PROJECT CONCEPTION
&
DOCUMENTATION

BY

Arc. IBRAHIM A. HARUNA, FNIA, PNIA, mni.

PRESIDENT OF THE NIGERIAN INSTITUTE OF ARCHITECTS.

THE AUDIANCE

* Government Ministries and Agencies… CLIENTS
* Service providers…….. CONSULTANTS
* Contractors/ suppliers……..CONTRACTORS
* General public……. BENIFICIARIES

PROJECT CONCEPTION

* Objective of a project is to solve an identified problem.
* Many projects are STILL at birth.

* Conception of a project determines its success potentiality.
* Each of the conception steps must be thoroughly monitored.

Conception steps

* Need assessment
* Establishment of Scope.
* Budget & time-line.
* Identification/ procurement of services providers.
* Appointment and monitoring of services providers.

Need assessment.

* Is the project a desire or a need?
* How heavy does it weigh on the scale of priorities?

If these answers are negative, yet you continue,

* It may not scale through budget screening now,
* May be stopped mid-way by future decision makers.

Establishment of Scope.

* Scale of the project has to be ‘needs-driven’.
* Do not leave scope determination entirely to consultants.
* Scope must relate to budget or available funding.
* Otherwise split into phases.

Budget & Time-line

* Budget is closely related to time-line.
* The longer it takes the more it costs.
* Project budget should be determined once scope is established.
* Scope can be used as a basis for superficial area estimate.
* ‘Wild-cat’ projects end up abandoned.

Identification/ procurement of services providers.

* By invitation to prequalify leading to selection.
* By competition, limited or open.
* By previous experience or specialty.
* Use of in-house staffing.

Appointment and monitoring of services providers.

* Ensure secured appointment of consultants.
  -conditions of engagements.
  -milestones/deliverables.
  -fees payable.
* Check completeness of deliverables against scope and information required.
* Approve each milestone before consultants advance to next.

PROJECT DOCUMENTATION

What are the documents required from consultants to facilitate effective procurement of contractor AND ultimate successful execution of the project?

TENDER DOCUMENTS

COMPILATION OF TENDER DOCUMENTS

-the familiar question!-

"Mr. Architect, after this your beautiful drawings, what next?"

ARCHITECT'S PROCEDURE:
-drawing board to tender stage-

1. **Written specifications** on architectural items.
2. Issue drawings to engineers for engineering specs.
3. Collate architectural & engineering Specs into Technical Specs (trade preambles).
4. Advice & discuss with the client on the best **Conditions of Contract** & **Preliminary Items.**
5. Issue to QS all drwgs, Tech. Specs, Conditions of Contract & Prelim. Items for BQ.
6. Planning Authority Approval.
7. Pre-qualifications or selection of tender list.
8. Invitation to tender.

WHAT ARE TENDER DOCUMENTS?

-tender documents-

- **Instruction to tenderers (ITT):** giving the tenderers instructions on how to fill, seal, mark & deliver their tender.
- **Special Instruction to tenderers (SIT):** some government contracts may require special instruction other than the usual.

-tender documents-

- **Articles of agreements:** to say what binds the two parties, and who are the parties.
- **Tender Form:** the form upon which the tenderer attests to his quoted figure and his completion period.

-tender documents-

* **Conditions of Contract: [general conditions (GCC) & special conditions (SCC)]**to spell the conditions under which the contract shall be governed.

-tender documents-

- **Preliminaries:** to explain general provisions outside the actual works which the contractor is expected to provide so as to facilitate execution of the works.
- **Bill of Quantities:** to provide the basis for the arithmetic of the contract.

-tender documents-

* **Working Drawings:** to show graphically what is to be done.

* **Written Specifications (Technical Specifications / Trade Preambles):** to spell out the details on materials, workmanship and procedures, that cannot be spelt on drawings.

1. INSTRUCTIONS TO TENDERERS

- Description of works,
- Definitions of terms,
- How to resolve doubts arising from discrepancies.
- Basis for tendering,
- Visit to site,
- How to complete the tender,
- How & where to submit.
- Validity period.
- Confidentiality of documents

etc etc ……..

ARTICLES OF AGREEMENT

- This is the legal format for entering the contract agreement later on when the successful contractor is chosen.
- The purpose of including it in tender documents is to give the two parties an opportunity to sight the kind of article they will be sign.
- It also consists of the definition of terms, like who is the architect, QS, engineers, what constitutes contract drawings & bill, etc .

TENDER FORM

- Affirmation that tenderer has carefully studied the documents & visited the site;
- That he offers to execute the works for the stated amount;
- That he vows to complete the works within the stated period of time.
- That is his tender is successful, will be ready to enter into agreement with the client.
- That his tender will be open for consideration for the stated validity period.
- That he agrees that any error found be adjusted in accordance with the usual procedure.

CONDITIONS OF CONTRACT

- For major contracts, usually NIA-90 CONDITIONS, which is derived from JCT-80.
- Client should be informed of the provisions of all the Clauses.
- Client should know his rights and responsibilities.
- Client should know what powers he bestows on the architect by virtue of the conditions.
- Client should know the rights and responsibilities of the contractor.

PRELIMINARIES

- Those items that do not constitute any part of the ACTUAL works, but rather compliments or facilitates the execution of the works. e.g.
  - Temporary site office,
  - Temporary water & power supply,
  - Insurances,
  - Project vehicles.
  - Cranes, scaffoldings etc.
  - Site management personnel
  - etc , etc……

WORKING DRAWINGS.

HOW MUCH CAN DRAWINGS SHOW?

- Coordinated Project Information (CPI) has given the minimum information an Architectural Working Drawing should have.
- Working Drawings should have:

1. Site plan
2. Floor plans
3. Ceiling plan
4. Roof plan
5. Sections
6. Elevations
7. Schedules
8. Details

SITE PLAN

1. Overall dimension of piece of land on all sides.
2. Provide all beacon numbers (if available).
3. Provide all bearings.
4. Indicate the direction of North.
5. Name adjacent roads appropriately.
6. Provide existing contours, service lines and structures on site.
7. Indicate whether existing structures are to be demolished, retained or relocated.
8. Indicate overall dimensions (on all sides) of all buildings located on site.
9. Indicate set-back on all sides or to adjacent building.
10. Indicate finished ground floor level of all buildings relative to an agreed datum.

SITE PLAN (cont.)

11. Indicate finished levels of all pavement, driveways etc.
12. Indicate invert levels of all drains and discharge point of all drains.
13. Provide finishes of all pavements and driveways etc.
14. Provide lengths and widths of all pavements, driveways etc.
15. Indicate size and swing of all gates including pedestrian.
16. Locate type of landscaping, fountains, sculpture with type, dimensions and number.
17. Indicate location of entrances on each block of building.
18. Name blocks of buildings appropriately.

FLOOR PLAN

1. Overall dimension o building on all sides.
2. Internal dimension of all rooms, corridors, verandas etc.
3. Internal dimensions of all recesses, wardrobes, cupboards, counters.
4. Indicate width of all doors, windows and other openings.
5. Thickness of all walls, partitions, facings etc.
6. Indicate type of walls, i.e. block wall, brick wall, stone or timber etc.
7. Indicate function of all rooms including semi-open spaces.
8. Floor finishes of all spaces including veranda, wardrobe etc.
9. Floor levels of all places relative to a fixed datum.
10. Indicate all section lines.

FLOOR PLAN (cont.)

11. Indicate in broken lines extent of roof overhang, cantilevers etc.
12. Width of all treads at staircases and all level changes.
13. Number of all risers at staircases and all level changes.
14. Indicate direction of flight at all staircases and all level changes.
15. Indicate swings of all doors.
16. Number all doors, windows and curtain walling etc.
17. Locate all sanitary fittings and label them appropriately.
18. Indicate position of all fixtures and label them appropriately.
19. Indicate internal painting (finishing) schedule of al internal wall of all rooms.
20. Indicate areas (if any) where further details are provided in subsequent drawings or by other consultants or manufacturers.
21. Provide grid lines (both ways).

CEILING PLAN

1. Show as reflective plan.
2. Indicate outline of boundary walls.
3. Indicate joist & noggin or metal grids.
4. Indicate ceiling board type.
5. Indicate location & details of roof access.
6. Show all design grids.

ROOF PLAN

1. State type of roof covering.
2. State finishing to all concrete gutters.
3. State roof trusses type and centres.
4. Indicate fall of roofing sheets or screed.
5. Indicate position of spouts or rain water pipes.
6. Indicate grid lines.
7. Indicate section lines.
8. Indicate position of overhead tanks (if any).

SECTIONS

1. Indicate level of all rooms through which section passes.
2. Indicate functions of all rooms through which section passes.
3. Indicate floor finish of all rooms through which section passes.
4. Indicate wall finish of all rooms through which section passes.
5. State type of roofing sheets.
6. State type of ceiling.
7. State type of roof trusses (if further details are provided by other consultants, state so) and at what centres.
8. State type of flashing to all walls.
9. State finishing to concrete roof gutters.
10. State type of skirting to all walls.

SECTIONS (cont.)

11. Dimension floor to ceiling.
12. Dimension floor to lintel of doors and windows.
13. Dimension floor to cill of windows.
14. Dimension cill to lintel of windows.
15. Dimension height of parapets
16. Dimension risers, steps, half landing etc.
17. Dimension thickness of slabs, pavement etc.
18. Dimension height of ground floor above natural ground level.
19. Dimension of balustrades, shelves, counters, worktops above floor levels.

ELEVATIONS

1. Indicate levels of all floors, ceiling, parapet and assumed ground level.

2. Indicate painting (finishing) to all surfaces.

3. Indicate fixed and open-able parts of all doors and windows.

SCHEDULES OF OPENINGS

1. Indicate size (width & height).
2. Indicate fixed and open-able parts of doors and windows.
3. Indicate hinge position.
4. State type of door or window with type of glass.
5. State number required.
6. State location in building.

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WRITTEN SPECIFICATIONS

…aka…

TECHNICAL SPECIFICATIONS

Or

TRADE PREAMBLES

AFTER ALL THE DRAWINGS,
WHY ALL THE TROUBLE ?

- Drawings can only give the *'HEAD-LINE NEWS'* but cannot tell all the *'STORIES'*.

- Drawings are only limited to *EXTENTS, ARRANGEMENTS and to some extents MATERIALS.*

- Drawings no matter how detailed, cannot tell the *SEQUENCE, HANDLING and intended final RESULTS.*

SPECIFICATIONS GENERALLY

* Specifications shown on drawings: like graphic notations, dimensions, written notes e.t.c…….. these give only the *'HEADLINE NEWS'*

* Written Specifications:

  gives the *'FULL STORY'*

PURPOSE OF WRITTEN SPECIFICATIONS

1. In SMALL PROJECTS, it is read in conjunction with the working drawing, as the only basis for tendering by contractor.
2. For LARGE PROJECTS, it is given to the QS together with the working drawings for production of BQ.
3. On CONSTRUCTION site, it is the *PROJECT MANUAL* explaining all the site operations.

Thank you for now.