**University of Central Florida**
**Design, Construction, and Renovation**

# Professional Services Guide

2013 Revision

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## Article 1 – Introduction

The current edition of the University of Central Florida Professional Services Guide supersedes all previous editions. Its purpose is to assist the Architect/Engineer in providing services to the University of Central Florida. The Guide does not modify the scope of work or the contractual obligations of the Agreement between Owner and Architect/Engineer (the Agreement). The Guide does not repeat the requirements of the Agreement, the Project Manual, or the Owner/Contractor Agreement; rather, it explains how to fulfill the requirements of these documents.

The Guide will enable the Architect/Engineer to better understand the Owner and the authority delegated to those entities and persons with whom the Architect/Engineer will routinely work. The most frequently asked questions concerning the interactions between the Owner and the Architect/Engineer are addressed.

On smaller projects, particularly those designed by the Facilities Improvements Construction Manager, some of the procedures (e.g. phases required, etc.) may differ slightly.

### Statement of Purpose and Objectives

The UCF Professional Services Guide has been prepared to assist Architects, Engineers and other design professionals in the design and construction of facilities for the University of Central Florida in accordance with the University of Central Florida Design, Construction, and Renovation Standards.

## Article 2 - Understanding the Owner

### The Owner

The 'Owner' is the University on behalf of the University of Central Florida Board of Trustees. This board governs the University of Central Florida.

The University President is granted authority by statute to execute design and construction contracts and is granted authority by administrative rule to administer the construction program. The Board has retained approval authority on some items relating to the construction program, as described below.

Funds for construction are appropriated, or authorized, by the Florida Legislature and specified by the Educational Plant Survey. The Board is accountable to the legislature for their proper expenditure. In discharging this accountability, the Board delegates certain authority for the construction program to the University President. The construction responsibility of the University President is administered by the University Facilities and Safety Department, Office

of Facilities Planning.

**The University's President's Authority**

Approve the building program, based on the Educational Plant Survey. The building program is the planning document from which the legislative budget request is generated and from which the Architect/Engineer will develop plans and specifications.

Approve the project budget.

Establish the University of Central Florida Design, Construction, and Renovation Standards. Approve the selection of the Architect/Engineer or other design professionals.

Determine the method for acquiring a construction project and advertising and awarding contracts for construction management, design-build, or competitive bid of construction work.

Approve the selection of the Construction Manager or award a general construction contract.

**Article 3 - Technical Applications**

**The Building Committee**

Facilities and Safety is responsible for all design and construction projects. The University Design Project Manager, although not an official member of the Building Committee, is the direct link between the Architect/Engineer and the committee, and is responsible for coordination of the review of the drawings and specifications. The University Design Project Manager is to assist in keeping the project within the Educational Plant Survey square footage criteria, on schedule, and within budget.

The Committee Chair is the point of contact with the Committee. It is the Chair’s responsibility to form a consensus opinion on issues raised.

**Communications, Meetings, and Minutes**

The Agreement is between the Architect/Engineer and the University of Central Florida. The University Office of Facilities Planning shall serve as the Owner's Design and Construction Project Managers (hereinafter referred to as the University Project Manager) and the channel for all official communications with the Architect/Engineer in administering a project.

Prior to or immediately following the issuance of the Notice to Proceed, the University Project Manager will provide a list of those persons who shall be routinely copied on all written communications (Owner's Distribution List) to the Architect/Engineer. All written communications must include the University Project Number. The Architect/Engineer, in

consultation with the University Project Manager, shall schedule all necessary conferences and meetings.

The Architect/Engineer shall record the minutes of all scheduled meetings, presentations, developments, and conferences, and furnish copies of these minutes within ten (10) calendar days to all attendees and to the persons identified on the Owner's Distribution List. The Architect/Engineer shall list the names of those persons receiving the distribution of the minutes as an attachment to the minutes. The minutes shall be concluded with the following statement: *It is the responsibility of all meeting attendees to bring all omissions, corrections, and/or errors in these minutes to the attention of the undersigned and the University within nine (9) calendar days.*

All conferences, telephone conversations, consultations and meetings which resolve or establish a question of scope, a design element or other consideration of project development, shall be confirmed in writing by the Architect/Engineer with copies to all parties to the communication and to the Owner's Distribution List.

The Architect/Engineer shall provide written response to all Owner's written document review comments within ten (10) calendar days identifying the page in the plans and specifications.

A/E Initial Planning Meeting

The A/E is authorized to begin work only upon receipt of a written Notice to Proceed, issued by the UCF Office of Facilities Planning. Prior to any design work, the selected team is required to contact the Director of Facilities Planning to arrange an initial planning meeting. The following is a typical initial planning meeting agenda. The actual agenda may vary in accordance with the project requirements.

Typical Agenda

Introductions

1) Responsibilities and Roles, (Facilities Planning, A/E, Construction Manager, Building Committee)

Procedures

1) Communications- University Project Manager (Facilities Planning)

2) Meeting Memoranda and Format (Facilities Planning)

3) Review of Educational Plant Survey (Facilities Planning)

Design Process Description and Approval Process (Facilities Planning)

1) Design Phases

2) Administration Conceptual Review

3) Interim Design Meetings

4) Design Review Workshops

Schedule Presentations (A/E)

Project Issues:

1) Design Approach Presentation, Demonstration of Program Understanding and Educational Plant Survey (A/E)

2) Preliminary Discussion of Design Issues (A/E, Facilities Planning, Building Committee)

3) Construction Management Process (if applicable) (Facilities Planning)

4) Construction Process (A/E, CM, Facilities Planning)

Interim Design Meetings

Interim design meetings and workshops will be conducted by the A/E with assistance of the University Project Manager and will be held exclusively at the University. It is incumbent upon the A/E to keep an accurate record of the meeting events. The purpose of interim design meetings is to clarify design issues with the Building Committee. The A/E must be prepared to present all design documentation in electronic format to be presented with an overhead projector. Meetings will occur to correspond with the phases of the design process. The phases are delineated in the A/E contract and are as follows:

1) Conceptual Schematic Design *(May be combined with Advanced Schematics)*

2) Advanced Schematic Design

3) Design Development

4) 50% Construction Document

5) 100% Construction Documents

Design Review Workshops

Beginning with the Advanced Schematic Design Phase, design review workshops will occur.

The design review workshop involves an in depth technical review by the University. These meetings are daylong events with review sessions scheduled to address the specific disciplines involved in the project design.

~~Typical~~ Example schedule for Design Review Workshops

9:00 AM - 10:30 AM Civil/Utilities/MEP/Landscape & Natural Resources/Elevators

10:30 AM - 12:00 PM Telecommunications/Computer Services/Security/Business Services

1:00 AM - 2:30 PM Codes and Life Safety

All review presentations will be held in the Facilities and Safety Conference Room. The A/E will deliver one (1) full-sized set, two (2) half-sized sets, and one (1) reproducible electronic format set of the review documents to the Office of Facilities Planning ten (10) calendar days before the scheduled workshop. The university Project Manager will make appropriate distribution of the documents.

Project Schedule

The schedule of services is part of the contract negotiation and is included in the Agreement. The Notice to Proceed is effective upon receipt of the Notice to Proceed or on such other date as may be specifically referenced in the Notice to Proceed. Within ten (10) calendar days after the effective date of the Notice to Proceed, the Architect/Engineer shall deliver to the University Project Manager a project schedule identifying the specific dates for all phases applicable to the project.

The schedule shall incorporate dates of anticipated meetings and end-of-phase milestone dates as stipulated by the A/E agreement. In addition, the schedule shall indicate:

a) A list and dates of anticipated interim design conferences and workshops.

b) The start dates and duration of each major phase of the project design.

c) The duration and completion dates of each design review period, which are required to maintain the project schedule.

d) The projected duration and completion dates of other project-related activities, such as funding decisions, surveys, geotechnical investigations, fire marshal and St. Johns River Water Management District approvals, etc.

e) The estimated duration of bidding, award and construction periods.

The Project Development Schedule will be discussed and finalized as required at the initial

planning meeting. The project development schedule is up-dated by the A/E and re-submitted with each end-of-phase submittal. Prior to starting any subsequent project phase, the current submission must be approved by the Office of Facilities Planning and the Associate Vice President Administration and Finance.

Status Reports

The Architect/Engineer shall submit a detailed report to the University Project Manager each month. The format for the planning and design phase is shown as **Exhibit 2** and for the construction phase is shown as **Exhibit 3**.

**Site Information**

The Architect/Engineer shall visit and inspect the site and location of the work, including the general surrounding area, as often as required to be fully acquainted with all pertinent local conditions affecting the development of the project.

The University Project Manager will provide information relative to the site. The Architect/Engineer may request the University Project Manager to provide additional information, if deemed necessary, and the University Project Manager shall furnish the additional information or shall direct the Architect/Engineer to obtain it at the Owner's expense. The Architect/Engineer shall evaluate and verify all information provided by the University Project Manager.

When a project includes extensive renovations, restoration or remodeling of an existing building, the University Project Manager shall provide the Architect/Engineer with record drawings of the facility. The Architect/Engineer shall verify the accuracy of the record drawings, as necessary, to develop accurate construction documents. If, however, extensive verification is required due to inaccuracy of the record drawings, or if the Architect/Engineer is required to develop measured drawings, an additional service authorization will be issued. If authorized, the Architect/Engineer shall investigate existing conditions, both in the open and those that are hidden, in addition to preparing the required measured drawings. The Architect/Engineer shall take all necessary action to expose the existing construction in order to determine its exact condition, including removing all coverings, plant growth, etc. When the exposure of existing surface or subsurface construction is considered necessary, the Architect/Engineer shall arrange with the University Project Manager for the work to be done.

The University Project Manager will provide the Architect/Engineer with existing information regarding asbestos and lead-based paint surveys and operations and maintenance plan activities.

When the investigation of a site is provided under the Agreement, the Architect/Engineer shall obtain all plan reviews and approvals for the licenses and permits that are a necessary precedent to construction or bidding for that work. The Architect/Engineer shall comply with all applicable laws, codes, and regulations in connection with the work and provide for proper safety precautions to protect the public and public property. The cost of any permits required and the investigation are reimbursable expenses and must be authorized by the University as an additional service prior to their occurrence.

The University Project Manager will provide the Architect/Engineer with ADA accessibility survey information.

Surveys

The Architect/Engineer shall consult with the University Project Manager to determine if a survey of the site is available. If one is not available, the Architect/Engineer shall determine the scope of surveying needs. The format for recording the surveying needs is shown in **Exhibit 4**.

When so requested by the University Project Manager to obtain a survey, the Architect/Engineer shall select a qualified surveyor and provide a proposal to the University Project Manager. The University will issue an additional service authorization. Payment for the cost of the survey will be made in accordance with invoicing procedures.

The survey shall contain the following:

Land (Boundary) Survey

1) All headings and distances of property lines of all parcels which comprise the site.

2) The dimensions, locations and ownership of buildings, structures, easements, rights-of-way, setbacks, encroachments on the site including block or street numbers, and the presence of any developed mineral rights to which the site is subject.

3) Details of all party walls, walls, fences and foundations on the site and adjacent to, or within five feet of, the property lines.

4) Where no monument exists, suitable permanent monuments shall be set at property corners and at other appropriate locations.

5) Area of site in acres (to .001 acre) and in square feet if less than one acre.

6) Zoning of property and adjacent properties.

7) Certification on the survey drawings by a qualified official that establishes or

anticipates widening or changes to street lines, grades or curbs, sidewalks, and all utility services are correctly shown.

8) The full legal description of the parcel shown and an indication if the parcel is part of a parent tract.

9) Certification, seal, and signature of a land surveyor registered in the state of Florida.

(NOTE: Any discrepancies between the land (boundary) survey and the recorded legal description shall be reconciled and explained.)

Topographic Survey

1) All of the items listed under **Article 3 – Technical Applications** Surveys Land (Boundary) Survey above.

2) The position, dimension, elevation and contours of all cellars, excavations, wells, backfilled areas and similar openings and the elevation of any water therein.

3) Existing trees, their identities in English and botanical terms, trunk sizes and approximate foliage areas.

4) Existing shrubs, undergrowth, and ground cover areas.

5) Detailed information required to establish curb and building lines, street, alley, sidewalk and curb grades and lines at or adjacent to the site and a description of the materials of which they are constructed.

6) Floor elevations of existing buildings to be renovated.

7) All utility services, including pipe sizes, pressures and electrical characteristics. The location, invert elevations and direction of flow of all piping, mains, sewers, poles, wires, hydrants, catch basins and manholes upon, over, or under the site, or adjacent to the site within the approved scope of the survey, including but not limited to buried tanks and septic fields serving, or on the property, and including the name of the operating authority of each utility.

8) Flood plain, flood levels of streams or adjacent bodies of water and an analysis of the site for potential flooding, including the extent of watershed on the property. A statement of the probability of water overrunning the site and the indication of the one hundred (100) year flood elevation and contour must be provided.

9) Location of test borings and soil borings where ascertainable.

10) The official data upon which elevations are based and the bench mark established on or adjacent to the site shall be clearly indicated. *Only one such data point or bench mark shall be used on any one site for establishing the grades for a project.*

11) Contours and elevations on a grid system of two (2) foot intervals shall indicate changes of slope over that portion of the site to be developed. The interval for contours shall be tailored to the site under consideration.

12) The contemplated date and description of any known or proposed improvements to the approaches or utilities on or adjacent to the site.

The survey drawings must be included in the contract documents.

Geotechnical Services

Investigation and testing, if required, of geotechnical conditions is necessary and shall define the scope of work required.

Upon approval by the University Project Manager to obtain subsurface investigation and testing services, the Architect/Engineer shall select a qualified firm and forward a proposal to the University Project Manager. The University Project Manager will coordinate a dig permit with the Office of Facilities Planning. The University will issue an additional service authorization. Payment for the cost of geotechnical services is made in accordance with invoicing procedures.

If additional subsurface investigation and testing is required when the results of the initial exploration are received, the Architect/Engineer shall submit to the University Project Manager an estimate from the testing firm for additional investigations to be performed. The Architect/Engineer shall not proceed with the additional investigation until the revised Additional Services Authorization is received from the University.

The Architect/Engineer shall provide grade, foundation, and structural design solutions based on the geotechnical engineer's analysis and recommendation, and shall submit such analyses and reports to the University Project Manager.

**Design, Construction, and Renovation Standards**

Design, Construction, and Renovation Standards are issued by the UCF Office of Facilities Planning. The University Project Manager will furnish the Architect/Engineer with the Standards. The Design, Construction, and Renovation Standards consists of the Critical Needs Checklist and the UCF Standards. These standards are specific to the University of Central Florida. These standards must be followed.

The Critical Needs Checklist must be completed with a narrative indicating specification section

and drawing number references at each phase of the project by the Architect/Engineer prior to proceeding to the next phase or payment being made by the Owner. PSG.1

Evaluation of life-cycle operating and maintenance costs shall be a part of any initial materials and equipment decision. Products which have not achieved a minimum five-year period of successful use in the construction market shall not be used. Roofing products require a longer proven history; the Architect/Engineer will discuss these requirements with the University Project Manager.

The Architect/Engineer shall prepare drawings and specifications so that the bidder is permitted a choice of competitive materials or methods which are equally satisfactory for the intended purpose and comparable in cost. The Architect/Engineer shall not use exclusive requirements when specifying equipment and materials on drawings and specifications. The drawings and specifications must permit competition consistent with the work involved. When it is necessary to designate equipment and materials by product name, at least two equivalent products shall be named and the opportunity provided for other products to be submitted for approval in order to qualify before the bid date.

If a proprietary specification for materials or equipment is required, the Architect/Engineer shall secure approval of the University Project Manager prior to its use in the drawings and specifications. *The use of a proprietary specification must be sufficiently justified and the request and approval must be in writing.*

Protective Construction and/or Fallout Shelter in Public Buildings

Florida Statutes provides that protective construction and/or fallout shelters should be considered when constructing public buildings. The degree of compliance will depend on factors which vary with the type, size, location, and cost of the individual structure or facility. Unless specifically instructed otherwise, the Architect/Engineer will consider such protective construction in the planning and shall provide an evaluation of its cost.

The investigation and design for protective construction is considered a basic service under the Agreement. If in-house expertise to accomplish this evaluation is not available, the Architect/Engineer shall contact the Department of Community Affairs, Division of Emergency Management, Bureau of Operations, for assistance.

Federal or Local Government Participation

Whenever a project involves funding participation by federal or local governmental agencies, the Architect/Engineer shall ascertain the requirements of such participation and comply fully with these requirements in the contract documents. Where grants constitute any part of the

project funding, the Architect/Engineer shall ascertain which conditions of the grant funds must be addressed in the contract documents.

Available Consulting Services

Many state agencies have qualified specialists available for consultation and/or coordination, and they should be contacted when the items within their jurisdiction are pertinent to the development of the project.

Utility Information and Service Requirements

The Architect/Engineer shall assure that all utilities and services required for the successful functioning of the facility have been provided to the site and will be in full service upon completion of the facility. Some of the university storm water systems have been designed as pressure gradient systems capable of creating back pressures on lateral tie-ins. The nature of the system shall be identified by the Architect/Engineer and the tie-in from the building must be compatible with it. Profiles of all utilities shall be an integral part of the construction documents. Elevations of all existing and future utilities shall be clearly profiled to make it easier for site execution.

Wage Rates

State wage rates are not required. Wage rates are only applicable to federally funded projects. The Architect/Engineer shall obtain rates for federally funded projects from the regional office of the granting agency.

Code Compliance and Permits

The Architect/Engineer shall ensure that the design and contract documents comply with all applicable codes, regulations, and orders. The Architect/Engineer shall submit a list of codes to which the project is subject to the University with the conceptual schematic design submittal. All reference to codes herein shall mean the latest editions adopted through legislation for use in state owned/leased buildings.

The Architect/Engineer shall use the following codes (where code requirements conflict, the university will resolve any disputes of code application):

Building Codes: Florida Building Code in all of its sections.

Fire and Life Safety: Florida Fire Prevention Code.

Other Requirements:

Rules of the Department of Business and Professional Regulation, Division of Hotels and Restaurants, Bureau of Elevator Inspection.

Rules of the Agency for Health Care Administration.

Life Cycle Analyses (addressed in Article 4 - Design and Construction Documents herein).

Department of Education space standards contained in the Size of Space and Occupant Design Criteria Table, State Requirements for Educational Facilities (SREF).

Asbestos and Lead-Based Paint Surveys, Operations & Maintenance, and Abatement:

1) Rules of the Florida Department of Labor and Employment Security.

2) Requirements of all applicable Florida statutes.

3) Rules of the Florida Department of Environmental Protection.

4) Regulations of Occupational Safety and Health Administration (OSHA) and the Environmental Protection Agency.

5) Licensing regulations of Asbestos Consultants, the Florida Department of Business and Professional Regulation.

6) Lead-based paint minimum abatement standards of the Department of Housing and Urban Development and current state of the art procedures to protect university personnel, students and visitors.

7) All asbestos abatement contractors are to be pre-qualified under the Owner Provided Insurance Program.

Rules of the Department of Environmental Protection.

Rules of the jurisdictional water management district.

Rules of the Army Corps of Engineers.

Mechanical, Heating, Ventilating and Air Conditioning (HVAC) systems and equipment design and installation shall comply with American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc. (ASHRAE) Handbooks; American Conference of Governmental Industrial Hygienists Ventilation Manual; American Society of Mechanical Engineers' Unfired Pressure Vessel Code; and American Standards Institute

(ANSI) standards. The Trench Safety Act.

Requirements for State Fire Marshal Review and Approval

The State Fire Marshal has statutory responsibility for review of all plans. Plans for review shall be submitted, in accordance with the State Fire Marshal's review procedures, to the University Office of Facilities Planning. Liaison with the State Fire Marshal's staff will be provided by the University Environmental Health & Safety Office.

In addition to drawings required for Florida Building Code review, the Architect shall be responsible for submitting signed, sealed, and dated drawings for review by the Florida State Fire Marshal (SFM) and obtaining approval prior to construction. Contact the SFM or view their website for the most recent plans review fees, required forms, and submittal requirements. Plans are submitted through the UCF Building Code Office for all projects permitted under the University Building Code Administrator. A minimum of five (5) sets of design drawings are required on sheets not to exceed thirty inches (30") in length when rolled and broken into volumes of approximately 100 pages each for manageability. Approved drawings are required to be accessible to the SFM Inspectors on site for the duration of the construction

The Architect/Engineer shall confer with the University Project Manager to determine those permits to which the project is subject. The Architect/Engineer shall ensure that the design and contract documents are capable of obtaining all required approvals and permits. Required permits include those necessary for the design as well as those needed by the contractor for actual construction work. The Architect/Engineer shall determine the requirements of each permit, confer with the appropriate officials, submit all required information to obtain approval, and submit the Contract Documents for approval by the applicable agencies.

Sources of the required permits and approvals are:

1) City and County, Special provisions for campus planning and concurrency were established by the legislature to ensure that universities are developed or expanded in a manner consistent with principles of good growth management. These provisions allow for the establishment of key development policies and standards in the planning stage. After review by local, regional and state agencies, these policies and standards serve as the basis for a limited or expedited development review and approval process. Until the campus development agreement is executed, the Architect/Engineer shall identify any reviews and permits required for concurrency and consistency with the local comprehensive plan, including the cost, professional fees, and schedule. Unless specifically included in the basic services, the Architect/Engineer shall not initiate the local review/permitting process for a project without an additional service authorization or other written authorization from the University. The Owner is not obligated to

obtain or to pay for building permits from city or county agencies; however, projects where a local governmental entity is providing utility services may be subject to permits and inspections for plumbing and electrical installations by the local entity.

2) Department of Business and Professional Regulation, Division of Hotel and Restaurants, Bureau of Elevator Inspection. The contract documents must show the complete elevator installation including all details, hoist-ways, mechanical rooms, and other areas affecting the installation, and access to the elevator installation. The necessary structural and mechanical data describing the complete installation shall be included. The elevator subcontractor shall be required to submit documents to the Bureau of Elevator Inspection for approval prior to construction. The Architect/ Engineer shall incorporate any required changes into the construction documents.

3) Agency for Health Care Administration (AHCA), Plans and Construction Office. All additions or modifications to hospital facilities are subject to the rules and standards promulgated by AHCA. The Architect/Engineer shall contact AHCA to determine their requirements.

4) Department of Environmental Protection (DEP), area district branch. All projects are subject to the environmental requirements of the Department of Environmental Regulation. The Architect/Engineer shall contact the area DEP office to determine the environmental requirements for the project.

5) Water Management District, area district office. All projects are subject to the regulations relating to water management through the area water management districts. The State University System is required to pay the permit fee of the area water management district. The Architect/Engineer shall contact the area water management district to determine the water management requirements for the project.

Cost Estimates and Area Measurements

The Architect/Engineer shall ensure that an accurate cost estimate is provided with each design submission. This cost estimate shall also include a comparison to the approved budget. The approved budget is the amount included in the Architect/Engineer agreement. The Architect/Engineer shall not design a project exceeding the approved budget without written notice from the Office of Facilities Planning that the budget has been increased. Unless otherwise indicated, space measurements shall be made in accordance with the State Requirements for Educational Facilities (SREF), maintained by the Department of Education.

Space measurements for the purpose of operating budget requests are slightly different from the definition in SREF. In addition to square footage information provided based on SREF definitions, the Architect/Engineer shall also provide the University with total square footages

based on the following criteria:

Building Gross Square Feet: Determine the total building gross square feet by adding the sum of the floor areas of the building included within the outside faces of exterior walls for all stories, or areas that have floor surfaces. Gross area should be computed by measuring from the outside face of exterior walls, disregarding cornices, pilasters, buttresses, etc., which extend beyond the wall face. Gross area should include basements (except unexcavated portions), attics, garages, enclosed porches, penthouses, mechanical equipment floors, lobbies, mezzanines, all balconies (inside or outside) utilized for operational functions, and corridors, provided they are within the outside face lines of the building. Roofed loading or shipping platforms should be included, whether within or outside the exterior face lines of the building. Stairways, elevator shafts, mechanical service shafts, and ducts are to be counted as gross area on each floor through which the shaft passes. Exclude open courts and light wells, portions of upper floors eliminated by rooms or lobbies that rise above single floor ceiling height, and non-enclosed covered walkways.

Net Assignable Square Feet: Determine the sum of room areas excluding non-assignable areas. *Room area* is defined as the net area of the room in square feet, measured between the inside surfaces of the walls and partitions. *Non-assignable areas* include interior circulation space (including stairs), custodial areas, mechanical areas, structural areas, public rest rooms, exterior circulation space (including stairs), elevators, and telephone/data communication equipment areas.

The Office of Space Administration has developed space standards specific to UCF that must be followed.

Covered Walkway Gross Square Feet. Measure floor area, excluding any areas which were included in the calculation for Building Gross Square Feet.

The format for the Architect/Engineer's Estimate Summary and Budget Comparison is shown in **Exhibit 6.**

Building Program

The Architect/Engineer's execution of the Agreement implies acceptance of the building program and the design shall incorporate all its requirements. The Architect/Engineer may obtain amplification and details concerning the building program requirements from the University Project Manager. The Architect/Engineer shall confirm such details and amplifications by memorandum to the University Project Manager. The Architect/Engineer shall not perform professional services, which vary from the approved building program without the written prior approval of the Office of Facilities Planning.

The request for a building program amendment shall include a complete description of the proposed change and a narrative justification, including its impact on the project's budget and schedule. If the proposed program amendment will involve professional services not covered under the Agreement, an estimate of the cost of such services prepared by the Architect/Engineer shall be included in the amendment request. If the building program amendment is approved, the University will issue a directive to the Architect/Engineer instructing the change(s) be made and authorizing the additional professional services. In the absence of an approved program amendment, the original program requirements shall prevail.

Approved project/facility program (Must be compatible with the approved Educational Plant Survey)

The scope of the project is defined by the building program. The program serves as the tool by which funding is obtained and functions as the instrument that the A/E must use to design the project or facility. Specific to the A/E uses are:

A "generic" site analysis

1) Site topography and soil conditions

2) Site water table, flood hazard and storm water drainage requirements

3) Vehicular and pedestrian circulation

4) Site vegetation

5) Archaeological history

6) Location of existing utilities and proximity of utilities to the site

7) Architectural significance of any structure on site and the proximity and significance of structures on adjacent sites which will have an impact on the project

8) Any unusual site condition which may impact the cost or design of the project

Program Area (based on the Educational Plant Survey)

1) Program Area Table (a list of all spaces, stations and net square footage requirements).

2) Room (Space) Requirement Forms

a) Description of space function (may be accompanied by diagram of a typical space)

b) Equipment required for space

c) Special requirements such as lighting, acoustical treatments, finishes, etc.

d) Description of space relationship to other spaces and a functional diagram of those relationships

Utilities Impact Analysis

1) Chilled water

2) Electrical

3) Potable Water and Sanitary Sewer

4) Irrigation Water

Information Technology and Communications Resources Requirements

Codes and Standards

Project Schedule

1) A critical path schedule for development of the project correlated to the funding cycle. Elements of the schedule include: advertisement, shortlist, interview, contract award, fee negotiations, contract execution, design, contract document preparation, agency approvals, bidding, construction contract award, construction and closeout.

Program Funds

1) Source and availability of funding for planning, construction and furnishings and equipment.

Project Space and Budget Summary

1) Listing of space by the Board of Governors categories (classrooms, teaching labs, research labs, study, instructional media, auditorium/exhibition, gymnasium, student academic support, office/computer, campus support services, residential and other assignable spaces).

2) Budget Summary of Project Costs (building, site development, infrastructure, furnishings and equipment, planning and construction-related fees, artwork, contingencies, etc.).

<u>Owner's Minority Business Enterprise (MBE) Utilization</u>

The University of Central Florida encourages MBE participation.

Building Telecommunications and Cable Television Systems

The university has adopted telecommunications standards. Telecommunications typically includes telephone and computer data systems combined in one set of wiring.

Basic services include:

Building telecommunications wiring and conduit from the main building telecommunications room to all rooms and spaces within the building, and wall boxes and termination devices in those rooms and spaces. Basic services also include telecommunications conduit from the main building telecommunications room to the nearest telecommunications manhole or building as the University directs. This telecommunications scope shall be included in the project's base bid scope.

Cable television systems where required, including wiring and conduit from a designated building location to all rooms and spaces within the building requiring cable television, and wall boxes and termination devices in those rooms and spaces.

Fume Hood Exhaust, 100% Outside Air Systems and Other Specialized HVAC Systems

Building spaces with fume hoods and animal holding facilities typically are prohibited by code and good practice from recirculation of air conditioning air: 100% outside air is required. Clean room "class" per ASHRAE must be determined and documented. Since 100% outside air systems and other special systems are expensive to build, operate and maintain, and since the size and complexity of the systems create ample opportunity for design, contract, construction, initial start-up and noise problems, it is critical that the detailed design basis and costs be established and documented in early design submittals.

Overall Guidelines

The Architect/Engineer shall be responsible for:

Developing, documenting, and promoting technical discussion of these systems early in the Project. Early submittals are to include narrative technical discussion of system types, materials, and controls; including options, advantages, disadvantages, relative costs, and Architect/Engineer recommendations.

Ensuring that all major decisions regarding system types, materials, and controls are determined and agreed to by Owner by the end of Design Development Phase; and documented in the Design Development submittal. Costs are to be included in the Architect/Engineer's Design Development estimate of construction cost.

**Article 4 – Design and Construction Documents**

**Standards for Construction Documents**

Drawings Requirements

The documents shall be reproduced for review purposes at 18" by 24" during the design process and at 30" by 42" for final record set. Specific deliverables are noted in the contract with the University. The sheets of each submittal shall be the same size. All design documents must be submitted in a reproducible, digital form. Documents when rolled and broken into volumes should not exceed approximately 100 pages for manageability.

The title block on each drawing shall appear in lower right hand corner or along the right margin. An example of the required information is shown in **Exhibit 7**. A chart comparing the Educational Plant Survey square footages with the actual square footages of the space categories designed must be shown on the title page of all drawings.

All applicable design data shall be shown on the drawings, i.e., Life Safety Code, Standard Building Code data, design loads, working stresses and assumed conditions, and gross, net and volume square footage calculations.

Lettering shall be vertical uppercase and must be plain and legible; minimum size shall be 1/8". All symbols shall be clearly separated from one another and from adjacent lettering or lines.

Every plan, elevation, section, detail, etc. shall be titled, to include a scale. The scale should be given as an example of the object drawing, i.e.: scale 1/8" = 1'. Graphic scales shall be provided where appropriate.

Title sheets, title pages, and binding of documents shall be in the format shown in **Exhibit 8**.

All 100% Construction Document drawings shall be prepared in AutoCAD, Revit and PDF file unless otherwise specified by the contract.

Project Manual Requirements (to include technical specifications)

The University Project Manager will provide and review with the Architect/Engineer the standard UCF Instructions to Bidders, General Conditions and Special Conditions, and any applicable supplements. The Architect/Engineer shall become thoroughly familiar with these documents and incorporate additional requirements and Special Conditions as appropriate. If changes to the General Conditions are necessary, they shall be accomplished by the use of Supplementary General Conditions.

The Architect/Engineer shall prepare the Project Manual so that it complies with the requirements and customary practices of the university for which the project is planned; and is

thoroughly coordinated, complete, concise and free of redundancy. Each Project Manual should be tailored to the project and should not include provisions which are not applicable to the project.

Project Manuals shall be printed in an 8½" x 11" format, ~~spiral~~ bound on the left side in a permanent binder, and printed on both sides of the paper, with each section starting on the right hand side. Minimum paper weight should be 80 lb. stock. Cover stock should be a minimum weight of 90 lbs.

Technical specifications shall be prepared in accordance with the most recent Construction Specifications Institute Manual approved by the university. Specification sections shall be formatted in three parts: general, products and execution. Work to trades shall not be assigned in the specifications: the Conditions of the Contract establish the Contractor as responsible for all Work.

Proprietary Specifications

When specific manufacturers are named, the naming of a specific manufacturer should serve only to establish a level of quality. Specifications should not be made proprietary unless there is sufficient justification, which must be well documented and specifically approved in writing by the university.

Use performance, descriptive, or reference standard specifications to the greatest extent possible. If a manufacturer's name is used to establish a level of quality, when possible, include three or more acceptable manufacturers which have been evaluated and found to be equal in quality to the specification. Add "or approved equal" language to product specifications which mention manufacturers by name but are not intended to be proprietary. Substitutions of equal or better quality products must be approved, prior to bid opening, as described in the General Conditions of the Contract for Construction.

Sole source specifications must be recommended to the university and approved by the university in writing in accordance with Florida Statutes.

Augment, but do not repeat, the provisions contained in the Instructions to Bidders, Conditions of the Contract and Contract Forms. Likewise do not repeat provisions contained in the General Requirements.

The Architect/Engineer shall maximize the use of standard materials, standard methods of construction, and standard specifications. Specifications for classification of work and materials issued by an approved association, such as ASTM, ASA, ASME, etc., may be included. Each referenced specification must be examined to ensure that it is suitable for the intended

purpose. When a small quantity of materials is needed, the reference to a standard commercial product is sufficient.

In referencing standard specifications, the Architect/Engineer shall: avoid reference to specific paragraphs in the standard specifications which will limit the specification; avoid repeated references to a standard specification within the same section of the specifications; and, include types, classes, weights and such characteristics to ensure accurate description.

Final contract documents shall bear the professional seal and signature of the Architect/Engineer.

Errors and Omissions

The drawings shall be prepared using the industry standard of care so that change orders to construction due to errors, omissions, inadequacies, or conflicts between various component parts or with the specifications are minimized. Costs associated with errors and omissions will be the joint responsibility of the Architect/Engineer of Record and the Construction Manager. **PSG.2**

**Conceptual Schematic Design**

The conceptual schematic design phase requires the development of a concept or concepts for the project. The early conceptual studies required by the agreement shall be sent to the University for review and approval. For the final Conceptual Schematic Design submittal, the Architect/Engineer shall present sufficient documentation, including perspective sketches and models, to ensure full comprehension of the design solution. Formal models and perspective renderings are not required as a Basic Service of the Agreement. The deliverable for Conceptual Schematic Design shall include, but not be limited to:

A statement confirming that the Architect/Engineer has verified the building program.

A copy of the existing campus master plan drawing showing the location of the project and a demonstration of the master plan's intent for the project.

A site plan with diagrammatic indications, showing the relationship of all components, site utilities, and circulation elements, including consideration for future site development consistent with the master plan infrastructure requirements.

Topographic studies of the terrain, emphasizing features that contribute to the solution or require significant alteration for a solution.

A description of the site, including known soil conditions, ground water conditions, zoning, accessibility, utility services, governing codes, etc.

If applicable to the Project, a statement that the Bureau of Historical Preservation, Department of State, has been consulted and that any conflicts with present conservation or historical programs have been acknowledged and/or resolved.

Small-scale line drawings of plans and sections adequate to define horizontal and vertical relationships of the various project components, along with sketches to define the initial concept and direction of the project.

A statement and evaluation of concepts and measures proposed to ensure energy conservation.

In the case of additions or renovations to existing buildings, a plan showing existing and proposed facilities in their relative arrangement and relationship.

A plan for providing total accessibility to the facility and evidence of coordination with the University ~~ADA Coordinator~~ and other accessibility groups. ~~The Architect/ Engineer should request ADA survey information from the University Project Manager.~~

A general description of architectural, engineering, and construction concepts and the architectural, structural, plumbing, fire protection, mechanical (HVAC), communications, electronics and the electrical systems to be used. If fume hoods, fume exhaust systems, 100% outside air systems, animal care facilities, clean rooms or other specialized HVAC systems are required, additional requirements apply (**See Article 4 – Design and Construction Documents**).

A confirmation or updated statement of the building program's off-site utilities demand quantities, and discussion. The Architect/Engineer shall confirm ~~with the University Project Manager~~ that sufficient central utilities system source and distribution system capacity exists to serve the project. If there is an apparent shortfall in capacity to serve the project, the submittal shall include notice to that effect. The following items shall be included:

a) Chilled Water – estimate of tons required and identification of source of supply (package or central plant). Analysis of adequacy of off-site pipe capacity.

b) ~~Steam or~~ Hot Water Loop – estimate of BTUH required and identification of source of supply. Analysis of adequacy of off-site pipe capacity.

c) Electrical – Estimate of KVA load and identification of source and adequacy of supply.

d) Potable Water and Sanitary Sewer – Identification of number of gallons per day, identification of source of water supply and method of sewage disposal. Analysis of capacity of

supply and disposal sources. Discussion of any permit requirements.

e) Irrigation Water – Identification of number of gallons per day required and identification of supply source. Discussion of any permit requirements.

A discussion of application of codes and required permits.

A mitigation plan may be required for the project.

A cost estimate and space analysis correlated to the program requirements and approved budgets, including any off-site and off-campus infrastructure costs. The format to be used is shown in **Exhibit 6**.

A current project schedule.

Where fume hood exhaust systems, 100% outside air systems or other specialized HVAC systems are provided, the Architect/Engineer's mechanical, electrical and plumbing engineers must be substantially involved in the design and are required to attend all design review meetings.

Between effective date of the Notice to Proceed and the Conceptual Schematic submittal, the Architect/Engineer shall take the lead, promote, coordinate and participate in discussions; collect technical information; provide calculations and analysis; all as required to develop information to complete the Conceptual Schematic submittal requirements noted below.

Projects with laboratories and/or fume hoods: Conceptual Schematic submittal shall include:

a) Preliminary fume hood schedule with room location; type of hood (general purpose, radioisotope, perchloric acid); size; minimum face velocity at specified open sash height (usually 18 inches or less); and, cubic feet per minute.

b) Technical narrative of HVAC including type of fume hood exhaust system(s) to be used (central collection systems preferred, individual exhaust accepted with university approval); duct and stack materials; maximum horizontal duct diameter; types of fans with location and redundant fans noted (penthouse required for fans unless university agrees otherwise); discussion of fume hood exhaust stack with minimum exit velocity and height noted; snorkel systems; and, general exhaust systems.

c) Technical narrative of fume hood system controls including available choices (constant volume, occupied/unoccupied for energy conservation; proposed life cycle analysis system schemes).

d) Technical narrative of laboratory plumbing systems including preliminary listing of all systems to be used.

e) Technical narrative of laboratory electrical systems.

For Projects with 100% outside air and specialized HVAC systems, the Architect/Engineer shall provide similar information to the above, omitting what is not applicable to the Project. Clean room class per ASHRAE shall be specified.

A discussion of the energy life cycle cost analysis (**see Exhibit 6A**).

a) Life cycle cost analysis is required for all projects and must provide a listing of the schemes to be analyzed and the rationale.

b) If life cycle analysis is required and is not included in the scope of Basic Services, the Architect/Engineer shall request an Additional Services Authorization prior to performing services associated with life cycle analysis.

Central utilities systems projects

The Architect/Engineer shall include a discussion of options for systems, equipment, materials and technical options. The discussion shall include options considered, advantages, disadvantages, budget costs, and Architect/Engineer's recommendation.

**Advanced Schematic Design**

The advanced schematic design phase requires the evolution of the approved concept and the deliverable shall include, but not be limited to:

A bound document describing the project, including how the design satisfies the program with sketches and drawings as needed to fully describe the interior and exterior features of the design. This presentation must include copies of drawings and materials included in the concept schematic presentation.

A plan showing how the project fits into the adopted campus master plan.

Site plans showing existing and proposed roads, walks, circulation elements, utility systems, plantings, and special site features.

Studies and reports relative to the site and its topographical, ecological, botanical and other features contributing to the solution or requiring significant alternation for a solution.

A description of existing zoning and other site conditioning factors restricting development and the solutions or recommendation for resolving them.

Floor plans (including "life safety plans"), elevations, building sections, and sketches as necessary to adequately present the concept.

If the project is an addition, or is otherwise related to existing buildings on the site, show the existing buildings and their general arrangements and relationships.

A general description, analysis, and sketches of the design and construction concepts for architectural, structural, plumbing, fire protection, mechanical (HVAC), communications, electronics and the electrical systems.

Energy life cycle cost analysis complying with state requirements must be conducted~~: a) when the project provides 13,000 or more new gross square feet or an estimated total new HVAC load of 40 tons or more; or, b) when the project includes renovation of space and new HVAC air handling units for which the load is 40 tons or more.~~ Mechanical and electrical descriptions, including computerized building management systems, indicating proposed systems and equipment in suitable detail, accompanied by a complete schematic format shall be submitted. The analysis shall be submitted on the Energy Life Cycle Cost Analysis Summary Form (see **Exhibit 9**). The University Project Manager will provide written direction to the Architect/Engineer on the scheme to be used in the project.

Identification of total demand loads for the project. Where it has been determined that there is a shortfall in capacity to serve the building project for any utility, the Architect/Engineer shall meet with the Owner and determine the appropriate course of action to make up the shortfall, and this course of action and the Architect/Engineer's estimate of associated design and construction costs shall be included in the Advanced Schematic submittal. Where special or energy intensive mechanical systems are considered (e.g., 100% air systems; central fume hood collection systems), provide a discussion of the systems, options, advantages, disadvantages and budget costs. These systems will usually be included in the life cycle analysis. If fume hoods, fume hood exhaust systems, 100% outside air systems, animal care facilities, clean rooms or other specialized HVAC systems are required, additional requirements will apply.

Specific layouts of complex areas such as kitchens, seating, sleeping, etc.

An updated plan for providing total accessibility to the facility and evidence of coordination with the university.

Details as required.

A statement of the provisions for acoustics.

Outline specifications, using the approved CSI format.

A cost estimate and space analysis correlated to the program requirements and approved budget, including a separate line item for funding any identified off-site utilities impact cost. The format to be used is shown in **Exhibit 6**.

A current project schedule.

A listing of code and permit requirements, including specific problems encountered in conforming to these codes and permits and proposed solutions, waivers and variances required or being pursued.

Recommendations regarding additional or other services required, such as: soil borings, detailed cost estimates, models and renderings.

The Document Submittal and Review checklist using the format shown in **Exhibit 10**.

Where fume hood exhaust systems, 100% exhaust systems, 100% outside air systems or other specialized HVAC systems are to be provided, the following requirements apply:

Between the Conceptual Schematic submittal and the Advanced Schematic submittal, the Architect/Engineer shall continue discussions with Owner/User to further clarify the systems requirements, design basis and cost.

For Projects with laboratories and/or fume hoods, the Advanced Schematic submittal shall include:

a) Updated fume hood schedule including room location, type of hood, size, minimum face velocity at specified open sash height, cubic feet per minute.

b) Updated HVAC technical narrative with type of fume hood exhaust system(s) to be used (central collection systems preferred, individual exhaust accepted with university approval); duct and stack materials; maximum horizontal duct diameter; types of fans with locations and redundant fans noted; discussion of fume hood exhaust stack with minimum exit velocity and likely height; snorkel systems; and, general exhaust systems.

c) One-line ductwork layout including HVAC supply, ordinary exhaust, fume hood supply, fume hood exhaust and lab general exhaust systems; preliminary penthouse equipment layout, roof plan with stacks and guy-wires; typical stack elevation view with top of stack height.

d) Updated fume hood system controls technical narrative (constant volume, occupied/unoccupied for energy conservation; proposed energy life cycle analysis system

schemes).

e) Updated laboratory plumbing systems technical narrative, including preliminary listing of all systems and materials to be used.

f) Updated laboratory electrical systems technical narrative, including preliminary listing of design philosophy (one panel per lab, amps per panel; emergency circuits per lab; listing of known special electrical circuits needed with room and equipment to be served), emergency generator size and items served.

For Projects with 100% outside air and specialized HVAC systems, the Architect/Engineer shall provide similar information to the above, omitting what is not applicable to the Project. Clean room Class shall be documented, as well as how the proposed design is to meet the ASHRAE requirements for that Class.

Central utilities systems projects

The Architect/Engineer shall include further development and discussion of the selected options and complete scope with simplified central plant or site sketches. The Architect/Engineer shall include an estimate of construction cost by major equipment line items and a discussion of this estimate with respect to the Owner's budget.

**Design Development**

Significant changes requested by the End User must be made prior to 50% Design Development Documents. **PSG.3**

By the end of the Design Development phase, the Architect/Engineer shall have finalized all major design and equipment decisions, and the costs associated with these decisions shall be included in the Architect/Engineer's estimate of construction cost. The deliverable for this phase shall include:

Site

Location plots, property and topographical surveys, subsurface boring logs and plans, ecological and botanical surveys, and other appropriate information.

A copy of the Master Plan indicating the location of the project and total scheme, if applicable.

Environmental considerations, including necessary design data, specifications, and cost estimates for preservation, dust, erosion, sedimentation and run-off control, where applicable, as an integral part of the design and construction project. Such controls will be limited to the

areas involved in the construction operation and those required by applicable codes and permits. Environmental control should not be confused with landscaping. The information provided will include statements regarding the type of treatments selected, the affected areas, and the reasons for the selection of the type of controls chosen.

Grading and Site Development.

All permanent features to be constructed on the site.

All permanent roads, walks, paths, and parking lots, including a statement of the general soil conditions with a brief outline of the soil exploration and testing performed as related to the development of roads, etc. The type and volume of traffic, controlling wheel loads, classes of surfacing under consideration, with justification for same, and any deviation from criteria fitness for those classes.

All existing and proposed utility services including runs, locations, capacities, sources, characteristics, materials and installation methods should be fully described. The Architect/Engineer shall review the utilities sub-element of the adopted campus master plan (available from the University Project Manager) with the university and assure that planned utilities are provided in the project.

Electrical:

1) A statement relative to the adequacy of the primary electrical supply to the site. If the primary source is inadequate, state measures proposed to correct the deficiency.

2) The characteristics of the electrical supply to the site, including circuit interrupting requirements and voltage regulations.

3) An estimate of the total connected load and resulting kilowatt demand load (KVA) by applying proper demand and diversity factors if a group of loads is involved.

4) The basis for selecting a primary and/or secondary distribution voltage.

5) The type, size, and location of conductors.

6) Describe the pertinent standards of design, such as voltage drop, physical characteristics of overhead or underground circuit, types of lighting units and lighting intensities.

7) Describe the type and adequacy of telephone, signal, fire alarm and other communication systems, including the number of spare telephone conductors available and spare capacity on fire alarm circuits.

8) Emergency power systems.

Utility Systems:

1) Fuel Distribution and Storage. Information provided shall include the following types:

a) Gas: Statement of type, location of takeoff from supply, and available pressure; statement of type and material for pipes and valves.

b) Liquid petroleum products: statement of unloading facilities, such as dock, tank car, or truck; description of the type of system and proposed features; statement of the basis for storage capacity, rate of pumping, and number of dispensing outlets; description of power supply and power requirements; selection of type of materials for pipes, tanks and valves.

2) Steam or Hot Water Distribution: Data provided should include points of connection, pressure, size, material and method of installation of proposed piping.

3) Central Chilled Water and Refrigeration: Data provided should include sizes, capacity, materials and installation methods. The peak demand tons of the building on the central chilled water plant and a verification that sufficient capacity exists shall also be included.

4) Domestic Water and Fire Protection: Source, minimum and maximum pressure at each building and in the system, and an explanation of the existing system covering particularly the type, capacity, condition, present water use, and unsatisfactory elements of the component parts; a statement of the type of construction proposed, materials for water mains, or wells, etc.; the distribution system, a statement of design, domestic and fire flow usage of well pressure, elevation differential, and the designer's basic estimate of tentative pipe sizes; a statement of tentative sizes, elevations, capacities, etc., as can be readily determined without long computations or design consideration for reservoirs, treatment units, pumping plants, well pumps and such units.

5) Sewers and Sewage Disposal systems: an explanation of existing systems covering the type, capacity, condition, present flow, and unsatisfactory elements or components; the interpretation of the degree of treatment necessary by field requirement and units necessary for treatment; a statement of the design factors with present design population per various units for the sewage treatment plant; statement of materials to be used for the sewage system, sewage collection system, and the sewage treatment plants; means of effluent disposal.

6) Storm Sewage: An explanation of the existing system covering particularly the

type, capacity, condition, and unsatisfactory elements or components; a statement of the type of construction proposed, material, etc.; a statement of the design requirements and tentative pipe sizes.

7) Electronics and Instrumentation: system engineering concepts; site and location considerations; antenna requirements such as types, separation, height, aircraft clearance, and area requirements; site communications and control linkages; electronic security considerations.

8) Irrigation Systems: tentative layouts, material, sizes, etc.

Site drainage plans and analysis.

Fencing: Type, height and justification for fencing.

Landscaping: Plant species, size and layout. Actual full-grown canopy size shall be indicated in the plan, both for existing trees to be saved and for new trees.

Lateral and transverse sections through the site shall indicate development of the site, when necessary, due to substantial elevation changes or circulation at more than one level.

Any special consideration pertinent to the site and its development.

<u>Buildings</u>

Architectural:

1) The plan of each floor showing movable and built-in furniture and equipment, fixed equipment, and any other use-determining factors.

2) Area recap and square footage should be indicated for each floor plan area and for the project in total in comparison to that required by the program.

3) Exterior elevations, delineating materials and noting floor elevations at each level.

4) Transverse and lateral sections through the building, indicating heights, vertical circulation, and relationships. The finished floor elevations of each level should be given.

5) Wall sections and wall details necessary to indicate the methods of construction indicating the overall values achieved as required by the Florida Energy Conservation Act, and indicating the fire ratings to be achieved.

6) Schedules indicating finishes and equipment, and the required flame spread

ratings, etc.

7) A summary of code related design parameters on the drawings noting NFPA, Standard Building Code, and other required codes compliance criteria. This summary of items shall address, but not be limited to: travel distances, sprinkler requirements, ratings of fire protection, exit width requirements, building type, construction type, occupancy classification, etc.

8) Provide large scale plans describing complex, intensely equipped or furnished areas, and areas needing clarification.

9) A description of the materials used for all major components of construction.

10) Other information, drawings, etc. considered necessary for the development of the program or explanation of the design.

11) The Office of Facilities Planning must be contacted so the University room numbering system can be established. The established room numbers must appear in each room in the design development submittal.

Structural:

1) A description of foundation conditions, types of foundations to be used, the method by which the allowable bearing value is to be determined, and the maximum allowable bearing capacity for the foundation.

2) Statement as to the type of construction adopted and reasons therefore, with capacities, dimension, or other size criteria.

3) Plans showing framing members and column sizes, indicating special design features and noting floor elevations. The description of structural floor system proposed with length and spacing of principal members, etc.

4) The description of structural roof system proposed with principal members, dimension, etc.

5) Provide structural building sections, transverse and longitudinal, indicating vertical relationships and headroom.

6) Show limited load carrying capacities and statements of live loading to be used including floor loads, wind and lateral loads, earthquake, etc. with justifying data.

7) Provide calculations and design criteria when requested.

8) A statement of any special considerations that affect the design.

Heating, Ventilation, Air Conditioning (HVAC):

1) Provide floor plan showing equipment layouts and single line layouts of supply and return duct work.

2) Provide typical section of mechanical room showing equipment and duct work. Also include typical section of space above corridor when used for ductwork, and typical section of space above labs showing fume hood exhaust ducts.

3) Provide full description of automated management systems proposed for use, including current and future capabilities.

4) If fume hoods, fume hood exhaust systems, 100% outside air systems, animal care facilities, clean rooms or other specialized HVAC system are required, additional requirements will apply.

5) Statement of indoor and outdoor design temperatures and "U" factors for walls, ceilings, floors, etc., to be used in design.

6) Heating medium, such as steam, hot water, gas or electric. If central plant steam/hot water source is not used, provide justification and basis for fuel selection.

7) Type of heating system such as reheat at central air handling units, perimeter terminal units with heat coils, etc.

8) Number of air changes per hour or CFM per square foot in various areas. State basis for selection of air change rate (ASHRAE Guide and page number; Standard Mechanical Code, etc.)

9) Ventilation air quantity during heating season and how acquired.

10) ASHRAE 62 outside air quantities shall be provided. The means of measuring and controlling this outside air shall be provided (such as fan and VAV box) to assure correct quantities during occupied times and reduced air handler fan speeds and provide positive shutoff during unoccupied times. The Architect/Engineer shall discuss its approach to achieve this in this submittal.

11) Provide a brief description of the air conditioning systems considered and final system selected.

12) A statement of areas to be air conditioned.

13) Statement of inside design temperatures and relative humidities, outside wet and dry bulb design temperatures and a statement of the economics of applying insulation and/or sun shades.

14) Description of HVAC equipment to be used inside and outside the building. Include air handling units, filters VAV boxes, terminal units, exhaust fans and any

15) Discussion of HVAC controls, including type (pneumatic only, pneumatic with DDC panel) and design philosophy. Discuss thermostat placement, special control features and justification, total estimated HVAC control system cost. Discuss any humidistats used, reason for using, and settings.

Refrigeration (Cold Storage):

1) Statement of areas to be refrigerated indicating their usage and temperatures to be maintained.

2) Outside design dry and wet bulb temperatures.

3) Type of refrigeration equipment, type and thickness of refrigeration insulation, and whether factory prefabricated cooler or cold storage box.

Electrical:

1) Indicate electrical service entrance characteristics, transformer requirements, etc.

2) Indicate electrical characteristics such as phase, voltage, number of wires, etc. of each circuit. Provide a breakdown of the estimated connection load to show:

a) Lighting and convenience outlet load.

b) Power load for building equipment such as heating, air conditioning, etc.

c) Loads for special operating equipment such as compressors, X-ray equipment, pumps, etc., and for power receptacle being provided to energize special equipment. Apply an appropriate demand factor to each to compute a total demand load.

3) Indicate the location of the main switchboard or power panels, light panels and all equipment panels.

4) Indicate type of wiring system, such as a rigid conduit, electrical metallic tubing, non-metallic sheathed cable, and where proposed for use.

5) The type of conductors such as rubber insulated, varnished cambric, lead covered, etc., and their proposed location.

6) Show the location of all lights, power outlets, switches, etc.

7) Describe the proposed pertinent standards of design such as voltage drop, lighting intensities, and types of lighting fixtures.

8) Describe the short-circuit duty required for all protective devices and switchgear.

9) Indicate the requirements for the emergency electrical system.

10) Provide any other information deemed necessary.

Communications, Electronic and Instrumentation Provisions:

1) Provide sufficient information including engineering concepts for review purposes of the systems proposed; i.e.., intercom system, telephone system, public address system, radio and antenna systems, television antenna systems, protection alarm systems, respond tie-ins and any other data or systems deemed necessary.

2) Indicate equipment selection, including special equipment requiring development, research, or bread-board methods to meet the requirements.

3) Site or location considerations.

4) Required radio paths and propagation.

5) Antenna requirements such as types, separation, tower heights, aircraft clearance, and area requirements.

6) Antenna transmission lines, terminations and switching.

7) Bonding and grounding requirements.

8) Communication, control cables and radio links.

9) Test equipment, repair shop and spare parts storage requirements.

10) Equipment and instrumentation arrangement and space requirements indicating requirement for racks, consoles, and for individual mounting.

11) Wiring and cable requirements plus terminations.

12) Power and lighting requirements, including emergency or standby

requirements.

13) Air conditioning requirements, including humidity, dust control, and maximum operating temperature of equipment requirements.

14) Interference and clearance requirements.

15) SCADA equipment must be included.

Plumbing:

1) Provide preliminary layout of utility lines and building construction service lines and elevations and sizes fundamental to design.

2) Preliminary floor plans showing major horizontal and vertical services, the location and size of fixtures, equipment and the number of persons served.

3) Preliminary building section showing riser and branch lines, fixtures and equipment.

4) Provide the estimated number of fixture units in order, demand and GPM for all plumbing fixtures.

5) Provide the estimated minimum and maximum water pressure at each building.

6) Indicate the type of heater and capacity for hot water supply.

7) Additional details as necessary to describe or clarify any other conditions.

Fire Protection:

1) Indicate service hydrant, stand pipe, test valve, and fire pump locations.

2) Indicate risers and hose cabinets.

3) For sprinkler systems, indicate the authority for the installation, the hazard rate of occupancy, the type of sprinkler system (wet or dry), and the water volume and pressure required. Delineate any special system such as carbon dioxide, foam, etc. that will be required. Verify adequacy of water supply and indicate if installation of fire pump is required. If a fire pump is required, include pump flow rate, pressure and location.

4) Provide any other data deemed necessary.

5) Indicate certification necessary for fire alarm installers, suppliers, and manufacturers.

6) Provide verification that the design has been reviewed with the State Fire Marshal.

7) Fire alarm systems will be installed, by the approved manufacturer's representative, with the approval from the university.

Special Equipment:

1) Kitchen equipment.

2) Auditorium seating.

3) Stage curtain and equipment.

4) Gym layout and equipment.

5) Window coverings.

6) Hospital equipment.

7) Lawn sprinkler equipment systems.

8) Material handling equipment.

9) Any other systems deemed necessary for inclusion.

Where fume hood exhaust systems, 100% outside air systems or other specialized HVAC systems are to be provided, the following requirements apply:

Between Advanced Schematic submittal and Design Development submittal, the Architect/Engineer shall continue discussions with Owner/User to further clarify the systems requirements, design basis and cost. The intent is for the Project Team to make all major mechanical, electrical and plumbing materials, systems and cost decisions before the Design Development submittal, and to document these decisions in the Design Development submittal.

For Projects with laboratories and/or fume hoods, the Design Development submittal shall include:

a) Final fume hood schedule and notes, including room locations, type of hood, size, minimum face velocity at specified open sash height, cubic feet per minute, type of sash.

b) Final HVAC technical narrative including type of fume hood and other exhaust system(s) to be used; duct and stack materials; types of fans with locations and redundant fans noted; discussion of fume hood exhaust stack with minimum exit velocity and height; and,

snorkel systems and general exhaust systems.

c) Provide one-line duct work layout, penthouse/mechanical room equipment layouts, roof plan and typical stack elevation view.

d) Final fume hood system controls technical narrative.

e) Final laboratory plumbing systems technical narrative including all systems and materials to be used in fume hoods and laboratories; also provide layout drawings of ordinary waste, acid waste and all plumbing systems piping; include notes at each laboratory sink location.

f) Updated laboratory electrical systems technical narrative must include a description of the design philosophy used.

g) An estimated construction cost must be provided to incorporate all of the above items.

For Projects with 100% outside air and specialized HVAC systems, the Architect/Engineer shall provide similar information to the above omitting what is not applicable to the Project. Clean room Class per ASHRAE and how requirements are met shall be documented, including HEPA filters.

An updated plan for providing total accessibility to the facility and evidence of coordination with the university.

Energy and potable water savings equipment, systems and measures. The Architect/Engineer shall provide a listing of all such items incorporated into the project for additional energy and potable water savings.

A completed Document Submittal and Review Checklist (**Exhibit 10**) must be submitted to ensure that all items in the checklist have been met.

Bid Scope. Submit a recommended base bid package and the additive alternates (deductive alternates are prohibited). Alternates shall be limited to a maximum of six (6). Under no circumstance shall any items required by code or required to make the facility functional be included as an alternate.

All university buildings are to be designed and constructed to meet a minimum LEED Silver Certification level, including documentation and the completion of template forms that are related to each discipline i.e. Architect, Mechanical, Engineer, etc.

Probable Construction Costs. Provide an estimate of probable construction cost. This estimate shall include a comparison to the Owner's approved budget. The format for the cost estimate is

shown in **Exhibit 6**.

Code and Permit Analysis Summary. A building-specific code and permit summary shall be included on the drawings. The summary shall include, but not be limited to: exit and fire protection requirements and calculations, building classification, occupancy, and sprinkler hazard rating.

Building Classification for Energy Consumption. (The format is shown in **Exhibit 6A**)

A current project schedule.

The UCF Design, Construction, and Renovation Standards report.

Other Data: Submit any other data as deemed necessary to explain the design concept and Design Development documents. In addition to the requirement for code data to be incorporated on the drawings, the Architect/ Engineer shall submit a Summary Report containing the basic code data required for the project. Other categories, including structural, mechanical, plumbing and electrical code criteria shall also be incorporated to ensure full coordination between the documents.

The final step of the Design Development Phase is a presentation by the Architect/Engineer in which the project design is explained in detail to the University Project Manager, other university personnel. This presentation shall include sufficient detail to demonstrate that all the requirements of the project are identified and understood and that the Architect/Engineer is fully capable of implementing the design concept in the final plans and specifications. This presentation shall also include a detailed description of the Standard Building Code and Life Safety Code data and handicapped/accessibility criteria incorporated in the documents, to ensure that all elements of design conform to statutory and required building codes. The Architect/Engineer shall respond in writing to any comments generated by this presentation prior to the advancement to the next design phase.

**Construction Documents**

The construction documents phase requires the Architect/Engineer to prepare contract documents in sufficient scope for bidding and construction. The deliverable for this phase shall consist of:

General:

1) The Document Submittal and Review checklist (**Exhibit 10**) indicating disposition of all items.

2) The Architect/Engineer's Estimate Summary and Budget Comparisons (**Exhibit 6**).

3) Color Schedules. The specifications and drawings shall indicate the actual colors or color ranges chosen to be used on the project. The Architect/Engineer shall also submit a complete listing of colors to be used, including pallets and material samples as necessary. It is required that a formalized color-board be presented and approved. The Associate Vice President, Administration and Finance must approve all interior and exterior materials and colors prior to completion of Construction Documents.

50% Construction Documents Phase:

The Architect/Engineer shall submit construction documents in sufficient detail to provide scale layout of major HVAC/electrical equipment in the mechanical and electrical rooms and design detail for the components of the building. All items addressed in the Design Development documents shall be included in the construction documents. The 50% Construction Documents shall include complete draft specifications and preliminary major mechanical (double-line drawings of all ductwork for mechanical rooms)/electrical/plumbing equipment schedules. The 50% Construction Documents submittal shall also include the Architect/Engineer's Estimate of Probable Construction Cost. Upon university approval of the 50% Construction Documents, the Architect/Engineer may submit a request for payment.

With the submission of the 50% Construction Documents, the Architect/Engineer shall also provide a list of trades which will be involved in the Project as they are listed in the Department of Labor and Employment Security Minority Business Advocacy and Assistance Office Minority Business Enterprise Directory. This will enable the university or construction manager to invite the appropriate MBE's to the pre-bid/pre-solicitation meeting.

Profiles of all utilities shall be an integral part of the construction documents. Elevations of all existing and future utilities shall be clearly profiled to make it easier for site execution.

100% Construction Documents Phase:

The Architect/Engineer shall submit 100% Construction Document review sets to the University Project Manager and to any other agency from which approvals are required. The submittal shall include the Architect/Engineer's Estimate of Probable Construction Cost and the Project Manual, including contract conditions regarding insurance, time of completion and liquidated damages. The University Project Manager will transmit to the Architect/Engineer any comments received from other reviewing agencies. If required, a review conference will be scheduled for the Architect/Engineer to respond to comments. The Architect/Engineer shall respond in writing to all comments and shall correct or modify the contract documents as required. The University Project Manager may ask the Architect/Engineer to resubmit the 100% Construction Documents. Upon approval of the 100% permit review Construction Documents

by the university and any other agency from which approval is required, the Architect/Engineer may submit a request for payment, and will be authorized to print the approved construction documents.

**Article 5 – Bidding and Contract Award**

**General Contractor Projects**

Advertising and Soliciting Bids

The Architect/Engineer shall provide bidding services as described in the Agreement and in the Project Manual.

The Architect/Engineer shall give maximum exposure of the project to all qualified bidders to encourage maximum competition. The Architect/Engineer shall solicit bids from qualified contractors by personal contact, advertisement, placement of the project in contractor and building industry reports, and distribution of documents to a plan room depository.

The Architect/Engineer shall recommend a bidding period to allow adequate time for the preparation of bids by the contractors and subcontractors. Florida Statute requires that construction bids be advertised for a minimum of 30 days, however, a longer period might be desirable for extremely large projects. Mondays, Fridays, and days following immediately after holidays should be avoided for receiving bids. The bid date and bid opening time will be established by the University Project Manager in consultation with the Architect/Engineer.

The call for bids for all construction projects will be advertised in the Florida Administrative Weekly thirty (30) days prior to the bid date. The University Project Manager will place the advertisement.

Upon written notice from the University Project Manager, the Architect/ Engineer may be asked to place a legal advertisement for bids with a newspaper with sufficient circulation in the project area. The advertisement is to run two times, one week apart, with the first advertisement appearing at least thirty (30) days prior to the bid date and at least five days prior to any pre-bid conference. The cost of advertising is a reimbursable expense to be handled in accordance with paragraph **Article 7 - Administrative Applications**.

The Architect/Engineer is responsible for distributing the drawings, specifications and addenda to bidders and other interested parties; for collecting and accounting for plan deposits and purchase monies; and for paying printing, handling, and mailing costs. Bidders should be instructed to make checks for deposits for bidding documents payable to the Architect/Engineer. The Architect/Engineer shall account for the distribution and sale of all project documents using the format shown in **Exhibit 11**. Costs for printing and distribution are

reimbursable expenses to be handled in accordance with **Article 7 - Administrative Applications**.

During the bidding period, addenda shall be issued by the Architect/ Engineer to clarify or modify the construction documents as necessary. Copies of all addenda shall be transmitted to the University Project Manager. The Architect/Engineer shall not issue oral explanations to the meaning of the drawings and specifications, and oral instructions shall not be given before the award of the contract. Addenda shall be kept to an absolute minimum and shall not be used with the original issuance of the contract documents as a means of correction. Addenda shall be issued in accordance with the Instructions to Bidders section of the Project Manual.

Pre-Bid Meeting

The purpose of the Pre-Bid Meeting is to review the project requirements with prospective bidders. The meeting may or may not be mandatory depending upon the nature and complexity of the project. A typical agenda includes the following:

Introductions

Project Overview (A/E and Consultants)

Pre-Qualification Requirements (if applicable)

Bidding procedures

Budget

Questions

Pre-Bid Site Visits

Site visits are encouraged but are not usually mandatory. Unless specifically noted, a site visit is not considered part of the Pre-Bid Meeting. For convenience, however, a site visit may be held at the conclusion of the meeting. Additional site visits may be scheduled and will be conducted by the A/E. The A/E will coordinate with the university Project Manager as to the availability of appropriate times for site access. Prospective bidders are not to visit project facilities or sites without proper authorization.

Pre-Qualification of Bidders

Because of the nature of the project, size or complexity, the university in consultation with the A/E may require special pre-qualification requirements of bidders. The pre- qualification requirements are to be included in Project Manual. Generally, submittals from

prospective bidders will be made to the A/E for evaluation on or before a prescribed deadline within the bidding period. The A/E shall review the evaluation procedures and results with the university Project Manager before making a final recommendation. Notification to all parties as to the results of the evaluation will be made by the A/E. In the case of unqualified bidders, specific reasons for non-approval are required. The approved list of bidders will be distributed as an addendum to the contract documents.

Opening of Bids

The bidders are required to deliver their bids at the location specified in the contract documents. None of the parties present at the bid opening shall accept a bid after the published time of opening.

The University Project Manager will receive and open the bids. The Architect/Engineer shall attend and assist in the bid opening. The Architect/Engineer shall supply bid tabulation forms for the bidders' use during the bidding. The format for the bid tabulation form is shown in **Exhibit 12**.

The Architect/Engineer is responsible for completing the bid tabulation and recording the bids. The bid tabulation shall be originally prepared in ink as each bid is read aloud. The Architect/Engineer secures the signature of the University Project Manager and signs, and submits the original bid tabulation to the University Project Manager.

Award of Contract

The project will be awarded as described in the Instructions to Bidders in the Project Manual. The Architect/Engineer shall provide the University Project Manager with a recommendation for award of the construction contract and a Construction Contract Fact Sheet (**Exhibit 13**) as soon as possible after bid opening. The University President makes the contract award.

Preparation and Execution of Contract

The University Project Manager will coordinate with the appropriate university staff for the preparation of the contract, execution by the contractor and execution by the president.

The university will forward the executed contract to the contractor with a Notice to Proceed. For threshold buildings, the Notice to Proceed will be accompanied by the approved structural inspection plan. A copy of the Notice to Proceed and the contract will be provided to the Architect/Engineer and the State Comptroller.

**Construction Management Projects**

**Guaranteed Maximum Price Proposal Review**

The Construction Manager develops a Guaranteed Maximum Price (GMP) proposal. The Architect/Engineer reviews and recommends that the university approve the Construction Manager's Guaranteed Maximum Price (GMP) proposal. Recommendation of the GMP indicates the Architect/Engineer's agreement with all provisions of the GMP, including the assumptions, clarifications and qualifications, accepted value engineering recommendations, allowances, and alternates.

Bidding Phase Services

The Construction Manager develops trade packages for bidding to trade contractors. During the bidding period, the Architect/Engineer responds to questions regarding the construction documents and issues necessary addenda to the Construction Manager for distribution to the trade contractors.

Bidding Phase Payment Schedule

After execution of the GMP amendment by the university and the Construction Manager, the Construction Manager establishes a schedule for bidding the trade contracts. The schedule forms the basis of the Architect/Engineer's bidding phase payments. For example, if the 40% of the trade contracts are bid the first month, then the Architect/Engineer is eligible for 40% of the Bidding Phase payment after the first month.

**Article 6 – Construction Administration**

**General**

The Architect/Engineer shall provide construction administration services as described in the Project Manual. The information contained in this Guide is supplementary to the Project Manual. The A/E's role during the construction phase of the project is to represent exclusively the interests of the Owner. The A/E shall provide construction administration services as described in the Project Manual, more specifically as set forth in the General Conditions of the Contract for Construction.

Full Time Site Representation (An Additional Service)

The requirement for full time representation by the A/E during the construction period will be determined by the University. Full time representation constitutes an additional service beyond the scope of the original agreement. The requirement for full time representation is known well in advance of the construction start. The purpose of the additional representation is to allow the A/E to closely monitor the job progress and to ensure of the contractor's conformance to the contract documents. The A/E is not relieved of his administration responsibility required under the original scope of work.

The following items briefly describe several of the major activities of the A/E in carrying out his contract responsibilities. The list is not intended to be all-inclusive. Detailed requirements are set forth in the Agreement between Owner and Architect/Engineer.

Site Visits:

The A/E is required to visit the site during construction a minimum of twice per week to include the weekly construction progress meeting or more frequently as is appropriate during certain stages of construction. The A/E shall have continuous access to the site.

Means and Methods:

The A/E shall not have control over the means, methods, procedures or schedule of the construction process. This is the responsibility of the contractor.

Approvals:

The A/E shall review and approve all shop drawings, product data and samples. The full time project representation shall not approve the above. Efficient handling of submittals is necessary so as not to delay construction progress. However, conformance to quality required by the contract documents must not be sacrificed for expediency.

Construction Conferences

Preconstruction Conference. The University Project Manager shall arrange and chair a meeting with the General Contractor (or Construction Manager), Architect/Engineer, major subcontractors, federal representatives, if federal funds are involved, and, other interested parties. If Davis-Bacon requirements are applicable (projects with federal funding) a representative of the Bureau of Job Training, Department of Labor & Employment Security shall be included. The purpose of this conference is:

To discuss requirements and responsibilities of the various parties involved to achieve expeditious handling of the construction contract.

To instruct all parties concerning required and standard procedures required submissions and federal or other applicable regulations.

To resolve all problems with the scope of the project, signing of plans and specifications by all parties to the contract.

Scheduled Construction Conferences. Scheduled construction conferences will be held at regular intervals as agreed by the University Project Manager, the Architect/Engineer, and the Contractor (or Construction Manager) to cover the progress of the project. These meetings

shall address, at a minimum:

Evaluation of project progress by the Architect/Engineer and the Contractor, including a comparison of current project status to the approved project schedule (to be reviewed with the University Project Manager prior to each scheduled conference)

Payment requests.

Change orders.

Special problems and remedial actions, and results of previous remedial actions.

Special Construction Conferences. The University Project Manager may also call special construction conferences to resolve problems or to ensure that the project is progressing in a satisfactory manner.

The University Project Manager, the Architect/Engineer, and the Contractor (or Construction Manager) shall attend all scheduled or special construction conferences. When required, other consultants, subcontractors, representatives of federal agencies and other parties shall attend.

Contractor's Required Submittals

The construction contract requires the Contractor to submit certain documents to the Architect/Engineer for review and approval. The Architect/Engineer shall submit copies of the all approved documents to the University Project Manager for processing, approval, or information as required by the Project Manual.

Construction Schedule

Within 30 days after the Notice to Proceed, the Contractor shall submit to the Architect/Engineer a construction schedule showing the order in which the Contractor proposes to carry on the Work, including the dates on which each task will commence, the dates for completion, and indicate the percentage of Work scheduled for completion at any given time during the contract.

The Architect/Engineer shall monitor the construction schedule, entering the actual progress on the construction schedule at the end of each workweek or at such intervals as approved by the University Project Manager.

A copy of the updated construction schedule shall be submitted with each of the Contractor's Applications for Payment.

Schedule of Contract Values

Prior to the first Application for Payment, the Contractor shall submit a Schedule of Contract Values as required by the Contract Documents.

The Architect/Engineer shall review the Schedule of Contract Values to ensure that it accurately reflects the distribution of costs in the project. The breakdown shall clearly identify cost of site work and outside utilities. The Schedule of Contract Values, approved by the Architect/Engineer (and such approval confirmed by the University Project Manager), will be the basis for evaluating the Contractor's Applications for Payment. The Architect/Engineer shall submit three copies of the approved Schedule of Contract Values to the University Project Manager.

List of Subcontractors

The Contractor shall submit a list of subcontractors and a list of sub- subcontractors and material or equipment manufacturers to the Architect/Engineer as required by the General Conditions in the Project Manual. The Architect/Engineer shall respond to the Contractor as described in the General Conditions.

The Architect/Engineer shall ensure that the approved list of subcontractors is current at all times. On federal projects, specific forms shall be provided for this purpose. The Architect/Engineer must ensure that these forms are current and copies are provided to the University Project Manager.

Shop Drawings, Materials and Equipment Submittals

The Contractor shall submit shop drawings, product data and samples as required by the Project Manual. The Architect/Engineer shall take action on these submittals as described in the Project Manual.

The Architect/Engineer shall provide one copy of the shop drawings at the time of approval to the University Project Manager. The Architect/Engineer shall consult with the University Project Manager to determine the number of sets shop drawings, operations and maintenance manuals, guarantees, warranties, etc. which will be required at the completion of the project. The Architect/Engineer shall include this requirement in the project specifications.

The Contractor is required to maintain a record set of drawings, specifications, addenda, change orders, and other modifications for transfer through the Architect/Engineer to the University Project Manager upon completion of the project. The Architect/Engineer will be required to prepare a final set of reproducible electronic CAD record drawings and given to the university.

Clarification of Drawings and Specifications

The Architect/Engineer shall ensure that changes to drawings and specifications prepared in response to a request by the Contractor for clarification do not change the scope of the project. Changes in scope shall be handled by change order. Clarifying drawings shall contain a detailed narrative explanation and the statement, *If the clarifying drawings or specifications modify the scope of the basic contract, the Contractor shall notify the Architect/Engineer immediately.* Copies of any clarifying drawings or specifications and the Architect/Engineer's transmittal shall be transmitted to the University Project Manager.

Applications for Payment

The Architect/Engineer shall meet with the University Project Manager and the Contractor to discuss handling Applications for Payment. They shall establish a day to be used for pay request cut-off. The Contractor shall be told that the request for payment must relate to the approved Schedule of Values by number. The Contractor shall be told to prepare a list of materials, including description and quantity, stored on the site at the end of the period covered in the payment request on the Contractor's letterhead. The date on this list must match the date on the certificate for partial payment. The materials covered by the request for payment may not be removed from the site after payment has been made.

The Architect/Engineer shall address Applications for Payment as outlined in the Project Manual and shall determine that:

All information required for the request for payment is provided and properly executed.

The value of the work done or properly stored has been accurately evaluated as of the day of the cut-off.

The appropriate amount of the retained percentage has been deducted.

The correct total of preceding certificates for payment have been deducted.

Reasons for withholding payment are indicated.

Questions concerning the status of a contractor's Application for Payment should be addressed to the University Project Manager.

Change Orders and Construction Change Directives

Changes in the contracted work should be held to a minimum. The Owner will not accept offers to trade or exchange extras and credits. The Architect/Engineer shall determine that all changes in the work, regardless of the amount, are documented by Change Order or Construction Change Directive. Change Orders and Construction Change Directives shall be approved by the university, prior to the actual work being initiated. Where a change is made at no cost – the

added and deleted work balancing – a Change Order should be prepared to record the fact that such changes were made, including a description, explanation, and monetary sums. The time extension shall be reflected on each Change Order approved. If there is no time extension, it will be noted as "0".

The Architect/Engineer shall prepare each Change Order and Construction Change Directive showing all the information and backup needed. Change Orders shall be supported by a written cost proposal from the Contractor showing quantities and sizes of materials, unit cost, labor, profit and overhead; and a narrative justification. A Change Order shall be signed by the Architect/Engineer and the Contractor; Construction Change Directives shall be signed by the Architect/Engineer.

The Architect/Engineer shall submit each Change Order and Construction Change Directive to the University Project Manager for approval. The Architect/ Engineer shall maintain a log of all Change Orders and Construction Change Directives processed, indicating status and action.

The University Project Manager will determine that each change order is complete and secure the required approvals. The University Project Manager will distribute copies of the fully executed and approved Change Order to the Architect/Engineer, Contractor, and State Comptroller. No work is to begin until all parties to the construction contract have signed the change order.

Claims

The Architect/Engineer shall handle claims as described in the Project Manual. The Architect/Engineer shall make reasonable efforts to resolve a claim, including involving the University Project Manager in resolution discussions.

Beneficial Occupancy

Only in extraordinary cases shall beneficial occupancy be permitted prior to final completion of the project. Only the Provost and the Vice President of Administration and Finance can authorize beneficial occupancy.

Beneficial occupancy shall not occur until after an inspection and preparation of a punch list, identifying all remaining work to be performed by the Contractor. The Architect/Engineer shall submit the following to the University Project Manager:

Written approval of the Architect/Engineer.

Written approval of the Contractor to occupy all or any portion of the project before formal acceptance by the Owner. This approval shall contain a statement from the Contractor

that occupancy prior to acceptance by the Owner does not violate the provisions of the contract, that no liabilities are created, and that no unwarranted delay of contract requirements is created.

Written approval of the State Fire Marshal.

Written approval from the insurance resident agent that the builders' risk coverage provisions will not be violated.

Written agreement between the University and the Contractor pertaining to the payments for the utility costs during the period of occupancy.

Written acceptance from the Architect/Engineer for the areas proposed for occupancy.

Written notice to the State Fire Insurance Fund by the University implementing insurance coverage for the building and its contents.

A copy of the punch list identifying all work remaining to be completed in the area to be occupied.

Any other items required by the Architect/Engineer or the University Project Manager.

Final Completion

The Architect/Engineer shall schedule the final completion inspection in consultation with the University Project Manager, and send notices of the date and time to the University Distribution List. The Architect/Engineer shall perform activities related to final completion as described in the Project Manual.

The Architect/Engineer shall prepare a list of all items of work not acceptable at the time of inspection and provide a list of required corrections for each trade, including provisions for indicating satisfactory correction at a subsequent inspection. The Architect/Engineer shall not certify Final Completion if the punch-list items remain. The commissioning effort must be finalized and all LEED documentation completed and submitted before final completion will be approved.

The Architect/Engineer shall prepare the Certificate of Final Completion, and submit four copies of the executed forms. The *final completion date must be the same or earlier than the final completion date established by the Owner/Contractor Agreement, as amended by approved change orders granting extensions of time.* The Architect/Engineer shall submit a reconciling change order, which justifies any extensions of time beyond that approved by earlier change order and recommend action relating to liquidated damages. The Architect/Engineer shall not sign the Final Completion Certificate unless the State Fire Marshal and Building Official have

certified occupancy of the facility.

Occupancy of the project shall not occur until final completion has been declared by the Architect/Engineer and approved by the university.

The Architect/Engineer shall forward four (4) copies of the Certificate of Contract Completion to the University Project Manager for processing. The University Project Manager will attach the Certificate of Contract Completion to the Contractor's final request for payment when the payment is approved for processing.

The Architect/Engineer shall submit the required copies of the black lined as-built drawings, CD AutoCAD (DWG format) of record drawings, red lined drawings of all discipline, black lined 1/16" scale of architectural floor plan drawings only, operation and maintenance manuals in electronic format, warranties and guarantees documents (**see Exhibit 18**). All warranties begin at the date of final completion. A turnover meeting will take place for the submission of said documents. Partial submissions of documents will not be accepted. The AS-BUILT documents listed in **Exhibit 18** are to be produced and are consider part of basic architectural services. Final payment for services will not be made until the entire AS-BUILT submission has been received, approved and accepted by the University.

Post-Occupancy Inspection

Architect/Engineer shall schedule all post-occupancy inspections. The first inspection is to occur three (3) months after final completion. The other inspections are to occur at three (3) month intervals until the warranty period is completed. Inspections are to be coordinated with the University Project Manager. The Architect/Engineer shall ensure that these inspections will cover all phases of the constructed facility. The Architect/Engineer shall prepare written reports for each inspection describing all items found to be deficient and requiring corrective action.

The Architect/Engineer shall provide the Contractor with a written list of the items requiring correction with a copy to the University Project Manager.

**Article 7 – Administration Applications**

**Additional Service Authorizations**

The Architect/Engineer may be asked to provide services which were not included as part of Basic Services in the Agreement. Additional Services are listed in the Agreement. Often, services which are typically considered beyond the scope of Basic Services are negotiated into the original agreement and then treated as a part of Basic Services. The Architect/Engineer shall provide **no** services which are not included as part of Basic Services until it has received an Additional Service Authorization from the university. Any additional work provided prior to such

authorization is not eligible for compensation.

When professional services not included in the Basic Services are needed, the Architect/Engineer shall discuss this service with the University Project Manager. The Architect/Engineer shall then submit a proposal to the University Project Manager. If a portion of the services will be provided by consultants to the Architect/Engineer, then the consultants' proposals must also be provided.

If the exact scope of work necessary to complete the additional service cannot be determined, the Architect/Engineer should request a not-to-exceed amount. Not-to-exceed authorizations may be billed monthly upon submittal of a detailed invoice, including timesheets, receipts, etc. The university will be the final authority as to whether an Additional Service Authorization will be issued as a lump sum or as a not-to-exceed amount.

Additional services shall be based on the maximum hourly rates established during the contract negotiation. Maximum hourly rates are listed by personnel category, i.e., Principal A/E, Registered A/E, Designer, Drafter, etc. (A principal is a person who has part ownership, control and contracting authority in the firm, and for which evidence can be provided for verification purposes.)

If the fee curve can be used, a lump sum amount for the additional service may be determined. If the fee curve cannot be used, but the Architect/Engineer and University Project Manager can agree on the required scope, a lump sum can be developed, provided the Architect/Engineer's proposal and any involved consultants' proposals include a breakdown of hours required and hourly rates. Lump sum authorizations may only be billed upon completion of pre-determined phases and approval of corresponding deliverables. These phases and deliverables should be identified in the Architect/ Engineer's proposal.

The Architect/Engineer's proposal must identify whether the request is for a lump sum or a not-to-exceed authorization. The proposal shall include the proposed schedule for provision of services and proposed deliverables.

Permitting costs may be included in an Additional Service Authorization to the Architect/Engineer. Before including such costs in its proposal, however, the Architect/Engineer should consult with the University Project Manager to ensure that the permitting or review agency has statutory authority to charge state agencies for its permit or review.

If the supporting documentation for an additional service request is extensive, the Architect/Engineer may be asked to provide four copies of the documentation.

The University Project Manager will review the proposal and, upon approval, will issue an

Additional Service Authorization.

Occasionally, the scope of an authorized Additional Service may increase. When the work required is expected to exceed the authorized scope, the Architect/Engineer must send a proposal to the University Project Manager requesting a revision to the Additional Service Authorization. The Architect/Engineer shall not provide any additional services which exceed the scope and the amount of the Additional Service Authorization until a written revision to the Additional Service Authorization is issued by the university.

Additional Services for prolonged contract administration shall be determined as follows: ((A ÷ B) x 0.8) x C = Additional Service amount.

A = the original contract fee for construction administration

B = the number of days in the original construction contract 0.8 explanation - The original contract administration fee includes the heavy workload at the beginning of the construction phase (shop drawing review, etc.) and the heavy workload at the end of the construction phase (final completion inspection, punch list development, final completion, etc.) The factor of 0.8 recognizes that these efforts have already been considered in the fee, and the prolonged portion of the construction phase are the days in the middle of the construction period.

C = the actual number of construction days, minus the total of [the number of days in the initial construction contract, plus any days added by change order for which the Architect/Engineer was compensated by an Additional Services Authorization]

If the Architect/Engineer recommends that a detailed cost estimate be conducted, the Architect/Engineer shall bear 25% of the cost for the detailed estimate. This recognizes the fact that the Architect/Engineer is responsible for cost estimates as a part of Basic Services, and a cost estimator will instead be providing those services. The 8% administrative markup is not applicable to cost consultants when the detailed estimate is being conducted at the Architect/Engineer's request. If the Architect/Engineer does not recommend these services, but the university requests them, then the Owner will bear the entire cost of the cost estimator and the Architect/Engineer will provide its own independent cost estimates.

The Architect/Engineer shall invoice for Additional Services as described in Invoicing.

All additional services must be determined before the Agreement between the Architect and Owner is signed and those agreed upon additional services should be made part of the Contract.

<u>Reimbursable Expenses</u>

The Architect/Engineer must receive an Additional Service Authorization from the university before incurring a reimbursable expense. The only exception to this requirement is printing bid documents, placement of a legal advertisement for construction, or payment of Fire Marshal fees. (Note: Only the printing of bidding documents is considered an automatically authorized reimbursable expense.

Items such as general telephone, photocopying, fax and postage costs are not considered reimbursable expenses, because they are included in the Basic Services fee derived from the fee curve or in the multiplier for Additional Services or in the hourly rates for Campus Service Architects/Engineers. Except postage and handling costs for bid documents, these items may be reimbursed only under unusual circumstances; in order to be eligible for payment, the expenses must be authorized in advance by an Additional Service Authorization. The Architect/Engineer must submit a proposal to the University Project Manager which describes why the expenses are unusual and establishes a not-to-exceed amount. An Additional Service Authorization would then be issued.

The University of Central Florida does not allow reimbursable expenses for travel, meals, or lodging associated with design services.

Any travel required to fulfill the requirements of Basic Services is to be provided as a part of Basic Services.

The Architect/Engineer shall invoice for Reimbursable Expenses as described in Invoicing.

**Invoicing**

General Requirements

The state and UCF are required by Florida Statutes to approve all invoices for acceptable, undisputed services, with a goal of making payment within 40 calendar days from receipt of invoice. The Architect/Engineer is requested to assist in the achievement of this goal by ensuring that all invoices are properly prepared and contain the required supporting documentation. No invoice will be submitted until the work has been approved and completed. Incorrect or incomplete invoices will be returned to the Architect/Engineer with instructions for resubmission.

All invoices shall be submitted to the university on the UCF Standard Invoice Form, included as **Exhibit 14**. The Architect/Engineer shall submit a signed original and three copies, including a complete set of backup documentation for three of the four invoices.

Invoices shall be numbered consecutively beginning with Number 1, and continuing in numerical order throughout the life of the contract. If an invoice is received by the university

which is not numbered consecutively from the last approved invoice, it will be renumbered. For example, if invoice No. 12 is returned unpaid, and the Architect/Engineer submits invoice No. 13 prior to correction and approval of invoice No. 12, the university will renumber invoice No. 13 to No. 12.

All authorized services and expenses for the life of the project shall be indicated on the invoice form. As additional services are authorized, they should be added to the invoice form. The Basic Services are to be listed as provided on the payment schedule in the Agreement. Additional Services are to be listed in consecutive order by authorization number. Reimbursable expenses are listed either as *Printing Bid Documents* or *Legal Advertisement*. A sample completed invoice is included as **Exhibit 15**. With the exception of printing bid documents and legal advertisement expenses, no items shall be included on the invoice which has not been authorized either by the Agreement or an Additional Service Authorization.

Invoices should not be submitted until the review period has passed following delivery of the required work product to allow the Owner's review.

To expedite payment, the number of invoices submitted should be kept to a minimum, combining as many items as possible on each invoice. No more than one invoice may be submitted per month.

Supporting Documentation Required

In order to comply with the State Comptroller's rules promulgated to meet the requirements of Florida Statutes supporting documentation described is required for approval of invoices, as follows:

Supporting documentation should be organized to correspond with the order that the items being requested for payment appear on the invoice.

**Basic Services**

Design Phases

The work product specified in the Agreement must have been submitted and approved prior to the invoice. No other supporting documentation is required.

Bidding Services

Bidding services are only payable when the project is bid within the budget. If a project must be rebid due to the fault of the Architect/Engineer, the fee for Receipt of Bids will not be paid until the project has been successfully bid. The Architect/Engineer shall have submitted the items required by Bidding and Contract Award of this Guide prior to invoicing, including the

recommendation of award, Construction Contract Fact Sheet (**Exhibit 13**), and if required, the approved threshold inspection plan.

Construction Administration Phase

Construction administration services are paid monthly in proportion to payments made to the Contractor. The amount to be invoiced is determined using the Contractor's Certificate of Partial Payment. The "Adjusted Contract Amount" is divided into the "Completed to Date" amount to determine the percentage completed. The resulting percentage is then applied to the total Construction Administration fee to determine the amount due each month. The Architect/Engineer shall also include a copy of the current Construction Phase Status Report (**Exhibit 3**).

The fully executed Contractor's Certificate of Partial Payment is required as supporting documentation for each monthly invoice.

The request for 100% of the Construction Administration fee must be accompanied by the fully executed Certificate of Contract Completion.

Post Occupancy Inspection

The fee for post occupancy inspection is paid upon receipt of the post occupancy report as described in Post Occupancy Inspection herein.

Additional Service Authorizations based on a Lump Sum: The work product specified in the authorization must have been submitted and approved prior to the invoice. A copy of the authorization is required as supporting documentation. Unless phased payments are provided for in the authorization, the invoice may not be submitted until the total services have been completed.

Additional Service Authorizations based on a Not-to-Exceed Amount: These additional services may be billed monthly upon presentation of a detailed invoice. Supporting documentation includes a copy of the authorization and the following documentation, as applicable:

**Labor** costs (for both the Architect/Engineer and consultants) shall be supported by time sheets, indicating the individual's name, specific days, hours and tasks performed. Show calculations performed when applying the multiplier and totaling costs. Labor is only compensated for actual hours worked. Overtime rates are not allowable unless specifically requested and approved in the Additional Service Authorization.

**Consultants'** costs must be also supported by a copy of the consultant's invoice. The invoice must be marked "approved" and signed by the Architect/Engineer.

**Travel** costs, when included in an authorization, may only be compensated within the limits provided by Florida Statutes. Each payment request for travel expenses will require a completed Travel Reimbursement Form, included as **Exhibit 16**. Mileage shall be in accordance with the official Department of Transportation map mileage. Receipts for lodging, airplane, bus, tolls, parking, taxis, rental cars, etc. must be included for each item invoiced. Receipts must be legible.

**Permitting** costs must be supported by a copy of the invoice from the permitting authority indicating the type of permit.

**Reimbursable Expenses**

Printing Costs

The Architect/Engineer may only invoice for printing costs when the project has been successfully awarded to a bidder. If the project cannot be awarded due to no fault of the Architect, however, the Architect/Engineer may invoice for printing costs.

Invoices for printing of bidding documents must be supported by a completed Document Distribution Record (**Exhibit 11**) and a completed Contract Documents Cost Recap Sheet (**Exhibit 17**). Receipts for all printing, copying and mailing costs. Receipts must be legible. Figures included on the Contract Documents Cost Recap Sheet must be supported by highlighted figures on the receipts, and attaching an adding machine tape which supports the individual figures and overall totals.

Advertising Costs

An invoice for advertising costs must be supported by a copy of the text of the advertisement, a copy of the invoice from the newspaper and a statement from the newspaper certifying the legal ad was published.

Past Due Billings

If there are past due billings when the next invoice is prepared, do not invoice for those services a second time. Include these amounts in the "Less Previously Billed" column. Inquiries concerning the status of an invoice should be directed to the university.

Invoice Approval Process

Invoices are submitted to the university. After approval, a voucher is prepared and sent to the State Comptroller's Office. The State Comptroller processes the voucher, cuts the warrant and sends it to the university for transmittal to the Architect/Engineer.

# Exhibits

# PROFESSIONAL SERVICES EVALUATION (Exhibit #1)

EXHIBIT 1

University: State U.

Date: June 30, 1998

Project Title: Godzilla Cage, BR-299

[X]

Firm: Jason Argonauts & Associates

[ ] Project Closeout

Joint Venture: Indiana Jones & Associates

[ ] Special (See Remarks)

Managing Office: JAA--Orlando

Project Manager: Jon B. Good

## BASIC CRITERIA (Completed for all evaluations)

| | Rating Value | | Weight | | Extension |
|---|---|---|---|---|---|
| **Quality of Technical Services** | | | | | |
| Firm Listed Above. . . . . | 3 | X | 5 * | = | 15.0 |

*Weight = 5 if consultants are used on project.

Consultants:

| Firm Name | Specialty | Rating Value |
|---|---|---|
| Hott & Colde, Inc. | Mechanical Eng. | 2 |
| E. Z. Shortt, Inc. | Electrical Eng. | 1 |
| I. M. Shakey and Associates | Structural Eng. | 3 |
| Off A. Little and Company | Civil Engineering | 2 |
| Zoo Houses R Us, Inc. | Cage Specialist | 4 |
| | | |

Ave rage = 2.4 X 4 = 9.6

| | | | | | |
|---|---|---|---|---|---|
| Timeliness of Service | 2 | X | 4 | = | 8.0 |
| Quality of Technical Documentation | 4 | X | 3 | = | 12.0 |
| Cooperation/Concern for SUS Interests | 3 | X | 2 | = | 6.0 |
| Administration of Project Paperwork | | X | 2 | = | 6.0 |

## PART A (Completed when applicable)

| | | | | | |
|---|---|---|---|---|---|
| Achievement of Study, Program, or Design Objectives | 2 | X | 5 ** | = | 10.0 |

## PART B (Completed when applicable)

| | | | | | |
|---|---|---|---|---|---|
| Administration/Enforcement of Contract Documents | | X | 5 ** | = | |

**Note: If both Part A and Part B are used, the weight for each part will be 2.5 instead of 5.

Total Weighted Points = 66.6

Numeric Rating (Total Weighted Points/25) = 2.7

Overall performance during the rating period is evaluated as Satisfactory

## REMARKS (Completed for all evaluations)

The design team did a good job overall. Not enough attention was paid to the placement of electrical circuits prone to flooding. Zoo Houses is doing an outstanding job in keeping the focus on problems associated with housing an animal of this size.

Note: Performance rating values are assigned as integers using the following scale.

Outstanding = 4 Above Satisfactory = 3

Satisfactory = 2 Less Than Satisfactory = 1

Satisfactory, the benchmark rating, is defined as the level of performance that meets contract requirements.

For The University:

Signature/Name

Director

Title

**EXHIBIT 2**

This form is to be completed on the Architect/Engineer's letterhead

TO: (University Project Manager's Name and Address)

RE: **PLANNING AND DESIGN STATUS REPORT NUMBER**
For the Month of
State Project Number:
Project Title:

**PHASE:** *(Insert applicable phase designation and provide comments relative to the development of this phase, a statement as to the current status of the project and of phase last completed.)*

**PROGRAM STATUS:** *(Indicate any authorized or pending changes to the program, including date of authorization.)*

**CONSTRUCTION BUDGET**:

| | | |
|---|---|---|
| Program | $ _____ . | |
| Changes | $ _____ | *(List each approved budget change including date of authorization.)* |
| Current | $ _____ . | |

**CONSTRUCTION ESTIMATE:**

Current $ _____ . *(If the current estimate exceeds the current approved budget, state what measures are being taken to return the project to within the approved budget amount.)*

**SCHEDULE:** *(Indicate the percentage ahead or behind the approved schedule. Attach a copy of the updated schedule to the report.)*

**PERMIT AND APPROVAL ACTION**: *(Describe the action and efforts pertaining to acquisition of necessary permits and approvals.)*

**ACTION REQUIRED BY UNIVERSITY**:

**ACTION REQUIRED BY OTHERS**:

**REMARKS**:

(Signature)

(Title)

(Date)

EXHIBIT 3

This form is to be completed on the Architect/Engineer's Letterhead

TO: (University Project Manager's Name and Address)

RE: CONSTRUCTION STATUS REPORT NUMBER:
For the Month of
State Project Number(s): BR-
Project Title:

CONTRACTOR: Name:

Address:

CONTRACT STATUS:

| CONTRACT SUM | | CALENDAR DAYS | SUBSTANTIAL COMPLETION DATE |
|---|---|---|---|
| $_____ | Original Contract NTP___(date) | _____ | _____ |
| $_____ | Change Orders to date (list; attach additional pages if necessary) | _____ | _____ |
| $_____ | Current Contract | _____ | _____ |

% Scheduled to be Completed _____% % Ahead _____%

% Time of Contract Elapsed _____% % Behind _____%

% Actually Completed _____%

PENDING CHANGES:

WORK STATUS:
General description of work being performed including number of workers on site, weather, materials stored, etc., and its overall progress. List any factors contributing to failure to meet the construction schedule.

GENERAL CONDITION PERFORMANCE:
Performance of requirements under the General Conditions. Include a brief statement whether contractor is or is not complying with the various requirements of General and Special Conditions of the contract.

DEFICIENCY CORRECTION:
Action by contractor to correct deficiencies noted in your last report. If corrective action has not been taken, give explanation.

SITE VISITS:

(Insert number of site visits this month)

| | |
|---|---|
| Architect (RA) | _____ |
| Structural Engineer (PE) | _____ |
| Mechanical Engineer (PE) | _____ |
| Electrical Engineer (PE) | _____ |
| Other Staff (identify) _____ | _____ |

Date_____A/E Representative

Title

EXHIBIT 4

LAND SURVEY
REQUEST FOR PROPOSAL

PROJECT AND PROJECT NUMBER:

DATE:

OWNER:
(Name, Address)

ARCHITECT/ENGINEER
(Name, Address)
Attention:

TO: (Surveyor)

Please submit a proposal for: (Describe project)

TIME: The survey shall be completed and delivered to the Architect/Engineer by:

USE OF DRAWINGS: It is understood that the Owner, or the Architect/Engineer, may reproduce the drawings and distribute the prints in connection with the use of disposition of the property without incurring obligation for further payment.

COST: The cost of the survey, including the drawings, establishment of site benchmark(s), and placing of property corner markers as required, shall be:

_____ A lump sum (requires a detailed proposal, including hours and hourly rates).

_____ A maximum sum (not-to-exceed), per rates in the attached categories (attach schedule of desired rate categories).

BILLING FOR THE SURVEY shall be to the Architect/Engineer, in duplicate, at the above address.

DESCRIPTION OR PROPERTY TO BE SURVEYED and the survey requirements are attached.

Sincerely,

(Signature)
typed name and title

PSG:12/15/98

EXHIBIT 5

# DIVISION OF STATE FIRE MARSHAL Plans

## Review Fees, Procedures and Requirements

The plans for all construction of any new state owned or state lease building and renovation or alteration of any existing state owned or state leased building are subject to review and approval of the Division of State Fire Marshal for compliance with the Uniform Fire Safety Standards prior to commencement of construction or change of occupancy. The Division of State Fire Marshal may inspect state owned and state leased spaces as necessary prior to occupancy or during construction, renovation, or alteration ro ascertain compliance with the uniform fire safety standard as per Florida Statute 633.085 and 4A-52, Florida Administrative Code.

**PLANS REVIEW FEES**:

State Owned Buildings:

The fee for plans review of ALL contract documents, new construction or renovations to existing buildings, shall be paid by the Design Professional and sent along with the contract documents.

Make Checks Payable To: Department of Insurance.
Fill in the memo portion of the check with "SFM Plans Review Fee".

The Design Professional shall send two (2) complete sets of signed and sealed contract documents and one set of specifications to:

**If Sending By Regular Mail**:
Division of State Fire Marshal
Plans Review Section
200 East Gaines Street
Tallahassee, Florida 32399-0342

**If Sending By Overnight Service/Hand Delivery**:
Division of State Fire Marshal
Plans Review Section
325 John Knox Road, Atrium Building
Tallahassee, Florida 32303

The fee for plans review is determined by multiplying the estimated construction cost of the building, by the constant .0025 (1/4%). The minimum fee is $100.00. This does not include the cost of the land, site improvements, civil work or furniture & equipment.

**Example:**

$2,000,000.00 x .0025 = $5,000.00 fee.

In situations where the state agency's own facilities prepares the construction documents, the user agency is responsible for paying the fee in advance by SAMAS - Journal Transfer. Our SAMAS Account Number is: 46-10-2-39300146010000-00-000100-00); type and class code (14/10). (Benefiting Code #001000). A copy of your journal transfer (voucher) is to accompany the plans. Complete attached Review Request Form, in its entirety, and include it with the plan submittal to the State Fire Marshal's Office.

State Leased Buildings:

The fee for plans review of all contract documents (new construction or renovation to existing) shall be paid in advance by the Lessor prior to the review of the documents.

Make Checks Payable To: Department of Insurance.
Fill in the memo portion of the check with "SFM Plans Review Fee".

The **Lessor** shall send two (2) complete sets of signed and sealed plans, and one set of specifications with a cover letter stating the facility's name and lease number to:

| **If Sending By Regular Mail**: | **If Sending By Overnight Service/Hand Delivery**: |
|---|---|
| Division of State Fire Marshal | Division of State Fire Marshal |
| Plans Review Section | Plans Review Section |
| 200 East Gaines Street | 325 John Knox Road, Atrium Building |
| Tallahassee, Florida 32399-0342 | Tallahassee, Florida 32303 |

A copy of the cover letter is to be sent to:

Rose Cook, Chief
Bureau of Property Management
Knight Building, Suite 110
Tallahassee, Florida 32399-0950

The fee for plans review of building renovations is determined by multiplying the estimated construction cost of the renovations to be leased to the State by the constant .0025 (1/4%) with a minimum fee of $100.00. If it is a new building, the fee is .0025 (1/4%) of the building construction cost.

**Example:**

$1,000,000.00 Construction Cost x .0025 = $2,500.00 fee. If the lease is for existing space that does not require any renovations in order to occupy then you are required to fax a request for building site inspection to the Tallahassee Office (FAX #(850) 922-2553) requesting a site inspection for code violations (Please include the lease number).

The Division of State Fire Marshal will require the submitter to furnish two sets of signed and sealed contract documents and one set of specifications for review to the Plans Review Section. The submitter may, however, submit plans at an earlier stage, i.e. Design Development, in which case, only one unsigned set needs to be submitted. When the documents are approved for construction, one set will be stamped "APPROVED" and returned to the submitter. The stamped set of plans must be kept on the job site for the fire safety inspector's use at the time of inspection. It shall be the responsibility of the submitter to see that the "approved" set of plans is on the construction site before work begins and remains there until final inspection and approval has been issued. Plan approval is good for one year from the date of issue. The construction contract must be let within this period or the approval will expire and the plans must be re-submitted with another review fee.

The editions of the pertinent codes that will apply to your project will be those that are adopted at the date of your first submittal, regardless of phase, i.e. DD's, 50%, or final, and will not change even if a newer edition is adopted during the review process. However, if more than one year elapses between submittals, i.e. DD's to final, the process starts again with another fee and with current codes.

Any change orders or redesign during construction that affect life safety shall be submitted for review with the State Fire Marshal's file number indicated. There is no additional fee required for changes.

**The review process allows 30 calendar days for review of all state-owned property and 10 calendar days for review of state-lease property. The process seldom takes the entire required time. In an effort to help expedite the review, please consider the following questions:**

1. Do your plans show the use of each room? (i.e. office, conference, laboratory, closet, storage, and etc.)

2. Do your plans show the number of floors in the building and the location of the project under consideration in comparison to the entire floor and building?

If the building is sprinklered, do your plans show the location of the sprinkler heads.

3. Do your plans show the exit marking(s)?

4. Is there emergency lighting? If so, what is the type and location?

5. What is the type and location(s) of the fire extinguisher(s)?

6. Are there any special fire extinguishing systems such as Halon 1301 or a dry chemical hood system?

7. If applicable, do your plans show the type and location(s) of smoke and/or heat detector(s) (including duct detection)?

8. Are there any manual fire alarm pull stations? If so, where are they located and what is their elevation above the floor?

9. Are there any smoke dampers? If so, what is their type and location(s)?

10. Do your documents show the door fire ratings on the schedule?

11. Do your plans show a nationally tested wall assembly detail for rated walls?

12. Do your plans show the exits and their exit discharge? (i.e. top of structure to the level of exit discharge?)

13. If applicable, do your plans show the stair and handrail detail?

14. What are the interior finishes? (i.e. paneling, drywall, wallpaper, etc.) and their flame spread ratings.

While answering these few questions will expedite the process, they are not the complete set of questions that could be asked. If there are any special circumstances or hazards that require further clarification, the reviewer will attempt to contact you; therefore, please include the name and telephone number of a contact person with your plan submission. Please remember that if you are called and asked for additional information or clarification, the reviewer needs this information in writing before he can approve the project. If the statutory time (10 days on a lease or 30 days on state-owned) expires, he must disapprove the project and a re-submittal process may add further delay to the project.

The following items are areas where we must have your assistance. Please ensure that all submittals address these necessary items where applicable and help us prevent lost time due to disapprovals based on lack of information.

1. **Renovation or Alteration** - Any alteration, or any installation of new equipment shall be installed under the requirement of new construction. The areas shall be identified clearly, and shall show the area of concern in relation to the total building. This will ensure that the proposed renovation or alteration will not diminish the life safety components of the building.

2. **Equivalency Concepts** - Any requirements of the code that a designer wishes to modify by alternative arrangements shall in no case afford less safety to life than the code presently requires. Any request to use equivalency concepts will only be considered when technical documentation is submitted.

3. **Classification of Occupancy** - Plans shall indicate the type of occupancy based on N.F.P.A. 101, Chapter 4. See FAC 4A-3 for the current edition.

4. **Change of Occupancy** - The designer shall identify the existing type of occupancy and clearly identify the new occupancy use and areas.

5. **Floor Area** - The gross square footage of the building shall be indicated on the plans. All assembly rooms shall indicate the net floor area.

6. **High Hazard Area** - Any areas of a building, structure, or parts thereof, containing highly combustible, flammable, explosive products or materials which are likely to burn rapidly shall be identified on the submittal. The designer shall identify amounts and types of hazardous materials used throughout the facility.

7. **Means of Egress** - All three components of the means of egress (exit access, exit and exit discharge) shall be clearly identified. Travel distance to exits shall be detailed.

8. **Occupant Load** - The occupant load for each floor and calculations showing how the load was obtained shall be shown. All assembly rooms, spaces, or areas shall be identified and calculated with calculations shown on plans.

9. **Construction Type** - The type of construction shall be identified as per N.F.P.A. 220. See FAC 4A-3 for the current edition.

10. **Atrium** - Any building in which the designer has incorporated an atrium shall have the atrium area clearly defined on the contract document.

11. **Penetration of Smoke or Fire Barriers** - Passage of pipes, conduits, bus ducts, cables, wires, air ducts, pneumatic ducts and similar service equipment through smoke and/or fire barriers shall be detailed on the contract documents.

12. **Fire Detection, Alarm and Communication Systems** - All existing or new systems shall be clearly identified on the plans. The type of system and the appropriate N.F.P.A. standard which was used for the design and installation shall be indicated on the plans and signed and sealed by the Engineer of Record.

13. **Automatic Sprinkler System, Standpipes and Fire Pumps** - All existing or new systems shall be clearly identified on the plans. The type of system and appropriate N.F.P.A. standard which was used for the design and installation shall be indicated on the plans and signed and sealed by the Engineer of Record. Hydraulic calculation, also signed and sealed by the Engineer of Record, shall accompany the plans where applicable.

14. **Correction Facilities** - The use condition of the area shall be clearly indicated as per N.F.P.A. 101, Chapters 14 and 15.

15. **Lease Spaces** - If the leased space is on a floor located above the level of exit discharge (LED) a plan of the LED is required to be submitted to ensure proper exiting from the building.

16. **All sheets have the correct name of the facility: Building Number, Office/Complex Name, Street Address, City, County, Zip Code, and any assigned lease number noted on the document**.

If there are any questions concerning this notice, please contact the State Fire Marshal's Plans Review Section in Tallahassee at (850) 922-3171.

**Construction Inspections:**

The review fee will cover plans review and up to two (2) construction site inspections, one at approximately 65% (before covering walls and ceilings) of completion, and a final inspection prior to occupancy. The intermediate (65%) inspection is optional at our discretion, and depends upon the size and complexity of the construction project. The purpose of construction site inspections is to ensure that the project is in fact constructed in accordance with the approved construction documents.

Any re-inspection required as a result of deficiencies found during the final occupancy inspection shall result in additional fees billed to the Contractor for re-inspection at a rate of $65.00 per hour, per Inspector, portal to portal, plus expenses. With this in mind, the contractor should have completed his own systems testing and inspection punch list and made the corrections necessary in order to eliminate reinspections as much as possible. When members of state departments or other interested parties request a construction site inspection it will be essential to complete the enclosed "**Request for Building Site Inspection"** form and fax or mail it to the Division of State Fire Marshal for logging in and routing to the appropriate field office. The local field inspector will then contact the requestor to make final arrangements for the inspection.

This request form has to be completed in its entirety, otherwise, the request for inspection will not be granted. Additionally, if the plans are found to still be disapproved or rejected by this office, the inspection will not be performed and a stop work order will be issued until the plans are submitted, approved, and the plans review fee is paid in full. Should you have any questions, please notify the Plans Review Section (850) 922-3171 prior to mailing this request form.

Should the project not pass inspection due to various deficiencies, a re-inspection within 30 days should be scheduled with the Inspector at that time. If the corrections cannot be made within that required time frame, it is the responsibility of the agency or requesting party to complete the attached "**Request for Building Site Inspection"**form and submit it to the State Fire Marshal's Office in Tallahassee, noting the date in which the project will be ready for re-inspection in order for him to reschedule the site for a re-inspection.

# FIRE ALARM
# SUBMITTAL REQUIREMENTS

1. Contractor's name, address, phone, and license number.

2. Job site address, occupancy type, design criteria (which NFPA standard, local ordinance, state code the system is designed to meet).

3. General description of how the system will operate. What will activate the system; will it go into general alarm or ring by zone; will it annunciate; will it be monitored by a central station; will the air handling system be shut down, etc.?

4. Itemized list of equipment to be used showing quantity, manufacturer, model number, type of device, and CFM number.

5. Standard battery calculations showing enough standby time to meet either 24 or 60 hours standby time.

6. Voltage drop calculations showing that voltage drop does not exceed 5% drop.

7. Cut sheets for each device being installed and listed in Item #4 above.

8. Drawing showing location of devices, wire runs, number of conductors, zones, end-of-line resistors, and typical wiring method used on the devices. BUREAU OF FIRE PREVENTION

EXHIBIT 5

# PLANS REVIEW SECTION

## PAYMENT INFORMATION

---

The attached check is for the review of plans that have been submitted to the Division of State Fire Marshal for **Leased Buildings**.

- Project Name: _____
- Building Construction Cost: _____
- Amount of Check (or transfer) _____
- Date: _____

---

*For Accounting Purposes Only:*

For journal transfers, our SAMAS Number is:

46-10-2-39300146010000-00-000100-00
Benefiting Object Code #00100
*(Please submit a copy of the journal transfer form with plans)*

**Your agency will then be billed for bookkeeping purposes**

| BILLING TYPE | TYPE | CLASS | FEE TYPE | AMOUNT |
|---|---|---|---|---|
| F | 14 | 10 | F | $ |

***Please Make Checks Payable To***:
Department of Insurance
(See page one of this booklet for sending instructions)

_____
Submitter

# STATE FIRE MARSHAL'S OFFICE
# REQUEST FOR BUILDING SITE INSPECTION

I.GENERAL INFORMATION (Print or Type)

REQUESTOR'S NAME: _____ DATE SENT: _____

CONTACT PERSON: _____

(If Different from Requestor)

REQUESTOR'S FIRM OR STATE AGENCY: _____

CONTACT PERSON'S PHONE #: _____ FAX #: _____

NAME, STREET ADDRESS AND /OR EXACT LOCATION OF THE FACILITY:

_____

_____

_____

IIDESIRED INSPECTION DATE: _____
(Minimum 10 Working Days Notice Required)

III STATE FIRE MARSHAL'S FILE #: _____

IV OCCUPANCY CLASSIFICATION: _____
(Business, Assembly, Detention, Etc.)

V SQUARE FOOTAGE OF PROJECTS: _____

VI LIFE SAFETY FEATURES: FIRE ALARM _____ SMOKE DETECTION _____

SPRINKLERS _____ STANDPIPE _____ SMOKE EVAC _____

FAX ALL REQUESTS TO: (850) 922-2553
or
SEND ALL REQUESTS TO:
Bureau of Fire Prevention - Plans Review Section
MAIL TO: 200 East Gaines Street (or) Hand Deliver to 325 John Knox Road
Tallahassee, Florida 32399-0342

EXHIBIT 6A

# Facility Classification for Energy Consumption

University/Campus:

Project Name: _____ BR No.

Building Name: _____ Building No.

Additional Area: _____ GSF, on-line for PO&M funding during _____ of
(Month) (Year)

Renovated Area: _____ GSF, on-line for PO&M funding during _____ of
_____ (Month) (Year)

Total Energy Factor Calculation:

| Criteria | Formulas | Factors |
|---|---|---|
| A. Is 70% or more of the GSF of this facility air conditioned? | yes=1 no=0 | A= |
| B. Is the facility being designed or renovated after 1989? | yes=10 no=1 | B= |
| C. What is the % of the gross square footage used for Labs or Research | _____% of 20 | C= |
| D. What is the % of outside air supplied to the facility? | _____% of 40 | D= |
| E. Does the facility have a heavy equipment load? (Computer equipment, research equipment, autoclaves, fume hoods, etc) | yes=15 no=1 | E= |

| TOTAL ENERGY FACTOR (TEF) | 1+(A(B+C+D+E)/100) | TEF= |
|---|---|---|

1+ ___ ( ____+____+____+____ ) =
100

Facility Classification as defined below:
(Circle applicable facility class based on Total Energy Factor)

| | |
|---|---|
| Facility Class A | Low Energy Usage Building, TEF= 1.00<br>A building with less than 70 percent of its gross square footage receiving conditioned air. |
| Facility Class B | General Office Building, TEF= 1.01 to 1.25<br>A building that may typically contain classrooms, offices and administrative space. |
| Facility Class C | General Classroom Building, TEF=1.26 to 1.29<br>A building that may typically contain classrooms, offices, administrative and special spaces such as general teaching labs, auditoriums, etc. |
| Facility Class D | Fine Arts, Specialized Use, Student Activities Building, TEF= 1.30 to 1.49<br>A building that may typically contain classrooms, offices, auditoriums, general patient care and special support space such as locker rooms, teaching gyms, exercise rooms, studios. |
| Facility Class E | General Science Building, TEF= 1.50 to 1.60<br>A building that may typically contain classrooms, offices, wet and dry instructional labs to support general instruction and research. |
| Facility Class F | Research, Medical, Advanced Technology Building, TEF= 1.61 to 1.85<br>A Building that may typically contain classrooms, auditoriums, and highly specialized labs supporting upper level undergraduate programs, graduate programs, medical technology and sponsored research efforts. |

I certify that the above information is correct and accurate:

Architect/Engineer of Record for Project
(sign, date and seal)

Project Name: BR#: Date: Exhibit #6

| Estimated Building Construction Cost | | | | | | Submittal Phases of Probable Construction Cost ($) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Space Type | NASF | NASF/ GSF Factor | (a) GSF | (b) Constr. Cost Per GSF (major space type cost/GSF or sample bldg. Average cost/GSF) | Total Cost (Building Const. Cost) (a x b) | Approved Program NASF Date: | Con. Schem. NASF Date: | Adv. Schem. NASF Date: | Des. Dev. NASF Date: | 50% CD NASF Date: | 100% CD NASF Date: |
| Classroom | | 1.5 | | | | | | | | | |
| Teaching Laboratory | | 1.5 | | | | | | | | | |
| Research Laboratory | | 1.5 | | | | | | | | | |
| Study | | 1.4 | | | | | | | | | |
| Instructional Media | | 1.4 | | | | | | | | | |
| Auditorium/Exhibition | | 1.2 | | | | | | | | | |
| Teaching Gymnasium | | 1.2 | | | | | | | | | |
| Student Academic Support | | 1.5 | | | | | | | | | |
| Office/Computer | | 1.5 | | | | | | | | | |
| Campus Support | | 1.4 | | | | | | | | | |
| Space Total | | * | | | | | | | | | |
| | | | | | Efficiency Factor * | | | | | | |
| | | | | | Total Gross Square Footage | | | | | | |
| | | | | | Cost per GSF | | | | | | |
| | | | | | Building Construction Cost (GSF x Cost per GSF) | | | | | | |

Proposed Additive Alternates (@ Design Development Submittal with Estimated Dollar Value)

1 _____

2 _____

3 _____

4 _____

5 _____

Professional Services Guide Criteria (per subparagraph 3.14.2):

Building Gross Sq Ft (3.14.2.1)

Net Assignable Sq Ft (3.14.2.2)

Covered Walkway GSF (3.14.2.3)

*Insert Predominant Space Type Factor Used for Calculating Overall GSF

Project Name: BR#: Date: Exhibit #6

| 1. Construction Components | Submittal Phases of Probable Construction Cost ($) | | | | | |
|---|---|---|---|---|---|---|
| | Approved Program | Con. Schem. | Adv. Schem. | Des. Dev. | 50% CD | 100% CD |
| | Date: | Date: | Date: | Date: | Date: | Date: |
| | | | | | | |
| a) Building Construction Cost | | | | | | |
| b) Environmental Impacts/Mitigation | | | | | | |
| c) Site Preparation/Demolition | | | | | | |
| d) Landscape/Irrigation | | | | | | |
| e) Plazas/Walks/Bikepaths | | | | | | |
| f) Roadway Improvements | | | | | | |
| g) Parking (number of spaces ____) | | | | | | |
| h) Telecommunications (interior/exterior) | | | | | | |
| i) Electrical Service | | | | | | |
| j) Water Distribution System | | | | | | |
| k) Sanitary Sewer System | | | | | | |
| l) Storm Water System | | | | | | |
| m) Chilled Water System | | | | | | |
| n) Energy Efficient Equipment | | | | | | |
| Subtotal Estimated Construction Components | | | | | | |

| | |
|---|---|
| 2. Other Project Components (per approved program $) | |
| a) Land/Existing Facility Acquisition | |
| b) Professional Fees | |
| Base Agreement (%) | |
| Special Consultants (list type) | |
| Construction Manager (approx. 1%) | |
| c) Fire Marshal (.0025) | |
| d) Inspection Services | |
| Project Representative | |
| Roof Inspector | |
| Threshold Inspector | |
| e) Insurance Consultant (.0006) | |
| f) Surveys/Tests | |
| Topographical Survey | |
| Geotechnical Tests | |
| Construction Test (Concrete, HVAC, etc.) | |
| g) Permit/Impact/Environmental Fees | |
| Permits | |
| Impact | |
| Environmental | |
| h) Art Work (.005) | |
| i) Furnishings & Equipment | |
| j) Contingencies | |
| Subtotal Other Project Components | |
| Total Project Cost (Items #1 & #2) | |

Exceptions to the UCF Design and Construction Guidelines, which were not included and approved on a previous submittal, are being recommended:

Yes No

*If “yes”, attach the relevant sheet(s) from the Guidelines with the comments and justifications noted.

Signature (date)

# EXHIBIT 7

TITLE BLOCK INFORMATION

CONTENT: The following information shall be provided in the title block of each drawing:

Name of University
Project location
State Project Number

Sheet Title/Name
Phase of development
(i.e. Conceptual Schematics, Advanced Schematics, Design Development, 50%, 100% Construction Documents)

Name of Architect/Engineer
Address of Architect/engineer
Telephone number of Architect/engineer

Sheet number
Date of preparation
Initials of preparer
Signature of reviewer
Date of review

(On each sheet, as applicable)
Name of consultant
Address of consultant
Telephone number of consultant

ORGANIZATION: The basic organization of the title block shall be the same for each drawing, changing the information on each sheet as appropriate.

The sheet number shall always appear either on the lower right hand corner or along the right margin of the drawing.

SEAL AND SIGNATURE: Each drawing shall be signed, sealed and dated by the responsible professional.

PSG:12/15/98

EXHIBIT 8

TITLE SHEETS, PAGES AND BINDINGS

The title sheet for drawings should be made as simple as possible, and should contain the following information:

Project Title
Project Location
University Name
State Project Number

Name, Address, and Telephone Number of Architect/Engineer

As appropriate
Name, Address, and Telephone Number of Consultants

Date of Publication

Educational Plant Survey Comparison to Project Square Footage

The cover of the Project Manual may be of any style or format, as long as it is consistent with the above outline. The title page may be omitted if the cover provides the prescribed content.

The title sheet for the drawings may serve as the drawings cover or a plain sheet may be used for protection.

Project Manual and drawings shall be bound in such a manner as to discourage separation or removal of pages.

EXHIBIT 9

ENERGY LIFE CYCLE COST ANALYSIS SUMMARY FORM

PROJECT: _____ PROJECT NO: BR-_____

PROJECT ARCHITECT: _____

PROJECT MECHANICAL ENGINEER: _____

SCHEME DESCRIPTIONS: _____ COMPUTER PROGRAM USED: _____

SCHEME A:
SCHEME B:
SCHEME C:
SCHEME D:

BUILDING PARAMETERS:

Thermal transmittance of exterior walls, U = _____ Btuh/sq.ft - ◦F
Thermal transmittance of roof, U = _____ Btuh/sq.ft - ◦F
Thermal transmittance of glazing, U = _____ Btuh/sq.ft - ◦F
Glazing shade coefficient, SC= _____
Building Area (Gross) A = _____ Sq. Ft.

| | ENERGY DATA (MBtu/sq.ft. - year) (MBtu = Thousands or BTUs) | | | |
|---|---|---|---|---|
| ITEM | SCHEME A | SCHEME B | SCHEME C | SCHEME D |
| Interior lights | | | | |
| Heating Primary | | | | |
| Cooling Primary | | | | |
| Terminal Systems | | | | |
| Other Uses * | | | | |
| TOTAL | | | | |

*List Other Uses: e.g., Hot Water Heating, Exhaust Fans, Elevators, Exterior Lights

| LIFE CYCLE COST ITEM | COST VALUE (PRESENT VALUE DOLLARS) | | | |
|---|---|---|---|---|
| | SCHEME A | SCHEME B | SCHEME C | SCHEME D |
| Initial Cost | | | | |
| Replacement Costs | | | | |
| Energy Costs | | | | |
| O&M Costs | | | | |
| Total for 25 Years | | | | |
| Energy Cost/Year | | | | |

Prepared By:
Date:
Phone:

# SUBMITTAL & REVIEW CHECKLIST

**EXHIBIT 10**

**UNIVERSITY OF CENTRAL FLORIDA**

**DATE:**_____

**Project Number:** _____
**Project Name and Location:**_____
**A/E Name:**_____ **Telephone:**_____
**A/E Address:** _____
_____
**INFORMATION SUBMITTED FOR** _____ **PHASE**_____

| | Required | | A/E Sub-mission Date | Univ Action/ Approval Date | Comments |
|---|---|---|---|---|---|
| | Yes | No | | | |
| **(1) PROGRAM CONFORMANCE** | | | | | |
| (a) Comparative Area Analysis | | | | | |
| (b) Comparative Cost Analysis | | | | | |
| **(2) MASTER PLAN CONFORMANCE** | | | | | |
| **(3) HIST. PRES. & ARCH. APPROVAL** | | | | | |
| **(4) SPACE ANALYSIS** | | | | | |
| (a) Gross | | | | | |
| (b) Net | | | | | |
| **(5) SITE CRITERIA** | | | | | |
| (a) Legal Description | | | | | |
| (b) Boundary Survey | | | | | |
| (c) Topographical Survey | | | | | |
| (d) Geotechnical Services | | | | | |
| (e) Zoning Compatibility | | | | | |
| (f) Access & Egress Prov. | | | | | |
| (g) Tree Survey | | | | | |
| **(6) SITE UTIL. AVAIL. & PROVIDED** | | | | | |
| (a) Electric | | | | | |
| (b) Water | | | | | |
| (c) Sewer | | | | | |
| (d) Gas | | | | | |
| (e) Storm | | | | | |
| (f) Telephone | | | | | |
| (g) Other | | | | | |
| **(7) SITE PREPARATION** | | | | | |
| (a) Clearing | | | | | |
| (b) Exist. Util. (Re)moved | | | | | |
| **(8) SITE DRAWINGS** | | | | | |
| **(9) LANDSCAPE DRAWINGS** | | | | | |
| **(10) ARCHITECTURAL DRAWINGS & DESIGN CRITERIA** | | | | | |
| **(11) STRUCTURAL DRAWINGS & DESIGN CRITERIA** | | | | | |
| **(12) MECHANICAL DRAWINGS & DESIGN CRITERIA** | | | | | |

**SUBMITTAL AND REVIEW CHECKLIST (Cont'd)**
**INFORMATION SUBMITTED FOR_____ PHASE_____**
**PROJECT NAME AND NUMBER:_____**

| | Required | | A/E Sub-mission Date | Univ Action/ Approval Date | Comments |
|---|---|---|---|---|---|
| | Yes | No | | | |
| **(13) PLUMBING DRAWINGS & DESIGN CRITERIA** | | | | | |
| **(14) ELECTRICAL DRAWINGS & DESIGN CRITERIA** | | | | | |
| **(15) TECHNICAL SPECIFICATIONS** | | | | | |
| **(16) NON-TECH. SPECIFICATIONS** | | | | | |
| **(17) BID PROCEDURE** | | | | | |
| (a) Base Bid | | | | | |
| (b) Alternates (Additive) | | | | | |
| (c) Special/Supplementary General Conditions | | | | | |
| **(18) LIFE CYCLE ANALYSIS** | | | | | |
| **(19) COST ESTIMATE AND CERTIFI-CATION INCLUDING ALTERNATES** | | | | | |
| **(20) AVAILABLE FUNDING VS. ESTIMATES** | | | | | |
| **(21) CODE COMPLIANCE** | | | | | |
| (a) Standard Building Code(s) | | | | | |
| (b) NFPA Life/Safety Code | | | | | |
| (c) Disabled Req'ts | | | | | |
| **(21) CODE COMPLIANCE (cont'd)** | | | | | |
| (e) Code Summary on Drawings | | | | | |
| (f) SREF Space Standards | | | | | |
| (g) Other | | | | | |
| **(22) REGULATIONS** | | | | | |
| (a) Grant | | | | | |
| (b) Asbestos | | | | | |
| (c) Department of Env. Protection | | | | | |
| (d) Other | | | | | |
| **(23) PERMITS** | | | | | |
| (a) Local Building | | | | | |
| (b) US Army Corps of Engineers | | | | | |
| (c) Dredge & Fill | | | | | |
| (d) Electrical | | | | | |
| (e) Plumbing | | | | | |
| (f) Sanitary | | | | | |
| (g) Environmental | | | | | |
| (h) Department of Env. Protection | | | | | |
| (i) Water Management | | | | | |
| (j) Other | | | | | |

**EXHIBIT 10**

**SUBMITTAL AND REVIEW CHECKLIST (Cont'd)**
**INFORMATION SUBMITTED FOR_____ PHASE_____**
**PROJECT NAME AND NUMBER:_____**

| | Required | | A/E Sub-mission Date | Univ Action/ Approval Date | Comments |
|---|---|---|---|---|---|
| | Yes | No | | | |
| **(24) REVIEWS & APPROVALS** | | | | | |
| (a) Hotel and Restaurants (DBPR) | | | | | |
| (b) County Health Unit | | | | | |
| (c) Pollution Control (DEP) | | | | | |
| (d) Complex Air Source (DEP) | | | | | |
| (e) Dept. of Env. Protection (other) | | | | | |
| (f) Elevator (DBPR) | | | | | |
| (g) Asbestos (DLES) | | | | | |
| (h) Water Management District | | | | | |
| (i) Other | | | | | |
| **(25) OTHER PROJECT REQUIREMENTS** | | | | | |
| (a) | | | | | |
| (b) | | | | | |
| (c) | | | | | |

**ARCHITECT/ENGINEER:**

SIGNATURE (Date)

Type Name and Title

EXHIBIT 11

UNIVERSITY OF CENTRAL FLORIDA
DOCUMENT DISTRIBUTION RECORD

Page _____ of _____
Project No. _____
University:_____
Project Name:_____

DOCUMENT PRICES

| | |
|---|---|
| Set of Plans | $ |
| Project Manuals | $ |
| Complete Set, Plans & Proj. Manual | $ |
| Per Sheet of Drawings | $ |
| Per Page of Project Manual | $ |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
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| BID TABULATION | Project Name, Project Number, University<br>Construction Budget: $_____<br>Design Professional | | | | | | | | Exhibit #12 |
|---|---|---|---|---|---|---|---|---|---|
| Bid Opening Time:<br>Bid Opening Date:<br>Bid Opening Location: | | | | | | ALTERNATES | | | |
| BIDDERS | BONDS | SECT. | LISTED | ✓ | BASE BID | ALT #1 | ALT #2 | ALT #3 | REMARKS |
| | | | | | | | | | |
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Scope of Alternates:
Alternate #1:
Alternate #2: (All Alternates must have a typed explanation)
Alternate #3:

| | | |
|---|---|---|
| Bids opened by: | | Date: |
| Bids tabulated by: | | Date: |
| Bids witnessed by: | | Date: |

**EXHIBIT 13**

# CONSTRUCTION CONTRACT
# FACT SHEET

## GENERAL PROJECT INFORMATION

Project No. BR-_____

Project
Name:_____

Project
Location:_____

Full Name & Address of
Contractor:_____

_____

Contractor's Federal I.D. No.:_____

Full Legal Name & Address of
A/E:_____
_____
_____

## CONTRACT INFORMATION *(If the project has multiple phases with separately identified completion and liquidated damage provisions times, list information for each phase individually.)*

1. Times of Commencement and Completion:

   Substantial Completion _____Calendar Days

   Final Completion _____Calendar Days, after Substantial Completion

2. Liquidated Damages: $_____

3. Contract Sum: $_____

including Base Bid and Additive Alternates _____ thru _____ *(if alternates are not included, insert "N/A".)*

4. The Contract Documents:

   a. Drawings
   Drawings Title:_____

   Drawings Date:_____

*(Attach a list of individual drawing sheets.)*

   b. Specifications

   Specifications Title:_____

   Specifications Date:_____

   consisting of sections listed in the *(list indexes and/or tables of contents)*.

   c. Addenda

Addendum No. _____, dated _____, consisting of _____ *(number of pages and/or sheets)*

Addendum No._____, dated _____, consisting of _____

Addendum No._____, dated _____, consisting of _____

Addendum No._____, dated _____, consisting of _____

Addendum No._____, dated _____, consisting of _____

5. Form of Agreement: If any language in the standard Owner-Contractor Agreement was revised in the Project Manual, attach a highlighted copy of the revised portion(s).

EXHIBIT 15

INVOICE NO. 11

TO: University Name
University Address

FROM: ABC Architects, Inc., 214 Main St.
Tampa, FL 33742

Page 1 of 1 Pages
Federal I.D. No. 59-1234567
Project No. BR- 000
Project Name: Classroom Building

DATE: 2/15/99

THE PRESENT STATUS OF THE ACCOUNT IS AS FOLLOWS:

| | | | | | |
|---|---|---|---|---|---|
| Conceptual Schematics | 30,815 | 100 | 30,815 | 30,815 | 0 |
| Advanced Schematics | 30,815 | 100 | 30,815 | 30,815 | 0 |
| Design Development | 46,223 | 100 | 46,223 | 46,223 | 0 |
| 50% Construction Documents | 46,223 | 100 | 46,223 | 46,223 | 0 |
| 100% Construction Documents | 61,631 | 100 | 61,631 | 61,631 | 0 |
| Receipt of Bids | 15,708 | 100 | 15,708 | 15,708 | 0 |
| Construction Administration | 77,038 | 14 | 10,785 | 4,700 | 6,085 |
| | | | | | |
| Reimbursables (printing) | 4,500 | 100 | 4,500 | 4,500 | 0 |
| | | | | | |
| Auth #1 (Survey) | 4,200 | 100 | 4,200 | 4,200 | 0 |
| Auth #2 (Geotech.) | 9,800 | 100 | 9,800 | 9,800 | 0 |
| Auth #3 (Life Cycle Analysis) | 2,500 | 100 | 2,500 | 2,500 | 0 |
| Auth #4 (Project Rep.) | 90,000 | 9 | 8,100 | 0 | 8,100 |
| Auth #5 (Addn to drawings-CO) | 14,020 | 0 | 0 | 0 | 0 |
| Auth #6 (Materials testing) | 8,000 | 42 | 3,360 | 2,100 | 1,260 |
| | | | | | |
| | 441,473 | | 274,660 | 259,215 | 15,445 |

| | |
|---|---|
| Total due Architect/Engineer | |
| * Amount payable directly to ( Testing R-Us ) | 1,260 |
| * Amount payable directly to ( ) | * |

CERTIFIED TRUE AND CORRECT BY:

(Signature of Principal) (Typed Name and Title)

UNIVERSITY APPROVAL

Date Received:

Date Approved:

Invoice Consistent
with Contract

Services Rendered
as Invoiced

PSG:12/15/98

EXHIBIT 15

INVOICE NO. 11

TO: University Name
University Address

FROM: ABC Architects, Inc., 214 Main St.
Tampa, FL 33742

Page 1 of 1 Pages
Federal I.D. No. 59-1234567
Project No. BR- 000
Project Name: Classroom Building

DATE: 2/15/99

THE PRESENT STATUS OF THE ACCOUNT IS AS FOLLOWS:

| | | | | | |
|---|---|---|---|---|---|
| Conceptual Schematics | 30,815 | 100 | 30,815 | 30,815 | 0 |
| Advanced Schematics | 30,815 | 100 | 30,815 | 30,815 | 0 |
| Design Development | 46,223 | 100 | 46,223 | 46,223 | 0 |
| 50% Construction Documents | 46,223 | 100 | 46,223 | 46,223 | 0 |
| 100% Construction Documents | 61,631 | 100 | 61,631 | 61,631 | 0 |
| Receipt of Bids | 15,708 | 100 | 15,708 | 15,708 | 0 |
| Construction Administration | 77,038 | 14 | 10,785 | 4,700 | 6,085 |
| | | | | | |
| Reimbursables (printing) | 4,500 | 100 | 4,500 | 4,500 | 0 |
| | | | | | |
| Auth #1 (Survey) | 4,200 | 100 | 4,200 | 4,200 | 0 |
| Auth #2 (Geotech.) | 9,800 | 100 | 9,800 | 9,800 | 0 |
| Auth #3 (Life Cycle Analysis) | 2,500 | 100 | 2,500 | 2,500 | 0 |
| Auth #4 (Project Rep.) | 90,000 | 9 | 8,100 | 0 | 8,100 |
| Auth #5 (Addn to drawings-CO) | 14,020 | 0 | 0 | 0 | 0 |
| Auth #6 (Materials testing) | 8,000 | 42 | 3,360 | 2,100 | 1,260 |
| | | | | | |
| | 441,473 | | 274,660 | 259,215 | 15,445 |

| | |
|---|---|
| Total due Architect/Engineer | 14,185 |
| * Amount payable directly to ( Testing R-Us ) | 1,260 |
| * Amount payable directly to ( ) | * |

CERTIFIED TRUE AND CORRECT BY:

F. L. Wright, President
(Signature of Principal) (Typed Name and Title)

UNIVERSITY APPROVAL

Date Received:

Date Approved:

Invoice Consistent
with Contract

Services Rendered
as Invoiced

PSG:12/15/98

EXHIBIT 16

# STATE OF FLORIDA
# VOUCHER FOR REIMBURSEMENT OF TRAVEL EXPENSES

**NAME:** **AGENCY - UNIVERSITY OF CENTRAL FLORIDA** Exhibit #16

**SS#:** **TAR NO.** **HEADQUARTERS**

**CHECK ONE: _ OFFICER/EMPLOYEE _ NON EMPLOYEE/IND. CONTRACTO RESIDENCE (CITY)**

| Date 1998 | Travel Performed From Point of Origin To Destination | Purpose or Reason (Name of Conference) | Hour of Departure and Hour of Return | Meals for Class A & B Travel | Per Diem or Actual Lodging Expenses | Class C Meals | Map Mileage Claimed | Vicinity Mileage Claimed | Other Expenses Amount | Other Expenses Type |
|---|---|---|---|---|---|---|---|---|---|---|
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Revolving Fund:
Check No. _____
Check Date _____
Agency Voucher No. _____

Advance:
Warrant No. Warrant _____
Date Statewide Doc. _____
No. Agency Voucher No. _____

**LESS ADVANCE RECEIVED**
**LESS CLASS C MEALS** (Officers/Employees Only)
**NET AMOUNT DUE**

I hereby certify or affirm that above expenses were actually incurred by me as necessary traveling expenses in the performance of my official duties; attendance at a conference or convention was directly related to official duties of the agency; any meals or lodging included in a conference/convention registration fee have been deducted from this travel claim; and that this claim is true and correct in every material matter and same conforms in every respect with the requirements of s. 112.061 FS.

TRAVELER'S SIGNATURE: _____

**DATE PREPARED:** **TITLE:**

Pursuant to s. 112.061(3)(a), FS, I hereby certify or affirm that to the best of my knowledge the above travel was on official business of the State of Florida and was performed for the purpose(s) stated above.

SUPERVISOR SIGNATURE _____

SUPERVISOR TITLE

DATE APPROVED

**TRAVEL PERFORMED BY COMMON CARRIER OR STATE VEHICLE**

***THIS SECTION REQUIRED TO BE COMPLETED ONLY WHEN COMMON CARRIER IS BILLED DIRECTLY TO THE STATE AGENCY***

| Date | Ticket Number or State Vehicle Number | From | To | Amount (1) | Name of Common Carrier or State Agency owning vehicle |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |

FOR AGENCY USE:

FORM BOR-MCC 11/94

**EXHIBIT 17**

## CONTRACT DOCUMENTS COST RECAP SHEET

University:_____
Project No.: _____
Project Name:_____

EXPENSES - PLANS

(A set of Plans consists of _____ sheets size _____ x _____)

_____ Sets of Plans @ $_____per set = $_____

_____ Sheets @ $_____per sheet= $_____

EXPENSES - SPECIFICATIONS
(A set of Specifications consists of _____ pages)

_____Sets of Specs @ $_____per set = $_____

_____Pages of Specs @ $_____per page = $_____

EXPENSES - POSTAGE & UPS
(Attach invoices. "Handling Charges" are disallowed) $_____

TOTAL EXPENSES $_____

CREDITS

Plans required by contract 10 sets @ $_____ = $_____

Specs required by contract 10 sets @ $_____ = $_____

Plans and Specs sold _____sets @ $_____ = $_____

Plan sheets sold _____shts @ $_____ = $_____

Spec pages sold _____pgs @ $_____ = $_____

Deposits not refunded _____ @ $_____ = $_____

LESS TOTAL CREDITS $_____

NET AMOUNT DUE ARCHITECT/ENGINEER $_____

Closeout AS-BUILT Documents EXHIBIT 18 UNIVERSITY OF CENTRAL FLORIDA

This procedure defines the process of the As-built turnover of documents as stipulated in the Division 1 - General Requirements Guideline 017000, Contract Closeout and the Professional Services Guide exhibit 18.

A turnover meeting will take place with a representative from the Architectural Firm, Engineering Firm, Contractor Firm, UCF Facilities Improvements, UCF Facilities Operations and the Building Construction Managers for the turnover of the as-built documents.

A Transmittal Letter is required from the Architect/Engineer to Mr. Raphael Philip, Senior Engineer. The meeting will be held at the UCF Facilities & Safety Building.

The Transmittal Letter will provided with the following As-built Project Documents:

CD AutoCad (DWG format) of Record Drawings. (two ea.)
Black-line white print of AS-BUILT drawing. (one ea.)
Black-line white print 1/16" scale of architectural floor plan drawing only. (one ea.)
Operation Manuals (two ea)
Maintenance Manuals. (two ea.)
Warranty/Guarantee statements. (two ea.)
Red Lined drawings for all disciplines. (one ea.)
Other documents or manuals for this project. (two ea.)
CD of all RFI's. (one ea.)

All of the above documents shall be presented in one completed package at the turnover meeting. Incomplete package will not be accepted. The As-built documents shall be DATED and labeled with the word "AS-BUILT" in bold letters for easy identification. The Office of Facilities Planning & Construction will have 10 working days to review and accept such documents. The As-built documents are part of the closeout requirements**. The final payment will not be made until acceptance of the above documents.**

AS-BUILT DOCUMENT CHECKLIST

| Quantity | Items | Accepted | Reason for Not-accepted |
|---|---|---|---|
| 2 | CD AutoCad (DWG), PDF and BIM of Record Drawings. | | |
| 1 | Black line print of as-built drawing. | | |
| 1 | 1/16" scale print of architectural drawing | | |
| 2 | Operation Manuals. | | |
| 2 | Maintenance Manuals. | | |
| 2 | Warranty/Guarantee statements. | | |
| 1 | Red Lined Drawings for All Disciplines. | | |
| 2 | Other documents or manuals for this project. | | |
| 1 | CD of all RFI's. | | |

Received by: _____ Date: _____