BUILDING JOURNAL
HONGKONG • CHINA • AUGUST • 2009

Building a better world. One AECOM

AECOM has continuously expanded its expertise and portfolio of work since it was established in 1990. With all of its operating companies now united as One AECOM, the firm offers clients an integrated platform of services and spirit of collaborative excellence. AECOM is a global provider of professional, technical and management support services to a broad range of markets, including transportation, facilities, environmental and energy. Growing from 3,000 employees in the United States in 1990 to over 44,000 worldwide today, AECOM is a Fortune 500 company that serves clients in more than 100 countries and had revenue of US$6.1 billion during the 12-month period ending June 30, 2009. AECOM is a leader in all of the key markets that it serves, and provides a blend of global reach, local knowledge, innovation, and technical excellence to deliver solutions that enhance and sustain the world's built, natural, and social environments.

- ■ Rankings
- ▲ Milestones
- ● Projects/ Work

1985 - 1989

- ▲ AECOM Technology Corporation formed

- ▲ 3,000+ employees
- ▲ AECOM becomes independent of Ashland Inc.
- ● Baltimore Metro System

1990

1992

- ● Metrolink, Tappan Zee Bridge
- ● Pentagon Renovation

1994

- ● LAX Air Traffic Control Tower
- ● Tren Urbano

1995

- ▲ 5,000+ employees
- ● San Francisco Airport
- ● Korea Development Bank

2000

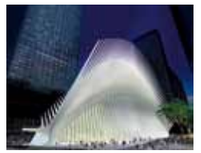
- ▲ 10,000+ employees
- ▲ **Maunsell, Oscar Faber, Metcalf & Eddy joined AECOM**
- ● Los Alamos and Sandia Labs, JFK
- ● Boston Harbor Clean-up
- ● Queensland Biosciences Precinct
- ● Publications on wastewater treatment

2001

- ■ ENR - #1 General Building; #3 Design Firms
- ▲ 13,800+ employees
- ● Chicago Skyway
- ● Dubai Festival City
- ● Los Angeles Community College District

2002

- ■ ENR - #1 Transportation & General Building; #4 Design Firms
- ● The Odyssey
- ● BBC Broadcasting House



Designed by Santiago Calatrava

2003

- ■ ENR - #1 Transportation; #2 General Building; #5 Design Firms
- ● PATH Terminal

2005

- ■ ENR – #1 Transportation & General Building; #3 Design Firms
- ▲ 24,000+ employees
- ▲ **ENSR and EDAW joined AECOM**
- ● London 2012 Olympic Bid
- ● NASA Shuttle Recovery Program
- ● Noble Windfarms

2007

- ▲ Initial Public Offering
- ▲ 30,000+ employees
- ● Libya Housing and Infrastructure Board
- ● VOC & Photochemical Ozone Pollutants in Pearl River Delta Region

2008

- ■ ENR - #1 Pure Design, Transportation, Mass Transit/Rail, Airports, Education, Government Offices, Transmission and Distribution and General Building
- ■ Architectural Record – #1 in Top 150 Architecture Firms
- ▲ **Earth Tech joined AECOM**
- ▲ 43,000+ employees

2009

- ■ Fortune 500 – #458
- ■ ENR - #1 Pure Design, Transportation, General Building and Hazardous Waste
- ▲ 44,000+ employees
- ▲ **Savant joined AECOM**
- ▲ Unified brand, One AECOM
- ● Padma Bridge
- ● Chennai & Kolkata Metros

Interview with **Tony Shum**
Chief Executive, Asia

Can you tell us about AECOM's history and business strategy?

AECOM (AECOM Technology Corporation) was established in 1990 in the US. In the initial stages of its development, the group had 3,000 employees, and annual revenue of around US$350 million. At that time, the group consisted of several operating companies including Daniel, Mann, Johnson & Mendenhall (DMJM), Consoer, Townsend & Associates (CTE) and Frederic R Harris.

In 2000, AECOM not only had its business expanded in North America but in April the same year became a global company through the merger with the Maunsell Group. Following the merger, AECOM's business map expanded to Hong Kong, China, UK, the Middle East, Australia and New Zealand. Through collaborative efforts across geographies, AECOM was able to offer clients a blend of global reach, local knowledge, innovation and technical excellence. The company had grown to more than 10,000 talented staff, and revenue tripled to over US$1 billion. In the two years that followed, water and wastewater treatment engineering specialists Metcalf & Eddy and one of UK's most reputable engineering consulting firm Oscar Faber joined AECOM. This enabled AECOM to better serve the growing global market by bringing together different companies with an even broader range of capabilities.

Through continual expansion, AECOM increased its global workforce to over 20,000 people with revenue of over US$2 billion by 2005. In the same year, international firms EDAW - a firm renowned for its urban design, master planning, environmental and ecological planning, strategic planning and economic development services, and ENSR - a worldwide provider of comprehensive environmental health and safety management services, joined the group. Both firms had already established a strong presence across the US, Europe and Asia regions.

On May 10, 2007, AECOM achieved full listing on the New York Stock Exchange. At that time, AECOM had 30,000 employees around the world and annual revenue totaled US$4.6 billion.

In 2008-09, AECOM further expanded its business scope through organic growth and additional major mergers including the waste disposal, environmental, transportation and facilities service provider Earth Tech. Today, AECOM has over 44,000 employees and US$6 billion in annual revenue.

Under this new branding strategy and organizational development, AECOM strives to consolidate its global knowledge and extensive experience, with the strong support of its regional and local delivery platforms to ultimately provide best in class solutions and enhanced service quality to clients.

AECOM was first established in the 1990s, but most of its operating companies such as Maunsell, Metcalf & Eddy, EDAW and ENSR had much longer histories in terms of both brand and business. Over the past 15 years, AECOM has succeeded in keeping its leading position in the industry and maintained an average 20% growth in total revenue per year, about half is from organic growth and half from M&A activities.

Currently, AECOM provides services in five major geographic markets around the world including North America, Europe, the Middle East, Asia and Australia/New Zealand.

Right: Tony Shum (Chief Executive, Asia)
Left: Dickson Lo (Regional President, Asia)

Since the early 1990s, AECOM's merger strategy had been to maintain the original brand identity of each operating company that joined AECOM. One year ago, management began to review our existing business and branding strategies. Three main goals were identified: to better position the company in the marketplace in order to seize new opportunities; to provide better service to clients; and to enhance employees' career development. In order to achieve these goals, AECOM appointed a world-renowned consultant to conduct in-depth analysis of the business and peer companies in the market. After careful consideration, management decided to adopt a balanced matrix organizational structure under which all of its operating companies and brands have been integrated together under the unique global brand – AECOM.

Under this new branding strategy and organizational development, AECOM strives to consolidate its global knowledge and extensive experience, with the strong support of its regional and local delivery platforms to ultimately provide best in class solutions and enhanced service quality to clients.

AECOM professionals around the world are united by a common purpose — To enhance and sustain the world's built, natural and social environments.

What does AECOM stand for?

The name AECOM represents the group's core businesses. AECOM is an acronym for Architecture, Engineering, Consulting, Operations and Maintenance. Over the years, AECOM has expanded its capabilities to cover Transportation, Water, Urban Development, Energy, Environment, Geotechnical, Building Engineering, Project Management/Construction Management, Planning, Architecture and Landscape Architecture and Economics.

How is AECOM positioned in the global market?

AECOM is a leading global provider of professional, technical and management support services for government and commercial clients around the world. According to the latest Engineering News-Record (ENR) Top 500 Design Firms list, AECOM has ranked number 1 in Pure Design Firms, Transportation and General Buildings categories. Overall, the company has ranked number 2. The annual Top 500 Design Firms list published by ENR ranks the 500 largest engineering, architectural and environmental design firms in the world by annual revenue. AECOM has also retained its No.1 International Design Firm in Asia title, according to ENR's latest Top 200 International Design Firms rankings by region.

AECOM has ranked number one in Pure Design in the latest Top 500 Design Firms list released by ENR

AECOM's purpose and core values

AECOM

No. 1 Pure Design Firm worldwide
No.1 International Design Firm in Asia
(ENR Top Design Firm ranking)

How will AECOM's recent restructuring benefit clients?

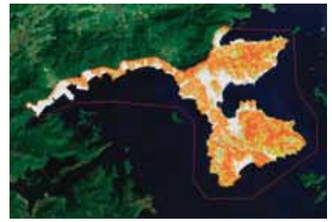
Today, AECOM is in a leading role in consulting industry, delivering a broad platform of professional services to all of its clients. The company is experienced in all phases of the development process, from the planning stage to architectural engineering design and project consultation, positioning it ahead of its competitors in the market. In terms of resources, AECOM provides tailor-made, integrated services throughout North America, Europe, Asia, the Middle East, Australia and New Zealand. A total workforce of more than 44,000 people around the world forms a strong global and regional network that supports the company's high standards of service.

Hong Kong International Airport (HKIA) Master Plan 2030

Can you name some major projects undertaken recently by AECOM in the Asia region?

As one of the largest multi-disciplinary consultants in the world, AECOM has recently been awarded a number of large-scale transportation consultancy contracts including the design contract for the West Kowloon Terminus of the Express Rail Link for MTR Corporation in Hong Kong. In addition, the firm has been awarded the Hong Kong International Airport (HKIA) Master Plan 2030 project, which is a significant project for Hong Kong and the region as a whole. AECOM is also currently undertaking several major water projects funded by World Bank and Asian Development Bank in China, Vietnam and India. Another major AECOM project in the region is the Sentosa Integrated Resort Development in Singapore.

Thanks to its expansion into various technical areas, AECOM also leads in the planning realm. The Shenzhen Eastern Coastal Landscape Plan project in China is a good example of how AECOM is equipped to provide integrated services – in this case providing the client with both planning, environmental and hydrological services.



Shenzhen Eastern Coastal Plan, China

One of the major challenges we face is how to provide more value-added services to clients. Excellence and innovation are two of AECOM's eight core values. This means that, rather than providing commodity services at low fees, AECOM provides best in class solutions and high quality services to our clients. This is achieved through in-depth understanding of client needs and ongoing professional training to our people.

How will AECOM adapt to cope with future challenges and the changing demands of clients?

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Sustainable development is another edge. AECOM has set up a dedicated office in Asia, the Office of Corporate Sustainability, to address internal and external sustainability issues. AECOM was ranked 51 in Newsweek magazine's exclusive environmental ranking of "The 500 Greenest Big Companies in America". Internally, as one of the top 500 design firms in the world, AECOM has implemented energy saving measures, such as conducting video conferences in place of business trips, thus reducing carbon emissions. In our project work, sustainable solutions have been applied to a number of projects undertaken by AECOM. In Asia, AECOM's teams working on projects across seven business lines — building engineering, environment, geotechnical, program management / construction management, planning and design, transportation, water and urban development — are dedicated to achieving high standards of sustainable development including green buildings and LEED certification .

Chennai Railway

Kolkata Railway

How do you see the market potential in Asia?

Foreseeing the potential development and rapid growth in India, AECOM has set up a new office in Haryana, near Delhi, last year. This year, the company has been awarded two major railway projects in Chennai and Kolkata. Hong Kong is also seeing significant opportunities, now that the green light has been given on major infrastructure projects. The company has been awarded many contracts by the HKSAR government in the past and has maintained a close working relationship with the Development Bureau and other public works departments. Since the 1990s, AECOM has also been expanding its operational base in mainland China, which also has high growth potential. AECOM has over 4,300 staff across Asia today.

Luckily, AECOM's strategy and strength of diversification has enabled us to adapt to the rapidly-changing market environment and to counteract the negative impact of the economic downturn on our operations.

What feedback have you received from clients following the organizational development of AECOM?

Generally speaking, AECOM has received a great deal of positive feedback and compliments from clients after the organizational development. Thanks to the combined strengths of the legacy operating companies including Maunsell, EDAW, ENSR, Metcalf & Eddy and Citymark, AECOM is able to provide a comprehensive suite of services to meet the needs of different clients in Asia. In mainland China, in cities such as Chongqing, some clients have signed Strategic Partnership Agreements with AECOM on their large-scale development projects. AECOM has also signed global master service agreements with oil companies such as Chevron and Shell to provide services in Asia and around the world.

As we evolve to one AECOM, our company culture, commitment and service standards will become stronger. In addition, the company's Employee Engagement scheme will continue to strengthen ties between management and staff via a broad range of activities and workshops. The scheme has proved to be positive for employee career development.

How has the global economic downturn affected AECOM?

The global economic downturn has had a negative impact on the industry. Luckily, AECOM's strategy and strength of diversification has enabled us to adapt to the rapidly-changing market environment and to counteract the negative impact of the economic downturn on our operations. To demonstrate its commitment, the company has put its proposed plan into action, ensuring that clients will benefit from the company's value-added services.

This year, AECOM celebrates its 40 years presence in Asia. While AECOM has contributed to the development of Asia in the past 4 decades, the company is fully committed to continue with the mission to build Asia and the world a better place to live and work.

Employee Engagement Workshop

Red Cross Blood Donation Day

Annual Event – Wetland Park Day Trip

Hong Kong & Shenzhen Football Competition

AECOM in

HONG KONG

1881 Heritage

Harbour Area Treatment Scheme Stage 2A – Sewage Conveyance System

Kai Tak Development

Route 8 from Cheung Sha Wan to Shatin

Hong Kong Science Park Phase 2

Stonecutters Bridge

Location: Hong Kong Status: Completed in 2009

1881 Heritage

AECOM was commissioned to redevelop the former Marine Police Headquarters in Hong Kong, the largest conservation and revitalization project that has been completed in the Hong Kong SAR.

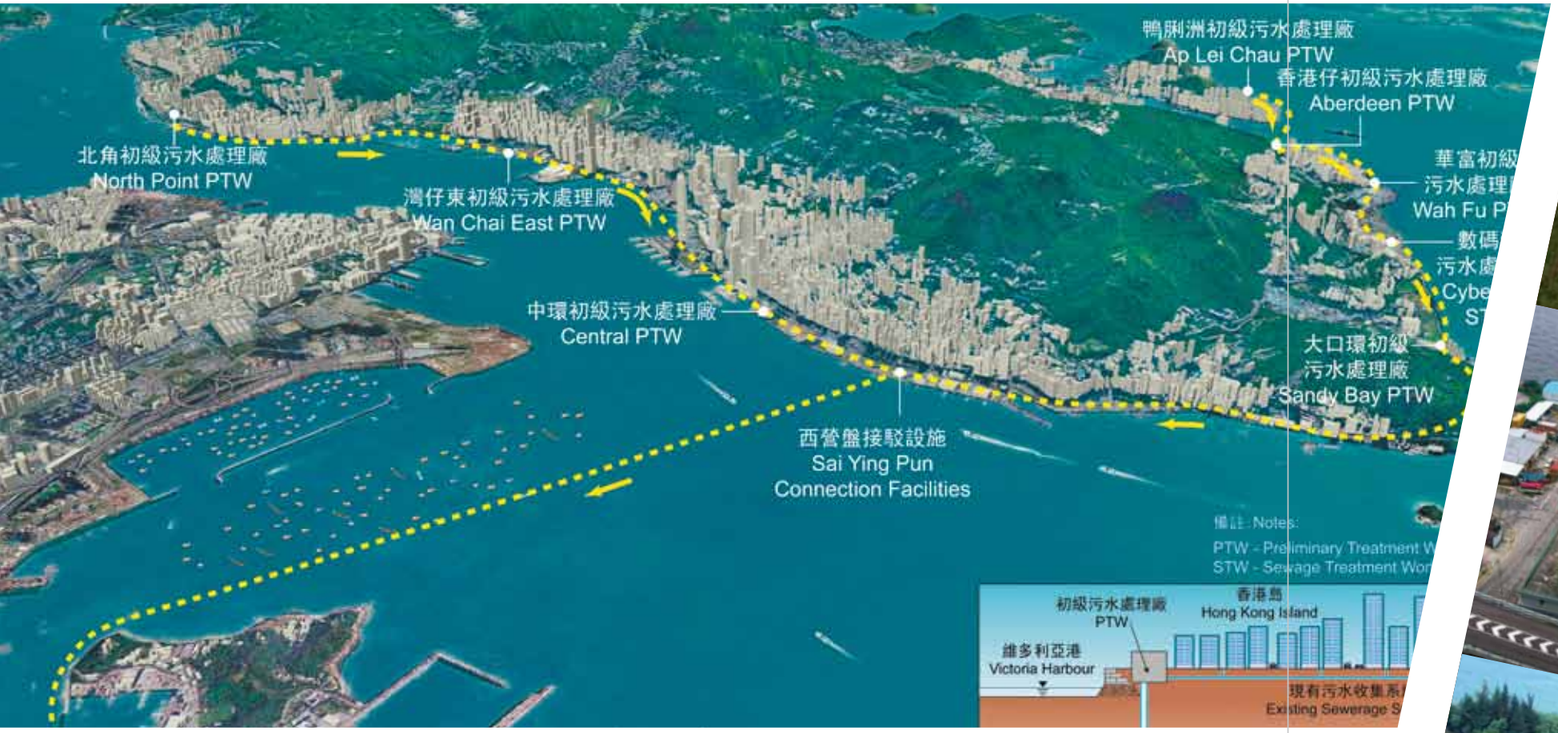
Located at the heart of the high-end retail and cultural center in Tsim Sha Tsui, Kowloon, the heritage complex is made up of the former Marine Police Headquarters, Signal Tower, Stable House, Fire Station and Accommodation Block. These buildings were constructed between 1881 and 1920, and listed as monuments under the Hong Kong Antiquities and Monuments Ordinance.

By offering structural and geotechnical engineering services, our building engineering team helped to develop the site into a sustainable commercial and tourism-enhancing development through restoration, preservation and conversion. The project scope included tree preservation, site formation and construction of a new retail complex and basement. We also carried out alteration and additional work on existing heritage buildings to convert them into a boutique hotel, high-end retail complex and restaurants. This is the largest conservation and revitalization project of its kind that has been completed in Hong Kong.

Location: Hong Kong Status: Ongoing - Target to be completed in 2014

Harbour Area Treatment Scheme Stage 2A – Sewage Conveyance System

The Harbour Area Treatment Scheme is one of the most important environmental programs undertaken in Hong Kong.



AECOM is working to improve the water quality of Victoria Harbour, constructing over 20 kilometers of deep sewage tunnels at a maximum depth of 130 meters below sea level covering the areas from North Point to Wan Chai to Central, Aberdeen to Cyberport to Sandy Bay to Central, and from Central to Stonecutters Island.

The project scope also includes associated drop shafts and ancillary civil and E&M work. Construction cost is estimated at US$750 million. Control over groundwater ingress during tunneling at such great depths and preventing building settlement are two of the greatest challenges posed by this project. Our team will investigate various construction methods such as TBM, drill-and-blast, horizontal directional drilling and other micro-tunneling techniques and we will also be responsible for preparing design and contract documents, and construction supervision.

Location: Hong Kong Status: Ongoing - Target to be completed in 2018

Kai Tak Development

The purpose of the project is to transform the former Kai Tak airport site into an iconic, vibrant, attractive and people-oriented community located at the heart of Victoria Harbour, with over 8 hectares of leisure open space and an aviation themed public park developed adjacent to a proposed cruise terminal.

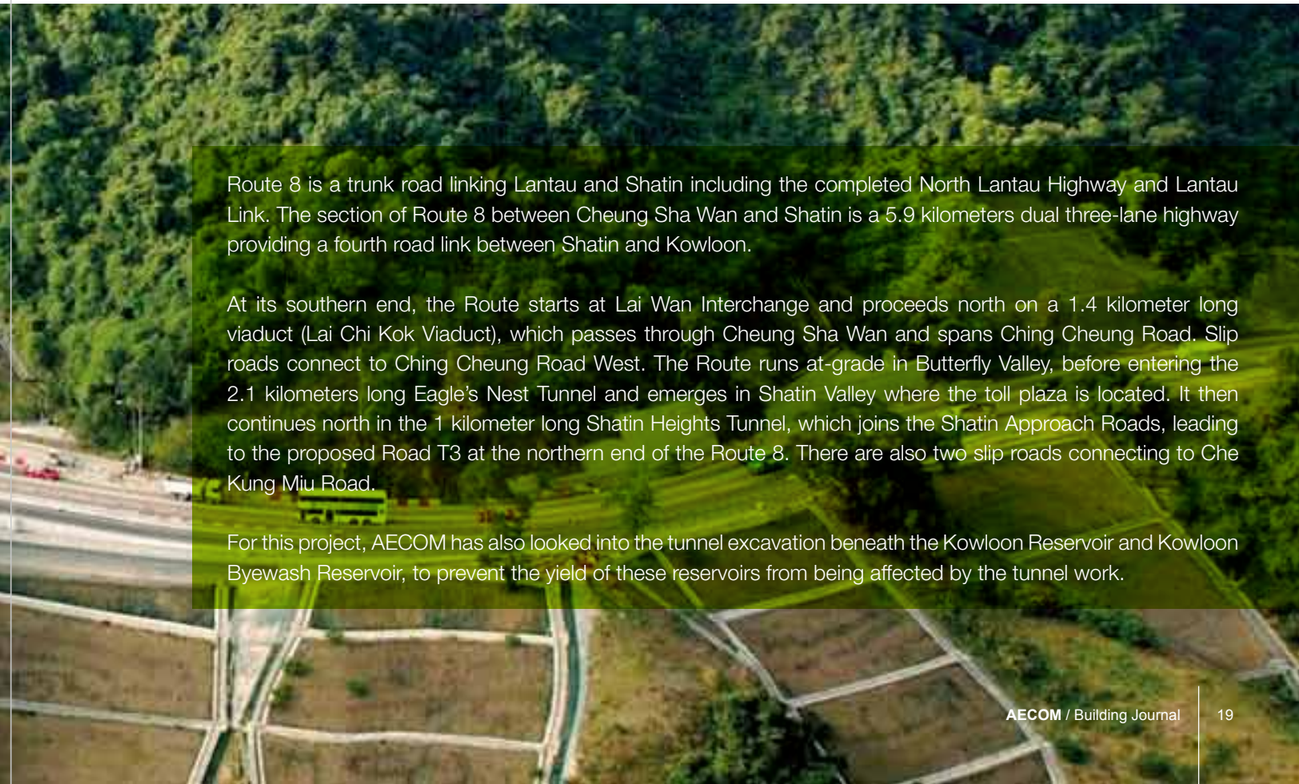
AECOM has been commissioned by the Architectural Services Department of the Hong Kong SAR Government to design the Kai Tak Runway Public Park; and by the Civil Engineering and Development Department (CEDD) to provide infrastructure design and construction supervision consultancy services for the Kai Tak Development in Hong Kong.

These new assignments come on the back of the Kai Tak Development Engineering Study, also commissioned by the CEDD, which includes project management, design and construction supervision for infrastructural work provision at the Former Runway and North Apron covering a site area of 250 hectares; as well as a comprehensive planning review, cruise terminal feasibility study and view corridor analysis undertaken in the early stages of the development process, planning and design of the cruise terminal and environmental impact assessment.

Location: Hong Kong Status: Completed in 2007

Route 8 from Cheung Sha Wan to Shatin

To alleviate the traffic congestion at Lion's Rock Tunnel, Tat's Cairn Tunnel and Tai Po Road, AECOM's geotechnical team has been commissioned to provide site formation, tunnel design and slope stabilization work along the section of Route 8 that links Cheung Sha Wan to Shatin.



Route 8 is a trunk road linking Lantau and Shatin including the completed North Lantau Highway and Lantau Link. The section of Route 8 between Cheung Sha Wan and Shatin is a 5.9 kilometers dual three-lane highway providing a fourth road link between Shatin and Kowloon.

At its southern end, the Route starts at Lai Wan Interchange and proceeds north on a 1.4 kilometer long viaduct (Lai Chi Kok Viaduct), which passes through Cheung Sha Wan and spans Ching Cheung Road. Slip roads connect to Ching Cheung Road West. The Route runs at-grade in Butterfly Valley, before entering the 2.1 kilometers long Eagle's Nest Tunnel and emerges in Shatin Valley where the toll plaza is located. It then continues north in the 1 kilometer long Shatin Heights Tunnel, which joins the Shatin Approach Roads, leading to the proposed Road T3 at the northern end of the Route 8. There are also two slip roads connecting to Che Kung Miu Road.

For this project, AECOM has also looked into the tunnel excavation beneath the Kowloon Reservoir and Kowloon Byewash Reservoir, to prevent the yield of these reservoirs from being affected by the tunnel work.

Location: Hong Kong Status: Completed in 2007

Hong Kong Science Park Phase 2

AECOM was responsible for the project management of the iconic Hong Kong Science Park, a new technology hub designed for research and development of biotechnology, precision engineering, electronics and information technology and telecommunication high-tech industries.

Located in Pak Shek Kok, Tai Po, the Hong Kong Science Park sits on a 22 hectare site and was developed in three phases over a period of nine years. Phase 2 included 11 buildings with a total gross floor area of 105,000 square meters, supporting facilities and noteworthy features including a central building services system, large floor-plate and efficient R&D offices, raised floors, high performance laboratories, an egg-shaped auditorium, a large central water feature, and a green roof garden.

Our project management and construction management team was appointed to provide project management services to ensure timely completion of Phase 2 development in a cost-effective manner, within budget and to the highest quality standards.

Location: Hong Kong Status: Completed in 2009

Stonecutters Bridge

AECOM played a central role in the design, feasibility analysis and engineering of the second longest cable-stayed bridge in the world.

The Stonecutters Bridge is a high level cable-stayed bridge, with two towers located in the back-up areas of Container Terminals 8 and 9, with a main span of 1,018 meters across the Rambler Channel and a total length, including the back spans, of some 1.6 kilometers.

The 298-meter high towers are single-shaft concrete structures founded on bored piles, with stainless steel skin in the exterior and steel cable anchor boxes in the interior of the upper tower. The main span of the bridge consists of twin streamlined steel box griders. Backspans are constructed of post-tensioned pre-stressed concrete box girders which are also interconnected by cross griders.

AECOM supported the construction of this iconic bridge from the tender stage through construction. Our involvement spanned design and construction engineering including erection analysis, bridge geometry monitoring, control and adjustment, bridge aerodynamics, wind tunnel testing, vibration mitigation measures, falsework for the construction of concrete back spans of (60 meter-high falsework systems including precast steel trusses in longitudinal and transverse planes), heavy lift scheme development for strand-jacking steel deck segments in the bridge tower vicinity, cofferdam design, development of deck lifting procedures, navigation simulation, marine traffic management, marine jetty design, temporary traffic management and geotechnical engineering.

AECOM in

CHINA

Grand Lisboa

Jinji Lake Master Plan

Chongming South Channel Tunnel

Shenzhen Eastern Coastal Landscape Plan

Sutong Bridge

Liuzhou Diwang Fortune Plaza

Location: Macau, China Status: Completed in 2008

Grand Lisboa

AECOM provided structural and geotechnical engineering consultancy services including construction supervision for the majestic Grand Lisboa project in Macau.

The Grand Lisboa occupies a site area of about 12,000 square meters with a GFA of over 135,000 square meters. The 54-storey building is one of the tallest in Macau at 228m. The building is inspired by the shape of a lotus flower, which requires the upper part of the structure to cantilever over 20 meters on each side. The podium floors consist of various long span column free areas of over 40 meters, and a large cantilevered area supported by a cable stayed structural arrangement. The podium entertainment area is covered by a large column-free elliptical sphere of 40 meters x 80 meters x 40 meters. The sphere is designed as a thin shell structure braced by a skeletal steel frame. A floating tunnel, which links to the existing Lisboa, has been constructed according to the horizontal pipe jacking technique. There are four basement levels, and the design adopts a top-down construction sequence. The complex building design also satisfies the seismic design requirements of Macau's building code.

The Grand Lisboa received the Commendation Award in the China Mainland/ Overseas Category of the Hong Kong Structural Excellence Awards 2009.

Location: Suzhou, China Status: Completed in 2003

Jinji Lake Landscape Master Plan

Guiding the transformation of more than 550 hectares of a semirural lakeside into a showcase community for 600,000 people and international corporations, AECOM's work has involved a powerful fusion of planning, landscape architecture, environmental expertise and strategic economic development.

The success of this world-class lakeside community demonstrates that what's good for the environment is also good for business.

The Jinji Lake district is a 550-hectare area developed as a focal point for New Suzhou, part of the rapidly growing and historical city in Jiangsu in a region that the government has designated to attract Fortune 500 and international investors. The client highlighted the opportunity to arrest thoughtless urban development patterns typical of newly industrialized corridors in China by making positive open space a key component of the city's vision. AECOM's Jinji Lake Landscape Master Plan has guided policy makers, planners and designers to transform the Jinji Lake district into a world-class public waterfront. While the freshwater lake provides an unmatched visual resource for the new community, its greatest opportunity is its open space system that provides a vast regional recreational resource. The success of this open space system hinges on the character, organization and synergy of land uses that surround it.

AECOM's plan provided details for land use, recreational programs and physical designs for eight distinct, vital neighborhoods, including the creation of a civic promenade, residential village, a recreational park and contemplative gardens. Acknowledging the value of waterways that defines the "Old Suzhou" identity and critical to the design concept, AECOM provided detailed guidelines for water quality improvement and future protection of the aquatic environment.

Location: Shanghai, China Status: Completed in 2009

Chongming South Channel Tunnel

AECOM was commissioned to review the tunnel design in terms of civil, geotechnical, structural, electrical and mechanical engineering. Our team developed a set of bored and cut and cover tunnel design manuals and provided technical and project management advice to the client during the design and construction stages of the project.

The Chongming River Crossing project consists of a tunnel connecting the Pudong area to Chang Xing Island and a cable bridge from Chang Xing Island to Chongming Island. The tunnel connects the city ring road at Wu Hao Gou and the southern part of Changjiang.

The tunnel section comprises two 15.3 meter diameter TBM tunnels, making it the largest tunnel in the world, connected by eight cross passages. Each tunnel is approximately 7.5 kilometers long and linked to a 1.5 kilometers approach road. The tunnel will be a double-deck tunnel. The upper part will be a three lane city road, while the lower part will house the utilities and a light railway. An innovative ground freezing technique has been used for cross passage construction. Cast iron lining segments were used to replace the 650 mm thick concrete at the junction between the bored tunnel and cross passage.

Location: Shanghai, China Status: Ongoing

Shenzhen Eastern Coastal Landscape Plan

The aim of this project is to preserve the last ecological jewel found within the territorial limits of one of the world's fastest growing cities, creating the first regional coastal park system in Mainland China. This is guiding the protection of a 300 square kilometer km coastline area that, together with adjacent habitats in Hong Kong, forms the largest remaining area of native forest habitat on the South China Sea coast.

With a total area of more than 300 square kilometers, and 140 kilometers of coastline, the site includes 23 natural sandy beaches, several large mountain ranges such as Qiniang Mountain, Maluan Mountain, Paiya Mountain and Wutong Mountain, as well as numerous traditional villages and historically significant sites.

AECOM's design and planning team was responsible for the study and evaluation of ecological, recreational, cultural and historical resources in the eastern coastal regions of the district, as well as providing an overall master plan based on the resource evaluation findings.

During the first phase of the project, our multi-disciplinary project team, (including ecological and environmental planners, botanists, hydrologists, wetland specialists, GIS specialists, economists and urban planners) worked together to provide a comprehensive survey of ecological and environmental, historical and cultural, recreational resource of the study area. The information collected was analyzed using GIS, allowing both environmentally sensitive areas and areas suitable for development to be identified.

Based on analysis of data collected, we then developed an overall master plan, including an extensive system of protected areas, country parks, preserved historical sites, and restored wetland habitats. Strategies for managing different types of parks and protected areas were explored and developed into a simple set of guidelines to aid in the effective management of the study area.

Location: Shanghai, China Status: Completed in 2007

Sutong Bridge

Our team provided comprehensive services in the construction of Sutong Bridge, which has a main span of 1,088 meters, making it the longest cable-stayed bridge in the world.

The Sutong Bridge crosses the Yangtze River and connects the cities of Suzhou and Nantong. AECOM provided a range of integrated services including contractor's alternative design, development of construction methodology, construction engineering/erection analysis/geometry control, deck lifting methods and procedures, surveying and monitoring techniques and systems, stay cable installation simulations, advice on construction method statements and specifications, bridge aerodynamics and wind tunnel testing, vibration mitigation measures/devices, falsework and plant/equipment design, advice on innovation and high-technology, and research and development.

The tower is an inverted Y-shaped reinforced concrete structure with one connecting girder between the tower legs. The bridge deck is a steel box girder with internal transverse and longitudinal diaphragms and fairing noses at both sides of the bridge deck. The total width of the bridge deck is 41m including the fairing noses.

Location: Liuzhou, China Status: Ongoing

Liuzhou Diwang Fortune Plaza

Our design team provides design services including conceptual, preliminary and construction drawings for this landmark mixed-use development in Liuzhou.

With a gross floor area of 600,000 square meters, the Liuzhou Diwang Fortune Plaza development includes an office tower, retail space and club house facilities.

With an office tower measuring 303 meters high, together with the HOPSCA retail space, the development has become a landmark in Liuzhou. Between the mall, stores and “transport island”, there are parks and recreational facilities with water features and rocky landscaped areas. The design balances space and vision, demonstrating the harmony between leisure and business activities.

AECOM in

INDIA

Hogennakkal Water Supply & Flurosis Mitigation Scheme

Chennai Metro Phase 1 and Kolkata East-West Metro

Vadarevu and Nizampatnam Port and Industrial Corridor (VANPIC)

Lepakshi Knowledge Hub

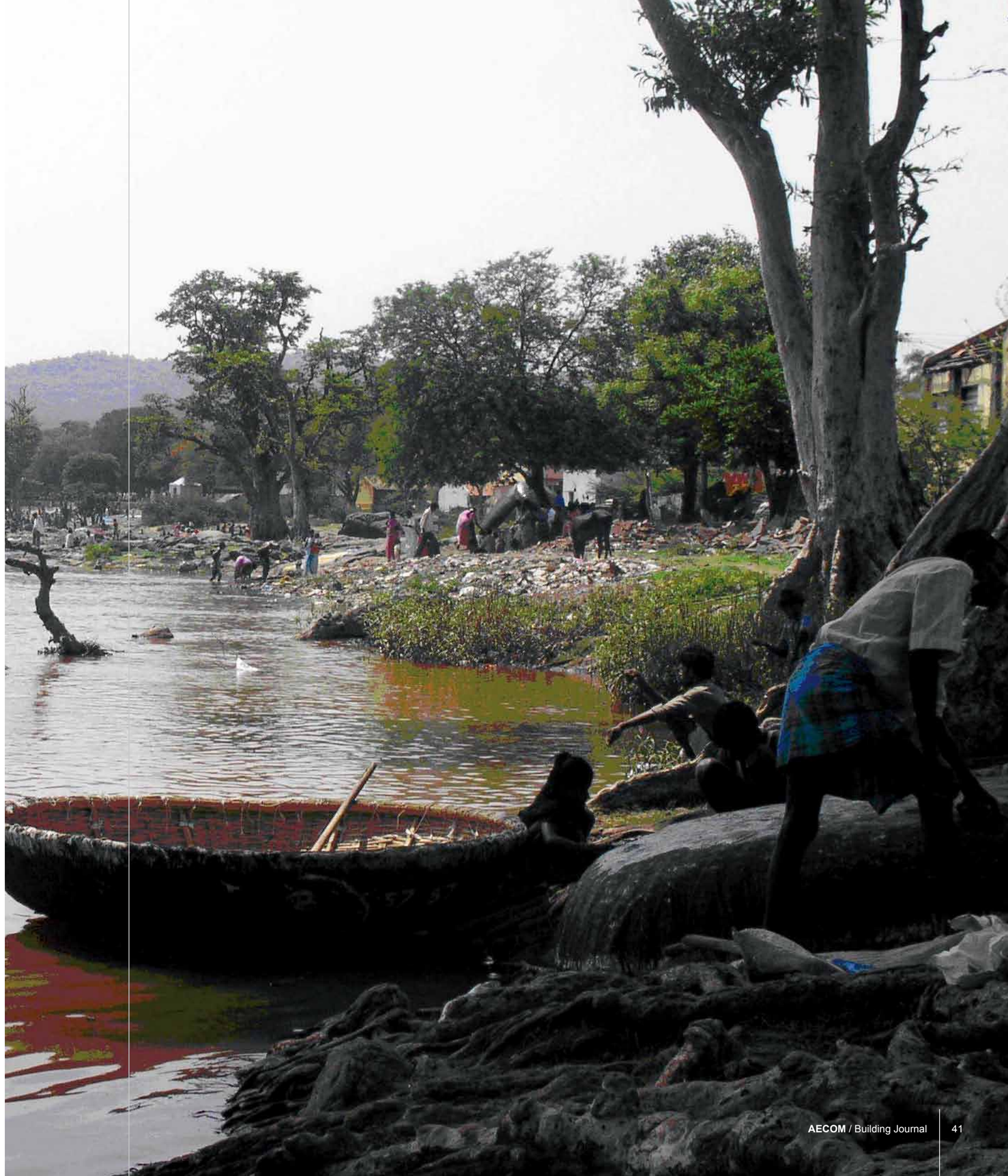
Location: India Status: Ongoing - Target to be completed in 2014

Hogennakkal Water Supply & Flurosis Mitigation Scheme

AECOM has been selected as part of a consortium to provide design review, tender preparation and construction supervision services for this project, to provide water supply facilities to the Dharmapuri and Krishnagiri districts of the State of Tamil, Nadu, India.

AECOM, as a member of an engineering consortium led by Nippon Koei, Japan, has been commissioned by the Tamil Nadu Water Supply and Drainage Board (TWAD) to provide design review, tender preparation and construction supervision for the Hogenakkal Water Supply & Flurorosis Mitigation Scheme for the State of Tamil, Nadu, India. The project is being funded by the Japan Bank of International Cooperation. The construction cost is estimated at around US$200 million.

The new facilities will serve three million people. The scope of the project includes construction of a major water intake system, a master-balancing reservoir, service reservoirs, water treatment plants, and associated conveyance and distribution water mains.



Location: India Status: Ongoing - Target to be completed in 2014

Chennai Metro Phase 1 and Kolkata East-West Metro

As important milestones in AECOM's expansion across Asia, these exciting projects will deliver a modern, sustainable and reliable urban metro network to India.

The US$3 billion Chennai Metro will consist of two passenger rail corridors of a total length of 45 kilometers, of which 24 kilometers will be underground and 21 kilometers will be elevated, including 20 underground and 16 elevated stations. The elevated section of the metro line will become operational in 2012, and the entire line will become operational by the end of 2014.

The Kolkata East-West Corridor Metro will provide a vital passenger link between Howrah and Kolkata, which are separated by the Hooghly River. Valued at US$1 billion, the total route length is 14.7 kilometers, with nine kilometers underground, including six elevated and six underground stations. Two of the underground stations at Howrah and Sealdah will form multi-modal transportation hubs that are integrated with the inland and suburban rail systems in Kolkata. The elevated section will be operational in 2013 and the entire corridor will be operational in 2014.

As a joint venture partner, AECOM is responsible for project management, schematic design and construction management for both projects.

Location: India Status: Completed in 2009

Vadarevu and Nizampatnam Port and Industrial Corridor (VANPIC)

AECOM was commissioned to deliver an economic, social and environmental stimulus to a largely under-developed section of India's south-eastern coastal area by creating a world-class hub that incorporates a port, airport and industrial corridor.

Set along an expansive 120 kilometer stretch of coast on the Bay of Bengal, this vast 11,500-hectare mixed-use agglomeration includes the development of one major port, which is envisaged to be the largest along the eastern coastline of the state of Andhra Pradesh. The project also includes a shipyard, a regional airport, an energy park; specialised industrial parks/special economic zones (SEZs), a multi-product economic zone, and resort development that aims to create direct employment for the population in two revenue districts.

Unique to the site will be a mix of industry with tourism and leisure development as well as commercial space and social infrastructure that will set new standards in India for lifestyle communities amid predominantly industrial land use. VANPIC is considered one of the more notable projects underway in Andhra Pradesh as it aims to raise the standards of living of the local people, while also protecting and enhancing the beautiful coastal mangroves and reserve forests located within the site.

The project scope also extends to providing training and employment to local communities beyond traditional industries and towards more high value industries.

Location: Anantpur District, Andhra Pradesh, India

Status: Ongoing - phases through 2025

Lepakshi Knowledge Hub

AECOM is preparing a Conceptual Master Plan and Vision document for 10,000 acres of the Lepakshi Knowledge Hub located 70kms north of Bangalore.

The Master Plan provides innovative design solutions and guidelines for the development with a detailed understanding of the site terrain, watershed of more than 50 water bodies in and around the site boundary and the open space system, while addressing transportation, environmental and infrastructure needs arising from the new development. The development mix includes an education hub with world renowned universities as anchor tenant for the entire development, innovation hub, healthcare park, agro park, logistics park, aerospace park with a dedicated runway, Special Economic Zones and residential townships. A sustainable development framework and built environment is at the core of the project, not only through environment considerations, but with social and economic development of new education and employment sectors, capitalizing on growth in the Bangalore region.

AECOM in

SOUTH EAST ASIA

Resorts World at Sentosa

Tanjung Rhu Integrated Resort Master Plan

Environmental Services for ExxonMobil

My Thuan Bridge

Location: Singapore Status: Ongoing - Target to be completed in 2010

Resorts World at Sentosa

AECOM has been selected to provide integrated civil, geotechnical, structural design and construction supervision services for this Integrated Resort development located in the north-east of Sentosa Island, with 650 meters of waterfront facing the HarbourFront Precinct.

Work on Resorts World Sentosa, one of two Integrated Resorts in Singapore, began with the ground-breaking ceremony on 16 April 2007 on a 49-hectare site on Sentosa's northern shoreline. The site is 1.4 kilometres long and 500 metres wide. To maximise land use, the site's design includes two basement car parks with more than 3,500 parking lots and bus bays. The eight-hectares of land reclaimed at the site makes Resorts World the only private development in Singapore to have reclaimed land.

Construction began with the excavation of soil to construct the raft foundation, basement structures and support columns. A ground-level Environmental Deck, or E Deck, was cast above the basements. Made of reinforced concrete measuring more than a metre, E Deck supports the resort's hotels, attractions and landscape features that give the resort a lush, tropical look – hence its name. Four tunnels connect the basement to the surface road network and a new bridge built by Resorts World.

Key attractions include the Universal Studios Singapore (USS) family theme park with 24 attractions, a casino, plus six hotels with a total of 1,800 rooms. Resorts World will open in early 2010 with two 11-storey tall hotels, Maxims Tower and Hotel Michael, the eight-storey high Festive Hotel and the six-storey high Hard Rock Hotel. The four-storey Equarius Hotel and ground level Spa villas will be built under a following phase.

The IR will have the world's largest oceanarium within the Marine Life Park, Equarius Water Park, a maritime museum and the FestiveWalk retail strip. There will also be a waterfront amphitheatre which faces an offshore attraction, the spectacular Crane Dance.

Meeting facilities at Resorts World include a 7,000 square meter column-free ballroom with a 11-metre high ceiling at Hard Rock Hotel and the 5,000 square meter column-free Festive Grand theatre at Festive Hotel. The steel roof structures over the ballroom and showroom span approximately 74 metres and 58 metres, respectively.

Apart from the tight timeline, one key challenge involved underpinning the existing Sentosa Express monorail track and its supporting piers, which are situated in the middle of the site and continued to carry visitors during the construction.

Location: Langkawi, Malaysia Status: Completed in 2008

Tanjung Rhu Integrated Resort Master Plan

AECOM's conceptual master plan for this unique, exclusive resort in Langkawi has helped to create a world class eco-tourism destination with a culturally inspired, economically viable and environmentally sensitive sustainable design.

The 400-hectare resort development is located near the northernmost part of the main island of Langkawi, which was designated a UNESCO geopark in 2007. The rich geological heritage and the beautiful pristine natural environment of Langkawi have made the island a well-known ecotourism destination in Southeast Asia. Lying within this region, the site area is rich in beautiful geological resources including the sea, sandy beaches, mudflats, pristine mangroves, limestone hills, and unique flora and fauna. AECOM proposed sustainable development of the site to protect existing natural resources for visitors to enjoy for years to come.

AECOM's economics team recommended an optimum number of units while limiting environmental impact to the site. Emphasizing sustainable tourism, AECOM challenged the client to pursue a visionary role and lead the market. We pushed the design to explore massing and density possibilities, proposing compact development to minimize the building footprint. AECOM also proposed that the project scope include eco-research of the geopark. The project achieved the client's economic targets while preserving 70% of the site as sensitive environmental area. Our interdisciplinary solution promotes responsible tourism and the integration of sustainable development practices to create a unique way of positioning and differentiating the project.

To create a unique themed resort, AECOM also planned several key features including a Limestone Village as the development's core of activities, events and commerce; an eco-center lodge and research center; a Grotto Sand Spa Resort; a Sunset Beach hotel for families; upgrading the existing Marina; luxury villas and town homes at the Pointe; and unique residential offers on the island (villas on stilts at the mangrove estate and a Wilderness Lodge).

Location: Hong Kong, Thailand, Malaysia, Singapore Status: Ongoing

Environmental Services for ExxonMobil

AECOM has been awarded a contract by ExxonMobil to perform comprehensive environmental services projects for four countries in the northern Asia Pacific region.

This new contract follows our environmental team's previous success serving ExxonMobil in the Asia Pacific region. AECOM received ExxonMobil's Asia Pacific Safety Awards in both 2007 and 2008 for outstanding health and safety performance for projects in Malaysia and Thailand.

Location: Vietnam Status: Completed in 2000

My Thuan Bridge

This 660-meter long bridge was Vietnam's first cable-stayed bridge and largest span structure, spanning the Mekong River in south-west Vietnam.

AECOM's scope of services for this project included design development, detailed design, contract documentation, construction supervision and contract management, as well as geotechnical services.

The two main towers of the My Thuan Bridge are each supported by a group of 16 - 2.5-meter diameter bored piles driven into dense sands and stiff clays to depths of up to 98 meters below river level. Apart from loads from the superstructure of up to 315MN per tower, these foundations are designed to withstand riverbed scour to water depths of 56 meters and impact from 3,600 deadweight ton ships that use the river.

Every bored pile was tremie concreted then base grouted using tube-a-manchette to ensure maximum reliance on end bearing. Every pile was sonic logged to check the integrity of the tremie concrete. Five 30MN Osterberg load cells were installed and tested in selected bored piles, two with multi-level cells to monitor load deflection characteristics over the full pile shaft. Each test incorporated full displacement monitoring of the pile so that direct load-deflection plots of base and shaft response could be recorded.