

JUNE 14, 1968

DESCRIPTION
A RURAL HOME OF WOOD—(PLAN SE-2)

THIS IS A LOW-COST HOUSE OF WOOD, DESIGNED PARTICULARLY FOR RURAL FAMILIES WITH ANNUAL INCOMES OF ABOUT \$3,000. THE HOUSE WAS DESIGNED BY HAROLD F. ZORNIG, ARCHITECTURAL ENGINEER ON THE HOUSING RESEARCH PROJECT STAFF, FORESTRY SCIENCES LABORATORY, ATHENS, GEORGIA. THIS LABORATORY IS A UNIT OF THE SOUTHEASTERN FOREST EXPERIMENT STATION, U. S. DEPARTMENT OF AGRICULTURE, FOREST SERVICE, ASHEVILLE, NORTH CAROLINA.

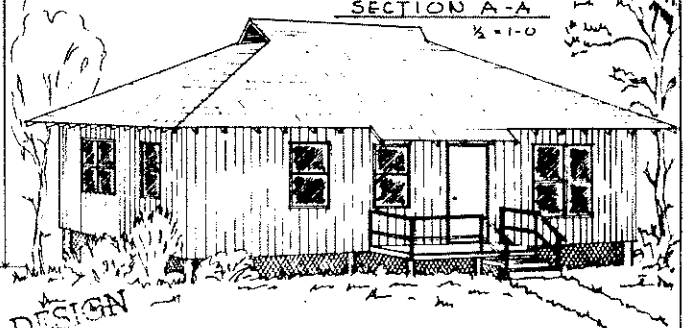
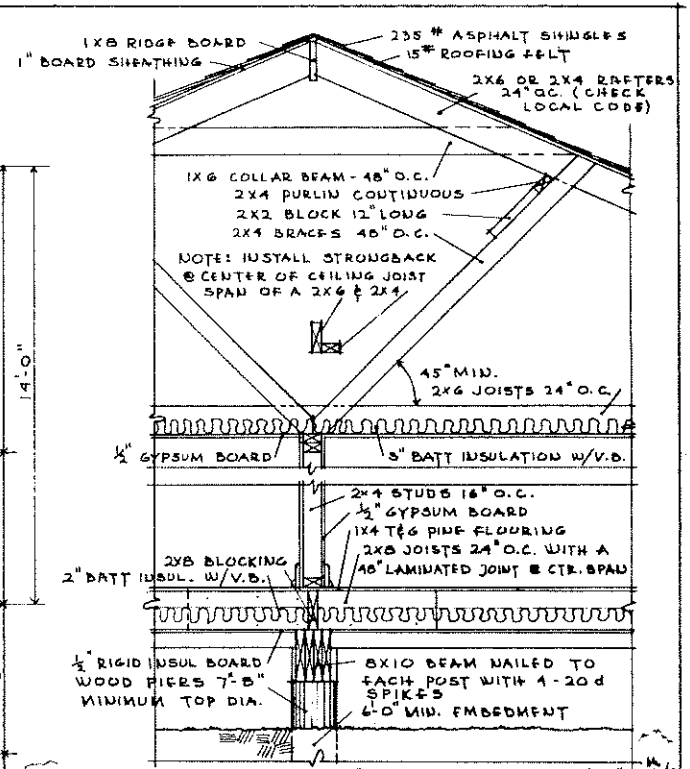
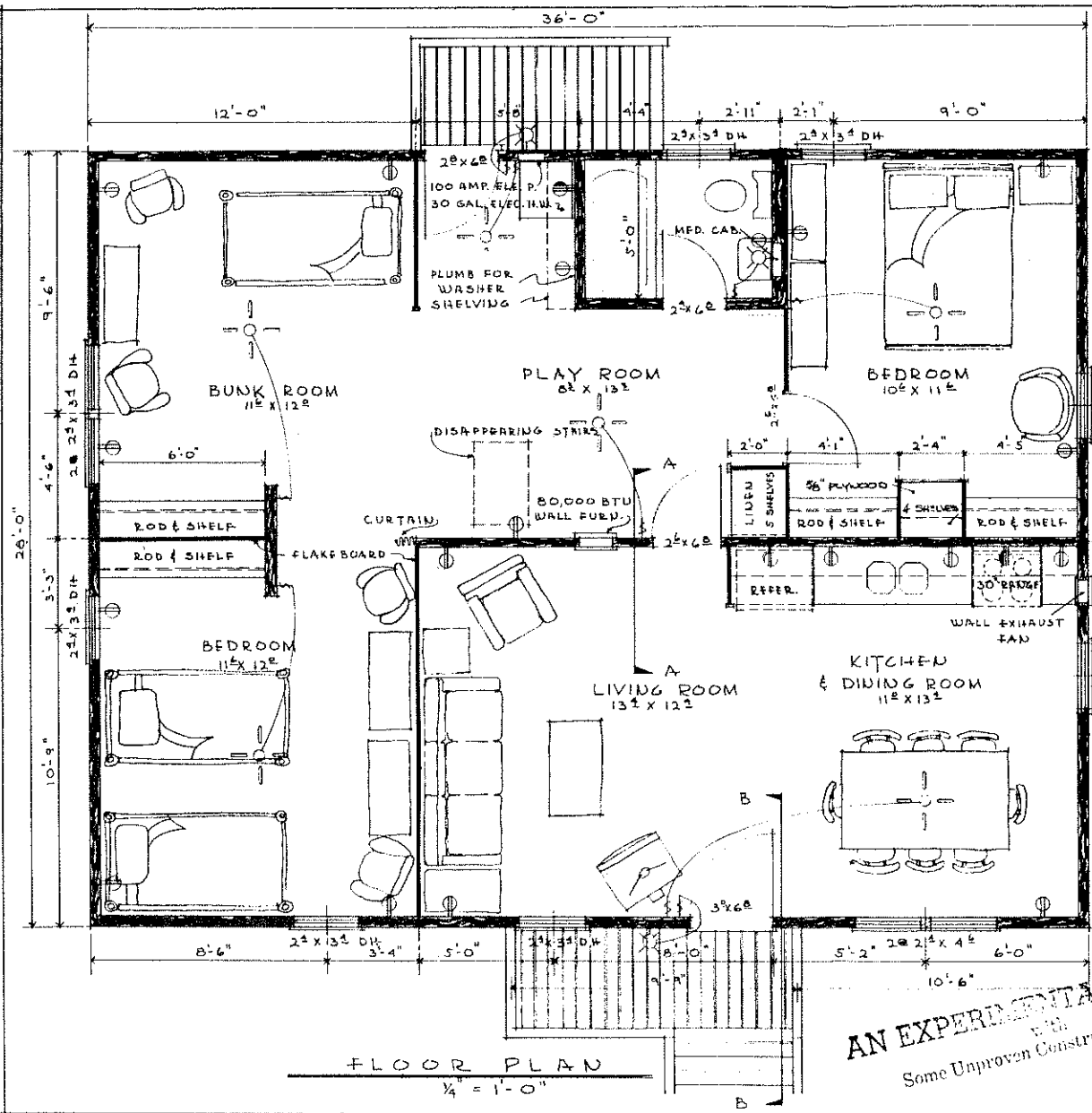
THE HOUSE WAS DESIGNED TO PROVIDE APPROXIMATELY 1000 SQUARE FEET OF LIVING SPACE, AND TO BE BUILT ON A SLOPING SITE. IT INCORPORATES A PRESSURE-TREATED WOOD PIER FOUNDATION SYSTEM.

THE DESIGNER ESTIMATES THAT THIS HOUSE COULD BE CONSTRUCTED BY A BUILDING CONTRACTOR FOR ABOUT \$6.00 TO \$7.00 PER SQUARE FOOT. THIS COST DOES NOT INCLUDE THE COST OF LAND, FINANCING, OR OUTSIDE UTILITIES.

THE HOUSE DESIGN PROVIDES AN ENLARGED CENTRAL HALL AREA IN WHICH A CENTRAL WALL FURNACE IS LOCATED. THIS LARGE HALL AREA CAN BE USED AS SPACE FOR FAMILY ACTIVITIES, REALLY A BONUS FEATURE IN A HOUSE OF THIS SIZE. THREE MEDIUM-SIZED BEDROOMS, A SEPARATE UTILITY ROOM, AND ATTIC STORAGE ARE ALSO INCLUDED. NOTE THAT BEDROOM SPACE SHOULD BE ADEQUATE FOR A FAMILY OF NINE OR TEN.

THE PARTICLE BOARD PARTITIONS ARE REMOVABLE AND OFFER A DEGREE OF FLEXIBILITY IN THE FLOOR PLAN. THE WOOD PIER FOUNDATION SYSTEM IS PARTICULARLY SUITED FOR SLOPING SITES BECAUSE VERY LITTLE SITE GRADING WOULD BE NEEDED. IT MIGHT ALSO BE THE BEST FOUNDATION SYSTEM WHERE THE GROUND IS SWAMPY OR DIFFICULT TO GRADE BECAUSE OF ROCK.

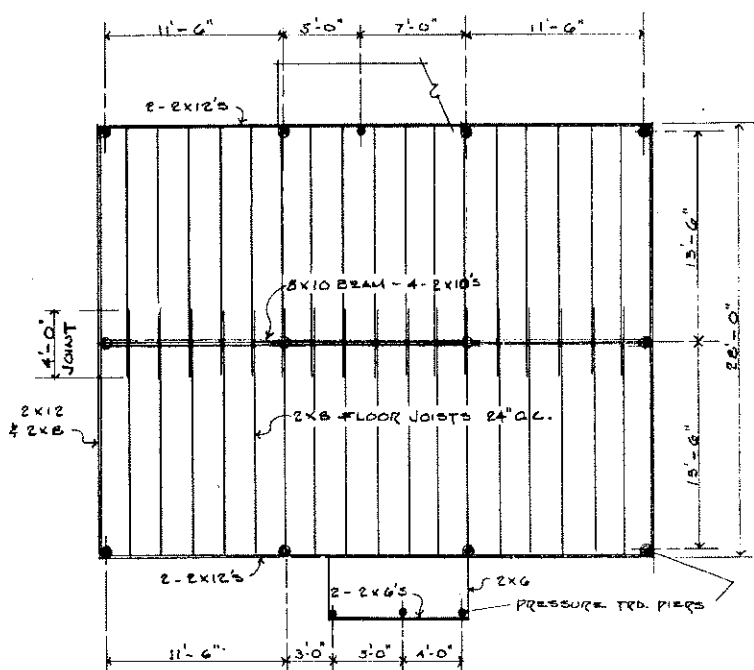
ADDITIONAL INFORMATION MAY BE OBTAINED BY WRITING TO: FORESTRY SCIENCES LABORATORY, HOUSING RESEARCH, CARLTON STREET, ATHENS, GEORGIA 30601, OR BY PHONING (404) 548-5631.



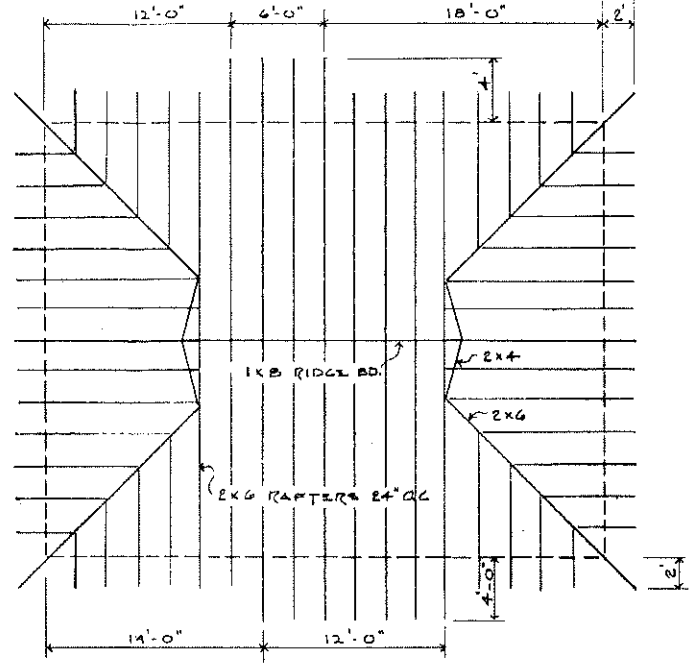
AN EXPERIMENTAL DESIGN
 Some Unproven Construction Details

A RURAL HOME OF WOOD
 PLAN 33-2
 REVISED FROM ORIGINAL PLAN DATED: 2-7-68

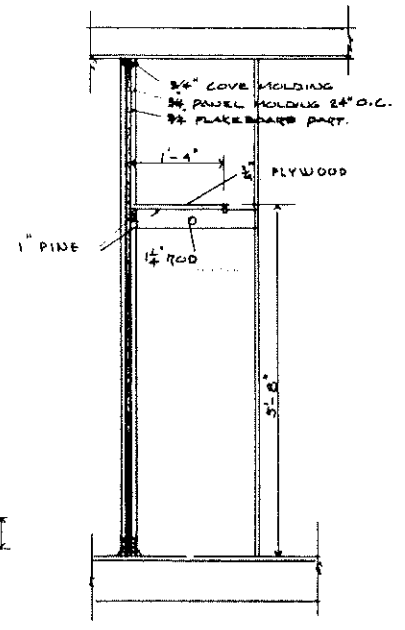
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|---|--|--------------------|
| SOUTHEASTERN FOREST EXPERIMENT STATION | | SHEET ① OF 4 |
| FORESTRY SCIENCES LABORATORY, ATHENS GA. | | |
| F. S. - U. S. D. A. BY: H. F. ZORNIG REVISED BY D. C. W. 11-12-68 | | |



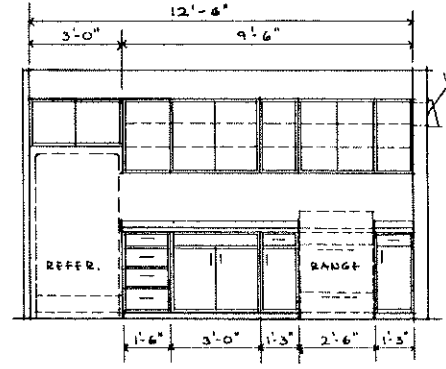
PIER FOUNDATION PLAN
1/8" = 1'-0"



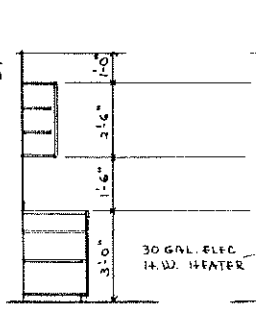
RAFTER FRAMING PLAN
1/8" = 1'-0"



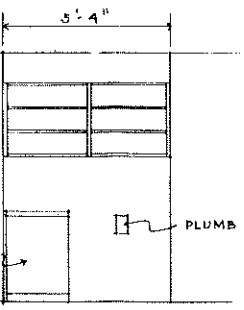
CLOSET DETAIL
1/8" = 1'-0"



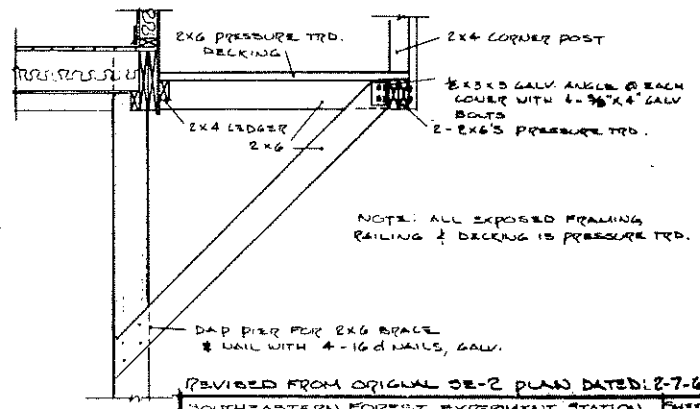
KITCHEN CABINET ELEVATION —
1/4" = 1'-0"



SECTION
1/4" = 1'-0"



UTILITY ROOM ELEV.
1/4" = 1'-0"



BACK PORCH DETAIL
1/8" = 1'-0"

REVISED FROM ORIGINAL SE-2 PLAN DATED: 2-7-66
 SOUTHEASTERN FOREST EXPERIMENT STATION SHEET
 FORESTRY SCIENCES LABORATORY, ATHENS, GA. (2)
 F.S.-U.S.D.A. BY: W.F. ZORNG REVISED BY: DCW 11-12-68 OF 4

235# ASPHALT SHINGLES
15# BLOC. PAPER
1" BOARD SHEATHING
2X6 RAFTERS 24" O.C.
ALUMINUM INSECT SCREEN
OVER EAVE VENTS

2X6 JOISTS 24" O.C.
5" BATT INSUL. W/V.B.
1/2" GYPSUM BOARD
2-2X6'S CONTINUOUS TOP
PLATE - NO HEADERS REQ.
OVER WINDOWS & DOORS
2X4 STUDS 16" O.C.
2" BATT INSULATION W/V.B.

9/8" EXT. PLYWOOD W/TEXTURE 1-11
PATTERN - FINISH PLYWOOD &
SHAVES WITH TWO COATS EXTERIOR
STAIN OF REDWOOD OR CEDAR COLOR

2X4 RAILING-OPTIONAL

2" BATT INSUL. W/V.B.
2X8 JOISTS 24" O.C.
1X4 PINE FLOORING
OVER 15# BLOC. PAPER

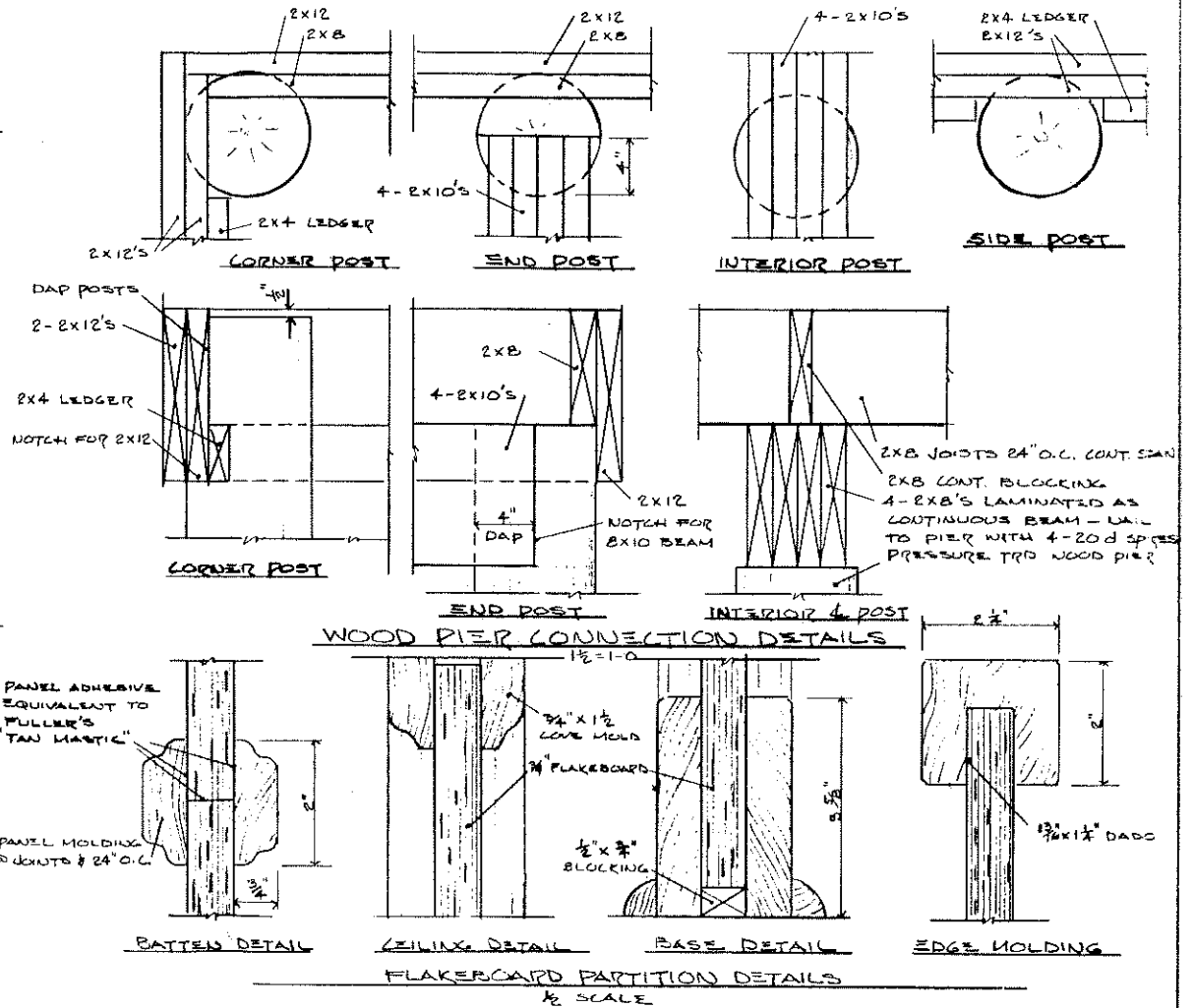
P.T. 2X6
P.T. 2X6 DECKING
2X4 LEDGER
P.T. 2X6 EDGE BEAM
2-2X6'S - P.T.
3/8" GALV. BOLTS
P.T. 2X4

SEE DETAIL FOR SIDE POST

PRESSURE TRD PIER
WITH 7-8" MIN TOP DIA.
MINIMUM DEPTH OF
EMBEDMENT SHALL BE
6'-0" FOR AVERAGE SOIL
CONDITIONS

PRESSURE TRD. PIER
WITH 6"-6" MIN TOP DIA.
2'-0" MIN. EMBEDMENT

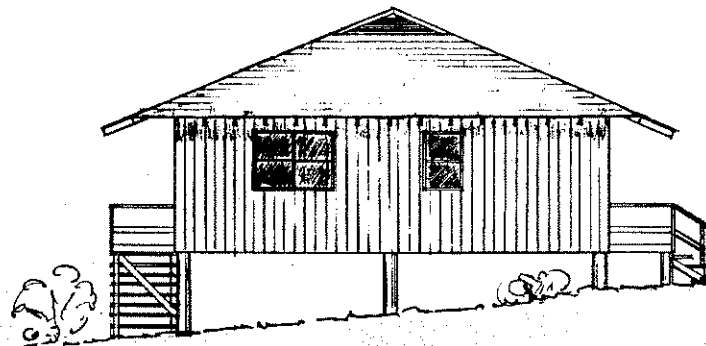
SECTION B-B
1/2" = 1'-0"



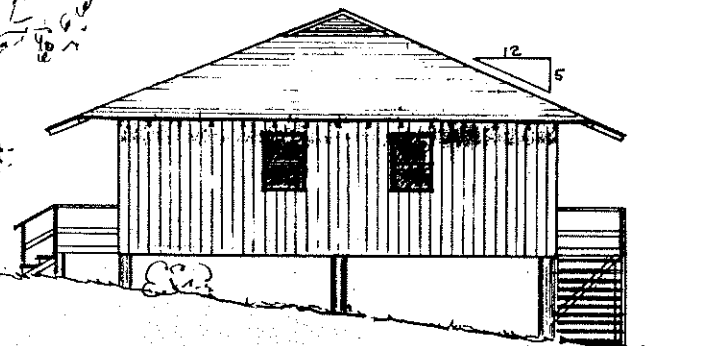
NOTE: PRESSURE TREATMENT OF PIERS
SHALL BE THAT WHICH IS KNOWN TO PROVIDE
A 30 YEAR AVERAGE SERVICE-LIFE FOR WOOD
EMBEDDED IN MOIST SOIL

REVISION OF ORIGINAL SE-2 PLAN DATED: 2-7-68

| | |
|---|---------------------|
| SOUTHEASTERN FOREST EXPERIMENT STATION | SHEET |
| FORESTRY SCIENCES LABORATORY, ATHENS, GA. | (3) |
| F.S.-U.S.D.A. BY: H.F. LORING | REVISED BY: DOWLING |
| | OF 4 |



LEFT ELEVATION
 $\frac{1}{8} = 1-0$



RIGHT ELEVATION
 $\frac{1}{8} = 1-0$




FRONT ELEVATION
 $\frac{1}{8} = 1-0$



BACK ELEVATION
 $\frac{1}{8} = 1-0$

A RURAL HOME OF WOOD
 PLAN S. E. - 2

| | | |
|---|-----------------|--|
| REVISED FROM ORIGINAL PLAN DATED 2-7-68 | | SHEET  |
| SOUTHEASTERN FOREST EXPERIMENT STATION | | |
| FORESTRY SCIENCES LABORATORY, ATHENS, GA. | | OF 4 |
| F.S. - U.S.D.A. | BY: H.F. ZORNIG | |
| REVISED BY: DCW, 11-12-68 | | |

DWELLING SPECIFICATIONS

PLAN SE-2

GENERAL: EACH ITEM OF MATERIAL AND EQUIPMENT SHALL EQUAL OR EXCEED THAT DESCRIBED OR INDICATED. ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER AND IN ACCORDANCE WITH THE BEST PRACTICE. MENTION OF COMMERCIAL PRODUCTS AND SOURCES DOES NOT CONSTITUTE AN ENDORSEMENT OF SUCH PRODUCTS BY THE FOREST SERVICE OR THE DEPARTMENT OF AGRICULTURE TO THE EXCLUSION OF OTHER EQUALLY ACCEPTABLE PRODUCTS.

SITE GRADING: GRADE AS REQUIRED TO SMOOTH OUT SURFACE HUMPS AND VALLEYS AND TO PROVIDE DRAINAGE AWAY FROM THE HOUSE. MINIMUM SITE DISTURBANCE IS DESIRED, THEREFORE, GRADING SHOULD BE DONE ONLY WHERE NECESSARY TO PROVIDE SMOOTH SURFACES AND DRAINAGE.

WOOD PIERS AND PORCHES: PIERS AND WOOD USED IN THE PORCHES SHALL BE SYP PRESSURE TREATED IN ACCORDANCE WITH AMERICAN WOOD PRESERVERS ASSOCIATION RECOMMENDATIONS AND THE AWPI QUALITY CONTROL PROGRAM LP-22. EACH TREATED PIECE OF WOOD SHALL BEAR THE AWPI QUALITY MARK LP-22.

EXTERIOR WALLS:

WOOD FRAME: NO. 2 SYP OR FIR STUDS, 16" O.C.

SHEATHING: NONE

SIDING: EXTERIOR 3/8" PLYWOOD, A-C, GROUP 2; WITH CHANNEL GROOVES 4" OR 8" O.C. OR X-90 PANEL-GROOVE MASONITE, APPLIED DIRECTLY TO STUDS AS DESCRIBED BY THE AMERICAN PLYWOOD ASSOCIATION FOR "STURB-I-WALL" CONSTRUCTION.

FINISH: PIGMENTED EXTERIOR PENETRATING STAIN AS RECOMMENDED BY THE MANUFACTURER. APPLY TWO COATS OF STAIN SO THAT ALL THE PLYWOOD EDGES ARE SEALED. THE SECOND COAT OF STAIN SHALL BE APPLIED BEFORE THE FIRST COAT IS DRY. THE X-90 MASONITE SHALL HAVE A FACTORY APPLIED PRIMER, COVER WITH ONE COAT OF EXTERIOR PAINT.

FLOOR FRAMING:

JOISTS: NO. 2 SYP OR FIR. LAP JOISTS OVER THE CENTER BEAM SO THAT BENDING STIFFNESS IS INCREASED AS DETAILED ON SHEET 1. FASTEN 1/2" FIBER INSULATION BOARD TO THE UNDERSIDE OF JOISTS. NAIL ENDS OF JOISTS TO EDGE BEAMS WITH FOUR 16D BOX NAILS.

FINISH FLOORING: 1X4 INCH SYP, GRADE D, TONGUE-AND-GROOVE, NAILED DIRECTLY TO JOISTS. SAND, SEAL AND WAX IN ALL ROOMS.

PARTITION FRAMING:

STUDS: NO. 2 SYP OR FIR 2X4'S 16" O.C.

FLAKEBOARD: HIGH DENSITY, 3/4" THICK; SIMILAR TO "TIMBLEND" BY WEYERHAEUSER. FLAKEBOARD SHALL BE REINFORCED WITH BATTENS AND EDGE TRIM AS DETAILED ON SHEET 3. FINISH WITH ONE COAT OIL-BASE NONPOROUS PRIMER AND ONE COAT OF LATEX ENAMEL.

CEILING FRAMING:

JOISTS: NO. 2 SYP OR FIR 2X6'S 24" O.C.

ROOF: (SEE SHEET 1 FOR FRAMING DETAILS)

SHEATHING: STANDARD PLYWOOD WITH EXTERIOR GLUE, C-D, 3/8" THICK; OR SYP BOARD SHEATHING, GRADE NO. 2 OR BTR. BOARD SHEATHING SHALL BE USED OVER EXPOSED SOFFITS WITH THE 3/8" PLYWOOD SHEATHING SHIMMED UP TO ALIGN WITH THE 1" BOARD SHEATHING, OR ASPHALT SHINGLES SHALL BE APPLIED OVER 3/8" EXTERIOR PLYWOOD OVER THE SOFFITS WITH A ROOFING MASTIC. NO NAILS SHALL PENETRATE THE PLYWOOD INTO THE EXPOSED SOFFIT.

ROOFING: 15# ROOFING FELT AND 235# ASPHALT SHINGLES APPLIED WITH NAILS AND CEMENT, OR SELVAGE, GRADE C, DOUBLE COVERAGE.

FLASHING: ASPHALT ROOFING OVER RIDGES WITH GALVANIZED OR ALUMINUM DRIP EDGES.

GUTTERS AND DOWNSPOUTS: NONE

WALL AND CEILING FINISH:

WALLS: 3/8" FACTORY PAINTED GYPSUM BOARD SIMILAR TO "BLENDTEX" BY U.S. GYPSUM COMPANY. EDGES SHALL BE TAPERED OR ROUNDED. INSTALL WITH 6D GROOVED NAILS OR AN ADHESIVE APPROVED BY U.S. GYPSUM FOR THIS TYPE OF APPLICATION. TOUCH-UP PAINT SHALL BE USED TO PAINT THE NAIL HEADS. (BATHROOM FINISH IS GIVEN IN NEXT ITEM)

CEILINGS: 1/2" FACTORY PAINTED GYPSUM BOARD SIMILAR TO "BLENDTEX" BY U.S. GYPSUM COMPANY. CEILING BOARD IS SCORED WITH A SQUARE TILE PATTERN. AS NEAR AS POSSIBLE, BOARD LENGTHS SHOULD MATCH ROOM LENGTH OR WIDTH TO AVOID END JOINTS. APPLICATION SHALL BE THE SAME AS FOR WALL PANELS, OR AS RECOMMENDED BY U.S. GYPSUM.

DECORATING: COLORS AND TEXTURE OF FACTORY APPLIED PAINT SHALL BE SELECTED BY THE OWNER FROM SAMPLES OR A COLOR CHART.

BATHROOM WALLS SHALL BE GYPSUM BOARD COVERED WITH PRIMER AND 2 COATS OF ENAMEL PAINT. BATHROOM CEILING FINISH SHALL BE THE SAME AS IN THE REST OF THE HOUSE.

INTERIOR DOORS AND TRIM:

DOORS: 1-3/8", FLUSH HOLLOW-CORE, LAUAN. PAINT WITH TWO COATS PAINT OVER AN OIL-BASE NONPOROUS PRIMER.

DOOR AND WINDOW TRIM: 2-1/4" RANCH, D AND BTR. PINE PAINTED WITH TWO COATS OF LATEX ENAMEL OVER AN OIL-BASE NONPOROUS PRIMER.

WINDOWS: WOOD, DOUBLE HUNG; PRIME AND TWO COATS OF PAINT. WINDOWS SHALL BE FACTORY TREATED WITH WRP AND COMPLETE WITH ALL HARDWARE, EXTERIOR TRIM, WEATHER-STRIPPING, AND SCREENS. CAULK BETWEEN TRIM AND SIDING ALONG THE TOP EDGE OF EACH WINDOW.

ENTRANCE DOORS: 1-3/4" THICKNESS, SOLID CORE, LAUAN, WITH 5/4" PINE OR FIR FRAMES. PROVIDE A SCREEN DOOR FOR EACH ENTRANCE. CAULK BETWEEN TRIM AND SIDING ALONG THE TOP EDGE OF EACH DOOR. FINISH WITH AN OIL-BASE NONPOROUS PRIMER AND TWO COATS OF EXTERIOR PAINT.

DWELLING SPECIFICATIONS

PLAN SE-2

CABINETS AND EQUIPMENT:

KITCHEN CABINETS: FIR WITH VINYL COUNTER TOP AND METAL EDGING. FINISH WITH STAIN, SEAL AND WAX. BACK AND END SPLASH IS THE SAME.
MEDICINE CABINET: ALLOW \$20.00 FOR CABINET WITH SIDE OR TOP LIGHTS.
SHELVING IN THE UTILITY ROOM SHALL BE 1X12 INCH SYP, NO. 2 PAINTED SAME AS THE WALLS.

ATTIC ACCESS: PROVIDE A 3/8"X20"X36" BD PLYWOOD ATTIC SCUTTLE WHERE SHOWN ON THE PLANS. INSULATE SCUTTLE WITH 3" BATT INSULATION STAPLED TO PLYWOOD DOOR.

PLUMBING: PROVIDE FOUR FIXTURES COMPLETE WITH ALL NECESSARY FITTINGS: 32"X20" DOUBLE OR SINGLE KITCHEN SINK, BATH TUB, 17"X19" LAVATORY, AND WATER CLOSET, IN WHITE PORCELAIN ON STEEL.
WATER HEATER: MINIMUM CAPACITY, 40 GALLONS; 10 YEAR WARRANTY; ELECTRIC UNDER-COUNTER OR COUNTER TOP DROP-IN TYPE.
WATER PIPING: GALVANIZED STEEL, COPPER, OR PLASTIC AS APPROVED BY LOCAL PLUMBING CODES. PROVIDE A SILL COCK IN THE LOWEST SECTION OF PLUMBING FOR A HOUSE DRAIN. ALSO PROVIDE ONE EXTERIOR HOSE BIBB.

HEATING AND VENTILATION: WALL HEATER, 80,000 BTU GAS-FIRED OR OIL FORCED-AIR FURNACE; RETURN AIR SHALL BE NEAR THE FLOOR AND DISCHARGE SHALL BE NEAR THE CEILING IN BOTH THE LIVING ROOM AND PLAY ROOM. PROVIDE A HEATER FLUE AS RECOMMENDED BY THE MANUFACTURER.

ELECTRIC WIRING AND FIXTURES:

SERVICE: OVERHEAD, 100 AMPERES.
DISTRIBUTION PANEL: 100 AMP. WITH SIX BRANCH CIRCUITS AND THREE SPARES.
ALL WIRING IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE.
ALLOW \$30.00 FOR LIGHT FIXTURES.

INSULATION:

ROOF: 3" MINERAL WOOL WITH INTEGRAL VAPOR BARRIER.
WALLS AND FLOOR: 2" MINERAL WOOL WITH INTEGRAL VAPOR BARRIER.

FINISH HARDWARE: WITH PREHUNG DOORS AND WINDOWS.

LANDSCAPING: PLANTING, WALKS, DRIVES, AND FINISH GRADING BY OWNER.

MISCELLANEOUS: ALL OUTSIDE UTILITIES, SUCH AS ELECTRICITY, WATER, SEWER, AND GAS TO THE HOUSE ARE PROVIDED BY THE OWNER OR UTILITY COMPANY. ALL UTILITIES IN THE HOUSE SHALL BE STUBBED OUT OF THE HOUSE FOR CONVENIENT HOOKUP TO OUTSIDE UTILITIES.

SOUTHEASTERN FOREST EXPERIMENT STATION
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BY: H. F. ZORNIG, REVISED 10/21/68