Pool Funding Process

Pool Funding Process

Spring 2013

- Databases & Comps
- Cost Review Process
- Cost Overrun Process
- Trends

Pool Funding Timeline

Need Established In PB

Legislative Process

Pools Established

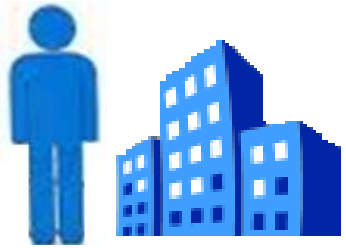
Cost Target Est. @ Det. Plng.

Schematic Design

Cost Target Conf. @ Schematic

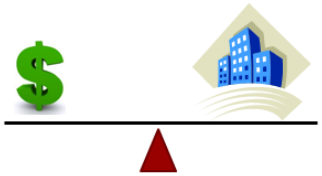
Preliminary Design

Project Funding Authorized

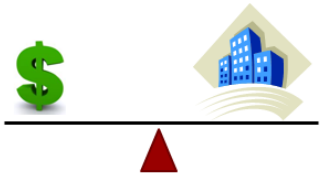


TIMELINE

Cost Review



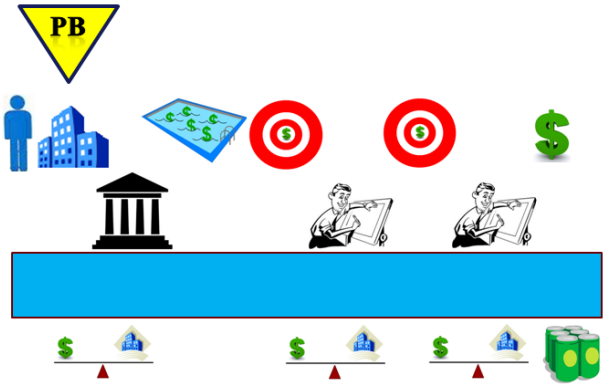
Cost Review



Cost Review

6-PAC Acts to Fund Proj.

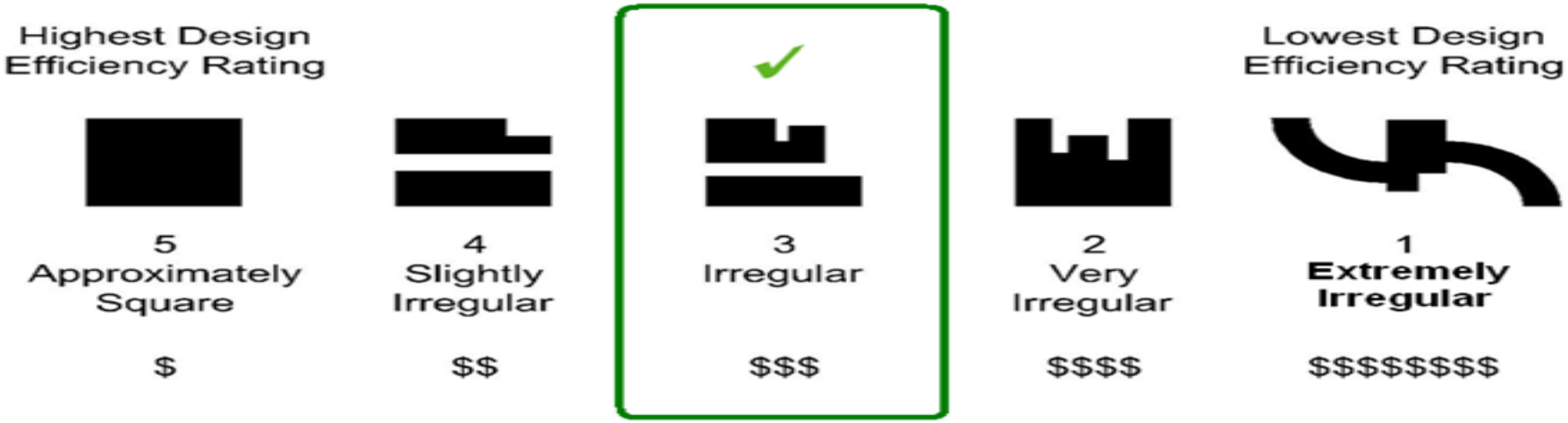
Pool Project
Construction Cost Target



A summary of the **Virginia Building Construction Cost Database** is located on BCOM's web site and contains average construction costs (Equal to a Design Efficiency Rating of 3) for various building types. Project costs that differ significantly from the amounts in the database require justification for the variance in the Project Narrative.

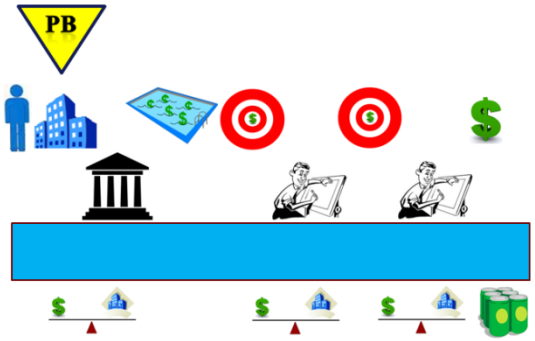
The intent of the Pool Process is to encourage the best balance between design and cost.

Design Efficiency Rating:



Free Databases

- BCOM:



CCD

VIRGINIA BUILDING CONSTRUCTION COST DATABASE

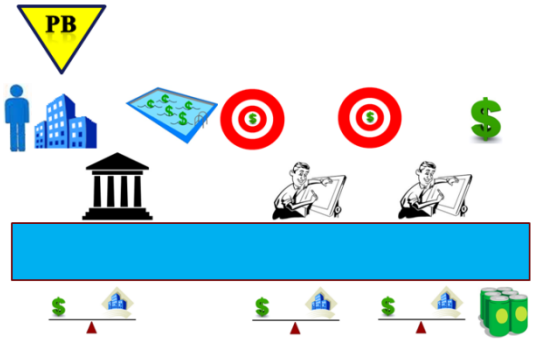
2/1/12

Groupings of building types are approximate and there is overlap. Prices reflect the average cost per square foot for construction set to Richmond Virginia, January 2012. Prices also include utilities and sitework where applicable.

Not every building type is represented in this database. However, this database is continually being updated and new building types are added as needed. Deviation in cost from previous years is a result of market shift, a change in the number of comps making-up the average, or both.

	$/SF	BUILDING TYPE	
		CLASSROOM BUILDINGS:	
	$232	New CR Bldgs	
	$27	Ren - CR - Finishes Only	
	$53	Ren - CR - L	
	$86	Ren - CR - M	
	$120	Ren - CR - H	
LABS		**DRY LABS: Physics Buildings, Engineering Buildings:**	
	$232	New Dry Labs - L	
	$249	New Dry Labs - M	
	$280	New Dry Labs - H	
	$237	New Dry Lab - Automotive	
	$75	Ren Dry Lab - L	Some partitions and ceiling
	$110	Ren Dry Lab - M	Some partitions, ceiling, and HVAC dist.
	$168	Ren Dry Lab - H	Shell completion, and HVAC replacement
LABS		**WET LABS: Chemistry Buildings, Biology Buildings**	
	$247	New Wet Labs - M	
	$350	New Wet Labs - H	
	$222	Ren Wet Labs	

Cost Data Collection



1. Pool Projects utilize GC Pay; a web-based pay-application form processor.
2. GC Pay mirrors Form CO-12 Schedule of Values and Certificate for Payment.
3. Form CO-12 uses Uniformat II cost structure
4. Uniformat II is organized into systems rather than materials.
5. System costs from GC Pay are fed into the Virginia Building Construction Cost Database.

GCPay.com

CCD **VIRGINIA BUILDING CONSTRUCTION COST DATABASE**

2/1/12

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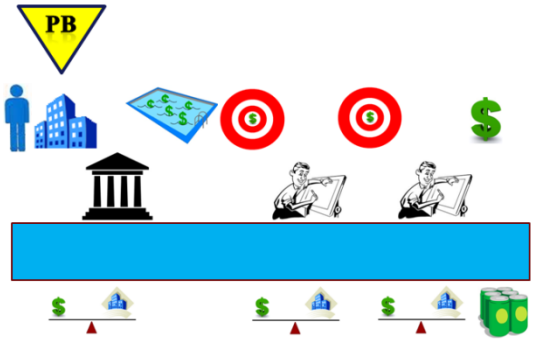
Substantiating Cost

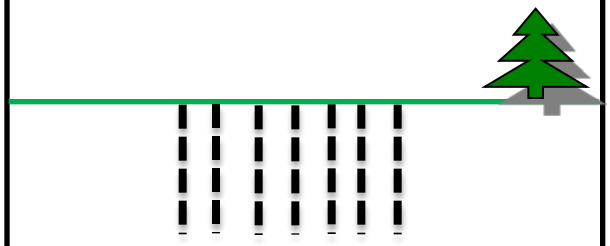


A.)

$232 Average Cost For Building Type

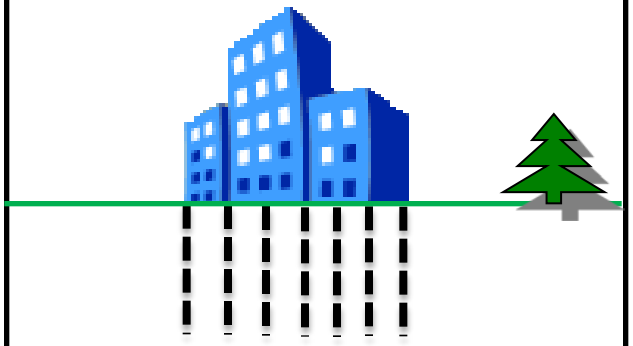
+ B.)

$50 For Unique Site Requirements

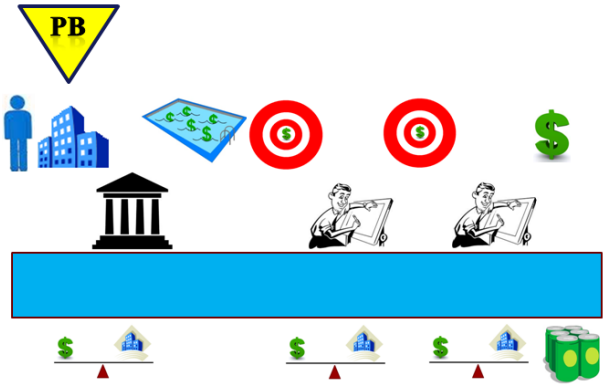


= C.)

$282 Justified Request Over Average



C-1 / S-1 Comps Table



Complete This Table For Building & Built-in Equipment Budgets Developed Using Comparative Projects

		Comparative Project		
PROJECT		**#1**	**#2**	**#3**
a.	Project title:	Great Hall	Awesome Hall	Stupendous Hall
b.	Owner:	Smart College	Intelligent University	Genious School
c.	Project location:	Richmond, Virginia	Alexandria, Virginia	Norfolk, Virginia
d.	Construction contract award date:	1/1/2008	1/1/2006	1/1/2006
COMPARATIVE PROJECT SCOPE				
e.	Gross area (GSF):	48,000	52,000	50,000
f.	Key quantity (i.e., # of beds, cells, spaces, ...):	1	1	1
COMPARATIVE PROJECT COST				
g.	Construction contract award amount:	12,000,000	13,000,000	14,000,000
h.	Building & built-in equipment amount:	10,000,000	11,000,000	12,000,000
i.	Building & built-in equipment cost/GSF (h/e) :	208.33	211.54	240.00
j.	*Proposed project's gross area:*	50,000	50,000	50,000
k.	**Subtotal cost, adjusted for size (i x j):**	10,416,667	10,576,923	12,000,000
l.	Escalation to proposed construction bid date:	1,367,708	1,798,077	720,000
m.	**Subtotal, adjusted for escalation (k + l) :**	11,784,375	12,375,000	12,720,000
n.	Other cost adjustments. Describe in (p) below:	1,500,000	1,000,000	1,000,000
		1, 2, & 3	2 & 3	2 & 3
o.	**Total comparative cost (m + n):**	13,284,375	13,375,000	13,720,000

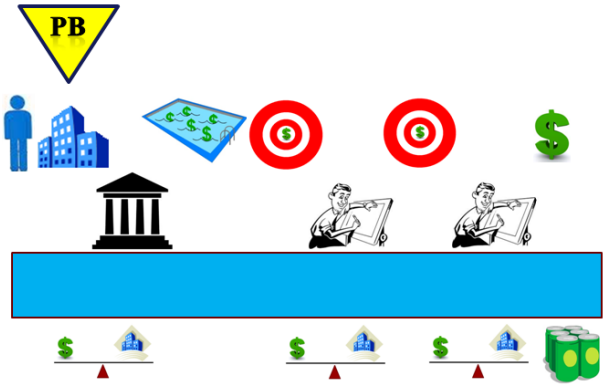
p. Itemize adjustments (plus or minus) to the comparative project's building & built-in equip't cost to make it comparable in scope, location, complexity, etc. to the proposed project.

#1	Upgrade HVAC to gas / VAV / 4-Pipe / Chillers: $500,000
#2	Add piles: $500,000
#3	Demolish existing building: $500,000

Free Databases

- Tradeline:

  http://www.tradelineinc.com/projectprofiles/



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Click Here to Browse the Database by Month/Year

Owner or project name:

Owner: Any Owner

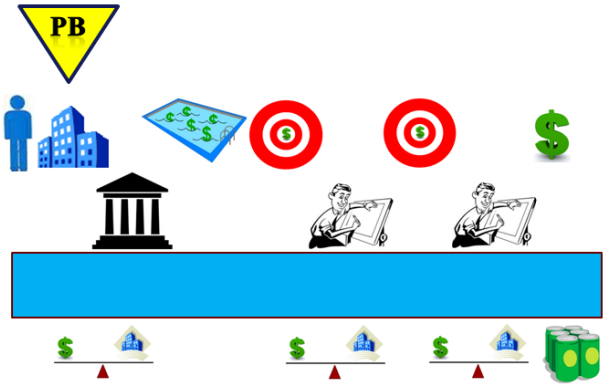
Project Type: Any Type

Delivery Method: Any Method

Type of Building:
Any Type
ACADEMIC MEDICAL CENTER (8)
AIRPORT (6)
ANIMAL HOSPITAL (5)
APARTMENTS (2)

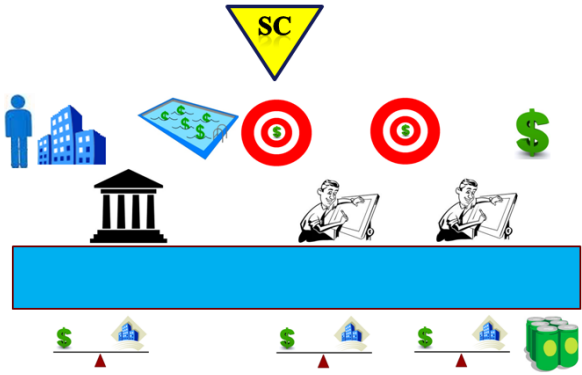
Project Location:
Any State or Unknown State
AK
AL
AR
AZ

Expanded Comp Query From BITS



Description	Escalated Construction $/SF	Escalated Project $/SF	Original Construction Cost	Original Project Cost
NEW CONST: SCHOOL OF BUSINESS (CM)	$310.97	$383.58	$31,749,628	$39,162,604
IMP: RENOVATION & EXPANSION OF MILLINGTON HALL (CM)	$322.35	$409.15	$42,800,000	$54,325,000
TCC - VA BEACH - BUILDING PHASE - CONSTRUCT PHASE 1 (CM)	$330.73	$525.53	$19,706,303	$31,313,485
INFORMATION AND TECHNOLOGY CONVERGENCE CTR - CONST (DETAILED PLANNING ONLY) (CM)	$336.18	$449.69	$25,698,255	$34,375,498
IMP: RENOVATION & EXPANSION OF MILLINGTON HALL (CM)	$338.93	$488.99	$45,000,456	$64,925,000
CONSTRUCTION MANAGEMENT,				

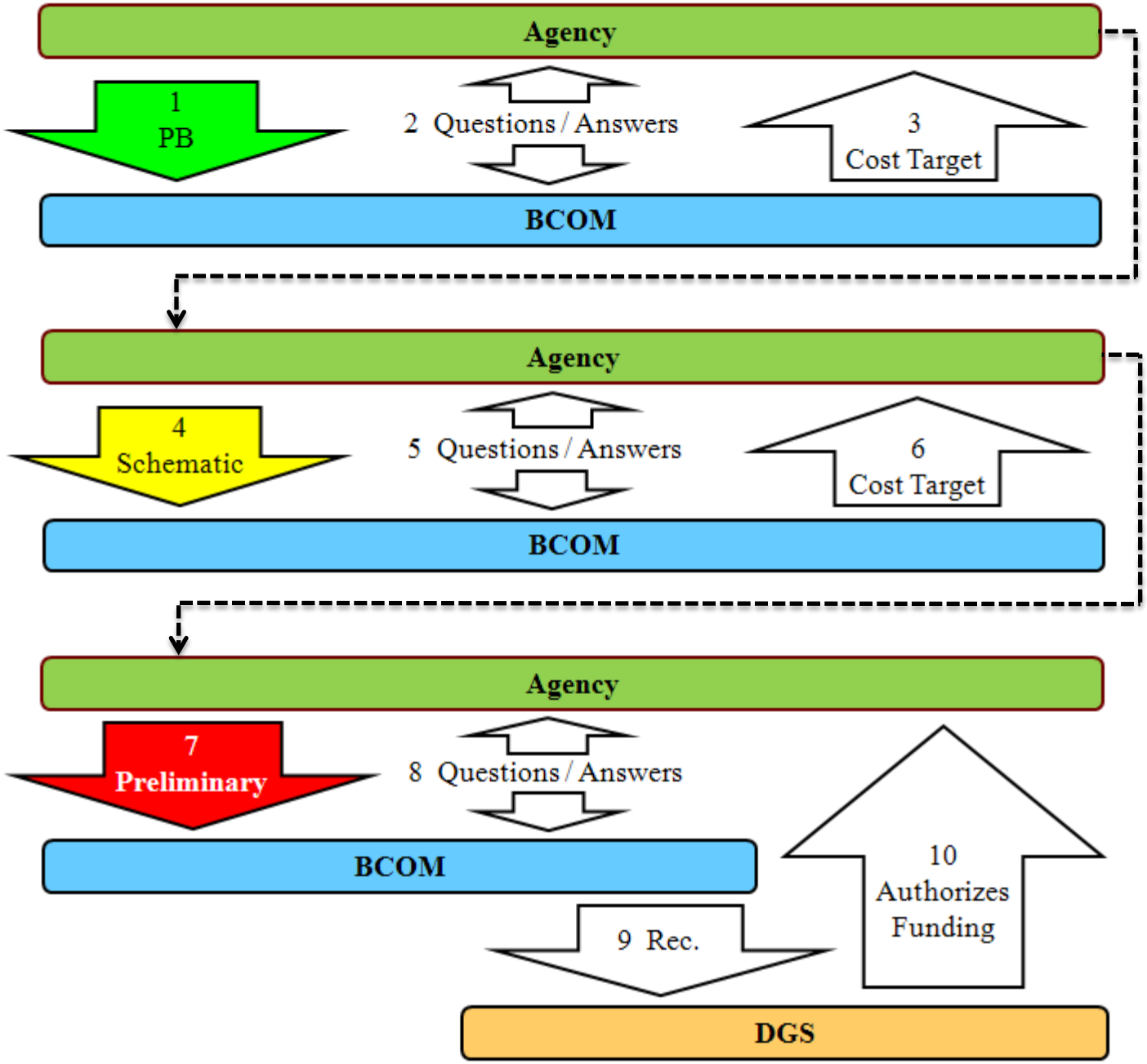
Pool Project Submittal Requirements



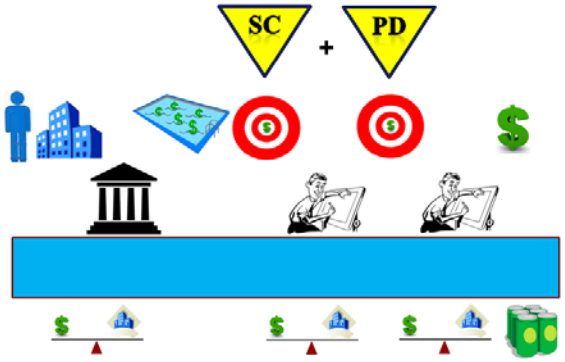
Pool Project Submittal Requirements: (For Capital projects, that are funded whole or in-part, by Pool funds)					
Phase	**A/E Cost Estimate ***	**CR-2 Form DGS-30-198 Cost Review Questionnaire ***	**Drawings & Project Narrative ***	**Independent Cost Estimate ***	**VE Study or CM Value Analysis ***
Schematic	✓	✓	✓		
Preliminary	✓	✓	✓	✓	✓

* As required by CPSM (2004: 806.0 & 807.0, 2012: 5.6 & 5.7)

Pool Project Funding Process



CR-2 Questionnaire



PROJECT BUDGET

	Project Budget
Site Acquisition	-
Building	8,279,500
Sitework	370,306
Construction	**$ 8,649,806**
Design & Related Services	920,345
Inspection & Testing Services	180,000
Project Management & Other Costs	609,700
Furnishings & Movable Equipment (FF&E)	1,285,000
Construction Contingency	220,149
TOTAL PROJECT BUDGET	**$ 11,865,000**

2.5%

Detail Break-outs: (Typ.)

PROJECT FUNDS

A.)	**Total Project Cost**	11,865,000
B.)	**Non-Pool Funds Secured By Agency**	-
D.)	**Planning Funds Already Received From Chapter 1**	948,700
G.)	**Net Amount Requested From VPBA / VCBA Construction Pool:**	**$ 10,916,300**
H.)	**Agency Reimbursement**	-

C, E, and F not used to synchronize with Funding Report

Design & Related Services

A/E Basic Services	620,345
A/E Additional Services	80,000
A/E Reimbursables	10,000
Specialty Consultants (Food Services, Acoustics, etc.)	60,000
CM Design Phase Services	35,000
Subsurface Investigation (Geotech, Soil Borings)	10,000
Land Survey	20,000
Archeological Survey	10,000
Hazmat Survey & Design	50,000
Value Engineering Services	15,000
Cost Estimating Services	10,000
Other Design & Related Services (list):	-
	-
	-
Design & Related Services Total	920,345

PROJECT SCOPE

New Construction (sf)	1,500
Renovation (sf)	23,000
Total Scope	**$ 24,500**

Renovation Level

Heavy

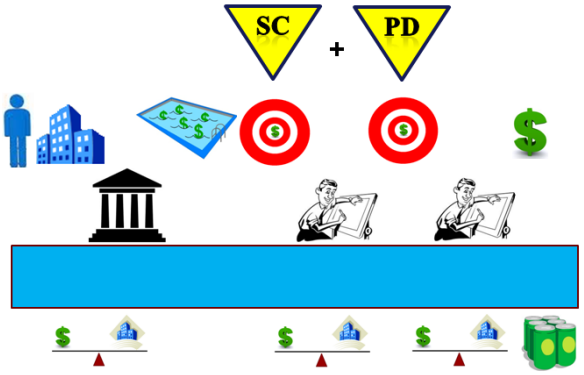
PROJECT DELIVERY METHOD

CM at Risk

PROJECT SCHEDULE

Start of Construction (enter date)	4/1/14
Length of Construction Period (in months)	10.0
Date of Mid-Point of Construction	**8/31/14**

Uniformat Estimating Spreadsheet



http://www.uniformat.com/index.php/component/hikashop/product/1-astm-e1557-uniformat-ii-excel-elemental-estimating-spreadsheet-

UNIFORMAT II

Improving Building Investment Performance

ASTM E1557 UNIFORMAT II Excel Elemental Estimating Spreadsheet

$99.95 each

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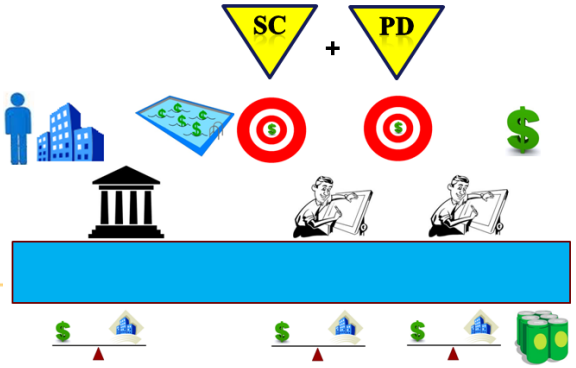
RS Means' Example of Uniformat II Cost-Structure

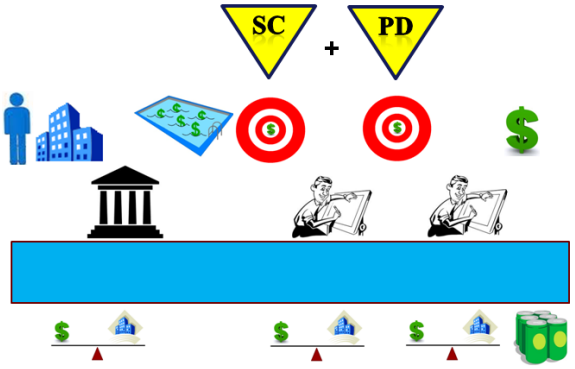


Square Foot Cost Estimate Report

Estimate Name:	Tall Hall Tall U. 1 U Place , Richmond , Virginia , 23219
Building Type:	College, Classroom, 2-3 Story with Face Brick with Concrete Block Back-up / Bearing Walls
Location:	RICHMOND, VA
Story Count:	3
Story Height (L.F.):	12
Floor Area (S.F.):	50,000
Labor Type:	OPN
Included:	No
Data Release:	Year 2012
Foot:	$198.25
Building Cost:	$9,912,500.00

	% of Total	Cost Per S.F.	Cost
A Substructure	3.92%	$6.22	$311,000
B Shell	18.68%	$29.63	$1,481,500
C Interiors	19.83%	$31.45	$1,572,500
D Services	38.53%	$61.11	$3,055,500
E Equipment & Furnishings	22.52%	$35.72	$1,786,000
F Special Construction	0%	$0.00	$0
G Building Sitework	0%	$0.00	$0
SubTotal	100%	$158.60	$7,930,000
Contractor Fees (General Conditions,Overhead,Profit)	25.00%	$39.65	$1,982,500
Total Building Cost		$198.25	$9,912,500

Form DGS-30-224 (BCS) Example of Uniformat II Cost-Structure



LEVEL I COST SUMMARY

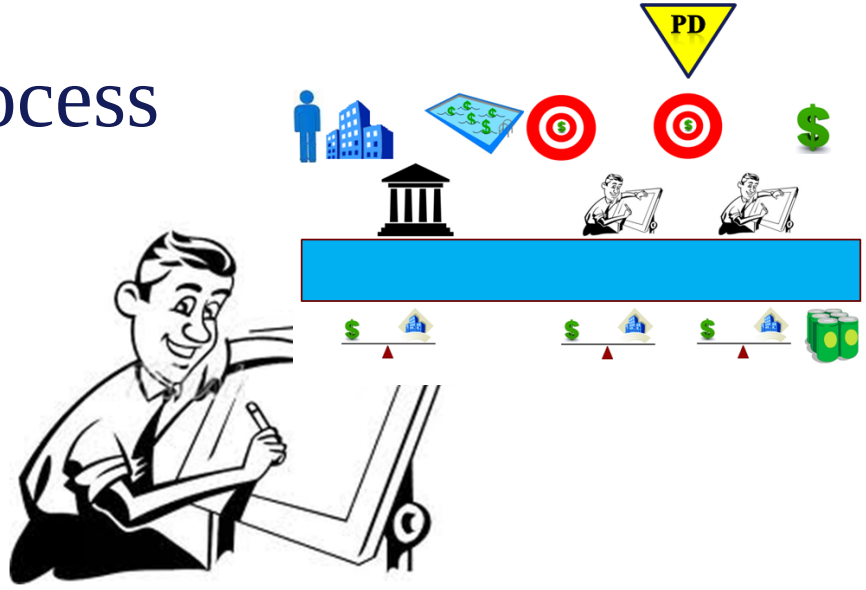
Building Element	Cost	Cost *	As % of Building Cost *	Cost Per Gross Sq. Ft.	Cost Per Gross Sq. Ft. *
A Substructure	$ 600,000	$ 648,598	3.8%	$ 5.71	$ 6.18
B Shell	$ 3,200,000	$ 3,459,190	20.3%	$ 30.48	$ 32.94
C Interiors	$ 4,200,000	$ 4,540,187	26.7%	$ 40.00	$ 43.24
D Services	$ 6,900,000	$ 7,458,879	43.9%	$ 65.71	$ 71.04
E Equipment & Furnishings	$ 600,000	$ 648,598	3.8%	$ 5.71	$ 6.18
F Special Construction & Demolition	$ 235,000	$ 254,034	1.5%	$ 2.24	$ 2.42
SUBTOTAL BUILDING COST	**$ 15,735,000**	**$ 17,009,486**	**100.0%**	**$ 149.86**	**$ 162.00**
G Sitework & Utilities	$ 315,000	$ 340,514	2.0%	$ 3.00	$ 3.24
Z General Requirements and OH&P	$ 1,300,000	incl'd above		$ 12.38	incl'd above
TOTAL CONSTRUCTION COST	**$ 17,350,000**	**$ 17,350,000**		**$ 165.24**	**$ 165.24**

* - Includes prorata share of General Requirements and OH&P.

- A – G are expanded in the form to allow for more detail.

Pool Project Cost-Overrun Process

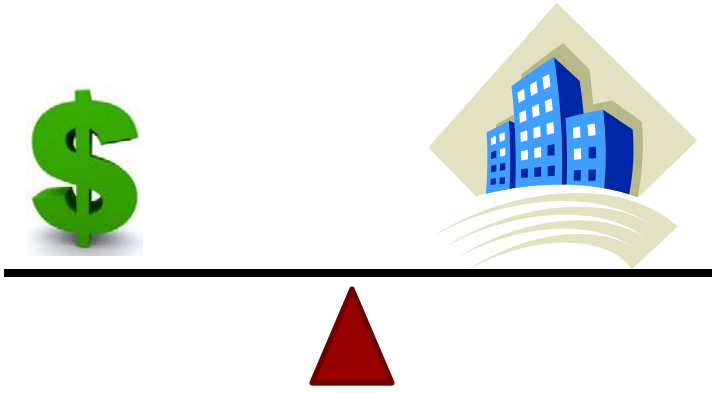
Project Over Budget



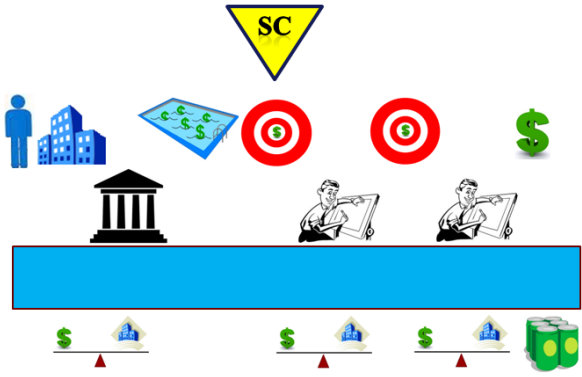
VE / Reduce Extent / Scope

Add Funds From:

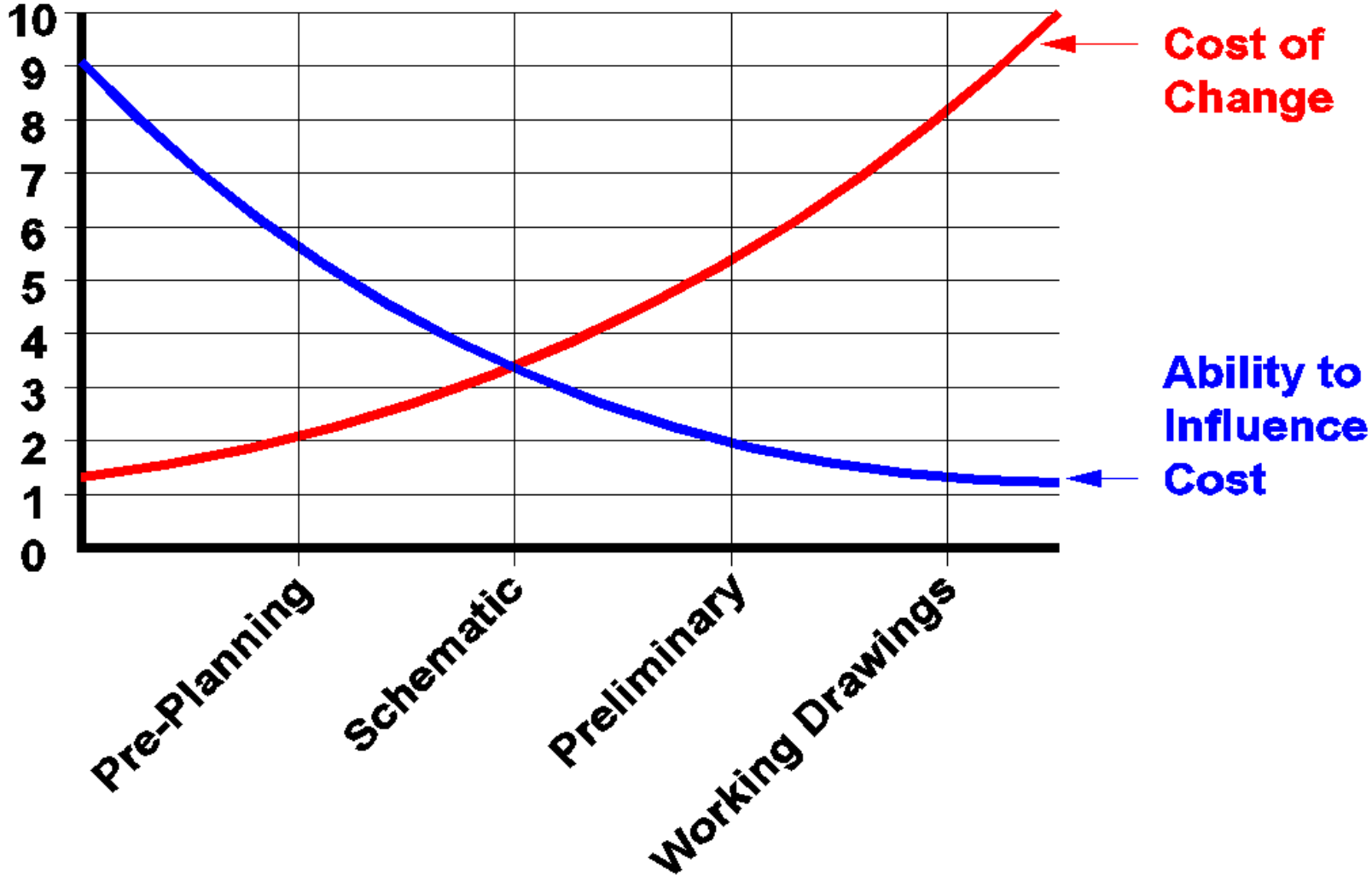
- Agency
- Legislature
- Pool



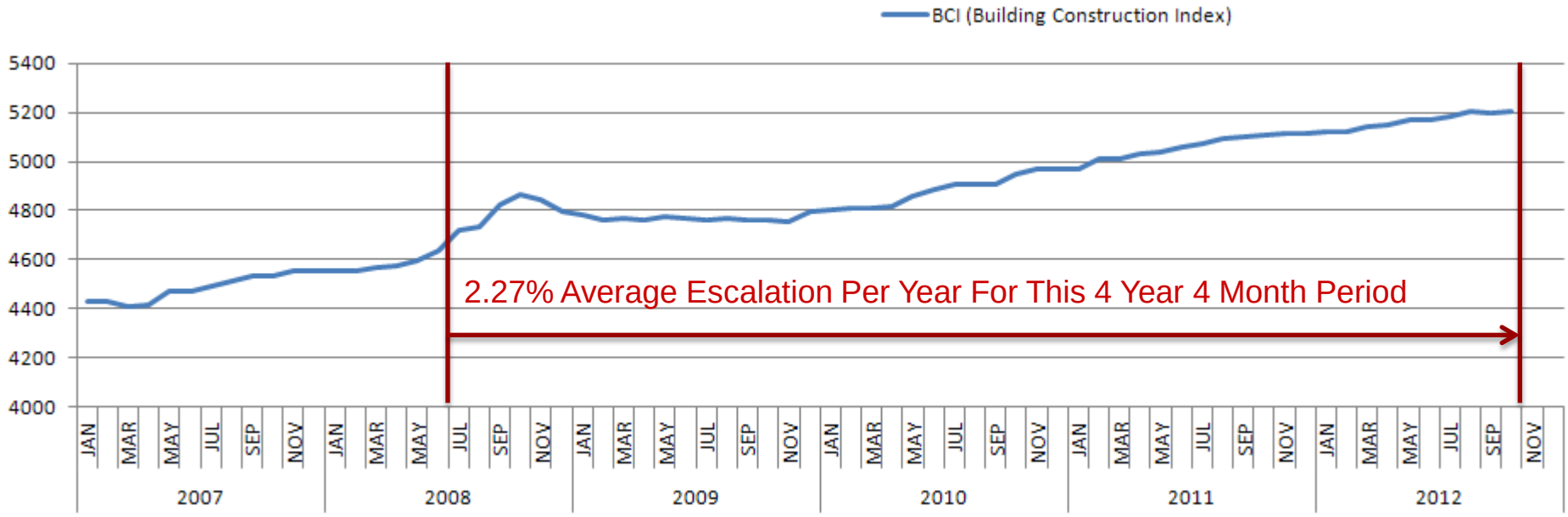
Balanced Budget



IMPORTANCE OF SCHEMATIC COST REVIEW



National Construction Trend: Building Construction Index (BCI)



The BCI is a composite of skilled labor hours for various trades plus a fixed amount of common building materials spread over twenty cities.

Pool Formation:

Competition in Virginia
Remains High