

# LAND DEVELOPMENT SUPPLEMENT



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## *To Local Government Guidelines for Subdivisional Development (LGGSD)*

### Document Control

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Version	Date	Nature of Amendment
1.0	10/10/2025	Major Review to the document
1.1	03/12/2025	Minor additions to document
2.0	18/02/2026	Addition of Pavement Material information (under Section 3)

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# INTRODUCTION

The City of Greater Geraldton (CGG) has formally adopted the latest edition of the “Local Government Guidelines for Subdivisional Development” (LGGSD) as the foundational reference for subdivision and related development activities. This supplement outlines all CGG-specific variations to the LGGSD.

The City actively encourages the use of innovative approaches to deliver enhanced outcomes for the community. Proposals incorporating recycled materials, advanced water management techniques, or creative lighting solutions may be considered. Consultants are invited to explore alternatives that meet or exceed the minimum standards outlined in the LGGSD and this supplement.

This supplement needs to be read in conjunction with (but not limited to) the following:

1. [Local Government Guidelines for Subdivisional Development](#) (latest revision) available from the Institute of Public Works Engineering Australia (IPWEA).
2. [Liveable Neighbourhoods, a Western Australian Government Sustainable Cities Initiative](#) (latest version) by the Western Australian Planning Commission (WAPC).
3. [Stormwater Management Manual](#) and [Better Urban Water Management](#) by the (former) Department of Water (now the Department of Water and Environmental Regulation (DWER)).
4. [AUSTROADS – Guide to Road Design](#).

Unless otherwise specified, the minimum applicable standards outlined in the relevant Australian Standards shall serve as the default design specifications. This document is intended to be read in conjunction with the Local Government Guidelines for Subdivisional Development (LGGSD).

No guidelines or specifications from any document shall exempt the Consulting Engineer from their professional responsibility to design services to higher standards when necessary. This includes circumstances where site-specific conditions, test results, or other factors demand elevated specifications. The Consulting Engineer remains fully accountable for ensuring all design work complies with the relevant design standards and for arranging all necessary testing to support the design. Such tests must be conducted and certified by a laboratory accredited by the National Association of Testing Authorities (NATA).

This supplement outlines only those clauses from the LGGSD where the City of Greater Geraldton (CGG) has specified variations.

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# MODULE 1 – LEGAL FRAMEWORK AND CONTRACT ADMINISTRATION

## 1.13 Developer Responsibilities

*Substitute the standard LGGSD clause with the following:*

Once the Western Australian Planning Commission (WAPC) has established subdivision conditions, it is the developer's responsibility to engage the necessary expertise—either through their own qualified personnel or by appointing suitably qualified consultants.

Due to limited resources, the City of Greater Geraldton (CGG) does not offer design or supervision services for developers.

### 1.13.1.1 Engineering Consultants

*In addition to the standard LGGSD condition CGG requires the following:*

The engineering consultant is responsible for the design, management and approval of all testing and site works. CGG approval of any drawings, documents, designs, technical reports or visual inspection of works does not absolve the consultant from ensuring all works comply with the relevant standards, guidelines and specifications.

## 1.14 Street Lighting

*In addition to the standard LGGSD condition CGG requires the following:*

In areas zoned Rural or Rural Residential, CGG requires flag lighting only at intersections, pedestrian and cyclist facilities, and where bridle paths crossroads.

Prior to the granting of practical completion, the contractor must provide the City with evidence of Western Power's acceptance and handover of all lighting assets.

## 1.16 Project Signage

*In addition to the standard LGGSD condition CGG requires the following:*

CGG requires all project signage to be generally in accordance with the CGG's Standard Drawings (Appendix Two).

## 1.17 Control, Inspection and Supervision of Works

*Substitute the standard LGGSD clauses 3(a) and 3(b) with the following:*

For the purposes of subsection (2), the developer is required to engage a consulting engineer and a clerk of works to undertake the design and supervision of construction and drainage works. Additionally, the developer must pay a supervision fee to the local government, calculated at 1.5% of the estimated cost of construction and drainage, as determined by the Local Government.

### **1.17.4.3 Indicative Inspection Standard Form – Roadworks**

*In addition to the standard LGGSD condition CGG requires the following:*

The LGGSD Indicative Inspection Standard Form – Roadworks serves as a reference for the types of information required within the contractor’s quality and testing plan. This form represents the minimum level of documentation generally accepted by the City for sign-off. Contractors are expected to maintain their own quality assurance systems and ensure all relevant documentation is submitted to the City. Should the consultant’s or contractor’s systems be deemed inadequate, the City may request additional compliance information.

### **1.17.5 Testing**

*In addition to the standard LGGSD condition CGG requires the following:*

Subdivision clearance will only be considered after all test results are submitted and passed by CGG.

## **1.18 Practical Completion**

*In addition to the standard LGGSD condition CGG requires the following:*

On completion of all the works and before issuing a Certificate of Practical Completion the consultant shall conduct CCTV inspections of the newly constructed drainage network. A copy of the CCTV inspection shall be provided to the City in a suitable format. The CCTV inspection shall be conducted after all earthworks, pavement, asphalt, concrete and drainage works are completed. The date of the inspection shall be provided. Significant defects will need to be either repaired or altered before the Issue of Clearance. CGG may allow minor defects to be repaired or altered during the Defects Liability Period.

Currently CGG will conduct the CCTV inspections. However, in the future as CCTV inspections services become more readily available the expectation is that the consultant or contractor to engage independent contractor to conduct a CCTV inspection and prepare a defects report. The defects report and associated CCTV camera footage shall be provided to CGG before clearance is issued. The need for an independent CCTV inspection by the consultant will be detailed in the CGG approval letter of the civil plans.

## **1.20 Bonding Outstanding Works**

*Substitute the standard LGGSD clause with the following:*

CGG does not support bonding of any works. All works shall be completed before the issue of practical completion. Bonding outstanding works will only be considered in exceptional circumstances.

## **1.22 Asset Register**

*In addition to the standard LGGSD condition CGG requires the following:*

All asset information shall be submitted to CGG in accordance with A-SPEC format before clearance is issued.

A-SPEC (digital data specification) is a set of standardised specifications for digital data that describes “As Constructed” infrastructure assets and the goal is to ensure that infrastructure data is captured correctly, it is provided in a GIS-ready format (e.g. shapefile) and supporting efficient asset management.

A-SPEC is a suite of specification tailored to a specific type of infrastructure, and the City is subscribed to the following specifications:

- D-Spec for drainage infrastructure.
- O-Spec for public open space and recreational assets; and
- R-Spec for assets withing the road reserve.

# MODULE 2 – SITE PREPARATION GUIDELINES

## 2.2.1 Earthworks

### 2.2.1.2 Residential Areas

*Substitute “1.5 metres” with “2.0 metres” in the second paragraph as shown below:*

On the low side the first 2.0 metres behind the kerb should be graded up at two percent (2%) from the adjacent road kerb height.

## 2.3.2 Hydro-mulching and Seeding

*In addition to the standard LGGSD condition CGG requires the following:*

Stabilisation must be carried out by an experienced and reputable stabilisation company employing supervisory personnel. The application rate in soft soils shall be three (3)  $\ell/m^2 = 30\ 000\ \ell/ha$ . The seed and fertilizer shall only be applied before the first winter rain, usually starting in March and finishing in August. The following hydro-mulch mix has been designed for CGG and will be required together with a tackifier, unless a more efficient mix can be proven.

Tackifier could be used on its own, applied out of any water cart at 800 - 1000  $\ell/ha$ . Seed and fertilizer cannot be placed in this mix as it requires paper to carry to seed and fertilizer. Seed and fertilizer could be “drilled in” or “spun out” followed by cover over with cover harrows and then have tackifier applied over the top to stop sand blasting of new shoots and stabilize soil. Cannoning hydro-mulch quickens the process but does not give the best result and the product floats on the surface and is not mixed in. The Developer shall provide proof of the seed and fertilizer application. Green dye is required in Hydro-mulching to show the effective coverage area. Dye should last 6-12 months.

TABLE S1

ITEM	SUBSTANCE	APPLICATION RATE
1	Paper	1,000 kg/ha
2	Cereal Rye	80 kg/ha
3	Wimmera Rye	20 kg/ha
4	Fertilizer	80 kg/ha
4a	Sulphur [S]	16.8%
4b	Nitrogen [N]	12.3%
4c	Potassium [K]	6.2%
4d	Phosphorous [P]	1.8%
4e	Iron [F]	0.5%
4f	Manganese	0.4%
4g	Copper [Cu]	0.1%
4h	Zinc [Zn]	0.1%
5	Tackifier 800	$\ell/ha$
5a	Gluon 240	100%

## **2.4.1 General**

*In addition to the standard LGGSD condition CGG requires the following:*

All materials used in retaining walls requires a minimum design life of 100 years. Therefore, CGG will generally only approve masonry retaining walls as part of the subdivision. Concrete post and rail retaining walls will only be considered if certification is provided by a qualified structural engineer regarding products durability. i.e. garden type concrete post and rail retaining walls will not be approved. CGG does not approve the use of timber or steel and retaining walls.

# MODULE 3 – ROAD GUIDELINES

## 3.3.1 Road Hierarchy

Substitute Row 9 in Table 3.4 of the standard LGGSD table with the following:

TABLE 3.4: SUMMARY OF PLANNING CRITERIA FOR RESIDENTIAL ROADS

Function/ Road Type	Integrator Category B	Neighbour- hood Connector	Access Way	Access Place	Access Lanes and Rear Laneways
Separate footpath/dual use path provision	At least a 2.5m wide path on one side	At least a 2.0m wide path on one side			No

## 3.3.5 Kerbing

In addition to the standard LGGSD condition CGG requires the following:

The LGGSD “Mountable Kerb Detail” shall be revised to ensure a minimum concrete thickness of 100mm. The dashed line shown beneath the kerb in the detail represents the approximate base level of the concrete.

The “Mountable Kerb With Key” detail may be used as an acceptable alternative to the modified “Mountable Kerb Detail”.

Multiple kerb types are currently in use within CGG. For proposed subdivisions in infill areas, the new kerb must match the existing type. In such cases, guidance should be obtained from CGG.

## 3.3.9 Urban Base Course Profiles

In addition to the standard LGGSD condition CGG requires the following:

CGG mandates a minimum compacted asphalt thickness of 30mm. All references to a 25mm asphalt thickness must be updated to reflect this requirement.

Crushed limestone is generally unavailable in the Geraldton region. Accordingly, all references to crushed limestone may be substituted with other suitable base or sub-base course materials that meet the requirements of the LGGSD.

## 3.3.15 Eyebrow Treatments

In addition to the standard LGGSD condition CGG requires the following:

Subdivision layouts must be planned to eliminate the need for eyebrow treatments by ensuring all lots have sufficient direct road frontage. If eyebrow treatments are proposed, they should be submitted to CGG promptly for review. Any treatments approved by CGG must be designed in accordance with the relevant LGGSD clause.

### **3.3.16 Verge Management – Rural Roads**

*In addition to the standard LGGSD condition CGG requires the following:*

CGG requires all services to be located clear of significant remnant vegetation. Where this is not feasible, services may require boring or other methods to minimise potential disturbance. It is recommended that the consultant enters discussions with CGG as soon as possible significant remnant vegetation is identified.

### **3.3.19 Special Design Requirements**

#### **3.3.19.1 Temporary Turning Circles**

*Substitute Paragraph 3 of the standard LGGSD clause with the following:*

Where a road extension into an adjoining property is necessary to facilitate future construction, the road must be fully constructed up to the property boundary, with the temporary turning circle positioned within the adjoining lot.

To facilitate this, the subdivider/developer must reach an agreement with the adjoining property owner to establish a carriageway easement in favour of CGG, providing sufficient area to accommodate the temporary turning circle. The subdivider/developer shall bear all costs related to survey, legal processes, and compensation associated with creating the easement.

If the subdivider/developer is unable to secure an easement on the adjoining property, the City may permit local widening of the road reserve within the development, allowing temporary turning areas to be positioned within the verge. Subject to CGG approval, the turning area must be sealed and constructed to match the standard of the adjoining road pavement. Depending on the design, the developer may also be required to install “No Parking” signage.

### **3.4.2 Crushed Limestone**

#### **3.4.2.1 General**

*In addition to the standard LGGSD condition CGG requires the following:*

Crushed limestone shall only be used as a sub-base material.

#### **3.4.2.3 Properties**

*In addition to the standard LGGSD condition CGG requires the following minimum pavement values:*

<b>PAVEMENT LAYER</b>	<b>MINIMUM CBR VALUE</b>
Crushed Limestone Sub-base	$\geq 30\%$

#### **3.4.5 Gravel**

##### **3.4.5.2 Properties**

*In addition to the standard LGGSD condition CGG requires the following minimum pavement values:*

PAVEMENT LAYER	MINIMUM CBR VALUE
Gravel Base	$\geq 80\%$
Gravel Sub-base	$\geq 30\%$

### 3.4.6 Fine Crushed Rock (Road Base)

#### 3.4.5.2 Properties

*In addition to the standard LGGSD condition CGG requires the following minimum pavement values:*

PAVEMENT LAYER	MINIMUM CBR VALUE
Fine crushed rock (road base) used as Base	$\geq 80\%$
Fine crushed rock (road base) used as Sub-base	$\geq 30\%$

### 3.4.7 Ferricrete

*In addition to the standard LGGSD condition CGG requires the following minimum pavement values:*

PAVEMENT LAYER	MINIMUM CBR VALUE
Gravel Base	$\geq 80\%$
Gravel Sub-base	$\geq 30\%$

### 3.4.8 Recycled Materials for Base Course Construction

*In addition to the standard LGGSD condition CGG requires the following minimum pavement values:*

PAVEMENT LAYER	MINIMUM CBR VALUE
Recycled Base	$\geq 80\%$
Recycled Sub-base	$\geq 30\%$

### 3.4.13 Paving Units

*In addition to the standard LGGSD condition CGG requires the following:*

Approval for the use of brick pavers must be sought from CGG on a case-by-case basis.

# MODULE 4 – DRAINAGE MANAGEMENT GUIDELINES

## 4.3.2 Key Elements for Water-Sensitive Urban Design

### 4.3.2.2 Flood Protection (Managing Major Storm Events)

*In addition to the standard LGGSD condition CGG requires the following:*

Due to the natural topography of Geraldton, certain areas form landlocked depressions where stormwater can only be managed through a combination of infiltration and evaporation. In these locations, compensation basins must be designed to accommodate the Probable Maximum Flood (PMF) level. To ensure adequate flood protection, all habitable building floor levels within the subdivision must be constructed at least 0.5 metres above the calculated PMF level.

In certain areas, catchment outflows are constrained by existing infrastructure such as elevated road or railway embankments with limited culvert capacity. This can result in backflow during a 1% Annual Exceedance Probability (AEP) storm event, affecting upstream properties. It is essential to carefully assess the potential impacts of such backflows during the design phase. As a minimum requirement, all affected upstream lots must be filled to either 300 mm above the 1% AEP top water level or 100 mm above the obvert of the outlet culvert—whichever is greater.

### 4.3.2.3 Small Rainfall Events

*Substitute Paragraph 6 of the standard LGGSD clause with the following:*

Sealed joints shall be used for all drainage lines.

### 4.3.2.4 Stormwater Drainage Design – General Principles

*In addition to the standard LGGSD condition CGG requires the following information after Paragraph 7:*

In situations where a developer is unable to reach a reasonable agreement with a downstream property owner for the establishment of a drainage easement, CGG may, in exceptional circumstances, permit the development to proceed by requiring additional stormwater storage within the proposed subdivision.

To be considered, the developer must submit a formal application to CGG detailing all negotiation efforts, including documented offers and counteroffers. If CGG agrees to waive the downstream easement requirement, the subdivision's stormwater management system must be designed to fully store and dissipate the 1% (AEP) storm event on-site.

*In addition to the standard LGGSD condition CGG requires the following information after Paragraph 10:*

CGG has encountered significant issues arising from undersized piped drainage and storage systems, primarily due to inadequate consideration of catchments located outside the road reserve. To prevent such issues, the consulting engineer must ensure that all external catchment flows are incorporated into the stormwater system design.

Consulting engineers are expected to assess and confirm the run-off coefficients applicable to a particular development prior to undertaking drainage design. The limits discharges from developed lots to the predevelopment discharge. So, CGG has adopted the coefficients of runoff in Table S2 as the minimum for all lots and road reserves in the proposed developments.

Consulting engineers are required to assess and verify the appropriate runoff coefficients for each development prior to commencing drainage design. In accordance with the City's [R-Codes – Stormwater Management Local Planning Policy](#), post-development stormwater discharge must not exceed pre-development levels. To support this requirement, CGG has adopted the runoff coefficients listed in Table S2 as the minimum standards for all lots and road reserves within proposed developments.

Including runoff from lots and external catchments can increase the time of concentration within the drainage system. The consulting engineer must calculate and assess flows and storage volumes based on both the entire catchment and the partial area effect. For design purposes, the scenario resulting in the highest flow rates or storage volumes must be adopted.

TABLE S2

TYPE OF DEVELOPMENT	COEFFICIENT OF RUNOFF
Undeveloped lots and catchments located in well-drained sandy soil	0.2
Undeveloped lots and catchments located in poor draining clay soils or rock	0.4
Road reserves in rural and rural-residential areas	0.6
Roads reserves in urban areas	0.8
Road reserves in industrial areas	0.8
Road reserves in commercial areas – this value is based on the whole of the commercial road reserve being paved	0.9

### 4.3.3 Design In Urban Areas

#### 4.3.3.3 Junction and Lot Connection Pits

*In addition to the standard LGGSD condition CGG requires the following:*

CGG typically designs its piped drainage network to manage stormwater runoff originating from the road reserve and the pre-development flow from individual lots. Direct property connections into the CGG drainage network are generally not permitted.

All property stormwater is designed to be retained on-site in accordance with the City's current [R-Codes – Stormwater Management Local Planning Policy](#).

An exception to this policy applies in certain high-density commercial areas within the CBD, where the drainage infrastructure has been specifically designed to accommodate stormwater runoff from commercial developments.

In areas where local soils exhibit very low saturated hydraulic conductivity—less than  $1 \times 10^{-5}$  m/s (0.86 m/day)—the road drainage system may need to be designed to accommodate direct property connections. In such cases, consulting engineers should seek guidance from the CGG to ensure appropriate stormwater system design.

#### **4.3.3.6 Open Space Flood Storage/Detention Facilities**

*In addition to the standard LGGSD condition CGG requires the following:*

Flood storage detention facilities must include a maintenance access ramp with a minimum width of 4.0 metres, extending to the base of the basin. The ramp must have a maximum gradient of 1 in 8 and be constructed using an approved basecourse material with a minimum compacted depth of 200 mm.

#### **4.3.3.7 Stormwater Infiltration**

*In addition to the standard LGGSD condition CGG requires the following:*

Geraldton features a diverse range of soil types, from highly permeable sands to nearly impervious soils. Field experience has shown that permeable layers are often underlain by impervious strata at varying and unpredictable depths, making accurate assessment of subsurface conditions challenging.

As a result, permeability tests conducted on upper soil layers can often lead to inaccurate assessments when designing detention or soakage structures. Consulting engineers must undertake comprehensive investigations of soil types and subsurface strata within the subdivision area. All results from on-site testing must be submitted to the CGG, along with supporting design calculations and plans:

- Site investigations must be conducted by a qualified professional, such as a hydrogeologist, geotechnical engineer, groundwater geologist, or another suitably qualified person, to determine both the depth to groundwater and the hydraulic characteristics of the soil.
- Compensation basins rely on the infiltration capacity of sandy subgrade materials to allow stormwater to percolate into the underlying groundwater. Permeability calculations are to be conducted at depths greater than 1 metre below the floor level of the proposed compensation basin or stormwater storage area.
- The infiltration rate of the subgrade is critical to the performance of these systems, and therefore, the depth of the water table must be carefully considered when determining the required size of the stormwater storage facility.

If the floor of the compensation basins lies within 2 metres of the groundwater table, supplementary areas may be necessary, and detailed calculations must be submitted to CGG for assessment.

Infiltration rates shall be calculated based on soil capacity testing conducted at an appropriate depth below the stormwater storage level, with consideration given to the groundwater table level throughout the design period.

Monitoring of constructed basins during storm events is essential to validate the predicted infiltration modelling and confirm that the basin is functioning as designed.

The Developer must implement a monitoring program spanning at least two full winter periods. If the basin's performance is found to be unsatisfactory, remedial actions shall be undertaken, followed by an additional assessment over two subsequent winter periods.

# MODULE 5 – STREETScape GUIDELINES

## 5.3.1 Pedestrian and Bicycle Facilities

### 5.3.1.1 General

*Substitute Paragraph 6 of the standard LGGSD clause with the following:*

Paths shall be provided in accordance with Table 3.4 in Clause 3.3.1 of this supplement. Pram crossings are to be provided at all intersections and must not exceed a maximum gradient of 1:10.

### 5.3.1.2 Urban Areas

*In addition to the standard LGGSD condition CGG requires the following:*

CGG requires all new paths to be designed as shared paths and have a minimum width of 2.0m. The figures and text in this section shall be adjusted as follows:

#### FIGURE 5.3: TYPICAL SERVICES, TREE AND PATH LOCATIONS IN 4.1 METRE VERGE

On the right-hand side of the figure delete "OR FOOTPATHS (1.5m-1.8m).

#### FIGURE 5.4: TYPICAL SERVICES, TREE AND PATH LOCATION IN 5.5 METRE VERGE INCORPORATING INDENTED PARKING

On the right-hand side of the figure delete "OR FOOTPATH (1.5m-1.8m)

Notes:

1. 0.3 metre clearance required to property boundary for a minimum shared path of 2 metres. The footpath or shared path may be paved to the property boundary in addition to minimum width.

### 5.3.1.2.1 Pedestrian Accessway

*Substitute last paragraph of the standard LGGSD clause with the following:*

All paths must be fully constructed prior to the issuance of practical completion. The City of Greater Geraldton does not permit the use of bonds in lieu of path construction.

## 5.3.6 Street Trees and Landscaping

*In addition to the standard LGGSD condition CGG requires the following:*

CGG generally requires developers to plant street trees prior to practical completion. However, with CGG's agreement, developers may instead provide a payment in lieu. This enables CGG to undertake the planting and establishment of the trees during the cooler, wetter winter months, ensuring better growing conditions.

The required contribution will be calculated at a rate of one tree for every 20 metres of road frontage, measured along the property boundaries. The cost per tree will be determined in accordance with the current City of Greater Geraldton Fees and Charges schedule. Where a fee is not specified in the schedule, the applicable amount will be outlined in the engineering and landscape drawings approval letter.

Where a developer provides a payment in lieu of street tree planting, the City reserves the right to select, plant, and establish trees within the road reserves at its discretion, including the timing and location of

planting. Responsibility for the ongoing maintenance of street trees planted by the City of Greater Geraldton rests solely with the City, and not with the developer.

### **5.3.6.1 Rain Gardens/Bio-Filters**

*Substitute the standard LGGSD clause with the following:*

CGG does not endorse the installation of small rain gardens and bio-filters within residential areas due to the ongoing maintenance challenges they present. However, CGG may consider supporting larger-scale rain gardens and bio-filters in publicly managed spaces and commercial developments—such as street tree pits and planting beds, for example in the CBD, provided that the design and vegetation align with best practice standards and receive prior approval from CGG.

### **5.3.6.2 Entry Statement**

*Substitute the standard LGGSD clause with the following:*

CGG does not support the installation of entry statements within the road reserve, and such structures are strictly prohibited in these areas.

Should a developer wish to pursue an entry statement, a separate development application must be submitted following the clearance of the subdivision. Any proposed entry statement must meet the following requirements:

- It must be entirely located on private property.
- It must comply with all relevant planning and building regulations.
- A caveat must be placed on the property title, requiring the owner to maintain the entry statement in a safe, clean, and tidy condition at all times.

### **5.3.7 Banner Poles**

*Substitute the standard LGGSD clause with the following:*

CGG does not support the installation of banner poles/flag poles within the road reserve, and such structures are strictly prohibited in these areas.

Should a developer wish to pursue a banner poles/flat poles, a separate development application must be submitted following the clearance of the subdivision. Any proposed entry statement must meet the following requirements:

- It must be entirely located on private property.
- It must comply with all relevant planning and building regulations.
- A caveat must be placed on the property title, requiring the owner to maintain the banner poles/flag poles in a safe, clean, and tidy condition at all times.

### **5.4.1 Footpath and/or Shared Path Construction**

*Substitute Bullet Point 1 in paragraph three in the standard LGGSD clause with the following:*

- Concrete paths shall have a minimum thickness of 100mm and be reinforced and jointed in accordance with CGG Standard Drawings (Appendix Two).

### **5.4.3 Lighting Categories for Roadways and Public Areas**

*In addition to the standard LGGSD condition CGG requires the following:*

CGG endorses the adoption of LED technology and smart lighting solutions. Recognising the ongoing evolution of lighting equipment, CGG requires developers to utilise the latest standard-compliant fixtures, luminaires, and fittings as approved by Western Power.

CGG requires documented evidence confirming that all lighting fixtures and fittings have received approval and have been formally handed over to Western Power prior to issuing the Certificate of Practical Completion.

# MODULE 6 – PUBLIC OPEN SPACE GUIDELINES

## 6.4.6 Post & Rail Fencing and Bollards

*Substitute the standard LGGSD clause with the following:*

Where specified, the boundaries of reserves adjacent to roads, or areas within public open space requiring barriers for vegetation protection or access control, shall be enclosed using approved recycled plastic bollards, post-and-rail fencing, or other suitable fencing types in accordance with the following requirements:

- Posts shall generally be installed in accordance with the CGG Standard Drawings (Appendix Two).
- Where applicable, rails shall have a diameter ranging from 100mm to 150mm, as required.
- Rails shall be securely installed in accordance with the manufacturer's specifications.
- Where rails are required, posts shall not exceed 2.4 metre spacings.
- Where only bollards are required, post spacings shall not exceed 1.5 metres centre-to-centre. This is to impede vehicle access.
- Post tops and rail ends shall be finished with a rounded profile.

All proposed fencing installations shall be submitted to CGG for prior written approval.

# MODULE 7 – STANDARD DRAWING GUIDELINES

## 7.3.1 Drawings

### 7.3.1.2 Layer Naming and Layer Discipline

*Please Note that CGG does not require strict compliance with the LGGSD clause:*

The LGGSD clause may be adopted by the consultant as a guideline; however, CGG does not mandate full compliance with its requirements. Consultants are permitted to apply their own internal drafting procedures, provided they comply with current Australian Standards for technical drawing. All design information must be clearly distinguished from existing information.

### 7.3.1.3 View Ports

*Please Note that CGG does not require strict compliance with the LGGSD clause:*

The LGGSD clause may be adopted by the consultant as a guideline; however, CGG does not mandate full compliance with its requirements.

### 7.3.1.4 Plot Styles

*Please Note that CGG does not require strict compliance with the LGGSD clause:*

The LGGSD clause may be adopted by the consultant as a guideline; however, CGG does not mandate full compliance with its requirements.

### 7.3.1.5 Hatching

*Please Note that CGG does not require strict compliance with the LGGSD clause:*

The LGGSD clause may be adopted by the consultant as a guideline; however, CGG does not mandate full compliance with its requirements.

### 7.3.1.6 Raster Images

*Please Note that CGG does not require strict compliance with the LGGSD clause:*

The LGGSD clause may be adopted by the consultant as a guideline; however, CGG does not mandate full compliance with its requirements.

### 7.3.1.7 X-Ref Files

*Please Note that CGG does not require strict compliance with the LGGSD clause:*

The LGGSD clause may be adopted by the consultant as a guideline; however, CGG does not mandate full compliance with its requirements.

### 7.3.1.8 Coordinates

*Please Note that CGG does not require strict compliance with the LGGSD clause:*

The LGGSD clause may be adopted by the consultant as a guideline; however, CGG does not mandate full compliance with its requirements.

### **7.3.1.9 Polylines**

*Please Note that CGG does not require strict compliance with the LGGSD clause:*

The LGGSD clause may be adopted by the consultant as a guideline; however, CGG does not mandate full compliance with its requirements.

### **7.3.1.10 Annotations and Dimensions**

*Please Note that CGG does not require strict compliance with the LGGSD clause:*

The LGGSD clause may be adopted by the consultant as a guideline; however, CGG does not mandate full compliance with its requirements.

## **7.5.4 Re-Contouring and Earthworks Layout Plan**

*Substitute last paragraph of the standard LGGSD clause with the following:*

Note: The consultant shall determine a contour interval that accurately reflects the proposed surface topography. On relatively flat sites, smaller contour intervals may be necessary to achieve sufficient representation.

### **7.5.10 As-Constructed Drawing**

*In addition to the standard LGGSD condition CGG requires the following:*

The developer must also submit all relevant 'As-Constructed' data in A-Spec format.

# MODULE 8 – CONSTRUCTION GUIDELINES

## 8.1.3 Traffic Management

*In addition to the standard LGGSD condition CGG requires the following:*

Any subdivision development that impacts on existing road networks, shared paths or footpaths shall require an approved Traffic Management Plan.

## 8.1.4 Road Closure

*In addition to the standard LGGSD condition CGG requires the following:*

Any road closure required for subdivision development will require an approved road closure permit in conjunction with an approved Traffic Management Plan.

## 8.3.1 Construction Requirements

### 8.3.1.6 Sub-Grade

*In addition to the standard LGGSD condition CGG requires the following:*

The sub-grade shall be free of all debris, vegetative matter and other foreign materials.

The sub-grade shall be proof rolled under the observation of a CGG-authorized representative using a tandem axle vehicle loaded with a minimum of 10 tonnes of material or 10,000 litres of water. Should the sub-grade exhibit unacceptable deflection, and replacement is directed by the CGG representative, the affected area shall be excavated to the extent specified, backfilled with approved material, compacted to the required density, and subjected to additional proof rolling to verify compliance.

Before commencing any road works the consultant shall submit a methodology to CGG outlining how the consultant and contractor will ensure the sub-grade is within the dimensional tolerances outlined in this clause. Possible options could include survey or stringlines and measuring tape. CGG reserves the right to require a survey of the completed sub-grade to verify compliance with the dimensional tolerances outlined in this clause.

It is necessary to engage the project team in evaluating whether this approach effectively manages pavement layer tolerances.

### 8.3.1.7 Sub-Base

#### 8.3.1.7.4 Acceptance

*In addition to the standard LGGSD condition CGG requires the following:*

The sub-base shall be free of all debris, vegetative matter and other foreign materials.

The sub-base shall be proof rolled under the observation of a CGG-authorized representative using a tandem axle vehicle loaded with a minimum of 10 tonnes of material or 10,000 litres of water. Should the sub-base exhibit unacceptable deflection, and replacement is directed by the CGG representative, the affected area shall be excavated to the extent specified, backfilled with approved material, compacted to the required density, and subjected to additional proof rolling to verify compliance.

Before commencing any road works the consultant shall submit a methodology to CGG outlining how the consultant and contractor will ensure the sub-base is within the dimensional tolerances outlined in

this clause. Possible options could include survey or stringlines and measuring tape. CGG reserves the right to require test pits and/or surveys of the completed sub-base to verify compliance with the dimensional tolerances outlined in this clause.

### **8.3.1.8 Base Course**

#### **8.3.1.8.4 Acceptance**

*In addition to the standard LGGSD condition CGG requires the following:*

The base course shall be free of all debris, vegetative matter and other foreign materials.

The base course shall be proof rolled under the observation of a CGG-authorized representative using a tandem axle vehicle loaded with a minimum of 10 tonnes of material or 10,000 litres of water. Should the base course exhibit unacceptable deflection, and replacement is directed by the CGG representative, the affected area shall be excavated to the extent specified, backfilled with approved material, compacted to the required density, and subjected to additional proof rolling to verify compliance.

Before commencing any road works the consultant shall submit a methodology to CGG outlining how the consultant and contractor will ensure the base-course is within the dimensional tolerances outlined in this clause. Possible option could include survey or stringlines and measuring tape. CGG reserves the right to test pits and/or surveys of the completed sub-base to verify compliance with the dimensional tolerances outlined in this clause.

### **8.3.1.15 Concrete Footpaths and Shared Paths**

#### **8.3.1.15.2 Materials**

*Substitute 25 MPa with 32 MPa in Table 8.5: Path Construction as shown below:*

TABLE 8.5: PATH CONSTRUCTION

ITEM	VALUE
Compressive Strength	Minimum of 32 MPa at 28 days
Aggregate Size	Maximum 20mm
Slump	Maximum 75mm at delivery

#### **8.3.1.15.4 Expansion Joints**

*In addition to the standard LGGSD condition CGG requires the following:*

Expansion joints shall be installed at points of directional or dimensional change, and where the pavement adjoins rigid structures.

#### **8.3.1.15.5 Contraction Joints**

*Substitute the standard LGGSD clause with the following:*

Contraction joints shall be constructed using an approved key joint system, incorporating a minimum 5mm thickness of approved expansion foam backing extending the full depth of the joint. The joint shall also include an approved joint capping system.

### **8.3.1.15.7 Protection**

*Substitute Paragraph 3 of the standard LGGSD clause with the following:*

The contractor shall bear full responsibility for the remediation of any pavement damage incurred.

### **8.3.1.16 Asphalt Pathways**

#### **8.3.1.16.5 Edge Restraints**

*In addition to the standard LGGSD condition CGG requires the following:*

CGG reserves the right to waive the requirement for edge restraints. The consultant shall liaise with CGG to confirm whether edge restraints are necessary for the project.

### **8.3.1.17 Street Name Plates**

#### **8.3.1.17.2 Dimensions**

*In addition to the standard LGGSD condition CGG requires the following:*

The consultant shall consult CGG Standard Drawings (Appendix Two) for guidance on CGG-specific requirements. These standard drawings shall take precedence over all other applicable standards and guidelines.

### **8.3.1.18 Stormwater Drainage**

#### **8.3.1.18.2 Materials**

*Substitute paragraph referring to Grated Covers of the standard LGGSD clause with the following:*

All grated gully covers shall be of heavy-duty construction and must be load tested in accordance with Austroads Highway Loading Conditions, specifically a 90kN wheel load as defined in AS1597.1 – Precast Reinforced Concrete Box Culverts, Part 1: Small Culverts (not exceeding 1200mm span and 1200mm height). Grated covers located within road pavements or adjacent to shared paths shall incorporate a cycle-safe wave grate design.

# APPENDIX ONE

## LGGSD Standard Drawings

The LGGSD standard drawings are listed below these drawings shall be use for all CGG subdivision works.

DRAWING ID	DRAWING NAME
ES-19-7	Grated Gully Pit
ES-19-3	Side Entry Pits – CGG
ES-19-5	Combination Entry Pit
ES-19-8	Junction Pit Detail
ES-19-9	Brick Junction Pit
ES-19-10	Junction Pit/Footpath Detail
ES-19-12	Step Irons
ES-19-1	Pit Bedding Details
ES-19-13	Pipe Bedding Details
ES-19-14	Stormwater Connection
ES-19-11	Subsoil Drainage Detail

# APPENDIX TWO

## CGG Standard Drawings

In addition to the LGGSD standard drawing all works shall be in accordance with the following CGG standard drawings:

DRAWING ID	DRAWING NAME
LDS-2025-001	Project Sign Board
LDS-2025-100	Concrete Path Layouts on Local, District, and Distributor Roads
LDS-2025-110	Concrete Path Layouts on Access Streets
LDS-2025-120	Concrete Path Typical Details
LDS-2025-130	Concrete Path Notes and Typical Sections
LDS-2025-140	Concrete Path Joint Details
LDS-2025-150	Concrete Path Pram Ramp Details
LDS-2025-200	Bollards and Street Name Signage
LDS-2025-300	Tree Planting