

Alternative Environmental Construction Method

a. Alternative Environmental Construction Method

1. Pre-cast U-channel
2. Steel Formwork for Manhole / Draw pit / Columns
3. Brickwork for G/F beam construction
4. Adopt of Rock-Fill for filling work

b. Special environmental Installation / Equipment

1. Tailor made additional acoustic panel
2. Intelligence & Environmental Friendly Pavilion
 - Energy conservation Devices
 - Recycle usage of PU and Drink Cans
 - Hi-tech Interactive System for Training and communication
3. Moveable Drinking Water Cabinet
4. Rechargeable Lighting / Sensor Lighting

A. Alternative Environmental Construction Method

1. Pre-cast U-channel

In order to minimize the usage of timber formwork and in-situ concreting work, we adopted Pre-Cast U-Channel in this project



2. Steel Formwork for Manhole and draw pit

Like Pre-cast U-Channel, Steel formwork could help for minimizing the usage of timber formwork



3. Brick Formwork for G/F Slab and beam

We would adopt Brick work as the formwork for G/F slab and beam to minimize the usage of timber formwork



4. Utilization of Existing CEDD rock fill for our back filling work

Environmental Benefit :

1. Reduction of C&D waste
2. Reduction the occupation of Landfill site
3. Reduce CO₂ emission from Dump trucks on road



B. Special environmental Installation / Equipment

1. Tailor made an additional acoustic panel for effectively reducing the noise generated from column concreting process for our neighbourhood – VTC



2. Intelligence & Environmental Friendly Pavilion & Moveable Drinking Water Cabinet



Besides pavilion itself for the worker's resting

- It equipped with electronic thermo monitoring, automatic hot weather visual alert and cooling fans systems
- Once 33oC → yellow visual alarm with one fan operated (matching with Hot Weather Alert system)
- Once 35oC → Red visual alarm with two fans
- Solar panels installed to convert sunlight into electricity as the mere power supply for the whole Pavilion

The pavilion ALSO included the following devices for Environmental purpose

a. Energy conservation Devices- Use of Solar energy



Solar Energy would be adopted for the operation of Hot Weather Visual Alert Systems



Temp, reached the pre-set levels will trigger the correspondence color of flash light to visually alert the worker to take a rest and drinking adequate water. Besides, the fans will be automatically turned on tally with the alert level.

b. Recycle usage of PU, Drink Cans and recycled timber



Recycle usage of PU, Drink Cans

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Insulation : By recycled material (Waste PU and Cans) for insulation material

- Reuse of wasted cans for sun shading panel at worker's shelter
- Filling up with the reuse of boxing out PU and cement



**c. Hi-tech Interactive System for Environmental Training and communication_
Voluntary Interactive Training System (VITS) .**

1. Voluntary (V):

Offers more positive training environment instead of using arbitrary power

2. Interactive (I)

Workers and Safety Supervisory staff could interacted and communicated by means of the computer software

3. Training (T)

Training material / reminder from SO could be Promulgated in Visual & Audio form

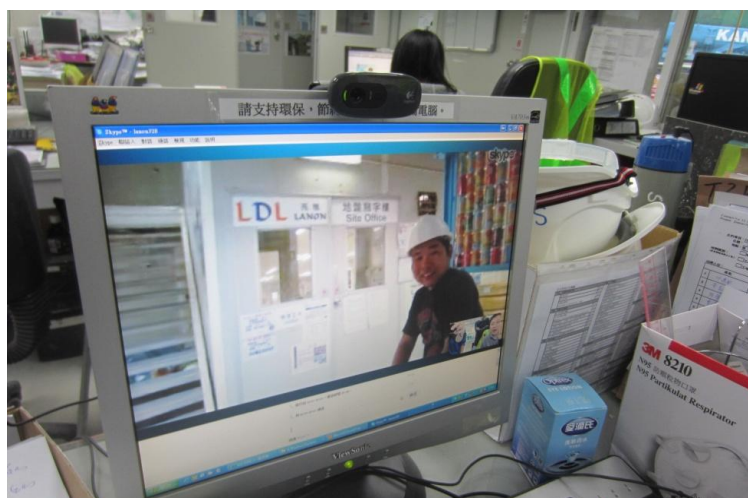


Environmental Officer could remind / communicate with workers by VITS

1. Environmental Officer could remind / communicate with workers by VITS



2. Workers could feedback to Environmental Officer simultaneously by VITS



Function:

By means of Web Cam and Mic, Environmental officer could broadcast the most updated information to workers and communicated with worker close to the work place

3. Moveable Drinking Water Cabinet



Hand Pump



Recycle usage of PU, Drink Cans

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Reusable Coolant

4. Rechargeable Lighting / Sensor Lighting

