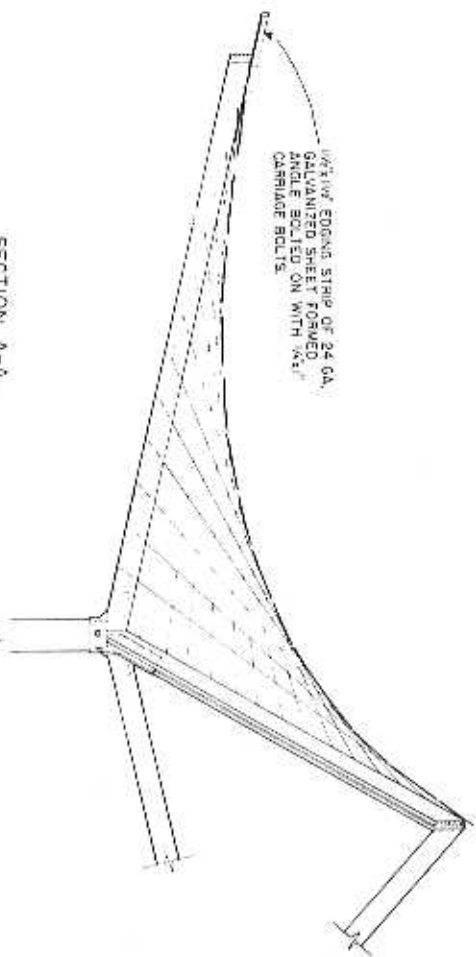


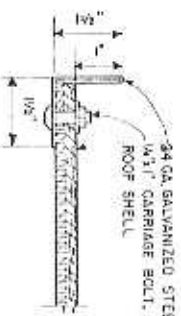
ROOF SHELL PLAN

SCALE: 0 1 2 3 4 FT



SECTION A-A

SCALE: 0 1 2 3 4 FT



SECTION B-B

INSTRUCTIONS

LAY OUT AN EQUILATERAL TRIANGLE, 20'-0" ON A SIDE AND DIG THREE HOLES GENTLY AT THE CORNERS. EACH HOLE SHOULD BE 12" DEEP. PLACE A TOWER POST IN THE CENTERS OF THE HOLES. BRACE THEM PLUMB. POUR 1/2" CONCRETE COLLAR AROUND THE BASE OF EACH POST. BACKFILL WITH WELL-TAMPED EARTH AND POUR THE CONCRETE COLLARS AT GRADE.

PLACE THE POST CAPS AND INSTALL THE CROWN BEAMS. ANCHOR THE POST CAPS AND INSTALL THE SIDE BEAMS WITH TEMPORARY SHORING TO PROVIDE SUPPORT UNTIL THE ROOF SHELL IS COMPLETED. TO AID IN APPLYING THE ROOF STRIPS, INSTALL THREE 2"x4" TEMPORARY RAFTERS AT QUARTER POINTS BETWEEN THE CROWN BEAM AND THE OPPOSITE SIDE BEAM.

BEFORE THE TOP EDGES OF THE BEAMS TO SET THE ROOF STRIPS. TWENTY-SIX 3/8" GALVANIZED STEEL STRIPS 1 1/2" WIDENED FOR TWO 3/4" NAILS AND 3/4" SPACED 4" TO 6" APART.

THE ROOF STRIPS ARE 1/2" TEMPERED HARDBOARD 12" WIDE. EACH SEGMENT OF THE ROOF SHELL IS FORMED OF TWO LAYERS OF FIFTEEN STRIPS. THE STRIPS EXTEND FROM THE CROWN BEAMS TO THE SIDE BEAMS, AND ARE NAILED WITH 6d NAILS SPACED 4" TO 6" APART. THE FIRST STRIP IN THE BOTTOM LAYER IS APPLIED ALONG THE SIDE BEAM IN THE OPPOSITE DIRECTION TO THE TEMPORARY RAFTERS, ALLOWING A 6" OVERHANG FROM THE OUTER EDGE OF THE OVERHANG. MARK THE CROWN BEAM AND THE OPPOSITE SIDE BEAM INTO 12 EQUAL SPACES. THESE MARKS LOCATE THE OUTER EDGES OF THE END STRIPS. THE STRIPS WILL BE STILED FROM THE TEMPORARY RAFTERS NEAREST THE CROWN BEAM TOGETHER ABOUT OVER THE TEMPORARY RAFTERS NEAREST THE OPPOSITE DIRECTION.

AS THE STRIPS ARE LAID, WORKING FROM THE SIDE BEAM TOWARD THE CROWN BEAM, THEY ARE FASTENED TO THE BOTTOM LAYER WITH AT LEAST TWO 3/4" CARRIAGE BOLTS WITH WASHERS AT EACH INTERSECTION. TO COVER THE SPACES BETWEEN THE STRIPS OF THE BOTTOM LAYER, HEAVY FIBERGLASS FABRIC IS PLACED BETWEEN THE LAYERS IN STRIPS AT LEAST 12" WIDE.

THE END STYLING OF STRIPS SHOULD BE MADE UNDER OR ABOVE A STRIP OF THE OTHER LAYER. CARE SHOULD BE TAKEN TO STAGGER THE SPACES IN ADJACENT STRIPS ALONG THE CROWN BEAMS AND APPLY THE METAL EDGING STRIPS ALONG THE OVERHANG.

ADDITIONAL FIBERGLASS STRIPS, CEMENTED WITH EMULSIFIED ASPHALT ROOF COATING, ARE APPLIED OVER THE SPACES BETWEEN THE HARDBOARD STRIPS OF THE TOP LAYER. THE ENTIRE ROOF IS COATED WITH STABILIZED ASPHALT. THE THREE ROOFS ABOVE CROWN BEAMS MAY ALSO BE WEATHER PROTECTED BY THE SAME PROCESS.

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS DEPARTMENT OF AGRICULTURAL ENGINEERING UNIVERSITY OF MARYLAND

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS DEPARTMENT OF AGRICULTURAL ENGINEERING UNIVERSITY OF MARYLAND			
UNITED STATES NATIONAL EXTENSION SERVICE			
HP PICNIC SHELTER			
USA	76	EX 5995	SHEET 5 OF 4