# MOUNT SINAI MEDICAL CENTER

September 6, 1985

Ms. Patricia Wiston
Material Licensing Branch
U.S. Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Re: Control No. 77207, License No. 48-03280-01

Dear Ms. Wiston:

This letter is not a request for a license amendment. It is an addendum to this institution's application for a license renewal dated July 30, 1984.

A projected need for additional facilities for research and for diagnosing patients requires that floor plans and descriptions of rooms be added to Attachment 3 of our license renewal application. Therefore, Attachment 3 has been enlarged and re-indexed accordingly. This revision (two copies of which are enclosed) completely replaces the version of Attachment 3 which was initially submitted with the renewal application dated July 30, 1984.

The revised Attachment 3 also incorporates the material described in the addendum letter dated January 30, 1985.

Please review this addendum as part of our license renewal. If you have any questions, please call me at (414) 289-8634.

Sincerely,

Robert E. Black

Robert E. Black
Radiation Safety Officer

REB:ns

Attachments







950 North Twelfth Street, P.O. Box 342 • Milwaukee, Wisconsin 53201-0342 • 414/289-8200

ATTACHMENT 3
Revised Facilities and Procedures
Originally Described in Letter dated February 22, 1980

A. Item 6, 7, 8 and 9 of license dated January 30, 1979 reflect the addition of Uranium depleted in U-235 isotope. The chemical form is elemental Uranium and the physical form is plated metal 99.8% U-238 and 0.22% max. U-235. The maximum amount of possession is 400 pounds. The authorized use is for shielding purposes in a Clinac 4 Medical Linear Accelerator. The Uranium was licensed by license number SUC-1233, which expired March 31, 1980.

B. Condition 10 of license dated January 30, 1979 reflect the addition of the address: 836 North 12th Street
Milwaukee, Wisconsin 53233

C. Item 7 (Medical Isotope Committee) Deleted.

D. Item 9 (Instrumentation) of application dated December 1, 1978 to read as on pages 2 through 4.

E. Item 10c. (Calibration of Instruments-Standards) of application dated December 1, 1978 to Read: (i) Name-Stan A. Huber Consultants, Inc.
(ii) Location-New Lenox, Illinois 60451
(iii) Procedures and Sources:
X have been approved by NRC and are on file in license number 12-17503-01.

F. Item 11 (Facilities and Equipment) of application dated December 1, 1978 to read as on pages 5 through 72.

G. Item 12 (Personnel Training and Frequency) of application dated December 1, 1978 to read as follows:

All occupational personnel will receive formal instruction initially and at least annually thereafter in the requirements of 10CFR19.12 by the radiation safety officer or his delegate.

All ancillary personnel, i.e. housekeeping, security, nursing, etc. will receive instruction initially and at least annually in the requirements of 10CFR19.12 by the radiation safety officer or his delegate.

H. Item 20c. (Therapeutic Use of Sealed Sources-Personnel Instructions) of application dated December 1, 1978 to reflect the use of the form shown on pages 7 and 8 to replace the form in the application.

# Instrumentation

## I. Survey Meters

### A. Low Level

1. Manufacturer's name: Ludlum
   Manufacturer's number: Model 2
   Number of instruments: 3
   Minimum range: 0 - 0.5 mr/hr
   Maximum range: 0 - 50 mr/hr

2. Manufacturer's name: Elscint
   Manufacturer's number: GSM-1
   Number of instruments: 1
   Minimum range: 0 - 0.5 mr/hr
   Maximum range: 0 - 2.0 R/hr

3. Manufacturer's name: Nuclear R & D
   Manufacturer's number: EON XX QC
   Number of instruments: 1
   Minimum range: 0 mr/hr to 0.5 mr/hr
   Maximum range: 0 mr/hr to 50 mr/hr

### B. High Level

1. Manufacturer's name: Victoreen
   Manufacturer's number: 470A
   Number of instruments: 2
   Minimum range: 0 mr/hr to 3 mr/hr
   Maximum range: 0 mr/hr to 1 R/hr

2. Manufacturer's name: Victoreen
   Manufacturer's number: 570
   Number of instruments: 1
   Minimum range: 0 R to 100 R
   Maximum range: 0 R to 250 R

## II. Lab Monitors

1. Manufacturer's name: Texas Nuclear
   Manufacturer's number: 9113
   Number of instruments: 1
   Minimum range: 0 mr/hr to 0.2 mr/hr
   Maximum range: 0 mr/hr to 2000 mr/hr

2. Manufacturer's name: Texas Nuclear
   Manufacturer's number 9113
   Number of instruments: 1
   Minimum range: 0 mr/hr to .02 mr/hr
   Maximum range: 0 mr/hr to 200 mr/hr

3. Manufacturer's name: Nuclear Associates
   Manufacturer's number: 35-05-437
   Number of instruments: 1
   Minimum range: 0 mr/hr to 1 mr/hr
   Maximum range: 0 mr/hr to 100 mr/hr

4. Manufacturer's name: Picker
   Manufacturer's number: 642-081
   Number of instruments: 1
   Minimum range: 0 cpm to 300 cpm
   Maximum range: 0 cpm to 30,000 cpm

III. Room Air Monitors

1. Manufacturer's name: Nuclear Associates
   Manufacturer's number: XenAlert
   Number of instruments: 2
   Xenon Monitor

2. Manufacturer's name: Nuclear Associates
   Manufacturer's number: Xeogard Model 36-751
   Number of instruments: 1
   Minimum range: 0 - 1 MPC
   Maximum range: 0 - 1000 MPC

IV. Dose Calibrators

1. Manufacturer's name: Searle
   Number: 6372
   Number available: 1

2. Manufacturer's name: Capintick
   Number: CRC-10
   Number available: 1

3. Manufacturer's name: Capintick
   Number: CRC-30
   Number available: 1

V. Xenon Inhalation Apparatus

1. Manufacturer's name: RADX
   Manufacturer's number: Model 120
   Number of instruments: 2

2. Manufacturer's name: Xenomatic
   Manufacturer's number: 3000
   Number of instruments: 1

VI. Diagnostic Instruments

| Type | Name | Model No. |
|---|---|---|
| Scintillation Camera | Searle | 64306 |
| Scintillation Camera | Technicare | 500 |
| Portable Detector | Searle/Amersham | g 273-1 |
| Scintillation Camera | Baird | 70 |
| Scintillation Camera | Baird | 70 |
| Scintillation Camera | Elscint | Apex 215m |
| Scintillation Camera | Siemens | LEM |

VII. Other

| Type | Name | Model No. |
|---|---|---|
| Liquid Scintillation | Beckman | LS-100C |
| (Two) Automatic Gamma System | Searle | 1185 |
| Liquid Scintillation | Packard | 3330 |
| Liquid Scintillation | Beckman | LS-7000 |
| Automatic Gamma System | Beckman | 300 |
| Multi-Channel Analyzer | Canberra | - |
| (Two) Well Counter | Picker | Spectroscaler 4R |
| Detector Probe | Picker | Spectroscaler 4R |

## Forms, Facilities and Equipment Index

| | | |
|---|---|---|
| 63 | Radioactive Carcass Storage Facilities | W009/013 |
| 64 | Invitro Research Laboratories | W128/128.1/130 |
| 65 | Animal or In Vitro Research Laboratory | W133 |
| 66 | Invitro Research Laboratory | W310/312/316 |
| 67 | Invitro Research Laboratory | W429 |
| 68 | Invitro Research Laboratories | R278/280 |
| 69 | Invitro Research Laboratory | R294 |
| 70 | Nuclear Cardiology Imaging Rooms | R457/458 |
| 71 | Animal Surgical Laboratory | W416 |
| 72 | In Vitro Research Laboratory | H113 |

# Special Orders for Patients Receiving Radioactive Implant Therapy

## SOURCE INSERTION

These orders are to be placed in the front of the patient's chart and are not to be amended or discontinued without a written order by the physician in charge.

Patient's Name _____ Patient's Hospital # _____

Room # _____ Physician's Name _____

Isotope _____ Date & Time of Administration _____

Total Number of Sources _____ _____ Total Activity of Sources _____

Individual Source Strength _____

_____

Date & Time Sources are to be Removed _____

Exposure Rates in mR/hr.

Bedside _____ 1 meter from bed _____ 2 meters from bed _____

1. The patient is to remain in the room except for required emergency medical or nursing procedures.
2. A sign on the patient's door should indicate **"CAUTION-RADIOACTIVE MATERIAL".**
3. Visiting is limited to _____ minutes daily.
4. Visitors are not to remain at the bedside of the patient and should stay at least ___ feet from the bed.
5. Ordinary nursing care requiring up to 15 minutes 4 times during each shift is considered safe and adequate.
6. All linen and dressings are to be checked to insure that no radioactive sources are discarded.
7. The radioactive sources shall be removed by or under the direct supervision of the radiotherapist. They shall be stored in the lead container and returned to the Radiation Therapy Department without delay.
8. Notify the Radiation Therapy Department, Ext. 8290, of any unusual circumstances or if the radioactive source in the patient appears to have shifted.
9. Special Nursing Instructions (complete checked items).

___ a. Wear film badge.
___ b. Wear rubber gloves.
___ c. Place laundry in linen bag and save.
___ d. Housekeeping may not enter the room.
___ e. Dietary may not enter the room.
___ f. Patient may not have visitors.
___ g. No pregnant visitors.
___ h. No visitors under 18 years of age.

____ i. A dismissal survey must be performed **before** patient is discharged.
____ j. Patient must have a private room.
____ k. Other instructions.

_____

_____

**SOURCE REMOVAL**

All radioactive sources have been removed at _____ A.M. P.M. on _____, 19 _____

Total # of Sources Recovered _____

The patient was surveyed with a radiation detector and the survey indicated that there were no sources remaining. The NRC license requirements for the release of this patient have been fulfilled._____
initials of surveyor

_____, M.D.
(Signature)

Business Phone: _____

Home Phone: _____

Attachment 3
Pages 9-16

(Reserved for future expansion)

# DESCRIPTION OF ROOMS

PAGE

36
Name: Non-Volatile Radioactive Waste Holding Room
Number: C012
North: Unexcavated earth
South: Storage Room
East: Corridor-controlled access
West: Unexcavated earth
Above: Stairway
Below: Unexcavated earth
Comments:
Leaded door and walls on south and east.

37
Name: Volatile Radioactive Waste Holding Room
Number: N/A
North: Outside wall
South: Physician dictating room
East: Outside wall
West: Outside wall
Above: Outdoor space
Below: Unexcavated earth
Comments:
Storage of scintillation vials and waste for decay or commercial disposal pick-up.

39
Name: Nuclear Medicine Imaging Room
Number: E370.6
North: Diagnostic Radiology room
South: Diagnostic Radiology room
East: Corridor - Controlled access
West: Radiology work area
Above: Maternity operating rooms
Below: Open space due to cantilever construction
Comments:
Xe-133 use. All walls reinforced with lead lining.

40
Name: Nuclear Medicine Hot Lab
Number: E387
North: Corridor - Controlled access
South: Medical transcription office - leaded wall
East: Outside wall
West: Diagnostic Radiology room - leaded wall
Above: Corridor - Controlled access
Below: Open space due to cantilever construction
Comments:
Xe-133 storage area is within lead lined fume hood.

PAGE

41
Name: Nuclear Chemistry
Number: E419
North: Outside wall
South: Corridor - Controlled access
East: Pathology Laboratory
West: Outside wall
Above: Outdoor space
Below: Surgery Department
Comments:
Invitro Studies only using primarily I-125 commercially prepared kits in microcurie quantities.

42
Name: Microbiology
Number: E433
North: Pathology Laboratory
South: Pathology Laboratory
East: Equipment room - Controlled access
West: Corridor - Controlled access.
Above: Outdoor space
Below: Surgery Department
Comments:
C-14 Blood culture testing only.

43
Name: C-14 Storage Area
Number: E441
North: Corridor - Controlled access
South: Corridor - Controlled access
East: Outside wall
West: Corridor - Controlled access
Above: Outdoor space
Below: Surgery Department
Comments:
Storage of C-14 blood culture vials only. Maximum storage under 2.0 millicuries.

45
Name: Invitro Research Laboratory
Number: R272
North: Conference Room
South: Research Laboratory
East: Corridor
West: Outside wall
Above: Office
Below: Occupational Therapy Room
Comments:
Use of microcurie quantities of C-14 and H-3 compounds.

46
Name: Invitro Research Laboratory
Number: R282
North: Research Laboratory
South: Storage Room
East: Outside wall
West: Corridor - Controlled access
Above: Cardiac Stress Testing
Below: Patient examining room
Comments:
Use of picocurie quantities of H-3 compounds.

PAGE

47
Name: Invitro Research Laboratory
Number: R283/285
North: Physician office
South: Research Laboratory
East: Corridor - Controlled access
West: Outside wall
Above: EKG Department
Below: Patient examining rooms
Comments:
Use of microcurie quantities of C-14 and H-3 compounds.

48
Name: Invitro Counting/Storage Areas
Number: R286/288
North: Toilet
South: Stairway
East: Outside Wall
West: Corridor - Controlled access
Above: EKG Department
Below: Patient Reception Area
Comments:
Invitro counting C-14 and H-3. Temporary storage for solid waste of C-14 and H-3

49
Name: Invitro Research Laboratory
Number: R293
North: Storage Room
South: Corridor - Controlled access
East: Research Laboratory
West: Balance Room
Above: Cardiology Rehabilitation Department
Below: Patient examining room
Comments:
Use of microcurie quantities of H-3 compounds.

50
Name: Single Plane Cardiac Catheterization Laboratory
Number: R352.7
North: Outside wall
South: X-ray dark room - lead lined wall
East: Monitoring room - lead lined wall
West: Outside wall
Above: Research facilities
Below: Hemodialysis Service
Comments:
Radionuclide use including Xenon-133. All access doors are lead lined.

51
Name: Bi Plane Cardiac Catheterization Laboratory
Number: R360.1
North: Outside wall
South: Corridor - lead lined wall
East: Storage room/data center - lead lined wall
West: Monitoring room/corridor/storage room - lead lined walls
Above: Research facilities
Below: Hemodialysis Service
Comments:
Radionuclide use including Xenon-133. All access doors are lead lined.

PAGE

52
Name: Nuclear Cardiology Imaging Room
Number: R366.11
North: Outside wall
South: Corridor - controlled access
East: Monitoring room
West: Monitoring room
Above: Research facilities
Below: Hemodialysis Service
Comments:
Standby Imaging Facility

53
Name: Nuclear Cardiology Department Floorplan
Number: R457 - R468
North: Outside wall
South: Outside wall
East: Outside wall
West: Corridor - controlled access
Above: Administrative offices
Below: Staff offices
Comments:
Routine Imaging Procedures

54
Name: Nuclear Cardiology Imaging Room
Number: R461
North: Corridor
South: Outside wall
East: Offices
West: Hot Lab/Bathroom/Equipment Room
Above: Outside Space - Controlled Access
Below: Offices
Comments:
Routine Imaging Procedures

54
Name: Nuclear Cardiology Hot Lab
Number: R461.1
North: Corridor
South: Equipment room
East: Imaging room
West: Office
Above: Outside space - controlled access
Below: Offices
Comments: Radionuclide nuclide storage and preparation area, including Xenon-133. All radionuclides will be stored in lead lined cabinets. Preparation of radiopharmaceuticals will be in lead lined hood. All walls are lead lined.

56
Name: Invitro Research Laboratory
Number: H002
North: Research Laboratory
South: Stairway & Research Laboratory
East: Unexcavated earth
West: Corridor - Controlled access
Above: Offices
Below: Unexcavated earth
Comments:
Use of microcurie quantities of H-3 and C-14 compounds.

PAGE

57
Name: Invitro Research Laboratory
Number: H007
North: Stairway
South: Stairway and Hall
East: Research Laboratory
West: Unexcavated earth
Above: Research Laboratory
Below: Unexcavated earth
Comments:
Use of C-14 and H-3 compounds in microcurie quantities.

58
Name: Invitro Research Laboratory
Number: H123
North: Research Laboratory
South: Outside wall and stairway
East: Outside wall
West: Office
Above: Classroom
Below: Research Laboratory
Comments:
Use of H-3 compounds in microcurie quantities

59
Name: Invitro Research Laboratory
Number: W123/124/125/126
North: Outside wall
South: Corridor - Controlled access
East: Outside wall
West: Locker room and toilet
Above: Animal rooms
Below: Storage and equipment rooms
Comment:
Microcurie quantities of H-3, C-14, and I-125 compounds, and millicurie quantities of Cr-51 compounds.

60
Name: Invitro Research Laboratory
Number: W401
North: Outside wall
South: Corridor - Controlled access, Small animal research room
East: Animal Research room
West: Outside wall
Above: Outdoor space
Below: Unoccupied rooms
Comments:
Commercially prepared I-125 invitro kits in microcurie quantities

61
Name: Research Laboratory
Number: W417,+22
North: Offices/Corridor - Controlled Access
South: Outside wall
East: Animal Surgical Lab
West: Animal Post Operative Recovery Room
Above: Outside Space - Controlled Access
Below: Research Laboratory
Comments: Radionuclide use in animals including Xenon-133.

PAGE

62
Name: Brachytherapy Source Storage Room
Number: E012.1
North: Pipe space - 8" concrete block wall
South: Linear Accelerator room - controlled access
East: Unexcavated earth
West: Simulator Room - 8" concrete block wall
Above: Patient admitting reception area
Below: Unexcavated earth
Comments:
Door to E012.1 secured against unauthorized entry. Storage of Cs-137 implants within lead safe.

63
Name: Radioactive carcass storage facilities
Number: W-009/013
North: Controlled access corridor
South: Unexcavated earth
East: Storage space and animal quarters
West: Storage space
Above: Invitro and animal research labs
Below: Unexcavated earth
Comments:
Each freezer contains less than one millicurie of radionuclides as microspheres in carcasses. Half-lives are less than 45 days. Radionuclides are Ce-141, Cr-51, Nb-95, and Ru-103.

64
Name: Invitro Research Laboratories
Number: W-128/128.1/130
North: Controlled access corridor
South: Exterior; employees gated parking lot
East: Secure storage area
West: Lab and office
Above: Animal quarters
Below: Animal quarters
Comments:
Microcurie quantities of H-3, C-14, and I-125 pre-labelled compounds. Millicurie quantities of P-32, S-35, and Cr-51 labelled compounds.

65
Name: Animal or Invitro Research Laboratory
Number: W-133
North: Offices
South: Exterior; employees gated parking lot
East: Laboratory
West: Stairwell
Above: Animal quarters
Below: Animal quarters
Comments: Microcurie amounts of H-3, C-14, and I-125 as pre-labelled compounds. Less than 100 microcuries of Ce-141, Cr-51, Nb-95, and Ru-103 combined, as microspheres.

PAGE

66
Name: Invitro Research Laboratory
Number: W-310/312/316
North: Exterior
South: Exterior
East: Exterior
West: Stairwell, storage, elevator shaft, reception area, and conference room
Above: Research laboratories
Below: Animal quarters
Comments: Pre-labelled compounds containing H-3, C-14, S-35, or I-125 are used for invitro research. Radioiodinations involving two mCi or less of I-125 or I-131 per procedure to be done in the fume (exhaust) hood in W-316.

67
Name: Invitro Research Laboratory
Number: W-429
North: Research laboratory
South: Office
East: Controlled accesss corridor
West: Exterior
Above: Roof
Below: Research laboratory
Comments: Invitro research only involving microcurie amounts of pre-labelled compounds.

68
Name: Invitro Research Laboratory
Number: R-278/280
North: Office
South: Research laboratory
East: Exterior
West: Controlled access corridor
Above: Offices
Below: Offices and lobby
Comments: Invitro research only involving microcurie amounts of pre-labelled compounds.

69
Name: Invitro Research Laboratory
Number: R-294
North: Exterior
South: Exterior
East: Offices
West: Laboratories
Above: Offices
Below: Offices
Comments: Invitro research only involving microcurie amounts of pre-labelled compounds.

PAGE

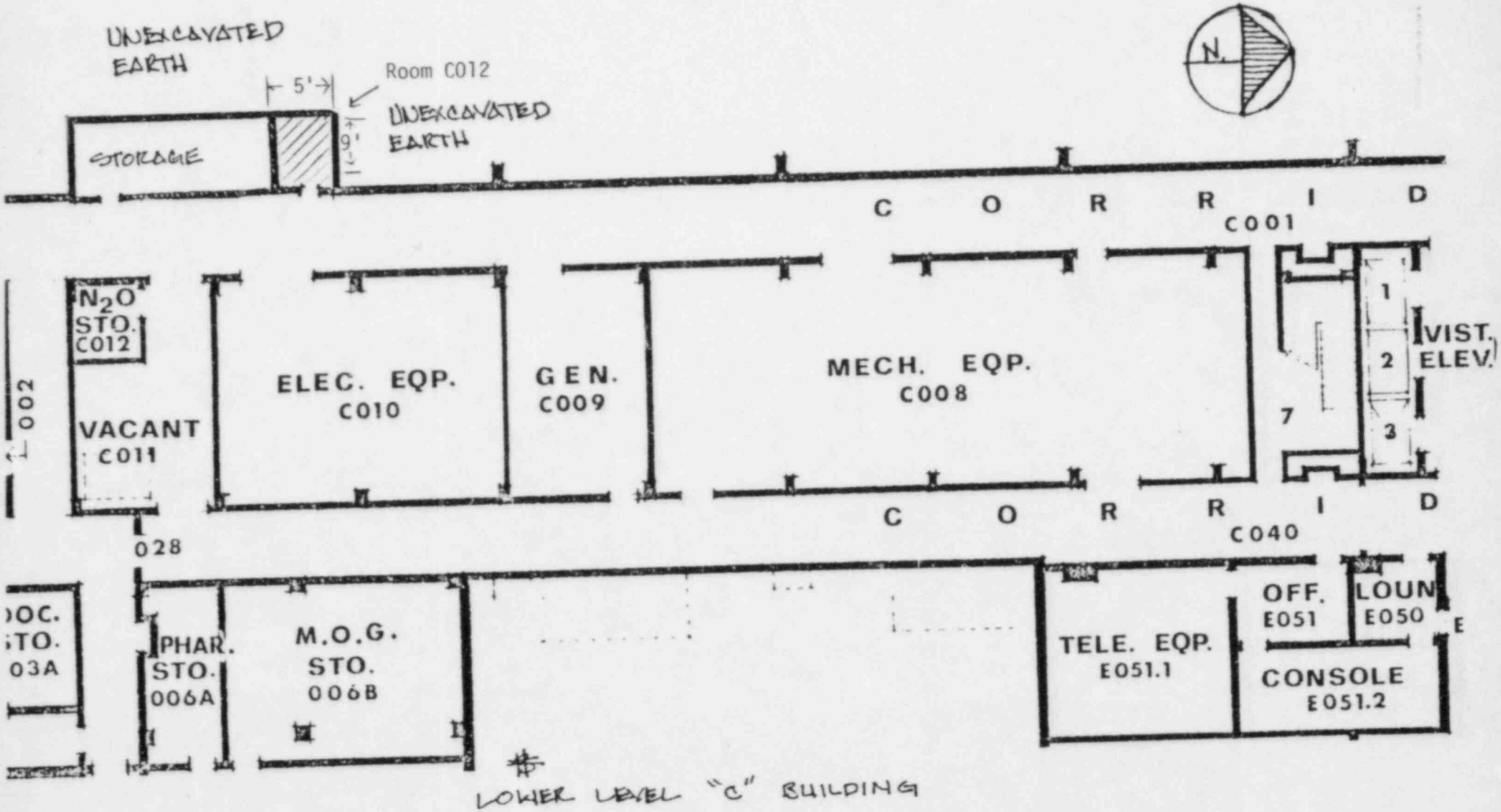
70
Name: Nuclear Cardiology Imaging Rooms
Number: R-457/458
North: Exterior
South: Controlled access corridor
East: Storage
West: Controlled access corridor
Above: Offices
Below: Offices
Comments: Doses are prepared and calibrated in Nuclear Cardiology hot lab and are injected into patients in imaging rooms.

71
Name: Animal Surgical Laboratory
Number: W-416
North: Controlled access corridor
South: Exterior
East: Controlled access stairwell
West: Research laboratory
Above: Roof
Below: Research laboratory
Comments: This room will be used for animal experiments involving less than 100 microcuries total activity per experiment, consisting of Ce-141, Cr-51, Nb-96, and Ru-103 microspheres. Other experiments may involve the use of pre-labelled radioactive compounds in amounts of up to 50 microcuries per experiment.

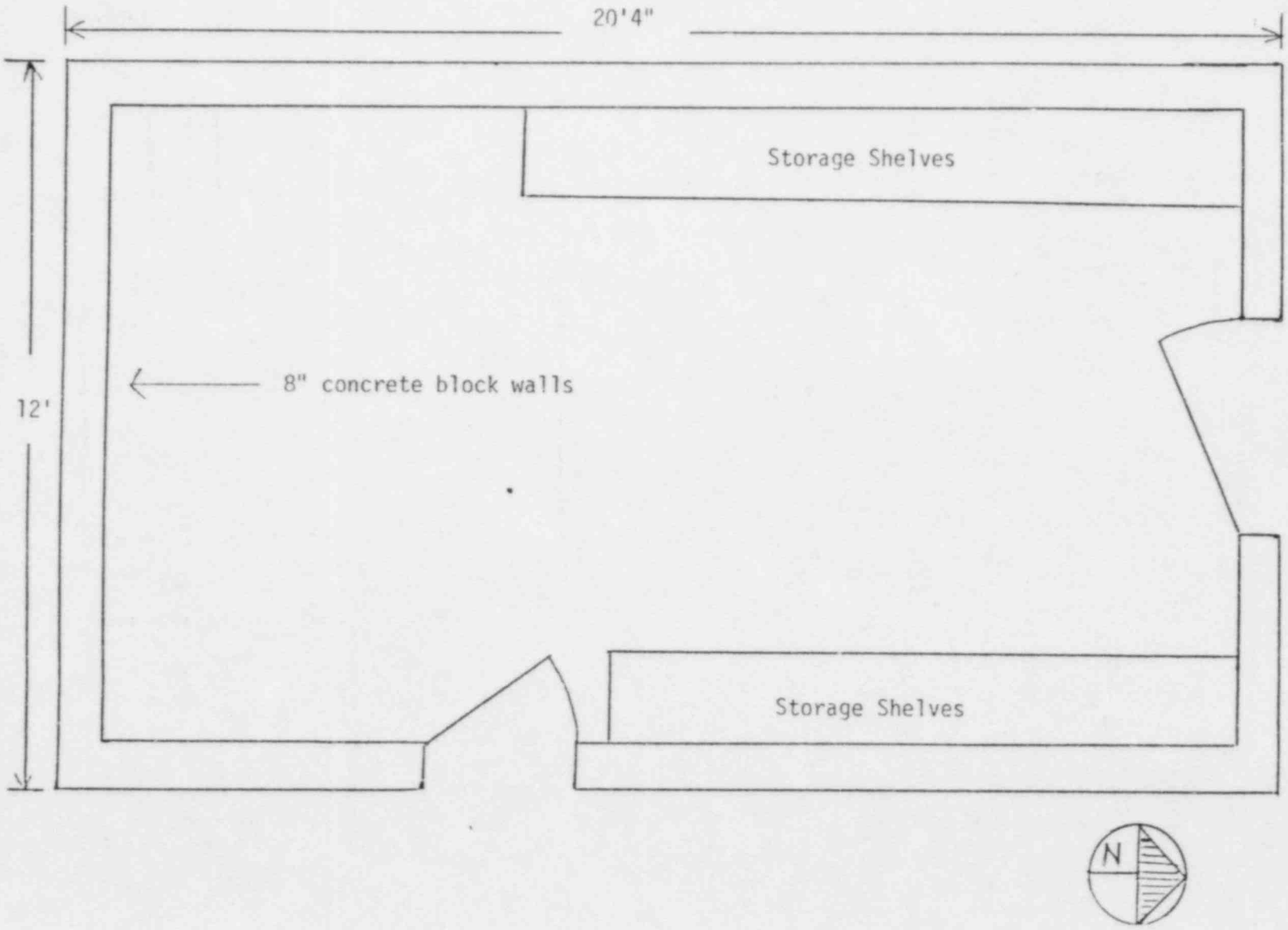
72
Name: Invitro Research Laboratory
Number: H-113
North: Offices
South: Research laboratory
East: Offices
West: Exterior
Above: Offices
Below: Research Laboratory
Comments: Invitro research involving microcurie amounts of H-3, C-14, S-35, and I-125 as pre-labelled compounds.

Attachment 3
Pages 25-35

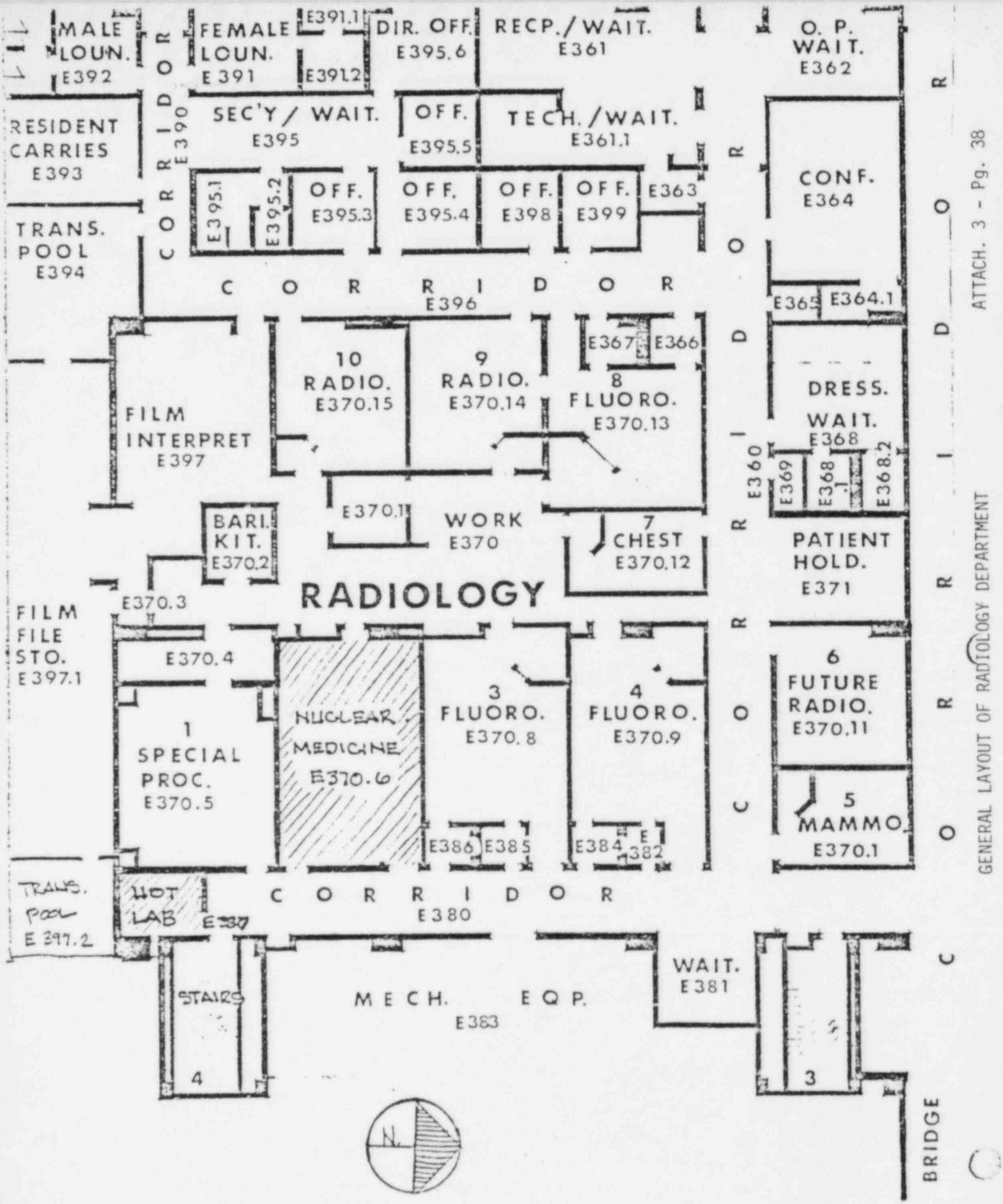
(Reserved for future expansion)



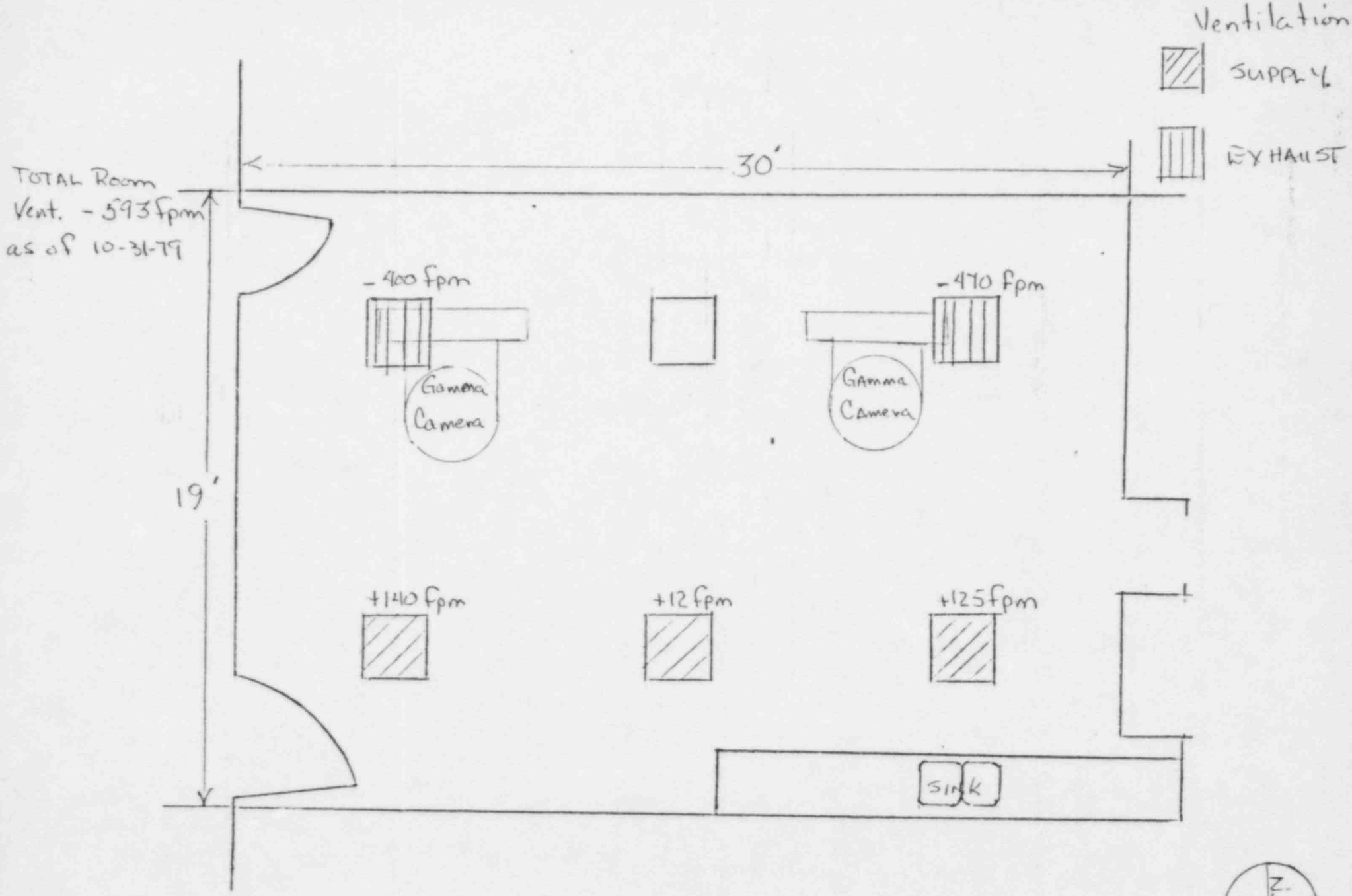

NON-VOLATILE WASTE HOLDING ROOM (C012)

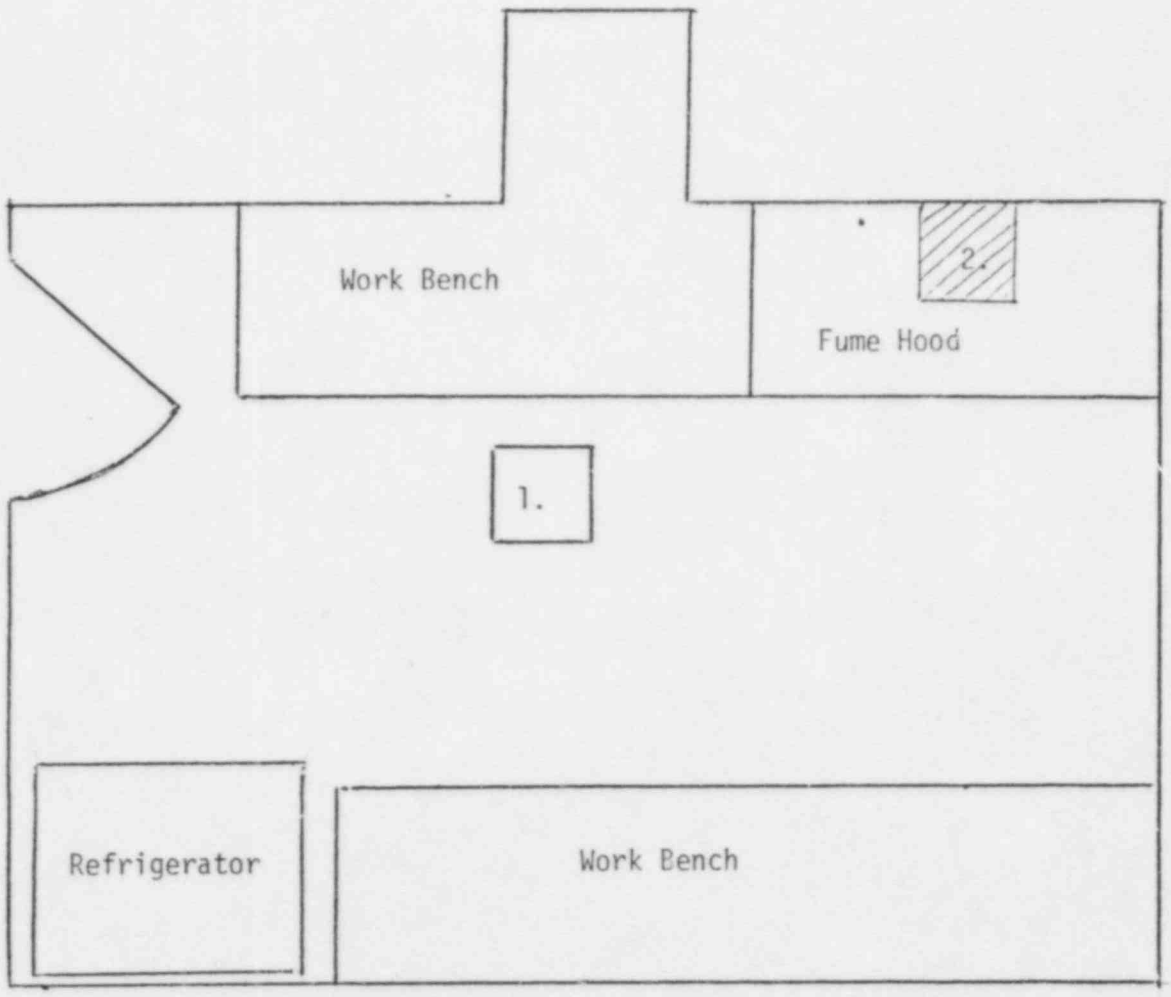


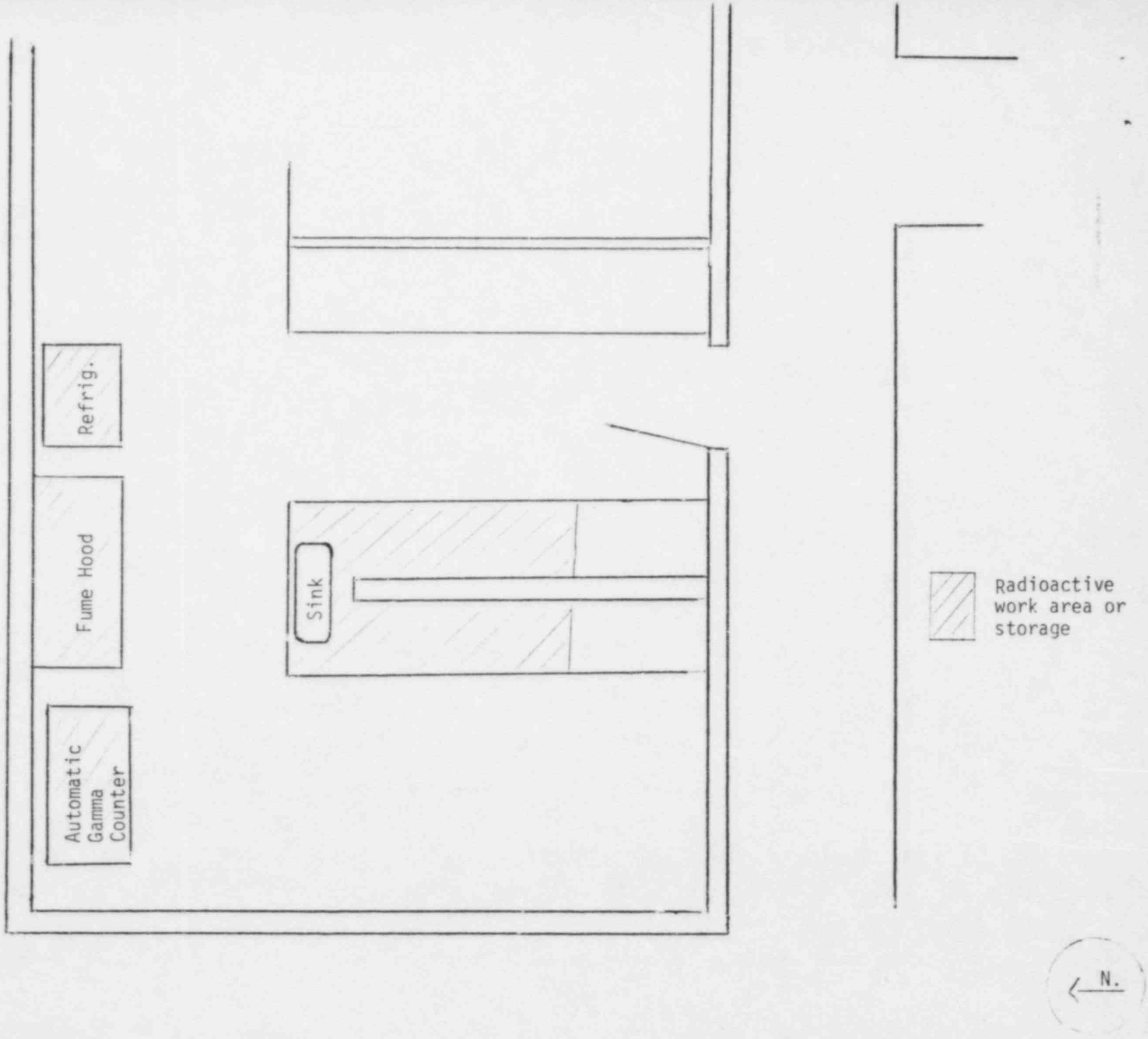

VOLATILE RADIOACTIVE WASTE STORAGE ROOM




GENERAL LAYOUT OF RADIOLOGY DEPARTMENT

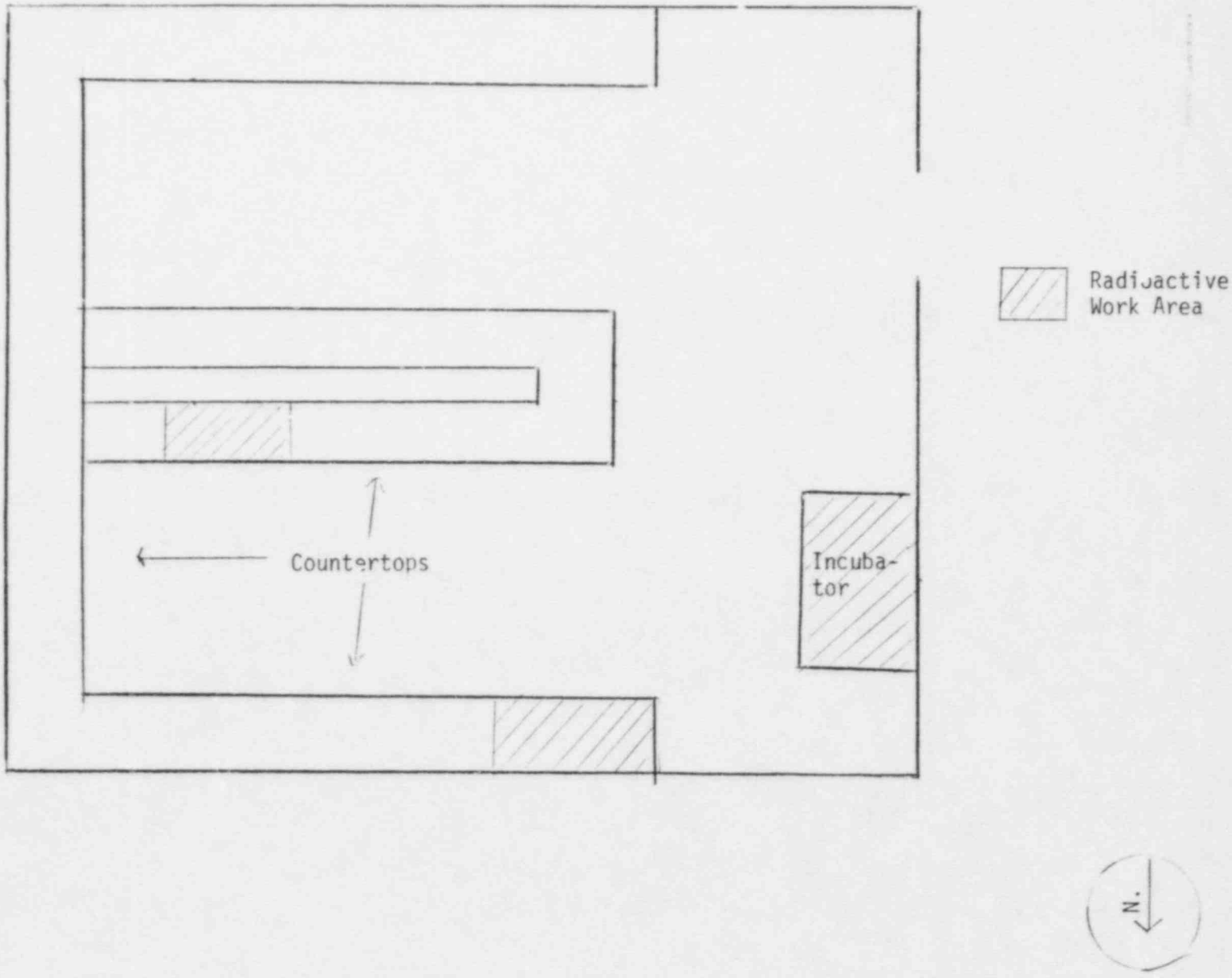

Ventilation
SUPPLY
EXHAUST
30'
TOTAL Room
Vent. - 593 fpm
as of 10-31-79
19'
-400 fpm
Gamma
Camera
-470 fpm
Gamma
Camera
+140 fpm
+12 fpm
+125 fpm
SINK

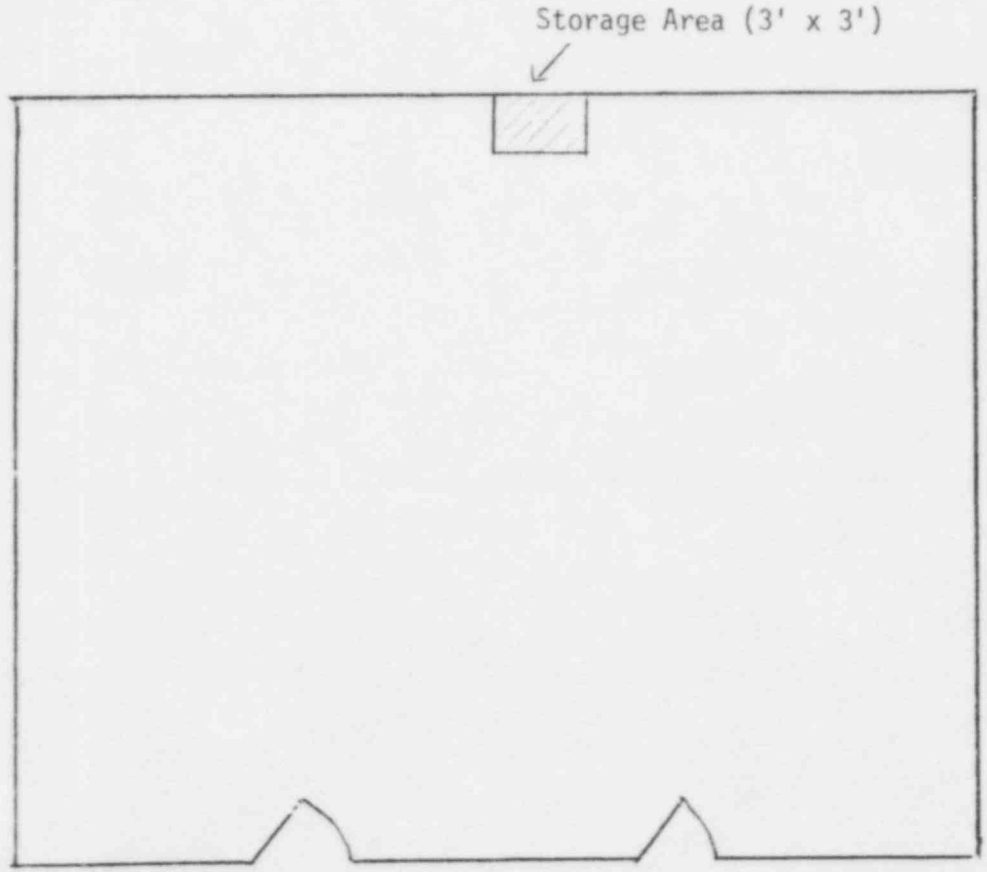

1. Intake
2. Exhaust
Work Bench
2.
Fume Hood
1.
Refrigerator
Work Bench
N

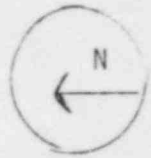



Room dim. 19' x 18'

Nuclear Chemistry (E419)

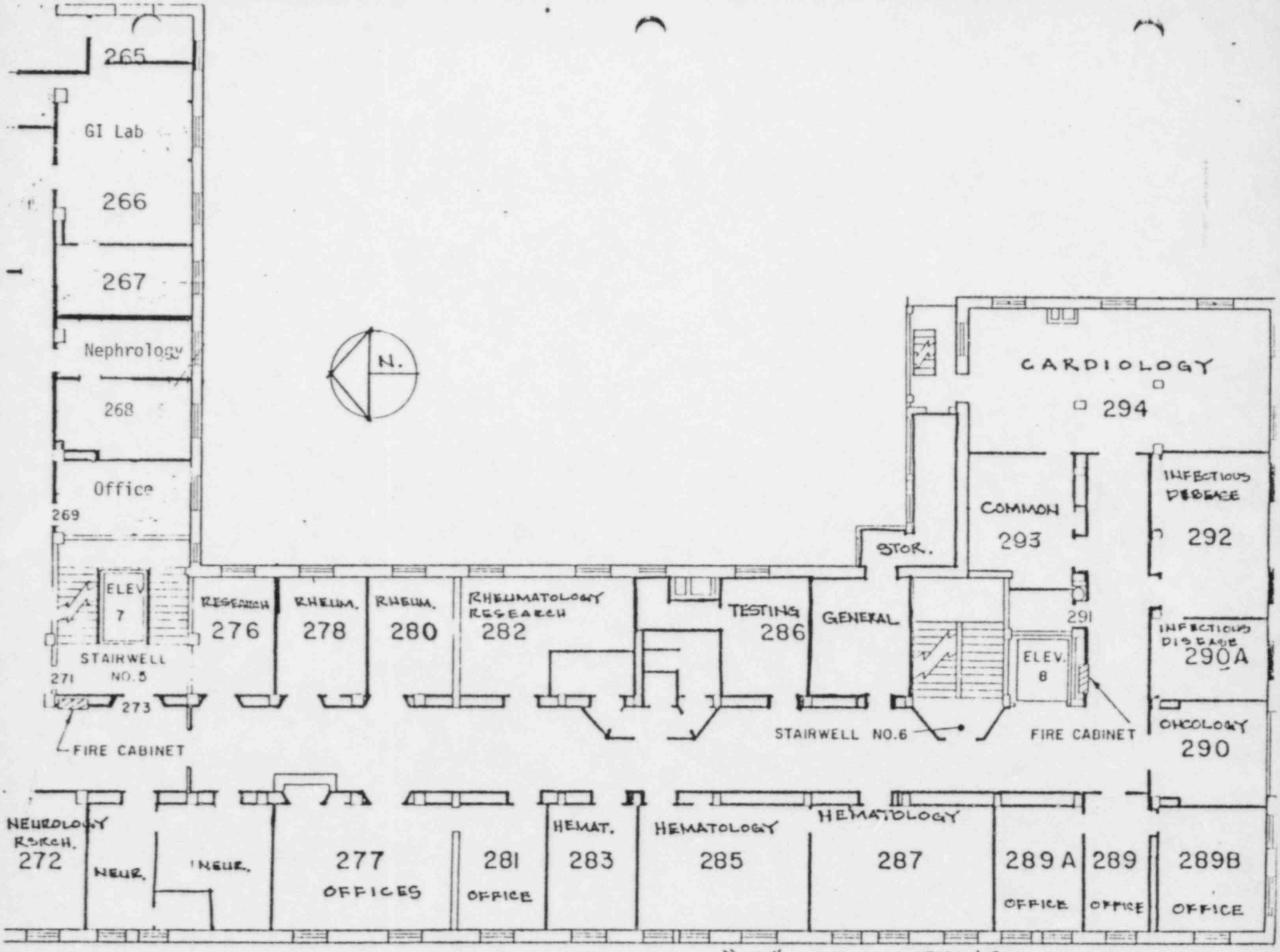

Radioactive
Work Area
Countertops
Incuba-
tor
N.



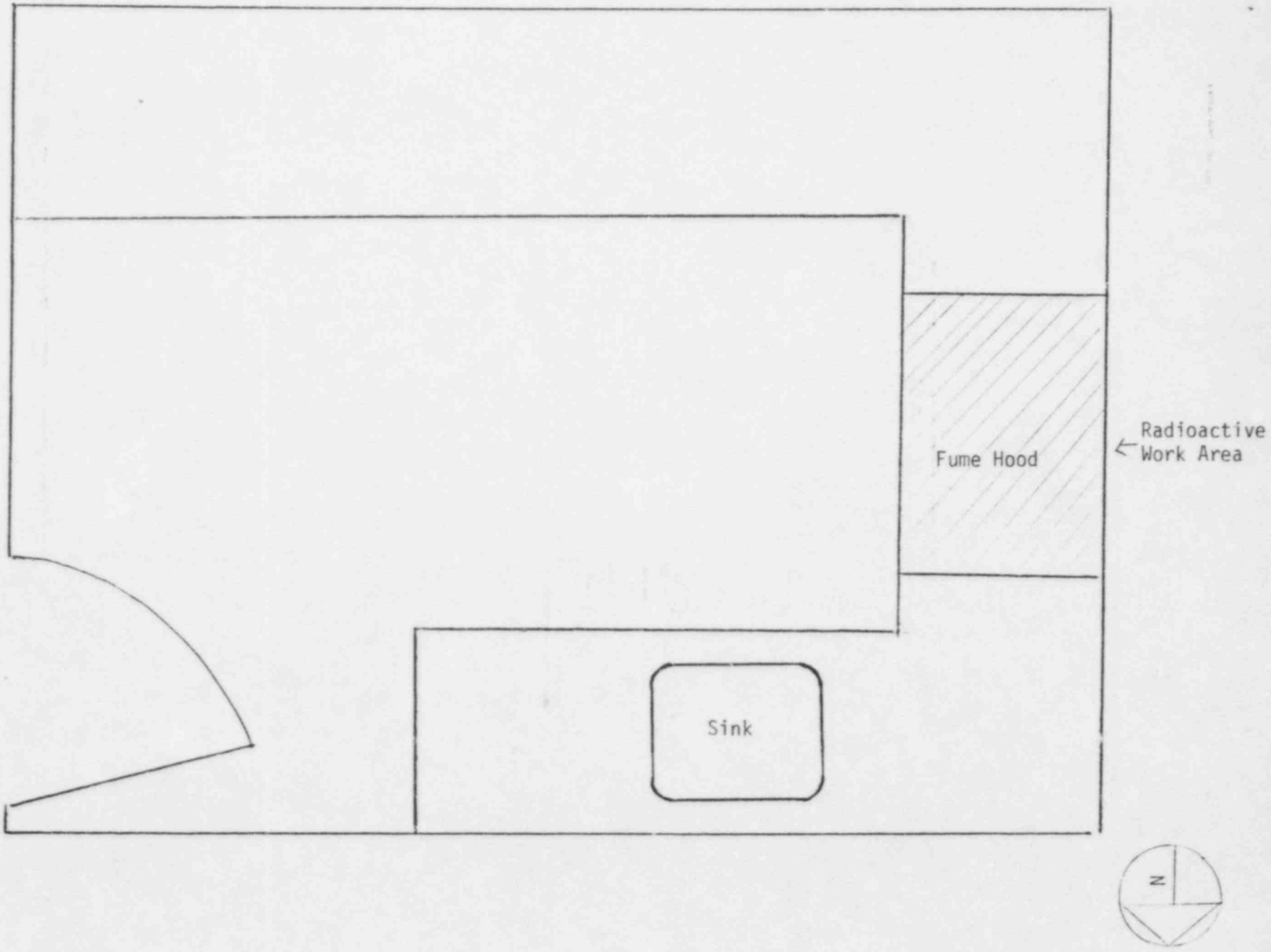



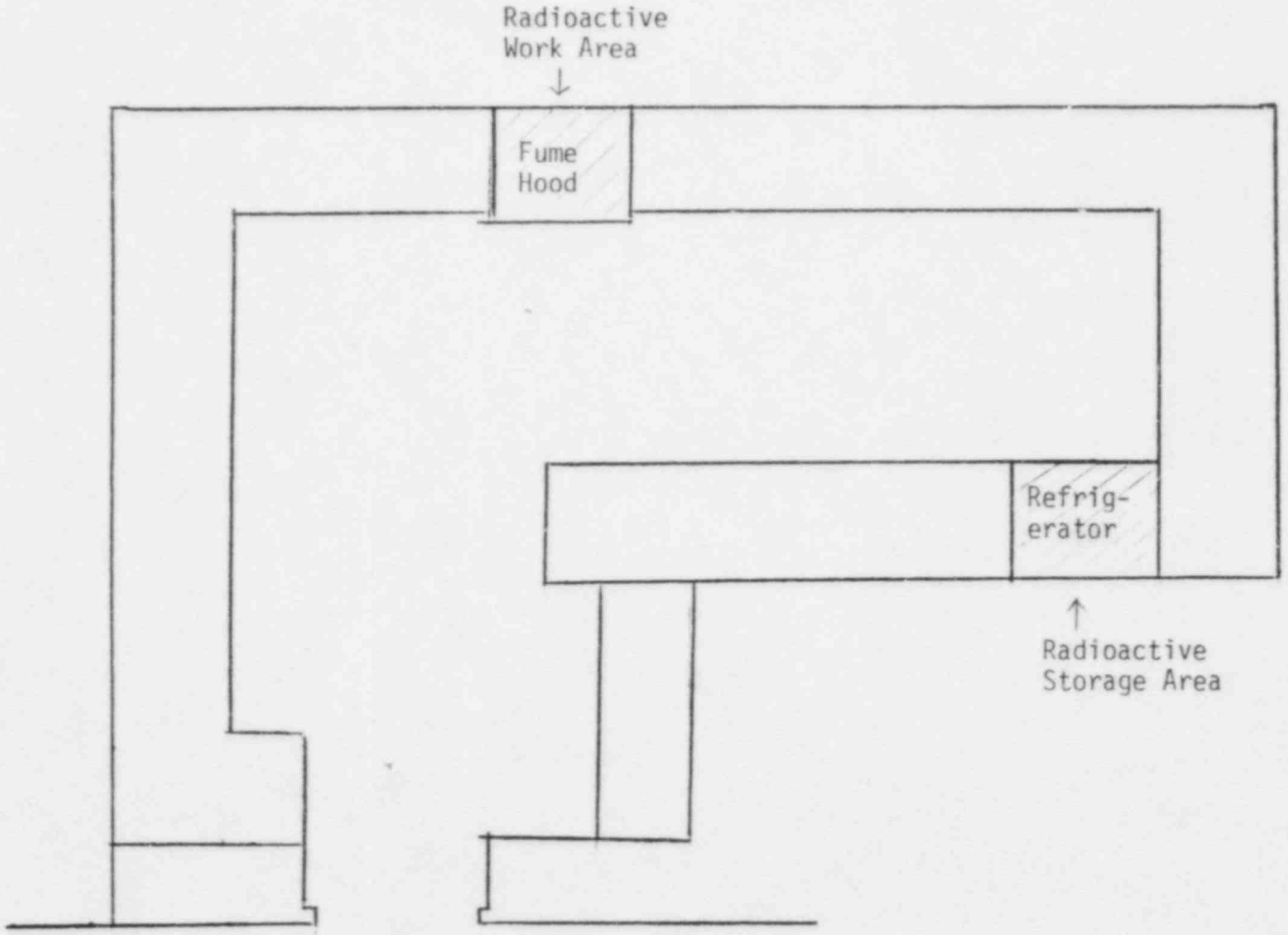

Room dim. 44' x 35'

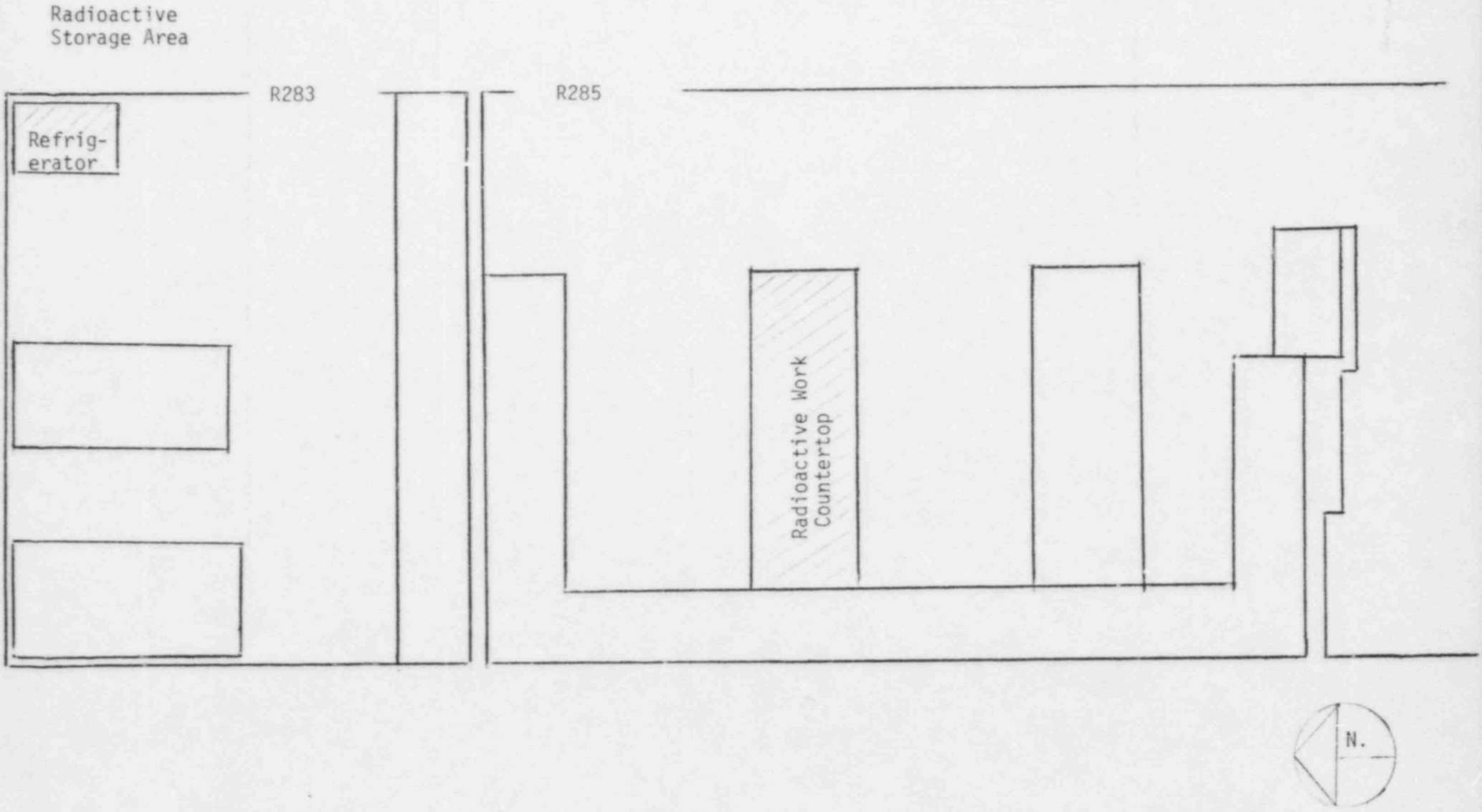
C-14 Storage Room (E441)

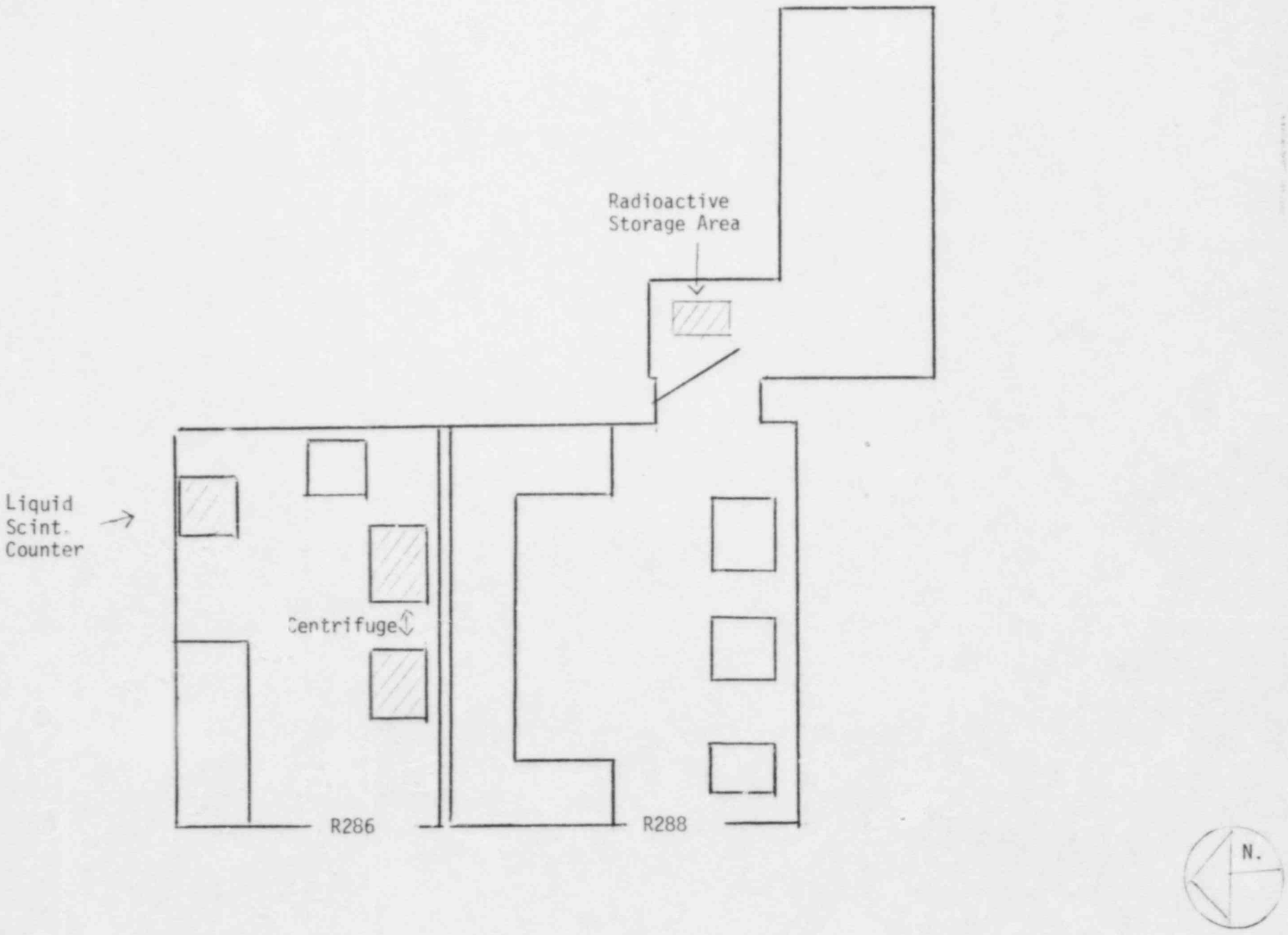



SECOND FLOOR PLAN "R" BUILDING


Fume Hood
Radioactive
Work Area
Sink
N

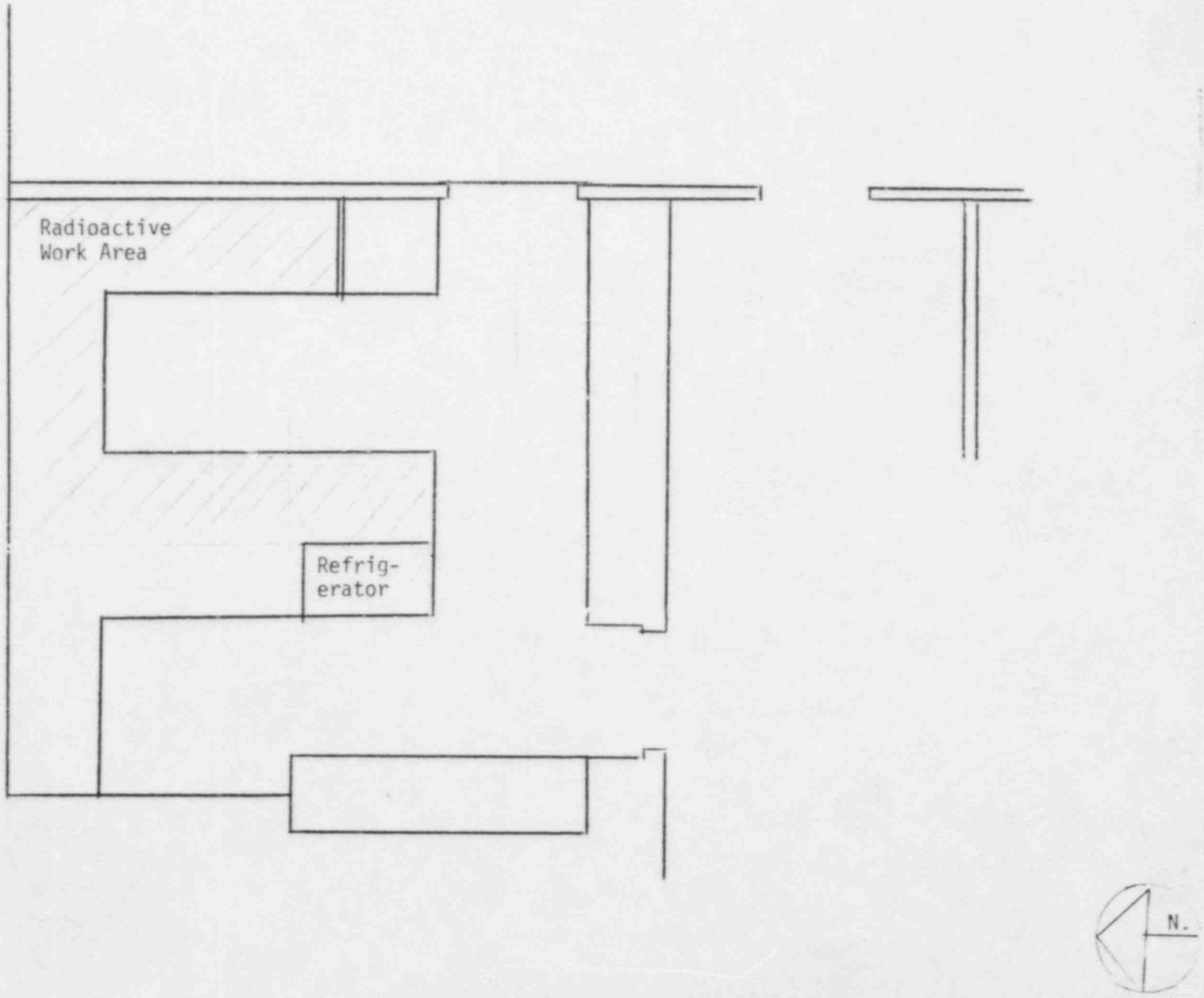

Radioactive
Work Area
Fume
Hood
Refrig-
erator
Radioactive
Storage Area
N

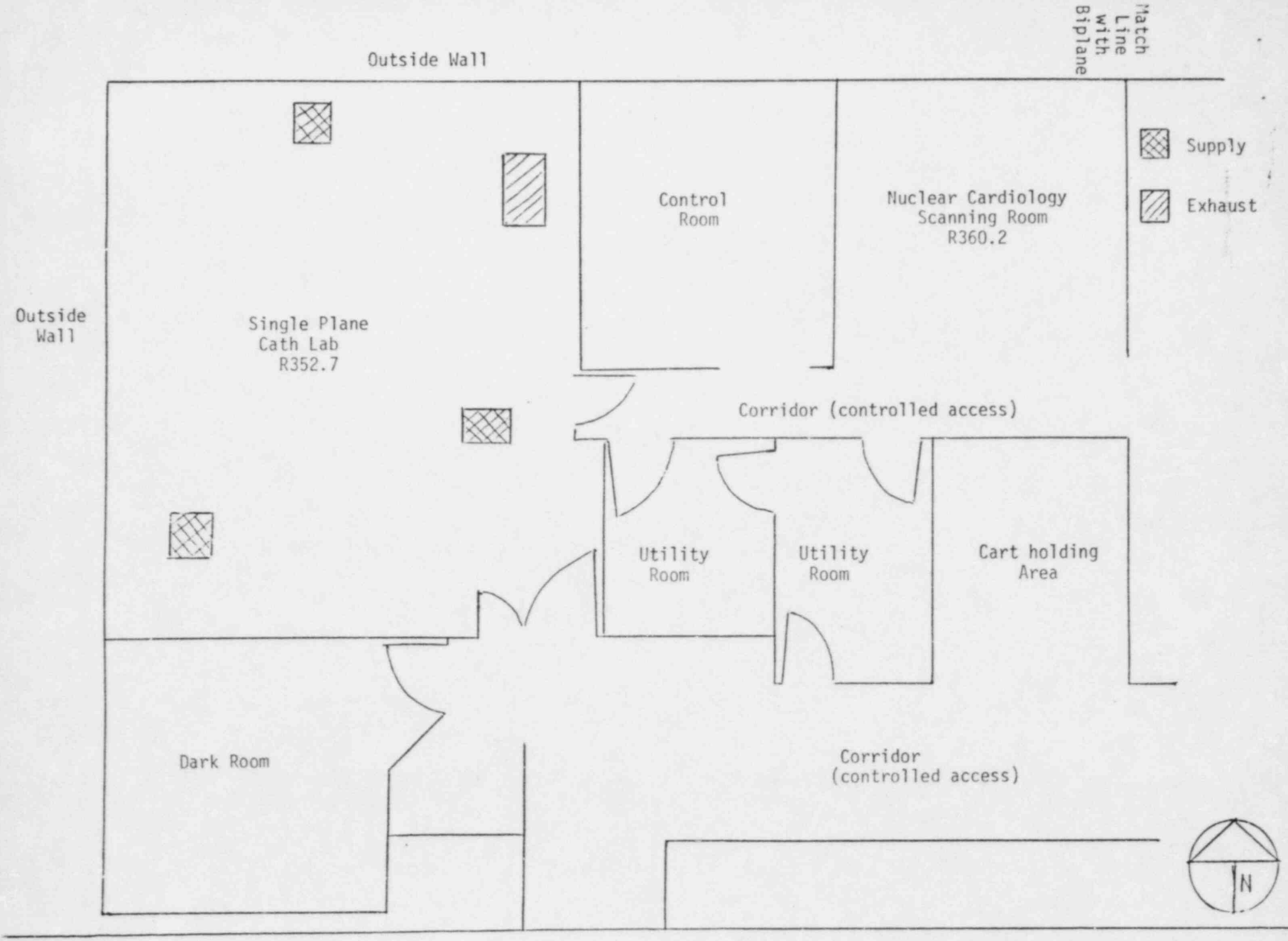

Radioactive
Storage Area
R283
R285
Refrig-
erator
Radioactive Work
Countertop
N.



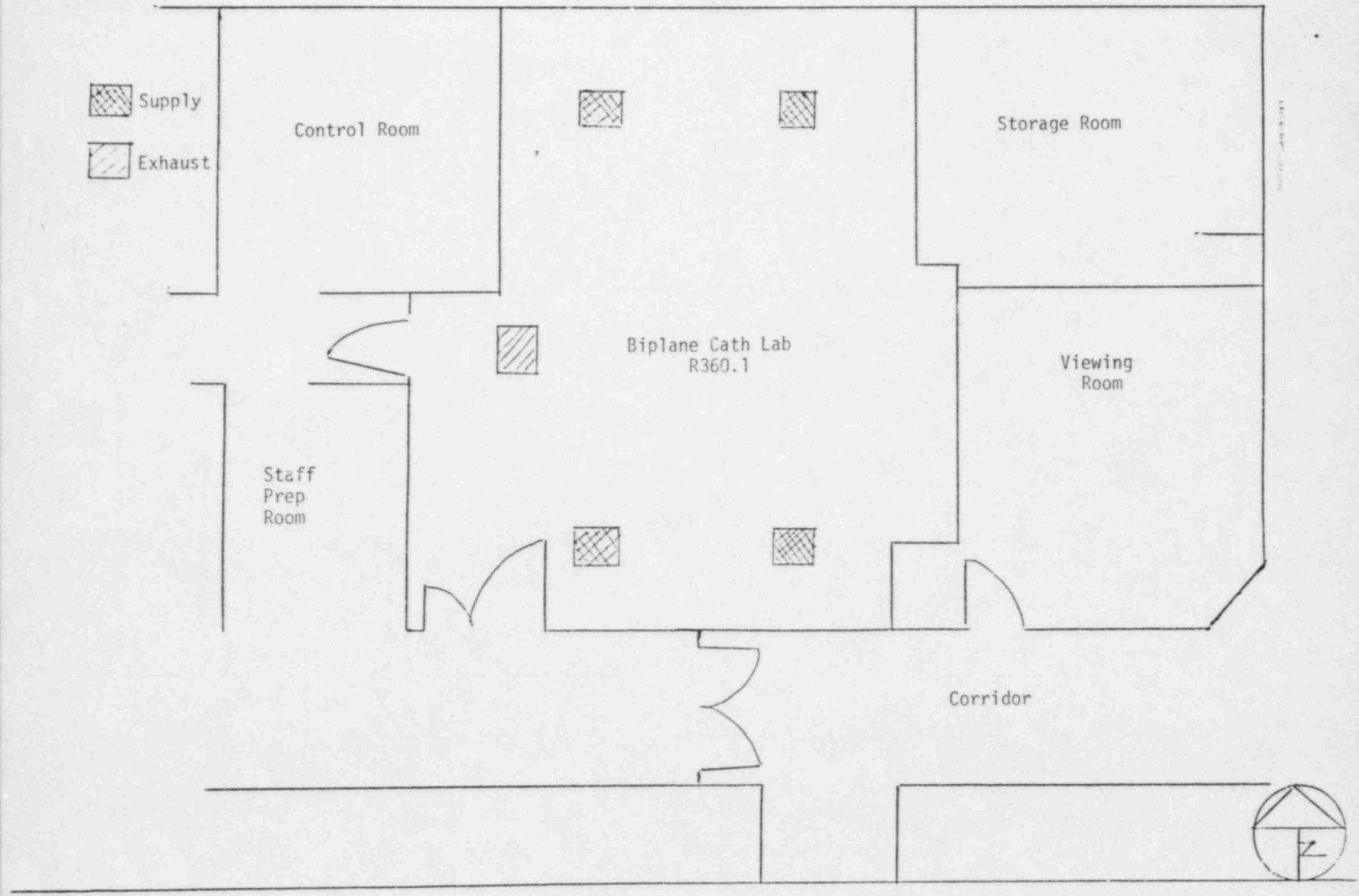

Room dim. R286 10' x 16'
R288 13' x 16'

INVITRO Counting/Storage Areas (R286/288) Attach. 3 - Pg. 48

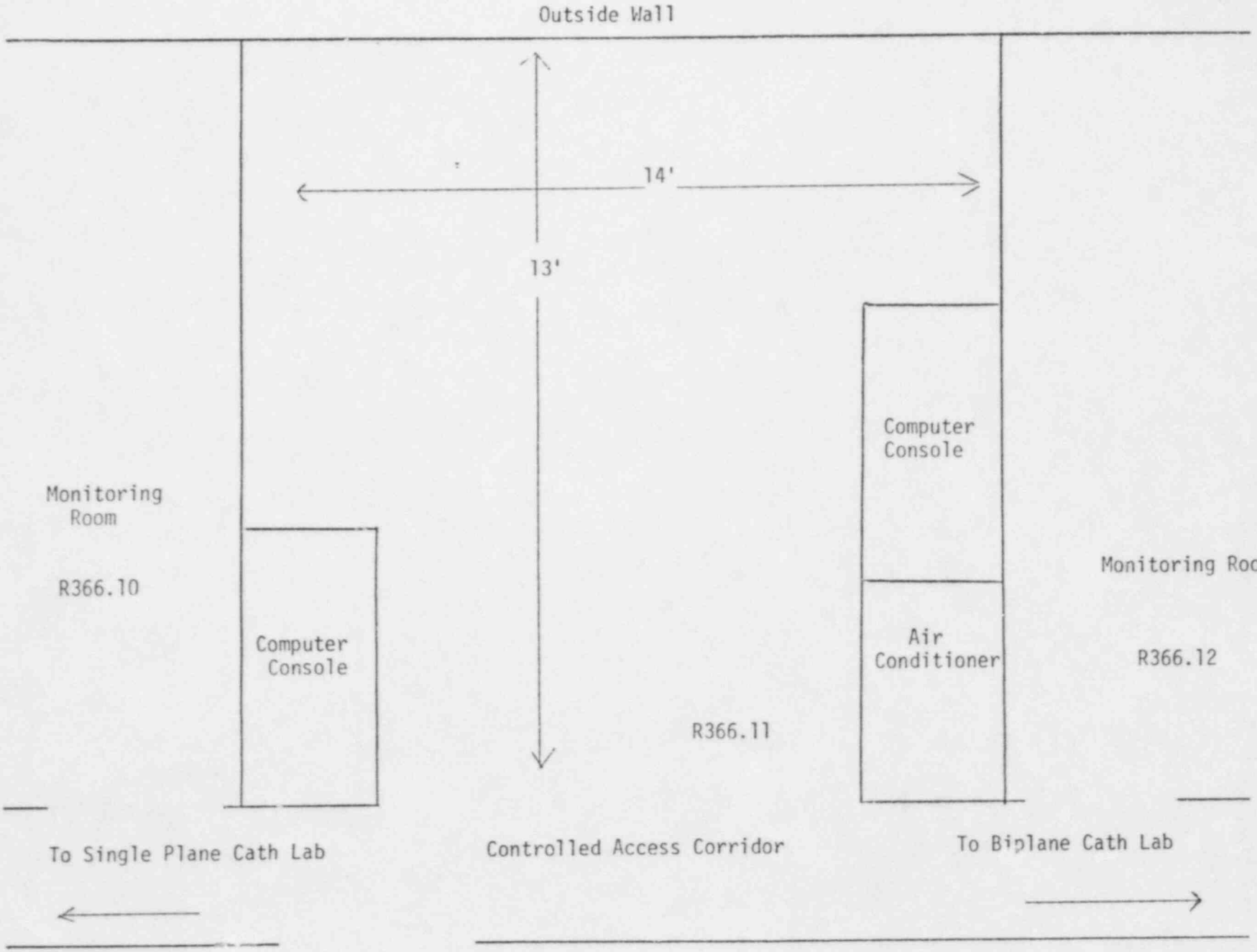

Radioactive
Work Area
Refrig-
erator
N.



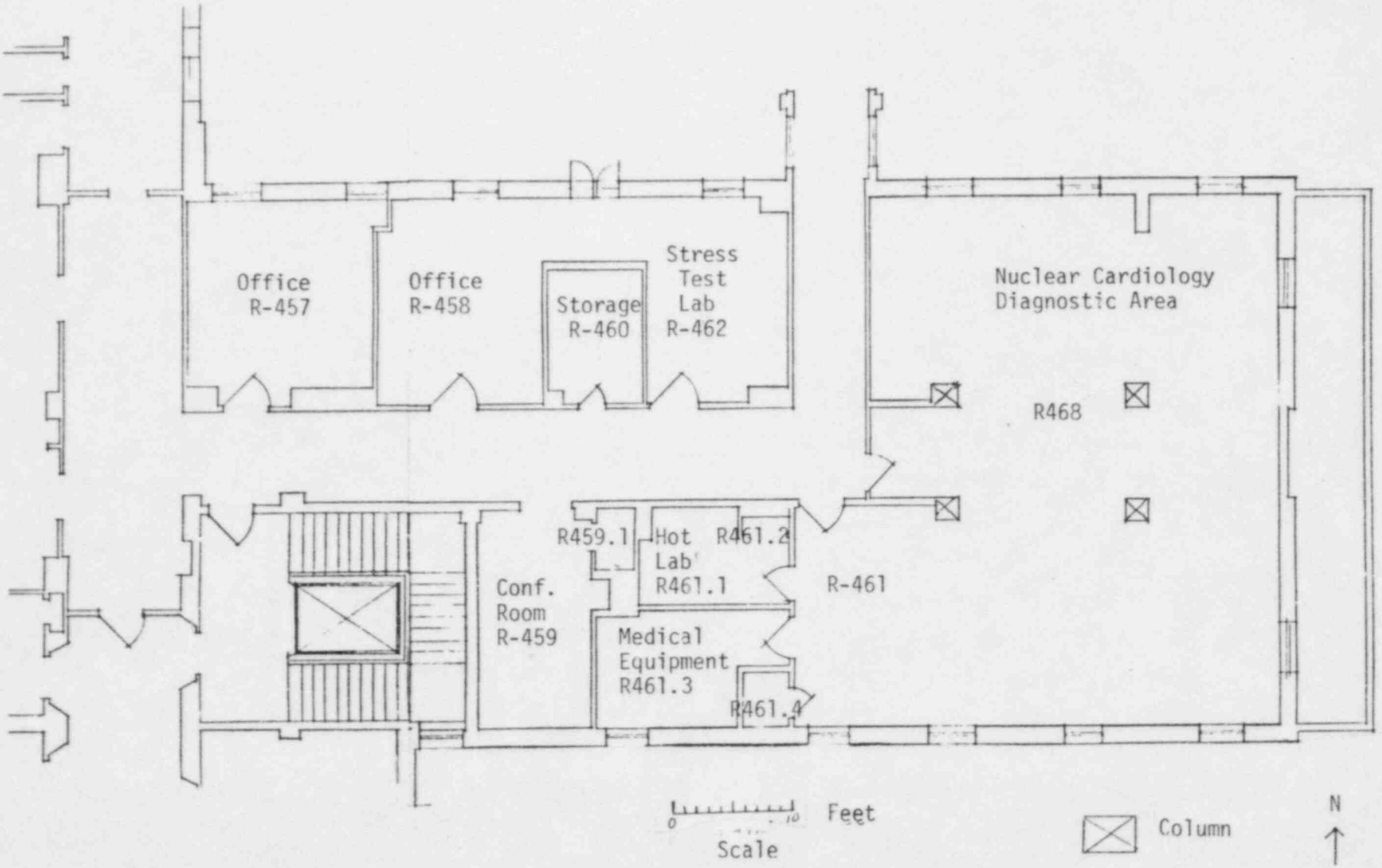

SINGLE PLANE CARDIAC CATHETERIZATION LAB - R352.7



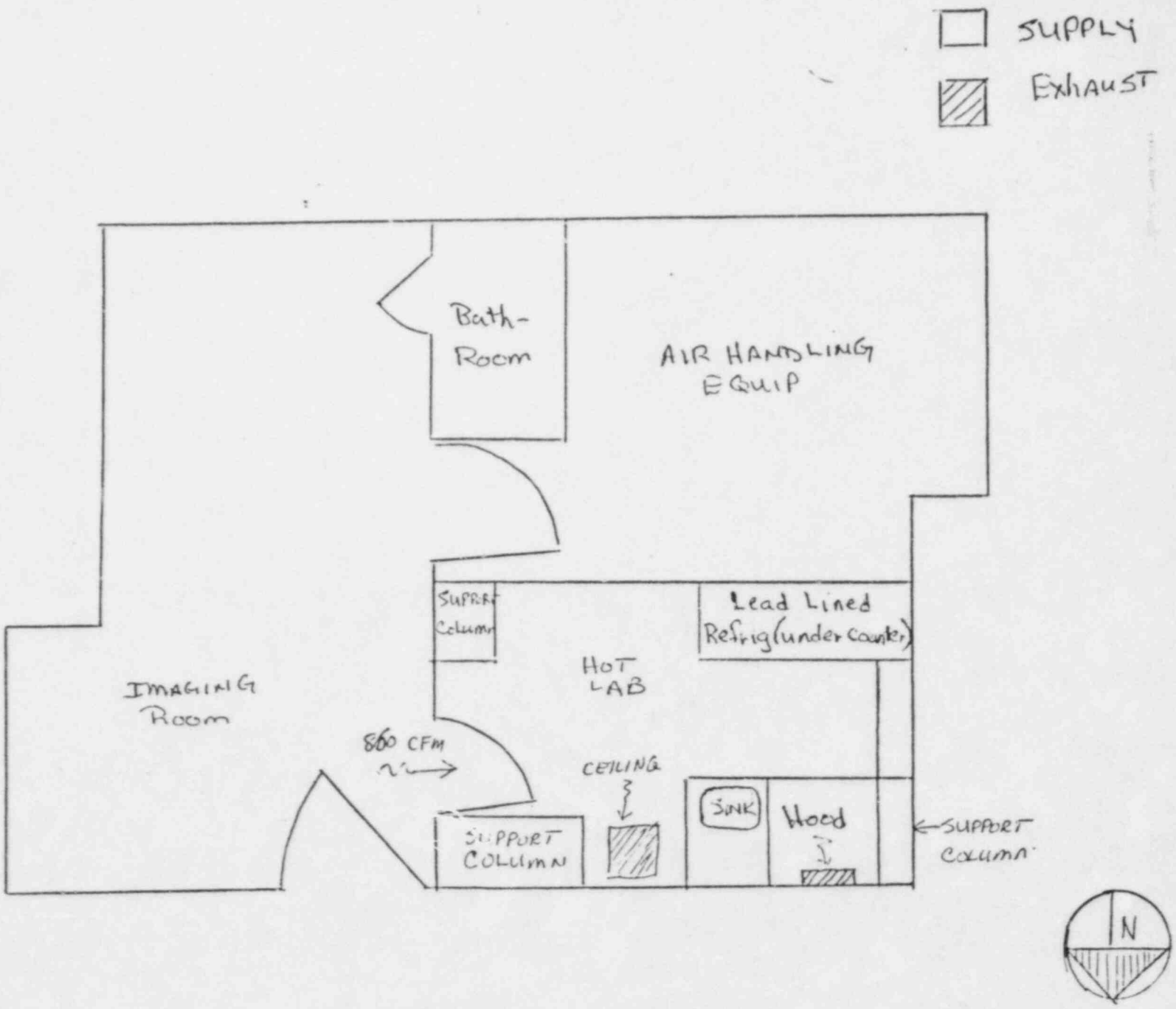

Biplane Cardiac Catheterization Lab - R360.1



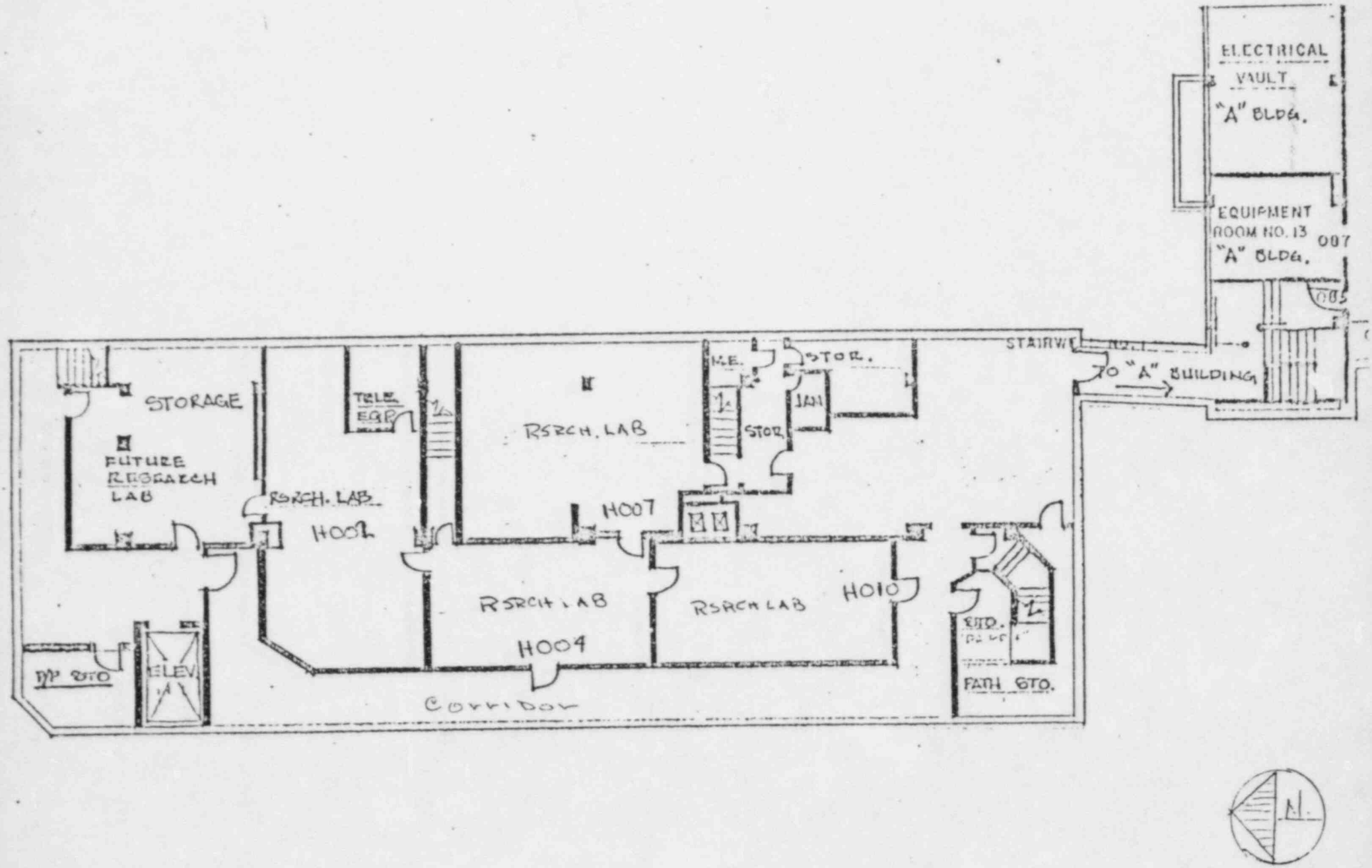

NUCLEAR CARDIOLOGY IMAGING ROOM R366.11



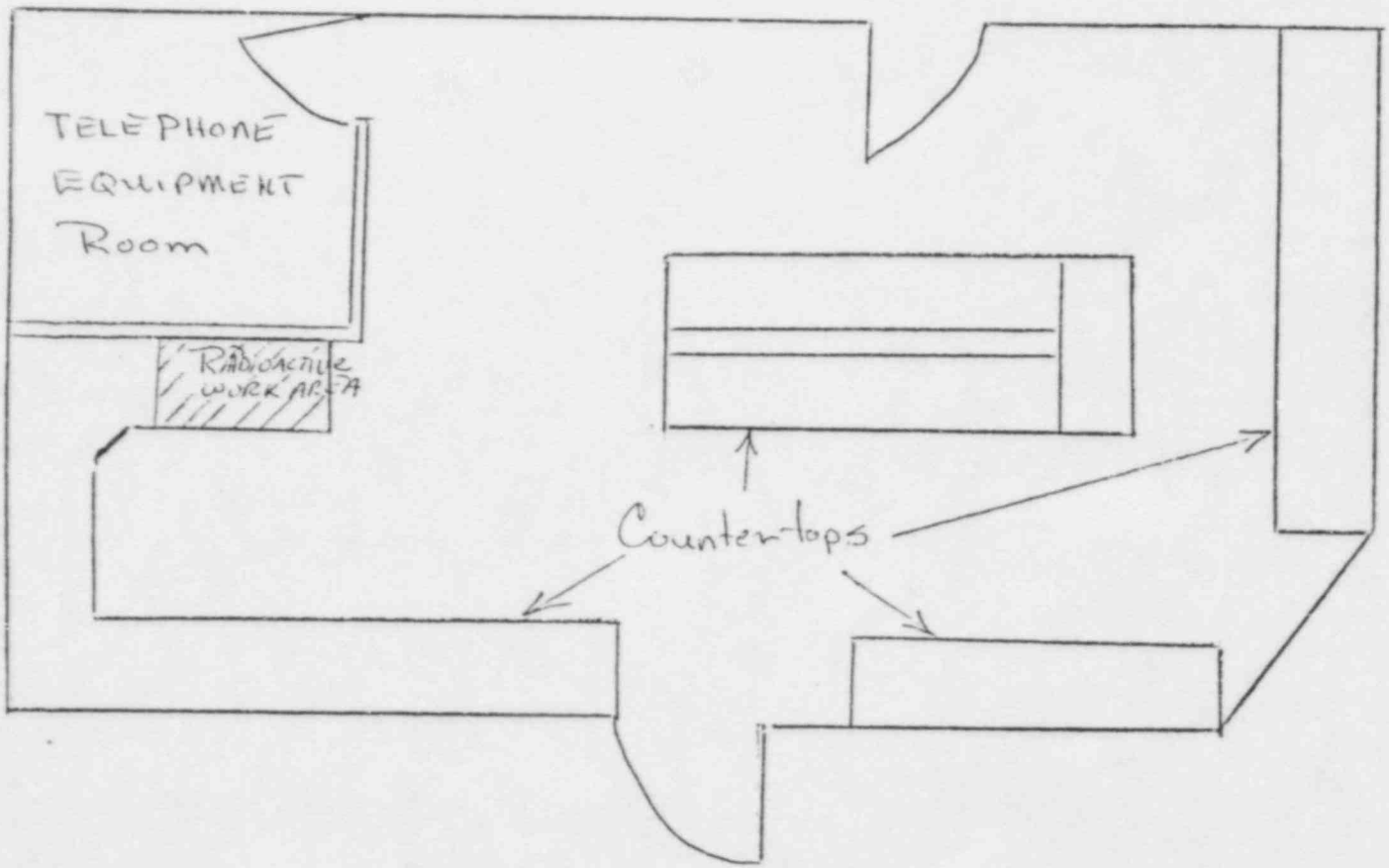

NUCLEAR CARDIOLOGY DEPARTMENT FLOORPLAN




Nuclear Cardiology Imaging Room / HOTLAB

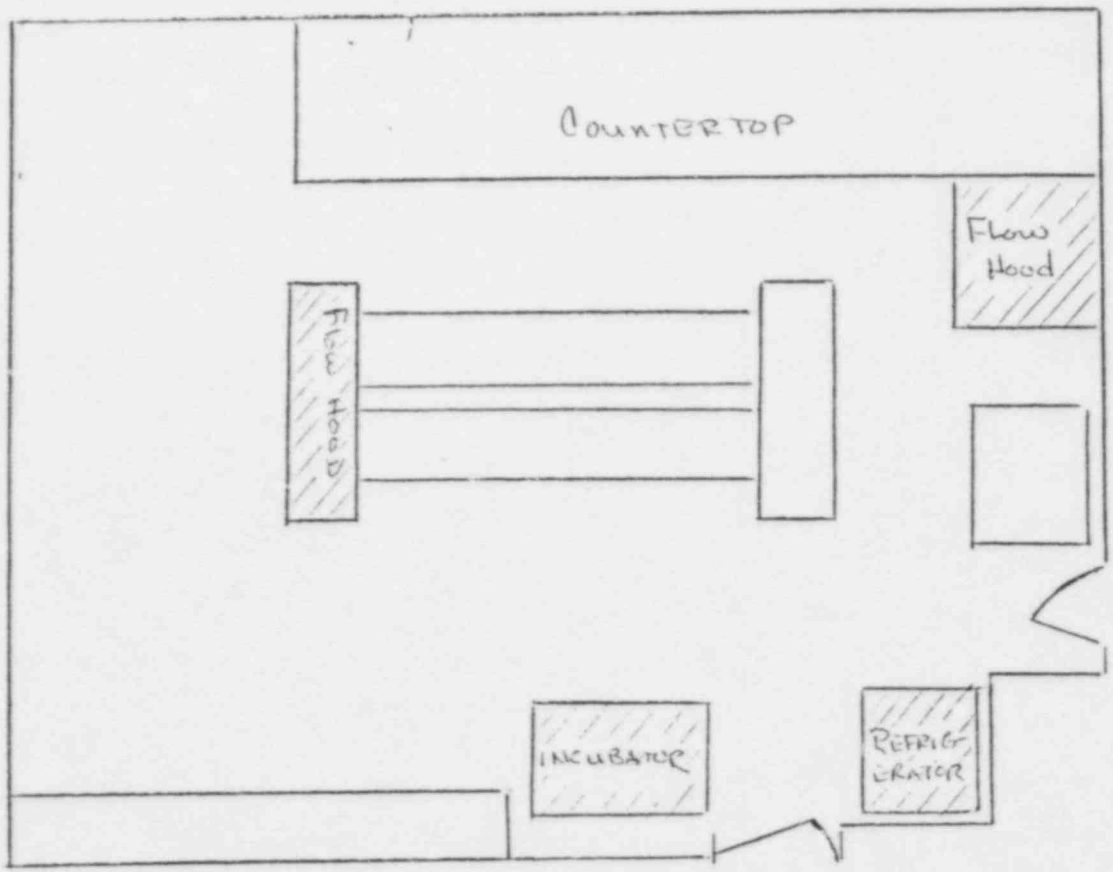



General Layout of Lower Level of "H" Building




Room dim 38'x20'

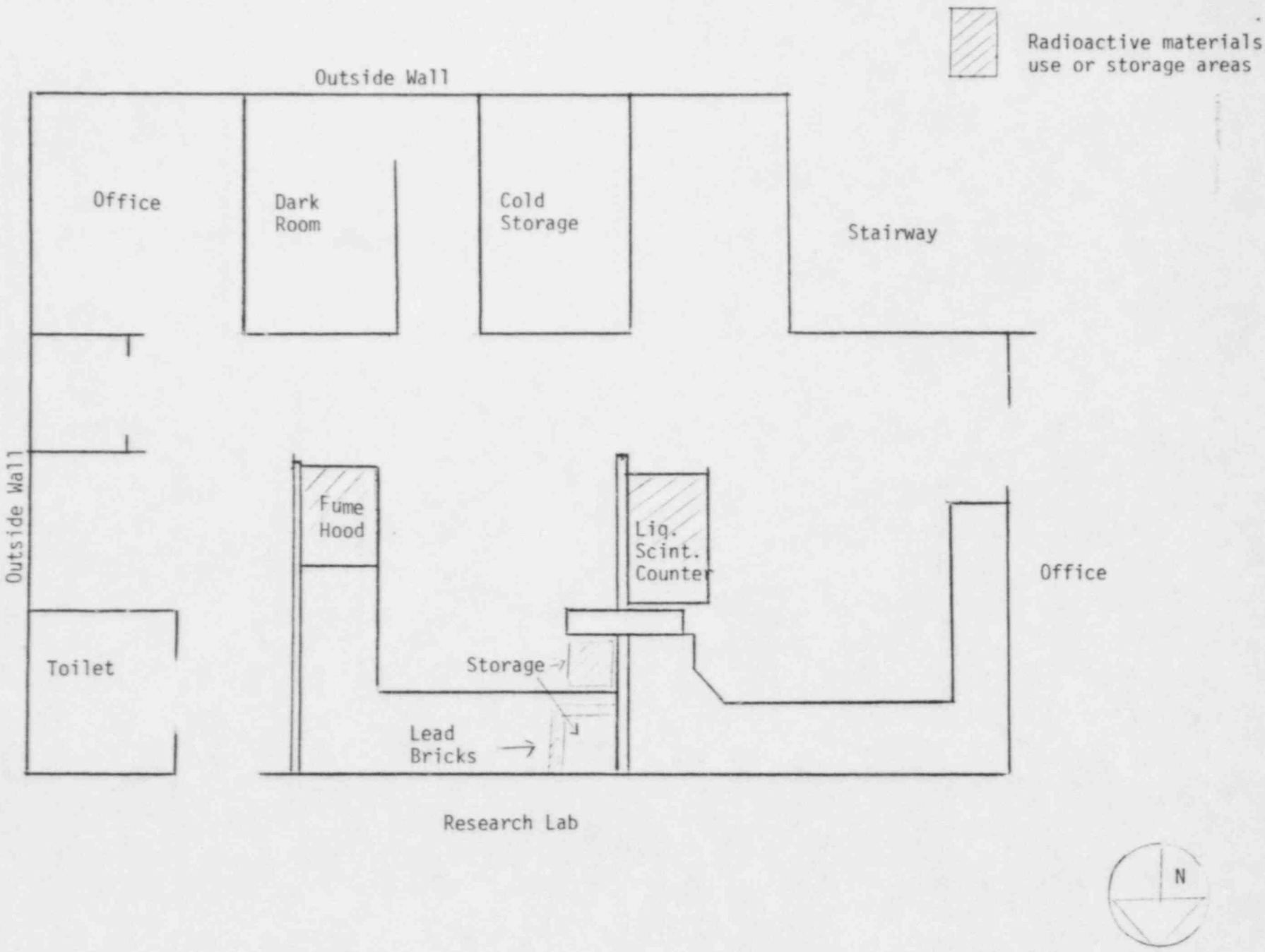
INVITRO Research (HC02)

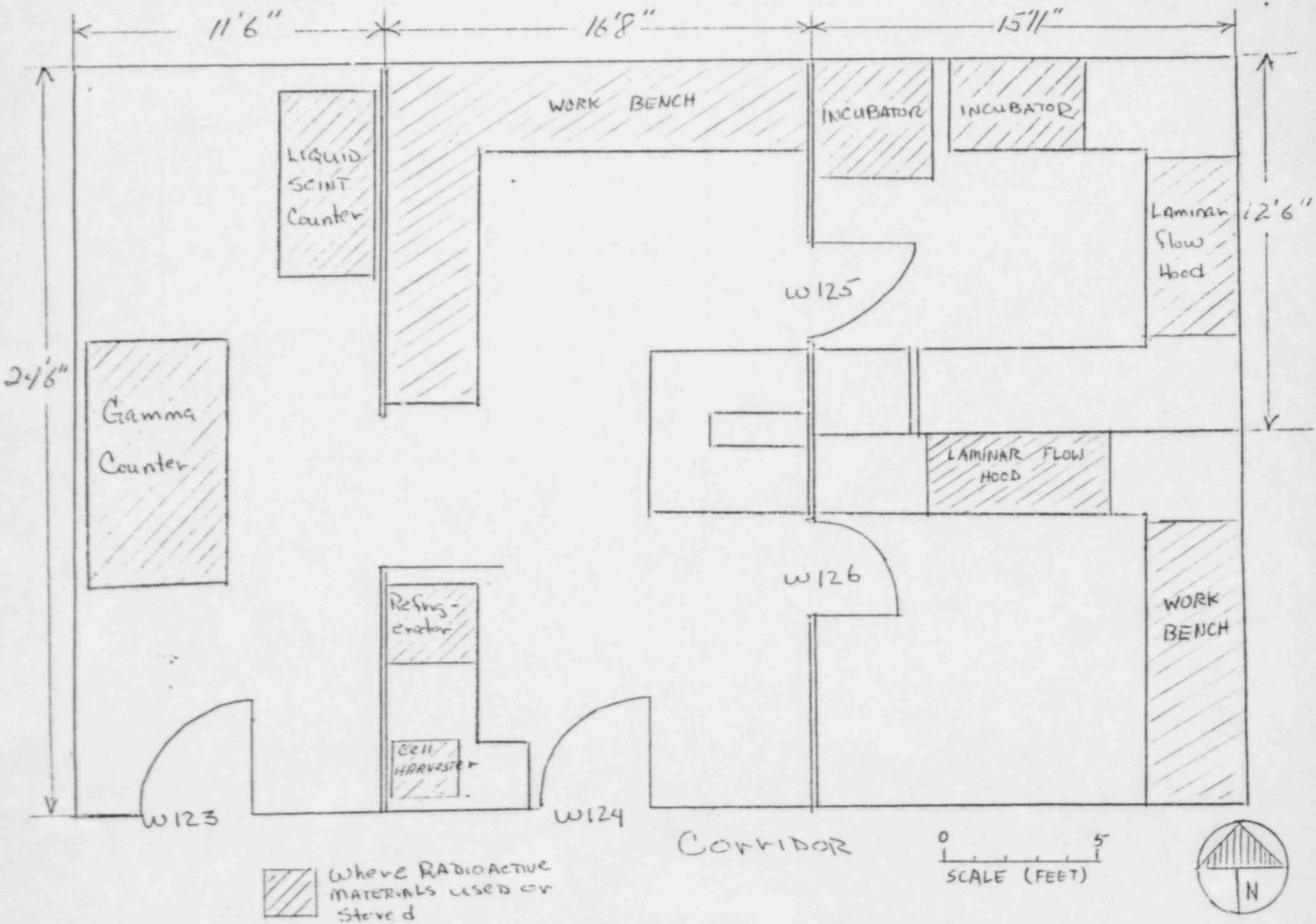


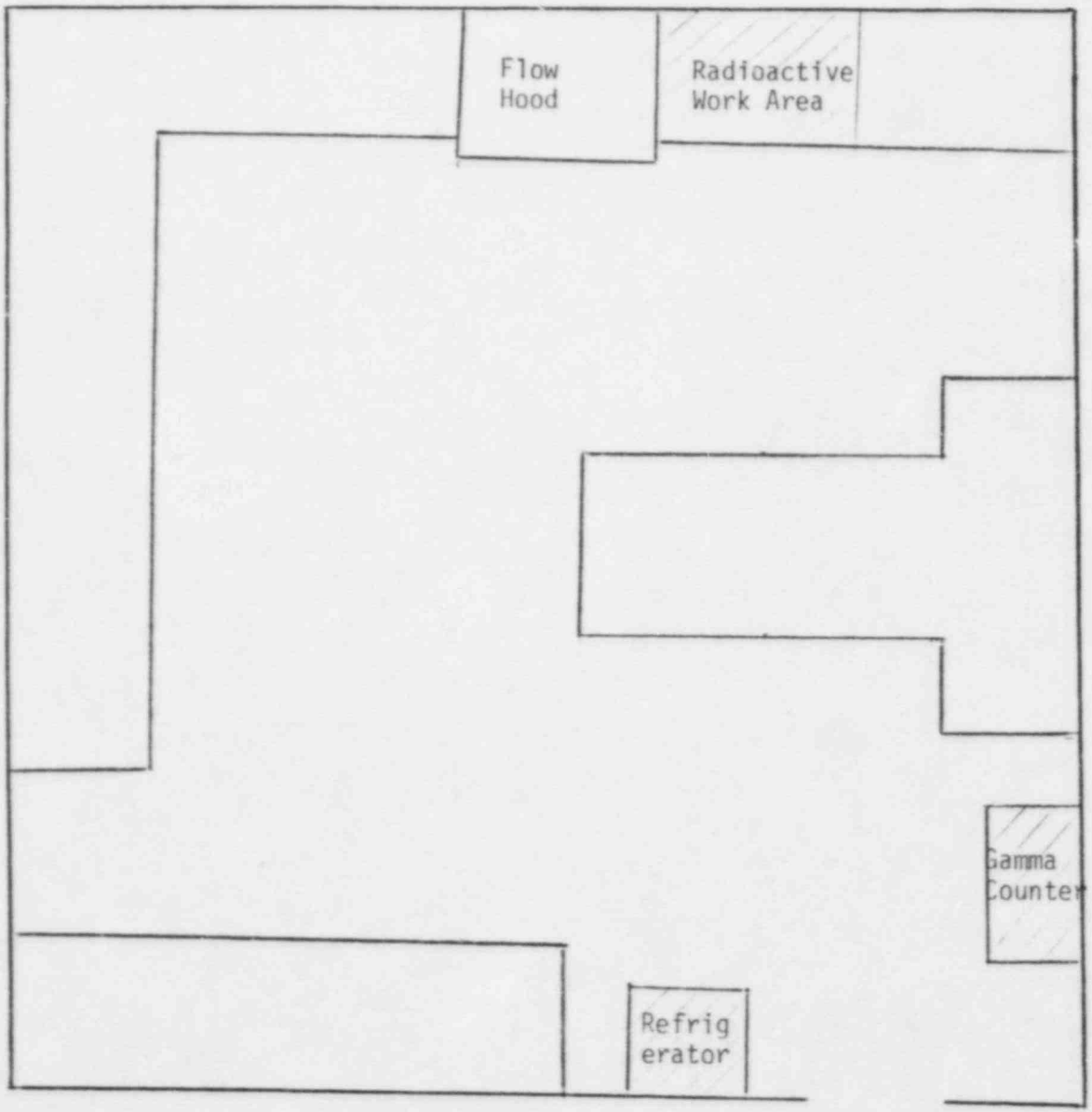

Areas where Radioactive Material used or stored

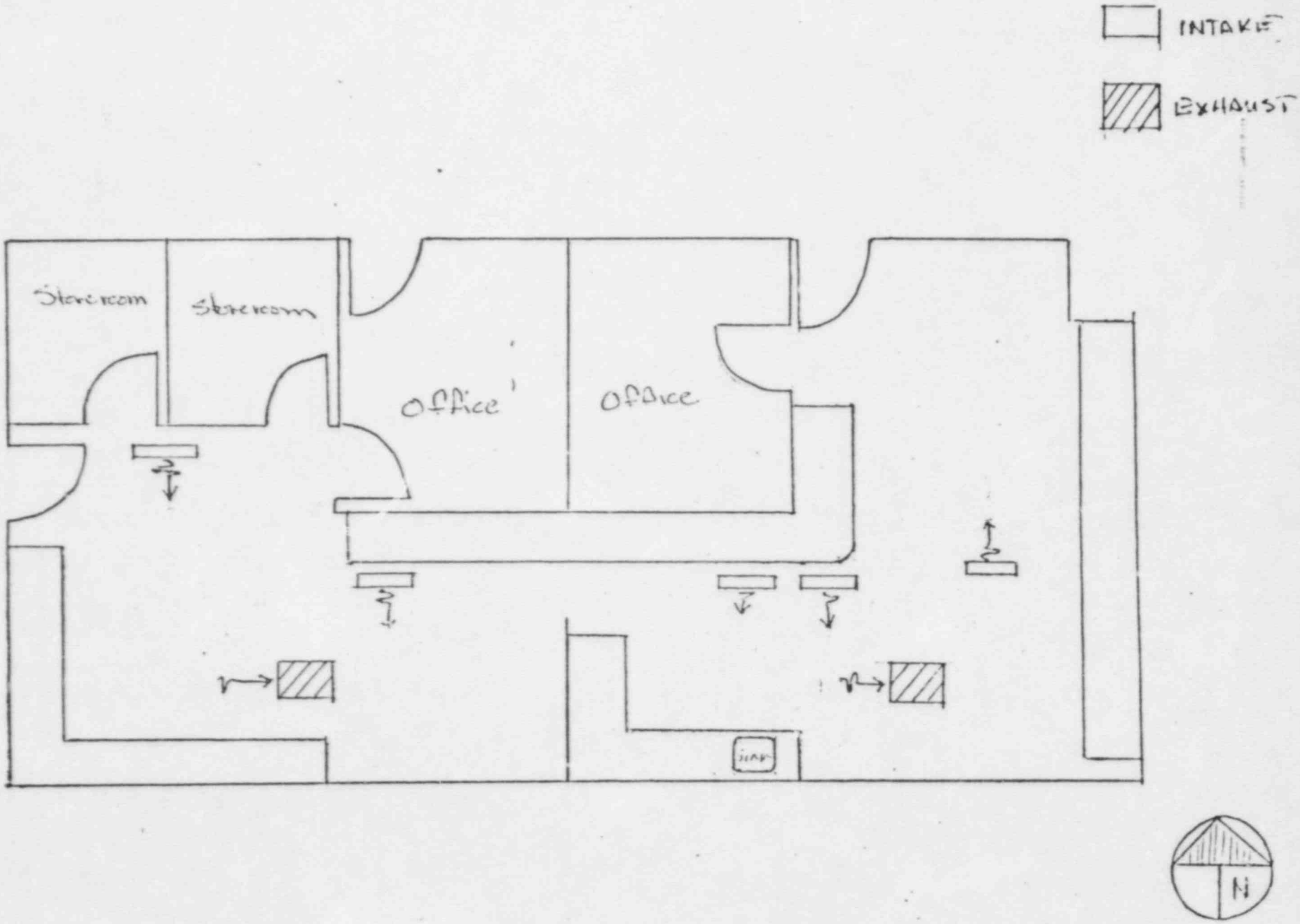
N

Room dim 29'x23' INVITRO RESEARCH (HC07)

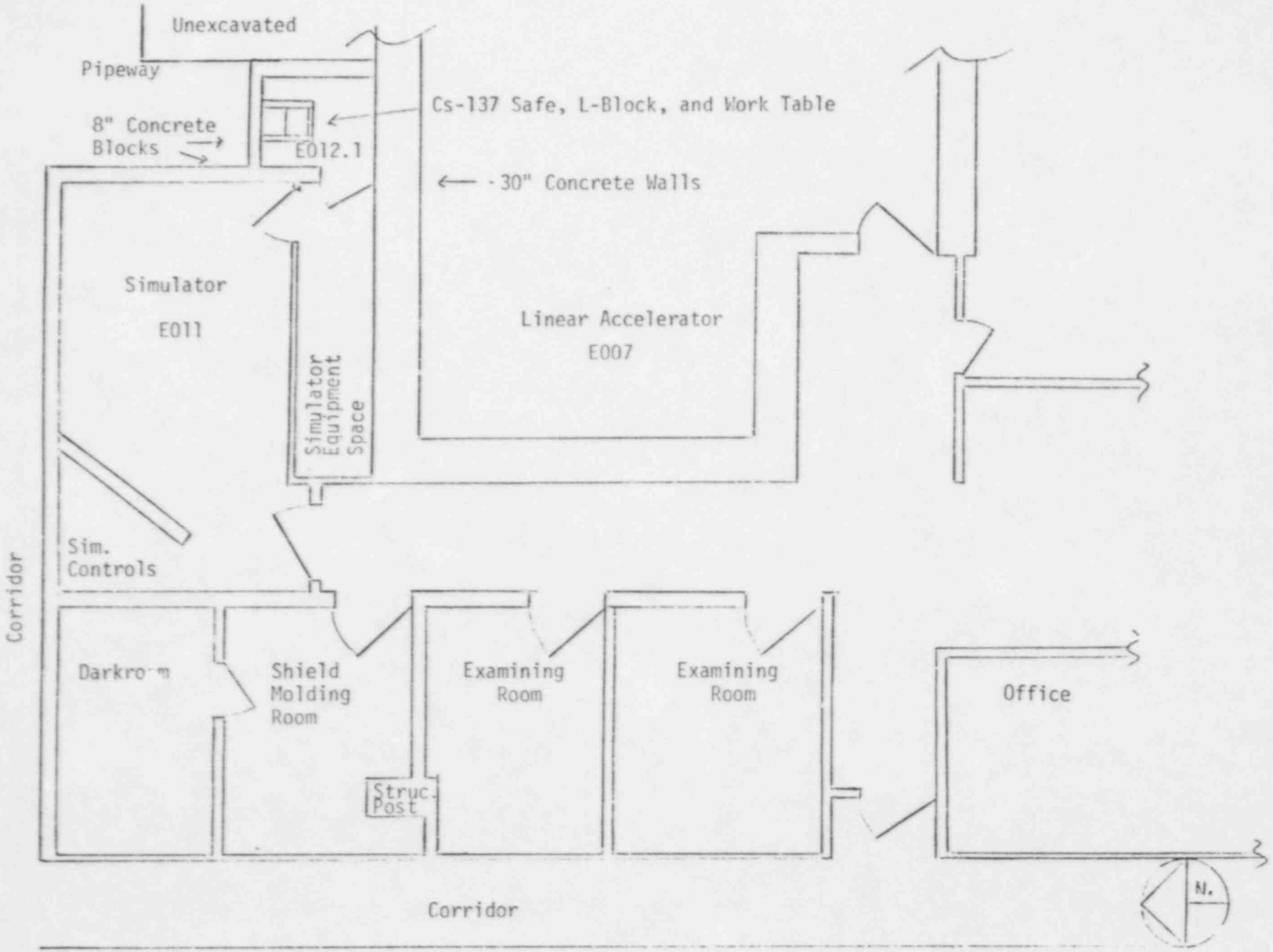

Radioactive materials use or storage areas
Outside Wall
Office
Dark Room
Cold Storage
Stairway
Outside Wall
Fume Hood
Liq. Scint. Counter
Office
Toilet
Storage
Lead Bricks
Research Lab
N


11'6"
16'8"
15'11"
12'6"
24'6"
WORK BENCH
INCUBATOR
INCUBATOR
LIQUID SCINT Counter
Laminar Flow Hood
W125
Gamma Counter
LAMINAR FLOW HOOD
W126
WORK BENCH
Refrig-erator
Cell HARVESTER
W123
W124
CORRIDOR
0
5
SCALE (FEET)
N
Where RADIOACTIVE MATERIALS USED OR Stored


Flow
Hood
Radioactive
Work Area
Gamma
Counter
Refrig
erator
N.

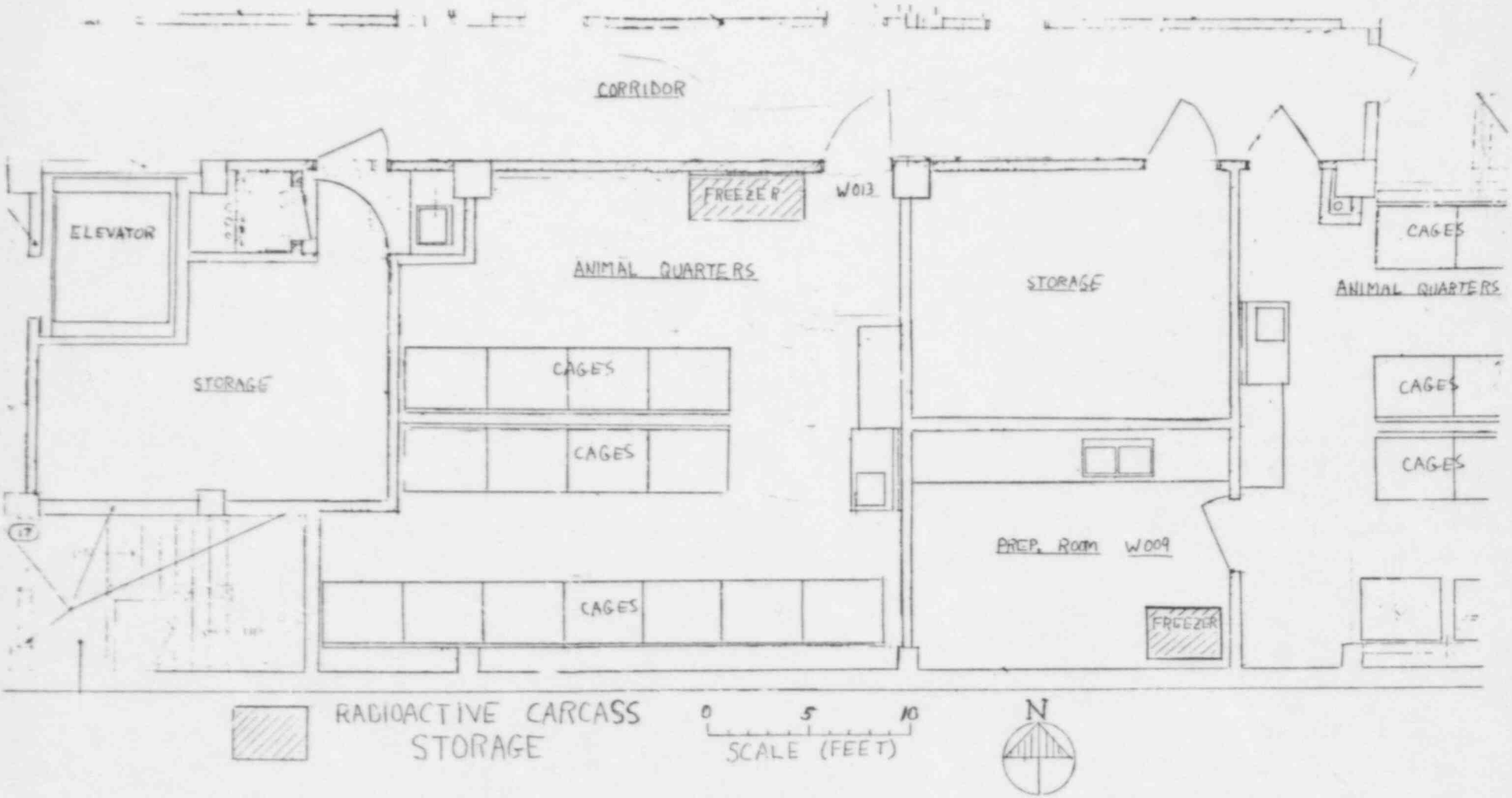



C-V Research - Winter BUILDING - W 417/422

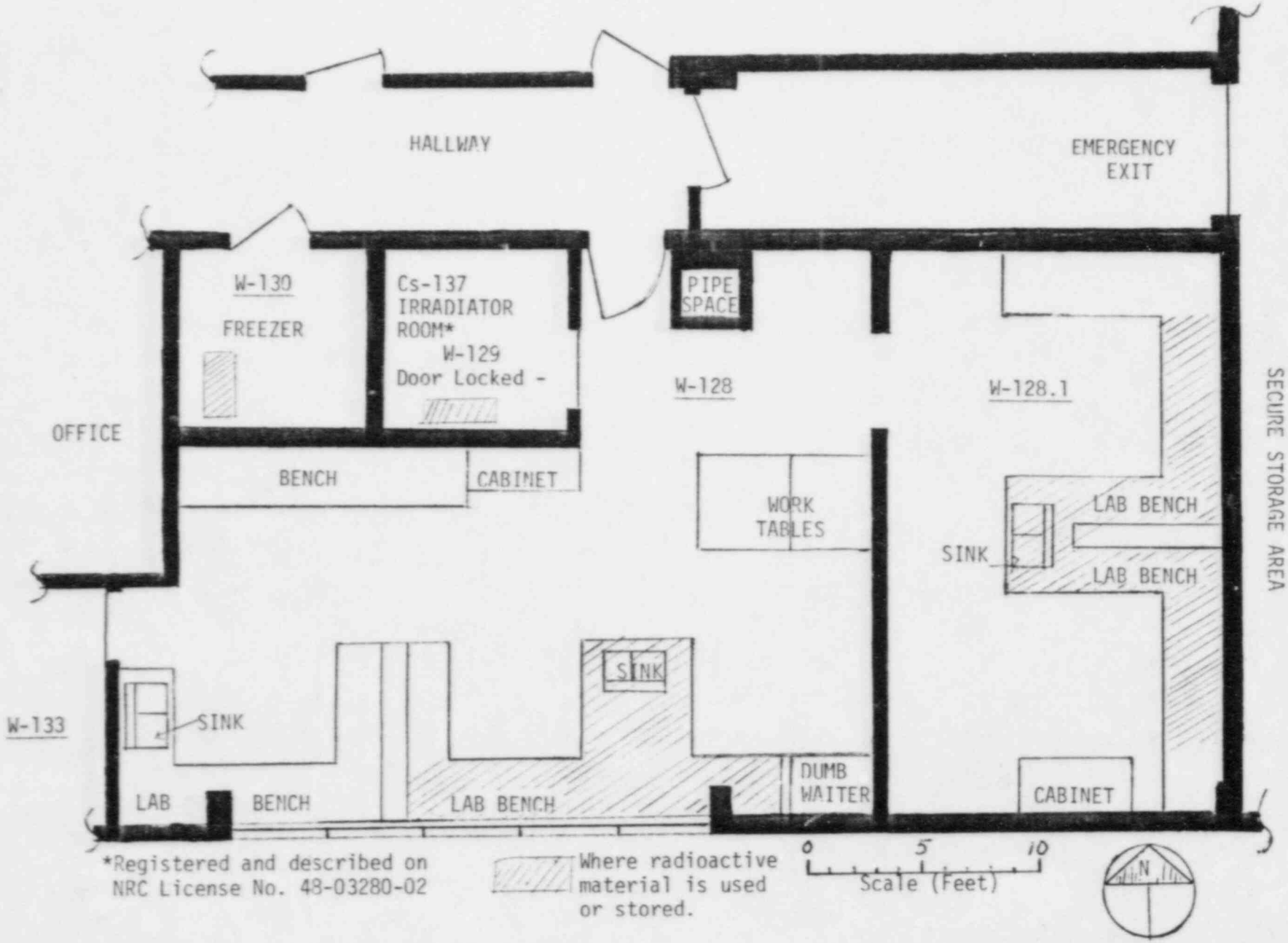



Room Dimensions 5'2" x 6'

Cs-137 Storage Room E012.1

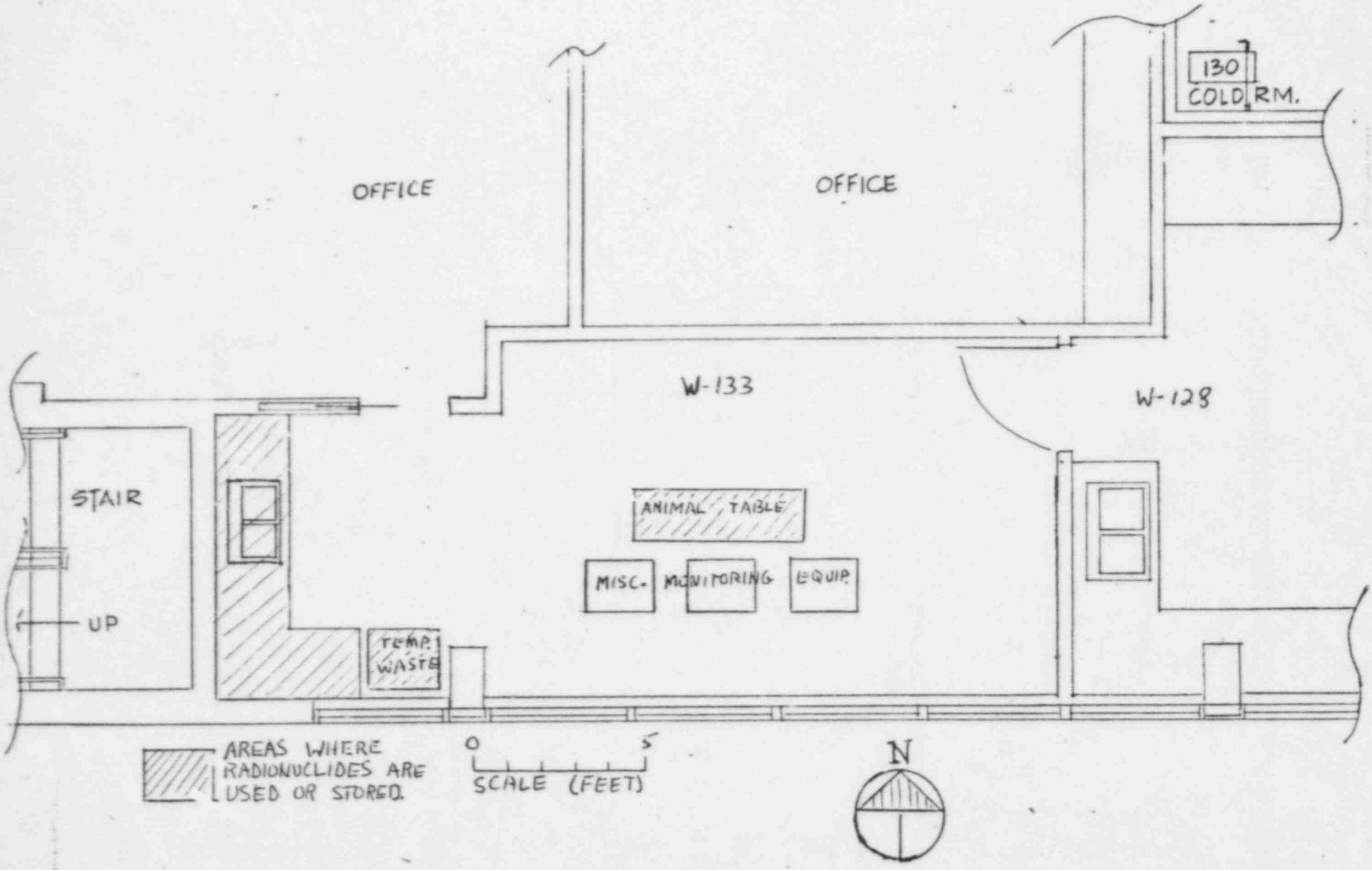



# RADIOACTIVE CARCASS STORAGE (W009/013)



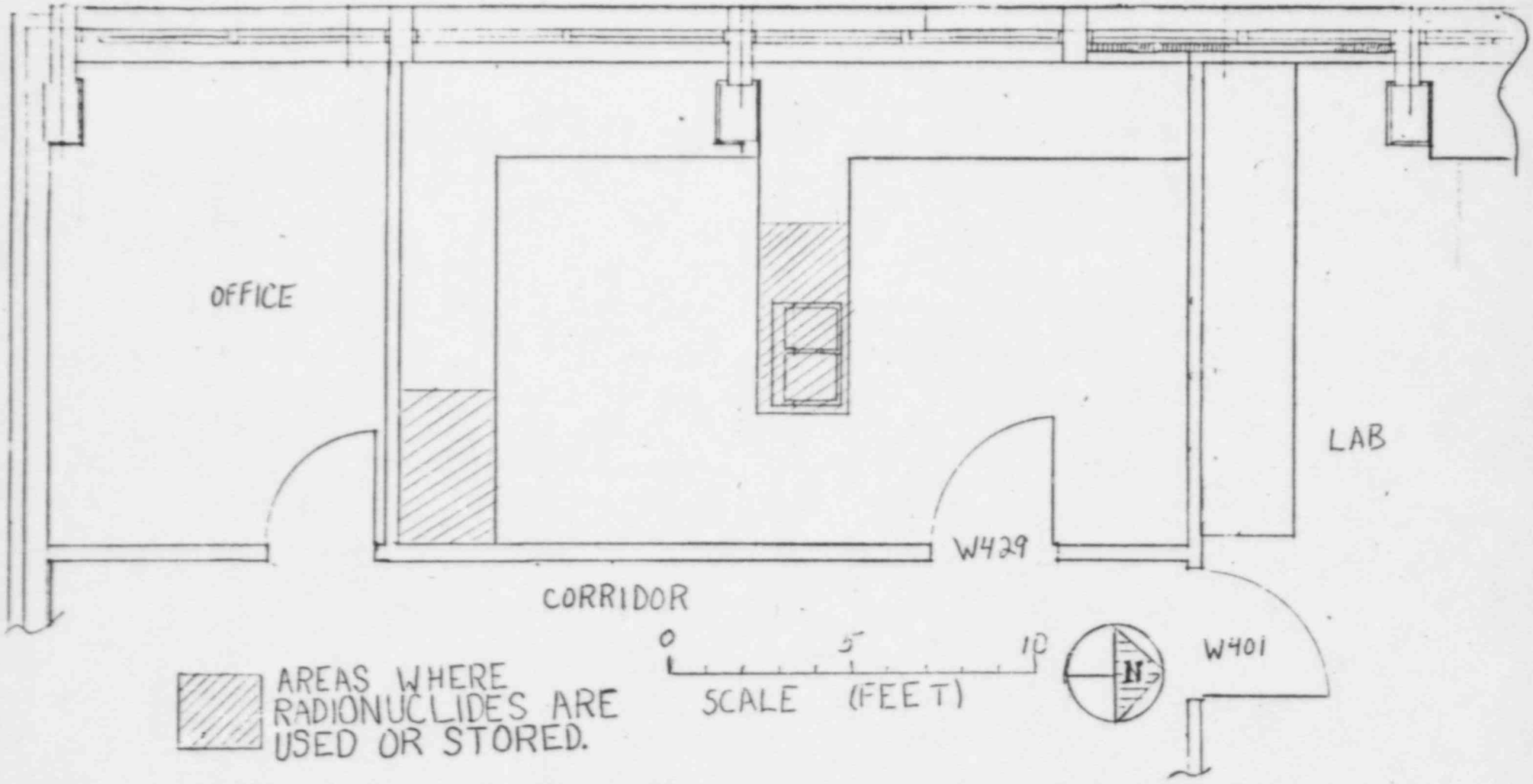

*Registered and described on NRC License No. 48-03280-02

Where radioactive material is used or stored.

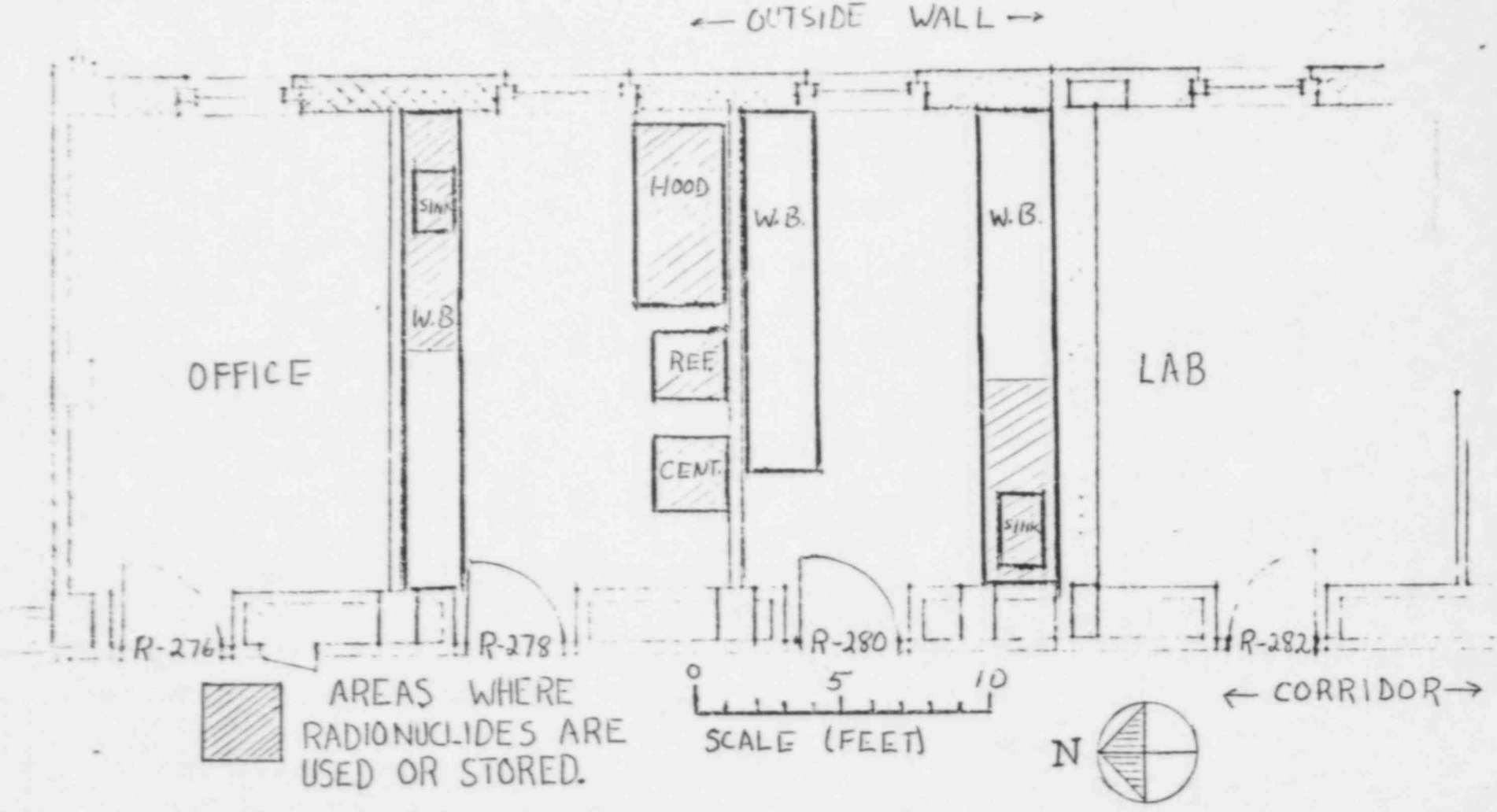



ANIMAL OR INVITRO RESEARCH (W-133)

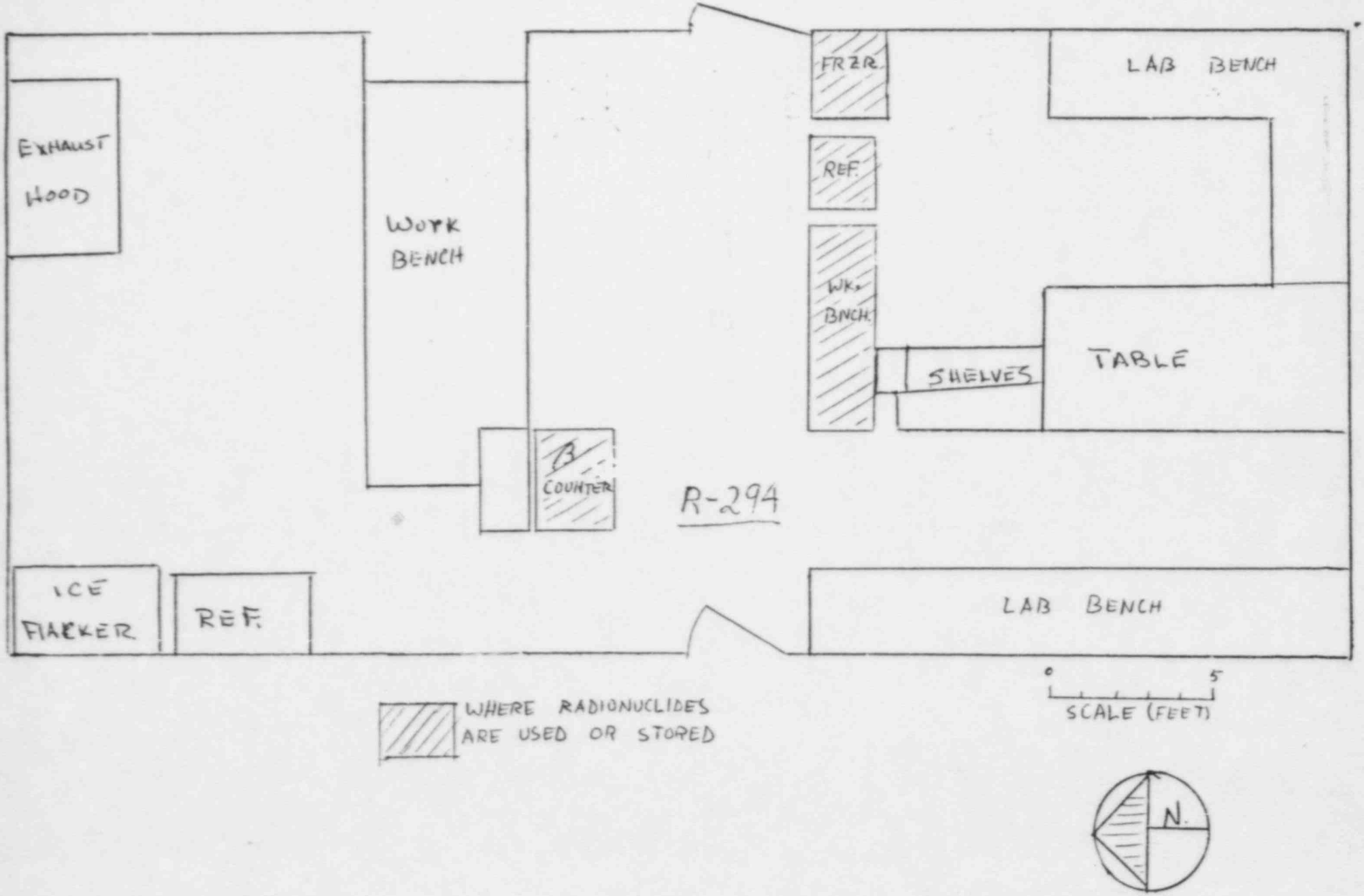

HEMOSTASIS RESEARCH LABORATORY (W-310/312/316) ATTACH. 3 PAGE 66



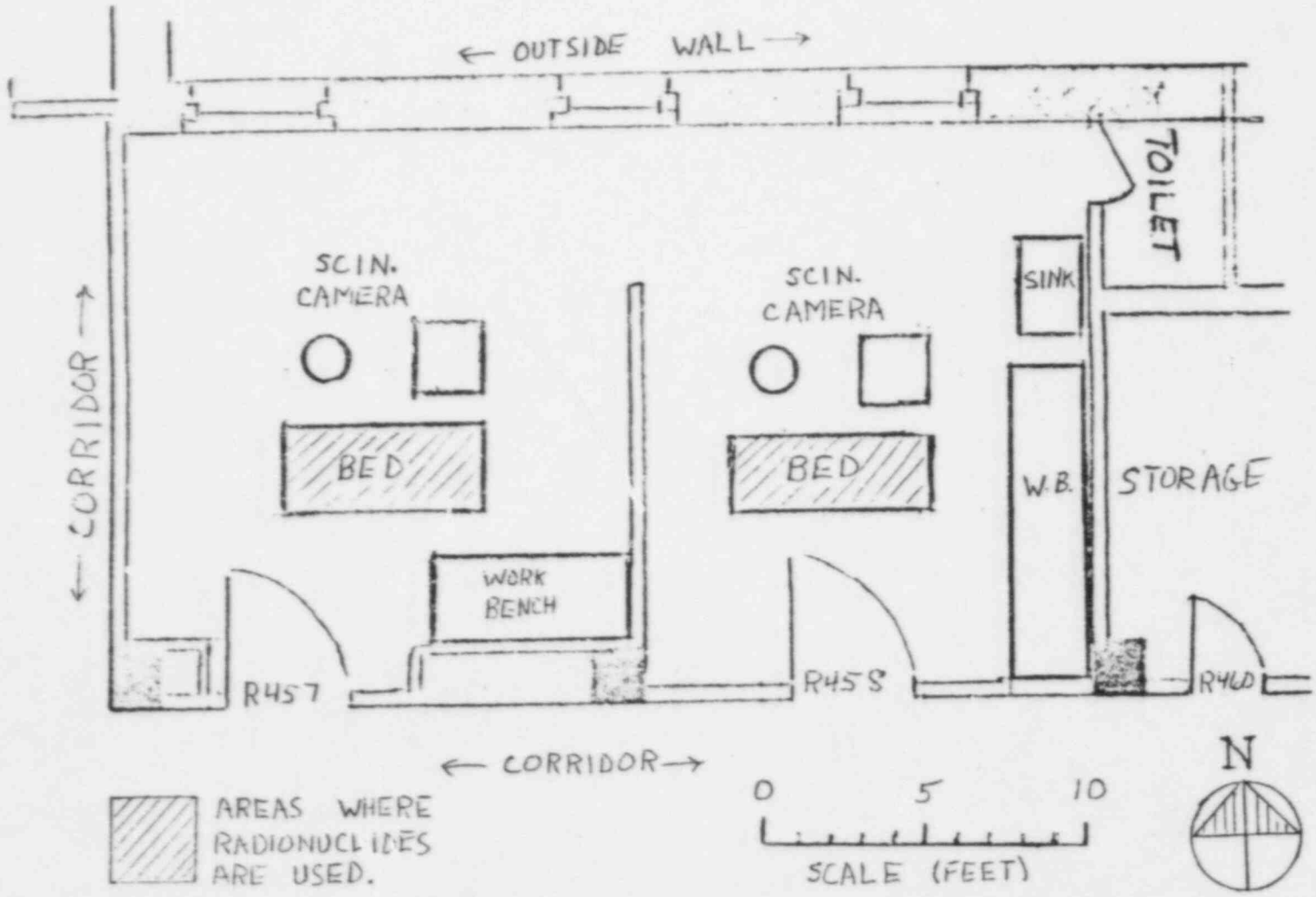

IN VITRO RESEARCH LABORATORY (W-429)

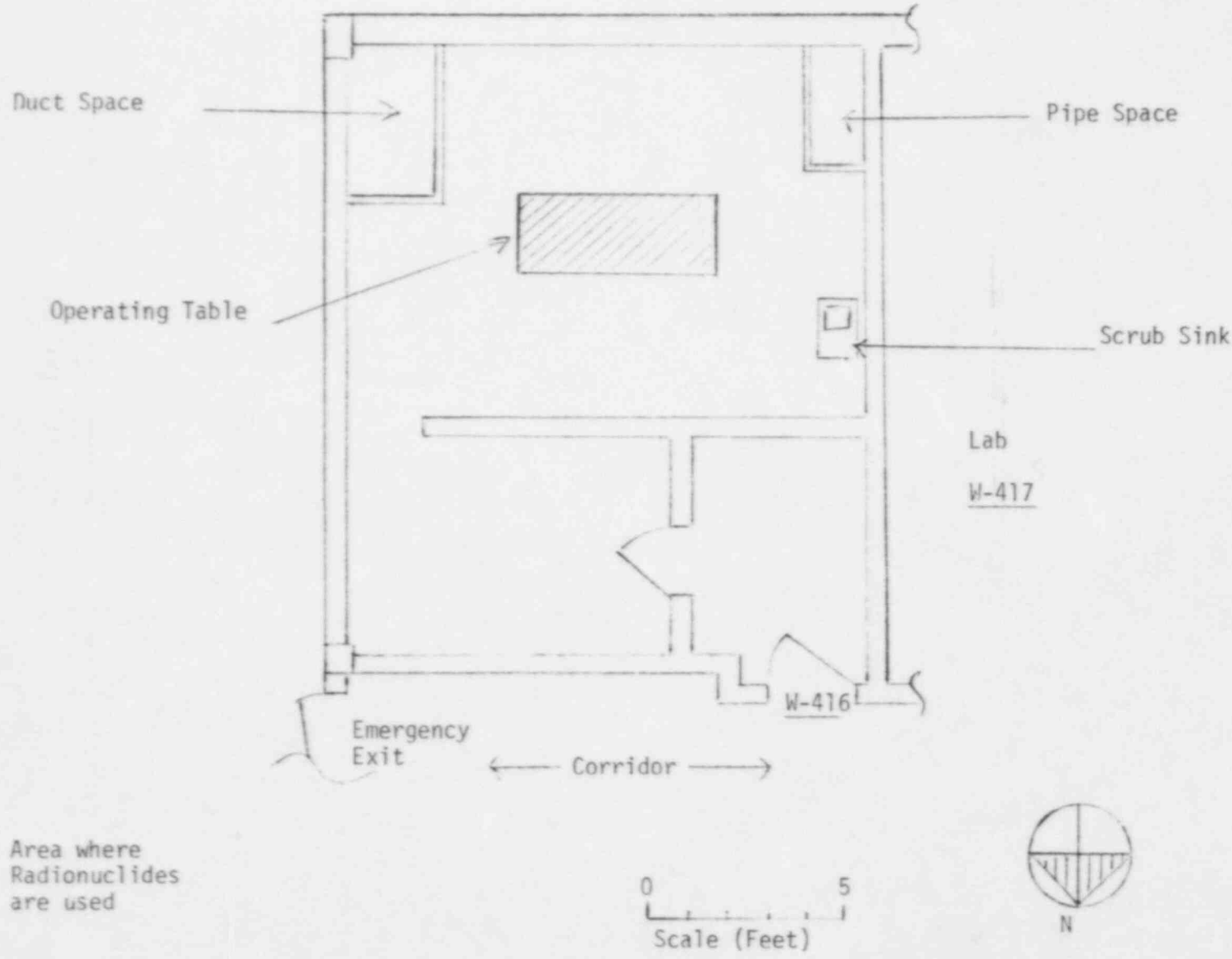


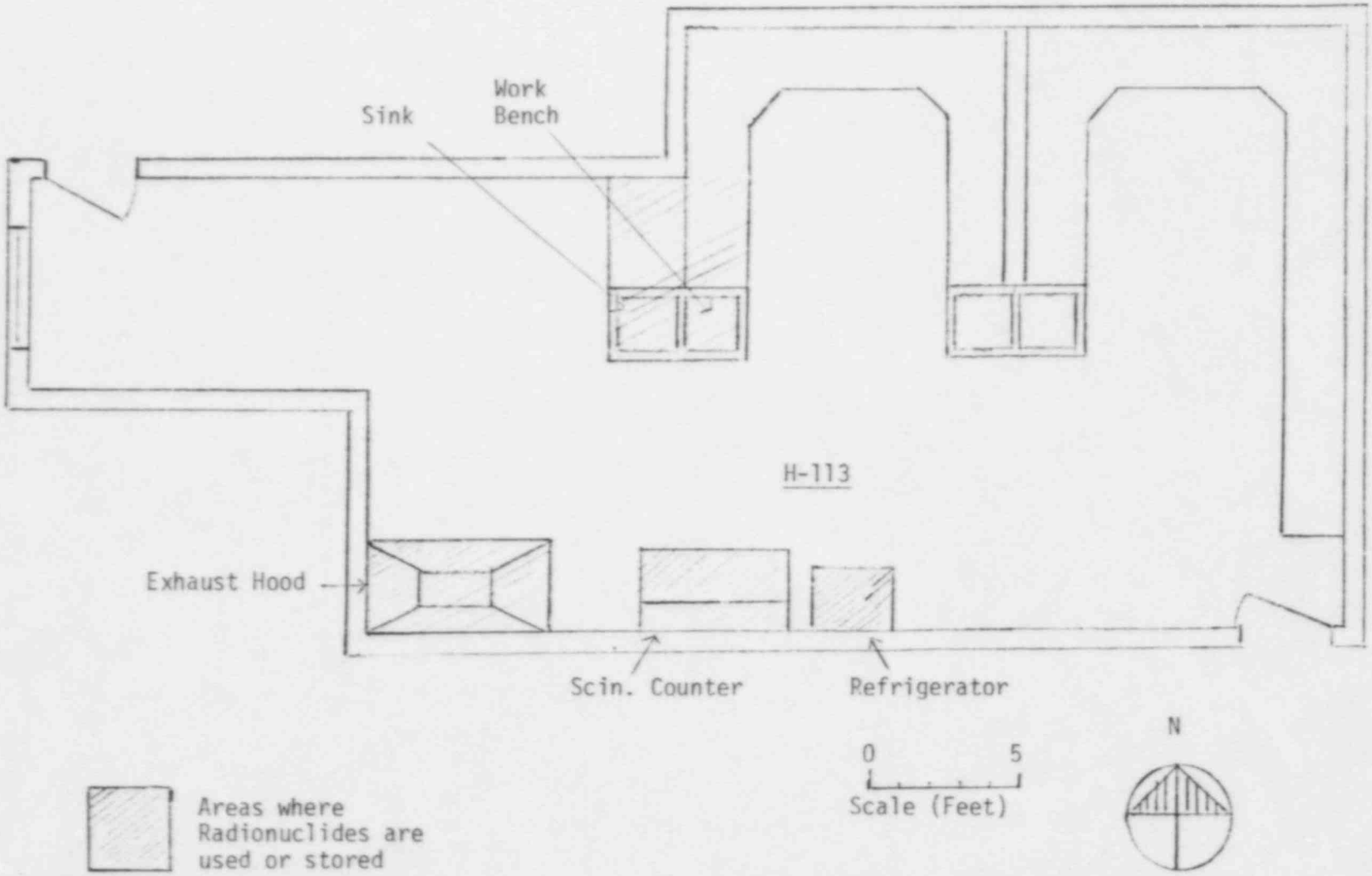

# IN VITRO RESEARCH LABORATORIES (R278/280)

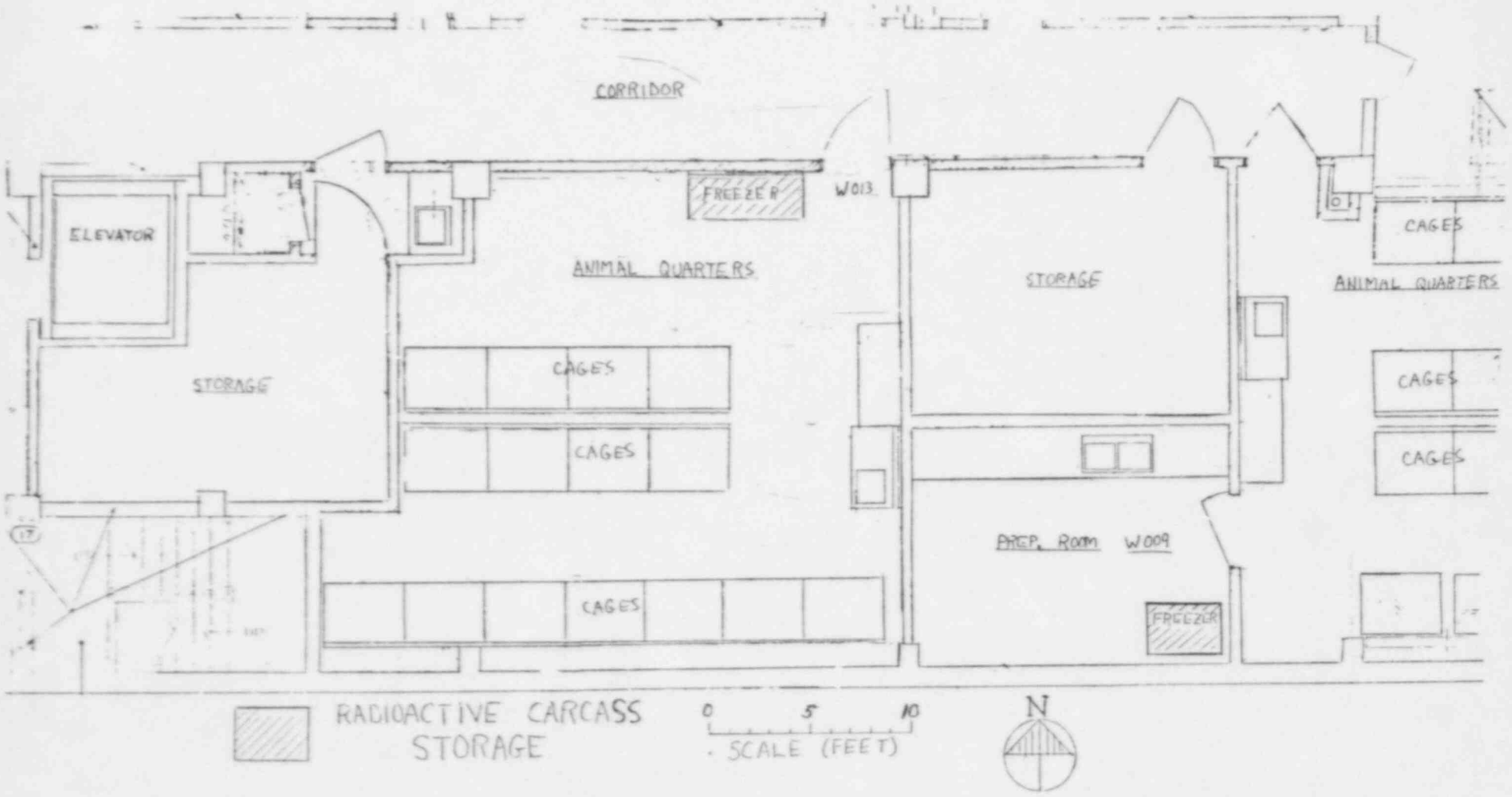

EXHAUST HOOD
WORK BENCH
FRZR.
REF.
WK. BNCH.
LAB BENCH
SHELVES
TABLE
B COUNTER
R-294
ICE FLAKER
REF.
LAB BENCH
WHERE RADIONUCLIDES ARE USED OR STORED
0
5
SCALE (FEET)
N.

LARD


← OUTSIDE WALL →
TOILET
SINK
SCIN. CAMERA
SCIN. CAMERA
← CORRIDOR →
BED
BED
W.B.
STORAGE
WORK BENCH
R457
R458
R460
← CORRIDOR →
AREAS WHERE RADIONUCLIDES ARE USED.
0 5 10
SCALE (FEET)
N

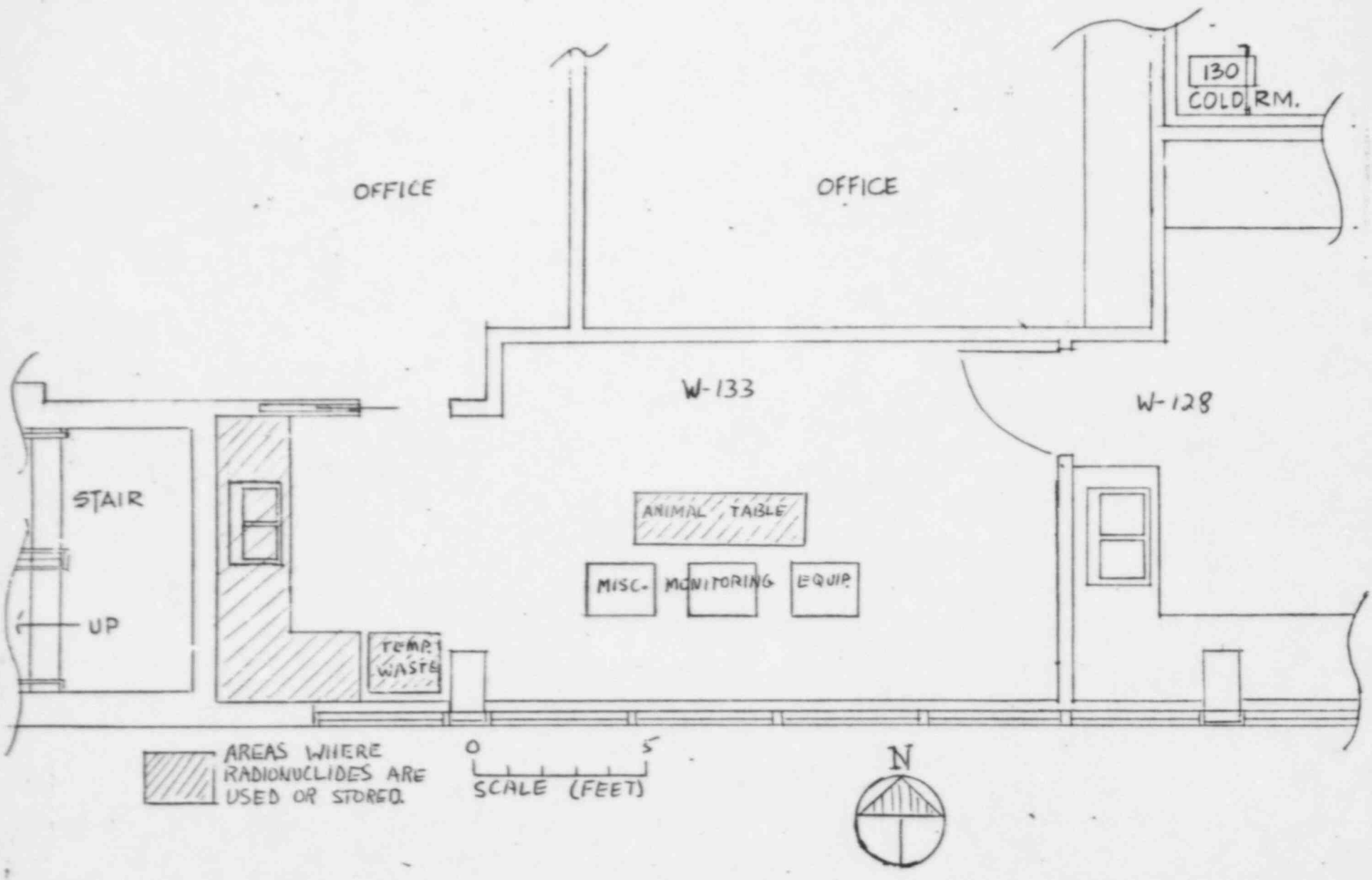

Duct Space
Pipe Space
Operating Table
Scrub Sink
Lab
W-417
W-416
Emergency
Exit
Corridor
Area where
Radionuclides
are used
0
5
Scale (Feet)
N


Sink
Work Bench
H-113
Exhaust Hood
Scin. Counter
Refrigerator
N
0
5
Scale (Feet)
Areas where Radionuclides are used or stored



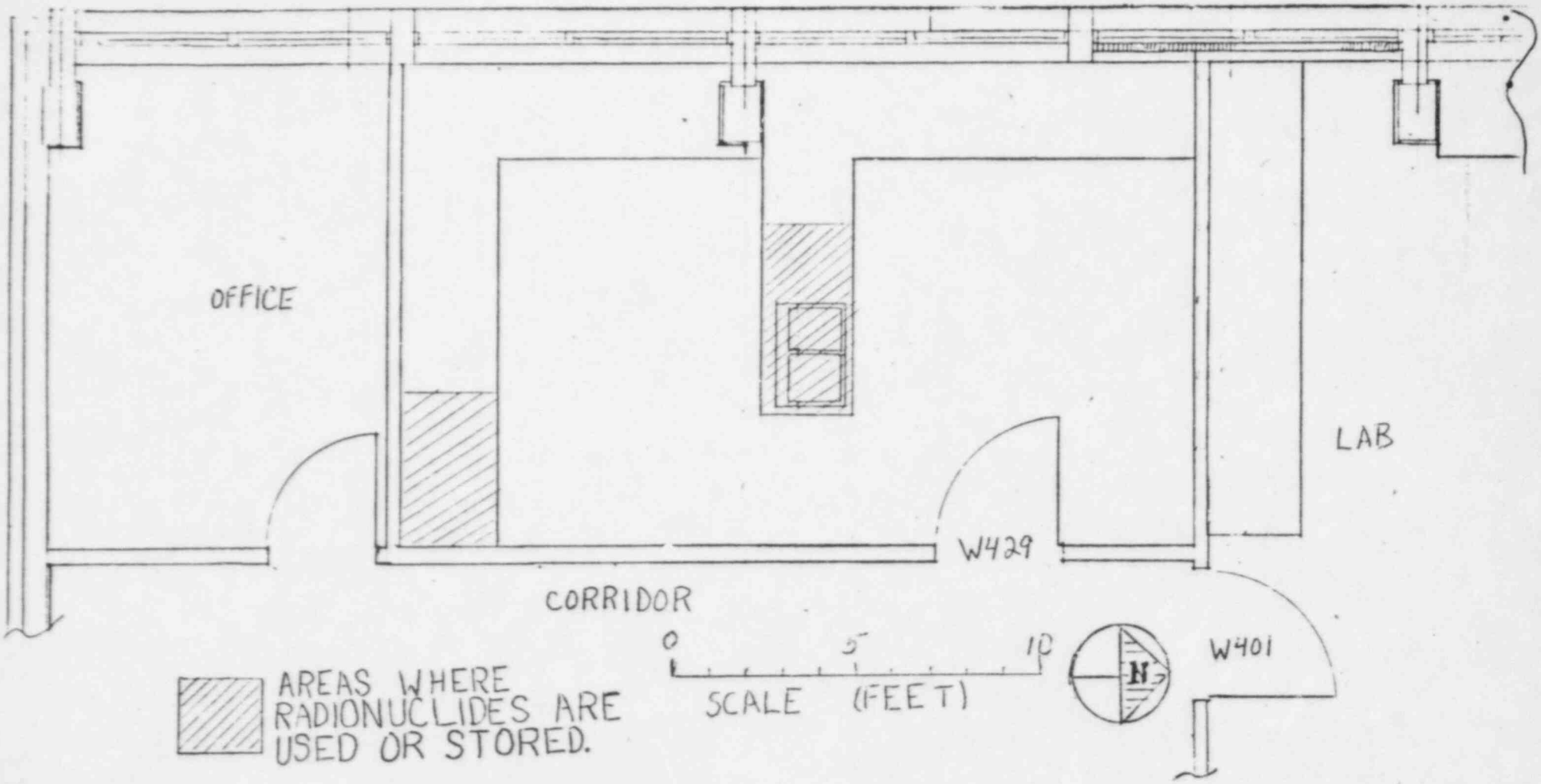

# RADIOACTIVE CARCASS STORAGE (W009/013)

ATTACH. 3 - PAGE 63

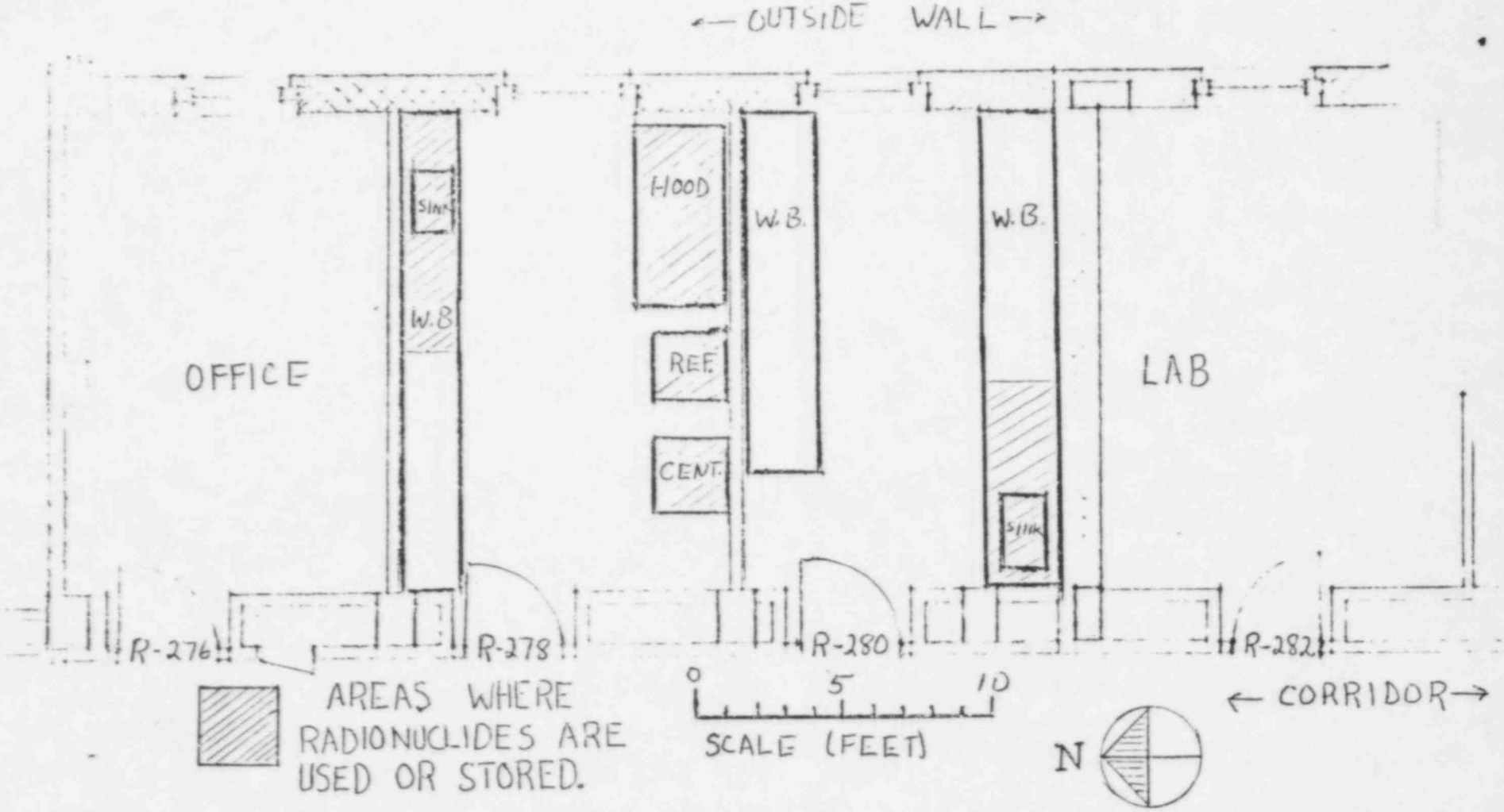



ANIMAL OR INVITRO RESEARCH (W-133)

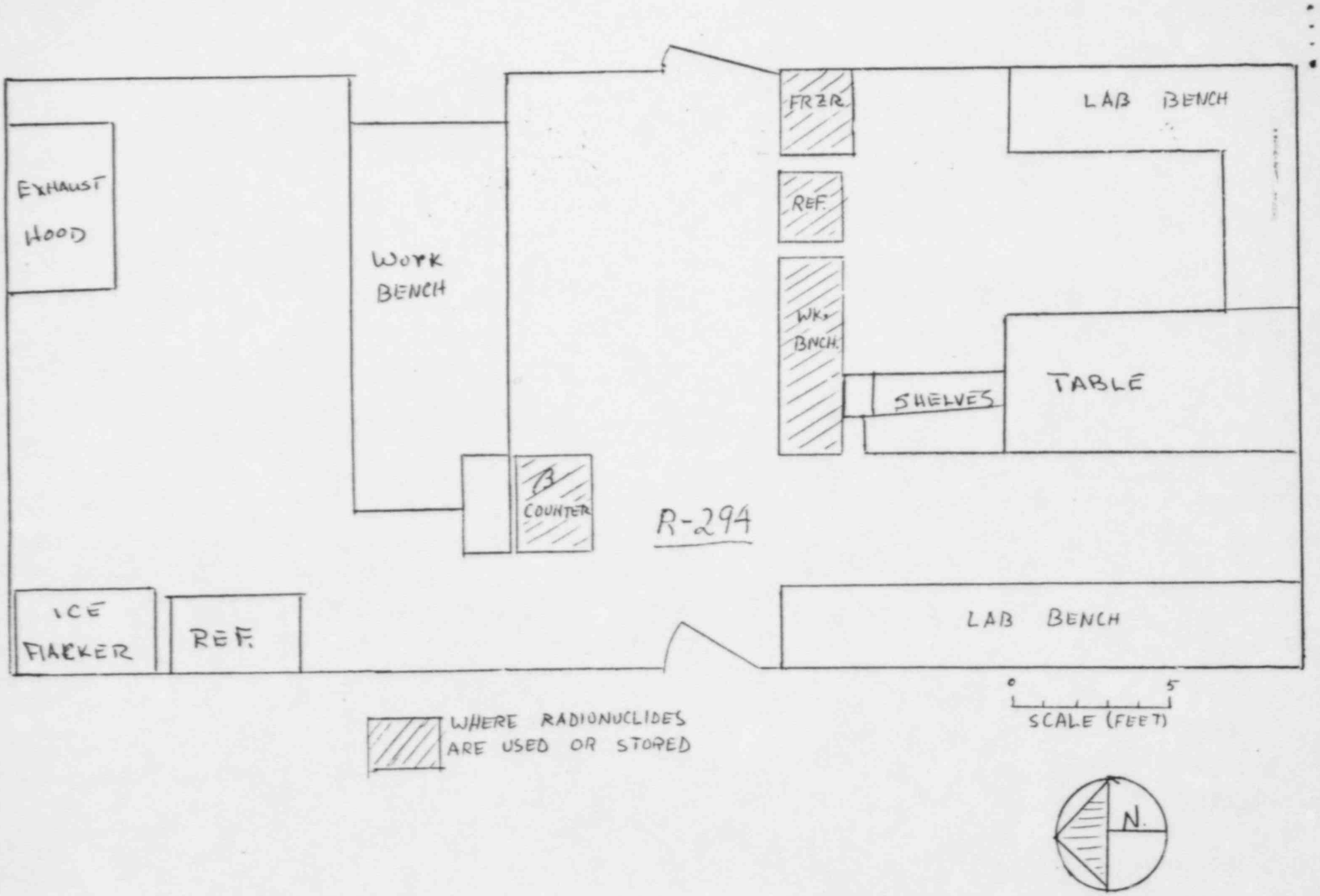

HEMOSTASIS RESEARCH LABORATORY (W-310/312/316) ATTACH. 3 PAGE 66

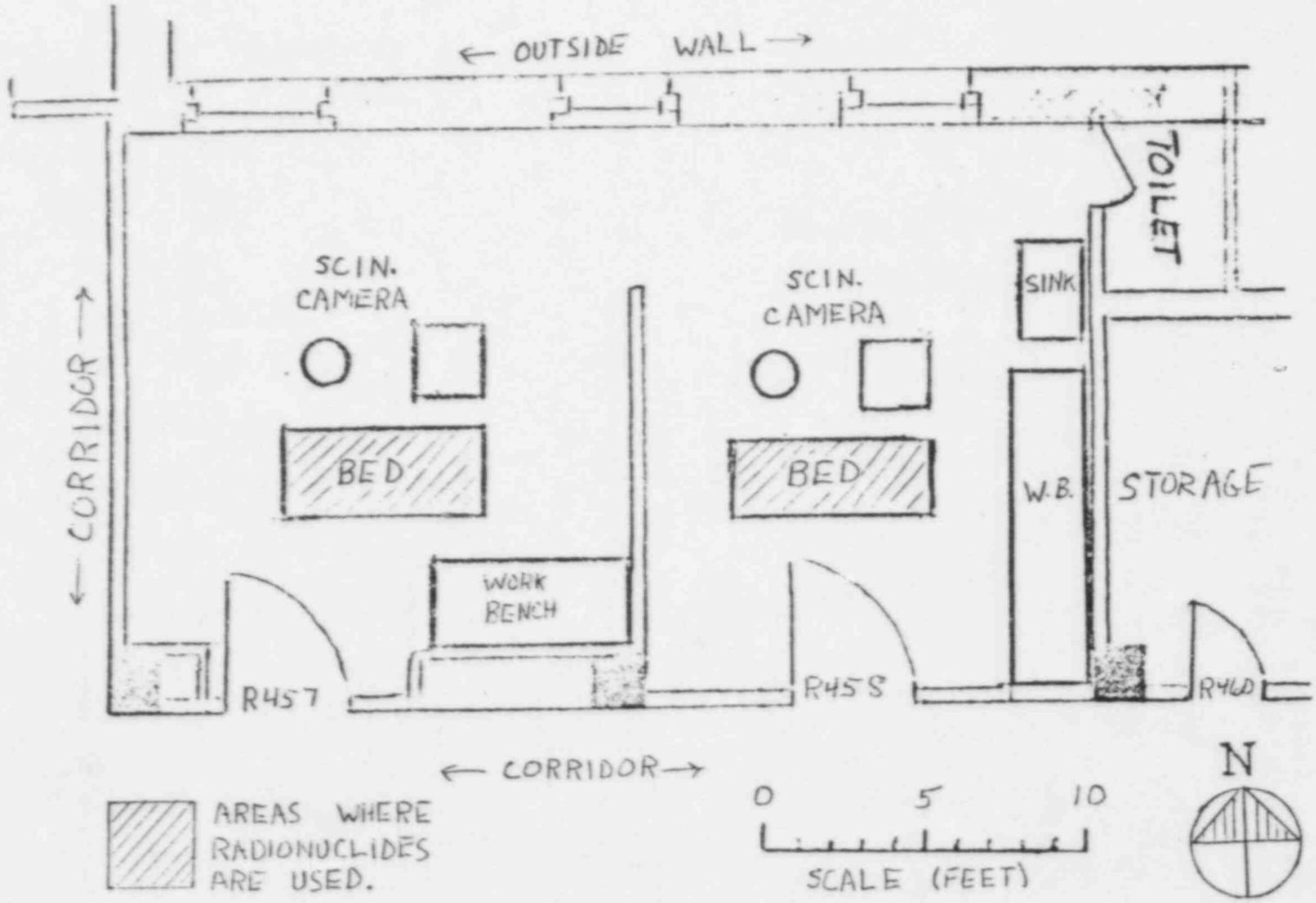



IN VITRO RESEARCH LABORATORY (W-429)




# IN VITRO RESEARCH LABORATORIES (R278/280)


EXHAUST HOOD
WORK BENCH
FRZR.
REF.
WK. BNCH.
SHELVES
LAB BENCH
TABLE
B COUNTER
R-294
ICE FLAKER
REF.
LAB BENCH
0
5
SCALE (FEET)
WHERE RADIONUCLIDES ARE USED OR STORED
N.




NUCLEAR CARDIOLOGY IMAGING ROOMS (R457/458) ATTACH. 3 PAGE 70