

# HARBOR BRANCH LINK BUILDING RENOVATION HARBOR BRANCH CAMPUS

**BT-645** 

PRINTED FOR SIGNATURES NOVEMBER 14, 2008



# HARBOR BRANCH LINK BUILDING RENOVATION HARBOR BRANCH CAMPUS

**BT-645** 

PREPARED IN ACCORDANCE WITH AVP POLICY AND PROCEDURE #2 PROGRAM DEVELOPMENT

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# Florida Atlantic University FACILITIES PROGRAM

PR	FP	AR	FD	BY:

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#### **REVIEWED AND APPROVED:**

FACILITIES PLANNING:

This is to certify that this document has been reviewed for project schedule, budget and code requirements.

Robert Richman, Director, Facilities Planning

INFORMATION RESOURCE MANAGEMENT:

This is to certify that this document meets the requirements of Information Resource Management.

Jeffery Schilit, Associate Provost

PROGRAM COMMITTEE:

This is to certify that this document contains the recommendations of the Program Committee.

Shirley Pomponi, Executive Director, HBOI, Chairperson

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DIVISION OF FINANCIAL AFFAIRS:
This is to certify that this document meets the requirements of the Division of Financial Affairs.
Kenneth Jessell, Vice President for Financial Affairs
DIVISION OF ACADEMIC AFFAIRS:
This is to certify that this document meets the requirements of the Office of Academic Affairs.
Allen Frijhall
John Pritchett, University Provost & Chief Academic Officer
DIVISION OF FACILITIES:
This is to certify that this document meets the intent of the University Architect's AVP Policy and
Procedure #2 (Development of Facility Program) and is consistent with the latest approved Campus Master Plan. NA
Thomas Donaudy, University Architect &
Vice President for Facilities
FLORIDA ATLANTIC UNIVERSITY:
This is to certify that this document has been reviewed by the administrative leadership at Florida Atlantic University and that the material contained herein is forwarded with the President's approval and recommendation.

#### A. PROJECT HISTORY AND GENERAL DESCRIPTION

The mission of Harbor Branch Oceanographic Institute (HBOI) at FAU is to understand and conserve our oceans through exploration, research, and education for the benefit of humankind. Its faculty and staff include scientists, engineers, mariners, and support personnel who conduct research and deliver educational programs in deep-sea exploration and research; development of undersea systems, tools, and sensors; research on human impacts on coastal ecosystems; discovery of marine-derived therapeutics; and development of aquaculture systems and processes.

Harbor Branch Research and Education programs include:

<u>Ocean Exploration and Deep Sea Research:</u> fundamental research on deep-sea organisms in benthic and mid-water habitats, including studies of deep-sea biodiversity, community structure, and adaptations to life in the deep-sea.

<u>Coastal Ecosystem Research</u>: Research on marine plants, animals, microbes, their estuarine and coastal environments, and the relationships among these systems and human activities. Particular emphasis is on the Indian River Lagoon, the Florida Reef Tract, and Florida's continental shelf. This includes marine mammal research and conservation: biomedical research; population studies; stranding, rehabilitation, and release of marine mammals.

<u>Aquaculture and Stock Enhancement</u>: Research on development of economically feasible and environmentally sustainable methods to farm tropical and subtropical aquatic organisms for food, sport, stock enhancement, pharmaceuticals, bio-fuels, and other applications..

<u>Marine Biomedical and Biotechnology Research</u>: Discovery of natural products from marine organisms that can be developed into pharmaceuticals, biomedical research tools, industrial enzymes and bio-fuels.

<u>Ocean Engineering and Technology</u>: Research, design, prototyping, and fabrication of tools, instruments and vehicles for in-water use, engineering project management services.

<u>Marine Education</u>: HBOI/FAU scientists and engineers develop and deliver a variety of both formal and informal programs which include graduate and undergraduate courses, postdoctoral training, student internships, field trips for K-12 students, camps, after school programs, public lectures, workshops, and other forms of educational outreach.

<u>Marine Operations</u>: - Operation and maintenance of one ocean-going ship and research submersibles which enable exploration to depths as great as 3,000 feet, as well as a fleet of small boats for estuarine and coastal use.

#### B. DESIGN OBJECTIVES

The objective for this project is to effectively renovate the existing Link Building for life safety and ADA code compliance, energy efficiency and envelope integrity. The goal for the second floor is to demolish the existing laboratory space and rebuild the space to accommodate a library, office support space, and light laboratory space. The goal on the first floor is to refurbish existing office space, the building lobby, and the cafeteria. All circulation spaces and restrooms shall be renovated as well. Renovation will include the creation of a library which will supplant the function of the existing library building currently located in a house south of the channel.

#### 1 SUSTAINABLE DESIGN, GREEN ARCHITECTURE AND RECYCLING

The University promotes environmental quality and resource conservation through sustainable design, green architecture and recycling in its planning and development. This project will be designed and built to at least the U. S. Green Building Council's LEED Silver standard or equivalent for existing buildings.

#### 2. CONNECTIVITY

The design shall provide for the connectivity to essential voice data and life-safety reporting systems and shall include wireless connectivity throughout the building and the surrounding site, as directed by IRM.

#### 3. PROJECT BUDGET

The University expects the architect to develop design and contract documents which will be consistent with the established project budget. This obligation is mandatory. The architect shall work with the University's construction management consultant to prepare a cost breakdown at each stage of the project design. If these estimates exceed the budget at any stage, the architect will work with the university to modify the construction documents to conform to the budget at no additional costs to the University. However, the design may not vary from the program or may the program be modified without University approval.

#### C. CONSTRUCTION DELIVERY METHOD

The University anticipates the utilization of a construction manager for this project. The construction sequencing is critical to minimize disruption of campus services and the relocation of parking areas. Prior to the start of construction the CM shall provide a mobilization plan to the University, for its approval in regard to these issues.

The size of the project is sufficiently large and/or complex to require major emphasis on the qualification of the contractor in order to provide specific expertise in highly specialized cost estimating, value engineering, and scheduling during the design process, with continuity of construction management through both design and construction phases.

#### A. STATE UNIVERSITY SYSTEM OF FLORIDA MASTER PLAN

The proposed program for this project is consistent with the goals and objectives of the FAU Campus Master Plans. A Campus Master plan for the Harbor Branch Campus is currently being drafted and will reflect much of the same goals and objectives.

#### B. ACADEMIC PROGRAM REVIEWS

Not Applicable

# C. RECOMMENDATIONS OF THE REVIEW CONSULTANTS Not Applicable

# C. JUSTIFICATIONS Not Applicable

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#### A. FACILITY DEFICIENCIES

Many of the existing labs at harbor branch were destroyed by hurricanes Frances and Jeanne in 2004. Several research buildings are slated to be demolished in 2008. The second floor area of the Link building current comprises wet labs that were effected by the hurricanes. The HVAC system for these lab areas is extremely inefficient. These labs, within the existing Link building, will be moved into space at the Joint Use Facility, when Torrey Pines Program moves (end of 2008 /beginning of 2009). This will free up most of the second floor area for renovation.

#### B. ALTERNATIVE SOLUTIONS

Not Applicable

#### C. QUANTITATIVE ANALYSIS OF PROGRAM SPACES

The <u>State Requirements for Educational Facilities Chapter 6</u>, <u>Section 6.1</u>, <u>Size of Spaces and Occupant Criteria Table</u> was utilized as a guide in the development of this program. The resulting detailed Space Program is included in Section IX

#### D. PROJECT AND SURVEY RECOMMENDATIONS

Not Applicable

## VII. CONSISTENCY W/ MASTER PLAN BT-645 LINK BUILDING RENOVATION

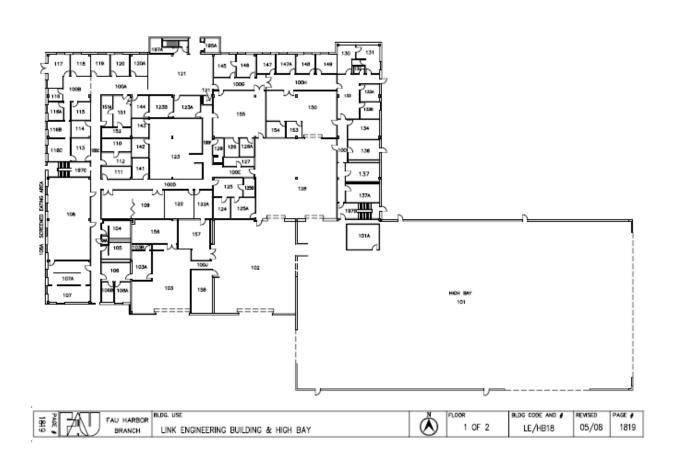
#### A. THE ADOPTED CAMPUS MASTER PLAN

The proposed program for this project is consistent with the goals and objectives of the FAU Campus Master Plans. A Campus Master plan for the Harbor Branch Campus is currently being drafted and will reflect much of the same goals and objectives.

## VIII. SITE ANALYSIS

#### A. BUILDING CONDITIONS AND FLOOR PLANS

Existing First Floor Plans and Room Assignment



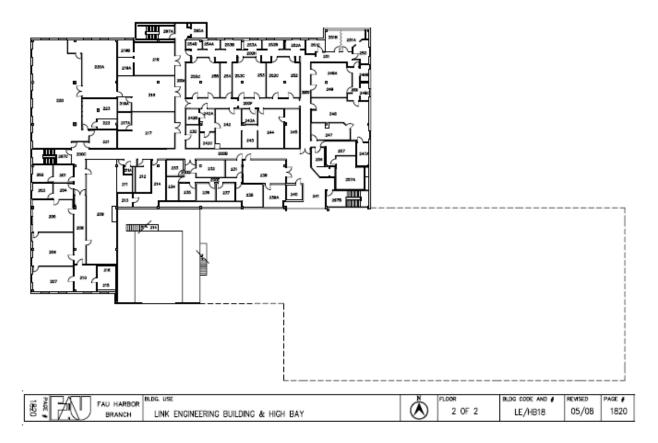
			Room	
Room		Square	Capacity	
Number	First Floor - Room Use	Footage	Actual	Room Occupant
LE0100A	Interior Circulation Space	383	N/A	Non-Assignable Space
LE0100B	Interior Circulation Space	243	N/A	Non-Assignable Space
LE0100C	Interior Circulation Space	741	N/A	Non-Assignable Space
LE0100D	Interior Circulation Space	408	N/A	Non-Assignable Space
LE0100E	Interior Circulation Space	147	N/A	Non-Assignable Space
LE0100F	Interior Circulation Space	271	N/A	Non-Assignable Space
LE0100G	Interior Circulation Space	186	N/A	Non-Assignable Space
LE0100H	Interior Circulation Space	403	N/A	Non-Assignable Space
LE0100I	Interior Circulation Space	234	N/A	Non-Assignable Space
LE0100J	Interior Circulation Space	65	N/A	Non-Assignable Space
LE0101	Shop	20,300	N/A	Occupant Not Identified
LE0101A	Shop Service	320	N/A	Occupant Not Identified
LE0102	Shop	2,700	N/A	Occupant Not Identified
LE0103	Central Service	1,175	N/A	Occupant Not Identified

LE0103A	Central Service	212	N/A	Occupant Not Identified
LE0103B	Central Service Support	42	N/A	Occupant Not Identified
LE0104	Restroom	180	N/A	Non-Assignable Space
LE0104A	Janitor	20	N/A	Non-Assignable Space
LE0105	Restroom	180	N/A	Non-Assignable Space
LE0106	Office	200	N/A	Occupant Not Identified
LE0106A	Office	123	N/A	Occupant Not Identified
LE0106B	Office	92	N/A	Occupant Not Identified
LE0107	Food Facility Service	263	N/A	Occupant Not Identified
LE0107A	Food Facility Service	378	N/A	Occupant Not Identified
LE0108	Food Facility	1,300	N/A	Occupant Not Identified
LE0109	Conference Room	656	N/A	Occupant Not Identified
LE0110	Office Service	143	N/A	Occupant Not Identified
LE0111	Office	133	N/A	Occupant Not Identified
LE0112	Office Service	143	N/A	Occupant Not Identified
LE0113	Office Service	160	N/A	Occupant Not Identified
LE0114	Office	116	N/A	Occupant Not Identified
LE0115	Office	127	N/A	Occupant Not Identified
LE0116	Office Service	70	N/A	Occupant Not Identified
LE0116A	Office	105	N/A	Occupant Not Identified
LE0116B	Office	142	N/A	Occupant Not Identified
LE0116C	Office	193	N/A	Occupant Not Identified
LE0117	Conference Room	242	N/A	Occupant Not Identified
LE0118	Office	153	N/A	Occupant Not Identified
LE0119	Office	150	N/A	Occupant Not Identified
LE0120	Office	150	N/A	Occupant Not Identified
LE0120A	Office	135	N/A	Occupant Not Identified
LE0121	Interior Circulation Space	961	N/A	Non-Assignable Space
LE0121A	Restroom	30	N/A	Non-Assignable Space
LE0122	Office	300	N/A	Occupant Not Identified
LE0122A	Office	195	N/A	Occupant Not Identified
LE0123	Office	1,158	N/A	Occupant Not Identified
LE0123A	Office	214	N/A	Occupant Not Identified
LE0123B	Office	191	N/A	Occupant Not Identified
LE0124	Office	128	N/A	Occupant Not Identified
LE0125	Office	200	N/A	Occupant Not Identified
LE0125A	Office	187	N/A	Occupant Not Identified
LE0125B	Office Service	80	N/A	Occupant Not Identified
LE0126	Research Lab Service	98	N/A	Occupant Not Identified
LE0126A	Research Lab Service	98	N/A	Occupant Not Identified
LE0127	Office Service	101	N/A	Occupant Not Identified
LE0128	Shop	2,400	N/A	Occupant Not Identified
LE0129	Office Service	100	N/A	Occupant Not Identified
LE0130	Office	172	N/A	Occupant Not Identified
LE0131	Office	202	N/A	Occupant Not Identified
LE0132	Restroom	31	N/A	Non-Assignable Space
LE0133	Interior Circulation Space	425	N/A	Non-Assignable Space
LE0133A	Office	126	N/A	Occupant Not Identified
LE0133B	Office	123	N/A	Occupant Not Identified
LE0134	Research Lab Service	232	N/A	Occupant Not Identified
LE0136	Mechanical Area	232	N/A	Non-Assignable Space
LE0137	Restroom	231	N/A	Non-Assignable Space
LE0137A	Restroom	231	N/A	Non-Assignable Space
LE0141	Office	130	N/A	Occupant Not Identified
LE0142	Office	119	N/A	Occupant Not Identified
LE0143	Office	119	N/A	Occupant Not Identified
LE0144	Office	137	N/A	Occupant Not Identified
LE0145	Office	184	N/A	Occupant Not Identified
LE0146	Office	158	N/A	Occupant Not Identified

LE0147	Office	136	N/A	Occupant Not Identified
LE0147A	Office	136	N/A	Occupant Not Identified
LE0148	Office	136	N/A	Occupant Not Identified
LE0149	Office	147	N/A	Occupant Not Identified
LE0150	Research Lab	990	3	Occupant Not Identified
LE0151	Office	199	N/A	Occupant Not Identified
LE0151A	Office	138	N/A	Occupant Not Identified
LE0152	Office Service	107	N/A	Occupant Not Identified
LE0153	Research Lab Service	92	N/A	Occupant Not Identified
LE0154	Office	112	N/A	Occupant Not Identified
LE0155	Research Lab	902	3	Occupant Not Identified
LE0156	Central Service Support	400	N/A	Occupant Not Identified
LE0157	Office	410	N/A	Occupant Not Identified
LE0158	Shop Service	165	N/A	Occupant Not Identified
LE0195A	Elevator	77	N/A	Non-Assignable Space
LE0197A	Interior Circulation Space	178	N/A	Non-Assignable Space
LE0197B	Interior Circulation Space	240	N/A	Non-Assignable Space
LE0197C	Interior Circulation Space	229	N/A	Non-Assignable Space

Total First Floor Area 47,471

# Existing Second Floor Plan and Room Assignment



Room Number	Second Floor - Room Use	Square Footage	Room Capacity Actual	Room Occupant
LE0200A	Interior Circulation Space	450	N/A	Non-Assignable Space
LE0200B	Interior Circulation Space	800	N/A	Non-Assignable Space
LE0200C	Interior Circulation Space	180	N/A	Non-Assignable Space
LE0200D	Interior Circulation Space	110	N/A	Non-Assignable Space
LE0200E	Interior Circulation Space	111	N/A	Non-Assignable Space
LE0200F	Interior Circulation Space	426	N/A	Non-Assignable Space
LE0200G	Interior Circulation Space	334	N/A	Non-Assignable Space
LE0200H	Interior Circulation Space	260	N/A	Non-Assignable Space
LE0200I	Interior Circulation Space	92	N/A	Non-Assignable Space
LE0201	Office	125	N/A	Occupant Not Identified
LE0202	Office	130	N/A	Occupant Not Identified
LE0203	Office	117	N/A	Occupant Not Identified
LE0204	Office	113	N/A	Occupant Not Identified
LE0205	Research Lab	465	1	Occupant Not Identified
LE0206	Research Lab	486	1	Occupant Not Identified
LE0207	Research Lab	360	1	Occupant Not Identified
LE0208	Interior Circulation Space	282	N/A	Non-Assignable Space
LE0209	Research Lab	1,104	5	Occupant Not Identified
LE0210	Research Lab	216	1	Occupant Not Identified
LE0211	Restroom	133	N/A	Non-Assignable Space
LE0211A	Janitor	21	N/A	Non-Assignable Space
LE0212	Restroom	174	N/A	Non-Assignable Space

LE0213	Hazardous Materials	73	N/A	Occupant Not Identified
LE0214	Hazardous Materials	299	N/A	Occupant Not Identified
LE0215	Research Lab Service	153	N/A	Occupant Not Identified
LE0217	Research Lab	642	2	Occupant Not Identified
LE0217A	Office	89	N/A	Occupant Not Identified
LE0218	Research Lab	650	2	Occupant Not Identified
LE0218A	Office	70	N/A	Occupant Not Identified
LE0219	Research Lab	480	1	Occupant Not Identified
LE0219A	Research Lab Service	99	N/A	Occupant Not Identified
LE0219B	Research Lab Service	96	N/A	Occupant Not Identified
LE0220	Office	1,910	N/A	Occupant Not Identified
LE0220A	Research Lab Service	716	N/A	Occupant Not Identified
LE0221	Office	179	N/A	Occupant Not Identified
LE0222	Conference Room Service	70	N/A	Occupant Not Identified
LE0223	Conference Room	303	N/A	Occupant Not Identified
LE0230	Telephone Equipment Area	109	N/A	Non-Assignable Space
LE0231	Office	100	N/A	Occupant Not Identified
LE0232	Office Service	174	N/A	Occupant Not Identified
LE0233	Office	95	N/A	Occupant Not Identified
LE0234	Office Service	111	N/A	Occupant Not Identified
LE0235	Office	100	N/A	Occupant Not Identified
LE0236	Office	116	N/A	Occupant Not Identified
LE0237	Office Service	113	N/A	Occupant Not Identified
LE0238	Office Service	210	N/A	Occupant Not Identified
LE0239	Research Lab Service	356	N/A	Occupant Not Identified
LE0239A	Research Lab Service	174	N/A	Occupant Not Identified
LE0240	Research Lab Service	65	N/A	Occupant Not Identified
LE0241	Research Lab Service	545	N/A	Occupant Not Identified
LE0242	Research Lab	355	1	Occupant Not Identified
LE0242A	Research Lab	120	1	Occupant Not Identified
LE0242B	Research Lab Service Research Lab Service	73	N/A	Occupant Not Identified
LE0242C LE0243	Research Lab Service	85 125	N/A 1	Occupant Not Identified
LE0243 LE0243A	Office	82	N/A	Occupant Not Identified Occupant Not Identified
LE0243A LE0244	Research Lab	364	1	Occupant Not Identified
LE0244 LE0245	Research Lab Service	205	N/A	Occupant Not Identified
LE0243	Research Lab	224	1	Occupant Not Identified
LE0247A	Research Lab	97	1	Occupant Not Identified
LE0248	Research Lab	606	2	Occupant Not Identified
LE0249	Research Lab	243	1	Occupant Not Identified
LE0249A	Research Lab	243	1	Occupant Not Identified
LE0249B	Office	55	N/A	Occupant Not Identified
LE0249C	Office	55	N/A	Occupant Not Identified
LE0250	Office	114	N/A	Occupant Not Identified
LE0251	Interior Circulation Space	232	N/A	Non-Assignable Space
LE0251A	Conference Room	144	N/A	Occupant Not Identified
LE0251B	Office Service	116	N/A	Occupant Not Identified
LE0251C	Office	86	N/A	Occupant Not Identified
LE0252	Research Lab	235	1	Occupant Not Identified
LE0252A	Office	62	N/A	Occupant Not Identified
LE0252B	Office	66	N/A	Occupant Not Identified
LE0252C	Research Lab	235	1	Occupant Not Identified
LE0253	Research Lab	235	1	Occupant Not Identified
LE0253A	Office	57	N/A	Occupant Not Identified
LE0253B	Office	65	N/A	Occupant Not Identified
LE0253C	Research Lab	235	1	Occupant Not Identified
LE0254	Research Lab Service	144	N/A	Occupant Not Identified
LE0254A	Office	55	N/A	Occupant Not Identified
LE0254B	Office	51	N/A	Occupant Not Identified

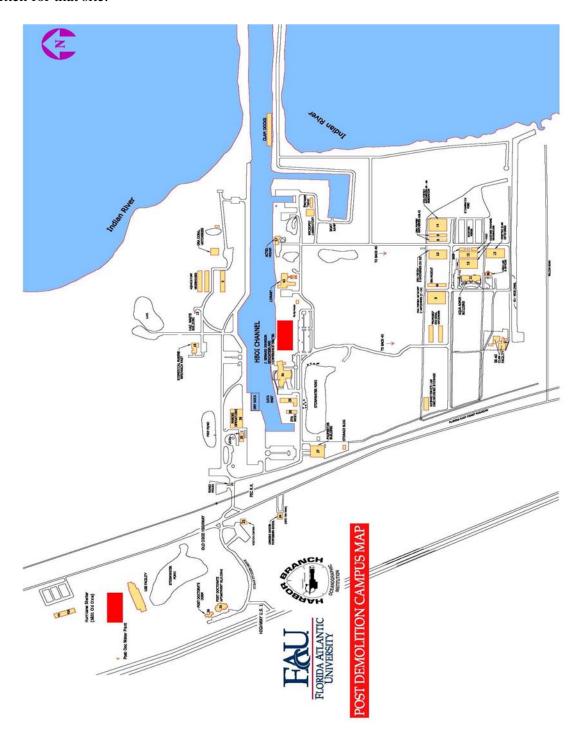
LE0255	Research Lab	235	1	Occupant Not Identified
LE0255C	Research Lab	235	1	Occupant Not Identified
LE0256	Office Service	159	N/A	Occupant Not Identified
LE0257	Research Lab	185	1	Occupant Not Identified
LE0257A	Research Lab	296	1	Occupant Not Identified
LE0295A	Elevator	77	N/A	Non-Assignable Space
LE0297A	Interior Circulation Space	175	N/A	Non-Assignable Space
LE0297B	Interior Circulation Space	240	N/A	Non-Assignable Space
LE0297C	Interior Circulation Space	205	N/A	Non-Assignable Space

Total Second Floor Area 21,457

Total Useable Area Both Floors 68,928

#### B. CAMPUS MAP & SITE MAPS

The following map of the Harbor Branch Campus shows the two areas that had been considered for the site for this project as indicated by the red boxes. The program committee has determined that the site along the south edge of the channel is preferred and this program is written for that site.



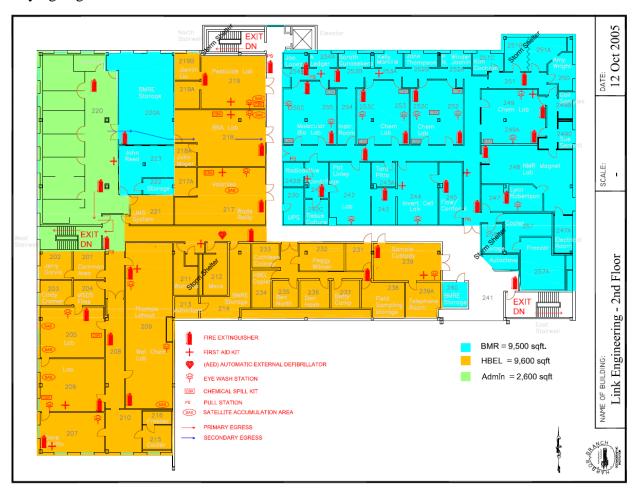
Aerial photo of the Harbor Branch Campus.



#### A. PROGRAM AREA TABLE

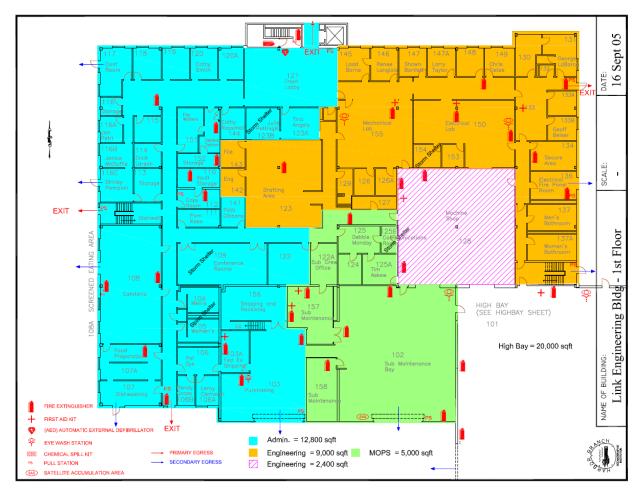
The roof and the exterior walls of the building shall be thoroughly examined and a report shall be issued with recommendations for weather integrity and code compliance.

The following Floor Plans depict the general areas of the Link building that will require varying degrees of renovation.



#### Second Floor Plan

The 9,600 sf of HBEL program (shown in orange) will be vacated in the next few months. The 9,500 sf of BMR program will be moved to the FAU/HBOI Jt Use Laboratory when the Torrey Pines Program moves out by early 2009. Both of these areas will require substantial renovation. It is anticipated that these areas are completely stripped down and all lab equipment and hoods removed. Any existing asbestos must be mitigated, and the entire area remodeled for a 9.500 sf library and 9,600 sf of offices and light dry lab support space. The program for this space will be developed as the design team interacts with the appropriate program directors. The existing air handling systems shall be examined for efficiency and appropriateness given the change in use of space.



#### First Floor Plan

The 12,800 sf of administration offices and the 9,000 sf of engineering office space will be lightly updated, including paint, new ceilings and floor materials.

The program does not include any specific upgrades to the High Bay, MOPS and Engineering shops.

#### B. OTHER PROGRAM ISSUES

The following important issues are to be considered by the design team. Many requirements are repeated in more detail in the FAU Cost Containment Guidelines and Professional Services Guidelines which are available for viewing at <a href="http://wise.fau.edu/facilities/uavp/">http://wise.fau.edu/facilities/uavp/</a>. The design team is encourage to become familiar with these documents.

- 1) All work shall assure positive drainage away from the building.
- 2) Telephone and data services shall be provided in accordance with the standards specified in Section XI of this program.
- 3) Provide meters, according to FAU standards and guidelines, for all utilities serving the building.
- 4) The building and paved site areas shall be completely accessible in strict accordance with the Americans with Disabilities Act and all other pertinent codes. This will be the sole responsibility of the design team.
- 5) Provide an emergency generator (with lockable screened fence or wall) for a minimum of all life safety functions. Additional capacity to be provided as directed by the University.
- 6) Provide lightning protection per University standards.
- 7) Energy efficient systems and lighting shall be used to the greatest extent possible, in accordance with University standards.
- 8) Provide for screened trash storage area for recycling, etc.
- 9) Provide for the covered outdoor storage and charging of up to 3 golf carts.
- 10) Provide card readers at major entrances. Provide conduit and J-boxes, as required to all exterior doors for monitoring door status and automatic locking from a central police location.
- 11) Provide conduit for voice and data connectivity to the existing campus backbone.
- 12) Provide for connectivity to the existing campus energy management system and life safety systems.
- 13) The building shall have 100% sprinkler protection.
- 14) Provide surge protection for the entire building.
- 15) Provide wireless capability for the entire building and all outdoor activity areas.
- 16) All of the above considerations are to be provided for and included in the selected AE's design fee proposal.

#### C. SAMPLE SPACE DESCRIPTION FORMS

The following are samples only. The selected AE will complete space description forms for each unique space type upon completion of the conceptual design. The AE will complete more detailed requirement sheets on laboratory and lab support spaces.

#### SAMPLE:

SPACE:	OFFICE SPACE					
DEPARTMENT:						
AREA:	Office					
SPACE NAME:	Apply to all office and office support space					
DESCRIPTION / USE:	Office					
SUS SPACE CATEGORY:	Office ROOM USE CODE: 310					
PERSONNEL ASSIGNED / MAX.:	Varies					
DIMENSION / AREA:	Varies					
Number Required:	See program					
RELATIONSHIPS						
PRIMARY:	Other offices.					
SECONDARY:						
ARCHITECTURAL CRITERIA						
FLOORS:	Mildew resistant carpet w/ vinyl base.					
WALLS:	Highly washable textured paint over gypsum board.					
CEILINGS:	Suspended acoustic tile.					
Doors:	Solid core wood w/ HM frame.					
WINDOWS:	Desired for daylighting & view.					
LIGHTING:	Generally, recessed fluorescent lights with parabolic lens. Recessed down-lights may be used in special situations.					
ACOUSTICAL:	Acoustical treatment of walls & ceilings, extend partitions of Director Offices and					
	conference rooms to the deck above w/ sound attenuating blanket.					
MECHANICAL CRITERIA						
HVAC:	Appropriate zoning per FAU Guidelines					
PLUMBING:	NA					
COMMUNICATIONS:	2 category 5 network ports. Telephone. Provide fiber optic cable as required. Wireless Capabilities.					
ELECTRICAL:	As required. Provide power at each telephone and computer outlet. Provide conditioned power and UPS backup.					
FURNITURE/EQUIPMENT						
FURNITURE (OWNER):	Executive Desk, Credenza, Executive Chair, Bookshelves, 2 side Chairs					
EQUIPMENT (OWNER):	Computer, Telephone					
FURNITURE (CONTRACTOR):	NA					
EQUIPMENT (CONTRACTOR):	All equipment Owner purchased and Contractor installed.					
SUPPLEMENTAL INFORMAT	TION/REQUIREMENTS					
1. Provide blinds or window shad	es, as required.					

#### A. UTILITIES IMPACT ANALYSIS

It is the responsibility of the design professionals to research all existing conditions and to make recommendations based on the requirements of the project, future considerations, existing capacities, sizes and the location of all utilities.

#### 1. CHILLED WATER: (SUS CM-N-04.00-09/97 A)

The AE shall determine the required capacity of chilled water and make recommendations for the provision of adequate chilled water for the appropriate and comfortable operation of the building.

#### 2. HOT WATER: (SUS CM-N-04.00-09/97 B)

The AE shall determine the required capacity of hot water and make recommendations for the provision of adequate hot water for the appropriate and comfortable operation of the building.

#### 3. ELECTRICAL: (SUS CM-N-04.00-09/97 C)

The AE shall determine the total electrical load required and the appropriate feeders to tie into.

#### 4. POTABLE WATER: (SUS CM-N-04.00-09/97 D)

Potable water shall be obtained by connecting to the existing campus water loop.

#### 5. SANITARY: (SUS CM-N-04.00-09/97 D)

Through a review of the code, determine the number of fixtures required. Determine the nearest sanitary lines for connection and verify their capacity.

#### **6. IRRIGATION:** (SUS CM-N-04.00-09/97 E)

Tie into the existing system to irrigate all landscaped areas. Provide new timers for the effected area within 50 feet of the building.

#### 7. STORM WATER MANAGEMENT:

Tie into existing storm water lines and basins or create other storm water retention as required. The Consultant will obtain all storm water permits.

#### 8. NATURAL GAS:

The consultant shall determine the need, if any for natural gas and study the routing, connection, costs and methods for providing such gas.

#### 9. TELECOMMUNICATIONS:

Tie into the nearest telecom manhole. Confirm plans with the FAU IRM Department. Internal wiring for telecommunication is to be complete by Telecommunication Sub contractor through FAU. All required internal able trays, conduits and duct banks to be designed by the AE and provided by the construction manager.

#### 10. FIRE ALARM SYSTEM:

A complete fire alarm system including ADA requirements, compatible with existing campus systems will be installed. Provisions will include an automatic dialer directly to the Campus Police.

#### 11. ENERGY MANAGEMENT CONTROL SYSTEM:

A complete EMS will be installed, with connections to the existing front end system, located in the Central Utility Plant.

#### 12. SITE LIGHTING:

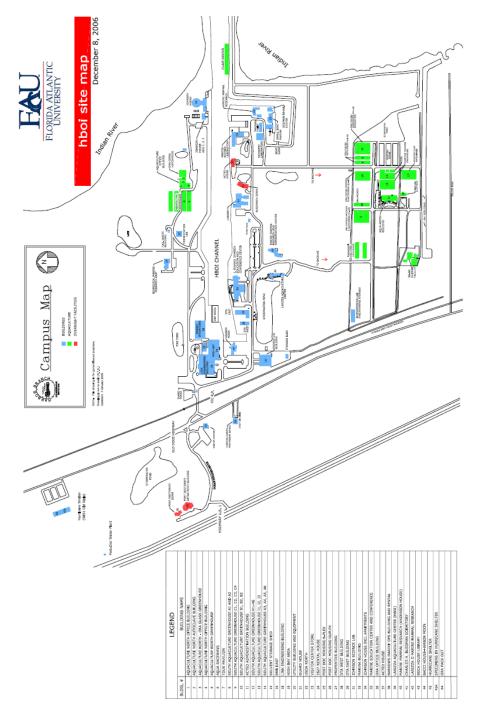
Walkway and site lighting fixtures complying with the campus standards and FAU guidelines for foot-candle levels will be installed.

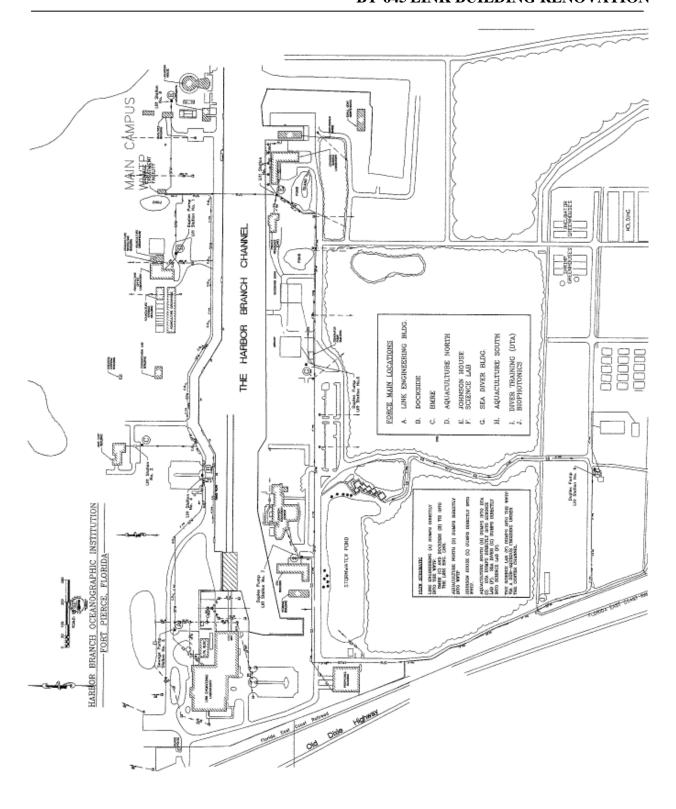
#### 13. SURFACE IMPROVEMENTS:

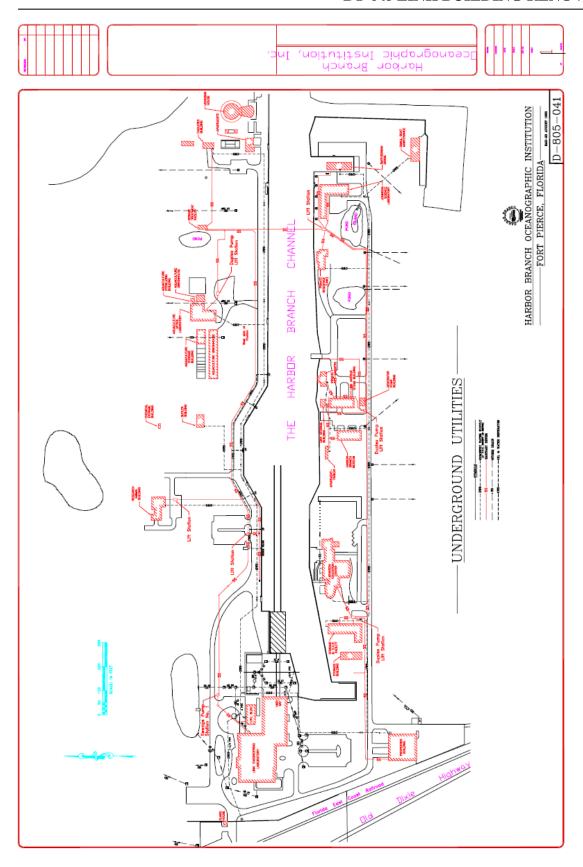
Walkways and landscape will be reconfigured, as required, to provide access through the site, and promote quality outdoor space.

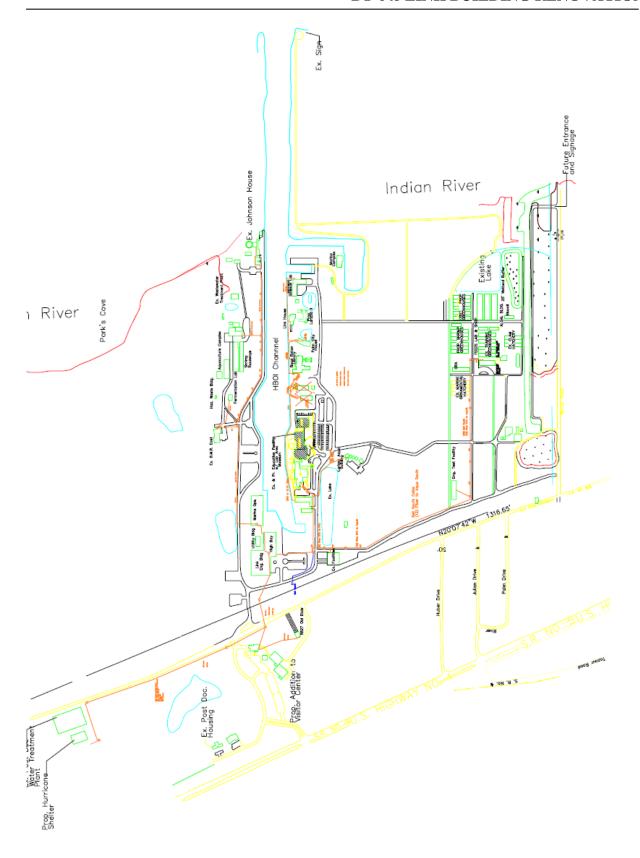
#### B. INFRASTRUCTURE MAPS

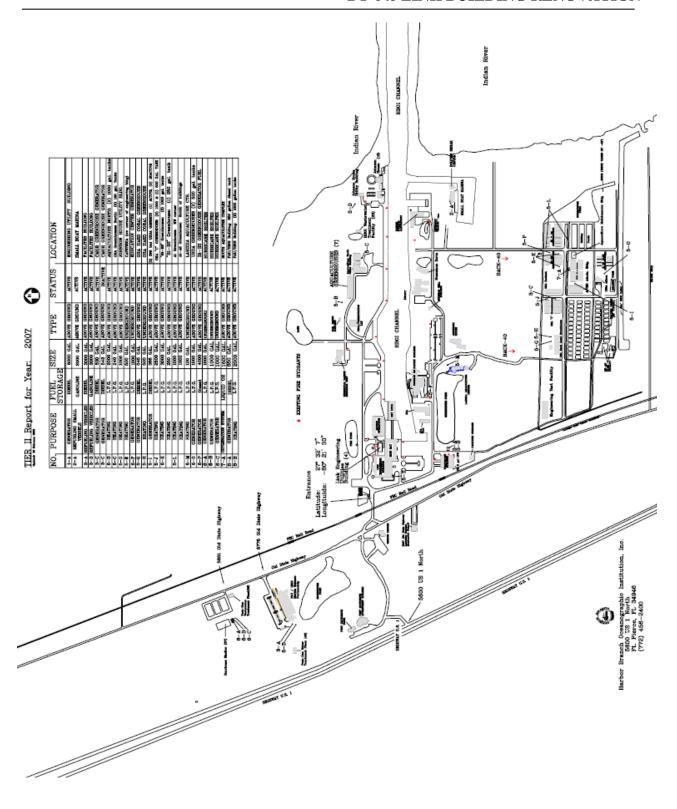
The information shown on the following drawings is provided for general information purposes only and is not to be used by the consultants or contractors in the actual design or construction of the proposed facility. All utilities and information shown are to be field verified by the AE and CM team prior to design and construction. The drawings are not to scale.

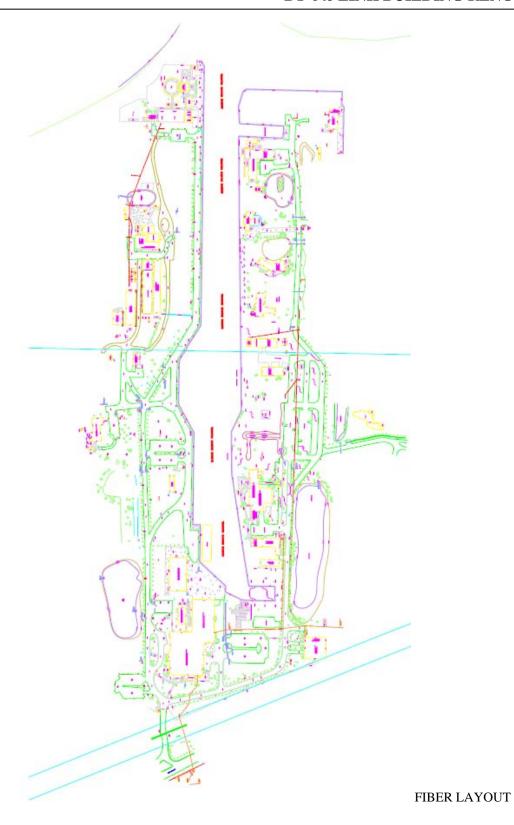


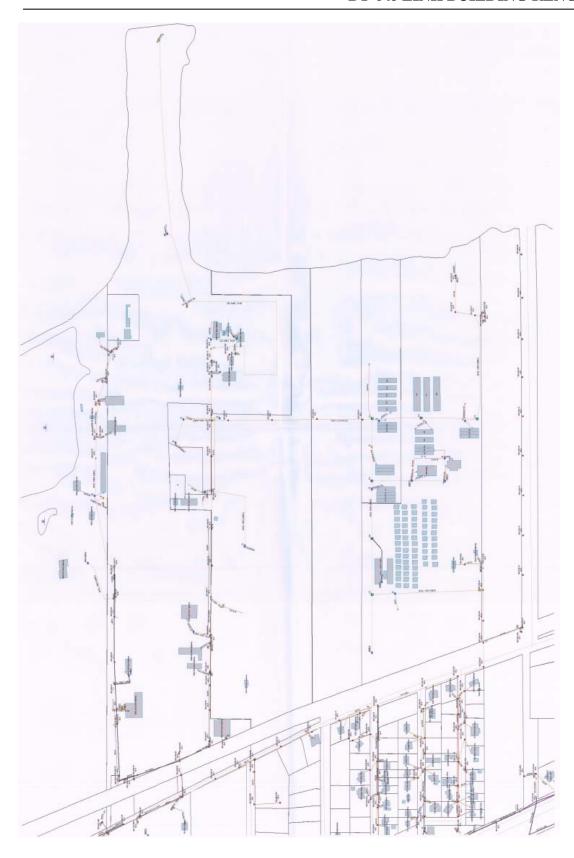


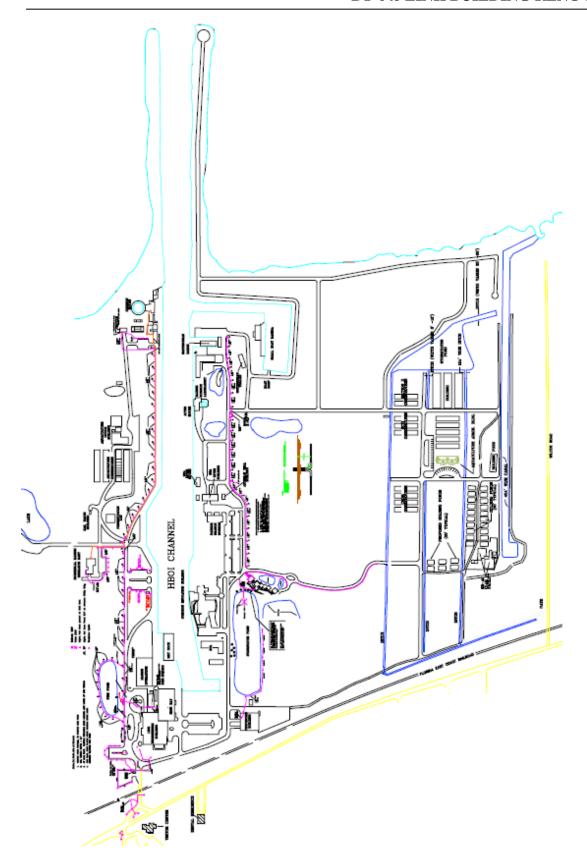


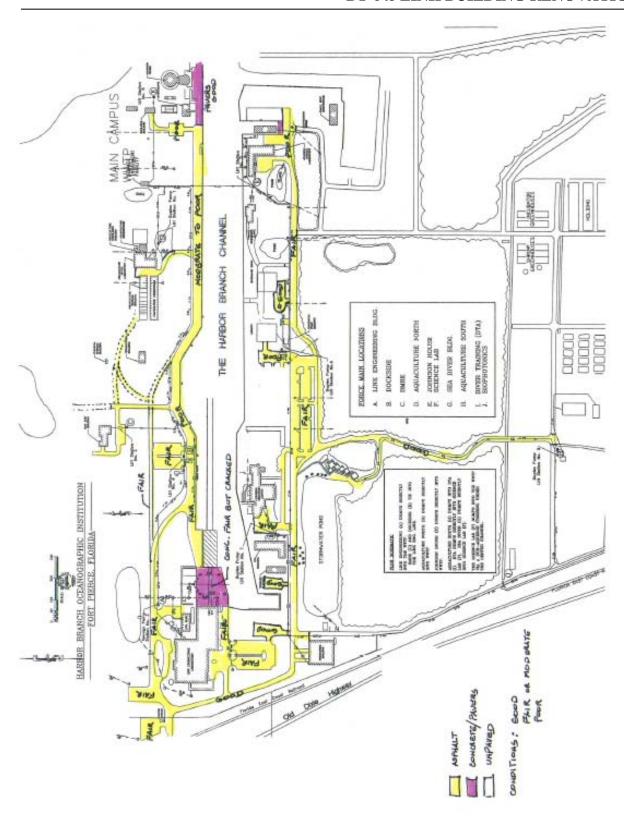












# XI. INFORMATION / COMMUNICATIONS RESOURCES REQUIREMENTS BT-645 LINK BUILDING RENOVATION

#### A. UNIVERSITY INFORMATION / COMMUNICATION STANDARD

All voice and data systems shall comply with Florida Atlantic University's most current specifications for Information Resources Management Communication Infrastructure Specification effective on the date of the Architect/Engineer contract execution. The complete specification is located on the web at:

http://wise.fau.edu/irm/ts/cblspecs.htm.

The requirements of the University information/communications standards will be strictly enforced for the design and construction of the proposed facility.

#### B. UNIVERSITY INFORMATION RESOURCE MANAGER CERTIFICATION

By signature (on the signature page of this facilities program) the University Information Resource Manager certifies that a review of the University information/communication standards has been completed; and that the facilities program is developed in conformance with the Florida Atlantic University Information/Communication Standards in accordance with the Section 282, F.S.

#### C. ESTIMATE OF COMMUNICATIONS AND IRM COSTS

A detailed estimate is provided on the following page.

The following is a consolidated estimate of IRM costs for this project. These costs are included in the project budgets in Section XV of this program

	mitted: O	,	-				_			
TDM Da	quired (	- 								
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			ELEMEN'				_	AMOUNT	NOTES/QUANTITIES	
Jade	T	1 0.4-:1-	DI	:/				1E0 112 E0		
		d Outside Wireless A					\$	150,112.50 14,400.00	8	
		Wireless A					\$	14,400.00	•	
	CATEITIG	WII EIESS A	CCE33 1 01	IIS WITH I	ns run un or	Subtotal	\$	164,512.50		
Siemens						Subtotu	-	104,512.50		
Jieniens	Voice Swi	itching Red	uirements				\$	185,000.00	1 shelf	
	voice ow	Tenning Rec	ran ememo				+	100,000.00	2 Sherr	
Cisco							_			
	Data Swit	tches, Rou	ters. Devi	ces			\$	134,200.00	2	
			,				+	.,	_	
Voice/Da	ta/Securit	y/ Misc Ve	ndors							
	Phone Se						\$	6,750.00	120	
	UPS						\$	4,800.00	2	
	Emergenc	y Phone					Ť			
		Inside								
		Outside (	Solar Pane	l wi Pede	stal)					
	Automatic	Lock Dov	/n				\$	25,000.00		
	BellSouth	/PaeTec					\$	60,000.00	1 PRI + ATT infrastructure upgra	ade
		1FBs							In place	
		Special C	rcuits						NA NA	
		Alarms							In place	
		OPX							NA NA	
						Subtotal	\$	415,750.00		
				Total	IRM Infr	astructure	\$	580,262.50		
	IRM Face	plate Allo	wance				\$	19,950.00	133 @ \$150.00/Faceplate	
						TD11 4 1	-	(00.010.50		
					ιοται	IRM Costs	\$	600,212.50		
C., J. 1.1			4 - T		D		_			
ena Us	er Requir						_			
	vendors (	various -				) coate)	+		Not in presum	
					om (25-40 (50+ seats		+		Not in program  Not in program	
		Conf Roor			CO+ Seuts	'y	\$	42,000.00	1 of the 4 equipped for video	
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					tance Lear	ning	+		Not in program	
					tance Lea		+		Not in program	
					_				Not in program	
				Total En	d User Re	quirements	\$	42,000.00		
							Ť	·		
IRM TO	TAL PRO	JECT BU	DGET							
				IRM	Enfrastruc	ture Costs	\$	600,212.50		
				End Use	r Requirer	nent Costs	\$	42,000.00		
							\$	642,212.50		
							Ť	·		
NOTES A	AND ASSU	MPTIONS	i							
	This quot	e assumes	no CATV	or outside	wireless	is required.				

#### A. CODES AND STANDARDS

The following editions of Codes and Standards (and associated review & permitting process), and University standards, where applicable, shall be followed for the design and construction of the proposed facility. Building codes which are approved at the time of building permit application shall be used for the project.

		DESCRIPTION
-	Year	Building Codes
-	2004	Florida Building Code, Building
_	2004	Florida Building Code, Mechanical
-	2004	Florida Building Code, Fuel Gas
_	2004	Florida Building Code, Plumbing
-	2004	Florida building Code, Test Protocols for High Velocity Hurricane zones
-		Section 4A-3.012 Standard of the National Fire Protection Association
		(Most commonly used Codes and Standards)
ndar _	Year	Title
1 -	2004	Fire Prevention Code
10	2002	Standard for Portable Fire Extinguishers
3 -	2002	Standard for the Installation of Sprinkler Systems
3R	2002	Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and including four stories in Height
14	2003	Standard for the Installation of Standpipe and Hose systems, except 2-7 Shall be omitted
20	2003	Standard for the Installation of Centrifugal Fire Pumps
24	2002	Standard for the Installation of Private Fire Service Mains and Their Appurtenances
25	2002	Standard for the Inspection, Testing & Maintenance of Water Based Fire Protection Systems
0	2003	Flammable and Combustible Liquids Code
5	2004	Standard on Fire Protection for Laboratories Using Chemicals
0	2005	National Electrical Code
2 -	2002	National Fire Alarm Code
)A -	2002	Standard for the installation of Air Conditioning and Ventilating Systems
96	2004	Standard for Ventilation Control and Fire Prevention of Commercial Cooking Operations
01 _	2003	Life Safety Code
3	3.13.3	State Fire Marshal
-		Requirements for review shall comply with PSG, Exhibit 5; (all inspections, reviews and permitting for Universi
		projects shall be coordinated through the University BCA Office)
3	3.13.4-5	Required Permits
_		All Building permits are to be issued by the Building Code Official at FAU Facilities Planning, prior to the start construction.
3	3.13.5.2	Department of Business and Professional Regulation, Division of Hotel and restaurants, Bureau of Elevator Inspection for elevator inspections and permit, Department of Health
3	3.13.5.4	Department of Environmental Protection (DEP), area Branch and NPDES Permits
3	3.13.5.5	Local Water Management District permit
_		Florida Atlantic University Standards
_		Florida Atlantic University Cost Containment Guidelines
-		FAU Professional Services Guide and Project Manual
-		All special requirements as identified in the pre-design conference meeting(s) with the various University agenci
		(the A/E consultant(s) shall record in meeting minutes).

Note: All reference to codes shall mean the latest editions adopted through legislation for use in state owned/leased buildings as described in the Florida Statues sections 471, 481 and 553s

CONSTRUCTION MANAGEMENT PROJECT DELIVERY METHOD The preliminary schedule below is an estimate based on the current status of the project at the program phase.

Project: LINK BUILDING RENOVATION	Date:			10/5/2008	
CONSTRUCTION MANAGEMENT PROJECT D	ELIVERY <b>M</b> I	ETHOD			
Fill in the Yellow shaded area only	Return to	XV, Summary	Worksheets:	<u>Budget</u>	
Automatic entry in Light Green	•	IX, Program		<u>Program</u>	
GOALS AND MILESTONES	DURATION	START DATE	END DATE		
PROGRAM APPROVAL	16 weeks	24-Aug-2008	14-Dec-2008	0.3 Years	
Facilities Program Development	12 weeks	24-Aug-2008	16-Nov-2008		
University Facilities Program & Advertisement Approval	4 weeks	16-Nov-2008	14-Dec-2008		
A/E SELECTION PROCESS	14 weeks	14-Dec-2008	22-Mar-2009	0.3 Years	
Advertise for A/E in FAW	6 weeks	14-Dec-2008	25-Jan-2009		
A/E Short-list	3 weeks	25-Jan-2009	15-Feb-2009		
A/E Interviews	2 weeks	15-Feb-2009	01-Mar-2009		
Contract Negotiations with A/E	3 weeks	01-Mar-2009	22-Mar-2009		
C/M SELECTION PROCESS	16 weeks	14-Dec-2008	05-Apr-2009	0.3 Years	
Advertise for C/M in FAW	6 weeks	14-Dec-2008	25-Jan-2009		
C/M Short-list	5 weeks	25-Jan-2009	01-Mar-2009		
C/M Interviews	2 weeks	01-Mar-2009	15-Mar-2009		
Contract negotiations with C/M	3 weeks	15-Mar-2009	05-Apr-2009		
DESIGN PHASE	35 weeks	22-Mar-2009	22-Nov-2009	0.7 Years	
Conceptual Design	3 weeks	22-Mar-2009	12-Apr-2009		
University review and approval	1 weeks	12-Apr-2009	19-Apr-2009		
Schematic Design	3 weeks	19-Apr-2009	10-May-2009		
University review and approval	2 weeks	10-May-2009	24-May-2009		
Design Development and Budget verification	5 weeks	24-May-2009	28-Jun-2009		
University review and approval	3 weeks	28-Jun-2009	19-Jul-2009		
50% Construction Documents and Budget update	4 weeks	19-Jul-2009	16-Aug-2009		
University review and approval	2 weeks	16-Aug-2009	30-Aug-2009		
100% Construction Documents and Budget update	4 weeks	30-Aug-2009	27-Sep-2009		
University review and approval	2 weeks	27-Sep-2009	11-Oct-2009		
Submittal of GMP	3 weeks	27-Sep-2009	18-Oct-2009		
State Fire Marshall and Code Review	8 weeks	27-Sep-2009	22-Nov-2009		
Reconcile Code Comments and Negatiate GMP	4 weeks	27-Sep-2009	25-Oct-2009		
CONSTRUCTION PHASE	52 weeks	22-Nov-2009	21-Nov-2010	1.0 Years	
Notice to Proceed	1 weeks	22-Nov-2009	29-Nov-2009		
Construction	42 weeks	29-Nov-2009	19-Sep-2010		
Substatial Completion	1 weeks	19-Sep-2010	26-Sep-2010		
Punchlist Corrective Work & Final Completion	4 weeks	26-Sep-2010	24-Oct-2010		
Owner FF&E Move In	4 weeks	24-Oct-2010	21-Nov-2010		
Owner Occupancy		21-Nov-2010			
Total	117 weeks	24-Aug-2008	21-Nov-2010	2.2 Years	

#### A. ESTIMATED FUNDING

CURRENT FUNDING	
2007-2008 PECO (P,C,E)*	\$ 7,500,000.00
TOTAL PROJECT FUND	\$ 7,500,000.00

<sup>\*</sup>The \$7.5 M is a portion of a \$26M originally designated for a new lab building. In an effort to use the funding in the most effective manner, the program committee has agreed to fund the renovation of the HBOI Link Building with this \$7.5M balance. See the Facilities Program, BT-643 Harbor Branch Laboratory Facility II for the remaining \$18.5M.

#### B. ESTIMATED BUDGET SUMMARY

#### See budget detail next two pages.

	ESTIMATED BUDGET SUMMARY			
1	Construction Costs	GSF	\$\$/GSF	Total \$\$
a.	Construction Costs	43,528	90.42	\$3,935,900.00
b.	Additional/Extraordinary Construction Costs		28.22	\$1,228,400.00
c.	Inflation Escalation		3.56	\$154,900.00
	Sub Total Construction Costs	43,528	122.20	\$5,319,200.00
2	Other Project Costs			
a.	Land/existing facility acquisition/Relocations			\$0.00
b.	Professional Fees			\$ 572,000.00
c.	Fire Marshal Fees			\$13,300.00
d.	Inspection Services			\$61,000.00
e.	Insurance Consultant			\$3,200.00
f.	Surveys and Tests			\$0.00
g.	Permit/Impact/Environmental Fees			\$3,000.00
h.	Art Work			\$26,600.00
i.	Movable Furnishings & Equipment			\$487,100.00
j.	IRM Costs			\$642,200.00
j.	Project Contingencies incl add'l Research Facilities			\$319,200.00
l.	Campus Infrastructure			\$53,200.00
	Sub Total Other Project Costs		50.10	\$2,180,800.00
	TOTAL PROJECT BUDGET	43,528	172.30	\$7,500,000.00

PROJECT SPACE AND BUDGET SUMMARY (Reference: SUS CM-N-04.00-09/97, Attachment 3

The following estimate establishes the Project Budget.

Project: LINK BUILDING RENOVATION					11/13/200
3					
Fill in the Yellow shaded area only	Return to:	XV, Summary	Worksheets:		
Automatic entry in Light Green		IX, Program		<u>Program</u>	
PROJECT SPACE AND BUDGET SUMMARY (Refe	erence: SUS CM				
Inflation Adjustment	1	Years @	3.00 %	Effective Rate	3.00 %
Construction Phase Duration	1	Years			
Design Phase Duration	1	Years		Estimated Budget	, , , , , , , , , , , , , , , , , , , ,
	_			Target Budget	\$ 7,500,000.00
SPACE SUMMATION (from Section IX of Facilities	Program)			•	
Program Space Type (Renovation)	NASF	Factor	GSF	\$ / GSF	Costs in
2nd Floor Renovation		Allowance	22,071	120.00	\$2,648,520.0
1st Floor Renovation		Allowance	21,457	60.00	\$1,287,420.0
					\$0.00
Avg. Construction Cost				\$ 90.42	
Subtotal Building Renovation / Construction			43,528	Rounded to 100	\$3,935,900.00
Subtotal Building Renovation / Construction			43,326	Rounaea to 100	\$3,933,900.00
CONSTRUCTION COSTS (Reference: SUS CM-D-38	3.00-09/97, At	tachment 1-B)			
Building Construction Cost		Units		Unit Cost	Costs in
Renovation	43,528	GSF		\$90.42	\$3,935,900.00
Building Demolition	-	GSF		\$0.00	\$0.00
Sub-Total Building Construction Costs (today's \$\$)	١			\$90.42	\$3,935,900.00
o. Additional/Extraordinary Construction Cost		Units		Unit Cost	
Allowance		Allowance		\$0.00	\$0.0
Site Preparation/Demolition		Allowance		\$0.00	\$0.0
Exterior (Windows - Remove & Replace)	3,768			62.00	\$233,600.0
Roof - Removal and Replacement - Inc Iso Insl (Off	23,875			7.93	\$189,300.0
Roof - Removal and Replacement - Inc Iso Insl (Hi-	25,400			7.93	\$201,400.0
Exterior Panels Hibay (Clean/Minor Repair / Caulk)	30,524			5.00	\$152,600.0
Exterior Panels 2 stry Class (Clean/Minor Repair / C	19,282		-	\$ 6.00	\$115,700.0
Electrical Services - High Bay Area Allowances		Allowance		\$ -	\$0.0
Water Distribution		Allowance		\$0.00	\$0.0
Sanitary Sewer System		Allowance		\$0.00	\$0.0
Chiller Replacement / New HVAC Equipment	125		-	\$ 2,366.00	\$295,800.0
Storm Water System		Allowance		\$0.00	\$0.0
Telecomm Trench and conc encased conduits	1	Allowance		\$40,000.00	\$40,000.0
Sub-Total Add/Extra Construction Costs				Round to 100	\$1,228,400.00
TOTAL CONSTRUCTION COSTS - BUILDINGS	and SITE DE	EVELOPMENT		118.64	\$5,164,300.00
Inflation Adjustment					\$154,900.00
TOTAL CONSTRUCTION BUDGET				\$ 122.20	\$5,319,200.00

Please see next page for Other Project Costs.

2	OTHER PROJECT COSTS Add or delete following ite	ems as required			Costs	Subtotals (rounded)
a.	Land/Existing Facility Acquisition/Relocation				\$0.00	
	Subtotal Land/Existing Facility Acquisition/Reloca	ation				\$0.00
b.	Professional Fees					
	A/E Fees (Curve C: Renovation)	7.93	%		\$421,812.56	
	Civil & Engineering Fee (10% of A/E Fee)		% of AE Fee		\$12,654.38	
	Program & Verification		% of AE Fee		\$21,090.63	
	Landscape Design Fee		% of AE Fee		\$16,872.50	
	Design Contigency		% of AE Fee		\$21,090.63	
	1					
_	Building Commissioning and T&B		% of AE Fee		\$21,090.63	
_	Misc Other Fees		Allowance		\$ -	
_	C/M Pre-Construction Services Fee	1.00	% of Const C	ost	\$ 53,192.00	
	Sub-Total Professional Fees					\$ 572,000.00
c.	State Fire Marshal Review and Inspection	0.25	%		\$13,298.00	\$13,300.00
d.	Inspection Services					
	Roofing Inspection	1	Allowance		\$6,000.00	
	Threshold Inspection	1	Allowance		\$0.00	
	Code Compliance Review & Inspections	1.00	% of Const C	ost	\$ 53,192.00	
	Sub-Total Inspection Services	_				\$61,000.00
e.	Risk Management / Insurance Consultant	0.06	% of Const C	ost	\$3,191.52	\$3,200.00
f.	Surveys & Tests					
	Topographical/Site Survey	1	Allowance		\$0.00	
	Geotechnical Testing	1	Allowance		\$0.00	
	Sub-Total Surveys & Tests					\$0.00
g.	Permit/Impact/Environmental Fees					
	Environmental (SFWM)	1	Allowance		\$3,000.00	
	Sub-Total Permits/Impact Fees					\$3,000.00
h.	Art in State Building (Section 255.043, F.S.)	0.5	% of Const C	100K Maximum	\$26,596.00	\$26,600.00
i.	Movable Furniture & Equipment					
	FFE - Equipment, computers, etc.		of Const Cost		\$159,576.00	
	FFE - Furniture	6.0%	of Const Cost	t	\$319,152.00	
	FFE - Miscellaneous	0.5	0/		\$500.00	
	FFE - Equipment - Custodial & Card Access	0.5	%		\$7,900.00	
	Subtotal Moveable Furniture & Equipment (FFE)					\$487,100.00
j.	IRM & Costs - See Section XI for more detail		<u> </u>			ψ407,100.00
.,·	IRM Cabling Infrastructure	1	Allowance		\$164,512.50	
	IRM Switching Equipment/Wireless	1	Allowance		\$415,750.00	
	IRM Class/Conf Rm Equipm't - End User Options		Allowance		\$42,000.00	
	IRM Faceplate Allowance	133	# of Drops	\$150.00	\$19,950.00	
	Sub-Total IRM Costs	-				\$642,200.00
k.	General Project Contingency	6	%		\$319,152.00	
	Total Project Contingencies					\$319,200.00
l.	Campus Infrastructure	1	%		\$53,192.00	\$53,200.00
	TOTAL OTHER PROJECT COSTS					\$2,180,800.00
_	TOTAL PROJECT BUDGET COST ESTIMATE				\$172.30	\$7,500,000.00

End of Facility Budget Detail.

Below are the space requirements for the Library, which will be included in the renovated Link building.

### ESTIMATED SQUARE FOOTAGE FOR NEW LIBRARY SPACE

Purpose	Square feet
Book shelving	716 *
Periodical shelving	4460*
File storage	278
Computer/study space	1284
Librarian's office	224
2 <sup>nd</sup> office	174
Work room	225
Restrooms	104
Total	7465 \~50% INC.
	NoW=> 4877 A

 $<sup>^{*}</sup>$  Doubled current space. If compact shelving is used, the square footage can be reduced 40%.

NOVEMBER 2008 APPENDIX-40