

Chapter 57: Bay Windows

From a sheet of $\frac{3}{4}$ " CDX plywood cut two templates. **See Figure 57-1.**

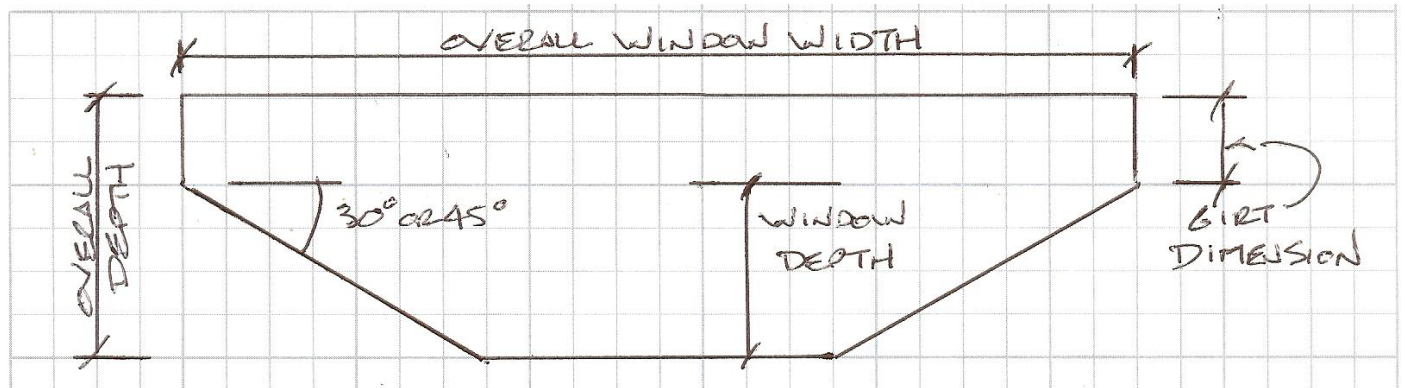


Figure 57-1: Plywood Templates

Install bookshelf girt above opening. If top of bay window is to be even with tops of other windows, then above bay window girt must be placed $\frac{3}{4}$ " higher above grade than girt above other windows. Bookshelf girts above and below bay window opening, as well as vertical on each side will be one dimension greater than adjacent columns (e.g. 2x8 for 6x6 or 3ply 2x6 glulam columns).

Block beneath top of bay window girt at columns will be same dimension as girt above. Nail girt to block and block to column with SDWS 16300 (2x6 1; 2x8 & wider 2).

Install bookshelf girt below opening. Distance between this and above bay window girt will be rough opening height plus 1-1/2". Block beneath this girt will be 9-3/4" vertical and same dimension as girt. Screw blocks to column and girt to blocks with SDWS 16300.

Install verticals on each side of window opening at rough opening width between with SDWS 16300 screws down through girt above, up through girt below (2x6 1; 2x8 & wider 2).

Install any girts between rough opening verticals and columns, per plans. **See Figure 57-2.**

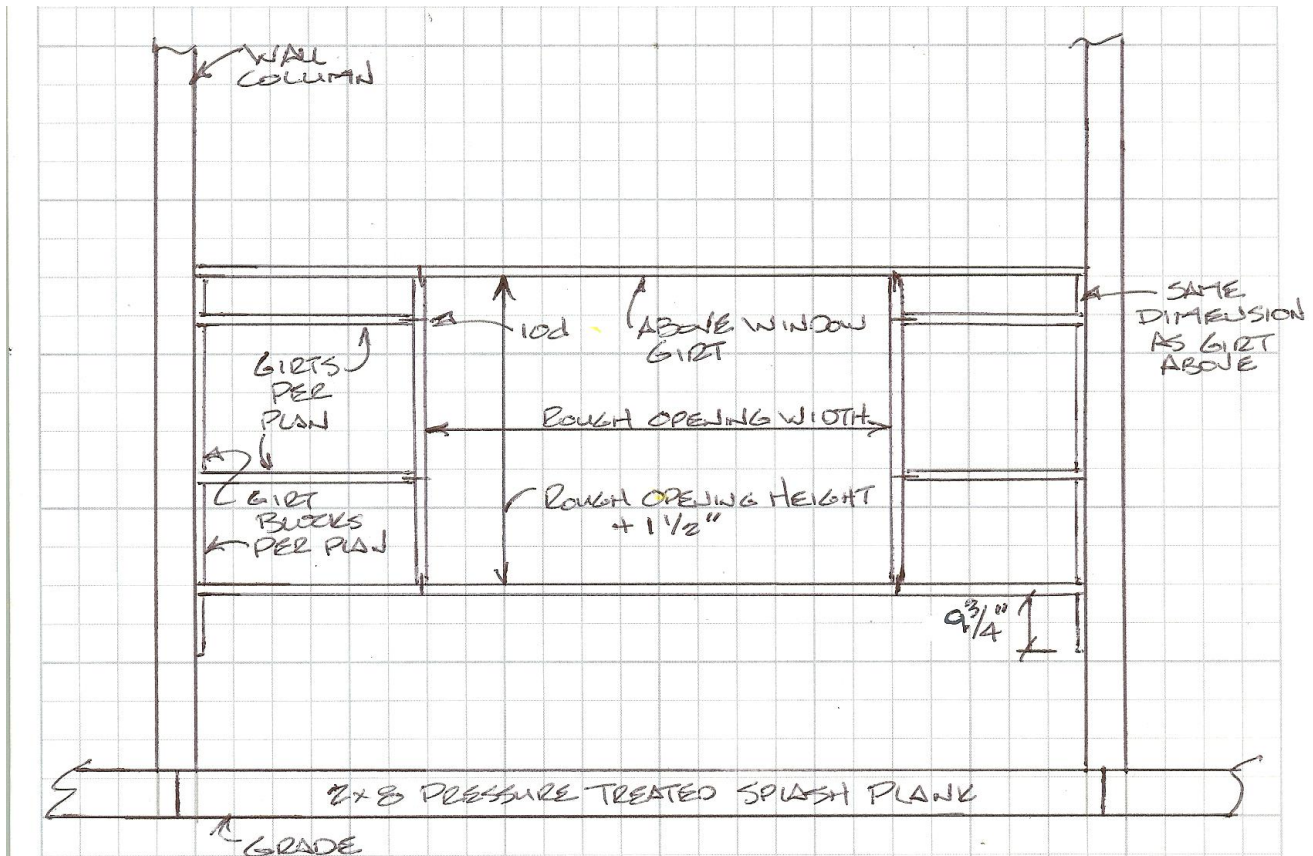


Figure 57-2: Framed Opening

Cut a 2x12 to four (4) pieces equal in length to overall depth. Cut out a notch 1-1/2" vertical by above window girt dimension horizontal (2x6 = 5-1/2", 2x8 = 7-1/4", 2x10 = 9-1/4", etc.) from top edge at one block end. Cut two (2) notches in opposite end 3-1/2" vertical and 1-1/2" horizontal. Set two aside. **See Figure 57-3.**

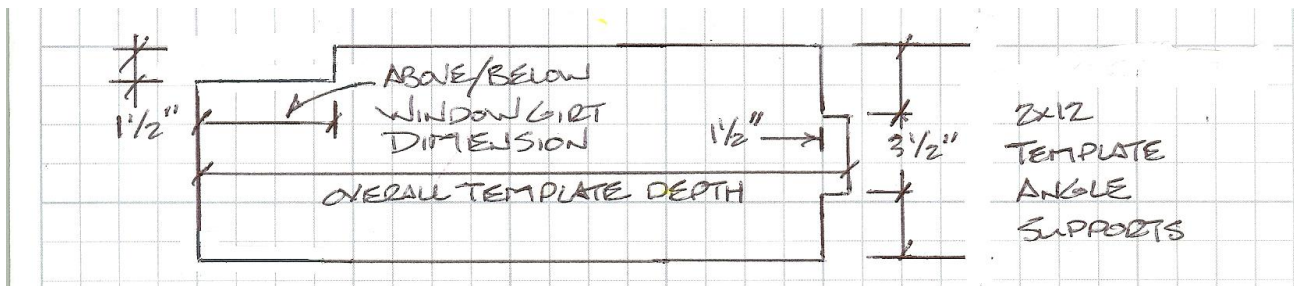


Figure 57-3: Template Angle Supports

Install bookshelf wall girt at 9-3/4" below bookshelf girt below bay window opening. Place 2x12 Template Angle Supports between these two girts with window girt dimension cutout notch up and towards building interior. Attach with SDWS 16300 screws down through girt above, up through girt below (2x6 1; 2x8 & wider 2). These supports will be located at each edge of straight portion of lower template, when it is installed. **See Figure 57-4.**

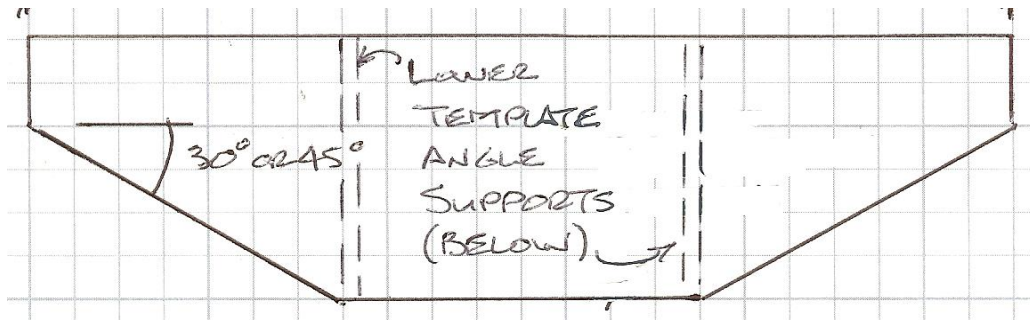


Figure 57-4: Placement of Lower Template Angle Supports

Install 2x12 #2 exterior mounted to wall columns on each side of bay window opening, tight to lowest previously installed bookshelf girt and crowned up. Screw with 2 SDWS 16300 to each column and through girt into top edge of 2x12 with SDWS 16300 at 24" on center. Install 2x4 into 1-1/2" x 3-1/2" notches in outer edge of Lower Template Angle Supports with a SDWS 16300 each end. **See Figure 57-5.**

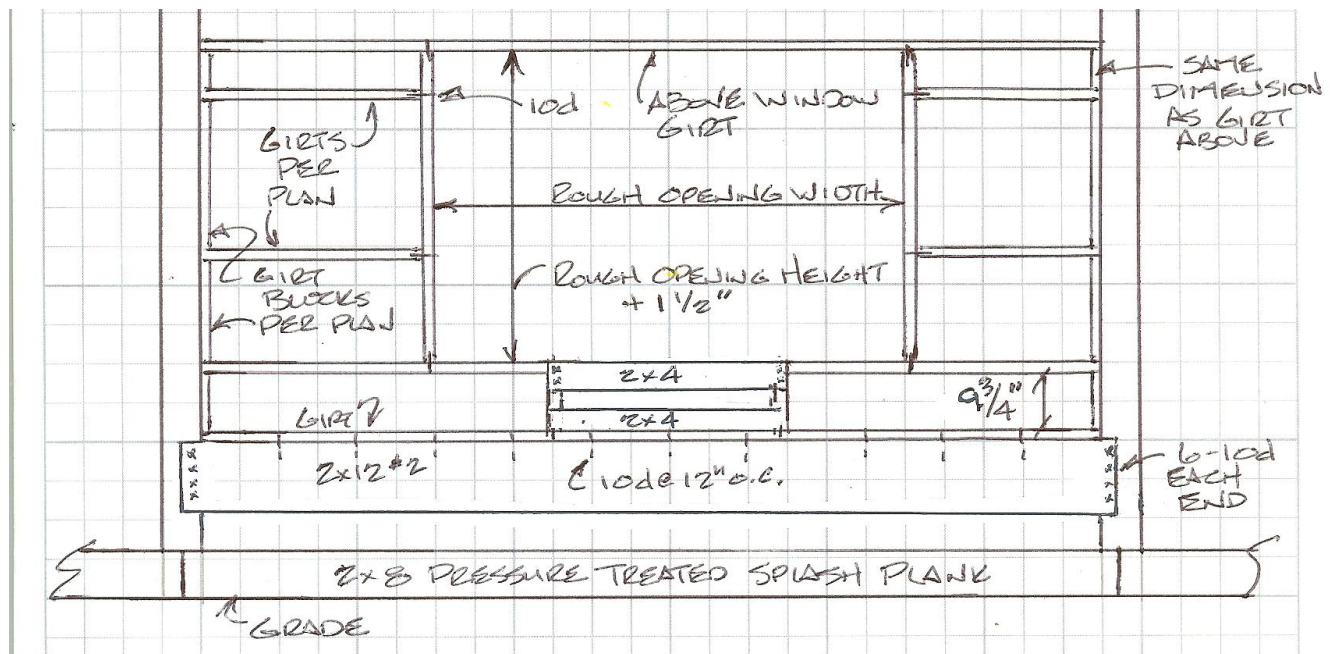


Figure 57-5: Framing Below Bay Window Opening

Place a plywood template on bookshelf girt top below rough opening, centered between verticals and flush to inside of girt. Nail through plywood into girt with 6d x 2" common nails spaced 3/4" minimum from inside edge, 1-1/2" on center and staggered to avoid splitting. Nail through plywood into Lower Template Angle Supports with SDWS 16300 screws spaced 3/4" from and edge or end and 5" on center. **See Figure 57-6.**

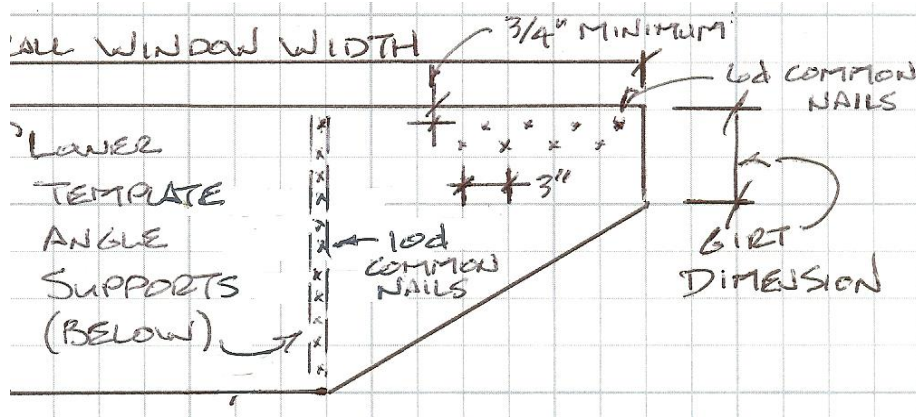


Figure 57-6: Lower Template Nailing to Girt and Angle Supports

Cut eight (8) 2x4 to follow angled cut of plywood templates. Setting four aside, screw one at each end of previously installed 2x4 directly below plywood template angle cuts. Use (1) SDWS 16300 at an angles to end of existing 2x4, screw up through girt into lower 2x4, screw down through plywood into upper 2x4. **See Figure 57-7**

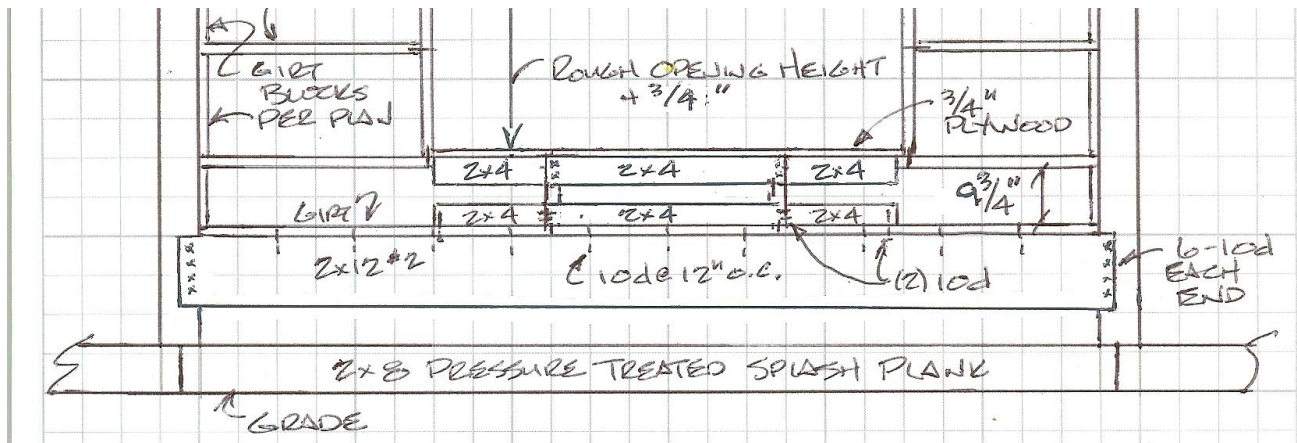


Figure 57-7: Angled 2x4 Below Lower Template

Repeat steps as shown in Figures 57-4 through 57-7 for above opening framing.

See Figure 57-8

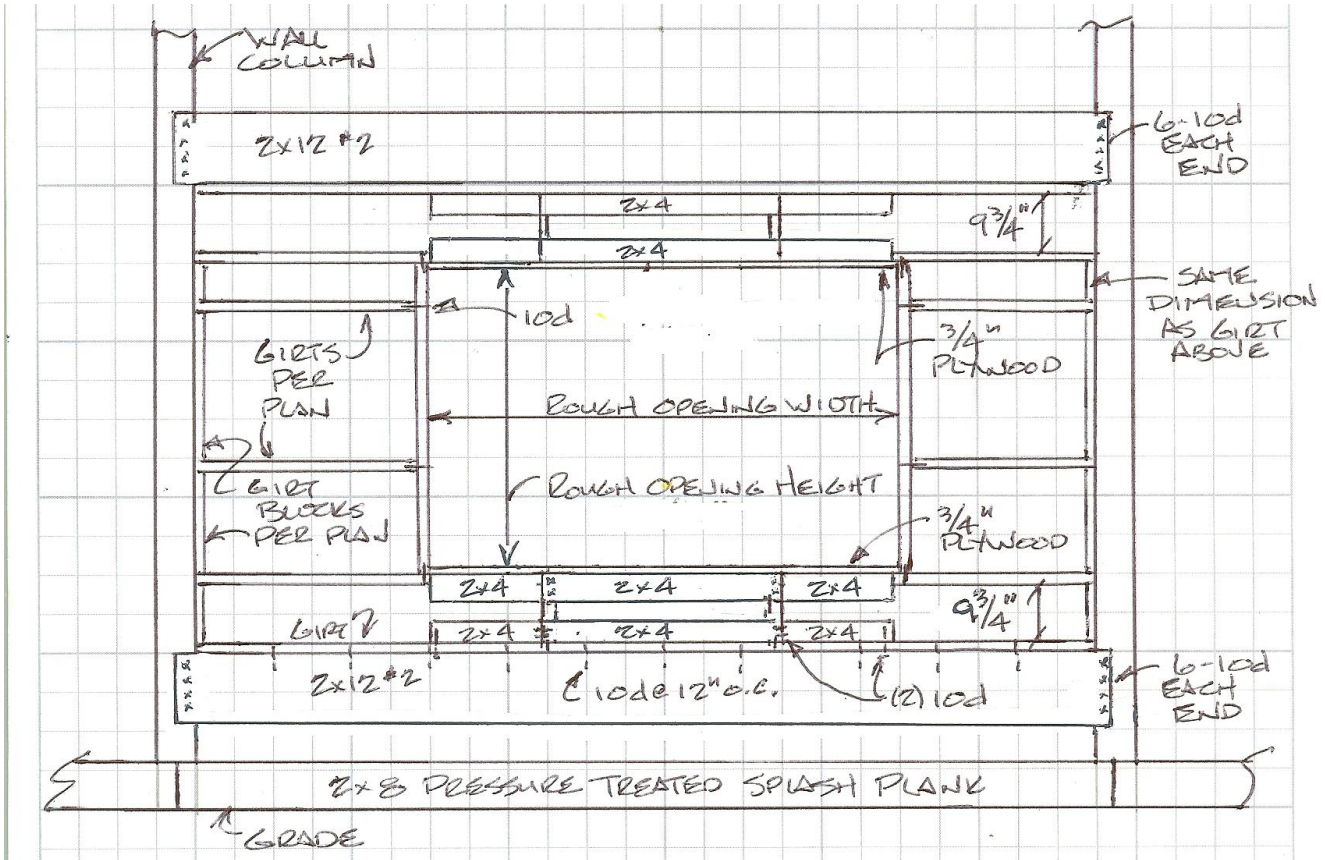


Figure 57-8: Above Opening Framing

Cover 2x4 above and below exterior faces and template plywood exterior edges with 7/16" OSB oriented horizontally. Nail through OSB into 2x4 with 6d commons at 4" on center.

Cut 2x4 with a bevel top (26.6 degrees from 90) into three segments with top of bevel placed even with top of above opening OSB. Attach each with 2 SDWS 16300 screws. Cut two (2) 2x4 Rafters at a 6/12 slope and attach to face of above opening 2x12 and top of above window assembly with 2 SDWS 16300 screws (through 2x12 at top, toe nail at bottom) at angle juncture of windows. Cut two (2) Rafter Cleats at a 6/12 slope and attach to face of above opening 2x12 with 2 SDWS 16300. Cut a 2x4 with a 6/12 bevel top to fit between rafters and nail to face of 2x12 with 2 SDWS 16300 screws.

See Figure 57-9 and Figure 57-10

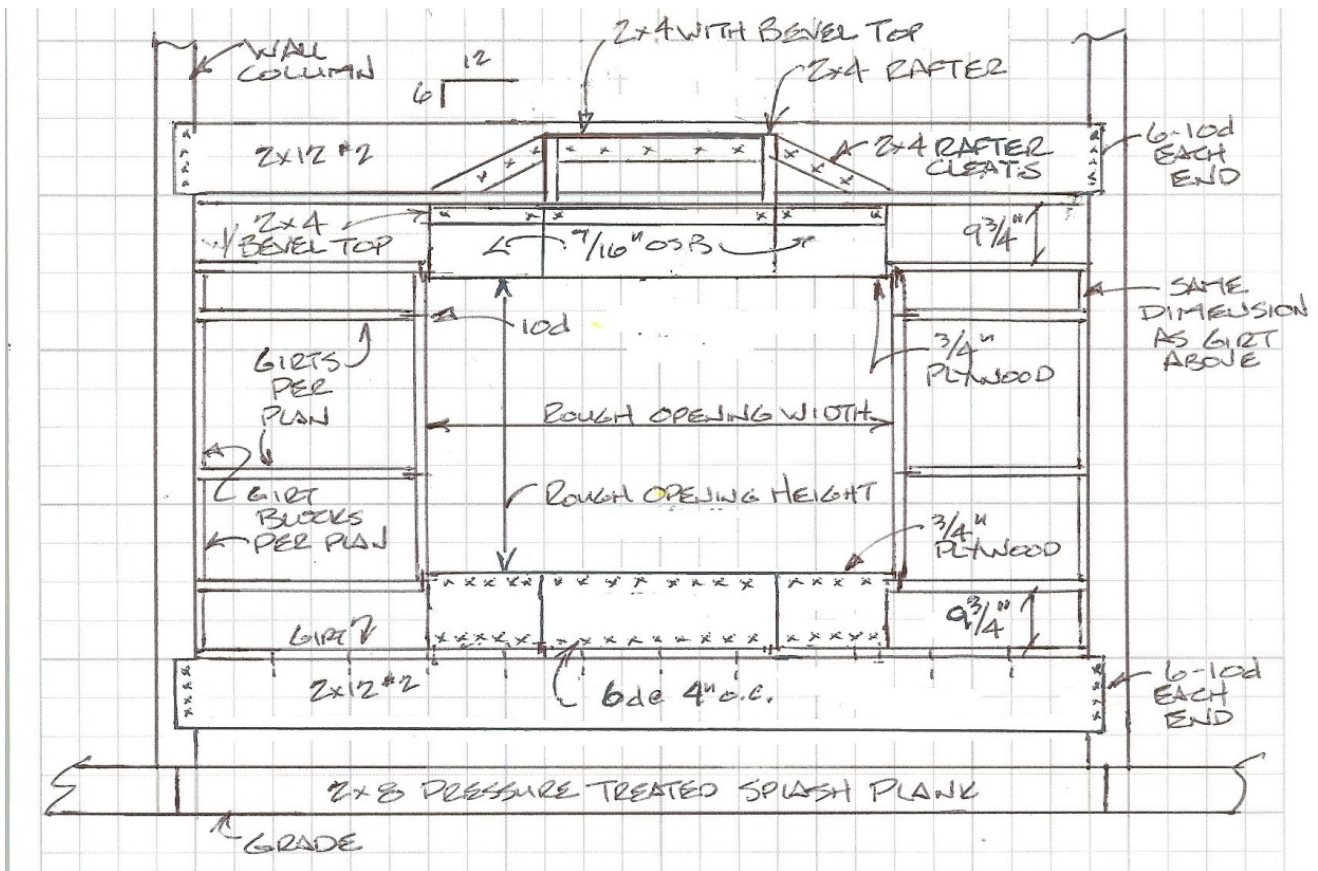


Figure 57-9: OSB Sheathing on 2x4 Face / Rafter Cleats

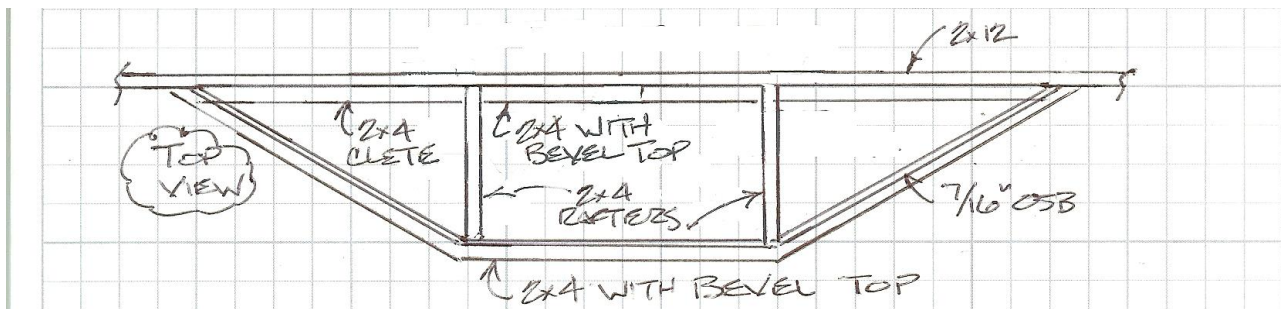


Figure 57-10: Top View Bay Window Rafters/Cleats

Cut and install 2x4 soffit support (3-1/2" face to sky) on top of girt directly above lower 2x12. 2x4 will be across entire width of window opening, other than at lower template angle supports. **See Figure 57-11**

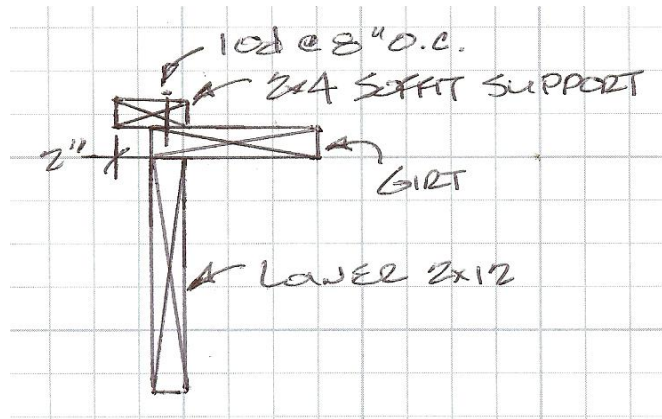


Figure 57-11: Soffit Support

After installing Weather Resistant Barrier on exterior of framing, follow window manufacturer's installation instructions and this manual's Chapter 27 to properly place window assembly in rough opening.

Install unvented soffit panels perpendicular to main building wall beneath lowest 2x4. Cut panels to length to fit tight against bookshelf girt on main building wall and extend past OSB by $\frac{3}{4}$ ". Use $\frac{1}{2}$ " drywall screws through nailing slots into soffit support (shown previously in Figure 57-11) and bottom edge of 2x4 supporting OSB. Install square base guard (ABC LG-111) to cover cut edges of soffit panels. Push LG-111 up tight against soffit panels.

See Figure 57-12

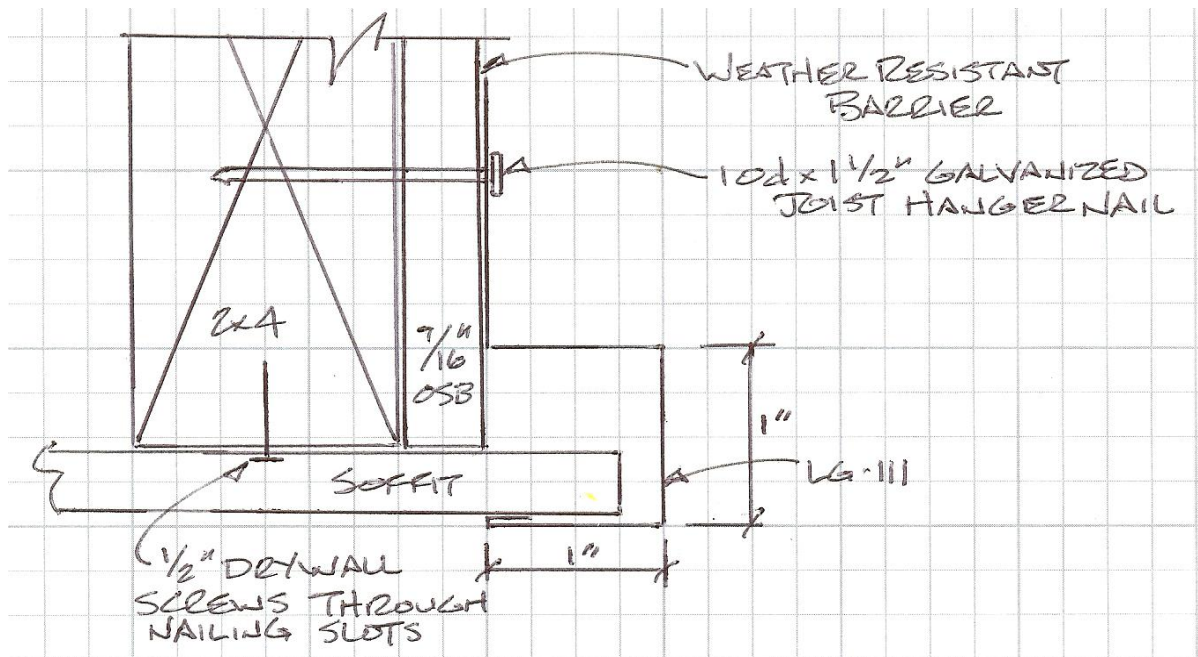


Figure 57-12: Soffit Trim (Section View)

Ends of square base guard will be finished so "D" fits behind siding. **See Figure 57-13**

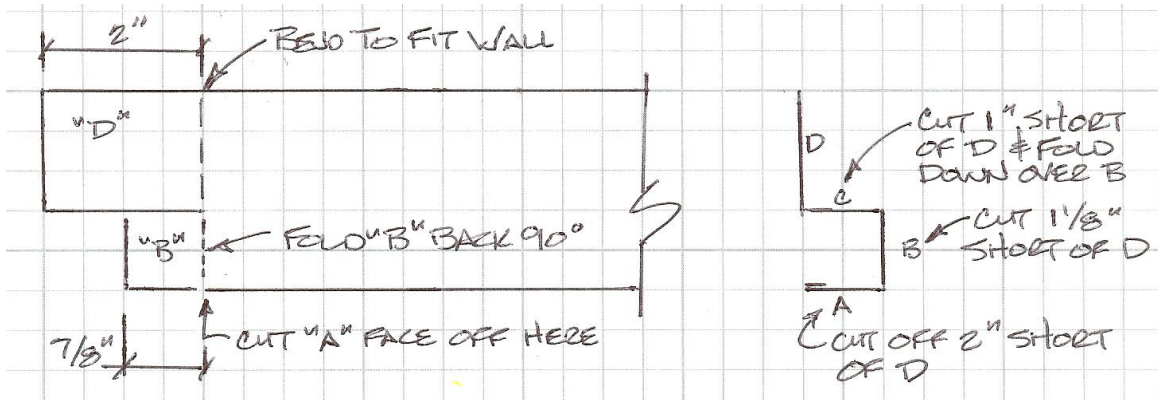


Figure 57-13: Square Base Guard End

Where square base guard trims join at angle, cut angle wall base trim end at press breaks between A-B, B-C and C-D faces back 2 inches. Face D will bend at angle to fit behind D of flat face trim. Angle Face C will fit beneath Flat Face C and be angle cut to fit inside of Flat Face B. Angle Face B will be bent to fit inside of Flat Face B. Cut Face A's to meet.

See Figure 57-14

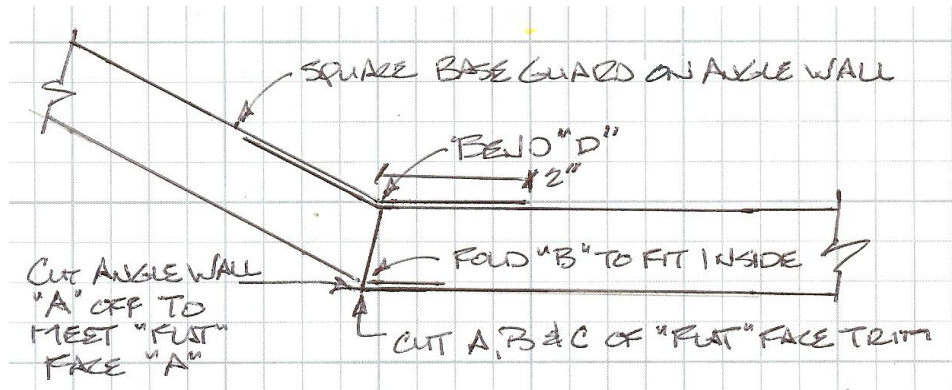


Figure 57-14: Square Base Guard Junction

Follow processes previously outlined in this Manual to install Weather Resistant Barrier (when ordered) over bay window roof framing. Install roof steel in center portion of roof, overhanging bevel top 2x4 by 1-3/4". Place inside closure strip above bevel top 2x4. Screw through roof steel into bevel cut 2x4 at steel panel top and bottom with Diaphragm screws each side of every high rib. Cut bay window roof steel for angled portions (cuts will be on up-hill edge and towards previously installed center portion). Install as outlined immediately above. **See Figure 57-15**

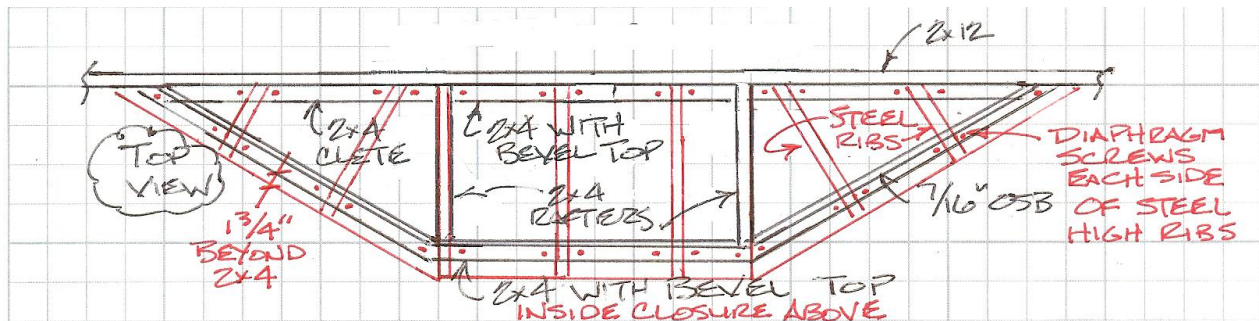


Figure 57-15 Bay Window Roof Steel