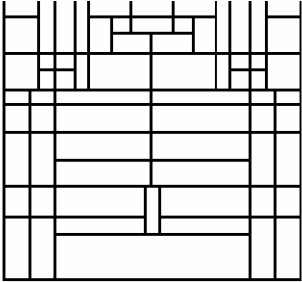
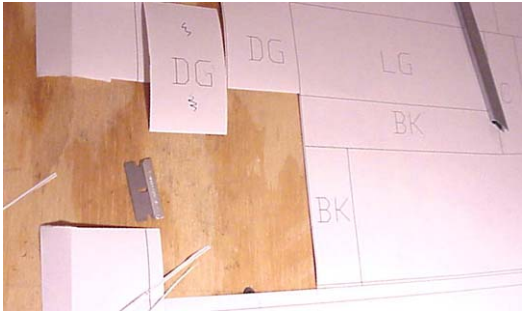
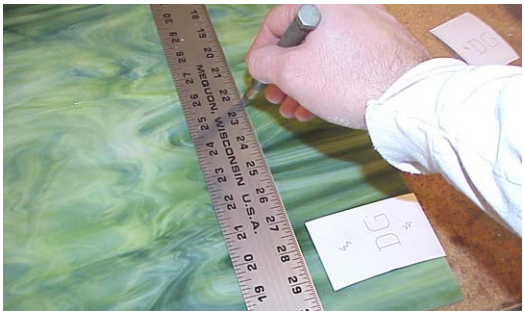



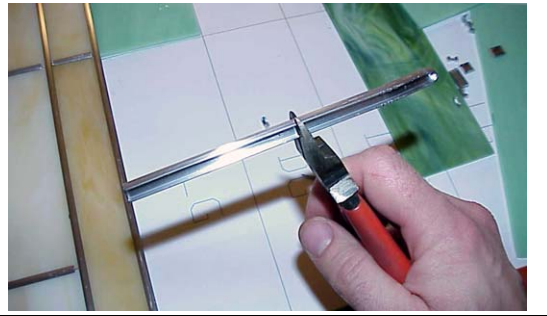
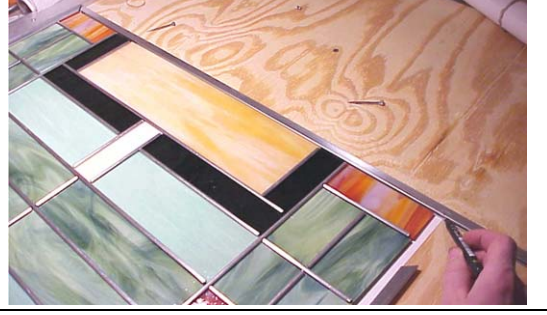


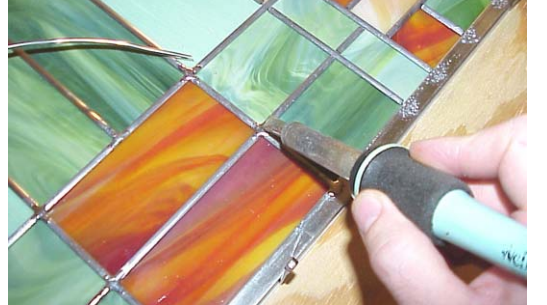
# PASSION ART GLASS STUDIO

## -Leaded Stained Glass Fabrication Guide

Step	Description	Illustration
1	<p>The first step of the fabrication process is making a copy of the final pattern (I designed this pattern on a computer with CAD drafting software). This is typically done by hand to ensure the copy and original are the same size. One copy is laid out on a work board and the panel is built on top of it. The other copy is used for cutting out the individual pieces.</p>	
2	<p>Individual pieces of the copy are cut out of the complete pattern.</p>	
3	<p>Each individual piece is cut from a larger sheet of glass with a specialized glass cutter (oil fed with a diamond wheel).</p>	
4	<p>The pressure from the wheel of the cutter creates a slight score, or fracture, in the surface of the glass. A slight amount of pressure applied along the fracture on the bottom side of the glass is enough to cause the fracture to extend thru to the other side and the glass breaks free along the intended path.</p>	

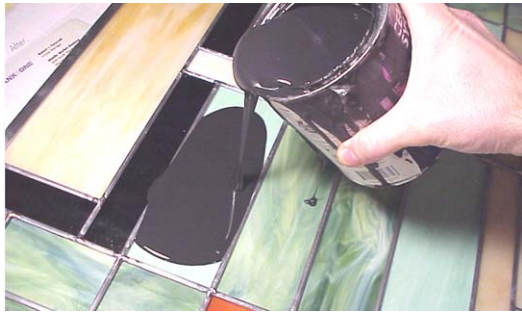




# PASSION ART GLASS STUDIO

## -Leaded Stained Glass Fabrication Guide

5	<p>H-shaped lead came is used between each piece of glass. These strips of lead came serve as the “I-beams” to provide the panel its support and to hold the glass together.</p> <p>Note the individual pieces are placed on top of the original pattern secured to the work board.</p>	
6	<p>The entire panel is built from one corner working outward to the opposite corner. A zinc came is used to frame in the panel on all 4 edges and provide more stability.</p>	
7	<p>Once it's “framed in” with the zinc came, horseshoe nails are used to secure the whole panel together and to ensure all edges are square. Fine adjustments are made to ensure the panel is the same size as the original pattern.</p>	
8	<p>Flux is used to deoxidize the metal and prepare joints for solder. It's brushed on at every intersection of the lead and zinc came.</p>	
9	<p>A large soldering iron set to 700° F is used to solder all the intersections.</p>	



# PASSION ART GLASS STUDIO

## -Leaded Stained Glass Fabrication Guide

10	A special cement is poured on to the panel. This is used to fill the gaps where the glass meets the lead and zinc came and to provide strength and support to the panel. It can also serve as a foundation for weather-proofing the panel.	
11	The cement is brushed in to all gaps.	
12	A fine abrasive powder and sawdust is applied to the panel. This is used primarily for removing any residues like cement and flux from the panel and it helps polish the glass and lead came.	
13	A newspaper is used to rub the mixture in to the panel. It helps soak up a lot of the excess cement.	
14	A horseshoe nail is used to clean up excess cement from the edges of the came and to make it more uniform.	

# PASSION ART GLASS STUDIO

## -Leaded Stained Glass Fabrication Guide

15	After all the excess mixture is removed from the panel a soft bristle brush is used to polish the glass and lead came.	
16	Some panels don't require any framing and can be installed as is. With this project, we constructed a custom oak door frame, mounted the stained glass panel in it, and installed the entire assembly over a recessed area in the wall of a client's basement stairwell.	
17	Here's the finished product.	