

SANDSTONE VILLA

INDEX

- SHT 1 COVER SHEET/NOTES
- SHT 2 KEY PLANS 1/8"=1'-0", ELEVATIONS 1/8"=1'-0"
- SHT 3 FLOOR PLANS 1/4"=1'-0", KITCHEN & BATH ELEV. 1/4"=1'-0"
- SHT 4 ELECTRICAL PLANS 1/4"=1'-0"
- SHT 5 PLUMBING/MECHANICAL PLANS 1/4"=1'-0"
- SHT 6 FOUNDATION/FRAMING/TRUSS PLANS 1/4"=1'-0"
- SHT 7 SECTIONS/DETAILS 3/4"=1'-0"
- SHT 8 SECTIONS/DETAILS 3/4"=1'-0"

These drawings and specifications are experimental in nature and the energy performance of the design has not been tested or evaluated in actual construction. Also note that these homes were designed for use only in the State of Florida and may be more appropriate for use in some climatic regions within the state than others.

The Florida Solar Energy Center, and the Designer, Architects, Judges, Plans Designers, and Artists involved in developing these drawings and specifications (hereinafter referred to as "FSEC/Contractors") make no statement, representation, claim or warranty, whether express, implied or statutory with respect to these plans and specifications. Any implied warranties of merchantability or fitness for a particular purpose are hereby disclaimed.

FSEC/Contractors assume no liability for, and by its use Purchaser hereby releases FSEC/Contractors from all liability for, damages, losses or injury, whether direct, indirect, consequential or incidental, including, but not limited to personal injury, death and damage to property, whether or not due to or caused by FSEC/Contractors negligence, that may arise from or be connected with use of these drawings and specifications. FSEC/Contractors does not authorize any person, whether employee or agent of FSEC/Contractors or otherwise, to make any representation or warranty or to assume any liability with respect to these drawings and specifications.

© Florida Solar Energy Center, 1991

GENERAL NOTES

- Field verify lot size and setbacks, zoning requirements etc.
- Provide utilities as required.
- Verify compliance with all local codes. House is designed to meet requirements of Southern Standard Building Code.
- Soil bearing to be minimum 1500 PSI. Contractor to verify bearing capacity and satisfactory condition. Clear the building area of trees, roots, organic and other deleterious materials. Backfill with selected granular material in 15 inch maximum lifts and compact to a minimum density of 95% as determined by ASTM D-1557.
- Concrete shall develop a minimum strength of 3000 PSI at 28 days. All concrete shall be reworked in accordance with ASTM C-84. Maximum allowable slump shall be 8".
- Reinforcing steel shall be deformed, non Milad steel in accordance with ASTM A-118 Grade 60. All splices shall be in accordance with Chapter 7 of ACI 318-81, with a minimum splice of 40 bar diameters.
- Concrete block units shall conform with ASTM C-90. Placement of wall masonry shall be straight, plumb and true to a tolerance of 1/2" in 100 feet.
- Floor slab to be 4", 2500 PSI with 40 #10 WVF. Slab to be poured on terrazo treated compacted fill with continuous 6 mil poly vapor-barrier.
- Sleeve footing as required for mechanical and electrical.
- All wood in contact with masonry or concrete to be pressure treated.
- All wall studs to be spruce pine dried 2nd's or 2nd's except where noted otherwise 2x4's or 2x6's. Spacing 16" on center minimum 7/8"=1300 PSI. All studs maximum 16" on center unless noted.
- Anchor rods, walls, columns, and footings to resist overturning, uplift and sliding forces as per code.
- Truss supplier shall submit truss design by Florida registered engineer for all floor and roof trusses and engineered beams.
- R-19 foam insulation in framed exterior walls. R-19 ceiling insulation with radiant barrier. Provide sound insulation in bathroom and laundry walls adjacent to living areas. Provide R-19 insulation in floors over unconditioned space.

• Verify all window and door dimensions with manufacturer.

- All aluminum windows and sliding glass doors to have tinted glass. All windows and doors to have screens, unless opening on screen porch.
- Install roofing per manufacturers instructions.
- Provide moisture resistant drywall in wet areas of bathrooms, landings, and screen porch ceilings. Tiles showers and tub enclosures to be finished with commercial tile backing board.
- All trades to field verify dimensions and conditions before proceeding. Contractor to verify setbacks and slab elevation.

ENERGY GUIDELINES

Locate house to work with existing vegetation and contours as much as possible.

Provide additional trees on East and West sides of house. Trees preferably deciduous type with a minimum growing height of 15-20 feet.

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.

Use native vegetation and "natural" undisturbed areas to reduce water and lawn maintenance.

Use a landscape plan that shades air conditioner condensers.

Select Air Conditioner with SEER of 10.0 or greater. Alternate unitless compressor and blower.

Air conditioner unit is properly sized. Air handlers and ductwork located in conditioned space. Provide green board "tile" over all dropped ceilings and duct spaces to prevent air leaks.

Select alternate programmable thermostat.

Kitchen and bath exhaust fans to be sealed at fans. Select fans with tight sealing levers.

Ceiling fans located in all major rooms.

Provide whole house fans for augmenting natural ventilation.

Select energy efficient kitchen and utility appliances. Alternate solar hot water heater. Use alternate solar dryer (clothes line) insulate hot water lines.

Washer and dryer located in non-conditioned space.

Select energy efficient lighting fixtures.

Select water conserving shower heads and water closets.

Alternate well and irrigation system with timer for landscaping.

Fill all voids at installation. Seal all penetrations at exterior walls. Air infiltration barrier. Catch at sills, plates, windows.

Provide insulation at electrical boxes in exterior walls, seal wall.

Poly ventilated, insulated roof system, select light color roofing material.

Shade shutters on East glass.

Large screened porch for expanded living area.

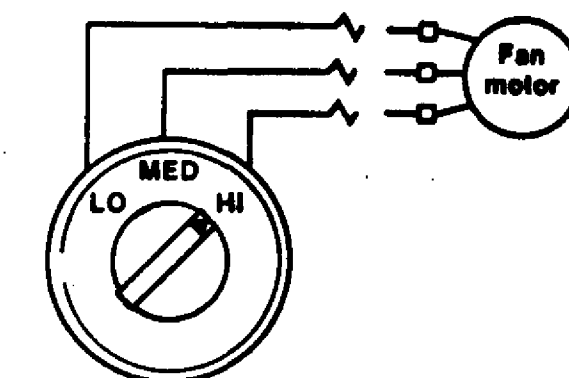
For more information on specific details of energy guidelines and/or climate analysis by zones see the following sources:

"Energy Efficient Florida Homebuilding"
Florida Solar Energy Center

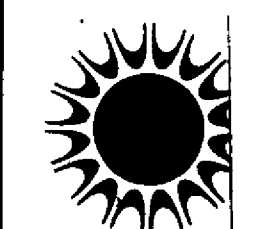
"Season and Climate" (An Energy Perspective for Florida Builders)
Bureau of Research
College of Architecture
University of Florida

Use a multispeed blower

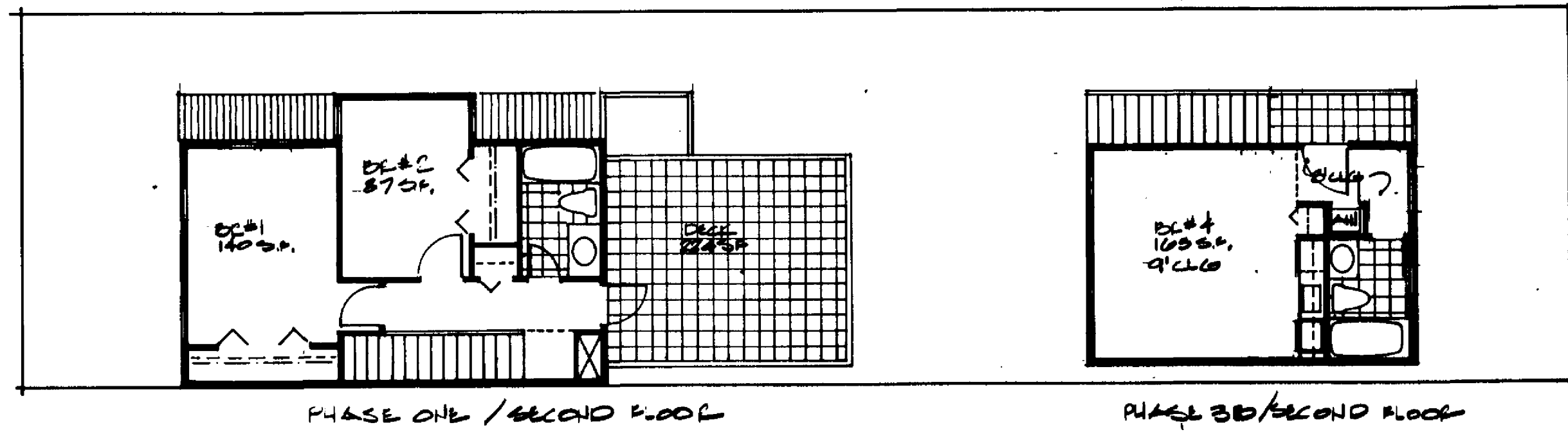
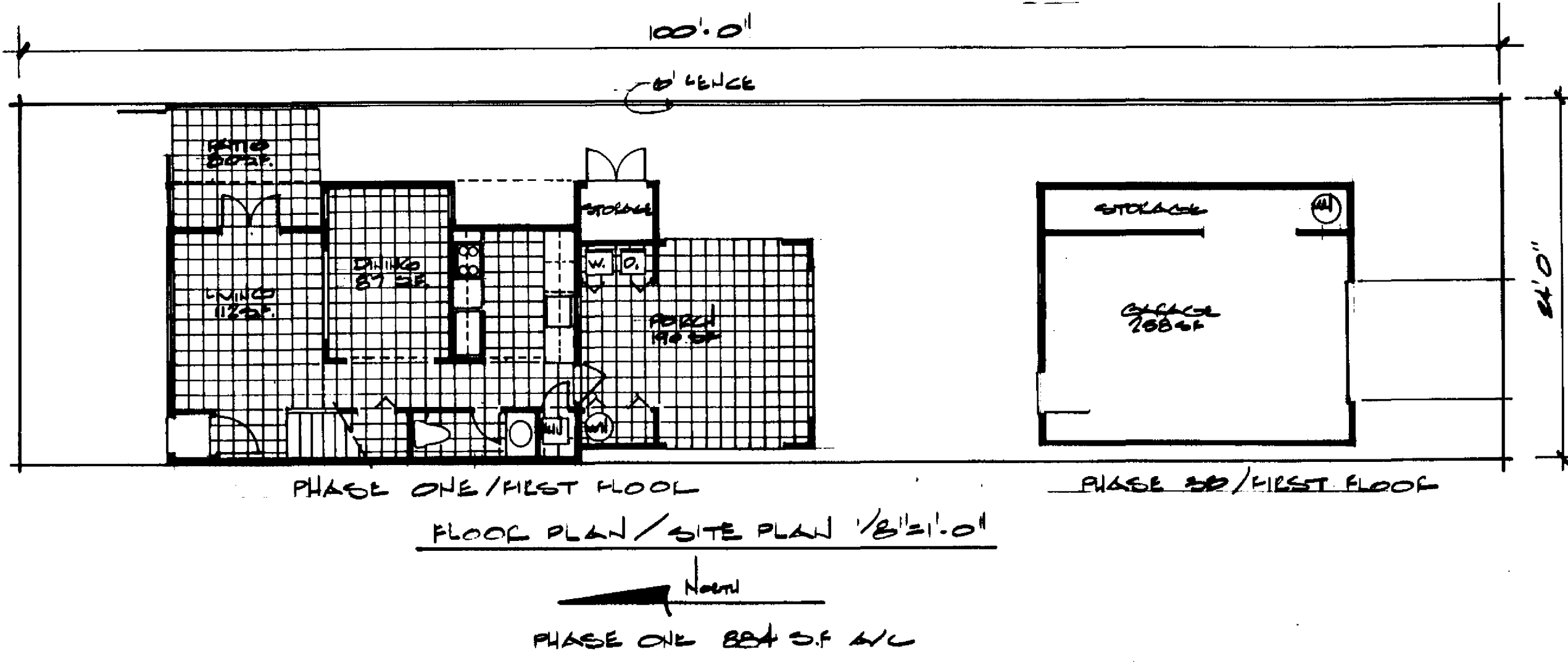
Select an air handler unit with a multispeed blower and connect it in a manner that permits the home owner to change its speed. The unit will perform most efficiently if the blower is on high speed. However, on a lower speed the blower will remove more moisture from the air. This mode can be used during humid nights.



JOSEPH P. McCARTY - ARCHITECT
414 BALBOA AVE.
STUART
FLORIDA
287-6735



FLORIDA SOLAR ENERGY CENTER
300 State Road 401, Cape Canaveral, Florida 32920-4099, Telephone: (407) 763-0300
Fax: (407) 763-2571
State University System of Florida



SITE:
24' X 100' WITH ALLEY

DENSITY:
SITE IS APPX. 0.6 ACRES. EIGHTEEN BLOCK CONSTRUCTION
CLAS "A" ROOF

ZERO LOT LINE:
OVERHANGS ARE NOT ALLOWED OVER PROPERTY LINES -
OPENINGS ARE NOT ALLOWED ON ZERO LOT LINES -
PERIOD CEILING WOULD REQUIRE 1 HOUR FIRE RATING

WEST GLAZ:
ZERO LOT LINE - NO GLAZ

EAST GLAZ:
EAST GLAZ REQUIRED FOR CROSS VENTILATION & LIGHT
TO RECEIVE BAHAMA SHUTTERS, FRENCH DOORS IN LIVING ROOM
PROTECTED BY OVERHANG & 6" FINCH

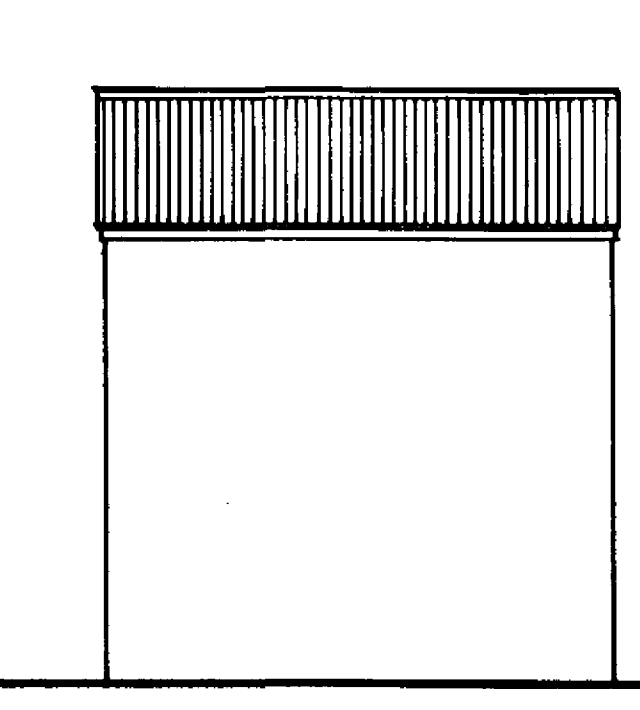
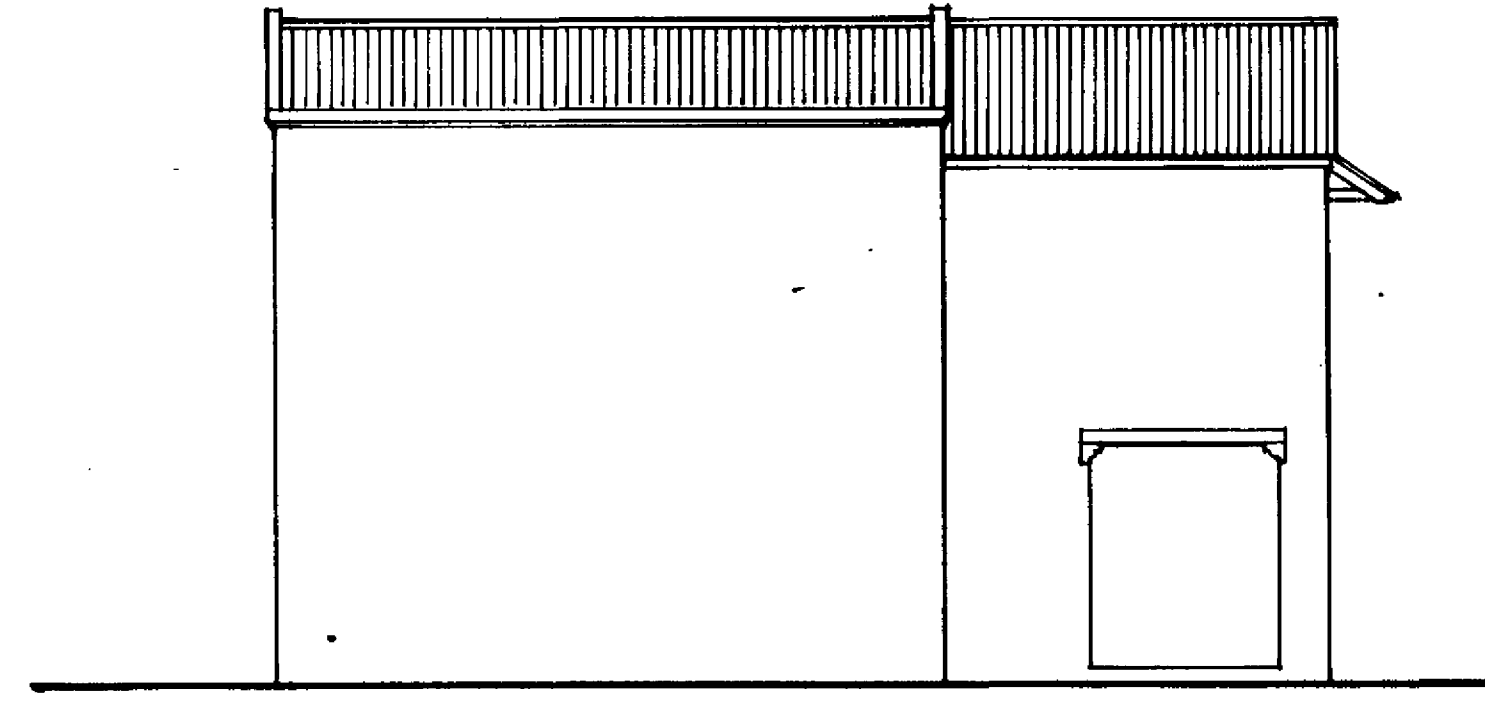
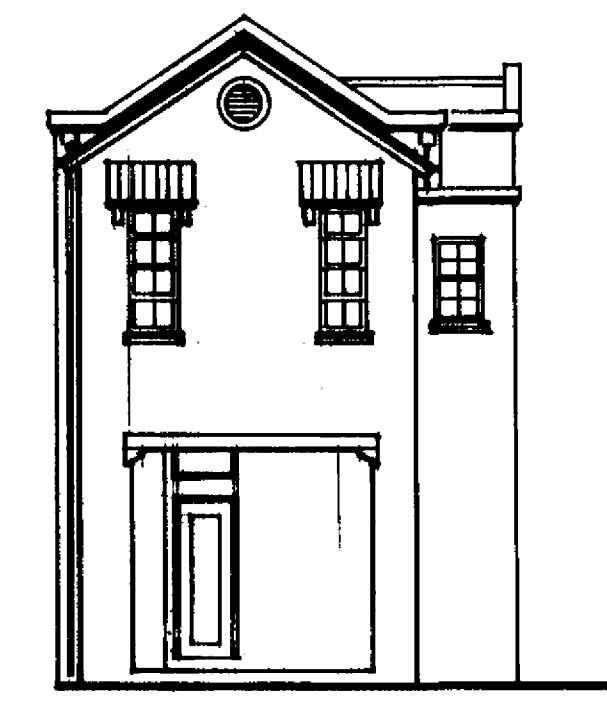
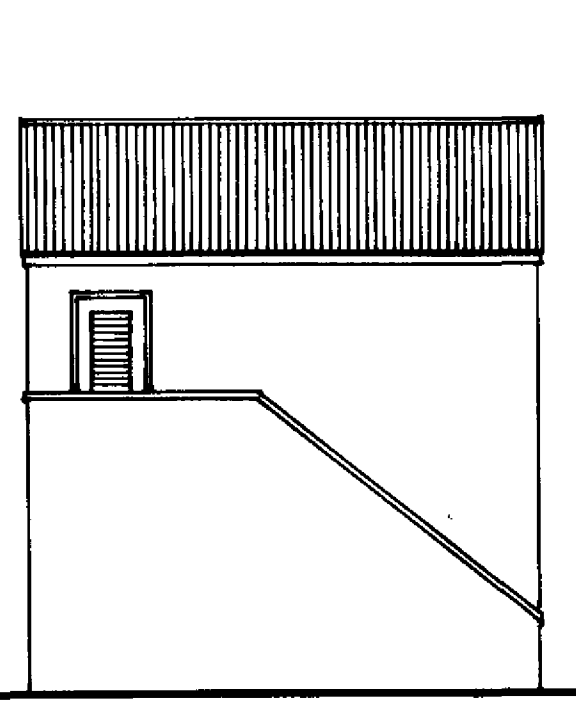
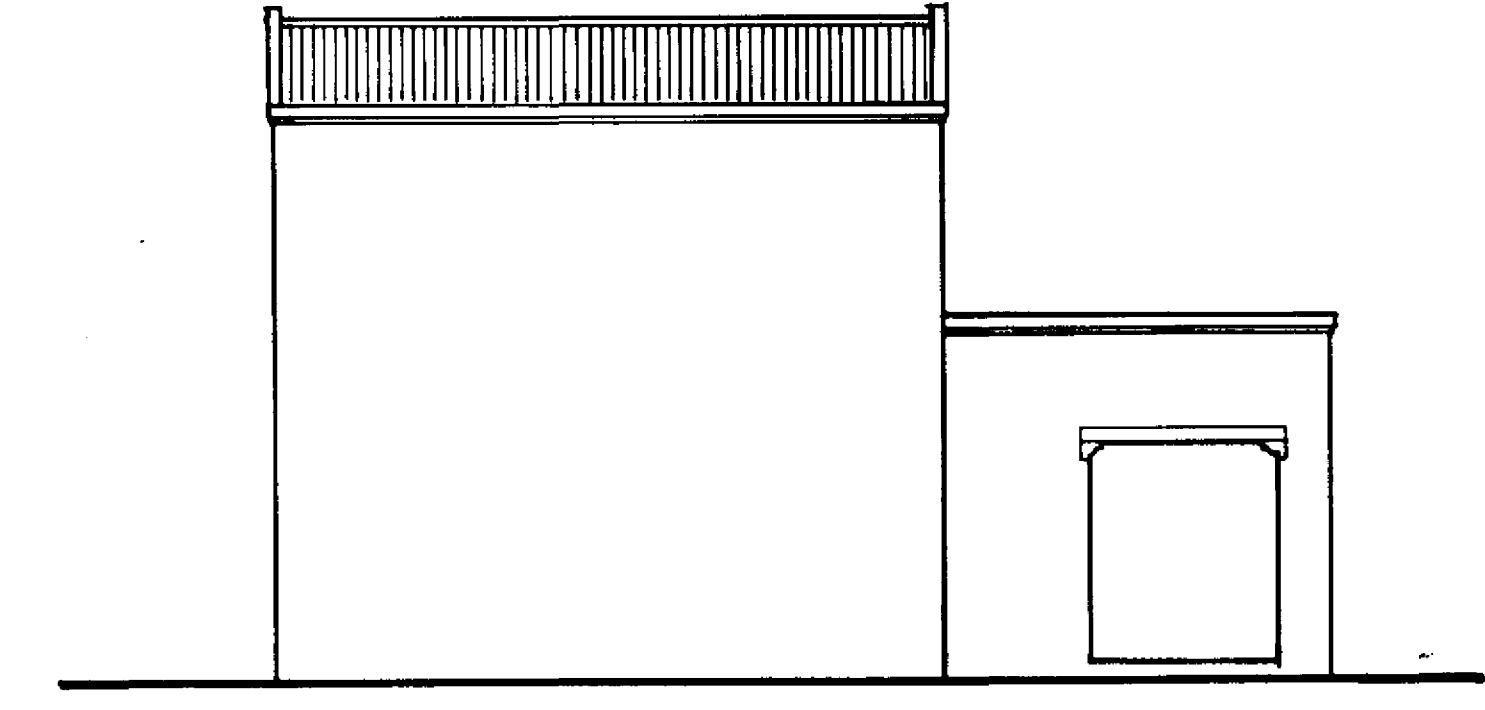
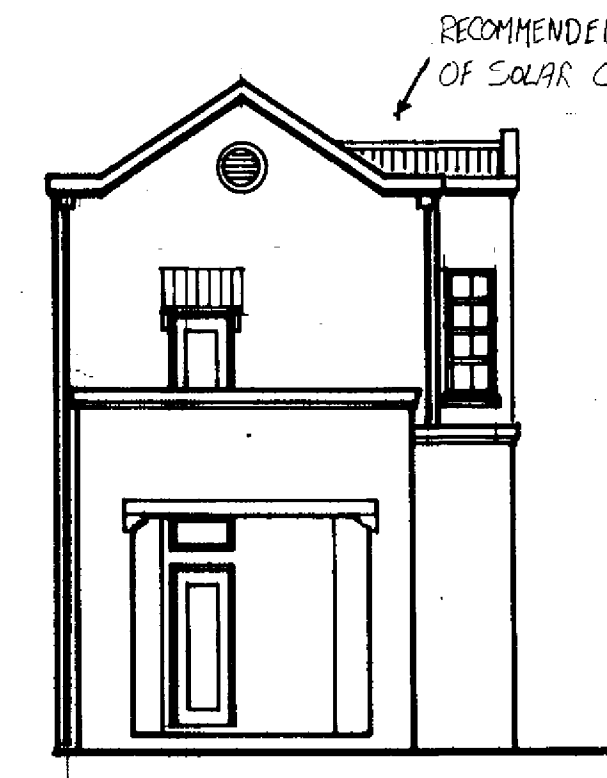
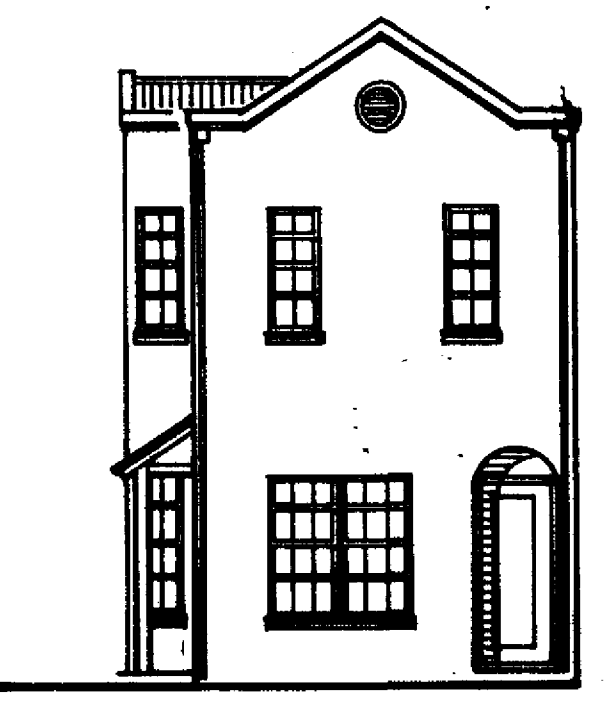
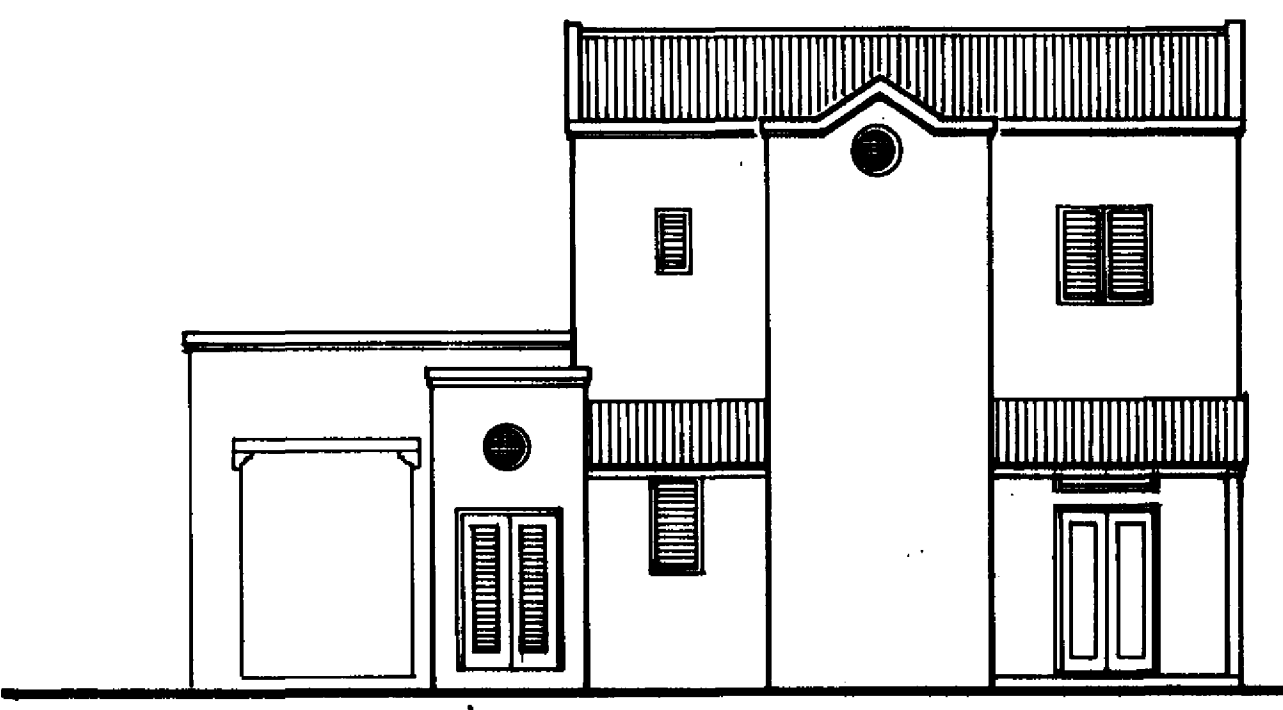
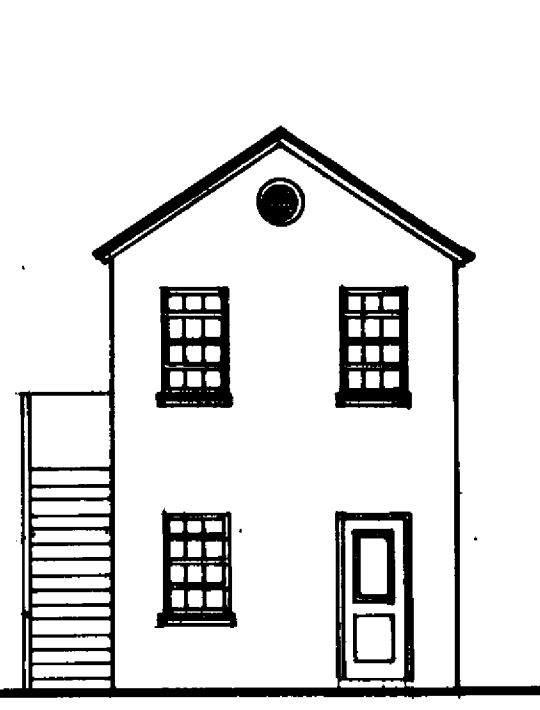
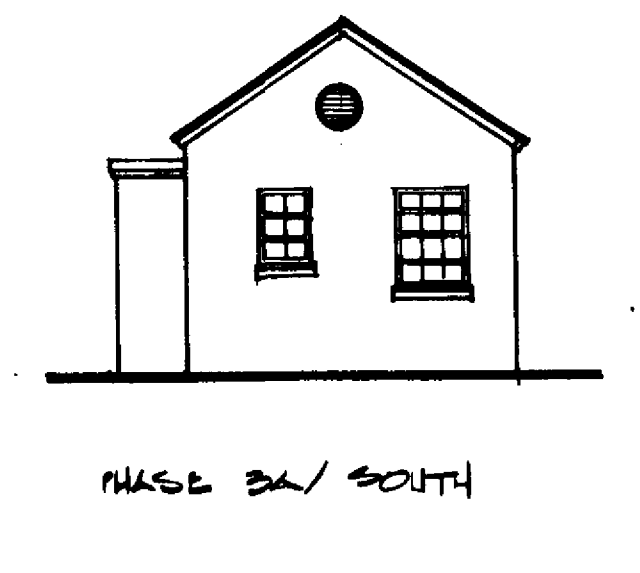
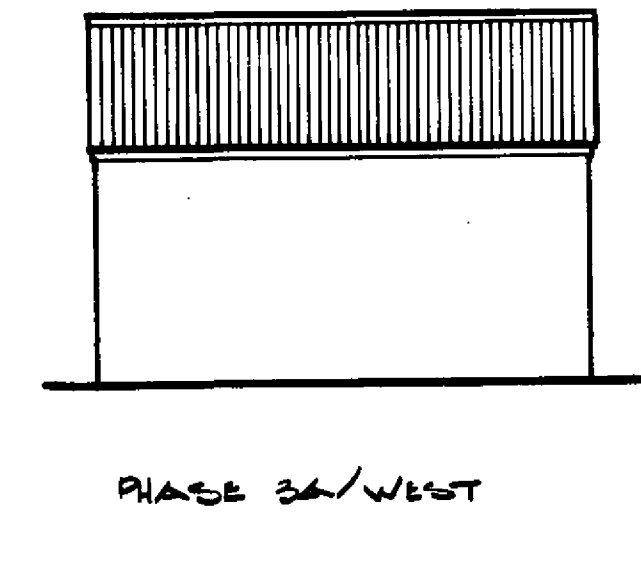
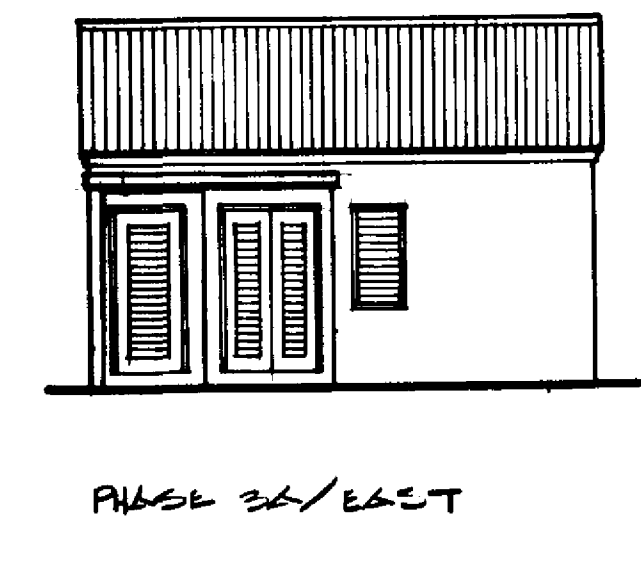
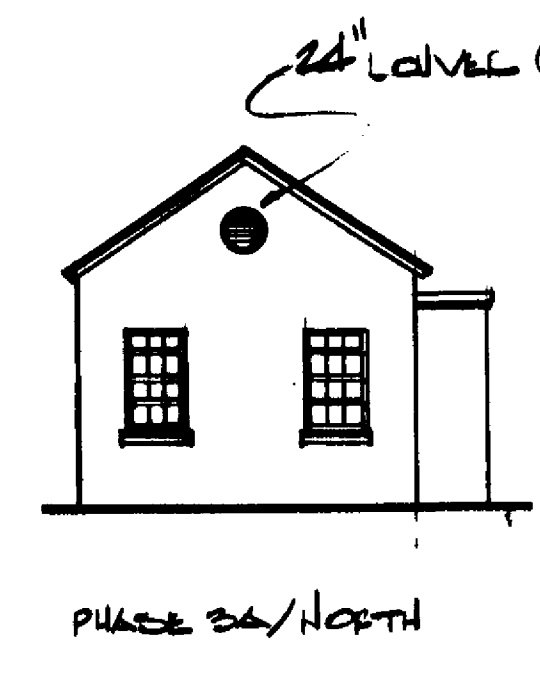
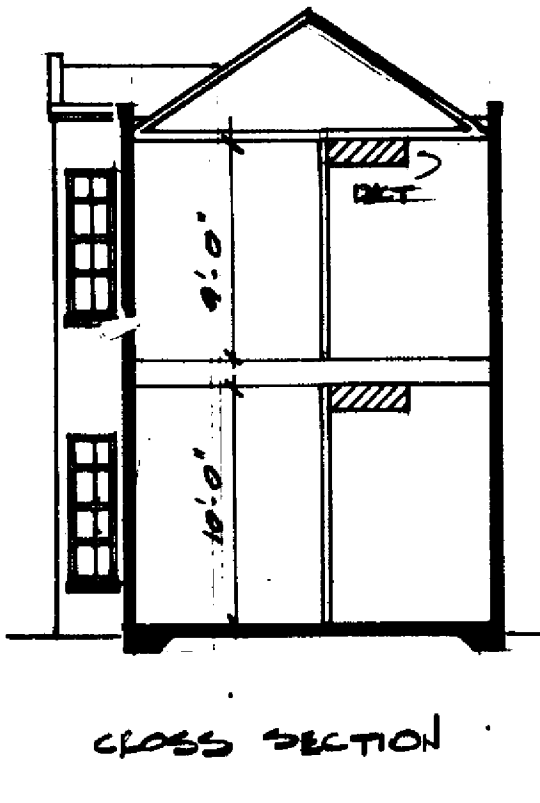
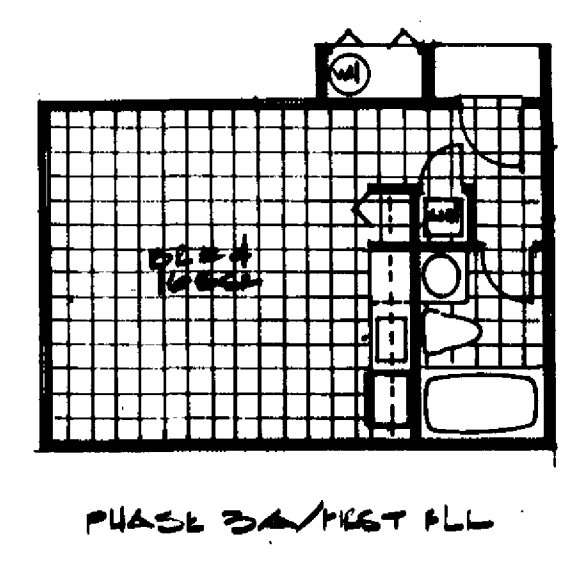
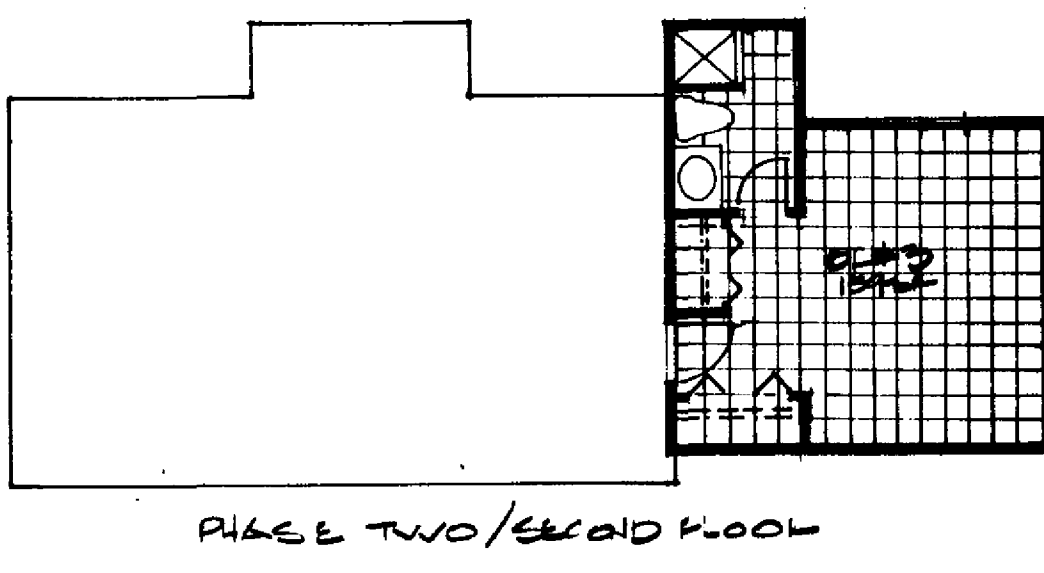
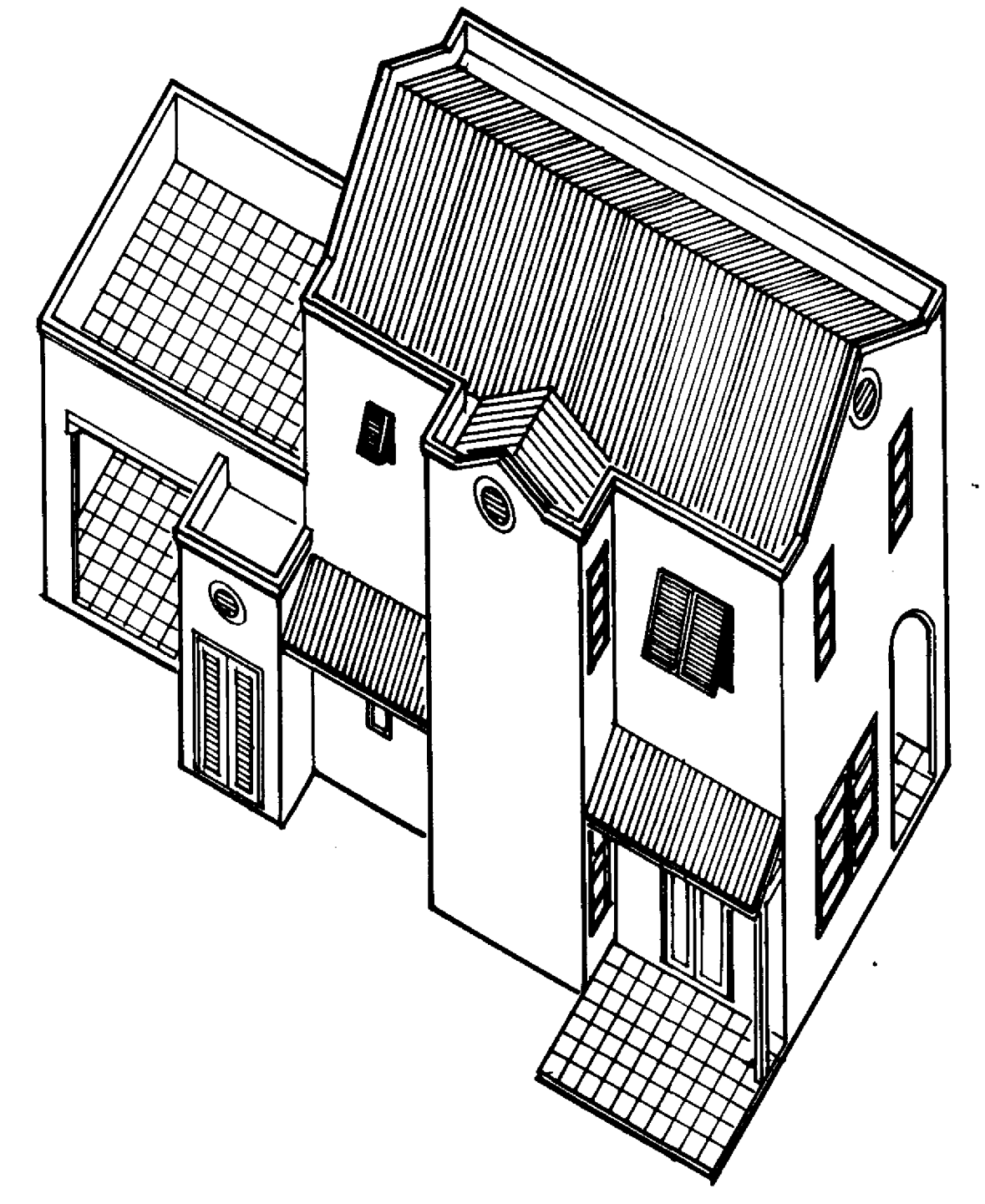
TRANSOMS:
EAST DOORS FROM LIVING ROOM & SOUTH DOORS TO
KITCHEN OPERABLE TRANSOMS TO IMPROVE VENTILATION

PHASE ONE:
2 BEDROOM, 1 1/2 BATH 884 S.F. A/C

PHASE TWO:
1 BEDROOM, 1 BATH 280 S.F. A/C

PHASE THREE:
A: EFFICIENT APT. WITH BATH 299 S.F. A/C
C: AS ABOVE W/ GARAGE FLOOR GARAGE

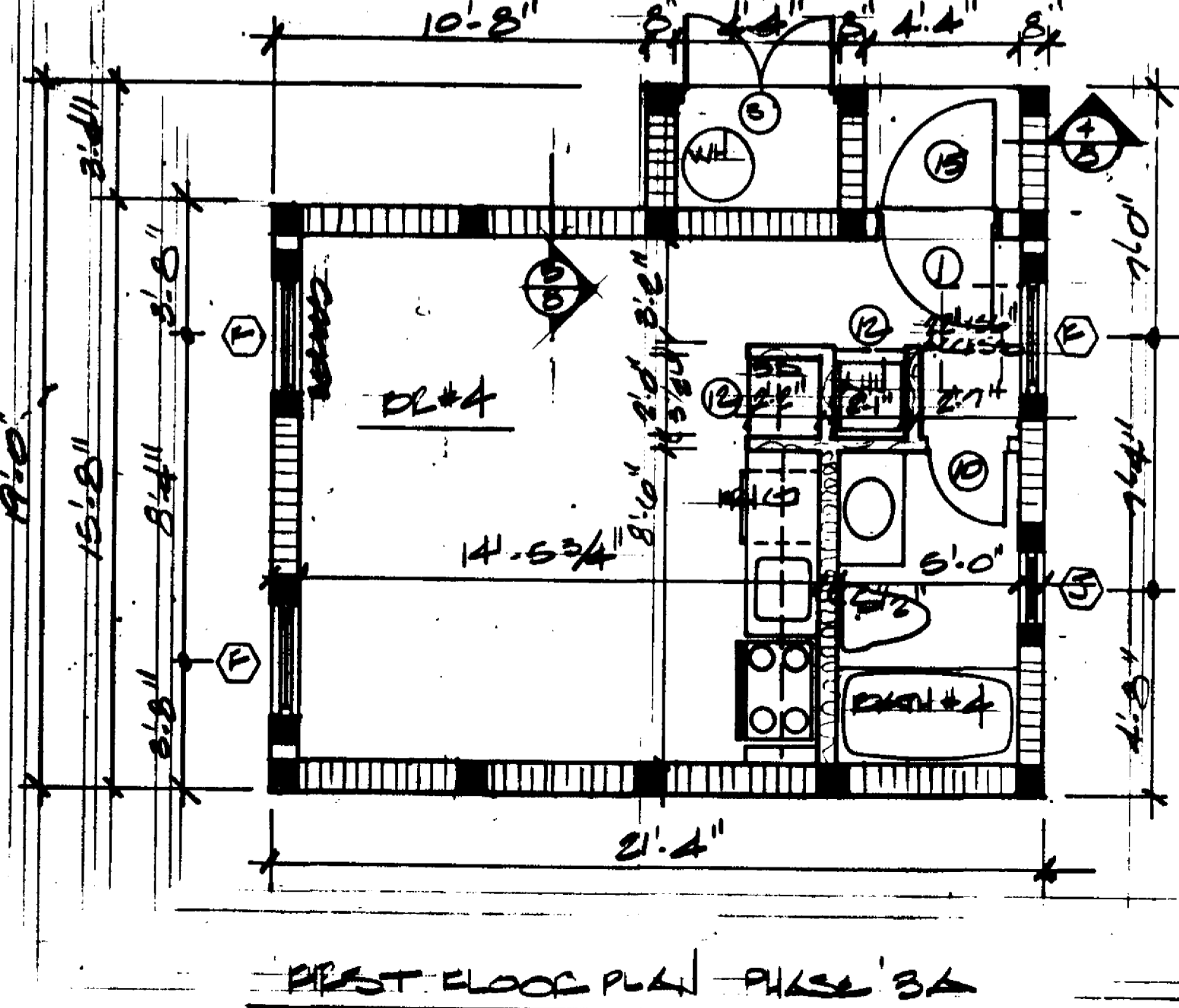
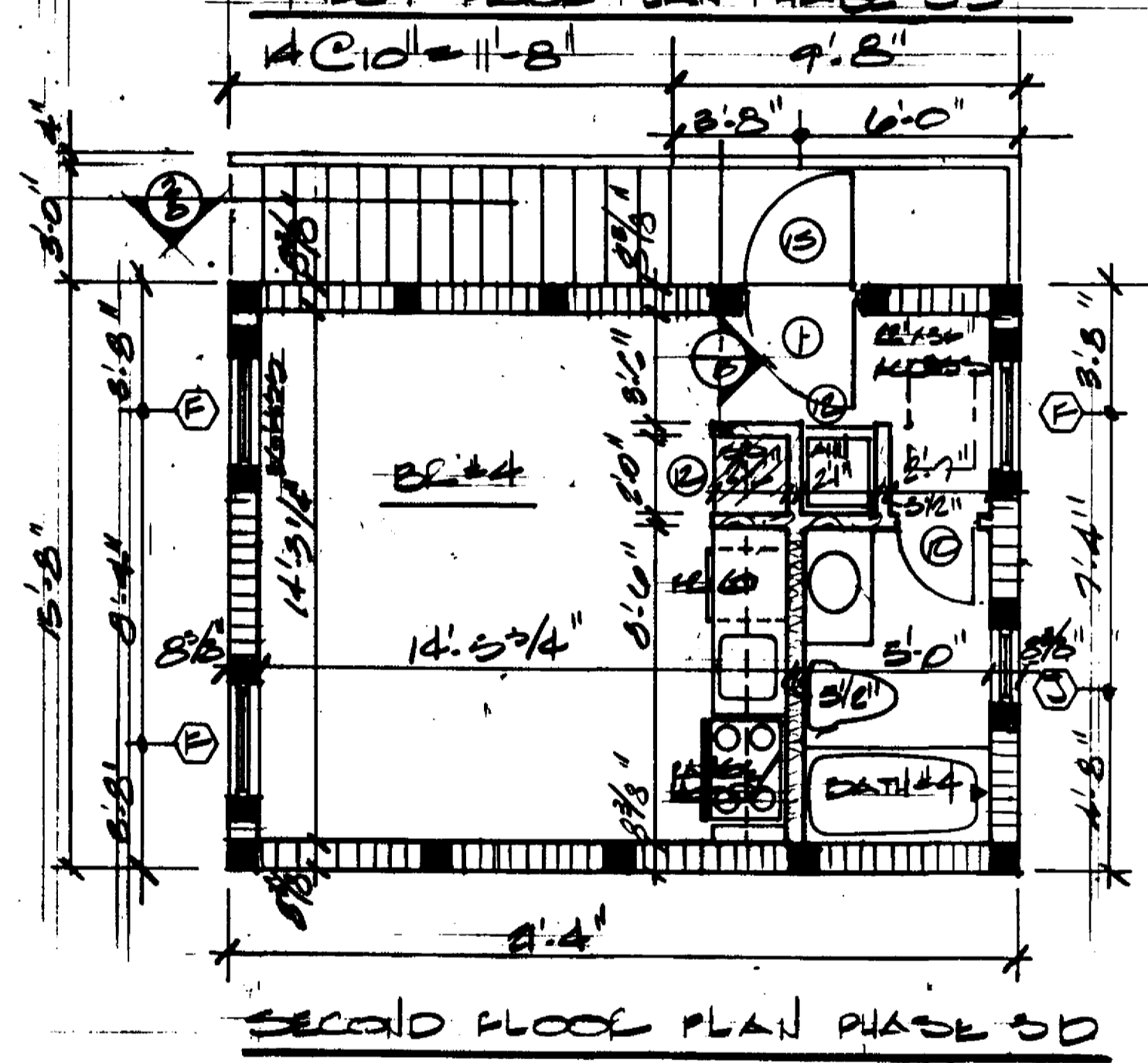
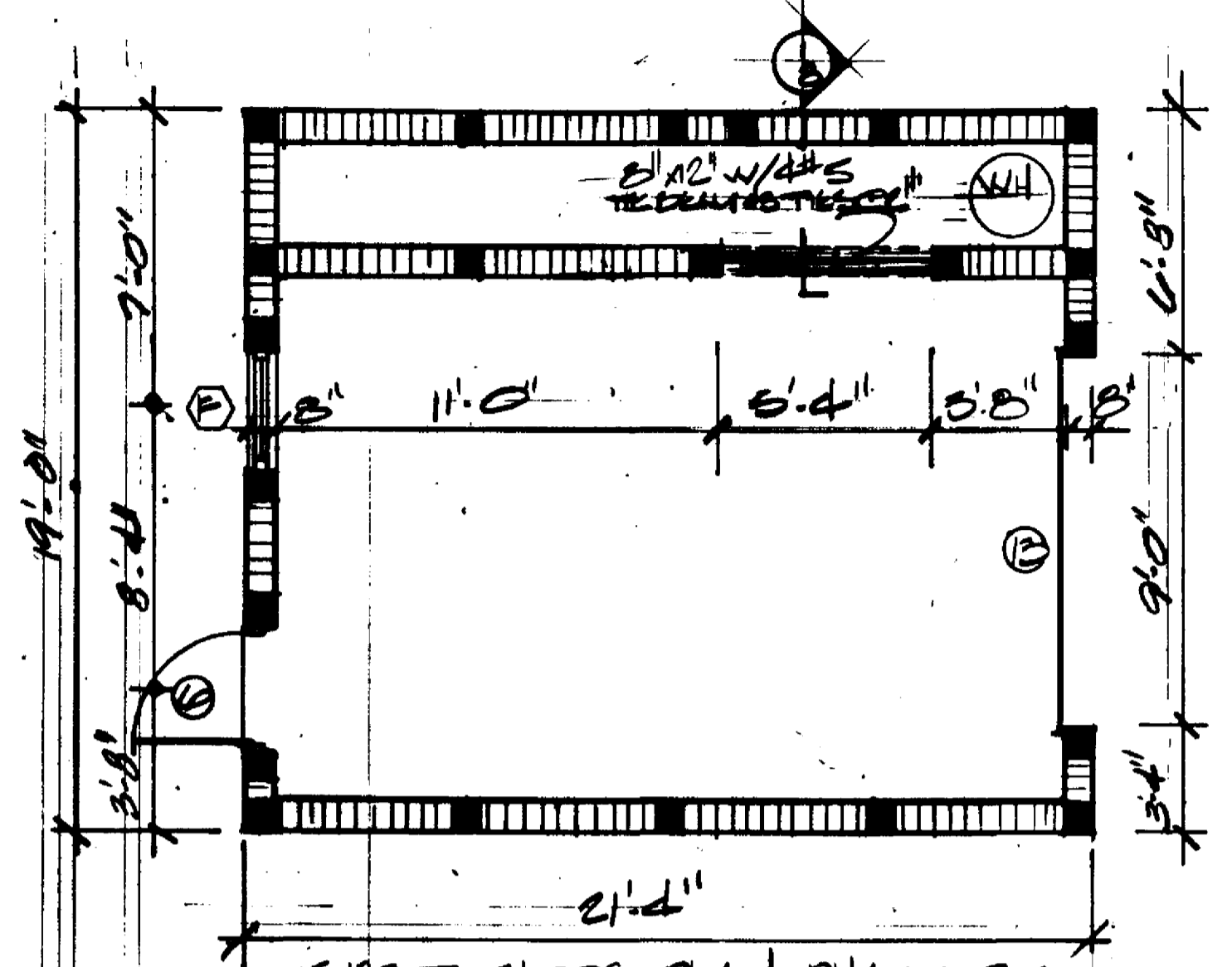
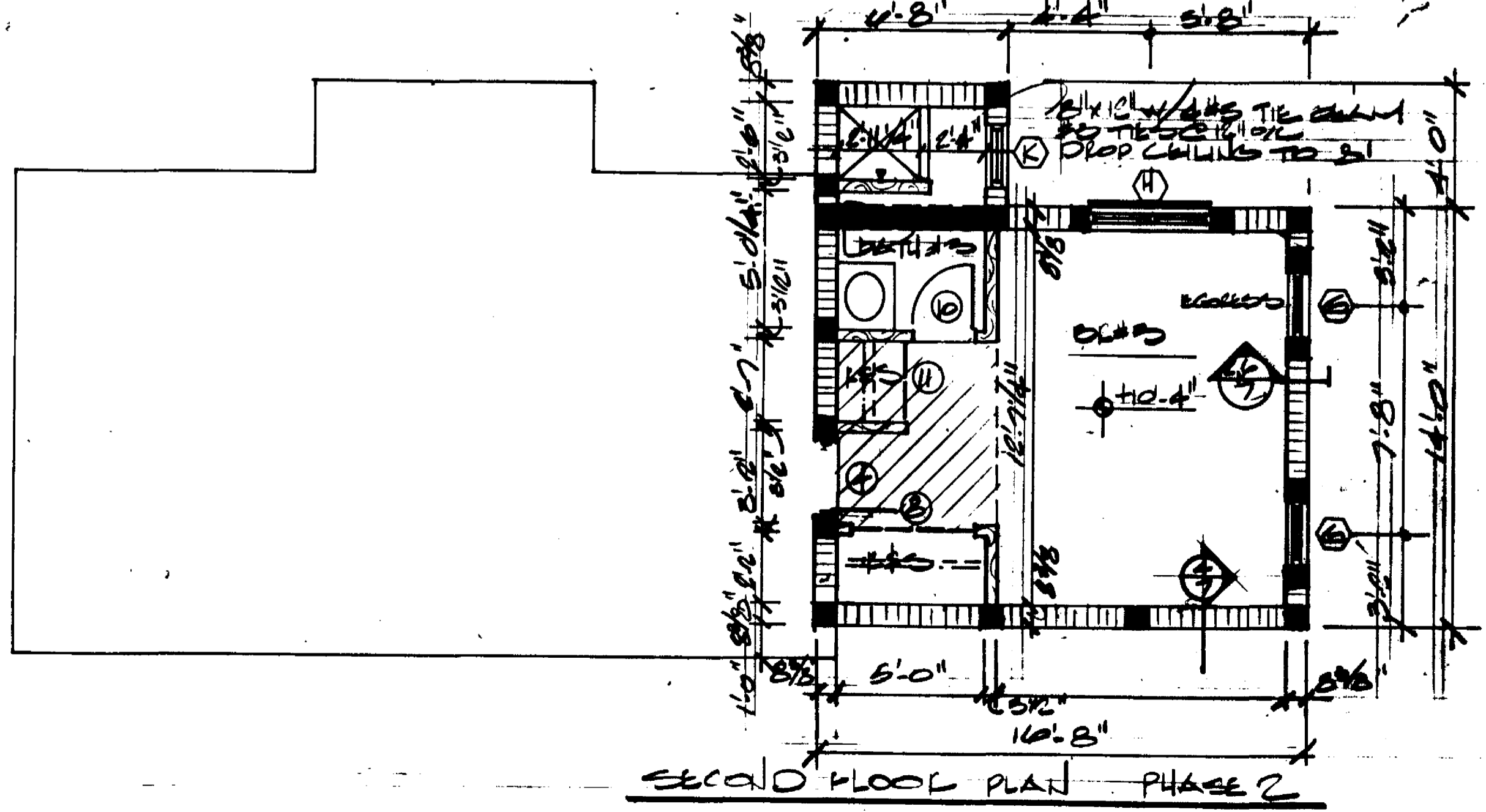
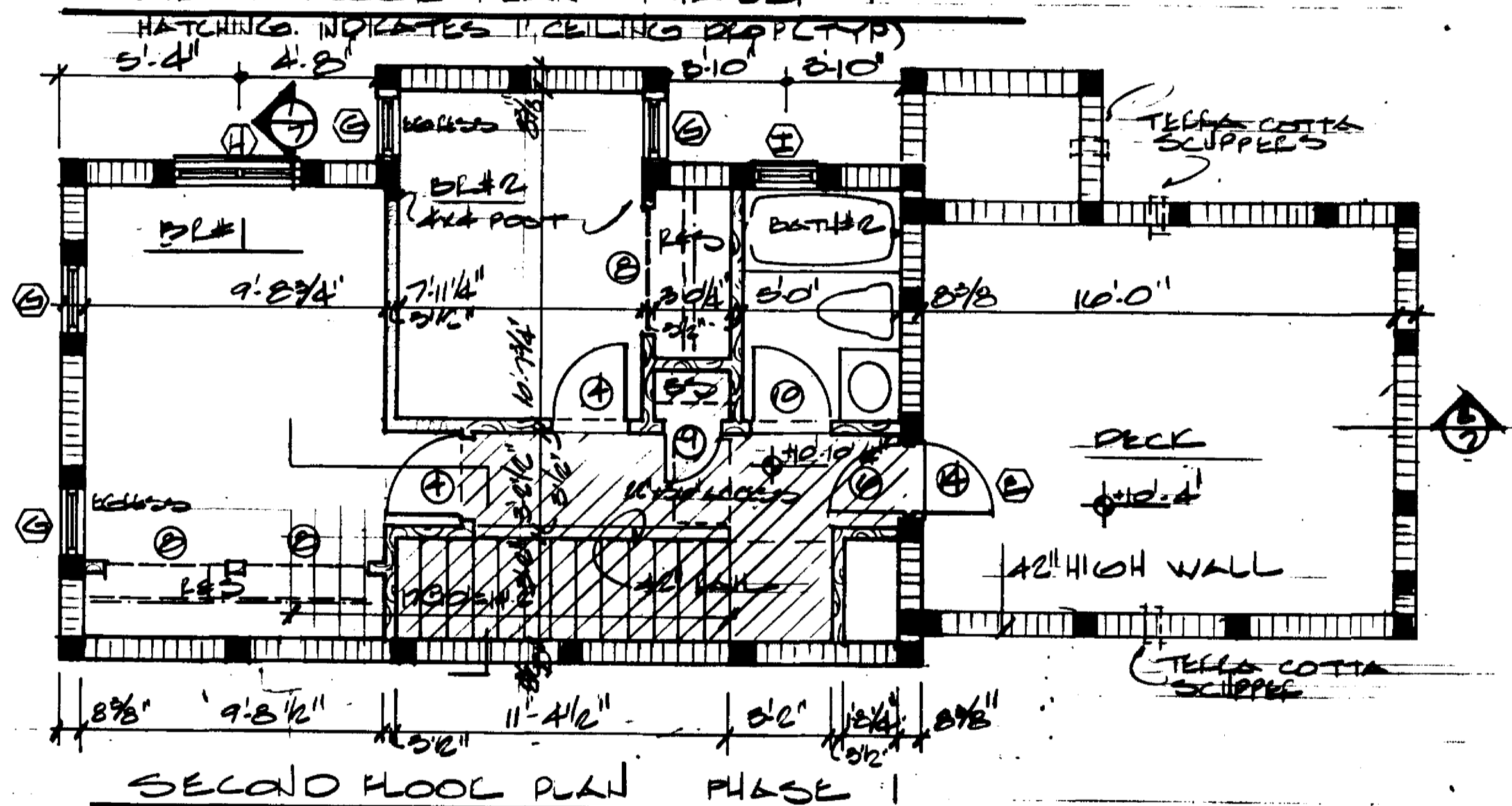
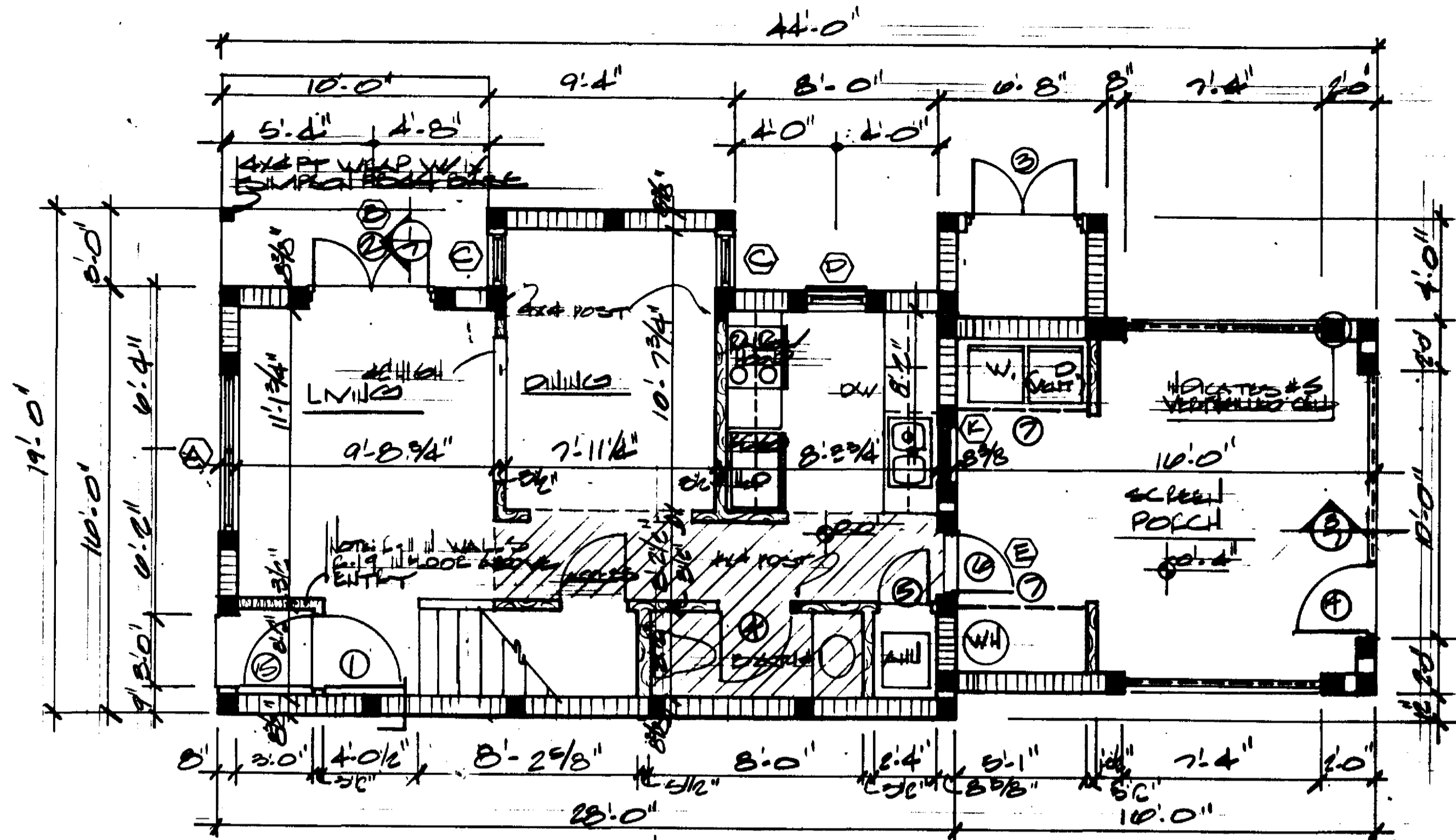
SILENT FEATURES:
RADIANT BARRIER, RIDGE VENTS, GABLE VENTS
CEILING FANS



JOSEPH P. McCARTY - ARCHITECT
287-6735
FLORIDA

FLORIDA SOLAR ENERGY CENTER
300 State Road 401, Cape Canaveral, Florida 32920-0999, Telephone: (407) 763-0300
Fax: (407) 763-2671
State University System of Florida

KEY PLANS 1/8"=1'-0"
ELEVATIONS 1/8"=1'-0"
SHEET
1
08/21/11
8/16/11

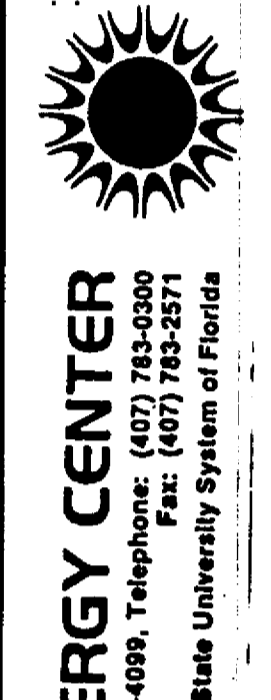
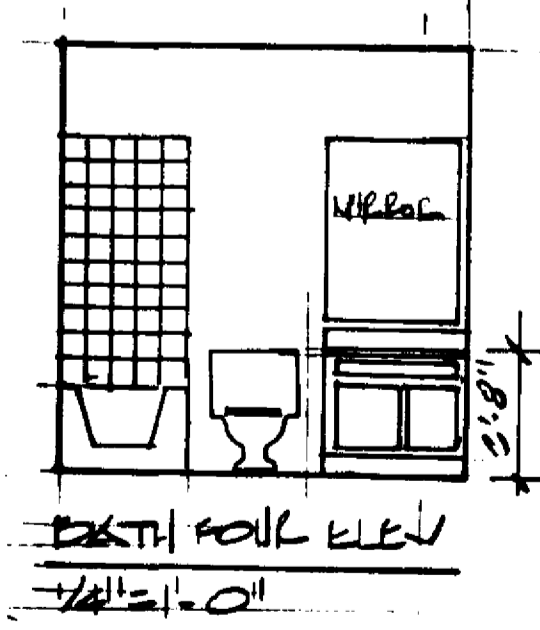
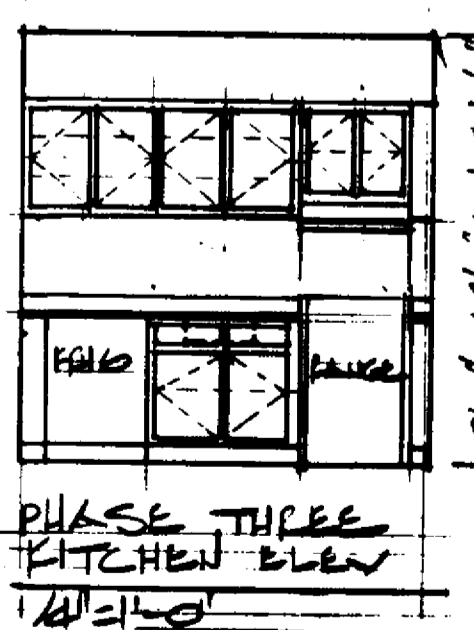
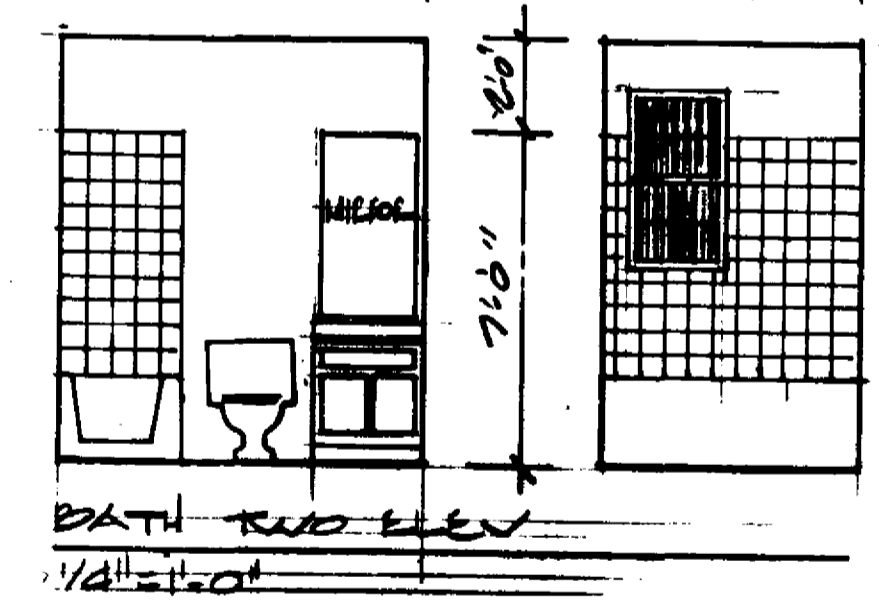
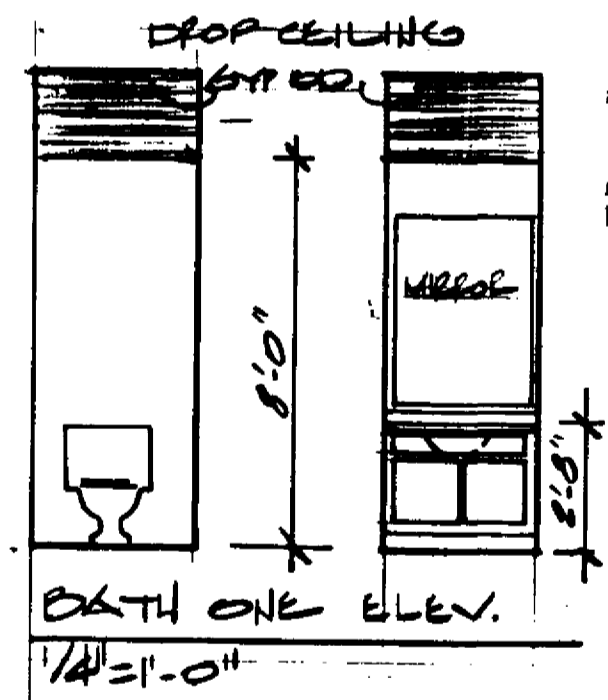


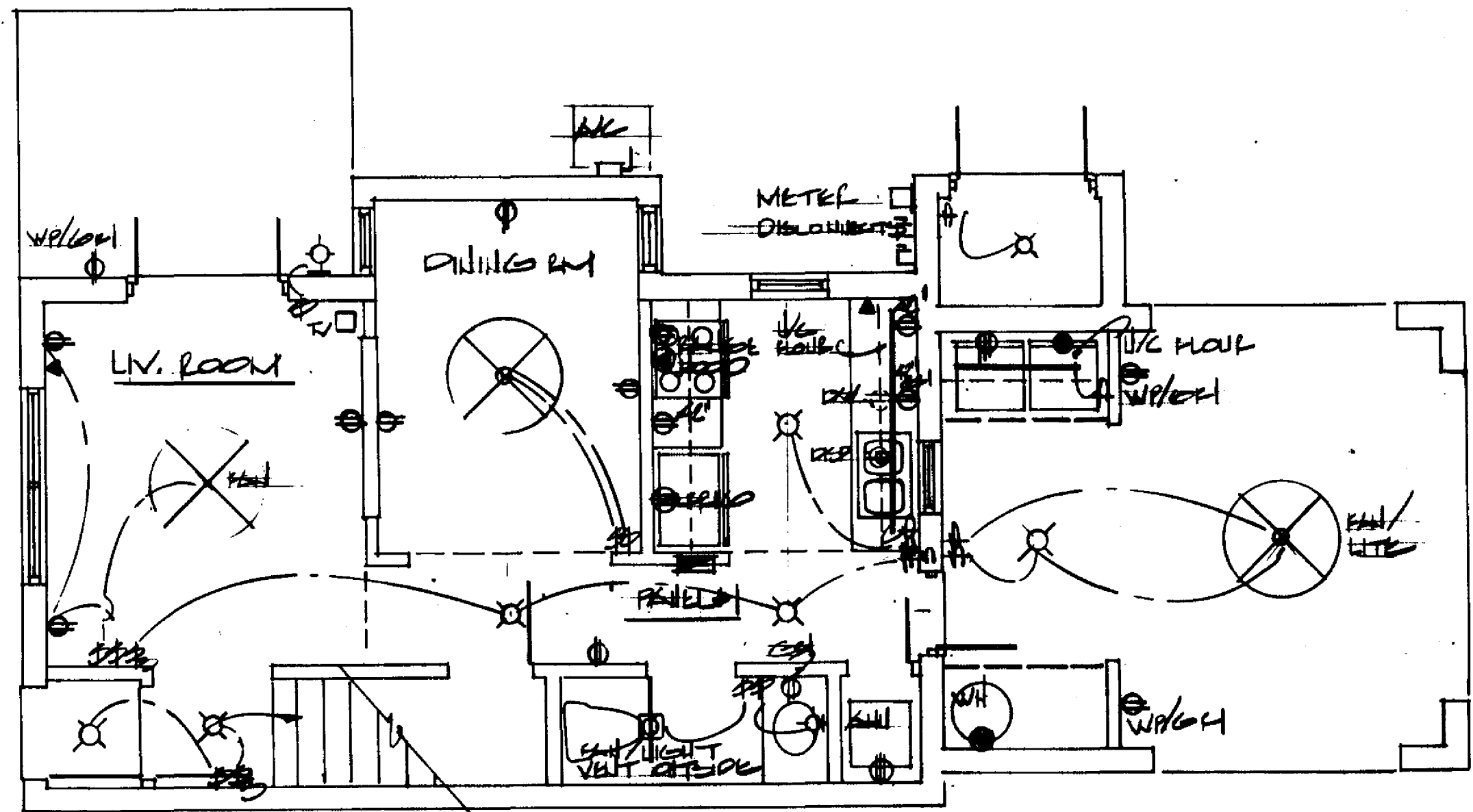
MARK	DESCRIPTION
1)	22 BENTLEY
2)	22L 2008 FRENCH
3)	22L 2008 FRENCH
4)	22L 2008 FRENCH
5)	22L 2008 FRENCH
6)	22L 2008 FRENCH
7)	22L 2008 FRENCH
8)	22L 2008 FRENCH
9)	22L 2008 FRENCH
10)	22L 2008 FRENCH
11)	22L 2008 FRENCH
12)	22L 2008 FRENCH
13)	22L 2008 FRENCH
14)	22L 2008 FRENCH
15)	22L 2008 FRENCH

MARK	DESCRIPTION
A)	(2) 1/2" AWKING
B)	1/2" AWKING
C)	1/2" AWKING
D)	1/2" AWKING
E)	1/2" AWKING
F)	1/2" AWKING
G)	1/2" AWKING
H)	1/2" AWKING
I)	1/2" AWKING
J)	1/2" AWKING
K)	1/2" AWKING

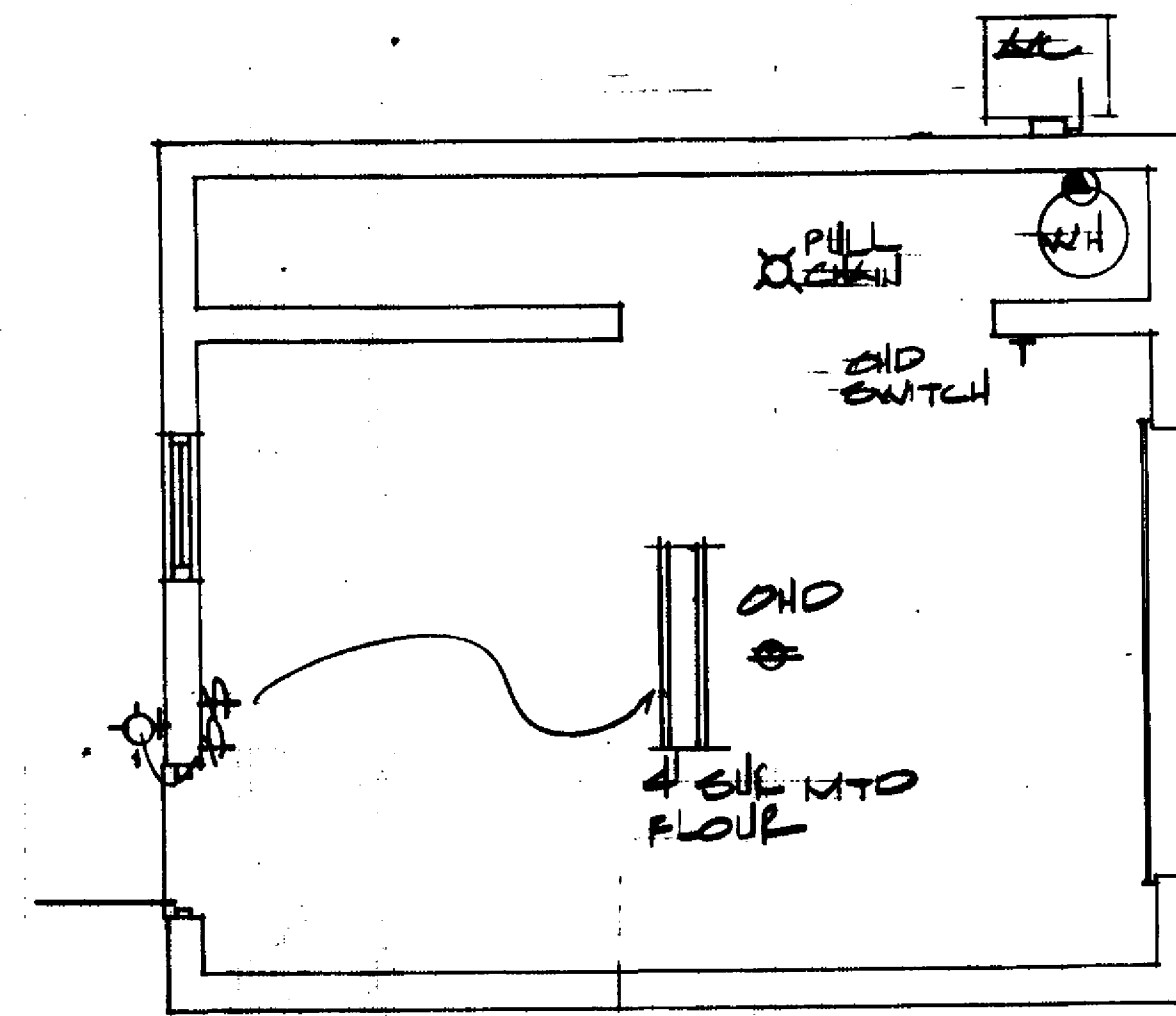
NOTE: ALUMINUM WINDOWS, PHASE 1 & 2 TWO WINDOW HEIGHT 2' 6" UNLESS NOTED PHASE THREE 2' 8" H.

LOCATION	RECOMMENDED GLASS
South Florida	Tinted Single-Pane
Central Florida	Tinted Single or Double-Pane
North Florida	Double-Pane

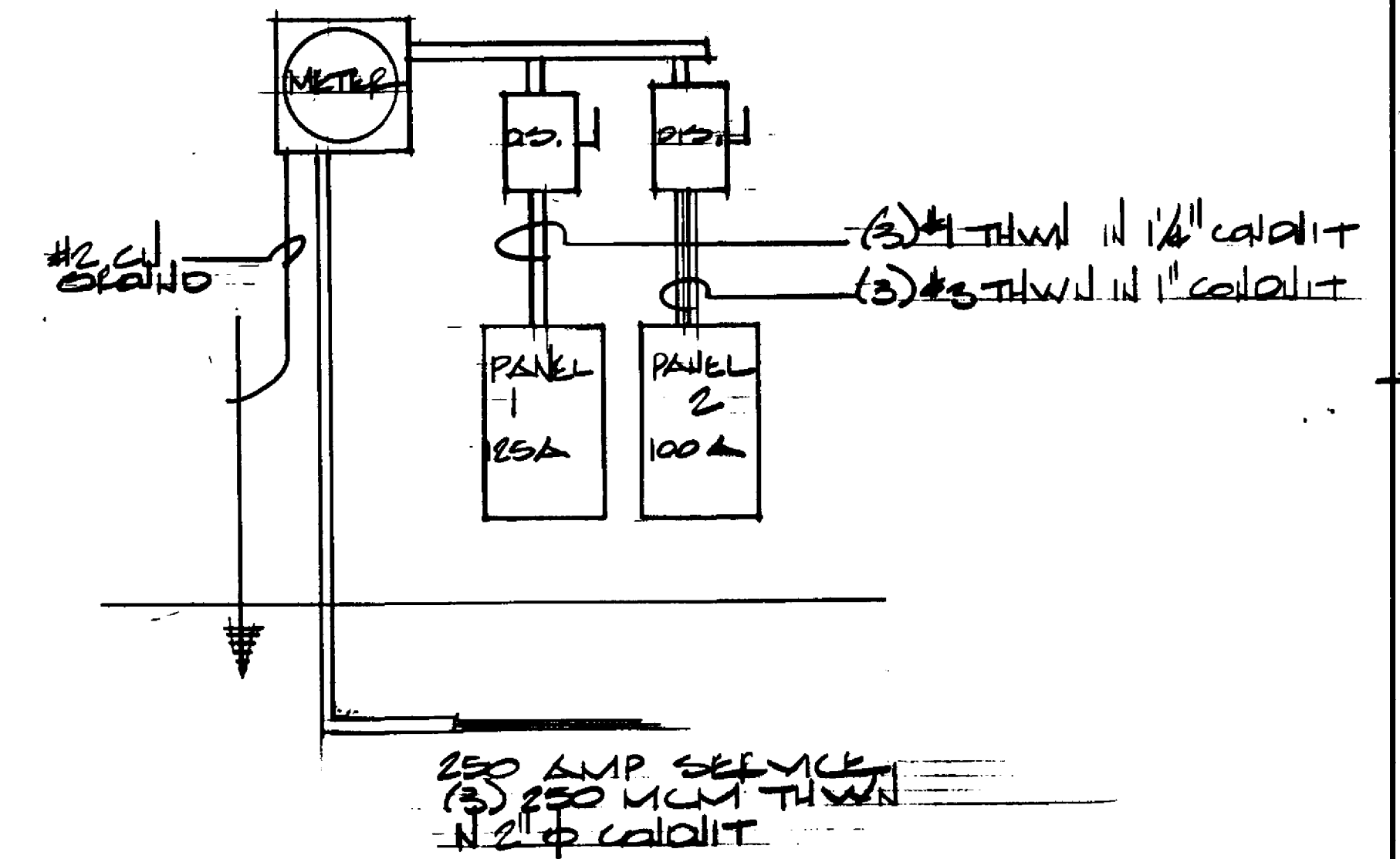




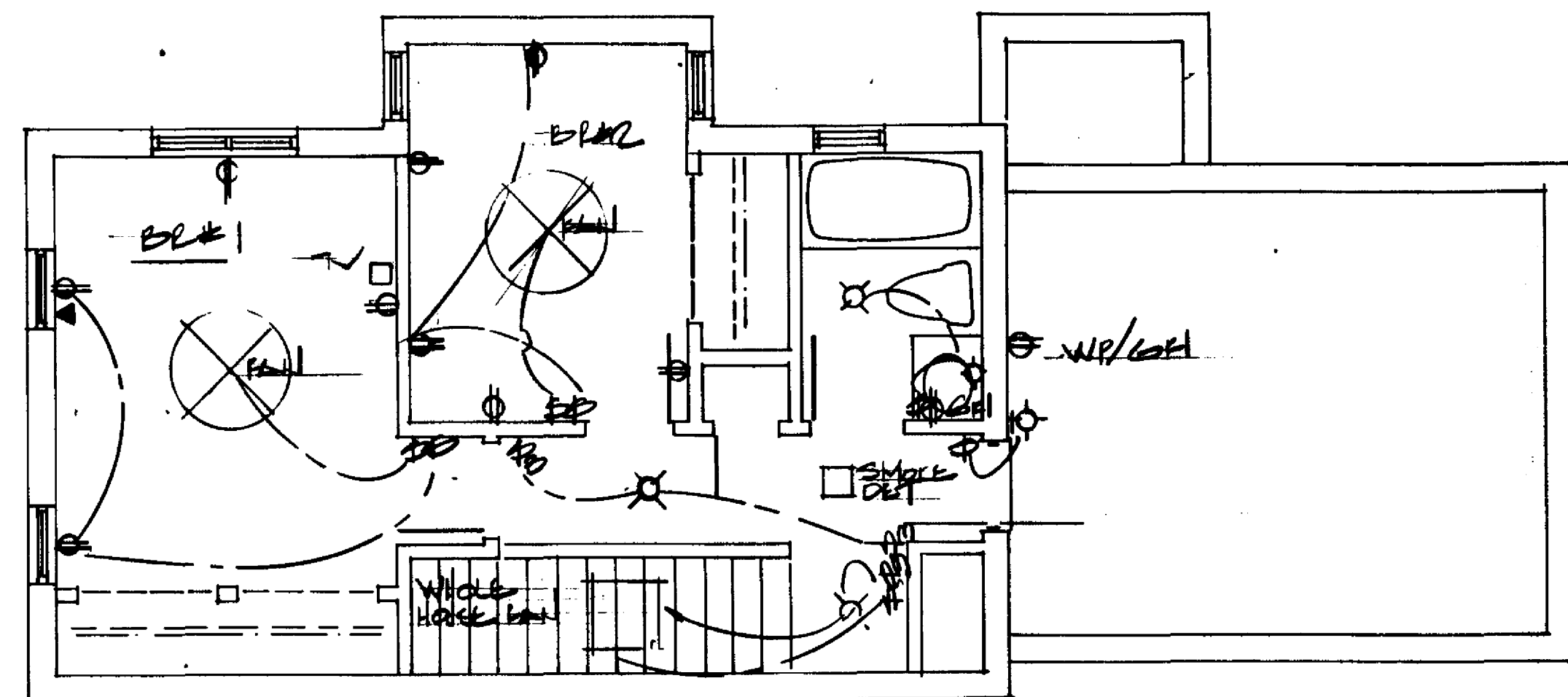
FIRST FLOOR PLAN - PHASE ONE
1/4"=1'-0"



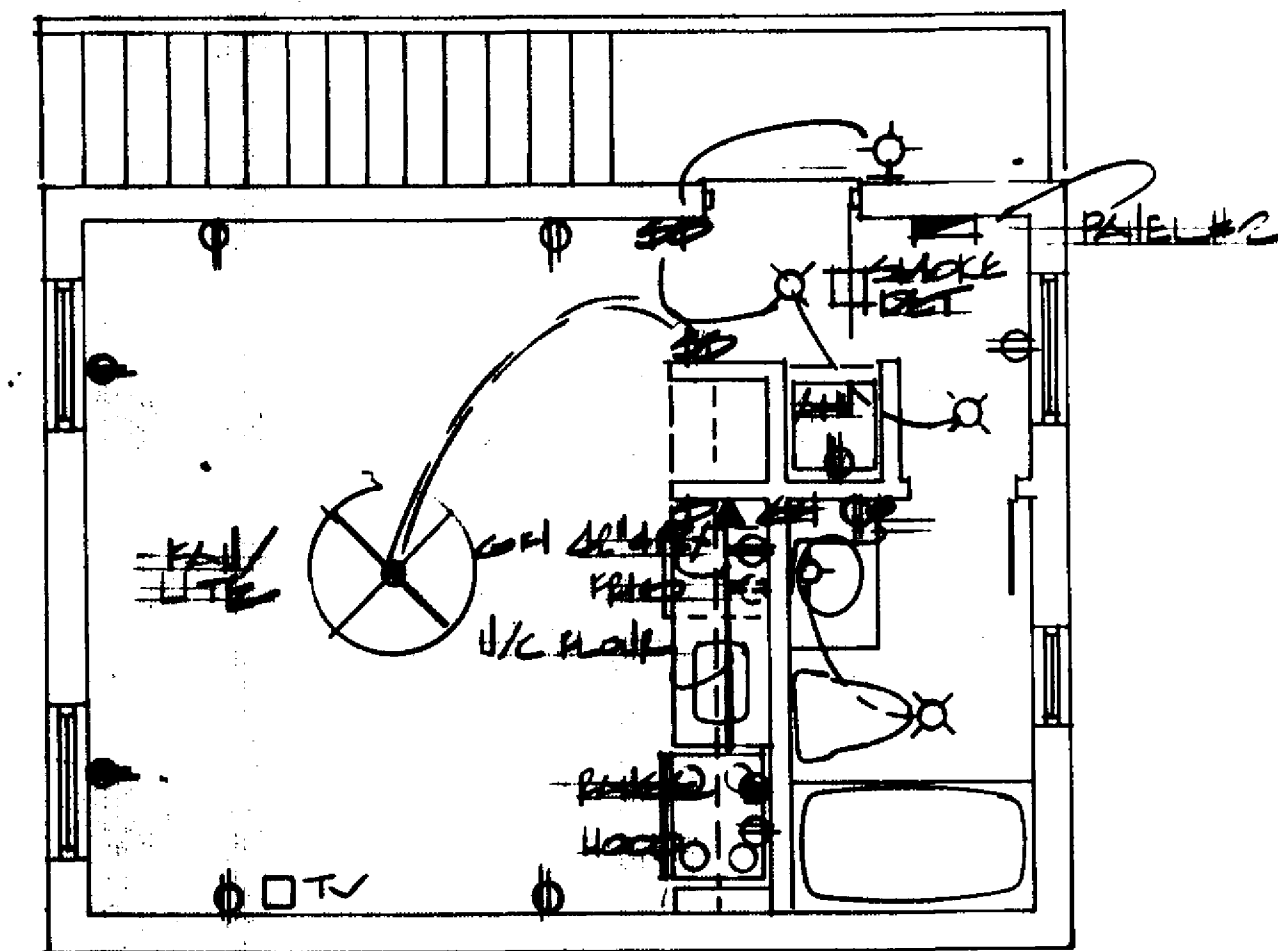
FIRST FLOOR PLAN PHASE 3B
1/4"=1'-0"



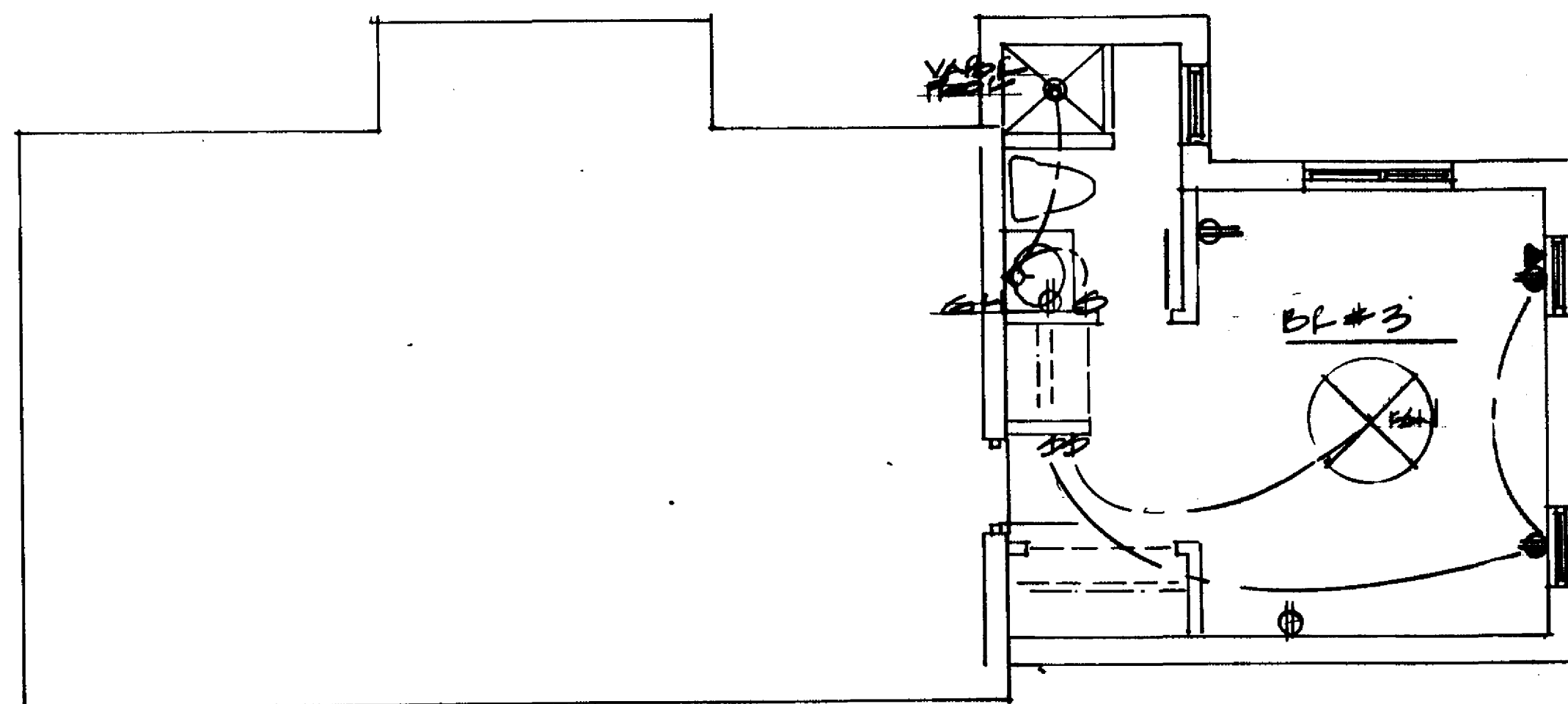
250 AMP SERVICE
(3) #2 CU THWN
#2 CU CONDUIT
SERVICE ENTRANCE
N.T.S.



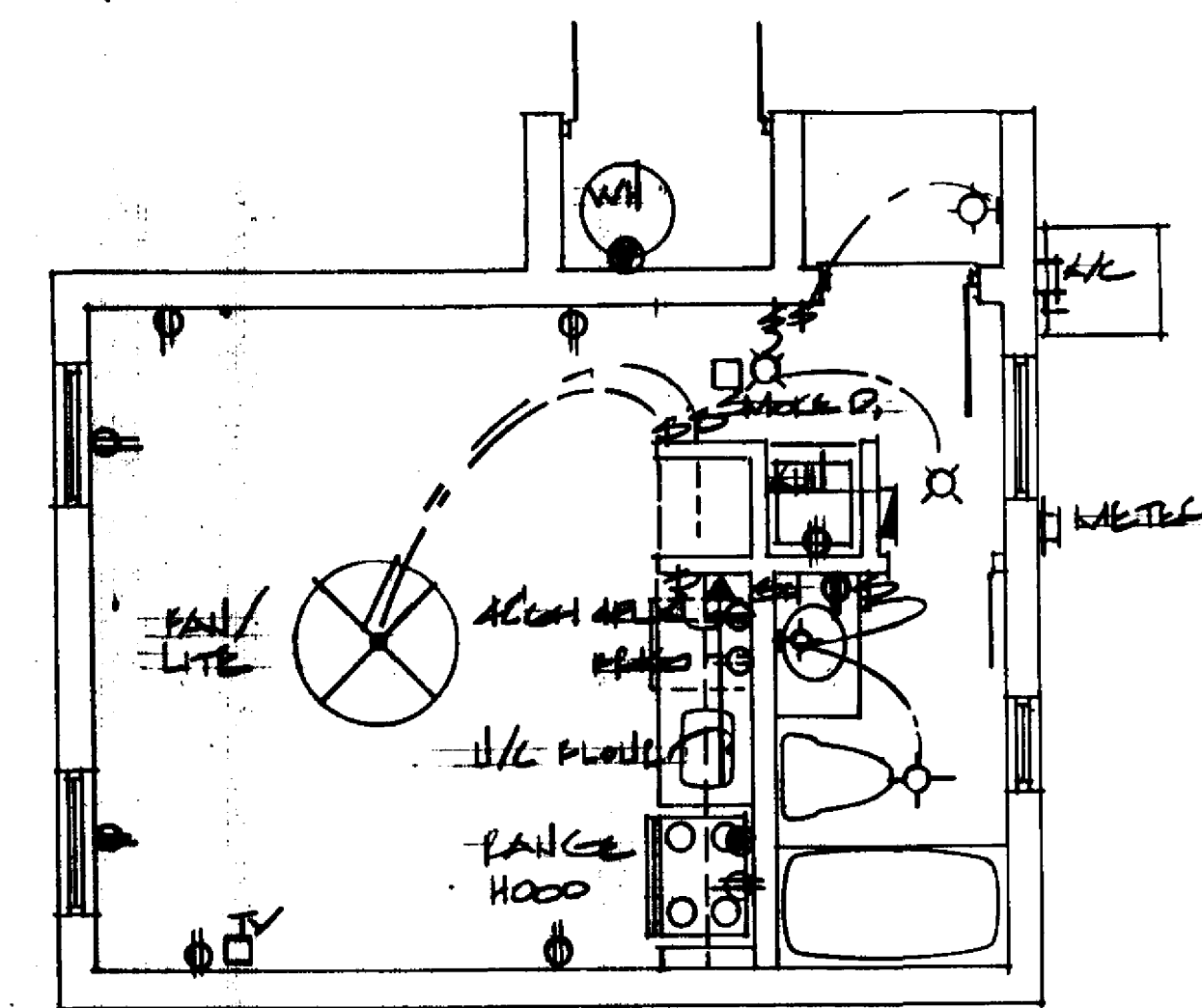
SECOND FLOOR PLAN PHASE ONE
1/4"=1'-0"



SECOND FLOOR PLAN PHASE 3B
1/4"=1'-0"



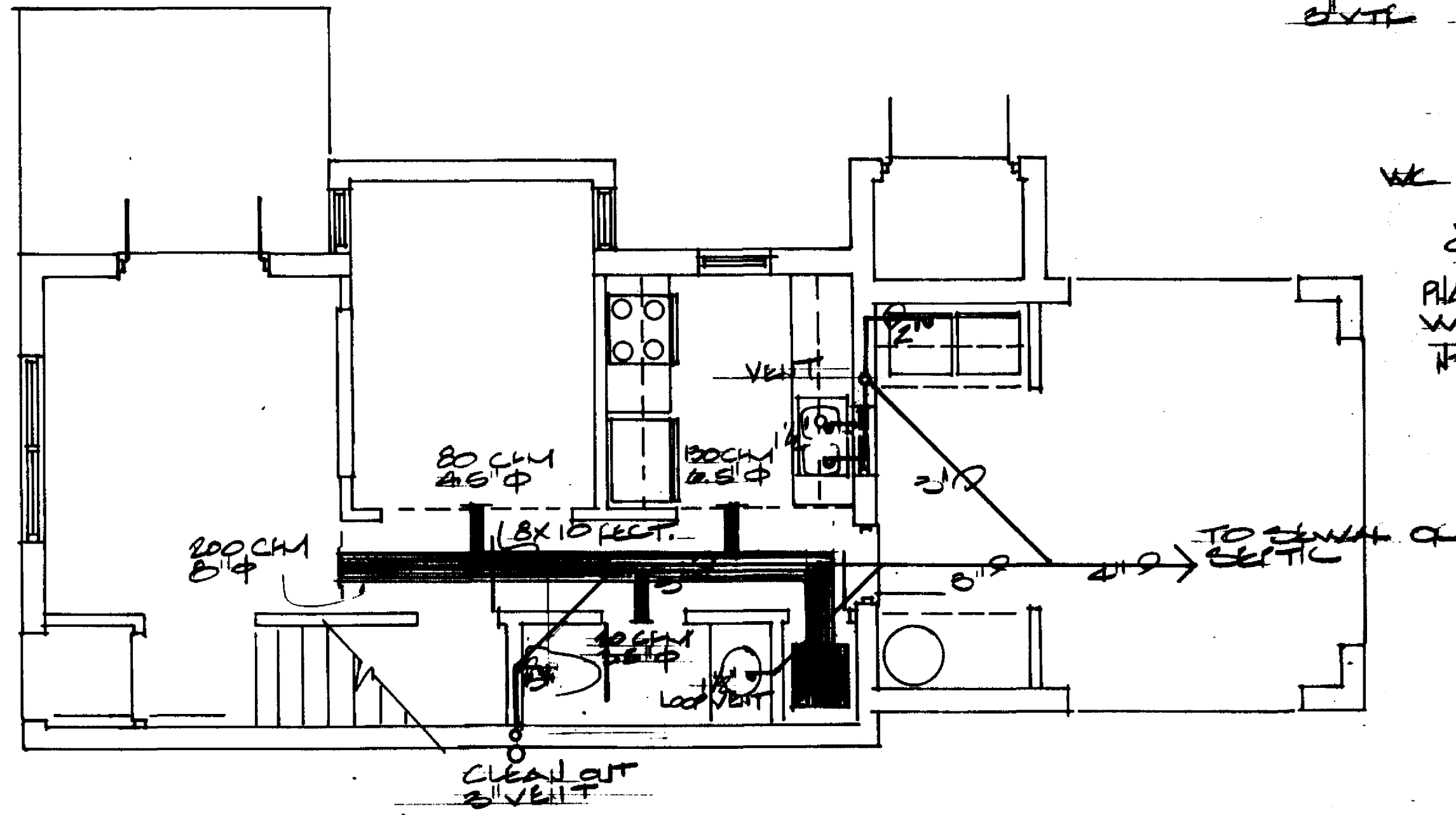
SECOND FLOOR PLAN PHASE TWO
1/4"=1'-0"



FIRST FLOOR PLAN PHASE 3A
1/4"=1'-0"

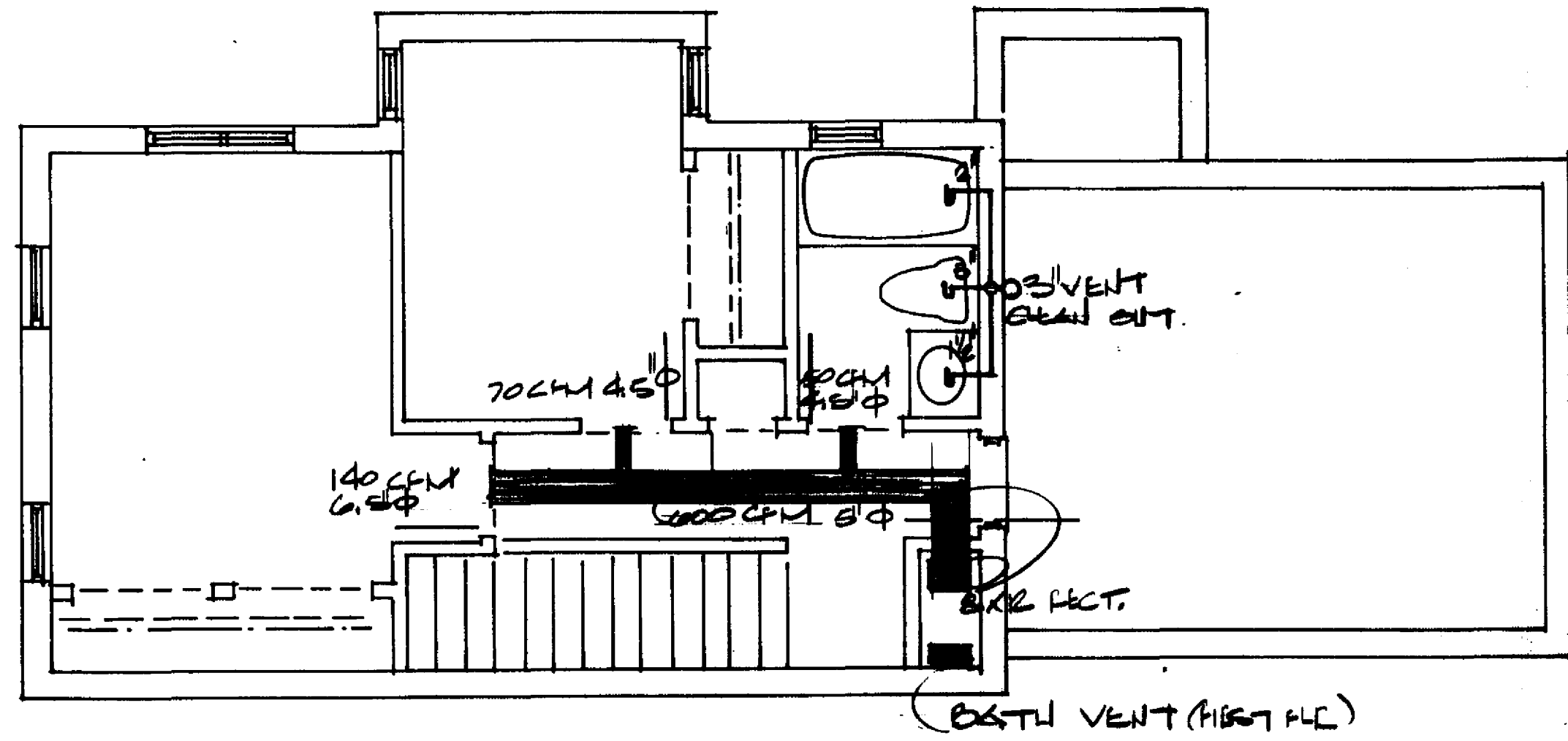


NOTE: ALL DUCT DIMENSIONS ARE FOR MINIMUM ROUND DUCT DIAMETERS FOR 0.1 INCH FRICTION / 100 FT OF DUCT



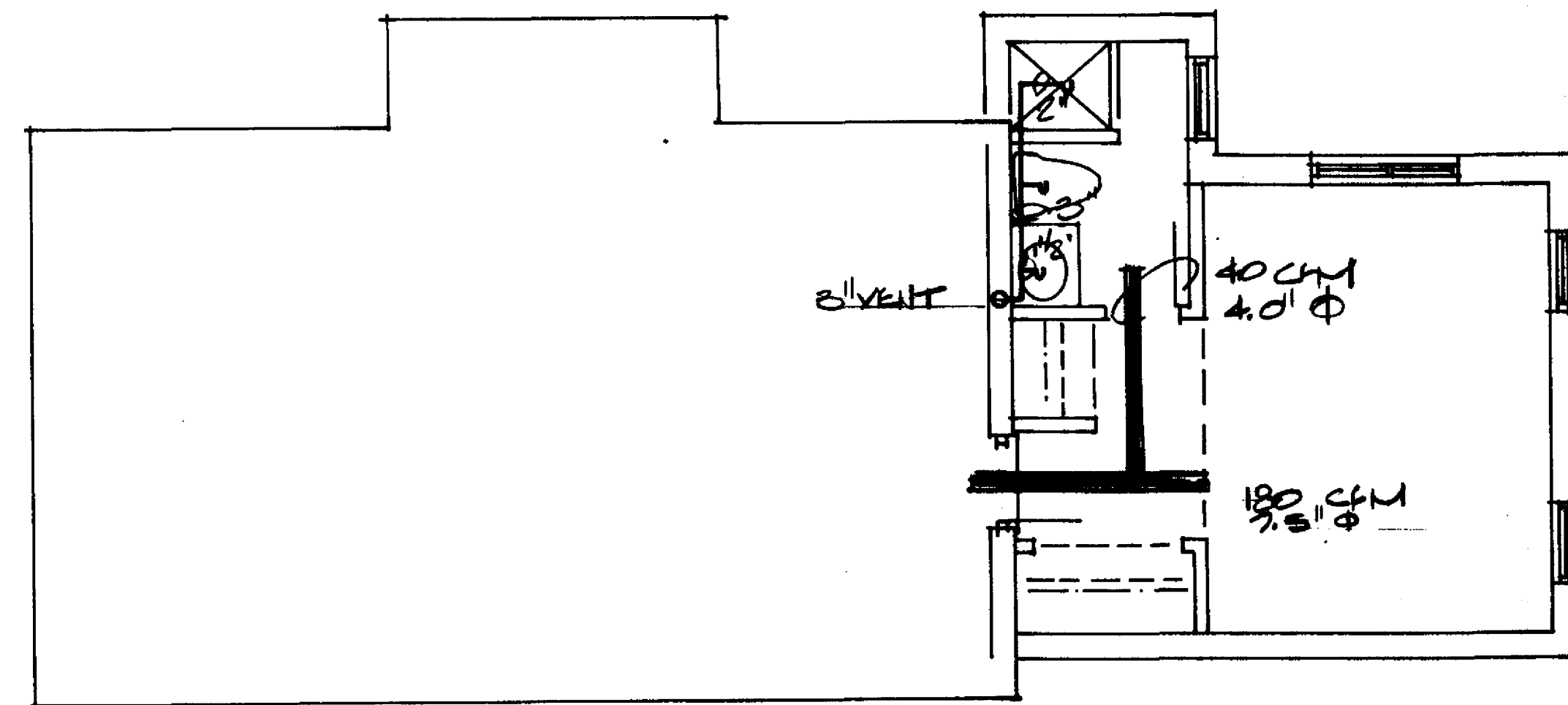
FIRST FLOOR PLAN PHASE 01E

NOTE: DUCT TO BE LOCATED ABOVE 9' CEILING CEILING AT 10' LEVEL TO BE WELL SEALED & CONT

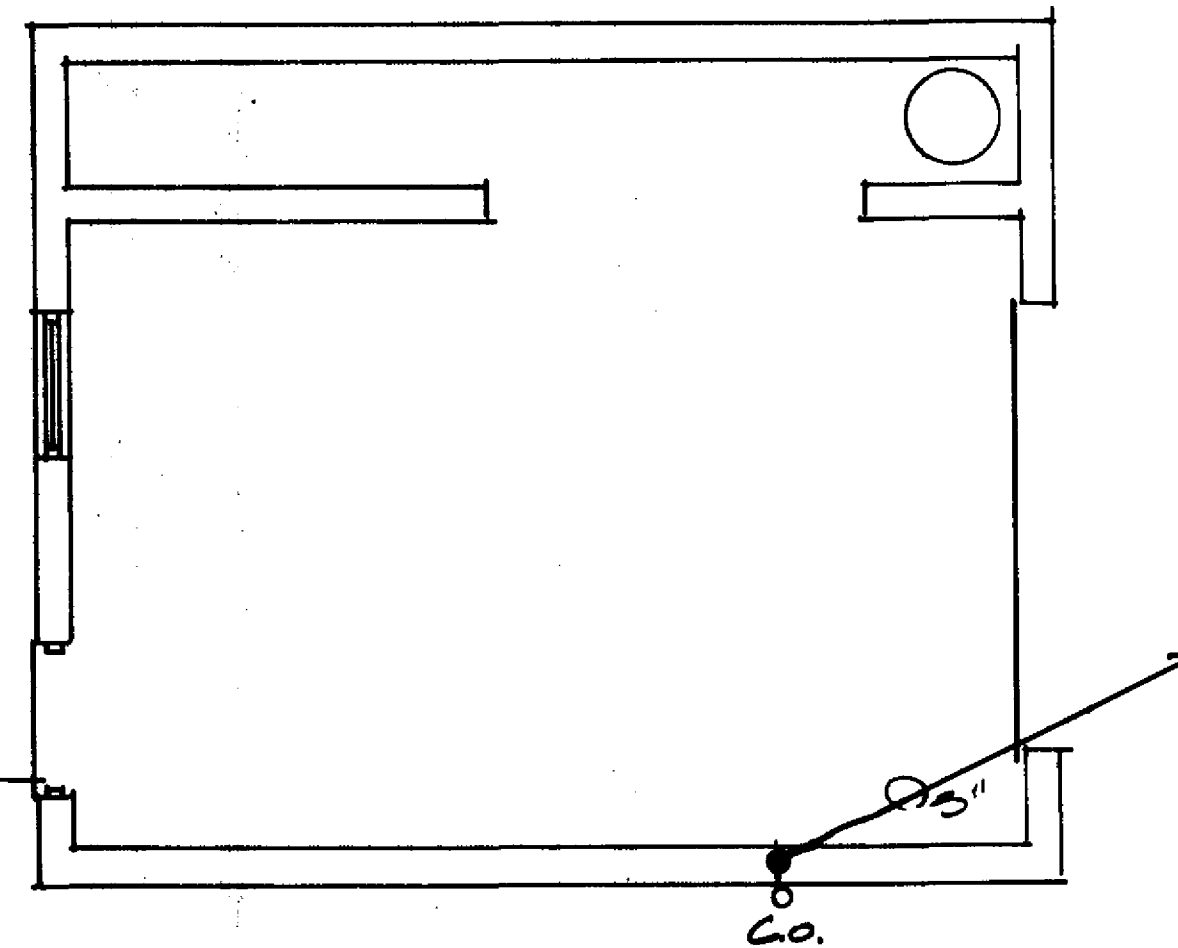
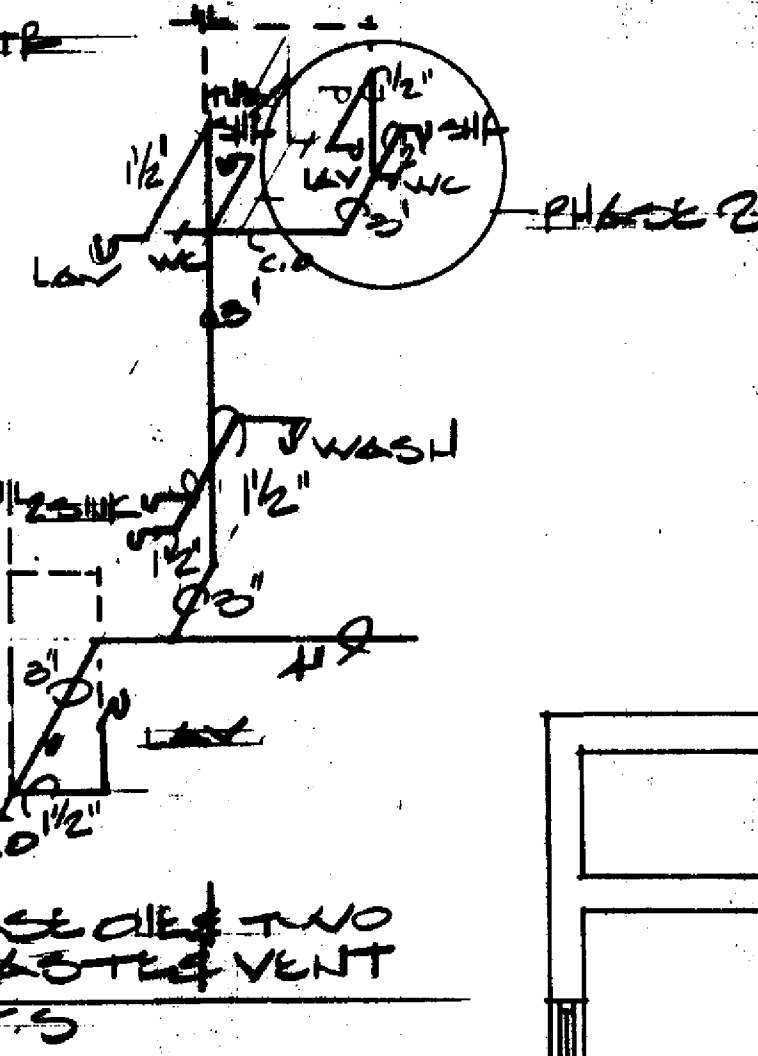


SECOND FLOOR PLAN PHASE 01E

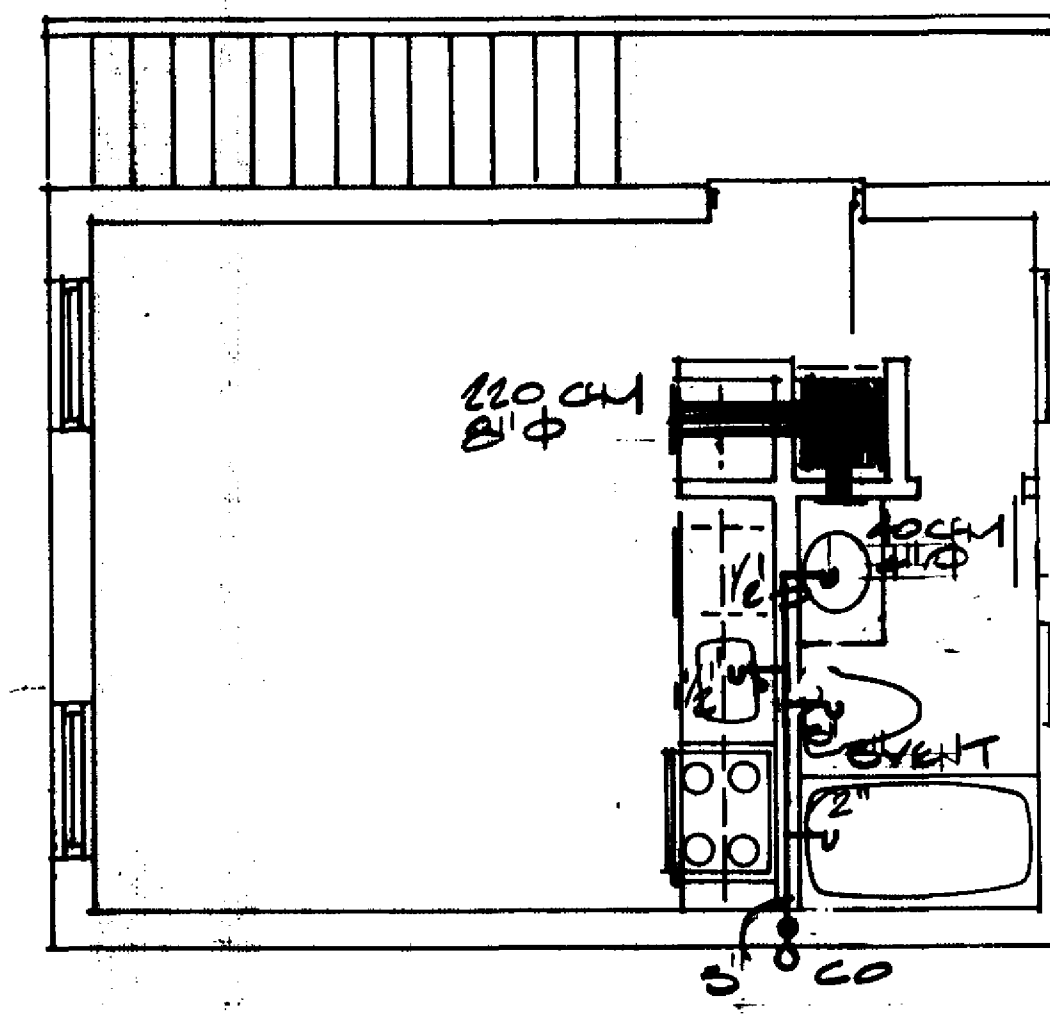
NOTE: DUCT TO BE LOCATED ABOVE 9' CEILING CEILING AT 9' LEVEL TO BE WELL SEALED & CONTINUOUS (M.P.)



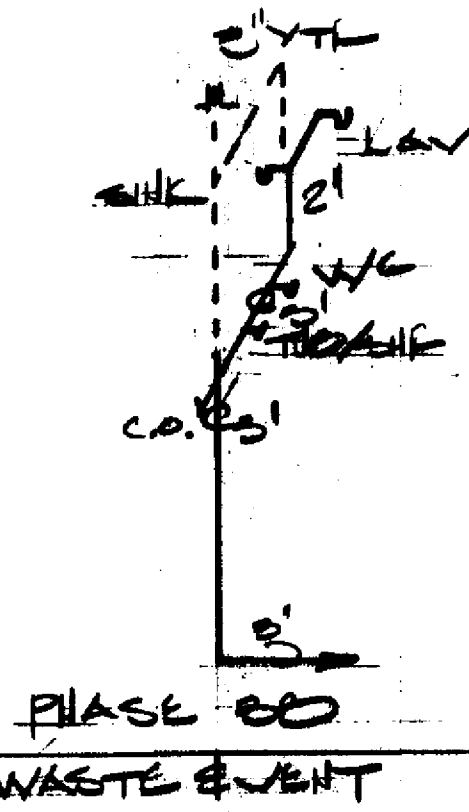
SECOND FLOOR PLAN PHASE 2



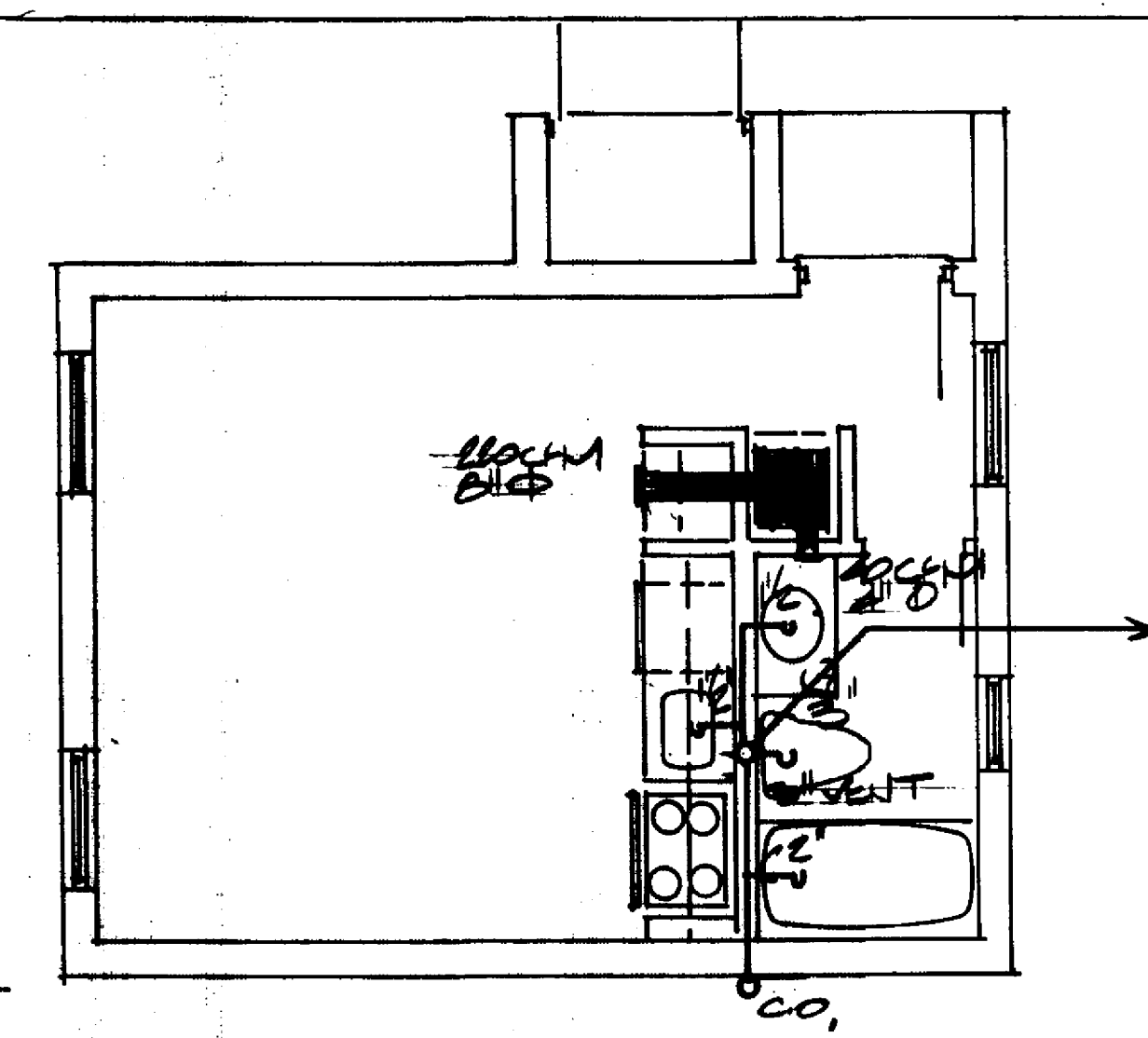
FIRST FLOOR PLAN PHASE 3B



SECOND FLOOR PLAN PHASE 3B



PHASE 3A WASTE VENT



FIRST FLOOR PLAN PHASE 3A

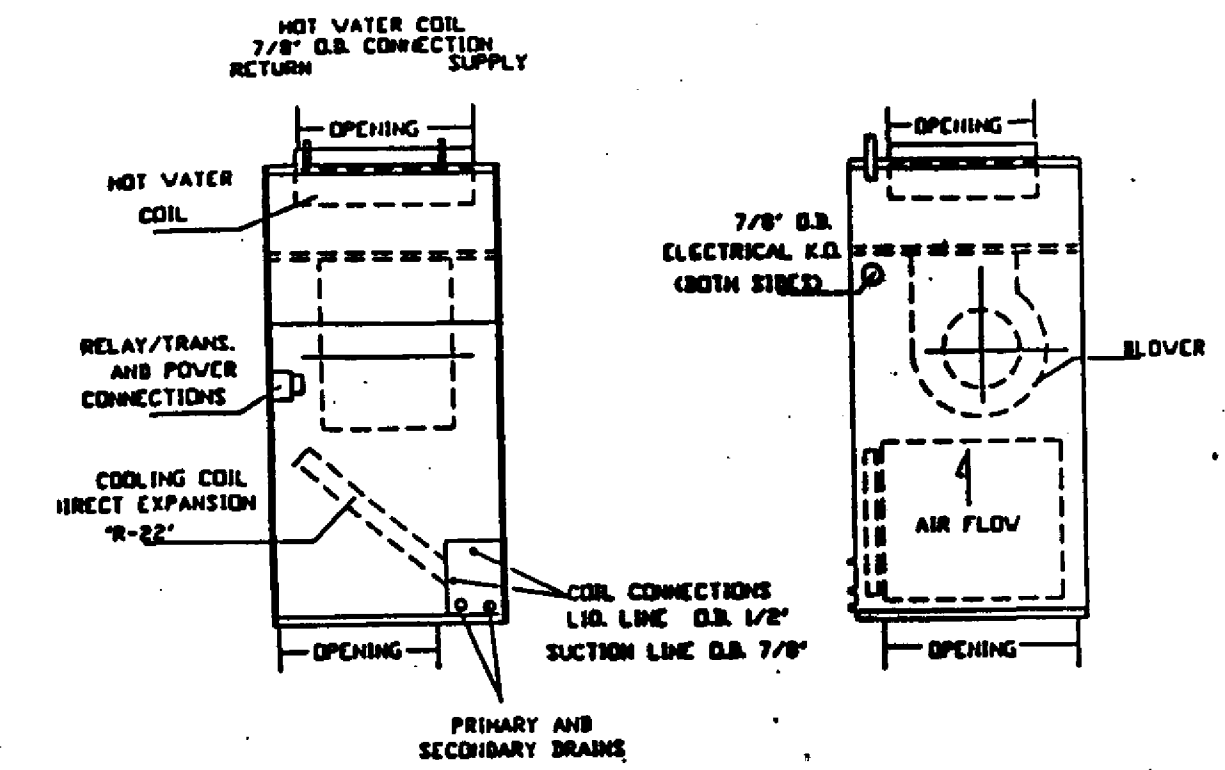
COMFORT CONDITIONING SCHEDULE WITH ALL ELECTRICAL UTILITIES

PHASE 1		
Cooling Capacity Required	18,500 BTUH	Min. Recommend SEER = 12.0
Heating Capacity Required	16,800 BTUH	Type: Heat Pump Minimum
Air Flow Required (CFM)	750 CFM	Recommended HSPFF: 8.0
PHASE 1&2		
Cooling Capacity Required	24,100 BTUH	Min. Recommend SEER = 12.0
Heating Capacity Required	20,800 BTUH	Type: Heat Pump Minimum
Air Flow Required (CFM)	970 CFM	Recommended HSPFF: 8.0
PHASE 3 Room Unit or Split System		
Cooling Capacity Required	6,500 BTUH	Min. Recommend SEER = 12.0
Heating Capacity Required	5,700 BTUH	Type: Heat Pump Minimum
Air Flow Required (CFM)	260 CFM	Recommended HSPFF: 8.0

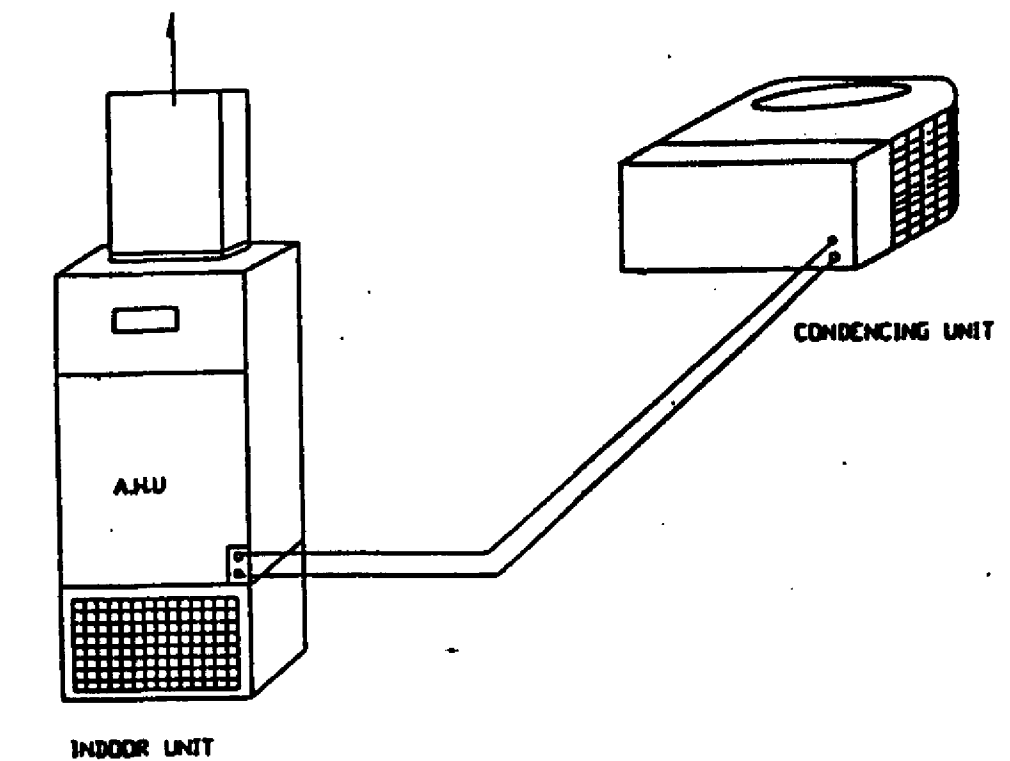
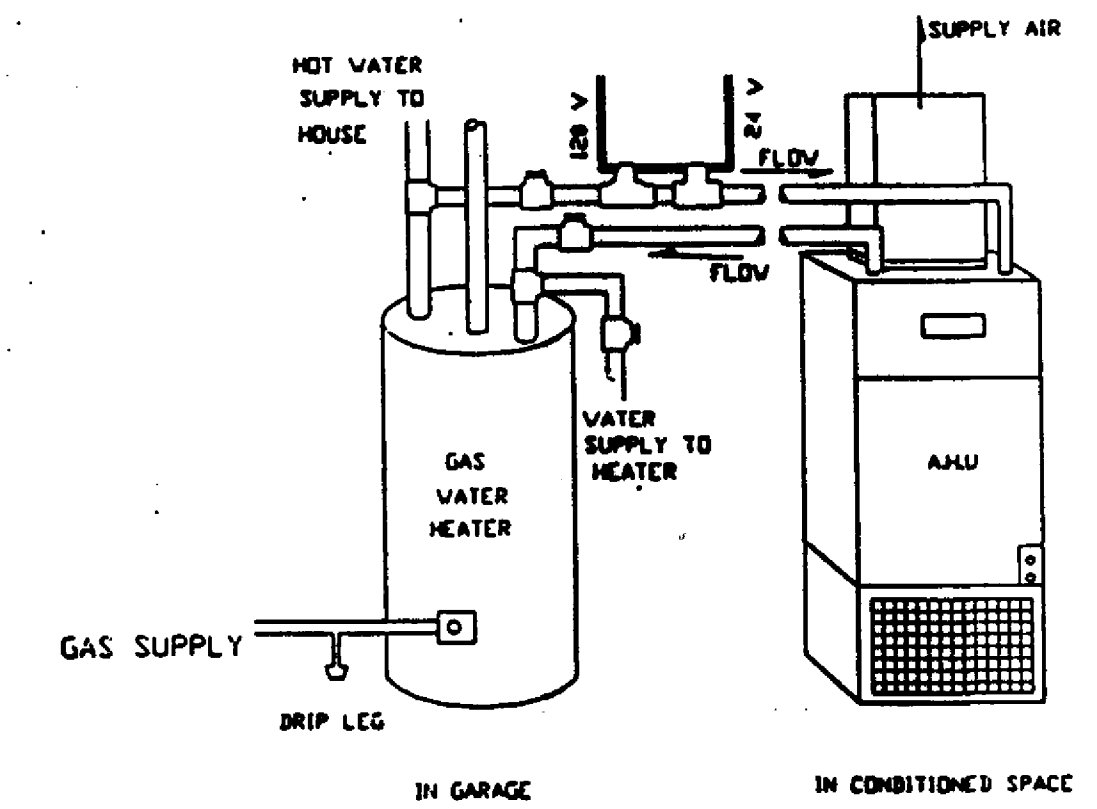
COMFORT CONDITIONING SCHEDULE WITH GAS HEAT

PHASE 1		
Cooling Capacity Required	18,500 BTUH	Min. Recommend SEER = 12.0
Heating Capacity Required	16,800 BTUH	Recommended Type of Equipment: Gas Hydronic Furnace (All combustion is at water heater)
Air Flow Required (CFM)	750 CFM	
PHASE 1&2		
Cooling Capacity Required	24,100 BTUH	Min. Recommend SEER = 12.0
Heating Capacity Required	20,800 BTUH	Recommended Type of Equipment: Gas Hydronic Furnace (All combustion is at water heater)
Air Flow Required (CFM)	970 CFM	

Based on plans 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 of 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 DETAILED (N.T.S.)



JOSEPH P. MCCARTY - ARCHITECT
414 BALBOA AVE.
STUART
FLORIDA 287-6735



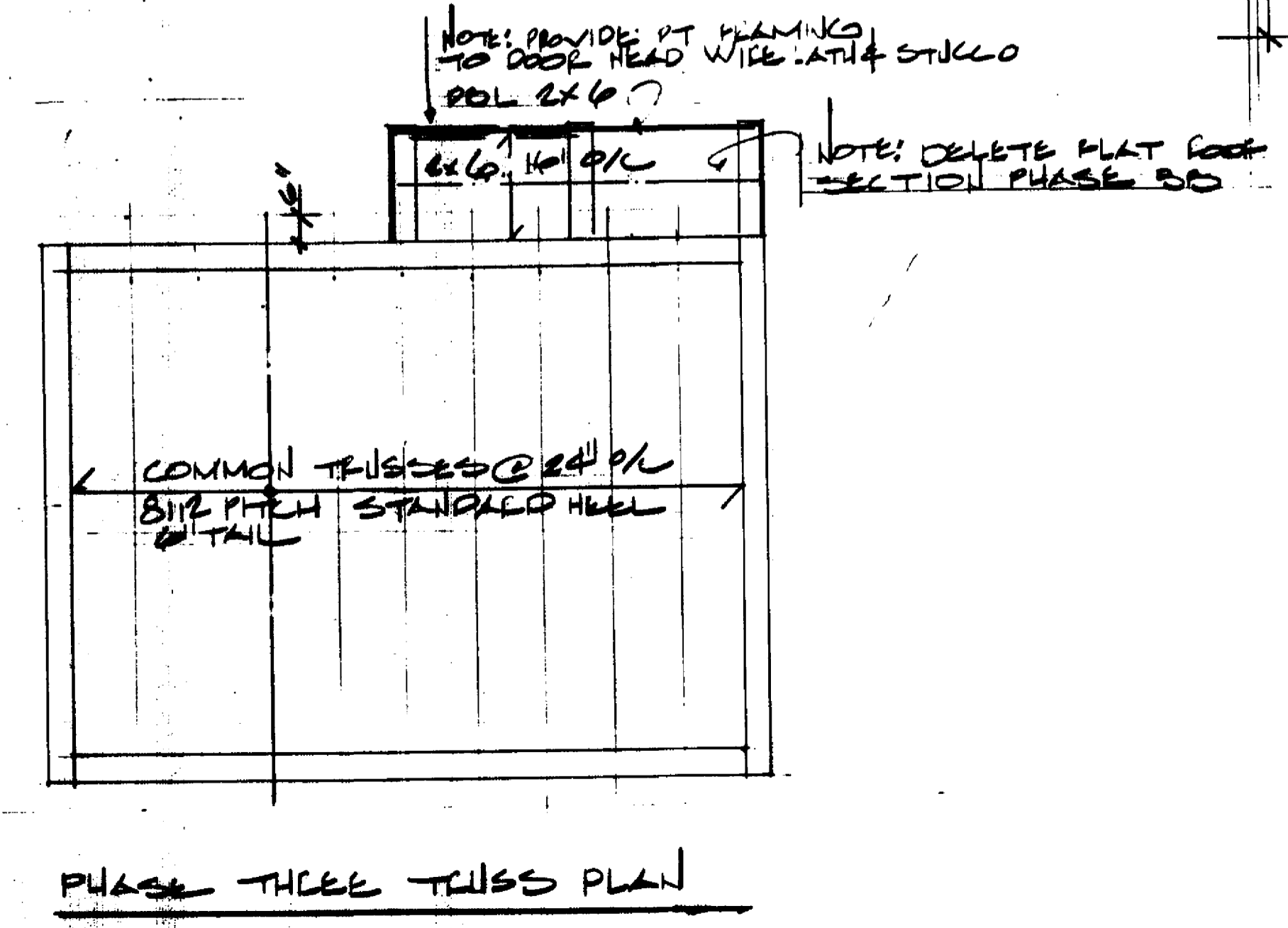
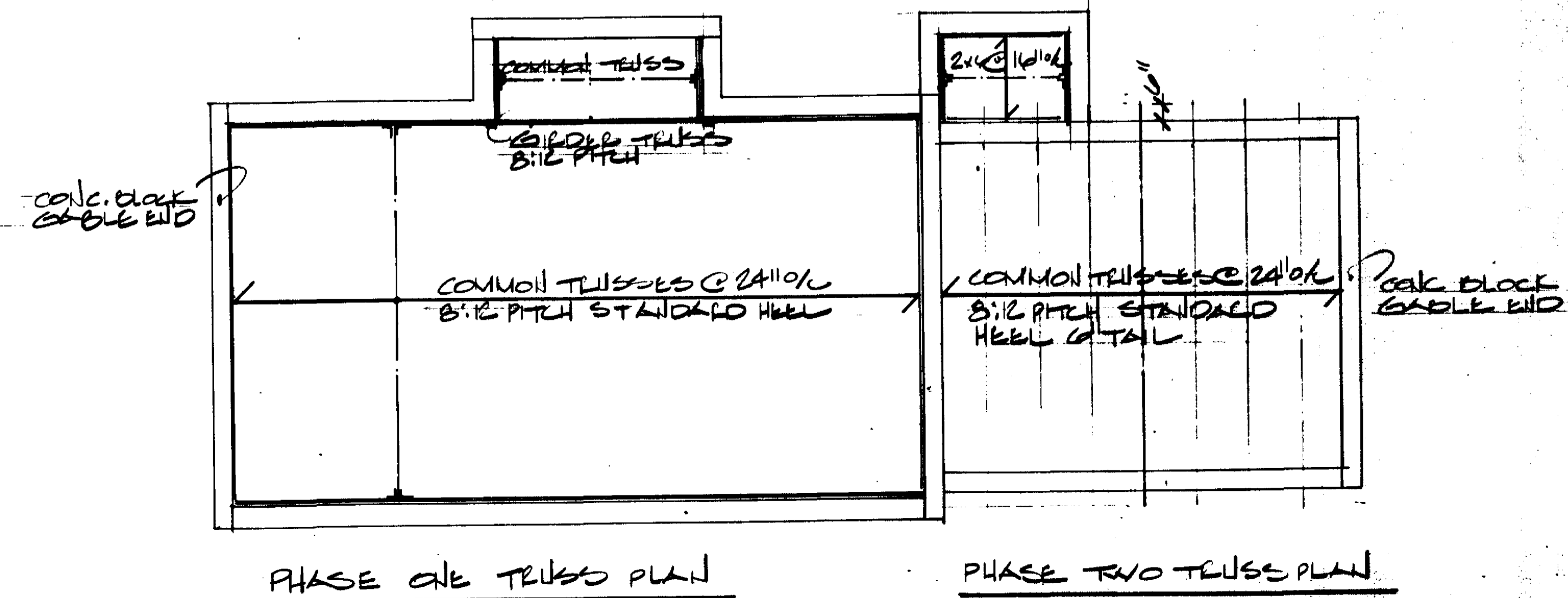
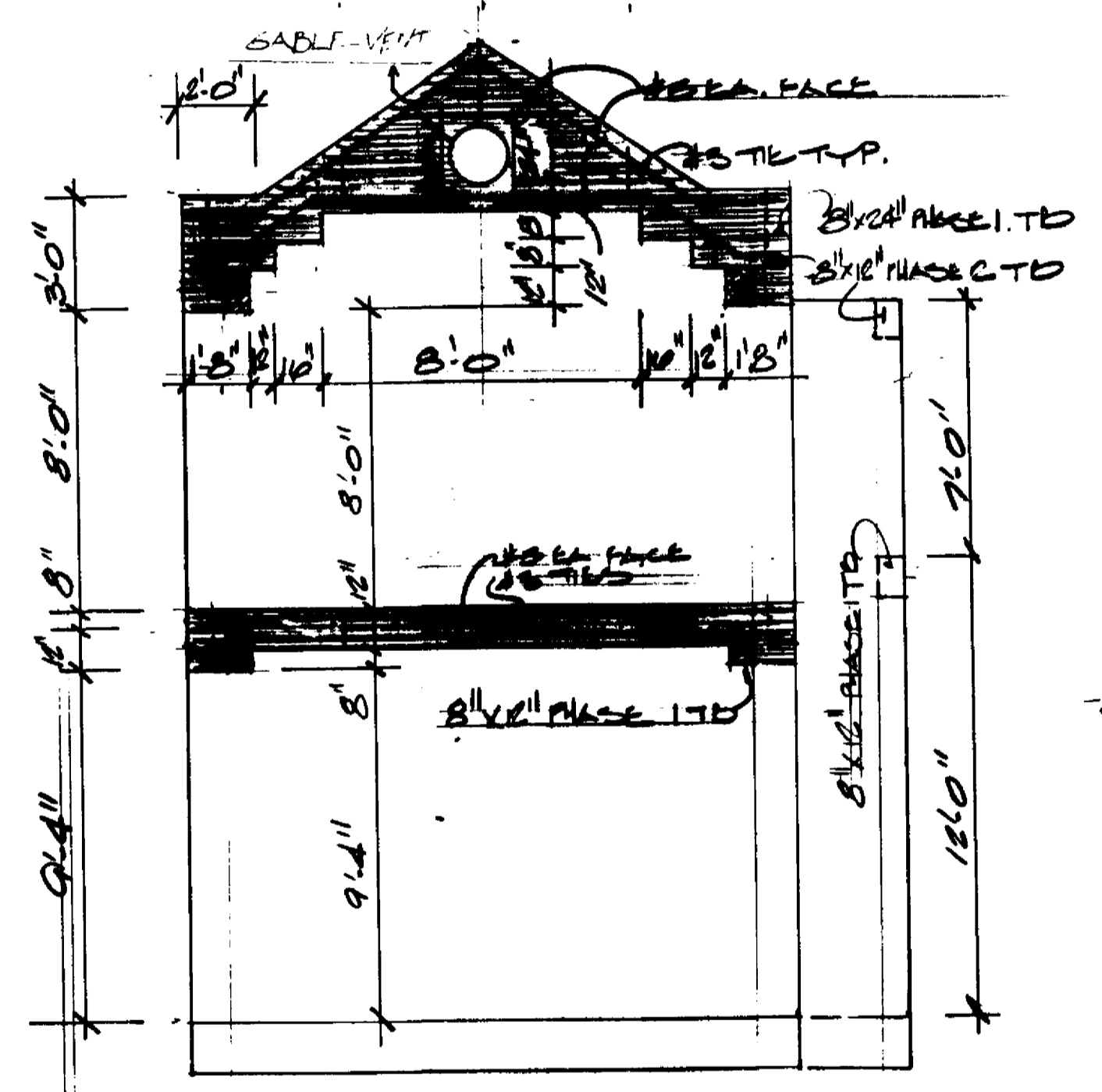
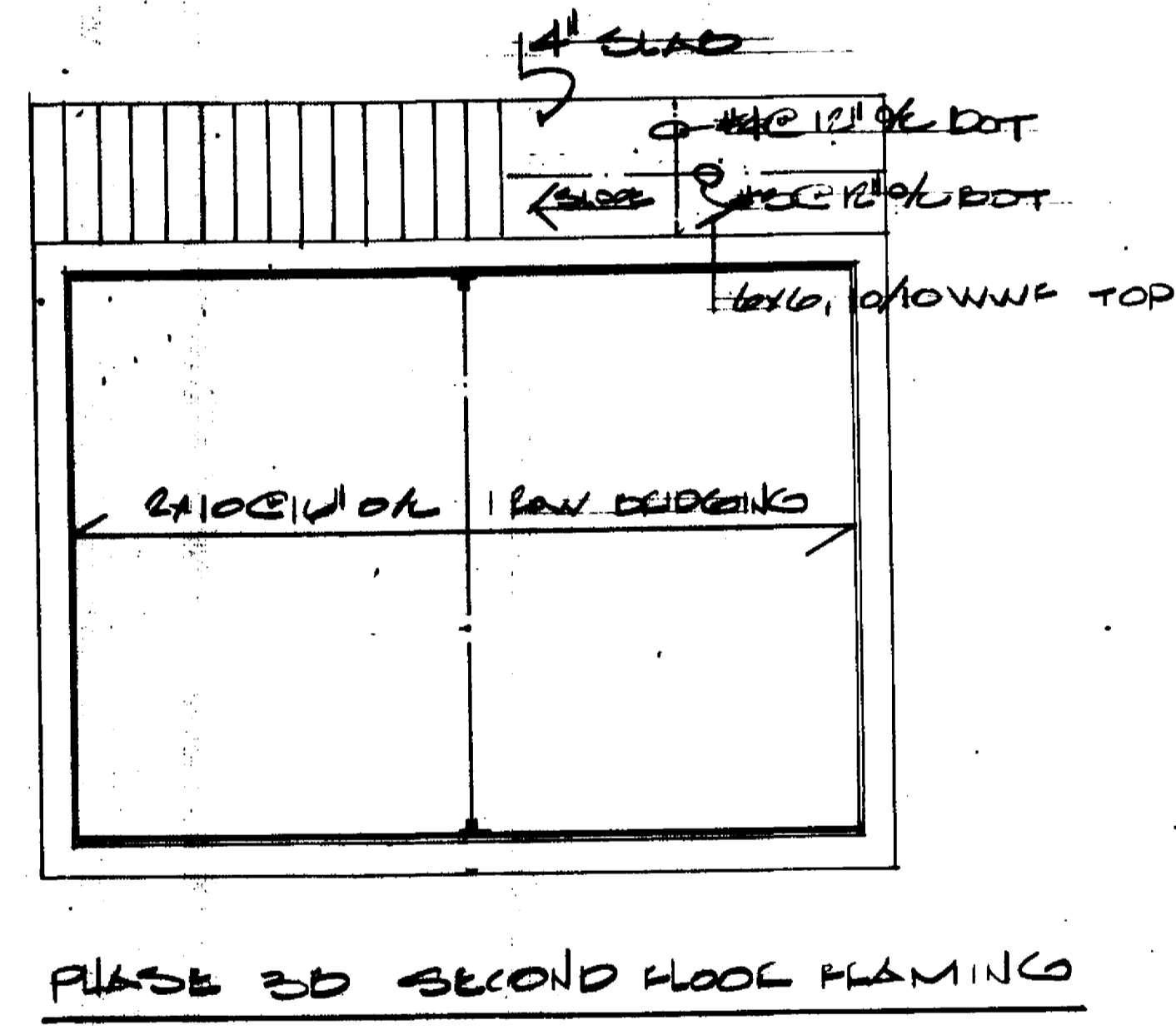
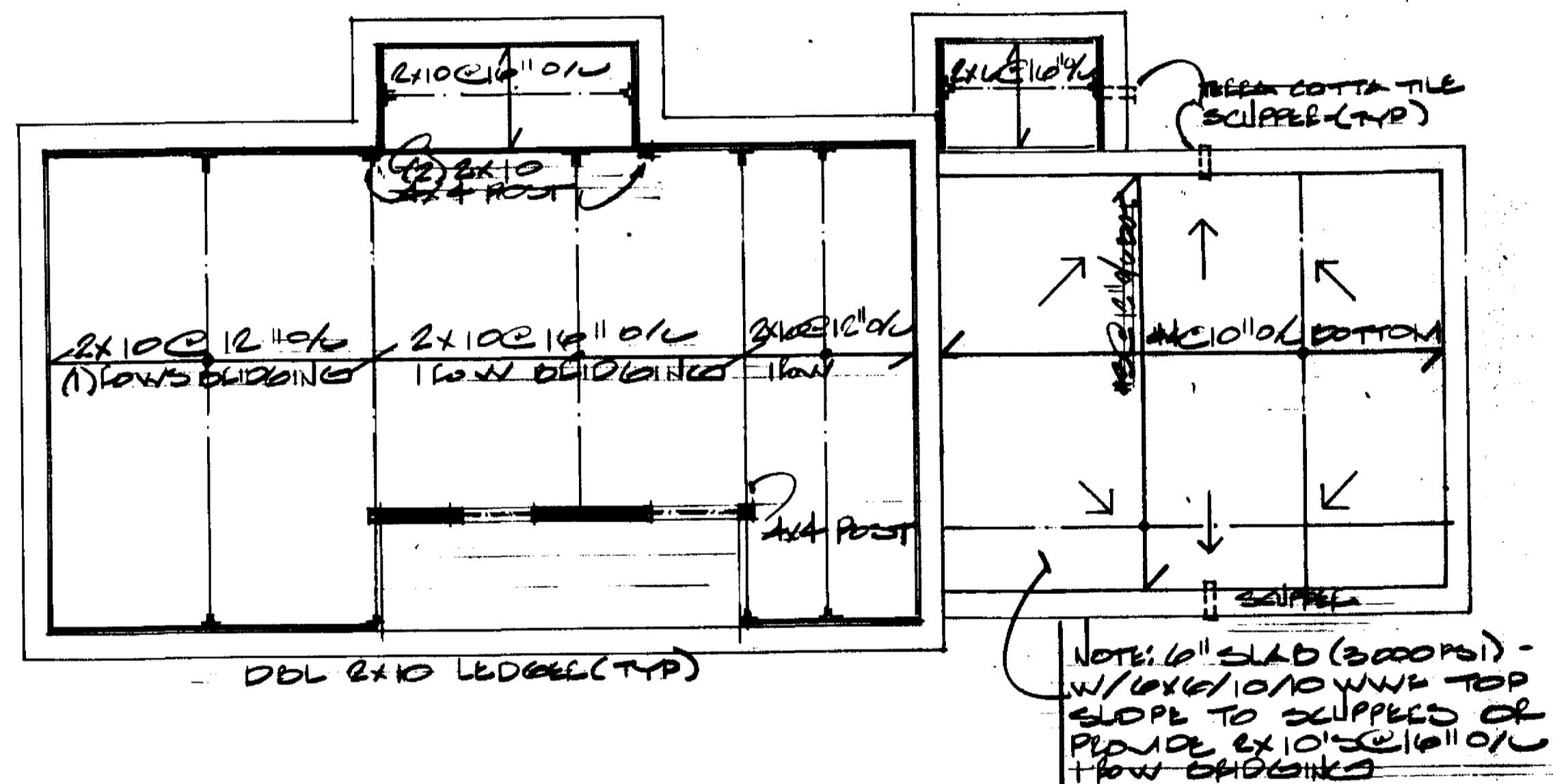
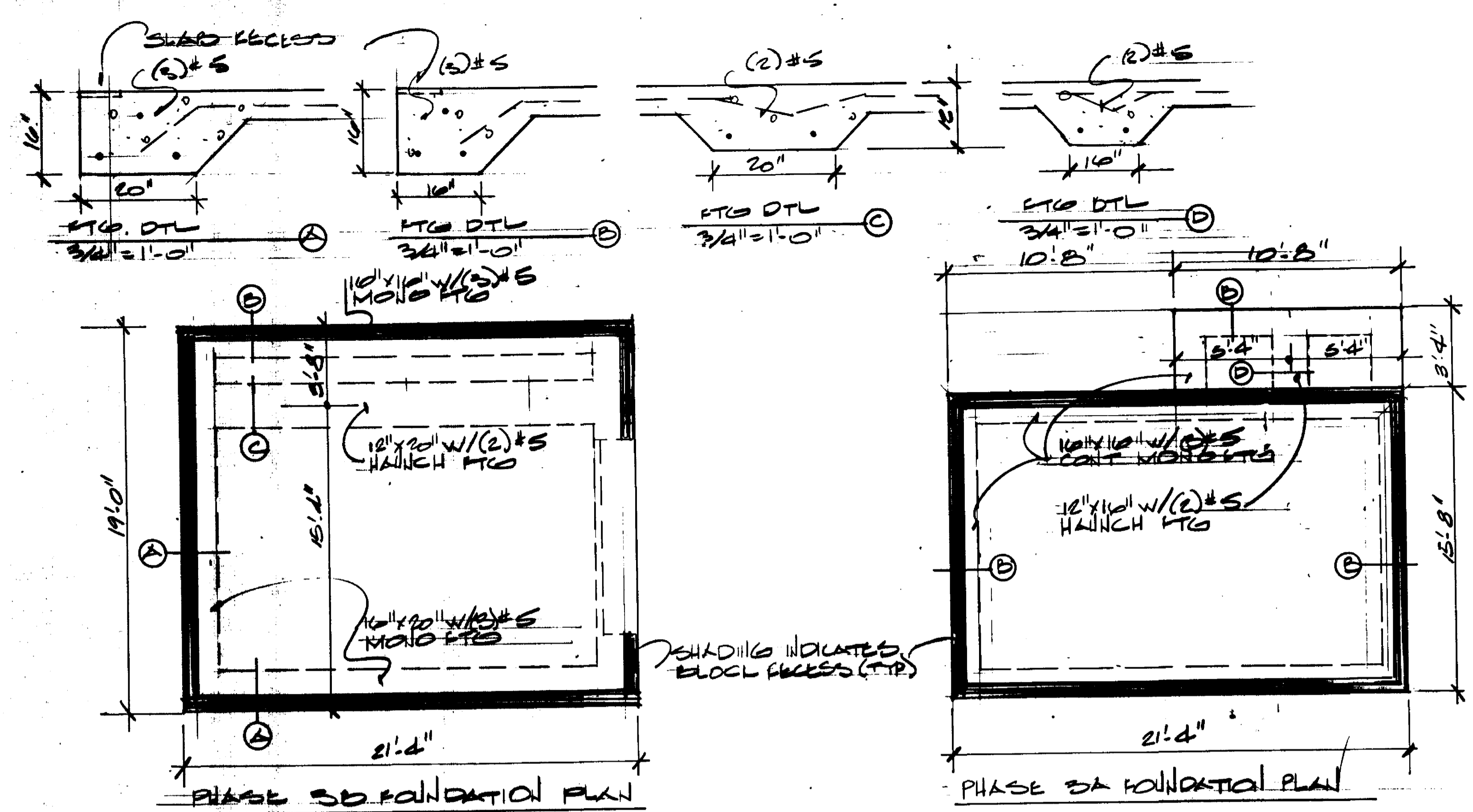
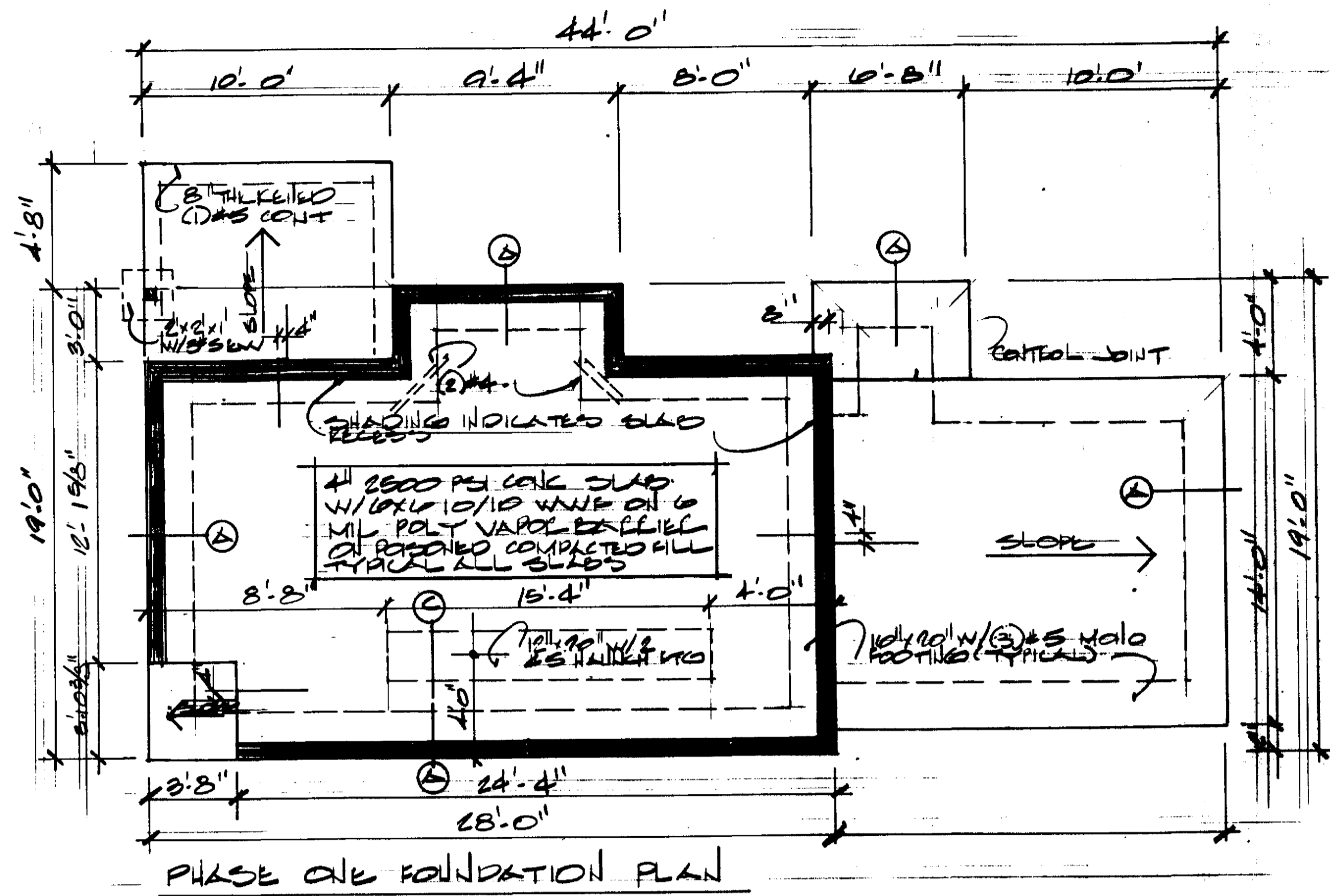
FLORIDA SOLAR ENERGY CENTER
300 State Road 401, Cape Canaveral, Florida 32920-4099, Telephone: (407) 785-0300
Fax: (407) 785-2571
State University System of Florida

PHASE 01E MECHANICAL PLAN 1/15/91

SHEET

5

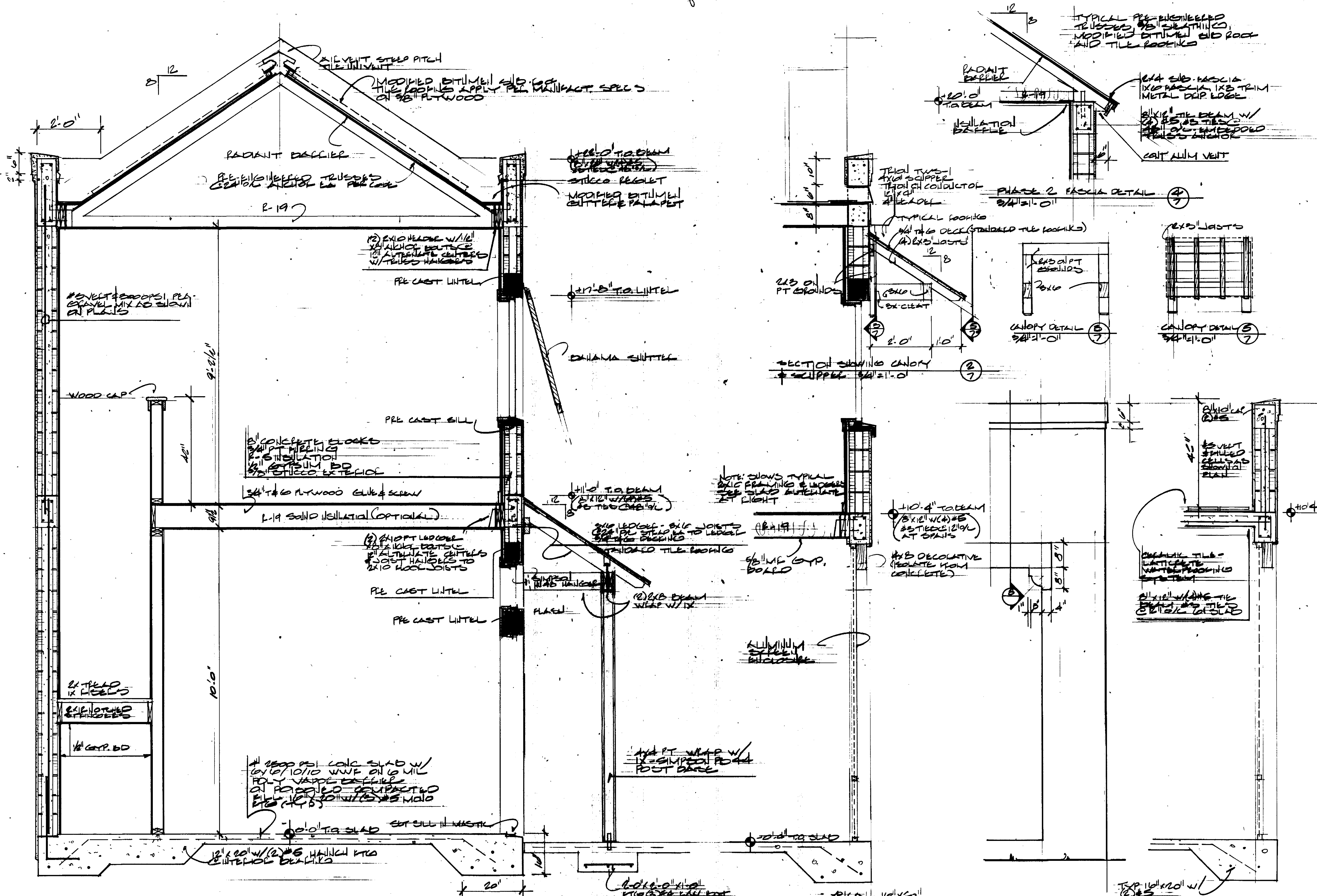
8/16/91



JOSEPH P. McCARTY - ARCHITECT
 414 BALBOA AVE.
 STUART
 FLORIDA 287-6735

FLORIDA SOLAR ENERGY CENTER
 300 State Road 401, Cape Canaveral, Florida 32920-4095, Telephone: (407) 782-0500
 Fax: (407) 782-2571
 State University System of Florida

FOUNDATION PLAN 1/4" = 1'-0"
 FRAMING PLAN 1/8" = 1'-0"
 TRUSS PLAN 1/4" = 1'-0"
 STREET
 6
 8/10/07



BUILDING SECTION (PHASE ONE)
3/4" = 1'-0"

PHASE TWO WALL SECTION
3/4" = 1'-0"

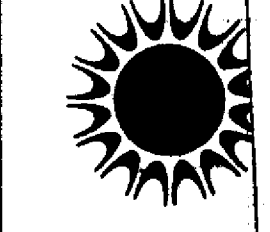
PHASE ONE PORCH DETAIL
3/4" = 1'-0"

PHASE ONE PORCH SECTION
3/4" = 1'-0"

DETAILS/SECTIONS

SHEET
7
OF 8
3/16/91

JOSEPH P. McCARTY - ARCHITECT
414 BALBOA AVE.
STUART
FLORIDA
287-6735



FLORIDA SOLAR ENERGY CENTER
300 State Road 401, Cape Canaveral, Florida 32920-4099, Telephone: (407) 745-0900
Fax: (407) 745-2571
State University System of Florida

