

Continuing Education Course Catalog

VERTEX embraces a Lifetime of Learning philosophy, and we are committed to combining academic and practical learning to achieve enriched curricula that adds value to our clients and employees.

Table of Contents

ENVIRONMENTAL1
DUE DILIGENCE
Due Diligence for Development1
INDUSTRIAL HYGIENE & BUILDING SCIENCES (IHBS)
Universal Waste 2-Hour Awareness Training
INSURANCE SERVICES
ASTM Standard E1527-21 and How the Standard Changes Affect Risk
Background, Sources, and Evaluation of 1,4-Dioxane
Background, Sources, and Evaluation of Polyfluorinated and Perfluorinated Chemicals
Chemical Fire Claim Management
Climate Related Claims: Wildfires, Wind and Water Damage, and Temperature Extremes
Conditions for Reopening Closed Remedial Sites
Construction Related Mold Claims
Directional Drilling
Environmental Hazards in Construction
Environmental Insurance Concerns in Urban Redevelopment
Ethylene Dioxide and Microplastics
Perchlorate: An Overview
Residential No. 2 Fuel Oil Systems
Underground Storage Tanks
EXPERT SERVICES
EXPERT SERVICES
CONTRACT CLAIMS
Calculating Productivity Loss on Disrupted Construction Projects
Schedule Analysis Methods5



The Critical Path Method (CPM) and Common Scheduling Deficiencies
DAMAGES5
Construction Contracts and Their Associated Risks
Differential Foundation Movement: Construction Means & Methods to Implement Repair
FORENSIC
Commercial Roofing: Parts 1 and 2
Concrete Deficiencies
Decks and Balconies
Engineered Wood Construction
Fire Investigation Basics
Fireplace & Chimney Inspections
Infrared Investigations Introduction: Appropriateness and Limitations
Mid-Rise / High-Rise Construction: Typical Building Envelope Defects
Pre-Loss Versus Code Upgrade Repairs
Proper Evaluation of Water Leakage at Building Walls
Residential Roof Framing Workshop
Roof Mounted Solar Panels 8
Septic System Basics
Snow Loading and Ice Dam Considerations
Stucco and EIFS9
The Path to SB 721 Compliance
Tile Flooring Debonding & Buckling9
Understanding Civil Engineering Disputes
Vibration Damage Claims
FORENSIC ACCOUNTING
Fraud Investigations
Fundamentals of Business Interruption Claims

REAL ESTATE & CONSTRUCTION SERVICES
Construction Defect and Delay Risk Mitigation
SURETY
Construction 101
Construction Contract Administration & Common Occurrences of Maladministration
Construction Contract Change Order Clauses and Bearing the Risk of Cost Overruns
Construction Process Overview "Evaluating Specialty Contractors" Considerations for Claims/Underwriting 12
Construction Quality Control
Contract Dispute Resolution for Federal Projects [Joint presentation with counsel, Watt Tieder]
Cost-to-Complete Analysis & Closing Out Projects
Current Trends: Technology in Construction & Claims
Estimating Completion Costs on Defaulted Projects
Failure by Design: Issues with Plans, Specifications, and Submittals
Fundamentals of an Effective Cost-to-Complete Analysis
Fundamentals of Insurance Risk Products for the Construction Industry
Handicapping Affirmative Claims
Handicapping Completion Contingencies
Key Considerations for Projects in Foreign & Remote Locations
Main Considerations in Project Schedule Analysis
Mid-Rise and High-Rise Residential - Construction Defects and Impacts to the Surety
Navigating the Relet Process
Project Closeout
Ratification of Subcontract Agreements
Technical Claim Evaluation - The Complex Payment Bond Claim



DUE DILIGENCE

Due Diligence for Development



This program was developed to communicate some of the most important principles and explains why this process is critical to the developer's proforma and risk evaluation when purchasing a property. We discuss historical research, Recognized Environmental Conditions (RECs), other commonly identified environmental issues, what happens if an environmental issue is identified, data collection techniques, and strategies to consider around complex development planning topics such as the appropriate amount of soil pre-characterization, asbestos and PCB assessment.

INDUSTRIAL HYGIENE & BUILDING SCIENCES (IHBS)

Universal Waste 2-Hour Awareness Training



This program will provide you with the ability to identify the health and environmental hazards of universal wastes; properly label, handle, and store universal wastes; and respond to emergencies.

Universal Waste Training Requirement for Small Quantity Handlers: A small quantity handler of universal waste must inform all employees who handle or have responsibility for managing universal waste. The information must describe proper handling and emergency procedures appropriate to the type(s) of universal waste handled at the facility.

INSURANCE SERVICES

ASTM Standard E1527-21 and How the Standard Changes Affect Risk







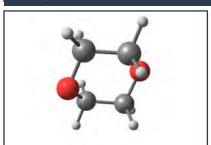
This presentation will address the new ASTM E1527-21 standard changes and how the changes will affect Phase I Environmental Site Assessments and the associated risk for environmental consulting firms who perform them and their insurance carriers.

Background, Sources, and Evaluation of 1,4-Dioxane

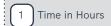








The presentation will focus on 1,4-Dioxane background, regulatory history and environment, and exposure and health effects and how each of these categories can impact underwriting and claims. The presenters will discuss investigation and remediation case studies.



Key







Background, Sources, and Evaluation of Polyfluorinated and Perfluorinated Chemicals









The presentation will focus on PFAS background, regulatory history and environment, and exposure and health effects and how each of these categories can impact underwriting and claims. The presenters will discuss investigation and remediation case studies.

Chemical Fire Claim Management









This presentation will provide an overview of chemical fire claims and the various steps to obtain and review information, identification of key issues, and an overview of several claim scenarios.

Climate Related Claims: Wildfires, Wind and Water Damage, and Temperature Extremes







This presentation will provide an overview of potential claim scenarios associate with wildfires, wind and water damage, and temperature extremes, as well as considerations for underwriting.

Conditions for Reopening Closed Remedial Sites









This presentation provides an overview of 5 different ways that claim sites may be reopened and the reasoning why to help provide an understanding to claim handlers and what to expect.

Construction Related Mold Claims









The presentation will provide an overview of various types of construction, potential for mold impacts, considerations for underwriters, and case studies which evaluate subrogation, allocation and improvement scenarios.







Directional Drilling



This presentation will provide an overview of directional drilling including the various applicable uses, advantages/disadvantages compared to other drilling methods, and associated costs. It will also discuss the risks/hazards of directional drilling and subrogation and claim resolution, including three case studies associated with directional drilling related claims.

Environmental Hazards in Construction







This presentation will provide an overview of some of the chemical, physical, and environmental hazards which can be encountered during construction activities and their potential impact on underwriting and claims.

Environmental Insurance Concerns in Urban Redevelopment









The presentation will focus in on redevelopment sites that have an environmental component associated with the presence of a hazardous substance(s), pollutants(s), or contaminant(s). The presenters will discuss general site risks, the importance of due diligence, and several case studies.

Ethylene Dioxide and Microplastics









This presentation will provide an overview of two emerging contaminants, ethylene dioxide and microplastics. The speaker will provide a description of each component, where they are used, the environmental disposition, health impacts, and what regulations exist regarding each.

Perchlorate: An Overview









The course will discuss various technical aspects of perchlorate, including how these relate to some of the issues commonly faced by claims analysts handling claims made on environmental/pollution insurance policies including the review of costs submitted with respect to reasonableness and necessity, and applicable exclusions; the potential for bodily injury claims; issues regarding the source and timing of pollution that may affect coverage; occurrence vs. claims made policies and new vs. pre-existing conditions coverage considerations; the setting of reserves; and the possible use of structured settlements to resolve perchlorate-related claims, as the associated cleanups are often costly and long-tailed.











Residential No. 2 Fuel Oil Systems









The purpose of this presentation is to provide an overview of the components of a residential heating system including aboveground and underground storage tanks. The presenters will discuss common causes of No. 2 Fuel Oil losses and the steps involved in Cause & Origin investigations.

Underground Storage Tanks









The presentation will provide an overview of an Underground Storage Tank (UST) system, common points of release, investigative techniques and remedial technology options.













CONTRACT CLAIMS

Calculating Productivity Loss on Disrupted Construction Projects









The purpose of this program is to review considerations in calculating productivity loss and delay impacts on disrupted construction projects with a focus on the presentation of damages. The objectives of the presentation are to: (1) introduce productivity and CPM scheduling basics relevant to time-related impacts; (2) discuss the claim evaluation process from the evaluator's perspective; (3) identify common impacts to construction projects; and (4) review key concepts relating to the presentation of damages. The presenters will also walkthrough examples to demonstrate how to apply the discussed principles.

Schedule Analysis Methods









The purpose of this program is to review the main considerations in project schedule analysis, which includes reviewing the key characteristics of construction delay claims and discussing the forensic schedule analysis methodologies commonly employed throughout the industry. The presenters explain the implementation of each of the discussed methods and identify scenarios under which each may be appropriate.

The Critical Path Method (CPM) and Common Scheduling Deficiencies









During this program, the presenters will review the Critical Path Method (CPM) scheduling technique and its role in evaluating construction claims. The objectives of this presentation are to: (1) understand the key characteristics of a CPM schedule and its role in project planning; and (2) provide the audience with an overview of common schedule deficiencies and discuss best practices to achieving high quality, more reliable schedules. The presenters will also discuss contractual considerations, scheduling tools, evaluating schedule quality, and delay claim submissions.

DAMAGES

Page 5

Construction Contracts and Their Associated Risks



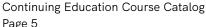






The purpose of this program is to review the construction contracting process and the risks associated with the various construction contract types. The presenters will review in detail the following topics associated with construction contracting: (1) the building process, (2) common project delivery methods, (3) construction contract sources, (4) contract types, and (5) risk associated with the various contract types.













Differential Foundation Movement: Construction Means & Methods to Implement Repair









Differential movement in both residential and commercial projects can cause extensive structural and cosmetic damage oftentimes requiring significant costs to repair the existing damage and to mitigate further differential movement. The visible damage and high cost of repair oftentimes result in litigation.

The purpose of this program is to review common terminology and repair methods involving foundation underpinning when differential movement exceeds allowable tolerances. The objectives of this presentation are to: (1) understand common terminology; (2) understand common foundation and finishes configurations and their impact on construction repair costs; and (3) strategic means and methods to minimize cost while addressing structural concerns.

FORENSIC

Commercial Roofing: Parts 1 and 2









The purpose of this presentation is to introduce commercial roofing systems. The presentation will introduce the different types of roofing and will discuss proper codes and guidelines to be utilized when installing. The presenters will also discuss potential storm damage to the different types of roofing systems along with potential defects which are often mistaken for storm damage.

Concrete Deficiencies









The purpose of this course is to provide a general overview of the most common concrete deficiencies and their causes. The objectives of this presentation are to: (1) review concrete basics, (2) discuss common concrete surface defects and their causes, and (3) troubleshoot finishing and mix design issues. Code and industry standard references will be provided throughout the presentation to provide context and background behind common issues.

Decks and Balconies









The purpose of this course is to provide a general overview of decks and balconies. Collapsed decks and balconies along with their guard rail components represent one of the leading causes of personal injuries resulting in property, liability, and negligence claims. The objectives of this presentation are to: (1) identify the key components of decks and balconies and their purpose, (2) review the applicable building code requirements, (3) highlight importance of guardrail detailing, and (4) discuss the role of property owners and deferred maintenance issues. Examples of common failures will be provided throughout the presentation to reinforce topics covered.

Engineered Wood Construction









The construction industry has seen a recent explosion in the use of wood-framed construction. The purpose of this presentation is to provide an overview of the different engineered wood components and highlight advantages and challenges of building more and higher with wood framing. Objectives during this presentation will include: (1) progression of wood construction, (2) conventional wood framing, (3) types of engineered wood products, (4) advantages and challenges of wood construction, and (5) future growth and code adoptions.









Fire Investigation Basics









The purpose of this presentation is to explain Fire Investigations and Investigators as well as legally mandated and professionally required actions to insurance industry claims and adjusting personnel. The program highlights the Codes, Standards, Guidelines, Court Decisions and Case Law along with investigator training, education and experience that together guide the investigative process in the quest to determine the Origin and Cause of a fire. The presentation also includes discussion of investigative terms including evidence, spoliation, subrogation and the Scientific Method of the investigation.

Fireplace & Chimney Inspections









The purpose of this presentation is to: (1) discuss common types of fireplace and chimneys, including a discussion of fuel types, (2) provide an overview of the construction of common residential fireplace and chimney structures, (3) discuss common forms of fireplace and chimney losses, including fires, weather related damage, and foundation settlement, (4) discuss common inspection techniques, and (5) and finally discuss repair methods. The presentation includes many photographic examples and our goal is for a claims adjuster to leave the presentation with an increased level of comfort with the construction, operation, and inspection of chimneys and fireplaces.

Infrared Investigations Introduction: Appropriateness and Limitations









The purpose of this program is to introduce the technology and the concepts behind effective investigations employing IR equipment. The objectives of this presentation are to: (1) explain what IR is and what it is not, (2) when it is desirable to use the tool, (3) how it can be employed effectively, (4) what good results look like and how they can inform decisions, and (5) provide examples of successful studies using the technology.

Mid-Rise / High-Rise Construction: Typical Building Envelope Defects









The purpose of this course is to provide an overview of typical building envelope construction defects related to Mid-Rise and High-Rise buildings. The objective of the presentation is to discuss common building envelope assemblies associated with these building types and identify common deficiencies related to each.

Pre-Loss Versus Code Upgrade Repairs









The purpose of this presentation is to unpack the often-confusing determination of when repair to building damage can simply restore the components to predamage conditions versus when repair to building damage requires additional code upgrades. This presentation will present a simple flowchart ("cheat sheet") that covers the requirements for all 50 states and DC for repairs to both residential and commercial buildings.









Proper Evaluation of Water Leakage at Building Walls









The purpose of this course is to provide a general overview of water leakage sources through exterior building walls. The objectives of this presentation are to: (1) maximize non-invasive inspection procedures, (2) discuss industry standards for evaluating building wall leakage, and (3) implementing ASTM 2128.

Residential Roof Framing Workshop









One of the most common causes of property damage claims for residential properties is related to construction defects due to a general misunderstanding of the terminology, purpose, and detailing of roof framing. In our experience, even the most experienced contractor, engineer, or architect often do not fully understand the basics of residential roof framing. This workshop aims to provide an overview of: (1) roof framing basics, (2) components and terminology, (3) code requirements for roof framing, and (4) common construction defects and failure mechanisms. Realworld examples will be provided throughout presentation to illustrate topics and terminology covered.

Roof Mounted Solar Panels









With the recent exponential growth in renewable energy technologies and installations, the rate of installation of roof-mounted solar panels is outpacing code adoptions and understanding of the structual requirements by the parties involved. This can lead to design errors, construction defects, contractor liability, or property damage that owners, insurance carriers, attorneys, and designers have to navigate. This presentation aims to outline the relevant structural building code requirements and provide some examples of common failures. The presentation will provide an overview of: (1) basics and components of roof-mounted solar panels, (2) codes and references, (3) common structural issues leading to failure, (4) building envelope issues, and (5) troubleshooting design and liability claims.

Septic System Basics











The purpose of this presentation is to become familiar with the basic components of a subsurface sewage disposal system (septic system) and review some common modes of failure. The objectives of this presentation are to: (1) review the components of a typical septic system, (2) become familiar with information provided on a typical plan/drawing, and (3) review common modes of failure. The presenters will also discuss potential repair methods for some of the more common failures.

Snow Loading and Ice Dam Considerations









The purpose of this course is to provide a general overview of common roof construction issues that can lead to moisture intrusion and/or framing damage during ice dam or snow accumulation. The objectives of this presentation are to: (1) review flashing requirements for roof and siding, (2) discuss mechanism of ice dam formations, (3) highlight the role of attic insulation and ventilation, (4) discuss roof sheathing types and spacing requirements, and (5) provide overview of common failure mechanisms of structural framing during snow load event.











Stucco and EIFS



The purpose of this presentation is to introduce the participant to traditional stucco and EIFS. With much of the U.S. accepting and widely using stucco, especially in humid regions, the understanding of the system and its intention is critical. The presentation will introduce the different materials which are included within a traditional stucco system and the importance of each. The presenters will discuss proper codes and guidelines to be utilized when installing. The presentation will also review potential defects and installation issues which have caused historical problems. Lastly, we will provide inspection guidance and items to be concerned with when inspecting.

The Path to SB 721 Compliance









This program will provide you with an understanding the impact of California's exterior elevated element inspection laws on apartment owners, lenders and asset managers.

Tile Flooring Debonding & Buckling









The purpose of this course is to provide a general overview of tile flooring and the common failure modes of non-bonding and buckling. The objectives of this presentation are to: (1) review tile flooring types and installation, (2) identify tile flooring debonding and buckling, (3) study causes of tile flooring failure, (4) outline approaches on how to assess flooring for debonding and buckling, and (5) review various case studies.

Understanding Civil Engineering Disputes









The objectives of this presentation are to: (1) attain a better understanding of civil engineering plans and the information contained within them; (2) Educate the audience to the key components of the same plans; (3) Discuss current trends as it relates to civil and heavy civil engineering claims; and (4) Discuss measures to mitigate exposure to liability claims related to civil and heavy civil engineering projects. This will be an interactive presentation with multiple case studies showing real world examples of projects and claims that Dr. VanDemark has been involved in.

Vibration Damage Claims









The purpose of this presentation is to introduce damage claims from construction and blast loading for property and liability claim professionals. The objectives of the program will be to: (1) provide basics of vibration due to construction and blasting activities, (2) research and thresholds for vibration damage, (3) evaluating damage claims, and (4) preventing and mitigating vibration damage claims.











FORENSIC ACCOUNTING

Fraud Investigations









The purpose of this program is to review the fundamentals of fraud. The objectives of this presentation are to: (1) understand the fundamentals of fraud, (2) understand the profile of a fraudster, (3) understand the types of fraud and how they can be caught, and (4) understand a forensic accountant's role in detecting fraud. Additionally, the presenters will review a variety of case studies to provide real life examples of what surety providers and claim adjusters may encounter.

Fundamentals of Business Interruption Claims









The purpose of this program is to review the fundamentals of business interruption claims. The objectives of this presentation are to: (1) understand the fundamentals of a business interruption claim; (2) understand a forensic accountant's role in the claim process; (3) understand the documents needed to evaluate a claim; and (4) understand how business interruption loss is calculated. Additionally, the presenters will review a variety of case studies to provide real life examples of what surety providers and claim adjusters may encounter.

Key









REAL ESTATE & CONSTRUCTION SERVICES

Construction Defect and Delay Risk Mitigation







The purpose of this program is to help pension fund clients better understand why construction projects fail and provide attendees with tools to mitigate those risks from VERTEX's experience. The presentation will review construction risk factors, tools for prevention and detailed case studies.











Construction 101





The purpose of this presentation is to explain the building process through a discussion of the pre-construction, construction and post-construction phases. This program highlights the keys to a successful project during all three phases and will also include a detailed explanation and examples of conceptualization, design, construction documentation, construction, and closeout / evaluation.

Construction Contract Administration & Common Occurrences of Maladministration









The purpose of this presentation is to review standard construction contract administration procedures, and also discuss common occurrences of maladministration. The presenters will discuss: (1) issues that commonly arise with the administration of a contract which may not be in compliance with contract procedures, thus potentially offering a surety and their counsel with defenses against a performance bond claim; and (2) strategies to identify occurrences of maladministration will also be discussed.

Construction Contract Change Order Clauses and Bearing the Risk of Cost Overruns









The purpose of this program is to understand the change order process, different change order forms and their structures, and how to mitigate the risk of incurring unrecoverable cost overruns. To fully understand the contract change process, surety professionals should understand the components of change orders and understand how the language included in the contract general conditions can impact project execution. Additionally, understanding the risks associated with scope changes and unforeseen conditions during construction can assist the surety professional with determining how to address an Obligee's bond claims and develop an effective resolution strategy. The presenters will also review several case studies to demonstrate how poorly written or under-negotiated change orders can impact a project and/or the surety's principal.

Construction Process Overview "Evaluating Specialty Contractors" Considerations for Claims/Underwriting



The purpose of this presentation is to explain the building process through a discussion of the pre-construction, construction, and post-construction phases. This program highlights the keys to a successful project during all three phases and will also include a detailed explanation and examples of conceptualization, design, construction documentation, construction, and closeout / evaluation.











Construction Quality Control



This presentation will inform audience members about project quality control and review some of the prevalent issues in the construction industry regarding quality control, testing and inspections, company culture and vendor/supplier challenges. The presenters will review the following project topics where risk is greatest: (1) Construction team management of quality; (2) agencies having jurisdiction regulations and limits to conformity of work; (3) communication challenges; (4) material, equipment, and systems procurement; (5) start-up testing and commissioning; (6) quality control pre-planning and pre-installation meetings; (7) quality management & different roles; (8) inspections and testing on projects.

Contract Dispute Resolution for Federal Projects [Joint presentation with counsel, Watt Tieder]









The purpose of this program is to review contract dispute resolution on federal projects. The objectives of this presentation are to: (1) provide a background of the common types of claims and how the Federal Acquisition Regulations address these claims; (2) describe in detail the evolution of a claim; (3) outline the dispute resolution process; and (4) provide strategies for claim resolution. Additionally, the presenters will review several case studies and the outcome of each to provide real life examples of what surety providers and claim adjusters may encounter.

Cost-to-Complete Analysis & Closing Out Projects









The purpose of this program is to review a cost-to-complete analysis and the project closeout process. The objectives of this presentation are to: (1) review the fundamentals of a cost to complete analysis and how this loss analysis report is prepared, (2) identify key closeout components, (3) discuss how to successfully track the closeout process and (4) discuss how to avoid potential closeout pitfalls.

Current Trends: Technology in Construction & Claims









The purpose of this program is to review current and recent technological developments in the construction industry and advise the audience how those technologies can be utilized in the Surety industry. The objectives of this presentation are to: (1) review technological developments and state-of-the-art equipment recently released in the construction industry; (2) discuss potential applications of the new technologies as they relate to the Surety bonding and claims industry; and (3) explain how the implementation of these methodologies can mitigate both risk and loss in a claim, and how they can aid with development of cost estimations and completion studies.

Estimating Completion Costs on Defaulted Projects









In this course, the presenters will cover the considerations necessary to quickly and accurately estimate the total cost to complete a defaulted project, and inform the strategy and decisions required to develop a completion scenario. The speakers will review the methods for estimating costs associated with many components of a construction project, including: (1) subcontractors, (2) deficiency correction, (3) self-performance, (4) supervision, (5) temporary requirements, (6) warranties, and (7) contingencies.











Failure by Design: Issues with Plans, Specifications, and Submittals









The purpose of this presentation is to review and discuss the impact of contract documents, such as Plans and Specifications, and other project documents, such as RFI's and Submittal's with respect to design responsibility and resulting liabilities. Common contract language is specifically highlighted to present potential pitfalls. The presentation will review: (1) understanding design responsibility in various project delivery methods; (2) how to deal with ambiguities in Plans and Specifications; (3) Contractor obligations with respect to the review of contract documents; (4) the role of submittals, shop drawings and RFI's; (5) Surety defenses under common scenarios involving issues with Plans, Specs and submittals; and (6) other considerations for a Completing Surety. With a thorough understanding of the key project documents, the presenters will provide both underwriters and claim handlers with a mindset approaching project risks and claims.

Fundamentals of an Effective Cost-to-Complete Analysis









The purpose of this program is to review the fundamentals of a Cost-to-Complete Analysis. The goals of this presentation are (1) to discuss the key components of a cost to complete analysis including but not limited to subcontractor and vendor balances, remaining buyout estimates, self-performance estimates, general conditions, accounts payable including earned retainages, and potential back charges and claims and (2) to discuss project risks and exposures and how to reflect same in the cost to complete analysis.

Fundamentals of Insurance Risk Products for the Construction Industry









The purpose of this program is to provide an overview of the most common types of underwritten risk products used in the construction industry today. The objectives of the presentation are to: 1) Discuss the fundamentals of underwritten risk products such as: Contractor Commercial General Liability (CGL); Contract Surety Bonds -Payment and Performance; Builders Risk Insurance; OCIP/CCIP Policies; Contractor Professional Liability (E&O) Insurance; & Subcontractor Default (SubGuard) Insurance; 2) and to discuss how these different products are triggered when a Construction Defect Claim arises.

Handicapping Affirmative Claims









The purpose of this course is to review how to evaluate and handicap affirmative claims that are presented to sureties by their principals. The surety professional needs to understand whether its Principal's claims against the Obligee may have merit and could result in recovery. This is a key consideration to determine the path forward for claim settlement, to determine how to include the principal's claim(s) in the surety's loss analysis. There are several variables to consider when handicapping an affirmative claim, such as compliance with notice provisions entitlement analysis, schedule impact analysis, and the damages quantification.











Handicapping Completion Contingencies









The purpose of this program is to review how to evaluate cost contingencies on projects. The objectives of this presentation are to: (1) review the various areas where unknown costs can arise in order to properly estimate completion costs and set reserves which take into consideration various latent and patent factors; (2) demonstrate to the audience how to anticipate cost risk not only relating to the root reason of default but also consider the long list of stakeholders to a project and in turn their own impacts that can potentially be pushed back through the contract onto the contractor and/or surety. (3) Once the project becomes substantially complete what potential costs can arise during warranty and close out of a project

not only within the contract but to other subcontractors, vendors, and owner representatives. (4) The presenters will review the steps involved, which include handicapping contingencies based on probabilities, past experiences and percent of risk remaining including evaluating performance to date by various parties to determine likelihood of potential future costs and durations to undertake them. (5) The presenters will evaluate past projects and contingency impacts that arose both known and unknown.

Key Considerations for Projects in Foreign & Remote Locations









The purpose of this presentation is to review the key considerations for projects in foreign and remote locations, specifically as applicable to U.S. contractors performing work in foreign or remote locations. The presenters will review in detail the following project topics where risks and associated cost increases are the greatest: (1) construction team management staff, (2) construction team labor force, (3) location regulations and laws, (4) communication challenges, (5) material, equipment, and systems procurement, (6) project specific & administrative requirements and (7) performance bond claims & surety takeovers. Additionally, the presenters will review a variety of case studies and the outcome of each to provide real life examples of what surety providers and claim adjusters may encounter.

Main Considerations in Project Schedule Analysis









The purpose of this program is to review the main considerations in project schedule analysis, which includes reviewing the key characteristics and common causes of delay claims, types of resultant delay damages, and forensic scheduling methodologies. The presenters will also discuss contractual considerations, example scheduling tools, the quality of schedules encountered, and supporting documentation requirements.

Mid-Rise and High-Rise Residential - Construction Defects and Impacts to the Surety









The purpose of this presentation is to review construction defects common to midrise and high-rise residential construction. The presenters will identify common issues that occur as a result of vulnerable technical details and poor workmanship. The impact of these defects will be reviewed: from how they are investigated and identified, to how they are remediated, and the resulting costs. Strategies to avoid these defects and to mitigate the costs of remediation will also be discussed.











Navigating the Relet Process



Often the surety elects to perform and complete the remaining work through the use of a completing contractor. The purpose of this program is to explain the entire process of preparing a relet, potential pitfalls to avoid and strategies of the various relet scenarios we have encountered as consultants. Time (through exposure to potential liquidated damages and other claim exposure) and relet/ratification premiums present some of the highest potential exposure. Understanding these components, their potential impact through the relet process and the most advantageous options to minimize cost exposure will be discussed. We will review these topics and explore them within the unique challenges we've encountered in our multiple relet situations and how we overcame those challenges.

Project Closeout









The Closeout process is probably the last thing on the mind when negotiating a Takeover Agreement. However, failure to contemplate closeout procedures can result in additional time and costs if the Obligee's expectations and the contractual requirements are not considered. Understanding the requirements of the prime contract and obligations of the individual subcontracts is essential when estimating completion costs.

Ratification of Subcontract Agreements









In the presentation, the speakers will review: (1) the basics of a ratification agreement, (2) the preparation of a ratification and evaluation of a subcontractor payment bond claim, and (3) common challenges encountered during the ratification process and practical considerations for how to address them.

Technical Claim Evaluation - The Complex Payment Bond Claim









The purpose of this program is to review how to evaluate technical claims. The objectives of this presentation are to: (1) review the proper way to prepare/evaluate affirmative claims; (2) teach the audience how to use this methodology to help negotiate a quick and reasonable settlement of payment bond claims; and (3) if settlement fails, explain how this methodology will position a surety and insurance carriers well for dispute resolution. Additionally, the presenters will review the steps involved, which include: evaluating the nature of a claim; entitlement; damages; compiling a damages summary to outline the earned but unpaid contract funds, earned but unpaid retainage, pending charge orders, loss of productivity, delay damages, lost profits, interest / fees and setoffs for defective work; compiling a report and exhibits to explain findings; and settling the claim.

















The purpose of this program is to review key events and decisions that occur within the first 90 days following a contractor termination. The objectives of this presentation are to: (1) assess a project immediately following a contractor default; (2) discuss methods of acquiring necessary Project information and instituting temporary measures to protect the work-in-place; and (3) define some criteria for developing the optimal path forward. Throughout the presentation, the presenters will review the steps involved, which include: responding to the initial claim; securing the jobsite; securing project records and documentation; preliminary investigation; collecting insurance certificates; settling a payment bond claim; subcontractor ratification; defect resolution; reletting a project; and tendering or taking over a project.



Key









Please contact <u>ContinuingEducation@vertexeng.com</u> regarding comments or questions.

