



**MIAMI
UNIVERSITY**
OXFORD OHIO

REFRESHING STUDENT HOUSING AT MIAMI (OHIO)

MASTER PLANNING FOR PHASED UPGRADES

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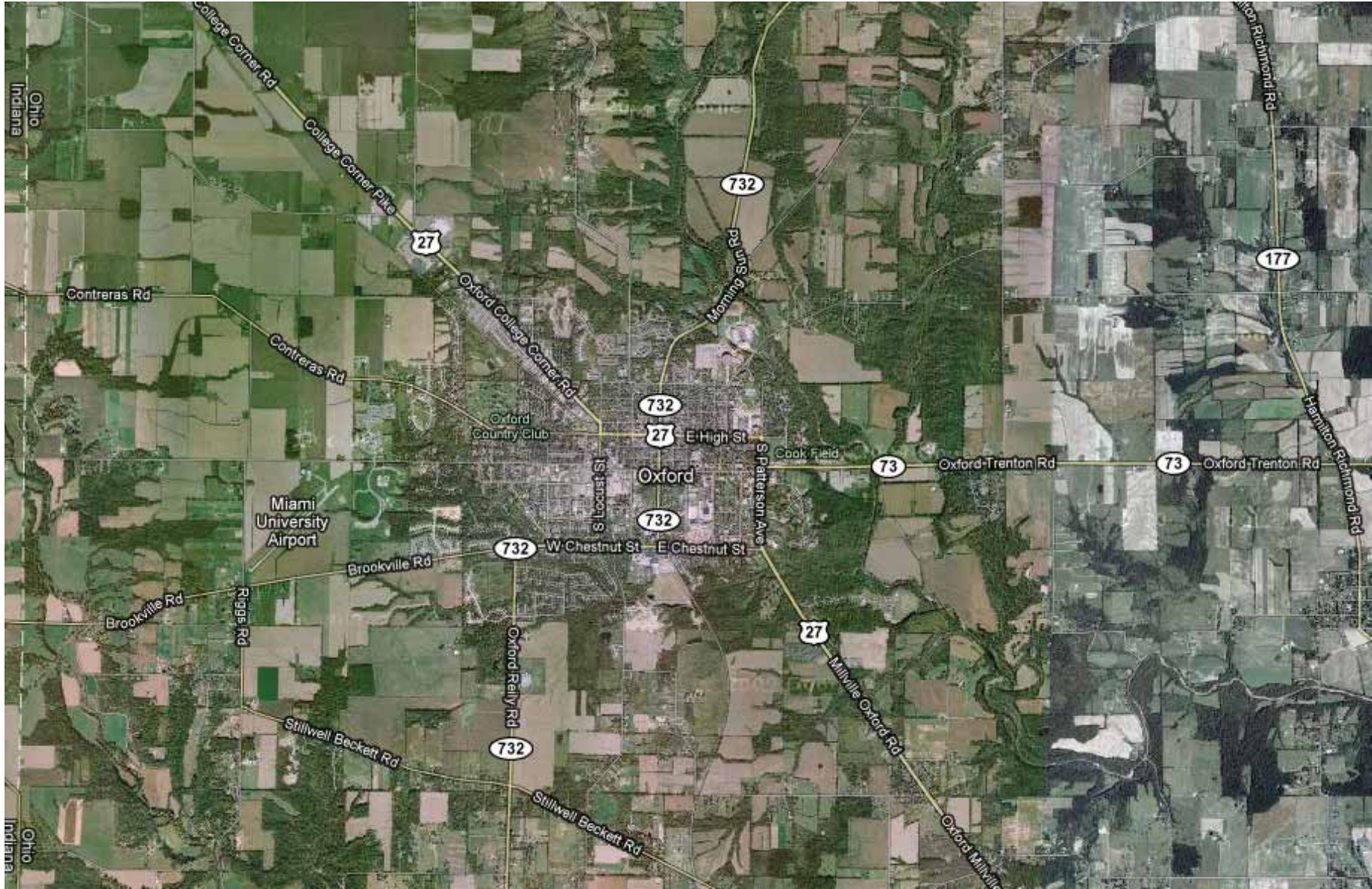
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Senior Principal. Champlin Architecture



Miami University



Miami University



University Facts:

- 200 years old
- 2000 acres
- Approx. 6 million SF of buildings
- 16,884 students (87% undergraduate)
- 53% female, 47% Male
- 84% white
- Tuition: \$11,442 (in state), \$26,202 (out of state)
- Room & Board: \$9,458

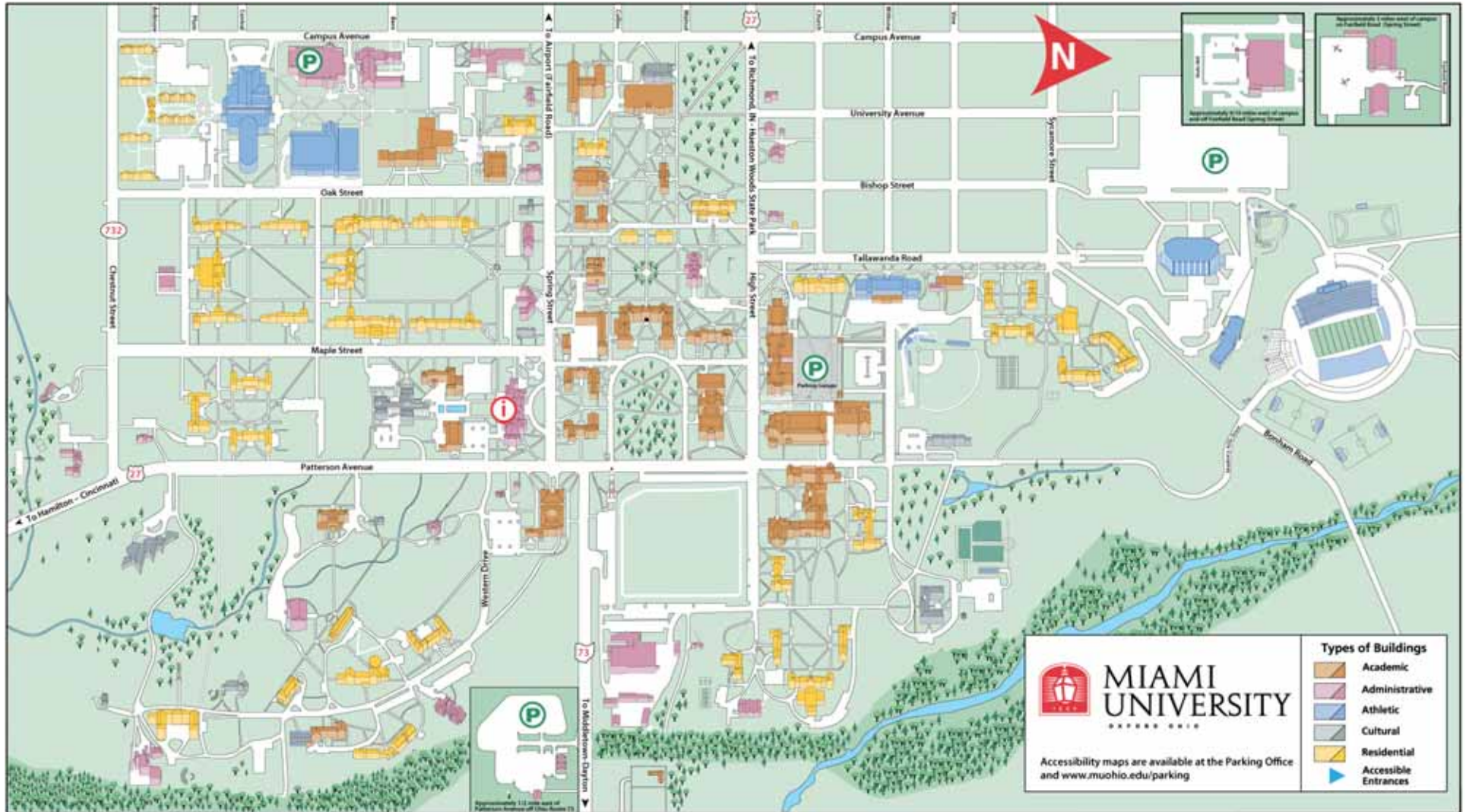


Housing Facts:

- 41 buildings
- Average age 61 years
- 2,008,913 SF
- 7,124 beds



CAMPUS MAP



Condition of Housing Stock

FY 2009									
Building Group	Estimated Current Replacement Value (CRV)	Total Projects Completed	Total Work Accumulated	Facility Condition Index (FCI)	% Change from FY 2008	Gross Square Feet	Work per Square Foot	Year of Construction	
Anderson Hall	\$9,290,650	\$10,594	\$5,540,291	59.63%	2.21%	49,749	\$111.36	1961	
Bishop Hall (Residence only)	\$5,004,166	\$7,884	\$3,851,629	76.97%	2.17%	26,796	\$143.74	1912	
Brandon Hall	\$7,026,860	\$15,256	\$3,980,955	56.65%	2.11%	37,627	\$105.80	1959	
Clawson-Alexander	\$16,605,795	\$33,286	\$7,674,792	46.22%	2.13%	68,253	\$112.45	1946	
Collins Hall	\$7,228,364	\$62,310	\$4,891,824	67.68%	1.46%	38,706	\$126.38	1952	
Dennison Hall	\$9,214,642	\$12,003	\$4,878,898	52.95%	2.20%	49,344	\$98.88	1957	
Dodds Hall	\$7,922,329	\$32,315	\$4,187,345	52.85%	1.92%	42,422	\$98.71	1961	
Dorsey Hall	\$9,684,320	\$78,728	\$6,521,972	67.95%	1.51%	51,856	\$125.77	1962	
Elliott Hall	\$2,355,110	\$0	\$1,204,345	51.14%	2.33%	12,611	\$95.50	1825	
Emerson Hall	\$12,643,381	\$57,185	\$4,563,583	36.09%	1.87%	67,703	\$67.41	1969	
Flower Hall	\$11,538,565	\$67,045	\$5,308,880	46.01%	1.74%	61,771	\$85.94	1966	
Hahne Hall	\$11,069,448	\$10,328	\$4,584,664	41.42%	2.23%	59,270	\$77.35	1966	
Hamilton Hall	\$12,686,147	\$25,937	\$8,757,703	69.03%	2.12%	67,946	\$128.89	1940	
Havighurst Hall	\$13,311,014	\$47,268	\$5,695,856	42.79%	1.97%	71,276	\$79.91	1983	
Hepburn Hall	\$11,756,876	\$10,385	\$8,038,779	68.38%	2.24%	62,955	\$127.69	1964	
Heritage Commons Center	\$1,497,177	\$1,676	\$62,502	4.17%	2.21%	4,666	\$13.40	2005	
Heritage Commons Fisher Hall	\$6,520,806	\$56,366	\$498,752	7.65%	1.46%	30,076	\$16.58	2005	
Heritage Commons Logan Lodge	\$6,520,806	\$5,826	\$535,837	8.22%	2.24%	33,018	\$16.23	2005	
Heritage Commons Blanchard Hall	\$6,520,806	\$0	\$501,932	7.70%	2.33%	29,785	\$16.85	2005	
Heritage Commons Pines Hall	\$6,520,806	\$1,171	\$558,068	8.56%	2.31%	28,810	\$19.37	2005	
Heritage Commons Tallawanda Hall	\$6,520,806	\$2,070	\$559,255	8.58%	2.29%	28,810	\$19.41	2005	
Heritage Commons Reid Hall	\$6,520,806	\$0	\$505,052	7.75%	2.33%	29,785	\$16.96	2005	
MacCracken Hall	\$15,053,769	\$29,092	\$7,240,538	48.10%	2.13%	80,609	\$89.82	1957	
Mary Lyon Hall	\$4,827,126	\$15,859	\$3,082,567	63.86%	2.00%	25,848	\$119.26	1925	
McBride Hall	\$6,703,595	\$14,567	\$4,606,624	68.72%	2.11%	35,895	\$128.34	1952	
McFarland Hall	\$7,016,776	\$13,532	\$3,987,544	56.83%	2.13%	37,592	\$106.07	1959	
McKee Hall	\$5,812,944	\$13,791	\$2,644,405	45.49%	2.09%	26,466	\$99.92	1904	
Minnich Hall	\$11,780,594	\$17,414	\$7,904,837	67.10%	2.18%	63,082	\$125.31	1962	
Morris Hall	\$13,136,776	\$20,860	\$5,073,576	38.62%	2.17%	70,344	\$72.13	1969	
Ogden Hall	\$15,752,064	\$95,876	\$6,004,325	38.12%	1.72%	64,745	\$92.74	1924	
Peabody Hall (res. rooms)	\$7,929,425	\$6,893	\$1,732,199	21.85%	2.24%	42,460	\$40.80	1871	
Porter Hall	\$7,577,961	\$8,050	\$3,152,421	41.60%	2.22%	40,578	\$77.69	1956	
Richard Hall	\$9,290,650	\$20,476	\$5,617,253	60.46%	2.11%	47,404	\$118.50	1948	
Scott Hall	\$13,736,058	\$69,211	\$8,185,936	59.59%	1.82%	73,553	\$111.29	1957	
Stanton Hall	\$9,479,081	\$16,068	\$5,680,949	59.93%	2.16%	50,758	\$111.92	1961	
Stoddard Hall	\$2,373,785	\$6,574	\$1,098,176	46.26%	2.05%	12,710	\$86.40	1836	
Swing Hall	\$9,587,583	\$17,695	\$6,895,428	71.92%	2.14%	51,353	\$134.28	1924	
Symmes Hall	\$11,891,523	\$17,481	\$6,741,083	56.69%	2.18%	63,674	\$105.87	1939	
Tappan Hall	\$13,411,672	\$30,635	\$5,003,609	37.31%	2.10%	71,816	\$69.67	1970	
Thomson Hall	\$9,791,888	\$10,541	\$6,647,423	67.89%	2.22%	52,434	\$126.78	1963	
Wells Hall	\$7,722,132	\$19,808	\$4,815,250	62.36%	2.07%	41,350	\$116.45	1923	
Wilson Hall	\$3,672,822	\$11,366	\$2,771,995	75.47%	2.02%	19,687	\$140.95	1925	
Res. & Dining Hall Total	\$417,244,555	\$2,413,265	\$197,879,717	47.43%	1.75%	2,123,874	\$93.17	1952	57
				20% > 65%				1948	61

Condition of Housing Stock

- Outdated
- Small
- Limited room type
- Most not air conditioned
- Systems not energy efficient
- Accessibility poor

Housing Master Plan: Goals & Process

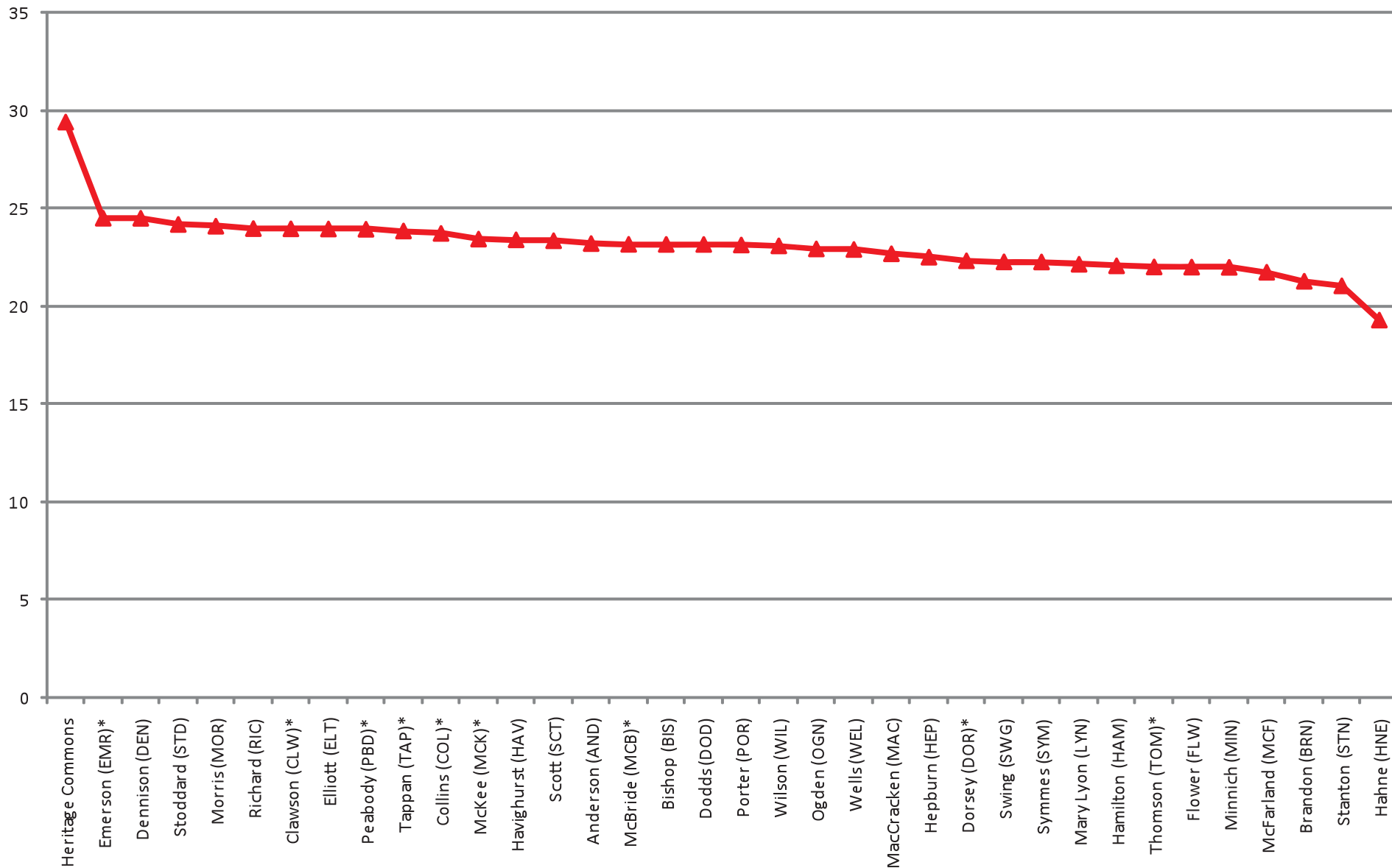
- University wide involvement
- Keep number of beds consistent
- Second year living requirement
- Undergraduate housing only
- On-campus housing only
- Related dining included in master plan
- Committee met for two years
- Interim consultant to verify committee work
- RFQ for master planning and option for design

Market & Demand Analysis

- Strategic Asset Value “Visioning” Analysis
- Demographic Analysis
- Focus Group Interviews
- Strategic Hall Analysis
- Off-Campus Housing Analysis
- Competitive Context Analysis
- Student & Parent Surveys
- Demand Analysis
- Financial Analysis

Strategic Hall Analysis

Ranked by Cumulative Score:
Fall '09 Occupancy, Satisfaction + Building Assessment



Off-Campus Housing Analysis

Unit Type	Average	Low	High	On Campus (Heritage) Premium
Houses	\$2,521	\$1,186	\$3,733	35%
Apartments	\$2,040	\$1,727	\$2,734	46%
Uptown Lofts	\$3,875	\$3,700	\$4,050	4%

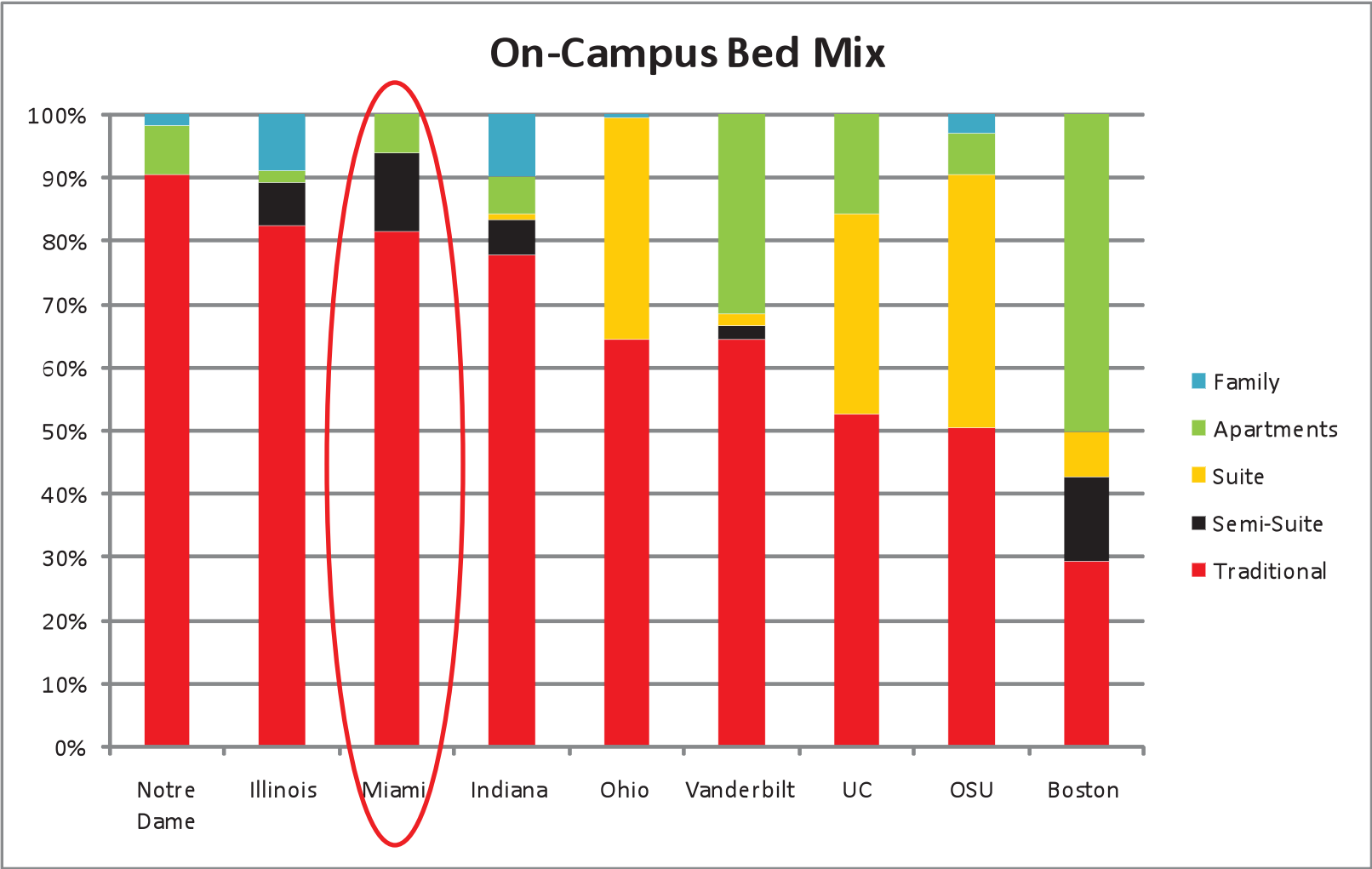
**Rates per person, per semester*

***Utilities added to off-campus average at \$75 per month*

- 88% Avg. Occupancy
- 199 New Units Uptown in 2 yrs.
- Market Saturated

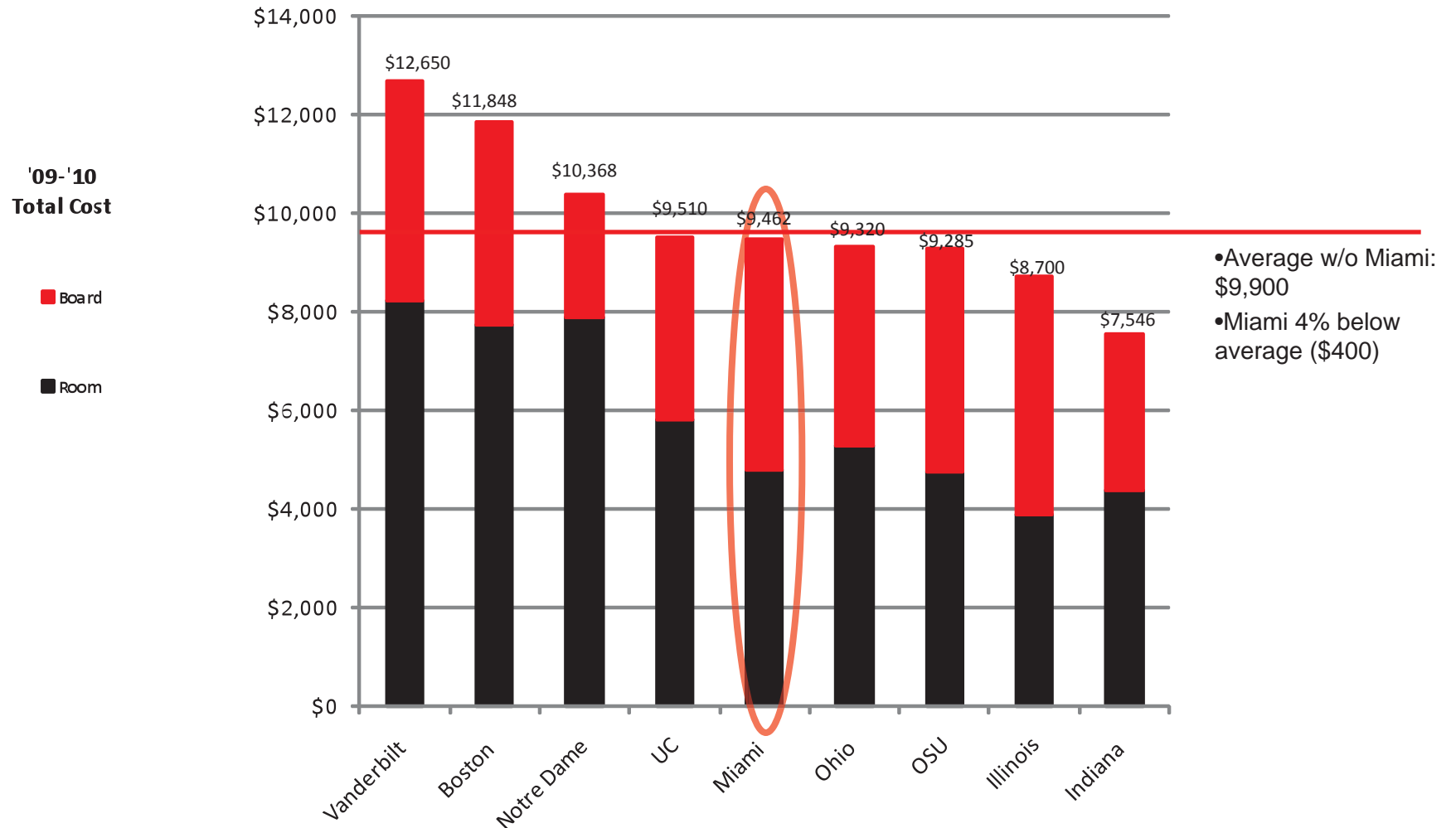


Peer Institutions



Peer Institutions

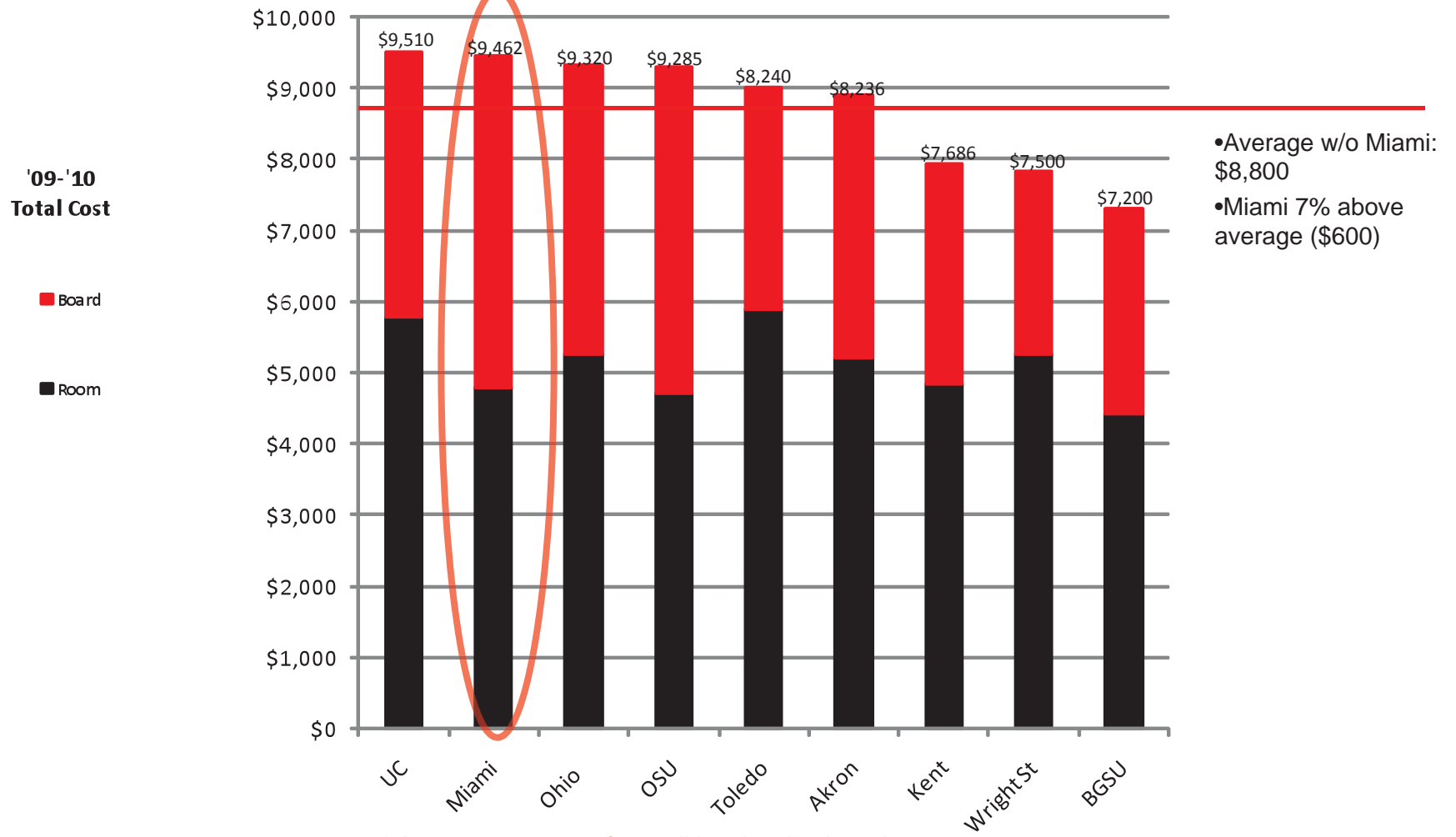
Room and Board Cost Analysis



* Average room rate for traditional-style shared room

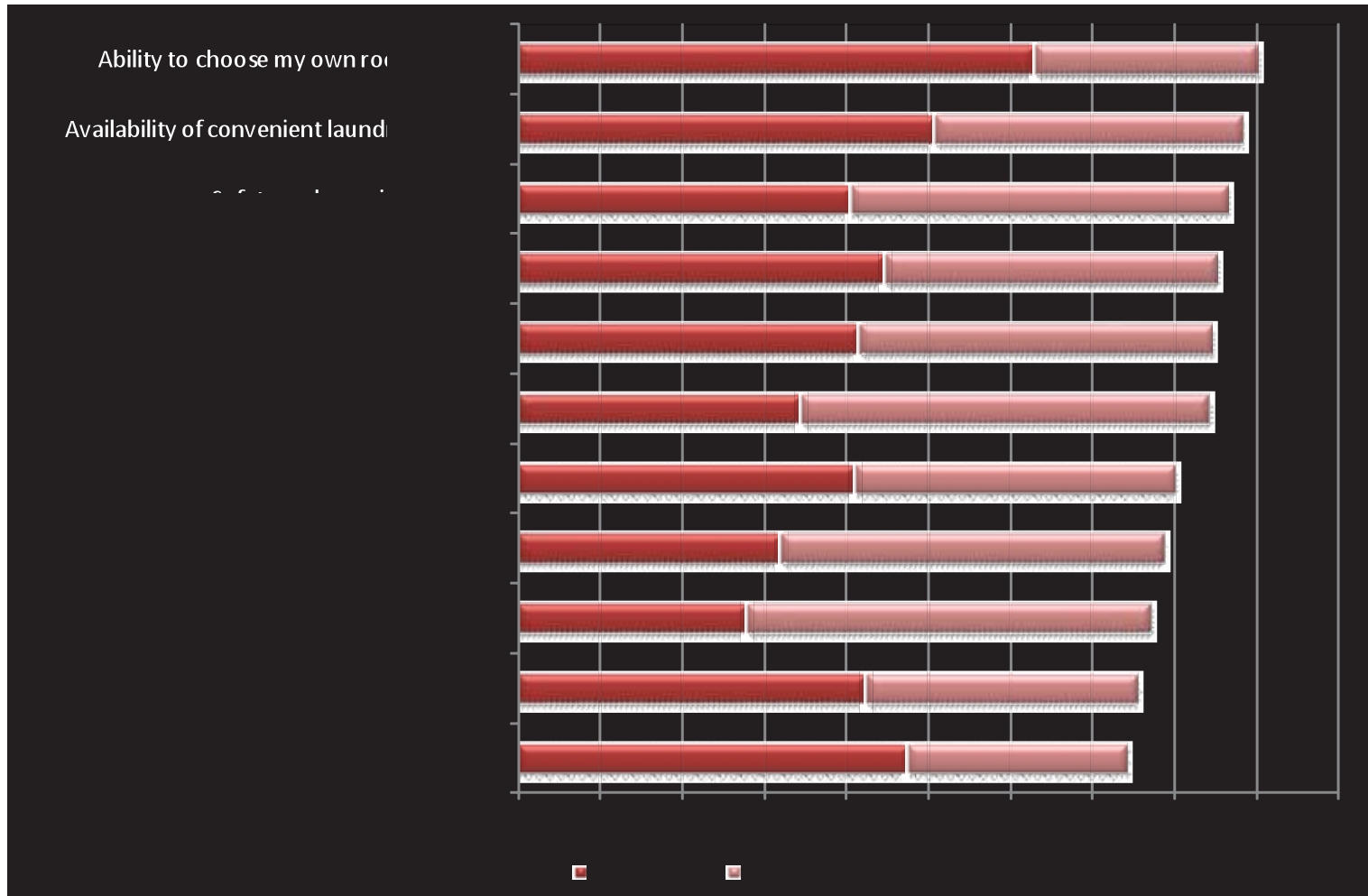
Ohio Institutions

Ohio Room and Board Cost Analysis



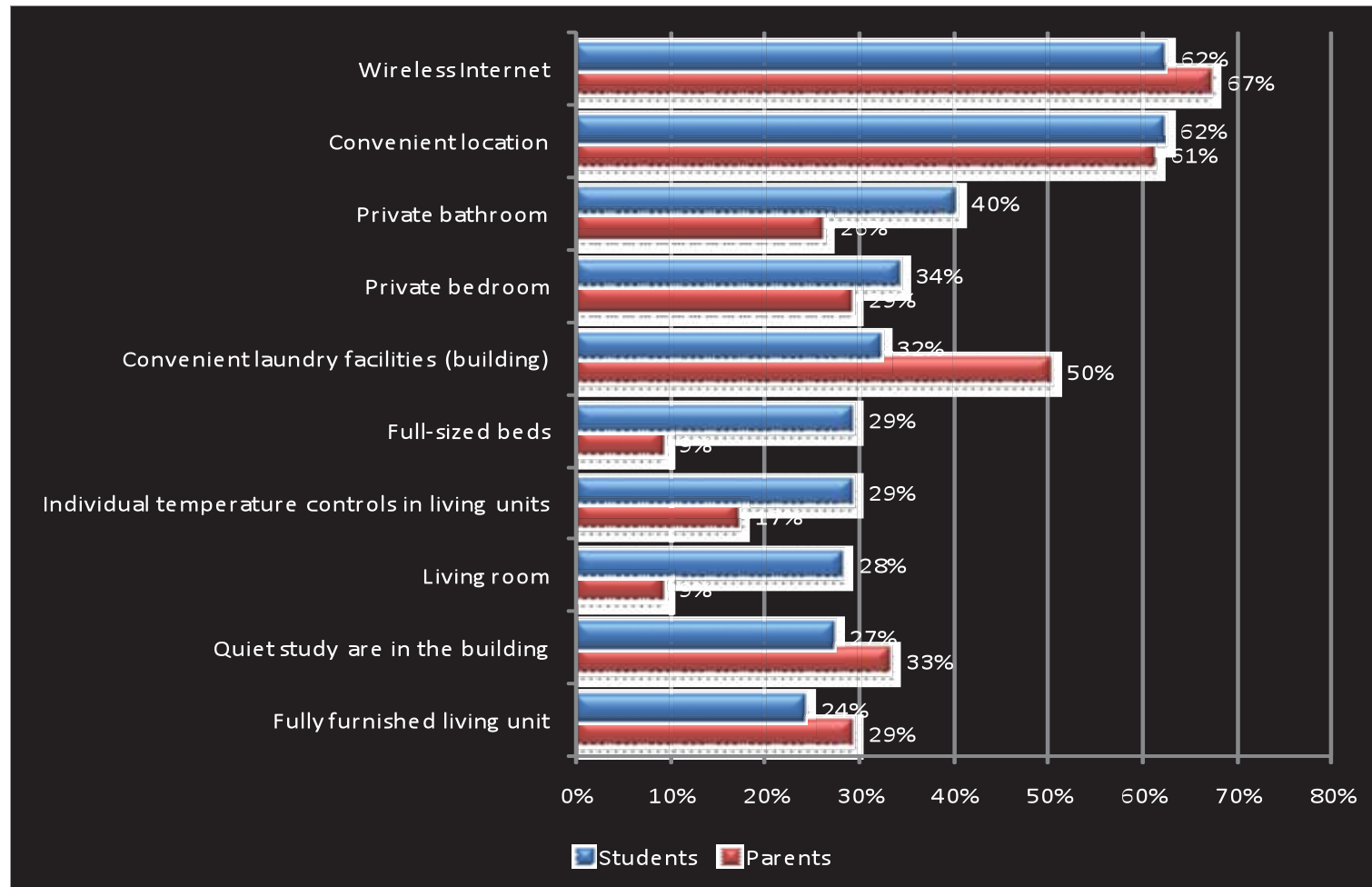
Student Survey

Please rate how important each of the following factors was in your decision on where to live this year:

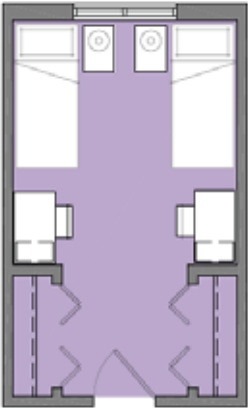


Student & Parent Surveys

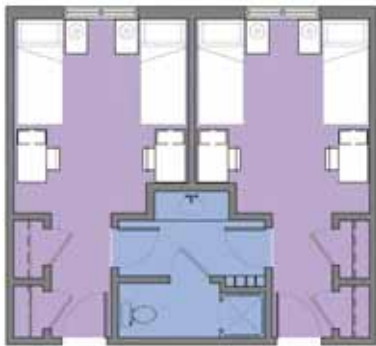
If Miami built new housing, which five physical features would be the most important to you (for your student)?



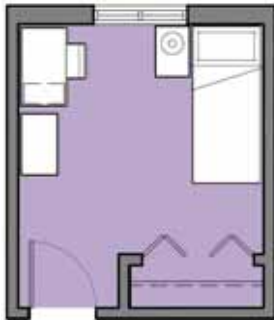
Demand-Based Programming



Unit A - Ex. Trad. (Double)
\$2,400



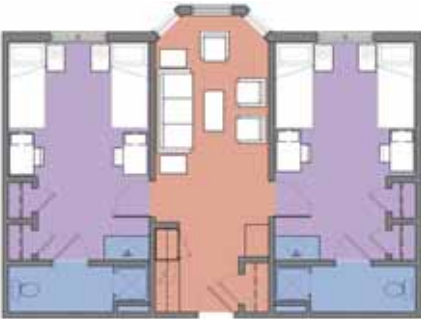
Unit B – Ex. Semi-Suite (Double)
\$2,400



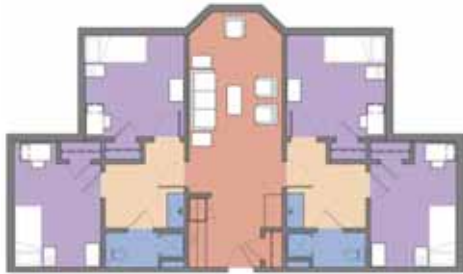
Unit C – Ex. Trad. (Single)
\$3,400



Unit D & E – New Open Suite (Double or Single)
\$3,000-3,200 or \$3,600-3,800



Unit F – New Full Suite (Double)
\$3,200-3,400



Unit G – New Full Suite (Single)
\$4,000-4,200



Unit H – Ex. Apartment (Single)
\$4,400

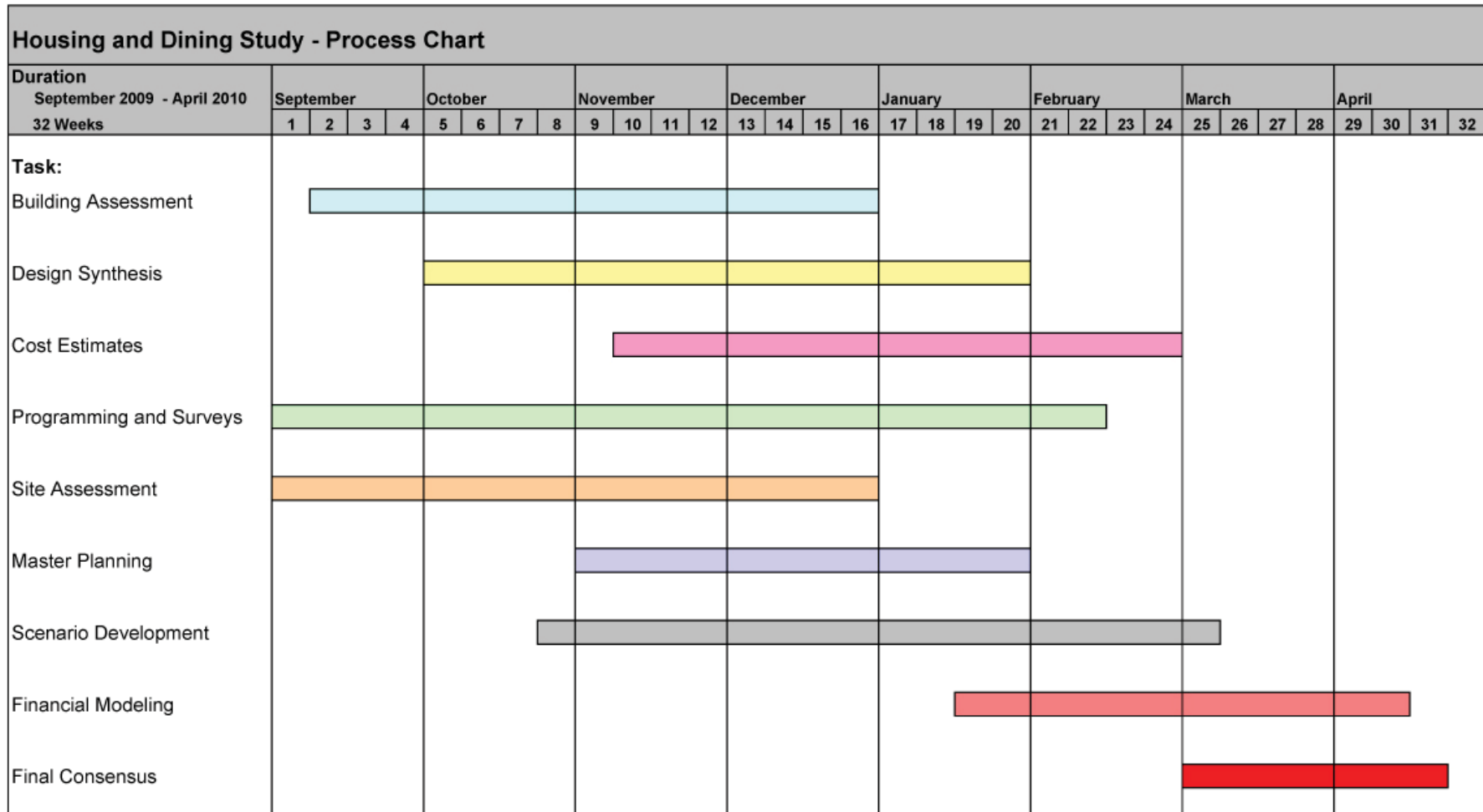
Demand-Based Programming

2009-2010	On-Campus Housing Type: Distribution of Demand								Total
	Unit A - Ex.	Unit B - Ex. 2	Unit C - Ex.	Unit D - New	Unit E - New	Unit F -	Unit G -	Unit H - Ex.	
	Trad. Res.	per. Semi	Trad Res	Unit D - New	Unit E - New	New 4-	New 4	4 BR Apt.	
	Hall	Suite	Hall	Open Suite	Open Suite	per. Full	per. Full	4 BR Apt.	
	Double	Double	Single	Double	Single	Double	Single	Single	
First Year	3,624	0	0	0	0	0	0	0	3,624
Second Year	331	1,106	243	695	575	0	0	0	2,951
Third Year	117	257	123	243	287	0	0	484	1,510
Fourth & Fifth Year	51	192	69	99	328	0	0	549	1,288
Total Demand (# beds)	4,124	1,555	435	1,037	1,190	0	0	1,033	9,374
Existing On Campus Beds	4,625	894	1,156	0	0	0	0	430	7,105
Surplus/(Deficit)	501	(661)	722	(1,037)	(1,190)	0	0	(603)	(2,269)
Occupancy Coverage Ratio	1.05	1.15	1.05	1.15	1.15	0	0	1.30	
Recommended Supply	3,928	1,352	414	902	1,035	0	0	794	8,425
Surplus / (Deficit)	697	(458)	742	(902)	(1,035)	0	0	(364)	(1,320)
% of Total Demand	44%	17%	5%	11%	13%	0%	0%	11%	

Target Market

- Full time students
- Non-homeowners
- Less than 24 years old
- Currently pay \$2,000 or more per semester if off campus

Study Process



Existing Conditions



1825



1920



1950



1960



2000



Western Site

Building Assessments

Group	Building Name	Abbr.	Location	Address	GSF:	Stor.	Bsmt.	Resi- dents	RA	Total Residents	SF/ Res	Primary Occupants:	Year:	Cost to Build:	Architect:	General Contractor:	Misc.
A	Elliot Hall	ELT	Central Quad	101 Irvin Dr.	12,611	4	yes	35	0	35	360	Male Upperclass	1825	\$ 7,000	John P. Schooley*	A. Benzing*	Oldest building on campus. *1937 Renovation
A	Stoddard Hall	STD	Central Quad	201 Irvin Dr.	12,710	4	yes	42	1	43	296	Female Scholar-Leader	1836	Unknown	Unknown	Unknown	Second residence hall built on campus
B	Peabody Hall	PBD	Western Campus	701 Western College Dr.	84,205	5	yes	139	6	145	581	Western Prog. Upperclass	1871	\$ 220,000	Unknown	Unknown	Academic Offices & Theater
C	Bishop Hall	BIS	Central Quad	300 East Spring St.	31,768	4	yes	96	2	98	324	COED Upperclass	1912	\$ 75,000	F.L. Packard	Vesta Construction	Houses Honors Program
C	Ogden Hall	OGN	Central Quad	401 East High St.	64,745	4	yes	165	5	170	381	Female Upperclass	1924	\$ 330,000	Ditoe, Fahnestock & Fenber	Fred Wood	Houses Bell Tower Place Dining Hall
C	Swing Hall	SWG	North Quad	105 North Tallawanda Ave.	51,353	4	yes	222	7	229	224	COED Upperclass	1924	\$ 80,000	Robert S. Harsh	Boyd, John & Barr	
C	Wells Hall	WEL	Central Quad	301 East Spring St.	41,350	4	yes	142	5	147	281	COED First Year	1923	\$ 240,000	F.L. Packard	Unknown	
C	Wilson Hall	WIL	East Quad	21 South Fisher Dr.	19,667	3	yes	48	3	51	386	COED First Year	1925	\$ 110,000	J. Wespiser	J. Wespiser	
D	Mary Lyon Hall	LYN	Western Campus	500 Western College Dr.	35,895	3	yes	136	6	142	253	COED Upperclass	1925	\$ 106,000	President W.W. Boyd	Joe Wespiser	
D	McKee Hall	MCK	Western Campus	600 Western College Dr.	26,466	4	yes	73	2	75	353	COED Upperclass	1904	\$ 323,000	Geyer & Neuffer	Unknown	
E	Collins Hall	COL	East Quad	31 North Fisher Dr.	38,706	4	yes	138	6	144	269	COED First Year	1952	\$ 703,000	C.F. Cellarius	Frank Messer & Sons	
E	Hamilton Hall	HAM	Central Quad	401 South Oak St.	67,946	4	yes	177	4	181	375	Female Upperclass	1940	\$ 398,000	John P. Schooley	James I. Barnes Co.	Sorority Suites/ Houses Dining Hall and Deli
E	McBride Hall	MCB	East Quad	11 North Fisher Dr.	38,000	4	yes	166	6	172	221	Female First Year	1952	\$ 689,000	C.F. Cellarius	Frank Messer & Sons	
E	Richard Hall	RIC	Central Quad	501 South Oak St.	79,740	4	yes	192	5	197	405	Female Upperclass	1940	\$ 947,000	J.P. Schooley	W.H. Miller Company	Sorority Suites
E	Symmes Hall	SYM	East Quad	500 North Fisher Dr.	63,674	5	yes	179	8	187	341	COED First Year	1939	\$ 394,000	C.F. Cellarius	James I. Barnes Co.	
E	Clawson Hall	CLW	Western Campus	440 Western College Dr.	68,253	4	yes	102	5	107	638	COED Upperclass	1946	\$ 1,002,000	C.F. Cellarius	Ferro Construction	
F	Anderson Hall	AND	South Quad	701 South Oak St.	49,749	4	yes	216	8	224	222	COED Residents	1961	\$ 1,035,000	Cellarius & Hilmer	Knowlton Construction	
F	Brandon Hall	BRN	North Quad	385 Tallawanda Ave.	38,000	4	yes	162	6	168	226	COED Upperclass	1959	\$ 711,300	Cellarius & Hilmer	Knowlton Construction	
F	Dennison Hall	DEN	East Quad	21 North Fisher Dr.	49,344	4	yes	169	9	178	277	COED First Year	1957	\$ 1,550,000	C.F. Cellarius/Hilmer	Frank Messer & Sons	
F	Dodds Hall	DOD	South Quad	600 South Maple Ave.	42,422	4	yes	197	8	205	207	COED First Year	1961	\$ 897,000	Cellarius & Hilmer	Knowlton Construction	
F	Dorsey Hall	DOR	East Quad	900 East High St.	51,856	4	yes	239	8	247	210	COED First Year	1962	\$ 5,352,000	Cellarius & Hilmer	Frank Messer & Sons	
F	Hepburn Hall	HEP	North Quad	355 North Tallawanda Ave.	62,955	4	yes	260	6	266	237	Male Upperclass	1964	\$ 1,280,000	Cellarius & Hilmer	Knowlton Construction	
F	MacCracken Hall	MAC	Central Quad	500 Center Dr.	80,609	4	yes	191	5	196	411	Female Upperclass	1957	\$ 1,280,000	Cellarius & Hilmer	Knowlton Construction	Sorority Suites / Houses a Learning Technologies Ctr.
F	McFarland Hall	MCF	North Quad	325 Tallawanda Ave.	34,020	4	yes	78	3	81	420	COED Upperclass	1959	\$ 711,000	Cellarius & Hilmer	Knowlton Construction	
F	Minnich Hall	MIN	Central Quad	400 Maple Ave.	63,082	4	yes	230	5	235	268	Female Upperclass	1962	\$ 1,406,000	Cellarius & Hilmer	Frank Messer & Sons	Sorority Suites
F	Porter Hall	POR	South Quad	601 Oak St.	40,578	4	yes	176	6	182	223	COED First Year	1956	\$ 810,000	C.F. Cellarius	Frank Messer & Sons	
F	Scott Hall	SCT	South Quad	500 Maple Ave.	73,553	4	yes	263	8	271	271	COED Upperclass	1957	\$ 1,739,000	Cellarius & Hilmer	Frank Messer & Sons	Houses two food courts
F	Stanton Hall	STN	South Quad	700 Maple Ave.	50,758	4	yes	208	8	216	235	COED First Year	1961	\$ 1,039,000	Cellarius & Hilmer	Knowlton Construction	
G	Emerson Hall	EMR	South Quad	699 South Maple Ave.	67,703	4	yes	313	11	324	209	COED First Year	1969	\$ 1,852,000	Cellarius & Hilmer	Frank Messer & Sons	
G	Flower Hall	FLW	North Quad	5347 Bonham Rd.	61,771	4	yes	304	7	311	199	COED Upperclass	1966	\$ 1,629,000	Cellarius & Hilmer	Frank Messer & Sons	
G	Hahne Hall	HNE	North Quad	5357 Bonham Rd.	59,270	4	yes	306	7	313	189	COED Upperclass	1966	\$ 1,415,000	Cellarius & Hilmer	Frank Messer & Sons	
G	Morris Hall	MOR	South Quad	651 Maple Ave.	70,344	4	yes	341	11	352	200	COED First Year	1969	\$ 1,840,000	Cellarius & Hilmer	Frank Messer & Sons	
G	Tappan Hall	TAP	South Quad	650 South Patterson Ave.	71,816	4	yes	286	8	294	244	COED First Year	1970	\$ 2,548,000	Cellarius & Hilmer	Frank Messer & Sons	
H	Thomson Hall	TSN	Western Campus	425 Western College Dr.	52,434	3	yes	188	6	194	270	COED Upperclass	1963	\$ 755,000	Small, Wertz & Associates	Wm. Agee Construction	Rooftop sun deck
I	Havighurst Hall	HAV	Western Campus	350 Western College Dr.	71,275	4	yes	280	10	290	246	COED First Year	1983	\$ 6,615,000	Roth Partners, Inc.	Frank Messer & Sons	
J	HC - Blanchard House	HCB	Heritage Commons	805 South Campus Ave.	29,785	3	no	71	1	72	414	COED Upperclass/Grads	2005		Hanbury Evans Wright Viattas /URS		Apartment style student housing. 18 - 4 BR units
J	HC - Fisher Hall	HCF	Heritage Commons	801 South Campus Ave.	30,076	3	no	71	1	72	418	COED Upperclass/Grads	2005		Hanbury Evans Wright Viattas /URS		Apartment style student housing. 18 - 4 BR units
J	HC - Logan Lodge	HCL	Heritage Commons	800 South Oak St.	33,018	3	no	69	1	70	472	COED Upperclass/Grads	2005		Hanbury Evans Wright Viattas /URS		Apartment style student housing. 18 - 4 BR units
J	HC - Pines Lodge	HCP	Heritage Commons	803 South Campus Ave.	28,810	3	no	71	1	72	400	COED Upperclass/Grads	2005		Hanbury Evans Wright Viattas /URS		Apartment style student housing. 18 - 4 BR units
J	HC - Reid Hall	HCR	Heritage Commons	806 South Oak St.	29,785	3	no	71	1	72	414	COED Upperclass/Grads	2005		Hanbury Evans Wright Viattas /URS		Apartment style student housing. 18 - 4 BR units
J	HC - Tallawanda Hall	HCT	Heritage Commons	804 South Oak St.	28,810	3	no	71	1	72	400	COED Upperclass/Grads	2005		Hanbury Evans Wright Viattas /URS		Apartment style student housing. 18 - 4 BR units

Residence Halls - Exteriors




Building Assessments

CHAMPLIN ARCHITECTURE

Miami University – Housing Assessment
MacCracken Hall
 Interior Finish Assessment

Date: 11/3/2009
 Reviewed by: _____

Room: _____ Room Number: _____
 Level: Third Floor Photo Sequence: _____



Flooring
 Material: VCT VAT Wood Ceramic Terrazzo Capet
 Condition: Excellent Good Fair Poor Very Poor
 Recommendation: Keep Refinish Repair Rehabilitate Replace
 Comments: _____

Base
 Material: Rubber Wood Ceramic Terrazzo Capet _____
 Condition: Excellent Good Fair Poor Very Poor
 Recommendation: Keep Refinish Repair Rehabilitate Replace
 Comments: _____

Walls
 Material: Plaster Gyp. Bd. Paint Wallcovering Ceramic _____
 Detail: Chair Rail Picture Rail Crown Panels Wiremold _____
 Condition: Excellent Good Fair Poor Very Poor
 Recommendation: Keep Refinish Repair Rehabilitate Replace
 Comments: _____

Ceilings Height _____
 Material: Plaster Gyp. Bd. Ac. Lay-in Ac. Spline Wood _____
 Condition: Excellent Good Fair Poor Very Poor
 Recommendation: Keep Paint Repair Rehabilitate Replace
 Comments: _____

Lighting
 Type: Decorative Surface Recessed Fluorescent Incand. _____
 Condition: Excellent Good Fair Poor Very Poor
 Recommendation: Keep Refinish Repair Rehabilitate Replace
 Comments: _____

Doors Fire Rating _____ (minutes) W x H _____
 Type: Metal Wood Stile & Rail Flush _____
 Glass: Full Lite Half Lite 100 sq. in. Wire Tempered Grid
 Condition: Excellent Good Fair Poor Very Poor
 Recommendation: Keep Refinish Repair Rehabilitate Replace
 Comments: _____

Frames
 Material: Metal Aluminum Wood Paint Stain _____
 Condition: Excellent Good Fair Poor Very Poor
 Recommendation: Keep Refinish Repair Rehabilitate Replace
 Comments: _____

Hardware
 Type: Mortise Lever Knob Panic Push/Pull Thumb Ltch.
 Condition: Excellent Good Fair Poor Very Poor
 Recommendation: Keep Refinish Recondition Replace
 Comments: _____

Millwork and Specialties
 _____ Wood P. Lam. Solid Surf. Marble Metal _____
 _____ Wood P. Lam. Solid Surf. Marble Metal _____
 Condition: Excellent Good Fair Poor Very Poor
 Recommendation: Keep Refinish Repair Rehabilitate Replace
 Comments: _____

Comments

Photos

Residence Hall - Interiors



Building Assessments

Miami University - Student Housing & Related Dining Master Plan

Housing Master Plan - Site Utility Existing Conditions/ New Scope/ Costing Summary



1/22/2010

Site Location	Steam	Chilled Water	Sanitary	Storm	Domestic Water	Gas	Electrical	Technology
East Field Site								
Existing	The steam loop is currently located near Pearson Hall.	20" main with 12" taps and 6200 tons at nearby plant.	10" with good capacity	42" lines and close by. 36" line runs right through site (east edge of tennis court)	8" line is close with good pressure.	Gas line capacity and size to be verified.	Existing switch house # 6 at North Chiller Plant. Existing duct bank on south side of Ball Field.	Nearest telecom manhole is located on the southeast corner of the site.
New Scope	A new steam line would need extended from site over to be in by Pearson. Best tunnel (\$2,000/LF) but can be direct buried. Size to be 10" IPS loop from Psychology Building with 4" IPS runs to buildings.	Capacity of chiller plant needs upgraded to at least 7200 tons to accommodate new buildings and adding of Drandon, Hepburn and McFarland. Can go to 8000 tons at existing plant with space available and current cooling tower capacity. Geothermal for this site is not an option.	Extend 10" line to existing. *Heavy note: estimating 600 students with 2 persons per private toilet room group. Building estimated sanitary load 1,800 dlu. Estimate shall be to provide 10" sanitary from building to 8" station (approx. 500 ft)	Extend 10" line to existing. *Heavy note: estimating building roof area to be approximately 25,000 sq ft. Estimate shall be to provide 10" storm from building to 36" storm to the east of the building (approx. 300 ft) and an underground storm retention system. Costs also includes relocation of existing 30" storm pipe (approx. 500 ft)	Extend 8" line to existing. *Heavy note: Assumed that the water service will be a combined freshwater service with meters and backflow preventers inside building. Estimate shall be to provide water from existing service to building (approx. 300 ft)	Provide new tap and extend 2" house line to new gas meter to serve generator. Capacity for gas meter shall be approximately .5 million btu's.	Extend from Braham Rd. Switch House is in NCP. Loop using existing duct bank at south side of ball field. May need to backfill Miami Ave & Psychology Bldg. Install 4/0 15KV cable in 8-way 4" ductbank.	Run cables in existing Comm ductbank from the MDF room at Benton Hall building to a new manhole in the SE manhole. Install new 4-way 4" ductbank from manhole to building. Provide manhole at building. Run 200 pr cu cable and 36 strand single-mode fiber optic in ductbanks.
Estimate of costs	\$ 1,560,000	\$ 2,580,000	\$ 150,000	\$ 400,000	\$ 60,000	\$ 30,000	\$ 720,000	\$ 58,200
Total	\$ 5,568,200 Price includes required new chiller in North Chiller Plant (\$1.8M)							
Old Main Site								
Existing	The steam line is close to this site.	The chilled water loop is across Tallawanda from site.	An 8" line is within Tallawanda Road.	A 10" line is close. Review City documents for location.	There is an existing 6" line close that has water pressure issues.	Gas line capacity and size to be verified.	Existing switch house # 6 at North Chiller Plant and Ice Arena.	Nearest telecom ductbank is located along Tallawanda Road east of the site.
New Scope	Extend new 6" IPS line, direct buried, to nearby existing steam tunnel. From new 6" IPS line, extend 4" IPS to individual buildings	Tie (2) 6" direct buried into existing 18" chilled water line across Tallawanda. Extend 4" pipes to buildings	Extend 8" line to existing. *Heavy note: estimating 300 students with 2 persons per private toilet room group. Building estimated sanitary load 1,000 dlu. Estimate shall be to provide 8" sanitary from building to 8" sanitary on Tallawanda (approx. 300 ft)	Extend 8" line to Tallawanda St and provide 10" to existing new Vine St. *Heavy note: estimating building roof area to be approximately 13,000 sq ft. Estimate shall be to provide 8" storm from building to Tallawanda St and provide 12" storm to 30" storm near the intersection of Tallawanda and Vine (approx 300 ft of 8" and 900 ft of 10") and an underground storm retention system.	Upgrading line from 6" to 12" (separate project) and review pressure issues prior to new tie-in with 8" line. *Heavy note: Assumed that the water service will be a combined freshwater service with meters and backflow preventers inside building. Water replacement shall be to replace 8" water line along High St between Tallawanda and Bishop (not in estimate) and extend 8" to building (approx. 200 ft)	Provide new tap and extend 2" house line to new gas meter to serve generator. Capacity for gas meter shall be approximately .5 million btu's.	Extend loop in existing duct bank from NCP to site (provide new switch at SE corner of site). Extend new 12KV in existing duct bank from ice arena. Install 4/0 15KV cable in 8-way 4" ductbank.	Run cables in existing Comm ductbank from the MDF room at Benton Hall building to a new manhole in the Tallawanda ductbank. Install new 4-way 4" ductbank from manhole to building. Provide manhole at building. Run 200 pr cu cable and 36 strand single-mode fiber optic in ductbanks.
Estimate of costs	\$ 505,000	\$ 260,000	\$ 100,000	\$ 600,000	\$ 40,000	\$ 30,000	\$ 550,000	\$ 90,200
Total	\$ 2,195,200							
Geo-Thermal Option	Needed Steam for Dom Hot Water needs 262,500 \$ 2,100,000 In lieu of above Steam/CW additions, install 2.25 acre geothermal wellfield 2,100,000							
East Field Site								
Existing	16" steam lines are nearby in tunnels.	Chilled water line in Maple Ave. This line not adequate. 6000 tons	12" line in either Maple and Patterson that is in good shape. 18" line running through site (old main).	18" line exists close by but is not adequate	6" line in Patterson and 8" line in Maple, both with low pressure	Gas line capacity and size to be verified.	Existing switch # P507 at Presser Hall	Nearest telecom ductbank is located along Maple Ave west of the site.
New Scope	Extend new 6" IPS line, direct buried, to nearby 16" IPS. From new 6" IPS line, extend 4" IPS to individual buildings	The chilled water line in Maple will need upgraded that could be run direct buried along tunnel as tunnel is small. Will need another 450-600 tons (another chiller) to get to 16". South chiller will need more capacity as New Student Center needs 600 tons. If want to air condition older doms will need an additional 1000 tons.	Extend 10" line to existing. *Heavy note: estimating 600 students with 2 persons per private toilet room group. Building estimated sanitary load 1,800 dlu. Estimate shall be to provide 10" sanitary from building to 10" sanitary pipe north of proposed building (approx. 200 ft)	The current 18" line needs upgraded to ___" line and new line ___" line extended.	Upgrading line from 6" to 12" and review pressure issues prior to new tie-in with 8" line. *Heavy note: Assumed that the water service will be a combined freshwater service with meters and backflow preventers inside building. Water replacement shall be to replace 6" water line along Patterson from 12" at Spring St to new building site (approx. 1,500 ft) and ___" and ___" ..	Provide new tap and extend 2" house line to new gas meter to serve generator. Capacity for gas meter shall be approximately .5 million btu's.	Extend loop in new duct bank from Presser Hall to site (provide new switch at Maple). Extend new duct bank to switch # 5 at South Chiller Plant. Install 4/0 15KV cable in 8-way 4" ductbank.	Run cables in existing Comm ductbank from the MDF room at Morris Hall building and The Center for Performing Arts to a new manhole in the Maple St ductbank. Install new 4-way 4" ductbank from manhole to building. Provide manhole at building. Run 200 pr cu cable and 36 strand single-mode fiber optic in ductbanks.
Estimate of costs	\$ 300,000	\$ 780,000	\$ 75,000	\$ 600,000	\$ 450,000	\$ 30,000	\$ 850,000	\$ 45,800
Total	\$ 3,200,800							
East Field Site	No New Students							
Current Option	Without the New Student Center (and therefore no chiller to produce CW), a chiller will be added to the SCP to support this buildings CW demands							
Total	\$ 4,220,800							
Western Site								
Existing	New 12" IPS steam within nearby tunnel that has plenty of capacity	No chilled water loop. Sawyer Hall site being considered for new East Chiller Plant.	8" line close and in good shape.	No piping - drains to sewers	10" line drops to 8" line with good pressure. Upgrading the south half to 12" line this summer.	Gas line capacity and size to be verified.	Existing switch house # 7 to the east. McCurley Substation	Nearest telecom ductbank is located south of the site at Mary Lyon.
New Scope	Extend new 6" IPS line, direct buried, to nearby 12" IPS and extend to Presser Hall Loop. From new 6" IPS line, extend 4" IPS to individual buildings	Best would be new Western Chiller Plant \$7 million. Second would be mini-chiller plant in one building to serve new doms and Havighurst. Third is geothermal field. Tunnels big enough for new lines.	Extend 10" line to existing. *Heavy note: estimating 600 students with 2 persons per private toilet room group each building. Building estimated sanitary load 1,800 dlu each. Estimate shall be to provide 10" sanitary from building to 8" sanitary along Western Dr. (approx. 1000 ft). Replace existing 8" along Western Dr with new 10" sanitary (approx. 750 ft).	Extend building storm to existing sewers - 10" line per building. *Heavy note: estimating building roof area to be approximately 25,000 sq ft each. Estimate shall be to provide 10" storm from each building individually to a central storm retention system and outlet piping extends to existing sewers. Costs includes storm piping from buildings to storm retention (approx. 1,000 ft) and piping from storm retention to sewers (approx. 200 ft)	Upgrade north half to 12" line and extend 8" line to each building. *Heavy note: Assumed that the water service will be a combined freshwater service with meters and backflow preventers inside building. Estimate shall be to provide water from existing services to building (approx. 300 ft) each building.	Provide new tap and extend 2" house line to new gas meter to serve generator. Capacity for gas meter shall be approximately .5 million btu's.	Extend in new duct bank to switch house and complete loop. Add switch at building site. Install 4/0 15KV cable in 8-way 4" ductbank.	Run cables in existing Comm ductbank from the MDF room at Presser Hall building to a new manhole south of Mary Lyon Bldg. Install new ductbank from Havighurst to new building. Install new 4-way 4" ductbank from manhole to building. Provide manhole at building. Run 200 pr cu cable and 36 strand single-mode fiber optic in ductbanks.
Estimate of costs	\$ 820,000	\$ 3,390,000	\$ 450,000	\$ 500,000	\$ 180,000	\$ 30,000	\$ 800,000	\$ 214,800
Total	\$ 6,434,600							
Geo-Thermal Option	Needed Steam for Dom Hot Water needs 410,000 \$ 4,200,000 4.5 acre (800 tons) geothermal system in lieu of traditional CW system 4,200,000							

Building Assessments

MIAMI UNIVERSITYBUILDING ASSESSMENT REPORT

Section I Bishop Hall - Summary



Building Summary and Tabulations:

Year Opened: 1912

Residents: 98 (96 Students, 2 RAs)

Gross Sq. Ft. per student: 324 (31,768' / 98) *Housing GSF from MU Data 2006-07

Net Sq. Ft. per student: 150 (14,695' / 98) *Housing NSF from MU Data 2006-07

Room Types:

Single:	Qty: 10,	approximate size: 151 SF
Double:	Qty: 44,	approximate size: 189 SF (3 used as singles)
Total:	Qty: 54	

Area: 31,768 SF (from MU documents, per floor breakdown below does not match exactly)

Basement:	8,500 SF
First Floor:	7,752 SF
Second Floor:	7,752 SF
Third Floor:	7,752 SF

Champlin ArchitectureBISHOP HALL | November 20091 - 1

Building Assessments

Section II Bishop Hall - Exterior Assessment



Roofing

Existing Conditions: The roof system is gable and flat hip configuration. It is in overall good shape. The flat portion is probably not original considering the age of the building. The sloped roofs are flat tiles shingle type. A minimal amount of the tiles were damaged or broken. Repair of these tabs could be difficult and may cause more damage to adjacent shingles. The shingles specified are Ludowici Roof Tiles and carry a product warranty of 75 years.

The flat portion of the main roof at the top of the building and flat roof over the porches are 0.60 epdm membrane roofs and appear to be in good condition. The original railings over porch roof areas need to be repainted. Failing paint finish is also found at small metal roofs over projected entrances at south and west elevations. Scrape and repaint is recommended.

Gutters at the high roof area appear to be replacement aluminum gutters which display some failing finishes and should be repainted or replaced with university standard copper gutter. Some minor repair work of gutters is also needed. Portico gutters are copper and in fair condition. Some of the downspouts have a few bad joints between sections and should be re-soldered, but otherwise downspouts are in good condition. Copper flashing appears to be in fair condition and a closer examination of chimney flashing is needed.

Rating: Excellent Good Fair Poor Very Poor N/A

Recommendations: There is no evidence of current roof leaks. Perform minor repairs, painting and replacement as noted.



Building Assessments

Section III Bishop Hall - Interior Assessment

Student Rooms

Existing conditions: The typical residence room has two closets. Rooms have wood floor that is in fair condition. Walls and ceiling are plaster construction in fair condition. Walls have stained wood picture and chair rails. Minor patch is needed at some wall locations. Doors are stained wood doors in poor condition and are not self closing or rated (doors to corridor in an unsprinklered building should be self closing and have a 20 minute label). Door hardware is mortise door knob type and not ADA compliant. Rooms have exposed piping. Lights are surface mount 2x2 florescent fixtures.

Rating: Excellent Good Fair Poor Very Poor N/A

Recommendations: Repaint plaster walls as required. Consider refinish wood floor. Install new wood door with new lever type door hardware. If a new automatic fire suppression system is not to be installed, provide rated doors with closers to all doors in the egress corridor. If a major renovation is undertaken (interior wall removals), all new doors should be a minimum of 3' in width.

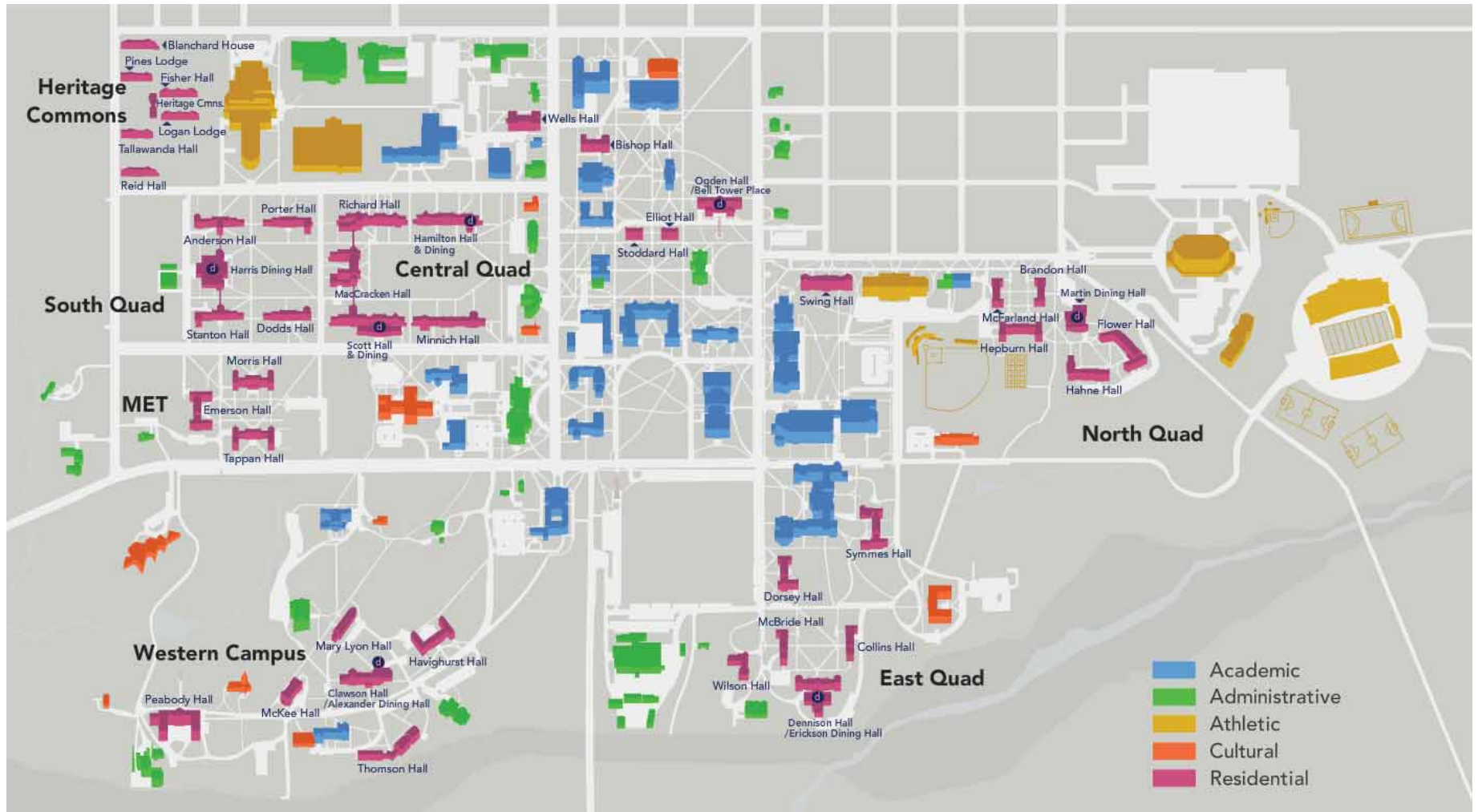


Bathrooms

Existing conditions: Bathrooms typically have ceramic tile floor that is in poor condition. Walls are 4 x 4 ceramic tiles that are in fair condition with minor grout repair needed. Ceilings are painted plaster, with applied 4x4 ceramic tiles over shower area. Sinks are porcelain with no ADA wrist blades. Vanity lights are inefficient and in need of replacement. Surface mount 1x4 fluorescent lights are in poor condition. Toilet stall dividers are metal partitions that are in poor condition. The room is tight and does not meet ADA requirements and with no ADA compliant showers available.

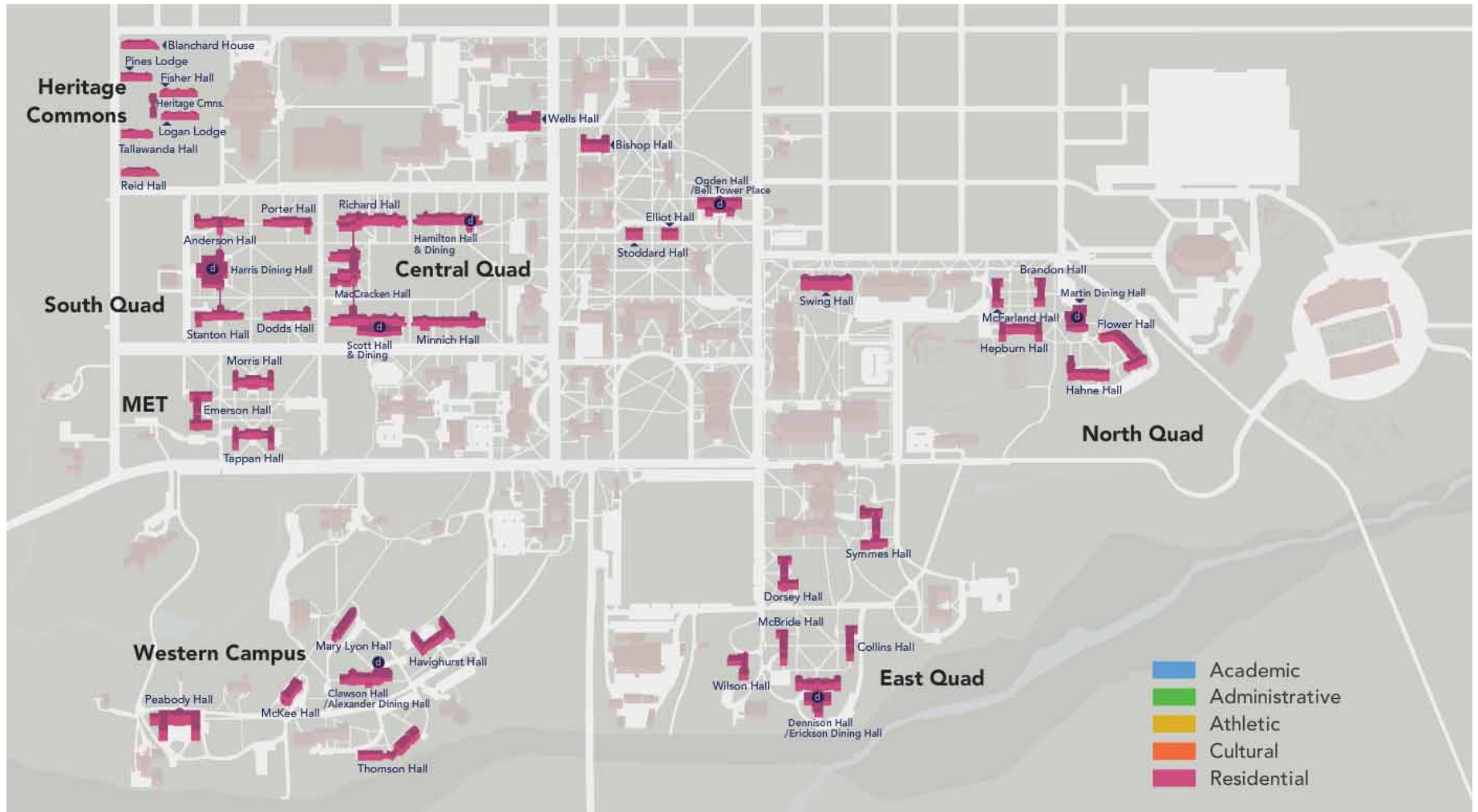
Rating: Excellent Good Fair Poor Very Poor N/A

Review All Existing Residence/Dining Halls



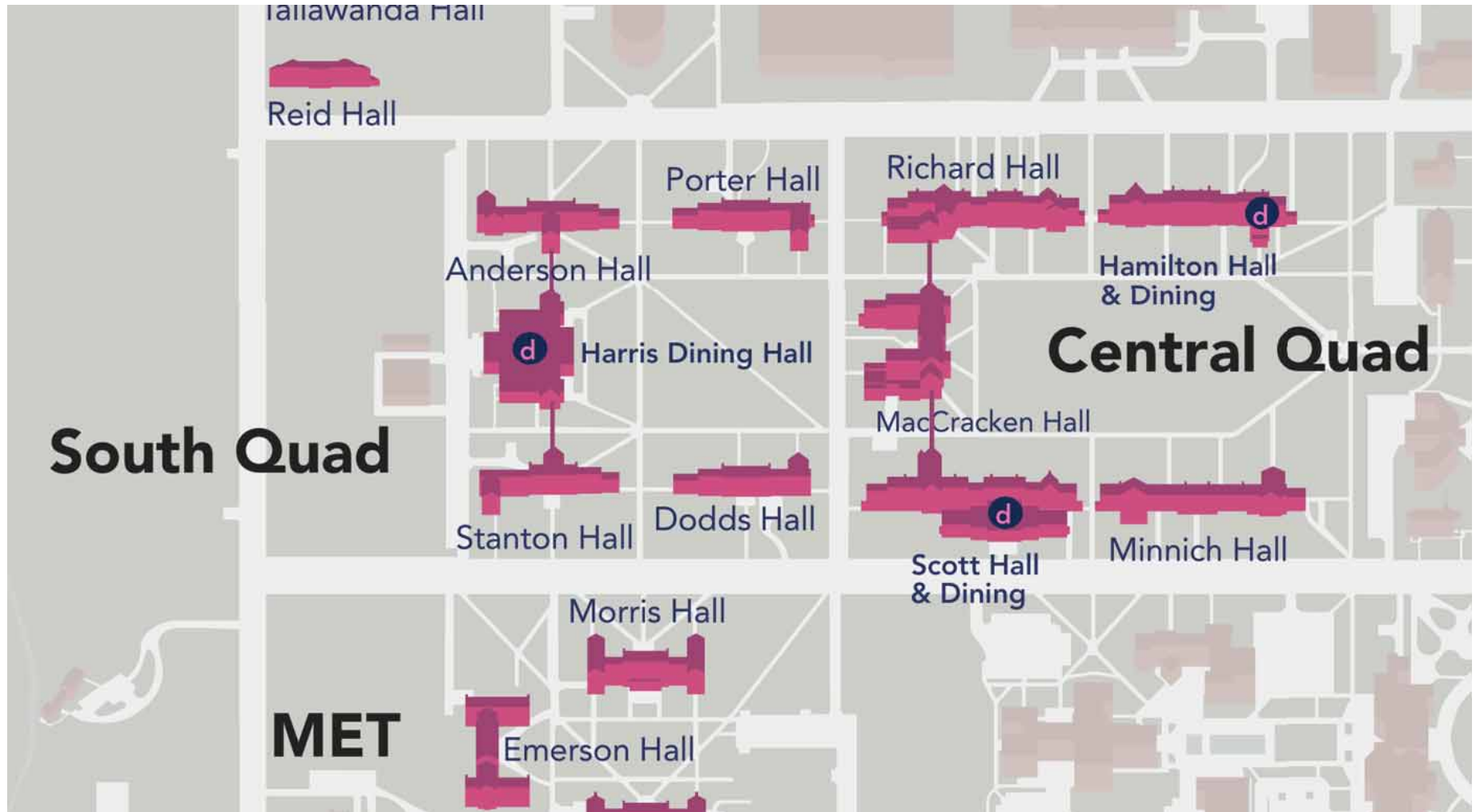
Programming	Amenity Area	Tier 1 Total Cost
14 Assessed Buildings	Total Area	Tier 2 Total Cost
Overall Residential Assessment	Percentage Singles	Tier 3 Total Cost
Residential Area	Percentage Doubles	

Assess 14 Existing Halls Chosen as Typical




Programming	Amenity Area	Tier 1 Total Cost
14 Assessed Buildings	Total Area	Tier 2 Total Cost
Overall Residential Assessment	Percentage Singles	Tier 3 Total Cost
Residential Area	Percentage Doubles	

Catalogue Data and Assign Tier



Programming	Amenity Area	Tier 1 Total Cost
14 Assessed Buildings	Total Area	Tier 2 Total Cost
Overall Residential Assessment	Percentage Singles	Tier 3 Total Cost
Residential Area	Percentage Doubles	

Build the Spreadsheets



MacCracken Hall

Scott Hall & Dining

Scott Hall

Building Assessment 1 = Satisfactory to 5 = Major Work

Site

Breakdown	Assessment
Planting	2
Hardscape	2
Loading	2
ASSESSMENT SUMMARY: 2	

Building Exterior

Breakdown	Assessment
Roof	2
Ext. Walls	2
Windows	5
Entries	1 2
Accessibility	
ASSESSMENT SUMMARY: 2.4	

Building Interior

Breakdown	Assessment
Residential	2
Bathrooms	4
Circulation	3
Stairs	3
Elevator	4
Amenities	3
Dining	
Accessibility	4
Bsmt/Attic	
Abatement	
ASSESSMENT SUMMARY: 3.29	

Building Systems

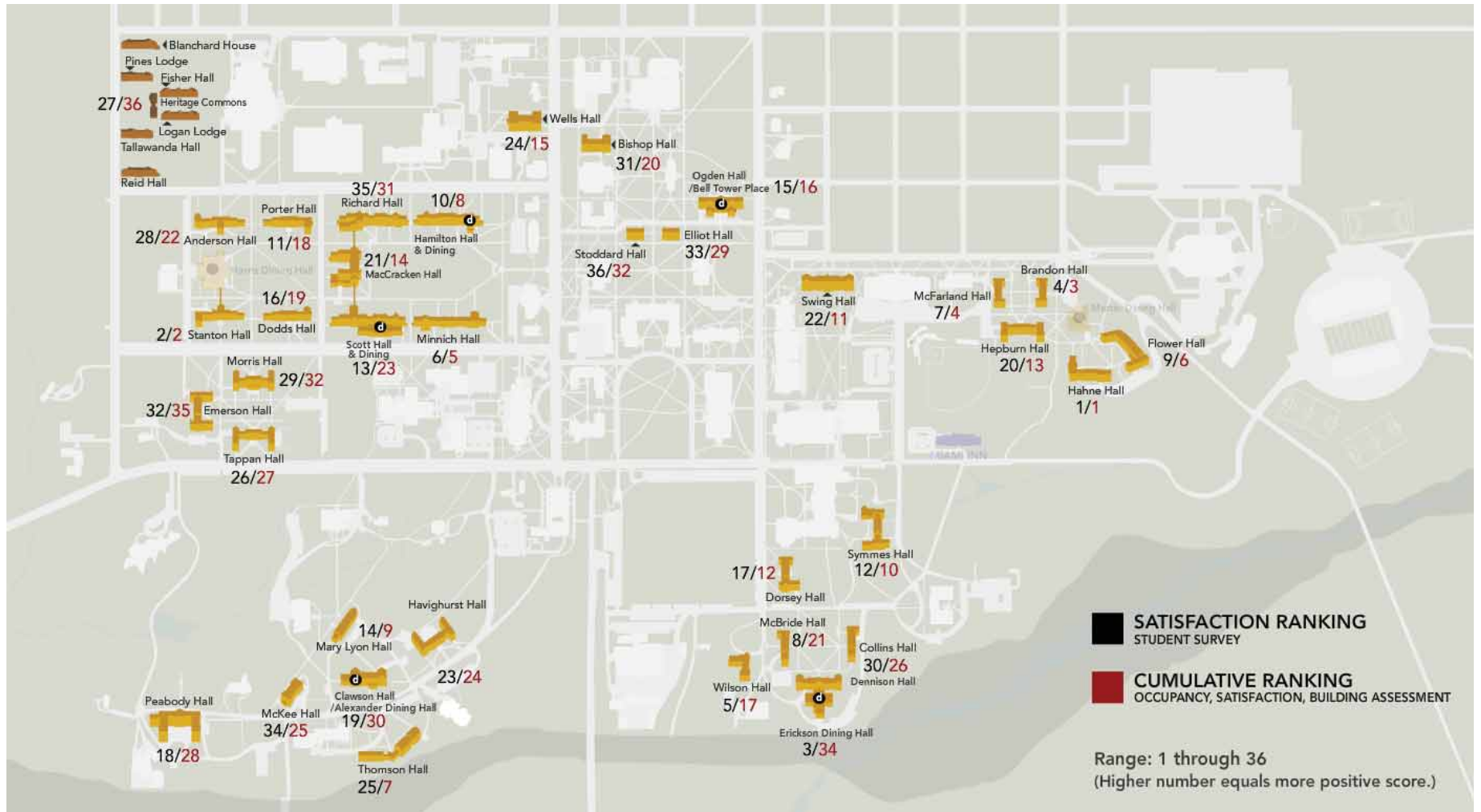
Breakdown	Assessment
Foundation	1
Structure	1
Mechanical	4
Electrical	3
Plumbing	4
Fire	5
Security	
Tel/Data	2
Fire Alarm	
ASSESSMENT SUMMARY: 2.86	

Spreadsheets Feed the Plans



Programming	Amenity Area	Tier 1 Total Cost
14 Assessed Buildings	Total Area	Tier 2 Total Cost
Overall Residential Assessment	Percentage Singles	Tier 3 Total Cost
Residential Area	Percentage Doubles	

Survey Said...



Residential Groupings	Rankings
Residential Zones	FCI Rating
Master Site Plan (1-15)	Renovation Sequences (E-F)

COST SCENARIOS

A B C D E F G

Apply Cost Estimates



Residential Groupings	Rankings
Residential Zones	FCI Rating
Master Site Plan (1-15)	Renovation Sequences (E-F)

COST SCENARIOS

A	B	C	D	E	F	G
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Renovation Goals

- New roof, windows, foundation drainage
- ADA access
- New heating/ cooling, electrical tel/data, and sprinklers
- Increase common space
- Increase double rooms
- Reduce room count/ building
- More private baths and showers
- More study and meeting spaces

Swing Hall Tier 2.5 Basement and First Floor



Existing Ground Floor: 43 Beds
38 Doubles
5 Singles

Swing Hall Totals
Total Existing Beds: 228
(3 triples, 200 doubles, 25 singles)



Existing First Floor: 50 Beds
3 Triples
40 Doubles
7 Singles



Proposed Ground Floor: 43 Beds (0 from existing)
38 Doubles
5 Singles

Swing Hall Totals
Total Existing Beds: 228
Total Renovated Beds: 212 (-16 from existing)
(186 doubles, 26 singles)



Proposed First Floor: 46 Beds (-4 from existing) + 2 Advisor Suites
38 Doubles
8 Singles

Swing Hall Tier 2.5 Second and Third Floor



Existing Second Floor: 65 Beds
58 Doubles
7 Singles



Existing Third Floor: 70 Beds
64 Doubles
6 Singles



Proposed Second Floor: 59 Beds (-6 from existing)
52 Doubles
7 Singles

Swing Hall Totals
Total Existing Beds: 228
Total Renovated Beds: 212 (-16 from existing)
(186 doubles, 26 singles)

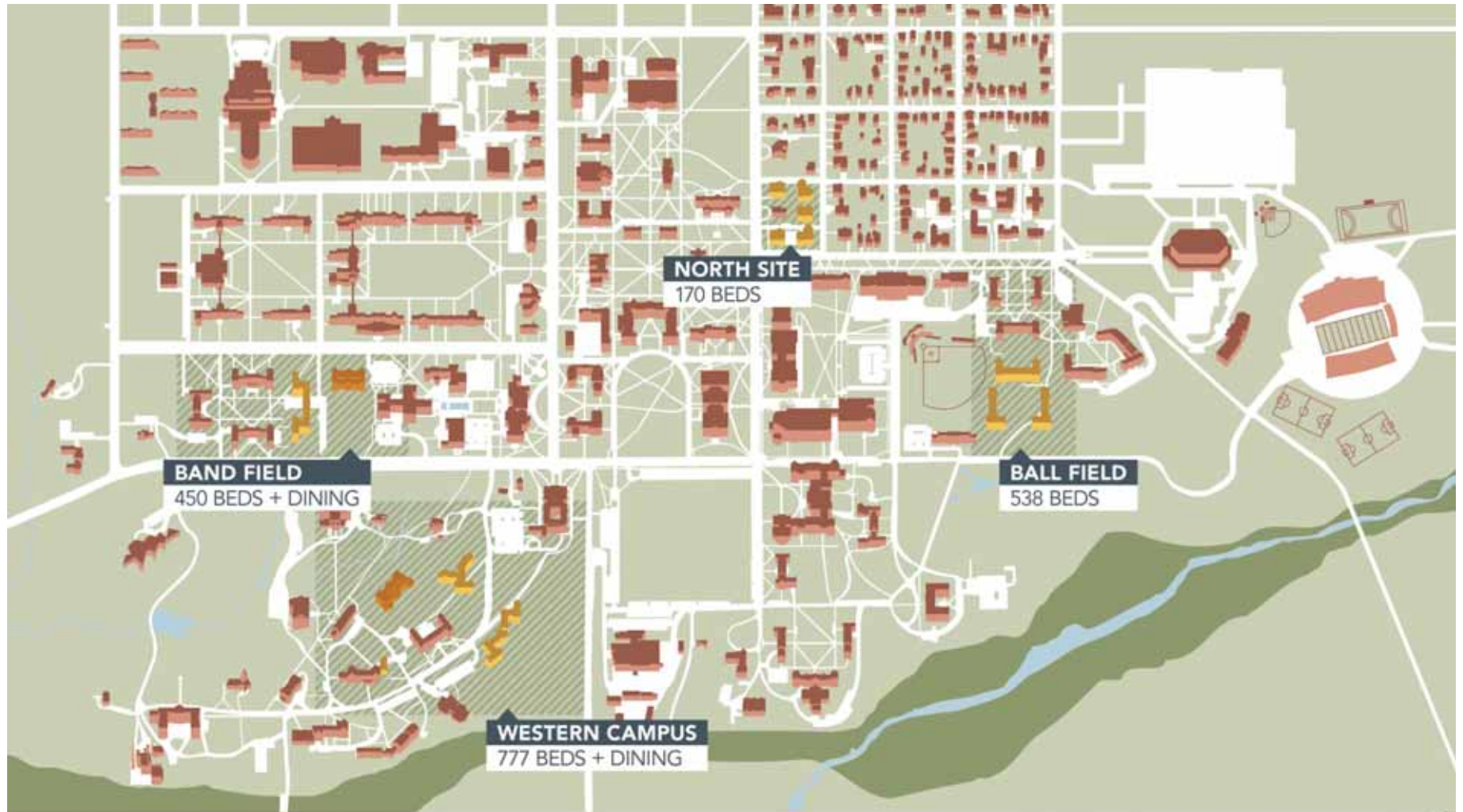


Proposed Third Floor: 64 Beds (-6 from existing)
58 Doubles
6 Singles

New Residential Opportunities

- Create a flexible open suite housing type
- Improve live learn spaces
- Expand dining
- Create new residential quad at Western site
- Improve campus landscape circulation

Analyze Four Areas of Campus

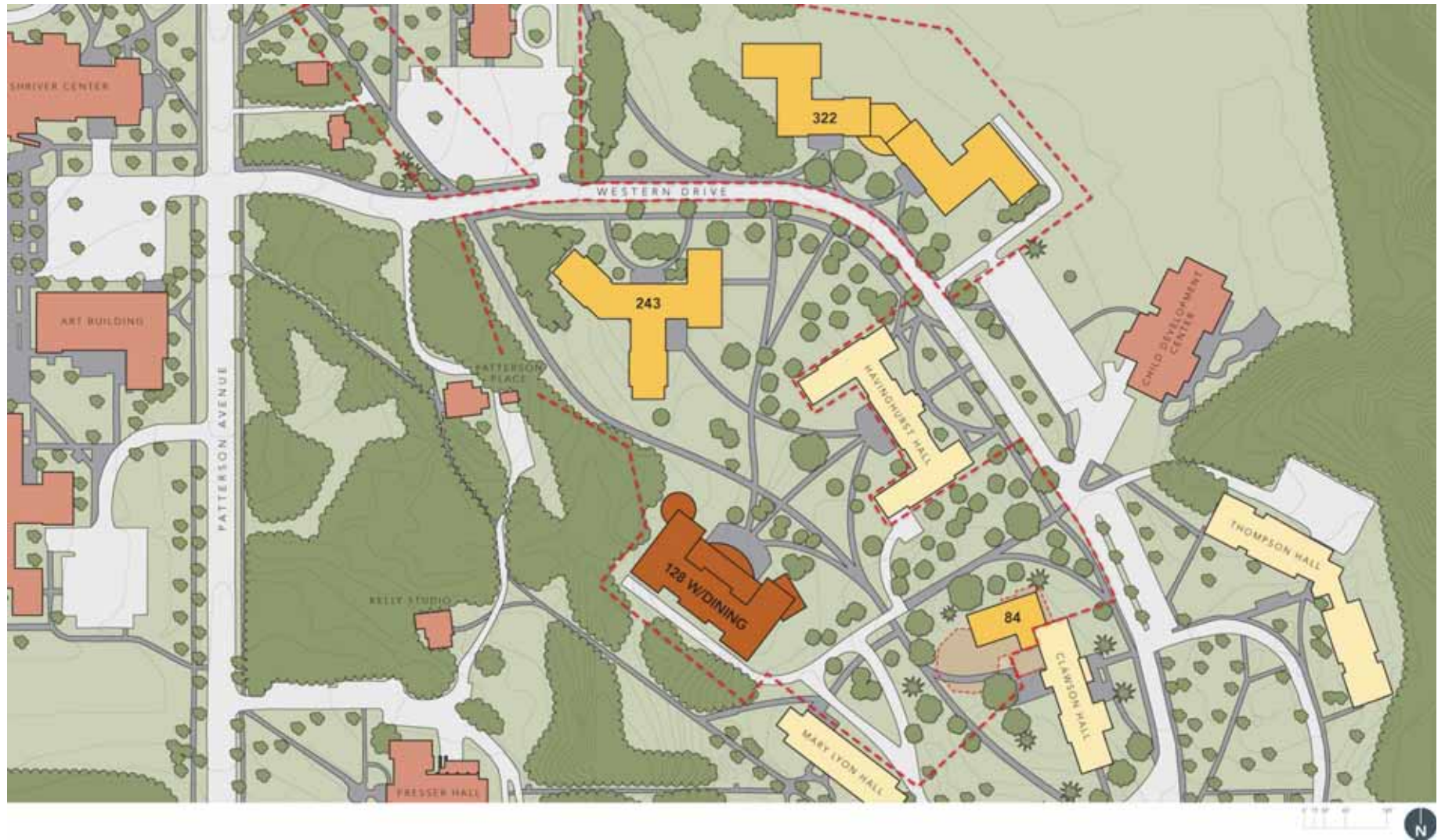


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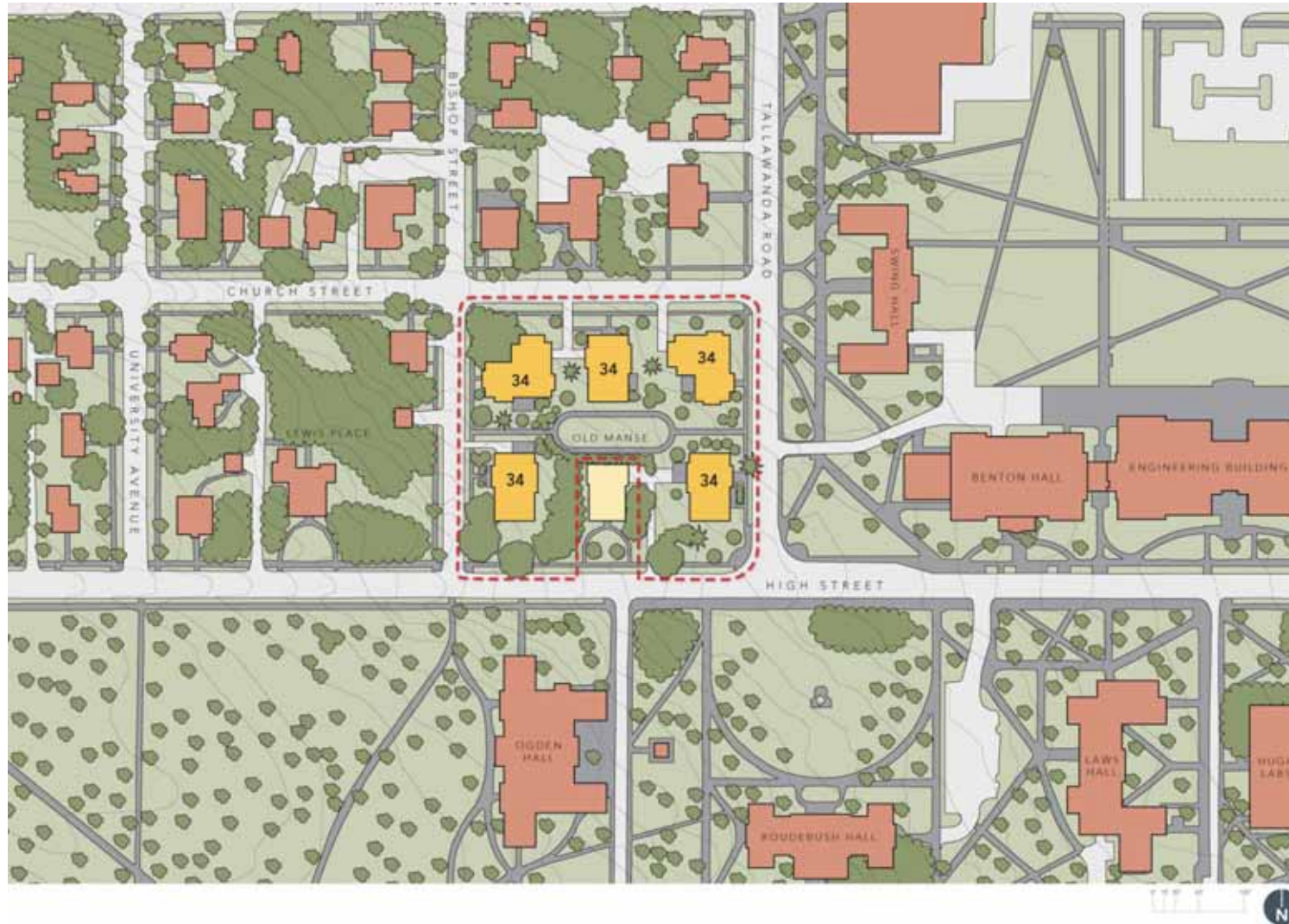
Band Field – 450 Beds + Dining



Western Campus – 777 Beds + Dining



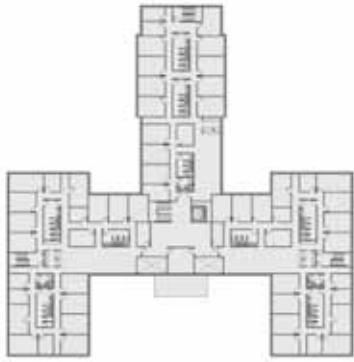
North Site – 177 Beds



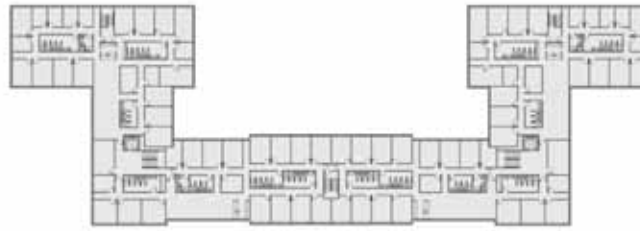
Ball Field Site – 538 Beds



Combination Prototypes



Typical Plan
Total Area: 73,693 SF
Total Beds: 246



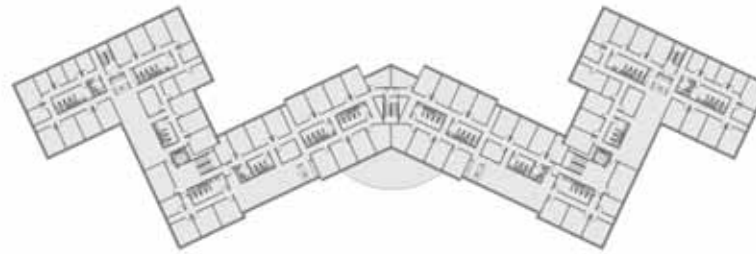
Band Field: Building 1
Total Area: 99,943–106,179 SF
Total Beds: 322



Ball Field: Building 3
Total Area: 55,656–62,281 SF
Total Beds: 160



Western Campus: Building 1
Total Area: 72,517–75,541 SF
Total Beds: 243



Western Campus: Building 2
Total Area: 101,857–109,125 SF
Total Beds: 322



Ball Field: Buildings 1 & 2
Total Area: 54,792–55,254 SF (each)
Total Beds: 189 (each)

Band Field: Building 1

TOTAL BEDS: 322
 44 Singles (14%, 110 SF net per Room)
 278 Doubles (86%, 200 SF net per Room)
 TOTAL AREA: 99,943–106,179 GSF
 Area per Student: 310–329 GSF



First Floor Plan
 Total Beds per Floor: 71+3 Bedroom Apartment
 Singles: 13
 Doubles: 58

Band Field: Building 1



Second and Third Floor Plans
 Total Beds per Floor: 124
 Singles: 16
 Doubles: 108

Band Field: Building 1



Character of Interiors



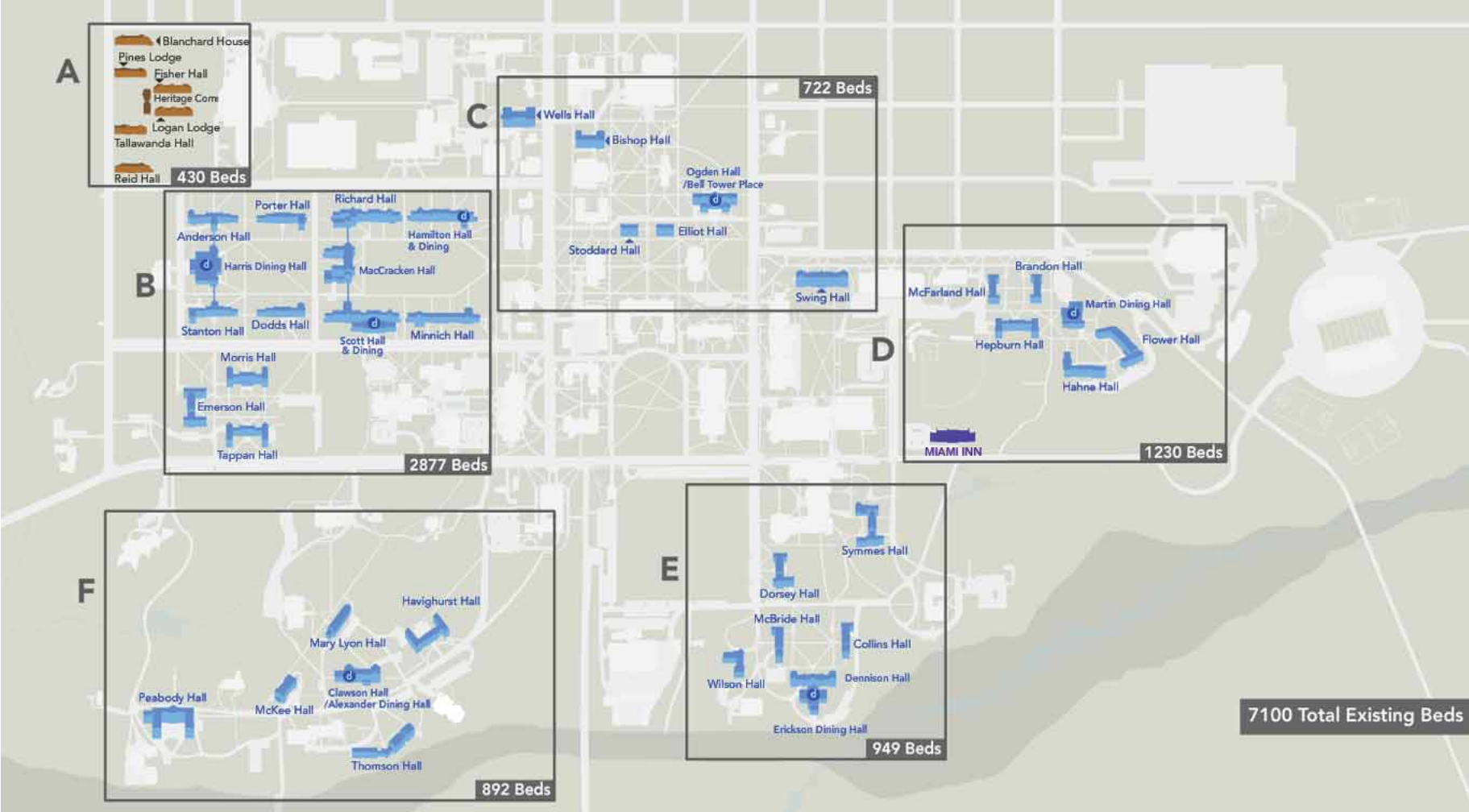
Study Outcomes

- Maintain 7,100 housing units at all times
- Renovate most problematic buildings first
- Remove from housing stock 5-7 small residences
- Build a significant number of new buildings
- Sequence the construction to impact each campus quad through each phase
- Sequence work in 5 year increments and assume 1-2 year pauses after each phase

Phasing Strategy

- Construct new 18 month housing project to kick off renovation
- Move students into new housing vacating buildings for 12 months
- Continue renovation process with 3-4 buildings each year
- Complete 5 year cycle by taking oldest buildings offline
- Pause after 5 years as required
- Begin new phase with new construction

Phasing Strategy

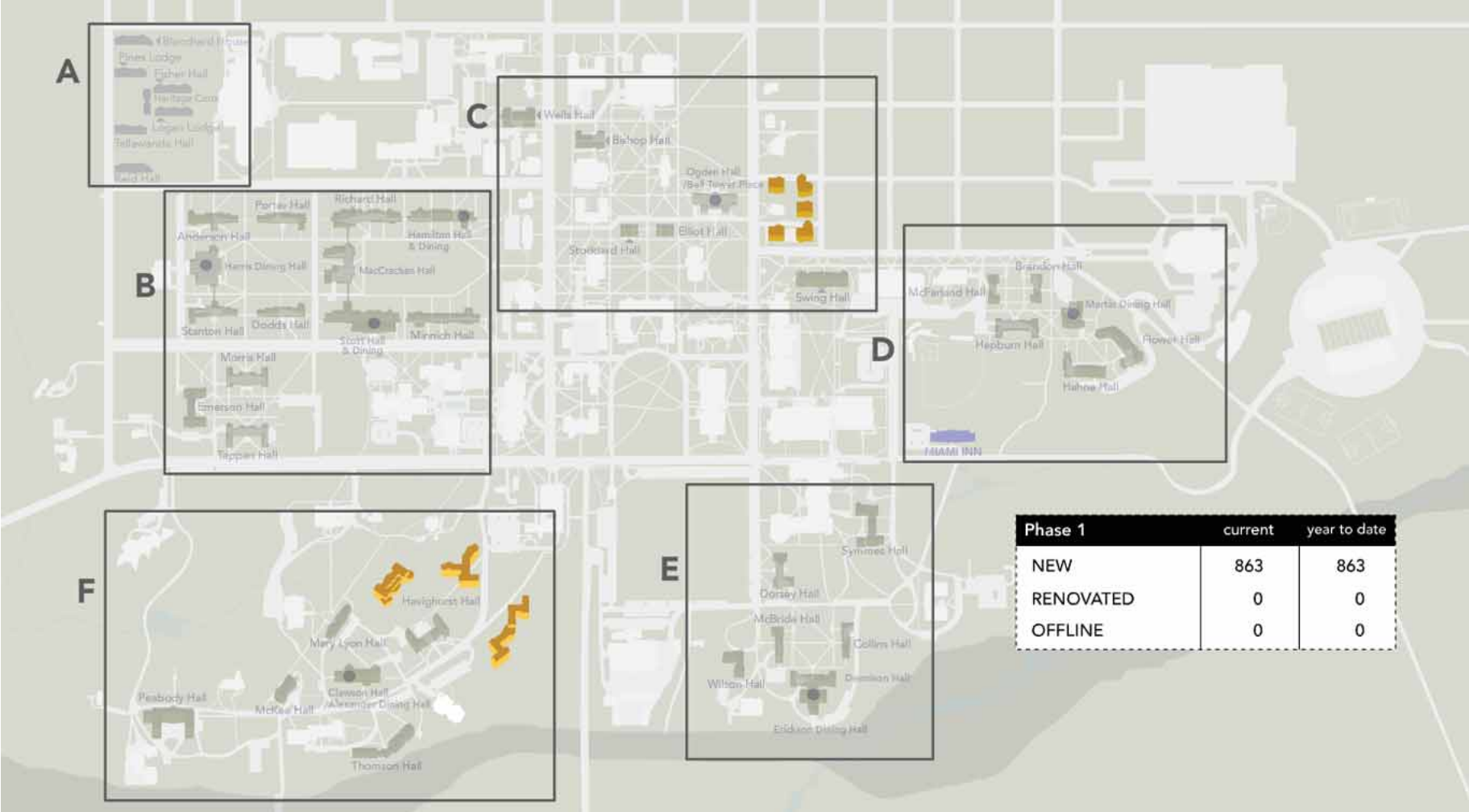


Residential Groupings	Rankings
Residential Zones	FCI Rating
Master Site Plan (1-15)	Renovation Sequences (E-F)

COST SCENARIOS

A	B	C	D	E	F	G
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Phasing Strategy



Phase 1	current	year to date
NEW	863	863
RENOVATED	0	0
OFFLINE	0	0

Master Site Plan (1-15)

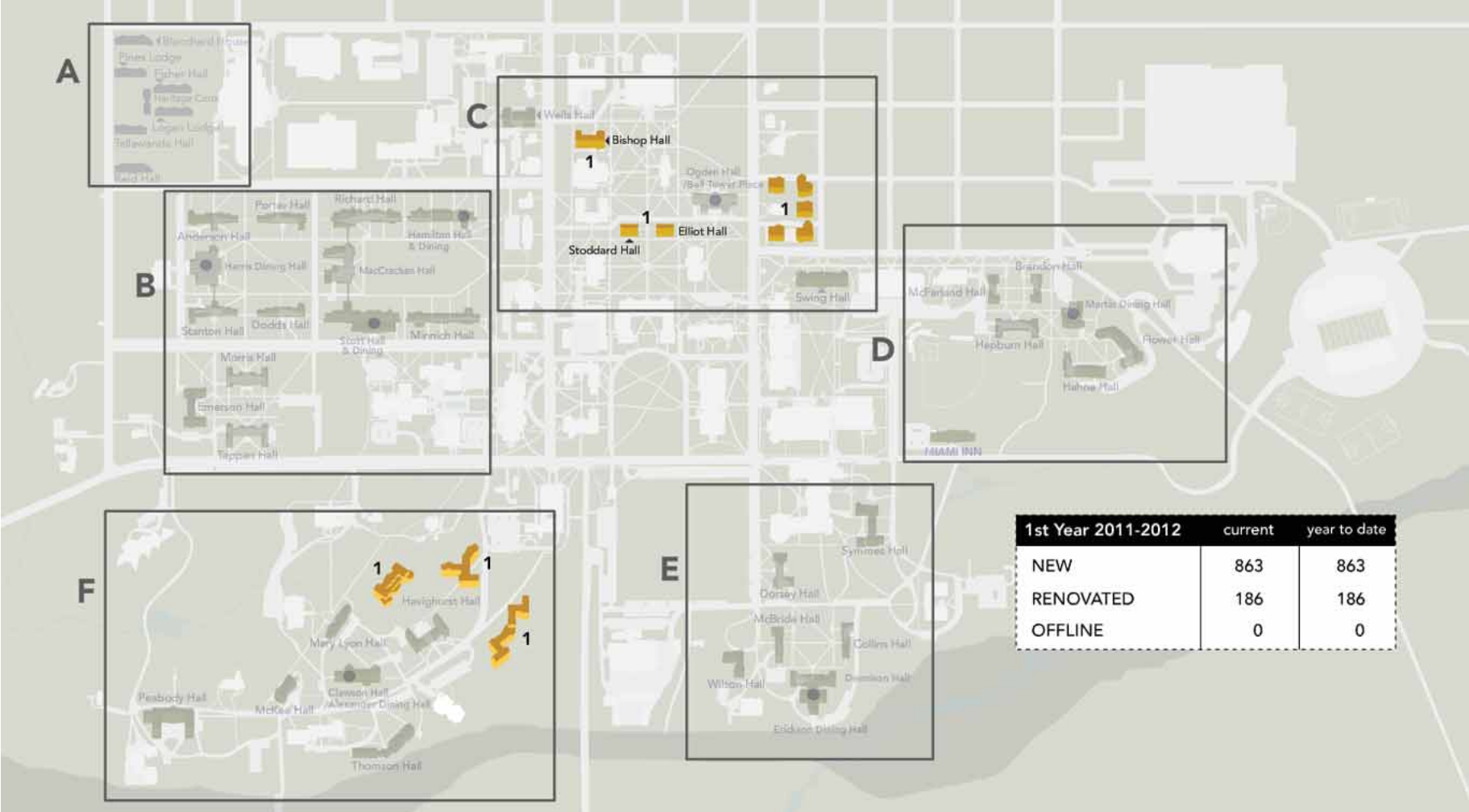
Renovation Sequences (E-G) **E** F G
 phase 1 ● phase 2 ● phase 3

Scenario E

Scenario G



Phasing Strategy



Master Site Plan (1-15)

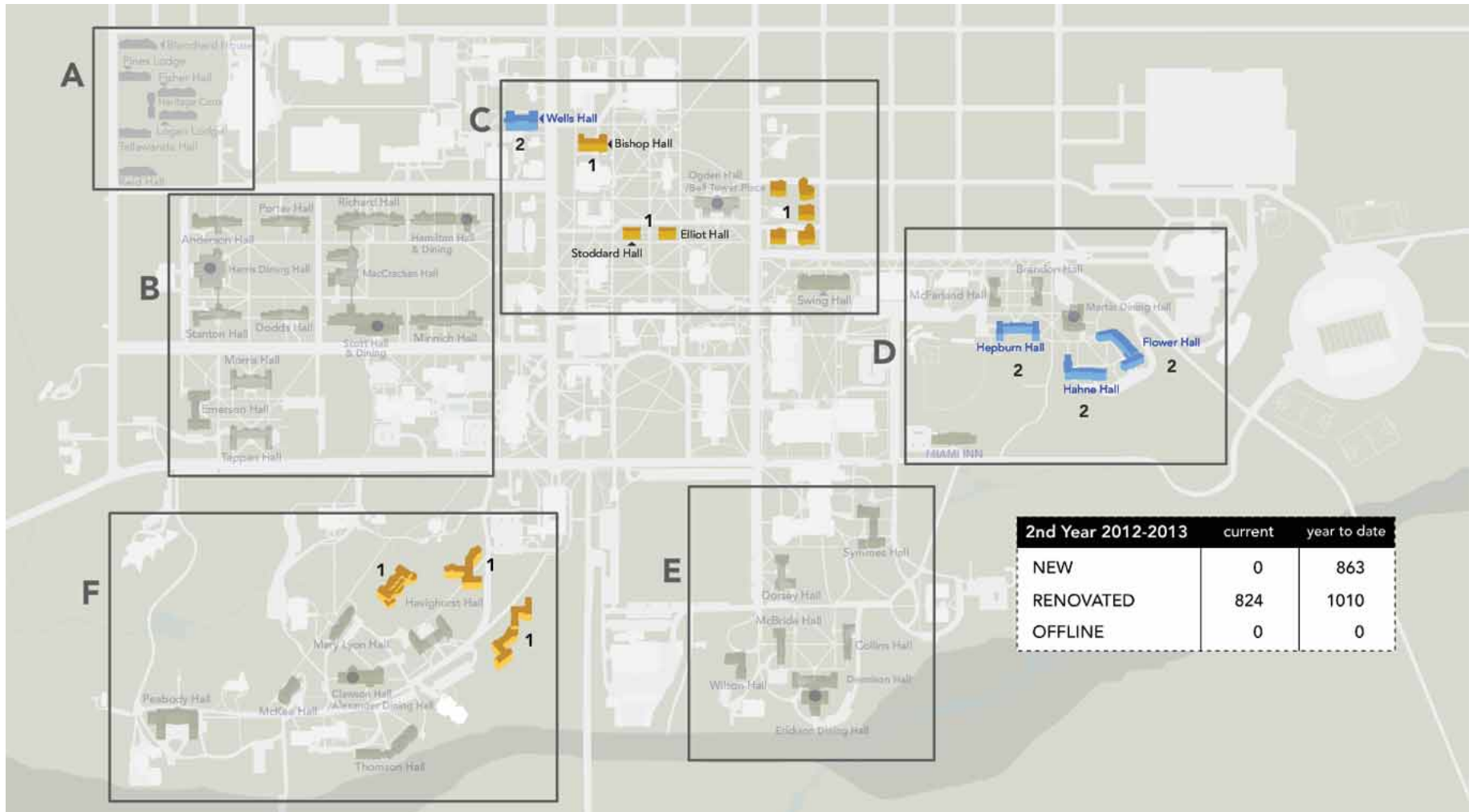
Renovation Sequences (E-G)

Scenario E 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
YEAR

Scenario G



Phasing Strategy



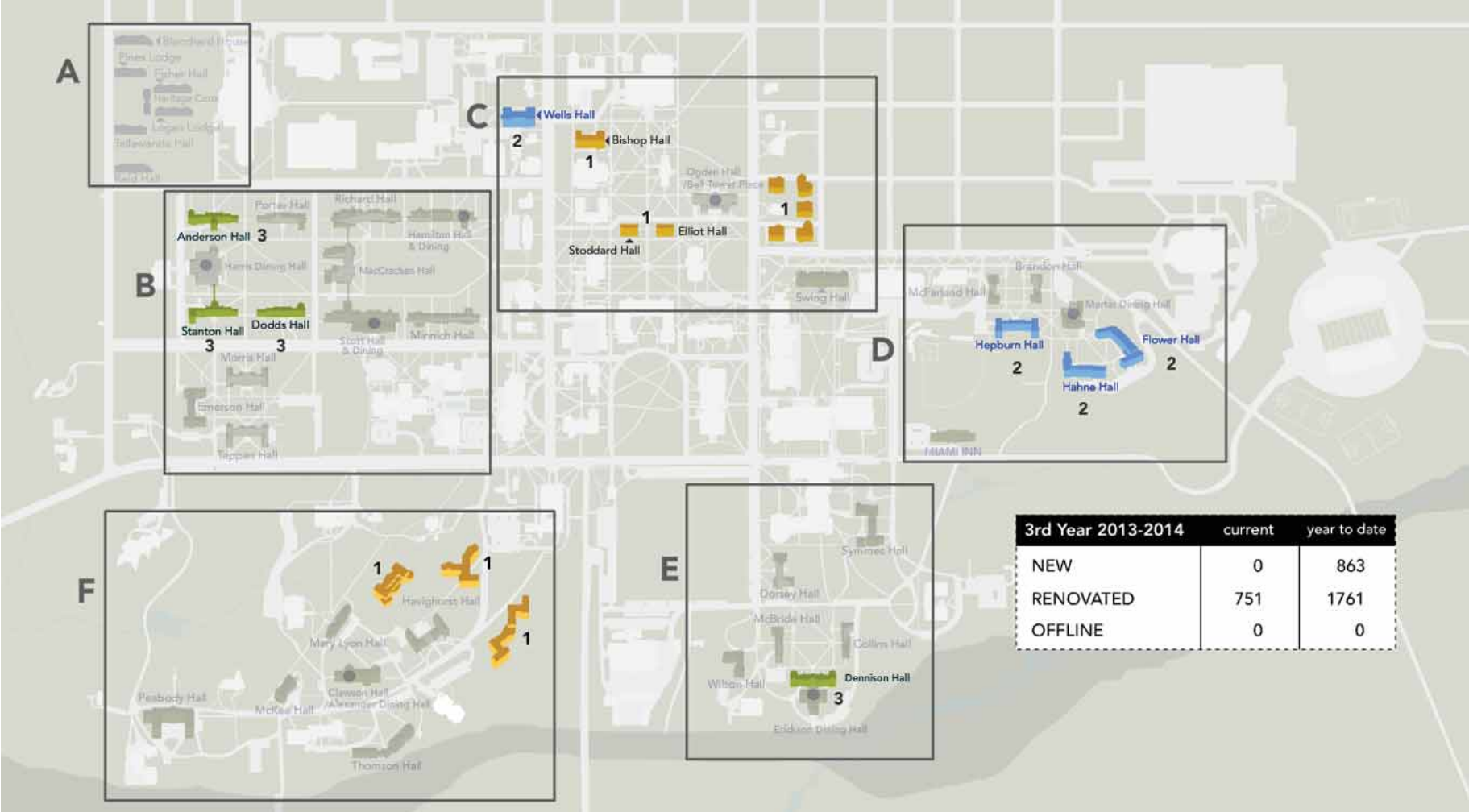
Master Site Plan (1-15)

Renovation Sequences (E-G)

Scenario E 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
YEAR

Scenario G

Phasing Strategy



Master Site Plan (1-15)

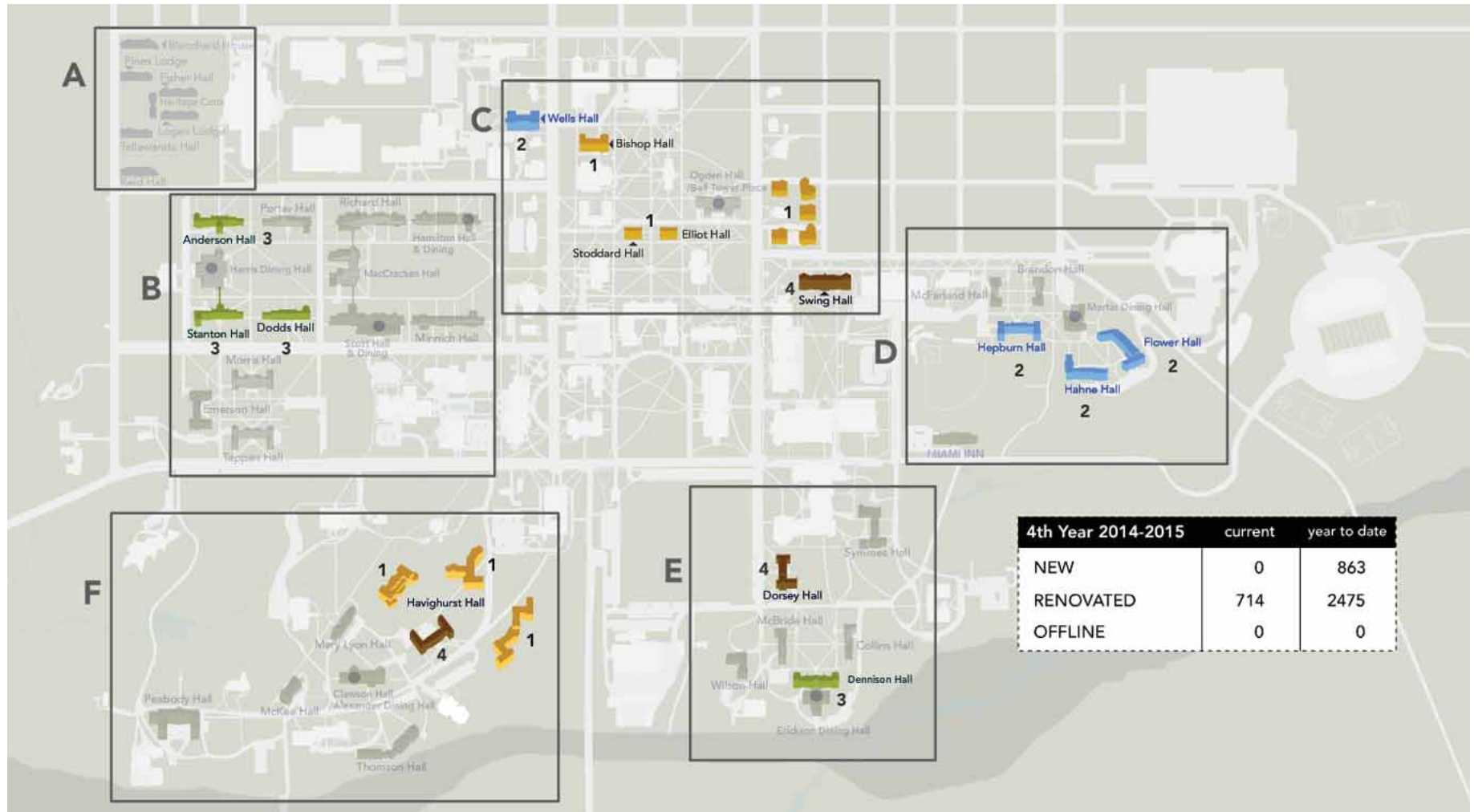
Renovation Sequences (E-G)

Scenario E 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
YEAR

Scenario G



Phasing Strategy



4th Year 2014-2015	current	year to date
NEW	0	863
RENOVATED	714	2475
OFFLINE	0	0

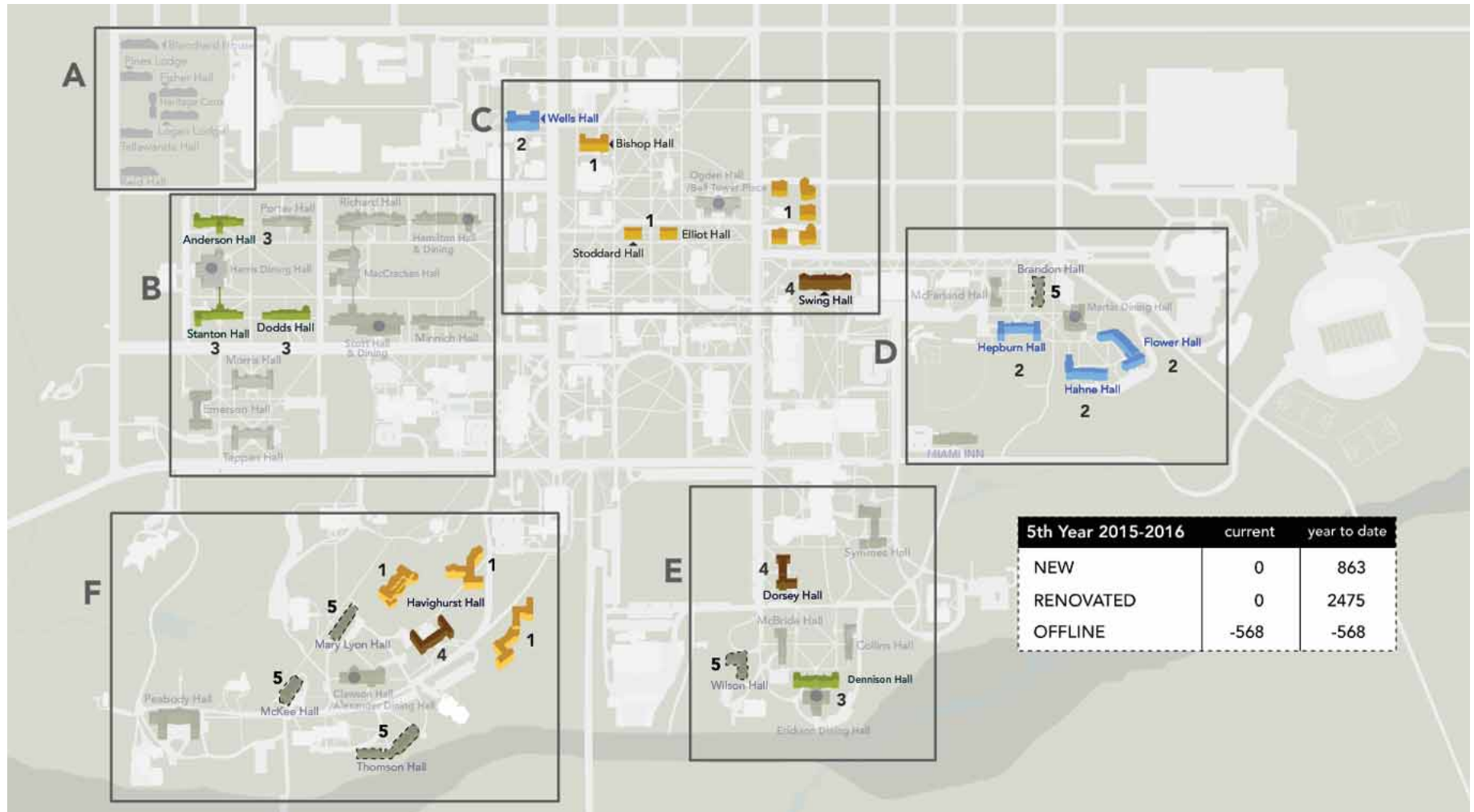
Master Site Plan (1-15)

Renovation Sequences (E-G)

Scenario E 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
YEAR

Scenario G

Phasing Strategy



5th Year 2015-2016	current	year to date
NEW	0	863
RENOVATED	0	2475
OFFLINE	-568	-568

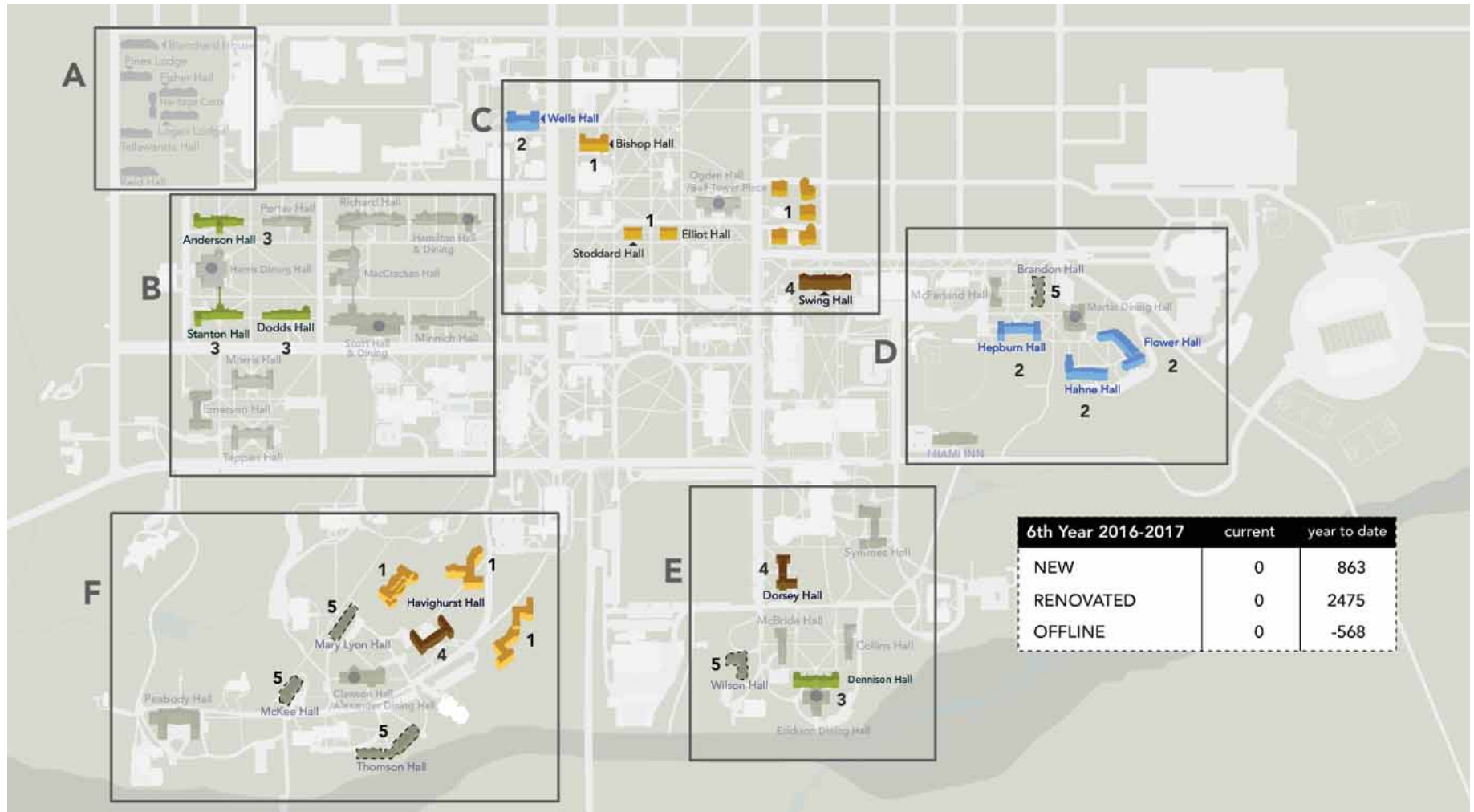
Master Site Plan (1-15)

Renovation Sequences (E-G)

Scenario E 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
YEAR

Scenario G

Phasing Strategy



6th Year 2016-2017	current	year to date
NEW	0	863
RENOVATED	0	2475
OFFLINE	0	-568

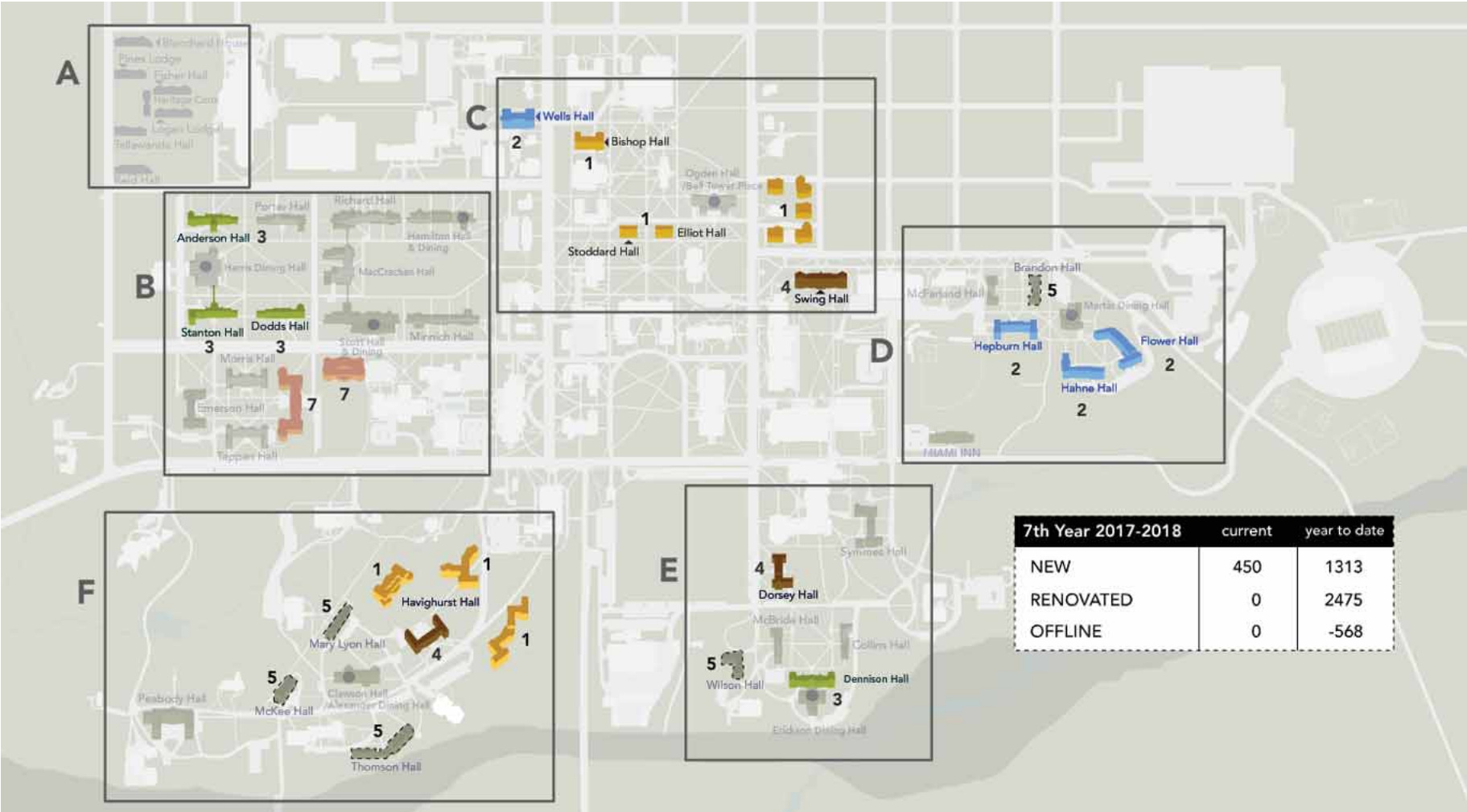
Master Site Plan (1-15)

Renovation Sequences (E-G)

Scenario E 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
YEAR

Scenario G

Phasing Strategy



7th Year 2017-2018	current	year to date
NEW	450	1313
RENOVATED	0	2475
OFFLINE	0	-568

Master Site Plan (1-15)

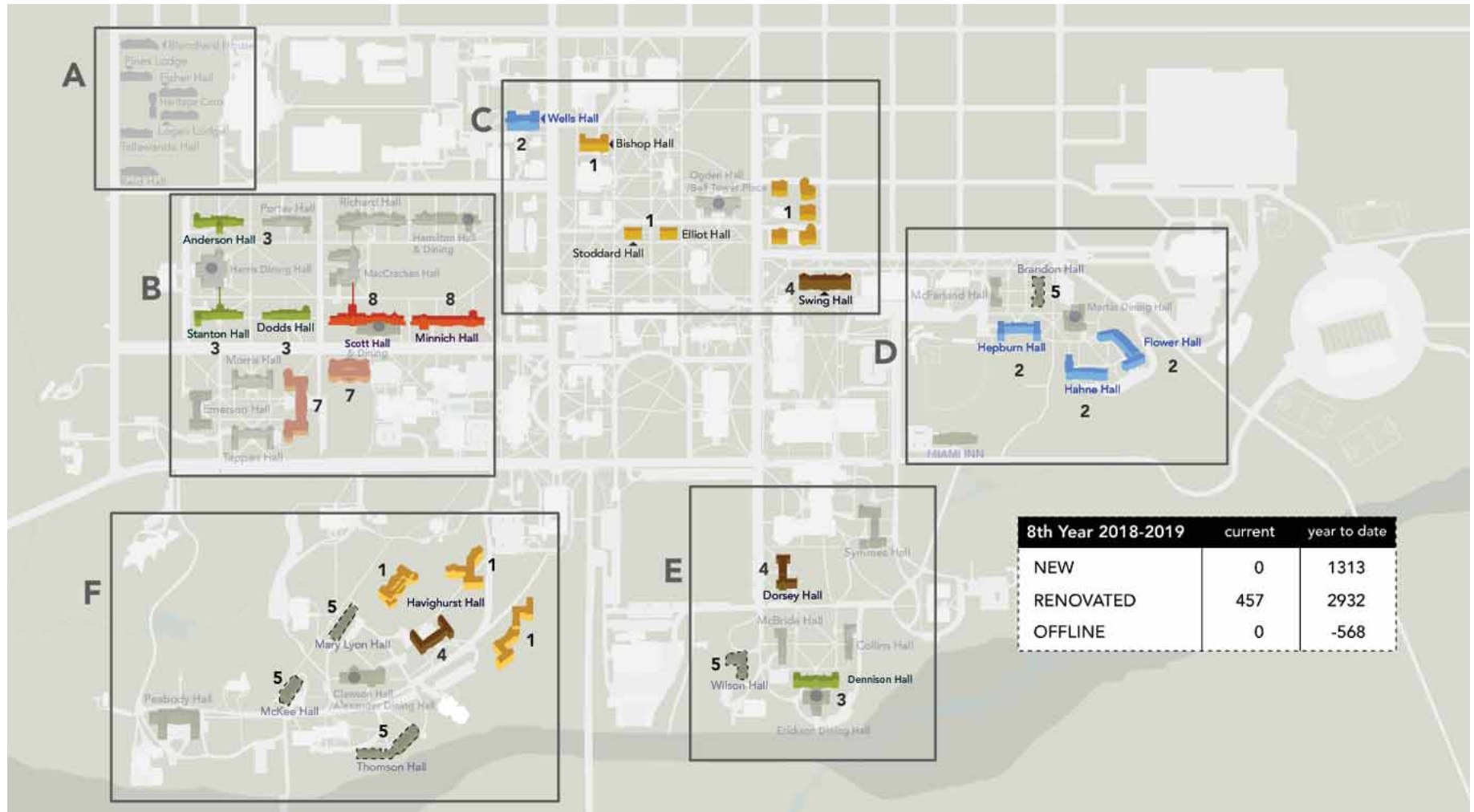
Renovation Sequences (E-G)

Scenario E 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
YEAR

Scenario G



Phasing Strategy



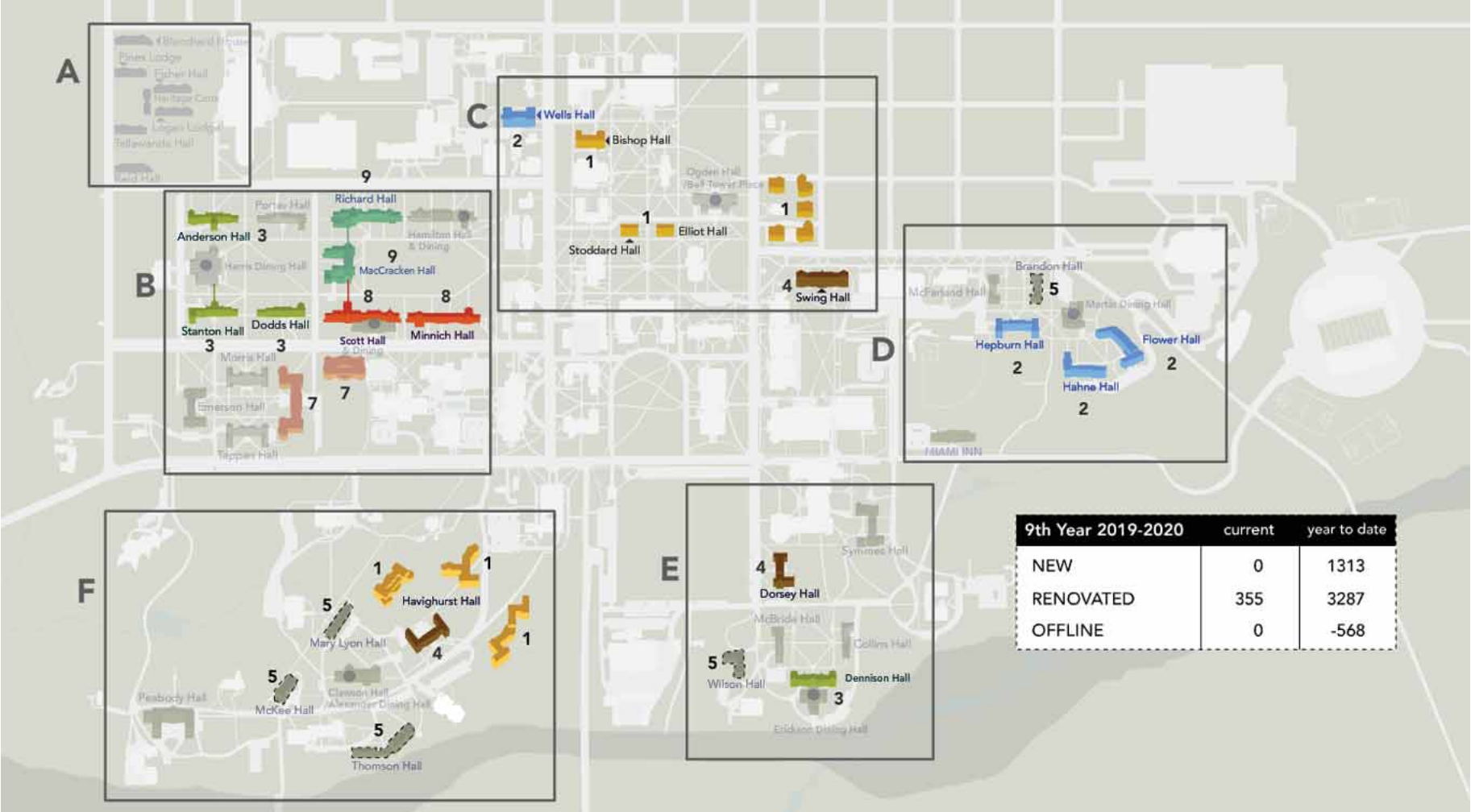
Master Site Plan (1-15)

Renovation Sequences (E-G)

Scenario E 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
YEAR

Scenario G

Phasing Strategy



9th Year 2019-2020	current	year to date
NEW	0	1313
RENOVATED	355	3287
OFFLINE	0	-568

Master Site Plan (1-15)

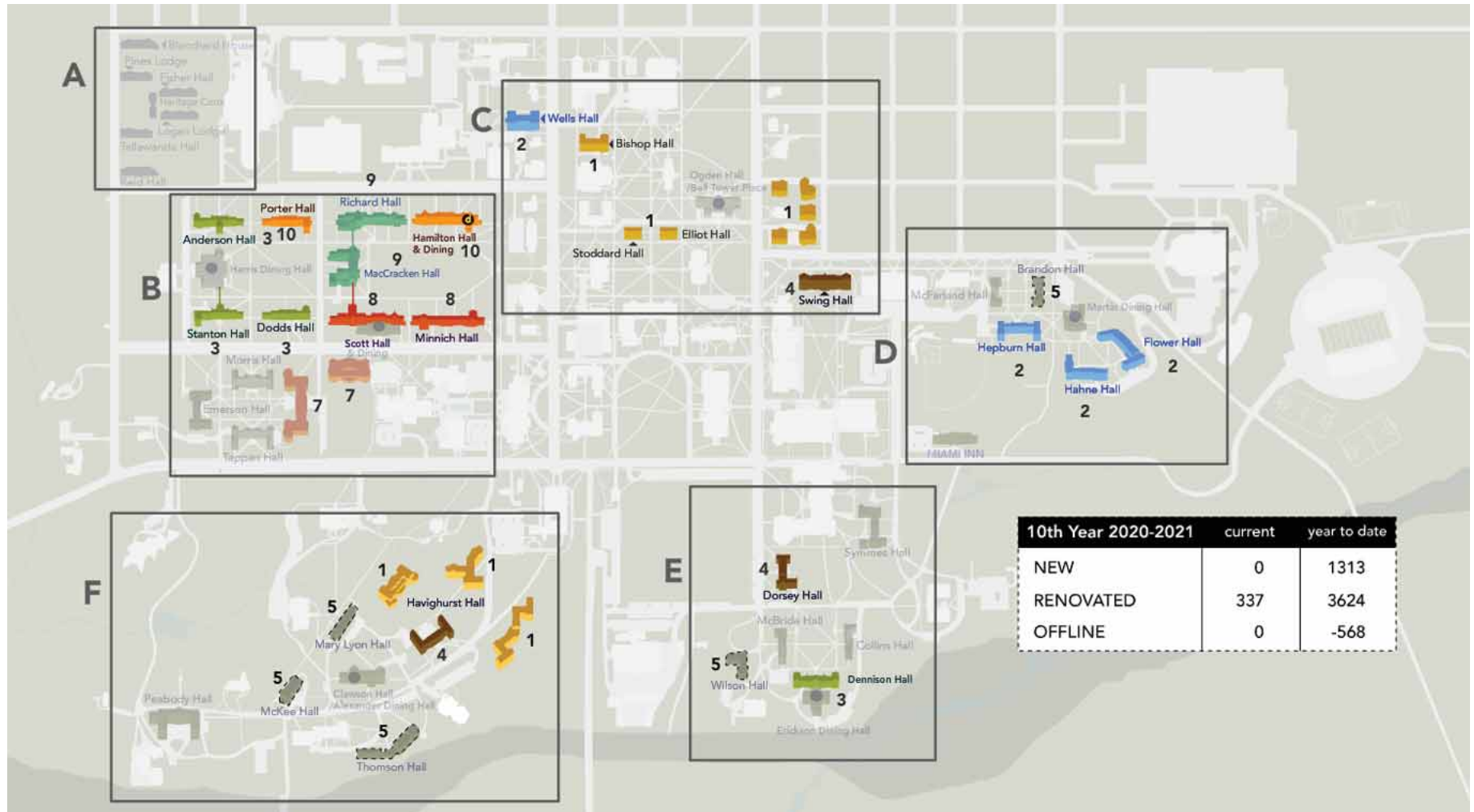
Renovation Sequences (E-G)

Scenario E 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
YEAR

Scenario G



Phasing Strategy



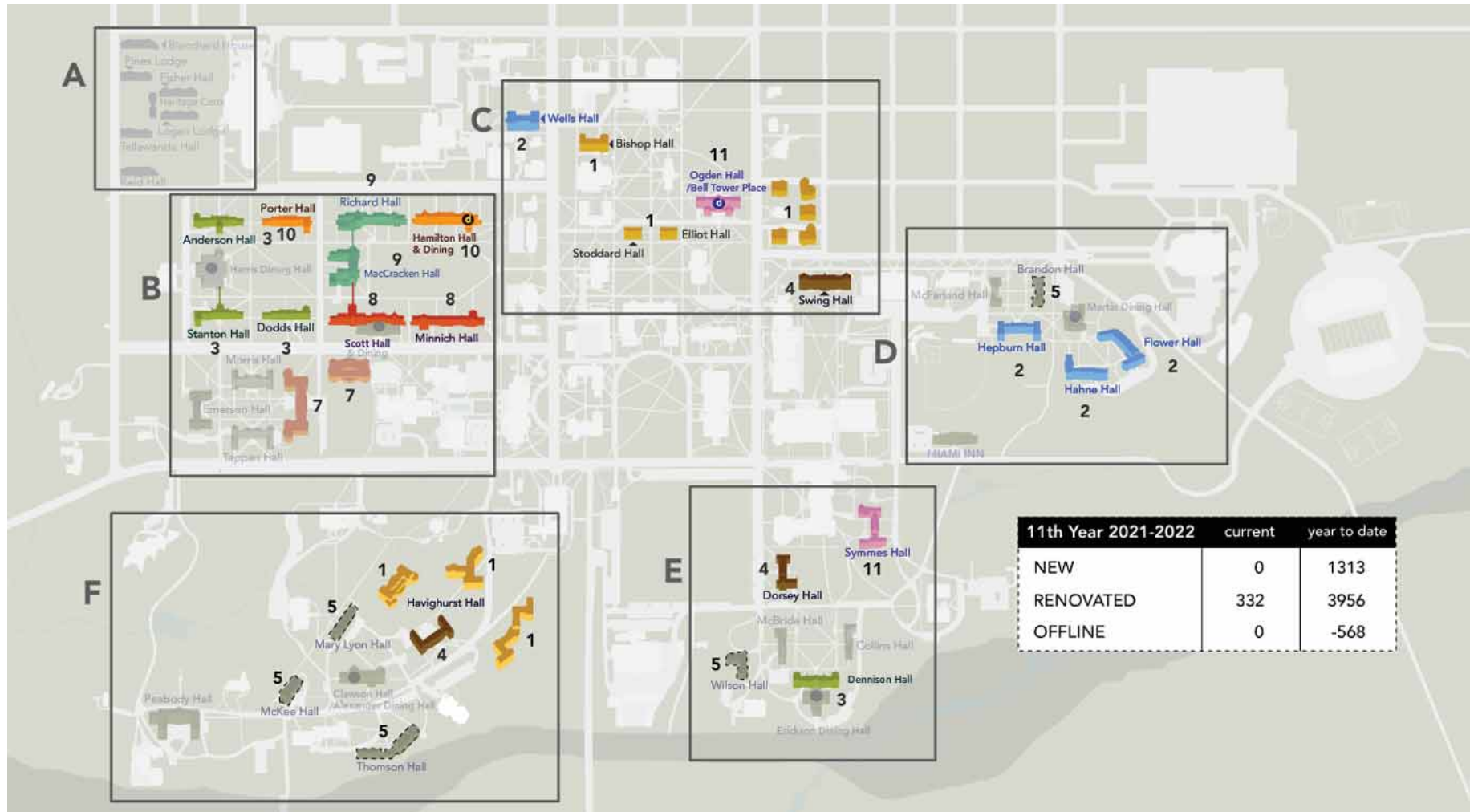
Master Site Plan (1-15)

Renovation Sequences (E-G)

Scenario E 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
YEAR

Scenario G

Phasing Strategy



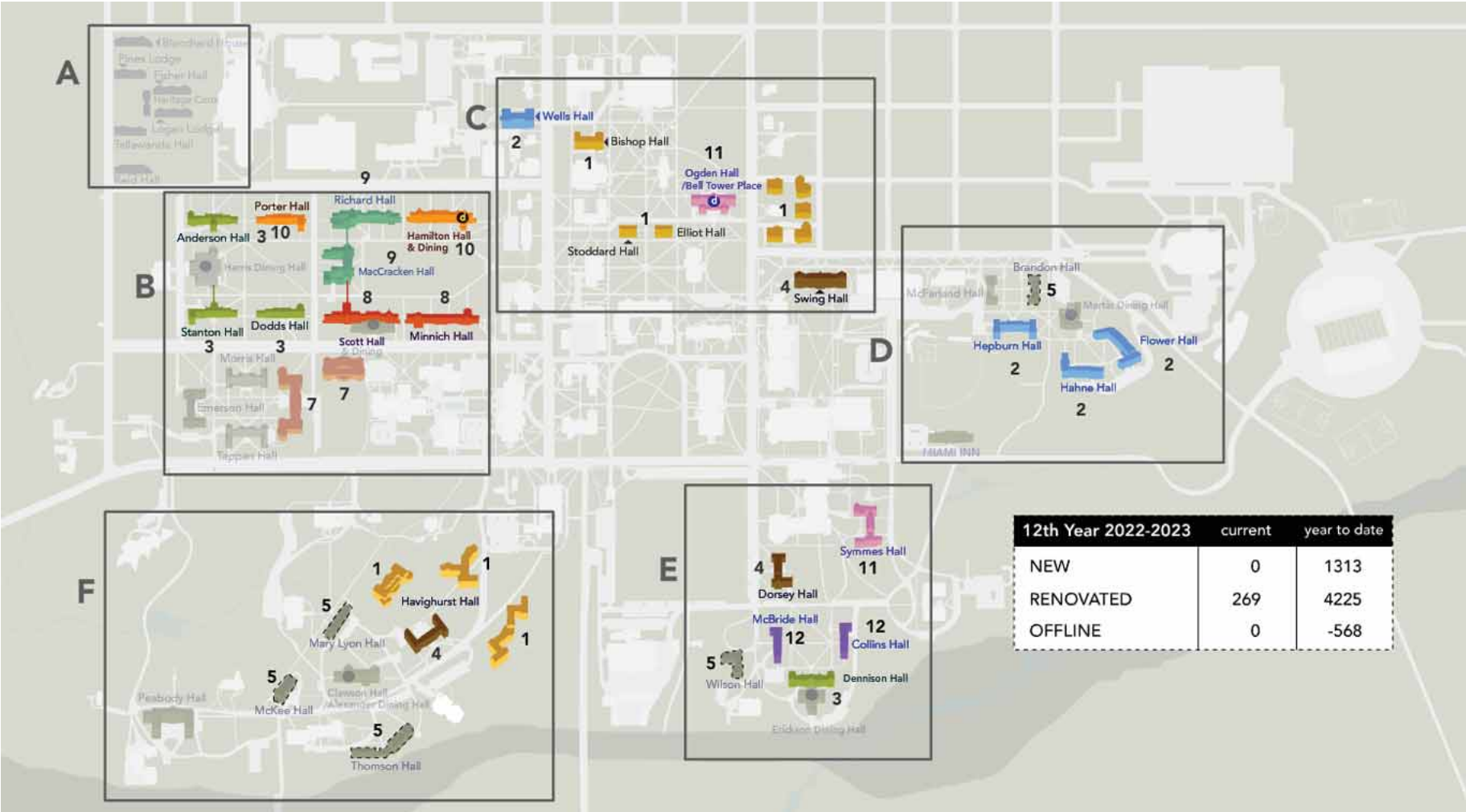
Master Site Plan (1-15)

Renovation Sequences (E-G)

Scenario E 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
YEAR

Scenario G

Phasing Strategy



Master Site Plan (1-15)

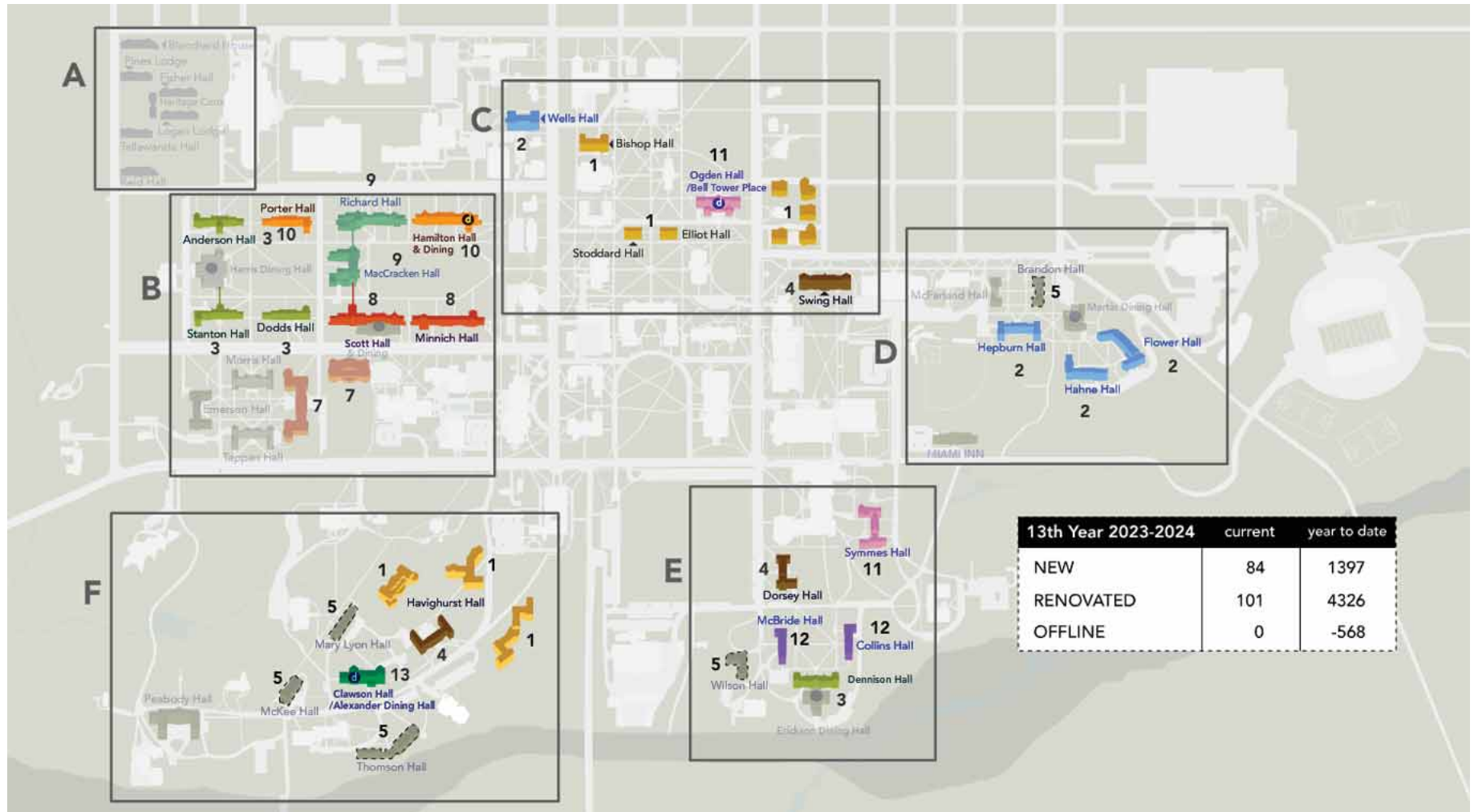
Renovation Sequences (E-G)

Scenario E 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
YEAR

Scenario G



Phasing Strategy



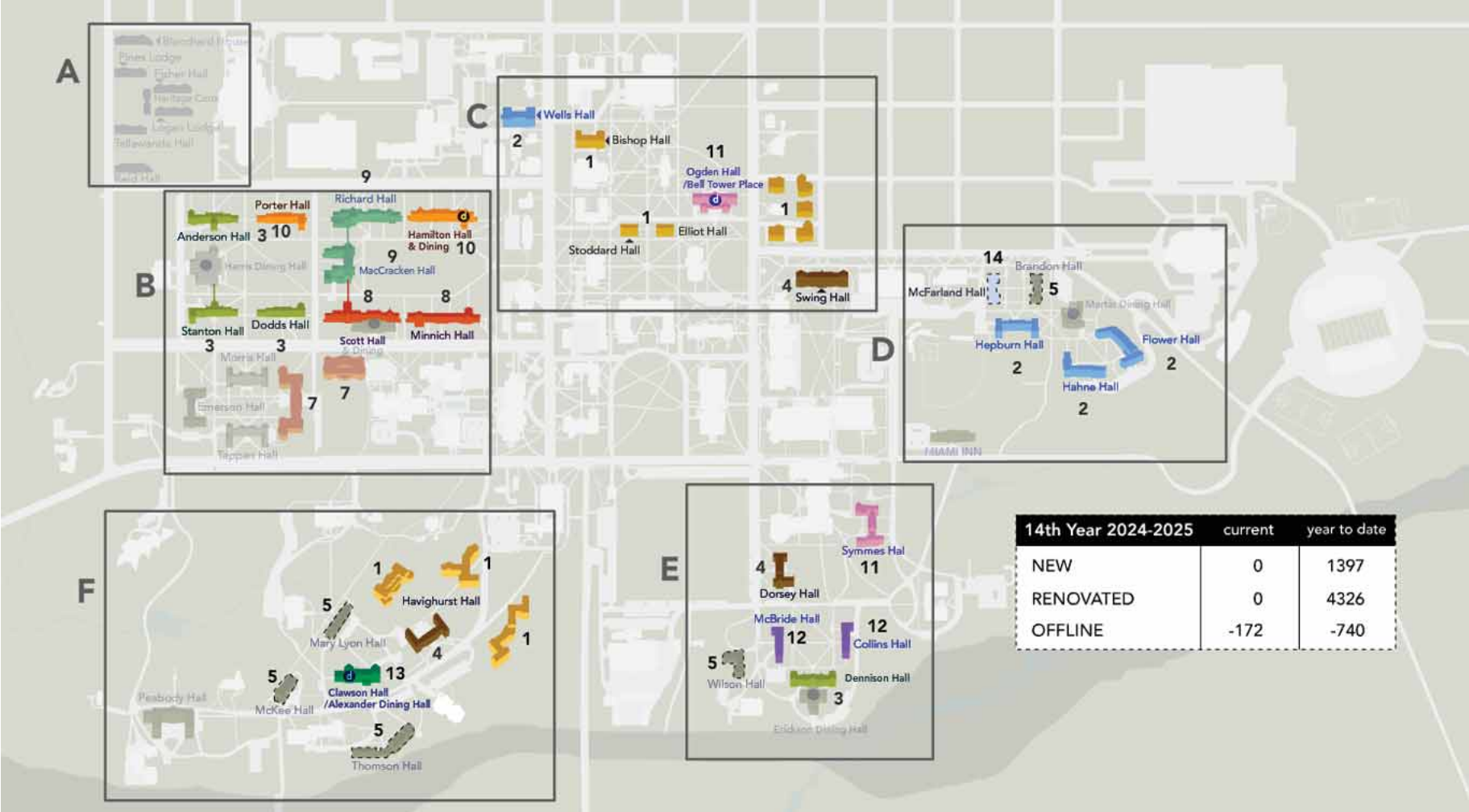
Master Site Plan (1-15)

Renovation Sequences (E-G)

Scenario E 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
YEAR

Scenario G

Phasing Strategy



Master Site Plan (1-15)

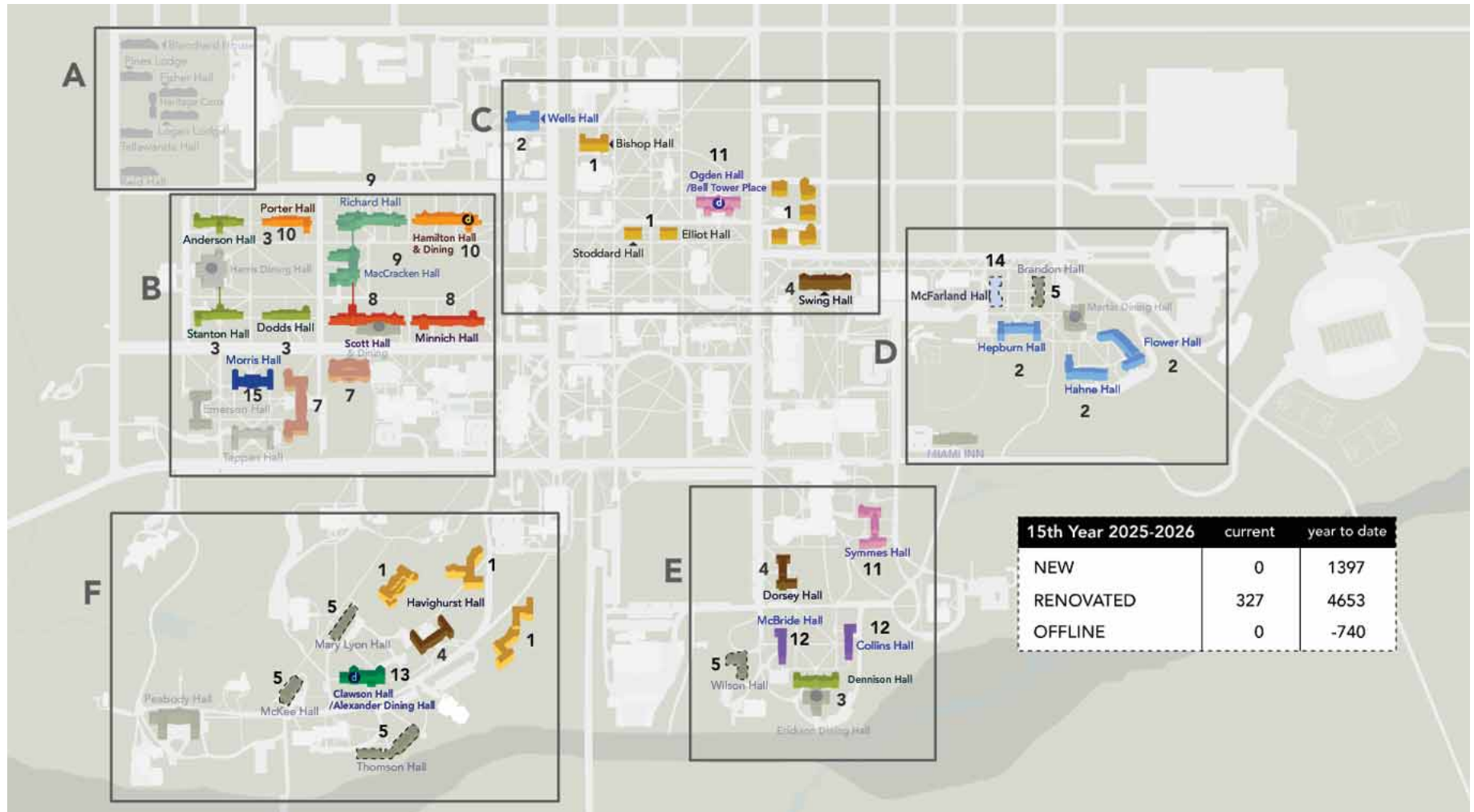
Renovation Sequences (E-G)

Scenario E 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
YEAR

Scenario G



Phasing Strategy



Master Site Plan (1-15)

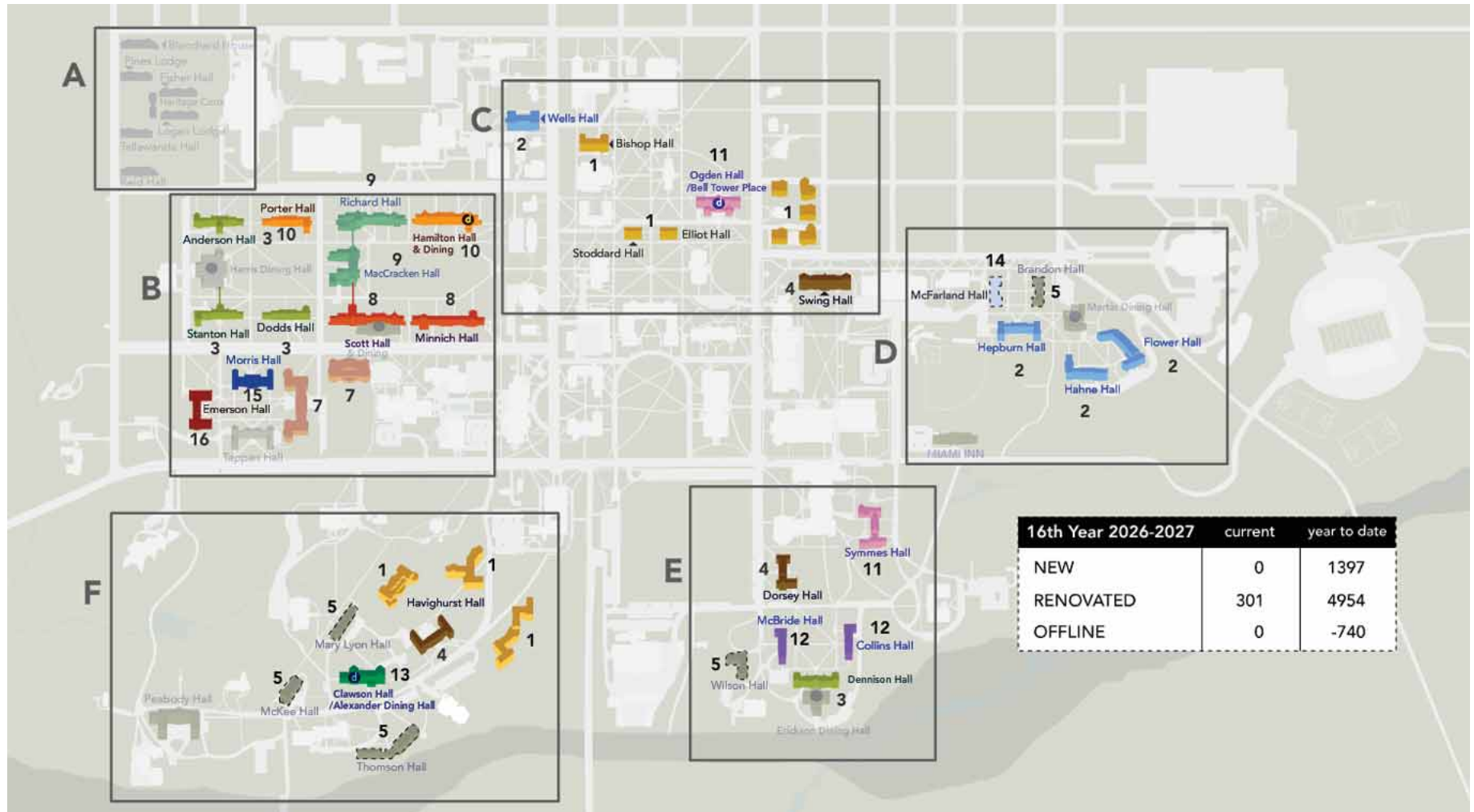
Renovation Sequences (E-G)

Scenario E 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

YEAR

Scenario G

Phasing Strategy



16th Year 2026-2027	current	year to date
NEW	0	1397
RENOVATED	301	4954
OFFLINE	0	-740

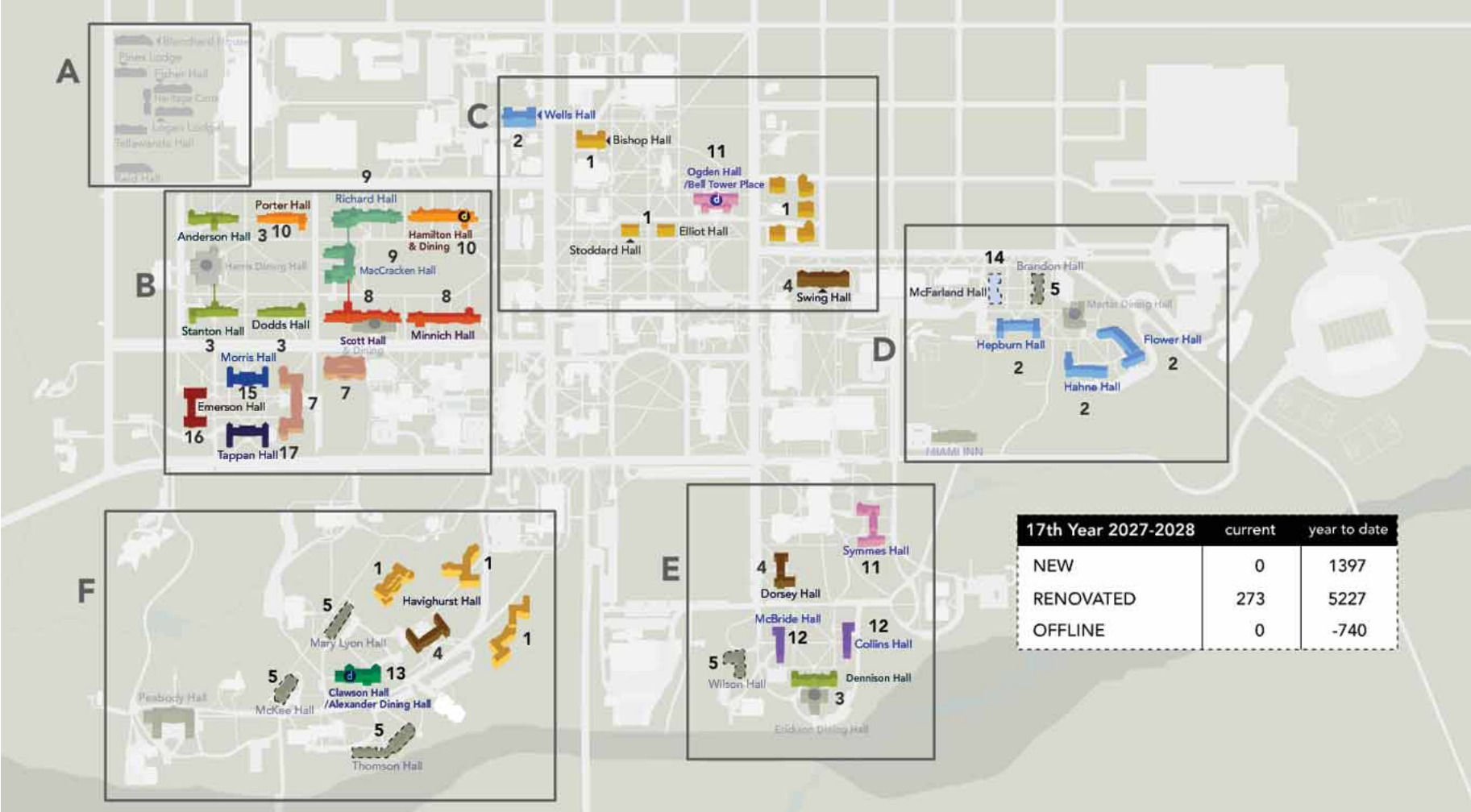
Master Site Plan (1-15)

Renovation Sequences (E-G)

Scenario E 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
YEAR

Scenario G

Phasing Strategy



17th Year 2027-2028	current	year to date
NEW	0	1397
RENOVATED	273	5227
OFFLINE	0	-740

Master Site Plan (1-15)

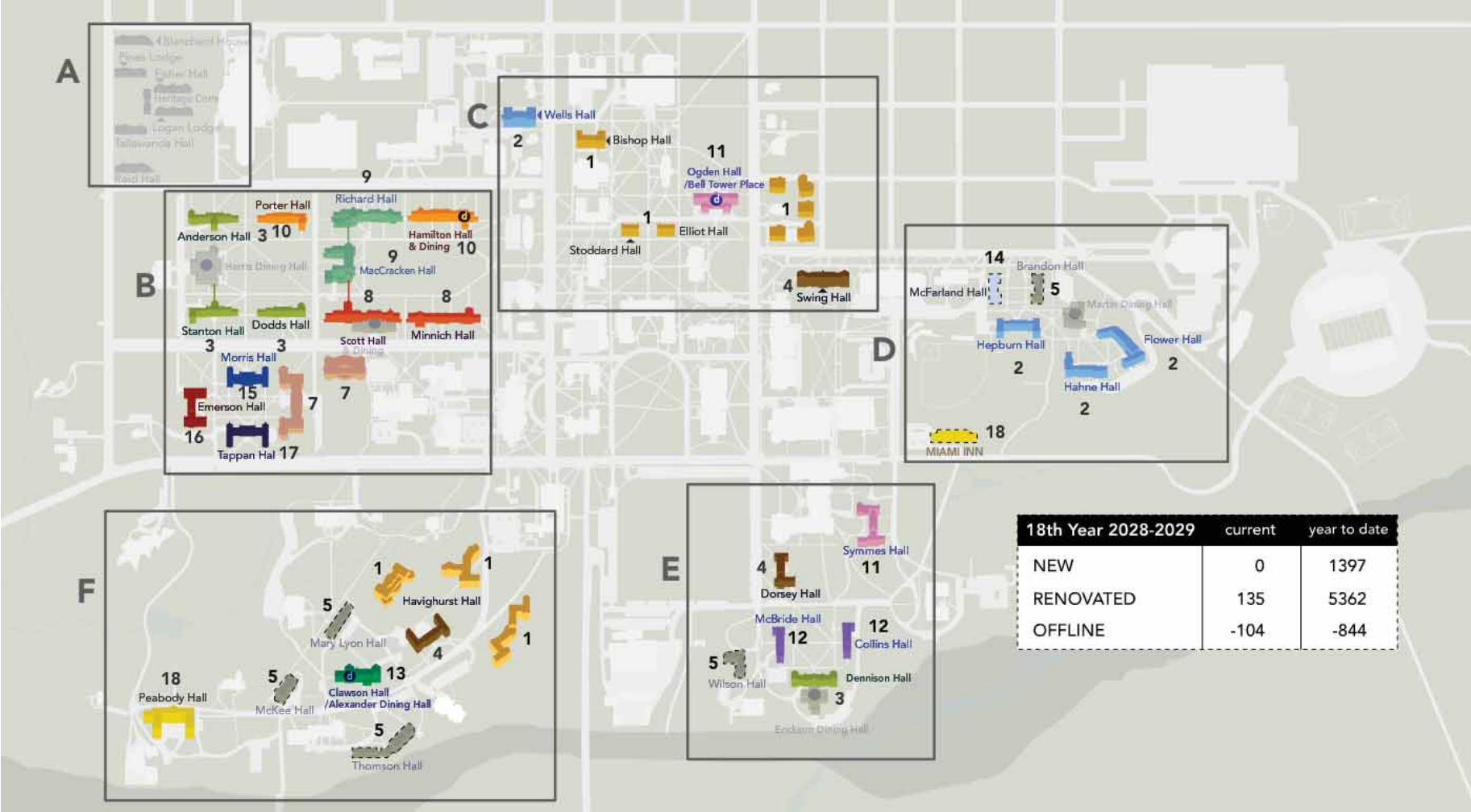
Renovation Sequences (E-G)

Scenario E 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
YEAR

Scenario G



Phasing Strategy



18th Year 2028-2029	current	year to date
NEW	0	1397
RENOVATED	135	5362
OFFLINE	-104	-844

Master Site Plan (1-15)

Renovation Sequences (E-G)

Scenario E 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
YEAR

Scenario G



Financial Viability

Hard Costs

- Renovation Cost
- New Construction Cost
- Site Infrastructure Cost
- FF & E Cost

Soft Costs

- Consultant Fees
- Contingencies
- Finance Costs
- Escalation over 20 years

Financial Analysis

- Master Planning Tool
- Debt Capacity
- Sensitivity Analysis
 - Bed types / occupancy
 - Rates
 - Operational costs
 - Development assump.
 - Alternative financing (P3)

	Traditional Development	Alternative Method	Private Developer
DEVELOPMENT			
Development Costs / SF	\$372	\$334	\$357
Development Costs	\$39,466,400	\$35,520,000	\$37,958,000
INCOME			
Revenue (opening yr)	\$2,012,790	\$2,012,790	\$2,012,790
EXPENSES			
Operating Cost / SF	\$11	\$11	\$8
Total Expenses	\$1,118,869	\$1,118,869	\$849,600
NOI	\$893,921	\$893,921	\$1,163,190
Interest Rate	5%	5%	8%
Term	30	30	30
Coverage	1.2	1.2	1.3
Debt Service	\$2,734,000	\$2,461,000	\$3,591,000
CASH FLOW AFTER DS	(\$1,840,079)	(\$1,567,079)	(\$2,427,810)



MIAMI
UNIVERSITY
OXFORD OHIO

REFRESHING STUDENT HOUSING AT MIAMI (OHIO)

MASTER PLANNING FOR PHASED UPGRADES

Questions & Answers



BRAILSFORD & DUNLAVEY



CHAMPLIN
ARCHITECTURE

cbt

Summary

- 41 Buildings Renovated
 - 7,100 rooms reduced to 5,000
- 12 New buildings
 - 2,100 rooms
- 3 New dining halls
 - ### seats
- Total Area dedicated to residential living
 - ### sf to ### sf

Slide Title Here



Programming	Amenity Area	Tier 1 Total Cost
14 Assessed Buildings	Total Area	Tier 2 Total Cost
Overall Residential Assessment	Percentage Singles	Tier 3 Total Cost
Residential Area	Percentage Doubles	

Team

- Miami University: Client
- CBT Architects: Lead Planner/Architect
- Brailsford & Dunlavey: Programming and Financial Analysis
- Champlin Architecture: Local Architect
- Carol R. Johnson Associates: Landscape Planner
- Heapy Engineers: MEP Engineer
- Megan Construction: Cost Estimators

Miami University

- Located in Oxford, OH, Miami University is a liberal arts public university founded in 1809
- 14,671 undergraduates and 2,213 graduate students on the Oxford campus
- Miami offers the bachelor's degree in over 100 areas of study and the master's degree in more than 50 areas



Residential and Dining Master Plan Goals

- Create a comprehensive 20 year multi-phase residential master plan
 - 41 existing buildings
 - 2,008,913 GSF
 - 7100 student rooms
 - 9 dining facilities
 - 46 acres
- Renovate, reprogram, and reduce density of housing stock dating from 1825 to 2005
- Provide 1400 new housing units
- Offering expanded program/unit type

Building Assessments

Group	Building Name	Abbr.	Location	Address	GSF:	Stor.	Bsmt.	Resi- dents	RA	Residents	SF/ Res	Primary Occupants:	Year:	Cost to Build:	Architect:	General Contractor:	Misc.	Factor
A	Elliot Hall	ELT	Central Quad	101 Irvin Dr.	12,611	4	yes	35	0	35	360	Male Upperclass	1825	\$ 7,000	John P. Schooley	A. Benzing	Oldest building on campus. *1937 Renovation	1.25
A	Stoddard Hall	STD	Central Quad	201 Irvin Dr.	12,710	4	yes	42	1	43	296	Female Scholar-Leader	1836	Unknown	Unknown	Unknown	Second residence hall built on campus	1.25
B	Peabody Hall	PBD	Western Campus	701 Western College Dr.	84,205	5	yes	139	6	145	581	Western Prog. Upperclass	1871	\$ 220,000	Unknown	Unknown	Academic Offices & Theater	1.25
C	Bishop Hall	BIS	Central Quad	300 East Spring St.	31,788	4	yes	96	2	98	324	COED Upperclass	1912	\$ 75,000	F.L. Packard	Vesta Construction	Houses Honors Program	1.25
C	Ogden Hall	OGN	Central Quad	401 East High St.	64,745	4	yes	165	5	170	381	Female Upperclass	1924	\$ 330,000	Ditoe, Fahnestock & Ferber	Fred Wood	Houses Bell Tower Place Dining Hall	1.25
C	Swing Hall	SWG	North Quad	105 North Tallawanda Ave.	51,353	4	yes	222	7	229	224	COED Upperclass	1924	\$ 80,000	Robert S. Harsh	Boyd, John & Barr		1.25
C	Wells Hall	WEL	Central Quad	301 East Spring St.	41,350	4	yes	142	5	147	281	COED First Year	1923	\$ 240,000	F.L. Packard	Unknown		1.25
C	Wilson Hall	WIL	East Quad	21 South Fisher Dr.	19,667	3	yes	48	3	51	386	COED First Year	1925	\$ 110,000	J. Wespiser	J. Wespiser		1.25
D	Mary Lyon Hall	LYN	Western Campus	500 Western College Dr.	35,895	3	yes	136	6	142	253	COED Upperclass	1925	\$ 106,000	President W.W. Boyd	Joe Wespiser		1
D	McKee Hall	MCK	Western Campus	600 Western College Dr.	26,466	4	yes	73	2	75	353	COED Upperclass	1904	\$ 323,000	Geyer & Neuffer	Unknown		1.25
E	Collins Hall	COL	East Quad	31 North Fisher Dr.	38,706	4	yes	138	6	144	299	COED First Year	1952	\$ 703,000	C.F. Cellarius	Frank Messer & Sons		1
E	Hamilton Hall	HAM	Central Quad	401 South Oak St.	67,946	4	yes	177	4	181	375	Female Upperclass	1940	\$ 398,000	John P. Schooley	James I. Barnes Co.	Sorority Suites/ Houses Dining Hall and Deli	1.25
E	McBride Hall	MCB	East Quad	11 North Fisher Dr.	38,000	4	yes	166	6	172	221	Female First Year	1952	\$ 689,000	C.F. Cellarius	Frank Messer & Sons		1
E	Richard Hall	RIC	Central Quad	501 South Oak St.	79,740	4	yes	192	5	197	405	Female Upperclass	1940	\$ 947,000	J.P. Schooley	W.H. Miller Company	Sorority Suites	1
E	Symmes Hall	SYM	East Quad	500 North Fisher Dr.	63,674	5	yes	179	8	187	341	COED First Year	1939	\$ 394,000	C.F. Cellarius	James I. Barnes Co.		1
E	Clawson Hall	CLW	Western Campus	440 Western College Dr.	68,253	4	yes	102	5	107	638	COED Upperclass	1946	\$ 1,002,000	C.F. Cellarius	Ferro Construction		1
F	Anderson Hall	AND	South Quad	701 South Oak St.	49,749	4	yes	216	8	224	222	COED Residents	1961	\$ 1,035,000	Cellarius & Hilmer	Knowlton Construction		1
F	Brandon Hall	BRN	North Quad	385 Tallawanda Ave.	38,000	4	yes	162	6	168	226	COED Upperclass	1959	\$ 711,300	Cellarius & Hilmer	Knowlton Construction		1
F	Denison Hall	DEN	East Quad	21 North Fisher Dr.	49,344	4	yes	169	9	178	277	COED First Year	1961	\$ 1,550,000	C.F. Cellarius/Hilmer	Frank Messer & Sons		1
F	Dodds Hall	DOD	South Quad	600 South Maple Ave.	42,422	4	yes	197	8	205	207	COED First Year	1961	\$ 897,000	Cellarius & Hilmer	Knowlton Construction		1
F	Forsey Hall	DOR	East Quad	900 East High St.	51,856	4	yes	239	8	247	210	COED First Year	1962	\$ 5,352,000	Cellarius & Hilmer	Frank Messer & Sons		1
F	Heppburn Hall	HEP	North Quad	355 North Tallawanda Ave.	62,955	4	yes	260	6	266	237	Male Upperclass	1964	\$ 1,280,000	Cellarius & Hilmer	Knowlton Construction		1
F	MacCracken Hall	MAC	Central Quad	500 Center Dr.	80,609	4	yes	191	5	196	411	Female Upperclass	1957	\$ 1,280,000	Cellarius & Hilmer	Knowlton Construction	Sorority Suites / Houses a Learning Technologies Ctr.	1
F	McFarland Hall	MCF	North Quad	325 Tallawanda Ave.	34,020	4	yes	78	3	81	420	COED Upperclass	1959	\$ 711,000	Cellarius & Hilmer	Knowlton Construction		1
F	Minnich Hall	MIN	Central Quad	400 Maple Ave.	63,082	4	yes	230	5	235	268	Female Upperclass	1962	\$ 1,408,000	Cellarius & Hilmer	Frank Messer & Sons	Sorority Suites	1
F	Porter Hall	POR	South Quad	601 Oak St.	40,578	4	yes	176	6	182	223	COED First Year	1956	\$ 810,000	C.F. Cellarius	Frank Messer & Sons		1
F	Scott Hall	SCT	South Quad	500 Maple Ave.	73,553	4	yes	263	8	271	271	COED Upperclass	1957	\$ 1,739,000	Cellarius & Hilmer	Frank Messer & Sons	Houses two food courts	1.25
F	Stanton Hall	STN	South Quad	700 Maple Ave.	50,758	4	yes	208	8	216	235	COED First Year	1961	\$ 1,039,000	Cellarius & Hilmer	Knowlton Construction		1
G	Emerson Hall	EMR	South Quad	699 South Maple Ave.	67,703	4	yes	313	11	324	209	COED First Year	1969	\$ 1,852,000	Cellarius & Hilmer	Frank Messer & Sons		1
G	Flower Hall	FLW	North Quad	5347 Bonham Rd.	61,771	4	yes	304	7	311	199	COED Upperclass	1966	\$ 1,629,000	Cellarius & Hilmer	Frank Messer & Sons		1
G	Haine Hall	HNE	North Quad	5357 Bonham Rd.	59,270	4	yes	305	7	313	189	COED Upperclass	1966	\$ 1,415,000	Cellarius & Hilmer	Frank Messer & Sons		1
G	Morris Hall	MOR	South Quad	651 Maple Ave.	70,344	4	yes	341	11	352	200	COED First Year	1969	\$ 1,840,000	Cellarius & Hilmer	Frank Messer & Sons		1
G	Tappan Hall	TAP	South Quad	650 South Patterson Ave.	71,816	4	yes	286	8	294	244	COED First Year	1970	\$ 2,548,000	Cellarius & Hilmer	Frank Messer & Sons		1
H	Thomson Hall	TSN	Western Campus	425 Western College Dr.	52,434	3	yes	188	6	194	270	COED Upperclass	1963	\$ 755,000	Small, Wertz & Associates	Wm. Agee Construction	Roof top sun deck	1
I	Havighurst Hall	HAV	Western Campus	350 Western College Dr.	71,276	4	yes	280	10	290	248	COED First Year	1983	\$ 6,615,000	Roth Partners, Inc.	Frank Messer & Sons		1
J	HC - Blanchard House	HCB	Heritage Commons	805 South Campus Ave.	29,785	3	no	71	1	72	414	COED Upperclass/Grads	2005		Harbury Evans Wright Viattas /URS		Apartment style student housing 18 - 4 BR units	0.25
J	HC - Fisher Hall	HCF	Heritage Commons	801 South Campus Ave.	30,076	3	no	71	1	72	418	COED Upperclass/Grads	2005		Harbury Evans Wright Viattas /URS		Apartment style student housing 18 - 4 BR units	0.25
J	HC - Logan Lodge	HCL	Heritage Commons	800 South Oak St.	33,018	3	no	69	1	70	472	COED Upperclass/Grads	2005		Harbury Evans Wright Viattas /URS		Apartment style student housing 18 - 4 BR units	0.25
J	HC - Pines Lodge	HCP	Heritage Commons	803 South Campus Ave.	28,810	3	no	71	1	72	400	COED Upperclass/Grads	2005		Harbury Evans Wright Viattas /URS		Apartment style student housing 18 - 4 BR units	0.25
J	HC - Reid Hall	HCR	Heritage Commons	806 South Oak St.	29,785	3	no	71	1	72	414	COED Upperclass/Grads	2005		Harbury Evans Wright Viattas /URS		Apartment style student housing 18 - 4 BR units	0.25
J	HC - Tallawanda Hall	HCT	Heritage Commons	804 South Oak St.	28,810	3	no	71	1	72	400	COED Upperclass/Grads	2005		Harbury Evans Wright Viattas /URS		Apartment style student housing 18 - 4 BR units	0.25

2,008,913

Subtotal
Allowance for additional assessments
Meetings/Coordination
Expenses

Assumes 13 buildings \$ 67,200 \$ 14,400 \$ 17,660
Assumes 2 additional buildings \$ 12,000 \$ 2,600 \$ 2,720
\$ 15,000 \$ 5,000 \$ -
\$ 10,000 \$ 1,000 \$ 1,000

TOTAL BUILDING ASSESSMENTS

\$ 104,200 \$ 23,000 \$ 21,400

GRAND TOTAL BUILDING ASSESSMENTS (Local Firms)

\$ 148,600

- Potentially coming off-line
- Have AC currently



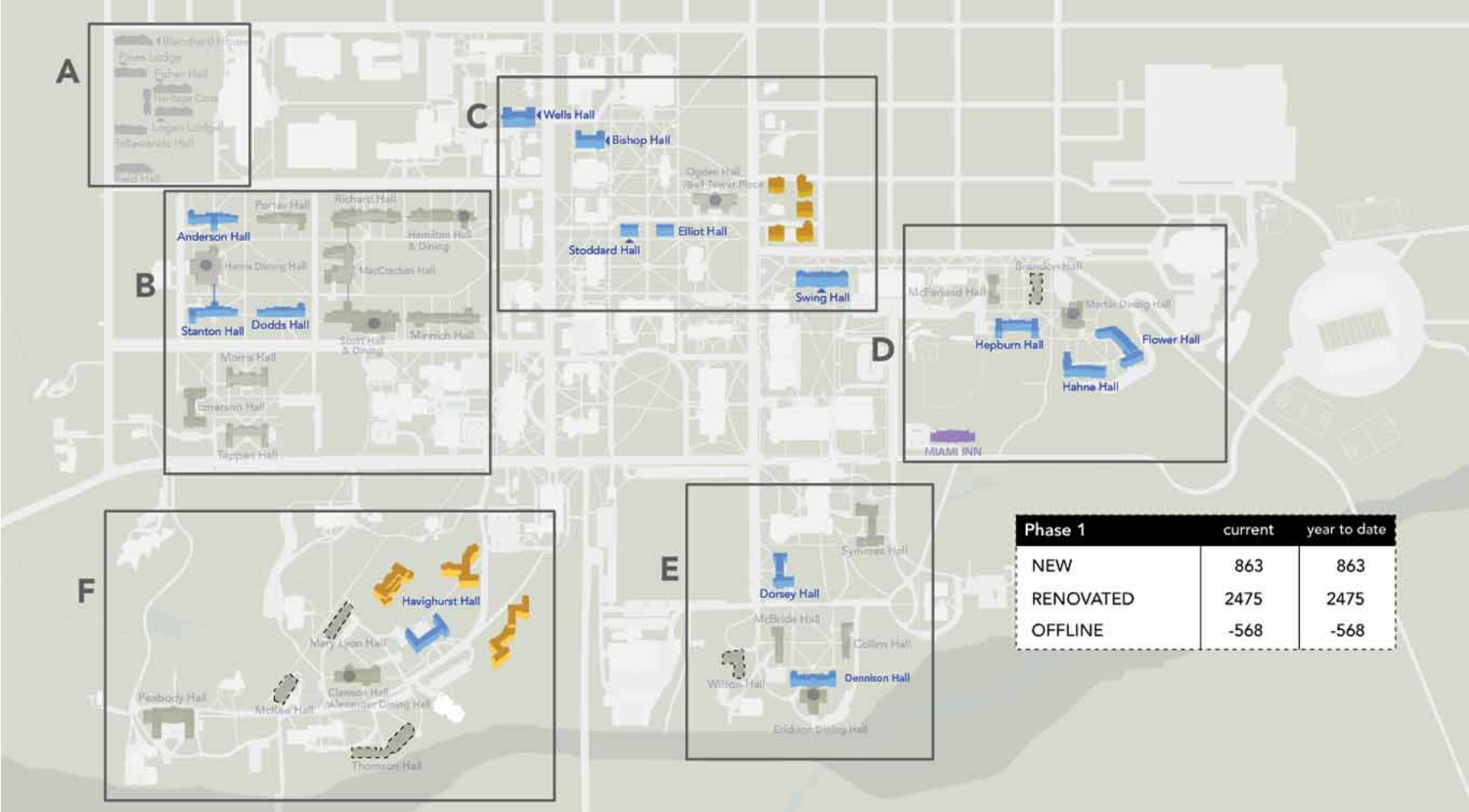
Facility Condition Index



Programming	Amenity Area	Tier 1 Total Cost
14 Assessed Buildings	Total Area	Tier 2 Total Cost
Overall Residential Assessment	Percentage Singles	Tier 3 Total Cost
Residential Area	Percentage Doubles	



Phasing Strategy



Phase 1	current	year to date
NEW	863	863
RENOVATED	2475	2475
OFFLINE	-568	-568

Master Site Plan (1-15)

Renovation Sequences (E-G) **E** F G

phase 1 ● phase 2 ● phase 3

Scenario E

Scenario G



Program

- Interviews
 - Residential life staff
 - Resident Advisors
 - Students / Parents
- Student and parent surveys
- Cost and satisfaction benchmarks
- Program
 - Singles
 - Doubles
 - Apartments
 - New open suite