GHANA POLICE

TECHNICAL PROPOSAL

FOR

CONSULTANCY SERVICES FOR DESIGN AND SUPERVISION OF REHABILITATION AND REFURBISHMENT WORKS OF THE FORENSIC SCIENCE LABORATORY OF THE CRIMINAL INVESTIGATION DEPARTMENT

Prepared by

Kyere Consult P. O. Box CE 11859 Tema

AUGUST, 2009

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1.0 INTRODUCTION

1.1 Background

The Ghana Police Service (GPS) is, arguably, the most efficient and effective security service in Ghana. The Government is conscious of the importance of peace and stability for an accelerated and sustained development of Ghana. The GPS faces severe constraints on its capacity and ability to cope with increasing expectations of openness and civilian accountability as well as increasingly violent and sophisticated types of crimes. With the upsurge in the trafficking of narcotics and other illicit drugs which has become key global development challenges of Ghana.

To this end the Ghana Police Service (GPS) has embarked on a comprehensive appraisal and reform of the existing projects which the Design and Supervision of Rehabilitation and Refurbishment Works of the Forensic Science Laboratory of the Criminal Investigation Department.

Consultancy Services, in the form of architectural and engineering designs, contract documentation and supervision of construction, are required for these developments, and the Kyere Consult puts itself forward to fulfil these tasks.

1.2 Objectives of the GPS

The GPS plans to re-orient policing in the country into a problem solving one with crime prevention as its main focus. As an innovative Security Force, GPS continues to introduce new policies to complement existing one and has devised corporate strategies over the last few years that have placed it in the forefront of the security service in Ghana. These corporate strategy objectives are in line with the primary functions of the Force as stipulated in Section 1 of the Police Force Act, 1970 (Act 350). It states among others that:

"it shall be the duties of the Police Force to prevent and detect crime, to apprehend offenders and to maintain public order and safety of persons and properties".

Corporate image and workforce motivation are considered part of the corporate strategy objectives that will help fulfil the foregoing mission and should be seen to be reflected in the human resources and infrastructure development like the design and supervision of Rehabilitation and Refurbishment Works of the Forensic Science Laboratory of the CID. This being done to meet CID's image in terms of aesthetics, functionality and economy and the developments to be undertaken in an efficient manner to ensure optimum use of space and resources.

1.3 Objectives of Kyere Consult

The Kyere Consult has the objective of providing shelter and other construction infrastructure in an efficient and cost-effective manner.

The Kyere Consult, from previous experience, has provided consultancy services for housing of different aesthetic content, ownership, occupancy and structural forms and their complementary facilities and services; and these developments continue to function satisfactorily and have met the expectations of users.

Thus, the objectives of the Criminal Investigation Department (CID) of the Ghana Police Service (GPS) and the Kyere Consult, find common ground in the development of Rehabilitation and Refurbishment Works of the Forensic Science Laboratory. The Kyere Consult will ensure an efficient consulting services that will design the refurbishment suggest construction materials, construction methods and sequences and supervise the construction so as to provide Forensic Science Laboratory that will meet the Clients objectives in a fast and cost-effective manner.

In providing these services, sound technical methods and professional practices will be applied and CID's interests will be protected at all times.

The technical presentation by the Kyere Consult:

- provides a brief sample of its track record in the field of housing and up-scale residential/public buildings in particular;
- gives strategies that will be used to provide the necessary Forensic Science Laboratory and their complementary facilities/services;
- shows the personnel make-up of the Kyere Consult that will help propel this agenda forward.

2.0 PRESENTATION OF CONSULTANT

2.1 Introduction

The Kyere Consult Consortium has a committed team in the specialist areas of architecture, geotechnical/geodetic/civil/structural/service engineering, development planning and contract management.

The Kyere Consult has worked as a well-knit team and played core roles in consultancies in the shelter industry both within and outside Ghana.

2.2 Structure and Core Competence of the Consultant

The Kyere Consult is made up of the following sub-entities in the indicated specialist areas:

Architecture

Architectural design, urban, sub-urban, municipal and rural development planning and project management.

Engineering

Civil/Structural engineering design and supervision of construction. The firm specializes in residential, industrial, hospitality, educational and office building design and design of crossing and drainage structures such as bridges, storm drains and culverts. Staff is also extensively involved in the testing of construction materials and components.

Quantity Surveying

Contract and project management in residential, industrial, recreational and educational infrastructure and experts in contract arbitration.

Services

Services (electrical, mechanical) design, services testing and commissioning.

Notable among projects which the Kyere Consult Consortium has successfully completed are:

- Design and Construction Supervision of Bank Hotel and Shopping Mall, Spintex road
 Accra Ghana Hostels Limited (2009);
- Design and Construction Supervision of 12 No. Housing Units at Kokoben, Kumasi for Hotel, Georgia – 2008;
- Design and Construction Supervision of Faculty of Pharmacy Guest House for KNUST (2006);
- Design and Construction Supervision of 12 no. Housing Units at Kokoben, Kumasi for Hotel Georgia (2000);
- Design and Supervision of Construction of 3-Storey Banking Hall Office and Shopping Arcade for Topman Co. Ltd, Kumasi (2009);
- Design of 4-Storey Banking Hall Office and Shopping Arcade for Offinso Traditional Stool (2006 – 2009);
- Design and Construction Supervision of 120 Room Hostel Complex at Legon for Evandy Estates;

- Design and Construction Supervision of 40 Room Hotel Complex at Nhyiaeso, Kumasi for Mr. Collins Agyei (2006);
- Design and Construction Supervision of a 400 Room Hostel Complex for Evandy Estates (2005 – 2008).

2.3 Technical Personnel at the Disposal of the Kyere Consult

The Kyere Consult can call on more than 25 permanent architects, engineers, technicians and other relevant supporting staff. Experts are available as follows:

| Architects | | | | | - | 6 |
|------------------------|----------------|-------------------|----------------|----------|-----|----|
| Engineers: Civil/Str | uctural/Mecha | nical/Electrical/ | Geodetic/Geote | echnical | -] | 10 |
| Quantity Surveyors | 5 | | | | - | 3 |
| Planners: Urban/De | evelopment/En | vironmental | | | - | 2 |
| Draughtsmen/Technic | cian Engineers | · | | | - | 6 |
| Specialists in Data/In | formation Prod | cessing | | | - | 4 |

Additionally, the Kyere Consult has long-standing working relationships with other specialist engineers in the building service area, who can be called on when required.

2.4 Recent Experiences of Projects of Similar Nature

Recent services carried out by the Kyere Consult of similar nature are given in Section 2B.

Relevant Services Carried Out in the Last Five Years That Best Illustrate Qualifications

| Assignment Name: | Country: Republic of Ghana | |
|---|--|--|
| DESIGN AND CONSTRUCTION | | |
| 6-STOREY BANK, HOTEL AND | | |
| Location within Country: | | |
| - | | Professional Staff Provided by |
| Kumasi | | Your Firm/Entity (Profiles) |
| | | 2 |
| Name of Client: | | No. of Staff: 4 (Four) |
| Owusu Boateng | | 4 (Four) |
| Address: | | No. of Staff-Months; Duration of Assignment: |
| P. O. Box 414 | | |
| Kumasi | | |
| Start Date (Month/Year): | Completion Date (Month/Year): | Approx. Value of Services (in Current US\$): |
| July, 2009 | _ | US\$1,400,000 |
| Name of Associated Consu | ltants If any | No. of Months of Professional |
| | re Consult | Staff Provided by Associated |
| Services Engineers: - | | Consultants: |
| Structural Engineers: - SRC | Engineers | 14 man-months |
| _ | oject Director/Coordina | tor, Team Leader) Involved and |
| Functions Performed: | D : : 01 | |
| Architect | Benjamin OdameWilliam Osei Mensah | |
| <i>Quantity Surveyor</i> Structural Engineer | - John S. Ankrah | |
| Services Engineer | - Francis Ofori-Mante | |
| Narrative Description of Pr | | |
| Design and Construction Supe | rvision of 6-Storey, Bank Ho | otel and Shopping Mall |
| Description of Actual Servi | ces Provided by Your Sta | aff: |
| Architectural, Structural, Pre- 8 | & Post Contract Quantity /s | urveying Services |
| , | Ç, , , - | . 5 |

Relevant Services Carried Out in the Last Five Years That Best Illustrate Qualifications

| Assignment Name: | | Country: Republic of Ghana | | | | | | |
|---|---|--|--|--|--|--|--|--|
| DESIGN OF BARCLAYS BANGEORGIA ANNEX, NHYIAESO, | | | | | | | | |
| Location within Country: | | | | | | | | |
| | | Professional Staff Provided by | | | | | | |
| Kumasi | | Your Firm/Entity (Profiles) | | | | | | |
| | | 2 | | | | | | |
| Name of Client: | | No. of Staff: | | | | | | |
| | | 4 (Four) | | | | | | |
| Barclays Bank Ltd. | | No of Chaff Manthau Daniel's | | | | | | |
| Address: | | No. of Staff-Months; Duration of Assignment: | | | | | | |
| P. O. Box M.45 | | or Assignment. | | | | | | |
| Accra | | 5 months | | | | | | |
| Start Date (Month/Year): | Completion Date (Month/Year): | Approx. Value of Services (in Current US\$): | | | | | | |
| December, 1999 | D 2005 | LIG+600 000 | | | | | | |
| None of Associated Comme | December, 2005 | U\$\$600,000 | | | | | | |
| Name of Associated Consul Architects: - Kvei | re Consult | No. of Months of Professional Staff Provided by Associated | | | | | | |
| Services Engineers: - | Te consuit | Consultants: | | | | | | |
| Structural Engineers: - SRC | Engineers Ltd. | 8 man-months | | | | | | |
| | oject Director/Coordinate | or, Team Leader) Involved and | | | | | | |
| Functions Performed: | 5 61 | | | | | | | |
| Project Co-ordinator | - Benjamin Odame | | | | | | | |
| Quantity Surveyor Services Engineer | William Osei MensahFrancis Ofori-Mante | | | | | | | |
| Narrative Description of Pi | | | | | | | | |
| Design and Construction Supervision of Barclays Bank at Hotel Georgia Annex | | | | | | | | |
| Description of Actual Services Provided by Your Staff: | | | | | | | | |
| Pre & Post Contract Services | | | | | | | | |

Relevant Services Carried Out in the Last Five Years That Best Illustrate Qualifications

| Assignment Name: | Country: Republic of Ghana | | | | | | | |
|---|----------------------------|--|--|--|--|--|--|--|
| DESIGN AND CONSTRUCTION | | | | | | | | |
| BEDSITTERS AND 10 ROOM S | | | | | | | | |
| Location within Country: | | | | | | | | |
| V | | Professional Staff Provided by | | | | | | |
| Kumasi | | Your Firm/Entity (Profiles) | | | | | | |
| | | 2 | | | | | | |
| Name of Client: | | No. of Staff: | | | | | | |
| | | 2 (Two) | | | | | | |
| Hotel Georgia Address: | | No of Staff Months: Duration | | | | | | |
| Audress: | | No. of Staff-Months; Duration of Assignment: | | | | | | |
| Hotel Georgia | | or risesigend | | | | | | |
| Start Date (Month/Year): | Completion Date | Approx. Value of Services (in | | | | | | |
| March, 2000 | (Month/Year): | Current US\$): | | | | | | |
| March, 2000 | February, 2003 | US\$1,000,000 | | | | | | |
| Name of Associated Consu | | No. of Months of Professional | | | | | | |
| | re Consult | Staff Provided by Associated | | | | | | |
| Services Engineers: - | Enginoors | Consultants: 24 man-months | | | | | | |
| Structural Engineers: - SRC | Engineers | 24 Man-monus | | | | | | |
| | oject Director/Coordinate | or, Team Leader) Involved and | | | | | | |
| Functions Performed: Architect | - Benjamin Odame | | | | | | | |
| Quantity Surveyor | - William Osei Mensah | | | | | | | |
| Structural Engineer | - John S. Ankrah | | | | | | | |
| Services Engineer | - Francis Ofori-Mante | | | | | | | |
| Narrative Description of Pr | roject: | | | | | | | |
| Design and Construction Supervision of 25 No. Bedsitters and 10 Room Shopping Complex | | | | | | | | |
| Description of Actual Services Provided by Your Staff: | | | | | | | | |
| Pre & Post Contract Services | - | | | | | | | |
| | | | | | | | | |

Relevant Services Carried Out in the Last Five Years That Best Illustrate Qualifications

| Assignment Name: | Country: Republic of Ghana | | | | | | | |
|--|---------------------------------|--------------------------------|--|--|--|--|--|--|
| CONSTRUCTION AND COMP | | | | | | | | |
| | | | | | | | | |
| THOTEL COM LEX AT ANODWO | HOTEL COMPLEX AT AHODWO, KUMASI | | | | | | | |
| Location within Country: | | | | | | | | |
| | | Professional Staff Provided by | | | | | | |
| Kumasi | | Your Firm/Entity (Profiles) | | | | | | |
| | | rear rum, zmiley (r remes) | | | | | | |
| | | 2 | | | | | | |
| Name of Client: | | No. of Staff: | | | | | | |
| | | 2 (Two) | | | | | | |
| Chariset Hotel | | | | | | | | |
| Address: | | No. of Staff-Months; Duration | | | | | | |
| | | of Assignment: | | | | | | |
| Kumasi | | | | | | | | |
| Start Date (Month/Year): | Completion Date | Approx. Value of Services (in | | | | | | |
| | (Month/Year): | Current US\$): | | | | | | |
| January, 2003 | | | | | | | | |
| | December, 2004 | US\$960,000 | | | | | | |
| Name of Associated Consul | ltants, If any: | No. of Months of Professional | | | | | | |
| | | Staff Provided by Associated | | | | | | |
| | | Consultants: | | | | | | |
| Name of Carion Chaff (Du | aisat Diwaataw/Caawdinat | 13 man-months | | | | | | |
| Name of Senior Staff (Pro Functions Performed: | oject Director/Coordinato | or, Team Leader) Involved and | | | | | | |
| Architect | - Benjamin Odame | | | | | | | |
| Quantity Surveyor | - William Osei Mensah | | | | | | | |
| Structural Engineer | - John S. Ankrah | | | | | | | |
| Services Engineer | - Francis Ofori-Mante | | | | | | | |
| Narrative Description of Pr | | | | | | | | |
| | - | | | | | | | |
| Provision of Hotel Accommoda | | | | | | | | |
| Description of Actual Services Provided by Your Staff: | | | | | | | | |
| Pre & Post Contract Services | | | | | | | | |

Relevant Services Carried Out in the Last Five Years That Best Illustrate Qualifications

| Assignment Name: | Country: Republic of Ghana | | | | | | |
|--|--|---|--|--|--|--|--|
| CONSTRUCTION AND COMP HOSTEL COMPLEX AT LEGON | | | | | | | |
| Location within Country: | | | | | | | |
| LEGON, ACCRA | Professional Staff Provided by Your Firm/Entity (Profiles) | | | | | | |
| Name of Client: | | No. of Staff: | | | | | |
| Name or Chent: | | 2 (Two) | | | | | |
| EVANDY ESTATES | | 2 (1WO) | | | | | |
| Address: | | No. of Staff-Months; Duration | | | | | |
| | | of Assignment: | | | | | |
| LEGON | | | | | | | |
| Start Date (Month/Year): | Completion Date (Month/Year): | Approx. Value of Services (in Current US\$): | | | | | |
| 2004 | | | | | | | |
| | 2007 | US\$3,000,000 | | | | | |
| Name of Associated Consu | | No. of Months of Professional Staff Provided by Associated | | | | | |
| Jitale Cons | sult Ltd. | Consultants: 18 man-months | | | | | |
| Name of Senior Staff (Pro Functions Performed: | oject Director/Coordinate | or, Team Leader) Involved and | | | | | |
| Architect | - Benjamin Odame | | | | | | |
| Quantity Surveyor | - William Osei Mensah | | | | | | |
| Structural Engineer | - John S. Ankrah | | | | | | |
| | - Kwasi Asemone Edjah | | | | | | |
| Narrative Description of Pr | oject: | | | | | | |
| Description of Actual Services Provided by Your Staff: | | | | | | | |
| Architectural, Structural and Se | ervices Designs, Pre-Contract | and Post Contract Services | | | | | |
| | | | | | | | |

Relevant Services Carried Out in the Last Five Years That Best Illustrate Qualifications

| Assignment Name: | Country: Republic of Ghana | | | | | | | |
|--|---|--|--|--|--|--|--|--|
| CONSTRUCTION AND COMP HOSTEL | | | | | | | | |
| Location within Country: | | | | | | | | |
| _ | | Professional Staff Provided by | | | | | | |
| Kumasi | | Your Firm/Entity (Profiles) | | | | | | |
| | | 2 | | | | | | |
| Name of Client: | | No. of Staff: | | | | | | |
| EVANDY ESTATES | | 2 (Two) | | | | | | |
| Address: | | No. of Staff-Months; Duration of Assignment: | | | | | | |
| Kumasi | | | | | | | | |
| Start Date (Month/Year): | Completion Date (Month/Year): | Approx. Value of Services (in Current US\$): | | | | | | |
| October, 2004 | (************************************** | | | | | | | |
| • | March, 2007 | US\$4,120,000 | | | | | | |
| Name of Associated Consu | ltants, If any: | No. of Months of Professional Staff Provided by Associated | | | | | | |
| Architects - A | malgamated Grup | Consultants: | | | | | | |
| Services Engineers - Mu | ultiGroup Consultants | | | | | | | |
| Structural Engineers - Ac | ld Design Group | Man-months | | | | | | |
| Name of Senior Staff (Pro | oject Director/Coordinate | □ or, Team Leader) Involved and | | | | | | |
| Architect | - Benjamin Odame and Em | manuel Eviah Rotwe | | | | | | |
| Quantity Surveyor | - William Osei Mensah | mander Lylan botwe | | | | | | |
| Structural Engineer | - John S. Ankrah | | | | | | | |
| Services Engineer | - Kwasi Asemone Edjah | | | | | | | |
| Narrative Description of Pr | | | | | | | | |
| Provision of Hostel Accommod | ation | | | | | | | |
| Description of Actual Servi | | îf: | | | | | | |
| Architectural, Structural, Pre- & Post Contract Quantity /Surveying Services | | | | | | | | |
| Architectural, Structural, PTE- | A FOSE CONTRACT Qualitity /50 | inveying services | | | | | | |

Firm's Name: KYERE CONSULT & JITALE CONSULT LTD.

3.0 COMMENTS AND SUGGESTIONS OF CONSULTANT ON THE TERMS OF REFERENCE, DATA, SERVICES AND FACILITIES TO BE PROVIDED

3.1 General

The document on the request for proposals generally presents sufficient information to prospective consultants and details out some of the expected contribution of the major parties concerned. However, the Kyere Consult will like to make some comments and suggestions on the following items.

4.0 METHODOLOGY TO BE ADOPTED BY CONSULTANT FOR THE ASSIGNMENT

4.1 Project Appreciation and Client Brief

The Rehabilitation and Refurbishment works for Forensic Science Laboratory (FSL) to be provided have to:

- (i) be designed and be constructed to a high quality finish and to suit and to complement the environment in which they are situated;
- (ii) project and enhance the corporate image of the CID of GPS;
- (iii) incorporate facilities, the use of which will motivate CID's staff to stay committed to its mission;
- (iv) incorporate facilities and services that can be easily maintained by local expertise;
- (v) possess spatial layouts that would minimize obstruction to users and ensure their privacy;
- (vi) be structurally safe, architecturally aesthetic and fulfill the functions for which they were designed.

4.2 Forensic Science Laboratory (FSL)

TO BE WRITTEN BY ARCHITECT

4.3.5 The structural strength of main reinforced concrete members is satisfactory and there will be no need to strengthen these if the existing building is not radically refurbished.

The need to address the observations made above and to consider the instructions given in the brief of the Client, in an efficient manner will inform the approach that the Kyere Consult proposes to use to accomplish the assignment at hand. The approach (methodology) is bound to produce a laboratory that will serve the purposes for which they are designed, constructed to specifications and to good quality, within time and cost. The methodology is summarized in the sequence of tasks illustrated in the chart of Fig. 4.1 and expanded on subsequently.

4.4 Methodology

Kyere Consult will carry out the assignment in two phases – Pre-contract (Phase 1) and Post-contract (Phase 2).

4.4.1 PHASE 1 - Pre-Contract

4.4.1.1 Reconnaissance

A visit will be made to the site during which:

- observations will be made of peculiarities of the site such as the relative location of existence structures, their present uses and the relevance and adequacy for intended uses;
- (ii) the topography of the sites will be observed and spot levels taken;
- (iii) non-destructive tests (by Schmidt hammer) made of main structural elements to assess their compressive strengths and structural reliability;
- (iv) samples of sub-soil will be taken by trial pits to a maximum depth of 1.5m, for laboratory testing to determine soil bearing capacities, and soil plasticity (for supporting of columns;
- (v) existence of service lines (water, electricity telephone) and their relevance will be noted.

Duration: 2 days

4.4.1.2 Preliminary Designs

Preliminary architectural sketches of the proposed laboratory will be prepared for the attention of the Client. The designs to be presented will be:

- (i) a refurbishment of existing structures;
- (ii) completely new designs in line with the CID's brief.

Duration: 4 days

4.4.1.3 Inception Report

The reconnaissance survey and preliminary data on tests on sub-soil samples will culminate in an Inception Report detailing out design data, architectural and engineering design options, constraints on the assignment and strategies to overcome potential problems to enable the project's completion in the time frame envisaged.

Duration: 1 day

4.4.1.4 Validation Meeting

Subsequent to the production of an Inception Report and preliminary architectural sketches for the Client, a Validation Meeting will be held with Client, by which time the Client would have studied the report and sketches. The validation meeting will discuss the Client's comments on issues raised in the Inception Report and the appropriateness of the preliminary sketches in answering the objectives of CID. At the validation meeting also, tentative suggestions on the structural form for the completed structure, the wall fabric, services distribution system planned and material/finish specification will be discussed.

Duration: 1 day

4.4.1.5 Detailed Architectural and Engineering Design

An audit of the existing buildings, CID's brief and answers to the engineering concerns as presented in Section 4.1 will inform the detailed architectural/engineering designs. The designs envisaged will have the following:

(i) Architectural

- design of refurbished and new guest houses options;
- preparation of fenestration schedules;
- material specification;
- landscaping and external space design.

(ii) Structural Engineering

- design of structural load carrying members in slabs, beams, columns, roofs and foundations and the method of strengthening existing ones, should there be only refurbishments;
- design of supporting structures for services;

- preparation of specifications for materials.

(iii) Services Engineering

- cabling design for TV, internet and telephone facilities and material specification;
- design of electricity supply and conduiting
- design of, and positioning of standby generator sets, boreholes and bulk water storage facilities
- Provide gas supply to the laboratory
- Provide water supply to the laboratory
- Design waste disposal system

Duration: 4 weeks

4.4.1.6 Preparation of Contract Documents

Based on the architectural and engineering designs and the technical specifications stipulated, contract documents will be prepared which will enable the construction of the envisaged designs to be tendered for; and, following the evaluation of a successful bid given out for construction. The preparation of the Contract Documents will be in conformity with the Public Procurement Law Act 663 and nationally accepted contract rules, and will include:

- (i) Invitation for Bids and Instruction to Bidders;
- (ii) General Conditions of Contract;
- (iii) Tender Drawings and Specifications;
- (iv) Tender Data Forms for Securities for Bid and Performance;
- (v) Guarantee of Advance Payment Preparation and Bid Evaluation Criteria.

Suitable contractors will be subsequently invited by the Client to tender for the construction of the facilities, using the Contract Documents and conforming to the bid response criteria prepared by the Consultant and Supervision. Responsive bids from contractors will be evaluated by the Consultant and reported to the Client by way of the Tender Evaluation Report. This activity will be completed two weeks after the closing and opening of tenders. The invitation of contractors and bid evaluation will take four (4) weeks after the submission of design/contract documents.

The successful contractor will subsequently be appointed by the Client, according to the appropriate rules, to carry out the works according to the construction strategies suggested by the Consultant and agreed to by the Client.

The choice of contractor will mark the end of phase 1 of the assignment. The request for contractors bidding, evaluation of bids and appointment of contractors should take 7 weeks.

4.4.2 PHASE 2 - Post-Contract

The Post-Contract Phase of the assignment is made up of the supervision of the construction and post-construction monitoring and final reporting.

4.4.2.1 Supervision of Construction

The supervision of the construction will be in consonance with internationally accepted methods of the construction industry and will be to the specification and methods outlined in the contract documents. The supervision of the construction will be by a team of experienced technical staff as outlined in Section 5.0 and will involve, among others:

- (i) Representing the interest of the Client in any matter related to the construction contract;
- (ii) Sampling of procured materials, prior to their use in the works and the testing of materials by suitable methods such as concrete cube tests and non-destructive (Schmidt hammer) tests;
- (iii) Carrying out of half-monthly appraisal meetings and performance rating in zero time and cost overrun standard;
- (iv) Review and approve the contractors work schedules and any other plans or programmes which the contractor is obliged to furnish the Consultant for his appraisal;
- (v) Periodic valuation of work for payment of work done by contractor;
- (vi) Preparation and submission of monthly reports required by the Client on the description of activities performed, progress of works, the contractor's performance, quality of work and the projects financial status and forecasts;
- (vii) Offering timely advice to the Client, on potential problems which may arise in connection with the construction and recommendation for possible solutions;

(viii) Organsing the Consultant's supervisory staff such that the works are supervised efficiently, safely and to specification.

Duration: 24 months

4.4.2.2 Post-Construction Monitoring and Final Reporting

At the end of the construction of the Forensic Science Laboratory (practical completion), the following activities will take place which will represent the Final Reporting (Closure) of the project.

- (i) Supervision of remedial work in the defect liability/monitoring period (6 months);
- (ii) Draft Final Report, incorporating;
 - The as-built drawings, photographic representation of physical works completed and the peculiarities of the project that might need special attention during the use of the facilities;
 - Facilities Operations and Maintenance Plan for the buildings containing, in schedule format, information on the long-term maintenance of the buildings such as:
 - Description of materials products used;
 - Names and addresses of manufacturers/suppliers;
 - Location of materials/products;
 - Comments on availability/installation;
 - Recommended maintenance/servicing/cleaning cycles;
 - Recommended inspection cycles.
- (iii) Interim Final Account Position;
- (iv) Construction Completion Report, including the following information, among others.
 - A chronology of the construction works for the contract, including method of construction;
 - The final balance of accounts for the Contract including a payment history;
 - A description of and the reasons for the main design changes made in the course of the contract;

- Any recommendations as to additional work which may be needed and the justification thereof;
- Delays of work caused by all events in the construction contract;
- Details of Final Account.

Duration: 24 weeks (including 4 weeks for Final Reporting)

The Activity Schedule is shown in Fig. 4.2.

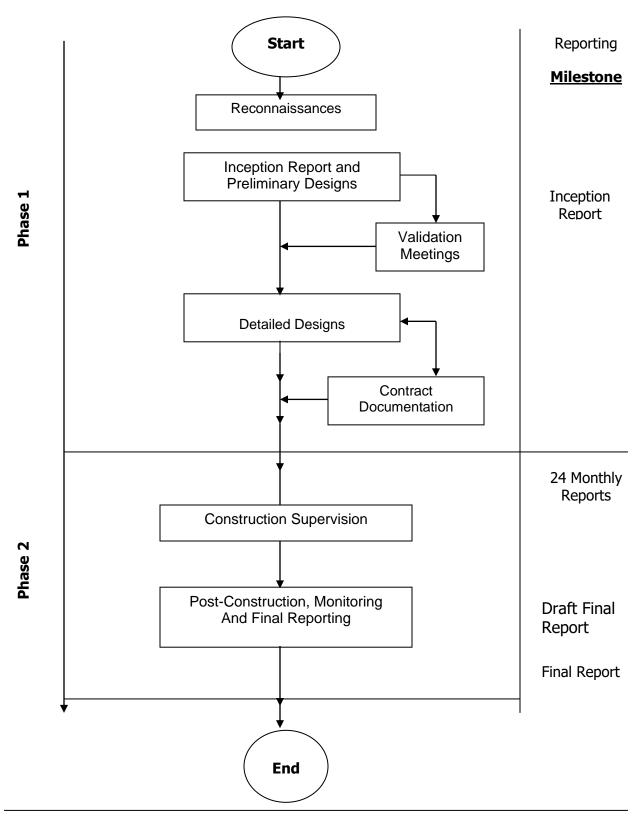


Fig. 4.1: Flow Chart of Methodology

Fig. 4.2: Activity Schedule

| | | | | | | | | | | | М | onth | s (in | the I | Form | of a | Bar | Chai | t) | | | | | | | |
|-----|-----------------------------|----------------------|---|---|---|---|---|---|---|---|---|------|-------|-------|------|------|-----|------|----|----|----|----|----|----|----|-------|
| No. | Activity | Duration (Months) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24-34 |
| 1.0 | PHASE ONE | 3.0 | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.1 | Reconnaissance | 0.02 | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.2 | Preliminary Design | 0.20 | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.3 | Inception Report | 0.02 | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.4 | Validation | 0.01 | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.5 | Detailed Design | 0.75 | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.6 | Contract Documentation | 2.0 | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.0 | PHASE TWO | 31.0 | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.1 | Supervision of Construction | 24.0 | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.2 | Post Cost Monitoring | 6.0 | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.3 | Final Reporting | 1.0 | | | | | | | | | | | | | | | | | | | | | | | | |

5.0 TEAM COMPOSITION AND BASIC ASSIGNMENT

5.1 Introduction

The Consultant is of the opinion the expertise gained in the provision of residential, educational and recreational structures, refurbishment of private/public buildings, and mass housing all over Ghana by members of the Kyere Consult, stands it in good stead to carry out the assignment of designing and supervising the executive guest house at Nhyiaeso as indicated in the brief strategy in Section 2.0.

The proposed key staff to be assigned to the project and their supporting staff, are professionals who have the requisite training and experience to handle the various assigned tasks needed to execute the project.

The Curriculum Vitae of the key personnel are given in *Appendix A*.

5.2 Duties and Responsibilities of Consultant's Staff

(i) Team Leader/Architect – Arc. Benjamin Godwin Odame

Arc. Benjamin Odame is a seasoned architect with over 29 years post-qualification experience in the design of housing, recreational, Hotel and commercial facilities and management. He has designed and supervised projects funded by international agencies such as the African Development Bank and Multi-lateral donors. He also has vast and varied experience in supervision and management in all the regions of Ghana.

Mr. Odame (C.V. No.1) has been nominated for the position of Project Coordinator/Team Leader. We believe he has the requisite experience to offer an efficient and hands-on management of the project.

(ii) Structural Engineer – John Solomon Ankrah

Mr. John S. Ankrah is an accomplished Civil/Structural engineer with over 15 years post-qualification experience. He has been involved in the structural design/construction of major buildings such as multi-storey Hotels at the KNUST, Academic Block at Kumasi Polytechnic, Multi-Storey Lecture Theatre at Sunyani Polytechnic and University of Education Kumasi - Campus. He has been a co-ordinator of the PERP project in the three northern regions of Ghana. He has been extensively involved in the testing of concrete and other materials to assess their compliance to specifications.

Mr. Ankrah (C.V. No.2 will be in charge of Civil/Structural Engineering.

(iii) Quantity Surveyor – Mr. William Osei Mensah

Mr. William Osei Mensah is a very accomplished quantity surveyor with 19 years postqualification experience during which he has handled almost every challenging contract administration assignment within and outside Ghana. He has handled pre and post contract services for the, Offices, laboratories and Student Hotels for the KNUST, Kumasi Polytechnic, UDS (Wa and Tamale Campus) and Ashanti Goldfields Company.

Mr. Osei Mensah (C.V. No.3) is being nominated as the Quantity Surveyor for this project. His vast experience will ensure a smooth and successful contract management for this assignment.

(iv) Mechanical Engineer – Mr. Francis Ofori-Mante

Mr. F. Ofori-Mante has over 46 years post-qualification experience in the design, detailing, bid evaluation, supervision and testing of mechanical engineering works that have to do with air-conditioning, fire protection services, water supply and sewerage treatment plants for large, medium and small residential communities.

Mr. Ofori-Mante (CV No. 4) will be the mechanical engineer in the project. He has a comprehensive hands-on experience in the provision of mechanical services, having been involved in almost all the mass housing schemes in Ghana in the last ten years.

(v) Electrical Engineer – Mr. Kwasi Asemone Edjah

Mr. Asemone Edjah is an accomplished electrical engineer and has over 40 years postqualification experience in the provision of electrical systems for residential buildings, community and urban water/sewerage schemes, office and industrial premises.

These electrical services are made up of the design, detailing, tender documentation and evaluation, installation supervision and hand-over procedures/testing.

Mr. Asemone Edjah (CV No. 5) brings to the project the wide ranging experience that will see to a successful completion of the project.

COMPOSITION OF THE TEAM PERSONNEL AND THE TASK THAT WOULD BE ASSIGNED TO EACH TEAM MEMBER

Technical/Managerial Staff

| Name | Position | Task |
|---------------------|---------------------------|---|
| Benjamin W. Odame | Team Leader/Architect | Shall be responsible for overall project Co-ordination/Reporting/Conduct Site Meetings |
| John S. Ankrah | Civil/Structural Engineer | Shall be responsible for the design of all Civil/Structural Engineering works, supervision, assessing results of tests, Ensuring Quality control and Reporting. |
| William O. Mensah | Quantity Surveyor | Shall be responsible for the overall financial management of the project, Prepare Tender Documents, Bid Evaluation, Evaluate Contractor's claims, Control project cost overruns and reporting |
| Francis Ofori-Mante | Mechanical Engineer | Shall be responsible for the design/supervision of all Mechanical Engineering Works. Supervise the installation of Equipment, Overseeing and assessing test results and reporting |
| K. Asemone Edjah | Electrical Engineer | Shall be responsible for design/supervision of all Electrical Engineering works, supervise installation of electrical equipment, overseeing and assessing test results and reporting |

Support Staff

| Name | Position | Task |
|----------------------|------------------------------------|--|
| Emmanuel Eyiah-Botwe | Architect | Shall be responsible for Site Supervision of all architectural works and reporting. |
| Samuel Dadzie | Civil/Structural Engineer | Shall be responsible for site supervision, testing of materials, quality control and reporting. |
| Dr. C. Akayuli | Geotechnical/Materials Engineer | Shall be responsible for carrying out site investigations including geotechnical studies, and assessing test results, ensuring quality control and Reporting |
| G.M. Eto | Geodetic Engineer | Shall be responsible for setting out and provide spot freights to be used for design of residential facility including external landscape. |
| Theophilus Laryea | Services Engineer | Shall be responsible for site supervision of all Mechanical/Electrical Installation works, assessing test results and reporting. |

Table 5.1:

WORK PLAN AND TIME SCHEDULE FOR KEY PERSONNEL

ACTIVITY NO.1 – DESIGN

| No | Name | Position | Reports Due/Activities | WEEKS (In the form of a Bar Chart) | | | | | | | | | | | | Total | | | | |
|----|----------------------|----------------------------------|--|------------------------------------|---|---|--------|----------|------|---|---|-----|--------|----|----|-------|----|---|----|----------|
| | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | <u> </u> |
| 1 | Benjamin Odame | Architect/ Team Leader | Responsible of Overall Project Management and Co-ordination, Planning and Reporting | | | | \ \ | | | | ļ | | | | | | | | | 8 |
| 2 | John Solomon-Ankrah | Civil/ Structural Engineer | Responsible for structural design of Forensic Science Laboratory Management, Quality control, Monitoring and Supervision | | | | |] | | | |] |]] | | | | | | | 5 |
| 3 | William Osei Mensah | Quantity Surveyor | Responsible for Overall financial management of projects, Prepare Contract documents and Evaluation Report | | | | | // | | | | | | | | | | | | 10 |
| 4 | K. Asemone Edjah | Electrical Engineer | Responsible for design/supervision of all electrical engineering works including installation of Electrical equipment | | | | | | |] |] | /// | | | | | | | | 5 |
| 5 | Francis Ofori- Mante | Mechanical Engineer | Responsible for Design of all Mechanical Engineering Works including Installation of Mechanical Equipment | | | | | <u> </u> | |] |] | | | | | | | 1 | | 5 |

Table 5.2:

WORK PLAN AND TIME SCHEDULE FOR KEY PERSONNEL

ACTIVITY NO.2 – CONSTRUCTION SUPERVISION

| No | Name | Position | Reports Due/Activities | MONTHS (In the form of a Bar Chart) | | | | | | | | | | | | | Total | | | | | |
|----|-------------------------|----------------------------------|--|-------------------------------------|-------|----|----|-----------|-----|-----|-----------|---|-----|----|----|----|-------|----|----|----|------|----|
| | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | - 24 | |
| 1 | Benjamin Odame | Architect/ Team Leader | Responsible of Overall Project Management and Co-ordination, Planning and Reporting | |) | // | | | | | | | | | | | 1 | Ī | | | | 16 |
| 2 | John Solomon- Ankrah | Civil/ Structural Engineer | Responsible for Construction Supervision of Forensic Science Laboratory, Management, Quality control and Monitoring | | | | // | | /// | | | | | | | | | | | | | 13 |
| 3 | William Osei Mensah | Quantity Surveyor | Responsible for Overall financial management of projects, Evaluate contractor's Claims, Contract administration and Implementation | | /// | | | // | | | | | | | | | | | | | | 15 |
| 4 | K. Asemone Edjah | Electrical Engineer | Responsible for Supervision of all electrical engineering works including installation of Electrical equipment | | | | | | | /// | <i>[]</i> | | /// | | | [| | | | | | 18 |
| 5 | Francis Ofori- Mante | Mechanical Engineer | Responsible for Supervision of all Mechanical Engineering Works including Installation of Mechanical Equipment | | | // | | | | | | | | | | | | | | | | 18 |

APPENDIX A

CV No.1 - Arc. Benjamin Godwin Odame

CV No.2 - John Solomon Ankrah

CV No.3 - William Osei Mensah

CV No.4 - F. Ofori-Mante

CV No.5 - Kwasi Asemone Edjah

Position : Principal Manager
Name of Consultancy : **KYERE CONSULT**

Name of Staff : Benjamin Godwin Odame

Profession : Architect

Date of Birth : 29th March, 1952

Years with Consultant/Entity: 4 years Nationality: Ghanaian

Membership in Professional Societies: Associate Member, Ghana Institute of Architects

Detailed Tasks Assigned

Responsible for the Management of the entire project from conception to completion, Coordination and Supervision of the entire project.

KEY QUALIFICATION

Experience and Training

29 years professional experience, mainly in Civic, Educational and Domestic designs as well as teaching experience as a Senior Lecturer, KNUST.

Planning, Feasibility Studies, Development of Brief, design of Banks, Offices, Shopping Malls, Residential and Student accommodation.

Design, Preparation of sketch designs, working drawings, details, landscape designs and construction supervision.

Supervision: Supervision of Construction project, Banks, Shopping Complexes, Office Blocks, and Educational Buildings. Monitoring and Evaluation of projects from inception to completion.

EDUCATION

2000 : M.Sc. Construction Management

Kwame Nkrumah University of Science and Technology (KNUST), Kumasi,

Ghana

1980 : Post Graduate Diploma in Architecture

Kwame Nkrumah University of Science and Technology (KNUST) Kumasi,

Ghana

1978 : B.Sc. Design

Kwame Nkrumah University of Science and Technology (KNUST) Kumasi,

Ghana

EMPLOYMENT RECORD

2009 - 1980 : Lecturer, Kwame Nkrumah University of Science and Technology

1980 - 2009: **Practicing Architect**

MAIN ENGAGEMENTS DURING LAST FIFTEEN YEARS

2009 - Extensions to Chariset Hotel, Ahodwo – Kumasi Charity Agyeiwaa

> Six – Storey Bank, Hotel and Shopping Mall, Office Spaces and Shop Spaces

Owusu Boateng

Bank, Hotel and Shopping Mall, Spintex Road – Accra Design and Construction Supervision of 4-Storey 2008 -

Hostel and Shops, Kentinkronu - Kumasi

Mr. Anane, Canada

Georgia Hostel

Construction and Supervision of the Design

2006 -Refurbishment of Banking Hall at Nhyaieso, Kumasi CAL BANK

Design and Construction Supervision of Faculty of

Pharmacy Guest House

KNUST

Design and Construction Supervision of 25 No. Unit

2000 -Charlets at Kumasi Hotel Georgia

Design and Construction Supervision of 12 No.

Housing Units at Kokoben, Kumasi

Design and Construction Supervision of 25 No. Bedsitters and 10 Room Shopping Complex at Kumasi

Hotel Georgia

1999 -Design of Barclays Bank premises at Hotel Georgia Annex at Nhyaieso, Kumasi

> Team member, Design and Construction Supervision of the Rehabilitation of an Existing Ghana Commercial Bank Building into Banking Hall and Offices for Bank of Bank of Ghana Ghana

1994 - Design and Construction of Tissue Culture Centre

Ghana Atomic Energy,

Accra

1995 - Design and Construction Supervision of the

Rehabilitation

An Existing Building into offices at Accra

Lufthansa Airlines

Design and Construction Supervision of 24 Room

Hotel Complex Hostel at Ahodwo, Kumasi

Chariset Hotel

Design and Construction Supervision of the Rehabilitation

An Existing Building into Bank Premises at Kumasi

Merchant Bank (Gh) Ltd.

Design of the Proposed 10-Room Hotel Complex at Ajnac Hotel, Kumasi Abrepo

LANGUAGE PROFICIENCY

| LANGUAGES | SPEAKING | READING | WRITING |
|----------------|-------------------|-------------------|-------------------|
| English Twi | Very Good Good | Very Good Good | Very Good Good |
| Ga | Good | Good | Fair |

| Certification: | |
|--|-------------------------------------|
| I, the undersigned, certify that to the best of my knowledgescribe me, my qualification and my experience. | ge and belief, these data currently |
| (Signature of staff member & authorized representative of the firm) | Day/Month/Year |
| Full name of staff member: | |
| Full name of authorized representative: | |

Position : Project Engineer

Name of Consultancy : **KYERE CONSULT**

Name of Staff : John Solomon Ankrah

Profession : Civil/Structural Engineer

Date of Birth : 26th July, 1967

Years with Consultancy/Entity: 4 years Nationality : Ghanaian

Membership in Professional Body: Member, Ghana Institution of Engineers

Detailed Task Assigned:

Will be responsible for Design and Detailing of Educational Infrastructure and Site Supervision.

Key Qualifications:

Mr. Ankrah has nine years post qualification experience as a Civil Engineer mainly in the field of Structural Engineering. He has been involved especially in Computer applications of structural analysis, design and detailing. He has considerable experience in the provision of water supply and waste disposal systems, foundation engineering, construction estimation, organization, planning and management. He was:

- Assistant Resident Engineer for the construction of 14-storey Primer Towers for SSNIT on Liberia Road, Accra.
- Member of design team for VRA Takoradi Thermal Power Projects Township development.
- Supervised the Rehabilitation of 4 No. Bungalows for Lecturers at University of Education, Winneba, Kumasi Campus
- Member, Supervision Team of Rehabilitation & Upgrading of Effiduase Secondary/Commercial School
- Designed and Supervise 4-Storey Classroom Complex for Degree Programmes for Kumasi Polytechnic (GETFund)
- Member, Design Team, Auditorium and Lecture Theatre Complex for University of Education, Kumasi Campus (GETFund)
- Designed and Supervised the Construction and Completion of Library Complex for Sunyani Polytechnic (GETFund)
- Designed and Supervised the Construction and Completion of Sports Complex for University of Education, Mampong Campus (GETFund)
- Team member in subsidence assessment and structural inspection/appraisal of various buildings in Accra and Kumasi.

- Designed and Supervised the Construction and Completion of 18m, 30m, and 45m span suspension steel bridges carrying a 16-way duct system (G.I. Pipes) crossing various streams in Accra for Ghana Telecommunication Ltd.
- Designed Telecommunication Transmission Towers for Ghana Telecom Ltd.
- Designed and Supervised the Construction of a School Complex situate on Plot No. 11A Block 'N' Kumasi for Malincol Educational Centre.

Education:

- M.Sc (Civil Engineering), 1996. St. Petersburg State University of Architecture and Civil Engineering, St. Petersburg, Russia.
- B.Sc (Civil Engineering), 1995. St. Petersburg State University of Architecture and Civil Engineering, Russia.

Employment Record:

2000 to Date

Projects carried out include:

- Supervision of construction work at the Food Research Institute, CSIR Secretariat and animal Research Institute, Accra.
- Member of design team and supervision teams of construction of Classrooms and Guest Houses for Kasena Nankani District Assembly, Navrongo.
- Member of design team for 9No. foot bridges for Wli Falls, Hohoe District Assembly/Ghana Tourist Board.
- Project Leader for the following projects:
- (i) Construction of Administration Block, Headmaster's Bungalow and a 6 unit Classroom block for Sirigu Senior Secondary School at Navrongo. (Kassena-Nankana District Assembly).
- (ii) Construction of Conference Hall Complex and 3 bedroom bungalow for Savannah Agricultural Research Institute Nyankpala, Northern Region.
- (iii) Construction of Urban Council Offices and 18 unit classroom block at Akim Oda for Birim South District Assembly.

- (iv) Construction of Dormitory Block and Auditorium for Sunyani Polytechnic.
- (v) Project Engineer of the Primary Education Rehabilitation Project (PERP).

This involves the Construction of 3-Classroom Block and 4-Unit KVIP Toilet Block in 275 Locations in the Northern, Upper East and Upper West Regions.

(vi) Project Engineer on the on-going Promoting Partnerships with Traditional Authorities Project (PPTAP) Educational Sub-component.

This involves the Construction/Rehabilitation of 6-Unit Classroom Blocks, 3-Unit Classroom Block, 6-Bedroom Teachers Quarters, 20-Seater and 10-Seater Aqua Privy Toilets Facilities. 10-Seater Enviro-Loo Toilet Facility and Drilling of Boreholes and Installation of Hand pumps in 40 deprived communities within the Ashanti Region of Ghana.

1998 – 2000 Project Engineer Telecommunication Consultant, India Ltd.

Projects include:

- Designed F1, F2, F3, S2, S3, S4, S5, S6, L2, L3, L4, L5, and L6 manholes.
- Designed Weija Exchange Vault.
- Designed Steel Structure attachment to various bridges carrying 12-way duct systems G.I. Pipes
- Supervised laying of PVC and G.I. Pipes under the Copper Subscriber Access Network Project (CAN).
- Designed and Supervised the construction of 18m, 30m, 35m and 45m span suspension steel bridges.

1997 - 1998 Site Engineer, Environmental Engineering Ltd., Accra. Projects involved include:

 Supervision of laying of water mains in Abeka area under the Accra-Tema Water Rehabilitation Project.

- Supervised Relocation of water mains at Bantama, Park and Mampong Roads under the Kejetia Redevelopment and Traffic Management and Kumasi Central Market Development Project (Urban II Project).
- Supervision of Relocation of water mains for the construction of access roads in some depressed areas in Accra (Sabon Zongo) under the Urban Transport Project.

Structural Engineer, Strescon Engineering Consultancy, Accra.

Responsibilities included:

1996 - 1997

- Assistant Resident Engineer for the construction of 16-storey office complex for SSNIT (DSOA) on Liberia Road, Accra.
- Member of design team for the design of Administration block, Club House and Township Development for VRA under the Takoradi Thermal Power Project.
- Member of design team for the proposed New Office complex for the Tema Development Corporation.
- Member of design team on subsidence assessment and structural inspection/appraisal of some buildings in Accra.
- Design of 3-Box culverts and Bridge over River Densu under the Redesign of Accra Yamoransa Road Project.
- Supervised the Rehabilitation of 6-Km Feeder Road in the Eastern Region.

Jan 1996 - Aug. 1996

Other Professional Experience

Assistant Engineer, UGO-ZAPAD Consultancy, St. Petersburg, Russia.

- Design and construction supervision of bunkers, silos and reinforced concrete shell roofs.
- Checking of structural Design calculations submitted to Local Authority as part of building regulation applications.

Mar 1995 - Dec. 1995 Assistant Engineer, UNOST Construction, St. Petersburg, Russia.

- General supervision of all laboratory tests and the ensuring of safe site working practices for the construction of workers hostels and access roads.
 - Ensuring of standards of workmanship, specification of materials and maintenance for the refurbishment of Marinski Theatre.

Other Projects Undertaken

- Member of Design Team of a 3-Storey School Complex at Ofankor in Accra;
- Member of Design Team of a Proposed 2-Storey Office and Warehouse Complex in Tema for Kuapa Kokoo Ltd.,
- Member of Design Team of a Proposed 4-Storey Office Complex for Kuapa Kokoo Ltd. in Kumasi;
- Member of Design and Supervision Teams of 4-Storey Office Complex at Circle in Accra for Ernest Chemist Ltd;
- Member of Design Team of 3-Storey Office Complex for Atwima Kwanwoma Rural Bank Ltd. in Kumasi.
- Design and Construction Supervision of a proposed 5storey Press Centre situate on Plot No.4 New Bekwai Road, Kegyesi Extension, Kumasi for Nana Amma Afriyie;
- Designed and Supervised the Construction and Completion of Factory Complex for Nnuro Kente Ltd. at Atonsu;
- Designed and Supervised the Construction and Completion of Aboasi Beach Resorts at Aboadze – Aboasi Western Region for Aboasi Beach Resorts Ltd.
- Designed and Supervised the Construction and Completion of GHACEM Offices Extension at Tema for GHACEM Ltd.
- Designed and Supervised the Construction and Completion of 4-Storey Hotel and Conference Hall and Associated External Works at South Patase, Kumasi for Mr. F. Grant;
- Designed a Proposed 4-Storey Bank and Office Complex Building on Plot No.455 Sec. 'B', Old Twon, Kumasi for St. Peters Co-operative Credit Union;

 Designed and Supervised the Construction and Completion of Silicon Centre – Phase II – 2 No. 3-Storey Hotel Blocks and 1 No. 2-Storey Amenities Block at Kentinkrono – Kumasi.

2000 to Date Projects carried out include:

- Supervision of construction work at the Food Research Institute, CSIR Secretariat and animal Research Institute, Accra.
- Member of design team and supervision teams of construction of Classrooms and Guest Houses for Kasena Nankani District Assembly, Navrongo.
- Member of design team for 9No. foot bridges for Wli Falls, Hohoe District Assembly/Ghana Tourist Board.
- Project Leader for the following projects:
 - (i) Construction of Administration Block, Headmaster's Bungalow and a 6 unit Classroom block for Sirigu Senior Secondary School at Navrongo . (Kassena Nankana District Assembly)
- (ii) Construction of Conference Hall Complex and 3 bedroom bungalow for Savannah Agricultural Research Institute Nyankpala Northern Region.
- (iii) Construction of Urban Council Offices and 18 unit classroom block at Akim Oda for Birim South District Assembly.
- (iv) Construction of Dormitory Block and Auditorium for Sunyani Polytechnic.
- (v) Project Engineer of the Primary Education Rehabilitation Project (PERP).

This involves the Construction of 3-Classroom Block and 4-Unit KVIP Toilet Block in 275 Locations in the Northern, Upper East and Upper West Regions. (vi) Project Engineer on the on-going Promoting Partnerships with Traditional Authorities Project (PPTAP) Educational Sub-component.

> This involves the Construction/Rehabilitation of 6-Unit Classroom Blocks, 3-Unit Classroom Block, 6-Bedroom Teachers Quarters, 20-Seater and 10-Seater Aqua Privy Toilets Facilities. 10-Seater Enviro-Loo Toilet Facility and Drilling of Boreholes and Installation of Hand pumps in 40 deprived communities within the Ashanti Region of Ghana.

1998 – 2000 Project Engineer Telecommunication Consultant, India Ltd.

Projects include:

- Designed F1, F2, F3, S2, S3, S4, S5, S6, L2, L3, L4, L5, and L6 manholes.
- Designed Weija Exchange Vault.
- Designed Steel Structure attachment to various bridges carrying 12-way duct systems G.I. Pipes
- Supervised laying of PVC and G.I. Pipes under the Copper Subscriber Access Network Project (CAN).
- Designed and Supervised the construction of 18m, 30m, 35m and 45m span suspension steel bridges.

Site Engineer, Environmental Engineering Ltd., Accra.

Projects involved include:

- Supervision of laying of water mains in Abeka area under the Accra-Tema Water Rehabilitation Project.
- Supervised Relocation of water mains at Bantama, Park and Mampong Roads under the Kejetia Redevelopment and Traffic Management and Kumasi Central Market Development Project (Urban II Project).
- Supervision of Relocation of water mains for the construction of access roads in some depressed areas in Accra (Sabon Zongo) under the Urban Transport Project.

1996 - 1997 Structural Engineer, Strescon Engineering Consultancy, Accra.

Responsibilities included:

- Assistant Resident Engineer for the construction of 16-storey office complex for SSNIT (DSOA) on Liberia Road, Accra.
- Member of design team for the design of Administration block, Club House and Township Development for VRA under the Takoradi Thermal Power Project.
- Member of design team for the proposed New Office complex for the Tema Development Corporation.
- Member of design team on subsidence assessment and structural inspection/appraisal of some buildings in Accra.
- Design of 3-Box culverts and Bridge over River Densu under the Redesign of Accra Yamoransa Road Project.
- Supervised the Rehabilitation of 6-Km Feeder Road in the Eastern Region.

Other Projects Undertaken

Other Professional Experience

Assistant Engineer, UGO-ZAPAD Consultancy, St. Petersburg, Russia.

- Design and construction supervision of bunkers, silos and reinforced concrete shell roofs.
- Checking of structural Design calculations submitted to Local Authority as part of building regulation applications.

Mar 1995 - Dec. 1995

Assistant Engineer, UNOST Construction, St. Petersburg, Russia.

- General supervision of all laboratory tests and the ensuring of safe site working practices for the construction of workers hostels and access roads.
- Ensuring of standards of workmanship, specification of materials and maintenance for the refurbishment of Marinski Theatre.

Other Projects Undertaken

- Member of Design Team of a 3-Storey School Complex at Ofankor in Accra;
- Member of Design Team of a Proposed 2-Storey Office and Warehouse Complex in Tema for Kuapa Kokoo Ltd.,

- Member of Design Team of a Proposed 4-Storey Office Complex for Kuapa Kokoo Ltd. in Kumasi;
- Member of Design and Supervision Teams of 4-Storey Office Complex at Circle in Accra for Ernest Chemist Ltd;
- Member of Design Team of 3-Storey Office Complex for Atwima Kwanwoma Rural Bank Ltd. in Kumasi.
- Design and Construction Supervision of a proposed 5-storey Press Centre situate on Plot No.4 New Bekwai Road, Kegyesi Extension, Kumasi for Nana Amma Afriyie;
- Designed and Supervised the Construction and Completion of Factory Complex for Nnuro Kente Ltd. at Atonsu;
- Designed and Supervised the Construction and Completion of Aboasi Beach Resorts at Aboadze – Aboasi Western Region for Aboasi Beach Resorts Ltd.
- Designed and Supervised the Construction and Completion of GHACEM Offices Extension at Tema for GHACEM Ltd.
- Designed and Supervised the Construction and Completion of 4-Storey Hotel and Conference Hall and Associated External Works at South Patase, Kumasi for Mr. F. Grant;
- Designed a Proposed 4-Storey Bank and Office Complex Building on Plot No.455 Sec. 'B', Old Twon, Kumasi for St. Peters Co-operative Credit Union;
- Designed and Supervised the Construction and Completion of Silicon Centre – Phase II – 2 No. 3-Storey Hotel Blocks and 1 No. 2-Storey Amenities Block at Kentinkrono – Kumasi.

| Languages: | Speaking | Writing | Reading |
|------------|-----------|-----------|-----------|
| English | Excellent | Excellent | Excellent |
| Russian | Excellent | Excellent | Excellent |
| Ga | Excellent | Excellent | Excellent |
| Twi | Good | Fair | Fair |

Position : Project Architect

Name of Consultancy : **KYERE CONSULT**

Name of Staff : Emmanuel Eyiah Botwe

Profession : Architect

Date of Birth : 1st August, 1966

Years with Consultant : 2 years Nationality : Ghanaian

Membership in Professional Societies: Associate, Ghana Institute of Architects (AGIA)

Detailed Tasks Assigned

Responsible for the Design, Co-ordination and Supervision of the project.

KEY EDUCATION

Experience and Training

13 years professional experience, mainly in Civic, Educational and Domestic Designs.

Planning, Feasibility Studies, Development of Brief, Residential and Student accommodation.

Design, Preparation of sketch designs, working drawings, details, landscape designs.

Supervision: Supervision of Construction project, Office Blocks, and Educational Buildings. Monitoring and Evaluation of projects from inception to completion.

EDUCATION

2000 - 2004 : M.Sc. Construction Management

Kwame Nkrumah University of Science and Technology (KNUST), Kumasi,

Ghana

1994 : Exchange Programme in Switzerland with Obrist and Partner

1991 – 1993 : Post Graduate Diploma in Architecture

Kwame Nkrumah University of Science and Technology (KNUST) Kumasi,

Ghana

1988 - 1991 : B.Sc. Architecture

Kwame Nkrumah University of Science and Technology (KNUST) Kumasi,

Ghana

EMPLOYMENT RECORD

2005 – 2009 : Lecturer, Kumasi Polytechnic

2002 - 2009 : Jitale Consult Ltd. Principal Architect, Managing Director

1997 – 2005 : Kobaku & Associates, Senior Architect

1996 – 1998 : ADP/Kobaku and Associates, Resident Architect

1994 – 1995 : Obrist und Partner, Architectural Assistant

1993 – 1994 : Ralph and Chris Sunderland Design Studio

MAIN ENGAGEMENTS DURING LAST TEN YEARS

2009 - Design and Construction Supervision of Banking Premises for Intercontinental Bank IBG Ltd., Adum-Kumasi

Supervision of Extension and External works to Techiman Branch, IBG Ltd.

Design of Proposed Shopping Mall and Banking Hall at Techiman for Diamono Pharmacy Ltd.

Design of Proposed Bank Premises for Shai Rural Bank – Dodowa

Design of 120 Room Hostel Complex at Legon (Phase II), for Evandy Estates

Design and Supervision of Office Block and Shopping Complex in Kumasi, for Offinso Traditional Stool

Design and Supervision of 3-Storey Banking Hall, Office and Shopping Arcade for Topman Co. Ltd. Kumasi

Proposed Design of 3-Storey Offices and Research Laboratory Complex for Animal Research Institute

Supervision of Construction of Banking Hall for Zenith Bank at Kumasi Polytechnic.

2006 - Design and Supervision of 4-Storey Offices and Biotech Complex for Crop Research Institute

Design of Auditorium Complex at East Legon for the Church of Pentecost Design of 3 Storey Offices, Banking Hall Complex and shops for Topman Co. Ltd.

| 2005 - | 40 Rooms Hotel at Nhyaieso, Kumasi for Mr. Collins Agyei |
|-------------|---|
| | 3-Storey 30 Room Hostel Block, Design and Supervision for Jital Hostel |
| | Church Auditorium Design and Supervision for the Church of Pentecost, Santasi |
| | Assembly, Kumasi |
| | Design of 400 Room Hostel Complex at Legon for Evandy Estates |
| | Design and Supervision of Office Block, Warehouse and Factory Complex in |
| | Kumasi for Kinaphama Ltd. |
| | 50 Room Hostel Extension at Bomso for Evandy Co. Ltd. |
| 2004 | Design and Supervision of 3-Storey Office Complex at Asokwa Kumasi for P.I.W.C. |
| | Design of 3-Storey Office Complex at Tarkwa for the Church of Pentecost |
| 2003 – 2004 | Design and Supervision of 2-Storey Office Complex and Shops Topman Co. Ltd. |
| 2003 – 2005 | 40 Rooms Hostel at Ejisu Design and Supervision for Fat and Gat Co. Ltd. |
| 2002 – 2005 | 3-Storey 36 Room Hostel Block Design and Supervision for Amenov Ventures |
| 2000 – 2004 | 2-Storey 6 Classroom and Offices Block Design and Supervision the P.T.A Opoku Ware School |
| 2000 – 2003 | Church Auditorium Design and Supervision for P.I.W.C., Kumasi |
| 2003 | Member, Design Team for Kumasi Metropolitan Assembly Office Complex, KMA |
| 1998 | Member, Design and Supervision /team for Refurbishment and Expansion of Bank of Ghana Regional Block of Offices for Bank of Ghana |
| 1997 | Refurbishment and Extension of Kintampo Rural Health Training College for Ministry of Health |
| 1996 | Refurbishment of 2 No. Staff Bungalow at Kintampo for Ministry of Health |
| 1995 | Sketch Design Competition of School Complex St. Moritz, Switzerland |

LANGUAGE PROFICIENCY

| LANGUAGES | SPEAKING | READING | WRITING |
|-----------|-----------|-----------|-----------|
| English | Very Good | Very Good | Very Good |
| Twi | Good | Good | Good |
| French | Fair | Fair | Fair |

Position : Quantity Surveyor

Name of Consultancy : **KYERE CONSULT**

Name of Staff : William Osei Mensah

Profession : Quantity Surveyor

Date of Birth : 26th January, 1963

Years with Consultant : 5 years Nationality : Ghanaian

Membership in Professional: Ghana Institute of Surveyors,

Professional Associate (MGhIS), Dip. No. 457, 1995

KEY EDUCATION

Extensive experience over eighteen years in the field of Pre and Post contract quantity surveying service and project management in Building and Civil Engineering Works. Pre-Contract experience covers; Preparation of Preliminary Estimates, Cost Advice, Preparation and Pricing of Bills of Quantities, Tender Documentation, Tender Evaluation and Post contract administration covers: Analyzing of the Contract Price into various work sections and establishing mechanism to Control Budget, thus creating a Financial Plan for the future against which to monitor and measure actual Expenditure against Plan Cost, negotiations with the contractors, Preparation of Valuations for Interim Payment Certificates, Site Measurements, Advise on financial effects of Variation before issuance of Architect's Instructions, Measurement of Variations, Site Meetings, Take Inventory of Contractors' Labour Plant and Materials on site when Contractor suspend work and vet Contractors' Claim that resulted out of suspension, Preparation of Financial Statements as part of over all Progress Report to Appraise Employer of the up to Date Financial situation of Project, Preparation Final Accounts. Preparation of Technical and Financial Proposals for Building and Civil Engineering Works. Very conversant with Local and International forms of Contract for Building and Civil Engineering Work including adapting such forms to suit particular contracts. Computer Literate; Standard Microsoft Wood Processing and Spreadsheet Programmes as well as custom-made programmes for Quantity Surveying.

EDUCATION

1978 – 1983 : Amaniampong Secondary School, Mampong-Ashanti

Ordinary Level G.C.E.

1983 – 1985 : St. Peter Secondary School, Nkwatia – Kwahu

Advance Level G.C.E.

1986 – 1990: Kwame Nkrumah University of Science and Technology

(KNUST), Kumasi. B.Sc. (Hons) Building Technology

EMPLOYMENT RECORD

| 2006 – Date | Principal Quantity Surveyor, Architectural Visionaire, Koforidua Kumasi |
|-------------|---|
| 2001 – 2004 | Principal Quantity Surveyor ABT Construction Aid Network Ltd., Kumasi |
| 1998 – 2001 | Senior Quantity Surveyor, Optimum Shelter, Kumasi |
| 1996 – 1998 | Senior Quantity Surveyor, Optimum Shelter, Kumasi |
| 1994 – 1996 | Quantity Surveyor, Optimum Shelter, Kumasi |
| 1993 – 1994 | Assistant Quantity Surveyor, Optimum Shelter, Kumasi |
| 1992 – 1993 | Assistant Quantity Surveyor, Takyi & Partners (Part Time), Kumasi |
| 1990 – 1994 | Teaching Assistant, Department of Building Tech. (KNUST), Kumasi |

MAIN ENGAGEMENT DURING LAST TEN YEARS

2006 – Date Construction and Completion of Two-Storey Hospital Theatre and Wards for St. Joseph's Hospital, Koforidua

Responsible for the Preparation of Preliminary Estimates, Preparation of Bills of Quantities, Estimates and Tender Documents

Tender Evaluation Report and Contract Document

Extension/Expansion to the Main Factory Building for the Intravenous Infusions Limited at Koforidua. Responsible for the Preparation of Preliminary Estimates, Preparation of Bills of Quantities, Estimates, Tender Document and Tender Evaluation Report, Contract Document, Preparation of Valuations for Interim Payment Certificates and Site Measurements.

2006 Rehabilitation of Kumasi Jute Factory for Dakoma Ventures – Accra. Assisted in the Preparation of:

Technical and Financial Proposals, Preliminary Estimates, Preparation of Bills of Quantities, Estimates and Tender Report.

Construction of Proposed 32 No. 4-Storey Block of Flats of 1 to 3 Bedrooms per Flat of Two Flats per Floor for Nurses at Bantama Nurses Quarters for Komfo Anokye Teaching Hospital (KATH). Team member during Preparation of Design Proposals and Preparation of Preliminary Estimates and Preparation of Bills of Quantities.

Re-Roofing of Doctors Flat, Flat No.7 at Asuoyeboah – Kumasi for Komfo Anokye Teaching Hospital (KATH). Responsible for the Preparation of Tender Report, Preparation of Valuations for Interim Payment Certificates and Site Measurements.

Refurbishment of Pentecostal Life Church International Building at Amakom –

2005

Kumasi. Team member during Preparation of Design Proposals, the Project Coordinator, Responsible for the Preparation of Estimates, Materials and Labour Schedule and Technical Supervision of Actual Construction.

- 2001 2004 Refurbishment of Ebenezer Methodist Church Building at Bantama for Bantama Methodist Church. Team member during Preparation of Design Proposals, the Project Co-ordinator, Responsible for the Preparation of Preliminary Estimates, Preparation of Bills of Quantities and Estimates, Tender Document and Tender Evaluation Report, Contract Document Preparation, Preparation of Valuation Report, Contract Document Preparation, Preparation of Valuations for Interim Payment Certificates and Site Measurements.
- 1999 2001 Construction of Two-Storey Office/Administration Block, Construction of Bishop's Residence, and Construction of 3 and 6-Unit Classroom Block all at Goaso for Catholic Diocese of Goaso.

Team member during preparation of design proposals. Responsible for the Preparation of Technical and Financial Proposals, Preliminary Estimates, Preparation of Bills of Quantities, Estimates Tender Document and Tender Report. Contract Document Preparation, Preparation of Valuations for Interim Payment Certificates and Site Measurements. Preparation of National Accounts and Preparation of Final Accounts.

- 1999 2001 Construction of 3-Unit Classroom Block and Construction of Theatre for St. John Hospital all at Duayaw Nkwanta for Catholic Diocese of Goaso. Team member during Preparation of Design Proposals. Responsible for the Preparation of Technical and Financial Proposals, Preliminary Estimates, Preparation of Bills of Quantities, Estimates Tender Document and Tender Evaluation Report. Preparation of Valuations for Interim Payment Certificates and Site Measurements, and Preparation of Final Accounts.
- 1999 2001 Renovation/Rehabilitation of St. Anthony's Catholic Church at Goaso, Kumasi for Catholic Diocese of Goaso. Responsible for the Preparation of Preliminary Estimates, Preparation of Bills of Quantities and Estimates and Tender Report. Preparation of Contract Document Preparation of Valuations for Interim Payment Certificates and Site Measurements.
- 1999 2001 Construction of Formation/Training Centre (PHASE I) at Goaso for Catholic Diocese of Goaso. Team member during Preparation of Design Proposals and Preparation of Preliminary Estimates.
- 1996 1998 Construction and Completion of Kokote-Offinso and Akomadan Markets for Offinso District Assembly (ASIP PROJECTS).

Responsible for the Preparation of Bills of Quantities and Estimates and Tender Report and Preparation of Valuations for Interim Payment Certificates and measurements, Preparation of Final Accounts.

- 1996 1998 Construction and Completion of Odumasi Market for Sunyani District Assembly (ASIP PROJECT). Responsible for the Preparation of Bills of Quantities and Estimates and Tender Report, and Preparation of Valuations for Interim Payment Certificates and Site Measurements, Preparation of Final Accounts.
- 1996 1998 Construction and Completion of 101 No. Housing Bidiem Resettlement Project for the Ashanti Goldfield Limited, Obuasi.

Assisted in the Preparation of Technical and Financial Proposals and Preliminary Estimates, Preparation of Bills of Quantities and Estimates, Tender Document and Tender Evaluation Report, Assisted in the Preparation of Valuations for Interim Payment Certificates and Site Measurements, Assisted in the Preparation of Final Accounts.

- 1996 1998 Construction of Formation/Training Centre (PHASE I) for Catholic Diocese of Obuasi at Anwiankwanta. Assisted in the Preparation of Technical and Financial Proposals and Preliminary Estimates, Preparation of Bills of Quantities and Estimates and Tender Report. Preparation of Valuations for Interim Payment Certificates and Site Measurements, Assisted in the Preparation of Final Accounts.
- 1996 1998 Renovation/Rehabilitation of St. Peters' Cathedral, Kumasi for Catholic Diocese of Kumasi. Responsible for the Preparation of Preliminary Estimates, Preparation of Bills of Quantities and Tender Document and Tender Evaluation Report. Preparation of Valuations for Interim Payment Certificates and Site measurements, Preparation of Final Accounts.
- 1999 2001 Construction and Completion of Four-Storey 16 No. Housemen's Flat for Komfo Anokye Teaching Hospital (KATH), Kumasi. Assisted in the Preparation of Technical and Financial Proposals and Preliminary Estimates, Preparation of Bills of Quantities and Estimates, Tender Document and Tender Evaluation Report. Preparation of Contract Document, Preparation of Valuations for Interim Payment Certificates and Site Measurements. Assisted in the Preparation of Final Accounts.
- 1996 1998 Construction and Completion of Woramumuso and Kenyase, Markets for Asutifi District Assembly (ASIP Projects). Responsible for the Preparation of Bills of Quantities and Estimates and Tender Report and Preparation of Bills of Quantities and Estimates and Tender Report and Preparation of Valuations for Interim Payment Certificates and Site Measurements, Preparation of Final Accounts.
- Construction of 1 No. Principal Bungalow and Hostel/Canteen Complex and Access Road for Timber Export Development Board at Akyawkrom near Ejisu. Assisted in the Preparation of Technical and Financial Proposals. Preparation of Preliminary Estimates, Bills of Quantities and Estimates, Tender Document and Tender Evaluation Report, Contract Document Preparation, Actual

Construction Supervision as Resident Engineer, Preparation of Valuations for Interim Payment Certificates and Site Measurements, Preparation of Monthly and Quarterly Progress Reports and Preparation of Final Accounts.

1996

Construction of 3-Storey Stores and Offices Block, at Kumasi Catholic Diocese of Kumasi. Responsible for the Preparation of Bills of Quantities and Estimates and Tender Document, Tender Report and Contract Document Preparation, Preparation of Valuations for Interim Payment Certificates and Site measurements, Preparation of Final Accounts.

Rehabilitation of Staff Quarters at Dichemso – Kumasi for Civil Aviation. Responsible for the Preparation of Bills of Quantities and Estimates, Tender Document and Tender Report, Preparation of Contract Document, Preparation of Valuations for Interim Payment Certificates and Site Measurements, Preparation of Final Accounts

LANGUAGE PROFICIENCY

| LANGUAGES | SPEAKING | READING | WRITING |
|----------------|------------------------|-------------------|-------------------|
| English Twi | Excellent Excellent | Excellent Good | Excellent Good |
| Ewe | Very Good | Very Good | Good |

| Certification: | |
|---|--------------------------------------|
| I, the undersigned, certify that to the best of my knowled describe me, my qualification and my experience. | lge and belief, these data currently |
| (Signature of staff member & authorized representative of the firm) | Day/Month/Year |
| Full name of staff member: | |
| Full name of authorized representative: | |

Position : Principal Mechanical Engineer

Name of Consultancy : **KYERE CONSULT**

Name of Staff : Francis Ofori-Mante

Profession : Mechanical Engineer

Date of Birth : 20th September, 1939

Years with Consultancy/Entity: 2 years Nationality : Ghanaian

Membership in Professional: Fellow, Ghana Institution of Engineers

1st Vice President, GhIE. 2000 – 2001

Detailed Tasks Assigned

Co-ordinate all the services Engineering works and be responsible for the Pre-Contract Consultancy Services for the mechanical engineering services for:

- Air-conditioning and ventilation
- Plumbing installations
- Fire protection services
- Lifts

He shall also be responsible for the Post-Contract Consultancy Services for mechanical engineering services including:

- Supervision of works
- Quality control for equipment and materials for the mechanical installations
- Attending technical and site meetings
- Valuation of work done and certification of payment certificates
- Co-ordinate assignments for the services consultants
- Submit technical reports and final project report on the engineering services.

KEY QUALIFICATION

1990 – Date TECHCONSULT: Managing Partner of Techconsult

Electrical/Mechanical

Engineering Services Consultancy. Has undertaken consultancy assignments for the Ministry of Health, Ghana Health Sector Support Programme, Ghana Civil Aviation Authority and SSNIT among others, on projects throughout Ghana.

1986 – 1996 Acting Chief Consultant, AESC

Performed duties as Chief Executive of the state owned consultancy firm with a total staff of over 700 persons and offices in all the regional capitals.

1980 – 1986 Director (Installation)

Head of the Installation Department, in charge of a team of electrical and mechanical engineers carrying out a wide range of consulting services in building construction and infra-structural works for ministries, government departments, the Trade Fair Authority, Schools, etc.

EDUCATION

1959 – 1962 B.Sc. (Eng.) London, University of Science and Technology, Kumasi, Ghana

1962 – 1963 DIC (Thermal Power and Process Engineering), Imperial College of Science & Technology

EMPLOYMENT RECORD

1990 – Date Managing Partner

TechConsult Electrical/Mechanical Engineering Services

Consultancy

Responsible for mechanical engineering services aspects of projects. Preparation

of tender and contract documents; liaising with other consulting firms on joint venture projects. Also Valuation of plant and machinery for industries. Foreign valuation experience includes work in Togo and Ethiopia.

1987 – 1989 Acting Chief Consultant, Architectural & Engineering Services Corporation (AESC)

Chief Executive of the Corporation with over 100 professional staff in diverse disciplines including civil/structural, mechanical and electrical engineering architecture, quantity surveying, geodetic survey and land economy. Served as member of Ghana Government's Central Tender Board.

1980 – 1986 Director, Installation (AESC)

As Director, was Head of about 15 electrical and mechanical engineers at Head Office, Accra and regional offices throughout the country. Co-ordinated and supervised the activities of all the professional staff in the department in the country.

1974 – 1979 Principal Engineer, Installation (AESC)

As Principal Engineer, supervised and trained junior mechanical engineers in building services consultancy and techniques for revaluation of plant and machinery. Had staff of five engineers.

1973 – 1974 Tarkwa Goldfields Ltd. of State Gold Mining Corporation

Senior Mechanical Engineer with responsibility for the planned maintenance of underground conveyors, scrapers, mine ventilation fans and dewatering pumps. Supervised staff of 12 Technicians

1964 – 1973 University of Science and Technology, Kumasi

Lecturer in Mechanical Engineering.

MAIN ENGAGEMENTS DURING LAST TEN (10) YEARS

2003 – 2007 Rehabilitation & Upgrading of Selected Senior Secondary School Phase 1 for Ministry of Education, Science and Sports.

Supervision of mechanical engineering construction works for the rehabilitation and upgrading of five selected Second Cycle Schools in the Central, Western, Ashanti & Brong Ahafo Regions.

2007 - 2008 Rehabilitation and Upgrading of Selected Senior Secondary School -

Phase 2

Employer: Ministry of Education Science & Sports and African Development Bank

Supervision of mechanical construction works under the development of Senior Secondary School Education Project (DSSEP) Lot 2 – Eastern & Volta Regions at Nkawkaw and Donkorkrom in the Eastern Region and Peki, Hohoe and Nkwanta in Volta Region.

2004 - Date Accident & Emergency Centre/OPD/Mortuary at KATH, Kumasi Employer: Hospital Engineering Ltd/BIC/MOH

Review of electrical and mechanical design drawings, specifications of materials and supervision of mechanical services works carried out by Vamed Engineering and Building Technologies, the nominated design-and-build contractor.

2003 – 2007 Head Office Building Complex for ARB Apex Bank Ltd. No.5 Gamel Adbal Nasser Road Ridge, Accra – Employer: Apex Bank Ltd/BoG/World Bank

Undertook the pre and post-contract services covering the design, preparation of bill of quantities and tender documents for all Air-condition and Ventilation, Lifts, Fire fighting and Security Systems and Plumbing. Post-contract supervision and project managements.

2000 Tamale Regional Hospital

Development of Technical Specifications for Mechanical Services for the Redevelopment of Tamale Regional Hospital Employer (Ministry of Health).

Undertook the auditing and assessment of existing mechanical works and then determined the Technical Input to determine the criteria and specification for redevelopment of the Hospital into a Regional Refer and Teaching Hospital. Presently, a number of a Team of Consultants undertaking the design and precontract services for the Rehabilitation and Upgrading of the Hospital in a Teaching Hospital.

2000 Koforidua Central Hospital

Development of Technical Specifications for mechanical services for the Redevelopment of Koforidua Central Hospital.

Employer: Ministry of Health

Undertook the auditing and assessment of existing mechanical works and then determined the Technical Input to determine the criteria and specification or redevelopment of the Hospital into a Regional Refer and Teaching Hospital. Presently a number of a Team of Consultants undertaking the design and pre-

contract services for the Rehabilitation and Upgrading of the Hospital in a Teaching Hospital.

1999 – 2000 Inventory, Revaluation and allocation of assets of Electricity Corporation of Ghana (ECG) and Northern Electricity Department (NED) of VRA into Business Units. Ministry of Mines and Energy/ECG).

As project mechanical engineer, carried out the inventory and revaluation of all transport machinery including saloon cars, light and heavy duty vehicles and specialized equipment such as forklifts and lift trucks.

1994 - 1999 Weija Industrial Estate for GICEL/SSNIT

Employer: GICEL/SSNIT

Plumbing and drainage installation to over 100 offices and industrial buildings as well as external water supply and distribution and central sewerage systems for the industrial estate.

1995 – 1997 Ghana/Denmark Health Sector Support Programme

Employer - MOH/DANIDA

External Water Supply and Distribution and Sanitation Improvement to:

Wa Regional Hospital, Jirapa District Hospital, Nandom Hospital, Tumu District Hospital and Nadowli Health Centre.

1995 – 1998 Gulf House Accra Employer – Gulf Consolidated Ltd/SSNIT

Mechanical engineering services for air-conditioning, plumbing and lifts to 5-Storey Office Complex at Tetteh Quarshie Roundabout, Accra.

1995 – 1997 SSNIT Housing Estate at Adweso – Koforidua

Plumbing and External Water Supply and Distribution SSNIT Housing project at Adweso, Koforidua. Client SSNIT.

1995 – 1996 Sunyani Airport Rehabilitation for GCAA

Employer: Ghana Civil Aviation Authority

Mechanical engineering services for air-conditioning and plumbing for the

Rehabilitation of Infrastructure Services of the CRFS Building, Control Tower, Offices and Communications unit at Sunyani Airport.

LANGUAGE PROFICIENCY

| LANGUAGES | SPEAKING | READING | WRITING |
|-----------|-----------|-----------|-----------|
| English | Excellent | Excellent | Excellent |
| Twi | Excellent | Excellent | Excellent |

Position : Electrical Engineer

Name of Consultancy : **KYERE CONSULT**

Name of Staff : Ing. Kwasi Asemone Edjah

Profession : Electrical Engineer

Date of Birth : 6th April, 1945

Years with Consultancy/Entity: 2 years Nationality : Ghanaian

Membership in Professional: Senior Member, Ghana Institute of Engineers (MGHiE),

Associate Member American Management institute (A.M.I.)

1972

Detailed Tasks Assigned

Lead Consultant for Electrical Engineering Services. Responsible for Pre-Contract Services such as Feasibility Studies, undertaking Preliminary and Detailed Design; Prepare Tender Documents Comprising Technical Specifications, Contract Condition and Bill of Quantities; for the Electrical Works. Post Contract Consultancy Services such as Evaluating Tenders; and Reporting, preparation of Sub-Contract Documents; Supervision and Management of the Electrical Sub-Contractors; undertaking Quality Control of all Equipments and Electrical Materials and Installation; Valuation of Works Done and Preparing Valuation Certificate; Liaison with all Services Agencies such as ECG; GTL, Fire Services for the Approval of all Designs and Services Requirements; Submission of Technical and ?Financial Reports on the elect5ical Sub-Contracts.

KEY QUALFIICATIONS

2005 – 2007 **15-Storey Office and Banking Facility Complex at Ridge Accra for HFC/UG** Design, Preparation of Bill of "Quantities, Tender Documents for all Aspect of Electrical Works; Internal Electrical Installation, Electrical Power Supply and Distribution Network, ICT System, Fire Detection and Alarm System, Burglar

Detection and Alarm System, CCTV Networking, Telephone Communication and Audio Visual System.

2004 - 2008 Accident & Emergency Centre/OPD/Mortuary at KATH Kumasi

Employer Hospital Engineering Ltd/BIC Ltd.

Review of Electrical Design Drawings, Specifications of Materials, etc. and Supervision and Management including Quality Control of all Electrical Installations.

2003 - 2006 3-Storey head Office Building for ARB Bank Ltd.

Design preparation of Bill of Quantities, Tender Document for all aspects of electrical works as above.

2003 Begoro District Hospital

Employer: Ministry of Health (M.O.H./GoG/BIC Ltd.)

Review of electrical design drawings, specifications of materials, etc. and supervision of electrical works carried out by Vamed Engineering and Building technologies who undertook the project on "Design and Build" concept.

2003 – 2004 Ho and Sunyani Regional Hospitals

Employer: Auditor-General/MOH

Technical auditing of electrical and mechanical installations and hospital equipments installation for 200 bed capacity hospital in both regional capitals.

2000 Tamale Regional Hospital

Development of Technical Specification for Electrical Services for the Redevelopment of Tamale Regional Hospital.

Employer: MOH/GoG

Undertake auditing and assessment of existing electrical works and then determine the technical input to criteria specification for redevelopment of the hospital into regional refer and teaching hospital.

EDUCATION

1965 – 1969 B.Sc. (Hons) Electrical Engineering, University of Science and Technology

EMPLOYMENT RECORD

1992 – Date TECHCONMSUT, Electrical/Mechanical Engineering Services

Responsible for Electrical Engineering Services Designs and the Preparation of Tender and Contract Documents, Evaluation of Tenders and Post Contract Supervision of Electrical Projects. Supervision of work of Electrical Engineers employed by the firm. Has carried out various projects for Government Departments, Ministries and Corporations including the Revaluation of Assets of ECG and Northern Electricity Department of VRA and Allocation of the Assets into Business Units for private Sector Participation.

1986 – 1991 Ergs Consortium – Director/Principal Electrical Engineer

Responsible for Planning, Design Preparation of Tender Documents, Evaluation of Tender Supervision and Management of Electrical Contract Works.

1975 – 1977 Installation Department of AESC/AESL Senior Electrical Engineer, Accra/Ghana

Responsible for Design, Preparing of Tender Documents and Supervision of government projects. Project Electrical Engineer 3rd Ghana International Trade Fair.

LANGUAGE PROFICIENCY

| LANGUAGES | SPEAKING | READING | WRITING |
|-----------|-----------|-----------|-----------|
| English | Excellent | Excellent | Excellent |
| Nzema | Excellent | Excellent | Excellent |
| Twi | Good | Good | Good |