

**BUILDING SOLUTION SYSTEM**

**Basement**

**Wet Area**

**RC Roof**

**Expansion Joint**



**Roof Garden**



**Wall Coating**



**Grouting**



## **Wet Area**

### **Wet area consist of:**

- **Toilet/Kitchen/Baths/Pantry**
- **Tanking system (Swimming pool,pond, water feature)**
- **Floor slab/Environmental slab**

### **Types of liquid applied waterproofing membrane for wet area:**

- **Cementitious**
- **Polyurethane**
- **Rubberised**



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## THE RAINTREE KUALA LUNPUR- BABY POOL WATER PROOFING SYSTEM & PAINTING EXISTING SITE CONDITION



ABOVE SITE PHOTO 1  
Removal of interior defective baby pool surface area and clear off site in progress...

SITE PHOTO 2  
Application of Sika waterproofing cementation system and leave to cure...



ABOVE SITE PHOTO 3  
Installation of new tiling at baby pool surface in progress...



SITE PHOTO 4  
Completion of tiling work at baby pool surface view



PHOTO 5



Photo 6  
Painting work at pool deck in progress



PHOTO 7



PHOTO 8



PHOTO 9



PHOTO 10

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# Swimming Pool – job reference

**Australian International – 950m2  
School**

**Mandale Height Condo – 400m2**



Before



Before



After



After

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## Wet area - job reference

**Haig Court Condominium –  
Wet area 360 units**

### Mayflower Secondary School – Toilets



Before



Before



After



After

## Wet area – Hotel Job Reference



**Hyatt Hotel – 65 units**



**King Copthorne**  
**-360 Units ( Phase 1)**  
**-250 Units ( Phase II)**



**Oriental Hotel – 520 Units**



**Orchard Hotel – 360 Units**

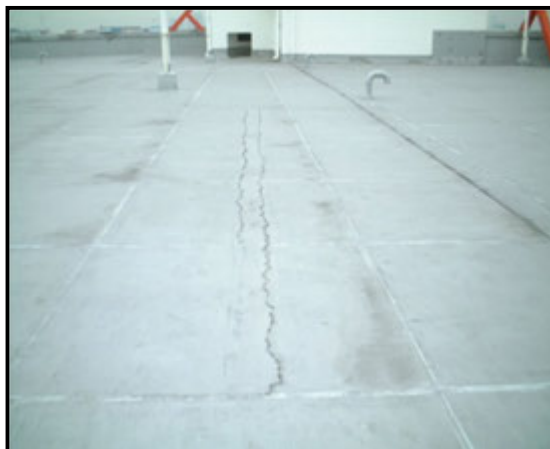


**Regent Hotel – Iggy's Restaurant**

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# RC ROOF



## RIGHT WAY INDUSTRIAL (MALAYSIA ) SDN BHD – DEFECTIVE METAL ROOF AT BLOCK G & H, R.C. ROOF AT BLOCK A EXISTING SITE CONDITION



PHOTO 1  
Top view of defective R.C. flat roof at  
block A office area



PHOTO 2  
R.C. flat roof water ponding view



PHOTO 3  
Cracked and defective R.C. flat roof  
view.



PHOTO 4  
Water ponding and defective R.C. flat  
roof view.



PHOTO 5  
Another view of defective R.C. flat roof  
and parapet.



PHOTO 6  
Water stained mark at ceiling board  
from roof top view.



PHOTO 7  
Existing inspection room required extension proposal



PHOTO 8  
Front view of inspection room proposal for extension.



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# RC System New build up - Polyurethane

Hyflux Building @ Tuas South Ave 1 (13000m2)



1. Primer



2. Waterproofing



3. Foam & Felt



4. Expansion Joint



5. Level Peg



6. Casting



7. Completion



8. Completion

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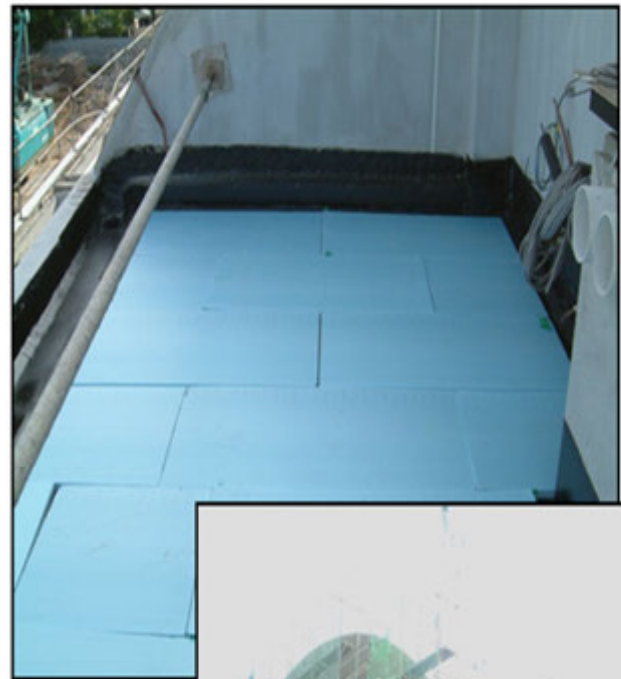
## Job Reference – Build up system

Church of St Mary Angels Roof –  
3200m<sup>2</sup>

77 Units of Terrace @ Upper  
Aljunied Road



Before



Progress



After



After

## RC System – Reroofing

NUH Dentistry Block – 6600m<sup>2</sup>



1. Existing old RC roof condition.



2. Hacking of existing panel, insulation board, separation layer and existing waterproofing membrane.



3. Patching up detailing area with cement sand mortar.



4. Application of cementitious membrane to strengthen existing surface followed by 3 coat of liquid applied membrane.



5. Laying of new 25mm insulation board and separation layer.



6. Constructing 12mm wide through expansion joint at every 4.5m<sup>2</sup> bay.



7. Casting of Gr 25 ready mix concrete panel.



8. Completion of build up waterproofing system to old RC Roof. Completed in September 2003.

## PANTAI BANGSAR HOSPITAL-LEVEL 7, PUSAT SPINE & JOINT CENTRE

WORK-IN- PROGRESS AT 2 LOCATIONS WATER LEAKAGE SPOTS.



a. open Ceiling



b. Leakage spot can be seen at opening soffit area.



c. survey inspection at roof top to locate the opening soffit in progress....



d. locate and survey to cut existing waterproofing



g. Remove plywood at opening soffit to do treatment



h. Insert a Plywood sealed from below opening in progress...



i. Thereafter to fill Cement top up about 1 inch to seal the opening in progress...



j. To apply sika sealant in progress....



l. Another view of non-shrink grout to render level at roof top area.



m. After curing, to replace a new membrane at the localise repair and make good.

## PANTAI BANGSAR HOSPITAL-LEVEL 7, PUSAT SPINE & JOINT CENTRE

WORK-IN- PROGRESS AT 2 LOCATIONS WATER LEAKAGE SPOTS.

# Repair Process Location 2



a. 7th Floor Spine & Joint Centre another water seepage stained problem at location 2



b. leaking location view at location 2



d. Another view of scupper drain defective causing below Spine & Joint Centre water seepage problem



c. Defective scupper drain, causing leakage to below Spine & Joint Center.



e. Application of high strength epoxy putty to seal the leaking spot.



f. After completion the treated area, thereafter to conduct water testing at site. Result OK.

## HOLIDAY VILLA HOTEL & SUITES SUBANG – PU GROUTING SYSTEM TO RC SLAB AREA EXISTING SITE CONDITION



PHOTO 1  
Front entrance at Holiday Villa Hotel & Resorts Subang View



PHOTO 2  
Level 13 tower block to room RC slab leakage



PHOTO 3  
Level 13 room entrance above RC slab leakage to below ceiling board view



PHOTO 4  
Level 13 room entrance RC slab leakage and causing below stained



PHOTO 5  
Room entrance door frame ceiling board water stained view



PHOTO 6  
Room entrance floor water stained due to leakage from above RC slab



PHOTO 7  
Another location at NOOZA ENTERPRISE office water stained view

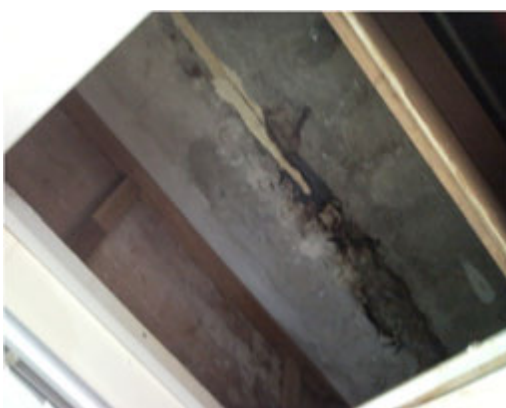


PHOTO 8  
NZ office RC slab leakage view



PHOTO 9  
Another view of NZ RC slab stained view

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## KELAB GOLF NEGARA SUBANG - JAPANESE RESTORANT ROOF TILES FLASHING LEAKAGE AREA EXISTING SITE CONDITION



Photo 1  
Kelab Golf Negara Subang entrance to Japanese Restaurant roof leakage..



Photo 2  
Existing external tile and metal roof leakage view



Photo 3  
Another view of metal roof front elevation where leakage from metal roof top



Photo 4  
Japanese restaurant kitchen area leakage from above metal roof



Photo 5  
interior ceiling stained due to leakage from above metal roof..



Photo 6  
Another view of ceiling stained



Photo 8  
Interior kitchen area water stained from above metal roof. Flashing not cover to the extended valley and joint area between



Photo 7  
Kitchen area stained ceiling and wall area due to leakage from above metal roof



Photo 9  
Metal roof top view of defective flashing between tile roof and metal roof joint..



Photo 10  
Top view of defective tile and valley area causing heavy rain water back flow to ceiling area....



Photo 11  
Flashing not cover to the extended valley and joint area between tile and metal roof and defective sealant to be treated to avoid water backflow



Photo 12  
Metal roof leakage to below Japanese Restaurant view

## Basement

### 14 Phoenix Avenue Bungalow



1. Basement retaining wall.



2. Application of 1<sup>st</sup> coat waterproofing membrane.



3. Completion of waterproofing membrane.



4. Installation of protection board prior backfilling.