

ENERGY EFFICIENT AND AFFORDABLE HOME

900 S. F. BASE
 PHASE I EXPANSION: MASTER BEDROOM SUITE
 ALTERNATE LAUNDRY PLAN
 ALTERNATE THIRD FLOOR, 3RD & 4TH BEDROOMS & 2ND BATH

These drawings and specifications are prepared in accordance with the energy performance of the design has not been tested or verified in actual construction. Also note that these drawings are for use only on the State of Florida and may not be applicable for use in other states without review by the local building department.

The Florida Solar Energy Center and the Florida Architects, Engineers, and Planners Board have reviewed these drawings and specifications. The Florida Solar Energy Center has verified that the design meets the energy performance requirements of the Florida Energy Code. The Florida Architects, Engineers, and Planners Board has verified that the design meets the requirements of the Florida Building Code. The Florida Solar Energy Center and the Florida Architects, Engineers, and Planners Board do not assume any liability with respect to these drawings and specifications.

© Florida Solar Energy Center, 1998.

MECHANICAL/ELECTRICAL CONSULTANT
ADA Engineering, Inc.
 CONSULTING ENGINEERS 214 COMMERCIAL ST SUITE 203 MALDEN MA 02148
 617-322-2100
 STRUCTURAL CONSULTANT
CHAPIN ASSOCIATES
 20 VERNON STREET
 NEWTON, MA 02459
 617-552-0559

FLORIDA SOLAR ENERGY CENTER
 300 State Road 401
 Cape Canaveral FL 32920
 407-783-0300

arrowstreet inc

Architects
 Planners
 Urban Designers

212 Elm Street
 Somerville, MA 02144
 617.623.5555

Project No: 3122
 Drawn By: J. EDGERLY
 Checked By:
 Issue Date: 10-17-91

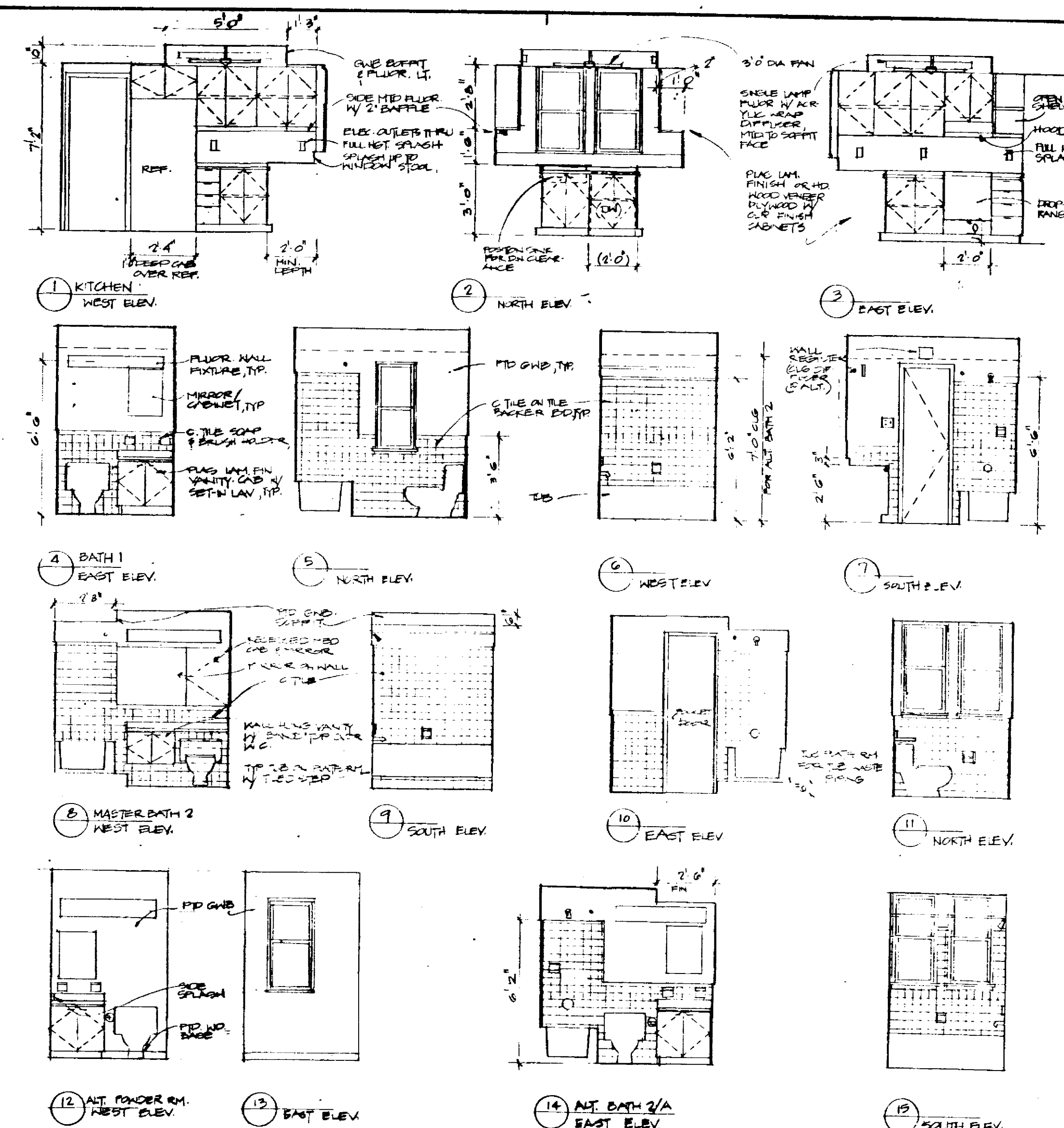
Revisions

| No | Date | Description | By |
|----|------|-------------|----|
| | | | |
| | | | |
| | | | |
| | | | |

Drawing Title:
INTERIOR ELEV. SCHEDULES

Drawing Number:
A-11

©Copyright Arrowstreet Inc.



INTERIOR ELEVATIONS
 1/4" = 1'-0"

| LOCATION | # | TYPE | SIZE | TH | MAT | FIN. HARDWARE |
|--|----|------------------|---------------|--------|-----------------|---------------------------------|
| entry | 1 | screen | 3'-0" x 6'-0" | 1-1/2" | wood/fiberglass | closer and lock, glass insert |
| entry | 2 | solid-core flush | 3'-0" x 6'-0" | 1-3/4" | wood | deadbolt, gasket and threshold |
| dining room | 3 | sliding glass | 6'-0" x 6'-0" | 1-1/2" | alum/glass | manual and level lock |
| ALCAN Series 500 / sliding glass door or equal | | | | | | |
| screen porch | 4 | screen | 3'-0" x 6'-0" | 1-1/2" | alum/fiberglass | closer and lock |
| kitchen | 5 | 'trench' | 2'-8" x 6'-0" | 1-3/4" | wood/glass | deadbolt, gasket and threshold |
| kitchen | 6 | screen | 2'-8" x 6'-0" | 1-1/2" | wood | closer and lock |
| closet | 7 | h. core flush | 2'-6" x 6'-0" | 1-1/2" | wood | latch set |
| outdoor stor | 8 | solid-core flush | 2'-6" x 6'-0" | 1-3/4" | wood | storage bracket & threshold |
| outdoor stor | 9 | solid-core flush | 2'-0" x 2'-0" | 1-3/4" | wood | latch set, gasket & full gasket |
| laundry | 10 | solid-core flush | 2'-6" x 6'-0" | 1-3/4" | wood | lockset, gasket and threshold |
| laundry | 11 | solid-core flush | 2'-6" x 6'-0" | 1-3/4" | wood | deadbolt, gasket and threshold |
| laundry | 12 | screen | 2'-8" x 6'-0" | 1-1/2" | wood | closer and lock |
| all. laundry | 13 | h. core flush | 2'-0" x 6'-0" | 1-1/2" | wood | latch set |
| all. laundry | 14 | pair | 2'-0" x 6'-0" | 1-1/2" | wood | latch set |
| all. powder | 15 | louvered bifold | 6'-8" | | | |
| stair landing | 16 | h. core flush | 2'-0" x 6'-0" | 1-1/2" | wood | privacy lock |
| stair closet | 17 | h. core flush | 2'-0" x 6'-0" | 1-1/2" | wood | flush bolt, latch, full gasket |
| alc | 18 | louvered bifold | 2'-8" x 6'-0" | 1-1/2" | wood | latch set |
| hall | 19 | h. core flush | 2'-0" x 6'-0" | 1-1/2" | wood | privacy lock |
| bath 1 | 20 | h. core flush | 2'-8" x 6'-0" | 1-1/2" | wood | privacy lock |
| bedroom 1 | 21 | pair | 2'-2" x 6'-0" | | | |
| bedroom 1 | 22 | louvered bifold | 6'-8" | | | |
| south porch | 23 | 'trench' | 2'-6" x 6'-0" | 1-3/4" | wood | deadbolt, gasket and threshold |
| bedroom 2 | 24 | pair | 2'-8" x 6'-0" | 1-1/2" | wood | latch set |
| bedroom 2 | 25 | louvered bifold | 6'-8" | | | |
| north porch | 26 | h. core flush | 2'-6" x 6'-0" | 1-3/4" | wood | deadbolt, gasket and threshold |
| m. bedroom | 27 | pair | 2'-0" x 6'-0" | | | |
| m. bedroom | 28 | louvered bifold | 6'-8" | | | |
| m. bedroom | 29 | pair | 2'-0" x 6'-0" | | | |
| m. bedroom | 30 | louvered bifold | 6'-8" | | | |
| master bath | 31 | h. core flush | 2'-0" x 6'-0" | 1-1/2" | wood | privacy lock |
| study closet | 32 | h. core flush | 2'-0" x 6'-0" | 1-1/2" | wood | latch set |
| all. bedrm 3 | 33 | pair | 2'-2" x 6'-0" | | | |
| all. bedrm 3 | 34 | louvered bifold | 6'-8" | | | |
| all. bedrm 4 | 35 | h. core flush | 2'-0" x 6'-0" | 1-1/2" | wood | privacy lock |
| all. bedrm 4 | 36 | pair | 2'-2" x 6'-0" | | | |
| all. bedrm 4 | 37 | louvered bifold | 6'-8" | | | |
| all. closet | 38 | h. core flush | 2'-0" x 6'-0" | 1-1/2" | wood | latch set |
| all. bath 2 | 39 | h. core flush | 2'-0" x 6'-0" | 1-1/2" | wood | privacy lock |

| FINISH NAME | FLOOR | CEILING | CL. HGT. | WALLS | BASE |
|---------------|-------------|----------|----------|----------|------|
| entry | carpet | pld. GWB | 8'-0" | pld. GWB | wood |
| entry | carpet | pld. GWB | 8'-0" | pld. GWB | wood |
| dining room | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| screen porch | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| kitchen | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| alc | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| outdoor stor | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| outdoor stor | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| laundry | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| laundry | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| laundry | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| all. laundry | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| all. laundry | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| all. powder | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| stair landing | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| stair closet | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| alc | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| hall | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| bath 1 | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| bedroom 1 | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| bedroom 1 | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| south porch | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| bedroom 2 | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| bedroom 2 | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| bedroom 2 | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| north porch | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| m. bedroom | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| m. bedroom | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| m. bedroom | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| master bath | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| study closet | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| all. bedrm 3 | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| all. bedrm 3 | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| all. bedrm 4 | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| all. bedrm 4 | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| all. bedrm 4 | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| all. closet | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |
| all. bath 2 | sheet vinyl | pld. GWB | 8'-0" | pld. GWB | wood |

| LOCATION | MARKS | SIZE W x H |
|----------------|--------------------|-----------------------|
| living room | 1, 2, 3, 4 | 2'-8" x 4'-0" |
| dining | 5 | 2'-8" x 4'-0" |
| screen porch | 6, 7 | 2'-2 1/2" x 3'-8 1/4" |
| laundry | 8 | 2'-0" x 4'-0" |
| all. bedrm 1 | 9 | 2'-0" x 4'-0" |
| all. bedrm 1 | 10, 11, 12, 13, 14 | 2'-0" x 4'-0" |
| bath 1 | 15 | 2'-0" x 4'-0" |
| stair | 16, 17, 18 | 2'-0" x 4'-0" |
| all. bedrm 2 | 19, 20, 21, 22, 23 | 2'-0" x 4'-0" |
| stair | 24, 25 | 2'-0" x 4'-0" |
| master bath | 26, 27 | 2'-0" x 4'-0" |
| all. bedrm 3 | 28, 29 | 2'-0" x 4'-0" |
| master bedroom | 30, 31, 32, 33 | 2'-0" x 4'-0" |
| all. bedrm 3 | 24, 25, 26, 27 | 2'-0" x 4'-0" |
| all. bath 2 A | 28, 29 | 2'-0" x 4'-0" |
| all. bedrm 4 | 30, 31, 32, 33 | 2'-0" x 4'-0" |

ENERGY EFFICIENT AND AFFORDABLE HOME

900 S.F. BASE
PHASE I EXPANSION: MASTER BEDROOM SUITE

ALTERNATE LAUNDRY PLAN
ALTERNATE THIRD FLOOR: 3RD & 4TH BEDROOMS & 2ND BATH

These drawings and specifications are prepared to meet the energy performance of the design and have been tested or simulated in accordance with the Florida Energy Code. Any deviations from the code shall be noted on the drawings and the contractor shall be responsible for any deviations from the code. The Florida Solar Energy Center and the Designer, Architect, Engineer, Planner and Urban Designer are not responsible for any deviations from the code. The Florida Solar Energy Center and the Designer, Architect, Engineer, Planner and Urban Designer are not responsible for any deviations from the code. The Florida Solar Energy Center and the Designer, Architect, Engineer, Planner and Urban Designer are not responsible for any deviations from the code.

MECHANICAL/ELECTRICAL CONSULTANT
ADA Engineering, Inc.
CONSULTING ENGINEERS 214 COMMERCIAL ST. SUITE 203
617-322-2100 MALDEN, MA 02148
STRUCTURAL CONSULTANT
CHAPIN ASSOCIATES
20 VERNON STREET
LYNNWOOD, MA 01902
617-762-8559

FLORIDA SOLAR ENERGY CENTER
300 State Road 401
Cape Canaveral, FL 32920
407-785-0300

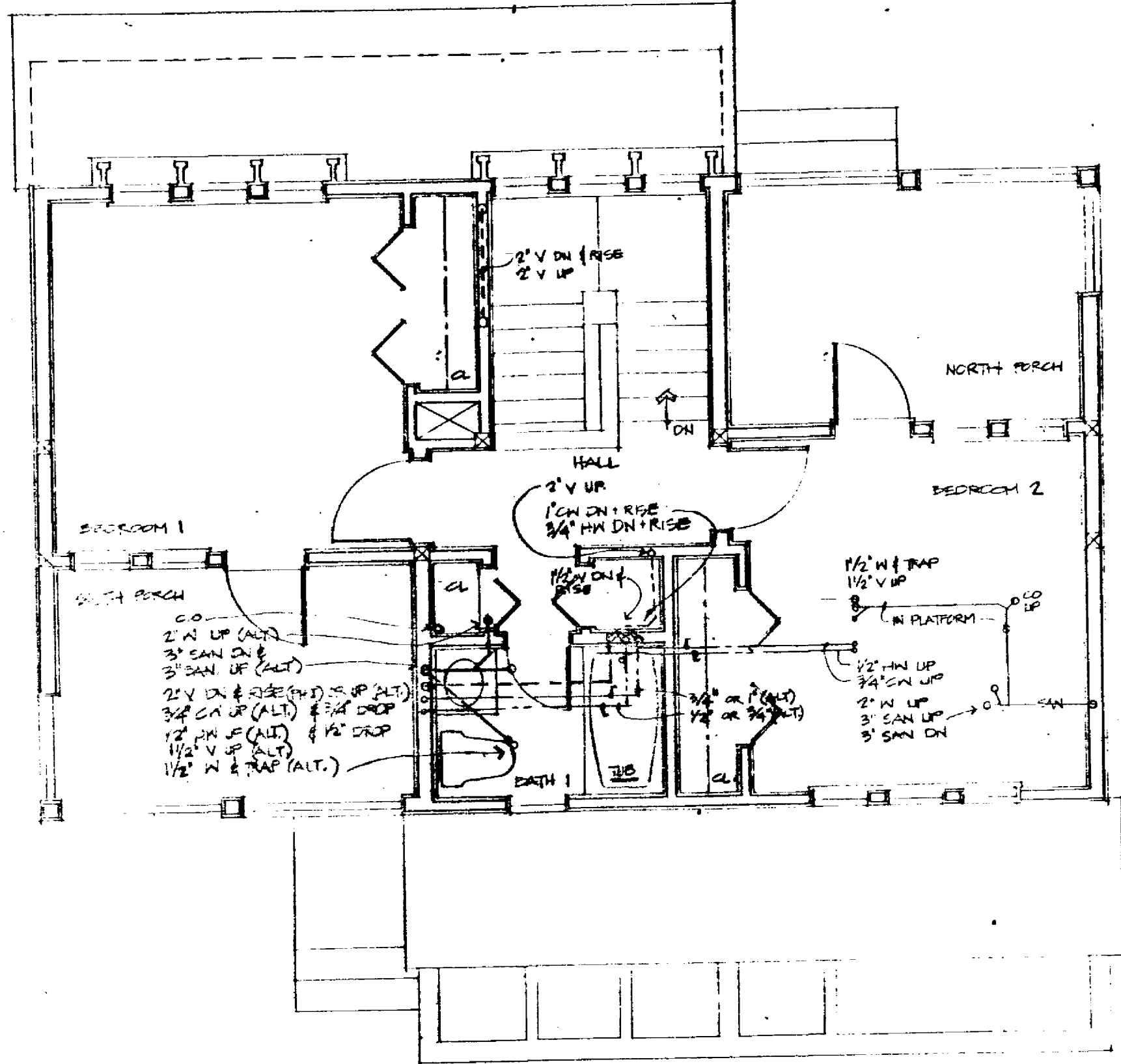
arrowsstreet inc

Architects
Planners
Urban Designers
212 Elm Street
Somerville, MA 02144
617.623.5555

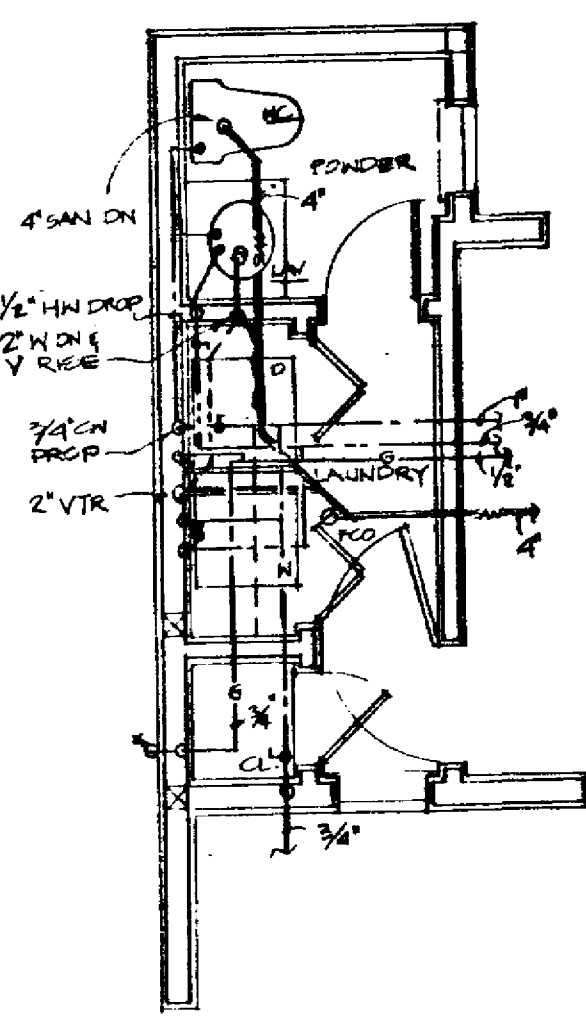
Project No: 9122
Drawn By:
Checked By:
Issue Date: 17 OCT 91

| Revisions | | | |
|-----------|------|-------------|----|
| No | Date | Description | By |
| | | | |
| | | | |
| | | | |
| | | | |

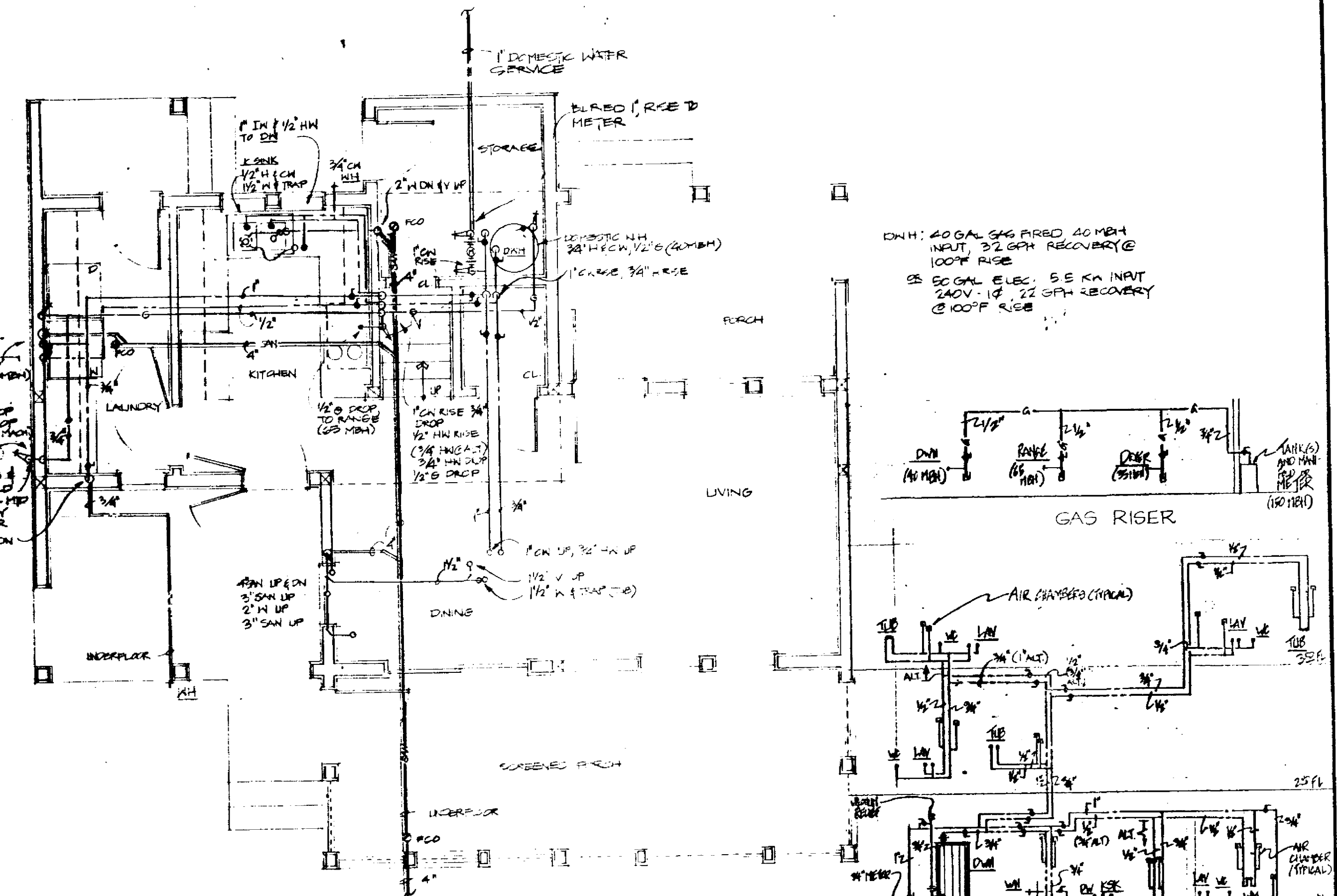
Drawing Title:
PLUMBING PLANS
Drawing Number:
P.1



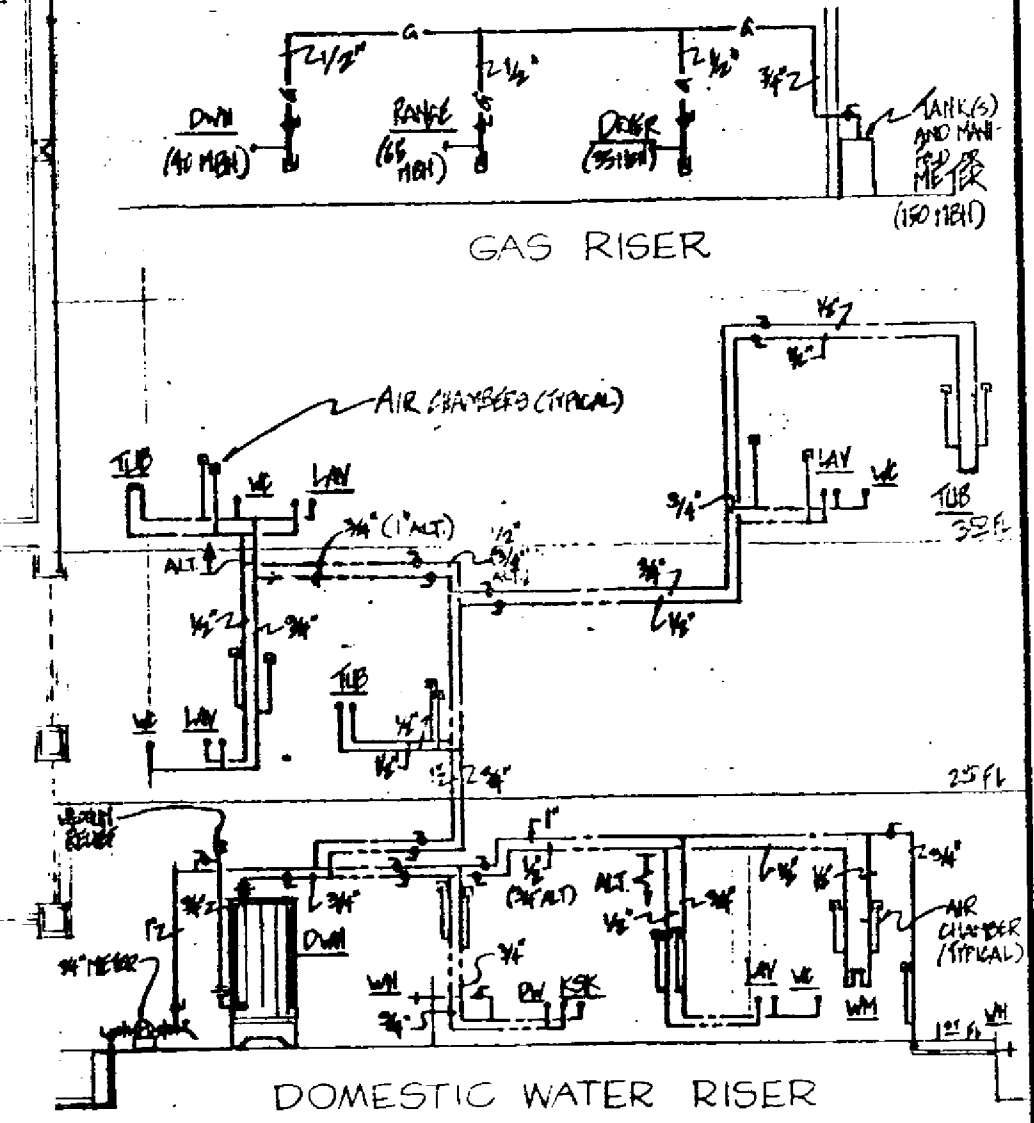
SECOND FLOOR PLUMBING PLAN



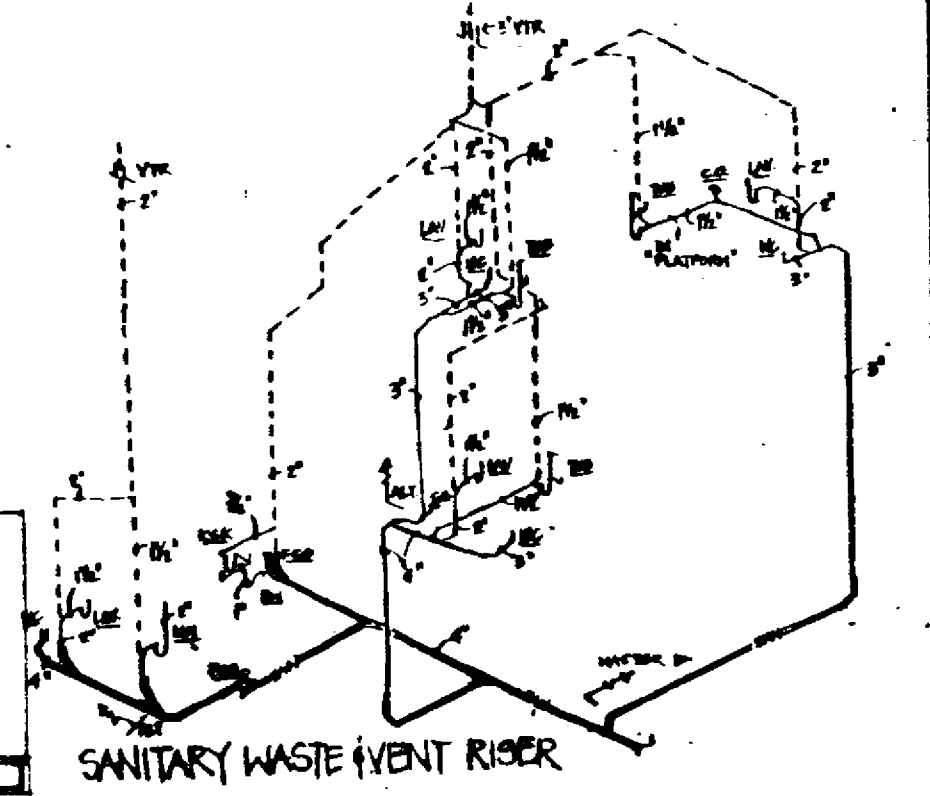
ALTERNATE LAUNDRY (POWDER RM) FIRST FLOOR PLUMBING PLAN



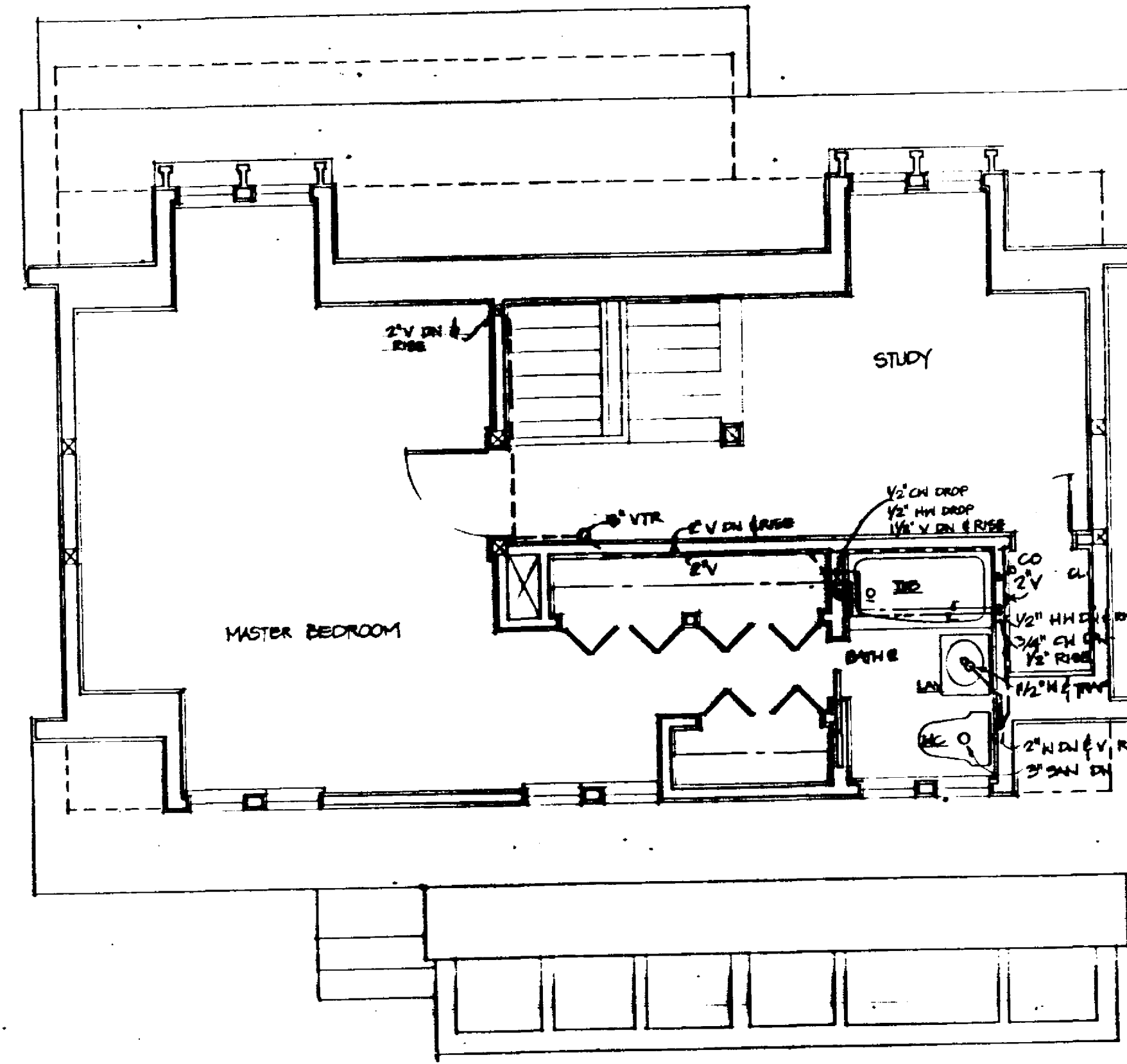
FIRST FLOOR PLUMBING PLAN



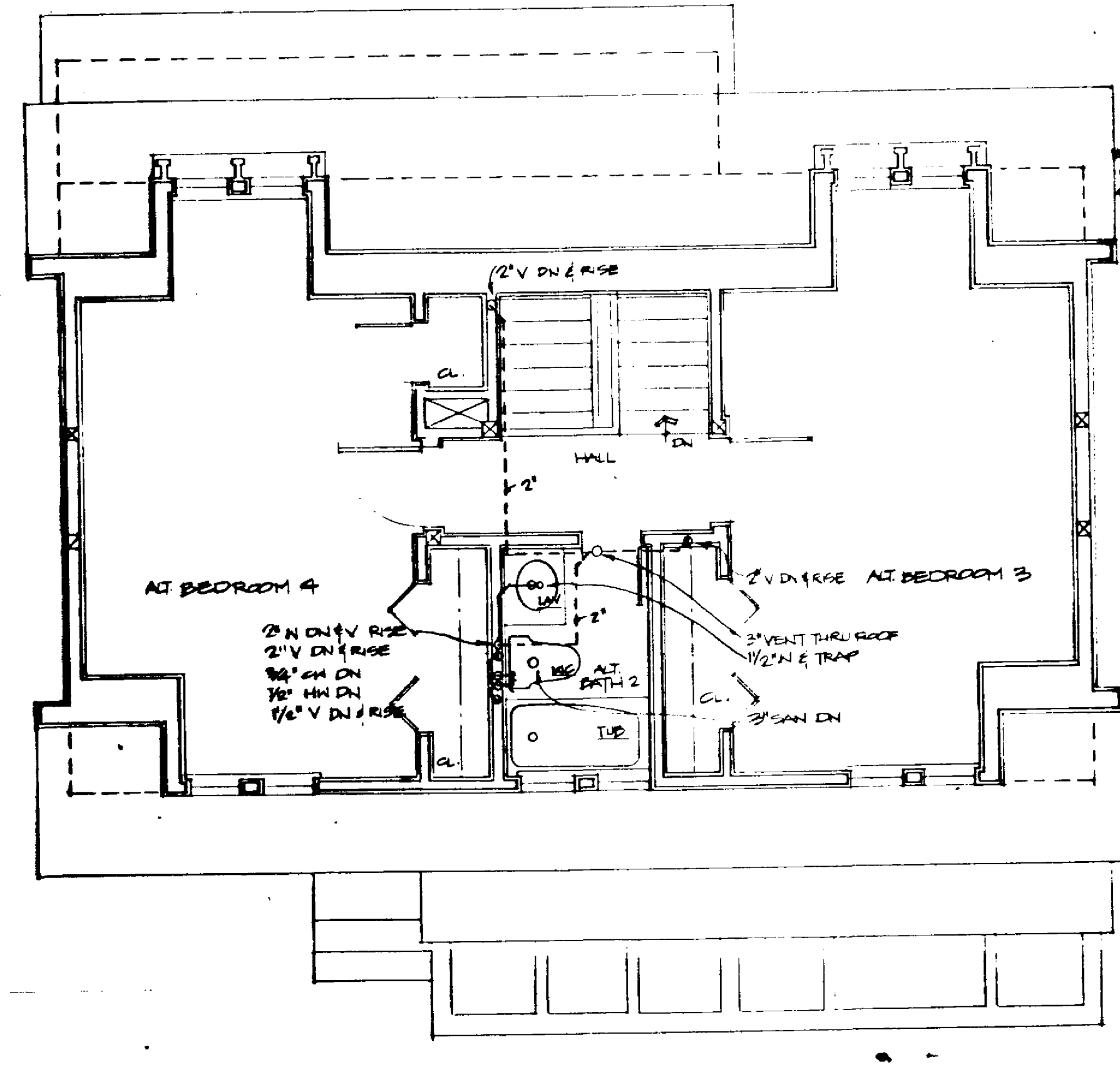
DOMESTIC WATER RISER



SANITARY WASTE (VENT) RISER



PHASE I MASTER BEDROOM SUITE THIRD FLOOR PLUMBING PLAN



ALTERNATE THIRD FLOOR PLUMBING PLAN

| PLUMBING FIXTURE CONNECTION SCHEDULE | | | |
|--------------------------------------|------------------------------------|-----------------------------------|--|
| TAG/ITEM | CONNECTIONS | REMARKS | |
| WC Water Closet | 3" SAN/W 2" VTR 1/2" CW HW | Tank-type floor outlet (1.5gal) | |
| LAV Lavatory | 1-1/2" SAN/W 1-1/2" VTR 1/2" CW HW | | |
| TUB Bath tub | 1-1/2" SAN/W 1-1/2" VTR 1/2" CW HW | w/ spout & shower (20-1/4" x 60") | |
| KSK Kitchen sink | 1-1/2" SAN/W 1-1/2" VTR 1/2" CW HW | w/ disposal | |
| WN Washing Machine | 2" SAN/W 2" VTR 1/2" CW HW | w/ laundry pipes | |
| DWH Domestic water heater | 3/4" SAN/W 3/4" VTR 1/2" CW HW | see at 112.2 | |
| DW Dishwasher (optional) | 1-1/2" SAN/W 1-1/2" VTR 1/2" CW HW | w/ indirect waste | |
| WH Well hydrant | 1-1/2" SAN/W 1-1/2" VTR 1/2" CW HW | w/ vacuum breaker | |

| SCHEDULE OF PLUMBING MATERIALS | | |
|--|---|---|
| ITEM | MATERIAL | FABRICATION |
| Buried and above floor sanitary, waste and vent piping, less vent thru roof fittings | Type 1 schedule 40 PVC, DWV pipe and drainage pattern fittings | Solvent welded joints with threaded adapters to other materials |
| Above floor fixture traps and vent thru roof | Hard drawn type DWV copper with wrought copper or brass drainage pattern fittings | Soldered or sweat joints, cleaned and primed, connected with lead solder and non-solvent flux |
| Domestic hot & cold water distribution piping | Hard drawn type 1 copper tubing w/ brass or steel fittings | Soldered or sweat joints, cleaned and primed, connected with lead solder and non-solvent flux |
| Gas piping | Black iron pipe | Soldered or sweat joints, cleaned and primed, connected with lead solder and non-solvent flux |

NOTE: All materials and standard codes of the

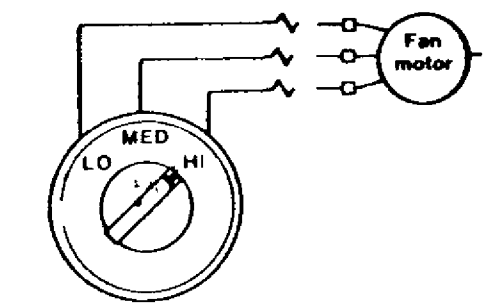
PLUMBING SYMBOLS

- Double line indicates below floor
- SAN S.W Sanitary or Waste
- V Vent
- CW Cold water
- HW Hot water
- G Gas
- UP Pipe rises up
- DN Pipe drops down
- W&T Waste and trap
- B Ball valve
- PCD Flush floor cleanout
- CO Cleanout
- Valve in vertical
- MBH 1000 BTU's per hour
- Gas cock

ENERGY EFFICIENT AND AFFORDABLE HOME

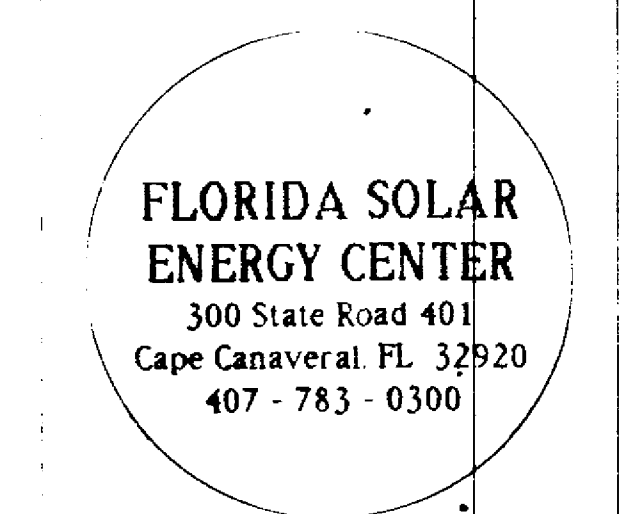
900 S. F. BASE
 PHASE I EXPANSION: MASTER BEDROOM SUITE
 ALTERNATE THIRD FLOOR: 3RD & 4TH BEDROOMS & 2ND BATH

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.



These drawings and specifications are experimental in nature and are not intended to be used as a contract document. The contractor shall be responsible for obtaining all necessary permits and for the proper installation and operation of the equipment shown. The Florida Solar Energy Center, and the designer, architect, engineer, planner, and interior decorator, shall not be held responsible for any damage or injury to persons or property resulting from the use of the drawings and specifications. The contractor shall be responsible for the proper installation and operation of the equipment shown. The Florida Solar Energy Center, 1998

MECHANICAL/ELECTRICAL CONSULTANT
ADA Engineering, Inc.
 CONSULTING ENGINEERS 214 COMMERCIAL ST SUITE 203
 617-322-2100 WILDEN, MA 02148
 STRUCTURAL CONSULTANT
CHAPIN ASSOCIATES
 20 VERNON STREET
 WILDEN, MA 02148
 617-762-0559



arrowstreet inc

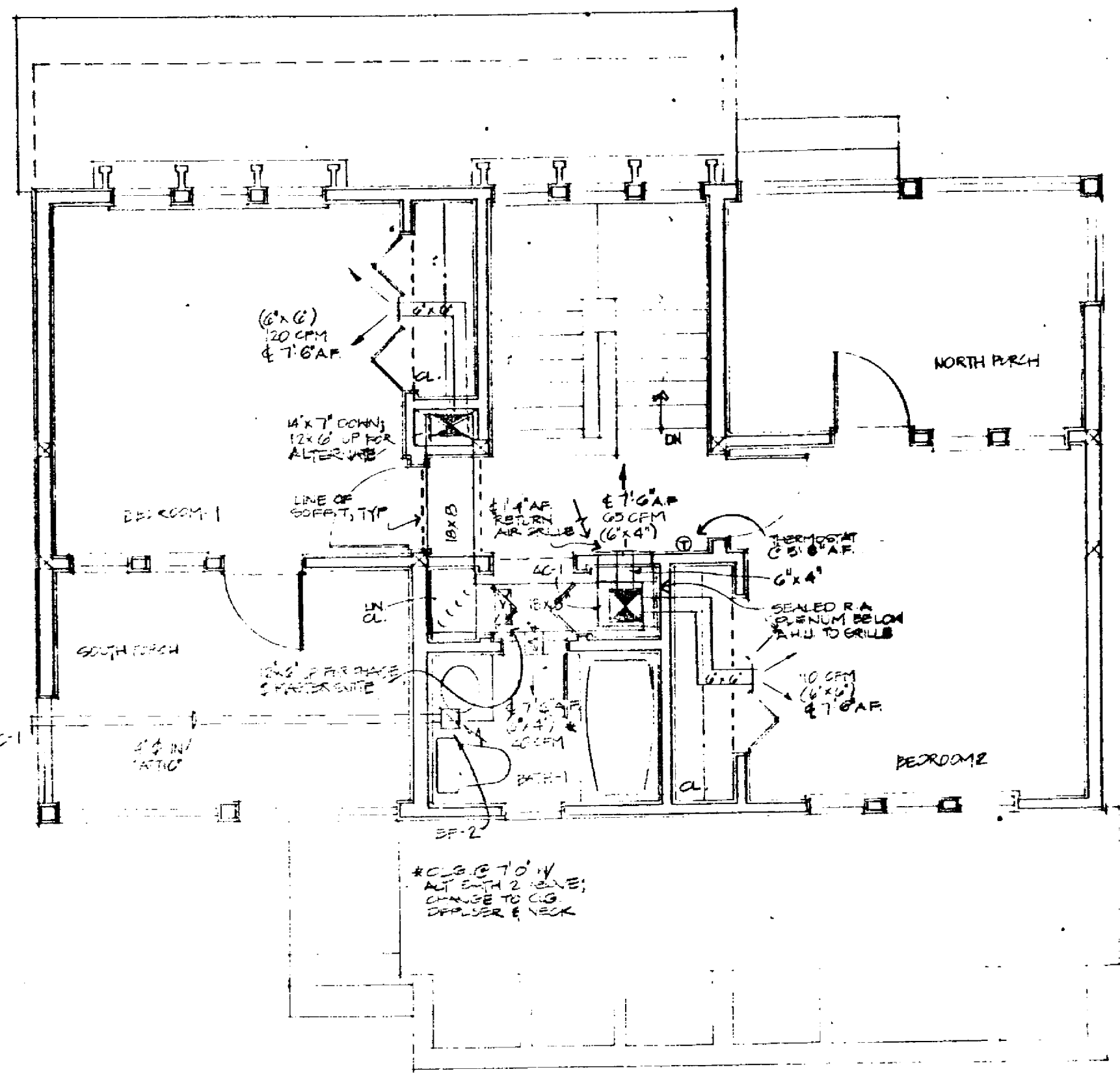
Architects
 Planners
 Urban Designers
 212 Elm Street
 Somerville, MA 02144
 617.823.5555

Project No: 9122
 Drawn By:
 Checked By:
 Issue Date: 17 OCT 91

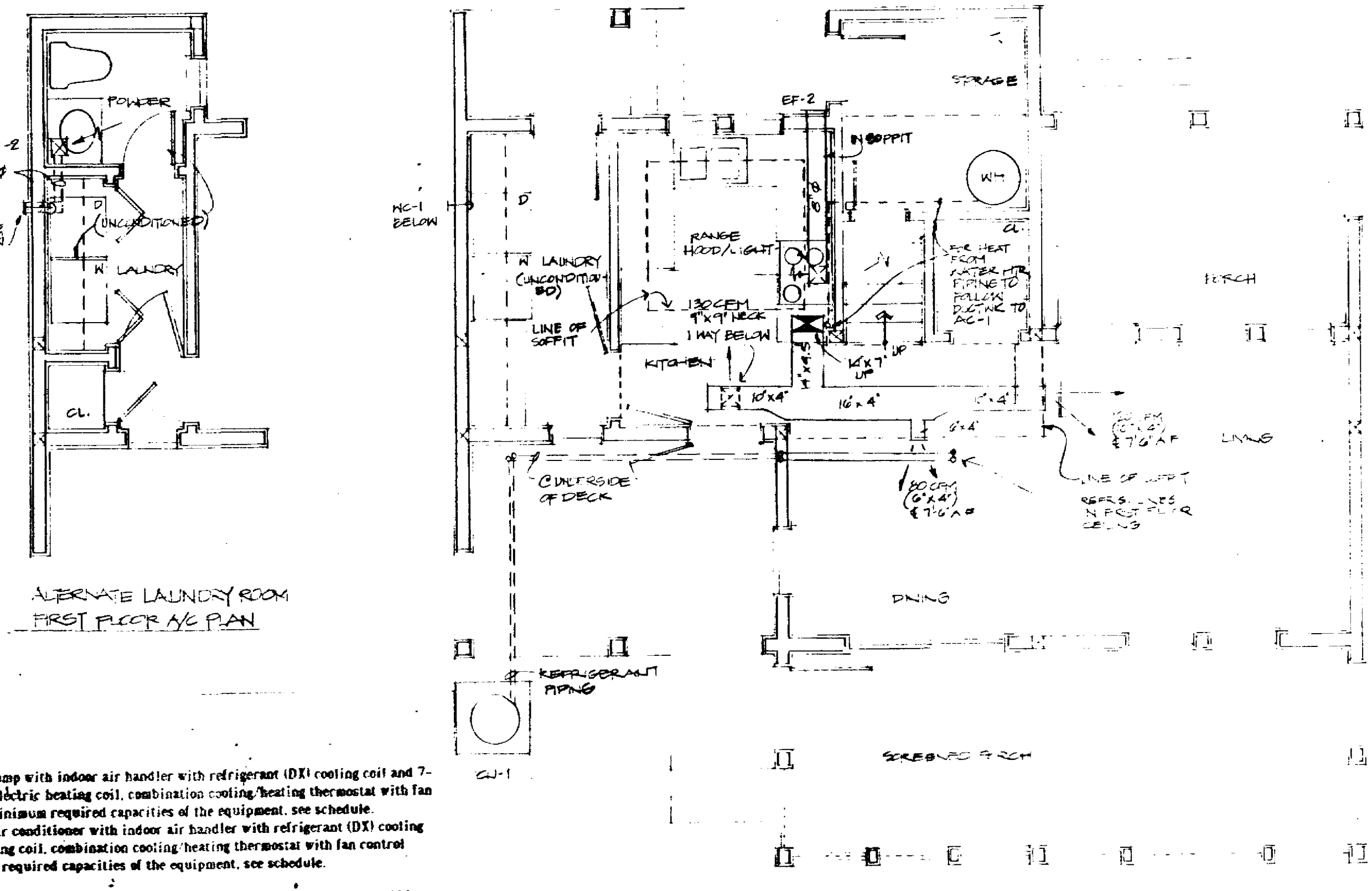
Revisions

| No | Date | Description | By |
|----|------|-------------|----|
| | | | |
| | | | |
| | | | |
| | | | |

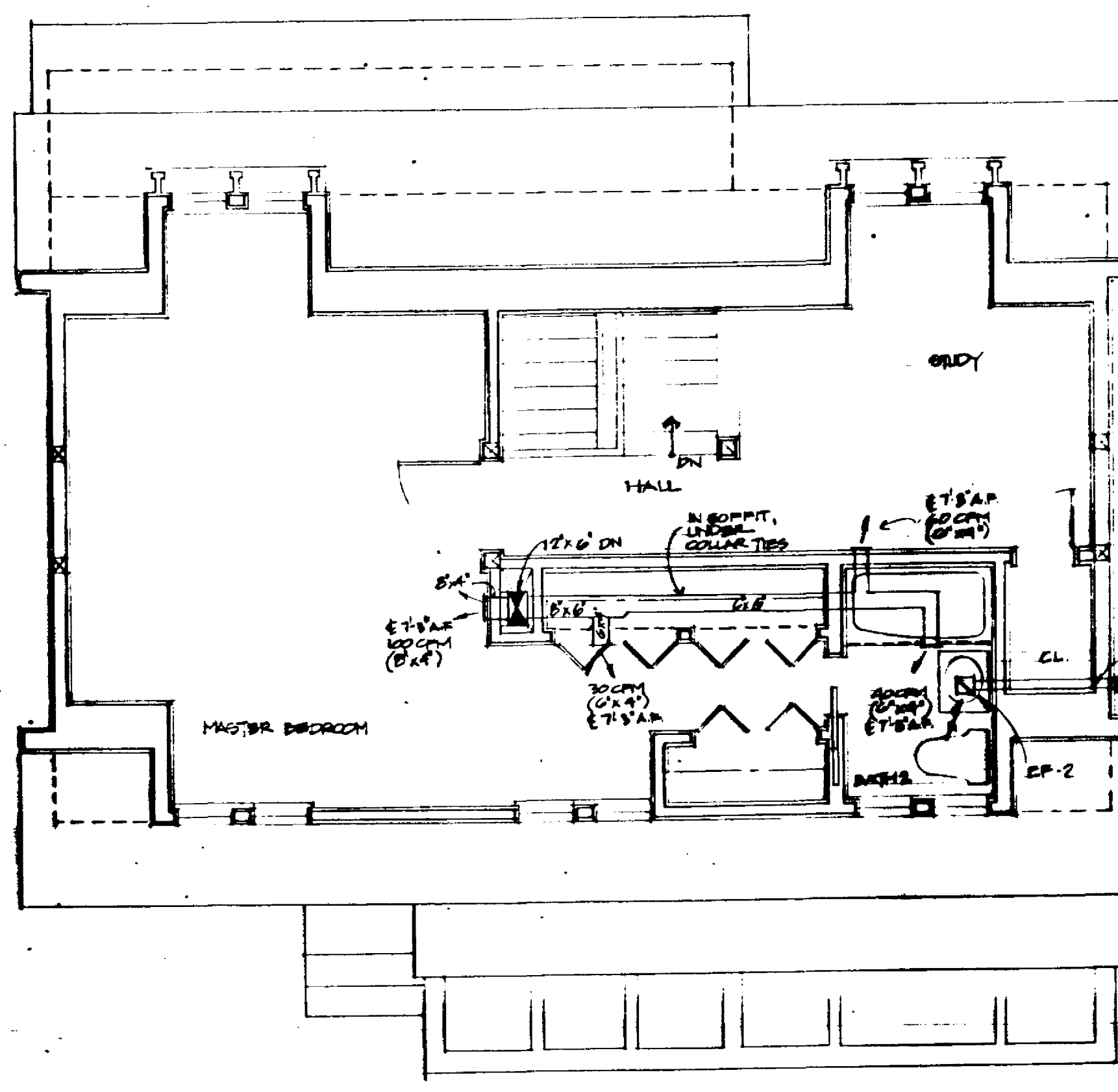
Drawing Title:
A/C PLANS
 Drawing Number:
M-1



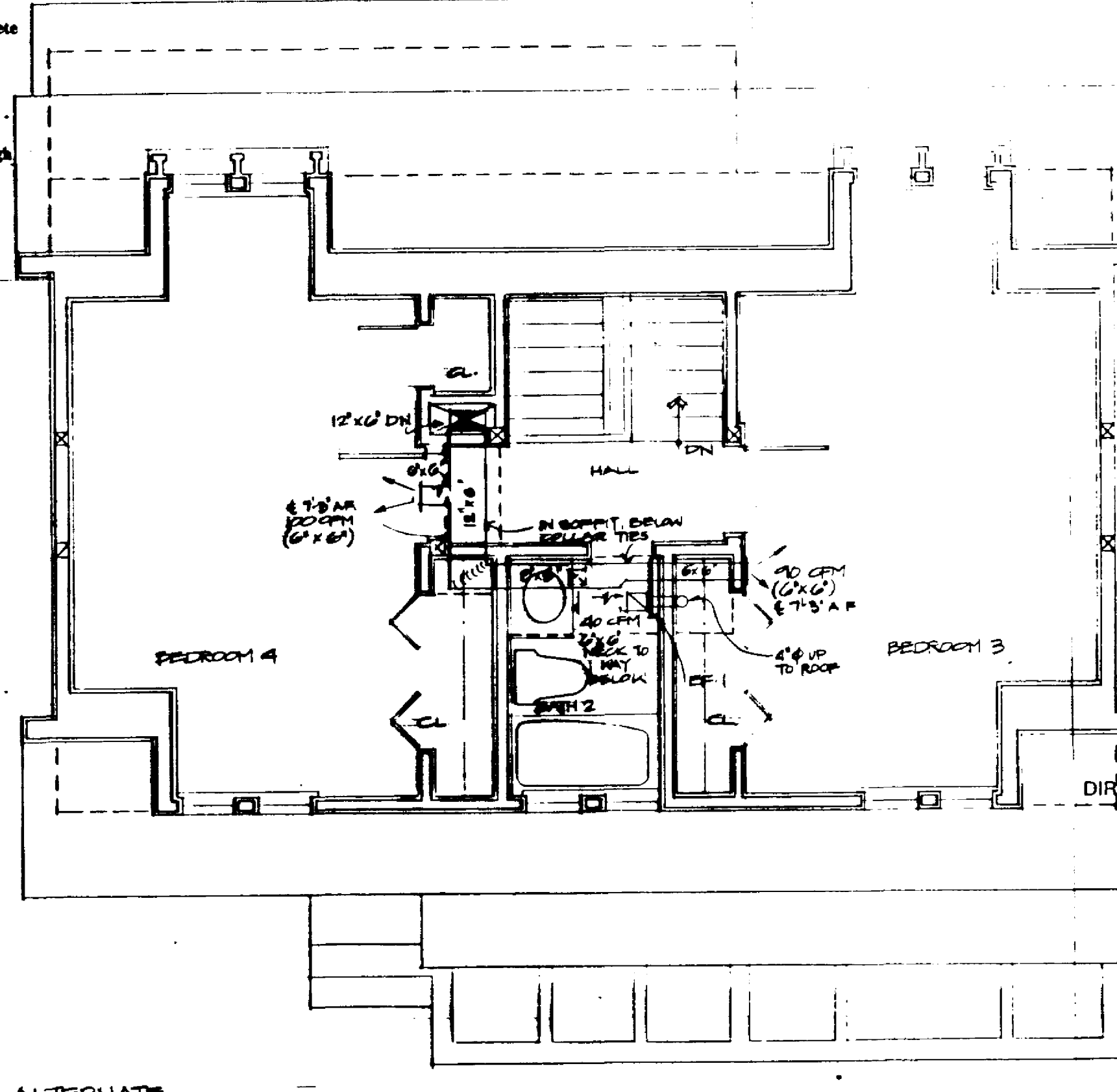
SECOND FLOOR A/C PLAN



FIRST FLOOR A/C PLAN



PHASE I: MASTER BEDROOM THIRD FLOOR A/C PLAN



ALTERNATE THIRD FLOOR A/C PLAN

- MECHANICAL EQUIPMENT LIST**
- AC-1 and CU-1**
 Base: Split unit heat pump with indoor air handler with refrigerant (DX) cooling coil and 7-1/2 KW supplemental electric heating coil, combination cooling/heating thermostat with fan control subbase. For minimum required capacities of the equipment, see schedule.
 Alternate: Split unit air conditioner with indoor air handler with refrigerant (DX) cooling coil and hot water heating coil, combination cooling/heating thermostat with fan control subbase. For minimum required capacities of the equipment, see schedule.
- EF-1** Bathroom exhaust fan, Broan model 654, 50 cfm, 2.5 sones, connected to Broan model 636 roof cap with 4" duct.
- EF-2** Same as EF-1 except connected to Broan model 642 wall cap with 4" duct.
- WC-1** Broan wall cap model 642 for 4" duct.
- WC-2** Broan wall cap model 649 for 3-1/4" x 10" duct or model 643 for 8" round duct.
- Diffuser:** Metal-Aire model M-1 with damper.
- Resistor:** Metal-Aire model H4004D with damper.

- NOTES AND SPECIFICATIONS**
- Comply with local codes and regulations.
 - Ductwork fabrication and installation to comply with SMACNA recommendations.
 - All ductwork to be insulated with 1-1/2" thick fiberglass insulation with vapor barrier.
 - Outdoor condensing unit to be mounted on a single precast or slab-on-grade reinforced concrete base.
 - Refrigerant suction line to be insulated with 3/4" "Armaflex" insulation.
 - All doors to be gasketed 1" minimum for proper air circulation back to the unit.
 - Refrigerant piping to be type L copper (refrigerant grade) with no-lead solder, sizing and installation to be in accordance with manufacturer's recommendations.
 - Provide supporting, air-tight return air plenum under the air handling unit at least 1'-2" high prior to the air handling unit manufacturer's instructions for exact sizes. This plenum shall extend out to the finish face of the hallway partition with a return air grille.
 - Provide a ceiling at the A/C closet and seal at any penetrations of the OWS into this closet to prevent short cycling the return air from unconditioned areas (joist and stud spaces, the unfinished third floor, etc.).

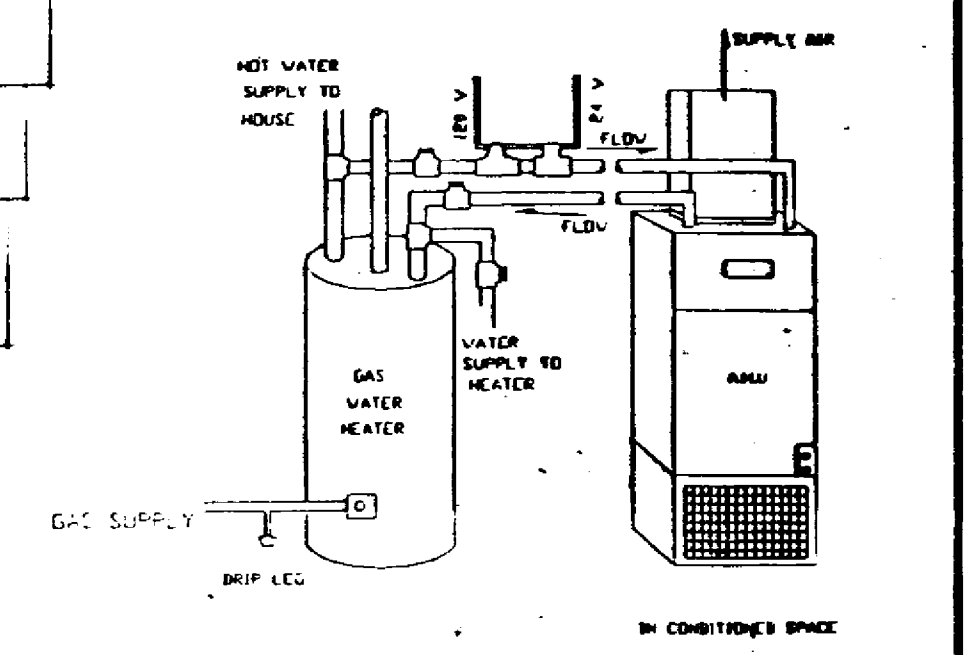
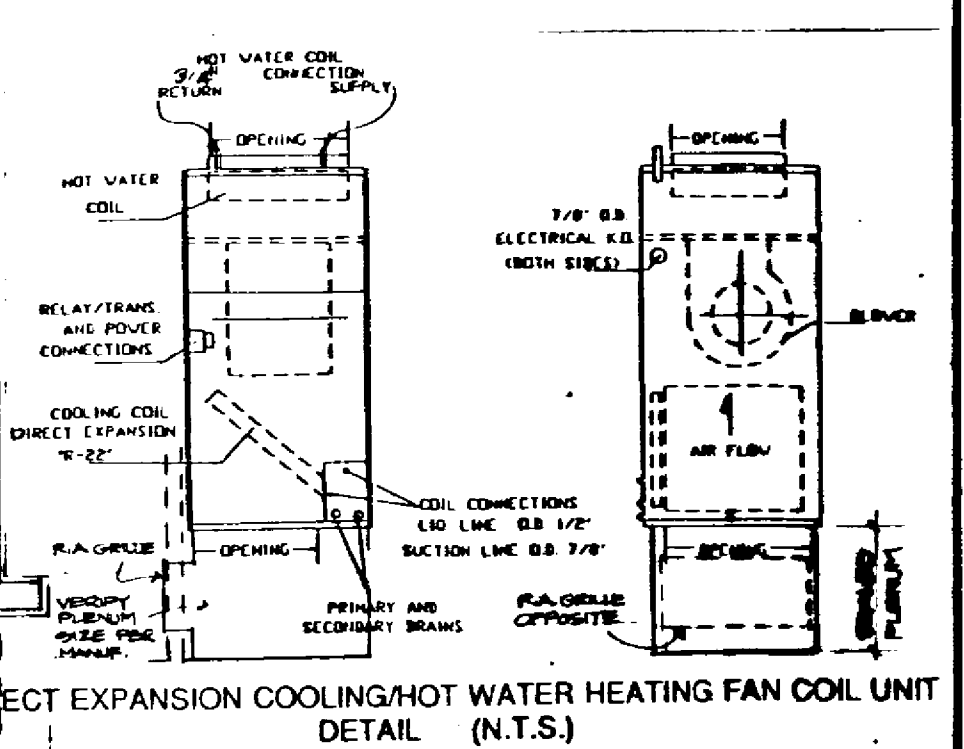
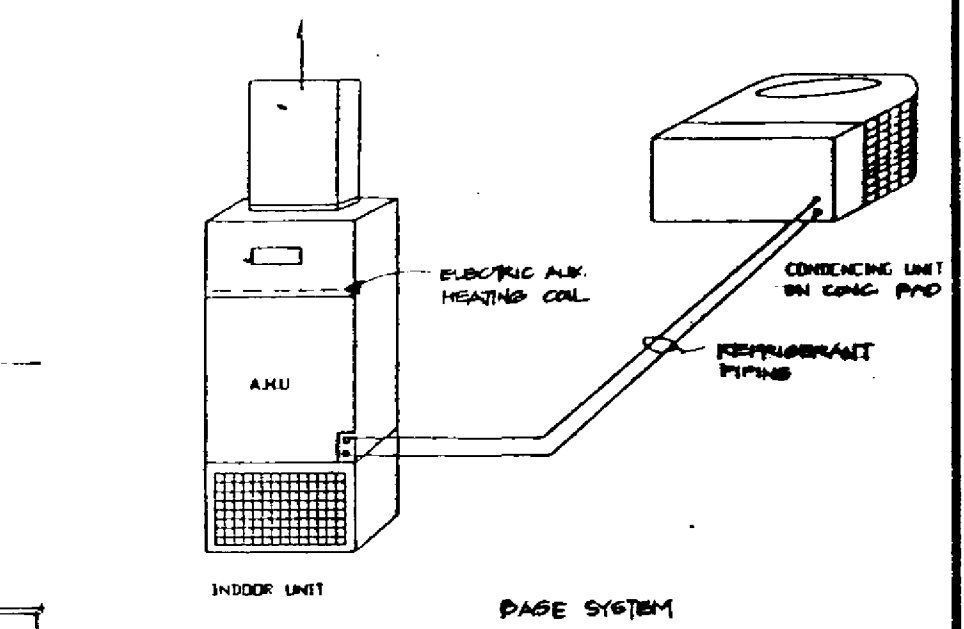
COMFORT CONDITIONING SCHEDULE WITH ALL ELECTRICAL UTILITIES

| Room | Base House | Phase I (Master Suite) | Alt Phase I | Alt Phase 1&2 |
|---------------------------|-------------|------------------------|-------------|---------------|
| Cooling Capacity Required | 16,700 BTUH | 22,200 BTUH | 20,000 BTUH | 22,200 BTUH |
| Heating Capacity Required | 16,300 BTUH | 21,800 BTUH | 19,200 BTUH | 21,300 BTUH |
| Air Flow Required (CFM) | 695 CFM | 895 CFM | 795 CFM | 895 CFM |
| Recommend SEER = 12.0 | | | | |
| Type: Heat Pump Minimum | | | | |
| Recommended HSPFF: 8.0 | | | | |

COMFORT CONDITIONING SCHEDULE WITH GAS HEAT

| Room | Base House | Phase I (Master Suite) | Alt Phase I | Alt Phase 1&2 |
|--|-------------|------------------------|-------------|---------------|
| Cooling Capacity Required | 16,700 BTUH | 22,200 BTUH | 20,000 BTUH | 22,200 BTUH |
| Heating Capacity Required | 16,300 BTUH | 21,800 BTUH | 19,200 BTUH | 21,300 BTUH |
| Air Flow Required (CFM) | 695 CFM | 895 CFM | 795 CFM | 895 CFM |
| Recommend SEER = 12.0 | | | | |
| Recommended Type of Equipment: Gas Hydrolic Furnace (At combustion is at water heater) | | | | |

Based on plans provided by FBEC 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 80°F drybulb and 77°F wetbulb and a water load temperature of 31°F using CARRIER E-300 rating computer program.



ENERGY EFFICIENT AND AFFORDABLE HOME

900 S. F. BASE
 PHASE I EXPANSION, MASTER BEDROOM SUITE
 ALTERNATE THIRD FLOOR, 3RD & 4TH BEDROOMS & 2ND BATH

These drawings are not to be construed as representations of actual construction. The drawings are not to be used for any other purpose than that for which they were prepared. The drawings are not to be used for any other purpose than that for which they were prepared. The drawings are not to be used for any other purpose than that for which they were prepared.

MECHANICAL/ELECTRICAL CONSULTANT
ADA Engineering, Inc.
 CONSULTING ENGINEERS 214 COMMERCIAL ST. SUITE 203
 617-322-2100 WALDEN, MA 02148
 STRUCTURAL CONSULTANT
CHAPIN ASSOCIATES
 20 VERNON STREET
 NORWOOD, MA 01942
 617-882-0559

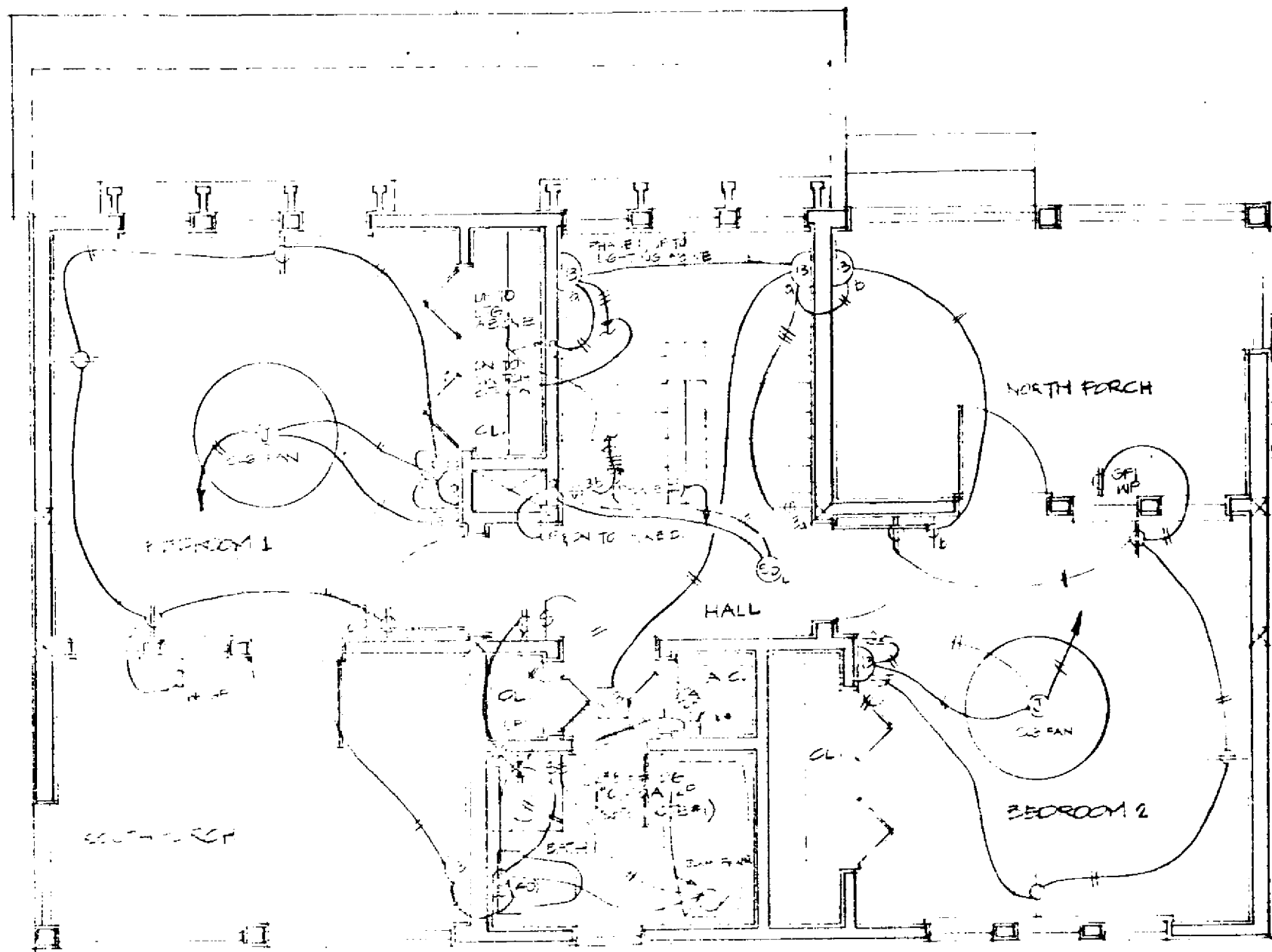
FLORIDA SOLAR ENERGY CENTER
 300 State Road 401
 Cape Canaveral, FL 32920
 407-783-0300

arrows' tree inc

Architects
 Planners
 Urban Designers
 212 Elm Street
 Somerville, MA 02144
 617 623 5555

Project No: 9122
 Drawn By:
 Checked By:
 Issue Date: 17 OCT 91
 Revisions
 No Date Description By

Drawing Title:
ELECTRICAL PLANS
 Drawing Number
E-1



SECOND FLOOR ELEC PLAN

ELECTRICAL NOTES

1. Replace 60A 2P disconnect with a Thermal Element Switch "T", replace 50A 2P C/B and branch circuit wiring with a 20A 1P C/B and 2*12 & *12G in 1/2" C, if a gas air conditioner/heater is to be utilized.
2. Replace 30A 2P C/B and branch circuit wiring with a 20A 1P C/B and 2*12 & *12G in 1/2" C, replace 30A 250V special purpose receptacle with a duplex grounding type receptacle, if a gas dryer is to be utilized.
3. Replace 60A 2P C/B and branch circuit wiring with a 20A 1P C/B and 2*12 & *12G in 1/2" C, replace 60A 2P 120/250V special purpose receptacle with a duplex grounding type receptacle, if a gas range is to be utilized.
4. Replace 30A 2P disconnect with a junction box, replace 30A 2P C/B and a branch circuit wiring with a 20A 1P C/B and 2*12 & *12G in 1/2" C, if a gas water heater is to be utilized.

SYMBOL LIST

Number in () refers to maximum voltage

- Fluorescent fixture, wall mtd; 6'-6" AFF or at underside of cab.
- Fluorescent fixture, ceiling surface mounted
- Compact fluorescent wall sconce; 6'-0" AFF
- Ceiling fan
- Ceiling fan (pull chain), with switched light fixture.
- Exhaust fan, flush ceiling mtd.

Switches, 15 amp, 120V/90 1-0 AFF except as noted

- Single pole
- Three way
- Single pole switch with thermal element
- Dimmer switch

Receptacles, 15 A 125V grounding type MH I-6 AFF except as noted.

- Duplex, wall mounted
- Duplex, ground fault interrupter type
- Duplex, weatherproof
- Duplex, mounted 3-6" AFF (above or through back splash)
- Special purpose, refer to equipment mfr. for type. (range - 60A 125/250V grounding type; dryer - 30A 125/250V grounding type.)
- Duplex with top outlet switched.

Motor controls and Distribution Equipment

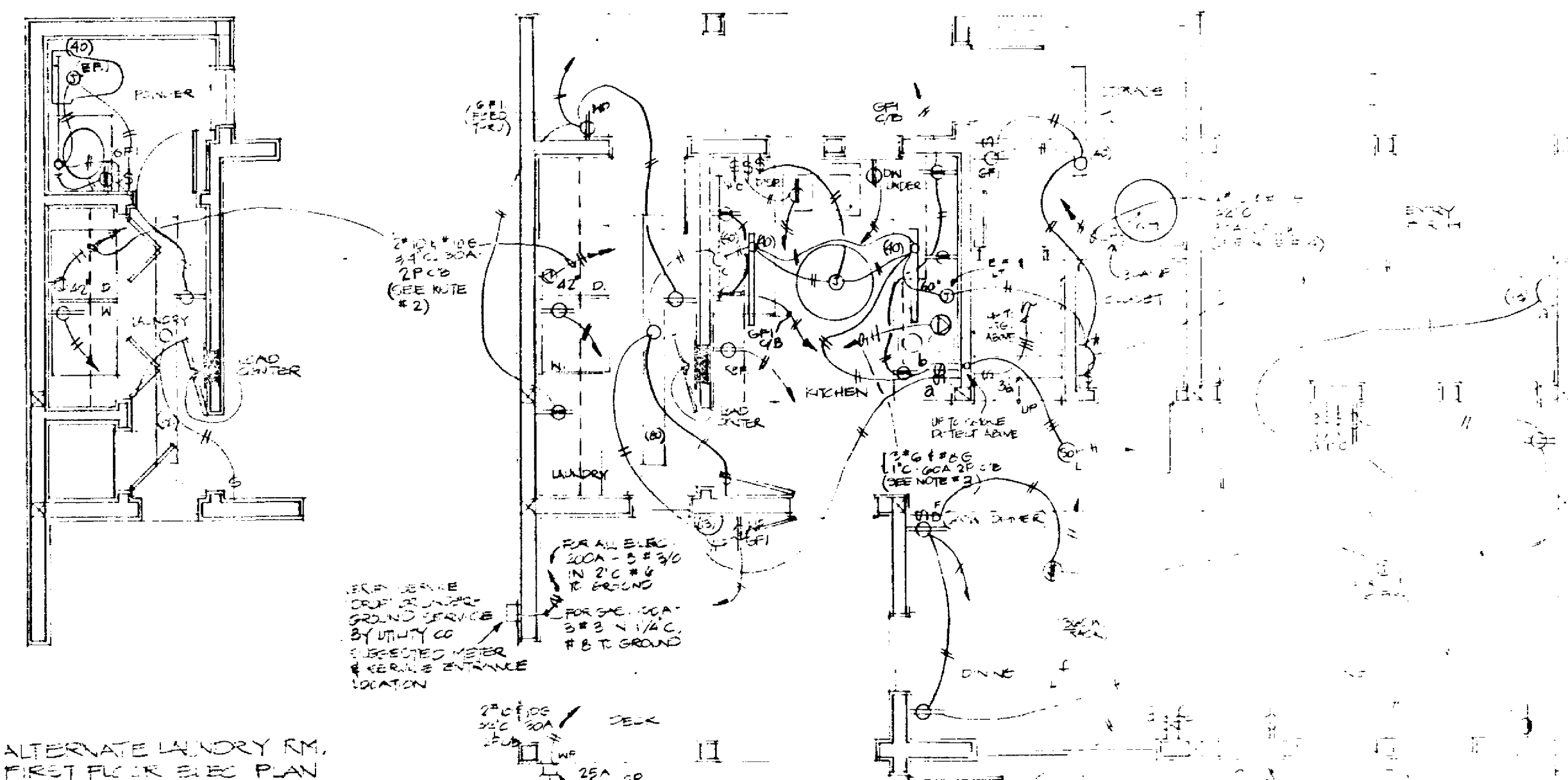
- 30A Non-fusible disconnect switch, rating as indicated.
- 100A/30A Fusible disconnect switch, rating as indicated.
- Motor, numeral indicates horsepower.
- Load center, 5'-8" to top.
- Junction box, wall or ceiling flush mounted with blank cover plate and anchored as necessary for future fan or fixture.

Conduit and wiring (through and tested)

- Conduit and wiring, diagonal lines indicate number of wires; grounding wire not shown.
- Home-run to load center, 2*12 and *12G, 1/2" C to 20A-1P Circuit breaker, typical except as noted.
- Flexible conduit and equipment connection.

Miscellaneous

- Smoke detector, 120V local type, with integral audible device.



ALTERNATE LAUNDRY RM. FIRST FLOOR ELEC PLAN

FIRST FLOOR ELEC PLAN

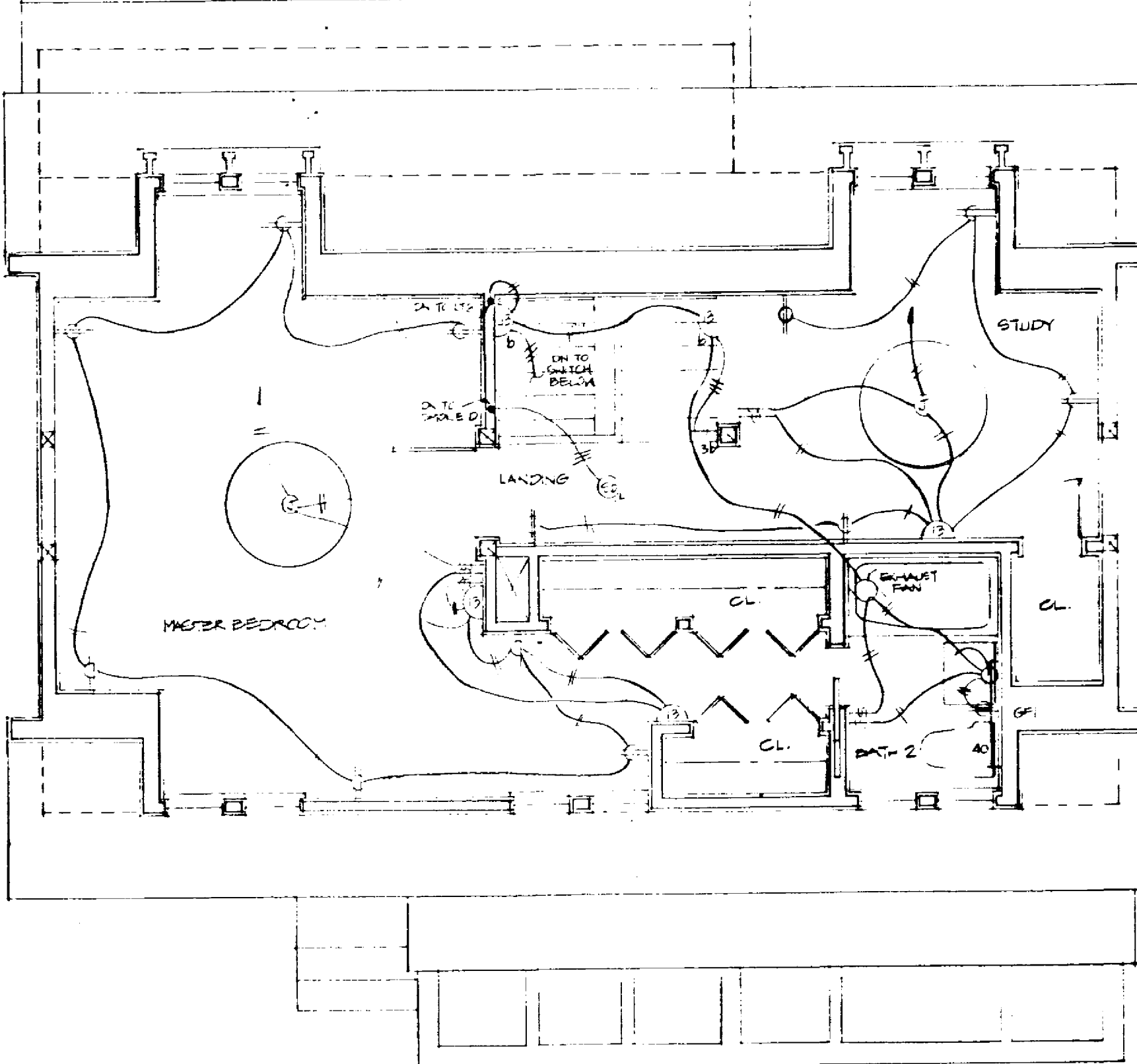
5. Dwelling unit receptacles and lighting circuits may be fed from 15A 1P circuit breakers using #14 AWG copper wire. Small appliance circuits or dedicated circuits shall be fed from 20A 1P circuit breakers using #12 AWG copper wire (typical).
6. All electrical conduit and raceways shall be run concealed. Conduit and circuitry indicated on the drawings are diagrammatic only (unless noted otherwise). Final location of conduit shall be field coordinated so as to avoid conflicts with other trades.
7. Wire and conduit sizes indicated on homeruns shall run continuous throughout circuit.
8. Telephone and television prewiring are not shown and the locations are to be coordinated with the owner.
9. All electrical work shall meet or exceed the latest requirements of all national, state, municipal and other authorities having jurisdiction over electrical construction work and the project.

| LOAD CENTER | | w/ elec. appliances | |
|-------------|----------|---------------------|----------------------|
| Circuit | AMP Pole | Load | A / B / Equipment |
| 1 | 60 | 2 | 60/ Range/Oven |
| 3 | - | - | - |
| 5 | 30 | 2 | 5000/ Dryer |
| 7 | - | - | - |
| 9 | 30 | 2 | 5500/ Water heater |
| 11 | - | - | - |
| 13 | 20 | 1 | 1500/ Washer |
| 15 | 20 | 1 | 700/ Disposal |
| 17 | 20 | 1 | 1200/ Dishwasher |
| 19 | 20 | 1 | 500/ S.Refrig |
| 21 | 20 | 1 | 1100/ Lighting/fans |
| 23 | 20 | 1 | 1000/ Lighting |
| 25 | 20 | 1 | 1500/ Lig./E/F. Rec. |
| 27 | 20 | 1 | space |
| 29 | 20 | 1 | space |

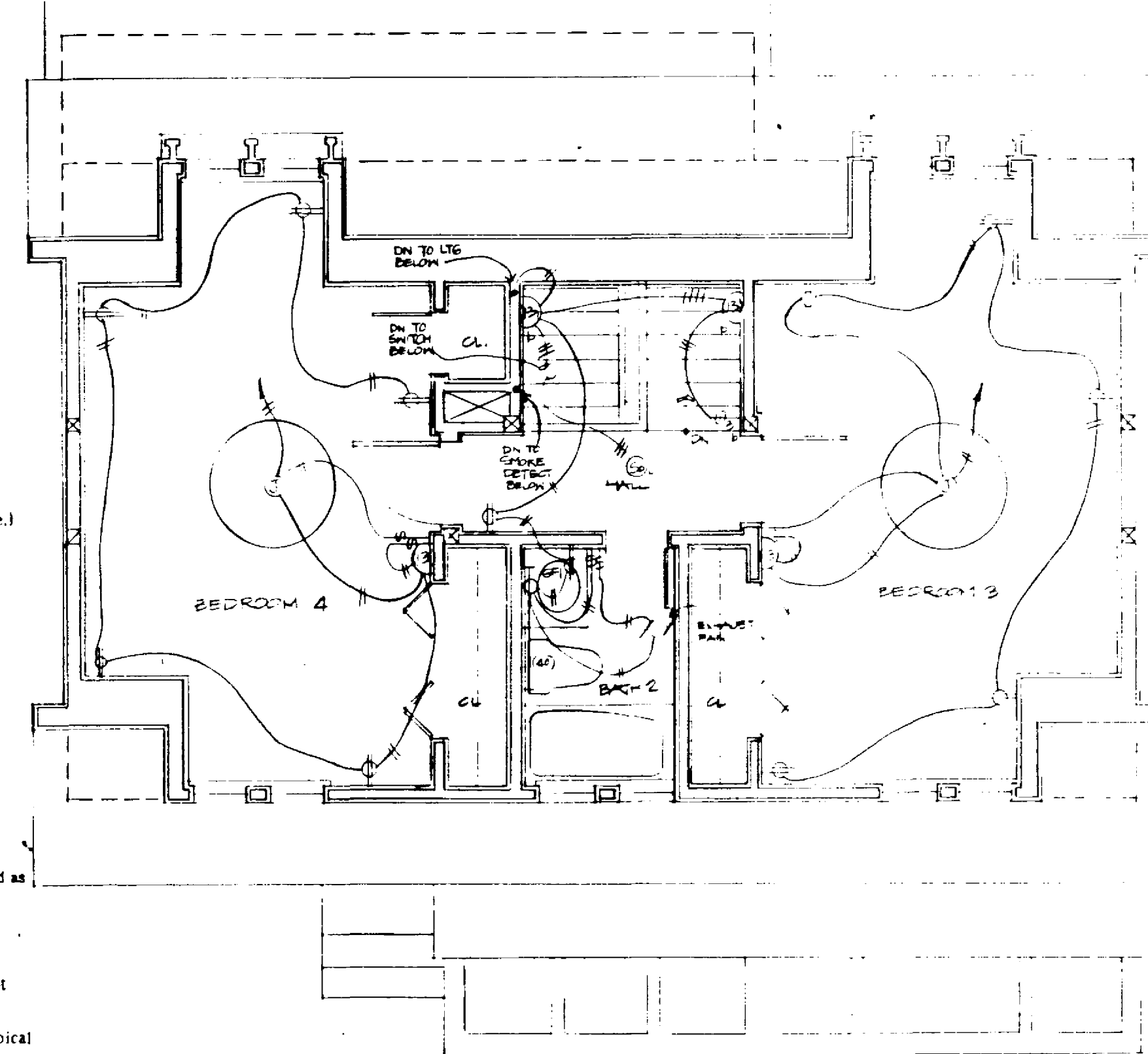
| LOAD CENTER | | w/ gas appliances | |
|-------------|----------|-------------------|---------------------------|
| Circuit | AMP Pole | Load | A / B / Equipment |
| 2 | 30 | 2 | 3100/ Compressor |
| 4 | - | - | - |
| 6 | 20 | 1 | 1000/ A/C & heater |
| 8 | 20 | 1 | 42/ |
| 10 | 20 | 1 | 70/ Compressor |
| 12 | 20 | 1 | 1500/ 1/3 Recept. |
| 14 | 20 | 1 | 1500/ 1/3 Recept./C/B GFI |
| 16 | 20 | 1 | 1000/ 1/3 Recept. |
| 18 | 20 | 1 | 1300/ 1/3 Recept. |
| 20 | 20 | 1 | 1500/ 1/3 Recept. |
| 22 | 20 | 1 | 1200/ 1/3 Recept. |
| 24 | 20 | 1 | 1300/ 1/3 Recept. |
| 26 | 20 | 1 | 1200/ 1/2 Recept. |
| 28 | 20 | 1 | space |
| 30 | 20 | 1 | space |

LOAD SUMMARY

| Electrical Appliances | | Gas Appliances | |
|-----------------------|-----------------------------|--|--------------|
| 1 | General lighting | 14,200 (VA) | |
| | Small appliance | 4,500 (VA) | |
| | Total | 18,700 (VA) | |
| | | First 3000 (VA) @ 100% | - 3,000 (VA) |
| | | Remaining 15,700 (VA) @ 35% | - 5,500 (VA) |
| | | Total | 8,500 (VA) |
| 2 | Range | 12,000 (VA) (incl. 220-19 NEC) | 8,000 (VA) |
| 3 | Water heater | 5,500 (VA) (100%) | 5,500 (VA) |
| 4 | Heating | 1100 (VA) | 8,400 (VA) |
| 5 | A.C. (smaller than heating) | | 0 |
| 6 | Clothes Dryer (1100V) | | 5,000 (VA) |
| | Total | | 35,400 (VA) |
| | | 35,400 (VA) @ 240 V - 147.5 amps, 120/240 V 1/3 SW service with 200A load center | |



PHASE I: MASTER BEDROOM SUITE THIRD FLOOR ELEC PLAN



ALTERNATE THIRD FLOOR ELEC PLAN

| LOAD CENTER | | w/ gas appliances | |
|-------------|----------|-------------------|-------------------------|
| Circuit | AMP Pole | Load | A / B / Equipment |
| 11 | 20 | 1 | 200/ 0/2/ Range/Oven |
| 13 | 20 | 1 | 700/ Dryer |
| 15 | 20 | 1 | 2000/ 0/2/ Water heater |
| 17 | 20 | 1 | 1500/ 1/3 Washer |
| 19 | 20 | 1 | 700/ 0/2/ Disposal |
| 21 | 20 | 1 | 1200/ 1/2 Dishwasher |
| 23 | 20 | 1 | 500/ 0/5/ S.Refrig |
| 25 | 20 | 1 | 1100/ 1/1 Lighting/fans |
| 27 | 20 | 1 | 1000/ 1/0 Lighting |
| 29 | 20 | 1 | 1500/ 1/1 Lig./E/F. Rec |
| 31 | 20 | 1 | space |
| 33 | 20 | 1 | space |
| 35 | 20 | 1 | space |
| 37 | 20 | 1 | space |
| 39 | 20 | 1 | space |

| LOAD CENTER | | w/ elec. appliances | |
|-------------|----------|---------------------|---------------------------|
| Circuit | AMP Pole | Load | A / B / Equipment |
| 2 | 30 | 2 | 3100/ 1/3 Compressor |
| 4 | - | - | - |
| 6 | 20 | 1 | 1000/ 1/1 A/C & heater |
| 8 | 20 | 1 | 600/ 0/6/ smoke detect |
| 10 | 20 | 1 | 1500/ 1/1 Recept. |
| 12 | 20 | 1 | 1500/ 1/1 Recept./C/B GFI |
| 14 | 20 | 1 | 1500/ 1/1 Recept./C/B GFI |
| 16 | 20 | 1 | 1000/ 1/0 Recept. |
| 18 | 20 | 1 | 1300/ 1/1 Recept. |
| 20 | 20 | 1 | 1300/ 1/3 Recept. |
| 22 | 20 | 1 | 1300/ 1/3 Recept. |
| 24 | 20 | 1 | 1200/ 1/2 Recept. |
| 26 | 20 | 1 | space |
| 28 | 20 | 1 | space |
| 30 | 20 | 1 | space |

Gas Appliances

| | | | |
|----|---------------------|-----------------------------|--------------|
| 1. | General lighting | 15,300 (VA) | |
| | Small appliance | 4,500 (VA) | |
| | Total | 19,800 (VA) | |
| | | First 3000 (VA) @ 100% | - 3,000 (VA) |
| | | Remaining 16,800 (VA) @ 35% | - 5,900 (VA) |
| | | Total | 8,900 (VA) |
| 2. | Range | (gas) | - 0 - 0 |
| 3. | Water heater (gas) | | - 0 - 0 |
| 4. | Heating | (gas) | - 0 - 0 |
| 5. | A.C. | | 4,100 (VA) |
| 6. | Clothes Dryer (gas) | | - 0 - 0 |
| | Total | | 13,000 (VA) |

13,000 (VA) @ 240 V - 54.2 amps, 120/240 V 1/3 SW service with 100A load center