



US Army Corps of Engineers



Early Contractor Involvement (ECI)

Seabrook Gate Complex *Pre-Proposal Conference*

August 11, 2009



Agenda

- **Introduction**
- **Project Overview**
- **Solicitation Requirements**
 - Submission Instructions
 - Evaluation Factors
 - Bid Schedule
 - Fixed Price Incentive
- **ECI Overview**
- **Earned Value Management**
- **Break**
- **Questions**



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Logistics and Ground Rules

- Restrooms
- Cafeteria
- Questions



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Project Overview

- **SEABROOK GATE COMPLEX (Proposed Action)**
 - Sector Gate, Two Vertical Lift Gates
 - T-walls, Roadway Gate
 - Safe House, Control Houses, Storage Yards
 - Guide Walls
 - Staging Area
 - Access to site
 - Mobilization Phase - Pile Load Tests, Long Lead Items



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CONCEPTUAL

CONCEPTUAL



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Proposal Submission Instructions

Volume I – Technical Proposal

(Original + 6 copies)

Tab 1 *Technical Experience*

Tab 2 *Construction Approach*

Tab 3 *Past Performance*

Tab 4 *Preconstruction Services Management Plan*

Tab 5 *Small Business Participation Plan*

This proposal shall not exceed 150 pages (or 75 dbl sp)



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Proposal Submission Instructions

VOLUME II. Price Proposal and Pro Forma Requirements

(Original + 2 Copies)

Cover letter

Tab 1 *Price Information*

Tab 2 *Pro Forma Requirements*

Tab 1 Price Information:

- Section 00010 – Completed Bid Schedule
- List of all assumptions for the Options
- Duplicate of Volume I Technical Proposal, Tab 3 *Preconstruction Services Management Plan*
- Duplicate of Volume I Technical Proposal, Tab 2 *Construction Approach*
- Additional Information



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**Proposal Submission Instructions
VOLUME II. Price Proposal and Pro Forma Requirements**

Tab 2 Pro Forma Requirements:

- SF 1442
- Acknowledged amendments
- Representations and Certifications
- Letter of Assurance or Statement of Bonding Capability from the Offeror's Surety
- Bid Guarantee for Base Preconstruction services
- Small Business Subcontracting Plan, if a Large Business
- Joint ventures information



Evaluation Factors

- Factor 1: *Technical Experience*
 - Flood Gate Construction with Complex Levee and Floodwall Tie-Ins
 - Preconstruction Services
 - Local Market Knowledge
- Factor 2: *Construction Approach*
 - Construction Narrative
 - Schedule and Resource Management
 - Quality and Safety Management
- Factor 3: *Past Performance*
 - Quality of Product/Service
 - Customer Satisfaction
 - Adherence to Project Schedules and Budgets
- Factor 4: *Preconstruction Services Management Plan*
 - Staffing Plan
 - Interaction and Communications Plan
 - Schedule Management and Cost Estimating Approach
- Factor 5: *Small Business Participation Plan*
- Factor 6: *Price*

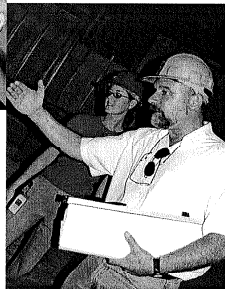
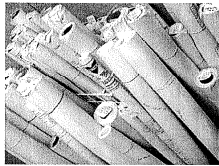
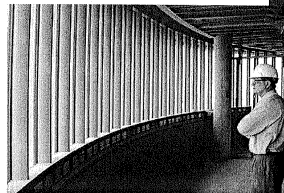


Exec Summary of ECI ***“Early Contractor Involvement”***

- Modeled after Private Sector’s CM@Risk (see AIA/AGC primer)
- Basics
 - “different allocation of risk among parties”
 - Uses FAR 16.403-2 Incentive Price Revision (Successive Targets) to get at private sector model
 - AE selection is by normal procedures (or design can be In-House)
 - Construction Contractor solicitation and award is via RFP / Best Value Source Selection (procured IAW FAR 15 and application of FAR 16.403-2)
 - Fastest of the Fast Track methodologies
 - Vetted through USACE Counsel and the procurement risks/requirements are spelled-out in USACE Chief Counsel opinion
- Observations/Lessons Learned
 - When to use ECI (vice DBB and DB)
 - Key’s to Success (Earlier the Better; KISS)



Primer on **Project Delivery**



Provided by the Joint Committee of

The American Institute of Architects

The Associated General Contractors of America



Terms of Reference

- So, what is the key to Acquisition Strategy Theory?
- “Construction Management at Risk (CM@R),” “Integrated Design-Bid-Build (IDBB),” and “Early Contractor Involvement (ECI)”
- For definition of terms, let’s use Project Delivery Primer, AGC/AIA 2004©



Project Delivery Methods

Defining Characteristics

Delivery Method	Design-Bid-Build	Design-Build	Construction Management at Risk
Defining Characteristics*	1) Three prime players -- owner, designer, builder	1) One contract -- owner to design-build entity	1) Three prime players -- owner, designer, CM@R
	2) Two separate contracts -- owner-designer, owner-builder		2) Two separate contracts -- owner to designer, owner to CM@R
	3) Final contractor selection based on lowest responsible bid or total contract price		3) Final provider selection based on aspects other than total cost

Source: *Primer on Project Delivery*, by Joint Committee of AIA and AGC 2004©



Delivery Method	Design-Bid-Build	Design-Build	Construction Management at Risk
Typical Characteristics*	1) Three linear phases -- design, bid, build	1) Project-by-project basis for establishing and documenting roles	1) Overlapping phases -- design and build (fast track)
	2) Well-established and broadly documented roles	2) Continuous execution of design and construction	2) Hiring of the construction manager during the design phase
	3) Carefully crafted legal and procedural guidelines	3) Overlapping phases -- design and build (fast track)	3) Specific contractual arrangement determines the roles of players
	4) Contract documents that are typically completed in a single package before construction begins, requiring construction-related decisions in advance of actual execution	4) Two prime players -- owner, design-build entity	4) Preconstruction services offered by the constructor (such as constructability review, bid climate development and bid management)
	5) An opportunity for construction planning based on completed documents	5) Carefully crafted legal and procedural guidelines for public owners	5) Clear quality standards produced by the contract's prescriptive specifications
	6) Complete specifications that produce clear quality standards	6) Some construction-related decisions after the start of the project	
	7) Configuration and details of finished product agreed to by all parties before construction begins	7) Overall project planning and scheduling by the design-build entity prior to mobilization (made possible by the single point of responsibility)	
		8) Either cost or solution as the basis for selection of the design-build entity	

Project Delivery Methods

Typical Characteristics

Source: *Primer on Project Delivery*, by Joint Committee of AIA and AGC 2004©



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ECl is...

- A project delivery method where the Corps engages the services of a general contractor to provide “preconstruction services” concurrent with design effort
- The contract includes the Government’s ability to exercise option(s) for the construction
- Contract includes terms and conditions to allocate risk among the parties
- A Fixed Price Incentive contract IAW FAR 16.403



When to Use ECI

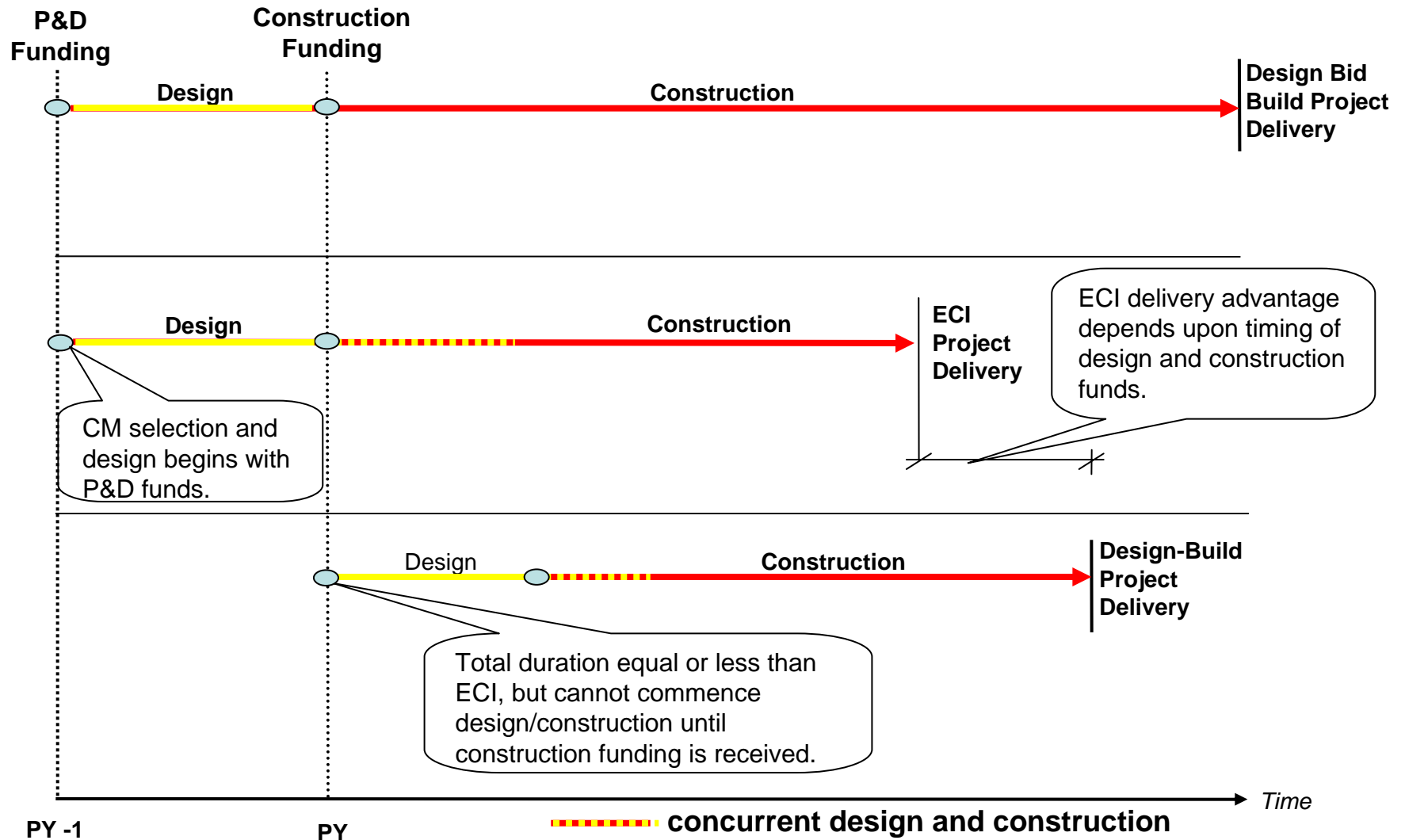
- Challenging site, schedule, or other unique aspects that would benefit with a builder's input during design phase
- Customer wants to provide input/shape design solution during design phase (*"I'll know it when I see it"*)
- When you need/want a collaborative effort during design and construction between Designer, Builder, Owner, User to be assured of project success
- Complex "one of a kind" project, with no standard design



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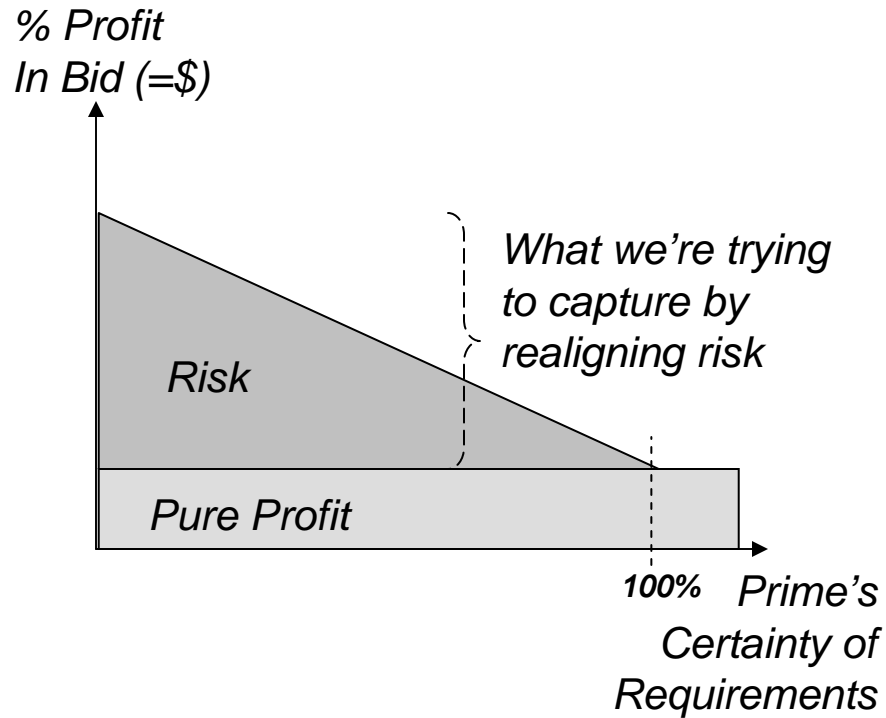


Relative Project Delivery Timelines



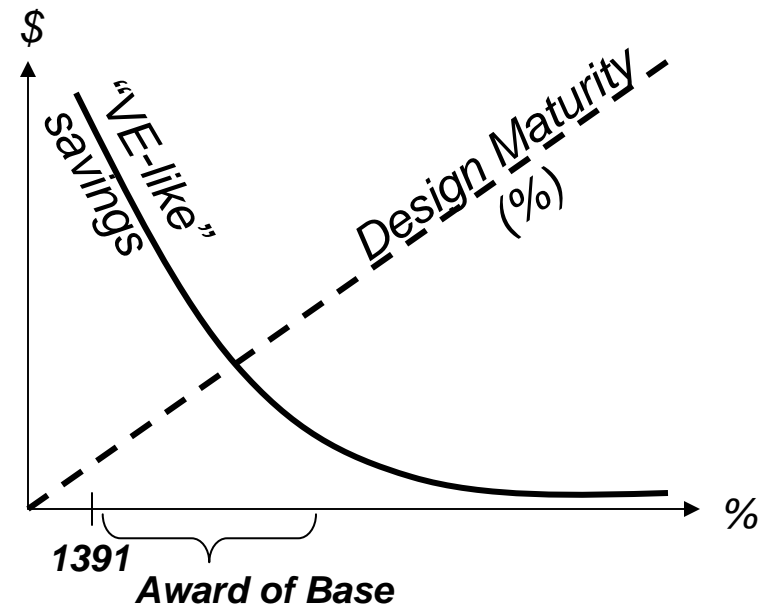
Why Pursue ECI (besides speed)?

“Cheaper” in Two Ways



**Less Risk to Prime =
Savings or Scope for Customer**

**Earlier Prime Contractor Input
Affords Greater Savings**



Typical Bid Schedule

Notes to Offerors

- The Ceiling Price is not to exceed \$181,450,000.00.
- Initial Target Price < Ceiling Price established in FAR 52.216-17.
- The Initial Target Profit Percent must fall in the percent range specified in the Bid Schedule.
- See FAR 52.216-17, Incentive Price Revision – Successive Targets. Items included in the Options (0002, 0003) are subject to price revision in accordance with this clause.
- See FAR 52.216-17, Incentive Price Revision – Successive Targets. The Total Firm Target Profit Percent Range is established by the Government in paragraph (d) (2).
- See FAR 52.216-17, Incentive Price Revision – Successive Targets. The profit adjustment percentage blank in paragraph (d) (2) shall be established during the negotiations of the fixed firm price for all options.

ITEM NO.	SUPPLIES/SERVICES	QTY	UNIT	UNIT PRICE	AMOUNT
0001 BASE	Preconstruction Services (Fixed Firm Price)	1	LS	\$_____	\$_____
0002 OPTION	Mobilization Phase Option Initial Target Cost (Fixed Price Incentive)	1	LS	\$_____	\$_____
0003 OPTION	Construction Phase Option Initial Target Cost (Fixed Price Incentive)	1	LS	\$_____	\$_____
<i>SUBTOTAL</i>	Subtotal Options (0002 + 0003) Initial Target Cost (ITC)	1	LS		\$_____
<i>% PROFIT</i>	Initial Target Profit Percent (Bid Between 2.0% and 7.0%)			_____%	
<i>PROFIT</i>	Initial Target Profit (ITP) (ITP = ITC x Initial Target Profit Percent)	1	LS		\$_____
<i>TOTAL</i>	Initial Target Price (Initial Target Price = 0001 + 0002 + 0003 + ITP) NOT-TO-EXCEED \$181,450,000.00	1	LS		\$_____

Initial Target Price

Initial Target Price < Ceiling Price



Application of the Incentive

Establishing firm fixed price or final profit adjustment formula

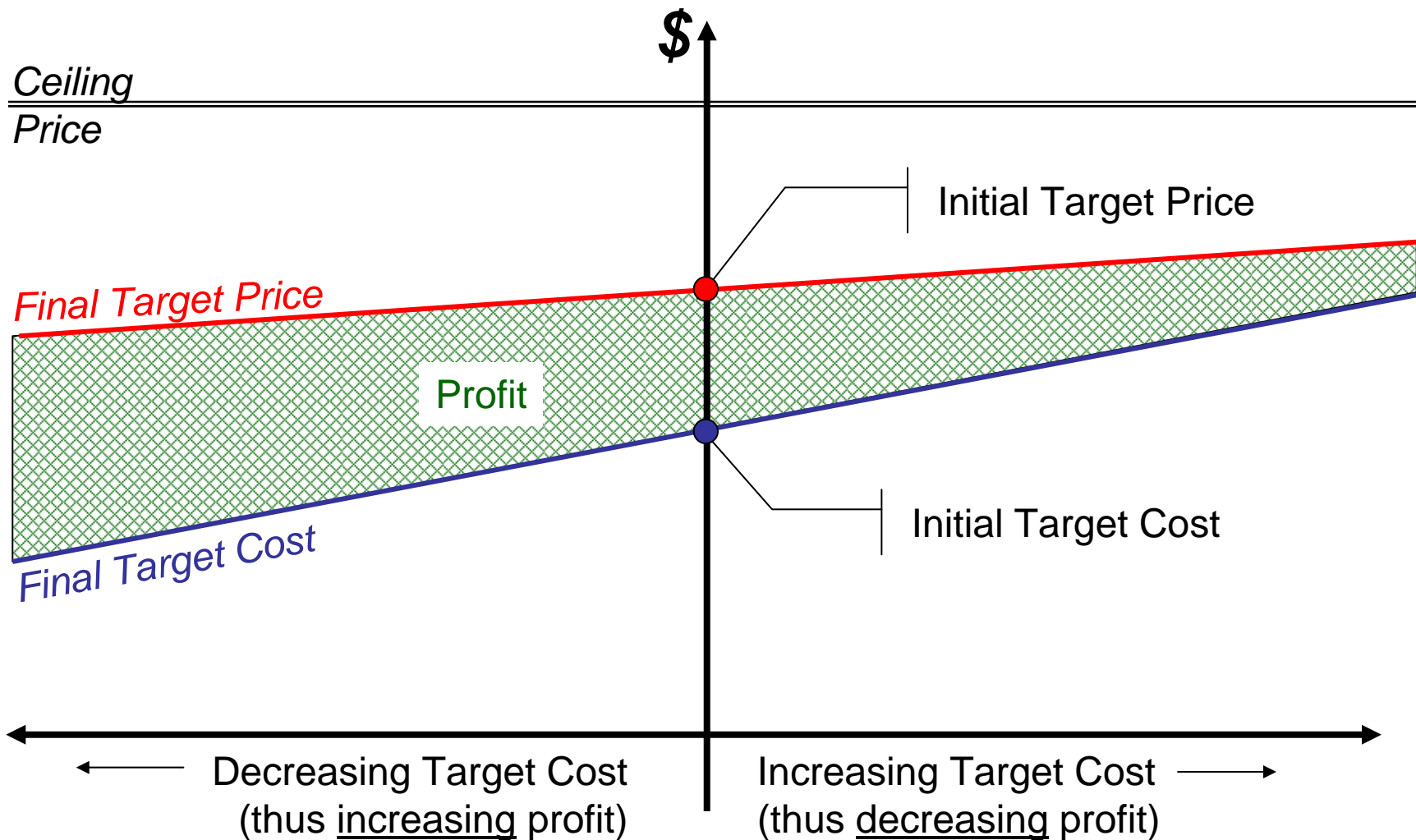
Excerpt from FAR Clause 52.126-17(d)(2)

“If the total firm target cost is more than the total initial target cost, the total initial target profit shall be decreased. If the total firm target cost is less than the total initial target cost, the total initial target profit shall be increased. The initial target profit shall be increased or decreased by **TBN** percent of the difference between the total initial target cost and the total firm target cost. The resulting amount shall be the total firm target profit; provided, that in no event shall the total firm target profit be less than **1.0%** or more than **10.0%** of the total initial cost. ”

(***TBN***: To be determined by negotiation)

Final Profit Adjustment

How it works





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Earned Value Management System (EVMS)



FAR Requires EVMS on a Cost Reimbursable or Incentive Contract

" . . . based on ANSI/EIA Standard 748"

And what does that mean?

- ANSI/EIA 748 provides a list of guidelines
 - Organization
 - Planning, Scheduling, and Budgeting
 - Accounting Considerations
 - Analysis and Management Reports
 - Revisions and Data Maintenance

- But, ANSI/EIA 748 doesn't identify 'approved systems'



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- Proper WBS Design
- Baseline Budget Control Accounts
- Baseline Schedule
- Work measurement by Control Account
 - work-hours, dollars, units, etc.
- Good Project Management Practices



- Quantifying/measuring work progress can be difficult.
- Time required for data measurement, input, and manipulation can be considerable.



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- EVMS will help reduce guesswork in:
 - Measuring performance
 - forecasting
- Need to get beyond misleading measures of progress.
- Reasons to use EVMS:
 - Good project management practice
 - FAR requirement



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BREAK



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Questions

- **Federal Business Opportunities (Official Site for Solicitation and Amendments):**
- www.fbo.gov
- **MVN website (For Pre-proposal Conference Attendee List and Presentation Slides):**
- http://www.mvn.usace.army.mil/hps2/early_contractor_involvement.asp
- **Questions must be submitted by COB Wed, 20 Aug 09:**
- **Seabrook Gate Complex: Rich Horton (Rich.Horton@usace.army.mil)**