

REQUEST FOR PROPOSAL (RFP)

CONSULTANCY SERVICES FOR
PREPARATION OF UTILITIES CONCEPT MASTERPLAN
OF BANGALORE INTERNATIONAL AIRPORT LIMITED



Bangalore International Airport Limited
Project Head Office
Bengaluru International Airport
Devanahalli
Bangalore - 560 300

February 2012

DISCLAIMER

1. This Request for Proposal (RFP) is issued by Bangalore International Airport Limited ("BIAL").
2. The information contained in this RFP document or subsequently provided to the interested applicants ("Bidders"), whether verbally or in documentary or any other form by or on behalf of BIAL or any of their employees or advisers, is provided to the Bidders on the terms and conditions set out in this RFP and such other terms and conditions subject to which such information is provided.
3. This RFP is neither an agreement nor an offer by BIAL to the prospective Bidders or any other person. The purpose of this RFP is to provide interested parties with information that may be useful to them in the formulation of their proposals pursuant to this RFP. This RFP includes statements, which reflect various assumptions and assessments arrived at by BIAL in relation to the scope of services. Such assumptions, assessments and statements do not purport to contain all the information that each Bidder may require. This RFP may not be appropriate for all persons, and it is not possible for BIAL, its employees or advisers to consider the objectives, technical expertise and particular needs of each party who read or use this RFP. The assumptions, assessments, statements and information contained in this RFP may not be complete, accurate, adequate or correct. Each Bidder should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments and information contained in this RFP and obtain independent advice from appropriate sources.
4. Information provided in this RFP to the Bidders is on a wide range of matters, some of which depends upon interpretation of law. The information given is not an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. BIAL accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on the law expressed herein.
5. BIAL, its employees and advisers make no representation or warranty and shall have no liability to any person including any Bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, adequacy, correctness, reliability or completeness of the RFP and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in any way in this selection process.

6. This RFP, along with its Annexures, is not transferable. The RFP and the information contained herein are to be used only by the person to whom it is issued. It may not be copied or distributed by the recipient to third parties (other than in confidence to the recipient's professional advisors). In the event that the recipient does not continue with its involvement in the project in accordance with this RFP, this RFP must be kept confidential.
7. BIAL also accepts no liability of any nature whether resulting from negligence or otherwise however caused arising from reliance of any Bidder upon the statements contained in this RFP.
8. BIAL may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumption contained in this RFP.
9. The issue of this RFP does not imply that BIAL is bound to select a Bidder or to appoint the selected Bidder, as the case may be, for the consultancy and BIAL reserves the right to reject all or any of the proposals without assigning any reasons whatsoever. This RFP may be withdrawn or cancelled by BIAL at any time without assigning any reasons thereof.
10. The Bidder shall bear all its costs associated with or relating to the preparation and submission of its proposal including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by BIAL or any other costs incurred in connection with or relating to its proposal. All such costs and expenses will remain with the Bidder and BIAL shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by an Bidder in preparation for submission of the proposal, regardless of the conduct or outcome of the selection process.

1. Introduction

Bangalore International Airport Limited (“**BIAL**”) is the owner and operator of the Bengaluru International Airport (the “**Airport**”) in Bangalore. The Airport has been built and operated at the best international standards under a public-private partnership model. This project is the first international airport in India built, owned and operated under a public-private partnership model with private shareholders holding a majority stake.

BIAL has entered into a Concession Agreement with the Government of India, whereby the Government of India has granted the exclusive right and privilege to BIAL to carry out the development, design, financing, construction, operation and management of the Airport.

The Master Plan of the Airport has been developed to address the need for an operationally efficient and passenger friendly airport for Bengaluru with an objective to cater to an ultimate capacity of 55 million passengers a year (ultimate phase) by 2030 with all required airside, terminal and landside facilities.

In view of the above BIAL intends develop **Utility Master Plan for proposed Airport City Side development**. The Consultant to be appointed shall have the knowledge of both engineering and utility systems with experience of planning & design of airport utility networks as well as large scale mixed use development in the study and design of utilities and Airport infrastructure systems.

BIAL is interested in receiving proposals from suitably qualified consultants for providing the scope of Services as detailed below, on the terms and conditions contained in this RFP. The proposal in the bids shall comply with all the requirements stated in this RFP. Based on final evaluation, the successful bidder will be notified and the contract shall be awarded to such successful bidder (hereinafter referred to as the “**Consultant**”). The notification of award of the contract by BIAL shall be followed by execution of a consultancy agreement between BIAL and the Consultant, as per the standard format attached in this RFP as **Annexure-2**.

2. Proposal for Consultancy Services

2.1 The bidders are requested to prepare and forward Technical and Financial Proposals to BIAL in separate sealed envelopes super-scribed with the details of the Proposal to the address mentioned in the RFP, based on the Scope of Services outlined in **Annexure-1** of this RFP.

Part-1: Technical Offer: inclusive of

- a. Introduction
- b. Methodology
- c. Scope of Work
- d. Deliverables

- e. Schedule
- f. Team Composition, Credentials & Deployment Schedule
- g. List of relevant / comparable projects

Part-2: Financial Offer: inclusive of

- a. Consultancy Fees (lump sum)
- b. Breakup & Distribution of total consultancy fees

The fee shall include two (2) trips of two (2) days each of the Consultant's team to BIAL office at each of the stages proposed in Scope of Services (**Annexure-1**) for presentations/meetings. The Consultant's team of these visits shall include a three (3)-member team for each stage.

2.2 The Proposed timeline for completion of each stage is indicated as follows:

Sr. No.	Stage of Study	Cumulative Duration in Calendar Weeks from Date of Appointment
1.0	Inception Report	3
2.0	Benchmarking, Forecast and Demand Assessment	7
3.0	Alternatives concept development	18
4.0	Draft Integrated Utilities Master Plan Layout	22
5.0	Final Integrated Utilities Master Plan Layout	24

2.3 The Payment breakup for the entire scope of service is depicted as follows:

Sr. No.	Stage of Study	% of Payment Schedule
1.0	Inception Report	10%
2.0	Benchmarking, Forecast and Demand Assessment	20%
3.0	Alternatives concept development	20%
4.0	Draft Integrated Utilities Master Plan Layout	25%
5.0	Final Integrated Utilities Master Plan Layout	25%

2.4 The language for all written communication shall be English and unless mentioned otherwise the currency shall be Indian Rupee.

2.5 The proposal should be signed on each page by the Bidder or his duly authorised representative. The proposal should be accompanied by a certified true copy of a power of Attorney or board resolution in favor of signatory to the documents.

2.6 Any discrepancies, omissions, ambiguities or conflicts in or among contract documents or any doubt as to their meaning should be called to the attention of the contact person as mentioned in the RFP within five (5) days of issue of the RFP. Where information sought is not clearly indicated or specified, the clarifying bulletin/s shall be issued to all Bidders which will become part of the agreement. BIAL will not make or be responsible for any oral instructions.

2.7 Cost of tendering

The Bidder shall bear all costs associated with the preparation and submission of its Proposal and BIAL shall, in no case, be responsible or liable for such costs, regardless of the outcome of the tender process.

2.7 Site Inspection and Conditions

The Bidder is advised to visit and inspect the Site and its surroundings, and obtain for itself on its own responsibility and cost, all information regarding all existing and expected conditions and matters that may be necessary for preparing the Proposal and entering into a contract for performance of the scope of services. BIAL shall use every effort to procure that the Bidder and any of its personnel or agents with prior intimation, are granted permission to enter the Site for the purpose of such inspection, but only upon the express condition that the Bidder, its personnel and agents, will exercise due care and will be responsible for personal injury or death, loss of or damage to property and any other loss, damage, costs and expenses incurred as a result of such inspection. The Bidder, its personnel and agents will release and indemnify BIAL and its personnel and agents from and against all liability in respect thereof.

2.8 It is obligatory on the part of the Bidder to tender for all the component parts and submit all information required as per document.

3. Validity

3.1 The proposal shall be valid for at least ninety (90) days from the deadline for receipt of proposals.

3.2 In exceptional circumstances, prior to expiry of the bid validity period, BIAL may request the bidder for a specified extension in the period of validity. The request and the response thereto shall be made in writing. A bidder agreeing to the request shall

not be permitted to modify his bid, but shall be required to extend the validity of his bid correspondingly. All the terms of the bidding shall continue to be applicable during the extended period of validity.

4. Format and Signing of Proposal

- 4.1 The Bidder shall provide all the information as per this RFP. BIAL reserves the right to evaluate only those Proposals that are received in the required format, complete in all respects and in line with the instructions contained in this RFP.
- 4.2 The Bidder shall prepare and submit one original proposal along with an additional copy.
- 4.3 The Proposal shall be signed and each page of the Proposal shall be initialed by a person or persons duly authorized to sign on behalf of the Bidder and holding the Power of Attorney.
- 4.4 RFP submissions must be received no later than **15:00 hrs on 17 Feb 2012** (Proposal Due Date) in the manner specified in the RFP document at the address given below.
- 4.5 The Proposal shall contain no alterations or additions, except those to comply with instructions issued by BIAL or as necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the Proposal.
- 4.6 One set of originals of all documents in hard printed format along with the proposal duly signed by the Bidder shall be submitted. (This will become the part of the agreement to be executed on award of the contract).
- 4.7 The envelop and proposal should clearly mention the following details:

BID for preparation of Utilities Concept Master Plan of BIA.

To
Mr. Suresh K N
Bangalore International Airport Limited.
Administrative Block,
Devanahalli, Bangalore-560300, India.

Proposal Due Date and Time:

The Envelopes enclosed shall clearly earmark the document as "Technical" or "Financial" and "Original" or "Copy"

BIAL may, in exceptional circumstances and at its sole discretion, extend the Proposal due Date by issuing an Addendum uniformly for all Bidders.

5. Questions during the Bid phase:

All enquiries or comments regarding this bid, and any other related matters must be made in writing by e-mail to Mr. Suresh K N (suresh.kn@bialairport.com) before **15:00 hrs on 8th February 2012**. BIAL may, to the extent necessary and as it deems fit, respond in writing to any questions and concerns of the bidders regarding any element of the issued bid documents.

6. Responsibility of the Bidder:

It is the sole responsibility of the bidder to:

- i) Examine and understand the bid documents, including all the annexures/appendices and to verify their completeness. In the event that there are any pages or documents obviously missing or erroneously inserted in the documents supplied, the Bidder shall promptly apply to BIAL in writing to have any such discrepancy rectified well before the bid closing date;
- ii) Familiarize itself with the premises at which the services will be conducted and any relevant fixtures, fittings and equipment there to be utilised or that may otherwise be relevant, make all relevant investigations in relation to the performance of its obligations pursuant to the Bid;
- iii) The bidders should inform BIAL of any concerns implied or related to but not specifically mentioned in the Bid or other documentation.

BIAL reserves its right to accept any Bid and to reject any or all the Bids/proposals received without any reason or can change the process of the selection at any time during or after the Bid process.

7. Confidentiality:

BIAL and the Consultant should ensure the confidentiality of all documents supplied by either party to either side. The documents will be used in bidding process only.

8. Assignment:

Any assignment of the agreement or of any rights hereunder, in any manner, by operation of law or otherwise, without the prior written consent of BIAL, shall be void. Any such consent shall not relieve the Consultant from its obligations under the RFP/agreement.

9. Law and Jurisdiction:

The present Bid shall be considered, governed by and interpreted in accordance with the laws of Republic of India. The jurisdiction for the purposes of the bid shall be the courts in Bangalore only.

10. Bankruptcy:

BIAL may at any time by notice in writing summarily terminate the Consultancy Agreement without compensation if the Consultant is declared bankrupt/insolvent and/or faces any action of bankruptcy, etc. In such an event, the Consultant will be bound to refund all amounts received from BIAL. In addition to that BIAL is also entitled to invoke the guarantee bonds executed in its favor by the bank on behalf of the Consultant.

11. Government Regulations:

- (a) The bidder shall be responsible for obtaining and maintaining permits and also for complying with all the laws, orders, regulations or other instructions issued by all statutory authorities in India.
- (b) The bidder shall not give, bargain, sell, assign or sublet or otherwise dispose off the bid or any part thereof, or the benefit or advantage of the contract or any part thereof to any third party.

12. AWARD PROCESS:

12.1 General:

BIAL is conducting the award process in a fair and non-discriminatory manner. Canvassing in any form, unsolicited letter and post bid correction will invoke summary rejection of the Bid. Conditional Bids would be rejected.

BIAL however reserves the right to unilaterally and at its sole discretion to change the award process, certain elements of the bid documents or to annul the entire bidding process at any time, without assigning any reason and without incurring any liability towards the affected bidder. BIAL also reserves the right to change some elements of the planned set up for the work at the Airport, if governmental regulations change in a manner such that the objectives of BIAL cannot be met through the planned set up.

The Bidder shall comply with all the terms and conditions set out in bid document and its appendices while submitting its proposal.

12.2 Distribution of RFP/Bid Documents:

The RFP document shall be treated as confidential and the information given in the RFP is for the purpose of submitting a proposal only and shall not be used or distributed to any third-party at any time for any other purpose.

12.3 Selection Criteria:

BIAL would evaluate the proposal based on the technical capabilities of the firm, financial soundness of the firm, relevant experience, price offered etc.; but will ensure a balance between technical and commercial aspects.

Key requirements for applications:

- Filled document as per terms of RFP

12.4 Legal conditions

The Bidder shall be a valid legal entity as per Indian laws.

12.5 Duration of Study

Sr. No.	Stage of Study	Duration in Calendar Weeks from Date of Appointment
1.0	Inception Report	3
2.0	Benchmarking, Forecast and Demand Assessment	7
3.0	Alternatives concept development	18
4.0	Draft Integrated Utilities Master Plan Layout	22
5.0	Final Integrated Utilities Master Plan Layout	24

12.6 BIAL will evaluate the different proposals based on the following criteria (in brackets the weightage of each criterion):

Sl.No	Criteria	Percent (%)
1	Understanding the Scope requirements and adherence to BIAAPA requirements	20%
2	Proposed Team's Capability & Experience in the	35%

	relevant work	
3	Competitive pricing	35%
4	Process & Documentation expertise, quality and completeness of proposal	10%

13 LIST OF ANNEXURES TO RFP

- 1. ANNEXURE 1: SCOPE OF SERVICES & DELIVERABLES**
- 2. ANNEXURE 2: TEMPLATE OF AGREEMENT CONDITIONS**
- 3. ANNEXURE 3: QUALIFICATION QUESTIONNAIRE**

ANNEXURE-1: SCOPE OF SERVICES & DELIVERABLES

This document provides introduction to the Project, Scope of Services, and Schedule and expected Deliverables. Interested applicants are invited to prepare and submit their Technical Proposal and Financial Proposal based on the information provided in this document.

CONTENTS

1. BIA Introduction
2. Objectives of Consultancy Services
3. Methodology
4. Developing an Integrated Utility Concept Master Plan
5. Scope of Services & Deliverables
6. Duration of Study

1. Bangalore International Airport City - Introduction

There are many positive contributions associated with BIA City, not the least of which is the economic dynamism that they stimulate.

BIA City is envisioned as a multi-faceted metropolitan powerhouse, attracting new businesses, creating new jobs and opening new commercial possibilities, introducing a vibrant business model that shall accommodate intensive air travel needs in an environmentally responsible way.

The speed of bringing people together in a concentrated space makes popular 'in and out' business trips all the more efficient, while offering new avenues to BIA City for incorporating tourism, entertainment, retail and conference options.

In the context of aviation industry's drive to mitigate aviation's environmental impact, the BIA City concept of 'one-stop-shopping' contributes in several ways. By consolidating services at the airport, business travel can be streamlined, concentrating much of the work near and around the airport city site and avoiding extensive travel to reach more distant final destinations.

As the airport terminals and outlying buildings at BIA are proposed to be built or expanded, the latest technologies and design features for energy conservation will be incorporated.

With high speed rail more and more users shall frequently commute to and from the BIA City. Travelers and staff shall have an efficient alternative for reaching city centres and the chance to reduce road traffic and congestion around the airport.

BIA City will ensure operational efficiency and sustainability while creating a truly enjoyable airport experience.

2. Objectives of Consultancy Services

The objective of this consultancy service is to prepare an integrated utility masterplan for cityside development at BIA as visualized in the cityside and overall Master Plan. However, the Utility Master Plan of cityside development will involve review of the output of airside utility volumes / quantity and demand & integration of the same with the Airside Utility Master Plan. The Utilities Master Plan of Cityside Development will address the need of power, telecommunications & IT services, water supply, sewerage, treated water supply, firefighting, fuel supply, Piped Natural Gas (PNG), storm water drainage, rain water harvesting, etc. after analysis of the existing system and estimating the demand for all the developments for proposed cityside. It will also assess the impact of airside utilities on cityside development. The Utility Master Plan will identify the phase-wise development complementing the Master Plan Development.

The proposed Concept Utility master plan must serve the following primary objectives:

- 1) It must be comprehensive and cover all applicable utilities and must advocate an implementation plan that is timely to serve the needs of the buildings planned for the future as per the latest BIA master plan. It shall be based on latest cityside and overall airport master plan of BIA.
- 2) It shall include sizing, design, and development concepts that are cost effective, environment friendly over the life cycle while integrating well with the existing infrastructure.
- 3) It must be based on a careful consideration of uncertainties associated with future building growth and consider a phased development approach where it makes sense.
- 4) Its implementation plan must be such that it has minimal interruptions to existing airport operations.
- 5) It must recognize BIA specific constraints as well as utility provider characteristics to fit well within the scope of overall Airport operability. Integration of airside and cityside utilities and its impact on the cityside development.

3. Methodology

The Methodology proposed in the Technical Offer submitted by the Consultant shall be based on Scope & Stages of work outlined in this document. The technical memorandum by the appointed consultant shall establish the envisaged role, extent, sequence, stages, level and scale of the planning services and deliverables. The Methodology for the consultancy shall be inclusive of, but not be limited to the scope described in the following sections:

- 1) Review of available information (including existing and proposed airside utility master plan) and proposal on the way forward for collecting the required information if any for the entire utilities network at the airport. The Consultant shall be responsible for gathering all the required information.
- 2) Review, assessment of BIAL water management plan prepared by BIAL's other consultants.
- 3) Review thoroughly & comprehensively and validation of the existing cityside Master Plan of BIAL for the demand of the utilities, propose solutions based on previous experience, understand the development at airport and cityside, follow international and/or national design standards applicable. The Consultant shall review & consider the airside master utility demand requirements and shall integrate the same while preparing city side utility master plan.
- 4) Develop options / alternatives for the Utilities Network case-by-case basis; develop an Integrated Utilities Master Plan to complement the existing Master Plan and other studies in progress.
- 5) Propose a methodology to achieve the deliverables as per the stages depicted below. Each stage shall require meetings, presentations and discussions with BIAL, local bodies/agencies and other BIAL Master Plan consultants, Submission of preliminary / draft final / final drawings and reports as may be necessary to perform the tasks in each stage.

- 6) While preparing the utility master plan, The consultant shall consider the regional and local assessment.
- 7) Review and suggest if any phasing prepared by BIAL/ BIAL's other consultants in regards to availability of utilities in the horizon.

At each stage the Consultant shall take written consent/ notice to proceed to the next stage.

4. Developing an Integrated Utility Concept Master Plan

An integrated utility master plan is a systematic approach towards determining the appropriate means for expanding and upgrading a Bengaluru International Airport utilities infrastructure and facilities.

The existing utility infrastructure at Bengaluru International Airport includes Power Distribution Network, Jet Fuel distribution network, telecom & IT network, Fire Fighting support system, water supply distribution network, sewage collection and disposal network, storm water drainage, airfield lighting, solid waste management, etc. BIAL intends to develop a long-term concept master plan and implementation of the same in phases in view of future development of BIAL.

BIAL proposes to have an Integrated Utility development for the Airside & Cityside utility systems, covering power distribution network, ATF Distribution Network, IT & telecom, firefighting, water supply and distribution, sewage collection, treatment & disposal, storm water drainage, solid waste management, gas distribution, etc. The Utility demand for proposed Cityside Development is to be addressed through an integrated, holistic Utility Master Plan. Optimum Utilization of existing utility networks & capacities shall be an integral part of the said Utility Master Plan.

The Consultant shall prepare and submit integrated planning and design of all utilities as per BIAL cityside concept master plan, after review of existing site conditions with required discussion with BIAL/ BIAL's other consultants and with due consideration for existing and proposed airside utilities.

The Consultant shall submit deliverables in the form of integrated utility drawings and documents for all utility networks like water supply, storm water, sewerage, recycled water, power, IT/ telecommunications, drainage, ATF, gas network, etc with necessary phasing of development, proposed development mix, Integration/ consideration for airside and terminal utility plans and BOQ, specifications and cost estimate for all works along with applicable norms and standards.

The Utility master plan for Airside development including new passenger Terminal, airside/operational area will be developed separately and same will be shared with the concept utility master plan for cityside development consultant to review and suggest changes if any.

Consultancy services for preparation of utilities concept master plan for cityside development of BIA is being offered by Bangalore International Airport Private Limited (BIAL).

The consulting firms are invited to prepare and submit the Technical Proposal and Financial Proposal based on the information provided in the document.

4.1 Utilities and Infrastructure Systems Covered

Following should be covered in a utilities infrastructure master plan but shall not be limited to:

- Power - Electric Power Supply and Distribution system, Standby/emergency Generation Systems, Photo-voltaics and other renewable energy resources
- Telecommunications and IT
- Water Supply & Fire fighting
- Sewerage System
- Storm water Drainage and Rain water harvesting techniques
- Aviation Fuel
- Solid Waste Management
- Piped natural gas (PNG)
- Energy Management System (EMS)

4.2 Stages in Preparation of Integrated Utility Concept Master Plan

A. Stage 1

- I. Project Familiarization, Site analysis and review of Past studies and available information.
- II. Review of airside utility master plan, integration of airside utility master plan while planning of cityside utility master plan and assessment of its impact on the cityside development.
- III. Review of existing networks
- IV. Study, preliminary review of "Water Management and Drainage Master Plan at BIAL" by BIAL's other consultant and suggest updates if any. The suggested updates can be incorporated in the city side utility master plan, after concurrence with BIAL team.
- V. Assessment of the current/historic utilities, Analyse existing drawings/data and information available, develop the combined base drawings for the utilities proposed to be used of the Utilities Master Plan, etc.
- VI. Review Traffic & Transportation Study of BIAL
- VII. Suggest any missing information/ data required for the preparation of cityside utility master plan.
- VIII. Prepare and submit Inception Report including Preliminary analysis, The Consultants findings, observations, highlighted data request, provide compilation of all norms, standards for utility planning, demand analysis, etc.

B. Stage 2

- I. Utility Demand assessment based on Land Use Development mix proposed in cityside Master Plan for the following:
 - Earth mass study
 - Power - Electric Power Supply and Distribution system, Standby/emergency Generation Systems, Photovoltaics and other renewable energy resources
 - Telecommunications and IT
 - Water Supply & Fire fighting
 - Sewerage
 - Storm Water Drainage & Rain water harvesting techniques
 - Aviation Fuel
 - Solid Waste Management
 - PNG
 - Energy Management System (EMS)
 - Preliminary Road Engineering
 - Structural Design
- II. Provide overall roads & plots surface levels, grading plan Forecast of demand for all the utilities for horizon year
- III. Report on Demand assessment and Forecasting
- IV. Alternative/Options of Integrated Utilities Concept Plan including distribution network, utility corridors, locations of the key infrastructure, etc
- V. Phasing options of Utility Concept Master Plan

C. Stage 3

- I. Draft Integrated Utilities Concept Master Plan
- II. Final Integrated Utilities Concept Master Plan

5. Scope of Services and Deliverables

5.1 Stage 1

a) Project Familiarization

BIAL will provide necessary information/documents as per availability and requirement, for the project area. BIAL will also provide all the as-built information if available. The Consultant will be responsible for the analysis and identification of gaps and gathering of additional information required to complete the task and use for future planning and design purposes. The Consultant shall assess the requirement of all data - primary/secondary to carry out the assignment. The Consultant shall familiarize with the current supply network of all the existing utilities and identify any additional information

required. Consultant shall also advise on alternative sources / options of the utilities to be provisioned for the development at BIA.

The Consultant is required to collect all relevant information/ data from government / authorities / agencies through its own.

b) Assessment of the Existing Utilities and Gap Analysis

The Consultant shall study all the required utility information available with BIAL and identify the following;

- Validate/ revalidate the overall Utility demand estimated for Airside, Terminal and cargo.
- Validate the design capacities of the existing utilities including power, IT and Telecommunications, water supply, sewerage, treated water and firefighting System, SWD network, piped natural gas (PNG).
- Identify the system Limitations & Constraints.
- Identify the opportunities for improvements and changes for increasing efficiency of the existing system.
- Assess the adequacy of the current infrastructure to meet the near / Long term demand and changes required.
- Collate the missing information and list out the gaps in the required details.
- Identify the system Deficiencies for each utility at the BIAL.

c) Inception Report / Preliminary Analysis Report & Drawing

The Consultant shall prepare and submit an Inception Report, as per the schedule of deliverables. The Inception Report shall contain comments, suggestions and recommendations of the Consultant on available information/ data provided by BIAL to the Consultant for the purpose of said consultancy services.

The report shall include the outcome of the studies/analysis of Stage 1 and the way forward to fill in the gaps in the available data.

The Consultant shall identify the codes, standards, current best practices and latest software to be used for performing the analysis.

The Consultant may also propose refinement in the project methodology (defining different approaches/strategies for proceeding with the work) without affecting the project schedule & duration. The underlying principles of strategic approaches shall be cost effective technical solutions. For discussion on strategic approaches, the Consultant is expected to remain within the framework of sustainable, affordable and achievable solutions. The Inception Report shall present the path forward for preparation of Integrated Utilities Concept Master Plan including detailed Methodology & Work Programme.

The Consultant shall also compile all norms, standards to be adopted for further study.

d) Schedule of Deliverables for Inception Report / Stage 1

Sl.no	Deliverables	Format
i	<p>A Report on the complete Methodology to achieve the objective of the tasks included in this scope of services at Satge 1.</p> <p>Review, suggestion on the BIAL water management plan for airport and cityside prepared by BIAL consultant's.</p> <p>Identification of the key points that may require further detailed analysis.</p> <p>The report shall include the revised timelines, staff deployment, etc.</p> <p>Report on assessment of existing utilities and gap analysis, if any, and timelines for the same.</p> <p>Preliminary analysis, Consultants findings, observations, highlighted data request, compilation of all norms, standards current best practices for utility planning, demand analysis, etc.</p>	<p>Detail Report (A4 with A3 size dwgs)</p> <p>Detail plans (1:100 scale or approp scale), Sections at 1:50 or approp scale) site plans at 1:500 scale), site sections at 1:200 or approp scale).</p> <p>Worksheet.</p> <p>Editable version of Power point presentation</p>
ii	<p>Presentation to the BIAL team.</p>	<p>Editable version of Power point presentation</p>

5.2 Stage 2

The Consultant shall evaluate the condition and reliability of the existing Utilities.

The Consultant shall work out Utility system History Update, Utility system Overview, Planning Approach and Assumptions, Study Area, Population and Employment, Land Use and each Utility Use separately.

The Consultant shall also evaluate the various applicable Codes, regulation and Policies.

5.2.1 Benchmarking for Utility Planning Norms

The Consultant shall provide international / national benchmarking for the proposed Utilities for similar mixed use development and green field project. The said benchmarking shall include International Benchmarking for proposed Cityside

Development and planning for integrated utility plan based on comparable/relevant examples in terms of Landuse Mix, Utilization, Norms & Standards for Utility Planning, along with other relevant planning norms & standards including current best practices. The said benchmarking for planning norms & standards must be necessarily related to the envisaged Landuse - mix and utilities proposed for the project.

5.2.2 Part A - Forecast Demand Assessment

The Consultant shall estimate the demand for all the facilities based on City Side Master Plan. The scope of work will cover but not be limited to following in the demand assessment:

- Power - Electric Power Supply and Distribution system, Standby/emergency Generation Systems.
- Telecommunications and IT along with site/ area level access control systems, security and traffic management systems.
- Water Supply System
- Sewerage
- Aviation Fuel
- Solid Waste Management
- Piped Natural Gas (PNG).
- Energy Management System (EMS)
- Review of SWD System and Rainwater harvesting techniques.

The Consultant shall be responsible for the forecasting the demand for the horizon year for all the utilities required for cityside development as per the phasing and development at the cityside development. The Consultant shall provide the basis for the demand assessment and submit a report showing the phase wise requirement for each utility.

The Consultant shall consider the following aspects for estimating the demand of cityside but is not limited to the same.

I. Power and Energy

Assessment of the total demand for power for the entire development as per cityside master plan. Assessment of Power requirement / Load for each landuses and for each zones / sectors/ plotwise as per Cityside Master Plan. The scope of work shall address following points but shall not be limited to:

- Review of Existing Scenario and Benchmark energy use
- Review current energy procurement methods and develop a strategy to reduce costs
- Review energy reliability sufficiency
- Demand projections, Demand gap analyses etc.
- For convenience purpose, the accepted power consumption norm should finally be created in terms of Load per Unit Area of Built-up space.

II. Telecommunication and IT

Assessment of the demand for the Fiber Optic Network, wireless communication, Wi-Fi, interface (data & voice) requirements, etc considering the complete development at the Cityside and make provisions for redundancy of important future utility functions.

- Review of Existing Scenario
- Demand projections, Demand gap analyses etc.
- Assessment and Provisions of access controls systems, security and traffic management systems.
- Locations of IT hubs, IT network layout plot wise IT load requirement based on cityside master plan.
- Control locations, server capacity locations, Interface hubs etc.
- IT infrastructure for Road level furnitures.

III. Water Supply system

The Consultant shall assess the total demand of water required for cityside development, split in the potable and non-potable water for the cityside development facilities and separate networks for the same. The Consultant shall also estimate the water storage requirements at plot level. The Consultant shall estimate the demand of water required for irrigation, firefighting, construction purposes, landscape, HVAC, etc. The Consultant shall identify location of potable water supply tanks at centralized level and prepare the distribution network master plan

The Consultant shall estimate the demand of water for firefighting at cityside level, sector level and plot level. Suggest/ advise for integration of the airside firefighting system with cityside firefighting system.

IV. Sewerage network and Treatment Facilities

The Consultant shall assess generation of the sewage from all developments at the cityside facilities. The Consultant shall work out the Sewage Treatment plant requirements considering the future expansion plan of Airside as well as Landside considering the existing STP capacity. The Consultant shall prepare the sewerage network master plan for cityside as part of integrated utility master plan.

The Consultant shall propose technology for recycle of sewage water. The Consultant shall estimate the total recycle water demand for the envisaged development for the purpose of irrigation, flushing and cooling the total capacity and no of STP required for the treatment of all the waste water , tanks / location/ capacity/ size and treated water distribution network.

V. Aviation Fuel

The Consultant shall take necessary consideration of norms standards for integrating aviation fuel layout with other utility networks.

VI. Solid Waste Management (SWM)

The Consultant shall review; suggest the airside SW management plan. The Consultant shall also advise/ suggest strategy on integration/ mixing of airside SW with landside SW management system.

The Consultant shall estimate the solid waste generated by various landuse proposed in the Cityside development such as commercial, entertainment, recreation, institutional, etc. the Consultant shall suggest strategy on the disposal of the same in light of current codes, and environment laws.

The Consultant shall also estimate the construction waste generated from the envisaged development at city side, the Consultant shall suggest strategy on the disposal of the same in light of current codes, and environment laws.

The Consultant's estimation shall also account for requirements for segregation of Hazardous waste generated from various activities at the Cityside development the Consultant shall suggest strategy on the disposal of the same in light of current codes, and environment laws.

VII. Piped natural gas (PNG)

- Estimate demand for the various segments proposed in the Cityside development such as commercial, entertainment, recreation, institutional, etc. and build growth projections. Provide norms for the same.
- Study feasibility of providing Natural Gas to the entire development of BIAL, particularly Cityside development at BIA.

VIII. Energy Management System (EMS)

- Review the Existing scenario
- Understand the baseline energy usage.
- Demand projections, Demand gap analyses etc.

IX. Storm Water Drainage System and Rainwater harvesting techniques.

The Consultant shall review the Drainage and water management Plan prepared by BIAL and update / suggest changes if any in the SWD Master Plan.

After validating and discussing with BIAL team, the Consultant shall integrate the SWD network in the utility Master plan.

The Consultant shall integrate techniques for rainwater harvesting system and ground water recharging system in the integrated utility plan covering all the utilities.

The Consultant shall also review Cost Estimate of SWD System and Rain Water Harvesting Techniques for the City side development.

5.2.2.1 Schedule of Deliverables for Benchmarking, Forecast and Demand Assessment.

Sl.No	Deliverables	Format
i	<p>A Detailed Report on each utility on the basis for the demand and forecast assessment. Key factors included in consideration for each utility. Forecast for all the phases including Horizon year.</p> <p>Design basis report for each utilities separately.</p> <p>Report on Benchmarking of utilities.</p> <p>Review report on storm water Drainage management Plan prepared by BIAL.</p>	<p>Detail Report (A4 with A3 size dwgs)</p> <p>Detail plans (1:100 scale or approp scale), Sections at 1:50 or approp scale) site plans at 1:500 scale), site sections at 1:200 or approp scale).</p> <p>Worksheet.</p>
ii	<p>The Consultant is to make a presentation and submit a draft report before finalization. Final report will be submitted after review and inputs from BIAL.</p>	<p>Detail Report (A4 with A3 size dwgs).</p> <p>Updated worksheets and drawings.</p>
iii	<p>Presentation to the BIAL team.</p>	<p>Editable version of Power point presentation</p>

The Consultant, at the end of the study, will submit a report on Demand assessment and Forecasting for all phases identified in the cityside Master Plan and Horizon year.

The results of forecast demand shall be agreed with BIAL to be used for concept development.

5.2.3 Part B - Alternatives concept development for the Integrated Utility Concept Masterplan

The Consultant shall develop alternative distribution concepts based on the demand assessment and propose concepts of network development, storage, etc for each utility. The Consultant shall develop options for Utility Corridors and suitable locations for the development of infrastructure in compliance with the proposed Cityside Master Plan land use.

The Consultant shall plan and preliminary design for expansion and or new planned facilities for total airport utility demand

The Consultant shall identify the key locations for the required infrastructure like Power Houses, Receiving Substations, Water Tanks, Booster Pump Houses, STP Locations, etc across the whole site in confirmation with the Cityside Master Plan. The Consultant shall also validate the demand and space requirement identified in the Cityside Master Plan Report. The utilities layout must identify the primary and secondary distribution network options for the Cityside development and it shall be based on the ease of implementation, phasing, cost, etc. All the options developed must be feasible, sustainable and follow the environmental guidelines. The Consultant must include and address the various requirements listed below for the development of concepts but not limited to this list.

The Consultant shall confirm design parameters for each utilities proposed for the Cityside development at BIA in consultation with BIAL.

I. Earth mass study (cutting /filling)

The Consultant shall prepare the earth mass study for city side development, the Consultant shall optimize on the cutting filling quantity after due reviewing and incorporating the airside levels such as runways, taxiways, terminal (airside and landside), existing roads. The Consultant shall also suggest the improvement on the existing levels if any after discussing with BIAL team.

The Consultant shall provide the specification of the material to be used for site improvement and site cross sections.

II. Power and Energy

The Consultant shall identify the ideal locations and size for the receiving stations/ switchyard, step down/up transformers, etc. The scope includes the sizing of the Switch Yards, phasing and future locations in compliance with Master Plan. The scope shall include but not be limited to the following:

- Identification of the most suitable location for the Receiving Stations/Switchyards, etc in consultation with the external stakeholders and power supplier.
- Preparation of various optional concepts available to the Cityside development for the distribution network hierarchy and recommendations after discussion with BIAL team.
- Propose various options for HT and LT network at the cityside site and for individual plots as identified in the cityside master plan.
- Propose optimize sizing requirements based on the latest technology for the Receiving Stations, switchyards, transformers, power cable network, etc.
- Propose requirements for the provision for Emergency back-up and standby power for the critical infrastructure at Cityside development.

- The Consultant should also advise the duration of emergency backup requirement based on the city side master plan.
- Propose requirements for up-gradation and integration of the existing system with proposed system.
- Feasibility to see the uses of renewable energy sources.
- Provision of redundancy and spare capacity of Power system.
- Preparation of concept/broad BOQ, specifications & cost estimate.
- Phasing of the power requirement as per City side master plan.
- Long term, short term and immediate Recommendations in the existing system.
- Assess LEED Certification potential and suggest methodology for the same.
- Identify sustainable best practices for proposed development

III. Telecommunication and IT

The scope of work includes the concept design of the Data Center and Main Distribution Framework for the cityside development. The Consultant shall design the complete telecommunication network, WiFi, LAN infrastructure for the cityside, Monopole locations, etc. The scope of which includes the following:

- Preparation of various optional concepts available to the Cityside development for the distribution network hierarchy and recommendations after discussion with BIAL team.
- Location and sizing of the Data Centers, Monopoles, etc. required for the entire cityside development.
- Distribution concept and Fibre Optic (FO) cable sizing and alignment to meet the future needs of Cityside development as identified in demand assessment.
- Provision for redundancy and spare capacity in the system
- Provisions for access controls systems, security and traffic management systems.
- Up gradation and integration of the existing system with proposed system.
- Physical Fiber optic backbone for the whole entire cityside development, providing access to all the concessionaires, cityside development, etc
- Power Requirements for the facilities and integration with overall power layout
- Signaling, data and telecommunication cabling details, with distribution boxes
- Preparation of concept/ broad BOQ, specifications & cost estimate

IV. Water Supply

The scope of the Consultant includes the following but is not limited to the below:

- Preparation of various optional concepts available to the airport (including airside and cityside) development for the distribution network hierarchy and recommendations after discussion with BIAL team.
- The Consultant shall prepare the water supply and distribution plan of airport including (airside and city side) after due consideration of water management plan prepared by BIAL's other consultant.
- Assess and prepare the water storage, supply network, size and locations of the water tanks for potable & raw water and the distribution concept of airport including (airside and city side) after due consideration of water management plan prepared by BIAL's other consultant.
- Assess and prepare the design of intersections and concept of provision for the water supply to the plots, Location of the pump houses, sizing and alignment of the distribution pipe network within Airside and Cityside development and Update if required.
- Assess and prepare the concepts for water supply and distribution to plots at Cityside and airside development.
- Assess and prepare provision of the location of the water supply, pumps and reservoirs, etc at Cityside and airside development.
- Identification and provision of the fire hydrant system, alignment and network for the individual plots, sectors, zones of airport development (Cityside and Airside). Provision for the firefighting concept for sector / land use wise development. Identification and provision of fire fighting tanks, etc.
- Preparation of concept/ broad BOQ, specifications & cost estimate

V. *Sewerage Systems*

The scope of work includes the provision for the sewerage system for the Cityside and Airside development at BIA. The Consultant shall take into consideration the Storm water drainage Plan prepared by BIAL and suitably design sewerage system.

This shall include but not be limited to the following;

- Preparation of various optional concepts available to the airport (including airside and cityside) development for the distribution network hierarchy and recommendations after discussion with BIAL team.
- Up gradation of the existing facilities and integration with the proposed system
- The Consultant shall prepare the concept network plan, including sizing for airside and city side development.
- The Consultant must identify and locate the most suitable location for the required Sewage Treatment Plant (STP). Details of types of STP technologies in terms of process, cost, efficiencies, land area requirements, etc.
- Location and sizing of the STP, associated collection wells and process of treatment, effluent disposal system, land requirement.
- Alignment and size of outfall and trunk sewers,

- Design of the pumping system if required to pump the sewage and identification sewerage zones,
- Recommendation of measures to deal with noise and odour from the STP
- Intersections and concepts for the plot level arrangements at Cityside and airside development.
- Preparation of concept/ broad BOQ, specifications & cost estimate
- Long term, short term and immediate Recommendations

VI. *Aviation Fuel*

The Consultant shall take necessary consideration of norms standards for integrating aviation fuel layout with other utility networks.

VII. *Solid waste management*

- The Consultant shall work out the Waste collection strategy and disposal methodology for Solid waste, Hazardous waste, e-waste for the cityside waste generation as per applicable / authorized norms / standards /best practice / international practice.
- Preparation of various optional concepts available to the Cityside development for the distribution network hierarchy and recommendations after discussion with BIAL team.
- The Consultant shall also advise/ suggest strategy on integration/ mixing of airside SW with landside SW management system.
- The Consultant shall plan/identify the location for construction waste disposal as per current codes, applicable environment laws.
- The Consultant shall suggest sizing, location, land requirement, methods of disposal/ recycle/reuse as per applicable environment laws at both onsite and offsite locations.
- The Consultant shall prepare concept/ broad BOQ, specifications & cost estimate.

VIII. *Piped Natural Gas (PNG)*

- The Consultant shall suggest Concept Design for full-fledged distribution system including setting up of City Gate Station, CNG Stations and other facilities required for Gas distribution grid.
- Preparation of various optional concepts available to the Cityside development for the distribution network hierarchy and recommendations after discussion with BIAL team.
- Identify nodes regulation station, size the of main feeder pipelines, city gate station and tap off stations with all provisions including PSVs, SVs, cathodic protection and SCADA facility, Suggest sizing of pipe network, Pipe system of the consumer premises and Node Regulatory Station (DRS), operating and maintenance requirements meeting all relevant national and international standards / codes and regulations.

- Ensure optimization of the complete Cityside Gas Distribution System and operating parameters with system design for the entire city based on the design philosophy of the required pressure levels.
- Preparation of broad cost estimate for PNG.

IX. *Energy Management System (EMS)*

- Preparation of various optional concepts available to the Cityside development for the distribution network, sizing optimization in the existing operations, hierarchy and recommendations after discussion with BIAL team.
- Suggest measures to beat rising energy costs, comply with green house gas (GHG) legislation
- Lay out the latest best practice in energy management.
- Create action plans, targets and energy performance indicators
- Identify, prioritise, and record opportunities for improving energy performance.
- Develop the methodology for performing measurement, monitoring, control, and forecasting activities that are needed for the EMS.
- Suggest the implementation of an operations and maintenance (O&M) program
- Suggest implementation of effective, efficient as well as responsible practices that achieve resource efficiency, particularly concerning energy.
- Identify and review suitable methods for auditing, reporting, and benchmarking of the energy performance of the City side development.
- The Consultant shall prepare of Detail BOQ, specifications & cost estimate.

X. *SWD and Rainwater harvesting techniques*

The Consultant shall assess and integrate the SWD Plan prepared by BIAL and suggest changes if any including drainage layout plan, Grading levels of each plot, Estimation of the run-off coefficient, Estimate the invert levels of the drains, site elevation and drainage slope, at all required locations, Rainwater harvesting, Road Grading Plan.

The Consultant shall analyze the site conditions/ properties viz. percolation, permeability and other soil properties in order to design the rainwater-harvesting pond and suggest suitable slope stability activities, stone pitching, geo synthetic sheet etc.

The Consultant shall prepare broad BOQ, specifications & cost estimate for the structures required for rainwater harvesting as suggested in the BIAL water management plan.

XI. *Preliminary Road Engineering*

The Consultant shall prepare the master plan for BIAL cityside with respect to the BIAL inputs, latest road alignment, widths, etc. The Consultant shall prepare the cross section of the roads and update the formation levels of the roads and the plots for the entire BIAL site.

- a. Formation Levels of the all the proposed roads and plots.
- b. cross sections/ longitudinal sections (L-Sections) of the roads combined with all proposed utilities like drainage, sewerage, electrical & IT conduits/ ducts, gas, air turbine fuel lines, water, recycled water, etc.
- c. Drawings & documents to indicate planning & design for all the utilities.
- d. Preliminary road engineering with geometric design of road, pavement, carriageway, Footpath & kerb design, crust design. Preliminary Design of grade & grade separated intersections;
- e. Provision of road section, plans for the purpose of sewage line width, manhole location, underground pumping stations and alignment within the road Right-of-Way.
- f. Broad Load calculations & Preliminary detail design of buried/ underground or over-ground utilities with material specifications, make and type and other necessary details.
- g. Formation Levels of the all the proposed roads and plots.
 - Cross sections/ longitudinal sections (L-Sections) of the roads combined with all proposed utilities like drainage, sewerage, electrical & IT conduits/ ducts, gas, air turbine fuel lines, water, recycled water, etc.
- h. Embankment design, if any design as per standards recommended by IRC & MORTH or any international acceptable specifications.
- i. Load calculations & detail design of buried/ underground or over-ground utilities with material specifications, make and type, other necessary details.
- j. Preparation of concept/ broad BOQ, specifications & cost estimate
- k. The road design shall include but not limited to
 - Horizontal & vertical profile of all roads
 - Pavement design based on geo-tech data, traffic data and other design parameters.
 - All cross sections showing clear provisions of all the utilities under the right-of-way
 - Intersection, junction and round about.
 - Bus bays and lay-byes
 - Details of temporary & permanent benchmark pillars
 - Utility details with proposed shifting if any
 - Street Lighting Details
 - Road signage

The Consultant shall submit separate recommendations for new roads, existing road improvements and roads in alignment of existing roads.

XII. Structural design

Structural design, BOQ, cost estimates, specifications for the under mentioned works

- All the utilities that are coming in the road sections,
- SWD of all sizes, Cross Drains.
- Crossover/ culverts for utilities on the roads.
- UGST, OHST,
- Artificial ponds/lakes for rain water harvesting.
- Gantry structural design
- Street light /Signage structural design.

5.2.3.1 Schedule of Deliverables for Alternatives concept development

S.No.	Deliverables	Format
i	<p>Preparation of alternative concepts of Integrated Overall cityside utilities including Power, IT, Telecom and Gas Distribution, water supply, sewerage system, solid waste, Storm water drainage and rain water harvesting techniques piped natural gas, energy management system</p> <p>The concepts should be tabulated against each other and suggest the most feasible/ applicable solutions for the development of cityside.</p> <p>Drawings and report explaining the Alternatives available to BIAL. Providing clear pros and cons including cost and all relevant factors for each option.</p> <p>Concept/ broad level BOQ, specifications & cost estimate of all components.</p>	<p>Master plan network at BIA level at the scale 1:500.</p> <p>Report (in A4 with A3 size dwgs), worksheets</p> <p>Worksheets and report.</p>
ii	<p>Earth mass study (cutting /filling) Site grading plans, reports cross section, specifications, quantity of various materials etc.</p> <p>Preparation of concept/broad BOQ, specifications & cost estimate.</p>	<p>Report drawings sections work sheets with adequate details and scale.</p>
iii	<p>Power Preparation of distribution of</p>	<p>Master plan Report, detail worksheets on</p>

S.No.	Deliverables	Format
	<p>Power HT and LT network in the city side area. Provisions of power HT and LT network in the plot level.</p> <p>Location for the Receiving Stations, switchyards, transformers. Emergency back up and standby power for the critical infrastructure etc in consultation with the external stakeholders and power supplier.</p> <p>Phasing of the power requirement and LEED certifications methodology. Preparation of concept/broad BOQ, specifications & cost estimate.</p>	<p>the estimated power requirement projection, power requirement norms table, site plans (1:500 or approp scale) detail plans (1:100, 1:50 or approp scale)</p>
iv	<p>Telecommunication and IT Distribution concept and Fibre Optic (FO) cable sizing and alignment</p> <p>Location and sizing of the Data Centers, Monopoles, etc. required for the entire cityside development.</p> <p>Provision for redundancy and spare capacity in the system Provisions for access control systems, security and traffic management systems. Up gradation and integration of the existing system with proposed system. Signaling, data and telecommunication cabling details, with distribution boxes Preparation of concept/ broad BOQ, specifications & cost estimate.</p>	<p>Master plan Report, detail worksheets on the estimated IT requirement projection, IT requirement norms table, site plans (1:500 or approp scale) detail plans (1:100, 1:50 or approp scale)</p>
v	<p>Water supply and distribution Master Plan.</p>	<p>Master plan Report, detail worksheets on</p>

S.No.	Deliverables	Format
	<p>Preparation of distribution of potable and non-potable network in the airport (cityside and airside).</p> <p>Integrate the location of potable water supply storage tanks at site level and review and prepare the distribution network, sizing.</p> <p>Prepare fire fighting system and network for the individual plots, sectors, zones in the airport area.</p> <p>Preparation of concept/broad BOQ, specifications & cost estimate.</p>	<p>the estimated water requirement projection, water requirement norms table, site plans (1:500 or approp scale) detail plans (1:100, 1:50 or approp scale)</p>
vi	<p>Sewerage network Master plan showing network sizing, STP location, capacity, STP sizes of the airport area.</p> <p>Concept recycled water network plan (supply & distribution) with centralized/ de-centralized storage tank locations for airport area.</p> <p>Provision of Pumping details & phasing for the modification of the existing facilities.</p> <p>Technology for STP.</p> <p>Outline plan for STP for sizes, general arrangement drawing for STP and area required with details of supply mains and tank sizes, tank design.</p> <p>Pump capacity and necessary pumping details.</p> <p>Preparation of concept/broad BOQ, specifications & cost estimate.</p>	<p>Master plan at BIA site level at the scale 1:500 with sewer sizes and gradient.</p> <p>Report (in A4 with A3 size dwgs), worksheets</p> <p>Master plan dwg (1:500), Report to show the location of STP, Outline STP dwg (1:200), capacity, size and road connectivity.</p>
vii	<p>Assessment and integration of the aviation fuel line if it passes through cityside area, highlighting and incorporating the necessary changes in the other utility networks.</p>	<p>Report, plans (scale 1:2000, 1:1000, 1:500, 1:100 and/ or as required), Code references</p>
viii	<p>Preparation of strategies/ action</p>	<p>Report, plans (scale</p>

S.No.	Deliverables	Format
	<p>plan for SWM as per applicable environment laws.</p> <p>Preparation of concept/broad BOQ, specifications & cost estimate.</p>	<p>1:2000, 1:1000, 1:500, 1:100 and/ or as required), Code references</p>
ix	<p>Piped natural gas Concept Design for distribution system including plot level provision and setting up of City Gate Station, CNG Stations and other facilities required for Gas distribution grid.</p> <p>Identification and provision of all PNG related infrastructure in the plan</p> <p>Preparation of broad cost estimate for PNG.</p>	<p>Report, plans, relevant sections (scale 1:2000, 1:1000, 1:500, 1:100 and/ or as required), Code references</p>
x	<p>Preparation of strategies/ action plan for Energy management plan as per codes of LEED certification.</p> <p>Preparation of concept/broad BOQ, specifications & cost estimate.</p>	<p>Report, plans (scale 1:2000, 1:1000, 1:500, 1:100 and/ or as required), Code references</p>
xi	<p>Integrated storm water drainage Master plan of BIA for overall site level drainage planning (with planning and location of proposed water retention tanks for ground water recharging)</p> <p>Preparation of concept/broad BOQ, specifications & cost estimate.</p>	<p>Report, drainage plans (scale 1:2000, 1:1000, 1:500, 1:100 and/ or as required), worksheet of estimate Code references</p>
xii	<p>Conceptual road sections accommodating all utility supply & distribution lines in the ROW, location & planning for junction boxes, inspection chambers, utility corridor, utility crossovers, etc.</p> <p>BOQ, detail cost estimates,</p>	<p>Plans at 1:100, sections at 1:50, or approp scale as decided by BIAL Detail Report, worksheets. Worksheet - BOQ, cost estimates</p>

S.No.	Deliverables	Format
	specifications for all the elements of the works with proper backup estimates	Code References
xiii	Detailed design of all the structural components like SWD drains, supporting structures viz UGST, OHST cross drainages, gantry signage etc. Preparation of concept/broad BOQ, specifications & cost estimate.	Detail Report with design calculations. Design basis report, Detail plan 1:100, site plan 1:500, sections 1:50 or approp scale as decided by BIAL
xiv	Presentation to the BIAL team.	Editable version of Power point presentation

5.3 Stage 3

5.3.1 Part A - Draft Integrated Utilities Master Plan Layout

The Consultant shall develop an Integrated Utilities Master Plan Layout, which would meet all the criteria set in the earlier stage of design. The Utilities Master Plan to be developed by the Consultant shall include the understanding of all the concepts approved for each utility. The concept plan shall identify the size of the plots required for the key infrastructure and their location. BIAL envisages a combined Utility corridor at the airport site, which shall be capable of carrying all the services in one service corridor and provide for easy maintenance. The concept plan shall address the following issues but will not be limited to the same.

- Development of the agreed option of distribution concept and network for the entire cityside development for each utility in one integrated plan
- Identification of the location for all the key utilities infrastructure and size of the plot required.
- Establishment of an alignment of integrated Utility corridor or any other feasible options for distribution developed for the site with requisite tapping points for distribution to the development plots.
- Design of the Utility corridor, depth, size, cross sections, arrangement of various utilities within the tunnel
- Maintenance facilities and access for the distribution network
- Drawings for the distribution networks, conceptual design of the key structures, etc.
- Report on the Cost analysis and phasing for all the utilities.

The Consultant shall assure to integrate the concept utility master plan of the cityside development with Airside utility master plan.

5.3.1.1 Schedule of Deliverables for Draft Integrated Utilities Master Plan Layout

S.No.	Deliverables	Format
i	Draft Integrated Utility Master Plan for approval by BIAL.	Plans for the Distribution Network, High side Network Drawings Phasing Drawings Drawings for the Utility Tunnel/corridor, Alignment, Size, Cross Sections, Divisions, etc. Plans, elevation, sections of all key facilities (Scale 1: 500/200) Report including all the documentation from the start of the project. Report will include all the design considerations, basis, requirements, phasing, cost analysis, etc.
ii	Presentation to the BIAL team.	Editable version of Power point presentation

5.3.2 Part B - Final Utilities Master Plan Layout

The Consultant shall finalize the Draft Concept after the review and discussion with BIAL. The Consultant shall identify any missing information and shall include in the Final submission addressing all the requirements in form of report, drawings, presentation and calculations for all the utilities at the proposed Cityside Development at BIA.

5.3.2.1 Schedule of Deliverables for final Integrated Utilities Master Plan Layout

S.No.	Deliverables	Format
i	Final submittal after approval from BIAL	All approved reports/ drawings in agreed scale with bound hard copy report and data in CD in editable form in excel/ doc/ cad dwg or compatible format. Drawings to be in agreed scales and in acceptable drawings standards to BIAL

The Consultant shall present/submit all deliverables to BIAL in the form of Reports and associated scaled drawings. The said submissions shall be in the

form of drawings, reports, sketches, 3D views, renderings, pictures, 3D models as may be necessary for the purpose. Submissions shall be made in both hard copy and soft copy editable formats. Hard copy submissions - 3 sets printed in color, scale of the drawings shall be in 50, 100, 200, 500, 1000, 2000, 5000 as may be applicable on A0 or A1 and A3 size papers only. Soft copy submissions - in MS Office / AutoCAD format or other editable formats as applicable, in CD.

All work done as a part of this consultancy will be a property of BIAL for its use.

6. Duration of Study

Sr. No.	Stage of Study	Cumulative Duration in Calendar Weeks from Date of Appointment
1.0	Inception Report	3
2.0	Benchmarking, Forecast and Demand Assessment	7
3.0	Alternatives concept development	18
4.0	Draft Integrated Utilities Master Plan Layout	22
5.0	Final Integrated Utilities Master Plan Layout	24

[Relevant Service to be inserted] CONSULTANCY AGREEMENT*

BETWEEN

BANGALORE INTERNATIONAL AIRPORT LIMITED

AND

[Consultant's name to be inserted]

**This is only an indicative template. Certain terms and conditions contained herein may be modified if and when found necessary, based on mutual discussion between the parties.*

TABLE OF CONTENTS

CONSULTANCY AGREEMENT	2
1. DEFINITIONS	2
1.1 Definitions	3
1.2 Interpretation	3
2. TERM OF AGREEMENT	4
3. SERVICES	5
4. DELIVERABLES FROM THE SERVICES	5
5. EXCLUSIVITY	5
6. COMPENSATION	6
7. OBLIGATIONS OF THE CONSULTANT	7
8. OBLIGATIONS OF BIAL	8
9. INDEMNITY	Error! Bookmark not defined.
10. OWNERSHIP	10
11. NON - PERFORMANCE	11
12. CONFIDENTIAL INFORMATION AND NON-DISCLOSURE	11
13. SUSPENSION & TERMINATION	12
14. DISPUTE RESOLUTION / ARBITRATION	14
15. INSURANCE	16
16. CORRECTION OF ERRORS AND OMISSIONS	16
17. REPRESENTATIONS, WARRANTIES AND COVENANTS	16
18. MISCELLANEOUS PROVISIONS	16
SCHEDULE A - SCOPE OF SERVICES AND DELIVERABLES	20
SCHEDULE B - TIME SCHEDULE	21
SCHEDULE C - PROFESSIONAL FEE AND PAYMENT TERMS	22
SCHEDULE D - DEPLOYMENT SCHEDULE	23

CONSULTANCY AGREEMENT

This CONSULTANCY AGREEMENT ("**Agreement**") is entered into on this the _____ day of _____, 2011 (the "**Execution Date**") by and between:

BANGALORE INTERNATIONAL AIRPORT LIMITED, a Company incorporated under the Companies Act, 1956 and having its Registered Office at Administration Block, Bengaluru International Airport, Bangalore 560 300, India, (hereinafter referred to as "**BIAL**", which expression shall, unless repugnant to the context or meaning thereof, be deemed to mean and include its successors-in-interest and assigns) of the FIRST PART;

AND

[*Consultant's name*], a Company incorporated under the Companies Act, 1956 and having its Registered Office at-----, (hereinafter called the '**Consultant**', which expression shall mean and include its consortium partners, representatives, successors-in-interest and permitted assigns) of the SECOND PART.

The aforesaid parties are hereinafter referred to individually as a 'Party' and collectively as the 'Parties', as the context may require.

WHEREAS:

- A. Pursuant to a Concession Agreement entered into between BIAL and the Government of India, BIAL has been granted the exclusive right and privilege to carry out the development, construction, commissioning, maintenance, operation and management of the Airport (defined later), in accordance with the terms contained therein.
- B. A project (defined later) for improving the existing airport infrastructure has been envisaged by BIAL, in order to increase the passenger capacity of the Airport (defined later).
- C. [*Brief description of the consultant company and the services it provides*]
- D. Pursuant to BIAL's request for proposal, the Consultant has submitted a proposal to provide the Services (as hereinafter defined) and BIAL has expressed its desire to engage the Consultant for providing the Services, on a non-exclusive basis, subject to the terms and conditions set-forth in this Agreement.

NOW THEREFORE, it is agreed as follows

1. DEFINITIONS

1.1 Definitions

The following words and expressions, as used throughout this Agreement, shall have the following meanings:

- 1.1.1 **"Agreement"** refers to this Consultancy Agreement, and all exhibits and attachments annexed to this Agreement or otherwise, incorporated by reference; and all written modifications occurring after the date of this Agreement.
- 1.1.2 **"Airport"** means the Greenfield international airport constructed and operated by BIAL at Devanahalli, near Bangalore in the State of Karnataka and includes the existing Terminal 1(T1) and further airport developments.
- 1.1.3 **"Applicable Laws"** means, all laws, promulgated or brought into force and effect by the Government of India or the Government of Karnataka including, the regulations and rules made thereunder, and judgments, decrees, injunctions, writs and Orders of any Court of record, as may be in force and effect during the subsistence of this Agreement.
- 1.1.4 **"Commencement Date"** means, the date upon which, the Consultant commences provision of the Services under this Agreement, being [*To be inserted at later date*].
- 1.1.5 **"Confidential Information"** or **"Information"** has the meaning assigned to it in **Clause 12** of this Agreement.
- 1.1.6 **"Deliverables"** shall have the meaning assigned to it in **Clause 4** of this Agreement.
- 1.1.7 **"Professional Fee"** shall have the meaning assigned to it in **Clause 6.1** of this Agreement.
- 1.1.8 **"Project"** refers to the designing, expanding and augmentation of existing Airport infrastructure being undertaken by BIAL, in order to increase the passenger capacity of the Airport.
- 1.1.9 **"Services"** has the meaning assigned to it in **Clause 3** of this Agreement.
- 1.1.10 **"Standard of Care"** has the meaning assigned to it in **Clause 7.1** of this Agreement.
- 1.1.11 **"Term"** shall have the meaning ascribed to it in **Clause 2** of this Agreement.
- 1.1.12 **"Written"** or **"in writing"** means, hand-written, type-written, printed or electronically made (inclusive of e-mail communication and attachments) and resulting in a permanent record.

1.2 Interpretation

In this Agreement, except to the extent that the context requires otherwise:

- 1.2.1 Reference to a "judgment" includes any order, injunction, determination, decree or other judicial or arbitral tribunal measure in the Indian jurisdiction, which is final and binding;
- 1.2.2 A reference to a "law" includes common law, the Constitution of India and any decree, judgment, legislation, direction, order, ordinance, regulation, by-law, statute, notification, circular, guideline, rule, statutory instrument or other legislative measure, with which BIAL is required to comply by law (and "lawful" and "unlawful" shall be construed accordingly);
- 1.2.3 References in the singular shall include references in the plural and vice versa;
- 1.2.4 A reference to a "day" means a calendar day; any reference to a "month" shall mean a reference to a calendar month; and any reference to "year" shall mean a reference to a calendar year (i.e., twelve (12) months) unless otherwise defined in this Agreement;
- 1.2.5 References to a particular Clause, paragraph, sub-paragraph, Schedule or Attachment shall, except where the context otherwise requires, be a reference to that Clause, paragraph, sub-paragraph or Schedule to this Agreement;
- 1.2.6 The headings are inserted for convenience and are to be ignored for the purposes of construction;
- 1.2.7 Terms defined in the Schedules hereto shall have the meanings ascribed thereto in the Schedules when used elsewhere in this Agreement;
- 1.2.8 The Schedules to this Agreement form part of this Agreement and will be in full force and effect, as though they were expressly set out in the body of this Agreement;
- 1.2.9 Any reference to any agreement (including this Agreement), deed, instrument, license, code or other document of any description shall be construed, at the particular time, as a reference to that agreement, deed, instrument, license code or other document as the same may then have been amended, varied, supplemented, modified, suspended or novated;
- 1.2.10 The words "written" and "in writing" includes a facsimile transmission and any means of reproducing words in a tangible and permanently visible form with confirmation of the transmission;
- 1.2.11 The words "include" and "including" are to be construed without limitation;
- 1.2.12 In case of any ambiguity or discrepancy between the Clauses and the Schedules, the Clauses shall prevail; and
- 1.2.13 If any payments due hereunder become payable on a day when principal commercial banks in Bangalore are closed for business or a day which is declared a holiday under the Negotiable Instruments Act, 1881, such payments shall be deemed due and payable on the next business day thereafter.

2. TERM OF AGREEMENT

This Agreement shall become effective from the Execution Date. The term of this Agreement shall be for a period from the Commencement Date upto [To be inserted at later date], (the "Term") or until completion of the Services whichever is later, unless terminated earlier under the provisions of this Agreement. Any renewal of this Agreement is not automatic, unless and until previously agreed by BIAL in writing.

3. SERVICES

3.1 BIAL hereby appoints the Consultant, on a non-exclusive basis, to provide the Services morefully described in **Schedule A**, subject to and in accordance with the provisions of this Agreement (the "Services"), and Consultant accepts such appointment by BIAL to provide the Services.

3.2 Changes to Services

BIAL may at any time and from time to time, request changes (including alterations, omissions or additions) to the scope of Services under this Agreement. If such change affects the costs and/or time schedule for performance of the Services, the Parties shall mutually agree on the changes in costs and/or the time schedule.

4. DELIVERABLES FROM THE SERVICES

The Deliverables pertaining to the scope of Services to be provided under this Agreement are as stipulated in **Schedule A**. These Deliverables shall be provided by the Consultant as per the time schedule stipulated in **Schedule B**. Upon the Consultant providing all the Deliverables to BIAL, the Consultant shall hand over all documents and Confidential Information to BIAL. The Deliverables shall not be used by or through the Consultant for any purposes other than that of providing the Services under this Agreement. In the event of any reuse whatsoever of the said documents by or through the Consultant, the Consultant shall indemnify, defend and hold BIAL harmless from any and all claims, causes, damages, losses, liability and expenses, including but not limited to attorney's fees resulting from such unauthorized use. Submission or distribution of the documents to meet official regulatory requirements or for similar purposes in connection with the Agreement is not to be construed as publication in derogation of BIAL's reserved rights. It is expressly agreed herein that, the Deliverables shall not be used by or through the Consultant for any purpose other than those provided under this Agreement.

5. EXCLUSIVITY

During the period this Agreement is in force, and for a period of three (3) years thereafter the Consultant shall not either in its own name or through its Affiliates, directly or indirectly: engage in activities deemed by BIAL to conflict with the Services or the purposes for which such Services are provided.

6. COMPENSATION

6.1 The fixed consultation fee for satisfactory completion of the scope of Services shall be *[The fee payable shall be inserted at later date]* (the "Professional Fee"). BIAL shall pay Service Tax, if applicable, subject to the Consultant furnishing to BIAL, a valid invoice giving a break-up of the Professional Fee and the Service Tax payable thereon. The Professional Fee shall be subject to deduction of applicable taxes. BIAL shall make payments within thirty (30) days from the date of receipt of valid invoices from the Consultant. In the event of any portion of the Services not being completed within the time schedule stipulated in this Agreement, for reasons attributable to BIAL, then the Consultant shall provide such remaining Services, if requested in writing by BIAL, at mutually agreed upon rates. For the sake of clarity, it is expressly stated herein that the Professional Fee shall be the fee payable for the Services and shall not be based on the time schedule. The Professional Fee payable by BIAL to the Consultant for completion of each phase of the Services and the terms of payment of this Professional Fee is as stipulated in **Schedule C**.

6.2 Payment for additional services

For performance of any additional services if requested by BIAL in writing ("Additional Services"), BIAL shall pay additional compensation as per the rates stipulated in **Schedule C** for such Additional Services. The expenses incurred by the Consultant towards travel and accommodation for the performance of the Additional Services shall be paid in accordance with the charges stipulated in **Schedule C**. The additional compensation for the Additional Services shall be paid by BIAL within thirty (30) days following the date of receipt of the Consultant's valid invoice for such additional compensation.

6.3 The Professional Fees shall be payable in the installments set forth in **Schedule C**. Upon the achievement of each payment milestone set forth in **Schedule C**, in accordance with the acceptance and completion criteria therefore as set forth in this Agreement, the Consultant shall be entitled to invoice BIAL for the installment of the Professional Fee specified against such milestone.

6.4 Review of Invoices

BIAL will review the invoices promptly and notify the Consultant of any inaccuracy. The Consultant's invoices for payment shall be prepared in the form stipulated by BIAL. Each invoice shall be accompanied by such supporting documentation and evidence as would enable BIAL to assess the work performed and which demonstrates to the reasonable satisfaction of BIAL that all the relevant performance provisions of this Agreement have been met. BIAL may from time to time stipulate requirements in this regard. BIAL shall be entitled to make such investigations as it may deem necessary to assess the achievement of the relevant payment milestone,

including without limitation the completion of the relevant tasks or submission of the applicable deliverables. The Consultant shall provide such clarifications as BIAL may require to enable such assessment.

6.5 Withholding and deductions of payments

6.5.1 Withholding payments:

If BIAL disputes the amount contained in an invoice, BIAL may withhold payment to the extent that it reasonably believes that the Consultant is in breach of its obligations in accordance with this Agreement and shall give the Consultant fifteen (15) days' notice to remedy the deficiency. BIAL will pay all undisputed amounts in accordance with this Agreement. Once the Consultant has cured the deficiency, BIAL will pay the Consultant the amounts withheld. For the avoidance of doubt, it is clarified that such withheld amount shall not incur any interest.

6.5.2 Deductions

BIAL may deduct from the Professional Fee or/and Reimbursable Expenses amounts on account of claims of penalty, costs or claims, loss, damages directly incurred by BIAL ("Direct Damages") that arise from the negligence of the Consultant.

If the breach is such that the same can be remedied, the provisions of **Clause 6.5.1** will apply. In case the Consultant fails to remedy the breach, as provided in **Clause 6.5.1** above, BIAL has the discretion, without further notice, to deduct such amounts from the Professional Fee or/and Reimbursable Expenses and this right is in addition to any other rights available to BIAL under this Agreement.

6.6 No payments of invoices or portions thereof shall at any time constitute any approval or acceptance of the Services under this Agreement, nor be considered to be a waiver by BIAL of any of the terms of this Agreement.

7. **OBLIGATIONS OF THE CONSULTANT**

7.1 Standard of Care

The Consultant shall perform the Services on behalf of and under the directions of BIAL and such Services shall be rendered in accordance with the standards of care, skill and diligence reasonably required of other international consultants performing the same or similar services on projects of similar size and complexity ("**Standard of Care**"). The Consultant shall be solely responsible for the acts and omissions of its consultants, partners, sub-contractors, etc., as if they were the acts and omissions of the Consultant.

7.2 The Consultant agrees to furnish to BIAL, qualified professionals to perform the Services. Such professionals shall have the requisite experience and qualifications necessary for the due performance of the Services and the

obligations of the Consultant, under this Agreement (“**Professionals**”). The Professionals to be deputed by the Consultant for the performance of Services is detailed in the deployment schedule attached herewith as **Schedule D**.

- 7.3 BIAL shall have the right to ascertain whether such Professionals are satisfactory for the performance of the Services and shall be entitled to request the Consultant to replace any of the Professionals, whether before assigning the work or after, in the event BIAL is not satisfied with the services of such Professionals; and the Consultant shall replace such individuals, immediately. The Consultant shall not remove or replace any personnel appointed to Key Positions without the prior approval of BIAL, which approval shall not be unreasonably withheld.
- 7.4 Changes in the scope, manner or timing of the Services shall be authorized by BIAL, in writing, and shall include, if necessary, an appropriate adjustment in the Professional Fee and the time schedule. All duly authorized changes shall become part of this Agreement. Neither Party shall be bound to perform any change until agreed to by both the Parties, in writing.
- 7.5 The Consultant shall comply with the laws, codes, and regulations applicable to the Services during the entire period when the Services are rendered, and on BIAL’s request, shall make available all the documents pertaining to the compliance with the relevant laws.
- 7.6 Reports and presentations at all stages will be submitted in adequate numbers of hard and soft formats as applicable.
- 7.7 The terms and conditions of the RFP for submission of Deliverables shall apply to this Agreement.

8. OBLIGATIONS OF BIAL

- 8.1 BIAL agrees to comply with all reasonable requests of the Consultant regarding providing access to all documents and employees, necessary for the performance of the Consultant’s obligations under this Agreement.
- 8.2 BIAL shall provide, in a timely manner, full information (including the Confidential Information), regarding requirements for the Project, including a program, which shall set-forth BIAL’s objectives, schedules, constraints and criteria and such other information reasonably required by the Consultant for due performance of the Services under this Agreement.
- 8.3 BIAL will appoint a nominated project representative to act on BIAL’s behalf in relation to this Agreement who will liaise with the Consultant, in relation to this Agreement.

9. Infringement, Indemnification

9.1 The Consultant shall defend, indemnify and hold harmless BIAL and its affiliates, and their respective directors, officers, employees, agents and employees (collectively the "Indemnitees") from and against any and all liabilities arising as a result of any claim, suit or proceeding or allegation that the performance of the Services or the Deliverables or any part thereof, in the form furnished or as subsequently modified by the Consultant, constitutes an infringement of any patent, utility models, mask work protections, trademark, design, copyright, trade secret, mark or other intellectual property rights or applications thereof of any third party (collectively, "Third Party Intellectual Property Rights"). BIAL shall without undue delay notify the Consultant of such infringement claim, suit or proceeding and the Consultant shall, at its expense, have the authority, to settle the claim or assume control and defence of any suit or proceeding, but shall not compromise or settle any suits or claims or admit any criminal liability or wrongdoing by BIAL and its affiliates, without the express prior written consent of BIAL; unless any compromise or settlement includes an unconditional release of any claims against BIAL and its affiliates and does not involve any stipulation, judgment or injunction against BIAL and its affiliates. BIAL shall (at the Consultant's expense) extend reasonable assistance for the Consultant to defend of any such claim, proceeding or suit.

9.2 In the event that the performance of the Services or the Deliverables or any part thereof are, in such suit or proceeding, held to constitute an infringement or the use thereof, is enjoined, or if in respect of any claim of infringement or violation BIAL deems it advisable to do so; the Consultant shall promptly, at its own expense and option, take any one of the following actions:

- (a) procure for Indemnitees the right to continue the use of the Deliverables;
- (b) replace the Deliverables and/or Services with non-infringing deliverables and services that are functionally equivalent and comply with the Specifications; or
- (c) modify such Deliverables and/or Services so that they become non-infringing provided, that (i) such Deliverables and/or Services as modified complies with scope of Services under the Agreement and (ii) the Consultant shall fully indemnify BIAL for any costs associated with any such action.

If the Consultant is unable to fulfill its obligations set forth in the preceding sentence despite its best efforts, BIAL shall have the right, at the sole cost and expense of the Consultant, to procure the right to continue the use of such infringing Deliverables and/or Services.

9.3 The Consultant shall defend, indemnify and hold the Indemnitees harmless from and against any and all Liabilities arising or brought against or

incurred by any Indemnitee for (a) any injury to persons (including physical or mental injury, libel, slander and death) caused by (or relating to the strict liability of) the Consultant or its respective officers, employees, representatives, personnel or agents (“Indemnifiers”) (b) loss or damage to property, caused by (or relating to the strict liability of) the Indemnifiers (c) violations of Applicable Laws, Applicable Permits, codes, ordinances or regulations by the Consultant, (d) any claims arising out of or in connection with the Consultant’s obligations in accordance with and pursuant to Clause 11 (Confidentiality) or (e) any other Liability or loss that shall have resulted from any negligent or wilful act, omission or default of the Indemnifiers.

9.4 This Section shall survive the expiry or termination of this Agreement.

10. OWNERSHIP

10.1 The tender documents, contracts, the specifications, the electronic data and other documents prepared by the Consultant for this Agreement are the Deliverables for use solely by BIAL.

10.2 The Consultant hereby assigns, transfers and conveys to BIAL (or undertakes to procure such assignment to BIAL) free of cost with full title guarantee and with effect from the date of this Agreement (or, in the case of materials not yet in existence, with effect from the creation thereof) and notwithstanding the completion or abandonment of the Services or termination or expiry of this Agreement, common law, statutory and other reserved rights, including the intellectual property rights, in the Consultant’s materials and / or the Deliverables which have been developed by the Consultant for the Services or are hereafter prepared by or on behalf of the Consultant in the course of or for the purposes of performing its obligations under this Agreement.

10.3 If and to the extent that the Consultant demonstrates to the satisfaction of BIAL that an assignment as referred to in Clause 10.2 above is not possible or is in any way not effective to vest full title in BIAL, the Consultant shall grant to BIAL free of cost an irrevocable, perpetual, royalty free, worldwide exclusive license to use the intellectual property in the Deliverables for any purpose whatsoever. Such license shall carry the right to grant sub-licenses and shall be freely assignable to any person.

10.4 The Consultant shall (and shall procure that each and every subcontractor of Consultant hereunder shall) execute any and all further documents and take any and all other actions requested by BIAL in order to perfect any assignment, transfer or licence of any such common law, statutory and other reserved rights, including the intellectual property rights, as required by this Clause 10.

10.5 BIAL shall retain all common law, statutory and other reserved rights, including the intellectual property rights in all drawings, plans, designs, programmes, diagrams, specifications, technical data, software, models,

reports, calculations, documents or other items or materials created by or on behalf of BIAL and that are provided by or behalf of BIAL to Consultant for the performance of the Services.

- 10.6 If use of any part of the Deliverables is limited or prohibited, the Consultant shall procure the necessary licenses to use the infringing or a modified but non-infringing Deliverables or replace it with substantially equal but non-infringing Deliverables; provided, however:
- 10.6.1 that any such substituted or modified Deliverables shall meet all the requirements and be subject to all the provisions of this Agreement; and
- 10.6.2 that such replacement or modification shall not modify or relieve Consultant of its obligations under this Agreement.

11. NON - PERFORMANCE

- 11.1 If the Consultant fails to comply with its obligations under this Agreement, the Consultant shall refund the Professional Fee already paid by BIAL, subject to deduction of mutually agreed Professional Fee for the actual partial service rendered.
- 11.2 The Parties recognize the expense and inconvenience likely to be incurred from any need to prove the loss and damage that will be suffered by BIAL, in the event of a failure by the Consultant to comply with its obligations under this Agreement.

12. CONFIDENTIAL INFORMATION AND NON-DISCLOSURE

- 12.1 The Consultant acknowledges that, BIAL is the owner of the Confidential Information, whether in writing or oral or otherwise. The Consultant shall treat this Confidential Information (as hereinafter defined) as strictly confidential, and shall not use the same either for its own purpose or for that of third parties, and shall only use it on BIAL's instructions for rendering the Services. For the purposes of this Agreement, "Confidential Information" or 'Information' shall mean and include, information, manuals, data, drawings, books, records, agreements entered into by BIAL with third parties, photographs and documents, whether in hard copy or electronic form.
- 12.2 **Confidentiality**
Both the Parties acknowledge that, any and all Confidential Information, including any commercial and technical information and data provided by one to the other, shall be considered to be confidential, and the Party receiving such Confidential Information, shall not, at any time, directly or indirectly disclose such Information to any person or firm, or use the same, in any manner, other than in connection with rendering the scope of Services contemplated under this Agreement, without the prior consent of the other Party. Neither the Consultant nor BIAL shall, unless otherwise agreed (which agreement may be on such general or specific terms as the Parties may determine), disclose to any third party any Confidential

Information, which is the property of the other Party to this Agreement or which, otherwise, relates to its business, secrets, dealings, transactions or affairs or which, relates in any way, to either of the Parties unless, and to the extent that, such disclosure:

12.2.1 is reasonably required for the exercise or performance by either Party of its rights or obligations under this Agreement; or

12.2.2 is required pursuant to any relevant statutory or regulatory requirements or duties or any requirement of the Applicable Law.

12.2.3 is related to Information, which is already in the public domain, other than as a result of breach of this Clause, by the Party seeking to make such disclosure;

Provided that, in the case of any disclosure in accordance with Clauses 12.2.1 or 12.2.2, the Party disclosing such Information shall, so far as reasonably practicable, impose on the third party receiving such Information such obligations, as may be appropriate to maintain its confidentiality.

12.3 Notwithstanding what is stated above or anywhere else in this Agreement, the Consultant agrees herein that, BIAL may share the contents of this Agreement and provide the Deliverables developed by the Consultant to such of BIAL's consultants involved in the expansion and augmentation of the existing infrastructure at the Airport.

12.4 The obligations under this Clause shall survive the termination of this Agreement for a period of three (3) years.

13. SUSPENSION & TERMINATION

13.1 Suspension

BIAL may by written notice to the Consultant suspend at any time the performance of all or any portion of the Services to be performed under this Agreement. The Consultant shall cease work on such Services (or part thereof as specified in the notice) on the date stated in the notice, but shall continue to perform any unsuspended part of the Services. Upon receipt of notice to resume suspended Services, the Consultant shall resume performance under this Agreement to the extent required in the notice.

13.2 Termination for Default by the Consultant

BIAL shall be entitled to terminate this Agreement if:

13.2.1 the Consultant, without reasonable cause, fails to perform the Services or fails to perform the Services within the time schedule stipulated herein; or

13.2.2 the Consultant subcontracts the whole of the Services or assigns this Agreement or its obligations under this Agreement, without the required agreement / consent of BIAL; or

13.2.3 the Consultant fails to commence the Services or make progress so

- as to fail to meet the time schedule agreed to under this Agreement, or abandons the Services or plainly demonstrates an intention not to continue performance under this Agreement; or
- 13.2.4 the Consultant is ordered to be wound up by a court; the Consultant files a petition for voluntary winding up; or levy of an execution or restraint on the Consultant's assets; or appointment of a provisional liquidator, administrator, trustee or receiver of the whole or substantially whole of the undertaking of the Consultant by a court of competent jurisdiction; or
- 13.2.5 the Consultant is in breach of its obligations under this Agreement, which breach has a material adverse effect on BIAL and, if capable of remedy, is not remedied by the Consultant within thirty (30) days from the date of notice calling upon the Consultant to rectify the breach.
- 13.3 In any of these events or circumstances, BIAL may, upon giving thirty (30) days' written notice to the Consultant, terminate this Agreement and in the case of the events set forth in Clause 13.1.4, forthwith.
- 13.4 Termination for Cause
This Agreement may be terminated for cause by either Party upon not less than thirty (30) days' prior written notice, should the other Party fail substantially to perform its obligations in accordance with the terms of this Agreement, through no fault of the Party initiating the termination. This Agreement will automatically terminate on the thirty-first (31st) day following receipt of written notice under this Sub-clause, unless the Party receiving the notice, corrects or undertakes and diligently continues actions intended to correct its non-performance. If a Party receiving notice undertakes and diligently continues actions that are reasonably likely to correct its non-performance, such Party shall have an additional thirty (30) days to fully correct its non-performance. If a Party receiving the notice, corrects its non-performance within the initial or extended notice period under this Sub-clause, this Agreement will not terminate and the Parties shall proceed with uninterrupted performance of their contractual obligations. If a Party receiving notice fails to fully correct its non-performance, this Agreement will automatically terminate on the sixty-first (61st) day following receipt of written notice under this Sub-clause.
- 13.5 Termination for Convenience
BIAL may terminate or suspend this Agreement for the convenience of BIAL, upon not less than fifteen (15) days' prior written notice to the Consultant.
- 13.6 Termination for Abandonment
This Agreement may be terminated upon not less than three (3) days' prior written notice, in the event, the Project is permanently abandoned. Permanent abandonment occurs, if this Agreement is suspended for more than ninety (90) consecutive days: (1) by BIAL for any reason (except the

Consultant's negligence); (2) by the Consultant under this Clause; or (3) by occurrence of any force majeure event. This Agreement automatically terminates on the third (3rd) day following receipt of written notice under this Sub-clause.

13.7 Consequences of Termination

The Consultant shall, upon termination of this Agreement:

13.7.1 immediately discontinue the performance of the Services on the date and to the extent specified in the notice;

13.7.2 promptly obtain cancellation upon terms satisfactory to BIAL of all subcontracts or any other agreements existing for the performance of the terminated Services, or assign those agreements as directed by BIAL;

13.7.3 hand over to BIAL all Deliverables, Confidential Information, documents, designs, etc., prepared by the Consultant under this Agreement, whether complete or in progress;

13.7.4 hand over all documents, information, materials, items and facilities provided by BIAL for or in connection with the performance of the Services; and

13.7.5 comply with other reasonable requests from BIAL regarding the terminated Services.

13.8 BIAL shall upon termination of this Agreement, pay the Consultant for any completed and accepted Services that remain unpaid as of the date of termination, after deducting any unadjusted advance, previously paid to the Consultant, provided further that in the event of termination by BIAL for default pursuant to Clause 13.2 above, BIAL shall make the aforesaid payments after deducting any cost or damage incurred or suffered by BIAL as a result of such default.

13.9 The Consultant shall pay any costs and damages incurred or suffered by BIAL as a result of its default within seven (7) days of a written demand therefor, from BIAL. BIAL may at its option call upon any securities and guarantees provided to BIAL pursuant to this Agreement, for any such amount.

13.10 The rights of BIAL to terminate this Agreement as aforesaid is without prejudice to its other rights, powers and remedies available at law or under contract. Termination of this Agreement shall not prejudice or affect the accrued rights, claims and liabilities of the Parties.

13.11 If the Project is suspended, the Professional Fee shall be equitably adjusted to provide for reasonable fees, costs and expenses incurred in the interruption and resumption of the Services, when the Project is resumed.

14. DISPUTE RESOLUTION / ARBITRATION

Disputes

Any controversy, claim, cause of action, demand or other dispute arising out of or relating to this Agreement (collectively the "Dispute") shall be resolved as follows:

14.1 Attempt to Resolve

BIAL and the Consultant will seek to amicably resolve all Disputes arising between them. If BIAL and the Consultant cannot resolve the Dispute within thirty (30) days of service of notice in writing, by one Party to the other Party to meet to resolve the Dispute or such a period as BIAL and the Consultant may subsequently agree, then it shall be submitted to their respective designated representatives under this Agreement.

14.2 Reference to Arbitrator

Any Dispute, which the Parties are unable to resolve pursuant to Clause 14.1 within thirty (30) days (or such longer period as the Parties may agree) of the written notification by one Party to the other of the existence of a Dispute, shall be finally determined by arbitration in accordance with the Indian Arbitration and Conciliation Act 1996 by three (3) arbitrators appointed in the manner stipulated below:

14.2.1 Selection of Arbitrators

Arbitration will be held before three arbitrators. BIAL and the Consultant will each appoint one (1) arbitrator with the third arbitrator to be chosen by mutual agreement of the two (2) arbitrators previously chosen. All arbitration proceedings will take place in Bangalore and shall be conducted in English. The decision of the tribunal is final and binding upon the Parties (and enforceable against them). All the arbitrators must be experienced in resolving large-scale construction-related disputes. No arbitrator shall be the present or former employee or agent of, or consultant or counsel to either Party or in any way, related or closely connected with the Parties.

14.2.2 Attorneys' Fees

Each Party shall pay the expenses of the arbitration and the eventual liability for the costs shall be in terms of the arbitral award.

14.2.3 Finality of Award

The award rendered by the arbitrators shall be final, and judgment may be entered upon it in accordance with the Applicable Law in any Court having jurisdiction thereof. This Agreement to arbitrate and any agreement to arbitrate with an additional person or entity duly consented to by the Parties to this Agreement, shall be specifically enforceable under the prevailing arbitration law. This Agreement to arbitrate extends to all subsequent contracts between

the Parties arising out of or related in any way to the Project.

15. INSURANCE

The Consultant shall maintain Professional Liability insurance for a sum of Rupees _____ only (Rs._____/ -). The Consultant shall provide to BIAL, insurance certificate(s) showing compliance with these requirements, and providing that, the required coverage and limits shall not be cancelled without thirty (30) days' prior written notice to BIAL.

16. CORRECTION OF ERRORS AND OMISSIONS

If any errors or omissions occur in the Deliverables, the Consultant shall, as a part of the Services, perform or re-perform the Service required to investigate, correct, document and process remedies of such errors and omissions, without any additional cost to BIAL.

17. REPRESENTATIONS, WARRANTIES AND COVENANTS

Each Party represents and warrants to the other that as of the Effective Date and for duration of the term of this Agreement, the following representations and warranties shall remain true, complete and valid:

- 17.1 it is a company duly incorporated and validly existing under (i) the Applicable Laws of India, in the case of BIAL; and (ii) the Applicable Laws of [____], in the case of the Consultant;
- 17.2 it has the necessary, power and authority and has taken all actions necessary to validate, execute and deliver this Agreement and perform its obligations hereunder;
- 17.3 its obligations under this Agreement will be legally valid and binding and enforceable against it;
- 17.4 the execution, delivery and performance of this Agreement will not conflict with, result in the breach of, or constitute a default under, or accelerate any performance required under the terms of agreement, understanding, covenant, or any decree or order to which it is a party or by which it or any of its properties or assets is bound or affected and does not result in a violation of any Applicable Law.

18. MISCELLANEOUS PROVISIONS

18.1 Submission of invoices and Deliverables

All invoices for payment and the Deliverables shall be addressed to and marked as detailed under:

Bangalore International Airport Limited
Project Head Office
Bengaluru International Airport
Devanahalli
Bangalore 560 300
Kind Attn: Head-Projects
Reference: <Insert Package Name>-

Submission of all such invoices and Deliverables shall be treated as valid only if it is submitted in accordance with the procedure mentioned above and subject to verification and acceptance by BIAL.

18.2 Assignment and Delegation

Neither this Agreement nor any duties or obligations under this Agreement may be assigned or delegated by the Consultant without the prior written consent of BIAL.

18.3 Governing Law

This Agreement shall be construed, and the legal relations between the Parties hereto shall be determined, in accordance with the laws in India.

18.4 Counterparts

This Agreement shall be executed in two (2) counterparts, each of which shall be deemed as original; but, all of this together shall constitute one (1) and the same instrument.

18.5 Entire Agreement

This Agreement supersedes any and all agreements, either oral or in writing, between the Parties hereto with respect to the rendering of Services by the Consultant to BIAL, and contains all of the covenants and agreements between the Parties with respect to the rendering of such services in any manner whatsoever. Each Party to this Agreement acknowledges that no representations, inducements, promises or agreements, orally or otherwise, have been made by any party, or anyone acting on behalf of any party, which is not embodied herein, and that no other agreement, statement or promise not contained in this Agreement shall be valid or binding.

18.6 Partial Invalidity

If any provision of this Agreement is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions shall nevertheless continue in full force, without being impaired or invalidated in any way.

18.7 Amendment

Any amendment to this Agreement shall become valid only if it is in writing and signed by both the Parties.

18.8 Notices

Any notices to be given hereunder by either Party to the other may be effected either by personal delivery or by mail, registered or certified, postage prepaid with return receipt requested. Mailed notices shall be addressed to the parties at their addresses mentioned above, but each party may change that address by written notice in accordance with this paragraph. Notices delivered personally shall be deemed communicated as

of the date of actual receipt; mailed notices shall be deemed communicated as of three (3) days after the date of mailing.

18.9 Force Majeure

Neither of the Parties shall be held responsible for any delay or failure in performance hereunder caused by fire, strikes of third party's personnel, embargoes, requirements imposed by the Governmental, civil and military authorities, acts of God or by public enemy or other similar causes beyond such Party's reasonable control without fault or negligence.

18.10 Survival of Clauses

All terms, conditions and provisions of this Agreement, which by their nature are independent of the period of performance, shall survive the cancellation, termination, expiration, default or abandonment of this Agreement.

18.11 Any failure or delay by a Party in insisting upon the strict performance of any terms or conditions of this Agreement, or exercise any rights or remedies provided herein or by law, or to invoke any security or guarantee hereunder or notify a breach, or the acceptance of any payment hereunder, shall not construed as a waiver of any right or remedy of such Party hereunder.

IN WITNESSES WHEREOF, the Parties have signed this Agreement on the date, month and year first above written in the presence of the following witnesses:

<p>BANGALORE INTERNATIONAL AIRPORT LIMITED</p> <p>By</p>	<p><i>[Insert Consultant's name]</i></p> <p>By</p>
<p>Name:</p>	<p>Name: [_____]</p>
<p></p>	<p></p>
<p>Title:</p>	<p>Title: [_____]</p>
<p></p>	<p></p>
<p>In the presence of:</p>	<p>In the presence of:</p>
<p></p>	<p></p>
<p>Witness:</p>	<p>Witness:</p>
<p></p>	<p></p>
<p>Name:</p>	<p>Name:</p>
<p></p>	<p></p>
<p>Address:</p>	<p>Address:</p>

SCHEDULE A - SCOPE OF SERVICES AND DELIVERABLES
Attached as a ANNEXURE-1 OF THIS RFP

TEMPLATE

SCHEDULE B - TIME SCHEDULE

Note: Bidder to indicate the time schedule for the proposed Services in this section which shall be subject to further discussion and finalization during bid clarification and negotiation meetings based on actual requirement.

TEMPLATE

SCHEDULE C - PROFESSIONAL FEE AND PAYMENT TERMS

Note: A tentative payment schedule is indicated in the 'information to Bidders' is subject to further discussion and agreement during negotiation meetings based on competitive proposal from bidders.

TEMPLATE

SCHEDULE D - DEPLOYMENT SCHEDULE

Note: Bidder to indicate the manpower deployment schedule for the proposed Services in this section which shall be subject to further discussion and finalization during bid clarification and negotiation meetings based on actual requirement.

TEMPLATE

Bangalore International Airport Limited
ANNEXURE 3 - QUALIFICATION QUESTIONNAIRE

1	Applicant	
1.1	Full Name	
1.2	Jurisdiction of Incorporation	
1.3	Registration Number	
1.4	Registered Address	
	Please attach:	
1.5	Current registration certificate	
1.6	Most recent audited accounts, year ending:	
2	Parent Company providing Guarantee (if applicable)	
	If you are a subsidiary within a group of companies, we seek a parent company guarantee of your performance of this services agreement; otherwise this Section 2 is not applicable	
2.1	Name of Parent providing Guarantee	
2.2	Jurisdiction of Incorporation	
2.3	Registration Number	
2.4	Registered Address	
	Please attach:	
2.5	Current registration certificate	
2.6	Most recent audited accounts, year ending:	
3	Contact Person for this Consultancy Services Agreement	
3.1	Name	
3.2	Address for Courier	
3.3	Office Phone	
3.4	Mobile Phone	
3.5	Fax	
3.6	E-mail Address	
4	Bank Providing Tender, Other Bonds & insurances (if applicable)	
4.1	Name of Bank	
4.2	Branch of Bank	
4.3	Please attach letter from bank confirming its willingness to provide bonds in the specified forms	
5	Disclosure of Interests	
	Please disclose here any beneficial financial interest which exists, or may exist, between yourselves and the following or their affiliates:	
5.1	BIAL	
5.2	The GVK group of companies	

Bangalore International Airport Limited
ANNEXURE 3 - QUALIFICATION QUESTIONNAIRE

6	Certifications & Procedures
	Please attach your current corporate Quality Procedure, Safety Manual and certification(s) for:
6.1	Quality, eg ISO 9000
6.2	Environmental Management, eg ISO 14000
6.3	Other relevant certifications
7	Reference Project # 1 (works of similar nature, scale, complexity and time constraints, and executed in a region with a similar climate)
7.1	Employer
7.2	Main Contractor
7.3	Project #
7.4	Project Name
7.5	Approximate Value of Consultancy Services agreement
7.6	Start Date - Completion Date: Planned & Actual
7.7	Brief Description & Indicative Quantities
7.8	Reference Contact, Name & Phone
8	Reference Project # 2 (works of similar nature, scale, complexity and time constraints, and executed in a region with a similar climate)
8.1	Employer
8.2	Main Contractor
8.3	Project #
8.4	Project Name
8.5	Approximate Value of Consultancy Services agreement
8.6	Start Date - Completion Date: Planned & Actual
8.7	Brief Description & Indicative Quantities
8.8	Reference Contact, Name & Phone

Bangalore International Airport Limited
ANNEXURE 3 - QUALIFICATION QUESTIONNAIRE

9	Reference Project # 3 (works of similar nature, scale, complexity and time constraints, and executed in a region with a similar climate)	
9.1	Employer	
9.2	Main Contractor	
9.3	Project #	
9.4	Project Name	
9.5	Approximate Value of Consultancy Services agreement	
9.6	Start Date - Completion Date: Planned & Actual	
9.7	Brief Description & Indicative Quantities	
9.8	Reference Contact, Name & Phone	

10	Current Commitments (for each project currently on hand of a similar nature, please list the following information)			
	Project Identification	Expected Completion Date	Outstanding Value, (INR)	Key Personnel Involvement
10.1				
10.2				
10.2				
10.4				
10.5				
10.6				

11	Litigation & Arbitration History					
	Please provide the following information upon each litigation and arbitration in which you were a party in the years 2004 to 2006 inclusive; in descending order of combined amount in dispute:					
	Claimant or Respondent?	Claim Amount	Counterclaim Amount	Arbitration or Litigation?	Date Commenced	Date Concluded
11.1						
11.2						
11.3						
11.4						
11.5						
11.6						
11.7						
11.8						
11.9						
11.10	Remainder as Claimant					
11.11	Remainder as Respondent					

Bangalore International Airport Limited
ANNEXURE 3 - QUALIFICATION QUESTIONNAIRE

12	Assumptions, Exceptions and Deviations in the proposed tender
12.1	Identify here any provision(s) of the attached documents proposing your assumptions, exceptions and deviations to tender:
12.2	Identify here any provision(s) of the attached document which materially increases your price:

13	Authorized Representative Certificate	
	After carefully studying the Invitation to Tender, the intended form of Consultancy Services agreement and their attachments, all necessary enquiry, and obtaining all necessary corporate authorities, I hereby:	
13.1	certify that the information in and attached to this Qualification Questionnaire (including any Joint Venturers' information) is in all respects complete and correct	
13.2	confirm that we are willing and able to tender, negotiate, execute and perform the proposed Consultancy Services agreement, and to provide the Tender Bond, indemnity and insurances and, if applicable, Parent Company Guarantee	
13.3	undertake that, we will provide a competitive and good faith tender for the whole of the proposed Consultancy Services agreement	
	Full Name	Signature
	Position	
	Company	
	Date	