

## CEO's Note

Dear Reader,

We are fast reaching the end of 2012 and soon thereafter we reach the end of the Year of the Dragon. From either perspective it has been a year of mixed fortunes for Fast Flow Group. We have achieved near record sales in Singapore, Malaysia and Thailand.

Our distributor in Indonesia, Siphonic Flow Mandiri, has made significant market penetration culminating in the award of the new Bali International Airport - Ngurah Rai. Fast Flow in China has had a steady year despite the major downturn in residential and institutional projects. All this good news however, was tempered by our exit from the Australia market in early 2012. Does every cloud have a silver lining? I hope so. Fast Flow is planning to re-enter the Australia market in 2013. Our channel to market will however be very different from the past. What will still be central to the new business model for Australia will be 'Fast Flow Solutions and Products' for rainwater management in buildings. 2012 was also a year for new products and in particular the new Primo 75HD (Heavy-Duty) developed for Car Parks and traffic-able by vehicles up to 100 KN.



South Beach @ Beach Road

In 2013 Fast Flow has planned even more new products which will bring further diversity and opportunity to designers of buildings. The Fast Flow R&D department is also working on projects designed to create cost reduction. Keep it going guys!

We hope you are enjoying the re-launch of Fast Flow CONNECT where we hope to inform, inspire and ultimately invite you to join us in ***solving tomorrow's drainage challenges.....today!***

Regards,

Colin Thoms  
CEO

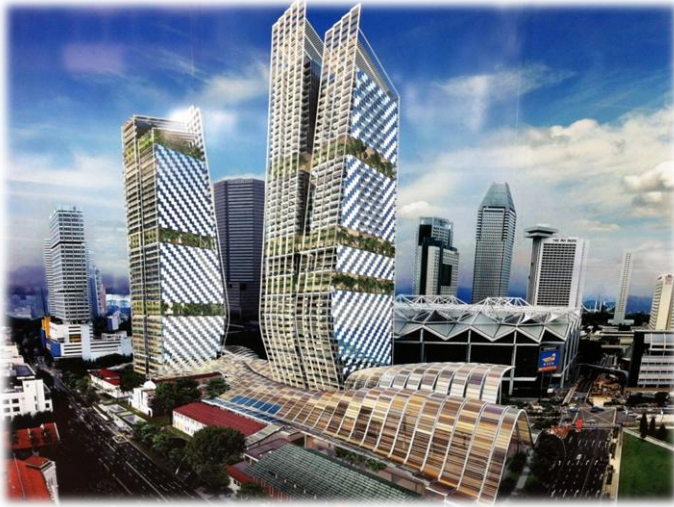


*Wishing You A Merry Christmas & A Prosperous New Year*

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## South Beach Development in Singapore

Fast Flow is completing the rainwater management design on another extraordinary project along Beach Road, one of the oldest and famous roads of Singapore. A mega development and one of Singapore's most prestigious of this century, South Beach Development is a planned commercial and residential complex in the Downtown Core of Singapore, comprising offices, hotels, retail floors and residences.

Expected to complete by 2016, this unique mega project includes the restoration of four conservation buildings -- the former Singapore Armed Forces NCO Clubhouse (built in 1950s) and three main buildings of the former Beach Road Camp (built in 1930s) -- that blend with two iconic towers, a huge wave canopy system, sunken courtyards, tiered gardens and nostalgic alleyways.

With two iconic towers that set to alter the skyline of the district, this prestigious development adopts an environmental design and green technology that fits in well with the tropical climate and urban context of Singapore. The award-winning huge "environmental filter" canopy covers the open spaces, linking conservation buildings with the two towers and providing shelter from the elements while drawing air currents to cool the area beneath it. This unique canopy rises at some areas and lowers at others, resembling huge waves hovering, covering or entering the conservation blocks, and appears to rise skywards, covering part of the façades of the two towers which have slanting façades to direct air flow to the ground-level spaces.

The knowledge and technology of Fast Flow provided the design to drain & collect rainwater efficiently from the towers, the canopy and other parts of the complex into a water tank for reuse.



Gilbert Ang is the Group Head of Engineering (GHE) at Fast Flow. A mechanical engineer by training, Gilbert joined Fast Flow as Design Engineer in 1999 and headed the Singapore design team before his current regional appointment as GHE. He leads complex design assignments while he focuses day-to-day on product R&D/QA. Some of his achievements include South Beach, Marina Bay Sands Integrated Resort, Changi Airport, Resorts World Sentosa, Bali International Airport (Ngurah Rai), Beijing International Airport, Beijing National Stadium (Bird's Nest), Singapore Sports Hub, Garden By The Bay, The Interlace, IKEA in Singapore, China and Thailand.

Greenland Group, a Shanghai-based Chinese State – Owned Enterprise of real estate and a Fortune Global 500 company, has recently appointed Fast Flow as a strategic partner. An achievement of our Shanghai office, this appointment will bring prestigious opportunities to serve the Chinese market.

### CHINA

Recently secured project:

1. New China Shipyard hull comprehensive workshop (roof siphonic drainage project)

Recently Completed project:

1. Guangdong Province TV Centre II
2. Guangzhou Automobile Group Auto Engineering Research Institute base (construction and Research & Development project)

### THAILAND

Recently secured projects:

1. The Mark Ratchada - Airport Link
2. CP Ram Plant

### MALAYSIA

Recently secured projects:

1. Verdana @ North Kiara
2. M City, Ampang Hilir
3. Pinewood Iskandar Malaysia Studios

### SINGAPORE

Recently secured projects :

1. Singapore University of Technology and Design (the 4<sup>th</sup> university)
2. Suntec City (Addition & Alteration works)
3. One KM @ Katong
4. NTUC Fairprice at Benoi
5. Yale NUS College

### INDONESIA

Recently secured projects:

1. Green Garden House
2. Riau Public Work Office

## NEWSFLASH FROM FAST FLOW THAILAND



Fast Flow Group is privileged to announce that Fast Flow Thailand secured the award to design rainwater drainage system for CP Ram Plant in Chonburi (total roof area of 15,000 m<sup>2</sup>). Owned by CP Group, one of the largest conglomerates in Thailand, the CP Ram Plant will contribute to the distribution enhancement of 7- Eleven.

## ONE STOP SOLUTIONS PROVIDER

Fast Flow has undertaken and successfully executed a wide range of projects spanning from commercial to residential. As highly specialized group of companies providing solutions for rainwater management in building projects, the company has successfully completed more than 500 residential projects for the past five years. Some of the prominent projects are Villa Rachatewi in Thailand, The Wave Apartment in Australia, The Ascott KL in Malaysia, Setia Budi Condominium in Indonesia and Reflections at Keppel Bay in Singapore.

Fast Flow's team of highly diverse skill sets has proven to be very beneficial to its clients. The team would look into every aspect from design and supply right down to system installation and delivery. Each building has very specific requirements; with the project management team's vast experience and technical knowledge of setting up drainage system in numerous prestigious properties across Asia Pacific, Fast Flow is able to come out with the best solution to suit the client's requirements.



### Villa Sathorn Condominium, Thailand

The 40-storey Villa Sathorn Condominium is located along Krungthongburi Road in Bangkok, Thailand. This residential development is designed with a water holding system to manage rainwater discharge into public drains thereby supporting flood control by the public drainage system of metropolitan Bangkok.

The main design challenges that Fast Flow surmounted are complexities in seeking out the optimal pipe routes from the 4,437 sqm roof to the rainwater holding tank, draining the rainwater flows along preferred routes and preventing common back flows at balconies. Design knowledge, hydraulic calculations, space management and noise risk management were vigorously applied to meet the stringent requirements set by the developer, TCC Capital Land.

The design achieved efficient rainwater drainage & collection that avoided living areas as well as water-sensitive parts of the condominium, in addition to the designed use of psVents that eradicated the common problem of rainwater back flow in balconies.

Fast Flow is privileged to participate in this prestigious development in Thailand and contributed to its high-value adding.



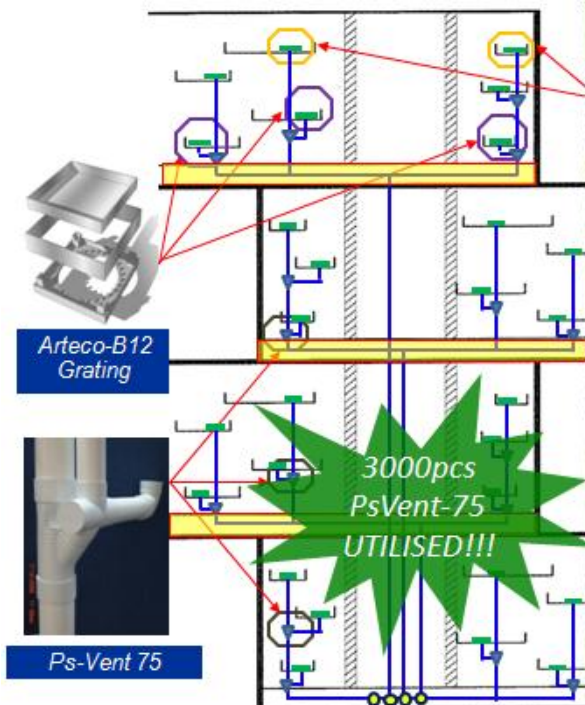
## The INTERLACE, Singapore

Fast Flow has achieved the privilege to provide rainwater management system to one of the largest and most ambitious residential developments in Singapore – The Interlace. Thirty-one apartment blocks, each six stories tall are stacked creatively in a hexagonal shape to form eight large-scale open and permeable courtyards. The Interlace covers 170,000 m<sup>2</sup> of gross floor area and will house 1,040 apartment units of varying size.

In this current ongoing project, Fast Flow needs to be able to show-case the flexibility of Pressurised System in a complex building profile with limited common shaft and space constraint as well as staggering and in-consistent balconies profiles.

*Staggered balcony Profile  
Flexibility of outlet  
selections*

*Pipes in M&E deck*



With the flexibility of outlet selections, Fast Flow's Arteco installation sequence fits perfectly within the space constraint. The implementation of Arteco-B12 Grating coupled with PsVent-75 to prevent back flow from ever occurring in branches (typically linked to balconies) is the best solution pipes installation for staggered balcony profile.

## Siphonic Flow Mandiri: Fast Flow's licensed distributor in Indonesia

Fast Flow has spread its wings to one of the most rapidly growing countries in South East Asia. Through its appointed licensed distributor in Indonesia, Siphonic Flow Mandiri (SFM), Fast Flow has been working side by side with SFM in promoting Fast Flow Siphonic System as the optimal rainwater system that supports efficient rainwater management in Indonesia.

Together, Fast Flow and SFM have quick successes and sustained growth with completed projects in several international airports, luxury condominiums as well as industrial buildings in Indonesia. In the past two years, this strong collaboration achieved the delivery of several prestigious projects including Bali International Airport – Ngurah Rai, Medan International Airport – Kuala Namu, Makassar International Airport - Sultan Hasanuddin, Palu Airport – Mutiara, Setia Budi Residence, Regatta Apartment and Gudang Garam Warehouse (major Indonesian manufacturer of clove cigarettes).



Jakarta Automated Traffic Services



Mutiara Airport, Palu



Kuala Namu International Airport, Medan



Gudang Garam's Warehouse, Gempol



Regatta Apartment, Jakarta



Kelapa Gading House, Jakarta

## Interview with Mr. Akhmad Zikri, Managing Director of Siphonic Flow Mandiri



**M:** Most of buildings in Indonesia have been using conventional system to drain the roofs. How do you persuade the market in Indonesia to apply siphonic system and what are the challenges so far?

**Z:** Siphonic system is counted as pretty much a new technology in Indonesia. Most projects that come with requirement of using siphonic system are mostly from America and European countries. In order to build brand awareness in Indonesia, the company has conducted more than 60 events in big cities in Indonesia since 2010.

As a pioneer in siphonic system for Indonesian market, SFM needs to be able to ensure their clients about the benefits and advantages of applying siphonic system. One of the unique selling points is that siphonic system supports rainwater harvesting which is now commonly used in Indonesia. As a matter of fact Green technology is very happening in Indonesia. The government has been implementing Green building standard for each of new building. No permit will be issued if the building does not support the Green building standard. This has enhanced siphonic system performance in supporting Green building project in Indonesia.

Challenges that we have faced so far mostly come from old generation companies, most of them are feeling quite comfortable with their existing system and would rather to keep the system. The other challenge is the buying power of people in Indonesia. As an emerging country, our per capita incomes per person are still low and this will impact their buying decision as not a lot of people can accept siphonic system due to pricing matter.

**M:** How do you see the siphonic system future growth in Indonesia? What is the future prediction on Indonesian market? Is there any breakthrough in upcoming project?

**Z:** President Susilo Bambang Yudhoyono proclaimed about his administration's awareness of the importance of infrastructure development in his speech at the 2012 Indonesian International Infrastructure Conference and Exhibition in Jakarta on Tuesday, 28<sup>th</sup> August 2012. For next year, President Yudhoyono said that the government had set aside over 20 billion U.S. dollars for building infrastructure. President Yudhoyono also mentioned that the government is planning to expand our 4,278-kilometer national road capacity, to build new roads, stretching 559 kilometres in total, 380 kilometres of new railways and 15 new airports. This will be a huge opportunity for us. We have completed several international airports in Indonesia and currently we are on the proposal stage of Soekarno Hatta International Airport (the largest airport in Indonesia), with the total project area of 200.000 sqm. Having the large-scale building campaign in the spotlight and with the implementation of Green building standard by the government, sooner or later people will demand more on siphonic system.

**M:** How does the siphonic system or technology live up to your clients' expectation and how would you describe their satisfaction rate?

**Z:** We have earned quite remarkable customer satisfaction for the past 3 years. This is reflected in our yearly report showing 15% to 20% of our total projects come from our clients; the businesses have started to come to us instead of us looking for one.

**M:** Last but not least.. What is your vision for Siphonic Flow Mandiri and how do you plan to fructify it (long term plan and development)?

**Z:** Our vision is to be the best in siphonic business.

We would like to have a long term relationship with Fast Flow and to have a clear vision on Indonesian existing market. So far we have offices operating in Bali, Surabaya, Bandung, Semarang and Jakarta. In addition to that, SFM has formed a Green team to analyze and determine whether our client's building project is qualified to government's Green building conditions. We will steadily make progress with plans and initiatives in building good coordination with Fast Flow team as well as maintaining our relationship with clients. There will be more business visits to our potential clients in order to share the knowledge of siphonic system with them.



SFM team, Jakarta

## Shape the World Conference by Consulus

Shape the World Conference covered a range subjects associated with efforts to determine Asian brand of leadership. This annual event of Consulus took place in Fullerton Hotel Singapore on 22<sup>nd</sup> October 2012, it was aimed to share new insights into Asian brands and point out how things can change for the better. Successful business leaders from Singapore, Malaysia, Brunei, Indonesia and Vietnam were invited to share their thoughts and personal experiences. The high profile speakers at the conference included Adrian Mok (Managing Director at Hivelocity), Idris T. Vasi (CEO at DST), Prof Dr M Din Syamsuddin (Chairman at Muhammadiyah), Lawrence Chong (CEO at Consulus), Dr Low Lee Yong (Founder and CEO at MHC Asia Group), Helena Pham (Senior Manager at Consulus) and Tang Ying Chun (Strategy Manager at Consulus). Fast Flow did not want to miss the forum and even Mr. Colin Thoms (CEO of Fast Flow) himself attended the event.



Over 70 Leaders from a wide range of industries convened at the Fullerton Hotel for this year's Shape the World Conference

In this special event, Mr Lawrence Chong proposed that the way forward was to combine business, design and technology. By merging business strategy, design company culture and utilising big data, companies can harness and grow their brands to shape the world. His statement was fully supported by Dr Low Lee Yong, MHC's CEO and founder. Dr Low Lee Yong shared story about his long journey to success and how innovation was large contributing factor to MHC. He truly believes that the secret to efficiency in healthcare lies in the effective application of simplified technology solutions. The personal experiences shared at the conference were considered as a wakeup call to challenge our way of thinking. It encouraged us to set our highest goal and at the same time push ourselves to the limit in order to achieve our goal.



## Smells like **GREEN** spirits!

### RAINWATER HARVESTING

Harvested Rainwater is rainwater that is captured from the roof of a house or building. Uses include water for garden, water for livestock, water for irrigation, general washing of clothes, equipment, vehicles, buildings, etc.

Fast Flow systems provide the optimal drainage to channel rainwater for efficient rainwater harvesting, thereby contributing directly to environmental sustainability and water conservation.

Rainwater has many uses. You can use a rainwater harvester just for garden, washing cars, watering livestock and outside tap use, or you can use free rainwater in the home for flushing toilets and laundry as well. You cannot, however, use it for bathing, showering, kitchen or bathroom sink as this water has to be potable.

Did you know?

That collecting rainwater can save your money.

Did you know?

For every inch of rainwater that falls on a surface of 1,000 square feet, you can collect up to 600 gallons of water!

Did you know?

That water use has been growing at more than twice the rate of population increase in the last century.



## Safe Reuse of Rainwater

Studies have often shown deficiencies in the use of rainwater catchment systems and components cited include: lack of maintenance; inadequate disinfection of the water; poorly designed delivery systems and storage tanks; and, failure to adopt physical measures to safeguard the water against microbiological contamination.

A range of enteric pathogens has been found in roof-collected rainwater including *Salmonella*, *Campylobacter*, *Giardia* and *Cryptosporidium*. The likely sources of these pathogens were faecal material deposited by birds, frogs, rodents and possums, and dead animals and insects, either in the gutters or in the water tank itself.



**Rainwater users can reduce their risks of disease from contaminated rainwater consumption by regular maintenance and using a well-designed system.**

### Regular maintenance should include:

- Keeping roof catchments clean and clear of moss, lichen, debris and leaves
- Cutting back trees and branches that overhang roofs
- Regular inspections and, if necessary, cleaning of gutters
- Cleaning gutters and tank inlets and screens every 3-4 months
- Disinfecting the supply, if tank contamination is apparent
- Inspecting tanks annually and cleaning them out if necessary
- Testing the water periodically

### Good design features should include:

- A clean, impervious roof made from non-toxic material
- The absence of lead flashing or lead-based paints
- A coarse filter and first flush device to intercept water entering tank and gutter guards/screens
- Wire mesh (screens) to cover all tanks inlets
- A cover and light-proof tank
- Tank taps or draw-off pipes that are at least 100mm above the tank floor
- A tank floor which slopes towards the sump and washout pipe
- A well-covered man hole for easy access and inspection