



## Section 1: Preliminaries

Sutherland Shire Public Domain Technical Manual  
Part D: Specification

**SUTHERLANDSHIRE**

**Sutherland Shire Public Domain Technical Manual  
Part D: Specification**

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# Section 1: Preliminaries

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# 1 Preliminaries

## 1.1 Introduction

This document provides specifications for the design and construction of civil and landscape works within the public domain of Sutherland Shire. It applies to all land that is within Sutherland Shire and which is under the care, control or management of Sutherland Shire Council.

The primary objective of this document is to provide the minimum standards applicable to civil and landscape *works* in order to achieve a uniform and acceptable standard of infrastructure that has long term cost effectiveness, while maintaining the safety and convenience of the public.

## 1.2 Users of this document

This document is intended to be used by:

- staff of Sutherland Shire Council;
- developers;
- design consultants
- contractors; and
- building professionals.

## 1.3 Interpretation

### 1.3.1 Definitions

Table 1–1 below provides the definition of words and expressions for the purposes of this *specification*:

**Table 1–1: Definitions**

<i>accredited certifier</i>	means the holder of a certificate of accreditation as an accredited certifier under the <i>Building Professionals Act 2005</i> acting in relation to matters to which the accreditation applies.
<i>approved design drawings</i>	means drawings which have been approved by <i>Council</i> for the <i>works</i> .
<i>check point</i>	means a point at which work is inspected and certified by an appropriately accredited <i>PDC</i> or is tested or sampled for testing and beyond which work may proceed at the risk of the <i>contractor</i> .  Documentary evidence of certification or test results for each check point shall be provided to the <i>PCA</i> for inclusion in documentary evidence in support of project certification.
<i>contractor</i>	Means the person who is carrying out the work and includes the principal contractor.
<i>contract superintendent</i>	means (in relation to <i>works</i> being carried out for <i>Council</i> under a contract) the person appointed by <i>Council</i> who is administering the contract for the <i>works</i> .
<i>Council</i>	means Sutherland Shire Council.
<i>Council's representative</i>	means the person nominated by <i>Council</i> and authorised to act on its behalf with respect to the <i>works</i> .
<i>DBYD</i>	means Dial Before You Dig.

<i>hold point</i>	<p>means a point beyond which work must not proceed without being released (inspection and certification) by the relevant <i>public domain certifier</i>.</p> <p>Certification of work completed to be submitted to <i>PCA</i> for inclusion in documentary evidence in support of project certification.</p>
<i>public domain certifier (PDC)</i>	means (in relation to work of a particular category as set out in Table 1–2 and Table 1–3) the person who is inspecting or certifying a work and who is either an <i>accredited certifier</i> , a suitably qualified person, or <i>Council's representative</i> .
<i>public domain design manual (PDDM)</i>	means the current edition of the Sutherland Shire Public Domain Design Manual.
<i>public domain technical manual (PDTM)</i>	means the current edition of the Sutherland Shire Public Domain Technical Manual.
<i>principal</i>	means the person who commissions the <i>works</i> .
<i>principal certifying authority (PCA)</i>	means <i>Council</i> or an <i>accredited certifier</i> , who performs statutory functions under the <i>Environmental Planning and Assessment Act 1979</i> , which include issuing the construction certificate, making required inspections over the course of the construction process and issuing the occupation certificate. Note: For all Torrens title subdivisions, the <i>PCA</i> shall be <i>Council</i> .
<i>principal contractor</i>	means the person who is responsible for the control and coordination of the <i>works</i> and who has legislative responsibility for work health and safety in relation to the <i>works</i> .
<i>Road Occupancy Licence (ROL)</i>	means approval to occupy or otherwise deny public access to any part of the road carriageway.
<i>specification</i>	means this document, which is Sutherland Shire Council's standard specification for civil and landscape work (Part D of the <i>PDTM</i> ).
<i>SSC</i>	means Sutherland Shire Council.

<i>SSC locality drawings</i>	means Sutherland Shire Council's series of locality drawings (Part B of the <i>PDTM</i> ).
<i>SSC standard drawings</i>	means Sutherland Shire Council's series of standard drawings (Part C of the <i>PDTM</i> ).
<i>works</i>	means an activity required to be completed in order to deliver the finished product as shown in the <i>approved design drawings</i> and includes the provision of materials; and means the whole of the work to be carried out.

### 1.3.2 Works under AS4000 contract

If the *works* are being carried out for *Council* under a contract in accordance with Australian Standard *AS4000—General conditions of contract* (the contract), then the meaning of words and expressions contained in Clause 1 of the contract will apply.

### 1.3.3 Specification to be read in conjunction

This *specification* is to be read in conjunction with the following documents:

- the *PDDM*;
- the *approved design drawings* for the *works*;
- *SSC locality drawings*; and
- *SSC standard drawings*;
- Australian standards and/or RMS standards

### 1.3.4 Order of precedence

The following order of precedence shall be applied in the case of inconsistency and/or ambiguity between documents:

- the *approved design drawings* for the *works*;
- *SSC locality drawings*;
- *SSC standard drawings*;
- *Specification*; the
- The relevant Australian standards and/or RMS standards

## 1.4 General

### 1.4.1 Scope

This section includes all general site requirements for construction *works* including:

- requirements prior to the commencement of the *works*;
- requirements at the completion of the *works*;
- site management;
- setting out;
- provision for traffic;
- environmental protection;
- work health and safety; and
- *principal contractor* responsibilities.

### 1.4.2 Statutory requirements

It is essential that all stakeholders comply with relevant statutes including but not limited to:

- *Clean Waters Act and Soil Conservation Act 1938*;
- *Environmental Planning and Assessment Act 1979*;
- *Local Government Act 1993*;
- *Protection of the Environment Operations Act 1997*;
- *Roads Act 1993*; and
- *Work Health & Safety Act 2011*.

### 1.4.3 Standards and guidelines

Unless otherwise specified, materials and *works* must be in accordance with the purpose and intent of these specifications and the most current edition of the following documents:

- relevant Australian Standards;
- *SSC PDDM*;
- *SSC locality drawings*;
- *SSC locality drawings*;
- Roads and Maritime Services (RMS) specifications; and
- relevant utility authorities specifications.

## 1.5 Prior to commencement of works

### 1.5.1 Pre-commencement site meeting

Prior to the commencement of *works* within the Public Domain, a joint pre-commencement site meeting shall be completed by the *PCA*, the *contractor* and *Council's representative*. The *contractor* shall ensure that all relevant approved plans, permits, traffic, safety and environmental protection plans are available at the meeting.

The pre commencement site meeting is to ensure that:

- all approvals including *ROL* have been obtained;
- all fees and charges have been paid;
- adequate consideration has been given to the protection of the public and the environment for the duration of the *works*; and
- the *PCA* (where relevant) and the *contractor* are made aware of *Council's* requirements.

### 1.5.2 Public liability insurance policy and WorkCover

Any person, contractor or company undertaking *works* within a public place must carry a current public risk insurance policy with a minimum cover of \$20 million for the full duration of the *works*. A copy of this policy and a renewal notice establishing currency must be provided to the *PCA* prior to the commencement of *works* within a public place.

The contractor shall comply with the requirements of the WorkCover Authority of NSW at all times.

### 1.5.3 Permits and approvals

The contractor must apply and obtain all necessary approvals and permits required from all relevant authorities that may be affected by the *works*. The contractor must pay all required fees and charges, exhibit all required notices, and comply with the regulations and requirements of each authority

The contractor shall consider the timeframe required to obtain the approvals and permits to avoid delays of the *works*.

#### 1.5.4 Consultation with adjoining landowners

Prior to the commencement of any *works* within the public place, all affected land owners within the vicinity of the *works* shall be notified and appropriate arrangements made to maintain pedestrian and vehicular access at all times. If as a result of the approved *works*, it is necessary for *works* to be undertaken within adjoining private property, written approval from the property owners affected shall be obtained prior to the commencement of those *works*.

#### 1.5.5 Dilapidation report

The *contractor* shall submit a completed Dilapidation Report for the work area, its surroundings and each private property adjacent to which the work has to be carried out. No works are to be started prior to the Dilapidation Report being accepted by *Council*. The *contractor* will be held liable for any damage evident at final inspection and not included in the Dilapidation Report

#### 1.5.6 Management plans and procedures

For *Council* funded *works*, the *contractor* will be required by *Council's representative* to lodge a project management plan (PMP) for all or part of the work prior to the commencement of *works*.

The *principal contractor's* PMP will be updated (and developed as required) as site conditions evolve throughout the course of the construction. The PMP will incorporate the following as a minimum:

- corporate/project management system;
- construction management plan;
- quality plan;
- work health and safety plan;
- environmental site management plan; and
- traffic control plans (for pedestrian, bicycle and vehicular movement) through and around the worksite as it exists and at various stages of the *works*.

#### 1.5.7 Notice of intention to commence works

*Council* shall be notified in writing a minimum 72 hours prior to the commencement of *works*. The notification shall verify that all approvals have been obtained and all relevant fees, bonds and charges have been paid. A list of the relevant contacts including the *PCA*, the contractor and superintendent shall be included with the notification.

The *PCA* will be responsible to undertake sufficient inspections throughout the construction *works* to enable informed certification that the *works* are in accordance with the approved plans, *specification* and conditions of approval. The *PCA*'s certification of the *works* must be supported by documentary evidence establishing that testing at all *check points* has shown that the *specification* has been met and establishing that all *Hold points* have been released by a *PDC* with appropriate accreditation.

### 1.5.8 Services investigation

Prior to the commencement of *works*, the contractor shall undertake a Dial Before You Dig (DBYD) search and obtain current underground location plans which provide an indication of the presence, and layout of underground plant in the area of the *works*.

## 1.6 Completion of works

When the *PCA* verifies that all *works* have been completed and the surrounding area has been stabilised and returned to original conditions, Works As Executed plans and certifications shall be prepared and submitted to *Council* and arrangements made for a final inspection to be completion.

### 1.6.1 Works as executed plans

In order to establish that the location and levels of the works are within an tolerance and to have a permanent record of construction which incorporates all amendments, a Works as Executed Plan, prepared by a registered surveyor is to be submitted to *Council* prior to final inspection.

In the case of subdivisions, the works as executed shall be recorded on the Surveyor's copy of the approved Engineering drawings. In the case of property development works, the works as executed shall be recorded on a copy of *approved design drawings*. The Works as Executed Plans must be certified by the Principal Certifying Authority responsible for the supervision of the *works*.

### 1.6.2 Final inspection

The *PCA* shall submit a complete set of the certifications for all *hold points* and test results for all *check points* at least seven (7) working days prior to the scheduled date for final inspection.

The *contractor* shall carry out an inspection of the works and review the submitted certification, test results and reports for all required *hold points* and *check points* to

establish that all works have been satisfactorily completed and that all requirements have been satisfied before arranging a final inspection

*Council's representative* (together with the *contractor* and the *PCA*) will carry out a final site inspection and review the submitted documentation for all required *hold points* and *check points* in order to verify that works are satisfactory and that an occupation certificate can be issued.

Refer to the Schedule of *hold points* and *check points*.

### 1.6.3 Council reserves rights

It should be noted that the *works* covered by this *specification* will become the property of *Council* and must be to a quality and structural adequacy that is acceptable to *Council*. Notwithstanding certification of the *works* by the *PCA*, *Council* reserves the right to reject substandard *works* and require the rectification/reconstruction to achieve satisfactory quality.

## 1.7 Site management

The *principal contractor* is responsible for management of the site to ensure the *works* are adequately and safely fenced to prevent access to the work area whilst providing for pedestrian access to residential and commercial premises. Appropriate environmental controls shall be maintained in accordance with *Council's* Sutherland Shire Development Control Plan 2015.

### 1.7.1 Working hours

Hours of work shall be restricted to the guidelines specified by the NSW EPA. Hours may be further restricted dependant on traffic impacts and peak periods affected by the *works*, eg school zones.

### 1.7.2 Site establishment

It is the *contractor's* responsibility to obtain *Council* approval for the establishment of a site compound within the public place. Any established site compound and work site shall provide adequate, safe and convenient pedestrian and vehicular access at all times.

### 1.7.3 Existing services

Prior to the commencement of any *works*, the *contractor* shall use the Dial Before You Dig service to obtain current underground location plans for all plant and services within the area of the *works*.

It is the responsibility of the *contractor* to expose all underground services and take every precaution necessary to secure from damage all existing assets including private connections.

It is the responsibility of the *contractor* to arrange the repair or adjustment of any service to the requirements of the relevant utility service provider. Any services not shown in DBYD plans or located contrary to recorded services should be brought to the notice of the relevant utility service provider in order to update current records.

### 1.7.4 Transportation of materials

Any transportation of earth, sand, road construction material, loose debris and any loose materials to or from the site will be in a manner that will prevent the dropping of material on surrounding roads. Load covers are to be used at all times. Haulage routes to or from the site shall minimise the use of local roads by maximising the use of arterial and collector roads. The *contractor* shall ensure agreed haulage routes are used and will be held responsible for damage caused to local roads as a result of unauthorised use.

## 1.8 Setting out

The *contractor* will be responsible for all setting out of the *works*. The *contractor* is to engage a registered land surveyor (or in the case of *works* commissioned by *Council*, Council's Survey Manager) to set out the *works* and to confirm that the *works* are located in accordance with the approved plans. In the case of works commissioned by *Council*, *Council* will provide the level and coordinates of Permanent Marks only. The *contractor* shall be responsible for the set out of all other levels and coordinates from the design documentation.

The *contractor* is to notify *council's representative* of any apparent discrepancy in the *Council* supplied survey levels or the design levels

The *works* shall be set out to Australian Mapping Grid (AMG) and Australian Height Datum (AHD) in accordance with the Bench Marks shown in the drawing. No other source for the control of levels will be accepted.

### 1.8.1 Survey marks

The *contractor* shall preserve and maintain in their true position all State Survey Marks (SSM) and Permanent Marks (PM) whether or not the marks are to be used for the purpose of setting out, checking or measuring the work. A detailed list of protected survey marks can be found in **Schedule 1 -4, Surveying and Spatial Information regulation 2017 (NSW)**.

Should any SSM or PM be disturbed or damaged, the contractor shall immediately notify *Council* and shall, unless *Council* otherwise determines, arrange for a registered surveyor to replace the damaged survey mark. The cost of rectification shall be borne by the *contractor*.

## 1.9 Provision for traffic

Provision shall be made for the movement of traffic (both vehicular and pedestrian) through or around the worksite. Pedestrian diversions are to be kept to a minimum in order to limit inconvenience.

The *contractor* is required to maintain work sites accessible to the public in a safe and trafficable condition at all times including at night, during weekends and on public holidays. No public road will be closed or partially closed to traffic for construction without the prior written consent of *Council*.

All site personnel employed by the *contractor* and by sub-contractors must understand and comply with the Traffic Control arrangements being used at that site from time to time. All employees engaged in the preparation of Traffic Control Plans or on site traffic control duties must hold the RMS Traffic Controller's Certificate and any associated RMS Certificate for Setup, Select/Modify, Design/Audit Traffic Control Plans as required.

The *contractor* is responsible for monitoring and auditing traffic and pedestrian control at the site and ensuring, in consultation with an appropriately qualified person, that any deficiencies are promptly corrected.

The *contractor* is to actively liaise with *Council's representative* on traffic and pedestrian control procedures and all other safety matters which may include situations where it is appropriate to barricade, provide temporary safety barriers or provide containment fencing to isolate the work site.

The *contractor* shall notify all authorities listed below if affected by the proposed work:

- RMS;
- NSW Police Force;
- Fire and Rescue NSW;
- Transdev (where a bus route or a bus stop is affected); and
- NSW State Emergency Service (SES).

### 1.9.1 Traffic control plans

The *contractor* shall prepare Traffic Control Plans (TCPs) in accordance with the RMS Publication *Traffic Control at Worksites Manual* and AS 1742.3 to warn approaching traffic of the presence of the worksite and to guide traffic around, past or through the work site and/or temporary hazard. The TCPs shall be accepted by *Council's representative* prior to the commencement of the work activity within the road reserve. The *contractor* should note that wherever the word 'should' occurs in AS 1742.3 the word 'shall' applies and the required action is the contractor's responsibility.

The selection and modification of standard TCPs or the design of project specific TCPs shall be undertaken by personnel holding the requisite RMS qualifications for Select/Modify Traffic Control Plans or Design and Inspect Traffic Control Plans respectively.

### 1.9.2 Temporary fencing and barricades

The type of temporary fencing to be used must be safe and suitable for the *works*, workers and the public. The *contractor* must maintain the fencing to a high standard during construction by keeping it clean, tidy and free from posters and graffiti. Fencing shall be of a consistent colour. Where the pedestrian way is reduced in width to less than 2.4m, the feet on all temporary fencing must be oriented so as to not interfere with the safe passage of pedestrians.

In areas of high pedestrian activity and upon approval of *Council's representative*, plastic water filled barriers may be used as a containment fence for workers or pedestrians.

### 1.9.3 Safety barriers

Where required by the TCP, safety barriers shall be provided to protect the work areas and pedestrian areas from vehicular traffic. Only safety barriers listed in the RMS accepted safety barrier systems register shall be used.

In accordance with the *RMS Traffic Control at Worksites Manual*, plastic water filler devices do not satisfy the requirements for use as a safety barrier and shall only be used as a containment fence for workers/pedestrians or as a delineation device. However, in accordance with the RMS Technical Direction *RTD 2011/001 Safety Barriers*, such devices, subject to compliance with usage and placement restrictions, may be appropriate for single shift usage. Any use of plastic water filled barriers must be approved by *Council's representative*.

All barriers shall be correctly installed and maintained with holes to receive posts and chain mesh fencing above where man proof barriers are required.

#### **1.9.4 Work zone clearance**

Safe clearances between workers and through traffic shall be provided in accordance with the *RMS Traffic Control at Worksites Manual*.

The *contractor* shall be responsible for the provision and deployment of delineation devices, safety barriers, temporary speed limit reductions or the provision of a traffic controller as required to meet the requirements of the RMS manual.

#### **1.9.5 Signage and lighting**

The *contractor* shall provide signage on site in accordance with the approved Traffic Control Plan. Signs shall be erected and removed in sequence and as outlined in the *RMS Traffic Control at Worksites Manual*.

All signs are to be designed and manufactured in accordance with AS 1743.

Where there is no existing street lighting and where existing street lighting is deemed insufficient for night work, the *contractor* may be required to provide floodlighting of the worksite and/or the traffic controllers. The requirement for floodlighting shall be determined by *Council's representative*.

#### **1.9.6 Footpath access and access to private properties**

A minimum 1.5m clear width must be maintained for pedestrian access at all times along footpaths. A greater clear width will be required by *Council's representative* where high levels of pedestrian traffic exist.

Access to business premises must be available for the public during business hours unless alternative arrangements are made with the proprietor. Where excavation work limits accessibility to a business during business hours, the *contractor* will

provide safe and secure temporary access ramps of 1.5m clear width, incorporating handrails.

To maintain safety and keep debris from the inside of properties, mats such as synthetic turf may be required to be placed and securely fixed in all footpath areas where the following circumstances exist:

- gravel ramps are provided between temporary footpath levels and permanent footpaths or shops;
- gravel ramps are provided between the road kerb levels and temporary footpath levels;
- gravel ramps are provided between temporary footpath levels and the lids of utility service pits and
- Any unbound surface excavated as part of the *works*.

All temporary ramps must be in accordance with current Disability Standards for Access, with no trip hazards.

In most cases the *contractor* will be required to provide temporary concrete ramps to join surfaces of different levels within the footway and to remove any trip hazards. Note: the use of cold mix asphalt is not permitted due to its tendency to deform under foot traffic and due to plasticising oils that get tracked into nearby premises by pedestrians.

Adequate vehicular access to properties shall be maintained at all times and may include the temporary installation of road plates where appropriate.

### 1.10 Environmental protection

#### 1.10.1 Environmental initiatives

*Council* is committed to the protection of the environment and to sustainability in the design, construction and operation of its infrastructure. *Council* is seeking to limit adverse environmental impact in the key areas of greenhouse gas emissions, energy use, water consumption and the generation and disposal of construction and demolition waste.

*Council* supports more sustainable construction options, provided these meet or exceed the conditions required for standard construction. For example, these may include:

- The use of reclaimed water where this is feasible;
- Initiatives to limit demolition and construction waste; and

- Options in material components and processes to reduce the substantial embodied greenhouse gas emissions in concrete and asphalt.

The *contractor* is encouraged to submit to *Council's representative* for *Council's* consideration, initiatives or alternative materials, products or processes which will improve the environmental performance and sustainability of the *works*.

### 1.10.2 Environmental site management plan

The *contractor* will be required by Council to implement an Environmental Site Management Plan (ESMP) aimed at the protection of the environment. The ESMP may address, but is not necessarily confined to, the following environmental considerations:

- air, water and noise pollution;
- soil contamination;
- sediment control;
- waste minimisation and recycling;
- the preservation of trees, vegetation and habitat; and
- the protection of identified items of heritage and archaeological significance.

### 1.10.3 Statutory requirements

The *contractor* is required to take all steps necessary to protect the environment and in particular to provide erosion and sediment control measures described in the *approved design drawings* and additional measures required by Council, the Environment Protection Authority (EPA) or other relevant Authorities.

The *contractor* shall ensure at all times that the requirements of all relevant Acts concerning noise, air, water, and any other pollutants are fully satisfied. These include but are not limited to the following:

- *Clean Air Act 1961*;
- *Environmental Planning and Assessment Act 1979*;
- *National Parks and Wildlife Act 1974*;
- *Noise Control Act 1975*;
- *Pesticides Act 1999*;
- *Poisons Act 1966*;
- *Protection of the Environment Operations Act 1997*;
- *Roads Act 1993*;
- *Water Management Act 2000*; and
- *Work Health and Safety Act 2011*.

#### 1.10.4 Protection of existing vegetation

All work must be in accordance with AS4970 - 2009 *Protection of trees on development sites* and as follows.

##### **General**

Trees throughout Sutherland Shire are protected in accordance with *Sutherland Shire Development Control Plan 2015*.

Trees must not be removed or lopped or otherwise damaged, unless identified for removal in the approved plans or written approval to remove is given by *Council's representative*. All care must be taken not to damage or injure any existing trees on the site that are to be retained. Earth moving equipment is not to be used within the drip line of trees to be retained.

If, notwithstanding best efforts, damage does occur to tree branches or root systems, it must be made good as soon as possible by a qualified arborist (AQF Level 5 in Arboriculture).

Permission must be obtained from *Council's representative* to lop or remove any tree or shrub interfering with the work which is not designated in the drawings for removal.

##### **Protection zone**

The *Contractor* shall protect from damage all trees, shrubs and other landscape features within the limit of *works* which are not designated for removal in the approved design drawings. Vegetation outside the *works* area is to be left undisturbed.

Trees to be retained are to be protected with Tree Protection Fencing at the drip line of the tree.

Where *Council's Representative* is satisfied that it is not feasible to erect tree protection fencing at the drip line, the *Contractor* shall provide Tree Armour as indicated in the *SSC standard drawings*.

Compaction of the tree roots within Tree Protection Zones shown in the drawings must be avoided. TPZ measures must be provided in accordance with AS 4970 *Protection of trees on development sites*.

Prior to and during any construction work the roots, trunks and branches of all vegetation to be retained shall be protected from pollutants, machinery, chemical and fuel spillage, compaction of surrounding soils, level changes within the 'drip line', stockpiling of spoil and stockpiling of building materials. Protection fencing of such vegetation shall be undertaken to the satisfaction of the *PDC*. Vegetation is to be left undisturbed outside the approved *works* area.

No earthwork, travel of equipment or storage compounds shall be established within 5 metres of the drip line of trees.

### ***Tree protection fencing***

Provide temporary protective fence at the drip line or in locations as shown in the plans for all existing trees to be retained. Fence to consist of four strands of fencing wire, or plastic mesh barrier, supported on star pickets spaced at not more than 3 m. Ensure star pickets do not encounter and damage roots and are fitted with safety caps.

### ***Tree armour***

Where *council's representative* is satisfied that it is not feasible to erect tree protection fencing at the drip line, the *contractor* shall provide Tree Armour as indicated in the *SSC standard drawings* before commencement of any *works*.

Tree Armour is to consist of Weed Control Mat, and timber battens rapped around trunk of tree as indicated in drawings. Timber battens are to be 1800 x 90 x 20mm. Attach battens to three strands of wire or nylon webbing with a Max. 50mm gap between battens to create a continuous string, long enough to surround each tree.

Prior to installing Timber Battens around tree trunk, the trunk is to have a protective layer of weed mat rapped around trunk, weed mat to be equal to Jutemaster (TM).

Ensure Armour is attached securely around the tree. Armour should attach to itself by means of the wire strands. No securing device is to be attached to the trunk.

Armour is to remain in place as long as machinery is required on site. Refer *SSC standard drawings*.

### ***Removal or pruning of trees***

No trees shall be removed, damaged or pruned other than those specified in the approved construction documentation and those approved by *council's representative*.

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Where branches intrude on the working area, pruning deemed necessary by *Council's Representative* shall be carried out by a qualified arborist approved by the - *Council's representative*. All pruning must conform to the provisions of AS4373 - 2007 *Pruning of amenity trees*.

If any tree is damaged during the course of the work, *Council's representative* may direct the *contractor* to manage its recovery or, if that fails, to remove and replace the tree. Alternatively, *Council's representative* may make arrangements for repair or replacement at the contractor's expense. Damage to trees shall be taken to include damage to bark and root systems.

### **Tree roots**

When any excavation is required in the vicinity of trees that are to be retained, hand excavation must first be used to locate the roots. Roots that *Council's representative* approves to be removed, shall be cleanly severed/pruned in accordance with AS4373-200 *Pruning of amenity trees*, clear of the work, before machine excavation commences.

Trenches within the drip line of trees are to be backfilled as soon as possible and within two days of excavation in order to avoid undue impact on the affected trees.

### **Backfilling**

Backfill to excavations around tree roots with a mixture consisting of three parts by volume of topsoil and one part of well decomposed compost with a neutral pH value, free from weed growth and harmful materials. Place the backfill in layers, each of 300mm maximum depth, compacted to a dry density similar to that of the original or surrounding soil. Do not backfill around tree trunks to a height greater than 100mm above the original ground surface. Immediately after backfilling, thoroughly water the root zone surrounding the tree.

Where the excavated area will support a road pavement, structural soil is to be used as backfill.

### **1.10.5 Stormwater management, erosion and sediment control**

All proper precautions shall be taken by the *contractor* to prevent the erosion of soil by wind or water from land used or occupied by the *contractor* and to prevent the deposition of soil in watercourses during execution of the work under the Contract.

Refer to Section 2: Earthworks.

### 1.10.6 Hazardous materials

If hazardous materials (including but not limited to asbestos) are not identified/referred to in the Contract Documents but are identified on site, the *contractor* must notify *council's representative* immediately and advise the type of substance and location as part of the notification. This notification shall include hazardous materials relating to abandoned in-ground service utility pipes, ducts and service pits (including but not limited to Electricity, Telecommunication, Water and Gas). It will also include any hazardous materials relating to awnings. The contractor must control access to the area and organise for the decontamination of the area in consultation with Contractor. The contractor must ensure that if asbestos removal or other activities are required to decontaminate asbestos from the site all activity is carried out in a manner that minimises impacts on the community, including minimising disruption to everyday activities.

### 1.10.7 Noise and dust

The *contractor* is to use all means necessary to reduce and avoid dust and noise pollution arising from the work. This may require the use of sound insulated compressors and air tools and the use of acoustic blankets supported by temporary fencing or such other measures as approved by *council's representative*. The *contractor* may be required by *council's representative* to monitor noise levels and to provide reports at its cost.

All work including demolition, excavation and building work must comply with *AS2436-1981 Guide to noise control on construction, maintenance and demolition sites* and any conditions of development consent.

### 1.10.8 Aboriginal cultural heritage

If during construction any Aboriginal objects are found, *works* shall cease immediately and *council's representative* and the NSW Office of Environment and Heritage shall be notified directly.

## 1.11 Work health and safety

The *works* will be undertaken in accordance with the requirements of the Work Health and Safety Act 2011. Where the *works* are on behalf of *Council*, they shall be in accordance with *Council's Work Health and Safety Policy* (WHS Policy) and *Work Health and Safety Management System* (WHSMS).

The *contractor* has full responsibility for site personnel, members of the public and all WHS issues arising in relation to the *works*.

The contractor may be appointed by *Council* as the *principal* contractor for the purposes of the *Work Health and Safety Act and Regulations 2011*.

### 1.11.1 Risk management

The *contractor* must manage risks to health and safety associated with the following:

- The storage, movement and disposal of construction materials and waste at the site;
- The storage at the site of plant that is not in use;
- Both vehicular and pedestrian traffic in the vicinity of the site that may be affected by construction work carried out in connection with the construction project; and
- Essential services at the workplace.

Where an external *principal* contractor's tools and forms are used, documented evidence shall be maintained on site and made available for inspection by the Contractor during routine WHS compliance checks.

## 1.12 Principal contractor

Appointment of a *principal contractor*, applies to any place of work at which:

- construction work is undertaken and the work exceeds \$250,000; or
- high risk construction work is undertaken and the work does not exceed \$250,000; or
- demolition work or asbestos removal work for which a licence is required under Chapter 8 of NSW Work Health and Safety Regulation 2011.

### 1.12.1 Principal contractor requirements (construction)

The *contractor* will be appointed by *council* as the *principal contractor*. The *contractor* must comply with the WHS laws and all duties under those laws as the *principal contractor*.

A pre-commencement meeting between the *principal contractor* and the *Council's representative* shall occur to agree the monitoring and verification activities to be conducted for the duration of the contract.

For *works* where *Council* has control over the site or where the contract does not stipulate who is the *principal contractor*, *Council* will assume the role of *principal contractor* for the purposes of meeting WHS legislative requirements in relation to construction work.

Where a designated major project is undertaken, the *principal contractor* will have the capacity to engage the services of subcontractors and/or suppliers to meet project requirements.

A pre-commencement meeting between *Council's representative* and *principal contractor* will occur to determine and agree on the monitoring and verification activities to be conducted for the duration of the contract. The type and frequency of monitoring and verification activities is subject to the risk level of the contract. The agreed arrangements will be documented and maintained in accordance to SMS System Procedure Records.

### ***Minimum requirements***

For *Council* construction projects, the *principal contractor* will be required to perform the following minimum tasks:

- Conduct a risk assessment for the task/project and forwarded to *Council's representative*;
- Develop, implement, maintain and keep up to date a Site Specific Safety Management Plan (SSSMP) that complies with *Council's* WHSMS;
- Provide *Council's representative* a copy of the SSSMP for review in line with the Guidelines for Review of Site Specific Safety Management Plan;
- Develop and maintain an up-to-date hazard or WHS risk register for the project. This may include copies of hazards identified through risk assessments undertaken or Safe Work Method Statements (SWMS);
- Provide *Council's representative* with copies of the high-risk SWMS for review by *Council*, which must comply with the Safe Work Method Statement/Safe Work Instruction Review;
- Maintain a register of hazardous chemicals and copies of current safety data sheets;
- Maintain a register of plant and equipment including records of inspection, testing and maintenance activities;
- Maintain a register of Personal Protection Equipment issued to staff;
- Keep records of any atmospheric testing or health surveillance undertaken for a period of 30 years (where required, typically for asbestos decontamination);
- Ensure all workers on site have completed the General Induction for Construction Work in NSW (or equivalent) (Green Card) training;
- Conduct and keep induction records for all persons carrying out construction work on the site, including:
  - Copies of General Induction for Construction Work in NSW (or equivalent) (White Card);
  - Evidence of work activity based health and safety induction training;

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- Conduct and record site-specific WHS induction training for all persons who enter the site;
- Conduct and record daily pre-work briefings and tool-box talks;
- Record and maintain workplace incident and investigation reports;
- Maintain infringement, penalty and provisional improvement notices issued by regulators (e.g. WorkCover) and Corrective Action Notices issued by *Council*; and
- Keep copies of induction training records and site specific induction topics covered for a period of 3 years after the completion of the contract.

A *principal contractor* may use their own systems, tools and forms to meet the above responsibilities e.g. induction tools or forms.

### ***Display signage***

The *contractor* for a construction project must ensure signs are installed that:

- Show the *principal contractor's* name and telephone contact numbers (including an afterhours telephone number);
- Show the location of the site office for the project, if any; and
- Are clearly visible from outside the workplace, or the work area of the workplace, where the construction project is being undertaken.

### ***Risk management***

The *principal contractor* for a construction project must manage risks to health and safety associated with the following:

- The storage, movement and disposal of construction materials and waste at the workplace;
- The storage at the workplace of plant that is not in use;
- Traffic in the vicinity of the workplace that may be affected by construction work carried out in connection with the construction project; and
- Essential services at the workplace.

Where a *principal contractor's* tools and forms are used, documented evidence shall be maintained on site and made available for inspection by *Council's representative* during routine WHS compliance checks.

*Council's representative* must ensure that the supervisory personnel from the *principal contractor* are inducted using *Council's* forms and procedures and that they are provided with the *Council's* WHS Policy and WHS Management Plan.

### ***Site specific safety management plan (SSSMP)***

The *principal contractor* shall provide a compliant Site Specific Safety Management Plan (SSSMP) to *Council's representative* for review no later than 14 days prior to construction and revisions shall be submitted as required.

- The SSSMP shall comply with *Council's* Guidelines for Review of Site Specific Safety Management Plans;
- The SSSMP shall be maintained and kept up to date at all times;
- Any updates shall be forwarded to *Council's representative* within 48 hours; and
- The SSSMP will provide guidance for workers to comply with *Council's* Work Health and Safety Standards – Construction requirements.

The minimum information that must be defined in the SSSMP includes:

- Project Description;
- Responsibilities;
- A risk management methodology and risk assessment;
- Arrangements for ensuring compliance (e.g. inspection and testing);
- Arrangements for induction and safety training;
- Arrangements for consultation/communication;
- Emergency management;
- Health and safety performance monitoring;
- Managing of incident recording and investigation;
- Site safety rules; and
- Safe Work Method Statements and procedures for the type of work being performed.

### ***Supply of documentation***

As a minimum, the following documents shall be made available on site for inspection by

*Council's representative* during the project:

- Site Specific Safety Management Plan;
- Safe Work Method Statements (SWMS);
- Plant registers;
- Hazardous substance registers;
- Induction records;
- Site inspection results;
- Daily pre-work briefings and tool-box talks;

- Records of training and / or competency;
- Incident and investigation reports; and
- Infringement / penalty notices issued by regulators.

## 1.13 Quality management

### 1.13.1 Hold points and check points

For the purposes of this *specification*:

- a *hold point* is a point beyond which work must not proceed without inspection and approval by the relevant *public domain certifier*;
- Certification of each hold point shall be submitted to *PCA* for inclusion in documentary evidence in support of project certification.
- a *check point* is a point at which work.

is inspected and certified by an appropriately accredited *PDC* or is tested or sampled for testing and beyond which work may proceed at the risk of the *contractor*.

- Documentary evidence of inspection or test results shall be provided to the *PCA* for inclusion in documentary evidence in support of project certification.

### 1.13.2 Application of hold points and check points

*Hold points* and *check points* will apply as follows:

- as set out in the Schedule of *hold points* and *check points* – preliminaries for each main section of this Specification;
- at the points defined in any relevant Project Management Plan approved by *Council*; and
- at any point at which a non-conformance is detected.

### 1.13.3 Release of hold points and check points

To ensure that work meets the requirements of this Specification, *hold points* and *check points* will be released by a person who is a *public domain certifier (PDC)*.

The *PDC* is appointed according to the category of work relevant to the *hold point* or *check point*.

**Works Commissioned by a developer**

For *works* commissioned by a developer, the *PDC* must be appointed in accordance with Table 1–2.

Table 1–2 requires (as set out in the table) that for each category of work, the *PDC* must be a person who is either: an appropriately accredited certifier; a suitably qualified person; or *Council’s representative* having the relevant authorised position.

The *PDC* is appointed by the developer except for those *hold points* to be released by *Council’s representative* as specified in the Schedule of *Hold points* and *check points*.

**Table 1–2: Public domain certifier requirements – for works commissioned by a developer**

Category of work	Public Domain Certifier <sup>1</sup>		
	Accredited certifier (accreditation) <sup>2</sup>	Qualified person (qualification)	Council’s representative (authorised position)
Subdivision	Category C5— Accredited certifier	Registered land surveyor <sup>3</sup>	Senior Development Engineer or Environmental Assessment Officer – Engineer (BPB accredited)
Location of <i>works</i> as constructed	Category C5— Accredited certifier	Registered land surveyor <sup>3</sup>	Registered land surveyor

Road and drainage construction	Category C6— Accredited certifier	Chartered Professional Engineer (CPEng) in civil engineering	Senior Development Engineer or Senior Public Asset Engineer
Structural engineering construction	Category C7— Accredited certifier	Chartered Professional Engineer (CPEng) in structural engineering	
Tree protection and removal	N/A	Qualified arborist <sup>4</sup>	
Landscape construction	N/A	Landscape Architect <sup>5</sup> or Landscape Designer <sup>6</sup>	
Aboriginal Archaeology	N/A	Qualified aboriginal archaeologist <sup>7</sup>	
Heritage impact	N/A	Qualified heritage consultant <sup>8</sup>	
Land contamination	N/A	Qualified land contamination consultant <sup>9</sup>	
Acid sulphate soils	N/A	Qualified earth scientist <sup>10</sup>	

## Notes:

1. As set out in the table, for each category of work the *PDC* must be a person who is either: a relevant accredited certifier; a suitably qualified person; or *Council's* authorised *representative*.
2. Accreditation as provided under the *Building Professionals Act 2005* and Building Professionals Regulation 2007
3. A person who is registered as a land surveyor under the *Surveying and Spatial Information Act 2002*
4. A person who is an accredited member of the Institute of Australian Consulting Arboriculturists; or a person who holds the Tree Risk Assessment Qualification (TRAQ)

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from the International Society of Arboriculture (ISA).

5. A person who is registered by the Australian Institute of Landscape Architects as a Registered Landscape Architect.
6. A person who is eligible for membership of the Australian Institute of Landscape Designers and Managers.
7. A person with relevant expertise in indigenous archaeology who is eligible for full membership of the Australian Association of Consulting Archaeologists.
8. A person with relevant expertise in heritage impact assessment who is listed in the relevant directory of consultants maintained by the NSW Office of Environment and Heritage.
9. A person with relevant expertise in contaminated land assessment and remediation whose qualifications (a certified SCPA, CLA Specialist CEnvP or CPSS CSAM practitioner) satisfy the reporting requirements of the NSW Environment Protection Authority.
10. A person with relevant expertise in soil science who is accredited by Soil Science Australia as a Certified Professional Soil Scientist.

**Works Commissioned by Council**

For *works* commissioned by *Council* the *PDC* will be appointed in accordance with Table 1–3.

Table 1–3 requires (as set out in the table) that for each category of work the *PDC* must be a person who is either: a relevant accredited certifier; a suitably qualified person; or *Council's representative*.

**Table 1–3: Public Domain Certifier requirements – for works commissioned by Council**

Category of work	Public Domain Certifier <sup>1</sup>		
	Accredited certifier (accreditation) <sup>2</sup>	Qualified person (qualification)	Council Officer (authorised position)
Subdivision	Category C5— Accredited certifier	Registered land surveyor <sup>3</sup> Chartered or Professional Engineer (CPEng)	Senior Development Engineer or Environmental Assessment Officer
Subdivision location of <i>works</i> as constructed	Category C5— Accredited certifier	Registered land surveyor <sup>3</sup> or Chartered Professional Engineer (CPEng)	Registered Surveyor
Location of <i>works</i> as constructed	Category C5— Accredited certifier	Registered land surveyor <sup>3</sup>	Survey Manager
Road and drainage construction	Category C6— Accredited certifier	Chartered Professional Engineer (CPEng) in civil engineering	Contract Superintendent or Project Manager
Structural engineering construction	Category C7— Accredited certifier	Chartered Professional Engineer (CPEng) in structural engineering	Structural Engineer

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Tree protection and removal	N/A	Qualified arborist <sup>4</sup>	Tree Management Officer
Landscape construction	N/A	Landscape Architect <sup>5</sup> or Landscape Designer <sup>6</sup>	Senior Landscape Architect
Aboriginal Archaeology	N/A	Qualified aboriginal archaeologist <sup>7</sup>	Natural Area Manager
Heritage impact	N/A	Qualified heritage consultant <sup>8</sup>	Senior Heritage Architect
Land contamination	N/A	Qualified land contamination consultant <sup>9</sup>	Earth Scientist
Acid sulphate soils	N/A	Qualified earth scientist <sup>10</sup>	Earth Scientist

Notes:

1. The PDC must be, as set out in the table for each category of work, a person who is either: a relevant *accredited certifier*; a suitably qualified person; or *Council's representative*.
2. Accreditation as provided under the *Building Professionals Act 2005* and Building Professionals Regulation 2007.
3. A person who is registered as a land surveyor under the *Surveying and Spatial Information Act 2002*
4. A person who is an accredited member of the Institute of Australian Consulting Arboriculturists; or a person who holds the Tree Risk Assessment Qualification (TRAQ) from the International Society of Arboriculture (ISA).
5. A person who is registered by the Australian Institute of Landscape Architects as a Registered Landscape Architect.
6. A person who is eligible for membership of the Australian Institute of Landscape Designers and Managers.
7. A person with relevant expertise in indigenous archaeology who is eligible for full membership of the Australian Association of Consulting Archaeologists.
8. A person with relevant expertise in heritage impact assessment who is listed in the relevant directory of consultants maintained by the NSW Office of Environment and Heritage.
9. A person with relevant expertise in contaminated land assessment and remediation whose qualifications (a certified SCPA, CLA Specialist CEnvP or CPSS CSAM

practitioner) satisfy the reporting requirements of the NSW Environment Protection Authority.

10. A person with relevant expertise in soil science who is accredited by Soil Science Australia as a Certified Professional Soil Scientist.

**1.13.4 Schedule of hold points and check points – preliminaries**

<b>1. Work process:</b>	<b>Pre-commencement site meeting</b>
<i>Hold point or check point:</i>	<i>Hold point – Council’s representative</i>
Required Notice	At least five (5) working days prior to Pre Commencement Inspection.
Required Action:	<p>The <i>contractor</i> shall submit to <i>Council</i> the following documents (at least five (5) working days prior to the pre-commencement site meeting):</p> <ul style="list-style-type: none"> <li>—a dilapidation report as required;</li> <li>—an environmental site management plan (ESMP);</li> <li>—a traffic control plan or traffic management plan for the first stage of the <i>works</i>;</li> <li>—a Part 3A permit if required;</li> <li>—Project Management Plan (PMP);</li> <li>—any relevant vegetation management plan;</li> </ul> <p>and</p> <ul style="list-style-type: none"> <li>—any relevant safe work methods statements (SWMS).</li> </ul> <p>Before releasing the <i>hold point</i>, <i>Council’s representative</i> must meet with the <i>contractor</i>, the <i>PDC</i> for road and drainage work (and the PCA as relevant) on the site and review and accept the submitted documents.</p>
<b>2. Work process:</b>	<b>Existing services</b>
<i>Hold point or check point:</i>	<i>Check point - PDC</i>
Required Notice	By arrangement with the <i>PDC</i>
Required Action:	The <i>PDC</i> shall confirm that DBYD or any other relevant service investigation has been undertaken, to satisfy the <i>check point</i> .

<b>3. Work Process:</b>	<b>Vegetation protection, clearing, tree removal and pruning</b>
<i>Hold Point or check point:</i>	<i>Hold point – Council's representative</i>
Required Notice	At least three (3) working days notice.
Required Action:	<p>The <i>contractor</i> shall</p> <ul style="list-style-type: none"> <li>—mark the trees for removal or pruning;</li> <li>—peg the extent of the area to be cleared;</li> </ul> <p><i>Council's representative</i> shall inspect the vegetation to be retained and protected prior to their removal or pruning and releasing the <i>Hold Point</i>.</p>
<b>4. Work Process:</b>	<b>Works as executed plans</b>
<i>Hold point or check point:</i>	<i>Hold point – Council's representative</i>
Required Notice	At least five (5) days
Required Action:	<i>Council's representative</i> shall review Works as Executed Plans prior to certifying the <i>hold point</i> unless advised otherwise.

<b>5. Work Process:</b>	<b>Final inspection and certification of all works – for works commissioned by a developer</b>
<i>Hold point or check point:</i>	<i>Hold point – Council's representative</i>
Required Notice:	At least seven (7) working days' notice.
Required Action:	<p>The <i>PCA</i> shall submit to <i>Council</i> the <i>PDC's</i> certificates, reports, test results, photographic evidence or other relevant documents for all the above <i>check points</i> and <i>hold points</i> prior to final inspection.</p> <p><i>Council's representative</i> (together with the <i>PCA</i>) shall carry out a final site inspection and review the submitted documentation, prior to authorising the release of the <i>hold point</i>.</p>
<b>5A. Work Process:</b>	<b>Final inspection and certification of all works – for works commissioned by Council</b>
<i>Hold point or check point:</i>	<i>Hold point – Council's representative</i>
Required Notification:	At least seven (7) working days' notice.
Required Action:	<p><i>Council's representative</i> shall receive the <i>PDC's</i> certificates, reports, test results, photographic evidence or other relevant documents for all the above <i>check points</i> and <i>hold points</i> prior to of final inspection.</p> <p><i>Council's representative</i> shall carry out a final site inspection and review the submitted documentation, prior to authorising the release of the Hold Point.</p>