

# Florida International University Board of Trustees

**STANDARD OPERATING PROCEDURE:**

**# FIU-15-001-BUILDING PROGRAMS**

**SUBJECT:** Guidelines for Development of Facility Programs

**DATE:** September 16, 2015

**AUTHORITY:** BOG Regulations 14.0025 and 14.020, Sections 1001.706 and 1013.03 F. S.

**PURPOSE:** To provide guidelines for the preparation of facility programs

**Introduction.** The scope of each project shall be clearly established to facilitate the management of construction projects, to provide for more accurate long-range campus planning, and to comply with the requirements of the Florida Statutes.

In the State University System (SUS), educational specifications documents are commonly referred to as facility programs or building programs. The requirements outlined in this document for development of facility programs are consistent with the requirements and intent of Florida Statute 1001.706 (7) (c) and Florida Statutes 1013.03. The university is responsible for the preparation of the building program. The program shall be consistent with the university strategic plan, academic and facilities master plan, and shall include the project budget and the building codes applicable to the project.

**Facility program committee.** The president, or a designated representative, shall appoint facility program committees to develop the facility programs for all projects which require a facility program. The composition of a facility program committee may vary with the complexity and scope of a project. The university president shall make appointments to a facility program committee to meet the administrative needs of the university and to include the expertise required to develop a clear, concise, and comprehensive facility program for the project.

**Development of facility program.** Upon appointment, the facility program committee shall develop the facility program for the project using the format outlined here, considering the following requirements:

- (1) Use of the proposed facility based on authorized courses and activities.
- (2) When appropriate, recommendations made by the survey team in current educational plant surveys conducted pursuant to s. 1013.31, F.S.
- (3) Program areas will be guided by the "Size of Space and Occupant Design Criteria Table - (c) State Universities" in the latest edition of the State Requirements for Educational Facilities as published by the Florida Department of Education.
- (4) Any specific requirement of the discipline or activity which will occupy the proposed facility and which must be included in the project scope for proper function of the facility.
- (5) Impact of the proposed facility on the campus master plan and existing campus infrastructure.
- (6) Future expansion requirements of the proposed project.

- (7) Consistency with the university's adopted campus master plan and any associated campus development agreement.

**Required signatures.** Upon completion of the facility program, the director of facilities planning shall review and verify that the document has been developed in accordance with the requirements specified above. The director of facilities planning shall obtain the following approvals by having the appropriate person sign the signature sheet of the facility program document.

- (1) Director of facilities planning (signature signifies that the document has been developed in accordance with the requirements outlined in "Development of Facility Program" above.)
- (2) Committee chair (signature signifies recommendation of the facility program committee.)
- (3) AVP Facilities Management (signature signifies Facilities Management comprehensive approval)
- (4) University Chief Information Officer (signature signifies that requirements listed in Item XI of the "Outline for Facility Programs" have been met)
- (5) Chief Financial Officer (signature signifies budget and funding approval)
- (6) Provost (signature signifies Academic, Research and other affected major divisions interests have been addressed)
- (7) University president (signature signifies the president's approval and, if the project is included in the Three-Year Priority List, that the program scope is consistent with the anticipated funding. Signature also signifies that, when appropriate, as for projects funded from Capital Improvement Fees, the student body has been consulted.)

The requirement of the above seven specific signatures is not intended to exclude other university administrators, faculty members, or university staff members from an established review process.

**Amendments to facility programs.** Whenever the program needs require that a previously approved facility program be amended, the university shall develop an amendment to the program. The amendment must be submitted and approved in the same manner as the original program.

**Development of facility programs for projects appropriated which were not included in the legislative budget request.** The university shall develop a facility program for any major project which receives legislative funding, or for any proposed major project that is not subject to the appropriations process (sponsored research, auxiliary, private funds, etc.), and for which there is no approved facility program. The facility program document shall meet the requirements of this Standard Operating Procedure. No implementation of the project shall be commenced until the program or program amendment is approved.

**Facility program format.** Facility programs shall be developed using the format outlined below. All pages should be numbered. The information specified is the minimum amount of information required. Additional supplemental information is encouraged and may be required for more complex projects.

## **Outline for Facility Programs**

### **I. Title Sheet**

Include the name of the program, the name of the university, and the program date.

## **II. Table of Contents**

Provide a descriptive list of the contents, illustrations, diagrams, and charts.

## **III. Signature Sheet**

Signature sheet shall contain the required signatures of approval. Each university may add additional signatures of approval as may be required to meet the administrative procedures of the university, but the four signatures described above are mandatory.

## **IV. Introduction**

Provide an introductory statement giving an overview of the program or project. The overview statement shall provide the following information:

- A. A description of the project history
- B. General project description
- C. An outline of the project goals and objectives
- D. Outline of desired design objectives
- E. Proposed construction delivery method (e.g. construction management, design build, conventional bid, etc.)

## **V. Academic Plan**

Identify any proposed academic programs that will be housed within the facility and describe how the project conforms with the academic mission and strategic mission of the university.

## **VI. Space Needs Assessment**

- A. Describe the space needs in terms of present or projected deficiencies and the proposed solution, as well as alternative solutions that were considered, such as rescheduling of classes, remodeling of existing space, jointly using facilities on or off campus, and leasing of space.
- B. If a new facility is proposed, provide reasons why other alternatives were not chosen and why a new facility is the best solution.
- C. Describe any differences between the project and survey recommendations for the project when applicable.

## **VII. Consistency with Adopted Campus Master Plan and Associated Campus**

**Development Agreement.** Include a statement as to whether the proposed project is consistent with the adopted campus master plan and associated campus development agreement, which were prepared and adopted pursuant to Section 1013.30, F.S., If the proposed project is not consistent with the adopted campus master plan and/or the associated campus development agreement, include a description as to how the campus master plan or campus development agreement must be amended in order to ensure consistency.

## **VIII. Site Analysis**

Provide a site analysis of the proposed project site, including:

- A. General campus map which indicates location of proposed project site on campus
- B. Local area site map of the proposed site and provide analysis of the following data:
  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 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
9. direction of prevailing winds

**IX. Program Area**

- A. Provide Program Area Table (Attachment 1)
- B. Provide quantitative analysis indicating how the proposed amounts and types of space were arrived at using requirements of programs to be housed.
- C. Provide description of each space which provides the following information (Attachment 2A or 2B):
  1. Function
  2. Equipment required
  3. Special requirements such as lighting, acoustical treatments, etc.
  4. Relation of each space to other spaces, providing functional diagrams of relationships

**X. Utilities Impact Analysis**

Provide the following preliminary utility analysis for the project. Estimates may be based on experience of similar building types, or established engineering "Rule of Thumb" standards of practice.

- A. Chilled Water - Estimate tons required and identify source of supply (package or central plant). Analysis of adequacy of off-site pipe capacity.
- B. Steam - Estimate BTUH required and identify source of supply. Analyze adequacy of off-site pipe capacity.
- C. Electrical- Estimate KVA load and identify source and adequacy of supply.
- D. Potable Water and Sanitary Sewer- Identify number of gallons per day, identify source of water supply and method of sewage disposal. Analyze capacity of supply and disposal sources. Discuss any permit requirements.
- E. Irrigation Water- Identify number of gallons per day required and identify supply source. Discuss any permit requirements.

**XI. Information Technology and Communications Resources Requirements**

Facility programs must identify all proposed "information technology resources" and "communications" resources that will be included in this project regardless of method of acquisition or source of funds.

Facility programs must certify that the University Chief Information Officer has reviewed and approved the program outlined with respect to conformance with the requirements of standards and/or practices for information technology and communications resources adopted by the University.

"Information Technology Resources" shall include the hardware, software, services, supplies, personnel, facility resources, maintenance, and training involved in the function of data processing. Examples of information technology resources are computer hardware and peripheral equipment, such as personal computers, mini-computers, file servers, printers, scanners, front-end processors, etc.

"Communications" (or communications systems) shall include the hardware, software, services, supplies, personnel, facilities and training involved in the transmission, emission, and reception of signs, signals, writings, images, and sounds of intelligence of any nature by wire, radio, optical, or other electromagnetic systems. Examples of communication resources are wiring of the facility for voice, data, and video; connections within/between buildings and campus networks; backbones; electronic classrooms; communication/data jacks in rooms; satellite up-links and down-links; communications closets; television; security systems; and radio transmission facilities equipment.

Only information technology and communication resources that will be newly acquired for the facility are included in this section. Equipment that is already owned and is being relocated to the new or renovated facility is not required here. However, standards and/or preferred practices for conduit, wiring, etc., of renovated facilities are included in this section.

Building funds must include the costs of information technology and communications. Included are the costs of embedded information technology and communications resources. This category includes information technology infrastructure, internal communication wiring and wiring to the building from the campus telecommunication infrastructure.

## **XII. Codes and Standards**

List all Life Safety Codes, health codes, construction codes, design standards, and university construction standards which shall govern the design and use of the proposed facility.

## **XIII. Project Schedule**

Provide a milestone date and duration schedule for development of the project and correlate with funding cycle. The project schedule should be in enough detail that those impacted by the project implementation can estimate workload, such as advertisement, shortlist, interview, contract award, construction, fee negotiations, contract execution, design, bidding, construction contract award, construction and close-out.

## **XIV. Program Funds**

Describe in detail the source of all funds available or anticipated to be available for funding of the project for planning, construction, equipment, and any other fixed capital outlay

## **XV. Project Space and Budget Summary**

The Project Space and Budget Summary (Attachment 3) must identify space types according to SUS space categories (Classroom, Teaching Laboratory, Study, Research Laboratory, Office, Instructional Media, Auditorium/Exhibition, Gymnasium, Campus Support Services, or Other Assignable). In most cases, it is necessary to consult with the university staff person responsible for maintenance of the facilities inventory to establish the correct space category. These categories are also used for development of the Five-Year Capital Improvement Program document.

The Project Space and Budget Summary must identify the basis for the building construction costs and other project budget categories such as site development and equipment. Building construction costs shall be based on the major type of space within the project and shall be consistent with either: 1) the SUS average construction costs for the major type of space, or 2)

a specific project used to develop the SUS average costs that is very similar to the proposed project based on the combination of space types. The term "site development cost" includes not only development cost on the immediate construction site, but also the cost of any item of infrastructure which must be constructed off the immediate project site for the project to be completed and fully operational.

While the site development requirements of each project will vary, some examples include: landscaping, irrigation systems, construction of parking lots on and off the site, construction of roadways, construction of storm water and drainage systems, modifications or expansion of existing utility systems or plants, construction of new utility plants (if construction mandated by project), excessive fill dirt or site grading, etc. Each item of site development cost shall be listed as a separate budget line item (Attachment 3).

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## ATTACHMENT 1

### PROGRAM AREA TABLE

*Sample introduction and table:*

This Program Area represents the total of all phases of construction. The Program Area for Phase I is included in item IX. A, Phase I Program Area and Design Requirements.

Description	No. of Stations	NASF/ Station	Area/ Space	Number	Total Area	Total Station
Union Administration Area	5	26	125	1	125	5
Reception Area	1	200	200	1	200	1
Union Directors Office	1	110	110	6	660	6
Staff Offices	4		280	1	280	4
Secretary's Work Area	20	25	500	1	500	20
Conference Room			<u>200</u>		<u>200</u>	<u>0</u>
File Room			1,415		1,965	36
Sub-Total						
Programming Area						
Directors Offices	1	120	120	4	480	4
Reception/Secret. Area	4		280	1	280	4
Lg. Workrm. w/cubicles	14	35	490	1	490	14
Public Relations	3		280	1	280	3
Dark Room			<u>120</u>	1	<u>120</u>	<u>0</u>
Sub-Total			1,290		1,650	25
Student Organization Area						
IFC/PanHellenic/Nat.	1	100	100	5	500	5
PanHell.Org. Director	1	110	110	1	110	1
Secretary's Office	2		180	1	180	2
Large Work Room	60	35	2,100	1	2,100	60
Meeting Rooms	10	25	<u>250</u>	3	<u>750</u>	<u>30</u>
Sub-Total			2,740		3,640	9

Student Gov't Area	1	200	200	1	200	1
President's Office	1	120	120	2	240	2
VP & Advisor	2		155	4	620	8
Student Govt. Offices	3	25	75	1	75	3
Receptionist Area	3		230	1	230	3
Secretaries Area			120	1	120	0
File Room	1		1,000	1	1,000	
Senate Chamber	30	25	<u>750</u>	1	<u>750</u>	—
Senate Work Room						
Sub-Total			2,650		3,235	17
<b>Information Booth</b>						
Information/Sale/Tours				1		0
Campus Tout	1	120	120	1	120	1
Coordinator	4	25	<u>100</u>	1	<u>100</u>	<u>4</u>
Tour Guide Waiting Area						
Sub-Total			220		220	5
Atrium/Courtyard Lounge/Circulation	500	12	<u>6,000</u>	1	<u>6,000</u>	<u>500</u>
Sub-Total			6,000		6,000	500
Banquet Room						
Sub-Divided Banquet	500	10	5,000	1	5,000	500
Storage-Table, chairs, etc.			700	1	700	0
Audio/Visual Room			<u>600</u>	1	<u>600</u>	0
Sub-Total			6,300		6,300	500
Meeting Facilities	30	25	750	2	1,500	60
Board Rooms						
Meeting Rooms	30	15	450	2	900	1,800
Meeting Rooms	50	15	<u>750</u>	3	<u>2,250</u>	<u>6,750</u>
Sub-Total			1,950		4,650	8,610

Dining Facilities						
Central Kitchen Fac.	2,800	3	8,400	1	8,400	2,800
Food Court						
Scramble Area	936	12	11,232	1	11,232	936
Independent Vendors	61	12	732	6	4,392	366
Snack Vendors		12	0	2	0	0
Pub Area	100	12	1,200	1	1,200	100
VIP Dining Room	0	12	<u>0</u>	1	<u>0</u>	<u>0</u>
Sub-Total			21,564		25,224	4,202
Lease Retail Space						
Bookstore Magazine Shop			1,000	1	1,000	0
Credit Union			1,200	1	1,200	0
Post Office			300	1	300	0
Copy Center			<u>1,000</u>	1	<u>1,000</u>	<u>0</u>
Misc. Shop Space			2,500	1	2,500	0
Sub-Total			6,000		6,000	0
Union Auxiliaries						
Game Room			3,200	1	3,200	0
Computer Room	54	60	3,240	1	3,240	0
Typing Room	0	0	0	0	0	0
Graphics Production Room	24	35	<u>840</u>	1	<u>840</u>	
Sub-Total			7,280		7,280	78
Student Services						
Reading/Listening Rms	300	5	1,500	1	1,500	300
TV Pit Area	25	7	175	2	350	50
Study Room	40	30	1,200	1	<u>1,200</u>	40
Sub-Total			2,875		3,050	390
<b>Grand Total</b>						
Total Net Assignable Square Feet			68,809			
Total Gross Square Feet			92,892			

**ATTACHMENT 2A  
SPACE DESCRIPTION FORM**

ART FACULTY OFFICES  
(6@ 100 sq. ft.)

600 G.S.F

This area is to provide six (6) standard art faculty offices, each approximately 10'x10' or 8'x12'. The following furniture and equipment is to be provided for each office:

1. Faculty desk
2. Swivel chair
3. Two side chairs
4. One file cabinet
5. Two shelving units

Offices are to be carpeted, have electrical outlets on all walls, and have telephones.

A nameplate, room number and tackboard should be provided for each office door. Specific location to be set during design phase.

Offices for art faculty should be grouped together if at all possible.

**ATTACHMENT 2B  
SPACE DESCRIPTION FORM**

Department: 1995 Student Residence Project  
Space Name: Deli/Convenience Store  
Description/Use: Food Service Facility  
Personnel Assigned/Max: 4 Staff  
Dimensions/Area: 1,100 NSF  
Number required: 1

**RELATIONSHIPS**

Primary Exterior Access  
Secondary Main Desk

**ARCHITECTURAL CRITERIA**

Floors Vinyl composition & ceramic tile  
Walls Painted CMU  
Ceilings Suspended washable surfaces  
Doors Hollow metal door & frame  
Windows Exterior walls (generous)  
Lighting Florescent  
Acoustical Above average

**MECHANICAL CRITERIA**

HVAC Above average  
Plumbing Commercial kitchen, deli, bathrooms  
Communications 4 telephone, 2 TV  
Electrical Standard requirements with specifics for equipment yet to be developed for the kitchen

**FURNITURE/EQUIPMENT**

Furniture (Owner) Yet to be determined  
Equipment (Owner) Yet to be determined  
Furniture (Contractor) None  
Equipment (Contractor) Yet to be determined

**SPECIAL INFORMATION/REQUIREMENTS**

None

**ATTACHMENT 3**

**PROJECT SPACE AND BUDGET SUMMARY**

University Name: \_\_\_\_\_  
 Project Name: \_\_\_\_\_

BUILDING CONSTRUCTION COST						
Space Type	NASF	NASF/GSF FACTOR*	GSF	CONST. COST PER GSF	TOTAL COST \$	NASF Approved CIP Date: _____
Classrooms				(major space type cost / GSF or sample bldg. average cost / GSF)		
Teaching Labs						
Research Labs						
Study						
Instructional Media						
Auditorium / Exhibition						
Teaching Gymnasium						
Office / Computer						
Support Services						
<b>Space Totals</b>						
<b>TOTAL BUILDING CONSTRUCTION COST</b>						

Professional Services Guide Definition (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)

\*Recommended Efficiency Factors to be Used

1. CONSTRUCTION COMPONENTS	PROGRAM \$	APPROVED CIP \$
a. Building Construction Cost		
b. Environmental Impacts/Mitigation		
c. Site Preparation/Demolition		
d. Landscape/Irrigation		
e. Plaza/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		
<b>SUBTOTAL CONSTRUCTION COMPONENTS</b>	\$	\$

<b>2. OTHER PROJECT COMPONENTS</b>	<b>SUBTOTALS</b>	<b>TOTALS</b>
a. Land/Existing Facility Acquisition		
b. Professional Fees		
Base Agreement (%)		
Special Consultants (list type)		
Construction Manager (approx. 1%)		
c. Fire Marshall (.0025)		
d. Inspection Services		
Project Representative		
Roof Inspector		
Threshold Inspector		
e. Insurance Consultant (.0006)		
f. Surveys / Tests		
Topographic Survey		
Geotechnical Tests		
Concrete Tests		
HVAC System Tests		
g. Permit/Impact/Environmental Fees		
Permits		
Impact		
Environmental		
h. Artwork (.005)		
i. Movable Furnishings & Equipment		
j. Contingencies		
<b>SUBTOTAL OTHER PROJECT COMPONENTS</b>		<b>\$</b>
<b>TOTAL PROJECT COST (Items #1 &amp; #2)</b>		<b>\$</b>