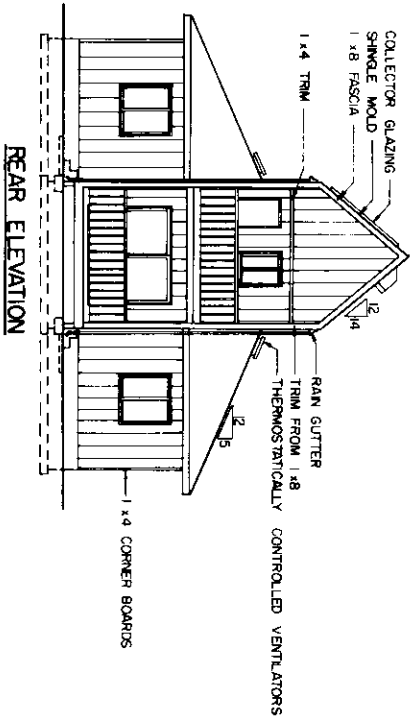
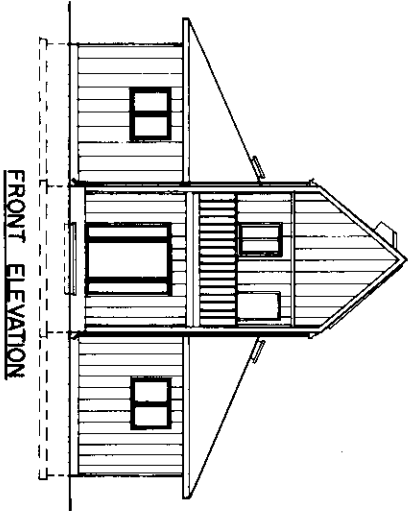
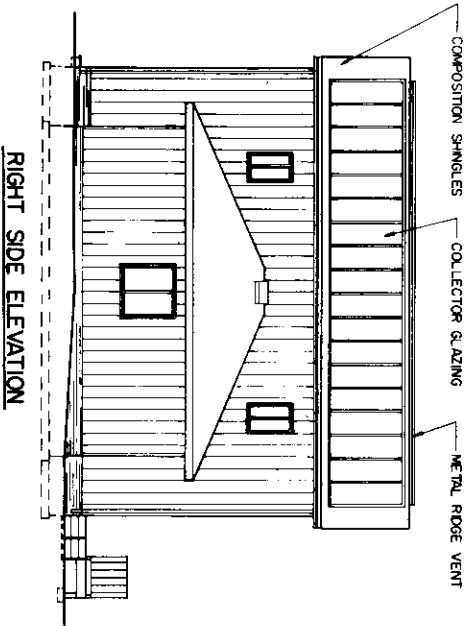




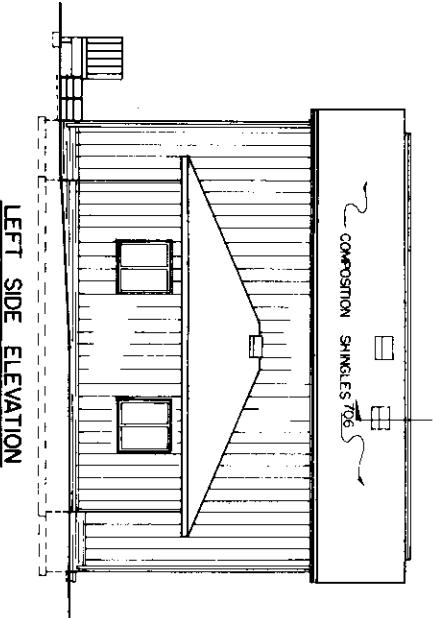
REAR ELEVATION



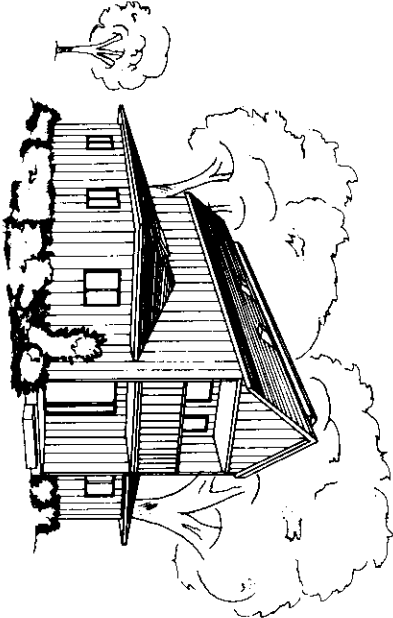
FRONT ELEVATION



RIGHT SIDE ELEVATION



LEFT SIDE ELEVATION



PERSPECTIVE

SEE SHEET 5 FOR OPTIONAL BASEMENT



SCALE

COOPERATIVE EXTENSION SERVICE
AGRICULTURE AND HOME ECONOMICS

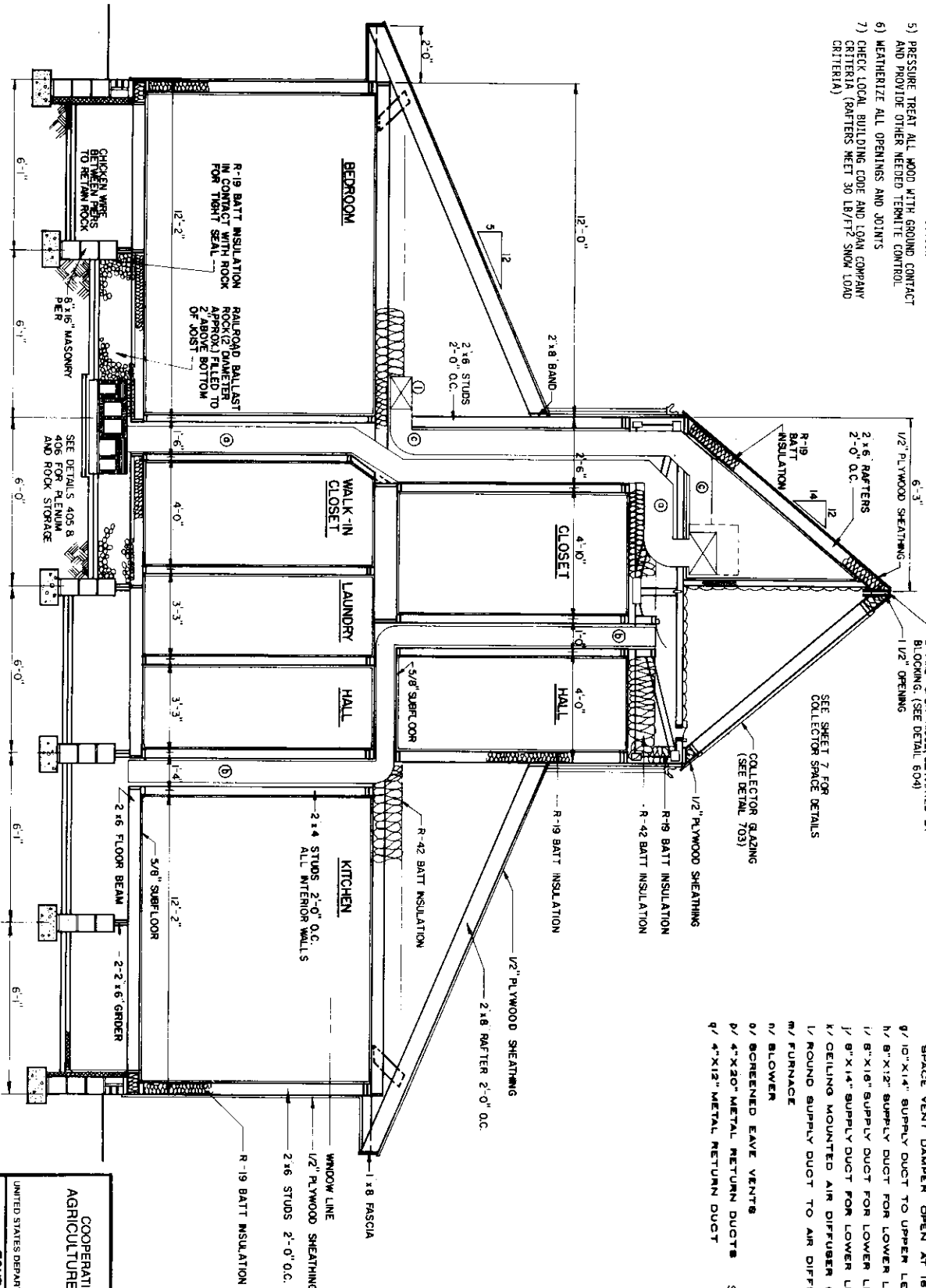
AND
UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

FOUR BEDROOM
CONTemporary SOLAR ATTIC

USDA 84 7252 SHEET 1 OF 8

CONSTRUCTION CHECK LIST

- 1) ADEQUATELY NAIL AND ANCHOR JOINTS
- 2) DOUBLE JOISTS UNDER TUBS AND OTHER HEAVY LOADS
- 3) SHEATH CORNERS WITH 1/2" PLYWOOD OR HIGH DENSITY FIREBOARD OR USE DIAGONAL BRACING
- 4) USE EXTERIOR GLUED PLYWOOD WHEREVER IT MAY BE WETTED DURING OR AFTER CONSTRUCTION
- 5) PRESSURE TREAT ALL WOOD WITH GROUND CONTACT AND PROVIDE OTHER NEEDED TERMITE CONTROL
- 6) WEATHERIZE ALL OPENINGS AND JOINTS
- 7) CHECK LOCAL BUILDING CODE AND LOAN COMPANY CRITERIA (RAFTERS MEET 30 LB/FT² SNOW LOAD CRITERIA)



MECHANICAL PLANS

SCHEDULE

- a/ 12"x20" METAL SUPPLY DUCT TO ROCK STORAGE
- b/ 8"x20" RETURN DUCT FROM AIR PLENUM TO COLLECTOR SPACE
- c/ 10"x20" SUPPLY DUCT TO LOWER LEVEL DISTRIBUTION SYSTEM
- d/ 4"x20" FLOOR REGISTER RETURN TO AIR PLENUM
- e/ 4"x12" FLOOR REGISTER RETURN TO AIR PLENUM
- f/ 12"x20" THERMOSTATICALLY CONTROLLED COLLECTOR SPACE VENT DAMPER OPEN AT 180°F CLOSE AT 140°F
- g/ 10"x14" SUPPLY DUCT TO UPPER LEVEL
- h/ 8"x12" SUPPLY DUCT FOR LOWER LEVEL
- i/ 8"x16" SUPPLY DUCT FOR LOWER LEVEL
- j/ 8"x14" SUPPLY DUCT FOR LOWER LEVEL
- k/ CEILING MOUNTED AIR DIFFUSER (TYPICAL)
- l/ ROUND SUPPLY DUCT TO AIR DIFFUSERS (8" TYPICAL)
- m/ FURNACE
- n/ BLOWER
- o/ SCREENED EAVE VENTS
- p/ 4"x20" METAL RETURN DUCTS
- q/ 4"x12" METAL RETURN DUCT

SEE BASEMENT OPTION, PAGE 5

301 TRANSVERSE SECTION

1/4" = 6'-0" SCALE

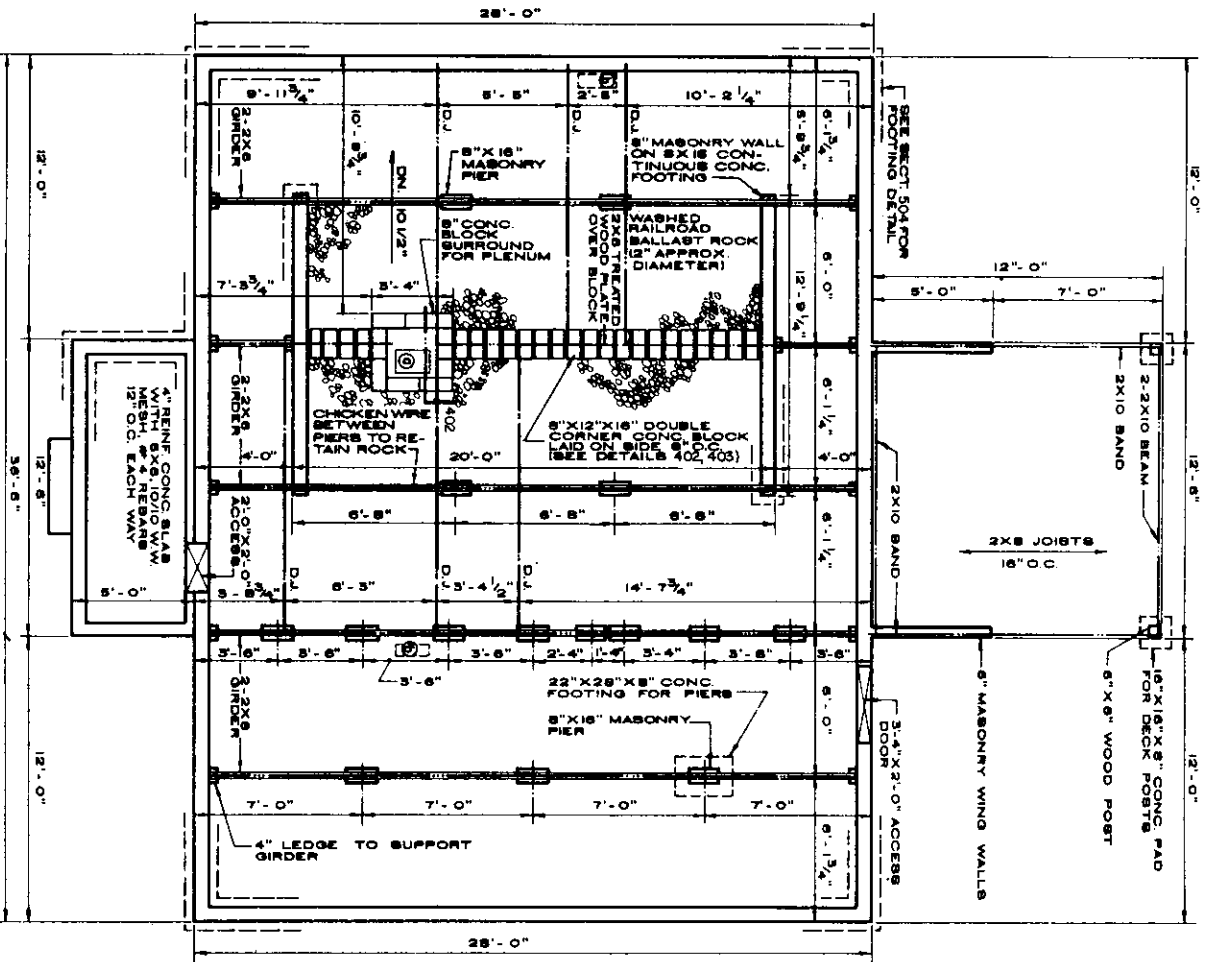
COOPERATIVE EXTENSION SERVICE
AGRICULTURE AND HOME ECONOMICS

FOUR BEDROOM
CONTEMPORARY SOLAR ATTIC

USDA 84

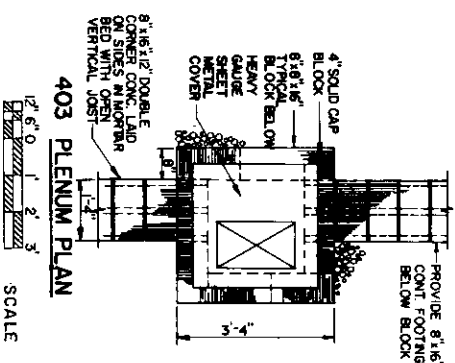
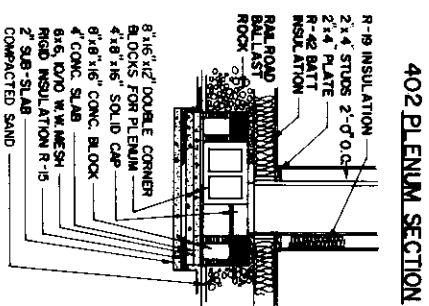
7252

SHEET 3 OF 8



NOTE: SEE PLENUM/GRAVEL SPACE AREA
FOR DIMENSIONS AND DETAILS.
ROCK STORAGE AREA. SEE SECT. 301

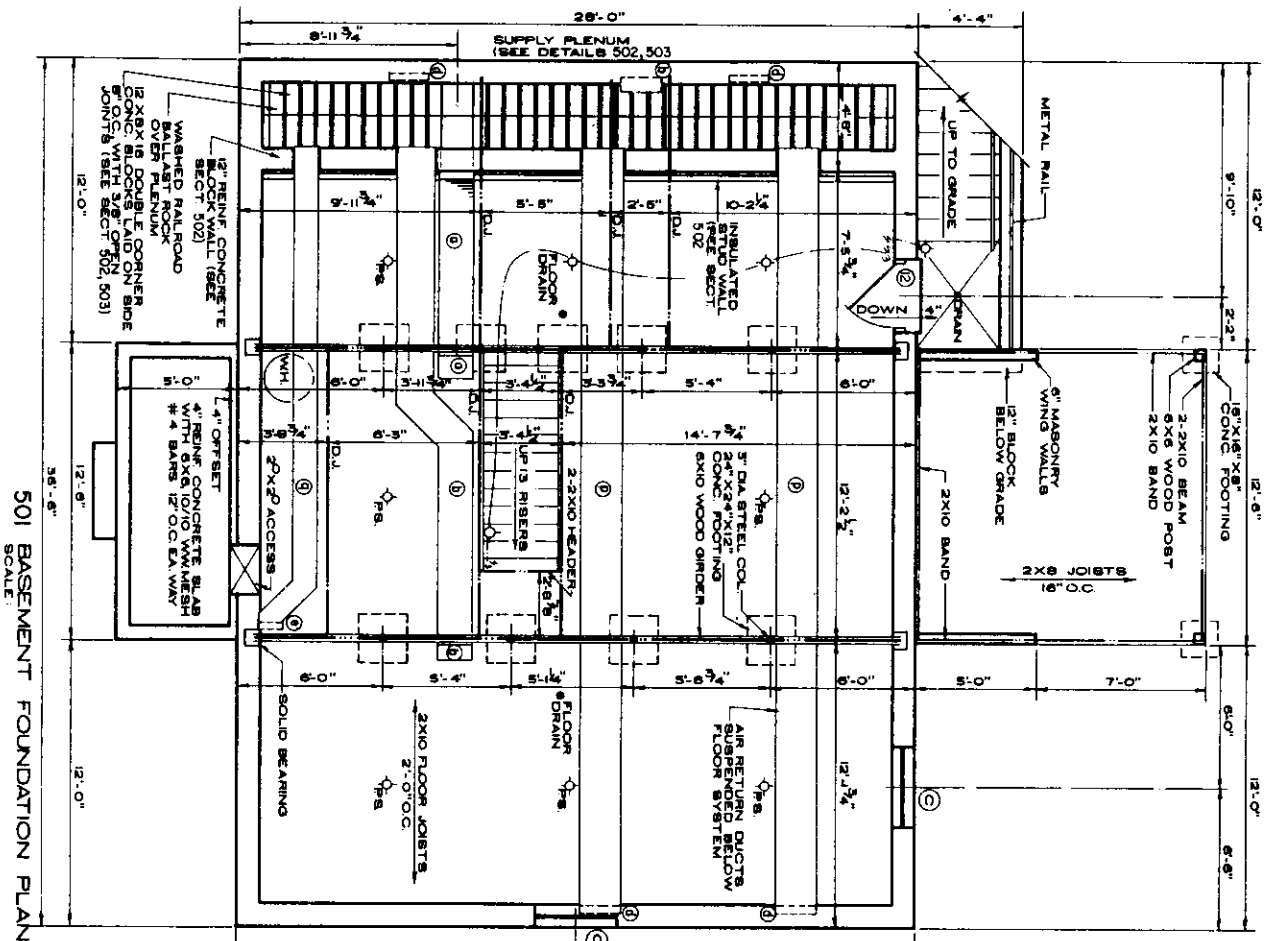
401 FOUNDATION PLAN
SEE PLAN 501 FOR BASEMENT OPTION



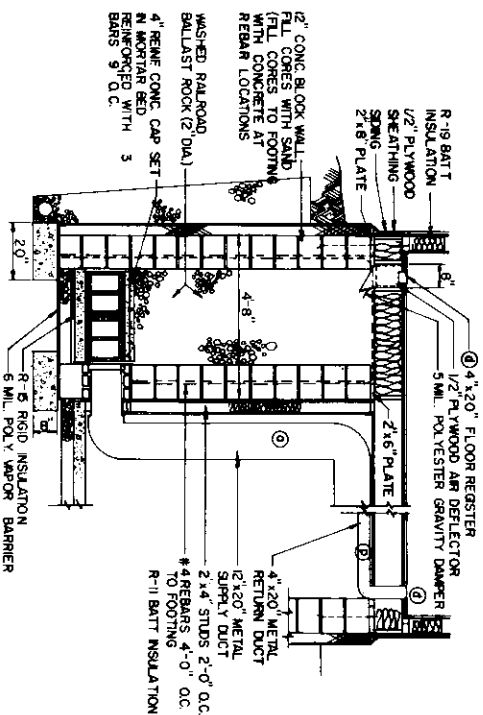
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AND
FOUR BEDROOM
CONTEMPORARY SOLAR ATTIC

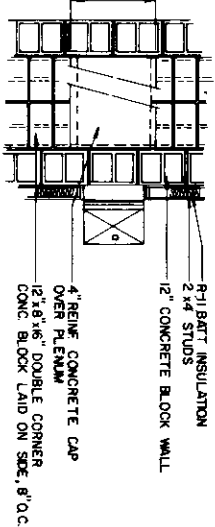
USDA 94 7252 SHEET 4 OF 8



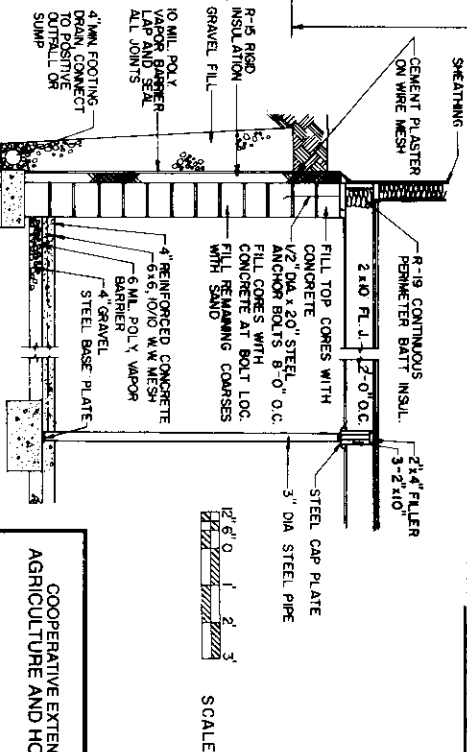
501 BASEMENT FOUNDATION PLAN
SCALE



502 SECTION THRU ROCK STORAGE

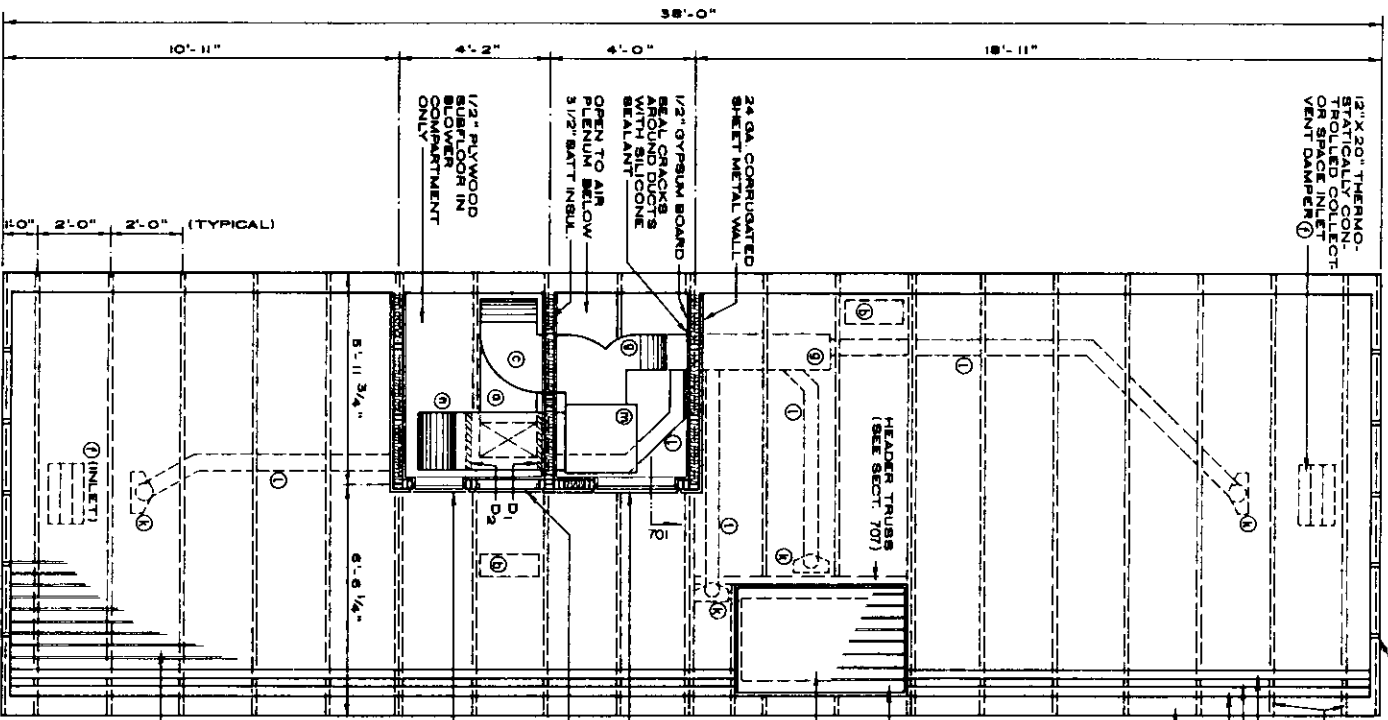


503 PLENUM PLAN



504 TYPICAL BASEMENT WALL
SECTION

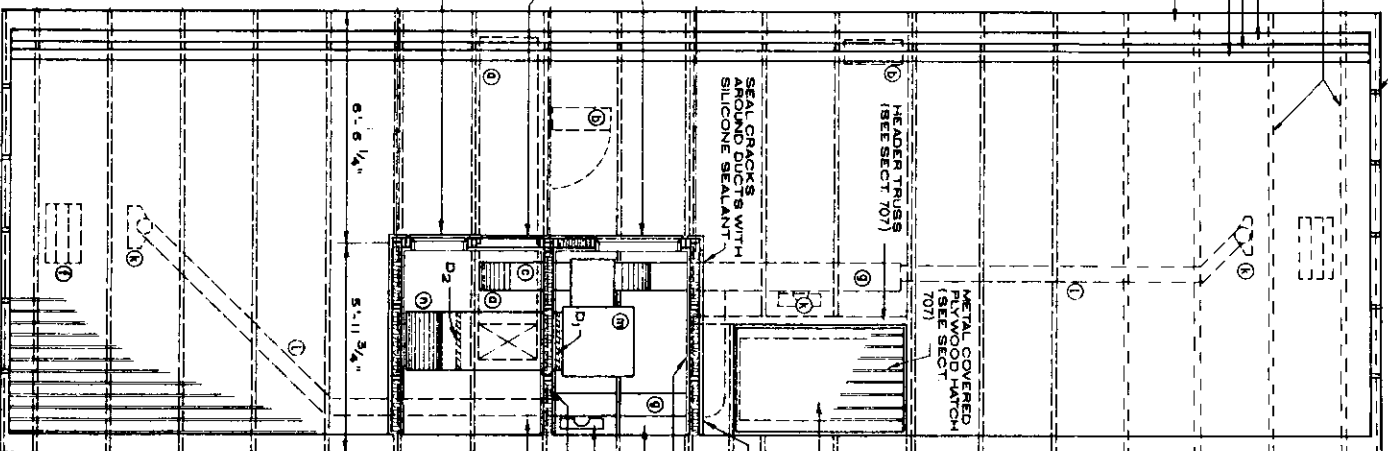
COOPERATIVE EXTENSION SERVICE
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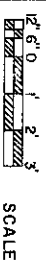
601 ATTIC PLAN



SCALE



602 ATTIC (OPTIONAL)

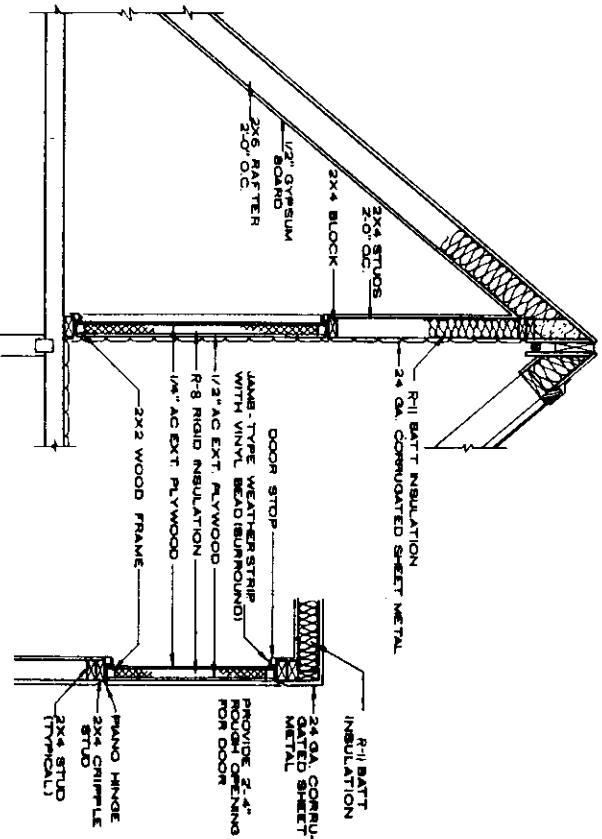


SCALE

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UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING
AND
FOUR BEDROOM
CONTEMPORARY SOLAR ATTIC

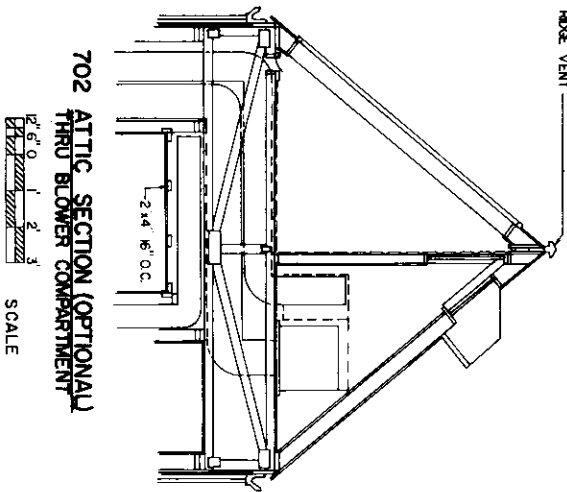
USDA 94 7252 SHEET 6 OF 8



701 MECHANICAL SPACE ACCESS

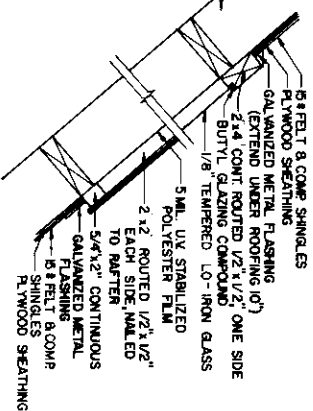
SCALE

701-B PLAN



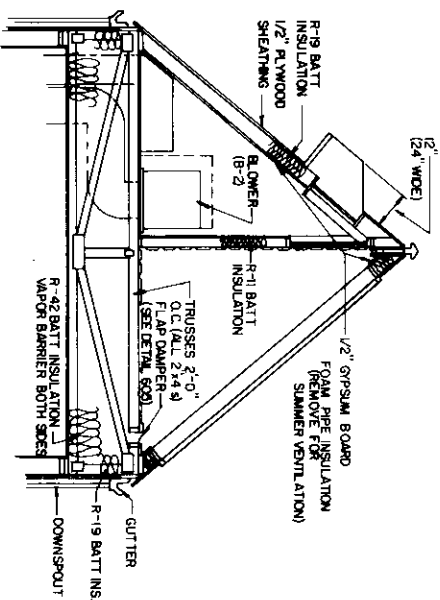
702 ATTIC SECTION (OPTIONAL) THRU BLOWER COMPARTMENT

SCALE



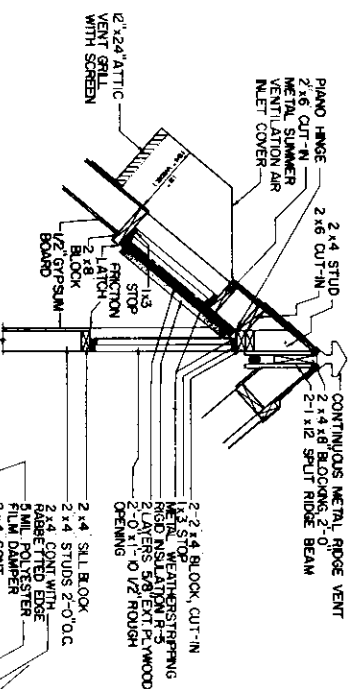
703 COLLECTOR DETAIL

SCALE



706 ATTIC SECTION THRU BLOWER COMPARTMENT

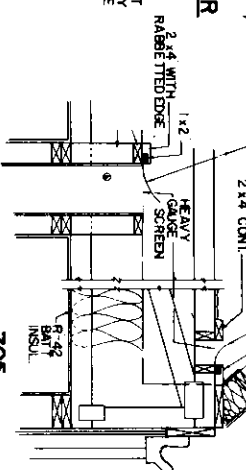
SCALE



704 AIR DEFLECTOR

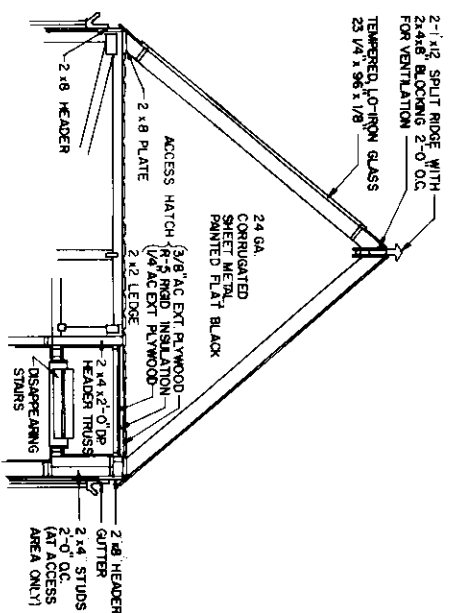
NOTE:
AIR DEFLECTOR AND VENT ARE OPTIONAL. PRIMARY USE IS IN DRY CLIMATE.

SCALE



705 FLAP DAMPER DETAIL

SCALE



707 ATTIC SECTION

SCALE

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TJBT2 : 24 V HEATING AND COOLING THERMOSTATS, HEAT-OFF-COOL SELECTION.

- SOLAR CONTROL CORPORATION
HONEYWELL
JOHNSON SERVICE CO. - D-1300
SOLAR CONTROL THERMOSTAT AND SENSORS FOR WINTER SOLAR HEATING SPECIFY 15.1°F TURN-ON DIFFERENTIAL AND 5.1°F TURN-OFF DIFFERENTIAL. RATED 1/2 HP 115 V.

- SOLAR CONTROL CORPORATION
RHO SIGMA
HELIX, A ROPE GENERAL
SOLAR, EROV RESEARCH CORPORATION
SOT-2 DIFFERENTIAL THERMOSTAT AND SENSORS FOR SUMMER NOCTURNAL
S3 DIFFERENTIAL AND 3.1°F TUN-OFF DIFFERENTIAL, RATED 1/2 HP
115 VOLT/OPTIONAL, PRIMARILY FOR DRY CLIMATE AREAS.)

- B-2 : COLLECTION BLOWER - 115 V 60 CYCLE MULTI. OR TWO - SPEED. PERMANENT SPLIT CAPACITOR TYPE. (THESE ARE 4% TO 50 % MORE EFFICIENT THAN SHADED POLE MOTORS.) LOW SPEED BLOWER OUTPUT SHOULD BE 2 TO 3 CFM/FT² OF COLLECTOR SURFACE AT 1/2 INCHES WATER COLUMN AND 4 TO 5 CFM/FT² OF HIGH SPEED BLOWER OUTPUT SHOULD BE 4 TO 5 CFM/FT² OF COLLECTOR SURFACE AT 3/8 INCHES WATER COLUMN AND 10 F. AIR TEMPERATURE.
- SIMILAR TO DAYTON 4 COSB
- B-1 : FURNACE BLOWER - 115 V 60 CYCLE, ONE CFM/FT² OF FLOOR AREA AT 1/2 INCHES WATER COLUMN AT 100 F. AIR TEMPERATURE. SUGGEST PERMANENT SPLIT CAPACITOR MOTOR.

SW-1 : SWITCH SPST RATED 1/2HP AT 115 V.
SW-2 : HEAT-COOL SW. 1/2 HP AT 115 V.
SW-3 : SWITCH SPST 24 V. FOR CONTROL CIRCUIT
SW-4 : SWITCH SPST 24 V. FOR COIL. RATED 1/2 HP AT 115 V.
TR-1 : 24 V TRANSFORMER

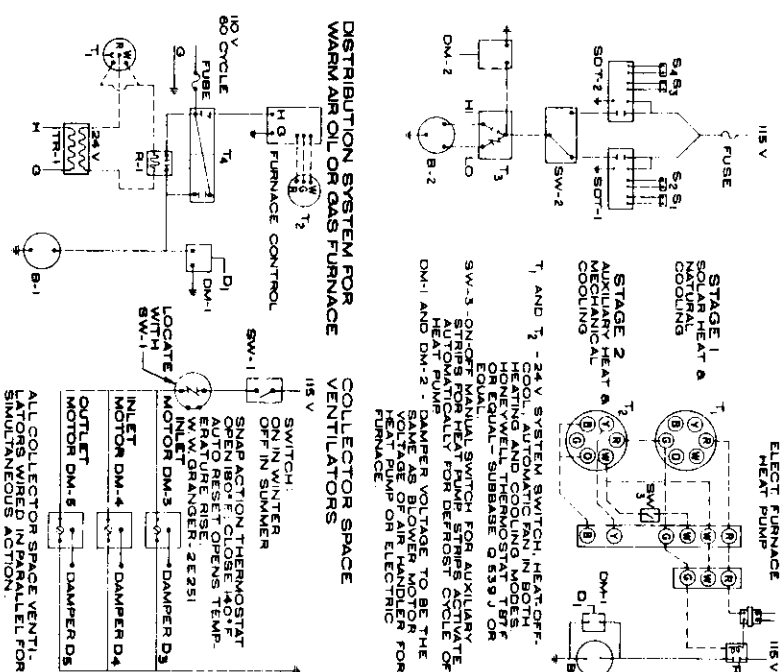
NOTE : MENTION OF PROPRIETARY ITEMS DOES NOT IMPLY ANY GUARANTEED OR WARRANTY AND IS NOT INTENDED TO EXCLUDE OTHER SUITABLE PRODUCTS.

A TWO STANDARD HEAT COOL THERMOSTATS LOCATED IN HALLWAY
CONTROL ELECTRIC FURNACE OR HEAT PUMP
1. T-CONTROLS BLOWER 8-1 AND IS SET AT 68° F WINTER AND 75° F
SUMMER
2. T-CONTROLS AUXILIARY HEAT OR COOL AND IS SET AT 65° F WINTER
AND 78° F SUMMER
NOTE: AUXILIARY FURNACE OR HEAT PUMP SHOULD BE SIZED BY LOCAL
SUPPLIER

- B. DAMPER OPERATION
1. DAMPER MOTOR M-1 IS ENERGIZED WHEN BLOWER B-1 IS ON AND IS CONTROLLED BY THE DISTRIBUTION CONTROL SYSTEM HEATING OR COOLING THE HOUSE.
2. DAMPER MOTOR DM-2 IS ENERGIZED WHEN B-2 IS ENERGIZED AND IS CONTROLLED BY THE COLLECTION CONTROL SYSTEM.
- C. TWO DIFFERENTIAL THERMOSTATS CONTROL COLLECTION BLOWER B-2
1. SDT-1, CONTROL BLOWER B-2 DURING SOLAR HEAT CYCLE.
a. SENSOR S-1 IS LOCATED IN ATTIC OR RIDGE AND SHADDED.
b. WHEN S-1 IS 5°F HOTTER THAN S-2, BLOWER STARTS AT LOW SPEED.
c. TWO SPEED BLOWER THERMOSTAT T-3 IS SET AT 100°F FOR HIGH SPEED.
2. SDT-2, CONTROL BLOWER B-2 DURING COOL DIFFERENTIAL.
a. SENSOR S-3 IS LOCATED WITHIN ATTIC INTAKE VENT. SENSOR S-4 IS LOCATED NEAR S-3 IN ROCK.
b. WHEN S-3 IS THE COOLER THAN S-4, COLLECTION BLOWER B-2 STARTS AT LOW SPEED.
3. BOTH DIFFERENTIAL THERMOSTATS SDT-1 AND SDT-2, AND HEAT-COOL SWITCH SW-1, SW-2 AND FURNACE ARE LOCATED IN OR EXPOSED TO THE COOLER ENVIRONMENT OF THE LOWER ATTIC.

A. CLOSE ALL SOFFIT VENTS.
B. CHANGE BOTH HOUSE THERMOSTATS TO HEAT.
C. POSITION HEAT-COOL SWITCH SW-1 & SW-2 TO HEAT.
D. CLOSE ROOF VENT TO BLOWER B-2 AND OPEN ATTIC TO BLOWER
E. CLOSE RIDGE VENT IN COLLECTOR SPACE.

COLLECTION SYSTEM	DISTRIBUTION SYSTEM
1. Gravity	1. Gravity
2. Pump	2. Pump
3. Siphon	3. Siphon
4. Air Lift	4. Air Lift
5. Submersible Pump	5. Submersible Pump
6. Surface Pump	6. Surface Pump
7. Windmill	7. Windmill
8. Solar	8. Solar
9. Hand Pump	9. Hand Pump
10. Other	10. Other

[illegible]

NOTE: DIAGRAMATIC REPRESENTATION OF AIR HANDLING EQUIPMENT DOES NOT INDICATE ACTUAL OPERATING LOCATION

