ARXX Material Estimating Program Overview

The ARXX Material Estimating Program is a valuable tool for architects, project managers, contractors and retailers, for determining material quantities and estimating man hour rates for any ARXX ICF project. The program has been designed to be user-friendly and by following a few simple steps, will create accurate material estimates for all materials related to an ARXX ICF project.

The program provides material estimates for ARXX ICFs, accessories and complimentary materials such as concrete, reinforcement, waterproofing, parging, alignment, window bucks etc.

The material quantities obtained from using this Material Estimating Program can be printed as a Project Summary Sheet Report and reviewed by your local ARXX distributor to establish an accurate quote.

There are user-friendly tools, drop down menus and images designed to simplify the entering of data into the various required fields. The worksheet requires approximately twenty fields to be completed in order to provide a complete material estimate.

ARXX has developed three versions of the program, one for each product line:

- ARXX Prime Material Estimating
- ARXX Edge Material Estimating
- ARXX Steel Material Estimating

Each program is specific to the ARXX ICF product, however, the program formats and input fields are similar.

The ARXX Estimating Program also uses macros. See the instructions on the links below in order to enable macros within Microsoft Excel®. Follow these help links if required:

Microsoft Excel® 2003 (Set to "Medium" Security by following the directions here.) http://office.microsoft.com/en-us/excel/HP052356701033.aspx

Microsoft Excel® 2007 (Set to "Medium" Security by following the directions here.) http://office.microsoft.com/en-us/excel/HP100969191033.aspx

System Requirements

The ARXX Estimating Program requires Microsoft Excel® 2003 or Microsoft Excel® 2007 to be installed on your computer, together with all of the available Microsoft® updates.

Although Excel® is available for MAC® operating systems, the program has not been tested for this platform. Support for MAC® users is not available at this time. Should require a material estimate, please contact us at 1.800.293.3210.

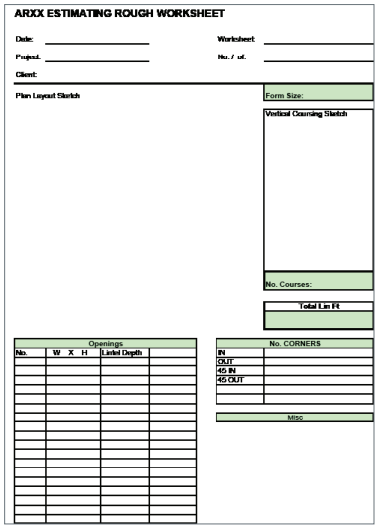
Preparation for Doing an Estimate

In preparation for using the Estimating Program, you will need to gather some of the following basic information from the project plans:

- the lineal footage of walls for each level
- the number of corners on the plan
- the height of walls – top of footing to top of wall
- depth of backfill and waterproofing requirements
- listing of openings - doors and windows – how many, rough opening sizes and depth of concrete over each opening
- ARXX form type – Edge, Prime, Steel
- ARXX form size(s) and if a brick ledge form or taper top form is required
- some information about the crew and the project or if you require a labor estimate.

The Estimating Program is divided into four components, three of which require data input and one that generates data automatically:

1. Introduction – Project Set-up Information
2. Man Hour Rate Input (Optional)
3. Worksheets
4. Project Summary Sheet



Note: As you become familiar with using this program, we suggest printing and using the "Rough Estimating Sheets" available in the program for documenting information.

Starting an Estimate

Download the product specific version of the program to your local computer and follow these nine steps to develop an accurate material estimate for your ARXX project.

Step 1: Launch the Program

Launch the program, enable macros and from the introduction menu select: Start - Project Setup.

Where assistance is required, select the HELP button on the introduction menu.

Introduction menu.

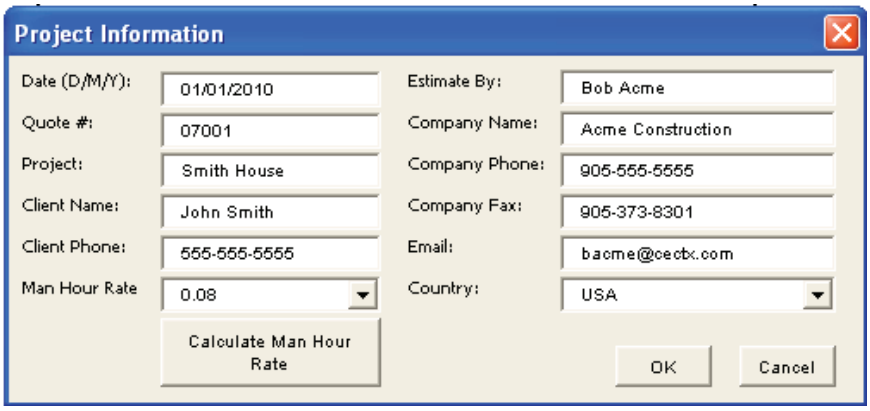
Step 2: Project Information

Set up the project by filling in the fields. This information can be updated at any time.

Enter pertinent data regarding the project and your client, as well as your name and company data. Selecting the country sets up the units of measurement in the program to either imperial or metric.

Once the project information has been completed, select OK and you will be asked for information regarding Worksheets *(see the Worksheet section)*.

Each estimate will be unique, so provide a Quote number and Project name to suit your filing system. Each estimate must be saved with a unique file name which could be the quote number or the project name.



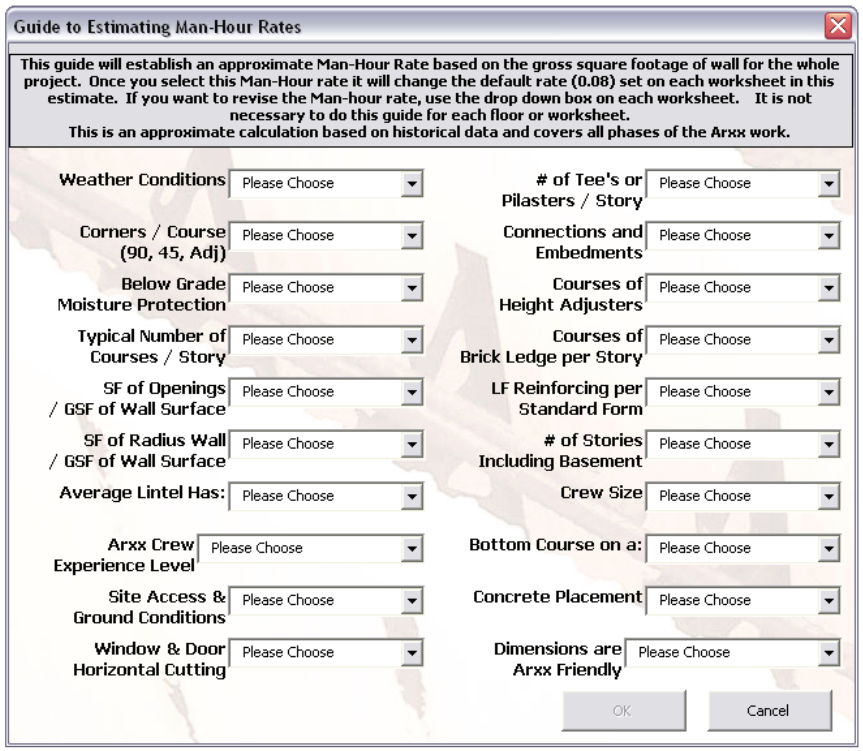
The Project Information is applied to every page within the program. These pages may be printed and presented to a client as a material estimate or sent to an ARXX distributor for costing or as a material order.

Step 3: Man Hour Rate *(optional)*

By selecting the "Calculate Man Hour Rate" button on the Project Information menu, a full sheet will appear with specific questions regarding the project and the crew. This will calculate a Man Hour Rate for the project. If this form is not completed, a default rate of 0.08 is applied.

Once all the project information has been input into the Worksheet, the total Man Hours will be calculated for each Worksheet and totaled on the Project Summary Sheet.

A man hour rate is an approximate calculation based on historical data for the installation of all materials on an ARXX project. The man hour rate is intended as a general reference only and is considered as an optional menu.



Step 4: Worksheets

Review the project to establish how many worksheets are required and what name to assign to each:

Typically, one Worksheet will cover one level, i.e. all the six course high walls on the basement level.

Example:

- a foundation is one Worksheet (if there are step down footings add a Worksheet for step footings)
- a bungalow may be 3 Worksheets – basement, main floor and garage
- a two story house may be 4 Worksheets – basement, main, 2nd floor and garage

Estimates are easier to coordinate when divided into separate Worksheets following the project drawings floor plans – basement, main floor, second, floor, etc.

Anytime you have different form sizes (4", 6", 8" or 10") a new Worksheet is required for each form size. You cannot combine different form sizes on one Worksheet.

It is NOT necessary to create a Worksheet for each wall, unless one wall is a different height.

Up to a maximum up of 20 Worksheets per estimate may be added at any time. Once created, Worksheets may NOT be deleted or have their name changed, as this will corrupt the program.

Once the Project Information input is complete, select OK, a request for the number of Worksheets will appear, followed by a request to assign names to each Worksheet. All data required to calculate material for the estimate is entered on the Worksheets.

A Worksheet consists of two pages and is formatted into four sections:

Minimum data required in the General Input area is Form width, Form Type and Courses of Standard Forms.

- Page 1 - General Input, Form Layout, Wall Openings
- Page 2 - Quantity Required

Step 5: Worksheet - General Layout

This section provides data for the selection of ARXX products plus related materials: concrete, rebar, connections and alignment. All fields should be completed, if applicable.

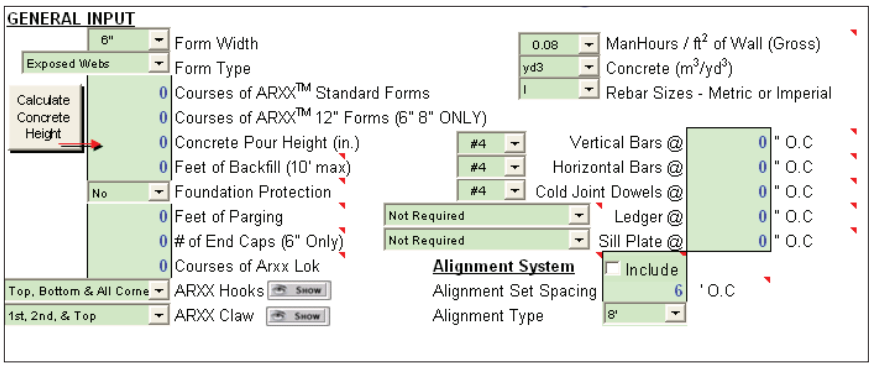
Note: any information in this menu may be revised at any time.

- use the drop down menu for a specific choice of an item
- use the specified units of measure as indicated
- courses require the number of ARXX form courses per Worksheet, e.g. typically six for a basement
- once the number of courses has been inputted, click the "Calculate Concrete Height" button to get the concrete pour height
- the "Show" buttons have product images
- the small red triangles display information on the units or product calculations

If your estimate does not require specific materials e.g. concrete or reinforcement, leave those fields as zero.

The fields on the left side the General Input are different for each ARXX product line.

ARXX Prime



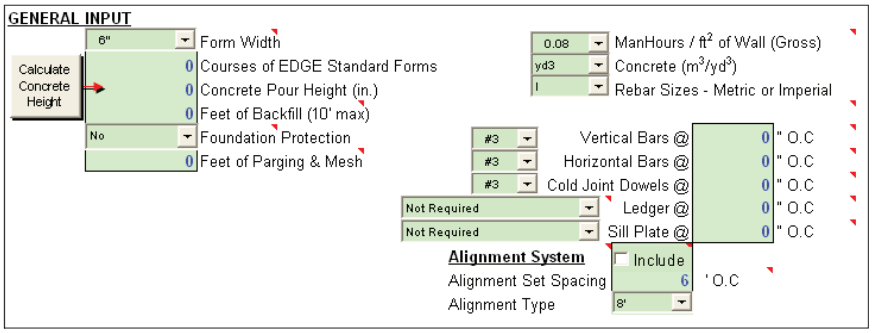
All fields that a 'green' in the program are enter data fields.

The calculated concrete height may be adjusted if the concrete pour height is lower than the form coursing height.

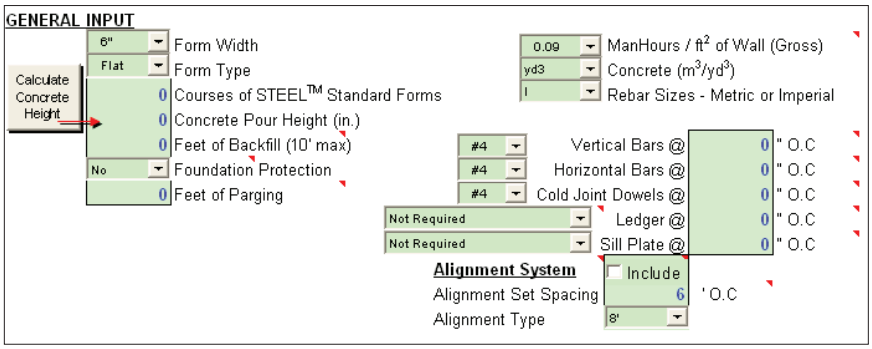
The Horizontal Bars spacing should be per the block height – 16 ¾" or 33 ½". If the horizontal rebar is to be a double mat, adjust the spacing number by half.

For an Alignment System do the calculation only on one Worksheet, generally the Worksheet with the largest lineal footage of wall.

ARXX Edge



ARXX Steel



Form Type selection menu is for ARXX Steel flat wall or ARXX Steel Waffle Grid

Note: any information in this menu may be revised at any time.

Step 6: Worksheet - Form Layout

This section contains detailed information on the total linear footage of all walls per this Worksheet and how many corners are required.

The linear footage of the standard forms (a standard form for this calculation is all form types) calculates the total number of forms required by utilizing the number of courses indicated in the General Input field.

Enter the number of 90° and/or 45° corners per one course.

For each product program there are boxes to calculate special forms such as a Prime 12" High form, Ext. Brick Ledge or Taper Top forms. These are calculated as one course per the linear footage. Entering a Total Lineal ft. for any of these forms will subtract one course of standard forms in a full wall, e.g. in the General Input Field a foundation is listed as six courses, but that will be calculated as five courses of standard forms with one course exterior brick ledge or one course taper top.

Step 6: *(continued)*

ARXX Prime

FORM LAYOUT

Check Form Layout Data

	Total Lineal ft.	No. of 90° Corners		No. of Fixed 45° Corners		
		Inside	Outside	Inside	Outside	
Standard Forms	0	0	0	0	0	
12" High 6" 8" Forms	0	0	0			EBL Rebar
Ext. Brick Ledge	0	0	0	0	0	#3
Taper Top	0	0	0	0	0	

If either of these fields – course of ARXX forms or Total Lineal ft is not completed, an ARXX form quantity will not appear on page 2 of the Worksheet.

ARXX Edge

FORM LAYOUT

Check Form Layout Data

	Total Lineal ft.	No. of 90° Corners		No. of Fixed 45° Corners (6" Only)		
		Inside	Outside	Inside	Outside	
Standard Forms	0	0	0	0	0	
Taper Top 1 side	0	0	0	0	0	
Taper Top 2 sides	0	0	0	0	0	EBL Rebar
Ext. Brick Ledge 1 side	0	0	0	0	0	#4
Ext. Brick Ledge 2 sides	0	0	0	0	0	#4

The total lineal footage number may be calculated to one decimal place of a foot.

ARXX Edge panels for the brick ledge or taper top may be specified for use on both sides of the form or on one side only with a standard panel to complete the form.

ARXX Steel

FORM LAYOUT

Check Form Layout Data

	Total Lineal ft.	No. of 90° Corners		No. of Fixed 45° Corners	
		Inside	Outside	Inside	Outside
Standard Forms	0	0	0	0	0

Step 7: Worksheet - Wall Openings

This table lists all the window and door openings for each worksheet. Input data also calculates lintel rebar, buck material and subtracts blocks per the Net Area of Openings.

Users of this Estimating Program can reference lintel reinforcement information from either the ARXX Prescriptive Design Tables, the applicable building code or project specific engineering design information from the plans.

The Opening Cut Factor is a block allowance for cutting block in numerous openings.

WALL OPENINGS | SHOW LINTEL | Opening Reinforcing | #4

Type Window or Door	Quantity of Openings	R.O. Width (in)	R.O. Height (in)	Lintel Depth (in.)	Lintel Bottom Bar Size	Stirrup Spacing (in.)	Stirrup Center Dist. (in)	Opening Area (sq. ft.)	Opening Buck Material
Window	0	0.00	0.00	0		0	0	0.0	Wood
	0	0.00	0.00	0		0	0	0.0	Wood
	0	0.00	0.00	0		0	0	0.0	Wood
	0	0.00	0.00	0		0	0	0.0	Wood
	0	0.00	0.00	0		0	0	0.0	Wood
	0	0.00	0.00	0		0	0	0.0	Wood
	0	0.00	0.00	0		0	0	0.0	Wood
	0	0.00	0.00	0		0	0	0.0	Wood
	0	0.00	0.00	0		0	0	0.0	Wood
	0	0.00	0.00	0		0	0	0.0	Wood
	0	0.00	0.00	0		0	0	0.0	Wood
	0	0.00	0.00	0		0	0	0.0	Wood
	0	0.00	0.00	0		0	0	0.0	Wood
Total:	0					Total Opening Area		0.0	
						Opening Cut Factor:		5%	
						Net Opening Area		0.0	

Note: the units of measure are set in inches and the rough opening (RO) width and height dimensions are from the inside of the buck. These dimensions do not have to be exact to the fraction; try to use whole numbers or ½" increments.

Select the type of opening i.e. window or door. A door has different calculation for rebar and buck material.

The Opening Reinforcing box in the opening table indicates the size of rebar at the sides and under the opening, per the diagram in the Show Lintel button.

If data for openings is not entered, the estimate will not deduct forms, or concrete for the reduced Net Area of wall.

Step 8: Worksheet - Quantity Required Sheet *(page 2 of each Worksheet)*

All the quantities in this sheet generate from the information that has been input in the three sections from the first page of the Worksheet. The quantities listed are specific to this Worksheet. To revise any quantity, the information in the first three sections on page 1 of the Worksheet must be revised.

All the material quantities from each Worksheet are totaled on the Project Summary Sheet.

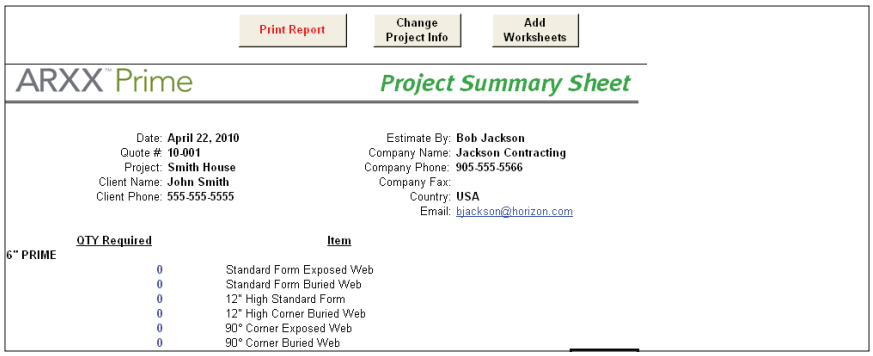
Worksheets must be printed individually and will print as two pages.

Step 9: Project Summary Sheet

This sheet contains the material totals from all of the worksheets. The quantities of this summary page can only be adjusted by revising a Worksheet.

Using the red print button on the top of this window will compress the Project Summary and print only line items with materials listed for the project.

The Project Summary Sheet may be printed for use as a client estimate or as an order form for project material from your ARXX distributor.

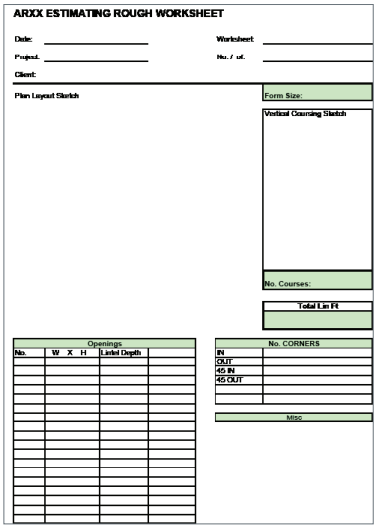


Other Tools: Coursing Chart

This useful vertical coursing chart displays exact coursing heights in various units of measure. In the vertical coursing, any block that requires cutting will be calculated as a whole block.

Other Tools: Rough Estimate Sheet

This is a simple layout sheet to assist in the preparation of data for each Worksheet. Print these off to use for future reference on the data used for each Worksheet. It also helps to organize the data as required in the program.



File Management

Each estimate is specific to a project and should be saved with a project specific file name or quote number. You can open the estimate any time and change information or add worksheets. You cannot change worksheet names or delete worksheets.

Downloaded the product specific Material Estimating program and use the this as a 'master' file for every new estimate, saving each estimate with new file name.

Cost Estimating

If you are a certified ARXX installer, you can obtain a version of this ARXX Estimating program that has your specific ARXX material pricing. This will enable you to complete accurate project cost estimates.

Disclaimer

ARXX Corporation, its affiliates and agents, shall have no liability whatsoever to any customer or third party for any claims, demands, costs, charges or expenses, or any loss or damage, whether direct or indirect, including lost profits or revenues, arising out of, relating to, or in any way connected with the use of the estimating software program or any errors or omissions resulting from such use.

References

5.02.01.06 - ARXX Guide to Estimating Man Hour Rates

5.02.01.07 - ARXX Estimating Formulas