

1 Evaluation

The Employer's determination of a Bid's responsiveness will be based on the contents of the Bid submitted by the Bidder as specified in ITB11. A Substantially Responsive Bid is defined by ITB 29.2.

The Bids shall be evaluated in accordance with the criteria listed in ITB 35.2 (a)–(f) however other relevant evaluation factors and the methodology to be adopted for evaluation are given below (ITB35.2(g)).

Bids shall be evaluated and compared through the following steps

- 1.1 Step 1 – Preliminary Examination of Technical Proposal
- 1.2 Step 2 – Detailed Evaluation of Technical Proposal
- 1.3 Step 3 – Evaluation and Comparison of Price Proposal
- 1.4 Step 4 – Ranking of Bidders

1.1 Evaluation – Step 1 Preliminary Examination of Technical Proposal

Preliminary Examination will consist in checking the Technical Proposals to confirm their compliance with the requirements of the Bid Document in the following respects;

- a) Eligibility of Bidders,
- c) Qualification of the Bidders
- b) Completeness and responsiveness of Technical Proposal
- d) Compliance with all requirements of the ITB

1.2 Evaluation – Step 2 Detailed Evaluation of Technical Proposal

1.2.1 Method for Technical Evaluation

The completeness and responsiveness of the Technical Proposal will be determined by an evaluation of the information provided within the Bidders responses to Part II – Section 6 – **“The Employer's Requirements”** that will result in the determination of a “Pass” or “Fail” outcome for the four principle aspects of the Project as listed below.

Overall Project Management

- Key Staff
- Management & Supervision
- Use & Reinstatement of the Site

Implementation Proposals (Method Statements)

- Overall Approach to the Project
- Bored Piling
- Viaduct Substructure
- Precast I Girder and Slab Construction
- U-Box Structure
- Precast Box Culvert
- 3 Span Continuous Balanced Cantilever Construction

- Steel Through Girder Bridge
- Station Construction
- Station Mechanical and Electrical Work
- Maintenance Requirements

Project Programme Considerations

- Programming Proposals
- Overall Mobilisation Plan
- Proposed Plant and Equipment

Project Administration Matters

- Quality Management Plan
- Safety Management Plan
- Environmental Management Plan
- Risk Management Plan
- Other Miscellaneous Information

Each of these principle items must achieve an overall **“Pass”** assessment for the Bid to be considered as being substantially responsive. The method of determining a “Pass” or “Fail” result is given at 1.2.2 below.

The Bidder is to refer to Part III of Section 6 “Employer’s Requirements” of Volume 2 – Part II of the Bidding Document, which gives details of the information that, as a minimum, is to be provided for each part of the main assessment items shown above. This is only broadly summarised in the tables contained at 1.2.3 below.

The Bidders may add to or expand upon these the requested information, however it is important that the Bid demonstrates that each of the underlying aspects has been considered and an appropriate response has been provided.

For this reason, a checklist has been provided for each of the underlying parts of the main item such that the Bidder may ensure the completeness of their response.

1.2.2 Method of Determining “Pass or Fail” Result

1.2.2.1 Level of Significance

The level of importance the Employer will place upon the information provided will clearly vary from item to item, therefore to guide the Bidder further, the checklists below also indicate the degree of significance that will be given to their responses in the following manner :

Indicator	Level of Importance	Coefficient (α)
***	Critically Significant	1
**	Highly Significant	0.8
*	Less Significant	0.6

1.2.2.2 Submission Assessment

The Employer will make a “Pass” or “Fail” judgement for the main items based upon the following assessment criteria applied to each of the component parts of the submission:

Rating (R)	Submission Characteristics
Excellent Submission 100%	Exceeds the requirements. Exceptional demonstration by the bidder showing it has the relevant experience, the ability, understanding, skills, resources and quality assurance methods required to properly deliver the Project on time. Response identifies factors that could offer potential added value. Good supporting evidence.
Good Submission 80%	Satisfies the requirements with minor additional benefits. Above average demonstration by the bidder showing that it has the relevant experience, the ability, understanding, skills, resources and quality assurance methods required to deliver the Project on time. Response identifies factors that may offer potential added value. Sufficient supporting evidence has been provided.
Acceptable Submission 70%	The submission satisfies the requirements. The bidder has demonstrated that it has the relevant experience, the ability, understanding, skills, resources and quality assurance methods required to deliver the Project on time. Some supporting evidence has been provided.
Some Reservations 50%	The submission does not fully meet the requirements and the bidder has not sufficiently demonstrated that he has the relevant experience, ability, understanding, skills, resources and/or the quality assurance methods necessary to deliver the Project on time. Insufficient supporting evidence has been provided.
Serious Reservations 20%	The submission does not satisfy the requirements and there are major reservations concerning the bidder’s relevant experience, his ability, understanding, skills, resources and/or the quality assurance methods required to properly deliver the Project on time. Little or no supporting evidence has been provided.
Unacceptable Submission 0%	Does not meet the requirements. Does not comply and/or provides insufficient information to demonstrate that the bidder has the ability, understanding, experience, skills, resources and/or the quality measures required to deliver the Project on time. Little or no supporting evidence has been provided.

1.2.2.3 Overall Determination

Each of the four Main Items must achieve an aggregated overall total of 70 percent after factoring in the importance level of the component parts. This will be determined by applying the following formula :

$$\text{Maximum \% } (T^{max}) = \eta (100 \times \alpha)$$

$$\text{Actual \% } (T^{act}) = (R_1 \times \alpha) + (R_2 \times \alpha) + (R_3 \times \alpha) \dots (R_\eta \times \alpha)$$

where α = Importance coefficient

η = number of sub-sections considered

R = Sub-section Evaluation Rating given by the Adjudicators

Then if $\frac{T^{act}}{T^{max}} \geq 70\%$ overall, the Principle Item has achieved a “Pass”

Any result less than 70 % will be considered as a “Fail” and the Employer may elect to reject the Bid solely on that basis.

Depending upon the degree and severity of failure however, and the content and quality of the remainder of the Technical Proposal, the Employer may elect to offer the Bidder the opportunity to review and clarify those parts of the submittals which have caused the low result(s).

1.2.2.4 Example Calculation

Submittal 1.2.3.3 – Programming & Mobilization

The Bid Programme

Principle Criteria 1.2.3.1 - Project Management				
Submittal Part	α	Employer's Rating (R)	T^{max}	T^{act}
1.2.3.1.1 Key Staff	1.0	Good = 80% of T^{max}	100	80
1.2.3.1.2 Project Management	0.8	Excellent = 100%	80	80
1.2.3.1.3 Use & Reinstatement of Site	0.6	Serious Reservations = 20%	60	12
Totals =			240	172

Therefore this part of the Bid would be rated overall as : $\frac{172 (T^{act})}{240 (T^{max})} = \text{“Pass” (72\%)}$

In this hypothetical case, should this bid prove to be successful overall, the Employer would address his concerns related to Part 1.2.3.1.3 of the submission during pre-award negotiations.

1.2.3 Detail of the Required Submittal Coverage for Each of the Four Principle Criteria

1.2.3.1 Overall Project Management

Sub-Criteria & α	Checklist	Data to be Provided in Order of Importance
1.2.3.1.1 *** Key Staff <i>Note</i> <i>The Bidder should provide copies of C.V's, qualifications, current commitments etc. for each of the proposed personnel in this section.</i>	☐ 1.2.3.1.1.1 ☐ 1.2.3.1.1.2 ☐ 1.2.3.1.1.3 ☐ 1.2.3.1.1.4 ☐ 1.2.3.1.1.5 ☐ 1.2.3.1.1.6 ☐ 1.2.3.1.1.7 ☐ 1.2.3.1.1.8 ☐ 1.2.3.1.1.9 ☐ 1.2.3.1.1.10 ☐ 1.2.3.1.1.11 ☐ 1.2.3.1.1.12 ☐ 1.2.3.1.1.13 ☐ 1.2.3.1.1.14 ☐ 1.2.3.1.1.15 ☐ 1.2.3.1.1.16	Project Manager / Contractor's Representative Civil Construction Manager Station Construction Manager Quality Assurance Manager Health and Safety Officer Environmental Manager Senior Piling Engineer Senior Reinforced Concrete Structural Engineer Senior Tunnel Engineer (Cut & Cover) Erection, Jacking and Grouting Engineer Senior Building Engineer Senior M&E Engineer Planning and Scheduling Manager Coordination and Interface Manager Laboratory Manager Temporary Works Designer
1.2.3.1.2 ** Project Management	☐ 1.2.3.1.2.1 ☐ 1.2.3.1.2.2 ☐ 1.2.3.1.2.3 ☐ 1.2.3.1.2.4	Project Management Chart Resource/Time Allocation Schedule for Management Personnel (cross-referenced to 1.2.3.3.2 below) Site Management and Supervision Charts Resource/Time Allocation Schedule for Site Management and Supervisory staff (cross-referenced to 1.2.3.3.2 below)
1.2.3.1.3 * Proposals for the Use and Reinstatement of the Site and other areas	☐ 1.2.3.1.3.1 ☐ 1.2.3.1.3.2 ☐ 1.2.3.1.3.3 ☐ 1.2.3.1.3.4 ☐ 1.2.3.1.3.5 ☐ 1.2.3.1.3.6	Proposed Site Layout Plan (GS 101) Layout of Fabrication Yard(s), Stockyard(s) and Warehousing Construction of Temporary Access and Haulage Roads Proposed Labor Accommodation, Sanitary and Messing Facilities Environmental Considerations Proposals for Reinstatement of Site Areas following completion

1.2.3.2 Works Implementation

Note 1 : The minimum content coverage for the following Method Statements and other information is contained within Section 6 – Employers Requirements Part C

Note 2 : As a part of the method statements listed below, the Bidders are required to provide comprehensive details of the materials that will be used for Civil Work, particularly with respect to Bridge Construction, The Architectural Builders Work, Electrical Work, Mechanical Work and Plumbing and Drainage Works.

Sub-Criteria & <i>Q</i>	Checklist	Data to be Provided in Order of Importance
1.2.3.2.1 *	☐ 1.2.3.2.1	Based upon the Bid programme, the site layout and the various facilities that will be provided, the Bidder shall explain his general overall approach to the Project and his intended utilisation of the site areas, including temporary access and haul roads.
1.2.3.2.2 *** Earth Works for Cut and Cover	☐ 1.2.3.2.2.1 ☐ 1.2.3.2.2.2 ☐ 1.2.3.2.2.3 ☐ 1.2.3.2.2.4 ☐ 1.2.3.2.2.5 ☐ 1.2.3.2.2.6 ☐ 1.2.3.2.2.7	Details of earth retaining works and subsequent Details of Management, Supervision and Quality Assurance Full details of equipment/method and manpower that will be used Details of compacting fill surrounding station structure Environmental considerations A window extracted from the Bid Programme showing Earth works for Cut and Cover in great Method of watertable control if necessary
1.2.3.2.3 *** Construction for Station Structure	☐ 1.2.3.2.3.1 ☐ 1.2.3.2.3.2 ☐ 1.2.3.2.3.3 ☐ 1.2.3.2.3.4 ☐ 1.2.3.2.3.5 ☐ 1.2.3.2.3.6	Details of Management, Supervision and Quality Assurance Method statement for Builders Works generally, including details of sequence of construction and Architectural Finishes. Details of proposed equipment / plants / materials including concrete and steel Method statement of water-proofing for the underground structure including materials A window extracted from the Bid Programme showing the station construction in greater detail. Method statement for preparatory works and setting

1.2.3.2.4 ** Embankment Works	☐ 1.2.3.2.4.1 ☐ 1.2.3.2.4.2 ☐ 1.2.3.2.4.3 ☐ 1.2.3.2.4.4 ☐ 1.2.3.2.4.5 ☐ 1.2.3.2.4.6	Method statement for embankment applying Geosynthetic-Reinforced Soils (GRS) retaining wall as shown in the Drawings and Specification. Details of Management, Supervision and Quality Assurance Details of proposed equipment / plants / Materials and Subcontractor(s) Details for sub-grade preparation for trackwork Method statement covering preparatory works and setting out Measures taken during rainy season to protect embankment
1.2.3.2.5 ** Bored Piling	☐ 1.2.3.2.5.1 ☐ 1.2.3.2.5.2 ☐ 1.2.3.2.5.3 ☐ 1.2.3.2.5.4 ☐ 1.2.3.2.5.5 ☐ 1.2.3.2.5.6 ☐ 1.2.3.2.5.7 ☐ 1.2.3.2.5.8 ☐ 1.2.3.2.5.9	Details of methods of boring to be utilised, including slurry use. Details of all Equipment to be utilised including numbers to be mobilised Details of preparatory works with particular emphasis on working in wet areas of the Site. Method of reinforcement cage fabrication, transport and erection Method of Pile Casting, including slurry recovery Environmental considerations Details of Management, Supervision and Quality Assurance Proposed location of spoil disposal areas Method of Pile Trimming and Pile Cap Construction
1.2.3.2.6 *** Precast I-Girder	☐ 1.2.3.2.6.1 ☐ 1.2.3.2.6.2 ☐ 1.2.3.2.6.3 ☐ 1.2.3.2.6.4 ☐ 1.2.3.2.6.5	Details of fabrication, including location, formwork, post tensioning etc. Details of access route(s) if necessary Details of proposed equipment/plants/materials Details of Management, Supervision and Quality Assurance Details of equipment, method, and manpower

1.2.3.2.7 ** Viaduct Structure	☐ 1.2.3.2.7.1 ☐ 1.2.3.2.7.2 ☐ 1.2.3.2.7.3 ☐ 1.2.3.2.7.4 ☐ 1.2.3.2.7.5	Detailed method of Viaduct Construction using "I" beam, including piers and pile caps Method of Fabrication of "I" beam on site including stressing Details of proposed equipment/plants/materials Outline program of construction of Viaduct Structure including piling Details of Management, Supervision and Quality Assurance
1.2.3.2.8 ** Steel Bridge	☐ 1.2.3.2.8.1 ☐ 1.2.3.2.8.2 ☐ 1.2.3.2.8.3 ☐ 1.2.3.2.8.4	A detailed method statement giving the step by step sequence of construction fo steel bridge. Details of Management, Supervision and Quality Assurance Outline programme based on the method statement showing the duration of each stage of the construction of the bridge. Details of proposed Subcontractor(s) and suppliers for any aspect of the bridge.
1.2.3.2.9 ** In-Situ Bridge Construction	☐ 1.2.3.2.9.1 ☐ 1.2.3.2.9.2 ☐ 1.2.3.2.9.3 ☐ 1.2.3.2.9.4 ☐ 1.2.3.2.9.5	Detailed method statement giving step by step sequence of construction for a balanced cantilever bridge Programme(s) based on the method statement(s) provided showing the duration of each stage in the construction of the bridges. Details of the type(s) and fabrication of falsework and formwork system(s) that will be adopted. Details of the Management, Supervision and Quality Assurance methods that shall be applied to each type of bridge construction. Details of proposed Specialist Sub-Contractor(s) and suppliers for all aspects of bridge construction, but particularly for stressing/

1.2.3.2.10 ** Electrical & Mechanical Works	☐ 1.2.3.2.10.1 ☐ 1.2.3.2.10.2 ☐ 1.2.3.2.10.3 ☐ 1.2.3.2.10.4 ☐ 1.2.3.2.10.5 ☐ 1.2.3.2.10.6 ☐ 1.2.3.2.10.7	Method statement for the installation testing and commissioning of the Station Mechanical and Electrical Works, including the BMS. Details of Management, Supervision and Quality Assurance Method statement covering the delivery, erection, testing and commissioning of the Escalators, including temporary protection measures. Method statement covering the delivery, erection, testing and commissioning of the Elevators. Details of material and equipment to be installed, Details of any proposed Specialist Sub-Contractors for Mechanical and Electrical installations. Details of any proposed Specialist Sub-Contractors for the provision of the BMS system including hardware and software development
1.2.3.2.11 * Maintenance Requirements	☐ 1.2.3.2.11.1 ☐ 1.2.3.2.11.2	Outline strategy in relation to supply of consumables and spare parts required to be provided under the terms of the Specifications. Outline strategy for fulfilling the obligations for maintenance and repairs throughout the course of the Defects Notification Period

1.2.3.3 Programming & Mobilization

Sub-Criteria & <i>Q</i>	Checklist	Data to be Provided in Order of Importance
1.2.3.3.1 *** Bid Programme	☐ 1.2.3.3.1.1 ☐ 1.2.3.3.1.2 ☐ 1.2.3.3.1.3 ☐ 1.2.3.3.1.4 ☐ 1.2.3.3.1.5 ☐ 1.2.3.3.1.6 ☐ 1.2.3.3.1.7 ☐ 1.2.3.3.1.8	Level 3 Linked Bar Chart showing the Logic, Critical Path(s), Key Dates, Float etc. Includes a full Programme Narrative explaining the activity durations, calendars, allowances, assumptions, constraints used etc. Provides a Time Chainage Diagram Includes Site Preparation and Provision of Temporary Facilities Provides sub-programmes for the items listed in Part III B.1 Indicates dates from other external schedules showing mobilization data etc. Provides a Design Submittal and Review Programme (if required) Includes a Programme Risk Analysis
1.2.3.3.2 * Overall Mobilization	☐ 1.2.3.3.2.1 ☐ 1.2.3.3.2.2 ☐ 1.2.3.3.2.3 ☐ 1.2.3.3.2.4 ☐ 1.2.3.3.2.5	Dates for the mobilization of Key Personnel shown in Section 6 Part III G (cross-referenced to the programme provided under 1.2.3.3.1.1) Dates for the mobilization of Equipment shown in Section 6 Part III H (cross-referenced to the programme provided under 1.2.3.3.1.1) Dates major sub-contracts will be executed and the Contractor(s) mobilized (cross-referenced to the programme provided under 1.2.3.3.1.1) Schedule of dates that Temporary Facilities will be available Schedule(s) showing the numbers and classes of workers to be mobilized over the duration of the Project
1.2.3.3.3 * Plant and Equipment	☐ 1.2.3.3.3.1 ☐ 1.2.3.3.3.2	Schedule(s) and details of the Major items of Plant & Equipment that will be mobilized, showing the Part of the Works and/or the Programme Activity(ies) for which the Equipment shall be used which should be cross-referenced to the programme provided under Section 6 Part III B Provision of evidence that the Equipment is or will be available at the time(s) and for the durations required for the Project

1.2.3.4 Project Administration Matters

Sub-Criteria & α	Checklist	Data to be Provided in Order of Importance
1.2.3.4.1 *** Quality Management System	☐ 1.2.3.4.1.1 ☐ 1.2.3.4.1.2 ☐ 1.2.3.4.1.3 ☐ 1.2.3.4.1.4	Outline Project Quality Plan Outline of Quality Procedures - Systems to be followed Outline plans for Design Management, Site Quality Management and Suppliers/Manufacturers Quality Assurance Outline of Inspection and Test Plans including FAT's and SAT's
1.2.3.4.2 *** Safety Management	☐ 1.2.3.4.2.1 ☐ 1.2.3.4.2.2 ☐ 1.2.3.4.2.3 ☐ 1.2.3.4.2.4 ☐ 1.2.3.4.2.5 ☐ 1.2.3.4.2.6 ☐ 1.2.3.4.2.7	Basic Policies Identification of Specific Areas of Accident Risk Details of Site Safety Provisions and Equipment including Proposals for the Medical Facility Proposed Emergency Response Procedures Organisational Structure Details of Monitoring System Details of Proposed Safety Education and Training Regime
1.2.3.4.3 ** Environmental Management	☐ 1.2.3.4.3.1 ☐ 1.2.3.4.3.2 ☐ 1.2.3.4.3.3 ☐ 1.2.3.4.3.4	Policies and Procedures Mission Statement Identification of construction activities with potential impact and avoidance or mitigation proposals Organisational Structure
1.2.3.4.4 * Risk Management	☐ 1.2.3.4.4.1 ☐ 1.2.3.4.4.2	Outline Risk Management Plan Initial Risk Register
1.2.3.4.5 * Miscellaneous <i>Note 1</i> <i>A discrete submission is not required for Materials. This section will be assessed based on the information provided with the Method Statements under section 1.2.3.2</i>	☐ 1.2.3.4.5.1 ☐ 1.2.3.4.5.2 ☐ 1.2.3.4.5.3 ☐ 1.2.3.4.5.4 ☐ 1.2.3.4.5.5 ☐ 1.2.3.4.5.6	Project Insurance Proposals (Section 6 Part III K) Details of Product Warranties following the Defects Notification Period (Section 6 Part III L) Proposals for O&M Manuals and As-Built Drawings (Section 6 Part III L) Schedule(s) of Spare Parts & Consumables (Section 6 Part III L) Proposals for Training and Skill Transfer (Section 6 Part III L) Technical Information on Materials to be provided <i>Note 1</i>