

# FY 2008-09 Supplemental Capital Construction Request

## University of Colorado -- Boulder

Andrews Hall, Smith Hall, and Buckingham Hall Renovations (202 Project)

**Motion:** Approve the supplemental request for this 202 project (\$16,980,600 CF).

### GENERAL INFORMATION

2009-032

#### 1. Which supplemental criterion does the request meet?

New Data

The university says it needs additional beds due to changes in program requirements and rising student housing demand. In addition, the cost of certain construction materials has increased. The university also decided to:

- increase energy efficiency to reduce long-term operating costs;
- replace the existing storm drainage system, which is inadequate;
- make landscape and irrigation improvements to reduce long-term maintenance costs; and
- make telecommunication upgrades that would have been required in the future.

#### 2. Which projects will be restricted to fund the supplemental request?

A restriction is unnecessary because state funds are not being requested.

#### 3. Has the request been approved by OSPB and CCHE?

Yes

### PRIOR APPROPRIATION AND SUPPLEMENTAL REQUEST INFORMATION

The appropriation to be amended was authorized in the following bill: HB 08-1375

<u>Fund Source</u>	<u>Prior Appropriations</u>	<u>Supplemental Request</u>	<u>Future Requests</u>	<u>Total Cost</u>
CF	\$41,295,359	\$16,980,600	\$0	\$58,275,959
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### REASON FOR SUPPLEMENTAL REQUEST

The University of Colorado at Boulder (CU-Boulder) is requesting additional cash funds spending authority to provide 139 more beds on the main campus due to expanded program requirements. The university also needs additional money for this project in order to decrease energy consumption, fund an expanded scope of work, and cover inflation costs.

**Expanded program requirements.** The university says freshman enrollment increased 28 percent between 1999 and 2008, placing pressure on the campus to find additional beds. In addition, the university decided to add a faculty-in-residence apartment and a hall director apartment in both Smith and Buckingham halls, in order to support the university's Flagship 2030 Strategic Plan to offer multi-year residential academic experiences for students through "residential colleges" in the academic programs. Together, the apartments displace 8 beds in each building, for a total loss of 16 beds. To compensate, the university plans to add a 9-bed attic (800 GSF) to Andrews Hall, and a 130-bed wing (36,117-GSF) to Smith Hall. According to the university, the Smith Hall wing addition will be accomplished in conjunction with the existing planned renovations for that building, without extending the overall project time frame. Also, there will be savings in design and project management expenses, says CU-Boulder. The university notes that all other program elements remain as originally requested.

**Decreased energy consumption.** The university decided to add additional mechanical system controls to all three

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buildings for more energy-efficient heating and cooling that allows centralized monitoring of energy use and temperature controls.

**Expanded scope of work.** During design, the university learned that storm drains on the north side of Andrews Hall had collapsed, limiting the capacity of that drainage system. CU-Boulder decided to replace the storm drainage system in the area of Andrews Hall to prevent potential storm flooding.

The university also determined that fiber optic cables need to be installed to support increasing demand for a telecommunications infrastructure network. CU-Boulder says cabling will need to be added to all campus buildings, and it seems appropriate to expand the scope of work for this project to include cabling, rather than coming back later to renovate the building and make the cabling upgrade.

The project will convert landscape irrigation systems from domestic water use to non-potable water use, and change planting materials to reduce water usage and landscape maintenance. The university says the changes will provide privacy around the faculty-in-residence and hall director apartments and will improve the general appearance of the Kittredge complex.

**Inflation.** The university estimated modest inflation costs when the project was first requested, and says that while actual construction inflation has been higher than expected, the project delivery method and scope of work have lessened the impact of the higher costs. However, the cost of some materials has increased significantly, says CU-Boulder, and additional money is necessary to cover these costs.

### Source of Additional Funds

The university was asked to provide this information. Please see Questions / Outstanding Issues.

### SUMMARY OF PROJECT

The project renovates 176,943-GSF in three dormitories in the Kittredge Residential Complex. The project will attract non-freshmen residents to the community, support the residential campus concept, and improve the facilities for summer conferences. One building per year will be renovated beginning with 60,688 GSF in Andrews Hall in 2008 (completed), 56,675 GSF in Smith Hall in 2009 (under construction), and 59,679 GSF in Buckingham Hall in 2010 (conceptual design has been drafted). As a Senate Bill 92-202 project, no state funds will be used for the design, construction, operation, and maintenance of the facilities.

### QUESTIONS / OUTSTANDING ISSUES

1. What materials have increased significantly over the original request, and how much have they increased?

*See Attachment A. In September, 2008, the University received a letter from Kiewit Building Group, who is leading the design-build team on this project. The letter attached several industry sources and suppliers citing drywall increases at over 35% and concrete cost increase over 25%. Additionally, it was reported that steel prices increased 73% in 2008.*

2. How will the additional beds, expanded project scope, and other improvements be funded? Please demonstrate that auxiliary funds are available to cover the increased project costs. As a SB 92-202 project, no state funds can be used for the design, construction, operation, and maintenance of the facilities.

*The increased costs to the Andrews, Smith, Buckingham improvements will be bond financed over 20 years at 5.5% interest repaid from revenue from the new beds (\$1,422,300 annually). Room and board revenue was originally approved for the renovation costs to Andrews, Smith, Buckingham.*

University of Colorado at Boulder  
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Capital Development Committee Staff Questions

1. What materials have increased significantly over the original request, and how much have they increased?

In September, 2008, the University received a letter from Kiewit Building Group, who is leading the design-build team on this project. The letter attached several industry sources and suppliers citing drywall increases at over 35% and concrete cost increase over 25%. Additionally, it was reported that steel prices increased 73% in 2008.

The following table gives an overview of materials price increases.

**Percentage Changes in Producer Price Indexes (PPIs) for Construction Materials and Components**

<u>BLS Series ID</u>		<u>to September 2008 since--</u>			
		<u>8//08</u>	<u>6/08</u>	<u>9/07</u>	<u>12/03</u>
<b>Table 1: Changes in Consumer, Producer &amp; Construction Prices</b>					
CUUR0000SA0	Consumer price index (CPI-U)	-0.1	0.0	4.9	18.7
WPUSOP3000	Producer price index (PPI) for finished goods	-0.1	-0.3	8.7	30.0
PCUBCON	PPI for inputs to construction industries	0.5	2.5	13.1	44.8
PCUBHWY	PPI for inputs to highway and street construction	0.7	3.2	22.2	75.9
PCUBHVV	PPI for inputs to other heavy construction	0.2	1.3	16.9	60.1
PCUBBLD	PPI for inputs to nonresidential buildings	0.5	2.0	12.5	42.6

**Table 3: Changes in PPIs for Specific Construction Inputs**

WPU057303	#2 diesel fuel	-1.4	18.7	39.0	248.8
WPU05810112	Asphalt (at refinery)	6.2	55.8	129.8	402.4
WPU139401	Asphalt paving mixtures and blocks	3.1	29.5	51.2	135.3
WPU136	Asphalt felts and coatings	4.9	32.4	51.6	88.8
WPU1361	Prepared asphalt & tar roofing & siding products	6.1	28.3	47.5	85.5
WPU133	Concrete products	0.8	0.8	4.3	37.5
WPU1331	Concrete block and brick	0.8	1.3	3.8	29.5
WPU1332	Concrete pipe	-0.1	0.6	12.5	34.0
WPU1333	Ready-mixed concrete	1.2	0.8	3.3	41.2
WPU1334	Precast concrete products	-0.1	0.1	4.5	28.9
WPU1335	Prestressed concrete products	-1.0	2.5	4.9	38.4
WPU1342	Brick and structural clay tile	-0.2	0.6	-0.3	19.4
WPU072106	Plastic construction products	0.8	3.6	6.8	37.6
WPU137	Gypsum products	-1.7	4.2	1.7	22.2
WPU1392	Insulation materials	-0.2	1.2	-1.8	9.3

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WPU004011	Lumber and plywood	0.1	-1.8	-3.4	-7.3
WPU062101	Architectural coatings	1.0	8.0	12.2	42.8
WPU1017	Steel mill products	-3.6	0.3	38.2	122.4
WPU101704	Hot-rolled bars, plates, & structural shapes	-4.4	4.0	37.7	144.0
WPU101706	Steel pipe and tube	-1.0	4.1	36.8	140.3
WPU102502	Copper and brass mill shapes	-9.0	-8.4	-2.9	142.6
WPU102501	Aluminum mill shapes	-2.8	-1.7	4.1	34.3
WPU1073	Sheet metal products	0.8	3.2	10.7	36.7
WPU107405	Fabricated structural metal	0.0	2.9	17.6	62.5
WPU10740501	Fabricated structural metal for buildings	-0.1	1.8	13.9	51.4
WPU107408	Architectural and ornamental metalwork	6.5	12.3	24.6	69.3
WPU107409	Fabricated iron & steel pipe, tube, & fittings	1.4	6.7	15.2	53.0
WPU1076	Fabricated steel plate	7.2	9.3	32.9	59.8
WPU1079	Prefabricated metal buildings	0.9	4.1	29.7	92.8
WPU112	Construction machinery and equipment	0.5	1.4	3.9	21.7

**Table 4: Changes in PPIs for Basic Inputs Important to Construction**

WPU056	Crude petroleum (domestic production)	-9.0	20.1	35.9	250.1
WPU0553	Industrial natural gas	-6.7	-9.4	27.4	53.4
WPU066	Plastic resins and materials	-3.1	7.3	19.2	63.9
WPU1321	Construction sand/gravel/crushed stone	0.2	1.6	6.9	41.0
WPU1322	Cement	-1.0	-1.6	-1.7	38.3
WPU1011	Iron ore	0.0	0.0	12.0	50.5
WPU1012	Iron and steel scrap	-22.4	21.3	47.9	159.8
WPU101212	Stainless and alloy steel scrap	1.6	-4.6	-5.4	n.a.
WPU102102	Copper ores	-10.4	-5.6	-5.2	293.7
WPU102301	Copper base scrap	-4.6	-7.8	4.2	244.9

Updated 10/16/08 Source: Bureau of Labor Statistics (BLS): [www.bls.gov/cpi](http://www.bls.gov/cpi) for CPI, [www.bls.gov/ppi](http://www.bls.gov/ppi) for PPIs

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