

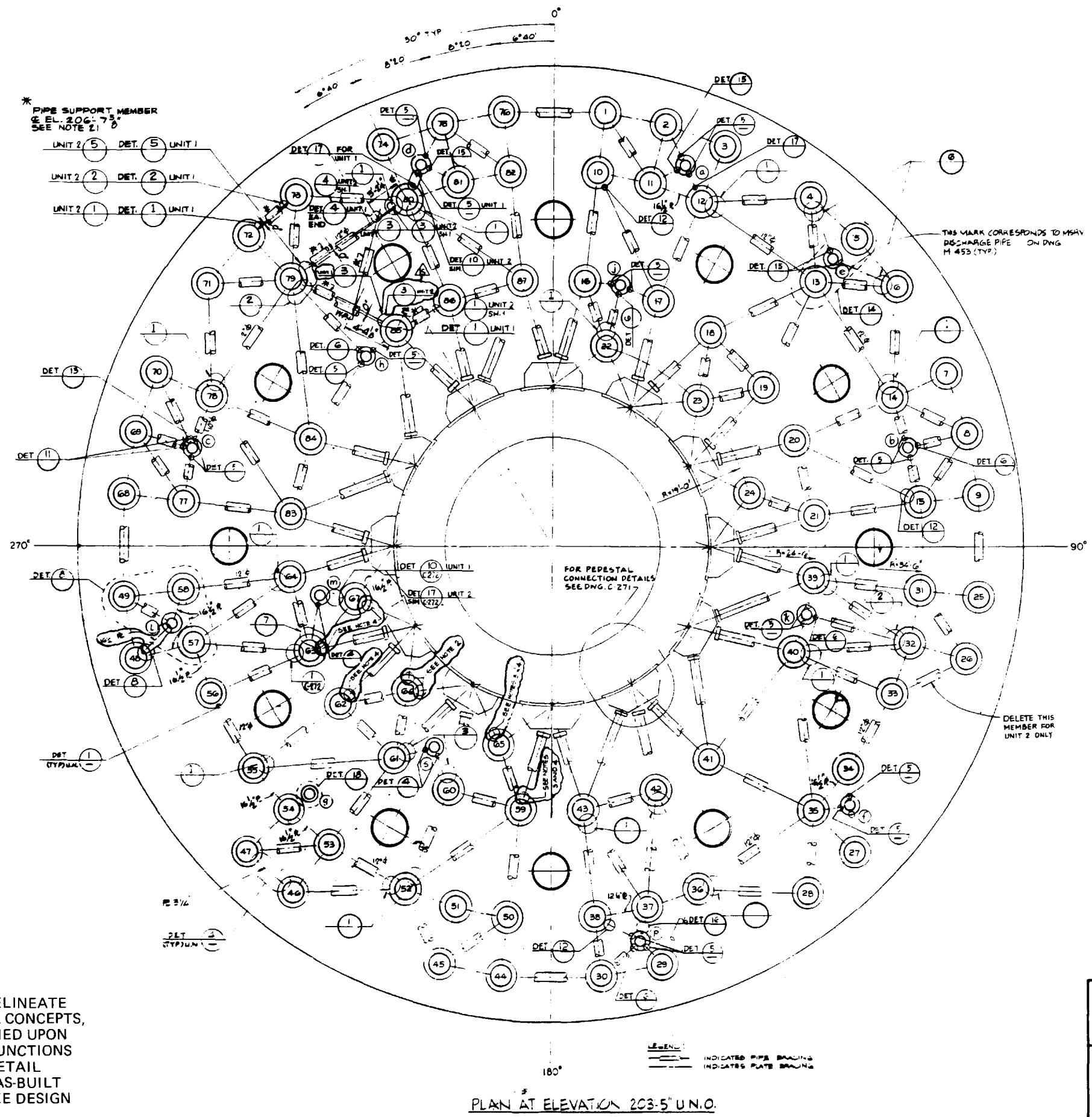
**NOTE:**

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-276.

LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

PRIMARY CONTAINMENT  
ELEVATION VIEW

FIGURE 3.8-1

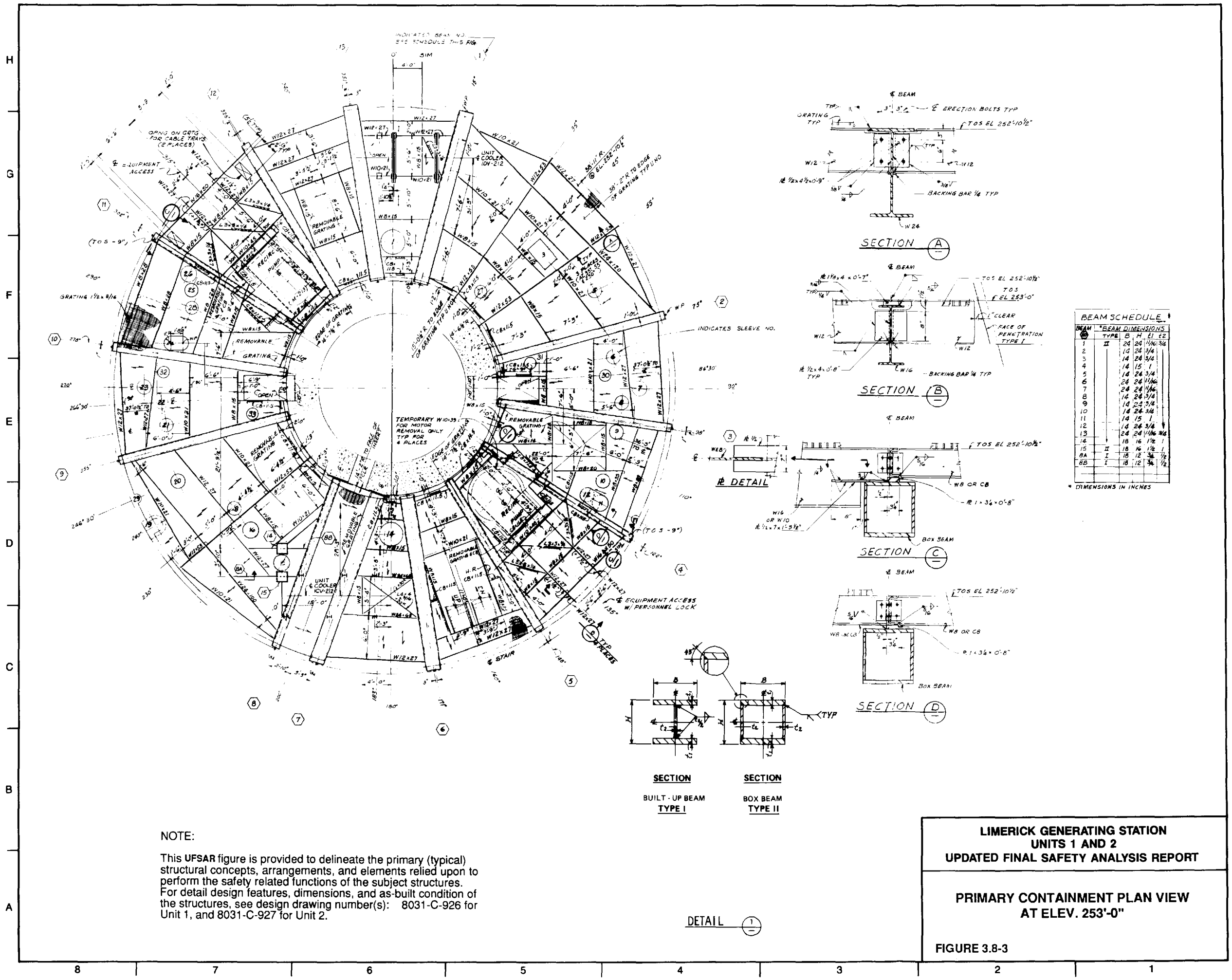


NOTE:  
 THIS UFSAR FIGURE IS PROVIDED TO DELINEATE THE PRIMARY (TYPICAL) STRUCTURAL CONCEPTS, ARRANGEMENTS, AND ELEMENTS RELIED UPON TO PERFORM THE SAFETY RELATED FUNCTIONS OF THE SUBJECT STRUCTURES. FOR DETAIL DESIGN FEATURES, DIMENSIONS AND AS-BUILT CONDITION OF THESE STRUCTURES, SEE DESIGN DRAWING #8031-C-270.

LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

PRIMARY CONTAINMENT PLAN VIEW  
 AT ELEVATION 203'-5"

FIGURE 3.8-2



**NOTE:**  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-926 for Unit 1, and 8031-C-927 for Unit 2.

BEAM SCHEDULE			
BEAM	TYPE	SIZE	EL. TO
1	II	24 24 1/4	3/4
2	II	14 24 3/4	
3	II	14 24 3/4	
4	II	14 15 1	
5	II	14 24 3/4	
6	II	24 24 1/4	
7	II	24 24 1/4	
8	II	14 24 3/4	
9	II	14 24 3/4	
10	II	14 15 1	
11	II	14 24 3/4	
12	II	24 24 1/4	3/4
13	II	24 24 1/4	3/4
14	II	18 16 1/2	1
15	II	18 16 1/2	1
BA	I	18 12 3/4	1/2
BB	I	18 12 3/4	1/2

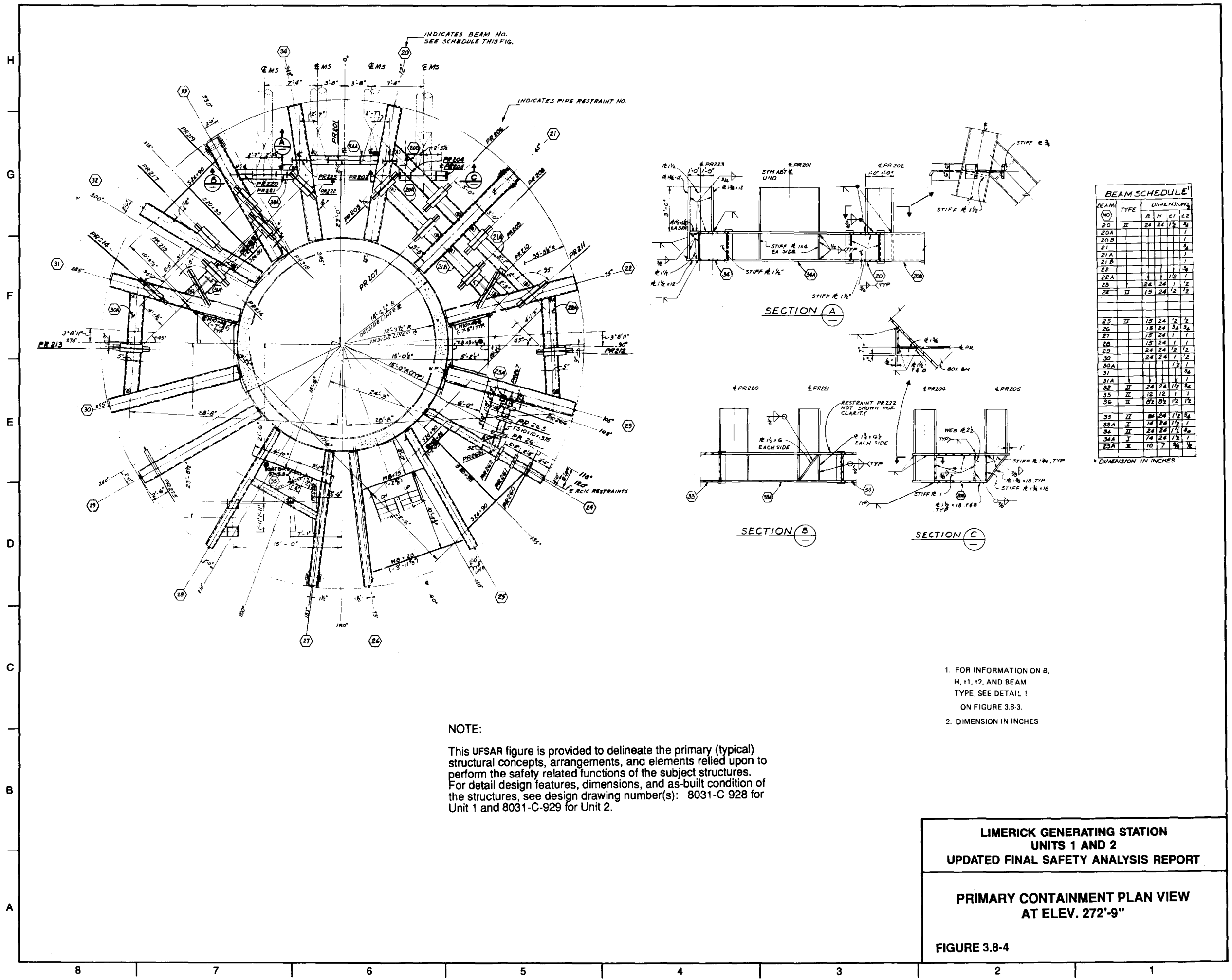
\* DIMENSIONS IN INCHES

**LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT**

**PRIMARY CONTAINMENT PLAN VIEW  
 AT ELEV. 253'-0"**

**FIGURE 3.8-3**

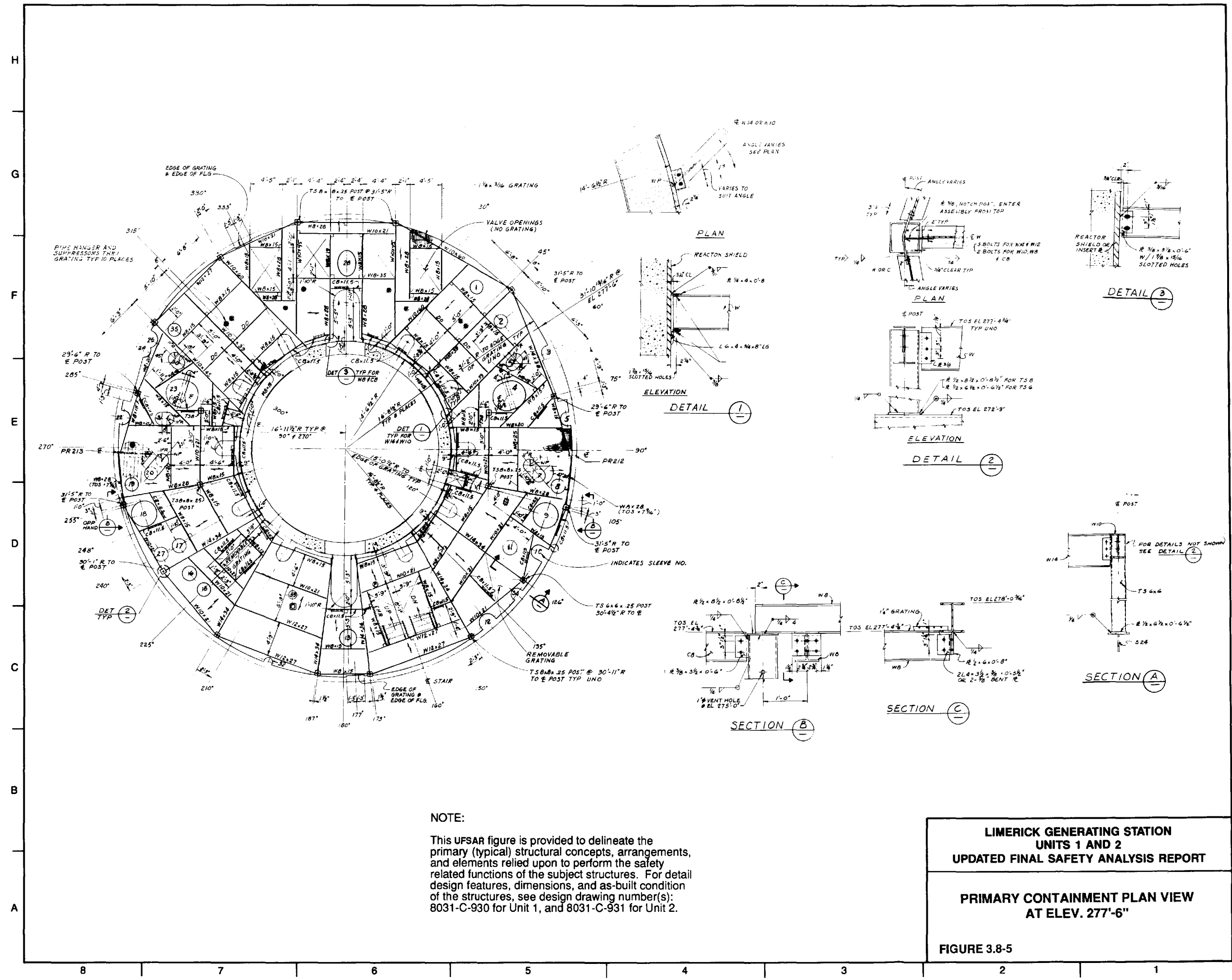
DETAIL 1



**LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT**

**PRIMARY CONTAINMENT PLAN VIEW  
 AT ELEV. 272'-9"**

**FIGURE 3.8-4**

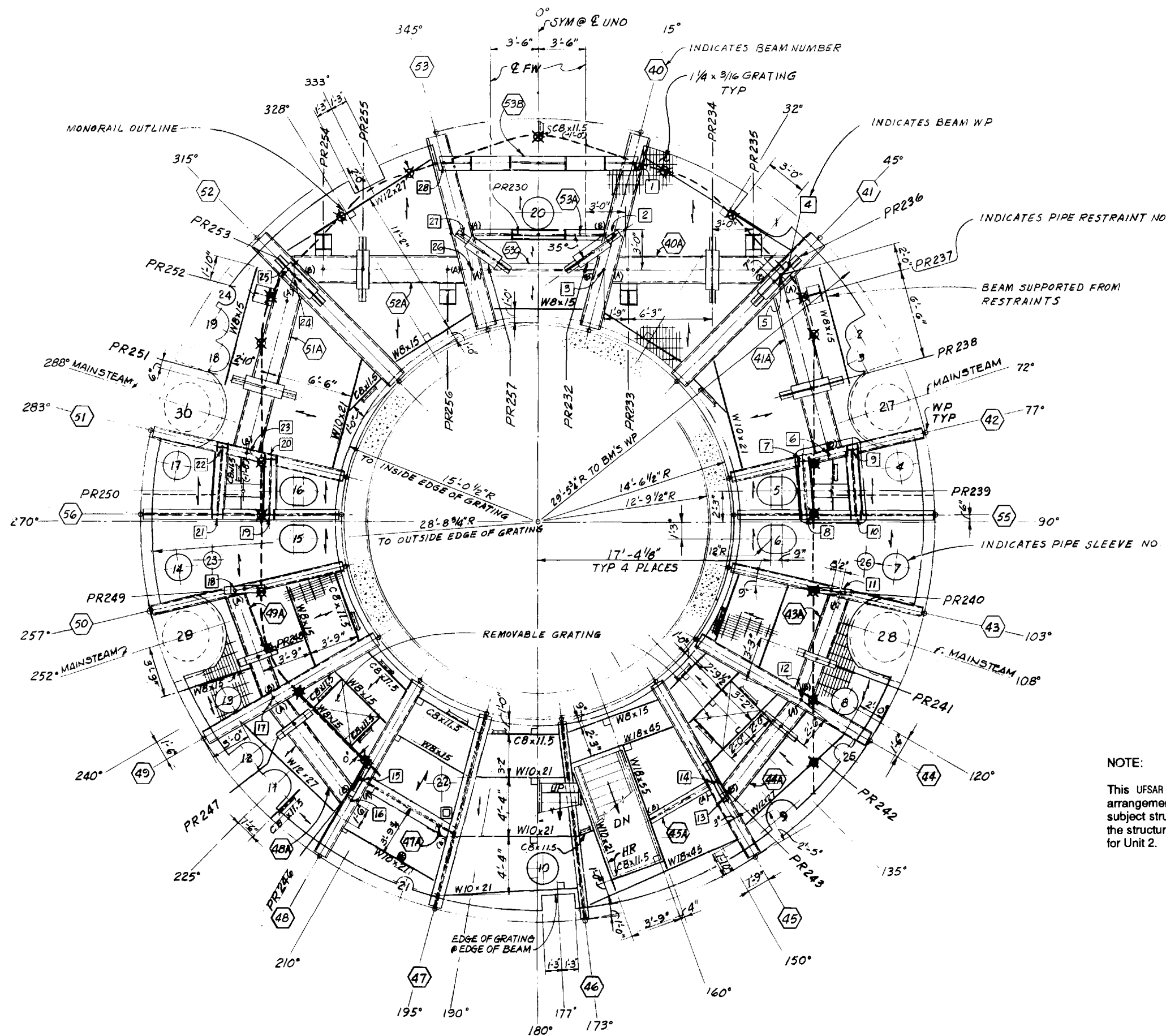


NOTE:  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-930 for Unit 1, and 8031-C-931 for Unit 2.

**LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT**

**PRIMARY CONTAINMENT PLAN VIEW  
 AT ELEV. 277'-6"**

**FIGURE 3.8-5**



BEAM SCHEDULE					
B No.	TYPE	*DIMENSIONS			
		B	H	t <sub>1</sub>	t <sub>2</sub>
40	II	18	18	2 1/4	3/4
40A		24		1 1/2	1
41		18		2 1/4	3/4
41A		24		1 1/2	1
42		9		2 1/2	3/4
43		9		1 1/4	1/2
43A		18		1/2	
44		12		3/4	
44A		18		1/2	
45	II	12	18	3/4	1/2
45A	W18x77				
46	W18x45				
47	W18x40				
47A	W18x96				
48	II	12	18	3/4	1/2
48A		18		1/2	
49		12		3/4	
49A		18		1/2	
50		9		1 1/4	1/2
51		9		2 1/2	3/4
51A		24		1 1/2	1
52		18		2 1/4	3/4
52A		24		1 1/2	1
53	II	18	18	2 1/4	3/4
53A	I	12	18	1	3/4
53B					
53C	I	12	18	1 1/2	1
54	THIS NUMBER NOT USED				
55	I	9	18	1 1/2	1/2
56	I	9	18	1 1/2	1/2

\* DIMENSIONS IN INCHES

NOTE:

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-932 for Unit 1, and 8031-C-933 for Unit 2.

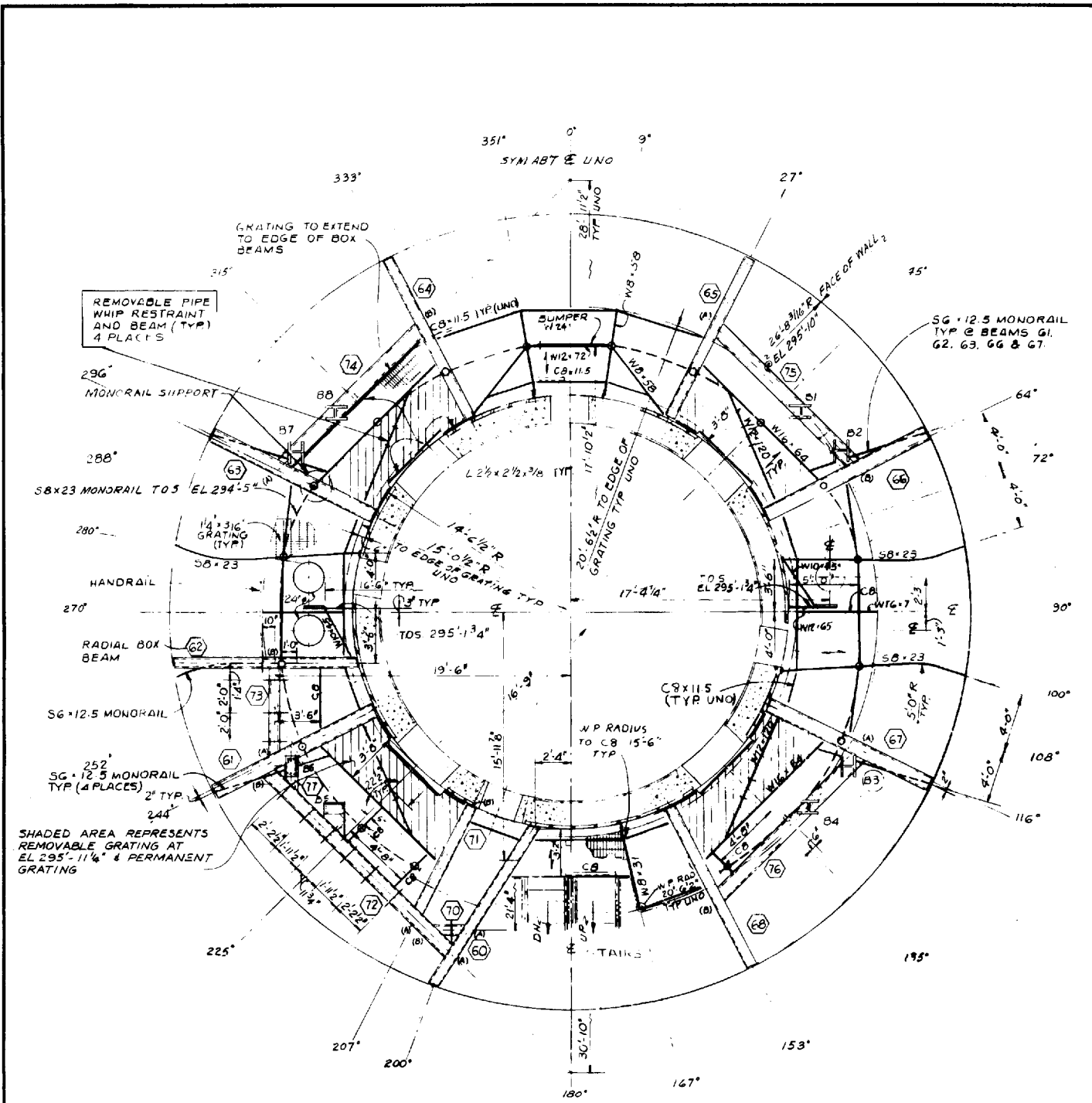
**LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT**

---

**PRIMARY CONTAINMENT PLAN VIEW  
AT ELEV. 286'-1"**

---

**FIGURE 3.8-6**



**PLATFORM & MONORAIL**

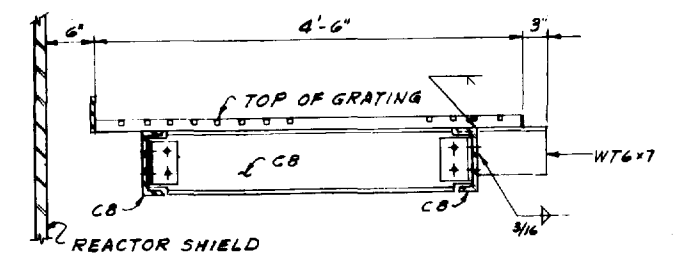
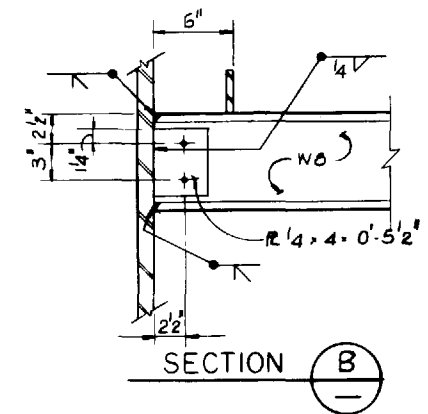
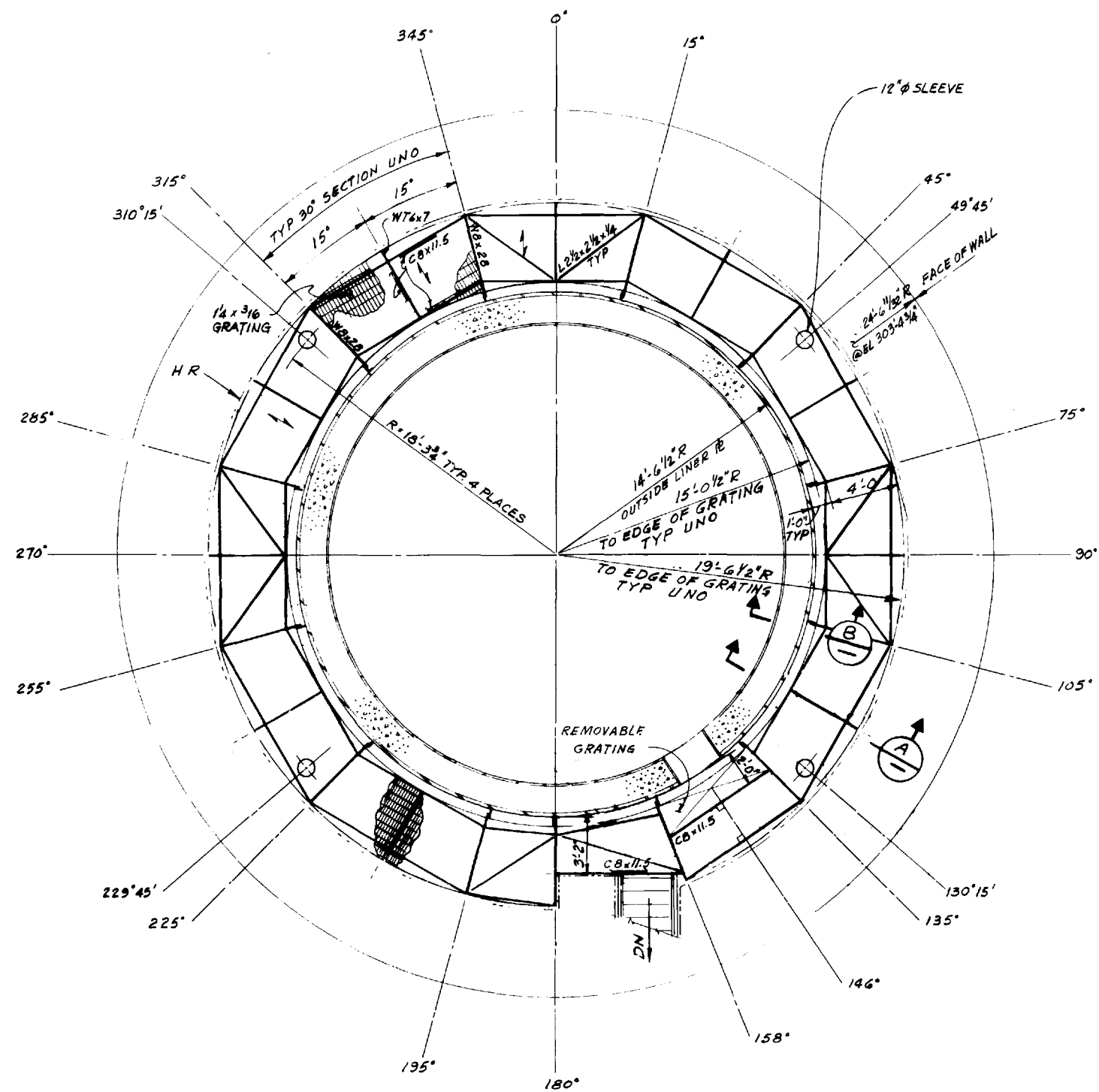
**NOTE:**

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-934 for Unit 1, and 8031-C-935 for Unit 2.

**LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT**

**PRIMARY CONTAINMENT PLAN VIEW  
AT ELEV. 295'-11"**

**FIGURE 3.8-7**



NOTE:

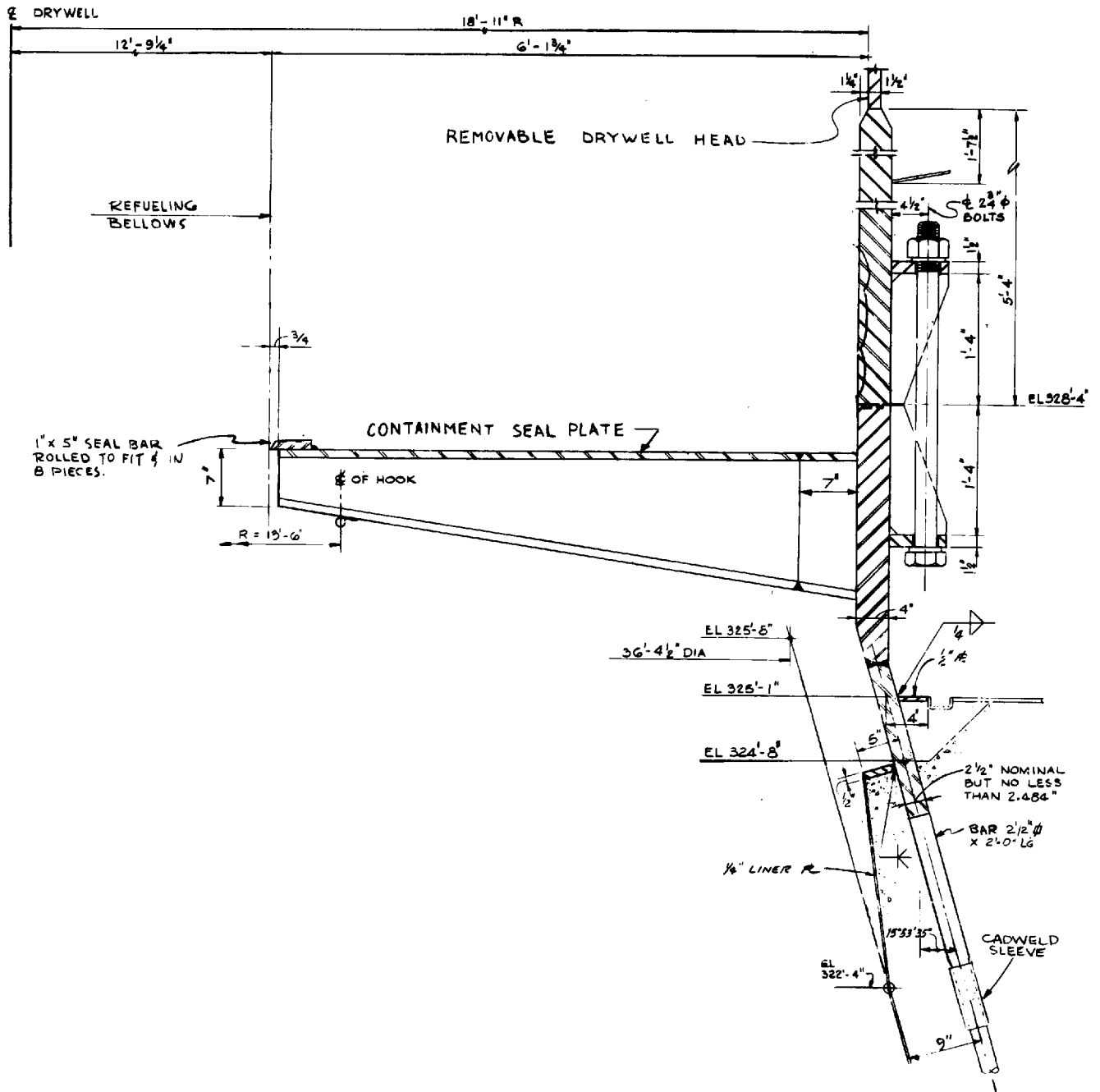
This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-934 for Unit 1, and 8031-C-935 for Unit 2.

LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

PRIMARY CONTAINMENT PLAN VIEW  
 AT ELEV. 303'-6"

FIGURE 3.8-8





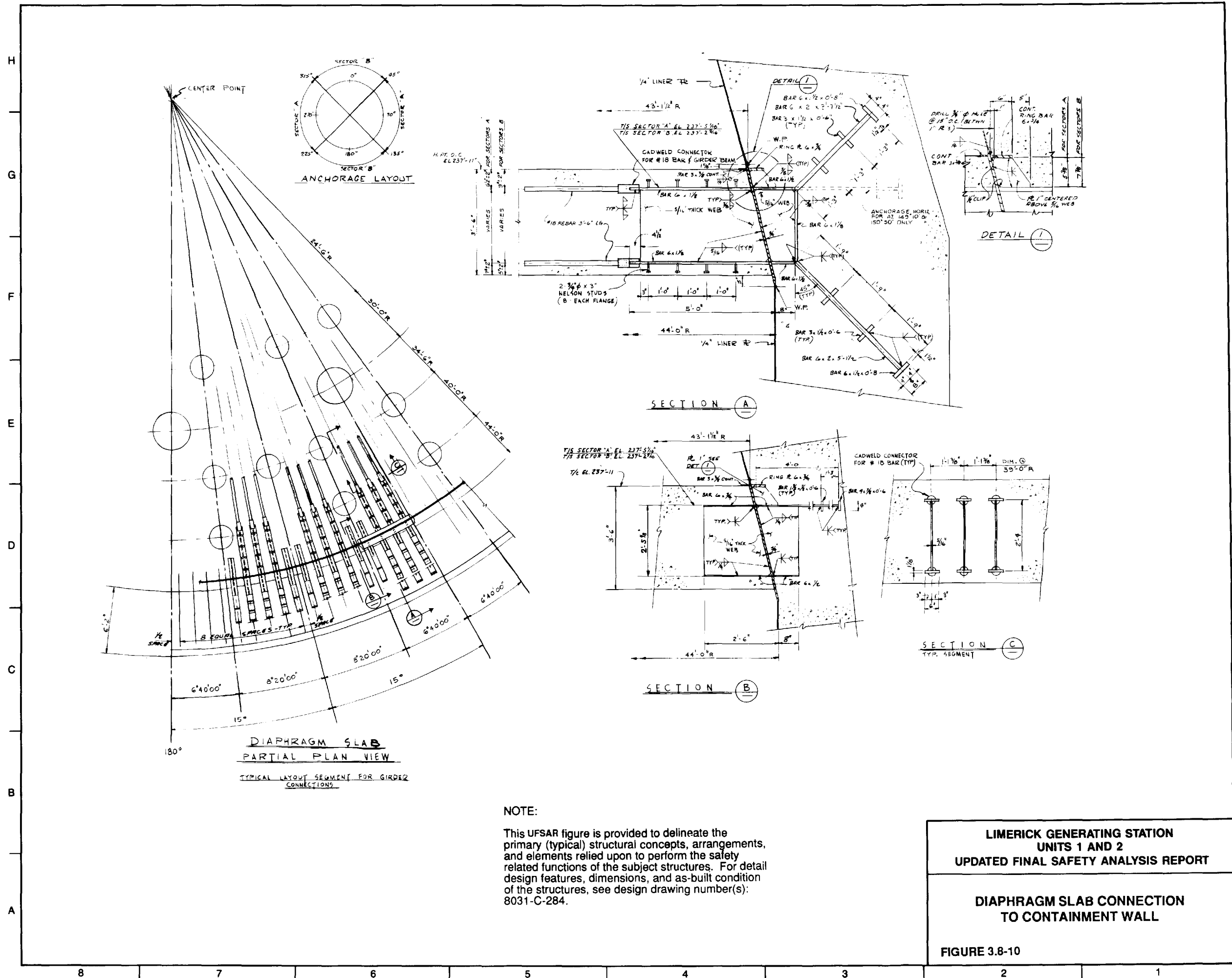
**NOTE:**

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-290.

**LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT**

**DRYWELL HEAD CONNECTION  
TO CONTAINMENT WALL**

**FIGURE 3.8-9**



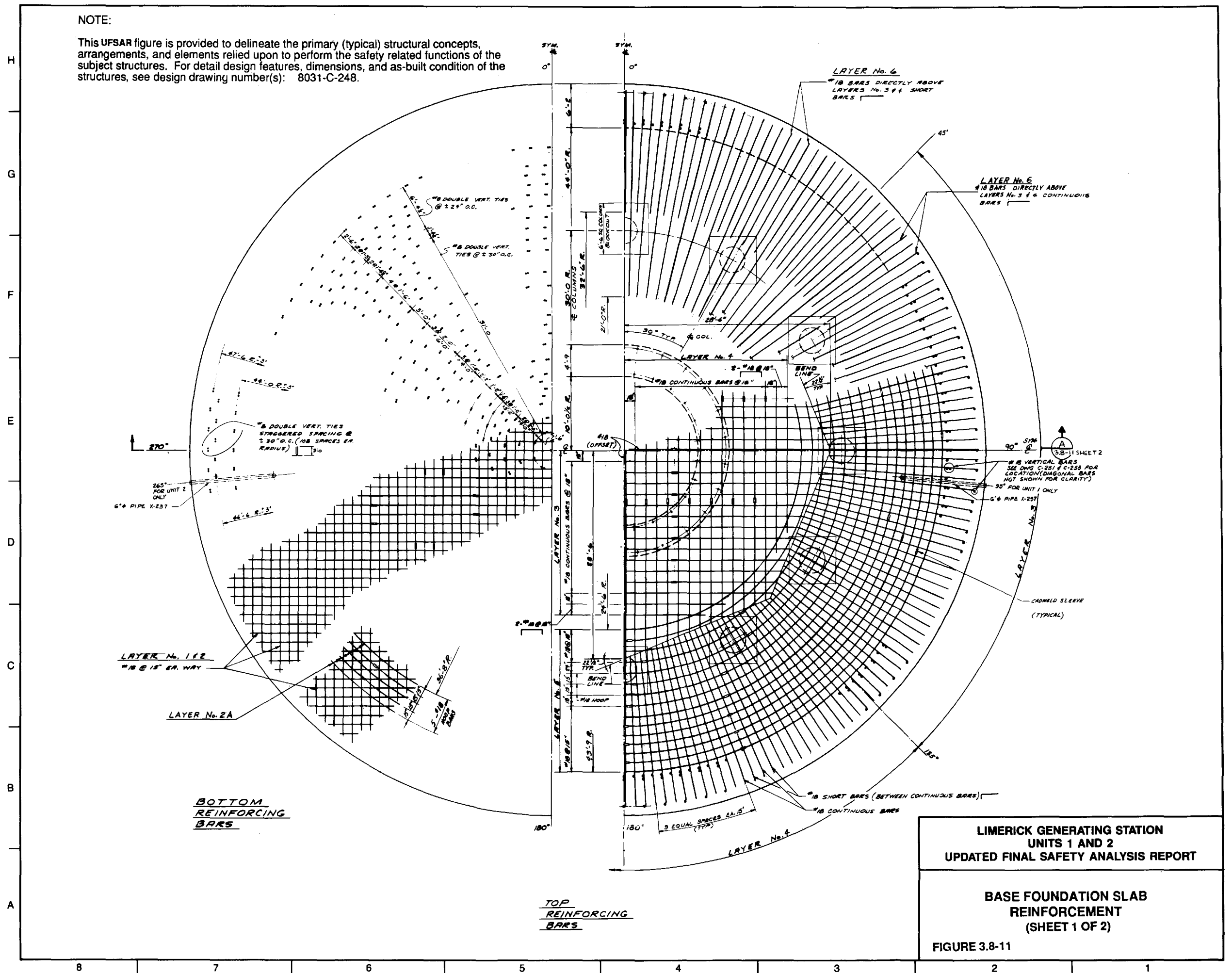
LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

DIAPHRAGM SLAB CONNECTION  
 TO CONTAINMENT WALL

FIGURE 3.8-10

NOTE:

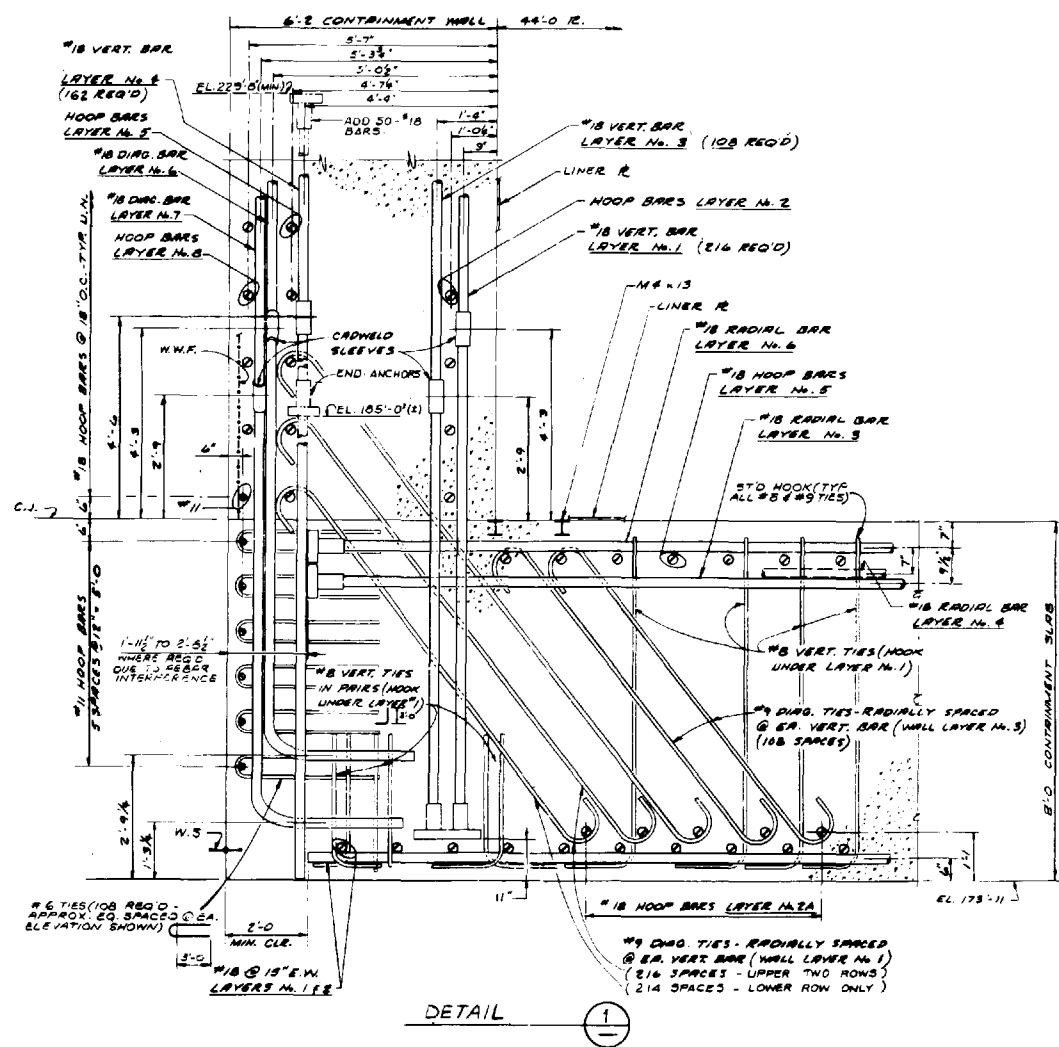
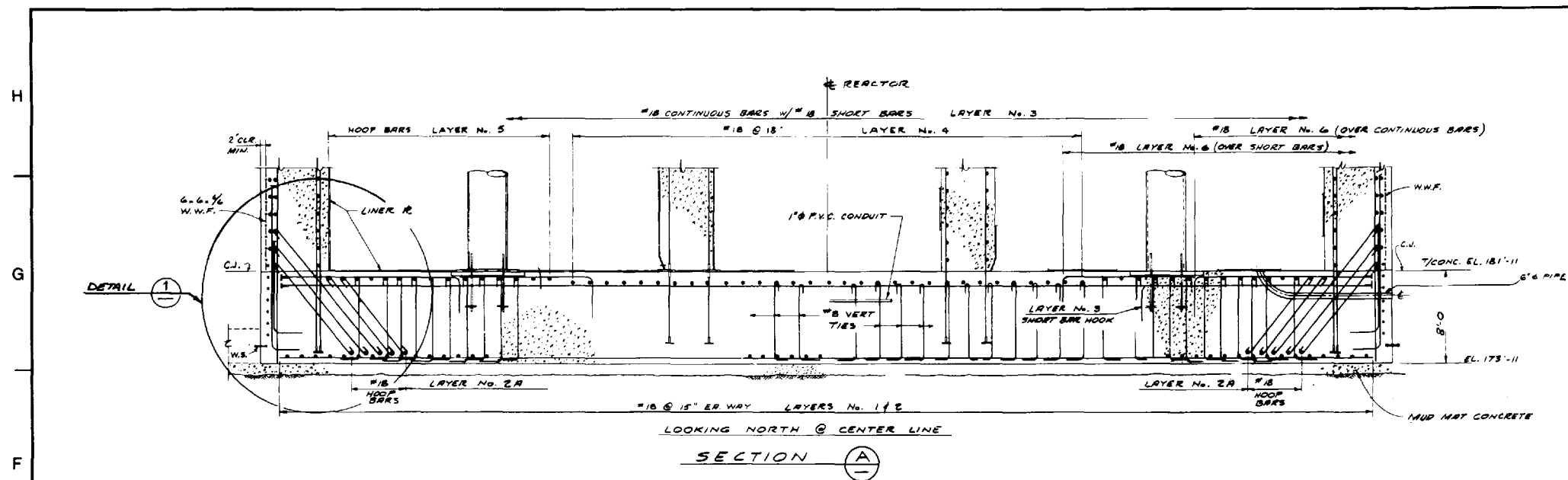
This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-248.



LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

BASE FOUNDATION SLAB  
REINFORCEMENT  
(SHEET 1 OF 2)

FIGURE 3.8-11

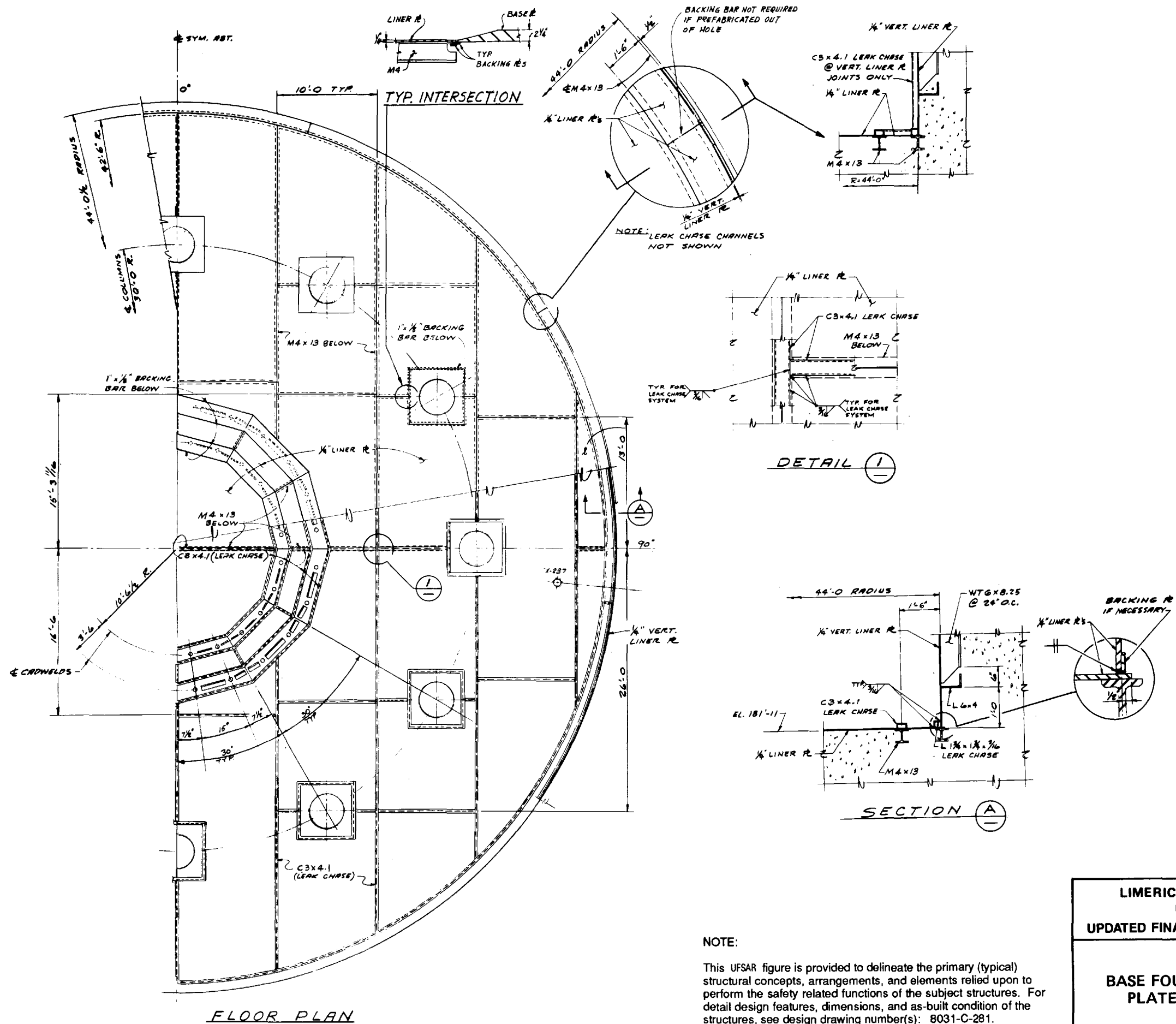


NOTE:  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-249.

LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

BASE FOUNDATION SLAB  
 REINFORCEMENT  
 (SHEET 2 OF 2)

FIGURE 3.8-11



FLOOR PLAN

DETAIL 1

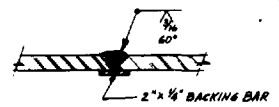
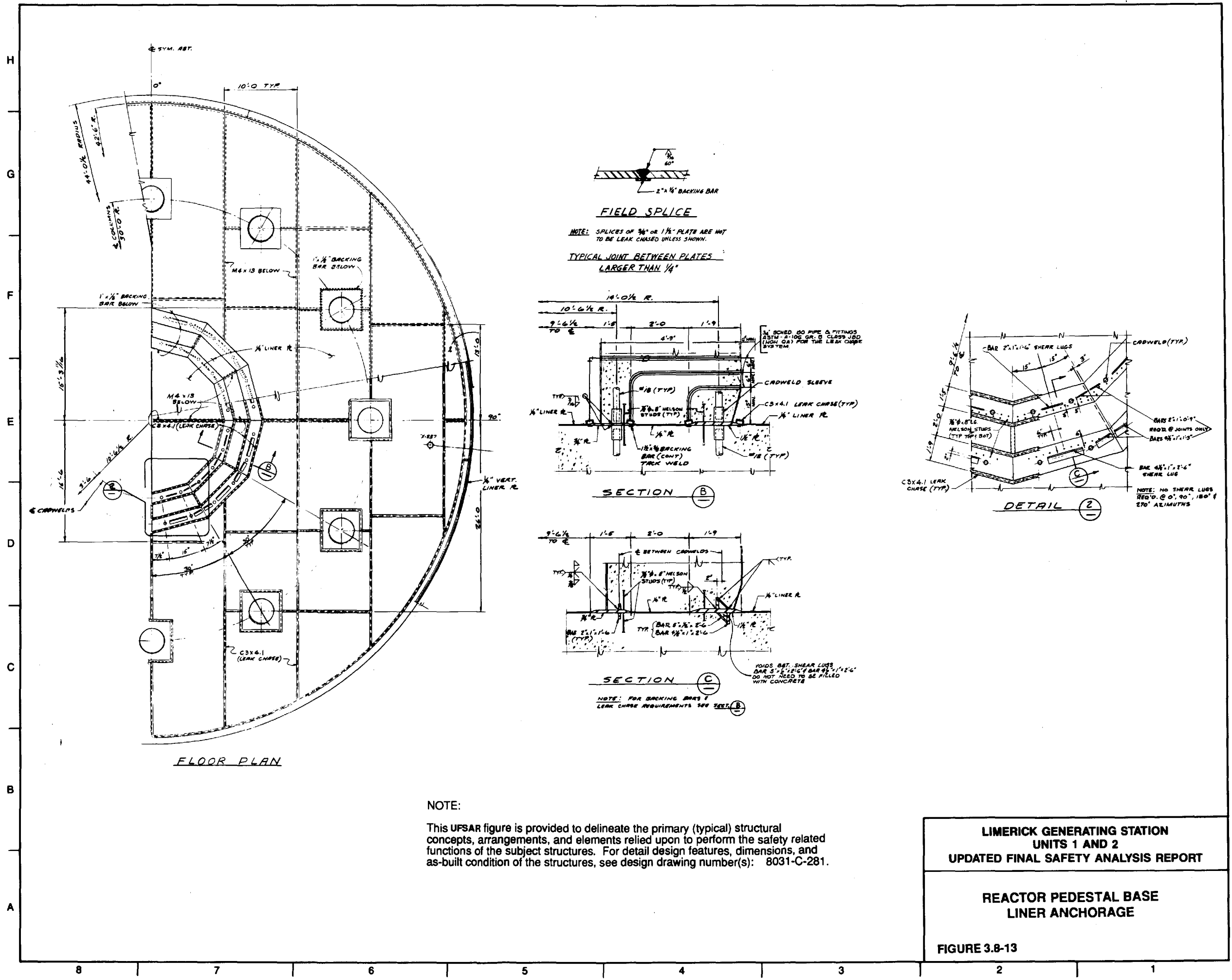
SECTION A

NOTE:  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-281.

LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

BASE FOUNDATION SLAB LINER  
 PLATE AND ANCHORAGES

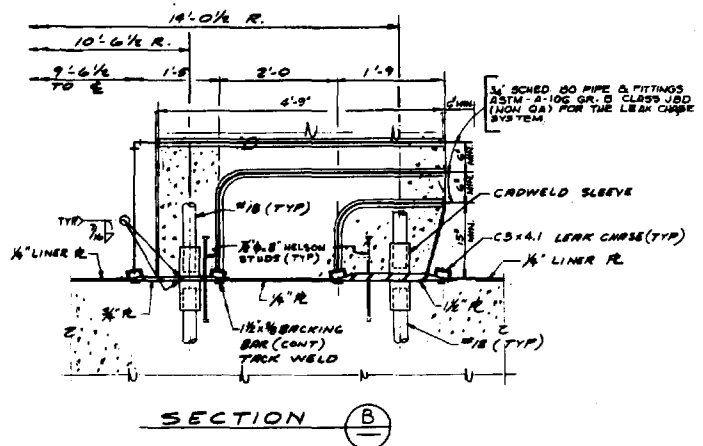
FIGURE 3.8-12



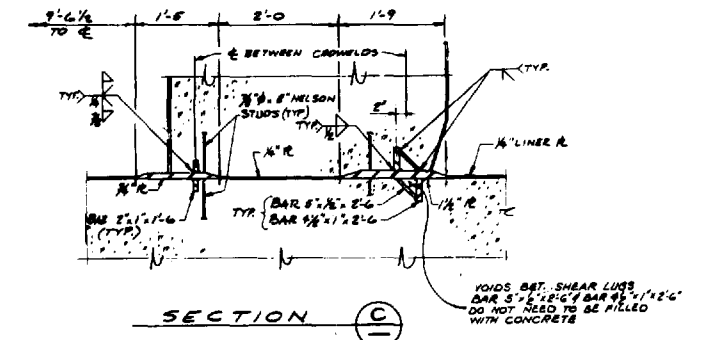
**FIELD SPLICE**

NOTE: SPLICES OF 3/16" OR 1/2" PLATE ARE NOT TO BE LEAK CHASED UNLESS SHOWN.

TYPICAL JOINT BETWEEN PLATES LARGER THAN 1/4"

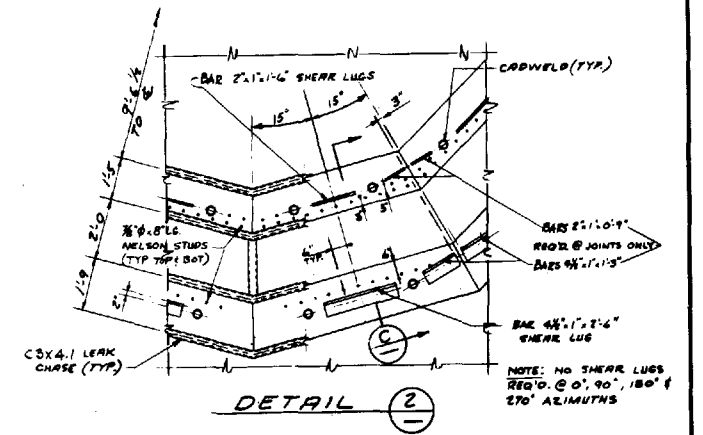


**SECTION B**



**SECTION C**

NOTE: FOR BACKING BARS & LEAK CHASE REQUIREMENTS SEE SECT. B



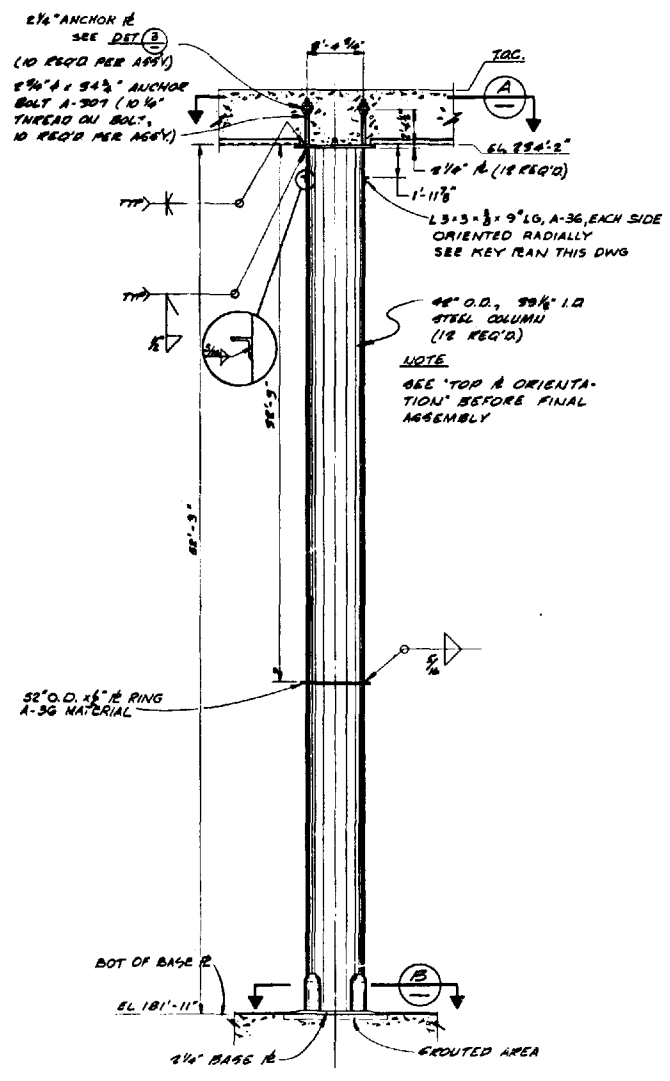
**DETAIL 2**

NOTE:  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-281.

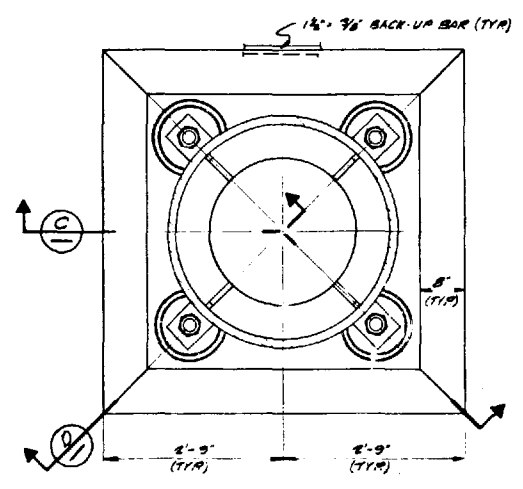
**LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT**

**REACTOR PEDESTAL BASE  
 LINER ANCHORAGE**

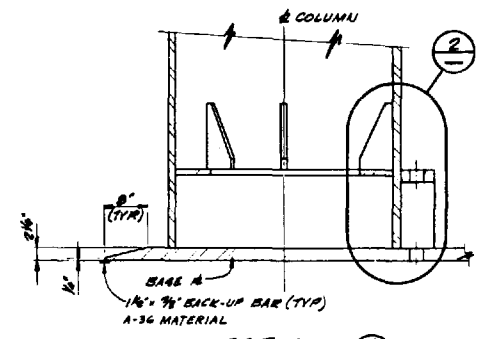
**FIGURE 3.8-13**



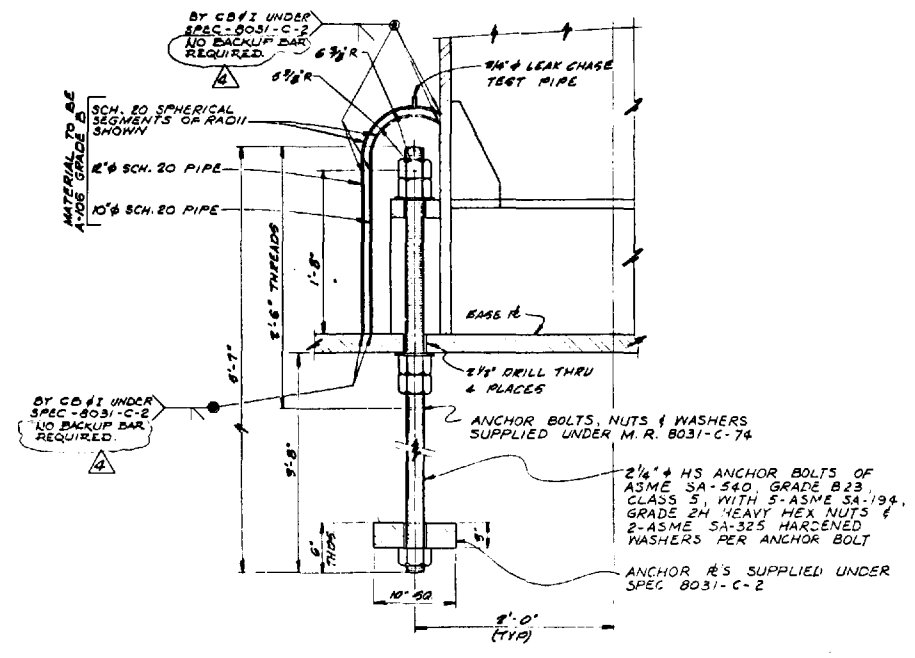
ELEVATION  
1/4" = 1'-0"



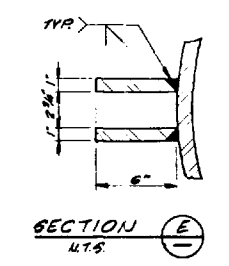
SECTION B-B  
1" = 1'-0"



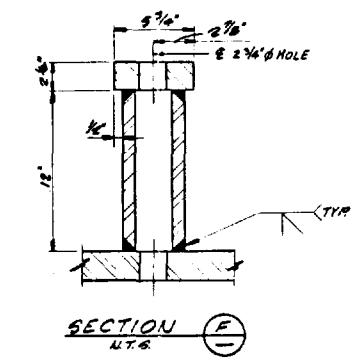
SECTION C-C  
1" = 1'-0"



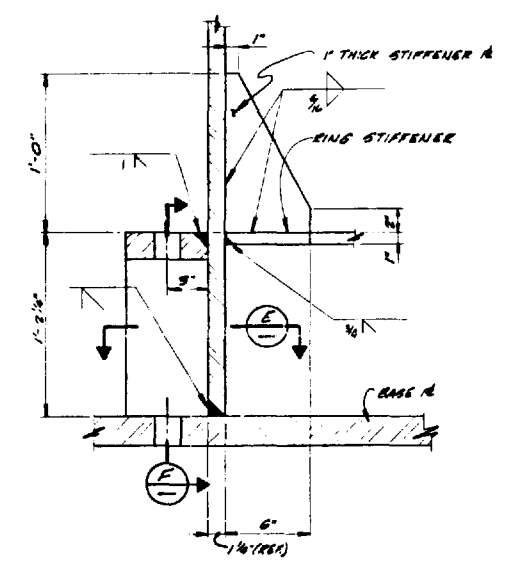
SECTION D-D  
1/4" = 1'-0"



SECTION E-E  
N.T.S.



SECTION F-F  
N.T.S.



DETAIL G-G  
N.T.S.

NOTE:

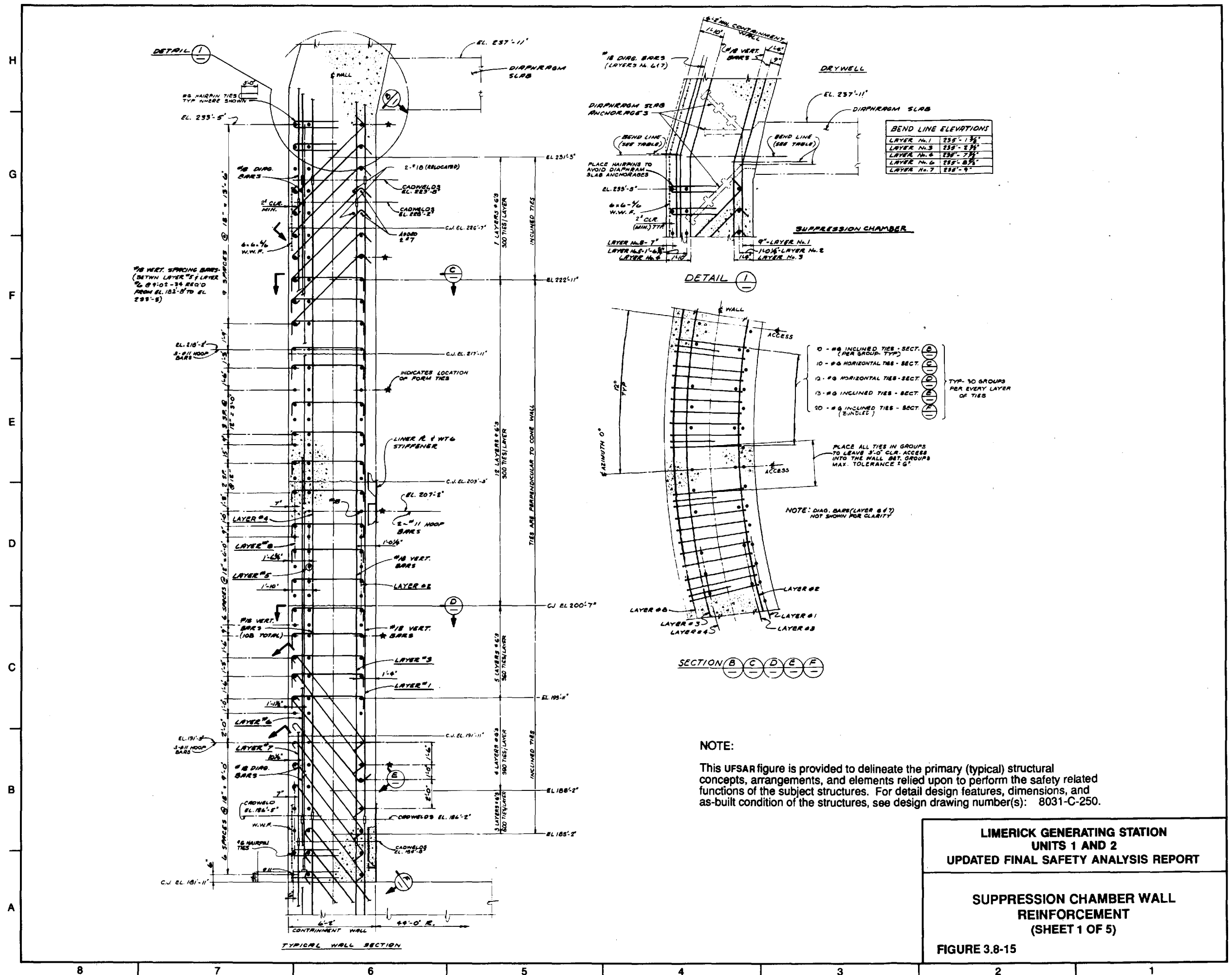
This USFAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-300.

NOTE: SEE FIGURE 3.8-12 FOR COLUMN ORIENTATION AND CONNECTION DETAILS TO DIAPHRAM SLAB.

LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

SUPPRESSION CHAMBER COLUMN  
BASE LINER ANCHORAGE

FIGURE 3.8-14

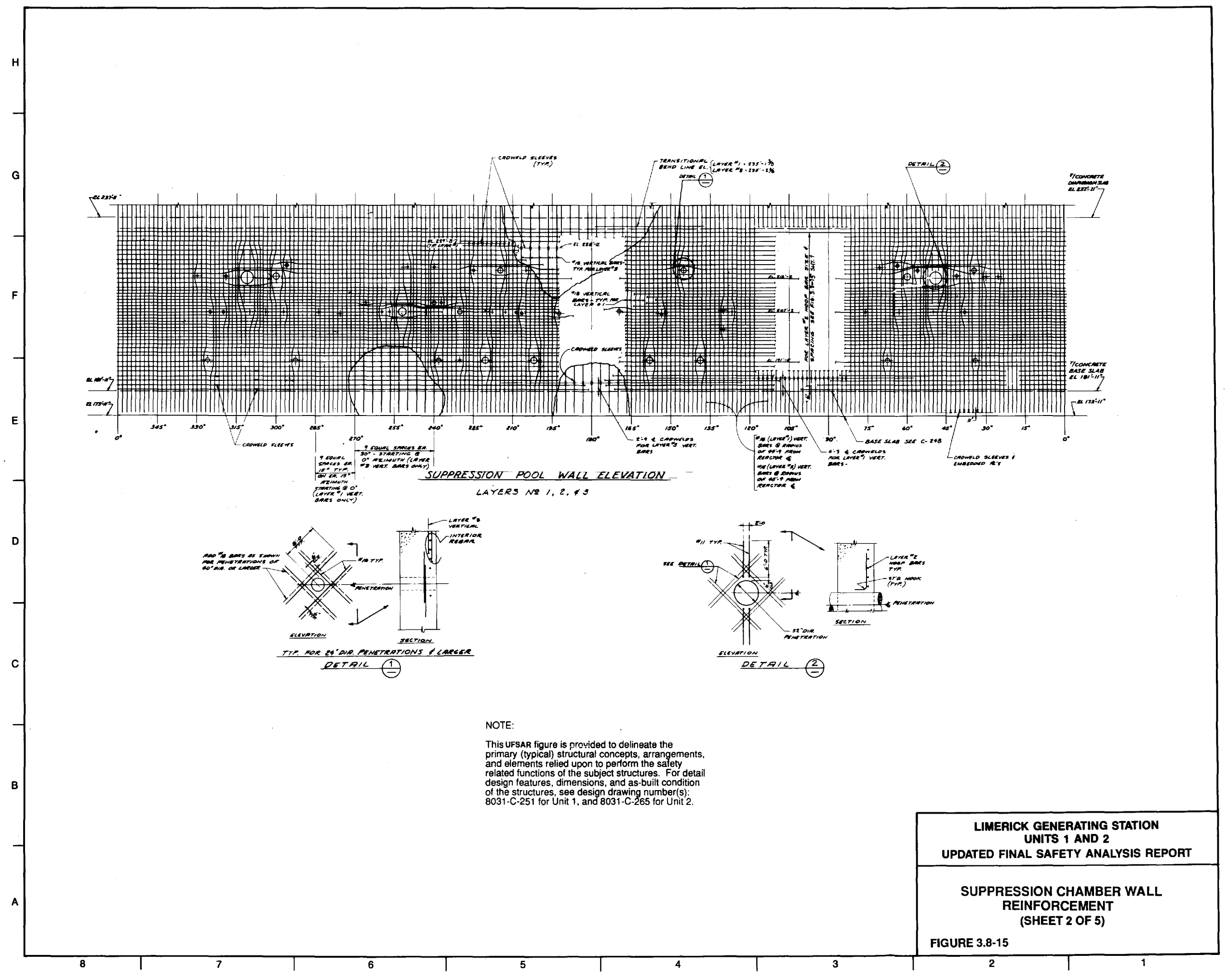


LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

SUPPRESSION CHAMBER WALL  
 REINFORCEMENT  
 (SHEET 1 OF 5)

FIGURE 3.8-15

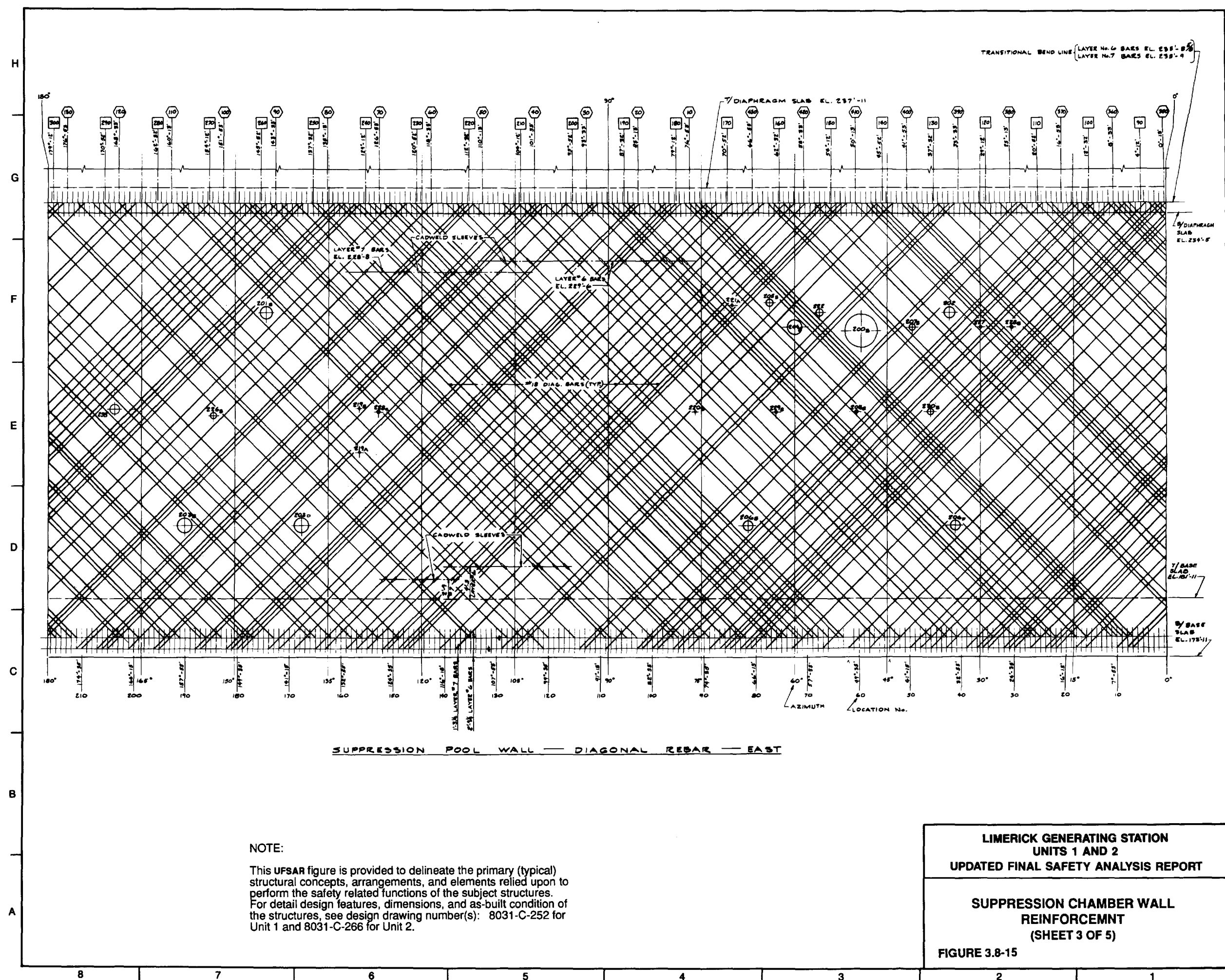




LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

SUPPRESSION CHAMBER WALL  
REINFORCEMENT  
(SHEET 2 OF 5)

FIGURE 3.8-15



TRANSITIONAL BEND LINE (LAYER No. 6 BARS EL. 233'-0"  
LAYER No. 7 BARS EL. 233'-0")

DIAPHRAGM SLAB EL. 237'-11"

CADWELD SLEEVES

LAYER #7 BARS  
EL. 228'-8"

LAYER #6 BARS  
EL. 227'-6"

#18 DIAG. BARS (TYP)

CADWELD SLEEVES

LAYER #7 BARS  
LAYER #6 BARS

DIAPHRAGM  
SLAB  
EL. 236'-8"

BASE  
SLAB  
EL. 231'-11"

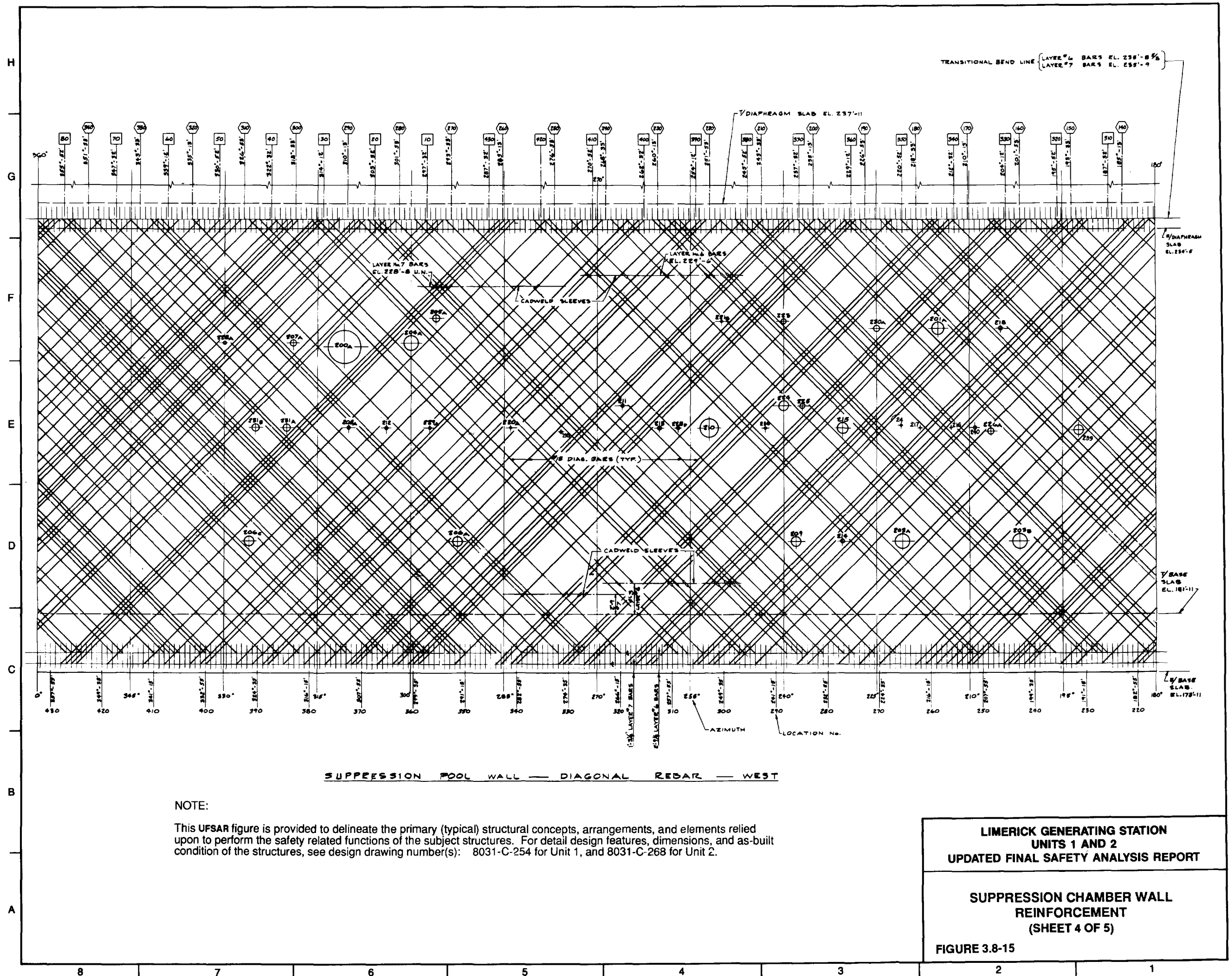
BASE  
SLAB  
EL. 178'-11"

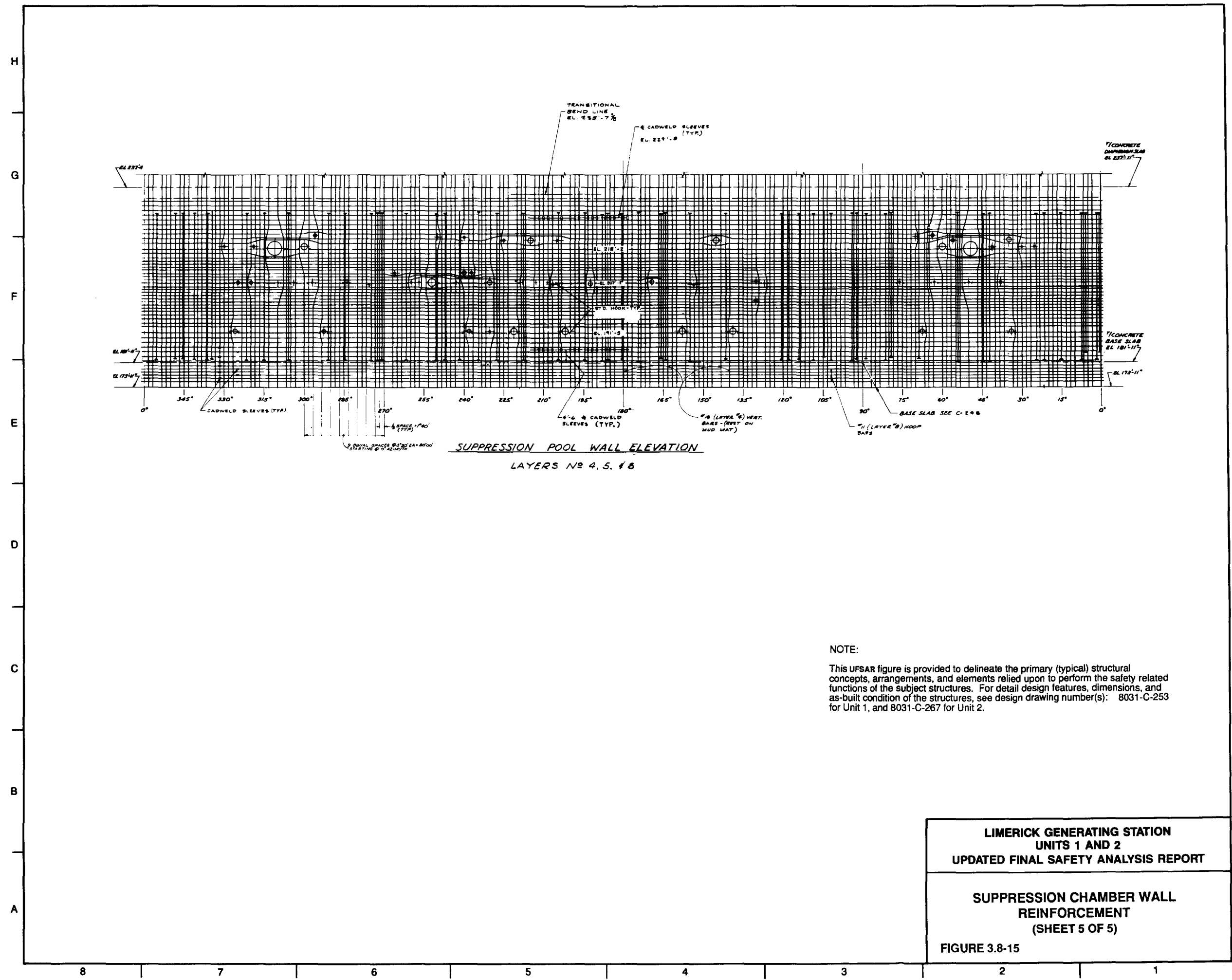
AZIMUTH LOCATION No.

SUPPRESSION POOL WALL — DIAGONAL REBAR — EAST

NOTE:  
This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-252 for Unit 1 and 8031-C-266 for Unit 2.

<b>LIMERICK GENERATING STATION</b> <b>UNITS 1 AND 2</b> <b>UPDATED FINAL SAFETY ANALYSIS REPORT</b>
<b>SUPPRESSION CHAMBER WALL</b> <b>REINFORCEMENT</b> <b>(SHEET 3 OF 5)</b>
<b>FIGURE 3.8-15</b>





**SUPPRESSION POOL WALL ELEVATION**  
**LAYERS NO 4, 5, & 8**

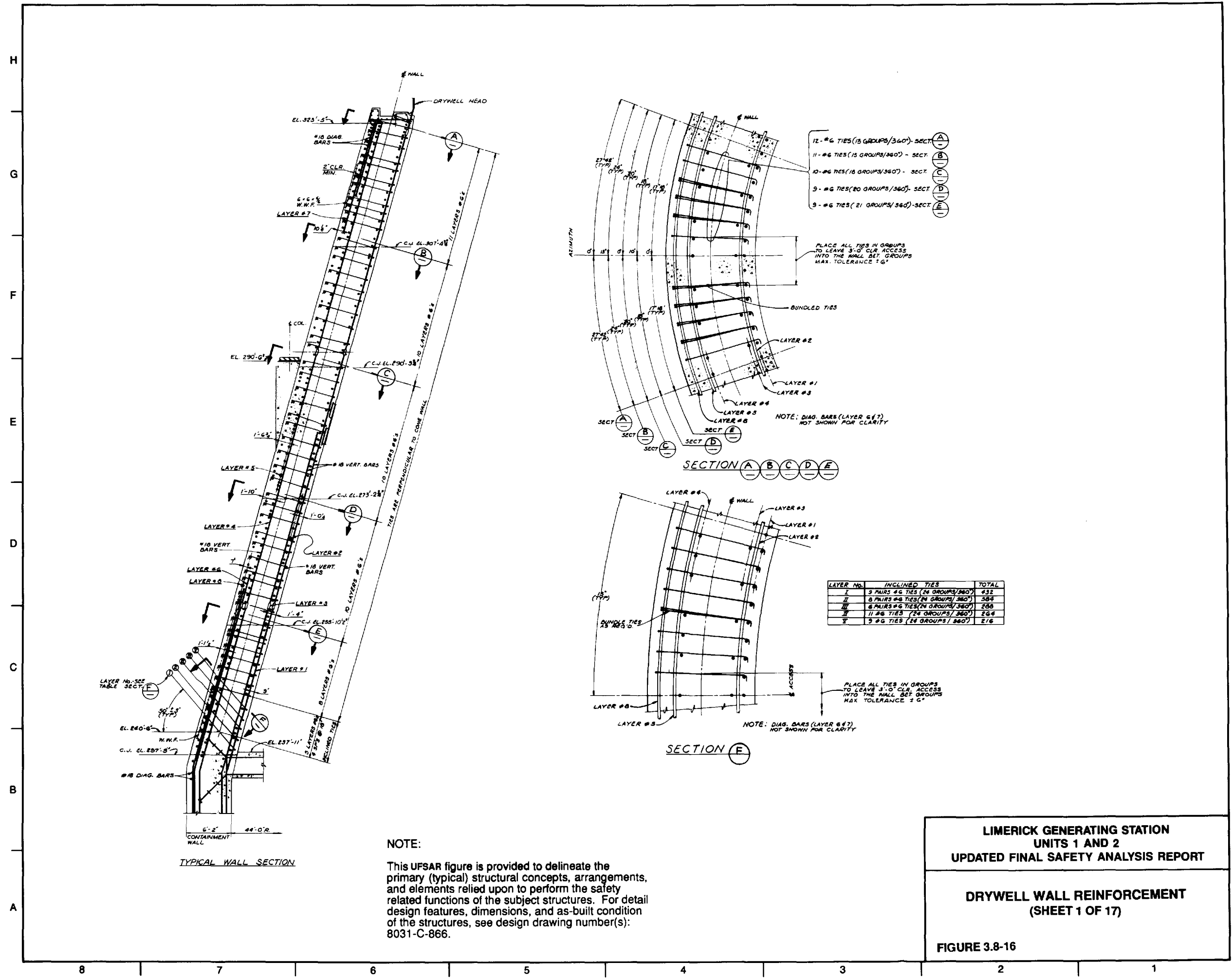
**NOTE:**  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-253 for Unit 1, and 8031-C-267 for Unit 2.

**LIMERICK GENERATING STATION**  
**UNITS 1 AND 2**  
**UPDATED FINAL SAFETY ANALYSIS REPORT**

---

**SUPPRESSION CHAMBER WALL**  
**REINFORCEMENT**  
**(SHEET 5 OF 5)**

**FIGURE 3.8-15**

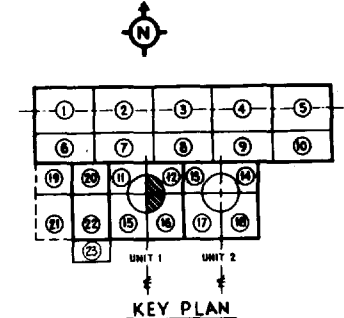
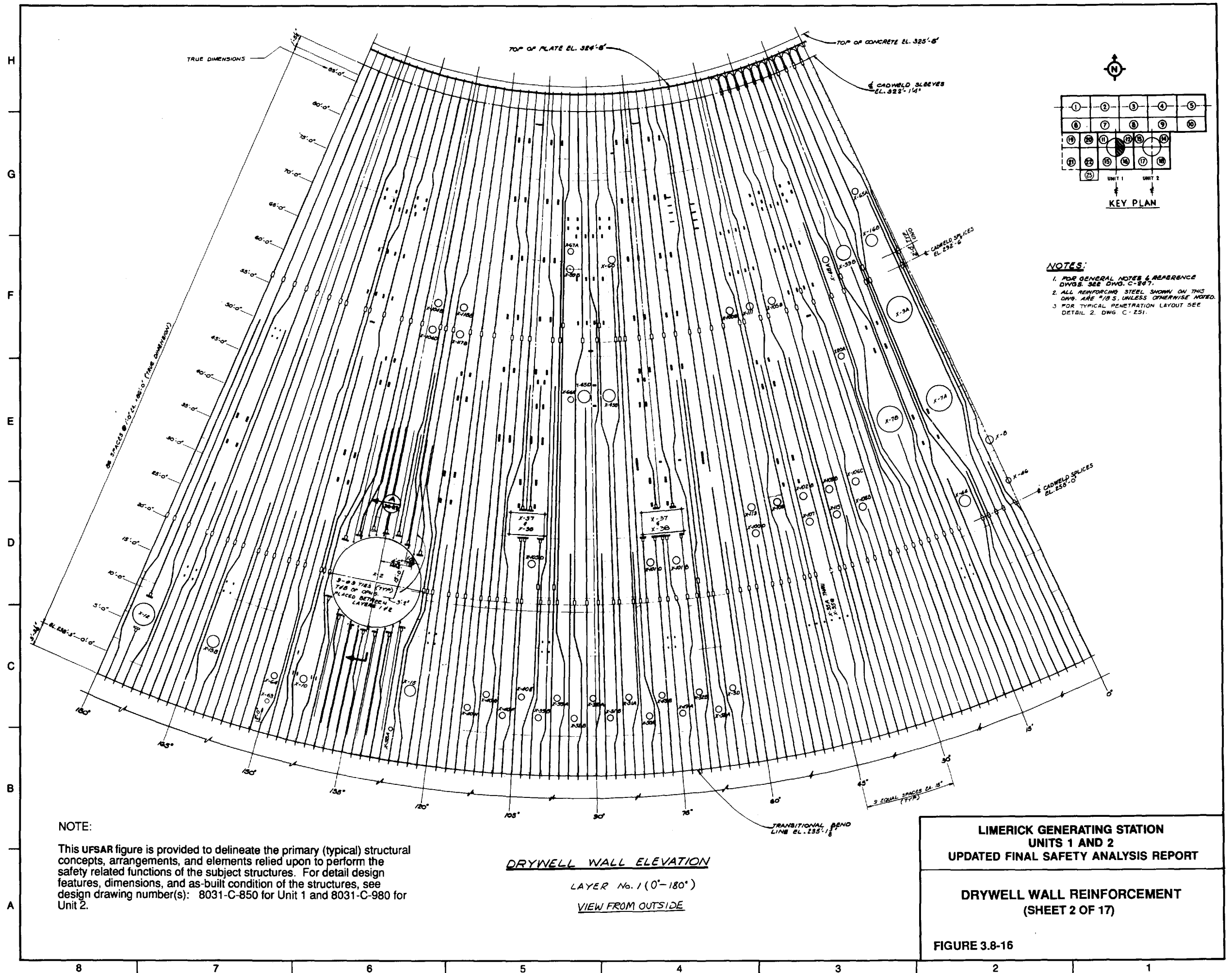


**LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT**

---

**DRYWELL WALL REINFORCEMENT  
(SHEET 1 OF 17)**

**FIGURE 3.8-16**



- NOTES:**
1. FOR GENERAL NOTES & REFERENCE DWGS. SEE DWG. C-887.
  2. ALL REINFORCING STEEL SHOWN ON THIS DWG. ARE #/B'S. UNLESS OTHERWISE NOTED.
  3. FOR TYPICAL PENETRATION LAYOUT SEE DETAIL 2, DWG. C-251.

**NOTE:**  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-850 for Unit 1 and 8031-C-980 for Unit 2.

**DRYWELL WALL ELEVATION**  
 LAYER No. 1 (0°-180°)  
 VIEW FROM OUTSIDE

**LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT**

---

**DRYWELL WALL REINFORCEMENT  
 (SHEET 2 OF 17)**

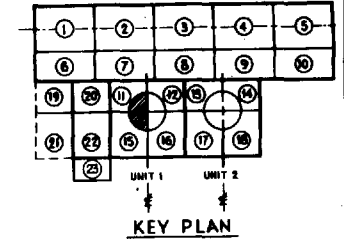
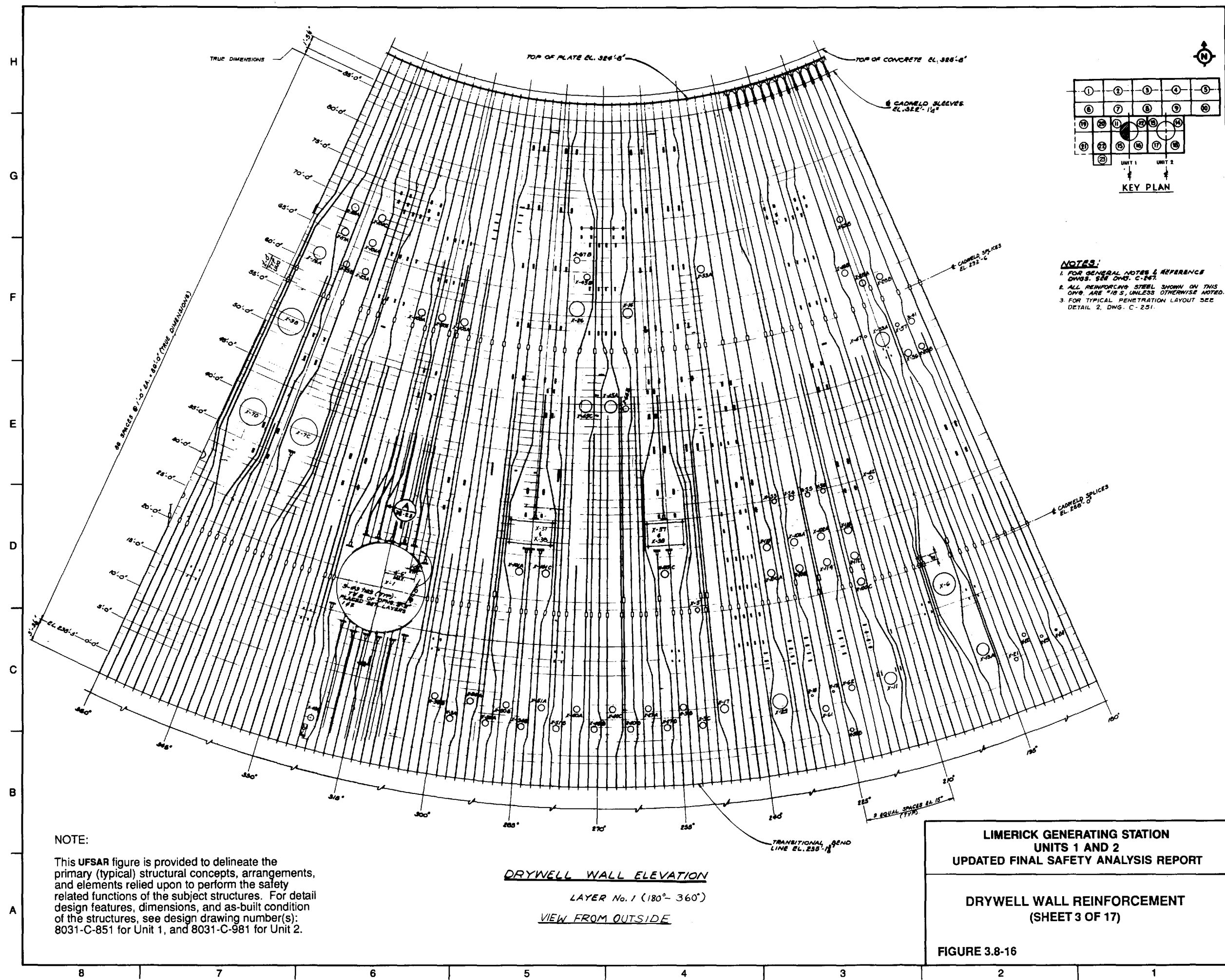
---

**FIGURE 3.8-16**

H  
G  
F  
E  
D  
C  
B  
A

8 7 6 5 4 3 2 1





**NOTES:**  
 1. FOR GENERAL NOTES & REFERENCE DIMS. SEE DWG. C-867.  
 2. ALL REINFORCING STEEL SHOWN ON THIS DWG ARE #18'S, UNLESS OTHERWISE NOTED.  
 3. FOR TYPICAL PENETRATION LAYOUT SEE DETAIL 2, DWG. C-251.

**NOTE:**  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-851 for Unit 1, and 8031-C-981 for Unit 2.

**DRYWELL WALL ELEVATION**  
 LAYER No. 1 (180°- 360°)  
 VIEW FROM OUTSIDE

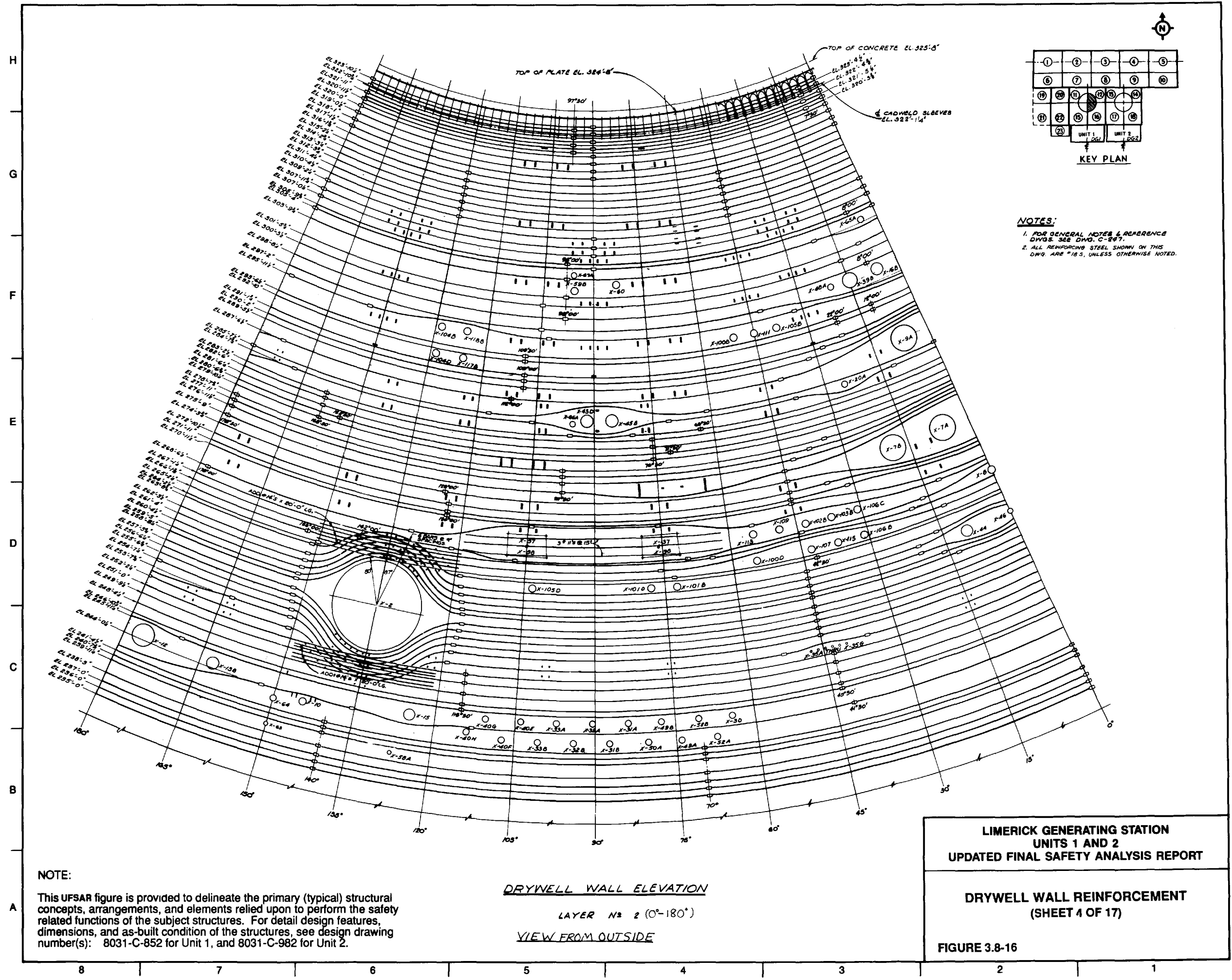
**LIMERICK GENERATING STATION**  
**UNITS 1 AND 2**  
**UPDATED FINAL SAFETY ANALYSIS REPORT**

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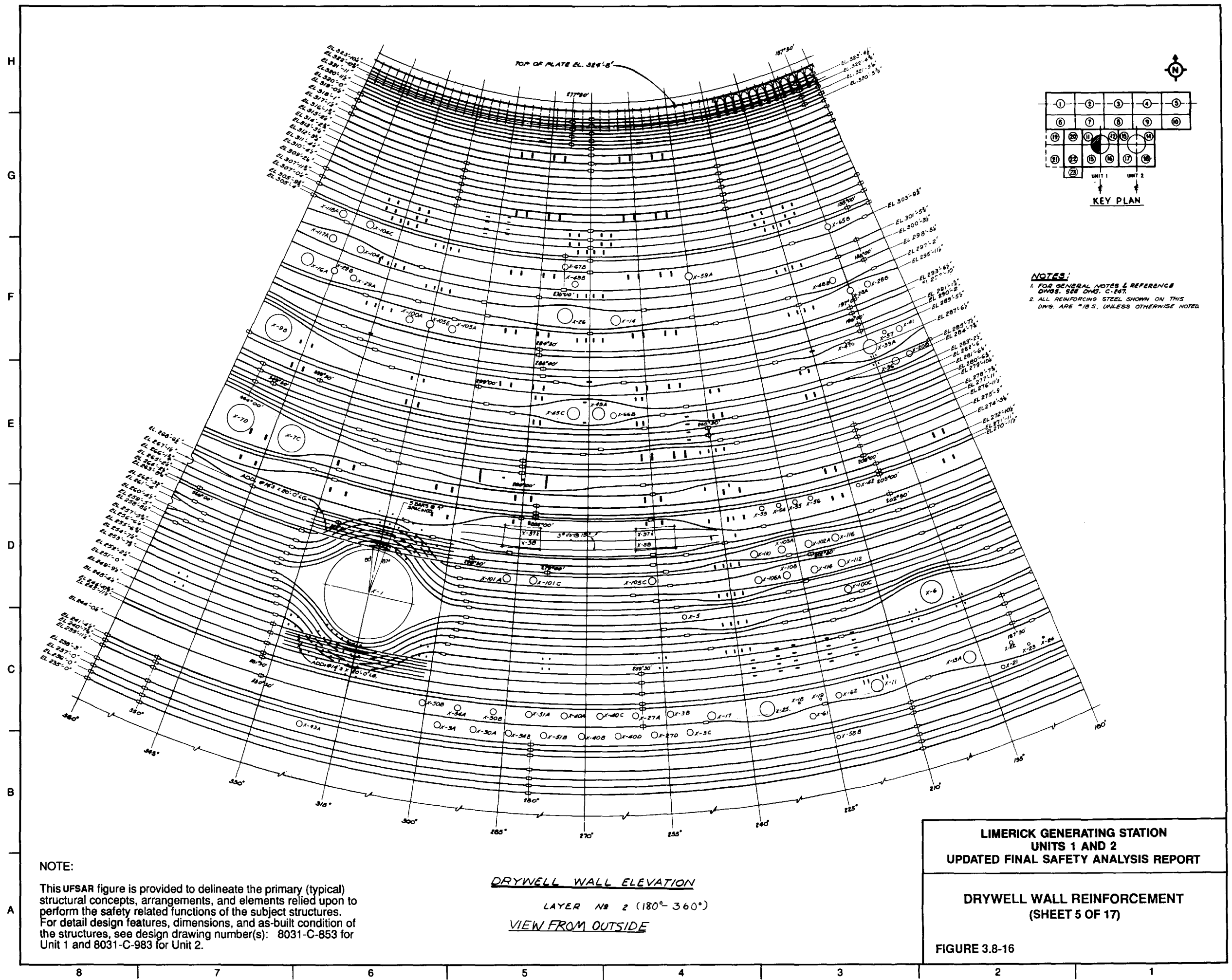
**DRYWELL WALL REINFORCEMENT**  
**(SHEET 3 OF 17)**

---

**FIGURE 3.8-16**







**NOTES:**  
 1. FOR GENERAL NOTES & REFERENCE DIMS. SEE DWG. C-847.  
 2. ALL REINFORCING STEEL SHOWN ON THIS DWG. ARE #18 S. UNLESS OTHERWISE NOTED.

**NOTE:**  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-853 for Unit 1 and 8031-C-983 for Unit 2.

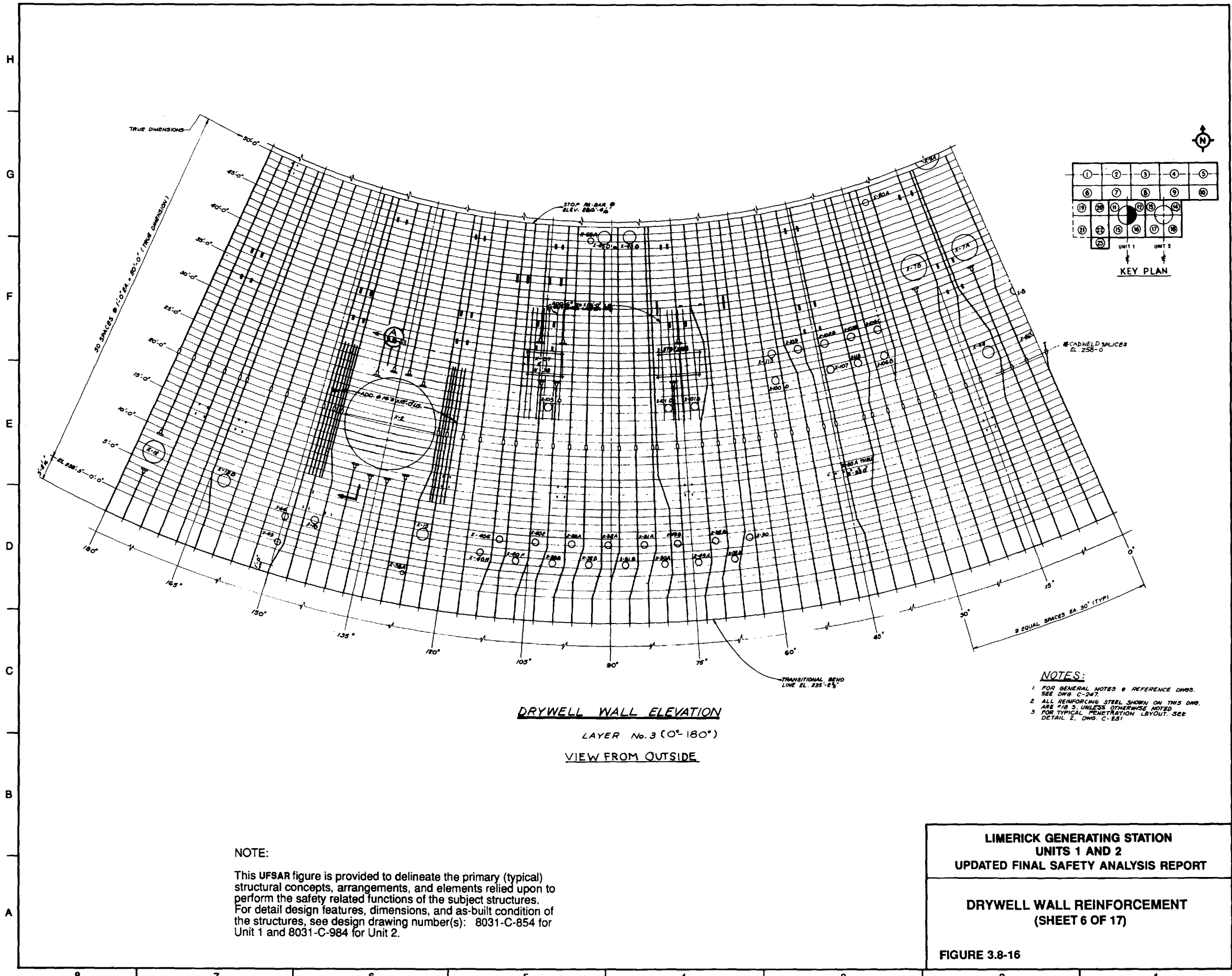
**LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT**

**DRYWELL WALL REINFORCEMENT  
 (SHEET 5 OF 17)**

**FIGURE 3.8-16**

H  
G  
F  
E  
D  
C  
B  
A

8 7 6 5 4 3 2 1



**DRYWELL WALL ELEVATION**  
 LAYER No. 3 (0°-180°)  
 VIEW FROM OUTSIDE

- NOTES:**
1. FOR GENERAL NOTES & REFERENCE DIMOS. SEE DWG. C-247.
  2. ALL REINFORCING STEEL SHOWN ON THIS DWG. ARE #10 S. UNLESS OTHERWISE NOTED.
  3. FOR TYPICAL PENETRATION LAYOUT. SEE DETAIL 2. DWG. C-251.

**NOTE:**  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-854 for Unit 1 and 8031-C-984 for Unit 2.

**LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT**

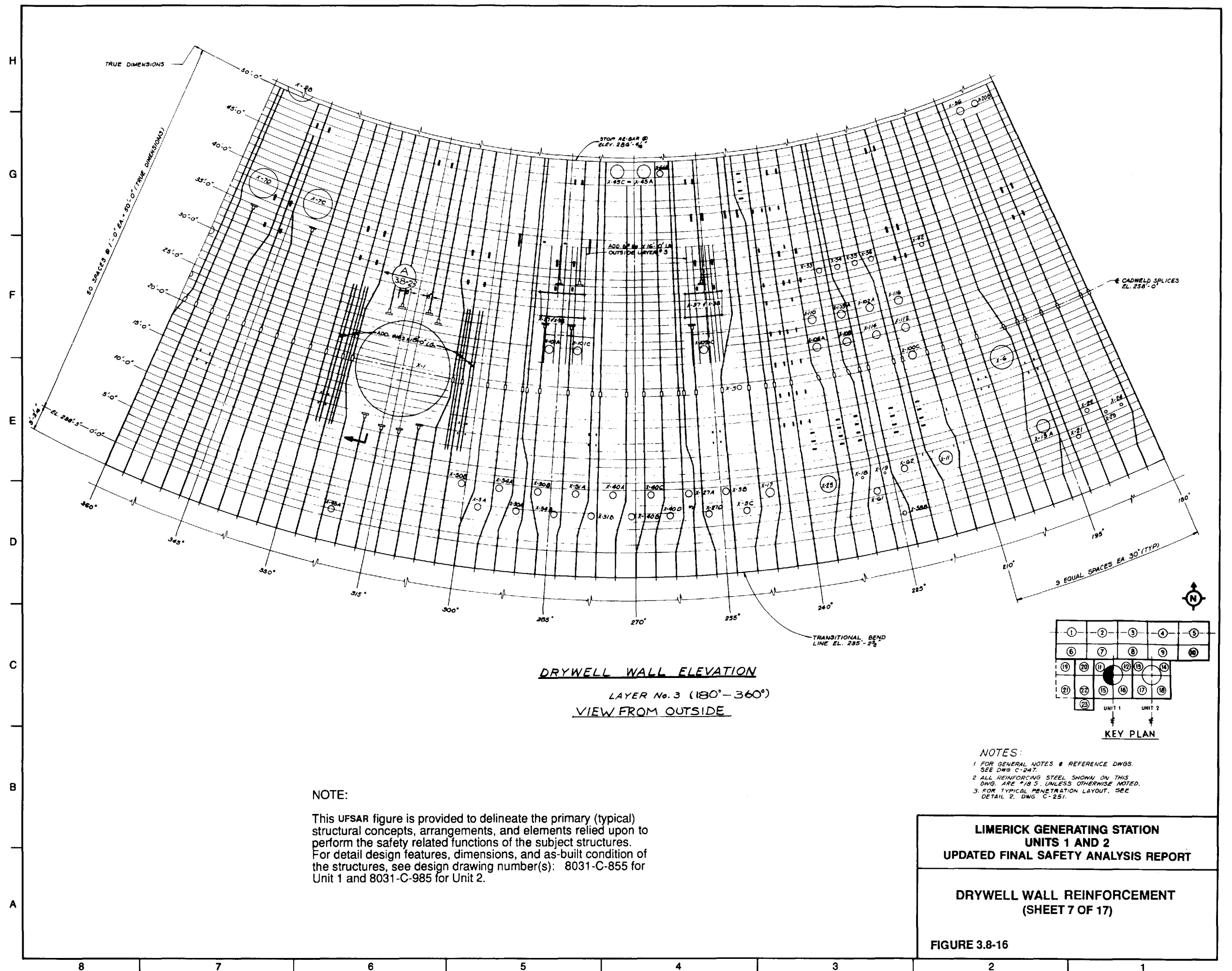
---

**DRYWELL WALL REINFORCEMENT  
 (SHEET 6 OF 17)**

**FIGURE 3.8-16**

H  
G  
F  
E  
D  
C  
B  
A

8 7 6 5 4 3 2 1



**DRYWELL WALL ELEVATION**  
 LAYER No. 3 (180°-360°)  
 VIEW FROM OUTSIDE

**NOTE:**  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-855 for Unit 1 and 8031-C-985 for Unit 2.

- NOTES:**
1. FOR GENERAL NOTES & REFERENCE DWGS. SEE DWG. C-247.
  2. ALL REINFORCING STEEL SHOWN ON THIS DWG. ARE #18'S, UNLESS OTHERWISE NOTED.
  3. FOR TYPICAL PENETRATION LAYOUT, SEE DETAIL 2, DWG. C-251.

**LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT**

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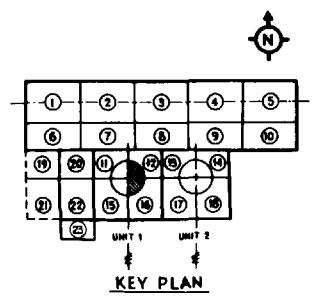
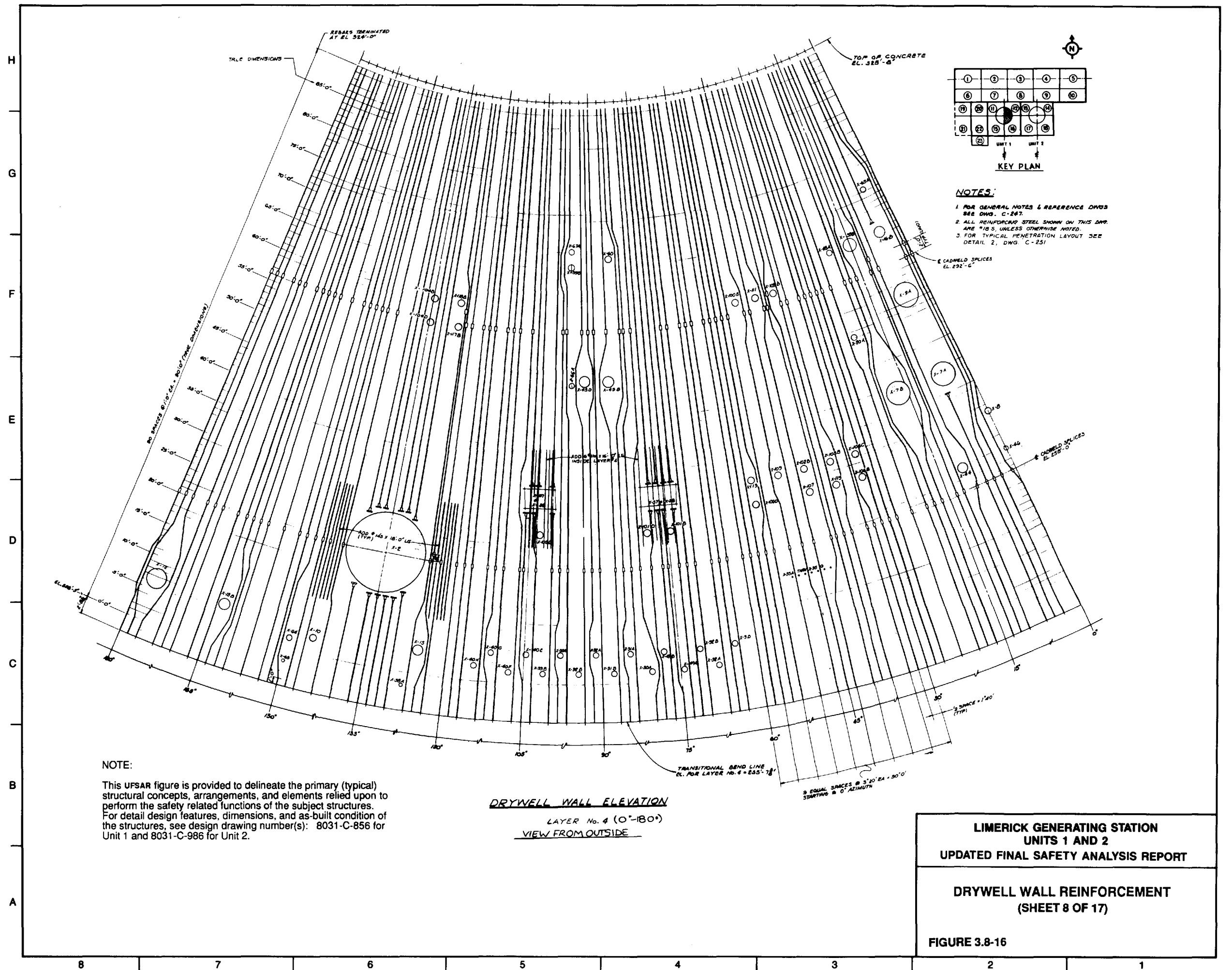
**DRYWELL WALL REINFORCEMENT  
 (SHEET 7 OF 17)**

---

**FIGURE 3.8-16**

H  
G  
F  
E  
D  
C  
B  
A

8 7 6 5 4 3 2 1



- NOTES:**
- 1 FOR GENERAL NOTES & REFERENCE DWGS SEE DWG. C-247.
  - 2 ALL REINFORCING STEEL SHOWN ON THIS DWG. ARE #18 S, UNLESS OTHERWISE NOTED.
  - 3 FOR TYPICAL PENETRATION LAYOUT SEE DETAIL 2, DWG. C-251.

**NOTE:**  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-856 for Unit 1 and 8031-C-986 for Unit 2.

**DRYWELL WALL ELEVATION**  
 LAYER No. 4 (0°-180°)  
 VIEW FROM OUTSIDE

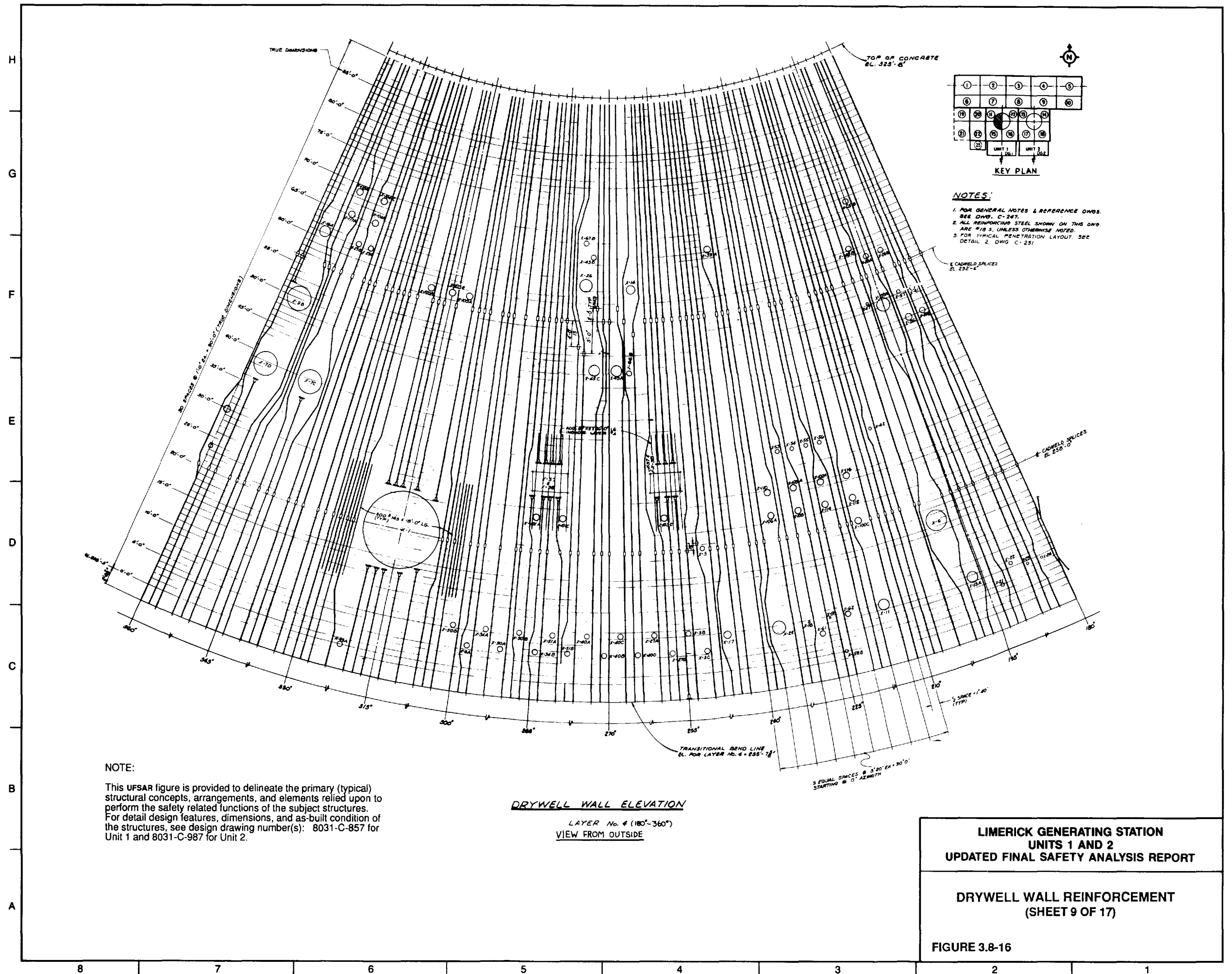
**LIMERICK GENERATING STATION**  
**UNITS 1 AND 2**  
**UPDATED FINAL SAFETY ANALYSIS REPORT**

---

**DRYWELL WALL REINFORCEMENT**  
**(SHEET 8 OF 17)**

---

**FIGURE 3.8-16**



NOTE:  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-857 for Unit 1 and 8031-C-987 for Unit 2.

**DRYWELL WALL ELEVATION**  
 LAYER No. 4 (180°-360°)  
 VIEW FROM OUTSIDE

**LIMERICK GENERATING STATION**  
**UNITS 1 AND 2**  
**UPDATED FINAL SAFETY ANALYSIS REPORT**

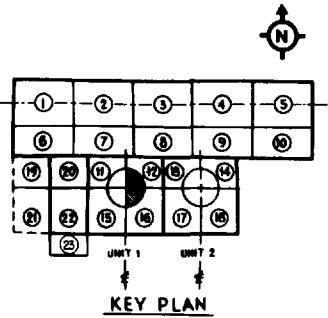
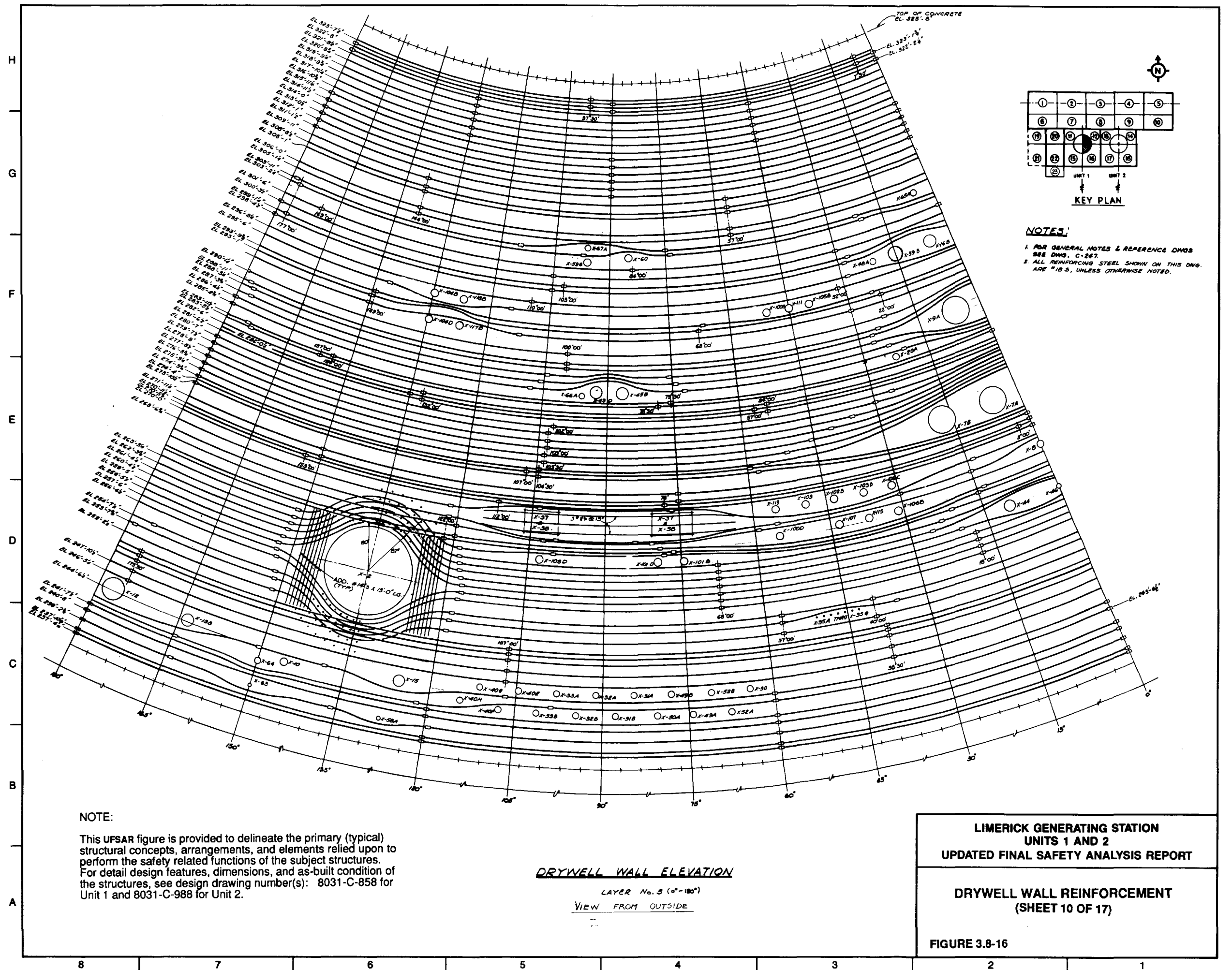
---

**DRYWELL WALL REINFORCEMENT**  
**(SHEET 9 OF 17)**

---

**FIGURE 3.8-16**





**NOTES:**

- FOR GENERAL NOTES & REFERENCE DWGS SEE DWG. C-247.
- ALL REINFORCING STEEL SHOWN ON THIS DWG. ARE #18 S, UNLESS OTHERWISE NOTED.

**NOTE:**

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-858 for Unit 1 and 8031-C-988 for Unit 2.

**DRYWELL WALL ELEVATION**

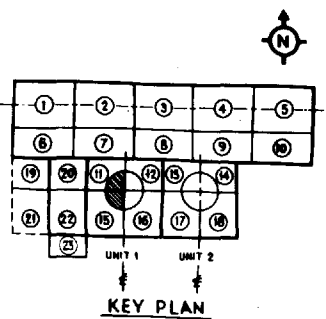
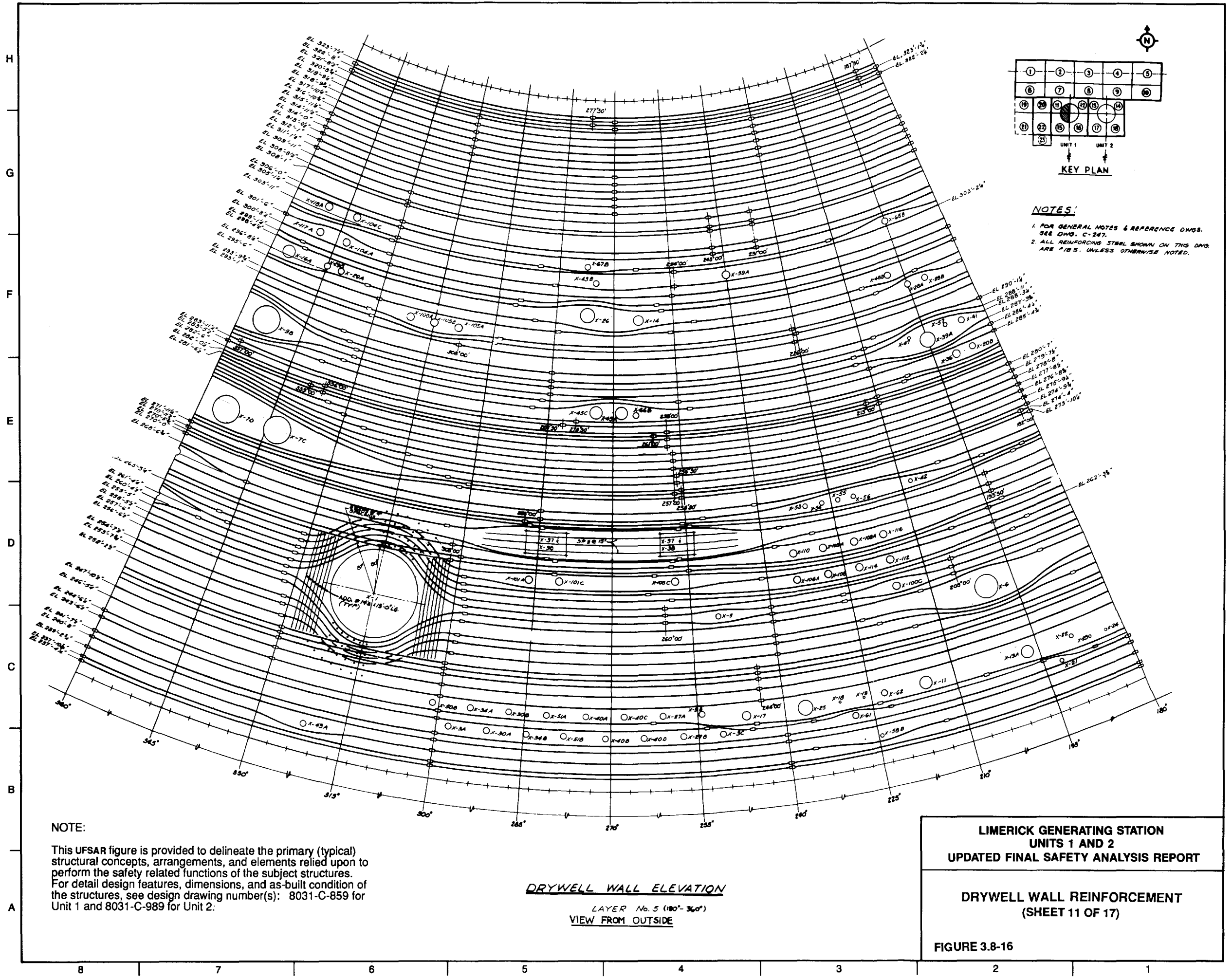
LAYER No. 5 (0°-180°)

VIEW FROM OUTSIDE

**LIMERICK GENERATING STATION**  
**UNITS 1 AND 2**  
**UPDATED FINAL SAFETY ANALYSIS REPORT**

**DRYWELL WALL REINFORCEMENT**  
**(SHEET 10 OF 17)**

FIGURE 3.8-16



**NOTES:**  
 1. FOR GENERAL NOTES & REFERENCE DWGS. SEE DWG. C-247.  
 2. ALL REINFORCING STEEL SHOWN ON THIS DWG. ARE #18S. UNLESS OTHERWISE NOTED.

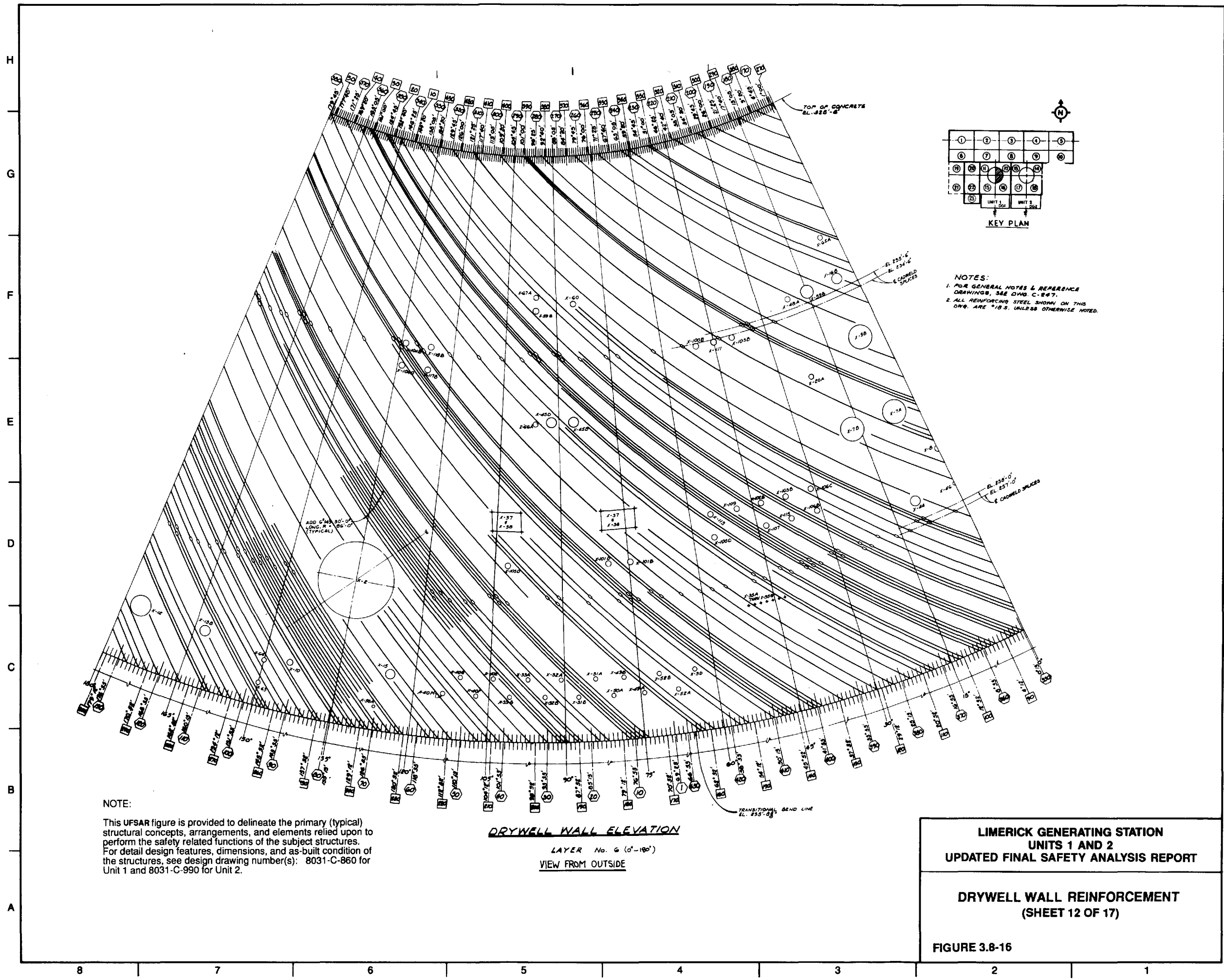
**NOTE:**  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-859 for Unit 1 and 8031-C-989 for Unit 2.

**DRYWELL WALL ELEVATION**  
 LAYER No. 5 (180°-360°)  
 VIEW FROM OUTSIDE

**LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT**

**DRYWELL WALL REINFORCEMENT  
 (SHEET 11 OF 17)**

**FIGURE 3.8-16**



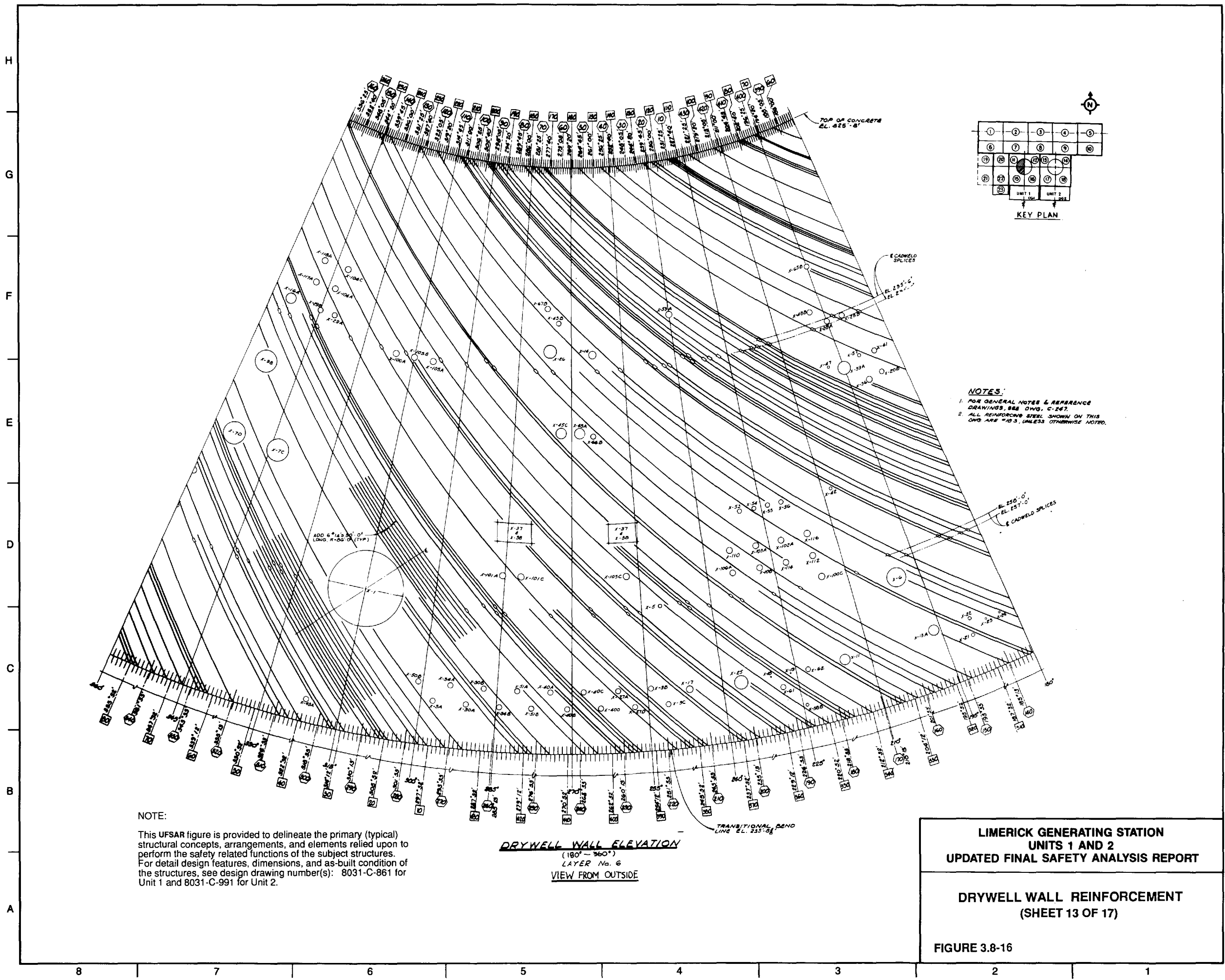
NOTE:  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-860 for Unit 1 and 8031-C-990 for Unit 2.

**DRYWELL WALL ELEVATION**  
 LAYER No. 6 (0°-180°)  
 VIEW FROM OUTSIDE

NOTES:  
 1. FOR GENERAL NOTES & REFERENCE DRAWINGS, SEE DIV. C-247.  
 2. ALL REINFORCING STEEL SHOWN ON THIS DWG. ARE #10S, UNLESS OTHERWISE NOTED.

<b>LIMERICK GENERATING STATION</b> <b>UNITS 1 AND 2</b> <b>UPDATED FINAL SAFETY ANALYSIS REPORT</b>
<b>DRYWELL WALL REINFORCEMENT</b> <b>(SHEET 12 OF 17)</b>
<b>FIGURE 3.8-16</b>





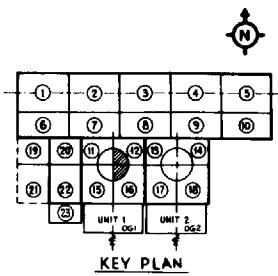
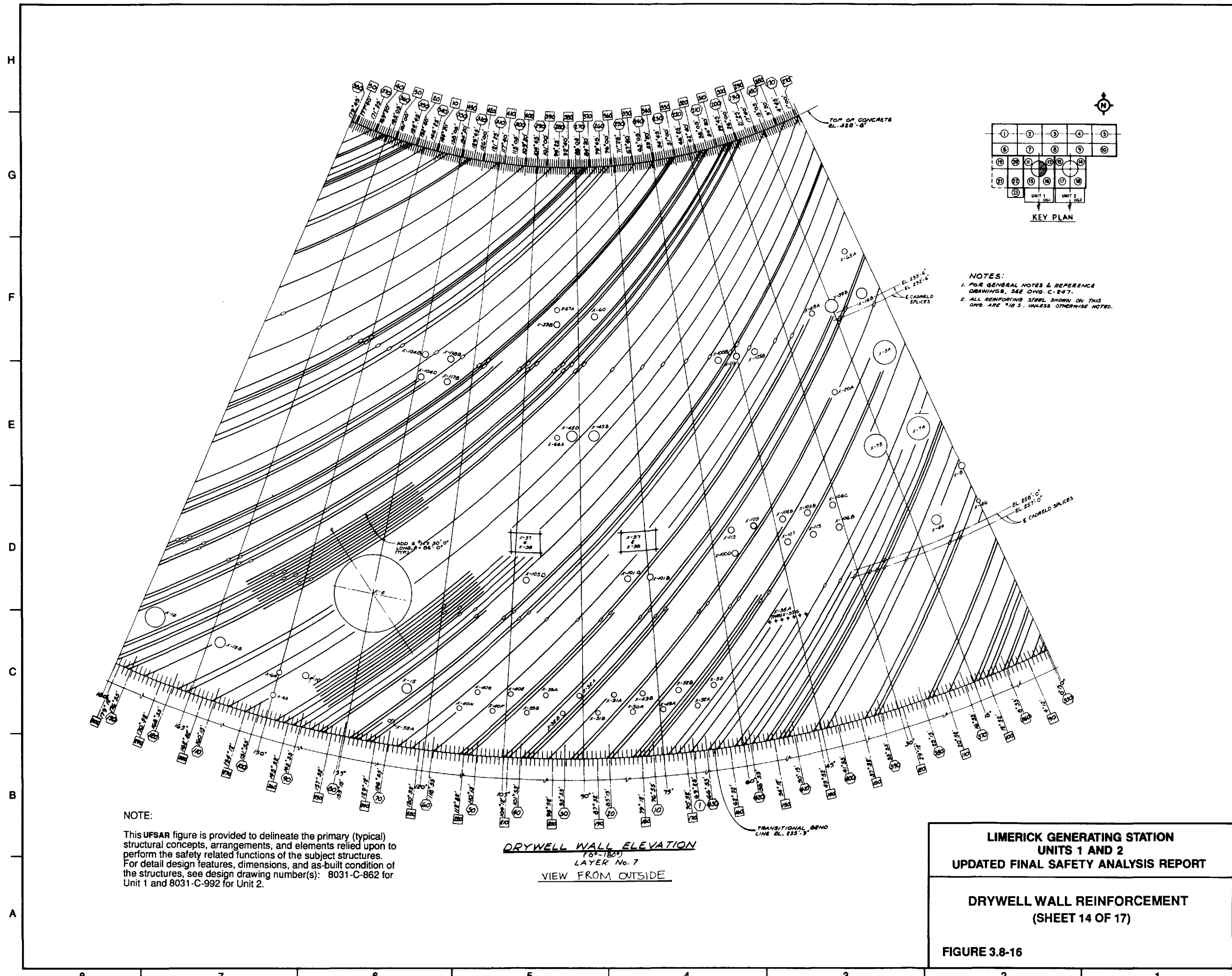
NOTE:  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-861 for Unit 1 and 8031-C-991 for Unit 2.

**DRYWELL WALL ELEVATION**  
 (180° - 360°)  
 LAYER No. 6  
 VIEW FROM OUTSIDE

**LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT**

**DRYWELL WALL REINFORCEMENT  
 (SHEET 13 OF 17)**

FIGURE 3.8-16



NOTES:  
 1. FOR GENERAL NOTES & REFERENCE DRAWINGS, SEE DWG. C-247.  
 2. ALL REINFORCING STEEL SHOWN ON THIS DWG. ARE #18 S., UNLESS OTHERWISE NOTED.

NOTE:  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-862 for Unit 1 and 8031-C-992 for Unit 2.

DRYWELL WALL ELEVATION  
 105-1805  
 LAYER No. 7  
 VIEW FROM OUTSIDE

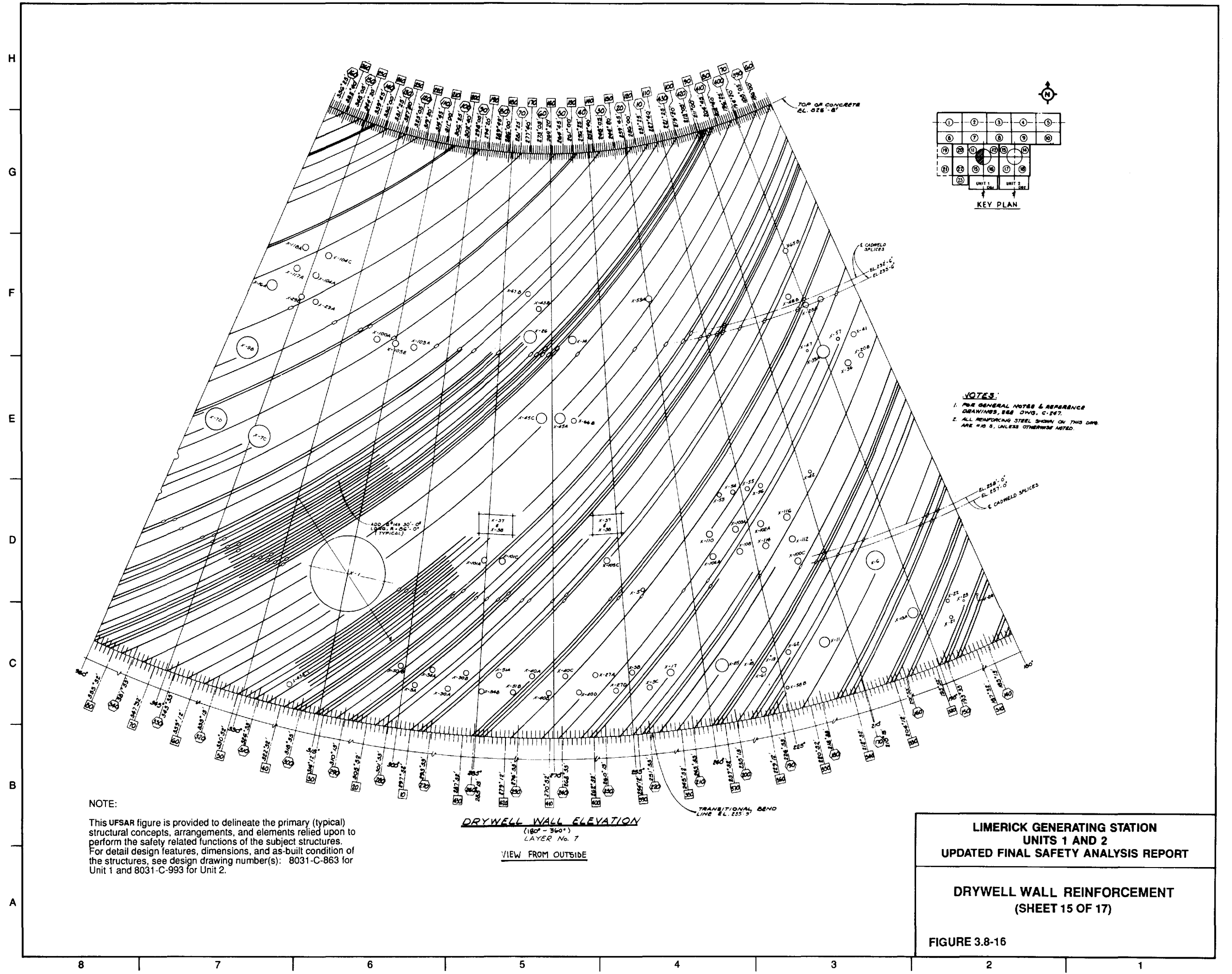
LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

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DRYWELL WALL REINFORCEMENT  
 (SHEET 14 OF 17)

---

FIGURE 3.8-16



NOTE:  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-863 for Unit 1 and 8031-C-993 for Unit 2.

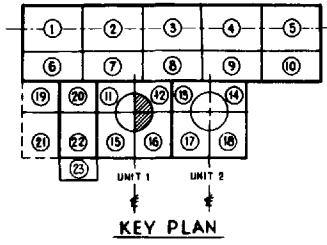
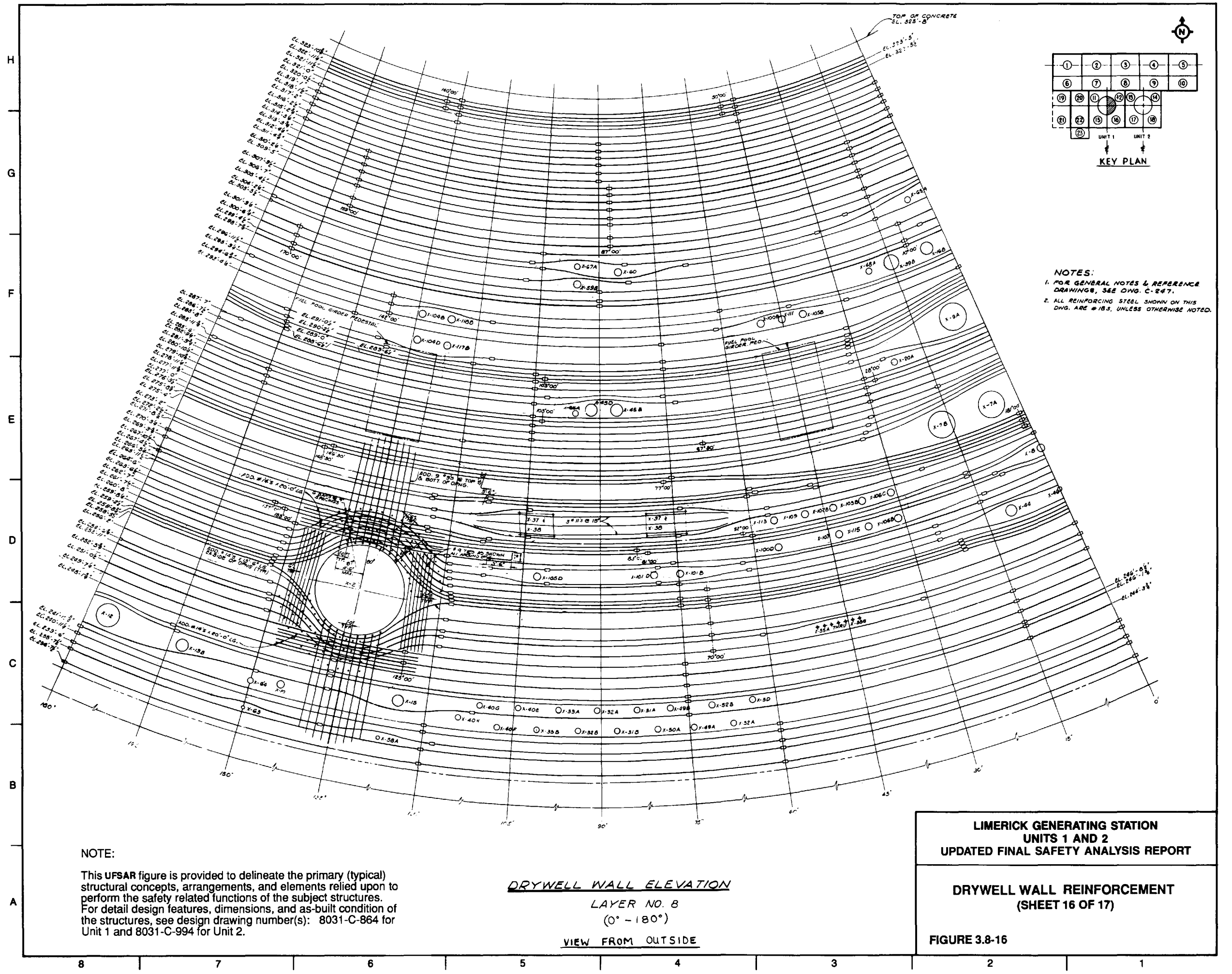
**DRYWELL WALL ELEVATION**  
 (180° - 360°)  
 LAYER No. 7  
 VIEW FROM OUTSIDE

**NOTES:**  
 1. FOR GENERAL NOTES & REFERENCE DRAWINGS, SEE DWG. C-247.  
 2. ALL REINFORCING STEEL SHOWN ON THIS DWG. ARE #10 S, UNLESS OTHERWISE NOTED.

**LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT**

**DRYWELL WALL REINFORCEMENT  
 (SHEET 15 OF 17)**

FIGURE 3.8-16



**NOTES:**  
 1. FOR GENERAL NOTES & REFERENCE DRAWINGS, SEE DWG. C-247.  
 2. ALL REINFORCING STEEL SHOWN ON THIS DWG. ARE #13, UNLESS OTHERWISE NOTED.

**NOTE:**  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-864 for Unit 1 and 8031-C-994 for Unit 2.

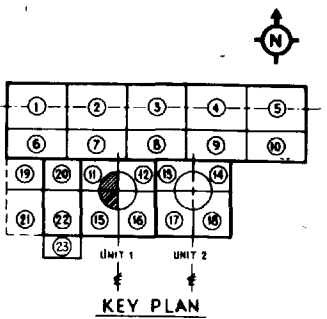
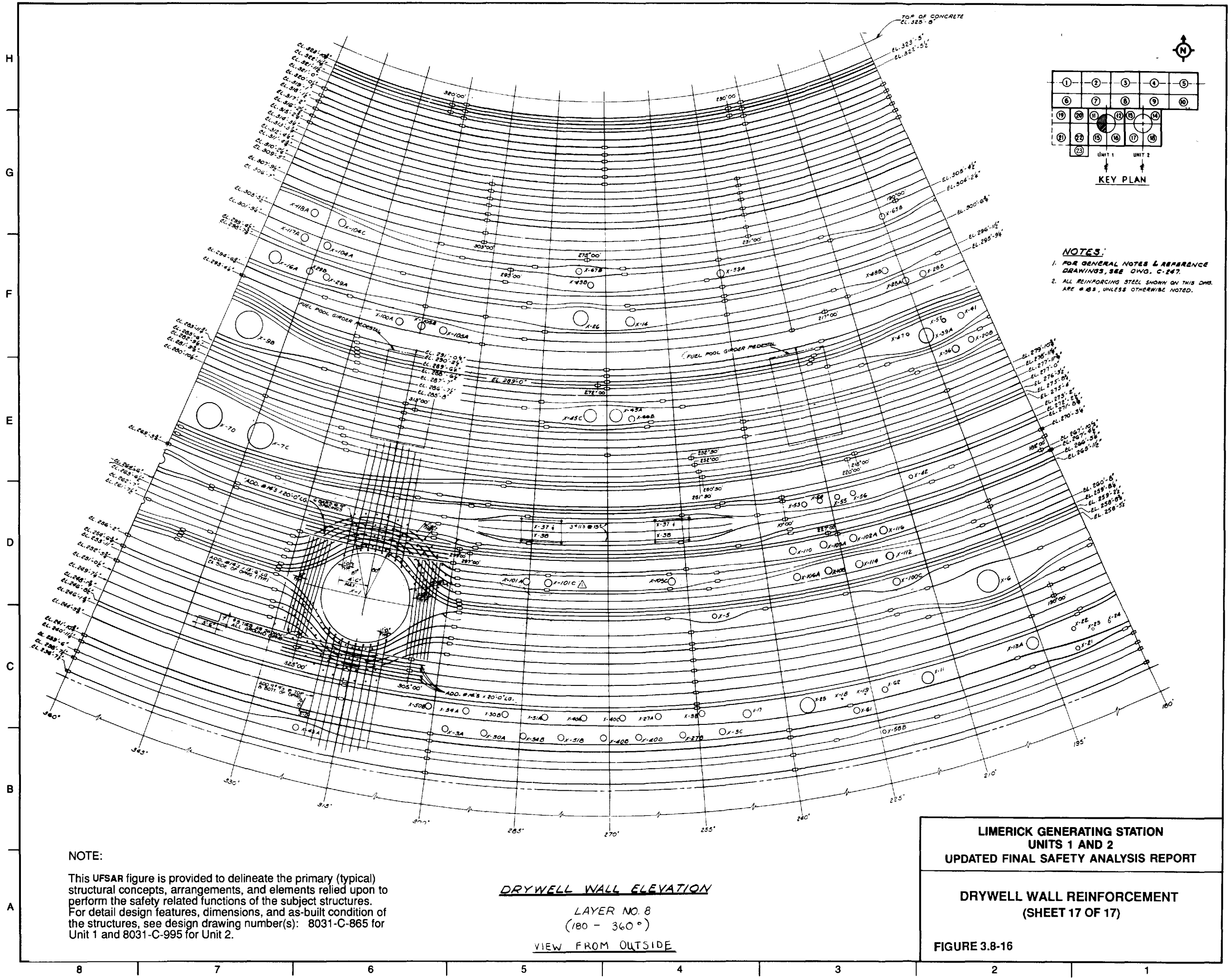
**DRYWELL WALL ELEVATION**  
 LAYER NO. 8  
 (0° - 180°)  
 VIEW FROM OUTSIDE

**LIMERICK GENERATING STATION**  
**UNITS 1 AND 2**  
**UPDATED FINAL SAFETY ANALYSIS REPORT**

---

**DRYWELL WALL REINFORCEMENT**  
**(SHEET 16 OF 17)**

**FIGURE 3.8-16**



**NOTES:**  
 1. FOR GENERAL NOTES & REFERENCE DRAWINGS, SEE DWG. C-247.  
 2. ALL REINFORCING STEEL SHOWN ON THIS DWG. ARE #10S, UNLESS OTHERWISE NOTED.

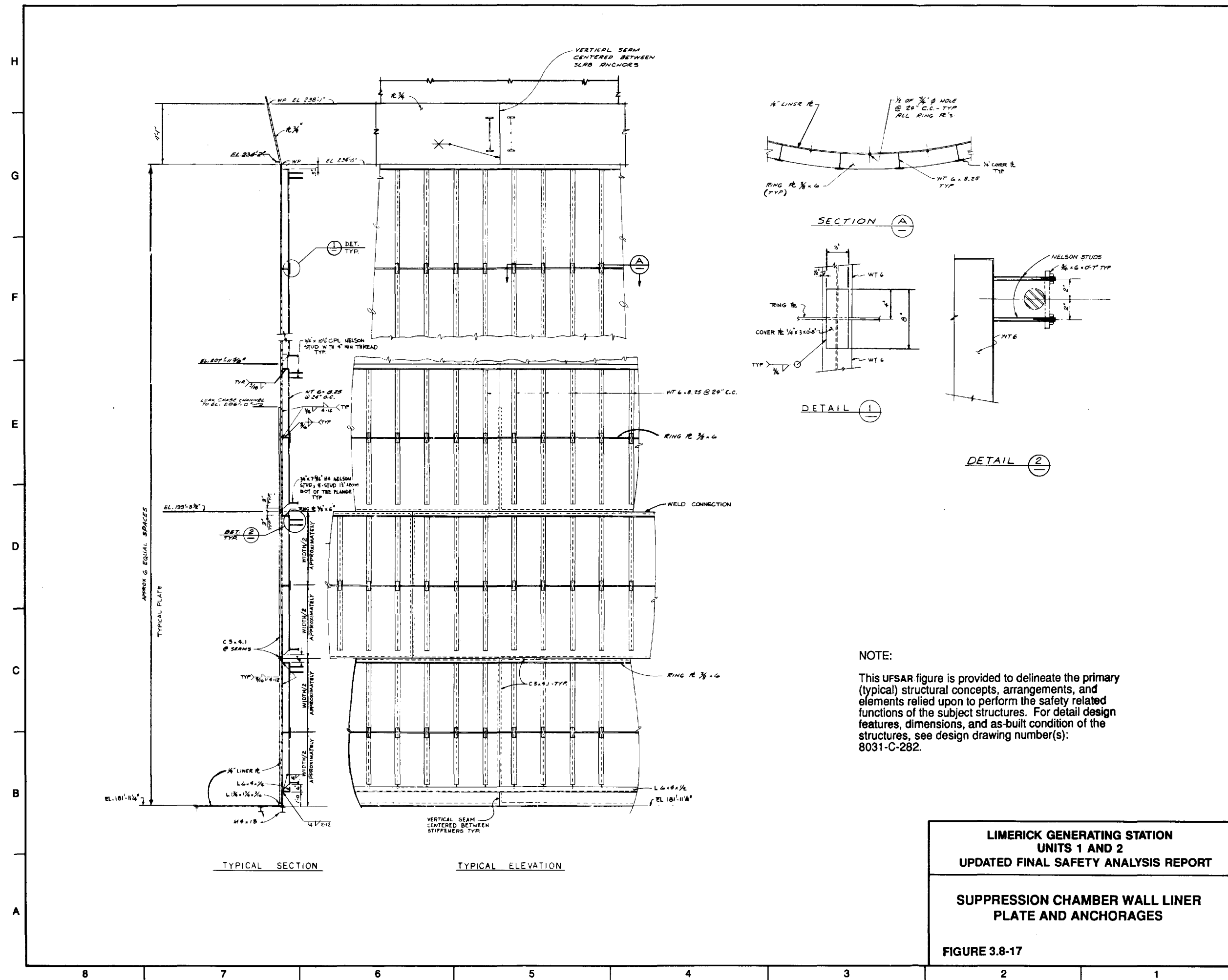
**NOTE:**  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-865 for Unit 1 and 8031-C-995 for Unit 2.

**DRYWELL WALL ELEVATION**  
 LAYER NO. 8  
 (180 - 360°)  
 VIEW FROM OUTSIDE

**LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT**

**DRYWELL WALL REINFORCEMENT  
 (SHEET 17 OF 17)**

**FIGURE 3.8-16**

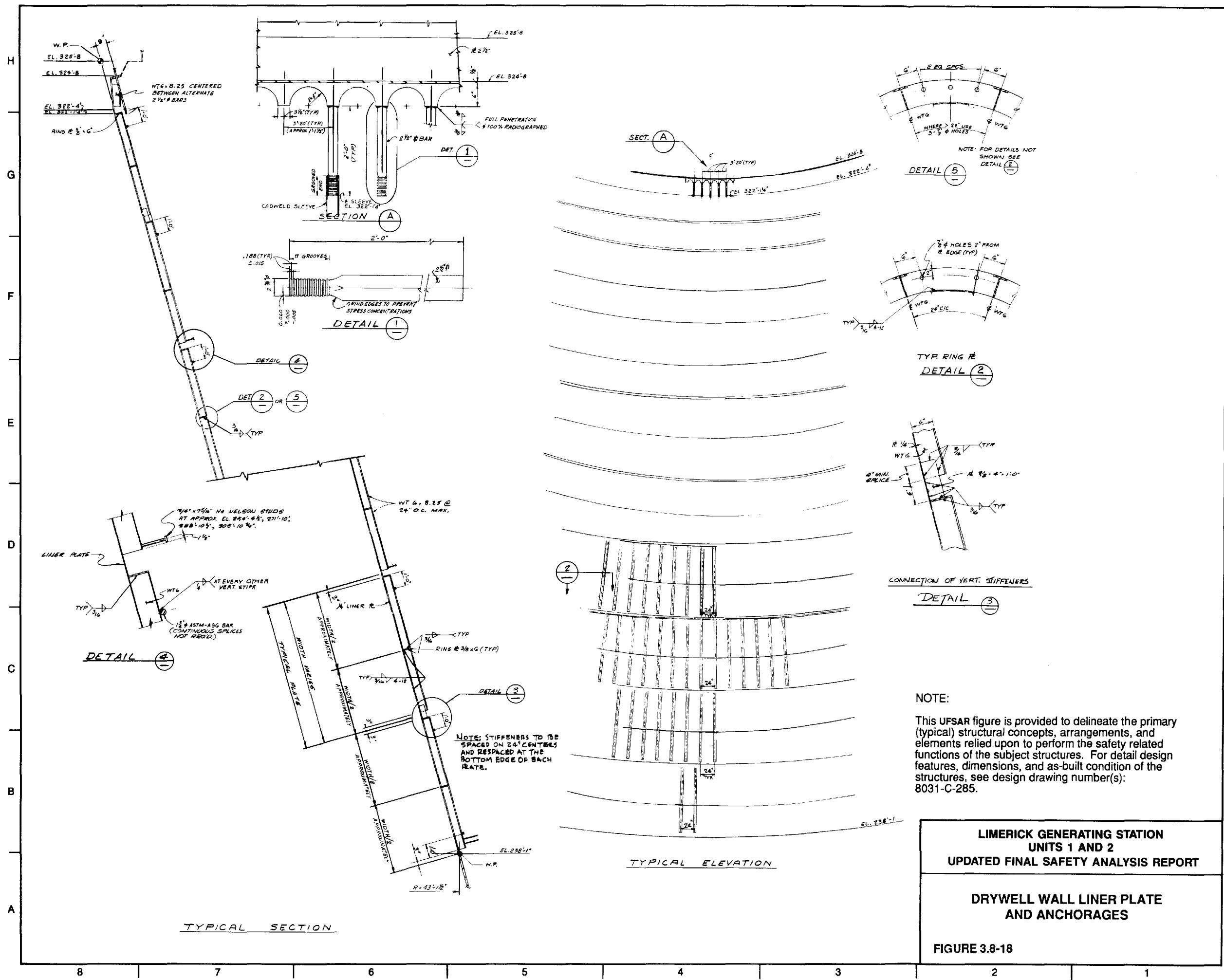


**LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT**

**SUPPRESSION CHAMBER WALL LINER  
 PLATE AND ANCHORAGES**

**FIGURE 3.8-17**



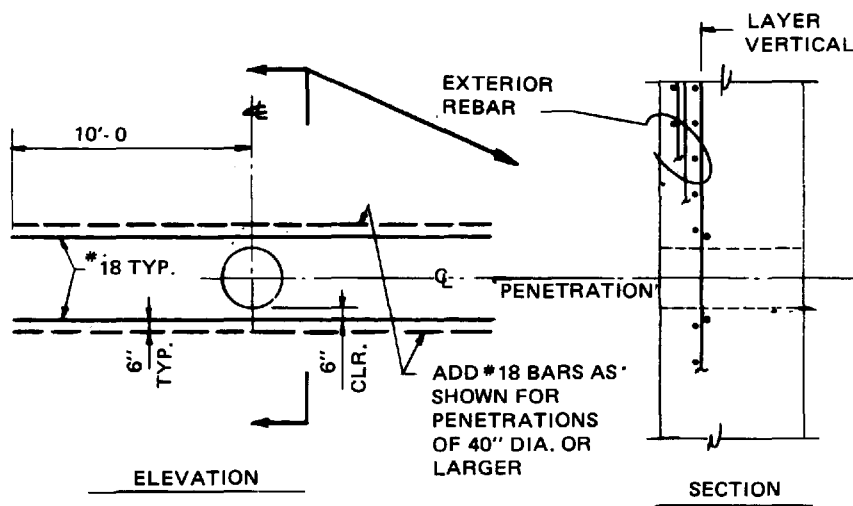


NOTE:  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-285.

**LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT**

**DRYWELL WALL LINER PLATE  
 AND ANCHORAGES**

**FIGURE 3.8-18**



**TYP. FOR 24" DIA. PENETRATIONS & LARGER**

**NOTE:**

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-253.

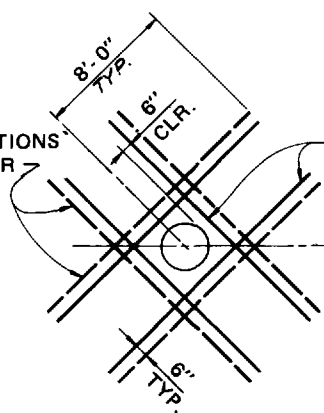
**LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT**

**SUPPRESSION CHAMBER WALL  
REINFORCEMENT DETAIL AT  
TYPICAL PENETRATION**

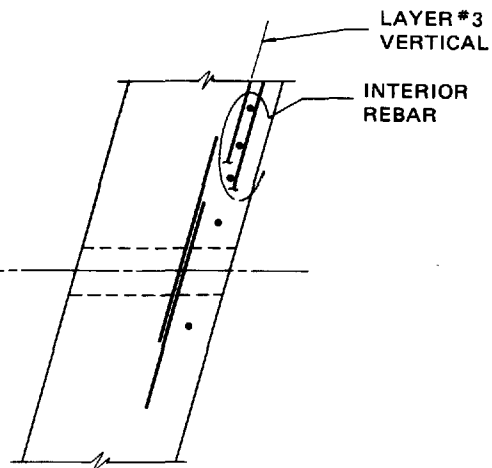
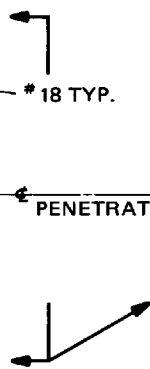
**FIGURE 3.8-18**



ADD 18 BARS AS  
SHOWN FOR PENETRATIONS  
OF 40" DIA. OR LARGER



ELEVATION



SECTION

TYP. FOR 24" DIA. PENETRATIONS & LARGER

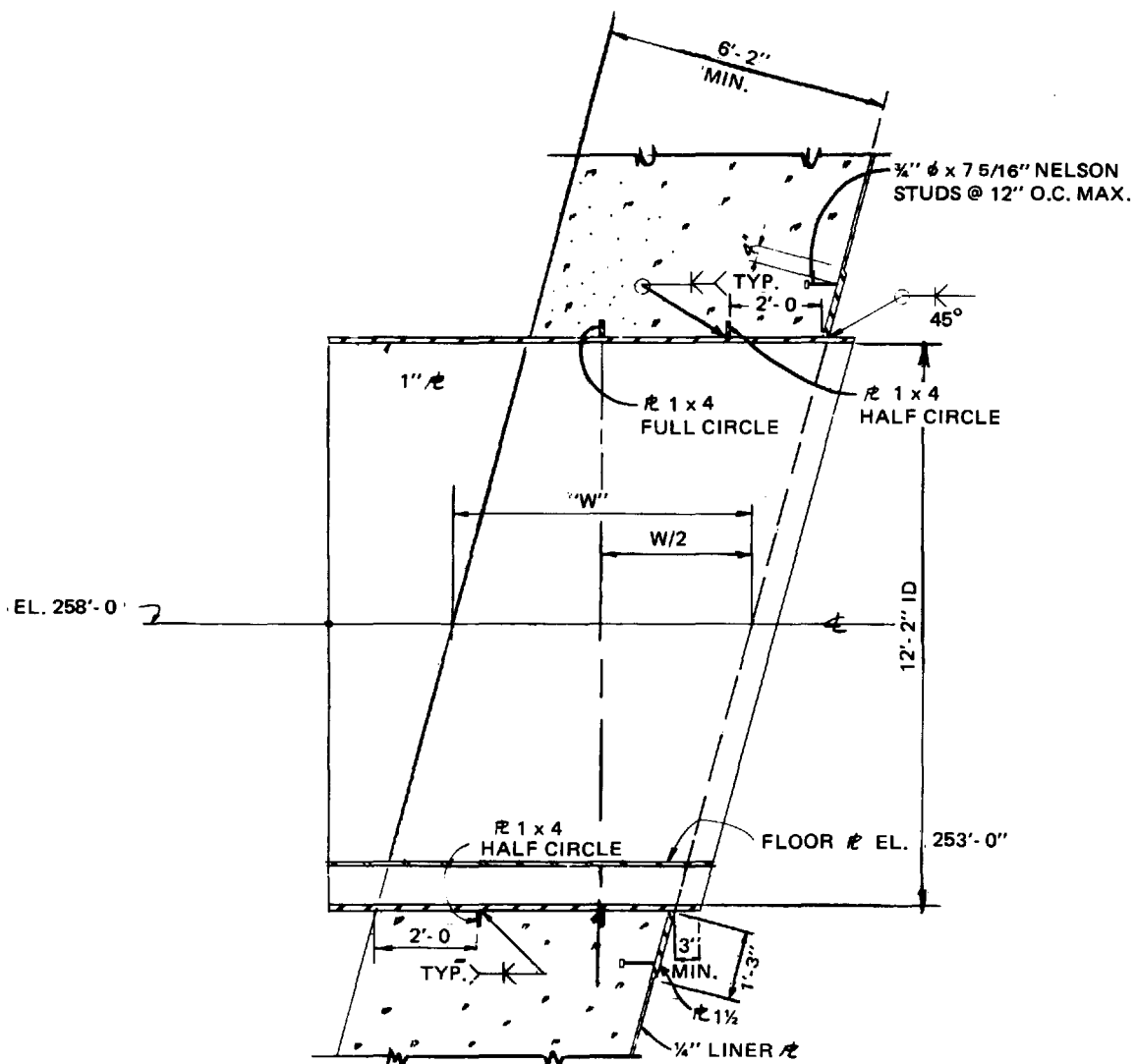
**NOTE:**

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-866.

LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

DRYWELL WALL REINFORCEMENT  
DETAIL AT TYPICAL  
PENETRATION

FIGURE 3.8-20



PENETRATION TYPE I

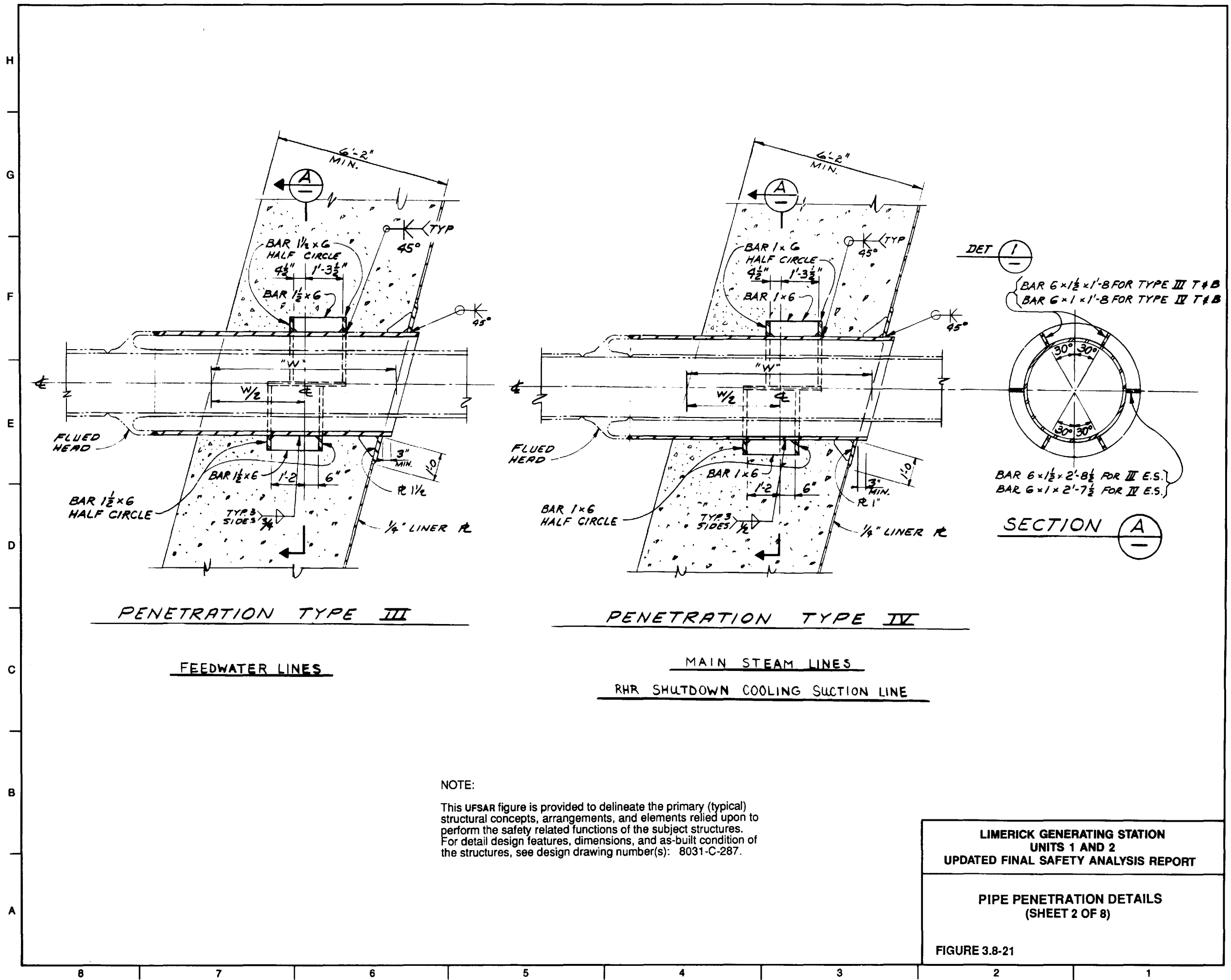
NOTE:

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-287.

LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

PIPE PENETRATION DETAILS  
 (SHEET 1 OF 8)

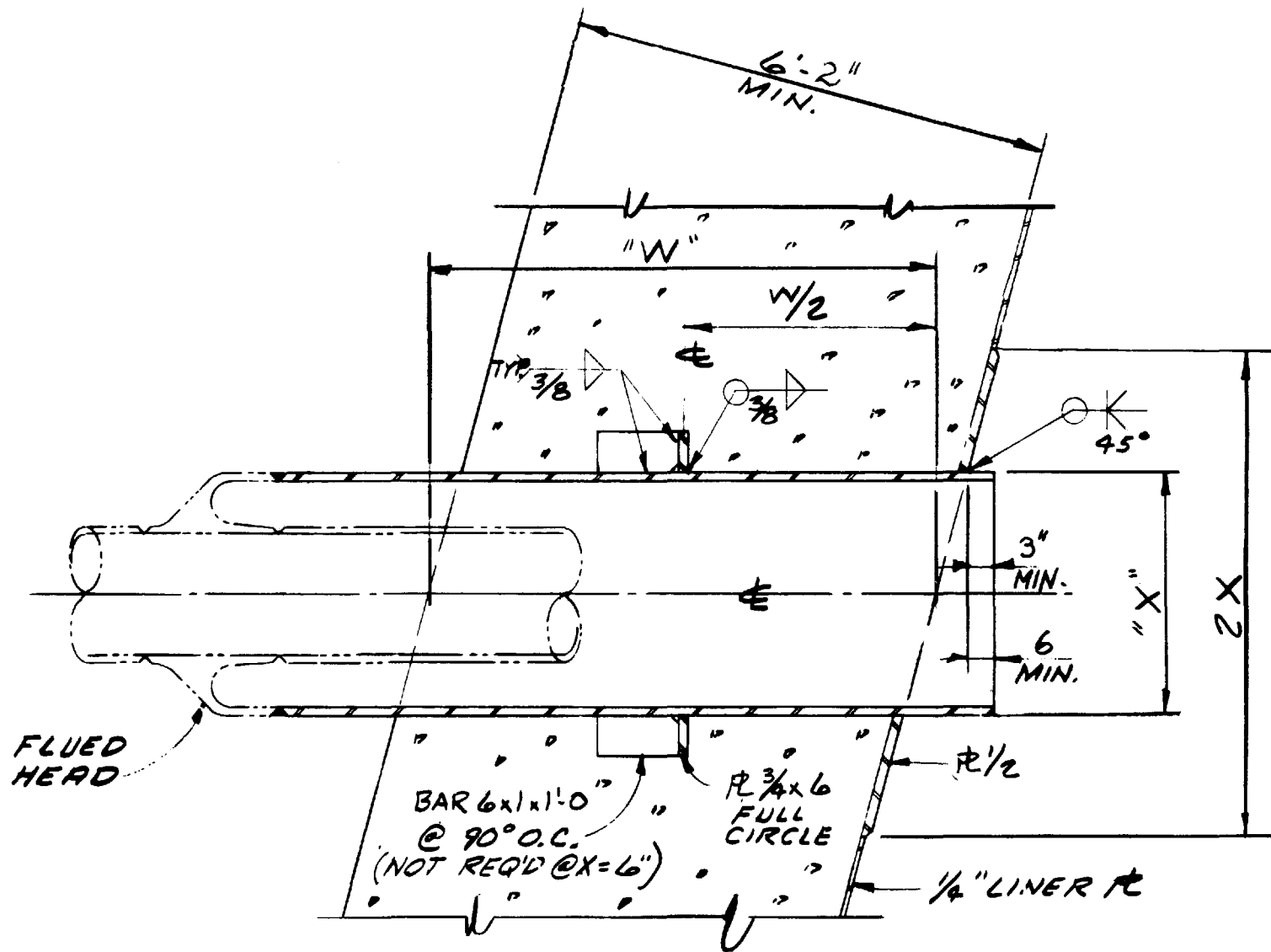
FIGURE 3.8-21



**LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT**

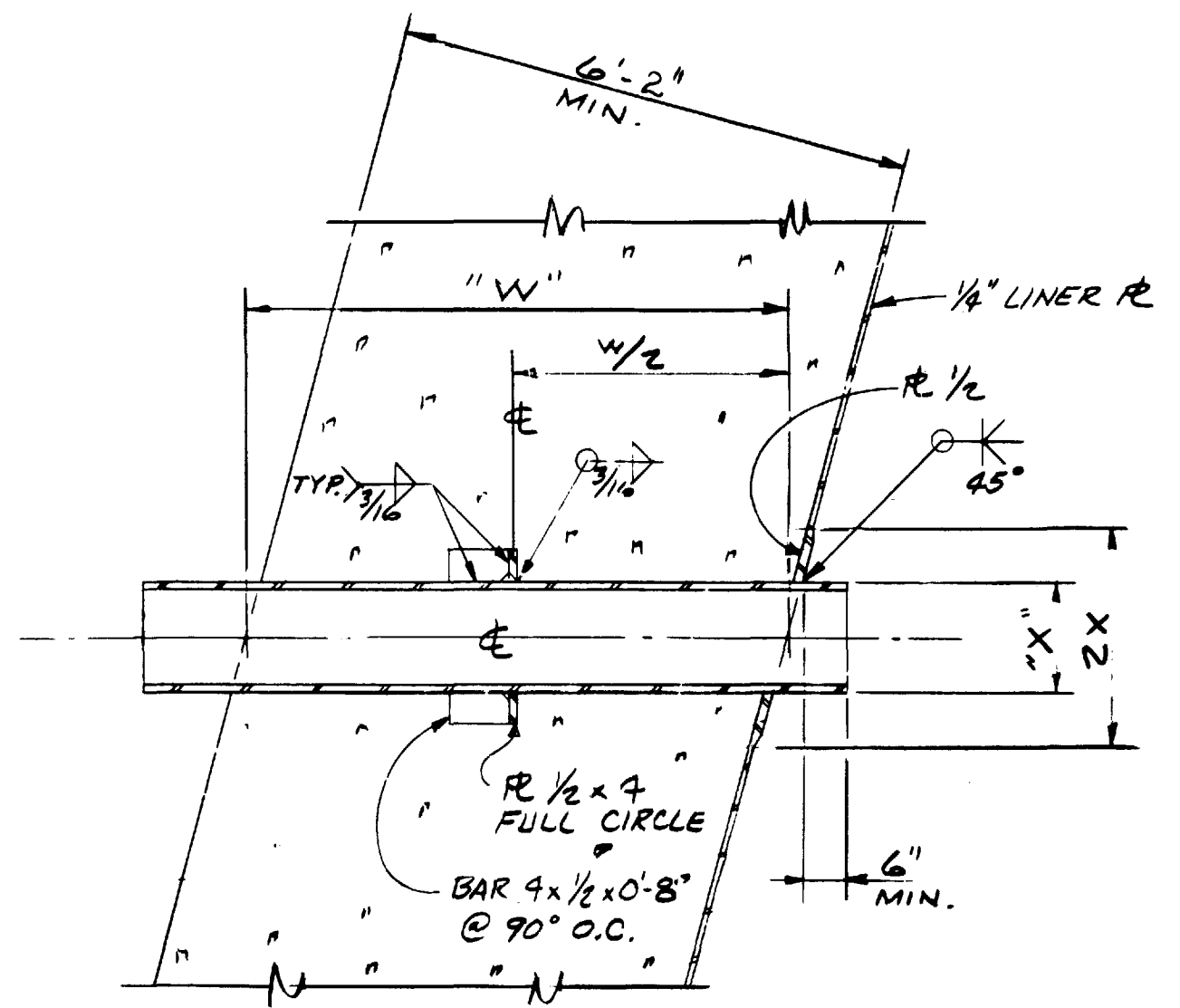
**PIPE PENETRATION DETAILS  
 (SHEET 2 OF 8)**

**FIGURE 3.8-21**



**PENETRATION TYPE V**

HIGH TEMPERATURE PROCESS FLUID



**PENETRATION TYPE VI**

INSTRUMENTATION

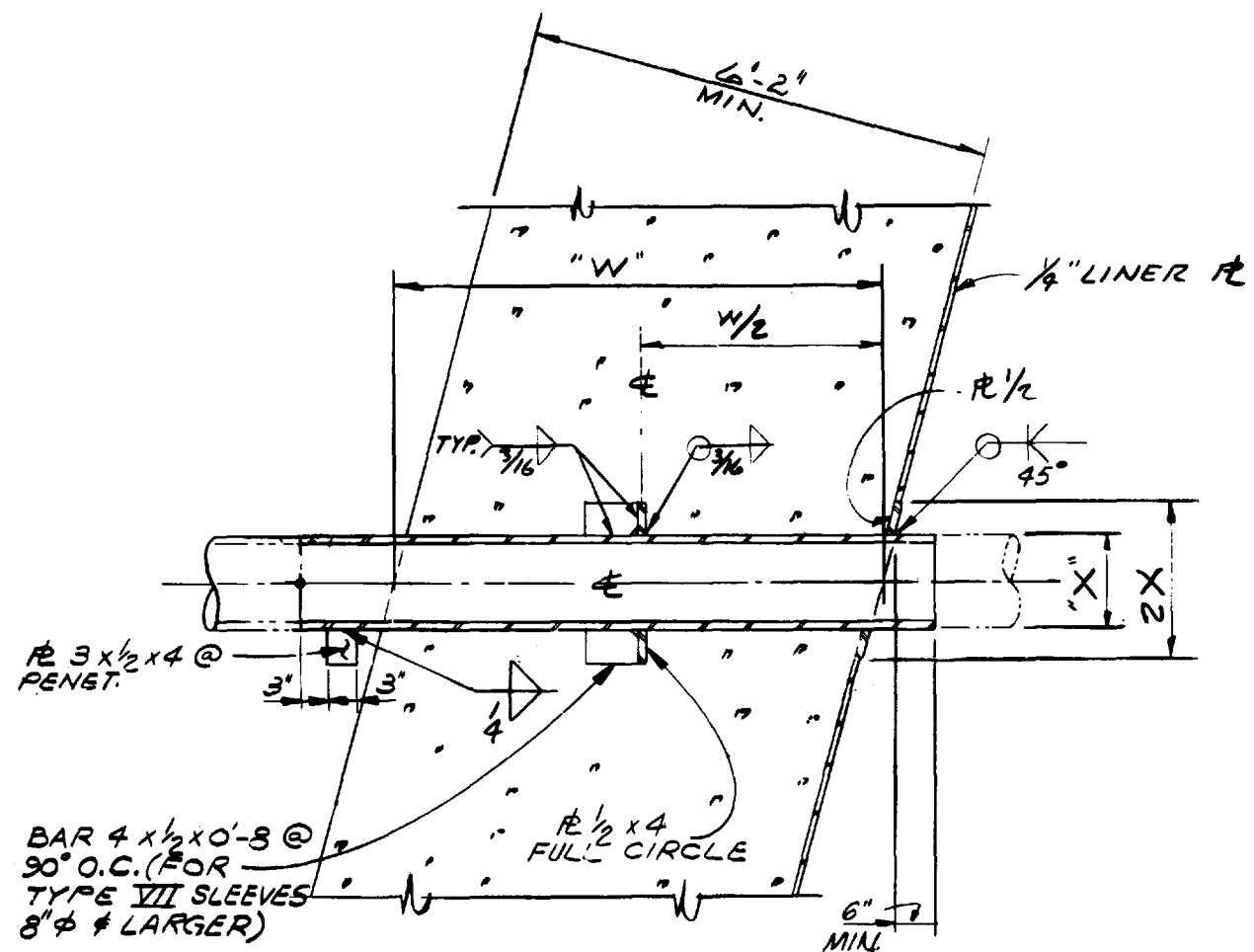
NOTE:

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-287.

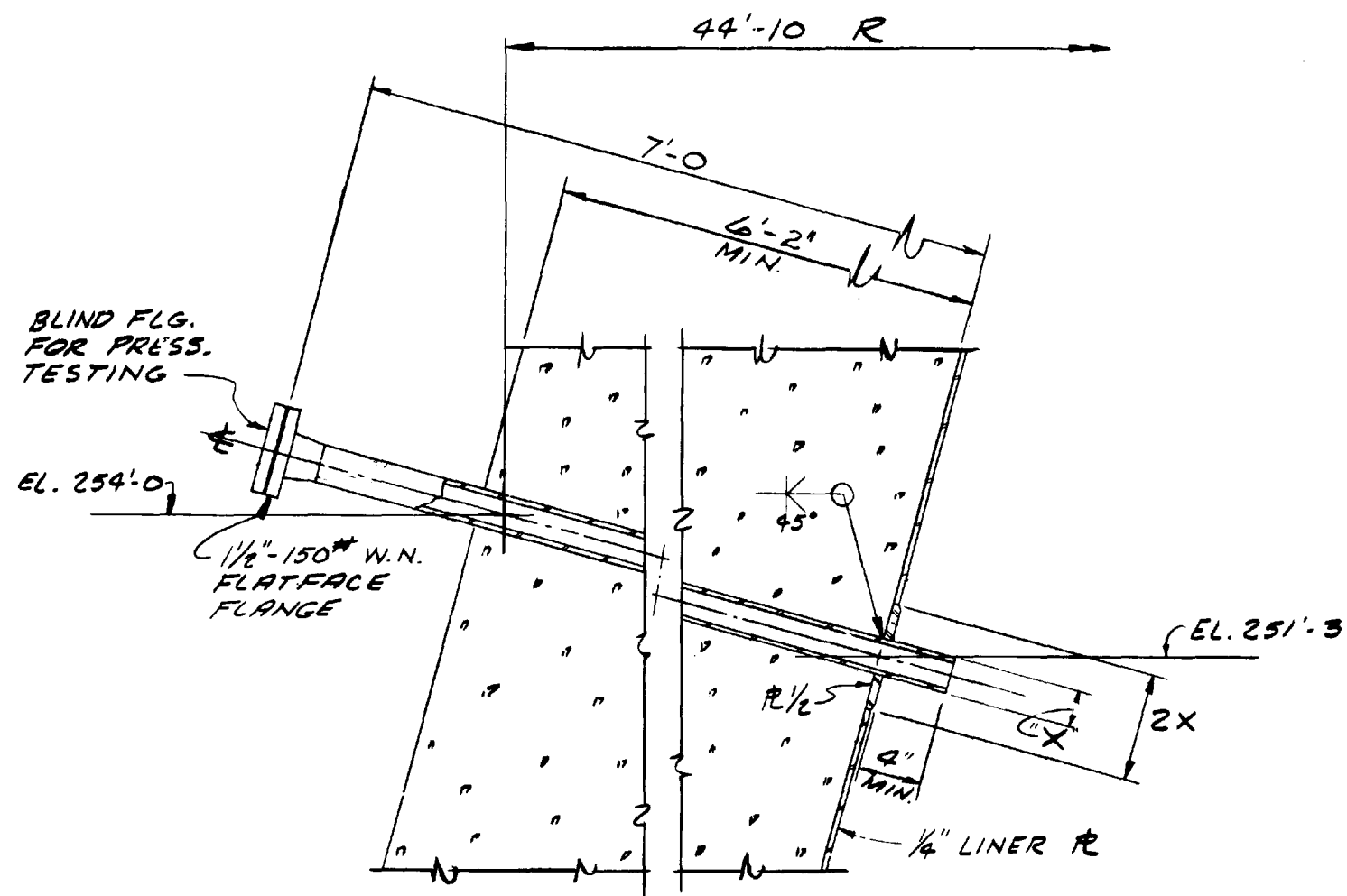
LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

PIPE PENETRATION DETAILS  
(SHEET 3 OF 8)

FIGURE 3.8-21



**PENETRATION TYPE VII**  
LOW TEMPERATURE PROCESS FLUID



**PENETRATION TYPE VIII**  
TRAVERSING INCORE PROBES

NOTE:

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-287.

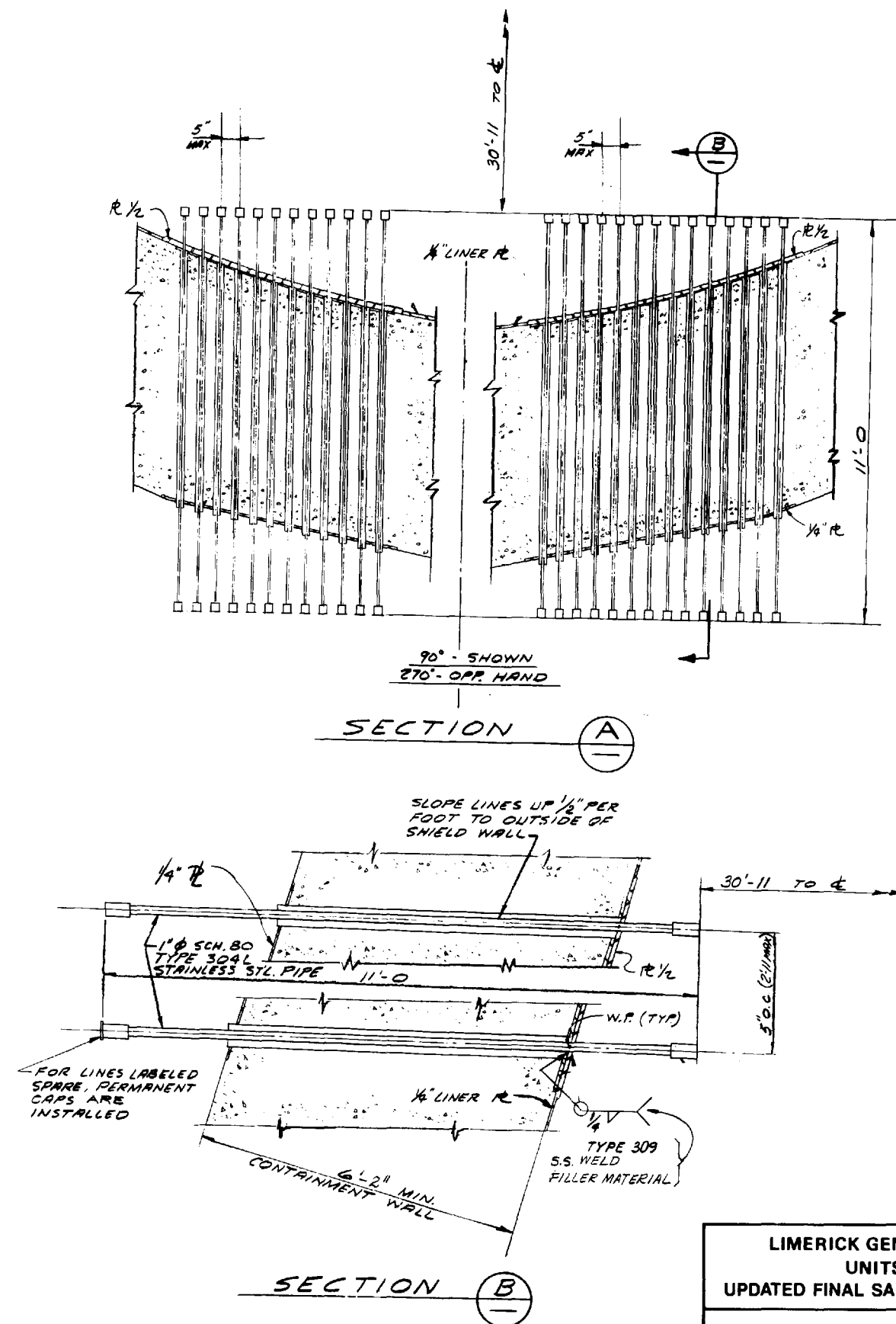
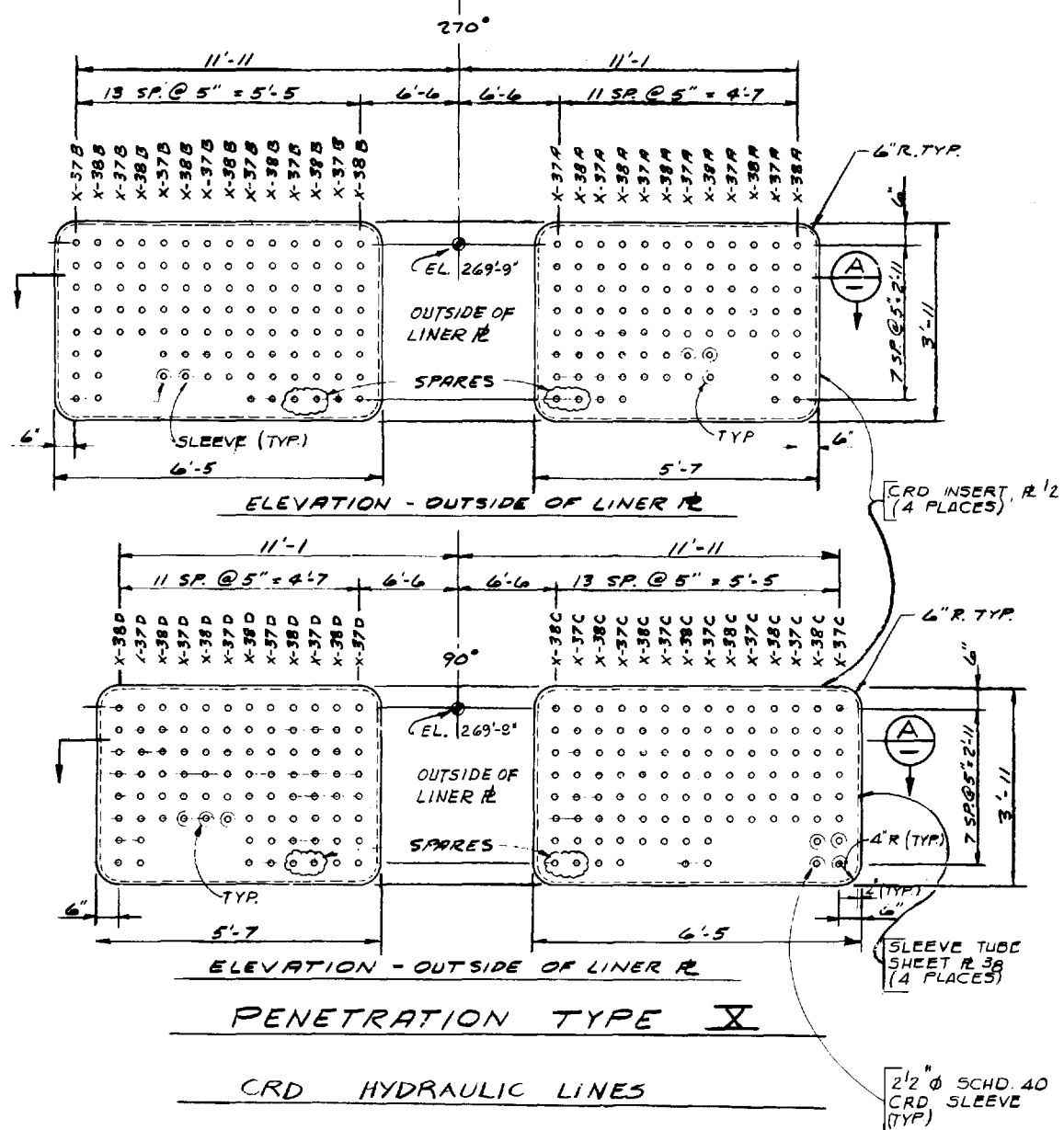
LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

PIPE PENETRATION DETAILS  
 (SHEET 4 OF 8)

FIGURE 3.8-21

**NOTE:**

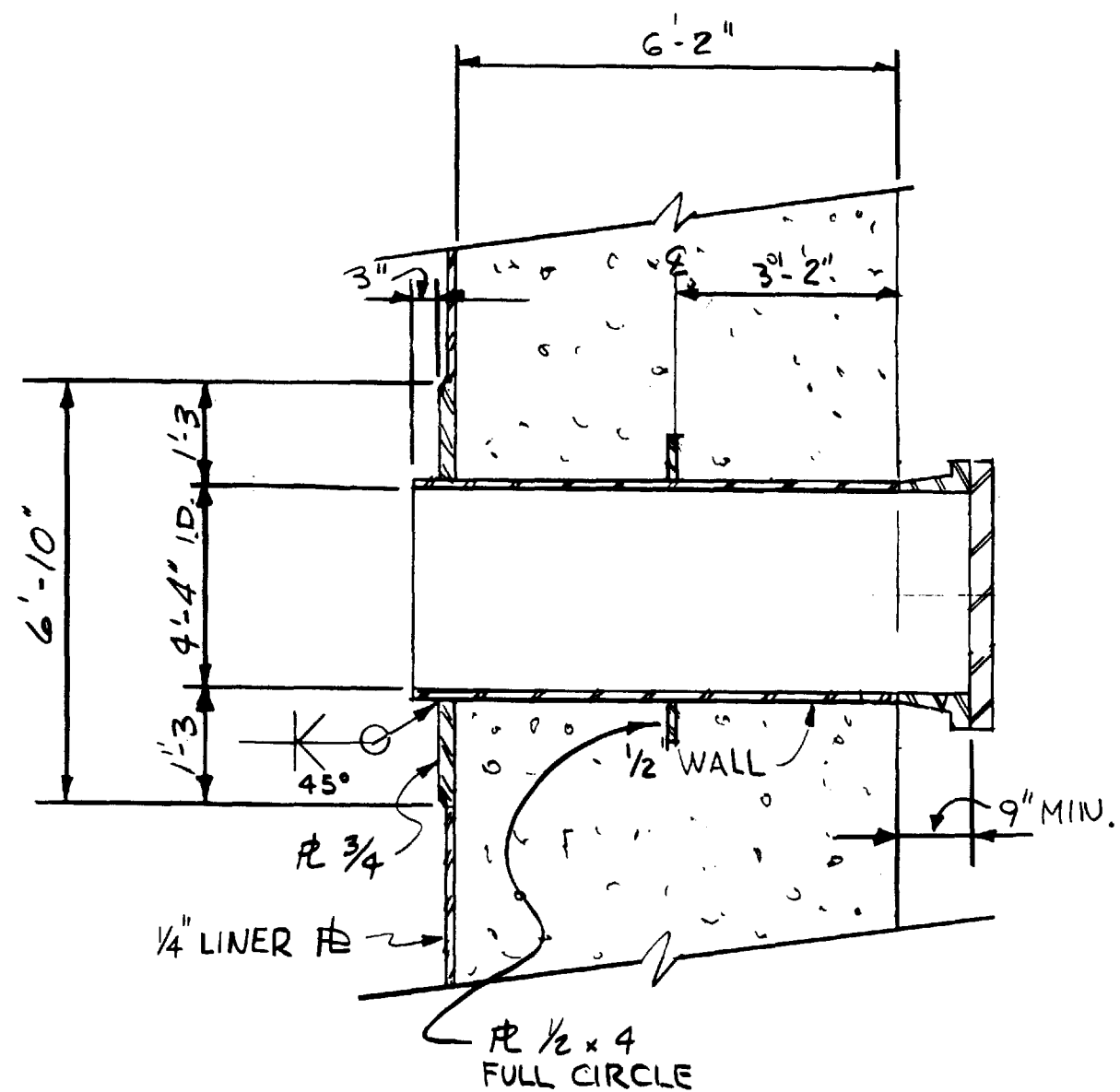
This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-288.



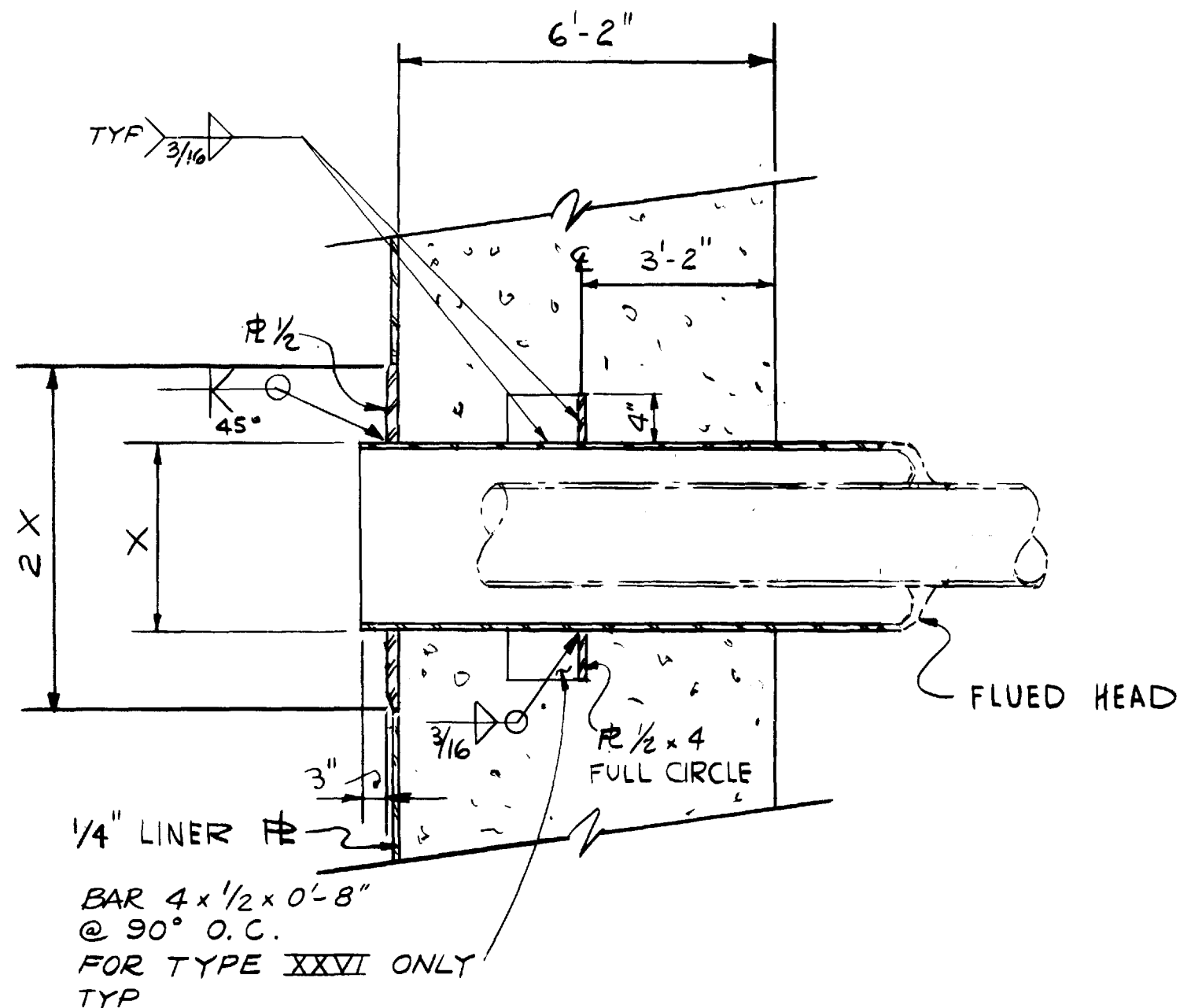
LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

PIPE PENETRATION DETAILS  
(SHEET 5 OF 8)

FIGURE 3.8-21



SUPPRESSION POOL ACCESS TYPE XXI



PENETRATION TYPE XXII

PENETRATION TYPE XXVI

MODERATE TEMPERATURE PROCESS FLUID

NOTE:

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-283.

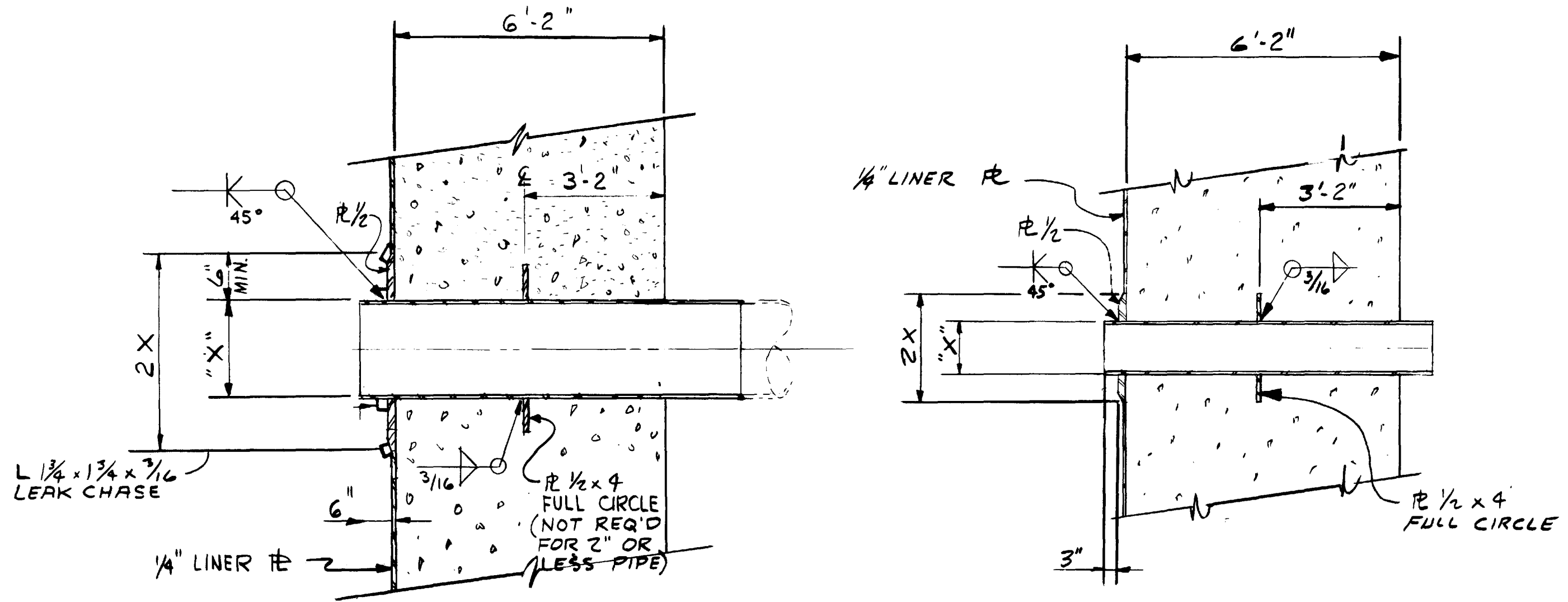
LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

PIPE PENETRATION DETAILS  
(SHEET 6 OF 8)

FIGURE 3.8-21

NOTE:

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-283.



PENETRATION TYPE XXIV  
STRAIN GAUGE INSTRUMENTATION

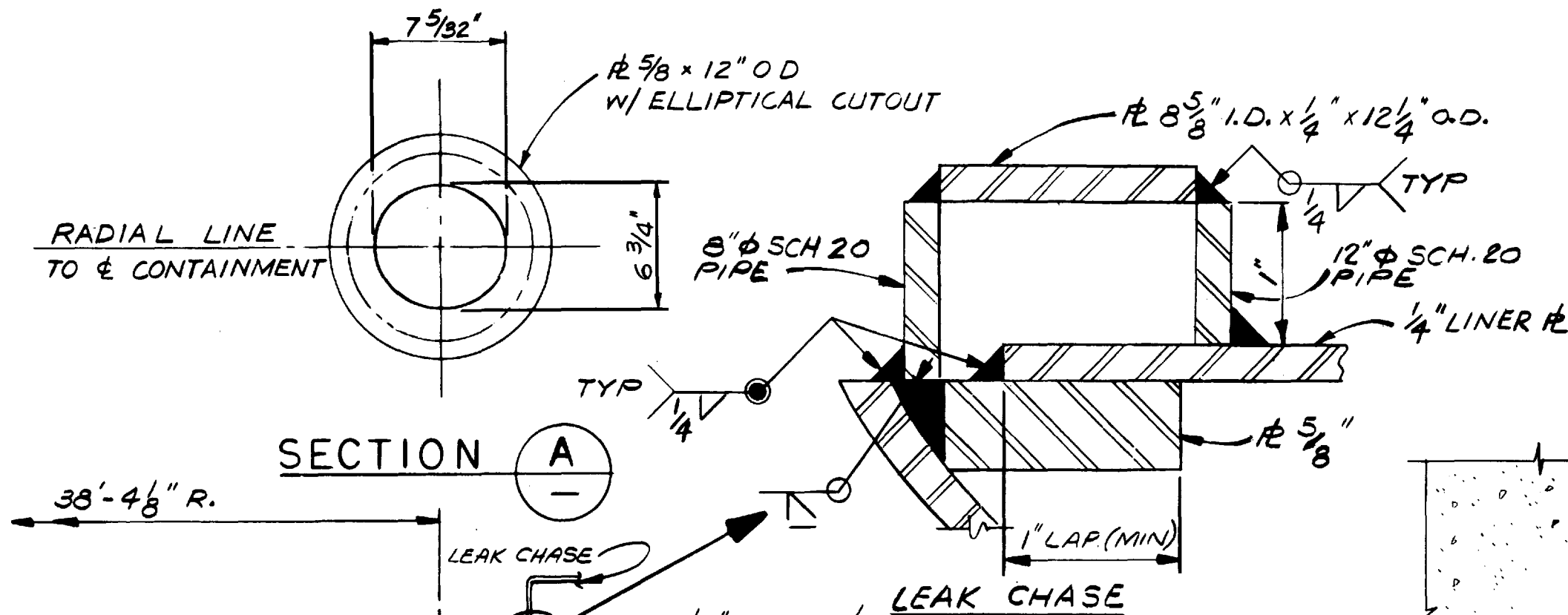
PENETRATION TYPE XXIII  
INSTRUMENTATION  
LOW TEMPERATURE PROCESS FLUID

LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

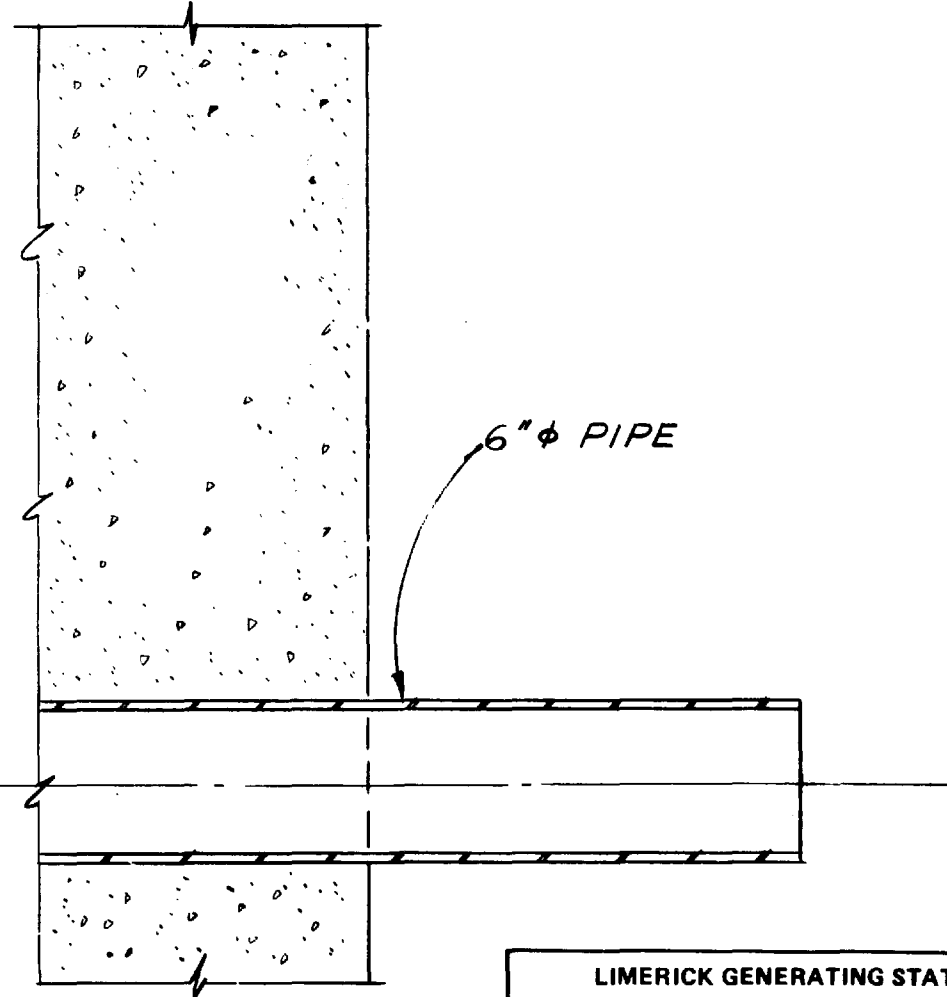
PIPE PENETRATION DETAILS  
 (SHEET 7 OF 8)

FIGURE 3.8-21





NOTE:  
This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-283.

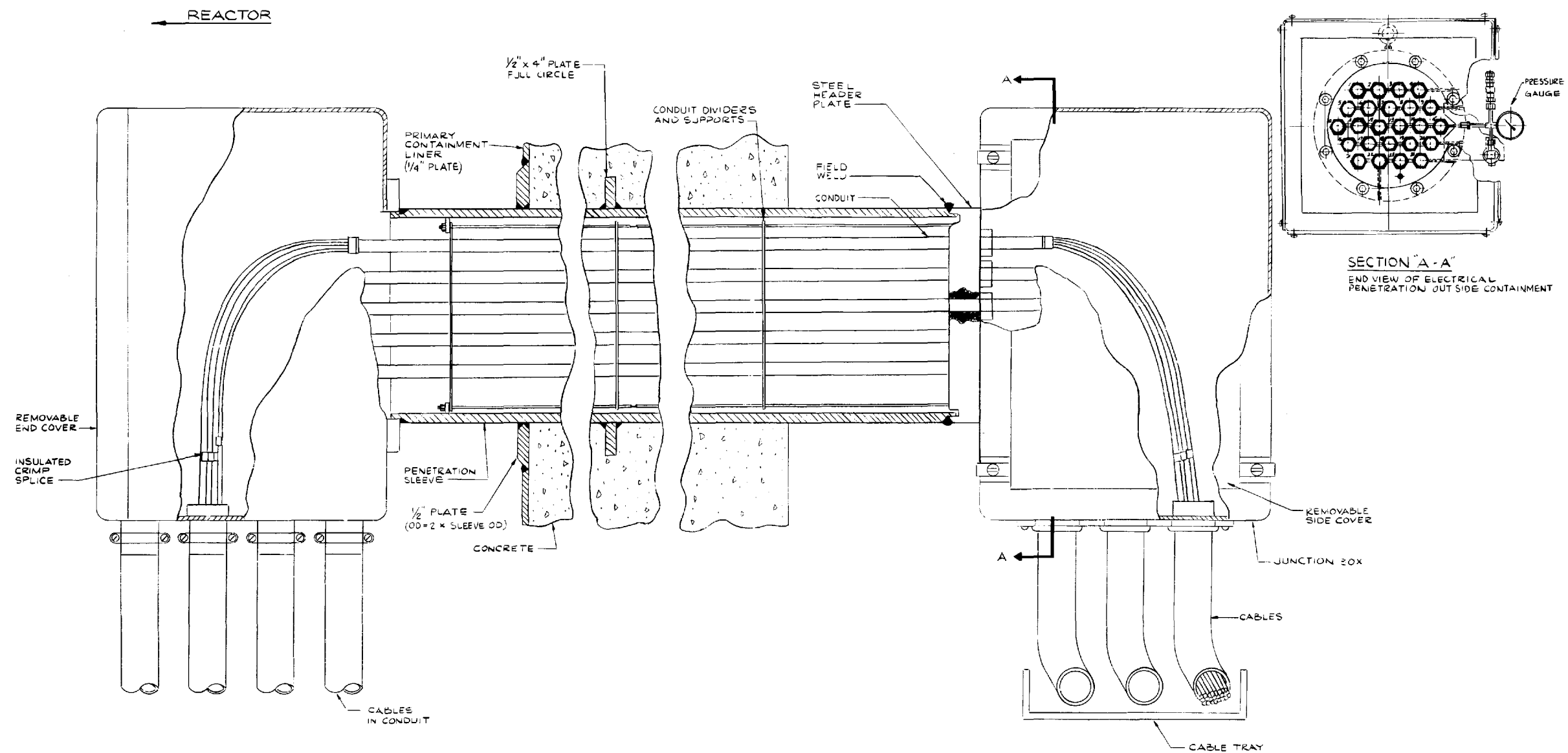


PENETRATION TYPE XXV  
SUPPRESSION CHAMBER DRAIN

LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

PIPE PENETRATION DETAILS  
(SHEET 8 OF 8)

FIGURE 3.8-21

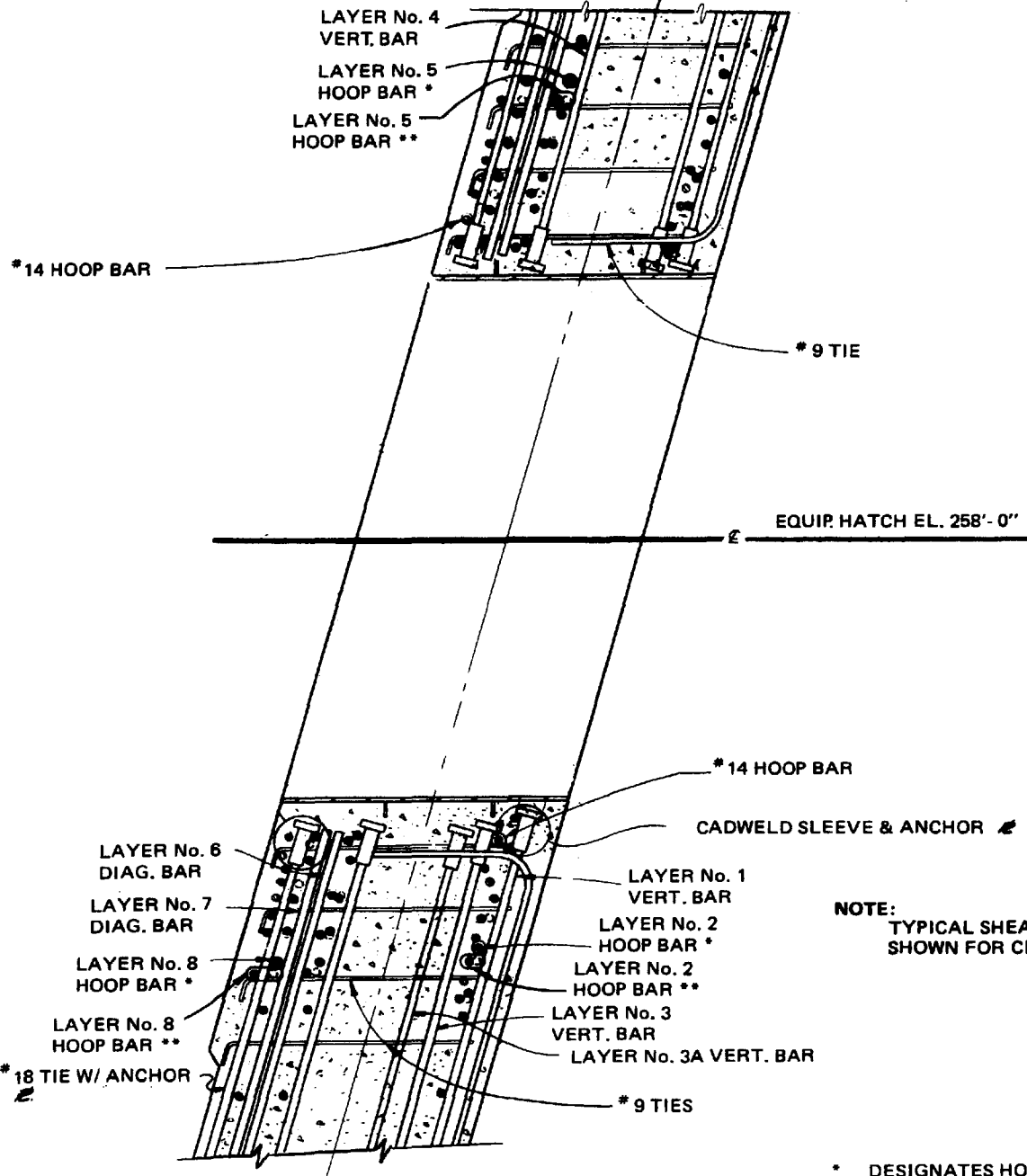


TYPICAL INSTALLED ELECTRICAL PENETRATION ASSEMBLY

LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

ELECTRICAL PENETRATION  
 DETAILS

FIGURE 3.8-22



**NOTE:**  
TYPICAL SHEAR TIES NOT SHOWN FOR CLARITY.

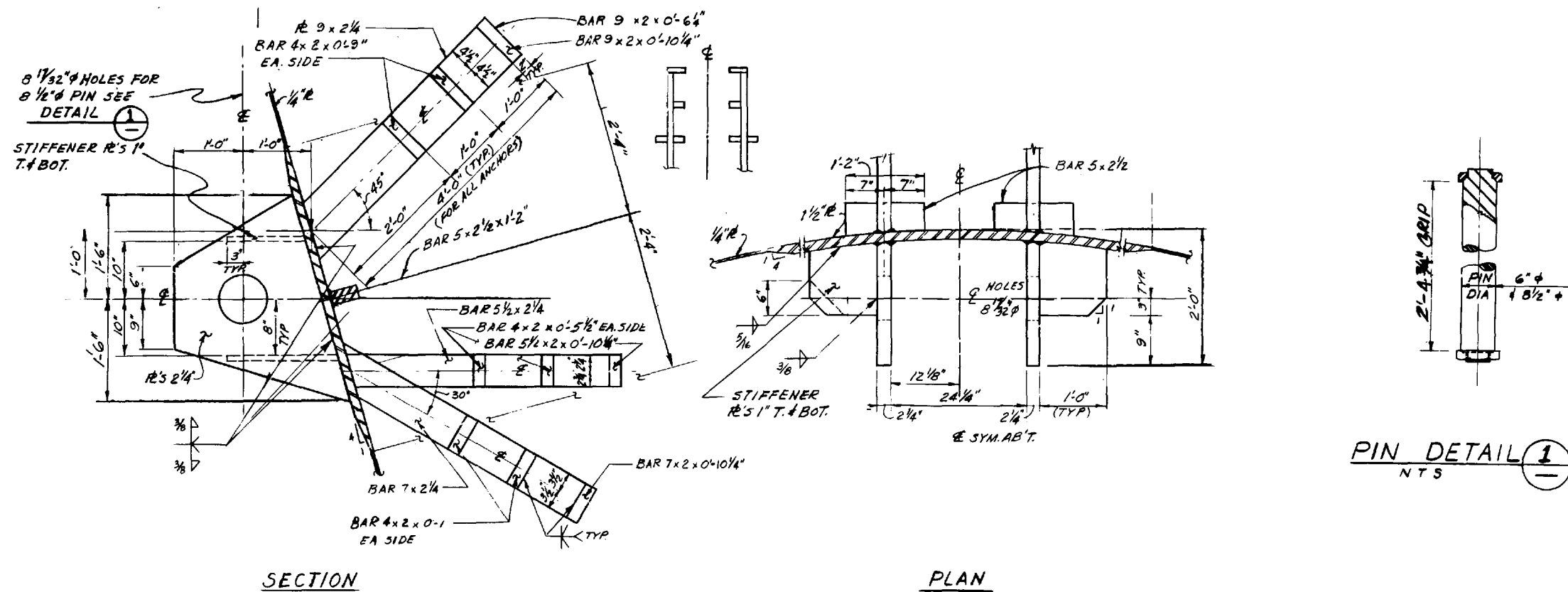
- \* DESIGNATES HOOP BARS BENT AROUND EQUIP. HATCH
- \*\* DESIGNATES HOOP BARS PLACED OUTSIDE CONICAL SURFACE OF HOOP BARS @ EQUIP. HATCH

**TYPICAL SECTION AT EQUIPMENT HATCH**

SECTION **A**

**LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT**

**REINFORCEMENT DETAIL AT  
EQUIPMENT HATCHES**



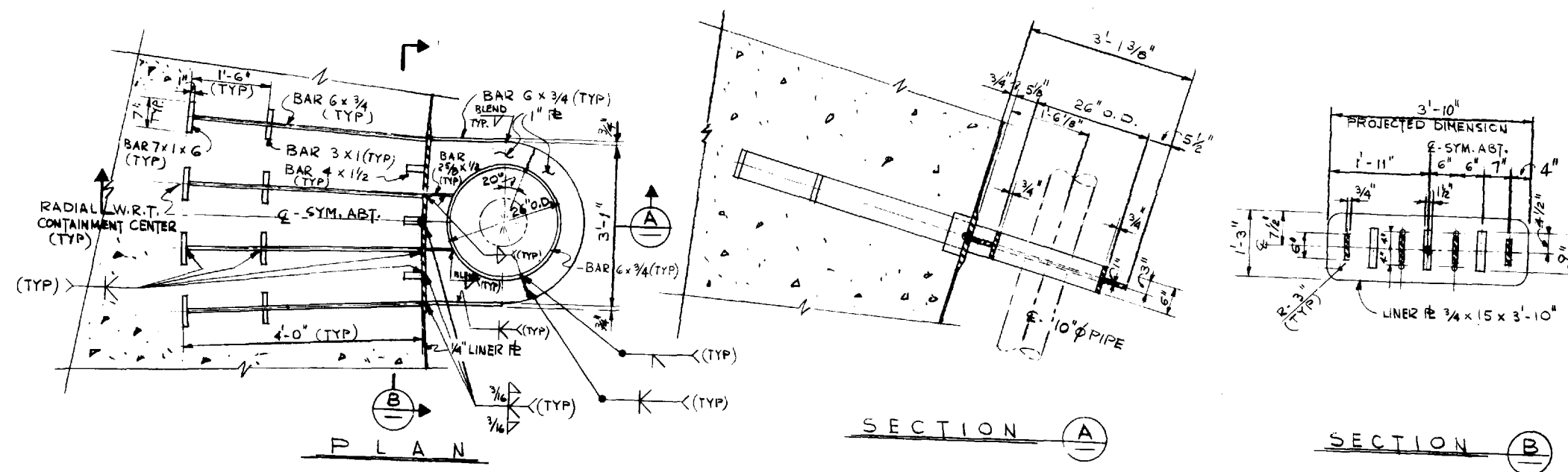
NOTE:

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-286.

LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

BEAM SEAT EMBEDMENT

FIGURE 3.8-24



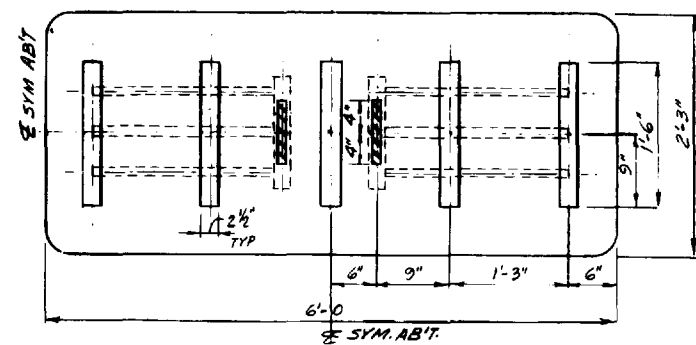
NOTE:

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-289.

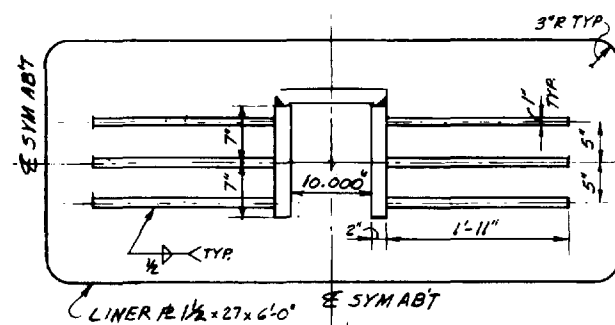
LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

PIPE WHIP RESTRAINT  
 EMBEDMENT

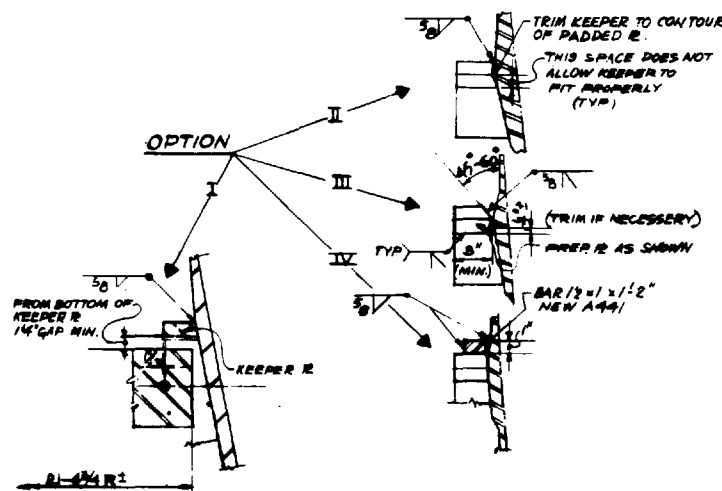
FIGURE 3.8-25



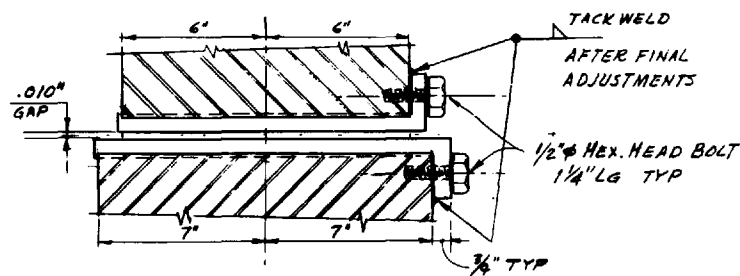
SECTION C-C



SECTION D-D

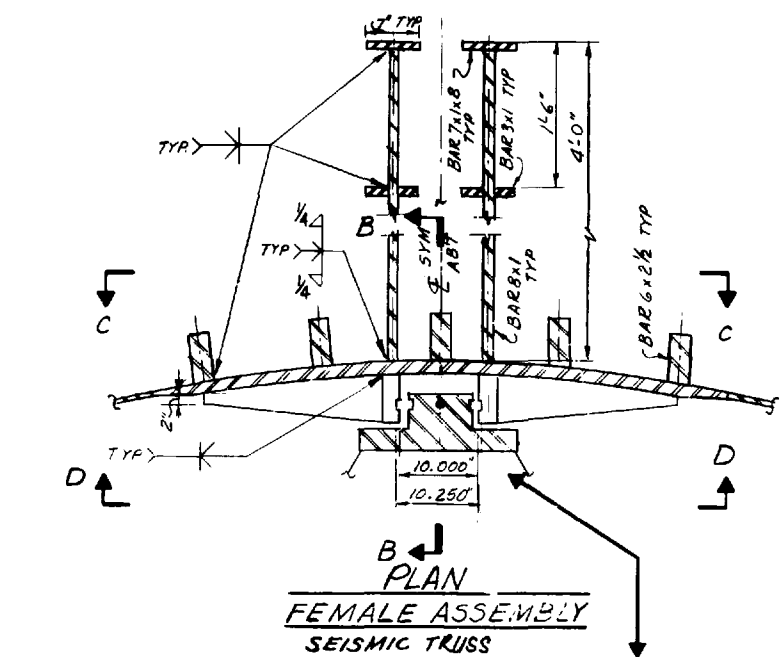


SECTION B-B

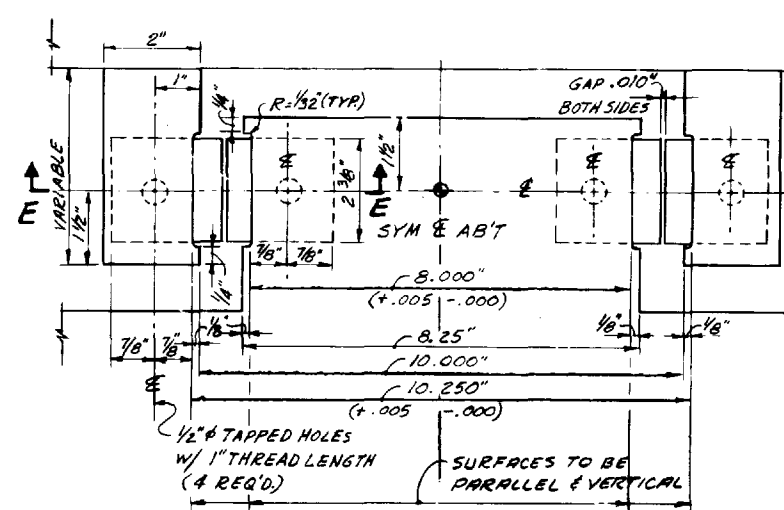


SECTION E-E

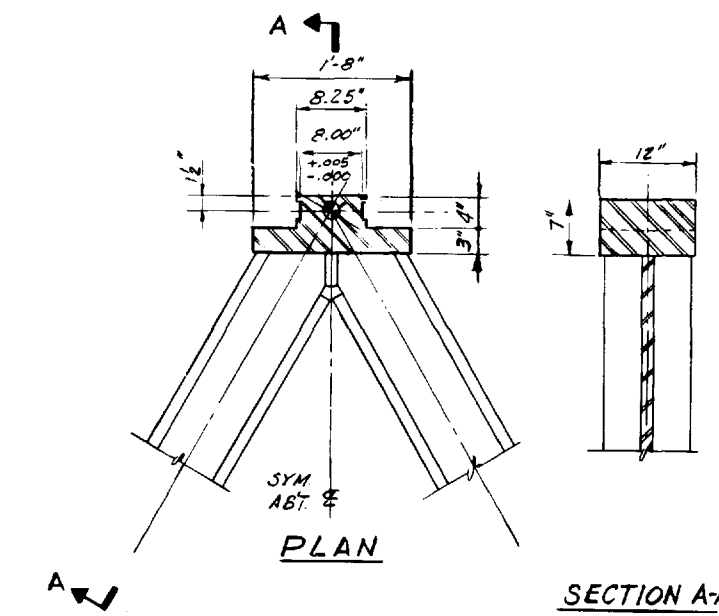
(ROTATED 90°)



FEMALE ASSEMBLY SEISMIC TRUSS



ENLARGED PLAN



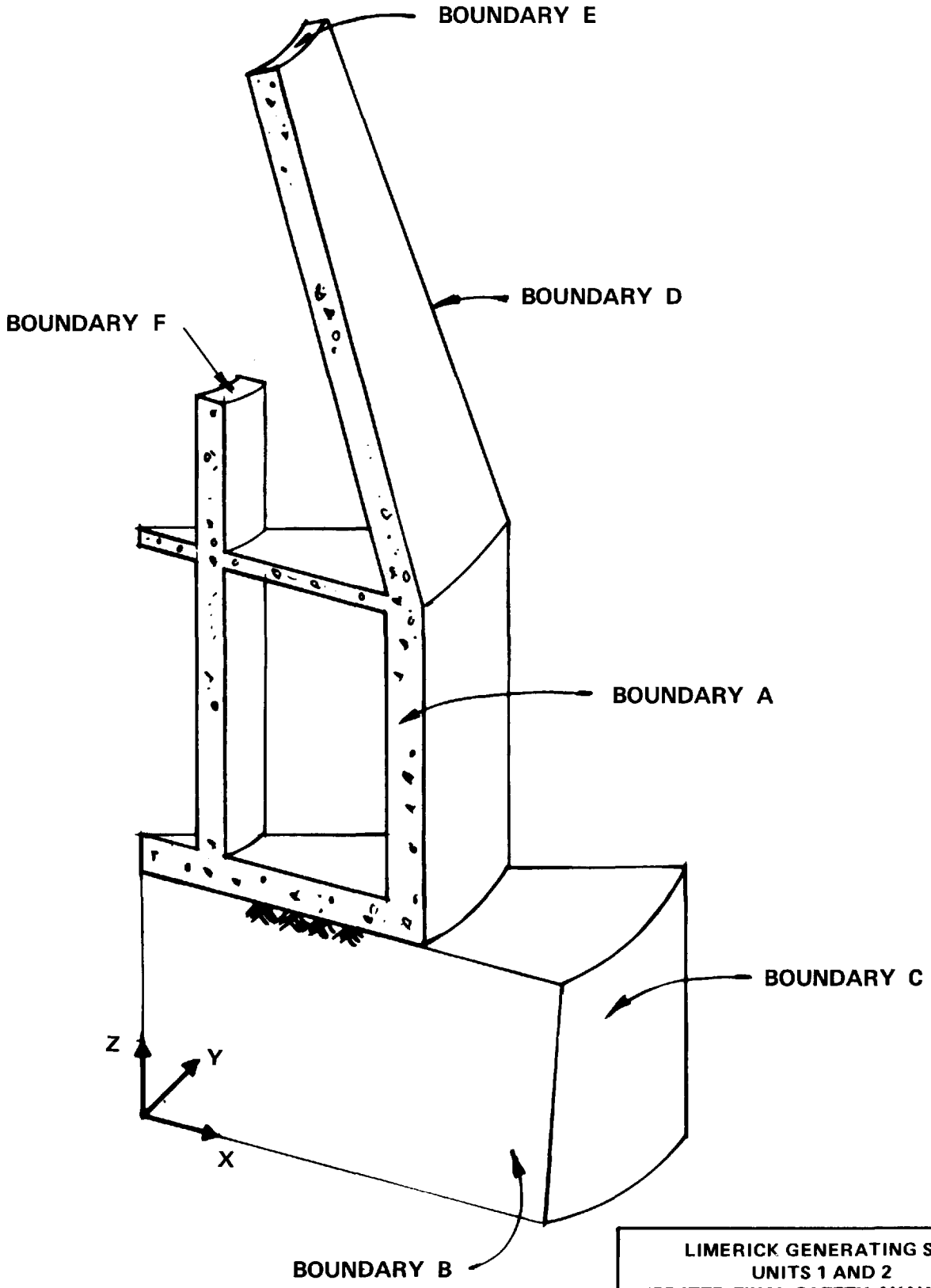
MALE ASSEMBLY

SECTION A-A

NOTE:

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-286.

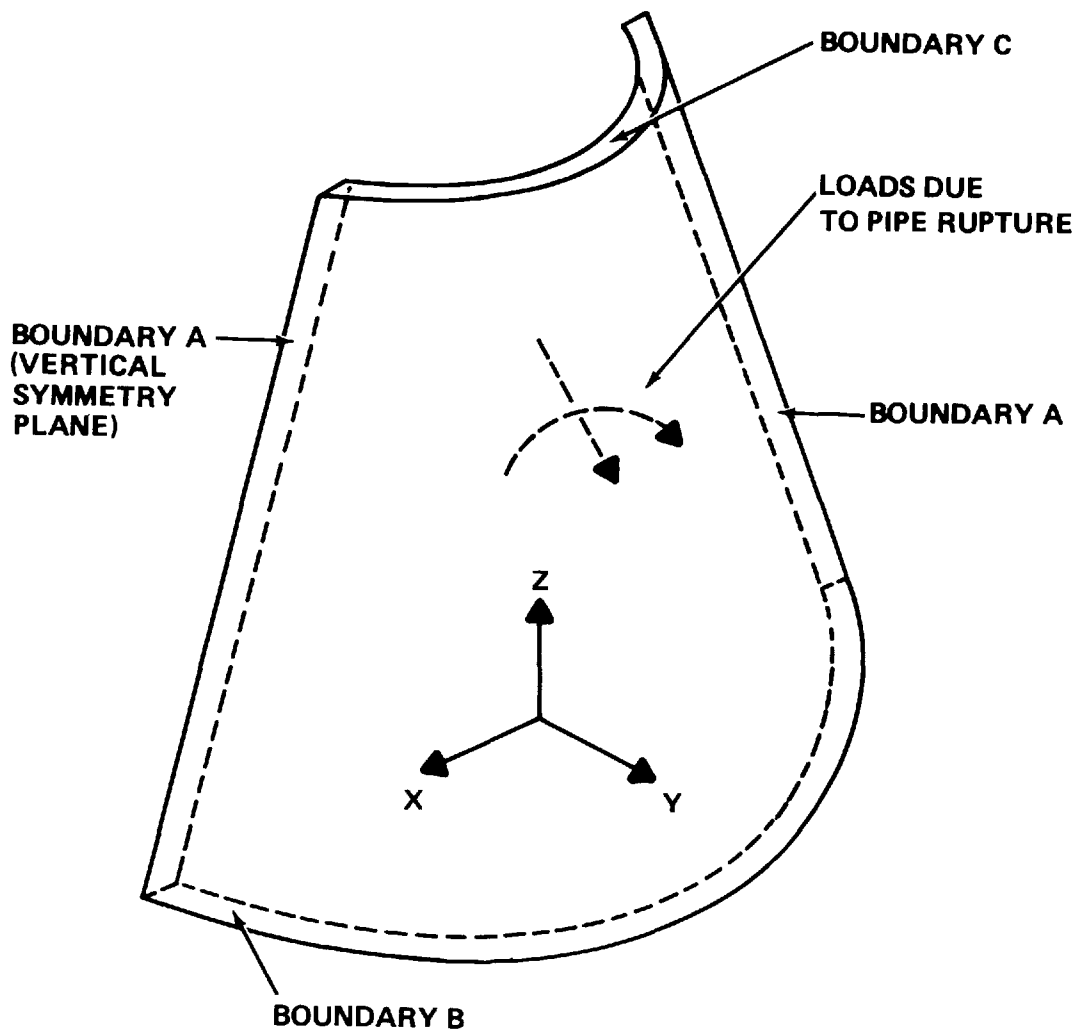
<p>LIMERICK GENERATING STATION          UNITS 1 AND 2          UPDATED FINAL SAFETY ANALYSIS REPORT</p>
<p>SEISMIC TRUSS SUPPORT          (EMBEDMENT)</p>
<p>FIGURE 3.8-26</p>



LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

CONTAINMENT WALL ANALYTICAL  
MODEL FOR AXISYMMETRIC  
LOADS

FIGURE 3.8-27

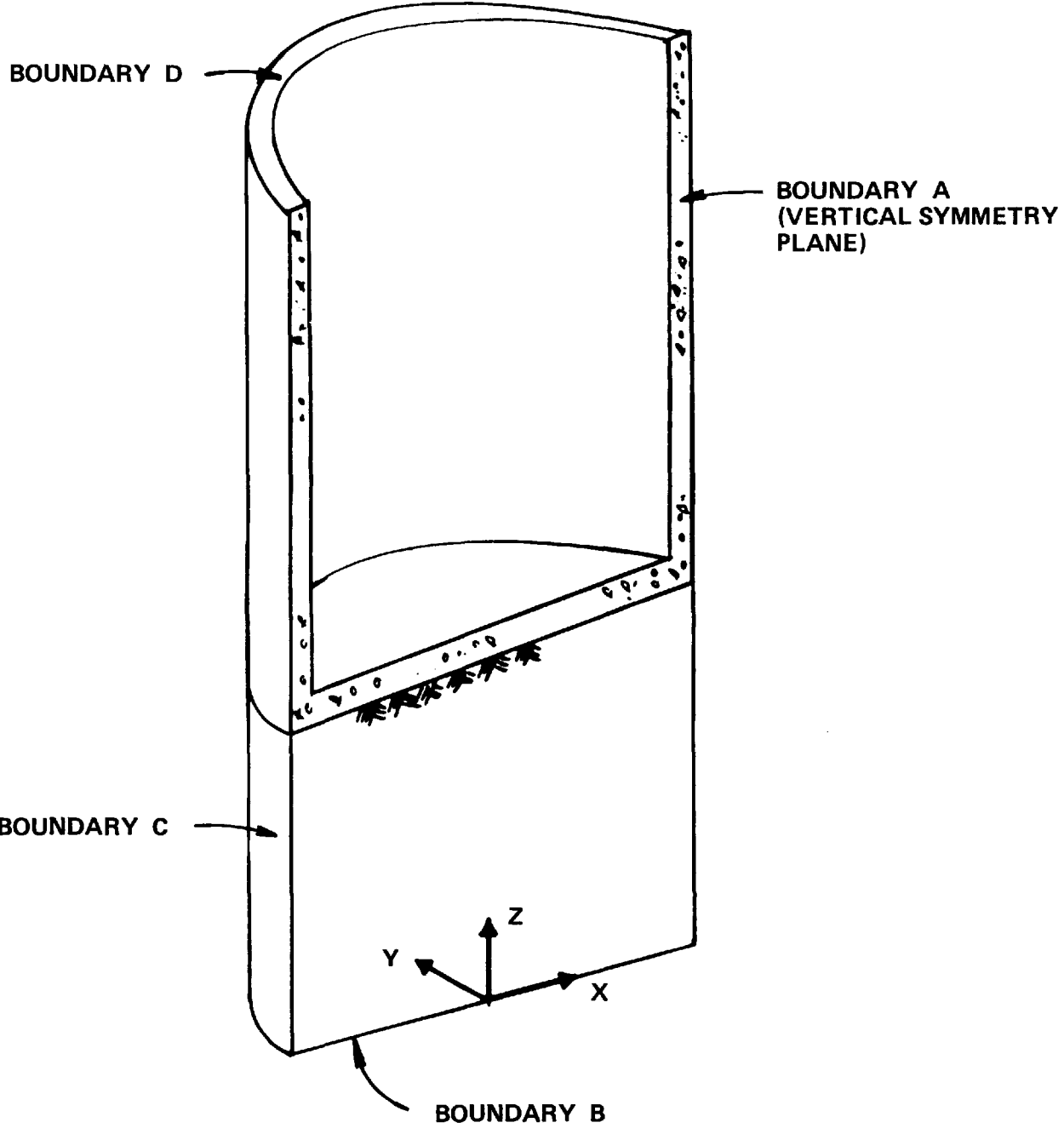


LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

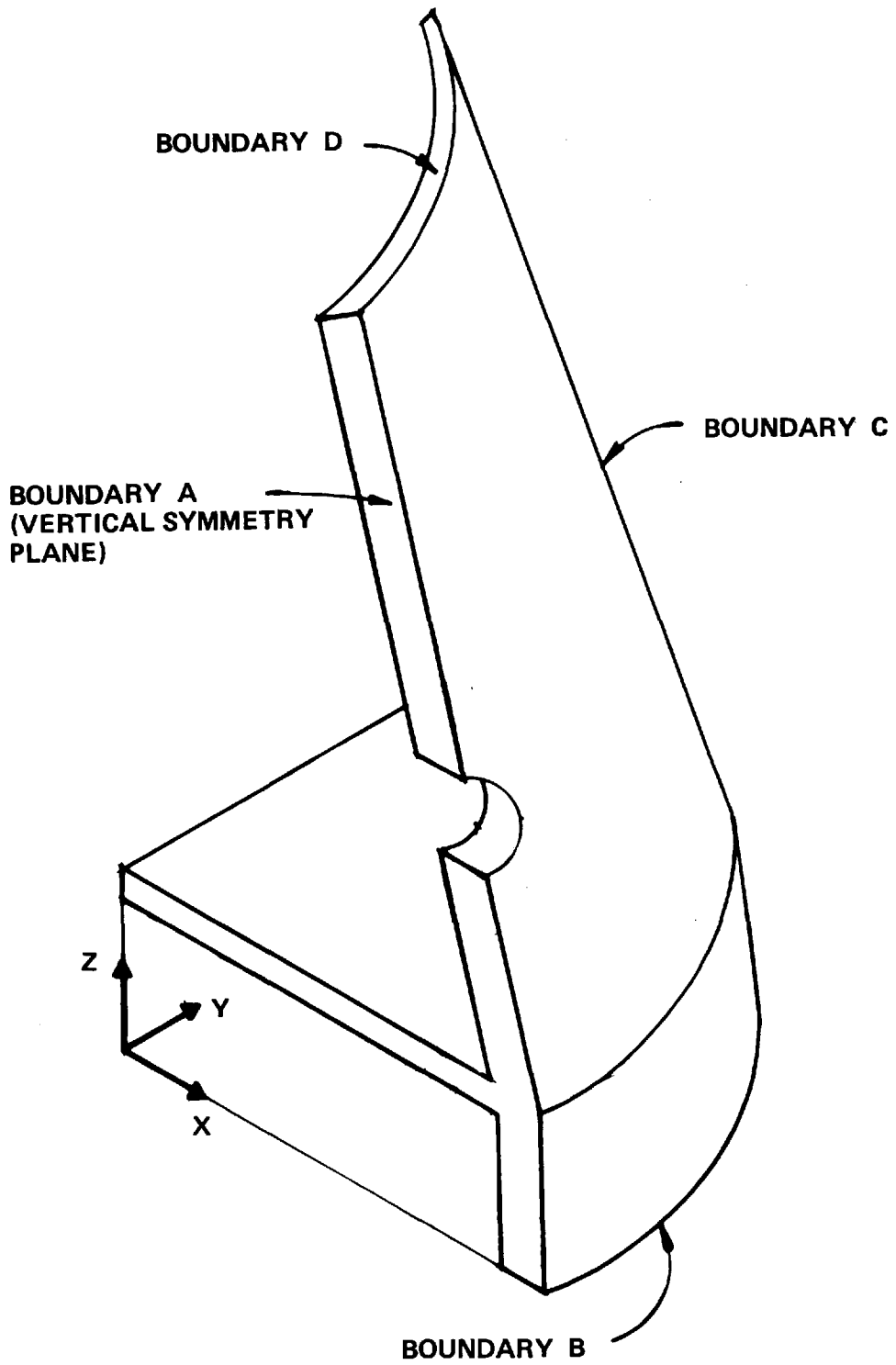
DRYWELL WALL ANALYTICAL  
 MODEL FOR  
 NON-AXISYMMETRIC POSTULATED  
 PIPE RUPTURE LOADS

FIGURE 3.8-28





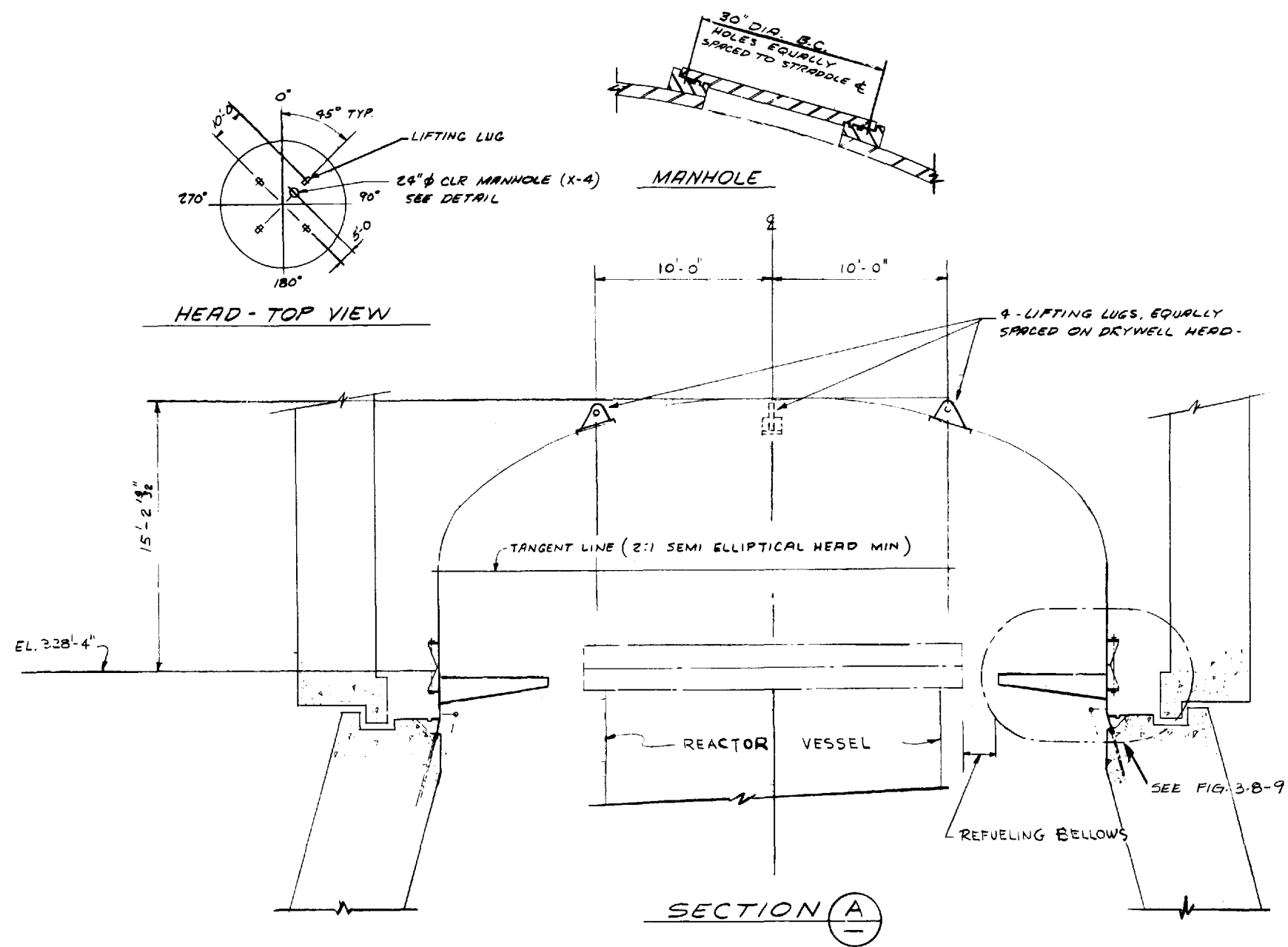
<p>LIMERICK GENERATING STATION UNITS 1 AND 2 UPDATED FINAL SAFETY ANALYSIS REPORT</p>
<p>BASE FOUNDATION SLAB ANALYTICAL MODEL</p>
<p>FIGURE 3.8-29</p>



LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

EQUIPMENT HATCH ANALYTICAL  
MODEL

FIGURE 3.8-30



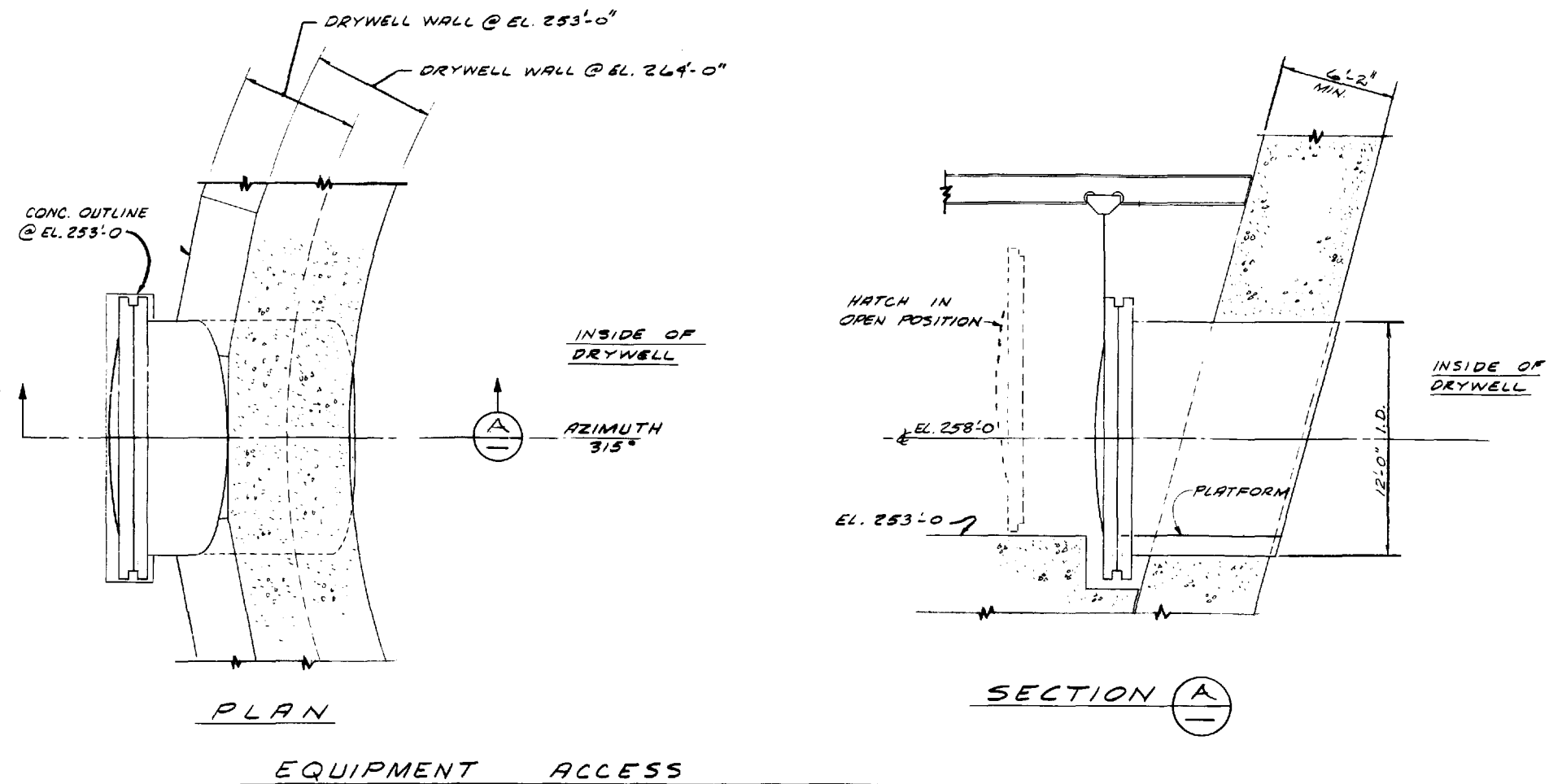
NOTE:

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-290.

LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

DRYWELL HEAD

FIGURE 3.8-31



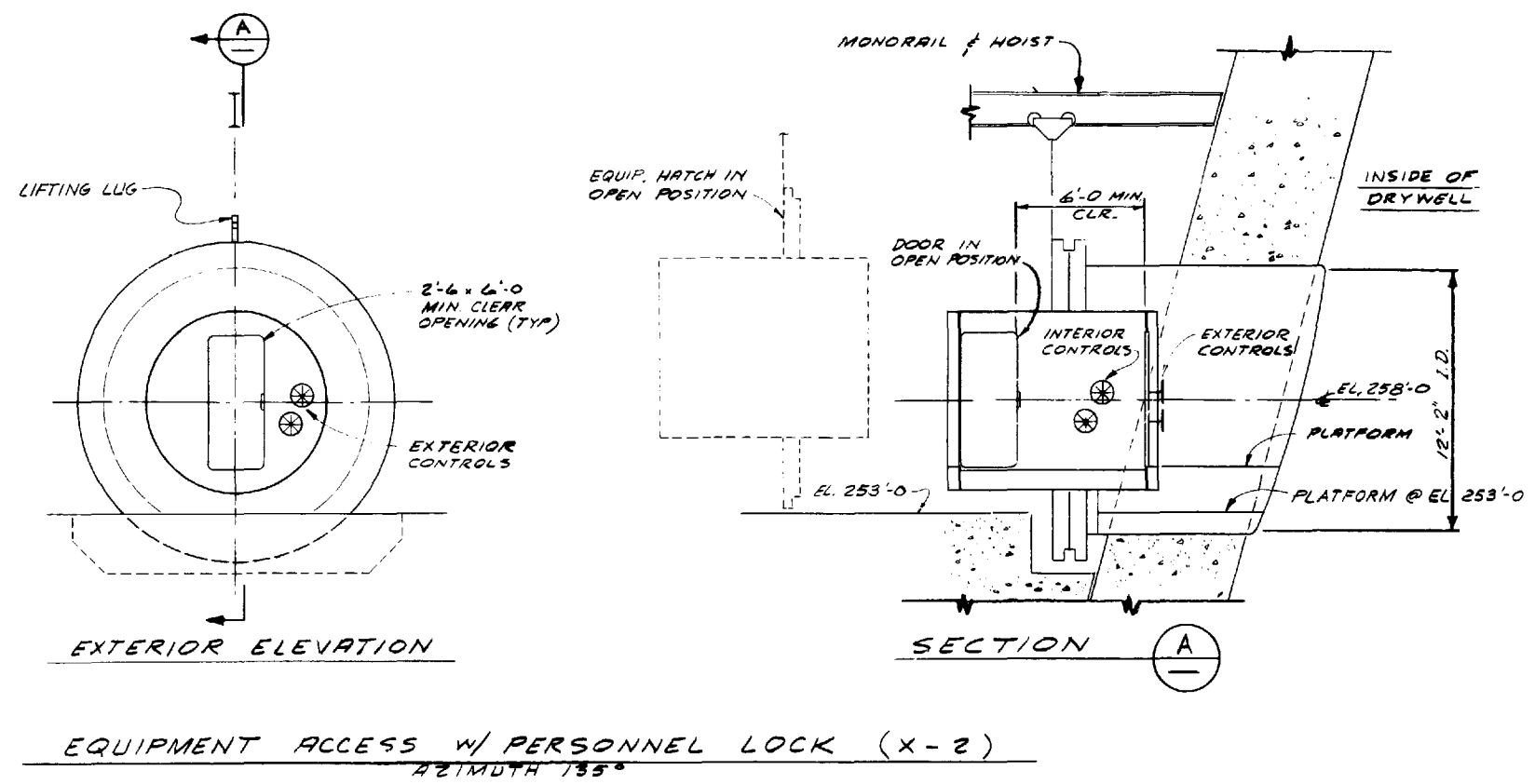
NOTE:

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-288.

LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

EQUIPMENT HATCH

FIGURE 3.8-32

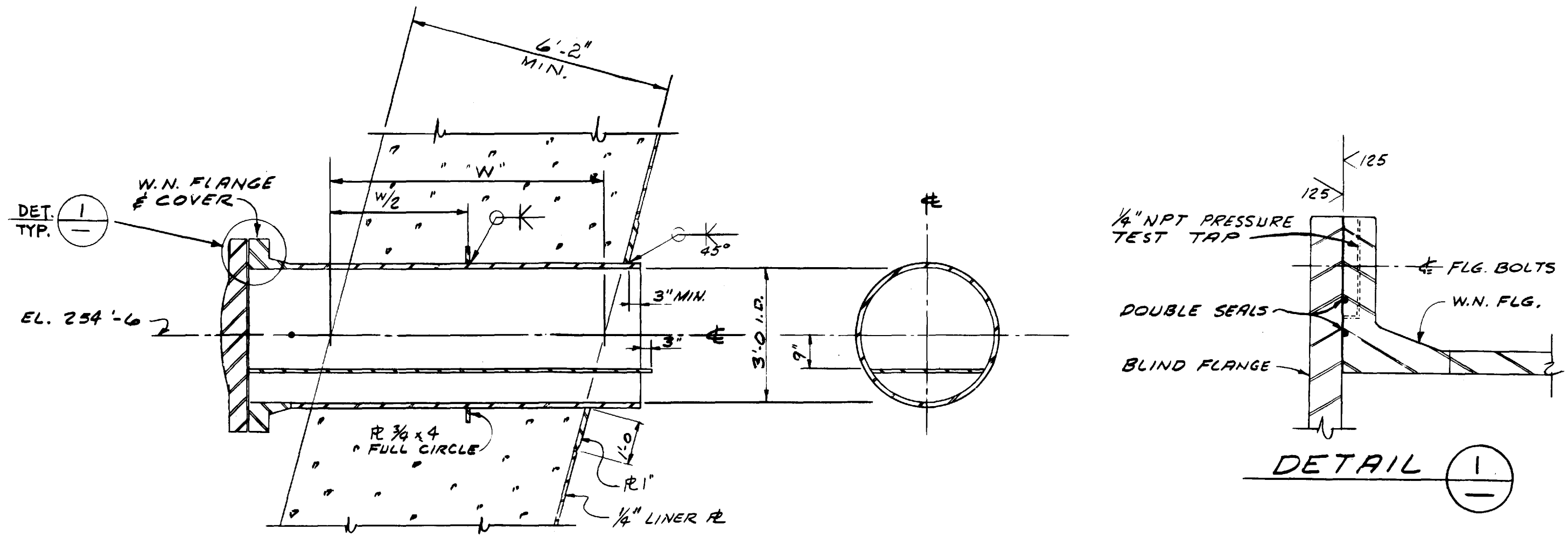


**NOTE:**  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-288.

**LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT**

**EQUIPMENT HATCH WITH  
 PERSONNEL LOCK**

**FIGURE 3.8-33**



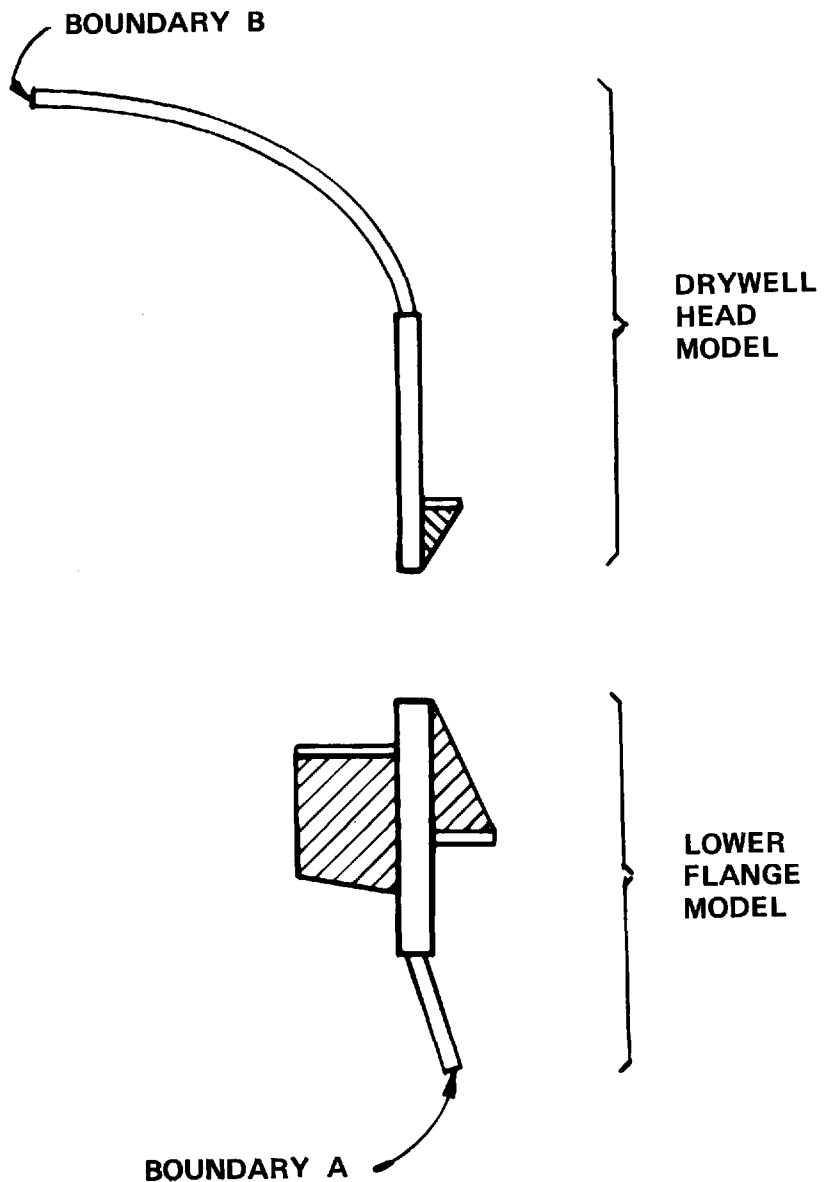
**NOTE:**

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-287.

LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

CONTROL ROD DRIVE  
 REMOVAL HATCH

FIGURE 3.8-34



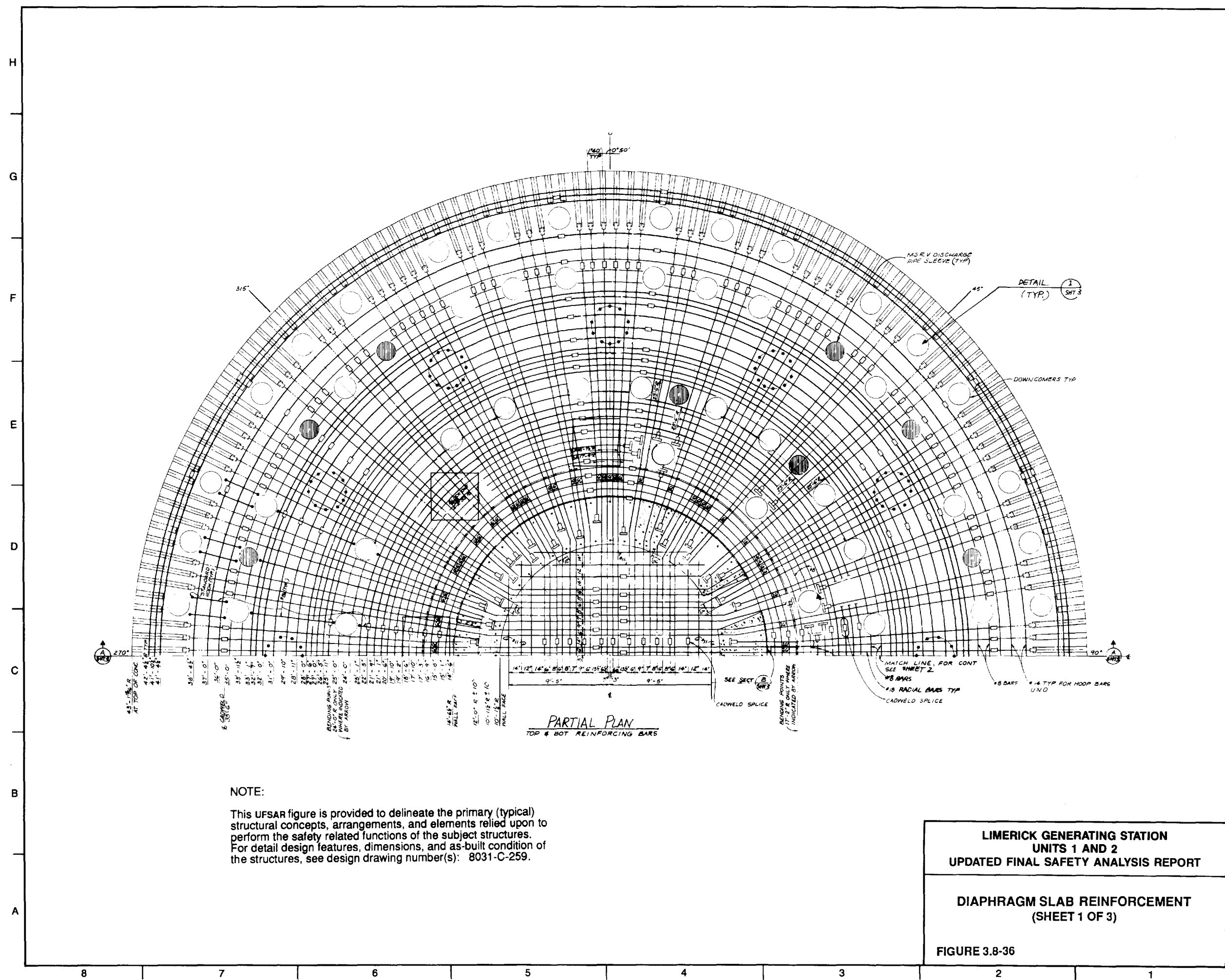
**NOTE:**  
**CROSS-HATCHED AREAS ARE MODELLED AS ORTHOTROPIC LAYERS.**

LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

ANALYTICAL MODEL OF  
 DRYWELL HEAD  
 ASSEMBLY

FIGURE 3.8-36





**NOTE:**  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-259.

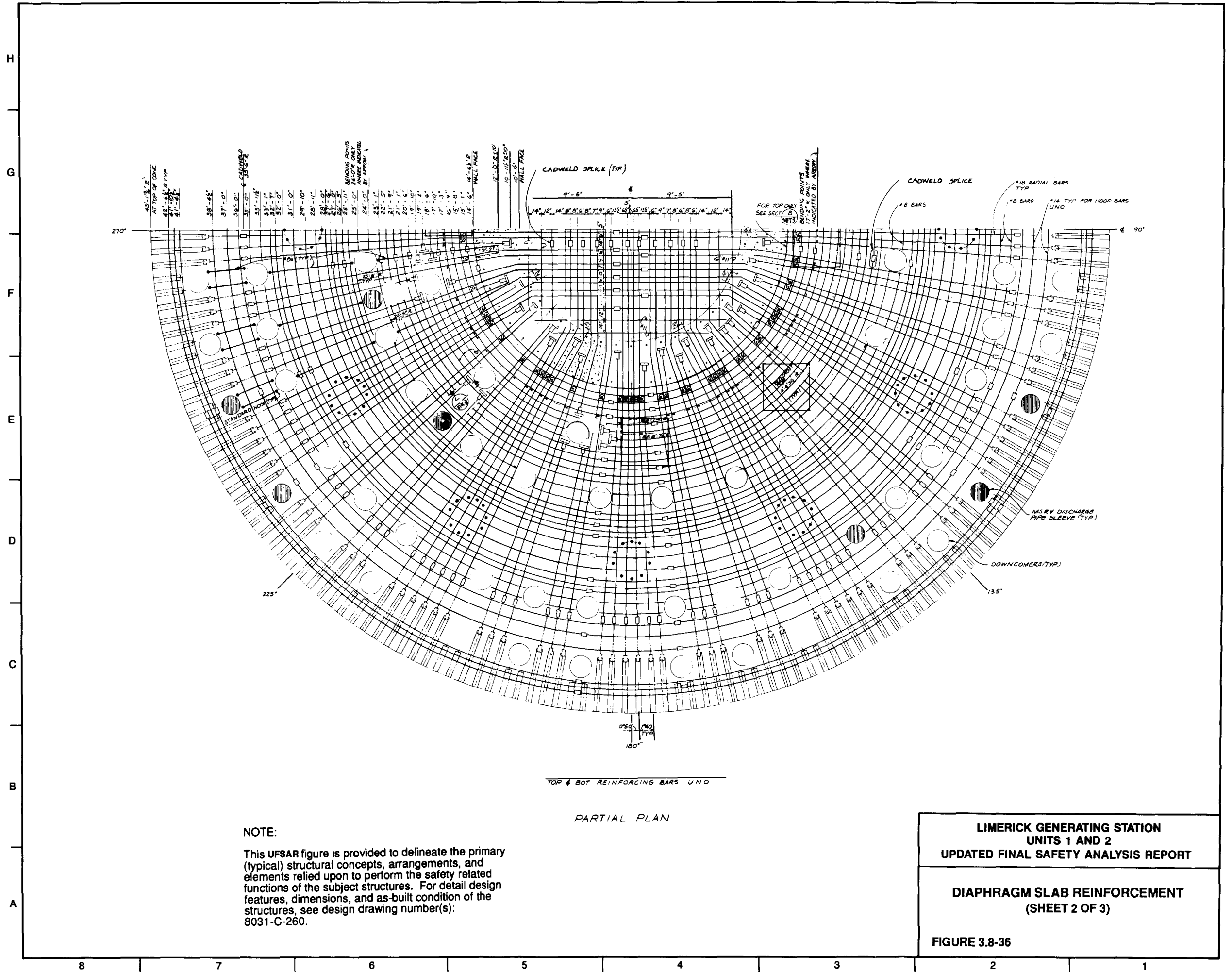
**LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT**

---

**DIAPHRAGM SLAB REINFORCEMENT  
 (SHEET 1 OF 3)**

---

**FIGURE 3.8-36**



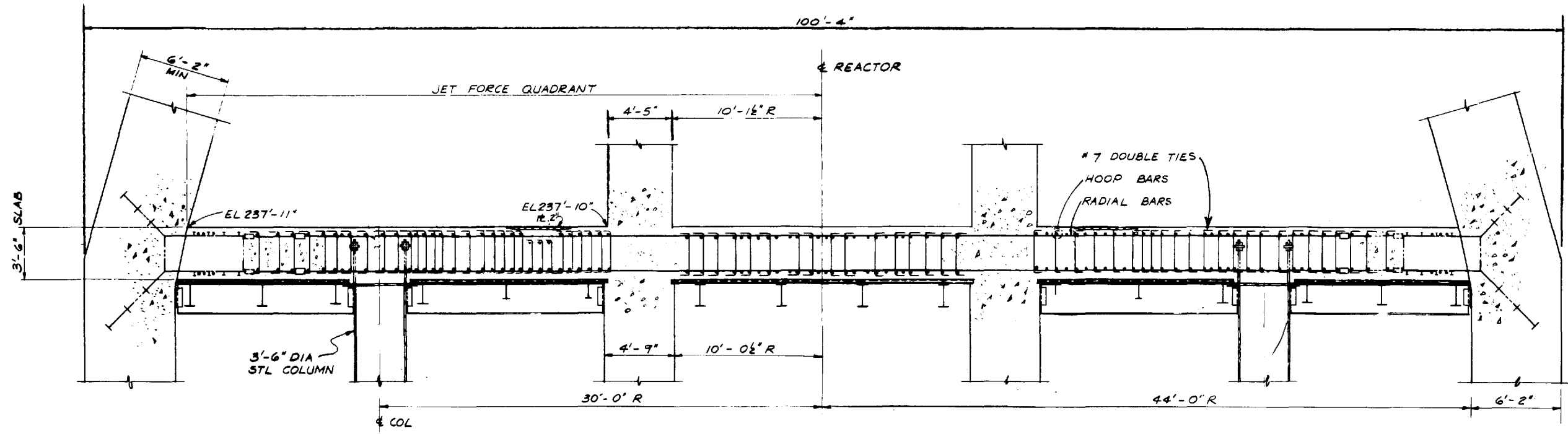
**NOTE:**

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-260.

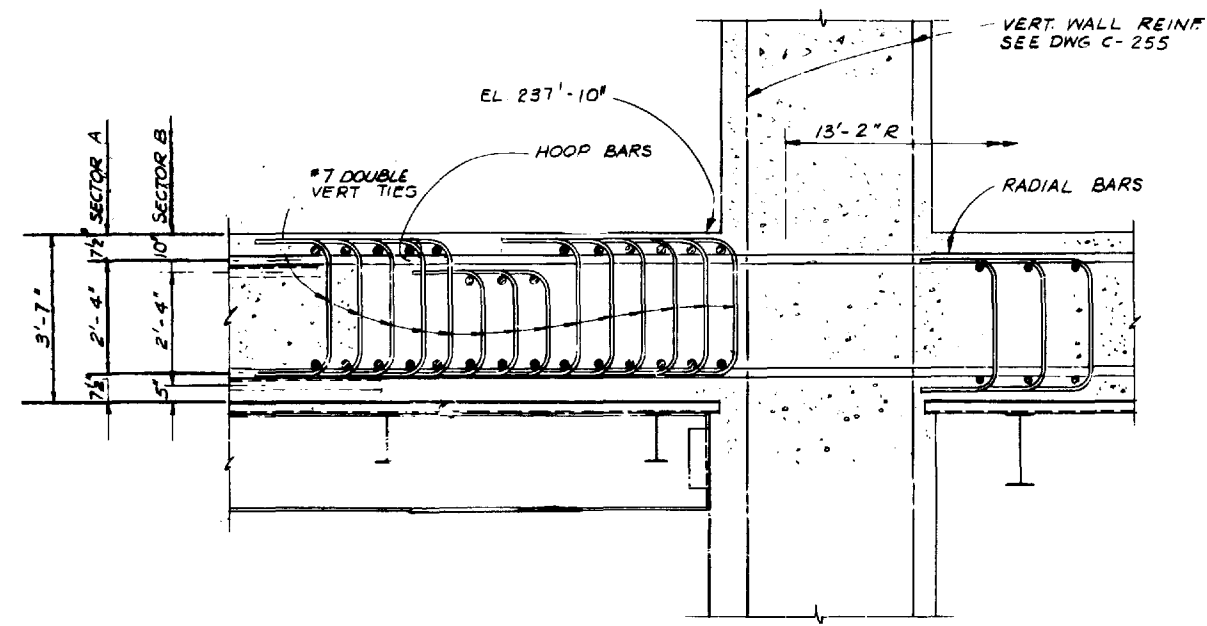
TOP & BOT REINFORCING BARS UNO

PARTIAL PLAN

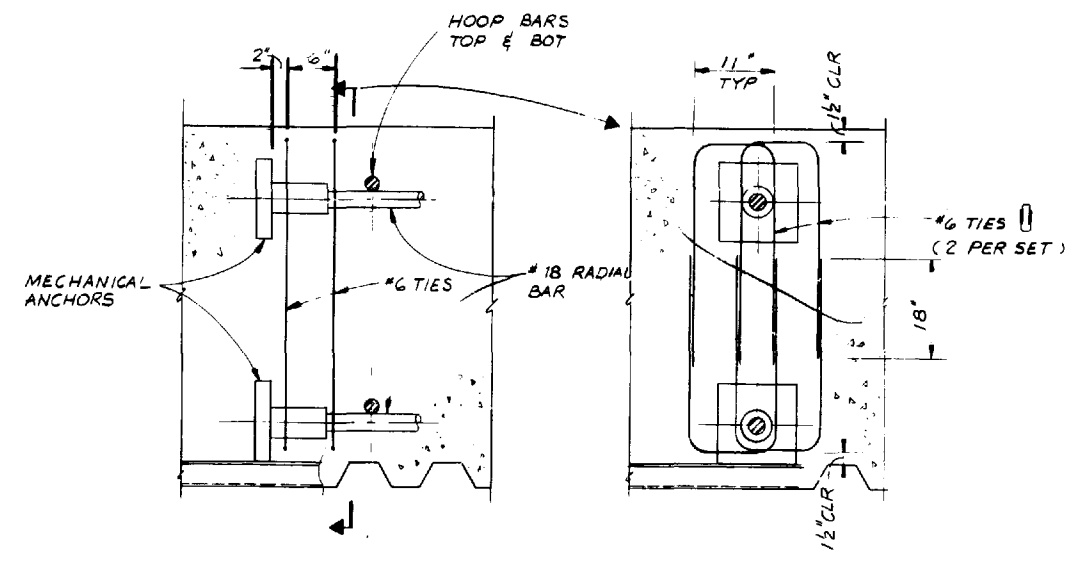
<p><b>LIMERICK GENERATING STATION UNITS 1 AND 2 UPDATED FINAL SAFETY ANALYSIS REPORT</b></p>
<p><b>DIAPHRAGM SLAB REINFORCEMENT (SHEET 2 OF 3)</b></p>
<p><b>FIGURE 3.8-36</b></p>



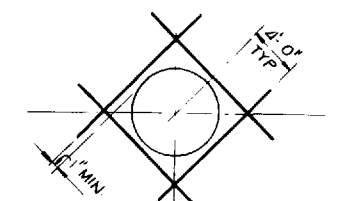
SECTION A



SECTION B



SECTION C



NOTES:  
 1. FOR PENETRATIONS 20" DIA. OR LARGER, ADD 4 #8, 8'-0" LONG TOP & BOTTOM.  
 2. STANDARD HOOKS MAY BE USED WHERE #8 BARS INTERFERE WITH COLUMN SHEAR HEADS, EMBEDS OR REBAR END ANCHORS.

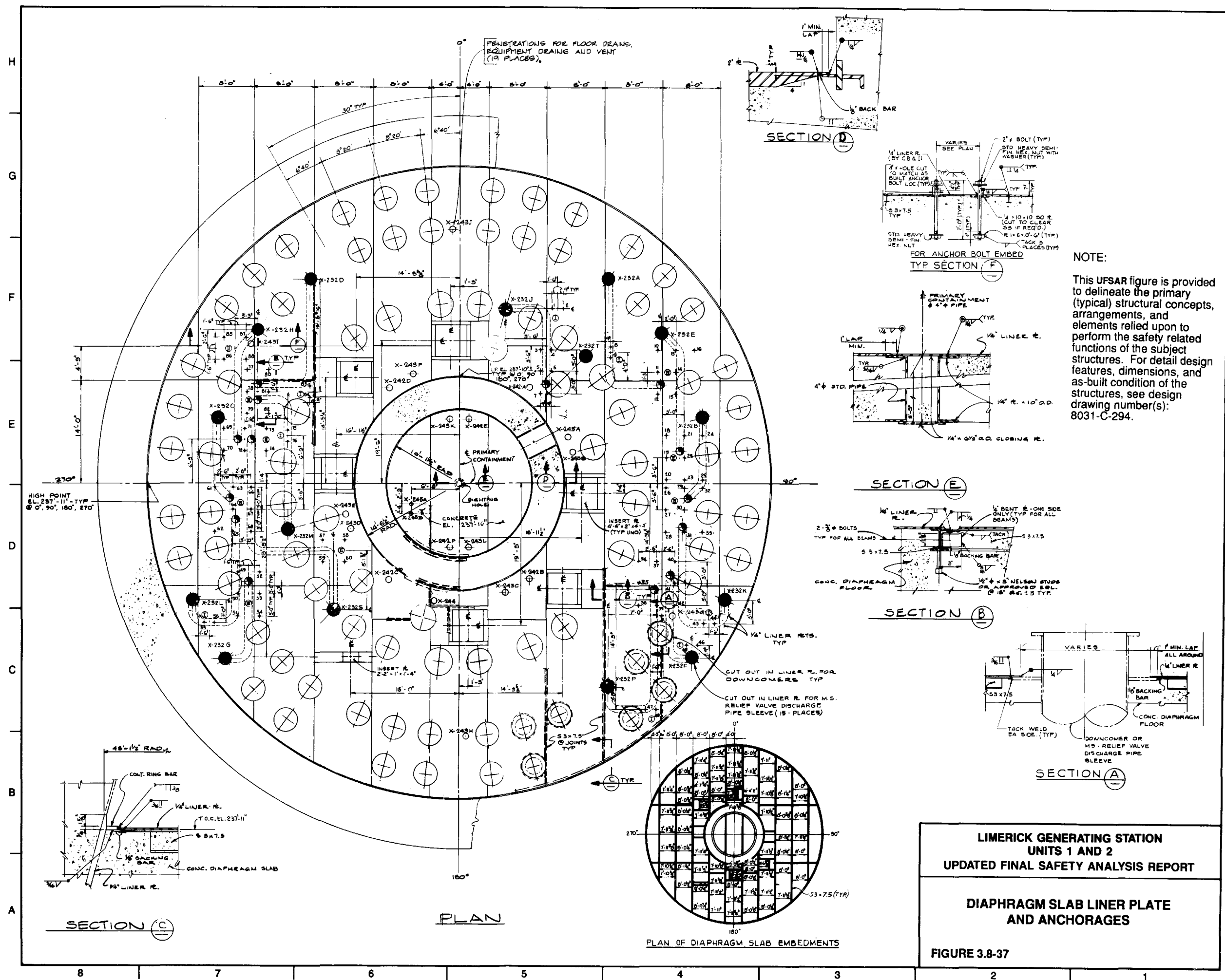
DETAIL 1 (TYP)

NOTE:  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-261.

LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

DIAPHRAGM SLAB REINFORCEMENT  
 (SHEET 3 OF 3)

FIGURE 3.8-36

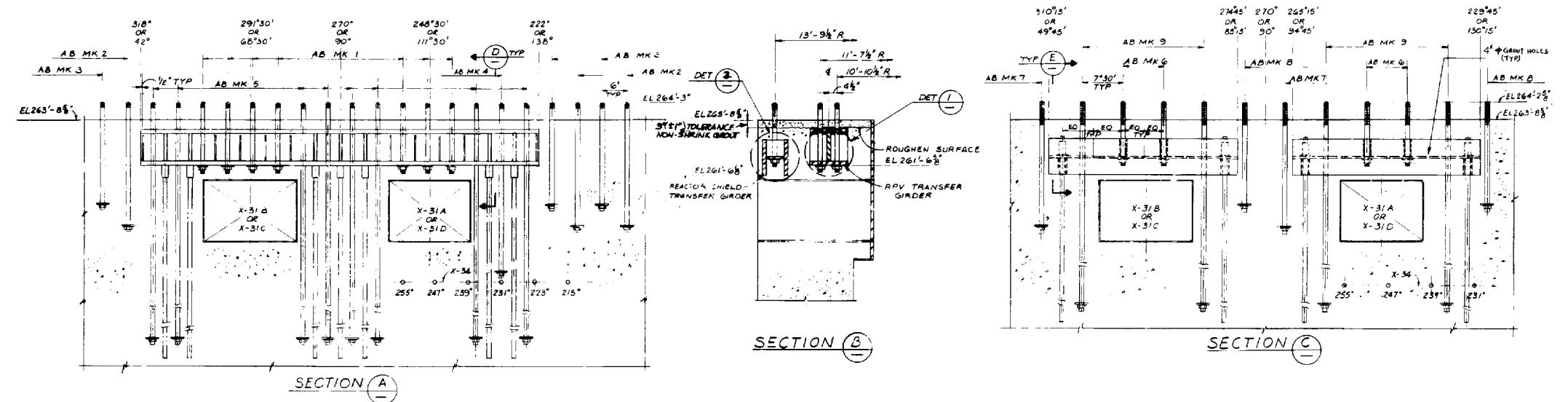
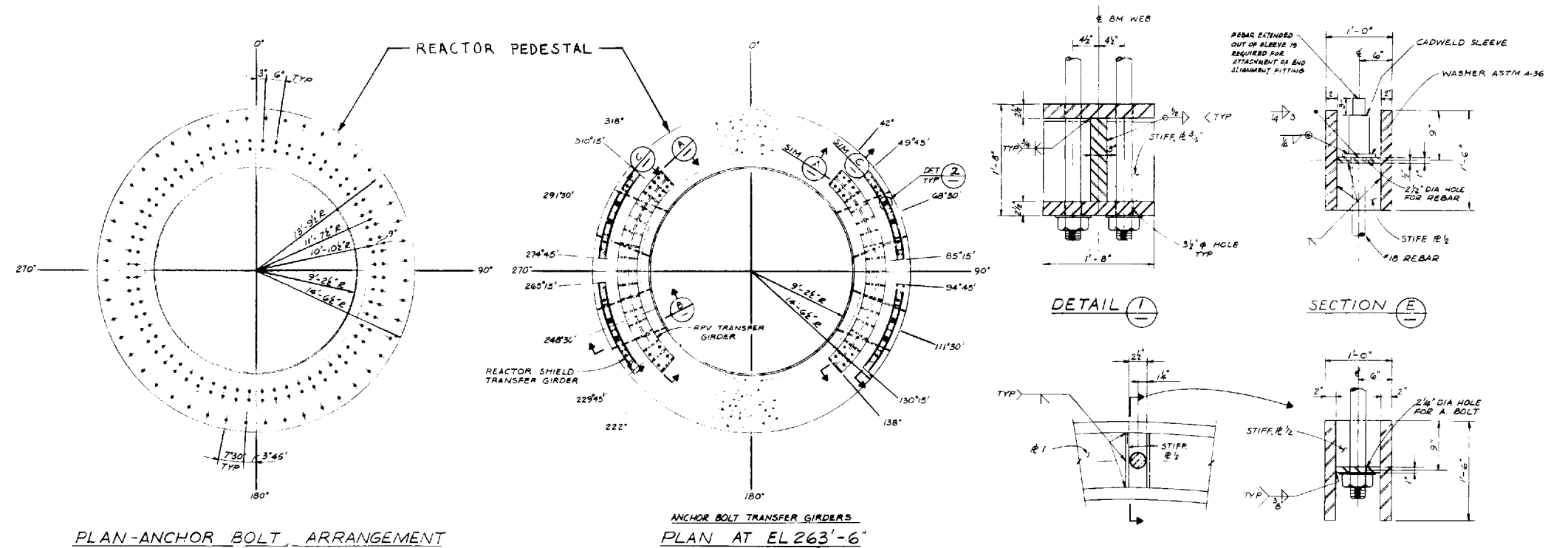


**NOTE:**  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-294.

**LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT**

**DIAPHRAGM SLAB LINER PLATE  
 AND ANCHORAGES**

**FIGURE 3.8-37**



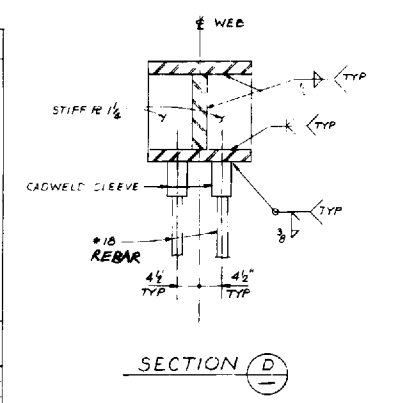
ANCHOR BOLT SCHEDULE (PER UNIT)

MARK	NO. OF BOLTS	NO. OF BEARING PLATES	TYPE	BOLT				BEARING PLATE				WASHER			REMARKS		
				DIA	L	P	T <sub>1</sub>	A	B	C <sub>1</sub>	D <sub>2</sub>	Q	C <sub>2</sub>	T <sub>2</sub>			
1	28	—	IIA	3/4"	3'-0 1/2"	6 3/8"	5"	—	—	—	—	—	—	—	—	—	RPV ANCHOR BOLTS
2	28	14	I	3/4"	6'-4"	6 3/8"	5"	17"	8"	2"	—	—	—	—	—	—	"
3	28	14	I	3/4"	5'-4"	6 3/8"	5"	17"	8"	2"	—	—	—	—	—	—	"
4	4	2	I	3/4"	7'-6"	6 3/8"	5"	17"	8"	2"	—	—	—	—	—	—	"
5	32	32	II	3/4"	15'-0"	6 3/8"	5"	7"	7"	2"	—	—	—	—	—	—	"
6	8	—	IIA	2"	2'-4"	6"	5"	—	—	—	3 1/2"	2 1/2"	4"	—	—	—	REACTOR SHIELD ANCHOR BOLTS
7	16	16	III	2"	2'-4"	6"	5"	7"	7"	2"	2 1/2"	3 1/2"	2 1/2"	4"	—	—	"
8	16	16	III	2"	5'-4"	6"	5"	7"	7"	2"	2 1/2"	3 1/2"	2 1/2"	4"	—	—	"
9	E	8	III	2"	12'-0"	6"	5"	7"	7"	2"	2 1/2"	3 1/2"	2 1/2"	4"	—	—	"

TYPE I

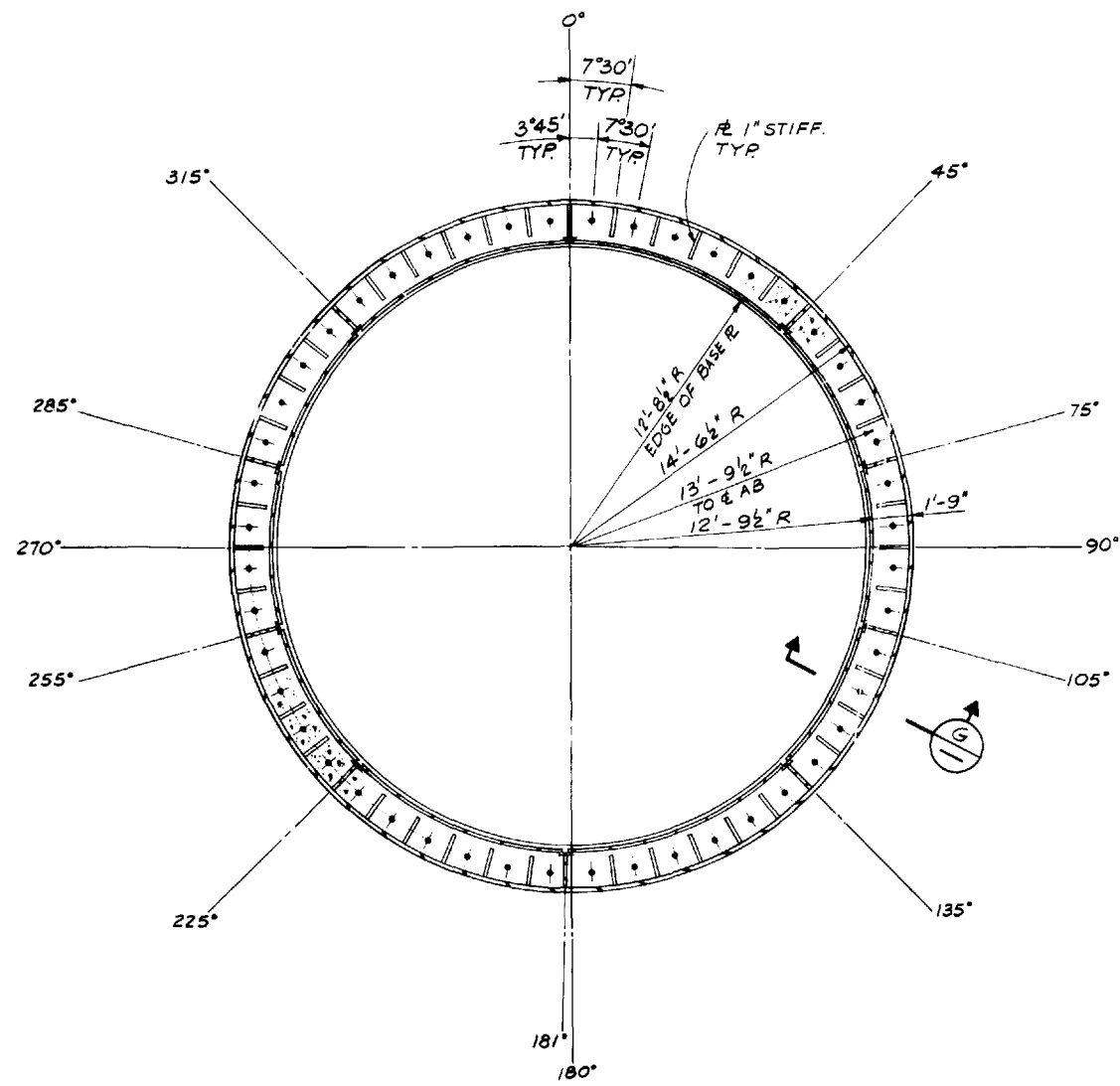
TYPE II & IIA  
IIA HAS NO BEARING PLATE

TYPE III & IIIA  
IIIA HAS NO BEARING PLATE



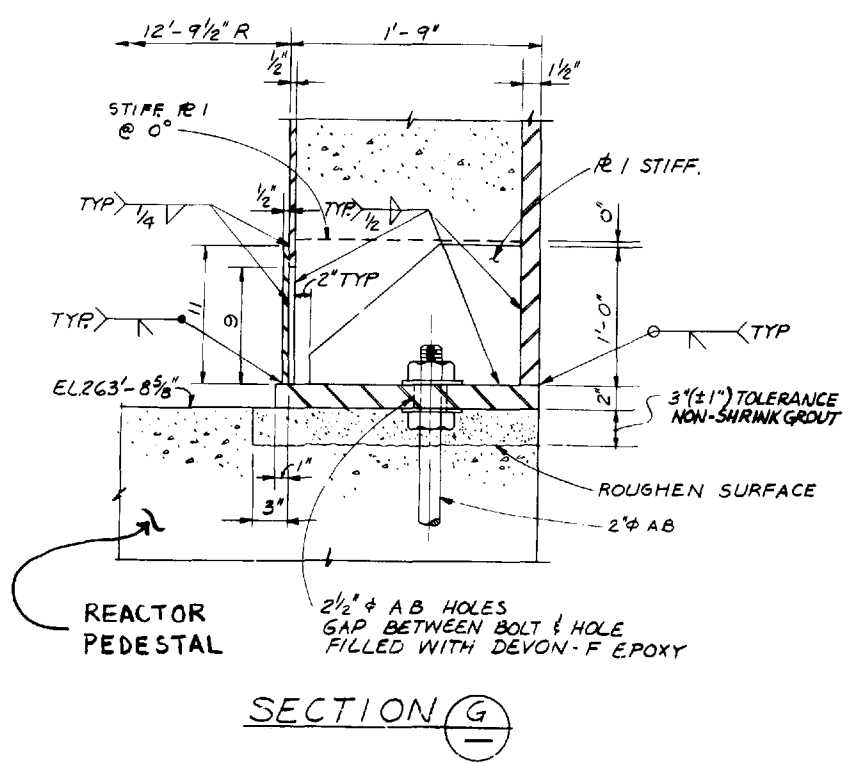
NOTE:

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-258.



SECTIONAL PLAN  
 REACTOR SHIELD WALL BASE

NOTE:  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-954.

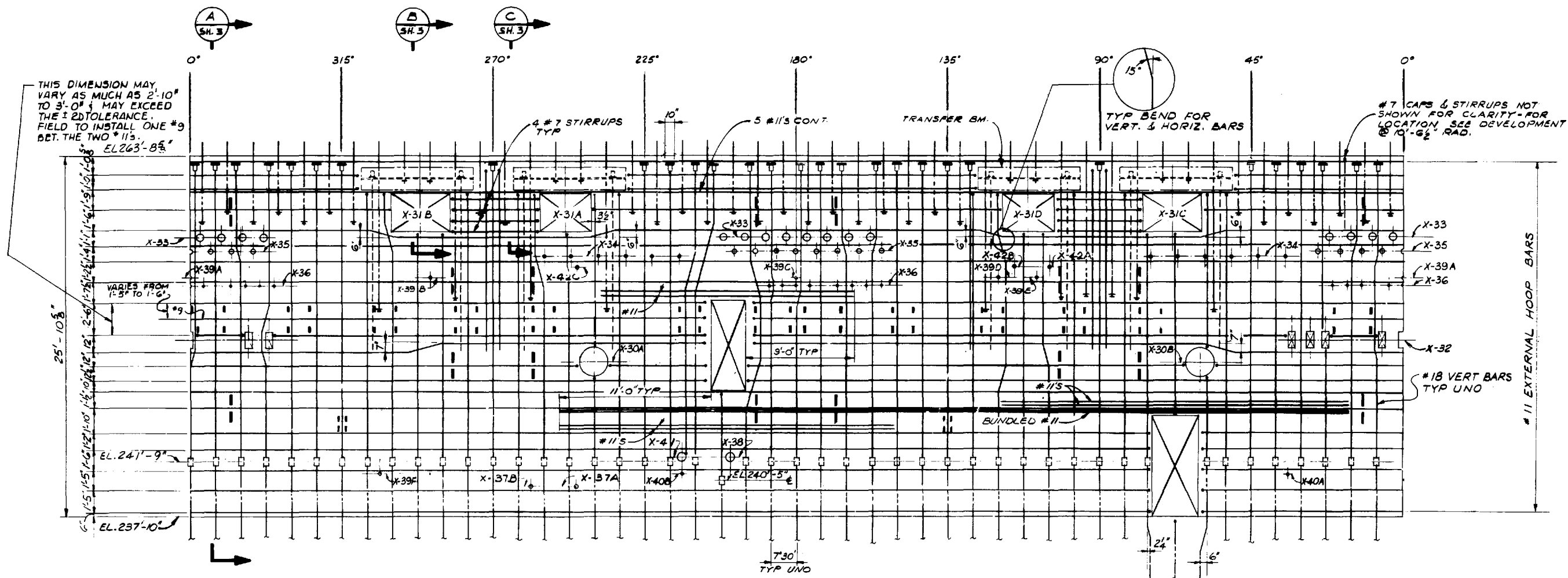


SECTION (G)

LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

REACTOR VESSEL AND REACTOR  
 SHIELD WALL BASE CONNECTIONS  
 (SHEET 2 OF 2)

FIGURE 3.8-38



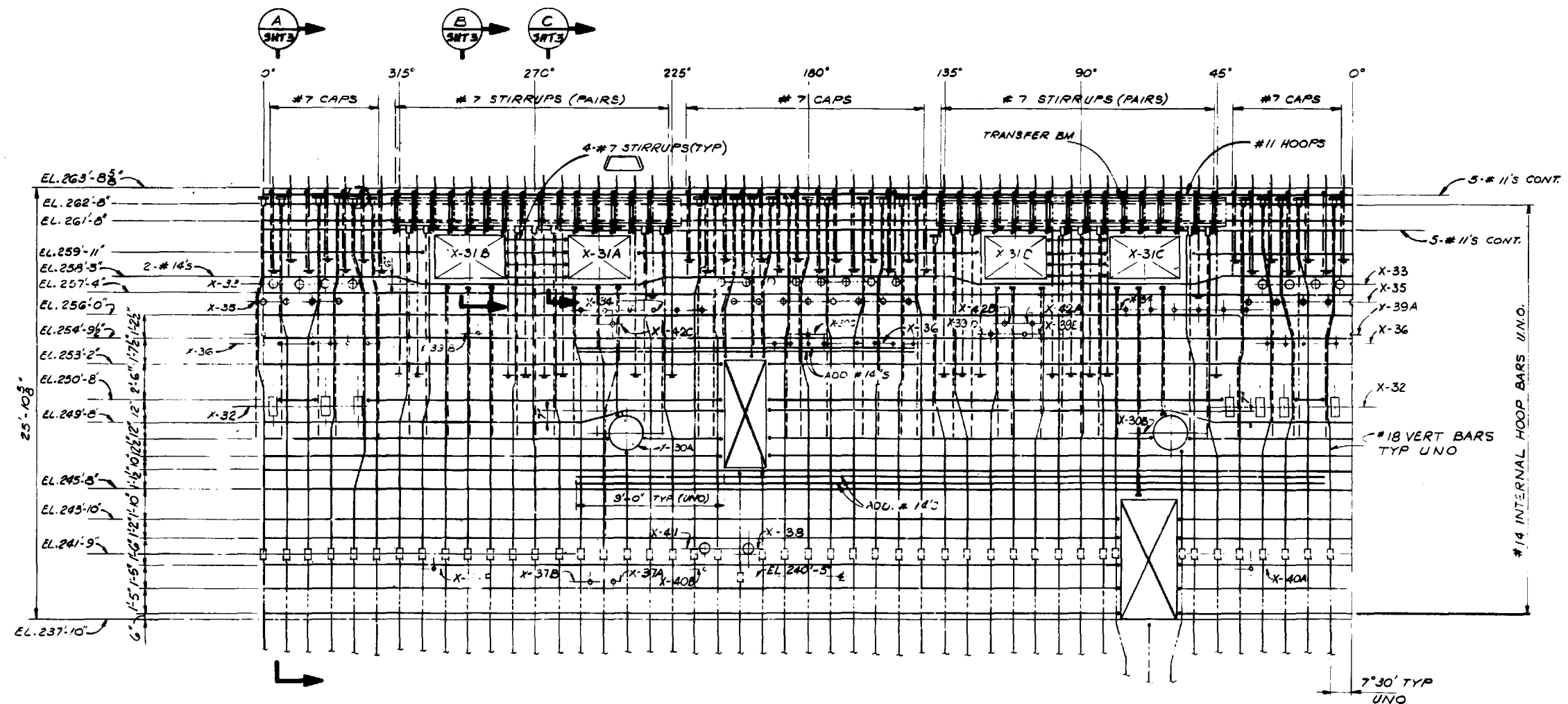
PEDESTAL DEVELOPMENT AT 14'-0 1/2" R  
(EXTERNAL REINFORCEMENT)

NOTE:

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-255.

<p>LIMERICK GENERATING STATION UNITS 1 AND 2 UPDATED FINAL SAFETY ANALYSIS REPORT</p>
<p>REACTOR PEDESTAL REINFORCEMENT ABOVE DIAPHRAGM SLAB (SHEET 1 OF 3)</p>
<p>FIGURE 3.8-39</p>





PEDESTAL DEVELOPMENT AT 10'-6 1/2" R  
( INTERNAL REINFORCEMENT )

NOTE:

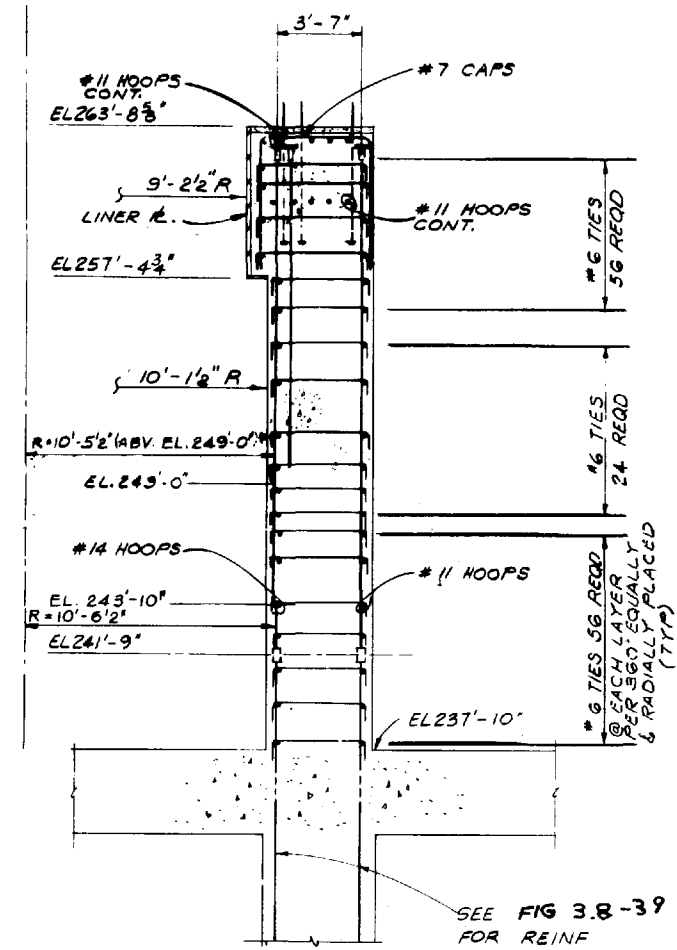
This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-255.

LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

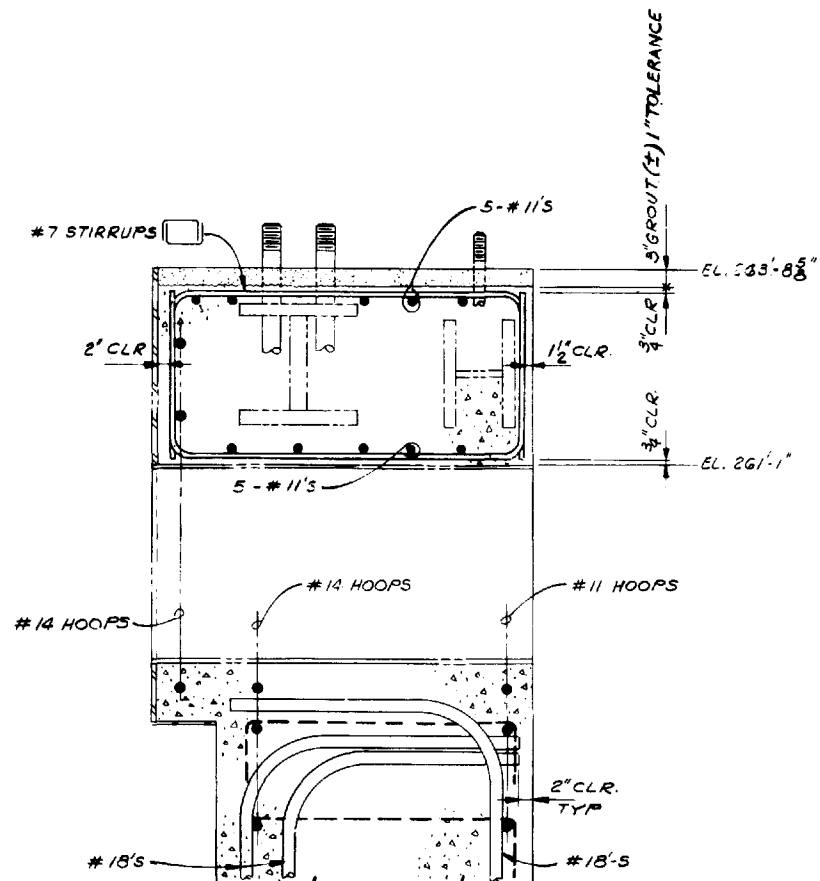
REACTOR PEDESTAL  
REINFORCEMENT ABOVE  
DIAPHRAGM SLAB  
(SHEET 2 OF 3)

FIGURE 3.8-39

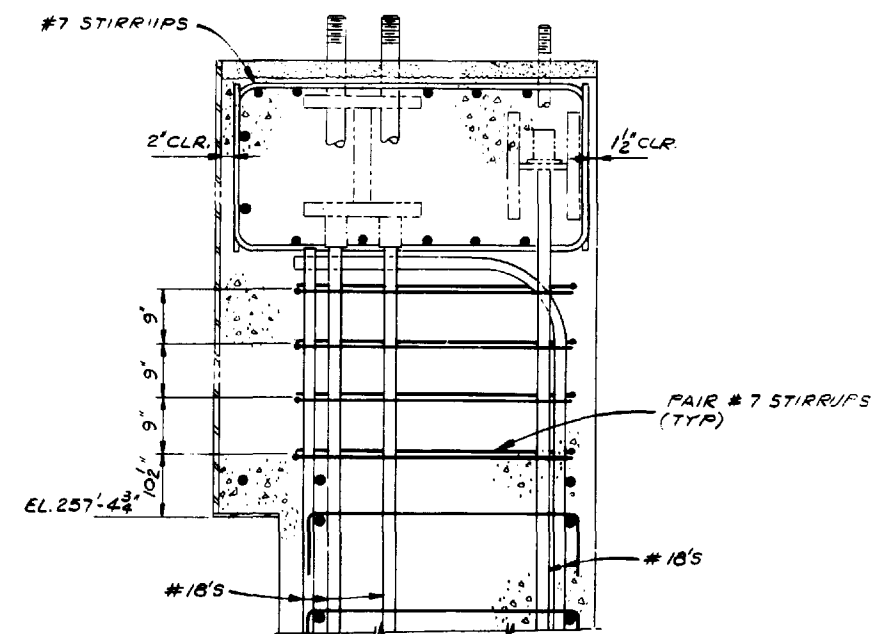
REACTOR



SECTION A  
SHT 1, 2



SECTION B  
SHT 1, 2



SECTION C  
SHT 1, 2

NOTE: FOR INFO. & DETS NOT SHOWN SEE SECT. B

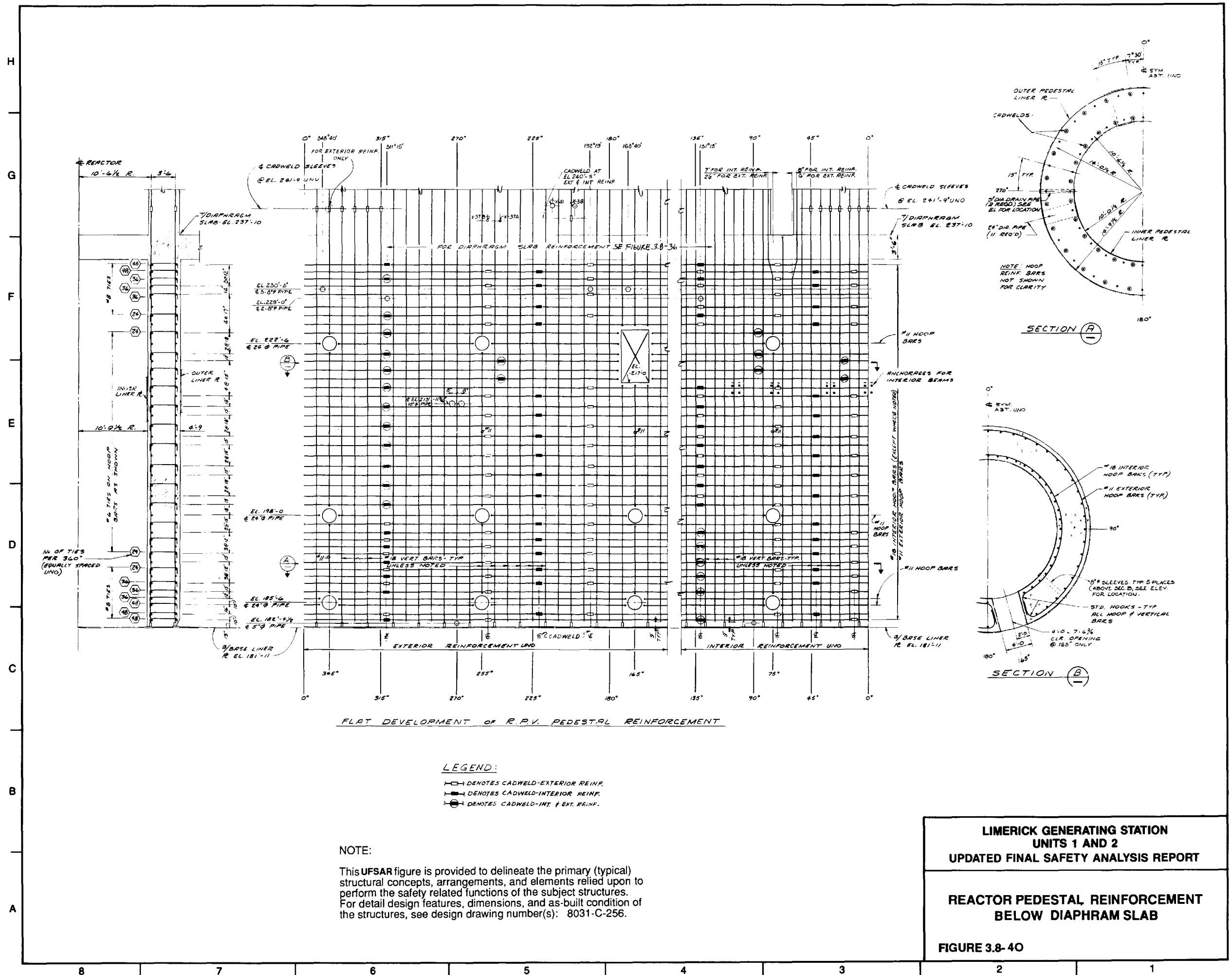
NOTE:

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-255.

LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

REACTOR PEDESTAL  
REINFORCEMENT ABOVE  
DIAPHRAGM SLAB  
(SHEET 3 OF 3)

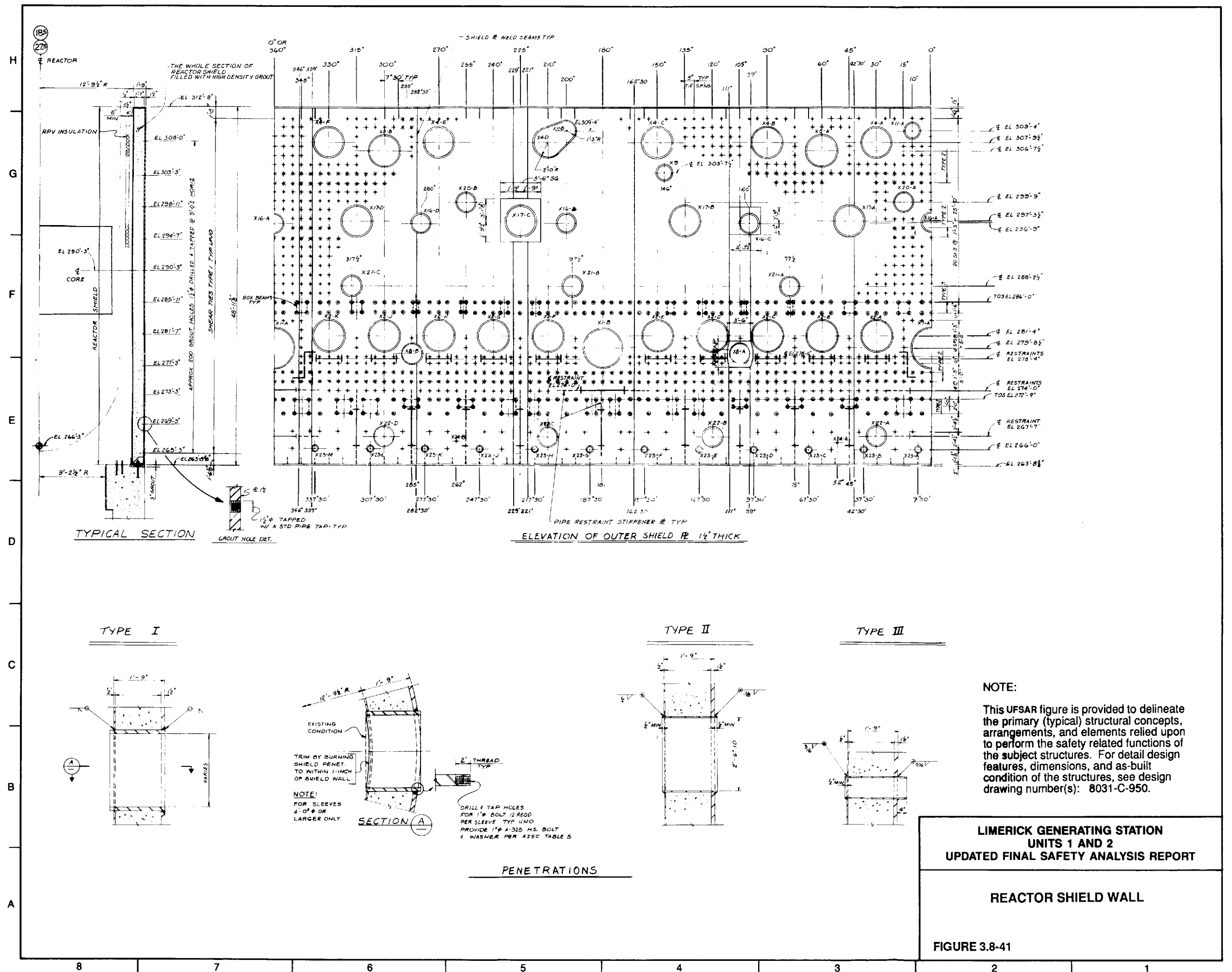
FIGURE 3.8-39

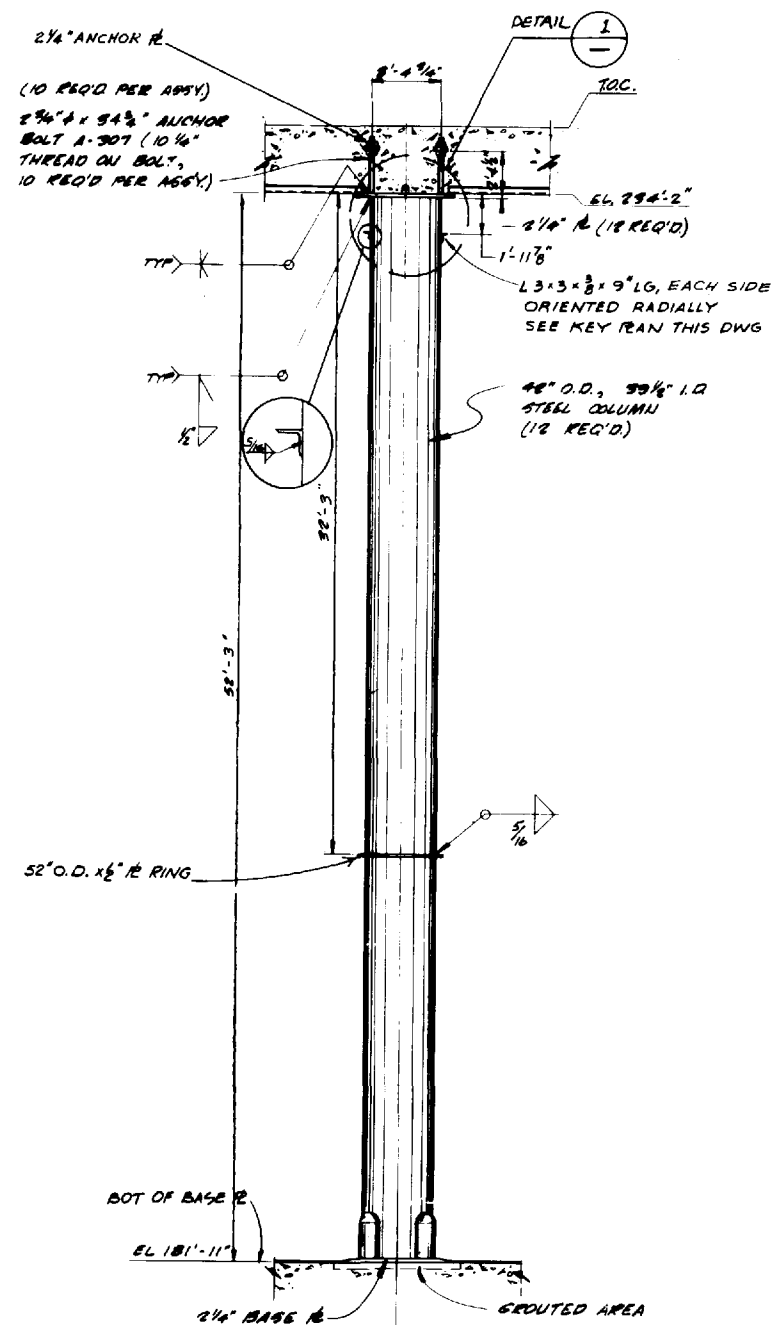


**LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT**

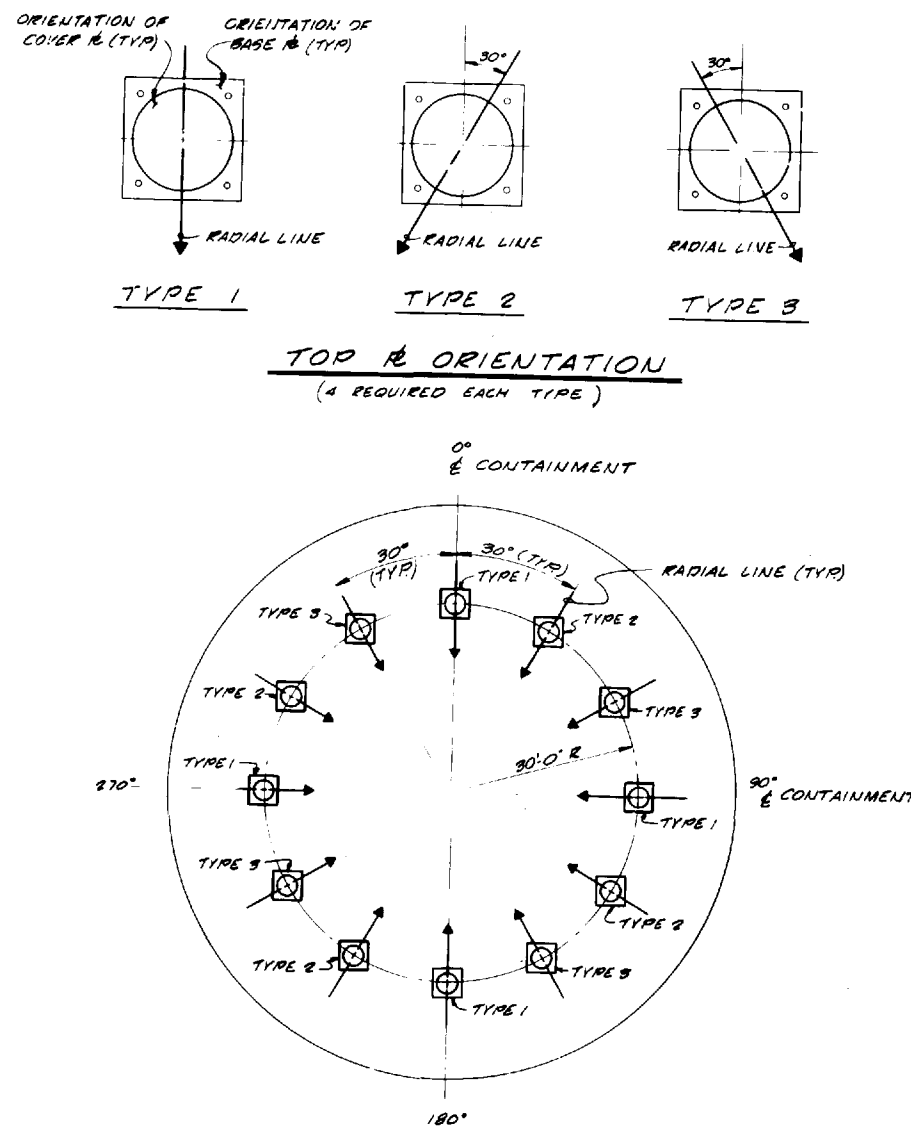
**REACTOR PEDESTAL REINFORCEMENT  
 BELOW DIAPHRAGM SLAB**

**FIGURE 3.8-40**





ELEVATION



TOP PLATE ORIENTATION  
(4 REQUIRED EACH TYPE)

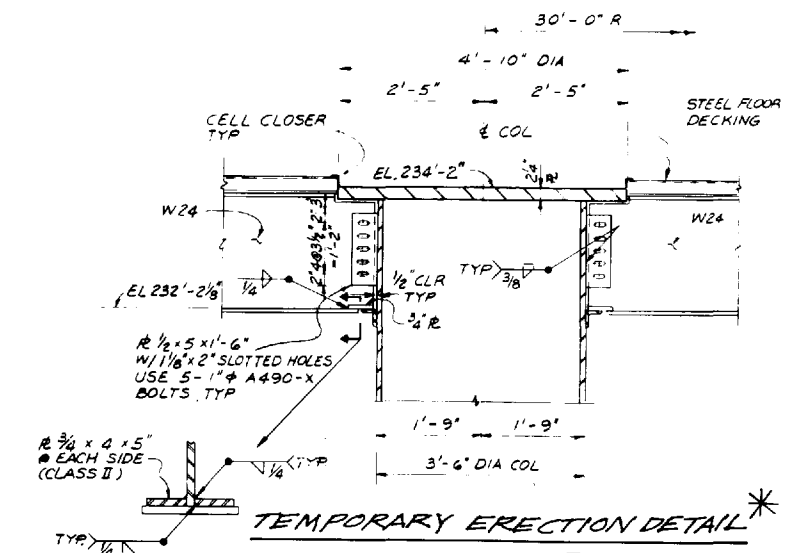
KEY PLAN

RELATION BETWEEN BASE PLATE AND TOP PLATE SET COLUMN ACCORDING TO THIS KEY

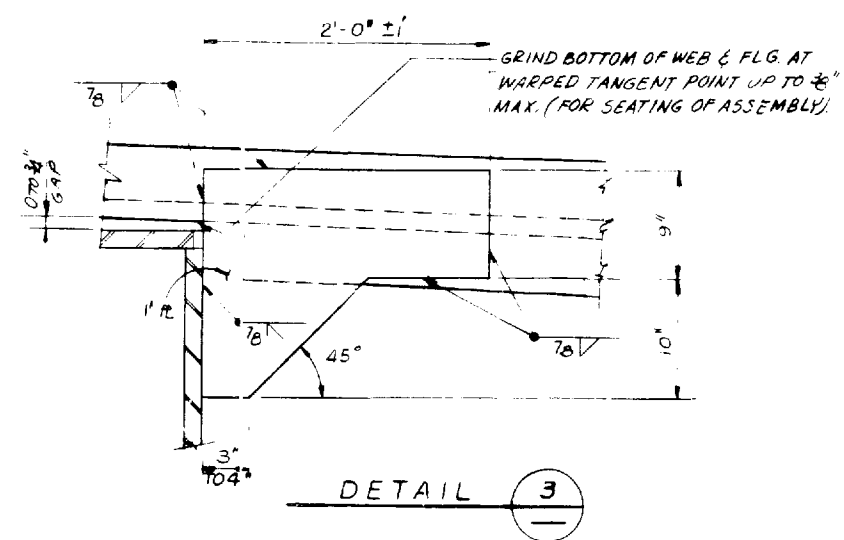
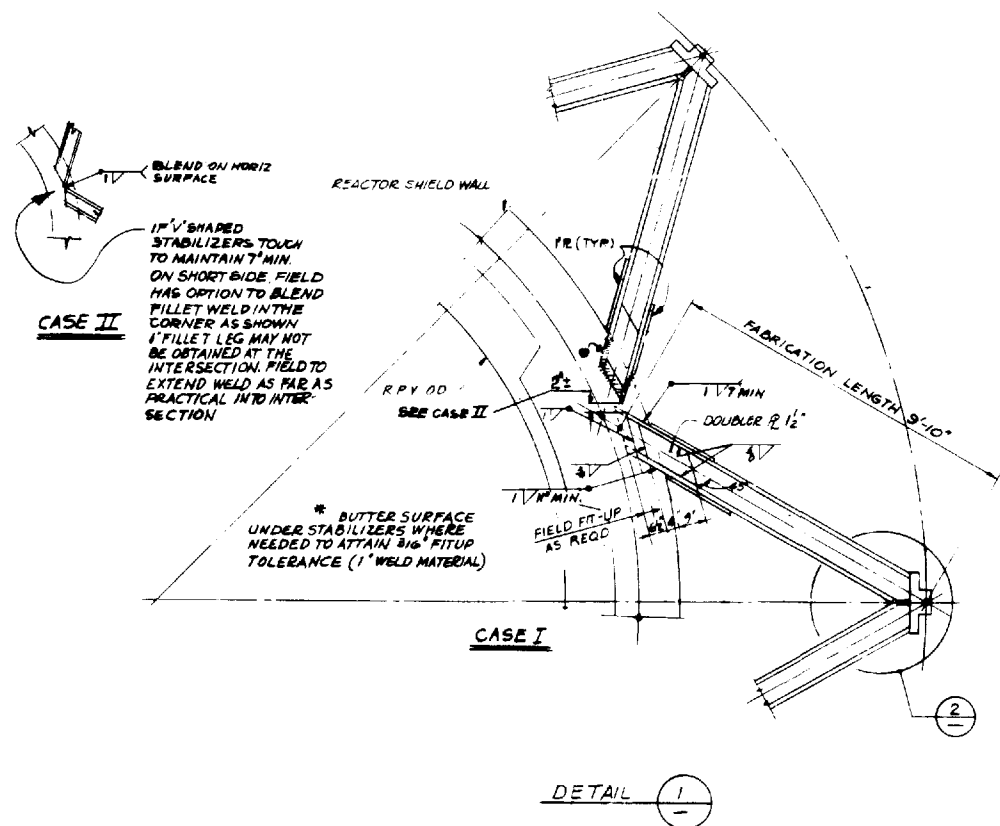
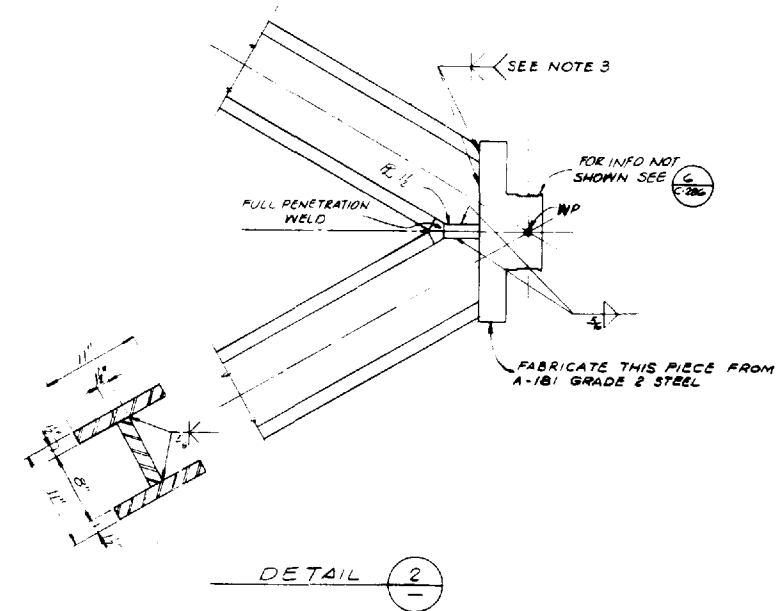
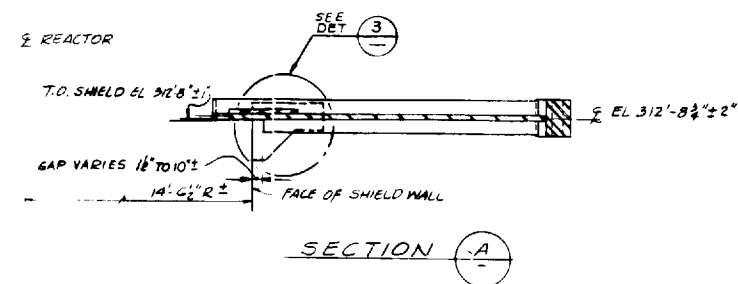
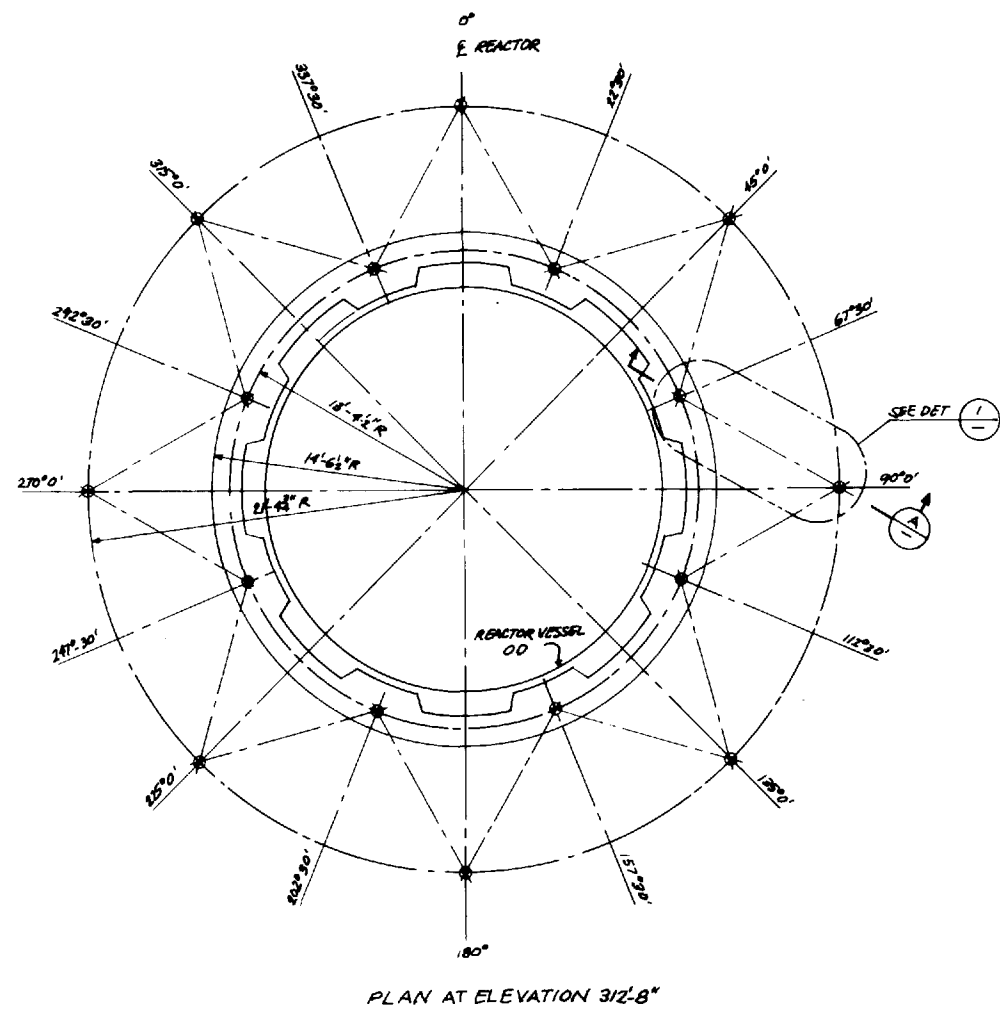
NOTE: SEE FIGURE 3.8-14 FOR COLUMN CONNECTION DETAILS TO THE FOUNDATION SLAB.

NOTE:

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-297 and -300.



\* ALL RADIAL GIRDERS SHALL BE DISCONNECTED FROM THE COLUMNS AFTER SLAB CONCRETE HAS ATTAINED STRENGTH OF AT LEAST 3000 PSI BUT PRIOR TO CONTAINMENT PRESSURE TEST.



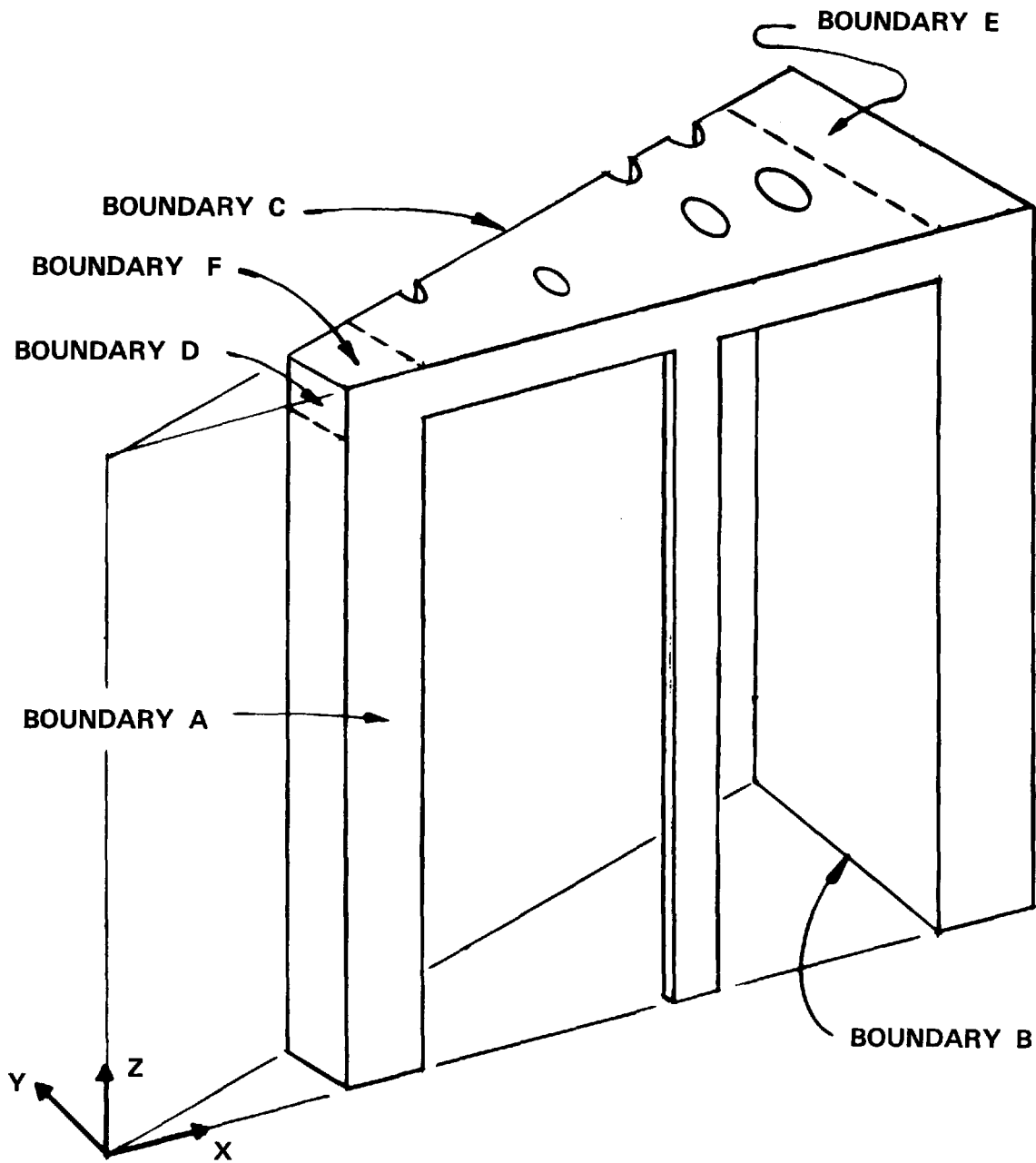
**NOTE:**

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-936.

LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

SEISMIC TRUSS

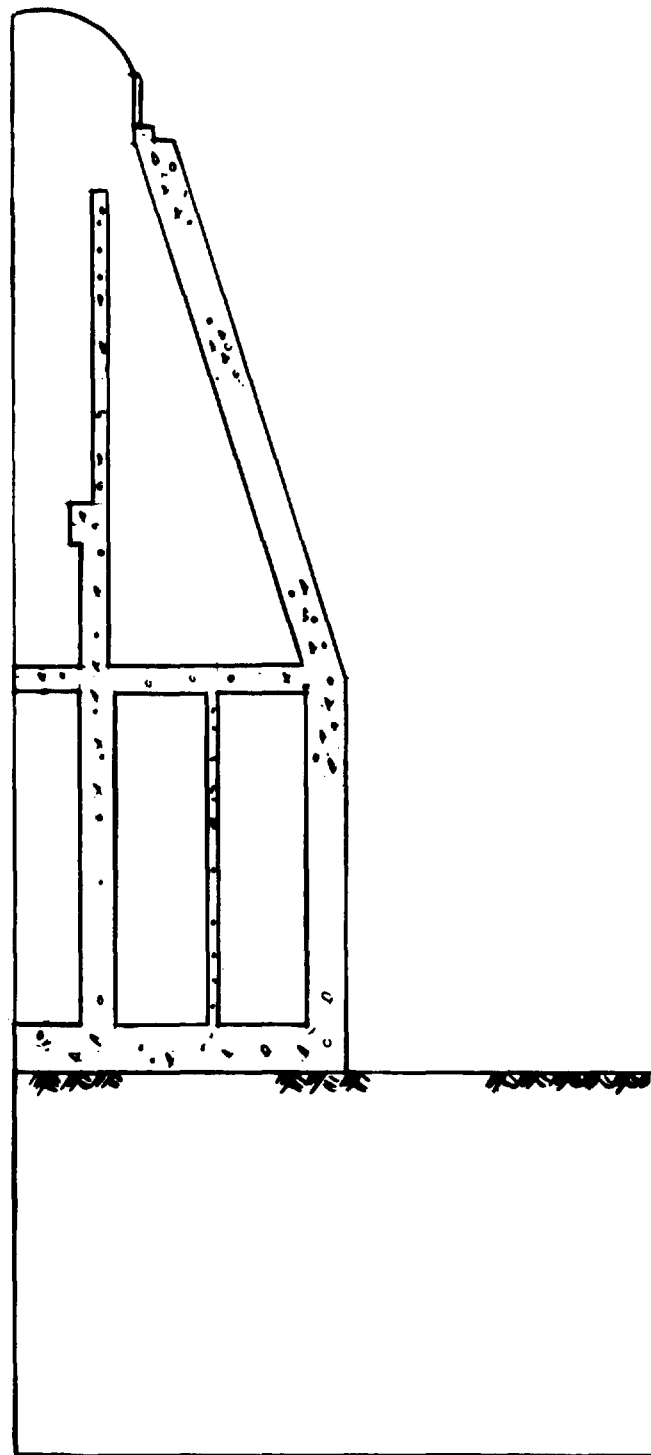
FIGURE 3.8-43



LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

DIAPHRAGM SLAB ANALYTICAL  
MODEL

FIGURE 3.8-44



BOUNDARY A

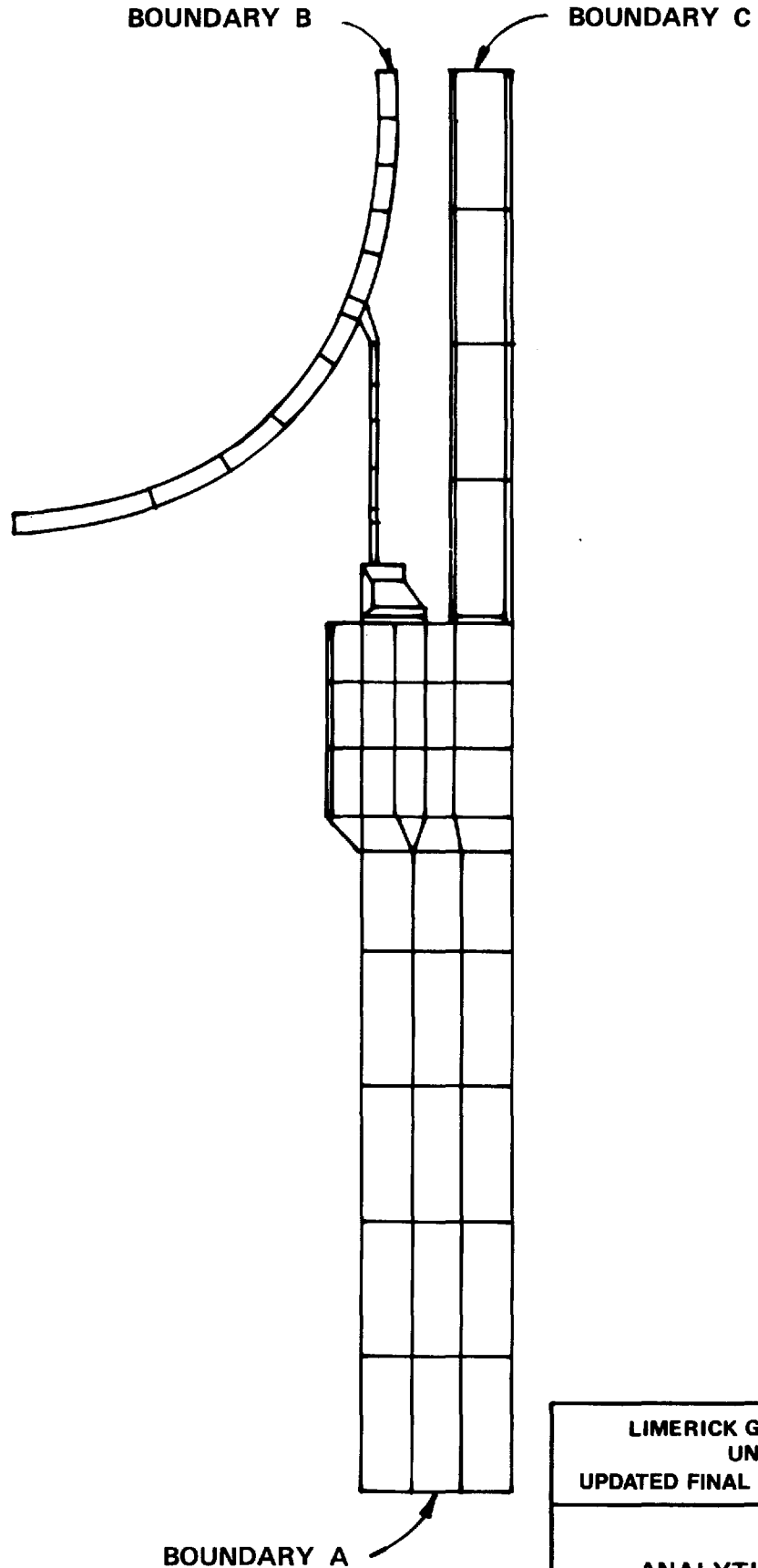
BOUNDARY B

LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

ANALYTICAL MODEL FOR  
SUPPRESSION CHAMBER COLUMNS  
AND  
LOWER REACTOR PEDESTAL

FIGURE 3.8-45

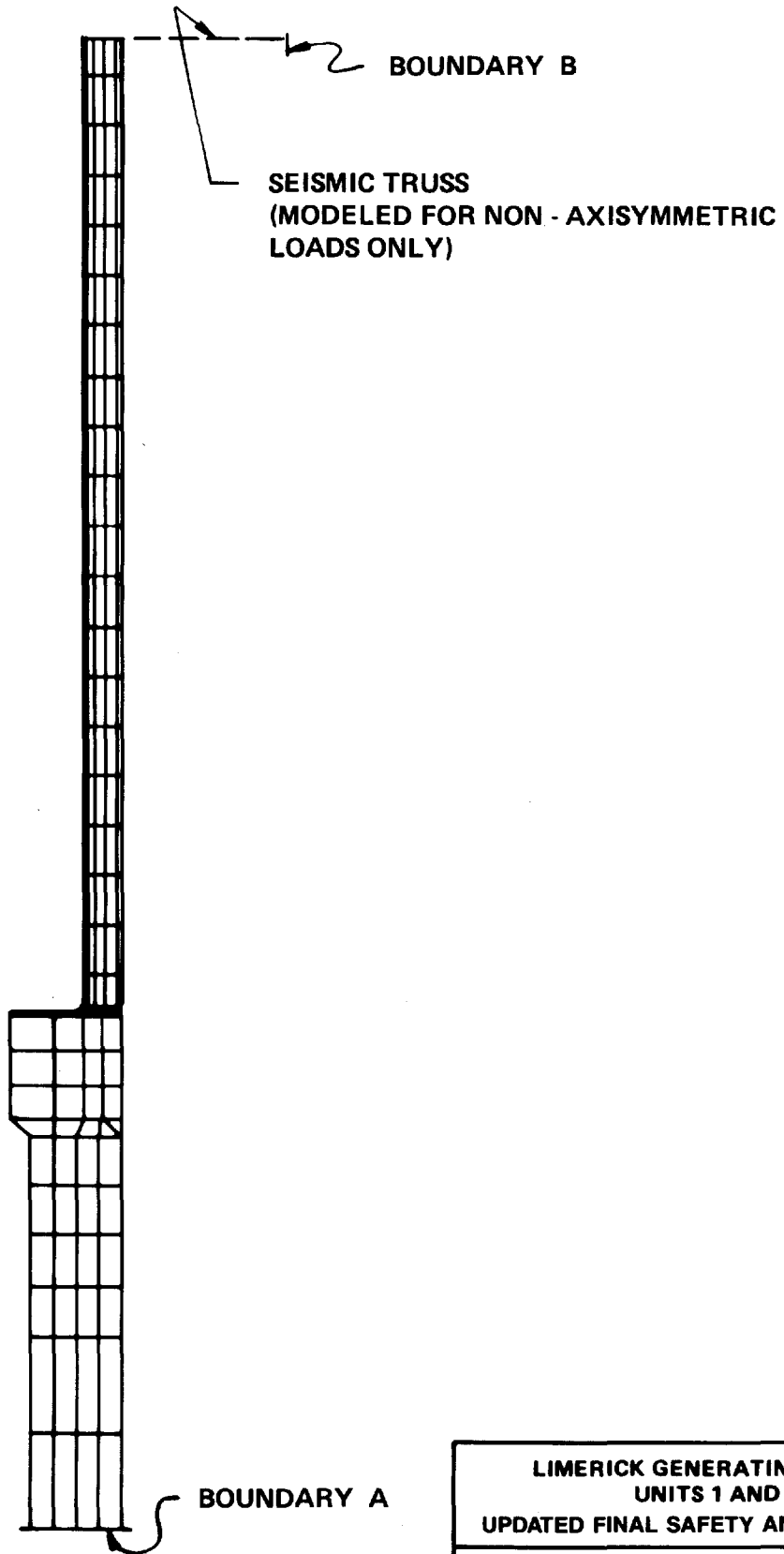




LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

ANALYTICAL MODEL FOR  
UPPER REACTOR PEDESTAL

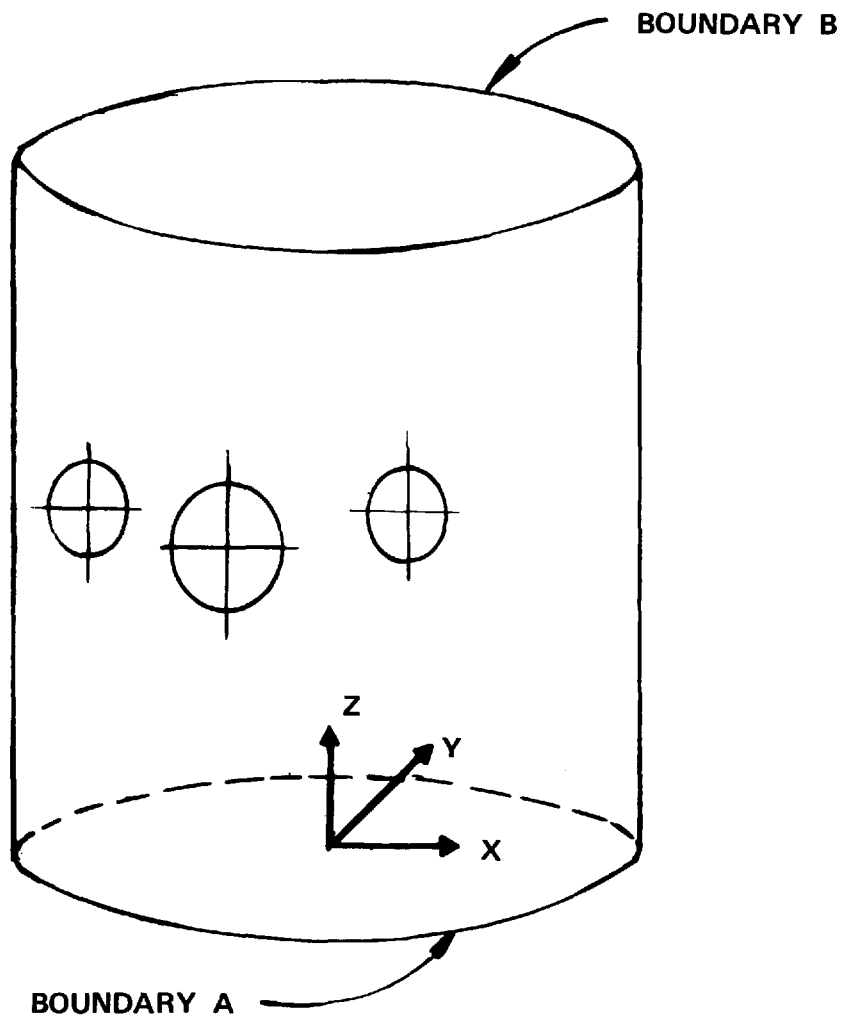
FIGURE 3.8-46



LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

REACTOR SHIELD WALL  
ANALYTICAL MODEL FOR  
"FINEL" AND "ASHSD"  
PROGRAMS

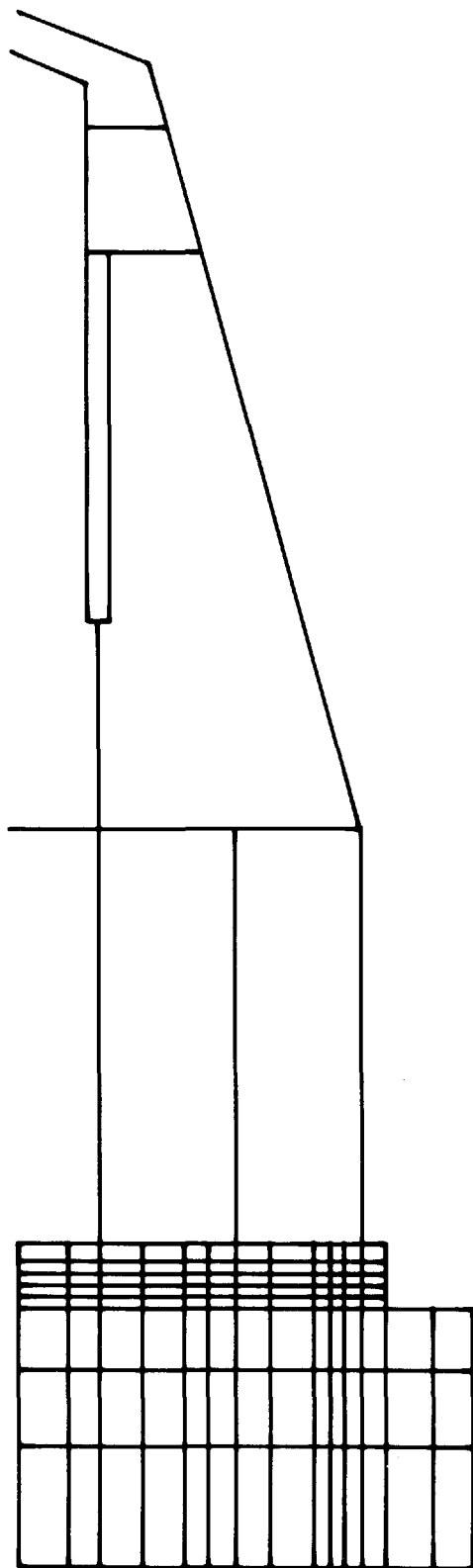
FIGURE 3.8-47



LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

REACTOR SHIELD WALL  
ANALYTICAL MODEL FOR  
"EASE" PROGRAM

FIGURE 3.8-48



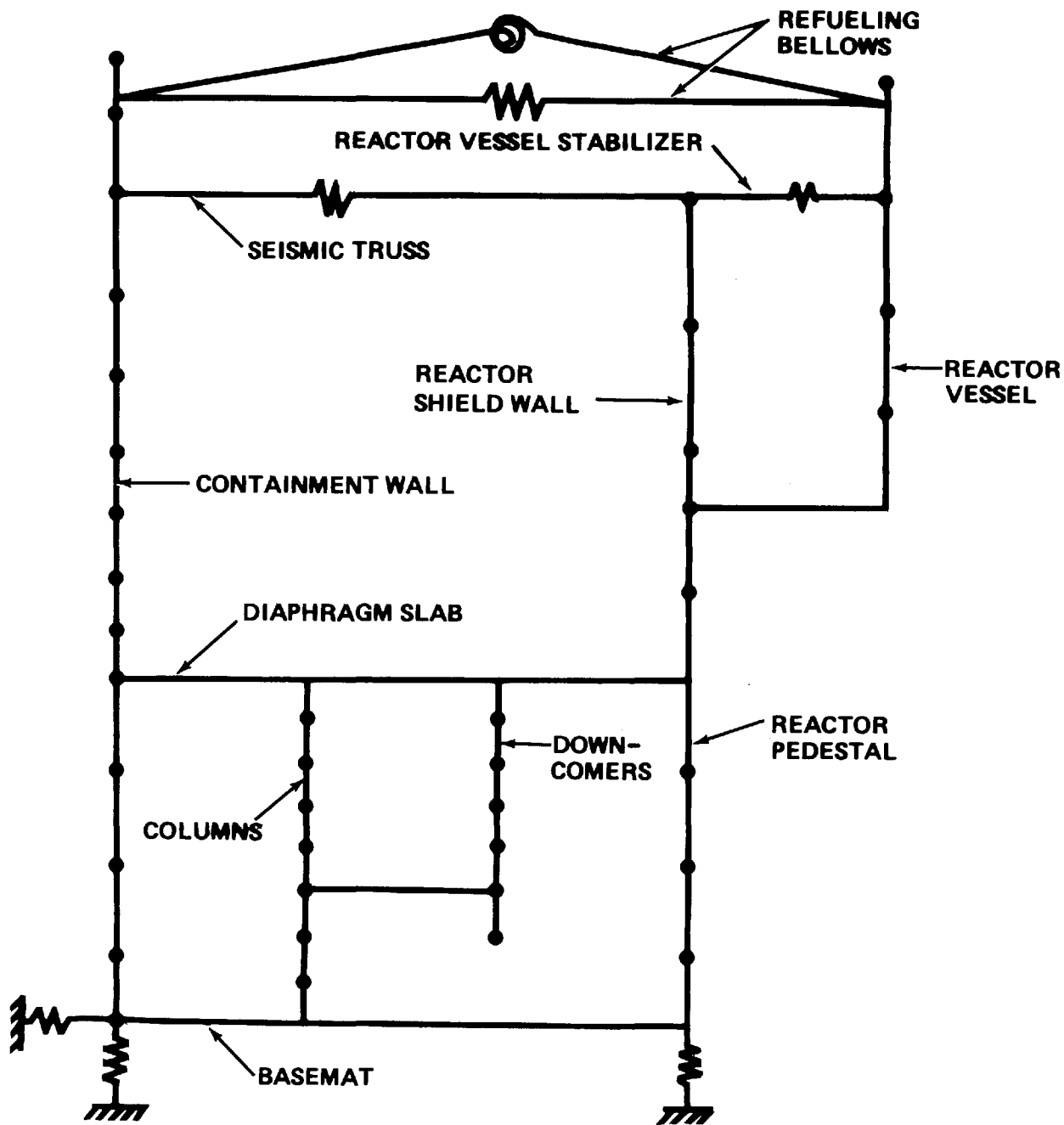
BOUNDARY B

BOUNDARY A

LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

SUPPRESSION CHAMBER COLUMN  
ANALYTICAL MODEL FOR  
"ASHSD" PROGRAM

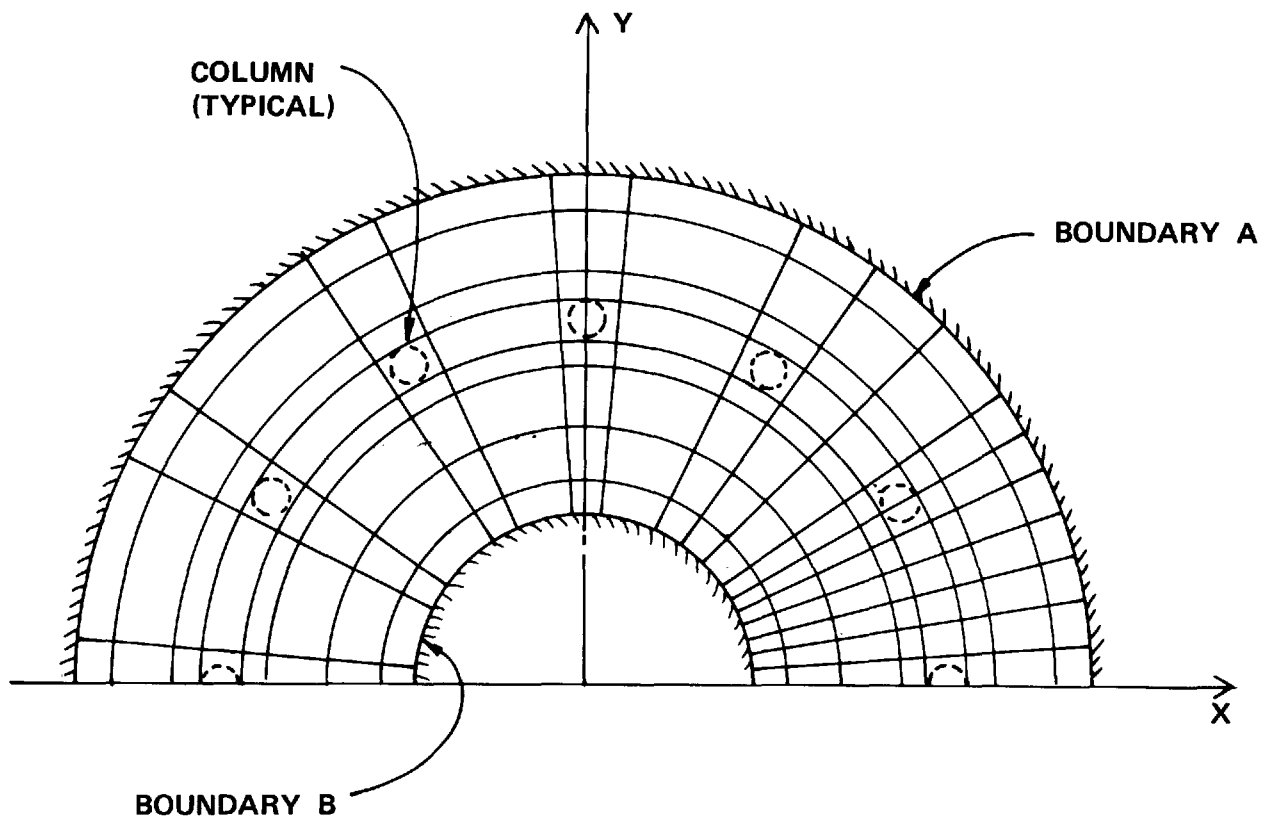
FIGURE 3.8-49



LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

SUPPRESSION CHAMBER COLUMN  
 SEISMIC MODEL

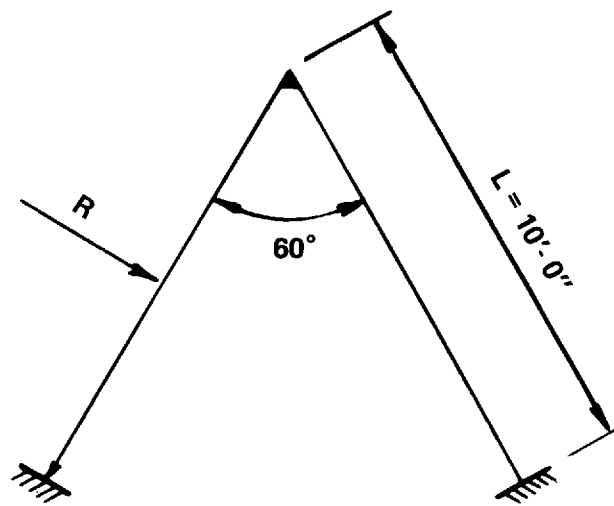
FIGURE 3.8-50



LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

SUPPRESSION CHAMBER COLUMN  
ANALYTICAL MODEL FOR  
"CE668" PROGRAM

FIGURE 3.8-51

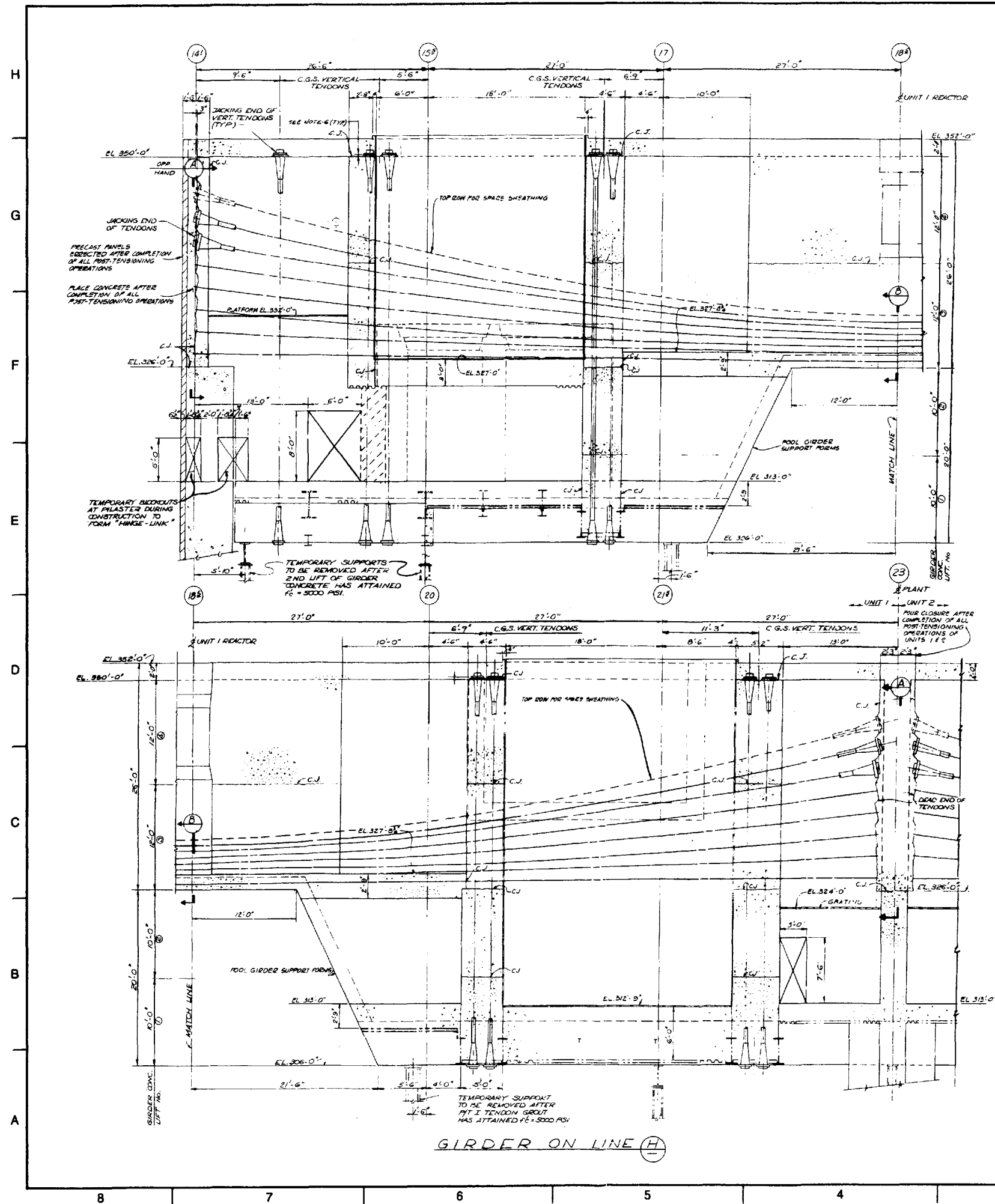


R = PIPE RUPTURE LOAD

LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

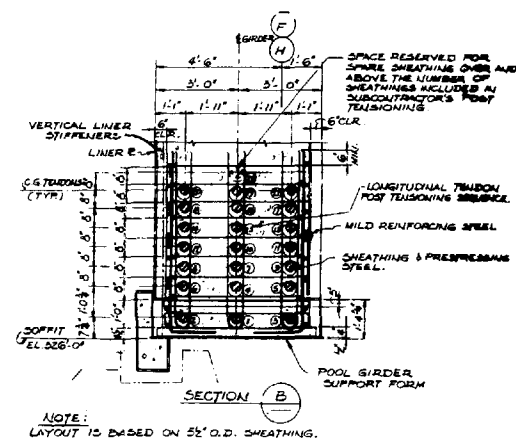
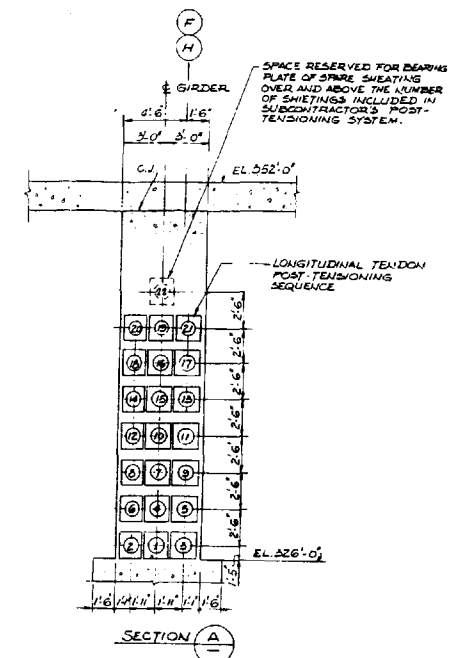
SEISMIC TRUSS ANALYTICAL  
MODEL FOR "STRESS"  
PROGRAM

FIGURE 3.8-52



**NOTE:**

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-771 and 8031-C-772.



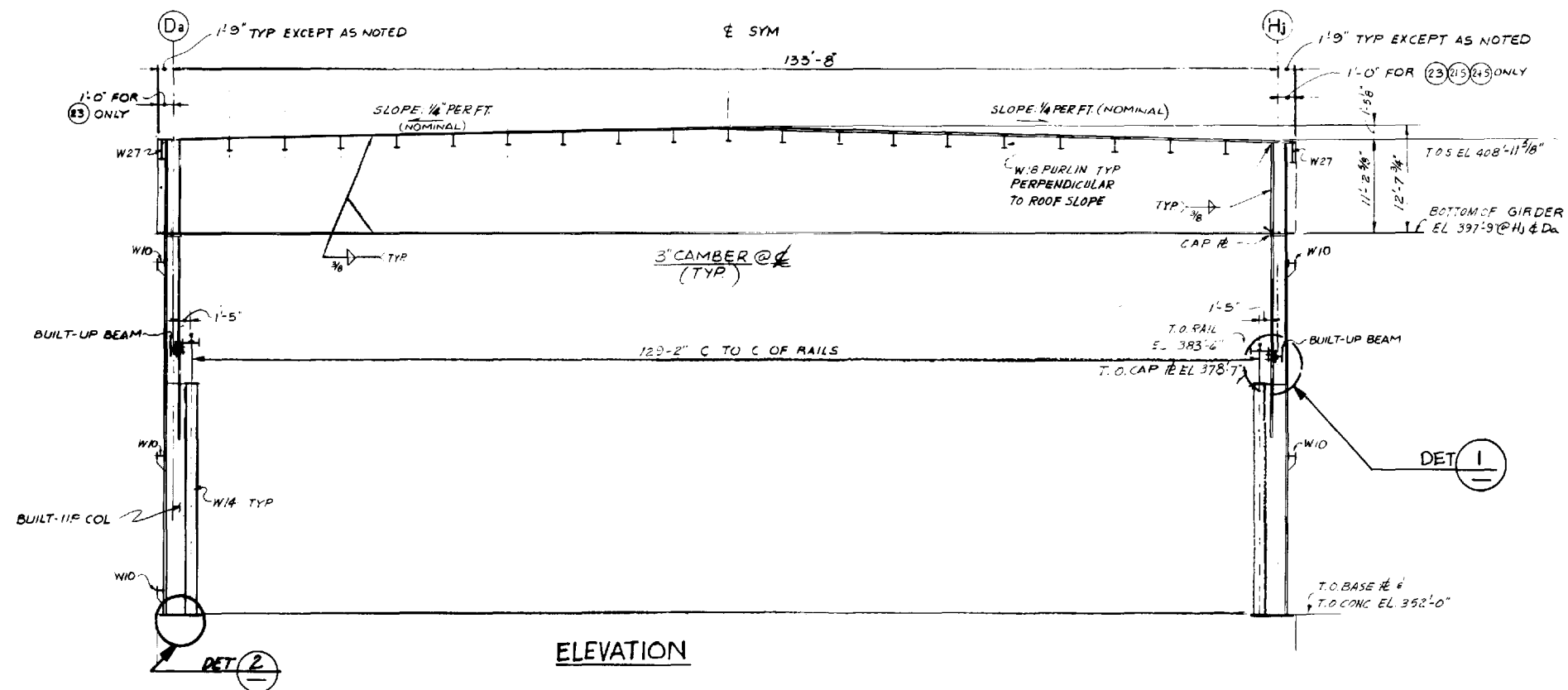
**LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT**

**REACTOR ENCLOSURE, FUEL  
POOL GIRDER**

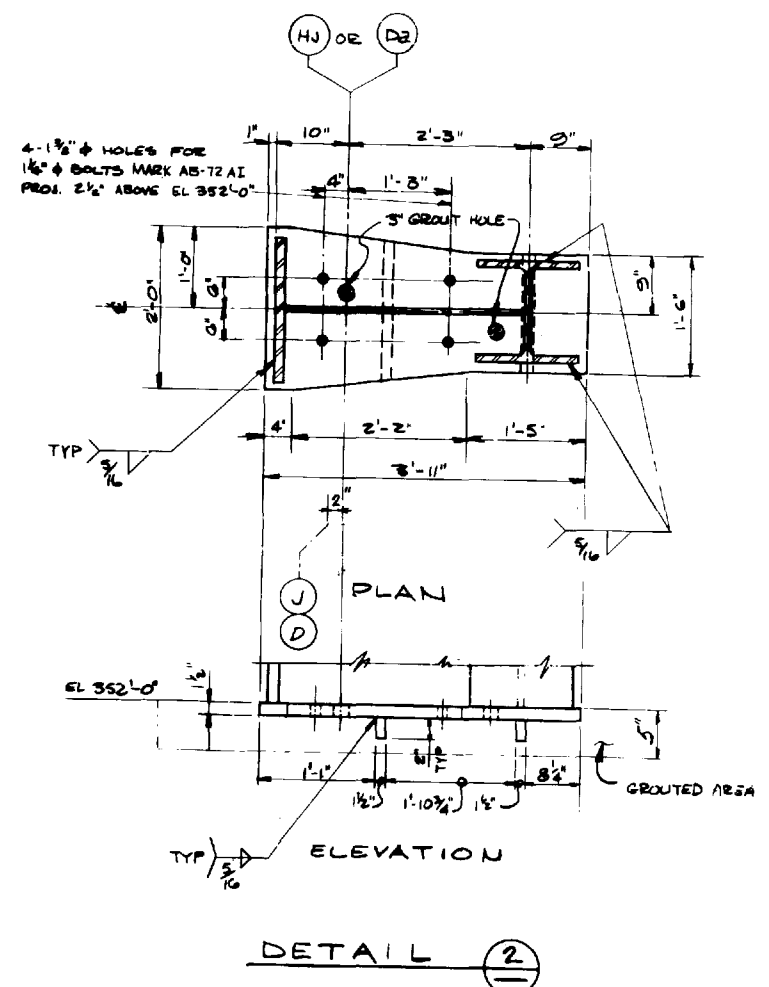
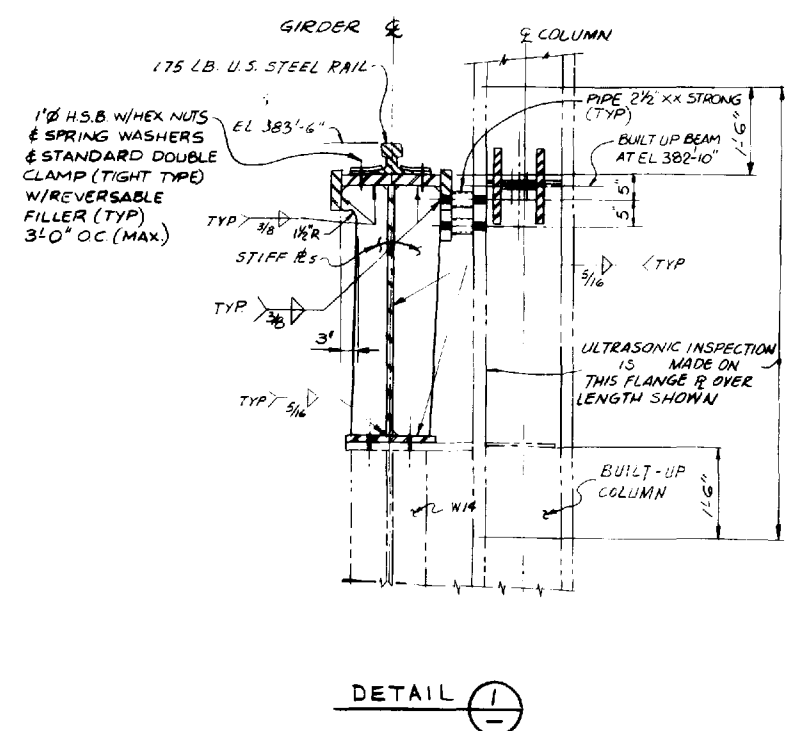
**FIGURE 3.8-53**

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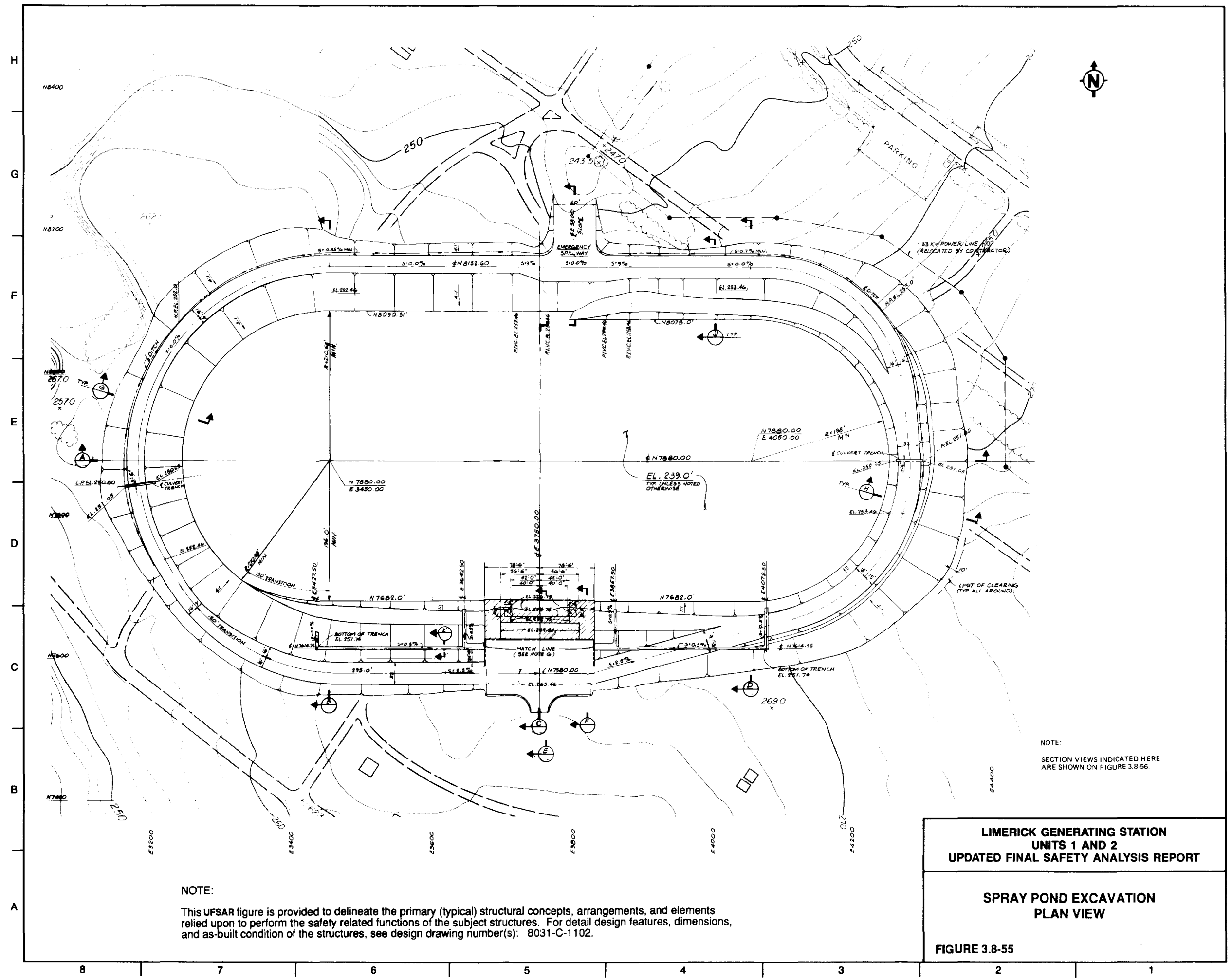
**NOTE:**  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-192, -216, and -223.



**LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT**

**REACTOR ENCLOSURE UPPER FRAME  
 AND  
 CRANE RUNWAY DETAILS**

**FIGURE 3.8-54**

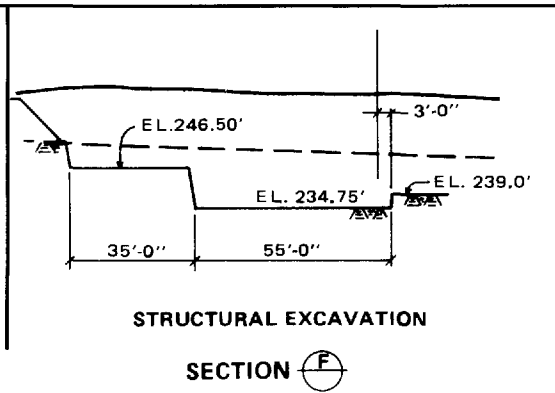
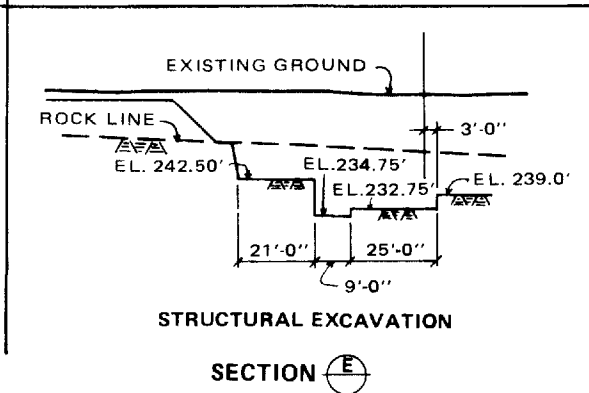
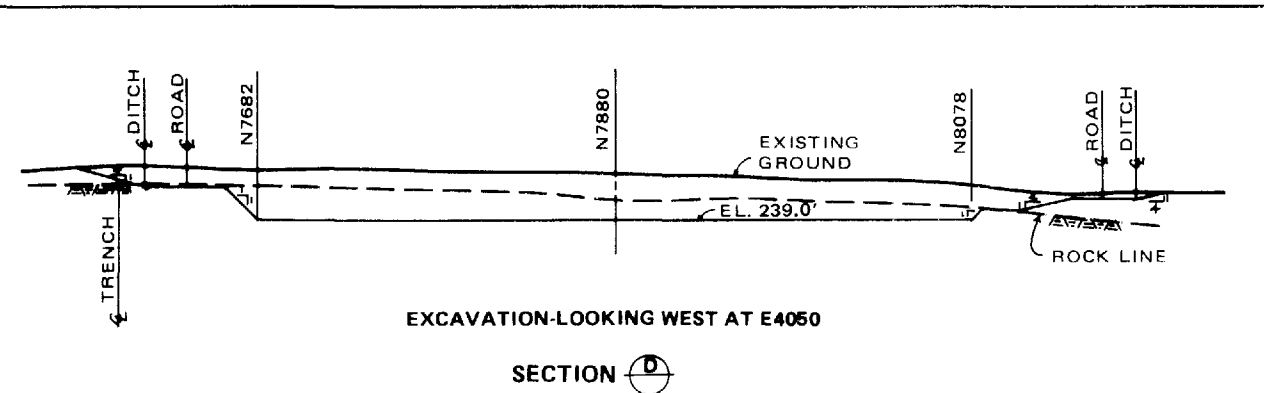
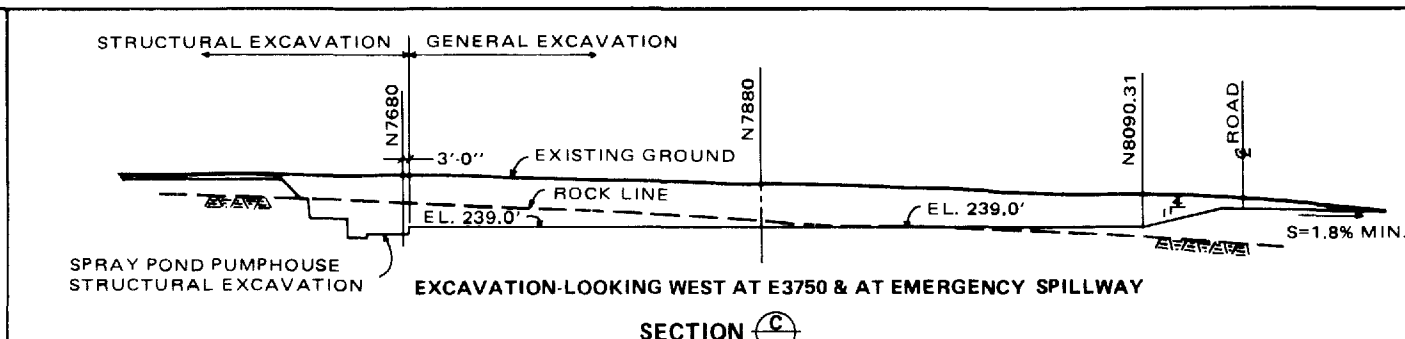
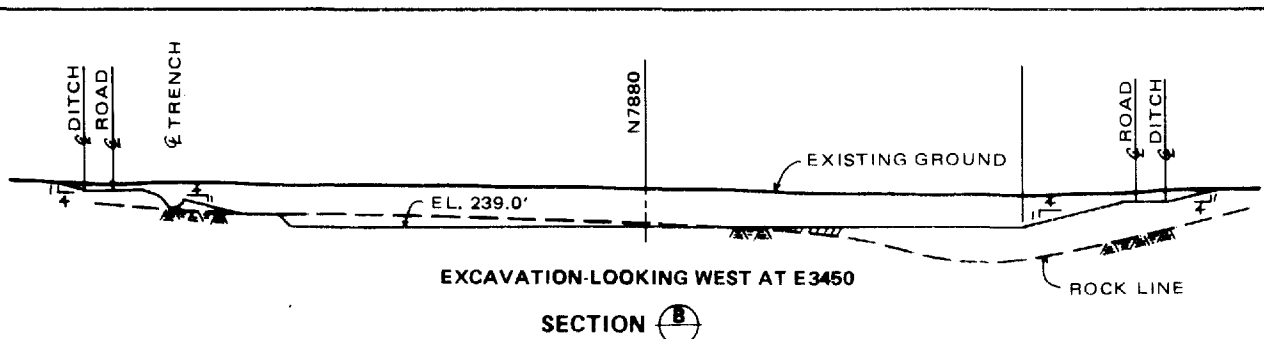
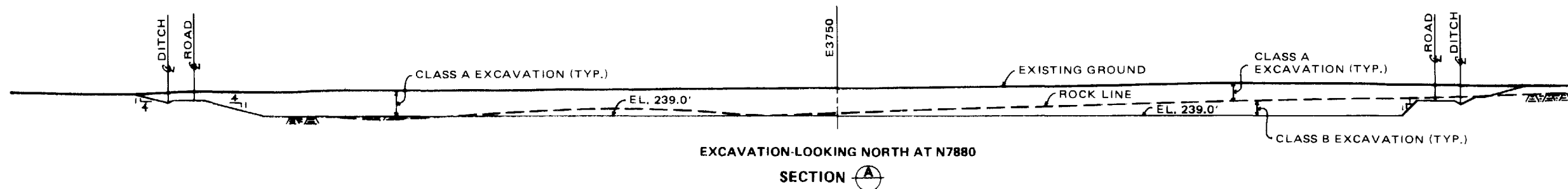


NOTE:  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-1102.

**LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT**

**SPRAY POND EXCAVATION  
 PLAN VIEW**

**FIGURE 3.8-55**



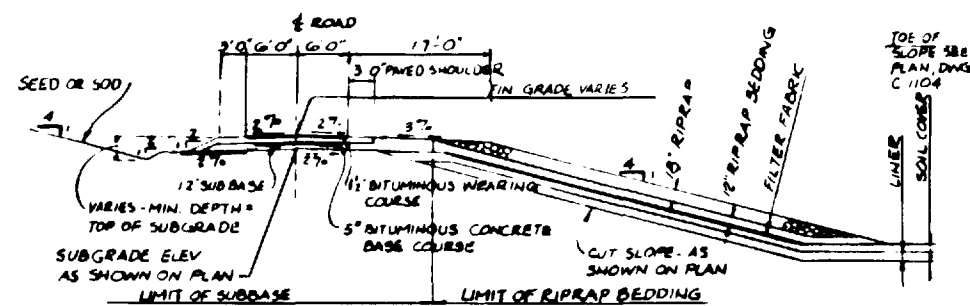
**NOTE:**

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-1103.

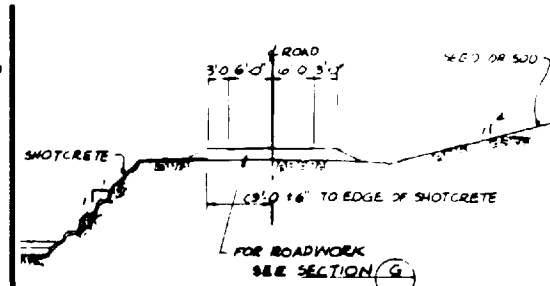
**LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT**

**SPRAY POND EXCAVATION AND  
GRADING SECTIONS AND DETAILS  
(SHEET 1 OF 2)**

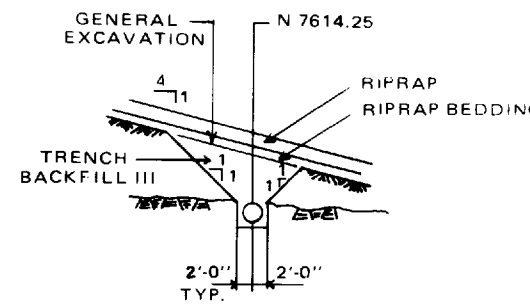
**FIGURE 3.8-56**



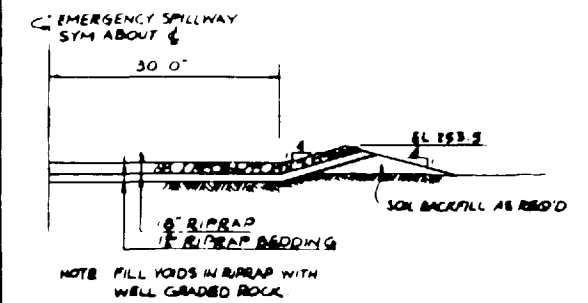
TYPICAL AT SOIL CUT  
SECTION G



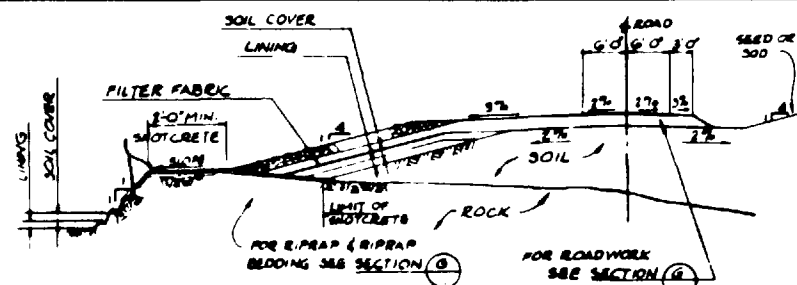
TYPICAL AT ROCK CUT  
SECTION H



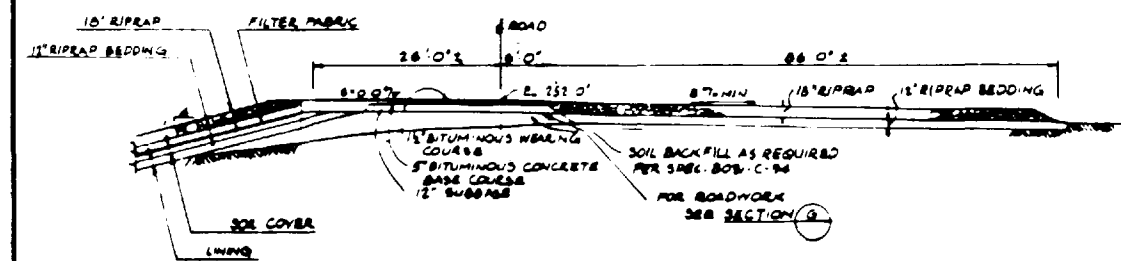
TYPICAL PIPE TRENCH EXCAVATION  
SECTION K



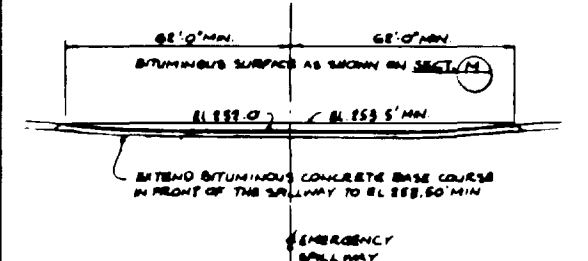
SECTION L



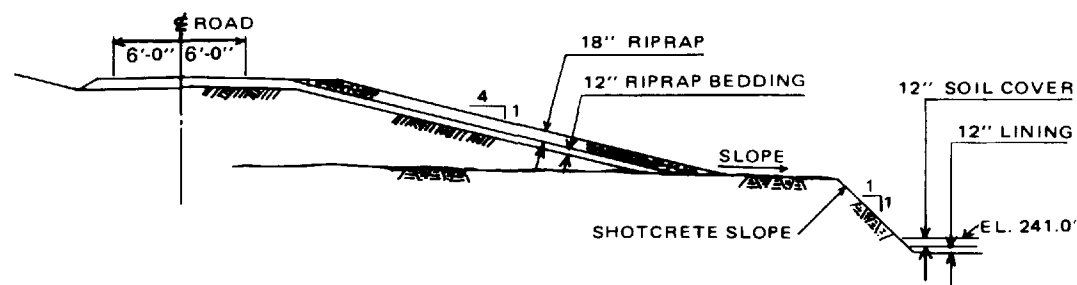
TYPICAL AT SOIL & ROCK CUT  
SECTION J



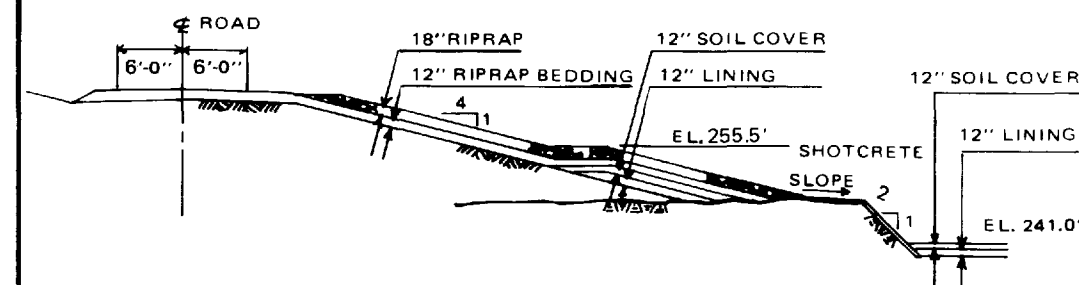
SECTION M SIM



SECTION N



SECTION P



SECTION Q

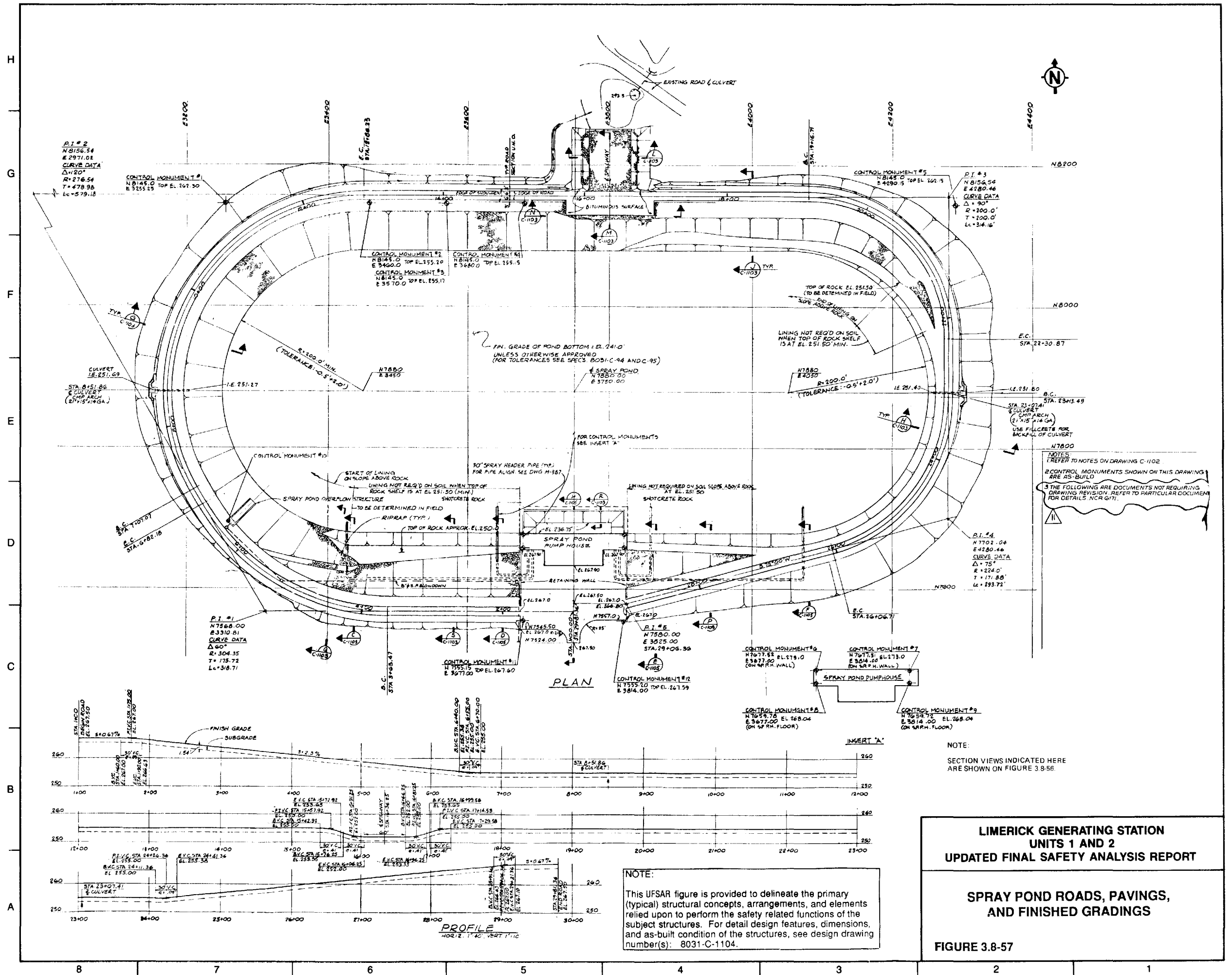
NOTE:

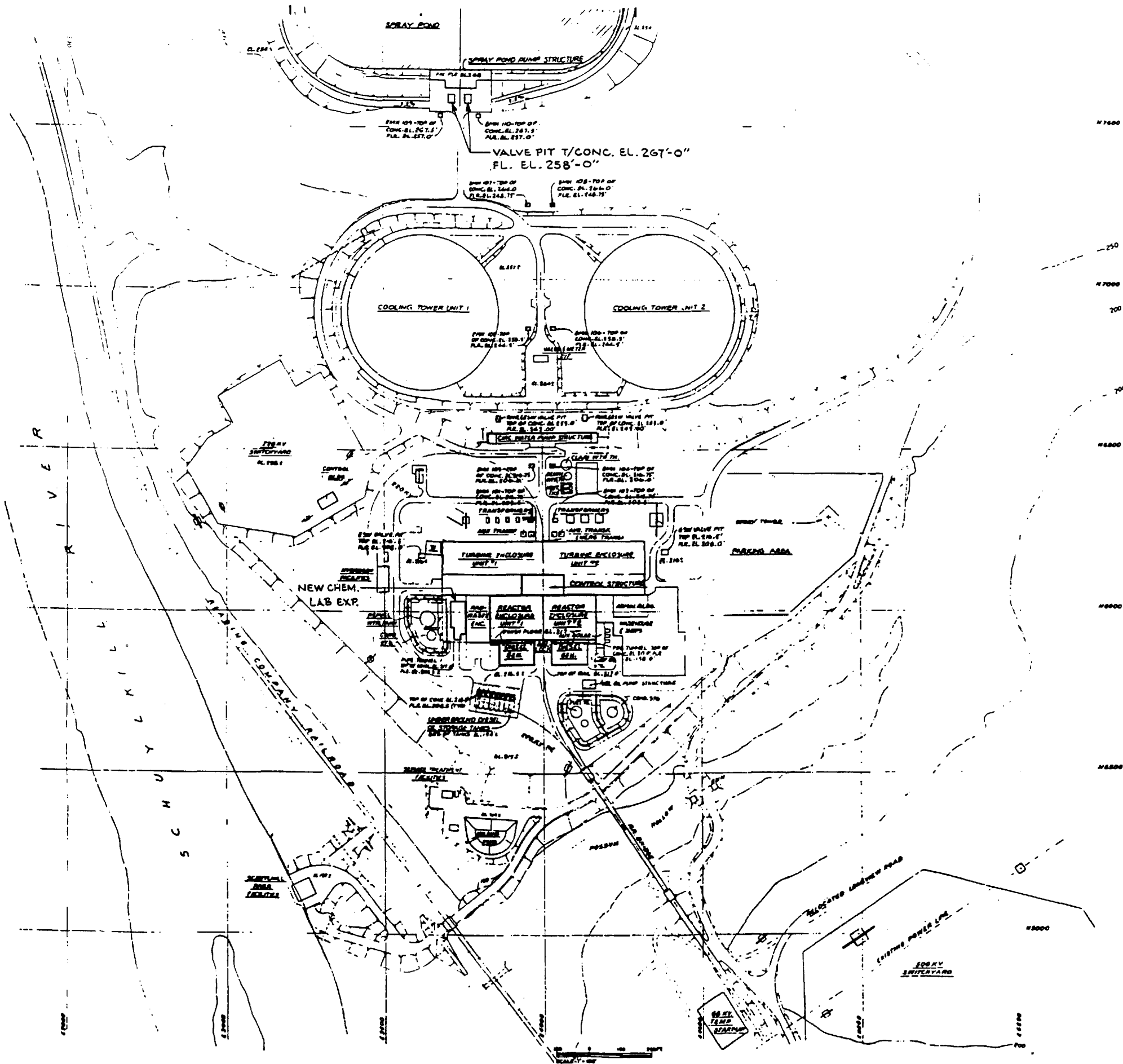
THE UFSAR FIGURE IS PROVIDED TO DELINEATE THE PRIMARY (TYPICAL) STRUCTURAL CONCEPTS, ARRANGEMENTS, AND ELEMENTS RELIED UPON TO PERFORM THE SAFETY RELATED FUNCTIONS OF THE SUBJECT STRUCTURES. FOR DETAIL DESIGN FEATURES, DIMENSIONS, AND AS-BUILT CONDITION OF THESE STRUCTURES, SEE DESIGN DRAWING #8031-C-1103.

LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

SPRAY POND EXCAVATION AND  
GRADING SECTIONS AND DETAILS  
(SHEET 2 OF 2)

FIGURE 3.8-56





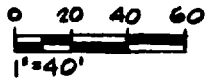
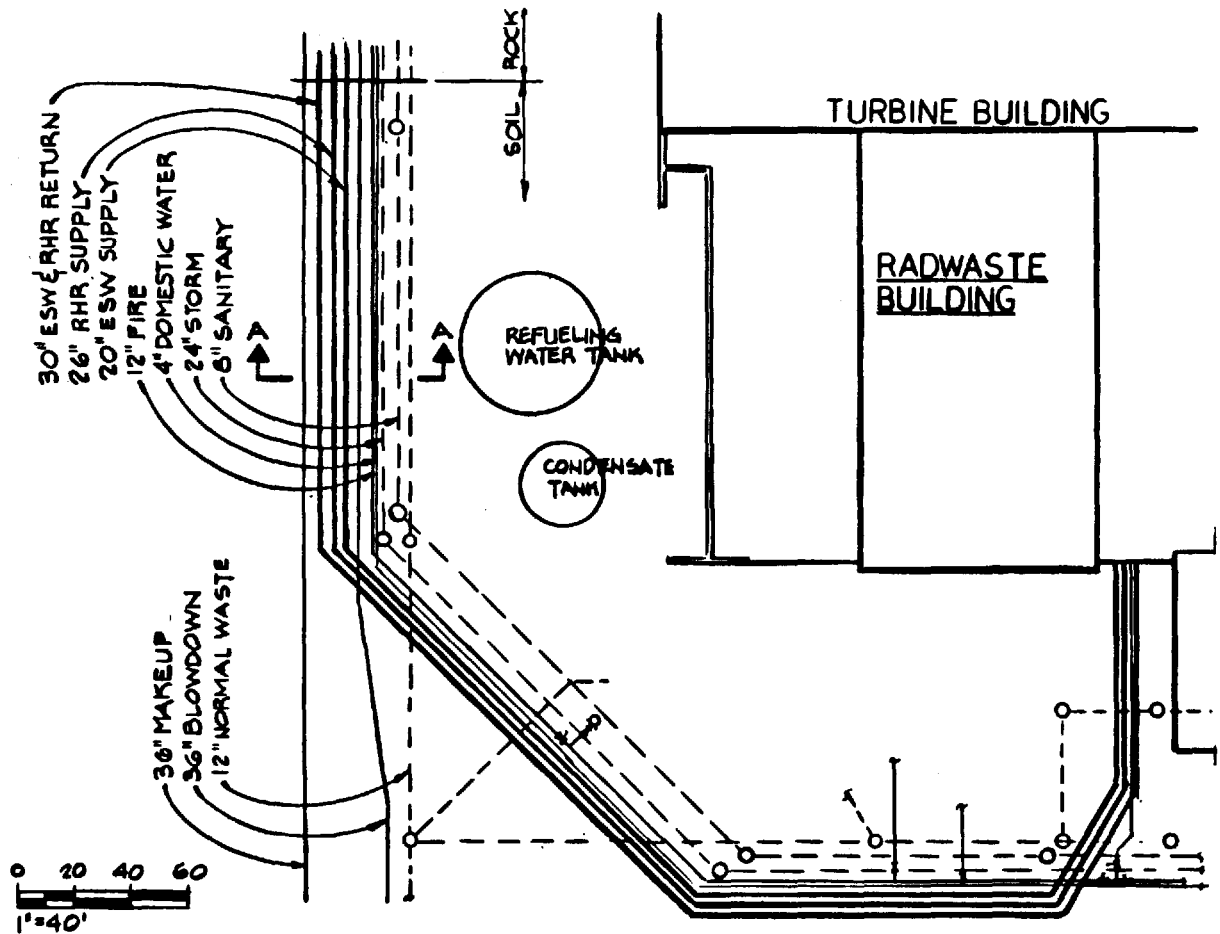
7500  
 7000  
 6500  
 6000  
 5500

**LEGEND**  
 □ SAFETY RELATED  
 ○ ELECTRICAL MANHOLE

**LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT**

**SAFETY-RELATED STRUCTURES  
 (SHEET 1 OF 3)**

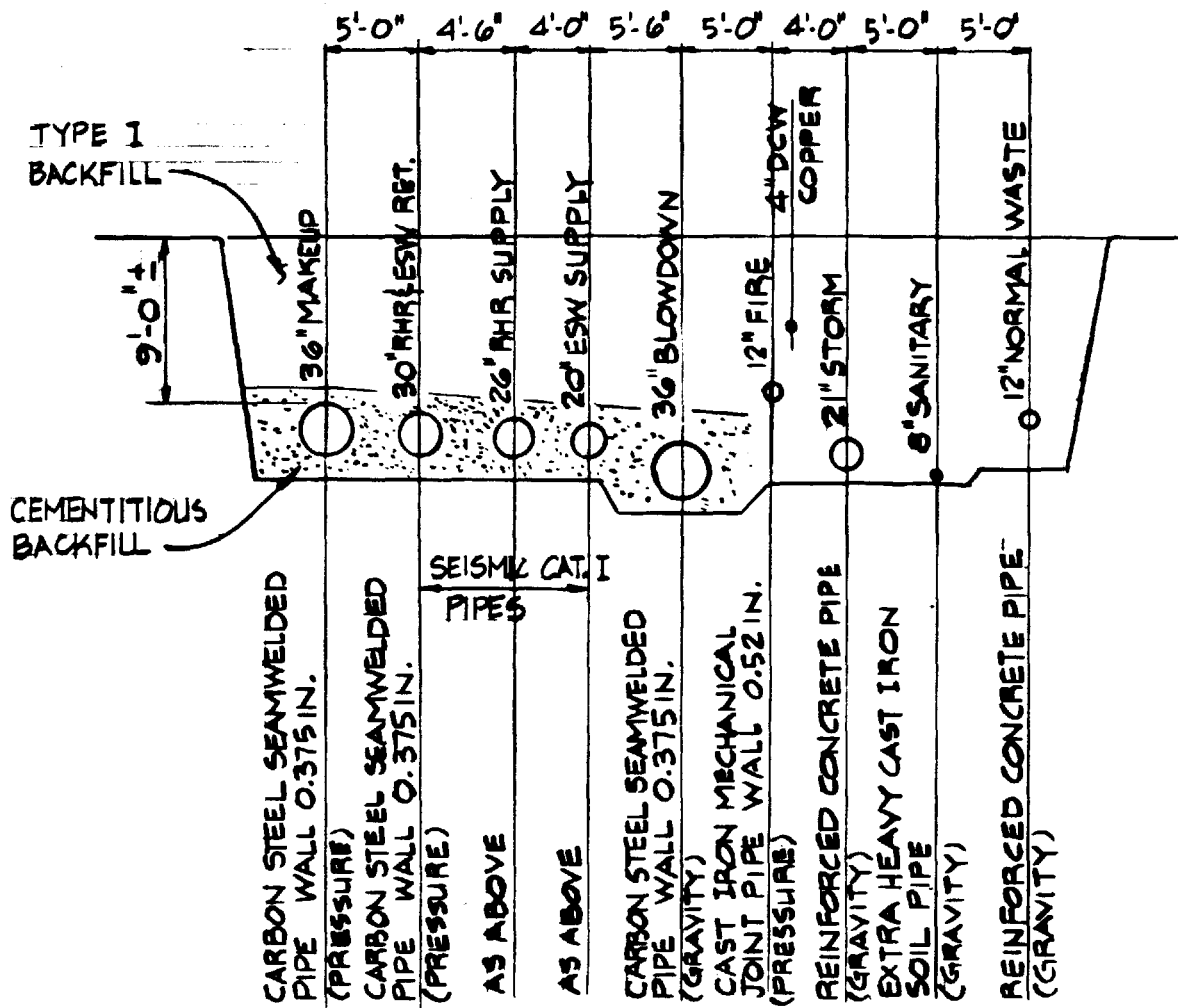
**FIGURE 3.8-58** Rev. 6,12/96



LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

YARD PIPING  
 (SHEET 2 OF 3)

FIGURE 3.8-58



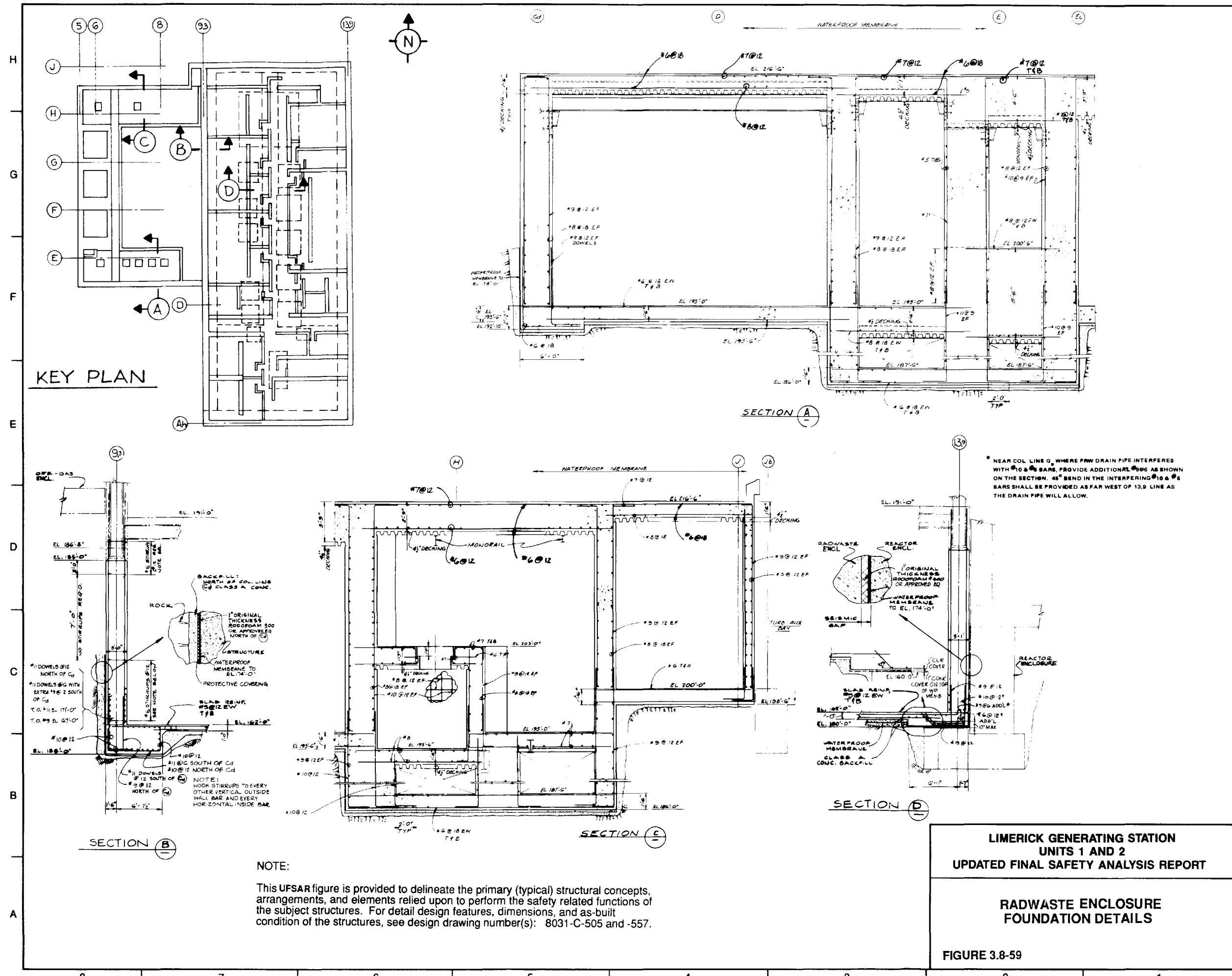
## SECTION A-A

LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

YARD PIPING  
 (SHEET 3 OF 3)

FIGURE 3.8-58





**KEY PLAN**

**SECTION A**

**SECTION B**

**SECTION C**

**SECTION D**

**NOTE:**

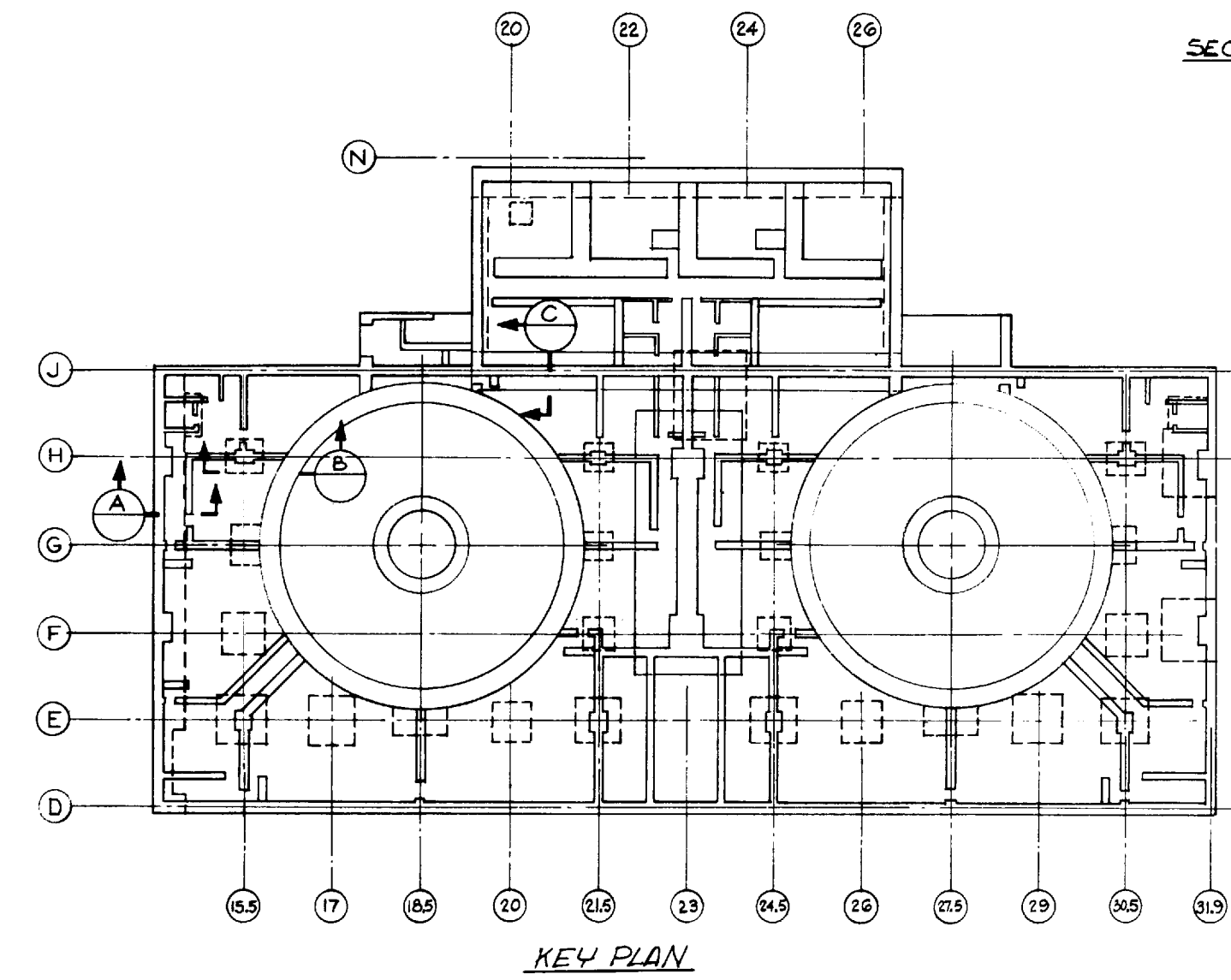
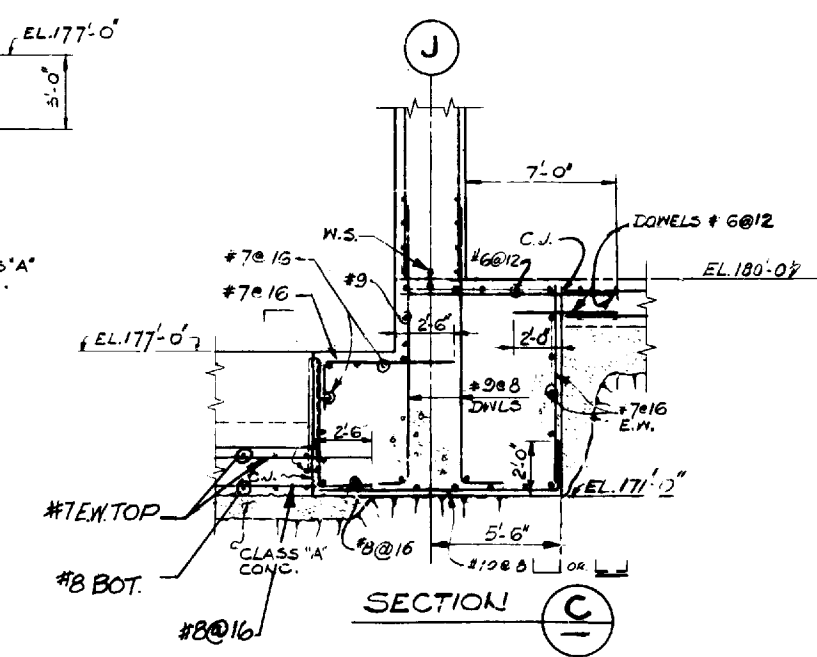
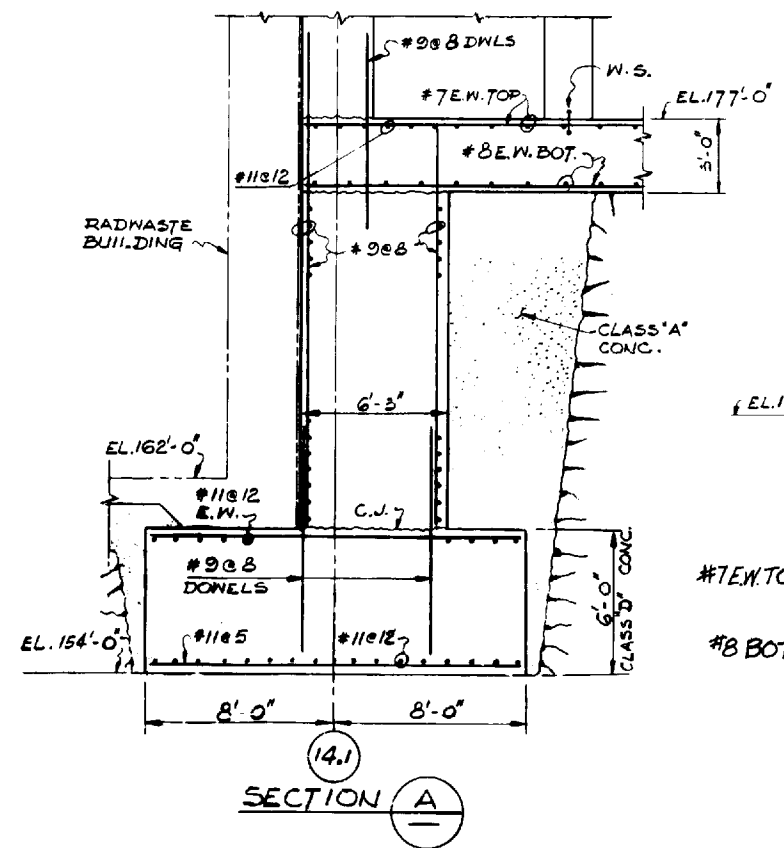
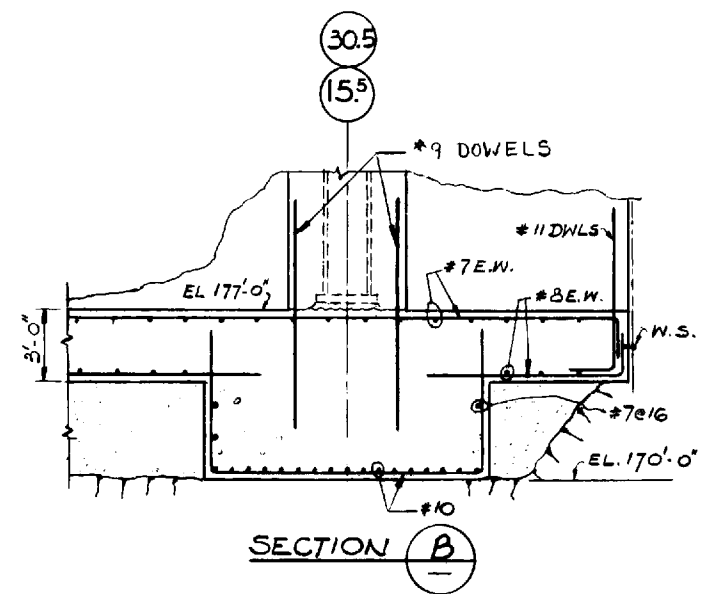
This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-505 and -557.

\* NEAR COL LINE G, WHERE FRW DRAIN PIPE INTERFERES WITH #10 & #6 BARS, PROVIDE ADDITIONAL #6 AS SHOWN ON THE SECTION. 45° BEND IN THE INTERFERING #10 & #6 BARS SHALL BE PROVIDED AS FAR WEST OF 13.9 LINE AS THE DRAIN PIPE WILL ALLOW.

**LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT**

**RADWASTE ENCLOSURE  
FOUNDATION DETAILS**

**FIGURE 3.8-59**

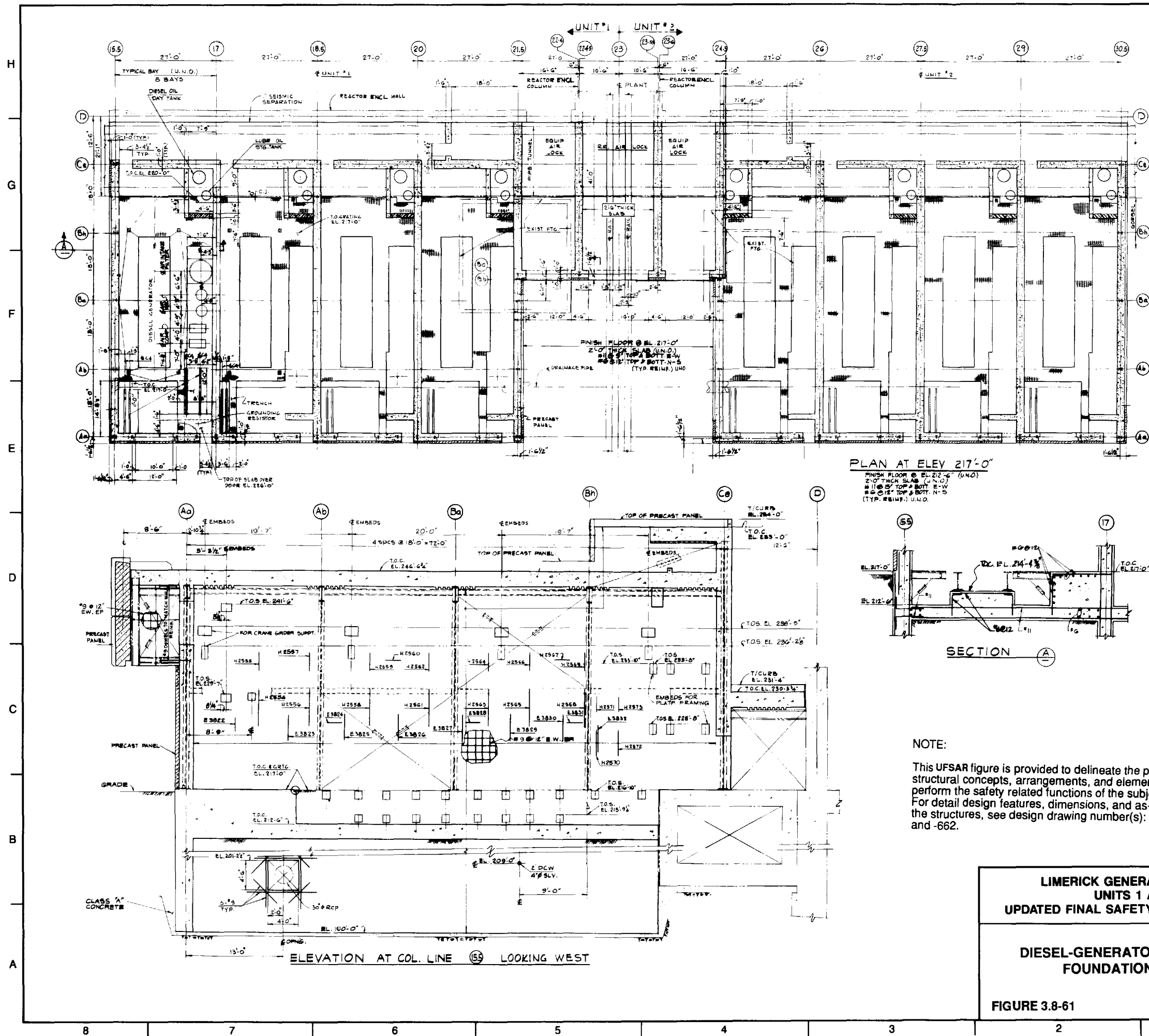


NOTE:  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-101 and -102.

LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

REACTOR ENCLOSURE AND CONTROL  
 STRUCTURE FOUNDATION DETAILS

FIGURE 3.8-60

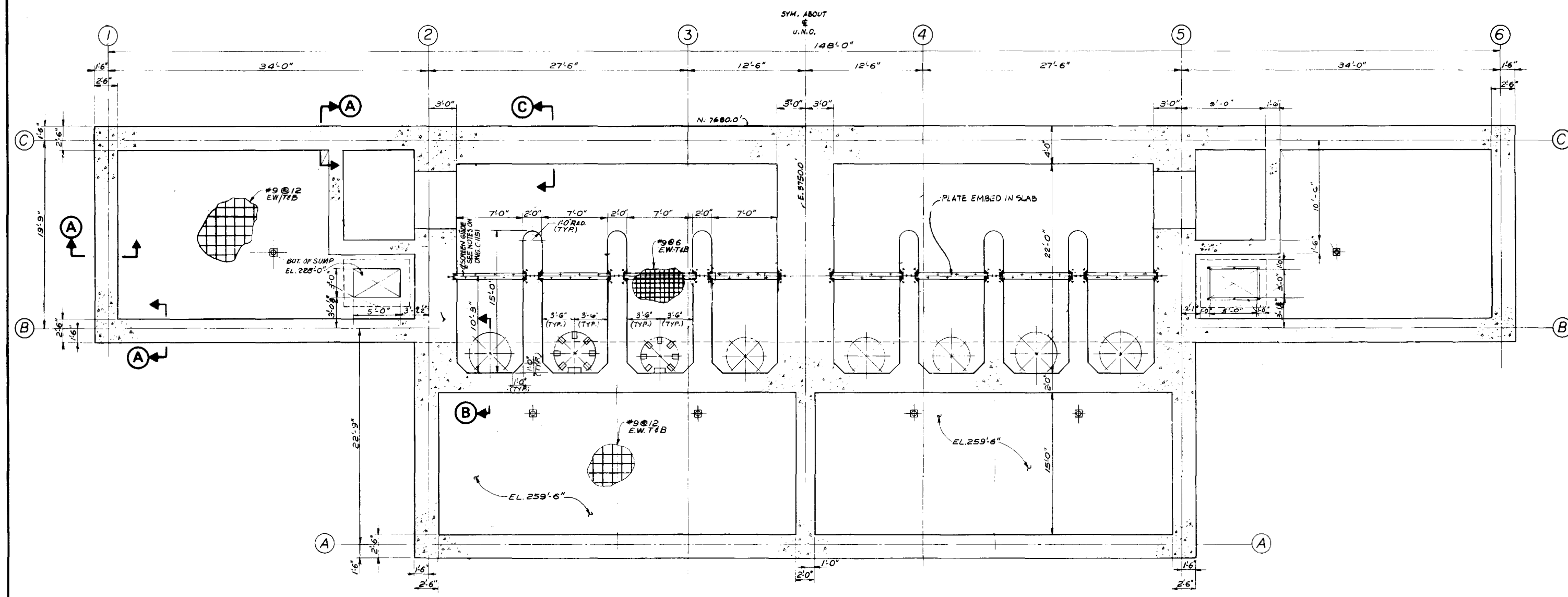


NOTE:  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-656 and -662.

**LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT**

**DIESEL-GENERATOR ENCLOSURE  
 FOUNDATION DETAILS**

**FIGURE 3.8-61**



FOUNDATION MAT PLAN AT EL. 237'-0"

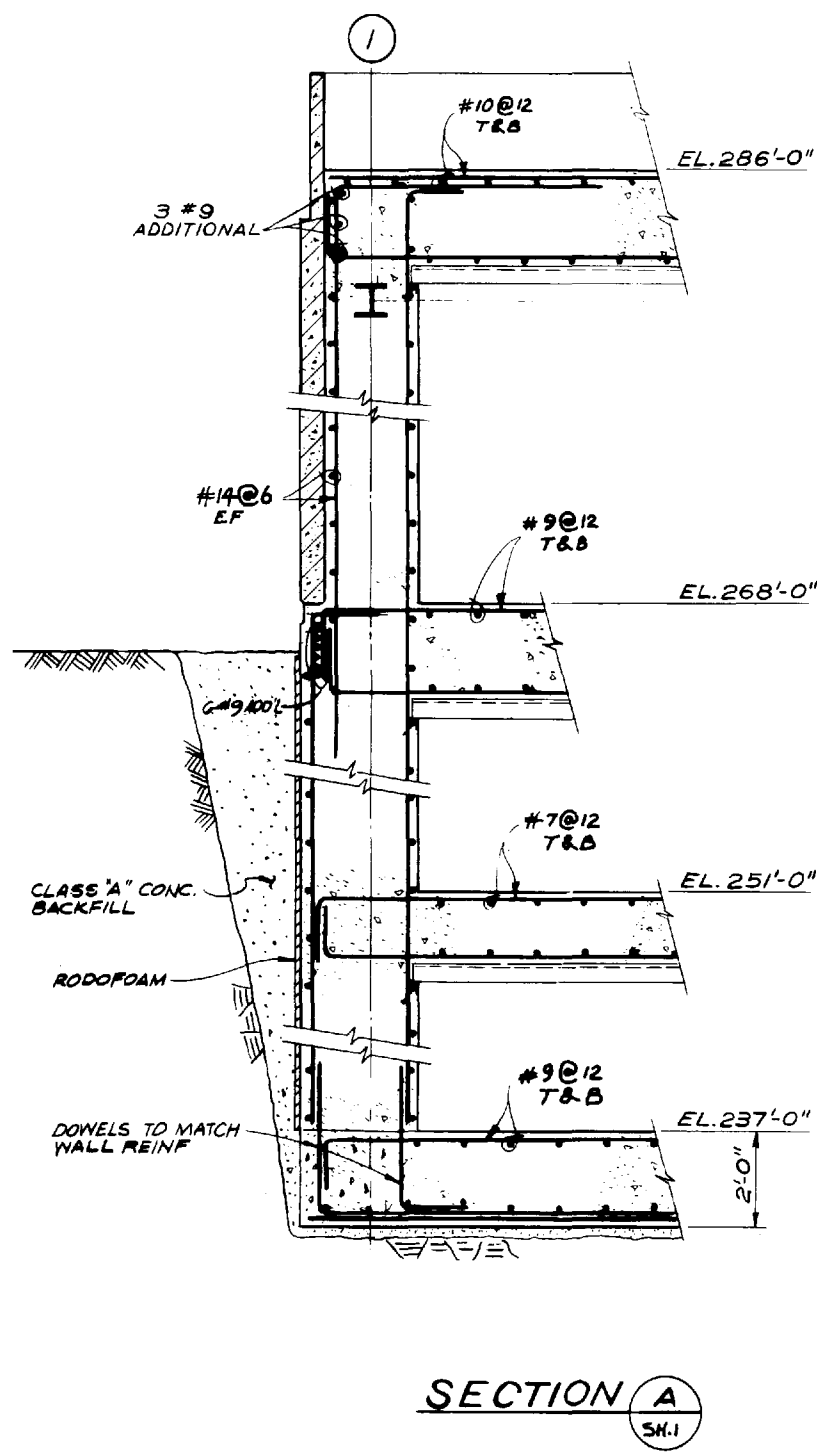
**NOTE:**

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-1132.

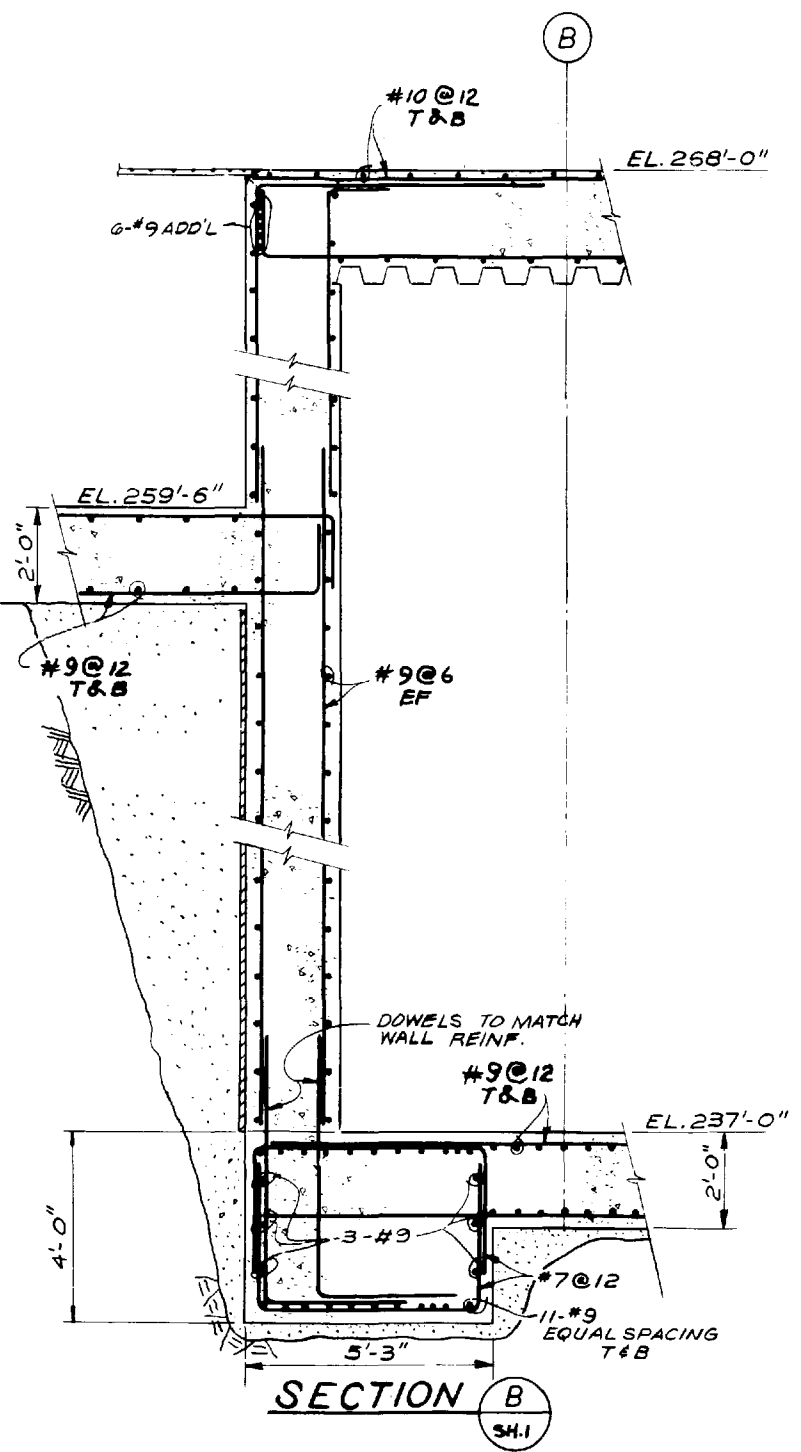
LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

SPRAY POND PUMP STRUCTURE  
 FOUNDATION DETAILS  
 (SHEET 1 OF 2)

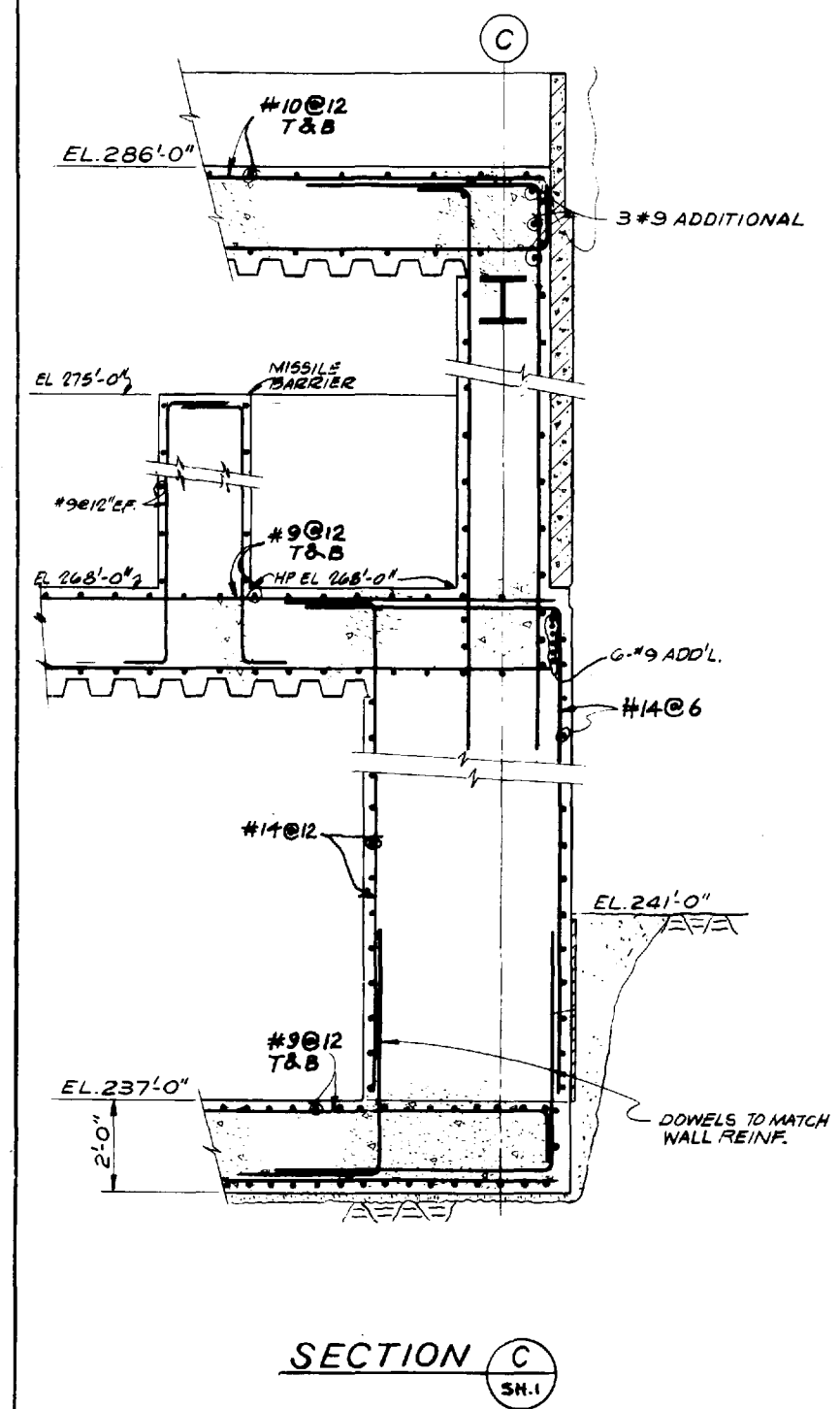
FIGURE 3.8-62



SECTION A  
SH.1



SECTION B  
SH.1



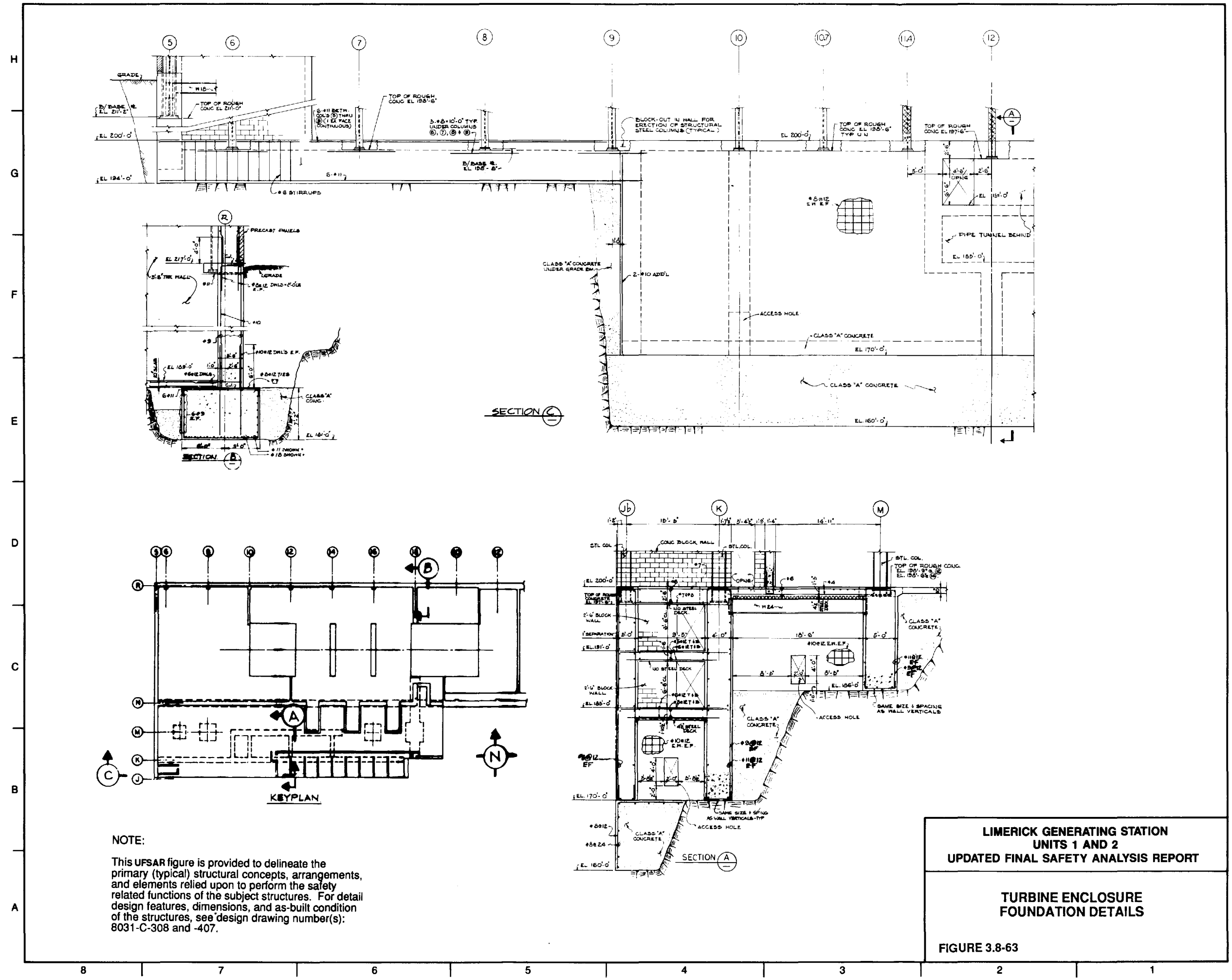
SECTION C  
SH.1

NOTE:  
This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-1133.

LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

SPRAY POND PUMP STRUCTURE  
FOUNDATION DETAILS  
(SHEET 2 OF 2)

FIGURE 3.8-62

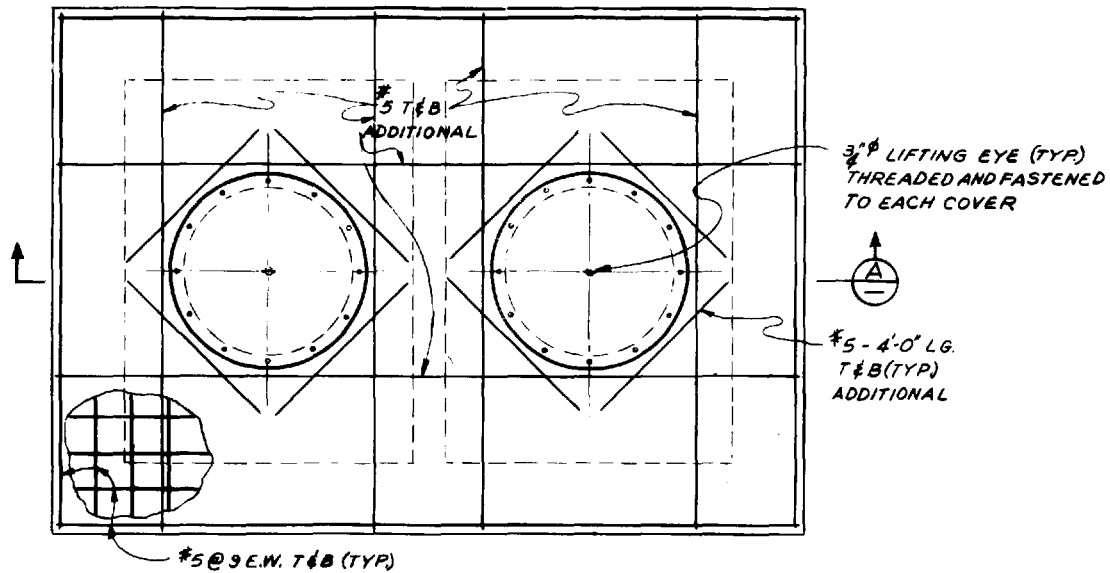


**NOTE:**  
 This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-308 and -407.

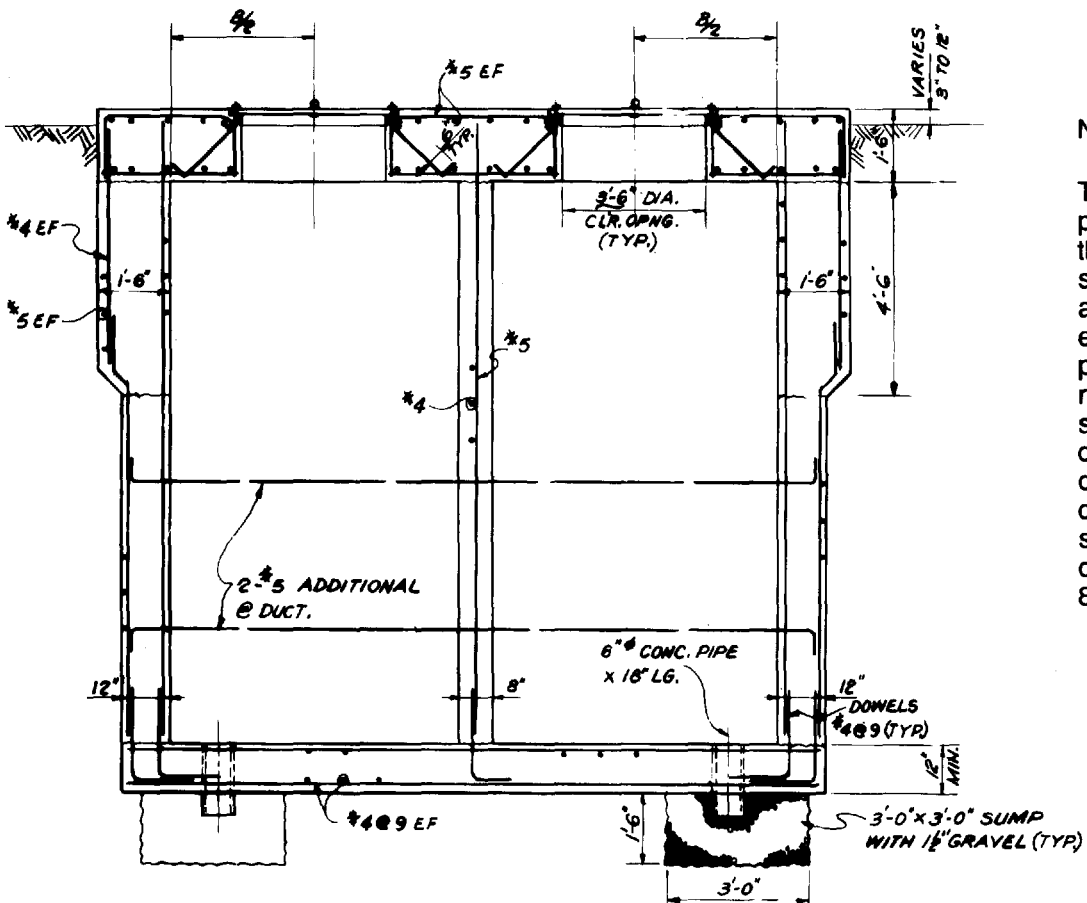
**LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT**

**TURBINE ENCLOSURE  
 FOUNDATION DETAILS**

**FIGURE 3.8-63**



ROOF PLAN  
DOUBLE-CELL MANHOLE



**NOTE:**

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-40.

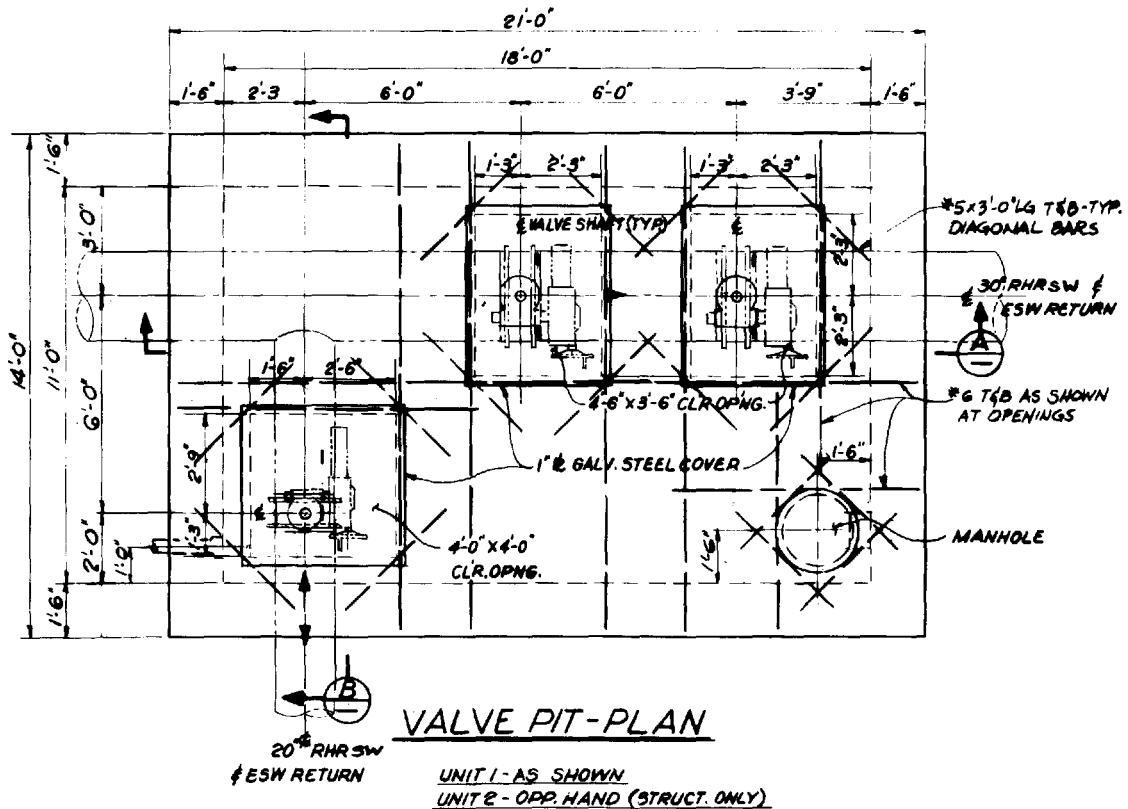
SECTION A  
ELECTRICAL MANHOLES

VALVE PITS-RHRSW & ESW PIPING

LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

MISCELLANEOUS STRUCTURES  
FOUNDATION DETAILS  
(SHEET 1 OF 5)

FIGURE 3.8-64



**VALVE PITS-RHR SW & ESW PIPING**

**NOTE:**

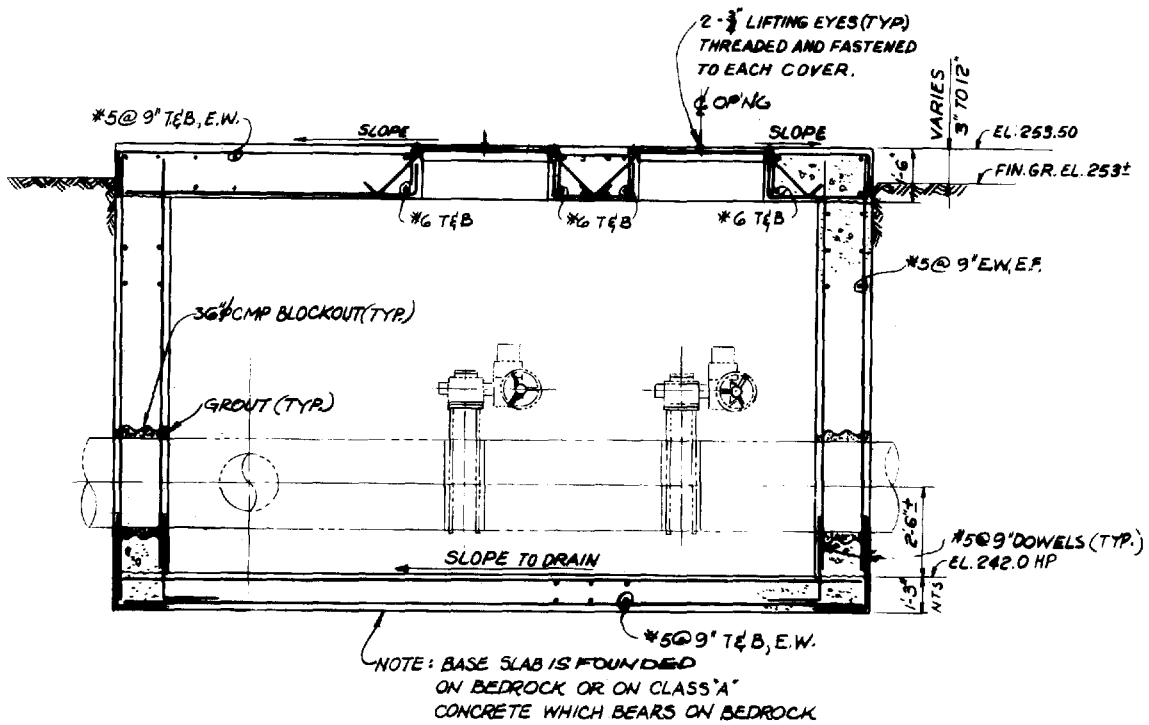
This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-43.

**LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT**

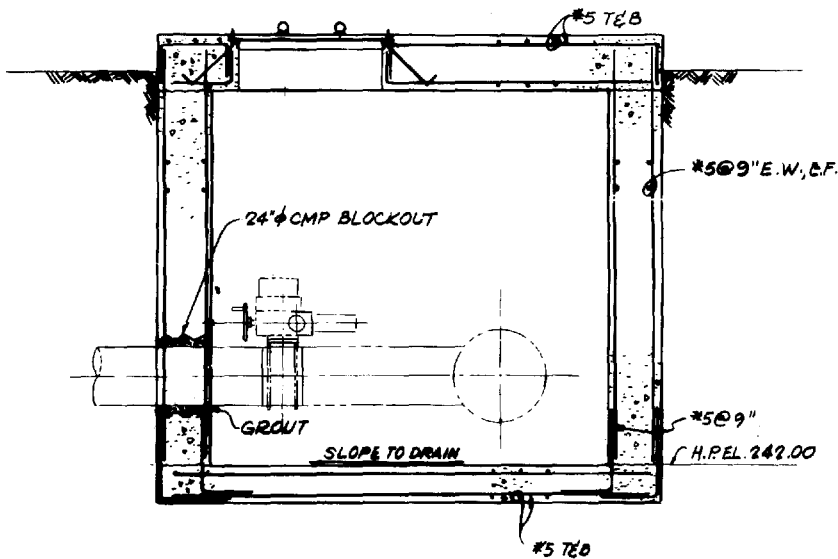
**MISCELLANEOUS STRUCTURES  
FOUNDATION DETAILS  
(SHEET 2 OF 5)**

**FIGURE 3.8-64**





SECTION **A**



SECTION **B**

NOTE:

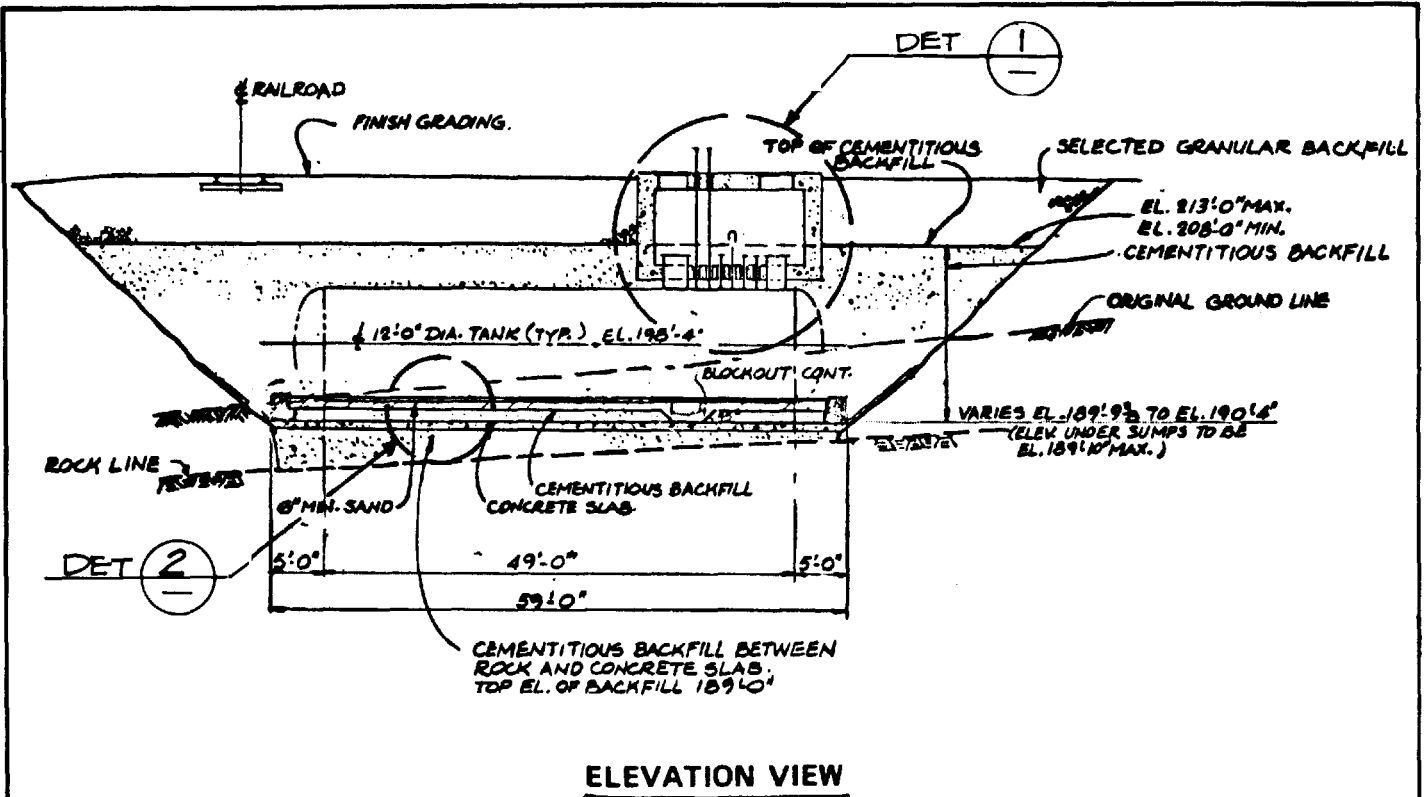
This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-43.

VALVE PITS-RHRWS & ESW PIPING

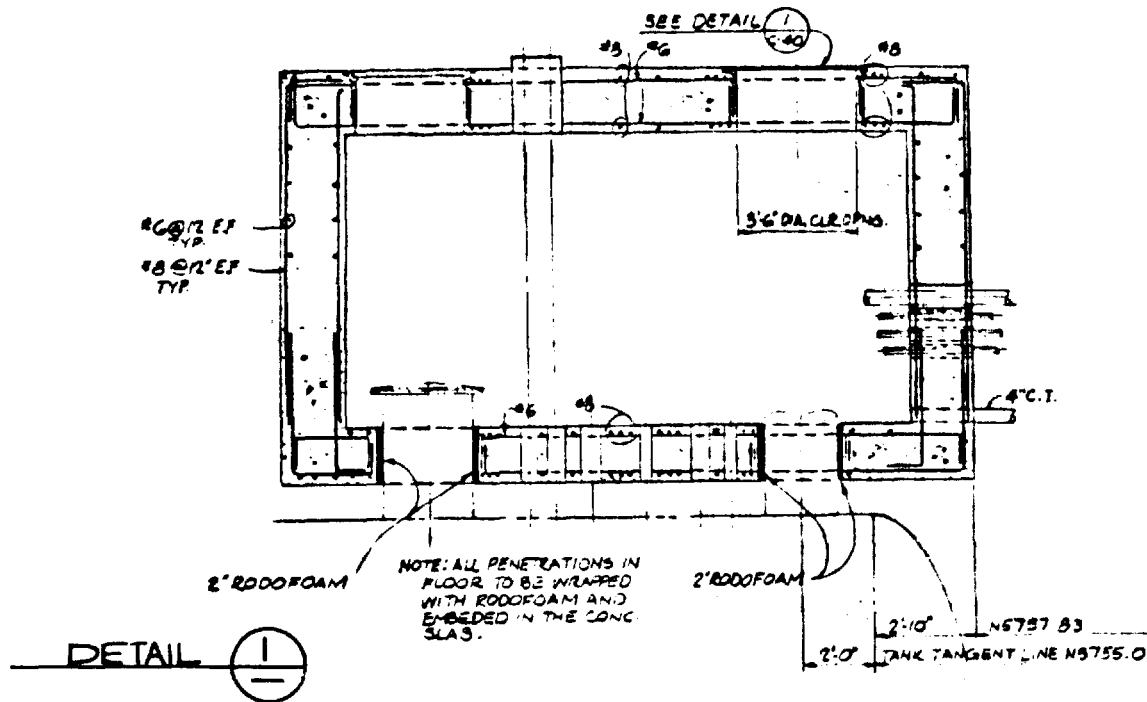
LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

MISCELLANEOUS STRUCTURES  
 FOUNDATION DETAILS  
 (SHEET 3 OF 5)

FIGURE 3.8-64



**ELEVATION VIEW**



**DIESEL OIL STORAGE TANK STRUCTURES**

**NOTE:**

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-1063 and -1064.

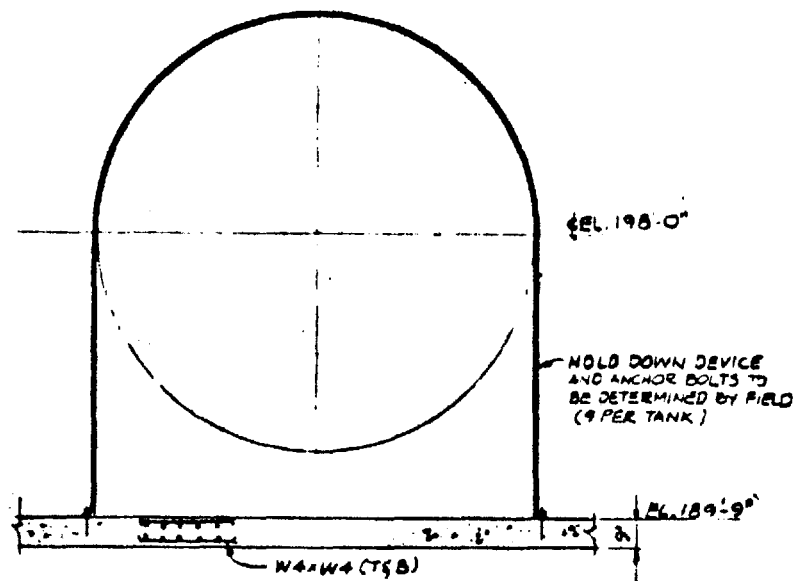
**LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT**

**MISCELLANEOUS STRUCTURES  
FOUNDATION DETAILS  
(SHEET 4 OF 5)**

**FIGURE 3.8-64**

NOTE:

This UFSAR figure is provided to delineate the primary (typical) structural concepts, arrangements, and elements relied upon to perform the safety related functions of the subject structures. For detail design features, dimensions, and as-built condition of the structures, see design drawing number(s): 8031-C-1064.



TYP. TANK ANCHORAGE TO BASE SLAB

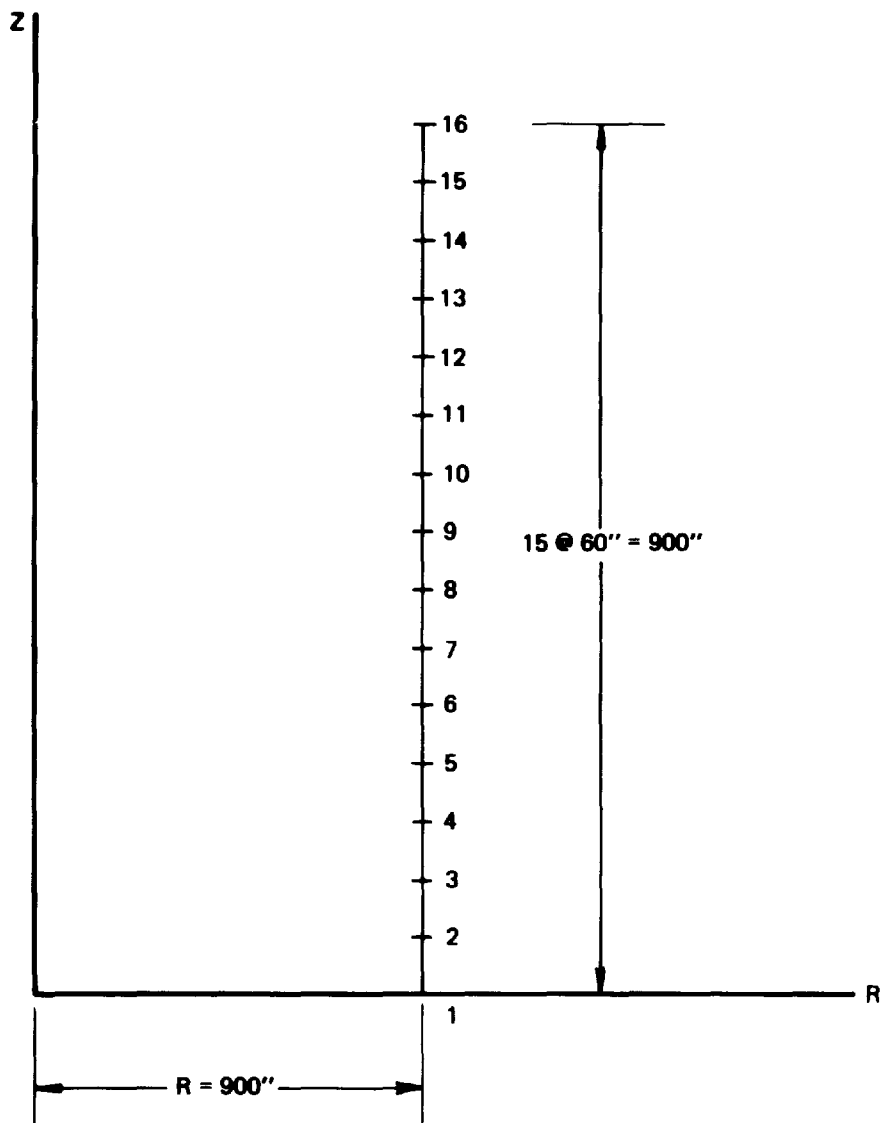
DETAIL (2)

DIESEL OIL STORAGE TANK STRUCTURES

LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

MISCELLANEOUS STRUCTURES  
FOUNDATION DETAILS  
(SHEET 5 OF 5)

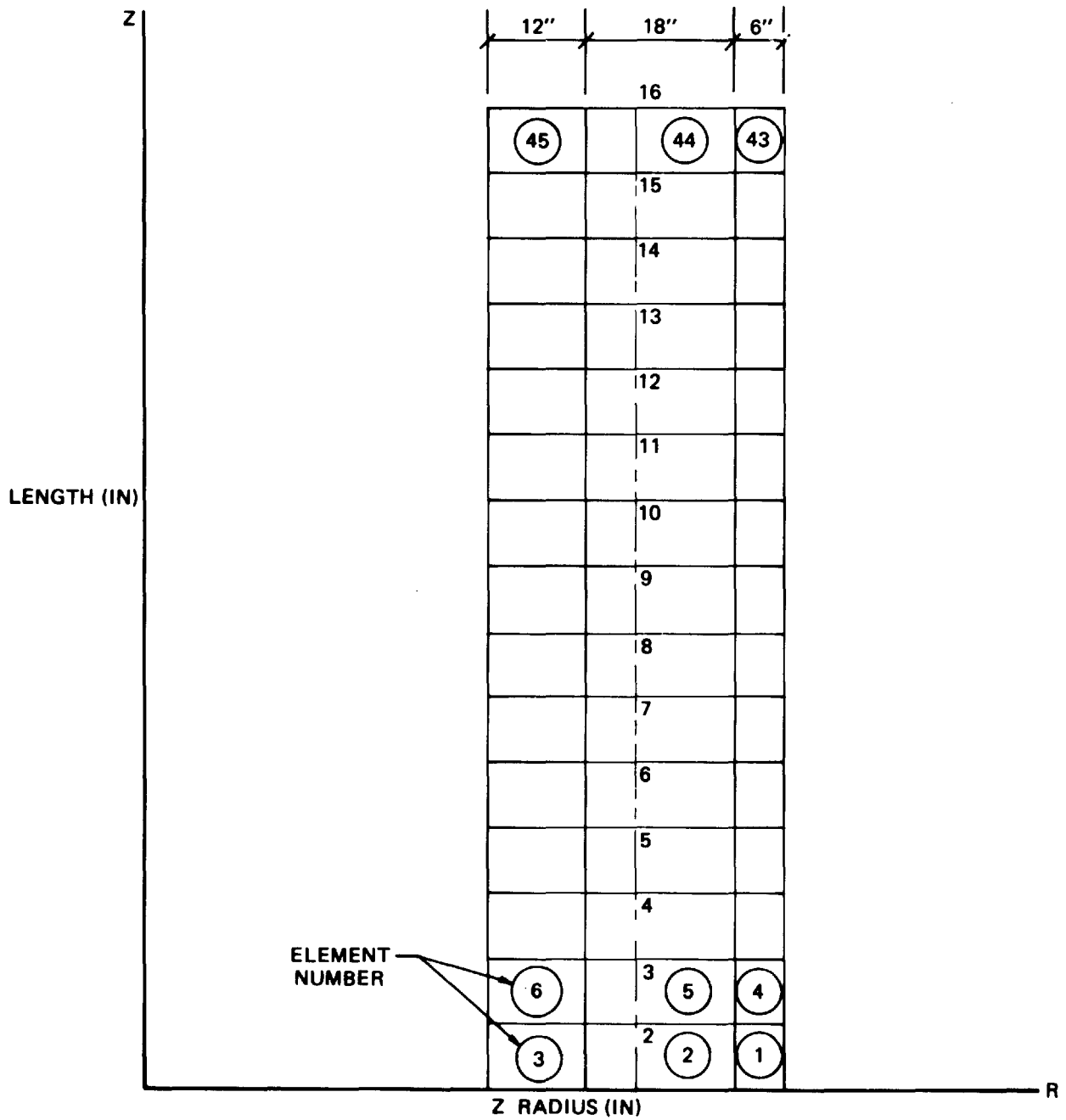
FIGURE 3.8-64



LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

THIN SHELL CYLINDER MODEL  
(ASHSD PROGRAM, SAMPLE  
PROBLEM A)

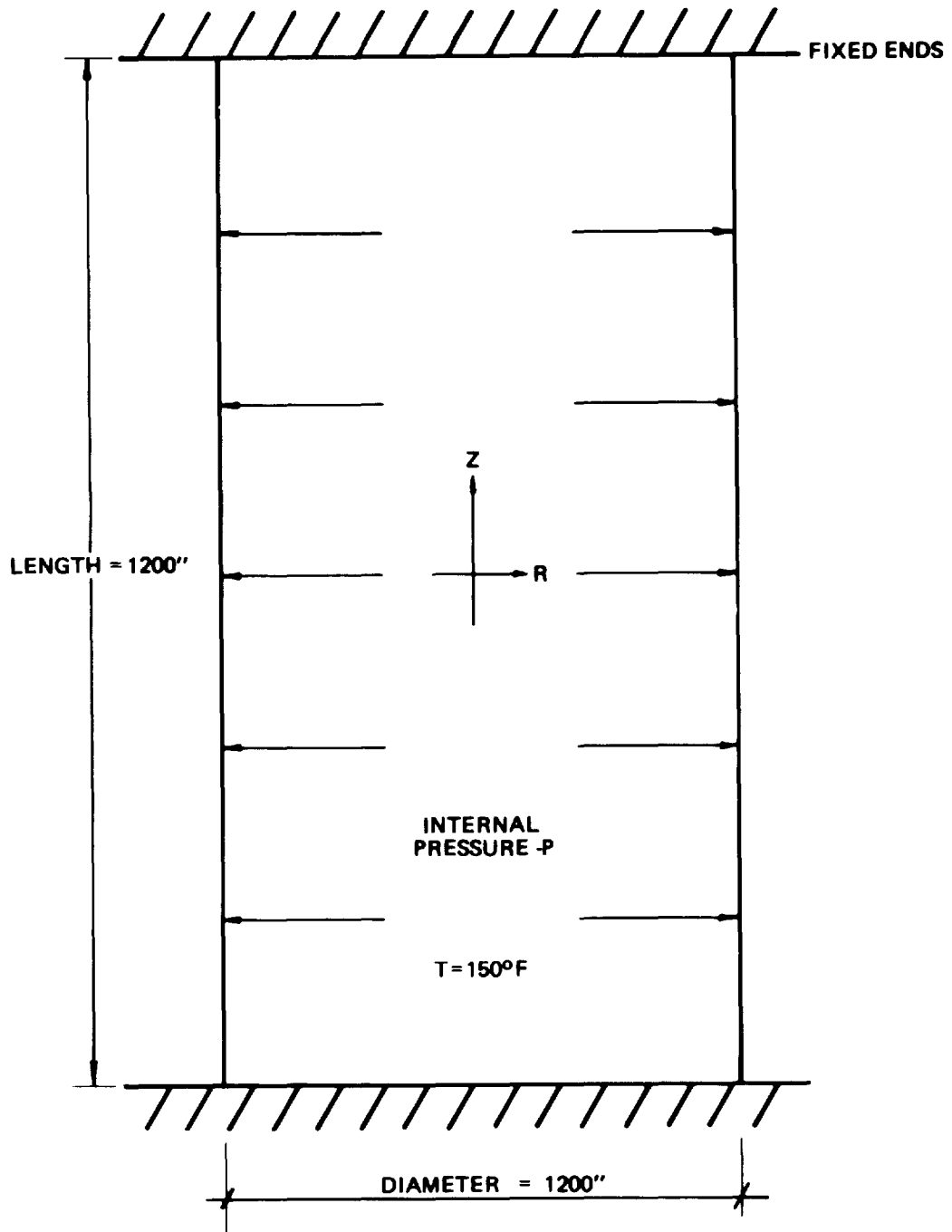
FIGURE 3.8-65



LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

AXISYMMETRIC SOLID CYLINDER  
 MODEL (ASHSD PROGRAM,  
 SAMPLE PROBLEM A)

FIGURE 3.8-66



LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

CYLINDER MODEL (ASHSD PROGRAM,  
 SAMPLE PROBLEM B)

FIGURE 3.8-67

HEIGHT(IN)  
Z

600

END OF  
CYLINDER

26  
25  
24  
23  
22  
21  
20  
19  
18  
17  
16  
15  
14  
13  
12  
11  
10  
9  
8  
7  
6  
5  
4  
3  
2

6 @ 15" = 90"

THIN SHELL  
ELEMENTS

15 @ 30" = 450"

CENTER OF  
CYLINDER

4 @ 15" = 60"

RADIUS R

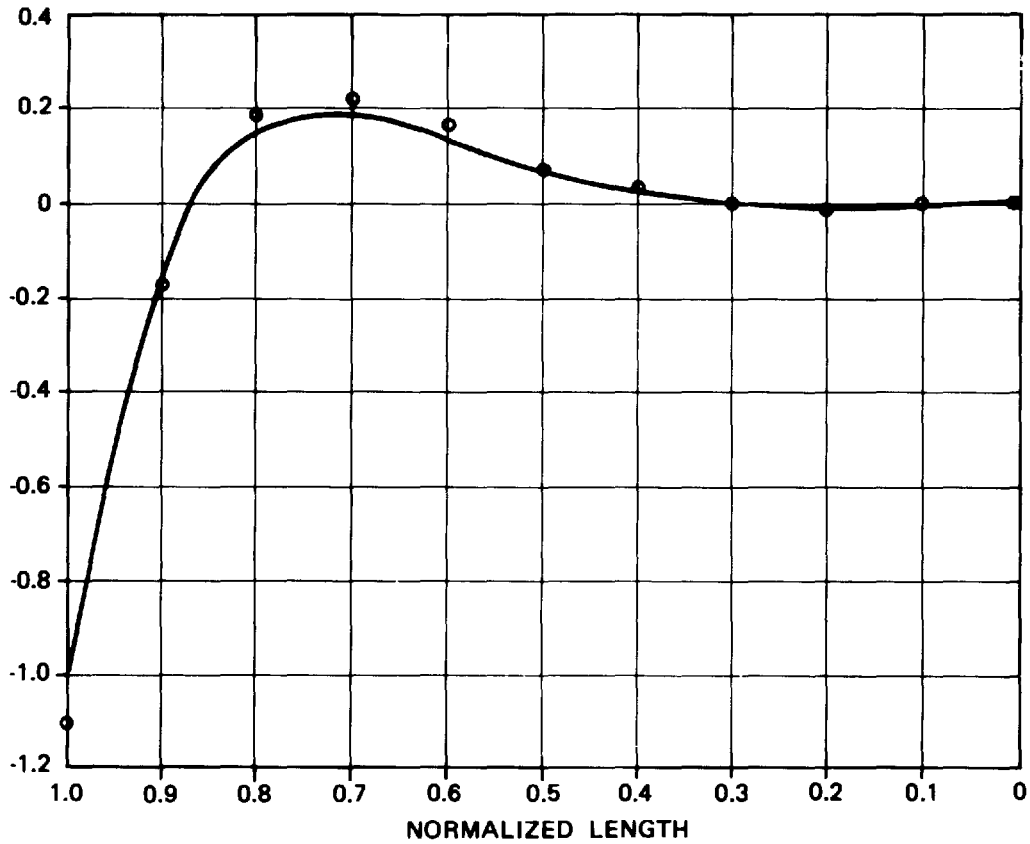
600"

LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

FINITE ELEMENT MODEL (ASHSD  
PROGRAM, SAMPLE PROBLEM B)

FIGURE 3.8-68

AXIAL MOMENT  
(LB/IN)



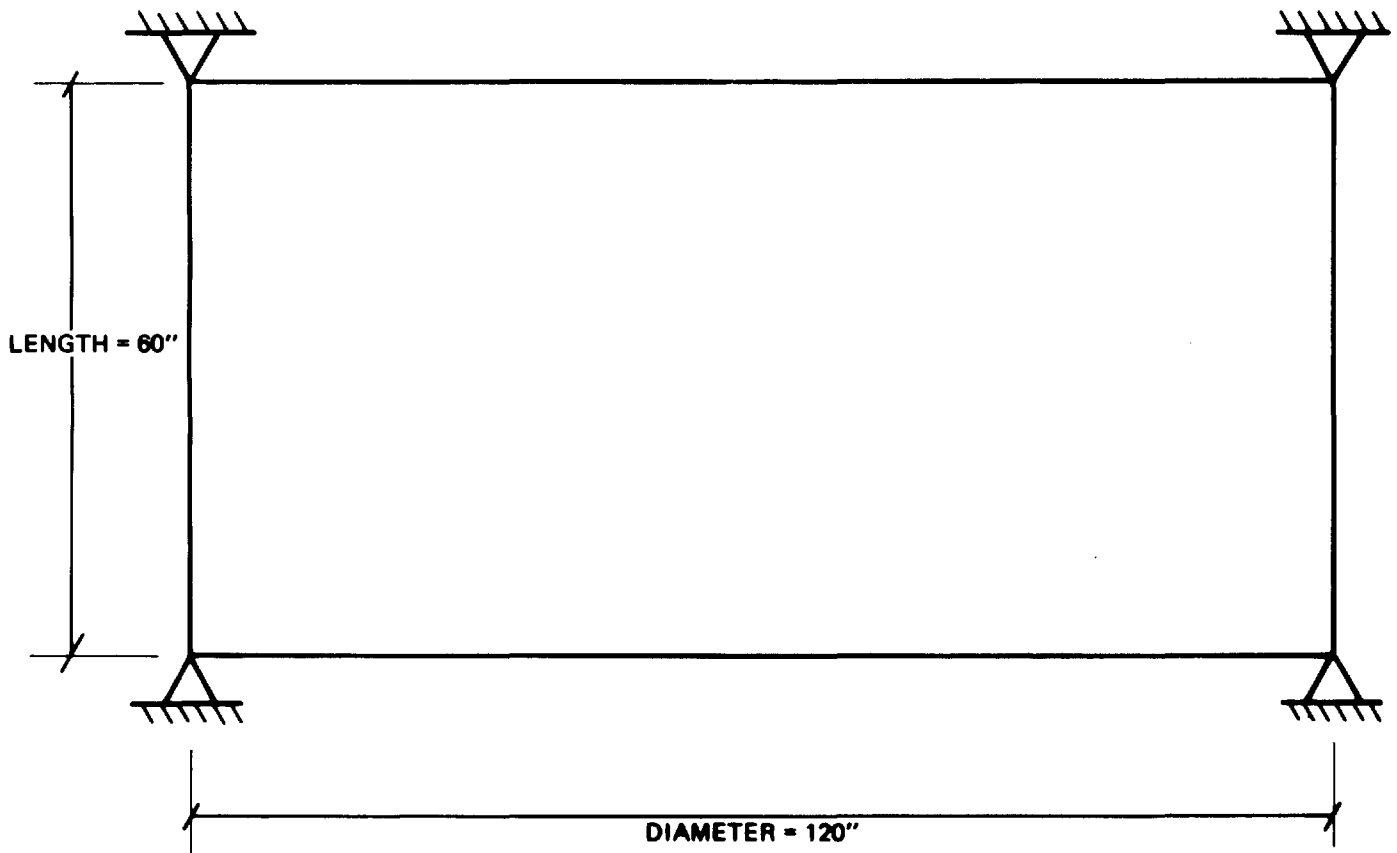
○ = ASHSD  
— = REFERENCE 3.8-4

LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

COMPARISON OF COMPUTER RESULTS  
AND THEORETICAL SOLUTION  
(ASHSD PROGRAM,  
SAMPLE PROBLEM B)

FIGURE 3.8-69



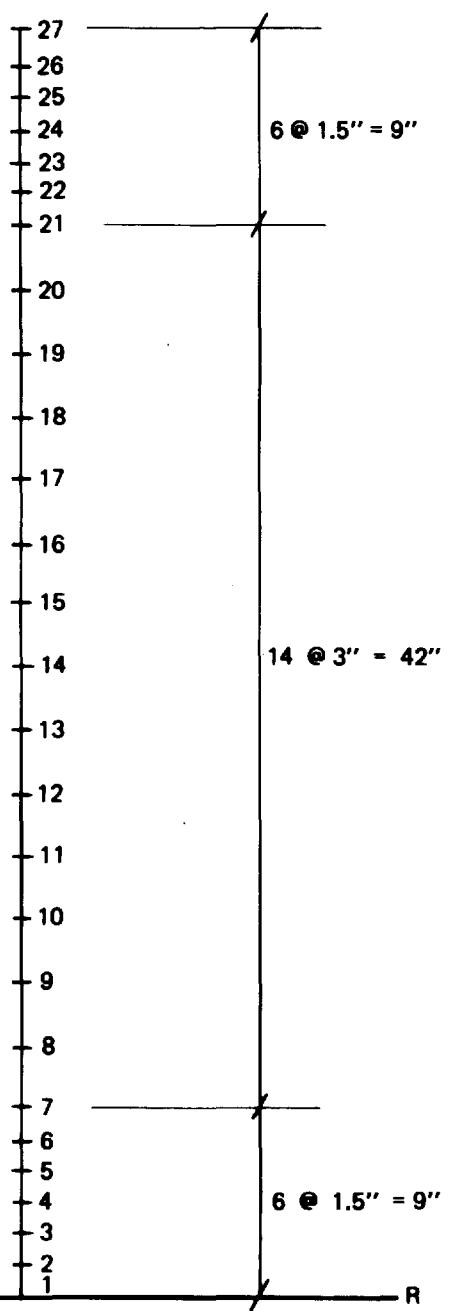


LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

CYLINDER MODEL  
(ASHSD PROGRAM,  
SAMPLE PROBLEM C)

FIGURE 3.8-70

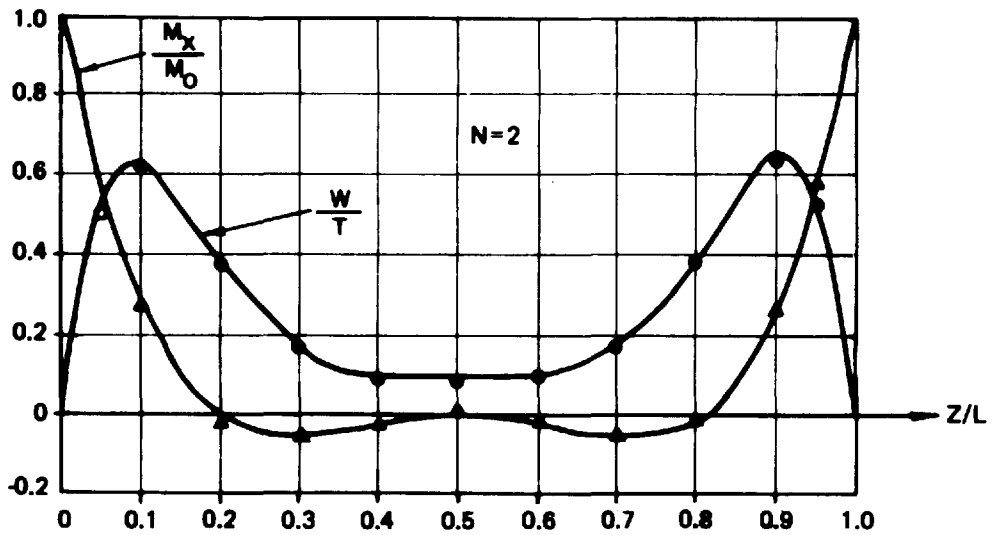
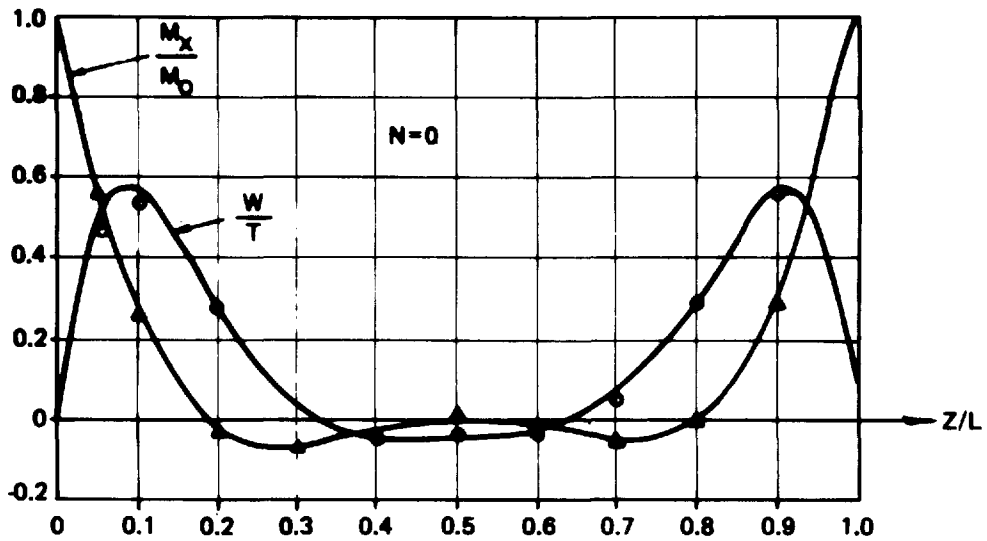
Z



LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

FINITE ELEMENT MODEL  
(ASHSD PROGRAM,  
SAMPLE PROBLEM C)

FIGURE 3.8-71



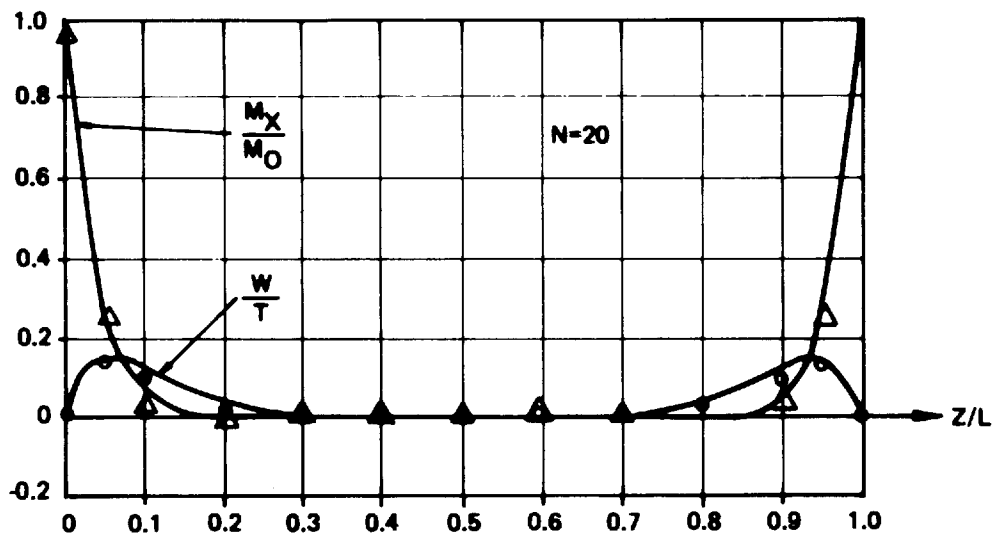
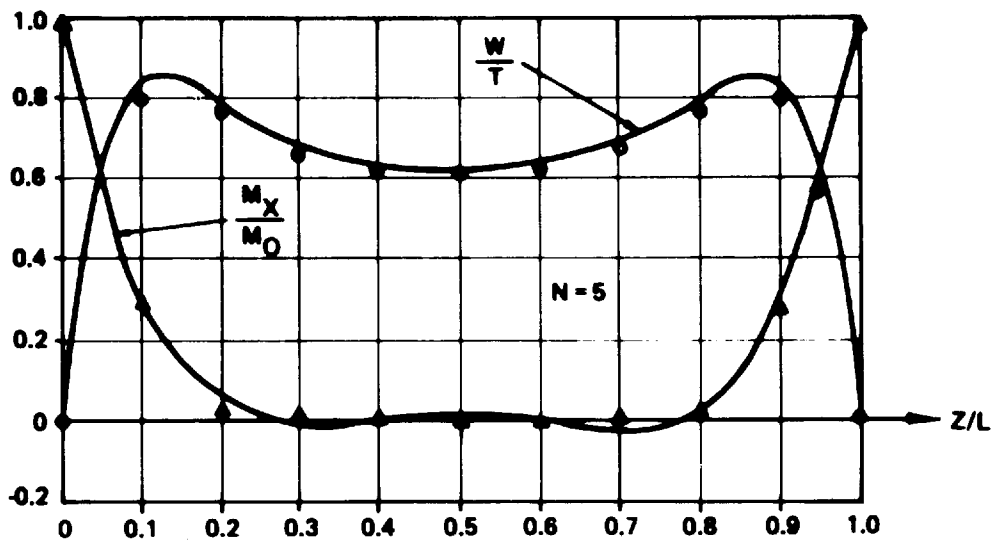
- ASHSD (RADIAL DISPLACEMENT  $W$ )
- △ ASHSD (LONGITUDINAL MOMENT  $M_x$ )
- REFERENCE 3.8-5

**LIMERICK GENERATING STATION**  
**UNITS 1 AND 2**  
**UPDATED FINAL SAFETY ANALYSIS REPORT**

---

**COMPARISON OF COMPUTER RESULTS**  
**AND THEORETICAL SOLUTION**  
**(ASHSD PROGRAM,**  
**SAMPLE PROBLEM C)**  
**(SHEET 1 OF 2)**

**FIGURE 3.8-72**



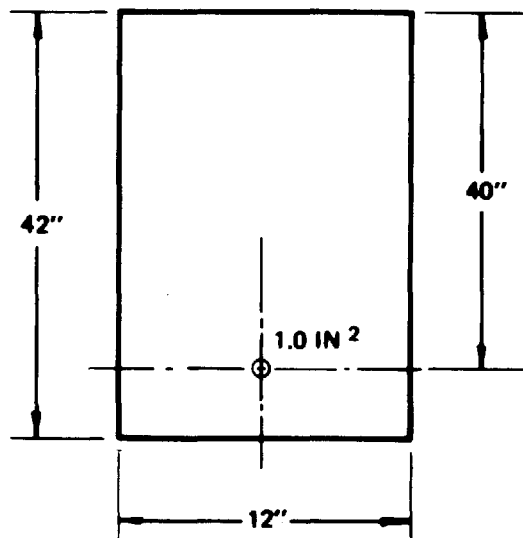
- ASHSD (RADIAL DISPLACEMENT  $W$ )
- △ ASHSD (LONGITUDINAL MOMENT  $M_x$ )
- REFERENCE 3.8-5

**LIMERICK GENERATING STATION**  
**UNITS 1 AND 2**  
**UPDATED FINAL SAFETY ANALYSIS REPORT**

---

**COMPARISON OF COMPUTER RESULTS**  
**AND THEORETICAL SOLUTION**  
**(ASHSD PROGRAM,**  
**SAMPLE PROBLEM C)**  
**(SHEET 2 OF 2)**

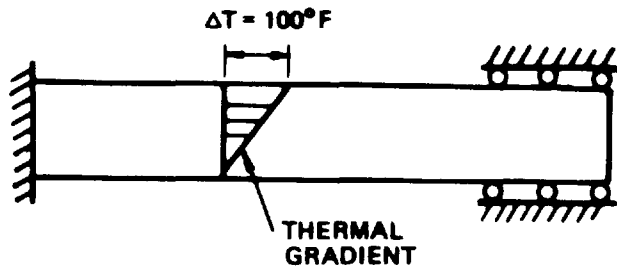
**FIGURE 3.8-72**



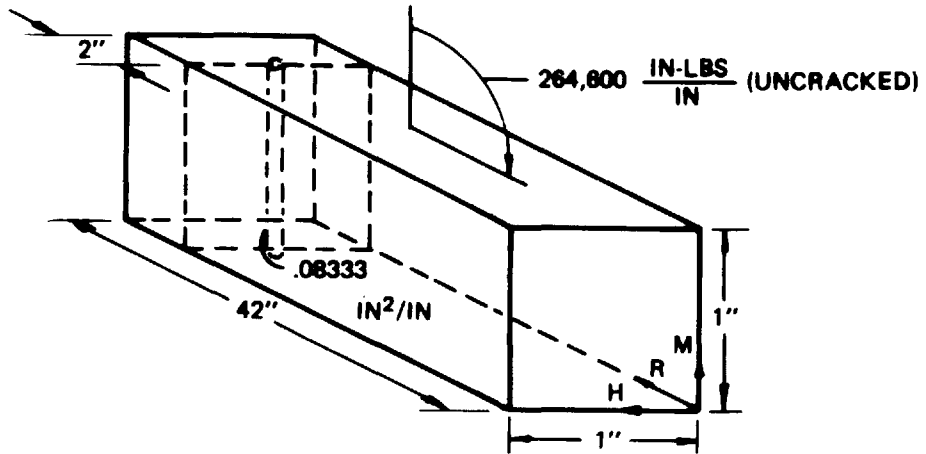
**LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT**

**REINFORCED CONCRETE BEAM  
(CECAP PROGRAM)**

**FIGURE 3.8-73**



REINFORCED CONCRETE BEAM

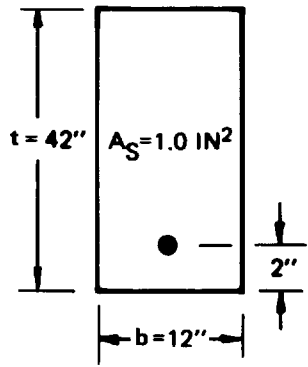


CECAP CONCRETE ELEMENT MODEL

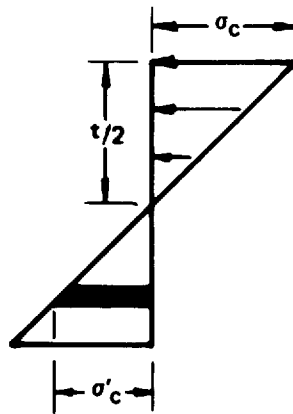
LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

CONCRETE BEAM MODEL  
 (CECAP PROGRAM,  
 SAMPLE PROBLEM A)

FIGURE 3.8-74



**BEAM CROSS - SECTION**

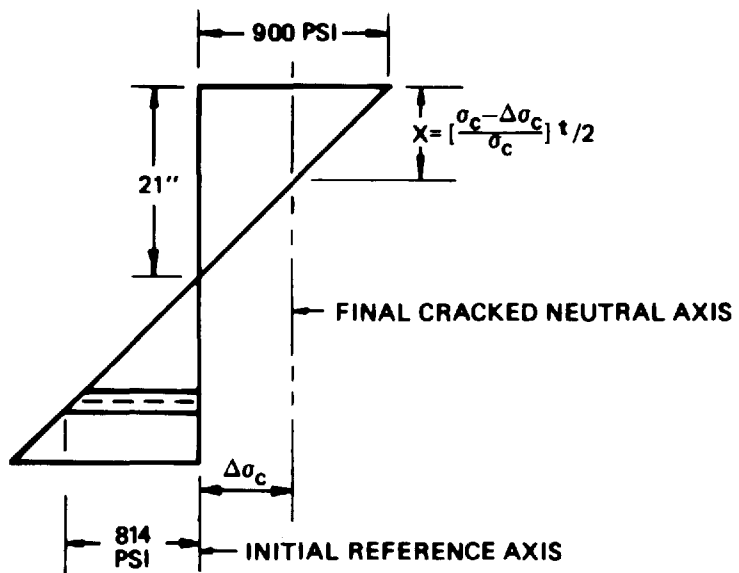


**INITIAL THERMAL STRESS DISTRIBUTION**

**LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT**

**BEAM CROSS-SECTION AND THERMAL  
STRESS DISTRIBUTION  
(CECAP PROGRAM, SAMPLE PROBLEM A)**

**FIGURE 3.8-75**

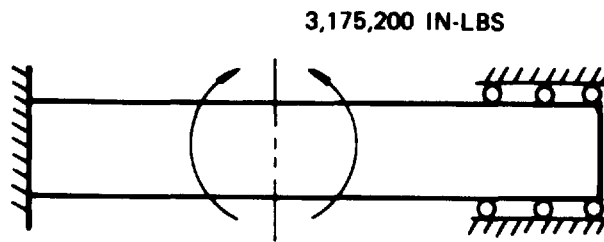


LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

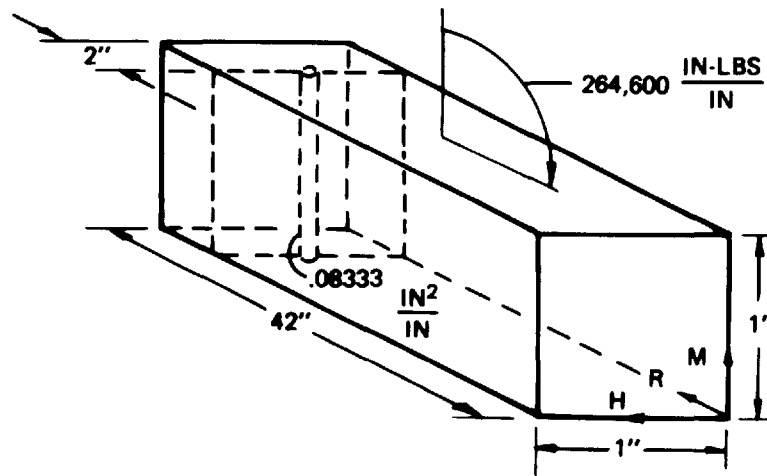
STRESS DIAGRAM (CECAP PROGRAM,  
 SAMPLE PROBLEM A)

FIGURE 3.8-76





REINFORCED CONCRETE BEAM

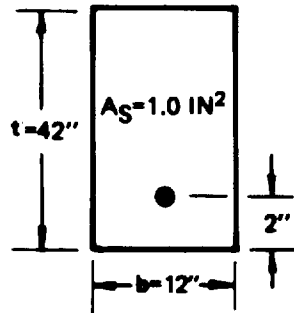


CECAP CONCRETE ELEMENT MODEL

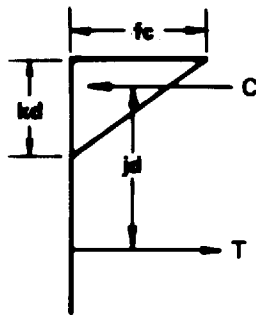
LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

CONCRETE BEAM MODEL  
 (CECAP PROGRAM,  
 SAMPLE PROBLEM B)

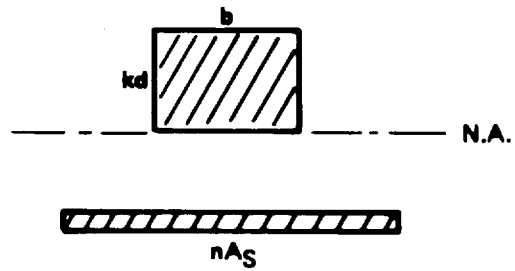
FIGURE 3.8-77



BEAM CROSS - SECTION



STRESS BLOCK

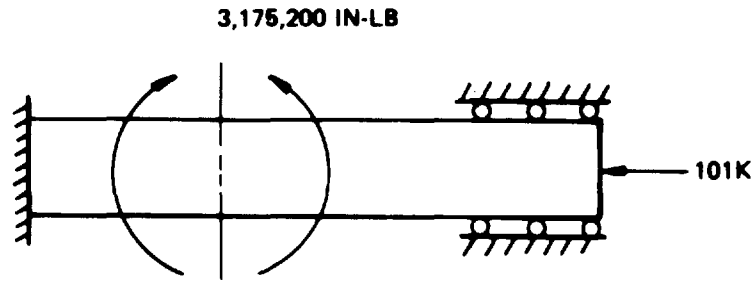


TRANSFORMED SECTION

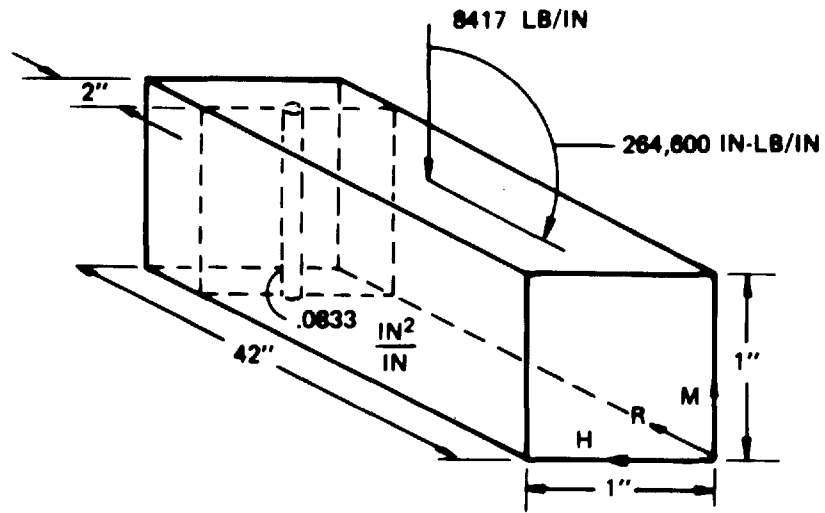
LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

BEAM CROSS-SECTION, STRESS BLOCK,  
 AND TRANSFORMED SECTION  
 (CECAP PROGRAM, SAMPLE PROBLEM B)

FIGURE 3.8-78



REINFORCED CONCRETE BEAM

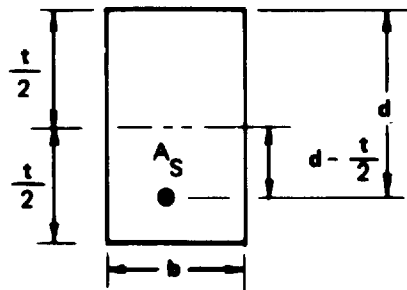


CECAP CONCRETE ELEMENT MODEL

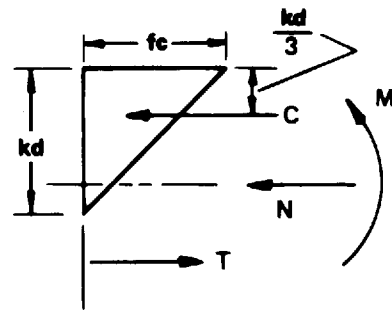
LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

CONCRETE BEAM MODEL  
 (CECAP PROGRAM,  
 SAMPLE PROBLEM C)

FIGURE 3.8-79



BEAM CROSS-SECTION

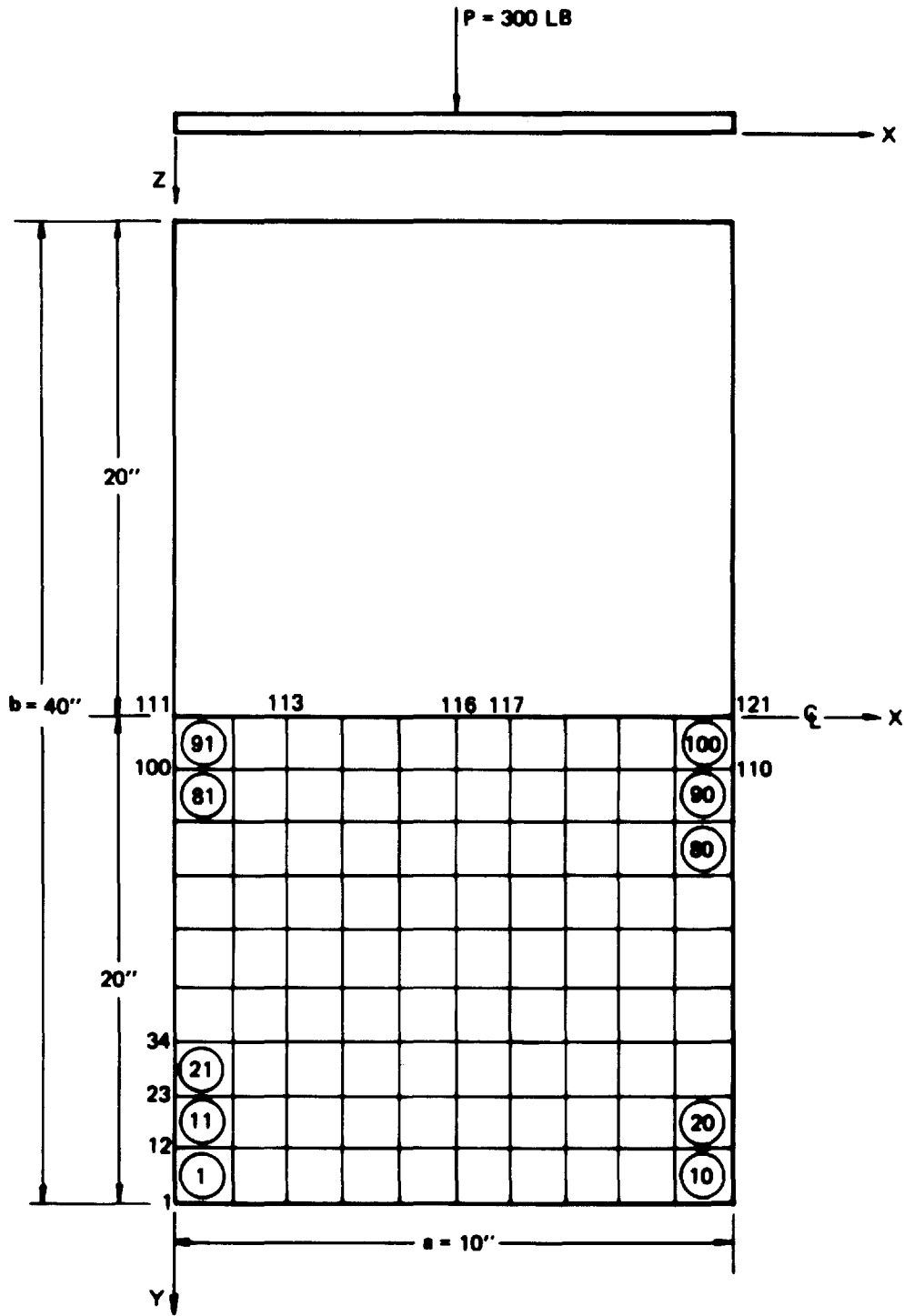


STRESS BLOCK

LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

BEAM CROSS-SECTION AND  
 STRESS BLOCK  
 (CECAP PROGRAM,  
 SAMPLE PROBLEM C)

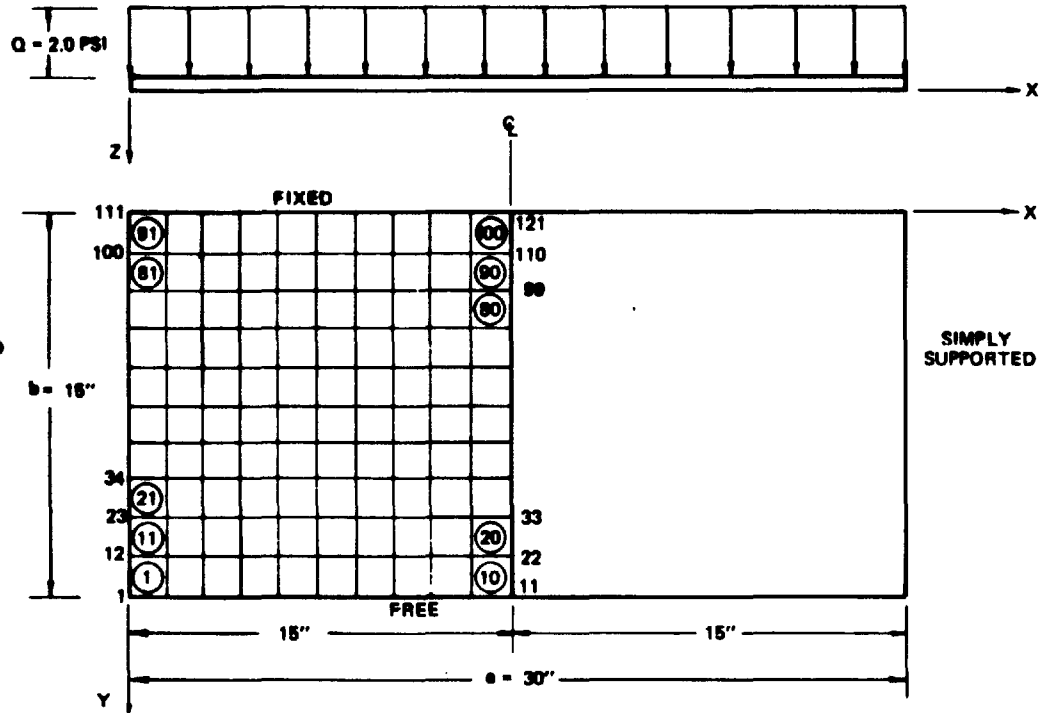
FIGURE 3.8-80



LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

PLATE GEOMETRY, LOADING, AND  
 FINITE ELEMENT MESH  
 (CE608 PROGRAM,  
 SAMPLE PROBLEM A)

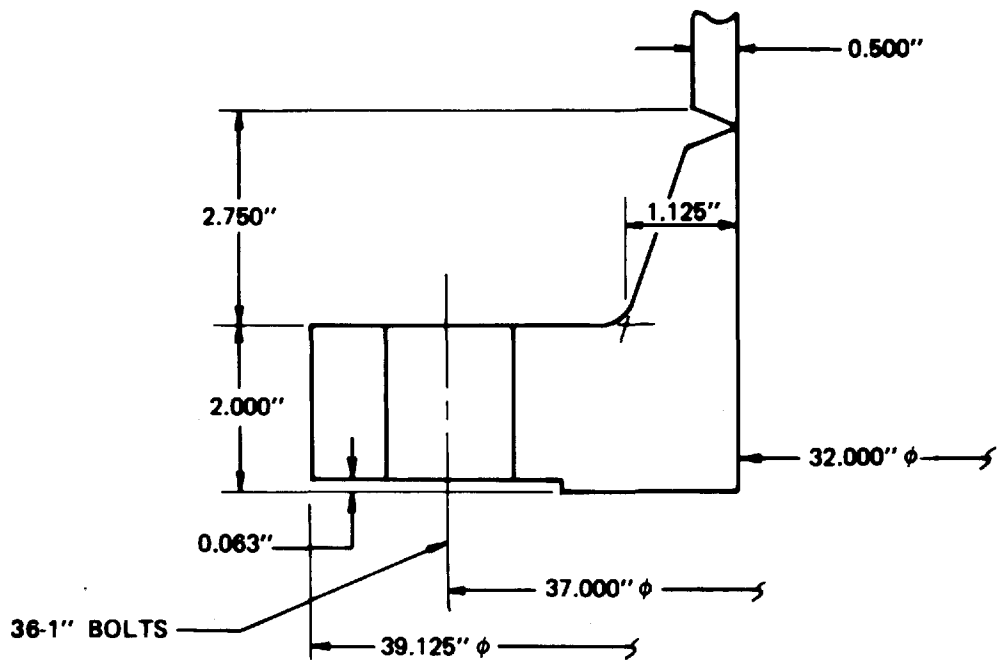
FIGURE 3.8-81



LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

PLATE GEOMETRY, LOADING, AND  
 FINITE ELEMENT MESH  
 CE668 PROGRAM,  
 SAMPLE PROBLEM B)

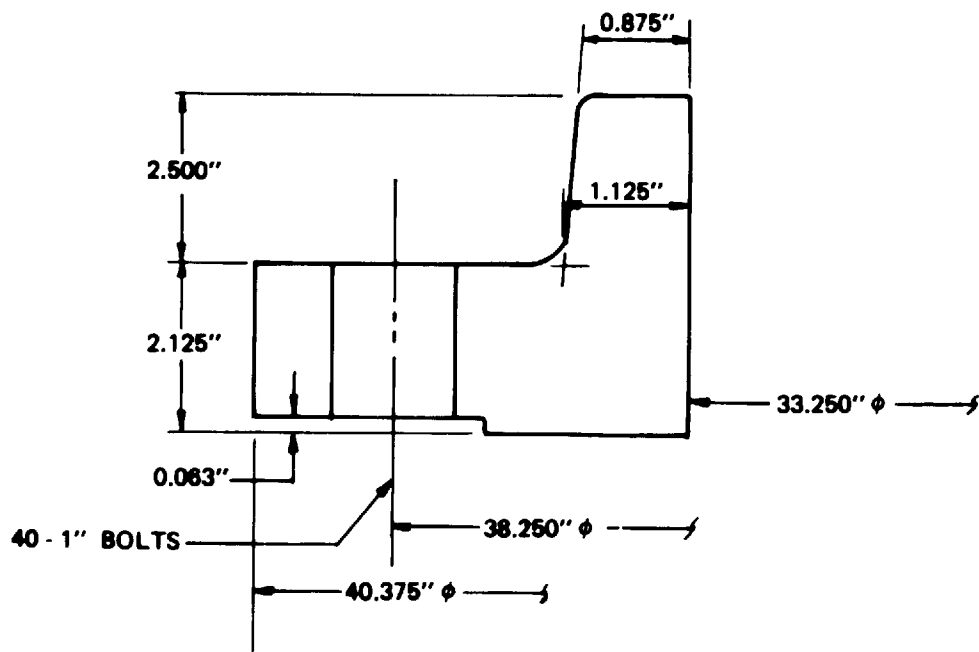
FIGURE 3.8-82



LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

WELDING NECK FLANGE DETAIL  
 (E0119 PROGRAM, SAMPLE  
 PROBLEM A)

FIGURE 3.8-83

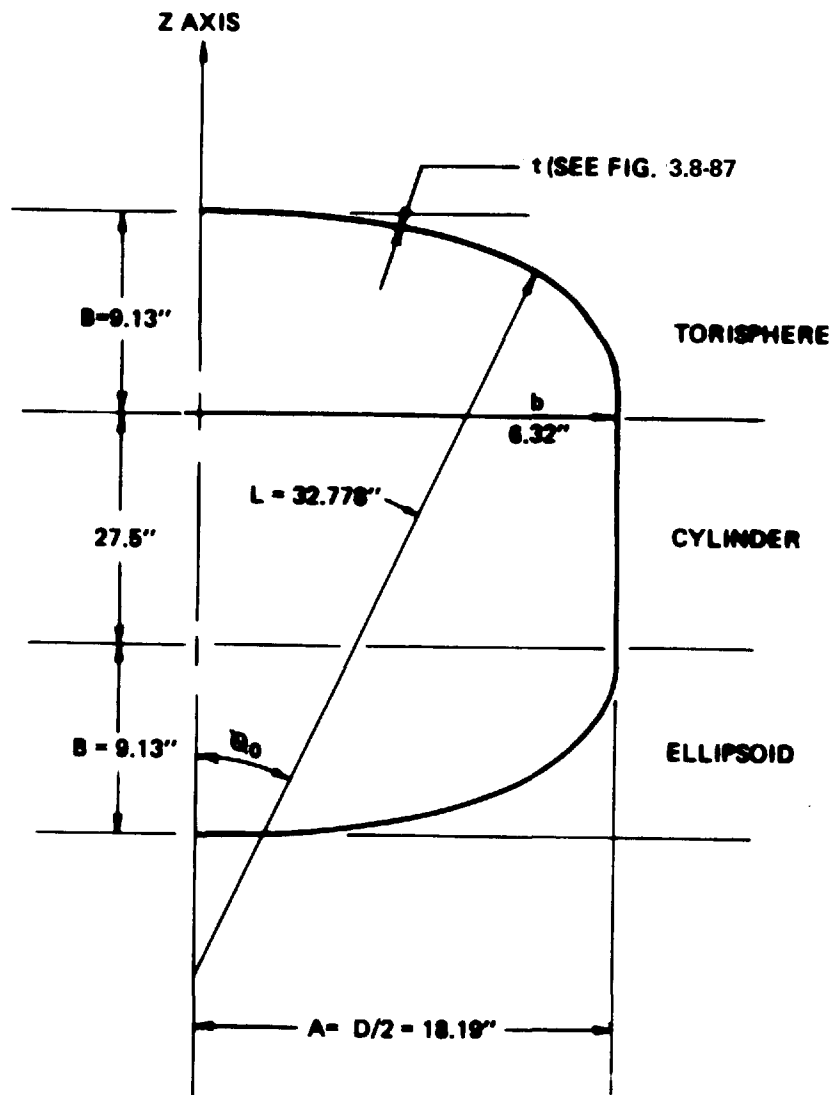


LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

SLIP-ON FLANGE DETAIL  
 (E0119 PROGRAM, SAMPLE  
 PROBLEM B)

FIGURE 3.8-84

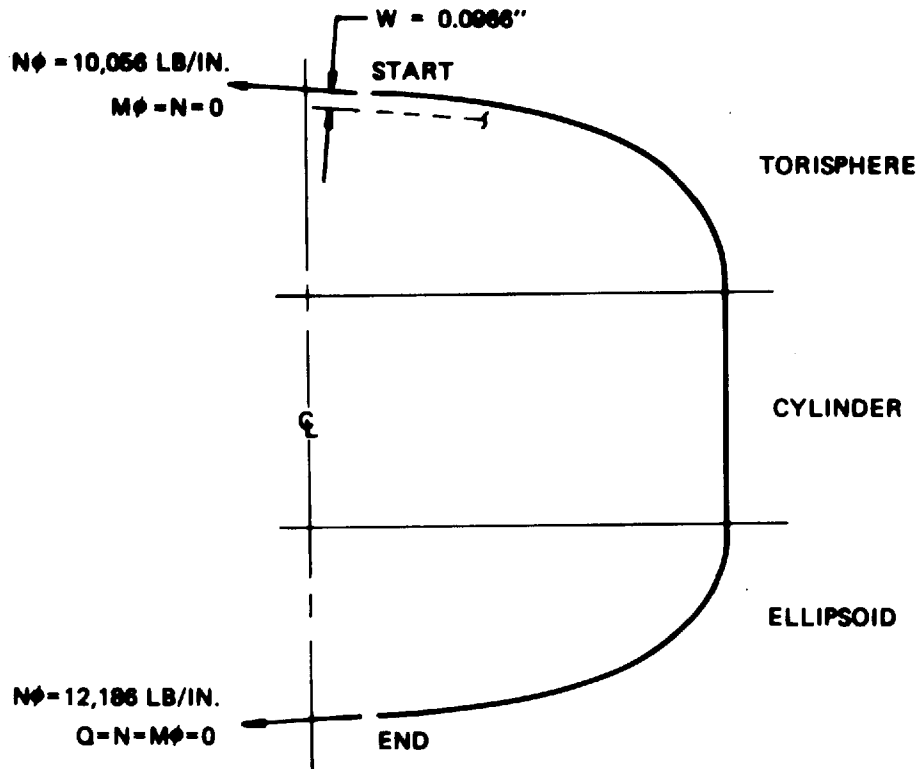




LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

GEOMETRY OF ELLIPSOIDAL AND  
 TORISPHERICAL HEADS  
 (E0781 PROGRAM, SAMPLE  
 PROBLEM A)

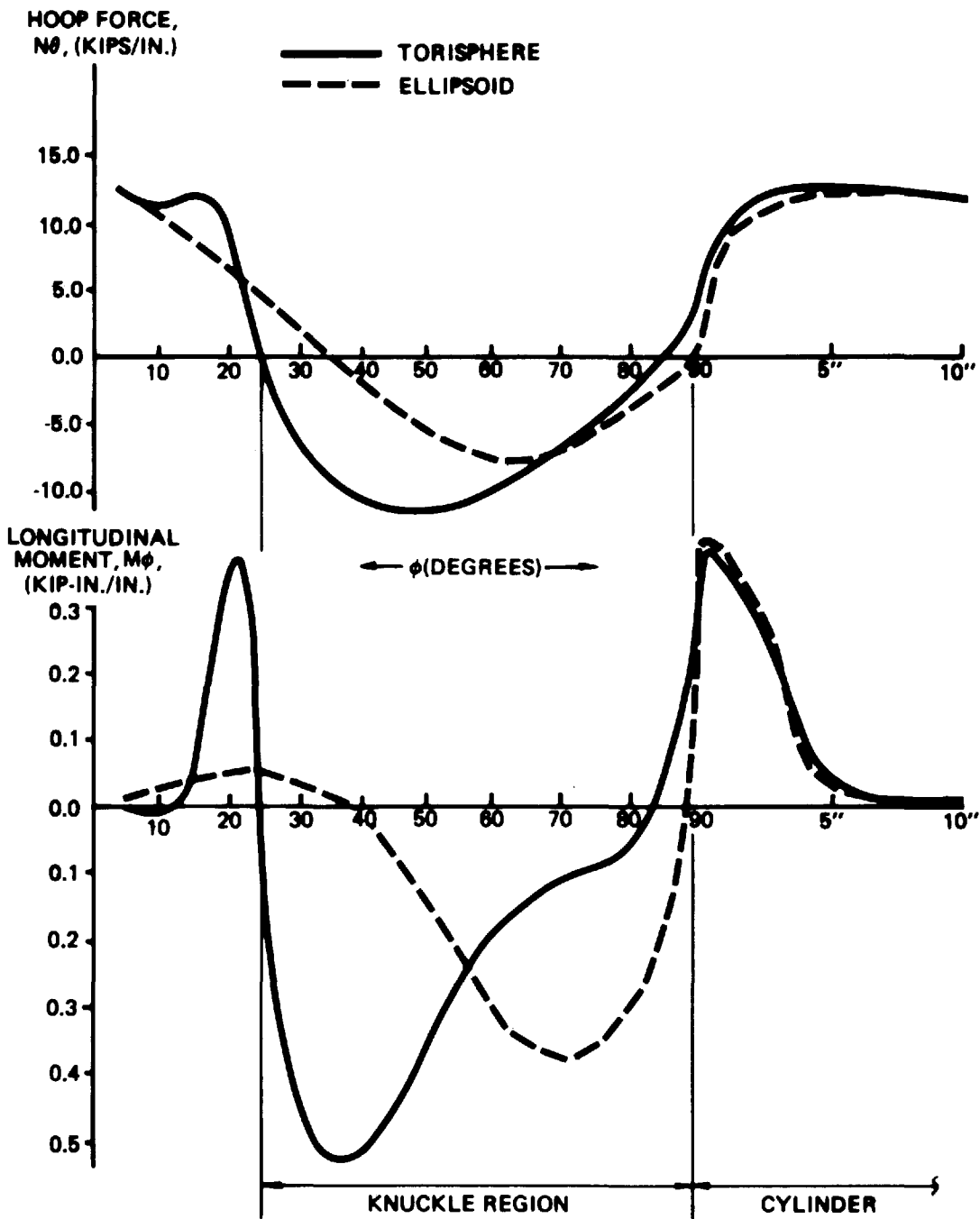
FIGURE 3.8-85



**LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT**

**ANALYTICAL MODEL WITH  
 BOUNDARY CONDITIONS  
 (E0781 PROGRAM,  
 SAMPLE PROBLEM A)**

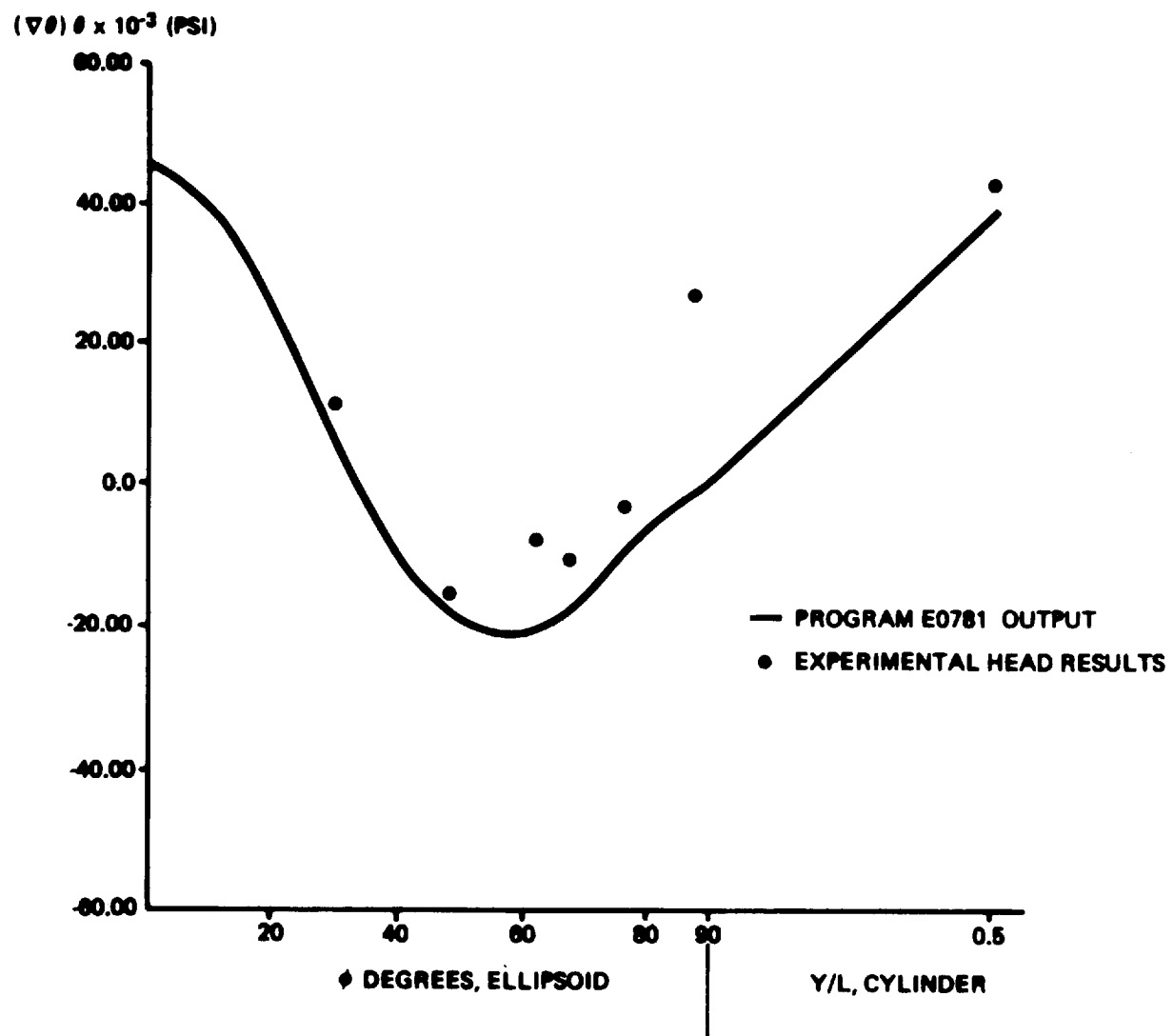
**FIGURE 3.8-86**



LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

PLOTS OF HOOP FORCE ( $N_{\theta}$ ) AND  
 LONGITUDINAL MOMENT ( $M_{\phi}$ )  
 (E0781 PROGRAM,  
 SAMPLE PROBLEM A)

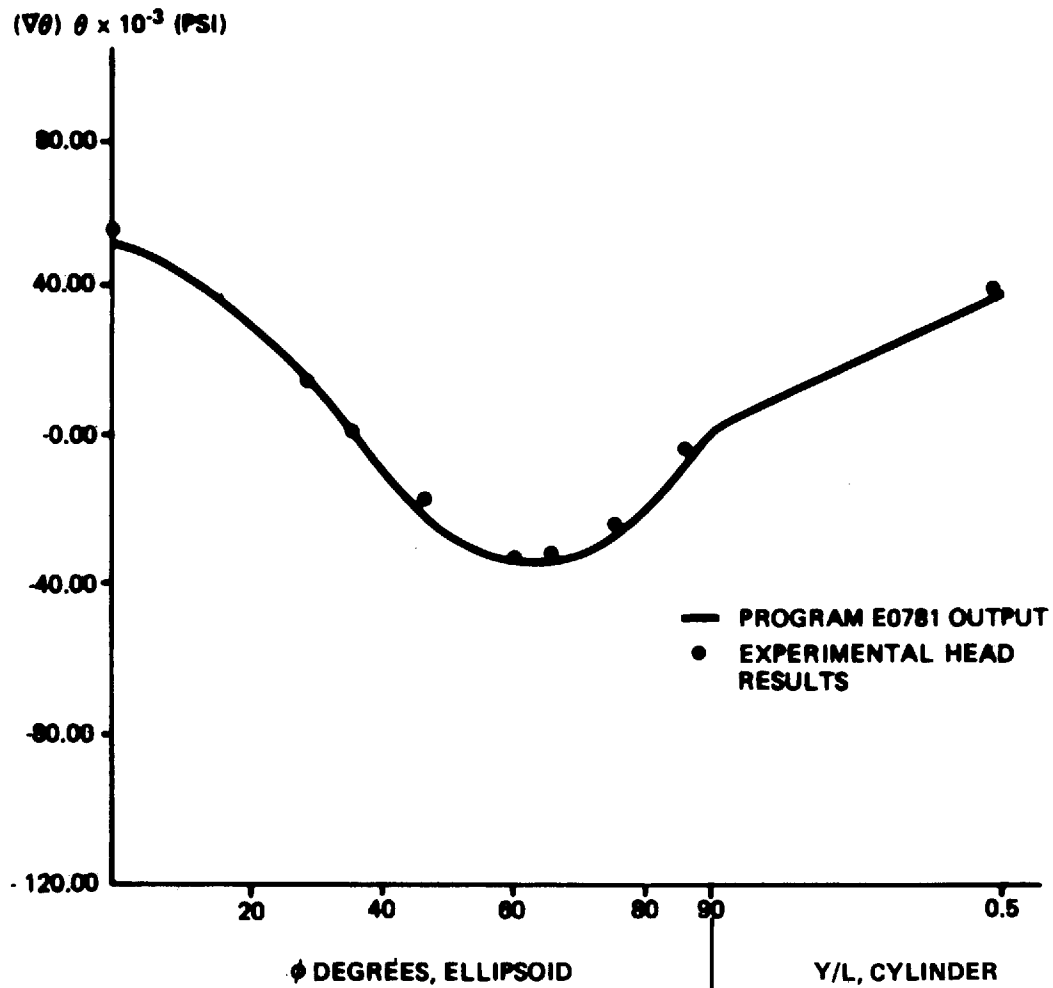
FIGURE 3.8-87



LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

PLOT OF STRESS IN THE HOOP ( $\theta$ )  
 DIRECTION ON THE INSIDE SURFACE  
 ( $\theta = 0^\circ$ ) (E0781 PROGRAM, SAMPLE  
 PROBLEM A)

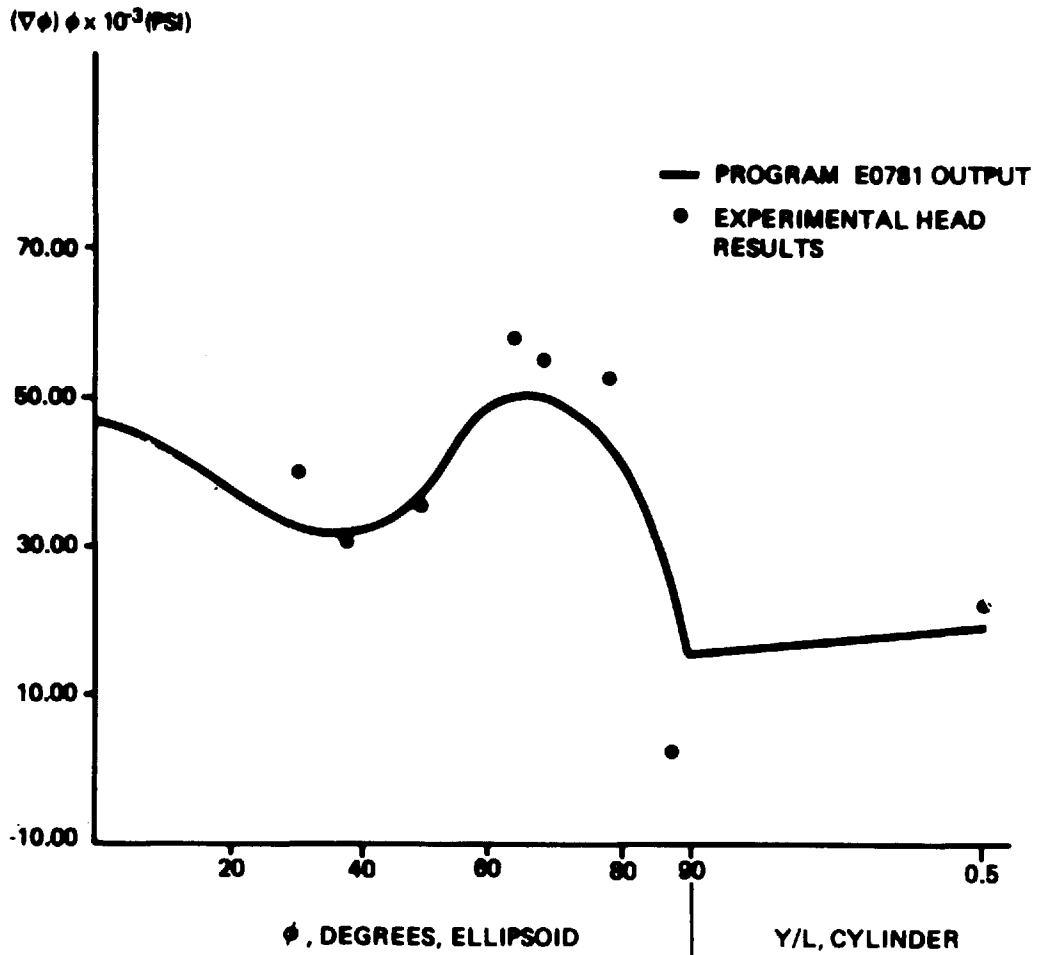
FIGURE 3.9-98



LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

PLOT OF STRESS IN THE HOOP( $\theta$ )  
 DIRECTION ON THE OUTSIDE  
 SURFACE( $\theta=0^\circ$ ) (E0781 PROGRAM,  
 SAMPLE PROBLEM A)

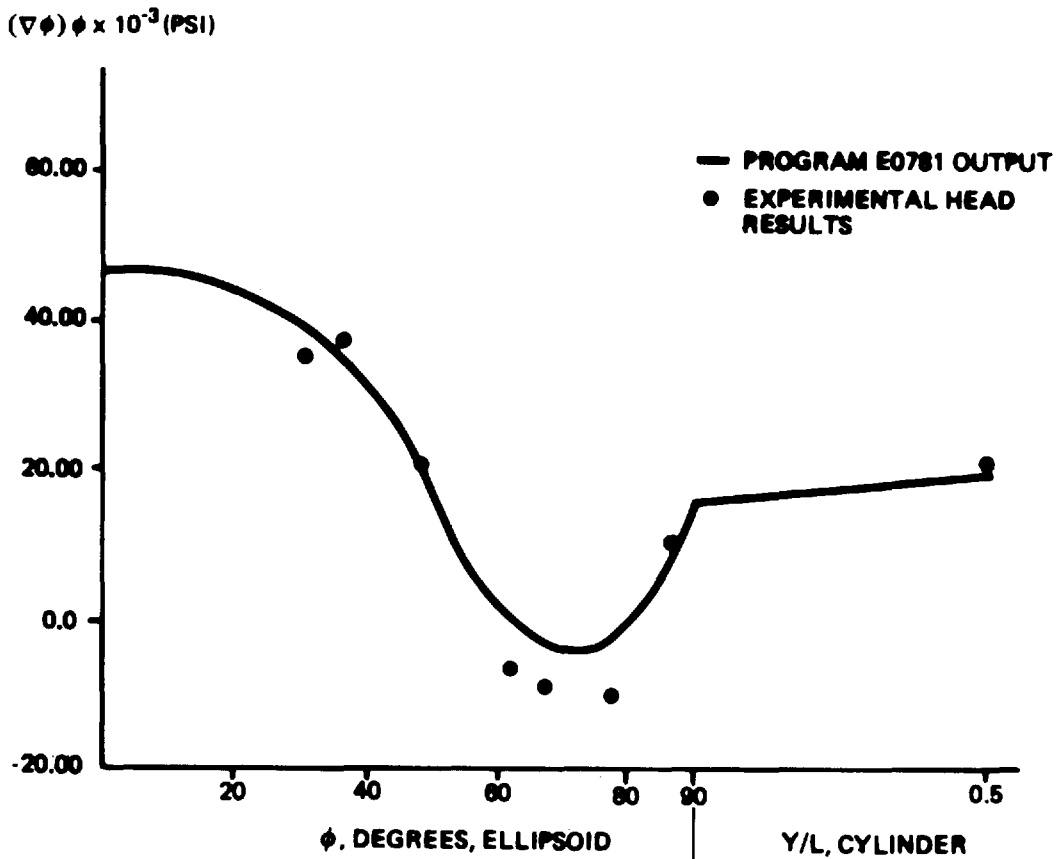
FIGURE 3.8-80



LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

PLOT OF STRESS IN THE  
 LONGITUDINAL(φ) DIRECTION ON THE  
 INSIDE SURFACE (θ=0°) (E0781  
 PROGRAM, SAMPLE PROBLEM A)

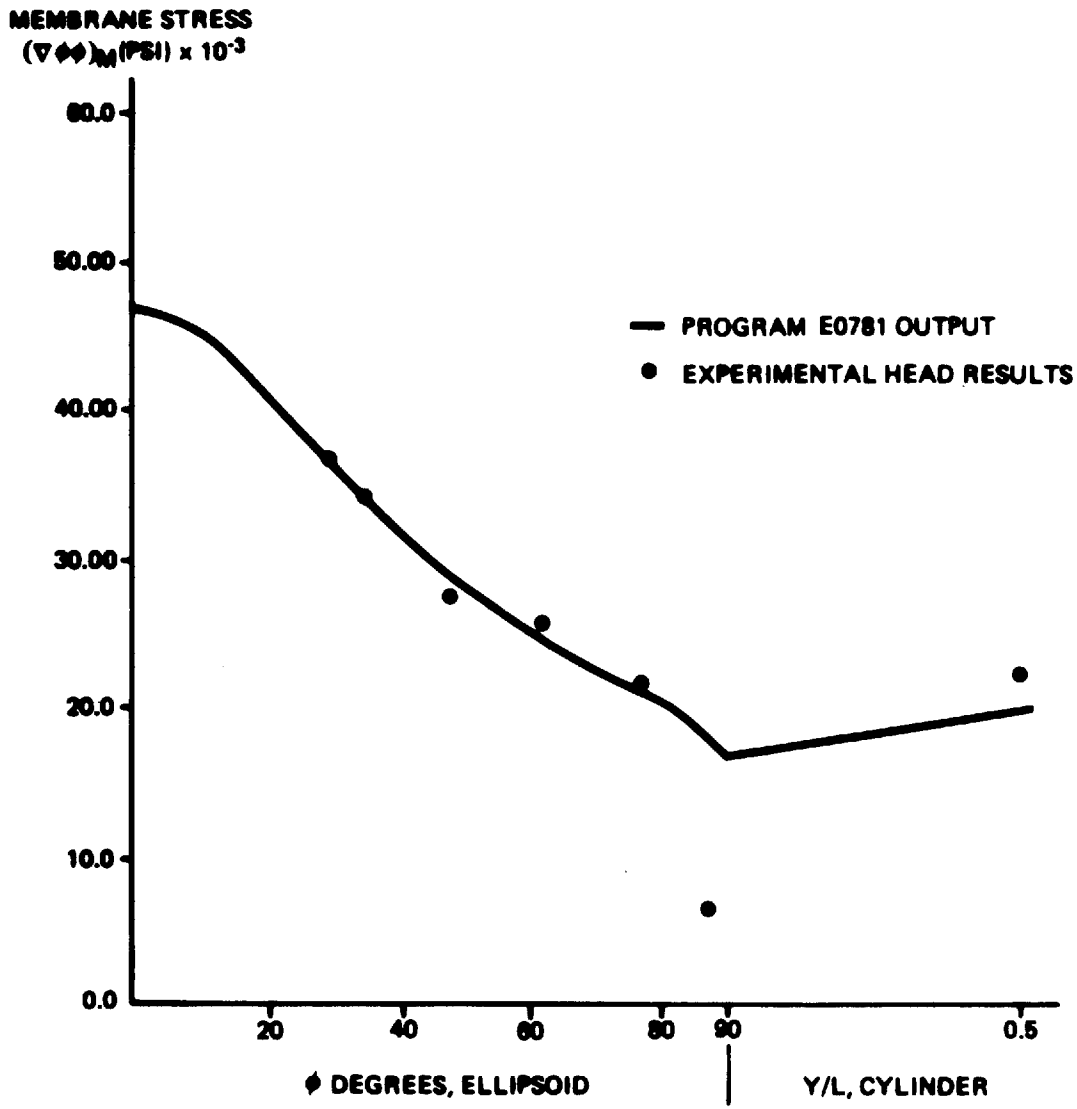
FIGURE 3.8-90



LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

PLOT OF STRESS IN THE  
 LONGITUDINAL ( $\phi$ ) DIRECTION ON THE  
 OUTSIDE SURFACE (E0781 PROGRAM,  
 SAMPLE PROBLEM A)

FIGURE 3.8-91

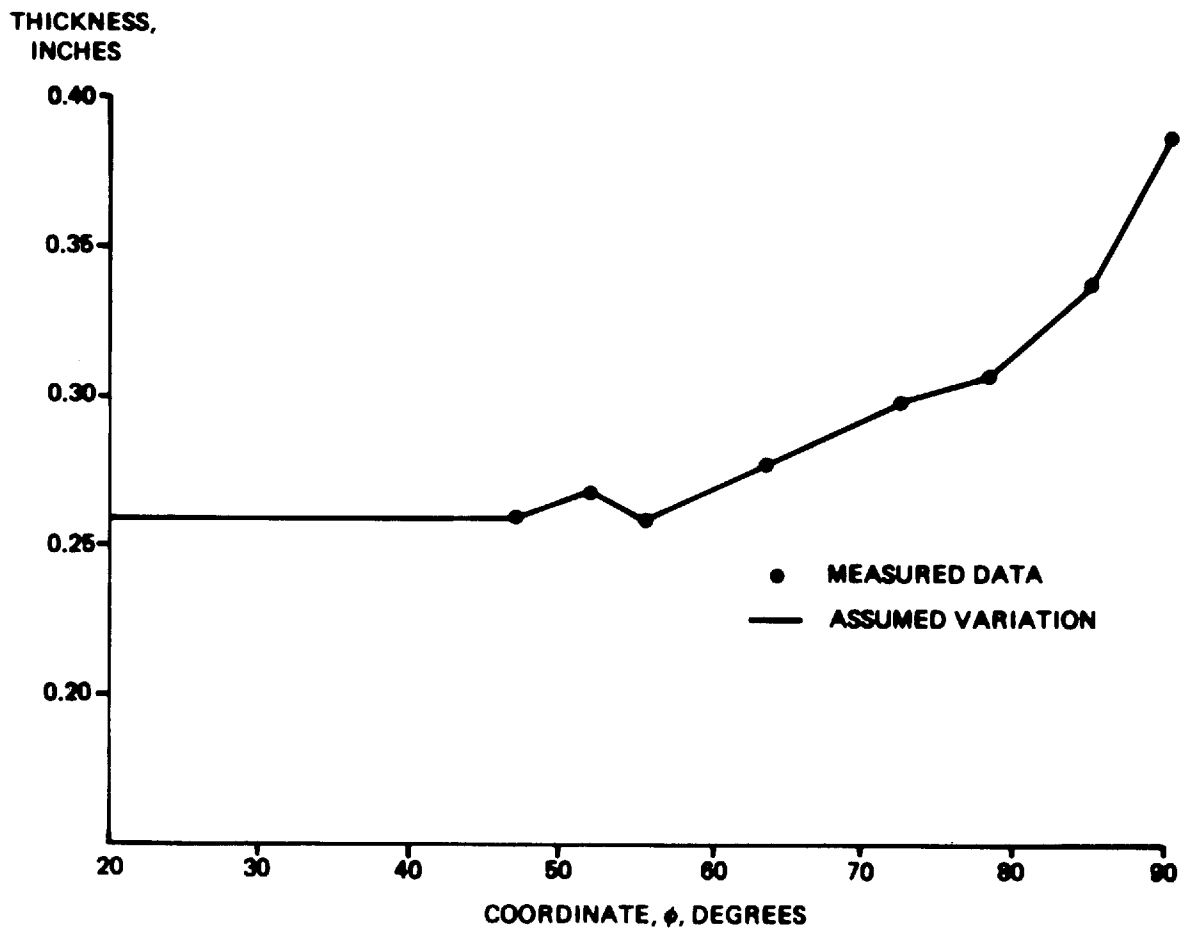


LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

PLOT OF MEMBRANCE STRESS ( $\theta=0^\circ$ )  
 (E0781 PROGRAM, SAMPLE PROBLEM A)

FIGURE 3.8-82

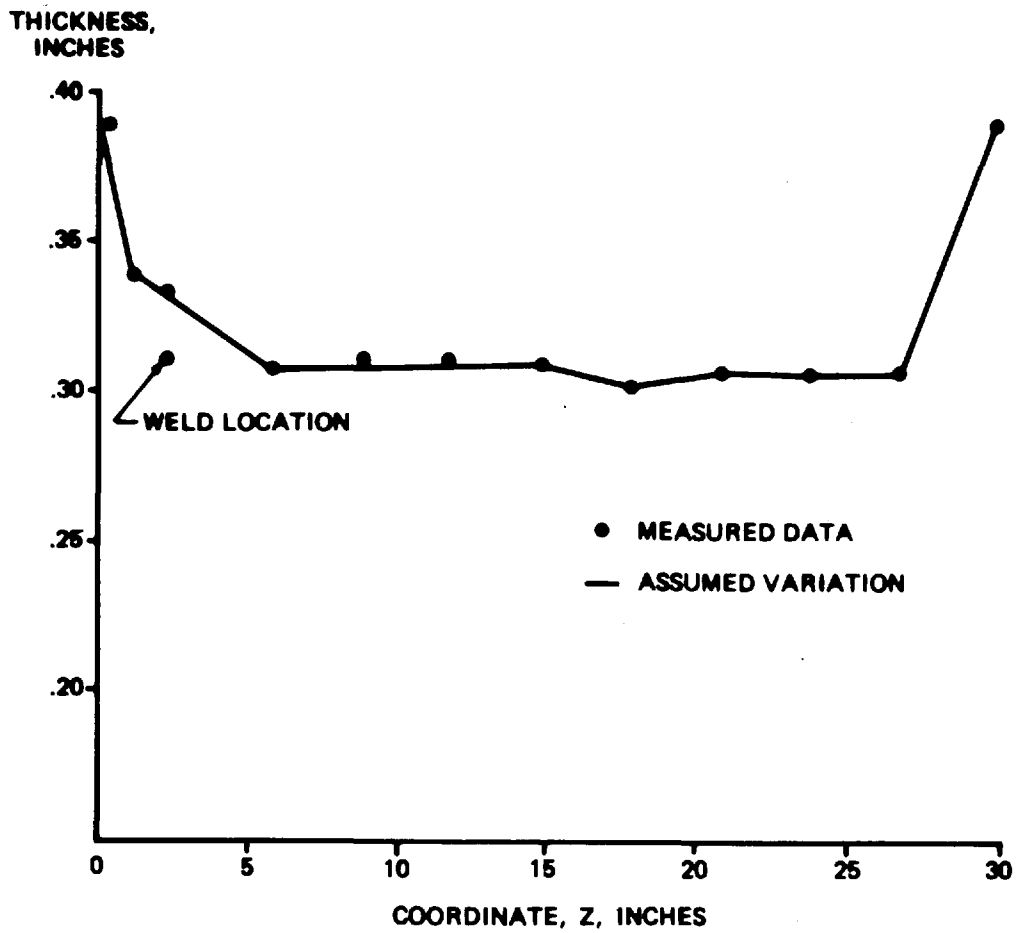




LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

THICKNESS VARIATION IN  
 EXPERIMENTAL HEAD NO. 1  
 (E0781 PROGRAM,  
 SAMPLE PROBLEM A)

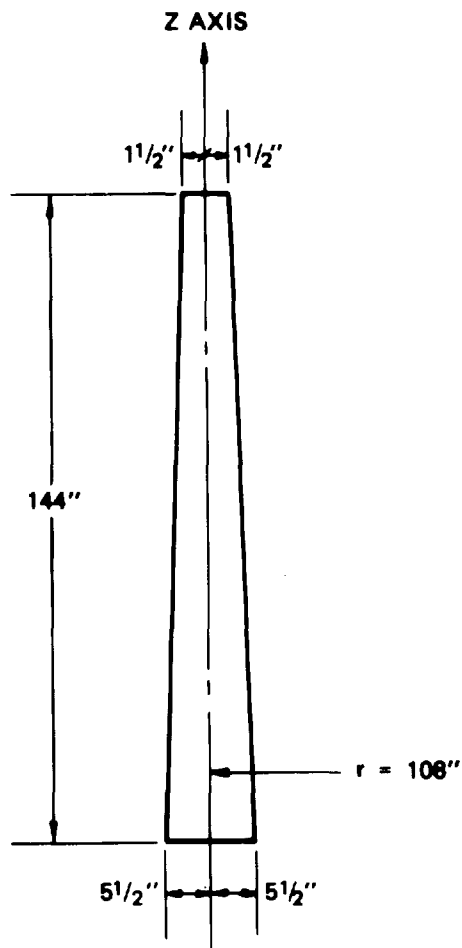
FIGURE 3.8-83



LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

THICKNESS VARIATION IN CYLINDER  
NO. 1 (E0781 PROGRAM,  
SAMPLE PROBLEM A)

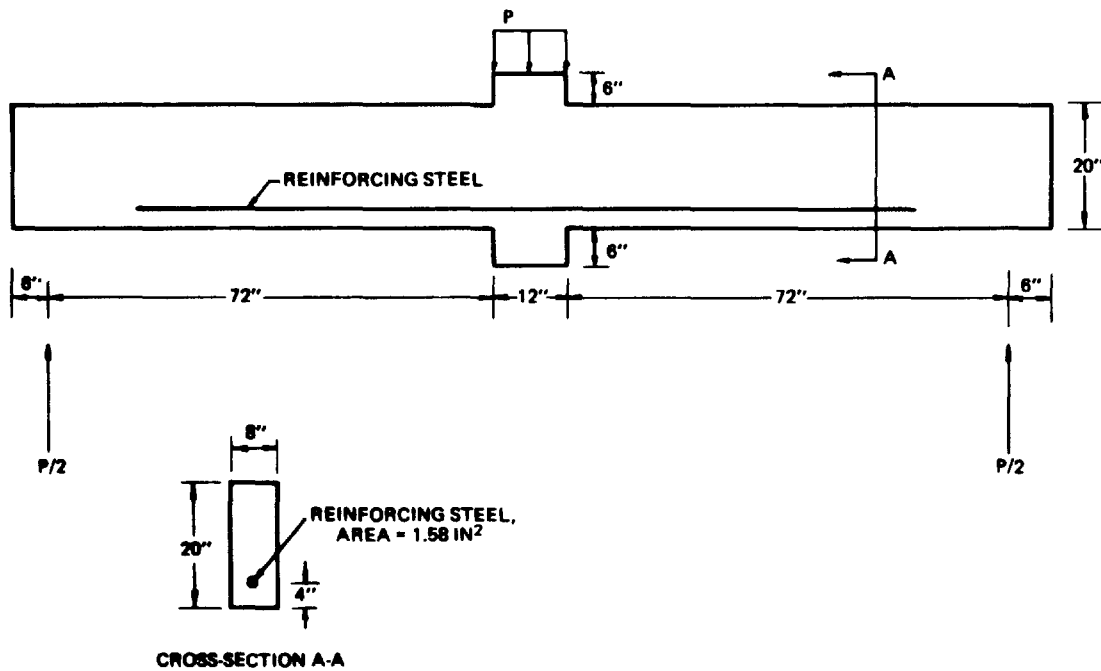
FIGURE 3.8-94



**LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT**

**GEOMETRY OF CYLINDRICAL WATER  
TANK (E0781 PROGRAM, SAMPLE  
PROBLEM B)**

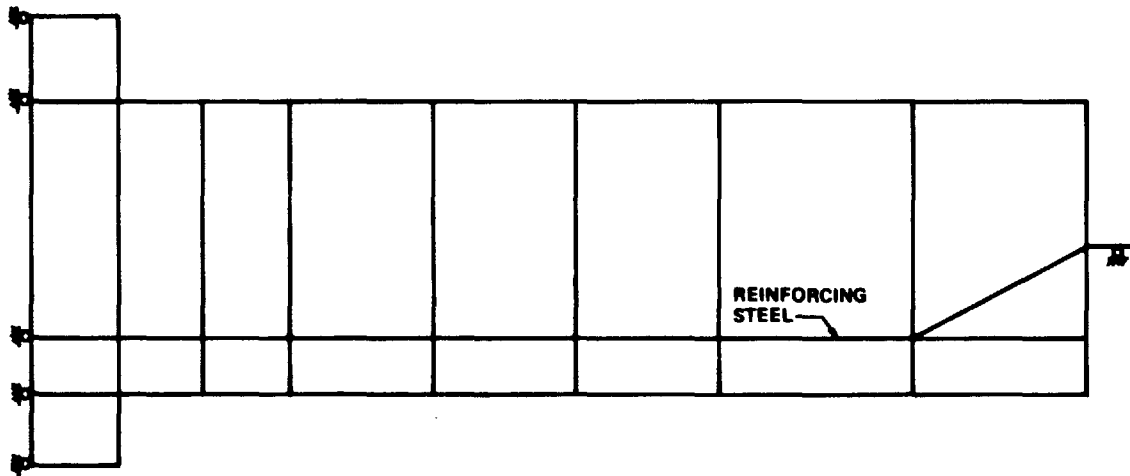
**FIGURE 3.8-95**



**LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT**

**EXPERIMENTAL BEAM GEOMETRY  
(FINEL PROGRAM, SAMPLE  
PROBLEM A)**

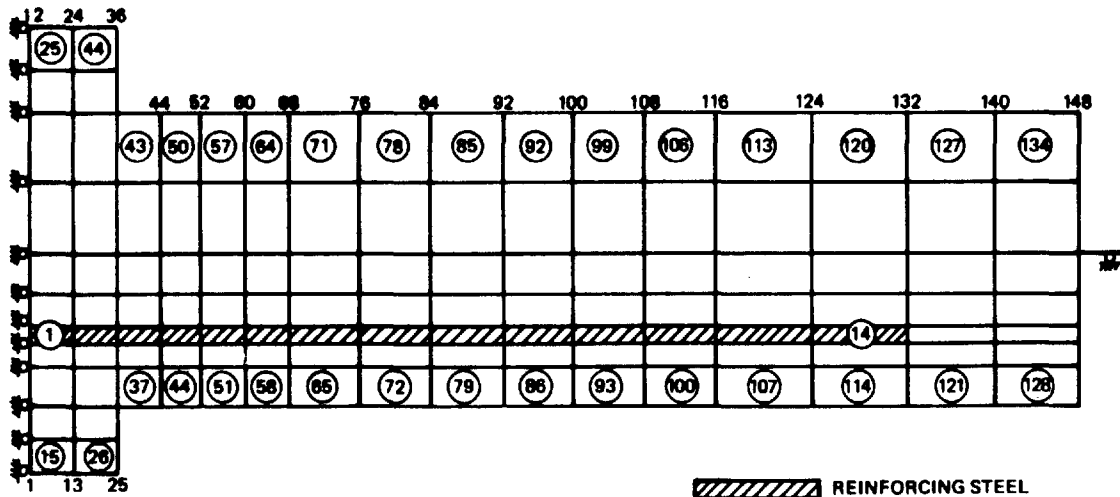
**FIGURE 3.8-86**



**LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT**

**FINITE ELEMENT MESH USED IN  
REFERENCE 3.8-14 (FINEL PROGRAM,  
SAMPLE PROBLEM A)**

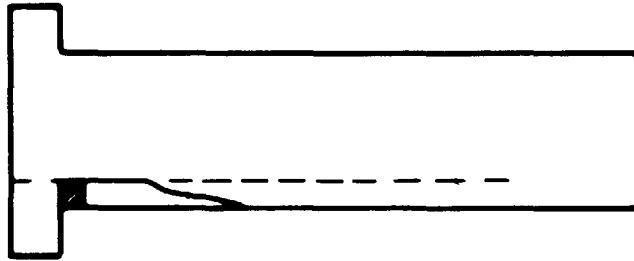
**FIGURE 3.8-97**



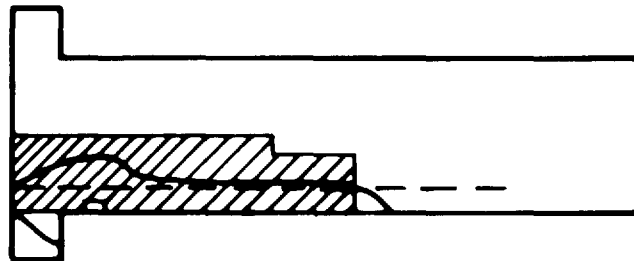
LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

FINITE ELEMENT MESH USED IN  
 PROGRAM VERIFICATION (FINEL  
 PROGRAM, SAMPLE PROBLEM A)

FIGURE 3.8-98



**FINEL 8.7 kips REF. 3.8-14 — 8.0 KIPS  
(NO CRACKING IN FINEL BELOW 8.7 KIPS)**



**FINEL AND REF. 3.8-14 — 20.0 KIPS**

— BOUNDARY OF CRACKED REGION, REF. 3.8-14

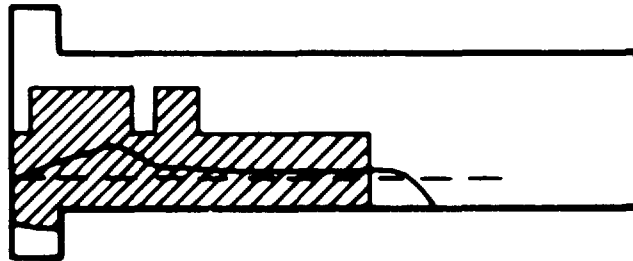


CRACKED REGION, FINEL

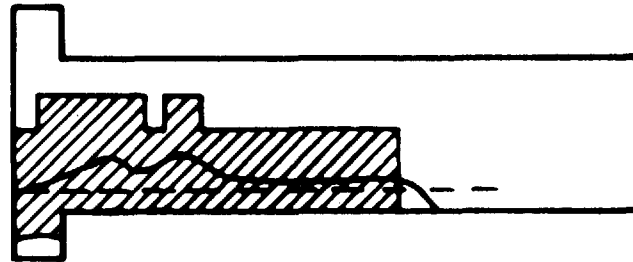
**LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT**

**REGIONS OF CRACKING FROM  
REFERENCE 3.8-14 AND FINEL  
ANALYSIS (FINEL PROGRAM, SAMPLE  
PROBLEM A)  
(SHEET 1 OF 2)**

**FIGURE 3.8-99**



FINEL AND REF. 3.8-14 — 28.0 KIPS



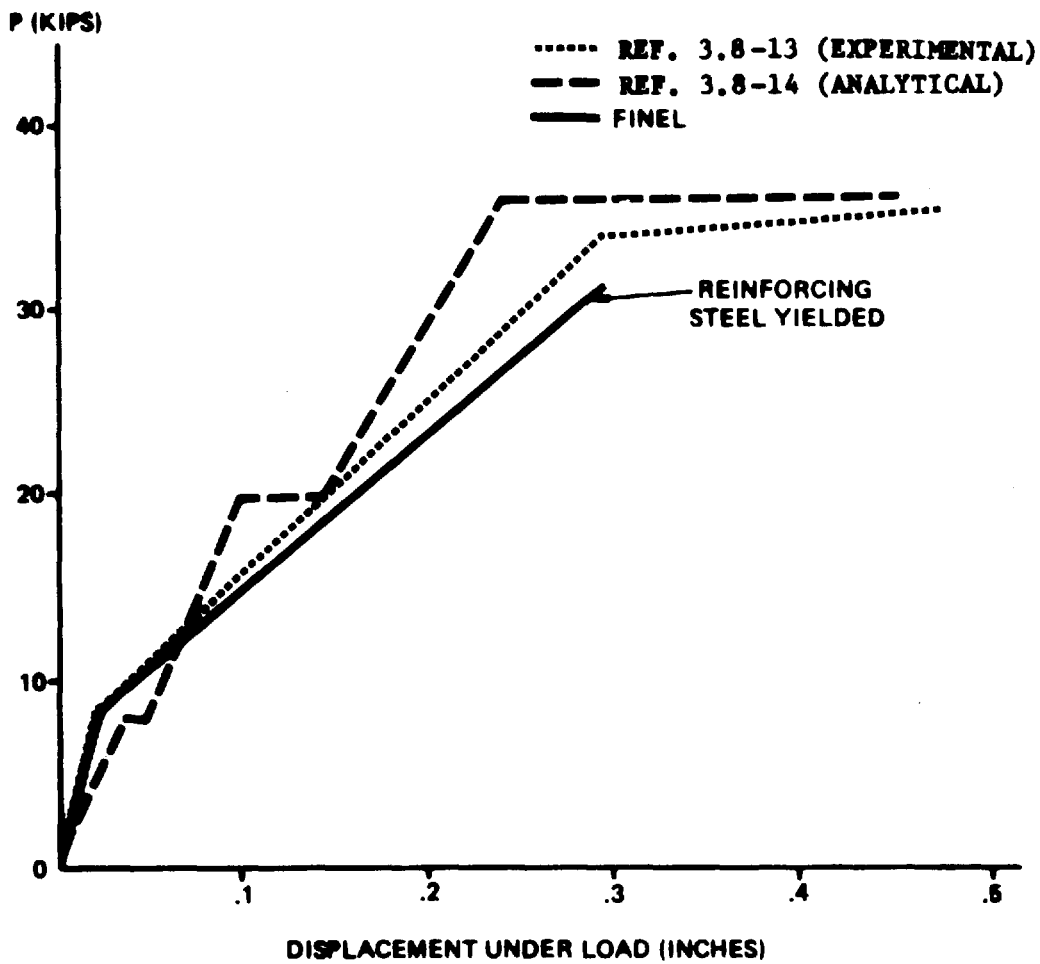
FINEL AND REF. 3.8-14 — 31.2 KIPS

LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

REGIONS OF CRACKING FROM  
REFERENCE 3.8-14 AND FINEL  
ANALYSIS (FINEL PROGRAM, SAMPLE  
PROBLEM A)  
(SHEET 2 OF 2)

FIGURE 3.8-90

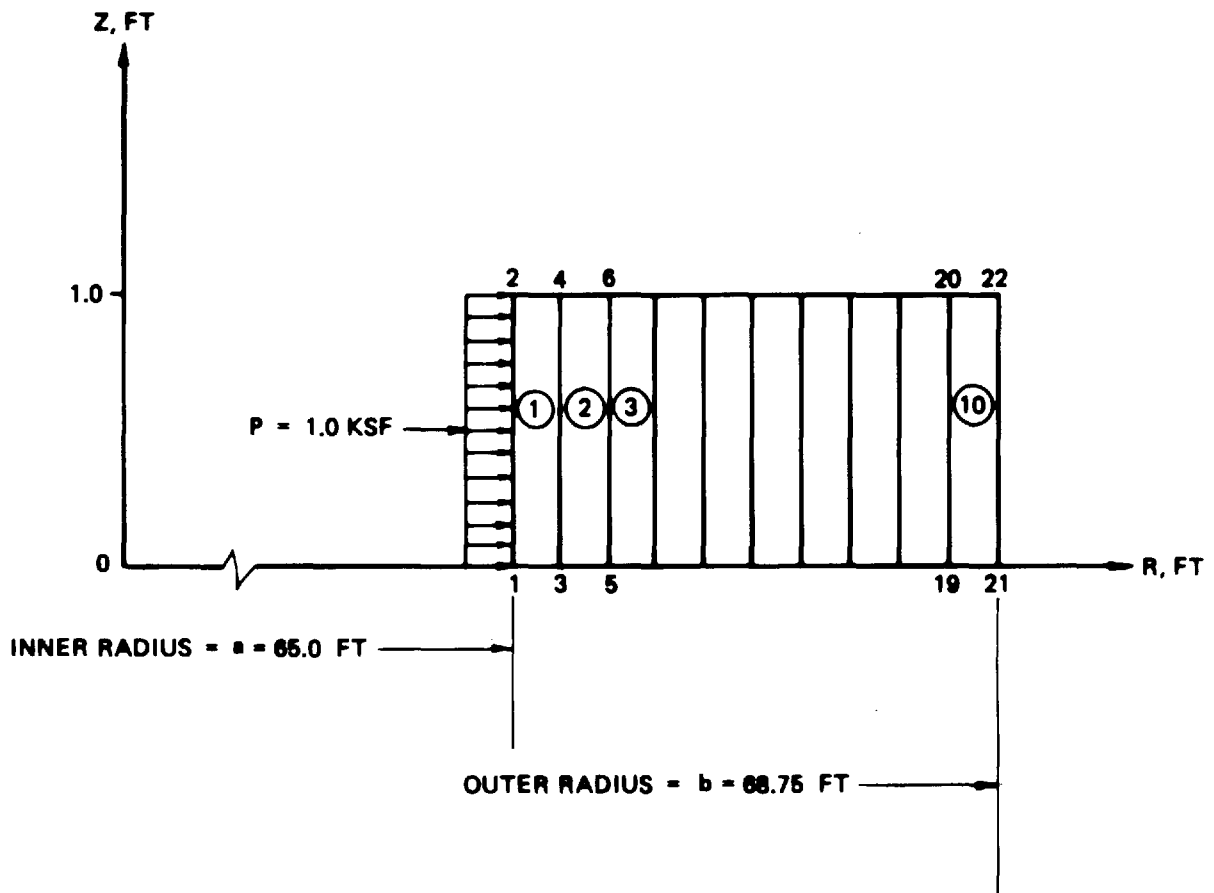




**LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT**

**LOAD-DEFLECTION CURVES FROM  
REFERENCE 3.8-13, REFERENCE  
3.8-14, AND FINEL ANALYSIS (FINEL  
PROGRAM, SAMPLE PROBLEM A)**

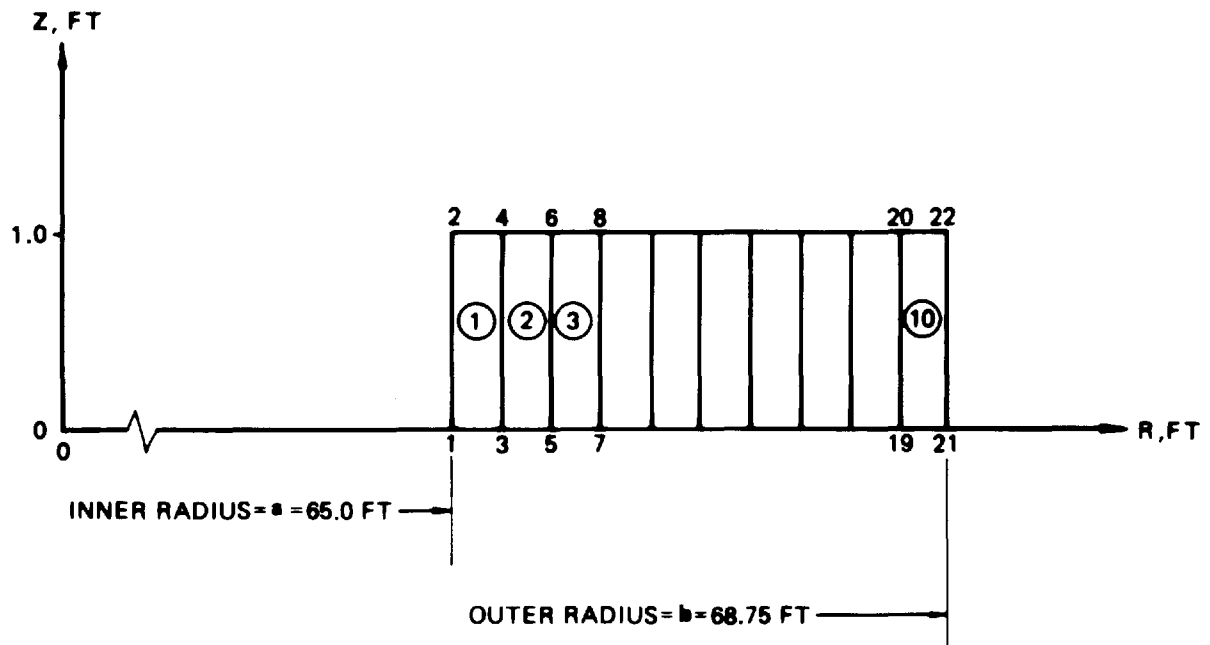
**FIGURE 3.8-100**



LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

FINITE ELEMENT MODEL FOR HOLLOW  
 CYLINDER WITH DISTRIBUTED  
 PRESSURE LOADING (FINEL  
 PROGRAM, SAMPLE PROBLEM B)

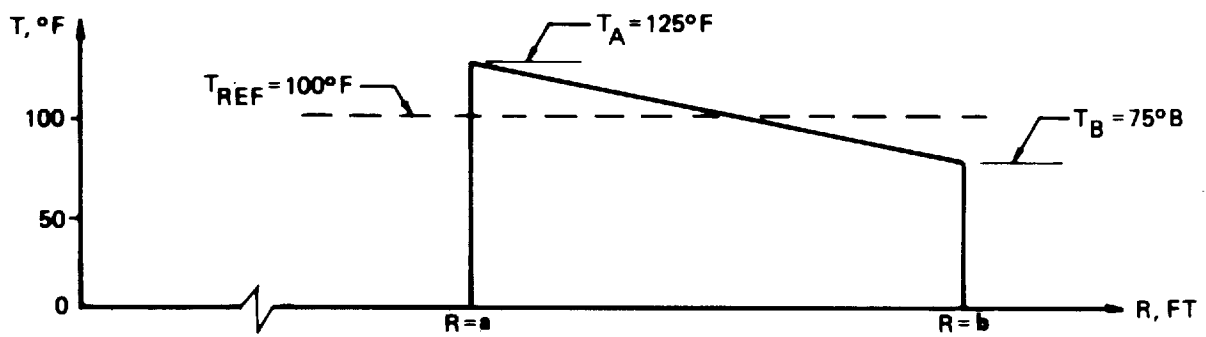
FIGURE 3.8-101



**LIMERICK GENERATING STATION  
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**FINITE ELEMENT MODEL FOR HOLLOW  
 CYLINDER WITH LINEAR  
 TEMPERATURE GRADIENT (FINEL  
 PROGRAM, SAMPLE PROBLEM C)**

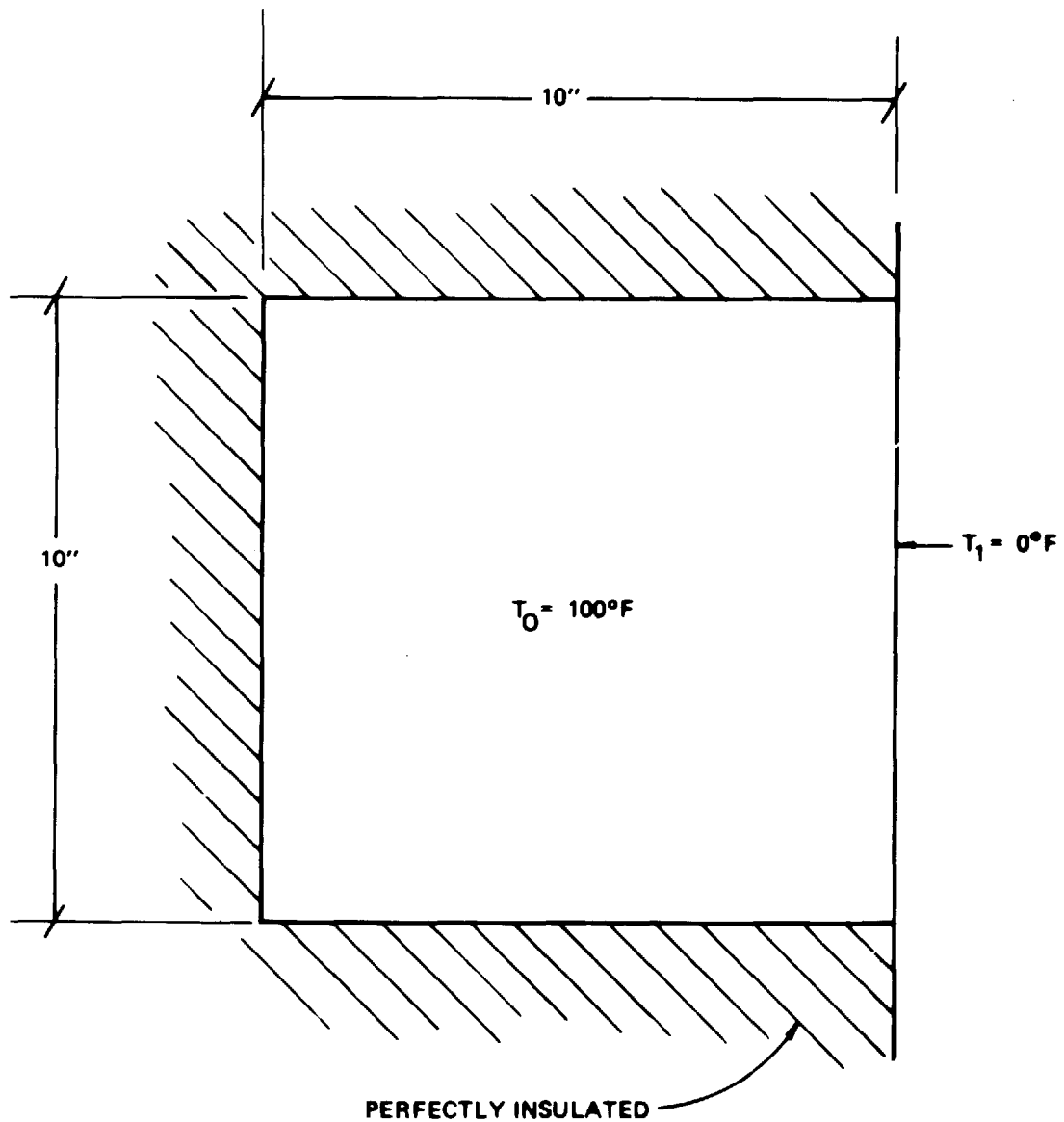
**FIGURE 3.8-102**



**LIMERICK GENERATING STATION  
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**TEMPERATURE GRADIENT THROUGH  
WALL OF HOLLOW CYLINDER (FINEL  
PROGRAM, SAMPLE PROBLEM C)**

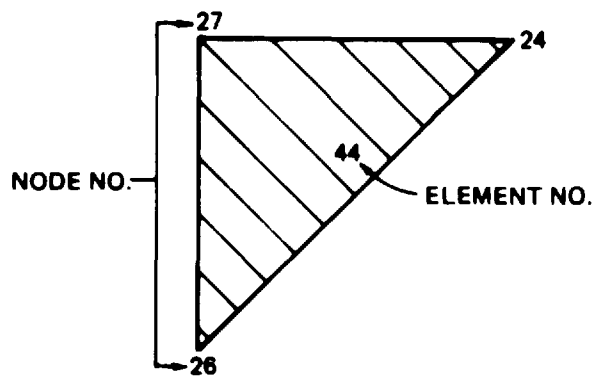
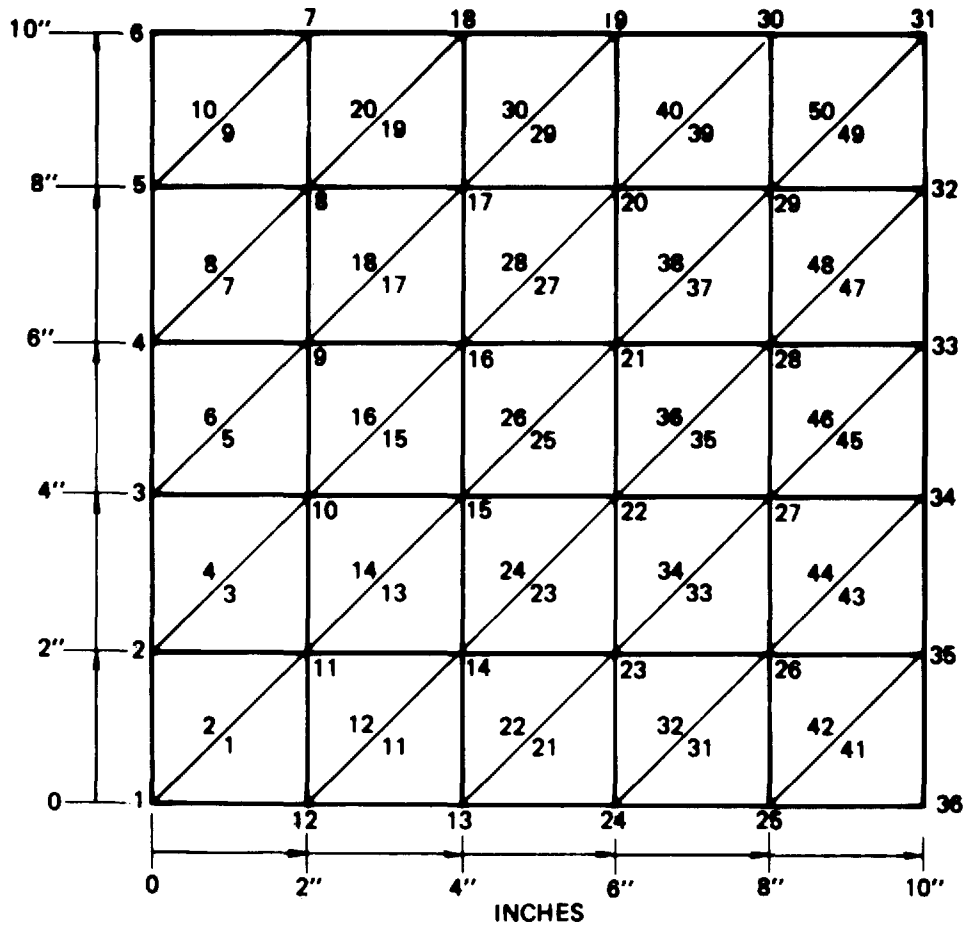
**FIGURE 3.8-103**



**LIMERICK GENERATING STATION  
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**TEMPERATURE CONDITIONS AND  
ARRANGEMENT OF SQUARE PLATE  
(ME620 PROGRAM, SAMPLE  
PROBLEM A)**

**FIGURE 3.8-104**



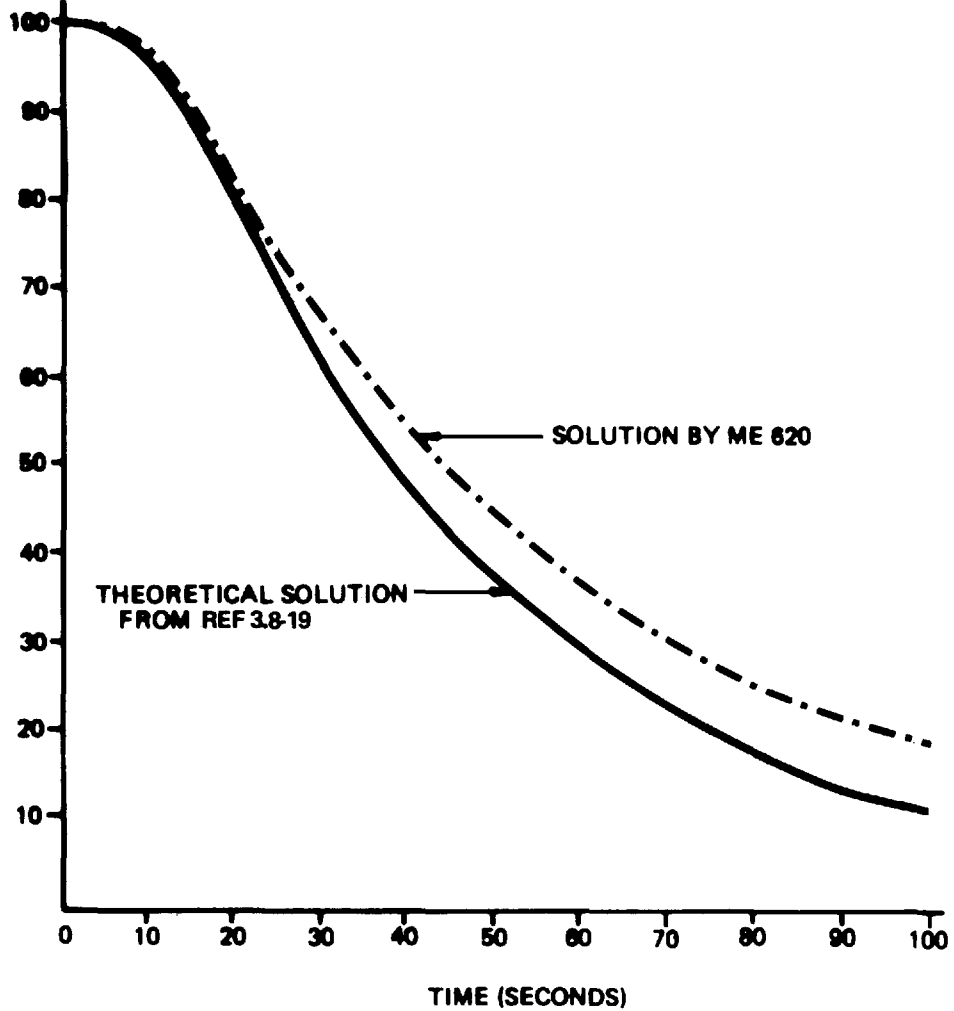
**LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT**

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**FINITE ELEMENT MODEL OF SQUARE  
PLATE (ME620 PROGRAM, SAMPLE  
PROBLEM A)**

**FIGURE 3.8-105**

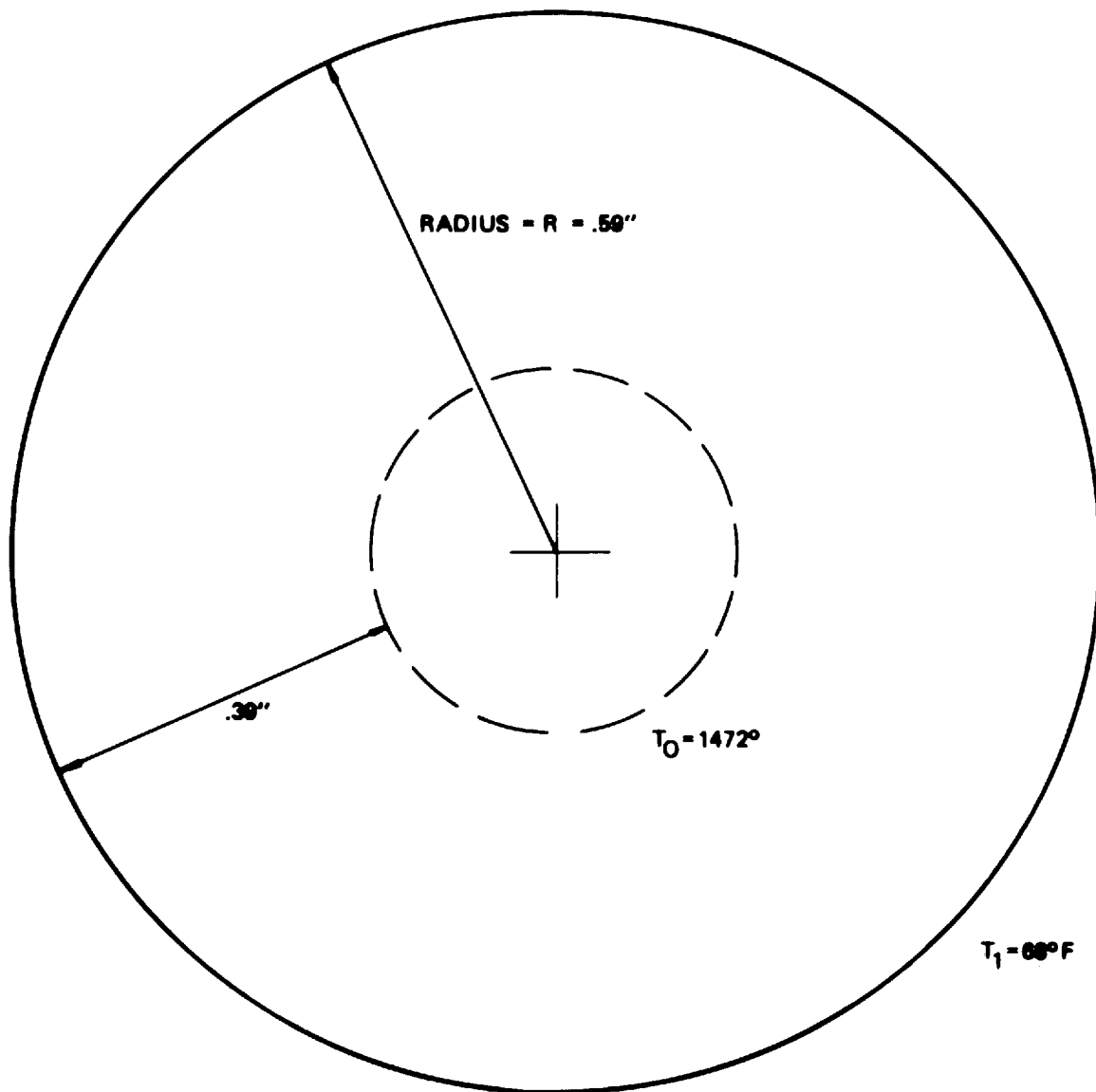
TEMPERATURE AT  
POINT A (°F)



LIMERICK GENERATING STATION  
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COMPARISON OF TEMPERATURE  
TRANSIENTS FROM ME620 AND  
REFERENCE 3.8-19 (ME620  
PROGRAM, SAMPLE PROBLEM A)

FIGURE 3.8-106

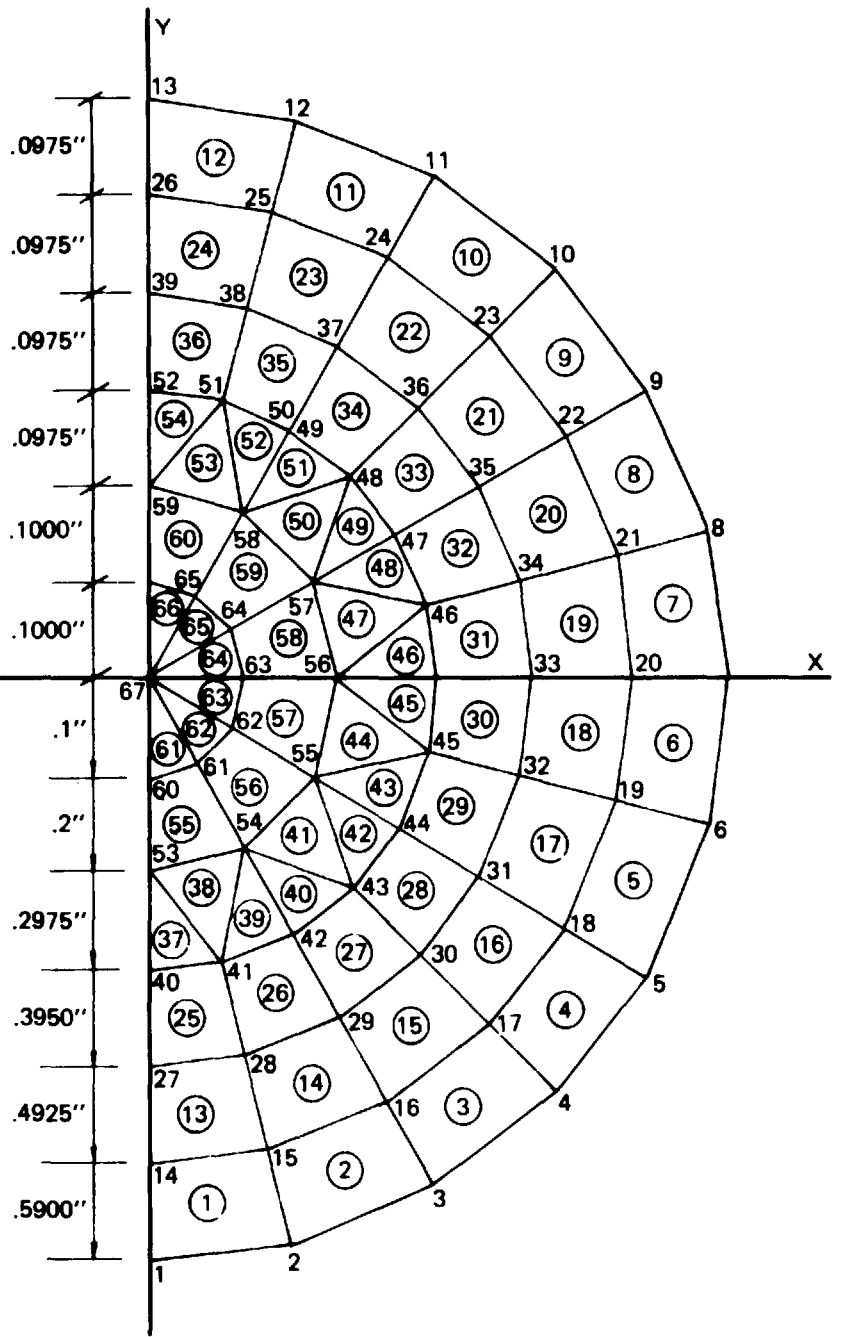


LIMERICK GENERATING STATION  
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UPDATED FINAL SAFETY ANALYSIS REPORT

SIZE AND TEMPERATURE CONDITIONS  
OF SOLID STEEL SPHERE (ME620  
PROGRAM, SAMPLE PROBLEM B)

FIGURE 3.8-107

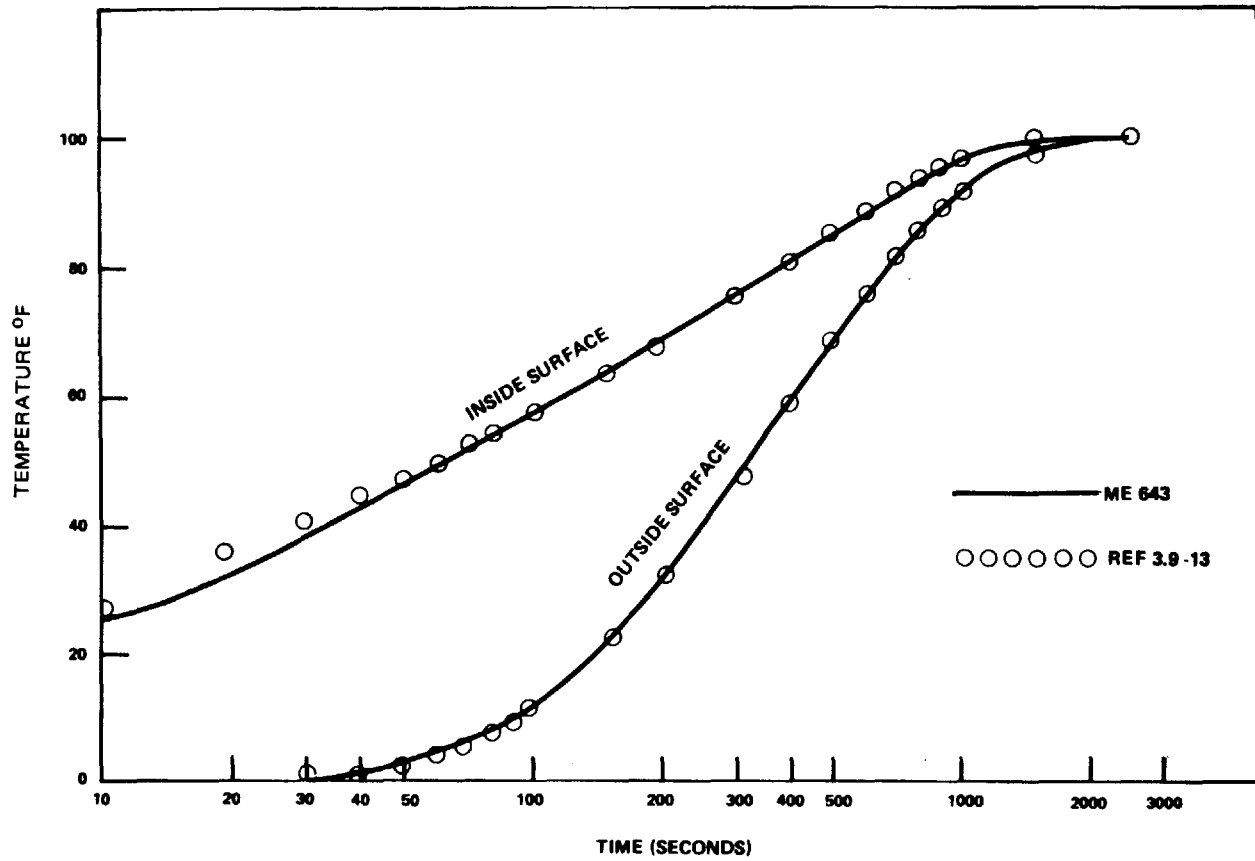




**LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT**

**FINITE ELEMENT MODEL OF SOLID  
 STEEL SPHERE (ME620 PROGRAM,  
 SAMPLE PROBLEM B)**

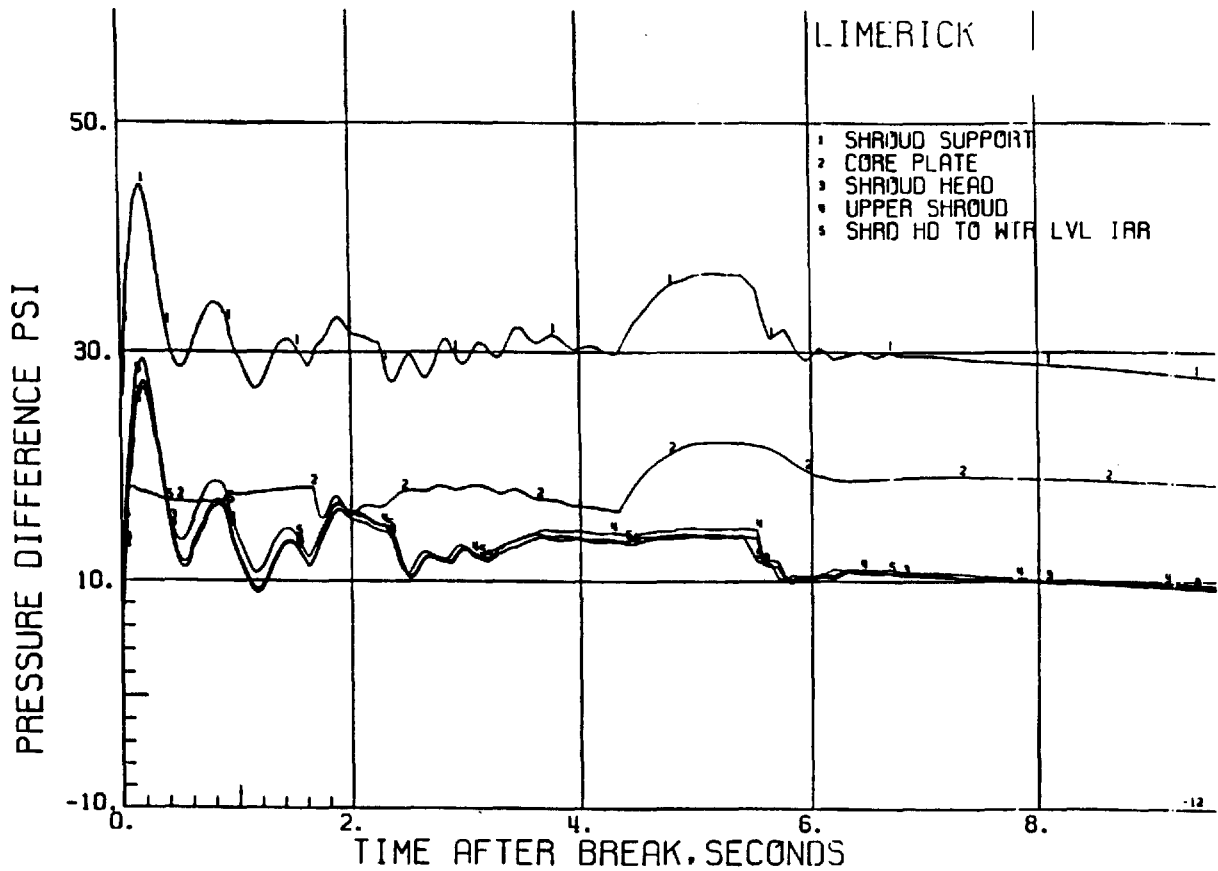
**FIGURE 3.8-108**



LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

TRANSIENT TEMPERATURE  
 RESPONSE OF A  
 SAMPLE PIPE

FIGURE 3.9-1

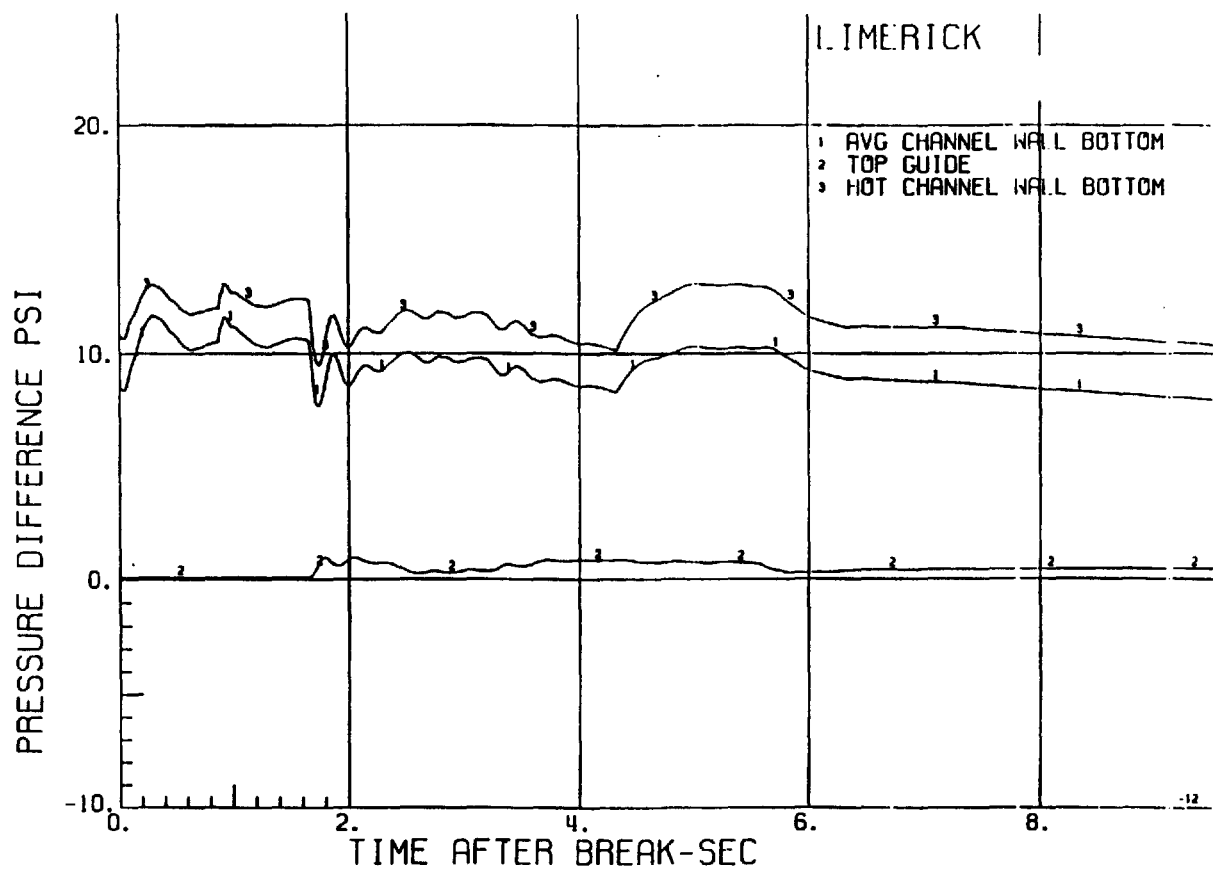


**LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT**

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**TRANSIENT PRESSURE  
 DIFFERENTIALS FOLLOWING  
 A STREAMLINE BREAK  
 (SHEET 1 OF 2)**

**FIGURE 3.9-2**
Rev. 5, 4/96

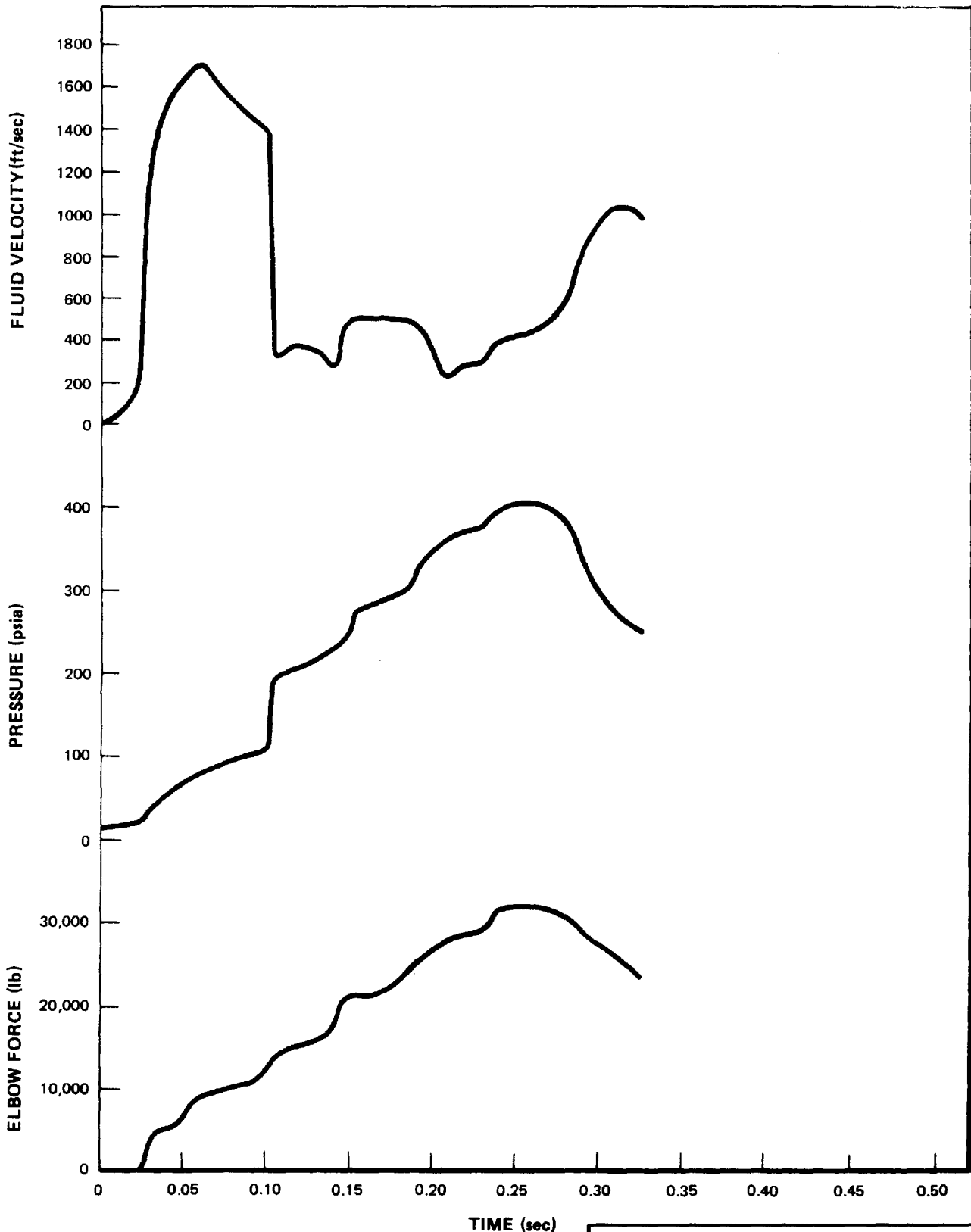


LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

TRANSIENT PRESSURE  
 DIFFERENTIALS FOLLOWING  
 A STREAMLINE BREAK  
 (SHEET 2 OF 2)

FIGURE 3.9-2

Rev. 5, 4/96



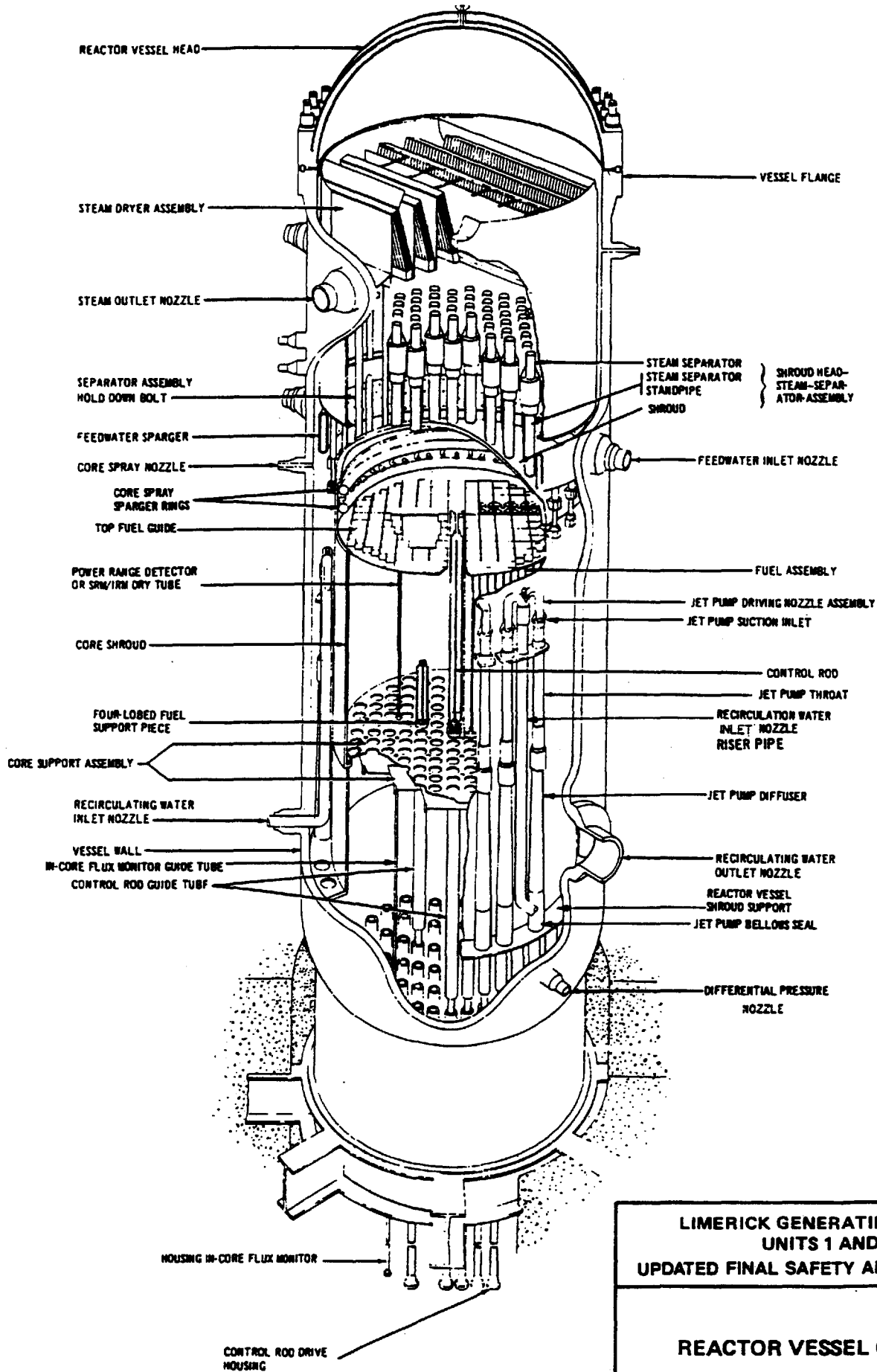
**LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT**

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**TYPICAL RELIEF VALVE TRANSIENT**

---

**FIGURE 3.9-3**

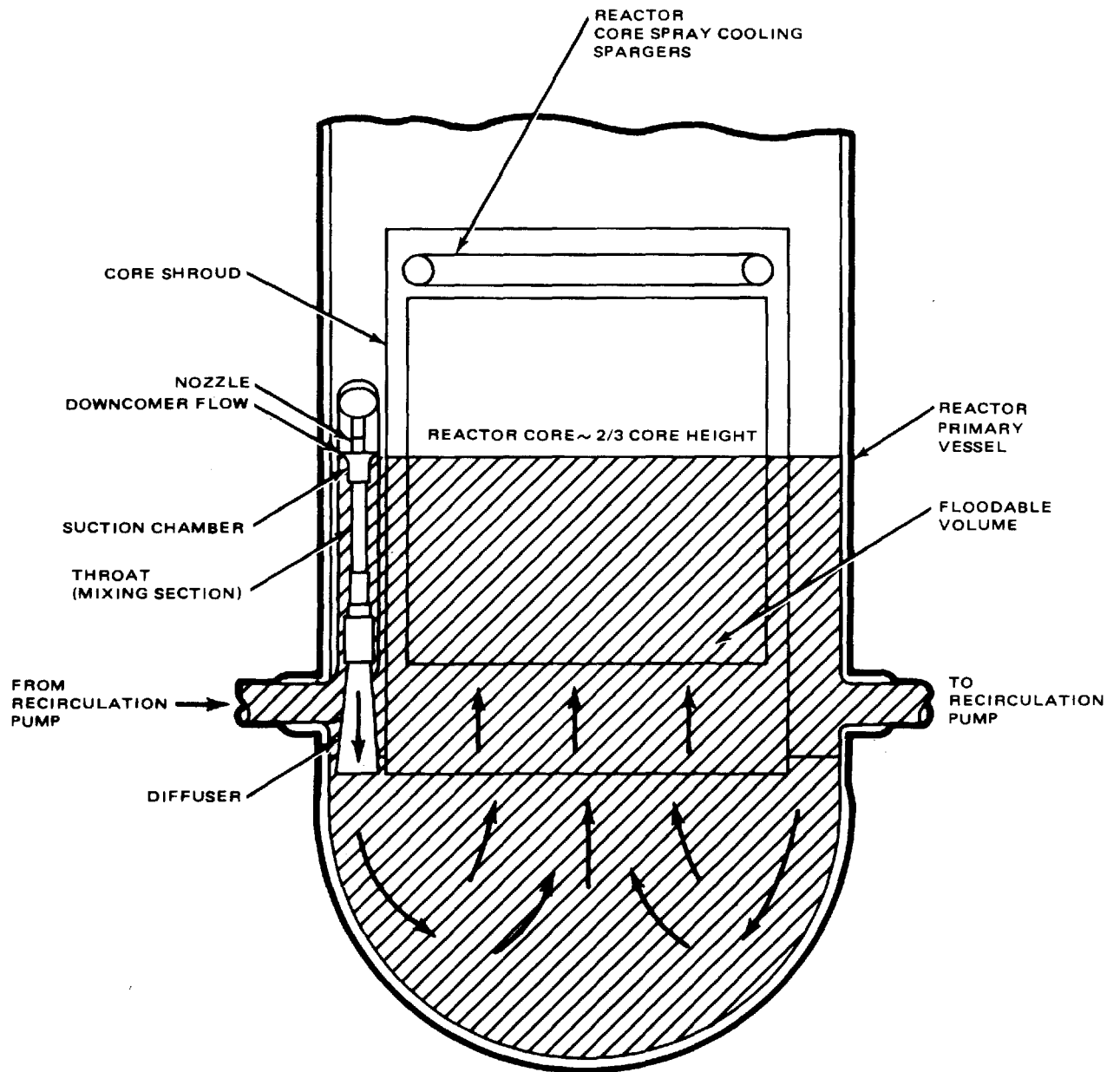


LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
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**REACTOR VESSEL CUTAWAY**

FIGURE 3.9-4

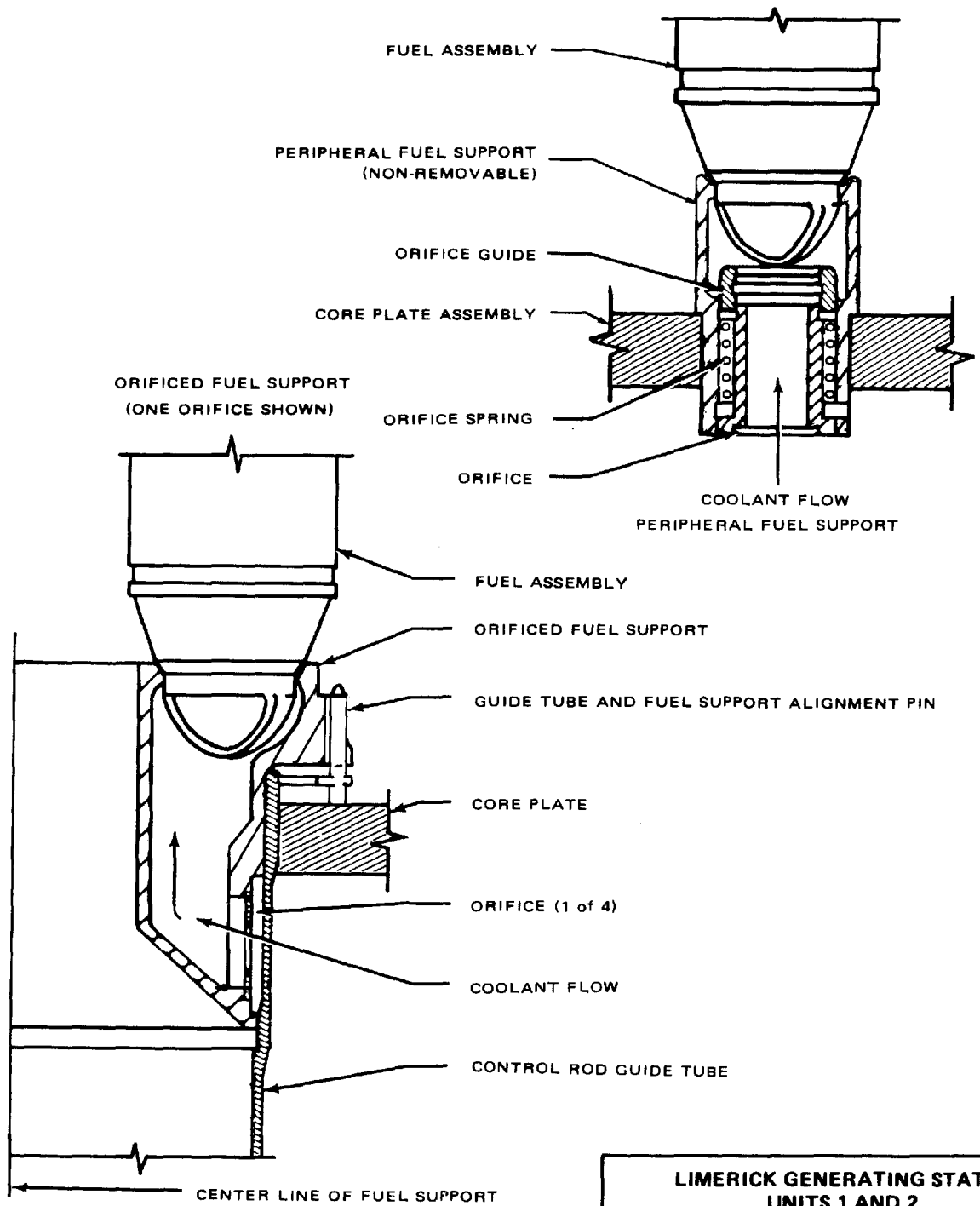
Rev 08 11/98



LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
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REACTOR INTERNALS  
 FLOW PATHS

FIGURE 3.9-5

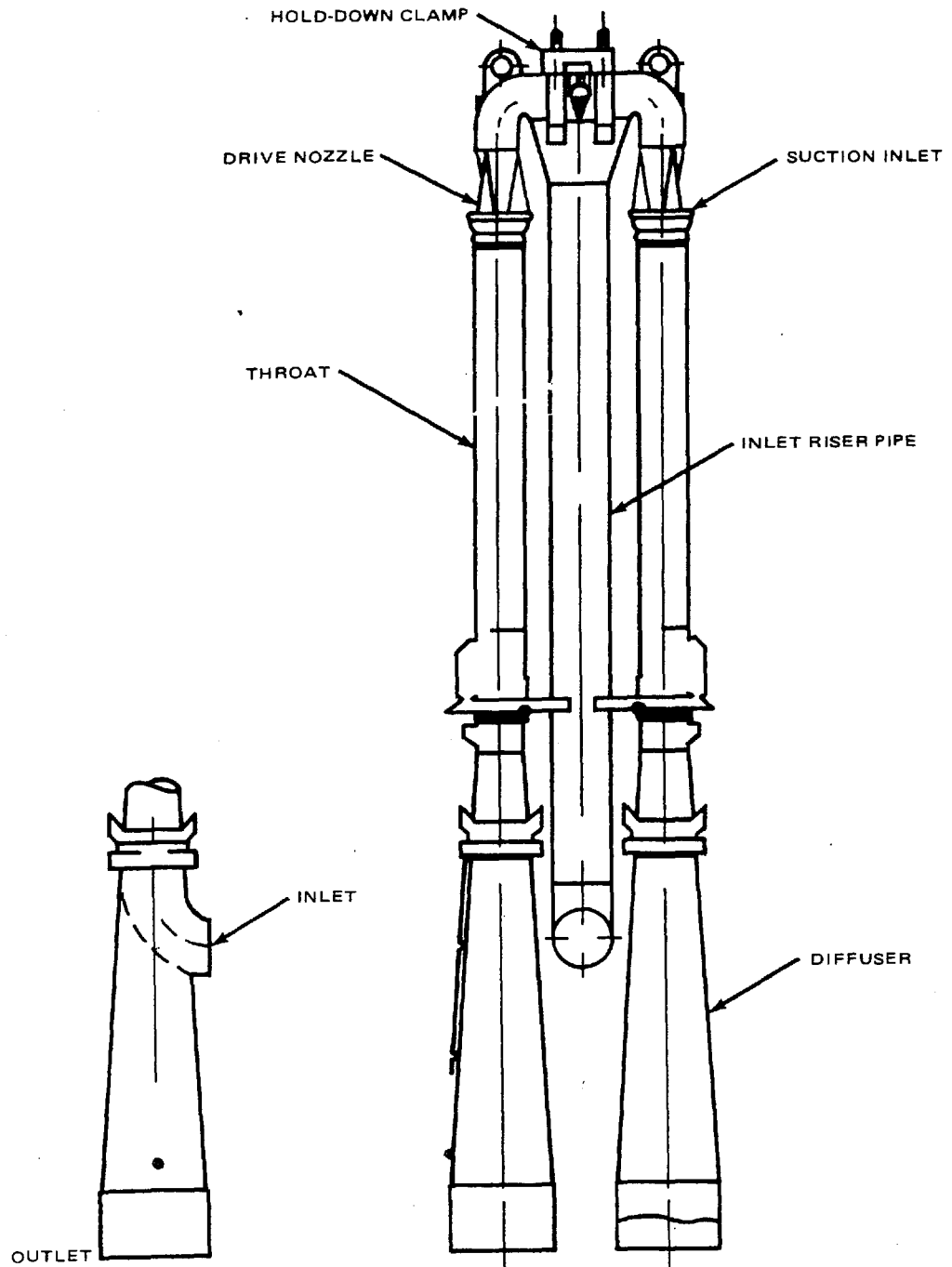


LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
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FUEL SUPPORT PIECES

FIGURE 3.9-6



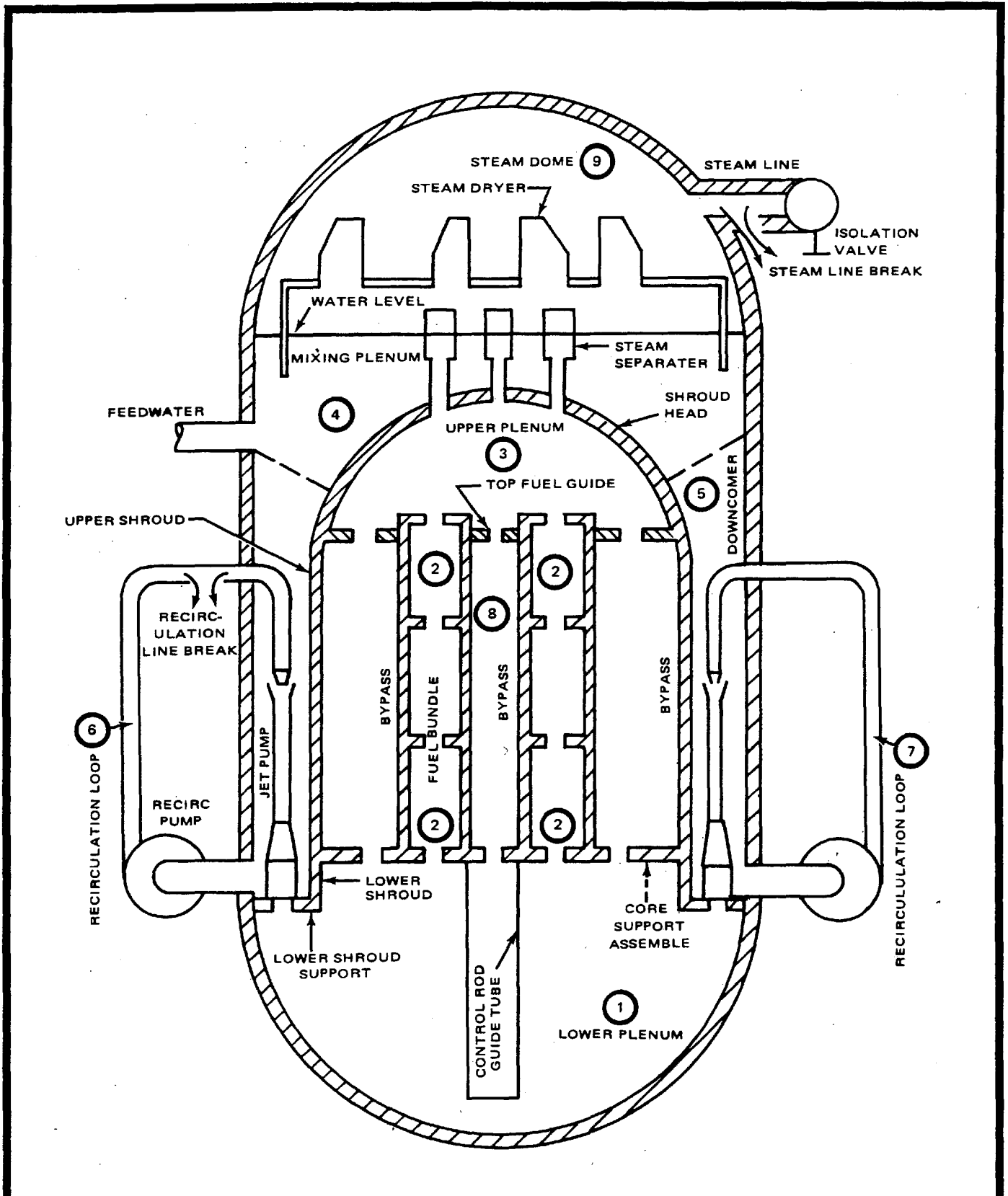


LIMERICK GENERATING STATION  
 UNITS 1 & 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

JET PUMP

FIGURE 3.9-7

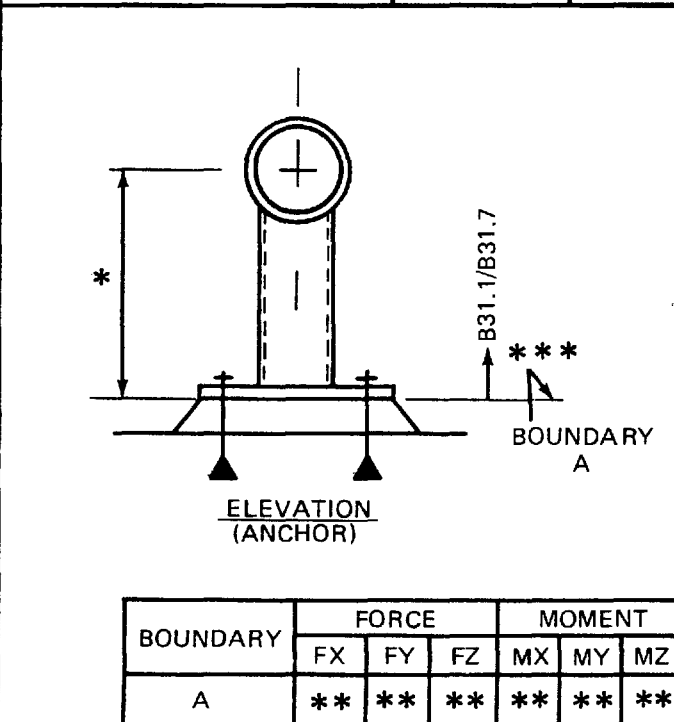
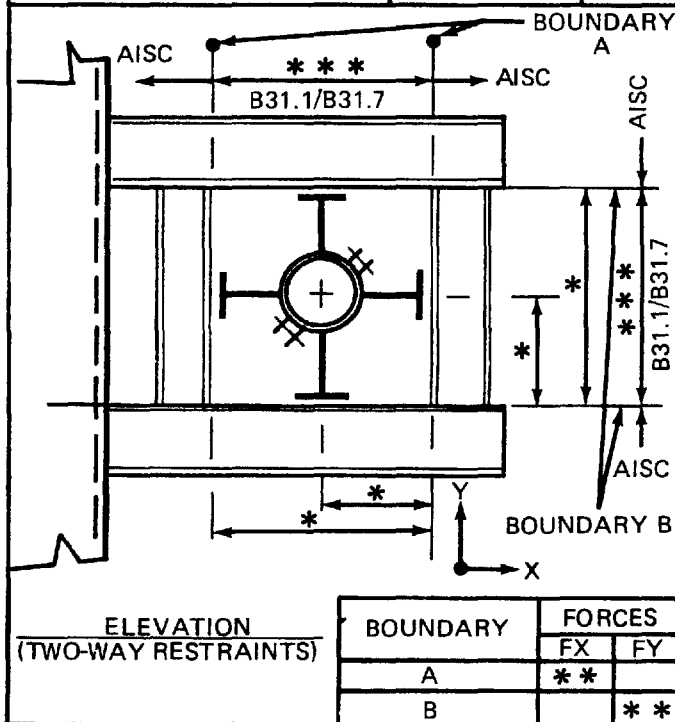
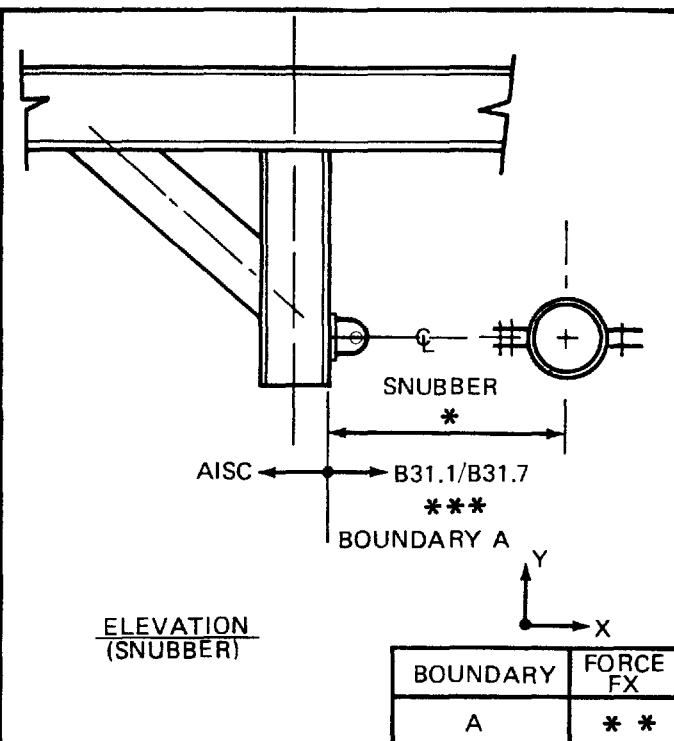
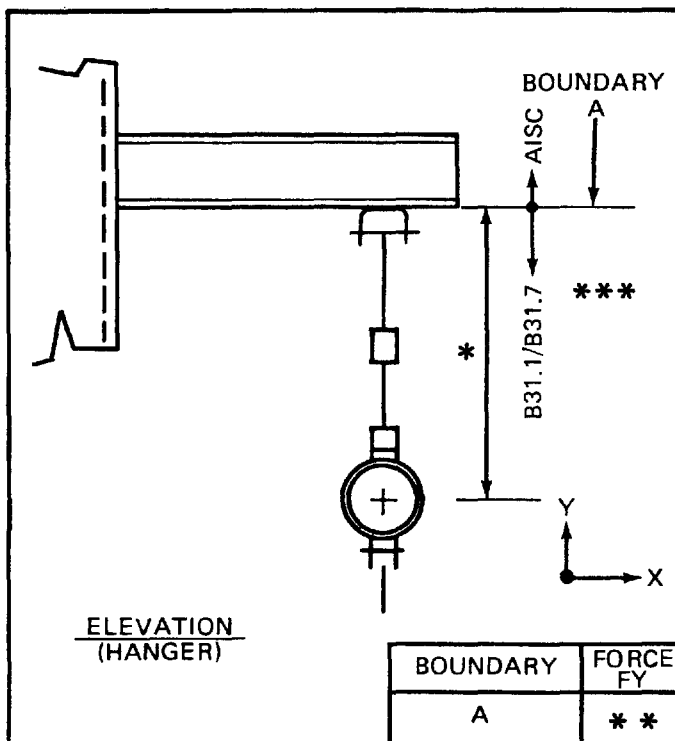
Rev. 10 10/00



LIMERICK GENERATING STATION  
 UNITS 1 & 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT

PRESSURE NODES USED FOR  
 DEPRESSURIZATION ANALYSIS

FIGURE 3.9-8 Rev. 10 10/00



\* INDICATES DIMENSIONAL LOCATION OF B31.1/B31.7 ELEMENTS  
 \*\* INDICATES LOADS IMPOSED ON THE B31.1/B31.7 BOUNDARY  
 \*\*\* INDICATES B31.1/B31.7 BOUNDARIES (INCLUDING WELD, IF ANY)  
 B31.1 CODE FOR NON-NUCLEAR PIPING SYSTEMS.  
 SNUBBERS AND COMPENSATING STRUTS ARE CONSTRUCTED TO THE REQUIREMENTS OF ASME SECTION III, SUBSECTION NF

NOTE 1: EXAMINATION OF FULL PENETRATION WELDS ON ALL PRIMARY MEMBERS (WHETHER B31.1, B31.7 OR AISC) OF NUCLEAR CLASS 1. PIPE SUPPORTS SHALL BE EXAMINED ONCE BY MT OR PT AND VISUALLY EXAMINED THEREAFTER AS PART OF THE ISI PROGRAM, IN ACCORDANCE WITH ASME SECTION XI.

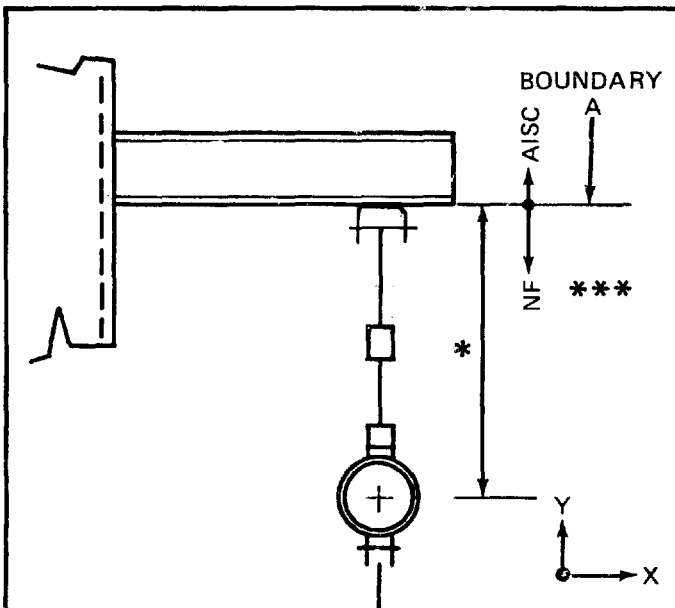
NOTE 2: FOR NUCLEAR CLASS 1 PIPE SUPPORTS. ALL WELDS, OTHER THAN FULL PENETRATION WELDS, INCLUDING THOSE WITHIN AISC JURISDICTIONAL BOUNDARIES, SHALL BE VISUALLY EXAMINED AS PART OF THE ISI PROGRAM, IN ACCORDANCE WITH ASME SECTION XI.

NOTE 3: FOR NUCLEAR CLASS 2 AND 3 PIPE SUPPORTS, ALL WELDS, INCLUDING THOSE WITHIN AISC JURISDICTIONAL BOUNDARIES, SHALL BE VISUALLY EXAMINED AS PART OF THE ISI PROGRAM, IN ACCORDANCE WITH ASME SECTION XI.

**LIMERICK GENERATING STATION  
 UNITS 1 AND 2  
 UPDATED FINAL SAFETY ANALYSIS REPORT**

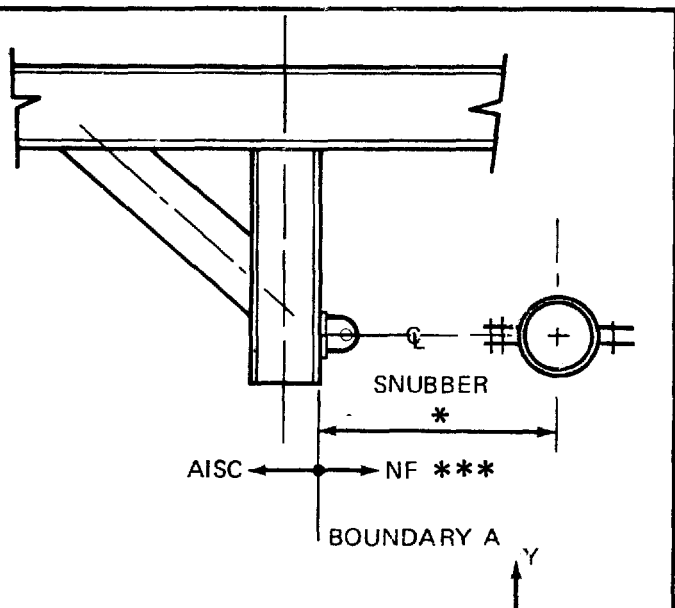
**JURISDICTIONAL BOUNDARY  
 BETWEEN PIPE SUPPORTS AND  
 SUPPORTING STRUCTURE FOR  
 SUPPORTS NOT FURNISHED  
 WITH NSSF**

**FIGURE 3.9-9**



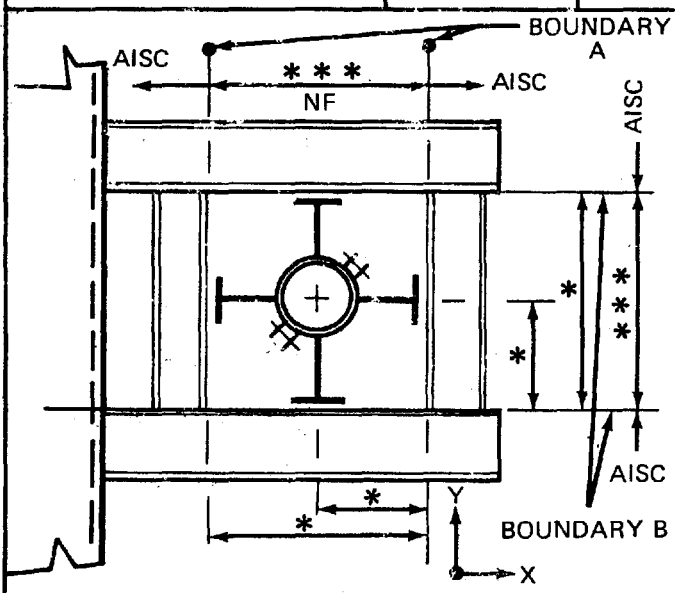
ELEVATION  
(HANGER)

BOUNDARY	FORCE FY
A	**



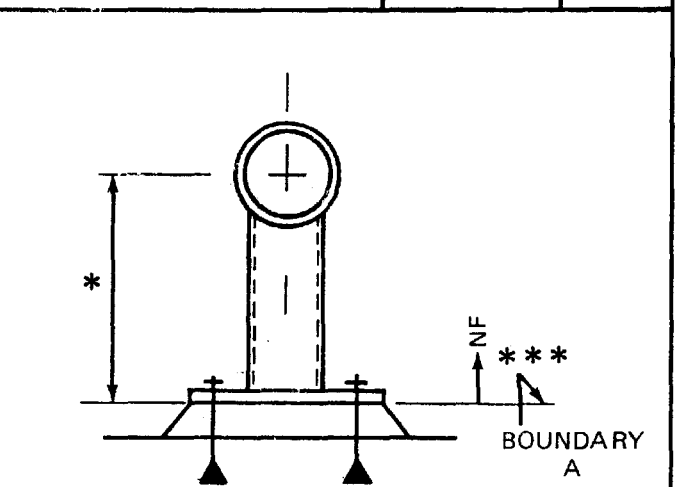
ELEVATION  
(SNUBBER)

BOUNDARY	FORCE FX
A	**



ELEVATION  
(TWO-WAY RESTRAINTS)

BOUNDARY	FORCES	
	FX	FY
A	**	**
B	**	**



ELEVATION  
(ANCHOR)

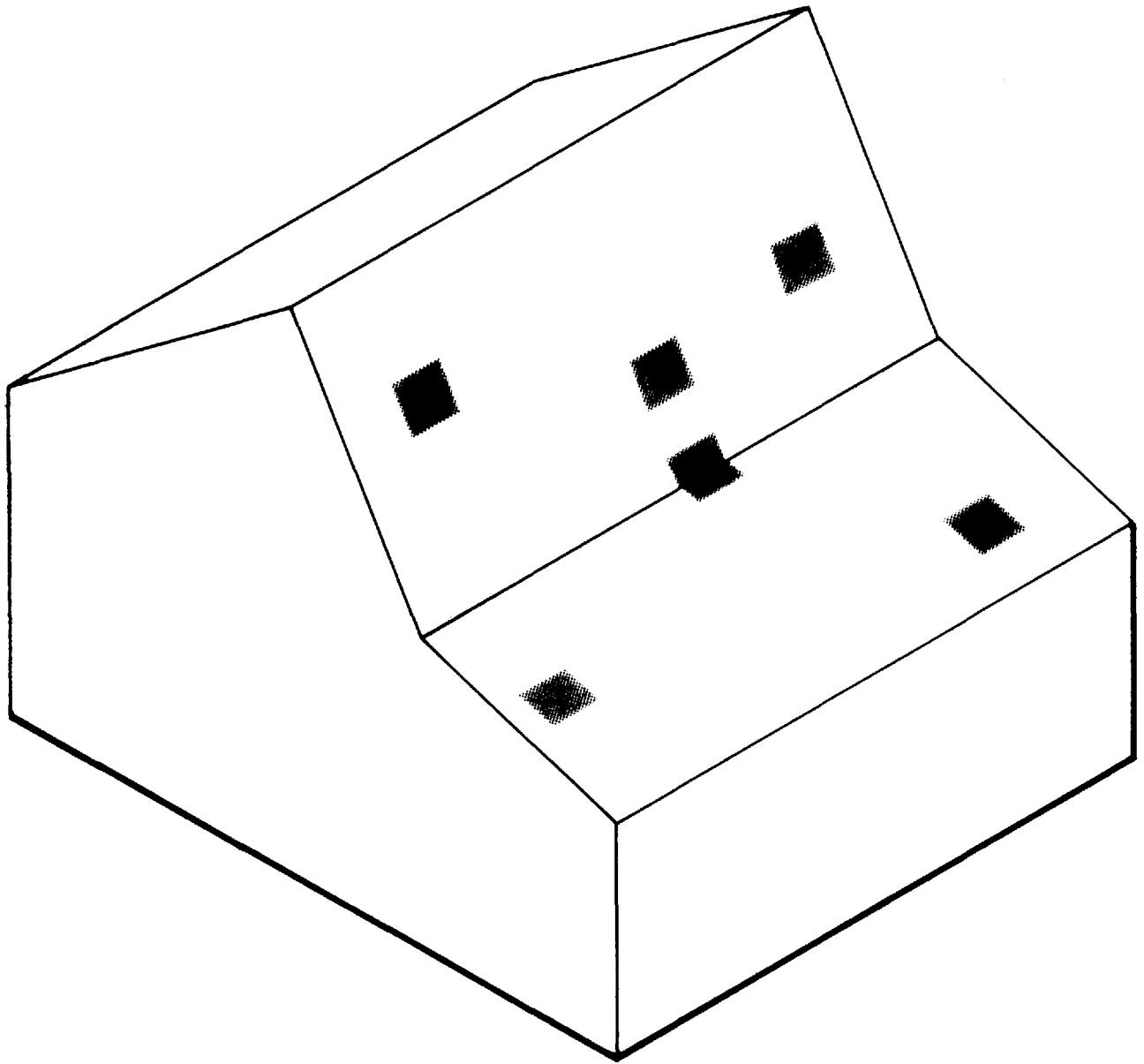
BOUNDARY	FORCE			MOMENT		
	FX	FY	FZ	MX	MY	MZ
A	**	**	**	**	**	**

- \* INDICATES DIMENSIONAL LOCATION OF NF ELEMENTS
- \*\* INDICATES LOADS IMPOSED ON THE NF BOUNDARY
- \*\*\* INDICATES NF BOUNDARIES (INCLUDING WELD, IF ANY)

**LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT**

**JURISDICTIONAL BOUNDARY  
BETWEEN PIPE SUPPORTS AND  
SUPPORTING STRUCTURE FOR  
SUPPORTS FURNISHED WITH  
CONTROL ROD DRIVE SYSTEM  
AND TIP SYSTEM**

**FIGURE 3.9-10**

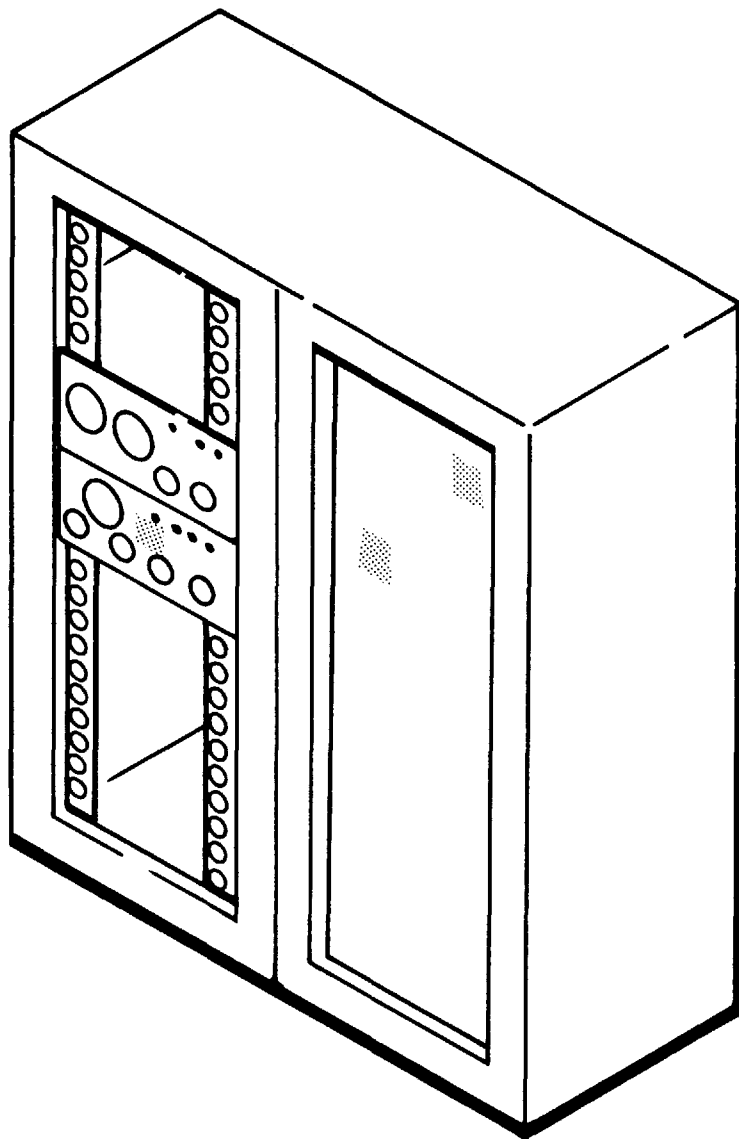


 TYPICAL ACCELEROMETER LOCATION

LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

TYPICAL BENCH BOARD

FIGURE 3.10-1

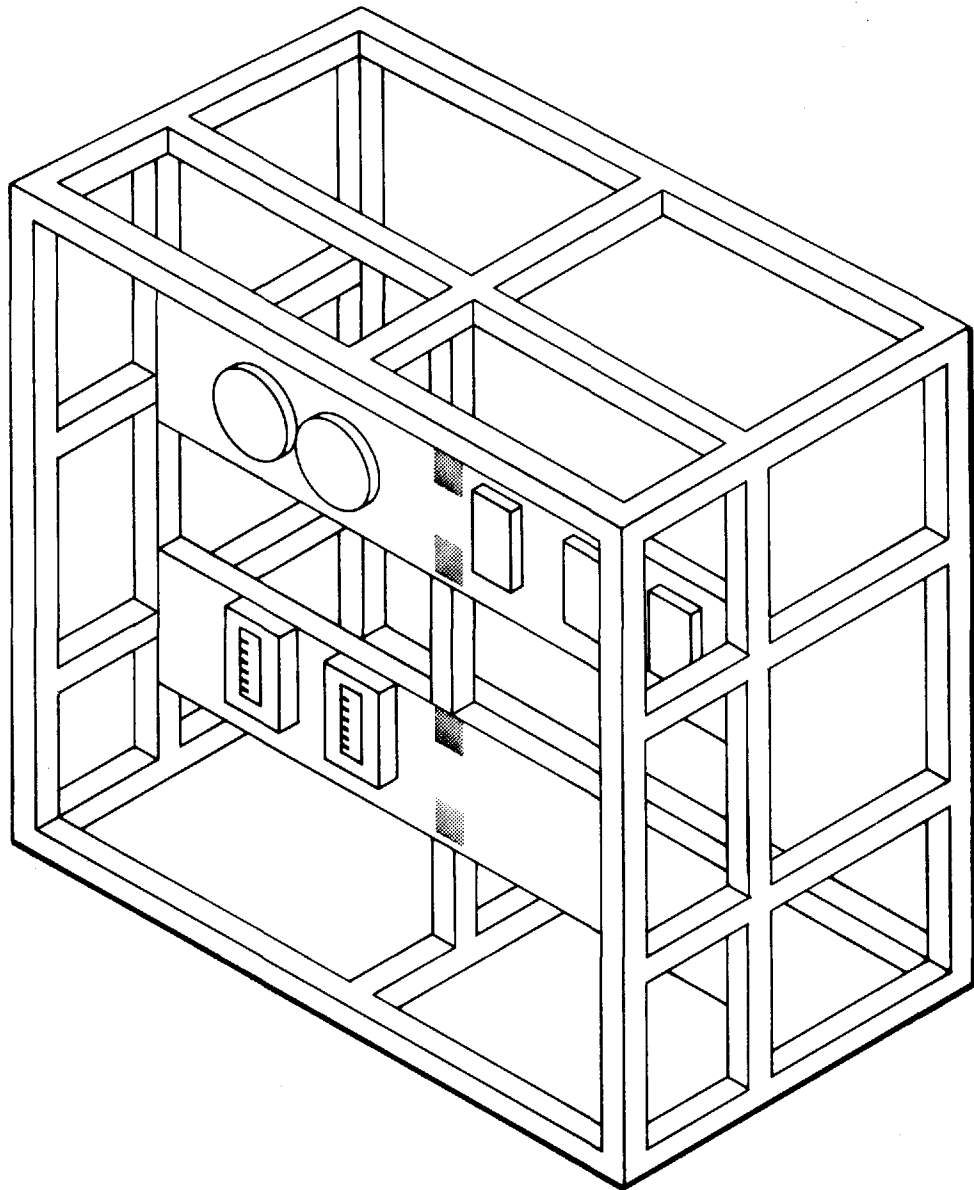


**TYPICAL ACCELEROMETER LOCATION**

**LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT**

**INSTRUMENT RACK**

**FIGURE 3.10-2**

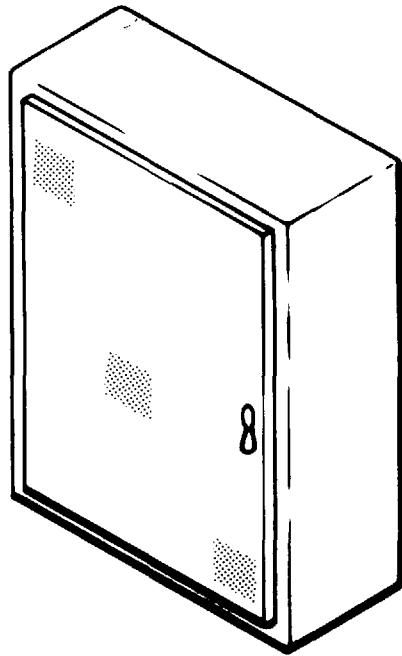


■ TYPICAL ACCELEROMETER LOCATION

**LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT**

**TYPICAL LOCAL RACK**

**FIGURE 3.10-3**



TYPICAL ENCLOSURE VENTILATION

LIMERICK GENERATING STATION  
UNITS 1 AND 2  
UPDATED FINAL SAFETY ANALYSIS REPORT

**NEMA TYPE-12 ENCLOSURE  
(INSTRUMENTS MOUNTED INSIDE  
ON INTERNAL MEMBRANE  
MOUNTED ON STANDOFFS  
ATTACHED TO BACK)**

FIGURE 3.10-4