bcc to DAC:ADM:
CENTRAL FILES
PDR:HQ
LPDR
TIC
NSIC

ARKANSAS POWER & LIGHT COMPANY
POST OFFICE BOX 551 LITTLE ROCK, ARKANSAS 72203 (501) 371-4422

WILLIAM CAVANAUGH III
Vice President
Generation & Construction

July 3, 1980

1-070-07
2-070-07

Mr. K. V. Seyfrit, Director
Office of Inspection & Enforcement
U. S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

Subject: Arkansas Nuclear One - Units 1 and 2
Docket Nos. 50-313 and 50-368
License Nos. DPR-51 and NPF-6
IE Bulletin 80-11
(File: 1510.1 and 2-1510.1)

Gentlemen:

The following information is provided as our 60 day response to IE Bulletin 80-11.

Item 1) Identify all masonry walls in your facility which are in proximity to or have attachments from safety-related piping or equipment such that wall failure could affect a safety-related system. Describe the systems and equipment, both safety and non-safety-related, associated with these masonry walls. Include in your review, masonry walls that are intended to resist impact or pressurization loads, such as missiles, pipe whip, pipe break, jet impingement, or tornado, and fire or water barriers, or shield walls. Equipment to be considered as attachments or in proximity to the walls shall include, but is not limited to, pumps, valves, motors, heat exchangers, cable trays, cable/conduit, HVAC ductwork, and electrical cabinets, instrumentation and controls. Plant surveys, if necessary, for areas inaccessible during normal plant operation shall be performed at the earliest opportunity.

8008270341

Response: As a conservative approach to the subject Bulletin, all block walls within the Seismic Category I boundaries of the ANO-1 and 2 Auxiliary Buildings were considered to be in proximity to safety-related systems and therefore, could be considered to have a potential impact upon the operability of safety-related systems within the constraints of the Bulletin. A great majority of the walls within the ANO-1 and 2 Auxiliary Buildings were reviewed last year and earlier this year for our response to IE Bulletin 79-02 and 79-02, Rev. 2. During these reviews, walls with seismic and non-seismic piping supports and other support functions were examined. Due to these previous reviews there is a high degree of confidence that these walls will satisfactorily meet the structural requirements of IE Bulletin 80-11.

Attachment A tables 1 through 6 list the concrete-block walls in the Seismic Category I portion of the ANO-1 and 2 Auxiliary Buildings.

For ANO-1 there are a total of 141 walls being reviewed. These walls are divided into the following groups and are described in tables 1 through 3 of Attachment A.

Group 1 - Walls supporting Seismic Category I pipes

Group 2 - Walls supporting Seismic Category I attachments other than pipe

Group 3 - Walls in the proximity of safety-related system

For ANO-2 there are a total of 174 walls being reviewed. These walls are divided into the same groupings as Unit 1 above and are described in tables 4 through 6 of Attachment A.

The location and arrangement of the walls identified for review per Bulletin 80-11 are shown in Attachment B figures 1 through 12. Figures 1 through 6 and figures 7 through 12 identify walls in Unit 1 and Unit 2 Auxiliary Building respectively. Walls tagged by numbers denote designated wall faces which have been surveyed. Walls shown without tag numbers were not accessible when field surveys were conducted. These walls will be surveyed as required when access is available.

None of the walls being reviewed per IE Bulletin 80-11 are load bearing walls that support the building structure in the vertical direction or act as shear walls in the horizontal direction. In general the walls function as shielding or fire protection.

If during this review any block wall affecting safety-related systems as listed in Tables 1 through 6 are found to be structurally inadequate to resist the intended loads during the reevaluation process, they will be modified immediately. The method, procedure, and schedule of the modification will be determined by the specific conditions of the wall.

Item 2(a) Establish a prioritized program for the reevaluation of the masonry walls. Provide a description of the program and a detailed schedule for completion of the reevaluation for the categories in the program. The completion date of all reevaluations should not be more than 180 days from the date of this Bulletin. A higher priority should be placed on the wall reevaluations considering safety-related piping 2½ inches or greater in diameter, piping with support loads due to thermal expansion greater than 100 pounds, safety-related equipment weighing 100 pounds or greater, the safety significance of the potentially affected systems, the overall loads on the wall, and the opportunity for performing plant surveys and, if necessary, modifications in areas otherwise inaccessible. The factors described above are meant to provide guidance in determining what loads may significantly affect the masonry wall analyses.

Response: A prioritized program has been established for the reevaluation of the concrete block walls. The following briefly describes this program.

I. Field Survey

An additional field survey will be made to gather required design data for the details of non-safety-related items attached to block walls. This survey is scheduled for completion by August 15, 1980.

II. Reevaluation Analysis

A detailed structural analysis of the concrete block walls as listed in the tables in Appendix A will be performed in accordance with a reevaluation criteria based on the criteria found in section 5.A of the Unit 1 FSAR for Unit 1 and section 3.8.4 of the Unit 2 FSAR for Unit 2. The following schedules will apply.

a) For block walls supporting Seismic Category I piping, the analysis will be complete by August 29, 1980.

b) For block walls supporting Seismic Category I attachments other than piping, the analysis will be complete by September 30, 1980.

c) For block walls in proximity to Seismic Category I piping or equipment such that wall failure could affect a safety related system, the analysis will be complete by October 20, 1980.

The results of the structural analysis will be described in our 180 day response.

Item 3) Existing test data or conservative assumptions may be used to justify the reevaluation acceptance criteria if the criteria are shown to be conservative and applicable for the actual plant conditions. In the absence of appropriate acceptance criteria a confirmatory masonry wall test program is required by the NRC in order to quantify the safety margins inherent in the reevaluation criteria. Describe in detail the actions planned and their schedule to justify the reevaluation criteria used in Item 2. If a test program is necessary, provide your commitment for such a program and a schedule for submittal of a description of the test program and a schedule for completion of the program. This test program should address all appropriate loads (seismic, tornado, missile, etc.). It is expected that the test program will extend beyond the 180 day period allowed for the other Bulletin actions. Submit the results of the test program upon its completion.

Response: A test program for shear strength of mortar in the collar joint will be performed. The purpose of this test program is to demonstrate that sufficient mortar exists in the collar joint and to justify the design allowable strength of the mortar between wythes.

A test procedure will be prepared to establish the scope and method for the test program. This procedure is scheduled for September 15, 1980. The actual testing is scheduled for completion by February 16, 1981.

Very truly yours,

William Cavanaugh III

WC:RWH:DEJ:ms

Attachments

cc: Mr. Victor Stello, Jr., Director
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

STATE OF ARKANSAS)
) SS
COUNTY OF PULASKI)

William Cavanaugh III, being duly sworn, states that he is Vice President, Generation & Construction, for Arkansas Power & Light Company; that he is authorized on the part of said Company to sign and file with the Nuclear Regulatory Commission this Supplementary Information; that he has reviewed or caused to have reviewed all of the statements contained in such information, and that all such statements made and matters set forth therein are true and correct to the best of his knowledge, information and belief.

William Cavanaugh III

SUBSCRIBED AND SWORN TO before me, a Notary Public in and for the County and State above named, this 3 day of July 1980.

Sharon Kaye Hendrix
Notary Public

My Commission Expires:

My Commission Expires 9/1/81

ATTACHMENT A

TABLE 1

CONCRETE BLOCK WALLS SUPPORTING

SEISMIC CATEGORY 1 PIPES

A.N.O. - UNIT 1

WALL NO.	FLOOR EL.	WALL THICK.	WALL HEIGHT	(*) WALL TYPE	SYSTEM
3-B-1 2	335'-0"	1'-0"	6'-2"	I	Service Water
4-B-39 40	335'-0"	2'-0"	16'-3"	I	Service Water
4-B-43 44	335'-0"	2'-0"	24'-0"	I	Reactor Build. Spray. Reactor Coolant Makeup Water
4-B-47 48	335'-0"	3'-0"	14'-10"	I	Gaseous Rad. Waste
4-B-51 52	335'-0"	2'-0"	8'-0"	I	R.B. Penetration Room Ventilation
4-B-61 62	335'-0"	1'-0"	8'-0"	I	Service Water
4-B-88 89	335'-0"	2'-6"	16'-4"	I	Service Water
4-B-132 133	354'-0"	2'-0"	14'-3"	I	Pump Discharge
4-B-146 147	369'-0"	2'-6"	15'-0"	I	Reactor Coolant Makeup Water
4-B-148 149	369'-0"	1'-0"	15'-0"	I	Diesel Generator Air Starting
4-B-166 167	372'-0"	2'-0"	12'-0"	I	Reactor Coolant Makeup Water

Notes:

1. (*) I = Shield Wall or Firewall
II = Partition Wall

TABLE 1 (cont'd)

CONCRETE BLOCK WALLS SUPPORTING

SEISMIC CATEGORY 1 PIPES

A.N.O. - UNIT 1

WALL NO.	FLOOR EL.	WALL THICK.	WALL HEIGHT	(*) WALL TYPE	SYSTEM
4-B-174 175	372'-0"	1'-0"	12'-0"	I	Chilled Water
4-B-180 181	372'-0"	1'-0"	12'-0"	I	Chilled Water
4-B-186 187	386'-0"	1'-6"	8'-8"	I	Chilled Water
4-B-192 193	404'-0"	1'-0"	16'-0"	II	Auxiliary Bldg. Ventilation
4-B-194 195	404'-0"	1'-0"	16'-0"	II	Auxiliary Bldg. Ventilation
6-B-43 44	335'-0"	3'-6"	14'-9"	I	Gaseous Rad. Waste (No Access for 6-B-44)
6-B-47 48	354'-0"	1'-6"	8'-0"	I	Waste Gas Compressor
6-B-49 50	354'-0"	1'-6"	13'-6"	I	S/G Sample Line

NOTES:

1. (*) I = Shield Wall or Firewall
II = Partition Wall

TABLE 2

CONCRETE BLOCK WALLS WITH

SEISMIC CATEGORY 1 ATTACHMENTS OTHER THAN PIPE

A.N.O. - UNIT 1

WALL NO.	FLOOR EL.	WALL THICK.	WALL HEIGHT	(*) WALL TYPE	REMARKS
4-B-118 119	354'-0"	0'-8"	13'-0"	I	
4-B-172 173	372'-0"	1'-0"	12'-0"	I	
4-B-176 177	372'-0"	1'-6"	11'-0"	I	
4-B-178 179	372'-0"	1'-0"	11'-0"	I	
4-B-182 183	374'-0"	1'-0"	7'-7"	I	
4-B-202 203	386'-0"	1'-6"	17'-2"	I	
4-B-204 205	386'-0"	1'-6"	16'-0"	II	
6-B-51 52	354'-0"	0'-8"	9'-4"	I	

NOTES:

1. (*) I = Shield Wall or Firewall
   II = Partition Wall

TABLE 3

CONCRETE BLOCK WALLS IN PROXIMITY TO

SAFETY-RELATED SYSTEMS

A.N.O. - UNIT 1

WALL NO.	FLOOR EL.	WALL THICK.	WALL HEIGHT	(*) WALL TYPE	REMARKS
3-B-3 4	368'-0"	0'-8"	8'-0"	I	
3-B-5 6	368'-0"	0'-8"	8'-0"	I	
3-B-7 8	368'-0"	1'-0"	17'-0"	I	
3-B-9 10	368'-0"	1'-0"	17'-0"	I	
3-B-11 12	368'-0"	1'-0"	17'-0"	I	
3-B-13 14	386'-0"	1'-6"	17'-0"	II	
4-B-1 6-B-5	317'-0"	1'-6"	8'-0"	I	
4-B-2 6-B-6	317'-0"	1'-0"	8'-0"	I	
4-B-3 4	317'-0"	1'-6"	8'-0"	I	
4-B-5 6	317'-0"	2'-0"	8'-0"	I	
4-B-7 8	317'-0"	2'-0"	8'-0"	I	
4-B-9 10	317'-0"	1'-0"	13'-10"	I	

Notes:

1. (*) I = Shield Wall or Firewall
   II = Partition Wall

TABLE 3 (Cont'd)

CONCRETE BLOCK WALLS IN PROXIMITY TO

SAFETY-RELATED SYSTEMS

A.N.O. - UNIT 1

WALL NO.	FLOOR EL.	WALL THICK.	WALL HEIGHT	(*) WALL TYPE	REMARKS
4-B-11 12	317'-0"	1'-0"	15'-4"	I	
4-B-13 14	317'-0"	1'-0"	13'-10"	I	
4-B-15 16	317'-0"	2'-0"	8'-0"	I	
4-B-17 18	317'-0"	2'-6"	8'-0"	I	
4-B-19 20	317'-0"	2'-6"	15'-10"	I	
4-B-21 22	317'-0"	2'-6"	8'-0"	I	
4-B-23 24	317'-0"	2'-6"	8'-0"	I	
4-B-25 26	317'-0"	2'-6"	8'-0"	I	Portion of Wall is 2'-0" Thick
4-B-27 28	317'-0"	2'-6"	8'-0"	I	
4-B-29 30	317'-0"	1'-6"	15'-4"	I	
4-B-31 32	317'-0"	1'-6"	15'-4"	I	

Notes:

1. (*) I = Shield Wall or Firewall
   II = Partition Wall

TABLE 3 (Cont'd)

CONCRETE BLOCK WALLS IN PROXIMITY TO

SAFETY-RELATED SYSTEMS

A.N.O. - UNIT 1

WALL NO.	FLOOR EL.	WALL THICK.	WALL HEIGHT	(*) WALL TYPE	REMARKS
4-B-33 34	317'-0"	2'-0"	8'-0"	I	
4-B-35 36	317'-0"	2'-0"	8'-0"	I	
4-B-37 38	317'-0"	2'-0"	8'-0"	I	
4-B-41 42	335'-0"	1'-6"	16'-3"	I	
4-B-45 46	335'-0"	1'-6"	8'-0"	I	
4-B-49 50	335'-0"	2'-0"	8'-0"	I	
4-B-53 54	335'-0"	2'-0"	8'-0"	I	
4-B-55 56	335'-0"	1'-6"	8'-0"	I	
4-B-57 58	335'-0"	1'-6"	17'-0"	I	
4-B-59 60	335'-0"	3'-6"	15'-0"	I	No Access for 4-B-60
4-B-63 64	335'-0"	2'-6"	8'-0"	I	
4-B-65 66	335'-0"	1'-0"	16'-3"	I	No Access for 4-B-66

Notes:

1. (*) I = Shield Wall or Firewall
   II = Partition Wall

TABLE 3 (Cont'd)

CONCRETE BLOCK WALLS IN PROXIMITY TO

SAFETY-RELATED SYSTEMS

A.N.O. - UNIT 1

WALL NO.	FLOOR EL.	WALL THICK.	WALL HEIGHT	(*) WALL TYPE	REMARKS
4-B-67 68	335'-0"	2'-6"	16'-3"	I	
4-B-69 70	335'-0"	3'-6"	17'-3"	I	Portion is 14'-9" Tall. No Access for 4-B-69
4-B-75 76	335'-0"	1'-0"	11'-0"	I	
4-B-77 78	335'-0"	1'-0"	8'-0"	I	
4-B-79 80	335'-0"	1'-6"	8'-0"	I	
4-B-81 82	335'-0"	1'-6"	8'-0"	I	
4-B-83 84	335'-0"	1'-0"	8'-0"	I	
4-B-85 86	335'-0"	1'-6"	14'-7"	I	
4-B-87	335'-0"	1'-0"	14'-7"	I	Against Concrete Wall
4-B-90 91	335'-0"	1'-6"	14'-9"	I	No Access for 4-B-91
4-B-92 93	335'-0"	1'-6"	14'-9"	I	Both Walls Inaccessible
4-B-94 95	335'-0"	1'-6"	14'-9"	I	Both Walls Inaccessible

Notes:

1. (*) I = Shield Wall or Firewall
   II = Partition Wall

TABLE 3 (Cont'd)

CONCRETE BLOCK WALLS IN PROXIMITY TO

SAFETY-RELATED SYSTEMS

A.N.O. - UNIT 1

WALL NO.	FLOOR EL.	WALL THICK.	WALL HEIGHT	(*) WALL TYPE	REMARKS
4-B-96 97	335'-0"	2'-6"	16'-3"	I	No Access for 4-B-97
4-B-98 99	335'-0"	1'-6"	16'-3"	I	
4-B-100 101	335'-0"	1'-6"	16'-3"	I	
4-B-102 103	335'-0"	2'-6"	14'-9"	I	
4-B-104 105	335'-0"	1'-6"	8'-0"	I	
4-B-106 107	335'-0"	2'-6"	8'-0"	I	No Access for 4-B-106
4-B-108 109	335'-0"	2'-6"	8'-0"	I	
4-B-110 111	335'-0"	2'-6"	8'-0"	I	
4-B-112 113	335'-0"	2'-6"	15'-10"	I	
4-B-114	335'-0"	2'-0"	7'-6"	I	No Access for 4-B-114
4-B-115 116	335'-0"	2'-6"	8'-0"	I	Both Walls Inaccessible
4-B-117 6-B- 55	354'-0"	2'-0"	11'-3"	I	

Notes:

1. (*) I = Shield Wall or Firewall
   II = Partition Wall

TABLE 3 (Cont'd)

CONCRETE BLOCK WALLS IN PROXIMITY TO

SAFETY-RELATED SYSTEMS

A.N.O. - UNIT 1

WALL NO.	FLOOR EL.	WALL THICK.	WALL HEIGHT	(*) WALL TYPE	REMARKS
4-B-120 121	354'-0"	1'-6"	13'-0"	I	
4-B-122 123	354'-0"	1'-6"	13'-0"	I	
4-B-124 125	354'-0"	2'-0"	13'-6"	I	
4-B-126 127	354'-0"	2'-6"	11'-3"	I	
4-B-128 129	354'-0"	2'-0"	13'-6"	I	
4-B-130 131	354'-0"	2'-0"	14'-0"	I	
4-B-134 135	354'-0"	2'-0"	16'-0"	I	
4-B-136 137	360'-0"	2'-0"	10'-0"	I	
4-B-138 139	373'-6"	2'-0"	10'-5"	I	
4-B-140 141	373'-6"	2'-0"	11'-5"	I	
4-B-142 143	373'-6"	2'-0"	10'-.."	I	

Notes:

1. (*) I = Shield Wall or Firewall
   II = Partition Wall

TABLE 3 (Cont'd)

CONCRETE BLOCK WALLS IN PROXIMITY TO

SAFETY-RELATED SYSTEMS

A.N.O. - UNIT 1

WALL NO.	FLOOR EL.	WALL THICK.	WALL HEIGHT	(*) WALL TYPE	REMARKS
4-B-144 145	369'-0"	1'-6"	15'-0"	I	
4-B-150 151	373'-6"	2'-0"	11'-6"	I	
4-B-152 153	372'-0"	2'-0"	12'-0"	I	
4-B-154 155	369'-0"	1'-0"	15'-0"	I	
4-B-156 157	372'-0"	2'-0"	12'-0"	I	
4-B-158 159	374'-0"	1'-0"	8'-9"	I	
4-B-160 161	374'-0"	1'-0"	10'-0"	I	
4-B-162 163	374'-0"	1'-0"	10'-0"	I	No Access For 4-B-162
4-B-164 165	372'-0"	2'-0"	12'-0"	I	
4-B-168 169	372'-0"	1'-9"	12'-0"	I	No Access For 4-B-169
4-B-170	372'-0"	1'-4"	12'-0"	I	
4-B-184 185	374'-0"	1'-0"	10'-0"	I	

Notes: 1. (*) I = Shield Wall or Firewall
II = Partition Wall

TABLE 3 (Cont'd)

CONCRETE BLOCK WALLS IN PROXIMITY TO

SAFETY-RELATED SYSTEMS

A.N.O. - UNIT 1

WALL NO.	FLOOR EL.	WALL THICK.	WALL HEIGHT	(*) WALL TYPE	REMARKS
4-B-188 189	404'-0"	1'-0"	17'-10"	I	
4-B-190 191	404'-0"	1'-0"	17'-9"	I	
4-B-196 197	386'-0"	1'-0"	8'-8"	II	
4-B-198 199	386'-0"	1'-0"	8'-8"	II	
4-B-200 201	386'-0"	1'-0"	8'-8"	II	
4-B-206 207	386'-0"	1'-0"	16'-0"	I	Portion of Wall is Partition Wall (Type II)
4-B-208 209	386'-0"	1'-0"	16'-0"	I	
4-B-210 211	386'-0"	1'-6"	16'-6"	I	
4-B-212 213	386'-0"	1'-6"	8'-0"	I	
4-B-214 215	386'-0"	1'-0"	16'-0"	I	
6-B-1 2	317'-0"	1'-6"	8'-0"	I	

Notes:

1. (*) I = Shield Wall or Firewall
   II = Partition Wall

TABLE 3 (Cont'd)

CONCRETE BLOCK WALLS IN PROXIMITY TO

SAFETY-RELATED SYSTEMS

A.N.O. - UNIT 1

WALL NO.	FLOOR EL.	WALL THICK.	WALL HEIGHT	(*) WALL TYPE	REMARKS
6-B-3 4	317'-0"	1'-6"	8'-0"	I	
6-B-6	---	---	---	---	See 4-B-2
6-B-7 8	326'-0"	1'-0"	8'-0"	I	
6-B-9 10	326'-0"	1'-0"	8'-0"	I	
6-B-11 12	326'-0"	1'-0"	8'-0"	I	
6-B-13 14	326'-0"	1'-0"	8'-0"	I	
6-B-15 16	326'-0"	1'-0"	8'-0"	I	
6-B-17 18	326'-0"	1'-0"	8'-0"	I	
6-B-19 20	326'-0"	1'-0"	8'-0"	I	
6-B-21 22	326'-0"	1'-0"	8'-0"	I	
6-B-23 24	335'-0"	1'-0"	8'-0"	I	
6-B-25 26	335'-0"	1'-0"	8'-0"	I	

Notes:

1. (*) I = Shield Wall or Firewall
   II = Partition Wall

TABLE 3 (Cont'd)

CONCRETE BLOCK WALLS IN PROXIMITY TO

SAFETY-RELATED SYSTEMS

A.N.O. - UNIT 1

WALL NO.	FLOOR EL.	WALL THICK.	WALL HEIGHT	(*) WALL TYPE	REMARKS
6-B-27 28	335'-0"	1'-0"	8'-0"	I	
6-B-29 30	335'-0"	1'-0"	8'-0"	I	
6-B-31 32	335'-0"	1'-0"	8'-0"	I	
6-B-33 34	335'-0"	1'-0"	8'-0"	I	
6-B-35 36	335'-0"	2'-0"	8'-0"	I	
6-B-37 38	335'-0"	2'-0"	8'-0"	I	
6-B-39 40	335'-0"	2'-0"	8'-0"	I	
6-B-41 42	335'-0"	3'-6"	14'-9"	I	No Access for 6-B-42
6-B-45 46	354'-0"	1'-6"	8'-0"	I	
6-B-53 54	354'-0"	0'-8"	9'-4"	I	
6-B-55	---	---	---	---	See 4-B-117

Notes:

1. (*) I = Shield Wall or Firewall
   II = Partition Wall

TABLE 4

CONCRETE BLOCK WALLS SUPPORTING

SEISMIC CATEGORY 1 PIPES

A.N.O. - UNIT 2

WALL NO.	FLOOR EL.	WALL THICK.	WALL HEIGHT	(*) WALL TYPE	SYSTEM
23-B-1 2	335'-0"	1'-3"	6'-7"	I	Service Water
23-B-5 6	335'-0"	1'-3"	7'-5"	I	Service Water
23-B-11 12	335'-0"	1'-0"	8'-0"	I	Service Water
24-B-32 33	335'-0"	2'-6"	14'-9"	I	Gaseous Rad. Waste
24-B-44 45	335'-0"	1'-6"	24'-0"	I	Service Water
24-B-233 234	386'-0"	1'-0"	16'-3"	I	CCl_2F_2 - Freon 12
26-B-31 32	354'-0"	1'-6"	11'-6"	I	Hydrogen Purge
26-B-45 46	369'-0"	0'-8"	7'-4"	I	Emergency Diesel Generator

NOTES:

1. (*) I = Shield Wall or Fire Wall
   II = Partition Wall

TABLE 5

CONCRETE BLOCK WALLS WITH

SEISMIC CATEGORY 1 ATTACHMENTS OTHER THAN PIPE

A.N.O. - UNIT 2

WALL NO.	FLOOR EL.	WALL THICK.	WALL HEIGHT	(*) WALL TYPE	REMARKS
24-B-24 25	317'-0"	2'-0"	8'-0"	I	
24-B-36 37	335'-0"	2'-0"	16'-3"	I	
24-B-42 43	335'-0"	1'-9"	8'-0"	I	
24-B-64 65	335'-0"	1'-9"	8'-0"	I	
24-B-68 69	335'-0"	2'-6"	16'-3"	I	
24-B-148 149	360'-0"	1'-0"	8'-0"	I	
24-B-179 180	369'-0"	1'-6"	14'-4"	I	
24-B-189 190	372'-0"	1'-0"	11'-3"	I	
24-B-197 198	372'-0"	1'-6"	12'-0"	I	
24-B-211 212	372'-0"	1'-0"	12'-0"	I	
24-B-213 214	372'-0"	1'-0"	12'-0"	I	

NOTES: 1. (*) I = Shield Wall or Fire Wall
II = Partition Wall

TABLE 5 (cont'd)

CONCRETE BLOCK WALLS WITH

SEISMIC CATEGORY 1 ATTACHMENTS OTHER THAN PIPE

A.N.O. - UNIT 2

WALL NO.	FLOOR EL.	WALL THICK.	WALL HEIGHT	(*) WALL TYPE	REMARKS
24-B-217 218	386'-0"	1'-6"	8'-0"	I	
24-B-221 222	386'-0"	1'-6"	16'-3"	I	
24-B-223 224	386'-0"	1'-6"	15'-0"	I	
24-B-235 236	386'-0"	1'-0"	16'-0"	I	
26-B-21 22	335'-0"	2'-3"	14'-9"	I	
26-B-29 30	354'-0"	2'-0"	11'-6"	I	
26-B-33 34	354'-0"	1'-0"	9'-4"	I	
26-B-53 54	386'-0"	1'-6"	8'-0"	I	

NOTES:

1. (*) I = Shield Wall or Fire Wall
   II = Partition Wall

TABLE 6

CONCRETE BLOCK WALLS IN PROXIMITY TO

SAFETY-RELATED SYSTEMS

A.N.O. - UNIT 2

WALL NO.	FLOOR EL.	WALL THICK.	WALL HEIGHT	(*) WALL TYPE	REMARKS
23-B-3 4	335'-0"	1'-0"	8'-0"	I	
23-B-7 8	335'-0"	1'-0"	8'-0"	I	
23-B-9 10	335'-0"	2'-0"	8'-0"	I	
23-B-13 14	335'-0"	1'-0"	8'-0"	I	
23-B-15 16	335'-0"	1'-0"	8'-0"	I	
23-B-17 18	335'-0"	1'-6"	8'-0"	I	No Access For 23-B-18
23-B-19 20	335'-0"	1'-6"	8'-0"	I	
23-B-25 26	354'-0"	1'-0"	12'-3"	I	No Access For 23-B-25
23-B-27 28	354'-0"	1'-0"	12'-3"	I	No Access For 23-B-27
23-B-29 30	354'-0"	1'-0"	12'-3"	I	No Access For 23-B-30
23-B-31 32	354'-0"	1'-0"	12'-3"	I	No Access For 23-B-31
23-B-33 34	354'-0"	1'-0"	12'-3"	I	No Access For 23-B-33

Notes:

1. (*) I = Shield Wall or Firewall
   II = Partition Wall

TABLE 6 (Cont'd)

CONCRETE BLOCK WALLS IN PROXIMITY TO

SAFETY-RELATED SYSTEMS

A.N.O. - UNIT 2

WALL NO.	FLOOR EL.	WALL THICK.	WALL HEIGHT	(*) WALL TYPE	REMARKS
23-B-35 36	368'-0"	0'-8"	12'-0"	I	No Access For 23-B-35
23-B-37 38	368'-0"	0'-8"	12'-0"	I	No Access For 23-B-37
23-B-39 40	368'-0"	1'-0"	16'-0"	I	No Access For 23-B-40
23-B-41 42	368'-0"	1'-0"	16'-0"	I	No Access For 23-B-41
23-B-43 44	368'-0"	1'-0"	16'-0"	I	No Access For 23-B-43
24-B-1 26-B-5	317'-0"	2'-0"	15'-3"	I	
24-B-2 3	317'-0"	2'-0"	10'-0"	I	
24-B-4 5	317'-0"	1'-3"	6'-8"	I	
24-B-6 7	317'-0"	1'-6"	8'-0"	I	
24-B-8 9	317'-0"	1'-3"	8'-0"	I	
24-B-10 11	317'-0"	1'-4"	8'-8"	I	
24-B-12 13	317'-0"	1'-2"	8'-0"	I	

Notes:

1. (*) I = Shield Wall or Firewall
   II = Partition Wall

TABLE 6 (Cont'd)

CONCRETE BLOCK WALLS IN PROXIMITY TO

SAFETY-RELATED SYSTEMS

A.N.O. - UNIT 2

WALL NO.	FLOOR EL.	WALL THICK.	WALL HEIGHT	(*) WALL TYPE	REMARKS
24-B-14 15	317'-0"	1'-3"	8'-0"	I	
24-B-16 17	317'-0"	1'-0"	8'-0"	I	
24-B-18 19	317'-0"	1'-6"	8'-0"	I	
24-B-20 21	317'-0"	1'-6"	13'-9"	I	
24-B-22 23	317'-0"	1'-0"	13'-9"	I	
24-B-27 168	374'-6"	1'-6"	6'-9"	I	
24-B-28 29	317'-0"	1'-0"	13'-9"	I	
24-B-30 31	317'-0"	2'-0"	8'-0"	I	
24-B-34 35	335'-0"	1'-6"	8'-0"	I	
24-B-38 39	335'-0"	2'-3"	8'-0"	I	
24-B-40 41	335'-0"	2'-0"	8'-0"	I	
24-B-46 47	335'-0"	1'- `	23'-11"	I	

Notes:

1. (*) I = Shield Wall or Firewall
   II = Partition Wall

TABLE 6 (Cont'd)

CONCRETE BLOCK WALLS IN PROXIMITY TO

SAFETY-RELATED SYSTEMS

A.N.O. - UNIT 2

WALL NO.	FLOOR EL.	WALL THICK.	WALL HEIGHT	(*) WALL TYPE	REMARKS
24-B-48 49	335'-0"	1'-6"	23'-11"	I	
24-B-50 51	335'-0"	3'-0"	14'-9"	I	
24-B-52 53	335'-0"	2'-0"	8'-0"	I	
24-B-54 55	335'-0"	2'-3"	8'-0"	I	
24-B-56 57	335'-0"	2'-6"	7'-0"	I	
24-B-58 59	335'-0"	3'-6"	16'-3"	I	No Access For 24-B-58
24-B-60 61	335'-0"	4'-0"	14'-9"	I	No Access For 24-B-61
24-B-66 67	335'-0"	1'-0"	6'-8"	I	
24-B-70 71	335'-0"	3'-9"	16'-3"	I	No Access For 24-B-70
24-B-74 75	335'-0"	2'-0"	10'-4"	I	
24-B-76 77	335'-0"	2'-0"	8'-0"	I	
24-B-78 79	335'-0"	2'-0"	8'-0"	I	

Notes:

1. (*) I = Shield Wall or Firewall
   II = Partition Wall

TABLE 6 (Cont'd)

CONCRETE BLOCK WALLS IN PROXIMITY TO

SAFETY-RELATED SYSTEMS

A.N.O. - UNIT 2

WALL NO.	FLOOR EL.	WALL THICK.	WALL HEIGHT	(*) WALL TYPE	REMARKS
24-B-80 81	335'-0"	3'-6" 2'-6" 3'-3"	14'-9"	I	
24-B-82 83	335'-0"	1'-6"	12'-0"	I	No Access For 24-B-83
24-B-84 85	335'-0"	1'-6"	15'-4"	I	
24-B-86 87	335'-0"	1'-6"	15'-4"	I	
24-B-88 89	335'-0"	1'-6"	15'-4"	I	
24-B-90 91	335'-0"	1'-6"	15'-4"	I	
24-B-92 93	335'-0"	1'-6"	15'-4"	I	
24-B-94 95	335'-0"	2'-0"	15'-4"	I	No Access For 24-B-95
24-B-96 97	335'-0"	2'-6"	15'-4"	I	No Access For 24-B-96
24-B-98 99	335'-0"	1'-9"	8'-0"	I	No Access For 24-B-99
24-B-100 101	335'-0"	2'-6" 1'-9"	15'-4"	I	No Access For 24-B-100

Notes:

1. (*) I = Shield Wall or Firewall
   II = Partition Wall

TABLE 6 (Cont'd)

CONCRETE BLOCK WALLS IN PROXIMITY TO

SAFETY-RELATED SYSTEMS

A.N.O. - UNIT 2

WALL NO.	FLOOR EL.	WALL THICK.	WALL HEIGHT	(*) WALL TYPE	REMARKS
24-B-102 103	335'-0"	2'-0"	15'-4"	I	No Access For 24-B-102
24-B-104 105	335'-0"	3'-3"	12'-0"	I	Both Walls Inaccessible
24-B-106 107	335'-0"	1'-6"	8'-0"	I	Both Walls Inaccessible
24-B-108 109	335'-0"	1'-6"	8'-0"	I	Both Walls Inaccessible
24-B-110 111	335'-0"	3'-9"	8'-0"	I	No Access For 24-B-110
24-B-112 113	329'-0"	2'-3"	18'-0"	I	
24-B-114 115	329'-0"	2'-0"	9'-4"	I	
24-B-116 117	354'-0"	1'-0"	9'-4"	I	
24-B-120 121	354'-0"	1'-0"	9'-4"	I	
24-B-122 123	354'-0"	1'-0"	9'-6"	I	
24-B-126 127	354'-0"	1'-6"	11'-6"	I	
24-B-128 129	354'-0"	2'-3"	11'-6"	I	

Notes:

1. (*) I = Shield Wall or Firewall
   II = Partition Wall

TABLE 6 (Cont'd)

CONCRETE BLOCK WALLS IN PROXIMITY TO

SAFETY-RELATED SYSTEMS

A.N.O. - UNIT 2

WALL NO.	FLOOR EL.	WALL THICK.	WALL HEIGHT	(*) WALL TYPE	REMARKS
24-B-130 131	354'-0"	1'-6"	11'-6"	I	
24-B-132 133	354'-0"	2'-3"	11'-6"	I	
24-B-134 135	354'-0"	1'-0"	11'-6"	I	
24-B-136 137	354'-0"	2'-3"	11'-6"	I	
24-B-138 139	360'-0"	1'-0"	12'-6"	I	
24-B-140 141	354'-0"	1'-0"	11'-6"	I	
24-B-142 143	354'-0"	1'-0"	11'-6"	I	
24-B-144 145	354'-0"	2'-9"	11'-6"	I	
24-B-146 147	360'-0"	1'-0"	12'-6"	I	
24-B-150 151	360'-0"	1'-0"	12'-6"	I	
24-B-152 153	354'-0"	2'-9"	15'-0"	I	
24-B-154 155	360'-0"	1 -0"	12'-6"	I	

Notes:

1. (*) I = Shield Wall or Firewall
   II = Partition Wall

TABLE 6 (Cont'd)

CONCRETE BLOCK WALLS IN PROXIMITY TO

SAFETY-RELATED SYSTEMS

A.N.O. - UNIT 2

WALL NO.	FLOOR EL.	WALL THICK.	WALL HEIGHT	(*) WALL TYPE	REMARKS
24-B-156 157	354'-0"	1'-9"	15'-3"	I	
24-B-158 159	354'-0"	2'-0"	15'-3"	I	
24-B-160 161	354'-0"	3'-0"	14'-6"	I	
24-B-162 163	354'-0"	1'-4"	9'-0"	I	
24-B-164 165	354'-0"	3'-0"	14'-6"	I	
24-B-166 167	354'-0"	1'-0"	14'-6"	I	No Access For 24-B-166
24-B-168	--	--	--	--	See Wall 24-B-27
24-B-169 170	374'-6"	1'-6"	8'-1"	I	
24-B-171 172	369'-0"	1'-6"	14'-3"	I	
24-B-173 174	369'-0"	1'-6"	15'-11"	I	
24-B-175 176	374'-6"	1'-6"	10'-5"	I	
24-B-177 178	372'-0"	2'-9"	11'-3"	I	

Notes:

1. (*) I = Shield Wall or Firewall
   II = Partition Wall

TABLE 6 (Cont'd)

CONCRETE BLOCK WALLS IN PROXIMITY TO

SAFETY-RELATED SYSTEMS

A.N.O. - UNIT 2

WALL NO.	FLOOR EL.	WALL THICK.	WALL HEIGHT	(*) WALL TYPE	REMARKS
24-B-181 182	369'-0"	1'-0"	11'-3"	I	
24-B-183 184	372'-0"	2'-9"	8'-10"	I	
24-B-185 186	372'-0"	2'-9"	11'-3"	I	
24-B-187 188	372'-0"	3'-0"	11'-3"	I	
24-B-191 192	374'-6"	1'-6"	10'-5"	I	
24-B-193 194	374'-6"	0'-8"	10'-5"	I	No Access For 24-B-194
24-B-195 196	372'-0"	2'-3"	11'-3"	I	
24-B-199 200	372'-0"	3'-3"	12'-0"	I	
24-B-201 202	372'-0"	1'-0"	12'-0"	I	
24-B-203 204	372'-0"	1'-0"	12'-0"	I	No Access For 24-B-204
24-B-205 206	372'-0"	1'-0"	12'-0"	I	No Access For 24-B-205
24-B-207 208	372'-0"	2'-0"	9'-0"	I	

Notes:

1. (*) I = Shield Wall or Firewall
   II = Partition Wall

TABLE 6 (Cont'd)

CONCRETE BLOCK WALLS IN PROXIMITY TO

SAFETY-RELATED SYSTEMS

A.N.O. - UNIT 2

WALL NO.	FLOOR EL.	WALL THICK.	WALL HEIGHT	(*) WALL TYPE	REMARKS
24-B-209 210	372'-0"	1'-0"	12'-0"	I	
24-B-215 216	372'-0"	1'-0"	12'-0"	I	
24-B-219 220	386'-0"	1'-0"	16'-3"	I	
24-B-225 226	386'-0"	1'-0"	15'-0"	I	
24-B-227 228	386'-0"	1'-6"	16'-0"	I	
24-B-229 230	386'-0"	1'-6"	16'-0"	I	
24-B-231 232	386'-0"	1'-0"	15'-0"	I	
24-B-237 238	386'-0"	1'-0"	9'-4"	I	
24-B-239 240	386'-0"	1'-0"	9'-4"	I	
24-B-241 242	386'-0"	1'-0"	14'-6"	I	
24-B-245 252	404'-0"	1'-0"	8'-0"	I	
24-B-246	404'-0"	1'-0"	8'-0"	I	

Notes:

1. (*) I = Shield Wall or Firewall
   II = Partition Wall

TABLE 6 (Cont'd)

CONCRETE BLOCK WALLS IN PROXIMITY TO

SAFETY-RELATED SYSTEMS

A.N.O. - UNIT 2

WALL NO.	FLOOR EL.	WALL THICK.	WALL HEIGHT	(*) WALL TYPE	REMARKS
24-B-253 254	404'-0"	1'-0"	8'-0"	I	
24-B-255 256	404'-0"	1'-0"	8'-0"	I	
24-B-257 267	404'-0"	1'-0"	8'-0"	I	
24-B-259 268	404'-0"	1'-0"	8'-0"	II	
24-B-262 273	404'-0"	1'-0"	8'-0"	I	
24-B-263	404'-0"	1'-0"	16'-0"	II	
24-B-265 266	404'-0"	1'-0"	8'-0"	I	Portion is Partition Wall
24-B-269 270	404'-0"	1'-0"	8'-0"	I	
24-B-271 272	404'-0"	1'-0"	8'-0"	I	
24-B-274 275	404'-0"	1'-0"	8'-0"	I	
24-B-277	404'-0"	1'-0"	8'-0"	I	
24-B-279 280	386'-0"	1'-0"	9'-4"	II	

Notes:

1. (*) I = Shield Wall or Firewall
   II = Partition Wall

TABLE 6 (Cont'd)

CONCRETE BLOCK WALLS IN PROXIMITY TO

SAFETY-RELATED SYSTEMS

A.N.O. - UNIT 2

WALL NO.	FLOOR EL.	WALL THICK.	WALL HEIGHT	(*) WALL TYPE	REMARKS
26-B-1 2	317'-0"	1'-6"	13'-9"	I	
26-B-3 4	317'-0"	2'-0"	13'-9" 15'-3"	I	
26-B-5	--	--	--	--	See Wall 24-B-1
26-B-7 8	326'-0"	2'-3"	25'-3"	I	
26-B-9 10	326'-0"	1'-3"	16'-4"	I	No Access For 26-B-9
26-B-11 12	326'-0"	2'-0"	25'-3"	I	
26-B-13 14	335'-0"	1'-6"	6'-8"	I	
26-B-15 16	335'-0"	1'-6"	6'-8"	I	
26-B-17 18	326'-0"	1'-6"	6'-8"	I	
26-B-25 26	354'-0"	1'-6"	8'-0"	I	
26-B-27 28	354'-0"	2'-0"	8'-4"	I	
26-B-35 36	354'-0"	1'-6"	11'-6"	I	

Notes:

1. (*) I = Shield Wall or Firewall
   II = Partition Wall

TABLE 6 (Cont'd)

CONCRETE BLOCK WALLS IN PROXIMITY TO

SAFETY-RELATED SYSTEMS

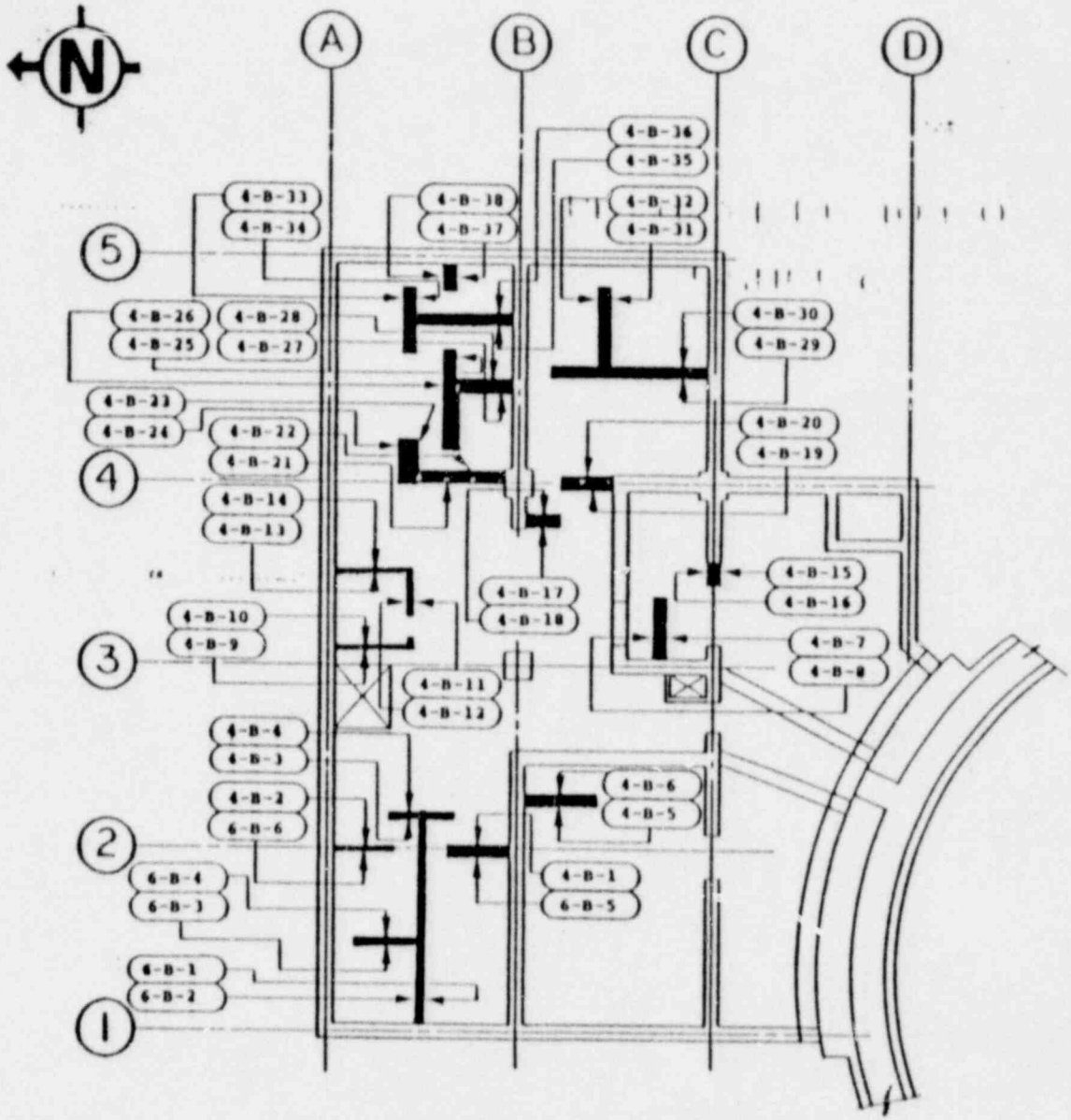
A.N.O. - UNIT 2

WALL NO.	FLOOR EL.	WALL THICK.	WALL HEIGHT	(*) WALL TYPE	REMARKS
26-B-37 38	354'-0"	1'-0"	9'-4"	I	
26-B-41 42	369'-0"	0'-8"	7'-4"	I	
26-B-43 44	369'-0"	0'-8"	7'-4"	I	
26-B-47 48	369'-0"	0'-8"	7'-4"	I	
26-B-49 50	369'-0"	0'-8"	7'-4"	I	
26-B-51 52	369'-0"	0'-8"	7'-4"	I	

Notes:

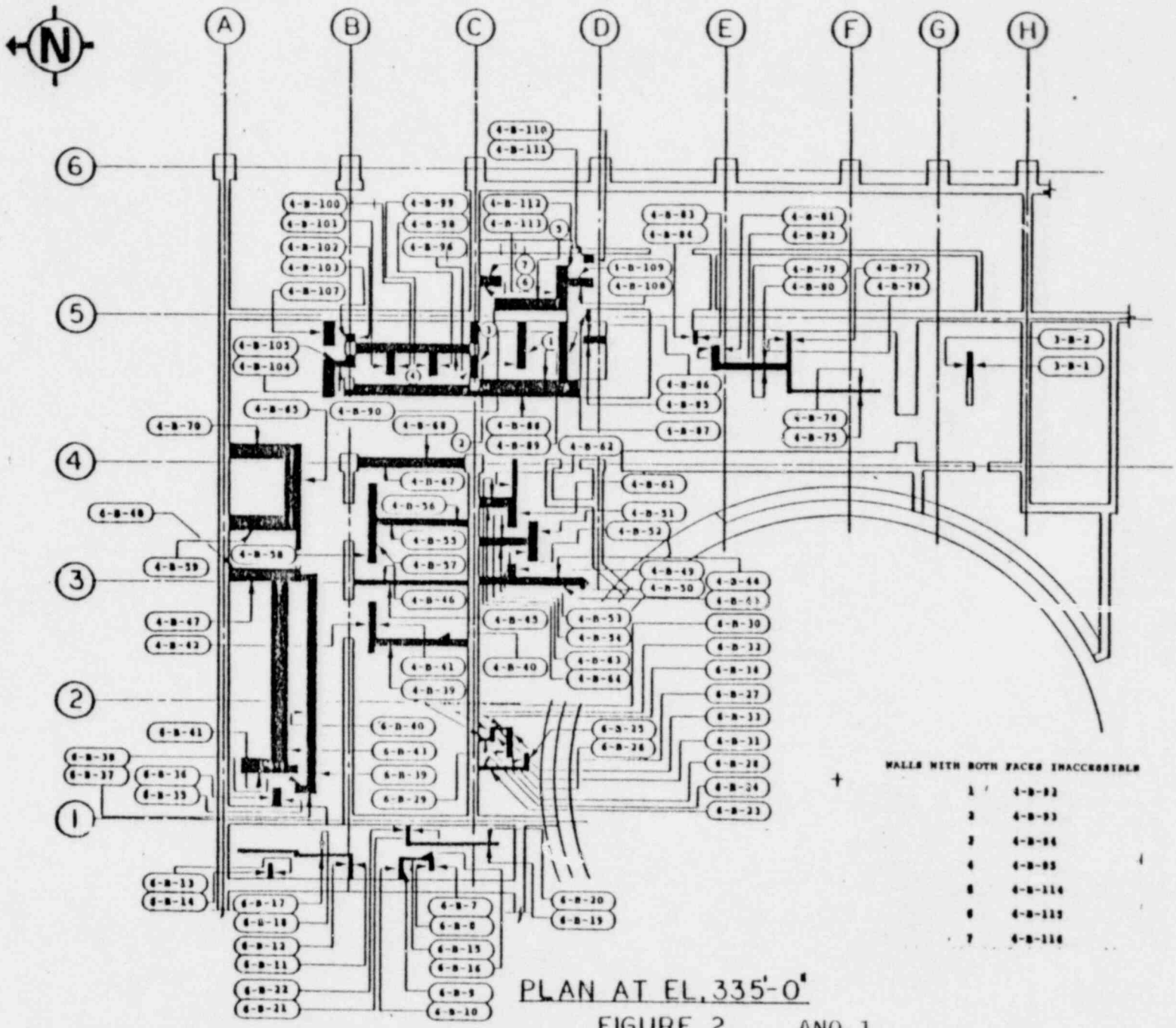
1. (*) I = Shield Wall or Firewall
   II = Partition Wall

ATTACHMENT B



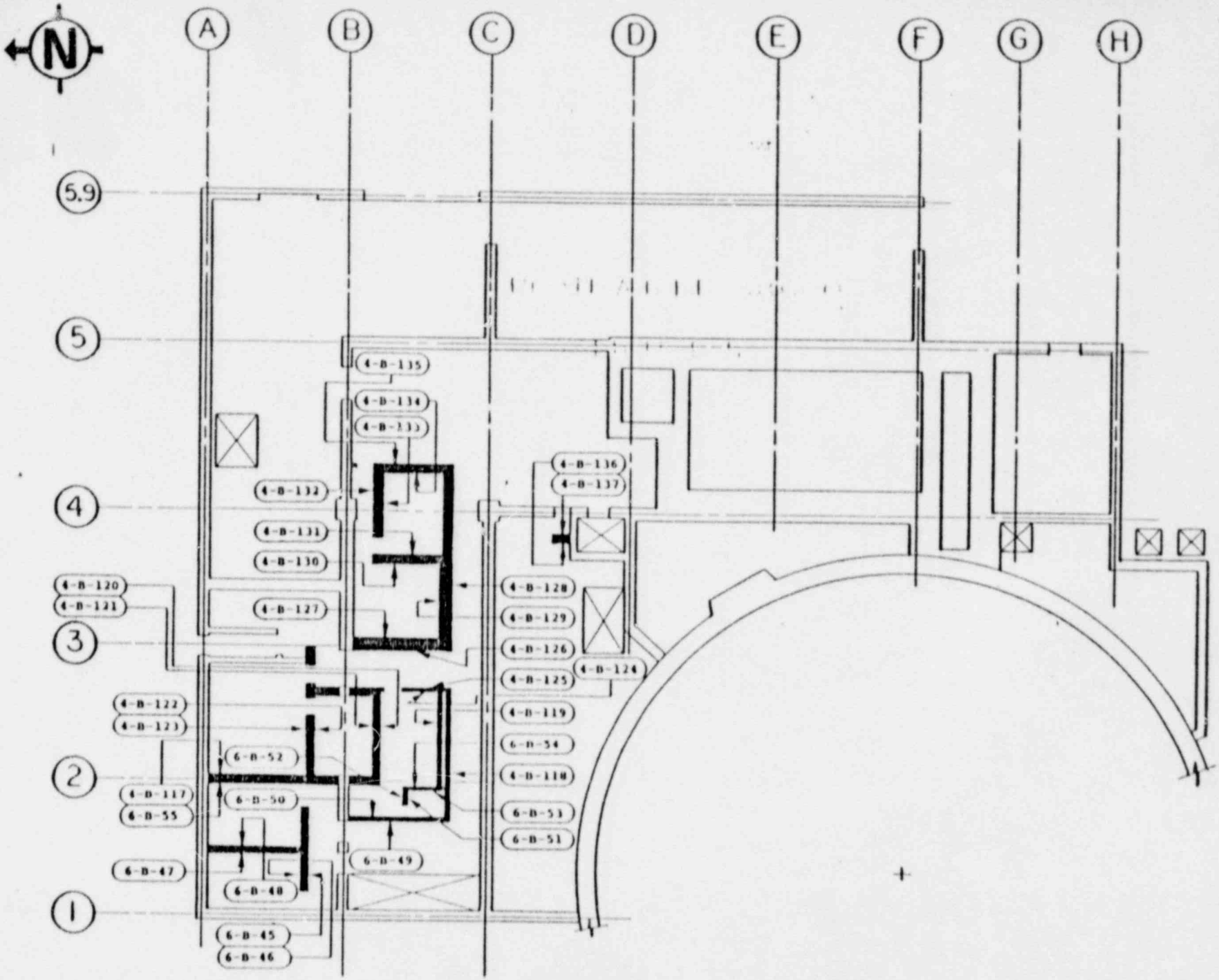
PLAN AT EL. 317'-0"

FIGURE 1 - ANO-1



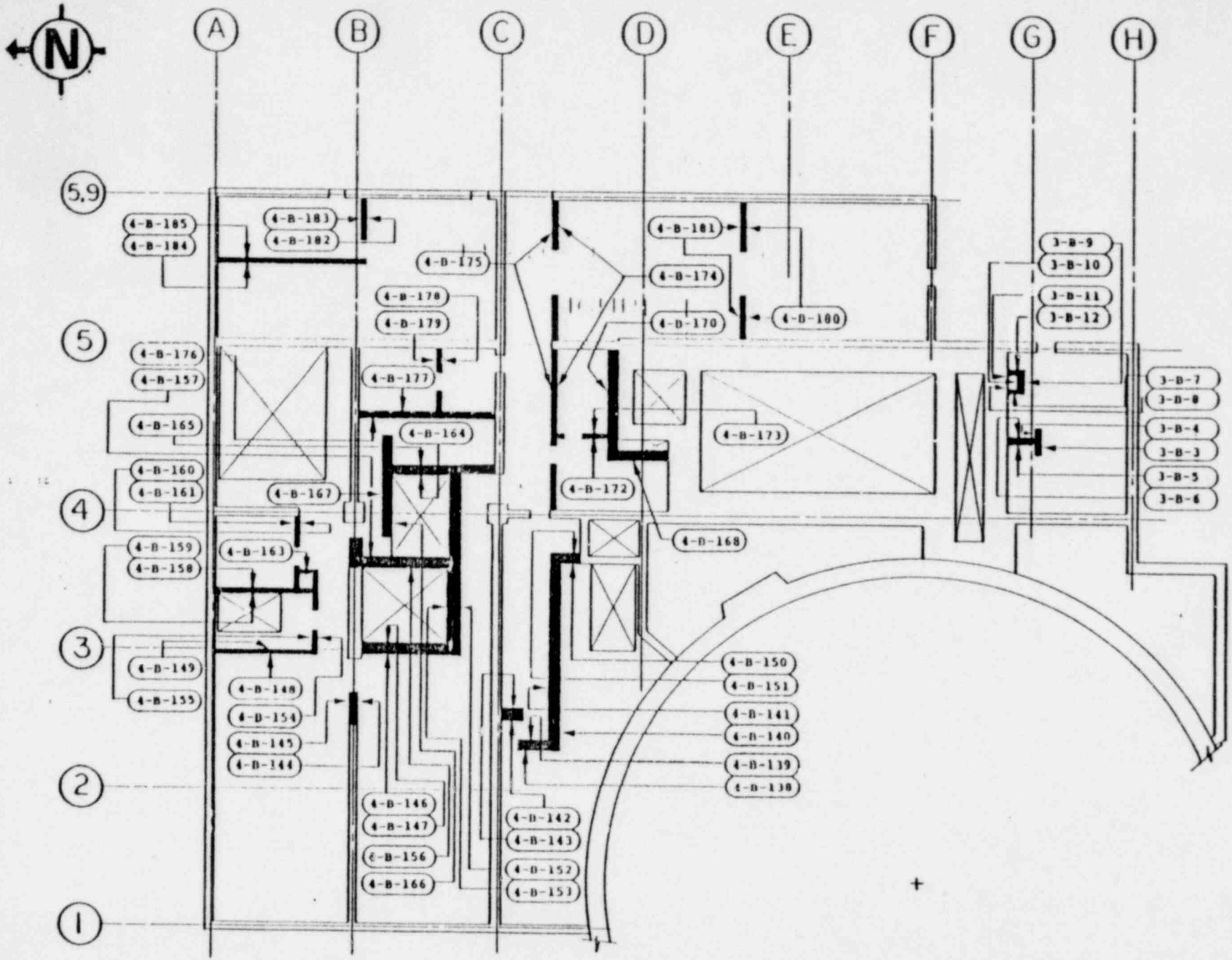
PLAN AT EL. 335'-0"

FIGURE 2 - ANO-1



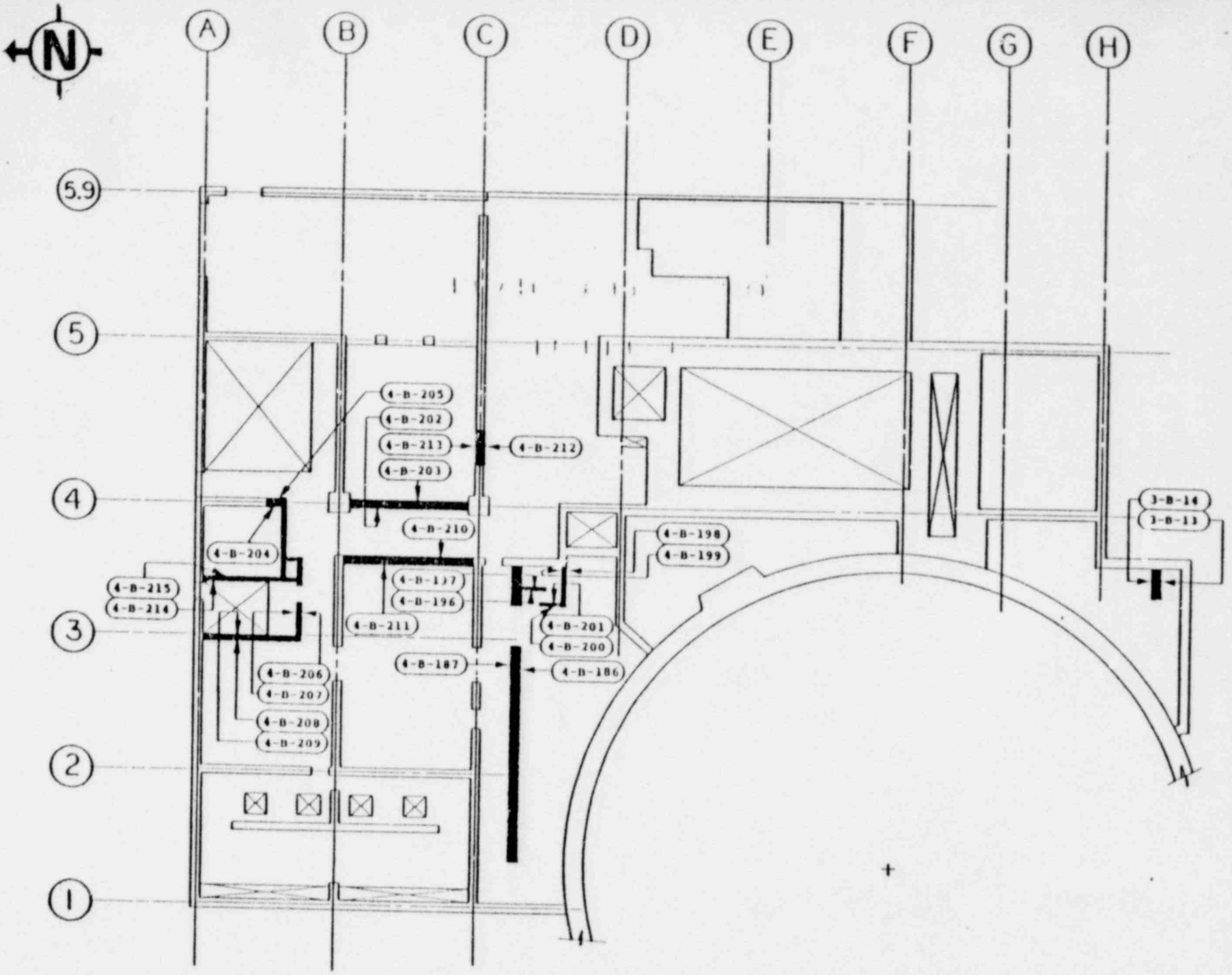
PLAN AT EL. 354'-0"

FIGURE 3 ANO 1



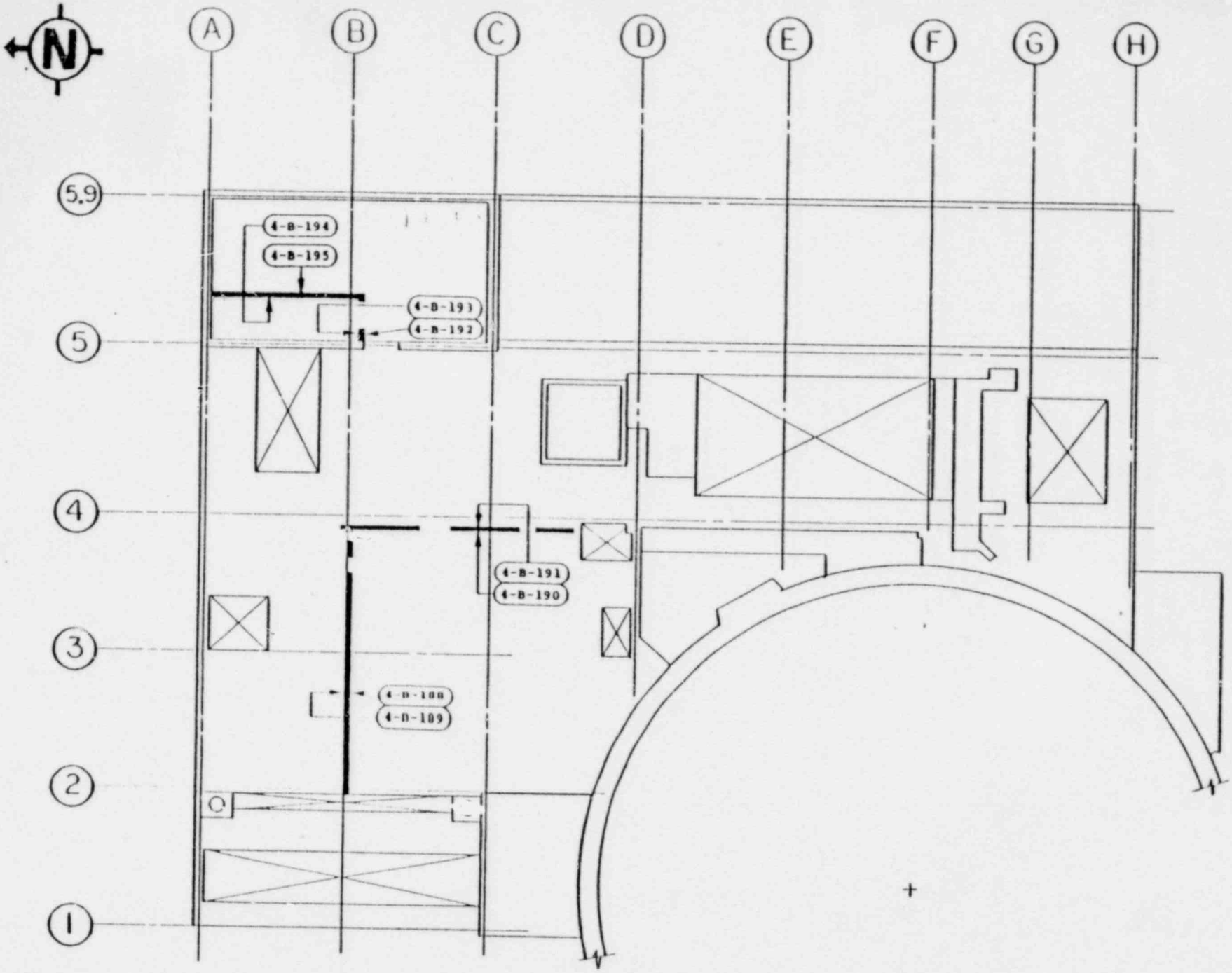
PLAN AT EL. 372'-0"

FIGURE 4 -ANO-1



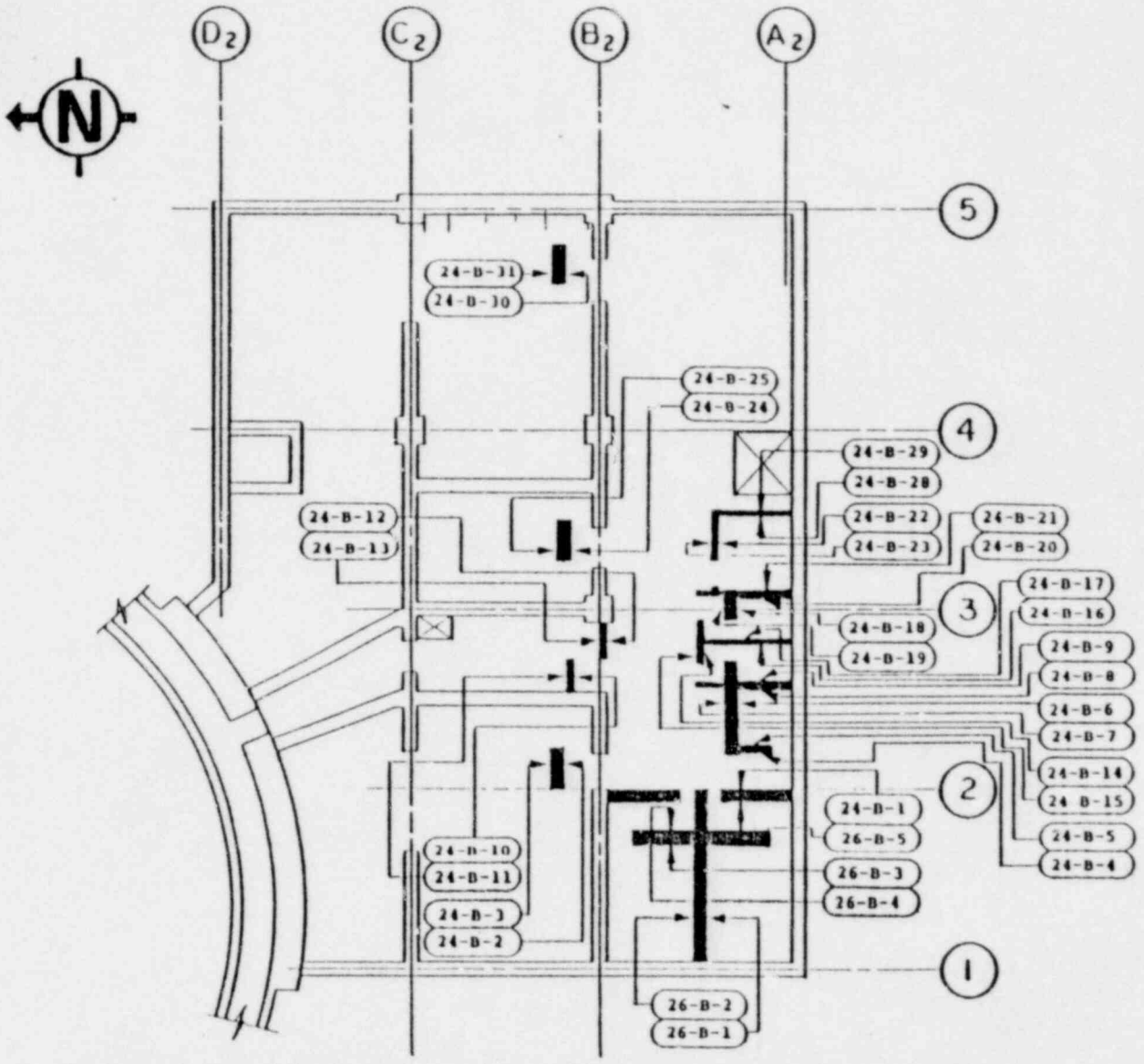
PLAN AT EL 386'-0"

FIGURE 5 - ANO-1



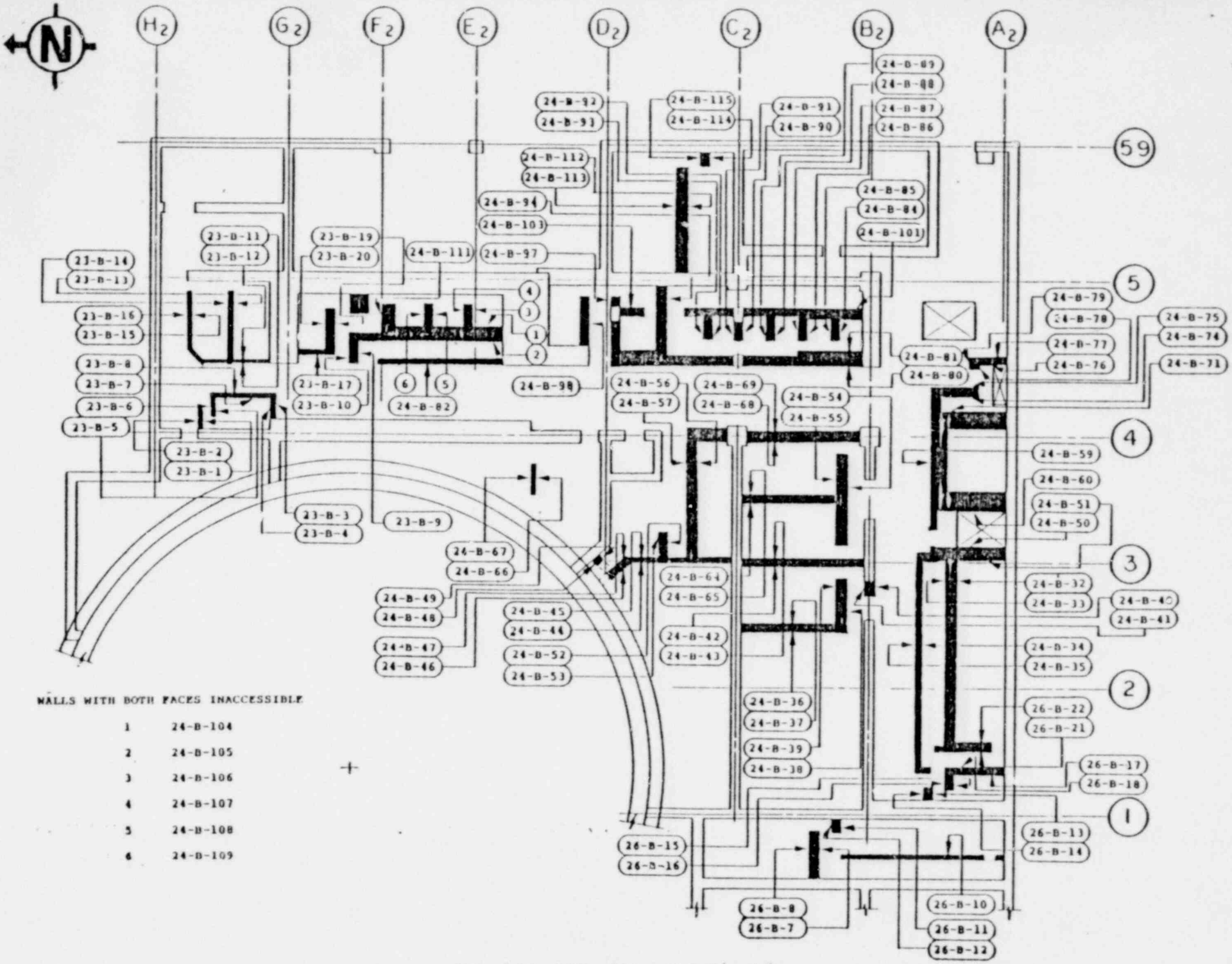
PLAN AT EL. 404'-0"

FIGURE 6 - ANO-1



PLAN AT EL. 317'-0"

FIGURE 7 - ANO-2

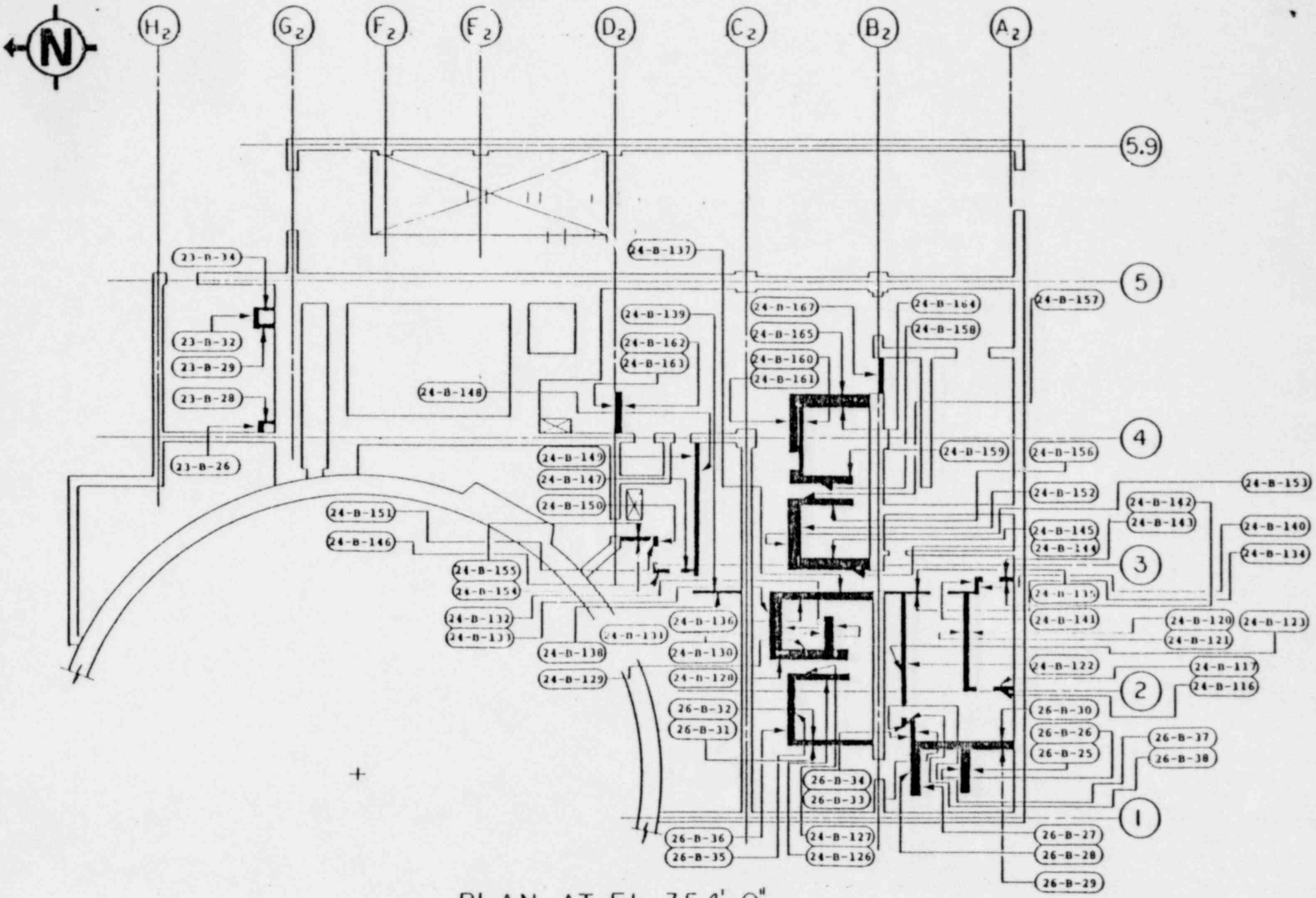


WALLS WITH BOTH FACES INACCESSIBLE

1	24-B-104
2	24-B-105
3	24-B-106
4	24-B-107
5	24-B-108
6	24-B-109

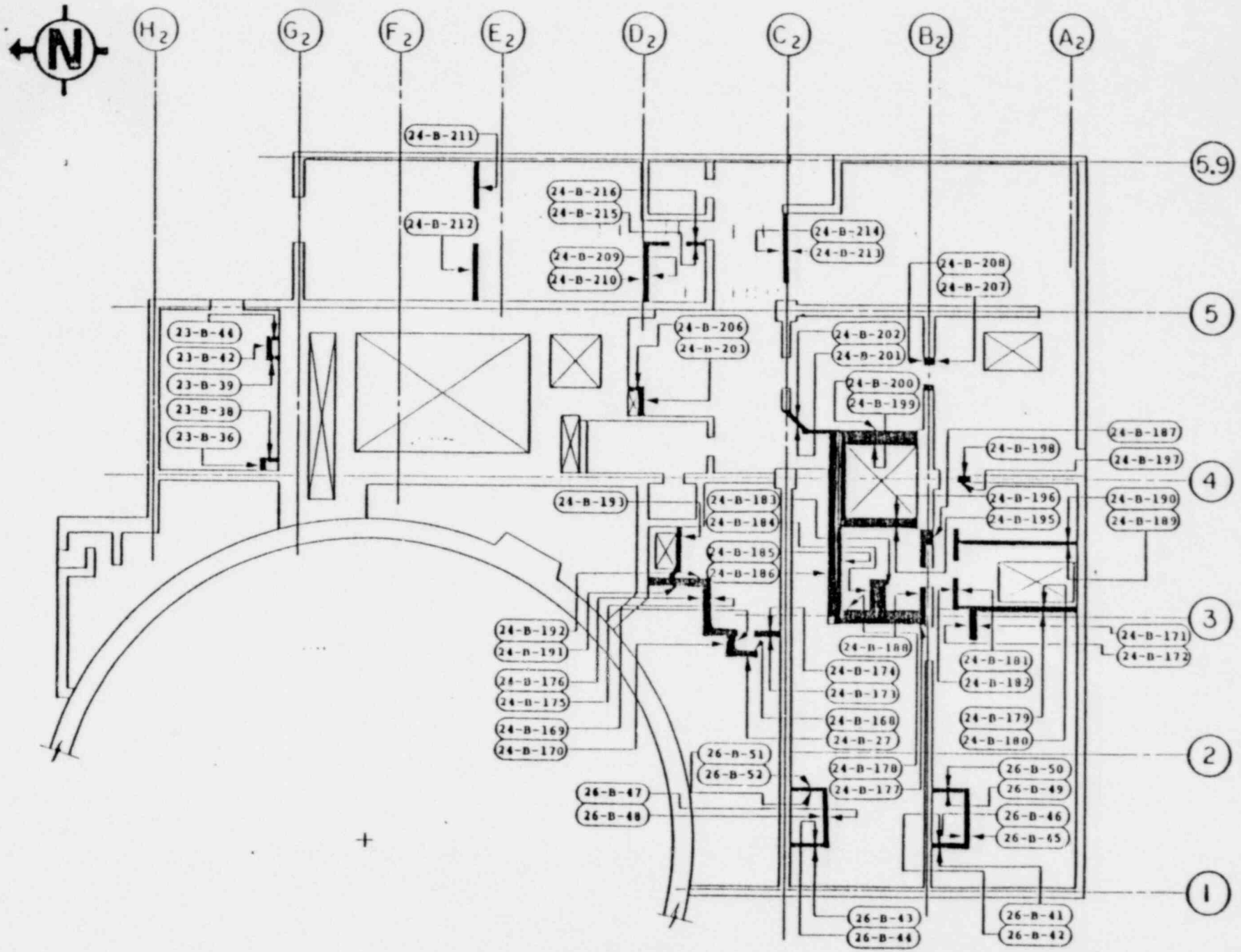
PLAN AT EL. 335'-0"

FIGURE 8 - ANO-2



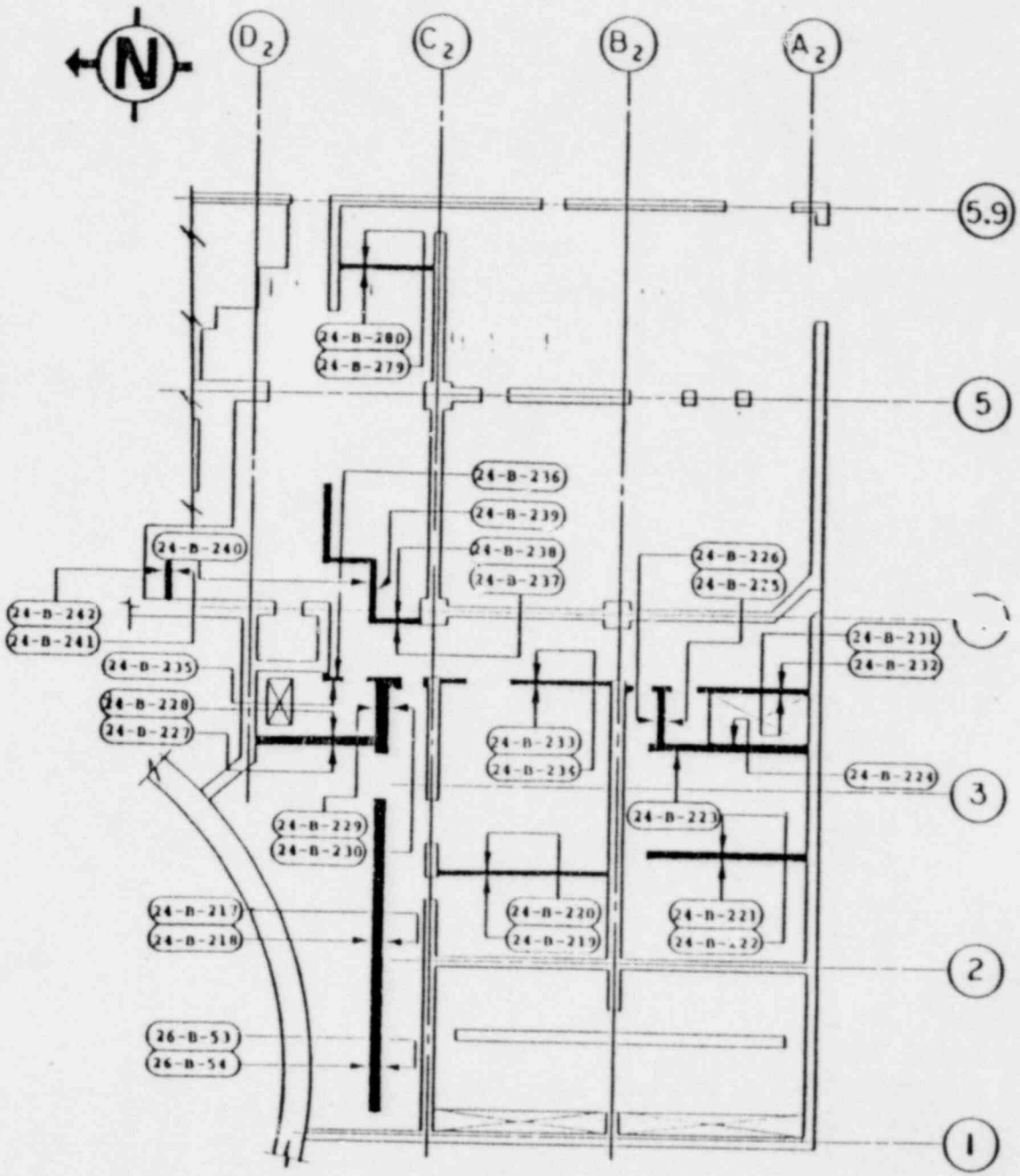
PLAN AT EL. 354'-0"

FIGURE 9 - ANO-2



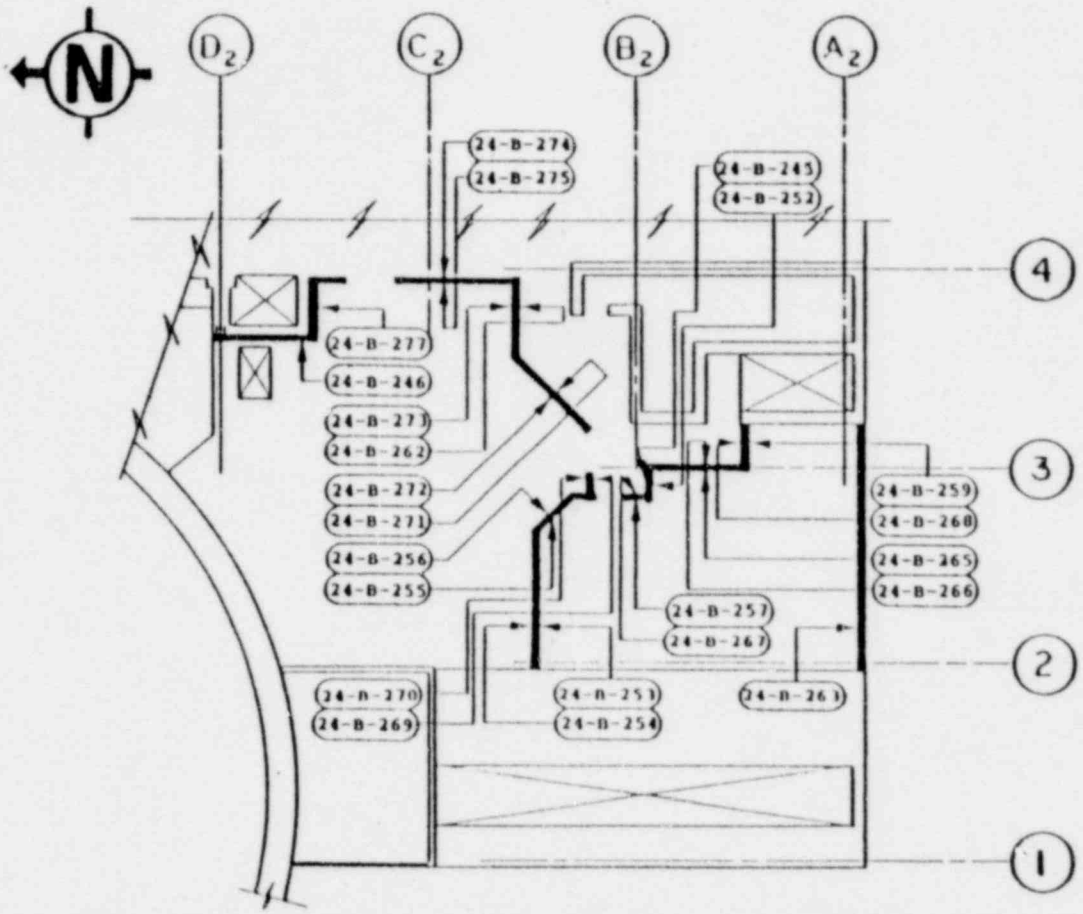
PLAN AT EL. 372'-0"

FIGURE 10 - ANO-2



PARTIAL PLAN AT EL. 386'-0"

FIGURE 11 - ANO-2



PARTIAL PLAN AT EL. 404'-0"

FIGURE 12 - ANO-2