Innovations In Project Delivery Methods Workshop 1:00 – 2:30

ACEC Conference

April 15, 2008

Oregon Department of Transportation

Alison Helms,

Procurement Manager

Slayden Construction

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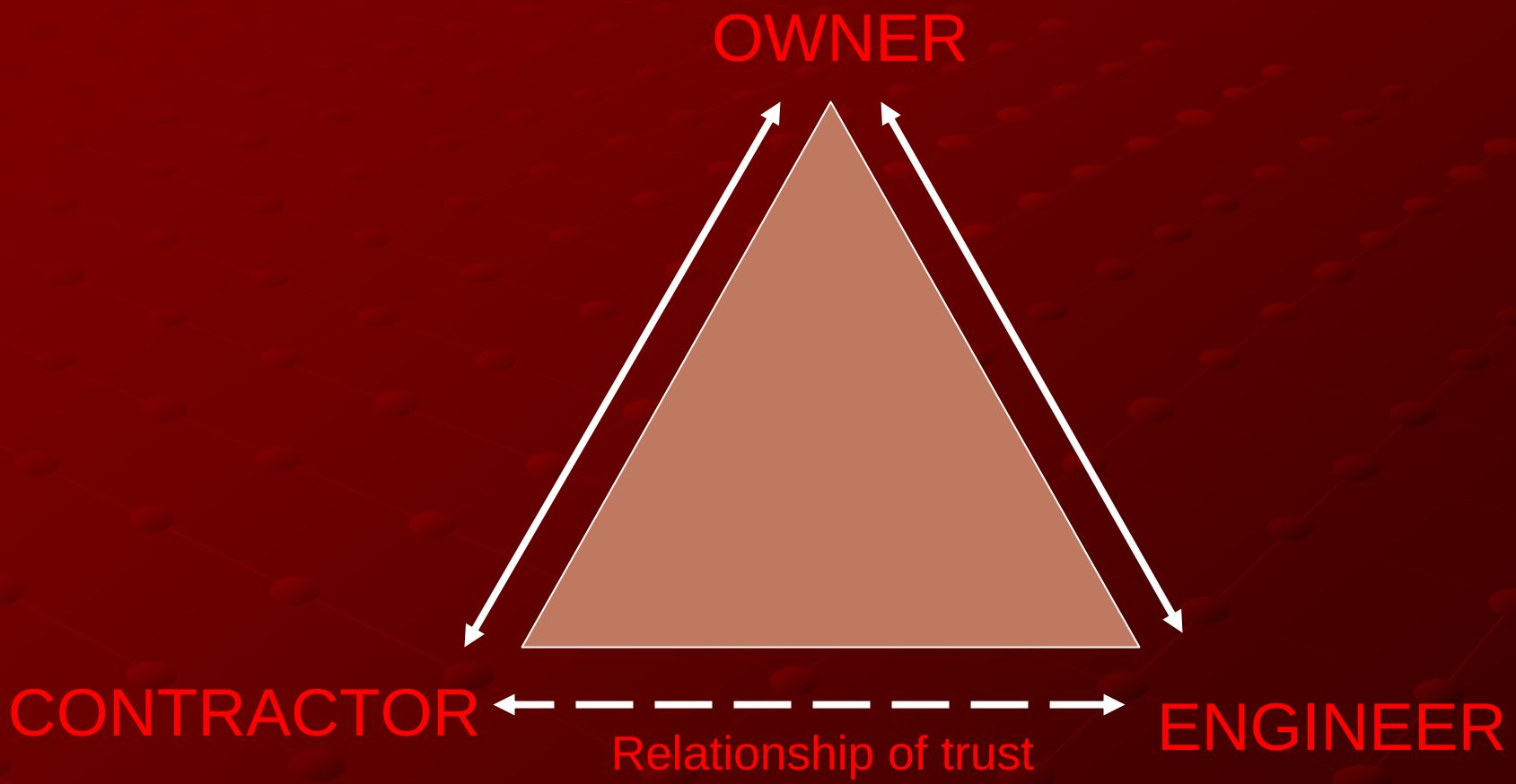
Key Components in CM/GC

- Relationships
- Cost Control
- Early Work Amendments
- Bid Packages

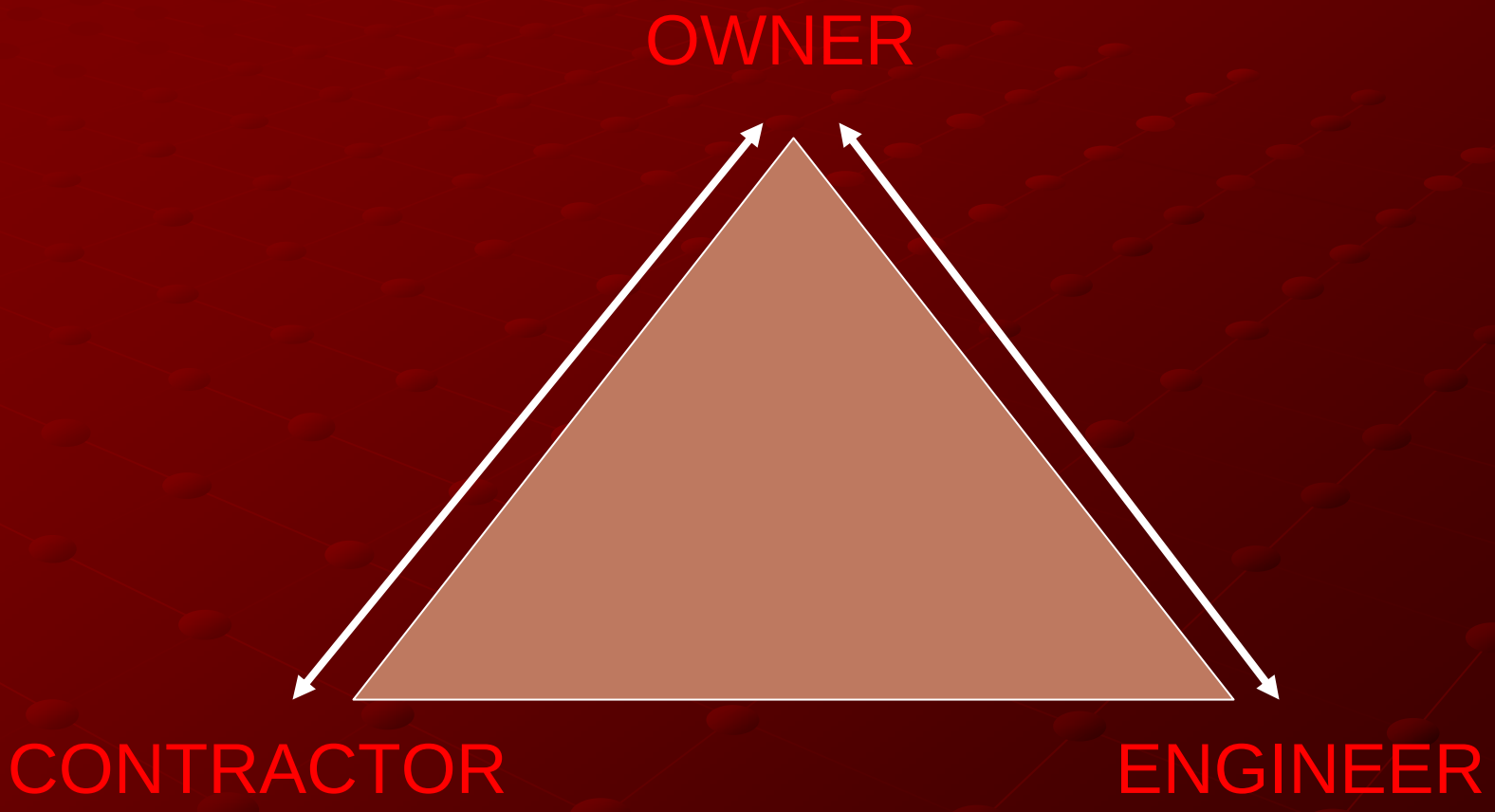
CM/GC RELATIONSHIPS

- Three prime players – Owner, Engineer, and Contractor
- Two Separate Contracts – Owner/Engineer and Owner/Contractors
- The engineer and the Contractor have a relationship of trust
- The CM is hired during the design phase
- Contractor is selected on qualifications and/or best value

CM/GC



DESIGN-BID-BUILD



DESIGN-BUILD

OWNER

ENGINEER/CONTRACTOR TEAM

CM/GC
Cost Control

- Owner controls design
- Owner controls contractor selection
- Early cost estimate (open book estimating)
- Project risk assignment
- Close coordination of design and construction expertise
- Project will benefit from value engineering and design/construction innovation resulting in cost saving
- Ability for Owner to fast track the project
- Construction cost guarantee during design

CM/GC
Early Work Amendments

- Benefits of EWA's
  - Continuous execution of design and construction
  - Mitigate escalation
  - Expedited long lead items
  - Manage risk

Willow Lake EWA Examples

Item	Early Estimate	Procured Pricing	Savings	Reason
Steel sheet piles	$1,300,000.00	$1,080,000.00	$220,000.00	Escalation Prevention & Lead Time
Effluent Diversion Structure	$2,600,000.00	$1,800,000.00	$800,000.00	Expedite Schedule by performing work in an area that the design was completed.
Concrete Liner	$766,003.00	$ 194,838.00	$571,165.00	Value Engineered product and early procurement to confirm pricing

Bid Packages

- Detailed Descriptions
- All inclusive packages
- Insure apples to apples bids
- Ensure complete procurement
- Significantly reduce change orders
- Tailor to market place to keep competitive

QUESTIONS AND ANSWERS

Keith Whisenhunt, PE, AVS, CCS
Principal
Project Delivery Group, LLC

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CM/GC ISSUES FROM AN OWNER'S PERSPECTIVE

OVERVIEW

- WHEN SHOULD AN OWNER CONSIDER THIS PROCESS?
- PROCUREMENT OF DESIGNER AND CM/GC
- COORDINATION BETWEEN OWNER, DESIGNER, AND CM/GC
- SETTING THE DESIGN FEE AND PRICING THE WORK BY THE CM/GC
- UNDERSTANDING AND OVER-COMING THE FLEXIBILITY

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WHEN SHOULD AN OWNER CONSIDER THIS PROCESS?

- TIME IS AN ISSUE
- COMPLEXITY OF CONSTRUCTION
- BUDGET MANAGEMENT IS IMPORTANT

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PROCUREMENT OF DESIGNER AND CM/GC

- WHAT ARE THE SCHEDULE ISSUES?
- WHAT IS IMPORTANT?
- WHO SHOULD BE PROCURED FIRST?
- WHAT ARE THE FINANCIAL ISSUES?

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COORDINATION BETWEEN OWNER, DESIGNER, AND CM/GC

- OWNER'S INVOLVEMENT
- WHO LEADS THE PROCESS?
- WHO SETTLES DIFFERENCES OF OPINIONS?

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SETTING THE DESIGN FEE AND PRICING THE WORK BY THE CM/GC

- FACTORS AFFECTING FEES AND PRICES
- WHAT IS THE SCOPE OF THE DESIGNER?
- WHAT IS A REASONABLE DESIGN FEE?
- WHAT IS THE SCOPE OF THE CM/GC?
- WHAT IS A REASONABLE FEE FOR THE CM/GC?

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UNDERSTANDING AND OVER-COMING THE FLEXIBILITY

- WHAT IS THE OWNER'S OBJECTIVE?
- WHAT ARE THE RULES RELATED TO THE DELIVERY METHOD?
- HOW TO GET EVERYONE COMFORTABLE WITH THE FLEXIBILITY

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Jane Lee,
Advanced Contracting Unit
ODOT

- Willamette River Bridge

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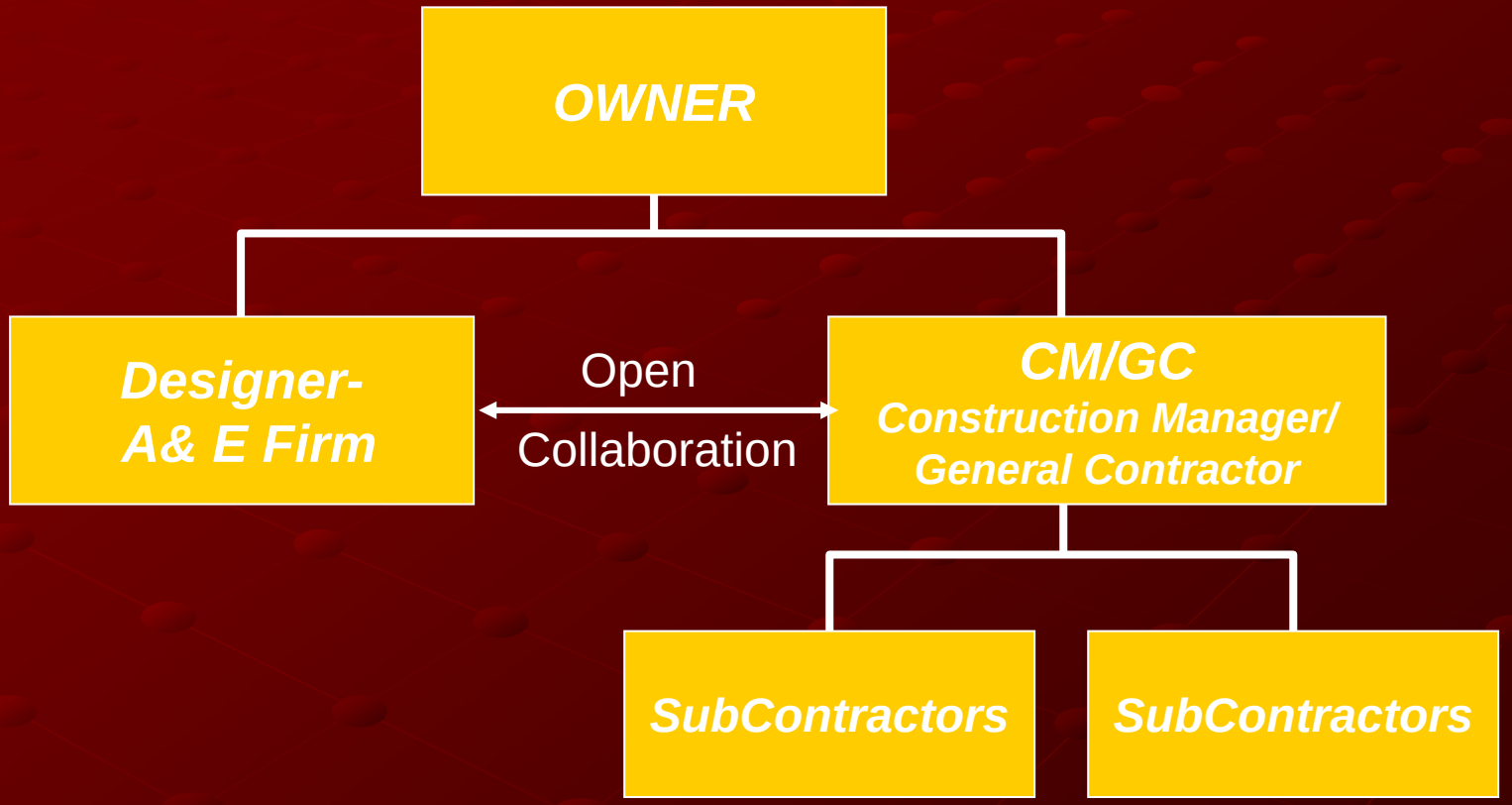
CM/GC Structure



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CM/GC: Owner Benefits

1. Collaboration & cost control
2. Concurrent execution of design and construction
3. Well suited for complex projects, tight time frames
4. Owner, A/E, CM/GC have mutual project goals
5. Risk Management, Team Identifies, Owner controls
6. Collaborative process minimizes risk of construction and design disputes

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CM/GC: Procurement Choices

1. Either RFQ and RFP,
   or RFP with qualification requirements

2. Owner can specify economic, DBE, local knowledge and other program requirements in procurement
   - Included as scoring and selection criteria
   - Able to specify what can be self-performed and what must be subcontracted. (i.e. 30% self, 30% sub, 40% their decision)

3. Requires FHWA SEP-14 for use of alternative, experimental contracting method

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Benefits from the CM/GC *Perspective*

1. Opportunity to weigh in much earlier and influence design without re-working previously determined project elements.

2. CM/GC at risk for costs exceeding Guaranteed Maximum Price (GMP). Will require good documentation as to what is and is not included in the work package and GMP.

3. Contract payments typically include a fee plus lump sum.

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CM/GC Tasks during Preconstruction Phase

1. Works collaboratively with Owner & A&E to accomplish project goals. Provides:
   - Cost Estimates/Schedule analysis/work sequence
   - Risk identification/mitigation/pricing
   - Constructability reviews
   - Develop work packages for bid
   - Develop GMP that meets Owner Requirements and Budget Restraints
2. Develop Project Management Plans which include:
   - Construction Management Plan
   - Safety, Environmental, other project Plans
   - Subcontracting Plan
3. Develop Early Work Amendments

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CM/GC Tasks during Construction Phase

1. Provides all materials, labor, equipment and management

2. Performs as Construction Manager

3. Performs as General Contractor. May self-perform as allowed in contract

4. Completes the project as described in the final plans and specifications within the GMP

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I-5: Willamette River Bridge (Eugene)

Project Status

Why CM/GC for this Project?

Jane Lee,
Advanced Contracting Unit Manager
What's Next for Design Build?

- Version 2 Design-Build Base documents were published December 17.
- Version 3 "open for comments"
- Design-Build Lite procedures are complete ready for use on a region STIP project

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What's Next at ACU?

- Developing not just "**when**" to make the decision to choose an alternative contracting method, but which one to choose and **why**.
- Interim ACU Manager – Paul DePalma

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Innovations in Transportation Project Delivery Methods…

Questions?

Thank you for your attention!