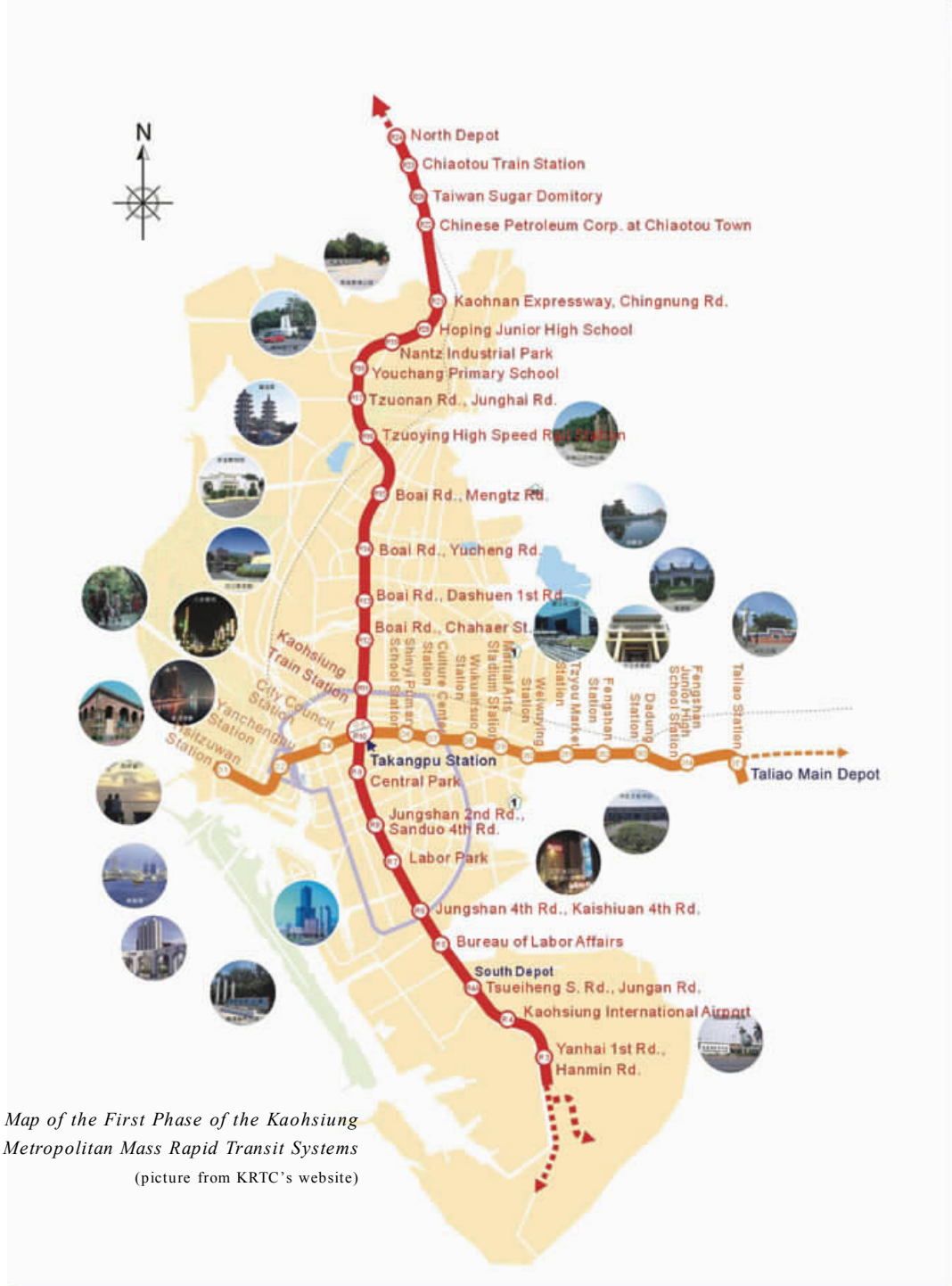
MAA Bulletin

ISSUE 36
SEPTEMBER 2003



Route Map of the First Phase of the Kaohsiung Metropolitan Mass Rapid Transit Systems
(picture from KRTC's website)

亞新工程顧問(集團)公司
MAA Group Consulting Engineers
TAIPEI KAOHSIUNG HONG KONG SINGAPORE PENANG
LOS ANGELES BEIJING SHANGHAI BANGKOK

MAA Bulletin

Issue 36 September 2003

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MAA Group Consulting Engineers is a multi-disciplinary consulting firm providing professional services to both private and public clients. Today, MAA Group has offices in Taiwan, Hong Kong, Singapore, Malaysia, Thailand, U.S. West Coast, and Mainland China, creating a close network in the Asian Region.

MAA Group's goal is to establish engineering capability that will meet local needs. Along with the change in socio-economic environment over the years, business philosophy of the group has been modified. Today, professional service is no longer a product under the rule of supply and demand. The service is transformed as an asset to the client with long lasting benefits. MAA Group's principle for professional conduct is summarized in the **ASSET** motto:

Advanced Technology
Project **S**afety
Client's **S**atisfaction
Economical Solution
Timely Completion

ISO 9001 CERTIFICATION

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PROJECTS OCTOBER 2002 – MARCH 2003

TAIPEI COUNTY ADMINISTRATION CENTER

On 24 March, 2003, the new Taipei County Administration Center was officially open by the County Magistrate Mr. Su, Tseng-Chang. The highest landmark in the Taipei County consisting of 33 stories above ground and 4 levels of basement plus a heliport on the top of the building, has a total floor area of 159,000 sq.m. equipped with modern facilities.

MAA Taiwan was engaged by the County Government to provide Project Management services for the four and half years of construction. The scope of services included scheduling, cost control, construction safety, quality assurance and environmental management.

Taipei County Administration Center

INTEGRATION OF DESIGN CRITERIA FOR MECHANICAL AND ELECTRICAL SYSTEMS OF MASS RAPID TRANSIT

With the successful operation of the Initial Network of Taipei Rapid Transit Systems (TRTS) and the rapid progress of the construction of the Kaohsiung Mass Rapid Transit Systems, the Ministry of Transportation and Communications initiated a series of studies on standardization of designs and constructions of mass rapid transit systems with the aim of improving the quality of works and reducing construction and maintenance costs.

MAA Taiwan was jointly awarded with Chiu-Kou Consulting Engineers & Partners, Ltd., by the Ministry to conduct a study on mechanical and electrical systems. The scope of services includes electrical multiple units, signaling, power supply, conductor rail, auto fare collection, environmental control, escalator, elevator, station and tunnel service, and depot maintenance equipment with emphasis on system integration. First of all, the current designs will be reviewed and the practices adopted by various designers studied. A report will then be prepared to summarize the findings with references to the state-of-the-art technologies available nowadays. This report will pave the way for standardization of design codes for future MRT lines.

MEW COMMON LECTURE HALL, NATIONAL TAIPEI NURSHING COLLEGE

A new modern Common Lecture Hall was constructed at the northeast corner of the National Taipei Nursing College in Beitou, Taipei. The building, with 7 stories above ground for classrooms, research rooms, offices, meeting rooms and exhibition spaces and 1 level of basement for parking facilities has a total floor area of 10,268 sq.m. and was completed for occupancy on 5 May, 2003. MAA Taiwan provided construction management services during the construction.

New Common Lecture Hall, National Taipei Nursing College

EIA FOR POWER NETWORK

To cope with the electricity demand in Shihlin, Beitou, Kuandu and Tamhai area, the Taiwan Power Company has planned to install a high voltage transformation station at Xiandu and thus establish a power transmission network. The cable network will start from the second Nuclear Power Generation Plant and end at Xiandu (located at Kuandu) with a total length of 31 km. A portion of the cable will traverse through restricted area in Mt. Yang Ming National Park (about 10 km in length, with 32 steel pylons). Although part of the power transmission plan has been accomplished, the remaining part of this project cannot be completed successfully due to meticulous assessment and planning for the restricted area in the national park and procurement of land. From the detailed planning provided by the Taiwan Power Company, a segment of the road traversing through the national park was identified. A preliminary Environmental Impact Assessment (EIA) is necessary to comply with the requirements of the stipulated regulations for national parks. In March 2003, MAA Taiwan was commissioned by the Taiwan Power Company to undertake the EIA work which covers the investigation of current environmental conditions, assessment of potential environmental impact, and study of possible countermeasures to abate possible negative impact.

345 kv Power Network

MASTER CONSTRUCTION SPECIFICATIONS AND REFERENCE DRAWINGS FOR PUBLIC WORKS

Public works account for a giant share in the annual national budget and directly affect the overall growth of economy in Taiwan. Furthermore, the quality of public works is one of important indices of the performance of government. In order to improve the quality of works and to optimize the public spending, as the supervising agency, the Public Construction Commission of the Executive Yuan initiated a program to standardize engineering practice, including design, construction, and maintenance. One of the tasks is to provide guidelines on the preparation of tender documents, including general requirements, general provisions and technical specifications. In parallel, studies on standardized bills of quantities and unit prices for labors and materials are conducted so better efficiency can be achieved.

MAA Taiwan was engaged by the Public Construction Commission to provide services on the integration of construction specifications and to prepare reference design drawings for minor works. Construction specifications are reviewed by committees consisting of experts in relative fields. MAA study team is responsible for integrating these specifications into volumes following the master format setforth by the American Construction Specification Institute. Workshops are conducted for promoting the use of these specifications and attended by practicing engineers. These specifications will be revised based on the feedback from these engineers and issued from time to time.

In addition to specifications, 35 design drawings are prepared for minor works which do not require much engineering. They can readily be used with minor modifications, if necessary, by district government agencies in tenders of projects of minor significance. Fifteen of them are on ecological engineering which is relatively new to the construction industry and unfamiliar to the profession in general.

EDUCATION AND TRAINING CENTER NAN SHAN LIFE INSURANCE CO., LTD

Nan Shan Life Training Center

In order to keep competitive advantage and further strengthen the professional training of her staffs to provide best service to their clients, the Nan Shan Life Insurance Co. Ltd., after 10 years planning, decided to build the Education and Training Center located on the top of Da-Du Hill in Taichung. Moh And Associates, Inc. was engaged as the geotechnical and structural engineering consultant responsible for the detailed design and periodical supervision of construction of the building structure. The Center was completed in October 2002 and officially open for operation on 18 December 2002.

The Education and Training Center, with a total floor area of 21,094 sq.m., consists of 4 storey above ground with 3 levels of basement. The main facilities including international convention hall with capacity for 900 attendances, multi-media library, lecture theaters, classrooms, conference room & VIP room, commercial center, etc., all equipped with the latest developed facilities.

The main structural system adopted for the center is the Special Moment Resisting Frame (SMRF) with mat foundation. Reinforced concrete and steel structure are used in combination for this building.

GENERAL CONSULTANCY FOR FREEWAY ELECTRONIC TOLL COLLECTION SYSTEM

For the purpose of increasing the capacity of freeways and shortening the travel time, the Taiwan Area National Freeway Bureau (TANFB) of Ministry of Transportation and Communications initiated a project calling for the implementation of the electronic toll collection system (ETC) for all the freeways on the island. Upon its completion, this ambitious project will cover all the existing freeways and the freeways scheduled to be completed within the concession period with a total of 884 km and 131 interchanges. The goal to achieve is for vehicles to travel freely without barriers while tolls are collected automatically by the electronic devices installed at ramps or on motorways. Furthermore, tolls will be based on distance traveled and may vary with the time of the day. Eventually, the concept of road pricing will be implemented with congestion charges incorporated in tolls. This, however, will be achieved in stages. The system is expected to benefit more than 5 million freeway users and drastically improve the quality of services of freeways. It will also serve as the foundation for the electronic traffic and transportation management (ETTM) and intelligent transportation systems (ITS) which are not distant dreams.

In February 2003, MAA Taiwan was awarded by the TANFB a contract to serve as the General Consultant of the project. The scope of services includes evaluation of the state-of-the-art technologies currently available and the ETC systems in operation, preparation of BOOt (Build-Operate-Operation transfer) tender and assisting the client in the tender evaluation, assistance in the implementation and commissioning of the ETC system, and verification of the performance of the system.

The MAA team consists of three other partner companies, including Dornier Consulting GmbH from Germany responsible for technical issues, T N Soong & Company responsible for financial issues and LCS & Partners responsible for legal issues. The Institute of Traffic and Transportation of National Chiao Tung University is engaged for traffic studies and several prominent professors from the same university are engaged to advise the team on issues related to telecommunications and wireless technology.

KAOHSIUNG METROPOLITAN RAPID TRANSIT SYSTEMS

The first phase of the Kaohsiung metropolitan Rapid Transit Systems consists of two lines, i.e. the Red and Orange Lines, with a total combined length of 42.7 km. The Orange Line is west-east bound and starts from Hsitzuwan, travels along Jungjeng Road passing center of the Kaohsiung City, and terminates in Taliao township. The Orange Line, about 14.4 km long has 14 stations, of which all are underground except the Taliao Station which is at grade. A single depot will be built to serve the Orange Line. The Red Line is south-north bound and starts from south at the intersection of Yanhai/ Hanmin Roads, passing the Kaohsiung International Airport and travels along Jungshan Road, and ends at Chiaotou township. The Red Line, about 28.3 km long, has 24 stations, of which 15 are underground, 8 elevated and one at ground

Route Map of the First Phase of the Kaohsiung Metropolitan Mass Rapid Transit Systems

The Project, at a total estimated cost of NT$79,521,160,000 (about US$2,305 million), is handled by the Kaohsiung Rapid Transit Corporation (KRTC) in a semi BOT (built-operate-transfer) contract with the government. Detail design and construction of the two lines are divided into 14 turnkey contracts. MAA Taiwan provides detailed design services to three turnkey constructors and independent design checking services to the KRTC on two turnkey design.

1.Orange Line CO2 Section Civil Contract – Detailed Design Services

Client:

MAEDA-LONGDA JOINT VENTURE

Project Description:

The route of the CO2 Section of the Orange Line starts from the western end of Station O6 underneath the intersection of Jungjeng /Jintian Roads, runs along Jungjeng Road eastward to Station O7 at Heping Road intersection, and runs further east toward Station O8 underneath Fude Road intersection and ends at the eastern end of Station O8. The total length of CO2 Section is approximately 1.9km.

The scope of CO2 Section Civil Contract includes 3 underground stations, i.e., O6, O7 & O8, and 2 bored tunnel sections, LUO08 & LUO09, each has an east bound (up track) and a west bound (down track) tunnel. The underground stations will be constructed by using cut and cover method for O6 & O7 and semi-top down method for O8. The tunnels will be constructed by shield tunneling method. Completion of overall civil work is scheduled at the end of 2006.

Scope of Services:

The scope of CO2 civil design contract includes route alignment; architectural, geotechnical, structural and civil works design, environmental control & building services design; and public arts design, etc. The major services are summarized as follows:

(1) Detailed design

(2) Review of construction drawings/shop drawings and method statements
(3) Design incorporation/coordination of interface requirements
(4) Design incorporation of System Assurance and Safety Management requirements

Associated Consultants:

H.H. Chang Architect & Partners is responsible for the architectural work and Gibsin Engineering Consultants Inc. is responsible for building services design.

2.Red Line CR6 Section Civil Contract – Detailed Design Services

Client:

RSEA-OKUMURA JOINT VENTURE

Project Description:

The route of the CR6 Section of the Red Line starts from the southern end of Station R14 underneath the intersection of Boai Second/Yucheng Roads, runs along Boai Second Road and Boai Third Road and turns left at the intersection of Boai Third Road/Chungshin Road to Chunghe Road then reaches station R16 (The Reconstruction Bureau of Taiwan Railway, Ministry of Transportation and Communications is responsible for this station). After exiting station R16, it starts to climb up at 3 per cent gradient and goes through Panpingshan then ends at the beginning of Viaduct Section. The total length of CR6 Section is approximately 3.85km.

The scope of CR6 Section Civil Contract includes 2 underground stations, R14, and R15, 1 cut and cover tunnel section, LUR24, 3 bored tunnel sections, LUR25, LUR26 & LUR27, and 1 mountain tunnel section, LUR28. Each tunnel section has a north bound (up track) and a south bound (down track) tunnel. The characteristics of the project are deep excavation (excavation depth of the two underground stations is 19m and 22m, respectively), bored tunnel under city streets and mountain tunnel. The stations will be constructed by cut and cover method and are connected by bored tunnels. The bored tunnel section of LUR26 passes underneath the Apple Forest Mansion. Impact of the tunnel passing underneath the existing building must be evaluated to make appropriate building protection plan. Completion of the overall civil work is scheduled at the end of 2006.

Scope of Services

The scope of CR6 civil design contract includes route alignment, architectural, geotechnical, structural and civil works design; environmental control and building services design; and public arts design, etc. In addition, architectural, environmental control and building service design are also included in the contract. The major services are summarized as follows:

(1) Detailed design
(2) Review of construction drawings/shop drawings and method statements
(3) Design incorporation/coordination of interface requirements
(4) Design incorporation of System Assurance and Safety Management requirements

Associated Consultants:

SURV Inc. is in charge of architectural and landscape works. Gibsin Engineering Consultants, Inc. is the E/M building services designer.

3.Orange Line CD1 Depot – Detailed Design Services

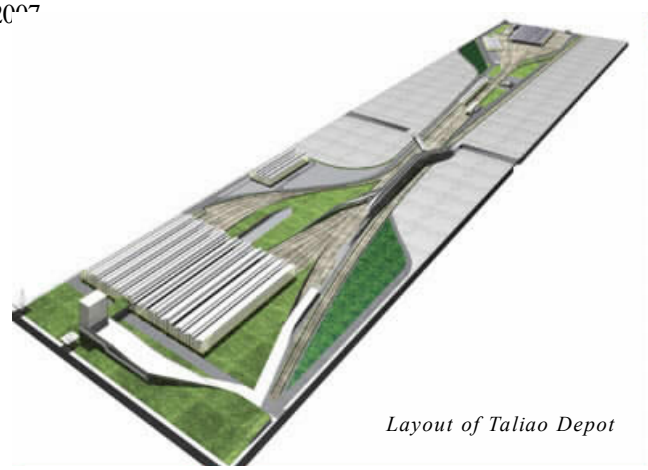
Client: RSEA Engineering Corp.

Artist's View of Taliao Depot

Project Description:

The Taliao Depot is situated at the east end of the Orange line and is located in Taliao Hsiang of Kaohsiung County. Its construction base area is approximately 55 hectares and it will be the main maintenance depot and departing area for the Kaohsiung Mass Transit System in the future. The Taliao Depot will be able to take great advantages of its nearby

newly constructed roadways to connect to the regional arterial roadway systems. The turnkey contract of this depot includes fundamental facilities of Taliao (OT1) Station, Main Maintenance Factory, Train Stabling Area, Depot Control Center, Car-Affair Center, Employee Training Center, Management Center, Electronic Repairing Area, Employee Activity Center, Propulsion Power Substation, Auxiliary Power Substation, Track-Welding Area, Gas Station, Warehouse, Car-Washing Area, Wastewater Treatment Plant, Tracking Factory, Painting Area and Regional Regulating Reservoir, etc. This construction project is planned to be finished by December 2005 in order to meet the planned opening of the Kaohsiung Mass Transit System in October 2007.



Layout of Taliao Depot

Associated Consultants:

Two associated consultants are engaged by MAA. SURV Inc. is responsible for the site planning, architectural, landscape and public arts. Gibsin is responsible for building services work.

4.Detailed Design Checking Engineer Services for Contracts CR4 and CD0

Client:

Kaohsiung Rapid Transit Corporation

Project Description:

(1) CR4 Section:

Contractor: RSEA-KAJIMA Joint Venture

Design Consultant: Sinotech Engineering Consultants, Ltd.

One station O5/R10 (SUR10, SUO05), three sections of cut and cover tunnel (LUR19, LUO06, LUO07), two sections of shield bored tunnel (LUR20, LUO05). Total length of this section is about 3.12 km.

(2) CD0 Section:

Contractor: International Engineering & Construction Corp.

Design Consultant: Sinotech Engineering Consultants, Ltd.

Two sections of cut and cover tunnel (LUR08, LUR09), total length of about 336 m.

Scope of Services

(1) Reviewing and certifying of detailed design:

Reviewing the detailed design of civil works, including civil, geotechnical, structural, drainage, utilities relocation detailed design drawings, calculations and related reports.

Reviewing the detailed design of E&M works, including water, electricity, environmental control, water supply and communication detailed design drawings, calculations and related reports.

Reviewing architectural detailed design, including regulation check, material, and operation facilities detailed design drawings, calculations and related reports.

(2) Reviewing and certifying SEM/CSD Catalogue B drawings.

(3) Assisting Client to urge the Contractor to submit permit application to related authorities for approval, including fire alarm, fire fighting, water supply, drainage, environmental control, electricity, heavy lifting and communication.

(4) Reviewing and certifying design change.

(5) Assisting Client to recheck necessary construction drawings upon request.

(6) Reviewing and certifying as-built drawings and reports.

(7) Attending necessary design review meetings.

(8) Reviewing plans and reports related to the detailed design.

THE TAIWAN HIGH SPEED RAIL PROJECT CONTRACT C296

High Speed Rail

The Taiwan High Speed Rail (HSR) runs approximately 345km from Taipei at the north to Kaohsiung at the south of the Formosa Island. The civil works of the Taiwan HSR project have been divided into twelve separate contracts, whereas Lot C296 is the last section at the southern end. This section of HSR passes through Jenwu Village of Kaohsiung County and Tsoyin area of Kaohsiung City. The total length is about 3 km with about 2km of alignment lying in-line with the Water Pipe Road, of which massive utility pipeline running underneath.

The structural systems in this section are viaducts comprising about 2.3 km long prestressed concrete box girder bridges, 17 m of embankment and special bridges, including three 200 m long steel box girder bridges and a 93 m long steel bridge. The three steel box girder bridges with 55m+90m+55m spans across the Zhong-Shan freeway and two main roads in that area, Fengjen Road (County Road 183) and No. 1 Provincial Highway, respectively. These special bridges are adopted not only due to the structural functional requirements but also the construction considerations. Various aspects in analysis and design are carried out for the special bridges, such as dynamic analysis of rolling stock, track-structure interaction, fatigue stress check etc., besides the anti-seismic consideration and stringent functional requirements of the HSR.

The project is contracted as a turnkey project by Evergreen Shimizu Joint Venture. Moh and Associates, Inc. was engaged as the designer responsible for the detail design of civil works of the project. Construction was started in 5 January, 2001 and successfully completed and handovered in April 2003 which is the first civil contract handed over for the rail construction. The total cost of this Contract is NTD 2.65 billion dollars (approximately USD 75.7 million).

NTU ONE-NORTH CAMPUS AND NTU ALUMNI CLUBHOUSE

The Nanyang Technological University and the NTU Alumni Club are planning to develop a new branch campus and clubhouse in a developed area named “One-North” near downtown Singapore. The proposed development comprises of two blocks of 10-storey Tower with the future Circle Line Mass Rapid Transit (MRT) running along the North-South direction pass underneath the proposed development area.

The Project Architect and Structural Engineer are M/s RSP Architects Planners & Engineers (Pte) Ltd. Moh and Associates (S) was engaged by the Architect on behalf of the Client to provide geotechnical consultancy services including soil investigation work with regard to the foundation, retaining systems and evaluation of the construction effect of future MRT tunnels to the proposed development.

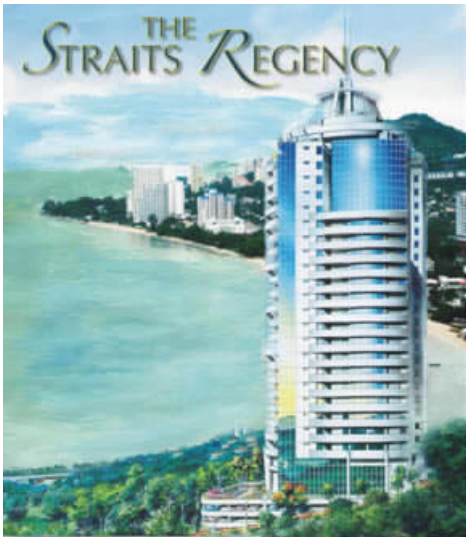
HOUSING SCHEME IN JURU, SEBERANG PRAI, MALAYSIA

M/s Silver Resort Sdn. Bhd. has proposed to develop a new housing scheme in Juru, Seberang Prai, Penang which covers an area of about 11 ha., Moh And Associates (M) Sdn. Bhd. has been appointed as the consulting engineer responsible for the design and construction supervision for all infrastructure, geotechnical and structural works. The housing scheme consists of about 250 units of residential and shop houses on a piece of flat land currently cultivated with oil palm trees.

NEW TOWNSHIP IN SUNGAI PETANI, KEDAH, MALAYSIA

M/s Sin Yik Development Sdn. Bhd. is currently undertaking a massive mixed development project on a piece of 400 ha. land in Sungai Petani, Kedah – a state in northern part of Malaysia. Development of this Bandar Perdana new township is being implemented in phases. Moh and Associates (M) Sdn. Bhd. has been appointed as the C&S consulting engineers for Phase 6 of the project, responsible for the foundation, structural design and construction supervision for 436 units of residential houses and the associated ancillary works.

THE STRAITS REGENCY, PENANG, MALAYSIA



Proposed 24-storey Staits Regency Condominium, Penang

The Straits Regency, an elegantly designed condominium located at the coastal front of Tanjung Bungah, Penang is another highrise building for which Moh And Associates (M) Sdn. Bhd. is the consulting engineer responsible for the design and construction supervision of the foundation, structure, internal plumbing, sanitary and associated ancillary works for the building. The building consists of one block of 24-storey RC structure with 3-storey basement carpark supported on caisson foundation socketed into granitic bedrock formation. There will be 104 apartment units with recreational and community facilities. The developer is M/s Taman Ratu Sdn. Bhd.

COASTAL TOWER, PENANG, MALAYSIA

Coastal Tower is another project by the developer M/s Taman Ratu Sdn. Bhd. and is currently under construction. The project consists of 2 blocks of 28-storey RC building with 5-storey podium and carpark structure supported by combination of caisson and pad foundation on granitic rock formation. Moh And Associates (M) Sdn. Bhd. is the consulting engineer responsible for the design and construction supervision of the foundation, structure, internal plumbing, sanitary and associated ancillary works for the building.

Construction of 28-storey Coastal Tower Condominium, Penang

ROYAL DUTCH EMBASSY, BANGKOK

Royal Dutch Embassy, Bangkok

MAA Thailand was recently selected by the Ministry of Foreign Affairs of the Netherlands to provide detailed design, tendering and project management for their new Embassy and Chancellery in Bangkok. The Royal Dutch Embassy in Bangkok is located in a scenic tree lined historic district next to the US Embassy, with the Ambassador's Residence being the home of a former Thai Prince.

The Ministry of Foreign Affairs in the Netherlands looked to Hubert-Jan Henket, one of Europe's leading design architects to provide the concepts and preliminary designs. MAA was chosen over a distinguished group of consultants, engineers and architects to take concepts and turn them into an aesthetic and functional facility.

MAA will oversee the total detailed design package with the help of Architects 49 in Thailand. MAA will produce the tendering packages and assist in the selection of the contractor or contractors. The Chancellery will be totally new, but the Ambassador's residence is a historic renovation project. In all, this highly prestigious project will take about 3 years to complete.

PROFESSIONAL ACTIVITIES

► LECTURES AND CONFERENCES

CROSS-STRAIT SEMINAR ON RAILWAY TECHNOLOGY

A delegation of the Sichuan Association for Science & Technology and Sichuan Society of Railways, China was invited by the China Road Federation to visit Taiwan and to participate in a workshop on Technology Exchange of Railroad Engineering from 11 February, 2003 to 20 February, 2003. On 12 February, 2003, Mr. Zi-He Fu, Leader of the Delegation, and other 19 delegates visited MAA Taipei office. The two parties exchanged railway technology viewpoints and souvenirs during the visit.

UNDERGROUND CONSTRUCTION TECHNOLOGY FORUM

From 18 to 20 December, 2002, an Underground Construction Technology Forum was held in Hangzhow, China. More than 100 senior level engineers from all over China took part in the three-day forum to discuss various topics related to planning, design and construction of subway systems in urban environment. Dr. Za-Chieh Moh was invited as a special guest to deliver a talk on geotechnical problems of the Taipei Rapid Transit Systems.

FORENSIC GEOTECHNICAL ENGINEERING WORKSHOP

Organized by the Committee on Professional Practice of the Indian Geotechnical Society, a workshop on Forensic Geotechnical Engineering was held on 28 February and 01 March, 2003 in Chennai, India. Dr. Richard N. Hwang, Senior Vice President of MAA Taiwan attended the workshop and deliver a paper entitled "Flooding of a Working Shaft during Construction of Taipei MRT."
Dr. Hwang was also invited to deliver a talk on "Ground Treatment for Building Protection in Underground Construction" at the Central Road Research Institute in New Delhi on 05 March, 2003.

► FELLOW, CICHE

To further enhance her international standing in the world engineering community and to recognize contributions made by senior members of the institute, the Chinese Institute of Civil and Hydraulic Engineering launched a new grade in her membership, the Fellow grade, in Year 2003. Twenty one Fellows were elected by the Board of Directors from a total membership of 3,450 as the first batch of the new membership grade. Both Dr. Za-Lee Moh and Dr. Za-Chieh Moh, Chairman and President of the MAA Group, are among the first group of Fellows.

CONFERENCES, SEMINARS, AND OTHER MEETINGS

SEMINAR DESCRIPTION	SPONSORSHIP	LOCATION	START	END
2002 Workshop of Ecological Conservation for Engineering Workers of Soil and Water Conservation	Taiwan Endemic Species Research Institute, C.O.A., Executive Yuan	Nantou	01/10/2002	05/10/2002
Conference of Engineering Geology	Sino-Geotechnics Research and Development Foundation	Nantou	03/10/2002	04/10/2002
2002 Conference of Chinese Geographic Information Society	Chinese Geographic Information Society	Taichung	03/10/2002	04/10/2002
The Laws of Engineering (1&2)	China Engineering Consultants, Inc.	Taipei	03/10/2002	05/10/2002
The Strategy and Execution of Enterprises' Annual Training Planning	Chinese Association of Human Resource Management	Taipei	04/10/2002	04/10/2002
Site Visit of the Fourth Nuclear Power Project	Chinese Institute of Civil and Hydraulic Engineering	Taipei	08/10/2002	08/10/2002
Symposium on High Speed Railway and Bridge Dynamics	National Taiwan University	Taipei	16/10/2002	17/10/2002
Security Management in Intelligent Railway Transport Forum	New ERA International Inc.	Taipei	16/10/2002	17/10/2002
Seminar on Tunnel Engineering in Practice	China Road Federation	Taipei	17/10/2002	18/10/2002
Seminar on Construction Safety and Environmental Protection	Bureau of New Construction, Taipei City Government	Taipei	17/10/2002	17/10/2002
Seminar on Building Structure Safety Measure & Strengthening	Taipei Professional Civil Engineers Association	Taipei	17/10/2002	17/10/2002
Conference on Green Construction	Chinese Institute of Civil and Hydraulic Engineering	Taipei/Hsinchu	18/10/2002	18/10/2002
Construction Automation Technology	Taiwan Construction Research Institute	Taipei	18/10/2002	18/10/2002
The Seventh Transportation Network Seminar	Chinese Institute of Transportation	Taipei	18/10/2002	18/10/2002
Training Course of Sewer System Design and Supervision	Taiwan Water Environment Association	Taipei	18/10/2002	18/10/2002
Discussion on Environmental Impact Assessment	Environmental Protection Administration , R.O.C	Taipei	21/10/2002	22/10/2002
Workshop on Turnkey and The Most Advantageous Tender	Chinese Institute of Civil and Hydraulic Engineering	Taipei	22/10/2002	22/10/2002
Workshop on Hydraulic Analysis in Design and Construction of River Bridges	Chinese Institute of Civil and Hydraulic Engineering	Taipei	23/10/2002	23/10/2002

SEMINAR DESCRIPTION	SPONSORSHIP	LOCATION	START	END
Course on Fundamentals of Civil Law	Veracity Foundation of Legal Studies	Taipei	29/10/2002	24/12/2002
Conference on Advanced Geotechnics	Kao Yuan Institute of Technology	Taipei	05/11/2002	05/11/2002
Workshop on Ecological Engineering and on-site Hazard Preventing Technology	Department of Construction Engineering, National Taiwan University of Science and Technology	Taipei	07/11/2002	07/11/2002
Seminar on Knowledge Management Applied to Public Construction	Taiwan Construction Research Institute	Taipei	12/11/2002	12/11/2002
Public Construction Cost Estimate Training Class	Public Construction Commission, Executive Yuan	Taipei	12/11/2002	13/11/2002
Seminar on Design and Build Contract Issues	Taiwan Area National Expressway Engineering Bureau, MOTC	Taipei	13/11/2002	13/11/2002
Seminar on Supervision of Permanent Ground Anchors	Taipei Foundation Engineering Association	Taipei	14/11/2002	14/11/2002
Business Management Training for Type C Labor Safety & Hygiene	Taiwan Safety & Hygiene Development Association	Taipei	16/11/2002	17/11/2002
Seminar on Structural Performance-Based Earthquake Engineering Design	Sinotech Engineering Consultant, Inc	Taipei	19/11/2002	19/11/2002
Seminar on Transportation Policy and Technology	Chinese Institute of Civil and Hydraulic Engineering	Taipei	20/11/2002	21/11/2002
2002 Taiwan Rock Engineering Symposium	Chung Hua University	Hsinchu	21/11/2002	22/11/2002
Seminar on Disaster, Insurance and Legal Problems of Engineering Projects	The Chinese Association of Engineering Consultants, Taipei	Taipei	22/11/2002	22/11/2002
Seminar on Chinese Building Code for Design and Construction of Concrete Structures	Chinese Institute of Civil and Hydraulic Engineering	Taipei	22/11/2002	23/11/2002
Workshop on Ecological Engineering Method	National Taipei University of Technology	Taipei	23/11/2002	23/11/2002
RIBASIM Water Resources Managerment Seminar	Natural Hazard Mitigation Research Center, National Chiao Tung University	Hsinchu	26/11/2002	28/11/2002
E-Information/File Management for Enterprises	Small Business Integrated Assistance Center	Taipei	27/11/2002	27/11/2002
Seminar on Trenchless Technology	Chinese Taipei Sociaty for Trenchless Technology	Taipei	29/11/2002	29/11/2002
Seminar on How to Ascertain the Right of Engineering Consultants by Contract	Taipei Federation of Engineering Consultants	Taipei	29/11/2002	29/11/2002
14th Annual Conference of the Chinese Institute of Environmental Engineering	The Chinese Institute of Environment Engineering	Taipei	29/11/2002	30/11/2002

SEMINAR DESCRIPTION	SPONSORSHIP	LOCATION	START	END
Conference on the Methods of Regulating Rivers in the Twenty-first Century	Natural Hazard Mitigation Research Center, National Chiao Tung University	Taipei	02/12/2002	02/12/2002
The 17th Annual Conference	The Chinese Institute of Transportation	Chiayi	06/12/2002	06/12/2002
The Conference of Sewer Engineering	The Society of Sewer Engineering	Taipei	08/12/2002	08/12/2002
Conference on Building Protection Techniques of MRT for Tunnelling and Deep Excavation in Taiwan Metropolitan Area	Taiwan Professional Geotechnical Enginees Association	Taipei	10/12/2002	10/12/2002
Microsoft Tech. Ed 2002	Microsoft Taiwan Corporation	Taipei	10/12/2002	12/12/2002
Seminar on Cross Strait High-Rise Building Seismic Design	Structural Engineers Association of Republic of China	Taipei	10/12/2002	10/12/2002
Seminar on Management of Bridge Considering Life Cycle Management System and Inspection Technology	Center for Bridge Engineering Research, National Central University	Taoyuan	11/12/2002	12/12/2002
Bentonite Waterproofing System	Department of Rapid Transit System, Taipei City Government	Taipei	12/12/2002	12/12/2002
Seminar on National Freeway Construction & Landscape Engineering Practice	China Road Federation	Taipei	12/12/2002	13/12/2002
Ecological Engineering and Soil-Water Conservation Practice	Sinotech Engineering Consultants Inc	Taipei	17/12/2002	18/12/2002
Professional Administration Assistant Training Courses	Lite-On Group e Segment	Taipei	18/12/2002	27/12/2002
Seminar on Present Application and Future Development of Engineering Technology in Public Works	Chinese Institute of Civil and Hydraulic Engineering	Taipei	20/12/2002	20/12/2002
Seminar on the Strategy of Operating Global Industry 2003	Spring Foundation of NCTU	Taipei	20/12/2002	20/12/2002
A Symposium of Laborsaving Track Engineering Technique	Ministry of Transportation and Communications	Taipei	20/12/2002	20/12/2002
Development of the Civil Engineering Specification (401-92) and ACI-02	Chinese Institute of Civil and Hydraulic Engineering	Taipei	21/12/2002	21/12/2002
Seminar and Visit of Watershed of North Taiwan	Chinese Institute of Civil and Hydraulic Engineering	Taipei	27/12/2002	27/12/2002
Public Construction Quality Management Training	National Cheng Kung University	Tainan	08/12/2002	25/01/2003

SEMINAR DESCRIPTION	SPONSORSHIP	LOCATION	START	END
Labor Safety Professionals Conference	Chinese Safety and Sanitation Development Association	Taipei	06/01/2003	26/01/2003
Professional Knowledge Management	Lite-On Group e Segment	Taipei	10/01/2003	10/01/2003
Management Information System for the Three Gorge Project	Sinotech Engineering Consultants,Inc	Taipei	13/01/2003	13/01/2003
Analytical Methods for Exhaust & Noise and Smoke Control of General Room	National Federation of Professional Electrical Engineering Guilds of R.O.C Taipei	Taipei	17/01/2003	17/01/2003
2002 Annual Meeting on Hazards Mitigation Research	National Science & Technology Program for Hazards Mitigation	Taipei	11/02/2003	12/02/2003
2002 CNLA Annual Abbreviation of Laboratory's Principal	Chinese National Laboratory Accreditation	Taipei	21/02/2003	21/02/2003
Model I Training Courses of Value Engineering	Chinese Value Engineering Association	Taipei	25/02/2003	20/03/2003
2003 Cross-Strait Conference on Advanced Technology in Bridge Engineering	Chinese Institute of Civil and Hydraulic Engineering	Taipei	26/02/2003	26/02/2003
Public Construction Quality Management Training	Tamkang University	Taipei	26/02/2003	05/05/2003
Seminar on Inspection, Monitoring and Management System for Pretressed Structure	Taiwan Construction Research Institute	Taipei	05/03/2003	05/03/2003
Workshop on Inspection of Bridge Safety after Earthquake	Taipei Federation of Engineering Consultants	Taipei	14/03/2003	14/03/2003
Workshop on Project Management Software P3	Sinotech Engineering Consultant, Inc	Taipei	18/03/2003	19/03/2003
Relevant Technology & Application for Environmental Forensics Medical Expert	Environmental Protection Administration	Taipei	19/03/2003	19/03/2003

TECHNICAL PUBLICATIONS

CHIEN, H.T., YEN, Y.M. and SUNG, H.J. (2002), "The Application of GIS on the Traffic Impact Assessment of Land Development", *Proc., 2002 Conf. of Chinese Geographic Information Society,* 3-4 October, Taichung, Taiwan (in Chinese, paper B-33 in CD ROM).

HSIUNG, B., NASH, D.T., CHEN, C.H. and HWANG, R.N. (2002), "The Use of Piling and Underpinning for House Protection in Deep Excavation : Case Studies from Taipei, Taiwan", *TC28 Conference,* 2 October, Toulouse, France.

HWANG, R.N. and CHIN, C.H. (2002), "Building Protection for Cut-and-Cover Constructions and Shield Tunneling", *Symposium on Building Protection for Construction of Rapid Transit Systems*, December, Taipei & Kaohsiung.

KUO, W.C., SONG, Y.M. and SUNG, H.J. (2002), "Optimization of Transportation Networks by Using the GIS Technique*" Proc., 2002 Conf. of Chinese Geographic Information Society*, 3-4 October, Taichung, Taiwan (in Chinese, paper B-34 in CD ROM).

LIN, C.D., HWANG, Y.B. and TSAI, J.J. (2002a), "Application and Promotion of Ecological Engineering Concepts in Public Construction", *Proc., Conference of Ecological Engineering and On-Site Hazard Prevention Technology*, National Taiwan University of Science and Technology, Taipei, 7 November, (in Chinese)

LIN, C.D., HWANG, Y.B. and TSAI, J.J. (2002b), "Illustration of Basic Concepts in Ecological Engineering", *Notes for Training Course for Senior Ecological Engineers,* Public Construction Commission, Taipei, December (in Chinese).

LIN, C.D., HWANG, Y.B. and TSAI, J.J. (2002c), "Current Problems and Countermeasures for Promotion of Ecological Engineering", *Proc., 1st Conference on the Theory and Practice of Ecological Engineering,* Council of Agriculture, Taichung, 19 December (in Chinese)

MOH, Z.C. and HWANG, R.N. (2003), "Flooding of a Working Shaft during Construction of Taipei MRT", *Proc., Workshop on Forensic Geotechnical Engineering*, 28 February - 2 March, Chennai, India, pp. 98-102.

PENG, B.H., HWANG, R.N., LEE, C.C. and CHEN, Z.R. (2002), "Establishment of GIS System for Public Utilities - Standards and Application", *Proc., 2002 Conf. of Chinese Geographic Information Society,* 3-4 October, Taichung, Taiwan (in Chinese, paper B-10 in CD ROM).

TUNG, C.F., HWANG, R.N., CHEN, S.M. and SUNG, Y.M. (2002), "A GIS System for Corridor Studies and Planning of Transportation Networks", *Proc., 2002 Conf. of Chinese Geographic Information Society*, 3-4 October, Taichung, Taiwan (in Chinese, paper B-30 in CD ROM).

PERSONNEL MOVEMENTS

NEW APPOINTMENTS

ENGLISH NAME	CHINESE NAME	TITLE	DEPARTMENT	EFFECTIVE DATE
Yan-Hsiang CHOU	周衍祥	Electrical Engineer Ⅱ	Construction Management Dept.	01/11/2002
Yi-Jen LEE	李怡蓁	Environmental Engineer Ⅱ	Environment Protection Dept.	05/11/2002
Che-Hung KUNG	龔哲弘	Civil Engineer Ⅱ	Electric & Mechanical System Engg. Dept.	10/02/2003
Chiuan-Chi JUNG	鍾權淇	Civil Engineer Ⅱ	Transportation & Civil Engg. Dept. I	11/02/2003
Woei-Long GONG	龔偉隆	Environmental Engineer I	Environment Protection Dept.	10/03/2003
Chih-Yu SUN	孫志裕	Technician I	Kaohsiung Office	10/03/2003
Chih-Ming TZOU	鄒志明	Civil Engineer Ⅱ	Construction Management Dept.	10/03/2003
Xiao-Bing CHU	朱曉斌	Electrical Engineer Ⅱ	Electric & Mechanical System Engg. Dept.	24/03/2003

PROMOTIONS

ENGLISH NAME	CHINESE NAME	DEPARTMENT	FROM	TO	EFFECTIVE DATE
Yuang-Her WHANG	黃永和	High Speed Rail Project	Senior Structural Engineer I & Deputy Project Manager of High Speed Rail Project	Senior Structural Engineer I & Project Manager of High Speed Rail Project	10/01/2002
Ru-Huey HSU	許如惠	Senior Vice President Office	Secretary Ⅱ	Secretary I	01/01/2003

ENGLISH NAME	CHINESE NAME	DEPARTMENT	FROM	TO	EFFECTIVE DATE
Sheng-Shiun TENG	鄧勝軒	Kaohsiung Office	Civil Engineer Ⅱ	Civil Engineer I	01/01/2003
Yu-Yuan TSAI	蔡裕源	Kaohsiung Office	Civil Engineer Ⅱ	Civil Engineer I	01/01/2003
Wei-Jun CHUNG	鍾維鈞	Geotechnical Engineering Dept.	Geotechnical Engineer Ⅱ	Geotechnical Engineer I	01/01/2003
Hung-Chun LIN	林弘群	Construction Management Dept.	Civil Engineer Ⅱ	Civil Engineer I	01/01/2003
Jun-Hsin DIM	丁進興	Transportation & Civil Engg. Dept I	Geotechnical Engineer Ⅱ	Geotechnical Engineer I	01/01/2003
Yu-Hsiang KUO	郭俞祥	Transportation & Civil Engg. Dept I	Civil Engineer Ⅱ	Civil Engineer I	01/01/2003
Yaw-Shyan TSAY	蔡耀賢	Geomatics Department	GIS Engineer Ⅱ	GIS Engineer I	01/01/2003
Chih-Chiang HUANG	黃志強	Electric & Mechanical System Dept.	Civil Engineer Ⅱ	Civil Engineer I	01/01/2003
Ming-Huang CHANG	張明煌	Electric & Mechanical System Dept.	Electrical Engineer Ⅱ	Electrical Engineer I	01/01/2003
Jui-Ming CHUEH	闕瑞銘	Electric & Mechanical System Dept.	Senior Technician	Electrical Engineer Ⅲ	01/01/2003
Kung-Hsien HWANG	黃孔賢	Transportation & Civil Engg. Dept I	Site Assistant	Civil Engineer Ⅲ	01/03/2003

AWARDS

AWARDS

ENGLISH NAME	CHINESE NAME	DEPARTMENT	TITLE	DESCRIPTION	AWARD TYPE
Song-Tsang LIN	林松蒼	Transportation & Civil Engineering Dept I.	Civil Engineer I	Recognized for devotion and quality work; responsible for many projects and active in promotion work.	staff-of-the-year award
Shyan-Ching JANG	鍾賢慶	High Speed Rail Project	Senior Structural Engineer Ⅱ	Recognized for devotion and quality work, active in promoting design automation to increase work efficiency.	staff-of-the-year award
Jenn-Horng LIAN	連振弘	Adminstration Dept.	Driver	Protected potential damage to file room and acted beyond normal duty during the Nari Typhoon.	merit award

LONG-YEARS SERVICE AWARDS

AWARD TYPE	COMPANY	ENGLISH NAME	CHINESE NAME	POSITION HELD
25 years service	MAAT	Terng-Fen SONG	宋騰烽	Senior Vice President
	MAAT	Yueh-Hwa TSUEI	崔粵華	Senior Secretary
	MAAT	Chien-Hong WANG	王劍虹	Senior Geotechnical Engineer I & Manager of Geotechnical Engg. Dept.
15 years service	MAAT	Ding-Jong WU	吳定忠	Geotechnical Engineer I
	MAAT	Yuang-Her WHANG	黃永和	Senior Structural Engineer I & Project Manager of High Speed Rail
	MAAT	Kim-Ngen KOK	郭金源	Geotechnical Engineer I
	MAAT	Shin-Hua CHERNG	程新華	Secretary I
10 years service	MAAT	Fu-Wen CHEN	陳富文	Civil Engineer I
	MAAT	Chih-Chiang HUNG	黃志強	Civil Engineer I
	MAAT	Jin-Hwa WU	吳金華	Senior System Engineer & Deputy Director of Information Center
	MAAT	Chih-Wei LU	盧志偉	System Engineer I
	MAAT	Chuan-Hsin CHIN	金全鑫	GIS Engineer II
	MAAT	Jun-Hsin DIM	丁進興	Geotechnical Engineer I
	MAAT	Chia-Lang CHANG	張家郎	Civil Engineer II
	MAAT	Song-Tsang LIN	林松蒼	Civil Engineer I
	MAAT	Ching-Tsuan YANG	楊慶鑽	Senior Structural Engineer II
	MAAT	Chia-Chiang CHEN	陳嘉疆	Structural Engineer I
	MAAT	Chung-Ho CHIAO	焦中和	Vice President
	MAAT	Pi-Chiung CHANG	張筆炅	Civil Engineer I
5 years service	MAAT	Yin-Ping YANG	楊印萍	Secretary II
	MAAT	Wan-Hsin SHEN	沈婉芯	Secretary I
	MAAT	Hsueh- Chen CHEN	陳雪貞	Secretary II

AWARD TYPE	COMPANY	ENGLISH NAME	CHINESE NAME	POSITION HELD
5 years service	MAAT	Yi-Ming SONG	宋益明	GIS Engineer I
	MAAT	Ling WU	吳　領	Senior Civil Engineer I & Manager of Kaohsiung Office
	MAAT	Tsung-Wen HSIEH	謝聰文	Civil Engineer II
	MAAT	Hui-Ju SUNG	宋惠茹	GIS Engineer III
	MAAT	Jan-Yan TSENG	曾振晏	Civil Engineer I
	MAAT	Bei-Her CHANG	張貝合	Clerical Assistant
	MAAT	Yung-Chen WANG	王永鎮	Structural Engineer I
	MAAT	Hsian-Hua CHEN	陳詡樺	Structural Engineer I
	MAAT	Jiunn-Ming LIN	林俊銘	Structural Engineer I

PERSONNEL PROFILES

Dr. Chung-Tien CHIN（秦仲天）

Dr. Chung-Tien Chin was back to MAA in May 2003 as Vice President and Principal Geotechnical Engineer. Dr. Chin received his B.S.C.E. degree from National Taiwan University in 1980 and Ph.D. degree from Massachusetts Institute of Technology in 1986. Dr. Chin is a Registered Professional Engineer in Civil Engineering in the R.O.C.. During his service at MAA between 1986 and 2000, Dr. Chin, as a geotechnical specialist, had been actively involved in many major building, highway, airport, rapid transit systems, and high speed rail projects in Taiwan, Mainland China, and South East Asia. Dr. Chin also had been the Deputy/Acting Project Manager of the Geotechnical Engineering Specialist Consultant of the Taipei Rapid Transit Systems, Deputy Manager of Development and Planning Dept., Manager of Geotechnical Engineering (II) Dept., and Manager of Geomatics Department.

Between 2000 and 2003, Dr. Chin was the President and CEO of OleMap, Inc. which is a company providing Internet GIS solutions and wireless location-based services. OleMap not only delivers mobile data services to major telecom carriers in Taiwan, but it also has completed many engineering and transportation projects for government and enterprises. In 2001, MAA and OleMap had worked together and launched an engineering consulting on-line service (www.ecols.com) website for general public in Taiwan.

In addition to be in charge of geotechnical engineering works in MAA Taiwan, Dr. Chin will also be involved to help other MAA offices in the development of geotechnical related technology and in the deployment of geotechnical services in Asia Pacific where other offices have not fully covered yet.

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MAA Group Consulting Engineers

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