

SmartBuild System Administrator's Guide

Setting Up Outputs

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Purpose

The entire purpose of entering data into SmartBuild is for the outputs the application produces. *Sales Quotes, Material Lists, Layout and Panel Drawings* — a once SmartBuild is properly set up your organization will be producing these and other outputs in record time with incredible accuracy and efficiency. The purpose of this document is to teach you, as a new SmartBuild System Administrator, how to setup, customize, and maintain outputs that fulfill the specific needs of your organization.

Types of Outputs

Right out of the box, SmartBuild provides eight (8) different types of outputs. As the Systems Administrator, you will choose:

- The specific outputs that are to be made available to your users
- The job phase(s) during which each output is made available
- The customization options for your outputs

The eight different types of SmartBuild outputs break down into two separate categories – *Essential Outputs* and *Application-Specific Outputs*. Following is a brief description of each output by type.

NOTE – An example of each different type of SmartBuild output is provided in the appendices of this document.

ESSENTIAL OUTPUTS

Essential outputs include all of the drawings and documentation needed to successfully bid and construct a new roof. They include the following:

1. **Sales Quote** – This is the customized *Sales Quote* document to be presented to each of your customers when bidding a job. The *Sales Quote* output can be as simple or as sophisticated as you like. Since the *Sales Quote* will be the first document presented to potential customers, it is worthwhile to invest time in making this output as professional in content and appearance as possible. This output is provided in Microsoft Word format. (See the example provided in [Appendix A.](#))
2. **Job Data (Comprehensive)** – The *Comprehensive Job Data* output provides a complete *Materials List* for a job, along with a summary of the job's administrative and pricing information. This document is commonly used by a project manager to make sure all required materials are present and cost and pricing information are correct for every line item. The *Comprehensive Job Data* output is provided in Microsoft Excel format, and neither its contents nor format can be customized. (See the example provided in [Appendix B.](#))
3. **Job Data (Custom)** – Like the *Comprehensive Job Data* output, the contents of the *Custom Job Data* output can include both materials and administrative information about a job. Often used as a customized order list for procurement, the contents of this output are highly customizable and the output is available in both PDF and CSV format. (See the examples provided in [Appendix C](#) and [Appendix D](#))
4. **Roof Layout Drawings** – This output shows the layout of an entire roof, plane by plane. The Systems Administrator can elect to include or exclude the display of all individual sheathing

panels in this drawing. You might elect to create two outputs, one with the individual panels and one without. This output is provided in PDF format. (See the example provided in [Appendix D.](#))

5. **Sheathing Drawings** – This output provides a separate diagram for each individual roof plane, showing the layout of the sheathing panels in high detail. This output is provided in PDF format. (See the example provided in [Appendix E.](#))
6. **Job Summary Sheet** – A single page that includes a 2D representation of your 3D SmartBuild model, along with the basic address and contact information for a project entered into the SmartBuild *Jobs Tab*. This output is frequently used as a cover sheet for the *Roof Layout* and *Sheathing Drawings* used in the field. This output is provided in PDF format. (See the example provided in [Appendix F.](#))

APPLICATION-SPECIFIC OUTPUTS

Used by only some of our customers, SmartBuild includes two outputs that are designed to interface with other applications:

1. **Sketchup SKP File** – This output creates a copy of your 3D model that can be opened and edited using SketchUp's design and output tools.
2. **Json File** – The *Json File* is an extremely advanced output that is used exclusively by developers to implement an *Application Programming Interface* (API) between SmartBuild and another application, such as a materials inventory management system. For more information about the *Json File* output and its use, please contact the Keymark Support Team at <mailto:support@keymark.com>.

Parts of the Outputs Window

Setting up and customizing the SmartBuild outputs for your organization is accomplished using the *Outputs* page for System Administrators. To access this page, go to the Menu Bar and click on *Settings* → *Outputs*. This will open an *Outputs* window like the one pictured in Figure 1 below. Please take a moment to review the various parts of the *Outputs* window, as described in this section.

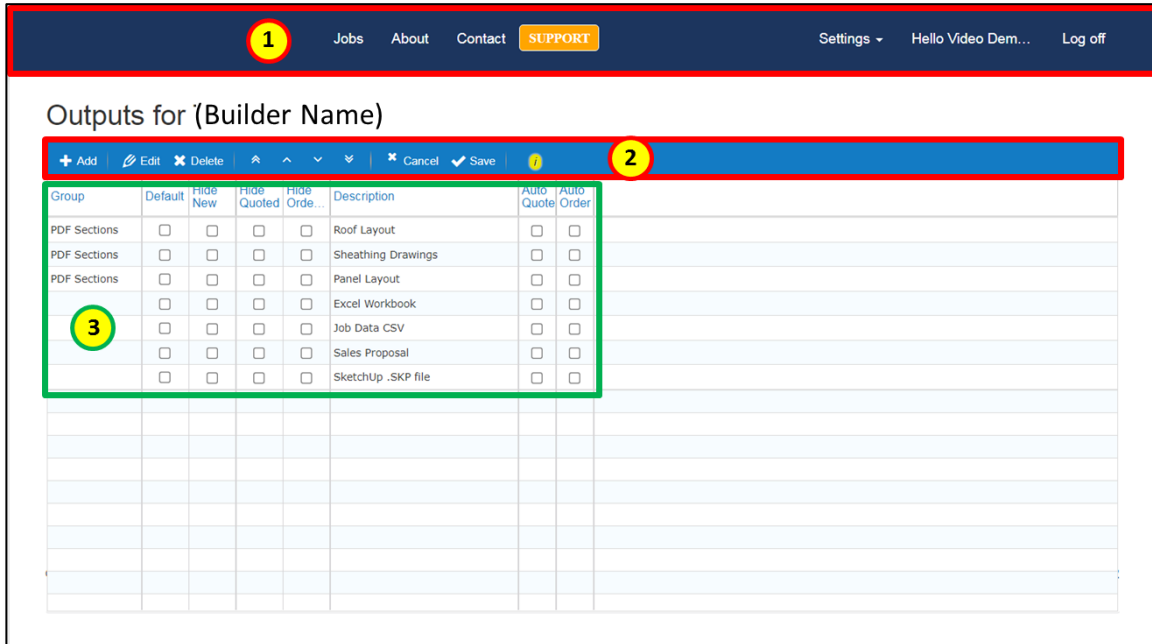


Figure 1: Parts of the SmartBuild *Outputs* window used by System Administrators.

1. MENU BAR

The Menu Bar is common to most areas within the SmartBuild interface. The functions related to the Menu Bar are outlined in multiple SmartBuild help documents, so we will not repeat them here. (See the [SmartBuild Quick Start User's Guide](#) for additional information)

2. OUTPUTS TOOLBAR

The *Outputs* Toolbar contains command buttons for executing the most common functions on the SmartBuild *Outputs* page. Following is a list of these commands and the purpose of each:

Add – Click the *Add* button to create a new output for your organization. Clicking on this button will open a dialog box that allows you to choose the type of output you wish to create, along with any output-specific parameters that need to be defined.

Edit – This will display a dialog box allowing you to make changes to the parameters for the selected output.

Delete – Removes selected output from the system.

Move Top – Clicking on this button will move the selected *Output* to the very top of your *Outputs* List.

Move Up – Clicking on this button will move the selected *Output* up one spot in your *Outputs* List.

Move Down – Clicking on this button will move the selected *Output* down one spot in your Outputs List.

Move Bottom – Clicking on this button will move the selected *Output* to the very bottom of your Outputs List.

Cancel – Clicking on the *Cancel* button will return you to your *Jobs List* page without saving any changes you have made to the configuration of your Outputs.

Save – Click on the *Save* button to retain all changes made to the configuration of your Outputs since the last *Save* operation. If you attempt to leave the *Outputs* page without saving your changes, a dialog box will open asking if you wish to *Save* your changes before leaving.

3. OUTPUTS LIST

This section of the Outputs window displays all of the outputs that are currently available to your users. As you can see in *Figure 1* (previous page), the Outputs List contains eight (8) columns of information that are used to describe and configure each Output. Here is a brief description of the purpose and function of each of these columns:

Group – The *Group* column is used to indicate whether or not a given output is produced in PDF format. All PDF-based outputs are grouped together at the top of the System Administrator’s Outputs page.

Default – Activating this *Default* checkbox automatically includes the selected output for users when they click on the *Outputs* button for a job.

Hide New – Activating the *Hide New* checkbox will hide the selected Output from users when the current status for job is listed as “New” in a SmartBuild.

Hide Quoted – Activating the *Hide Quoted* checkbox will hide the selected Output from users when the current status for a SmartBuild job is listed as “Quoted.”

Hide Ordered – Activating the *Hide Ordered* checkbox will hide the selected Output from users when the current status for a SmartBuild job is listed as “Ordered.”

Description – This field is used to provide a *Name* and *Description* for each output that can easily be recognized by users. This field is automatically populated by SmartBuild within the *Create Output* dialog box, however, System Administrators have the ability to enter any descriptive information they wish.

Auto Quote – Activating the *Auto Quote* checkbox causes the selected *Output* to be generated automatically whenever a job’s status is changed to “Quoted.”

Auto Order – Activating the *Auto Order* checkbox causes the selected *Output* to be generated automatically whenever a job’s status is changed to “Ordered.”

NOTE – The Outputs List in *Figure 1* (previous page) shows the four outputs that SmartBuild includes in your list by default. These four outputs can be deleted or modified by the Systems Administrator in any way he/she deems appropriate.

Creating New Outputs

To create a new output, on the Outputs page (Figure 1, page 1) go to the Outputs Toolbar and click on the Add button. This will open the *Add Report* dialog box pictured at right in Figure 2. Using the *Type* drop-down list in this dialog box, select the type of output you wish to create. The contents displayed in lower portion of this dialog box will then change, depending on the type of output you have selected. We will outline the required procedures for each different type of output in the pages that follow.

NOTE – Once you have selected an *Output Type* from the drop-down list, SmartBuild will automatically populate the *Description* field above it with the name of the item selected. If you later change the *Type* of output selected from the drop-down list, SmartBuild **WILL NOT** automatically change the *Description* field.

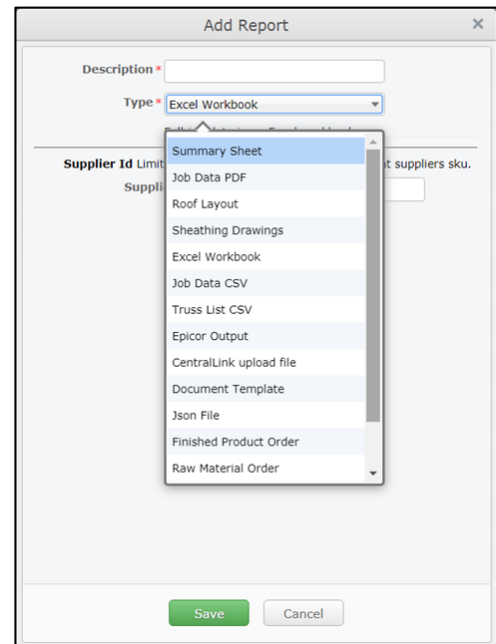


Figure 2: The *Add Report* [output] dialog box.

Creating Essential Outputs

The following section provides instructions for creating each of the different *Essential Outputs* available in Roofing Passport.

DOCUMENT [SALES QUOTE] TEMPLATE

Every job begins by providing a potential customer with a formal, written Sales Quote. (See [Appendix A](#) of this document for a sample completed Sales Quote document.) The process of creating Sales Quotes begins by creating a template that SmartBuild will use to generate these documents. The template you create will be a Microsoft Word document that contains a combination of the standard text your company uses for quotes, along with a series of “tokens” that SmartBuild will use to fill in all of the job-specific information needed for the quote (materials, dimensions, prices, and so on).

To create a new *Sales Quote* output, refer to the *Add Report* dialog box shown in Figure 3 (right). Within this dialog box, where it says “Click [here](#) to download a sample .docx file...” go ahead and click on the word “here.” This will download a Word file (*Document Template.docx*) that contains all of the tokens needed to generate job-specific information “on the fly” for your

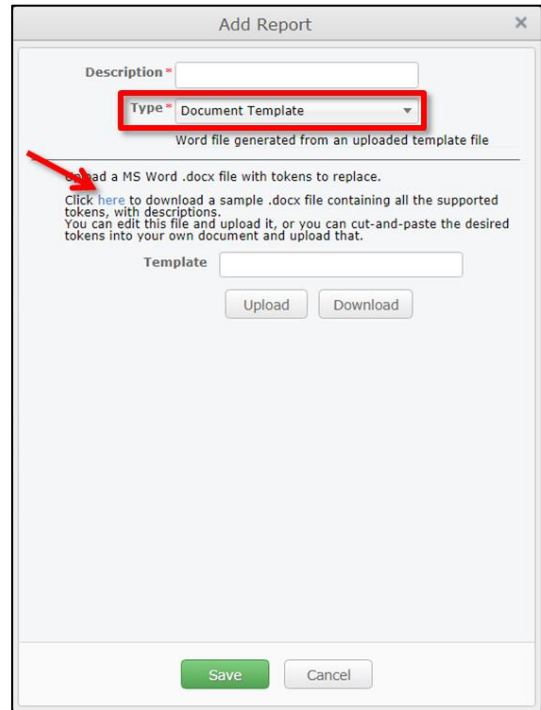


Figure 3: The dialog used to Download and Upload a *Sales Quote* template into and out of SmartBuild.

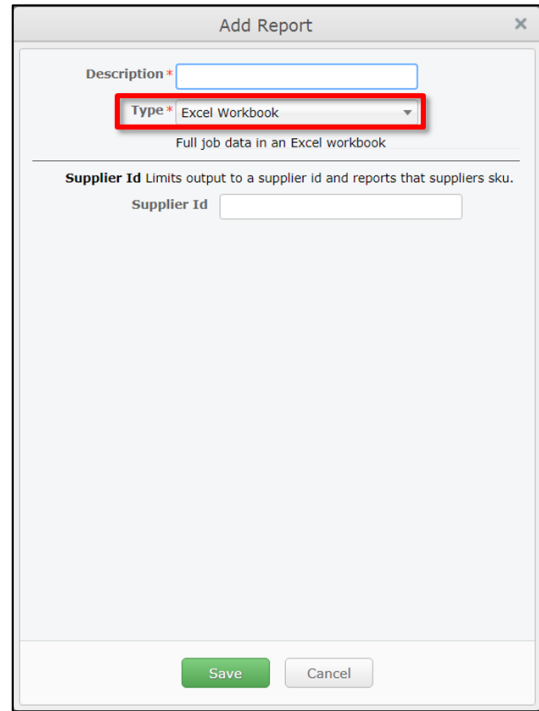
Sales Quotes. (For additional information, please see [Creating Your Sales Quotes Template.](#))

COMPREHENSIVE JOB DATA (EXCEL WORKBOOK)

The *Excel Workbook* (a.k.a. the *Comprehensive Job Data* output) provides documentation of ALL job-related data for a project. (See [Appendix B](#) of this document for a sample *Excel Workbook*.)

As you can see in [Figure 4](#) at right, the *Supplier ID* field is the only customization option available for this output. If you wish to restrict this particular output to include only those materials provided by a specific *Supplier*, you can enter that *Supplier's* ID in the field provided here.

Once you have entered the required information, click on the *Save* button to close the dialog box and save the new output.



The image shows a dialog box titled "Add Report" with a close button (X) in the top right corner. It contains the following elements:

- A "Description" text input field with an asterisk next to it.
- A "Type" dropdown menu with "Excel Workbook" selected, highlighted by a red rectangular box.
- A sub-header: "Full job data in an Excel workbook".
- A section titled "Supplier Id" with a description: "Limits output to a supplier id and reports that suppliers sku." Below this is an empty text input field.
- At the bottom, there are two buttons: a green "Save" button and a grey "Cancel" button.

Figure 4: The *Add Report* dialog box used to create a new *Excel Workbook* output.

CUSTOM JOB DATA (PDF)

As the name implies, the *Custom Job Data* output is a highly customizable report that can be configured to meet the specific needs of your organization. This output is available in two formats; PDF (described here), and CSV (described in the section immediately following). Your *Job Data* output can include any or all of the information listed below:

1. **Include Job Info [Checkbox]** – When this checkbox is enabled, some or all information listed on the Job Tab will be included in the output (building address, contacts, etc.). The specific information to be included is defined in the `Job Infos` field immediately below it.
2. **Job Infos [Field]** – When the `Include Job Info` checkbox has been enabled, the `Job Infos` field is used to limit the *Job Data* included in the output to the specific data elements defined by you, the Systems Administrator. If you leave this field blank, ALL job fields displayed on the *Jobs Tab* of the *Property Pane* will be included in the output. For information on how to fill out the `Job Infos` field, please see [Populating the Jobs Info Field](#) on page 12.
3. **Include Materials [Checkbox]** – When this checkbox is enabled, this *Job Data* output will include a summary of the job's required materials. (See [Appendix C](#) on page 20 for an example *Job Data* output that includes materials.)
4. **Ignore Usage [Checkbox]** – When this checkbox is enabled, this output will consolidate entries under each type of material (*Sheathing, Trim, Accessories, etc.*) regardless of the materials' usage. For example, when the same material is used for both gable trim and eave trim, these materials will be combined as a single line item on the output.
5. **Omit Category Groups [Checkbox]** – When this checkbox is enabled, SmartBuild combines all required materials into a single list, without a header row separating each material by type.
6. **Group Addons [Checkbox]** – When this checkbox is enabled, SmartBuild will list all Add-ons with their associated component (*Door, Window, or Cupola, etc.*).
7. **Columns [Field]** – The `Columns` field is used to define the specific columns of data in the *Materials Database* that are to be included in an output. If you leave this field blank, ALL columns of materials data will be included. If you wish to restrict the materials data to specific columns, you will need to enter the name of each column PRECISELY as it appears in the *Materials Database* AND in the specific format required by SmartBuild. For additional information, please see the nearly identical process outlined under [Populating the Job Infos Field](#) on page 12.

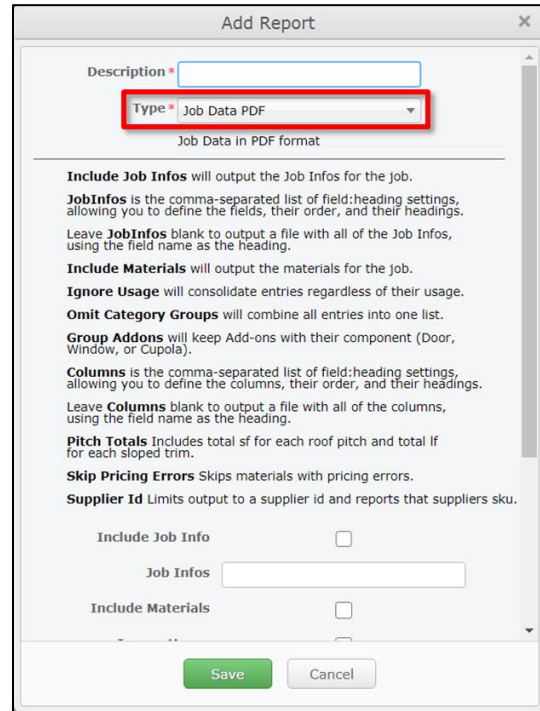


Figure 5: The *Add Report* dialog as it appears when creating a new *Job Data PDF* output.

8. **Pitch Totals [Checkbox]** – When this checkbox is enabled, the output will include a calculation for the square feet of each roof pitch (plane), as well as the total combined square feet for the entire job.
9. **Skip Material Errors [Checkbox]** – When this checkbox is enabled, this output will omit all materials with recognized pricing errors.
10. **Supplier Id [Field]** – If you are including materials information in your *Job Data* output, and you wish to limit the materials included to one or more specific Suppliers, you must enter the target Supplier ID(s) into this field. When adding multiple Supplier IDs, separate each with a comma.

CUSTOM JOB DATA (CSV)

The *Custom Job Data* output is available in two formats; CSV (Comma Separated Values) which is described here, and PDF, which is described in on the previous page. This output is highly customizable and can include any or all of the information listed below:

1. **Include Job Info [Checkbox]** – When this checkbox is enabled, some or all of the information listed on the Job Tab will be included in the output (building address, contacts, etc.). The specific information to be included is defined in the *Job Infos* field immediately below it.
2. **Job Infos [Field]** – Once the *Include Job Info* checkbox has been enabled, the *Job Infos* field is used to limit the job data to be included in the output to the specific data elements defined by you, the Systems Administrator. If you leave this field blank, ALL job fields displayed on the *Jobs Tab* of the *Property Pane* will be included in the output. For information on how to fill out the *Job Infos* field, please see [Populating the Jobs Info Field](#) on page 12.
3. **Include Materials [Checkbox]** – When this checkbox is enabled, the *Job Data* output will include a summary of the job's required materials. (See [Appendix D](#) on page 21 for an example *Job Data* output that includes materials.)
4. **Ignore Usage [Checkbox]** – When this checkbox is enabled, this output will consolidate entries under each type of material (*Sheathing, Trim, Accessories, etc.*) regardless of the material's usage. For example, when the same material is used for both gable trim and eave trim, these materials will be combined as a single line item on the output.
5. **Omit Category Groups [Checkbox]** – When this checkbox is enabled, SmartBuild combines all required materials into a single list, without a header row separating each materials group by type.

Figure 6: The *Add Report* dialog as it appears when creating a new *Job Data CSV* output.

6. **Group Addons [Checkbox]** – When this checkbox is enabled, SmartBuild will list all Add-ons with their associated component (Door, Window, or Cupola, etc.).
7. **Omit Header Row [Checkbox]** – When this checkbox is enabled, your *Jobs Data CSV* output WILL NOT include any of the header rows used to identify the contents of each column of data. This feature is made available for organizations that Upload SmartBuild data into other applications they use in house.
8. **Columns [Field]** – The Columns field is used to define the specific columns of data in the *Materials Database* that are to be included in an output. If you leave this field blank, ALL columns of materials data will be included. If you wish to restrict the materials data to specific columns, you will need to enter the name of each column PRECISELY as it appears in the *Materials Database* AND in the specific format required by SmartBuild. For additional information, please see the nearly identical process documented under [Populating the Job Infos Field](#) on page 12.
9. **Pitch Totals [Checkbox]** – When this checkbox is enabled, the output will include a calculation for the square feet of each roof pitch (plane), as well as the total combined square feet for the entire job.
10. **Skip Material Errors [Checkbox]** – When this checkbox is enabled, the output will omit all materials with recognized pricing errors.
11. **Supplier Id [Field]** – If you are including materials information in your *Job Data* output, and you wish to limit the materials included to one or more specific *Suppliers*, you must enter the target Supplier ID(s) into this field. When adding multiple Supplier IDs, separate each with a comma.

Populating the Job Infos Field

As you know by now, every organization creates its own customized collection of Job Data that is used to provide the administrative information required to manage each job. (This is the collection of data displayed on the *Job Tab* in the *Properties Pane* of SmartBuild, as shown in Figure 7 at right.) Our objective here is to:

1. Identify the Job Data you wish to include in a new Custom Job Data output (PDF or CSV) and then,
2. Enter the name of each data element to be included into the Job Infos field of the *Add Report* dialog box. (See Figure 8.)

The trick is that the name of each of these data elements must be entered into the Job Infos field PRECISELY as it entered into your SmartBuild database AND in the PRECISE FORMAT outlined below.

Basic	Job	Advanced	Packages
Job Number	1234567		
Job Name	Robson House		
Address	4510 80th J St		
City	Indianapolis		
State	IN		
Zip Code	46240		
Requested Start Date	5/3/2021		
Requested End Date	5/7/2021		
Billing Address 1	123 Maple Street		
Billing Address 2	Suite 220		
Billing City	Indianapolis		
Billing State	IN		
Billing Zip Code	46285		
Customer Name	Thomas Robson		
Customer Phone	(317) 555-1212		
Customer Email	trrobson42@aol.com		
Salesperson Name	Phillip Schroeder		
Salesperson Phone	(317) 123-4567		

Figure 7: Job Data is displayed on the Job Tab of the Properties Pane. This set of data is customized to meet the needs of each individual company.

Add Report

Description *

Type * Job Data PDF

Job Data in PDF format

Include Job Infos will output the Job Infos for the job.
JobInfos is the comma-separated list of field:heading settings, allowing you to define the fields, their order, and their headings.
 Leave **JobInfos** blank to output a file with all of the Job Infos, using the field name as the heading.

Include Materials will output the materials for the job.

Ignore Usage will consolidate entries regardless of their usage.

Omit Category Groups will combine all entries into one list.

Group Addons will keep Add-ons with their component (Door, Window, or Cupola).

Columns is the comma-separated list of field:heading settings, allowing you to define the columns, their order, and their headings.
 Leave **Columns** blank to output a file with all of the columns, using the field name as the heading.

Pitch Totals Includes total sf for each roof pitch and total lf for each sloped trim.

Skip Pricing Errors Skips materials with pricing errors.

Supplier Id Limits output to a supplier id and reports that suppliers sku.

Include Job Info **Job Infos**

Include Materials

Save Cancel

Figure 8: Creating a Job Data output with a limited subset of Job Data.

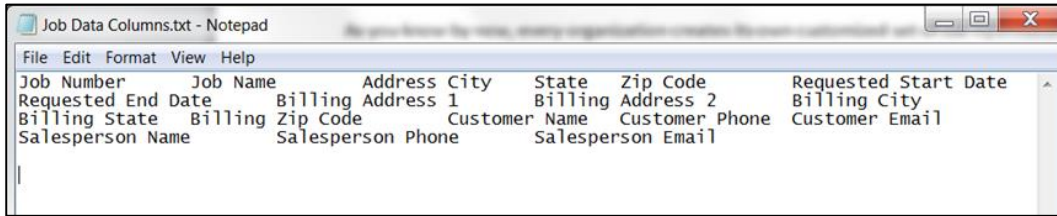
PREPARING THE LIST OF DATA ELEMENTS

Since *Job Data* is different for every company, we will use the *Job Data* shown in Figure 7 as our example for the step-by-step instructions presented below:

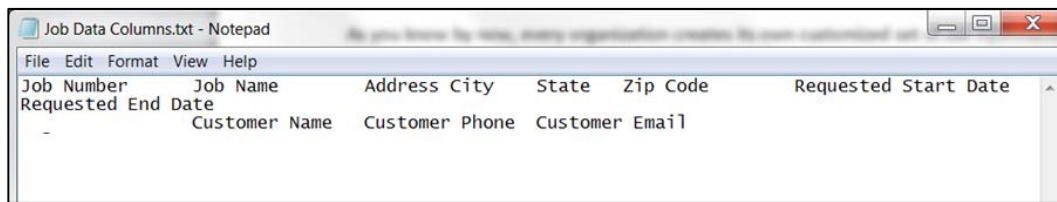
1. Create and save a *Job Data* output that includes ALL Job Information. (That is to say, enable the **Include Job Info** checkbox (Figure 8) and DO NOT enter any information into the Job Infos field in the *Add Report* dialog box. The rest of the configuration for this output does not matter. Simply accept the defaults and click the **Save** button.)

2. With your new *Job Data CSV* output containing ALL Job information now created, go to your *Jobs* page within SmartBuild, select any job at random and Download the newly created *Job Data CSV* output by clicking on the **Download** button for that job.

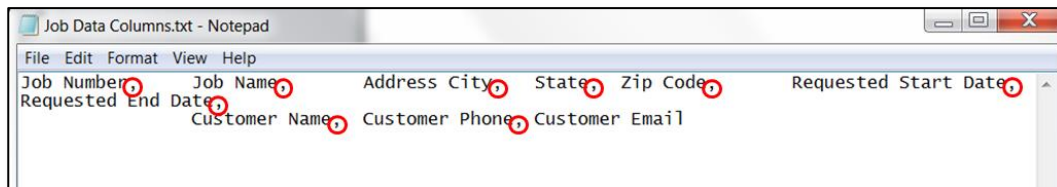
- Open the newly downloaded *Job Data CSV* file and, from the very top row, copy and paste the names of ALL the *Job Data* columns into a text file, as pictured in the example below. (Microsoft WordPad and Microsoft Notepad work equally well for creating this temporary text file.)



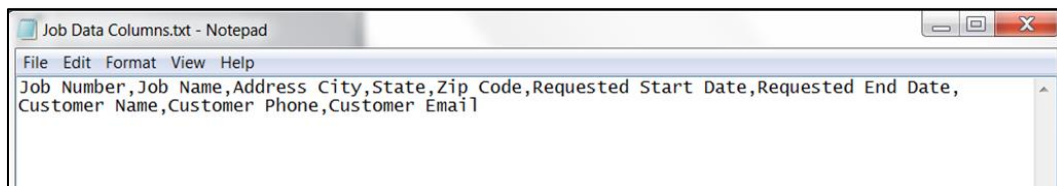
- Save your new text file with a name like *Job Data Columns*. This is a temporary file, and you can delete it once your new output has been created.
- In your newly created text file, delete the names of the columns of *Job Data* that you DO NOT wish to include in your Custom Job Data output. As you can see in the example below, we have deleted all of the data elements related to *Billing* and the *Salesperson*.



- With your list of *Job Data* column names now paired down to those you wish to include in your output, separate the name of each data element from the next with a comma, as shown in the figure below.



- Last but not least, delete the extra spaces between the commas separating column names as shown below. BE SURE TO LEAVE ANY EXISTING SPACES WITHIN THE NAME OF EACH INDIVIDUAL DATA ELEMENT, since deleting these spaces will cause your new output to fail.



- Save the changes to your text file.

ENTERING DATA INTO THE JOB INFOS FIELD

Now that our list of data elements to be included has been prepared, it is time to enter this information into the `Job Infos` field of the *Add Report* dialog box. Please perform the following steps:

1. Go to the File Menu and select `Settings` → `Outputs` to open the Administrator's Outputs page.
2. Click on the `Add` button to open the *Add Report* dialog box.
3. From the `Type` drop-down list, select the desired output (*Job Data PDF* or *Job Data CSV*).
4. Click in the `Include Job Info` checkbox to enable it.
5. Next, open the text file you created in the preceding section (`Job Data Columns.txt`, or whatever you named your file.) Using your mouse or keyboard, select ALL of the text within this file and press `CTRL-C` on your keyboard to `Copy` the selected data to your computer's clipboard.
6. Now, go back to your SmartBuild window and `Paste` the copied data directly into the `Job Infos` field on the *Add Report* dialog box.
7. Make any other desired changes to the configuration of this output and click on the `Save` button to finish the job.

That does it! Now, when a user generates the Custom Job Data output you just created, it will only include those Job Data elements that you have prescribed.

ROOF LAYOUT DRAWING

The *Roof Layout* output is a single-page report that provides an aerial view of ALL of the planes (sections) that comprise an entire roof. There are only two customizations that can be applied to this output:

Output Type – Use the drop-down list provided to select whether this output is to be produced in PDF or DXF (AutoCAD) file format.

Show Sheathing Parts – When this checkbox is enabled, this output will include the layout of ALL sheathing parts for an entire roof.

Please see [Appendix E](#) on page 22 for an example *Roof Layout Drawing*.

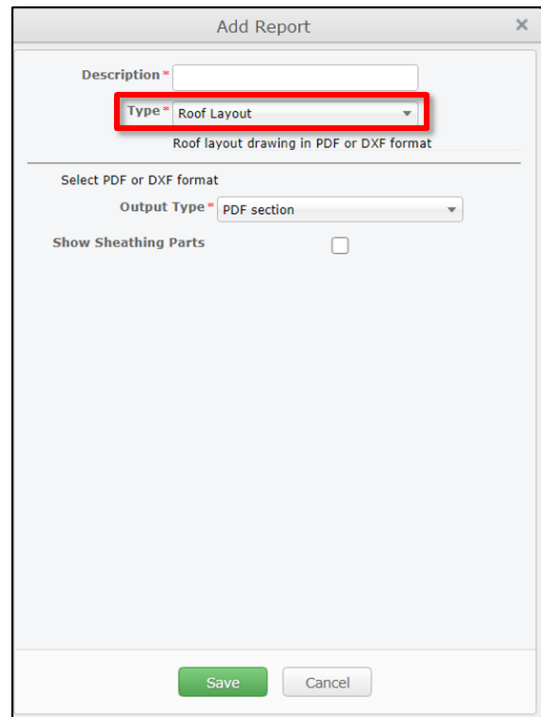


Figure 9: The *Add Report* dialog as it appears when creating a new *Roof Layout* output.

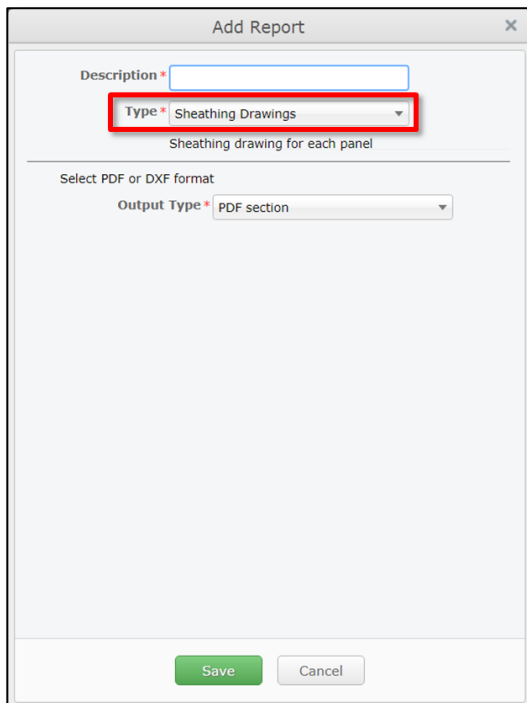


Figure 10: The *Add Report* dialog box for creating a new *Sheathing Drawings* output.

SHEATHING DRAWINGS

The *Sheathing Drawings* output is a multi-page report that provides a one-page drawing for each section of a roof, and the layout of sheathing panels on that section. Use the drop-down arrow provided to select whether the output is to be produced in PDF or DXF (AutoCAD) file format.

Please see [Appendix F](#) on page 23 for an example *Sheathing Drawing*.

SUMMARY SHEET

The *Summary Sheet* is a single page report, provided in PDF format, that contains the following information:

Drawing – A 2D representation of a roof’s 3D model

Summary – The overall dimensions of the target roof.

Job Information – The *Job Information* section of this output lists the *Job Information* entered by the users into the *Jobs Tab* of the *Property Pane* for the given project. Even though the *Summary Sheet* itself cannot be customized, the data collected and listed on the *Jobs Tab* is completely customizable, so the contents of this section of the report will vary by organization.

Please see [Appendix G](#) on page 24 for an example *Summary Sheet*.

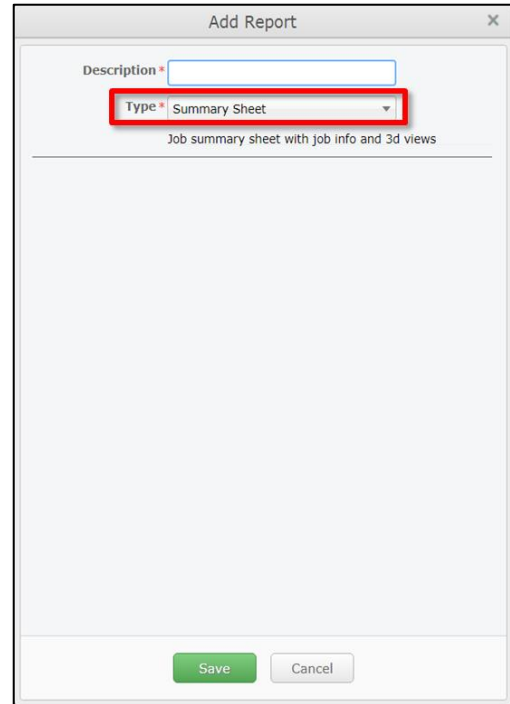


Figure 11: The *Add Report* dialog box for creating a new *Summary Sheet* output.

Creating Application-Specific Outputs

SKETCHUP .SKP FILE

SmartBuild is designed to integrate with Trimble SketchUp software for companies that have traditionally used this application for some or all of their designs processes. Now, users can take advantage of SmartBuild’s automated modeling capabilities, and then further refine their designs and outputs using SketchUp.

By creating a SketchUp output, users will be able to download a copy of their SmartBuild 3D model – and all its associated data – in a file format that can be opened and edited in SketchUp.

To create a SketchUp output, simply select *SketchUp .SKP* from the *Type* drop-down list, and enter the desired name for this output in the *Description* field. Click on the *Save* button when you are done, to save the output and close the *Add Report* dialog box.

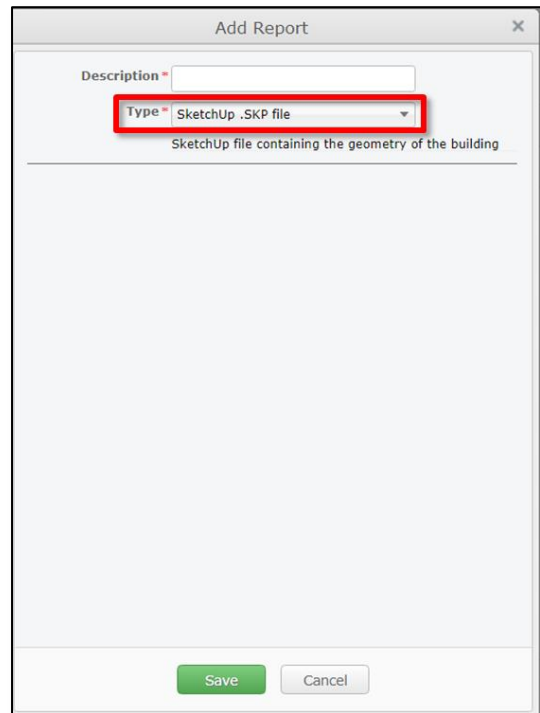


Figure 12: The *Add Report* dialog box for creating a new SketchUp File output.

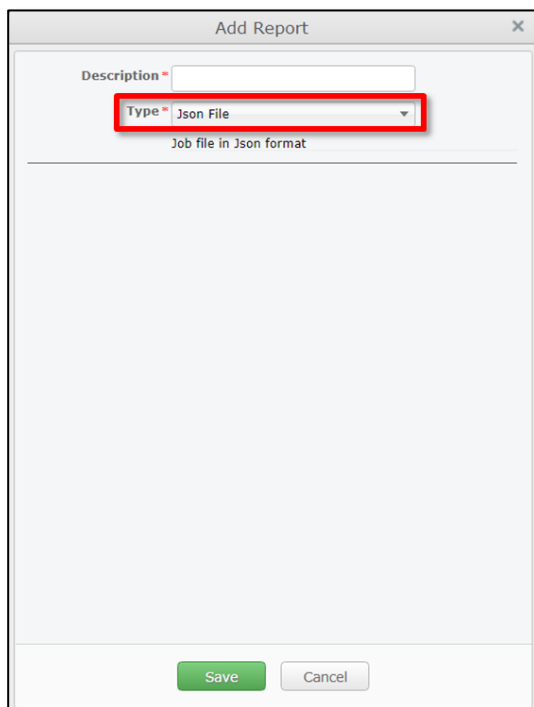


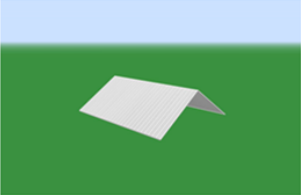
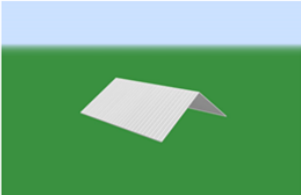
Figure 13: The *Add Report* dialog box for creating a new *JSON File* output.

JSON FILE

This output is used to store simple data structures and objects in JavaScript Object Notation (JSON); a standard data interchange format. It is primarily used for transmitting data between a web application and a server.

Appendix A: Sales Quote

Perhaps more than any other SmartBuild output, the contents and design of the *Sales Quote* varies greatly by organization. Using the tokens provided in the *Add Report* dialog box (see page 7) Systems Administrators can create one or more *Sales Quote* templates that provide the specific information needed by their organizations. Since the *Sales Quote* is the first formal document presented to your potential customers, it is well worth each System Administrator's time to ensure that this template is as professional and complete as possible.

Building Quote														
QUOTATION FOR: {Customer Name} {Delivery Address} {Phone}	CONTACT NAME: {Contact} QUOTATION DATE: 3/29/2021	CONSTRUCTION: Post Frame DIMENSIONS: {BuildingWidth} {BuildingLength} {Ceiling Height}												
SPECIFICATIONS FOR {BuildingWidth}X {BuildingLength}X {CeilingHeight}														
POST FRAME PACKAGE:														
<u>Material Package</u> <ul style="list-style-type: none"> Pre-Engineered Wood Trusses ({Pitch}Pitch, {TrussSpacing} O/C) {PostMaterial} Eave Posts (8' 0/C) {PostMaterial} Gable Posts (10' 0/C) {SkirtBoardMaterial}Skirt Boards (1 Row) {GirtMaterial}Wall Girts (24" O/C) {PurlinMaterial}Roof Purlins (24" 0/C) {TrussCarrierMaterial}Top Girt Exterior {WallColor} {WallSheathing} Steel Siding White 20" Ribbed 26 Gauge Steel Roof One Concrete Pad Per Post Hole Sac Crete For Fill Around Posts {Cupola} 														
<u>Doors & Windows</u> <ul style="list-style-type: none"> {DoorWindowList} Overhang Length {Overhang} {SoffitMaterial} 														
<u>Fasteners</u> <ul style="list-style-type: none"> 1 1/2 In. Metal To Wood Screws for Steel Wall, Roof Panels 4 In. Galv. Pole Barn Nails for Skirt Board Galvanized Steel Framing Nails 														
<hr style="width: 30%; margin-left: 0;"/> <table style="width: 100%; border: none;"> <tr> <td style="width: 15%;">Subtotal</td> <td style="width: 15%;">\$3,097.51</td> <td style="width: 15%;"></td> <td style="width: 55%;"></td> </tr> <tr> <td>Tax</td> <td>\$0.00</td> <td></td> <td></td> </tr> <tr> <td>GRAND TOTAL</td> <td>\$3,444.01</td> <td></td> <td></td> </tr> </table>			Subtotal	\$3,097.51			Tax	\$0.00			GRAND TOTAL	\$3,444.01		
Subtotal	\$3,097.51													
Tax	\$0.00													
GRAND TOTAL	\$3,444.01													
<div style="display: flex; justify-content: space-between;">   </div>														

Appendix B: Comprehensive Job Data (Excel Workbook)

As pictured below, the *Complete Job Data* output is produced as a multi-tabbed Excel Workbook that contains all the job information entered into the SmartBuild *Jobs Tab* on the first tab of the workbook, along with separate tabs for all of the Sheathing, Trim, Accessories, Labor and Freight required for a job. This output is standard and its contents cannot be edited or altered in any way.

Subsection	Cost	Taxable	Nontaxable	Weight
24 Sheathing	\$2,945.70	\$2,945.70	\$0.00	0
25 Trim	\$23.00	\$23.00	\$0.00	0
26 Accessories	\$103.04	\$128.81	\$0.00	101.04
27 Labor	\$346.50	\$0.00	\$346.50	0
28 Freight	\$0.00	\$0.00	\$0.00	0
30 Taxable:			\$3,097.51	
31 Sales Tax:	0.000%		\$0.00	
32 Nontaxable:			\$346.50	
33 Grand total:	\$3,418.24		\$3,444.01	101.04

Below, this example shows the contents of the *Sheathing Tab*; the second tab of information included in

Usage	Sku	Material	Qty	Length	Pricing unit	Cost per unit	Price per unit	Extended cost	Extended price	Taxable	Weight per unit	Extended Weight
2	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	1	27"	RandomLength	\$81.00	\$81.00	\$81.00	\$81.00	1	0	0
3	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	1	26' 1"	RandomLength	\$78.25	\$78.25	\$78.25	\$78.25	1	0	0
4	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	1	25' 3"	RandomLength	\$75.75	\$75.75	\$75.75	\$75.75	1	0	0
5	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	1	23' 6"	RandomLength	\$70.50	\$70.50	\$70.50	\$70.50	1	0	0
6	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	49	22' 8"	RandomLength	\$68.00	\$68.00	\$3,332.00	\$3,332.00	1	0	0
7	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	1	20' 10"	RandomLength	\$62.50	\$62.50	\$62.50	\$62.50	1	0	0
8	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	2	20' 2"	RandomLength	\$60.50	\$60.50	\$121.00	\$121.00	1	0	0
9	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	32	19"	RandomLength	\$57.00	\$57.00	\$1,824.00	\$1,824.00	1	0	0
10	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	1	18' 8"	RandomLength	\$56.00	\$56.00	\$56.00	\$56.00	1	0	0
11	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	1	18' 4"	RandomLength	\$55.00	\$55.00	\$55.00	\$55.00	1	0	0
12	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	1	18' 3"	RandomLength	\$54.75	\$54.75	\$54.75	\$54.75	1	0	0
13	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	1	17' 8"	RandomLength	\$53.00	\$53.00	\$53.00	\$53.00	1	0	0
14	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	2	16"	RandomLength	\$48.00	\$48.00	\$96.00	\$96.00	1	0	0
15	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	1	15' 11"	RandomLength	\$47.75	\$47.75	\$47.75	\$47.75	1	0	0
16	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	1	15' 9"	RandomLength	\$47.25	\$47.25	\$47.25	\$47.25	1	0	0
17	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	1	14' 11"	RandomLength	\$44.75	\$44.75	\$44.75	\$44.75	1	0	0
18	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	1	14' 10"	RandomLength	\$44.50	\$44.50	\$44.50	\$44.50	1	0	0
19	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	1	14' 2"	RandomLength	\$42.50	\$42.50	\$42.50	\$42.50	1	0	0
20	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	1	13' 10"	RandomLength	\$41.50	\$41.50	\$41.50	\$41.50	1	0	0
21	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	1	13' 9"	RandomLength	\$41.25	\$41.25	\$41.25	\$41.25	1	0	0
22	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	1	13' 3"	RandomLength	\$39.75	\$39.75	\$39.75	\$39.75	1	0	0
23	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	1	12' 9"	RandomLength	\$38.25	\$38.25	\$38.25	\$38.25	1	0	0
24	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	1	12' 7"	RandomLength	\$37.75	\$37.75	\$37.75	\$37.75	1	0	0
25	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	1	11' 8"	RandomLength	\$35.00	\$35.00	\$35.00	\$35.00	1	0	0
26	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	2	11' 6"	RandomLength	\$34.50	\$34.50	\$69.00	\$69.00	1	0	0
27	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	1	10' 7"	RandomLength	\$31.75	\$31.75	\$31.75	\$31.75	1	0	0
28	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	1	10' 6"	RandomLength	\$31.50	\$31.50	\$31.50	\$31.50	1	0	0
29	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	1	10' 5"	RandomLength	\$31.25	\$31.25	\$31.25	\$31.25	1	0	0
30	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	9	10' 1"	RandomLength	\$30.25	\$30.25	\$272.25	\$272.25	1	0	0
31	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	1	9'	RandomLength	\$27.00	\$27.00	\$27.00	\$27.00	1	0	0
32	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	2	8' 10"	RandomLength	\$26.50	\$26.50	\$53.00	\$53.00	1	0	0
33	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	1	8"	RandomLength	\$24.00	\$24.00	\$24.00	\$24.00	1	0	0
34	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	1	6' 10"	RandomLength	\$20.50	\$20.50	\$20.50	\$20.50	1	0	0
35	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	1	6' 8"	RandomLength	\$20.00	\$20.00	\$20.00	\$20.00	1	0	0
36	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	2	6' 5"	RandomLength	\$19.25	\$19.25	\$38.50	\$38.50	1	0	0
37	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	1	6' 3"	RandomLength	\$18.75	\$18.75	\$18.75	\$18.75	1	0	0
38	Exterior Roof	SH16R-24-GR 16" Ribbed 24 Gauge	1	5' 4"	RandomLength	\$16.00	\$16.00	\$16.00	\$16.00	1	0	0

the Excel Workbook.

Appendix C: Custom Job Data (PDF)

The *Custom Job Data PDF* output is a highly-customizable one-page report that is available in both PDF and CSV formats. The PDF version shown below has been configured to include information from the *Job Tab*, along with materials information.

Job Data PDF w-material								
Job Number								
Job Name	1801 Redwood Ave							
Address	1801 Redwood Ave							
City	Boulder							
State	CO							
Zip Code	80304							
Requested Start Date								
Requested End Date								
Billing Address 1								
Billing Address 2								
Billing City								
Billing State								
Billing Zip Code								
Customer Name								
Customer Phone								
Customer Email								
Salesperson Name								
Salesperson Phone								
Salesperson Email								
Sheathing								
usage	description	sku	fullSku	length	colorCode	qty	uom	cos
Exterior Roof	20" Ribbed 26 Gauge	SH20R-26-{CC}	SH20R-26-GR	20.5833333333333	WT	54	RandomLength	54.55
Trim								
usage	description	sku	fullSku	length	colorCode	qty	uom	cos
Eave Edge	Eave-26G	EAVE-26G-{LF}-{CC}	EAVE-26G-10-WT	10	WT	9	PartLength	1
Gable Edge	Eave-26G	EAVE-26G-{LF}-{CC}	EAVE-26G-10-WT	10	WT	9	PartLength	1
Ridge Cap	Ridge Cap-26G	RC-26G-{CC}{LF}	RC-26G-10-WT	10	WT	5	PartLength	1
Accessories								
usage	description	sku	fullSku	length	colorCode	qty	uom	cos
- Entries	Joint Sealant	SEALANT{CC}	SEALANTWT	0	WT	1	Each	3
- Fasteners	#12 x 1" Pancake Head Self Tapping Screws (1000)	12x1PHSTS	12x1PHSTS	0	-base	2	Each	0.02
- Underlayment	Underlayment (4'x250' =1,000 SF)	UDLM4x1000	UDLM4x1000	0	-base	2	Each	50
SF	SF @ 6/12	P1SF06	P1SF06	0		1880		0
LF	LF GableEdge @ 6/12	P2LFGableEdge06	P2LFGableEdge06	0		82.3		0
Labor								
usage	description	sku	fullSku	length	colorCode	qty	uom	cos
- Labor	Labor Hour	M10	M10	0	-base	6	Each	55
Labor Markup				0	-base	1	Each	16.5
Freight								
usage	description	sku	fullSku	length	colorCode	qty	uom	cos

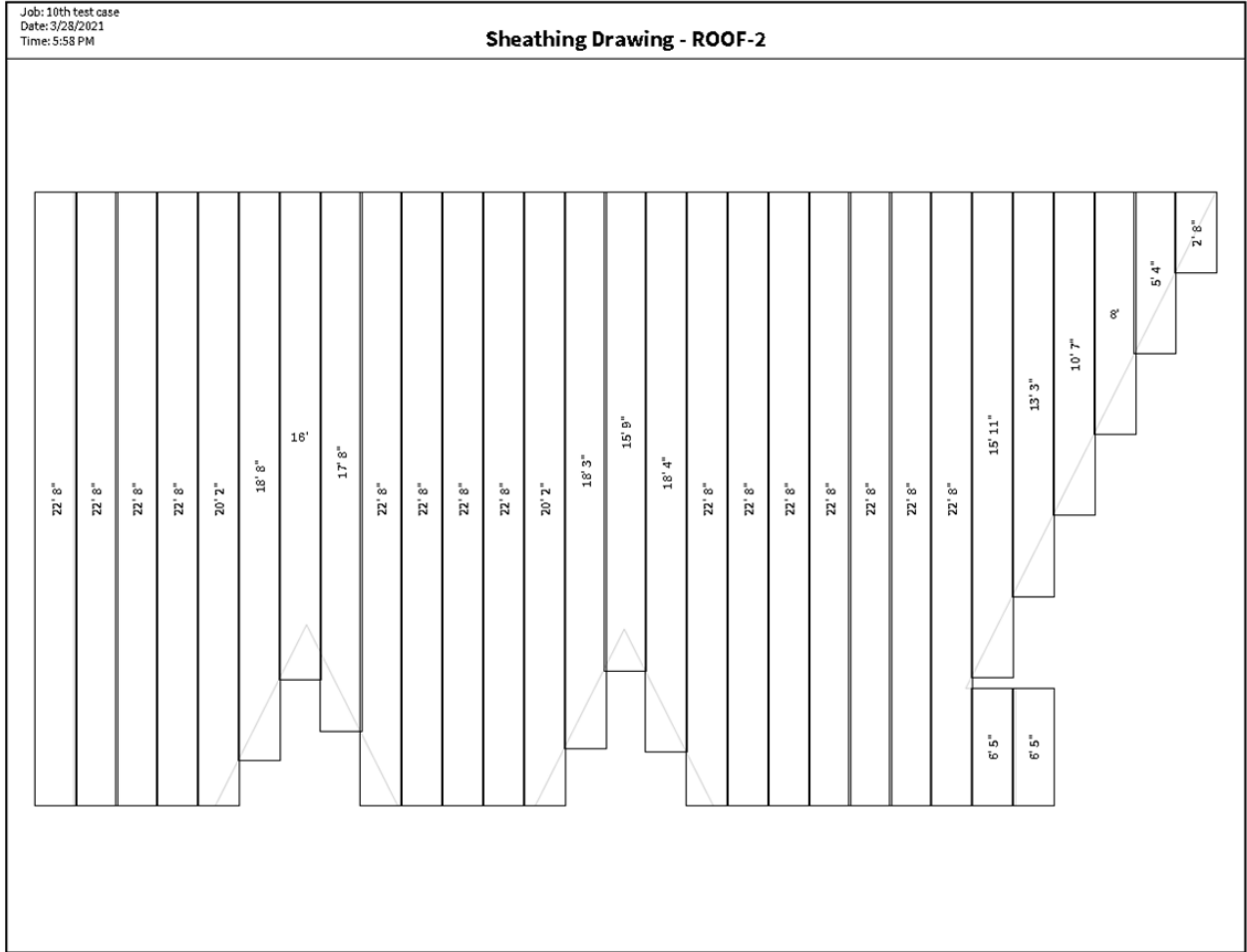
Appendix D: Custom Job Data (CSV)

The *Custom Job Data CSV* output is a highly-customizable one-page report that is available in both PDF and CSV formats. The CSV version shown below, which has been opened in Microsoft Excel, has been configured to include information from the *Job Tab*, along with materials information. Note that the tab name on the worksheet is the same as the *Job Name*. Each separate section of materials is separate by a header row for the sake of clarity.

Job Number	Job Name	Address	City	State	Zip Code	Requeste	Requested End Date	Billing Address 1	Billing Address 2	Billing City	Billing State	Billing Zip Code	Customer Name	Customer Phone Cu	
1801	Redwood Ave	1801 Redwood Ave	Boulder	CO	80304										
Sheathing															
usage	description	sku	fullSku	length	colorCode	qty	uom	cost	price	error	lengthStr	lengthFt	lengthIn	costStr	pri
6	Exterior Roof	SH20R-26-(CC)	SH20R-26-GR	20.5833333	WT	54	RandomLength		54.55	54.55	20' 7"	20	7	\$54.55	\$
Trim															
usage	description	sku	fullSku	length	colorCode	qty	uom	cost	price	error	lengthStr	lengthFt	lengthIn	costStr	pri
10	Eave Edge	EAVE-26G-(LF)-(CC)	EAVE-26G-10-WT	10	WT	9	PartLength	1	1	10'	10	0	0	\$1.00	\$
11	Gable Edge	EAVE-26G-(LF)-(CC)	EAVE-26G-10-WT	10	WT	9	PartLength	1	1	10'	10	0	0	\$1.00	\$
12	Ridge Cap	RC-26G-(CC)(LF)	RC-26G-10-WT	10	WT	5	PartLength	1	1	10'	10	0	0	\$1.00	\$
Accessories															
usage	description	sku	fullSku	length	colorCode	qty	uom	cost	price	error	lengthStr	lengthFt	lengthIn	costStr	pri
16	Entries	SEALANT(CC)	SEALANTWT	0	WT	1	Each	3	3.75	3.75	0'	0	0	\$3.00	\$
17	Fasteners	#12 x 1" Pancake Head Self Tapping Screws	12x1PHSTS	12x1PHSTS	0	-base	2	Each	0.02	0.03	0'	0	0	\$0.02	\$
18	Underlayment	Underlayment (4x250' =1,000 SF)	UDLM4x1000	UDLM4x1000	0	-base	2	Each	50	62.5	0'	0	0	\$50.00	\$
19	SF	SF @ 6/12	P1SF06	P1SF06	0	1880	0	0	0	0	0'	0	0	\$0.00	\$
20	LF	LF GableEdge @ 6/12	P2LFGableEdge06	P2LFGableEdge06	0	82.3	0	0	0	0	0'	0	0	\$0.00	\$
Labor															
usage	description	sku	fullSku	length	colorCode	qty	uom	cost	price	error	lengthStr	lengthFt	lengthIn	costStr	pri
24	Labor	Labor Hour	M10	M10	0	-base	6	Each	55	55	0'	0	0	\$55.00	\$
25	Labor	Markup			0	-base	1	Each	16.5	16.5	0'	0	0	\$16.50	\$

Appendix F: Sheathing Drawings

The *Sheathing Drawings* output is a multi-page PDF report that provides a one-page drawing for each section of a roof, and the layout of sheathing panels on that section. The example provided below shows the panel layout for the second section of the roof shown in *Appendix E*.



Appendix G: Summary Sheet

The *Summary Sheet* output provides basic roof dimension and job information, along with a 2D representation of the SmartBuild 3D model. This output is commonly used as a cover sheet for the *Roof Layout* and *Sheathing Drawing* outputs used in the field.

Summary Sheet	
Summary	
Width	0'
Length	0'
Ceiling Height	8'
Slab Depth	0'
Overhangs	0
Roof Pitch	4/12
Job Information	
Job Number	
Job Name	10th test case
Address	1921 lanark court
City	virginia beach
State	VA
Zip Code	
Requested Start Date	
Requested End Date	
Billing Address 1	
Billing Address 2	
Billing City	
Billing State	
Billing Zip Code	
Customer Name	
Customer Phone	
Customer Email	
Salesperson Name	
Salesperson Phone	
Salesperson Email	

