

1 SPECIFICATION STRUCTURE

- 1.1 This document is structured in Unifomat II, a format for classifying building elements and related sitework. Elements, as defined here, are major components common to most buildings. Elements usually perform a given function, regardless of the design specification, construction method, or materials used. Elements are also commonly referred to as systems or assemblies.
- 1.2 Elements are classified, herein, in three hierarchical levels of definition.
- 1.2.1 Level 1 identifies seven Major Group Elements, such as the Substructure, Shell, and Interiors.
- 1.2.2 Level 2 further subdivides Level 1 into Group Elements. The Shell, for example, includes the Superstructure, Exterior Closure, and Roofing.
- 1.2.3 Level 3 breaks the Group Elements further into Individual Elements. Exterior Closure, for example, includes Exterior Walls, Windows, and Exterior Doors.

2 STANDARDS OF ACCEPTANCE

- 2.1 The Design Builder is responsible for providing a fully integrated and operational building project. The design of the components must be compatible with other campus buildings in terms of quality, aesthetics, and maintenance/operating procedures.
- 2.2 This technical performance specification outlines technical design criteria and product/material standards anticipated by the Owner. They are provided under three levels of definition:
- 2.2.1 Performance-based Materials: Material standards are described in generic terms, with references to industry-established technical standards. The Design Builder is responsible for applying these standards in their design and construction, where applicable.
- 2.2.2 Acceptable Materials (Or Equal): Acceptable materials which have been used, and are compatible with, the campus facilities. This allows the Design Builder to consider these for integration into their design. It does not preclude consideration for use of similar products and materials or alternative materials, which will satisfy the design requirements. Materials named are provided to illustrate performance qualities and characteristics.
- 2.2.3 Acceptable Materials (No Substitutions): These listed materials are necessary to enable the project to integrate with the operations of the campus facilities. The Design Builder is responsible for providing these products and materials, fully integrated into the design and construction activities.

- 2.3 The Design Builder must assure himself all levels of performance described herein do not conflict with their design and construction work. The Design Builder is to advise the Owner, in writing at the time of proposal submission of any adjustments or discrepancies from these documents.

3 COORDINATION OF DOCUMENTS

- 3.1 This section describes the technical performance guidelines for the building systems and related sitework. This document is to be read in conjunction with the following sections provided by others including:
- 3.1.1 For contractual matters and procedures, refer to the Instructions to Proponents and Submission Requirements provided by the Project Manager.
 - 3.1.2 The Statement of Requirements, prepared by the Programming Consultant, provides the project purpose, functional plan, functional requirements, the conceptual functional site and building plan.
 - 3.1.3 Refer to space data sheets, related illustrations and associated appendices, prepared by the Owners, for specific user room requirements.
 - 3.1.4 All associated appendices, amendments and supporting documents.

4 OBJECTIVES

- 4.1 The technical performance objectives of the project is to provide the following:
- 4.1.1 The project is to be designed and constructed to current institutional building standards with a design life of twenty-five years.
 - 4.1.2 To apply enhanced energy efficiency in the design of the architectural, building envelope, mechanical, electrical and related systems to reduce operating costs.
 - 4.1.3 Integrate state-of-the-art learning and information technologies to provide modern, adult teaching environments, including the service of corporate clientele.
 - 4.1.4 A fully handicapped accessible and user-friendly facilities.
 - 4.1.5 Incorporate comprehensive security and safety measures given the uses and occupancy of the building.
 - 4.1.6 High quality, durable products, materials and finishes which will address the maintenance and operational concerns of the Owner.
 - 4.1.7 A building design which offers expandability, flexibility and the ability to adapt to future facility requirements.

5 VALUE ENGINEERING

- 5.1 The intent of the technical performance specification is not to limit the Design Builder in their efforts to deliver a complete, fully operational building project, but offer a framework for the Owner's requirements. The application of value engineering and working discourse is encouraged to balance capital costs, operational concerns and functional requirements. The Design Builder may recommend a change in the specifications as a value engineering initiative, submitting a business case to support their recommendation. The business case must include an estimate of capital cost and life cycle cost considerations.

6 COMMERCIAL BUILDING INCENTIVES PROGRAM (CBIP)

- 6.1 In conjunction with the objective to achieve a high level of energy performance, noted in 4.1.2 above, the Design Builder will be required to coordinate and apply design principles of the Commercial Building Incentives (CBIP). It is designed to improve energy efficiency of the construction of new buildings or additions to existing buildings. Eligible building designs must demonstrate reductions in energy use of at least 25% compared to the requirements of the Model National Energy Code for Buildings (MNECB).
- 6.2 An incentive of up to \$80,000.00, depending on the energy savings is available. The Owners surrenders all claims to incentives obtained by the Design Builder.
- 6.3 The building design shall demonstrate reductions in energy use of at least 25% compared to the requirements of the Model National Energy Code for Buildings. It must show with building simulation software that the building design will meet the 25% qualifying level.
- 6.4 The Design Builder is to submit a computer simulation of the proposed building's energy performance at the 90% final design stage or before as needed to monitor the project that the project is on the specified target. The Design Builder is responsible for adjusting design to meet the target within the proposed GMP if the building does not meet this target.
- 6.5 Demonstration of compliance must also include all requirements of the Commercial Building Incentives program offered by the Office of Energy Efficiency, Natural Resources Canada.
- 6.6 For CBIP documents and further information, contact:
- Natural Resources Canada
Office of Energy Efficiency
Booth Street, 18th Floor
Ottawa, Ontario K1A 0E4
Fax: (613) 947.1590
Internet: <http://oe.e.nrcan.gc.ca>.