MC READY JUNE 15, 2018

DIG DEEP GO PRO

MC READY

Going PRO

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TODAY'S AGENDA

1) THINGS IN PLAY
2) TEST 1
3) TODAY'S LECTURE

THINGS IN PLAY

DIG DEEP

- TOOLS, CERTS, OJL'S
- END OF RTI
- MC READY TEAM & FAMILY DINNER ?

TONIGHT'S BENCHMARK PROJECT

Michigan's First LEED Platinum House

CONSTRUCTION DEFECTS

- Increase in Litigation
- Risk Avoidance
  - By Insurance Companies
- E&O Insurance
  - Engineers
  - Architects

Introduction

- Upon completion of this lesson, the participant should be able to:
  - Identify the types of risks involved in construction.
  - Explain the concept of risk management.
  - Understand the principle types of insurance coverage.
  - Identify the types of business insurance constructors obtain.
  - Understand the concept of suretyship.
  - List and describe the types of bonds used in construction.

RISK

Introduction

- Risk are part of life and involve unknowns and uncertainties.
  - Risks involve taking a chance that could result in a gain or a loss.
  - The risks in the construction industry are classified into two different categories:
    - Personal injury risks
    - Property damage risks

Definition

- Risk

Someone or something that may cause something bad or unpleasant to happen.

Personal Injury Risks

- **Personal Injury Risk** is described as the potential risks the construction personnel or public.
  - Construction by nature has a high potential for injuries or death.
  - Contractors use different methods to reduce the risk level.
    - Safety Programs
    - Notices publically posted on the job site.

Property Damage Risks

- **Property Damage Risks** involves when construction activities have damage to existing construction work or another person's property.
  - Property damage can include work or equipment that may be vandalized or stolen.
  - Property damage can also include environmental damage to the work installed such as:
    - Floods
    - Fires
    - Hurricanes
    - Earthquakes

Overview of Risk Management

- The contractor must protect themselves or face serious financial losses resulting from risks of both personal and property damage.

- **Risk Management** is an attempt to minimize those potential losses.

- The contractor manages/mitigates their risk by:
    - Identifying risks
    - Evaluating risks
    - Controlling risks

Identifying Risks

- The first step of risk management is to identify the **known** and **unknown** risks.
- The project team should be involved looking at identifying risks, evaluating risks and trying to control risks.
- The easiest risks to identify are the **known risks**.
- Contract Documents are the first place to look in identifying the risks to be placed on the contractor.

Identifying Risks

- Another risk is labor productivity.
  - One can utilize past records as a way to identify production risks, however it is always uncertain.
  - Estimating quantities of materials is a risk, since some materials may be overlooked or there may be errors in calculations.
  - Weather could be a risk.
  - Skilled labor could be a risk
  - Regulatory agencies could be a risk

Identifying Risks

- Unknown risks are those risks that cannot be identified or anticipated.
  - The potential that an unknown risk may occur is low.
- If the project team has identified known risks, then it has taken all reasonable precautions.

Evaluating Risks

- Once risks have been identified, the risks can be evaluated to determine the potential time loss or monetary loss associated with the risk.

- There are two methods for **evaluating risks**.
  - Traditional method
  - Simulation method

Traditional Method

- Involves using a contingency or allowance that is added to the estimated project cost.
  - The allowance is expressed as a percentage to account for the risk.
- The traditional method is the most commonly used method, but is not necessarily the best.

Simulation Method

- Has gained popularity in the construction industry.
- The method uses computer programs to statistically model the project so that possible outcomes can be determined.

Controlling Risk

- Begins by taking those risks that are specifically defined by costs and including the costs in the bid amount.

- The remaining risks can be controlled through several methods including the following:
  - Avoiding
  - Sharing
  - Reducing
  - Transferring
  - Containing
  - Accepting

Controlling Riss

- **Avoiding risk** is always an available option to the contractor.
  - When the potential for loss outweighs the potential for profit, it is the contractor’s advantage to avoid the job.

- **Sharing risk** is one way the risk can be lowered. This can be accomplished by the following:
  - Joint Venture arrangements
  - Worker Incentive programs
  - Target cost or work hour contracts between the Owner and the Contractor.

Controlling Risk

- **Alternative Construction Methods** provide a way of reducing risk through construction methods or approaches.
  - The examples of using alternative methods can include shop pre-cast or prefabricated assembly as opposed to field assembly is one way of reducing the risk of weather delays.

- **Transferring Risk** can be accomplished by subcontracting high risk work to the subcontractors or another party.

Controlling Risk

- **Containing Risk** is accomplished through several methods:
  - Preplanning responses to adverse situations.
  - Using qualified personnel and providing them with specialized training.
  - Using qualified subcontractors and vendors.
  - Implementing sound safety or loss control programs including substance abuse policies.
  - Assigning responsibility for control to competent personnel.
  - Initiate strong project control measures.
  - Reviewing constructability to reduce accident exposure.
  - Rehearsing critical construction operations to reduce the potential for accidents.
  - Re-evaluate risk throughout the project, so corrective action can be taken as soon as possible.

Insurance & Bonds

Purchasing commercial insurance or construction bonds are the common method utilized by both the Contractor and Owner to control their financial risk.

- The Contractor generally purchases the following:
  - General liability insurance
  - Automobile insurance
  - Builder's Risk insurance
  - Worker's Compensation

- The Owner may require purchasing the following:
  - Bid bonds
  - Labor and material payment bonds
  - Performance bonds
  - Maintenance bonds

INSURANCE

Business Property Insurance

- Business property insurance covers losses through a variety of policy types:
  - Fire Insurance
  - Burglary
  - Robbery and Theft Insurance
  - Fidelity Bonds
  - Equipment and Automobile Insurance

Fire Insurance

- Fire Insurance includes coverage for damage or destroyed by fire the following:
  - Office buildings
  - Furniture
  - Equipment
  - Warehouses
  - Sheds

- Extended coverage may be obtained for the following:
  - Vandalism
  - Water or flooding
  - Earthquake damage

Burglary, Robbery and Theft Insurance

- Burglary, Robbery and Theft Insurance coverage provide protection against:
  - Loss of money
  - Securities
  - Office equipment
  - Other burglary, theft, robbery or willful destruction of property.

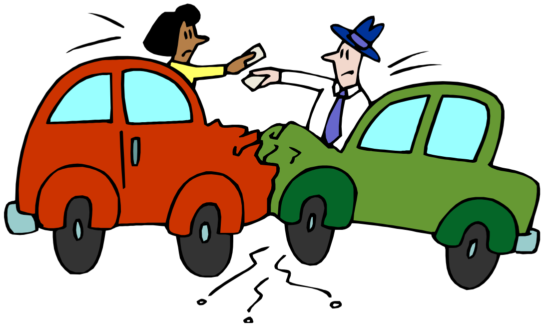
Equipment Insurance

- Equipment insurance is a form of insurance that provides against loss or damage to equipment whether it is:
  - On the job site
  - In storage
  - In transit

- The equipment insurance does not cover the contractor's liability for a damage to property of others caused by the equipment itself.

Automobile Insurance

- **Automobile Insurance** included liability and/or collision coverage.
  - **Liability coverage** protects the contractor against property damage or bodily injury claims that are caused by the contractor's vehicles.
  - **Collision coverage** covers damage to the vehicle itself.



Project Property Insurance

- Since construction activities have a high level of risks, the contractor needs to protect themselves and insurance protects the owner from risks it accepts.
  - The contractor is responsible for the project until the owner takes possession, the contractor is required to carry insurance for the project.
  - **Project Property Insurance** or better known as **Builder's Risk Insurance** protects against losses from physical damage to the project, which occurs during the construction period.
    - It does not cover:
      - The cost of correcting poor quality work
      - Inadequate design
      - Defective materials

Liability Insurance

- A contractor's most serious risk comes from **liability damage** claims against the company.
- **General Liability Insurance** is the most important type of liability insurance a contractor needs.
- GL insurance protects the contractor from claims resulting from the contractor's construction operations that result in **bodily injury** or **property damage** from a third party, such as a person from the general public.

Employee Insurance

- There are several different types of employee insurance the contractor to have for each employee.
  - Worker's Compensation Insurance
  - Unemployment Insurance
  - Social Security
  - Employee Benefits Plans

Worker's Compensation Insurance

- **Worker's Compensation Insurance** compensates for employees who are killed or injured while performing work of the company.
  - It is required by each state, but specific requirement may vary from state to state.
  - The coverage limits are set by state worker's compensation laws.

Unemployment Insurance

- **Unemployment Insurance** is a federal and state insurance plan that is paid for either in whole by the company.
  - The insurance provides workers with income for a period of time they are unemployed between positions up to a maximum number of weeks.

Social Security - FICA

- **Social Security – FICA** provides workers with retirement, disability, hospitalization benefits and medical insurance.
  - The federal government requires that companies and workers contribute to this program through taxing wages.
  - Social Security also provides survivor's benefits to the worker's family should the worker die while on the job.

Employee Benefit Plans

- Each company may provide benefits to its employees, such as:
  - Life Insurance
  - Medical Insurance
  - Disability Insurance
  - Retirement Plans

- Companies may pay the full amount of the premiums or may have the employee pay a portion of the insurance.

BONDS

Suretyship

- **Suretyship** is the practice of insurance companies that specialize in writing and providing **bonds** to contractors.
- The surety guarantees to the Owner that the project will be completed in accordance with the construction contract documents.
  - It also assures that the project will be completed for the agreed price and will be free of liens.
- Bonds are third party agreements between:
  - The Owner, known as the **Obligee**
  - The Contractor, known as the **Principle**
  - The bonding company, known as the **surety**.

Suretyship

- Before a Surety issues a bond to a contractors, the contractor must sign a formal application form or **contract of indemnity** that compensates the surety and holds it harmless from expenses should the bond be invoked.
  - The application pledges the contractor's corporate and sometime personal assets to reimburse the surety in case of a default.
- **The greater the company's assets or financial standing, the greater the bonding capacity.**

Fidelity Bonds

- **Fidelity Bonds** compensate for losses resulting from dishonest acts of bonded employees.
  - Bonded employees are those named or identified by the company as employees in the bond.
- The fidelity bond secures against loss or damage from the following:
  - Theft
  - Embezzlement
  - Forgery
  - Or any other dishonest acts by covered employees

Contracting Bonds

- **Construction bonds** are a grant of credit by the surety company that guarantee the fulfillment of the contract agreement and payment for all construction costs.
- The bond is only activated if the Contractor fails to meet the requirements of the contract documents.
- Construction bonds are not required on all construction projects.
- All public projects are required by law to be covered by certain bonds.

Contracting Bonds

- There are four common types of surety bonds used in the construction industry:
  1. Bid Bond
  2. Labor and Material Payment Bond
  3. Performance Bond
  4. Maintenance Bond

Bid Bond

- Many public and private project require that the contractor's submit a bid bond with their bid proposal.
  - The bid bond is obtained by the Contractor that provides security of the bid amount.
  - The **bid bond** guarantees that the contractor if awarded the project, will enter into a contract with the Owner for the amount of the bid submitted.
  - Contractor's will post the required final performance and **labor and material bonds** as stated in the project manual (specifications).

Bid Bond

- If the contractor fails to enter into a contract within the specified time period, the bond will be activated.
  - The Owner would then be paid by the Surety Company, the difference between the contractor's bid and the next lowest responsible bid or the amount of the bid bond, whichever is less.
  - Contractor is then liable to the Surety Company for the amount paid to the Owner.

Bid Bond

- Many owners use the bid bond requirement as a way of pre-qualifying bidders.

- Contractors who are not able to be bonded by the surety will be eliminated from bidding on the project.
  - The thought process is “the contractor would not be capable of being able to complete the project if they are not bondable”.
  - Contractors that have a proven track record and financial stability are allowed to bid, because sureties will only provide bid bonds to those types of construction companies.

Labor and Material Payment Bond

- The **Labor and Material Payment bond** is also issued by the contractor's surety and is submitted after the contractor is awarded the project.
  - The bonds provides the Owner a guarantee that the contractor will pay for all labor, equipment and materials used or supplied in the project.
  - It also guarantees the subcontractors and suppliers thus assuring their payment will be made.
  - The payment bond reduces the owner's risk from claims and liens against the project once it is completed.

Performance Bond

- **Performance Bond** is issued by a surety and is not required at the time of the bid.
  - The bond guarantees that the project will be completed according to the contract documents.
  - The surety takes the financial responsibility for the completion of the project at no additional cost to the Owner.

Maintenance Bonds

- **Maintenance Bonds** can be issued at the time of the project completion.
  - The bond provides coverage for a specific warranty period.
  - The bond usually guarantees the maintenance of one year or less as noted within the language of the performance bond.

Value of Requiring Bonds from the Contractor

- The value of requiring bonds by the contractor and subcontractor is to guarantee the owner that the project is completed according to the contract documents.
  - The bonds make sure no liens or claims will be placed on the completed project.
  - Subcontractors and suppliers are also protected by ensuring that they will be paid for services rendered or material provided.

Construction Terms

- Accepting risks
- Avoiding risks
- Bid Bond
- Bondable
- Bonding capacity
- Bonds
- Builder’s risk insurance
- Business property insurance
- Containing risks

Construction Terms

- Contract of indemnity
- General liability insurance
- Known risks
- Labor and material payment bond
- Liability insurance
- Maintenance bond
- Obligee
- Performance bond
- Personal injury risks

Construction Terms

- Reducing risks
- Risk management
- Risks
- Sharing risks
- Simulation method
- Surety
- Surtyship
- Traditional method
- Transferring risks
- Unknown risks

QUESTIONS?

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