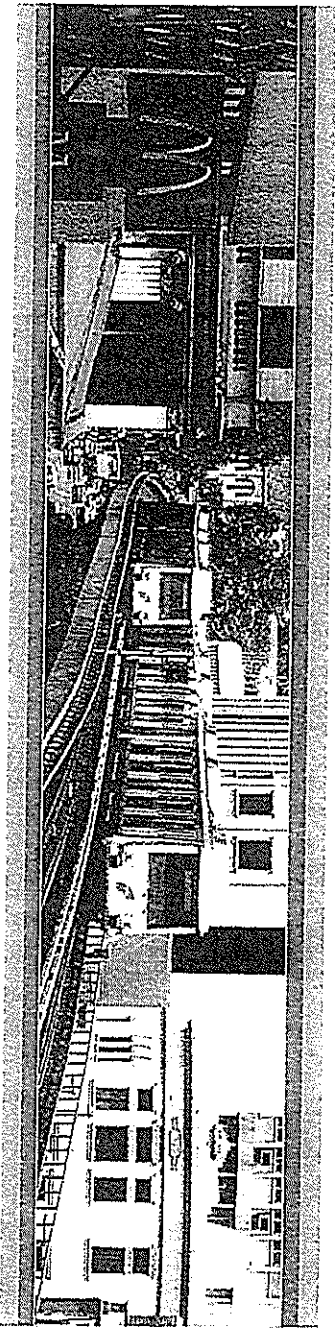


AMPANG (AMG) LINE EXTENSION PROJECT



The Engineering, Procurement, Construction, Testing and Commissioning
of System Works

Technical Evaluation Report

Rev. 01

September 2011

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**PRASARANA
AMPANG (AMG) LINE EXTENSION PROJECT**

**The Engineering, Procurement, Construction,
Testing and Commissioning of System Works**

Technical Evaluation Report

Contents Approval Record

This Technical Evaluation Report has been prepared, checked and approved as follows:

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Title: Report Coordinator

Date: 15 September 2011

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Date: 15 September 2011

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Signature:

Name: Alan Trelfa

Title: Chairman, Technical Evaluation Panel

Date: 15 September 2011

to the Vancouver Skytrain system and in general there was no demonstration of either a grasp of the systems integration issues particular to the AMG Project, or of any particular approach to resolving them.

6.3.3

Tenderer T3

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Whilst there were elements of the proposed systems integration process that were well described, Tenderer T3's Technical Proposal does very little to define the whole system integration process and says little on how the identified integration issues with respect to the AMG Line would be managed or resolved.

Furthermore it appeared that the Tenderer's whole approach was to rectify any integration issues as a fault-finding exercise, rather than to actively plan the engineering in order to manage the integration issues by design. On questioning the Tenderer at their Presentation, it was apparent that not only was there a lack of understanding or aptitude for the systems integration process, but that their proposed integration consultant neither understood the requirements, integration or configuration issues, nor how to manage them. Tender T3 is also very heavily caveated in respect of their ability to act as the overall Systems Integrator for the Project, which is an important requirement of the System Works Contractor.

6.3.4

Tenderer T4

A general comment here is that the Technical Proposal by Tenderer T4 in respect of Systems Integration is comprehensive and fulfils all requirements. All aspects of the AMG Project have been addressed and this was reflected in their Presentation, which was also comprehensive. Tenderer T4 has demonstrated a clear understanding of the challenges of this complex Project and in his Technical Proposal, has proceeded to systematically identify and propose a resolution to each of them. Tenderer T4 has, without qualification, undertaken to act as overall Systems Integrator for the Project, supported by evidence of past experience of delivering similar roles globally, with sample matrices and outputs and clearly written text and diagrams. Tenderer T4, in addition, was unique in identifying the need for, and appointing, an Independent Safety Advisor.

6.3.5

Tenderer T5

Tenderer T5 is one of four Tenderers who have nominated the same signalling/train control sub-contractor (Thales). However, strangely Tenderer T5 has not included all of the material supplied by Thales to the other three Tenderers that are proposing to implement the Thales signalling system on the AMG Line. They have instead, opted to provide only excerpts from the Thales documentation, combined with what can only be described as a very high level document, which could actually be a straight download from the internet, so generic was its content. However the most serious aspect of this section was the qualification to the Technical Proposal which specifically limited their responsibility in terms of overall Systems Integration, solely to those component parts which Tenderer T5 was actually proposing to supply

6.4.2

Tenderer T2

This Tender provided something akin to a dictionary definition of what an assurance system is and how one is generically constructed, but with no reference as to how this would be applied in the case of the AMG Project. There was no commitment given to meet any of the required standards or KPI's for the Project. The performance of T2 at their Presentation was better, but in the time available it was not really possible to gain sufficiently detailed information to give the Technical Evaluation Panel the required level of confidence that Tenderer T2 could deliver the AMG Project to these targets and that they would have the required level of proficiency, despite having prior knowledge of their work of a similar nature elsewhere.

6.4.3

Tenderer T3

The information provided in Tenderer T3's Technical Proposal is very generic and non-project specific. Although there is a statement in the short section covering the area of systems assurance, in order to meet the required KPI's for this project, there is insufficient detail to provide any confidence that there is any real understanding of the requirements, nor a demonstration of how they would attempt to deliver and manage each stage of this highly complex Project. This impression was reinforced by a very poor showing at their subsequent Presentation.

6.4.4

Tenderer T4

Tenderer T4's Technical Proposal is both compliant and comprehensive, to the point of being virtually an object lesson in how the systems assurance process should be undertaken; it identifies the particular challenges in the AMG Project and makes suggestions as to how they would propose to manage them. Tenderer T4 has met and exceeded expectations in the application of the required RAMS, Project and Technical Assurance regimes and processes, with sample documents etc. supplied. Tenderer T4 also included in their Technical Proposal and brought to the Presentation, their Independent Safety Verification Engineer from Parsons Brinkerhoff in HK, a senior professional of some standing in the industry and when they presented their outline approach, went some way beyond expectations in this particular area. This was significantly better than anything presented by any other Tenderer and demonstrates an understanding of the requirements of the AMG Project.

6.4.5

Tenderer T5

Tenderer T5 has only approached Systems Assurance in very general and generic terms and their Technical Proposal in respect of Systems Assurance was purely a very high level statement of what an assurance regime – any assurance regime – would consist of and makes no specific reference to the AMG Project or the particular requirements of the Project. When questioned at their Presentation, the general thrust of their response was that “we will do a good job” but no specific

6.11***Technical Element No 10: List of Past Projects and Experience***

A notable concern in this section is that Tenderer T3 has no previous related rail experience and the largest project completed by the Consortium has stated project value of less than RM40 million.

The largest stated capital value of a completed project for each Tenderer is as follows:

Tenderer	MVR
T1	458 m
T2	5 bn
T3	40 m
T4	4 bn
T5	800 m
T6	3 bn
T7	1 bn
T8	1.5 bn

Another area of note is that approximately half of Tenderer T1's past projects were reported as being completed behind schedule.

6.12***Technical Element No 11: List of Current Projects***

The List of Current Projects provided by each of the Tenderers was reviewed as follows:

6.12.1***Tenderer T1***

Tenderer T1's largest current project has a capital value of just under RM 550 million. Almost all of their projects are reported to be on schedule.

6.12.2***Tenderer T2***

Tenderer T2's largest current project has a capital value in excess of RM 2 billion. Most of their projects are reported to be on schedule. Tenderer T2 omitted to provide progress information for 2 of their current projects.

6.12.3***Tenderer T3***

Tenderer T3 has no current rail projects.

6.12.4***Tenderer T4***

Tenderer T4's largest current project has a capital value in excess of RM 5 billion, although not strictly related to a CBTC project. Tenderer T4 omitted to provide progress information for most of their current projects. T4 has recently undertaken (2006-2010) a major RM262m R-CBTC project for Metro Madrid.

8 Stage 3 Technical Evaluation -- Scoring Results

8.1

Final Stage 3 Percentage Scores

The following Figure 6 shows the Final Percentage Scores for the Stage 3 Technical Evaluation process; these scores are also represented graphically in Figure 7.

Tender	Final Stage 3 Score
T4	83.42%
T6	73.03%
T8	69.20%
T7	66.26%
T5	49.11%
T9	48.91%
T1	45.06%
T2	42.98%
MEAN	59.75%

Figure 4: Final Stage 3 Scores

GK

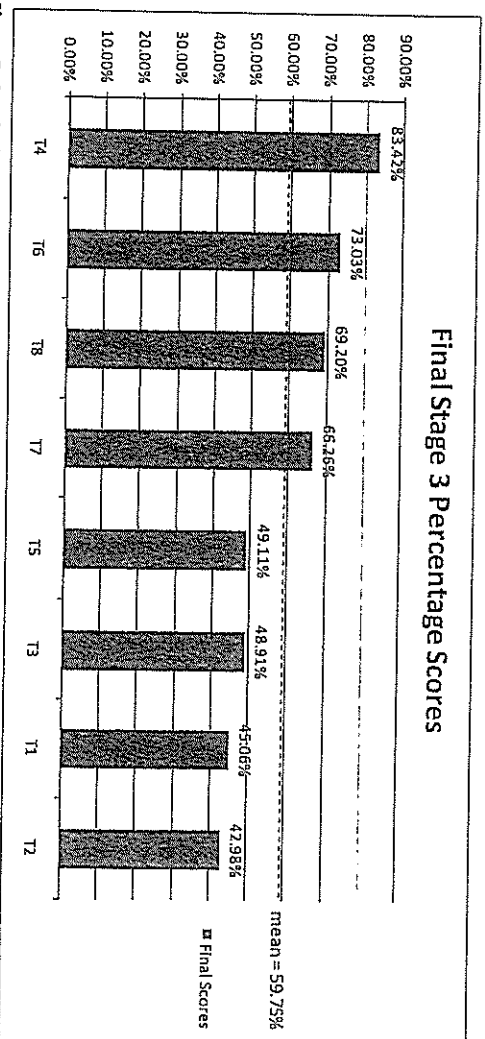


Figure 5: Graph Showing Final Stage 3 Percentage Scores

TENDER NO: PRASARANA/CPD/E/AMG-EPC/129/212/2010

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Evaluation Panel, renders T7 unlikely to successfully deliver the AMG System Works Project.



The remaining four Tenderers (T3, T5, T1 and T2 respectively) all achieved scores well below the mean and, based solely upon their Technical Proposals, the Technical Evaluation Panel have no evidence or confidence that any of these four Tenderers could successfully deliver the AMG System Works Contract.

