Driveways & Trafficable Concourse - Cement Paver Installation Specification. 15 Year System Warranty.

This specification covers the installation of suitable cement pavers to driveways and trafficable concourses by the wet or mud bed method and is rated “Extra Heavy Duty”. Refer to Architectural Drawings and Details for Specific installation materials & methods for each specific area and application.

WITNESS POINTS:
Give sufficient notice, so inspections can be made by the contractor, in the presence of the builder, specifier, owner or any other persons deemed relevant.

Witness point:
   a. At the preparation stage of new or existing concrete surfaces.
   b. At the start of the floor screed and paving stage.
   c. At the start of the grouting stage.

1.0 GENERAL:

1.1 All works shall be carried out by experienced qualified trades.

2.0 SCOPE OF WORK:

2.1 Furnish all labour, materials and equipment necessary to complete the installation of pavers, in shock resistant bedding and grouting materials, as specified herein and where indicated in drawings. Install thin, load bearing waterproof membranes, as specified and indicated in drawings if required.

NOTES TO SPECIFIER:

2.2 This is a total system. Call out products by name, number and application to ensure that specifications do not differ from manufacturer's instructions.

2.3 The following shall be inserted in the Concrete Section:
"No sealers, crystalline waterproofing additives or curing compounds shall be used on concrete slabs which are to be covered with cement pavers. Such slabs shall be covered and wet cured for a minimum of seven (7) days. Allow new concrete slabs to cure and dry before the installation of pavers or waterproof membrane. Areas that are to receive paver work, installed by the thick bed, wet method, shall have a wood float finish, be true to within +/- 10mm in 3m and pitched to drains where required. Areas requiring fill, patching or levelling shall be prepared / screeded using LATICRETE 3701 Mortar Admix / LATICRETE 226 Thick Bed Mortar mix in accordance with the manufacturer's instructions. Gypsum or asphalt-based levelling compounds shall not be permitted. No polyvinyl (PVA) acetates shall be permitted in any substrate to receive pavers. The surface, which is to be covered, shall be left clean, free of dust, plaster, sealer or curing compounds and form oil. Any contamination shall be removed by the Contractor who applied the material."

2.4 Inspection - Prior to commencing of the installation, the contractor shall examine the areas to be covered and advise the Main Builder / General Contractor and Architect of any existing

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conditions or surface contamination which will require correction before the work commences. Substrate must be clean & free from form oil, curing compounds, laitance, dirt or any other foreign material that may inhibit bond.

2.5 Preparation - As required, the concrete or masonry substrate shall be prepared/processed by grit blast, scarifying, sand blasted, hydro blasted or by whatever method deemed by the contractor necessary to prepare the concrete surface: to expose the fine aggregate; and to present with a sound, clean open pored surface, prior to installing render, waterproofing or adhesives.

2.6 Crack suppression membrane should be installed over existing shrinkage cracks up to 3mm in width to help reduce the telegraphing of the crack to the new paver work. Clean and fill cracks with LATICRETE 4237/211 prior to the application of the LATICRETE HYDRO BAN crack isolation membrane.

2.7 Pavers and there, fixing and grouting mortars do not constitute a waterproof barrier. Specify & detail LATAPOXY Moisture Shield & LATICRETE HYDRO BAN Liquid Applied Waterproof Membrane where a waterproof installation is required.

2.8 Pavements should be designed to help reduce the incidence of efflorescence. Adequate drainage shall be put in place to keep water from accumulating under the installation. Weather bars and barriers should be used to prevent water under adjacent pavements, landscaped areas and the like, accumulating under pavements and entering the pool under the pool coping system.

2.9 Unless otherwise noted in this document, LATICRETE product data sheets, how to guides, technical data sheets and other LATICRETE guidelines, all work should be in accordance with AS3958.1 & 2 and AS4564.1&2.

2.10 This specification may not include all the information required to complete the works. Contact LATICRETE for any additional information.

2.11 Consult the relevant, current product data sheets and how to guides for more complete and installation information on products specified in this document.

2.12 For the purpose of this specification, all Concrete Pavers are deemed to be fit for purpose, dimensionally stable and not moisture sensitive by the manufacturer.

2.13 Concrete backgrounds should be dry and not have moisture equilibrium greater than 75% relative humidity as measured with moisture probes.

2.14 Contact LATICRETE for a custom project specification

3.0 MATERIALS:

3.1 All Concrete pavers shall be supplied by .................................................................

3.2 Slurry bond coat shall be: LATICRETE 4237 Latex Admix gauged with LATICRETE 211 Crete filler powder.
Wet bed materials shall be: LATICRETE 3701 Latex Admix gauged with LATICRETE 226 Mortar Mix.  
Grout materials for grouting cement pavers shall be: LATICRETE 3701 Fortified Mortar Bed.  
Waterproofing & Crack Suppression materials shall be: LATICRETE HYDRO BAN Waterproof Membrane and LATAPOXY Moisture Shield where required.

All waterproofing, slurry coats, screed mortars, paver fixing and grouting materials shall be as provided by LATICRETE Australia Pty Ltd, 29 Telford Street, VIRGINIA, QLD 4014, Australia. Email: technicalservices@laticrete.com.au Web: www.laticrete.com.au Telephone: 1800331012.  
Installation shall be in strict accordance with manufacturer's instructions.

3.3 The finished paver adhesive and grout materials shall be shock, impact and chlorine resistant.

3.4 All installation materials shall be compatible and from one manufacturer.

3.5 All materials shall be delivered to the job site in the original factory containers with the manufacturer's identification on each package. The addition of water or other materials to dilute the installation materials on the job site will not be permitted.

4.0 APPROVALS AND SAMPLES:

4.1 The supplier of installation materials shall have been regularly engaged in the manufacture of these materials for a minimum of ten (10) years, and shall submit to the architect a list of three similar installations, each having a minimum of five (5) years’ service.

5.0 HANDLING AND STORAGE OF MATERIALS:

5.1 Handle and store pavers in a manner to avoid contamination & intrusion of foreign matter that may inhibit bond.

5.2 Handle, store, mix and apply proprietary installation materials in strict compliance with the manufacturer's instructions.

5.3 The contractor shall take precautions to protect the Mortar Additives, Admixtures from freezing or from excessive heat.

6.0 MORTAR, GROUT MIXES & WATERPROOF MEMBRANES:

6.1 Latex Cement Slurry Bond Coats:  
19 litres LATICRETE 4237 Latex Thin Set Admix  
2 x 20 kg bags LATICRETE 211 Crete Filler Powder.

6.2 Latex Cement Thick Bed Mortars and Screeds:  
10 x 20 kg Bags LATICRETE Thick Bed Mortar Mix 226  
20 litres LATICRETE 3701 Mortar Admix (Adjust quantity of liquid to obtain proper consistency)

6.3 Waterproof Membranes and Crack Suppression:  
15 Litre pail LATICRETE Hydro Ban Waterproof Membrane.
20 litre unit LATAPOXY Moisture Shield.
6.4 Cement Grout
20 kg bag LATICRETE 3701 Fortified Mortar Bed (Adjust quantity of liquid to obtain proper consistency)

6.5 Movement Joint Sealant
305ml tubes LATICRETE LATASIL Sealant.
LATICRETE LATASIL 9118 Primer

7.0 PREPARATION & CLEANING:

7.1 As required the prepared substrate shall be cleaned after surface preparation and processing by high pressure water cleaning (1000 psi) to clean surface dirt and contamination. Any approved cleaning agents must be completely removed, neutralized and rinsed.

8.0 MIXING

8.1 Mixing: Mix according to printed product instructions included with each product package. Mix only long enough to wet out the batch. Do not over-mix.

8.2 Mix mortar bed in a static drum mixer with rotating blades for best results.

9.0 INSTALLATION OF WATERPROOF OR CRACK SUPPRESSION MEMBRANE
Note: Areas subject to high moisture vapour emission rates or continual wetting should be treated with LATAPOXY Moisture Shield prior to applying HYDRO BAN.

9.1 Before starting, surface to be covered shall be cleaned to remove soil, dust, curing compounds, form oil, sealants, or grease. Cleaning shall be by means of high-pressure washing of previously prepared or built surfaces.

9.2 Surface to be treated shall be flat, plumb and true to within a minimum of 5 mm in 3 m from the required plane and shall be dry and have a compact, flat wood float finish.

9.3 Where applicable, apply a liberal coat of LATAPOXY Moisture Shield, nominally 24 hours prior to the HYDRO BAN. Apply two coats of HYDRO BAN allowing drying between coats. Pavers may be installed directly over the membrane as soon as it has cured.

9.4 See product data sheets, how to guides and technical data sheets for more complete information as required.

10.0 INSTALLATION OF PAVER BY THE WET BED METHOD:

10.1 Pavers shall be installed into a wet and plastic mortar bed.

10.2 The bed thickness shall be a minimum of 20 mm in thickness under the paver. Before placing the mortar apply and work well into the prepared surface, a Latex Cement Slurry Bond Coat of LATICRETE 4237/211, nominally 2mm thick. Place the LATICRETE 3701/226 mortar bed over while the slurry bond coat is still wet and tacky. The plastic mortar shall be rodded and compacted then struck off smooth to the desired level, including surcharge. Then apply a Latex
Cement Slurry Bond Coat of LATICRETE 4237/211 to the freshly laid mortar bed to a thickness of 2 – 3mm with the straight edge of a trowel. Do not allow bed and slurry coat to dry. Only apply as much mortar and bond coat shall be applied to the substrate as can be covered within 15 to 20 minutes or while mortar bed is still plastic.

10.3 The pavers shall then be set in place, beaten with a mallet and manipulated to insure 100% full bedding (this means full contact of mortar bed and bond coat to the paver & substrate) and a true surface. The paver shall be aligned to show uniform joints and then allowed to set until firm.

10.4 Excess adhesive must be cleaned from the surface of the paver with a wet cloth or sponge while the adhesive is fresh.

10.5 See product data sheets, how to guides and technical data sheets for more complete information as required.

11.0 EXPANSION, MOVEMENT AND CONTROL JOINTS:

11.1 Existing joints in subsurface must be carried through paver work and shall conform to architectural details.

11.2 Movement joints shall be installed where pavers and bedding abut restraining surfaces, such as perimeter walls, curbs, penetrations, columns, corners, etc. Expansion joints shall be installed at all "changes of plane" in the pavers and bedding. Refer to Australian Standards AS3958.1 & 2 for more details.

11.3 Pavement installations shall have movement and intermediate joints spaced a suggested maximum as specified by architect & engineer. Expansion joints shall carry through to the supporting slab or structure. Refer to architects & engineer’s drawings for full details on expansion, control, isolation or movement joints. (Do not pave, screed or render over construction joints).

Notes to specifier
The responsibility for calculating the actual spacing and size of the expansion joints shall be by the architect/engineer based on the expansion (thermal, moisture, etc.) characteristics of the specific paver as supplied by the manufacturer and design of supporting structure. The Optimum ratio of joint layout, length to width, is 1:1, and shall not be greater than 2:1.

11.4 Movement joints shall be sealed with LATICRETE LATASIL. Use polyethylene backing rods and bond breaker tapes as required.

12.0 GROUTING AND POINTING JOINTS:

12.1 Joints shall be grouted or pointed full and free of voids and pits with LATICRETE 3701 Fortified Mortar Bed. Tool or rake as specified.

12.2 Certain types of pavers are more absorbent than others and will trap pigments during grouting. Prior to grouting, test for absorption of pigment. Porous pavers will need to be sealed prior to grouting.
12.3 Excess grout shall be cleaned from the surface with water and a damp sponge as the work progresses, while grout is fresh and before it hardens.

12.4 The day after installation grout film or haze shall be removed using a pH neutral detergent solution.

12.5 See product data sheets, how to guides and technical data sheets for more complete information as required.

13.0 PROTECTION:

13.1 During installation of the waterproof membrane, screeds, paving and grouting the contractor shall take precautions to protect the work from varying adverse weather conditions.

13.2 The contractor shall take precautions to protect the finished work from damage by other trades. Do not allow construction traffic on fresh grout joints. Allow the grout to cure for a minimum of 7 days before steam cleaning or using aggressive cleaning techniques.

13.3 Allow paver work and grout to cure, 14 days at 21 C. Cold Weather Note: The curing of; waterproof membranes, paver fixing adhesives and grouts, are retarded, by low temperatures. Finished work should be protected for an extended period of time.

“As a professional courtesy, LATICRETE offers technical services free of charge. The user maintains all responsibility for verifying the applicability and suitability of the technical service or information provided”
Street Scape Informative
Detail 6A

Concrete

LATICRETE 4237/211 Slurry Bond
Coat Nomminally 2 to 3mm Thick

LATICRETE 3701 Mortar Admix Gauged
with 226 Thick Bed Mortar

LATICRETE 4237/211 Slurry Bond
Coat Nomminally 2 to 3mm Thick

Concrete Paver

LATICRETE 3701 Fortified Mortar Bed