



# ICC Upper Great Plains Region III Educational Institute – Virtual/In-Person

February 7–11, 2022

Minneapolis Marriott Northwest  
[www.iccsafe.org/RegionIII](http://www.iccsafe.org/RegionIII)  
 1-888-ICC-SAFE (422-7233), ext. 33821





## ICC Upper Great Plains Region III Educational Institute Welcomes You!

### Welcome!

For the 18th year, AMBO, Region III, and ICC collaborate on this annual mid-winter educational event that is focused on the construction-inspection industry. The week-long institute will be held at the Minneapolis Marriott Northwest in Brooklyn Park, Minnesota, Monday, 7 February through Friday, 11 February. The Marriott offers the convenience of spacious classrooms, well-appointed hotel rooms, and dining options all under one roof. Hotel management and staff are committed to our comfort and safety. Any COVID protocols are strictly adhered to. Shopping and entertainment are just minutes away. If you are flying to the Twin Cities International Airport, the Marriott is less than 30 minutes away. If you are driving to the site, there is ample free parking.

*Whether staying on-site or commuting daily, we think you will find there are abundant networking opportunities and worthwhile educational offerings at a superb venue.*

### A Week of Diversified, Engaging Programs

The Institute has 37 class days of construction-industry related topics offered in eight tracks. **A few select sessions are offered virtually – these sessions are planned as hybrid sessions and are identified with a **V** after the session title.** Presenters are well-qualified and often well-known individuals from ICC and related areas of expertise. All are welcomed and everyone is invited to attend. The week would be of particular interest to those individuals involved in building code administration, inspections, and related regulatory or design positions: Building Officials, Building Inspectors, Permit Technicians, Fire Inspectors, Mechanical and Plumbing Inspectors, Housing Inspectors, Design Professionals, and other interested parties. The International Code Council and the Minnesota Department of Labor and Industry provide continuing education approvals as appropriate to ICC certifications and Minnesota licenses. Additionally, AIA continuing education credit is provided for sessions that are presented by ICC staff or ICC contract instructors. Check the session descriptions for instructor information.

### The Venue

The Minneapolis Marriott Northwest is conveniently located 30 minutes from the Minneapolis-Saint Paul International Airport and near to multiple shopping and dining options. There is free on-site self-parking. You can enjoy the convenience of modern hotel suites and classrooms under one roof. Classrooms, meeting rooms, and public areas comfortably host the event well within any CDC physical distancing guidelines. Attendees are provided with continental breakfast prior to session starts, refreshments for morning and afternoon breaks, lunch, and unlimited beverages throughout the day.

### Location

Minneapolis Marriott Northwest  
7025 Northland Drive North  
Minneapolis, Minnesota 55428  
763.536.8300 – for general information and questions

### Guestroom Reservations

All guest rooms are two-room suites. Group-rate reservations are available through January 17, 2022.

The AMBO Group Rate is \$129 plus applicable taxes. Here is the [link for room reservations](#). Or type in browser: <https://www.marriott.com/event-reservations/reservation-link.mi?id=1605800772920&key=GRP&app=resvlink>

## Institute Registration Information

### General Registration Information

Register **Online:** [www.iccsafe.org/RegionIII](http://www.iccsafe.org/RegionIII)

Register by **Mail:** ICC Central Regional Office, 4051 Flossmoor Road, Country Club Hills, Illinois 60478

**Walk-In:** Limited Availability as Space Allows

### Daily Registration Rate

The **on-site** registration includes continental breakfast, breaks, and lunch.

**Daily On-Site & Walk-In Rate:** \$165 each day.

**Virtual Attendance:** \$150.00 each day for a few select sessions.

**Early-Bird Rate:** \$150.00 per day **if registered by 7 January 2022.**

**Multi-Day Discount:** \$150.00 per day for three, four, or five days.

*\*\*Popular sessions fill quickly and close early.\*\**

### Cancellation Policy

Written requests for refunds must be received by ICC on or before Monday 24 January 2022. Submit by email to [lchagolla@iccsafe.org](mailto:lchagolla@iccsafe.org).

### Chapter President's Special

ICC Chapter Presidents may take advantage of a complimentary day of attendance at the Institute.

Contact Jerry Backlund, AMBO Chair, at [jbacklund@hastingsmn.gov](mailto:jbacklund@hastingsmn.gov).

## Continuing Education

Qualifying continuing education is available. All sessions are submitted to the Minnesota Department of Labor and Industry for continuing education approval. Only courses presented by ICC staff or by ICC contract instructors are submitted to the American Institute of Architects (AIA) for credit and HSW hours.

## Chapter Meetings and Special Events

### Bookstore

The ICC Bookstore will be on-site throughout the day on Wednesday with a wide assortment of Code books as well as ICC merchandise. Check it out!

### Trade Show

Wednesday is "Trade Show Day." Vendors from throughout the area will showcase their products and provide timely and relevant information. Be sure to visit participating vendors and welcome them to the Institute.

### Dinner Outing

**All** Institute attendees are invited to join the annual dinner outing on Tuesday following the AMBO General Membership Meeting. This is a pay-your-own-way social event. The Marriott has complimentary shuttle transportation to over 200 shops and restaurants in the Arbor Lakes Area.

### AMBO Board Meeting

The AMBO Board of Directors will meet at 5:00 p.m. on Monday.

### AMBO ICC Chapter Membership Meeting

The AMBO General Membership Meeting will be Tuesday, beginning promptly at 4:45 p.m.

### Region III Chapter Meeting

The Region III Chapter of ICC will hold a meeting on Wednesday during lunch.

**We look forward to seeing new faces and renewing past acquaintances  
at this unique, networking and training opportunity!**

# TRACK 1 – CODE ENFORCEMENT AND PROFESSIONAL DEVELOPMENT

**MONDAY 2/7/2022**

**AM: Officer Safety –  
The Guardian Mindset**

**Session 211**  

Prepare yourself for a stressful, or dangerous, encounter with the proper safety mindset. Code enforcement duties can be stressful. Encountering a threatening or dangerous situation may occur during your daily duties. Having a prepared mindset, strong communication skills, and de-escalation training is imperative. This class will go over the basics of the Guardian Mindset, Communications Skills, De-escalation Techniques, Safety Culture and Situational Awareness. Attendees will review skills and techniques to identify potential dangerous situations, tactics for communication, mindset of being a part of the community and being prepared to go home safe, and identifiers of dangerous incidents.

**PM: Vacant Building Enforcement and Registration Program**

This class will use the 2018 IPMC to cover the ability of jurisdictions to regulate vacant, unsafe and dangerous buildings within their boundaries. The instructor will go over best practices for identifying conditions that justify condemnation of vacant buildings, procedures, best practice and the use of vacant building registration programs.

**Instructor: Greg Smith, GMS Presentations and Training**

**TUESDAY 2/8/2022**

**Preventing and Responding to  
Behavioral Crisis Situations**

**Session 212** 

Barbara Schneider Foundation has been providing de-escalation training to justice, health, education, and other professionals for 19 years. This training provides a presentation on behavioral health crisis to identify its many potential causes and triggers. It prioritizes your safety, the safety of the person in crisis and anyone else present. It teaches practical and effective verbal and non-verbal de-escalation techniques. It utilizes a holistic health model to create a framework for an interaction that can calm a crisis, improve communication, and gain voluntary compliance. There will be live action scenarios where volunteers will attempt to de-escalate a BSF professional actor trainer. Our presenter/coach will use stop an action format to discuss what is working and what other things could be tried in a variety of scenarios, to make the presentations come alive.

**Instructor: Mark Anderson, Barbara Schneider Foundation**

 **Virtual**  **On-Site**

**WEDNESDAY 2/9/2022**

**AM: Ethics in Building Departments**

**Session 213** 

Refining decision making, it appears that people should know automatically the right thing to do and will act out of that knowledge. This assumption virtually knocks the air out of the assertion which says every person should not only be about the business of learning the right thing, but also acting upon what he or she knows is right. "Do what's right, when you ought to do it, and how you ought to do it, and do it that way all the time."

**PM: The Partnership: The Contractor & the Building  
Department**

This course will offer basic principles intended to help both the contractor and the building department staff do their jobs in an efficient and productive manner. The course topics include communication, problem solving options and ethical standards, while honoring the skills necessary for building in compliance with the codes. This class has been designed to be of specific interest to residential builders, contractors and building department staff.

**Instructor: Russell Thornburg, Thornburg Code Services**

**THURSDAY 2/10/2022**

**Inspections Skills – Legal Aspects,  
Right of Entry and Documentation**

**Session 214**  

This seminar discusses the essential legal background needed to perform building, housing, and zoning code inspections. Students will be given the necessary skills to avoid legal entanglements and potentially have critical life-safety investigations thrown out by legal technicality. The course will discuss legal terms and their backgrounds. The final part of the course will address inspection techniques including modern electronic means.

**Instructor: Thomas Meyers, Building Intuition, LLC.**

**FRIDAY 2/11/2022**

**2018 IPMC Overview**

**Session 215**  

This seminar provides code officials and other interested parties with the fundamental knowledge necessary to administer and enforce applicable code requirements of the 2018 International Property Maintenance Code® (IPMC®). This information will increase the participant's ability to locate, describe and apply the appropriate code sections of the IPMC in order to determine compliance or noncompliance while performing a residential or commercial inspection.

**Instructor: Cecilia Muela, ICC Contract Instructor**

## TRACK 2– BUILDING: UNDERSTANDING THE BASICS

MONDAY 2/7/2022

### 2018 IRC Inspector Insights

Session 221 

Mid-career residential inspectors and plans examiners will find this seminar insightful as will designers looking for a review of common construction issues. With a focus on wood construction, the course addresses floor, wall and roof assemblies, common footing and foundation issues, and how to recognize alternate acceptable methods versus problems requiring modification in residential construction. Also addressed are wind loads and their impact on building systems, especially bracing, wall and roof cladding. Deck construction options are considered. Examples selecting floor, roof and wall systems are covered as a group and individually for one- and two-story residential structures.

**Instructor: Sandra Hyde, ICC Staff**

TUESDAY 2/8/2022

### AM: Understanding Residential Building Code Session 222

Who are the stakeholders of the development of the IRC? This course will be an overview of the fundamentals of the IRC, including code development origins, basic principles and issues that are missing or assumed to be included. Examples and illustrations will be an integral part of this presentation.

### PM: Accessory Structures in the 2018 IRC

This seminar will cover building code requirements for the construction of many accessory structures, including a brief overview of residential decks and porches. The topic will address design and plan review considerations, construction documents, and field inspection issues. To supplement code language, numerous illustrations will be used to generate interactive discussions.

**Instructor: Russell Thornburg, Thornburg Code Services**

WEDNESDAY 2/9/2022

### 2018 IRC Performing Residential Plan Reviews

Session 223 

This seminar provides a procedure for reviewing residential building plans and specifications based on Chapters 1 through 10 of the 2018 International Residential Code® (IRC®). It also allows participants to practice a building plan review during the seminar using actual construction documents and an IRC Plan Review Record.

**Instructor: Tim Ryan, ICC Contract Instructor**

 Virtual  On-Site

THURSDAY 2/10/2022

### 2018 IRC Performing Residential Building Inspections

Session 224 

This seminar provides building inspectors with fundamental knowledge necessary to administer and enforce applicable code requirements from the 2018 IRC, which apply to foundation and final residential building inspection. Specifically, the seminar provides participants with checklists that enable those performing foundation and final residential building inspections to determine whether the materials, design, construction, installation and location of building components comply with the code.

**Instructor: Tim Ryan, ICC Contract Instructor**

FRIDAY 2/11/2022

### AM: Alternative Solutions to Conventional Concrete Deck Footings Session 225

Concrete deck footings are considered the conventional approach for the support of decks. However, there are alternative solutions available that may be acceptable to the building official. This seminar addresses these solutions, with a focus on bearing pier pin systems. Bearing pin piers have been around for a long time but not many contractors, as well as building departments, have had much exposure to their use for deck footings/foundations. This seminar outlines the history of the bearing pin pier system as an alternate method of providing a footing/foundation system for supporting construction projects without having extensive excavation for and installing traditional concrete footings for decks. Critical information provided to attendees is how to work through the building code approval process as an alternate method of construction.

**Instructor: Roger Axel, CBO, Retired**

### PM: Communication Techniques for Effective Code Administration

Electronic media has changed the way we do business. In some cases, text and e-mail messages have taken the personal touch out of the equation. However, our industry still relies on face-to-face encounters. This offering has been designed to assist the code official in all sectors by developing communication skills specific to our industry.


Topics will include terminology, first impressions effective listening, body language, dealing with difficult customers, managing abusive people and, finding common ground to agree on, all the while providing customer service that works.

**Instructor: Greg Karow**

## TRACK 3 – BUILDING: GENERAL TOPICS

### MONDAY 2/7/2022

#### 2021 IRC Significant Changes

Session 231  

This seminar reviews and analyzes selected significant changes from the 2018 IRC to the 2021 IRC. It familiarizes building officials, fire officials, plans examiners, inspectors and design professionals with many of the significant changes in the 2021 IRC. It assists code users in identifying the specific code changes that have occurred, and more importantly, understanding the reason behind the change. Changes to building, energy, mechanical, fuel gas, plumbing and electrical requirements are discussed. Finally, the seminar focuses on those code changes selected due to their frequency of application, special significance or change in application. This course uses the Significant Changes to the International Residential Code 2021 Edition as its basis.

**Instructor: John Gibson, ICC Staff**

### TUESDAY 2/8/2022

#### 2021 IBC Nonstructural Significant Changes

Session 232  

This session is an overview of the changes from the 2018 to the 2021 IBC®. It identifies changes in organization and code requirements and the applicability of these requirements to design, plan review and inspection. This course uses the Significant Changes to the International Building Code, 2021 Edition. The goal of 2021 IBC Significant Nonstructural Changes is to familiarize building officials, fire officials, plans examiners, inspectors, design professionals, contractors, and others in the construction industry with many of the important changes in the 2021 International Building Code® (IBC®).

**Instructor: Steve Thomas, ICC Contract Instructor**

### WEDNESDAY 2/9/2022

#### Residential for the Roaring 20's –

Session 233 

#### Innovation and Design Trends to Combat an Angry Climate

Like it or not, climate change policies will affect the way we build and remodel buildings. This class is intended to look at how future residential construction will respond to inevitable policies that will limit carbon release and promote carbon sequestration within materials used in building construction. Discussion topics will include advanced energy and building science strategies, phase-out of fuel fired appliances, limitation on high embodied energy materials, water and wastewater management, artificial intelligence and building management, and other climate-response measures. The class will be partially based on the construction of the presenter's straight-out-of-the-hardware-store, net-positive, climate-resilient house in Western Colorado. Lessons learned from the Solar Decathlon and other international academic experimentation will also be presented.

**Instructor: Thomas Meyers, Building Intuition, LLC.**

### THURSDAY 2/10/2022

#### A Look at Wood Use in All Types of Construction

Session 234 

This program is an in-depth discussion of occupancies, heights and areas, and types of construction from Chapters 3, 5 and 6 of the IBC, Common code violations in framing and methods of repair will be addressed. In addition, fire-retardant-treated and preservative-treated wood use in the code will be covered.

**Instructor: James P. Gogolski,  
Hoover Treated Wood Products, Inc.**

 Virtual  On-Site

## TRACK 4 – BUILDING: GENERAL CONCERNS

MONDAY 2/7/2022

### 2021 IBC Transition from the 2015 IBC Session 241

This seminar will assist participants in implementing the transition from the 2015 IBC to the 2021 IBC. It will include relevant changes in the 2018 IBC. This interactive training will focus on the key changes presented in the participant material. Knowledge review questions will provide opportunity for participants to discuss and consider the changes. During this training, participants will be listening to lecture and engaging in class discussion and exercises.

**Instructor: Steve Thomas, ICC Contract Instructor**

TUESDAY 2/8/2022

### AM: 2018 IBC Type A and B Dwelling Units in Multi-Family Buildings Session 242

Scope of this seminar is limited to multi-family residential facilities classified as Group R-2 occupancies, including: Type A and Type B dwelling units, Related common-use and public-use areas. Only dwelling units (not sleeping units) are addressed based on Group R-2 classification

Dwelling units and sleeping units are also regulated in other types of facilities, however this presentation does not specifically address the following occupancies: Institutional: Groups I-1, I-2 and I-3, Residential: Groups R-1, R-2 (other than multi-family nontransient uses), R-3 and R-4. Townhouses and congregate residences from IRC: Referenced as Group R-3.

### PM: 2018 IBC Mixed Occupancies

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.

**Instructor: Doug Thornburg, ICC Staff**

WEDNESDAY 2/9/2022

### 2018 IBC Means of Egress Session 243

This course addresses numerous requirements in the 2018 International Building Code® (IBC®) pertaining to establishing a means of egress in buildings. It is intended to assist plan reviewers, design professional and inspectors in the identification of the design and component issues requiring compliance with the IBC. Participants will be presented with specific problems related to means of egress and will be asked to solve case studies, as well as discuss applicable sections of the IBC.

**Instructor: Doug Thornburg, ICC Staff**

THURSDAY 2/10/2022

### 2018 IBC Performing Nonstructural Plan Reviews Session 244

Participants will be better able to understand and apply the requirements of the 2018 International Building Code (IBC®) regarding the knowledge of performing a nonstructural plan review. When you complete this seminar, you will be able to determine whether a given set of building plans complies with the outlined requirements of the 2018 IBC. The topics covered in this course are not all inclusive. Selected topics that mirror the plan review record are included and additional topics applicable to most construction projects are covered. Prior to performing any part of a nonstructural plan review, the plan reviewer should read all provisions of the required chapters and determine the applicability of the provisions on a project-by-project basis.

**Instructor: John Gibson, ICC Staff**

FRIDAY 2/11/2022

### 2018 IBC Performing Commercial Building Inspections Session 245

The IBC Performing Commercial Building Inspections seminar will provide participants with the IBC code requirements necessary to performing a commercial building inspection. This seminar will address preparing for an inspection, inspecting materials and where to locate that information in the code, means of egress requirements and fire safety aspects of an inspection.

**Instructor: John Gibson, ICC Staff**

 Virtual  On-Site

## TRACK 5 – BUILDING: SPECIFIC TOPICS

MONDAY 2/7/2022

### AM: Minnesota Preliminary Damage Assessments

Session 251 

This course prepares the student to conduct a rapid and effective preliminary damage assessment for any event that causes damage to private and public property and critical infrastructure. Impacts caused by damages (economic, social environmental, among others) are also discussed. Tasks covered include methods for assessing damages, collecting relevant information required by FEMA and the Small Business Administration, reporting damages, and how building departments can work with the State of Minnesota when conducting damage assessments.

**Instructors: Angie Wynn and Bill Hirte, Minnesota Homeland Security and Emergency Management**

### PM: ICC 500 Storm Shelter Requirements

The ICC 500 is a standard for the design and construction of storm shelters for protection from tornadoes and hurricanes. This course will review the history of storm events, discuss where storm shelters are required, and will provide an overview of the technical requirements in the ICC 500.

**Instructor: Scott Holm, Braun Intertec**

TUESDAY 2/8/2022

### ASHRAE 90.1-2016

Session 252 

This session covers the entire code centering on Chapter 3. The IECC has allowed the use of ASHRAE 90.1 as a compliance path option to demonstrate compliance with the IECC for several cycles. How many of us own the standard or know what the standard requires to find compliance on the plans or in the field? Whether we have the standard on hand for reference or not, does not change the fact that designers and architects have the choice of utilizing it for their projects. Join us as we discuss the requirements found in 90.1. Let's get to know this standard better.

**Instructor: Gil Rossmiller, Shums Coda Associates**

WEDNESDAY 2/9/2022

### 2021 ISPSC

Session 253 

This course covers the 2018/2021 ISPSC Code for Swimming Pools. It covers the entire code centering on Chapter 3. The course provides information needed for plan review to issue a building permit to insure a safe design.

**Instructor: Kenneth Gregory, Pentair Compliance and Safety**

THURSDAY 2/10/2022

### AM Part 1: Polyiso CI for Code-Compliant Walls in Type I-IV and Residential Construction

Session 254 

There are a multitude of building envelope products used and a variety of methods taken for achieving energy and building code requirements. Understanding the different roles a product plays in the envelope simplifies its design. In this course we'll take a look at the code requirements for buildings classified as IBC Type I-IV, paths to achieving compliance and the number of roles polyisocyanurate insulation plays in meeting these requirements.

**Instructor: Lance Williams, Atlas Roofing Corporation for PIMA**

### AM Part 2: Polyiso CI for Code-Compliant Walls in Type V and Residential Construction

Continuous insulation is part of building standards and state and energy codes due to its ability to reduce the thermal bridging and associated heat loss and energy consumption. This course looks at the use of polyisocyanurate as a continuous insulation in Type V and residential construction, and its use as a multifunctional envelope component – air barrier, weather-resistive barrier, and vapor retarder – by reviewing code requirements for the building envelope.

**Instructor: Charlie Devine, Sika Corporation for PIMA**

### PM: Spray Polyurethane Foam

This session provides an inspector's guide to understanding spray foam insulation, chemistry, applications, best practices, and benefits.

**Instructor: Jeremy LaBeau, Installed Building Solutions**

 Virtual  On-Site



FRIDAY 2/11/2022

### **AM Part 1 : Overview of Engineered Wood Products**

**Session 255** ○

With the expanding choice and use of engineered wood products in today's construction market, it's more important than ever to understand how to properly select, install, and detail engineered wood materials. This course introduces plywood, oriented strand board (OSB), glued laminated timbers (glulam), I-joists, and structural composite lumber (SCL); the benefits of engineered wood construction; and the proper applications of EWP.

### **AM Part 2: Lateral Load Paths for Wood Framed Structures**

The overall strength of a building is a function of all building components – roof, walls, floors, and foundation – working together as a unit. Knowing where to look for clues when tracking the load path through the building is vital to ensuring load path continuity. This session will provide a top-to-bottom overview of gravity and lateral design for wood framed structures, including examples of complete and incomplete load paths.

### **PM: APA Wall Bracing Calculator-Wall Bracing Made Easy**

Wall bracing is a critical component of a home's structural stability, yet it's a common source of confusion and misapplication. APA, a nonprofit trade association, has created a free online calculator that helps designers apply the bracing requirements of the IRC with ease. This seminar provides a hands-on demonstration of the tool including: how to quickly set up a new project, the design flexibility of the calculator, and comparisons with traditional approaches to wall bracing.

**Instructor: Ron Nuttall, APA The Engineered Wood Association**

## TRACK 6 – CROSSFUNCTIONAL: BUILDING AND FIRE

MONDAY 2/7/2022

### **Fire Safety Research: Impact on Codes, Standards and Public Safety** Session 261

This presentation, supported with heavy video content, will discuss research conducted at the UL Fire Safety Research Institute and UL LLC Fire Research and Development teams focused on the impact of fire, fire behavior and public safety. We will discuss various projects, the results of these projects and subsequent developments in our codes, Standards and Public Safety Messaging.

**Instructor: Sean DeCrane, UL LLC**

TUESDAY 2/8/2022

### **Wood Meets Fire Safety** Session 262

This seminar will provide attendees with a well-rounded understanding of how wood and especially Mass Timber construction meets all of the building and fire code requirements for fire safety.

**Instructor: James B. Smith, P.E, American Wood Council**

WEDNESDAY 2/9/2022

### **2018 IRC Townhouse Fire and Life Safety Principles** Session 263

Participants will be better able to apply the fire and life/safety provisions for townhouse construction using the 2018 International Residential Code. This course addresses issues based on exterior wall and opening protection, separation of dwelling and dwelling units and means of egress. In addition, it compares the similarities and differences between the IRC and the IBC related to multiple residential dwelling construction.

**Instructor: Sandra Hyde, ICC Staff**

THURSDAY 2/10/2022

### **2018 Firestopping – Plan Review and Inspection** Session 264

This course will focus on reviewing the firestopping requirements of the International Building Code, as well as discuss why firestop inspections have proven to be one of the most difficult challenges for code officials. We will provide code compliant solutions for effective and efficient firestop plan review and inspections. This course will also touch on the ASTM firestop inspection standards along with draftstopping and fireblocking.

**Instructor: Brice Miller, Fire Containment Training Services**

 **Virtual**  **On-Site**

## TRACK 7 – MECHANICAL AND PLUMBING

### MONDAY 2/7/2022

#### Manual J, S and D

#### Session 271

Students will learn the requirements for calculating the heating and cooling loads in accordance with ACCA Manual J, equipment selection in accordance with ACCA Manual S and duct sizing in accordance with ACCA Manual D. The class will work through a typical house design.

**Instructor: Gil Rossmiller**

### TUESDAY 2/8/2022

#### 2018 IMC and IFGC Combustion Air and Venting

#### Session 272

This course reviews and analyzes selected requirements for combustion air & venting systems. The seminar will summarize the purpose and content of combustion air & venting systems contained in the 2018 IMC and 2018 IFGC. Participants will discuss the intent and application of combustion air & venting sections within the 2018 IMC and 2018 IFGC. The seminar will provide participants with a thorough understanding of key areas of the 2018 IMC, 2018 IFGC, and related standards regarding combustion air & venting systems.

**Instructor: Jerry Flanik, ICC Contract Instructor**

### WEDNESDAY 2/9/2022

#### Understanding the 2018 UPC Plumbing Requirements

#### Session 273

This seminar will provide an overview of the key sections and basic principles of design, plan review and inspection in accordance with the 2018 Uniform Plumbing Code. Instructor-led examples and applications will enable participants to better understand the various functions of plumbing systems correlated to the requirements of the 2018 Uniform Plumbing Code.

**Instructor: Jerry Flanik, Associated Consulting Solutions**

### THURSDAY 2/10/2022

#### 2018 IFGC Design, Installation and Inspection Principles

#### Session 274

Participants will be better able to discuss critical concepts of the 2018 International Fuel Gas Code® (IFGC®). This session will provide a basis for the correct use of the code in the design, plan review, inspection, and analysis of projects. It will provide a clear understanding and correct use of the requirements identified by basic code provisions, tables and topics. It also allows code users to apply the code in clear-cut situations and helps to build their understanding of the intent of the code when asked to make code compliance decisions.

**Instructor: Jerry Flanik, ICC Contract Instructor**

## TRACK 8 – MINNESOTA STATE SPECIFIC FOCUS

MONDAY 2/7/2022

### **2020 Minnesota Accessibility Code Common Questions Clarified** **Session 281** ○

This course will address some of the common questions about the Minnesota accessibility requirements. Elements covered will include accessible parking, accessible route, door clearances, toilet & shower rooms, signage, employee work areas, dwelling and sleeping units, equipment, tiered seating, press boxes & recreational fields, egress options, and change of occupancy & existing buildings.

**Instructors: Karen Gridley and Greg Metz,  
Department of Labor and Industry**

TUESDAY 2/8/2022

### **Part 1: Modern Ready-Mixed Concrete and the Changing World** **Session 282** ○

This 90-minute presentation will be an overview of modern ready-mix concrete and how it is created for specific projects. The discussion will cover critical aspects of ready-mix concrete that building inspectors need to be aware of as well as how the ready-mix industry is incorporating innovative and sustainable practices to improve the performance of ready-mix concrete on all type of projects.

**Instructors: Josh Edwards, P.E. and John D. Lee, P.E.,  
Minnesota Concrete Council**

### **Part 2: Concrete Testing – What You Should Know**

The last thing often thought about in concrete construction is the testing. Concrete has an infinite number of combinations of materials to obtain the performance requirements of a project and the testing of concrete on a site measures that performance. There are many steps and requirements in testing concrete which need to be followed to provide accurate test results. Additionally, there are many ways to analyze the data and the building code provides guidance on how to accept or reject concrete based on these results.

**Instructors: Alfred Gardiner, P.E. and Daniel Vruno, P.E.,  
Minnesota Concrete Council**

### **Part 3: Changes to the Concrete Design Standard**

The new edition of “Building Code Requirements for Structural Concrete” (Code) is the first since the reorganized format was published in 2014 and includes new and updated code provisions along with updated color illustrations for added clarity. The Code provides minimum requirements for the materials, design, and detailing of structural concrete buildings and, where applicable, nonbuilding structures. This presentation covers a few of the significant changes to this code including high-strength reinforcement, shear strength, development length, and shear lugs.

**Instructor: Matthew Senecal, Minnesota Concrete Council**

### **Part 4: ACI Repair Code 562-19**

This presentation will introduce ACI 562-19. “Code Requirements for Assessment, Repair, and Rehabilitation of Existing Concrete Structure and Commentary,” which is the first code produced specifically for the repair of reinforced concrete. A new guide document for the code with additional information and project examples that help users interpret the code requirements will also be highlighted.

**Instructor: Matthew Senecal, Minnesota Concrete Council**

WEDNESDAY 2/9/2022

### **AM Part 1: State of the State** **Session 283** ○

This segment for the session will provide legislative and Minnesota Department of Labor and Industry division updates that impact municipal building officials and inspection departments. The segment will also provide relevant topic-specific instruction relevant to the industry.

**Instructor: Scott McLellan,  
Minnesota Department of Labor and Industry**

### **AM Part 2: Residential Building Contractor Licensing and Enforcement**

This segment provides an overview of Minnesota’s residential building contractor licensing requirements and DLL’s enforcement authority. It is designed to encourage attendee participation with time for questions and answers.

**Instructors: Charlie Durenberger and Sean O’Neil,  
Minnesota Department of Labor and Industry**

● Virtual ○ On-Site

*Track 8 continued on next page*

**PM: Understanding the Building Code, Guide to Minnesota Rules Chapters 1300 and 1303**

This session provides an overview of Minnesota Rules, Chapter 1300, 2020 Minnesota Building Code Administration addressing necessary requirements for building officials. The course also includes an overview of Minnesota Rules 1303, 2020 Minnesota Provisions to the Minnesota State Building Code applicable to building officials. The course content is intended for building officials of varying experience levels.

**Instructor: Richard Lockrem,**  
**Minnesota Department of Labor and Industry**

THURSDAY 2/10/2022

**AM Part 1: Radon in Minnesota Homes – Session 284** 

**A Course for Builders, Plumbers and Code Officials**

This course will provide an overview of Radon gas in Minnesota including Radon measurement, mitigation, and prevention. It will also discuss current Minnesota laws and rules related to Radon regulation and who regulates Radon-related work and when.

**Instructor: Joshua J. Kerber M.S.,**  
**Minnesota Department of Health**

**AM Part 2: A Comprehensive Analysis, Design, and Code Compliance Guide to Inclusive and Gender Specific Restrooms in K-12 Schools**

A comprehensive analysis identifying key design components of inclusive restroom design, helping to foster an inclusive environment to support diversity and safety for all users. An outline of how code requirements for restrooms in K-12 schools can align to support an inclusive model and expansion on the alternate code compliance method used at Saint Paul Public Schools.

**Instructors: Heidi Neumueller, AIA and**  
**Angela Seib-Sack, SPPS**

**PM: Minnesota Plumbing Code Update**

This seminar will focus on Minnesota Rules Chapter 4714 and amendments to the 2018 Uniform Plumbing Code. Discussion will delve into background information and outcomes during the code adoption process. This course will help prepare those in the industry for the code that was effective December 17th 2021.

**Instructor: Brad Jensen,**  
**Minnesota Department of Labor and Industry**

FRIDAY 2/11/2022

**AM: Minnesota Residential Energy Code Fundamentals** **Session 285** 

This session will cover an array of aspects including a basic overview of the Residential Energy Code text, the energy systems within a home, as well as submittal documents for plan review and field inspections. The intention will be to establish the fundamental requirements of the Residential Energy Code and provide you the knowledge to assess plans and residential structures for compliance with the energy code. This program will focus on practical application of the code and is geared towards inspectors with less than 3-5 years of experience, as well as those who simply want to establish greater confidence with the Residential Energy Code.

**Instructor: Steve Shold,**  
**Minnesota Department of Labor & Industry**

**PM: Basement Finish – Plan Review and Inspections**

The course provides an overview of the plan review and inspection requirements applicable to residential finished basement. Course content utilizes examples, scenarios, exercises, and references to the 2020 Minnesota Residential Code including MR 1300 – 2020 Minnesota Building Code Administration. The course content is intended for building officials of varying experience levels.

**Instructor: Richard Lockrem,**  
**Minnesota Department of Labor and Industry**

 Virtual  On-Site

## 2021 ICC UPPER GREAT PLAINS REGION III EDUCATIONAL INSTITUTE | FEBRUARY 2022

TRACK	Monday Feb. 7	Tuesday Feb. 8	Wednesday Feb. 9	Thursday Feb. 10	Friday Feb. 11
<b>Track 1</b> Code Enforcement, and Professional Development	SESSION 211 <b>am – Officer Safety – The Guardian Mindset</b> <b>pm – Vacant Buildings Enforcement and Registration Program</b> <i>GMS Presentations</i>	SESSION 212 <b>Preventing and Responding to Behavioral Crisis Situations</b> <i>Barbara Schneider Foundation</i>	SESSION 213 <b>am – Ethics in Building Departments</b> <b>pm – The Partnership: The Contractor and the Building Inspector</b> <i>Russell Thornburg</i>	SESSION 214 <b>Inspection Skills – Legal Aspects, Right of Entry, and Documentation</b> <i>Tom Meyers</i>	SESSION 215 <b>2018 IPMC Overview</b> <i>ICC-Cecilia Muela</i>
<b>Track 2</b> Building: Understanding the Basics	SESSION 221 <b>2018 IRC Inspector Insights</b> <i>ICC-Sandra Hyde</i>	SESSION 222 <b>am – Understanding Residential Building Code</b> <b>pm – Accessory Structures in the 2018 IRC</b> <i>Russell Thornburg</i>	SESSION 223 <b>2018 IRC Performing Residential Plan Reviews</b> <i>ICC-Tim Ryan</i>	SESSION 224 <b>2018 IRC Performing Residential Building Inspections</b> <i>ICC-Tim Ryan</i>	SESSION 225 <b>am – Alternative Solutions to Conventional Concrete Deck Footings</b> <i>Roger Axel</i> <b>pm – Communication Techniques for Effective Code Administration</b> <i>Greg Karow</i>
<b>Track 3</b> Building: General Topics	SESSION 231 <b>2021 IRC Significant Changes</b> <i>ICC-John Gibson</i>	SESSION 232 <b>2021 IBC Nonstructural Significant Changes</b> <i>ICC-Steve Thomas</i>	SESSION 233 <b>Residential for the Roaring 20s – Innovation and Design Trends to Combat an Angry Climate</b> <i>Tom Meyers</i>	SESSION 234 <b>A Look at Wood Use in All Types of Construction</b> <i>Hoover-Jim Gogolski</i>	
<b>Track 4</b> Building: General Concerns	SESSION 241 <b>2021 IBC Transition from the 2015 IBC</b> <i>ICC-Steve Thomas</i>	SESSION 242 <b>am – 2018 IBC Type A and B Dwelling Units in Multi-Family Buildings</b> <b>pm – 2018 IBC Mixed Occupancies</b> <i>ICC-Doug Thornburg</i>	SESSION 243 <b>2018 IBC Means of Egress</b> <i>ICC-Doug Thornburg</i>	SESSION 244 <b>2018 IBC Performing Nonstructural Plan Reviews</b> <i>ICC-John Gibson</i>	SESSION 245 <b>2018 IBC Performing Commercial Building Inspections</b> <i>ICC-John Gibson</i>

**REGISTER ONLINE at [www.iccsafe.org/RegionIII](http://www.iccsafe.org/RegionIII)**  
*Early bird pricing ends 7 January 2022*

*Form also available on page 16 for mail-in registration.*

# 2021 ICC UPPER GREAT PLAINS REGION III EDUCATIONAL INSTITUTE | FEBRUARY 2022

TRACK	Monday Feb. 7	Tuesday Feb. 8	Wednesday Feb. 9	Thursday Feb. 10	Friday Feb. 11
<b>Track 5</b> Building: Specific Topics	<p>SESSION 251</p> <p><b>am – Minnesota Preliminary Damage Assessments</b></p> <p><i>HSEM–Angie Wynn &amp; Bill Hirte</i></p> <p><b>pm – ICC 500 Storm Shelter Requirements</b></p> <p><i>Braun Intertec–Scott Holm</i></p>	<p>SESSION 252</p> <p><b>ASHRAE 90.1-2016</b></p> <p><i>Gil Rossmiller</i></p>	<p>SESSION 253</p> <p><b>2021 ISPSC</b></p> <p><i>Ken Gregory</i></p>	<p>SESSION 254</p> <p><b>am part 1 – Polyiso CI for Code-Compliant Walls in Type I-IV and Residential Construction</b></p> <p><i>PIMA–Lance Williams</i></p> <p><b>am part 2 – Polyiso CI for Code-Compliant Walls in Type V and Residential Construction</b></p> <p><i>PIMA–Charlie Devine</i></p> <p><b>pm – Spray Polyurethane Foam</b></p> <p><i>IBS–Jeremy LaBeau</i></p>	<p>SESSION 255</p> <p><b>am part 1 – Overview of Engineered Wood Products</b></p> <p><b>am part 2 – Lateral Load Paths for Wood Framed Struct</b></p> <p><b>pm – APA Wall Bracing Calculator-Wall Bracing Made Easy</b></p> <p><i>APA–Ron Nuttall</i></p>
<b>Track 6</b> Cross Functional: Building and Fire	<p>SESSION 261</p> <p><b>Fire Safety Research: Impact on Codes, Standards and Public Safety</b></p> <p><i>Sean DeCrane</i></p>	<p>SESSION 262</p> <p><b>Wood Meets Fire Safety</b></p> <p><i>American Wood Council–James B. Smith</i></p>	<p>SESSION 263</p> <p><b>2018 IRC Townhouses Fire &amp; Life Safety Principles</b></p> <p><i>ICC–Sandra Hyde</i></p>	<p>SESSION 264</p> <p><b>2018 Firestopping – Plan Review and Inspection</b></p> <p><i>Brice Miller</i></p>	
<b>Track 7</b> Mechanical and Plumbing	<p>SESSION 271</p> <p><b>Manual J, S, D</b></p> <p><i>Gil Rossmiller</i></p>	<p>SESSION 272</p> <p><b>2018 IMC and IFGC Combustion Air and Venting</b></p> <p><i>ICC–Jerry Flanik</i></p>	<p>SESSION 273</p> <p><b>Understanding the 2018 UPC Plumbing Requirements</b></p> <p><i>ACS–Jerry Flanik</i></p>	<p>SESSION 274</p> <p><b>2018 IFGC Design, Installation, and Inspection Principles</b></p> <p><i>ICC–Jerry Flanik</i></p>	
<b>Track 8</b> Minnesota Focused	<p>SESSION 281</p> <p><b>2020 Minnesota Accessibility Code – Common Questions Clarified</b></p> <p><i>DLI–Karen Gridley &amp; Greg Metz</i></p>	<p>SESSION 282</p> <p><b>All About Concrete – 4 parts</b></p> <p><i>Minnesota Concrete Council–Multiple Presenters</i></p>	<p>SESSION 283</p> <p><b>am part 1 – State of the State</b></p> <p><i>DLI–Scott McLellan</i></p> <p><b>am part 2– Contractor Enforcement</b></p> <p><i>DLI–Charlie Durenberger</i></p> <p><b>pm – Minnesota Rules 1300 &amp; 1303</b></p> <p><i>DLI–Rich Lockrem</i></p>	<p>SESSION 284</p> <p><b>am part 1 – Radon Mitigation</b></p> <p><i>MDH–Josh Kerber</i></p> <p><b>am part 2– Inclusive Restrooms</b></p> <p><i>AIA–Heidi Neumueller &amp; SPSS–Angela Selb-Sack</i></p> <p><b>pm – MN Plumbing Code Update</b></p> <p><i>DLI–Brad Jensen</i></p>	<p>SESSION 285</p> <p><b>Minnesota Residential Energy Code Fundamentals</b></p> <p><i>DLI–Steve Shold</i></p> <p><b>Basement Finish – Plan Review and Inspection</b></p> <p><i>DLI–Rich Lockrem</i></p>
<b>Special Events</b>	<b>AMBO Board Dinner Meeting</b>	<b>AMBO Membership Meeting Dinner Outing</b>	<b>Trade Show ICC Bookstore Region III Chapter Meeting</b>		



# 2022 Upper Great Plains Educational Institute!

## REGISTRATION FORM



7 a.m. Sign In • 8 a.m. Sessions Begin • 11:15 a.m. – 12:15 p.m. Lunch • 3:30 p.m. Conclusion

Complete ONE registration form per registrant. Registration form may be copied.

ICC Membership Number:				<p><b>REGISTER FOR ON-SITE SESSIONS</b>  <b>**Register Early and SAVE!**</b>  <b>Register By January 7, 2022</b></p> <ul style="list-style-type: none"> <li>\$150 – per day</li> </ul> <p><b>Register After January 7, 2022</b></p> <ul style="list-style-type: none"> <li>\$165 – per day for one or two days</li> <li>\$150 – per day for three, four or five days</li> </ul> <p><b>Walk-In Rate</b></p> <ul style="list-style-type: none"> <li>\$165 – per day</li> </ul> <p><b>REGISTER FOR VIRTUAL SESSIONS</b></p> <ul style="list-style-type: none"> <li>\$150 – per day for a few select sessions</li> </ul> <p><b>REGISTER ONLINE:</b> <a href="http://www.iccsafe.org/RegionIII">www.iccsafe.org/RegionIII</a></p> <p><b>REGISTER BY MAIL:</b>            Region III Registrar, International Code Council            Central Regional Office            4051 Flossmoor Road            Country Club Hills, Illinois 60478</p> <p><b>WALK-IN REGISTRATION:</b>            Limited Availability as Space Allows</p> <p><b>QUESTIONS? CONTACT THE CODE COUNCIL:</b>            1-888-422-7233, ext. 33821</p>
Name for Badge:				
First Name:		Middle Initial		
Last Name:				
Job Title:				
Jurisdiction/Organization:				
E-Mail:				
Street Address:				
City:				
State/Province:				
Zip Code:				
Country:				
Day Telephone:		Extension		
Evening Telephone:		Fax Number		
Please indicate if you require special seminar room accessibility accommodations:				

### SEMINAR REGISTRATION OPTIONS

LIST SEMINAR SESSION NUMBER AND ON-SITE OR VIRTUAL					
	Monday	Tuesday	Wednesday	Thursday	Friday
Seminar Number					
On-Site or Virtual					

### TOTAL REGISTRATION FEES

I am attending ON-SITE one or two days	\$150 (early)	\$165 (late, after 1/7/21)	
I am attending ON-SITE three, four or five days	\$150 per day		
I am attending VIRTUALLY	\$150 per day		
<b>PAYMENT OPTIONS</b> (Bill Me, Check or P.O.)	<b>TOTAL</b>		
Bill Me (Code Council Members only) Member #:	Payment Enclosed (Checks payable to: International Code Council)		
Purchase Order No. :	<i>Copy of authorized P. O. required</i>		





# 2021 ICC Upper Great Plains Region III Educational Institute

February 7-11, 2022

## Download Your Session Handouts



**NOTE: Printed handouts will not be available on-site.**

*Materials will be provided on-site only for those sessions with a notice that the instructor will bring handouts.*

**Easy and Convenient to access your session materials!**

Handouts will be available for download on January 25, 2022.

**Visit: [Region III Handouts Page](#)**

**Password: 22region3**

Session Handouts are Organized by Track, then Day, then Session Number & Title

Download and Print to bring to class or to retain for reference.

Follow along on your device during the session.

*Thank you for your support of ICC, Region III, and AMBO!*