GEEM 445
Engineering Ethics and Professional Practices

Professional Engagement

What we are going to discuss today?

-Professional engagement: RFP, Bid, Bid Solicitation, IFB, IFT Tender for Procurement Process, RFQ, Statement of Works and Scope of the Works.

-Steps of project development/Professional Engagement.

-QBS for Engineers/Engineering Firms or Services

-FBS for Engineers/Engineering Firms or Services

-Key Components - Writing Engineering Proposal

-Contract in Professional Engagement

-Budgeting in Professional Engagement

What is Professional Engagement?

- Allows your carrier to grow **by applying your expertise** and **learnings through interaction** with other professionals in both formal and informal ways.

Requirements of Professional Engagement

- **To secure professional services; to hire**, to **define and communicate the specific needs and/or tasks required to arrive at a solution.**

- To **recognize the situation** and **need to create a Scope** or **Statement of work** (SOW).

- **To provide client for an alternate approach** at lower cost if cost goes high.

Professional services are probably the best provided when client **knows and trust engineers**.

Process of engineering services **may be through the RFP and Proposal Phase.**

What is a Request for Proposal (RFP)?

A business/project document that

- **announces** and **provides details about a project**, as well as

- **solicits bids from contractors** who will help complete the project.

- **outline the bidding process and contract terms**, and **provide guidance** on how bids should be formatted and presented.

Bid: To **formal** document **to provide goods/works/service** and **compete against other people** to buy it, especially at a public sale of goods or property.

Bid Solicitation

- **Process of notifying** prospective or qualified bidders to **receive bids** on the specified product or project.
- **Solicitations** include:

  -invitation-for-bid (IFB),

  -Invitation for Tender (IFT)

  -request for proposals (RFP),

  -request for quotations (RFQ).

  -EOI (Expression of Interest)

Request for **sealed bids**, **which may be made public** through **advertising, mailings, or some other method** of communication.

Tender: **Means the document submission by the tenderer** in writing for **delivery** of procurement object that is **prescribed** to PE in response to tender document.

Tenderer: Means a **person/firm/organization invited** to take part in public procurement or seeking to be invited or submitting a tender/proposal in response to an IFT/RFQ/RFP

Invitation for Bids (IFB):

- An **invitation to bid**, also called an invitation for sealed bid, is **a call to contractors to** submit a **proposal** on a project for a specific product or service.

IFB – Invitation For Bids

HIGH COMMISSION FOR
THE PEOPLE'S REPUBLIC OF BANGLADESH
91 Bencoolen Street # 06-01
Sunshine Plaza, Singapore 189652
Tel : (65) 6255 0075
Fax : (65) 62551824
E-mail : bdoot@singnet.com.sg
Website : http://www.bangladesh.org.sg

No.HC/E&T-03/2009

13 January 2011

Subject: **Invitation for Bids (IFB) for Procurement of 36 Nos. 4WD Cross Country Vehicle under PEDP-II, Directorate of Primary Education**

Dear Sir,

We have the pleasure to inform you that the Directorate of Primary Education, under the Ministry of Primary and Mass Education, Government of Bangladesh has invited sealed Bids from eligible Bidders for package no.GD 410.1 for the procurement of 36 nos. 4WD Cross Country Vehicles under PEDP-II (copy of tender notice no.DPE/Fin & Proc./PEDP-II/Vehicle Purchase/13(part-2/2010/1627 is enclosed). The Bids must be delivered to the Director General, Directorate of Primary Education, Programme Director, PEDP-II, Section-2, Mirpur, Dhaka-1216, Bangladesh on or before **13 February 2011**. The information on the Bids is also available at: **www.cptu.gov.bd/ and www.adb.org and dpe.gov.bd.**

In view of the above, it would be appreciated if the contents of the aforesaid IFB could be circulated among the members of your organization for their information and participation at the Bids.

Encl: **As above**

Yours sincerely

(Iren Perven Sadhan)
Counsellor (Com.)
Tel:62380679 (O)
E-mail:irenperven@gmail.com

Invitations for Tender:

- Typically **used in major construction projects** where the **owner knows in details** what they want.

Document contains

- detailed **specifications** for the performance of the work as well as
- **detailed qualifications and requirements** for the bidders to meet.

শেখ হাসিনার উদ্যোগ ঘরে ঘরে বিদ্যুৎ

Bangladesh Power Development Board

Office of the Executive Engineer

S&D D-Barabkunda, BPDB
Barabkunda, Chittagong
Phone : 030-2856377
E-Mail:-xenbarab.pdb@gmail.com

Memo No: 27.11.1500.745.03.004.18-550 Dated : 07.05.2018

Invitation for e-Tenders

e-Tenders are invited in the National e-GP System Portal (https://www.eprocure.gov.bd) for the Procurement of following work:

S/N.	Tender ID	Name of Works	Last Selling Date and Time	Closing & Opening Date and Time
1.	195243	Renovation & maintenance works of Barabkunda F/06, F/08 11KV feeder including installation of single phase distribution X-former and removal of 0.4KV lines to reduce system loss due to hooking at different location of said feeders on well as related works under S&D Division-Barabkunda, PDB, Chittagong.	05 **June** 2018 16:00 PM	06 June 2018 12:00 PM

These are online Tenders, where only e-Tenders will be accepted in the National e-GP System Portal and no offline/hard copies will be accepted

To submit e-Tenders, registration required in the National e-GP System Portal **((https://www.eprocure.gov.bd).** The fees for downloading the e-Tender Documents form the National e-GP System Portal have to be deposited online through any registered Bank. Further information and guidelines are available in the National e-GP System Portal and from e-GP help desk (helpdesk@eprocure.gov.bd)/Contract Number (01762625528-31).

Engr. Md. Asaduzzaman
Executive Engineer
S&D D-Barabkunda
BPDB, Chittagong

বিদ্যুৎ/জন-১৪০৭(২)১৭/৫/১৮

ডিসি-৪৫৭/১৮ (৬"×৩)

Government of the People's Republic of Bangladesh

Office of the Director

Bangladesh Institute of Tropical & Infectious Diseases (BITID)
(A National Tropical & Infectious Diseases Hospital & Research Institute)
Fouzderhat, Chattogram.
Phone : 031-2780426, 031-2781267, Fax-031-2781266
E-mail: bitid@hospi.dghs.gov.bd.

Memo no-BITID/Sec-4/Outsourcing/2018-2019/761 Date : 20.11.2018

Invitation for Tender

For Procurement of human resources (Outsourcing) in Bangladesh Institute of tropical & Infectious Diseases (BITID), Fouzderhat, Chattogram in the fiscal year 2018-19.

1.	Ministry /Division	Ministry of Health and Family Welfare, Govt, of Bangladesh.
2.	Agency	Bangladesh Institute of Tropical & Infectious Diseases (BITID) Fouzderhat, Chattogram .
3.	Procuring entity name	Director , Bangladesh Institute of Tropical & Infectious Diseases (BITID) Fouzderhat, Chattogram.
4.	Budget and source of Funds	GOB Revenue Fund.(2018-19) FY.
5.	Procuring entity District	Chattogram.
6.	Tender/Type of work	Supply of Human resource as per "Service procurement policy 2008 through Outsourcing"
6.	Procurement Method	Open tender method (OTM).
7	Memorandum No. and date of tender	BITID/Sec-4/Outsourcing /2018-2019/761 Date- 20.11.2018
8	Price of Tender Schedule	Tk 1,000/-(One Thousand) in Cash per schedule (Non refundable)
9	Tender security	Tk 2,00,000/- (Taka two lac Only) as pay order in favor of Director , BITID must be submitted with the tender schedule.
10	Eligibility of Tenderers	Firms having at least 02 years experience in supply of human resources in GOV/Semi Gov/Autonomous organization with valid trade license. Other requirements as mentioned in the terms of the tender schedule.

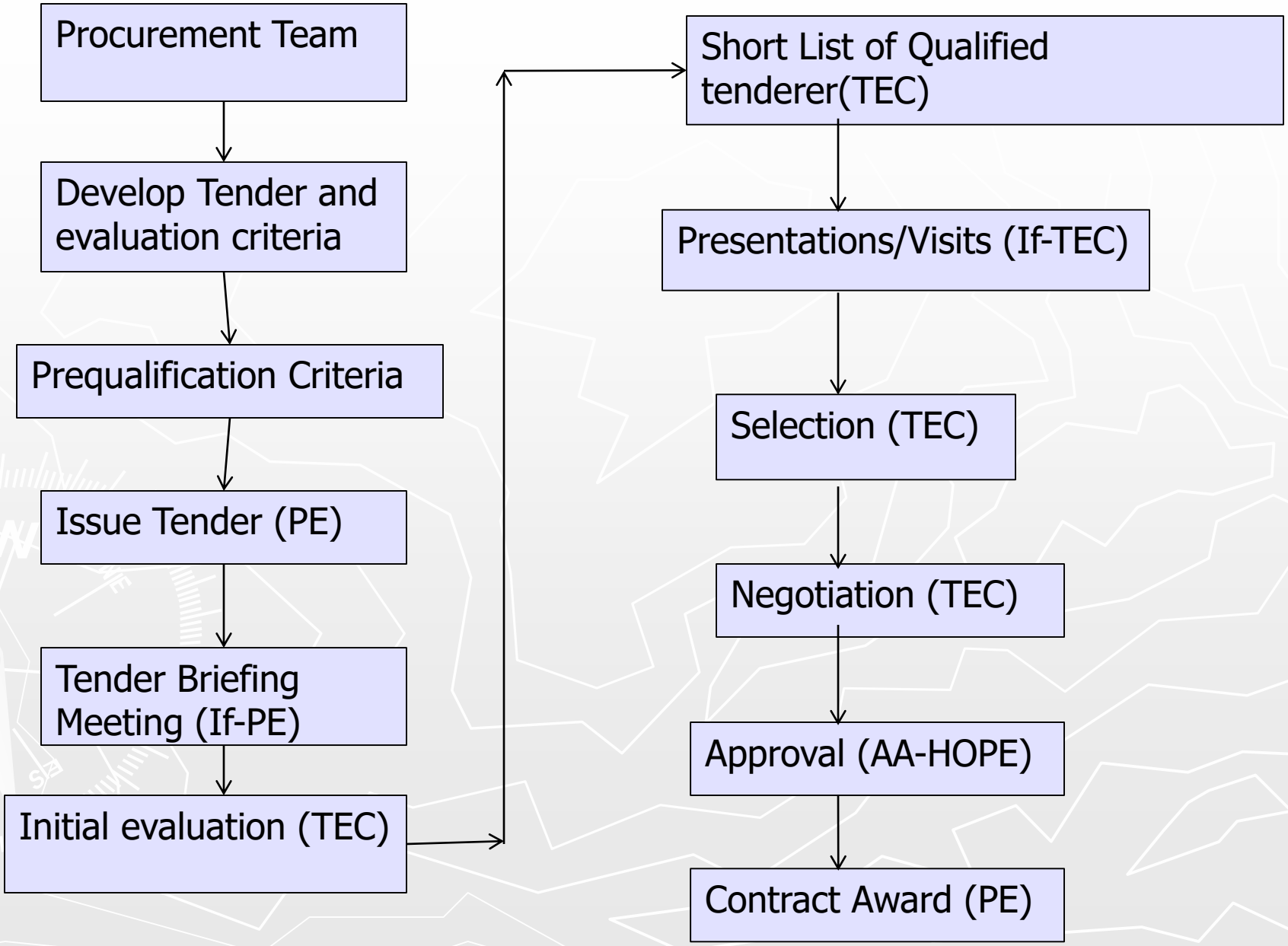
11	Details of required services (Human resources)	**Job Title**	**Qualification**	**Overall salary Each per month (According to National pay scale 2015)**
		Office Shohayak (MLSS)	SSC Pass	14950/-
		Ward Boy	Class VIII Pass	14950/-
		Aya	Class VIII Pass	14950/-
		Security guard	Class VIII Pass	14950/-
		Cleaning staff	Class VIII Pass	14950/-
		Cook /Masalaci	Class VIII Pass	14950/-
12	Selling & Receiving Tender documents	Office of the Director , Bangladesh Institute of Tropical & Infectious Diseases (BITID), Fouzderhat, Chattogram .		
13	Tender Publication date	24.11.2018		
14	Tender selling date & time	24.11.2018 to 09.12.2018 during office hour		
15	Tender Drop, closing date & time	10.12.2018 From 9 AM to 12.00 PM		
16	Tender opening date & time	10.12.2018 at 12.10 PM		
17	Place of opening tender	Office of the Director , BITID. Fouzderhat, Chattogram.		
18	Description of Related Services including Terms & Conditions	Detailed Description given in Tender schedule		
Procuring Entity Details				
19	Name of Official Inviting Tender	Prof. Dr. Mohammed Abul Hassan Chowdhury		
20	Designation of Official Inviting Tender	Director , BITID. Fouzderhat. Chattogram.		
21	Address & Contacts details of Official Inviting Tender	Bangladesh Institute of Tropical & Infectious Diseases (BITID), Fouzderhat, Chattogram . Phone- 031-2780426, Fax-031-2781266, E-mail- bitid@hospi.dghs.gov.bd		
The Procuring entity reserves the right to accept or reject any or all tenders.				

N.B- If the date of selling, receiving & opening of tender is disturbed under any unavoidable circumstances, the next working day will be applicable for the same respectively.

Prof. Dr. Mohammed Abul Hassan Chowdhury
Director
BITID, Fouzderhat, Chattogram .

DG-2422/18 (10"×4)

Tender for Procurement Process



Tender for Procurement Process

Procurement Team –Dev Tender & Evaluation Criteria
-Set Prequalification Criteria

PE – Issue Tender
-Receive tender

TOC –Opening Tenders in presence of Tenderer

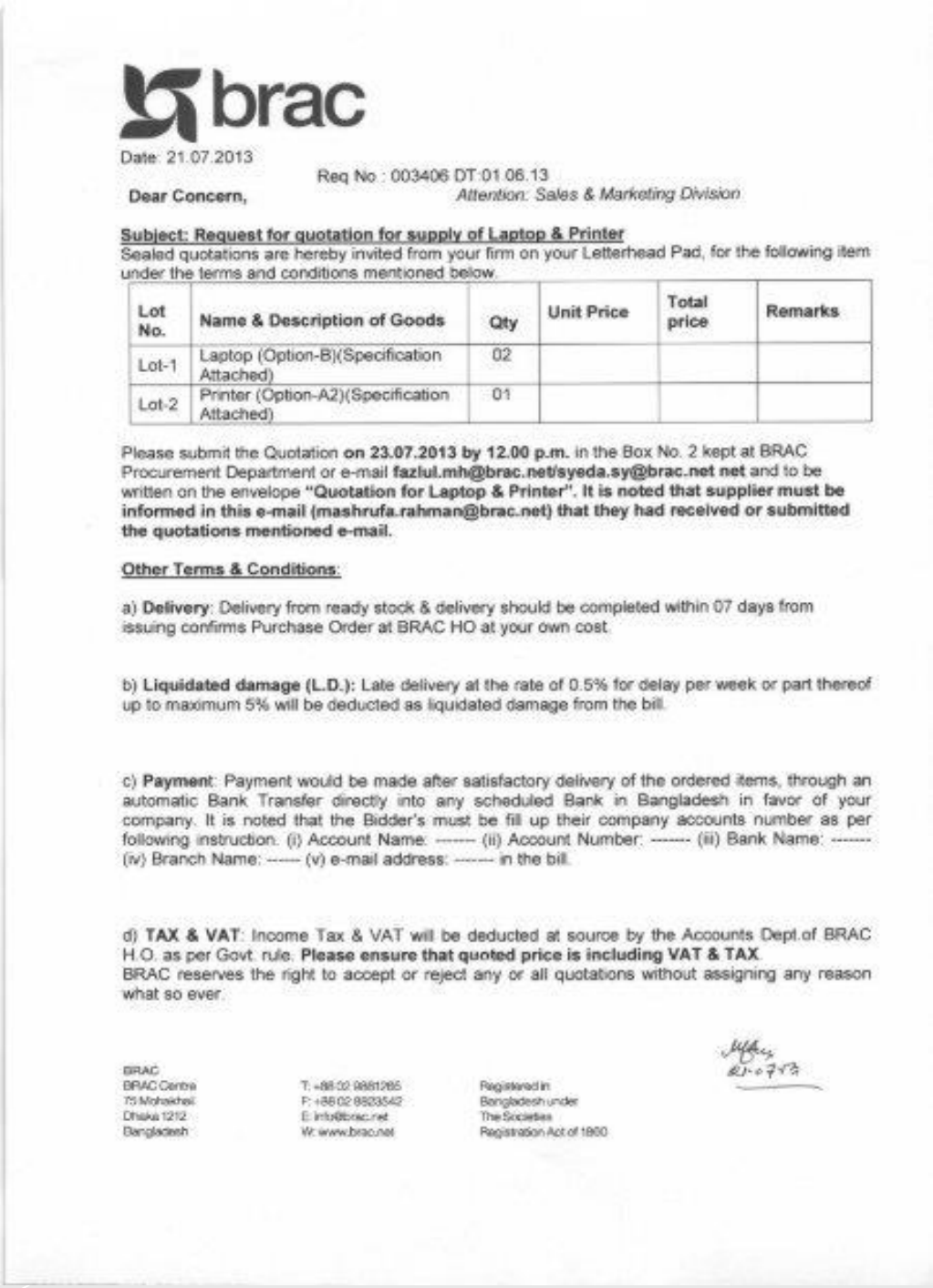
TEC- Evaluate
-Prioritized and list qualified Tenderer
-Visit & negotiation
- Prepare evaluation Report

HOPE – Approval or retender

PE- Issuance NOA
- Award Contract

Requests For Quotation (RFQ):

- **RFQ is a lot like the Tender**, however typically **smaller in size works and scope.**
- Often more geared **towards clients who are seeking pricing information** for a defined scope of work or supply of materials or equipment.
- Like the Tender, the **specifications**, **terms and expectations** are well laid-out and the **vendor has fewer Obligations** for defining the scope themselves.



brac

Date: 21.07.2013

Req No : 003406 DT:01.06.13

Dear Concern,

Attention: Sales & Marketing Division

Subject: Request for quotation for supply of Laptop & Printer

Sealed quotations are hereby invited from your firm on your Letterhead Pad, for the following item under the terms and conditions mentioned below.

Lot No.	Name & Description of Goods	Qty	Unit Price	Total price	Remarks
Lot-1	Laptop (Option-B)(Specification Attached)	02			
Lot-2	Printer (Option-A2)(Specification Attached)	01			

Please submit the Quotation **on 23.07.2013 by 12.00 p.m.** in the Box No. 2 kept at BRAC Procurement Department or e-mail **fazlul.mh@brac.net/syeda.sy@brac.net net** and to be written on the envelope **"Quotation for Laptop & Printer". It is noted that supplier must be informed in this e-mail (mashrufa.rahman@brac.net) that they had received or submitted the quotations mentioned e-mail.**

Other Terms & Conditions:

a) **Delivery**: Delivery from ready stock & delivery should be completed within 07 days from issuing confirms Purchase Order at BRAC HO at your own cost.

b) **Liquidated damage (L.D.):** Late delivery at the rate of 0.5% for delay per week or part thereof up to maximum 5% will be deducted as liquidated damage from the bill.

c) **Payment**: Payment would be made after satisfactory delivery of the ordered items, through an automatic Bank Transfer directly into any scheduled Bank in Bangladesh in favor of your company. It is noted that the Bidder's must be fill up their company accounts number as per following instruction. (i) Account Name: ------- (ii) Account Number: ------- (iii) Bank Name: ------- (iv) Branch Name: ------ (v) e-mail address: ------- in the bill.

d) **TAX & VAT**: Income Tax & VAT will be deducted at source by the Accounts Dept.of BRAC H.O. as per Govt. rule. **Please ensure that quoted price is including VAT & TAX.**
BRAC reserves the right to accept or reject any or all quotations without assigning any reason what so ever.

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Dhaka 1212
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Registration Act of 1860

Statement of Work vs Scope of Work

- Both **perform to ensure the success of engineering project**.

- Outline the **goals and objectives – Statement of the work**.

- **Considering the deliverables, the actual work which will be necessary to complete the project - Scope of the work.**

Statement of Work (SOW)

- **Lays out the foundation of the work** which will be necessary for a certain project.

- **Aware of the responsibilities** the project will entail.

- SOW **will tell the vendor what** they will be responsible for, **how** to accomplish it, **which materials** need to be used, and the **time frame** for each task.

Scope of Work

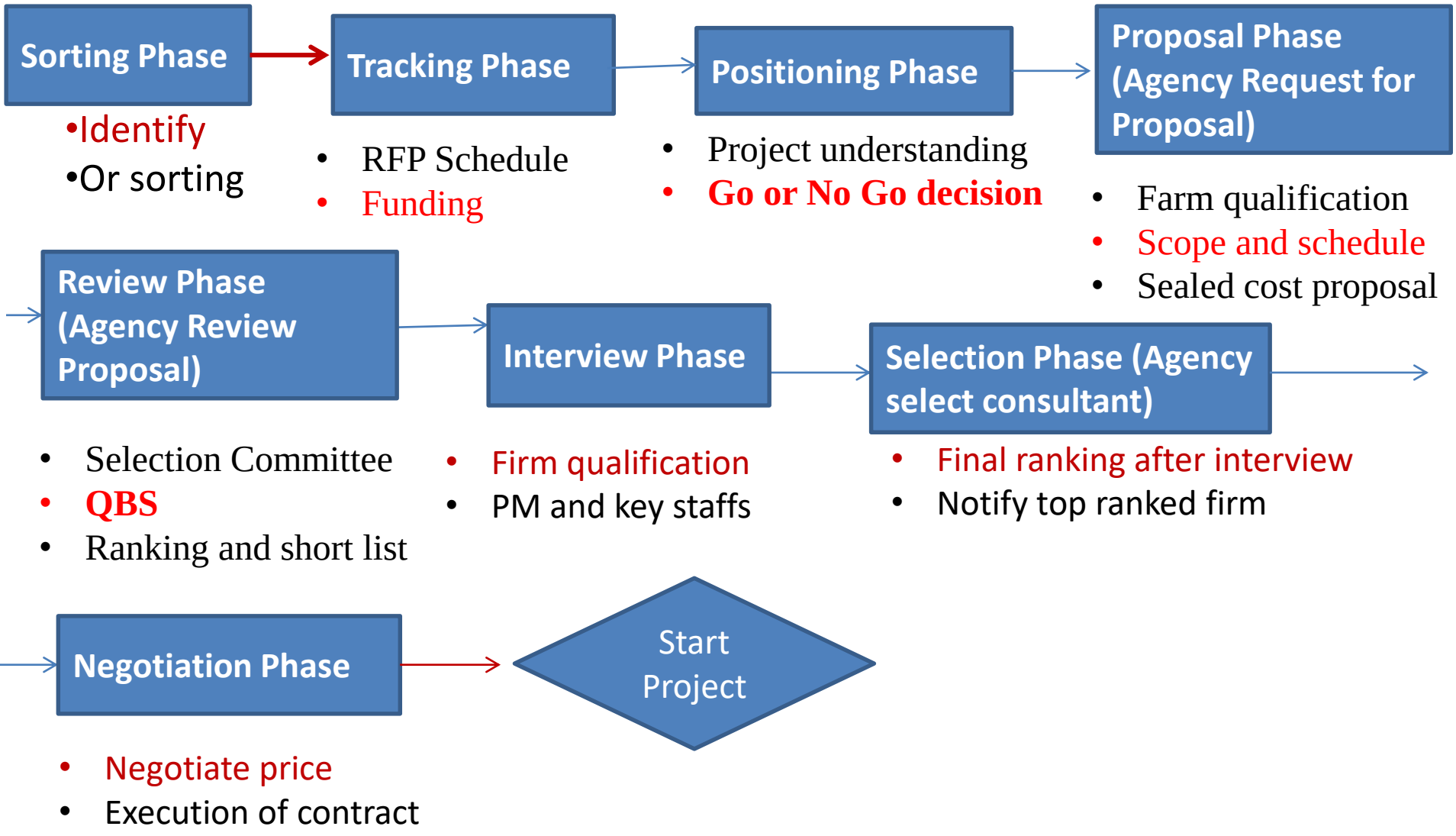
- Usually **a section** within the statement of work.

- **SOW-** is an in **depth document** describing everything which needs to be completed to make the project a success,
- **Scope of work-** states **how it is to be accomplished**.

If a vendor **reads the Statement Of Work** and comes to the **Scope of Work section**, and notices that the **completion date of a specific task is unattainable due to the amount of work involved,** they must make adjustments immediately.

Scope of work must be taken seriously, as the work done to meet project goals, must keep in step with the details described here.

Process of Professional Engagement in a Project (Engineers as Consultant)



Methods of Consultant Selection (QBS or FBS)

QBS:

What is QBS of Engineers/Engineering Firm/Services:

- Client need to **prepare a request for qualification** (RFQ).
- Client then **solicit responses and select** an engineer/engineering firms or services.

Benefits of QBS:

- Client select an engineers/engineering services because of **specific experience** and **capabilities** relevant to client's need.

Limitations of QBS:

- **Missing** the **working relationship** and the **trust factors** between the client and the engineers.

Professional engineers are **bound by ethics**, **business law** and **contracts**, so trust factors are not a problems.

Human factors **prefer to go** for known engineers.

Government of the People's Republic of Bangladesh

Rajdhani Unnayan Kartripakkha (RAJUK)

Ministry of Housing & Public Works

Rajuk Bhaban, Rajuk Avenue, Motijhil, Dhaka-1000

Memo No. 25.39.0000.158.14.001.17-17 Date: 11 October 2017

Notice for Request for Qualification (RFQ)

International Competitive Bidding (ICB)

Construction of Flyover from Shantinagar to Dhaka-Mawa Road (Jhilmil) through Public Private Partnership

Rajdhani Unnayan Kartripakkha (RAJUK), under Ministry of Housing & Public Works, Government of the People's Republic of Bangladesh, intends to Construction of Flyover from Shantinagar to Dhaka-Mawa Road (Jhilmil) through Public Private Partnership.

RAJUK invites interested applicants and/or applicant consortiums to participate in qualification process for selection of a Private Partner through International Competitive Bidding (ICB) process for the "Construction of Flyover from Shantinagar to Dhaka-Mawa Road (Jhilmil) through Public Private Partnership". RAJUK envisages the selected Private Partner to undertake designing, building, financing, operation & maintenance of the project, based on terms and conditions to be set out in the PPP Contract.

Interested applicants may submit their Qualification Statement in response to this RFQ wherein applicants will be shortlisted for issuing a detailed request for proposal. Details of the Project, application submission process and requirements have been set out in the RFQ.

Interested applicants may submit their Qualification Statement in response to this RFQ wherein applicants will be shortlisted for issuing a detailed request for proposal. Details of the Project, application submission process and requirements have been set out in the RFQ.

Interested parties have to purchase the RFQ with a non-refundable amount of two hundred US Dollars (USD 200.00) or sixteen thousand Bangladeshi Taka (BDT 16000.00) in favour of Chairman, Rajdhani Unnayan Kartripakkha (RAJUK) through Pay Order/Bank Draft and subsequently have to register online in order to access all available project related documents and to participate in the qualifying process. Online registration shall be performed through the online registration portal established for this Project at http://www.pppo.gov.bd/dataroom/rajukflyover/register.php and in accordance with the instructions set out on such portal. A pre-application meeting will be organized on 06 November 2017 which would be duly notified to the registered applicants through the on-line process.

Application must be submitted on or before 1200 hours BST, on 07 December 2017 to the following address:

Project Director,
Construction of Flyover from Shantinagar to Dhaka-Mawa Road (Jhilmil) Project
Rajdhani Unnayan Kartripakkha
RAJUK Annex Bhaban, (4th Floor), Motijheel, Dhaka - 1000, Bangladesh

Authority reserves the right to accept, reject and/or re-invite the RFQ without assigning any reason, whatsoever.

11-10-2017

Project Director
Rajdhani Unnayan Kartripakkha (RAJUK)
Tel: +880-2-9588524
E-mail: pd_smflyover@rajukdhaka.gov.bd

QBS Processes for Engineering Services



QBS Process for Engineering Services

Five basic steps:

Step-1: Public announcement of opportunities: Give location and scope of project.

May include:

- Estimated **contract award range**.
- project **schedule and date & time limit** for receiving replies.
- Categories of **evaluation criteria and weight factors**.
- **Any requirement** for submitting supplementary information.

Some of the criteria are:

- **Professional qualification and experience of the farm** with specific type of project.
- **Experience and professional qualifications** of the **farm's staffs** to be assigned to the project.
- **Location of the main office** of the proposing firm.
- Farm's **consultants or subcontractors**.
- **Overall performance record** of the farm.
- Analysis of the **farm's current workload**.

Step-2: Development of short list of at least three submitting firms in order to conduct interview with them.

Step-3: Interview or discussion with the firms:

-Interview to be brief, may last for 30-60 mins.

Interview is the **best chance for engineers to display** the firm's **knowledge**, **unique strength**, **project's experience** and **project's terms.**

Steep-4: Ranking of at least three of the most qualified firms:

- After interview **board's report is presented** to the agency head **(HOPE**) or a **person** who is designated on behalf of head.

- At least three firms that are considered to be the **most highly qualified** to perform the services.

- Considered to be the **final selection** of the competing firm.

- If the **most preferred firm is not the firm in the most qualified list of three firms**, head of agency will **provide a written explanation** for the reasons of preference.

- Head of agency or person designate, **may not add names of other firms** in the list of final report.

- **Report reviews the recommendation** of the evaluation board, that the agency head make the **final selection.**

Step-5: Negotiation with the top ranked firm:

- **After final selection made** by the agency head, **contracting officer** is **authorized to began negotiation** with the top ranked firm.

- Farm is requested to **submit a financial proposal listing direct and indirect cost** as the basis of contract negotiation.

- If **financial proposal** **is not agreed upon**, contracting officer will **conclude** negotiation with top ranked farm and **initiate negotiation** with the rest of the top ranked farms.

- **Negotiation is continued** **until an agreement is reached** and a contract awarded.

- If the **negotiations fail** with the top ranked farm, the contracting officer may return to the original contractor's submittal and **re-advertise** **t**he project.

FBS:

Fee Based Selection of Engineering Services

- Selection method based on the **client alone** or **client and engineers creating** a unilateral **scope of work and negotiating** a fee for the services.
- Fee may be **flat-rate** or **percentage of the overall cost** of the project.

Writing Engineering Proposal (Communication):

- A critical component of the **civil engineering's Tool Box** is **Problem solving**.

Key Components:

- **Problem Identification-** identifying the clients' particular problem.
- **Background knowledge**, Team Work and Scope/Statement of work- possessing background knowledge is required.
- **Client's Requirement and constraints-** understanding client's requirements and constraints.
- **Clear Communication**- Having the ability to communicate clearly.
- **Technical alternatives** – formulating technical alternative.
- **Alternative evaluation** – providing alternative evaluation.
- **Design, plans, specification and cost estimates.**

- **Construction Assistance, Monitoring and Management -** offering construction assistance, Monitoring and Managements.
- **Start up /Operation and maintenance assistance** – providing start up assistance or operation and maintenance assistance.
- **Scheduling** – creating realistic schedule.

Contract

- **Glue that binds the client/users and the engineers** to the SOW.

A **formal legal document** that usually **cites the followings:**

- the **tasks from the original RFP**
- the **engineers' tasks**
- **schedule** and
- **budgets.**

Budgeting

What is budgeting?

- **Project budget** is **like the fuel for jet aircraft** with the client and the engineers on-board working together.

- **Proper budgeting and budget tracking is critical for both parties** – the projects and the concerned depends on it.

Key points to remember :

Budget by tasks, subtasks and staff codes that includes:

- **Subcontractors**, **oversight** and **management costs**, and **any unforeseen**.
- **Project related expenses** like mileages or other items.
- **Review assumptions of hidden costs**
- **Other related items** like delivery expenses, color copies.

What we have discussed today?

-Professional engagement: RFP, Bid, Bid Solicitation, IFB, IFT Tender for Procurement Process, RFQ, Statement of Works and Scope of the Works.

-Steps of project development/Professional Engagement.

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Thanks