

01 81 00 FACILITY PERFORMANCE REQUIREMENTS

1. GENERAL

- A. Related sections:
 - i. 00 00 07 Design Professional Design Process Requirements
 - ii. 00 00 08 Design Professional Documentation Requirements & Deliverables
 - iii. 01 29 00 Payment Procedures
 - iv. 01 74 19 Construction Waste Management & Disposal
 - v. 12 46 33 Interior Waste Receptacles
 - vi. 12 93 23 Trash, Litter, and Recycling Receptacles
 - vii. 23 05 19 Meters & Gages
- B. Introduction: The UGA requires and has been implementing efficient and sustainable designs for new construction and renovations for many years. Regardless of whether a project will utilize a third party green building certification system, the Design Professional shall present multiple scenarios with various levels of energy and water conservation options for the Project Manager's review.
 - i. Not all Projects will have sufficient budgets to meet all of the requirements of this section 01 81 00 Facility Performance Requirements. It is the responsibility of the Design Professional and the Contractor (except for Design-Bid-Build delivery method) to provide cost estimates and detailed return on investment options during the Schematic Design and Design Development design phases for the Owner's evaluation. If at the end of the Design Development phase, as directed by the Project Manager, all of the requirements of this section will not be met, the Design Professional shall submit a variance for approval to document which aspects will not be met.
 - ii. These Facility Performance Requirement evaluation and option services through Design Development shall be included in the Design Professional's Basic Services and the Contractor's Pre-Construction Overhead Costs and Pre-Construction Fee. The Owner may elect to fully follow this section or to only select portions of this section (due to budget constraints) for incorporation into Construction Documents, and the Owner will not incur any additional design services or Pre-Construction Overhead costs as long as the Facility Performance Requirements and associated systems selections are made and documented prior to the beginning of Construction Documents.
- C. Green Building Rating Systems: No specific green building rating system certification is required by UGA; certification is pursued on a per project basis.
- D. The design and construction of a new building shall be for at least a fifty year life with emphasis on minimum life cycle costs rather than low first costs.
- E. Energy Performance:
 - The mechanical, electrical, and plumbing energy related design for all buildings shall comply with International Energy Conservation Code (IECC) – 2015 with Georgia Supplement and Amendments (most up to date adopted amendments).
 - a. Design Professional shall be held accountable for meeting 10% or greater energy savings over ASHRAE 90.1 2010 Appendix G.

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- ii. Computerized energy budget analysis, forecasting consumption in BTU/GSF/Year is mandatory for all new construction projects over 10,000 square feet that have heating and cooling. Design Professional shall submit a model output summary and live model to UGA for review with each major design submission and as required to obtain energy savings rebates.
- iii. Computerized energy budget analysis, forecasting consumption in BTU/GSF/Year is mandatory for all renovation projects that renovate an entire building (not a portion of a building). Design Professional shall submit a model output summary and live model to UGA with each major design submission and as required to obtain energy savings rebates.
- For partial renovation projects, the Design Professional shall submit a passed output summary and associated files from a ComCheck analysis (lighting only).
- v. Life cycle cost comparisons with return on investment calculations of different proposed mechanical systems shall be presented at the end of schematic design.
 - a. Design Professional shall develop narrative of each system with diagrams of major equipment locations and review with Project Manager prior to coordinating costing information.
- vi. Metering of utilities shall be reviewed with the Project Manager at the Design Phase Kickoff meeting. For new construction and full building renovation projects, metering of all utilities (electricity, natural gas, steam, and chilled water) shall be provided at the building level and submetering of building systems as needed to isolate, manage and optimize building energy use at the system level. See section 23 05 19 Meters & Gauges. In addition, new utility meters shall be connected to the building automated system. Metering requirements for partial renovation projects shall be reviewed on a project-by-project basis.
- F. Renewable Energy
 - i. For new construction and major renovations, the Design Professional shall identify and evaluate opportunities for on-site renewable energy generation including life-cycle cost analysis and return on investment calculations with a target of meeting up to 5% of the project's predicted annual electrical and/or thermal energy consumption.

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- G. Water Conservation
 - i. For new construction and major renovations over \$5M, provide design and cost options for the project to conserve 10% and 20% more water, not including irrigation, than the code requirement for the state of Georgia.
- H. Storm Water and Condensate
 - i. Options for collection and reuse of storm water and condensate are required for all new construction projects with special attention given to uses other than irrigation. Storm water best management practices shall be incorporated to exceed the Project jurisdiction storm water quality standards, with a preference for visible and vegetative storm water controls.