

COAA Owner Training Institute[®]

TRAINING FOR OWNERS, BY OWNERS



COAA[®]

Today's Webinar

BEST PRACTICES FOR ACCURATE BUDGETING



COAA Ongoing initiative:
*Create a body of knowledge to help Owners better
plan and execute "small" or "minor" projects*

Thursday October 28, 2021
2:00 – 3:00 (EDT)
Approved for 1.0 AIA CEUs

PROCORE[®]

AIA/CES Learning Units

Only the individual registered for the webinar will receive credit for attendance. To receive AIA credit, please complete the Survey Monkey evaluation emailed to you immediately following the webinar.

AIA continuing education Learning Units earned upon completion of this course will be reported to AIA CES for AIA members. Certificates of Completion for both AIA members and non-AIA members are available upon request.



Learning Objectives

1. Benchmarking Project Cost Data: Tool for projecting construction costs of Minor Projects
2. Learn from the history of your past projects: the good, the bad and the ugly
3. Organize & document your facilities' construction cost history so it can serve as guidance metrics for planning future projects
4. Identify and establish line-item Contingencies

Presenters

Jose A. Rodriguez, RA



FIU | Herbert Wertheim
College of Medicine
FLORIDA INTERNATIONAL UNIVERSITY

Office of Finance and Administration

Director, Facilities Planning and Operations

email: jrodriguez@fiu.edu

Credentials

José A. Rodríguez, RA

Florida / Registered Architect 0008044

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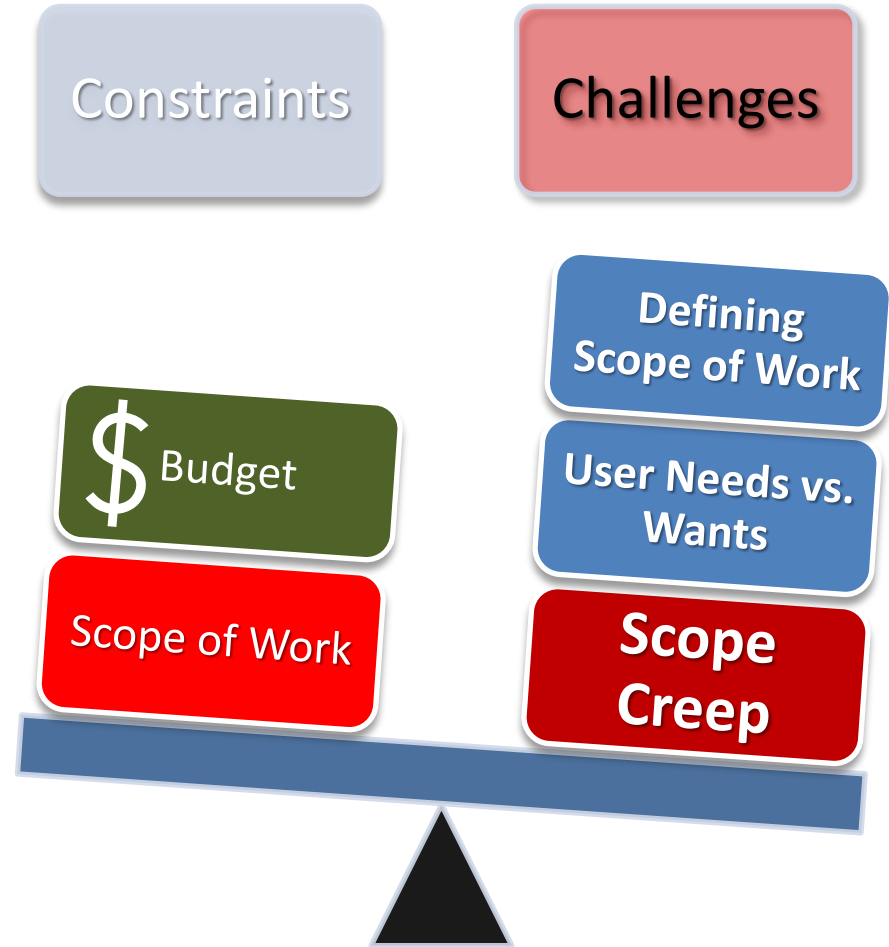
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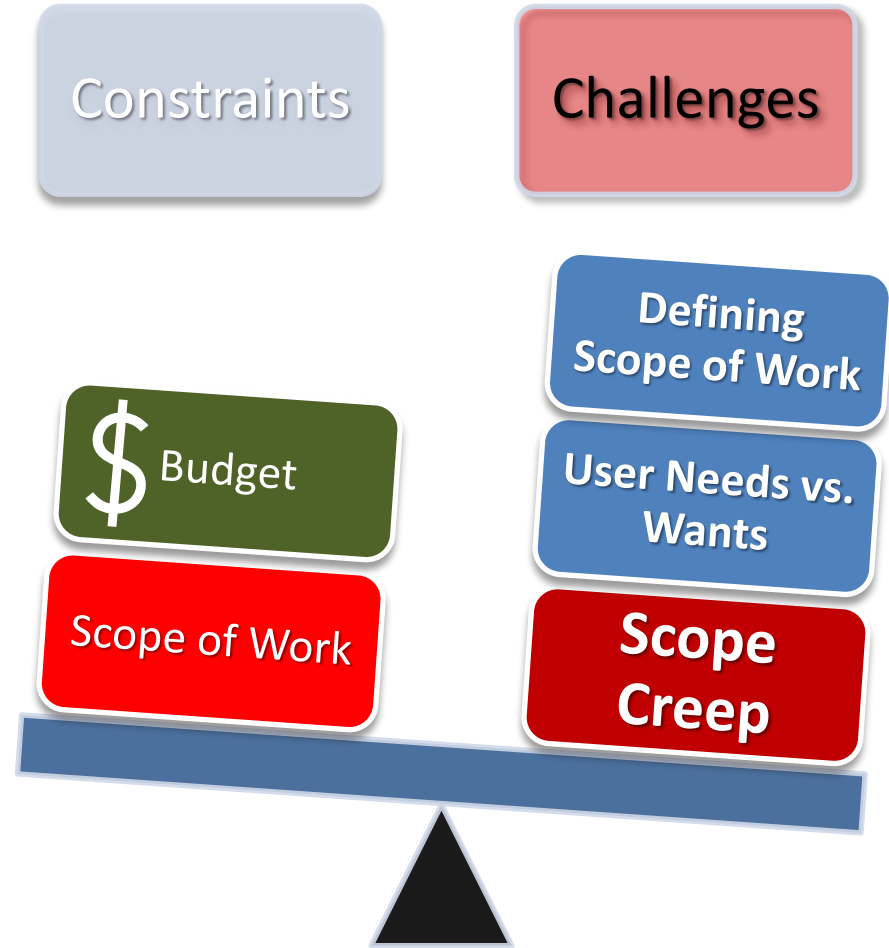
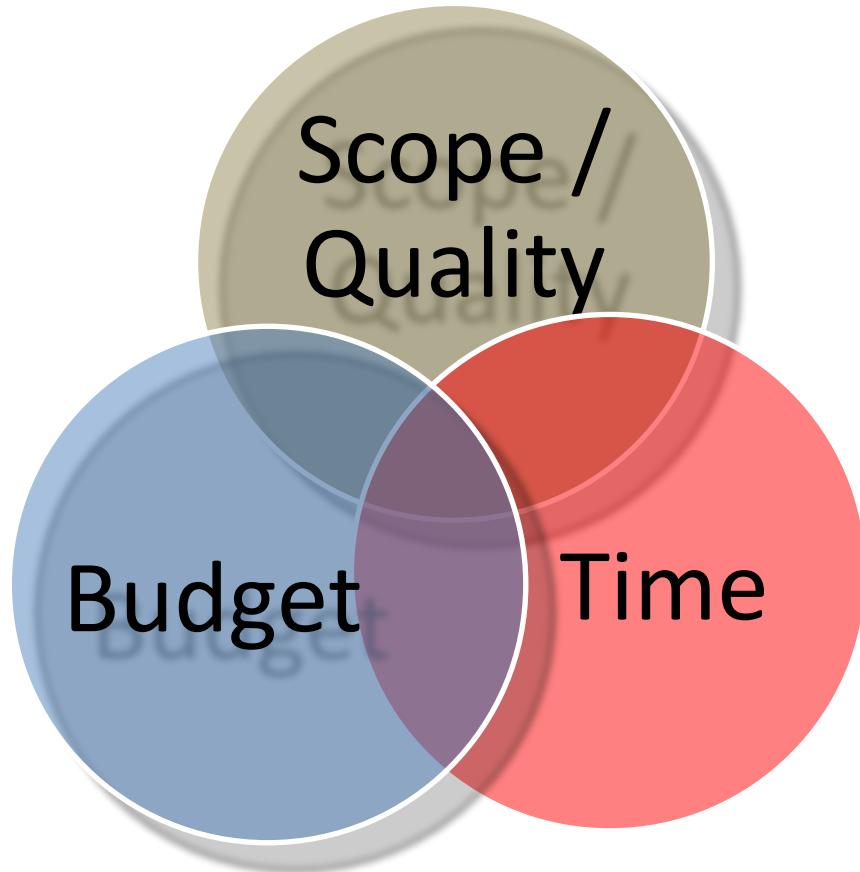
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2012 to date	Director, Facilities Planning & Operations	Florida International University Herbert Wertheim College of Medicine
2010 - 2012	Director of Facilities, Academic Health Center	
2006 - 2010	Director, Facilities Operations Analysis	Florida International University
2005 - 2006	Director, Facilities Construction	Florida International University
2003 - 2004	Assist. Director, Facilities Planning and Const.	Florida International University
2000 - 2003	Senior Project Manager	Reynolds Smith and Hills, Inc.
1992 - 2000	Director, Facilities Design and Construction	Miami-Dade Community College
1990 - 1992	College Architect, Facilities Design and Construction	Miami-Dade Community College
1988 - 1990	Principal	LRW + Associates
1980 - 1988	Assistant Vice-President	F&F/FRAGA AND FEITO/Architects-Planners
1977 - 1980	Staff Architect	FERENDINO/GRAFTON/SPILLIS/CANDELA Architects-Planners-Engineers

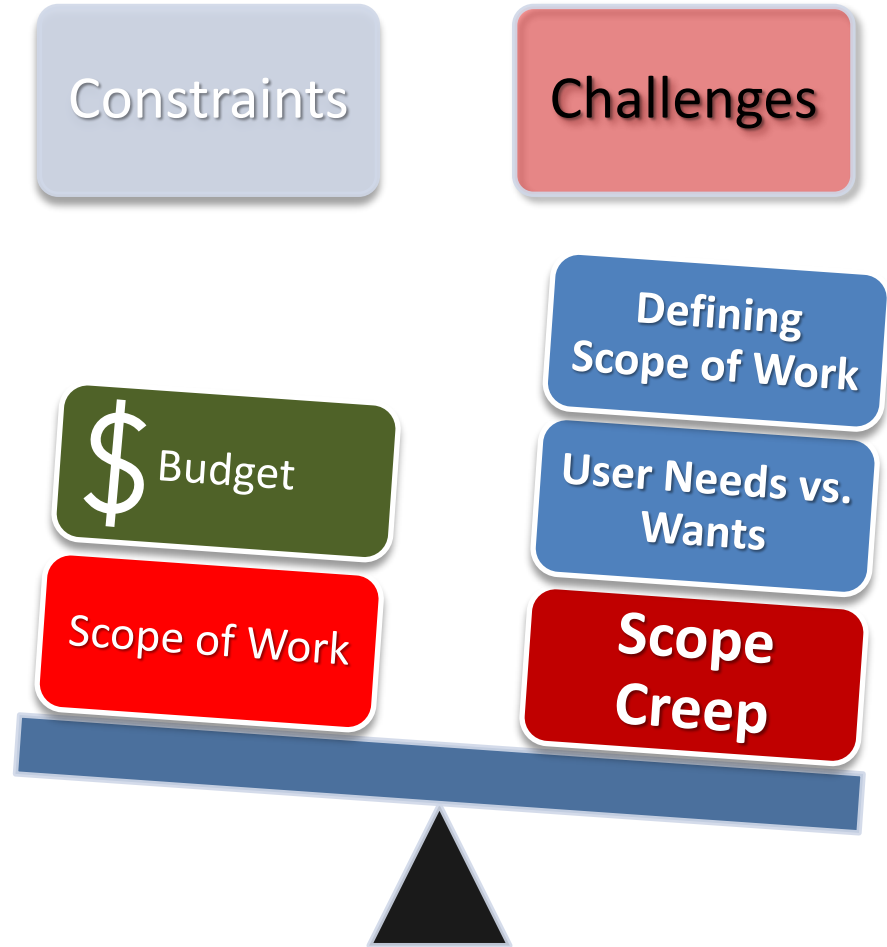
Typical Project



Typical Project



Typical Project



Challenge to Facilities Staff

- **Analyzing Proposed Projects:**
 - Define scope of work / what do we need to do?
 - How long to we have / How long will it realistically take to build it?
 - What is it going to cost?
- **Scoping Projects: Precedent Analysis**
 - Famous quote from philosopher **George Santayana**, born in Madrid, Spanish philosopher, earned PhD and taught at Harvard & is regarded as one of the most important thinkers of the first half of the 20th century.
 - **The Life of Reason: the Phases of Human Progress**, 1905.

*"Those who cannot remember the past
are condemned to repeat it."*

Benchmarking

Definition:

A standard or point of reference against which things may be compared or assessed

- If we establish standard points of reference for our projects, then past and future projects may be empirically compared and projected
- Data Source: **Your own project histories**
 - Standardized data points
 - Time: Bid Dates
 - Normalize data to current date and/or to the projected bid date (2002\$ vs. 2021\$)
- Anticipate and define **contingencies**
- Objective: Provide transparent process to build credibility within your organization

Benchmarking

Definition:

A standard or point of reference against which things may be compared or assessed

COAA-FL Fall 2021 Workshop takeaways:

- COVID-19 triggered price increases 6-12 months back
- Supply chain and delivery issues affecting **time** and consequently **costs**
- *“Estimating is based on historical pricing, which now doesn’t work”*
- Devolving into a **guesstimating** modality?
- Contingencies: 5% / 10% / **15% ??**

Construction Cost Estimating

- Resource Constraints:
 - In-house expertise
 - Time
 - Market knowledge
- Cost Estimating Consultant
 - Quantity take-off from plans and specs
 - Usefulness?
- Objective: **Generate Budgets**
 - Factually driven
 - Reliable

ITEM	WORK SCOPE DESCRIPTION	SCHEDULED VALUE	DIVISION	TTL
0002.100 S	SURVEYING	\$ 41,101.50	2	
PROJECT NAME WITHHELD				93,578
				GSF
ITEM	WORK SCOPE DESCRIPTION	SCHEDULED VALUE	DIVISION	TTL
0002.100 S	SURVEYING	\$ 41,101.50	2	
0002.250 S	VIBROFLOTATION	\$ 65,000.00	2	
0002.510 S	SITE WORK + UTILITIES	\$ 1,138,829.66	2	
0002.686 S	GAS TANK REMOVAL	\$ 10,500.00	2	\$ 1,470,337.12
0002.810 S	IRRIGATION SYSTEM	\$ 29,354.94	2	
0002.811 S	IRRIGATION RELOCATION	\$ 2,755.00	2	
0002.830 S	FENCING	\$ 110,282.00	2	
0002.900 S	LANDSCAPING	\$ 72,514.02	2	
0003.310 S	Structural Concrete	\$ 1,458,519.22	3	
0003.740 M	Concrete Cutting	\$ 9,270.00	3	\$ 1,504,414.18
0003.980 S	Mtrl Personnel Hoist	\$ 36,624.96	3	
0004.220 S	MASONRY STEMWALLS	\$ 416,635.72	4	\$ 416,635.72
0005.120 S	STRUCTURAL STEEL	\$ 976,060.44	5	\$ 1,009,699.44
0005.220 S	ALUMN HANDRAILS	\$ 33,639.00	5	
0006.100 S	ROUGH CARPENTRY	\$ 4,500.00	6	\$ 84,389.50
0005.220 S	MILLWORK & CASEWORK	\$ 79,889.50	6	
0007.100 S	WATERPROOFING	\$ 13,590.00	7	
0007.105 S	WATERPROOFING	\$ 46,810.73	7	\$ 436,190.77
0007.250 S	FIREPROFFING	\$ 375,790.04	7	
0007.525 O	MOD BIT ROOFING	\$ 290,724.94	7	
0008.110 S	DOOR & HARDWR MTRL	\$ 6,081.00	8	
0008.110 S	DOOR & HARDWR INSTALL	\$ 49,363.00	8	\$ 813,639.56
0008.360 S	OVERHEAD DOORS	\$ 3,525.00	8	
0008.520 S	ALUMN WINDOWS	\$ 754,670.56	8	
0009.260 S	INT FRAMING DRYWALL STUCCO	\$ 1,513,551.22	9	
0009.310 S	FLOOR AND WALL TILE	\$ 176,518.69	9	
0009.510 S	ACOUSTICAL CEILINGS	\$ 125,964.65	9	\$ 2,072,566.83
0009.651 S	CARPET / RES FLOORING	\$ 87,555.24	9	
0009.900 S	PAINTING	\$ 168,977.03	9	

Project History

- Objective: provide history of completed projects
- Source: Schedule of Values from CM's/GC's
- Sample capital projects 2003-2011
- 1.001 GSF
- \$192.51 MM FCS

Division	Description	Construction Value	Construction Value	Construction Value	Construction Value	Construction Value	Construction Value	Construction Value	Construction Value	Construction Value
2	Site Development	\$ 1,672,792	\$ 633,593	\$ 557,754	\$ 847,600	\$ 405,726	\$ 758,545	\$ 250,139	\$ 1,784,583	\$ 257,803
3	Concrete	\$ 5,815,338	\$ 5,524,538	\$ 3,055,277	\$ 5,231,800	\$ 5,833,178	\$ 1,573,471	\$ 1,949,663	\$ 8,921,749	\$ 2,542,859
4	Masonry	\$ 1,708,947	\$ 510,110	\$ 56,260	\$ 479,300	\$ 524,350	\$ -	\$ 489,362	\$ 1,714,434	\$ 549,586
5	Steel	\$ 789,656	\$ 640,100	\$ 838,309	\$ 392,200	\$ 592,429	\$ 183,130	\$ 782,913	\$ 164,160	\$ 302,805
6	Carpentry & Millwork	\$ 707,000	\$ 358,381	\$ 349,800	\$ 208,250	\$ 190,118	\$ 81,170	\$ 58,146	\$ 707,041	\$ 103,615
7	Moisture & Thermal Protection	\$ 767,168	\$ 1,540,533	\$ 484,412	\$ 423,750	\$ 1,750,149	\$ 221,244	\$ 288,345	\$ 873,465	\$ 216,154
8	Doors & Glazing Systems	\$ 1,590,287	\$ 3,628,351	\$ 851,402	\$ 1,225,300	\$ 3,691,614	\$ 388,352	\$ 758,052	\$ 2,019,631	\$ 945,109
9	Finishes	\$ 5,161,495	\$ 2,749,532	\$ 1,271,538	\$ 2,588,100	\$ 3,906,677	\$ 953,075	\$ 2,022,798	\$ 5,820,902	\$ 2,071,070
10	Specialties	\$ 229,513	\$ 374,812	\$ 108,343	\$ 178,800	\$ 299,166	\$ 58,966	\$ 37,615	\$ 103,823	\$ 48,526
11	Equipment	\$ -	\$ 466,517	\$ 14,256	\$ 73,600	\$ 41,820	\$ 65,000	\$ 11,622	\$ 12,221	\$ 139,683
12	Furnishing	\$ 57,275	\$ 315,866	\$ 558,623	\$ 69,200	\$ 2,563,743	\$ -	\$ 18,684	\$ -	\$ 631,522
13	Special Construction	\$ -	\$ -	\$ -	\$ -	\$ 269,750	\$ 529,885	\$ 90,000	\$ -	\$ 1,175,037
14	Transportation Fire Sprinkler System, Plumbing,	\$ 107,957	\$ 599,023	\$ 203,935	\$ 159,000	\$ 459,712	\$ 90,781	\$ 255,292	\$ 370,725	\$ 234,150
15	HVAC	\$ 2,880,740	\$ 6,401,799	\$ 1,375,194	\$ 1,915,000	\$ 10,852,310	\$ 2,126,100	\$ 1,299,147	\$ 4,845,209	\$ 3,449,539
16	Electrical	\$ 2,649,940	\$ 3,198,294	\$ 1,403,947	\$ 2,712,000	\$ 4,387,946	\$ 984,553	\$ 1,002,392	\$ 3,725,754	\$ 1,087,043
	Subtotal	\$ 24,138,108	\$ 26,941,449	\$ 11,129,050	\$ 16,503,900	\$ 35,768,688	\$ 8,014,272	\$ 9,314,170	\$ 31,063,697	\$ 13,754,501
1	CM Contingency	\$ -	\$ 808,243	\$ 384,624	\$ 495,117	\$ 900,000	\$ 138,128	\$ 196,435	\$ -	\$ 220,677
1	Builder's Risk 100% Payment & Performance	\$ 262,877	\$ 444,201	\$ 115,187	\$ 334,158	\$ 262,346	\$ 166,000	\$ 75,000	\$ 331,814	\$ 200,340
1	Bonds	\$ 421,387	\$ 765,633	\$ 108,500	\$ 366,023	\$ 235,118	\$ 183,964	\$ 89,771	\$ 500,345	\$ 155,000
1	General Liability Insurance	\$ 357,609	\$ 315,300	\$ 135,500	\$ 197,062	\$ 603,264	\$ 96,841	\$ 102,445	\$ 439,782	* included in Fee
1	General Conditions	\$ 2,131,844	\$ 2,976,729	\$ 1,332,563	\$ 1,659,303	\$ 2,695,768	\$ 1,009,092	\$ 869,711	\$ 2,635,236	\$ 810,117
1	CM Fee	\$ 923,130	\$ 1,697,450	\$ 693,285	\$ 1,187,778	\$ 1,728,944	\$ 585,517	\$ 427,473	\$ 1,677,623	\$ 1,613,929
	Change Orders									
1		\$ (100,000)			\$ 220,514		\$ 214,203	\$ (338,732)		\$ -
2		\$ (400,000)			\$ 507,208		\$ 130,377	\$ 199,646	\$ -	\$ -
3					\$ 87,736		\$ 80,129	\$ 45,942	\$ -	\$ -
4					\$ 220,014		\$ 55,448	\$ 65,842	\$ -	\$ -
5					\$ 33,563		\$ 650,000	\$ 110,000	\$ -	\$ -
6					\$ 28,621					
7					\$ 23,683					
8					\$ 2,831		\$ -	\$ -		\$ -
	Total Contract Sum	\$ 27,734,955	\$ 33,949,005	\$ 13,898,709	\$ 20,743,341	\$ 42,194,128	\$ 11,323,971	\$ 11,157,703	\$ 36,648,497	\$ 16,754,564
	Change Orders									
	Net Total	\$ 3,147,280	\$ (184,982)		\$ 3,511,090	\$ (4,713,521)	\$ 1,151,881	\$ 3,875,076	\$ 695,676	\$ 1,505,981
	CO Rate	11.35%	-0.54%		16.93%		10.17%	34.73%	1.90%	8.99%
	Final Contract Sum	\$ 30,882,235	\$ 33,764,023	\$ 13,898,709	\$ 24,254,431	\$ 37,480,607	\$ 12,475,852	\$ 15,032,779	\$ 37,344,173	\$ 18,260,546



Project History

- Objective: provide history of completed projects
- Benchmarking allocation of construction costs between hard costs and soft costs
- Metrics on breakdown by CSI Divisions

Project Name	L	N	B	S	M	F	H	Highest % of GMP	Upper 75% % of GMP	Median % of GMP	Lower 25% % of GMP	Low % of GMP
	Architect	CM/GC	Date	Dec 01, 2004	Nov 10, 2008	May 26, 2005	Oct 04, 2011					
GSF	153,768	114,903	80,765	137,000	57,234	46,874	100,239					
Division Description	% of Original Contract Sum	% of Original Contract Sum	% of Original Contract Sum	% of Original Contract Sum	% of Original Contract Sum	% of Original Contract Sum	% of Original Contract Sum					
2 Site Development	6.0%	1.9%	4.1%	1.1%	6.7%	2.2%	1.5%	13.2%	6.2%	4.0%	2.2%	1.1%
3 Concrete	21.0%	16.4%	25.2%	15.2%	13.9%	17.5%	15.2%	28.4%	22.5%	19.0%	15.2%	9.1%
4 Masonry	6.2%	1.5%	2.3%	1.4%		4.4%	3.3%	6.2%	4.4%	2.3%	1.4%	0.4%
5 Steel	2.8%	1.9%	1.9%	1.5%	1.6%	7.0%	1.8%	7.0%	3.2%	1.9%	1.6%	0.4%
6 Carpentry & Millwork	2.5%	1.1%	1.0%	0.5%	0.7%	0.5%	0.6%	2.5%	1.5%	1.1%	0.7%	0.5%
7 Moisture & Thermal Protection	2.8%	4.6%	2.0%	4.6%	2.0%	2.6%	1.3%	4.6%	3.5%	2.7%	2.0%	1.3%
8 Doors & Glazing Systems	5.7%	10.7%	5.9%	9.6%	3.4%	6.8%	5.6%	14.0%	9.5%	6.0%	5.6%	3.4%
9 Finishes	18.6%	8.1%	12.5%	10.2%	8.4%	18.1%	12.4%	18.6%	13.3%	10.7%	8.3%	6.4%
10 Specialties	0.8%	1.1%	0.9%	0.8%	0.5%	0.3%	0.3%	1.1%	0.8%	0.6%	0.3%	0.2%
11 Equipment		1.4%	0.4%	0.1%	0.6%	0.1%	0.8%	1.4%	0.6%	0.3%	0.1%	0.1%
12 Furnishing	0.2%	0.9%	0.3%	6.7%		0.2%	3.8%	6.7%	3.8%	0.6%	0.2%	0.1%
13 Special Construction				0.7%	4.7%	0.8%	7.0%	7.0%	4.7%	1.9%	0.8%	0.7%
14 Transportation	0.4%	1.8%	0.8%	1.2%	0.8%	2.3%	1.4%	14.0%	2.0%	1.4%	0.9%	0.4%
15 Fire Sprinkler System, Plumbing, HVAC	10.4%	19.0%	9.2%	28.3%	18.8%	11.6%	20.6%	28.3%	18.8%	11.7%	9.8%	9.1%
16 Electrical	9.6%	9.5%	13.1%	11.5%	8.7%	9.0%	6.5%	13.1%	10.0%	9.3%	8.9%	6.5%
Other												
Subtotal Trades	87.0%	79.8%	79.6%	93.4%	70.8%	83.5%	82.1%	93.4%	83.3%	80.9%	79.6%	63.1%
1 CM Contingency	0.0%	2.4%	2.4%	2.3%	1.2%	1.8%	1.3%	3.5%	2.5%	2.1%	0.9%	0.0%
1 Builder's Risk	0.9%	1.3%	1.6%	0.7%	1.5%	0.7%	1.2%	1.6%	1.2%	0.9%	0.7%	0.0%
1 100% Payment & Performance Bonds	1.5%	2.3%	1.8%	0.6%	1.6%	0.8%	0.9%	2.3%	1.7%	1.1%	0.8%	0.6%
1 General Liability Insurance	1.3%	0.9%	1.0%	1.6%	0.9%	0.9%	* included in Fee	1.6%	1.2%	1.0%	0.9%	0.8%
1 General Conditions	7.7%	8.8%	8.0%	7.0%	8.9%	7.8%	4.8%	10.6%	9.1%	7.9%	7.1%	4.6%
1 CM Fee	3.3%	5.0%	5.7%	4.5%	5.2%	3.8%	9.6%	9.6%	5.3%	4.9%	4.4%	3.3%
Subtotal Indirect Costs (Excluding Contingency)	13.0%	22.6%	22.8%	9.0%	30.4%	18.3%	19.2%	40.1%	23.1%	20.9%	17.8%	9.0%

Project History

- Metrics
- Cost allocation by building type



U.S. BUREAU OF LABOR STATISTICS

CPI Inflation Calculator

\$

in

has the same buying power as

\$1.29

in

Calculate

https://www.bls.gov/data/inflation_calculator.htm

BR/BT **111**
 Project Name **Abcd**
 Architect **XYZ**
 CM/GC **Builders'R Us**
 GMP Date **November 10, 2008**

GSF **114,903**

CPI Inflation Index **1.00**

CPI uses the average for a given calendar year. Represents changes in prices of all goods and services. For current year, latest monthly index value is used.

Division	Description	Construction Value	% of GMP	\$/GSF
<i>Note: \$/GSF are adjusted for inflation</i>				
2	Site Development/Improvements	\$ 633,593	1.9%	\$ 5.51
3	Concrete	\$ 5,524,538	16.3%	\$ 48.08
4	Masonry	\$ 510,110	1.5%	\$ 4.44
5	Steel	\$ 640,100	1.9%	\$ 5.57
6	Carpentry & Millwork	\$ 358,381	1.1%	\$ 3.12
7	Moisture & Thermal Protection	\$ 1,540,533	4.5%	\$ 13.41
8	Doors & Glazing Systems	\$ 3,628,351	10.7%	\$ 31.58
9	Finishes	\$ 2,749,532	8.1%	\$ 23.93
10	Specialties	\$ 374,812	1.1%	\$ 3.26
11	Equipment	\$ 466,517	1.4%	\$ 4.06
12	Furnishing	\$ 315,866	0.9%	\$ 2.75
13	Special Construction		0.0%	\$ -
14	Transportation	\$ 599,023	1.8%	\$ 5.21
15	Fire Sprinkler System, Plumbing, HVAC	\$ 6,401,799	18.9%	\$ 55.71
16	Electrical	\$ 3,198,294	9.4%	\$ 27.83
Subtotal		\$ 26,941,449	79.4%	\$ 234.47
1	CM Contingency	\$ 808,243	2.4%	
1	Builder's Risk	\$ 444,201	1.3%	
100% Payment & Performance				
1	Bonds+Subguard	\$ 765,633	2.3%	
1	General Liability Insurance	\$ 315,300	0.9%	
1	General Conditions + CM Overhead	\$ 2,976,729	8.8%	
1	CM Fee	\$ 1,697,450	5.0%	
Alternates				
Total Contract Sum		\$ 33,949,005	100.0%	\$ 295.46

Project History



U.S. BUREAU OF LABOR STATISTICS

CPI Inflation Calculator

\$

in

has the same buying power as

\$1.29

in

Calculate

“Easily find out how the buying power of the dollar has changed over the years using the inflation calculator.”

https://www.bls.gov/data/inflation_calculator.htm

CPI_Infla... : X ✓ fx $=((H5-H4)/100)+1$

	A	B	C	D	E	F	G	H
1								
2	BR/BT	CPI Inflation Calculator				GSF 114,903		
3	Project Name	\$ <input type="text" value="100.00"/>				CPI Inflation Index 1.2913		
4	Architect	in <input type="text" value="November"/> <input type="text" value="2008"/>				<i>CPI uses the average for a given calendar year. Represents changes in prices of all goods and services. For current year, latest monthly index value is used.</i>	2008	100.00
5	CM/GC	has the same buying power as					2021	129.13
6	Date	\$129.13						
7		in <input type="text" value="September"/> <input type="text" value="2021"/>						
8	Division Description	Construction Value	% of GMP	\$/GSF	Normalized			
9		<i>Note: \$/GSF are not adjusted for inflation</i>						
10	2 Site Development	\$ 633,593	1.9%	\$ 5.51	\$ 7.12			
11	3 Concrete	\$ 5,524,538	16.4%	\$ 48.08	\$ 62.09			
12	4 Masonry	\$ 510,110	1.5%	\$ 4.44	\$ 5.73			
13	5 Steel	\$ 640,100	1.9%	\$ 5.57	\$ 7.19			
14	6 Carpentry & Millwork	\$ 358,381	1.1%	\$ 3.12	\$ 4.03			
15	7 Moisture & Thermal Protection	\$ 1,540,533	4.6%	\$ 13.41	\$ 17.31			
16	8 Doors & Glazing Systems	\$ 3,628,351	10.7%	\$ 31.58	\$ 40.78			
17	9 Finishes	\$ 2,749,532	8.1%	\$ 23.93	\$ 30.90			
18	10 Specialties	\$ 374,812	1.1%	\$ 3.26	\$ 4.21			
19	11 Equipment	\$ 466,517	1.4%	\$ 4.06	\$ 5.24			
20	12 Furnishing	\$ 315,866	0.9%	\$ 2.75	\$ 3.55			
21	13 Special Construction		0.0%	\$ -	\$ -			
22	14 Transportation	\$ 599,023	1.8%	\$ 5.21	\$ 6.73			
23	15 Fire Sprinkler System, Plumbing, HVAC	\$ 6,401,799	19.0%	\$ 55.71	\$ 71.94			
24	16 Electrical	\$ 3,198,294	9.5%	\$ 27.83	\$ 35.94			
25								
26								
27								
28								
29	Subtotal	\$ 26,941,449	79.8%	\$ 234.47	\$ 302.77			
30	1 CM Contingency	\$ 808,243	2.4%	\$ 7.03	\$ 9.08			
31	1 Builder's Risk	\$ 444,201	1.3%	\$ 3.87	\$ 4.99			
32	100% Payment & Performance							
33	1 Bonds+Subguard	\$ 765,633	0.9%	\$ 6.66	\$ 8.60			
34	1 General Liability Insurance	\$ 315,300	0.9%	\$ 2.74	\$ 3.54			
35	1 General Conditions	\$ 2,976,729	8.8%	\$ 25.91	\$ 33.45			
36	1 CM Fee	\$ 1,697,450	5.0%	\$ 14.77	\$ 19.08			
37								
38	Change Orders (Net)	\$ (184,982)		\$ (1.61)	\$ (2.08)			
39								
40								
41								
42								
43	Total Contract Sum	\$ 33,764,023	100.0%	\$ 293.85	\$ 379.45			

Minor Projects



- Projects under \$4.0M
- Initiated by MPRF
(Minor Project Request Form)

				Facilities Construction Minor Project Request Form	
<p><i>Instructions: Complete all cells in light blue. All cells with a yellow background for use by Facilities ONLY</i></p>					
REQUESTED BY: REQUESTOR'S EMAIL: PHONE #: DEPARTMENT NAME: PROJECT NAME: CAMPUS / CENTER:			BT: Minor Project/Permit Number: PW Number (FEMA only): Purchase Order (PO): FIU Project Manager: e-mail address: PM Phone Number:		
SCROLL DOWN TO SELECT			FACILITY: SCROLL DOWN TO SELECT		
1.0 SERVICES REQUESTED: Please check all applicable boxes.			(Please describe service request):		
<input type="checkbox"/> Feasibility Study / Preliminary Estimate <input type="checkbox"/> Programming <input type="checkbox"/> Other <input type="checkbox"/> Renovation of Existing Spaces <input type="checkbox"/> Remodeling of Existing Spaces (see 2.1) <input type="checkbox"/> New Equipment installation or relocation of exist (See 2.2 & 2.3) <input type="checkbox"/> Minor Mechanical or Electrical Alterations or Renovations			Building Number: 00 Building Name: 0 Rooms/Area Affected: Current Use: Proposed Use:		
2.0 Description of Proposed Scope of Work: <input type="checkbox"/> Check and attach supplemental data if provided					
Provide a narrative and/or diagrammatic drawings to clarify your proposal.					
2.1 Description of Proposed Use (or change of use): Describe intended use <input type="checkbox"/> Check and attach supplemental data if provided					
2.2 Description of Proposed Equipment (New and/or Relocated): Describe equipment, hazard and/or services required for installation. Provide catalogue cuts for any specialized equipment, including power requirements, and environmental control requirements. <input type="checkbox"/> Check and complete Supplemental Data Form SDF on listed items in 2.2 or 2.3					
2.3 List Special Hazard Materials included in the scope of work: <input type="checkbox"/> NOT APPLICABLE <input type="checkbox"/> Laser Devices <input type="checkbox"/> Controlled Substances <input type="checkbox"/> Hazardous Chemicals <input type="checkbox"/> Biohazardous Materials <input type="checkbox"/> Live Animals <input type="checkbox"/> Radioactive materials <input type="checkbox"/> Equipment with radioactive components					
If ANY of the listed materials or processes to the left are checked off, approval from the Department of Environmental Health and Safety must be obtained prior to commencement of the work. See website at http://ehs.fiu.edu for details.					
3.0 Funding: List Fund Source from which you propose to pay for this project. The maximum construction contract value for Minor Projects is \$4,000,000. Total Project Budget must include all soft costs (including but not limited to design and inspection fees) and F&E where applicable. See Instructions in MPRF Read Me First tab Other:					
<input type="checkbox"/> AUX <input type="checkbox"/> G <input type="checkbox"/> E&G <input type="checkbox"/> CARRY FORWARD <input type="checkbox"/> PECCO <input type="checkbox"/> CITF Preliminary Construction Budget \$ -					
4.0 Project Approval Requested by: (Manual/DocuSign Signature) Name: Department Chair or Designee Department: Date: Submittal Date: Approved by: (Manual/DocuSign Signature) Name: Dean or AVP College/School Name: Date: Approved by: (MNL/DocuSign Signature) Name: Assoc. VP for Research Office of Research and Economic Development <input type="checkbox"/> check once all approval signatures are submitted					
Space Committee Approval <input type="checkbox"/> Action Required <input type="checkbox"/> Approved <input type="checkbox"/> Not Applicable Notice: Research Projects require ORED approval					
5.0 Permits <input type="checkbox"/> Required <input type="checkbox"/> Not Applicable 6.0 Distribution					
Contractor-of-Record: Code Compliance: Building Code Administrator Facilities Management Facilities Management: Director of Budget Facilities Management Facilities Construction: Director Construction Mgmt Facilities Construction Sponsored Research Admin: Manager Space Utilization ORED Environmental Health & Safety: Lab Safety Team EH&S					

Minor Project Case Study

Dept. of Medical & Population Health Sciences Research
 VH 246 Remodeling GSF: 1,296

Project Budget Estimate

Division	Description	Schedule of Values	% of GMF Est	\$/GSF
	Selective Demolition	\$ 4,536 (based on \$/SF)		\$ 3.50
	General Budget \$/SF	\$ 15,552 (based on \$/SF)		\$ 12.00
	Special Conditions Cost Budget	\$ - (based on \$/SF)		
		L.S.		
	Subtotal	\$ 20,088	76.9%	\$ 15.50
1	CM Contingency	\$ 1,004	5.0%	
2	Builder's Risk	\$ 20	0.1%	
3	100% Payment & Performance Bonds	\$ 141	0.7%	
4	General Liability Insurance	\$ 241	1.2%	
5	General Conditions + CM Overhead	\$ 2,210	11.0%	
6	CM Fee	\$ 2,411	12.0%	
	Subtotal	\$ 6,026	23.1%	\$ 4.65
	Construction Budget Estimate	\$ 26,114	100.0%	\$ 20.15

FM	19 1122	GSF	1,296
Project Name	Department of Medical & Health Sciences Research VH Suite 246 Remodeling		
Location	MMC VH SUITE 246		
Architect			
CM/GC	TBD		
Distribution	Sonia Benitez, Tisa Ramdial, Ivan Machi, Leslie Marine-Marill, Gilda Padilla-Obeso		
Last Update	Wed / Nov 06, 2019		

Note: All cells highlighted in blue require data entry; light grey are programmed calculations

Division	Description	Schedule of Values	% of GMF Est	\$/GSF
	Selective Demolition	\$ 4,536 (based on \$/SF)		\$ 3.50
	General Budget \$/SF	\$ 15,552 (based on \$/SF)		\$ 12.00
	Special Conditions Cost Budget	\$ - (based on \$/SF)		
		L.S.		
	Subtotal	\$ 20,088	76.9%	\$ 15.50
1	CM Contingency	\$ 1,004	5.0%	
2	Builder's Risk	\$ 20	0.1%	
3	100% Payment & Performance Bonds	\$ 141	0.7%	
4	General Liability Insurance	\$ 241	1.2%	
5	General Conditions + CM Overhead	\$ 2,210	11.0%	
6	CM Fee	\$ 2,411	12.0%	
	Subtotal	\$ 6,026	23.1%	\$ 4.65

Construction Budget Estimate	\$ 26,114	100.0%	\$ 20.15
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Direct Purchase Estimate		Est	\$/GSF
1	Carpet Tiles Installation	\$ 5,010 (based on \$/SF)	\$ 7.40
2	VCT Installation	\$ 1,166 (based on \$/SF)	\$ 3.40
3	Glass Boards	\$ 2,800	8 (Unit Cost) \$ 350.00

Furniture Budget			
1	Four Open Plan Workstations	\$ 7,626	\$ 5.88
	(10) 24x66" Tables, (2) 24x72" Tables,		
2	(7) Glassboards	\$ 10,751	\$ 8.30
3	Tariff Surcharge / Labor	\$ 2,447	\$ 1.89
4	Health	\$ -	\$ -

to utilize existing projector...
Subsequently removed by Public.

IT Budget Estimate (updated with Quote)			
	IT Telecommunications	\$ 733	\$ 0.57
	Subtotal Project Budget	\$ 56,647	216.9% \$ 43.71
	Contingency	\$ 3,965	7.0% \$ 3.06

TPCB Total Project Cost Budget	\$ 60,612	\$ 46.77
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SC Soft Costs Budget		% of TPCB
	PROFESSIONAL FEES	\$ - 0.0%
	CSR CONSTRUCTION SERVICE REIMBURSEMENT (CONSTRUCTION)	\$ 1,306 5.0%
	Soft Costs Budget Estimate	\$ 1,306

Note: CSR is a fixed 5% of contract value for AE and CM services. If FF&E is procured directly by HWCOM, no CSR is assessed.

PDC Project Development Cost	\$ 61,918	\$ 47.78
Budget	\$ 62,000	\$ 47.84

Minor Project Case Study

Dept. of Medical & Population Health Sciences Research VH 246 Remodeling

Direct Purchase Estimate		Est \$/GSF
1 Carpet Tiles Installation	\$ 5,010 (based on \$/SF)	\$ 7.40
2 VCT Installation	\$ 1,166 (based on \$/SF)	\$ 3.40
3 Glass Boards	\$ 2,800 8 (Unit Cost)	\$ 350.00
Furniture Budget		
1 Four Open Plan Workstations	\$ 7,626	\$ 5.88
(10) 24x66" Tables, (2) 24x72" Tables,		
2 (7) Glassboards	\$ 10,751	\$ 8.30
3 Tariff Surcharge / Labor	\$ 2,447	\$ 1.89
<u>Media - at the original scope plan was to utilize existing projector. Subsequently removed by Public</u>		
4 <u>Health</u>	\$ -	\$ -
IT Budget Estimate (updated with Quote)		
IT Telecommunications	\$ 733	\$ 0.57
Subtotal Project Budget	\$ 56,647	216.9% \$ 43.71
Contingency	\$ 3,965	7.0% \$ 3.06
TPCB Total Project Cost Budget	\$ 60,612	\$ 46.77

FM 19 1122	GSF 1,296
Project Name	Department of Medical & Health Sciences Research VH Suite 246 Remodeling
Location	MMC VH SUITE 246
Architect	
CM/GC	TBD
Distribution	Sonia Benitez, Tisa Ramdial, Ivan Machi, Leslie Marine-Marill, Gilda Padilla-Obeso
Last Update	Wed / Nov 06, 2019

Note: All cells highlighted in blue require data entry; light grey are programmed calculations

Division	Description	Schedule of Values	% of GMF Est \$/GSF
	Selective Demolition	\$ 4,536 (based on \$/SF)	\$ 3.50
	General Budget \$/SF	\$ 15,552 (based on \$/SF)	\$ 12.00
	Special Conditions Cost Budget	\$ - (based on \$/SF)	L.S.
	Subtotal	\$ 20,088	76.9% \$ 15.50
1	CM Contingency	\$ 1,004	5.0%
2	Builder's Risk	\$ 20	0.1%
3	100% Payment & Performance Bonds	\$ 141	0.7%
4	General Liability Insurance	\$ 241	1.2%
5	General Conditions + CM Overhead	\$ 2,210	11.0%
6	CM Fee	\$ 2,411	12.0%
	Subtotal	\$ 6,026	23.1% \$ 4.65

Construction Budget Estimate	\$ 26,114	100.0% \$ 20.15
-------------------------------------	------------------	------------------------

Direct Purchase Estimate		Est \$/GSF
1 Carpet Tiles Installation	\$ 5,010 (based on \$/SF)	\$ 7.40
2 VCT Installation	\$ 1,166 (based on \$/SF)	\$ 3.40
3 Glass Boards	\$ 2,800 8 (Unit Cost)	\$ 350.00
Furniture Budget		
1 Four Open Plan Workstations	\$ 7,626	\$ 5.88
(10) 24x66" Tables, (2) 24x72" Tables,		
2 (7) Glassboards	\$ 10,751	\$ 8.30
3 Tariff Surcharge / Labor	\$ 2,447	\$ 1.89
<u>to utilize existing projector. Subsequently removed by Public</u>		
4 <u>Health</u>	\$ -	\$ -

IT Budget Estimate (updated with Quote)		
IT Telecommunications	\$ 733	\$ 0.57
Subtotal Project Budget	\$ 56,647	216.9% \$ 43.71
Contingency	\$ 3,965	7.0% \$ 3.06

TPCB Total Project Cost Budget	\$ 60,612	\$ 46.77
---------------------------------------	------------------	-----------------

SC Soft Costs Budget		% of TPCB
PROFESSIONAL FEES	\$ -	0.0%
CSR CONSTRUCTION SERVICE REIMBURSEMENT (CONSTRUCTION)	\$ 1,306	5.0%
Soft Costs Budget Estimate	\$ 1,306	

Note: CSR is a fixed 5% of contract value for AE and CM services. If FF&E is procured directly by HWCOM, no CSR is assessed.

PDC Project Development Cost	\$ 61,918	\$ 47.78
Budget	\$ 62,000	\$ 47.84

Minor Project Case Study

Dept. of Medical & Population Health Sciences
Research VH 246 Remodeling

SC Soft Costs Budget

		% of TPCB
PROFESSIONAL FEES	\$ -	0.0%
CSR CONSTRUCTION SERVICE REIMBURSEMENT (CONSTRUCTION)	\$ 1,306	5.0%
Soft Costs Budget Estimate	\$ 1,306	

Note: CSR is a fixed 5% of contract value for AE and CM services. If FF&E is procured directly by HWCOCM, no CSR is assessed.

PDC Project Development Cost	\$ 61,918	\$ 47.78
Budget	\$ 62,000	\$ 47.84
Unallocated Balance	\$ 82	

FM 19 1122	GSF 1,296
Project Name	Department of Medical & Health Sciences Research VH Suite 246 Remodeling
Location	MMC VH SUITE 246
Architect	
CM/GC	TBD
Distribution	Sonia Benitez, Tisa Ramdial, Ivan Machi, Leslie Marine-Marill, Gilda Padilla-Obeso
Last Update	Wed / Nov 06, 2019

Note: All cells highlighted in blue require data entry; light grey are programmed calculations

Division	Description	Schedule of Values	% of GMF Est	\$/GSF
	Selective Demolition	\$ 4,536 (based on \$/SF)		\$ 3.50
	General Budget \$/SF	\$ 15,552 (based on \$/SF)		\$ 12.00
	Special Conditions Cost Budget	\$ - (based on \$/SF)		L.S.
	Subtotal	\$ 20,088	76.9%	\$ 15.50
1	CM Contingency	\$ 1,004	5.0%	
2	Builder's Risk	\$ 20	0.1%	
3	100% Payment & Performance Bonds	\$ 141	0.7%	
4	General Liability Insurance	\$ 241	1.2%	
5	General Conditions + CM Overhead	\$ 2,210	11.0%	
6	CM Fee	\$ 2,411	12.0%	
	Subtotal	\$ 6,026	23.1%	\$ 4.65
	Construction Budget Estimate	\$ 26,114	100.0%	\$ 20.15
	Direct Purchase Estimate			Est \$/GSF
1	Carpet Tiles Installation	\$ 5,010 (based on \$/SF)		\$ 7.40
2	VCT Installation	\$ 1,166 (based on \$/SF)		\$ 3.40
3	Glass Boards	\$ 2,800	8 (Unit Cost)	\$ 350.00
	Furniture Budget			
1	Four Open Plan Workstations	\$ 7,626		\$ 5.88
	(10) 24x66" Tables, (2) 24x72" Tables,			
2	(7) Glassboards	\$ 10,751		\$ 8.30
3	Tariff Surcharge / Labor	\$ 2,447		\$ 1.89
	to utilize existing projector... Subsequently removed by Public Health			
4	Health	\$ -		\$ -
	IT Budget Estimate (updated with Quote)			
	IT Telecommunications	\$ 733		\$ 0.57
	Subtotal Project Budget	\$ 56,647	216.9%	\$ 43.71
	Contingency	\$ 3,965	7.0%	\$ 3.06
	TPCB Total Project Cost Budget	\$ 60,612		\$ 46.77

SC Soft Costs Budget

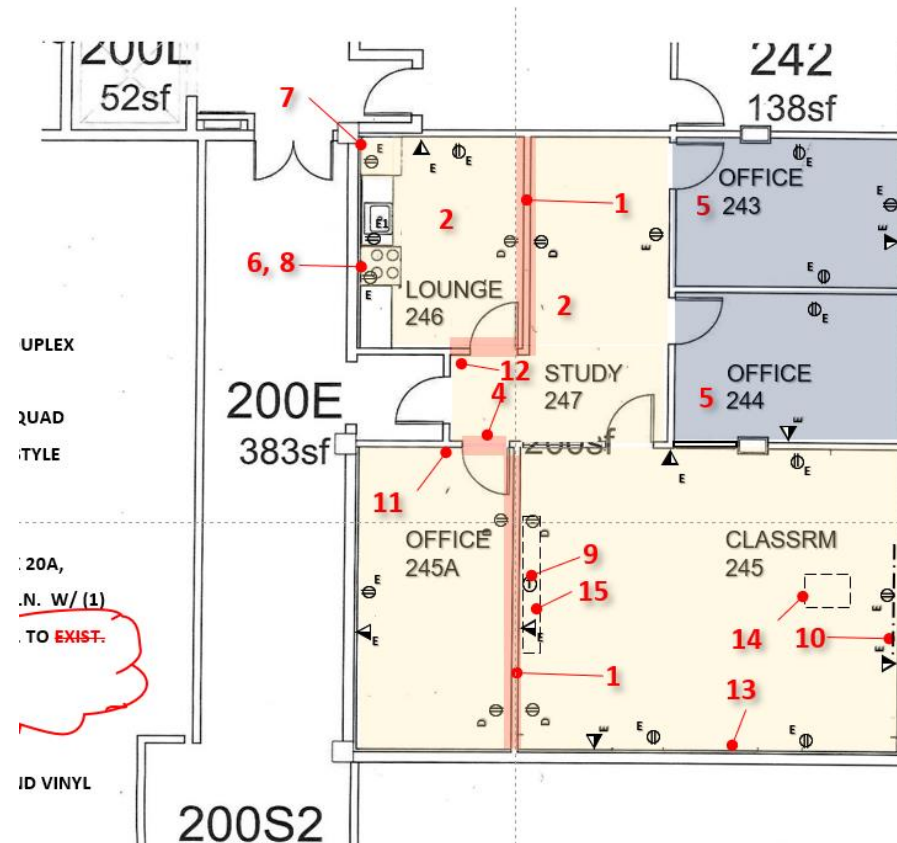
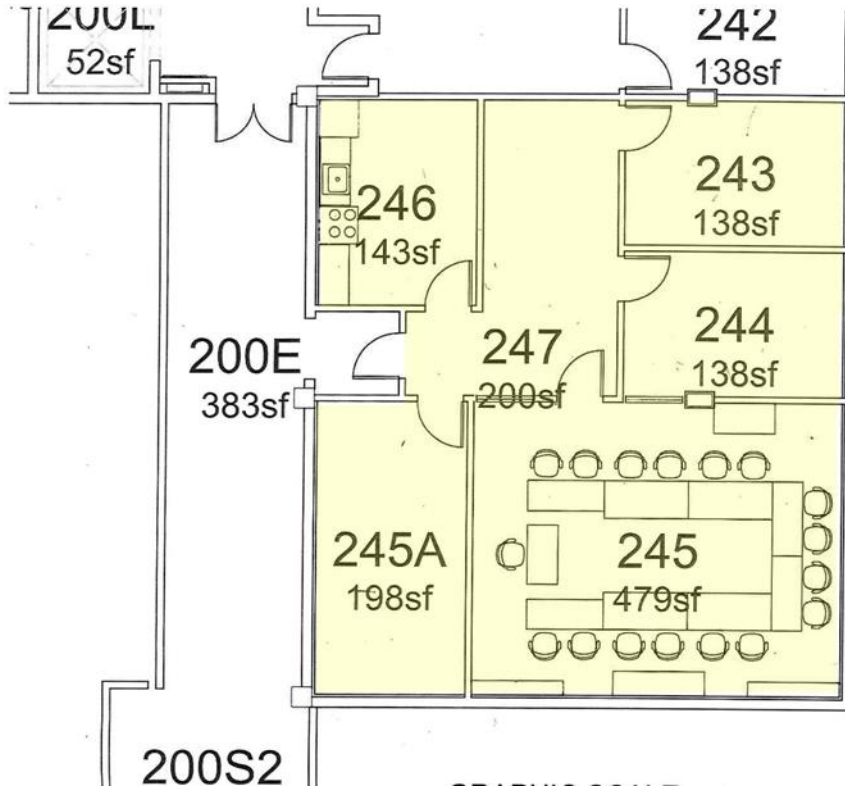
		% of TPCB
PROFESSIONAL FEES	\$ -	0.0%
CSR CONSTRUCTION SERVICE REIMBURSEMENT (CONSTRUCTION)	\$ 1,306	5.0%
Soft Costs Budget Estimate	\$ 1,306	

Note: CSR is a fixed 5% of contract value for AE and CM services. If FF&E is procured directly by HWCOCM, no CSR is assessed.

PDC Project Development Cost	\$ 61,918	\$ 47.78
Budget	\$ 62,000	\$ 47.84

Minor Project Case Study

Dept. of Medical & Population Health Sciences Research
 VH 246 Remodeling



NOTES

1. DEMOLITION: REMOVE DEMISING WALLS DENOTED IN RED BETWEEN 246/247 AND 245/245A. NOTE DEMISING PARTITION BETWEEN 246/247 EXTENDS ONLY TO UNDERSIDE OF EXIST. 2X4 CLG. GRID.
2. DEMOLITION: REMOVE EXISTING 2X4 CLG. TILES IN 246 AND 247. EXIST GRID TO REMAIN. AVOID DISTURBING EXISTING HVAC DUCTWORK AND/OR DIFFUSERS.
3. REMOVE AND REPLACE ALL EXIST. 2X4 DAMAGED LIGHT FIXTURE ACRYLIC LENS IN 246, 247.
4. REMOVE DOOR AND FRAME TO 245A
5. EXISTING CPT IN 243 & 244 TO REMAIN.
6. EXIST. MICROWAVE IN 246 TO REMAIN.
7. EXIST. REFRIGERATOR IN 246 TO REMAIN.
8. EXIST. RANGE TO BE REMOVED BY FIU TO SURPLUS.
9. EXIST. THERMOSTAT TO BE RELOCATED TO NORTH WALL OF 245.
10. EXIST. MARKER BOARD TO REMAIN.
11. EXIST. BURGLAR ALARM SURFACE MOUNTED CONDUIT AND DEVICE TO BE REMOVED. PATCH EXIST GPDW.
12. EXIST. BURGLAR ALARM PANEL TO BE REMOVED. PLACE BLANK COVER PLATE OVER EXIST J BOX.
13. EXIST. SURFACE MOUNTED CONDUIT TO REMAIN.
14. EXIST. OVERHEAD PROJECTOR & MOUNT TO REMAIN. EXIST. PROJECTOR HAS BEEN REMOVED.
15. EXIST. WALL MTD. MANUAL PROJECTION SCREEN TO BE REMOVED AND REINSTALLED ON WEST WALL ON CURRENT ROOM 245A.

Minor Project Case Study: Results

Bid Date **Wed / Nov 06, 2019**

Construction Budget Estimate	
\$ 26,114	\$ 20.15

Last Update **Thu / Oct 22, 2020**

Note: All cells highlighted in blue require data entry; light grey are programmed calculations.

Construction		Schedule of Values		% of GMP \$/GSF	
Division	Description				
2	Demolition	\$ 2,775.00	11.3%	\$	2.14
3	Concrete	\$ -	0.0%	\$	-
4	Masonry	\$ -	0.0%	\$	-
5	Steel	\$ -	0.0%	\$	-
6	Carpentry & Millwork	\$ 1,270.00	5.2%	\$	0.98
7	Moisture & Thermal Protection	\$ -	0.0%	\$	-
8	Doors & Glazing Systems	\$ -	0.0%	\$	-
9	Finishes	\$ 5,039.00	20.5%	\$	3.89
10	Specialties	\$ -	0.0%	\$	-
11	Equipment	\$ -	0.0%	\$	-
12	Furnishing	\$ -	0.0%	\$	-
13	Special Construction	\$ -	0.0%	\$	-
14	Transportation	\$ -	0.0%	\$	-
15	Fire Sprinkler System, Plumbing, HVAC	\$ 1,000.00	4.1%	\$	0.77
16	Electrical	\$ 5,326.00	21.7%	\$	4.11
	Other	\$ -	0.0%	\$	-
	Subtotal	\$ 15,410.00	62.8%	\$	11.89
1	GC Contingency	\$ -	0.0%		
1	Builder's Risk	\$ -	0.0%		
1	100% Payment & Performance Bonds	\$ -	0.0%		
1	GL & Builder's Risk Insurance	\$ 481.34	2.0%		
1	General Conditions	\$ 5,518.00	22.5%		
1	Overhead & Profit	\$ 3,139.20	12.8%		
	Subtotal (per 2/10/20Rev)	\$ 9,138.54	37.2%	\$	7.05
	Low Bid Contract Sum	\$ 24,548.54	100.0%	\$	18.94
	Change Orders	\$ 3,605.70	14.7%	\$	2.78
	FCS Final Contract Sum	\$ 28,154.24	100.0%	\$	21.72

Minor Project Case Study: Results

FF&E Furniture, Fixtures & Equipment

16 Telecom DoIT	\$	1,332.85	2.1%	\$	1.03
12 Furniture (includes price increase)	\$	14,779.43	23.7%	\$	11.40
9 Flooring Carpet/Vinyl (Direct Purchase)	\$	6,506.03	10.4%	\$	5.02
16 AV / Media	\$	8,935.49	14.3%	\$	6.89
9 Access Control (WO 1233850)	\$	-	0.0%	\$	-
12 Smooth Move Logistics	\$	1,280.00	2.1%	\$	0.99
			0.0%	\$	-
			0.0%	\$	-

Subtotal	\$	32,834	52.6%	\$	25.33
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TPC Total Project Cost	\$	60,988.04		\$	47.06
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TPCB Total Project Cost Budget
\$ 60,612 \$ 46.77/SF

Minor Project Case Study: Results

SC Soft Costs

		% of FCS	% of PDC
PROFESSIONAL FEES		0.0%	0.0%
CONSTRUCTION MANAGER		0.0%	0.0%
FIRE MARSHALL FEES		0.0%	0.0%
SURVEYS & TEST		0.0%	0.0%
INSPECTION SERVICES		0.0%	0.0%
PERMIT/IMPACT/ENVIRON. FEES		0.0%	0.0%
ARTWORK	\$ -	0.0%	0.0%
CONSTRUCTION SERVICE REIMBURSEMENT (DESIGN+T&B)	\$ -	5.0%	0.0%
CONSTRUCTION SERVICE REIMBURSEMENT (FF&E if applicable)		0.0%	0.0%
CONSTRUCTION SERVICE REIMBURSEMENT (CONSTRUCTION)	\$ 1,407.71	5.0%	2.3%
TSC Total Soft Costs	\$ 1,407.71		

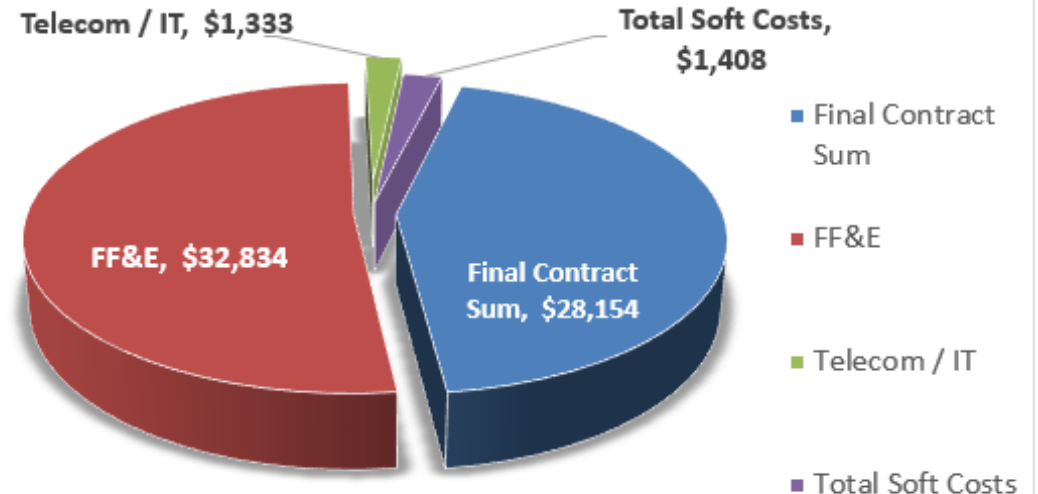
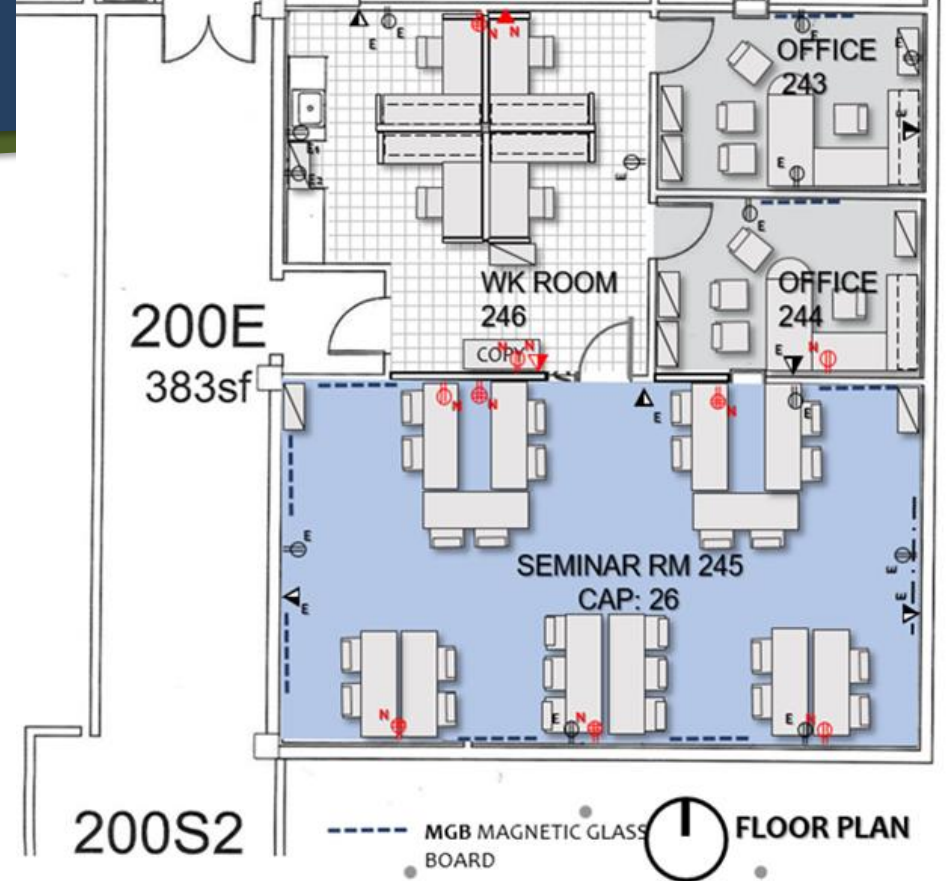
Note: CSR is a fixed 5% of contract value for AE and CM services. If FF&E is procured directly by HWCOCM, no CSR is assessed.

PDC Project Development Cost	\$ 62,395.75	\$ 48.14
Variance to Budget (Surplus) (Deficit)	(\$478.16) -1%	(\$0.37)

PDC Project Development Cost Budget	\$ 61,918	\$ 47.78/SF
Budget	\$62,000	

Minor Project Case Study: Report

Space Category (NASF)	NASF	
C Classrooms	677	52%
TL Teaching Laboratories		0%
Lab Support		0%
L Library		0%
RL Research Laboratories		0%
S Study (Collaborative Spaces)		0%
IM Instructional Media		0%
AE Auditoriums/Exhibition		0%
G Gymnasiums		0%
SAS Student Academic Support		0%
O Offices	619	48%
CSS Campus Support Services		0%
OA Other		0%



Minor Project Case Study

Dept. of Medical & Population Health Sciences Research
VH 246 Remodeling

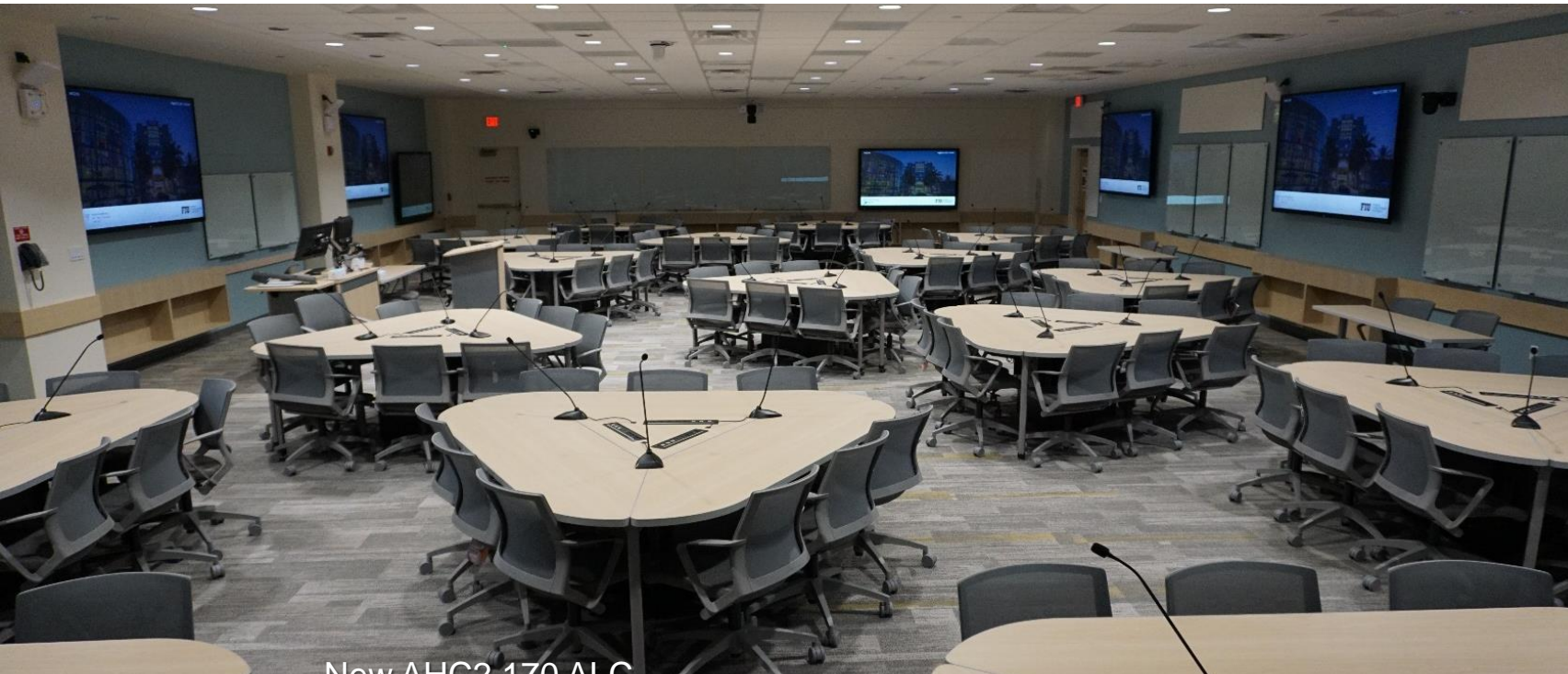


Minor Project Case Study #2

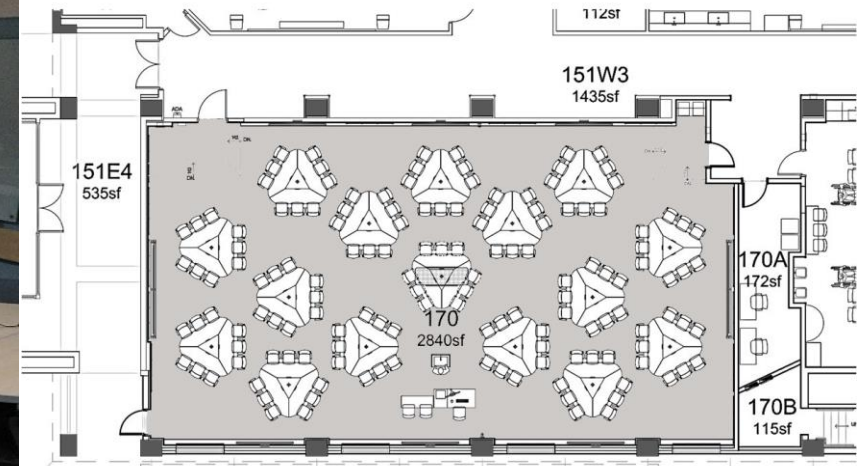
AHC2 170
Active Learning Classroom
Remodeling



Original AHC2 170 Tiered Auditorium



New AHC2 170 ALC



Minor Project Case Study #2

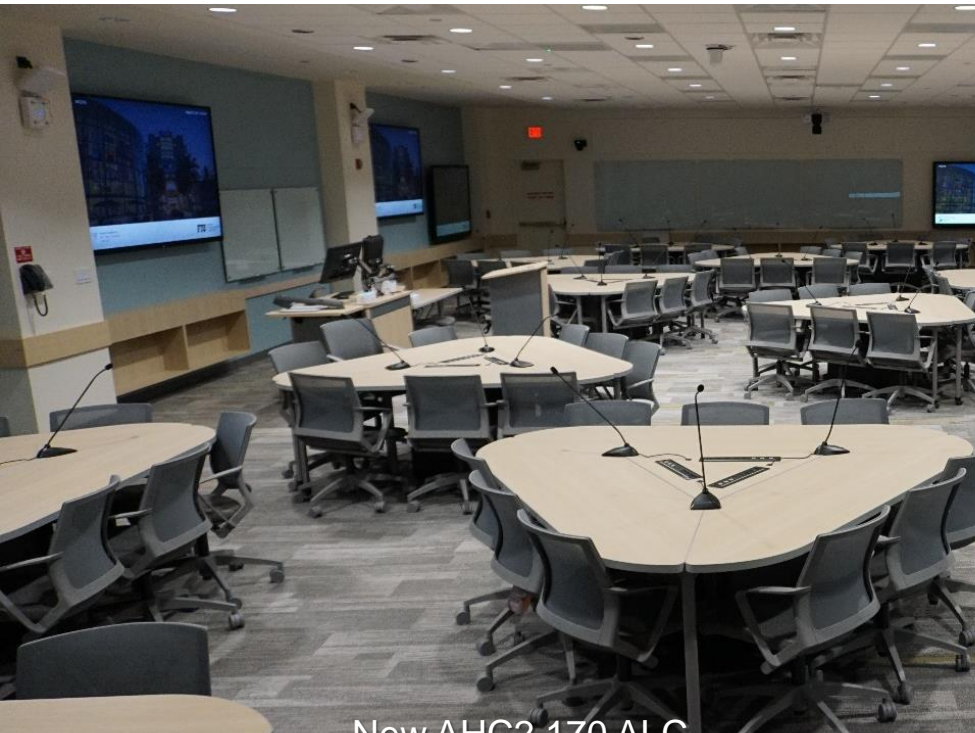
AHC2 170
Active Learning Classroom
Remodeling

Challenge Context:

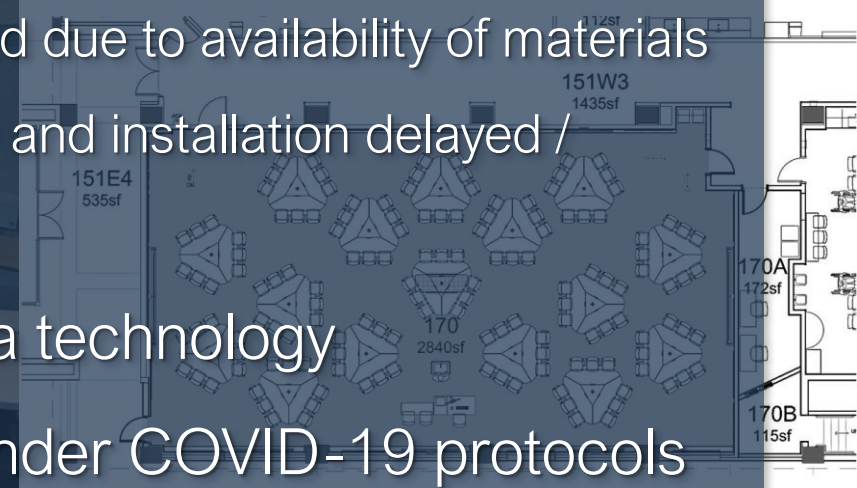
- Design & Owner teams working remotely
- Uncertainty of market conditions (examples)
 - lighting package changed due to availability of materials
 - Impact windows delivery and installation delayed / postponed Dec 21
- Adoption of new media technology
- Construction began under COVID-19 protocols & restrictions



Original AHC2 170 Tiered Auditorium



New AHC2 170 ALC



Minor Project Case Study #2

AHC2 170 Active Learning Classroom Remodeling

Project Budget Estimate

Division	Description	Schedule of Values	% of GMFEst	\$/GSF
1	Demolition	\$ 36,600 (based on \$/SF)		\$ 10.00
2	General Budget \$/SF	\$ 494,100 (based on \$/SF)		\$ 135.00
3	Special Conditions Cost Budget	\$ - (based on \$/SF)		
Premises: Salvage & repurpose existing doors and carpet tile			L.S.	
4	Subtotal	\$ 530,700	75.2%	\$ 145.00
5	CM/GC Contingency	\$ 42,456	8.0%	\$ 11.60
6	Builder's Risk	\$ 531	0.1%	
7	100% Payment & Performance Bonds	\$ 3,715	0.7%	
8	General Liability Insurance	\$ 6,368	1.2%	
9	General Conditions + Overhead	\$ 58,377	11.0%	
10	CM/GC Fee	\$ 63,684	12.0%	
11	Subtotal	\$ 175,131	24.8%	\$ 47.85
12	Construction Budget Estimate	\$ 705,831	100.0%	\$ 192.85

Construction Budget
\$ 705,831 \$ 192.85/SF

Minor Project Case Study #2

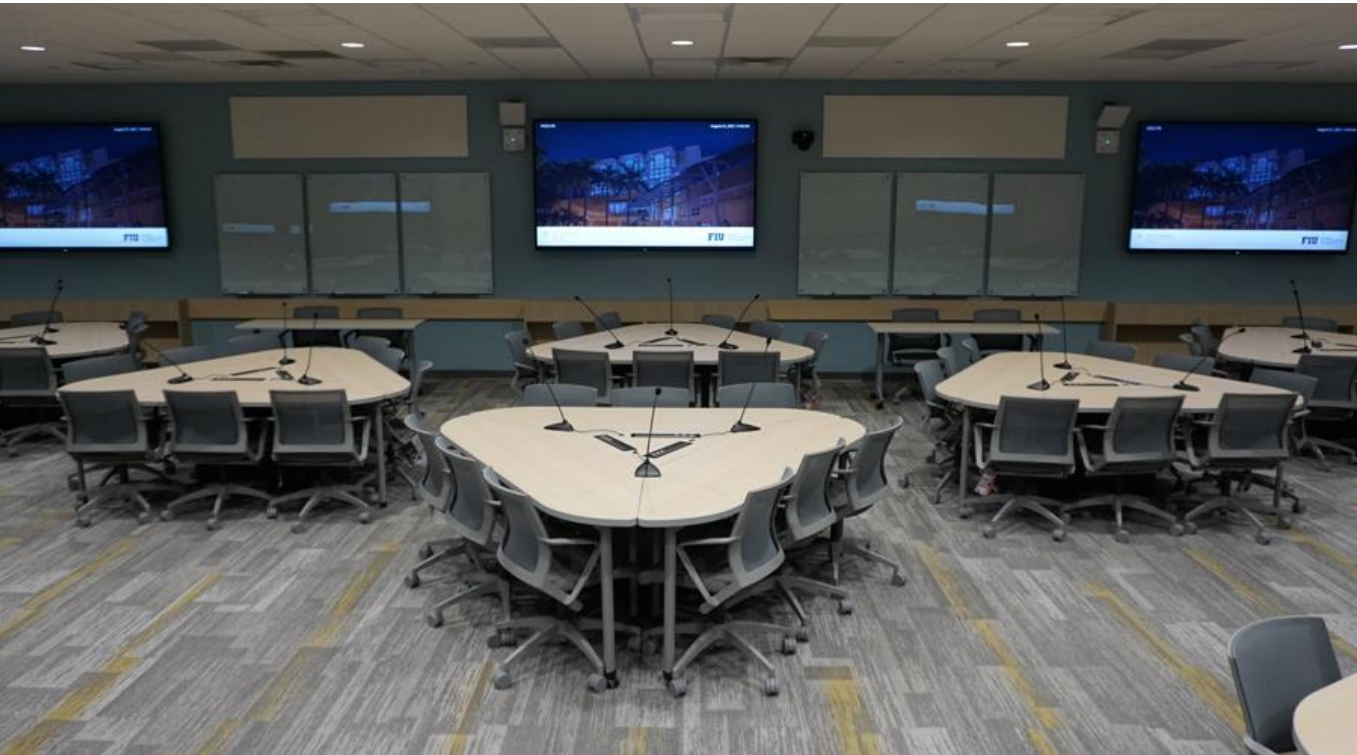
AHC2 170 Active Learning Classroom Remodeling

F&E Budget Estimate		per student station (144)	Est \$/GSF
13	CCI tables based on 3/11/20 Quote	\$ 55,564	
14	Student Chairs (150 chairs)	\$ 48,000	
15	Faculty Station	\$ 1,500	
16	Staff Stations (Exist in Control Room to be repurposed)	\$ 816	\$ 32.12
17	Glass boards (10)	\$ 7,500	
18	Storage Racks	\$ 5,000	
19	Signage	\$ 1,000	\$ 1.25
20	Media Original <i>Tech Fee for Replacement of Exist Media</i>	\$ 142,000	\$ 38.80
21	Media Supplement to Tech Fee for upgrade to ALC (Estimate)	\$ 70,000	
22	Telecom DoIT (Based on ability to rewire exist. Data fiber)	\$ 21,960	\$ 6.00
23	Subtotal F&E Budget	\$ 352,524	\$ 96.32

F&E Budget	
\$ 352,254	\$ 96.32/SF

Minor Project Case Study #2

AHC2 170 Active Learning Classroom Remodeling



Project Budget Estimate

Division Description	Schedule of Values	% of GMP Est \$/GSF
12 Construction Budget Estimate	\$ 705,831	100.0% \$ 192.85
F&E Budget Estimate		
24 Subtotal Project Budget	\$ 1,058,355	per student station (144) Est \$/GSF \$ 7,349.69 \$ 289.17
Contingency (Required to account for 1 year 25 delay & tech changes)	\$ 158,753	15.0% \$ 43.38
TPCB Total Project Cost Budget	\$ 1,217,108	\$ 332.54

SC Soft Costs Budget

		% of TPCB
26 PROFESSIONAL FEES	\$ 103,000	14.6%
27 CONSTRUCTION MANAGER	\$ -	0.0%
28 FIRE MARSHALL FEES	\$ 512	0.1% \$ 0.14
29 SURVEYS & TEST	\$ 15,000	T&B 2.1%
30 INSPECTION SERVICES	\$ -	0.0%
31 PERMIT/IMPACT/ENVIRON. FEES	\$ 3,000	Estimate 0.4%
32 ARTWORK	\$ -	0.0%
CSR CONSTRUCTION SERVICE REIMBURSEMENT 33 (DESIGN)	\$ 5,150	5.0%
CONSTRUCTION SERVICE REIMBURSEMENT 34 (FF&E if applicable)		0.0%
CSR CONSTRUCTION SERVICE REIMBURSEMENT 35 (CONSTRUCTION)	\$ 35,292	5.0%
36 Soft Costs Budget Estimate	\$ 161,954	

Note: CSR is a fixed 5% of contract value for AE and CM services. If FF&E is procured directly by HWCOM, no CSR is assessed.

PDC Project Development Cost	\$ 1,379,062	SAY \$1.2~1.4MM	\$ 376.79
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Case Study #2

AHC2 170 Active Learning Classroom Remodeling

- Carried a **15% contingency** since project had been delayed for almost a year from orig. estimate given market and new project type
- Developed and built during the pandemic.
- Significant scope changes with new windows and (4) smart boards to technology
- There is no line-item integrity in the budget

Construction Budget

\$ 705,831 \$ 192.85/SF

Division	Description	Schedule of Values	% of GMP	\$/GSF
2	Site Development/Landscaping	\$ 10,000 ¹	1.2%	\$ 2.90
3	Concrete	\$ 104,200 ¹	12.7%	\$ 30.26
4	Masonry		0.0%	\$ -
5	Steel	\$ 14,500 ¹	1.8%	\$ 4.21
6	Carpentry & Millwork	\$ 35,000 ¹	4.3%	\$ 10.17
7	Moisture & Thermal Protection		0.0%	\$ -
8	Doors & Glazing Systems	\$ 35,800 ¹	4.4%	\$ 10.40
9	Finishes			
	Drywall and ACT	\$ 84,600 ¹	10.3%	\$ 24.57
	Stucco	\$ 15,000 ¹	1.8%	\$ 4.36
	Painting	\$ 11,800 ¹	1.4%	\$ 3.43
10	Specialties		0.0%	\$ -
11	Equipment		0.0%	\$ -
12	Furnishing		0.0%	\$ -
13	Special Construction		0.0%	\$ -
14	Transportation		0.0%	\$ -
15	Fire Sprinkler System, Plumbing, HVAC			
	Fire Protection	\$ 6,400 ¹	0.8%	\$ 1.86
	HVAC	\$ 53,400 ¹	6.5%	\$ 15.51
16	Electrical & Fire Alarm	\$ 103,200 ¹	12.6%	\$ 29.97
17	Reserved	\$ -	0.0%	\$ -
18	Reserved	\$ -	0.0%	\$ -
Subtotal Contracted Work		\$ 473,900	65.8%	\$ 137.64
19	CM Contingency	\$ 21,600 ¹	2.6%	
20	Builder's Risk	\$ -	0.0%	
21	100% Payment & Performance Bonds	\$ 4,800 ¹	0.6%	
22	General Liability Insurance	\$ 9,600 ¹	1.2%	
General Conditions + CM Overhead & Profit				
23.1	General Requirements	\$ 26,675 ¹	18.1%	
23.2	On Site Supervision and Reimb GC's	\$ 121,320 ¹		
23.4	Pre-Construction Services	\$ -		
24	CM Fee	\$ 62,190 ¹	7.6%	
25	Subtotal	\$ 246,185	34.2%	\$ 71.50
26	Original GMP	\$ 720,085		\$ 209.14
27	Demolition Final Contract Sum	\$ 97,635		\$ 28.36
REMARKS:				Complexity of demolition costs for exist. ramp and st underestimated
28	Total Contract Sum	\$ 817,720	100.0%	\$ 237.50
29	Additive Alternate #1 Exterior Windows	\$ 83,394	9.5%	\$ 24.22
30	Change Orders (Pending)	\$ (20,000)	-2.3%	\$ (5.81)
FCS Final Contract Sum		\$ 881,114	100.0%	\$ 255.91

Case Study #2

AHC2 170 Active Learning Classroom Remodeling

- Project will have windows installed December 2021 per Additive Alternate
- Overall, Project overrun of 2% (-\$26,949) over revised target budget. (Compared to original budget of \$1.220,000 we were 15% or \$186K over budget).
- Leveraged technology costs from Tech Fee Grant
- Transferred some line items from Construction to FF&E Owner Purchased saving taxes, CM costs and CSF fees
- Recaps are driven from detailed line-item documentation.

			BUDGET	VARIANCE
Media Services/Telecom				
31.1	MEDIA SERVICES Audio Visual Equipment (FIU DoIT Labor and Materials) as revised 3/31/21	\$ 260,752.83	18.5%	\$ 75.73
31.2	MEDIA SERVICES Faculty mobile Podium and Control Desk	\$ 4,932	0.4%	\$ 1.43
	Less: Media Original Tech Fee for Replacement of Exist Media. Revised Balance provided by Tisa Ramdial 3/31/21	\$ (119,036)		\$ (34.57)
32	Telecom / IT	\$29,332.60	2.1%	\$ 8.52
33	Subtotal	\$ 175,981.43		\$ 51.11
FF&E Furniture, Fixtures & Equipment				
34.1	Leveling Concrete Floors	\$ 4,653	0.3%	\$ 1.35
34.2	Flooring Carpet/Vinyl (Direct Purchase)	\$ 17,606	1.4%	\$ 5.69
34.3	Flooring Vinyl Control Room (Direct Purchase)	\$ 1,996		
34.4	Access Flooring (Direct Purchase)	\$ 86,375	6.1%	\$ 25.09
35	Active Learning Modular Tables	\$ 58,365		
36	Faculty / Staff 18x66" tables (3)	\$ 1,532	7.1%	\$ 29.09
37	Student Chairs (150)	\$ 41,806		
37.1	Glass Boards	\$ 5,797	0.4%	\$ 1.68
37.2	Acoustical Panels	\$ 5,544	0.4%	\$ 1.61
38	Storage Racks	\$ -	0.0%	\$ -
39	Facilities Operations	\$ -	0.0%	\$ -
40	Signage	\$ 1,000	0.1%	\$ 0.29
41	Misc.	\$ -		\$ -
42	Subtotal	\$ 224,675	16%	\$ 65.26
				\$/Student Station
TPC Total Project Cost		\$ 1,281,770	\$ 372.28	\$ 8,901.18
SC Soft Costs				
			% of FCS	% of PDC
46	FIRE MARSHALL FEES	\$ 482.02	0.1%	0.0%
47	SURVEYS & TEST	\$ 5,940.00	0.7%	0.4%
48	INSPECTION SERVICES	\$ -	0.0%	0.0%
49	PERMIT/IMPACT/ENVIRON. FEES	\$ -	0.0%	0.0%
50	ARTWORK	\$ -	0.0%	0.0%
51	CONSTRUCTION SERVICE REIMBURSEMENT (DESIGN)	\$ 3,511.20	5.0%	0.2%
52	CONSTRUCTION SERVICE REIMBURSEMENT (FF&E if applicable)	\$ -	0.0%	0.0%
53	CONSTRUCTION SERVICE REIMBURSEMENT (CONSTRUCTION)	\$ 44,055.70	5.0%	3.1%
TSC Total Soft Costs		\$ 124,213		
Note: CSR is a fixed 5% of contract value for AE and CM services. If FF&E is procured directly by HWCOCM, no CSR is assessed.				
54	CONTINGENCY	\$ -	0.0%	\$ -
				\$/Student Station
PDC Project Development Cost		\$ 1,405,983	\$ 408.36	\$ 9,764
57	Revised Target Budget	\$ 1,379,062		
58	Projected Variance to Revised Budget (Surplus) (Deficit)	\$ (26,921)	-2%	over revised budget

Please refer to Construction Cost Detail sheet for details on these line items

Case Study #2

AHC2 170 Active Learning Classroom Remodeling

- Recaps are driven from detailed line-item documentation in the Construction Cost Detail Tab of spreadsheet.

F&E Budget	
\$ 352,254	\$ 96.32/SF

VENDOR	DESCRIPTION	PO #	FEES/COSTS	\$/GSF
FURNISHING AND EQUIPMENT				
19	Computer Comforts	CCI Computer Comforts, Inc.	Quote AAAQ17696 11 \$ 58,365 Dated 3/22/21	\$ 16.02
20	REMARKS:	Computer Tables actual cost increased over budget given user request for flexibility to remove one table to allow for demonstration seminars with Standardized Patient and/or Simulators		
21	Empire Office	(3) Faculty / Support Staff 18x66" tables on casters	Quote 224508 4/30/21 \$ 1,532	\$ 0.42
	REMARKS:	Budget is for 150 chairs to account for faculty and staff. We had budgeted at \$320/chair same as FCC; these are \$278.71 yet are comfortable and appropriate for this use. NET SAVINGS		
22	Empire Office	Chairs (150) Movl Light Task Chair	Quote 217460 4/13/21 \$ 41,806	\$ 11.47
23	RESOURCE 4 FLOORS	<u>Leveling Concrete Floors</u>	PO # 225127 05/06/21 \$ 4,653	\$ 1.28
24	RESOURCE 4 FLOORS	<u>Raised Access Floor</u>	Quote #41528 4/3/21 \$ 86,375	\$ 23.70
	REMARKS:	To save time, taxes, flooring procured under state contract via our carpeting vendor. This was not a line item under F&E budget. This will result in tax savings, reduction of mark up by CM and exclusion from CSR 5% mark-up for FMD		
25	RESOURCE 4 FLOORS	<u>Carpet Tiles</u>	Quote #41528 4/3/21 \$ 17,606	\$ 5.38
		Originally intended to be in GMP		
26	RESOURCE 4 FLOORS	<u>Vinyl Tiles for Control Room</u>	<u>Quote 41934</u> <u>4/21/21</u> \$ 1,996	
	REMARKS:	On orig. budget cpt tiles were included in construction cost. Moved to Owner provided and installed for tax savings, reduction of mark up by CM and exclusion from CSR 5% mark-up for FMD. The Vinyl Planks for the Control Room are purchased in advance to accelerate construction of control room.		
27		Signage	Estimate \$ 1,000	\$ 0.27
28	Computer Comforts	<u>Acoustic Board Panels</u>	Quote AAAQ18032 \$ 5,544 5/17/21	\$ 1.52
	REMARKS:	Originally intended to be in GMP, Computer Comforts product will serve to reduce reverberation time in room		
29	Empire Office	Glass boards (including installation)	Quote 227719 5/20/21 \$ 5,797	\$ 1.59
	REMARKS:	Original budget called for 10 glass boards. End users requested us to maximize number of glass boards. Projecting 20 units. <u>Final count reduced due to program addition of 4 Smart Boards.</u>		
30		Storage Racks	Estimate \$ -	\$ -
	REMARKS:	Budget contemplated storage racks. Reusing existing and existing metal cabinets in 180. Maintaining funds for misc. storage. No storage racks required. Repurposing Existing		
FURNISHING AND EQUIPMENT			SUBTOTAL \$ 224,675	\$ 61.66

Case Study #2

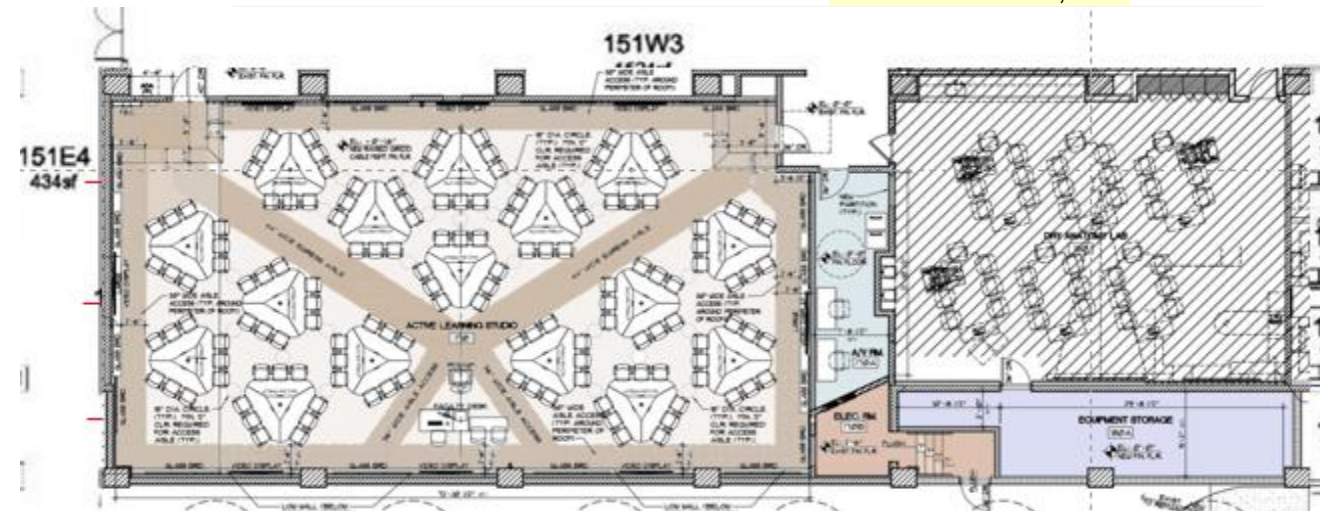
AHC2 170 Active Learning Classroom Remodeling

Project Data Sheet

- Space Breakdown
- Floor Plan

Space Category (NASF)	NASF	NASF
C Classrooms	2,904	80%
TL Teaching Laboratories		0%
Lab Support		0%
L Library		0%
RL Research Laboratories		0%
S Study (Collaborative Spaces)		0%
IM Instructional Media	172	5%
A/E Auditoriums/Exhibition		0%
G Gymnasiums		0%
SAS Student Academic Support		0%
O Offices		0%
CSS Campus Support Services (Elect. Rm.)	115	3%
OA Other (Lab Storage)	316	9%
	3,507	

Version 2016-0503

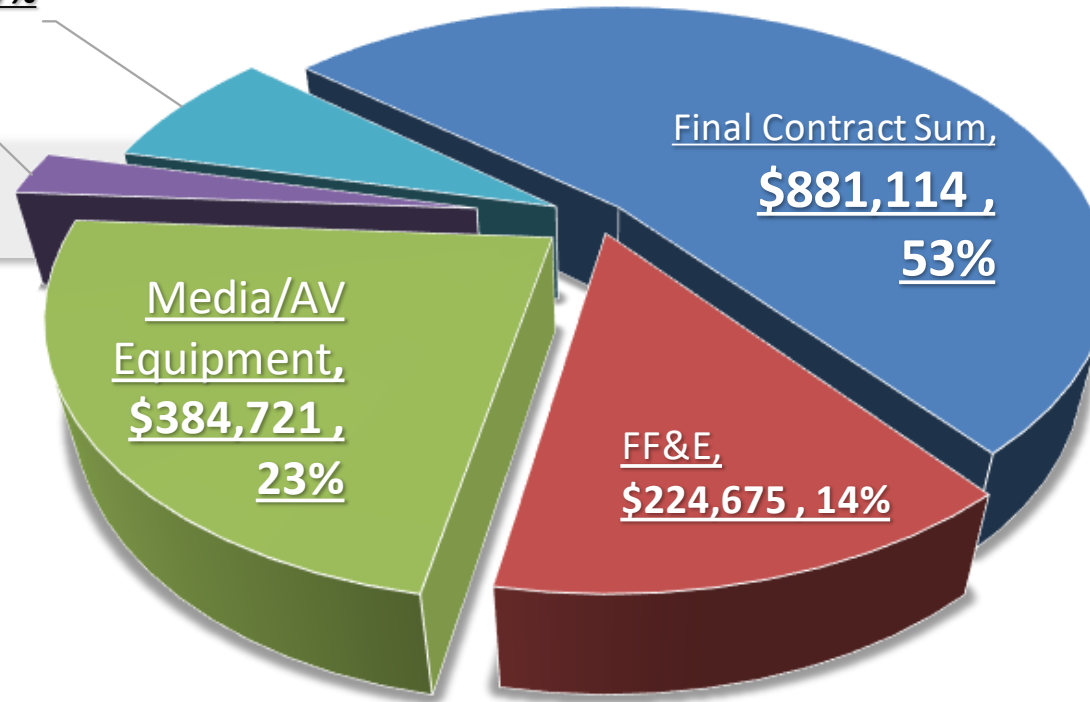


Case Study #2

AHC2 170 Active Learning
Classroom Remodeling

Total Sof Costs, \$124,241 , 7%

Telecom IT, \$42,889 , 3%



Final Contract Sum	\$	881,114
FF&E	\$	224,675
Media Audio Visual Equip.	\$	384,721
Telecom / IT	\$	42,889
Total Soft Costs	\$	124,241

Total Project Dev. Cost \$ 1,657,640

NOTICE
*The Media Audio Visual Equip. & Telecom IT costs reflect actual system cost **without the Tech Fee offsets***

	Cost/GSF
Final Contract Sum \$	241.80
FF&E \$	61.66
Media AV Equipment \$	105.58
Telecom / IT \$	11.77
Soft Costs \$	34.09
Total Project Development Costs \$	454.90
	2021\$

Concluding Remarks

1. Compile your projects history in a consistent format to facilitate review and use in planning & budgeting new projects
2. Identify and establish line-item Contingencies (which may vary across the board)
3. Benchmarking Project Cost Data: Tool for projecting construction costs of Minor Projects
Caveat: beware of above the norm Contingencies

Q&A

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