

III. SIGNATURE PAGE

REVIEWED AND APPROV	/ED:		
	document meets the intent of the University and Procedure #9 (Development of Facility Program) ments.	DIVISION OF ACADEMIC This is to certify that this of Academic Affairs.	AFFAIRS: document meets the requirements of the Office of
	Azita Dotiwala , Director, Budget and Planning, Facilities Management		Russell Ivy, Interim Provost & Chief Academic Officer
INFORMATION RESOUR This is to certify that this on Resource Management.	CE MANAGEMENT: document meets the requirements of Information .	DIVISION OF FINANCIAL This is to certify that this of of Financial Affairs.	AFFAIRS: document meets the requirements of the Division
	Jason Ball, Associate Vice President for IRM & CIO		Jayson Iroff, Vice President for Financial Affairs & CFO
PROGRAM COMMITTEE This is to certify that this o Office of Housing and Res	document contains the recommendations for the	leadership at Florida Atlant	VERSITY: ment has been reviewed by the administrative tic University and that the material contained he President's approval and recommendation.
	Brian Fisher, Associate Vice President for Student Affairs Operations		Stacy Volnick, Interim President, V.P. of Administrative Affairs & COO
DIVISION OF STUDENT A This is to certify that this o of Student Affairs.	AFFAIRS: document meets the requirements of the Division		

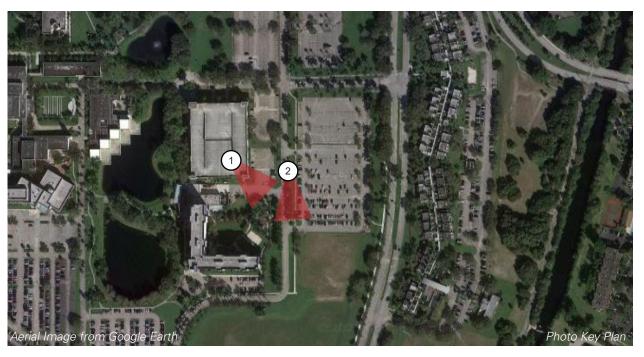
Larry Faerman, Vice President for Student Affairs

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A. History and General Description

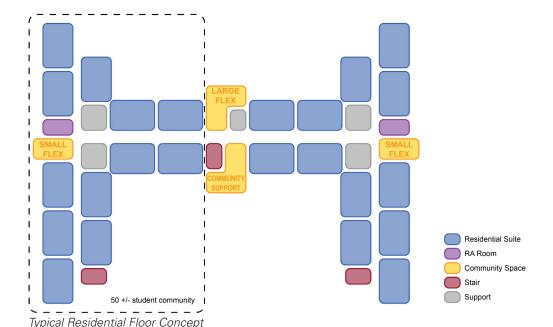
Florida Atlantic University is a public research university with multiple campuses along the southeast Florida coast serving a uniquely diverse community. It promotes academic and personal development, discovery, and lifelong learning. FAU fulfills its mission through excellence and innovation in teaching, outstanding research and creative activities, public engagement, and distinctive scientific and cultural alliances, all within an environment that fosters inclusiveness.

The proposed project is a 670 bed student residence to be located on the southeast side of campus adjacent to Parliament Hall. The new residence will focus on providing accommodations for second year students.

B. Design Objectives

The primary objective of this project is to support FAU's strategic initiative to enhance student retention and success by growing on-campus residential offerings to approximately 7,000 students and creating a more residential character for the Boca Raton campus. Specific programmatic goals include:

- Providing housing accommodations for a higher percentage of non-first year students
- Diversifying housing unit offerings by providing more single rooms and amenities that allow students to cook meals
- Creating engaging hall communities of approximately 50 students per RA, with flexible community spaces on each floor
- Providing new shaded outdoor social space and places for passive recreation
- Prioritizing Affordability, Privacy, and Efficiency



The proposed site east of Parliament Hall is aligned with the Campus Master Plan land use framework. Additional design goals include:

1. Landscaping and Exterior Lighting

Create new outdoor spaces of varying scales to extend and complement the campus open space network and to provide inviting spaces for students to gather, study, and recreate. Landscape, irrigation, hardscape and exterior lighting shall be incorporated for function, aesthetics, security, and safety.

2. Walkway and Pedestrian Traffic

A new shaded, multi-modal shaded pedestrian/bike/transit mall shall be incorporated along the existing St. Lucie roadway corridor connecting

this site north to East West pedestrian corridor. This mall shall provide functional circulation as well as create a new iconic place on campus. Shaded pathways with lighting shall connect the new site area with existing walkways and parking areas.

3. Vehicular Transit and Service Circulation

Separation of service vehicular traffic and pedestrian circulation is paramount. Service and emergency vehicle access shall be integral to the site design and shall minimize vehicular/pedestrian conflicts. Transit stops and bike paths shall be integral to the site design.

Accessible parking and short-term convenience and drop-off parking shall be provided south of the proposed building. Resident parking shall be designated in

existing parking areas adjacent to the project site.

4. Contextual Site and Building Design

Site and building design shall prioritize contribution to the total campus fabric.

The proposed building and site has particular opportunity to provide a new visible residential community and facade facing University Drive. Open space and building design shall leverage opportunities to engage with Parliament Hall outdoor spaces and pedestrian paths.

Site and building design shall engage and interface with new multi-modal mall.

5. 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

6. 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 or the program to conform to the budget at no additional costs to the University.

IV. INTRODUCTION

C. Construction Delivery Method

In accordance with F.A.C. 6C-14.0055.(2), the following responses are presented for University approval for the selection of CM at Risk as the project delivery method:

(2).(a): Size of the project is sufficiently large and/or complex to require major emphasis on the qualification of the contractor 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. Coordination of phasing plan and logistics of construction will need to be evaluated during the design phase to avoid any potential conflicts.

2).(b): The initial construction funding is appropriated and construction is begun with

the expectation of substantial appropriation in subsequent years, thereby making it advantageous to retain a single contractor for the duration of the project. – **Not Applicable**

(2).(c): The project is an alteration of an occupied facility which requires working around or relocating occupants while keeping the facility fully operational. – **Not Applicable**

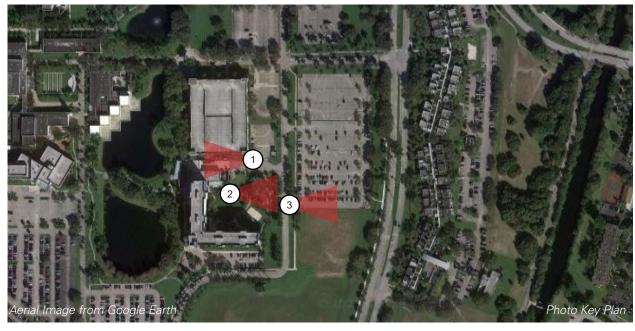
(2).(d): The project is a repair or renovation where the conditions requiring correction cannot be determined and specified without extensive contractor involvement in the removal and examination process during the design phase. - **Not Applicable**

(2).(e): The timely completion of the project is critical to the University's ability to repay debt services or to meet grant obligations. – **Not Applicable**









V. ACADEMIC PLAN

- A. FAU Strategic Plan

 Consistent with FAU's "Strategic Plan for the
 Race to Excellence" this facility will promote
 FAU's sense of place.
- B. Academic Program Reviews N/A
- C. Recommendations of the Review Consultants N/A
- D. Justifications N/A

- A. Good Dining Coverage in Campus Core (3 minute walk graphic)
 - 1. Atlantic Dining Hall All-You-Care-To-Eat located adjacent to the FAU Student Union
 - 2. Breezeway Food Court & Starbucks are conveniently located at the south end of the covered pedestrian path, the Breezeway
 - 3. Other Retail Dining
 - Library
 - Stadium
 - FAU Club in Engineering & Computer Science Building
- B. Need for Area Retail Dining for Parliament/ New Housing, currently a 'Food Desert'
 - New Housing residents will impact Retail Dining, not All Your Care To Eat (AYCTE) Dining
 - 2. Priority of utilization of existing food service infrastructure in Parliament Hall

VI. SPACE NEEDS (DINING)

- C. Dining to be Developed on Parallel Path with Additional Housing
 - 1. Phase 1: Dining Needs (1,220 ASF 1,740 ASF)
 - Parliament Area Market (similar to current Outtakes) designed with expansion plans
 - Retail Display Area
 - Refrigerated Display
 - Frozen Display Area
 - Service Area (self-checkout or frictionless IT components)
 - Storage/Support
 - Space needed for General Seating/ Common/Gather Area
 - Tables & Chairs
 - Lounge Area/Soft Seating

Food Service Planning for Housing Expansion					
Phase 1		Min	Max		
Market					
Retail Display Area		600	800	Convenience items and produce	
Refrigerated Display		120	240	Grab and Go, Beverages etc.	
Frozen Display		100	200	Two-door freezer	
Service area		200	200	Self-check out or IT for frictionless	
Storage/Support		200	300	Janitor's closet, mgmt work station/office	
	Sub Total	1,220	1,740		

VII. CONSISTENCY WITH THE CAMPUS MASTER PLAN

A. The Adopted Campus Master Plan

The proposed project is consistent with overall intent of the Campus Master Plan (CMP) prepared and adopted in 2018. The following interpretations of the relevant sections are within the permitted threshold established under the CMP.

ANALYSIS OF THE CAMPUS MASTER PLAN

1. Urban Design Element

The project may consider extension of St Lucie Avenue South to East University Drive as proposed in the campus master plan. Some modification to the drive at Lot 102 shall be explored to create a better pedestrian connection between the proposed new building and Parliament Hall.

2. Future Land Use Element

The CMP identifies the proposed project site as open space for development and adjacent to existing lots.

3. Support Facilities Element

The addition of 670 additional students who will not be required to have a meal plan necessitates the University provide some retail food outlets. The program study evaluated space within Parliament Hall that could be renovated to provide this use. Additionally, FAU Residence Education provides Get Wise centers that provide academic support to students. There is space within Parliament Hall that is targeted for renovation to provide this function.

4. Utilities Element

This project is within the academic core and drainage for future expansion will be within the Basin Core. Facilities management will coordinate expansion of

utilities services through Physical Plant and Office of Information Technology for utilities and telecommunications infrastructure provisions.

5. Transportation Element

The project will provide necessary service drives, pedestrian, and bicycle paths to provide for safe and affective modes of transportation around the facility. The primary function of this building is to provide additional accommodations with the campus proper and to take advantage of existing parking facilities in the area.

6. Intergovernmental Coordination Element

This element is ongoing, FAU will continue to communicate with its host community regarding this project.

7. Capital Improvements Element

This project has been included in FAU's annual Capital Improvement Plan.

B. Site Conditions

The project site is in the southeast area of campus, but still within the main campus traffic loop. It is readily accessible from the academic and residential areas of the campus.

Site Topography
 Site topography and soil conditions on
 the Boca Raton Campus are relatively
 uniform. The site is flat, and the soil is
 sandy (Flatwood soils of the Immokalee /
 Basinger Association).

2. Storm Drainage

Site water table is typically 6 to 7 feet below grade. The FEMA FIRM flood hazard zone for the project site consists of several zones. Most of the project area falls within Zone AH, with no base flood elevation (BFE) established. A portion of the project area, generally anticipated to be limited to the roadway connection, falls within Zone AE. The remainder of the project area falls within Zone X500, which is an area experiencing flooding in the 500-year storm, but outside the 100-year flood zone.

3. Vehicular and Pedestrian Circulation

Any new walks or service roads are to be implemented to enhance pedestrian flow and general safety. The program considers a new roadway connection of St. Lucie Ave eastward to the East University Drive.

4. Site Vegetation

The existing site vegetation consists of natural grasses or sod. This project will improve the existing site vegetation using appropriate and compatible landscaping with emphasis on creating shaded spaces and walks.

5. Archaeological History

There are no sites of archaeological or historical significance that would be impacted by this project.

6. Existing Utility Locations

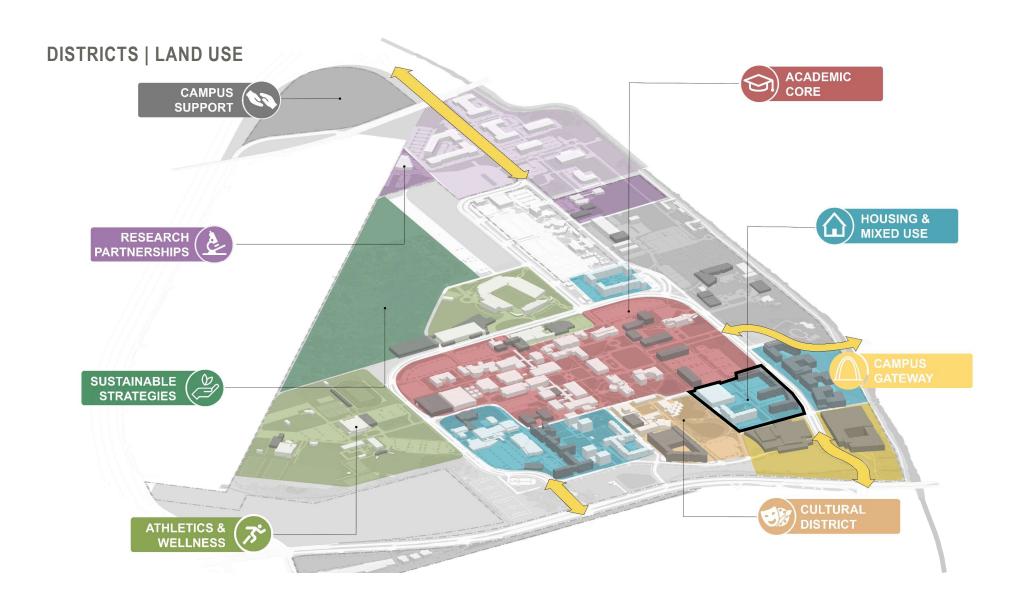
Refer to Section X, Utility Impact Analysis for campus utility infrastructure information.

7. Architectural Significance of Adjacent Structures

Although there are no significant architectural elements adjacent to this site, this project will be compatible with the overall architectural style of the FAU Boca Raton Campus.

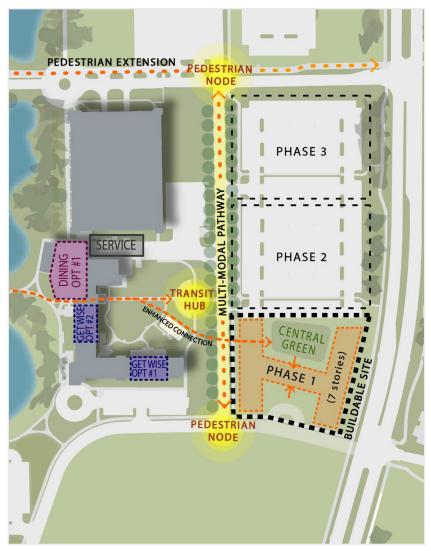
8. Direction of Prevailing Winds

Prevailing winds are from the Southeast.



From 2018 Campus Master Plan

VIII. CAMPUS MAP & SITE MAP



Housing Master Plan Urban Design Diagram



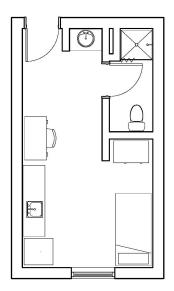
A. Program Area Tables

Concept only. To be verified by Design Architect.

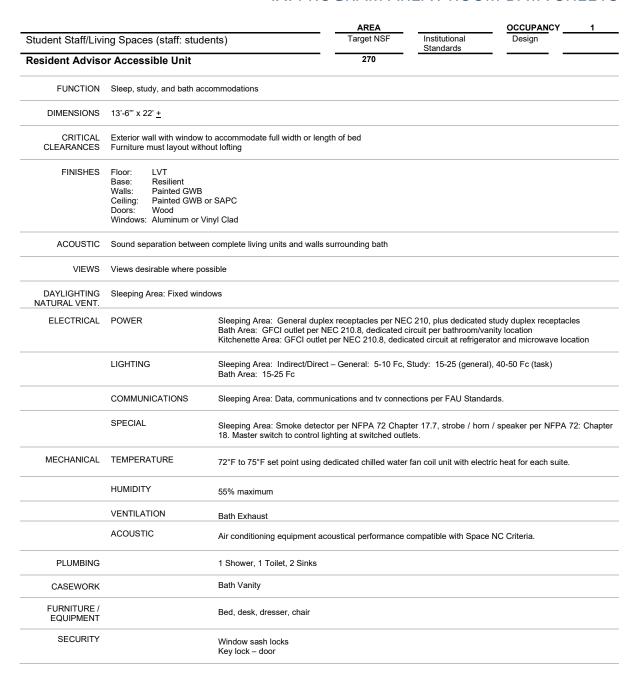
East Village - Phase 1

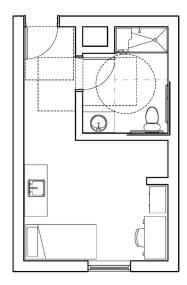
Florida At	tlantic University - New Residence Hall	Program					Beds 670	Comments
i ionaa A	mantic offiversity - New Residence Hair	•	0	D. d.	11.24.	405		
		Floor	Occup	Beds	Units	ASF	Total ASF	_
100	Administrative						2,500	-
101	Desk	1			11	150	150	Visibility to/from building entry
102	Residence Services Offices	1			1	1,200	1,200	Adjacent to Desk area
103	First Floor Lobby	1	25		11	400	400	Visible from Desk area
104	Mail and Package	1			1	750	750	Accessible from Desk area
200	Residences						117,065	_
201	Staff Apartment (2 bedroom)	_ 11	1	0	2	640	1,280	
202	Staff Apartment (1 bedroom)	1	0	0	0	500	0	
203	1 Bed RA Unit	Fls 1-7	1	11	11	250	2,750	See room data sheets for more information
204	1 Bed RA Unit Accessible	Fls 1-7	1	3	3	270	810	See room data sheets for more information
205	3 Bed Unit	Fls 1-7	3	498	166	505	83,830	See room data sheets for more information
206	3 Bed Unit Accessible	Fls 1-7	3	42	14	590	8,260	See room data sheets for more information
207	4 Bed Unit	Fls 1-7	4	88	22	675	14,850	See room data sheets for more information
208	4 Bed Unit Accessible	Fls 1-7	4	28	7	755	5,285	See room data sheets for more information
	TOTAL BEDS			670			-,	
300	Shared Community In Halls						8,040	-
301	Community Support Space	Fls 1-7	35		7	700	4,900	 Mix of social space, kitchen, laundry, and study space distributed floors 1-8
302	Small Group Flex Space	Fls 1-7	8		14	120	1,680	Centrally located within the residential community
303	Large Group Flex Space	Fls 2-7	12		7	200	1,400	Centrally located near elevator/stair area
304	Vending	1			1	60	60	oontany todated treat elevatoristan area
400	Academic Support						0	_
400	See below						<u> </u>	_
500	Maintenance / House Keeping						2,110	_
501	Maintenance Offices / Workroom and Storage	1			1	1,200	1,200	Exterior access
502	House Keeping Storage (per floor)	Fls 1-7			7	65	455	
503	Custodial Closet (per floor)	Fls 1-7			7	65	455	
600	Support/Mechanical						4,510	=
601	Mechanical Room - Main	1			1	1,200	1,200	Exterior access
602	Mechanical / Electrical Room - Floor	Fls 2-7			6	125	750	Enterior decode
603	Pump Room	1			1	190	190	
604	Trash Chute Room	Fls 1-7			14	35	490	
605	Trash Room	Fls 1-7			14	60	840	
606	Trash Room with Compactor	1			1	190	190	Exterior access
607	IT Room - Floor	Fls 1-7			7	60	420	million added
608	Unisex Restrooms	1	0		2	65	130	
609	Public Bathrooms at Lobby	- '			2	150	300	Near Lobby
	•							
	Total ASF					000/	134,225	
	Efficiency					66%		
	Total GSF						203,371	
	GSF / Student					304		
	Optional Spaces						3,770	Potential renovation of existing space in Parliament Hall
	Academic Support (Get Wise)	1	0		1	2,200	2,200	_
401			0		1	170	170	
401 402	,	1						
401 402 403	Staff Kitchenette	1	0		1	1,400	1,400	
402	,							
402	Staff Kitchenette							

			AREA		OCCUPANCY	1
Resident Advisor	Unit		Target NSF	Institutional Standards	Design	
1-Person Suite			250			
FUNCTION	Sleep and study and bath	n accommodations				
DIMENSIONS	12' x 22' <u>+</u>					
CRITICAL CLEARANCES						
FINISHES	Floor: LVT Base: Resilient Walls: Painted GWB Ceiling: Painted GWB Doors: Wood Windows: Aluminum or Walls	or SAPC				
ACOUSTIC	Sound separation between	en complete living units				
VIEWS	Views desirable where po	ossible				
DAYLIGHTING NATURAL VENT.	Sleeping Area: Fixed win	dows				
ELECTRICAL	POWER	Sleeping Area: General duplex receptacles per NEC 210, plus dedicated study duplex receptacles Bath Area: GFCl outlet per NEC 210.8, dedicated circuit per bathroom/vanity location Kitchenette Area: GFCl outlet per NEC 210.8, dedicated circuits at refrigerator and microwave locations				
	LIGHTING	Sleeping Area: Indirect/Dir Bath Area: 15-25 Fc	rect – General: 5-10 FC	, Study: 15-25 (genera	al), 40-50 Fc (task)	
	COMMUNICATIONS	Sleeping Area: Data, comn	nunications and tv conne	ections per FAU Stand	ards.	
	SPECIAL	Sleeping Area: Smoke det 18. Master switch to contro			n / speaker per NFPA 7	2: Chapter
MECHANICAL	TEMPERATURE	72°F to 75°F set point using	g dedicated chilled wate	r fan coil unit with elec	tric heat for each suite.	
	HUMIDITY	55% maximum				
	VENTILATION	Toilet Exhaust				
	ACOUSTIC	Air conditioning equipment	acoustical performance	compatible with Space	e NC Criteria.	
PLUMBING		1 Shower, 1 Toilet, 2 Sinks				
CASEWORK		Bath Vanity, Kitchenette co	ountertop, Upper and Lo	wer Cabinets		
FURNITURE / EQUIPMENT		Bed, desk, dresser, chair, I	Microwave, Mini Fridge			
SECURITY		Window sash locks Key lock – door				



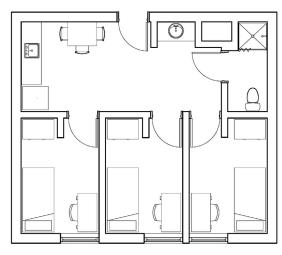
Single Student Room with Bath Concept plan only. To be verified by Design Architect.



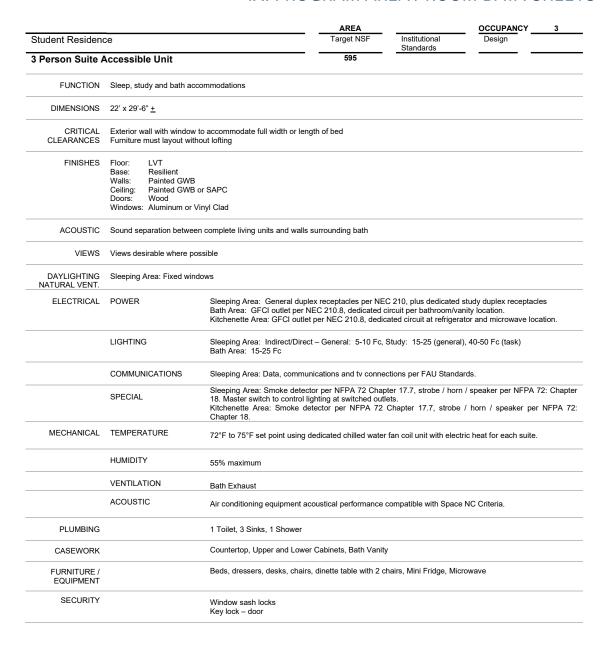


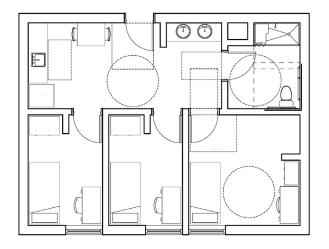
Single Student Room with Bath (Accessible) Concept plan only. To be verified by Design Architect.

			AREA		OCCUPANCY 3	
Student Residen	ces – Suite	_	Target NSF	Institutional Standards	Design	
3 -Person Suite			505			
FUNCTION	Sleep and study and bath	accommodations				
DIMENSIONS	22' x 25'-6"' <u>+</u>					
CRITICAL CLEARANCES						
FINISHES	Floor: LVT Base: Resilient Walls: Painted GWB Ceiling: Painted GWB Doors: Wood Windows: Aluminum or N					
ACOUSTIC	Sound separation between	en complete living units				
VIEWS	Views desirable where po	ossible				
DAYLIGHTING NATURAL VENT.	Sleeping Area: Fixed win	dows				
ELECTRICAL	POWER	Sleeping Area: General duplex receptacles per NEC 210, plus dedicated study duplex receptacles Bath Area: GFCl outlet per NEC 210.8, dedicated circuit per bathroom/vanity location Kitchenette Area: GFCl outlet per NEC 210.8, dedicated circuit at refrigerator and microwave location				
	LIGHTING	Sleeping Area: Indirect/Direct Bath Area: 15-25 Fc	ct – General: 5-10 Fc,	Study: 15-25 (genera	al), 40-50 Fc (task)	
	COMMUNICATIONS	Sleeping Area: Data, commu	unications and tv conne	ections per FAU Stand	ards.	
	SPECIAL	Master switch to control I	lighting at switched out	lets.	n / speaker per NFPA 72: Chapter e / horn / speaker per NFPA 72:	
MECHANICAL	TEMPERATURE	72°F to 75°F set point using	dedicated chilled wate	r fan coil unit with elec	etric heat for each suite.	
	HUMIDITY	55% maximum				
	VENTILATION	Bath Exhaust				
	ACOUSTIC	Air conditioning equipment a	coustical performance	compatible with Space	e NC Criteria	
PLUMBING		1 Toilet, 3 Sinks, 1 Shower				
CASEWORK		Counters at Kitchette, Upper	and Lower Cabinets,	Bath Vanity		
FURNITURE / EQUIPMENT		Beds, dressers, chairs, desk	s, Dinette Table with 3	Chairs, Microwave, M	lini Fridge	
SECURITY		Window sash locks Key lock – door				



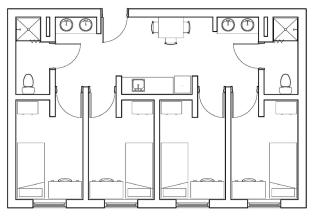
3 Person Student Suite Concept plan only. To be verified by Design Architect. FAU desires 3 sinks outside the bathroom.





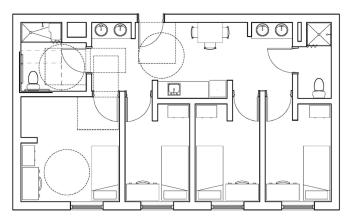
3 Person Student Suite (Accessible) Concept plan only. To be verified by Design Architect.

Student Residen			AREA Target NSF	Institutional	OCCUPANCY 4 Design
	ces			Standards	
4-person Suite			675		
FUNCTION	Sleep and study and bath	accommodations			
DIMENSIONS	22' x 34' <u>+</u>				
CRITICAL CLEARANCES					
FINISHES	Floor: LVT Base: Resilient Walls: Painted GWB Ceiling: Painted GWB Doors: Wood Windows: Aluminum or \				
ACOUSTIC	Sound separation between	en complete living units			
VIEWS	Views desirable where po	ossible			
DAYLIGHTING NATURAL VENT.	Sleeping Area: Fixed wind	dows			
ELECTRICAL	RICAL POWER Sleeping Area: General duplex receptacles per NEC 210, plus dedicated study duplex receptacles per NEC 210.8, dedicated circuit per bathroom/vanity location. Kitchenette Area: GFCI outlet per NEC 210.8, dedicated circuit at refrigerator and microwave I				
	LIGHTING	Sleeping Area: Indirect/D Bath Area: 15-25 Fc	irect – General: 5-10 Fc,	Study: 15-25 (genera	al), 40-50 Fc (task)
	COMMUNICATIONS	Sleeping Area: Data, com	munications and tv conne	ections per FAU Stand	ards.
	SPECIAL	Master switch to contr	ol lighting at switched out	lets.	n / speaker per NFPA 72: Chapte e / horn / speaker per NFPA 7:
MECHANICAL	TEMPERATURE	72°F to 75°F set point usi	ng dedicated chilled wate	r fan coil unit with elec	ctric heat for each suite.
	HUMIDITY	55% maximum			
	VENTILATION	Bath Exhaust			
	ACOUSTIC	Air conditioning equipmen	t acoustical performance	compatible with Spac	e NC Criteria.
PLUMBING		2 Toilets, 5 sinks, 2 shower	ers		
CASEWORK		Countertop, Upper and Lo	wer Cabinets, Bath Vani	y	
FURNITURE / EQUIPMENT		Beds, desks, dressers, ch	airs, dinette table with 3	chairs, Mini Fridge, Mi	crowave
SECURITY		Window sash locks Key lock – door			



4 Person Student Suite Concept plan only. To be verified by Design Architect.

			AREA		OCCUPANCY	4
Student Residen	ces	_	Target NSF	Institutional Standards	Design	
4-person Suite	4-person Suite Accessible Unit		755			
FUNCTION	Sleep and study and bath	accommodations				
DIMENSIONS	22' x 38' <u>+</u>					
CRITICAL CLEARANCES						
FINISHES	Floor: LVT Base: Resilient Walls: Painted GWB Ceiling: Painted GWB of Coors: Wood Windows: Aluminum or Vi					
ACOUSTIC	Sound separation between	n complete living units				
VIEWS	Views desirable where pos	ssible				
DAYLIGHTING NATURAL VENT.	Sleeping Area: Fixed wind	ows				
ELECTRICAL	POWER	Sleeping Area: General duple Bath Area: GFCI outlet per NE Kitchenette Area: GFCI outlet	EC 210.8, dedicated of	circuit per bathroom/va	anity location.	
	LIGHTING	Sleeping Area: Indirect/Direct	- General: 5-10 Fc,	Study: 15-25 (genera	al), 40-50 Fc (task)	
	COMMUNICATIONS	Sleeping Area: Data, communi	ications and tv conne	ctions per FAU Stand	ards.	
	SPECIAL	Sleeping Area: Smoke detector 18. Master switch to control lig Kitchenette Area: Smoke det Chapter 18.	hting at switched out	lets.		•
MECHANICAL	TEMPERATURE	72°F to 75°F set point using de	edicated chilled water	fan coil unit with elec	etric heat for each suite.	
	HUMIDITY	55% maximum				
	VENTILATION	Bath Exhaust				
	ACOUSTIC	Air conditioning equipment acc	oustical performance	compatible with Spac	e NC Criteria.	
PLUMBING		2 Toilets, 5 sinks, 2 showers				
CASEWORK		Countertop, Upper and Lower	Cabinets, Bath Vanit	у		
FURNITURE / EQUIPMENT		4 Beds, 4 desks, 4 dressers, 4	chairs, dinette table	with 3 chairs, Microwa	ave, Mini Fridge	
SECURITY		Window sash locks				



4 Person Student Suite (Accessible) Concept plan only. To be verified by Design Architect.

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 that are available for viewing at http://www.fau.edu/facilities/avp.

- 1. As the site is relatively flat, the building site shall be designed to 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. Reference Section X for details about utility connections.
- 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 wall) for a minimum of all life safety functions.
- 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 conduit for voice and data connectivity to the existing campus backbone.

- 9. Provide connectivity to the existing campus energy management system and life safety systems.
- 10. The building shall have 100 percent sprinkler protection.
- 11. Provide surge protection for the entire building.
- 12. Provide screened trash storage area for recycling, etc.
- 13. Provide covered outdoor storage and charging of up to several golf carts.
- 14. 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.

X. UTILITIES IMPACT ANALYSIS

A. Utilities Impact Analysis

1. Chilled Water

The existing FAU chilled water lines in the region of this project are very limited in capacity and should be reserved for nonhousing related facilities; therefore, new independent HVAC systems should be evaluated for the new housing complex. The design engineer should provide a Life Cycle Cost Analysis (LCCA) comparing a water source heat pump (WSHP) system as baseline, versus the alternative of a new stand along water cooled central plant with primary-secondary pumping arrangement supplying fan coil units. The cooling plant option will need to account for expandability to supply future housing phases and integrating the plant location within the overall site context. The WSHP option should include a traditional cooling-tower condenser loop as well as a geothermal heat rejection feasibility study. The first phase of the project is anticipated to require 400 to 500 tons of cooling.

2. Heating

Heating systems for the residence hall will be independent from any campus infrastructure impacts and the design approach should be evaluated as part of the LCCA noted in the chilled water section. The baseline approach will be water source heat pumps. The alternative will be electric heat at fan coil units.

3. Electrical

The new residence hall is anticipated to have an electrical load of approximately 1,200 KVA. This load should be confirmed once equipment selections are made for the proposed new cooling plant. Capacity

for this new load can be accommodated by campus primary utility feeder #3240 which currently supplies other housing facilities and is routed underground along the west side of University Drive. For redundancy, include a connection to utility feeder #3234 at this same location. Extension of these 13.2kV primary feeders should be made in the nearest manhole and include installing new 15kV rated pad-mounted switchgear to supply the new housing service transformer. The new housing transformer is proposed as 1,500 KVA with a 480Y/277volt secondary service to the new housing facility. Provide a minimum of two spare fused ways in the switchgear to supply future buildinas.

4. Potable Water

The demand flow is approximately 67,000 GPD for the 670 beds. The potable water supply is the existing 8" water main pipe running east-west along the southern boundary of this site. This project is anticipated to require a 4" potable water meter and backflow prevention assembly.

An automatic fire sprinkler system is required for the project, including an 8" double detector check valve and fire department connection with vehicular access for fire rescue. Fire hydrant locations and access shall be coordinated with the City of Boca Fire Rescue. There is an existing fire hydrant on the southern boundary of the site that may require relocation.

This campus water loop system is supplied from the City of Boca Raton Utilities with adequate supply.

An FAU excavation permit shall be issued prior to any digging. Building permits are required from the FAU Permit Department for all trades. All utilities shall be metered.

5. Sanitary

The sanitary sewage flow estimate is approximately 67,000 GPD. There is no gravity sanitary sewer in the vicinity of this project. A new private sewer lift station to accommodate the flows for this project will be required, sizing to be determined by the final design. Initial expectations are for a new wet well with (2) 7.5 HP pumps and all associated valves, controls, and other features to provide the lift station service. A new sewer force main will be required. The route is yet to be determined, however, there are two potential options:

Option 1: This project shall provide approximately 1,400 linear feet of 8" PVC sewer force main from the project site, directional bored (10") under East University Drive, 8" sewer force main, to a new 10" tapped connection point in the City of Boca Raton's existing 24" prestressed concrete pressure pipe sewer force main at the El Rio Canal.

Option 2: This project shall provide approximately 1,500 linear feet of 8" PVC sewer force main from the project site to a new valve and plug on the south side of Northwest 20th Street to connect to a future sewer force main that will be constructed by others as part of other infrastructure upgrades

An FAU Excavation Permit shall be issued prior to any digging. Building permits are required from the FAU Permit Department for all trades. All utilities shall be metered.

6. Irrigation

The existing 4" reclaimed water irrigation main runs north-south along the west side of East University Drive. A new branch line, requiring minimal additional pipe, is required for supplying irrigation to the new landscaped areas for this project. Site Irrigation around this new building will be zoned and metered according with FAU standards. Irrigation water supply is unlimited at this time from the City of Boca Raton Utilities.

An FAU excavation permit shall be issued prior to any digging. Building permits are required from the FAU Permit Department for all. All Utilities shall be metered.

7. Stormwater Management

Stormwater drainage pipes exist within the project site that currently serve Parking Lot 28 and convey stormwater to the dry detention area to the south. These pipes will need to be considered and relocated if necessary to accommodate the proposed design.

A portion of the existing dry detention area will be filled to connect St. Lucie Ave to East University Drive, which will be required to be offset with additional stormwater management storage and treatment volume.

Stormwater from the project area is directed south towards the dry detention area and ultimately discharging to the Lake Worth Drainage District (LWDD) L-46 Canal. Stormwater drainage for any expansion will follow the requirements of Basin 4 of the master South Florida Water Management District Conceptual Drainage Permit and will need to provide underground stormwater management (exfiltration trenches, underground chamber systems, swales, or some combination of the above) for water quality treatment and water quantity storage to offset its development impacts.

An FAU excavation permit shall be issued prior to any digging. Building permits are required from the FAU Permit Department for all trades.

The Environmental Resource Permit (ERP) program is implemented by DEP and has been delegated to the South Florida Water Management District (SFWMD). Environmental Resource Permits (ERPs) benefit Florida by preventing stormwater pollution to Florida's rivers, lakes and streams and helping to provide flood protection for the built environment. The ERP program regulates the management and storage of surface waters and provides protection for the vital functions of wetlands and other surface waters.

A new individual SFWMD Environmental Resource Permit is required to authorize construction of the project before beginning any land use or construction activity that could alter surface water flows or contribute to water pollution. The

individual ERP shall be in conformance with the requirements of the SFWMD Master Conceptual Permit for the campus.

LWDD Permit is required only if modifications to the control structure or adjacent to LWDD right-of-way are proposed.

An NPDES Notice of Intent to Use the Generic Permit is required to be obtained by the selected construction manager or site contractor responsible for site work and maintenance of the best management practices. Florida's NPDES stormwater program regulates discharge of stormwater to surface waters or to a municipal separate storm sewer system (MS4) from construction activities that disturb more than one acre or are part of certain larger projects that disturb more than one acre. Operators of construction activities that meet the criteria for coverage must obtain a NPDES stormwater permit and implement a stormwater pollution prevention plan.

8. Natural Gas

Existing natural gas pipe runs along the west side of East University Drive, north of the project area. It will be the contractor's responsibility to extend the 4" HDPE gas service south to the project area and provide the gas meter and regulator at the proposed building.

9. Telecommunications

Telecommunications service to the new residence hall can be supplied from the existing underground campus telecom

infrastructure near the corner of Arts Avenue and East University Drive. Connect to the existing manhole and extend four (4) – 4" conduits in underground duct bank to a new vault and to the new service entrance communications room in the new facility. Install all work in compliance with FAU standards.

10. Fire Alarm System

The fire alarm system will be a standalone, fully addressable system comprised of code required smoke detectors, heat detectors, manual pull stations, and audio/ visual signaling devices. The fire alarm system will be remotely monitored by the FAU Police Department.

11. Energy Management Control System

The Energy Management System will be monitored and controllable remotely at the central utilities plant Building #05 and compatible with the existing campus EMS.

12. Site Lighting

Site lighting will be required and shall comply with FAU standards and IES guidelines. Provide illumination of pedestrian pathways, parking areas, and circulation areas.

13. Surface Improvements

Sod and landscaping will be required.

B. Utilities Infrastructure Cost Estimates

Cost estimate provided by Facilities Management - Engineering & Utilities

C. Infrastructure Maps

The following infrastructure planning drawings for the site area available from Facilities Management. All existing utilities and conditions shall be verified by the design team.

Chilled Water Distribution
Hot Water Distribution
Potable Water Distribution
Sanitary Sewer Collection System
Re-use Water - Irrigation System
Stormwater Drainage System
Natural Gas Drainage System

Refer to the link below for the OIT infrastructure spec which covers the following:

High Voltage Electrical Distribution Telecommunications / Data System TV - Cable System

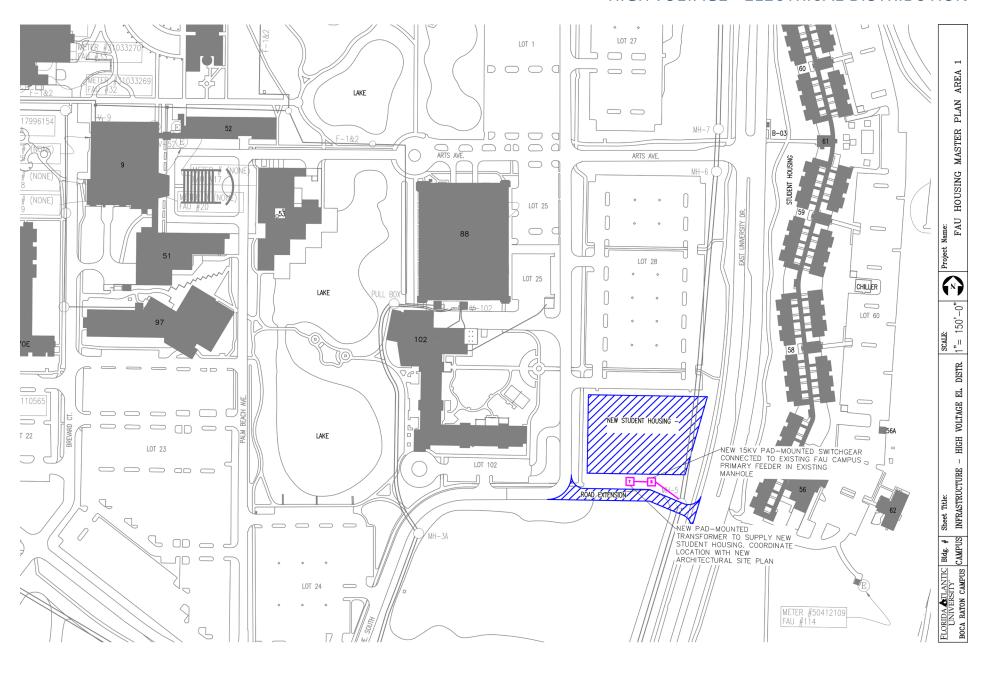
https://www.fau.edu/oit/about/pdf/oit-infrastructure-2023.pdf

UTILITIES BUDGET INFORMATION

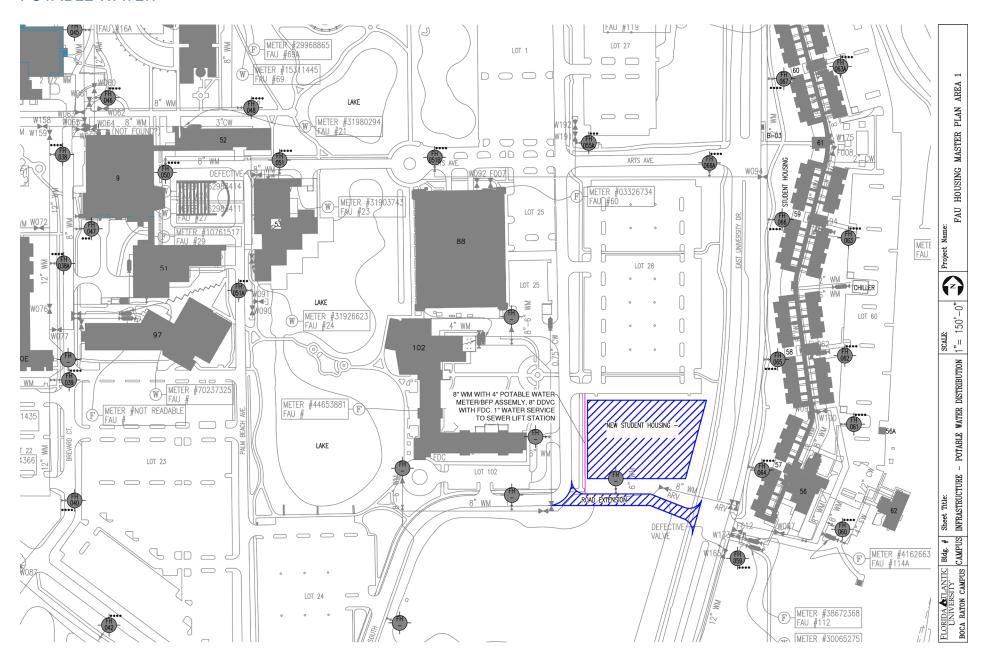
CHILLED WATER		
Mechanical Cooling System (Part of Building Desi	gn)	
No Tie-In to Campus Systems		
	Subtotal	\$1,500,000
ELECTRICAL		
New 15KV Pad-Mounted Switchgear		
1,500 DVA Transformer		
Duck Bank and Feeders From Existing Manhole		
	Subtotal	\$290,000
POTABLE WATER		
Wet Tap		
Valves		
Meter Assembly		
Backflow Preventer		
Fire DDCV		
FD Connection		
Lift Station		
Extension Stub out		
	Subtotal	\$375,000
SANITARY Option 1		
On-Site Gravity Sewer and Manholes		
Lateral Connections		
Sewer Lift Station		
Sewer Force Main		
Directional Bore (East University Drive)		
Core + Connect to Existing Sewer Force Main		
	Subtotal	\$550,000
SANITARY Option 2		
On-Site Gravity Sewer and Manholes		
Lateral Connections		
Sewer Lift Station		
Sewer Force Main		
Plug for Future Connection		
Concrete Sidewalk Removal/Reconstruction		
	Subtotal	\$475,000
NATURAL GAS		
Provided by Utility Provider		
	Subtotal	\$0
TELECOMMUNICATIONS		
New Duck Bank		
Cabling + Manholes Connect to Manhole at Unive	rsity Dr.	
	Subtotal	\$2,020,000

DEMOLITION		
Clearing and Grubbing		
Erosion and Sediment Control		
Removal of Existing Storm and Sidewalks		
	Subtotal	\$125,000
SITEWORK		
Roadway Connection from St Lucie to East Univer	rsity	
Site Work		
Fill for Dry Retention Area		
Grading and Drainage		
Storm Lines and Manholes		
Exfiltration Trench (400 LF)		
Yard Drains		
Inlets		
Curb and Sidewalk		
Roadway Striping		
	Subtotal	\$2,700,000
LANDSCAPING		
Allowance for Sod, Landscaping and Site Furnish	ings	
	Subtotal	\$175,000
IRRIGATION		
Wet Tap		
Valves		
Water Meter		
Backflow Preventer		
Stub Out for Future Extensions		
	Subtotal	\$225,000
	Jubiotai	\$225,000
SITE LIGHTING	Subtotal	\$225,000
SITE LIGHTING Allowance for Architectural Lighting	Subtotal	\$225,000
	Subtotal	\$100,000

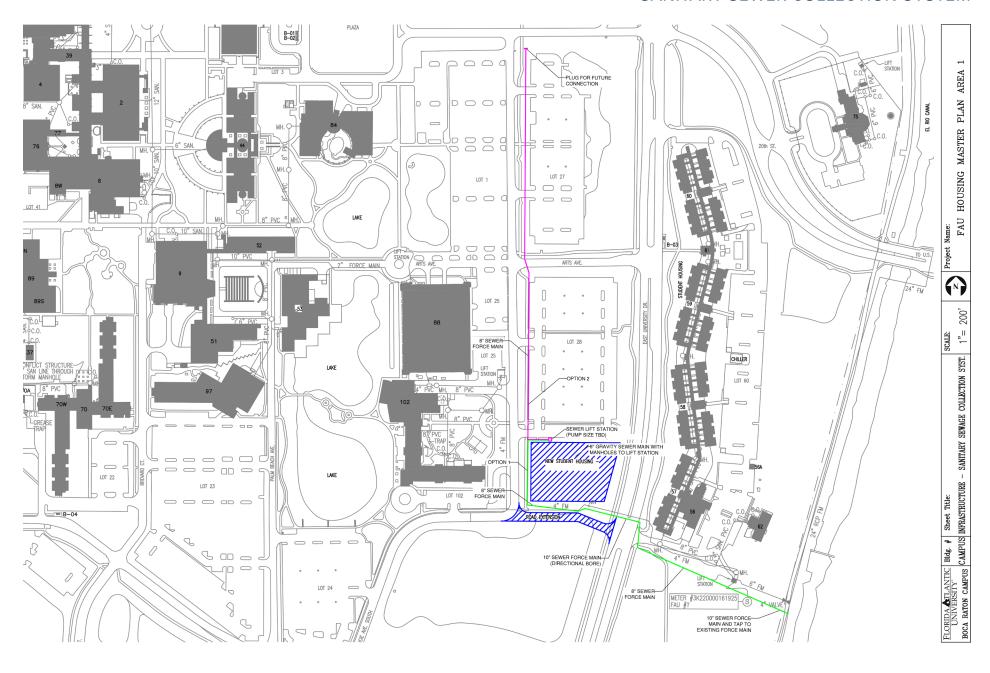
HIGH VOLTAGE - ELECTRICAL DISTRIBUTION



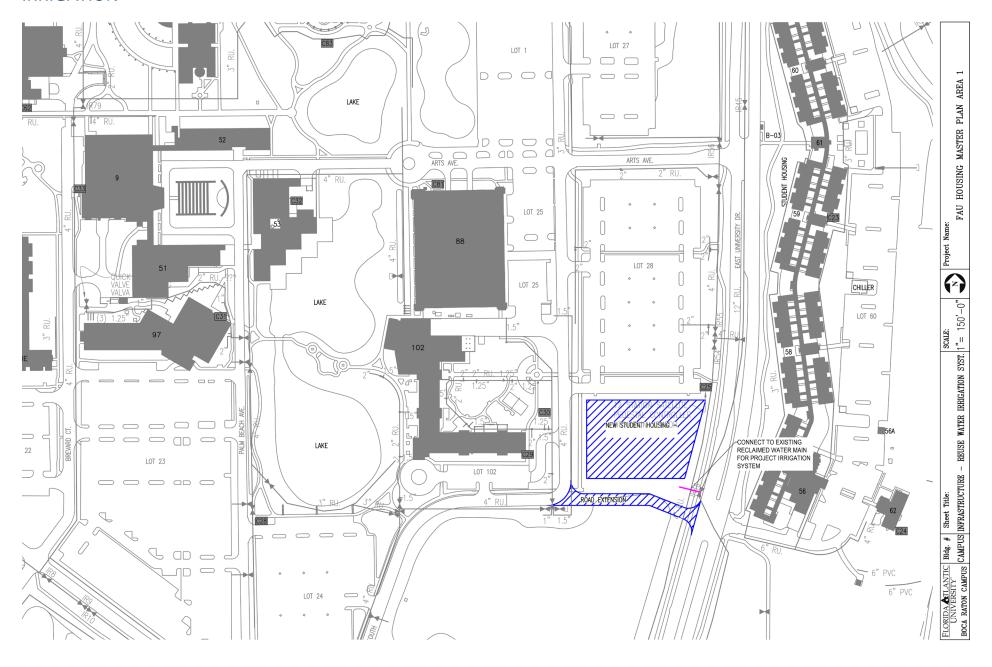
POTABLE WATER



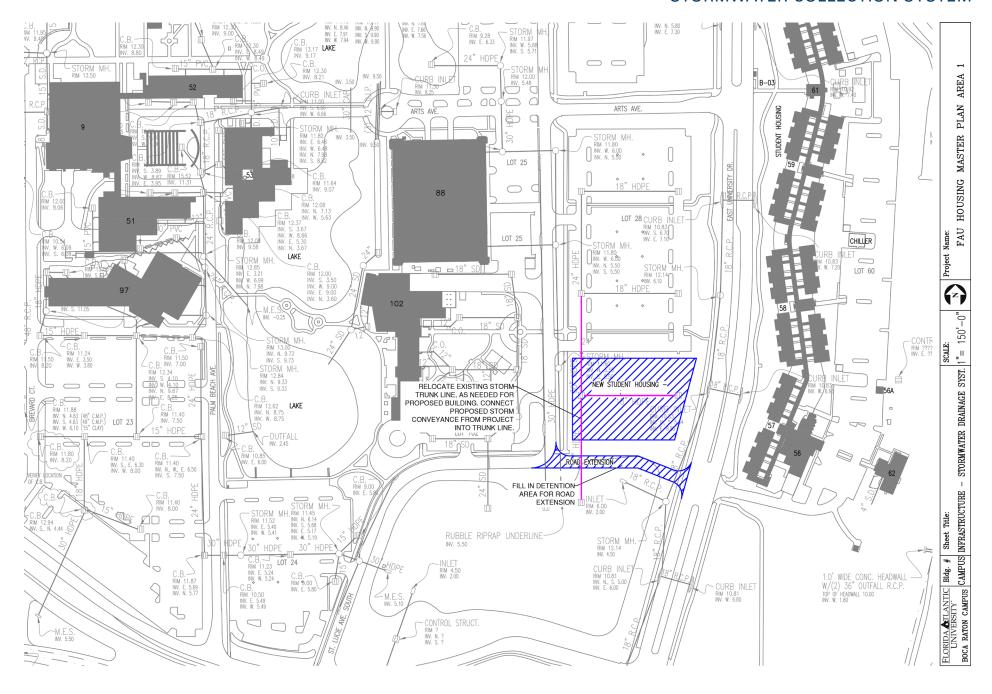
SANITARY SEWER COLLECTION SYSTEM



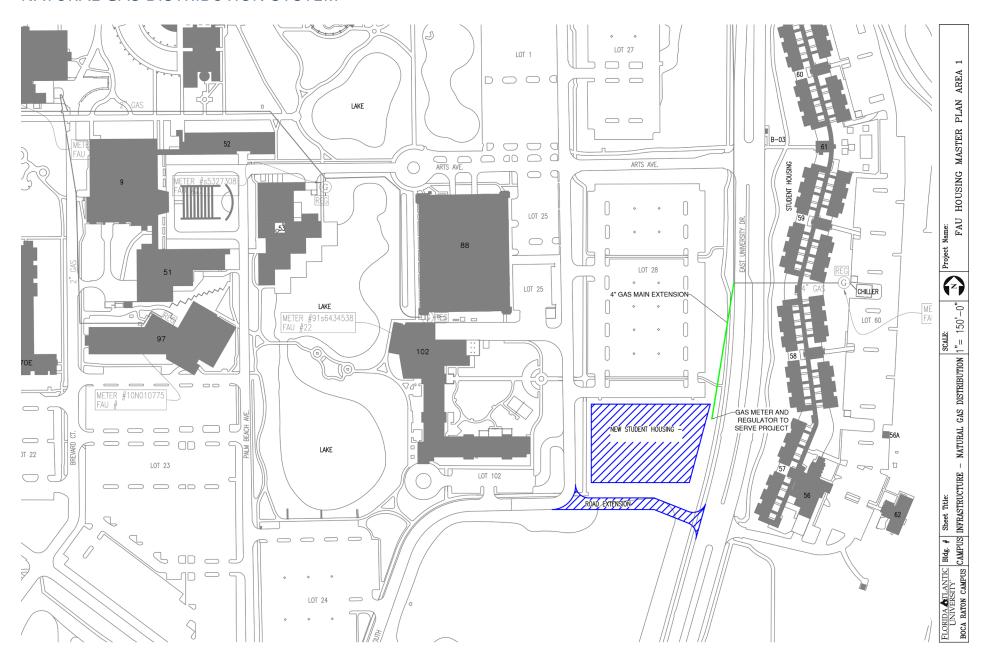
IRRIGATION



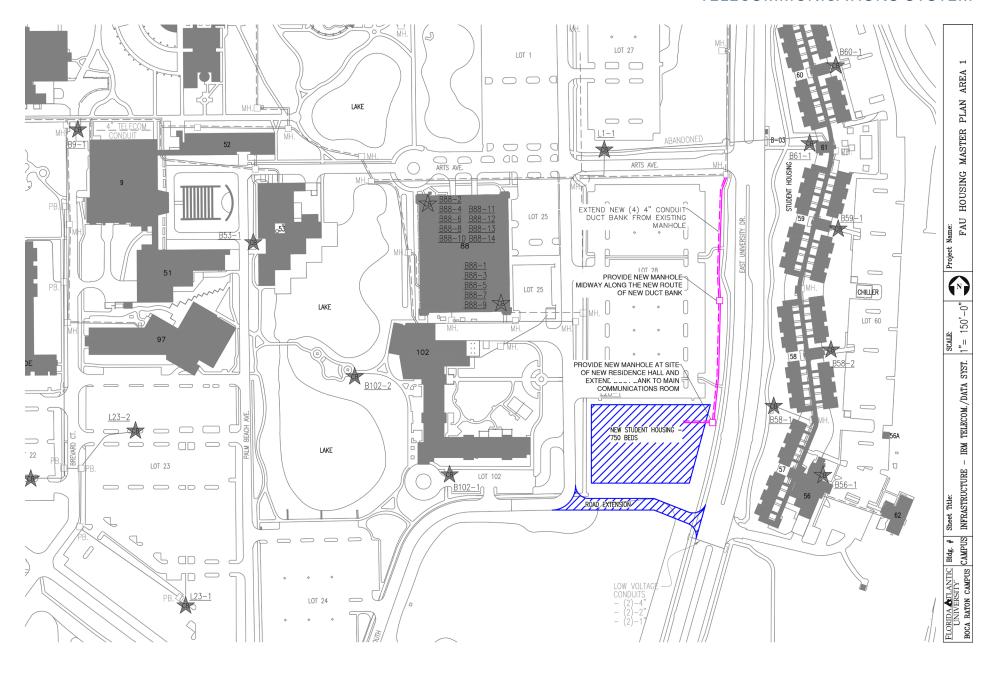
STORMWATER COLLECTION SYSTEM



NATURAL GAS DISTRIBUTION SYSTEM



TELECOMMUNICATIONS SYSTEM



XI. INFORMATION / COMMUNICATION RESOURCE REQUIREMENTS

A. University Information / Communication Standard

All voice and data systems shall comply with Florida Atlantic University's most current specification 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://www.fau.edu/shared/shared_ispec/ Cl Spec 2016.pdf

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 Management 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 Section 282, F.S.

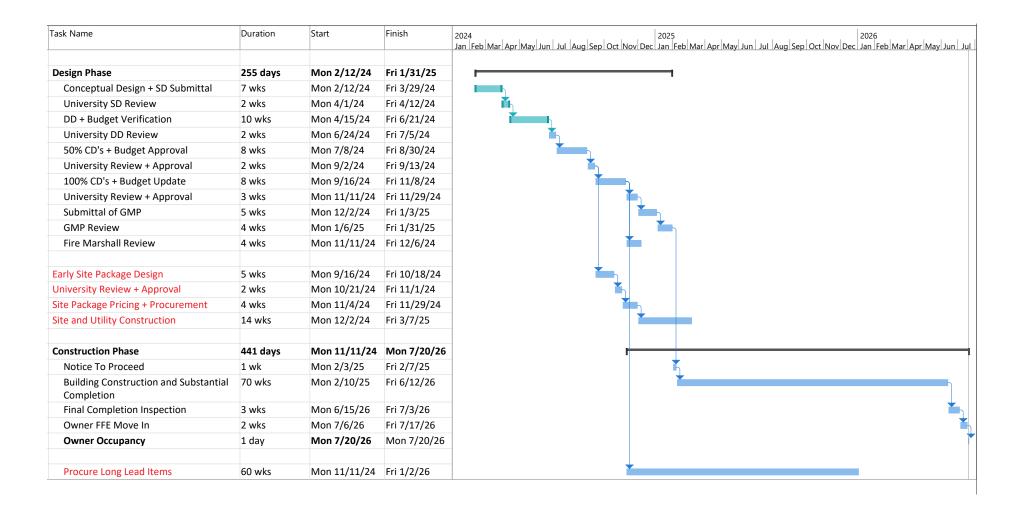
A. Codes and Standards

The following editions of codes and standards (and associated review and 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
1.	2020 (7th Ed.)	Florida Building Code, Building
2.		Florida Building Code, Mechanical
3.	2020 (7th Ed.)	Florida Building Code, Fuel Gas
4.		Florida Building Code, Plumbing
5.	2020 (7 th Ed.)	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)
tandard	Year	Title
1	2020 (7 th Ed.)	Fire Prevention Code
10	2018	Standard for Portable Fire Extinguishers
13	2016	Standard for the Installation of Sprinkler Systems
13R	2016	Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and including four stories in Height
14	2016	Standard for the Installation of Standpipe and Hose systems, except 2-7 Shall be omitted
20	2016	Standard for the Installation of Centrifugal Fire Pumps
24	2016	Standard for the Installation of Private Fire Service Mains and Their Appurtenances
25	2017	Standard for the Inspection, Testing & Maintenance of Water Based Fire Protection Systems
30	2018	Flammable and Combustible Liquids Code
45	2015	Standard on Fire Protection for Laboratories Using Chemicals
70	2017	National Electrical Code
72	2016	National Fire Alarm Code
90A	2018	Standard for the installation of Air Conditioning and Ventilating Systems
96	2017	Standard for Ventilation Control and Fire Prevention of Commercial Cooking Operations
101	2018	Life Safety Code
	3.13.3	State Fire Marshal
	2.10.0	Requirements for review shall comply with PSG, Exhibit 5; (all inspections, reviews and permitting for University projects shall be coordinated through the University BCA Office)
	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 o construction.
	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
	3.13.5.4	Department of Environmental Protection (DEP), area Branch and NPDES Permits
	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 agencie
		(the A/E consultant(s) shall record in meeting minutes).
		Miscellaneous Statutes

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

XIII. PROJECT SCHEDULE



XIV. PROJECT BUDGET SUMMARY

PROJECT SPACE AND BUDGET SUMMARY					
Inflation Adjustment	1.5	Years @	3.00 %	Effective Rate	3.02 %
Construction Phase Duration	0	Years			
Design Phase Duration	0	Years		Estimated Budget §	119,123,800.00
				Target Budget \$	-
SPACE SUMMATION (from Section IX of Facilities		Enstein	GSF	\$ / GSF	5
Program Space Type (New Construction) Administrative	NASF 2,500	Factor 1.52	3,788	405.00	\$1,534,089.38
Residences	116,965	1.52	177,220	405.00	\$71,773,905.50
Shared Community in Halls	7,920	1.52	12,000	405.00	\$4,859,995.14
Maintenance / House Keeping	2,110	1.52	3,197	405.00	\$1,294,771.43
Support Mechanical	4,510	1.52	6,833	405.00	\$2,767,497.23
Avg. Construction Cost	4,510	1.32	0,833	405.00	\$2,101,471.23
Total Construction Cost	134,005	1.52	203,038	403.00	\$82,230,300.00
Total Constitution Cost	13 1,003	1.02	203,030		302,220,200100
Program Space Type (Renovation)	NASF	Factor	Existing GSF	\$ / GSF *	9
CONSTRUCTION COSTS					
Building Construction Cost		Units		Unit Cost	9
New Construction Cost	203,038	GSF		\$405.00	\$82,230,300.00
Renovation Cost (Get Wise)	3,400	GSF		\$350.00	\$1,190,000.00
Sub-Total Construction Costs				Round to 100	\$83,420,300.00
Additional/Extraordinary Construction Cost		Units		Unit Cost	
Site Preparation/Demolition	1	Allowance		\$125,000.00	\$125,000.00
Roadway Improvements	1	Allowance		\$1,500,000.00	\$1,500,000.00
Parking Improvements	0	Spaces		\$2,500.00	\$0.00
Landscaping and Irrigation	1	Allowance		\$400,000.00	\$400,000.00
Plazas/Walks/Bikepaths	1	Allowance		\$500,000.00	\$500,000.00
Utilities Infrastructure Cost Electrical Services		Allowance		\$550,000.00	\$550,000.00
Water Distribution System		Allowance		\$375,000.00	\$375,000.00
Sanitary Sewer System		Allowance		\$550,000.00	\$550,000.00
Storm Water System		Allowance		\$700,000.00	\$700,000.00
Chilled Water System		Allowance		\$1,500,000.00	\$1,500,000.00
Building security system (Card Access)		Allowance		\$250,000.00	\$250,000.00
Building Security Cameras	1	Allowance		\$750,000.00	\$750,000.00
Sub-Total Add/Extra Construction Costs				Round to 100	\$7,200,000.00
Telecommunications - Internal Wiring	1	Allowance		\$1,800,000.00	\$1,800,000.00
Telecommunications / External Infrastructure	1	Allowance		\$220,000.00	\$220,000.00
Sub-Total Telecommunication Cost				Round to 100	\$2,020,000.00
Inflation Adjustment					\$4,199,900.00
TOTAL CONSTRUCTION COSTS				Round to 100	\$96,840,200.00
OTHER PROJECT COSTS Add or delete following it	ems as required.				
Land/Existing Facility Acquisition	Purcl	nase or Budget	\$0.00	Round to 100	\$0.00
Professional Fees					
A/E Fees (Curve D: Average Complexity)	0.06	%		\$4,589,669.05	\$4,589,700.00
Civil & Engineering Fee (10% of A/E Fee)	10.00	%		\$458,966.91	\$459,000.00
Landscape Design Fee (5% of A/E fee)		%		\$229,483.45	\$229,500.00
C/M Pre-Construction Services Fee	1.00			968402	\$968,400.00
Sub-Total Professional Fees				Round to 100	\$6,246,600.00
State Fire Marshal Review and Inspection	0.25	%		Round to 100	\$242,100.00
Inspection Services					
Threshold Inspection	1	Allowance	14.2%	0.5%	\$68,800.00
Code Compliance Inspection(weekly)	1	Allowance		\$350,000.00	\$350,000.00
Plan Review (Code Compliance Inspection)	1	Allowance		\$75,000.00	\$75,000.00
Sub-Total Inspection Services				Round to 100	\$493,800.00

Risk Management / Insurance Consultant	0.06	%	Round to 100	\$61,600.00
Surveys & Tests				
Topographical/Site Survey	1	Allowance	\$18,000.00	\$18,000.00
Environmental Impact/Assessment Study	1	Allowance	\$3,800.00	\$3,800.00
Geotechnical Testing	1	Allowance	\$35,000.00	\$35,000.00
Sub-Total Surveys & Tests			Round to 100	\$56,800.00
Permit/Impact/Environmental Fees				
Environmental (SFWM)	1	Allowance	\$12,000.00	\$12,000.00
Water/Sewer Impact Fee - City of Boca	224	Units	\$9,363.00	\$2,097,312.00
Sub-Total Permits/Impact Fees			Round to 100	\$2,109,300.00
Art in State Building (Section 255.043, F.S.)	0	%	Round to 100	\$0.00
Movable Furniture & Equipment				
Furniture & Equipment	6	%		\$5,810,400.00
Sub-Total Furniture & Equipment			Round to 100	\$5,810,400.00
Project Contingency	6	%	Round to 100	\$5,810,400.00
Campus Infrastructure - future connections	1.5	%	Round to 100	\$1,452,600.00
TOTAL OTHER PROJECT COSTS			Round to 100	\$22,283,600.00
TOTAL PROJECT BUDGET COST ESTIMATE				\$119,123,800.00