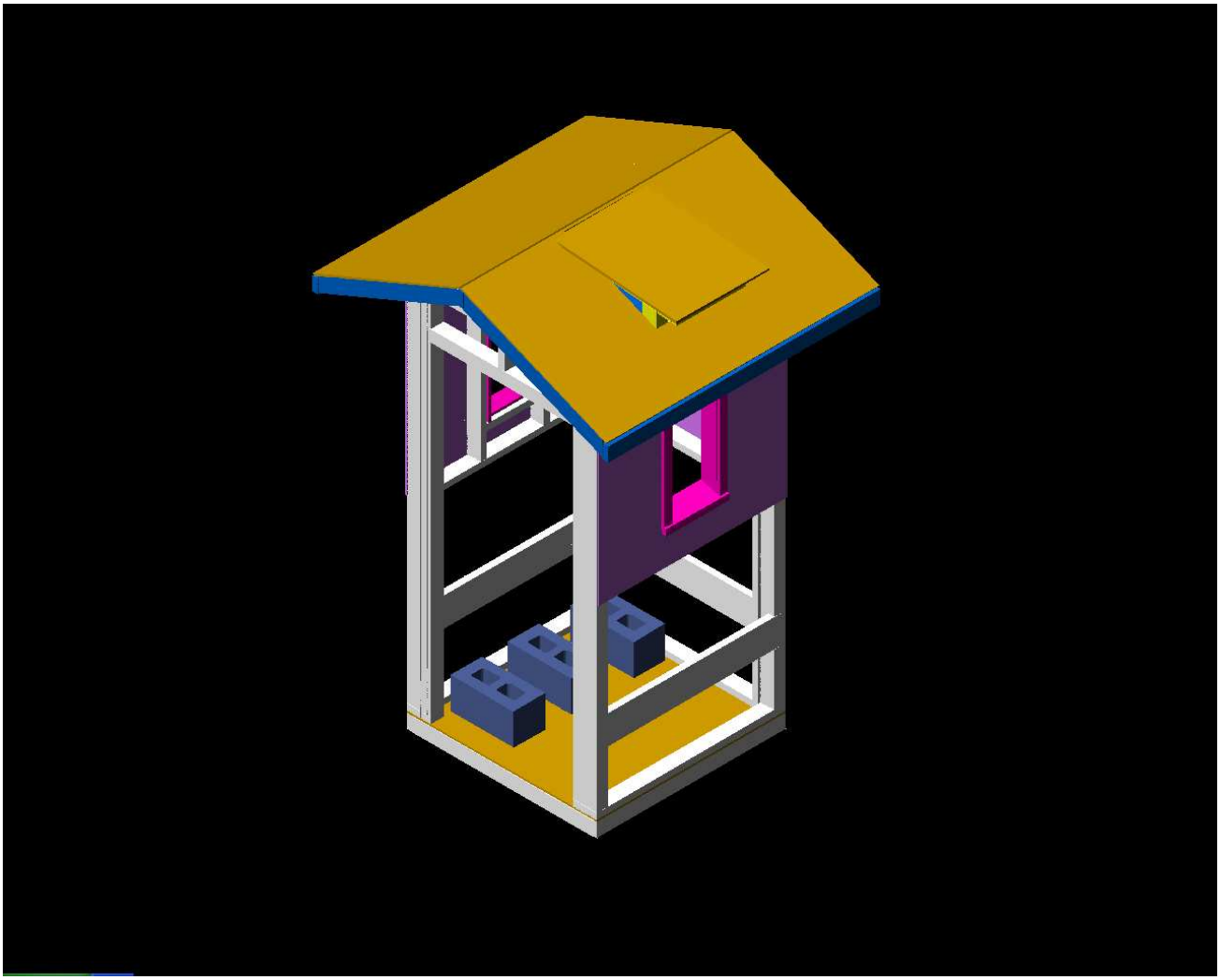
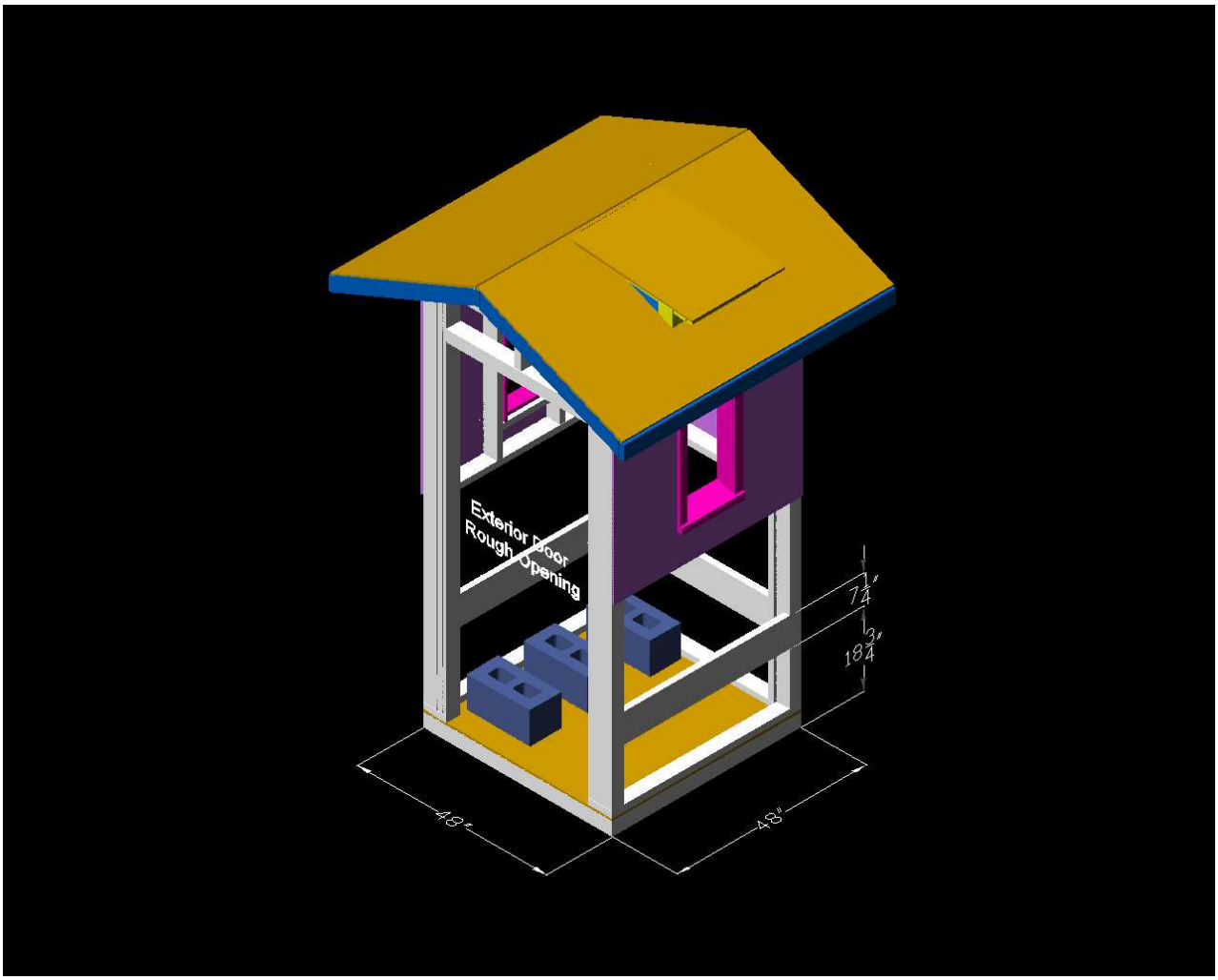
Multi-Module Workstation

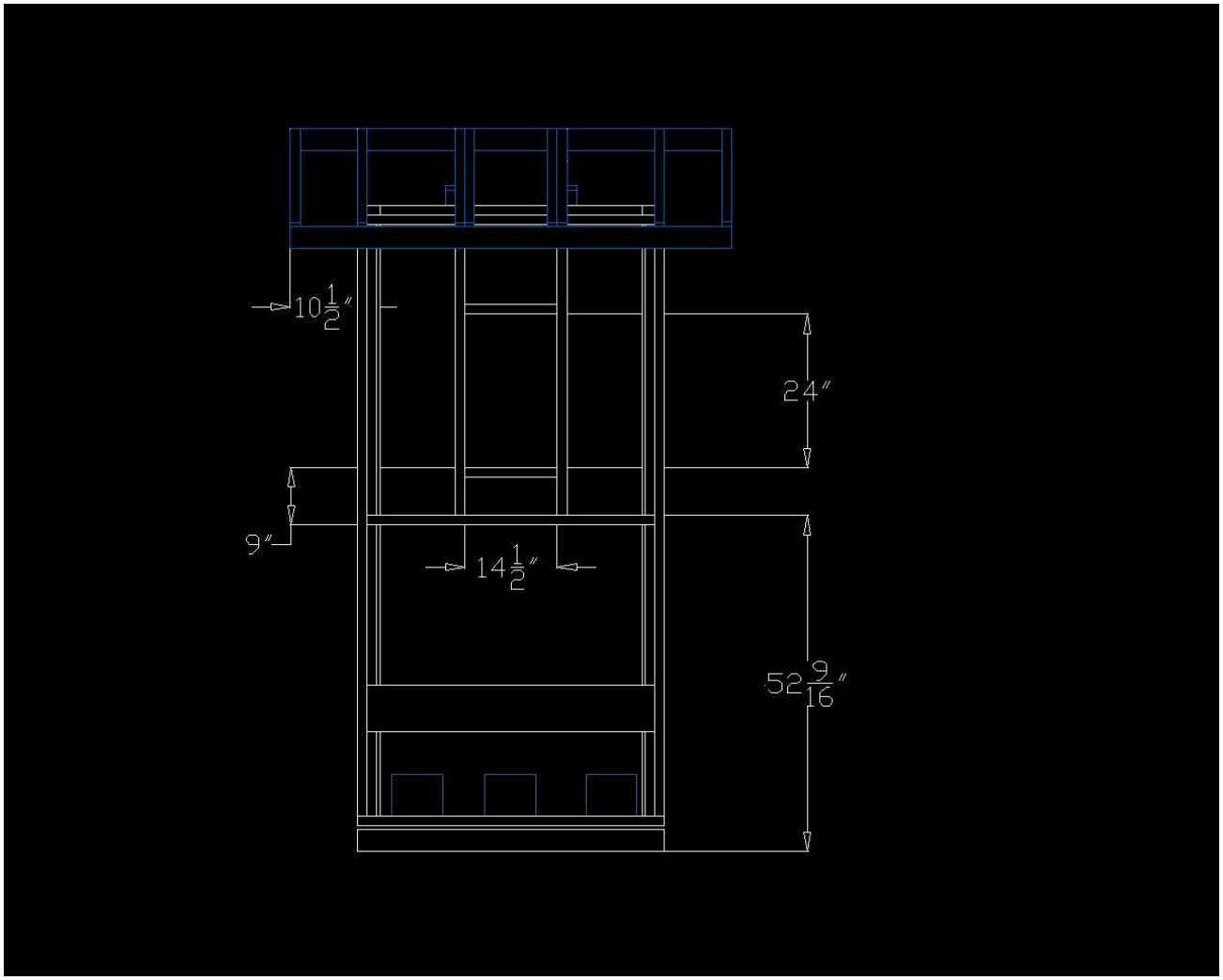


Front View Multi-Module Work Station	1 of 5
	D. Bohmer '09

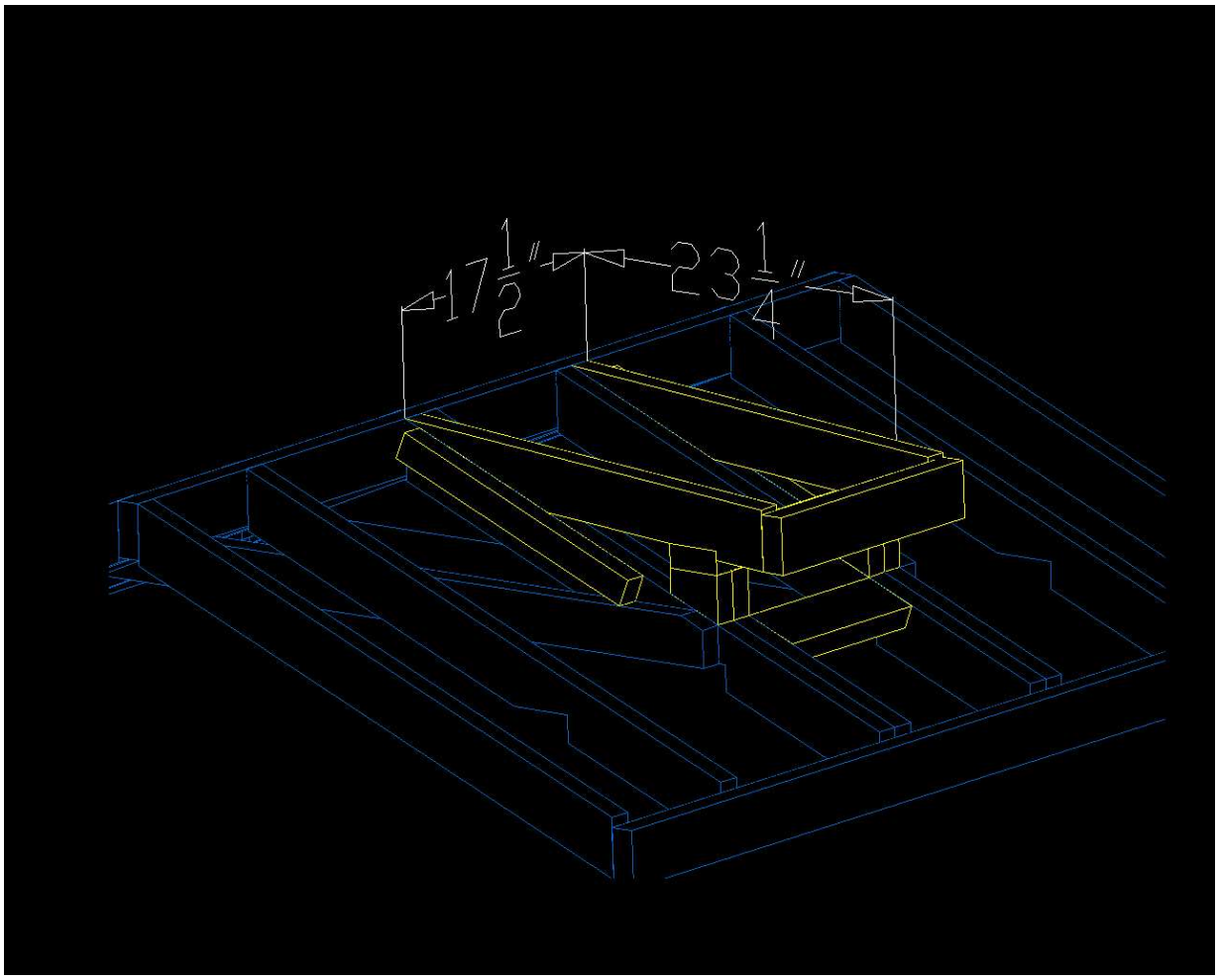
Back View Multi-Module Work Station	2 of 5
	D. Bohmer '09



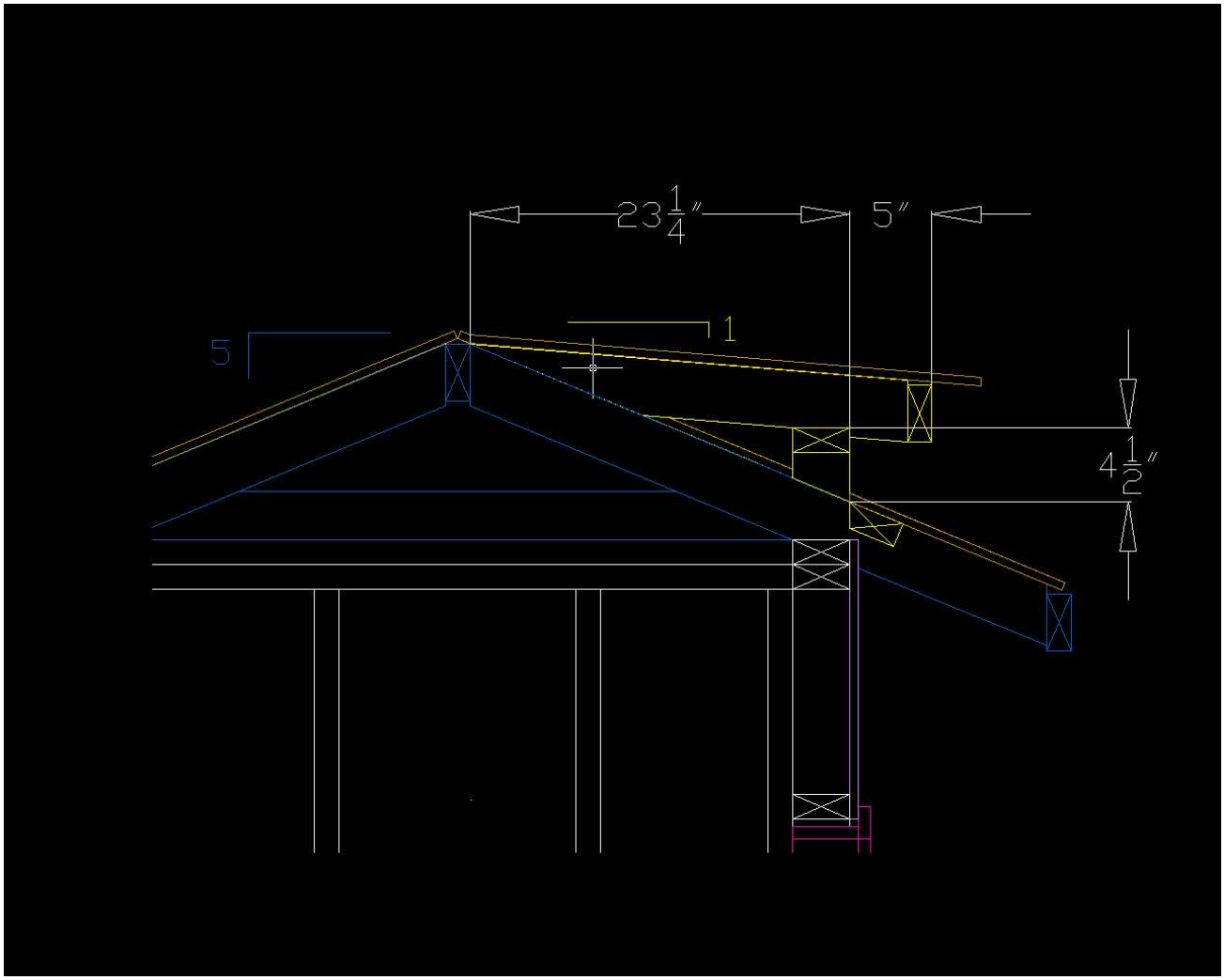
Front Dimensions Multi-Module Work Station	3 of 5
	D. Bohmer '09



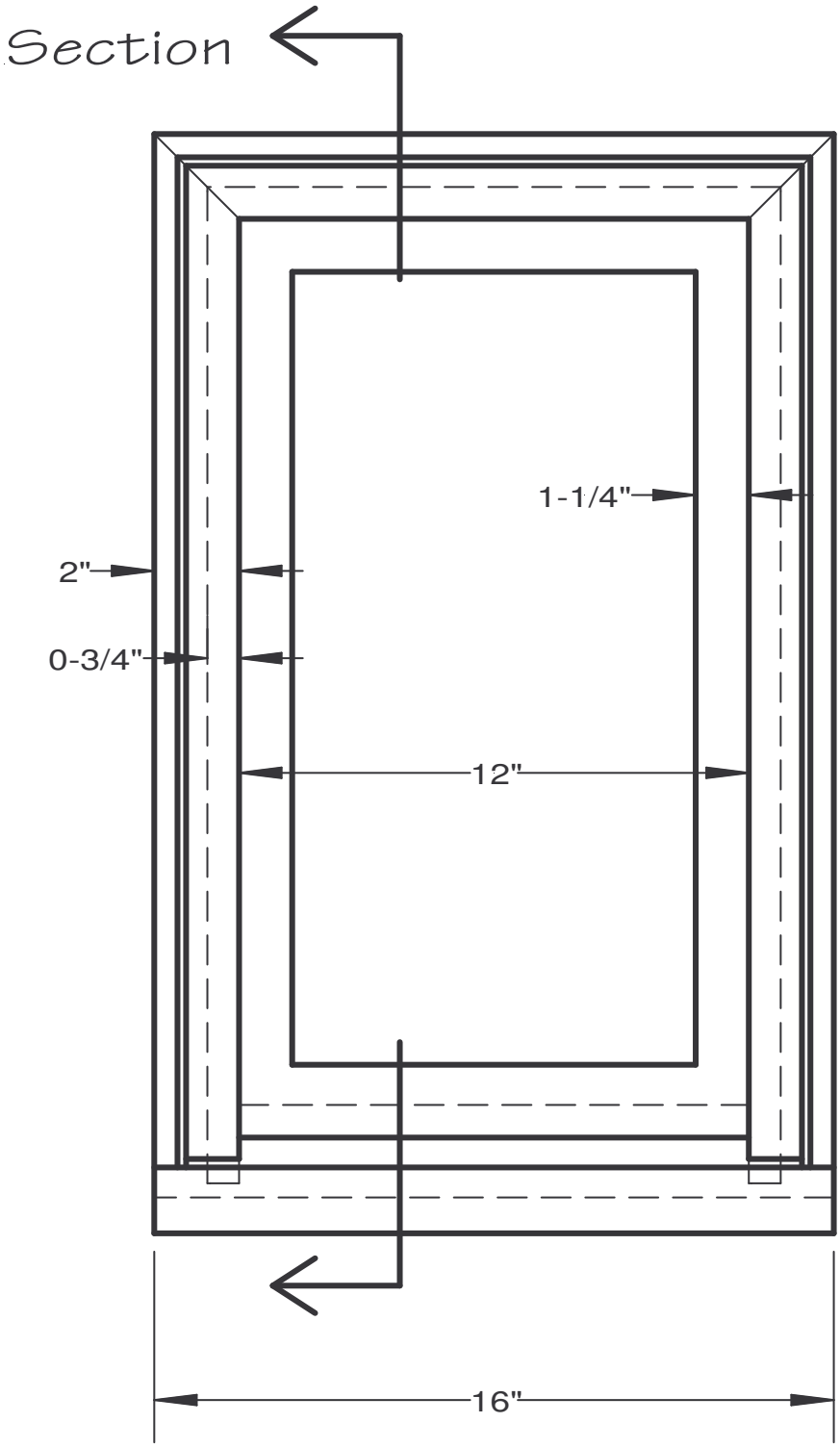
Window Frame Dim. Multi-Module Work Station	4 of 5
	D. Bohmer '09



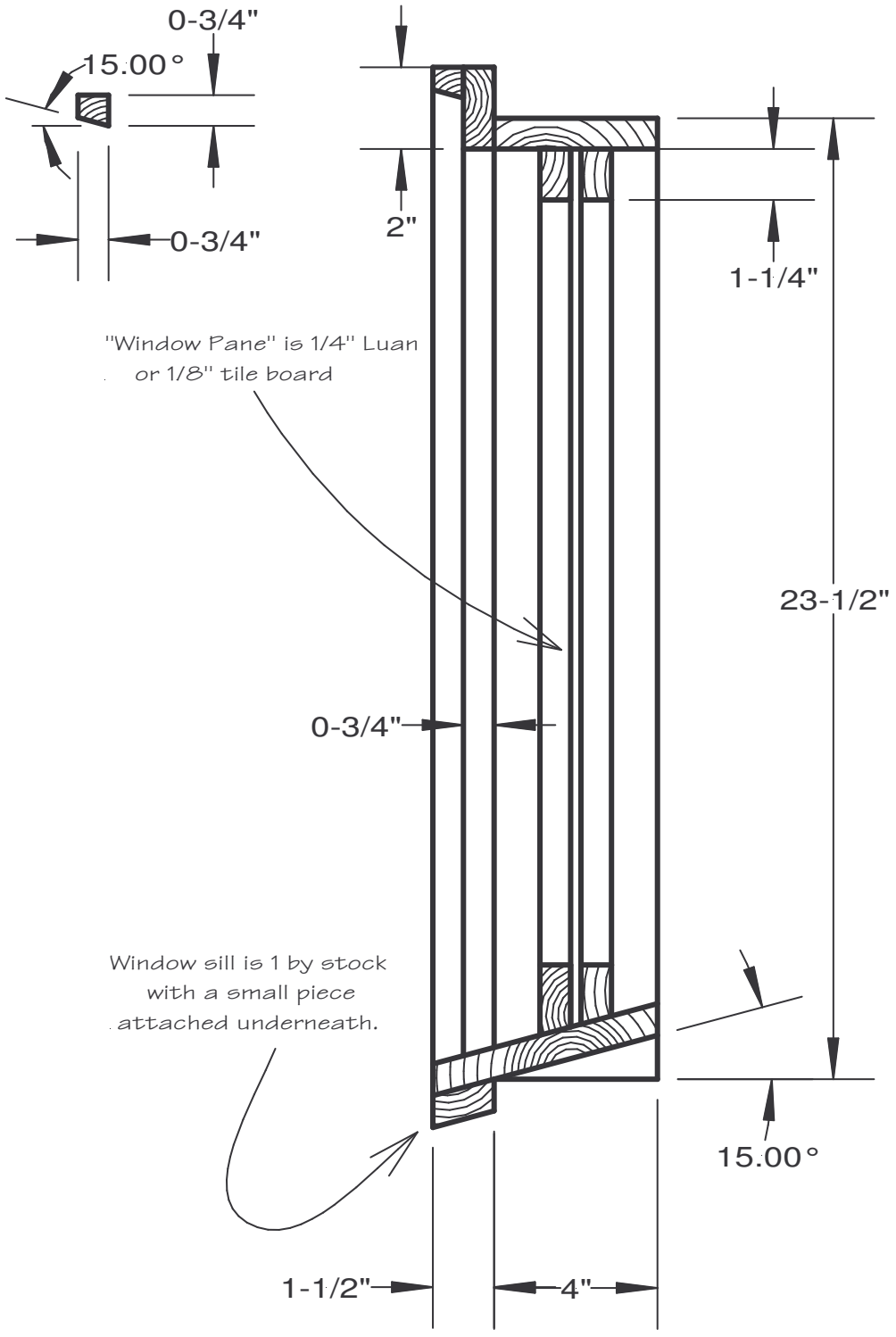
Roof Opening Dim. Multi-Module Work Station	1 of 5
	D. Bohmer '09



Roof Opening Section Multi-Module Work Station	6 of 6
	D. Bohmer '09

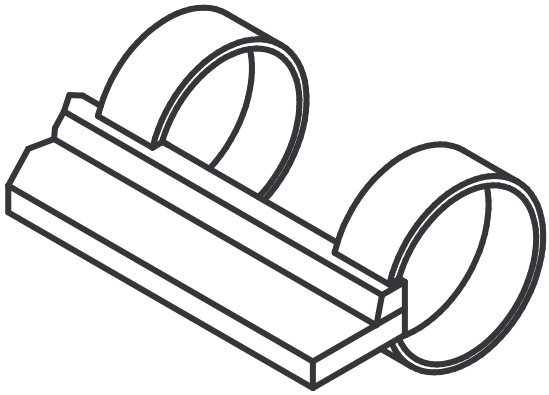


Multi-Module Work Station Window Elevation	1 of 3
	D. Bohmer '09



see notes for
assembly suggestions

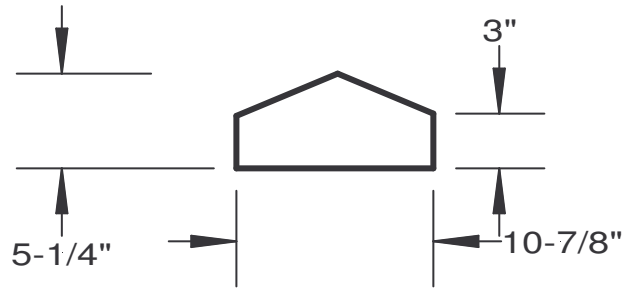
Multi-Module Work Station Window Section	2 of 3
	D. Bohmer '09

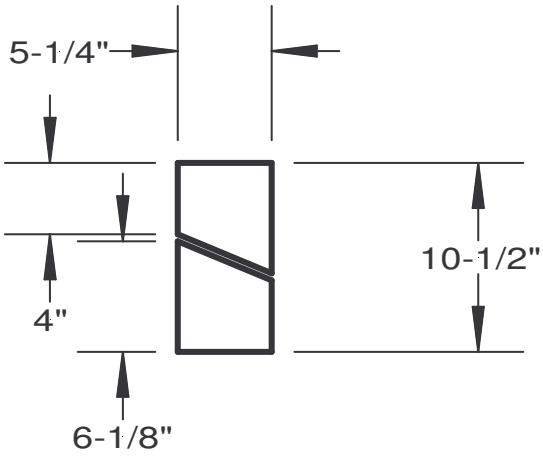


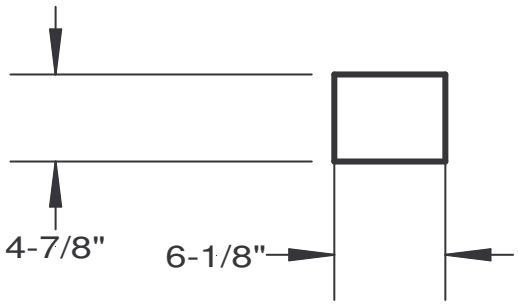
To make window casing that can be sawed do not assemble with fasteners. Use 1 1/2" split segments of 3" PVC pipe as very inexpensive clamps to glue the casing pieces together. Make the casing in long segments that can be cut to length after the glue is dried. Make extra pieces so the window casing can be easily replaced when it is no longer useable. Consider attaching the casing to the jamb with screws for easy removal.

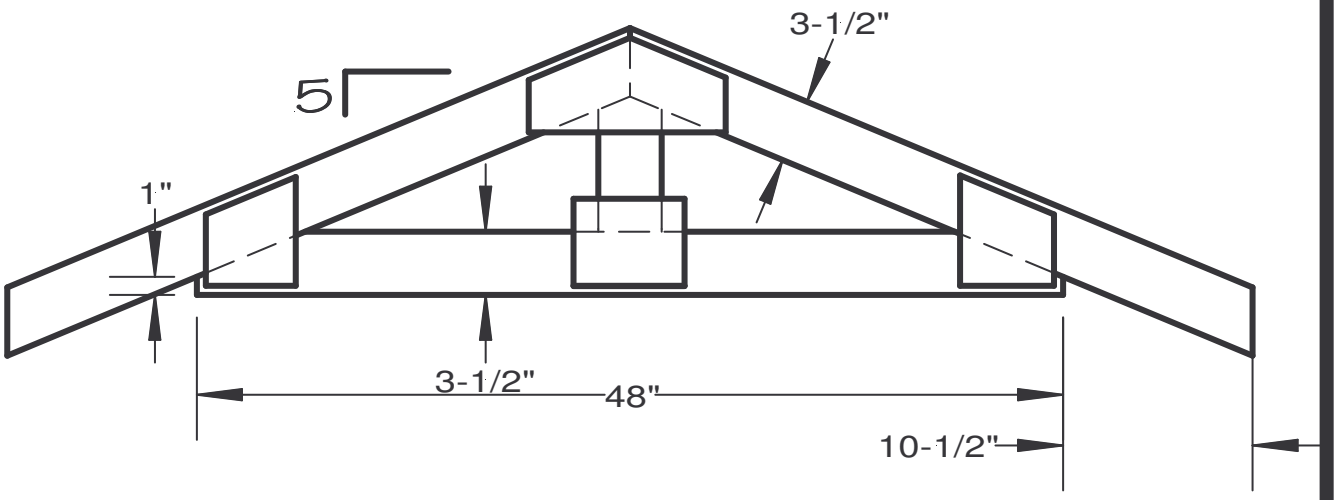
When making the inner window sash sandwich the 1/4" plywood or 1/8" thick tile board between two frames that will be the stiles and rails of the fixed sash. Cut the bottom excess off at a 15 degree angle. Toenail the sash onto the jamb and sill or you can add stop to the window to hold the sash in place.

Multi-Module Work Station Section Notes	3 of 3
	D. Bohmer '09









Make 4 trusses per workstation

Make gussets out of 1/4" or 1/2" plywood. Leave the gussets off of one side of two trusses for use at the gable ends

Multi-Module Work Station Truss Elevation	1 of 1
	D. Bohmer '09

Multi-Module Workstation Notes

The best learning experience for installing roof framing, exterior sheathing, pre-hung windows and doors, stairs, and cornice and siding would be to participate in the construction of a residence. For several reasons this might not be feasible. This workstation plan is provided as a possible solution for allowing valuable work exposure without consuming large amounts of costly resources. Two or more students could work on the unit at the same time.

As conceived, the station can help fulfill some or all of the requirements of the performance profiles from Modules 27106-06 to 27204-07. There are two progress pathways that are accommodated. The work of Modules 27109-06 (install doors & windows), 27110-06 (build a staircase w/ railing) can be accomplished in any sequence. The stairs (conceived to be 36" wide) would be anchored against the 2 X 8 that is 26" above the floor/ground level. Some students should work on those Performance Profiles at the beginning of the course. It will be left up to the instructor to decide when the windows will be left in place for siding installation practice. The ceiling and roof framing should be done in a sequence.

For optimum use of the workstation, first have students build a roof using the roof trusses (Module 27107-06). After completion, that roof is removed and the ceiling joists of Module 27106-06 can be installed according to the plan (note: the roof opening forces one joist to be placed in the opposite side of the roof rafter). . The rafters and roof opening can then be framed to meet the requirement of Module 27107-06. After students have had a chance to frame a roof, the rafters of the final performance session are left in place so that cornice framing and finishing of Module 27204-07 can be completed and the siding practice can be carried out up against the installed cornice.

The use of metal plates to hold the rafters in place (now a code expectation) will help to minimize the damage done to the plate and rafter during the attachment process. Eventually the trusses plates, rafters, and joists will have to be replaced.

The trimmer studs of the rough opening of the 32" wide exterior door may have to be less than the standard 1 1/2" thick. The height of the structure is created by using full length studs. The reason for this is to give students some experience in installing cornice which is usually above one's head. The siding would be installed on the upper half of the frame which is covered with 1/2"thick sheathing as is the ends (not shown for clarity purposes on the door opening end). The rafter tails are 10 1/2" to make a 12" overhang allowing conservation of material. The plan uses a rafter pitch of 5 in 12 and a 1 in 12 pitch for the dormer (opening) roof rafter. Lookout ledger and lookouts are omitted from the plan as this would usually be part of cornice installation. To improve stability it is recommended that several concrete blocks be placed at the bottom of the workstation to create a lower center of gravity.