

Comprehensive Standard 3.11.3 Physical Facilities

Principle: The institution operates and maintains physical facilities, both on and off campus, that appropriately serve the needs of the institution's educational programs, support services, and other mission related activities.

Narrative Summary

Florida International University's [Facilities Management Department](#) (FMD) is responsible for the overall development, design, operation, and maintenance of the university's physical facilities. Under the direction of the Associate Vice President of Facilities Management [AVP Bio, [1](#)], FMD works to effectively and efficiently maintain an environment conducive to supporting the mission of instruction, research and community service. The Department is committed to providing quality, sustainable facilities through diligent oversight of all aspects of the physical environment. To accomplish this FMD activities demand extensive coordination with the user community – academics, student services, athletics, and other auxiliaries and a commitment to evaluate performance and improve operations.

Florida International University locally operates and maintains 120 permanent buildings containing over 7 million gross square feet at two campuses along with the Engineering Center and the Wolfsonian Museum and Annex located on Miami Beach. These four main sites encompass approximately 575 acres. FIU also offers programs at 6 offshore locations and at 6 off-campus locations [2]. These facilities are maintained and operated by the host institution as per contractual agreement. These agreements also ensure that the facilities meet the requirements of the program. The program directors are responsible for ensuring the facilities are properly maintained and operated. The university enters into leases for space that meet their requirements and meet the requirements of the specific program [Lease Agreements, 3].

Comprehensive Campus Master Plan Development Process

The Comprehensive Campus Master Plan is formally updated every 5 years to ensure the plan aligns with the institution's mission, strategic plan and programs and services [4]. An update of the Comprehensive Campus Master plan is currently underway for 2005 – 15 [2005-15 Campus Master Plan, 5]. The update begins with a collection of data and analyses pertaining to the academic mission, academic programs, urban design, future land use, academic housing and support facilities, recreation and open space, general infrastructure and utilities, transportation and intergovernmental coordination, conservation and coastal management, capital improvements; and design guidelines. Following data collection, an evaluation and appraisal report [EAR, [6](#)] is prepared to identify the status of previous goals objective and policies, and where necessary, create new goals, objectives and policies. The assessment process that follows involves focus groups with students, and administrators, [School of Architecture Urban Design Studio](#) and the Ad Hoc faculty Building and Environment Committee. The results of the focus groups are compiled and analyzed to develop schematic land use options, scenario concepts/strategies, long range development plans and technical maps. A draft is reviewed by

the Board of Trustees and then presented for public hearings, host and local government reviews, state and regional planning agency reviews, university president and executive committee reviews, and approval by the university [Board of Trustees](#). The update will be completed by October 2009. This process conforms to the Florida State statute 1013.30 [7] and the BOG Regulations chapter 21 [8].

In 2008 the university completed a detailed Academic Health Science Center Master Plan Study [AHSC Master Plan 3D Overview, [9](#)] for the northeast quadrant of the University Park Campus that closely analyzes the 5, 10 and 20 year vision and needs of the university in the Medical and Health Sciences areas.

Field Code Changed

All capital projects are reconciled with the Campus Master Plan and the Education Plant Surveys [2005-2006 Educational Plant Survey [10](#)] to ensure all new facilities align with the needs and priorities of the university before being added to the FIU 5-Year Capital Improvement Plan [11].

Approximately twelve months prior to the beginning of each fiscal year, the Florida Board of Governors requests the university's Five-Year Capital Plan for incorporation into the statewide university system Fixed Capital Outlay Budget request [12]. The capital projects in this plan are listed in order of priority with the first item always including funds for utilities and infrastructure. The plan is presented to the Florida International University Board of Trustees for approval, and after approval, is sent to the Florida Board of Governors. The Board of Governors' staff reviews the capital budget requests for all of the Florida public universities and develops a recommended Three-Year PECO Priority Project List for approval by the Board of Governors. After this list is approved, the request is submitted to the Governor and to the Florida Legislature. The Governor presents a proposed budget, typically in late January for the year beginning the following July. The Florida Legislature typically meets during March and April and develops a budget recommendation that is submitted to the Governor at the end of the legislative session in early May. After approval by the Governor, the funds are made available during the next fiscal year for use by the university. A detailed description of the capital budget process, pursuant to Florida State Statute 1013.60 and 1001.61 [13] is provided as supporting documentation [14].

The university has achieved significant success with the State of Florida and the Legislative Budget Process in expanding its capital budget funding. In FY 2007-08, for example, the university received a total of \$78,439,017 in PECO and FEGC funding for 12 projects [PECO Funding Growth, 15]

Preventive and Deferred Maintenance

Facilities Management manages routine, preventive and deferred maintenance to effectively maintain the condition of physical facilities to support the university's educational programs, support services, and research initiatives.

FMD regularly and systematically reviews the condition of all university facilities. [Campus Map, 16] Data is collected on individual buildings from Facilities Maintenance staff directly responsible for the day-to-day maintenance operations of the buildings. Building Managers [17] are assigned to each building and based on information provided from the maintenance staff and their own observations will either initiate routine repairs, or recommend deferred maintenance, renovations or other improvements. A formal review of each building is done every 12-18 months and focuses on four major critical building systems (architectural, mechanical, plumbing, and electrical), subdivided into 16 sub-systems aligning with the major trade groups. Each review is catalogued in the Facilities Condition Assessment Report [Facilities Condition Assessment, 18]. The Assessment Report outlines a three year deferred maintenance plan for each facility. The documentation in the assessment provides a narrative summary of the facility's profile including critical data on building components (location, uses, when constructed, major renovations, etc.), the scope of required work, photos where applicable and a preliminary budget figure for repair, maintenance, or replacement.

A comprehensive list known as the PECO Infrastructure Project List [PECO Infrastructure List, 19] is generated from the Assessment Report along with a prioritization based on a ranking system with life safety issues being the highest priority. The list is forwarded to the University Infrastructure Committee. This committee includes Academic Space Management, Environmental Health and Safety, Real Estate Development and Planning, Financial Planning, and Facilities Management and Construction. The committee reviews and validates the projects and the prioritization. The PECO project list is a planned investment schedule for the infrastructure funds that are allocated annually by the state legislature. In FY 2007/08 \$7 Million dollars was directly allocated for major Facilities, Maintenance, Repair, Renovation and Remodeling. FIU has committed over \$27M in infrastructure improvements over the last 5 years.

Routine Maintenance and Work Orders

The coordination of routine maintenance at the UP and BBC campuses and at the Wolfsonian and Engineering Center are facilitated by the work order process. All regular maintenance work is initiated by the issuance of a work order [20] and managed through a Maintenance Management program called Maximo. In 2007 FMD completed over 20,000 work orders for routine maintenance [21]. Any member of the university community including students may request a work order by calling into the office of Work Management directly or placing a request on-line through the [Facilities Management Website](#). The Work Management Department can also receive requests by fax, email and walk in. Currently there are seventy persons within the university registered with Work Management who can submit requests directly to the Maximo system through a web page interface. Work orders are filtered electronically to the specific shops to be incorporated into work schedules. Customers are able to track the progress of their requests online through the work order number associated with their request. Supervisors manage the work orders and return completed work orders to Work Management to be closed out. Calls for emergency service (i.e. leaks or power outages), life safety and disruptions of operations are dispatched to the trade supervisor immediately by phone or radio. All other work orders are placed in a queue based on order received. Routine maintenance at off-campus and offshore locations is managed by the lessor according to individual lease agreements.

Additionally, preventive maintenance schedules are programmed into the software according to the manufacturer's specifications. This results in the automatic generation of 35-40 preventive maintenance work orders each week. All planned maintenance such as painting, plumbing, electrical, carpentry, custodial, HVAC, roofing and carpet replacement are also maintained in the database for scheduling.

Process Improvements and Assessments

A Facilities Management Survey [22] linked to the Maximo system has helped the Facilities Department increase efficiency, improve service, assess the condition of facilities, and better manage resources. Customers are sent an electronic notice when the work is complete and a survey [Work Order Micro-survey, 23] for feedback on the quality of service. The work order status and survey results are kept in a database so that constant tracking and analysis capability is available to the FMD Management team. This information is used to improve response times, assess backlog and identify problem areas that are approaching the need for major repairs. For example, the newly established preventive maintenance schedule for emergency generators has increased reliability and reduced major repairs [24]

In early 2007, an assessment of the allocation of PECO Infrastructure funds identified a need to improve how projects were prioritized; who had input identifying projects and what projects were ultimately included for funding. As a result, the University Infrastructure Committee was established to play a key role in prioritizing the work list. The University Infrastructure Committee includes members from Academic Space Management, Environmental Health and Safety, Real Estate Development and Planning, Financial Planning, and Facilities Management and Construction. The group meets monthly to review the existing priority projects, any new projects and the implementation status of projects.

FIU has also created a Classroom Design Standards Committee [Committee Charter, 25] to develop general design guidelines for the renovation of existing, and the planning of new, classrooms, teaching labs and lecture halls. Student focus groups are also used to gather information about the classrooms from the student's perspective. The committee has prepared a set of design standards [26] that are being used in new building development and renovations. In 2008 the university initiated a 3 year classroom renovation plan to update all existing 181 general purpose classrooms. FIU spent \$780,000 in the summer of 2008 to renovate 28 classrooms. The intent is to provide different media podiums at each classroom based on the capacity, utilization and classroom type. Standard finishes, equipment and furnishing are being implemented in order to facilitate their upkeep. The project has taken into consideration the new pedagogical methods being utilized by faculty.

[Please see the response in section CR 2.11.2 for additional information.](#)

Supporting Documentation and Evidence

#	Title	Supporting Documentation (PDF)	Supporting Documentation (Live Web site)
1	Facilities Web Site	n/a	http://facilities.fiu.edu/management/administration/directorsoffice.htm
2	List of Off campus and off shore program sites	 .PDF	As per Thom, need input from Jeff Krablin
3	Lease Agreements	 .PDF	As per Thom, need input from Jeff Krablin
4	Campus Master Plan 2000-2010	n/a	http://facilities.fiu.edu/planning/masterplans.htm
5	DRAFT Campus Master Plan Update 2005-2015	n/a	http://facilities.fiu.edu/planning/masterplans.htm
6	2005-2015 Evaluation and Appraisal Report (EAR)	 .PDF	http://facilities.fiu.edu/planning/masterplans.htm
7	Florida State Statute 1013.30, University campus master plans	n/a	2008->Ch1013->Section%2030#1013.30">http://www.flsenate.gov/Statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=Ch1013/SEC30.HTM&Title=->2008->Ch1013->Section%2030#1013.30
8	BOG Regulations Chapter 21	n/a	http://www.flbog.org/about/regulations/regulations.php
9	Academic Health Science Center Master Plan	n/a	Animation available on CD Only due to size
10	FIU Educational Plant Survey 2005-06	 .PDF	http://facilities.fiu.edu/planning/educationalplantsurvey.htm
11	FIU 5-Year Capital Improvement Plan	 .PDF	http://facilities.fiu.edu/planning/projectsinplanning.htm
12	BOG CIP Guidelines	 .PDF	http://facilities.fiu.edu/documents/sacs/BOG-Budget-Guidelines.pdf
13	Florida State Statute 1013.60 and 1001.61, Legislative capital outlay budget request	n/a	http://www.flsenate.gov/Statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=Ch1013/PART04.HTM
14	Capital Budget Process	 .PDF	http://facilities.fiu.edu/documents/sacs/Capital-Budget-Process.pdf

15	PECO Funding Growth	 .PDF	http://facilities.fiu.edu/documents/sacs/PECO-HISTORY-THRU-2008-09-CHART.pdf
16	Campus Map	n/a	http://www.fiu.edu/docs/campus_maps-up.htm
17	FMD Building Managers	 .PDF	http://facilities.fiu.edu/documents/operations/BLDG- -Managers-Contacts-Revision-1.pdf
18	Facilities Condition Assessment	 .PDF	http://facilities.fiu.edu/documents/sacs/Physical- Facilities-Eval.pdf
19	PECO Infrastructure Project List	 .PDF	http://facilities.fiu.edu/documents/sacs/PECO- Infrastructure-projects-11.24.08-WIP.pdf
20	Example Work Order	 .PDF	http://facilities.fiu.edu/documents/sacs/wo_example .pdf
21	Completed Work Orders for 2007	 .PDF	http://facilities.fiu.edu/documents/sacs/FMD-WO- Productivity-2007.pdf
22	Facilities Management Survey	 .PDF	http://facilities.fiu.edu/documents/sacs/adminsurvey form.pdf
23	Work Order Micro-survey	 .PDF	http://facilities.fiu.edu/documents/sacs/wosurvey- example.htm
24	Generator Preventative Maintenance Schedule	 .PDF	http://facilities.fiu.edu/documents/sacs/Emergency Generator_PM_Schedule.pdf
25	Committee Charter	 .PDF	http://facilities.fiu.edu/documents/sacs/classroom- design-committee-charter.pdf
26	Class Room Design Standards	 .PDF	http://facilities.fiu.edu/documents/sacs/Classroom- standards-2008.pdf