**Light, Limestone and Italian Tile Highlight the Core of Calgary**

Friesen Floors and MAPEI go deep for the end results.

There’s a lot to be said for experience and expertise when an installer takes on a challenge like the four-story Core Shopping Center in the heart of downtown Calgary, Alberta. Thirty years ago the Core started life as three separate shopping centers – the Sears Centre, the Calgary Eaton Centre and Toronto Dominion Square, which also housed the Devonian Gardens botanical park.

In 2008 20 VIC Management, Inc., hired MMC Architects to draw up plans for a massive renovation of the properties. MMC’s design called for cutting back existing store fronts by 20-30 feet and exposing all four stories of shops to sunlight flooding through a 750-foot-long point-supported glass skylight reminiscent of the Galleria Vittorio Emmanuele in Milan, Italy. Though contained within a skyscraper infrastructure by contact on each corner with the TD Trust Tower, the Home Oil Tower, the Dome Tower and the historic Lancaster Building, today the stores on each level of the Core emanate the relaxed ambience of a more private outdoor setting.

In order to overcome “the logistical difficulties of performing the renovations while the mall was functioning,” general contractor Ellis-Don met constantly with the client, city regulatory agencies, and subcontractors to collaboratively solve challenges as they arose. When it came to installing new tile on floors, walls and columns throughout the three-block-long Core, Ellis-Don chose Friesen Floors of Abbotsford, B.C. Over the last 20 years, Friesen has focused on the installation complexities of large multi-unit residential and high-use retail/commercial settings. Their forte is working through those “logistical difficulties” and driving for the end result.

Because so many trades were working on the premises at the same time, and all at night, of course, Gord Allert, Friesen’s project manager, had to manage a work schedule that often needed resources to be reallocated at a moment’s notice. Work began slowly in October 2008, with the tile installations in the TD Square end of the mall being completed first because other trades had finished their work in that locale. Next came the washrooms throughout the Core as work picked up in 2009. Here the crews installed a 4” x 24” white porcelain tile called “Post-Lab Polished”, using *Ultraflex LFT* mortar for large-format tiles. Allert selected specially talented artisans to install the colored accent tiles throughout the washrooms.

In 2010 the tile installation work began to steamroll, with 75% of the entire project being completed between April and October 2010, and Allert had to manage as many as 50 crewmen in varied locations.

In total, 175,000 square feet of floor space had to be leveled with MAPEI’s *Novoplan Easy* self-leveling underlayment and *Primer L*. Close inspection of the plans showed that the glass railings at the edges of the walkways had to all be set level, so Friesen had to make sure that all their tiles were flat and level and tiled in alignment with the storefronts 10-12 feet away. Elevations changed as much as 2-3 inches in 12 feet. In reality, the tile pattern was 12 x 12 feet, and any lippage was unacceptable for the safety of the shoppers, so the Friesen crew kept the plane flat at the railing and storefront by using the *Novoplan Easy*. The 24” x 24” natural limestone tiles from the Middle East were difficult to maneuver and required flat surfaces to give the smoothest installation.

The food courts on the fourth floor presented another area where *Novplan Easy* played an important role. The installers worked with 24” x 48” large format tiles from Italy (*Italgraniti Impronta Piazentina*), and they could not easily lift the tiles and re-set them; so they had to have absolutely smooth, level subfloors. All the floor tiles were set with MAPEI’s *Ultracontact RS*, a rapid-setting mortar for large-format tiles that allows installers to drop-and-go without backbuttering, saving time and getting the floors ready for shoppers to re-enter the mall each morning. Fast-drying *Ultracolor Plus* grout also helped keep the crews on schedule.

Certain areas in the mall needed the quieting effects of a sound-reduction membrane, so Friesen crews installed 50,000 square feet of *Mapeguard SM*. Waterproofing was an additional requirement in the washrooms and on the botanical wall elements leading from the fourth-floor food courts to the Devonian Gardens, which are also being renovated. The solution in this case was the application of *Mapelastic HPG* liquid waterproofing membrane. Installers also used MAPEI’s *Mapecem 100* to make concrete repairs to 15,000 feet of subfloor throughout the project.

One exceptional challenge involved the installation of the limestone tile over columns that stretched from the ground floor to the fourth-floor food courts, as much as 60 feet high in some areas. Friesen first worked carefully with the engineers to ensure that the backer board being used was securely attached mechanically to the steel frames of the columns, making certain they could carry the weight of the large format tiles.. Next, they set the tiles using *Ultraflex LFT* mortar and grouted with *Ultracolor Plus*. “We weren’t worried. *Ultraflex LFT* really bites and holds the tiles up,” said Herb Friesen.

Wherever challenges arose, the Friesen crew used their experience and MAPEI’s extensive range of surface preparation and tile & stone installation systems to fashion a solution. “Over the two years, we worked through the winter twice,” Herb Friesen said. “We had to be very aware of freeze-thaw issues because other trades would open up parts of the project and our installation materials would be exposed to big drops in temperature. We usually found ways to close off our working areas, get the heat back up and keep on working.” By participating in daily updates and weekly meetings with the general contractor and the other trades, the Friesen crews were able to bring the tile and stone installation in on time for the 2010 Christmas shopping season. “And the contractor, architects, property owner and customers were all delighted with the new updated look,” Friesen added.