
16.0 INDEPENDENT CONSULTING ENGINEER'S REPORT



INDEPENDENT CONSULTING ENGINEER'S REPORT (Prepared for inclusion in the Prospectus)

10 November 2003

The Board of Directors
Sunway Infrastructure Berhad; and
Sistem Lingkaran-Lebuhraya Kajang Sdn Bhd
Level 16, Menara Sunway
Jalan Lagoon Timur, Bandar Sunway
46150 Petaling Jaya
Selangor Darul Ehsan

Dear Sirs

INDEPENDENT CONSULTING ENGINEER'S REPORT OF SISTEM LINGKARAN- LEBUHRAYA KAJANG SDN BHD'S RING ROAD PROJECT

This report has been prepared for inclusion in the Prospectus of Sunway Infrastructure Berhad ("SIB") in connection with:

- the institutional issue of 40,000,000 new ordinary shares of RM0.50 each at an issue price of RM1.50 per share together with 20,000,000 new warrants to be allotted at no consideration on the basis of one (1) new warrant for every two (2) new ordinary shares of RM0.50 each subscribed; and
- the retail issue of 12,000,000 new ordinary shares of RM0.50 each at an issue price of RM1.50 per share together with 6,000,000 new warrants to be allotted at no consideration on the basis of one (1) new warrant for every two (2) new ordinary shares of RM0.50 each subscribed, in conjunction with the listing of SIB on the Main Board of the Kuala Lumpur Stock Exchange.

1. INTRODUCTION

Symonds Travers Morgan (Malaysia) Sdn Bhd (STMM) were appointed by Sistem Lingkaran-Lebuhraya Kajang Sdn Bhd (SILK) as the Independent Consulting Engineer (ICE) to give an impartial opinion on the technical and safety aspects of the proposed privatisation of Kajang Traffic Dispersal Ring Road Project (the "Project"). STMM is an associated company of Symonds Group. Symonds Group is a leading provider of professional services in engineering, management, transport and environment. In providing the Independent Consulting Engineer services for the Project, STMM have available the expertise and resources of Symonds Group.

Symonds Travers Morgan (Malaysia) Sdn Bhd acknowledges that it is being retained by Alliance Merchant Bank Berhad because of its knowledge and experience with respect of engineering and operational aspects of privatised highways.

This report has been prepared in accordance with generally accepted consulting practices for the intended purposes as stated in the agreement under which this work was completed. This report may not be relied upon by any other party without the explicit written agreement of STMM. No warranty, expressed or implied, is made as to the professional advice included in this report. STMM has utilised and relied upon information and data made available by SILK.

Symonds Travers Morgan (Malaysia) Sdn Bhd
Company no 115516-D
Suite 9.03 & 9.04, Level 9, Wisma E & C
No. 2 Lorong Dungun Kiri, Damansara Heights
50490 Kuala Lumpur, Malaysia

Tel : +603 2093 6269
Fax : +603 2093 6653
Email: stmm@stmgrp.po.my
Website: <http://www.symonds-group.com>

Part of Symonds Group Ltd

16.0 INDEPENDENT CONSULTING ENGINEER'S REPORT (Cont'd)

The Project comprises the design, construction, operation and maintenance of approximately 37km of new and upgraded road and twelve grade separated interchanges, and is split into three sections as follows: -

Section	Length	Route	Design Consultants
Section 1	6.7 km	From 0.66km eastbound of the existing Jalan Sungai Besi/Jalan Balakong junction to Jalan Cheras.	Jurutera Perunding Kemajuan, VE Consult Sdn Bhd, and Perunding Eagles
Section 2 (split into 2A, 2B and 2C)	14.5 km	From Sungai Long interchange to Reko East toll plaza.	SMHB in association with Perunding Arcareka, Gue and Partners Sdn Bhd and Perunding Eagles
Section 3 (split into 3A, 3B and 3C)	10.3 km	From Interchange D (Jalan Reko) to Interchange J (Jalan Serdang Puchong/State road B13), and from Interchange E (Jalan Sg Ramal/State road B11) to Interchange G (Grand Saga highway/Saujana Impian)	Arup Jurunding, Isotech Consult, Perunding Zaini and Khoo, VE Consult Sdn Bhd, Gue and Partners Sdn Bhd and Perunding Eagles
	5.5 km	Construction of the section between Interchange J and Interchange F (UPM) was completed in December 2000.	

Principal Project Contractual Arrangement and Documentation

This project is a privatised scheme based on the Build, Operate and Transfer (BOT) arrangement. SILK (the "Employer") has a turnkey contract with Sunway Construction Berhad (the "Turnkey Contractor") to design, construct and supervise the works on a lump sum basis. The Turnkey Contractor has appointed several leading locally registered consulting engineering companies including Jurutera Perunding Kemajuan, SMHB, Arup Jurunding, VE Consult, Gue and Partners, Perunding Eagles as the principal consultants responsible for the design. Jurutera Perunding Kemajuan, SMHB and Arup Jurunding have been engaged by SILK as Supervising Consultants. Architect M & L Sdn Bhd is responsible for toll plaza buildings.

A Supplemental Agreement, dated 1 August 2001 containing variations, additions and substitutions to the Concession Agreement has been implemented. This contains, amongst others, changes to proposed funding whereby Government would bear the construction costs and land acquisition costs of Sections 1 and 3B. The Project is split into separately funded sections as follows:

- SILK funded stretch, SFS - Section 2 and Sections 3A and 3C
- Government funded stretch 2, GFS2 - Section 1 and Section 3B

16.0 INDEPENDENT CONSULTING ENGINEER'S REPORT (Cont'd)

SILK is the Employer and Sunway Construction Berhad is the Turnkey Contractor for the SILK funded stretch. For the government funded stretch 2 SILK is the Turnkey Contractor to LLM and Sunway Construction Berhad the nominated sub-contractor. The contract between LLM and SILK for the government funded stretch 2 was signed in July 2002.

The need for an impartial entity between the Employer and the Turnkey Contractor to safeguard the interests of the Owner, Employer and Lenders is clear. It is for this reason that STMM have been appointed by SILK as the Independent Consulting Engineer.

Preliminary Design Stage

The scope of the Independent Consulting Engineer's appointment at this stage included:

- Conceptual review of preliminary design assumptions, parameters, codes/standards and drawings.
- Broad review of the preliminary design to assess the reasonableness of major cost elements

This review was conducted in 1997.

Detailed Design Stage

The scope of the Independent Consulting Engineer's appointment at this stage included compliance checking against the Concession Agreement and Turnkey Contract and conceptual level review of detailed design drawings. The design review required the consultants to formally submit drawings and documentation for the Independent Consulting Engineer's review. This work commenced in August 2001 and is now substantially complete.

The Independent Consulting Engineer also prepared the Road Safety Audit reports in 2002 and these should be referred to for safety matters.

Construction Stage

The scope of the Independent Consulting Engineer's appointment at this stage includes construction performance monitoring (full supervision duties are carried out by the Supervising Consultants). Duties include:

- Payment verification
- Resolution of disputes
- Monitoring and reporting progress and costs

This phase of the Independent Consulting Engineer's appointment commenced on 1 August 2001 and is continuing.

The observations made in this report are split into three parts: - Design, Construction and Operations and Maintenance.

16.0 INDEPENDENT CONSULTING ENGINEER'S REPORT (Cont'd)

2. DESIGN

Full design (both preliminary and detailed and including in-house checking) and supervision services are provided by the Design Consultants. The Concession Agreement requires SILK to produce Design Briefs for approval by Government before commencement of detailed design.

2.1 Design Standards

Design criteria for the project are given in the Design Requirements, which forms Appendix C of the Concession Agreement. The standards adopted for highway design are Malaysian, based on established Jabatan Kerja Raya (JKR) and Lembaga Lebuhraya Malaysia (LLM) standards, guides and manuals.

The full list of highway standards is given in Schedule A of the Design Requirements and covers: -

- Geometric design of roads and interchanges
- Traffic control devices, signs and road markings
- Pavement
- Drainage
- Toll systems
- Landscaping

Structural design is generally based on British Standards or Department of Transport (DTP) technical directives. However, bridges are required to be checked for a JKR SV20 special vehicle load.

The full list of structural standards is given in Schedule A of the Design Requirements and cover: -

- Bridges
- Buried concrete box type structures
- Foundations
- Parapets and joints

The above-prescribed standards for highways and structures are considered appropriate for the design of the highway.

2.2 Right of Way

Land Acquisition Plans have been prepared which define the Right of Way required to construct the highway.

The Government agrees to make available the land to SILK from the date of submission of accepted land acquisition plans on the following basis:

- In the case of state land without encumbrances, within six months.
- In the case of state land with encumbrances, within nine months.
- In the case other land to be acquired, not subject to encumbrances, within nine months.
- In the case of other land to be acquired, subject to encumbrances, within twelve months.

16.0 INDEPENDENT CONSULTING ENGINEER'S REPORT (Cont'd)

The construction programme reflects the above. In the event that the land is not made available on this basis the Government will negotiate with SILK to provide remedy or relief for the consequences of such delay.

Parts of the Ring Road are to be constructed in stages with widening being carried out only when the Level of Service C is reached or nine years after the commencement date whichever is earlier.

However, the lane provision on the main line is to be constructed as follows: -

- a) From 0.66km eastbound of the existing Jalan Sungai Besi/Jalan Balakong junction to Kajang Bypass Interchange: initially constructed to future requirement of dual 3-lanes.
- b) From Kajang Bypass Interchange to Interchange K: initially constructed as dual 4-lanes with dual 3-lane pavement.
- c) From Interchange E to Interchange G: initially constructed to future requirement of dual 3-lanes.

Land for the project was gazetted in December 2001. Land acquisition procedures are continuing and area of land currently available for construction is reported to be approximately 99% of total requirement.

2.3 Alignment

2.3.1 Alignment Description

A brief description of the alignment and the terrain of each section are as follows: -

Section 1

Commences 0.66km eastward of the existing Jalan Balakong/Jalan Sungai Besi junction and follows the alignment of the existing Jalan Balakong to Ch 6500. From Ch 6500 to Ch 7200 the alignment crosses over Jalan Balakong, over the Sg Langat and its flood plain, and over Jalan Cheras, Grand Saga highway.

The terrain is largely urban and quite restricted in places by developments on either side of the existing road. The alignment is flattish but slightly undulating with three rises and falls along Jalan Balakong.

Section 2

Commences just East of the Grand Saga highway before crossing Jalan Sungai Long. The alignment runs parallel to Jalan Sungai Long from Ch 8600 to Ch 9600 before crossing back over Jalan Sungai Long at Ch 9650. The alignment then heads southeast into a very rural area. The alignment turns further south and then eventually westwards by the end of the section at Ch 22500. Sg. Long toll plaza is situated at Ch 12500, an interchange with Kajang Bypass at Ch 18300 and a bridge over Jalan Semenyih at Ch 19400. This is followed by Reko East toll plaza at Ch 20100.

16.0 INDEPENDENT CONSULTING ENGINEER'S REPORT (Cont'd)

The terrain for the whole of Section 2 is very rural and crosses the foothills of the main mountain range. The alignment is very hilly with a number of long steep grades and large cut and fill slopes.

Section 3 - Interchange D-K

Commences at Interchange D, where the alignment consists of parallel widening of the existing bridge over Jalan Reko and railway. From here to Interchange E (Jalan Sg Ramal/B11 junction), the alignment is new and crosses over both Sg. Langat and Sg. Ramal. From interchange E to interchange K (Jalan Serdang Puchong/B13 junction) the alignment follows the existing B11 road. Reko West toll plaza is situated between Interchanges D and E. Construction between Interchange E and K was completed in December 2000.

The terrain is generally quite rural and flattish.

Section 3 - Interchange E - G

From Interchange E to Interchange H (Jalan Sg Chua/Jalan Sg Ramal junction) the alignment follows the existing Jalan Sg Ramal which is urban and restrictive. From Interchange H to Interchange G (junction with Grand Saga highway) the highway follows a new alignment through more rural areas. Saujana Impian toll plaza is situated between Interchanges H and G. The whole alignment is gently undulating.

Section 3 - Interchange K-F

From Interchange K to Interchange F (UPM/B13 junction) the highway follows the existing B13 rural alignment. The alignment has a number of tight horizontal bends and is undulating. Construction of this stretch was completed in December 2000.

2.3.2 Geometric Design

Geometric design criteria are given in Appendix C of the Concession Agreement. They are based on JKR Arahan Teknik 8/86 - A Guide on Geometric Design of Roads - for a U5 standard urban expressway with a design speed of 80 kph, but allows that a lower standard may be adopted in built-up areas of site constraint subject to Government approval. This is considered appropriate.

A review of the design reveals that some areas of the project, particularly Section 1 and Section 3 Interchange K - F and E - G, do not meet the 80kph standard. SILK are recommending to the Malaysian Highway Authority that a lower design speed (60kph) be adopted on these sections due to site constraints. We are largely supportive of this recommendation. Section 1 is very urban and the design standard allows for a 60kph design speed for a U5 highway in this type of location. Section 3 Interchange K - F and E - G are short lengths off the main ring road where a reduced speed will have little effect on journey times.

16.0 INDEPENDENT CONSULTING ENGINEER'S REPORT (Cont'd)

For the remaining sections however, we consider that full 80kph standard could be provided. Site constraints do not appear so onerous that they prevent the small amount of curve flattening and carriageway widening that is required.

The vertical alignment traverses both flattish ground and hilly terrain. In flattish ground (Section 1 and Section 3 Interchange D - K), the alignment has been checked to meet flooding criteria of the sub-grade being 300mm (min) above the 50 year flood level. This criterion provides an acceptable level of risk of road flooding. It also enhances the integrity and longevity of the road pavement and is therefore appropriate.

In hilly terrain the Design Requirements states the objectives as being: -

- optimising the volume of cut and fill material
- optimising the average haul distance for cut and fill

Whilst this has generally been achieved the alignment on Section 2 Ch 14000 to Ch 19000 has very high cut slopes and the cut volumes look large. We have advised SILK that such high cut slopes are environmentally intrusive, are a maintenance problem, and a safety concern and that appropriate measures need to be taken.

Bridge soffits over watercourses are being placed at 1m above 100-year flood levels. This may require slight raising of carriageway levels in places but is considered sensible and has also satisfied Drainage Authority requirements.

2.4 Interchange Layout /Capacity

The traffic consultant has prepared a traffic and revenue forecasting study report. From this study, preliminary design traffic data for the year 2010 has been produced for use by the Design Consultants for interchange layout /capacity design.

The design traffic flow data we have received remains incomplete and a check on the interchange layout/capacity needs to be reviewed in more detail. However, based on the available data it appears the layouts are generally satisfactory.

The alignment provides for uninterrupted through-traffic flow with interchanges being grade separated where these are provided. At some of the more minor junctions existing right turning movement will be replaced with a left in/left out only arrangement. Right turning movements can be made by utilizing dedicated U-turns.

All the interchanges are of standard/common design and no major problems are foreseen in either the design or construction. Interchanges constructed at existing junctions require careful consideration and programming of the interfaces with existing traffic, utilities and other development/projects. However this is normal on such projects.

2.5 Geotechnical and Earthworks

Detailed site investigation (SI) work is largely completed and reports for most sections have been received. The SI comprised boreholes, deep soundings, Mackintosh Probes, trial pits and hand augers. The scope of the investigation appears adequate but supplementary investigations are carried out as and when required.

16.0 INDEPENDENT CONSULTING ENGINEER'S REPORT (Cont'd)

Ground improvement design is confined principally to Sections 2 and 3 where a variety of solutions have been adopted including soil replacement, piled raft and stone columns. These are considered appropriate.

On Section 2 there are some major engineering and cost elements of the Project. The very large cut and fill slopes require some very careful design. The geotechnical appraisal report for Section 2 recommends that cut slopes be designed at profiles of 4:1 in solid rock, 1:1 in grade IV rock, and 1:1.5 in residual soils with soil nailing to be carried out where appropriate. The design requirements are not explicit when it comes to fill and cut slope design and proposed factors of safety together with actual factors of safety achieved at each cut slope are not known. Rock traps are proposed at the foot of rock cuttings.

2.6 Structures

Construction drawings have been reviewed for all major structures. These structures comprise M beam, I beam, T beam, and cast in-situ post-tensioned beams. Adoption of M, I and T beam construction is widely used throughout Malaysia and this form of construction is considered appropriate. A lot of the component parts of the moulds for each type of beam are similar and span lengths have, where possible, been rationalised resulting in cost effective design and construction.

At Jalan Balakong Bridge and the long ramp at Interchange E, the bridges comprise multi-span continuous cast in-situ reinforced concrete post-tensioned super-structures. Although technically more complex and expensive than the bridges described above such structures are used at locations where the tight horizontal radii of the alignment would produce awkward looking beam and slab construction.

All bridges are shown supported on piled foundations. Abutment design is a mixture of full height reinforced concrete structures and bank-seat/RE wall arrangements. Both designs are adequate.

Approach structures to these bridges are generally propriety reinforced earth retaining wall structures. These structures have been widely used in Malaysia and are considered a cost effective solution.

The structures described above are typical of those used throughout Malaysia and are unlikely to present any construction problems.

2.7 Pavement Design

Flexible pavement is specified at all locations except for 75m either side of the toll plaza centre-lines where concrete pavement is specified. This is normal practice.

The design life for the flexible pavement is to be 20 years and for the rigid pavement 40 years. Design axle load data required for determining construction requirements remains to be updated.

A stage construction approach is to be adopted for the pavement with the bituminous surfacing designed for overlay at seven (7) year intervals and the unbound pavement layers, sub-base and road-base for twenty (20) years. This is considered a reasonable approach.

16.0 INDEPENDENT CONSULTING ENGINEER'S REPORT (Cont'd)

2.8 Drainage and River Works

The criteria to be adopted for the drainage system is based on a five (5) year storm for culverts and roadside drains, and on a 50-year storm for cross culverts with a headwater depth not exceeding two times the height of the culvert.

The bridge layouts of the various river crossings look reasonable with at least 1m clearance provided to soffits from the 100 year flood levels. Substructures have generally been placed behind the banks of the river and have generally met drainage department (Jabatan Pegairan dan Salian, Selangor) approval.

2.9 Services/Utilities

A significant number of major services and utilities require relocation on Section 1 and parts of Section 3.

Services diversion works are continuing concurrently with other major works such as earthworks, drainage and structures. Such an arrangement is not uncommon but, as a result, delays and disruption due to service relocation problems are also not uncommon. Close liaison with relevant authorities is a major consideration when planning and diverting services and utilities.

2.10 Toll System

Four toll plazas are to be provided. The proposed geometric criteria and ancillary facilities described in the design requirements are considered satisfactory as is the number of toll lanes based on 400-500 vehicles per hour per lane for manual tolls and 800 vehicles per hour per lane for electronic tolls.

An open toll collection system is proposed and plazas will be equipped with infrastructure for both manual and electronic toll collection.

The functional specifications for computer systems, toll collection methods, toll avoidance and security measures are approved.

2.11 Traffic Control Systems

The design requirements specifies that traffic control systems are to be designed in accordance with relevant LLM guidelines or JKR Arahan Teknik (Jalan) Standards.

Appendix N of the Concession Agreement specifies in detail the traffic surveillance and control systems for the scheme. The design is complete and construction is progressing.

16.0 INDEPENDENT CONSULTING ENGINEER'S REPORT *(Cont'd)*

2.12 Environmental Impact

The Department of Environment, DOE, approved the Environmental Impact Assessment (EIA) report in April 1997 subject to some minor qualifications. It contains no unduly onerous or unreasonable requirements but does reinforce our own concerns over the very high cut slopes in Section 2.

An Environmental Management Plan (EMP) was submitted and approved by Jabatan Alam Sekitar in April 1999. Monthly monitoring reports are prepared in accordance with the EMP.

2.13 Ancillary Facilities

Appendix E of the concession agreement indicates that lay-bys will be constructed at each of the four toll plaza locations offering petrol, food stalls and restaurants, parking, toilet, public telephones, surau, police base and tourist information facilities. This is considered reasonable.

2.14 Road Safety Audits

Road Safety Audits for the design stage were completed in 2002 and the reports are being addressed and reviewed by the designers and LLM. Audits at completion of construction are to be carried out.

2.15 Design Approvals

LLM approval of Design Briefs has been granted apart from Toll Plazas, Landscaping and Lay-bys which remain pending. Submission of detailed designs for approval by LLM and other relevant authorities, such as services and utilities, remains ongoing.

16.0 INDEPENDENT CONSULTING ENGINEER'S REPORT (Cont'd)

3. CONSTRUCTION**3.1 Construction Methods**

Construction methods are largely conventional and no major problems are foreseen.

As described in Section 2.2 above the Ring Road is to be stage constructed between Kajang Bypass Interchange and Interchange K. Design and construction is proceeding on the basis that future carriageway widening will be carried out at the shoulders. We have recommended to SILK that this widening be carried out at the median to minimise disruption and safety concerns.

3.2 Programme

Detailed design is substantially complete and approvals from LLM are advancing.

The construction period for both the Government Funded Stretch 2, GFS2, and the SILK Funded Stretch, SFS, is 33 months. The start date for GFS2 is the date of letter of award and for SFS it is the date of Supplemental Agreement. Whilst this construction period is quite short for a project of this size it is considered feasible. The programme indicates construction proceeding concurrently on all Sections and this will require a large construction work force.

Construction works commenced on 1 August 2001. Protracted land acquisition procedures, now substantially complete, and the nationwide shortage of labour in 2002, has hindered construction progress. Significant utility diversion works on Section 1 proceeded slower than anticipated. As these issues are substantially resolved additional resources have been mobilized by the Turnkey Contractor to help mitigate delays. The Turnkey Contractor is now working to an ambitious programme heavily weather dependent. Substantial, staged completion of construction is currently anticipated in the first to third quarters of 2004.

3.3 Costs

The lump sum costs agreed with the Turnkey Contractor represents some RM25 million/km based on a 30.2km overall length. These overall costs are considered competitive when compared to the overall costs for other similar privatised highway projects.

A sum of RM215 million has been allocated for Land Use Payments and drawdown to date has been commensurate with areas of land acquired.

3.5 Quality Control and Testing

A comprehensive set of specifications covering materials and workmanship for services, roadworks and bridgeworks form part of the turnkey contract. These specifications appear to be largely based on JKR specifications. These specifications are widely used and have proved acceptable on other similar projects. The Supervising Consultants carry out testing and check compliance. In addition the ICE has a mandate to monitor the Turnkey Contractor's compliance with their quality control systems.

16.0 INDEPENDENT CONSULTING ENGINEER'S REPORT (Cont'd)

The Turnkey Contractor is committed to Quality Assurance (ISO 9002) and Quality Control (QA/QC) for construction. A project quality plan has been prepared and issued by Sunway Construction Berhad and the establishment of a quality control and management team is progressing.

16.0 INDEPENDENT CONSULTING ENGINEER'S REPORT (Cont'd)

4. PROJECT MANAGEMENT AND CONTROL**4.1 General**

Organisation/contractual structure plans have been received showing SILK's contractual relationships and the ICE's relationship to the principal parties on the project. The administration of the project will be carried out by the Turnkey Contractor's organisation, which includes the design, with a conceptual checking role being provided by the ICE for the design phase in order to protect the interests of the Employer and Lenders. For construction supervision SILK has engaged the design consultants as Supervising Consultants. The ICE has a mandate to monitor construction progress, quality and payment certification.

4.2 Design and Supervision

Several local consulting engineering companies are carrying out design and supervision. They are engaged directly by the Turnkey Contractor to design the works. For construction supervision purposes they are engaged by SILK in order to achieve greater independence and help protect the interests of the Employer. These companies will be liable for the design and will be required to liaise closely during construction with regard to design changes and additional or extra works. The ICE also has a mandate to notify the Supervising Consultant of any observed non-compliance by the Turnkey Contractor.

4.3 Construction Management

This is the responsibility of the Turnkey Contractor's Management Team who appoints sub-contractors and carry out the day-to-day supervision of the works in order to confirm quality, approve construction, monitor progress and prepare payment certificates. For ease of management the project has been split into separate sections each controlled by a separate construction management team. These teams are responsible for liaison with the Supervising Consultant.

4.4 Role of Independent Consulting Engineer

This is an impartial role and involves the monitoring of design, construction and quality of the work and the execution of road safety audits. The ICE has a mandate to check all design concepts. During construction the role includes monitoring of progress, costs, payments, preparation of progress reports and highlighting non-compliances to the Supervising Consultant. The ICE also verifies certificates required under the turnkey contract and prepares financial and progress reports for the Employer and the Lenders.

16.0 INDEPENDENT CONSULTING ENGINEER'S REPORT (Cont'd)

5. OPERATIONS AND MAINTENANCE

SILK's proposal for operation and maintenance of the highway appear adequate in terms of organisational structure and staffing levels to ensure the efficient management, operation and maintenance of the highway. Operational activities will include toll collection, traffic management and emergency/recovery.

Operations will be conducted from supervision buildings situated at each toll plaza. Toll collection activities will be directed from each toll plaza and these in turn shall be linked to a central location to facilitate the administration, accounting and reconciliation functions. A maintenance depot to facilitate routine maintenance will be provided adjacent to one of the toll plazas. These are considered normal and appropriate arrangements.

16.0 INDEPENDENT CONSULTING ENGINEER'S REPORT *(Cont'd)*

6. CONCLUSION

6.1 Review of Design

The design as presented in the design drawings and documents is mostly conventional and appropriate engineering solutions are proposed.

6.2 Review of Design Assumptions, Parameters and Codes

The standards adopted for highway design are Malaysian, based on established JKR and LLM standards, guides, manuals and technical memorandum. Structural design is generally based on British Standards or DTP technical directives but bridges are required to be checked for a JKR SV20 special vehicle load. These adopted standards are considered appropriate for the design of the highway.

The highway is to be designed to a U5 standard urban expressway with a design speed of 80 kph. However, it will be difficult to achieve full compliance on Section 1 and Section 3 Interchange K - F and E - G and a 60kph design speed has been adopted for these sections.

6.3 Reasonableness of Construction Cost

The total construction cost of approximately RM25 million/km is considered to be competitively priced compared to other similar privatised highway projects.

6.4 Major Engineering Provisions of the Turnkey Contract

The turnkey contract appears to be of standard format similar to turnkey contracts we have seen for other privatised highway projects.

The need for an impartial entity between the employer and the Turnkey Contractor to safeguard the interests of the Employer and Lenders has been identified. The appointment of Symonds Travers Morgan (Malaysia) Sdn Bhd by the Employer as ICE adequately provides that safeguard for the design and construction of the project.

6.5 Construction Organisation of the Project

On a contractual level the roles of the employer (SILK), the Turnkey Contractor (Sunway Construction Berhad), the design and supervision consultants and the ICE are clearly defined. The organisation is typical of many other BOT type projects successfully completed in Malaysia.

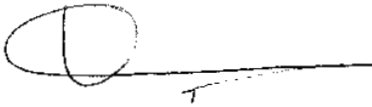
16.0 INDEPENDENT CONSULTING ENGINEER'S REPORT (Cont'd)

6.6 Operations and Maintenance

The proposed arrangements for both operation and maintenance are in line with similar projects elsewhere in Malaysia and appear reasonable.

Yours faithfully,

SYMONDS TRAVERS MORGAN (MALAYSIA) SDN BHD



Roger L Butler