



**PUBLIC WORKS AUTHORITY
ASSET AFFAIRS
ROAD OPERATION AND MAINTENANCE
DEPARTMENT**

**INFORMATION FOR
PRE-QUALIFICATION APPLICANTS
(CONTRACTORS)
FOR**

**REPAIR & MAINTENANCE OF HIGHWAY
STRUCTURES – CONTRACT (3)
TEN (10) INTERCHANGES**

**Public Works Authority
P.O. Box 22188
Doha
State of Qatar**

NOVEMBER 2013

REPAIR/REHABILITATION OF BRIDGES & ROAD WORKS

PRE-QUALIFICATION OF CONTRACTORS FOR REPAIR/REHABILITATION OF BRIDGES & ROAD WORKS

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1.0 APPLICATION TO PRE-QUALIFY

1.1. Purpose of the Pre-Qualification

The Assets Management Affairs of the Public Works Authority of the State of Qatar intends to shortlist suitably qualified local, regional, international and joint venture (JV) contractors with appropriate experience and capabilities for the purpose of inviting tenders to repair/rehabilitate of bridges and road works for their project "Repair & Maintenance of Highways Structures – Contract (3)".

1.2. Description of the Works

The Scope of Works are repair and maintenance works of bridge structures and roads with minimal drainage works for ten (10) interchanges as described below. The approximate duration of the project will be (6) months.

The repair/rehabilitation works include the following items:

1) Khalifa Interchange

Structural Items:

- Remove existing joints, supply and install new expansion joints.
- Removal of deteriorated and loose concrete, rust treatment for steel reinforcement, reinstatement of concrete at abutments.
- Apply waterproofing for all buried repaired concrete elements.
- Protective paint/coating against harmful environmental effects for all exposed concrete.

2) Simaisma Interchange

Structural Items:

- Removal of deteriorated and loose concrete at the exterior column (Doha side) - at connection with ground and carry out the required repairs.
- Removal of deteriorated and loose concrete at the wing walls at both side of the bridge, rust treatment for steel reinforcement and reinstatement of concrete.
- Apply waterproofing for all buried repaired concrete elements.

Road Items:

- Reinstall missing and replace out of standard traffic signs.
- Repainting missing and faded pavement markings.
- Removal and disposal of drop kerbs.
- Repair of cracked joints at pavement.
- New pavement.

3) Thani Bin Jasim Interchange:

Structural Items:

- Remove existing joints, supply and install new expansion joints.

- Removal of deteriorated concrete covers at the expansion joint between the abutment and retaining wall, rust treatment for steel reinforcement, epoxy injection for cracks (if required), reinstatement of the concrete cover and finishing similar to adjacent area.
- Proposal of solution to repair the wall cracks like epoxy injection for all cracks in the retaining walls as well as the cracks in the exposed back side surface of retaining wall.
- Extend the approach slab on either sides of the bridge as detailed on the drawings.

Road Items:

- Missing and out of standard traffic signs.
- Repainting missing and faded pavement markings.
- Replace damaged kerbs with new kerbs.
- Repair of cracked joints at pavement.

4) Umm Lekhba Interchange

Structural Items:

- Clean expansion joints from debris with necessary repairs.

Roads Items:

- Missing and out of standard traffic signs.
- Repainting missing and faded pavement markings.

5) Al-Gharrafa Interchange

Structural Items:

- Clean expansion joints from debris with necessary repairs.
- Remove the deteriorated concrete covers, treatment of rusted steel reinforcement and restore new cover using non-shrink grout.
- Application of epoxy injection for cracks in Abutment N1 and Abutment N3.
- Remove all damaged sealant at soffit of deck slab of flyover and replace with new sealant.
- Replace the loose and damaged ceramic tiles for the underpass walls.
- Cleaning of the stained bridge elements.
- Remove existing damaged joints, supply and install new expansion joints.

Road Items:

- Removal and disposal of existing pavement layers and soil replacement by Cement Bound Materials and new pavement layers.
- Supply and erection of missing and out of standard traffic signs and gantries.
- Repainting missing and faded pavement markings.
- Replace damaged kerbs with new kerbs.
- Repair of cracked joints at pavement.
- New pavement.
- Concrete paving blocks for sidewalk.

6) Interchange No. 15 at Salwa Road

Structural Items:

- Removal of deteriorated concrete cover, treatment of rusted steel and restore new cover by non-shrink grout for bottom slab and outer beam of bridge 1.
- Epoxy sealant for cracks of bridge 1 and 2.
- Clean expansion joints at transition slab from debris and old sealant and repair with the same pourable joint sealant.
- Replace all loose and damaged interlocks and kerbs with provision of new expansion joints on raised verges where approach slab terminates.

Road items:

- Missing and out of standard traffic signs.
- Repainting missing and faded pavement markings.
- Provide interlock and kerbs beside expansion joint.

7) North Relief Road Underpass No. 01

Structural Items:

- Repair defective / deteriorated precast RCC segments.
- Investigation & tests to identify actual condition of steel strips. Repair of panels affected by structural cracks at R.E. Walls.
- Stabilization of R.E. Panels using either soil nailing or ground anchoring method based on the tests results. (provisional)

8) North Relief Road Underpass No. 02

Structural Items:

- Repair defective / deteriorated precast RCC segments.
- Investigation & tests to identify actual condition of steel strips. Repair of panels affected by structural cracks at R.E. Walls.
- Stabilization of R.E. Panels using either soil nailing or ground anchoring method based on the tests results. (provisional)

9) North Relief Road Underpass No. 03

Structural Items:

- Repair defective / deteriorated precast RCC segments.
- Investigation & tests to identify actual condition of steel strips. Repair of panels affected by structural cracks at R.E. Walls.
- Stabilization of R.E. Panels using either soil nailing or ground anchoring method based on the tests results. (provisional)

10) Duhail Interchange

Structural Items:

- Clean expansion joints from debris with necessary repairs.

- Jacketing of Bridge nos. 1 & 2 to Doha side for right side abutment of Bridge no. 1 and left side abutment of Bridge no. 2, and Bridge nos. 3 & 4 to Al Shamal side for left side abutments of both Bridge nos. 3 & 4. The external face of jacketing to include grooves and to match the top portion of abutment in texture and colour.
- Cross-Girder: Cutting of exposed rebar, removal of loose concrete and reinstatement of concrete cover and finishing with the same existing texture.

Indicative description of the projects are included in Appendix B

1.3. The Employer

The Employer will be the Public Works Authority (Ashghal) of the State of Qatar represented by:

The Manager, Roads Operation & Maintenance Department
 Assets Management Affairs
 Public Works Authority
 P.O. Box 22188
 Doha, State of Qatar

1.4. Minimum Pre-Qualification Criteria

- 1.4.1 Only applicants with significant local, regional and/or international experience in the rehabilitation and repair work of bridges and roads will be eligible to submit a Pre-Qualification Document. The minimum prequalification criteria for an applicant to be eligible are given below. Failure to demonstrate compliance with such minimum criteria will result in the applicant being excluded from further consideration.
- 1.4.2 The applicant shall have an annual average turnover, directly related to construction /repair and rehabilitation work of bridges/roads of not less than QR. 50 Million, or for applicants specialized in repair and rehabilitation of bridges only the annual turnover should be not less than QR.20 Million. Evidence of turnover shall be furnished, within the applicant's submitted Pre-qualification Document, by way of audited accounts. If the applicant is a joint venture, the combined total of turnover for all joint venture partners must be sufficient to meet the minimum turnover criterion specified in this criterion. Where only one partner of the joint venture has the skills, resources and experience to carry out the work, that partner must have an average turnover sufficient to demonstrate the company's financial capacity to undertake the work.
- 1.4.3 The minimum educational and professional qualifications of the person or persons responsible for and exclusively assigned to lead the construction of the works shall be as follows. The person(s) responsible shall have:
- a) A recognized university degree and at least 20 years of post-graduate experience in constructing civil engineering works, preferably 5 years of which will have been in middle east region;

- b) Been directly responsible for carrying out rehabilitation/repair, construction for bridge/road works projects, value exceeding QR.25 million, for any one individual project. Evidence of satisfactory completion shall be furnished, with the submitted Prequalification Document, by way of a certificate of substantial completion, completed by the contracting authority.

1.5. Completion of Documents

- 1.5.1 The Pre-qualification Document, shall be submitted back to the Ashghal Contracts Department at the address mentioned in cl. 1.6
- 1.5.2 The submitted Pre-qualification Document is to be completed in the spaces provided in the Application Form and Schedules 1 to 10. In the event there is insufficient space available in a schedule for the applicant to complete their response, the applicant shall: continue their response on a separate page; include such separate page in their submitted Pre-qualification Document at the end of the schedule it relates to; and annotate such separate page with the item number and schedule number the response relates to.
- 1.5.3 Questions shall not be answered by cross referencing to brochures, reports, policy documents or other such literature. Any questions in the submitted Pre-qualification Document answered by such cross-referencing may not be taken into consideration. The exceptions to this are the locations where supporting information has specifically been requested in Schedules 1 to 11. The Tenderer shall include such supporting information in their submitted Prequalification Document at the end of the schedule it relates to.
- 1.5.4 The submitted Pre-qualification Document shall be structured strictly in accordance with the following order: -

The Application Form duly signed and stamped.

Schedule 1: Company Details and General Information.

Schedule 2: Human Resources

Schedule 3: Plant / Equipment

Schedule 4: Capability & Relevant Experience

Schedule 5: Quality Management

Schedule 6: Health, Safety and Environment

Schedule 7: Insurances

Schedule 8: Planning and Scheduling

Schedule 9: Financial Status

Schedule 10: Statements

Schedule 11: Supplementary Documentation

Appendix A: Checklist of Documents Submitted

- 1.5.5 Applications by Joint Ventures or Associations of two or more companies should clearly indicate the part of work assigned to each party of the Joint Venture or Association, and accordingly each party shall complete all of the technical and financial forms (Schedules 1 – 11) relevant to its respective part of the work. Any Schedule completed by individual partners with respect to

their own work should be kept together in the submission and the Application Form should be signed by all partners.

- 1.5.6 All information requested for pre-qualification shall be provided in English language. Where information is available in another language it shall be accompanied by an English translation. This translation will govern and be used for interpreting the information.
- 1.5.7 Queries regarding the completion of the Pre-qualification Document are to be referred to the Contracts Department Manager at the following e-mail address: Contracts @ashghal.gov.qa. Clarifications will be issued by e-mail.
- 1.5.8 The Employer will not be responsible for, nor reimburse, any expenses incurred by whomsoever in the preparation and submission of the submitted Pre-qualification Document or any clarification/further information which the Employer may request for the proper evaluation of the submitted Prequalification Document.
- 1.5.9 Where Financial Data are required to be furnished in the submitted Prequalification Document, they are to be submitted in Qatari Riyals (equivalent to the original currency).
- 1.5.10 Failure to comply with the requirements within this “Information for Prequalification Applicants (Contractors)” and/or the “Pre-qualification Application Form and Schedules (Contractors)” document may result in some of the information submitted not being taken into consideration during the assessment process and/or the applicant not being considered for short listing.

1.6 Submission of Documents

- 1.6.1 The following are to be submitted in hard copy and in duplicate in PDF format:
 - a) Completed and signed Application Form;
 - b) Completed and where relevant signed Schedules 1 to 11;
 - c) Supporting information specifically requested; and
 - d) Completed Appendix A - Checklist of Documents Submitted.

The hard copy, along with the PDF copies, are to be hand delivered or sent by courier to the address given below:

PUBLIC WORKS AUTHORITY
Contracts Department – Contracts Services Section
ASHGHAL Tower (1) – Ground Floor
P.O. Box 22188
Doha, Qatar.

Endorsed “**CONFIDENTIAL: Pre-qualification of Contractors for Repair & Maintenance of Highway Structures – Contract (3)**”.

1.6.2 The hardcopy will be deemed to be the “original” submission.

1.6.3 If submission is received after the closing date given in the advertisement, the applicant may not be considered for short listing.

1.7 Examination, Acceptance and Notification

1.7.1 Information provided by applicants in the submitted Pre-qualification Document will be treated as strictly confidential.

1.7.2 The Employer reserves the right to request the applicants to prepare and furnish any clarification considered necessary for the proper analysis of the submitted Pre-qualification Document.

1.7.3 Pre-qualification will generally be based on a scoring system of the applicant's general and particular experience and resources, technology offered, capabilities of personnel, quality management system, health and safety policy and financial position, as demonstrated in the applicant's responses.

1.7.4 The Employer does not bind himself to accept any Company/Firm/JV and will not assign any reason for the acceptance or rejection of any Company/Firm/JV from pre-qualification.

1.7.5 The Employer reserves the right to:

(a) Amend the scope and value of contract to be tendered, in which event only those pre-qualified applicants who meet the amended requirements will be invited to tender for the contract.

(b) Cancel the pre-qualification process and reject all applications.

The Employer shall neither be liable nor be under any obligation to inform the applicant of the grounds for such action.

1.7.6 JV's must comply with the following requirements:

(a) JV's that wish to pre-qualify shall provide a letter of intent from each of the partners of the JV confirming their intention to take part in the tender should the JV be invited to tender.

(b) Any subsequent tender shall be signed so as to legally bind all JV partners, jointly and severally, and any tender shall be submitted with a copy of the JV agreement providing for joint and several liabilities with respect to the contract.

- 1.7.7 The Employer reserves the right to reject the subsequent tender of a successful applicant, should he change his declared association or JV partner(s) after submission of the Pre-qualification Document.
- 1.7.8 The Employer reserves the right to invite a limited number of Companies/Firms/JVs from the short list (see item 1.7.3 above), where a particular experience is sought for a Project.

APPENDIX A

LOCATION MAP OF HIGHWAY STRUCTURES



APPENDIX B

SALIENT FEATURES OF THE BRIDGES

SALIENT FEATURES OF THE BRIDGES:

The project includes ten structures whose details are described below:

KHALIFA INTERCHANGE:

Khalifa Interchange is located at the intersection of Khalifa Street and Al Istiqlal Street. The Khalifa Bridge carries the traffic from TV-roundabout to central-post roundabout through Khalifa Street crossing Al Istiqlal Street.

Bridge:

- Total length: 65 m
- Total width: 15.7 m and 19.7 m
- Number of lanes: (3) and (3 + 1 auxiliary lane)
- Carriageway width: 11.0 m and 15.0 m
- Median width: N/A
- Vertical Clearance: 5.50 m
- Weight restriction: No posting/No data
- Structural Type: Precast prestressed concrete box girders, reinforced concrete V-shaped piers, concrete solid wall abutments, elastomeric bearings are located between piers and foundations and under each main girder. Reinforced concrete footings are used for foundation.
- Span arrangement: 22.0/22.0 m.

SIMAISMA INTERCHANGE:

The Simaisma Interchange is located at the intersection of the Simaisma road and the Northern Relief road. The bridge carries the traffic from the Simaisma zone to Al Shamal road crossing Northern Relief road.

Bridge:

- Total length: 60 m
- Total width: 11.7 m
- Number of lanes: 2 in each direction
- Median width: 0.50 m
- Weight restriction: No posting/No data
- Structural Type: Cast-in-situ reinforced concrete slabs on pre-cast reinforced T-girders, three-column concrete frame pier, concrete solid wall abutments, elastomeric bearings on top of abutments and pier
- Span arrangement: 23.50/23.50m
- Skew Angle: 30 Degrees

THANI BIN JASIM INTERCHANGE:

Thani Bin Jasim Underpass is located at the intersection of Al-Laqta street and AL-Markhiya street. The underpass carries the traffic through Al Markhiya street crossing AL-Laqta street.

Underpass:

- Total length: 1000 m
- Total width: 23.40m
- Number of lanes: 2 in each direction
- Lane width: 3.65 m
- Vertical Clearance: 6.00 m
- Weight restriction: No posting/No data
- Structural Type (Open Part): Open U-section with cantilever reinforced concrete walls on raft foundations
- Structural Type (Closed Part): Two multi-cell single-span prestressed concrete box girder decks, on pot bearings, are spanning 23.40m. Reinforced concrete abutment walls are on raft foundation.

UMM LEKHBA INTERCHANGE:

Umm-Lekhba Interchange is located at the intersection of Al-Shamal Road and Al-Markhiya Street. The Interchange is also known as Landmark Interchange. Umm Lekhba Bridge carries the traffic through Al-Shamal Road crossing Al-Markhiya Street (passing over Umm Lekhba signalized intersection).

Ramps:

- Wall height: 2.0 to 11.0m
- Weight restriction: No posting/No data
- Structural Type: Cantilever reinforced concrete walls on footings

Flyover:

- Total length: 620 m
- Total width: 15.20 m for each direction
- Carriageway width: 10.95 m
- Shoulder width: 1.50 m
- Number of lanes: 3 for each direction
- Median width: 4.50 m
- Vertical Clearance: 5.50 m
- Weight restriction: No posting/No data
- Structural Type: Prestressed concrete multi-cell box-girder. Reinforced concrete single column piers, reinforced concrete wall-type abutments, pot bearings on top of all piers and abutments, reinforced concrete footings
- Span arrangement: 27.50/35.00/27.50 m

Pedestrian Bridge:

- Total width: 4.20 m
- Structural Type: Single-cell single-span box-girder, reinforced concrete abutment walls, Elastomeric bearings between deck and abutments and reinforced concrete footings
- Span arrangement: 35.92 m

AL-GHARRAFA INTERCHANGE:

Al-Gharrafa Interchange is located at the intersection of Al-Luqta / Khalifa Streets and Al-Shamal / 22-February Streets. The Interchange is also known as the Immigration intersection. Al-Gharrafa Interchange consists of the following features:

- Underpass along Al - Luqta/Khalifa
- Flyover along Al - Shamal / 22-February
- At-grade Roundabout

Underpass:

- Total length: 1060 m
- Total width: 30.0 m
- Median width: 3.90 m
- Shy distance: 0.50 m
- Number of lanes: 3 in each direction
- Lane width: 3.65 m
- Vertical Clearance: 5.30 m
- Weight restriction: No posting/No data
- Structural Type: Open U-section with cantilever reinforced concrete walls and raft.

Flyover:

- Total length: 940 m
- Total width: 13.3m for each direction
- Number of lanes: 3 in each direction
- Lane width: 3.65 m
- Median width: 0.50 m
- Shy distance: 0.50 m
- Vertical Clearance: 5.30 m
- Weight restriction: No posting/No data
- Structural Type: Prestressed concrete voided slab deck, concrete single column piers, concrete solid wall abutments, pot bearings on top of all piers and abutments, reinforced concrete footings
- Span arrangement: 27.0/27.0/E.J./27.0/40.0/27.0/E.J. /27.0 / 27.0 m.

At- grade Roundabout:

- Inscribed circle diameter (ICD):86.0 m
- Circulatory width: 13.0m.
- Weight restriction: No posting/No data
- Structural Type: Multi-cell two-span box girder deck monolithic with abutments walls and raft foundation. Three single column piers at the middle support. Pot bearings between deck and Piers.
- Span arrangement: 16.2/16.2 m. (Closed part)

INTERCHANGE NO. 15 AT SALWA ROAD:

The Overpass at interchange No. 15 is located at the intersection of Salwa road and Industrial / Muaither road. The bridge carries the traffic from the Industrial area to Muaither region crossing Salwa Road.

Flyover:

- Total length: 132 m
- Total width: 18.05 m for each direction
- Carriageway width: 10.95 m
- Number of lanes: 2 + 1 (auxiliary lane) per direction
- Lane width: 3.65 m
- Shoulder width: 1.80 m and 2.50 m
- Sidewalk width: 1.00 m
- Median width: N/A
- Vertical Clearance: 6.00 m
- Weight restriction: No posting/No data
- Structural Type: Prestressed concrete Multi-cell Box-Girder deck, reinforced concrete single-column piers, concrete integral abutments, pot bearings on top of all piers, reinforced concrete footings under piers and pile foundation at abutments
- Span arrangement: 28.00m/30.10m/30.10m /28.00m

NORTH RELIEF ROAD UNDERPASS NO. 01:

The North Relief Underpass No.1 (Luasail Arena Tunnel) is located at the intersection of Northern Relief road and the road to Lusail zone. It carries the traffic on Lusail road under the Northern Relief Road.

Underpass:

- Total length: 33.0 m
- Total width: 13.8 m
- Median width: N/A
- Carriageway width: 8.10 m
- Number of lanes: One in each direction
- Min. Overhead Clearance: 5.50 m
- Weight restriction: No posting/No data
- Structural Type: Three-hinged precast concrete segmental Arch and reinforced earth retaining wall.

NORTH RELIEF ROAD UNDERPASS NO. 02:

The North Relief Road Underpass No.2 is located at the intersection of the North Relief Road and the road to Um Jarnah zone. The underpass is also known as the Umm Garn underpass.

Underpass:

- Total length: 33.0 m
- Total width: 13.8 m
- Median width: N/A
- Carriageway width: 6.10 m
- Number of lanes: One in each direction
- Min. Overhead Clearance: 6.0 m
- Weight restriction: No posting/No data
- Structural Type: Three-hinged precast concrete segmental Arch and reinforced earth retaining wall.

NORTH RELIEF ROAD UNDERPASS NO. 03:

The North Relief Underpass No.3 (Tenbak Tunnel) is located at the intersection of the North Relief road and the road to Tenbak zone.

Underpass:

- Total length: 33.0 m
- Total width: 13.8 m
- Median width: N/A
- Carriageway width: 6.10 m
- Number of lanes: One in each direction
- Min. Overhead Clearance: 6.0 m

- Weight restriction: No posting/No data
- Structural Type: Three-hinged precast concrete segmental Arch and reinforced earth retaining wall.

DUHAIL INTERCHANGE:

Duhail Interchange is located at the intersection of Al Shamal road and Al Gharrafa/Al Khafj Street. The Duhail Bridge carries the traffic through Al Shamal road crossing Al Gharrafa / Al Khafj Street.

Bridge:

- Total length: 600 m
- Total width: 11.88m for each direction
- Number of lanes: 3 in each direction
- Vertical Clearance: 5.20 m
- Weight restriction: No posting/No data
- Structural Type: Each of the four similar bridges has a simply supported span. Eleven longitudinal precast prestressed girders resting on wall-type abutments. One edge beam in Bridge No.2 was replaced by a steel girder (Al-Gharrafa side).
- Span: 15.40m