



## Pre-Conference Tour: Sunday, October 20, 2019

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### Hoover Dam and Power Plant Tour & Raiders Stadium Tour

**Hoover Dam:** This tour starts with a 10-minute film that describes the contributions of Hoover Dam to the developing West, and the massive construction effort behind this engineering marvel. Next, a 70-second elevator ride takes you 530 feet down through the rock wall of Black Canyon into a tunnel drilled in the 1930s for construction. From the Penstock Viewing Platform you will be atop one (of four) of the huge 30-foot-diameter pipes that can transport nearly 90,000 gallons of water *each second* from Lake Mead to the dam's hydroelectric generators. An animated display will help you learn about the complexities of the engineering and construction of the dam, and how it presently operates. A quick elevator ride up to the balcony takes you to a panoramic view of the 650-foot-long Nevada wing of the powerplant and eight of the dam's 17 huge generators. Lunch will be provided in nearby Boulder City.

**Raiders Stadium:** Tour this state of the art, \$1.8 billion stadium, which will seat 65,000 spectators. Learn how the retractable glass doors, the roll-in natural grass playing field and a cable-net/translucent-domed roof are just a few of the marvels that presented challenges during design/engineering and now construction. See first-hand the complexities of the geology, foundation system, structural frame and roofing system all tie together along with the fire control systems. The Raiders stadium is a fast-track project that is scheduled to open for the 2020 NFL Football season. ***Please note: Personal Protective Equipment (hard hats/safety glasses/vests/gloves) will be provided. Close-toe shoes are mandatory, as this is an active construction site.***

## Pre-Conference Tour: Sunday, October 20, 2019

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### Lunch & Hoover Dam and Power Plant Tour

**Hoover Dam:** This tour starts with Lunch in nearby Boulder City. The tour begins with a 10-minute film that describes the contributions of Hoover Dam to the developing West, and the massive construction effort behind this engineering marvel. Next, a 70-second elevator ride takes you 530 feet down through the rock wall of Black Canyon into a tunnel drilled in the 1930s for construction. From the Penstock Viewing Platform you will be atop one (of four) of the huge 30-foot-diameter pipes that can transport nearly 90,000 gallons of water *each second* from Lake Mead to the dam's hydroelectric generators. An animated display will help you learn about the complexities of the engineering and construction of the dam, and how it presently operates. A quick elevator ride up to the balcony takes you to a panoramic view of the 650-foot-long Nevada wing of the powerplant and eight of the dam's 17 huge generators. Lunch will be provided in nearby Boulder City.



# Conference Education Program

## Monday, October 21, 2019

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### Performance-Based Design Shouldn't Need to be a Gamble: What Code Official's Should (Need To?) Know

**Presenter Name:** Chris Jelenewicz, Ray Grill, Gary Lewis

**Description:** Performance-based design (PBD) is an engineering approach to fire protection design or alternate methods in the IBC based on established fire safety objectives and functional statements, analysis of fire scenarios, and assessment of designs based on the objectives and functional statements. Performance-based design differs from traditional prescriptive design that code officials are accustomed to in that specific methods for achieving compliance with the design intent are established by the design team, in partnership with the code official. A fire/life safety solution is developed that is tailored to the specific building, fire and occupant characteristics contained within the building being assessed. The result can be a better overall fire safety solution for the building or facility as compared to prescriptive compliance. This presentation will be tailored for the code official and will provide an overview of the performance-based design review process, the role of the AHJ, and tools available to the code official. Specifically, the presentation will center around the approaches outlined in the ICC Performance Code for Buildings and Facilities and the SFPE Guide to Performance-Based Design.

### Engineering Judgements: The Good, The Bad, The Useful

**Presenter Name:** Brian Lieburn, Lorraine Ross

Many of the ICC model codes, such as the international Building Code (IBC), contain fire testing of complete assemblies. For example, fire resistance of walls is determined by ASTM E119. The code recognizes that the combination of building elements in an assembly can potentially reach tens of thousands of assemblies making it impractical to test each and every wall variation. Therefore, the code allows "engineering analysis based on a comparison of building element, component or assembly designs having fire-resistance ratings as determined by the test procedures set forth in ASTM E119 or UL 263. (Section 703.3 Item 4)." Engineering judgements are also used for other code required fire testing of assemblies include fire stopping, ASTM E814 and NFPA 285. This presentation will review types of engineering judgements, guidance documents that are used to develop a credible engineering judgement, a suggested review process, and a group exercise in how to evaluate an engineering judgement submittal. Time will be allotted for questions and discussion.



### Outcomes of the ICC Tall Wood Ad Hoc Committee: Mass Timber Provisions in the 2021 IBC

**Presenter Name:** Dennis Richardson

**Description:** In early 2016, the ICC Board of Directors approved the creation of an ad hoc committee to explore the building science of tall wood buildings with the scope being to investigate the feasibility of and take action to develop code changes for tall wood buildings. Since that time, the Tall Wood Building (TWB) Ad Hoc Committee has reviewed voluminous materials regarding tall wood buildings, including results of various testing around the world, as well as studies domestically in support of the TWB charge to conduct a thorough review of the science of tall wood. The TWB developed its own test scenario(s) to substantiate any code change proposals (testing was carried out at ATF labs); and worked to develop a comprehensive set of technically-substantiated code changes for consideration during the 2018 Group A code development process. The intensive research performed by the Committee will be presented in addition to the resulting proposals, developed by Committee consensus and submitted to the ICC Code Development Process. The changes were submitted to ICC in accordance with the January 8, 2018 deadline and will be considered during Committee Action Hearings from April 15 - 25, 2018.

### Allowable Heights and Areas

**Presenter Name:** Jay Woodward

**Description:** Based on the provisions of IBC Chapter 5, this seminar focuses on how a building's occupancy classification and type of construction relate to the maximum building size permitted by the IBC. The approach to determining a building's maximum allowable height and area is explained, including use of Table 503 and all related permitted increases due to sprinkler protection and frontage open space. Detailed provisions related to mezzanines and unlimited area buildings are also addressed.

### Use of Fire and Smoke Separations

**Presenter Name:** John Gibson

**Description:** This seminar identifies the many and varied conditions identified in the IBC where fire and/or smoke separations are required. The discussion will focus on those required locations where fire-resistance-rated wall and horizontal assemblies, as well as smoke-resistive wall and horizontal assemblies are either required by the IBC or utilized by design professionals as alternative approaches to code compliance. Such locations include the selective or mandated use of fire walls, fire barriers, fire partitions, smoke barriers, horizontal assemblies and other separation elements.



### IRC Wood Wall Bracing

**Presenter Name:** Sandra Hyde

**Description:** This seminar provides a comprehensive explanation of the 2018 International Residential Code® (IRC®) Wood Wall bracing requirements. The seminar will focus on basic requirements and clarify the application of wall bracing provisions in the IRC wall bracing Sections R602.10 thru R602.12.

### Use of Fire Sprinklers and Alarms

**Presenter Name:** Terrell Stripling

**Description:** This course provides an overview of the 2018 IBC provisions addressing the use of automatic sprinkler systems and fire alarm systems.

### But We've Always Done It That Way! Public Sector Leadership In Collaborative Governance

**Presenter Name:** Matt Wheeler, Bob Latz

**Description:** But we've always done it that way, is no longer in the vocabulary of most public sector leaders. The term collaborative governance has become the new norm, which when applied prudently, presents incredible opportunities for governmental entities. Innovative practices, including economic forecasting and public-private partnerships, can lead to positive, cost-effective, and politically viable outcomes. This presentation will detail how by moving past traditional, bureaucratic models of budgeting, operations and development and partnering with private and nonprofit sector counterparts, public sector leaders can place themselves in better positions to serve their communities.

### Understanding Liability Coordination between Architects/Engineers and Code Officials

**Presenter Name:** Eirene Knott, Dwayne Garriss

**Description:** As a code official, have you ever wondered why the design professional may be reluctant in providing information that may not apply to the scope of work on their project? Perhaps it's an item that the landlord is responsible for, such as an accessible route from the accessible parking to an accessible building entrance. This course will review how the code official and design professional can work together to address items that are not covered in the scope of the design professional's work yet get the code official the information they need to issue a building permit.



### Construction Fire Safety Best Practices

**Presenter Name:** Raymond C. O’Brocki

**Description:** This program provides information to assist the Fire Service charged with responsibilities for fire and life safety on a construction site to follow best practices. Builders and building officials will also benefit from the information provided. The purpose is to reduce the risk of injuries and losses from fire. The information applies to the design and planning stages as well as the actual construction phase of buildings. Many hazards can be addressed before they become an issue by adoption of best practices and rigorous code enforcement. The primary focus of this program is on large buildings during construction. Other topics that include demolition, alterations, renovations, repair and maintenance, as well as newly-completed buildings will be discussed. This program provides guidance that is based on compliance with Chapter 33 of the 2018 International Fire Code, Chapter 33 of the 2018 International Building Code, and NFPA Standards 1 and 241.

### Mixed Occupancies

**Presenter Name:** Jay Woodward

**Description:** Based on the provisions of IBC Section 508, this seminar addresses those special requirements applicable to buildings containing two or more occupancy classifications. The three mixed-occupancy options are presented along with examples and exercises that illustrate the proper application of the provisions. Specific topics include: Occupancy classification, Mixed occupancy conditions, Accessory occupancies, Nonseparated occupancies, Separated occupancies and Multi-story conditions.

### Exit Systems

**Presenter Name:** John Gibson

**Description:** This seminar focuses on IBC Chapter 10 means of egress components that are defined and regulated as “exits.” These components, defined in Chapter 2, are considered as high-level elements that provide a considerable degree of occupant protection within the means of egress system. The exit discharge provisions will also be discussed. Specific topics include: Exterior exit doors at the level of exit discharge, Interior exit stairways and ramps, Exit passageways, Horizontal exits, Exterior exit stairways and ramps and Exit discharge.

### Safety Glazing (IBC/IRC)

**Presenter Name:** Steve Van Note

**Description:** This seminar examines the safety glazing requirements of the 2015 editions of the International Residential Code® (IRC®) and the International Building Code® (IBC®), and illustrates the application of the provisions in various scenarios. Coverage includes testing and



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labeling requirements, and examples of approved materials. The program identifies hazardous locations related to glazing in residential and commercial buildings, explores design choices in satisfying the code requirements, and analyzes examples of typical glazing installations for compliance with the safety glazing provisions.

### High- Piled Combustible Storage

**Presenter Name:** Terrell Stripling

**Description:** The 2015 IFC High-piled Combustible Storage seminar provides a basic understanding of the hazards associated with high-piled combustible storage and introduces the participants to the provisions in Chapter 32 of the 2015 edition of the International Fire Code® (IFC®). This seminar places special emphasis on the classification of commodities and understanding the design criteria in NFPA 13 for storage.

## Conference Education Program Tour Monday, October 21, 2019

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### Secrets of the Las Vegas Strip Double Decker Bus Tour

Take in the bright lights of this neon oasis. Ride in an open-top bus and immerse yourself in the exciting glitz and glamour of the world famous Las Vegas Strip. Hear the highlights of how this iconic city rose out of the desert to become the entertainment capital of the world. This tour will start at the Rio Hotel and then travel along “the Strip” (Las Vegas Boulevard) from Mandalay Bay to the Fremont Street Experience and back. During the tour, your local, ICC tour guides will also explain some of the complex geology, engineering and construction that occurred to build this city. **-- *What happens in Vegas, stays in Vegas, but only for you, the good fellows, will let you in on the secrets of Las Vegas. Ron (Guido) Lynn and Sam (Bugsy) Palmer will be your hosts.***



# Conference Education Program

## Tuesday, October 22, 2019

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### Commercial Hoods

**Presenter Name:** Terrell Stripling

**Description:** This seminar will address the applicable requirements in the International Mechanical Code® (IMC®), International Fire Code® (IFC®), International Fuel Gas Code® (IFGC®), International Building Code (IBC®) and International Energy Conservation Code® (IECC®) as applicable to commercial kitchen hoods. It emphasizes commercial hood and duct construction, when commercial hoods are required, what type of hood is required for different cooking appliances, and air movement requirements for commercial cooking hoods.

### IAEI Residential Installations Conforming with Part 8 of the 2018 IRC

**Presenter Name:** Keith Lofland

**Description:** The comprehensive seminar explains in clear, concise language, pictures and graphics the installation, design, and inspections of electrical systems in new and existing one- and two-family dwellings. The seminar includes the electrical requirements of both the National Electrical Code (NEC) and the International Residential Code (IRC). Inspectors, contractors, electricians and students will find this particular seminar particularly helpful. The program will assist attendees in making more accurate, thorough, and safer installations and inspections of one- and two-family dwellings dealing specifically with the electrical requirements of Chapter 34 through 42 of the IRC.

### Quality Management 101: An Intro for Building Departments

**Presenter Name:** Kellee Fernandez

**Description:** This course provides an overview of the basic requirements for a quality management system designed to put building departments on a path to continuous improvements in efficiency, building safety, and customer satisfaction.

### Building Classification

**Presenter Name:** John Gibson

**Description:** This seminar addresses the key issues of the 2018 International Building Code® (IBC®) regarding the proper classification of buildings. The process for correctly evaluating a building for code compliance relies on a systematic approach to the determination of occupancy classification and construction type. Everything starts with the correct building classification! A clear understanding of the classification process provides the groundwork for the proper application of many other important code provisions.



### Guiding Building Departments In Adopting And Using Digital Technologies

**Presenter Name:** David Khorram, Robert Wible, Issam Shahrouri

**Description:** Building departments across the nation are faced with multiple forces impacting their staffing levels and the growing pressure to make greater use of information technologies to improve the quality and timeliness of their services. This presentation shares the research and recommended actions from the CALBO Innovative Practices Committee (IPC) which over the past two years has been surveying, researching and producing reports to enable building departments to make better use of technologies to strengthen their building codes administration and enforcement programs. This presentation provides an overview of IPC work on ten (10) technologies currently available to building departments and a template on how to successfully implement technology in building and safety department.

### Accessible Means of Egress

**Presenter Name:** Jay Woodward

**Description:** 2015 International Building Code® (IBC®) accessible means of egress requirements. The way someone enters and moves into a building is not always the same way they move to evacuate a building in an emergency. In addition to accessible entry, persons with disabilities must be considered when designing plans and building systems used for emergency evacuation. The accessible means of egress provisions are required for all new construction. This program will introduce you to the concepts, details, options and application of accessible exiting provisions. Discussions will include operational safety plans, fire drills, and notification/communication for occupants in a building during the emergency and physical building requirements. Examples of typical building layouts will be included to facilitate understanding. Also provided will be a brief overview of the new technologies for fire service access elevators and occupant evacuation elevators, which can be an important part of the accessible means of egress. The accessible means of egress provisions from the International Building Code® (IBC®) are referenced in the 2010 ADA Standard for Accessible Design (also called the new ADAAG). This program will assist in understanding how the codes and federal regulations are now working to harmonize the national response to designing a building not only for ingress, but for egress as well.

### Building Code Awareness Project. No Code. No Confidence

**Presenter Name:** Michael Rimoldi, Zack Boileau, John Ingargiola

**Description:** This a public-private project led by the Federal Alliance for Safe Homes (FLASH) for FEMA Planning, Safety, & Building Sciences Division. The project follows a phased approach to develop and test messages that convey the benefits of building codes while making codes more relevant to the public's behavior.



## The Building Official's Role in a Metal Building System Project Subtitle From Plan Review to Special Inspection and IAS AC472 Accreditation

**Presenter Name:** Sandi McCracken, Dr. Lee Shoemaker, Tony Bouquot

**Description:** The Building Officials Role in a Metal Building Project and IBC Chapter 17

## What Happens in Vegas...is All Explained Right Here!

**Presenter:** Kevin McOsker

**Description:** Join us for a sneak peek into the realm of what really happens in Vegas. From mobsters to micro piles, this session will explore nearly 30 years' worth of the most interesting projects, challenges, and events regarding the Built Environment through the eyes of a Building Official. Topics to look forward to include: Vegas as a family-friendly destination, the Hilton Sign failure, Mandalay Bay micro piles, MGM City Centre, Resort Inspection Program, Cosmopolitan Fire and more.

## Existing Sewer Repair Using Trenchless Methodology

**Presenter Name:** Jo Anne Carroll, Jacob Trapani, Carl Marc-Aurele, ing. (P. Eng)

**Description:** Several studies have confirmed that many of the existing house sewers or lateral pipes have reached their life expectancy and are either failing and/or contributing large amounts of infiltration and/or inflow (I/I) to the main sewer pipeline. In response, technology providers have developed a number of products and technologies to repair and seal lateral pipes using cured-in-place pipe (CIPP) a trenchless methodology. Lateral pipes often have multiple bends, diameter changes, offset joints, cracks, deposits, and roots, which create considerable challenges to repair. Trenchless rehabilitation can address these issues while minimizing the impact to property owners and sewer providers. These technologies also provide an effective service life through proven, tested materials and refined installation procedures to meet owner expectations. The principal approaches for repair of lateral pipes using CIPP are presented as an educational resource to present the advantages of each approach designed to assist with application in accordance with existing standards and code. The presentation was prepared by the NASSCO Lateral Committee.

## IAEI Swimming Pool Requirements Based on Chapter 42, 2018 IRC

**Presenter Name:** Keith Lofland

**Description:** This seminar reviews the electrical requirements pertaining to the unique environment in and around swimming pools and similar installations. This presentation primarily focuses on Chapter 42 of the IRC. Article 680 of the NEC will be reference periodically. Shock hazards in and around a swimming pool can result from faulty electrical equipment directly associated with the pool or from faulty electrical equipment not associated with but in close



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proximity to the pool. The installations covered by this seminar can be indoors or outdoors, permanent or storable, all with their own distinctive electrical requirements. This seminar will lead the participants down the sometime complex but necessary winding road to electrical safety.

### From the Ground Up

**Presenter Name:** Mary Dickson

**Description:** A comprehensive study of all phases of residential construction geared toward the Permit Tech. Construction, and inspection processes, and terminology will be covered in depth. Attendees will gain knowledge about the construction of a single family residence- both frame and masonry, be able to identify various construction materials and have a better understanding of the required inspections.

### Mentoring in the Future Your Role in Safety 2.0

**Presenter Name:** Andre Jaen

**Description:** In the next 10 years a majority of existing building officials will be retiring-- taking with them a lifetime of skills and knowledge that have shaped the built environment. Who will replace them? Will those replacements be ready? This class seeks to tackle this issue head on by discussing the looming shortage of qualified inspectors advocating formal and informal mentoring to help ready the next generation of code professionals.

### Gender Neutral Restrooms

**Presenter Name:** David Collins

**Description:** An introduction to the application of the plumbing and building code requirements for gender neutral restrooms.

### Best Practices from Building Departments Across the US

**Presenters:** Jose Roig, Chuck Ramani, Sam Palmer, Ron Lynn

**Description:** A synopsis of the best practices learned over this past year from numerous Building Departments throughout the US. These Best Practices were compiled through those Departments participating in the IAS - Building Department Accreditation Program and through interaction with the ICC - Major Jurisdiction Committee. This course is presented as a joint activity of the International Accreditation Service (IAS) and the ICC Major Jurisdiction Committee (MJC) for the identification of best practices to assist fellow Departments in the betterment of their built environment.



### 1 October Mass Shootings

**Presenter Name:** Gregg Cassell

**Description:** This class will be an overview of the events that happened at the 1 October Mass Shooting in our jurisdiction resulting in the death of 58 concert goers. The class will conclude with concerns on exiting and how that played into the event.

### Type 1 Commercial Cooking Operations

**Presenter Name:** Chris Young

**Description:** A comprehensive look into the I-Codes and applicable Referenced Standards that apply to Plan Review, Inspections and system compliance.

### Exterior Wall and Opening Protection

**Presenter Name:** Jay Woodward

**Description:** This seminar addresses the various provisions in the IBC dealing with exterior wall design and construction. Although such walls are primarily regulated due to their location on the lot, many other additional requirements are set forth in the code. Exterior bearing walls are regulated by Table 601, while the use of exterior exit stairways, exit courts and exterior areas of assisted rescue will also typically mandate some degree of fire-resistance. Specific topics include: Fire separation distance, Location on lot, Multiple buildings on the same lot, Type of construction, Combustible materials on exterior side of wall, Exitways including exterior exit stairways, exit courts, interior exit stairways and exterior balconies, Exterior areas of assisted rescue and Fire wall termination.

### IBC Overview for Permit Techs

**Presenter Name:** Mary Dickson

**Description:** This one day class will cover a general overview of the design components of the International Building Code. Topics will include Occupancy Type, Construction Types, how to determine Occupant load, number of exits, egress, allowable area, accessory and incidental use areas and fire sprinkler provisions.

Participants in this class will be able to identify occupancies, determine the occupant load and exit requirements for various building types. Students will have an understanding of when and where the various types of construction are used and why. Bring to class the IBC and a calculator.



### Special Building Types and Features

**Presenter Name:** John Gibson

**Description:** Based on selected provisions from Chapter 4, this seminar focuses on several special building types and features. High-rise buildings, underground buildings, parking garages are specialized buildings that have their own unique considerations. Atriums, stages and platforms are building features that are evaluated in a special manner due to the hazards involved. The special detailed requirements and allowances set forth throughout Chapter 4 address a variety of uses and occupancies.

### It's Not Just a Title Change: Becoming a Leader

**Presenter Name:** Ivan Joseph

**Description:** Back by popular demand, Dr. Ivan Joseph will discuss the critical movement and growth necessary to go from employee to leader and how we lead and interact with others is of critical importance to this growth. Too often, "good enough" is what is accepted from others. People often only achieve the minimum expectations set for them. But if those you lead aren't performing at the highest level a leader must look within. Without even knowing, each of us transmits subtle cues to others about what we expect - and people do what we expect of them. The greater the expectation, the better people perform. Sometimes as we move from employee to leader, these cues and expectations can get skewed.

Our beliefs determine our accomplishments. Once Roger Bannister broke the 4 minute mile, within the next six months a number of others did too, with no special training. Ivan Joseph was a good soccer coach - in the top 10 - but he wanted to be a great coach. In this dynamic talk, he shares what he did to help his team gradually improve their performance while at the same time improving their grades. His team won the National Championship, and he was recognized as Coach of the Year. The tips and lessons you'll learn in this talk are ones you'll apply in your business and your life.

### An Introduction Overview of the 2018 Igcc and Implementation Options

**Presenter Name:** Hope Medina

**Description:** It's official! There's a new and improved IgCC in town that combines the technical content of ASHRAE 189.1 with the scoping and administration of the IgCC. Join us this session for an in-depth take from the experts on how your jurisdiction can adopt and effectively implement the 2018 IgCC. From plan review to inspections and certificate of occupancy, we'll be giving you the cliff notes on how to create an effective green code program. We'll also be covering significant changes between the 2015 and 2018 IgCC, and hearing tips and lessons learned from Washington, DC who adopted and has been robustly enforcing the IgCC since 2014. We will look at other



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approaches that have been effective in Colorado. If you're a jurisdiction or code official that is ready to seriously consider adopting the 2018 IgCC, this session should not be missed!

### 2018 IgCC - ASHRAE

**Presenter Name:** Anthony Floyd

**Description:** The IgCC and ASHRAE Standard 189.1 Technical Provisions course covers how *ASHRAE/ICC/USGBC/IES Standard 189.1, Standard for the Design of High-Performance Green Buildings*, is used as the technical basis for the International Green Construction Code® (IgCC). The code provides the minimum requirements needed to achieve high-performance green buildings and were developed to provide a balance of environmental factors involved with designing, building, and planning for the operation of buildings. This course provides a detailed look at the technical

standard and its application as a building code, including a description of key requirements contained in the IgCC and *ASHRAE/ICC/USGBC/IES Standard 189.1* on the topics of sites, water, energy, *indoor environmental quality*, and materials. Consulting engineers, architects, facility managers, contractors, and code officials will learn to distinguish between the two compliance path options (prescriptive and performance) and their associated provisions in the IgCC, as well as how to apply these paths in design. Attendees will also be able to differentiate the code and standard from other green building certification systems.

### Are Shipping Containers Safe To Use In Building?

**Presenter Name:** Stephen Shang

**Description:** Shipping containers are strong, corrosion resistant, and are beginning to fill building needs across diverse residential, industrial, commercial, and retail applications as building blocks in the construction of restaurants, offices, apartments, dorms, emergency shelters, homes, and more. Stephen will bring attendees up to speed on the latest in the container-based structures sector, outlining the features and benefits - and occasional misapplications - of using ISO containers in modular construction. The ICC has three major initiatives addressing shipping containers. The ICC / MBI Guidelines, the addition of new language to the 2021 IBC, and the ICC-ES Acceptance Criteria 462. Get the latest updates on policies, regulations, and efforts surrounding the safe use of modified ISO shipping containers. Stephen has worked on these initiatives since 2016 as the industry ambassador, has Co-Chaired the Container Industry Task Force and is Contributing Author of the Whitepaper Safe Use And Compliance Of Modified Iso Shipping Containers For Use As Buildings And Building Components.



### Best Practices (cont.) - Remote Inspection Processes: Video/Drone Technology and More

**Presenters:** Valarie Evans, Ron Lynn, Chuck Ramani, Sam Palmer

**Description:** Two highlights from the Best Practices observed this year will be demonstrated during this session: Remote Video Inspection Program provides an alternative to on-site inspection for situations requiring more prompt service or when a specific inspection time is desired or difficult access is required. It may also be used for follow up inspections after an inspector visited the job site in person first. The program requires a client to schedule a remote inspection through an online calendaring service, then use the Skype or FaceTime app on a 4G smart phone in order to interact with an Agency inspector to view and then result an inspection through the Agency's system. Drones are proliferating the general public today but aside from the general public, commercial entities are using these unmanned aerial vehicles, otherwise known as drones. There are many ways that drones can help with building inspections today. It's starting to take on a lot of different arenas, and you may find that it creates substantial benefits, a safer environment for staff, and accurate inspections.

### Special Inspections: How to Start, Manage, and Build Your IBC-Chapter 17 Program

**Presenters:** Chuck Ramani, Ron Lynn, Sam Palmer

**Description:** Special inspection is the monitoring of materials, fabrication, installation and workmanship critical to the structural and fire-resistive integrity of a structure. It is required by the IBC to ensure compliance with the approved construction documents and standards referenced in the applicable codes. Special inspectors bring technical expertise to the job that aren't typically available in local government. Starting up, managing and building your special inspection program is something that every Building Department can do.

### Venting. Reinvented. UL 1738 Fuel Gas Venting Systems

**Presenter Name:** Gaetano Altomare

**Description:** The presentation will review the application of venting combustion gases generated by gas-fired appliances and industry concerns with using ASTM plumbing products to vent these appliances. Key items covered: The UL 1738 standard, Why is certified venting is a safer option for the application, UL 1738 benefits, US codes and standard changes that now recognize the UL 1738 venting.



# Conference Education Program Tours

## Tuesday, October 22, 2019

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### Fremont Street Experience & Mob Museum Walking Tour

**Fremont Street Experience:** The Fremont Street Experience is located in the heart of downtown, directly overtop the original Fremont Street. The world's largest venue/canopy of light, sound and action is home to Viva Vision, the largest state of the art LED screen with over 12.5 million energy-efficient LED lamps with over 550,000 watts of concert quality sound to experience concerts, special events, New Year's Eve celebrations and roaming street performers throughout the year. This \$100 million investment and the continued improvements have resulted in successful and ongoing downtown redevelopment. The City of Las Vegas and the downtown casinos have benefited as more than 60% of visitors to Downtown are lured by the Fremont Street Experience overhead light show and stage shows and stay to enjoy the attractions of some of the most famous casinos in the world. This quick walking tour will be narrative by local SNICC members to showcase the design, engineering and construction of the old hotels on the original "Las Vegas Strip" as well as the incredible Fremont Street Experience canopy.

**The Mob Museum:** This building at 300 Stewart Avenue in downtown Las Vegas opened in 1933 as the U.S. Post Office and Courthouse. Las Vegas is still a young city — it got its start in 1905 — so by local standards it's a very old building, so much so that it's listed on the Nevada and National Register of Historic Places. With the support of federal, state and local grants, the building was renovated. The nation's leading museum designers were hired to create an institution telling the true story of organized crime and law enforcement in America. The museum opened in 2012 and after the renovations that restored many of the building's historical features, it earned LEED Silver certification. See and hear how the mob influence shaped the design and construction of the Las Vegas Strip.

### Secrets of the Las Vegas Strip Double Decker Bus Tour

**Description:** Take in the sun of this neon oasis during this day trip. Ride in an open-top bus and immerse yourself in the exciting glitz and glamour of the world famous Las Vegas Strip. Hear the highlights of how this iconic city rose out of the desert to become the entertainment capital of the world. This tour will start at the Rio Hotel and then travel along "the Strip" (Las Vegas Boulevard) from Mandalay Bay to the Fremont Street. Experience and back. During the tour, your local, ICC tour guide will also explain some of the complex geology, engineering and construction that has occurred to build this city.



## The High Roller/Linq - Behind the Scenes Tour of the World's Tallest Observation Wheel and The LINQ Promenade

**Description:** Soar 550 feet above the center of the Las Vegas Strip on the High Roller and experience the world's tallest observation wheel. With sweeping 360-degree views of the Las Vegas Valley and The Strip, the wheel takes 30 minutes to complete one revolution and features 28 spacious cabins to accommodate guests. Go behind the scenes of the wheel and see and hear from local SNICC experts on how the wheel was designed, permitted and constructed as an ATS (Amusement Transportation System). The tour will then quickly walk the high-energy marketplace/Linq Promenade to experience its outdoor retail and entertainment venues.

## KA Show at MGM - Behind the Scenes Tour

**Description:** Learn how the Vegas magic happens with these behind-the-scenes experiences of the Cirque du Soleil - KA Show at the MGM Grand. With acrobatics, technology and pyrotechnics that will leave you breathless and a stage that rises vertically then spins like a pinwheel, KA at MGM Grand is Cirque du Soleil at its best. Go inside the ropes and learn how the technical wizards of this Canadian troupe make the \$165 million theater production come to life 10 times a week. The KA performance lacks a conventional stage with a permanent floor; instead, two giant moving platforms and five smaller lifts and platforms appear to float through a bottomless space. A narrow boardwalk separates the audience from a deep abyss where the stage floor would normally be. From the stage level of the boardwalk up to the high grid is 98 feet, and the pit drops 51 feet below, amounting to a total of some 15 stories from the highest ceiling grid to the lowest floor level.