



DEPARTMENT OF MECHANICAL ENGINEERING  
THE UNIVERSITY OF TEXAS AT AUSTIN

Nuclear Engineering Teaching Laboratory · 10100 Burnet Road · Austin, Texas 78758  
(512)471-5787 · FAX (512)471-4589

April 15, 1991

Document Control Desk  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Subject: Emergency Plan  
Quality Assurance Plan

Dear Mr. Adams:

The enclosed information is being provided as per the letter of request March 18, 1991.

All questions 2a, b, c, d, and e have been corrected in the November 1990 revision of the Quality Assurance Plan (Docket 50-602). Since these questions were editorial or clarification corrections the plan revision number Q was not changed. However, to clarify the corrections from the previous version of the same date the words "Revision Ø" were added to each page. Actual changes were made only on pages 4, 5, 6, 8, 10 and 11 as shown on the enclosure. The enclosure includes a correction copy with annotations and 2 copies of the final plan, Revision Ø, November 1990.

Enclosures for the Emergency Plan questions include two copies of implementing procedures, attachments to clarify figures, and 2 copies of replacement pages for the Emergency Plan. Items are as follows:

Answers to Question 1a.-g.

1.a,b - A copy of the Procedure "Call and Notification" and "Emergency Response" has been enclosed. These procedures include the information for parts a(1), (2), (3), (4), b(1), (2), (3) and (4). The current version is being updated by the draft version, both are enclosed.

1.c - A set of full size drawings have been provided as appendixes to the plan. These drawings are:

- (1) City of Austin
- (2) Balcones Research Center
- (3) NETL floor plan level 1
- (4) NETL floor plan level 2
- (5) NETL floor plan level 3
- (6) NETL floor plan level 4

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- 1.d - Page 12, Revise paragraph 1, last sentence to read:  
"Checks of the list shall be made twice each year  
by the Reactor Supervisor to assure appropriate  
changes have been made."
- 1.efg - Pages 12 and 20 of the Emergency Plan revision 1  
are revised as enclosed (2 copies).

One copy of the Quality Assurance Plan and correction  
pages 12, 20 and 21 for the Emergency Plan have been sent to  
Region IV. A set of attachments for question 1.c have also  
been sent.

Sincerely,

*Thomas L. Bauer*

Thomas L. Bauer  
Assistant Director  
Nuclear Engineering  
Teaching Laboratory

APPROVED:

*Bernard W. Wehring*

\_\_\_\_\_  
Bernard W. Wehring, Director  
Nuclear Engineering Teaching Laboratory

TLB:mm

Enclosures

cc: H. C. Lott  
K. Diller  
H. Marcus  
A. Bill Beach (Region IV NRC) (with enclosures)

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of

The University of Texas  
at Austin

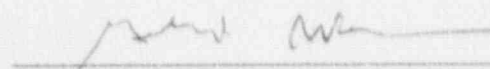
Balcones Research Center  
Nuclear Engineering Teaching  
Laboratory (NETL)

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Docket No. 50-602

AFFIDAVIT

Gerhard J. Fonken being duly sworn, hereby deposes and says that he is Executive Vice President and Provost, The University of Texas at Austin; that he is duly authorized to sign and file with the Nuclear Regulatory Commission the correction to the Quality Assurance Plan (Revision 0, November, 1990) and amended pages 12 and 20 for the Emergency Plan (Revision 1, December 1990) for docket 50-602 and Construction Permit CPRR-123; that he is familiar with the content thereof; and that the matters set forth therein are true and correct to the best of his knowledge and belief.


  
Gerhard J. Fonken  
Executive Vice President and

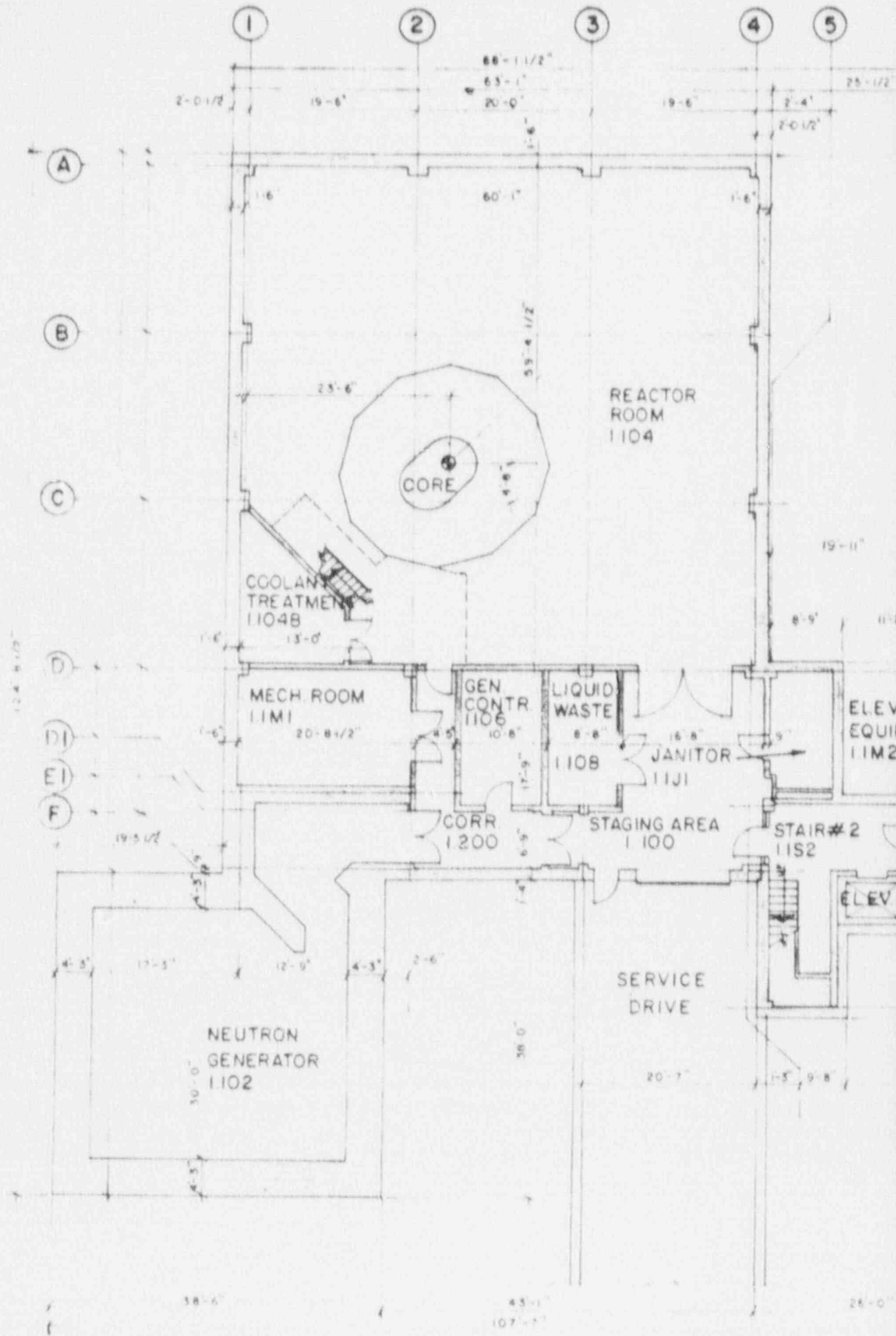
Provost

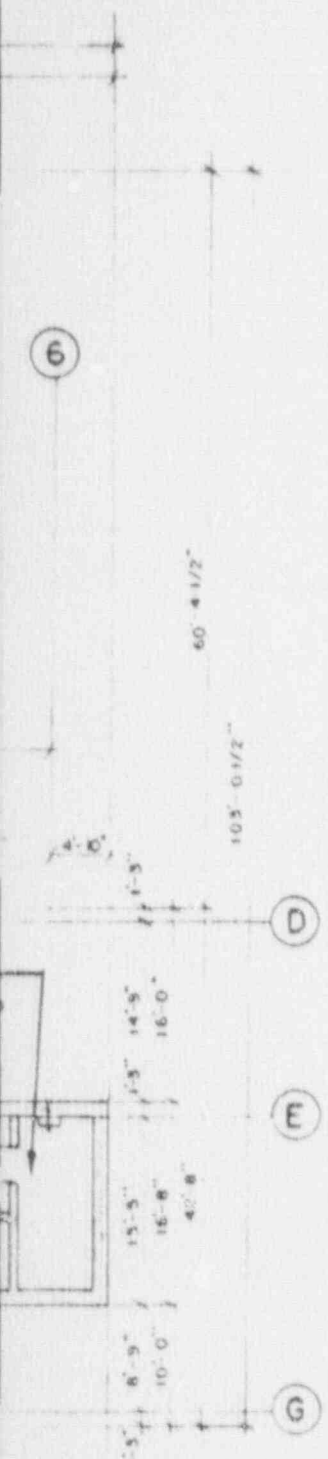
STATE of TEXAS

§

Subscribed and sworn to before me, a Notary Public in and for the State of Texas, this 24 day of April, 1991.

  
NOTARY PUBLIC in and for the State of Texas





SI  
 APERTURE  
 CARD  
 Also Available On  
 Aperture Card

**BLDG 159, N.E.T.L.**

FIRST LEVEL FLOOR PLAN

7620 GSF. FIN. FLR ELEV. 787'-0"

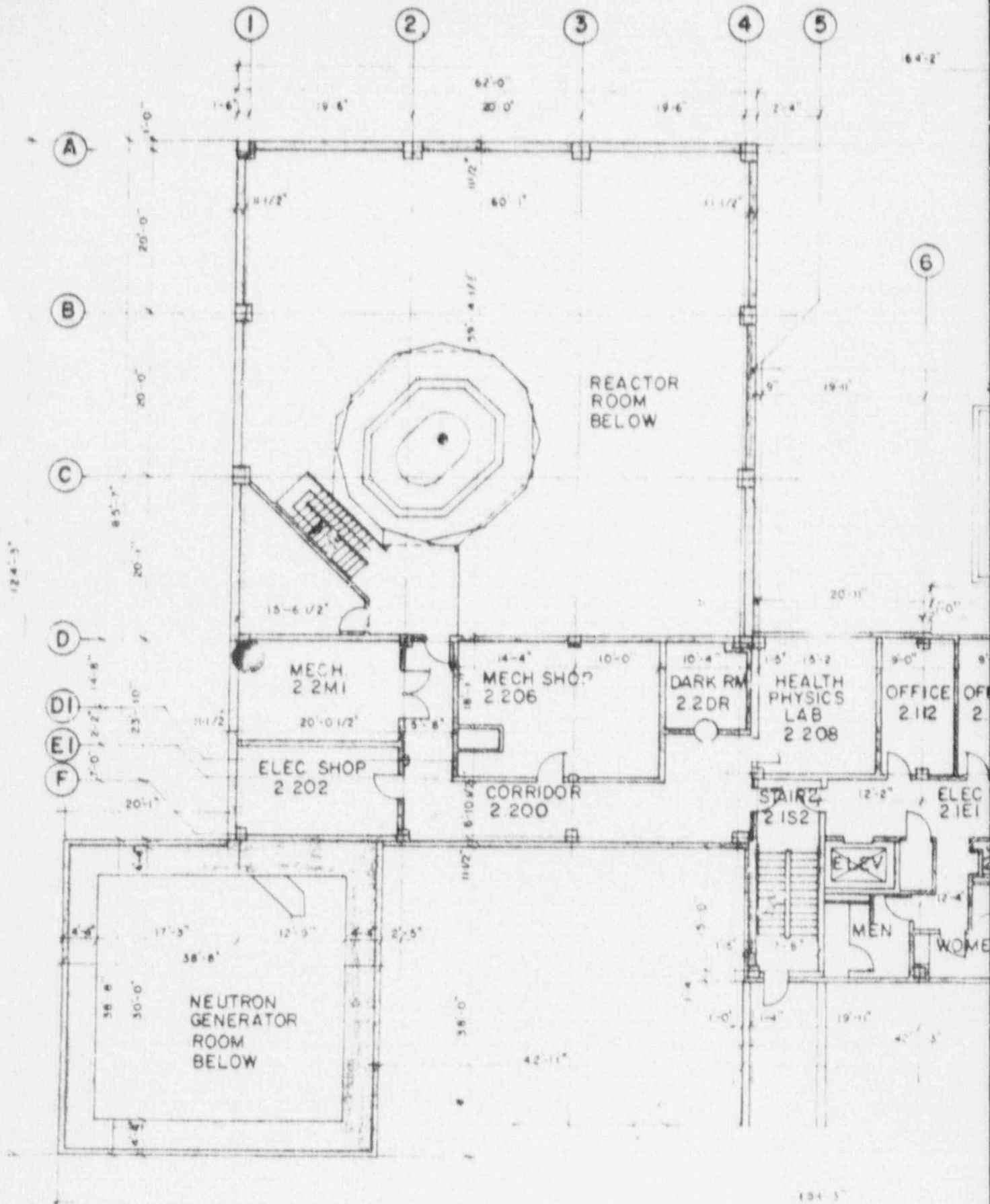
DRAWN BY RB [Signature] DATE 24 AUG 88

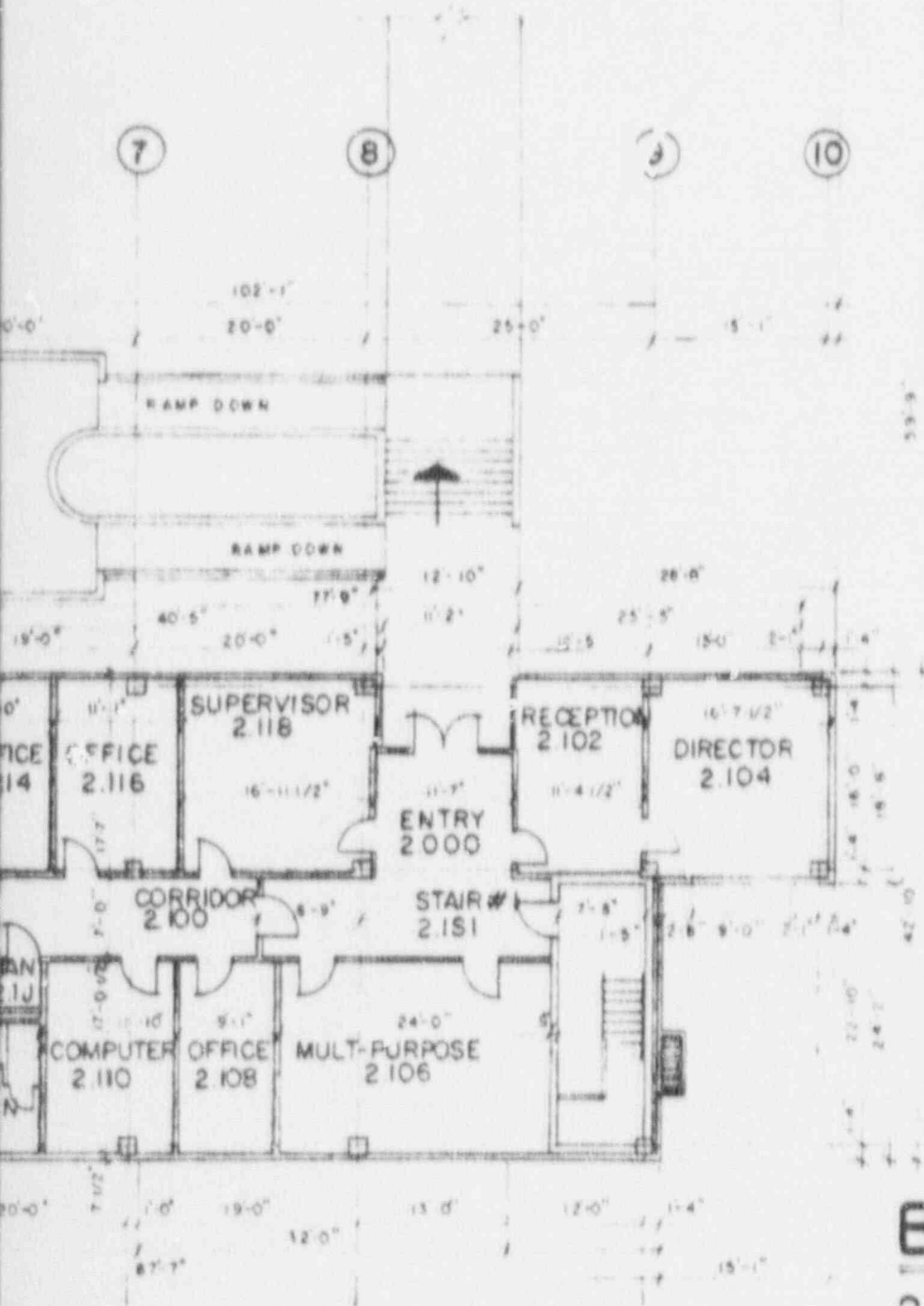


SCALE: 1/16" = 1'-0"

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SCALE: 1/16" = 1'-0"

**BLDG 159, NETL**

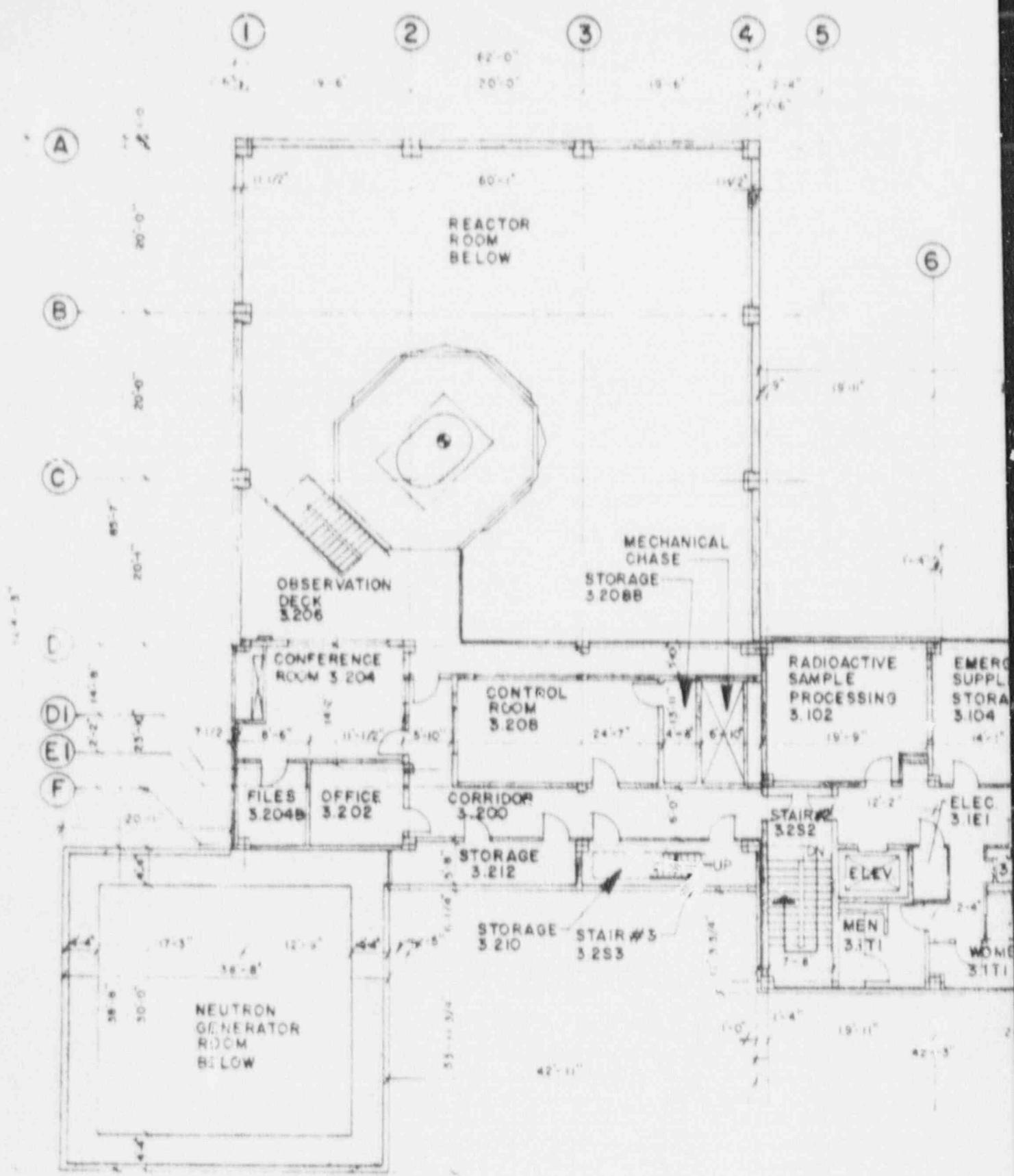
2nd LEVEL FLOOR PLAN

5800 G.S.F. FIN. FLR ELEV.

801'-0"

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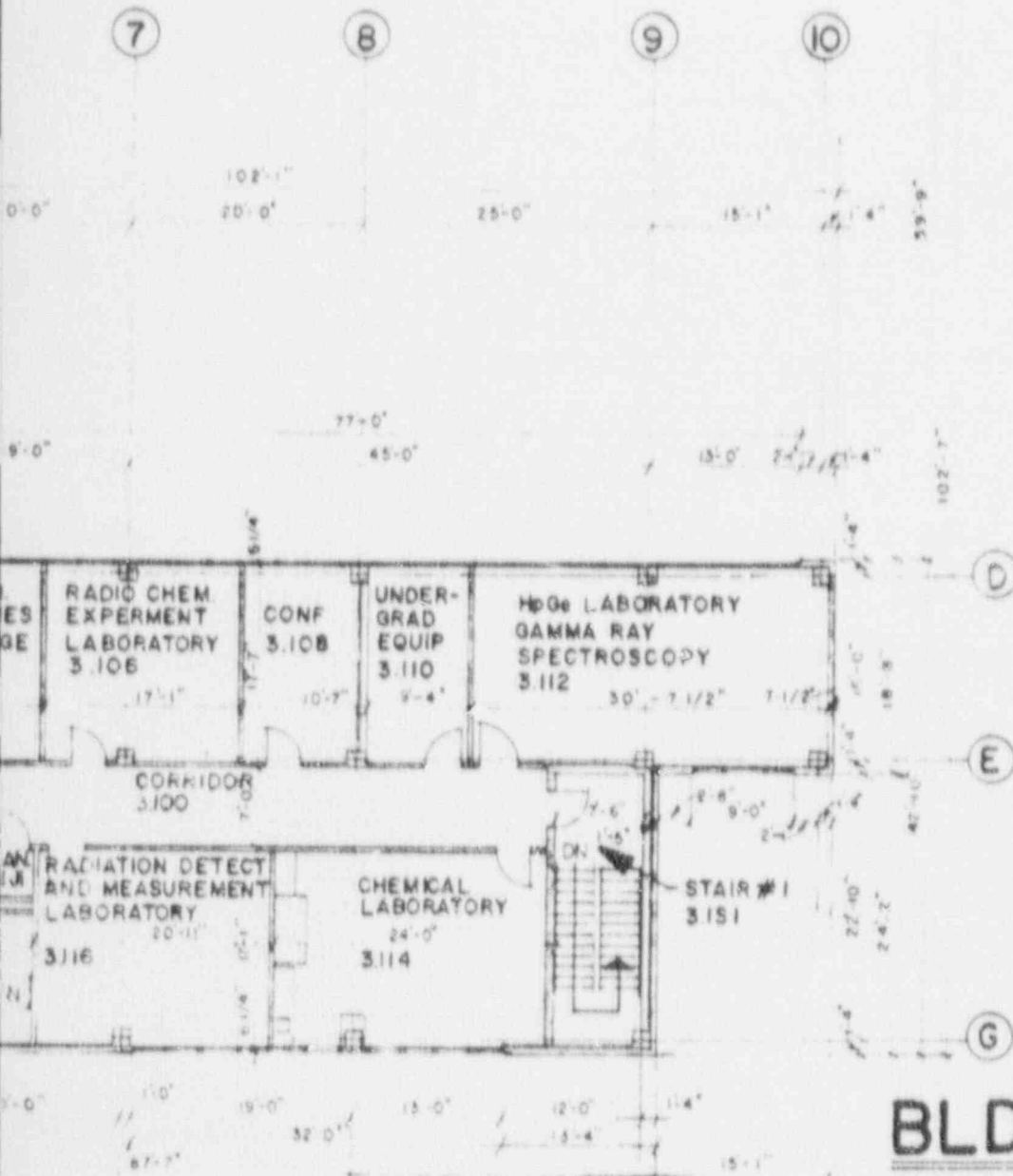
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SCALE: 1/16"=1'-0"

**BLDG 159, NETL**

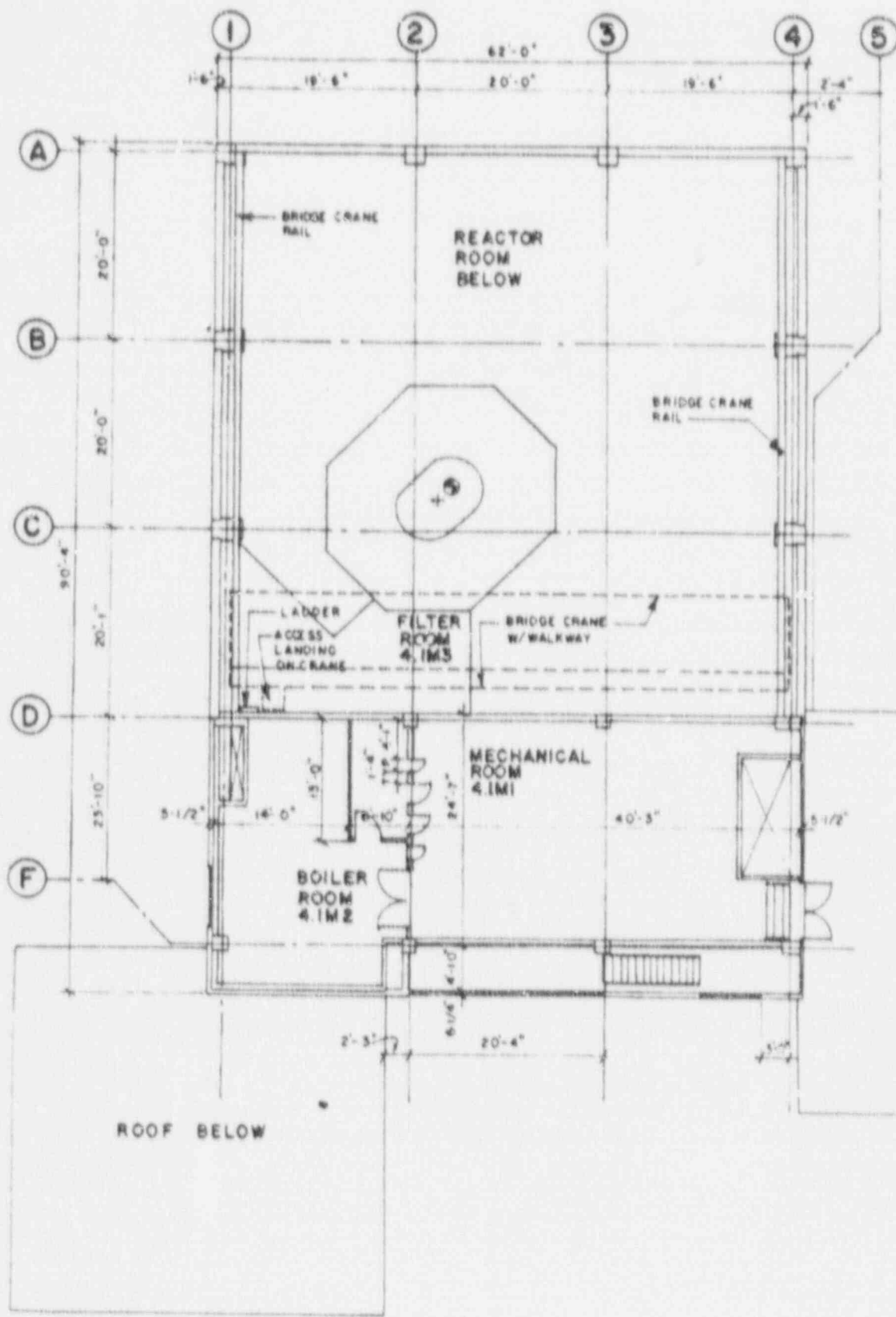
**3rd LEVEL FLOOR PLAN**

**5950 G.S.F.**

**FIN. FLR. ELEV. 315'-0"**

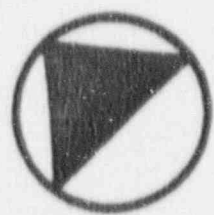
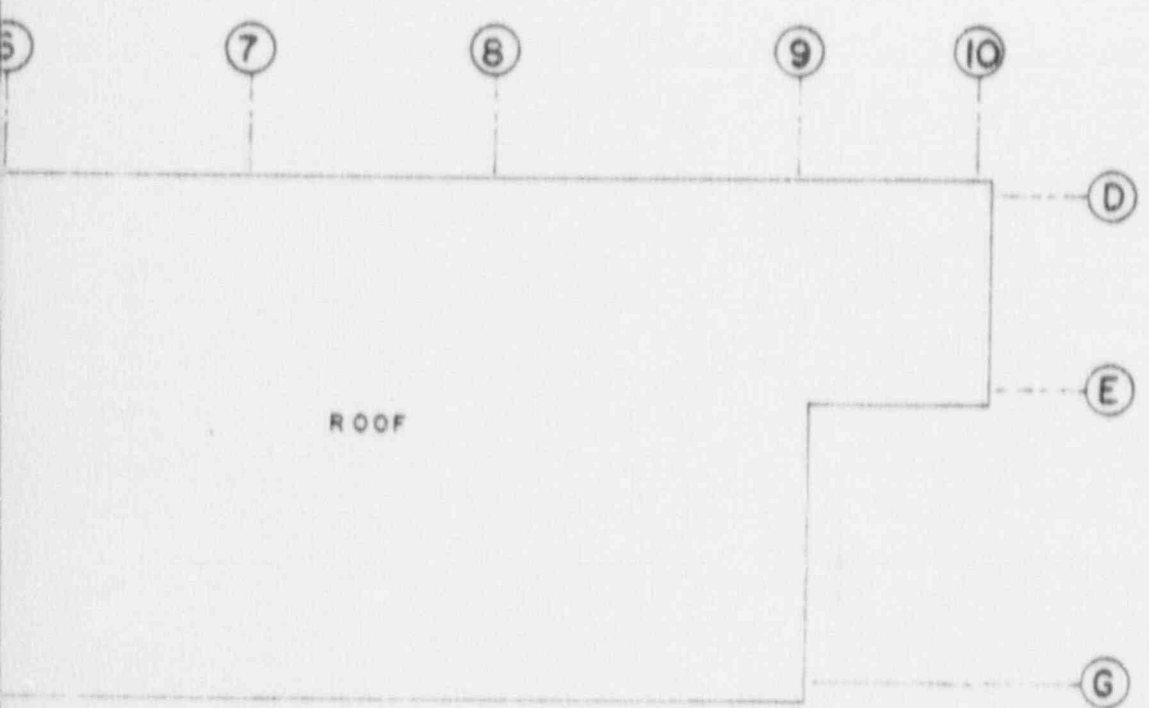
**DRAWN BY: *J.S. [Signature]* DATE: 24 AUG 88**

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Also Available On  
Aperture Card



SCALE: 1/16"=1'-0"

**BLDG 159, N.E.T.L.**

**4th LEVEL FLOOR PLAN**

**360 G.S.F.**

**FIN. FLR ELEV. 827'-0"**

**DRAWN BY: *[Signature]* DATE: 24 AUG 88**

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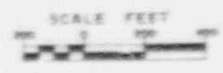


- ⊙ PARKING LOTS
- ENTRY CONTROL STATION
- CAMPUS BOUNDARY

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# BALCONES RESEARCH CENTER

THE UNIVERSITY OF TEXAS AT AUSTIN

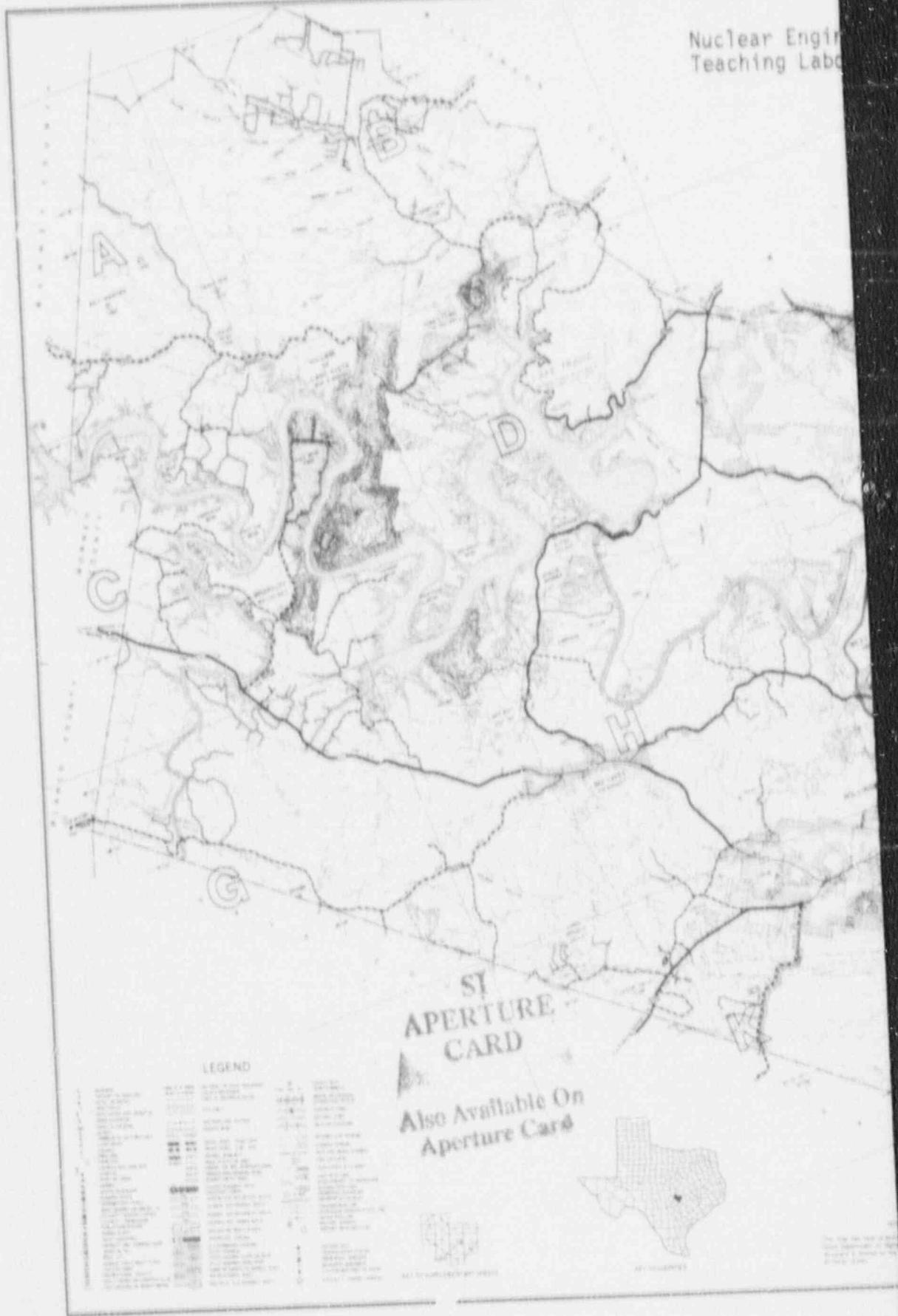
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REVISED MARCH, 1980



Nuclear Engin  
Teaching Labo



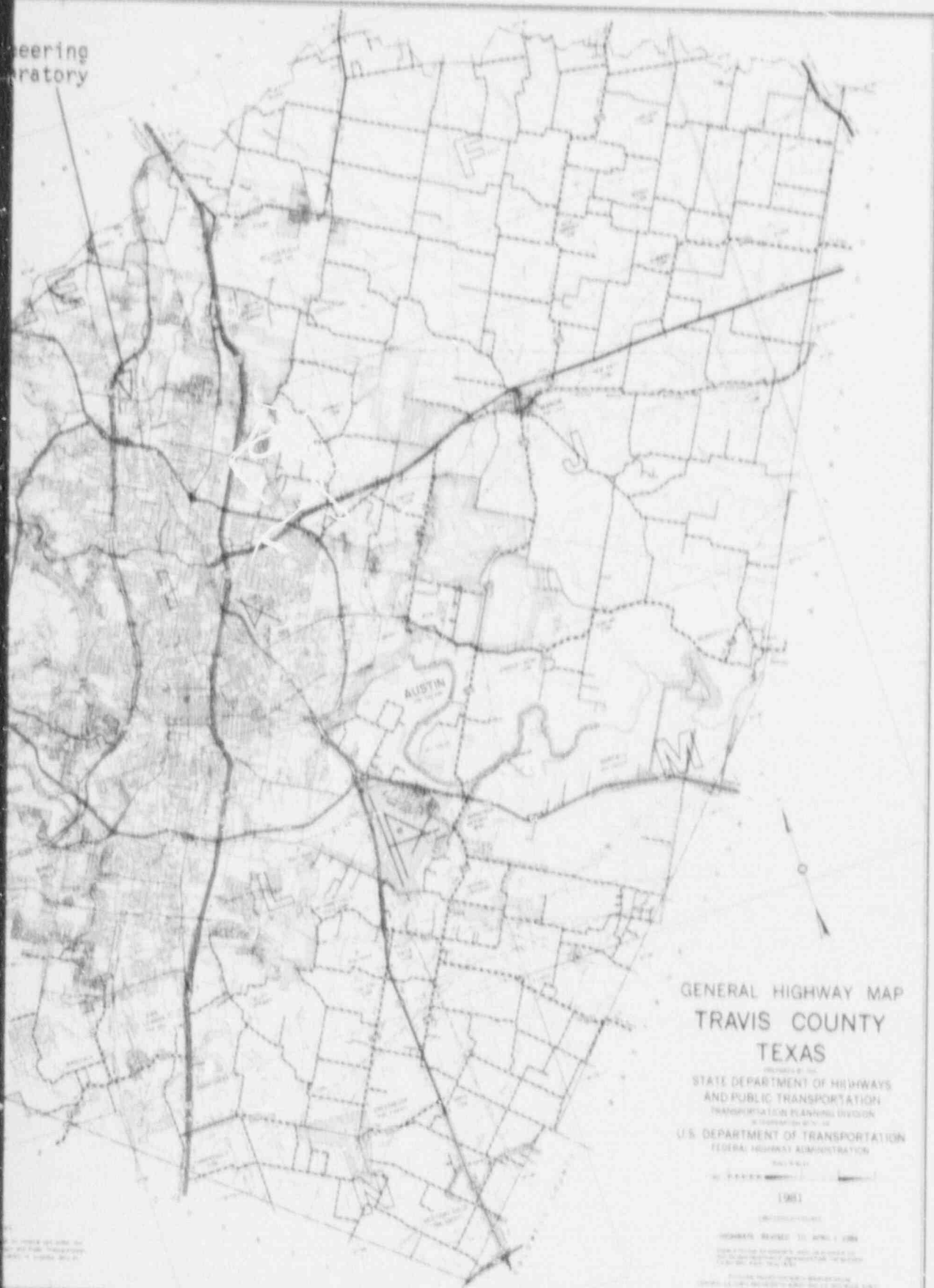
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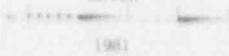
THE TEXAS STATE GEOLOGICAL SURVEY  
 UNIVERSITY OF TEXAS AT AUSTIN  
 78755

Engineering  
Laboratory



GENERAL HIGHWAY MAP  
 TRAVIS COUNTY  
 TEXAS

PREPARED BY THE  
 STATE DEPARTMENT OF HIGHWAYS  
 AND PUBLIC TRANSPORTATION  
 TRANSPORTATION PLANNING DIVISION  
 IN COOPERATION WITH THE  
 U.S. DEPARTMENT OF TRANSPORTATION  
 FEDERAL HIGHWAYS ADMINISTRATION



1961

ROADS REVISION TO APRIL 1966

THIS MAP IS A REVISION OF THE 1958 MAP OF TRAVIS COUNTY, TEXAS, AND IS A PART OF THE GENERAL HIGHWAY MAP OF TEXAS.

FOR A COMPLETE LIST OF HIGHWAYS AND ROUTES IN TEXAS, SEE THE GENERAL HIGHWAY MAP OF TEXAS, U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAYS ADMINISTRATION, WASHINGTON, D.C.

9104300367-06 TRAVIS COUNTY TEXAS 227

### 3.0 Emergency Response

An emergency response initiates by action of reactor operations staff when one or more conditions of the emergency action levels exist. The action level will determine the emergency classification and the Emergency Director shall assume responsibility for the emergency. Immediate notification of facility personnel will occur by oral communication or intercom network. As necessary for the emergency conditions, other onsite notifications will be made by telephone or messenger. Requests for offsite response support will be by telephone or radio as conditions allow. Emergency call lists with personnel titles, locations and telephone numbers shall be available at the facility entrance and at the reactor control console. Checks of the list shall be made twice each year annually by the Reactor Supervisor to assure appropriate changes have been are-periodically-made.

Detection of an emergency by onsite personnel during periods when the reactor facility is not operational or when a person that acts as an Emergency Director is not present shall require immediate notification of reactor facility and safety office personnel. Emergency call lists that include persons that may act as an Emergency Director will be part of the University Police Department procedures. A brief list at the facility and operations boundary posts the staff emergency response personnel. The University Police provide 24 hour campus surveillance. Reactor facility personnel and safety office personnel are on call on a 24 hour basis. List checks are made annually to update appropriate changes.

Reporting of an emergency to onsite, offsite or regulatory agencies shall be a message containing the following information:

- a. Name, title and telephone number of reporting person,
- b. Location, classification and description of event,
- c. Date and time event commenced,
- d. Types of radioactive release expected and duration time expected (for example: airborne, waterborne, surface contamination or no release; instantaneous, continual, or limited release),
- e. The quantity and identity of radionuclides expected to be released, and
- f. Projected or measured doses outside the operations boundary.

The agency notified shall be asked to acknowledge receipt of the initial message and that it is authentic.

#### 3.1 Emergency Response for Non-Reactor Specific Events

Activation of the complete emergency organization is not necessary for this emergency class. The Emergency Director will activate those portions of the onsite and offsite emergency organizations necessary to respond to the specific emergency event. Notification of the facility management will be done as soon as time permits.

## 6.0 Emergency Preparedness

### 6.1 Training

Persons with authority to operate the TRIGA reactor will be knowledgeable of emergency procedures. Training for other personnel with authority to access the laboratory provides instruction about the location and application of radiation survey equipment, location of the emergency assembly area, and general conditions for facility evacuation. Instruction on emergency procedures will be part of the operator requalification program. One emergency training session will be held each year for staff and operators to update and review the implementation of the emergency plan. The training session may be done in coordination with the annual drill exercise.

Onsite personnel that respond to emergency conditions that extend beyond the reactor operations boundary will have an annual orientation to the facility. Discussions are made of potential hazards, emergency procedures and response requirements. An onsite drill shall occur each year with response of facility personnel to exercise knowledge of emergency action levels, evacuation requirements, location and function of emergency equipment. Both the Reactor Supervisor and the Radiation Safety Officer shall participate in the drill in the roles of participant, advisor and observer. Every two years the drill shall include a call simulation to one or more offsite organization to test communication procedures. City emergency services are all available through a single telephone number or separate telephone numbers.

Observations of the Radiation Safety Officer and Reactor Supervisor and discussions with personnel will provide guidance to improve future drills. Fundamental problems found by the drill should identify and provide necessary changes to the plan or procedures.

### 6.2 Plan Review and Update

Each two years a review of the plan shall be made in conjunction with the observations of past drill results and other facility changes. A report of the critiques of emergency drills and, changes and updates to the plan shall be made to the Nuclear Reactor Committee and Radiation Safety Committee. Revisions to procedures will be made with approval by the Nuclear Reactor Committee.

Letters of agreement with non-university emergency services by emergency response groups will be subject to renewal every two years.

### 6.3 Emergency Equipment Maintenance

University physical plant or safety office personnel perform periodic checks of equipment such as emergency lighting and fire extinguishers. Other building systems such as the HVAC system and fire control panel operation are part of periodic schedules for maintenance or inspection.

Reactor instrumentation such as coolant system alarms, area-radiation monitors and portable survey instruments are subject are subject to



calibration at semiannual intervals, and periodic functional checks. Area radiation monitors, continuous air monitors and portable survey instruments in routine use have calibrations at semiannual intervals with functional checks at least once each two weeks.

A check of emergency call lists will be made at least twice each year for updates of information. Inventory of emergency equipment, supplies and first aid kit shall occur at least once each two years. Calibrations of radiation monitoring instruments that are part of the emergency supplies shall be done once each year. A functional check of the portable survey instruments, that includes a battery check and functional response, will be done quarterly. Pocket dosimeter, calibrations and checks, are done annually. A check of emergency call lists will be made annually for updates of information.



### 3.0 Emergency Response

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