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KK Women's and Children's Hospital
SingHealth

Slippery External Walkway

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INTRODUCTION

This project aims to address the slip and fall issue experience in the long walkway outside the Day Surgery Centre, KKH.

This walkway serves as one of the **main circulation** between 2 building tower in KKH, *Women's Tower* and *Children's Tower*. In the event of heavy downpour, the walkway's previous floor finish surface does not provide satisfactory traction to allow end-users walk through safely. Due to constant expose to harsh weather, the flooring needs **regular repair and patching** for safety purpose.

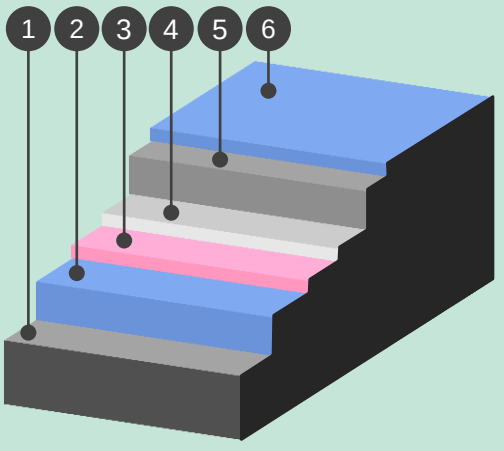
METHODOLOGY

To replace previous floor finishes to a **weather-resistant** as well as **anti-slip** material.

To identify new finishing material that is more resistant to wet weather as well as having a **long product life span**. Comparison of products and finishes is executed to shortlist suitable replacement.

To hack off previous floor finished and framework to receive new finish.

To construct new walkway with pebbles as the new floor finishes.



New floor finish layering

1. Existing RC (*Reinforced Concrete*) slab
2. GEO foam – substitute product to fill up floor level to desired height instead of using cement and sand.
   a. Insulation enhancement
   b. Low water absorption
   c. High compression strength
   d. Energy saving
   e. Easy to install
   f. Light weight
3. Separation layer
4. BRC (*Bar Reinforced Concrete*) layer
5. Cast in-situ cement & sand
6. Floor finish layer

RESULT

The new walkway is **not slippery** and **resistant to cracks**.

New pebble wash finish has **better traction surface** compare to previous coloured cement screed.

Due to the properties of GEO foam, the floor finish layer is less prone to crack, greatly **reduced the need for repair work**.

Scupper drain beside walkway is improved as well during renovation to cater for **better water discharge** during heavy downpour.

It also provide a **better aesthetic finish** which enhances very well with the surrounding. The pebble wash flooring became a visual extension to the adjacent internal courtyard, providing better spatial perception and less claustrophobic.

Previous flooring condition

CONCLUSION

The new floor finishes is **safer** during rainy day. Pebbles washed flooring create a rough enough surface when it is wet.

The flooring is coated with sealer for **easy cleaning**.

Application of GEO foam **save on time and manpower** compare to normal renovation work. It's light weight properties allow effortless handling by installer and less wet works required, resulting in cleaner and easier house keeping on site throughout the upgrading period.

Our housekeeping team **need not** put **rubber mat or warning signage** during raining days again.

Maintenance team **need not** always do **repair works** to patch the cracks or chip off.

This new floor finishes not just solved the slip and fall issue, but is more maintainable and greatly **reduce the time & effort of our housekeeping & maintenance team** for other priorities.

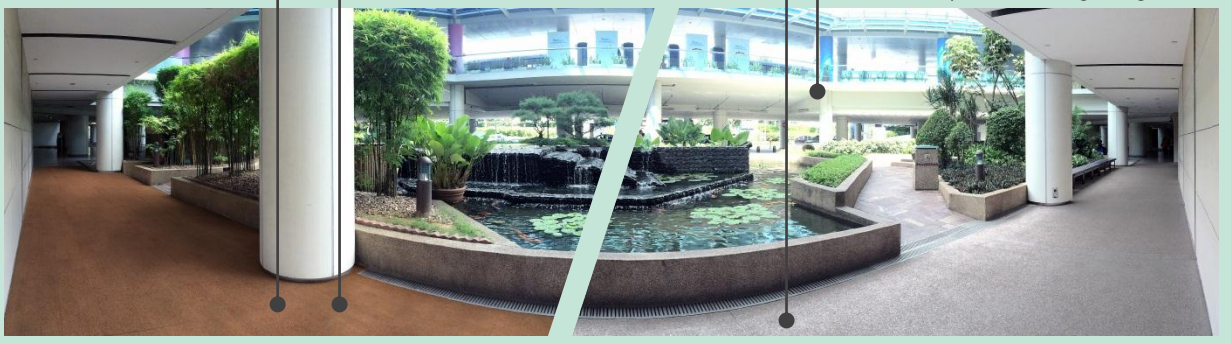
Delightful environment for patient and visitors to rest and enjoy the courtyard. The whole walkway no longer looks old and dark.

Previous coloured cement screed finish flooring crack easily, requiring constant repair works, and causing unevenness to floor colour.

Slippery during rainy day. House keeping team need to lay rubber mat and warning sign to prevent slip & fall and remove it after the rain.

New pebble washed finishes provide better surface grip. This new flooring is more resistant to crack, which means less maintenance work.

Better aesthetic feel as it blend in with the existing courtyard and provide a better experience walking through.



Before **After**