

# Healthcare Facilities Management

## Module 2: Planning, Design & Construction Student Workbook



Lesson 6 ~ P D & C 3



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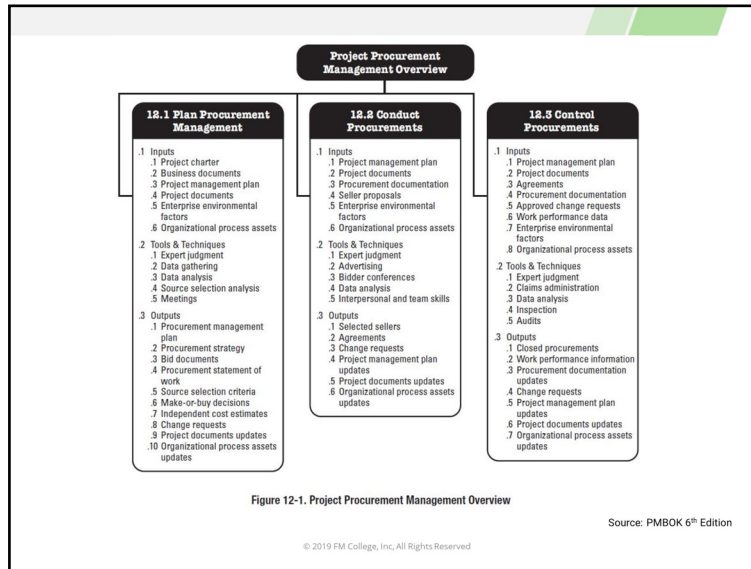
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## Procurement Management

Typical steps might be:

- Prepare the procurement statement of work
- Prepare a high-level cost estimate to determine the budget
- Advertise the opportunity
- Identify a short list of qualified sellers
- Prepare and issue bid documents
- Prepare and submit proposals by the seller
- Conduct a technical evaluation of the proposals including quality
- Perform a cost evaluation of the proposals
- Prepare the final combined quality and cost evaluation to select the winning proposal
- Finalized negotiations and signed contract between the buyer and the seller

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### Items to procure

- Team resources
- Architectural and design services
- Commissioning services
- Land purchase
- Leased building or property
- Construction services
- Construction management
- Project insurance
- Etc.

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### Plan Procurement Management

<ol style="list-style-type: none"><li>1. Project charter</li><li>2. Business documents</li><li>3. Project management plan</li><li>4. Project documents</li><li>5. Enterprise environmental factors</li><li>6. Organizational process assets</li></ol>	<ol style="list-style-type: none"><li>1. Expert judgement</li><li>2. Data gathering</li><li>3. Data analysis</li><li>4. Source selection analysis</li><li>5. Meetings</li></ol>	<ol style="list-style-type: none"><li>1. Procurement management plan</li><li>2. procurement strategy</li><li>3. bid documents</li><li>4. procurement statement of work</li><li>5. source selection criteria</li><li>6. make or buy decisions</li><li>7. independent cost estimates</li><li>8. change requests</li><li>9. project documents updates</li><li>10. organizational process assets updates</li></ol>
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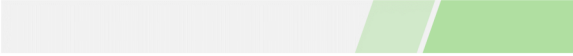
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Inputs

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Project Charter

- Objectives
- Project description
- Summary milestones
- Preapproved financial resources

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## Business Documents

- Business case
- Benefits management plan
  - When specific project benefits are expected to be available
  - This will drive procurement dates and contract which

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## Project Management Plan

- Scope management plan
- Quality management
- Resource management plan
- Scope baseline

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## Project Documents

- Milestone list
- Project team assignments
  - Project team skills to perform the procurement activities?
  - Additional resources need to be acquired or trained?
- Requirements documentation
- Requirements traceability matrix
- Resource requirements
- Risk register
- Stakeholder register

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## Enterprise Environmental Factors

- Marketplace conditions
- Products, services, and results that are available in the marketplace
- Sellers, including their past performance or reputation
- Typical terms and conditions for products, services, and results or for the specific industry
- Legal advice regarding procurements
- Contract management systems, including procedures for contract change control
- Established multi-tier supplier system of prequalified sellers based on prior experience
- Financial accounting contract payments system

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## Organizational Process Assets

- Preapproved seller lists
- Formal procurement policies, procedures, and guidelines
- Contract types
  - Fixed-price contracts
    - Firm fixed price
    - Fixed-price incentive fee
    - Fixed-price with economic price adjustments
  - Cost reimbursable contracts
    - Cost plus fixed fee
    - Cost plus incentive fee
    - Cost plus award fee
  - Time and materials contracts

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# 2

## Tools & Techniques

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## Expert Judgment

Regarding procurement expertise is needed in the following areas:

- Procurement and purchasing
- Contract types and contract documents
- Regulations and compliance topics

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## Data Gathering

- Market research
  - Industry capabilities
  - Specific solar capabilities
- Sources new conferences
- Online reviews
- Variety of sources to identify market capabilities
- May refine specific procurement objectives to leverage maturing technologies while balancing risks associated with the breadth of sellers who can provide the desired materials or services

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## Data Analysis

Data analysis techniques include but are not limited to make-or-buy analysis

- Make-or-buy analysis to determine whether to self perform or purchase from outside sources
- Another example is lease versus new construction
- Factors to consider
  - Current resource allocation
  - Skills and abilities
  - Need for specialized expertise
  - Desire to not expand permanent employment obligations
  - Need for independent expertise
- May use payback period, return on investment, internal rate of return, discounted cash flow, net present value, benefit cost analysis, or other techniques

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## Source Selection Analysis

Commonly used selection medicines include the following:

- Least cost
- Qualifications only
- Quality based/highest technical proposal score
- Quality and cost-based
- Sole-source
- Fixed budget

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## Meetings

- Research alone may not provide specific information to formulate a procurement strategy without additional information interchange meetings with potential bidders.
- Examples of meetings might include:
  - pre-award bid discussion with all potential bidders present
  - site visits
  - review of questions/comments on bid documents
  - meeting/interview with each prospective bidder

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## Outputs

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## Procurement Management Plan

The procurement management plan guidance for:

- How procurement will be coordinated with other project aspects
- Timetable of key procurement activities
- Procurement metrics to be used to manage contracts
- Stakeholders roles and responsibilities
- Constraints and assumptions
- Legal jurisdiction and currency in which payments will be made
- Risk management issues
- Prequalified sellers, if any, to be used

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## Procurement Strategy

- Delivery methods
  - For professional services
  - For industrial or commercial construction
- Contract payment types
  - Fixed-price contracts
  - Cost-plus contracts
  - Incentives and awards
  - Procurement phases
  - Sequencing or phasing
- Performance indicators and milestones
  - Criteria for moving from phase to phase
  - Monitoring and evaluation plan
  - Process for knowledge transfer for use in subsequent phases

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## Bid Documents

### Request for information (RFI).

- Use when more information on liquor goods and services to be acquired is needed from the sellers

### Request for quotation (RFQ)

- The RFQ is commonly used when more information is needed on how vendors would satisfy the requirements and/or how much it will cost

### Request for proposal (RFP)

- An RFP is used when there is a problem in the project and the solution is not easy to determine.
- This is the most formal of the "request for" documents and has strict procurement rules for content, timeline, and solar responses

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## Procurement Statement Of Work (SOW)

The procurement SOW should be clear, complete, and concise.

The phrase terms of reference (tor) is sometimes used when contracting for services. It will typically include:

- Tasks the contractor is required to perform and coordination requirements
- Standards to be fulfilled
- Data that needs to be submitted for approval
- Detailed list of all data and services that will provide to the contractor by the buyer
- Definition of the schedule for initial submission and the review/approval time required

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### Source Selection Criteria

Criteria may include but are not limited to:

- Capability and capacity
- Product cost and lifecycle cost
- Delivery dates
- Technical expertise and approach
- Specific relevant experience
- Adequacy of the proposed approach and work plan in responding to the SOW
- Key staff's qualifications, availability, and competence
- Financial stability of the firm
- Management experience
- Suitability of the knowledge transfer program, including training

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### Make or buy decisions

A make or buy analysis results in a decision as to whether particular work can best be accomplished by the project team or needs to be purchased from outside sources.

- Examples from your experience?

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## Independent Cost Estimates

The procuring organization may elect to either:

- Prepare its own independent estimate
- Have a cost estimate prepared by outside professional estimator

This is to serve as a benchmark on proposed responses.

Significant differences in cost estimates can be an indication that the procurement SOW was deficient or ambiguous, or that the prospective sellers either missed or understood or failed to respond fully to the procurement SOW.

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## Change requests

- A decision that involves procuring goods, services, or resources may require a change request
- Other decisions during procurement planning can also create the need for additional change requests
- Changes to the project management plan and its subsidiary plans may result in change requests

Change requests are processed for review and disposition through the picc process

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## Project Document Updates

- Lessons learned register
- Milestone list
- Requirements documentation
  - Technical requirements
  - Requirements with contractual and legal implications
- Requirements traceability matrix
- Risk register
- Stakeholder register

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## Projects : Few & Relatively Simple Procurements?

Some of these outputs may be combined

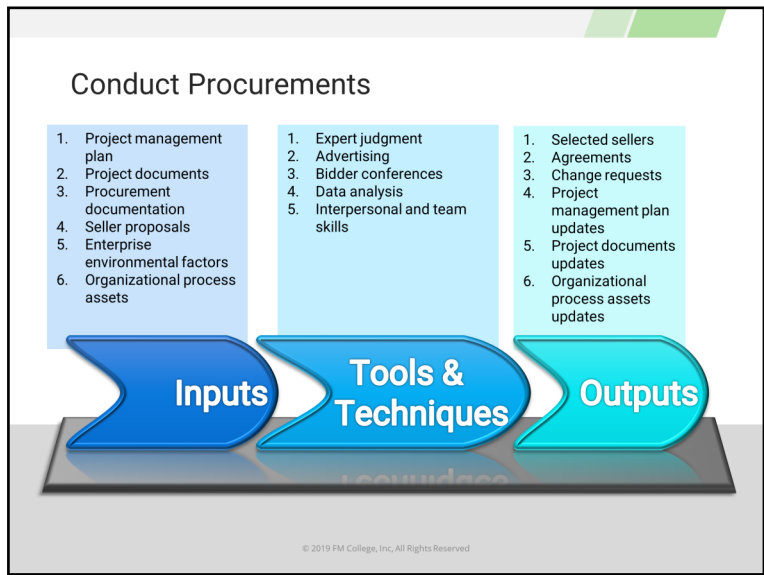
Table 12-1. Comparison of Procurement Documentation

Procurement Management Plan	Procurement Strategy	Statement of Work	Bid Documents
How procurement work will be coordinated and integrated with other project work, particularly with resources, schedule, and budget	Procurement delivery methods	Description of the procurement item	Request for information (RFI), Request for quote (RFQ), Request for proposal (RFP)
Timetable for key procurement activities	Type of agreements	Specifications, quality requirements and performance metrics	
Procurement metrics to manage the contract	Procurement phases	Description of collateral services required	
Responsibilities of all stakeholders		Acceptance methods and criteria	
Procurement assumptions and constraints		Performance data and other reports required	
Legal jurisdiction and currency used for payment		Quality	
Information on independent estimates		Period and place of performance	
Risk management issues		Currency; payment schedule	
Prequalified sellers, if applicable		Warranty	

Source: PMBOK 6<sup>th</sup> Edition

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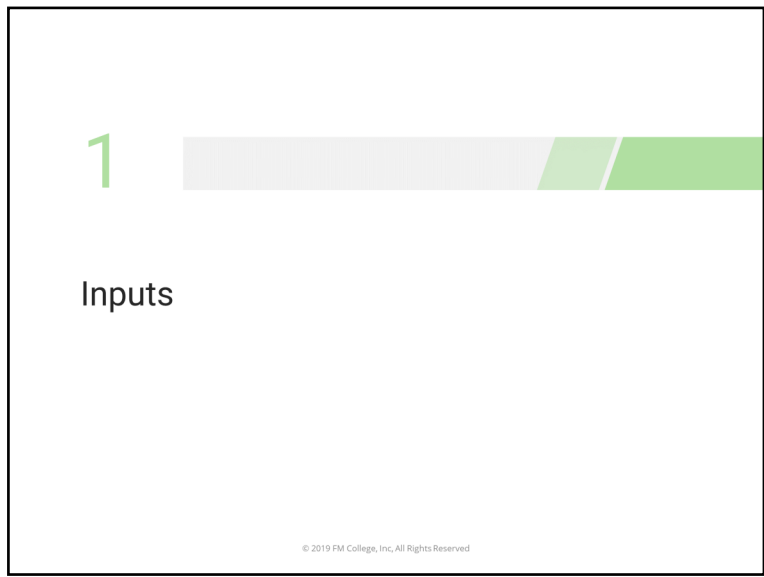
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## Project Management Plan

- Scope management
- Requirements
- Communications
- Risk
- Procurement
- Configuration
- Cost baseline

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## Project Documents

- Lessons learned register
- Project schedule
- Requirements documentation
- Risk register
- Stakeholder register

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## Procurement Documentation

- Bid documents
- Procurement statement of work
- Independent cost estimates
- Source selection criteria

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## Seller Proposals

- Prepared in response to a big document package
- Basic information that will be used for evaluation
- Proposal in two parts
  - Price proposal
  - Technical proposal

Each submitted proposal is evaluated according to the source selection criteria

Seller selected that can best satisfy the buying organizations requirements

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## Enterprise Environmental Factors

- Local laws and regulations regarding procurements
- Local laws and regulations ensuring that the major procurements involve local sellers
- External economic environment constraining procurement processes
- Marketplace conditions
- Information on relevant past experience with sellers, both good and bad
- Prior agreements already in place
- Contract management systems

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## Organizational Process Assets

- List of preferred sellers that have been prequalified
- Organizational policies that influence the selection of a seller
- Specific templates or guidelines that will determine the way agreements are drafted and built
- Financial policies and procedures regarding invoicing and payment

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# 2

## Tools & Techniques

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### Expert Judgment

Expertise in the following topics:

- Proposal evaluation
- Technical or subject matter
- Relevant functional areas such as finance, engineering, design, development, supply chain management
- Industry regulatory environment
- Laws, regulations, and compliance requirements
- Negotiation

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### Advertising

- List of potential sellers can be expanded
- Most government jurisdictions require public advertising of pending government contracts

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### Bidder Conferences

- Contract Conferences
- Vendor Conferences
- Pre-bid Conferences

Used to ensure that all prospective bidders have a clear and common understanding of the procurement

Also ensure no bidders received preferential treatment

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## Data Analysis

Proposal evaluation

Complete response in full to:

- Bid documents
- Procurement statement of work
- Source selection criteria
- Any other documents in the bid package

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## Interpersonal And Team Skills

Negotiation: a discussion aimed at reaching an agreement

- Procurement negotiation clarifies:
  - Description
  - Rights
  - Obligations
  - Other terms of the purchases
- Purpose is to achieve mutual agreement
- Negotiation concludes with a signed contract document or other formal agreement
- Negotiation should be led by a member of the procurement team that has the authority to sign contracts

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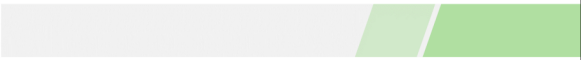
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## Outputs

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## Selected Sellers

Those who are judged to be in a competitive range based on the outcome of the proposal evaluation

Final approval of complex, high-value, high risk procurements will generally require organizational senior management prior to award

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### Agreements

- Procurement statement of work or major deliverables
- Schedule, milestones, or date by which a schedule is required
- Performance reporting
- Pricing and payment terms
- Inspection, quality, and acceptance criteria
- Warranty and future product support
- Incentives and penalties
- Insurance and performance bonds
- Subordinate contractor approvals
- General terms and conditions
- Change request handling
- Termination clause and alternative dispute resolution mechanisms

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### Change Requests

- As previously described
- To the project management plan and its subsidiary plans
- Other components
  
- Processed for review and disposition of the picc process

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### Project Management Plan Updates

- Requirements
- Quality
- Communications
- Risk
- Procurement
- Scope baseline
- Schedule baseline
- Cost baseline

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### Project Documents Updates

- Lessons learned register
- Requirements documentation
- Requirements traceability matrix
- Resource calendars
- Risk register
- Stakeholder register

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### Organizational Process Assets Updates

- Listings of prospective and prequalified sellers
- Information on relevant experience with sellers, both good and bad

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### Control Procurements

1. Project management plan
2. Project documents
3. Agreements
4. Procurement documentation
5. Approved change requests
6. Work performance data
7. Enterprise environmental factors
8. Organizational process assets

1. Expert judgment
2. Claims administration
3. Data analysis
4. Inspection
5. Audits

1. Closed procurements
2. work performance information
3. procurement documentation updates
4. change requests
5. project management plan updates
6. project documents updates
7. organizational process assets updates



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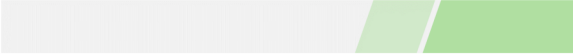
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Project Management Plan

- > Requirements
- > Risk
- > Procurement
- > Change
- > Schedule

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## Project Documents

- Assumption law
- Lessons learned register
- Milestone list
- Quality reports
- Requirements documentation
  - Technical requirements
  - Requirements with contractual and legal implications
- Requirements traceability matrix
- Risk register
- Stakeholder register

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## Agreements

Relevant agreements are reviewed to verify terms and conditions are met

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**Procurement Documentation**

- Statement of work
- Payment information
- Contractor work performance information
- Plans
- Drawings
- Other correspondence

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**Approved Change Requests**

Modifications to:

- Terms and conditions of the contract
- Procurement statement of work
- Pricing
- Descriptions of the products, services or results to be provided

All procurement related changes are formally documented in writing and approved before being implemented through the control procurements process

In complex projects and programs, change requests may influence multiple sellers as well as project scope

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## Work Performance Data

Seller/contractor data on project status:

- Technical performance
- Activities that have started
- Activities that are in progress
- Activities that are completed
- Costs that had been incurred or committed

Work performance data can also include information on the seller invoices that have been paid

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## Enterprise Environmental Factors

- Contract change control system
- Marketplace conditions
- Financial management and accounts payable system
- Buying organization's code of ethics

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## Organizational Process Assets

Procurement policies, etc.

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# 2

## Tools & Techniques

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## Expert Judgment

### Specific areas:

- Relevant functional areas:
  - Finance
  - Engineering
  - Design
  - Development
  - Supply chain management, etc.
- Laws, regulations, and compliance requirements
- Claims administration

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## Claims Administration

Changes were the buyer and seller cannot reach an agreement:

- Contested changes
- Potential constructive changes
- New when they cannot be resolved, they become disputes and finally appeals

Claims are documented, processed, monitored, and managed throughout the contract lifecycle, usually in accordance with the terms of the contract

Alternative dispute resolution (ADR) typically following procedures established the contract

- Settlement of all claims and disputes through negotiation is the preferred method

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## Data Analysis

- Performance reviews
- Earned value analysis
- Trend analysis

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## Inspection

- Structured review of the work being performed by the contractor
  - Simple review the deliverables
  - Actual physical review of the work itself
- On construction projects inspections involve walk-throughs of the site both by the buyer and the contract to ensure a mutual understanding of the work in progress

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## Audits

- Structured review of the procurement process
- Rights and obligations related to audits should be described procurement contract
- Resulting observations should be brought to the attention of the buyer's project manager and the seller's project manager

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# 3

## Outputs

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## Closed Procurements

- Buyer provides the seller with formal written notice that the contract has been completed
- Requirements for formal procurement closure defined in terms of the conditions of the contract, and included in the project procurement management
- Typically all deliverables should:
  - Be on time
  - Meet technical requirements
  - Meet quality requirements
- No outstanding claims or invoices and all final payment should have been made
- The project management team should have approved all deliverables prior to closure

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## Work Performance Information

- Includes information on how a seller is performing:
  - Comparing the deliverables received
  - The technical performance achieved
  - Costs incurred and accepted against the SOW budget

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## Procurement Documentation Updates

- Contract with all supporting schedules
- Requested unapproved contract changes
- Approved change requests
  
- Seller developed technical document
  - Other work performance information:
    - Deliverables
    - Seller performance reports and warranties
    - Financial documents including invoices and payment records
    - Results of contract related inspections

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## Change Requests

Complete change log:

- Project management plan
- Subsidiary plans
- Cost baseline
- Schedule baseline
- Procurement management plan

Requested but unresolved changes

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### Project Management Plan Updates

- Risk management
- Procurement management
- Schedule baseline
- Cost baseline

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### Project Documents Updates

- Lessons learned register
- Resource requirements
- Requirements traceability matrix
- Risk register
- Stakeholder register

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### Organizational Process Assets Updates

- Payment schedules and requests
- Seller performance evaluation documentation
- Prequalified seller lists updates
- Lessons learned repository
- Procurement file

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**THANK YOU**

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