



**Explanatory Statement:**

This document is intended to identify the difference between the projected campus-wide programmatic area expansion, the area to be replaced (temporarily displaced by construction activity) and the net available new construction area. Additionally, the required net swing space for Building 7 and Building 5 is identified for planning purposes.

Based upon the selection of Option C, we determined that building additions would be constructed at Buildings 7 and 5. Preliminary plan testing undertaken to establish the optimum adaptable structural bay dimension for the 2-story Building 7 addition produced a footprint yielding 29,000 gross square feet. Independent cost estimates suggested that the proposed addition to Building 7 could be constructed at \$200/sf, or \$6M. Subtracting this sum from the baseline budget of \$25.7M, one is left with \$19.7M with which to construct the new Academic Building (Building 5 Addition). Assuming \$230/sf for this building, the maximum area one can afford to build is 86,000 GSF. This brings the total new area for the Option C to 115,000 GSF. (See *New Construction Budget / Area Reconciliation Memorandum dated November 1, 2010*)

**Available new construction area. (see page 1)**

For this exercise, we will be looking at net area only, to the nearest 100 square feet. First, we need to establish the net available floor area for the two new building additions. Since the Building 7 addition will be making use of the existing building infrastructure (mechanical and circulation systems), its efficiency (net to gross ratio) is calculated to be 85%. Therefore, the available net floor area for the Building 7 addition is 25,000 net square feet. For the Building 5 addition, we will not have the advantage of tapping into existing infrastructure, therefore an efficiency of 65% percent must be assumed (typical for a collegiate building of this type). The available net floor area for the Building 5 addition is 56,000 net square feet. **The sum of the available new construction area (Building 7 addition + Building 5 addition) is 81,000 net square feet.**

**Area to be replaced. (see page 2)**

Next, we must determine the net area of Buildings 7 and 5 which will be *bedisplaced* during construction activity, and will need to be accounted for and *replaced* within the new construction program. Again, we will be rounding to the nearest 100 square feet. **For Building 7, the area to be replaced equals 7,600 net square feet.** This includes approximately 2,300 net square feet of informal "loungue" eddies and alcoves adjacent to the central corridor. While this is technically non-assignable square footage, it is included in the replacement area equation. **For Building 5, the area to be replaced equals 15,500 net square feet.** This includes 2,300 net square feet of FMS storage and shop space which is will need to be accounted for in the final Building 5 addition program, but is assumed not to be temporarily housed in Building 7 swing space. Rather, only FMS office space is assumed to utilize temporary Building 7 swing space, and FMS storage space will need to be identified elsewhere on campus for the duration of the Building 5 construction.

**Programs projected to expand campus-wide. (see page 3)**

Next, we must determine the programs projected to expand at Rock Creek. This analysis includes both new and existing program expansion campus-wide, and increases in square footage are rounded to the nearest 100 square feet. The programs identified here are grouped into three categories. The first includes programs which were specifically referenced in V1.6, and currently exist at Rock Creek. For these programs, projected area gains are those prescribed in V1.6. The second category includes programs which were also specifically referenced in V1.6, but are new to Rock Creek. Similarly for these programs, projected area gains are those prescribed in V1.6. The third and final category includes those programs which were not specifically referenced in V1.6, currently exist at Rock Creek, and were included in the overall scope discussion during the campus planning process (Spring 2010). For these programs, projected area gains are in accordance with preliminary pre-programming and plan testing exercises. The sum of the areas included in each of these categories gives us the projected program expansion. **The projected program expansion equals 70,700 net square feet.**

**Available area allocation. (see page 3)**

Finally, using the figures determined for available new construction, area to be replaced, and projected program expansion, we can calculate the net available area surplus / deficit. Beginning with the available new construction area of 81,000 net square feet, we subtract the sum of the net area to be replaced (7,600nsf + 15,500nsf) and the net projected program expansion area (70,700nsf). This yields a deficit in available area. **The campus-wide area deficit is 12,800 net square feet.** As a result of rounding, the accuracy of this figure may be assumed to be within +/- 2% of the actual number. This analysis demonstrates that there is more program identified than the available area can accept. **In order to reconcile the difference, the program must be reduced by 12,800 net square feet.**

**NEW CONSTRUCTION AREA:**

Gross Area	
Building 7 Addition:	29,000 gsf
Building 5 Addition:	86,000 gsf
Total	<b>115,000 gsf</b>

**TOTAL NEW CONSTRUCTION AREA (GROSS) - (Building 7 Addition (Net) + Building 5 Addition (Net),** **115,000 nsf**

Net to Gross Building Efficiency Calculations	
Building 7 Addition:	
29,000 gsf x 85%	25,000 nsf
Building 5 Addition:	
86,000 gsf x 65%	56,000 nsf
Total	<b>81,000 nsf</b>

**TOTAL AVAILABLE NEW CONSTRUCTION AREA (NET) - (Building 7 Addition (Net) + Building 5 Addition (Net),** **81,000 nsf**



**AREA TO BE REPLACED / SWING SPACE REQUIRED:**

**Building 7**

**Classrooms**

101	Lecture Hall	1,365	nsf
121	Lecture Hall	1,982	nsf
221	Classroom	1,030	nsf
		4,377	nsf
Total		~ 4,400	nsf

**Lounge Space**

201	Lounge	873	nsf	
*	C1-2	Corridor alcove in front of Room 101	931	nsf
*	C1-3	Corridor alcove in front of Room 121	1,021	nsf
*	C2-4	Corridor alcove in front of Room 221	298	nsf
		3,123	nsf	
Total		~ 3,200	nsf	

**TOTAL**

Classrooms	4,400	nsf
Lounge Space	3,200	nsf

Note:

\* Non-assignable area.

**TOTAL BUILDING 7 AREA TO BE REPLACED (NET)**

**7,600 nsf**

**Building 5**

**FMS**

127	Office	236	nsf
127A	Conference	127	nsf
128	Office	148	nsf
129	Office	137	nsf
130	Lunch Room	394	nsf
131A	Open Office	625	nsf
131B	Open Office	688	nsf
S1-3	Storage	335	nsf
		2,690	nsf
Total		~ 2,700	nsf

**FMS Material Storage / Shop (not temporarily located in B7)**

*	S1-4	Storage	899	nsf
*	S1-5	Storage	82	nsf
*	S1-6	Storage	225	nsf
*	S2-1	Storage	1,069	nsf
		2,275	nsf	
Total		~ 2,300	nsf	

**Public Safety**

110	Office	162	nsf
110A	Office	120	nsf
111	Office	178	nsf
		460	nsf
Total		~ 500	nsf

**Classrooms**

113	Classroom	598	nsf
114	Classroom	817	nsf
115A	Classroom	816	nsf
115B	Classroom	820	nsf
		3,051	nsf
Total		~ 3,100	nsf

**TOTAL**

FMS	2,700	nsf	
FMS Material Storage / Shop	2,300	nsf	
Public Safety	500	nsf	
Classrooms	3,100	nsf	
Computer Classrooms / Labs	1,400	nsf	
Offices (First Floor)	2,800	nsf	
Offices (Second Floor)	1,900	nsf	
Miscellaneous	1,000	nsf	
		15,700	nsf

Note:

\* Only FMS office space to be temporarily housed in Building 7 during Building 5 construction. FMS shop and material storage space to be temporarily housed elsewhere on campus.

**TOTAL BUILDING 5 AREA TO BE REPLACED (NET)**

**15,700 nsf**



**PROGRAMS PROJECTED TO EXPAND CAMPUS-WIDE**

Program Name	Existing Area	Proposed Area	Area Add
Women's Resource Center	~ 900 nsf	~ 1,000 nsf	100 nsf
◆ Student Learning Center (SLC)	~ 4,000 nsf	~ 4,200 nsf	200 nsf
◆ Developmental Education (DE)	~ 900 nsf	~ 1,700 nsf	800 nsf
◆ Writing Center	~ 800 nsf	~ 1,300 nsf	500 nsf
Childcare	~ 900 nsf	~ 1,800 nsf	900 nsf
Teaching Learning Center (TLC)	~ 1,200 nsf	~ 3,000 nsf	1,800 nsf
Food Service	~ 5,700 nsf	~ 14,000 nsf	8,300 nsf
Student Activities	~ 3,200 nsf	~ 3,500 nsf	300 nsf
Multi-Cultural Center	~ 200 nsf	~ 2,000 nsf	1,800 nsf
ASPCC Offices	~ 1,200 nsf	~ 2,000 nsf	800 nsf
Public Safety	~ 500 nsf	~ 1,500 nsf	1,000 nsf
Bookstore	~ 3,900 nsf	~ 5,700 nsf	1,800 nsf
TSS	0 nsf	~ 700 nsf	700 nsf
<sup>N</sup> General Purpose Classrooms (27 @ 1,000 net square feet)	0 nsf	27,000 nsf	27,000 nsf
<sup>N</sup> Info Center	0 nsf	500 nsf	500 nsf
<sup>N</sup> Division / Faculty Offices	0 nsf	3,000 nsf	3,000 nsf
<sup>N</sup> Health Professions	0 nsf	21,000 nsf	21,000 nsf
<b>Total</b>			<b>70,500 nsf</b>

Legend:

Proposed program areas are per V1.6. Programs without a symbol, or with an <sup>N</sup> symbol are specifically referenced in V1.6.

<sup>N</sup> Programs with this symbol are NEW Rock Creek programs referenced in V1.6.

◆ Programs with this symbol were not noted in V1.6, but were included in the overall scope discussion during the campus planning process (Spring 2010)

**TOTAL PROJECTED PROGRAM EXPANSION (NET) 70,500 nsf**

**AVAILABLE AREA ALLOCATION CALCULATION**

<b>TOTAL AVAILABLE NEW CONSTRUCTION AREA (NET) - (Building 7 Addition (Net) + Building 5 Addition (Net))</b>	<b>81,000 nsf</b>
<b>TOTAL BUILDING 7 AREA TO BE REPLACED (NET)</b>	<b>7,600 nsf</b>
<b>TOTAL BUILDING 5 AREA TO BE REPLACED (NET)</b>	<b>15,700 nsf</b>
<b>TOTAL PROJECTED PROGRAM EXPANSION (NET)</b>	<b>70,500 nsf</b>
	<b>-12,800 nsf</b>
<b>CAMPUS-WIDE AREA DEFICIT (NET)</b>	<b>-12,800 nsf</b>