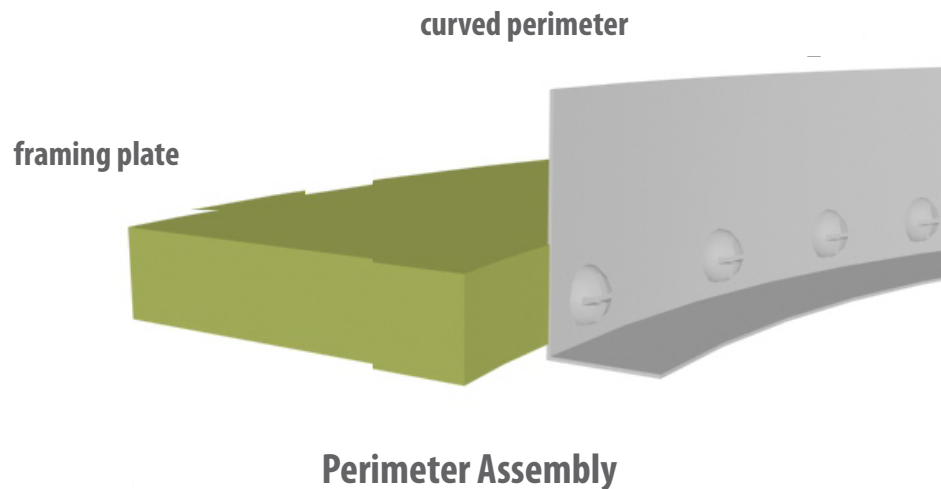




# Elliptical Perimeter Angle with 3/4" Framing Plate Installation Instructions



Please read through entire instruction packet before beginning.

**IMPORTANT:** The curved perimeter angle comes attached to a framing plate.

**DO NOT UNPACKAGE PERIMETER SECTIONS UNTIL READING THIS DOCUMENT.**

**DO NOT REMOVE THE PERIMETER ANGLE FROM THE PLATE.**

See pages 2 and 4.

See also:

**Appendix A: Elliptical Perimeter Assembly Overview**

For technical support at any time during the installation, please call us **toll free at 866-759-3228**.

We want your installation to go as smoothly as possible. Thank you for choosing Sky Factory.

**Important:**

- Perimeter angle comes attached to a 3/4" x 3 1/2" wide AC plywood framing plate.

DO NOT REMOVE PERIMETER ANGLE FROM 3/4" PLATE.

- Framing plates are shipped with 3/4" x 4" wide AC plywood cross-bracing, and have protective blocking attached to both the top and bottom:

DO NOT REMOVE BRACING UNTIL PERIMETER IS FULLY INSTALLED IN CEILING.

DO NOT REMOVE BLOCKING UNTIL PERIMETER IS FULLY ASSEMBLED.

See page 4 for unpackaging perimeter sections.

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## Requirements:

Before beginning:

Verify opening width and length with Grid Plan GR1. Opening must be large enough to receive perimeter assembly.

Verify opening depth with Grid Detail DE2.

If opening does not match Sky Factory specifications, do not install the SkyCeiling and contact the Sky Factory at 866-759-3288. We will help you find the best solution.

## Installation overview:

A framing plate is one or more pre-formed PVC perimeter angles attached to 3/4" x 3 1/2" AC plywood plates.

Elliptical framing plates come in sections. Larger sections have bracing attached to the bottom to keep them from distorting until they are installed.

Blocking is attached to the top and bottom of the framing plates to protect the PVC perimeter during manufacture and re-assembly.

Section ends lock together at joints into a perimeter assembly. The joints of an assembly are secured with 3/4" x 3 1/2" wide AC plywood gussets.

A perimeter assembly is pre-assembled at the factory, then dis-assembled into sections for shipping and requires re-assembly on the site.

Perimeter assembly is typically re-assembled on the floor before securing to bottom of soffit, but may also be installed in single or multiple sections.

Once fully secured, the gussets, cross-bracing and blocking on the bottom are removed.

The bottom face of the perimeter angle has been painted to match provided grid and care should be taken that the bottom face is not damaged during unpacking, re-assembly and installation.

If touch-up is needed, use Armstrong Grid Touch-Up Paint, White.

## Step 1: Unpackaging the perimeter sections

Perimeter has been pre-assembled and is disassembled into sections for shipping.

Individual components will vary depending on size of installation.

- see page 8-12 for a sample of standard 6 x 8 ellipse components.

Elliptical perimeter sections are shipped in “like” pairs:

Ends of each section are protected, then perimeter and plate are wrapped in foam sheeting and shrink wrap. Sections are then sandwiched in plywood and packed on a pallet.

When unpacking:

- REMOVE SHEET FOAM AND SHRINK WRAP CAREFULLY
- DO NOT REMOVE ANY BLOCKING OR BRACING ATTACHED TO THE PLATES.

NOTE: Cross-bracing is labeled for clarity.



### IMPORTANT:

Assemblies and/or sections of assemblies have some flexibility, but may crack if flexed too much.

Care should be taken when turning one over and lifting it up into ceiling.

Keep it well supported and in the same plane.

## Step 2: Option A– Re-assembling the sections on the floor

**Where two or more perimeter sections are re-assembled before installing them in the ceiling**

**If installation is too large or too complex to install in multiple sections, go to Step 2: Option B**

Sections initially rest on floor with bottom up.

Perimeter angle will be upside down (opposite of its orientation when installed in ceiling.)

The plates will rest on pre-attached blocks which protect the top leg of perimeter angle during shipping and on-site assembly.

Line up sections by matching labels and gussets A to A, etc.

Lock ends of framing plates together.

Perimeter angle will lap over from one plate to the other. Be careful not to damage it when locking plates together.

Gusset locations and orientations have been labeled and marked.

Use provided screws and pre-drilled and pre-threaded holes to secure gussets to opposing plates.

Re-attach overlapping perimeter angles by gently re-threading provided truss head screws into pre-existing holes.

Some fine shimming may be required to keep bottom faces in line.

Check dimensions with Grid Plan GR1 before turning assembly over.

Dimensions of perimeter assembly should match or be slightly smaller than specifications on GR1.

If they don't, please double check your assembly process to be sure all ends match and gussets are appropriately placed.

If assembly still does not match specifications, do not proceed and please call us for technical support toll free at 866-759-3228.

Make sure all gussets are installed and fully secured.

Turn assembly over and remove blocking on top of assembly only in preparation for installation.

## Step 2: Option B – Preparing individual sections for installation

**For installations too large or too complex to install in multiple sections**

**If two or more perimeter sections are pre-assembled before installing them in the ceiling, go to Step 2: Option A**

Rest section on floor with bottom down.

Perimeter angle will be right side up (the same orientation when installed in ceiling.)

The plates will rest on the pre-attached bracing.

Remove blocks on top of plate only in preparation for installation.

### Step 3: Installing the perimeter assembly into the ceiling

#### Locate strategic points:

Find triangulation points using X and Y axes from Grid Plan GR1.

X and Y axes are pre-marked on framing plates

#### Prep plates for installation:

If installing in single or multiple sections, match labels and gussets **A** to **A**, etc.

Make sure all blocks on top only of the framing plates have been removed.

#### Pre-install perimeter using minimal fasteners:

Center section or assembly on X and Y axes

Use minimal fasteners to secure section or assembly to soffit so it can be adjusted later if necessary.

Clamp or minimally screw to bottom face of soffit

Shim at attachment points to make sure section or assembly is secured in same plane

When securing assembly in sections, install additional gussets, bracing, etc. between sections as needed.

#### Check critical dimensions:

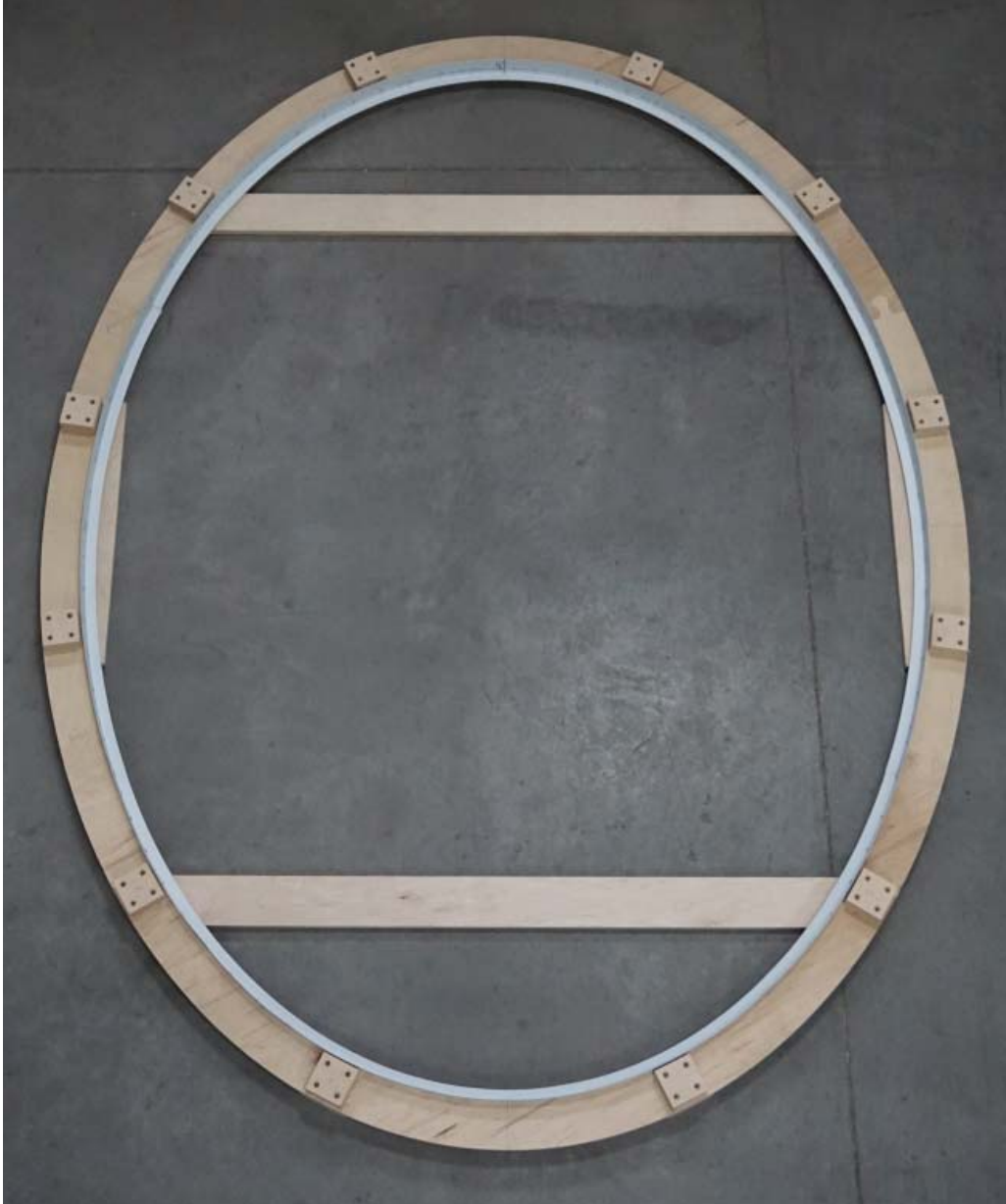
Once complete perimeter assembly is minimally secured to ceiling, check critical dimensions and adjust as necessary before fully securing to soffit.

#### Once dimensions and orientation have been confirmed:

Permanently shim and fasten assembly to soffit and then remove gussets, bracing and blocking on bottom of framing plates.

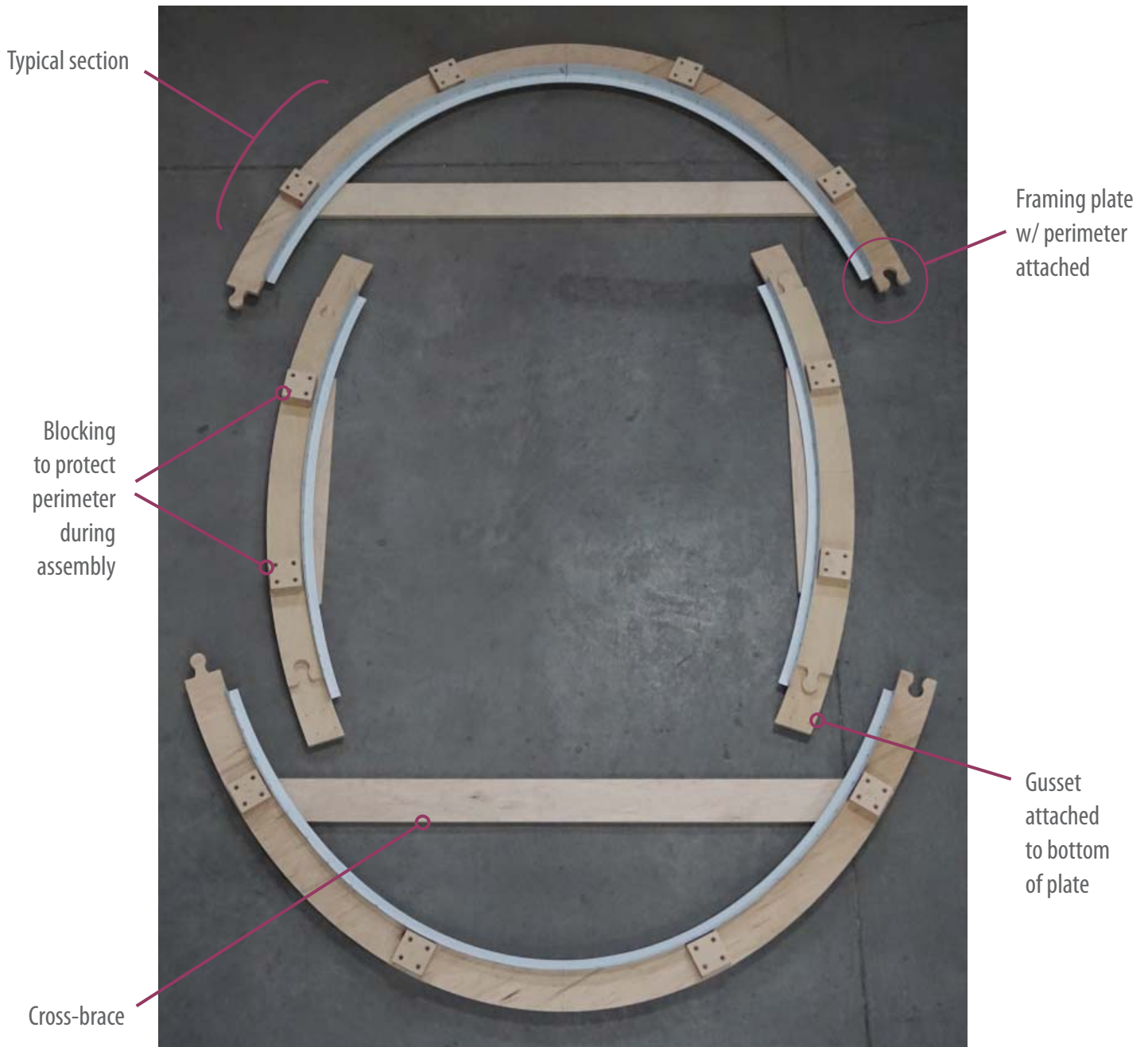
## Appendix A: Elliptical Perimeter Assembly Overview

NOTE: This appendix is a reference only. It is not meant as an installation guide.



Elliptical Perimeter Assembly shown





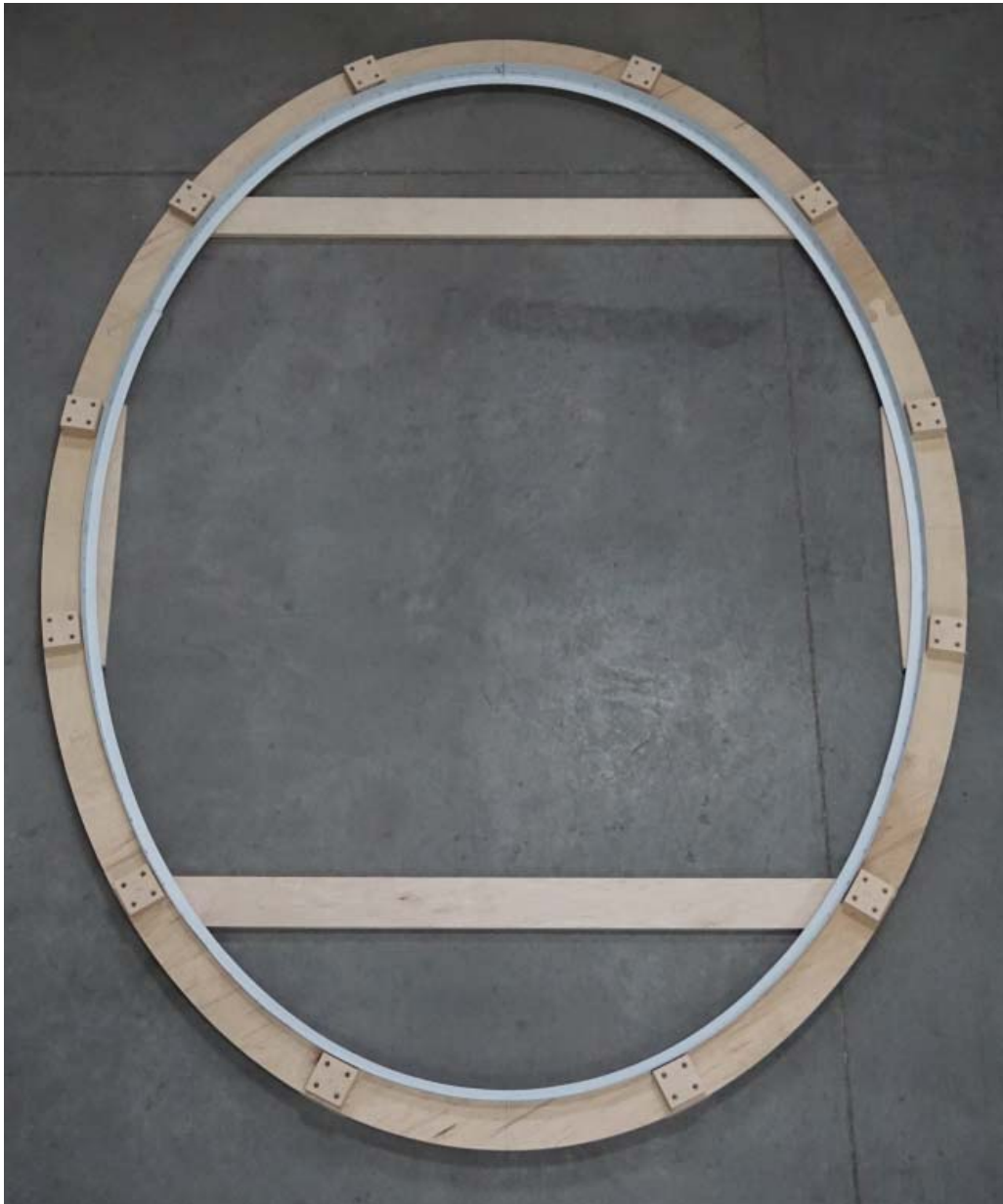
Standard ellipse perimeter comes in four sections.

Each large section has a cross-brace which stabilizes the two ends in place.

(The plywood ends have quite a bit of spring and need to be held the correct distance apart. The braces are not removed until the perimeter assembly is fully secured in the ceiling.)

Blocking on the top and bottom keeps the perimeter from riding on the floor when it is being re-assembled on site.

Four gussets secure the joints once they are locked together.



A Perimeter Assembly: the four sections have been locked together at the joints, secured with gusset plates and the assembly has been turned over in preparation for installation.

See details on page 11 and Step 2 for re-assembly process

Blocking on top will be removed before installing assembly into ceiling.

Gusset plates, cross-bracing and blocking on bottom will be removed after assembly is fully secured to bottom of soffit.

Detail of joint during assembly  
with sections upside down on floor



Gusset attaches  
with #8 x 1 1/4" washerhead screws  
provided



Once joints are secured,  
assembly is turned right side up  
and section of perimeter angle  
which laps over joint  
is secured with #8 x 3/4" truss head  
provided.



Fully secured joint with assembly turned over in preparation for installation.  
NOTE: Blocking on top of plates has not yet been removed.

Section ends are protected  
with foam blocks,  
then sections are wrapped  
in sheet foam and shrink wrap,  
secured in plywood,  
and mounted on a pallet  
for shipping

