glazierSTUDiO
SOFTWARE FOR THE NEXT GENERATION

Quick Start Guide with Workbook

DeMichele Group
INNOVATIONS FOR THE NEXT GENERATION

Generic_Studio_WorkbookREV4 date3-13-18   7/13/2018

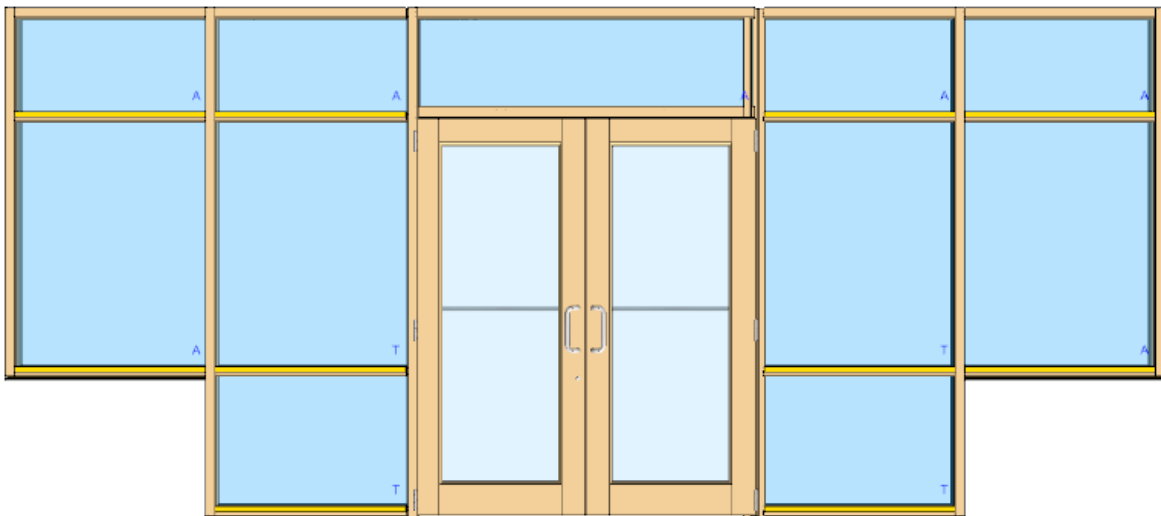\\SERVER1\DG1-Share\Corporate Image\Training\Workbooks\Development Sets (word.doc)\GS\Generic_Studio_WorkbookREV4 date3-13-18.doc

Contact US

Business hours:

Monday through Friday   7:00am to 5:00pm AST

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DeMiChele Group
INNOVATIONS FOR THE NEXT GENERATION

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RHINOFAB
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DeMichele Systems, Inc. • *2110 S. Douglas Drive, Chandler, AZ 85286* • *(480) 985 – 4926*

CREATING SHOP DRAWINGS 108

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Getting Started- Workbook

LAUNCHING GLAZIER STUDIO

Figure 1

Starting Glazier Studio®

To start **Glazier Studio®,** double left click on the Glazier Studio icon that was placed on your desktop during installation.

OR

Go to **Start | Programs | DeMichele Group | Glazier Studio** and left click on the **Glazier Studio** icon to start the program.

Navigating the Glazier Studio Program

MAIN MENU

The **Main Menu** has several options to choose from:
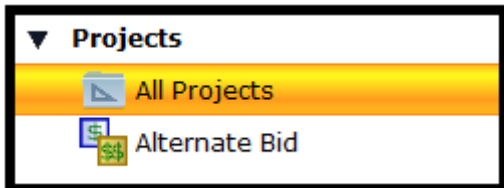
Figure 2

Projects

- **All Projects:** Displays current projects and allows you to select, edit general info, copy, rename, delete, import and save existing projects or create new projects.

- **Alternate Bid:** Allows a change to a previous bid recap without re-entering elevations.

Databases
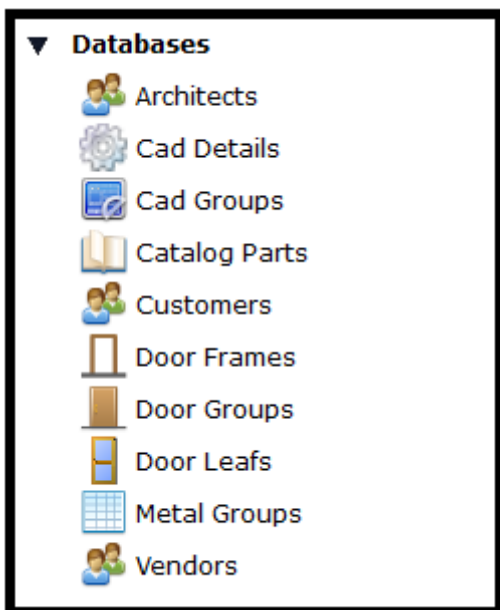
Figure 3

- **Architects:** Displays a list of Architects to select from for specific projects.

- **CAD Details:** Displays all catalog parts and keywords for finding CAD details.

- **CAD Groups:** Displays a list of metal systems and keywords to find with CAD Details to bring into an elevation or export to CAD.

- **Catalog Parts:** Displays current catalog parts to select, edit general info, copy, rename, delete, import and save existing parts or create new parts.

- **Customers:** Displays current customers and allows you to select, edit general info, copy, rename, delete, import and save existing customer information or create new customers.

- **Door Frames:** Displays a list of door frame templates to bring into an elevation and keywords.

- **Door Groups:** Displays current preconfigured doors and allows you to select, edit general info, copy, rename, delete, import and save existing door groups or create new preconfigured doors.

9

- **Door Leafs:** Displays a list of door leaf templates containing components and formulas used to fabricate the door. Only available if manufacturer allows for fabrication of door leafs.

- **Metal Groups:** Displays current preconfigured metal systems and allows you to select, edit general info, copy, rename, delete, import and save existing metal systems or create new custom systems.

- **Vendors:** Displays current vendors and allows you to select, edit general info, copy, rename, delete, import and save existing vendors or create new vendors. Once a vendor is created, they can be specified in Catalog Parts to associate what product the vendor sells.
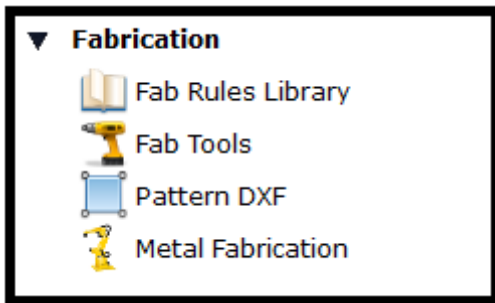
Figure 4
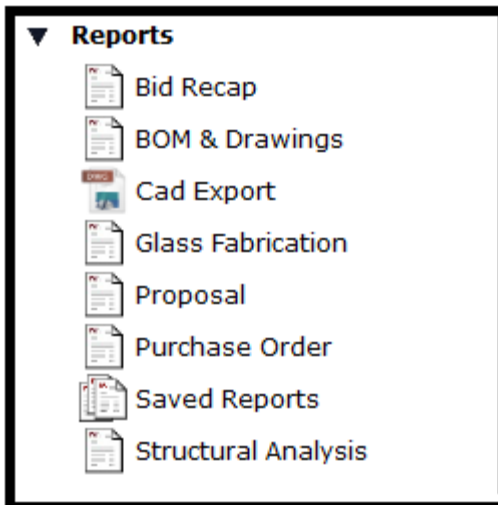
Figure 5

Fabrication

- **Fab Rules Library:** Library of user defined fabrications operations that can be assigned to stick in metal fabrication and passed to the RhinoFab machining center.

- **Fab Tools:** Displays a list of drill bits used in the fabrication process with the Rhino Fab Machining Centers.

- **Pattern DXF:** They are .DWG drawings of patterns that can be assigned to stick in metal fabrication and passed to the RhinoFab machining center.

- **Metal Fabrication:** All Fabrication information that will be sent to the RhinoFab machining center are managed, modified and outputted from here.

Reports

- **Bid Recap:** Allows for project pricing and bidding information to be performed.

- **BOM & Drawings:** Used to generate printer drawings, parts list, and BOM for a project.

- **CAD Export:** Used to export elevations and details to a CAD interface such as AutoCAD or FastCAD.

- **Glass Fabrication:** Used to generate a set of reports on how to cut glass for sheet glass projects.

- **Metal Fabrication:** Used to generate fabrication reports and CNC export data.

- **Proposal:** Generates a proposal from a stored recap.

- **Purchase Order:** Generates purchase orders and glazing bid requests for a stored recap.

- **Saved Reports:** Gives access to saved recaps, proposals and purchase orders.

- **Structural Analysis:** Generates wind load and dead load analysis reports on any project that has structural data.

Optimization
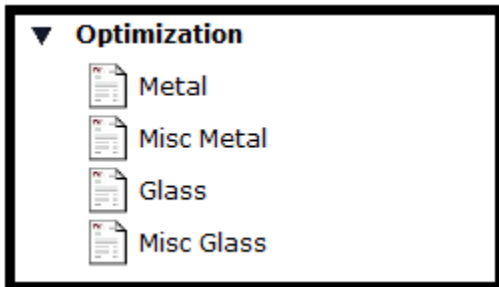
Figure 6

- **Metal:** Allows for optimization of projects, or misc. materials to be performed generating cutting instructions and other reports necessary for the fabrication of metal.

- **Misc Metal:** Allows for optimization of misc. cut lists to be performed, generating cutting instructions, drop lists, stock length usage, labels and more.

- **Glass:** Allows for optimization of glass within a project to determine how many sheets of glass are needed and how to optimize the cutting

- **Misc Glass:** Allows for optimization of a miscellaneous glass cut list..

MAIN DROPDOWN MENUS

File

Figure 7

New (CTRL N): Creates a new project.

Open (CTRL + O): Opens an existing file.

Save (CTRL + S): Saves a project.

Import: Generates a .dat file which can be shared with others to continue working on a project.

Export: Imports a .dat file to continue working on a project from another user.

Alternate Bid: Allows a change to a previous bid recap without re-entering elevations.

Standalone: Selected if Glazier Studio is being used on a standalone workstation.

Network: Selected if Glazier Studio is being used in a network environment with data files stored on server.
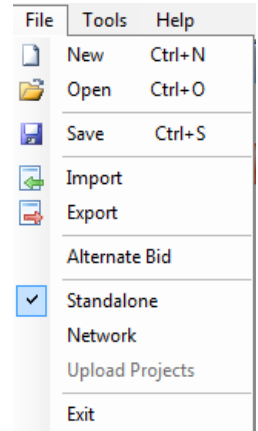
Tools

Figure 8

Options: Used to access User defined settings such as labor rates, CMP discounts and other default settings used in Glazier Studio.

Check for Updates: If selected, Glazier Studio will automatically check to see if an update is available on the DeMichele Group's web site.

Disable Windows Aero: This option is selected to improve the performance of Glazier Studio by turning off some of Windows background functions.

Utilities

3D Mesh Tool: Used to import .dxf file into a CAD detail.
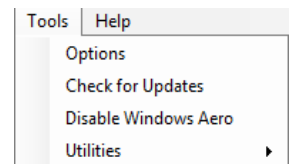
Help

Studio Support – TeamViewer: Utility used by DeMichele Group to help diagnose and repair customer issues.

Glazier Studio Downloads: Access to the latest update and info on-line.

DeMichele Website: http://www.demichelegroup.com
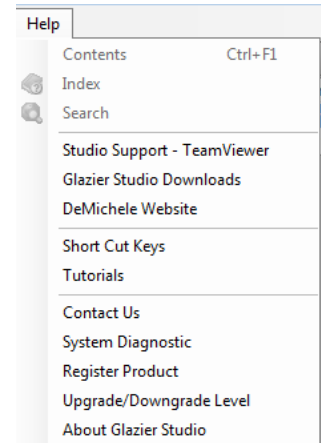
Short Cut Keys

F2 – Displays Catalog Part Details for selected part number (product code).

F3 – Displays Price Book information for selected part number (product code).

F6 – Displays Wind load/Dead load chart for select part number (product code).

ALT + Left Mouse Click – Selects a stick in the graphics editor and all sticks to the right.

ALT + Shift + Left Mouse Click – Selects a panel in the graphics editor and all panels to the right.

CTRL + Shift + Left Mouse Click – Selects a panel in the graphics editor and all panels above.
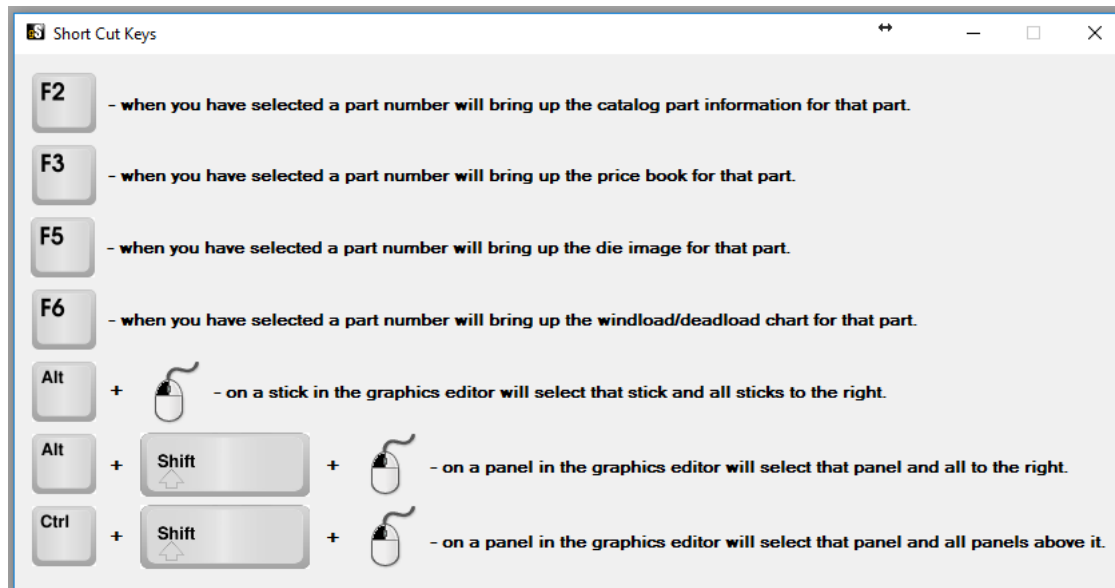
Figure 10

Tutorials: Video step by step directions on the use of different areas of the program.

Contact Us: Quick access to DeMichele Group contact information.

System Diagnostic: Provides a diagnostic of system components to determine if Glazier Studio meets performance requirements.

Register Product: Complete to register product and prevent error timeout warnings. Contact the DeMichele Group for your customer number.

Upgrade/Downgrade Level: Used to confirm upgrade/downgrade of Glazier Studio subscription.

About Glazier Studio: Displays Glazier Studio version number.

Figure 11

Project Information Bar:

Figure 12

New: Create a new project.

Open: Open highlighted project.

Save: Save highlighted project.

Copy: Create copy of a select project.

Delete: Delete highlighted project.

Create Alternate Bid: Create an alternate bid of an existing bid recap without reentering elevations.

ENTERING SYSTEM PARAMETERS

Objective(s):	Review system parameters in the Glazier Studio Tools – Options menu.

Exercise 1: Setting Parameters
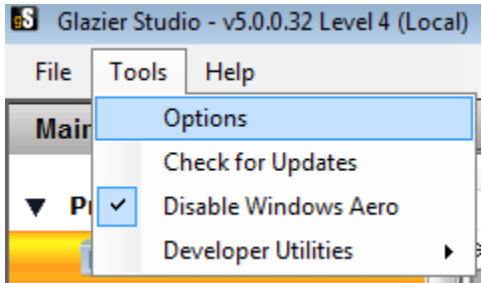
Figure 13

Program Parameters: The Tools/Options menu gives access to parameters for Glazier Studio® Software.

To enter Set Parameters Menu, select "Tools" from the main menu, then select "Options" from the "Tools" drop down menu:

Set Parameters Main Screen
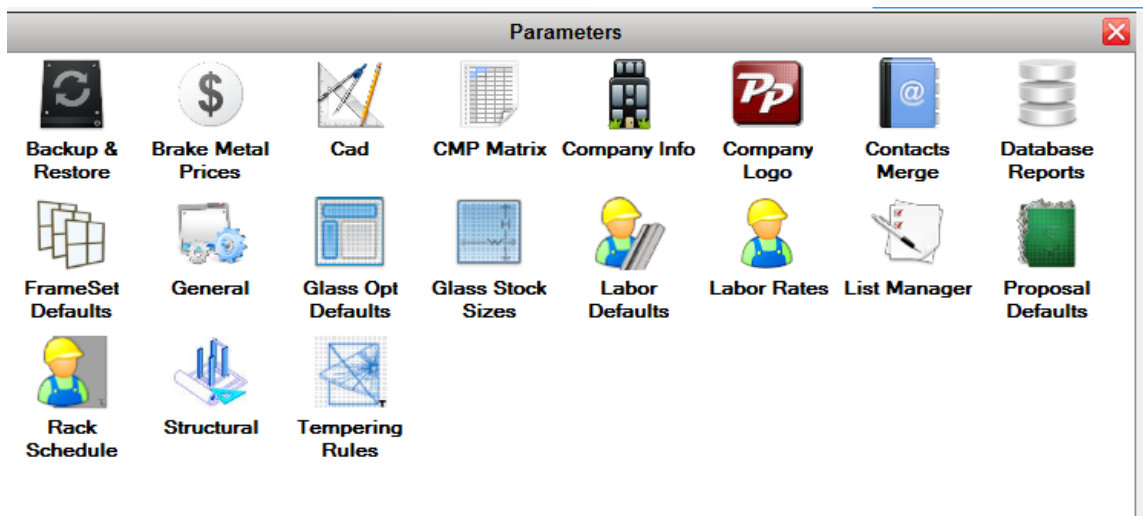
Figure 14

Glazier Studio Program Parameters Window

From the Parameters Window (above), the following program parameters can be adjusted:

General Parameters: Set Saw Cut Width, Dimension Tolerance, Tax and Markup percentages, min drop length, min glass size and optimization defaults.

Parameters Details

▼ GENERAL

SAW CUT WIDTH	0.1875
FRAMING TOLERANCE (1/32 OR 1/16)	1/32
PERCENT TAX ON FRAMING/MATERIALS	5
PERCENT MARKUP ON FRAMING/MATERIAL	15
PERCENT TAX ON DOOR/DOOR FRAMING	0
PERCENT MARKUP ON DOOR/DOOR FRAMIN	0
PERCENT TAX ON GLAZING	0
PERCENT MARKUP ON GLAZING	0
PERCENT TAX ON SHOP LABOR	0
PERCENT MARKUP ON SHOP LABOR	0
PERCENT TAX ON FIELD LABOR	0
PERCENT MARKUP ON FIELD LABOR	0
PERCENT TAX ON SPECIAL CHARGES	0
PERCENT MARKUP ON SPECIAL CHARGES	0
PERCENT TAX ON MATERIAL MARKUP	0
PERCENT TAX ON LABOR MARKUP	0
MIN. LENGTH OF USABLE DROP	12
ADD TO STOCK LENGTH FOR OPTIMIZATION	1
TRIM DIMENSION FOR S/L OPTIMIZATION	0
MIN. GLASS SIZE (SQ. FT.)	3
ROUND TO ROLL OR BOX QUANTITY	☐
DISPLAY ALL NUMBERS IN DECIMALS	☐
COMBINE PATTERNS IN OPTIMIZATION	☐
METAL OPT DOWNLOAD FOR TPS	☐
MERGE FILE FOR OTHER MANUFACTURERS	☐
METRIC OUTPUT	☐
EXTRUSION MIN LENGTH	0
EXTRUSION MAX LENGTH	0.0
OPTIMIZER STEP SIZE	0.0
ADD FOR RADIUS BENDING	0.0
VERTICAL FAB LOCATIONS	☐
VALIDATE FOR KAWNEERDIRECT EXPORT	☑
GLAZING TOLERANCE (1/16 OR 1/8)	1/16
DON'T CUT A1 AND A4 TRANSOM FRAMES	☑
SMART-FAB LOCATION	▼
ADD FOR ANGLED CUTS	0.0

Figure 15

CAD Parameters: (GS ADVANCED) Set scales, drawing size and plot area defaults.

Parameters Details	
▼ CAD	
Elevation Scale Inch	1/2
Elevation Scale to Inches	12
SPECIFY SIZE OF DRAWING AREA (INCHES)	
Drawing Area Width	34
Drawing Area Height	22
Section Drawing Scale	1/2
Draw Boundry Around Plot	☑
PartnerPak Format	☑
Draw Bubbles on Elevations	☑
Draw Labels on Bubble Cuts	☑
Remove Glass Labels	☐
Layout Options	Sections on seperate sheets
Dimension Options	Standard Dimensions
Dimension Format	Feet and Inches
Cad File Type	DWG
Auto Launch Program	☑
Cad Directory Location	null

Figure 16

Structural Parameters: Set defaults for wind speed and max deflections for wind load and dead load analysis. NOTE: Some metal systems do not support structural analysis.

Parameters Details	
▼ STRUCTURAL	
DESIGN LOAD (PSF)	25
WIND LOAD ANALYSIS	SINGLE SPAN
DEAD LOAD ANALYSIS	1/4 POINT
MAXIMUM WIND LOAD DEFLECTION	0.75
WIND LOAD DEFLECTION RATIO	175
MAXIMUM DEAD LOAD DEFLECTION	0.125
DEAD LOAD DEFLECTION RATIO	360
DEFAULT SPLICE PC	SPLICE SLEEVE
DEFAULT SPLICE GAP	0.5
DEFAULT ANCHOR PC	WINDLOAD CLIP
TURN ON STRUCTURAL ANALYSIS:	☑

Figure 17

CMP Matrix: Set individual discounts based on the individual vendors Price Book sections.

Parameters Details	
CMP MATRIX	
B10	1
B20	1
B25	1
B30	1
B40	1
B50	1
B60	1
C10	1
C20	1
C30	1
D5	1
D10	1
D20	1
D30	1
D40	1
D50	1
D60	1
D70	1
E10	1
E20	1
E25	1
E30	1
E40	1
E45	1
E50	1
F10	1
F20	1
F30	1
F50	1
F55	1
G	1
H	1
I10	1
I20	1
I30	1
I40	1

Figure 18

Glass Tempering Rules: Set default variables for tempering glass panels around doors and openings.

Parameters Details	
TEMPERING RULES	
DISTANCE FROM FINISH FLOOR (INCHES):	18
AREA ABOVE FLOOR (SQFT):	9
DISTANCE FROM DOOR (INCHES):	24

Figure 19

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Labor Defaults: There are five default labor types which can be set.

- **Standard Labor (Storefront)**
- **Stick Labor (Mixed)**
- **Combination Labor (Curtain Wall)**
- **Entrance Labor (Doors & Frames)**
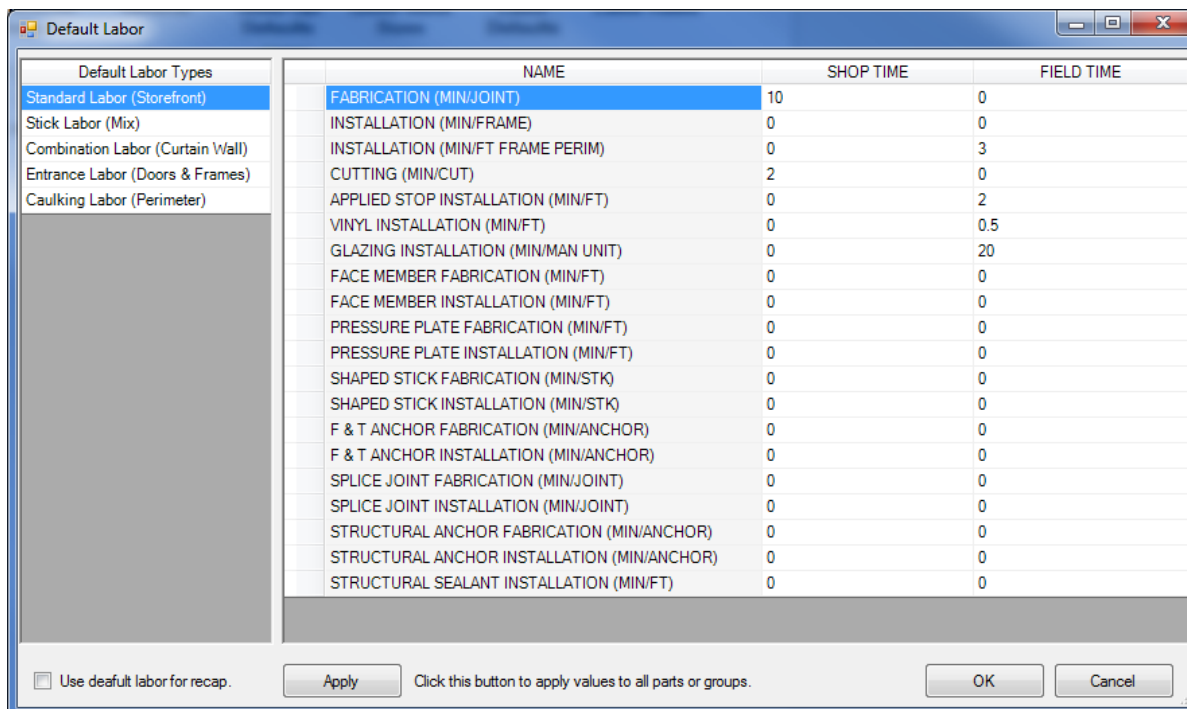- **Caulking Labor (Perimeter)**

Default Labor Types	NAME	SHOP TIME	FIELD TIME
Standard Labor (Storefront)	FABRICATION (MIN/JOINT)	10	0
Stick Labor (Mix)	INSTALLATION (MIN/FRAME)	0	0
Combination Labor (Curtain Wall)	INSTALLATION (MIN/FT FRAME PERIM)	0	3
Entrance Labor (Doors & Frames)	CUTTING (MIN/CUT)	2	0
Caulking Labor (Perimeter)	APPLIED STOP INSTALLATION (MIN/FT)	0	2
	VINYL INSTALLATION (MIN/FT)	0	0.5
	GLAZING INSTALLATION (MIN/MAN UNIT)	0	20
	FACE MEMBER FABRICATION (MIN/FT)	0	0
	FACE MEMBER INSTALLATION (MIN/FT)	0	0
	PRESSURE PLATE FABRICATION (MIN/FT)	0	0
	PRESSURE PLATE INSTALLATION (MIN/FT)	0	0
	SHAPED STICK FABRICATION (MIN/STK)	0	0
	SHAPED STICK INSTALLATION (MIN/STK)	0	0
	F & T ANCHOR FABRICATION (MIN/ANCHOR)	0	0
	F & T ANCHOR INSTALLATION (MIN/ANCHOR)	0	0
	SPLICE JOINT FABRICATION (MIN/JOINT)	0	0
	SPLICE JOINT INSTALLATION (MIN/JOINT)	0	0
	STRUCTURAL ANCHOR FABRICATION (MIN/ANCHOR)	0	0
	STRUCTURAL ANCHOR INSTALLATION (MIN/ANCHOR)	0	0
	STRUCTURAL SEALANT INSTALLATION (MIN/FT)	0	0

Use default labor for recap.   Apply   Click this button to apply values to all parts or groups.   OK   Cancel

Figure 20

Default Standard Labor (Storefront): Sets the default labor to be applied to all metal systems that are set to a standard labor type. In order to use this default, the labor times defined in each metal system must be set to 0.

Default Stick Labor (Mix): Sets the default labor to be applied to all metal systems that are set to a stick labor type. In order to use this default, the labor times defined in each metal system must be set to 0.

Default Combination Labor (Curtain Wall): Set the default labor to be applied to all metal systems that are set to a combination labor type. In order to use this default, the labor times defined in each metal system must be set to 0.

Default Entrance Labor (Door & Frames): Set the default labor to be applied to all doors and frames. In order to use this default, the labor times defined in each metal system must be set to 0.

Figure 21

Caulking Labor (Perimeter): Set the default labor to be applied to caulking time (minutes per 100 feet). In order to use this default, the labor times defined in each metal system must be set to 0.

Figure 22

FrameSet Defaults: Set defaults for each project frame set that is opened with every new project. Allows for use of a specific type of metal, infill, finish, sealant and RO to start which can still be can be changed on a per project basis.

Figure 23

Glass Opt Defaults: Set defaults to be used on glass optimization function of program.

GLASS OPT DEFAULTS	
GENERATE Z-CUT [Y/N]	☑
HORIZONTAL TRIM	0
VERTICAL TRIM	0
INTERIOR TRIM	0
MIN DROP SIZE	12

Figure 24

Glass Stock Sizes: Set default glass stock sizes to be used on glass optimization function of program.

GLASS STOCK SIZES	
WIDTH	120
HEIGHT	96

Figure 25

Company Information: Set Company Name, Address, City, State and Zip Code.

COMPANY INFO	
COMPANY NAME:	Red Mountain Research Labs
ADDRESS:	6432 E. McDowell Road
CITY	Mesa
STATE	AZ
ZIP CODE	85215
PHONE NUMBER:	(480) 985-4926
FAX NUMBER:	(480) 985-3000
USER NAME:	Guest

Figure 26

Company Logo: Set company logo for top of reports.
Recommended: *Logo max 100px tall.*

Proposal Defaults: Set default information, conditions, and exclusions available in proposals.

Note: These can be selected from the list of options or customized.

Figure 27

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Structural Parameters: Set default wind load and dead load parameters and enable structural analysis.

▼ STRUCTURAL	
DESIGN LOAD (PSF)	25
WIND LOAD ANALYSIS	SINGLE SPAN
DEAD LOAD ANALYSIS	1/4 POINT
MAXIMUM WIND LOAD DEFLECTION	0.75
WIND LOAD DEFLECTION RATIO	175
MAXIMUM DEAD LOAD DEFLECTION	0.125
DEAD LOAD DEFLECTION RATIO	360
DEFAULT SPLICE PC	SPLICE SLEEVE
DEFAULT SPLICE GAP	0.5
DEFAULT ANCHOR PC	WINDLOAD CLIP
TURN ON STRUCTURAL ANALYSIS:	☑

Figure 28

Backup & Restore: Backups and restore database files. Also used to create transfer files to share database info with others in a standalone environment.
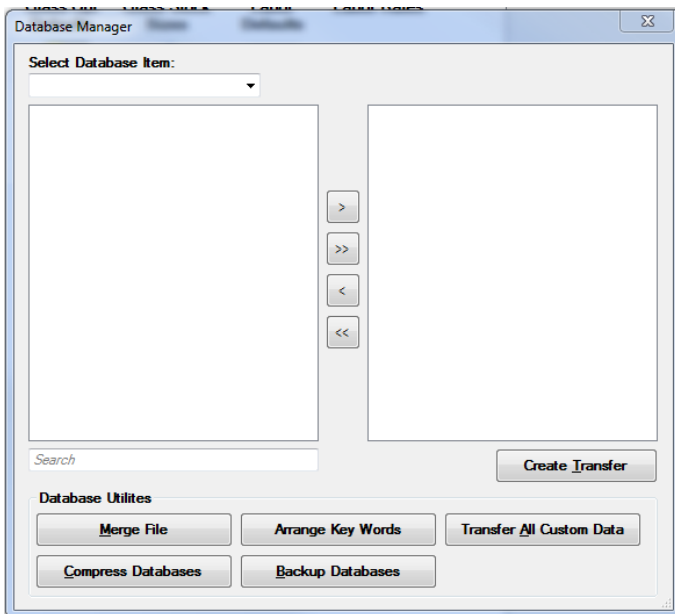

Figure 29

Contacts Merge: Import Contacts from Outlook to add new Vendors, Customers, and Architects.
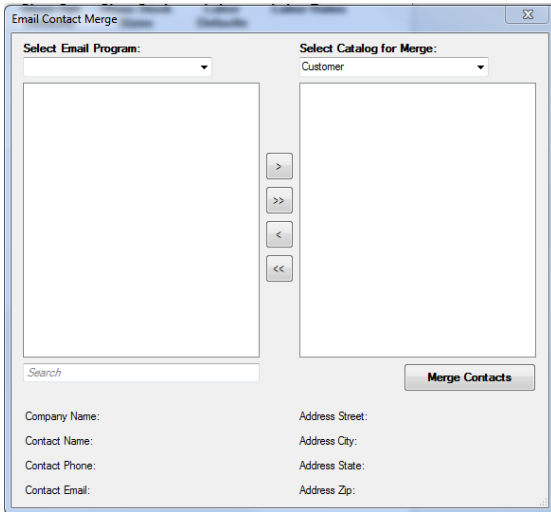

Figure 30

Labor Rates: Allows for creation of labor rates (shop and field) based on different zones, which might be used for distances from shop or other circumstances.

NAME	ZONE 1 SHOP $/HR	ZONE 1 FIELD $/HR	ZONE 2 SHOP $/HR	ZONE 2 FIELD $/HR	ZONE 3 SHOP $/HR	ZONE 3 FIELD $/HR	ZONE 4 SHOP $/HR	ZONE 4 FIELD $/HR
METAL CUTTING	15	15	0	0	0	0	0	0
METAL FABRICATION	15	15	0	0	0	0	0	0
FRAME INSTALLATION	15	15	0	0	0	0	0	0
STICK INSTALLATION	15	15	0	0	0	0	0	0
FACE MEMBER-P/P FABRICATION	15	15	0	0	0	0	0	0
FACE MEMBER-P/P INSTALLATION	15	15	0	0	0	0	0	0
VINYL INSTALLATION	15	15	0	0	0	0	0	0
DOOR FRAME FABRICATION	15	15	0	0	0	0	0	0
DOOR FRAME INSTALLATION	15	15	0	0	0	0	0	0
DOOR FABRICATION	15	15	0	0	0	0	0	0
DOOR INSTALLATION	15	15	0	0	0	0	0	0
DOOR ADJUSTMENT	15	15	0	0	0	0	0	0
DOOR HARDWARE FABRICATION	15	15	0	0	0	0	0	0
DOOR HARDWARE INSTALLATION	15	15	0	0	0	0	0	0
GLAZING	15	15	0	0	0	0	0	0
INSIDE CAULKING-BACKER ROD	15	15	0	0	0	0	0	0
OUTSIDE CAULKING-BACKER ROD	15	15	0	0	0	0	0	0
STRUCTURAL SEALANT	15	15	0	0	0	0	0	0
GLASS CUTTING	15	15	0	0	0	0	0	0
BRAKE METAL INSTALLATION	15	15	0	0	0	0	0	0
LAYOUT/MEASURING	15	15	0	0	0	0	0	0
LOAD/UNLOAD MATERIALS	15	15	0	0	0	0	0	0
DISTR MATERIALS ON SITE	15	15	0	0	0	0	0	0
DEMOLITION	15	15	0	0	0	0	0	0
SCAFFOLDING/SWING STAGE/HIGH TIME	15	15	0	0	0	0	0	0
SUPERVISION	15	15	0	0	0	0	0	0
TRAVEL TIME	15	15	0	0	0	0	0	0
PUNCH LIST	15	15	0	0	0	0	0	0
CALL BACKS	15	15	0	0	0	0	0	0
MONTHLY MEETINGS	15	15	0	0	0	0	0	0
CLEAN UP	15	15	0	0	0	0	0	0
MISC.	15	15	0	0	0	0	0	0

Figure 31

List Manager: Create items to include in lists used in estimation of additional items, such as special charges or labor.
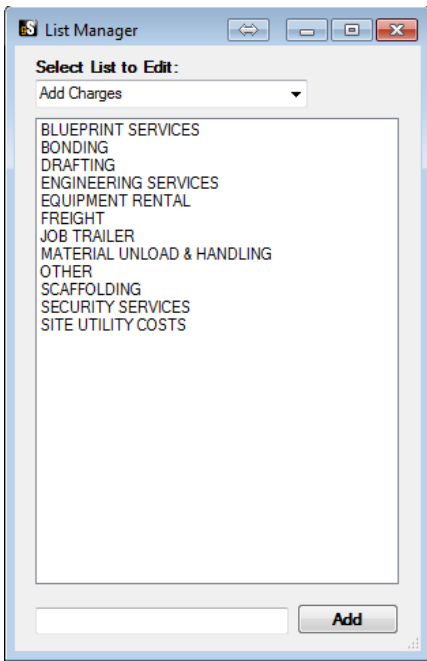
Figure 32
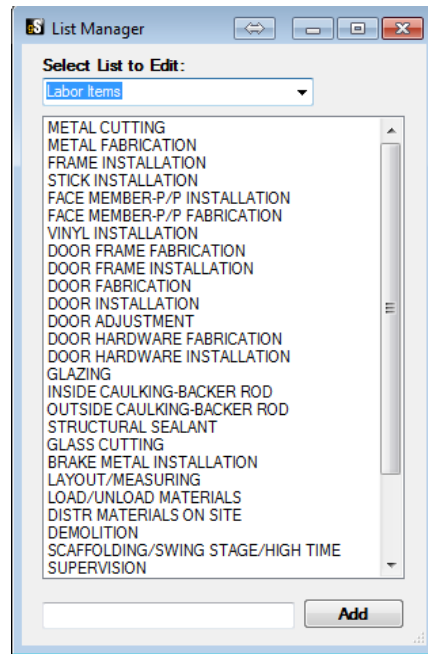
Figure 33

Rack Schedule: Used to define number of men required to set a piece of glass. Can be used to help determine labor costs.
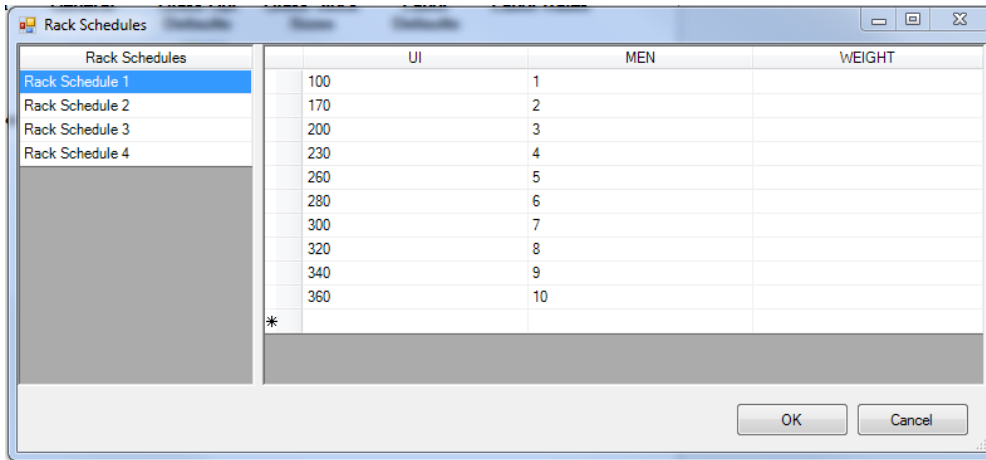
Figure 34

These parameters are guidelines for the program to work in and can all be adjusted as you work throughout the program.

Brake Metal Prices: Used to enter pricing for brake metal operations, including pricing for brakes, hems, and shears. Used when adding parts.

▼ BRAKE METAL PRICES	
PRICE PER BRAKE:	3
PRICE PER HEM:	7
PRICE PER SHEAR:	2.5

Figure 35

EXERCISE 2: ENTER COMPANY INFORMATION

Objective(s):	Enter Company Information in the Tools – Options menu.

Enter your company information into the fields provided.
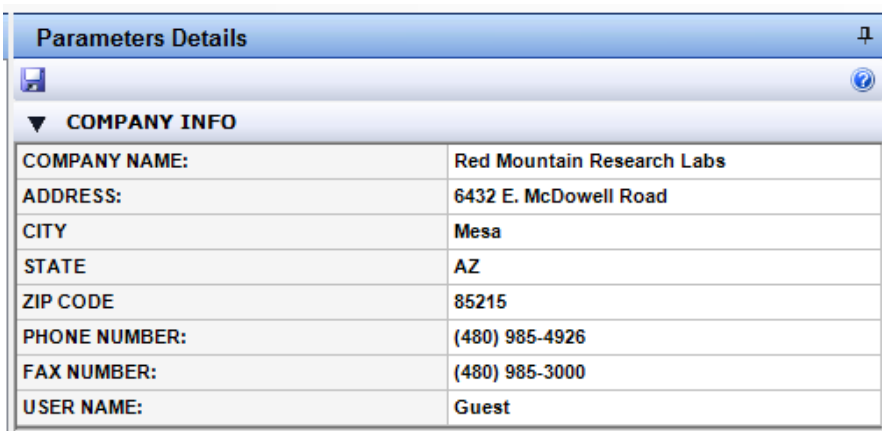
Entering Company Information

Company Information: This is your specific information about your company. This data is used for reports and other purposes throughout Glazier Studio.

To open the Company Info Menu, select:

Tools → Options → Company Info

Company Information Menu

Parameters Details	📌

COMPANY INFO	
COMPANY NAME:	Red Mountain Research Labs
ADDRESS:	6432 E. McDowell Road
CITY	Mesa
STATE	AZ
ZIP CODE	85215
PHONE NUMBER:	(480) 985-4926
FAX NUMBER:	(480) 985-3000
USER NAME:	Guest

Figure 36

Company Information screen contains information about your company including:

> **Company Name:**
> **Address:**
> **Phone Number:**
> **Fax Number:**
> **User Name:**

Enter pertinent information into the fields and left click on the **SAVE** icon to store data.

EXERCISE 3: ENTERING A CUSTOMER

Objective(s):	Enter Customer information in the Customer Database.

Customer Name:	Hansen Construction
Customer #:	1100100
Address:	140 E. Center Street
	Mesa, AZ 85301
Phone #:	480-555-1212
Fax #:	480-555-1214
Credit:	10,000.00

Entering Customers

Adding a Customer: Adds a customer to the database with contact information. This info is used for bid recaps and purchase orders.

To open the Customer screen select:

Main Menu Toolbar → Customers

Customer Screen

Figure 37

Name: Name of customer or business.

Customer number: Number assigned to customer.

Address: Customer Address.

Phone / Fax: Customer Phone Number and Fax Number.

Email: Customer email address.

Contact: Point of contact for customer.

Location: Geographical location of customer.

Key Words: Key words assigned to the customer. Additional keywords can be added using the green plus sign at the bottom of the window.

Credit Limit: Customer established credit limit.

Total Credits: Customer current credit amount.

Sales to date: Total customer has purchased in the past.

Tax Exempt No.: Tax Exempt ID number

Last Activity: Date last transaction occurred.

To create a new customer, select the **New** menu icon, enter customer name, and fill out pertinent details for the customer.

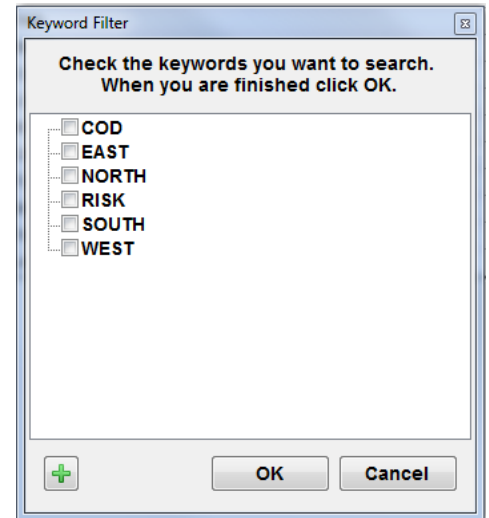 To save customer information, select the **Save** menu icon.

Figure 38

Exercise 4: Entering a Vendor

Objective(s):	Enter Vendor information in the Vendor Database.

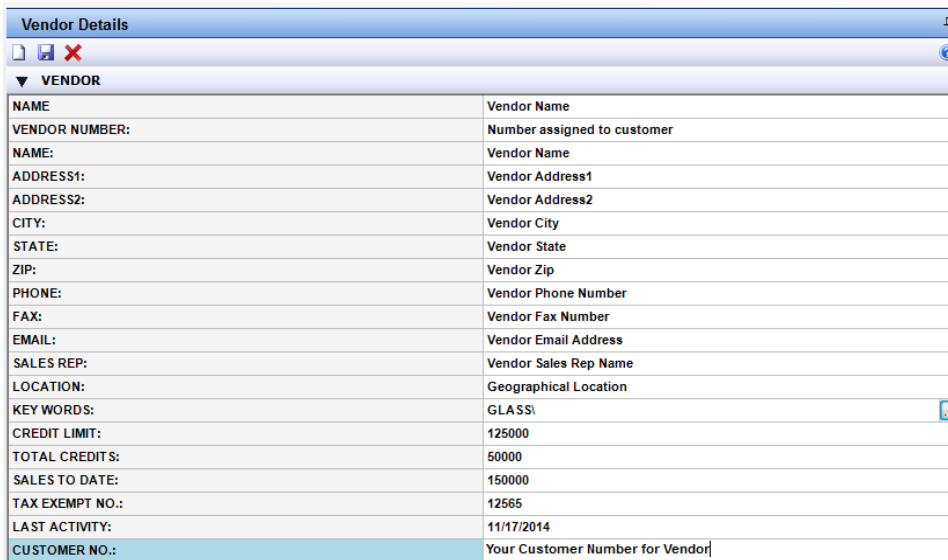|	
Vendor Name:	Glazing Connection, Inc.
Vendor #:	12345
Address:	14 E. Center Lane Mesa, AZ 85301
Phone #:	480-555-1211
Fax #:	480-555-1210
Sales Rep:	Jerry Sloan

Entering Vendors

- **Adding a Vendor:** Allows adding vendors to database with their contact information. This information is used for bid recaps and purchase orders.

- To open the Vendor screen select:

- Main Menu Toolbar → Databases → Vendors

- **Vendor Screen**

Vendor Details		
▼ **VENDOR**		
NAME	Vendor Name	
VENDOR NUMBER:	Number assigned to customer	
NAME:	Vendor Name	
ADDRESS1:	Vendor Address1	
ADDRESS2:	Vendor Address2	
CITY:	Vendor City	
STATE:	Vendor State	
ZIP:	Vendor Zip	
PHONE:	Vendor Phone Number	
FAX:	Vendor Fax Number	
EMAIL:	Vendor Email Address	
SALES REP:	Vendor Sales Rep Name	
LOCATION:	Geographical Location	
KEY WORDS:	GLASS\	...
CREDIT LIMIT:	125000	
TOTAL CREDITS:	50000	
SALES TO DATE:	150000	
TAX EXEMPT NO.:	12565	
LAST ACTIVITY:	11/17/2014	
CUSTOMER NO.:	Your Customer Number for Vendor	

Figure 39

- **Vendor number:** Number assigned to the vendor.

- **Name:** Name of vendor.

- **Customer number:** Assigned customer number.

- **Address:** Vendor Address.

- **Phone / Fax:** Vendor Phone Number/Fax Number.

- **Email:** Vendor Email address.

- **Sales Rep:** Point of contact for the vendor.

- **Location:** Geographical location of vendor.

- **Key Words:** Keywords assigned to vendor for quick reference. Additional key words can be added using the green plus sign at bottom of window.

- **Credit Limit:** Established credit limit with the vendor.

- **Total Credits:** Amount currently on credit.

- **Sales to date:** Material purchased from the vendor year-to-date.

- **Tax Exempt:** Tax Exempt ID number

- **Last Activity:** When the last transaction took place.

- To create a new vendor, select the **New** menu icon, name the vendor, and complete pertinent details for the vendor.

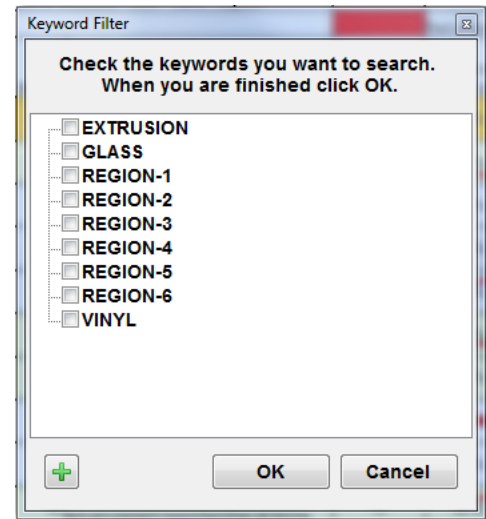- Select **Save** menu icon to save the information.

Figure 40

Menus and Icons

PROJECT MANAGER

Project Manager: The Project Manager shows the elevations contained in the frames and allows additional frames and framesets to be added as well as editing existing elevations.

Frame Items: Main project review screen containing a visual representation of the elevation and all the frames/elevations contained.

Import DXF: Import a DXF file with prepared elevations into Glazier Studio.

New: Create a new frame in this project.

Copy Frame: Copy the Selected Frame.

Edit Frame: Edit the Selected Frame.
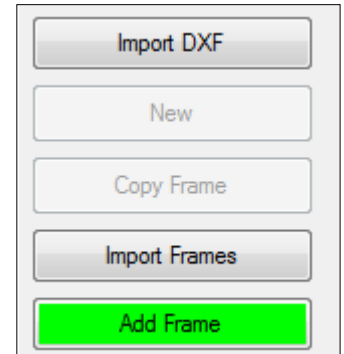
Figure 41

Frame Information: Details of the Elevation, such as name, frameset, frame size, metal system, color, panels, rows, quantity, and sealants.

New: Create a new frame.

Open: Open highlighted frame.

Save: Save highlighted frame.

Delete: Delete highlighted frame.

Figure 42

Frame Information:

Metal Group Options	
Catalog	TUBELITE
Metal Group	4500 SCREW SPLINE
Back Color	C2 CLEAR : ANODIZED
Face Color	C2 CLEAR : ANODIZED

Figure 43

Metal Group Options: Contains Vendor, Metal System used for elevation and finish (interior/exterior).

Glazing Options	
Annealed	1 CLEAR INS AN
Tempered	1 CLEAR INS TE
Spandrel	1 SPAN/INSUL
Panel	1 PANEL 15 WO
Other	1/4 CLEAR MIRROR

Figure 44

Glazing Options: Contains glazing being applied to frame using Glazier Studio's glazing parameters.

Frame Parameters	
Frame Set Name	Frame Set 1
Frame Name	Frame 15
Frame Shape	Rectangle
Include RO Dim	☑
Top Shim	0
Bottom Shim	0
Left Shim	0
Right Shim	0
Panels	5
Rows	12
Number Thus	1
Width	200
Height	640

Figure 45

Frame Parameters: Contains name, frameset, shape, size, Rough Opening options, shims, width, height, panels, rows and quantity of this frame layout.

Sealant Options	
Outside Caulking	SILICONE
Outside Backer Rod	1/4" BACKER ROD
Outside Beads	1
Outside Qty	1
Inside Caulking	SILICONE
Inside Backer Rod	1/4" BACKER ROD
Inside Beads	1
Inside Qty	1

Figure 46

Sealant Options: Sealant, backer rod, sealant amounts for inside and outside glazing.

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RHINOFAB EQUIPMENT

GRAPHIC EDITOR

The Graphic Editor displays elevations, allows for custom modifications to elevations and displays a detailed 3D view.

Dropdown Menu Bar: Main dropdowns that contain all commands available in Glazier Studio software.
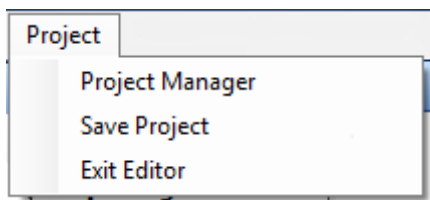
Project Menu

Figure 47

- **Project Manager:** Opens the project manager.

- **Save Project:** Saves the complete project.

- **Exit Editor:** Exits the graphics editor.

Frame Menu
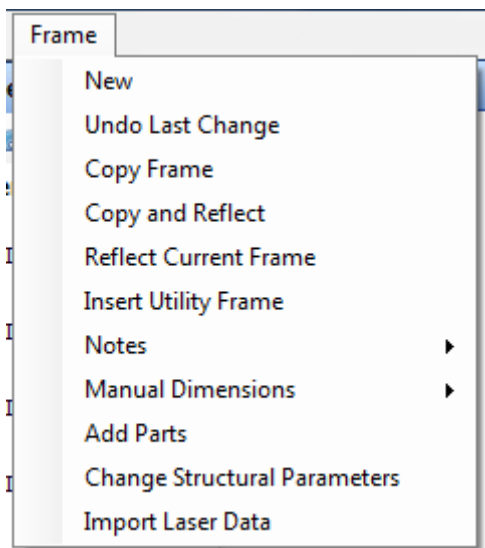
Figure 48

- **New:** Creates a new frame.

- **Undo Last Change:** Allows stepping back and erasing steps.

- **Copy Frame:** Allows for selected frame to be copied. Requires new name.

- **Copy and Reflect:** Allows for selected frame to be copied and makes a mirror reflection of current frame. Requires new name.

- **Reflect Current Frame:** Makes a mirror reflection of current frame.

- **Insert Utility Frame:** Inserts a pre-built interior frame into a panel.

- **Notes:** Adds notes to a specific location in the frame. See below.

- **Manual Dimensions:** Allows viewing dimensions of selected areas. See below.

- **Add Parts:** Add additional parts to an elevation.

- **Change Structural Parameters:** Change structural defaults for current frame.

- **Import Laser Data:** Import dxf file.

33
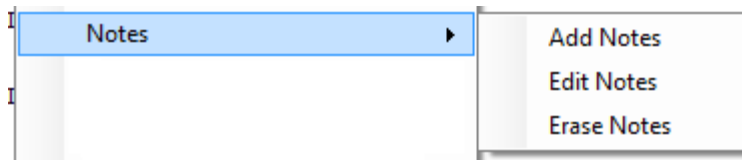
Notes

Figure 49

- **Add Notes:** Inserts a note into elevation.
- **Edit Notes:** Make changes to notes added to an elevation.
- **Erase Notes:** Remove notes from a specific elevation.

Manual Dimensions

- **Add Manual Dimensions:** Add manual dimensions to an elevation displayed elevation printer drawings and CAD exports.

Figure 50

- **Erase Manual Dimensions:** Removes manual dimensions on an elevation.

Stick Actions:
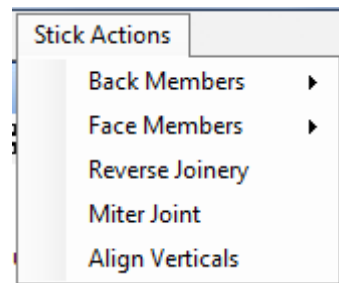
Figure 51

- **Back Members:** Adjusts features of the back members. See Sub Menu.
- **Face Members:** Adjusts features of the face members.
    - See Sub Menu
- **Reverse Join:** Reverses the joinery of selected sticks.
- **Miter Joint:** Sets a 45-degree angle for the joints selected.
- **Align Vertical Sticks:** Aligns the selected sticks vertically.

Back Members:
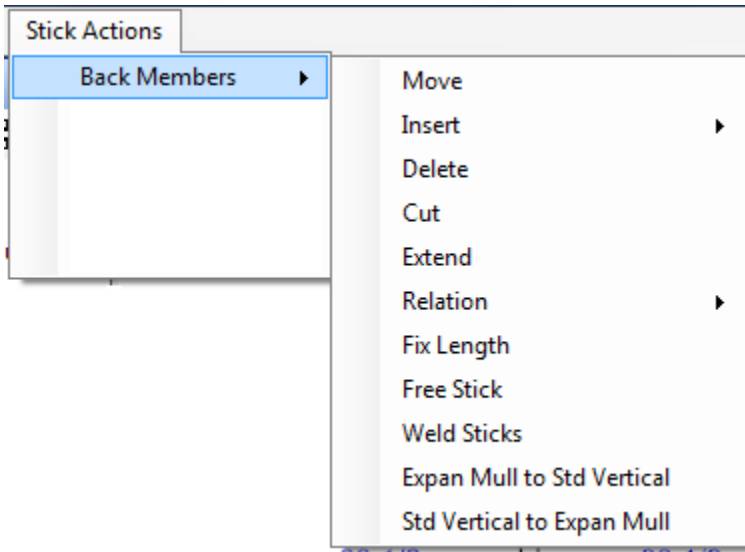
- **Move:** Moves a stick to a specified location.

- **Insert:** Insert components. See Sub Menu below.

- **Delete:** Deletes a stick from frame.

- **Cut:** Cuts a stick.

- **Extend:** Extends a stick above or below frame.

- **Relation:** Sets a relation of sticks. See Sub Menu below.

Figure 52

- **Fix Length:** Allows an adjustment on length of a stick.
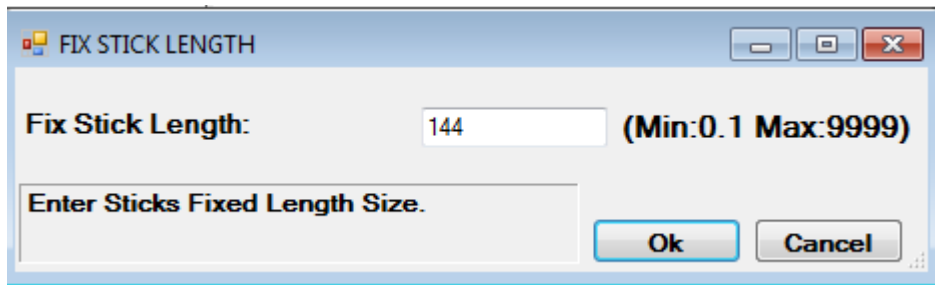
Figure 53

- **Free Stick:** Releases stick from locked position to a split position in the frame.

- **Weld Stick:** Welds two sticks into one continuous stick.

- **Expan Mull to Std Vertical:** Converts a selected vertical from an expansion mullion to a standard mullion.

- **Std Vertical to Expan Mull:** Converts a selected vertical from a standard mullion to an expansion mullion.

Insert:
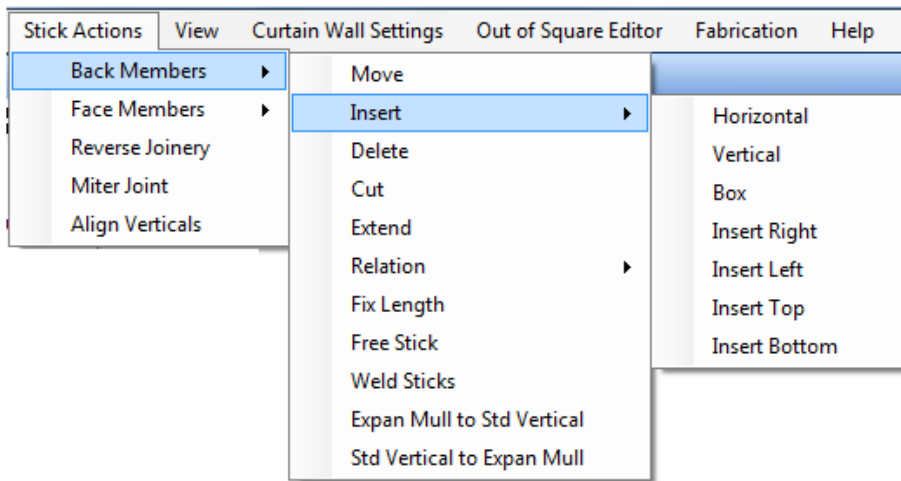
Figure 54

- **Horizontal:** Inserts a horizontal into the selected opening(s).

- **Vertical:** Inserts a vertical into the selected opening(s).

- **Box:** Inserts a box into the selected opening(s).

- **Insert Right:** Inserts a stick in the opening(s) at the right side.

- **Insert Left:** Inserts a stick in the opening(s) at the left side.

- **Insert Top:** Inserts a stick in the opening(s) at the top.

- **Insert Bottom:** Inserts a stick in the opening(s) at the bottom.

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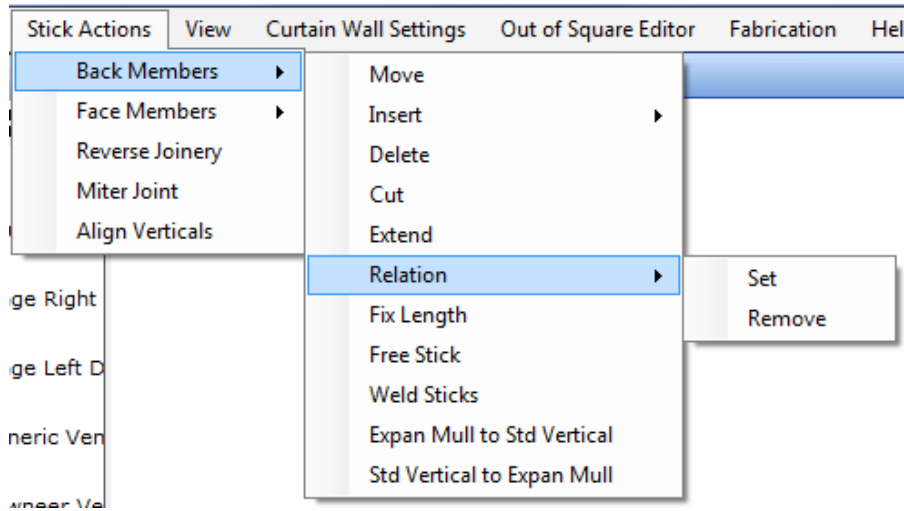
Relation:

- **Set:** Sets a relation to the selected sticks.

- **Remove:** Removes a relation from the selected sticks.

Face Members:

Figure 55

- **Miter:** Miters face member corner.
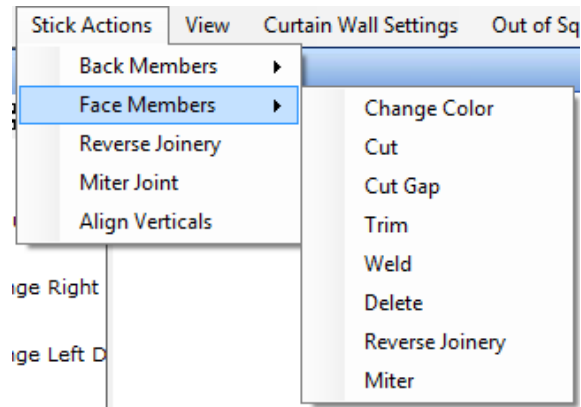
- **Change Color:** Changes face member color

- **Cut:** Cuts a stick.

- **Cut Gap:** Sets the gap associated with a cut of a face member.

- **Trim:** Trims size of face member.

- **Weld Stick:** Welds two sticks into one continuous stick.

- **Delete:** Deletes a stick from the frame.

  - **Reverse Joinery:** Reverse face member joinery.

37
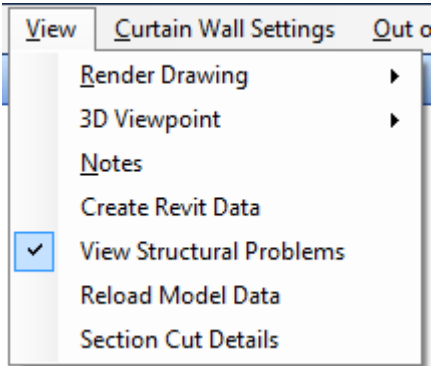
View:

Figure 56

- **Render Drawing:** Gives 3D options to render elevation on screen.

- **3D Viewpoint:** Allows for different views of 3D image.

- **Notes:** Turns on or off the displaying of notes.

- **Create Revit Data:** Generates a file that can be imported into REVIT* elevations.

- REVIT is an AutoDesk product and does not come with Glazier Studio and is not affiliated with the DeMichele Group.

- **View Structural Problems:** Turns on and off viewing of structural problems.

- **Reload Model Data:** Reloads and updates view of elevation.

- **Section Cut Details:** Displays section cuts on project screen.
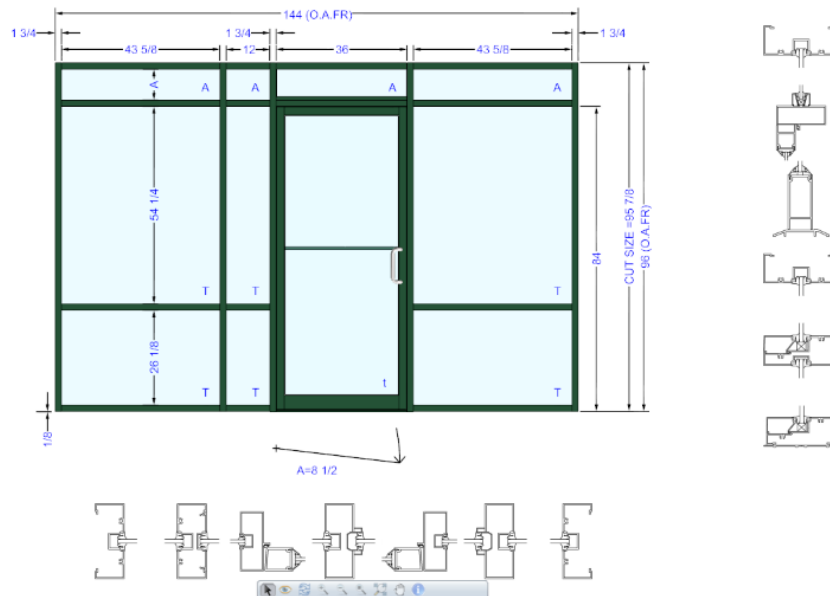
Figure 57

Render Drawing:
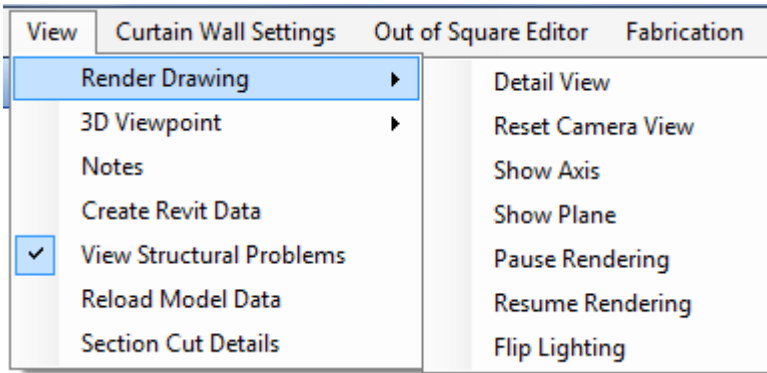
Figure 58

- **Detail View:** Allows you to see the die details.

- **Reset Camera View:** Centers Camera on the elevation.

- **Show Axis:** Draws 3D axis lines.

- **Show Plane:** Draws and shades the floor axis to reveal depth.

- **Pause Rendering:** Pauses Rendering of Elevation.

- **Resume Rendering:** Continues to render the 3D view of an elevation.

- **Flip Lighting:** Shows the model with the lighting from behind the elevation.

3D Viewpoint:

- **Top:** 3D view from above.

- **Bottom:** 3D view from below.
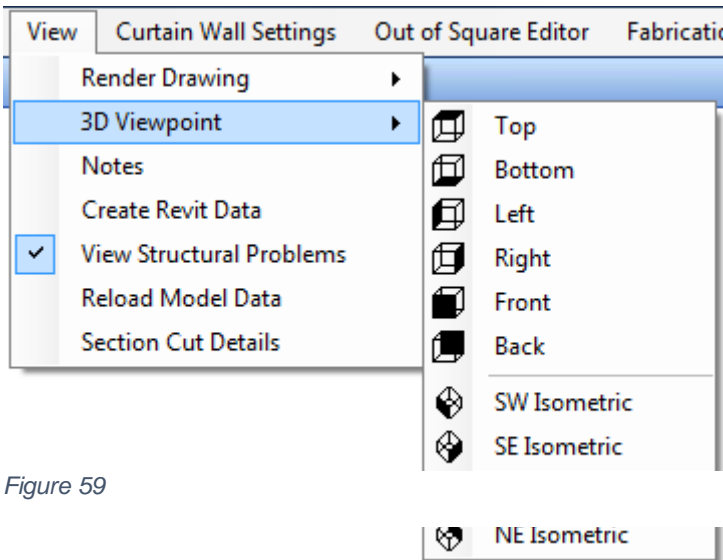
Figure 59

- **Left:** 3D view from left.

- **Right:** 3D view from right.

- **Front:** 3D view from front.

- **Back:** 3D view from behind.

- **SW Isometric:** Isometric view from SouthWest.
  SE Isometric: Isometric view from SouthEast.

- **NW Isometric:** Isometric view from NorthWest.

- **NE Isometric:** Isometric view from NorthEast.

39

Curtain Wall Settings:
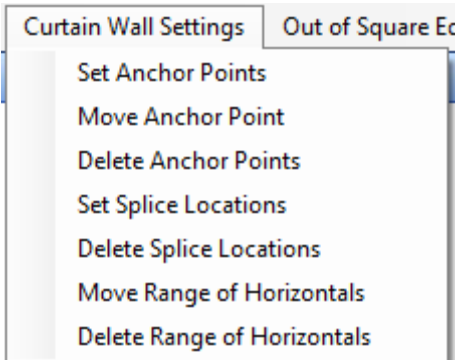
Figure 60

- **Set Anchor Points:** Sets anchor points at a specific height.

- **Move Anchor Points:** Move current anchor points to

- **Delete Anchor Points:** Removes selected anchor points

- **Set Splice Location:** Sets splice location to a specified height.

- **Delete Splice Locations:** Removes current splices.

- **Move Range of Horizontals:** Moves a range of curtain wall horizontals to new location based on selected stick.

- **Delete Range of Horizontals:** Deletes a range of horizontals based on selected stick.

Out of Square Editor: (GS Advanced Required)

- **Move a Perimeter Segment:** Move a perimeter segment to a different position.
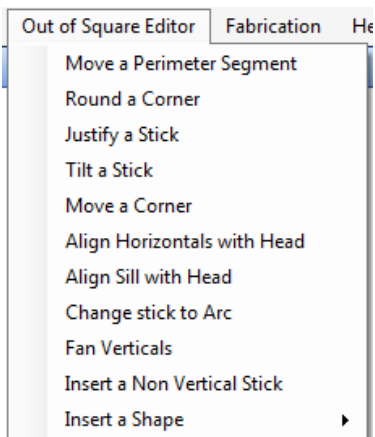
Figure 61

- **Round a Corner:** Round a corner based on radius.

- **Justify a Stick:** Justify a stick to the left, right, top or bottom.

- **Tilt a Stick:** Slope a stick to any angle.

- **Move a Corner:** Move a corner to a different position.

- **Align Horizontals with Head:** Aligns intermediate horizontals with the head.

- **Align Sill with Head:** Aligns sill with head.

- **Change Stick to ARC:** Change selected stick to an arc. Convex or concave shape.

- **Fan Verticals:** Fans verticals to match the radius of the head.

- **Insert a Non Vertical Stick:** Insert a stick at any angle.

- **Insert a Shape:** All available shapes that can be added into an opening.

Standard Shapes
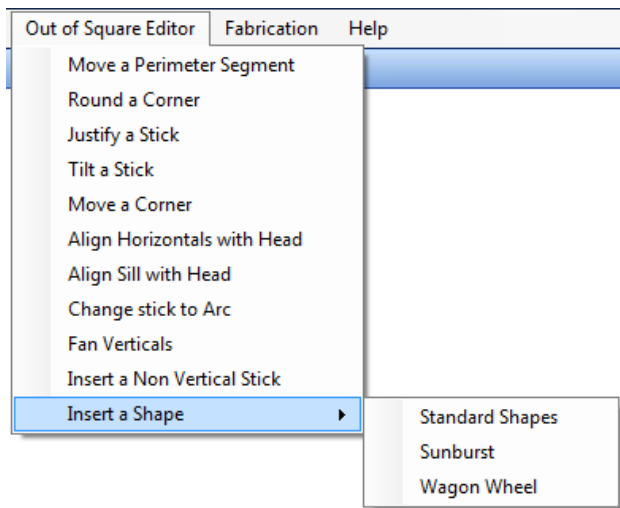
Figure 62

- **Sunburst:** Creates sunburst pattern in selected panel/row.

- **Wagon Wheel:** Creates wagon wheel pattern in   selected panel/row.

Fabrication: (GS Advanced Required)
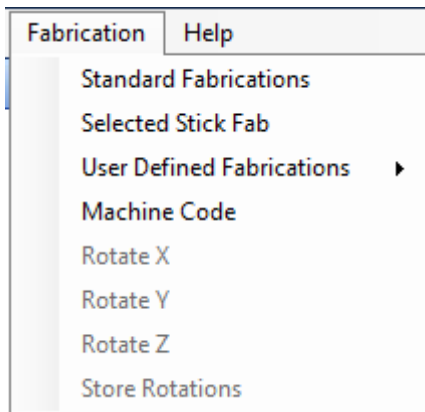
Figure 63

Standard Fabrications: Display Standard Fabrications on Elevation. Most fabrications are at the joints so they will only show up if you hide members using the Stick Levels tab on bottom right side of editor.

Selected Stick Fab: Displays the fabrication locations of the selected stick.

User Defined Fabrications: Opens the menu to allow for additional added fabrications to be placed on the elevation.

Machine Code: Requires NCX viewer to view machine code for fabrication data.

Rotate X: Change orientation of a selected stick on the X axis

Rotate Y: Change orientation of a selected stick on the Y axis

Rotate Z: Change orientation of a selected stick on the Z axis

Store Rotations: Save Rotation info to file

41

User Defined Fabrications: (GS Advanced Required)
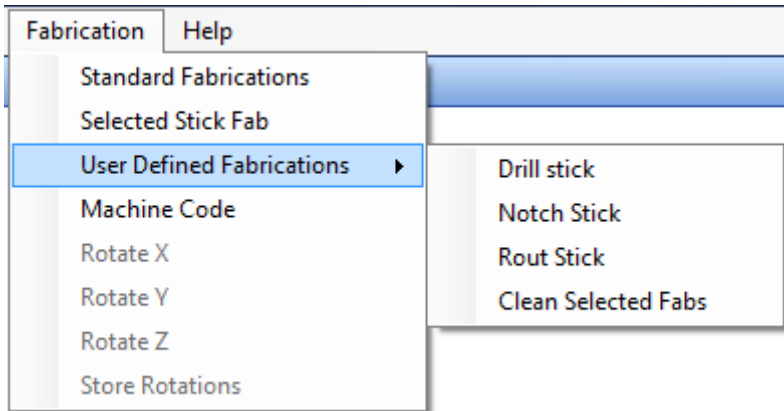
Figure 64

- **Drill Stick:** Add a fabrication drill point to an existing stick.

- **Notch Stick:** Add a notch fabrication to an existing stick.

- **Rout Stick:** Add a rout fabrication to an existing stick.

- **Clean Selected Fabs:** Erase added fabrications from selected stick.

TOOL MENU:

Contains the action commands such as insert door, vent, stick or grid and modify functions such as delete stick and Reverse Joinery.

Figure 65
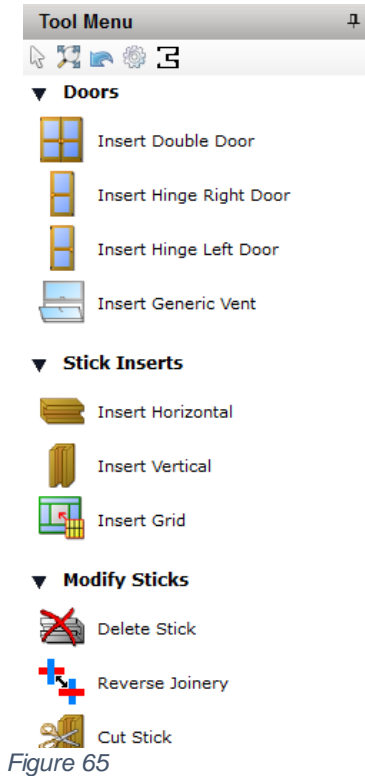
Select Objects Tool: The Select tool allows you to select specific objects in the editor.

Reset Zoom & Zoom Extents: The Zoom Extents tool resets the view to flat front view.

Undo Tool: Allows stepping back and erasing steps.

Details View: The View Details switches from solid parts to actual die detail in the editor. This will allow the user to see the die details throughout the elevation and to explode the joinery details.

Show/Hide Section Cut Details: Displays section cuts on project screen.

▼ **Openings**

Insert Double Door: Allows insertion of a double door into a panel in row 1.

Insert Hinge Right Door: Allows insertion of a hinged right door into a panel in row 1.

Insert Hinge Left Door: Allows insertion of a hinged left door into a panel in row 1.

Insert Generic Vent: Insert a vent into any panel.

▼ **Stick Inserts**

Insert Horizontal: Inserts horizontal into selected panel(s).

Insert Vertical: Inserts vertical into selected panel(s).

Insert Grid: Inserts multiple horizontals and verticals into selected panel(s).

▼ **Modify Sticks**

Delete Stick: Removes selected stick(s) from a frame.

Reverse Joinery: Changes stick which penetrates at a specific joinery.

Cut Stick: Cuts a vertical or horizontal at either a specific coordinate or at a specific joint.

FRAME INFORMATION (TAB)

Contains frame data and stick properties. As sticks and panels are selected edits such as Daylight Opening, Move Centerline, Move Horizontal position and more are available.
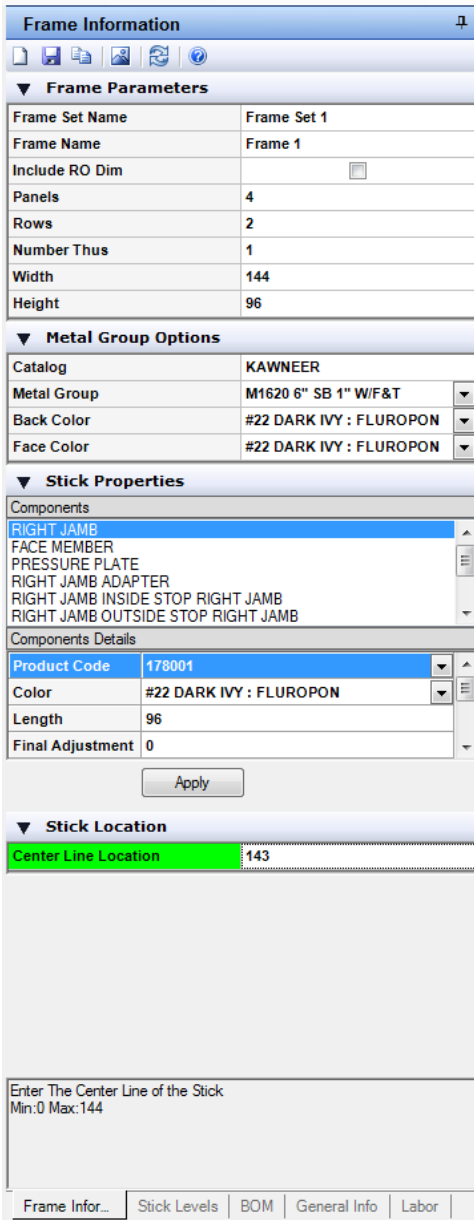
New Frame: Adds another frame to current project without having to go back to project manager.

Save Frame: Saves projects and current changes to frames.

Copy Frame: Creates copy of currently selected frame in the editor. Requires new name.

Capture Image of Current View: Screen capture of current frame. File saved as png.

Reset Panels and Rows: Resets frame to original parameters.

▼ **Frame Parameters**

Allows changes to current dimensions of frame without deleting/recreating frame.

Adjustments can be made to number of panels and rows configured in current frame
Note: This resets the frame.

▼ **Metal Group Options**
Select metal group and finishes for back and front members.

Figure 66

Stick Properties

Make adjustments to properties of selected sticks.

Daylight Opening (DLO): Adjust physical DLO of the selected panel(s).

▼ Daylight Opening	
Glazing	1 CLEAR INS TE
Panel Id	6
Row Id	1
Glass Width	22 9/16
Glass Height	45 1/4
DLO Width	21 3/32
DLO Height	44 1/4
Apply Manual Glass Size	☐

Figure 67

Horizontal Location: Adjusts physical height of horizontal stick(s) selected using either Bottom, Top or Center of Horizontal.

▼ Stick Location	
Horizontal Location	46 3/4

Figure 68

Center Line Location: Adjusts centerline location of vertical stick(s) selected.

▼ Stick Location	
Center Line Location	119 5/32

Figure 69

Frame Infor... | Stick Levels | BOM | General Info | Labor

Stick Level (Tab)

Stick Level

☑ Back Members
☑ Arc Sticks
☑ Vertical Sticks
☑ Slope Sticks
☑ Horizontal Sticks
☑ Face Members
☑ Pressure Plates
☑ Inside Stops
☑ Outside Stops
☑ Adapters
☐ Stiffeners
☑ Receptors
☑ Glass
☐ Vinyl
☑ Dimension Frame
☐ User Fabs

| Select All |
| Select None |
| Apply Changes |

Frame Infor... | Stick Levels | BOM | General Info | Labor
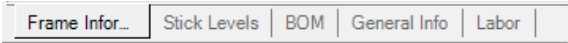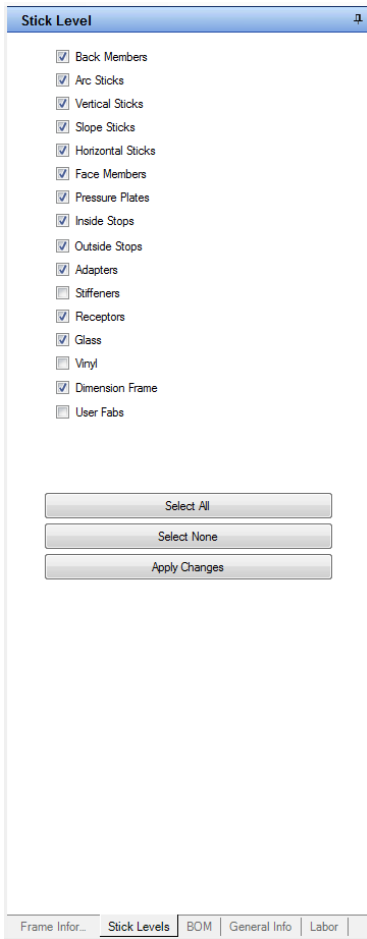
Show/hide detail components in the editor. Add or remove, horizontals, verticals from view to see glazing etc.

Click on Apply Changes to accept selection.

Figure 70

BOM (Tab)

Bill of Materials displayed for project, including:

- Metal

- Hardware

- Glass

- Doors/Door Frames

- Vinyl & Sealants

Note: If the BOM\ GENERAL INFO or LABOR TABS are solid grey or blank on your system, then you have your system fonts boosted above 100%. Reset font percentage to 100% to restore these screens.

Figure 71

General Info (Tab)

Figure 72

Project General Information including:

- Frame Perimeter
- Frame Area
- Glazing Perimeter
- Joints
- Cuts
- Doors
- Openings

Labor (Tab)

Displays labor set at individual frame level.

Figure 73

Editor Toolbar

Controls view of the graphics editor.

Short Keys for Glazier Studio

F2 key – When product code is highlighted, catalog part information is displayed.

F3 key - When a part number is selected, price book entry for that item is displayed.

F6 key - When you have the primary part selected to show the wind load charts.

Right Click on any Icon in the Graphics Editor will bring up the instructions on how to use the icon.

Alt + Left Click on a stick in the Graphics Editor will select that stick and all sticks to the right.

CTRL + Left Click on a horizontal will select that horizontal and all horizontals above.

Alt + Shift + Left Click on a panel in the graphics editor will select that panel and all to the right.

Shift + Ctrl + Left Click on a panel in the graphics editor will select that panel and all panels above it.

/xxx followed by the ENTER key in any dropdown box will search for that part, product, or name. I.e. /450 will search for 450 in the list.

Project 1

EXERCISE 5: CREATING A NEW PROJECT

Project Name: Seminar Project 1
Customer: Hansen Construction
Project Location: 6432 E. McDowell Road
Mesa, AZ 85301

Date of Plans: (Today's Date)
Addendums: 1, 2, 5
Bid Date: (one week from today)
Remarks: None

To create a new project, Select the NEW Icon and enter the Job Name.
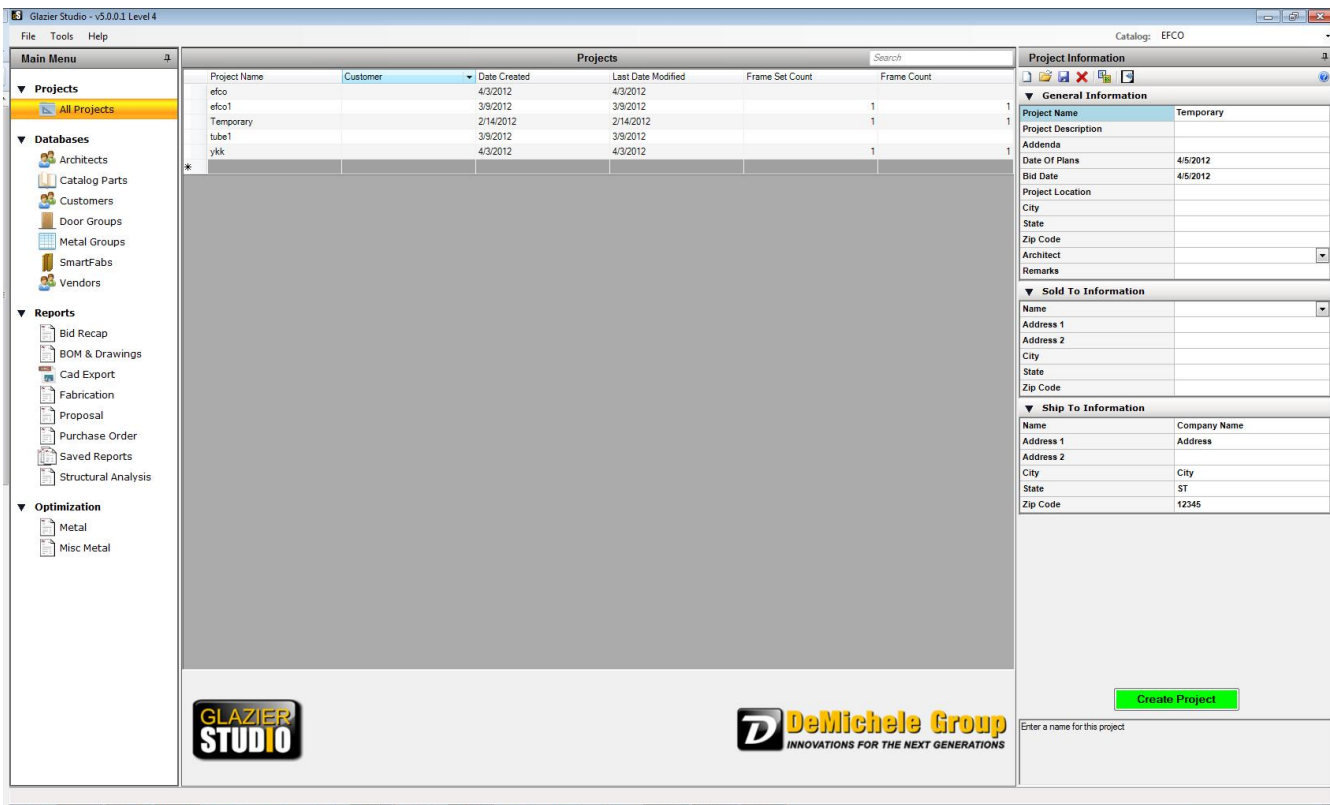
Figure 74

Click the **OPEN** or **Create Project** icon button once you have filled out all pertinent information.

Creating a Frameset

EXERCISE 6: CREATING A FRAMESET FOR PROJECT 1

In this exercise, the frameset is a set of frames with the same metal, glazing and sealant properties. This is not a requirement. Each frame under a frameset can have unique properties.

Medal Group Options

Catalog:	EFCO, Tubelite, YKK, OldCastle, USAluminum
Metal Group:	2" x 4 ½" Flush Glaze, Center Glazer, Outside Glaze, Shear Block
Example:	Tubelite: E14000 Shear block
	EFCO: S403 Shear Block Outside Glazed
	YKKMETAL: YES 45 FL Shear Block
Back Color:	DARK BRONZE
Face Color:	DARK BRONZE

Glazing Options:

Annealed:	1 BRONZE INS AN
Tempered:	1 BRONZE INS TE
Spandrel: 1	1/4 BRONZE SP
Other:	NULL GLAZING

Frameset Parameters

Frame Set Name:	Frame Set 1
Frame Name:	Frame 1
Frame Shape:	Rectangle

Sealants

Caulking:	Silicone
Backer Rod:	3/8" Backer Rod

Definition:

Frameset: *A grouping of frames with a common feature set of components, or timeframe. Grouping frames allows for quick selection, and division of project frames.*

NOTE: If you group framesets by metal systems, it is easier to use ALT BID to change the metal system for all frames in that frameset at one time, instead of having to do each frame individually.

Set Project information under the Frame Information bar on the Right of the screen. Set metal system, finish, glazing frame parameters and sealant parameters. An example of a frameset name is **"Project 1".** (see figure 1.8)
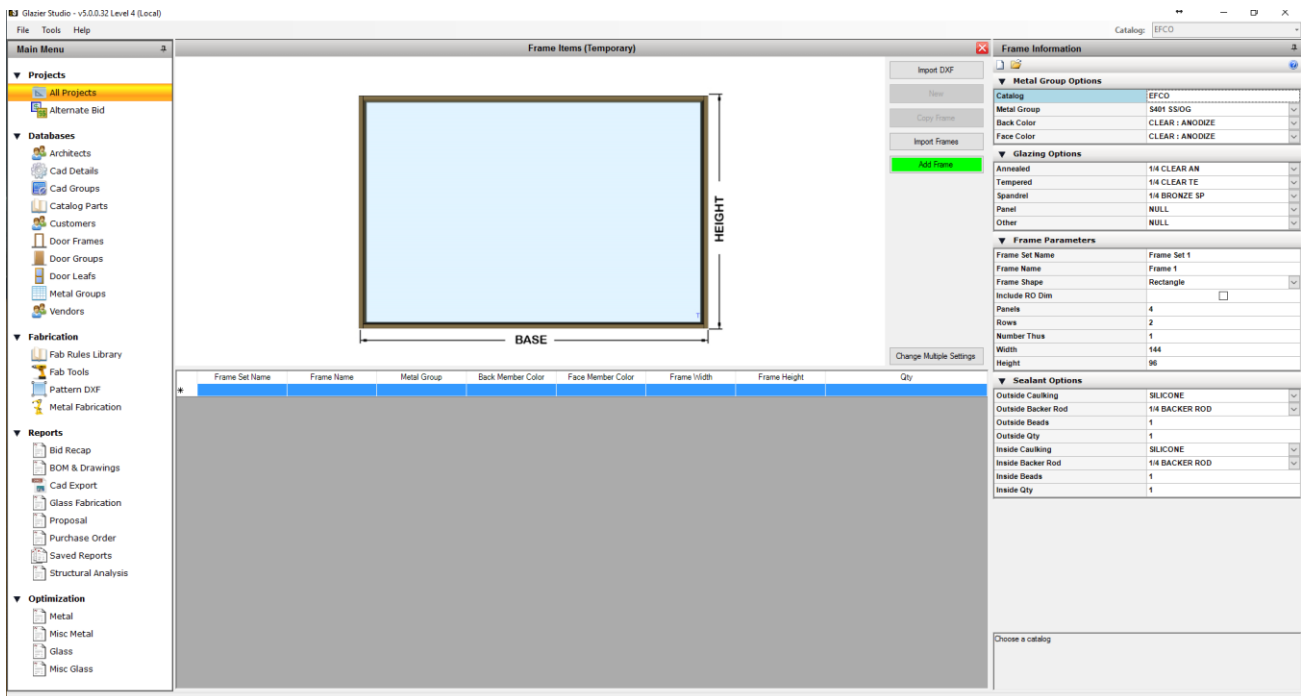
Figure 75

Once you have selected all the characteristics of the frameset you can now enter the basic information about the frame. Once you have filled out that information you can click on the **Add Frame** button. This will take you to the graphics editor where you can begin to configure the frame.

EXERCISE 7: FRAME 1

Objective(s):	Create new frame in the Project Manager.
	Change location of framing member in Graphics Editor.

Frame Name: Frame 1
Panels: 2
Rows: 2
Number Thus: 3
Width: 7' 1/2"
Height: 8' 6"
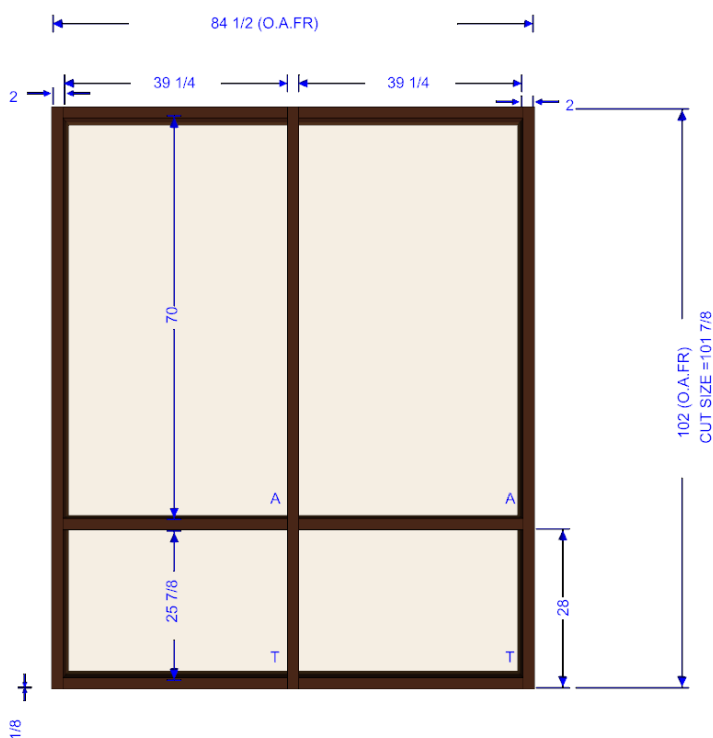
1. Once all the characteristics of the frameset have been selected, enter basic information about the frame. When information about the frame has been completed, click on the **Add Frame** button. This will bring up the graphics editor where the frame can be configured.
2. Select interior horizontals *between* Row 1 & 2 and set the Bottom of Horizontal to a Height of 28". Use Position Horizontal field on right Frame Information bar.
3. Left Click **SAVE** icon 💾 in the right Frame Information bar.
4. Left Click on **NEW FRAME** icon 📄.

EXERCISE 8: FRAME 2

Objective(s):	Create new frame in Project Manager.
	Modify location of framing member in Graphics Editor.
	Modify dimension of daylight opening in Graphics Editor.
	Add parts to frame with menu.

Frame Name: Frame 2
Panels: 3
Rows: 2
Number Thus: 1
Width: 10' 5"
Height: 8' 6"
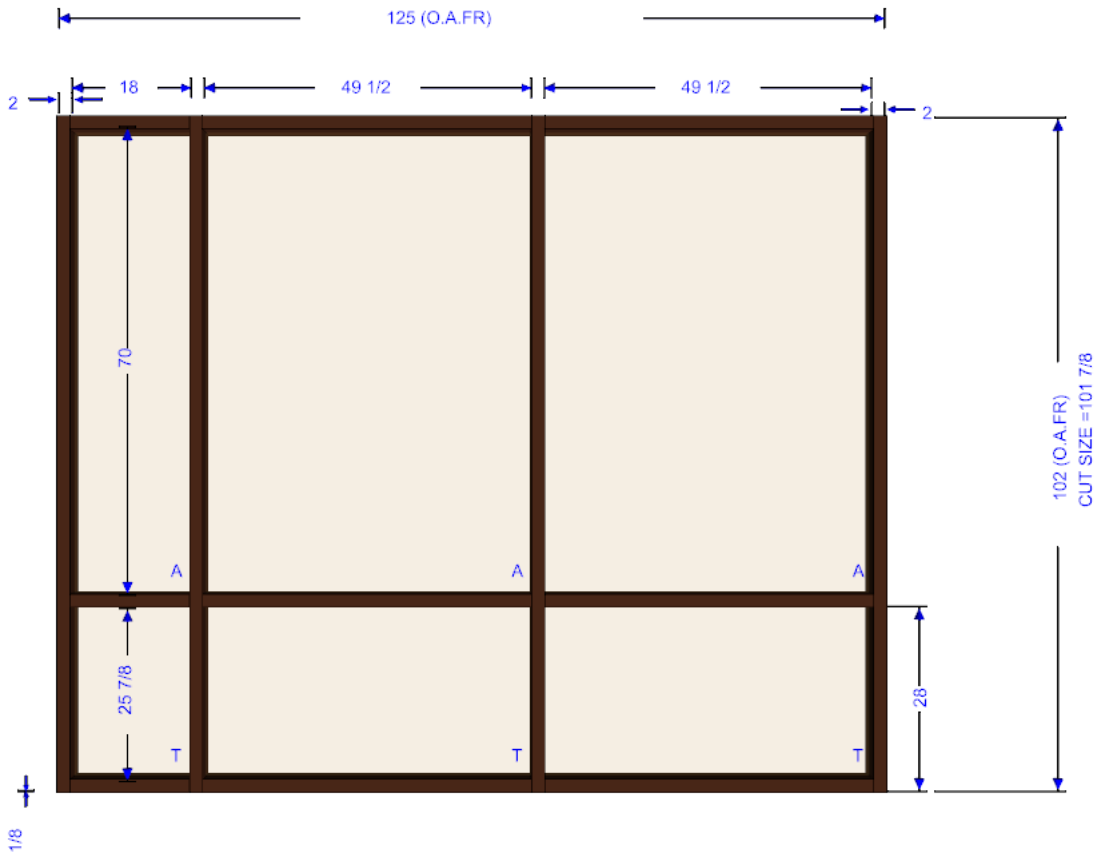
Figure 76

1. Select interior horizontals between Row 1 & 2 Panels 1, 2 & 3 and set the bottom of horizontals to a Height of 28". Position Horizontal option is on right Frame Information bar.

NOTE: To select all horizontals, press and hold ALT key and click on left most horizontal.

2. Select Panel 1 Row 1 and set the DLO to a Width of 18". Located in Frame Information bar.

3. Left Click the SAVE icon.

4. Select FRAME drop down menu then ADD PARTS.
   Add a 125" wide by 5" girth #40 Dark Bronze brake metal with 2 hems, 1 shear and 1 break to the break metal tab. Use the .040 thick product.

5. Left Click on NEW FRAME icon .

RULE OF THUMB: BUILDING FRAMES

1. Start with the right metal system. – the program does calculations as it gets to the editor, so changing the metal system at the editor may require you to reset panels and rows to get the change reflected. For example; Head channel and sill receptor must be in the metal system prior to creating the frame.
2. If you use RO. Do not set a bottom rough opening if there are doors in the frame. Raise the sills up the additional height to compensate for bottom rough opening settings.
3. Start with enough horizontals. If you have doors with transoms, you must have at least 2 rows to start. You can delete extra horizontals in the editor, but you cannot insert a door under an inserted horizontal because the program sees that opening as a split panel.
4. Remove excess horizontals from openings before inserting doors.
5. Insert Doors before setting DLO's (Daylight Openings). Doors do not round up or down, they have to have the door and frame size that fits and the other openings will split the remainder.
6. Change properties of any stick before setting DLO or horizontal positioning since the size of the mullion can change the opening size.
7. Set DLO's or Position Horizontals and Set Centerlines for openings.
8. Set Infill's to the appropriate types.
9. Cripple Door Headers if required.
10. Set Bulkhead and \ or Soffit Conditions. Raising sills can prevent DLO's from working properly. Set the other openings first and leave the raising sills or lowering head members to almost the last step.
11. CURTAIN WALL - Set Splice Locations and Anchor Points Last. Remove splice and anchor points if you have to edit or move horizontals and then re-add them last.

EXERCISE 9: FRAME 3

Objective(s):	Use Frame menu to copy a frame and reflect the frame.

Frame Name: Frame 3
Panels: 3
Rows: 2
Number Thus: 1
Width: 10' 5"
Height: 8' 6"
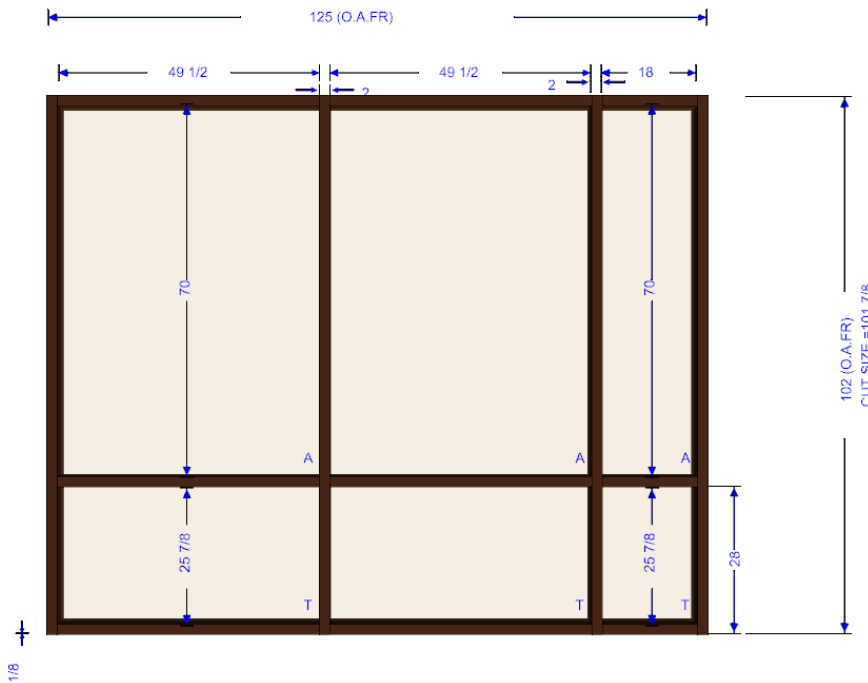
Figure 77

1. Save Frame 2 then from the Frame drop down menu, select **COPY FRAME** and **REFLECT CURRENT FRAME**.
2. Name it *Frame 3* and press **OK**.
3. Answer **Yes** to the question about copying the added parts.
4. Left Click the **SAVE** icon.
5. Left Click on **NEW FRAME** icon.

Note: *The next frames deal with doors. **It is important to remember to insert the doors before any joints are reversed, and any door modifications should be done during the first insertion of the door.***

EXERCISE 10: FRAME 4

Objective(s):	Delete stick in Graphics Editor. Insert doors in opening in Graphics Editor. Set door properties in Door Editor. Modify framing member in Graphics Editor.

Frame Name:	Frame 4
Panels:	5
Rows:	2
Number Thus:	1
Width:	17' 10"
Height:	8' 6"
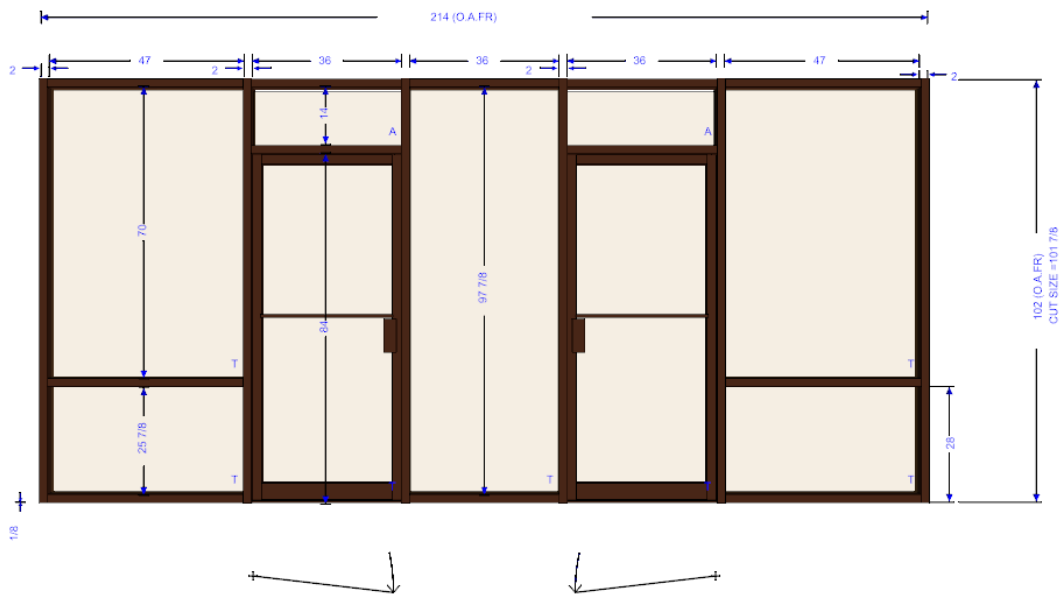
Figure 78

1. Left Click on the horizontal in Panel 3 between Rows 1 & 2 and Delete Stick.
   Note: Command is on left Tool Menu or use the delete key on keyboard.

2. Select Panel 3 Row 1 and set the DLO to a width of 36".
   Note: DLO Width will be automatically selected and value can be entered without clicking in box to right of DLO Width in Daylight Opening properties.

3. Select Panel 2 Row 1 and Select the Hinge Left Door icon in the Tool Menu on Left.

Door Properties:

Name:		Project 1 Left Door	
Handing:		HLSO	
Doorlite PC:		¼ Bronze TE	
Hinge Type:		Offset Pivot	
Frame Type:		(match framing system)	
Labor:			
	Labor (Shop):	**Frame Fab:**	20 min
		Door Fab:	20 min
	Labor (Field):	**Frame Install:**	30 min
		Door Install:	30 min
		Hardware Install:	30 min
		Door Adjust:	15 min
Door / Frame:	**Door #:**	(select)	
	Frame#:	(select)	
Hardware Options:			
	Locking:	(1) Latch Lock Substitution	
	Closer:	Surface Closer	
	Options:	(1) Lever Handle	

4. Click **Save** icon on door screen to store door, then Left Click on the **OK** button to insert the door.

5. Select Panel 4 Row 1 and select the **Hinge Right Door** icon in the Tool Menu on the left.

Door Properties:			
	Name:	Project 1 Right Door	
	Handing:	HRSO	
	Doorlite PC:	¼ Bronze TE	
	Hinge Type:	Offset Pivot	
	Frame Type:	(matching framing system)	
Labor:			
	Labor (Shop):	**Frame Fab:**	20 min
		Door Fab:	20 min
	Labor (Field):	**Frame Install:**	30 min
		Door Install:	30 min
		Hardware Install:	30 min
		Door Adjust:	15 min

Door/Frame: Door #:	(select)
Frame#:	(select)
Hardware:	
Locking:	(1) Latch Lock Substitution
Closer:	Surface Closer
Options:	(1) Lever Handle

6. Click Save icon on door screen to store door, then Left Click on the OK button to insert the door.

7. Select interior horizontals in Panels 1 & 5 between Row 1 & 2 and set the bottom of horizontals to a height of 28". Use the position horizontal in Frame Information bar on right.

8. Left Click the SAVE icon.

9. Left Click on NEW FRAME icon .

RULE OF THUMB: DOORS

1. Doors should be inserted before any DLO's are set. Doors need a specific opening size based on the door width and height and the frame selected. Even if the opening that you put the door into states that it is big enough, it could be rounded to the nearest 1/32" and doors will not go in if they cannot fix.

2. You need to start with 2 rows in your frame if you have a glass lite above the door. Inserting horizontals and then sticking doors under the inserted horizontal is not allowed in the program as it sees that glass lite as split instead of its own. If you want no glass lite above the door, you must remove all intermediate horizontals before you insert the door.

3. When inserting a door and frame you are substituting all mullions around the frame with the selected framing. Most changes to the door frame must be done in the door configurator, not in the graphic editor. Exceptions are door jamb companions that can be modified to change from a Null part with a glass bite, to a pocket filler.

4. Doors set their own daylight opening based on frame size and door size. Don't set DLO of opening prior to inserting door to avoid conflicting opening information. The exception to this rule is some shaped frames where the doors are offset from center. Setting daylight openings then putting the doors in, may work better in those instances.

5. Add any necessary hardware before crippling door frames. Once crippled, if you edit the door, the software wants to replace the framing again and since the door jambs don't go to the head anymore, it could fracture the frame and require you to rebuild the elevation. When crippling door header, select the jamb up above the door header joint as close to the header as possible. The program will reverse the closest joint to where you clicked. If you click below the door header, it could reverse a door stile.

EXERCISE 11: FRAME 5

Objective(s):	Delete stick in Graphics Editor.
	Insert pair of doors in opening in Graphics Editor.
	Set door properties in Door Editor.
	Insert Vertical using Tool Menu.
	Reverse Joinery in Tool Menu.

Frame Name:	Frame 5
Panels:	3
Rows:	3
Number Thus:	1
Width:	14' 0"
Height:	8' 6"
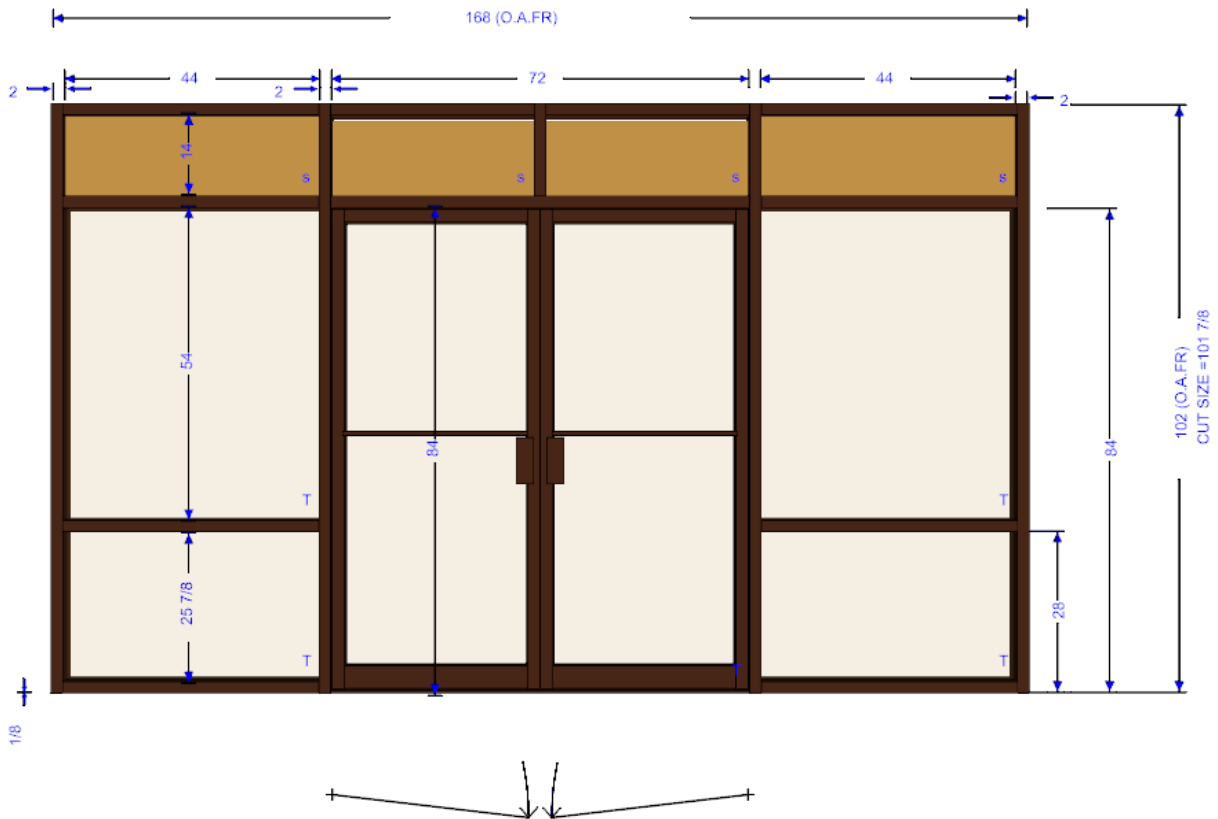
Figure 79

1. Left Click on the horizontal in panel 2 between Rows 1 & 2 and Left Click on the Delete Stick Icon to remove the stick.

2. Select Panel 2 Row 1 and Select the Double Door Icon in the Tool Menu on the left Click Save icon on door screen to store door, then Left Click on the OK button to insert the door.

Door Properties:

Name:	Project 1 Double Door	
Single or Pair:	P	
Handing:	SO	
Hinge Type:	Offset Pivot	
Doorlite PC:	¼ Bronze TE	
Frame Type:	(matching framing system)	

Labor:

Labor (Shop):	**Frame Fab:**	20 min
	Door Fab:	20 min
Labor (Field):	**Frame Install:**	30 min
	Door Install:	30 min
	Hardware Install:	30 min
	Door Adjust:	15 min

Door / Frame:

Door #:	(select)
Frame#:	(select)

Hardware:

Locking:	(1) Adams Rite 3 point Lock
Closer:	#1 Surface Closer
	#2 Surface Closer
Options:	(2) Push/Pull handles

3. Select the horizontals in Panels 1 & 3 Row 1 and set the (BOH) bottom of horizontal to a height of 28".

4. Select the horizontals in Panels 1 & 3 Row 3 and set the BOH to a height of 84".

5. Select Panels 1, 2 &3 Row 3 and change the infill to 1/4 Bronze SP.

6. Select Panel 2 Row 3 and insert a vertical (Insert Vertical on Tool Menu to the Left).

7. Left Click the SAVE icon.

8. Left Click on NEW FRAME icon .

EXERCISE 12: FRAME 6

Objective(s):	Delete stick in Graphics Editor.
	Insert pair of doors in opening in Graphics Editor.
	Enter Labor in Door Editor.
	Modify framing and glass properties.

Frame Name: Frame 6
Panels: 4
Rows: 2
Number Thus: 1
Width: 12' 6 1/2"
Height: 8' 2"
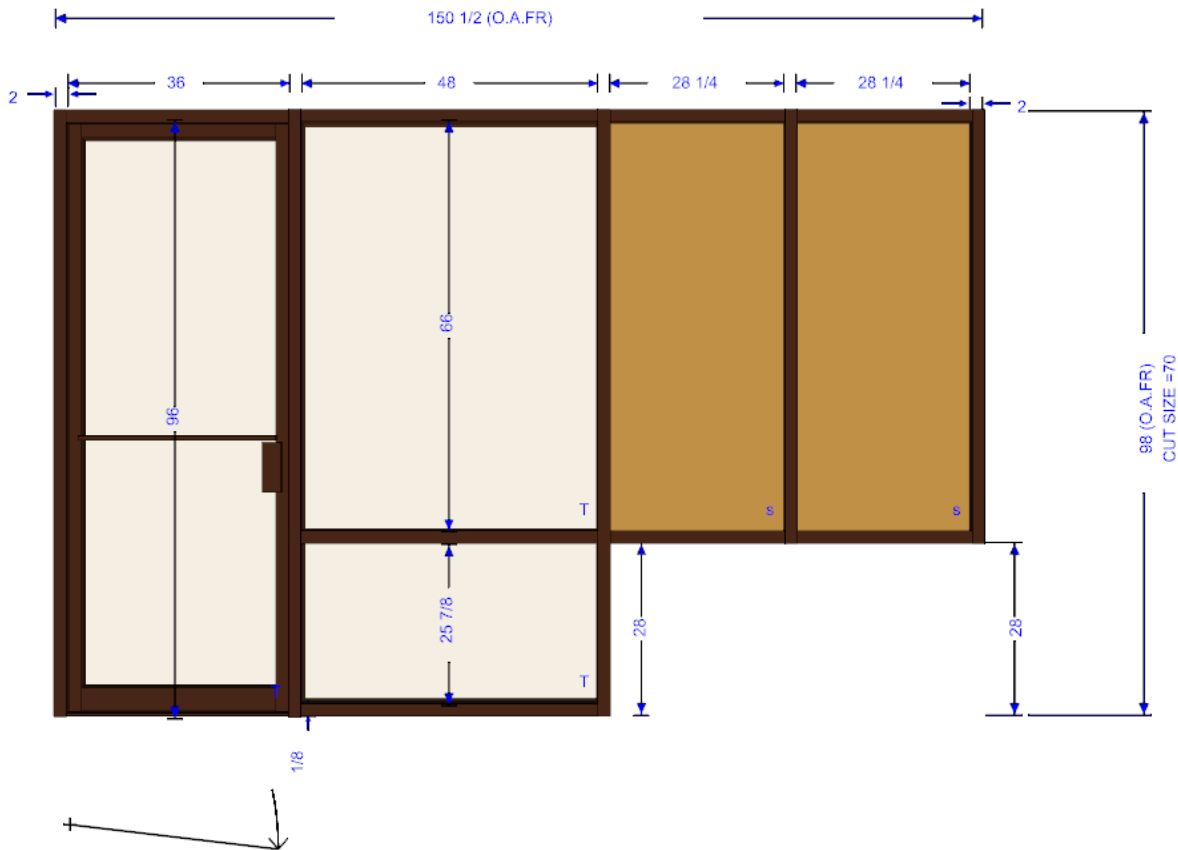
Figure 80

1. Left Click on the horizontals in Panels 1, 3 & 4 between Rows 1 & 2 and Left Click on the Delete Stick icon to remove sticks.

2. Select Panel 1 Row 1, then select Left Hinged Door icon from menu on left. Click Save icon on door screen to store door, then Left Click on the OK button to insert door.

Door Properties:			
	Name:	Project 1 Special Height Door	
	Single or Pair:	S	
	Door Width:	36	
	Door Height:	96	
	Transom:	NO	
	Handing:	HLSO	
	Doorlite PC:	¼ Bronze TE	
	Hinge Type:	Offset Pivot	
	Frame Type:	(Match Medal System)	
Labor:			
	Labor (Shop):	**Frame Fab:**	20 min
		Door Fab:	20 min
	Labor (Field):	**Frame Install:**	30 min
		Door Install:	30 min
		Hardware Install:	30 min
		Door Adjust:	15 min
Door / Frame:	**Door #:**	(select)	
	Frame#:	(select)	
Hardware:			
	Hinging:	(1) Intermediate Offset Pivot	
		(1) Frame Prop Standard	
	Closer:	Surface Closer	
	Options:	(1) Push/Pull Handle	

3. Select the horizontal sill on Panels 3 & 4 Row 1 and set the BOH to a height of 28".
4. Select Panels 3 & 4 Row 1, view Glass Properties on right, change the infill to 1/4 Bronze SP.
5. Select the horizontal in Panel 2 Row 1 and set the BOH to a height of 28".
6. Select Panel 2 Row 1 and set the DLO to a width of 48".
7. Left Click the SAVE icon.
8. Left Click on NEW FRAME icon .

NOTE: Never delete a perimeter member like a sill, either give it a null value with frame width, or delete the intermediate and raise the sill. Deleting perimeter can cause problems with calculating frame perimeters and openings.

EXERCISE 13: FRAME 7

Objective(s):	Reuse door created in Graphics Editor.

Frame Name:	Frame 7
Panels:	1
Rows:	2
Number Thus:	1
Width:	3' 4"
Height:	10' 0"
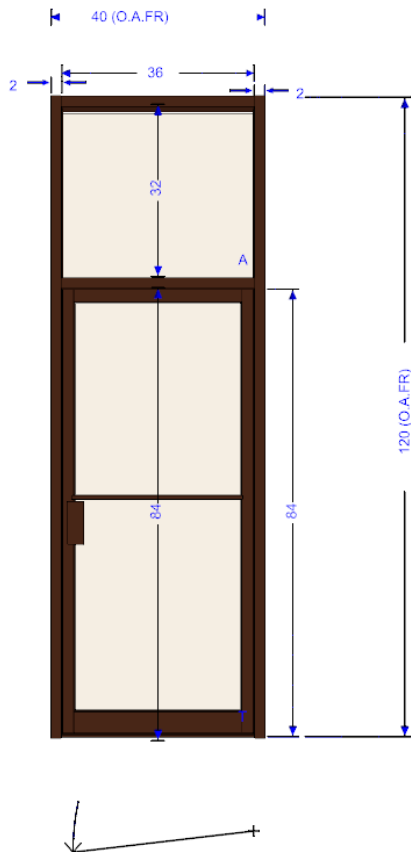
Figure 81

1. Select Panel 1 Row 1, then select Right Hinged Door from menu on left.
2. Select the Project 1 Right Door from list on left and left click OK.
3. Left Click the SAVE icon
4. Left Click on NEW FRAME icon .

EXERCISE 14: ADDING A SECOND FRAMESET TO A PROJECT:

Objective(s):	**Create frameset in Project Manager.**
	Create new frame in Project Manager.

Frameset Name: Project 1 Window Wall
Metal Options:
      Metal Group: Tubelite: T14000 Thermal Shear Block
                              EFCO: S403 Shear Block Outside Glaze
                              YKKMETAL: YES 45 TU Shear Block Outside Glaze
      Back Color: LIGHT BRONZE
      Face Color: LIGHT BRONZE
Glazing Options:
      Annealed: 1 CLEAR INS AN
      Tempered: 1 CLEAR INS TE
      Spandrel: 1 SPAN/INSUL
Sealants:
      Caulking: Silicone
      Backer Rod: 3/8" Backer Rod

1. Left click on the Frame Set Name box on the top right side of the screen.

2. Change metal group

3. Change Infill

4. Name your new frameset name.

5. Name your Frame – next exercise

6. Input the width, height, panels and rows for the first frame of this set – next exercise.

7. Set sealants and backer rods that are going to be common with all the new frames for this frameset.

> **NOTE:** When creating a new frameset, start by changing the metal group and work down the list on the right. If you set your frame info and then go up and change metal systems, it may reset the frame info back to defaults.

Window Wall

EXERCISE 15: - FRAME 1

Objective(s):	Creating a Bulkhead condition in a frame.
	Adjusting sills and intermediate horizontals at the same time.

Frame Name:	Frame 1
Panels:	12
Rows:	2
Number Thus:	1
Width:	46' 0"
Height:	7' 0"
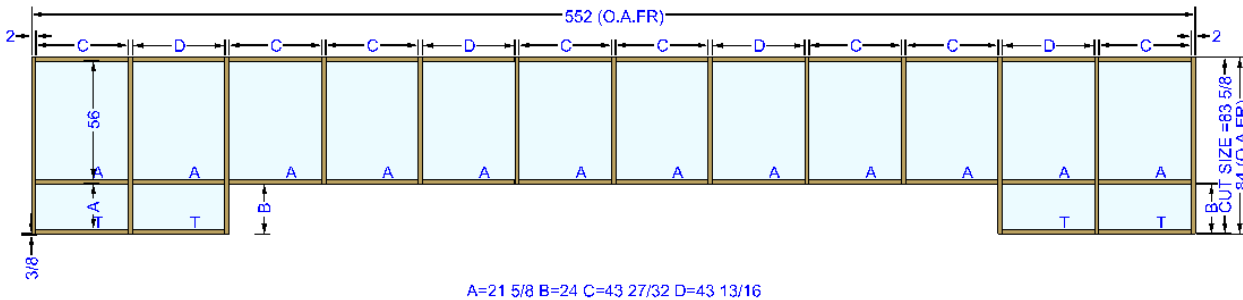
Figure 82

Select the horizontals *in* Panels 3 thru 10 *between* Rows 1 and 2 and **Delete Stick**.

1. Select the horizontal sills in Panels 3 thru 10 and set the BOH to 24".

2. Select Horizontals in Panels 1, 2, 11 & 12 Row 1 and set the BOH to 24".

3. Left Click the **SAVE** icon.

4. Left Click on NEW FRAME icon .

NOTE: You can combine steps 2 and 3 by selecting the Intermediate horizontals in panel 1 and 2, 11 and 12, then select the sills in panel 3 through 10, then position horizontal to 24"

EXERCISE 16: FRAME 2

Objective(s):	Set Bulkhead and Soffit Conditions.
	Modify glazing in Graphics Editor.

Frame Name:	Frame 2
Panels:	7
Rows:	2
Number Thus:	1
Width:	29' 0"
Height:	9' 0"
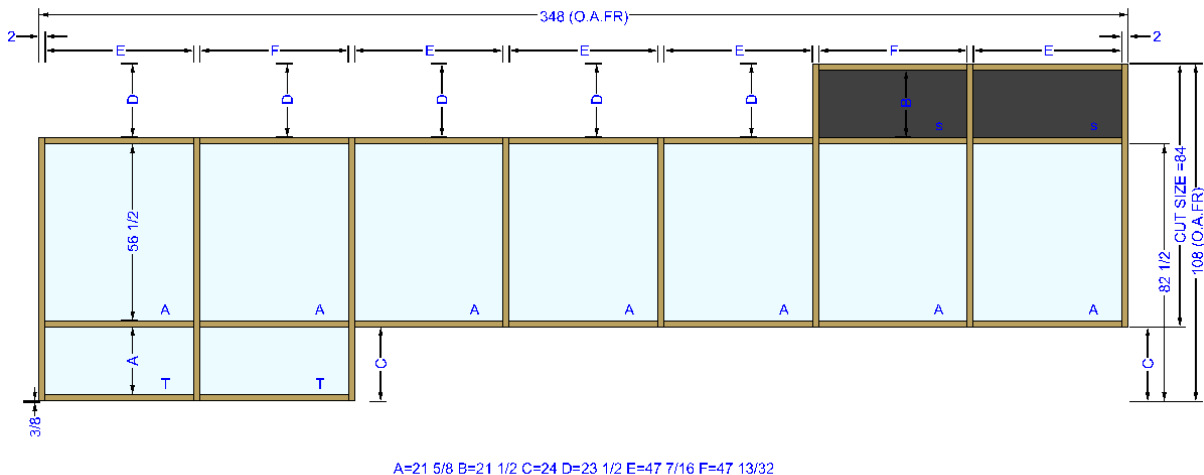
Figure 83

1. Select the horizontal head members *in* Panels 1 thru 5 and set the horizontal BOH to a height of 6' 10 1/2".

2. Select the horizontal sills *in* Panels 3 thru 7 and set the BOH to 24".

3. Select the horizontals *in* Panels 1 & 2, Row 1 and set the BOH to a height 24".

4. Select the horizontals *in* Panels 3, 4 & 5 *between* Rows 1 & 2 and delete the sticks.

5. Select the horizontals *in* Panels 6 & 7 *between* Rows 1 & 2 and set the BOH to 6' 10 1/2".

6. Select Panels 6 & 7 *in* Row 2 and view Glass Properties (**GLAZING**) on right, change the infill to 1 Span/Insul.

7. Left Click the **SAVE** icon.
8. Press the Red X in the center screen to close the graphics editor.

Advanced Exercise – Alt Bid

Objective(s):	Creating an Alternate Bid. Editing doors and changed parts during Alt Bid.

1. Select the Project **Seminar Project 1** and select Alternate Bid from Menu on Left.

2. Name Alt Bid Project **Seminar Project 1 Alternate Bid** and select OK.
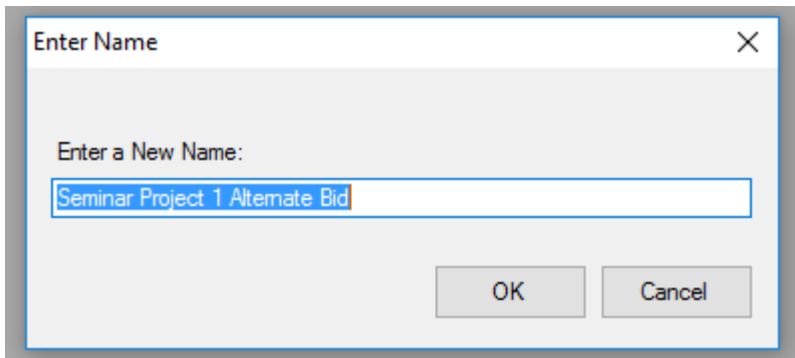
Figure 84

3. Select a frame in the Project 1 Frameset and change the Metal System on the Left to E14000 Screw Spline.
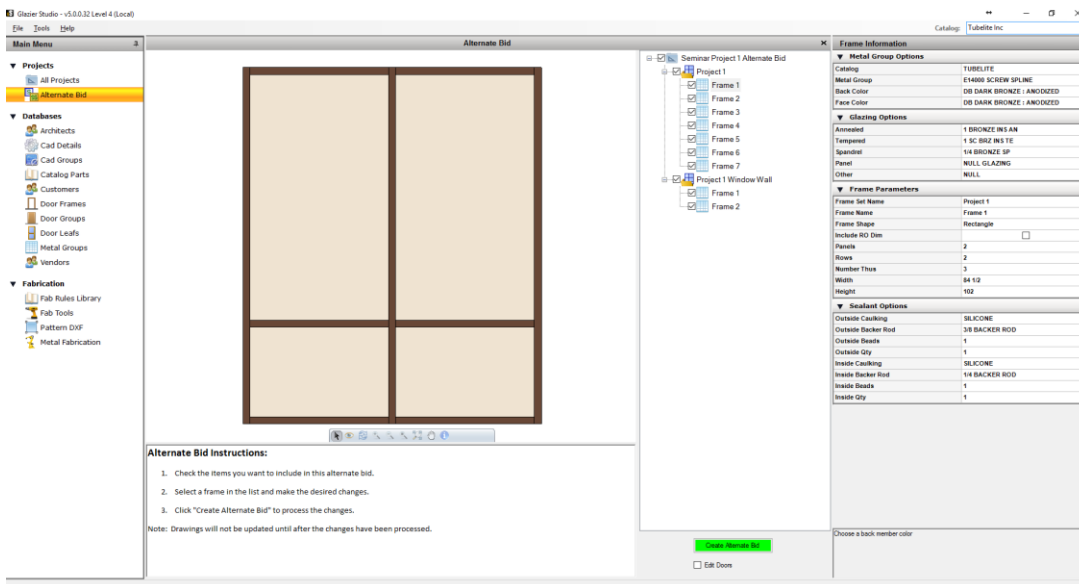
Figure 85

4. Press YES to change all frames in that frameset to the New Metal System.
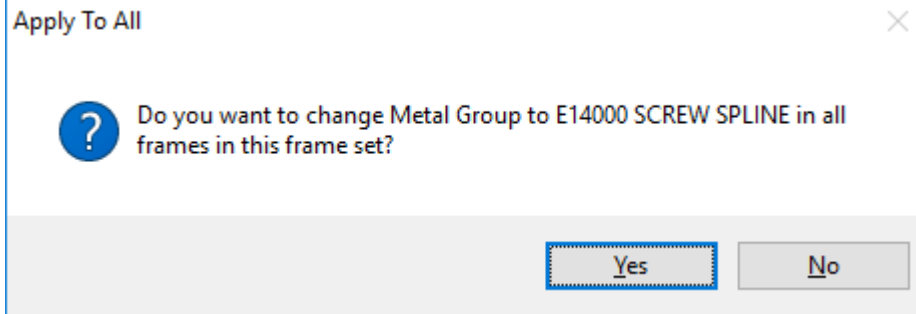
Figure 86

5. If the Doors need to change because of the changed metal system, you must select the Edit Doors checkbox before continuing. Since there is no difference between E14000SB and E14000SS doors, you do not need to do this.
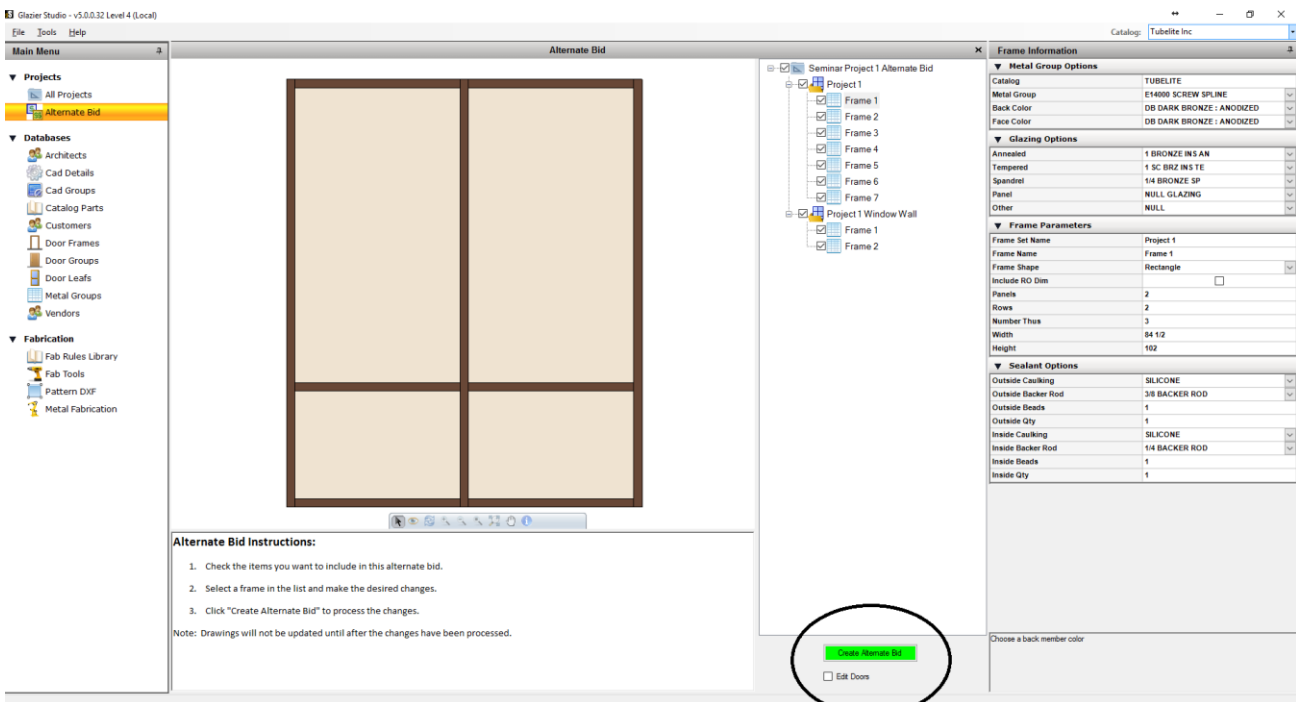
Figure 87

6. Select Create Alternate Bid to start processing.

7. Any changes that were modified in the graphic editor will now prompt you to manually change if needed. Glass and stick properties may prompt for replacement. If you are not changing glass press OK to accept the current products.
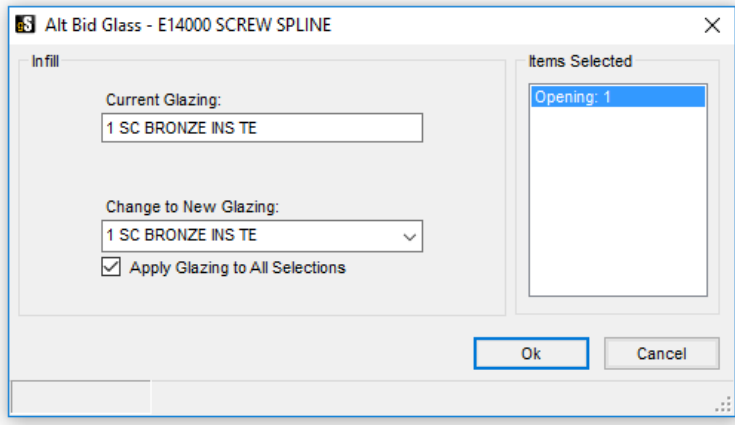
Figure 88

8. If you chose to edit doors, then it will stop at each door insertion and allow you to change it. Press OK when changes are complete to move to the next door or changed part.
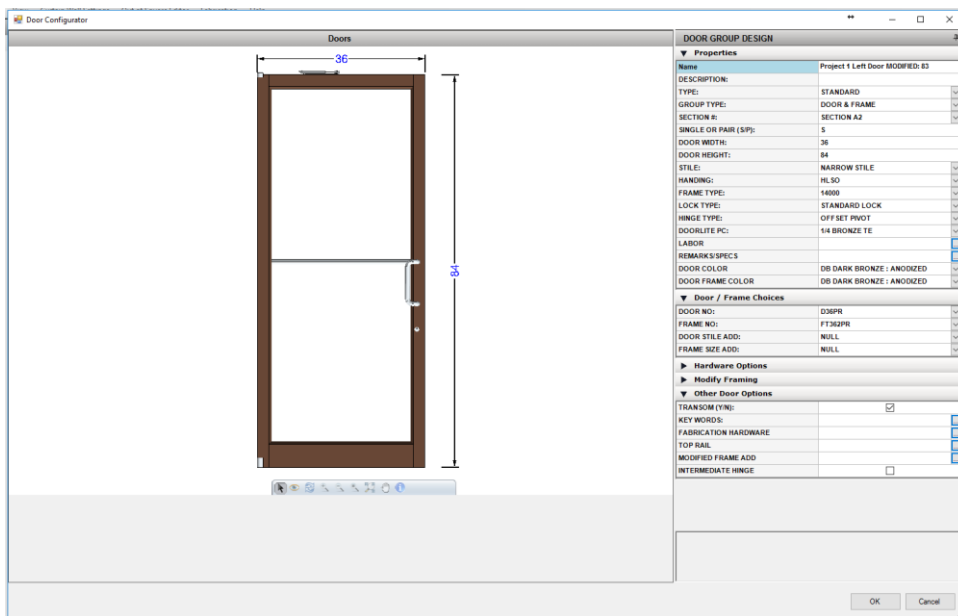
Figure 89

9. Once the alternate bid has completed, it will stop at the project screen and there will be a new project with the changes in it.

NOTE: Use BOM to verify that all the parts have been changed out for the new metal system parts. If there is a problem, it can be corrected by modifying that frame in the editor.

Project 2 Thermal Storefront

Objective(s):	Introduction to Metal Groups Database. Modify Metal Group in Graphic Editor.

Project Name: Seminar Project 2

     Customer: Hansen Construction

     Project Location: 2600 Indian School Road

                                   Phoenix, AZ 85224

     Frameset Name: Project 2

     Metal Options:

Metal Group: 2" x 4 ½" Thermal Flush Glaze, Center Glaze, Outside Glaze, Shear Block

     Examples: Tubelite: T14000 Thermal Shear Block

                        EFCO: S403 Shear Block Outside Glaze

                        YKKMETAL: YES 45 TU Shear Block Outside Glaze

Modify Metal Group

Metal Group

     Tubelite: T14000 Thermal Shear Block

     EFCO: S403 Shear Block Outside Glaze

     YKKMETAL: YES 45 TU Shear Block Outside Glaze
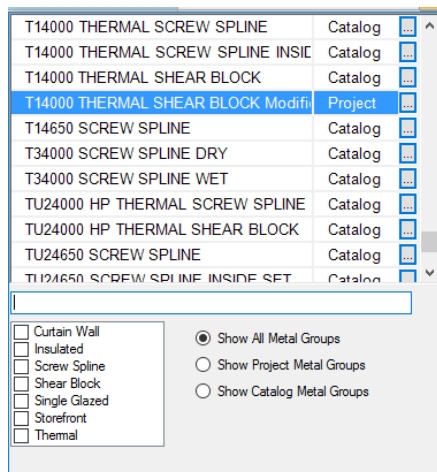
Modify Metal Group

Figure 90

Select: PRIMARY METAL

Modify Metal Group	↔ — □ ×

METAL GROUP DESIGN

▼ Properties

NAME	T14000 THERMAL SHEAR BLOCK Modified: 2
DESCRIPTION	T14000 STOREFRONT SHEAR BLOCK THERMAL 2 X 4 1/2
CATALOG	TUBELITE
FRAME SERIES	4 1/2" THERMAL F.G.
SERIES SPEC	4 1/2 THERMAL OUTSIDE GLAZE
FAB STYLE	SHEAR BLOCK
GLAZING THICKNESS	1"
SYSTEM DEPTH	4.5
GLAZING Z LOC	0
DOOR FRAME	14000
PRIMARY SECTION	SECTION G3
KEY WORDS	2"\4 1/2"\CENTER GLAZE\FLUSH\FLUSH GLAZE\OUTSIDE
LABOR TYPE	STANDARD
LABOR SETUP	
REMARKS/SPECS	

▼ Framing Components

PRIMARY METAL	
OPTIONAL METAL	
VINYL	
HARDWARE	
SPECIFY GLAZING STOPS	

▼ Fabrication Options

DESIGN STYLE:	VERTICALS PENETRATE TOP AND BOTTOM
JOINT RULE	VERTICALS PENETRATE TOP AND BOTTOM
EXPANSION MULLION SPACING:	240
HEAD/SILL CHANNEL MAX LENGTH:	290
HEAD/SILL CHANNEL SPLICE GAP:	0.5
SILL CHANNEL EXTENSION:	0
HEAD CHANNEL EXTENSION:	0
DON'T CUT SILL CHANNEL AT DOOR:	☐
VERTICAL FAB	
HORIZONTAL FAB	
JOINT GAPS	
DEFAULT GLAZING DEPTHS	

Save To Main Database   OK   Cancel

Figure 91

PRIMARY FRAMING

NAME	PRODUCT CODE	FINISH	DESCRIPTION	ANGLE X	ANGLE Y	ANGLE Z	LOCATION X	LOCATION Y	LOCATION Z	END FAB	END FAB INST	CENTER FAB	CENTER FAB INST	WEEP END FAB	WEEP END FAB INST	WEEP CENTER FAB	WEEP CENTER FAB INST
LEFT JAMB	T14441	DEFAULT	THERMAL OPEN BACK VERTICAL FOR STEEL	0	0	0	0	0	0	☐		☐		☐		☐	
RIGHT JAMB	T14441	DEFAULT	THERMAL OPEN BACK VERTICAL FOR STEEL	0	0	0	0	0	0	☐		☐		☐		☐	
FEMALE VERTICAL	T1400	DEFAULT		0	0	0	0	0	0	☐		☐		☐		☐	
MALE VERTICAL	NULL 7/16 GD	DEFAULT		0	0	0	0	0	0	☐		☐		☐		☐	
FEMALE EXPAN MULL	T14106	DEFAULT		0	0	0	0	0	0	☐		☐		☐		☐	
MALE EXPAN MULL	T14107	DEFAULT		0	0	0	0	0	0	☐		☐		☐		☐	
DOOR JAMB COMPANION	NULL	DEFAULT	NULL PART	0	0	0	0	0	0	☐		☐		☐		☐	
HEAD CHANNEL	NULL	DEFAULT		0	0	0	0	0	0	☐		☐		☐		☐	
HEAD	T14441	DEFAULT	THERMAL OPEN BACK VERTICAL FOR STEEL	0	0	0	0	0	0	☐		☐		☐		☐	
SILL CHANNEL	T14259	DEFAULT		0	0	0	0	0	0	☐		☐		☐		☐	
SILL	T14240	DEFAULT		0	0	0	0	0	0	☐		☐		☐		☐	
FEMALE HORIZONTAL	T14143	DEFAULT		0	0	0	0	0	0	☐		☐		☐		☐	
MALE HORIZONTAL	NULL 7/16 GD	DEFAULT		0	0	0	0	0	0	☐		☐		☐		☐	
LEFT JAMB FACE	NULL	DEFAULT		0	0	0	0	0	0	☐		☐		☐		☐	
VERTICAL FACE	NULL	DEFAULT		0	0	0	0	0	0	☐		☐		☐		☐	
SILL FACE	NULL	DEFAULT		0	0	0	0	0	0	☐		☐		☐		☐	
HEAD FACE	NULL	DEFAULT		0	0	0	0	0	0	☐		☐		☐		☐	
HORIZONTAL FACE	NULL	DEFAULT		0	0	0	0	0	0	☐		☐		☐		☐	
LEFT JAMB PRESSURE PLATE	NULL	DEFAULT		0	0	0	0	0	0	☐		☐		☐		☐	
VERTICAL PRESSURE PLATE	NULL	DEFAULT		0	0	0	0	0	0	☐		☐		☐		☐	
SILL PRESSURE PLATE	NULL	DEFAULT		0	0	0	0	0	0	☐		☐		☐		☐	
HORIZONTAL PRESSURE PLATE	NULL	DEFAULT		0	0	0	0	0	0	☐		☐		☐		☐	
HEAD PRESSURE PLATE	NULL	DEFAULT		0	0	0	0	0	0	☐		☐		☐		☐	
LEFT JAMB PERIMETER FILLER	NULL	DEFAULT		0	0	0	0	0	0	☐		☐		☐		☐	
RIGHT JAMB PERIMETER FILLER	NULL	DEFAULT		0	0	0	0	0	0	☐		☐		☐		☐	
RIGHT JAMB FACE	NULL	DEFAULT		0	0	0	0	0	0	☐		☐		☐		☐	
RIGHT JAMB PRESSURE PLATE	NULL	DEFAULT		0	0	0	0	0	0	☐		☐		☐		☐	
HEAD PERIMETER FILLER	NULL	DEFAULT		0	0	0	0	0	0	☐		☐		☐		☐	
SILL PERIMETER FILLER	NULL	DEFAULT		0	0	0	0	0	0	☐		☐		☐		☐	
EXPAN MULL FACE	NULL	DEFAULT		0	0	0	0	0	0	☐		☐		☐		☐	
EXPAN MULL PRESSURE PLATE	NULL			0	0	0	0	0	0	☐		☐		☐		☐	
THERMAL BREAK	NULL			0	0	0	0	0	0	☐		☐		☐		☐	

OK   Cancel

Figure 92

New Sill: 4 ½” High Base Sill

Examples:

    Tubelite: T14047

    EFCO: 1G80

    YKKMETAL: BE9-1513

Select: Press the OK button.

    Back Color: LIGHT BRONZE

    Face Color: LIGHT BRONZE

Glazing Options:

    Tempered: 1 BRONZE INS TE

    Annealed: 1 BRONZE INS AN

    Spandrel: ¼ BRONZE SP

Sealants:

    Caulking: Silicone

    Backer Rod: 3/8” Backer Rod

NOTE: When a metal group is modified, **Modified: ###** is added to the end of the metal group name. *### is generic for a one-digit number like 2.* If you want to use this metal system in the future, change the name to MEDAL GROUP HIGH SILL and press the Save to Main Database button.

DeMichele Group
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EXERCISE 18: FRAME 1

Objective(s):	Enter door parameters in Door Editor.
	Modify framing members in Graphics Editor.
	Cripple Door Header

Frame Name: Frame 1
Panels: 6
Rows: 2
Number Thus: 1
Width: 20' 6"
Height: 8' 6"
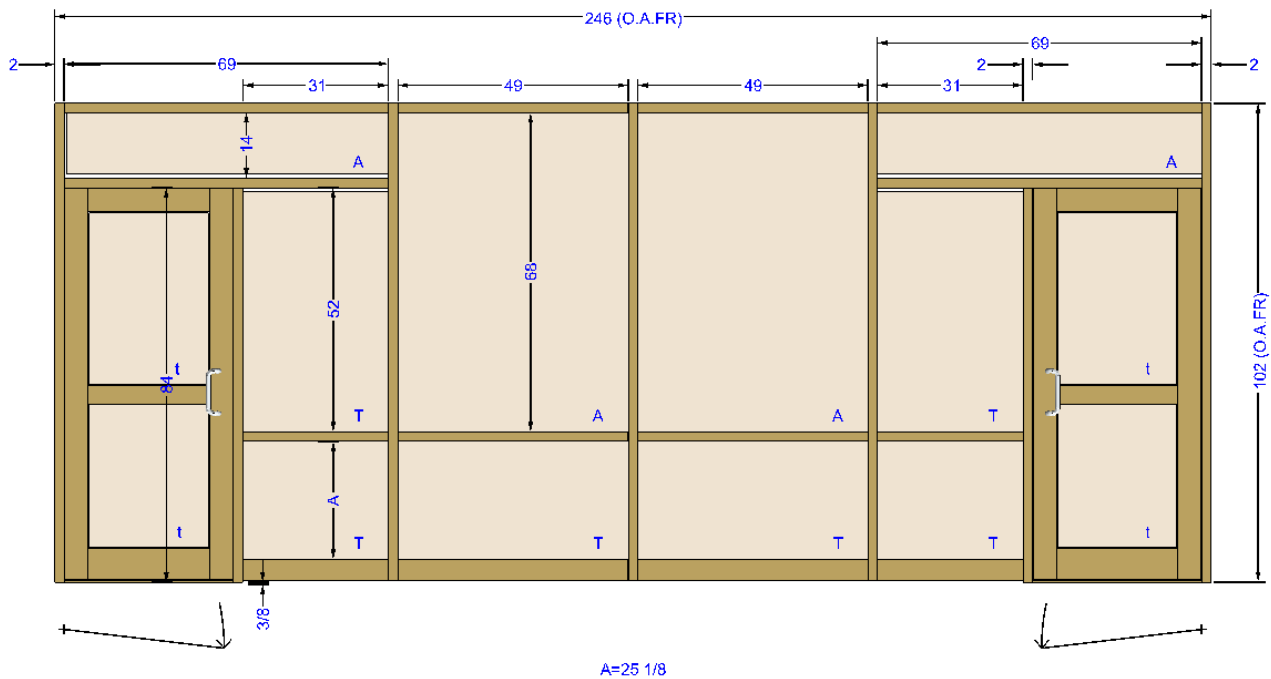
Figure 93

1. Select Panel 1 Row 1, then select **Insert Hinge Left Door** from menu on left.

Door Properties:

Name:	Project 2 Left Door
Door Type:	Custom A2
Handing:	HLSO
Hinge Type:	Butt Hinge
Stile:	Wide Stile
Frame Type:	Match Medal System (Custom Framing)

Hardware Color:	Bronze		
Doorlite PC:	1 Bronze Ins TE		

Labor:

Labor (Shop):	**Frame Fab:**	20 min
	Door Fab:	20 min
Labor (Field):	**Frame Install:**	30 min
	Door Install:	30 min
	Hardware Install:	30 min
	Door Adjust:	15 min

Door / Frame: **Door #:**   Wide Stile

Hardware:

Locking:	(1) ADAMS MS Dead Lock
	(1) ADAMS Lock Frame Prep.
	(1) Lock Strike
	(1) Thumb Turn
	(1) Cylinder Guard
	(1) Cylinders
Hinging:	(3) Butt Hinge
	(3) Hinge Frame Prep.
Closer:	Overhead Concealed Closer
	Hardware and Door Prep.
	Frame Prep.
Options:	Push/Pull

Cross Rails:

Cross Rails:	3 1/2" Cross Rail
Finish:	Light Bronze
Orient:	Horizontal
Location:	40
Btm/Left Stops:	1" Glass Stop
Finish:	Light Bronze
Top/Right Stops:	1" Glass Stop
Finish:	Light Bronze
Rail Prep:	Prep
Muntin Config:	True Divided

2. **SAVE** door, then click on **OK** to insert the door.

3. Select Panel 6 Row 1, then select **Insert Hinge Right Door** from menu on left.

Door Properties:

Name:	Project 2 Right Door
Door Type:	Custom
Handing:	HRSO
Hinge Type:	Butt Hinge
Stile:	Wide Stile
Frame Type:	Match Metal System (Custom Framing)
Hardware Color:	Bronze
Doorlite PC:	1 Bronze Ins TE

Labor:

Labor (Shop):	**Frame Fab:** 20 min	
	Door Fab: 20 min	
Labor (Field):	**Frame Install:**	30 min
	Door Install:	30 min
	Hardware Install:	30 min
	Door Adjust:	15 min

Door / Frame: **Door #:** Wide Stile

Hardware:

Locking:	(1) ADAMS MS Dead Lock
	(1) ADAMS Lock Frame Prep.
	(1) Lock Strike
	(1) Thumb Turn
	(1) Cylinder Guard
	(1) Cylinders
Hinging:	(3) Hinge
	(3) Hinge Frame Prep.

Closer: Overhead Concealed Closer

		Hardware and Door Prep.
		Frame Prep.
	Options:	(1) Push/Pull
Cross Rails:		
	Cross Rail:	3 1/2" Cross Rails
	Finish:	Light Bronze
	Orient:	Horizontal
	Location:	40
	Btm/Left Stops:	1" Glass Stop
	Finish:	Light Bronze
	Top/Right Stops:	1" Glass Stop
	Finish:	Light Bronze
	Rail Prep:	Prep
	Muntin Config:	True Divided

4. **SAVE** door, then click on **OK** to insert the door.

5. Select the horizontals *in* Panels 2, 3, 4 & 5 *between* Rows 1 & 2 and set the BOH to a Height of 30".

6. Select the vertical *between* Panels 2 & 3 and set the Centerline to 6'.

7. Select the vertical *between* Panels 4 & 5 and set the Centerline to 14' 6".

8. Select the vertical *between* Panels 1 & 2 and Panels 5 & 6 at the joint closest to the door header and select **Reverse Joinery**.

9. Delete the door jamb in Panel 2 Row 3.

10. Delete the door jamb in Panel 6 Row 3.

11. Click **SAVE**.

12. Left Click on **NEW FRAME** icon .

EXERCISE 19: FRAME 2

Frame Name:	Frame 2
Panels:	4
Rows:	2
Number Thus:	1
Width:	20' 6"
Height:	9' 0"

A=25 1/8 B=44 3/4
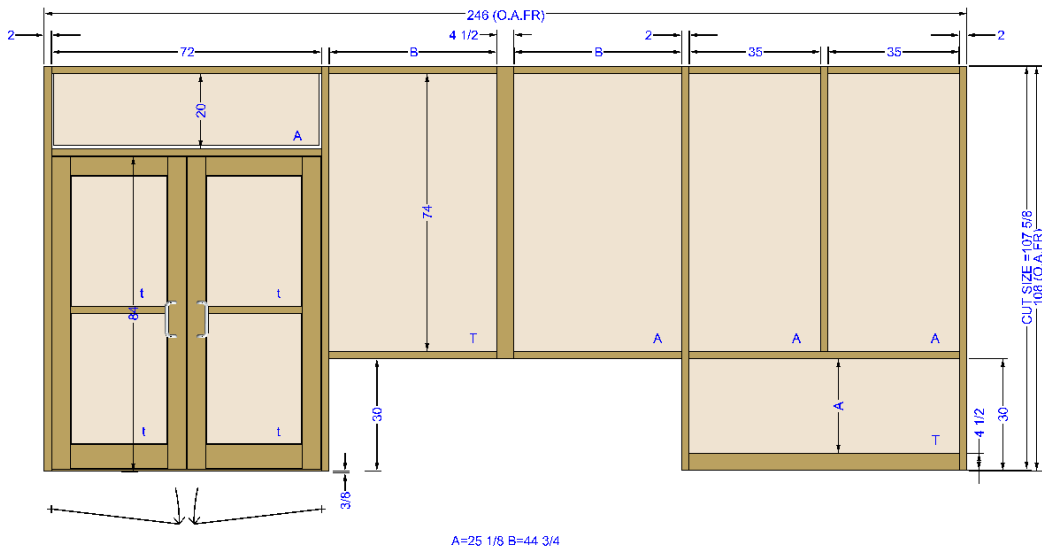
Figure 94

1. Click on **NEW FRAME** icon and enter frame above.

2. Select Panel 1 Row 1, then select **Insert Double Door** icon from menu on left.

Door Properties:

Name:	Project 2 Double Door
Door Type:	Custom
Single or Pair:	P
Handing:	SO
Lock Type:	Paneline Exit Device
Hinge Type:	Butt Hinge
Stile:	Wide Stile
Frame Type:	(Match Metal System)
Hardware Color:	Bronze

	Doorlite PC:	1 Bronze Ins TE	
Labor:			
	Labor (Shop):	**Frame Fab:**	40 min
		Door Fab:	40 min
	Labor (Field):	**Frame Install:**	60 min
		Door Install:	60 min
		Hardware Install:	60 min
		Door Adjust:	30 min
	Door / Frame: Door #:	(Select Appropriate)	
Hardware:			
	Locking:	(2) Paneline Exit	
		(2) Paneline Frame Prep.	
		(1) Paneline Cylinders	
	Hinging:	(6) Butt Hinge	
		(6) Hinge Frame Prep.	
	Closer #1:	Concealed Overhead Closer	
		Door Prep.	
		Frame Prep.	
	Closer #2:	Concealed Overhead Closer	
		Door Prep.	
		Frame Prep.	
	Options:	Pull Handle	

3. **Save** door, then click on **OK** to insert door.
4. Select the horizontals *in* Panels 2 & 3 *between* Rows 1 & 2 and **Delete Sticks**.
5. Select Panel 4 Row 1 and set the DLO to a Width of 72"
6. Select the Bottom Sill in Panels 2 & 3 and view the Stick Properties on right. Change sill to
     a. Tubelite: T14240
     b. EFCO: 9347
     c. YKKMEDAL: BE9-2579
7. Select the Bottom Sill *in* Panels 2 & 3 and set the BOH to 30"
8. Select the vertical *between* Panels 2 & 3 and view Stick Properties on right.
9. Change the Male and Female Vertical to,
     a. Tubelite: Male: T14022 Female: T14052
     b. EFCO: Male: 9314 Female: 9327
     c. YKKMEDAL: Male: Null 3/8 GD Female: A/BE9-2566+BE9-2566
10. Select the horizontal in Panel 4 between Rows 1 & 2 and set the BOH to Height of 30".
11. Select Panel 4 Row 2 and insert a vertical stick.
12. **Reverse Joinery** of inserted vertical in panel 4 at the head.
13. Click **SAVE**.
14. Left Click on **NEW FRAME** icon .

EXERCISE 20: FRAME 3

Objective(s):	Change Metal Group.
	Modify framing members in Graphics Editor.
	Use Cut Stick feature in Graphic Editor
	Use Centerline to adjust Vertical Positions.

Frame Name:	Frame 3
Panels:	3
Rows:	2
Number Thus:	1
Width:	10' 0"
Height:	9' 0"
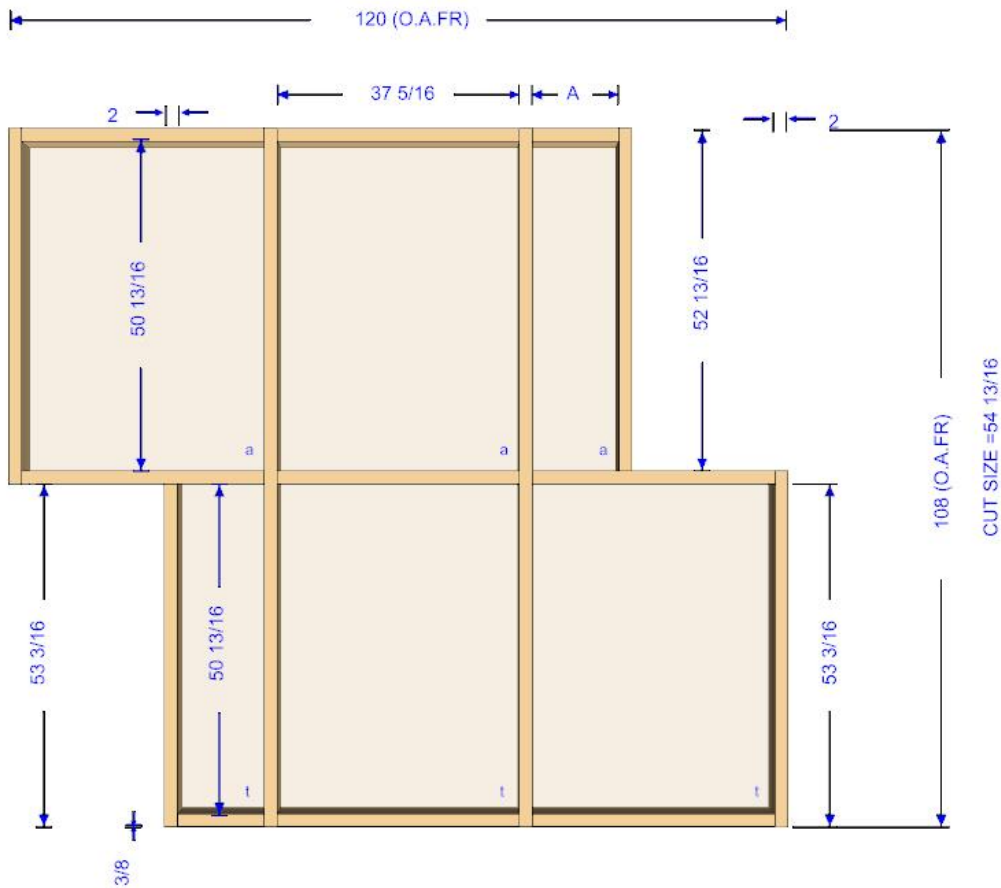
A=13 5/16

Figure 95

1. Input the width, height, panels and rows for Frame 3.

2. Change the Metal Group to **The standard unmodified version**.

3. Enter width, height, panels and rows for Frame 3.

4. Select left vertical jamb and use **Cut Stick** icon and select joint selection. Click **OK** and click _below_ of the horizontal between Rows 1 & 2.

5. Select bottom left vertical jamb and set the Centerline at 25".

6. Select right vertical jamb and use **Cut Stick** icon and select joint selection. Click **OK** and click _above_ the horizontal between Rows 1 & 2.

7. Select top right vertical jamb and set centerline at 95".

8. Select Panel 2 Row 1 and set the DLO to width of 37 5/16"

9. Click **SAVE**.

10. Left Click on **NEW FRAME** icon .

EXERCISE 21: FRAME 4

Objective(s):	Insert and configure utility frames.
	Insert and configure a grid.
	Reverse joinery.

Frame Name:	Frame 4
Panels:	4
Rows:	3
Number Thus:	1
Width:	20' 0"
Height:	9' 0"
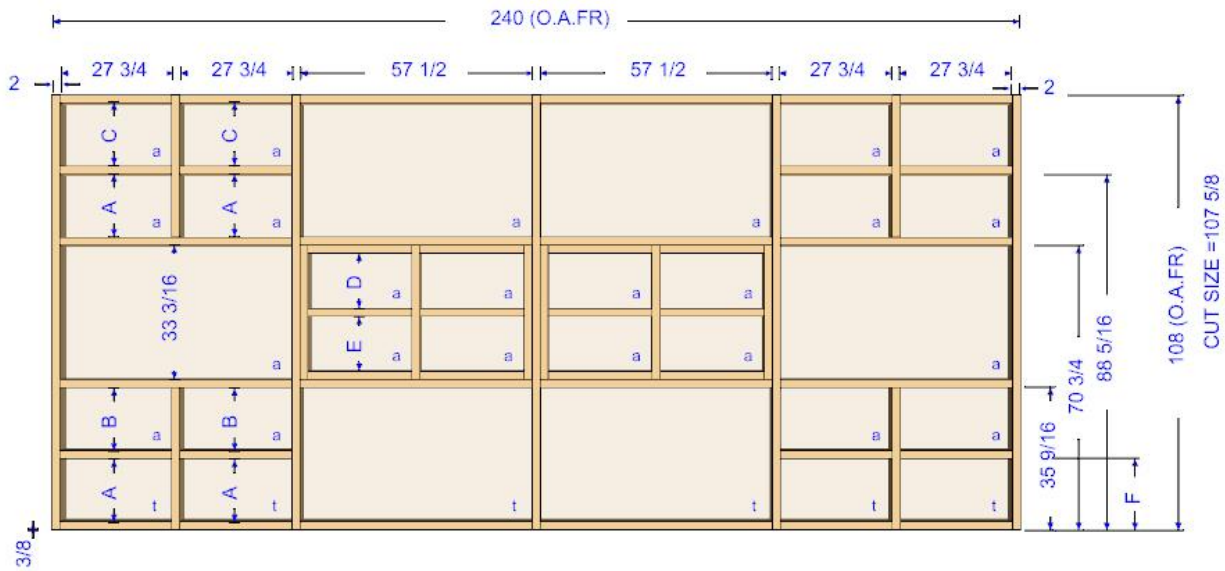
Figure 96

1. Select Panel 2 Row 2 and select **FRAME | INSERT UTILITY FRAME** from the dropdown menus and Set Panel 2 and Rows 2 and press **OK**.

2. Select Panel 3 Row 2 and select **FRAME | INSERT UTILITY FRAME** from the dropdown menus and Set Panel 2 and Row 2 and press **OK**.

3. Select Panels 1 & 4 Rows 1 & 3 and select **Insert Grid** on left, then insert a **2 x 2 Grid Pattern**.

4. Select the **Grid Pattern Vertical** in Panels 1 & 4 Row 3 and **reverse join** the vertical through the head.
5. Select the **Grid Pattern Vertical** in Panels 1 & 4 Row 1 and **reverse join** the vertical through the sill.
6. Click **SAVE**.
7. Click **NEW FRAME** icon.

EXERCISE 22: FRAME 5

Objective(s):	Use Stick Actions Menu. Extend Back Members. Change Stick Properties.

Frame Name: Frame 5
Panels: 4
Rows: 2
Number Thus: 1
Width: 14' 6"
Height: 8' 0"
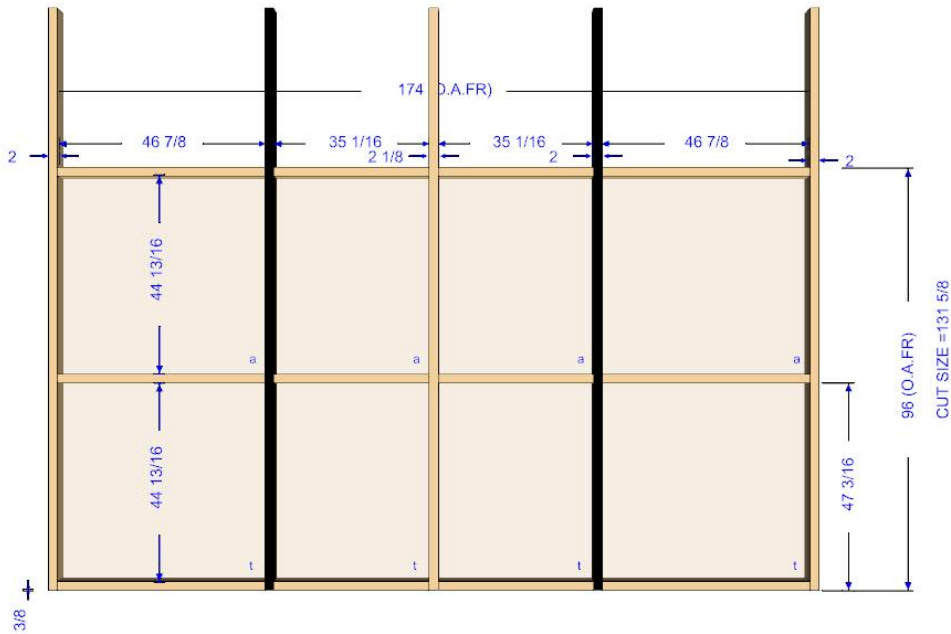
Figure 97

1. Select all verticals and select Stick Actions, Back Member, Extend Stick 36".
2. Select Verticals 2 & 4 and View Stick Properties on right.
3. Change color of Male and Female Vertical to #29 Black and click Apply.
4. Select Vertical 3 go to stick actions at the top, back member, then Std Vertical to Expan Mull.
5. Select Panel 2 & 3 Row 1 and set the DLO to width of 35 1/16"
6. Click SAVE icon.
7. Select New Frame Icon on Right.

Curtain Wall Frame

EXERCISE 23: CURTAIN WALL PROJECT DATA

Objective(s):	Create new curtain wall project in Project Manager.

Project Name: Curtain Wall Project

Customer: Hansen Construction

Project Location: 233 Alma School Road

Mesa, AZ 85214

Date of Plans: (Today's Date)

Addendums: 1

Bid Date: (one week from today)

Remarks: Bank of America Building

Frameset Name: Curtain Wall Frame

Metal Options:

Metal Group: 2 ½" x 6" Curtain Wall Shear Block, 1" Glazing with F&T anchors

Examples:

Tubelite:	200 CW E1025 4 ½" Back
EFCO:	5600 2 ½" X 7 1/2" CF Shear Block Outside Glaze
YKKMEDAL:	YCW 750 7 ½" Outside Glaze 1"

Back Color: DARK BRONZE

Glazing Options:

Tempered: 1 BRONZE INS TE

Annealed: 1 BRONZE INS AN

Spandrel: 1/4 BRONZE SP

Sealants:

Caulking: SILICONE

Backer Rod: 5/8" BACKER ROD

EXERCISE 24: FRAME 1

Objective(s):	Create a Curtainwall Door

Frame Name:	Frame 1
Panels:	5
Rows:	3
Number Thus:	1
Width:	18' 0"
Height:	16' 0"
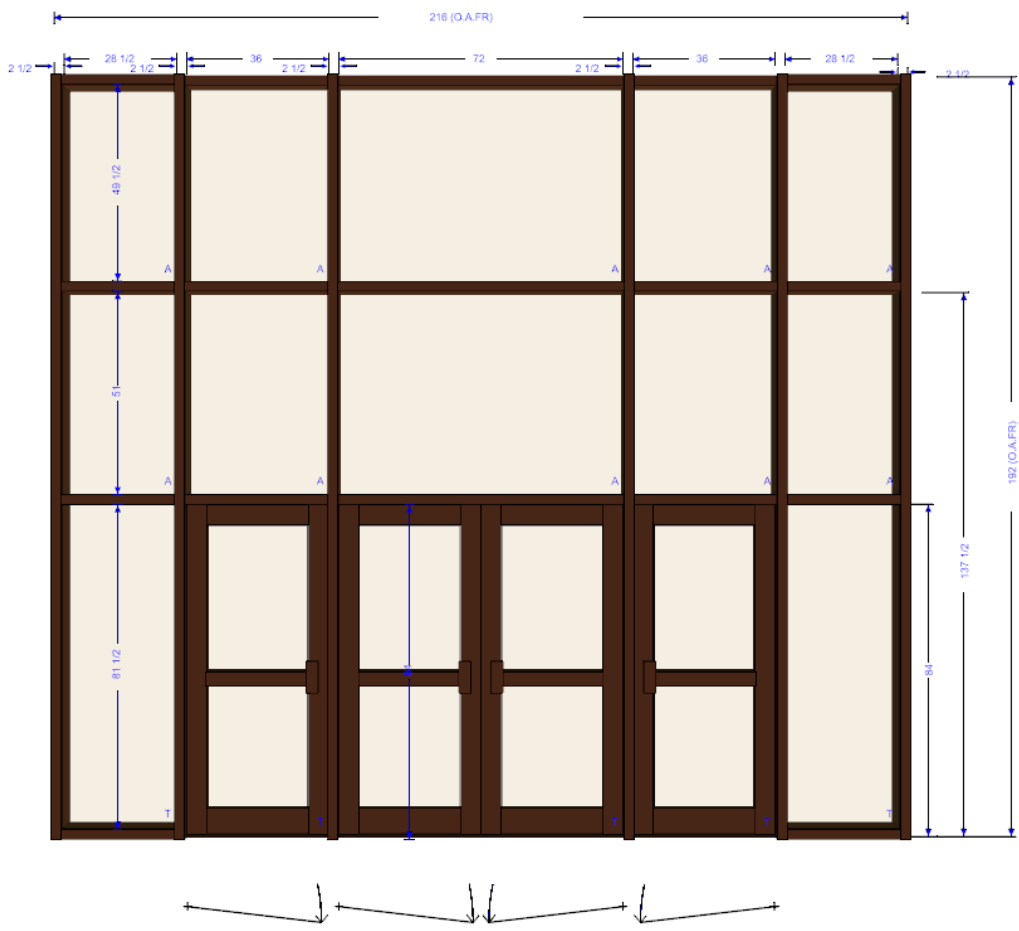
Figure 98

1. Select Panel 3 Row 1, then select Insert Double Door icon from menu on left.

2. Name door Curtain Wall Double Door and select OK.

Door Properties:

Name:	Curtain Wall Double Door	
Door Type:	Custom A2	
Single or Pair:	P	
Handing:	SO	
Doorlite PC:	1 Bronze Ins TE	
Lock Type:	Paneline Exit Device	
Hinge Type:	Butt Hinge	
Stile:	Wide Stile	
Frame Type:	Match Medal System	

Labor:

Labor (Shop):	**Frame Fab:**	20 min
	Door Fab:	20 min
Labor (Field):	**Frame Install:**	30 min
	Door Install:	30 min
	Hardware Install:	30 min
	Door Adjust:	15 min
	Hardware Fab:	0 min

Door / Frame: **Door #:**   Wide Stile

Hardware:

Locking:	(2) Paneline Exit
	(2) Paneline Frame Prep.
	(1) Paneline Cylinders
Hinging:	(6) Butt Hinge
	(6) Hinge Frame Prep.
Closer #1:	Concealed Overhead Closer
	Door Prep.
	Frame Prep.
Closer #2:	Concealed Overhead Closer
	Door Prep.
	Frame Prep.
Options:	(1) Pull Handle

3. Save door, then Left click on the OK button to insert door.

4. Select Panel 2 Row 1, then select the left door icon from menu on left.

5. Name the door Curtain Wall Left Door.

Door Properties:

Name:	Curtain Wall Left Door	
Door Type:	Custom A2	
Handing:	HLSO	
Doorlite PC:	1 Bronze Ins TE	
Hinge Type:	Butt Hinge	
Stile:	Wide Stile	
Frame Type:	Match Medal System	

Labor:

Labor (Shop):	**Frame Fab:**	20 min	
	Door Fab:	20 min	
Labor (Field):	**Frame Install:**	30 min	
	Door Install:	30 min	
	Hardware Install:	30 min	
	Door Adjust:	15 min	
	Hardware Fab:	0 min	

Door / Frame: **Door #:**   Wide Stile

Hardware:

Locking:	(1) Latch Lock
	(1) Lock Frame Prep.
	(1) Paddle
	(1) Electric Strike
	(1) Electric Strike Frame Prep.
	(1) Cylinder Guard
	(1) Cylinders
Hinging:	(3) Butt Hinge
	(3) Hinge Frame Prep.
Closer:	Concealed Overhead Closer
	Hardware and Door Prep.
	Frame Prep.
Options:	(1) Push/Pull

Cross Rails:

Cross Rails:	3 1/2" Cross Rails
Finish:	Dark Bronze
Orient:	Horizontal
Location:	40
Btm/Left Stops:	1" Glass Stop
Finish:	Dark Bronze
Top/Right Stops:	1" Glass Stop
Finish:	Dark Bronze
Rail Prep:	Rail Prep
Muntin Config:	True Divided

6. SAVE door, then click OK to insert the door.

7. Select Panel 4 Row 1, then select the Insert Hinge Right Door icon from menu on left.

8. Name the door Curtain Wall Right Door

Door Properties:

Name:	Curtain Wall Right Door	
Door Type:	Custom A2	
Handing:	HRSO	
Doorlite PC:	1 Bronze Ins TE	
Hinge Type:	Butt Hinge	
Stile:	Wide Stile	
Frame Type:	Match Medal System	
Labor:		
Labor (Shop):	**Frame Fab:** 20 min	
	Door Fab: 20 min	
Labor (Field):	**Frame Install:**	30 min
	Door Install:	30 min
	Hardware Install:	30 min
	Door Adjust:	15 min
	Hardware Fab:	0 min
Door / Frame: Door #:	Wide Stile	
Hardware:		
Locking:	(1) Latch Lock	
	(1) Lock Frame Prep.	
	(1) Paddle	
	(1) Electric Strike	
	(1) Electric Strike Fame Prep.	
	(1) Cylinder Guard	
	(1) Cylinders	
Hinging:	(3) Butt Hinge	

	(3) Hinge Frame Prep.
Options:	(1) Push/Pull
Closer:	Concealed Overhead Closer
	Hardware and Door Prep.
	Frame Prep.

Cross Rails:

Cross Rails:	3 1/2" Cross Rails
Finish:	Dark Bronze
Orient:	Horizontal
Location:	40
Btm/Left Stops:	1" Glass Stop
Finish:	Dark Bronze
Top/Right Stops:	1" Glass Stop
Finish:	Dark Bronze
Rail Prep:	Rail Prep
Muntin Config:	True Divided

9. SAVE door, then click OK to insert the door.

10. Select all intermediate horizontals between rows 2 & 3 and set the BOH to 137 1/2".

11. Select intermediate horizontals in panels 1 & 5 between rows 1 & 2 and set the BOH to 84".

12. Click SAVE.

13. Click on NEW FRAME icon.

Note: Curtain wall door frames can be Flush or Adapter. Flush adds the door stop to the glass pocket and sits flush with the vertical member. Adapter frames add an additional interior framing member to the door opening taking up ¾" at jambs and 2" at head of door.

EXERCISE 25: FRAME 2

Objective(s):	Use Short Cut Keys – Shift + ALT + Left Click to select glass lites.
	Change infill
	Change DLO

Frame Name:	Frame 2
Panels:	10
Rows:	13
Number Thus:	1
Width:	40' 0"
Height:	42' 2
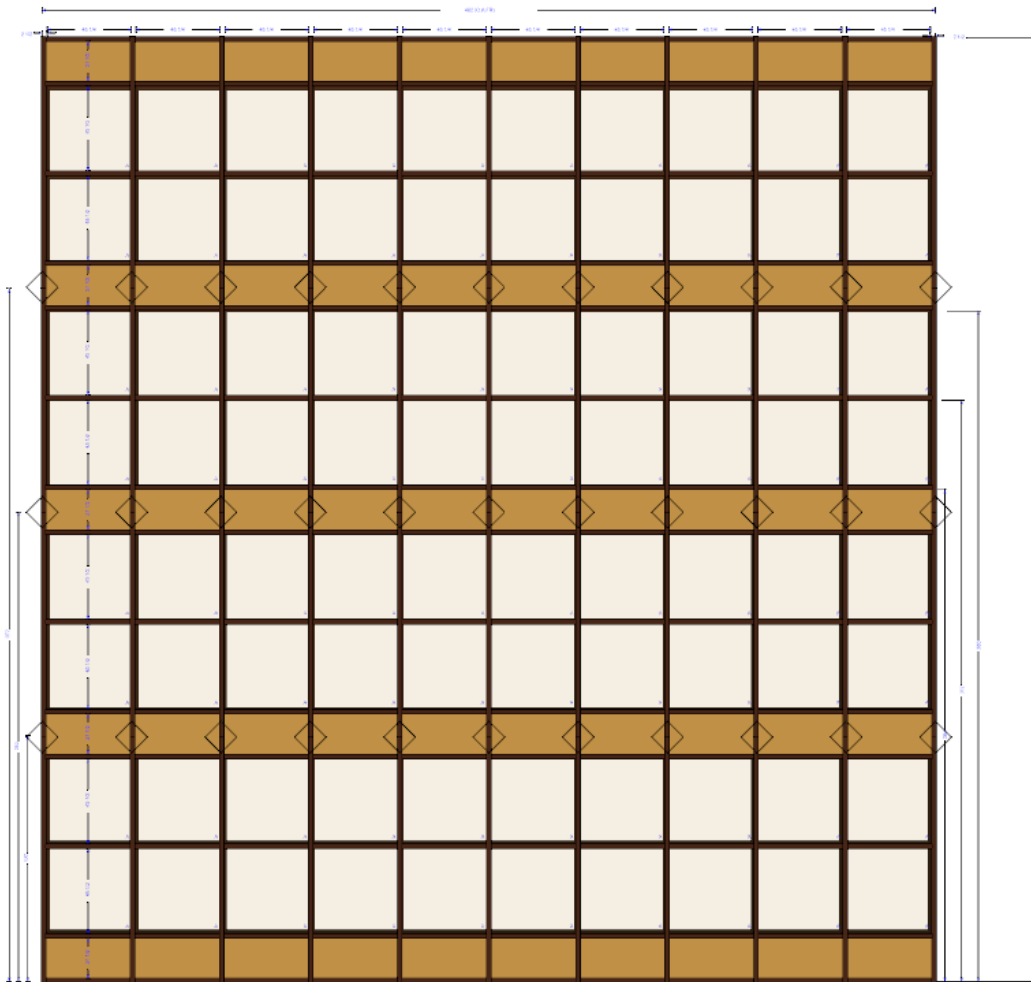
Figure 99

1. Hold the ALT key and SHIFT key and click in rows 1, 4, 7, 10, 13 at panel 1 and set the DLO height to 21 1/2.

2. Hold the ALT key and SHIFT key and click in rows 1, 4, 7, 10, 13 at panel 1 and set the infill to Spandrel.

3. Hold the ALT key and SHIFT key and click in Rows 2, 5, 8, and 11 at panel 1 and set the infill to Tempered.

4. Select Face Member Color in Frame Information Bar on right and change color to #26 Light Bronze.

5. Select all the verticals, select Curtain wall settings and set splice location:

   a. Set Splice Location 1 to 12'

   b. Set Splice Location 2 to 22'

   c. Set Splice Location 3 to 32'

   d. Set Splice Product Code to Splice Sleeve

   e. Set Splice Gap to 1/2"

   f. Set Face Member Offset to -6"

   g. Set Face Member Gap to 1/2"

   h. Set Pressure Plate Offset to -3"

   i. Set Pressure Plate Gap to 1/2"

6. Select all the verticals below the first splice, select Curtain wall settings and set anchor points:

   a. Set Anchor Location 1 to 11'

   b. Set Anchor Location 2 to 21'

   c. Set Anchor Location 3 to 31'

   d. Set Anchor Product Code to Windload Clip

7. Left Click the SAVE Icon.

8. Select Frame - Copy Frame.

9. Name the Frame – Frame 2 Right

10. Left Click the Save Icon.

11. Exit Graphics Editor.

Project 3 Out of Square Framing

Exercise 26: Out of Square Project Data (GS Advanced Required)

Objective(s):	Configure new Out of Square Project.

Project Name: Seminar Project 3

Customer: Hansen Construction

Project Location: 1300 S Power Rd

Mesa, AZ 85206

Date of Plans: (Today's Date)

Addendums: 1

Bid Date: (one week from today)

Remarks: Mall

Frameset Name: Project 3 Out of Squares

Metal Options:

Metal Group: 2 x 4 ½" Center Glaze, Screw Spline, Outside Glaze, Stops up

Tubelite: E14000 Shear Block

EFCO: S403 Shear Block Outside Glaze

YKKMEDAL: YES 45 FL Shear Block

Back Color: DARK BRONZE

Glazing Options:

Tempered: 1 BRONZE INS TE

Annealed: 1 BRONZE INS AN

Sealants:

Caulking: Silicone

Backer Rod: 3/8" Backer Rod

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EXERCISE 27: FRAME 1

(GS Advanced)

Objective(s):	Create new frame in Project Manager. Use Out of Square Editor – Move Perimeter Segment

Frame Name:	Frame 1
Frame Shape:	Rectangle
Panels:	3
Rows:	3
Number Thus:	1
Width:	6'
Height:	6'
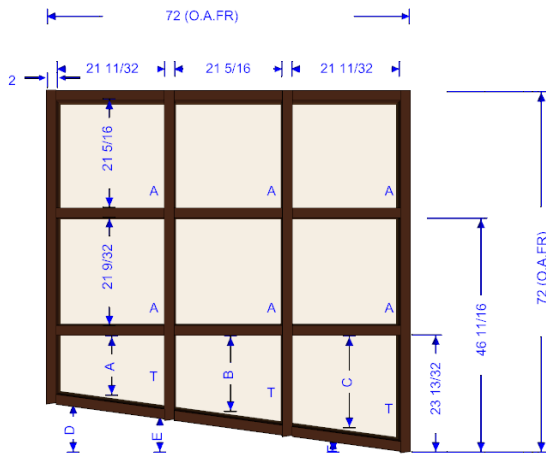
A=11 21/32 B=14 27/32 C=18 1/16 D=9 11/16 E=7 5/16 F=2 19/32

Figure 100

1. Select the Sill Member in Panel 1, select Out of Square Editor, then select Move Perimeter Segment.
    a. Corner to move: 1
    b. Hold Corner: 2
    c. Hold Corner: 4
2. Click OK.
3. Set X Location to 0 and Y Location to 10.
4. Click OK.
5. Click SAVE, then select NEW FRAME button on right.

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EXERCISE 28: FRAME 2

Objective(s):	Create new Out of Square frame in Project Manager.
	Use Out of Square Editor - Align Horizontals with Head.

Frame Name:	Frame 2
Frame Shape:	Right Trap
Panels:	3
Rows:	3
Number Thus:	1
Base:	6'
Height:	6'
Side:	62"
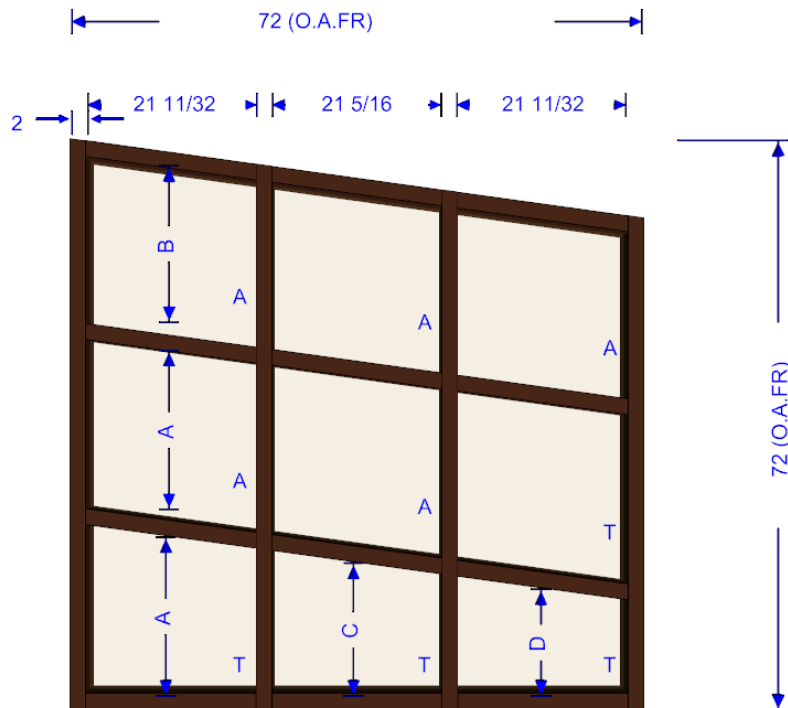
Figure 101

1. Select intermediate horizontals in Panels 1,2 & 3 between Row 2 & 3 and select Out of Square Editor, then select align horizontals with head.

2. Select intermediate horizontals in Panels 1,2 & 3 between Row 1 & 2 and select Out of Square Editor, then select align horizontals with head.

3. Left Click on the SAVE button, then select the NEW FRAME button on right.

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EXERCISE 29: FRAME 3

Objective(s):	Create new Out of Square project in Project Manager.
	Edit OOS project, including inserting Double Door.

Frame Name:	Frame 3
Frame Shape:	Dome
Panels:	3
Rows:	2
Number Thus:	1
Base:	144"
Height:	158"
Side:	86"
Radius:	72"

Figure 102

1. Select YES to Miter Jambs with Head.

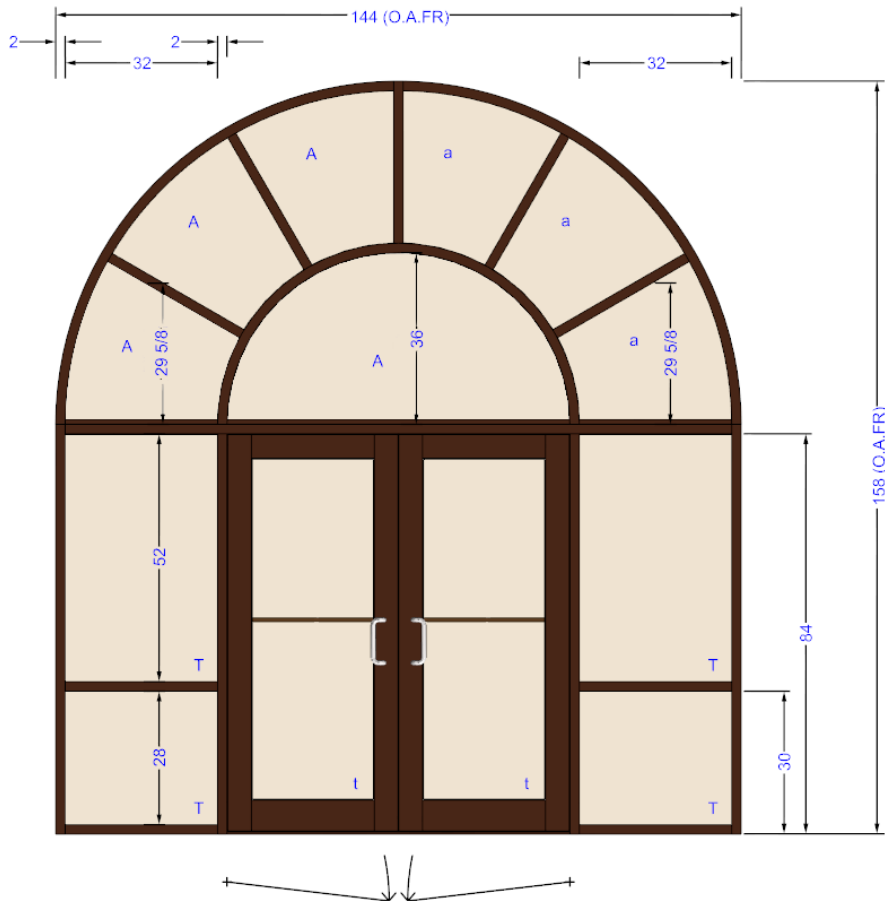2. Select panel 2 row 1 and then select the Insert Double Door icon.

Door Properties:

	Name:	Project 3 Dome Door
	Door Type:	Standard
	Single or Pair:	P
	Handing:	SO
	Lock Type:	Standard MS Lock
	Hinge Type:	Butt Hinge
	Stile:	Wide Stile
	Frame Type:	(match medal system)
	Hardware Color:	Bronze
	Doorlite PC:	1 Bronze Ins TE

Labor:

  Labor (Shop):

	Frame Fab:	40 min
	Door Fab:	40 min

  Labor (Field):

	Frame Install:	60 min
	Door Install:	60 min
	Hardware Install:	60 min
	Door Adjust:	30 min

  Door / Frame:

	Door #:	(select)

Hardware:

	Locking:	(1) MS Cylinder Guard
	Hinging:	(6) Hinge Frame Prep
	Closer #1:	Concealed Overhead Closer Frame Prep.
	Closer #2:	Concealed Overhead Closer Frame Prep.
	Options:	Pull Handle

3. Save Door, and then Left click on the OK button to insert the door.

4. Click the horizontals *in* panels 1 & 3 and set the BOH to 30".

5. Click on the left door jamb just above the door header and click the Reverse Joinery icon.

6. Click on the right door jamb just above the door header and click the Reverse Joinery icon.

7. Click on both verticals in row 2 above the door header and click the Delete Stick icon.

8. Click in the opening of row 2 above the door and click on Out of Square Editor then Insert Shape and Sunburst.

   a. Select Bottom Centered

   b. Select True Divided Lites

   c. Select Standard Product and click OK.

   d. Sunburst Outside Radius: 38"

   e. Number of Rays: 5

   f. Select Don't Cut Arcs with Rays.

9. Click on the middle ray stick towards the top of the frame and click the Reverse Joinery icon.

10. Left Click on the SAVE button, then select the NEW FRAME button on right.

Note: Because of Microsoft Direct X – There will be times that we cannot shade in a glass lite to the appropriate color in the editor. This still picks up the glass at the right size and type, just has no color in the editor. If you click on the glass lite that has no color, it will show you the info on the right, but you will notice that the lite will not highlight in green like the others. This is the Graphic Card not responding to our draw request. We are working to resolve this for a future update, but it doesn't have any bearing on pricing or fabrication of the elevation.

EXERCISE 30: FRAME 4

Objective(s):	Create new Out of Square project in Project Manager. Edit OOS project, including inserting Single Door.

Frame Name:	Frame 4
Frame Shape:	Left Trapezoid
Panels:	3
Rows:	3
Number Thus:	1
Width:	144"
Height:	120"
Side:	96"

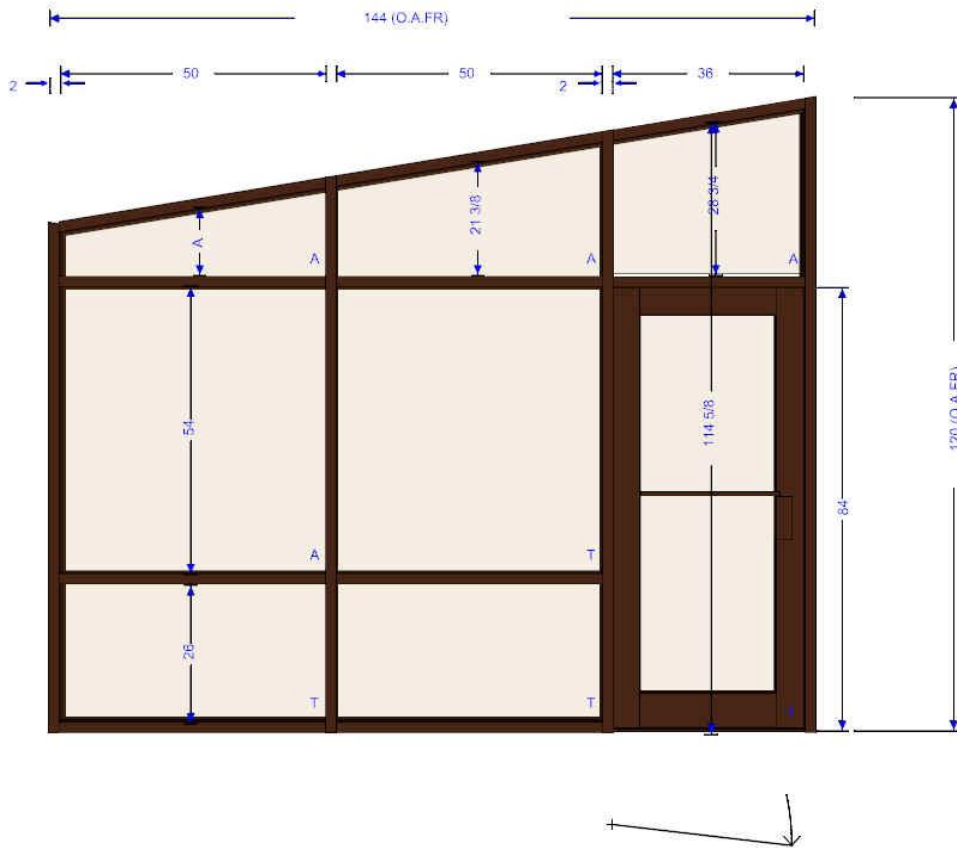*Figure 103*

1. Select Intermediate horizontal in Panel 3, Row 1 and 2. Delete Stick.

2. Select the Panel 3 Row 1 panel and insert Left Hinge Door.

Door Properties:

	Name:	Project 3 Left Door
	Type:	Standard
	Single or Pair:	S
	Handing:	HLSO
	Lock Type:	Standard MS Lock
	Hinge Type:	Butt Hinge
	Stile:	Wide Stile
	Doorlite PC:	¼ Bronze TE
	Frame Type:	(match medal system)

Labor:

Labor (Shop):

	Frame Fab:	20 min
	Door Fab:	20 min

Labor (Field):

	Frame Install:	30 min
	Door Install:	30 min
	Hardware Install:	30 min
	Door Adjust:	15 min
	Hardware Fab:	0 min

Door / Frame:

	Door #:	(select)
	Frame#:	NULL

Hardware:

	Locking:	(1) Latch Lock
		(1) MS Cylinder Guard
	Hinging:	(3) Butt Hinge
		(3) Hinge Frame Prep.
	Closer:	Concealed Overhead Closer
		Frame Prep.
	Options:	Handle

3. Save Door, then Left click on the OK button to insert the door.
4. Select the intermediate horizontal in Panel 1 and 2, Row 1 and 2 and set the Bottom of Horizontal height to 28"
5. Select the horizontals in Panels 1 & 2, Row 2 and 3 and set the (BOH) bottom of horizontal to a height of 84".
6. Click SAVE, then select NEW FRAME button on right.

EXERCISE 31: FRAME 5

Objective(s):	Use Out of Square Editor to create Sunburst pattern.

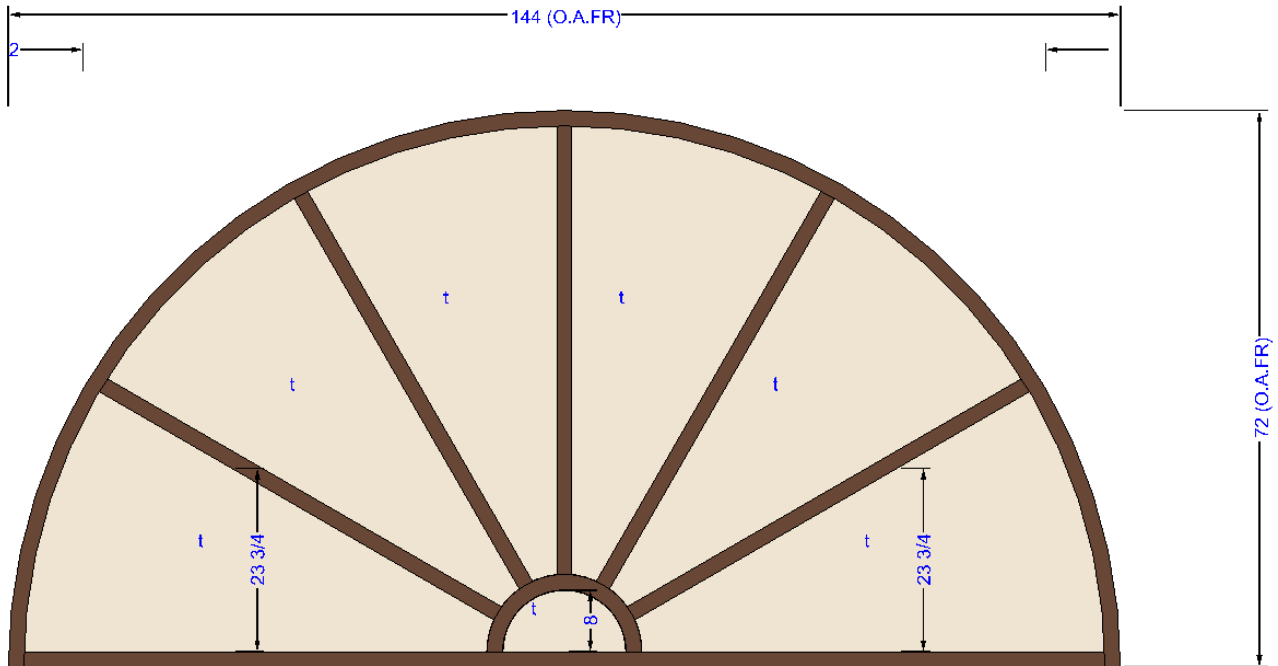|	
Frame Name:	Frame 5
Frame Shape:	Half Circle
Panels:	1
Rows:	1
Radius:	72"
Number Thus:	4

Figure 104

7. Select Glass Lite in half circle and select Out of Square Editor, Insert Shape, and Sunburst.

   a. Select Bottom Centered

   b. Select True Divided Lites

   c. Select Standard Product and click OK.

   d. Sunburst Outside Radius: 10

   e. Number of Rays: 5

   f. Leave other options at defaults and click OK.

8. Click SAVE, then select NEW FRAME button.

EXERCISE 32: FRAME 6

Objective(s):	**Create shape with Out of Square Editor.**
	Tilt a stick with Out of Square Editor.

Frame Name: Frame 6
Frame Shape: House
Panels: 2
Rows: 3
Number Thus: 1
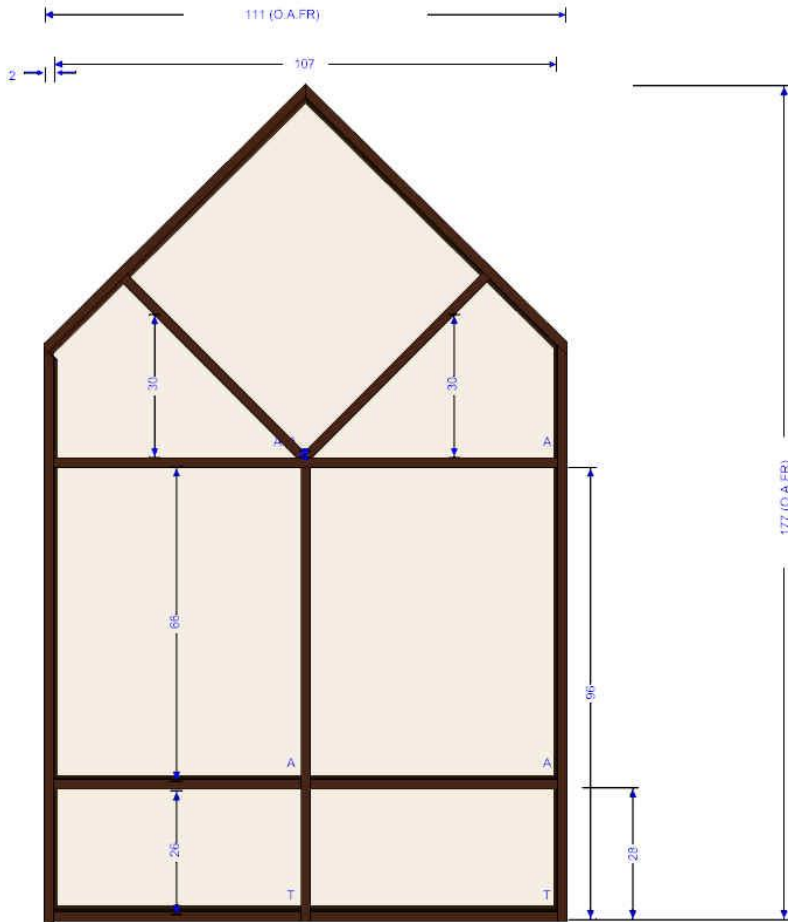**Base:** 9' 3"
Height: 14' 9"
Side: 10' 2 1/2"

Figure 105

1. Select Intermediate Horizontals *in* Panels 1 & 2 *between* Row 1 & 2 and set BOH to 28".

2. Select Intermediate Horizontals *in* Panels 1 & 2 *between* Row 2 & 3 and set BOH to 8'.

3. Reverse Joinery of Intermediate Horizontals *between* Row 2 & 3 at the Intermediate vertical.

4. Select the vertical in the pitch area of the roof and Delete the vertical.

5. Select Glass Lite in house roof area and select Out of Square Editor, then select Insert Shape, Sunburst.

      a. Select Bottom Centered

      b. Select True Divided Lites

      c. Select Standard Product and click OK.

      d. Sunburst Outside Radius: 10

      e. Number of Rays: 2

      f. Leave other options at defaults and click OK.

6. 6. Select the Half Circle member of the sunburst and Delete the stick.

7. 7. Select Left angle of ray and then select Out of Square Editor, Tilt a Stick.

      a. Specify Stick: 16

      b. Specify Fixed End: 1

      c. Direction: 2

      d. Angle: 15

8. 8. Select right angle of ray and then select Out of Square Editor, Tilt a Stick.

      a. Specify Stick: 17

      b. Specify Fixed End: 1

      c. Direction: 1

      d. Angle: 15

9. Save and select the Project menu and then select Exit Editor.

CAD Setup

CAD SETUP AND CONFIGURATION IN GLAZIER STUDIO

Before you can use Glazier Studio to generate CAD Shop Drawings, you must set up the parameters for the CAD Program that you intend to use to receive the shop drawings.

Select **Tools** then **Options** and click on the **CAD Parameters** button to configure the shop drawing layout.
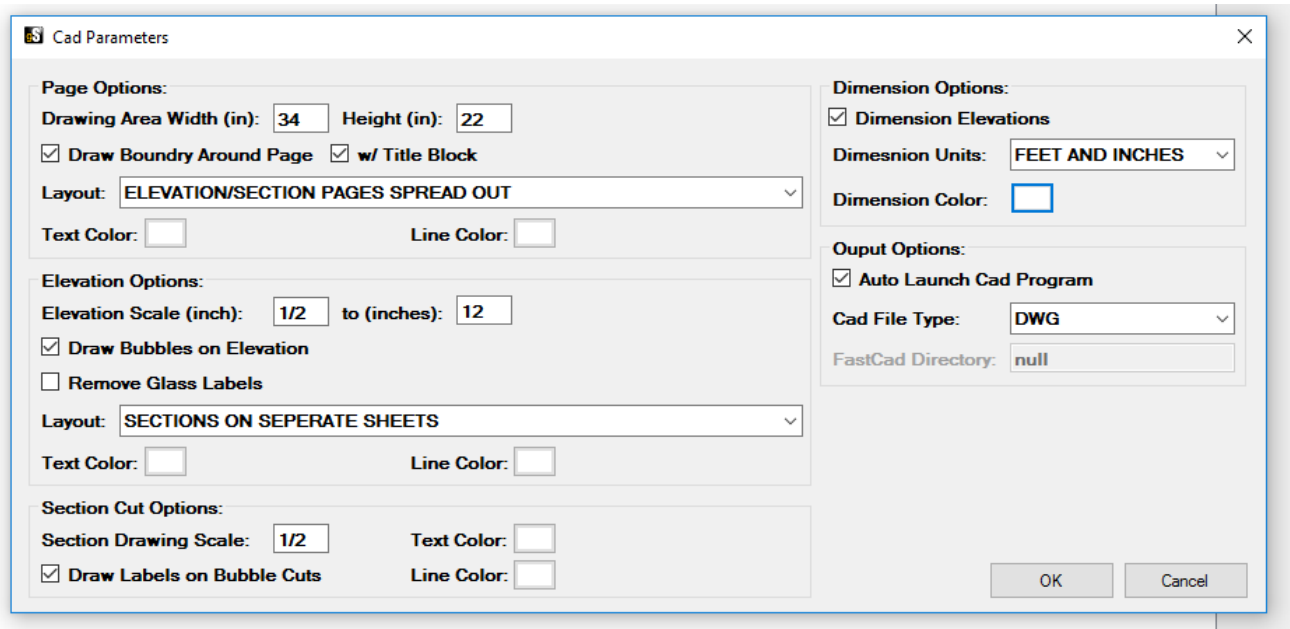

Figure 106

Now you must define the layout you will expect for your CAD programs, and this will vary for each CAD Program. We will start by going over the standard settings for all CAD based programs, then finish with the unique settings for FASTCAD v32, FASTCAD v7 and AUTOCAD.

Drawing Area Width (in): How large the printable area of your printer can take or how large you wish to print the drawing.

Layout:

Figure 107

Draw a boundary around the plot area: Sets a border around your shop drawing with a title block.

Elevation Options

Elevation Scale (inch): This feature is used with the drawing size to make sure that your elevation drawing fits in the selected border size of the shop drawing. If you are printing large elevations on 17" x 11" paper, you may have to go to 1/4 scale to get the frame to fit.

Draw bubbles on elevations: Draws bubble markers on each elevation that corresponds with section details.

Remove Glass Labels: Will not include the glass type being used on the elevations.

Layout: Sections can be drawn on Separate sheets, with marks only, or with no section or section marks
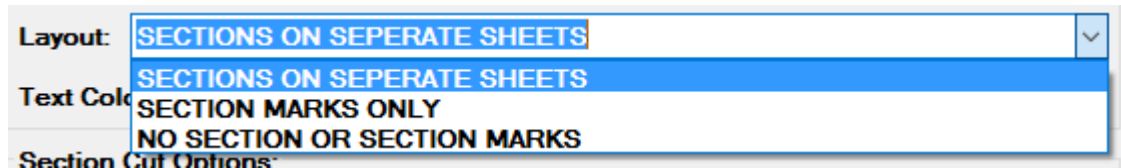

Figure 108

Section Cut Options:

Section Drawing Scale: This is for the scale size of the details.

Draw labels on bubble cuts: Draws the corresponding layer and detail number in the bubble on each elevation.

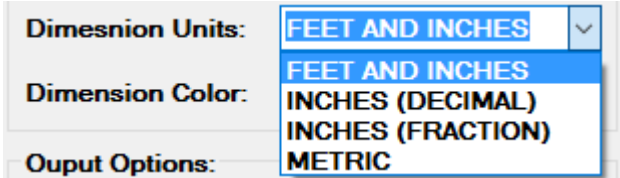**Dimension Units**: Standard dimensions or eliminate dimension lines altogether.

Dimesnion Units:	FEET AND INCHES ∨
	FEET AND INCHES
Dimension Color:	INCHES (DECIMAL)
	INCHES (FRACTION)
Ouput Options:	METRIC

Figure 109

Output Options:

Ouput Options:

☑ Auto Launch Cad Program

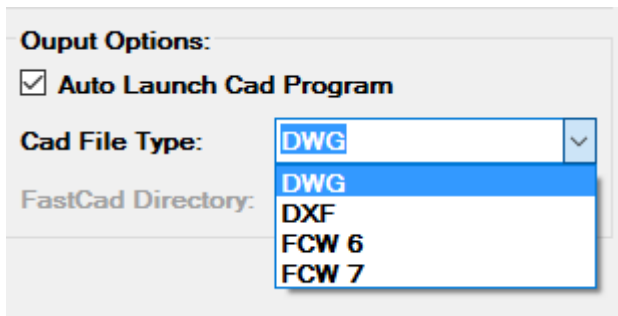| Cad File Type:	DWG ∨
	DWG
FastCad Directory:	DXF
	FCW 6
	FCW 7

Figure 110

CAD FILE TYPE: DWG, DXF, FCW 6 or FCW 7.

Color Options Are For DWG ONLY

CAD Setup for Individual Programs

CAD Setup for Fastcad32 v6

File Type should be set to **FCW 6**.
Automatically Launch CAD Program should have a checkmark.
CAD Directory Location should have **C:\FCAD32** in the textbox.

Press the OK button to accept the changes and proceed to the Create Shop Drawings section for further instructions.

CAD Setup for Fastcad v7

File Type should be set to **FCW 7**.
Automatically Launch CAD Program should not have a checkmark.
CAD Directory Location should have **C:\FASTCAD7** or be Blank in the textbox.

Press the **OK** button to accept the changes and proceed to the Create Shop Drawings section for further instructions.

CAD Setup for AutoCad r14-2000lt– through 2012

File Type should be set to **DWG**.
Automatically Launch CAD Program should have a checkmark.
CAD Directory Location should have **NULL** or Blank in the textbox.

Press the **OK** button to accept the changes and proceed to the Create Shop Drawings section for further instructions.

CAD Setup for All other CAD Programs

File Type should be set to **DWG**.
Automatically Launch CAD Program should not have a checkmark.
CAD Directory Location should have **NULL** or Blank in the textbox.

Glazier Studio cannot control how many levels of details other CAD programs can handle, and therefore recommends that FASTCAD or AutoCad be used with the Glazier Stuido Program.
Press the **OK** button to accept the changes and proceed to the Create Shop Drawings section for further instructions.

Creating Shop Drawings

Creating shop drawings through the Glazier Studio program is the same for all CAD Programs. The differences arrive when you use each individual CAD program for viewing and editing the shop drawings. First we will look at how to create the shop drawings based on the settings that you have selected from the CAD Parameter Setup section.

To begin, you must have built your elevations in Glazier Studio. Based on the materials you selected for your project, we can generate CAD elevations and details directly into your CAD Program.

When you create shop drawings through Glazier Studio, it will create 2 files based on what settings have been configured. It will create the actual CAD file in the appropriate format, and it will create a script file that will import the details into the drawing. This can be done automatically from some programs, and manually from others. See the section best describing your CAD program for basic assistance.

GLAZIER STUDIO SHOP DRAWINGS

To create shop drawings, select from the main menu:

1. Click on a project in the project list.

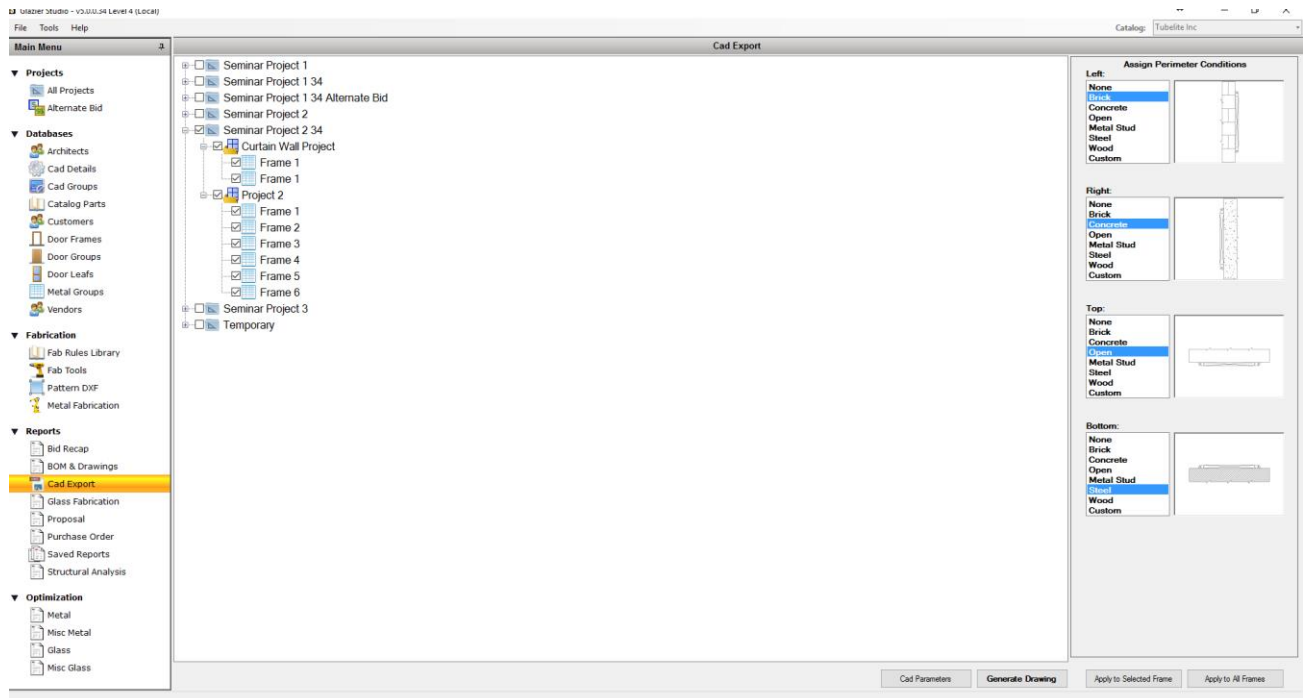2. Click on the Cad Export icon in the toolbar.

Figure 111

3. Uncheck any frames not to be included

4. Assign perimeter conditions to individual frames or click on the Apply to All Frames button.

5. Make any changes required on the cad parameter screen and then click the OK button.

6. Click the Generate Drawings button when completed.

7. When the CAD drawings are complete, you will see a Confirmation Screen appear and click the OK button.

8. If you had the Automatically Launch Cad Program checked then you should be sent into the Cad program type you specified.

FastCAD32 to Version 7

FastCAD32 through Version 7 uses the same tools and controls to manipulate the shop drawing. Below is some instructions on how to move around and view the different layers in the FastCAD program.

9. FastCAD32 should already have your drawing with elevations shown. If they do not, follow instructions 2 through 6. Otherwise skip to step 8.

10. Select **File** then select **Open**.

11. In the **Look In** dropdown box, select the **C:** drive.

12. Double Click **Program Files** then double click the **DeMichele Group** then on the **Glazier Studio** folder.

13. Locate the **DMG.FCW** for FastCAD32, or FastCAD v6 or FastCAD v7. You must change the **Files of Type** for FastCAD v7 to **FCW – FastCAD32** and double click.
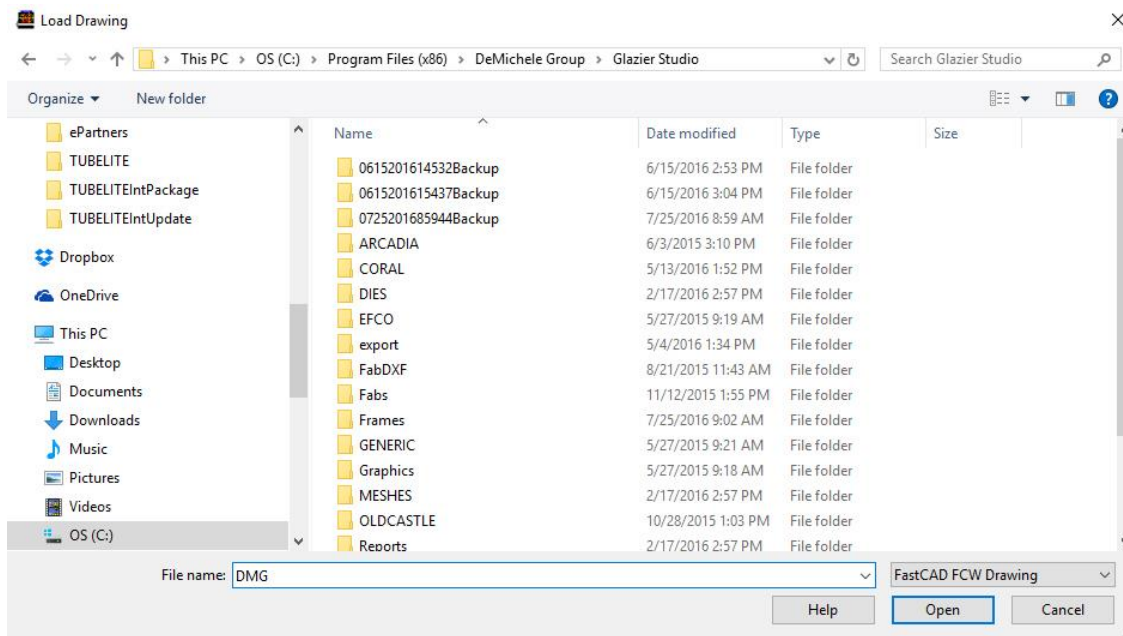

Figure 112

14. Select File then select Script and select the FCW32.SCR file.

15. It is either in the FastCAD7, FCAD32 or Glazier Studio directory on your C: drive. Follow instruction 4 again to find the file. Select OK to run the script.
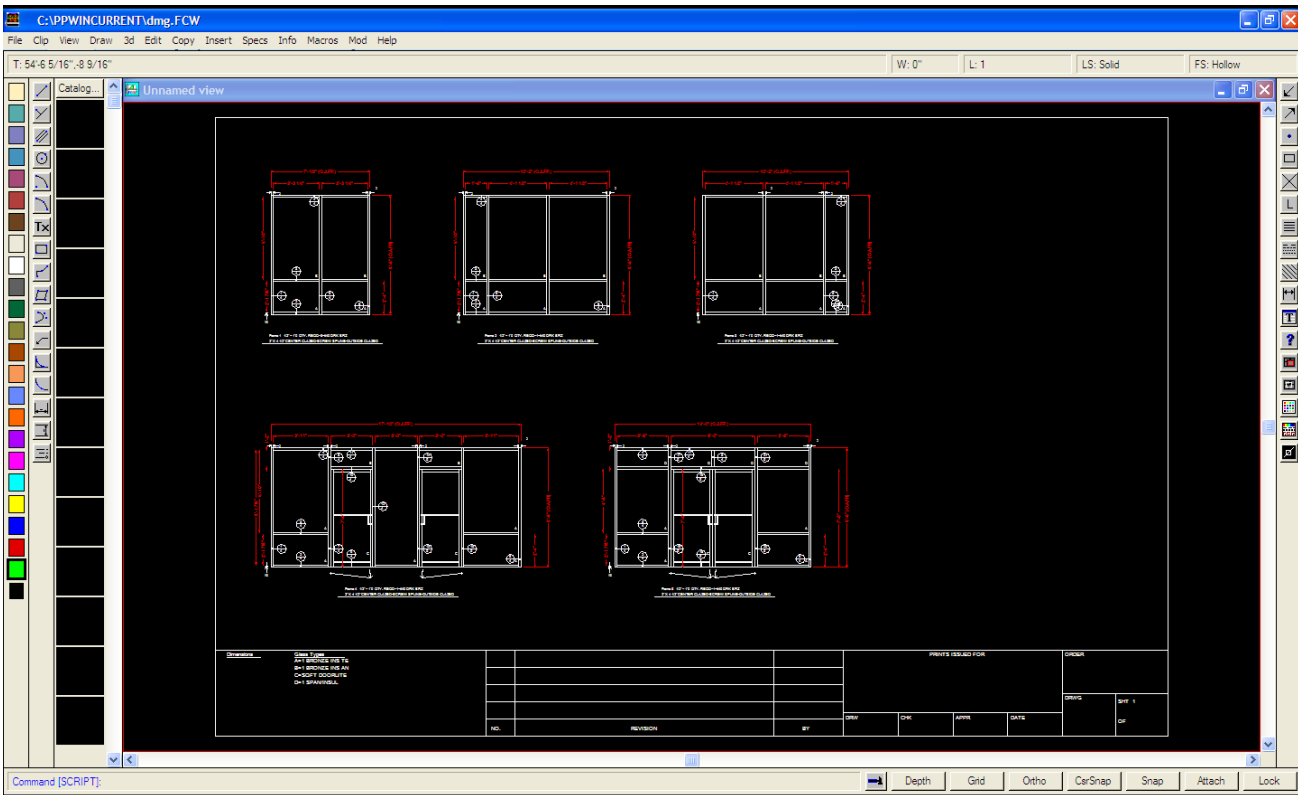
Figure 113

16. All of the DETAILS and ELEVATIONS are to scale, so the details are very small. We import all the layers at one time, so all are currently viewed. To select a specific layer, follow the below instructions.

17. Select **Specs** and click on **Select Layer.**

18. You will see layers available like 0, 1, 2, 3. etc. For Fastcad V7 only. Click on the Button **Purge Unused**. This will get rid of the unused layers.
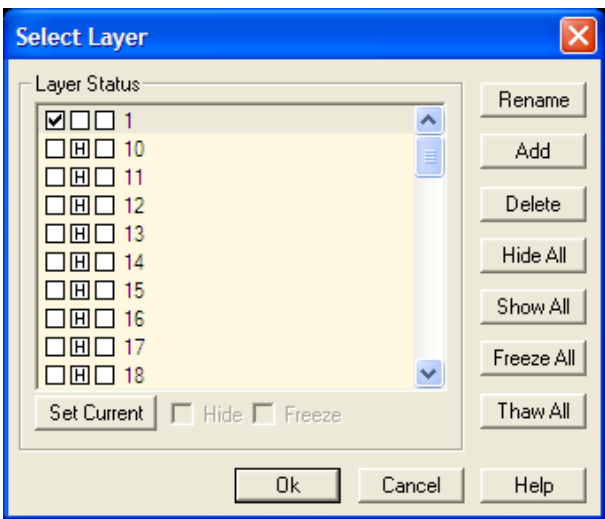

Figure 114

111

19. Click on the first box of the layer that you want to view. This will place a check mark in the box.

20. Select the **Hide all** button to hide the other layers. This will put an H in the second box of the other layers.

21. Select the **OK** button to go back to CAD.

22. Select **View** and then select **Zoom Extents** to view the entire current layer.

23. Repeat steps 9 through 13 to see different layers.

24. The FastCAD program has shortcut bars to assist with the view and zoom features.

25. Select **File** then **Save As**.

26. Save your file under a different name so that Glazier Studio does not overwrite this file with the next shop drawing.

27. For further assistance with FastCAD, contact Evolution Computing at:

Evolution Computing
7000 N. 16th Street
Suite 120-514
Phoenix, AZ 85020
(800) 874-4028
www.fastcad.com

FastCad is a registered trademark of the Evolution Computing Company. All Fastcad related problems other than Framing or Detail questions should be directed to the Evolution Computing Company.

AutoCAD r14 to current.

AutoCAD from version R14 to current uses similar tools and controls to manipulate the shop drawing. Below is some instructions on how to move around and view the different layers in the AutoCAD program.

1. AutoCAD should already have your drawing with elevations shown. If they do not, follow instructions 2 through 6. Skip to step 7 if the drawing has appeared.
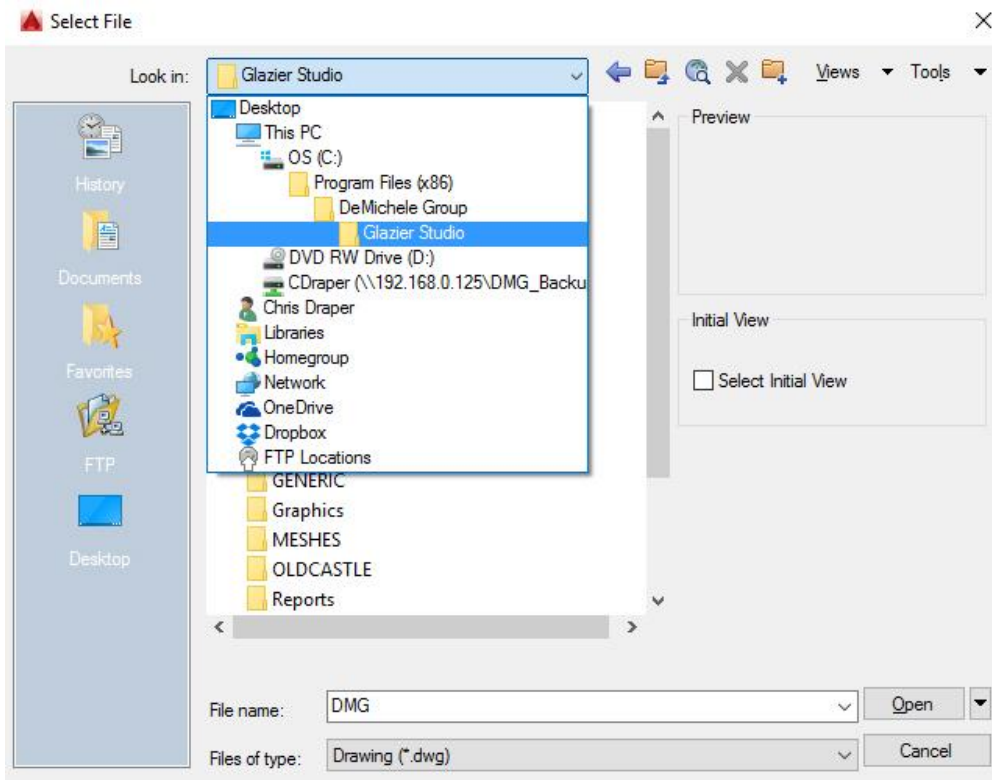
2. Select **File** then select **Open**.

Figure 115

Figure 116

3. In the **Look in** dropdown box, select the **C:** drive.

4. Double Click **Program files** then double click **Demichele Group** then double click the **Glazier Studio** folder.

5. Change **Files of Type** dropdown box to **DWG** and then locate the *PROJECT NAME.DWG* and double click.

6. IF you used DWG, script is automatic, if you need to manually import details, Select **Tools** then select **Run Script** and select the **DWG.SCR** file.

7. It is located in the Glazier Studio directory on your C: drive. Follow instruction 4 again to find the file. Select OK to run the script.

8. All of the DETAILS and ELEVATIONS are to scale, so the details are very small. We import all the layers at one time, so all are currently viewed. To select a specific layer, follow the below instructions.

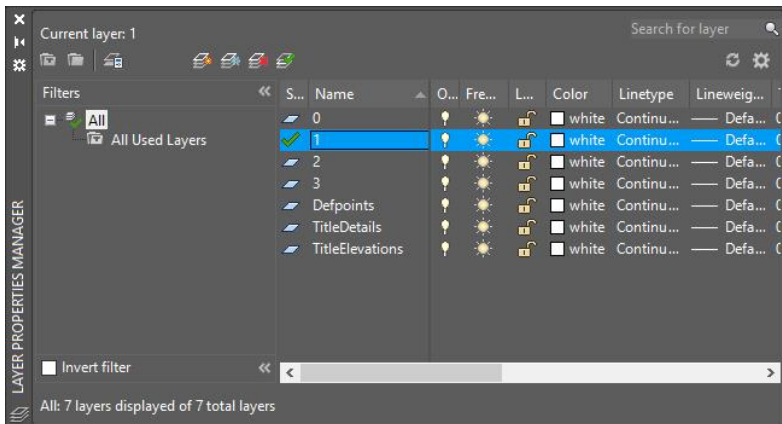9. Select **Format** and click on **Layer**.

Figure 117

10. You will see layers available like 0, 1, 2, 3 .etc.

11. Click on the number of the layer that you want to view and select the **Current** button.

12. Click on the **Sun** icon for the other layers changing them to **Snowflakes**. You only have to do this with the numbered layers.
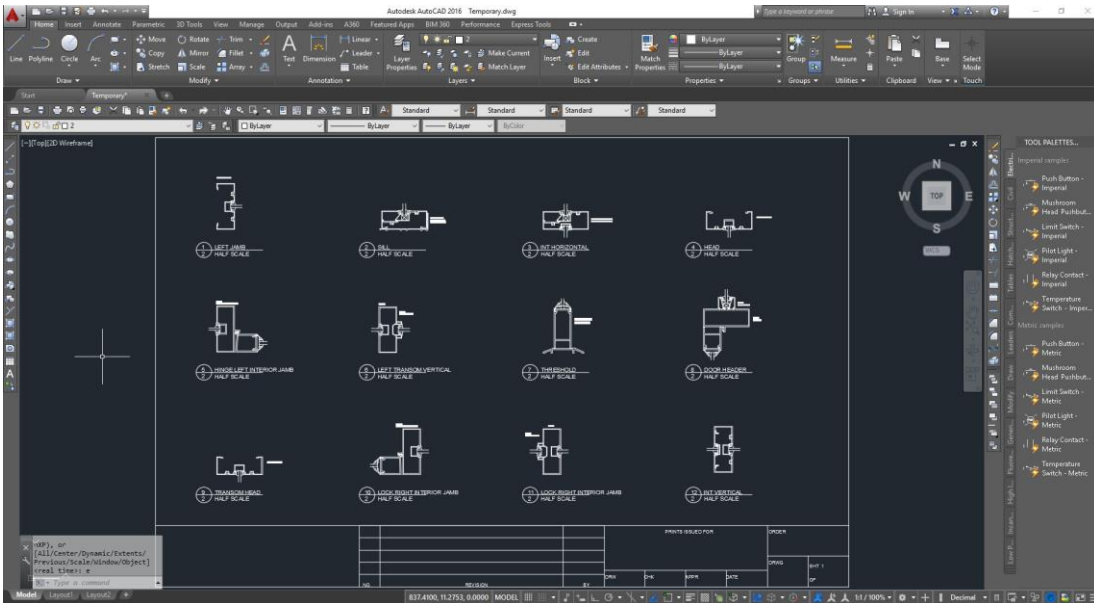
13. Select the **OK** button to go back to CAD.

Figure 118

14. Select **View** and then select **Zoom** then select **Extents** to view the entire current layer.

15. Repeat steps 7 through 12 to see different layers.

16. The AutoCAD Window has shortcut bars to assist with the view and zoom features.

17. Select **File** Then **Save As**.

18. Save your file under a different name so that Glazier Studio does not overwrite this file with the next shop drawing.

For further CAD assistance contact AutoDesk at:

Autodesk Inc
111 McInnis Parkway
San Rafael, CA 94903
415-507-5000
www.autodesk.com

AUTOCAD is a registered trademark of the AutoDesk Inc. All Autocad related problems other than Framing or Detail questions should be directed to the Autodesk Inc.

Importing DXF files into Glazier Studio

Objective(s):	Import elevations from CAD drawings.

1. Open CAD file with CAD program.

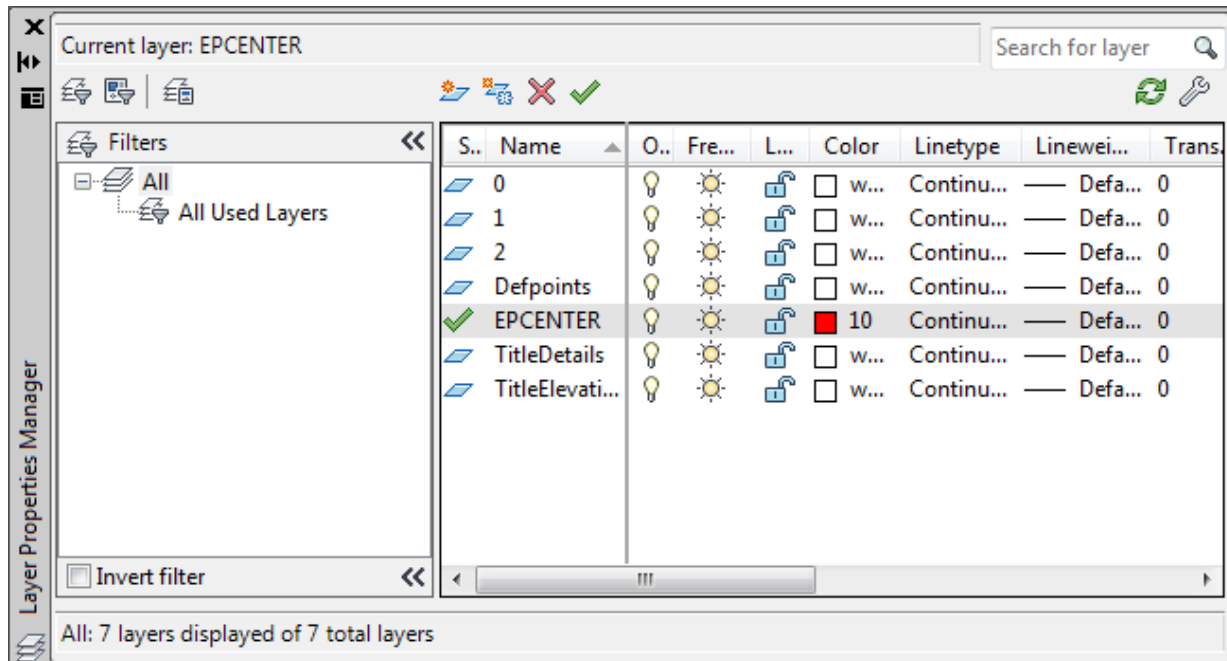2. Create a layer named **EPCENTER** and set as current layer.

Figure 119

3. Use the draw rectangle box tool or command and draw boxes around each elevation to be imported.

   Note: **Do not** overlap boxes between elevations or touch the elevations to be imported.
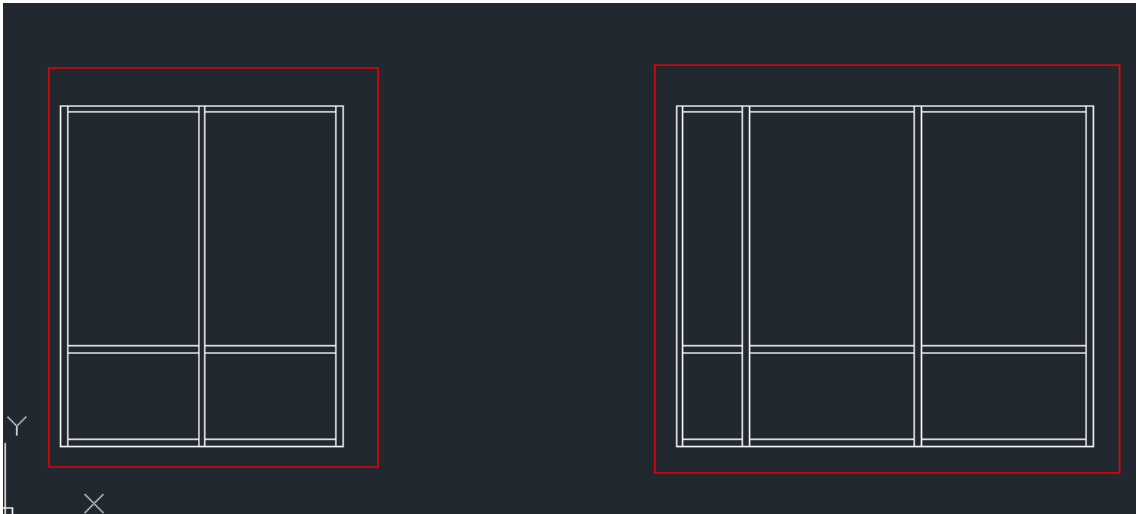
Figure 120

4. Use the draw LINE tool or command to draw vertical and horizontal centerlines of each stick of the elevation.

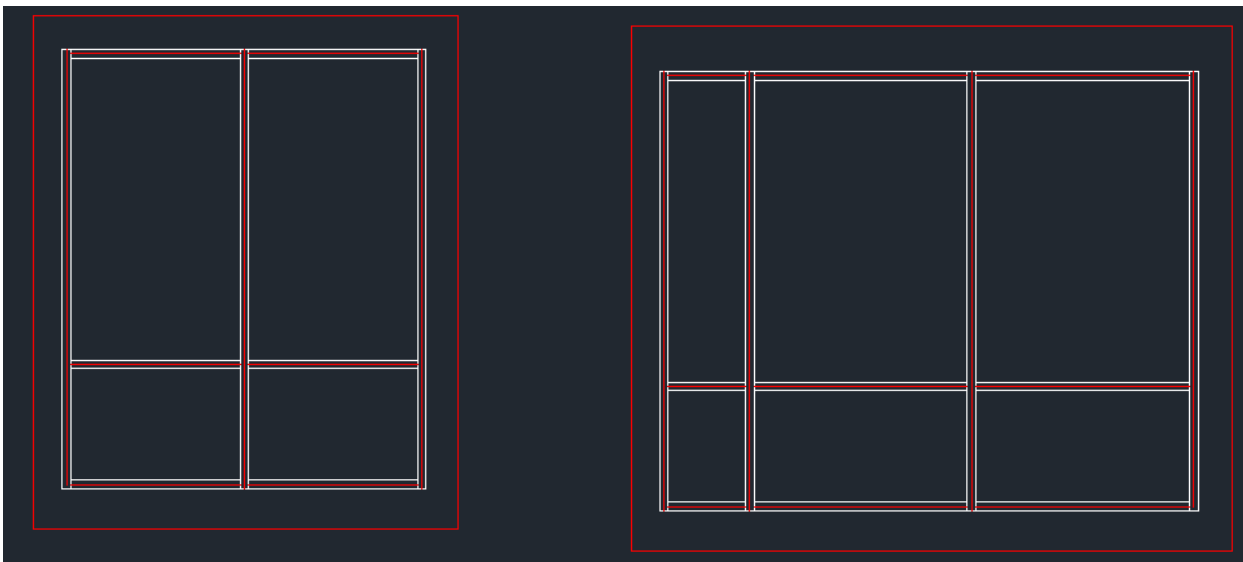   *Note:* **Do not** use the Polyline tool or command.

Figure 121

5. You can add centerlines to door frames, but leave the door stiles and rails empty.

   (You will have to manually place the door in Studio)

6. Save the drawing as the lowest possible release of **DXF**.

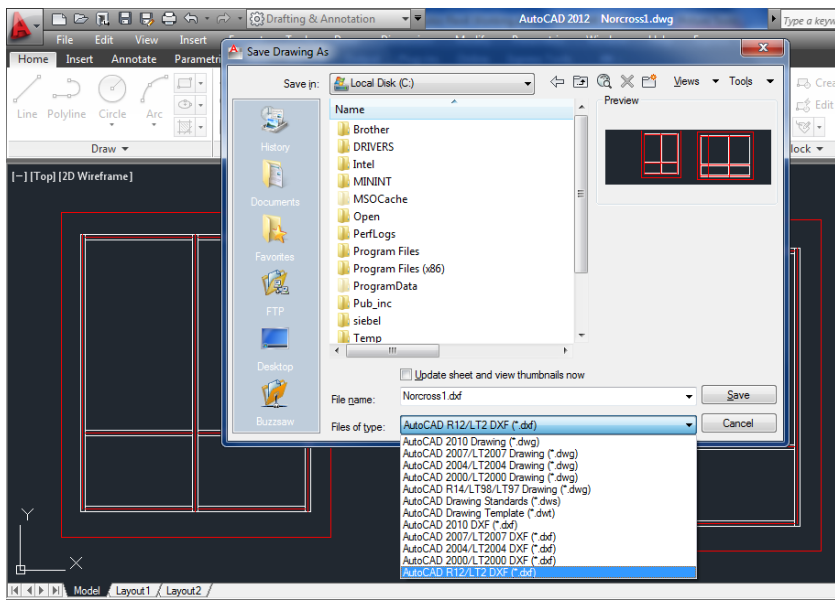   *(Recommended: AutoCAD R12 DXF)*

117

Figure 122

7. Open Glazier Studio. Open an existing project or start a new project to import the DXF frames into.

8. Select a new line in the project for the frame to be added to.

9. Setup all your options for the frames that you are about to import

10. Select desired **Metal Group**, **Glazing**, and **Sealant** options in **Frame Information** on right side.
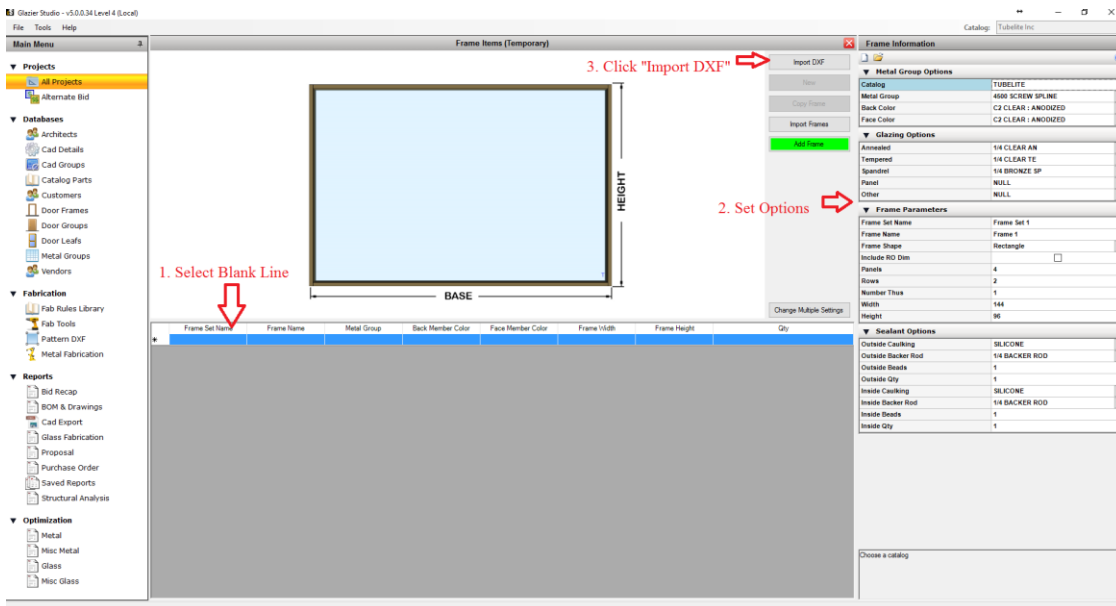

Figure 123

11. Click **Import DXF** button and select DXF file.

12. Each frame in the DXF file will be created.

Contact US

Business hours:

Monday through Friday   7:00am to 5:00pm AST

Phone Numbers:

Questions, Suggestions, Software Installation

or Training Information: **480-985-4926**

Fax: **480-985-3000**

Email Us:

Glazier Studio Support: info@demichelegroup.com

Website:

www.demichelegroup.com

UPS/FedEx Deliveries:

DeMichele Group

2110 S Douglas Drive

Chandler, AZ 85286

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