



Photo courtesy of DIALOG, primary consultant of the Grande Prairie Regional Hospital project

# Grande Prairie Regional Hospital

Grande Prairie, AB, Canada



## Project Information

**Project category:**  
Infrastructures

**Years of construction:**  
2011-2020

**Years of MAPEI involvement:**  
2019-2020

**MAPEI coordinators:**  
Brent Johnsen and Trevor Vermeulen

**Project owner:**  
Alberta Health Services

**Contractor:**  
Clark Builders

**Architect:**  
DIALOG

**Tile & Stone Installers:**  
Cralan Contract Flooring Ltd.

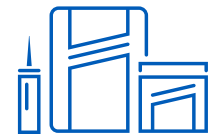
**Resinous Flooring Installers:**  
Engineered Surface Systems

**Resilient Flooring Installers:**  
Antex Western Ltd.



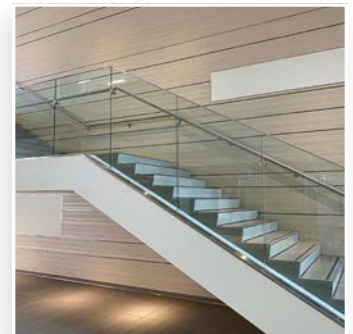
## Project Overview

MAPEI's innovative products and unmatched professionalism helped make this long-awaited new-build hospital project a grand success for Grande-Prairie, Alberta.



## Products Used

- Kerapoxy<sup>®</sup> CQ**
- Mapefloor<sup>™</sup> Finish 54 W/S**
- Mapefloor Finish 450**
- Mapefloor I 302 SL**
- Mapefloor PU 400**
- MAPEI Ultralite<sup>®</sup> Mortar**
- Primer L<sup>™</sup>**
- Primer SN<sup>™</sup>**
- Ultrabond ECO<sup>®</sup> 360**
- Ultrabond<sup>®</sup> G21**
- Ultraflex<sup>®</sup> LFT<sup>™</sup>**
- Ultraplan<sup>®</sup> M20 Plus**



# Grande Prairie Regional Hospital

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## MAPEI helps make Grande Prairie hospital a grand success

The provincial government of Alberta, Canada, had suffered years of delays and cost overruns while awaiting completion of a new regional hospital and cancer-care center in Grand Prairie. Government officials finally cut ties with the original construction company in 2018 and decided to seek a new path. In just a few months of involvement and using MAPEI products and expertise, the new contractor was able to complete the 688,890-square-foot (64 000 m<sup>2</sup>) job three months ahead of schedule.

Adding to the complexity of the task was the need to carry on work through major changes that were implemented in lieu of the COVID-19 pandemic. Workers needed to respect social distancing and maintain higher levels of care by using facemasks and working one trade at a time in any given area.

### MAPEI on the job

MAPEI products helped the new installers complete unfinished work in various areas of the complex. This work consisted of 26,400 square feet (2 453 m<sup>2</sup>) of resinous industrial flooring for the ambulance bay and basement, 100,000 square feet (9 290 m<sup>2</sup>) of resilient flooring and 90,000 square feet (8 360 m<sup>2</sup>) of large-format tile installation for walls and floors, as well as waterproofing in select areas.

MAPEI sales representatives Brent Johnsen and Trevor Vermeulen – who served as coordinators on the project – realized that the basement's concrete

surface was cracked and ill-prepared to take on the epoxy resinous topping that was specified. Contractors went about shotblasting and grinding the surface, bringing it to a concrete surface preparation (CSP) level of #3 per International Concrete Repair Institute (ICRI) standards. The ambulance bay's concrete surface also needed shotblasting to attain a CSP of #4.

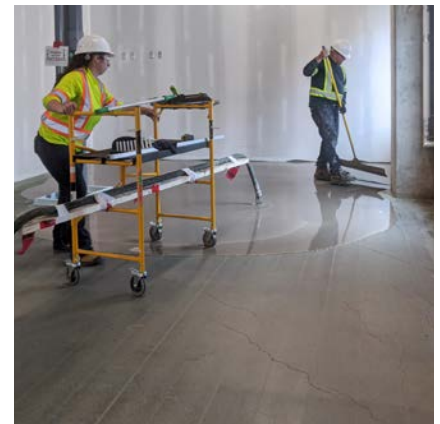
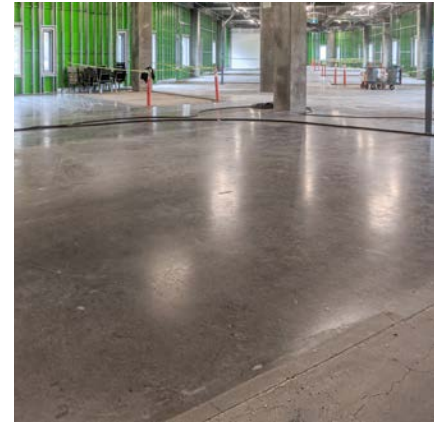
The concrete surfaces of the basement and ambulance bay would also require leveling afterward. The leveling was done with **Primer L** advanced-technology, acrylic latex primer for concrete; **Primer L** was used to enhance the bonding of **Ultraplan M20 Plus** — the quick-setting, high-compressive-strength, self-leveling, calcium-aluminate-based underlayment that followed.

### Level 0 (basement)

With the basement's concrete surface leveled, a thin layer of **Mapefloor I 302 SL** was applied as a primer and then again as an epoxy-resin basecoat – in a double-broadcast method – to take advantage of the product's excellent chemical and abrasion resistance. **Mapefloor Finish 54 W/S** was then used to provide a semi-gloss, aliphatic, polyurethane topcoat.

### Ambulance bay

Ambulances can weigh up to 14,000 lbs. (6 350 kg), so the ambulance-bay floor required an industrial-flooring solution with high load endurance.



# MAPEI helps make Grande Prairie hospital a grand success

Over a layer of **Primer SN**, installers used **Mapefloor PU 400** polyurethane basecoat that can be used as a waterproofing membrane for elevated concrete surfaces. **Mapefloor Finish 450** aliphatic, polyurethane topcoat was then applied to provide added resistance to chemical agents, including diluted acids, bases, oil and fuel.

## Resilient applications

In areas requiring resilient flooring, previous contractors managed to deliver level substrates in preparation for the homogeneous PVC flooring that was specified. The new contractors finished up by using **Ultrabond ECO 360** premium, high-performance adhesive for wood and plank flooring. The product's low volatile organic compounds (VOCs) makes it ideal for use in occupied buildings, such as hospitals and medical centers.

In areas where the substrate presented a more challenging bond, **Ultrabond G21** premium adhesive (also featuring low VOCs) was chosen for its ability to adhere aggressively to difficult-to-bond-to substrates.

## Wall and floor tiling

Tile installation was completed by the team from Cralan Contract Flooring Ltd. Time being of the essence, they used MAPEI mortars formulated with Easy Glide Technology™ for ease of application. **Ultraflex LFT** mortar was used for floor tile, while applying large-format tile on walls called for **MAPEI Ultralite Mortar** — an excellent choice for large-and-heavy-tile and non-sag applications.

Altogether, contractors installed some 30,000 square feet (2 787 m<sup>2</sup>) of floor tile; 30,000 square feet (2 787 m<sup>2</sup>) of wall tile in shower areas; 10,000 square feet (929 m<sup>2</sup>) of large-format tiles on walls in dry areas; and 10,000 square feet (929 m<sup>2</sup>) of ceramic tile on other

walls. Afterward, contractors used **Kerapoxy CQ** premium epoxy grout throughout for its stain and chemical resistance, and ease of maintenance.

Albertans had waited long enough to enjoy the fruits of their tax dollars; MAPEI's innovative products helped turn around the fortunes of a long-delayed project. In the face of new challenges posed by the



COVID-19 pandemic, final construction of the hospital was made possible ahead of schedule, giving the Grande Prairie region a grand success story.

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