

PROJECT ADMINISTRATION DATA SHEET

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ORIGINAL

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REVISION NO. _____

Project No. A-2876

DATE: 4/29/81

Project Director: Steve Robertson

School/Lab TAL/AED

Sponsor: Southern Solar Energy Center; Atlanta, GA 30341 *misc*

Type Agreement: Fixed Price Subcontract #SC-0123 (under DOE Contract #DE-AC02-79CS30166)

Award Period: From 2/3/81 To 2/2/82 (Performance) - 12/2/81 (Reports)

Sponsor Amount: \$92,809 ~~12/1/81~~ 6/2/82 Contracted through:

Cost Sharing: N/A GTRI/~~OK~~

Title: Quantitative LowCost Performance Evaluation of Passive Residential Buildings (Class B)

ADMINISTRATIVE DATA

OCA CONTACT Leamon R. Scott

1) Sponsor Technical Contact: Mr. Tom Hartman or Mr. Don Abrams, Southern Solar Energy Center, 61 Perimeter Park, Atlanta, GA 30341, Phone 458-8765

2) Sponsor Admin./Contractual Contact: M. C. Kelly, Southern Solar Energy Center, 61 Perimeter Park, Atlanta, GA 30341, Phone 458-8765

Reports: See Deliverable Schedule Security Classification: N/A

Defense Priority Rating: N/A

RESTRICTIONS

See Attached Gov/t Contract Supplemental Information Sheet for Additional Requirements.

Travel: Foreign travel must have prior approval - Contact OCA in each case. Domestic travel requires sponsor approval where total will exceed greater of \$500 or 125% of approved proposal budget category.

Equipment: Title vests with SSEC

COMMENTS: Invoicing shall be in accordance with Contract Schedule Part IV (page 3,4).

Project Director will advise EES Accounting as to when invoicing can be accomplished.

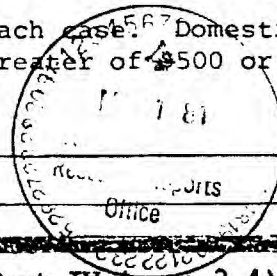
See back of Financial Data sheet for summary of invoicing.

COPIES TO:

Administrative Coordinator
Research Property Management
Accounting Office
Procurement Office

Research Security Services
Reports Coordinator (OCA)
Legal Services (OCA)
Library, Technical Reports

EES Information Office (2)
Project File (OCA)
Other: _____



SPONSORED PROJECT TERMINATION SHEETDate 5/28/82

Project Title: Quantitative Low Cost Performance Evaluation of Passive Residential Buildings (Class B)

Project No: A-2876

Project Director: Steve Robertson

Sponsor: Southern Solar Energy Center; Atlanta

Effective Termination Date: 3/29/82 *Clearance of Accounting Charges: 3/29/82 *

Grant/Contract Closeout Actions Remaining:

- ☒ Final Invoice and Closing Documents *
- ☐ Final Fiscal Report
- ☒ Final Report of Inventions
- ☐ Govt. Property Inventory & Related Certificate
- ☐ Classified Material Certificate
- ☐ Other _____

Subcontract terminated for the convenience of SSEC. Only no changes beyond 3/29/82 are allowable except those costs associated with termination procedure. Final Invoice to be held pending settlement of termination claim.

Assigned to: TAL (School/Laboratory)COPIES TO:

Administrative Coordinator
Research Property Management
Accounting
Procurement/EES Supply Services

Research Security Services
Reports Coordinator (OCA) ✓
Legal Services (OCA)
Library

EES Public Relations (2)
Computer Input
Project File
Other _____

Georgia Institute of Technology

ENGINEERING EXPERIMENT STATION

ATLANTA, GEORGIA 30332

20 August 1981

Mr. Tom Hartman
Southern Solar Energy Center
61 Perimeter Park
Atlanta, Georgia 30341

Dear Tom:

The purpose of this letter is to inform you of the status of Subcontract No. SC-0123: "Quantitative Low Cost Performance Evaluation of Passive Residential Buildings (Class B)." Thirteen monitoring sites have been selected from the twenty four under consideration. An instrumentation plan and a ASHRAE heat loss coefficient have been completed for each of the thirteen sites. Monitoring agreements have been received from all sites except for three. Ironically, the three sites are the design/build homes in Atlanta, Houston and Louisville.

The owner of the Atlanta house, Bob Ross, was uncomfortable with the wording of the monitoring agreement. These problems have been resolved and we should have his agreement shortly. The Houston house is an exception in that it has not been sold. The house does have a contract on it and we were going to wait and get the homeowner to sign the agreement. However, we anticipated that the closing would be in July. Therefore, we have asked Bob Reed of Doyle Stuckey homes to sign the agreement for now. The Louisville home was sold recently. I sent them information on the program and a monitoring agreement for their signature. I have talked to them once since then and they were uncertain about whether they wanted to participate in the program. I will continue to work with them and hopefully get them to agree voluntarily.

All of the electric utilities serving these sites, except the Louisville home, have been contacted about installing a pulse-initiating watt hour meter. All of these meters should be installed by the middle of September.

I need to know when I will receive the data acquisition systems and sensors. This is necessary so that I can make arrangements to install the monitoring equipment at each site. As soon as the equipment is received, the installations can begin. Further delays in receiving the equipment could adversely affect the cost of the project.

Sincerely,

Steve Robertson
Research Engineer
Technology Applications Laboratory

SDR/dm

cc: Leamon Scott
Mark Kelly

TABLE OF CONTENTS

SITE SELECTION SUMMARY

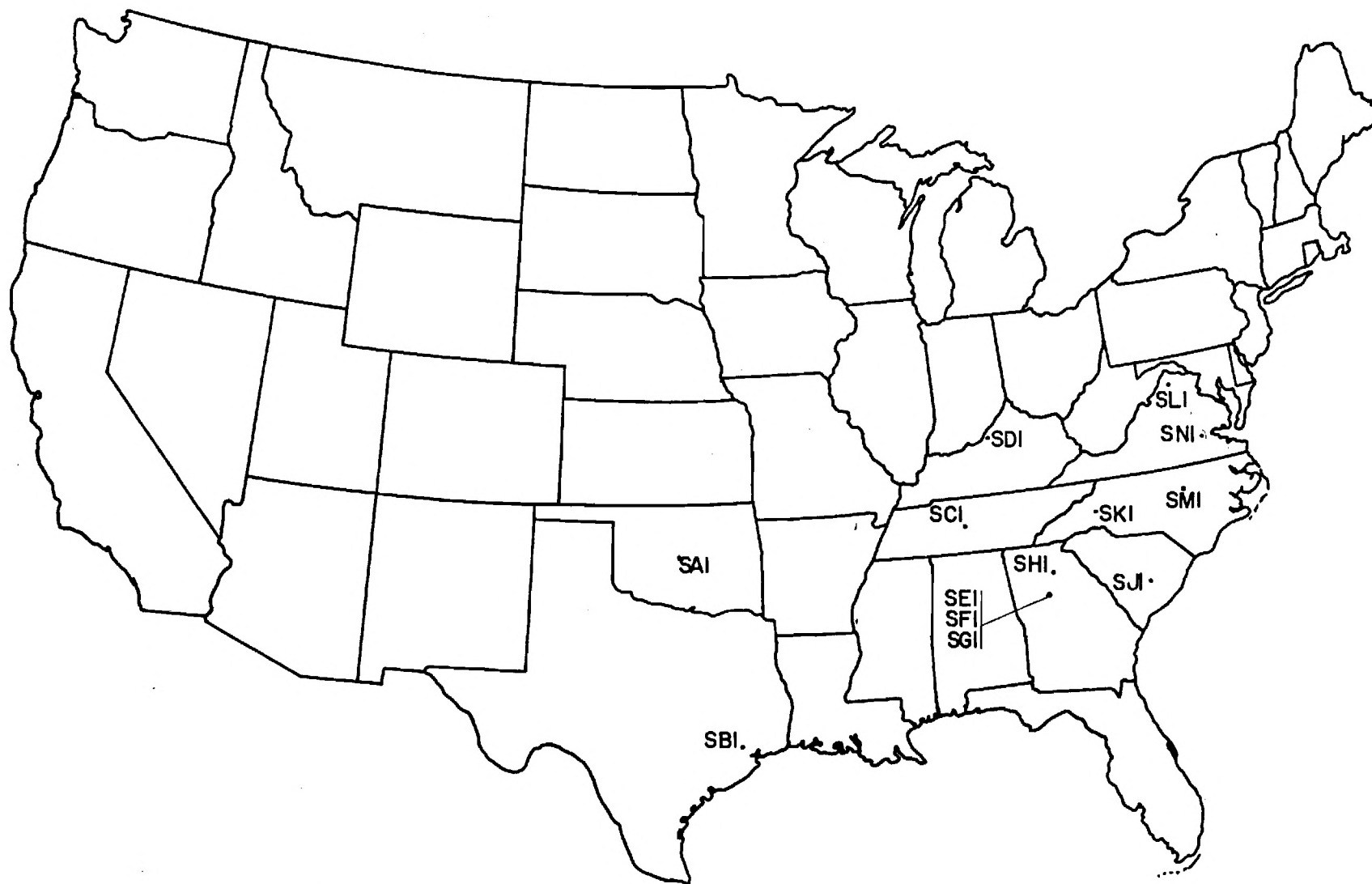
CLASS B MONITORING SITE LOCATIONS

INSTRUMENTATION PLANS

HEAT LOAD SUMMARY CALCULATIONS

SITE SELECTION SUMMARY

<u>CODE</u>	<u>HOMEOWNER/CONTACT</u>	<u>LOCATION</u>
SA1	Jim McCaffrey	Edmund, OK
SB1	Bob Reed (Doyle Stuckey Homes)	Houston, TX
SC1	Bill Mathis	Lascassas, TN
SD1	Jack Stapleton	Louisville, KY
SE1	Bob Ross	Roswell, GA
SF1	Marty Levin	Suwanee, GA
SG1	B.R. Moore	Atlanta, GA
SH1	Ricky Porter	Flowery Branch, GA
SJ1	Jack Cook	Manning, S.C.
SK1	Jerry Sams	Black Mountain, GA
SL1	Robert Greatorex	Stephens City, VA
SM1	John Yack	Carrboro, N.C.
SN1	Carl Mullins	Richmond, VA



CLASS B MONITORING SITE LOCATIONS

CLASS B INSTRUMENTATION PLANS

TABLE OF SENSOR SYMBOLS

Dry bulb temperature



Electrical current



Status; on time



Electrical power

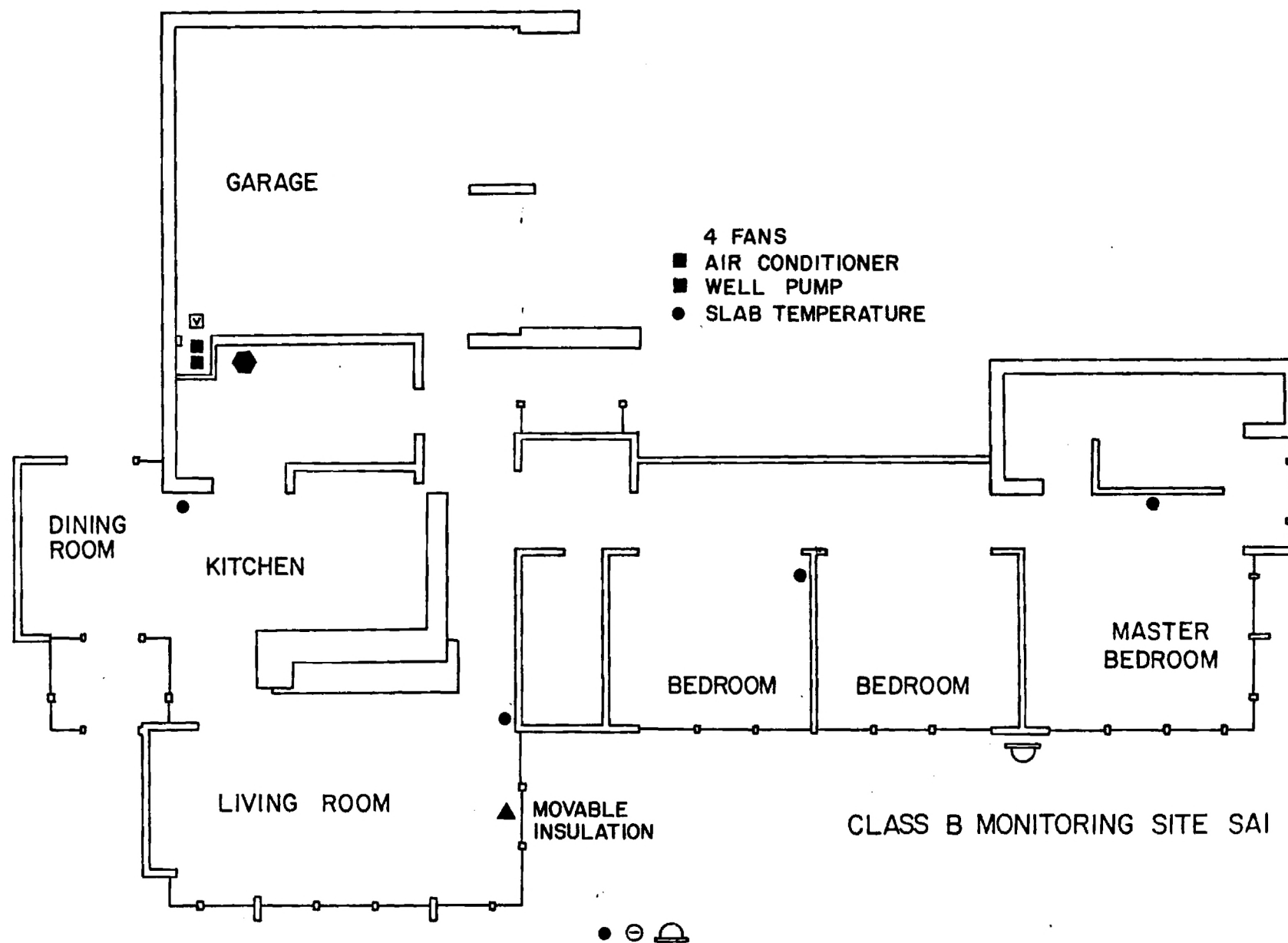


Pyranometer



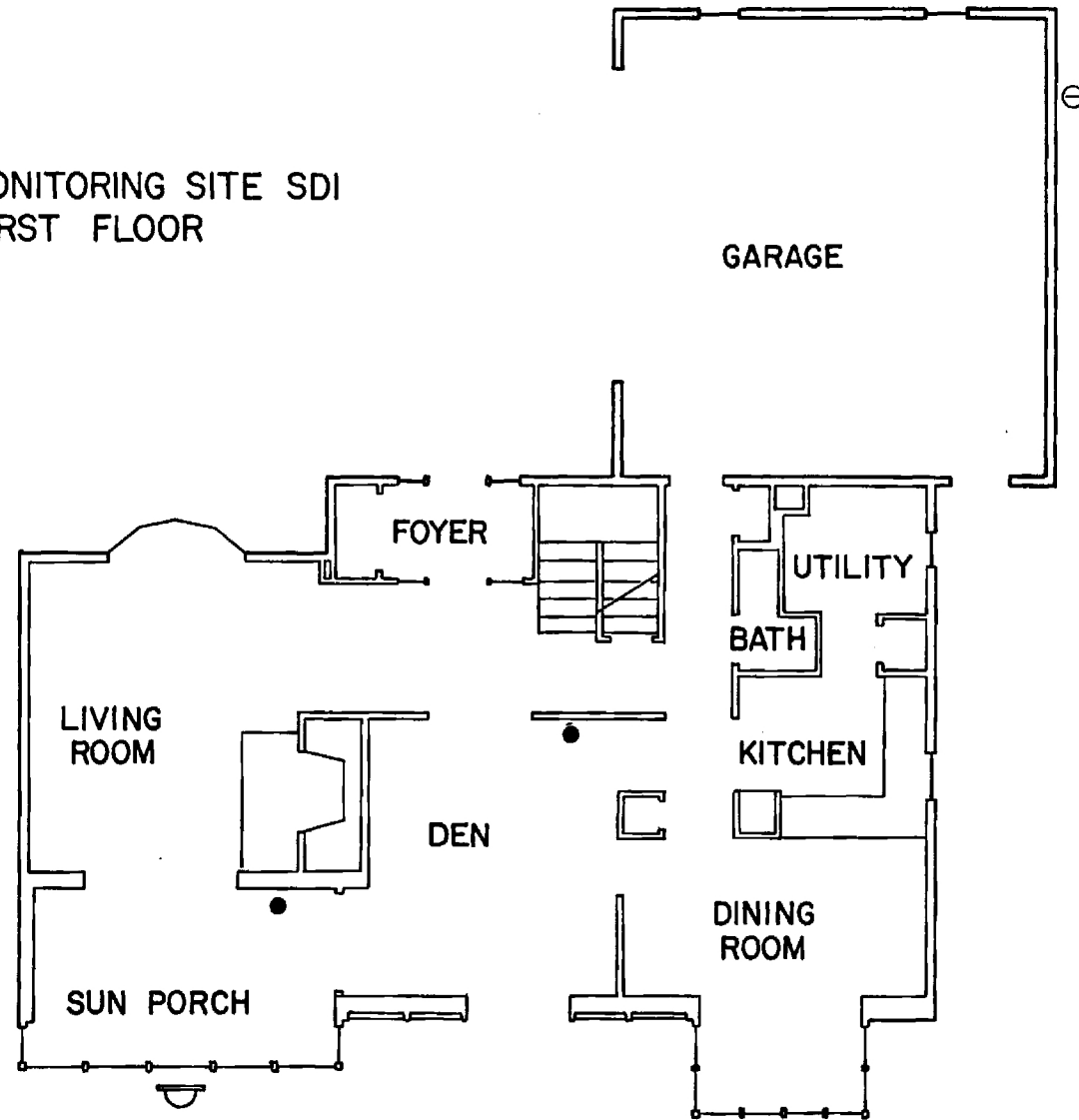
Data Acquisition System (DAS)



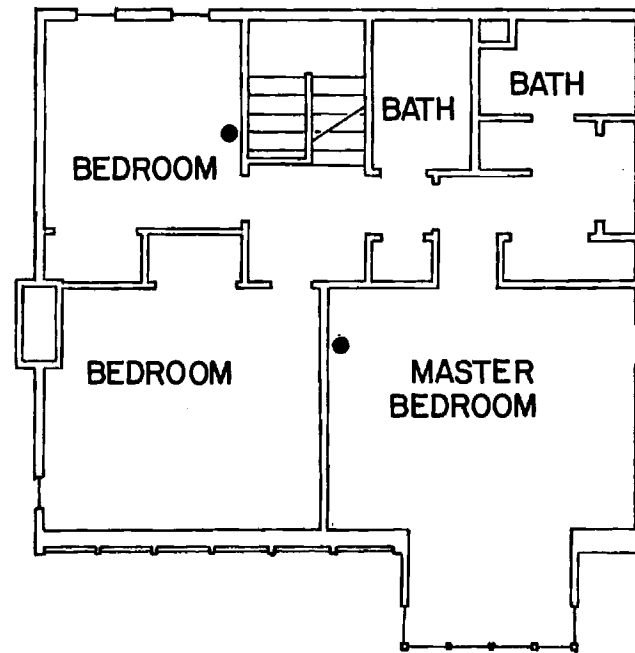


This floor plan shows a rectangular house layout. At the top left is the MASTER BEDROOM with a bed symbol. To its right is a BATH with a bathtub symbol. Further right is another BATH, also with a bathtub symbol. To the right of that is the UTILITY ROOM. The KITCHEN is located to the right of the utility room, featuring a sink and stove symbol. The DINING area is to the right of the kitchen. The LIVING ROOM is at the bottom center, with a fireplace symbol on the left wall. To the right of the living room is the DEN, which contains a desk and chair symbol. A STORAGE area is located above the den. There are three bedrooms in total: the MASTER BEDROOM, and two smaller BEDROOMS at the bottom left. The plan includes various doors, windows, and furniture symbols throughout the rooms.

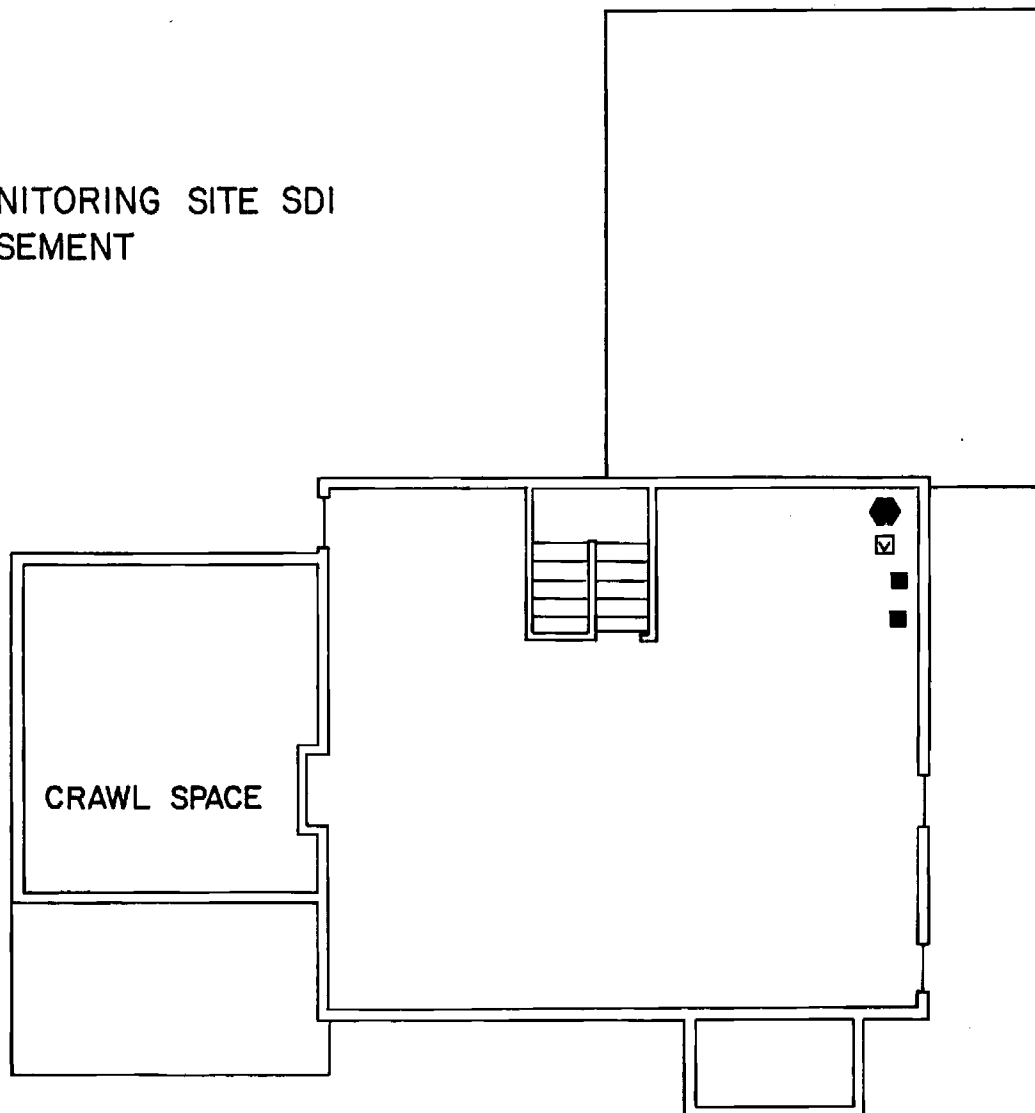
CLASS B MONITORING SITE SDI
FIRST FLOOR



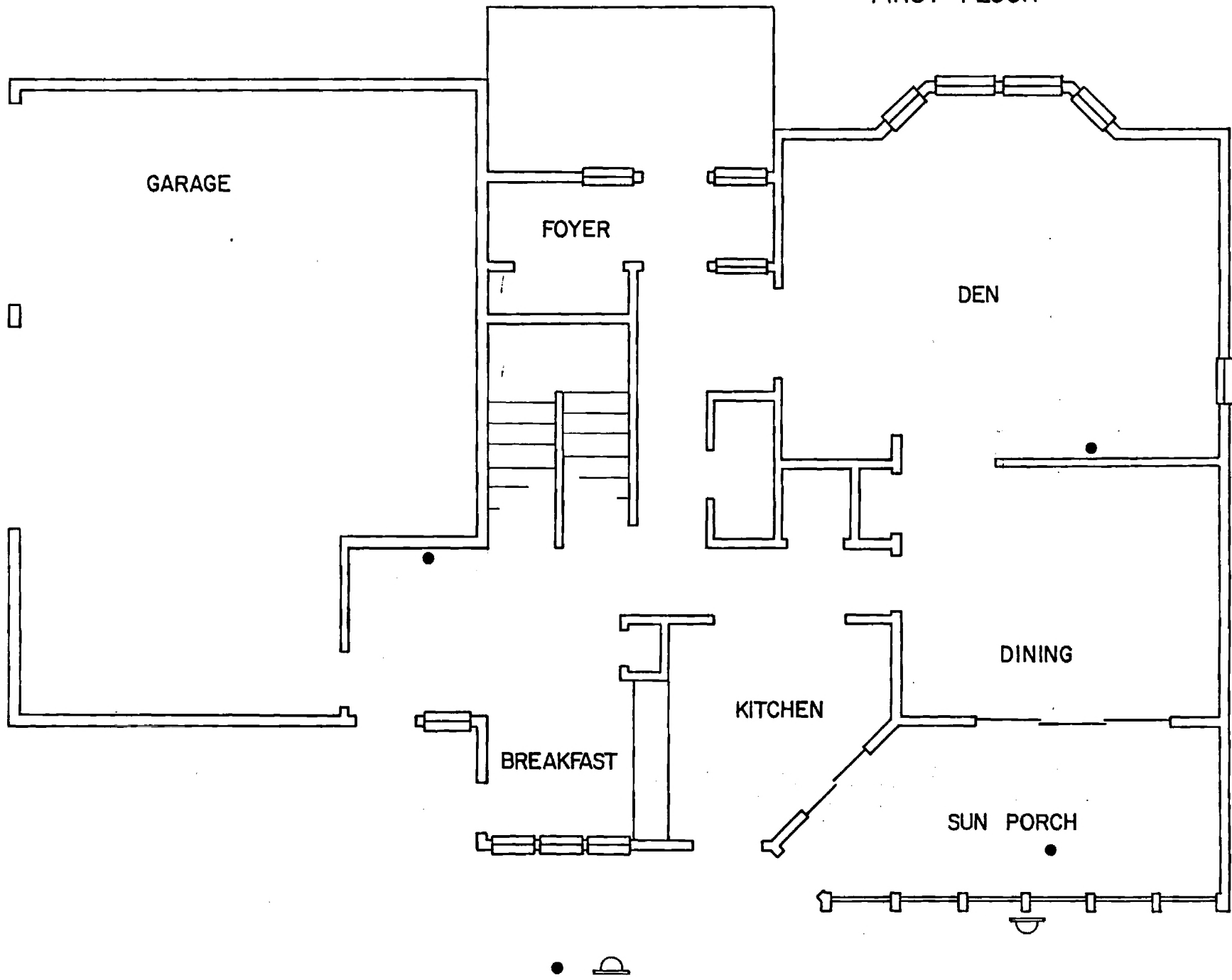
CLASS B MONITORING SITE SDI
SECOND FLOOR



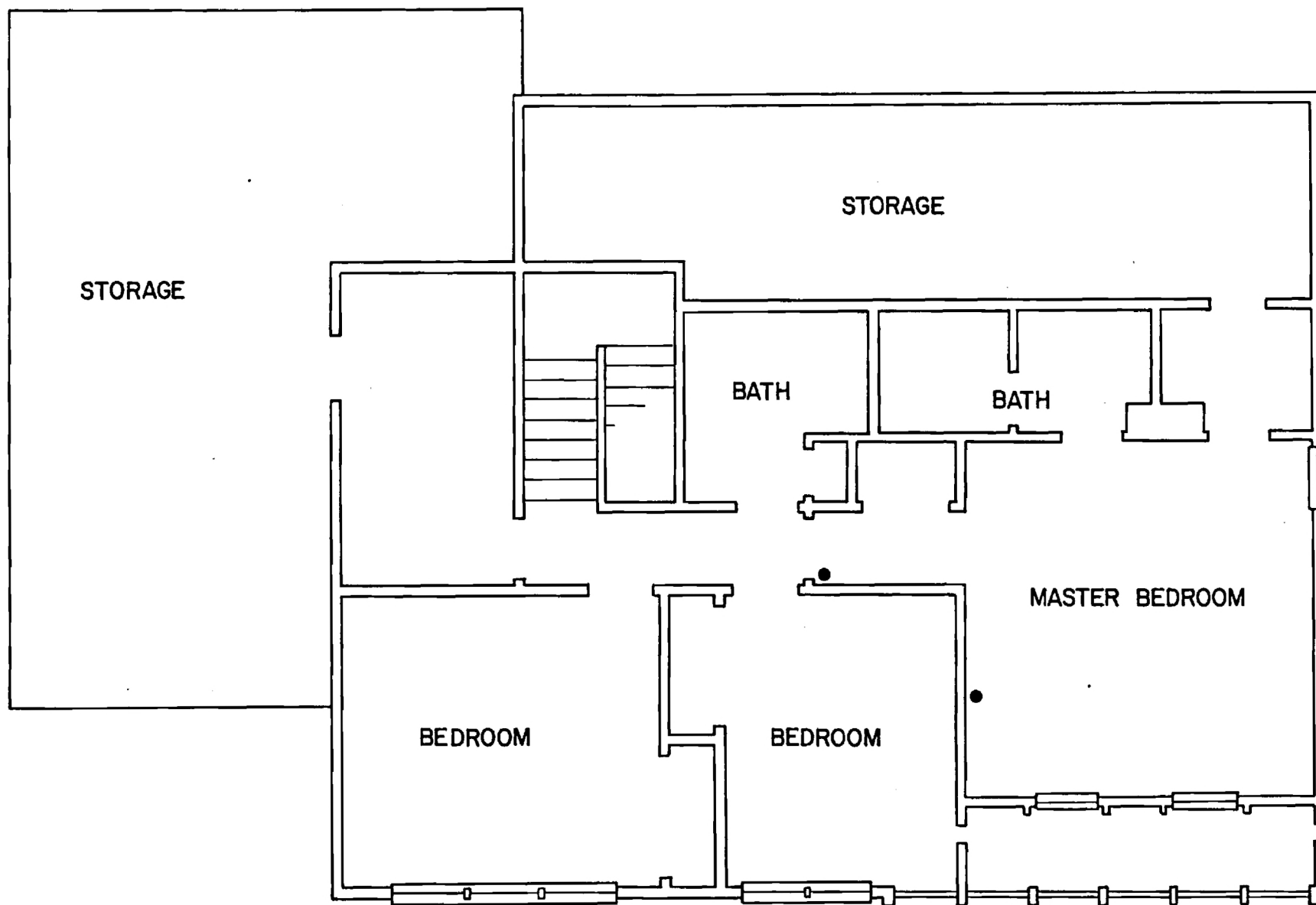
CLASS B MONITORING SITE SDI
BASEMENT



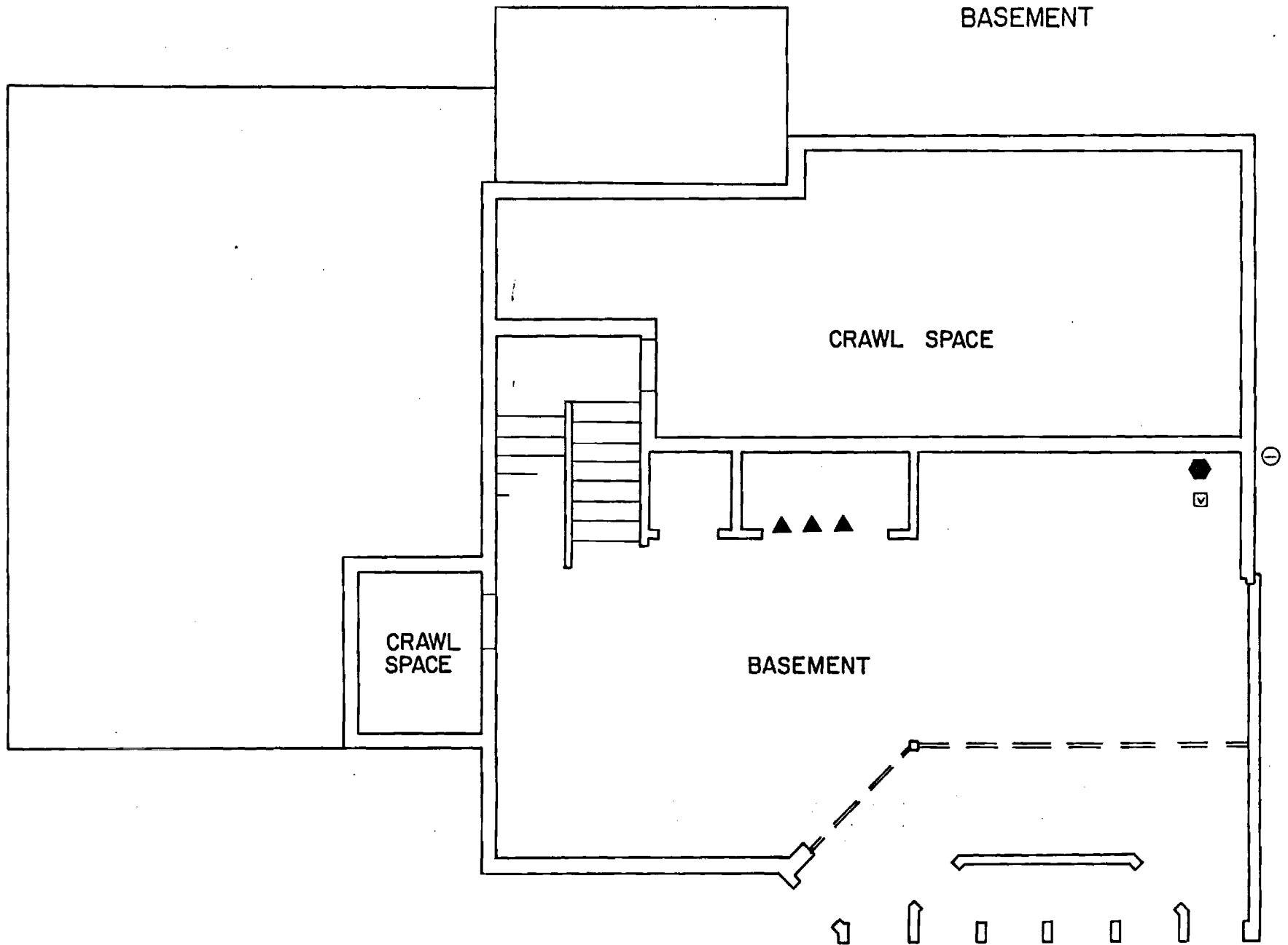
CLASS B MONITORING SITE SET
FIRST FLOOR

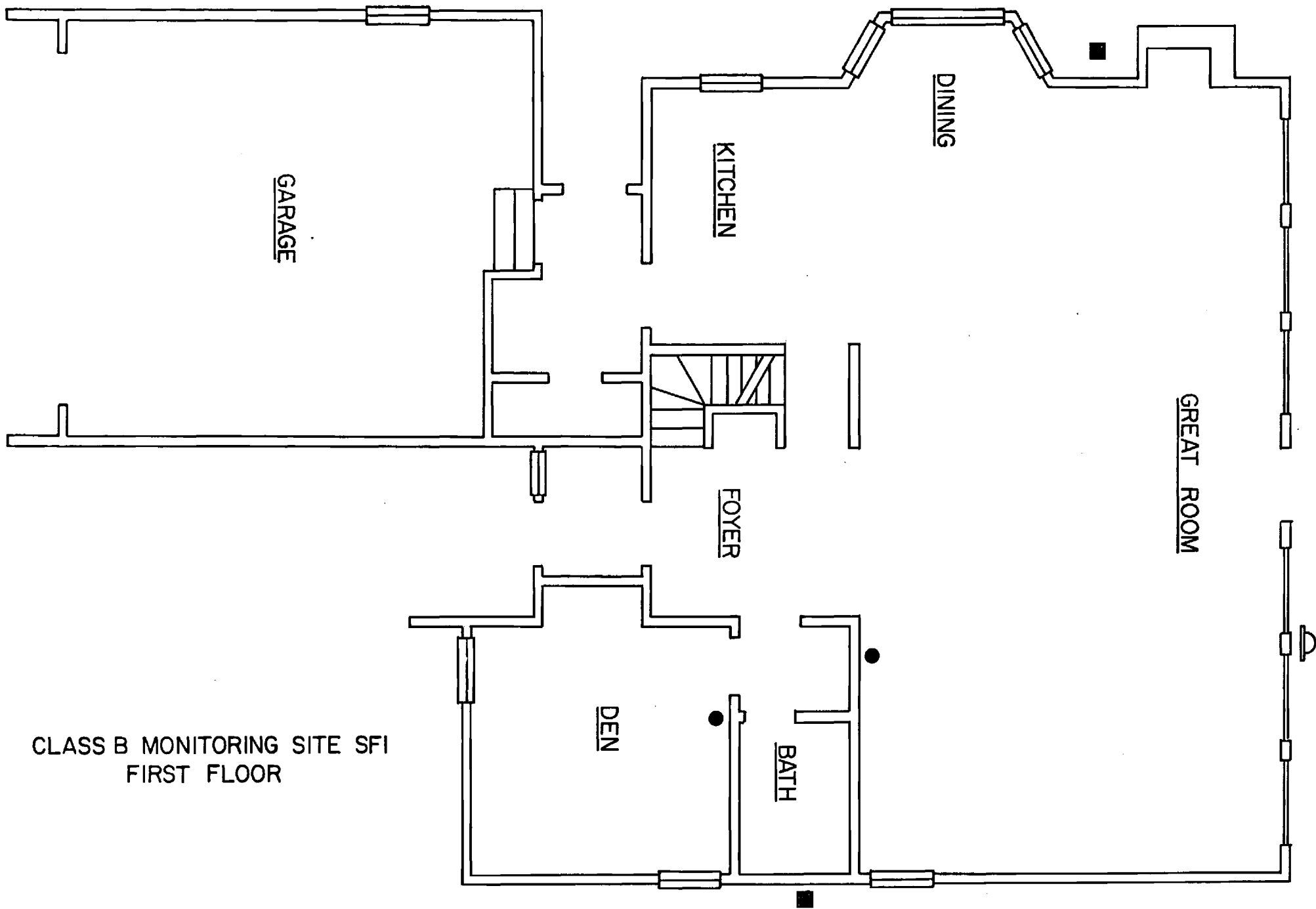


CLASS B MONITORING SITE SEI
SECOND FLOOR

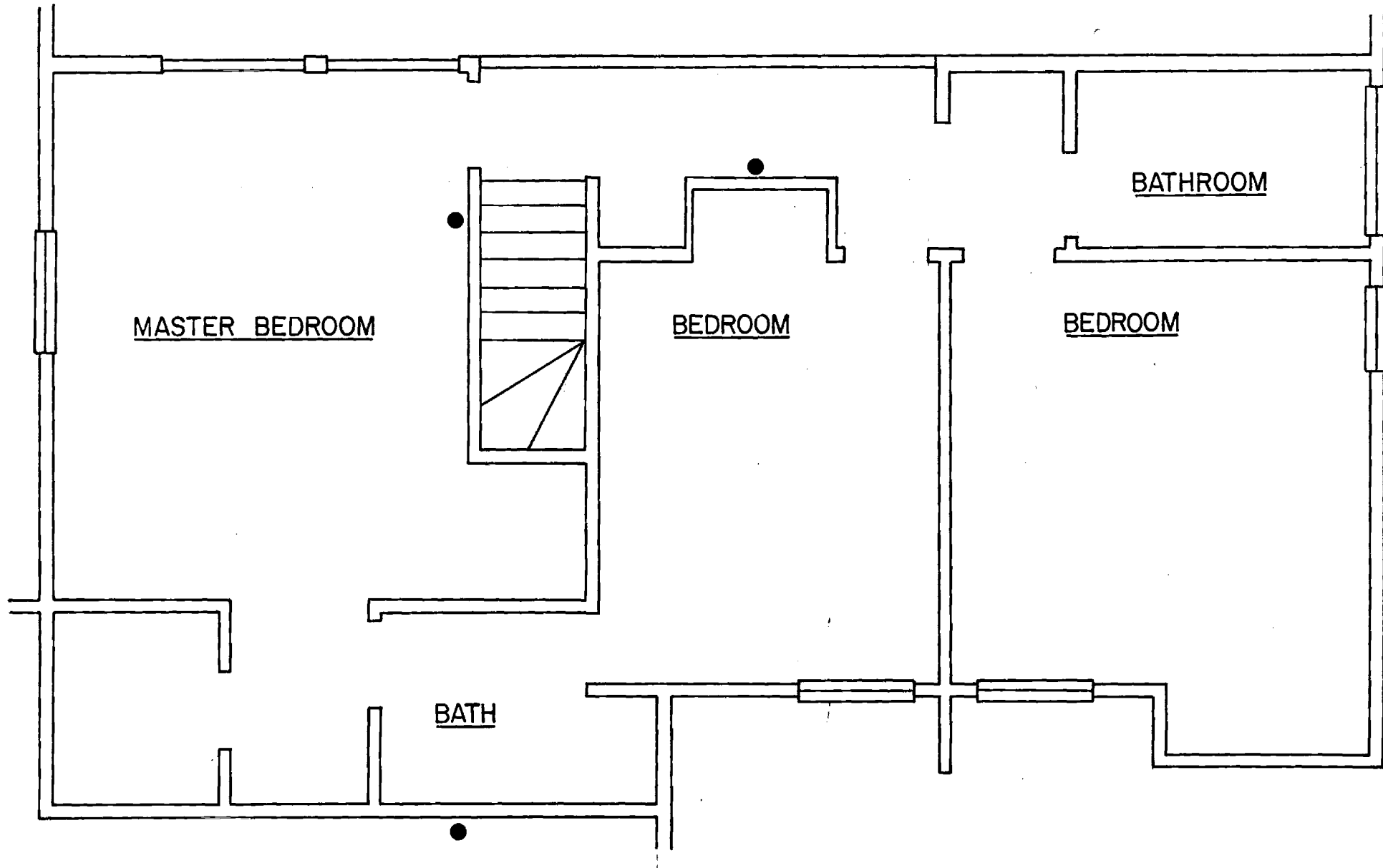


CLASS B MONITORING SITE SEI
BASEMENT



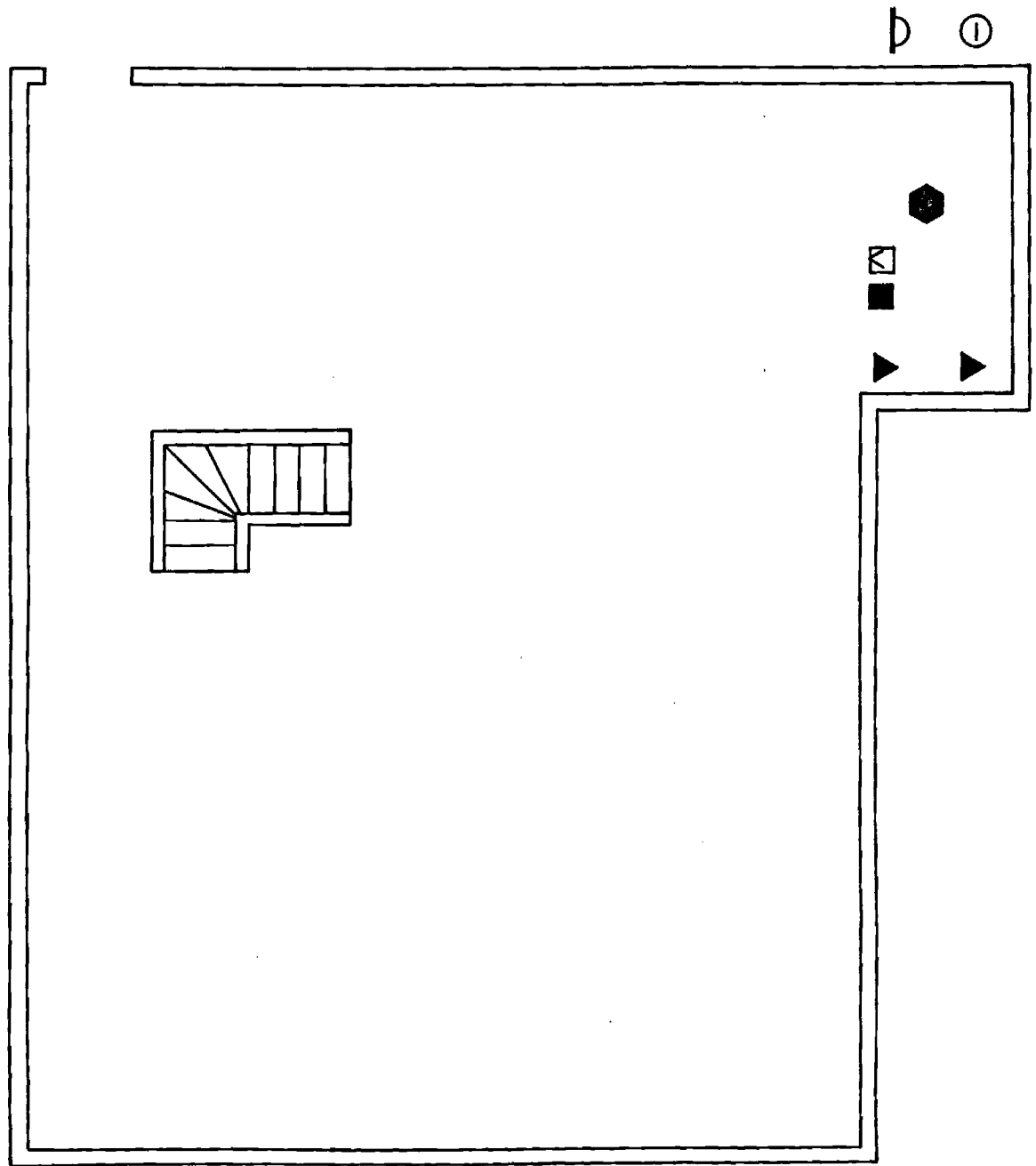


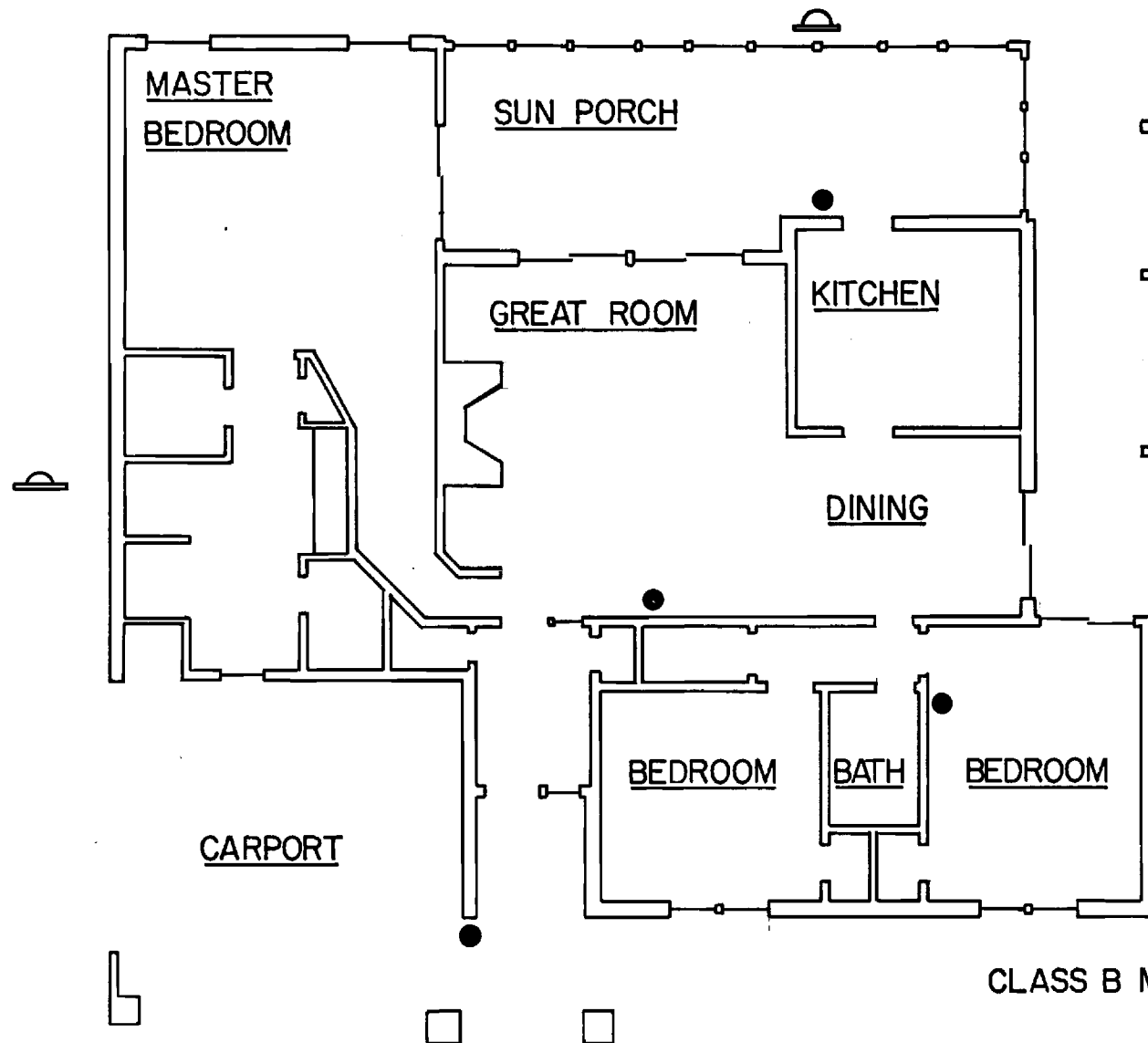
CLASS B MONITORING SITE SFI
FIRST FLOOR



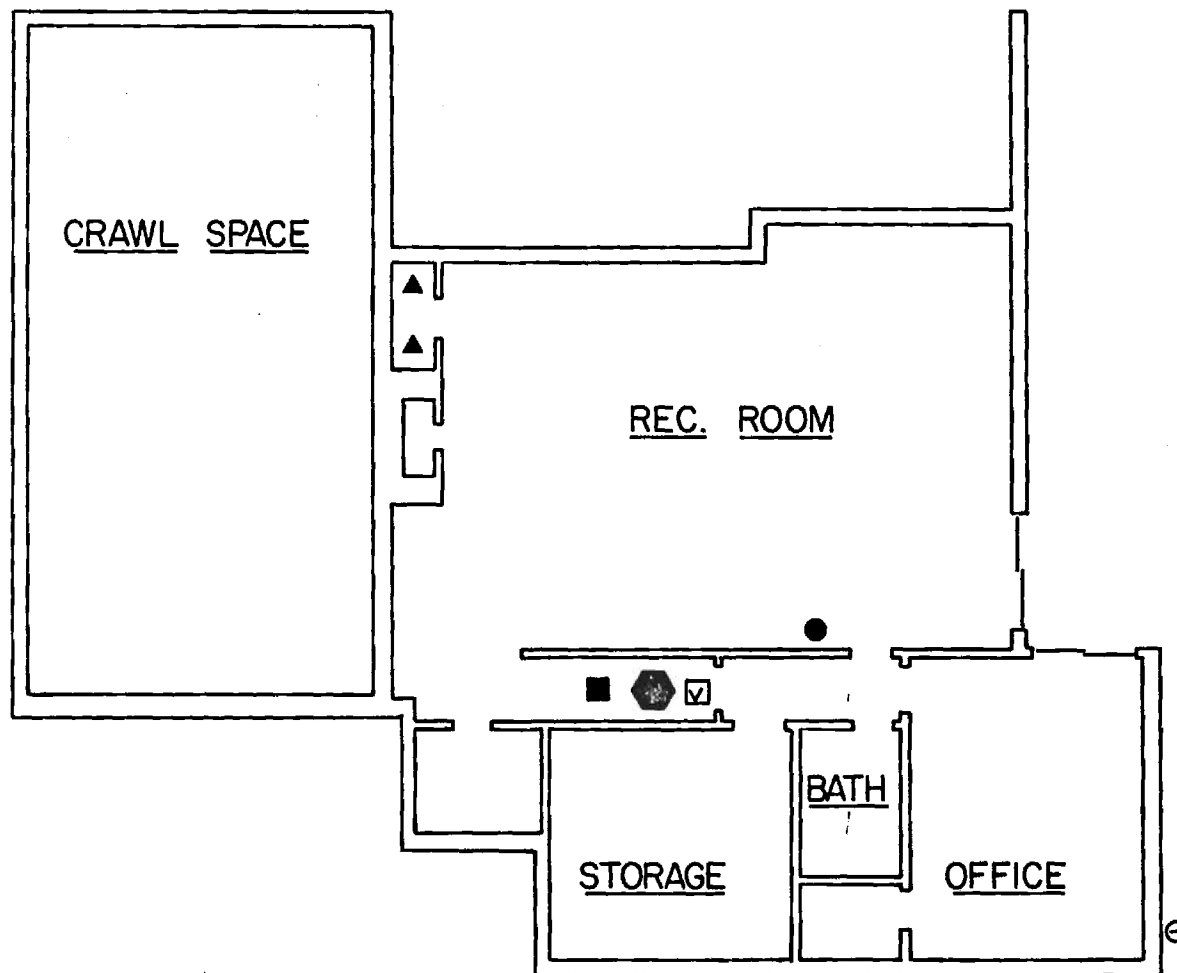
CLASS B MONITORING SITE SFI
SECOND FLOOR

CLASS B MONITORING SITE SFI
BASEMENT

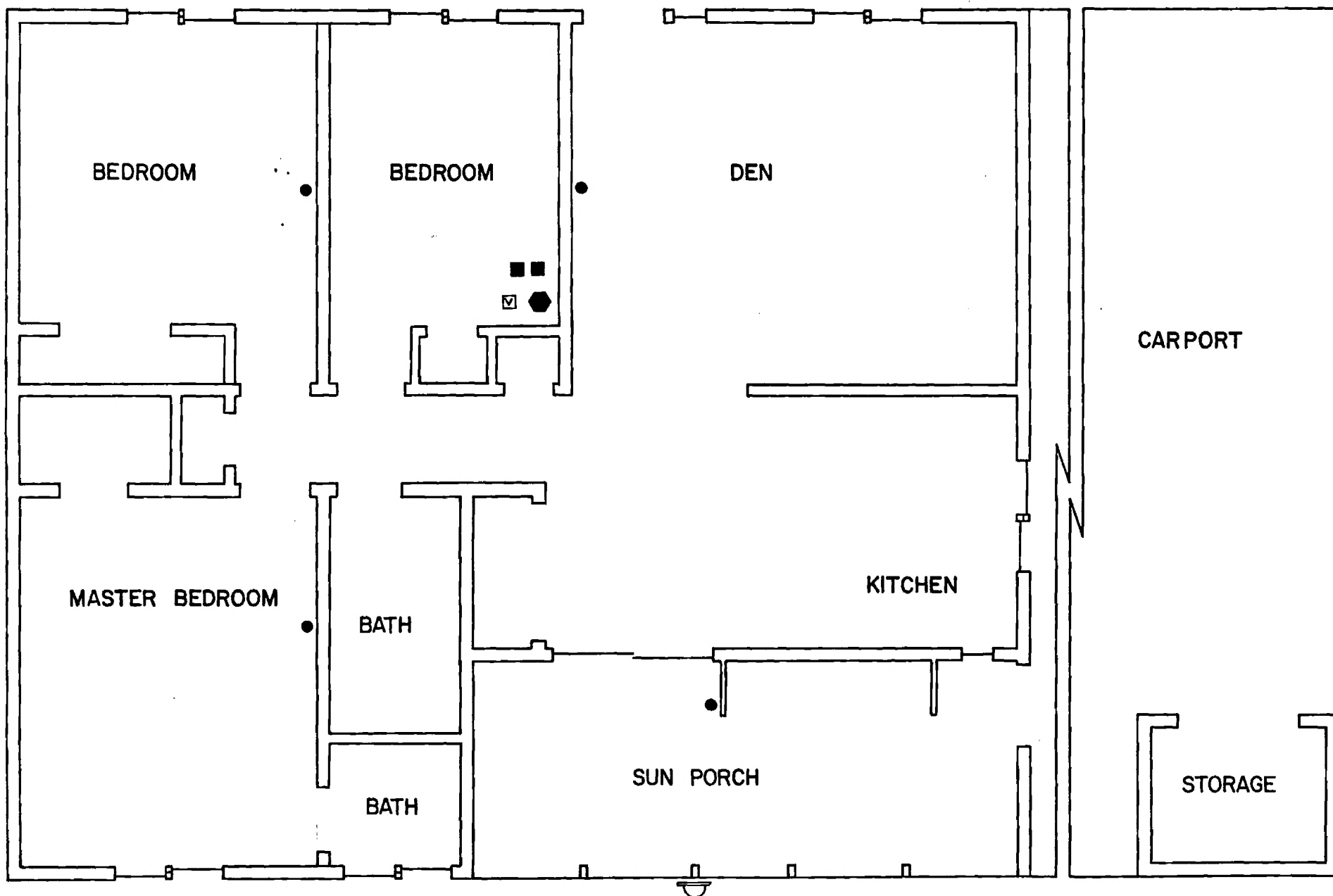




CLASS B MONITORING SITE SGI



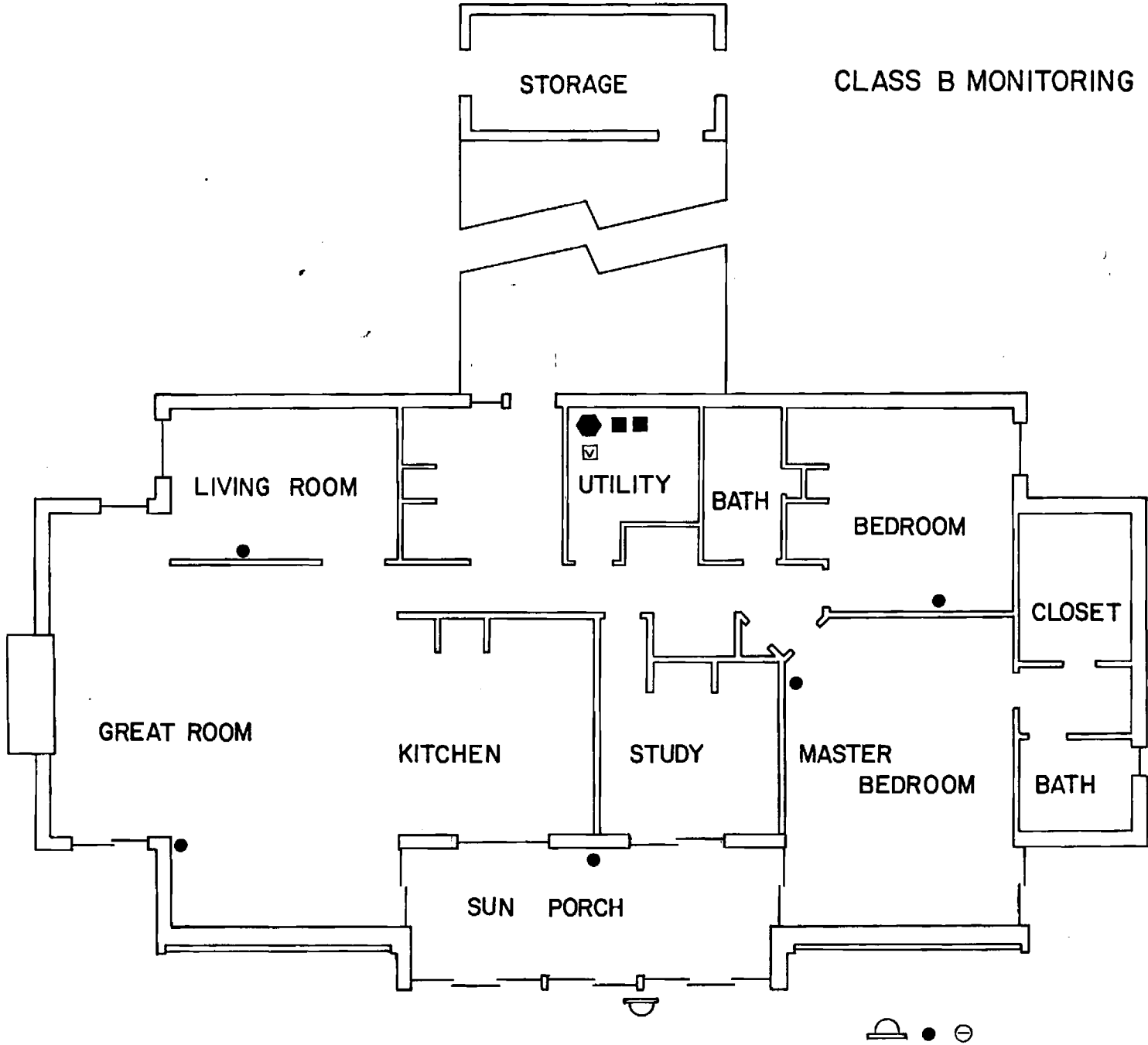
CLASS B MONITORING SITE SGI
BASEMENT



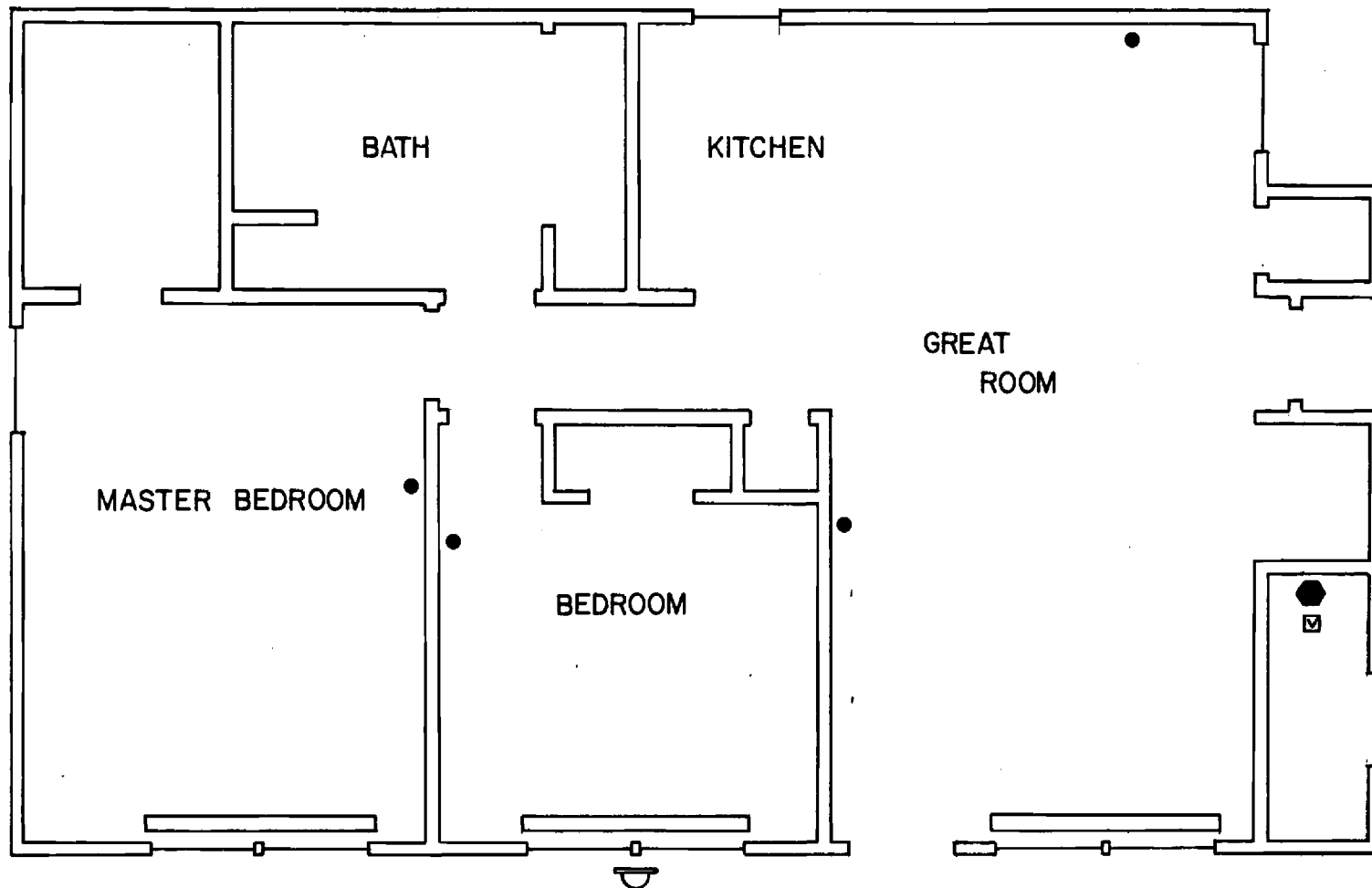
CLASS B MONITORING SITE SHI



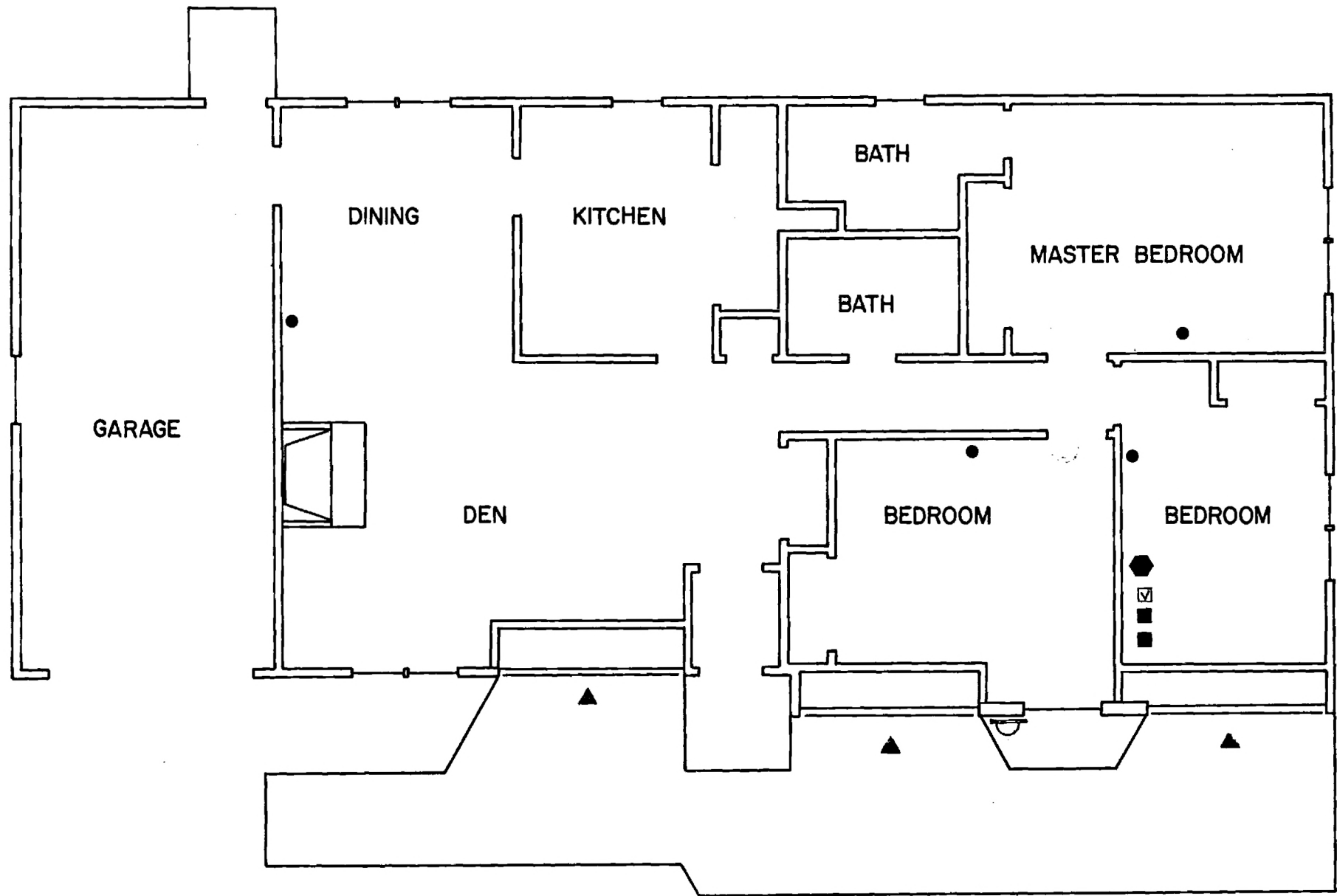
CLASS B MONITORING SITE SJI



- ATTIC FAN
- FREEZER
- SPACE HEAT
- HOT WATER

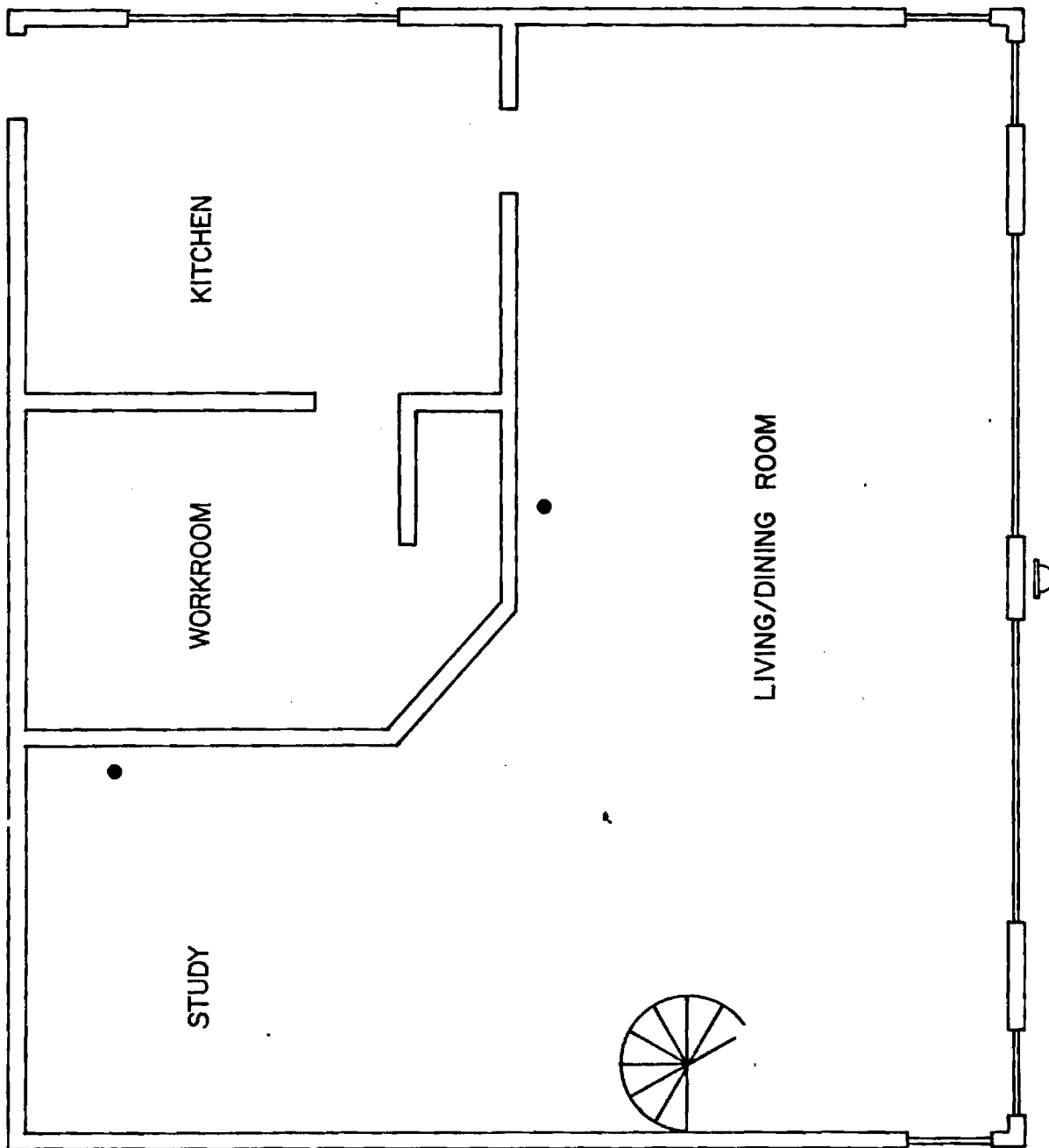


CLASS B MONITORING SITE SKI

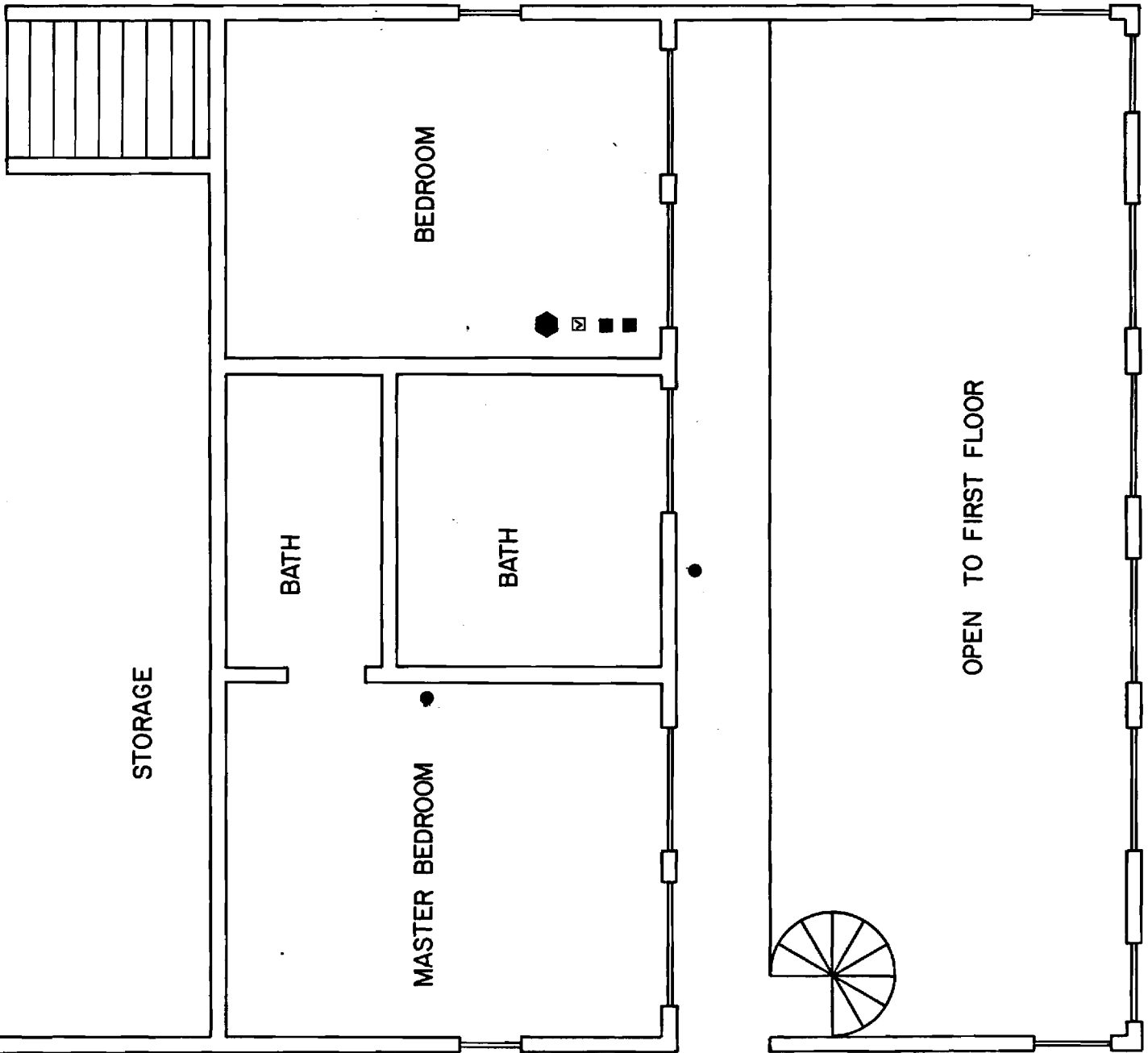


CLASS B MONITORING SITE SLI





CLASS B MONITORING SITE SMI
FIRST FLOOR



CLASS B MONITORING SITE SMI
SECOND FLOOR



CLASS B MONITORING SITE SNI
FIRST FLOOR



Heating Load Calculation Summary

Name	Code	Design ΔT (°F)	Infiltration (Btuh)	Skin Loss (Btuh)	Floor Area a (ft ²)	South Aperture (ft ²)	Other Glazing (ft ²)	\overline{UA} (Btuh/°F)	24 \overline{UA}/a (Btu /DDft ²)	Type
McCaffrey	SA1	57	15445	52802	2038	450	307	1197	14.1	D,S
Houston	SB1	37	8786	19000	2113	193	112	750	8.5	D
Mathis	SC1	56	12233	31315	2023	287	53	778	9.2	D
Stapleton	SD1	60	19835	23285	3061	364	125	719	5.6	D,S,MW
Ross	SE1	48	9425	18450	2867	126	87	580.7	4.9	S
Levin	SF1	48	19543	28035	3177	241	175	991.2	7.5	D
Moore	SG1	48	20643	24371	3956	322	177	937.8	5.7	D
Porter	SH1	49	5953	12466	1050	203	39	375.9	8.6	S
Cook	SJ1	45	14420	22809	2899	405	102	827	6.8	D,MW
Sams	SK1	56	5609	15428	927	111	20	375.7	9.7	Dw/M
Greatorex	SL1	60	7763	18299	1198	274	75	434	8.7	D,WW
Yack	SM1	50	12393	20175	1632	277	77	651.4	9.6	D
Mullins	SN1	53	7075	15808	1236	154	79	432	8.4	D,WW