Press Release
(Immediate: 860Words, see image links on last page)
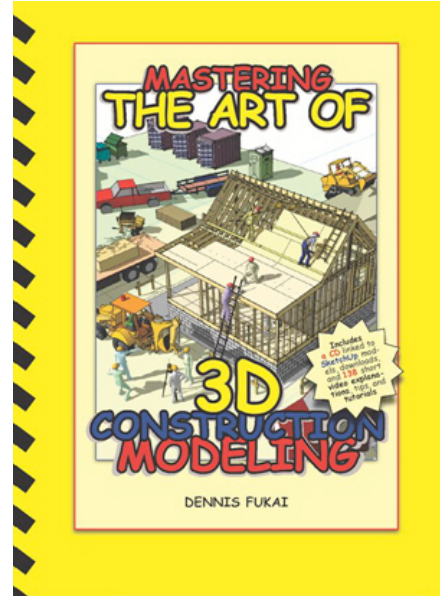
Mastering the Art of 3D Construction Modeling
http://insitebuilders.com/-3DMastering/index.htm

We just finished an update to our classic book, 3D Construction Modeling.

The new book was written for project managers who want to learn first hand how to build their own piece based construction models. A construction model is a process model, built to communicate ideas and illustrate details using a deconstructable assembly of accurately scaled groups and components.

In other words, a construction model is specifically built to be assembled, disassembled, and staged to communicate the means and methods of a construction. As such, it is not a design tool, it is a communications tool.

So simple a child can do it
The key to fast and simple construction modeling is an open-source 3D program like Google SketchUp. As advertised, the software is so easy that a child can use it. And though that's a true statement, most of us know that doesn't necessarily mean it'll be easy for a project manager to learn to use the program in the real-world of construction.

But all it really takes to master the art of construction modeling are a few tips and tricks, a little practice, and the motivation to put the program to work.

That's the objective of this book:

1. Pass on tips and tricks collected over almost a decade of construction modeling
2. Animate the modeling process with a series of short video tutorials
3. Demonstrate what models can do for professional construction communication

Graphical indexes

MASTERING THE ART OF 3D CONSTRUCTION MODELING
This book is an illustrated index of the step-by-step video **explanations** posted to the Insitebuilders video collection and **linked** from the book's CD. Look for the icons to find **embedded** links to videos and **downloads** that will help you master the art of construction modeling.

1.STARTUP
SketchUp install, menus, tools, model setup, modeling method.

2.SITE SETUP
Site map, scale, model base, set workpoint and phase dummies.

3.SITE LAYOUT
Overview of drawings, site and setback layout from corners, visual scale.

4.EXCAVATION
Set up batter boards, string lines, and lay down areas for the cut and fill.

5.FOUNDATION
Forms for reinforced footing and concrete and masonry foundation walls.

6.FLOOR FRAMING
Insert, scale, rotate and place, girders, joists, blocking, and subfloor.

7.WALL FRAMING
Assemble studs, plates, sills, and headers for each wall in sequence.

8.ROOF FRAMING
Assemble headers, ridges, rafters, rakes, blocking and sheathing.

RESOURCES
Index of tips and tricks, buzzwords, and shortcuts in the book and videos.

The book blends annotated illustrations, short videos, models, and tips and tricks into a series of graphical indexes.

First as a content page that looks a lot like a standard work breakdown structure (WBS) with eight construction phases.

The WBS thumbnails link to a series of video indexes on the book's CD and are included in the book's table of contents as an overview of each chapter. The chapter indexes link to a series of 74 short video explanations of the virtual construction.

The chapters themselves include 54 quick tips and tricks to support the video tutorials. The tips and tricks are simple techniques that help to speed model construction.

The pages of the book act as a graphical index of the tutorials. As such they illustrate the content of each of the video tutorials, introducing techniques that may already be understood, leaving the user to decide the relevance of each step in the modeling method and the corresponding tutorial, based on their experience with the program.
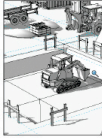
The video pages linked from the graphical index on the book's CD include embedded YouTube links and full size Flash animations that cover the details of the printed illustrations. We include these videos on the CD as pop-ups along with resources and cross references to the programs, tutorials, checklists, models, and files used for each phase of the construction model.

The book's CD also includes all the models used to illustrate the book, plus the Insitebuilders Shortcuts data file, Insitebuilders Template file, and 154 components taken from the much larger Insitebuilders Component Library. The rest of our collection can be found in the models included with our other books (Building SIMPLE, Being SUSTAINABLE, How a House is Built, and How to Plan, Permit, and Pay for a Small Home of Your Own).

Components are an important part of fast-track

4.EXCAVATION   58 - 69
Check the workpoint before placing the batter boards and string lines to **lay out** the location and depth of the excavation. Then use the excavation to shape a **massing** model for the backfill and rotate into place as a stockpile in the **background**.

CHECK WORKPOINT   58 - 59
01WorkpointCheck - Use Tape Measure to check dimensions

BATTER BOARDS   60 - 61
02PlaceBatterBoards - Lay out and position the batter boards

STRING LINES   62 - 63
03StretchStringlines - Set up the string lines to guide the work

EXCAVATE AND BACKFILL   64 - 66
04Excavate&Backfill - Excavate the foundation and stockpile the backfill
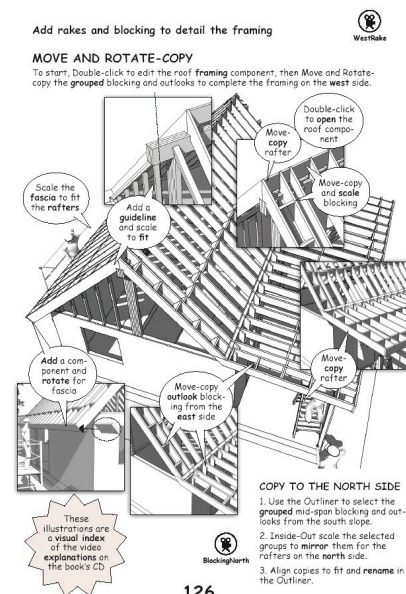
TIPS & TRICKS   67
01OutlineExcavation - Review the Outliner to organize the excavation phase
02LayerControls - Review visibility controls to hide pieces of the model
03ZoomField - Change the field of view for the Zoom tool
04ZoomPrevious - Zoom Previous to go back to recent viewpoints

05InsideOutFlip - Reverse scaling and mirror flips to copy or edit assemblies
06MoveLock - Left, right, and up arrow keys lock moves and lines to an axis
07TypicalInferences - Use SketchUp inferences to speed the construction
08EquipmentOperation - Use handles as pivots to operate equipment

FILES ON THE CD
Chapter4-Excavation Checklist
Phase Dummies Model (SUP and deconstruct)

LINKS
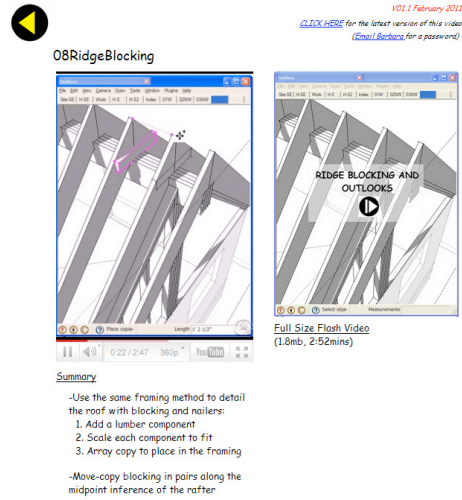PickPic: Screen Capture
FastStone: Free image editor

Each title **links** to a separate video **web** page

Add rakes and blocking to detail the framing   WestRake

MOVE AND ROTATE-COPY
To start, Double-click to edit the roof **framing** component, then Move and Rotate-copy the **grouped** blocking and outlooks to complete the framing on the **west** side.

Double-click to **open** the roof component

Move-copy rafter

Move-copy and **scale** blocking

Scale the fascia to fit the rafters

Add a guideline and scale to fit

Move-copy rafter

Add a component and rotate for fascia

Move-copy outlook blocking from the **east** side

These illustrations are a visual index of the video explanations on the book's CD   BlockingNorth

COPY TO THE NORTH SIDE
1. Use the Outliner to select the **grouped** mid-span blocking and outlooks from the south slope.
2. Inside-Out scale the selected groups to **mirror** them for the rafters on the **north** side.
3. Align copies to fit and **rename** in the Outliner.

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construction modeling. No piece of a construction model needs to be built or supply-sourced more than once. Just like the real world, each model draws on the experience and resources that worked on a previous project and every new construction begins with a collection of components that have been built before.

This means a construction model is no more than a quick assembly from a known collection of prefabricated parts. The tutorials in this book demonstrate this collective method of modeling using a combination of a fast fabrication technique to build and update new components.

This includes a detailed look at the Outliner and how it keeps the pieces of the model organized, making it possible to stage illustrations, organize deconstructions, and animate sequences of production. The Outliner also formats components so that they can be quantified and linked to cloud sourced documents like spreadsheets, slide presentations, and reports.
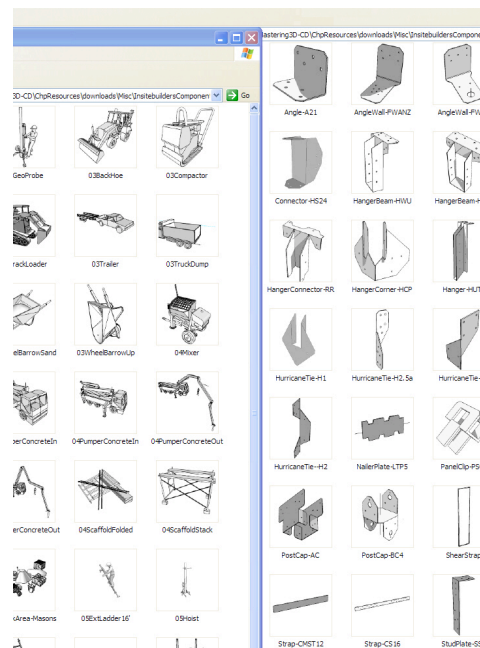
At the center of a cloud

The book therefore mixes digitally printed illustrations and annotated graphics captured from SketchUp, video explanations and sample models, along with YouTube and Flash videos, pop-ups, web pages, checklists, spreadsheets, slide shows, and text based PDFs.

http://sourceforge.net/

Most important, the entire book was produced using a combination of open-source and freely available programs downloaded from a cloud of similar programs, including Google SketchUp, Earth, Maps, Docs, PickPic, KompoZer, VirtualDub, FastStone, PDF Fill, Scribus, and the Wink animator.

For more details on all our books, visit our website at http://www.insitebuilders.com.

RESOURCES

(Hi-res available on request (email Barbara, babs@insitebuilders.com)

Image Links: Masterg 3D front/back/flap/cover

http://insitebuilders.com/-Images/3DMastering/110211FrontCover600.jpg

http://insitebuilders.com/-Images/3DMastering/110211BackCover600.jpg

http://insitebuilders.com/-Images/3DMastering/110211FlapCover256.jpg

Content Links: TOC, ChapterIndex, Tip&TricksPage, TypicalPage, VideoPage,

http://insitebuilders.com/blogimages/Blog110302/01-TOC110107.jpg

http://insitebuilders.com/blogimages/Blog110302/02-indexImage.jpg

http://insitebuilders.com/blogimages/Blog110302/03-T&T.jpg

http://insitebuilders.com/blogimages/Blog110302/04-GraphicalIndex.jpg

http://insitebuilders.com/blogimages/Blog110302/07Components.jpg *http://insitebuilders.com/blogimages/Blog110302/05-VideoPage.jpg*

YouTube Examples of Short Videos (Chapter8Roofing)

http://www.youtube.com/watch?v=WO6PxUrXOAQ&feature=player_embedded

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http://insitebuilders.com/blogimages/Blog110302/07Components.jpg

http://www.youtube.com/watch?v=tiQlf9--Gxc&feature=player_embedded

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