movement, Major streets). |

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| **E26.2**The development provides for the extension of the road network in the area in accordance with Council’s road network planning. |  |  |
| **E26.3**The development does not compromise future road widening of frontage roads in accordance with the relevant standard and Council’s road planning. |  |  |
| **E26.4**The development layout allows forward vehicular access to and from the site. |  |  |
| **PO27**Safe access facilities are provided for all vehicles required to access the site. | **E27.1**Site access and driveways are designed, located and constructed in accordance with:1. where for a Council-controlled road and associated with a Dwelling house:
	1. Planning scheme policy - Integrated design;
2. where for a Council-controlled road and not associated with a Dwelling house:
	1. AS/NZS2890.1 Parking facilities - Off street car parking;
	2. AS/NZS2890.2 - Parking facilities - Off-street commercial vehicle facilities;
	3. Planning scheme policy - Integrated design;
	4. Schedule 8 - Service vehicle requirements;
3. where for a State-controlled road, the Safe Intersection Sight Distance requirements in Austroads and the appropriate IPWEAQ standard drawings, or a copy of a Transport Infrastructure Act 1994, section 62 approval.
 |  |  |
| **E27.2**Internal driveways, car parks and access ways are designed and constructed with a sealed pavement and in accordance with: 1. AS/NZS 2890.1 Parking Facilities Part 1: Off street car parking;
2. AS 2890.2 Parking Facilities Part 2: Off street commercial vehicle facilities;
3. Planning scheme policy - Integrated design; and
4. Schedule 8 - Service vehicle requirements.

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| Note - This includes queue lengths (refer to Schedule 8 - Service vehicle requirements), pavement widths and construction. |

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| **E27.3**Access driveways, manoeuvring areas and loading facilities are sealed and provide for service vehicles listed in Schedule 8 - Service vehicle requirements for the relevant use. The on-site manoeuvring is to be in accordance with Schedule 8 - Service vehicle requirements. |  |  |
| **E27.4**Landscaping (including shade trees) is provided within car parks in accordance with Planning scheme policy - Integrated design. |  |  |
| **PO28**Sealed and flood free road access during the minor storm event is available to the site from the nearest arterial or sub-arterial road.

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| Editor's note - Where associated with a State-controlled road, further requirements may apply, and approvals may be required from the Department of Transport and Main Roads. |

 | **E28**Roads or streets giving access to the development from the nearest arterial or sub-arterial road are flood free during the minor storm event and are sealed.

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| Note - The road network is mapped on Overlay map - Road hierarchy. |

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| **PO29**Roads which provide access to the site from an arterial or sub-arterial road remain trafficable during major storm events without flooding or impacting upon residential properties or other premises. | **E29.1**Access roads to the development have sufficient longitudinal and cross drainage to remain safely trafficable during major storm (1% AEP) events.

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| Note - The road network is mapped on Overlay map - Road hierarchy. |
| Note - Refer to QUDM for requirements regarding trafficability. |

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| **E29.2**Culverts and causeways do not increase inundation levels or increase velocities, for all events up to the defined flood event, to upstream or downstream properties. |  |  |
| **Street design and layout** |  |  |
| **PO30**Streets are designed and constructed in accordance with Planning scheme policy - Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures. The street design and construction accommodates the following functions:1. access to premises by providing convenient vehicular movement for residents between their homes and the major road network;
2. safe and convenient pedestrian and cycle movement;
3. adequate on street parking;
4. stormwater drainage paths and treatment facilities;
5. efficient public transport routes;
6. utility services location;
7. emergency access and waste collection;
8. setting and approach (streetscape, landscaping and street furniture) for adjoining residences;
9. expected traffic speeds and volumes; and
10. wildlife movement (where relevant).

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| Note - Preliminary road design (including all services, street lighting, stormwater infrastructure, access locations, street trees and pedestrian network) may be required to demonstrate compliance with this PO. |
| Note - Refer to Planning scheme policy - Environmental areas and corridors for examples of when and where wildlife movement infrastructure is required. |

 | No example provided.  |  |  |
| **PO31**The existing road network (whether trunk or non-trunk) is upgraded where necessary to cater for the impact from the development.

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| Note - An applicant may be required to submit an Integrated Transport Assessment (ITA), prepared in accordance with Planning scheme policy - Integrated transport assessment to demonstrate compliance with this PO, when any of the following occurs:* Development is near a transport sensitive location;
* Forecast traffic to/from the development exceeds 5% of the two way flow on the adjoining road or intersection, and congestion currently exists or is anticipated within 10 years of the development completion;
* Development access onto a sub arterial, or arterial road or within 100m of a signalised intersection;
* Residential development greater than 50 lots or dwellings;
* Offices greater than 4,000m2 Gross Floor Area (GFA);
* Retail activities including Hardware and trade supplies, Showroom, Shop or Shopping centre greater than 1,000m2 GFA;
* Warehouses(88) greater than 6,000m2 GFA;
* On-site carpark greater than 100 spaces.

The ITA is to review the development’s impact upon the external road network for the period of 10 years from completion of the development. The ITA is to provide sufficient information for determining the impact and the type and extent of any ameliorative works required to cater for the additional traffic. The ITA must include a future structural road layout of adjoining properties that will form part of this catchment and road connecting to these properties. The ITA is to assess the ultimate developed catchment’s impacts and necessary ameliorative works, and the works or contribution required by the applicant as identified in the study. |
| Note - The road network is mapped on Overlay map - Road hierarchy. |

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| Note - The primary and secondary active transport network is mapped on Overlay map - Active transport. |

 | **E31.1**New intersections onto existing roads are designed to accommodate traffic volumes and traffic movements taken from a date 10 years from the date of completion of the last stage of the development. Detailed design is to be in accordance with Planning scheme policy - Integrated design.

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| Note - All turns vehicular access to existing lots is to be retained at new road intersections wherever practicable. |
| Note - Existing on-street parking is to be retained at new road intersections and along road frontages wherever practicable. |

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| **E31.2**Existing intersections external to the site are upgraded as necessary to accommodate increased traffic from the development.  Design is in accordance with Planning scheme policy - Operational works inspection, maintenance and bonding procedures.

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| Note - All turns vehicular access to existing lots is to be retained at upgraded road intersections wherever practicable. |
| Note - Existing on-street parking is to be retained at upgraded road intersections and along road frontages wherever practicable. |

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| **E31.3**The active transport network is extended in accordance with Planning scheme policy - Integrated design. |  |  |
| **PO32**New intersections along all streets and roads are located and designed to provide safe and convenient movements for all users.

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| Note - Refer Planning scheme policy - Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures for design and construction standards. |
| Note - An Integrated Transport Assessment (ITA) including preliminary intersection designs, prepared in accordance with Planning scheme policy - Integrated transport assessment may be required to demonstrate compliance with this PO. Intersection spacing will be determined based on the deceleration and queue storage distances required for the intersection after considering vehicle speed and present/forecast turning and through volumes. |

 | **E32**New intersection spacing (centreline – centreline) along a through road conforms with the following:1. Where the through road provides an access function:
	1. intersecting road located on the same side = 60 metres; or
	2. intersecting road located on opposite side (Left Right Stagger) = 60 metres;
	3. intersecting road located on opposite side (Right Left Stagger) = 40 metres.
2. Where the through road provides a collector or sub-arterial function:
	1. intersecting road located on the same side = 100 metres;
	2. intersecting road located on opposite side (Left Right Stagger) = 100 metres;
	3. intersecting road located on opposite side (Right Left Stagger) = 60 metres.
3. Where the through road provides an arterial function:
	1. intersecting road located on the same side = 300 metres;
	2. intersecting road located on opposite side (Left Right Stagger) = 300 metres;
	3. intersecting road located on opposite side (Right Left Stagger) = 300 metres;
4. Walkable block perimeter does not exceed 1000 metres.

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| Note - Based on the absolute minimum intersection spacing identified above, all turns access may not be permitted (ie. left in/left out only) at intersections with sub-arterial roads or arterial roads. |
| Note - The road network is mapped on Overlay map - Road hierarchy. |

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| Note - An Integrated Transport Assessment (ITA) including preliminary intersection designs, prepared in accordance with Planning scheme policy - Integrated transport assessment may be required to demonstrate compliance with this E.  Intersection spacing will be determined based on the deceleration and queue storage distances required for the intersection after considering vehicle speed and resent/forecast turning and through volumes. |

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| **PO33**All Council controlled frontage roads adjoining the development are designed and constructed in accordance with Planning scheme policy - Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedure.  All new works are extended to join any existing works within 20m.

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| Note - Frontage roads include streets where no direct lot access is provided. |
| Note - The road network is mapped on Overlay map - Road hierarchy. |

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| Note - The Primary and Secondary active transport network is mapped on Overlay map - Active transport. |
| Note - Roads are considered to be constructed in accordance with Council’s standards when there is sufficient pavement width, geometry and depth to comply with the requirements of Planning scheme policy - Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures. |

 | **E33**Design and construct all Council controlled frontage roads in accordance with Planning scheme policy - Integrated design, Planning scheme policy - Operational works inspection, maintenance and bonding procedures and the following:

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| **Situation** | **Minimum construction** |
| Frontage road unconstructed or gravel road only;ORFrontage road sealed but not constructed\* to Planning scheme policy - Integrated design standard;ORFrontage road partially constructed\* to Planning scheme policy - Integrated design standard. | Construct the verge adjoining the development and the carriageway (including development side kerb and channel) to a minimum sealed width containing near side parking lane (if required), cycle lane (if required), 2 travel lanes plus 1.5m wide (full depth pavement) gravel shoulder and table drainage to the opposite side.The minimum total travel lane width is:* 6m for minor roads;
* 7m for major roads.
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| Note - Major roads are sub-arterial roads and arterial roads.  Minor roads are roads that are not major roads. |

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| Note - Construction includes all associated works (services, street lighting and linemarking). |
| Note - Alignment within road reserves is to be agreed with Council. |

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| Note - \*Roads are considered to be constructed in accordance with Council standards when there is sufficient pavement width, geometry and depth to comply with the requirements of Planning scheme policy - Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures.  Testing of the existing pavement may be required to confirm whether the existing works meet the standards in Planning scheme policy - Integrated design and Planning scheme policy - Operational works inspection, maintenance and bonding procedures. |

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| **Stormwater**   |  |  |
| **PO34**Minor stormwater drainage systems (internal and external) have the capacity to convey stormwater flows from frequent storm events for the fully developed upstream catchment whilst ensuring pedestrian and vehicular traffic movements are safe and convenient. | **E34.1**The capacity of all minor drainage systems are designed in accordance with Planning scheme policy - Integrated design. |  |  |
| **E34.2**Stormwater pipe network capacity is to be calculated in accordance with the Hydraulic Grade Line method as detailed in Australian Rainfall and Runoff or QUDM. |  |  |
| **E34.3**Development ensures that inter-allotment drainage infrastructure is provided in accordance with the relevant level as identified in QUDM. |  |  |
| **PO35**Major stormwater drainage system(s) have the capacity to safely convey stormwater flows for the 1% AEP event for the fully developed upstream catchment. | **E35.1**The internal drainage system safely and adequately conveys the stormwater flows for the 1% AEP event for the fully developed upstream catchment through the site. |  |  |
| **E35.2**The external (downstream) drainage system safely conveys the stormwater flows for the 1% AEP event for the fully developed upstream catchment without allowing the flows to encroach upon private lots. |  |  |
| **E35.3**Overland flow paths from roads and public open space areas do not pass through private lots. Drainage pathways are provided to accommodate overland flows from roads and public open space areas. |  |  |
| **E35.4**The flow velocity in all unlined or soft faced open drains is kept within acceptable limits for the type of material or lining and condition of the channel.

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| Note - Refer to QUDM for recommended average flow velocities. |

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| **PO36**Provide measures to properly manage surface flows for the 1% AEP event (for the fully developed catchment) draining to and through the land to ensure no actionable nuisance is created to any person or premises as a result of the development. The development must not result in ponding on adjacent land, redirection of surface flows to other premises or blockage of a surface flow relief path for flows exceeding the design flows for any underground system within the development. | **E36**The stormwater drainage system is designed and constructed in accordance with Planning scheme policy - Integrated design. |  |  |
| **PO37**Stormwater run-off from the site is conveyed to a point of lawful discharge without causing actionable nuisance to any person, property or premises.

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| Note - Refer to Planning scheme policy - Integrated design for details and examples. |
| Note - downstream drainage discharge report in accordance with Planning scheme policy - Stormwater management may be required to demonstrate achievement of this performance outcome. |

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| Note - A watercourse as defined in the Water Act may be accepted as a lawful point of discharge providing the drainage discharge from the site does not increase the downstream flood levels during events up to and including the 1% AEP storm. An afflux of +20mm may be accepted on Council controlled land and road infrastructure. No worsening is ensured when stormwater is discharged into a catchment that includes State Transport Infrastructure. |

 | No example provided. |  |  |
| **PO38**Stormwater generated from the development does not compromise the capacity of existing stormwater infrastructure downstream of the site.

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| Note - A downstream drainage discharge report in accordance with Planning scheme policy - Stormwater management may be required to demonstrate compliance with this performance outcome. |

 | No example provided. |  |  |
| **PO39**Where development:1. is for an urban purpose that involves a land area of 2500m2 or greater; and
2. will result in:
	1. 6 or more dwellings; or
	2. an impervious area greater than 25% of the net developable area,

stormwater quality management systems are designed, constructed, established and maintained to minimise the environmental impact of stormwater on surface, groundwater and receiving water environments and meet the design objectives outlined in Schedule 10 - Stormwater management design objectives.

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| Note - A site based stormwater management plan prepared by a suitably qualified professional will be required in accordance with Planning scheme policy - Stormwater management.  Stormwater quality infrastructure is to be designed in accordance with Planning scheme policy - Integrated design (Appendix C). |

 | No example provided. |  |  |
| **PO40**Stormwater drainage pipes and structures through or within private land (including inter-allotment drainage) are protected by easements in favour of Council with sufficient area for practical access for maintenance purposes.

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| Note - In order to achieve a lawful point of discharge, stormwater easements may also be required over temporary drainage channels/infrastructure where stormwater discharges to a balance lot prior to entering Council’s stormwater drainage system. |

 | **E40**Stormwater drainage infrastructure (excluding detention and bio-retention systems) through or within private land (including inter-allotment drainage) is protected by easements in favour of Council.  Minimum easement widths are as follows:

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| **Pipe Diameter** | **Minimum Easement Width (excluding access requirements)** |
| Stormwater pipe up to 825mm diameter | 3.0m |
| Stormwater pipe up to 825mm diameter with sewer pipe up to 225m diameter | 4.0m |
| Stormwater pipe greater than 825mm diameter | Easement boundary to be 1m clear of the outside wall of the stormwater pipe (each side) |
| Note - Additional easement width may be required in certain circumstances in order to facilitate maintenance access to the stormwater system.  |

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| Note - Refer to Planning scheme policy - Integrated design (Appendix C) for easement requirements over open channels. |

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| **PO41**Stormwater management facilities (excluding outlets) are located outside of riparian areas and prevent increased channel bed and bank erosion. | No example provided.  |  |  |
| **Site works and construction management** |  |  |
| **PO42**The site and any existing structures are maintained in a tidy and safe condition. | No example provided. |  |  |
| **PO43**All works on-site are managed to:1. minimise as far as practicable, impacts on adjoining or adjacent premises and the streetscape in regard to erosion and sedimentation, dust, noise, safety and light;
2. minimise as far as possible, impacts on the natural environment;
3. ensure stormwater discharge is managed in a manner that does not cause actionable nuisance to any person or premises;
4. avoid adverse impacts on street streets and their critical root zone.
 | **E43.1**Works incorporate temporary stormwater run-off, erosion and sediment controls and trash removal devices designed in accordance with the Urban Stormwater Quality Planning Guidelines, State Planning Policy, Schedule 10 - Stormwater management design objectives, Planning scheme policy - Stormwater management and Planning scheme policy - Integrated design, including but not limited to the following:1. stormwater is not discharged to adjacent properties in a manner that differs significantly from pre-existing conditions;
2. stormwater discharged to adjoining and downstream properties does not cause scour or erosion of any kind;
3. stormwater discharge rates do not exceed pre-existing conditions;
4. minimum design storm for all temporary diversion drains and sedimentation basins in accordance with Schedule 10 - Stormwater management design objectives;
5. ponding  or concentration of stormwater does not occur on adjoining properties.
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| **E43.2**Stormwater run-off, erosion and sediment controls are constructed in accordance with Planning scheme policy - Integrated design (Appendix C) prior to commencement of any clearing work or earthworks and are maintained and adjusted as necessary at all times to ensure their ongoing effectiveness.

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| Note - The measures are adjusted on-site to maximise their effectiveness. |

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| **E43.3**The completed earthworks (fill or excavation) area is stabilised using turf, established grass seeding, mulch or sprayed stabilisation techniques to control erosion and sediment and dust from leaving the property. |  |  |
| **E43.4**Existing street trees are protected and not damaged during works.

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| Note - Where development occurs in the tree protection zone, measures and techniques as detailed in Australian Standard AS 4970 Protection of trees on development sites are adopted and implemented. |

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| **PO44**Dust suppression measures are implemented during construction works to protect nearby premises from unreasonable dust impacts. | **E44**No dust emissions extend beyond the boundaries of the site during soil disturbances and construction works. |  |  |
| **PO45**All development works including the transportation of material to and from the site are managed to not negatively impact the existing road network, the amenity of the surrounding area or the streetscape.

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| Note - A Traffic Management Plan may be required to demonstrate compliance with this PO.  A Traffic Management Plan is to be prepared in accordance with the Manual of Uniform Traffic Control Devices (MUTCD). |
| Note - A haulage route must be identified and approved by Council where imported or exported material is transported to the site via a road of Local Collector standard or less, and:1. the aggregate volume of imported or exported material is greater than 1000m3; or
2. the aggregate volume of imported or exported material is greater than 200m3 per day; or
3. the proposed haulage route involves a vulnerable land use or shopping centre.
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| Note - A dilapidation report (including photographs) may be required for the haulage route to demonstrate compliance with this PO. |
| Editor's note - Where associated with a State-controlled road , further requirements may apply, and approval may be required from the Department of Transport and Main Roads. |

 | **E45.1**Construction traffic including contractor car parking is controlled in accordance with a traffic management plan, prepared in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) to ensure all traffic movements to and from the site are safe. |  |  |
| **E45.2**All contractor car parking is either provided on the development site, or on an alternative site in the general locality which has been set aside for car parking. Contractor vehicles are generally not to be parked in existing roads. |  |  |
| **E45.3**Any material dropped, deposited or spilled on the roads as a result of construction processes associated with the site are to be cleaned at all times. |  |  |
| **E45.4**Construction traffic to and from the development site uses the highest classification streets or roads where a choice of access routes is available.  Haul routes for the transport of imported or spoil material and gravel pavement material along Council roads below sub-arterial standard must be approved routes.

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| Note - The road hierarchy is mapped on Overlay map - Road hierarchy. |
| Note - A dilapidation report may be required to demonstrate compliance with this E. |

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| **E45.5**Where works are carried out in existing roads, the works must be undertaken so that the existing roads are maintained in a safe and useable condition.  Practical access for residents, visitors and services (including postal deliveries and refuse collection) is retained to existing lots during the construction period and after completion of the works.

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| Note - A traffic control plan prepared in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) will be required for any works that will affect access, traffic movements or traffic safety in existing roads. |

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| **E45.6**Access to the development site is obtained via an existing lawful access point. |  |  |
| **PO46**All disturbed areas are to be progressively stabilised and the entire site rehabilitated and substantially stabilised at the completion of construction.

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| Note - Refer to Planning scheme policy - Integrated design for details and examples. |

 | **E46**At completion of construction all disturbed areas of the site are to be:1. topsoiled with a minimum compacted thickness of fifty (50) millimetres;
2. stabilised using turf, established grass seeding, mulch or sprayed stabilisation techniques.

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| Note - These areas are to be maintained during any maintenance period to maximise grass coverage. |

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| **PO47**Earthworks are undertaken to ensure that soil disturbances are staged into manageable areas.

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| Note - A site specific Erosion and Sediment Control Plan (ESCP) will be required to demonstrate compliance with this PO. An Erosion and Sediment Control Plan is to be prepared in accordance with Planning scheme policy - Stormwater management and Planning scheme policy - Integrated design (Appendix C). |

 | **E47**Soil disturbances are staged into manageable areas of not greater than 3.5 ha. |  |  |
| **PO48**The clearing of vegetation on-site:1. is limited to the area of infrastructure works, buildings areas and other necessary areas for the works;
2. includes the removal of declared weeds and other materials which are detrimental to the intended use of the land;
3. is disposed of in a manner which minimises nuisance and annoyance to existing premises.

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| Note - No burning of cleared vegetation is permitted. |

 | **E48.1**All native vegetation to be retained on-site is temporarily fenced or protected prior to and during development works.

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| Note - No parking of vehicles or storage of machinery or goods is to occur in these areas during development works. |

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| **E48.2**Disposal of materials is managed in one or more of the following ways:1. all cleared vegetation, declared weeds, stumps, rubbish, car bodies, scrap metal and the like are removed and disposed of in a Council land fill facility; or
2. all native vegetation with a diameter below 400mm is to be chipped and stored on-site.

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| Note - The chipped vegetation must be stored in an approved location. |

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| **PO49**All development works are carried out at times which minimise noise impacts to residents.  | **E49**All development works are carried out within the following times: 1. Monday to Saturday (other than public holidays) between 6:30am and 6:30pm on the same day;
2. no work is to be carried out on Sundays or public holidays.

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| Note - Work outside the above hours may be approved (in writing) where it can be demonstrated that the work will not cause significant inconvenience or disruption to the public, or the work is unlikely to cause annoyance or inconvenience to occupants of adjacent properties. |

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| **PO50**Any alteration or relocation in connection with or arising from the development to any service, installation, plant, equipment or other item belonging to or under the control of the telecommunications authority, electricity authorities, the Council or other person engaged in the provision of public utility services is to be carried with the development and at no cost to Council. | No example provided. |  |  |
| **Earthworks** |  |  |
| **PO51**On-site earthworks are designed to consider the visual and amenity impact as they relate to:1. the natural topographical features of the site;
2. short and long-term slope stability;
3. soft or compressible foundation soils;
4. reactive soils;
5. low density or potentially collapsing soils;
6. existing fills and soil contamination that may exist on-site;
7. the stability and maintenance of steep slopes and batters;
8. excavation (cut) and fill and impacts on the amenity of adjoining lots (e.g. residential)
 | **E51.1**All cut and fill batters are provided with appropriate scour, erosion protection and run-off control measures including catch drains at the top of batters and lined batter drains as necessary. |  |  |
| **E51.2**Stabilisation measures are provided, as necessary, to ensure long-term stability and low maintenance of steep slopes and batters.  |  |  |
| **E51.3**All filling or excavation is contained within the site and is free draining. |  |  |
| **E51.4**All fill placed on-site is:1. limited to that area necessary for the approved use;
2. clean and uncontaminated (i.e. no building waste, concrete, green waste, actual acid sulfate soils, potential acid sulfate soils or contaminated material etc.).
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| **E51.5**The site is prepared and the fill placed on-site in accordance with AS3798.

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| Note - The fill is to be inspected and tested in accordance with Planning scheme policy - Operational works inspection, maintenance and bonding procedures. |

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| **E51.6**Inspection and certification of steep slopes and batters may be required by a suitably qualified and experienced RPEQ. |  |  |
| **PO52**Embankments are stepped, terraced and landscaped to not adversely impact on the visual amenity of the surrounding area. | **E52**Any embankments more than 1.5 metres in height are stepped, terraced and landscaped.**Figure - Embankment**embankment |  |  |
| **PO53**Filling or excavation is undertaken in a manner that:1. does not adversely impact on a Council or public sector entity maintained infrastructure or any drainage feature on, or adjacent to the land;
2. does not preclude reasonable access to a Council or public sector entity maintained infrastructure or any drainage feature on, or adjacent to the land for monitoring, maintenance or replacement purposes.

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| Note -  Public sector entity is defined in Schedule 2 of the Act. |

 | **E53.1**No earthworks are undertaken in an easement issued in favour of Council or a public sector entity.

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| Note - Public sector entity is defined inSchedule 2 of the Act. |

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| **E53.2**Earthworks that would result in any of the following are not carried out on-site:1. a reduction in cover over the Council or public sector entity maintained service to less than 600mm;
2. an increase in finished surface grade over, or within 1.5m on each side of, the Council or public sector entity maintained infrastructure above that which existed prior to the earthworks being undertaken; and
3. prevent reasonable access to Council or public sector entity maintained infrastructure or any drainage feature on, or adjacent to the site for monitoring, maintenance or replacement purposes.

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| Note - Public sector entity is defined in Schedule 2 of the Act. |
| Note - All building work covered by QDC MP1.4 is excluded from this provision. |

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| **PO54**Filling or excavation does not result in land instability.

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| Note - Steep slopes and batters are inspected and certified for long-term stability by a suitably qualified and experienced geotechnical engineer with RPEQ qualifications. Stabilisation measures are provided, as necessary, to ensure long-term stability and low maintenance. |

 | No example provided. |  |  |
| **PO55**Filling or excavation does not result in1. adverse impacts on the hydrological and hydraulic capacity of the waterway or floodway;
2. increased flood inundation outside the site;
3. any reduction in the flood storage capacity in the floodway;
4. any clearing of native vegetation.

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| Note - To demonstrate compliance with this outcome, Planning scheme policy - Stormwater management provides guidance on the preparation of a site based stormwater management plan by a suitably qualified professional. Refer to Planning scheme policy - Integrated design for guidance on infrastructure design and modelling requirements. |

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| **PO56**Filling or excavation on the development site is undertaken in a manner which does not create or accentuate problems associated with stormwater flows and drainage systems on land adjoining the site. | **E56**Filling and excavation undertaken on the development site are shaped in a manner which does not:1. prevent stormwater surface flow which, prior to commencement of the earthworks, passed onto the development site, from entering the land; or
2. redirect stormwater surface flow away from existing flow paths; or
3. divert stormwater surface flow onto adjacent land, (other than a road), in a manner which:
	1. concentrates the flow; or
	2. increases the flow rate of stormwater over the affected section of the adjacent land above the situation which existed prior to the diversion; or
	3. causes actionable nuisance to any person, property or premises.
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| **PO57**All earth retaining structures provide a positive interface with the streetscape and minimise impacts on the amenity of adjoining residents.

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| Note - Refer to Planning scheme policy - Residential design for guidance on how to achieve compliance with this performance outcome.  |

 | **E57**Earth retaining structures:1. are not constructed of boulder rocks or timber;
2. where height is no greater than 900mm, are provided in accordance with Figure - Retaining on a boundary;

Retaining on boundary - crossed.png1. where height is greater than 900mm but no greater than 1.5m, are to be setback at least the equivalent height of the retaining structure from any property boundary;
2. where height is greater than 1.5m, are to be setback and stepped 1.5m vertical: 1.5m horizontal, terraced, landscaped and drained as shown below.

Cut - crossed.pngFill - crossed.png |  |  |
| **Fire Services**

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| Note - The provisions under this heading only apply if:1. the development is for, or incorporates:
	1. reconfiguring a lot for a community title scheme creating 1 or more vacant lots; or
	2. material change of use for 2 or more sole occupancy units on the same lot, or within the same community titles scheme; or
	3. material change of use for a Tourist park([84](file:///C%3A%5CUsers%5Cseang%5COneDrive%20-%20Objective%20Corp%5CDesktop%5CHTML-Export%5Csection_s1332743627723.html#target-d768251e572515)) with accommodation in the form of caravans or tents; or
	4. material change of use for outdoor sales([54](file:///C%3A%5CUsers%5Cseang%5COneDrive%20-%20Objective%20Corp%5CDesktop%5CHTML-Export%5Csection_s1332743627723.html#target-d768251e571661)), outdoor processing or outdoor storage where involving combustible materials.

AND1. none of the following exceptions apply:
	1. the distributor-retailer for the area has indicated, in its netserv plan, that the premises will not be served by that entity’s reticulated water supply; or
	2. every part of the development site is within 60m walking distance of an existing fire hydrant on the distributor-retailer’s reticulated water supply network, measured around all obstructions, either on or adjacent to the site.
 |
| Note - The provisions under this heading do not apply to buildings that are required by the Building Code of Australia to have a fire hydrant system complying with Australian Standard AS 2419.1 (2005) – Fire Hydrant Installations or other fire fighting facilities which provide equivalent protection. |

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| **PO58**Development incorporates a fire fighting system that:1. satisfies the reasonable needs of the fire fighting entity for the area;
2. is appropriate for the size, shape and topography of the development and its surrounds;
3. is compatible with the operational equipment available to the fire fighting entity for the area;
4. considers the fire hazard inherent in the materials comprising the development and their proximity to one another;
5. considers the fire hazard inherent in the surrounds to the development site;
6. is maintained in effective operating order.

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| Note - The Queensland Fire and Emergency Services is the entity currently providing the fire fighting function for the urban areas of the Moreton Bay Region. |

 | **E58.1**External fire hydrant facilities are provided on site to the standard prescribed under the relevant parts of *Australian Standard AS 2419.1 (2005) – Fire Hydrant Installations*.

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| Note - For this requirement for accepted development, the following are the relevant parts of AS 2419.1 (2005) that may be applicable:1. in regard to the form of any fire hydrant - Part 8.5 and Part 3.2.2.1, with the exception that for Tourist parks([84](file:///C%3A%5CUsers%5Cseang%5COneDrive%20-%20Objective%20Corp%5CDesktop%5CHTML-Export%5Csection_s1332743627723.html#target-d768251e572515)) or development comprised solely of dwellings and their associated outbuildings, single outlet above-ground hydrants or suitably signposted in-ground hydrants would be an acceptable alternative;
2. in regard to the general locational requirements for fire hydrants - Part 3.2.2.2 (a), (e), (f), (g) and (h) as well as Appendix B of AS 2419.1 (2005);
3. in regard to the proximity of hydrants to buildings and other facilities - Part 3.2.2.2 (b), (c) and (d), with the exception that:
	1. for dwellings and their associated outbuildings, hydrant coverage need only extend to the roof and external walls of those buildings;
	2. for caravans and tents, hydrant coverage need only extend to the roof of those tents and caravans;
	3. for outdoor sales([54](file:///C%3A%5CUsers%5Cseang%5COneDrive%20-%20Objective%20Corp%5CDesktop%5CHTML-Export%5Csection_s1332743627723.html#target-d768251e571661)), processing or storage facilities, hydrant coverage is required across the entire area of the outdoor sales([54](file:///C%3A%5CUsers%5Cseang%5COneDrive%20-%20Objective%20Corp%5CDesktop%5CHTML-Export%5Csection_s1332743627723.html#target-d768251e571661)), outdoor processing and outdoor storage facilities;
4. in regard to fire hydrant accessibility and clearance requirements - Part 3.5 and, where applicable, Part 3.6.
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| **E58.2**A continuous path of travel having the following characteristics is provided between the vehicle access point to the site and each external fire hydrant and hydrant booster point on the land:1. an unobstructed width of no less than 3.5m;
2. an unobstructed height of no less than 4.8m;
3. constructed to be readily traversed by a 17 tonne HRV fire brigade pumping appliance;
4. an area for a fire brigade pumping appliance to stand within 20m of each fire hydrant and 8m of each hydrant booster point.
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| **E58.3**On-site fire hydrant facilities are maintained in effective operating order in a manner prescribed in *Australian Standard AS1851 (2012) – Routine service of fire protection systems and equipment*. |  |  |
| **PO59**On-site fire hydrants that are external to buildings, as well as the available fire fighting appliance access routes to those hydrants, can be readily identified at all times from, or at, the vehicular entry point to the development site. | **E59**For development that contains on-site fire hydrants external to buildings:1. those external hydrants can be seen from the vehicular entry point to the site; or
2. a sign identifying the following is provided at the vehicular entry point to the site:
	1. the overall layout of the development (to scale);
	2. internal road names (where used);
	3. all communal facilities (where provided);
	4. the reception area and on-site manager’s office (where provided);
	5. external hydrants and hydrant booster points;
	6. physical constraints within the internal roadway system which would restrict access by fire fighting appliances to external hydrants and hydrant booster points.

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| Note - The sign prescribed above, and the graphics used are to be:1. in a form;
2. of a size;
3. illuminated to a level;

which allows the information on the sign to be readily understood, at all times, by a person in a fire fighting appliance up to 4.5m from the sign. |

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| **PO60**Each on-site fire hydrant that is external to a building is signposted in a way that enables it to be readily identified at all times by the occupants of any firefighting appliance traversing the development site. | **E60**For development that contains on-site fire hydrants external to buildings, those hydrants are identified by way of marker posts and raised reflective pavement markers in the manner prescribed in the technical note *Fire hydrant indication system* produced by the Queensland Department of Transport and Main Roads.

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| Note - Technical note Fire hydrant indication system is available on the website of the Queensland Department of Transport and Main Roads. |

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| **Use specific criteria** |  |  |
| **Industrial uses** |  |  |
| **PO61**Ancillary Office([53](file:///C%3A%5CUsers%5Cseang%5COneDrive%20-%20Objective%20Corp%5CDesktop%5CHTML-Export%5Csection_s1332743627723.html#target-d768251e571632)), administration functions, retail sales and customer service components do not compromise the primary use of the site or industrial activities in the precinct. | **E61**The combined area of ancillary non-industrial activities, including but not limited to Offices([53](file:///C%3A%5CUsers%5Cseang%5COneDrive%20-%20Objective%20Corp%5CDesktop%5CHTML-Export%5Csection_s1332743627723.html#target-d768251e571632)) and administration functions, does not exceed 10% of the GFA or 200m2, whichever is the lesser. |  |  |
| **PO62**Ancillary retail or showroom areas do not compromise the primary use of the site or industrial activities in the precinct and does not affect the viability, role or function of the region's activity centre network. | **E62**The combined area for the display and retail sale of commodities, articles or goods resulting from the industrial processes on the site does not exceed 5% of the GFA or 100m2, whichever is the lesser. |  |  |
| **PO63**Buildings directly adjoining non-Enterprise and employment precinct land:1. are compatible with the character of the adjoining area;
2. minimise overlooking and overshadowing;
3. maintain privacy;
4. do not cause significant loss of amenity to neighbouring residents by way of noise, vibration, odour, lighting, traffic generation and hours of operation.
 | No example provided. |  |  |
| **PO64**Low impact and service industry([73](file:///C%3A%5CUsers%5Cseang%5COneDrive%20-%20Objective%20Corp%5CDesktop%5CHTML-Export%5Csection_s1332743627723.html#target-d768251e572180)) activities:1. do not constrain the function or viability of future Medium impact industry([47](file:///C%3A%5CUsers%5Cseang%5COneDrive%20-%20Objective%20Corp%5CDesktop%5CHTML-Export%5Csection_s1332743627723.html#target-d768251e571486)) in the sub-precinct;
2. do not generate excessive non-industrial traffic;
3. do not adversely affect the amenity, health or safety of employees and visitors of the surrounding uses;
4. do not adversely affect the amenity, health or safety of nearby sensitive land uses.
 | No example provided. |  |  |
| **PO65**Medium impact industry([47](file:///C%3A%5CUsers%5Cseang%5COneDrive%20-%20Objective%20Corp%5CDesktop%5CHTML-Export%5Csection_s1332743627723.html#target-d768251e571486)) uses:1. are located at least 250m from a sensitive land use or sensitive zone or precinct;
2. do not constrain the function or viability of future uses in the sub-precinct;
3. do not adversely affect the amenity, health or safety of employees and visitors of the surrounding uses;
4. do not adversely affect the amenity, health or safety of nearby sensitive land uses.
 | No example provided. |  |  |
| **PO66**Non-industrial components of buildings (including Offices([53](file:///C%3A%5CUsers%5Cseang%5COneDrive%20-%20Objective%20Corp%5CDesktop%5CHTML-Export%5Csection_s1332743627723.html#target-d768251e571632)) and retail areas) are designed as high quality architectural features and incorporate entry area elements such as forecourts, awnings and the architectural treatment of roof lines and fascias. | No example provided. |  |  |
| **Non-industrial uses** |  |  |
| **PO67**With the exception of Caretaker's accommodation([10](file:///C%3A%5CUsers%5Cseang%5COneDrive%20-%20Objective%20Corp%5CDesktop%5CHTML-Export%5Csection_s1332743627723.html#target-d768251e570643)), residential and other sensitive land uses do not establish within the precinct. | No example provided. |  |  |
| **PO68**Non-industrial uses:1. are consolidated with existing non-industrial uses in the precinct;
2. do not compromise the viability, role or function of the region's activity centre network;
3. are not subject to adverse amenity impacts, or risk to health from industrial activities;
4. do not constrain the function or viability of existing or future industrial activities in the surrounding area;
5. are not located on local streets.
 | No example provided. |  |  |
| **PO69**Traffic generated by non-industrial uses does not detrimentally impact upon the operation and functionality of the external road network. | No example provided. |  |  |
| **PO70**Development of Caretaker's accommodation([10](file:///C%3A%5CUsers%5Cseang%5COneDrive%20-%20Objective%20Corp%5CDesktop%5CHTML-Export%5Csection_s1332743627723.html#target-d768251e570643)):1. does not compromise the productivity of the use occurring on-site and in the surrounding area;
2. is domestic in scale;
3. provides adequate car parking provisions exclusive of the primary use of the site;
4. is safe for the residents;
5. has regard to the open space and recreation needs of the residents.
 | **E70**Caretaker's accommodation([10](file:///C%3A%5CUsers%5Cseang%5COneDrive%20-%20Objective%20Corp%5CDesktop%5CHTML-Export%5Csection_s1332743627723.html#target-d768251e570643)):1. has a maximum GFA of 80m2;
2. does not gain access from a separate driveway to that of the industrial use;
3. provides a minimum 16m2 of private open space directly accessible from a habitable room;
4. provides car parking in accordance with the car parking rates table.
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| **Retail and commercial activities** |  |  |
| **PO71**Retail and commercial uses within a neighbourhood hub consists of no more than:1. 1 small format supermarket with a maximum gfa of 1000m2;
2. 10 small format retail or commercial tenancies with a maximum gfa of 100m2 each.
 | No example provided. |  |  |
| **Major electricity infrastructure, Substation and Utility installation** |  |  |
| **PO72**The development does not have an adverse impact on the visual amenity of a locality and is:1. high quality design and construction;
2. visually integrated with the surrounding area;
3. not visually dominant or intrusive;
4. located behind the main building line;
5. below the level of the predominant tree canopy or the level of the surrounding buildings and structures;
6. camouflaged through the use of colours and materials which blend into the landscape;
7. treated to eliminate glare and reflectivity;
8. landscaped;
9. otherwise consistent with the amenity and character of the zone and surrounding area.
 | **E72.1**Development is designed to minimise surrounding land use conflicts by ensuring infrastructure, buildings, structures and other equipment:1. are enclosed within buildings or structures;
2. are located behind the main building line;
3. have a similar height, bulk and scale to the surrounding fabric;
4. have horizontal and vertical articulation applied to all exterior walls.
 |  |  |
| **E72.3**A minimum 3m wide strip of dense planting is provided around the outside of the fenced area, between the development and street frontage, side and rear boundaries. |  |  |
| **PO73**Infrastructure does not have an impact on pedestrian health and safety. | **E73**Access control arrangements:1. do not create dead-ends or dark alleyways adjacent to the infrastructure;
2. minimise the number and width of crossovers and entry points;
3. provide safe vehicular access to the site;
4. do not utilise barbed wire or razor wire.
 |  |  |
| **PO74**All activities associated with the development occur within an environment incorporating sufficient controls to ensure the facility:1. generates no audible sound at the site boundaries where in a residential setting; or
2. meet the objectives as set out in the Environmental Protection (Noise) Policy 2008.
 | **E74**All equipment which produces audible or non-audible sound is housed within a fully enclosed building incorporating sound control measures sufficient to ensure noise emissions meet the objectives as set out in the Environmental Protection (Noise) Policy 2008. |  |  |
| **Telecommunications facility**([81](file:///C%3A%5CUsers%5Cseang%5COneDrive%20-%20Objective%20Corp%5CDesktop%5CHTML-Export%5Csection_s1332743627723.html#target-d768251e572444))

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| Editor's note - In accordance with the Federal legislation Telecommunications facilities ([81](file:///C%3A%5CUsers%5Cseang%5COneDrive%20-%20Objective%20Corp%5CDesktop%5CHTML-Export%5Csection_s1332743627723.html#target-d768251e572444))must be constructed and operated in a manner that will not cause human exposure to electromagnetic radiation beyond the limits outlined in the Radiocommunications (Electromagnetic Radiation - Human Exposure) Standard 2003 and Radio Protection Standard for Maximum Exposure Levels to Radiofrequency Fields - 3Khz to 300Ghz. |

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| **PO75**Telecommunications facilities([81](file:///C%3A%5CUsers%5Cseang%5COneDrive%20-%20Objective%20Corp%5CDesktop%5CHTML-Export%5Csection_s1332743627723.html#target-d768251e572444)) are co-located with existing telecommunications facilities([81](file:///C%3A%5CUsers%5Cseang%5COneDrive%20-%20Objective%20Corp%5CDesktop%5CHTML-Export%5Csection_s1332743627723.html#target-d768251e572444)), Utility installation([86](file:///C%3A%5CUsers%5Cseang%5COneDrive%20-%20Objective%20Corp%5CDesktop%5CHTML-Export%5Csection_s1332743627723.html#target-d768251e572573)), Major electricity infrastructure([43](file:///C%3A%5CUsers%5Cseang%5COneDrive%20-%20Objective%20Corp%5CDesktop%5CHTML-Export%5Csection_s1332743627723.html#target-d768251e571374)) or Substation([80](file:///C%3A%5CUsers%5Cseang%5COneDrive%20-%20Objective%20Corp%5CDesktop%5CHTML-Export%5Csection_s1332743627723.html#target-d768251e572400)) if there is already a facility in the same coverage area. | **E75.1**New telecommunication facilities([81](file:///C%3A%5CUsers%5Cseang%5COneDrive%20-%20Objective%20Corp%5CDesktop%5CHTML-Export%5Csection_s1332743627723.html#target-d768251e572444)) are co-located on existing towers with new equipment shelter and associated structures positioned adjacent to the existing shelters and structures. |  |  |
| **E75.2**If not co-located with an existing facility, all co-location opportunities have been investigated and fully exhausted within a 2km radius of the site. |  |  |
| **PO76**A new Telecommunications facility([81](file:///C%3A%5CUsers%5Cseang%5COneDrive%20-%20Objective%20Corp%5CDesktop%5CHTML-Export%5Csection_s1332743627723.html#target-d768251e572444)) is designed and constructed to ensure co-masting or co-siting with other carriers both on the tower or pole and at ground level is possible in the future. | **E76**A minimum area of 45m2 is available to allow for additional equipment shelters and associated structures for the purpose of co-locating on the proposed facility. |  |  |
| **PO77**Telecommunications facilities([81](file:///C%3A%5CUsers%5Cseang%5COneDrive%20-%20Objective%20Corp%5CDesktop%5CHTML-Export%5Csection_s1332743627723.html#target-d768251e572444)) do not conflict with lawful existing land uses both on and adjoining the site. | **E77**The development results in no net reduction in the minimum quantity and standard of landscaping, private or communal open space or car parking spaces required under the planning scheme or under an existing development approval. |  |  |
| **PO78**The Telecommunications facility([81](file:///C%3A%5CUsers%5Cseang%5COneDrive%20-%20Objective%20Corp%5CDesktop%5CHTML-Export%5Csection_s1332743627723.html#target-d768251e572444)) does not have an adverse impact on the visual amenity of a locality and is:1. high quality design and construction;
2. visually integrated with the surrounding area;
3. not visually dominant or intrusive;
4. located behind the main building line;
5. below the level of the predominant tree canopy or the level of the surrounding buildings and structures;
6. camouflaged through the use of colours and materials which blend into the landscape;
7. treated to eliminate glare and reflectivity;
8. landscaped;
9. otherwise consistent with the amenity and character of the zone and surrounding area.
 | **E78.1**Where in an urban area, the development does not protrude more than 5m above the level of the existing treeline, prominent ridgeline or building rooftops in the surrounding townscape. |  |  |
| **E78.2**In all other areas towers do not exceed 35m in height. |  |  |
| **E78.3**Towers, equipment shelters and associated structures are of a design, colour and material to:1. reduce recognition in the landscape;
2. reduce glare and reflectivity.
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| **E78.4**All structures and buildings are setback behind the main building line and a minimum of 10m from side and rear boundaries, except where in the Industry and Extractive industry zones, the minimum side and rear setback is 3m.Where there is no established building line the facility is located at the rear of the site. |  |  |
| **E78.5**The facility is enclosed by security fencing or by other means to ensure public access is prohibited. |  |  |
| **E78.6**A minimum 3m wide strip of dense planting is provided around the perimeter of the fenced area, between the facility and street frontage and adjoining uses.

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| Note - Landscaping is provided in accordance with Planning scheme policy - Integrated design. |
| Note - Council may require a detailed landscaping plan, prepared by a suitably qualified person, to ensure compliance with Planning scheme policy - Integrated design. |

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| **PO79**Lawful access is maintained to the site at all times that does not alter the amenity of the landscape or surrounding uses. | **E79**An Access and Landscape Plan demonstrates how 24 hour vehicular access will be obtained and maintained to the facility in a manner that is appropriate to the site’s context. |  |  |
| **PO80**All activities associated with the development occur within an environment incorporating sufficient controls to ensure the facility generates no audible sound at the site boundaries where in a residential setting. | **E80**All equipment comprising the Telecommunications facility([81](file:///C%3A%5CUsers%5Cseang%5COneDrive%20-%20Objective%20Corp%5CDesktop%5CHTML-Export%5Csection_s1332743627723.html#target-d768251e572444)) which produces audible or non-audible sound is housed within a fully enclosed building incorporating sound control measures sufficient to ensure no noise from this equipment can be heard, or felt at the site boundary. |  |  |
| **Values and constraints criteria**

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| Note - The relevant values and constraints criteria do not apply where the development is consistent with a current Development permit for Reconfiguring a lot or Material change of use or Operational work, where that approval has considered and addressed (e.g. through a development footprint plan (or similar in the case of Landslide hazard) or conditions of approval) the identified value or constraint under this planning scheme. |

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| **Acid sulfate soils - (refer Overlay map - Acid sulfate soils to determine if the following assessment criteria apply)**

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| Note - To demonstrate achievement of the performance outcome, an Acid sulfate soils (ASS) investigation report and soil management plan is prepared by a qualified engineer.  Guidance for the preparation an ASS investigation report and soil management plan is provided in Planning scheme policy - Acid sulfate soils. |

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| **PO81**Development avoids disturbing acid sulfate soils. Where development disturbs acid sulfate soils, development:1. is managed to avoid or minimise the release of surface or groundwater flows containing acid and metal contaminants into the environment;
2. protects the environmental and ecological values and health of receiving waters;
3. protects buildings and infrastructure from the effects of acid sulfate soils.
 | **E81**Development does not involve:1. excavation or otherwise removing of more than 100m3 of soil or sediment where below than 5m Australian Height datum AHD; or
2. filling of land of more than 500m3 of material with an average depth of 0.5m or greater where below the 5m Australian Height datum AHD.
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| **Heritage and landscape character (refer Overlay map - Heritage and landscape character to determine if the following assessment criteria apply)**

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| Note - To assist in demonstrating achievement of heritage performance outcomes, a Cultural heritage impact assessment report is prepared by a suitably qualified person verifying the proposed development is in accordance with The Australia ICOMOS Burra Charter.Note - To assist in demonstrating achievement of this performance outcome, a Tree assessment report is prepared by a qualified arborist in accordance with Planning scheme policy – Heritage and landscape character.  The Tree assessment report will also detail the measures adopted in accordance with AS 4970-2009 Protection of trees on development sites.Note - Places, including sites, objects and buildings having local cultural heritage significance, are identified on Overlay map - Heritage and landscape character and listed in Schedule 1 of Planning scheme policy - Heritage and landscape character.  Places also having cultural heritage significance at a State level and being entered in the Queensland Heritage Register, are also identified in Schedule 1 of Planning scheme policy - Heritage and landscape character. |

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| **PO82**Development will:1. not diminish or cause irreversible damage to the cultural heritage values present on the site, and associated with a heritage site, object or building;
2. protect the fabric and setting of the heritage site, object or building;
3. be consistent with the form, scale and style of the heritage site, object or building;
4. utilise similar materials to those existing, or where this is not reasonable or practicable, neutral materials and finishes;
5. incorporate complementary elements, detailing and ornamentation to those present on the heritage site, object or building;
6. retain public access where this is currently provided.
 | **E82**Development is for the preservation, maintenance, repair and restoration of a site, object or building of cultural heritage value.

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| Note - A cultural heritage conservation management plan for the preservation, maintenance, repair and restoration of a site, object or building of cultural heritage value is prepared in accordance with Planning scheme policy - Heritage and landscape character. The plan is sent to, and approved by Council prior to the commencement of any preservation, maintenance, repair and restoration works. |

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| **PO83**Demolition and removal is only considered where:1. a report prepared by a suitably qualified conservation architect or conservation engineer demonstrates that the building is structurally unsound and is not reasonably capable of economic repair; or
2. demolition is confined to the removal of outbuildings, extensions and alterations that are not part of the original structure; or
3. limited demolition is performed in the course of repairs, maintenance or restoration; or
4. demolition is performed following a catastrophic event which substantially destroys the building or object.
 | No example provided. |  |  |
| **PO84**Where development is occurring on land adjoining a site of cultural heritage value, the development is to be sympathetic to and consistent with the cultural heritage values present on the site and not result in their values being eroded, degraded or unreasonably obscured from public view. | No example provided. |  |  |
| **Infrastructure buffer areas (refer Overlay map – Infrastructure buffers to determine if the following assessment criteria apply)** |
| **PO85**Development within a High voltage electricity line buffer:1. is located and designed to avoid any potential adverse impacts on personal health and wellbeing from electromagnetic fields;
2. is located and designed in a manner that maintains a high level of security of supply;
3. is located and designed so not to impede upon the functioning and maintenance of high voltage electrical infrastructure.
 | **E85**Except where located on an approved Neighbourhood development plan, development does not involve the construction of any buildings or structures within a high voltage electricity line buffer. |  |  |
| **Overland flow path (refer Overlay map - Overland flow path to determine if the following assessment criteria apply)**

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| Note - The applicable river and creek flood planning levels associated with defined flood event (DFE) within the inundation area can be obtained by requesting a flood check property report from Council. |

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| **PO86**Development:1. minimises the risk to persons from overland flow;
2. does not increase the potential for damage from overland flow either on the premises or other premises, public land, watercourses, roads or infrastructure.
 | No example provided. |  |  |
| **PO87**Development:1. maintains the conveyance of overland flow predominantly unimpeded through the premises for any event up to and including the 1% AEP for the fully developed upstream catchment;
2. does not concentrate, intensify or divert overland flow onto an upstream, downstream or surrounding property.

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| Note - A report from a suitably qualified Registered Professional Engineer Queensland is required certifying that the development does not increase the potential for significant adverse impacts on an upstream, downstream or surrounding premises. |
| Note - Reporting to be prepared in accordance with Planning scheme policy – Flood hazard, Coastal hazard and Overland flow. |

 | No example provided. |  |  |
| **PO88**Development does not:* directly, indirectly or cumulatively cause any increase in overland flow velocity or level;
* increase the potential for flood damage from overland flow either on the premises or other premises, public lands, watercourses, roads or infrastructure.

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| Note - Open concrete drains greater than 1m in width are not an acceptable outcome, nor are any other design options that may increase scouring. |

 | No example provided. |  |  |
| **PO89**Development ensures that public safety and the risk to the environment are not adversely affected by a detrimental impact of overland flow on a hazardous chemical located or stored on the premises. | **E89**

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| Note - Refer to the Work Health and Safety Act 2011 and associated Regulation and Guidelines, the Environmental Protection Act 1994 and the relevant building assessment provisions under the Building Act 1975 for requirements related to the manufacture and storage of hazardous substances. |

Development ensures that a hazardous chemical is not located or stored in an Overland flow path area. |  |  |
| **PO90**Development which is not in a Rural zone ensures that overland flow is not conveyed from a road or public open space onto a private lot. | **E90**Development which is not in a Rural zone that an overland flow paths and drainage infrastructure is provided to convey overland flow from a road or public open space area away from a private lot. |  |  |
| **PO91**Development ensures that inter-allotment drainage infrastructure, overland flow paths and open drains through private property cater for overland flows for a fully developed upstream catchment and are able to be easily maintained.

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| Note - A report from a suitably qualified Registered Professional Engineer Queensland is required certifying that the development does not increase the potential for significant adverse impacts on an upstream, downstream or surrounding premises. |
| Note - Reporting to be prepared in accordance with Planning scheme policy – Flood hazard, Coastal hazard and Overland flow |

 | **E91.1**Development ensures that roof and allotment drainage infrastructure is provided in accordance with the following relevant level as identified in QUDM:* Urban area – Level III;
* Rural area – N/A;
* Industrial area – Level V;
* Commercial area – Level V.
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| **E91.2**Development ensures that inter-allotment drainage infrastructure is designed to accommodate any event up to and including the 1% AEP for the fully developed upstream catchment. |  |  |
| **PO92**Development protects the conveyance of overland flow such that an easement for drainage purposes is provided over:1. a stormwater pipe if the nominal pipe diameter exceeds 300mm;
2. an overland flow path where it crosses more than one premises;
3. inter-allotment drainage infrastructure.

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| Note - Refer to Planning scheme policy - Integrated design for details and examples. |
| Note - Stormwater Drainage easement dimensions are provided in accordance with Section 3.8.5 of QUDM. |

 | No example provided. |  |  |
| **Additional criteria for development for a Park** |  |  |
| **PO93**Development for a Park([57](file:///C%3A%5CUsers%5Cseang%5COneDrive%20-%20Objective%20Corp%5CDesktop%5CHTML-Export%5Csection_s1332743627723.html#target-d768251e571734)) ensures that the design and layout responds to the nature of the overland flow affecting the premises such that:1. public benefit and enjoyment is maximised;
2. impacts on the asset life and integrity of park structures is minimised;
3. maintenance and replacement costs are minimised.
 | **E93**Development for a Park([57](file:///C%3A%5CUsers%5Cseang%5COneDrive%20-%20Objective%20Corp%5CDesktop%5CHTML-Export%5Csection_s1332743627723.html#target-d768251e571734)) ensures works are provided in accordance with the requirements set out in Appendix B of the Planning scheme policy - Integrated design. |  |  |