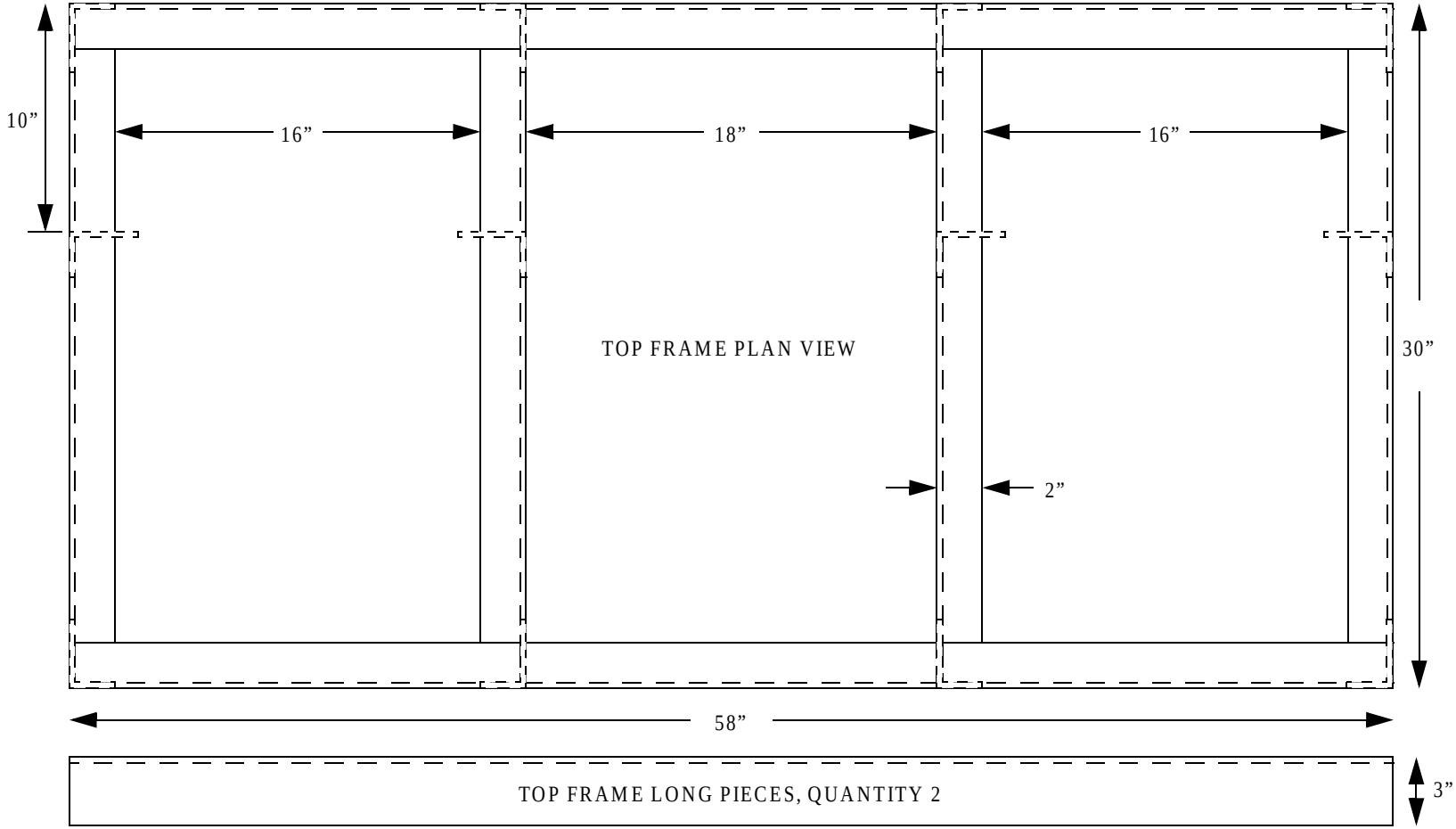
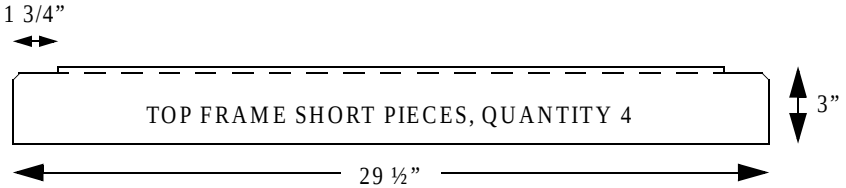
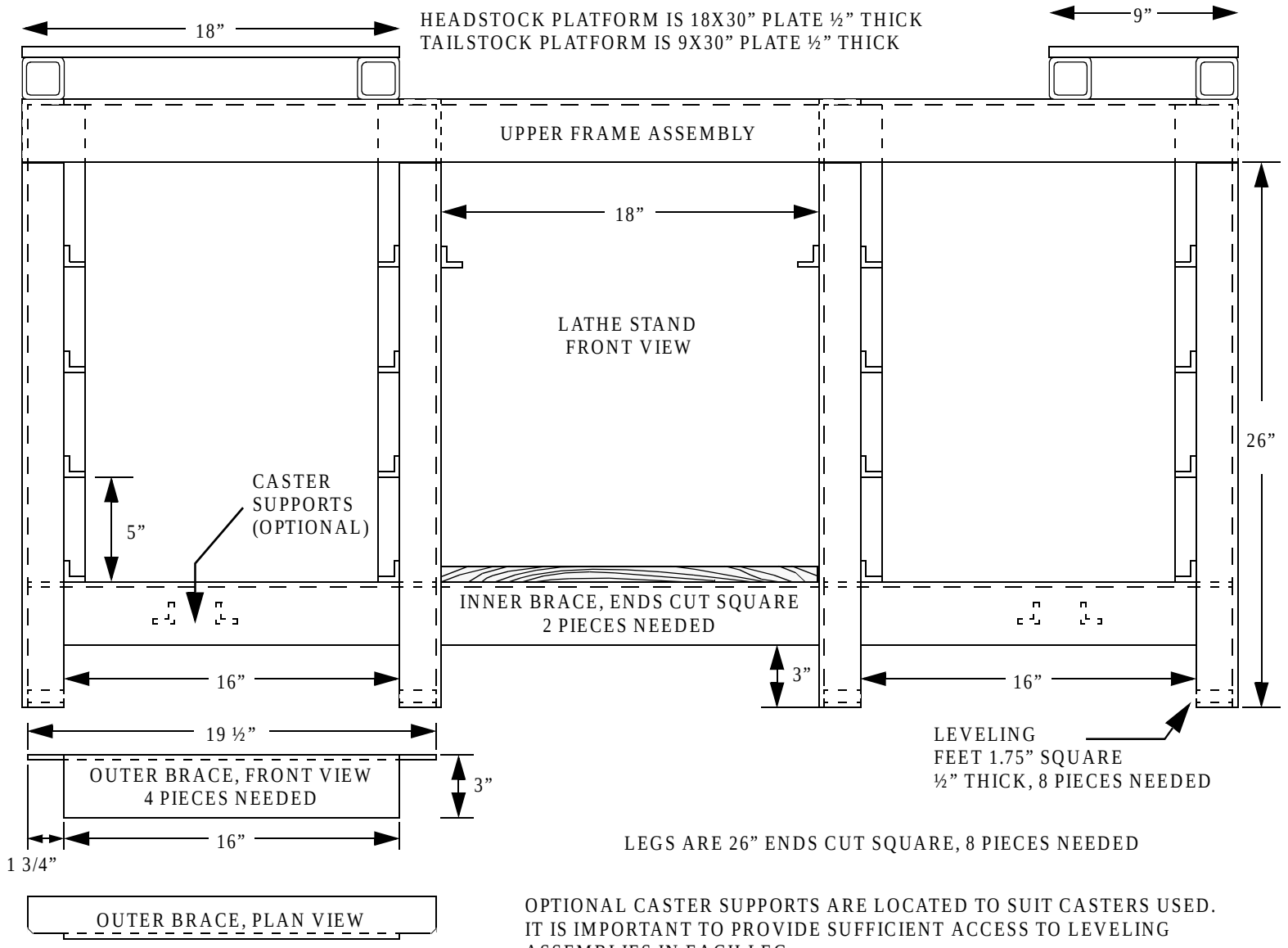
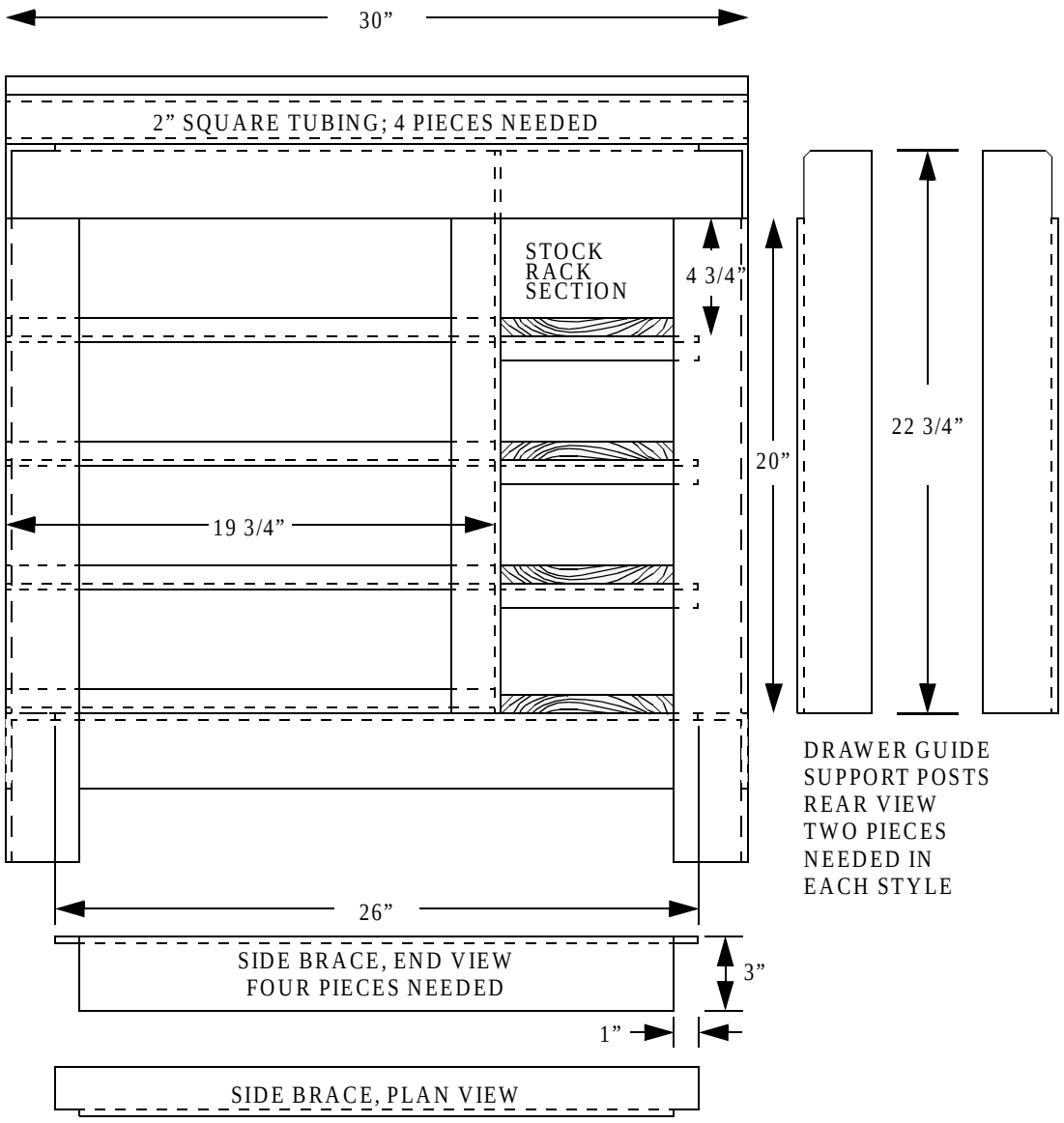




STAND FOR SOUTH BEND 9” OR 10K” LATHE
ORIGINAL DESIGN BY RALPH WALKER
AS PRESENTED IN HOME SHOP MACHINIST
DESIGN ADAPTED BY GRANT ERWIN
ALL ANGLE IRON IS 2X3” EXCEPT DRAWER
SUPPORTS AND STOCK RACK SHELF
SUPPORTS, WHICH ARE 1X1”. NOTE THAT
DIMENSIONS SHOWN FIT A 4½’ BED.


18”
HEADSTOCK PLATFORM IS 18X30” PLATE ½” THICK
TAILSTOCK PLATFORM IS 9X30” PLATE ½” THICK
9”
UPPER FRAME ASSEMBLY
18”
LATHE STAND
FRONT VIEW
26”
5”
CASTER
SUPPORTS
(OPTIONAL)
INNER BRACE, ENDS CUT SQUARE
2 PIECES NEEDED
3”
16”
16”
19 ½”
LEVELING
FEET 1.75” SQUARE
½” THICK, 8 PIECES NEEDED
OUTER BRACE, FRONT VIEW
4 PIECES NEEDED
3”
16”
1 3/4”
LEGS ARE 26” ENDS CUT SQUARE, 8 PIECES NEEDED
OUTER BRACE, PLAN VIEW
OPTIONAL CASTER SUPPORTS ARE LOCATED TO SUIT CASTERS USED.
IT IS IMPORTANT TO PROVIDE SUFFICIENT ACCESS TO LEVELING
ASSEMBLIES IN EACH LEG.

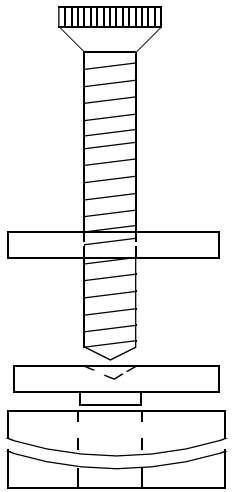


DRAWER GUIDE SUPPORT POSTS REAR VIEW TWO PIECES NEEDED IN EACH STYLE

16 OUTER DRAWER GUIDES 19.75”
2 INNER DRAWER GUIDES 20”
ALL DRAWER GUIDES ARE FABRICATED FROM 1x1x1/8” ANGLE.

STOCK RACK SHELVES ARE 8” LONG. ENDS ARE CUT SQUARE. 12 PIECES ARE NEEDED.

LEVELING FOOT
NOT TO SCALE
118 DEGREE POINT MACHINED ON LEVELING SCREW MATCHES 118^{o} POINT IN LEVELING PLATE. SPHERICAL WASHERS ARE COMMERCIAL HARDWARE ITEMS.



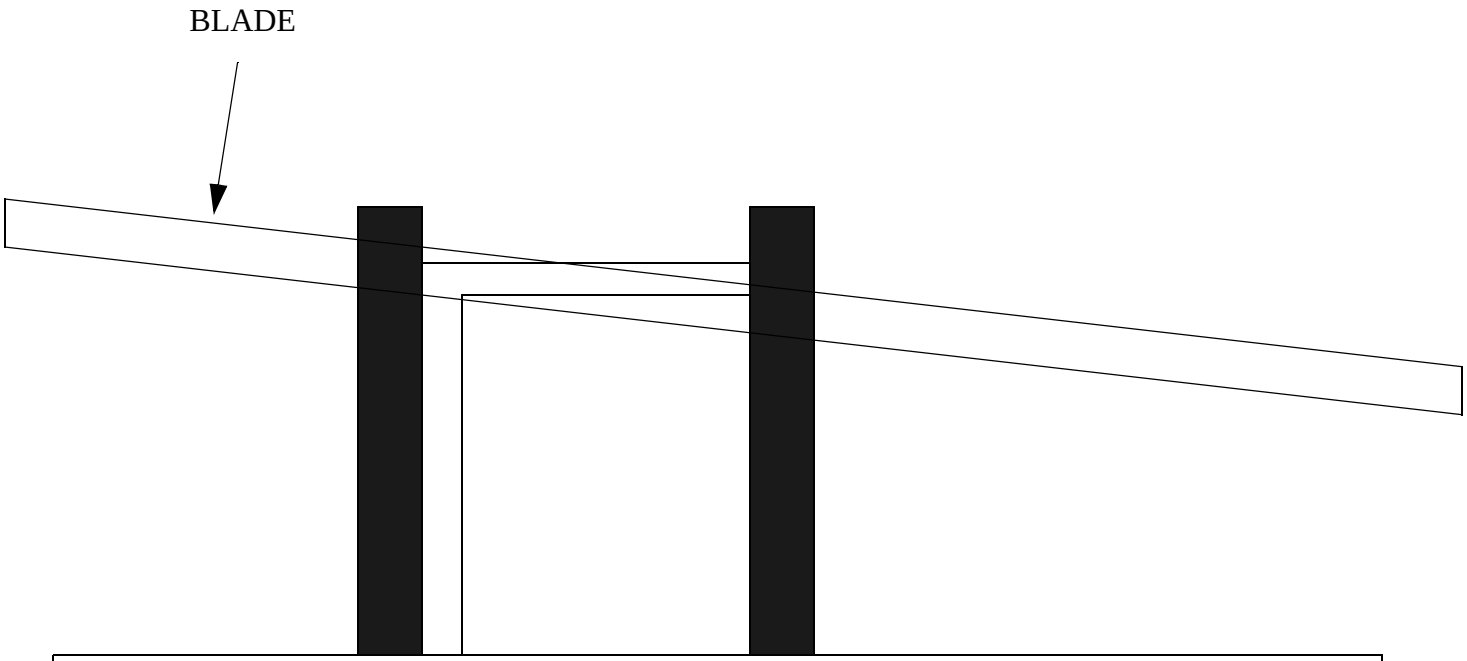
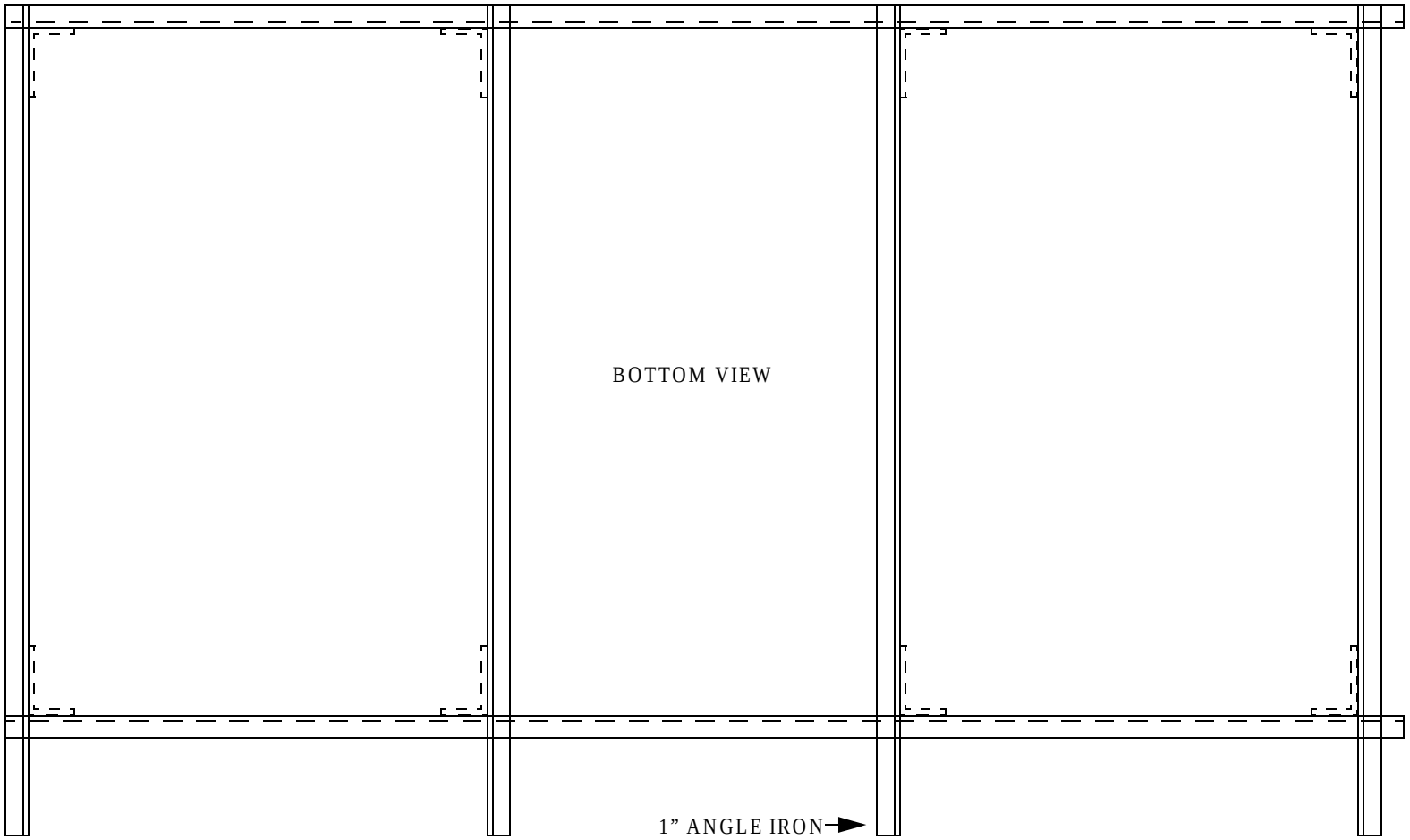
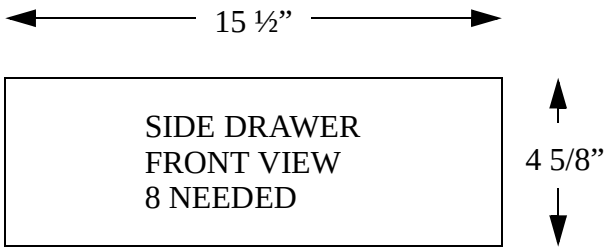


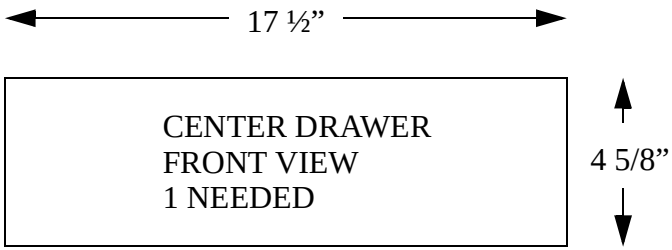
Figure 1: Showing the final position of the cutoff bandsaw blade at the end of the first cut to notch out the end of a piece of angle iron. The left dark shaded region represents the movable jaw and the right one represents the fixed jaw of the saw's vise. The second cut, to complete the notch, is done freehand with the saw in vertical position.

Construction technique: Before cutting all 20” pieces of 1x1” angle, cut 2 pieces to 61” and 4 pieces to 41”. These pieces can be clamped together precisely, and clamped to the bottom of the 8 main legs with the stand upside down. This will hold the 8 legs square and vertical for welding to the upper frame. The temporary 1x1” frame can be left in place while the cross pieces are assembled and welded. After the main lathe stand is complete, the 1x1” frame can be unclamped. Note that the 8 legs must be tacked lightly at the other end from the 1x1” frame in order that the ends can be moved without undue effort. This technique of using an auxiliary frame to hold the free leg ends in position is necessary to keep the ends located within 1/16” after welding, which is harder than it looks!

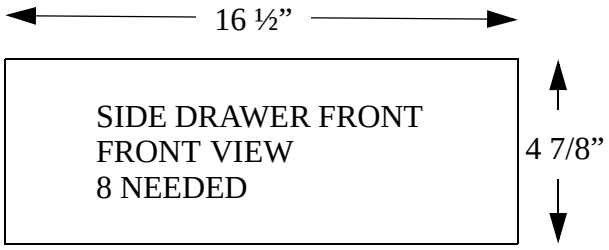


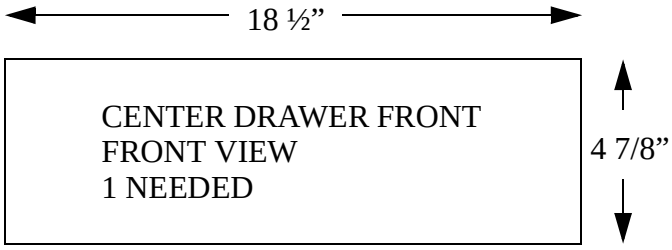
Comments on Fabrication:
I found it difficult to fit the cross pieces between the legs, with a gap at each end for good weld penetration, and to weld it securely in place without it pulling the legs together, pulling them out of square. My technique was to clamp the legs together on the outside, and to simultaneously push the legs apart with a hydraulic cylinder. This way, the legs could not move in or out. Then I fitted the cross pieces and welded them, and the legs did not move. (This all took place with the table upside down and the legs sticking straight up in the air.)

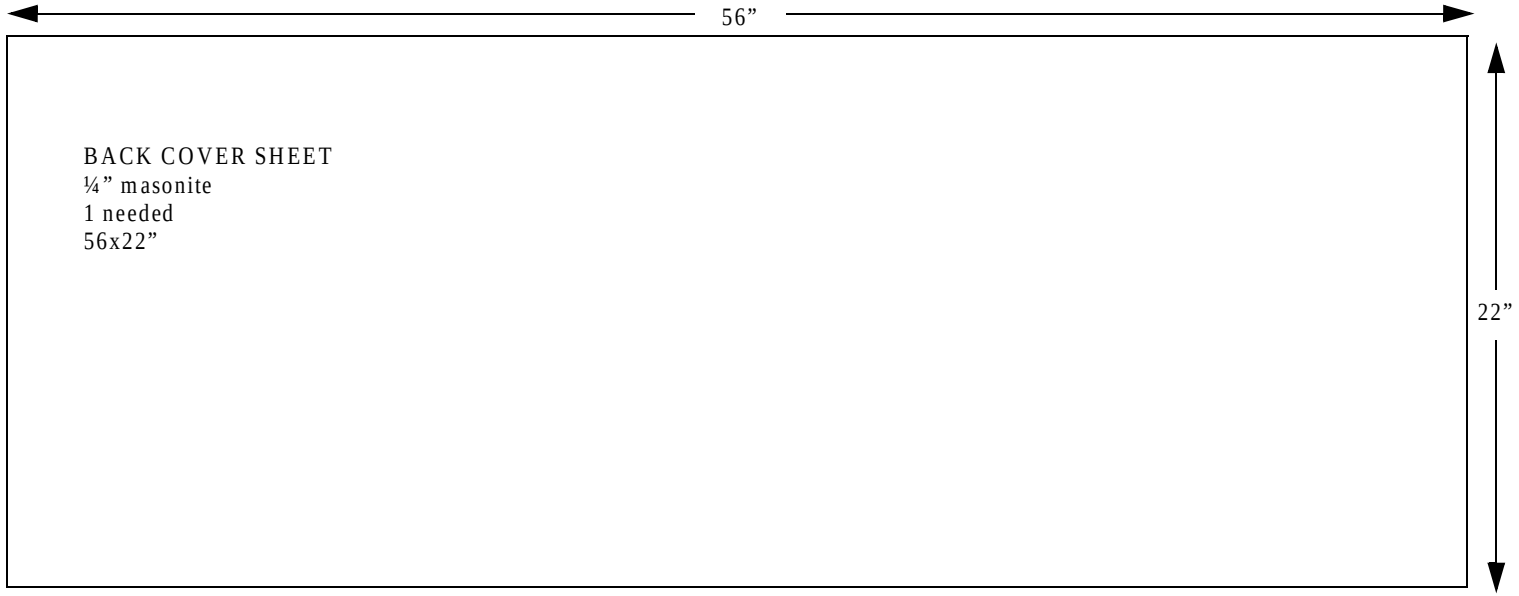


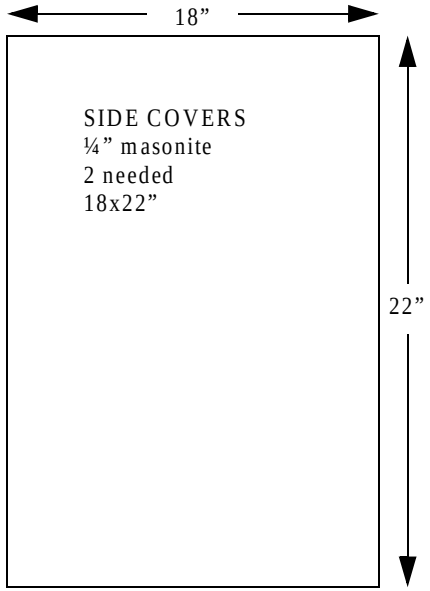


DRAWERS: All drawers should be made 19 3/4” deep, outside measurement. Drawers should be solidly constructed using ½” plywood bottoms. 8 side drawers are needed, and 1 center drawer. Note that the center drawer is 2” wider than the side drawers. It is possible to make the drawers in a basic plywood box structure, and to attach the drawer fronts in a separate operation, as they do not fit into the face frame and can be made to suit.









Optional: can cut from the remnant masonite sheet a 30x31” sheet to go beneath chip pan
Recommend 18x26” sheet pan, should be available used from bakery places for under $5, can sand smooth with 300 grit paper on a random orbital sander.