Guide Specification for Post-Frame Building Systems

By Harvey Manbeck, NFBA Technical Adviser

FBA's Guide Specification for Post-Frame Building Systems has been completed and is now available for use by building specifiers. This is the culmination of nearly two years of effort by NFBA's technical and research committee, board of directors, technical adviser, programmers and staff.

The project was key to the success of NFBA's Post-Frame Market Initiative (PFMI) program. As we grow the postframe buildings into the low-rise commercial market, we must overcome technical barriers to that growth. One important barrier was the lack of a standard specification for post-frame building systems that a commercial project developer, specifier or other design professional could refer to.

The T&R committee began work in 2007 to develop just such a generic model building specification. The result was a document that covered every major building system detail, and was 29 pages long. The committee knew that such a guide document wasn't very user-friendly. Thus, we began to develop an online form that would allow specifiers to choose the PF options that applied to their building project. The goal was to produce a customized editable draft specification document to which the specifier can add company letterhead, logo and other modifications.

In late 2008, NFBA accepted a proposal to program this as an online application as a form that one may use by simply selecting the options desired and exporting a customized specification. The program was complete by the 2009 Frame Building Expo, where it was introduced to the NFBA membership.

The Guide Specification is now available on the NFBA web site: www.NFBA. org. To access the Guide Specification, log on to the web site, insert your NFBA user name and password into the "Member Login" boxes, and click onto "Post Frame



Figure 1: Homepage for the Guide Specification program showing the Pending/Open Specifications for the user and the Completed Specifications for the user. The Completed Specifications section shows the document title, creation date, last date modified, and clickable options for editing the document, downloading the resulting specification document in RTF format, or deleting the document.

Guide Specification" under the NFBA Member drop-down menu. Specifiers and other design professionals who are gatekeepers to expansion of post-frame into new markets may access the specification from the web site developed by the PFMI program, www.postframeadvantage.com.

By logging in, one may access the Guide Specification Home Page (**Figure 1**), where you can access only documents you create and save on the system. This home page is divided into an input section (top) and an output section (bottom). Both are very user-friendly for developing a building specification for a particular post-frame building project.

Guide Specification input and output are organized into the familiar three-part Masterspec format: General, Products, and Execution.

The General section provides a general description of the building project, references and other standard specifications related to the project, general design requirements including loads, deflection limits, and rainfall intensities for rain gutters and spouts, and general site requirements, required submittals, quality assurance statements and warranties.

The Products section identifies the project specific materials of construction for post foundations, wall posts, skirtboards, wall girts, post headers, wall sheathing and insulation, primary roof framing, roof purlins, roof sheathing and insulation, attic insulation, trim, doors and windows and accessory items. The Products section also includes fabrication specifications for items such as builtup headers, nail-laminated posts and glued-laminated building components.

The Execution section includes project specific information for examination and inspection of work to be performed. It also includes project specific erection details and specifications for cleaning and protecting installed building components. Great care was exercised during development of the input section of the Guide Specification web pages to be inclusive. That is, no existing wall post, post-frame foundation system, insulation, sheathing, combination of accessories, or exterior finish is assumed. However, we made every effort to include as many options as we could think of in each product category.

In addition, the Guide Specification input is sufficiently flexible to allow the specifier to include products or building description details not included in the options provided in the input section. Thus, the input section allows the specifier to add product options we inadvertently may have omitted or to add new product lines as they are developed. Indeed, it is anticipated that the Guide Specification input sections will be updated as such omissions and developments are identified by users.

The following set of instructions for using the Guide Specifications have been developed to aid first time users of the Guide Specification input and output procedures. These instructions are also available on the previously identified NFBA website.

Accessing the Input Program

- 1. Access the NFBA web site: www.NFBA.org
- 2. On the NFBA Home page, enter your NFBA membership username and password in the Member Login boxes in the left margin.
- Under the NFBA Member drop-down menu (top right of the screen) scroll down to Post-Frame Specifications
- **4.** Click onto Post Frame Guide Specification to access the Guide Specification Home Page

Inputting Data for a Specific Building Project:

Figures 2 & 3

- Click onto Create New Document if starting a new project specification; click onto one of the Pending/Open Specifications if continuing or editing an existing project specification.
- 2. When creating a new document, type in the Project Name in the Document Title input box, then click on the Create Document box.
- Read the General Notes and Instructions in the *right hand side* of

- 6 🗙 Post Frame Building Guide Specification - Manage Document - Windows Internet Explore p. G 🖉 http://www.pfspec.net/private/Document.aspx?ID=75ce1600-144e-4a15 👻 🍫 🗙 · 🚖 🎲 🏀 Post-Frame Building Guide Specification – Manage Doc... 🟠 • 🔝 - 📻 • 🔂 Page • 🙆 Tools • **Post Frame Building Guide Specification** Create New Docume Home hbm1 -1. GENERAL -1.1 . GENERAL DESCRIPTION 1.2. RELATED SECTION 1.7 WARRANTY 1.3. REFERENCES 1.4. DESIGN REQUIREMENTS 1.7.1 The post-frame contractor shall provide a workmanship warranty of 10 years -Select-1.5. SUBMITTALS -1.6. QUALITY ASSURANCE and other water infiltration 1.7. WARRANTY 2. PRODUCTS -2.1. POST FOUNDATION 1.7.2 Component installation shall be warranted by the installer for 10 years -Select -2.2. POSTS -2.3. SKIRTBOARDS G Internet 100% *

Figure 2: Screen from the Post-Frame Guide Specification showing input screen for the Warranty section. On the left side is the menu showing several of the subsections for the General and Products sections. Each section is accessed by clicking on the menu bar. On the right side is the input section showing two of the three input types: input boxes and drop-down boxes with options.

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Figure 3: Screen from the Post-Frame Guide Specification program showing the Complete Section that must be accessed and user must click onto the Complete Document before a printable RTF specification document can be generated.

the screen.

- **4.** Select and click onto the section for which you wish to input data from the menu on the *left hand side* of the screen.
- **5**. Begin inputting data. Note the following:
- *Italicized text* indicates instructions for the specifier. These words are **not**

part of the specification.

- *Read the italicized instructions very carefully*; many of them instruct the specifier to select one from several options or to select several from a set of options.
- Click onto the desired selection in all *drop-down boxes*; if none of the selections in the drop-down box fits your project conditions, leave the drop-down

box option blank, move to the *input box beside* "other" and type in your project data in format that completes the phrase or sentence.

• Type the desired data into *the blank boxes*.

- 6. Continue inputting data until you come to end of the section. At the end of the section, click onto the Save Answers & Go to the Next Section. *NOTE: Do not leave the section before saving your inputs.*
- **7.** Continue inputting until all sections are completed. Note that you can move through the document in any order and you can return to a previously completed section to edit inputs.
- 8. If you have finished your work, click COMPLETE DOCUMENT at the bottom of the left-hand menu. NOTE: If you do not click COMPLETE DOCUMENT, you will not be able to download a Rich Text Format version of the specification you created. You may click COMPLETE DOCUMENT without completing all sections if you don't need them, but we recommend you complete all desired sections before printing.

Access and Edit the Completed Building Project Specification

- **1.** Go to the Post Frame Guide Specification Home Page (Figure 1)
- 2. Scroll down until you find your building project title under

Completed Specifications

- **3**. Scroll right and click onto **Download RTF**. This will download the completed building project specification per your inputs.
- **4**. Edit the completed document as you would any other Word document.

• Edit the Title Page. Insert Project Name, modify date, and remove "DRAFT" when specification is edited and ready for use.

• Run document through spell check, proof read, etc., just like any other spec document your company distributes to minimize editorial and technical errors.

The inputting procedures are relatively straightforward. However, a few precautions are in order.

- There are three types of data input: drop-down input boxes, blank boxes, and check lists. For drop-down boxes, you need only highlight and click the desired option. If, however, your desired option isn't listed, don't highlight anything and type in your option in the blank box located directly after the dropdown box. In stand-alone blank boxes, such as are used for inserting building dimensions, the user simply types in the desired numbers. When check lists are encountered, the user checks all the items from the list that are appropriate to the current building project. All the checked items will appear in the specification.
- 2. In many sub-sections there are several options from which to choose. For example, under roof insulation in the Materials subsection of the Products section, there are three or four optional methods for specifying the required insulation levels. In such cases the specifier completes only one option and skips forward to the next item. The specifier is alerted of these options with italicized instructions throughout the input sections.
- 3. The user must scroll to the end of an input section and click

POST-FRAME BUILDING SYSTEM

DIVISION 13 – SPECIAL CONSTRUCTION

SECTION 133420 – POST-FRAME BUILDING SYSTEM

1 GENERAL

1.1 GENERAL DESCRIPTION

1.1.1 The primary framing of the building system consists of posts embedded below grade to depth per Designer of Record and roof trusses in main span.

1.1.2 Each bay of the post-frame system consists of a clear span post-frame with trusses attached to headers.

1.1.3 The building width is 40 ft. 8 in. out-to-out of girts. The building length is 96 ft. 8 in. out-to-out of posts. The building eave height is 12 ft. 4 in. inside clearance from finished floor height to the low eave. The bottom chord pitch on the left side of the truss is 0/12; the bottm chord pitch on the right side of the truss is 0 /12. Preliminary bid specification drawings shall be provided showing these corresponding critical dimensions.

1.1.4 The sidewall post spacings are 8 ft. 6 in. from the center of first interior bay post to the outside of the endwall framing for end bays and 8 ft. 0 in. on center for the interior bays. Roof truss spacing is 8 ft. 0 in. on center. The roof pitch is 4 in 12.

1.1.5 The secondary framing consists of purlins and wall girts and other items as detailed.

1.1.6 Lateral bracing, if required, is detailed on bid specification drawings.

1.1.7 The building is totally enclosed.

1.1.8 The building's exterior wall is sheathed with preformed steel panels.

1.1.9 The walls are insulated.

Figure 4: The first page of a typical building project specification document generated using the Guide Specification program after minor editing.

onto "Save Answers and Go to the Next Section" before leaving the input section in order to save inputted data for that section.

4. After all your data is inputted for all desired sections, you will need to click onto COMPLETE DOCUMENT before proceeding to the output portion of the program. If you don't complete this step, you won't be able to print out the completed building project specification.

The resulting Building Project Specification is printed out in a rich text (rtf) format and can be used to produce a Word, or similar word processing, document. This is accomplished by following the four instructions listed under **Access and Edit the Completed Building Project Specification** in the User's Instructions. It is essential to then edit the resulting document by inserting the Project Name and Date desired on the first page and by conducting a spell check and grammar check of the document. This is especially important if the completed document includes some user specified options.

Figure 4 is the first page of a typical building project specification generated

t. using the Guide Specification Program.

The Guide Specification program is especially useful for specifiers new to post-frame building systems because it leads them to the most common options available to them for many components. However, the Guide Specification program may also be useful to experienced post-frame builders who might be considering modifying their specification documents.

In either event, it is likely that companies who initially use the Guide Specification program for Post-Frame Building Systems will blend the resulting post-frame building specifications into a format that is consistent with company policies. This transformation most likely will take place as the specifier becomes familiar with post-frame systems and products.

If that happens, the Guide Specification for Post-Frame Building Systems will have accomplished its purpose; that is, to introduce post-frame to the architect and engineering gatekeepers of the commercial building design and construction industry. n



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