Budgeting and Cost Management of the General Services Administration's Capital Construction Program

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Symposium on Capital Project Cost Estimation

Montgomery County, Maryland

Public Buildings Service

GSA General Services Administration

Federal Building
San Francisco, CA

Agenda

- Strategies to Contain Costs

- Causes of Cost Increases

- Capital Project Process

U.S. Customs and Immigration
Center at Rainbow Bridge
Niagara Falls, NY

# Strategies to Contain Costs

- Cost Management Policy
- Programming Phase
- Design Phase
- Construction Phase
- Project Completion

U.S. Census
Bowie, MD

Handbook P120

- Available on the Whole Building Design Guide website

- Requires estimates in CSI format and in Uniformat
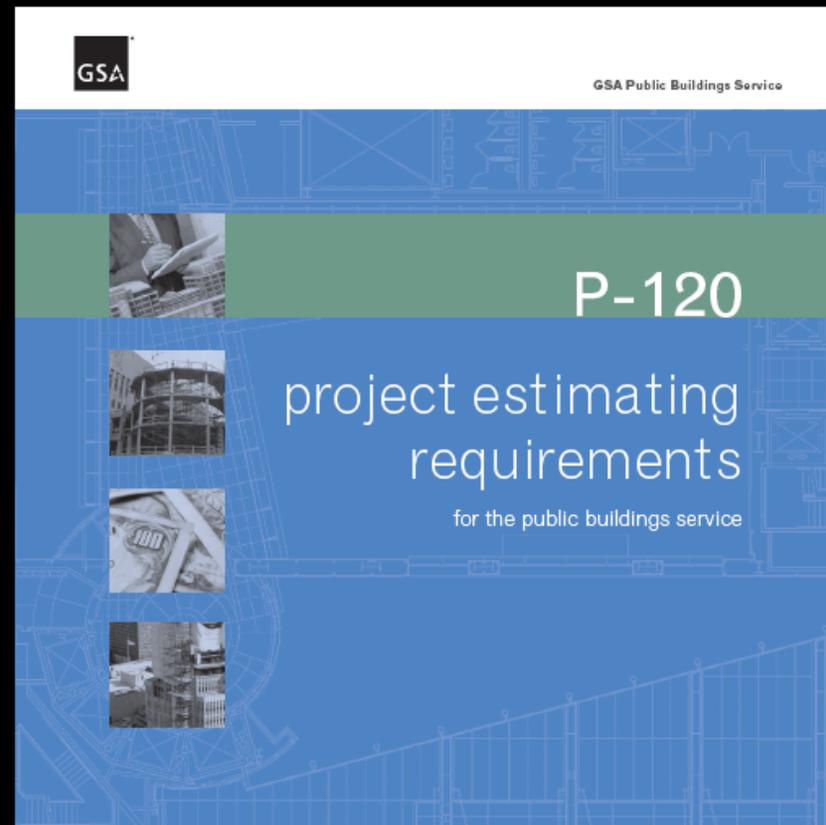
http://www.wbdg.org/ccb/browse_org.php?o=35

Strategies to Contain Costs

- **Programming Phase**
  - Develop Proper Budget
  - Develop Cost Plan
  - Feasibility Studies
  - Program Development Studies

- **Design Phase**
  - Assess Market Conditions
  - Escalation Analysis
  - Risk Management
  - Contingency Management
  - Assess cost estimates w/ scope, expectations, quality and budget.
  - Estimate at Concepts, DD, CD

U.S. Courthouse
Austin, TX

Strategies to Contain Costs

- ## Construction Phase
  - Bid Analysis
  - Change order management
  - Schedule management
  - Construction Peer Review

- ## Project Completion
  - Benchmark project data
  - Develop lessons learned

Causes for Cost Increases

- Poor Budgeting
- Scope creep
- Optimistic design assumptions
- Procurement method
- Local/national market factors
  - Cutting edge design, Federal mandates, Constructing in small, remote markets
- Material price increases
- Availability of skilled labor
- Time between budget and construction
- Owner / designer reputation in the market place

U.S. Courthouse Annex
Washington, DC

Port of Entry
Raymond, MT

FEDERAL
COURTHOUSE
PROGRAM
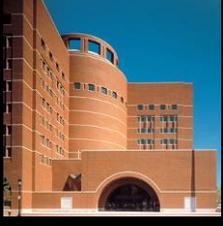
FEDERAL COURTHOUSE PROGRAM

- Beginning in 1990 the courthouse program included approximately 200 federal courthouses or annexes

- From that list 175 new courthouse projects were identified

U.S. Courthouse
Eugene, OR

THE FEDERAL COURTHOUSE PROGRAM

- 61 projects have been completed

- 10 projects are under construction

- 4 have been funded for construction

- 15 have received site/design funding

- 85 projects are yet to be funded

- Over a $12 Billion program
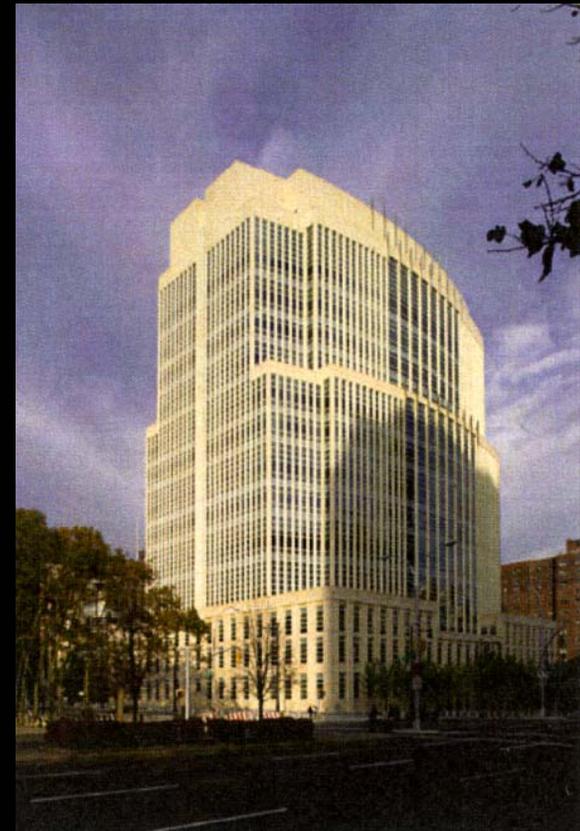
U.S. Courthouse
Brooklyn, NY

FUNDED COURTHOUSE PROGRAM

S/D Funded

- Norfolk, VA
- Anniston, AL
- Charlotte, NC
- Greenville, SC
- Toledo, OH
- Harrisburg, PA
- San Antonio, TX
- San Jose, CA

In Design

- Austin, TX
- Salt Lake City , UT
- Savannah, GA
- Mobile, AL
- Cedar Rapids, IA
- Nashville, TN

Const. Funded

- Fort Pierce, FL
- Los Angeles, CA
- San Diego, CA
- Jefferson City, MO

In Construction

- Las Cruces, NM
- El Paso, TX
- Richmond, VA
- Springfield, MA
- Little Rock, AR
- Cape Girardeau, MO
- Miami, FL
- Buffalo, NY
- Jackson, MS
- Rockford, IL

Harrisburg, PA

U.S. Courthouse
Austin, TX

U.S. Courthouse
Fort Pierce, FL

U.S. Courthouse
Springfield, MA

BENCHMARK FORMULA
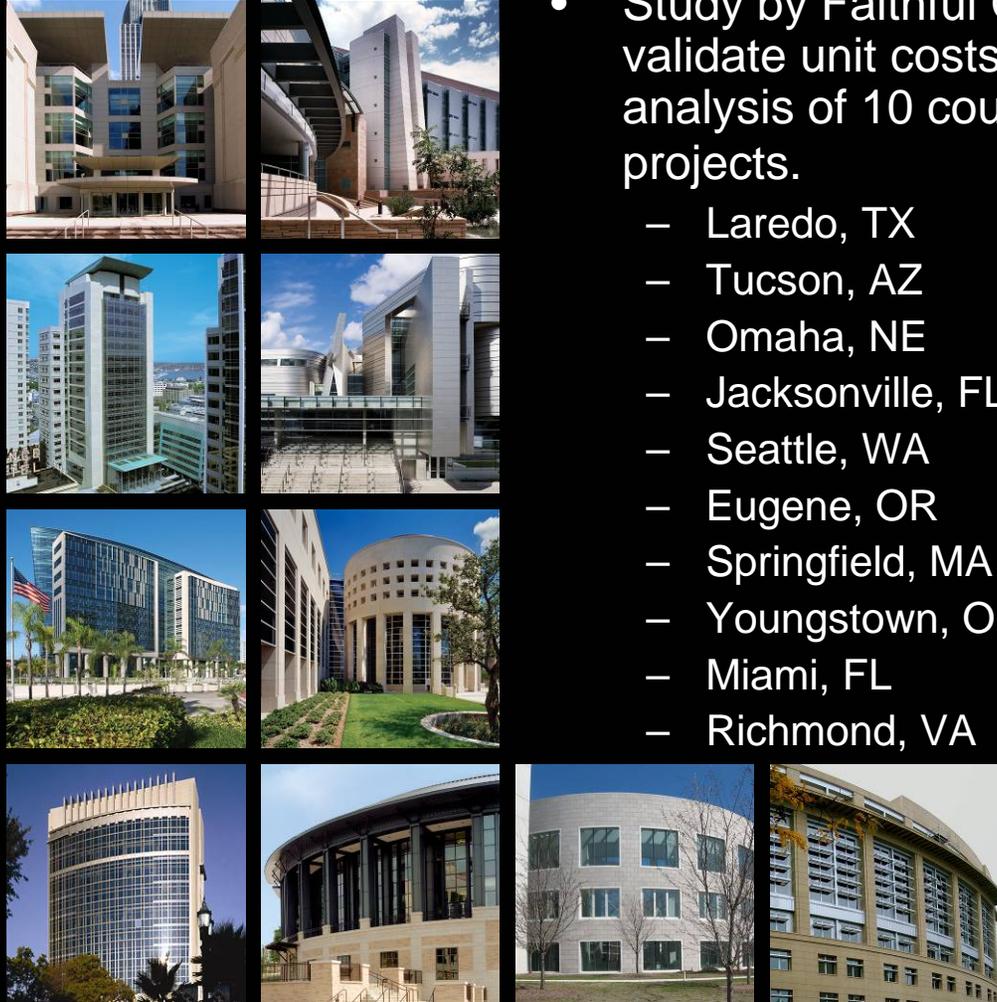
- Study by Faithful Gould to validate unit costs based on analysis of 10 courthouse projects.
    - Laredo, TX
    - Tucson, AZ
    - Omaha, NE
    - Jacksonville, FL
    - Seattle, WA
    - Eugene, OR
    - Springfield, MA
    - Youngstown, OH
    - Miami, FL
    - Richmond, VA

Benchmark Budgets

- **Gross square feet**
- **Parking spaces**
- **Building height**
- **Locality**
- **Seismic factor**
- **Escalation (period/$)**
- **Courtrooms/Chambers**
  - **Number**
  - **Type**
- **USMS "hardened space"**
- **Add-ons**

U.S. Courthouse
Jackson, MS

Wash DC Benchmark Study rates
BENCHMARK CALCULATION

Area w/o parking 225,000 parking stalls 100 parking area 40,000 Total GSF 265,000

UNIT COST LOCATION MODIFIERS: | ESCALATION TO AWARD
Highrise: 1 locality 1.00 seismic 1 | (yrs. from 10/02: 0.00 rate: 2.70% Resultant: 1

SPACE TYPE CALCULATION

	Special	District	Magistrate	Bankruptcy	Gross Area	C/S	T/I	C/S	T/I
Courtrooms-	1	7	4	2	45,668	$184	$129	$8,402,912	$5,891,172
Chambers	1	7	4	2	38,460	$184	$74	$7,076,640	$2,846,040
USMS Detention Area (50%of USF)*					7,500	$184	$124	$1,380,000	$930,000
General Office Occupancy:					133,372	$184	$46	$24,540,448	$6,135,112
Parking						$97	$0	$3,880,000	$0

Courtroom Furniture Audio Equipment @ $56,800 per courtroom $795,200
USMS Facilities Management Electronics Package @ $2.00/GSF 2000 $ $450,000

USMS console $215,000 Add-ons

TOTALS $45,495,000 $17,047,524

PROJECT BUDGET
ECCA: $62,542,524
Estimated Cost of Construction $65,669,650
Design: $0
Site $0
Management_Inspection $0
Total Project Costs $65,669,650

Add-ons Detail: Provide "Add-ons" breakout based on 1999 local pricing including construction contingency. (for RA work add 2% construction contingency)

CMG Director:

Budgeting Process
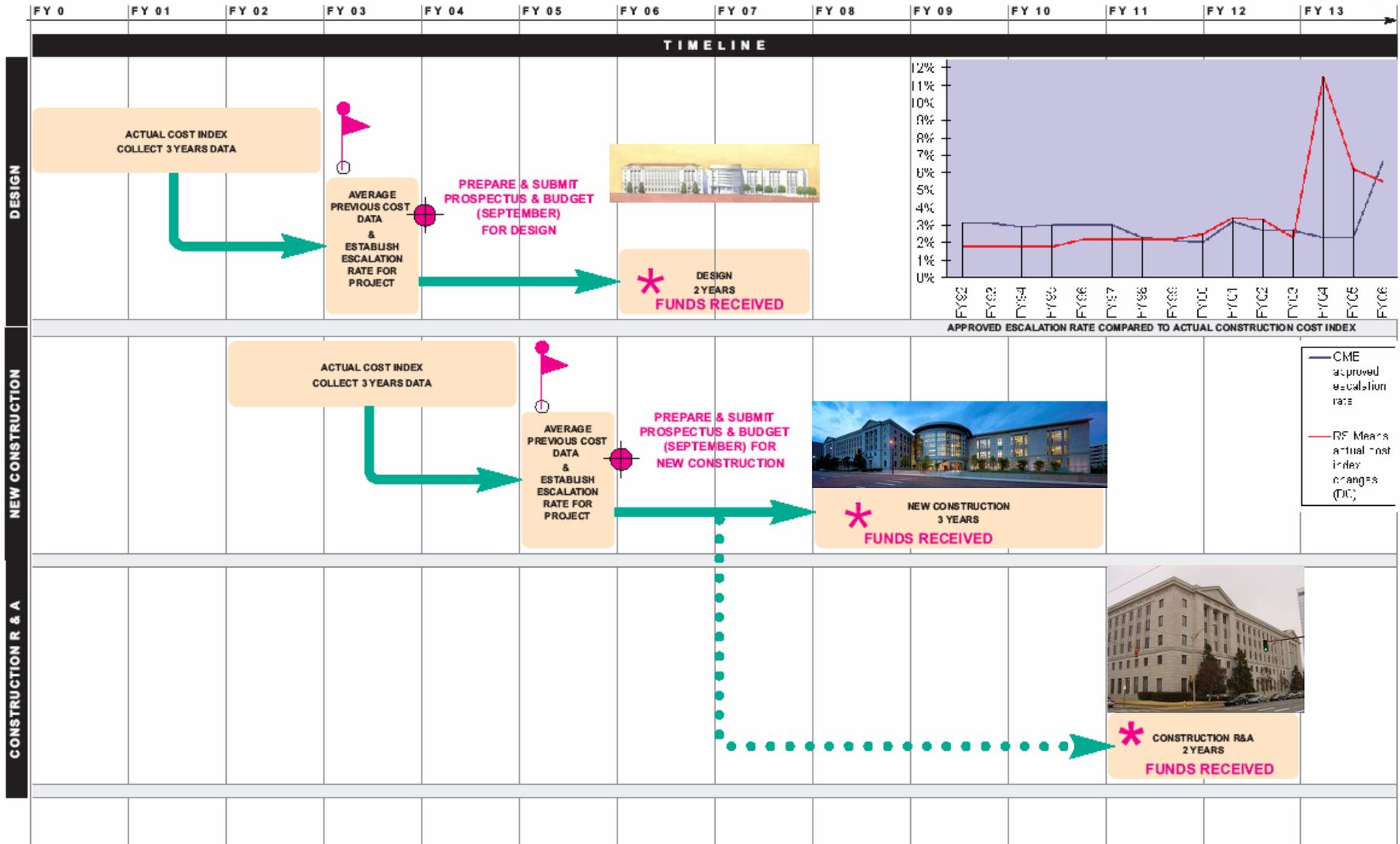
# Cost Management Initiatives

- Workshop held for the San Diego Courthouse, Fall 2007

- Project specific and National suggestions resulted


U.S. Courthouse
San Diego, CA

Planning Phase

- Maintain up to date budgeting formula "Benchmark"

- Conduct thorough Feasibility Studies
  - Alternative housing schemes
  - Initial site investigations

GSA General Services Administration

COURTHOUSE PROJECT
FEASIBILITY STUDY GUIDE
Center for Courthouse Programs
Office of Chief Architect
Public Buildings Service

March 2006 (DRAFT)

COURTSWEB

Harrisburg, PA
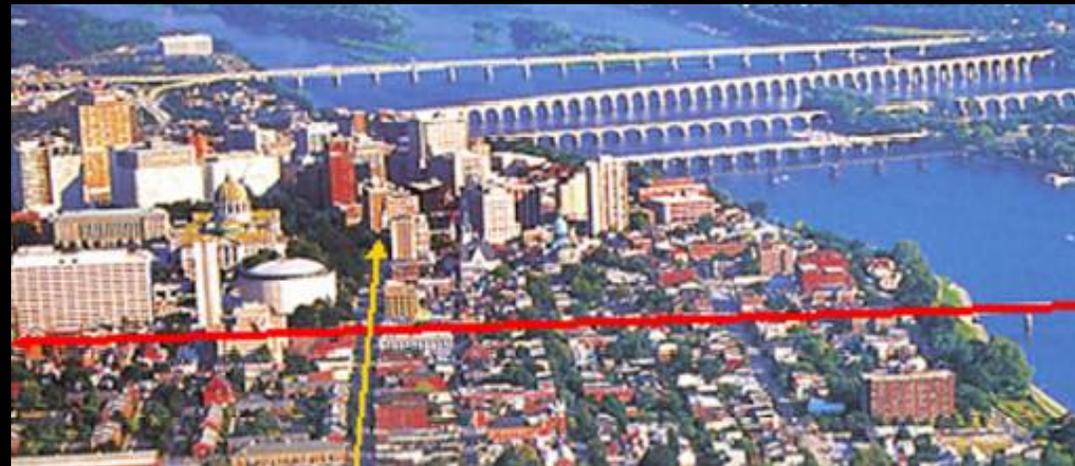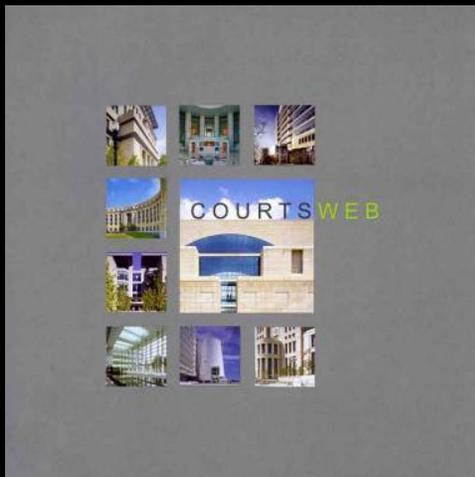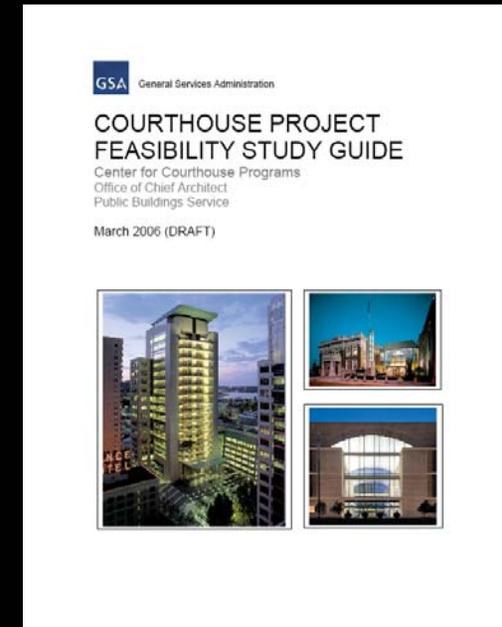
Design Phase

- Conduct independent confirmation of building size and cost

- Utilize BIM technologies

- Provide constructability reviews by GSA's construction peers

- Consider all Division 0/1 requirements negotiable, and eliminate unnecessary cost drivers (e.g., cost-loaded CPM schedules, prescribed staffing (e.g., environmental waste manager).

- Utilize the services of a CMc to work with the team in the completion of the design and construction of the courthouse
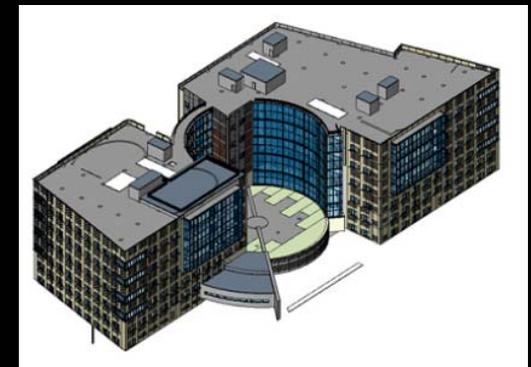

U.S. Courthouse
Jackson, MS

U.S. Courthouse
Miami, FL

Design Phase

- Simplify design features and avoid custom proprietary elements

- Increase competition by eliminating non-critical federal mandates and policies

- Utilize construction peers during the design phase

- Conduct market surveys to more accurately establish escalation rates and unique location factors

- Conduct contractor out-reach

- Meet with the AGC and potential construction firms to seek advice and to encourage pursuit of the project

U.S. Courthouse
Jackson, MS

U.S. Courthouse
Miami, FL

Construction Phase

- Do not begin procurement until full and adequate funding is made available

- Develop and enhance sense of timing to better determine when to solicit construction projects.

- Encourage an OPEN BOOK process.

- Convert to performance based specifications where possible

- Bonuses and profit sharing are well received by the Contractors. It's interpreted that the client values what the Contractor brings.

- Reduce contractors risk

11/27/2007

U.S. Courthouse
Richmond, VA

Construction Phase

- Construction schedules should be slightly aggressive. Long schedules are perceived as risky since it encourages added scope or indecisiveness.

- RFP's need to be concise. If it's too much work Contractors won't bid or may not read the whole RFP and might miss something so they add contingency.

- Important factors to stimulate interest in bidding include reasonable budget and funds available, reasonable competition, a good client.

- Consider "collaborative delivery methods" that are perceived as creating a more equitable allocation of risk between the owner and contractor and more appropriate for a complex capital construction projects.

U.S. Courthouse
Richmond, VA

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Questions

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