



Project Information

Project category: Residential – Commercial

Years of construction: 2016-2022

Years of MAPEI involvement: 2016-2022

MAPEI representative: Dave Randall

MAPEI distributor: Central Concrete Accessories

Project owner: Westbank Corp.

General contractor/installer: Pinpoint Construction LTD

Installer: T. Moscone & Brothers Landscaping Ltd.

Architect: Merrick Architecture

Photography: Take Off Photography



Project **Overview**

Transforming a marina's asphalt parking lot into an Italian-inspired coastal village included creating roads and pathways of cobblestones and granite paving stones. These features were made possible with MAPEI setting products that would be resilient enough for Canada's damp Pacific coastal climate.



Products Used

4 to 1[™] Mud Bed Mix Granirapid® System Mapestone PFS 2 Mapestone TFB 60 Planigrout® 755







Sewell's Landing at Horseshoe Bay

West Vancouver, BC, Canada

MAPEI helps transform parking lot into seaside village

Don't it always seem to go

That you don't know what you've got 'til it's gone They paved paradise and put up a parking lot. - Joni Mitchell, from her 1970 song "Big Yellow Taxi"

Like music lovers everywhere, the citizens of West Vancouver, British Columbia, were well acquainted with the seminal Joni Mitchell song and its naturalist sentiment. In 2015, these citizens were pitched by condo developers on the idea of building Sewell's Landing on the banks of Horseshoe Bay.

Architect Paul Merrick's ambitious and thorough plans turned Mitchell's song on its head by ripping out the existing marina's tarmac parking lot and leaving the natural beauty of the surrounding wooded hillside intact.

The plans were modeled on a traditional Italian seaside villa and included terraced residential units, along with cobblestone roads and walkways; sustainability and eco-friendly solutions were a focal point.

The citizens were finally sold with a promise that the development would meet their expectations "through sustainable design and a unique mix of uses, which promote active modes of transportation," Merrick wrote in his proposal. "Housing marine functions alongside residential and community spaces and employing a holistic approach to the waterfront ensures that the proposal contributes positively to the community.

"Landscape and groundscape will be treated essentially like a European village, with cobbled or textured stone in the piazza, (and) irregular stone paving in larger pieces on the pathways," Merrick wrote. "The development will provide adequate underground parking for Sewell's Marina as well as all residential and supplementary commercial uses. Vehicle access to parking will managed through be discretely site terraces and pedestrianized plazas through small portals into underground parking."

MAPEI on the job

Installing all those cobblestones and granite paving stones posed a challenge in finding the right setting products for such a unique application. It was a problem for which Dave Randall, MAPEI Business Development Manager for Western Canada, was brought in by Merrick to help solve.

Over the next seven years, Randall would serve as MAPEI coordinator on the project. He assisted in the installation of cobblestones and granite paving stones over a 36,000-square-foot (3 345-m²) area to meet the stringent specifications that are usually reserved for concrete or tarmac roads.

"To use paving stones as roads, they had to show it would have a 28-day compressive strength of 8,702 psi [60 MPa] for emergency vehicles – so, basically, a 35,000-pound [15 876-kg] fire engine," Randall said.









MAPEI helps transform parking lot into seaside village

In North America, paving stones are not generally used for roads in this way. Therefore, Randall knew that the setting products that were required to meet that spec – as well as stand up to de-icing salts, seawater and freeze/ thaw cycles – would not be easily found.

"I had to do some research," he said dryly.

Looking to MAPEI's existing Tile & Stone Installations Systems product line for North America, Randall found nothing that fit all the criteria that was needed. "Other mortars on the market might have the resilience for salt water and freeze/thaw, but not the strength," he said.

Mapei S.p.A. to the rescue

MAPEI Technical Services helped bring the mortars **Mapestone TFB 60** and **Mapestone PFS 2** from Mapei S.p.A. in Italy. These two products form the *Mapestone* system, which is a pre-blended screed mortar and grouting solution for architectural stone flooring that features high compressive strength and good resistance to freeze/thaw cycles, de-icing salts and seawater.

"I proposed it to Merrick and the other stakeholders at the time, and that got this put into the spec. Different landscapers came up with other ideas but nothing else met that spec, so we got on our horse and started the process in 2017 to bring the formula from Italy," Randall said, noting that local production of materials is one of MAPEI's core values.

Initial batches of *Mapestone TFB* 60 and *Mapestone PFS* 2 went through testing and trial runs in the nearby Delta, British Columbia, plant laboratory.

"Then, we did field trials and some mockups and got to put it into place in other local projects to get a good idea of how it performed. We did some training in the T. Moscone & Brothers' yard in early 2020. It was a lengthy process," Randall said.

Eventually, work got underway on the actual stone installation in 2021.



Once the beds were prepared using **4 to 1 Mud Bed Mix**, workers from T. Moscone & Brothers Landscaping were able to get to work.

The stones themselves were backbuttered with **Granirapid System** premium, rapid-setting mortar – designed to not contribute to efflorescence – before placement. Another helpful feature of this mortar is that it allows installation in both cold and warm temperatures. Additionally, *Granirapid* System's early mechanical strength and rapid-setting qualities were helpful in dealing with sloped areas.

With the stones prepared, the team applied *Mapestone TFB 60* to the bed into where the stones were then set; *Mapestone PFS 2* was then applied for grouting. *Planigrout 755*

construction grout also was used to secure linear drains for precipitation run-off.

Nestled within the scenic Canadian Rocky Mountains. the finished Sewell's Landing, though certainly not as rustic as one would find on the Mediterranean coast, does have a New World flair that is distinctly its own. In 2022, Sewell's Landing was fully delivered as advertised, with its durable and beautiful cobblestones covering the spaces in and around the new village and spruced-up marina.

A gentle warning to diehard Joni Mitchell fans: With MAPEI products, they literally built paradise over a parking lot.

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