Chapter 29
ENERGY AND SUSTAINABLE DESIGN DOCUMENTATION

SECTION 2901 - OVERVIEW

2901.1 Purpose: Unless otherwise determined by the University Representative, the Consultant shall prepare as part of its scope of work:

A. **Energy Code Compliance Drawing:** The Construction Drawings shall show the energy factors, loads and calculation methods used to demonstrate compliance with the International Energy Conservation Code. For larger projects, this may require an entire drawing sheet (EN-1 Energy).

B. **Sustainable Design Report:** In the Design Analysis Report, the Consultant shall identify relevant energy and resource conservation issues, strategies for achieving moderate, high and extraordinary levels of conservation performance and feasibility of incorporating these strategies into the project. Where the University seeks project certification by United States Green Building Council (LEED) or similar independent third party verification, the Consultant shall submit the required information in compliance with the third-party submittal guidelines.

C. **Utility Incentive Program Summary:** The Consultant shall prepare energy design submittals as required for the relevant incentive programs of Fort Collins Utilities, Xcel Energy and/or other resource utilities.

SECTION 2902 - DATA BASE AND RESOURCES

2902.1 University Master Plan

2902.2 CSU Environmental Controls Department

SECTION 2903 - SUBMITTAL REQUIREMENTS

2903.1 **Energy Code Compliance Drawing:** At minimum, the Energy Code Compliance Drawing shall include:


   1. envelope factors (R-value, U-Factor, Solar Heat Gain Coefficient SHGC)
   2. lighting loads
   3. equipment loads
   4. occupant loads (including both hot and cold water usage)
   5. HVAC Energy Efficiency Ratios (EER and SEER)

C. **COMcheck** summary (US Department of Energy)

D. Fenestration certification requirements

2903.2 **Sustainable Design Report:** The Sustainable Design Report shall be included as an individual section in the Design Analysis Report for each design phase. Prior to submitting the report, the
Consultant shall meet with the Project Manager to review the submittal requirements. The Consultant may extract drawings or sketches developed for submittal in the various design phases for use in the Sustainable Design Report. Mark-up and annotation of the documents may be included as part of the submittal.

SECTION 2904 - SUPPORTING STUDIES

At the request of the Project Manager, the Consultant may be requested (under a separate authorization) to provide additional focused planning studies and/or analysis directly related to the project beyond those normally required for the design process and related coordination. The purposes for these supporting studies may include documentation for grants, additional justification, design refinement, etc.

END OF CHAPTER 29