

Construction Contracts

By
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Web-based Contracts

- The Need
 - Supporting scheduling
 - Controlling
 - Regulating
 - Analyzing
 - Auditing the procurement & delivery of materials and services

All of these are done in electronic format

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Chapter-Opener (p. 61)

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Web-based Contracts

- By enabling online competitive bidding and improving the record-keeping associated with the purchasing process, buyers will be able to quickly and easily compare product offering from different manufacturers, as well as pricing and availability.
- This will put buyers in a position to make optimal price-and-time-of-delivery decisions.

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Web-based Contracts

- The Technology
 - Matching Contractors according to attributes such as Construction Specification Institute (CSI) classification.
 - Eligible contractors are notified of pending projects bids and then may respond electronically.
 - Spreadsheets are normally used to show bid summary for review and award.

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Web-based Contracts

- The Technology (cont'd)
 - These online services help construction companies manage their complex supply chains.
 - Also, they enable the project owner to make trade-off decision about construction costs versus lifetime operational costs.

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Contract Environment

- Construction can be a very complex activity that has several dimensions.
- Contractual Relationships
 - The business aspects of construction require the establishment of **legally** binding relationships with a wide range of parties.
 - Construction companies or firms as referred to as “contractors.”
 - Construction managers usually supervise contracts with subcontracts.

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Contract Environment

- Contractual Relationships (cont'd)
 - Insurance and bonds as well as the documents establishing the legal structure of a company have the elements of contractual requirements.
- Major Contractual Forms
 - *An agreement between two or more parties to do something for a consideration establishes the basis for a contract.*

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Contract Environment

- Major Contractual Forms (cont'd)
 - A contract is a promise or a set of promises for the breach of which the law recognizes duty.
 - This amounts to saying that a contract is a legally enforceable promise

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Contract Environment

- The courts are often called upon to determine:
 1. Who are the parties to contract?
 2. What are their promise?
 3. Other aspects of the contractual agreement.
- Construction industry has been normalized over the years and many variety of standard contract forms have been developed.

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Process of Purchasing Construction

- We have to distinguish between a construction contract and regular purchasing systems in daily life such as buying a set of living room furniture, cars, mobile phones, eating at a restaurant, etc.
- Two major aspect of this type of process:
 1. We have the finished product available for our inspection, and we can decide whether it meets our requirements.

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Process of Purchasing Construction

2. Since the final product is available, we can purchase it from a single store or individual.

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Process of Purchasing Construction

- Construction is Different
 - The facility is purchased before it is “manufactured” based on a set of
 - Drawings
 - Work descriptors
 - Also, the end item requires the purchaser to coordinate many entities to include:
 - Designer (s)
 - Contractor (s)
 - Subcontractors and vendors.

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Process of Purchasing Construction

- Ideal Situation in Contracting Business
 - To go to a single source and buy the construction project as a finished unit.
 - This is of course seldom possible.
 - Traditional contract formats address this problem by focusing on the purchase of the design from a single entity (e.g., the design professional) and the construction of the facility by a general contractor.

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Process of Purchasing Construction

- As has been noted, even this three-party purchasing relationship (e.g., owner, designer, and constructor) can lead to an adversarial or bad relationship between the parties.
- Owners would, in general, like to work with a single source and be able to purchase the facility as-built; fully constructed and ready for occupancy.

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Major Construction Contract Types

1. The competitively bid contract

- For a number of reasons, almost all contracts that involve public funds are awarded using competitively bid contracts.
- This type of bid contract is used since it yields a low and competitive price that ensures taxpayers that their monies are being equitably and cost-effectively disbursed.
 - Lump, or stipulated, sum contract
 - The unit-price contract

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Major Construction Contract Types

2. Negotiated Contract

- This form of contract is also referred to as a cost-plus contract although this refers to the method of payment rather than the nature of the selection process.
- The contractor is reimbursed for the cost of doing the work plus a fee that is agreed upon.
- In this type of contract, risk can be reduced greatly.

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Major Construction Contract Types

2. Negotiated Contract (cont'd)

- The owner has the flexibility to select the contractor based on considerations other than lowest price quotation.
- The major issue in type of contract is to identify the qualified contractors who are invited to prepare proposals based on the project documentation available.
- The proposal is often presented in a semiformal interview framework in which the contractor meets with the client and his/her representatives.

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Competitively Bid Contract

- Owner invite a quote for the work to be performed based on complete plans and specifications.
- The award of the contract is generally made to the lowest responsible bidder,
- The word **responsible** is very important since the contractor submitting the lowest bid may not, in fact, be competent to carry out the work.

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Competitively Bid Contract

- Once bids have been opened and read publicly, an “apparent” low bidder is announced.
- The owner then immediately reviews the qualifications of the bidders in ascending order from lowest to highest.
- If the lowest bidder can be considered responsible based on his or her capability for carrying out the work, then further review is unnecessary.

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Competitively Bid Contract

- The factors that affect whether a contractor can be considered responsible are the same as those used considering a contractor for prequalification:
 1. Technical competence and experience
 2. Current financial position based on the firm’s balance sheet and income statement.
 3. Bonding Capacity

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Competitively Bid Contract

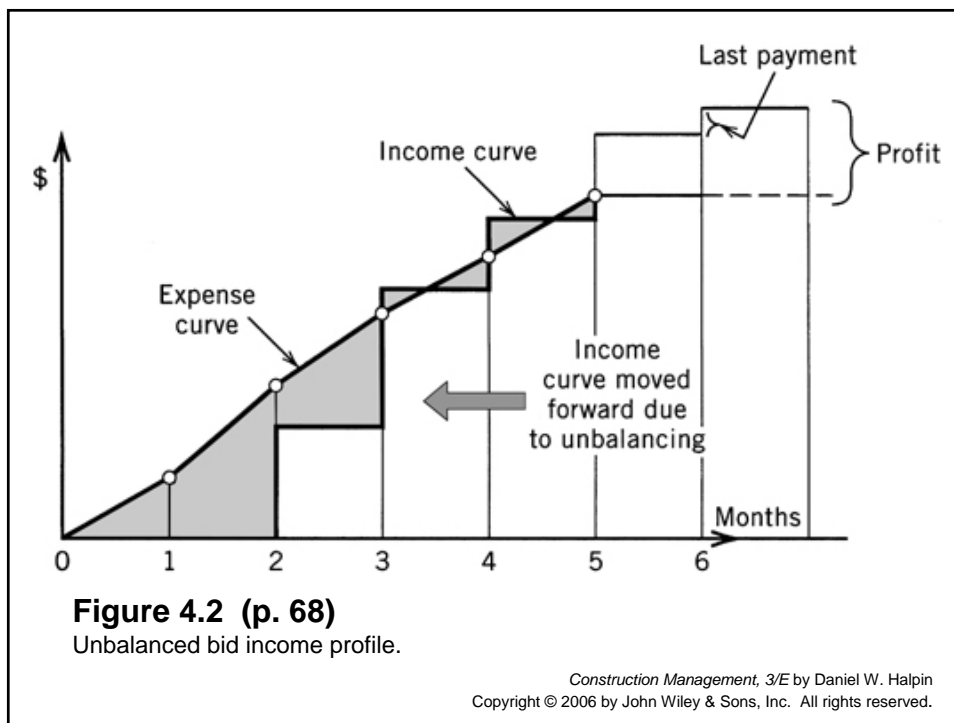
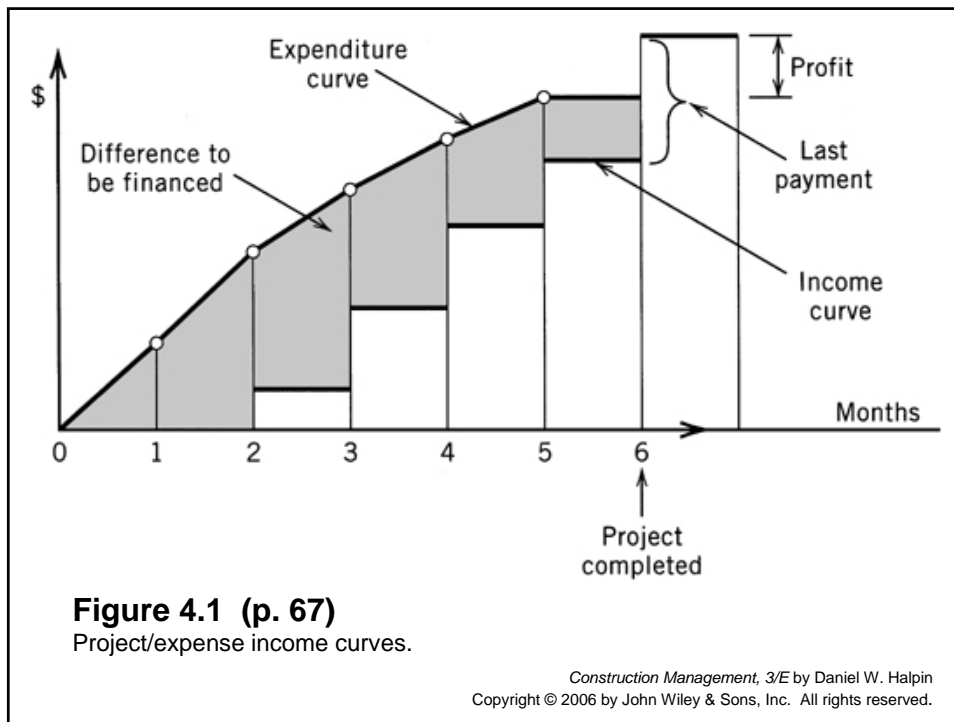
4. Current amount of work under way
5. Past history of claims litigation
6. Default on previous contract

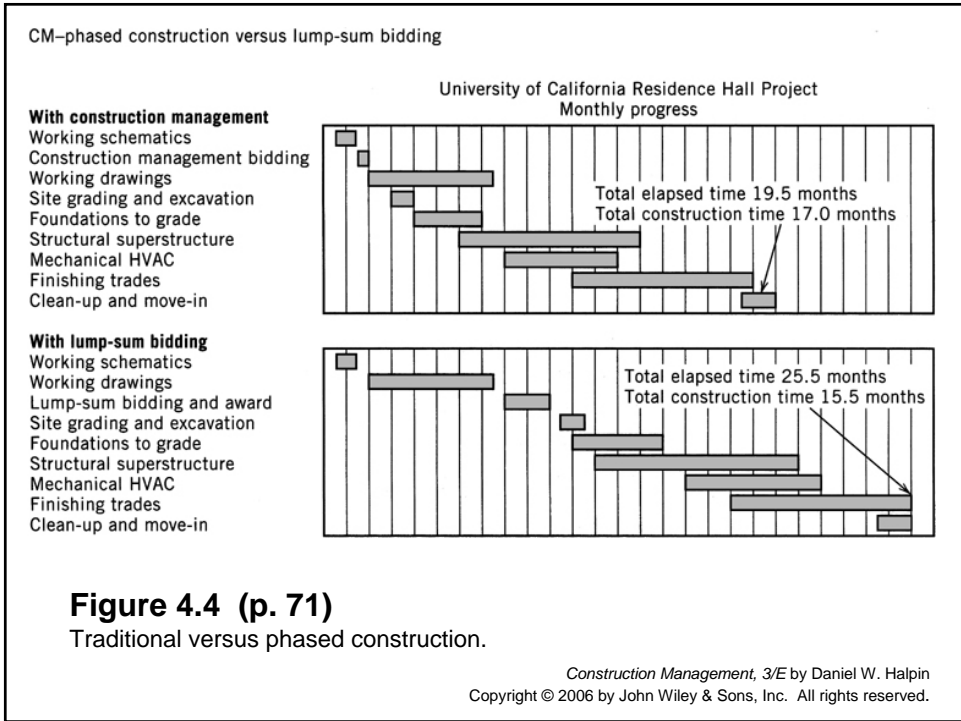
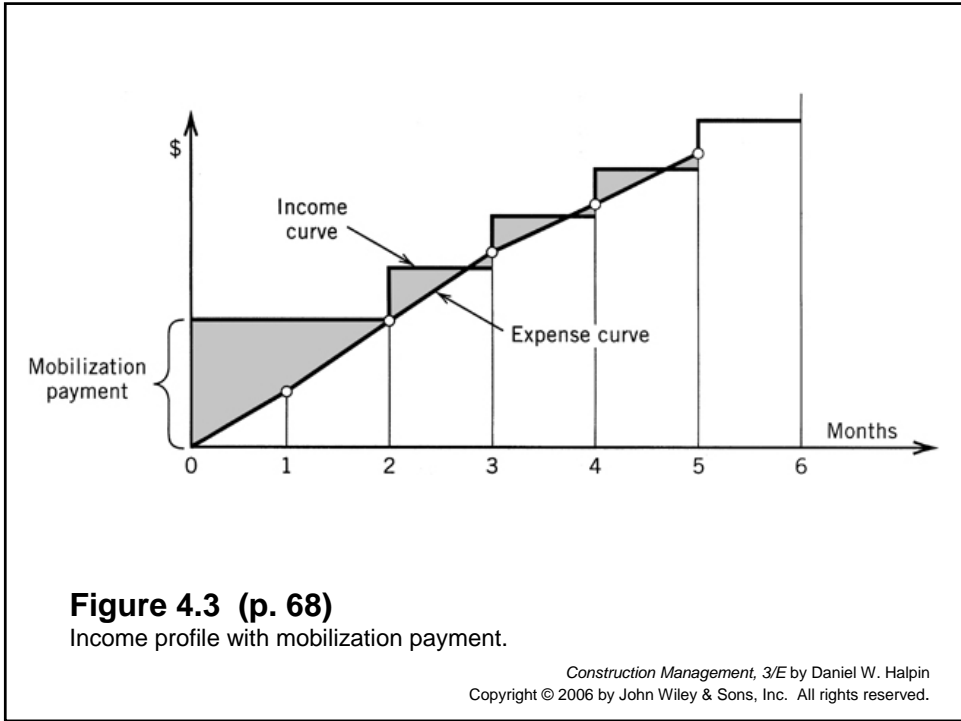
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Item number	Quantity	Unit	Description	Unit price	Total amount
1	550	cubic yard (cu yd)	Rock excavation (for structures and pipes only)	\$ _____	\$ _____
2	50	linear foot (lin ft)	8-in. C.I. force main	\$ _____	\$ _____
3	20	cubic yard (cu yd)	Trench excavation for pipes	\$ _____	\$ _____
4	200	square yard (sq yd)	Paving	\$ _____	\$ _____

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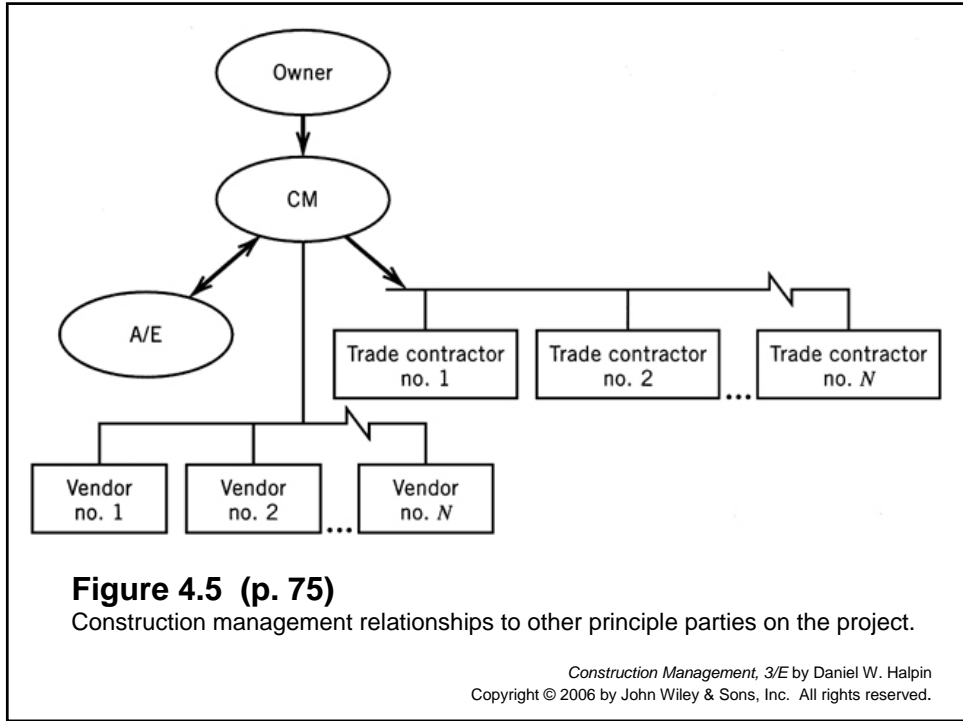


Table 4.1 Project Delivery Method (PDM)

	Contract Type	Single or Multiple Contracts to Owners	Selection Criteria	Phased Construction
DBB	Competitively Bid	Multiple-Design Contract & Construction Contract	Low Construction Cost	No
DB	Negotiated DB	Multiple Design & Construction Single Contract with DB Firm	Low Cost or Other Usually not Low Cost—Based on Performance	Possible Yes
CM	CMa	Contracts held by Owner—CM, Design, Construction, and Vendors	Based on Performance Expectations	Yes
	CM at Risk	Same as CMa above except CM and Construction Contracts are Combined	Based on Performance Expectations	Yes

Table 4.1 (p. 76)
Project Delivery Method (PDM)

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