

# **Garage Slab Installation Guide**

## For Canberra ACT Residential Properties

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## Planning & Regulations

## **Development Approval Requirements**

Before pouring a concrete garage slab in Canberra, you need to understand the local regulations:

Development Application (DA): Required for most garage structures

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- Submit through <u>Access Canberra's Development Applications portal</u>
- o Phone: 13 22 81
- Exempt Developments: Some smaller structures may be exempt if they meet specific criteria:
  - Less than 10m² in area
  - o Maximum height of 3m
  - Set back appropriately from boundaries
  - Not in a heritage area

### **Important Considerations**

- Plot Ratio: Check your property's maximum site coverage
- Setbacks: Minimum distances from property boundaries
- Stormwater Management: Ensure proper drainage from your concrete slab
- Services Location: Check for underground utilities before excavation
  - Contact "Dial Before You Dig" at 1100 or visit <u>www.1100.com.au</u>

## **Site Preparation**

#### **Site Assessment**

- Evaluate soil type and conditions
- Check for proper drainage
- Identify and mark utilities
- Determine if tree protection zones apply

#### **Excavation Guidelines**

- Excavate to a minimum depth of 100mm for residential slabs
- Allow extra depth for base materials (usually 100mm of compacted road base)
- Ensure level base with slight fall for drainage (recommend 1:100 slope)

## **Base Preparation**

- Install compact road base or crushed rock
- Compact thoroughly using a plate compactor
- Ensure base is level and stable

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## **Materials & Equipment**

#### **Materials Checklist**

- Formwork timber (treated pine recommended)
- Reinforcing mesh (typically SL72 for residential garage slabs)
- Bar chairs to support mesh
- Plastic membrane (200µm minimum)
- Concrete (minimum 20MPa for residential, 25MPa recommended)
- Expansion joint material
- Curing compound or plastic sheeting

#### **Equipment Needs**

- Excavation equipment
- Compacting equipment
- Leveling tools
- Concrete vibrator
- Screeds and floats
- Edging tools
- Safety equipment

## **Local Suppliers**

- Mitchell Concrete: (02) 6241 8777 <u>www.mitchellconcrete.com.au</u>
- Boral Concrete Canberra: (02) 6285 1675 www.boral.com.au
- Fyshwick Building Supplies: (02) 6280 4001 www.fbsales.com.au

## **Installation Process**

### Step 1: Set Up Formwork

- Install timber formwork to define slab boundaries
- Ensure forms are straight, level, and secure
- Apply form release agent to prevent sticking

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#### **Step 2: Install Moisture Barrier**

- Lay plastic membrane over the compacted base
- Overlap joints by at least 200mm
- Tape joints for added protection

### **Step 3: Install Reinforcement**

- Place bar chairs to support reinforcing mesh
- Lay reinforcing mesh with 30mm minimum cover from bottom
- Overlap mesh sheets by at least 200mm
- Tie overlapping sections together

#### **Step 4: Pour Concrete**

- Schedule concrete delivery during cooler parts of day if possible
- Pour concrete systematically, starting from the furthest point
- Use concrete vibrator to remove air pockets
- Work concrete into corners and edges

#### **Step 5: Screeding and Floating**

- Use straight edge to screed concrete level with formwork
- Allow concrete to partially set before floating
- Use bull float to smooth surface
- Create finished texture appropriate for garage use (broom finish recommended)

### Step 6: Curing

- Apply curing compound or cover with plastic sheeting
- Keep concrete moist for at least 7 days
- Protect from extreme temperatures
- Do not allow vehicle traffic for at least 28 days

## **Quality Control & Finishing**

#### Slab Thickness

Residential garage slabs should be minimum 100mm thick

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For heavier vehicles, consider 125mm or greater

#### **Surface Finishes**

- Broom finish for better traction (recommended)
- Steel trowel finish for smooth surface
- Exposed aggregate for decorative effect

#### **Joints**

- Install control joints at maximum 3m intervals
- Create joints at least 1/4 of slab depth
- Use expansion joints where slab meets existing structures

#### **Common Issues to Avoid**

- Crazing (fine surface cracks)
- Dusting of surface
- Cold joints from interrupted pours
- Inadequate curing

### **Local Resources & Contacts**

#### **ACT Government Contacts**

- Access Canberra: 13 22 81 www.accesscanberra.act.gov.au
- ACT Planning Department: (02) 6205 0600
- Building Approvals Team: (02) 6207 6400

#### **Professional Services**

- ACT Building Certifiers Association: <a href="https://www.actbca.org.au">www.actbca.org.au</a>
- Master Builders ACT: (02) 6280 9119 <u>www.mba.org.au</u>
- Concrete Institute of Australia (ACT Chapter): (02) 9955 1744 www.concreteinstitute.com.au

### **DIY Resources**

• Bunnings Warehouse Fyshwick: (02) 6202 9200

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- Bunnings Warehouse Belconnen: (02) 6253 8400
- Bunnings Warehouse Gungahlin: (02) 6123 8700

## **Frequently Asked Questions**

### Q: How long should I wait before building on my new garage slab?

**A:** Wait at least 7 days before light construction and 28 days before vehicle traffic or heavy loads.

#### Q: Do I need special concrete for Canberra's climate?

**A:** For Canberra's climate with potential for frost, use at least 20MPa concrete with air-entrainment additives for residential garage slabs.

### Q: What's the ideal thickness for a residential garage slab?

**A:** Minimum 100mm for standard vehicles. For heavier vehicles or workshop use, consider 125mm or greater.

## Q: How do I ensure proper drainage from my garage slab?

**A:** Include a slight fall (1:100 slope) toward the garage opening or drainage points. Consider adding a linear drain at the entrance.

## Q: Should I hire professionals or DIY my garage slab?

**A:** While DIY is possible, professional concrete contractors will have the equipment and expertise to ensure a quality result, especially for larger slabs.

## Q: What permits do I need for my garage slab in Canberra?

**A:** Most garage structures require development approval through Access Canberra. Contact them directly to confirm requirements for your specific situation.

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This guide was prepared for Canberra ACT residents in April 2025. Please check with local authorities for the most current regulations.

For more information, contact Access Canberra on 13 22 81 or visit www.accesscanberra.act.gov.au

## **Legal Disclaimer**

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