Roof Floor Trusses Select Trusses Lumber Inc

This tool needs no maintenance Fully revised and updated, this convenient guide covers the latest industrial equipment as well as all the tools and machines prevalent in older plants, even those from the early 1970s and before. Your complete reference tool * Discusses machinery installation, welding, rigging, carpentry, basic electricity, and more * Features a chapter on safety issues * Covers belts, drives, transmissions, and bearings * Examines automatic sprinkler systems * Offers tips for preventive maintenance * Includes coverage of piping and pipefitting * Reviews shop mathematics, geometry, and trigonometry

Brannigan's Building Construction for the Fire Service, Fourth Edition is a must read for fire fighters, prospective fire fighters, and fire science students. This edition continues the Brannigan tradition of using plain language to describe technical information about different building types and their unique hazards. This text ensures that critical fire fighting information is easy-to-understand and gives valuable experience to fire fighters before stepping onto the fireground. The first edition of Building Construction for the Fire Service was published in 1971. Frank Brannigan was compelled to write the most comprehensive building construction text for the fire service so that he could save fire fighters’ lives. His passion for detail and extensive practical experience helped him to develop the most popular text on the market. His motto of: “Know your buildings,” informs every aspect of this new edition of the text. Listen to a Podcast with Brannigan's Building Construction for the Fire Service, Fourth Edition co-author Glenn Corbett to learn more about this training program! Glenn discusses his relationship with the late Frank Brannigan, the dangers of heavy construction timber, occupancy specific hazards, and other areas of emphasis within the Fourth Edition. To listen now, visit: http://d2jw81rkebrcvk.cloudfront.net/assets.multimedia/audio/Building_Construction.mp3.

This book provides you with an easy to use reference for all of Autodesk Revit’s Architectural Commands. This command reference can be used as you are working in the software to help you understand what each command does and how it may be used in your overall workflow. Also included with this book are nearly 100 videos tutorials which will further help you master Autodesk Revit. The book is organized in the same way the Revit user interface is presented. Each tab of the Ribbon is represented as a chapter in the book. Within the chapter each button is represented in the book as it appears on the Ribbon from left to right. Organizing the book in this way makes it easy to locate each command in the book and understand its use. For each command entry you will see a brief description of what the tool will do, how it is used, and the options you will be given as you use the tool. In some cases the author’s suggestions or tips about the use of the tool will also be presented. As you learn the tools in Revit you may not need to read the full entry on the tool. To help facilitate this, many of the tools include a “Quick Steps” section to explain the tools and options in outline form. This book will help facilitate your learning of the Revit interface and all of the commands. For more experienced users, the command reference may introduce you to commands you have not used before or help you with commands you use less frequently. Whatever level of user you are, this command reference becomes a valuable resource to you as you work with Revit.

Log Home Living is the oldest, largest and most widely distributed and read publication reaching log home enthusiasts. For 21 years Log Home Living has presented the log home lifestyle through striking editorial, photographic features and informative resources. For more than two decades Log Home Living has offered so much more than a magazine through additional resources—shows, seminars, mail-order bookstore, Web site, and membership organization. That's why the most serious log home buyers choose Log Home Living.
This text provides a concise and practical guide to timber design, using both the Allowable Stress Design and the Load and Resistance Factor Design methods. It suits students in civil, structural, and construction engineering programs as well as engineering technology and architecture programs, and also serves as a valuable resource for the practicing engineer. The examples based on real-world design problems reflect a holistic view of the design process that better equip the reader for timber design in practice. This new edition now includes the LRFD method with some design examples using LRFD for joists, girders and axially load members. It is based on the 2015 NDS and 2015 IBC model code. includes a more in-depth discussion of framing and framing systems commonly used in practice, such as, metal plate connected trusses, rafter and collar tie framing, and pre-engineered framing. includes sample drawings, drawing notes and specifications that might typically be used in practice. includes updated floor joist span charts that are more practical and are easy to use. includes a chapter on practical considerations covering topics like flitch beams, wood poles used for footings, reinforcement of existing structures, and historical data on wood properties. includes a section on long span and high rise wood structures includes an enhanced student design project. Here, in one volume, is all the architect needs to know to participate in the entire process of designing structures. Emphasizing bestselling author Edward Allen's graphical approach, the book enables you to quickly determine the desired form of a building or other structure and easily design it without the need for complex mathematics. This unique text teaches the whole process of structural design for architects, including selection of suitable materials, finding a suitable configuration, finding forces and size members, designing appropriate connections, and proposing a feasible method of erection. Chapters are centered on the design of a whole structure, from conception through construction planning. Various structures, such as buildings, bridges, and paved roads play an important role in our lives. However, these construction projects require large expenditures. Designing infrastructure cost-efficiently while satisfying all necessary design constraints is one of the most important and difficult tasks for a structural engineer. Traditionally, mathematical gradient-based optimization techniques have been applied to these designs. However, these gradient-based methods are not suitable for discrete design variables such as factory-made cross sectional area of structural members. Recently, researchers have turned their interest to phenomenon-mimicking optimization techniques because these techniques have proved able to efficiently handle discrete design variables. One of these techniques is harmony search, an algorithm developed from musical improvisation that has been applied to various structural design problems and has demonstrated cost-savings. This book gathers all the latest developments relating to the application of the harmony search algorithm in the structural design field in order for readers to efficiently understand the full spectrum of the algorithm’s potential and to easily apply the algorithm to their own structural problems. This book contains six chapters with the following subjects: standard harmony search algorithm and its applications by Lee; standard harmony search algorithm for steel frame design by Degertekin; adaptive harmony search algorithm and its applications by Saka and
Hasançebi; harmony particle swarm algorithm and its applications by Li and Liu; hybrid algorithm of harmony search, particle swarm & ant colony for structural design by Kaveh and Talatahari; and parameter calibration of viscoelastic and damage functions by Mun and Geem.

BIM for Structural Engineering and Architecture Building Information Modeling: Framework for Structural Design outlines one of the most promising new developments in architecture, engineering, and construction (AEC). Building information modeling (BIM) is an information management and analysis technology that is changing the role of computation in the architectural and engineering industries. The innovative process constructs a database assembling all of the objects needed to build a specific structure. Instead of using a computer to produce a series of drawings that together describe the building, BIM creates a single illustration representing the building as a whole. This book highlights the BIM technology and explains how it is redefining the structural analysis and design of building structures. BIM as a Framework Enabler This book introduces a new framework—the structure and architecture synergy framework (SAS framework)—that helps develop and enhance the understanding of the fundamental principles of architectural analysis using BIM tools. Based upon three main components: the structural melody, structural poetry, and structural analysis, along with the BIM tools as the frame enabler, this new framework allows users to explore structural design as an art while also factoring in the principles of engineering. The framework stresses the influence structure can play in form generation and in defining spatial order and composition. By highlighting the interplay between architecture and structure, the book emphasizes the conceptual behaviors of structural systems and their aesthetic implications and enables readers to thoroughly understand the art and science of whole structural system concepts. Presents the use of BIM technology as part of a design process or framework that can lead to a more comprehensive, intelligent, and integrated building design Places special emphasis on the application of BIM technology for exploring the intimate relationship between structural engineering and architectural design Includes a discussion of current and emerging trends in structural engineering practice and the role of the structural engineer in building design using new BIM technologies Building Information Modeling: Framework for Structural Design provides a thorough understanding of architectural structures and introduces a new framework that revolutionizes the way building structures are designed and constructed.

Selected Construction Regulations for the Home Building Industry

The only comprehensive SketchUp guide written for builders and contractors SketchUp is a 3D modeling application used in areas ranging from civil and mechanical engineering to motion picture and video game design. Three-dimensional modeling is of obvious value to the building industry—yet resources for transforming architectural designs into
reality is surprisingly limited. SketchUp for Builders is the first comprehensive guide designed specifically for builders and contractors, providing step-by-step instructions on incorporating 3D modeling into all phases of the construction process. Author John Brock draws from his 30 years of experience as a custom home designer and builder to provide practical advice on how to understand what you are building before it is built. This valuable guide demonstrates how to eliminate cost overruns, construction delays, and design flaws by integrating SketchUp modeling into your workflow. Emphasizing real-world practicality, this book covers all of the essential components of modeling a 3D construction project, from SketchUp fundamentals and object basics to importing construction drawings and increasing project efficiency with extensions and plugins. All phases of construction are clearly explained, including foundations, walls and floor systems, roof and mechanical systems, and exterior and interior finishes. Supplies a constructability process for efficient and cost-effective build projects Offers step-by-step guidance for creating construction documents, renderings, animations, virtual reality tours, and more Integrates SketchUp into all stages of the construction process Provides access to resources such as web tutorials, blogs, and the online SketchUp community Demonstrates how to generate construction documents with accompanying Layout software SketchUp for Builders: A Comprehensive Guide for Creating 3D Building Models Using SketchUp in an indispensable source of information for contractors and builders, architects, interior designers, landscape architects, construction professionals, and anyone seeking to create 3D models of the design and construction process. This book provides you with an easy to use reference for all of Autodesk Revit’s Architectural Commands. This command reference can be used as you are working in the software to help you understand what each command does and how it may be used in your overall workflow. Also included with this book are nearly 100 videotutorials which will further help you master Autodesk Revit. The book is organized in the same way the Revit user interface is presented. Each tab of the Ribbon is represented as a chapter in the book. Within the chapter each button is represented in the book as it appears on the Ribbon from left to right. Organizing the book in this way makes it easy to locate each command in the book and understand its use. For each command entry you will see a brief description of what the tool will do, how it is used, and the options you will be given as you use the tool. In some cases the author’s suggestions or tips about the use of the tool will also be presented. As you learn the tools in Revit you may not need to read the full entry on the tool. To help facilitate this, many of the tools include a “Quick Steps” section to explain the tools and options in outline form. This book will help facilitate your learning of the Revit interface and all of the commands. For more experienced users, the command reference may introduce you to commands you have not used before or help you with commands you use less frequently. Whatever level of user you are, this command reference becomes a valuable resource to you as you work with Revit. Videos Access to nearly 100 videos, almost five hours of content, are also included with your purchase of this book. These videos break down each topic into several short videos so that you can easily navigate to a specific aspect of a tool or feature in Autodesk Revit. This makes the videos both a powerful learning tool and convenient video reference. Why another textbook on the design of wood sets this book apart is its inclusion of "struk structures? In many years of teaching structural planning. " Most textbooks show only the design in wood, the authors have used virtually selection of member proportions or number of
every textbook available, as well as using only connectors in a joint to satisfy a given, com a code and no textbook at all. The textbooks pletely defined situation. This book, on the used have included both the old and the rela other hand, shows the thinking process needed tively moden; some have been fairly good, but to determine whether or not the member is re in our opinion each has deficiencies. Some quired in the first place. Following this, the books have too few solved examples. Others spacing and continuity of the member are de omit important material or have an arrange cided, its loads are determined, and finally its ment making them difficult to use as formal shape and size are selected. teaching tools. By writing this book, we intend We believe that illustrating structural plan to correct such deficiencies. ning as well as detailed member and connec The prime purpose of this book is to serve as tion design is of considerable value in helping a classroom text for the engineering or archi the student make the transition from the often tecture student. Protect against the life-threatening dangers of building collapse! Brannigan's book can save your life! Extensively updated, revised, and expanded, this 3rd edition text shows you how to recognize the signs of building collapse before it happens--so you can get out while there's still time. You'll be informed about critical topics such as: The toxic combustion products of vermin- and moisture-resistant treated wood The outcome of multi-million-dollar lawsuits involving some fire-retardant treated plywood The total collapse hazard to post-tensioned concrete buildings under construction The dynamics of the "stack effect", and more! Photographs and illustrations help you visualize key concepts, so you can spot dangers on the job. A "must" for fire fighters, engineers, and all those concerned with building collapse, this book gives you the facts you need to avoid construction hazards. Work smart... order today! Autodesk® Revit® 2019: Review for Professional Certification - Structure is a comprehensive review guide intended to help you prepare for the Autodesk Revit Certified Professional - Structure exam. It enables experienced users to review learning content from ASCENT that is related to the exam objectives. New users of Autodesk® Revit® Structure should refer to the following ASCENT learning guides: Autodesk® Revit® 2019: Structure FundamentalsAutodesk® Revit® 2019: Architecture FundamentalsAutodesk® Revit® 2019: Collaboration ToolsAutodesk® Revit® 2019: BIM Management: Template and Family Creation Prerequisites:Access to the 2019 version of the software. The practices and files included with this guide might not be compatible with prior versions. This guide is intended for experienced users of the Autodesk Revit software. Autodesk recommends 400 hours of hands-on software experience prior to taking the Autodesk Revit Certified Professional - Structure exam. Covering both commercial and residential drawing, this text presents a detailed study of typical construction methods and the preparation of architectural working drawings. It includes chapters on technical vocabulary, study questions, problems and an appe This book provides you with an easy to use reference for all of Autodesk Revit’s Architectural Commands. This command reference can be used as you are working in the software to help you understand what each command does and how it may be used in your overall workflow. Also included with this book are nearly 100 video tutorials which will further help you master Autodesk Revit. The book is organized in the same way the Revit user interface is presented. Each tab of the Ribbon is represented as a chapter in the book. Within the chapter each button is represented in the book as it appears on the Ribbon from left to right. Organizing the book in this way makes it easy to locate each command in the book and understand its use. For each command entry you will see a brief description of what the tool will do, how it is used, and the options you will be given as you use the tool. In some cases the author’s suggestions or tips about the use of the tool will also be presented. As you learn the tools in
Revit you may not need to read the full entry on the tool. To help facilitate this, many of the tools include a “Quick Steps” section to explain the tools and options in outline form. This book will help facilitate your learning of the Revit interface and all of the commands. For more experienced users, the command reference may introduce you to commands you have not used before or help you with commands you use less frequently. Whatever level of user you are, this command reference becomes a valuable resource to you as you work with Revit.


ARCHITECTURAL DRAFTING AND DESIGN, 6E is the classic text for all architectural drafters and CAD operators, whether beginning, intermediate, or advanced. This full-color, comprehensive edition provides the basics of residential design, using various types of projects that a designer or architect is likely to complete during the actual design process and is written to meet the most recent editions of IRC and IBC. This book begins with information on architectural styles that have dominated the field over the last four centuries, followed by basic design components related to the site and structure. Commercial drafting, basic materials used for construction, common construction methods and drawings typically associated with commercial construction are all covered. An important feature of this best-seller is its step-by-step instructions for the design and layout of each type of drawing associated with a complete set of architectural plans, with projects that can be completed using either CAD or manual drawing methods. Readers will gain the knowledge needed to complete the drawings required by most municipalities to obtain a building permit for a single-family residence. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Set includes revised editions of some issues.

Produce accurate estimates for nearly any residence in just minutes. This handy manual has the shortcuts and tables you need to find the quantity of materials and labor for most residential construction. Includes overhead and profit, how to develop unit costs for labor and materials, and how to be sure you’ve considered every cost in the job. Written by an expert in the field.


“Starts out with detailed coverage of standard building materials and up-to-date how-to information about modern power tools and safety requirements...explores all the standard framing methods...demystifies some of the more obscure tasks, such as building gable dormers...and structural foundations.”—Popular Mechanics.