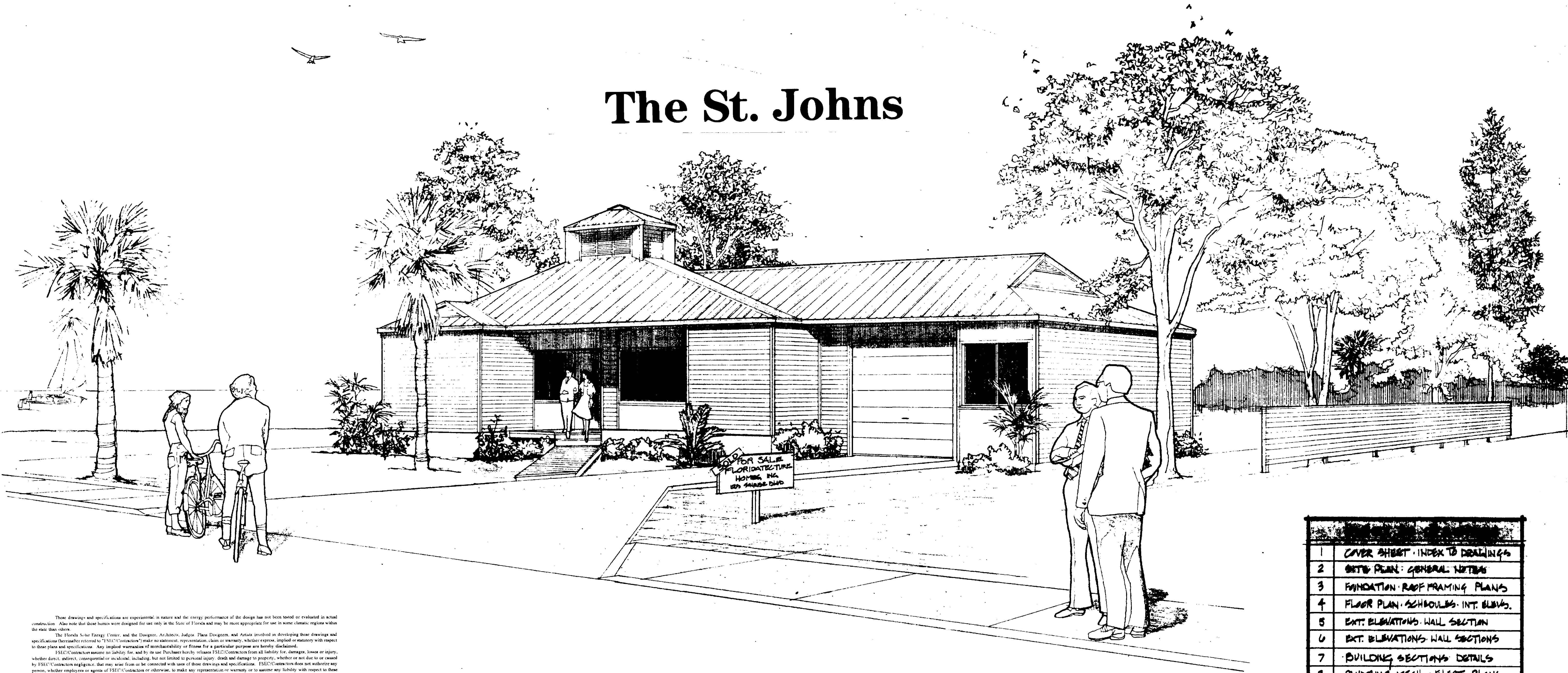


# The St. Johns



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1	COVER SHEET · INDEX TO DRAWINGS
2	SITE PLAN · GENERAL NOTES
3	FOUNDATION · ROOF FRAMING PLANS
4	FLOOR PLAN · SCHEDULES · INT. ELEV.
5	EXT. ELEVATIONS · WALL SECTION
6	EXT. ELEVATIONS · WALL SECTIONS
7	BUILDING SECTIONS · DETAILS
8	PLUMBING · MECH. · ELECT. PLANS
9	ALTER. FLOOR PLAN · MECH. NOTES

**FLORIDA SOLAR ENERGY CENTER**

300 STATE ROAD 401 · CAPE CANAVERAL, FLA. 32920

ENERGY EFFICIENT HOME DESIGN FOR NORTH-SOUTH FACING LOT

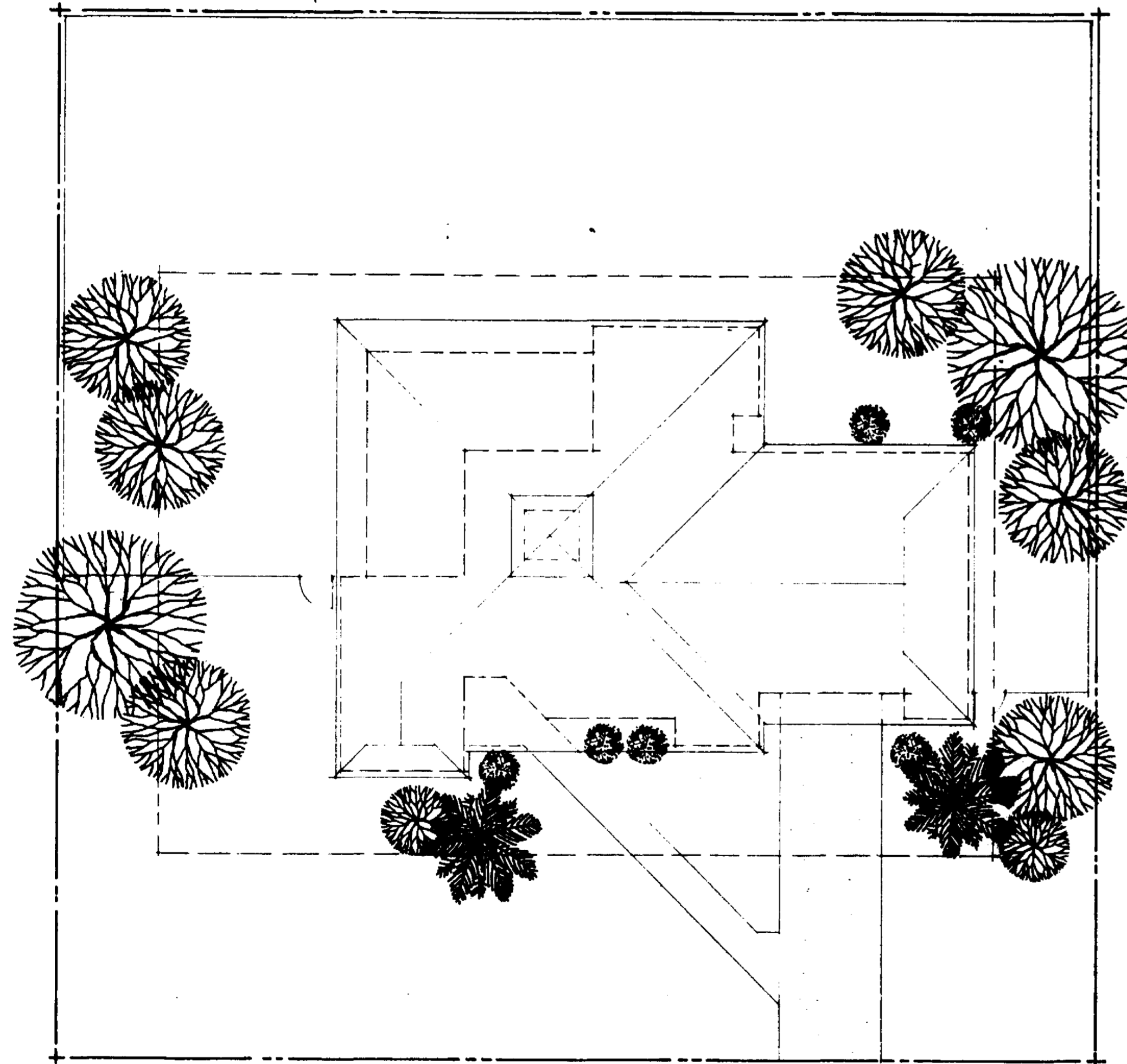
1 AUG. 90  
COVER SHEET

98 IVANHOE DRIVE  
ORLANDO BEACH, FLA 32176

1

**general notes**

- FIELD VERIFY EXACT LOCATION OF HOUSE
- VERIFY LOT SIZE & BUILDING SETBACKS FOR NO CONFLICTS.
- PROVIDE BUILDING UTILITIES (WATER, SEWER, ELECTRIC & GAS) AS REQUIRED BY LOCAL AUTHORITIES.
- SPECIFIC ENERGY GUIDELINES CAN VARY WITH SITE LOCATION (NORTH-CENTRAL-SOUTH FLORIDA) AND PERSONAL LIFESTYLE REQUIREMENTS OF HOME OWNER. THESE DRAWINGS ARE DEVELOPED WITH SOME BASIC ENERGY GUIDELINES THAT CAN BE UTILIZED OR ALTERED (TO SOME EXTENT) BY THE BUILDER OR HOME OWNER TO MEET HIS LIFESTYLE AND/OR BUDGET DEMANDS.



**alternate site plan**

HOUSE SQUARE TO STREET

**energy guidelines (FROM ENERGY-EFFICIENT FLORIDA HOME BUILDING & HOUSES AND CLIMATE)**

- LOCATE HOUSE TO WORK WITH EXISTING VEGETATION AND CONTOURS AS MUCH AS POSSIBLE.
- PROVIDE (ADDITIONAL) TREES ON EAST-WEST SIDES OF THE HOUSE. TREES PREFERABLY DECIDUOUS TYPE WITH A MINIMUM GROWING HEIGHT OF 15-30'.
- WORK WITH EXISTING BREEZES AS MUCH AS POSSIBLE WITH BASIC ORIENTATION AS SHOWN. FENCES IF USED SHOULD HAVE AN OPEN PATTERN TO PROVIDE SOME PRIVACY AND ALLOW (DIRECT) MOVING AIR TO HOUSE.
- PRIMARY SITE PLAN IS OPEN TO SUMMER SOUTHERLY & EASTERLY BREEZES AND CLOSED OFF TO NORTHWESTERLY WINTER WINDS. ALTERNATE SITE DOES THIS TO A LESSER EXTENT.
- HOUSE PLAN CAN BE FLIPPED BUT MAIN LIVING SPACES WILL NOT BE AS PROTECTED FROM LATE AFTERNOON SUMMER SUN. ALSO HOUSE WILL BE MORE OPEN TO NORTHWESTERLY WINTER WINDS.
- LOCATE HOUSE SO THAT REAR YARD IS AS LARGE AND PRIVATE AS POSSIBLE.
- PROVIDE POROUS CONCRETE (IF POSSIBLE) FOR CONCRETE DRIVEWAYS - WALKS AS ALTERNATE. PROVIDE FT. WOOD OR SHALL (MULCH) ENTRY WALK AND SHELL DRIVEWAY AS BASE BID.
- USE NATIVE VEGETATION AND 'NATURAL' UNDISTURBED AREAS TO REDUCE WATER AND LAWN MAINTENANCE.
- USE A LANDSCAPE PLAN THAT SHADES RAISED FOUNDATION WALLS AND A.C. CONDENSOR AREA.

- SITE SELECTION - LOOK FOR THESE FEATURES:
  - SITES WITH NORTH-SOUTH ORIENTATION FOR FRONT-REAR YARDS.
  - SITES WITH NATURAL VEGETATION (ESPECIALLY SHADE TREES IN APPROPRIATE LOCATIONS)
  - SITES OPEN TO PREVAILING (SPRING THROUGH FALL) BREEZES.
  - LARGE ENOUGH LOT FOR SEMI-PRIVATE OUT-DOOR LIVING AREAS (OFF OF OPEN LIVING SPACES).

FOR MORE INFORMATION ON SPECIFIC DETAILS OF ENERGY GUIDELINES AND/OR CLIMATE ANALYSIS BY ZONES SEE THE FOLLOWING SOURCES:

RE: ENERGY-EFFICIENT FLORIDA HOME BUILDING  
FLA. SOLAR ENERGY CENTER

HOUSES AND CLIMATE (AN ENERGY PERSPECTIVE FOR FLORIDA BUILDERS)  
BUREAU OF RESEARCH  
COLLEGE OF ARCHITECTURE  
UNIVERSITY OF FLORIDA

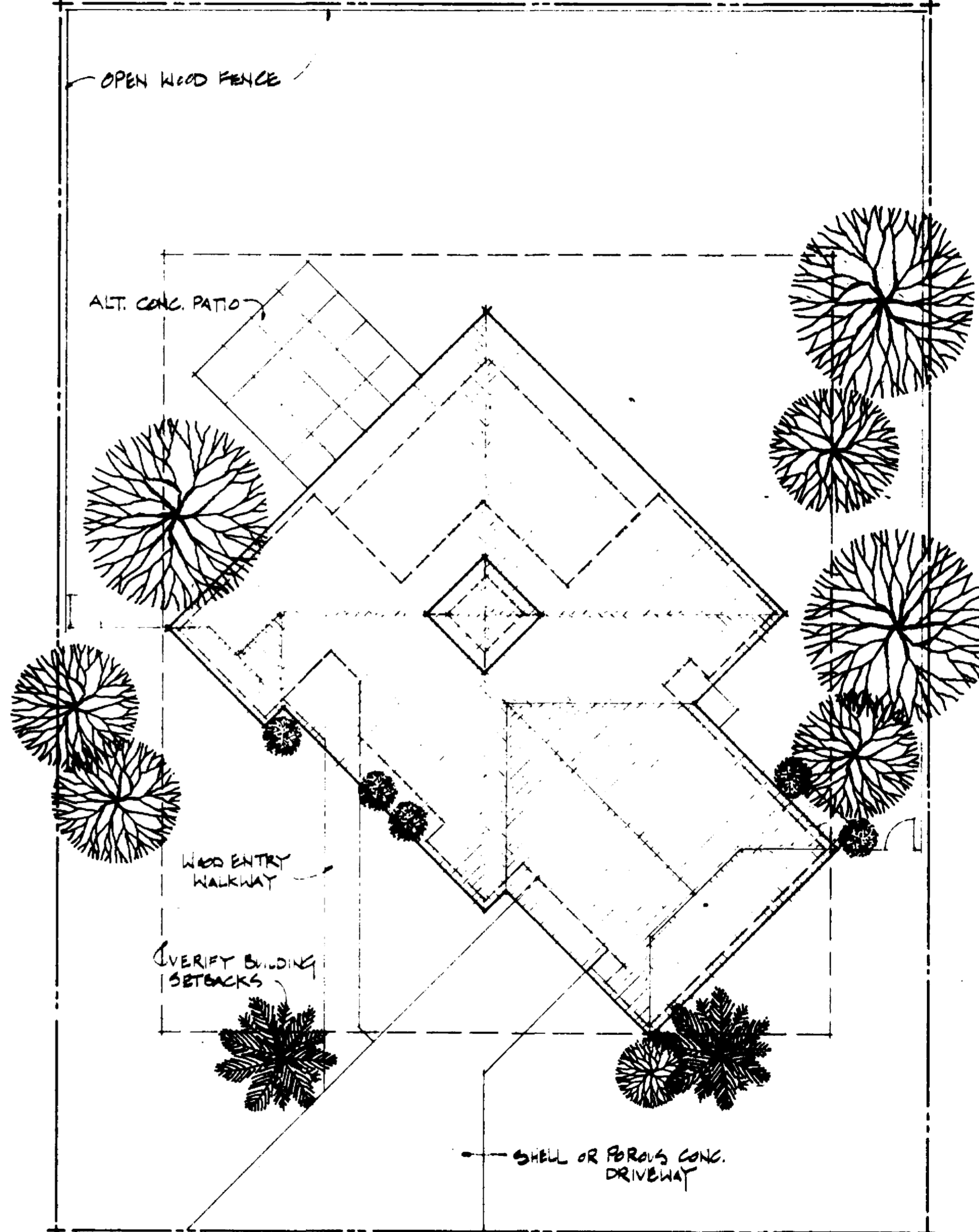
A map of Florida is shown with three zones labeled: NORTH (top), CENTRAL (middle), and SOUTH (bottom). The zones are numbered 1 through 8 across the state.

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**site plan**

HOUSE ANGLED TO STREET

1 AUG 90  
john castham hall  
15 IVANKO DRIVE  
ARLINGTON BEACH, FLA 32976

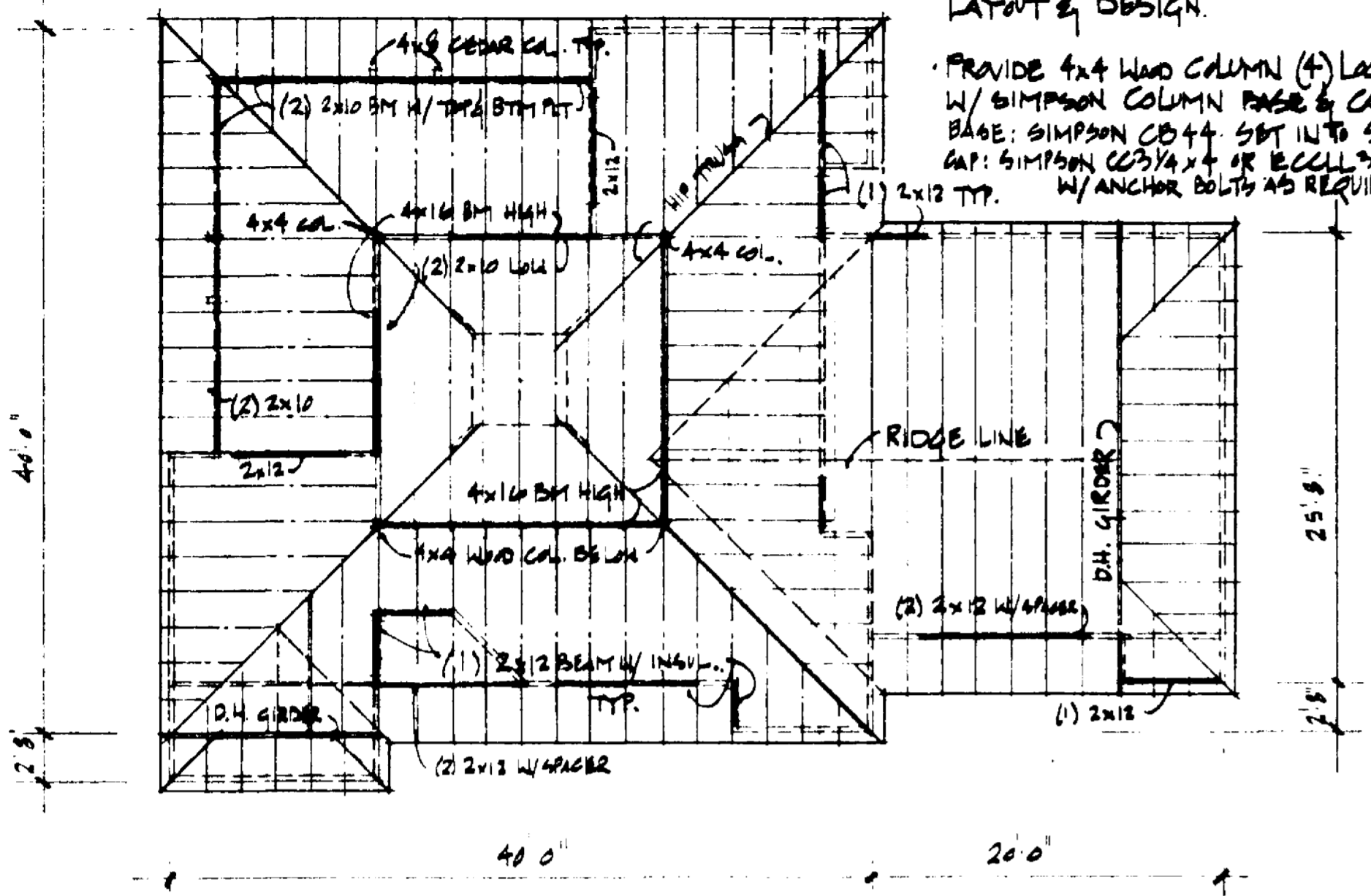
SITE PLAN  
ENERGY GUIDELINES

FLORIDA SOLAR ENERGY CENTER  
UNIVERSITY OF FLORIDA  
BUREAU OF RESEARCH  
COLLEGE OF ARCHITECTURE  
UNIVERSITY OF FLORIDA

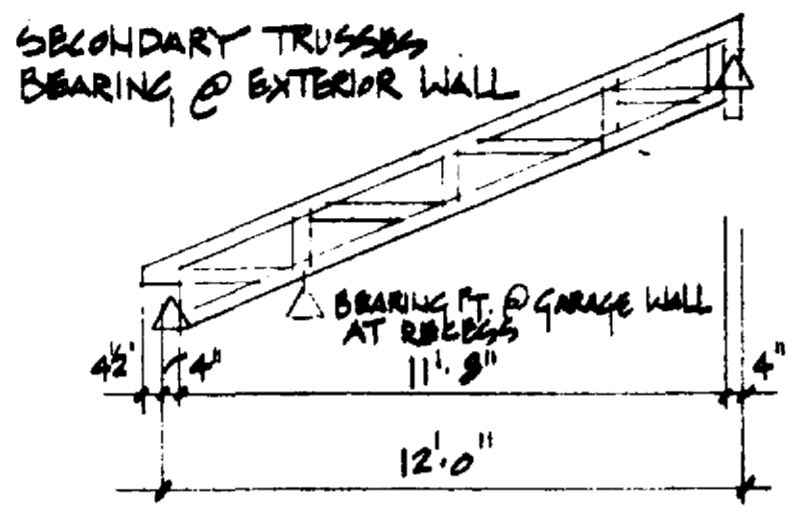
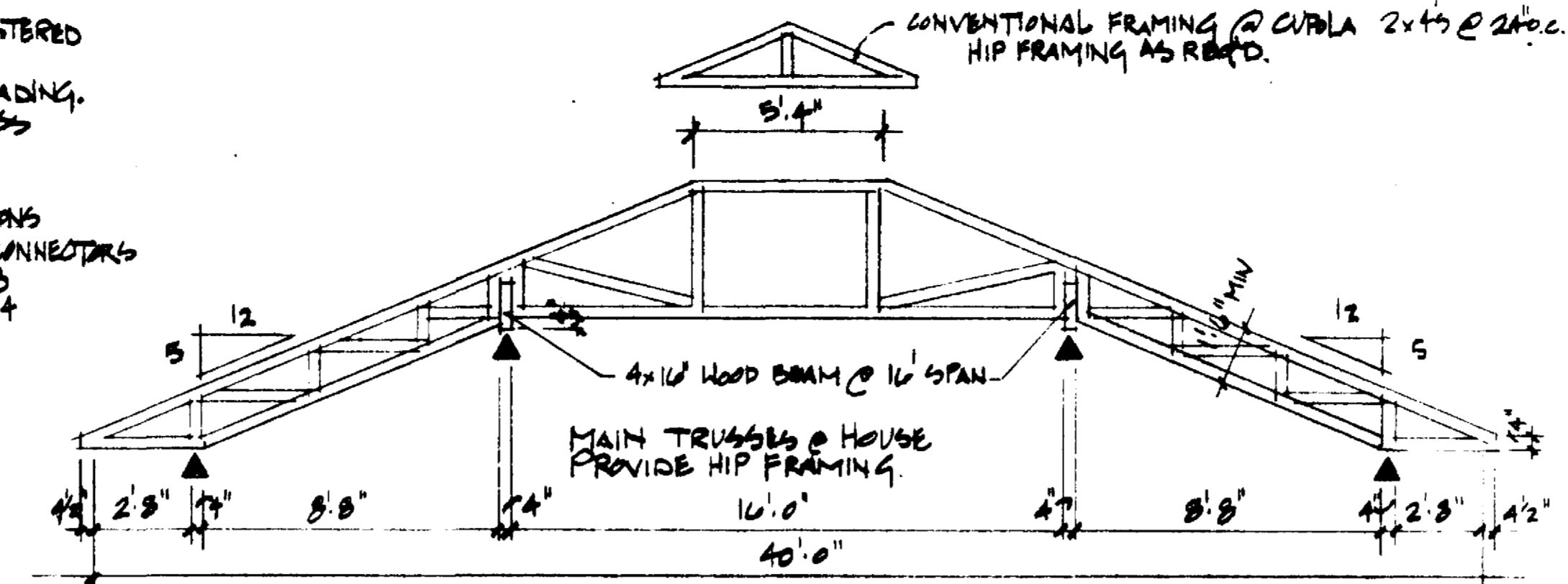
NOTE:  
 PROVIDE 1/2" EXT. G.O. PLYWD.  
 AT CORNERS OF HOUSE INSTEAD  
 OF 1/2" INSULATION (WIND BRACING).

TRUSSES TO BE PRE-ENGINEERED  
 WOOD TRUSSES DESIGNED BY REGISTERED  
 FLORIDA STRUCTURAL ENGINEER.  
 DESIGN TRUSSES FOR ALL REAR LOADING.  
 PROVIDE SHOP DRAWINGS FOR TRUSS  
 LAYOUT & DESIGN.

PROVIDE 4x4 WOOD COLUMN (4) LOCATIONS  
 W/ SIMPSON COLUMN BASE & CAP CONNECTORS  
 BASE: SIMPSON CB44 SBT INTO SLAB  
 CAP: SIMPSON CB3/4 x 4 OR ECOLL 3/4 x 4  
 W/ ANCHOR BOLTS AS REQUIRED.



roof framing plan  
 SC. 1/8" = 1'-0"



truss profiles

**energy guidelines**

- 5 VEE CRIMP GALV. ALUM ROOFING OR ALTERNATE LIGHT COLORED (WHITE BEST) ROOF SHINGLES
- CONTINUOUS 5/16" SOFFIT VENTS - LOUVERS AT CURBULA. GABLE VENT @ GARAGE
- R-19 BATT INSULATION (MIN) AT CEILING PLANE W/ FOIL FACED RADIANT BARRIER ON BOTTOM SIDE OF PLYWD ROOF DECKING.
- SEAL ALL CEILING PENETRATIONS TIGHT W/ INSULATION OR NON-COMBUSTIBLE CAULKING OR FOAM PRODUCTS.
- PROVIDE 5/8" x 8" L ANCHOR BOLTS AT 3'-4" O.C. MINIMUM (3) PER LOCATION

**footing schedule**

MARK	SIZE	REINFORCING	REMARKS
(1)	9" x 18" x CONT.	2" #5 CONT.	FILLED CELLS @ 48"
(2)	8" x 16" x CONT.	2" #5 CONT.	AB @ 40" O.C.
(3)	12" x 10" x CONT.	2" #4 CONT.	A.R. @ 40" O.C.
(4)	36" x 36" x 12" D.	6" #4 BA WAY	THICKEN SLAB IN HOUSE
(5)	36" x 72" x 12" D.	4" #5 LH @ 3/8" O.C. & PROVIDE CROSS STEEL	
(6)	36" x 36" x 12" D.	5" #5 BA WAY	* SEE NOTE
(7)	20" x 20" x 9" D.	3" #5 BA WAY	3" x 3" CONC BLK FILLED CELL
(8)	18" x 12" x 36"	2" #5	THICKENED SLAB

- RAISED SLAB W/ STEM WALLS DIRECT GROUND CONTACT. ALTERNATE PERIMETER SLAB INSULATION
- ALTERNATE TERRAZZO FINISH FOR HIGHLY CONDUCTIVE FLOOR SYS. HEAT SINK.
- TAKE EXTRA CARE IN CURING SLABS TO HELP PREVENT CRACKING. WIRE MESH. CALIBED CONTROL JOINTS. 2" SAND LAYER UNDER SLAB. SEAL ALL PENETRATIONS.
- SHADE STEM WALLS W/ LANDSCAPING
- SEAL UNDER PT. SILL PLATE AT WALL.

AT SCREEN PORCH FOOTINGS  
 \*PROVIDE (2) GALVANIZED METAL ANCHOR TYPE TIE DOWNS PER FOOTING (FOR WIND UPLIFT). RATED @ 2500# UPLIFT MIN. EA ONE.

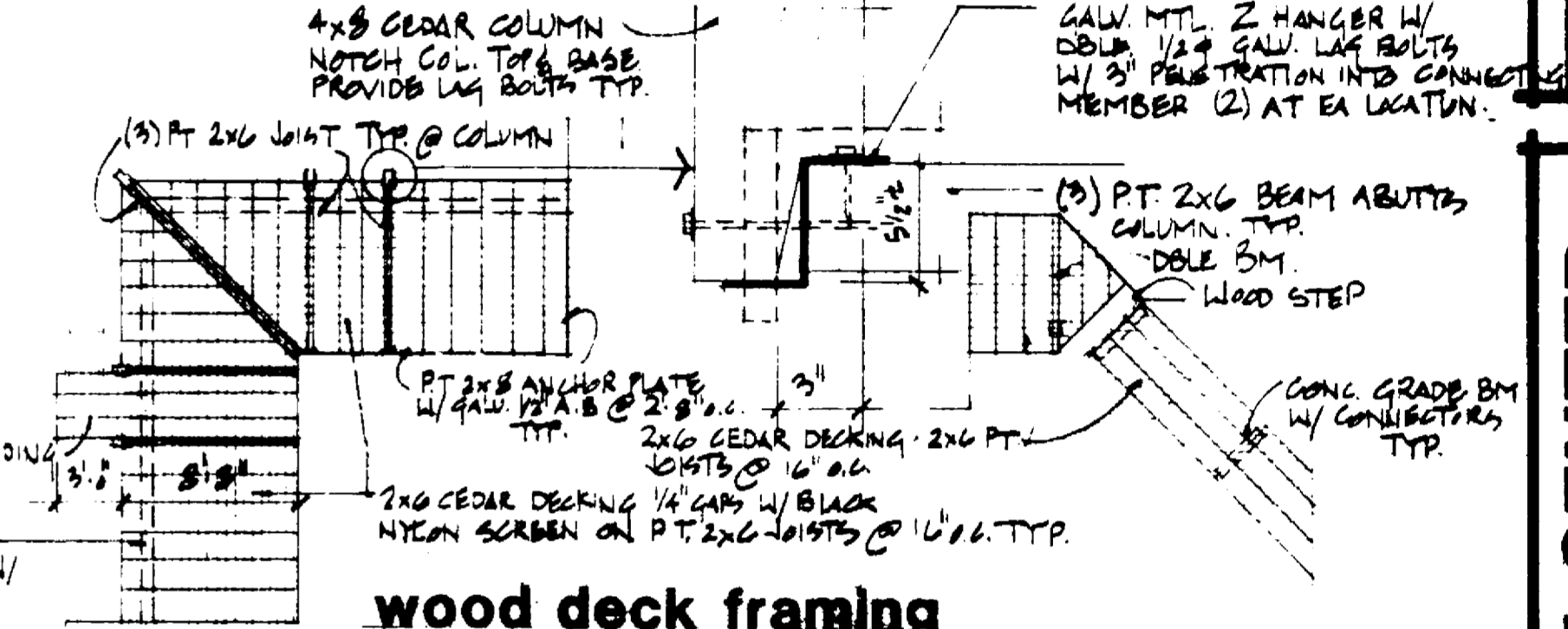
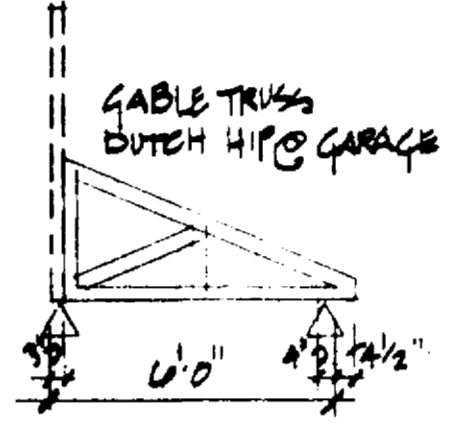
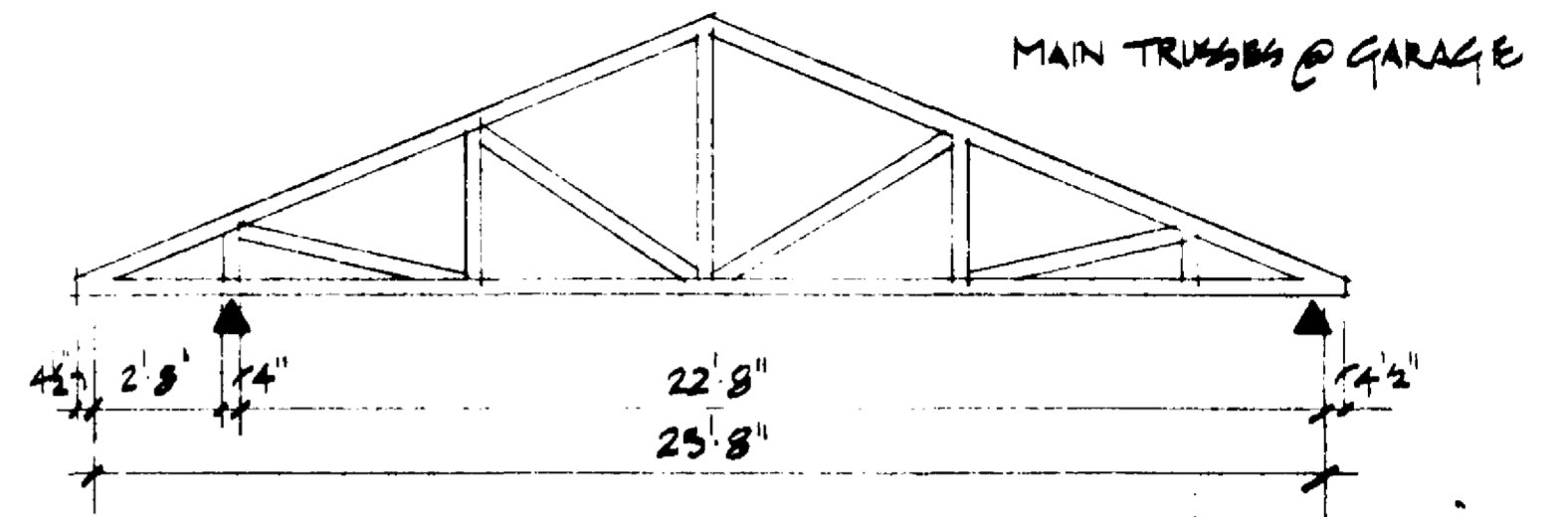
FOUNDATION DESIGN BASED ON SOIL BEARING PRESSURE OF 2500 PSF W/ NO ORGANIC OR CLAY TYPE SOILS PRESENT. HAVE SOIL TESTS PERFORMED IF CONDITIONS ARE QUESTIONABLE.

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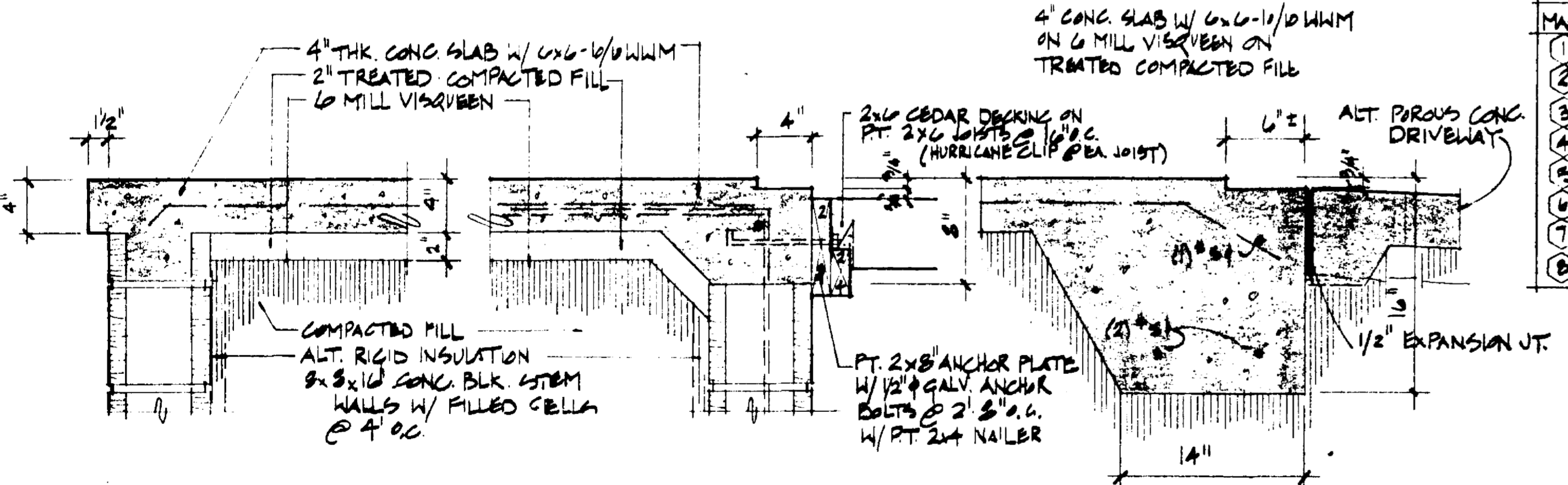
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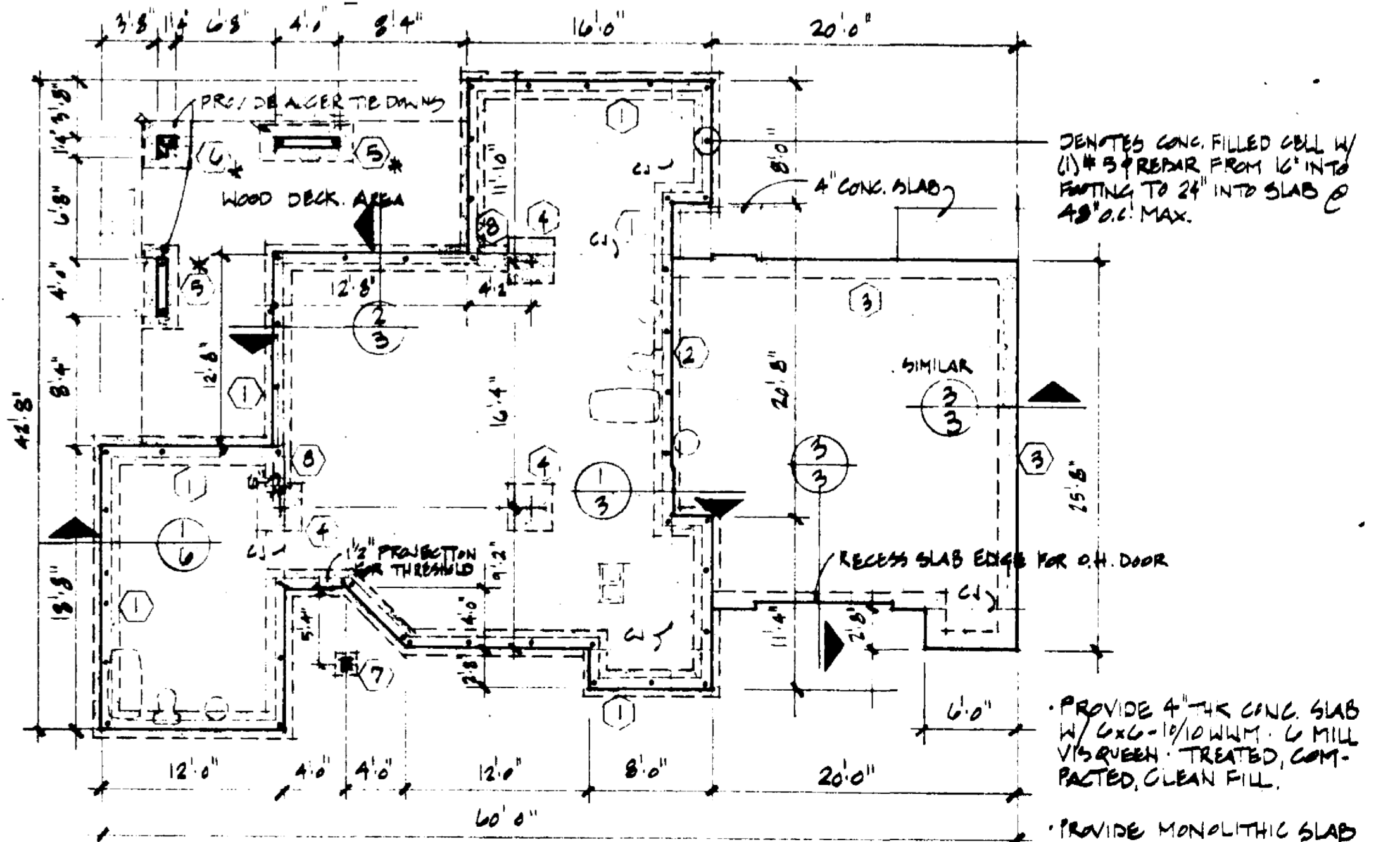
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wood deck framing



(1) slab detail SC. 1/2" = 1'-0" AT TYPICAL EXTERIOR DOOR  
 (2) slab detail AT POCKET SLIDER  
 (3) slab detail AT GARAGE DOOR



foundation plan  
 SC. 1/8" = 1'-0"

PROVIDE 4" THK CONC. SLAB W/ 6" x 6" - 18" W/M. 6 MILL VISGREEN. TREATED, COMPACTED, CLEAN FILL.

PROVIDE MONOLITHIC SLAB WITH FOOTINGS AT GARAGE AREA ONLY.

PROVIDE TERRAZZO TREATMENT UNDER ENTIRE SLAB AREA.

1 AUGUST 90  
 JOHN CASHIN  
 ARCHITECT  
 93 NANKIVE DRIVE  
 ORMOND BEACH, FLA 32176

FOUNDATION PLAN  
 FOOTING  
 DETAILS

FLORIDA SOLAR ENERGY CENTER  
 1000 S.F. ENERGY EFFICIENT HOME DESIGN

### room finish schedule

### window schedule

ROOM	FLOOR	WALLS	CEILING	HT.	REMARKS
		CARPET VINYL OR TILE WOOD	HARDCAT PLASTER GYPSUM PLAST. WOOD EXPOSED		TERRAZZO ALTERNATE FLOOR FINISH AT LIVING AREAS. PROVIDE WOOD BASE AT CARPET & VINYL/TILE AREAS.
		(1)(2)(3)	(4)(5)(7)	(8)(9)(10)	
1 ENTRY PORCH				8'-0"	EXTERIOR DROP SUFFITS
2 LIVING RM				VARIABLE	
3 DINING				VARIABLE	
4 BEDROOM 1				VAR.	TILE SURROUND @ TUB
5 BATH 1				8'	
6 SCREEN PORCH				VAR.	
7 BEDROOM 2					TILE SURROUND @ TUB
8 BATH 2					
9 ALCOVE				8'	
10 KITCHEN					ALT. FEG. BD. & WALLS
11 ENTRY				VARIABLE	
12 GARAGE				9'-4"	

NO.	SIZE	TYPE	NO. REQ.	REMARKS
1	8'x4'	H.S.	1	
2	2'x3'	H.G.	1	
3	5'x4'	H.S.	2	
4	6'x4'	H.S.	2	OR ALT. SGL.
5	8'x8'	H.S.	2	
6	5'x4'	H.S.	1	
ALUM. HORIZONTAL SLIDING WINDOWS W/ INSULATING GLASS				

### door schedule

NO.	SIZE	TYPE	NO. REQ.	REMARKS
1	36"x66" x 1 3/4"	INSULAT.	2	(1) ENTRY
2	24"x66" x 1 3/8"	H.C.	2	
3	8'x66"	BLDG. GL.	2	POCKET GLASS
4	24"x66" x 1 3/8"	H.C.	3	
5	24"x66" x 1 3/8"	H.C.	2	POCKET
6	24"x66" PR.	DIFF.	1	
7	2'x66"	BIFOLD	1	PULL LOWER
8	3'x7' x 1 3/8"	SCREEN	1	
9	3'x66" x 1 3/8"	EXT.	1	
10	4'x8'	O.H.G.	1	
11	2'x66"	B.C.	1	CUT & FIX BOTTOM SECTION TO R/A DUCT

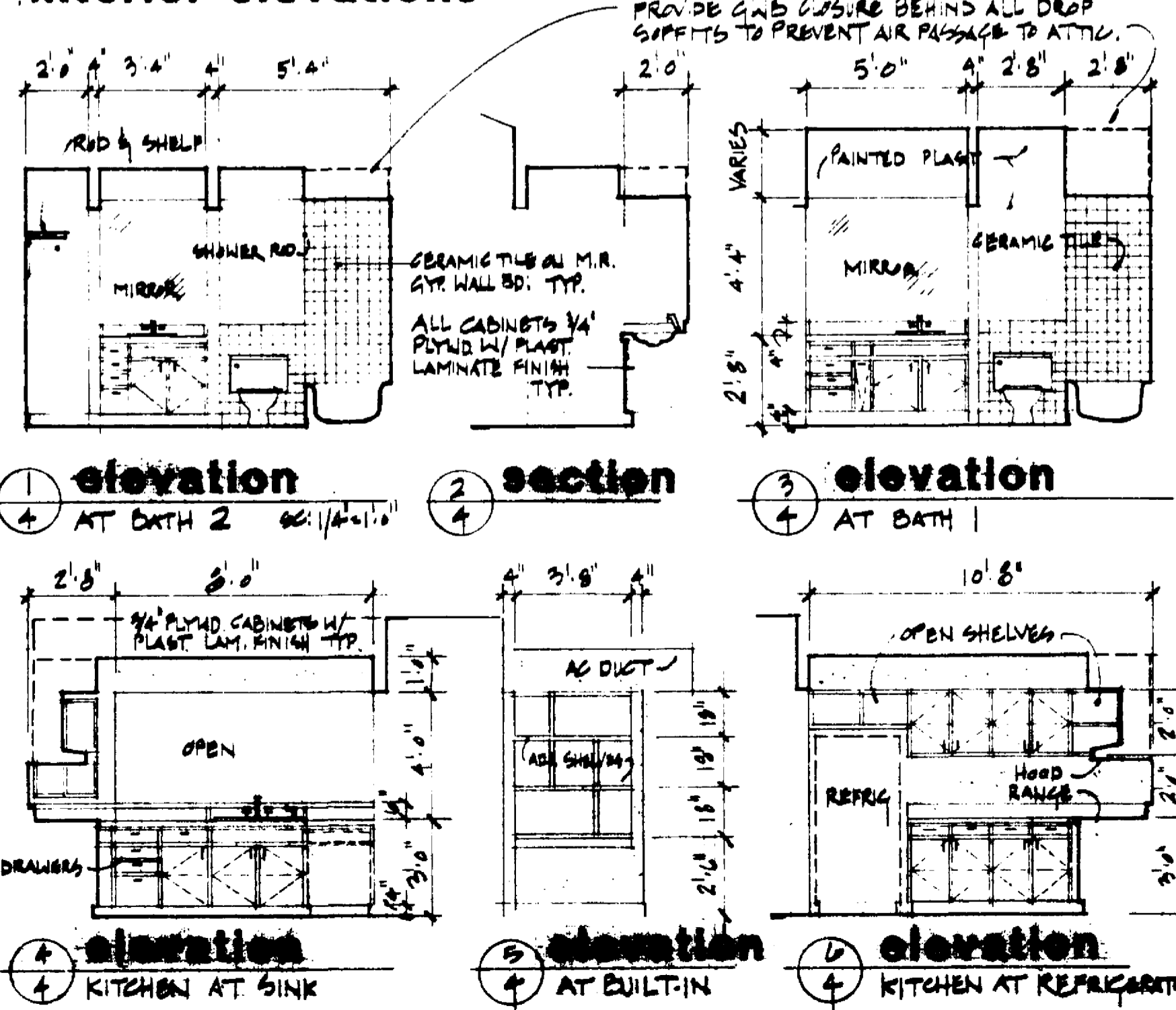
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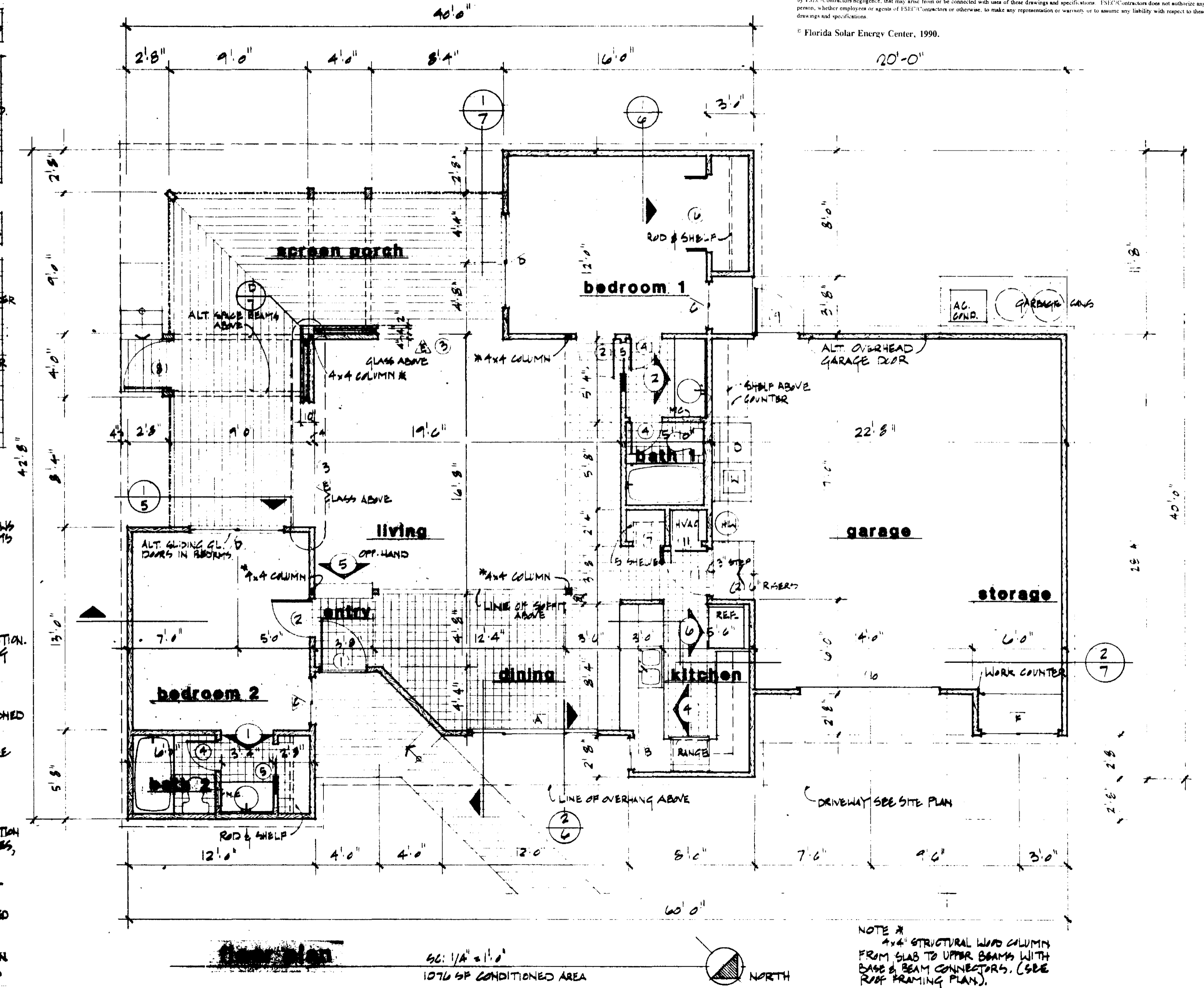
Florida Solar Energy Center, 1990.

### interior elevations



### energy guidelines

- PRIVATE SCREENED PORCH ALLOWS LIVING AREA AND OR BEDROOMS TO EXTEND TO EXTERIOR.
- MINIMIZE GLASS EXPOSURE WITH OVERHANGS.
- ROOM LAYOUT BUFFERS MAIN LIVING SPACES FROM LATE AFTERNOON SUMMER SUN.
- OPEN PLAN FOR CROSS VENTILATION. SEVERAL MEANS OF AUGMENTING NATURAL VENTILATION!
- AIR HANDLER, AC DUCTWORK IN CONDITIONED SPACE. WATER HEATER, LAUNDRY IN NON CONDITIONED SPACE.
- REDUCE FRAMING MEMBERS WHERE POSSIBLE: CORNERS, WALL INER. SECTIONS, HEADERS.
- FILL ALL VOIDS AT INSULATION. SEAL ALL PENETRATIONS AT EXTERIOR WALLS. AIR INFILTRATION BARRIER. CAULK AT GILLS, PLATES, WINDOWS.
- MINIMIZED EXPOSED EAST/WEST FACING WALLS. ALTERNATE RADIANT BARRIER AT EXPOSED EAST/WEST FACING WALLS.
- PREVENT INSULATION COMPACTION AT WIRING. NOTCH STUDS 3/4" AS REQUIRED.



**guidelines**

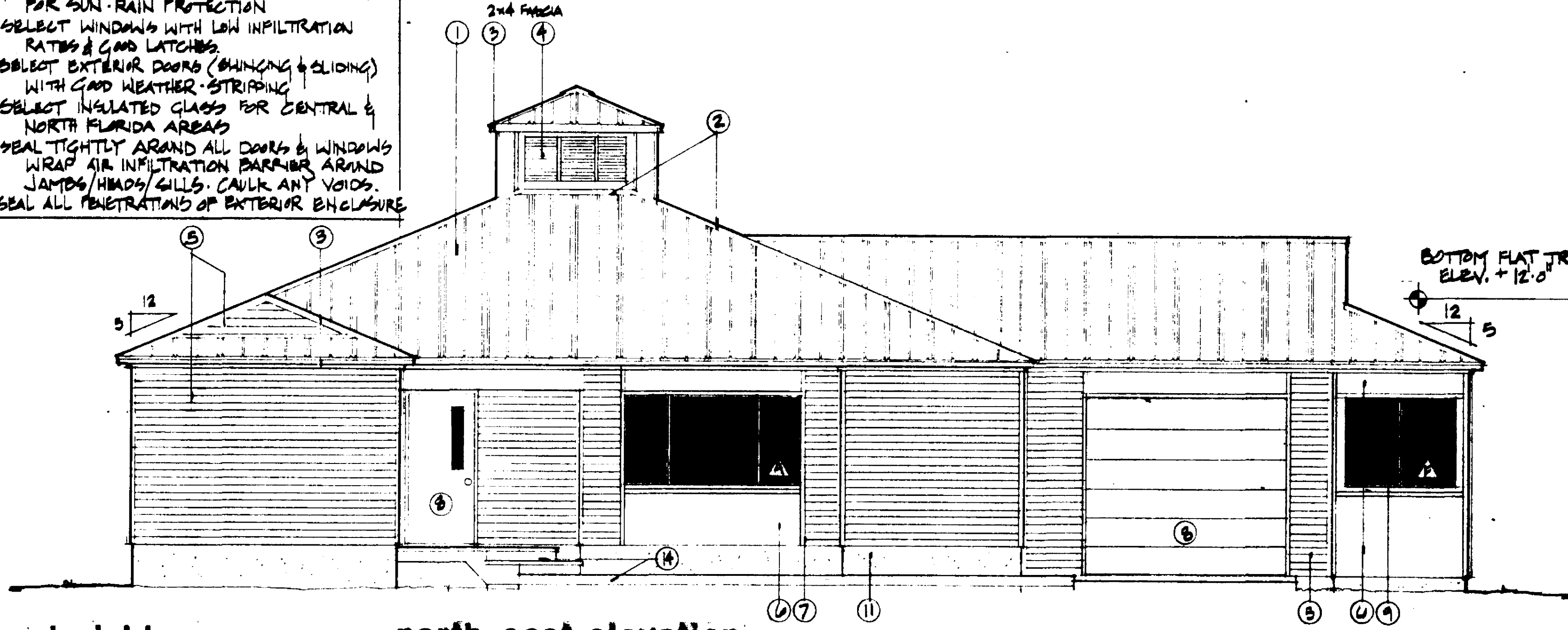
- GLASS LOCATION FOR VENTILATION. OVERHANGS FOR SUN-RAIN PROTECTION
- SELECT WINDOWS WITH LOW INFILTRATION RATES & GOOD LATCHES
- SELECT EXTERIOR DOORS (SWINGING & SLIDING) WITH GOOD WEATHER-STRIPPING
- SELECT INSULATED GLASS FOR CENTRAL & NORTH FLORIDA AREAS
- SEAL TIGHTLY AROUND ALL DOORS & WINDOWS WRAP AIR INFILTRATION BARRIER AROUND JAMBS/HEADS/SILLS. CAULK ANY VOIDS.
- SEAL ALL PENETRATIONS OF EXTERIOR ENCLASURE

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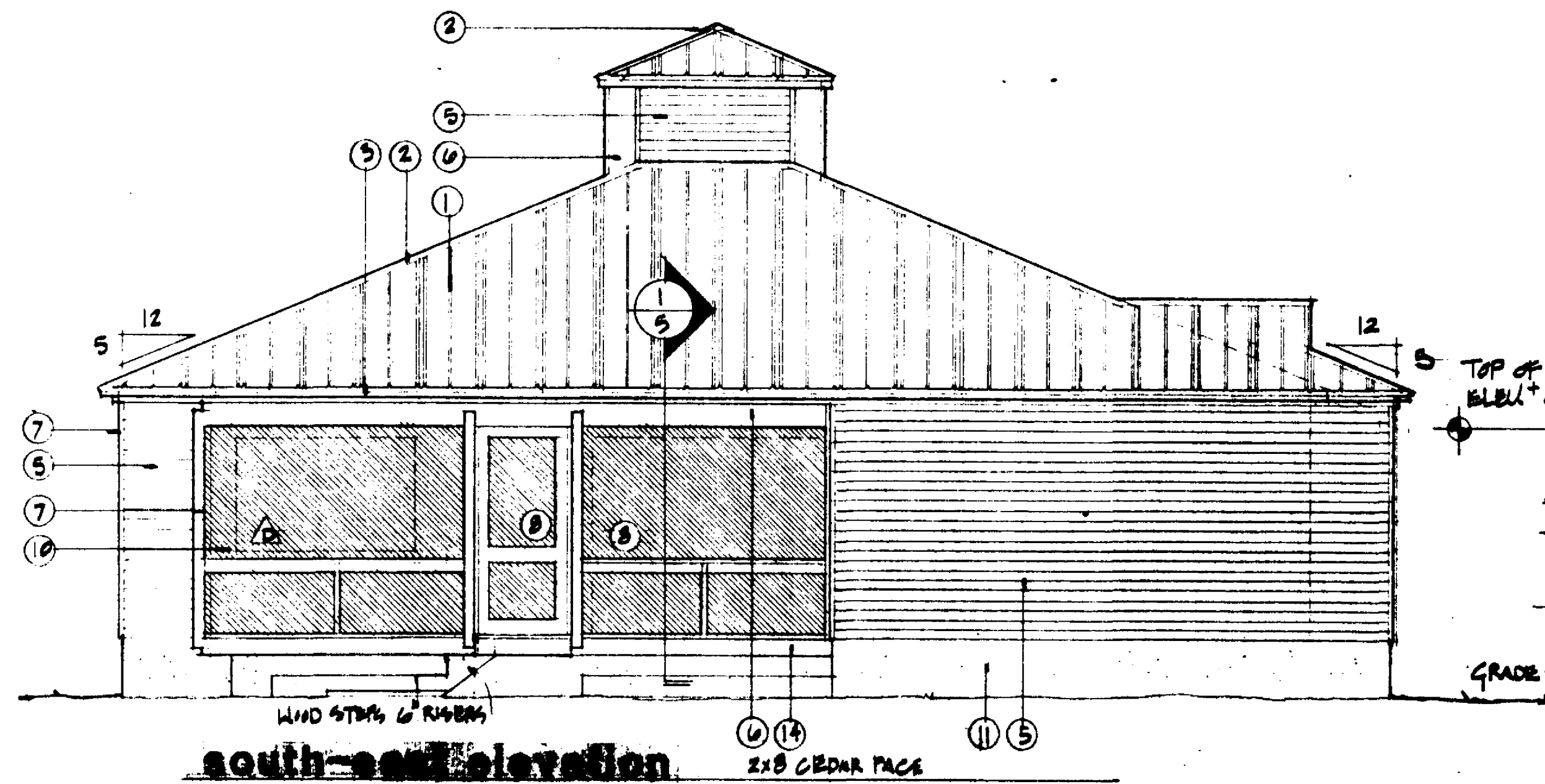
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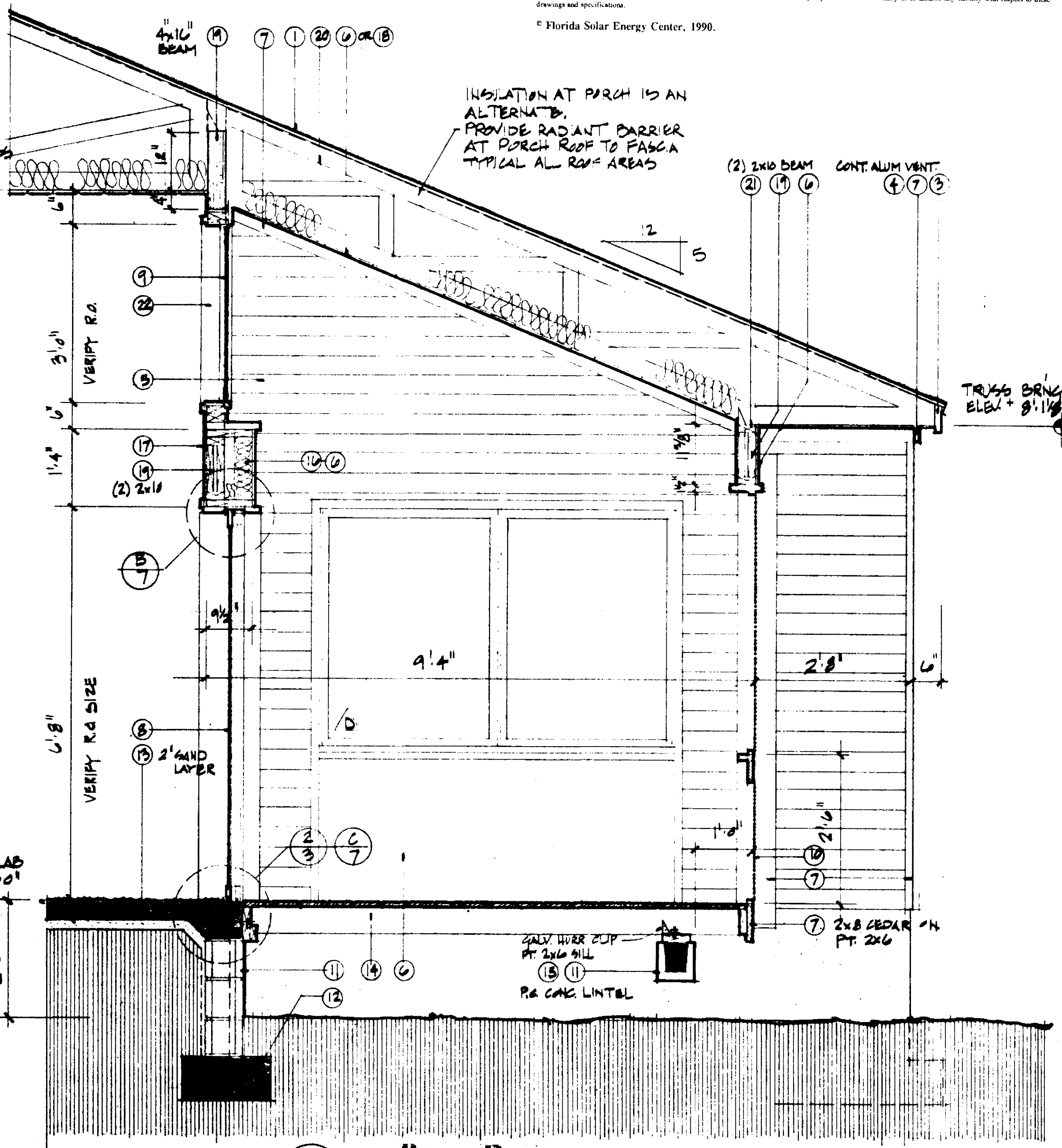
north-east elevation

**material key**

- 1 5/8" VIRE GRIP GALV. ALUM. ROOFING
- 2 GALV. ALUM. FLASHING/TRIM
- 3 GALV. ALUM. DRAIN EDGE - 2x6 CEDAR FASCIA
- 4 ALUM. LADDERS/TRIM
- 5 1/2" x 4" (TYP. / VENTILES) PAINTED HASONITE
- 6 1/2" x 4" (TYP. / VENTILES) PAINTED HASONITE
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- 58 1/2" x 4" (TYP. / VENTILES) PAINTED HASONITE
- 59 1/2" x 4" (TYP. / VENTILES) PAINTED HASONITE
- 60 1/2" x 4" (TYP. / VENTILES) PAINTED HASONITE
- 61 1/2" x 4" (TYP. / VENTILES) PAINTED HASONITE
- 62 1/2" x 4" (TYP. / VENTILES) PAINTED HASONITE
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- 64 1/2" x 4" (TYP. / VENTILES) PAINTED HASONITE
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- 67 1/2" x 4" (TYP. / VENTILES) PAINTED HASONITE
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- 69 1/2" x 4" (TYP. / VENTILES) PAINTED HASONITE
- 70 1/2" x 4" (TYP. / VENTILES) PAINTED HASONITE
- 71 1/2" x 4" (TYP. / VENTILES) PAINTED HASONITE
- 72 1/2" x 4" (TYP. / VENTILES) PAINTED HASONITE
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- 89 1/2" x 4" (TYP. / VENTILES) PAINTED HASONITE
- 90 1/2" x 4" (TYP. / VENTILES) PAINTED HASONITE
- 91 1/2" x 4" (TYP. / VENTILES) PAINTED HASONITE
- 92 1/2" x 4" (TYP. / VENTILES) PAINTED HASONITE
- 93 1/2" x 4" (TYP. / VENTILES) PAINTED HASONITE
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- 95 1/2" x 4" (TYP. / VENTILES) PAINTED HASONITE
- 96 1/2" x 4" (TYP. / VENTILES) PAINTED HASONITE
- 97 1/2" x 4" (TYP. / VENTILES) PAINTED HASONITE
- 98 1/2" x 4" (TYP. / VENTILES) PAINTED HASONITE
- 99 1/2" x 4" (TYP. / VENTILES) PAINTED HASONITE
- 100 1/2" x 4" (TYP. / VENTILES) PAINTED HASONITE



south-east elevation



wall section

1. AUGUST 90

75 IVANHOE DRIVE  
ORLANDO BEACH, FLA. 32176

DATE ELEVATIONS  
WALL SECTION

FLORIDA SOLAR ENERGY CENTER  
1000 S.F. ENERGY EFFICIENT HOME DESIGN

**energy guidelines**

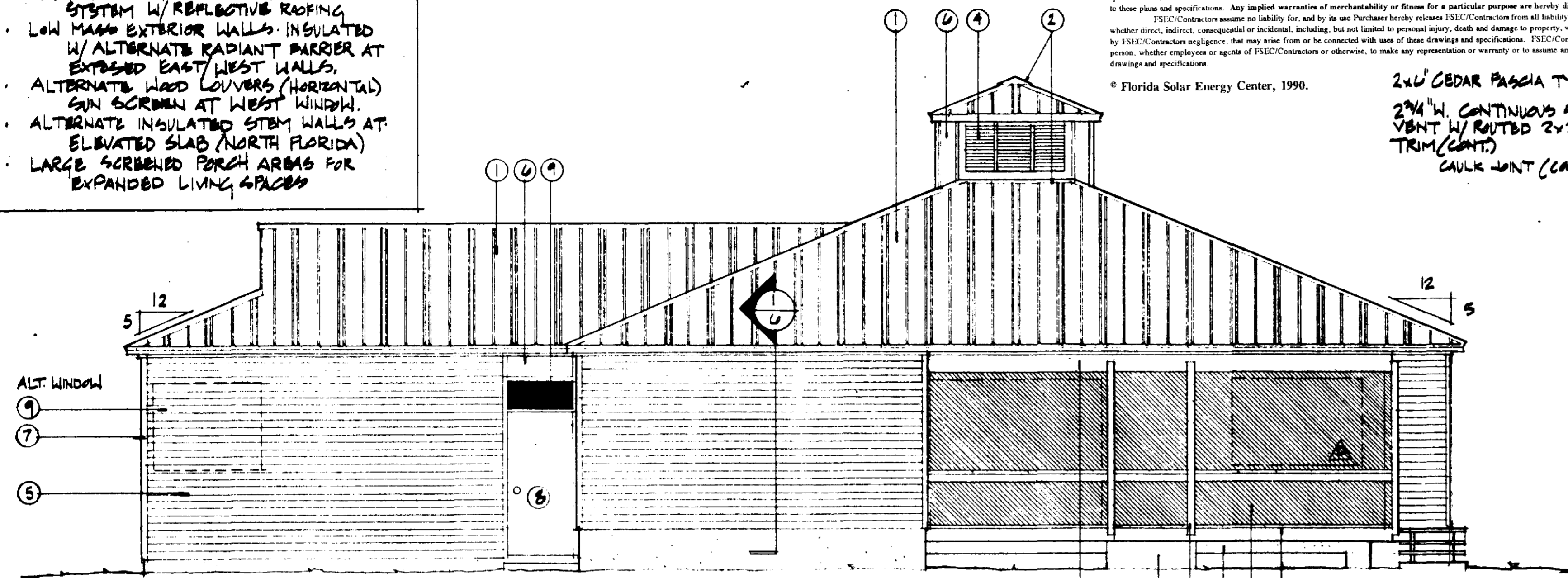
- FULLY VENTILATED INSULATED ROOF SYSTEM W/ REFLECTIVE ROOFING
- LOW MASS EXTERIOR WALLS INSULATED W/ ALTERNATE RADIANT BARRIER AT EXPOSED EAST/WEST WALLS
- ALTERNATE WOOD LOUVERS (HORIZONTAL) SUN SCREEN AT WEST WINDOW
- ALTERNATE INSULATED STEM WALLS AT ELEVATED SLAB (NORTH FLORIDA)
- LARGE SCREENED PORCH AREAS FOR EXPANDED LIVING SPACES

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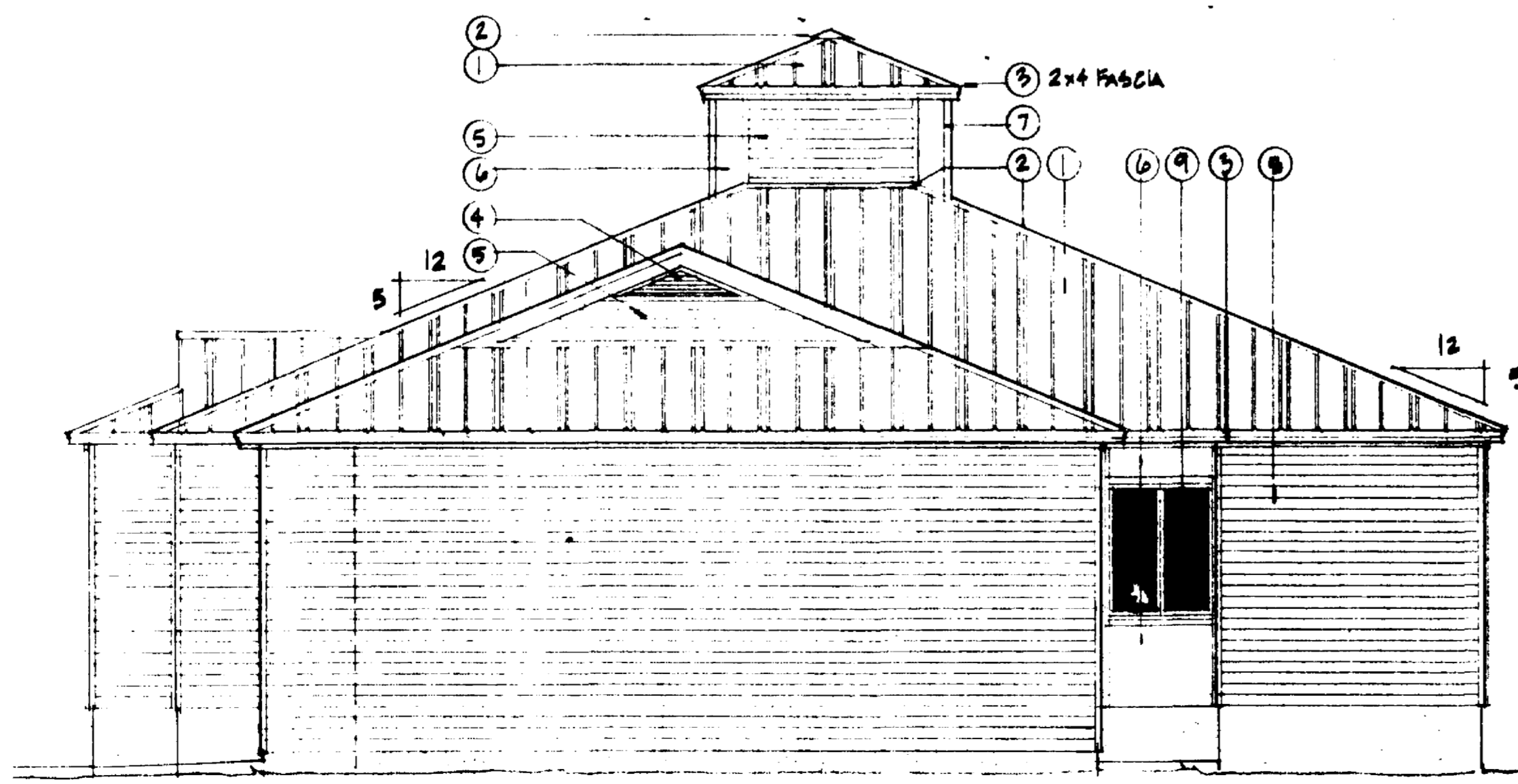
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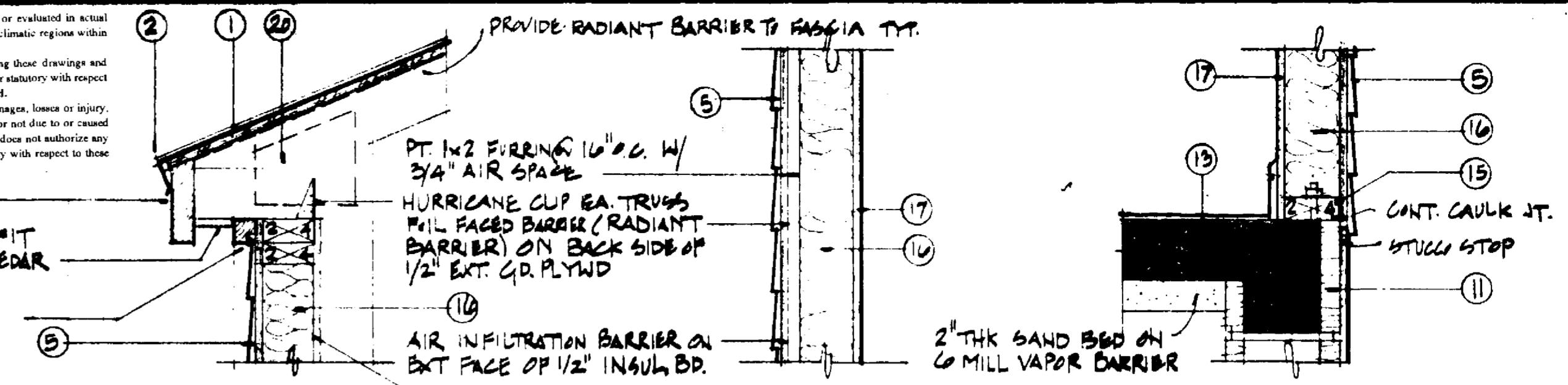
**south-west elevation**  
sc: 1/4" = 1'-0"

**material key**

- 5-VEE CRIMP GALV. ALUM ROOFING
- GALV. ALUM FLASHING/TRIM
- GALV. ALUM DRIP EDGE, 2x4 CEDAR FASCIA
- ALUM. LOUVERS/TRIM
- 12" W. (THREE 4" COURSES) PAINTED MASONITE BEVELED LAP SIDING
- 1/2" R.G. PAINTED PINE PLYTHO SIDING
- 2x4 OR 2x2 CEDAR TRIM OR 4x8 CEDAR COL.
- DOOR (SEE DOOR SCHEDULE)
- INSULATED ALUM. WINDOWS (SEE WINDOW SCHEDULE)
- NYLON SCREEN/ALUM TRIM
- 1/2" PAINTED STUDS ON 8x8x10' CONC. BLK. ALT. 1" THK. INSULATION AT INSIDE FACE CONCRETE FOOTING (SEE FOUNDATION PLAN)
- 4" THK. CONC. SLAB, 6 MILL VAPOR BARRIER, TREATED, WELL COMPACTED SLAB. (FINISH SEE FINISH SCHEDULE)
- 2x6 CEDAR DECKING, PT 2x FLOOR JOIST (SEE DECK FRAMING PLAN)
- PT. 2x4 SILL PLATE, 8x8x10' ALTS @ 3'-4" ON 2x4 WOOD STUDS @ 16" O.C. R-13 BATT INSUL. 1/2" FIBERGLASS AIR INFILTRATION BARRIER UNDER EXTERIOR SIDING
- PAINTED HARDENED PLASTER, 1/2" GYP. BD. WOOD CEILING (ADDITIVE ALTERNATE) WOOD BEAM (SEE ROOF FRAMING PLAN)
- PRE-ENGINEERED WOOD TRUSSES @ 24" O.C. R-13 BATT INSUL., 1/2" PLYTHO SUBSTRATE 1/2" FELT UNDER MTL ROOFING
- DOLE 2x4 TOP PLATE, GALV. HURRICANE CLIP RA. TRUSS



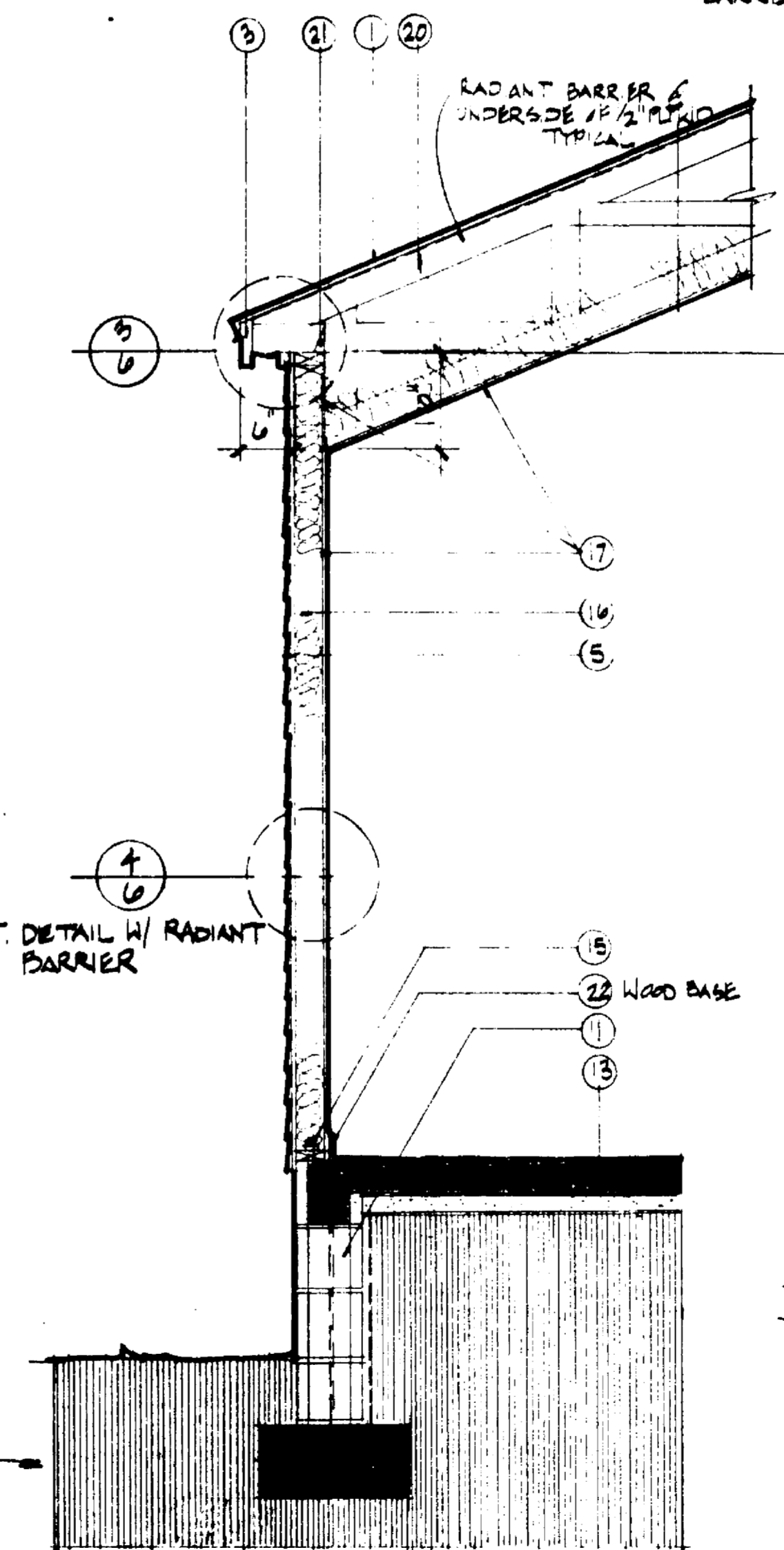
**north-west elevation**  
sc: 1/4" = 1'-0"



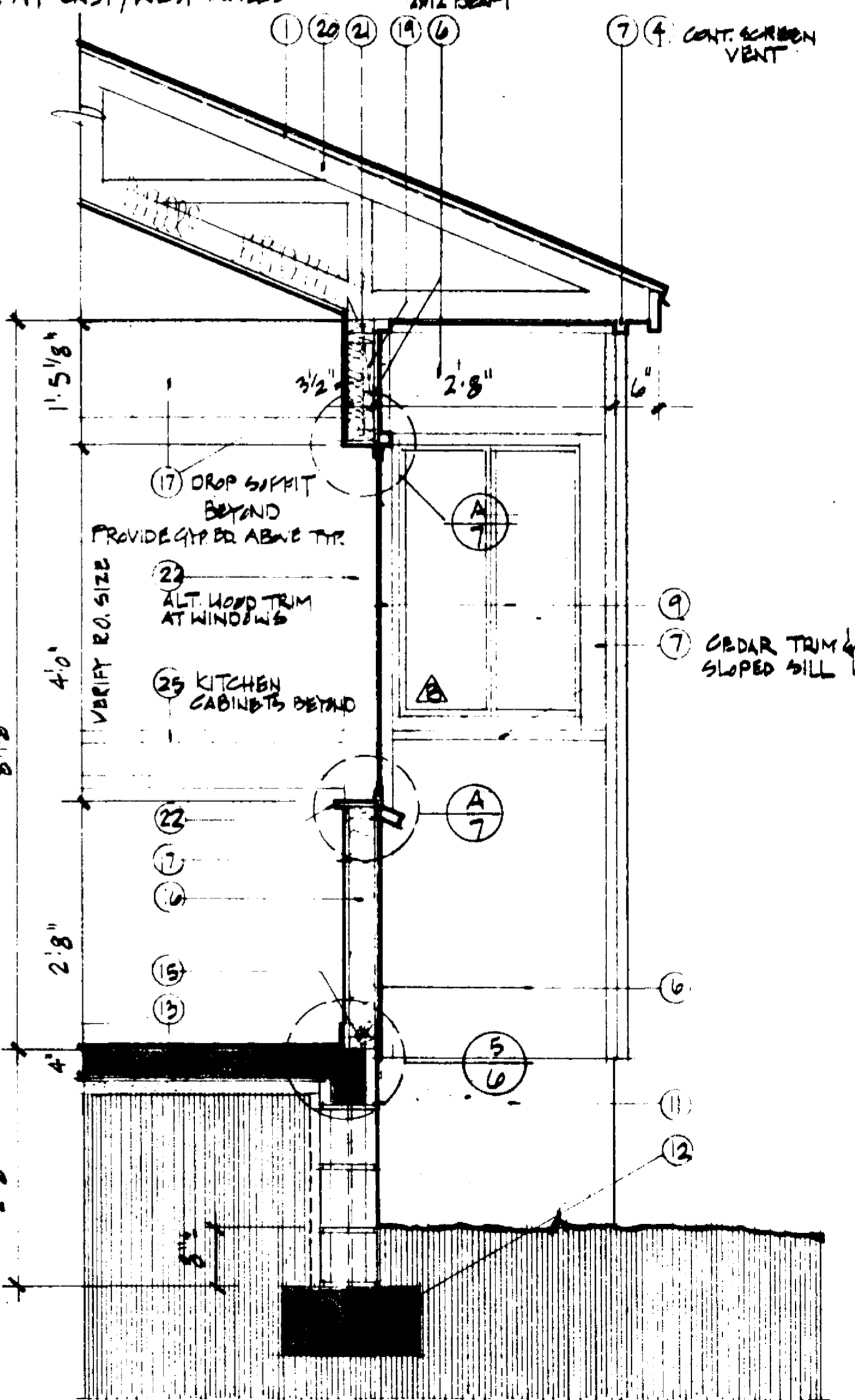
**3 detail**  
6 AT CONTINUOUS SOFFIT VENT

**4 detail**  
6 AT ALTERNATE RADIANT BARRIER AT EAST/WEST WALLS

**5 detail**  
6 AT EXTERIOR WALL AT SLAB 2x12 BEAM



**1 wall section**  
6 AT TYP. EXTERIOR WALL NO OVERHANG



**2 wall section**  
6 AT DINING AREA WINDOW sc: 3/4" = 1'-0"

1-AUGUST-90  
 95 VANHAR DRIVE  
 WIND BACH FLA 32170  
 EXT. ELEVATIONS  
 WALL SECTIONS  
 DETAILS  
**FLORIDA SOLAR ENERGY CENTER**  
**1080 S.F. ENERGY EFFICIENT HOME DESIGN**

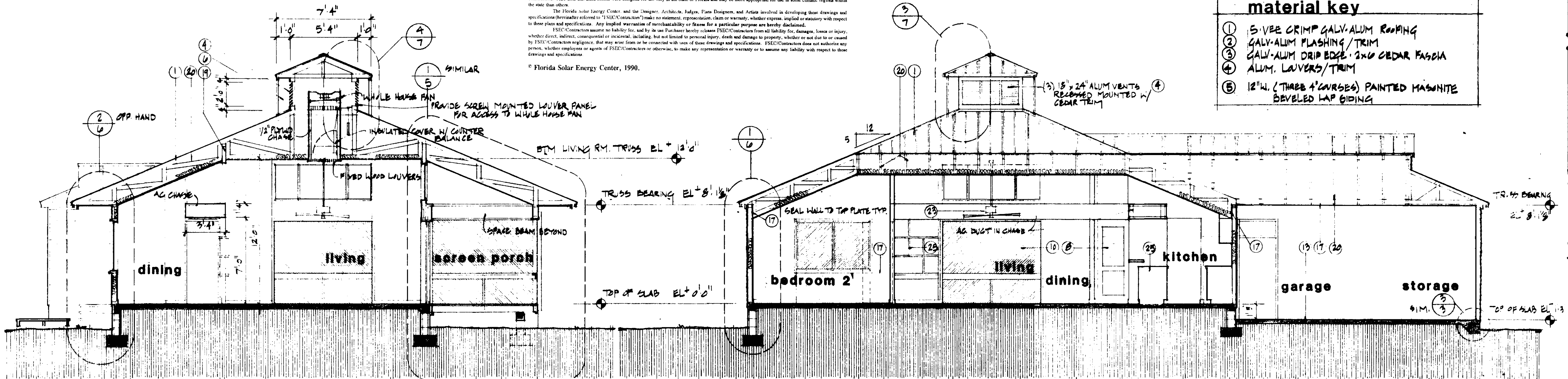
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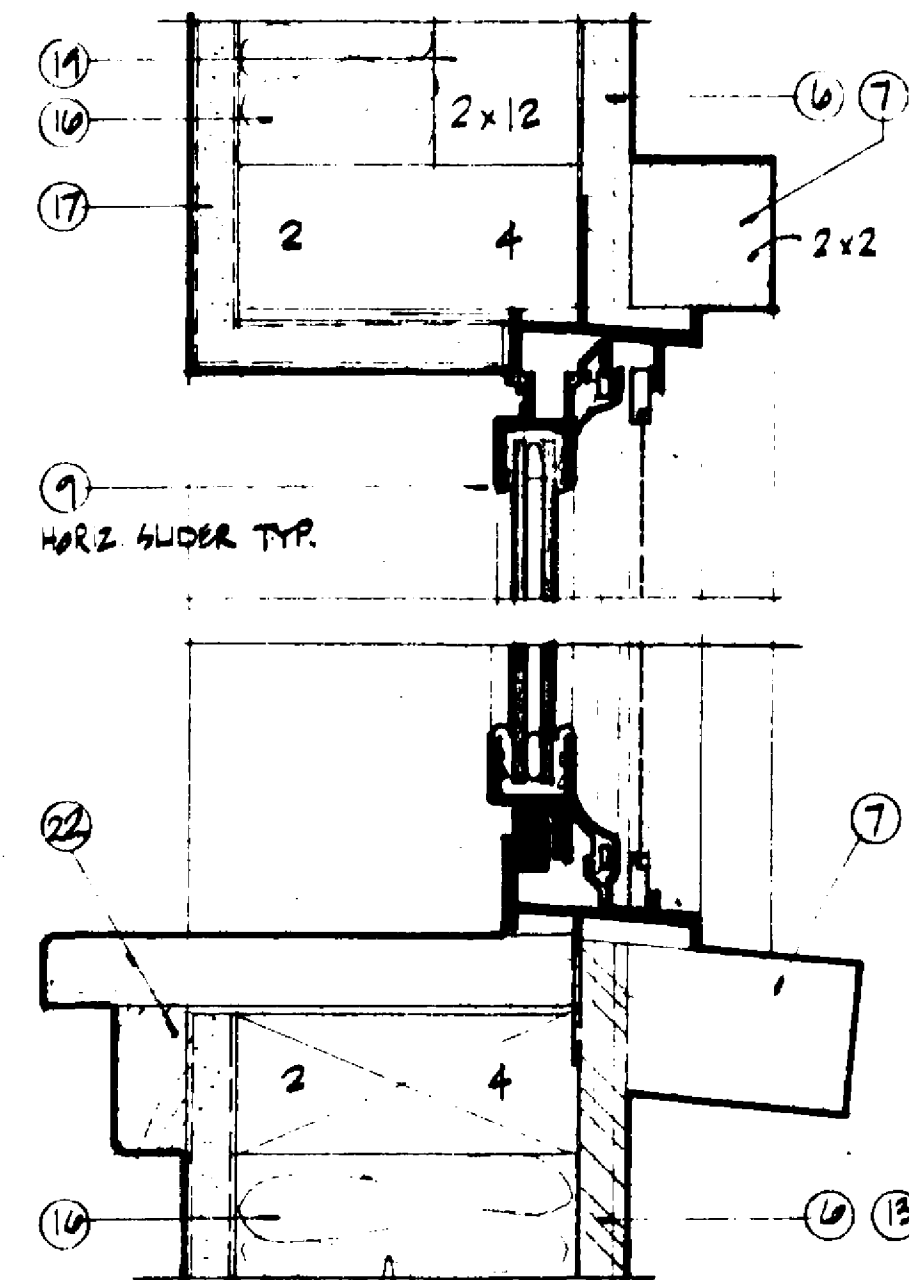
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material key	
①	5-VEE CRIMP GALV. ALUM ROOFING
②	GALV. ALUM FLASHING/TRIM
③	GALV. ALUM DRIP EDGE, 2x6 CEDAR FASCIA
④	ALUM. LOUVERS/TRIM
⑤	12"W. (THREE 4' COURSES) PAINTED MASONITE BEVELED LAP SIDING

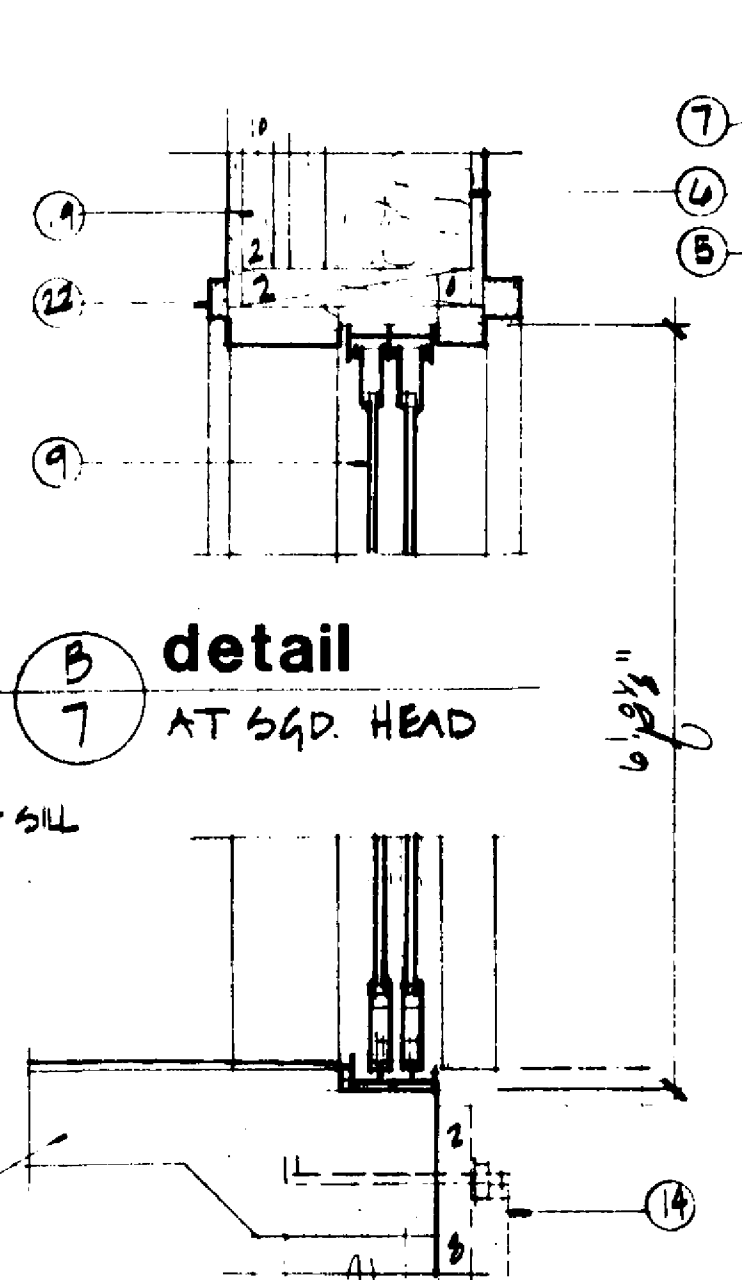


① building section  
7 CROSS SECTION AT LIVING AREAS  
SC. 1/4" = 1'-0"

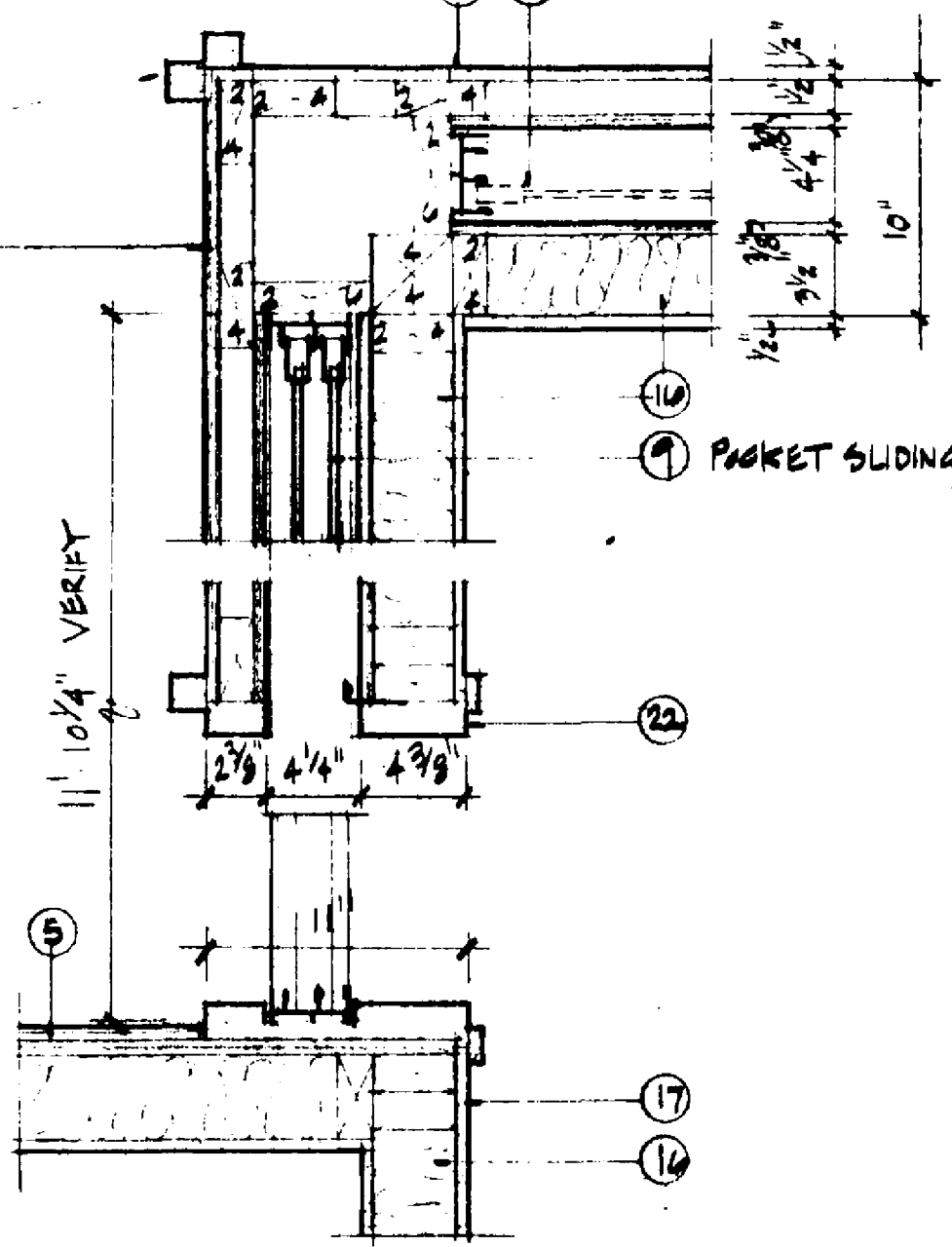
② building section  
7 LONGITUDINAL SECTION AT MAIN LIVING AREAS  
SC. 1/4" = 1'-0"



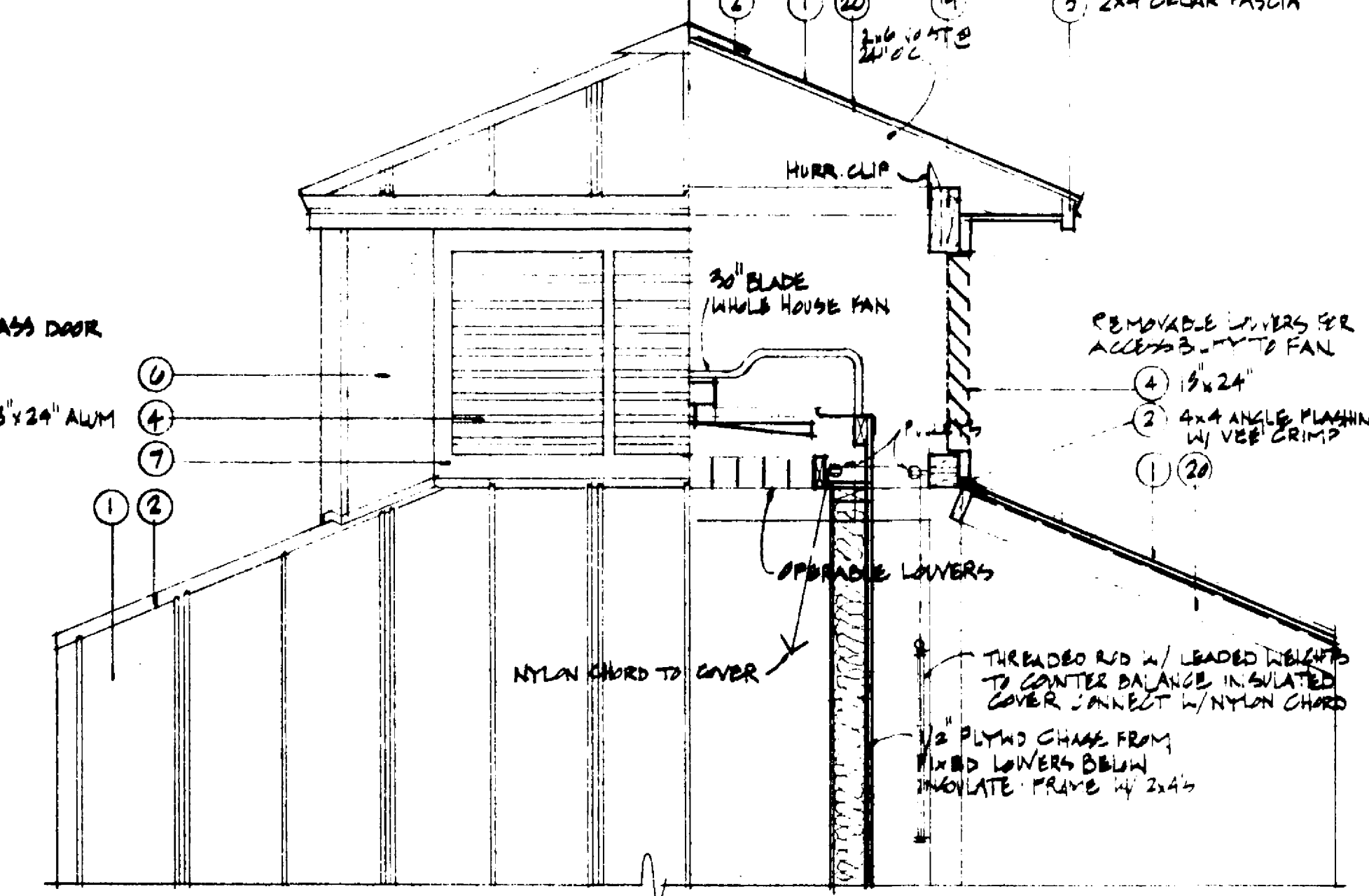
A detail SC. 3/4" = 1'-0"  
7 AT TOP HORIZ. SLIDING WINDOW



B detail SC. 1/2" = 1'-0"  
7 AT TOP SILL



C detail SC. 1/2" = 1'-0"  
7 AT POCKET SLIDING GLASS DOOR JAMBS



D detail SC. 3/4" = 1'-0"  
7 AT VENTILATION CUPOLA

- ① 1/2" R.S. PAINTED PINE PLYWD. SIDING
- ② 2x4 OR 2x2 CEDAR TRIM OR 4x8 CEDAR COL. DOOR (SEE DOOR SCHEDULE)
- ③ INSULATED ALUM. WINDOWS (SEE WINDOW SCHEDULE)
- ④ NYLON SCREEN/ALUM TRIM
- ⑤ 1/2" PAINTED STUCCO ON 8"x8"x16" CONC. BLK. ALT. PERIMETER INSULATION 1" THK.
- ⑥ CONCRETE FOOTING (SEE FOUNDATION PLAN)
- ⑦ 4" THK. CONC. SLAB - 6 MILL VAPOR BARRIER, TREATED, WELL COMPACTED SLAB. (FINISH SEE FINISH SCHEDULE)
- ⑧ 2x6 CEDAR DECKING - PT 2x FLOOR JOIST (SEE DECK FRAMING PLAN)
- ⑨ PT. 2x4 SILL PLATE - 5/8" DIA. BOLTS @ 3'-4" O.C.
- ⑩ 2x4 WOOD STUDS @ 16" O.C. - R-13 BATT INSUL. 1/2" INSUL. BO. AIR INFILTRATION BARRIER UNDER EXTERIOR SIDING
- ⑪ PAINTED HARDCOAT PLASTER - 1/2" GYP. BD. WOOD CEILING (ADDITIVE ALTERNATE) WOOD BEAM (SEE ROOF FRAMING PLAN)
- ⑫ PREENGINEERED WOOD TRUSSES @ 24" O.C. R-19 BATT INSUL. 1/2" PLYWD. SUBSTRATE BOIL AT BOTTOM (RADIANT BARRIER) UNDER SIDE - 15# FELT UNDER MTL. ROOFING
- ⑬ DBLE 2x4 TIP PLATE - GALV. HURRICANE CLIP BA. TRUSS
- ⑭ INTERIOR WOOD TRIM PAINTED OR STAINED CEILING FAN
- ⑮ AC DUCTWORK - PAINTED PLAST. (GRAB. WD. FRM. BUILT-IN (SEE INTERIOR ELEVATIONS))

1 AUGUST 90  
John Eastham Hall  
architect  
915 VANHISE DRIVE  
ORLANDO BEACH, FLA. 32176

BUILDING SECT.  
DETAILS

FLORIDA SOLAR ENERGY CENTER  
1000 S.F. ENERGY EFFICIENT HOME DESIGN

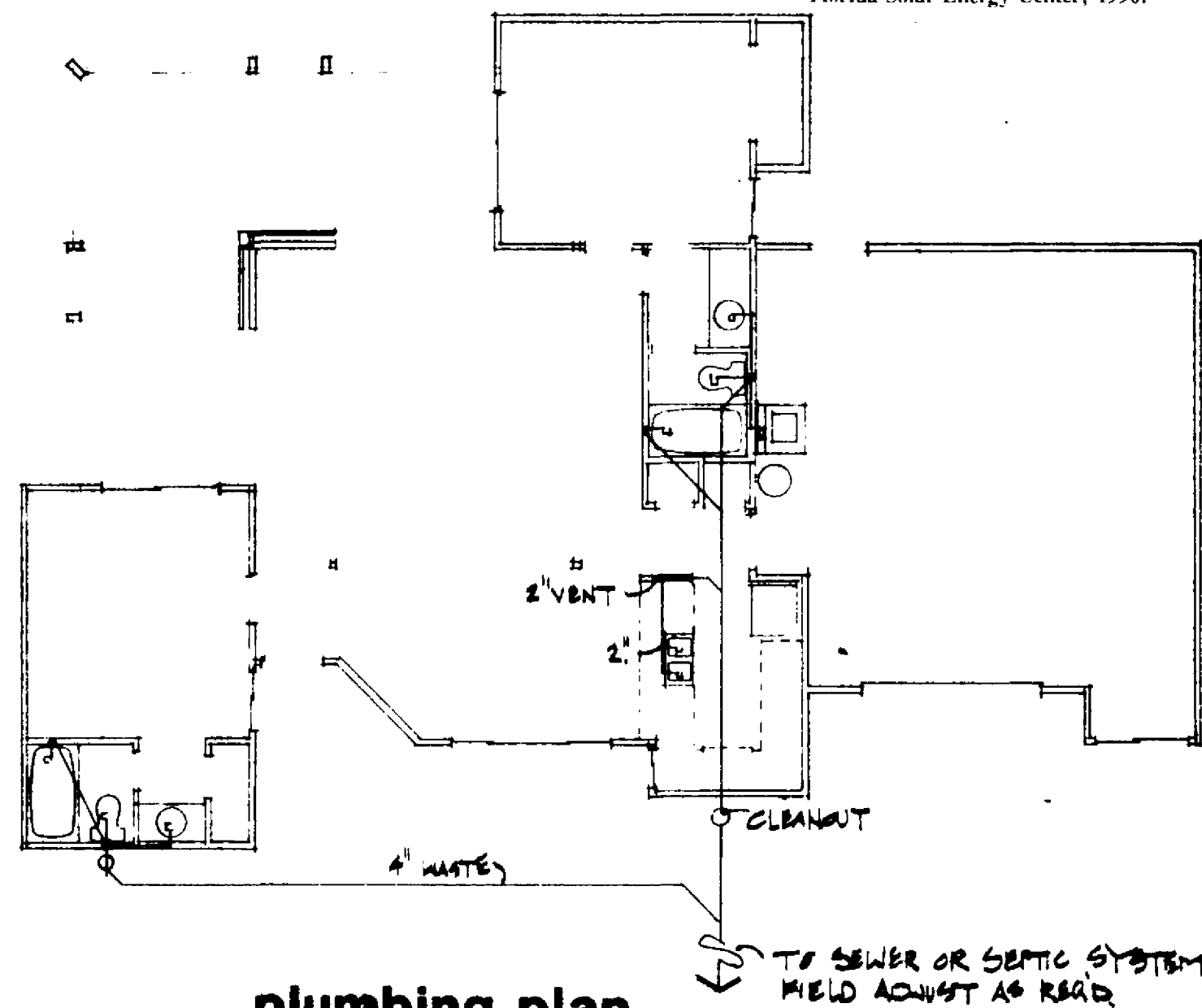


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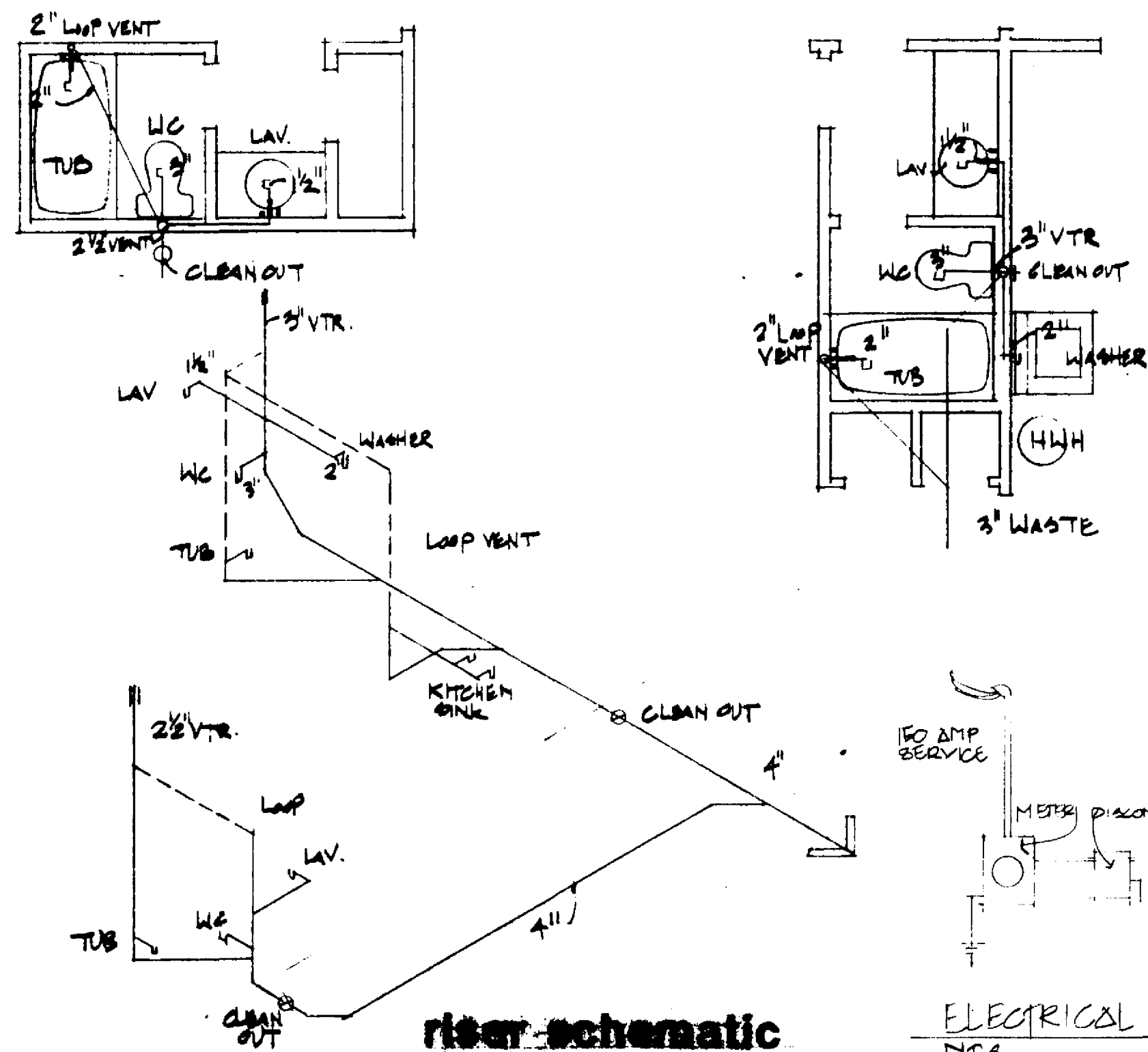
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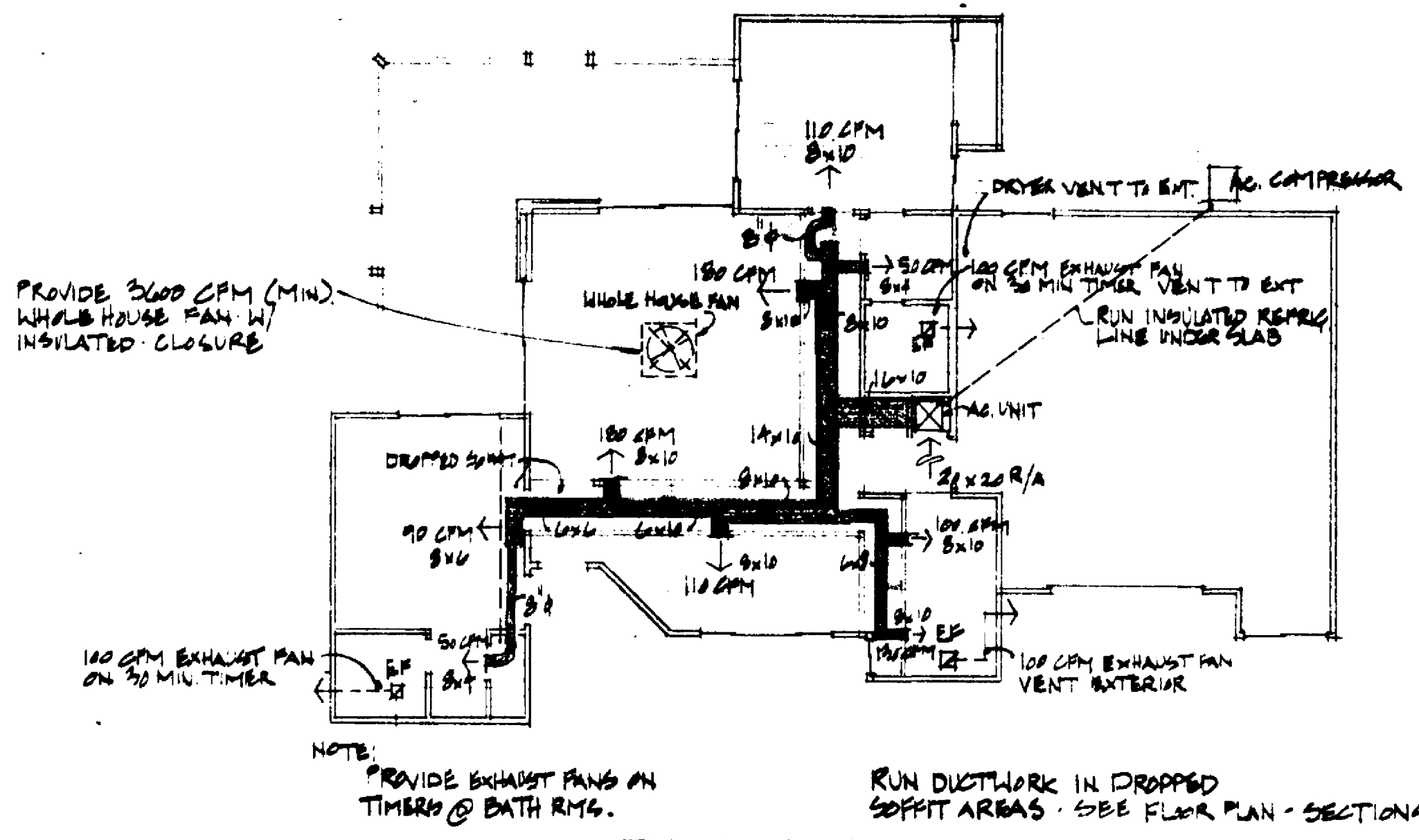
plumbing plan

SC: 1/9" = 1'-0"



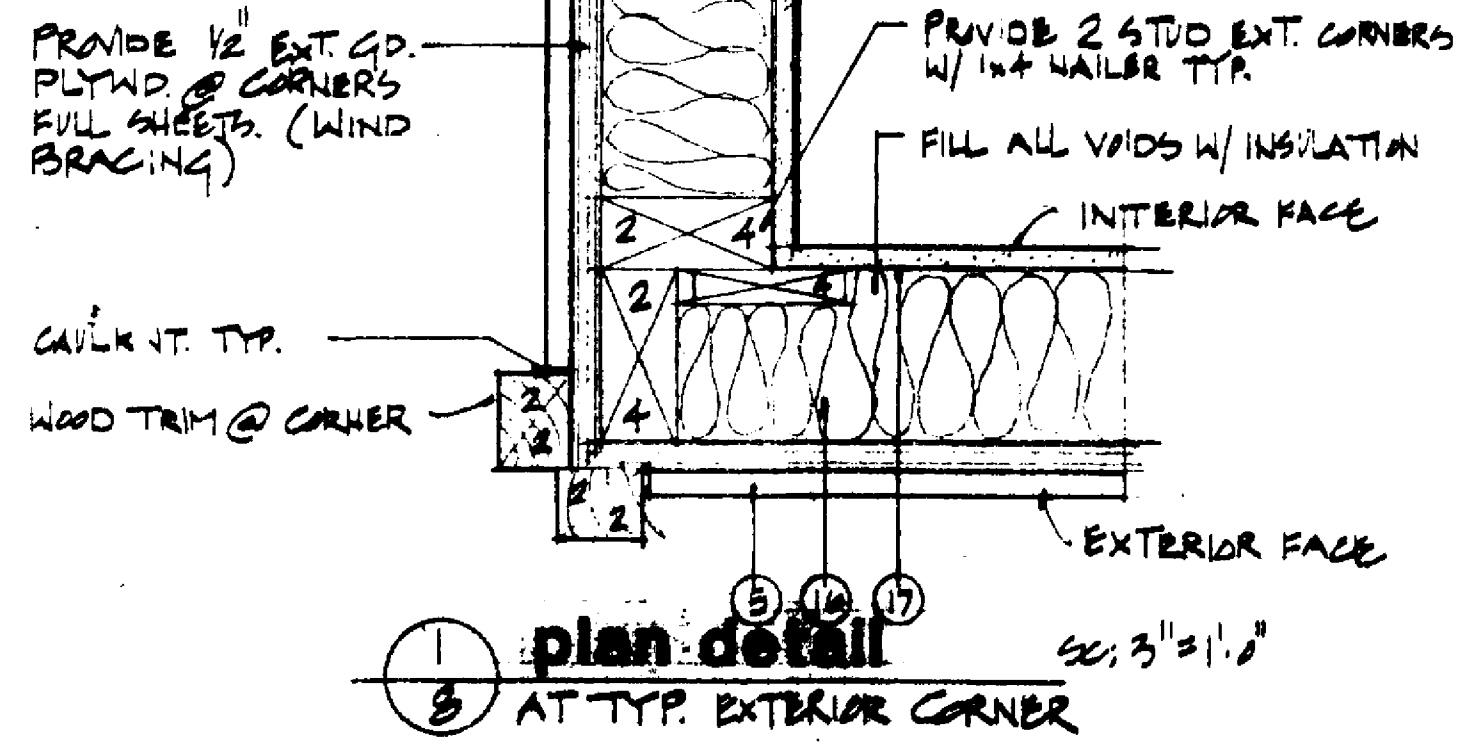
riser schematic

ELECTRICAL RISER DIAGRAM  
N.P. 6.

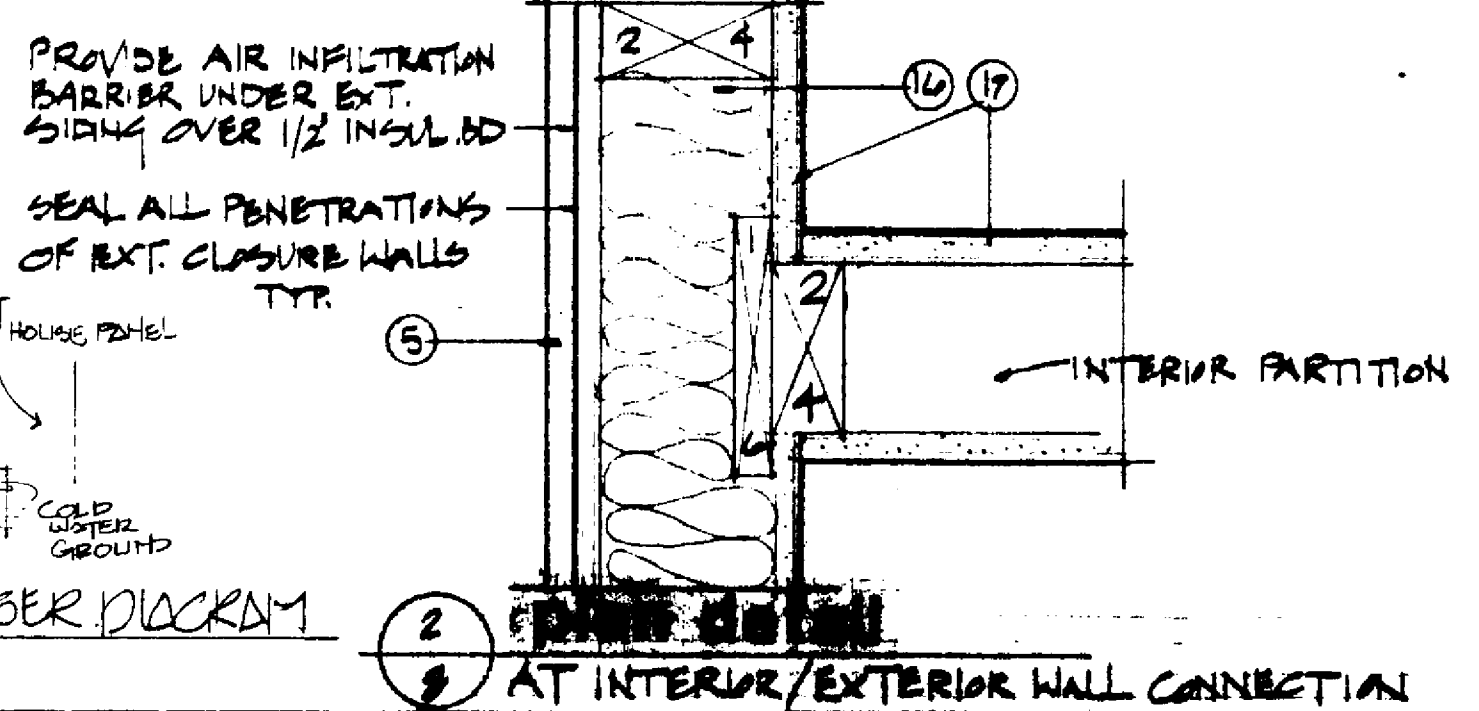


mechanical plan

SEE SHEET 9 FOR MORE MECHANICAL NOTES



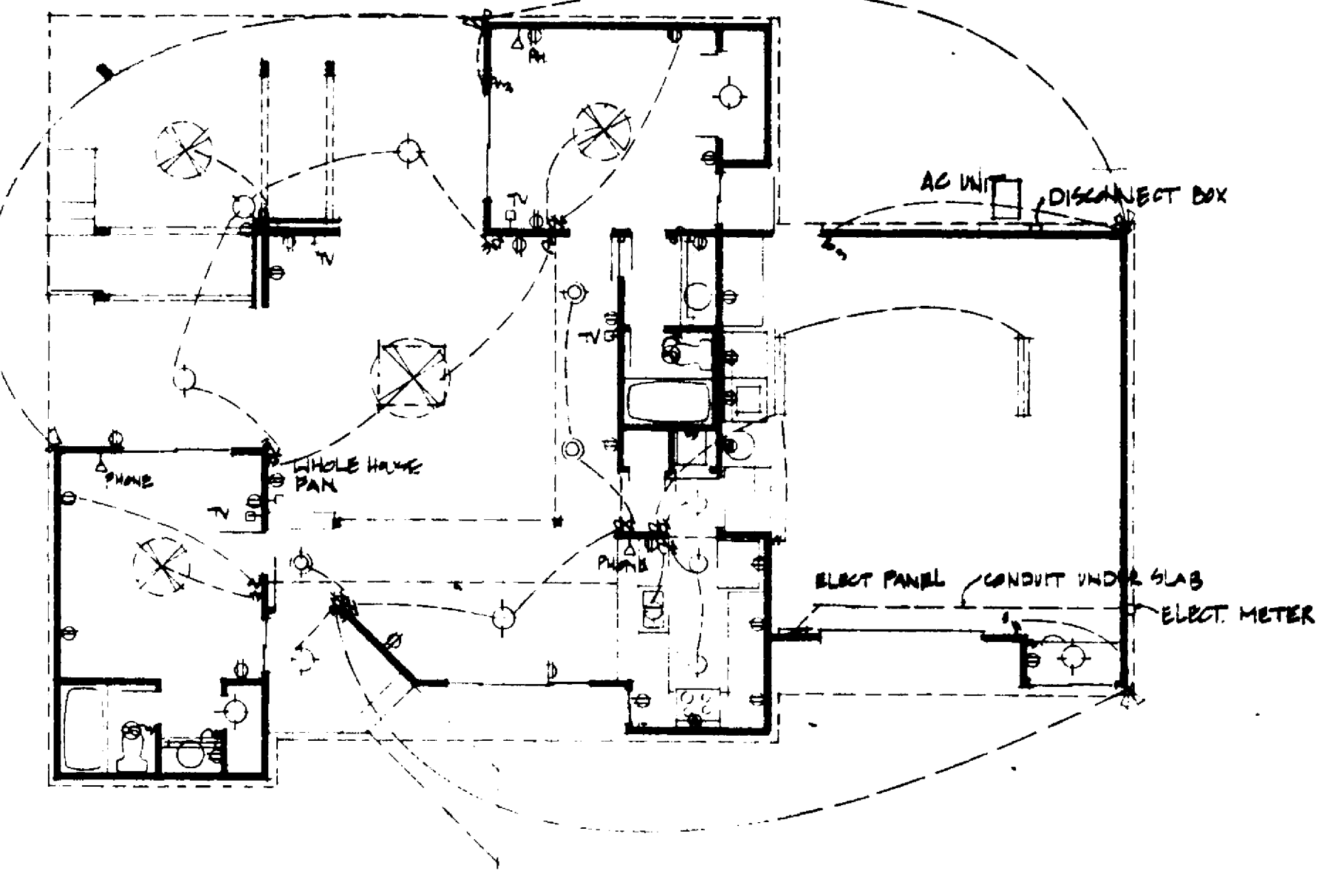
plan detail  
AT TYP. EXTERIOR CORNER



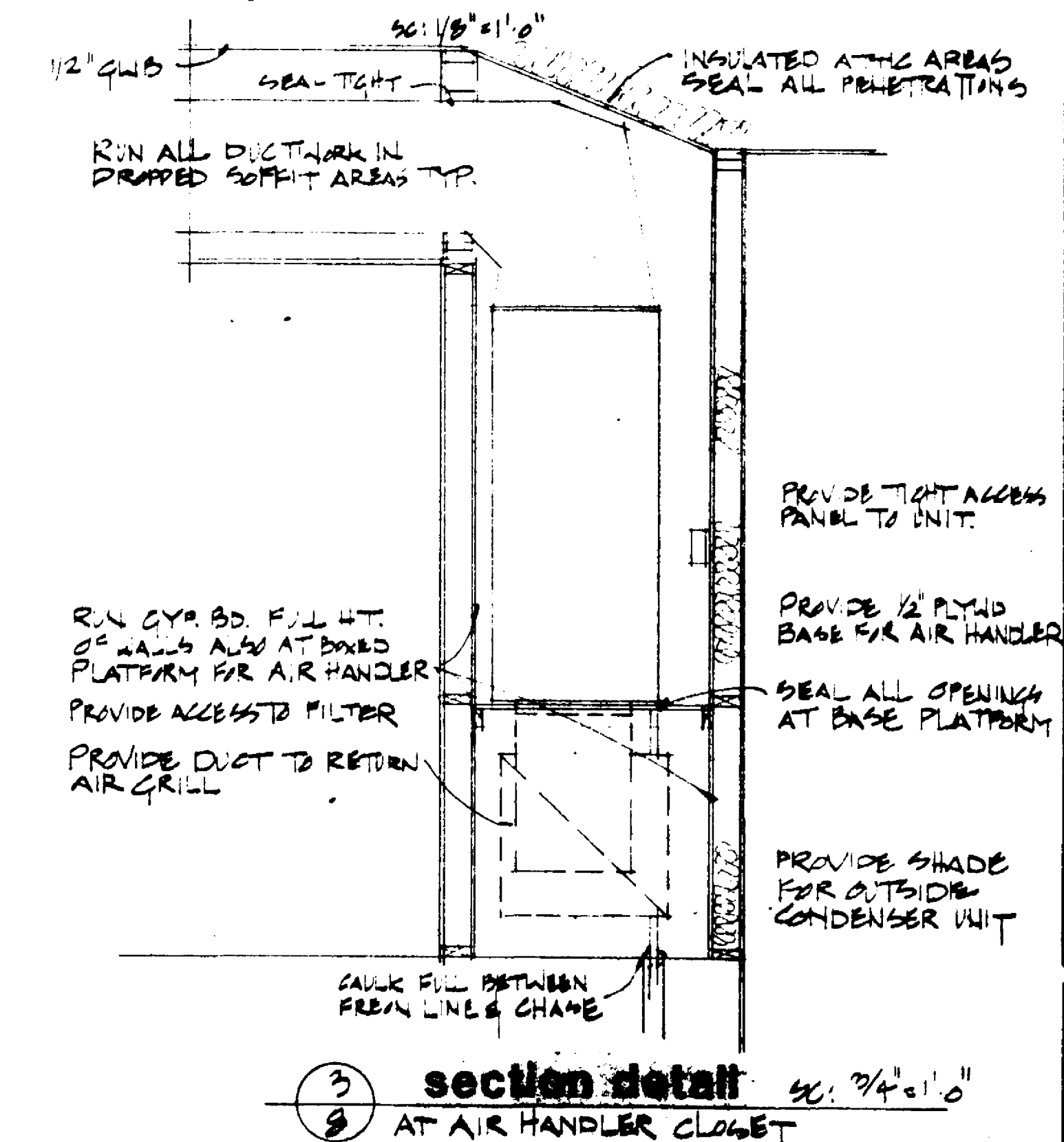
plan detail  
AT INTERIOR/EXTERIOR WALL CONNECTION

energy guidelines

- SELECT AIR CONDITIONER W/ SEER OF 10 OR GREATER. ALTERNATE MULTISPEED COMPRESSOR & BLOWER.
- SHADE EXTERIOR COMPRESSOR UNIT.
- PROPERLY SIZED AIR CONDITIONER UNIT LOCATE AIR HANDLER AND DUCTWORK IN CONDITIONED SPACE.
- SELECT ALTERNATE PROGRAMMABLE THERMOSTAT.
- PROVIDE EXHAUST FANS IN BATHROOMS AND KITCHEN. SEAL AT FANS AND SELECT FANS WITH TIGHT SEALING LOUVERS.
- PROVIDE CEILING FANS (OR FANWIRE) AT ALL MAJOR ROOMS.
- PROVIDE WHOLE HOUSE FAN FOR AUGMENTING NATURAL VENTILATION.
- SELECT ENERGY EFFICIENT KITCHEN AND UTILITY APPLIANCES. ALTERNATE SOLAR HOT WATER HEATER SYSTEM. USE ALT. SOLAR DRYER (CLOTHES LINE). INSULATE HOT WATER LINES.
- LOCATE WASHER-DRYER-HOT WATER HEATER IN NON-CONDITIONED SPACE.
- SELECT EFFICIENT LIGHTING LIGHTING FIXTURES.
- SELECT WATER CONSERVING SHOWER HEADS AND WATER CLOSETS.
- ALTERNATE WELL AND IRRIGATION SYSTEM W/TIMER FOR LANDSCAPING.
- PROVIDE EXTRA ATTENTION TO SEALING OFF CLOSET W/ AIR HANDLER TO ATTIC & EXTERIOR.



electrical plan

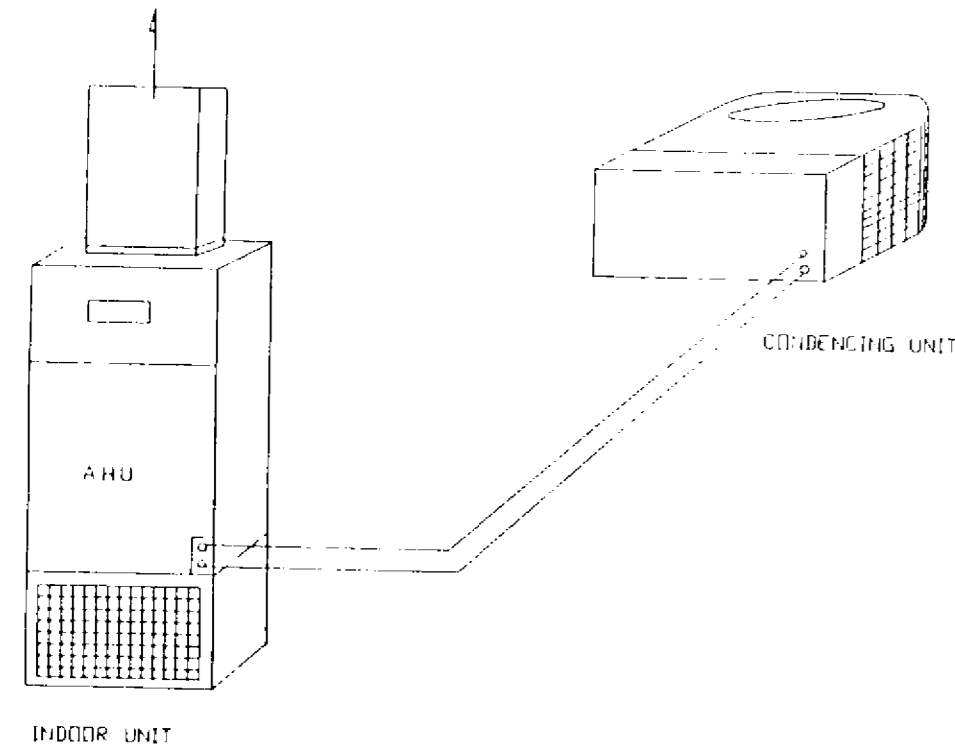


section detail  
AT AIR HANDLER CLOSET

1 AUGUST 90  
 49 VANHORN DRIVE  
 GERMUND BEACH, FLA. 32170  
 PLUMBING PLAN  
 MECH. PLAN  
 ELECTRICAL PLAN  
**FLORIDA SOLAR ENERGY CENTER**  
**1000 S.F. ENERGY EFFICIENT HOME DESIGN**  
 8



**mechanical notes**



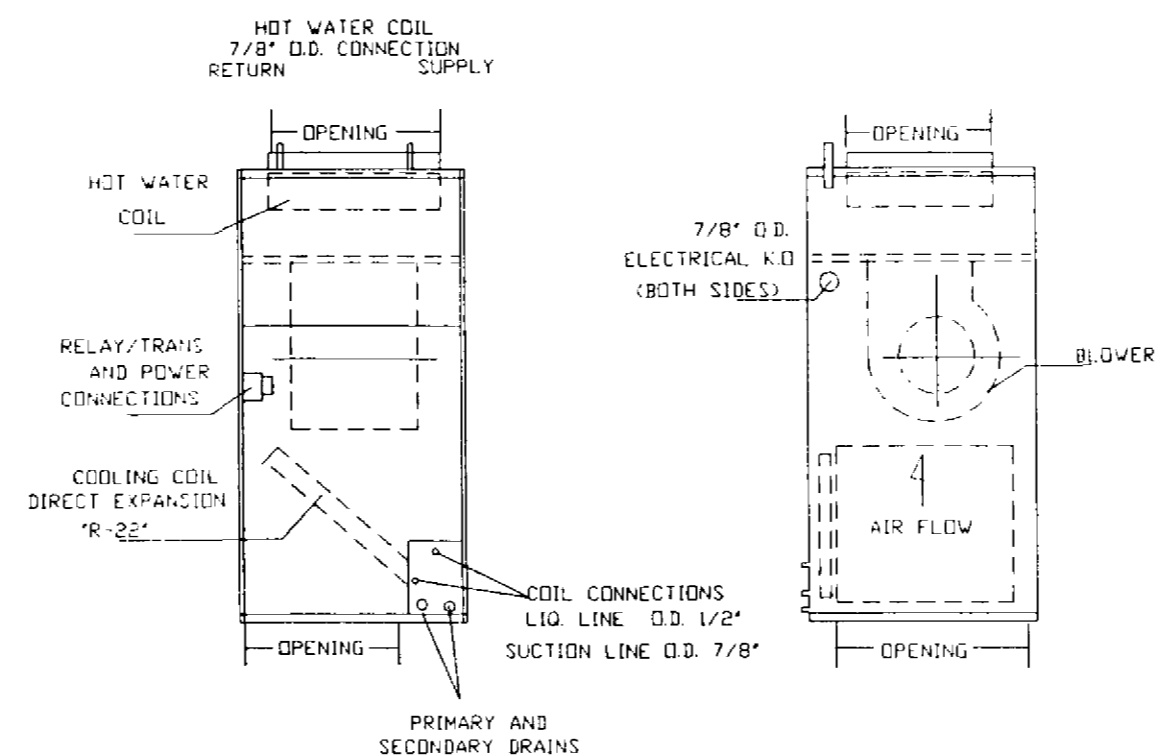
**COMFORT CONDITIONING SCHEDULE WITH ALL ELECTRICAL UTILITIES**

COOLING CAPACITY REQUIRED: 23,600 BTUH \* MINIMUM RECOMMENDED SEER: 11.0  
 HEATING CAPACITY REQUIRED: 18,800 BTUH \* TYPE: HEAT PUMP MINIMUM  
 AIR FLOW REQUIRED (CFM): 1000 CFM \* RECOMMENDED HSPF: 80

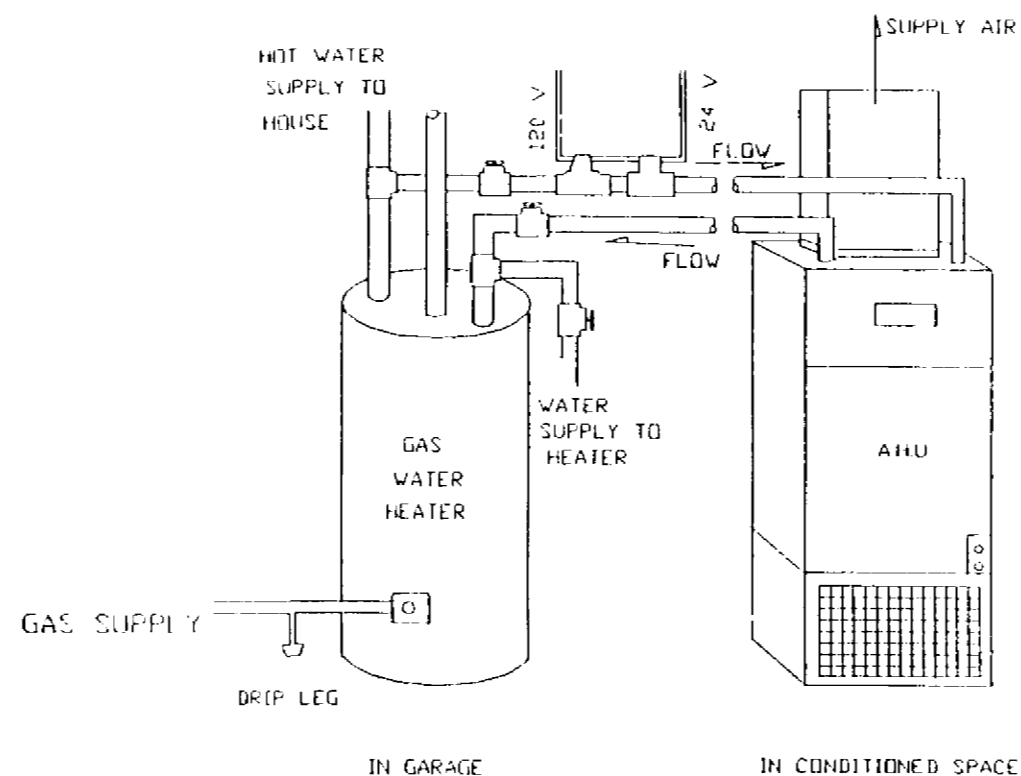
SELECTED EQUIPMENT

UNIT	MAKE	MODEL#	COOLING (BTUH)	SEER	HSPF	HEATING (BTUH)	AUXHEAT STRIP	CFM
CONDENSER								
AHU								

\* Based on plans for provided by FSEC and quality construction. If plans have been altered, heating, cooling and airflow requirements should be recalculated. The loads were calculated based on a peak summer load temperature 95° F drybulb and 77° F wetbulb and a winter load temperature of 31° F using CARRIER E-2011 sizing computer program.



DIRECT EXPANSION COOLING/HOT WATER HEATING FAN COIL UNIT  
DETAIL F.D. (NTS)



**COMFORT CONDITIONING SCHEDULE WITH GAS HEAT**

COOLING CAPACITY REQUIRED: 23,600 BTUH \* MINIMUM RECOMMENDED SEER: 11.0  
 HEATING CAPACITY REQUIRED: 18,800 BTUH \* RECOMMENDED TYPE OF EQUIPMENT: GAS HYDRONIC  
 AIR FLOW REQUIRED (CFM): 1000 CFM \* FURNACE (ALL COMBUSTION IS AT WATER HEATER)

SELECTED EQUIPMENT

UNIT	MAKE	MODEL#	COOLING (BTUH)	SEER	HEATING (BTUH)	RECOVERY EFF.	CFM	TANK SIZE
CONDENSER								
DX COIL								
HYDRONIC HEAT WATER HEATER								
AHU								

\* Based on plans for provided by FSEC and quality construction. If plans have been altered, heating, cooling and airflow requirements should be recalculated. The loads were calculated based on a peak summer load temperature 95° F drybulb and 77° F wetbulb and a winter load temperature of 31° F using CARRIER E-2011 sizing computer program.

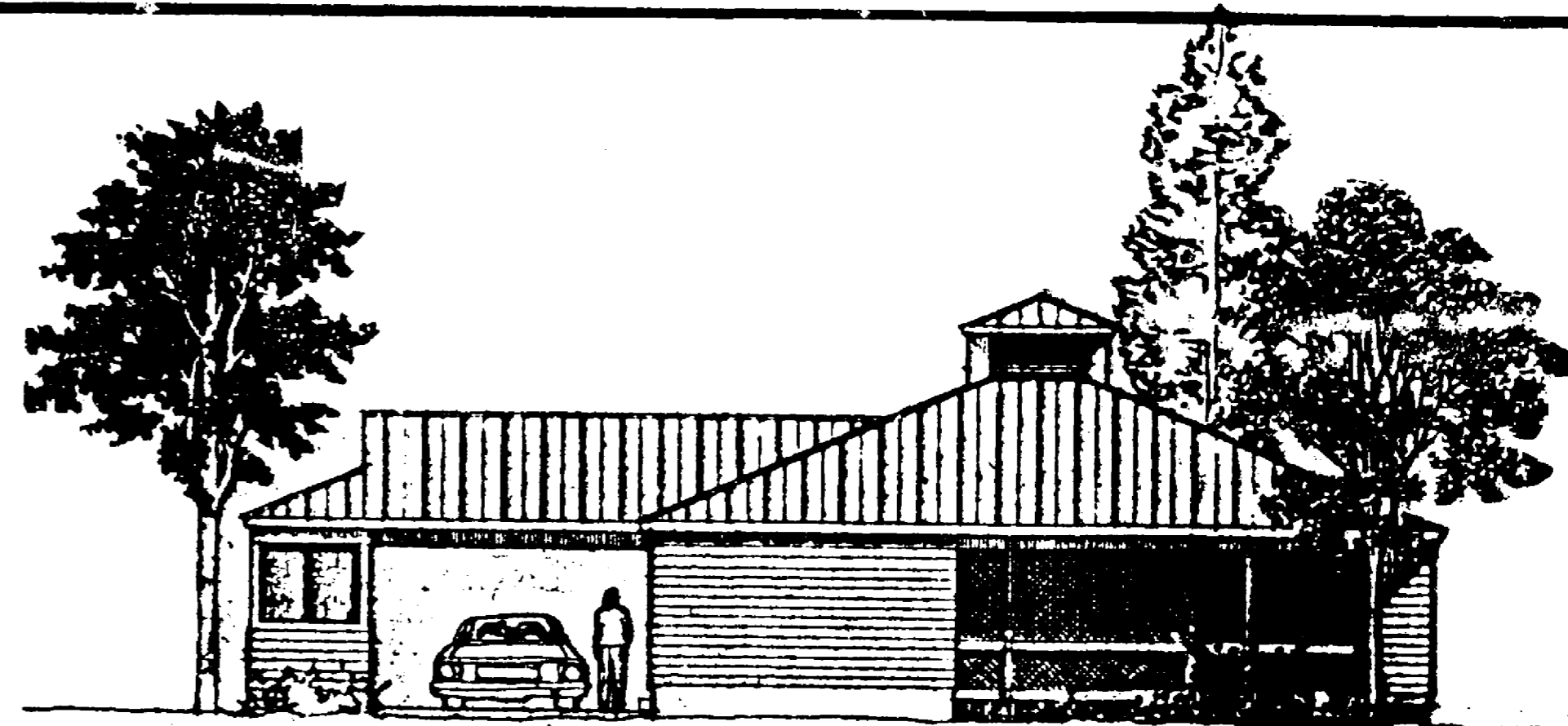
**EXHAUST FAN SCHEDULE**

E.F.#	MAKE	SIZES	CFM	VOLTS	PHASE
E.F.# 1 & 2		2	50	115	1

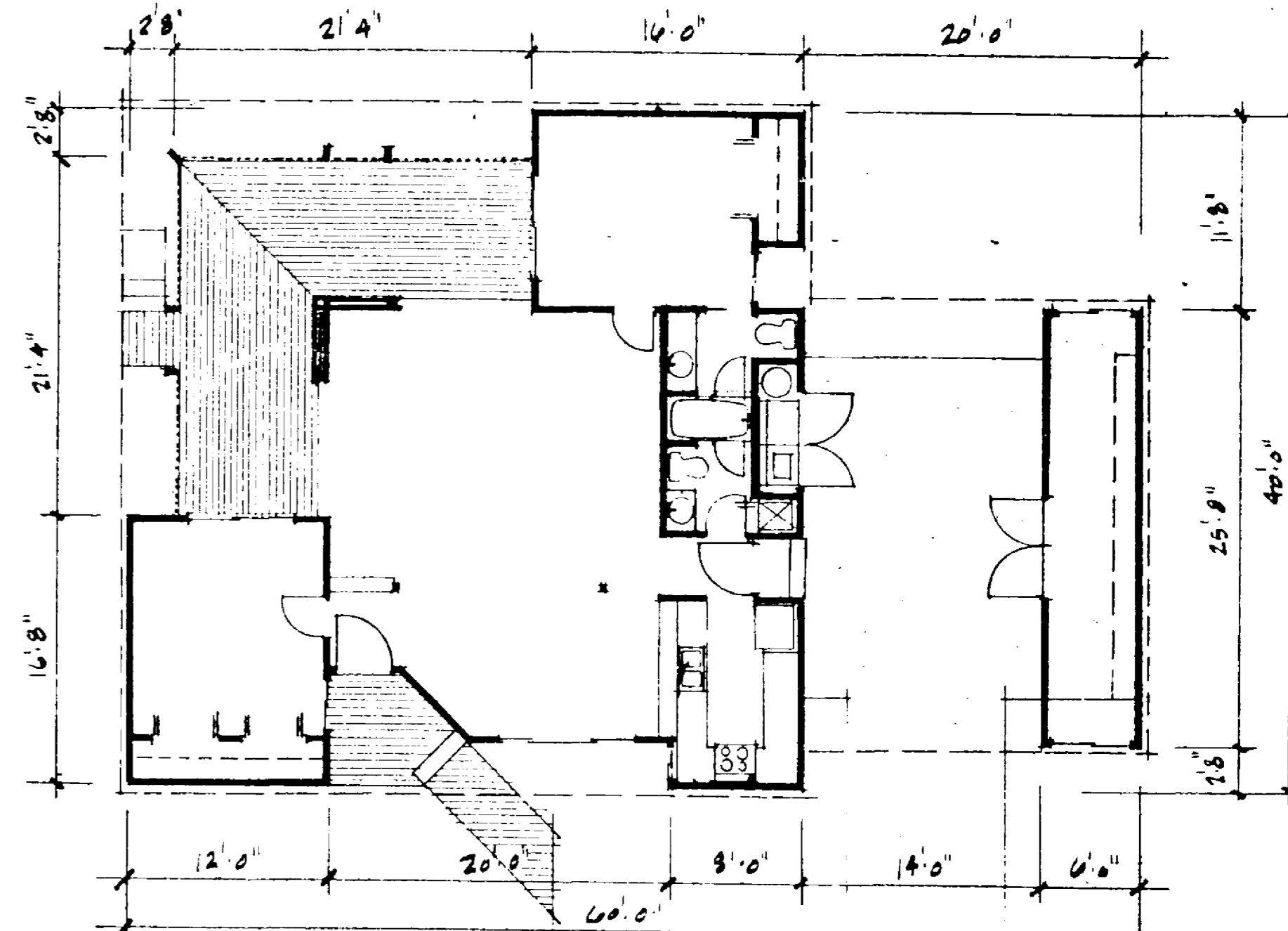
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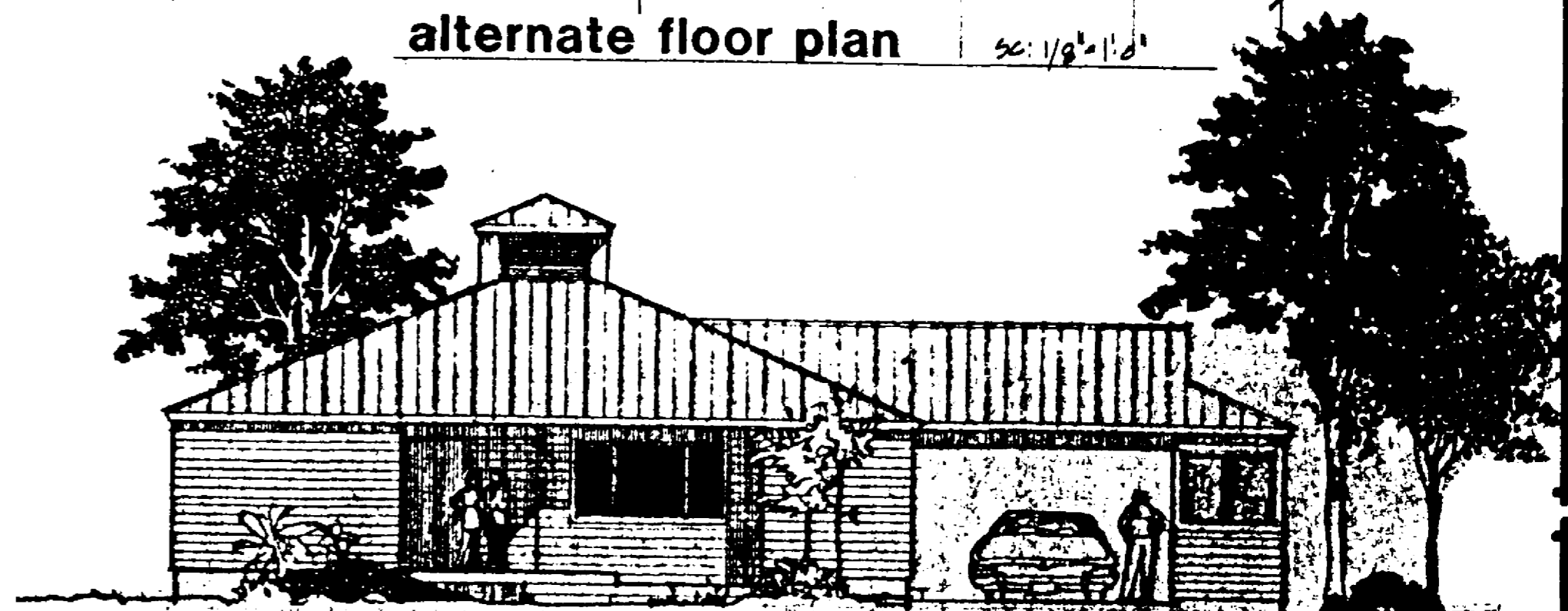
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**south-west elevation** sc: 1/8"=1'-0"



**alternate floor plan** sc: 1/8"=1'-0"



**north-east elevation**

**FLORIDA SOLAR ENERGY CENTER**  
**1900 S.F. ENERGY EFFICIENT HOME DESIGN**

1/14/91 ST 9/8

John Eastham Head  
 architect  
 95 VANUZE DRIVE  
 ORLANDO BEACH, FLA. 32172

1st Floor Plan  
 Mech. Notes

