



## Guidelines GB 1.0 – General deliverables of Green Building Specialists

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The below mentioned information provides a broad guideline into the list of services that are expected to be provided by the green building consultant / specialist appointed by the client for their project. While these are supposed to serve as general indicators, they are not to be construed as the complete list. Neither should it be interpreted as the only set of deliverables required to comply with relevant Trakhees regulations. The so called Green Building consultant would also be referred to as specialist consultant or a green building Specialist.

The responsibilities of the consultant will be to coordinate the project team as relevant for approvals/certification, distribute all necessary information to team members for credit compliance, coordinate, collect and review credit documentation from team members, complete and manage the assembly of documentation, and administer the project certification. The consultant will also provide guidance to all team members and facilitate completion of their responsibilities during the entire design and construction process.

It is important that the specialist plays a responsible and integrated role all through the stages of the project adding value at each phase with the ultimate aim of embracing sustainability. In this regard several supporting tools such as awareness, knowledge dissemination, education and others gain prominence and the specialist is expected to use these tools as part of their methodology. The important phases from green building standpoint can be briefly enumerated as under

1. Conceptual study
2. Design development
3. Construction supervision
4. Building completion
5. Handing over to the end user
6. Preparatory infrastructure for true performance

On the back of the specific milestones stated above, the specialist has to structure their working methodologies and channelize their resources so as to complete not only its core regulatory tasks but achieve the ultimate goal of performing buildings. Some of the implicit tasks of the specialist are given below

#### **A. Understanding the Project Owner's scope and objectives**

The specialist should begin by having a thorough understanding of the owner's project requirements also widely referred to as OPR. While this provides a flavour of the owner's ultimate expectation, the specialist can always explore the options for embracing / enhancing the sustainability while not compromising the owner needs. Necessary interaction with the owner and the team are deemed part of this exercise. The specialist is expected to use this opportunity to the most to advise the client on the benefits of going green and the direct / indirect benefits these bring in the long term.

#### **B. Thorough understanding of the Regulatory Regime**

The specialist should be conversant with the applicable green building regulations within PCFC- Trakhees jurisdiction. Given that there are different green building regulations within Trakhees that caters to different types of built environments, the specialist should be knowledgeable enough to provide proper advice.

Along with the Regulations, the specialist should also be very well conversant with other types of regulatory documents as exemplified below

- a. Client procedures for regulatory permits
- b. Client procedures for Green building certification
- c. Regulatory forms
- d. Guidelines
- e. Circulars
- f. Fee structure for various services

In short the specialist is expected to get updated on a very regular basis to match up with the dynamic nature of the authority.

### **C. Familiarity with the Regulatory processes**

The specialist should demonstrate a sound understanding of the submission processes so that the client is not put to undue inconveniences and delays brought about on account of improper submissions / non compliance

### **D. Design Charette, Coordination and Documentation**

At the beginning of schematic design, the specialist would arrange for a design charette. Any team members on board at the initiation of the project shall attend, including, but not limited to, the owner, all involved architects and engineers, the energy model consultant and the commissioning authority. The charette is a meeting meant to provide an introduction to sustainable design as they relate to the specific project and site. The specialist will guide the

team through the certification checklist and foster discussion between team members on the sustainability attributes for the project; the intent, requirements, and documentation for each credit will be addressed. The purpose of the charette is to:

- a. Establish and coordinate sustainability goals with program, feasibility, schedule and scope
- b. Evaluate each credit and whether it is likely, possible, or not likely to be achieved
- c. Discuss strategies and technologies for achieving goals
- d. Determine team member responsibility for each credit
- e. Team members will participate in a second charette prior to the start of construction where the team will readdress the intent, requirements, documentation and responsibility of construction phase credits, and discuss the approach to materials costs and compliance documentation and the submittal process.

Team members will be responsible for documentation compliance of credits as directed by the responsibility matrix and the specialist consultant. The specialist will collect and review all credit documentation for compliance and provide feedback and guidance. Documentation will take various forms, depending on the credit requirements, but will include the incorporation of specifications and objectives into the contract documents.

Meetings will cover all aspects of the project, including compliance requirements and status, for each meeting attended by the specialist consultant, an updated checklist reflecting any changes, status, notes or relevant deadlines will be provided and reviewed

#### **E. Committed involvement during construction**

The specialist should play due diligence during the construction so that the team carries forward the original commitments of the design team into actual site level compliance.

#### **F. Smooth coordination during commissioning, completion and handing over to the clients**

This involves coordination with the contractors, main consultants and the commissioning team for a proper handing over of the facility to the client

#### **G. Awareness for Post occupancy Performance**

This is an important task to ascertain that all the efforts put together by the stakeholders in the design and construction stages do not go waste due to insufficient knowledge / awareness on the part of the clients / maintenance team

In summary, the targeted deliverables can be listed as below

- I. Identify sustainable goals , objectives and Identify unique client needs
- II. Carry out Integrated design delivery approach with ALL the stakeholders and emphasize sustainability, An integrated design is crucial to achieve certification, as well as to produce a project that is energy efficient, effectively maintained and environmentally friendly.



- III. Carry out technical feasibilities on systems, new approaches, innovations etc. as permitted within the project frameworks with focus on areas relevant to the region
- IV. Complete the conceptual design
- V. Carryout out additional analysis / sustainability tasks to carry forward the concepts to a detailed design. Necessary calculations are deemed part of this work.
- VI. Emphasis should be strong on aspects that are relevant and crucial to region in terms of reducing emissions and steering low carbon developments
  - a. Energy efficiency
  - b. Water savings
  - c. Indoor air quality
  - d. Sustainable sites
  - e. Genuine and applicable sustainable materials
  - f. Commissioning and enhanced commissioning
  - g. Measurement & verification
  - h. Post occupancy performance
  - i. Genuine innovations
  - j. Support, information and voluntary action such as awareness, training, education etc.
- VII. Prepare the green building submission package to PCFC- Trakhees following the applicable procedures to demonstrate that the project has fully complied with the

requirements. The submission should be professional and should reflect the extent of works that have been carried out in pursuit of sustainability. This is expected during the NOC for project design NOC as well as completion NOC.

- VIII. Preparatory work for the Green Building Certification where relevant for the projects and providing the advice to the developers / clients / owners on the options available for the building certification
- IX. Post contract briefing to the site team and Implementation of the sustainability action plans.
- X. Relevant coordination with the team on aspects that have bearing on the green buildings. Material approvals are part of it
- XI. Compiling and submission of green building progress report where relevant to the authorities
- XII. Preparatory work for building completion documentation
- XIII. A professional submission to Trakhees (CED) for NOC-Building completion.
- XIV. Coordination for commissioning works.(fundamental and enhanced where relevant)



- XV. Coordination with the client and the team for Green building certification where pertinent.
- XVI. Provide the infrastructure for sustainable operations in terms of
- a. Awareness / walk through
  - b. Operations & Maintenance plan
  - c. Documentation
- XVII. Undertake all the necessary works for Green Building certification where applicable towards ultimate fruition of this task.
- XVIII. Compilation of Project Fact sheet