

## **CONSTRUCTION REQUIREMENTS**

Note: The buildings on the UCCS campus are divided into two categories: General Fund and Auxiliaries. General Fund Buildings include academic and administrative functions. Auxiliary buildings include dormitories, athletic, and dining facilities. In some cases, construction standards differ depending on the building category. Confirm building category with Facilities Services Project Manager.

### **DIVISION TWO: EXISTING CONDITIONS**

#### **A. Land Survey**

For most projects, the Owner's Representative will provide the Architect/Engineer a site survey created by a registered land surveyor as described in the Agreement Between Owner and Architect. These drawings will be created by referencing UCCS maps and by actual utility locates. Invert elevations will be determined on existing utilities so that both plan and profile drawings can be created for new utility installations.

Exact location of the proposed building shall be discussed with the Building Committee and Owner's Representative who will review it with the Facilities Services and other UCCS personnel for final approval.

#### **B. Subsurface Investigation**

As soon as the Architect has developed the design to the point where approximate foundation design loads can be determined, the Architect shall request, through the Owner's Representative, that test borings be made to determine subsurface conditions. This generally will occur during the Schematic Design phase. The Owner's Representative will arrange to have the necessary borings made and will provide the Architect with the Soil Engineer's report and recommendations.

#### **C. Archaeological Survey**

1. The Owner reserves the right to require an Archaeological Survey under the auspices of the Colorado State Historical Society.
2. Procedure during construction.

a. If any relic, artifact, or object is encountered that may be suspected of being historic or pre-historic value: STOP EXCAVATION OPERATIONS IMMEDIATELY AND

NOTIFY THE OWNER.

b. The Owner will, in turn, notify the State Archaeological and Historical Department, who will conduct a Survey to determine if excavation findings may yield information of historic or pre-historic significance and accordingly eligible for the National Register.

c. In any event, the University may further investigate and research the findings.

d. Construction delay or other costs relating to the Archaeological Survey will be processed in conformance with the Contract Documents.

3. The survey may occur prior, during or after the earthwork operations.

4. UCCS project manager to have UCCS anthropologist check "open pit excavations" . Advise prior to starting excavation.

#### **D. Fire Lanes**

Fires lanes must be a minimum of 20 feet wide and be designed to support a gross vehicle weight of 80,000 pounds.

#### **A. Service Outages**

UCCS project manager must be notified of any interruptions of service to occupied buildings or areas. Provide minimum of 72 hours notice so that project manager can coordinate with effected users.

Include the following language in the construction documents:

***"Notify UCCS / Marcus Davis at 719-255-3599 and Colorado Springs Utilities/ Paul Mossberger at 719-651-1032 at least 72 hours prior to touching any water, fire or gas main shut-off valves."***

#### **F. Climate and Weather Considerations**

1. Temperature and humidity, rainfall, solar intensity, wind and elevation should all be considered in Building design. The following data shall be used for design purposes.

2. Colorado Springs, CO is located at latitude 38 degrees 49' N and 104 degrees 43' west longitude at an elevation of 6145 feet.

- Highest recorded temperature was 100 degrees on June/July 1954.
- Lowest recorded temperature was -27 degrees on February 1951.
- Sunshine frequency: 48% of possible in December to 75% in July.

Outdoor design conditions as specified by Pikes Peak Regional Planning Code are:

Winter Design Dry-bulb 2 degrees F

Summer Design Dry-bulb 88 degrees F

Summer Design Wet-bulb 57 degrees F

Degree-days Heating 6415

3. Appropriate safety factors should be used for critical spaces to ensure that required indoor air conditions are properly maintained.

4. Research completed by the Rocky Mountain Chapter of ASHRAE indicates that ASHRAE's Solar Heat Gain Factors (SHGF) need to be adjusted by a multiplier of 1.173 to account for the higher elevation and lower moisture content and thus greater transmissivity of the air.

5. All psychometric, heat transfer and air movement calculations are to be adjusted for elevation above sea level.

#### 6. Indoor Conditions

Indoor conditions shall be maintained as follows unless otherwise required by specific design requirements:

Winter 72 degrees F

Summer 78 degrees F

7. If humidification is provided in the winter it shall be to no more than 30% RH. Dehumidification in the summer shall be no lower than 60% RH unless equipment operation is less energy consuming at a lower level.