MLRS-BCW

STORAGE IN APPROVED MAGAZINES OF ROCKET POD W/WARHEAD MINUS INJECTOR ASSEMBLY (RP(-)) FOR THE MULTIPLE LAUNCH ROCKET SYSTEM-BINARY CHEMICAL WARHEAD

INDEX

U.S. ARMY MATERIEL COMMAND DRAWING

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CLASS	DIVISION	DRAWING	FILE
19	48	4525	CB1-3-4-14-22J3

DO NOT SCALE

PROJECT CB 93-90

GENERAL NOTES

A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AR 740-1, AND AUGMENTS TM 743-200-1 (CHAPTER 5).

B. THE STORAGE PROCEDURES SPECIFIED IN THIS DRAWING ARE APPLICABLE TO THE MULTIPLE LAUNCH ROCKET SYSTEM (MLRS) BINARY CHEMICAL WARHEAD (BCW) MINUS INJECTOR ASSEMBLIES (IA) WHEN PACKED IN ROCKET POD CONTAINER (RP(-)). SUBSEQUENT REFERENCE TO CONTAINER HEREIN MEANS THE RP(-) WITH WARHEAD ASSEMBLIES. SEE GENERAL NOTES "U","V", AND "W" FOR STORAGE HANDLING AIDS.

C. FOR DETAILS OF THE ROCKET POD CONTAINER RP(-) SEE PAGE 3.

CONTAINER DIMENSIONS - - - - 166" LONG BY 41-1/2 WIDE BY 33" HIGH. (31" STACKING HEIGHT).
GROSS WEIGHT - - - - - - - - - - 3,968 POUNDS (APPROX)

D. CAUTION: THIS ITEM IS IN A "PROPULSIVE STATE" AND MUST BE STORED WITH THE FORWARD END FACING TOWARD A MAGAZINE SIDEWALL OR THE REAR WALL AS INDICATED BY THE DIRECTIONAL ARROWS ON THE STORAGE VIEWS.

E. MAGAZINES MUST COMPLY WITH ALL REQUIREMENTS AND BE APPROVED FOR THE STORAGE OF CHEMICAL ITEMS. THE STORAGE PROCEDURES DEPICTED WITHIN THIS DOCUMENT ARE APPLICABLE FOR STORAGE IN VARIOUS TYPES AND SIZES OF MAGAZINES. THE STORAGE PROCEDURES DEPICTED FOR THE SPECIFIC TYPES OF MAGAZINES MAY ALSO BE UTILIZED TO STORE CONTAINERS IN OTHER TYPES OF APPROVED MAGAZINES. MINOR ADJUSTMENTS MAY BE MADE TO FACILITATE STORAGE IN OTHER TYPES OF MAGAZINES, HOWEVER, THE BASIC PRINCIPLES AS DEPICTED HEREIN WILL BE FOLLOWED.

F. STORED CONTAINERS MUST NOT CONTACT THE WALLS,COLUMNS OR BEAMS OF A MAGAZINE. TO PROVIDE FOR THIS MANDATORY CLEARANCE REQUIREMENT, CONTAINERS MAY BE ELIMINATED . FROM THE DEPICTED STORAGE PATTERN OR AISLE DIMENSIONS MAY BE ADJUSTED, AS NECESSARY.

G. AISLE DIMENSIONS AS SHOWN HEREIN MAY BE ADJUSTED TO SUIT LOCAL CONDITIONS AND OR AVAILABLE MATERIAL HANDLING EQUIPMENT (MHE). MINIMUM INSPECTION AISLES AS DEPICTED ON PAGE 3, MUST BE MAINTAINED AT BOTH ENDS OF THE CONTAINERS.

H. IF AVAILABLE MHE PERMITS, ADDITIONAL CONTAINERS MAY BE STORED IN THE FRONTAL AREA AND/OR OTHER AVAILABLE AREA OF THE MAGAZINE.

J. CAUTION: CONTAINERS MUST NOT BE STACKED MORE THAN FOUR (4) CONTAINERS HIGH.

K. ANY CONTAINER THAT DOES NOT CONTAIN SIX (6) COMPLETE LAUNCH TUBES WILL NOT BE BURIED IN STORAGE. IT SHOULD BE POSITIONED ON TOP OF THE LAST STACK ADJACENT TO OR NEAREST THE MAGAZINE DOOR.

L. THE SHOCK ISOLATOR (RUBBER) SKIDS OF A CONTAINER WILL NOT ADEQUATELY SUPPORT A STACK OF TWO CONTAINERS. THEREFORE, "POD SUPPORT" DUNNAGE MUST BE INSTALLED AS NEAR AS POSSIBLE BEHIND THE SKIDS OF THE LOWER CONTAINER (S) IF STACKS ARE TWO OR MORE HIGH. "POD SUPPORT " DUNNAGE NEED NOT BE IN CONTACT WITH CONTAINER SKIDS. A "POD SUPPORT"IS NOT REQUIRED FOR A ONE-HIGH CONTAINER STACK, OR BETWEEN THE TOP TWO CONTAINERS OF STACKS MORE THAN ONE HIGH. A "POD SUPPPORT" CONSISTS OF 4" X 4" X 41-1/2" AND 1" X 4" X 41-1/2" PIECES LAMINATED W/4-6d NAILS. SEE THE DETAIL ON PAGE 3. NOTE, THAT FOR STABILITY PURPOSES IT IS DESIRED THAT THE SKIDS OF A LOWER CONTAINER SUPPORT A PORTION OF THE WEIGHT OF THE CONTAINER ABOVE. THE THICKNESS OF THE "POD SUPPORT" SHOULD BE ADJUSTED AS NECESSARY TO PROVIDE THE PROPER SUPPORT BUT STILL MAINTAIN CONTACT BETWEEN THE METAL BOTTOM OF THE UPPER CONTAINER SKIDS AND THE TOP FRAME OF THE LOWER CONTAINER OR THE MAGAZINE FLOOR, AS APPLICABLE, TO PROVIDE PROPER ELECTRICAL CONDUCTIVITY. THE THICKNESS MAY BE REDUCED BY SUBSTITUTING 5/8" OR THINNER BY 3-1/2" WIDE BY 41-1/2" LONG PLYWOOD FOR THE 1" X 4" PIECE. THE THICKNESS MAY BE INCREASED BY ADDING A 1/4" OR THICKER PLYWOOD PIECE. SEE GENERAL NOTES "M" AND "T".

(CONTINUED AT RIGHT)

MATERIAL SPECIFICATIONS

LUMBER - - - SEE TM 743-200-1, DUNNAGE LUMBER, FED SPEC MM-L-751

NAILS - - - - COMMON, FED SPEC FF-N-105

(GENERAL NOTES CONTINUED)

M. "POD SUPPORT" DUNNAGE IS NOT REQUIRED IF THE CONTAINERS BEING STORED ARE EQUIPPED WITH HARDWOOD SKIDS.

N. THE HEIGHT OF THE PACKAGE GUARD ON SOME FORKLIFT TRUCKS MAY NOT PERMIT PLACEMENT OF SOME TOP LAYER CONTAINERS IN THE STACKS SHOWN IN THE " SECTION" VIEWS HEREIN, UNLESS TWO UPPER CONTAINERS ARE HANDLED AS ONE LIFT OR THE PACKAGE GUARD IS REMOVED (TINE CARRIAGE WILL IN MOST INSTANCES PROVIDE ADEQUATE PACKAGE GUARD PROTECTION). ONLY A FORKLIFT TRUCK OF ADEQUATE CAPACITY WILL BE USED WHEN LIFTING TWO CONTAINERS AS ONE LIFT.

O. IF THE QUANTITY OF CONTAINERS FOR A MAGAZINE IS TO BE REDUCED FROM WHAT IS SHOWN HEREIN, DUE TO A LIMITED QUANTITY TO BE STORED OR FOR ANY OTHER REASON, THE DELINEATED PROCEDURES ARE TO BE ADJUSTED BY OMITTING STACKS RATHER THAN BY OMITTING LAYERS.

P. OTHER COMPATIBLE ITEMS MAY BE STORED IN A MAGAZINE WHICH IS PARTIALLY FILLED WITH THE DESIGNATED ITEM.

Q. DUNNAGE LUMBER SPECIFIED THROUGHOUT THIS PROCEDURAL DRAWING IS OF NOMINAL SIZE. FOR EXAMPLE, 1" X 4" MATERIAL IS ACTUALLY 3/4" THICK BY 3-1/2" WIDE AND 4" X 4" MATERIAL IS ACTUALLY 3-1/2" THICK BY 3-1/2" WIDE.

R. CAUTION: THE ALLOWABLE "EXPLOSIVE LIMIT" ESTABLISHED FOR A MAGAZINE IS NOT TO BE EXCEEDED.

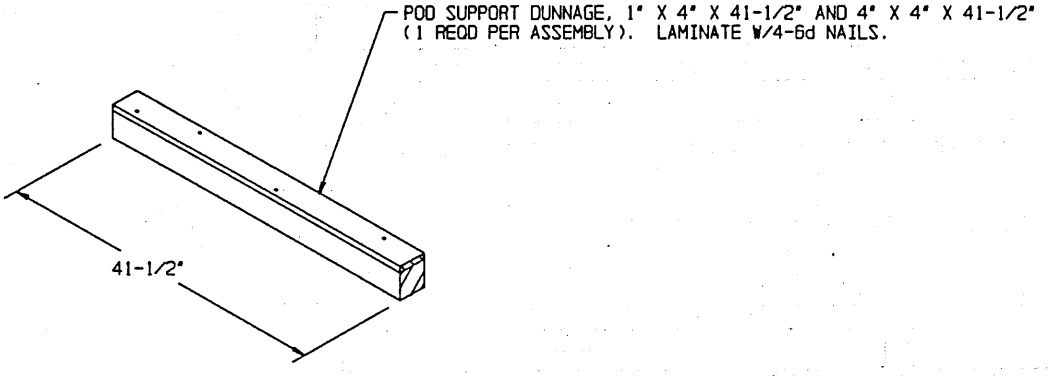
S. PORTIONS OF THE MAGAZINES, SUCH AS SIDEWALLS, ENDWALLS, AND ROOFS HAVE NOT BEEN SHOWN IN THE STORAGE VIEWS FOR CLARITY PURPOSES.

T. WHEN CONTAINERS ARE RECEIVED BY RAIL BOX CAR SHIPMENT, THE CONTAINERS WILL HAVE SPACER ASSEMBLIES AND RISER ASSEMBLIES ATTACHED, OR WILL HAVE SPACER ASSEMBLIES AND STRAPPING BOARDS ATTACHED. A CONTAINER HAVING A RISER ASSEMBLY AND A SPACER ASSEMBLY ATTACHED MUST HAVE BOTH OF THOSE ASSEMBLIES REMOVED BEFORE STORING UNLESS THE CONTAINER CAN BE PLACED IN THE TOP LAYER OF A STACK. A CONTAINER HAVING A SPACER ASSEMBLY AND STRAPPING BOARDS ATTACHED MAY BE STORED IN ANY LOCATION IN A STACK WITHOUT REMOVING THE DUNNAGE. REFER TO PAGES 28 AND 29 FOR FURTHER GUIDANCE.

U. THE RP (-) CONTAINER IS NOT EQUIPPED WITH FORKTINE OPENINGS AND CHANNELS FOR HANDLING WITH A FORKLIFT TRUCK. THE CONTAINER MAY SHIFT TO ONE SIDE ON THE FORKTINES FROM ITS CENTER OF BALANCE, POSSIBLY CREATING A HAZARD OR RESULTING IN DAMAGE TO THE CONTAINER. TO PREVENT SUCH AN OCCURANCE, IT IS RECOMMENDED THAT AN "MLRS POD STABILIZING FRAME" BE USED FOR HANDLING EACH CONTAINER FOR UNLOADING FROM TRANSPORT VEHICLE TO PLACING IN ITS STORAGE LOCATION. SUCH A STABILIZING FRAME HAS BEEN DESIGNED, FABRICATED AND IS BEING SUCCESSFULLY USED. SEE GENERAL NOTE "W" FOR APPLICABLE FABRICATION DRAWINGS.

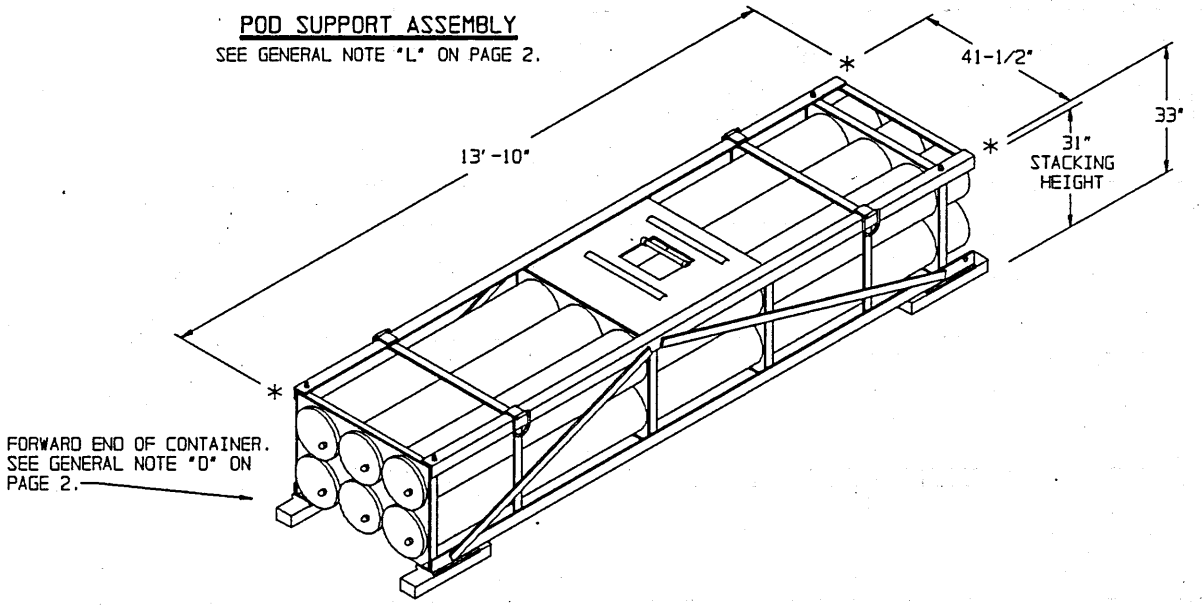
V. TO FACILITATE MOVEMENT OF THE LONG RP (-)THRU THE NARROW DOOR OPENINGS OF MOST TYPES OF STORAGE MAGAZINES, A "STORAGE HANDLING AID" HAS BEEN DESIGNED, FABRICATED AND USED. THE STORAGE AID CONSISTS OF A METAL RAMP AND WHEELED DOLLY. THIS AID PROVIDES FOR AN EFFICIENT OPERATION WITH A FORKLIFT TRUCK UNLOADING A CONTAINER FROM A TRANSPORT VEHICLE, PLACING THE CONTAINER ON THE WHEELED DOLLY ON THE RAMP AND ROLLING THE CONTAINER THROUGH THE NARROW DOOR OPENING INTO THE MAGAZINE WITH AN ELECTRIC PALLET JACK, TO PERMIT A FORKLIFT TRUCK WITHIN THE MAGAZINE TO REMOVE THE CONTAINER FROM THE DOLLY AND PLACE IT IN THE DESIGNATED STORAGE LOCATION. SEE GENERAL NOTE "W" FOR APPLCABLE FABRICATION DRAWINGS.

W. FABRICATION DRAWINGS FOR THE STORAGE AIDS DESCRIBED IN NOTES "U" AND "V" ARE AVAILABLE FROM THE DIRECTOR U.S. ARMY DEFENSE AMMUNITION CENTER AND SCHOOL (USADACS), ATTEN:SMCAC-DES, SAVANNA ILL, 61074, DSN 585-8080/8096. THE DRAWING NUMBERS AND TITLES ARE AS FOLLOWS: AC200000809; MLRS POD STABILIZING FRAME USED W/6K FORKLIFT. ACV00140; MLRS STORAGE HANDLING AID FOR NARROW DOOR MAGAZINES.

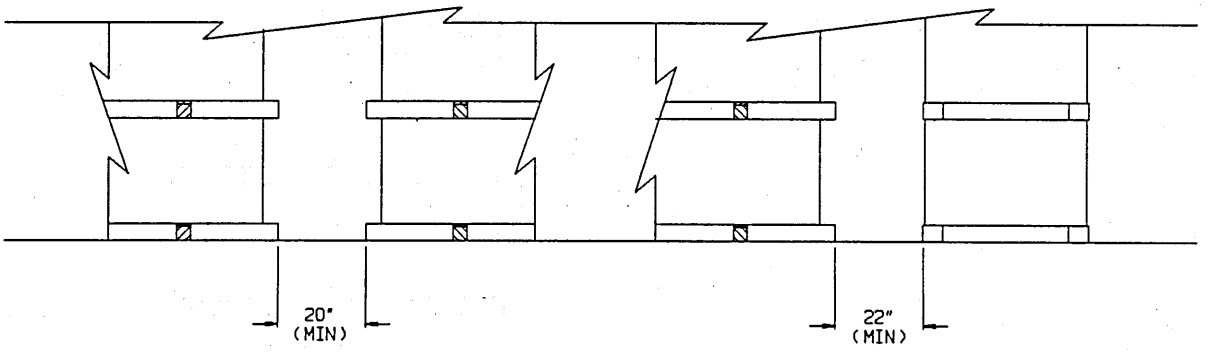


POD SUPPORT ASSEMBLY

SEE GENERAL NOTE "L" ON PAGE 2.



DETAIL OF ROCKET POD CONTAINER (RP(-))

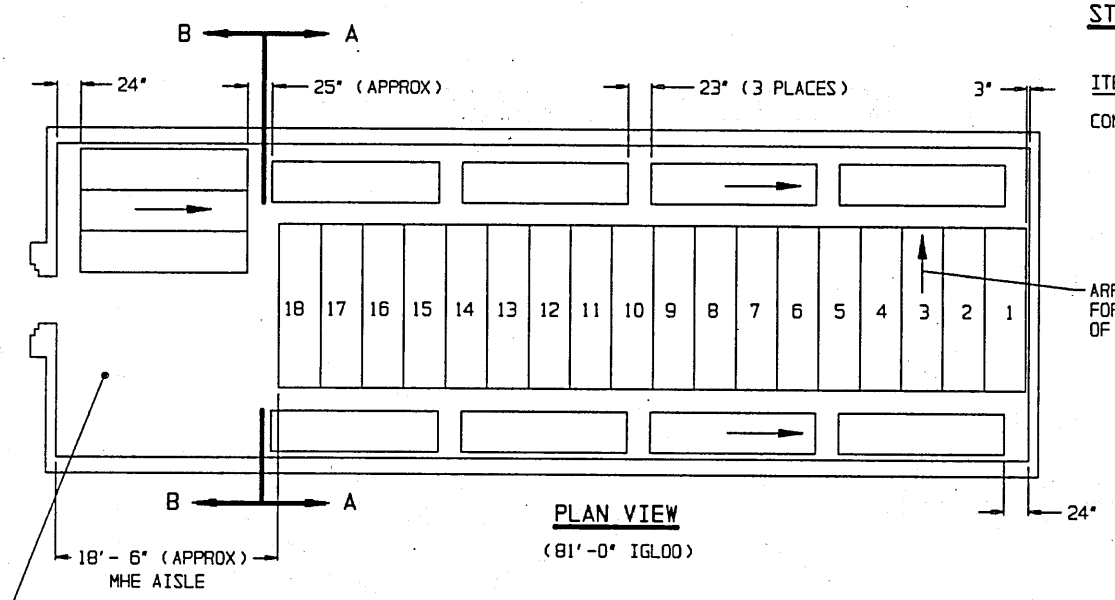


REQUIRED MINIMUM INSPECTION AISLES

STORAGE IN 81'-0" IGLOO

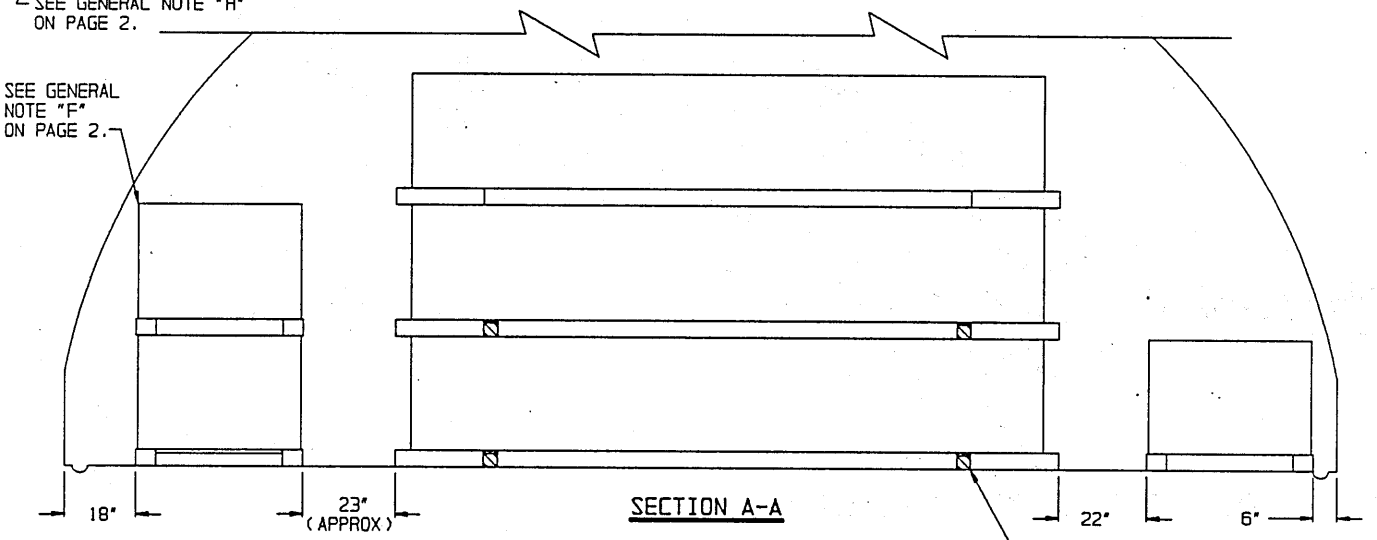
(12'-9" HIGH)

ITEM	QUANTITY
CONTAINER	74

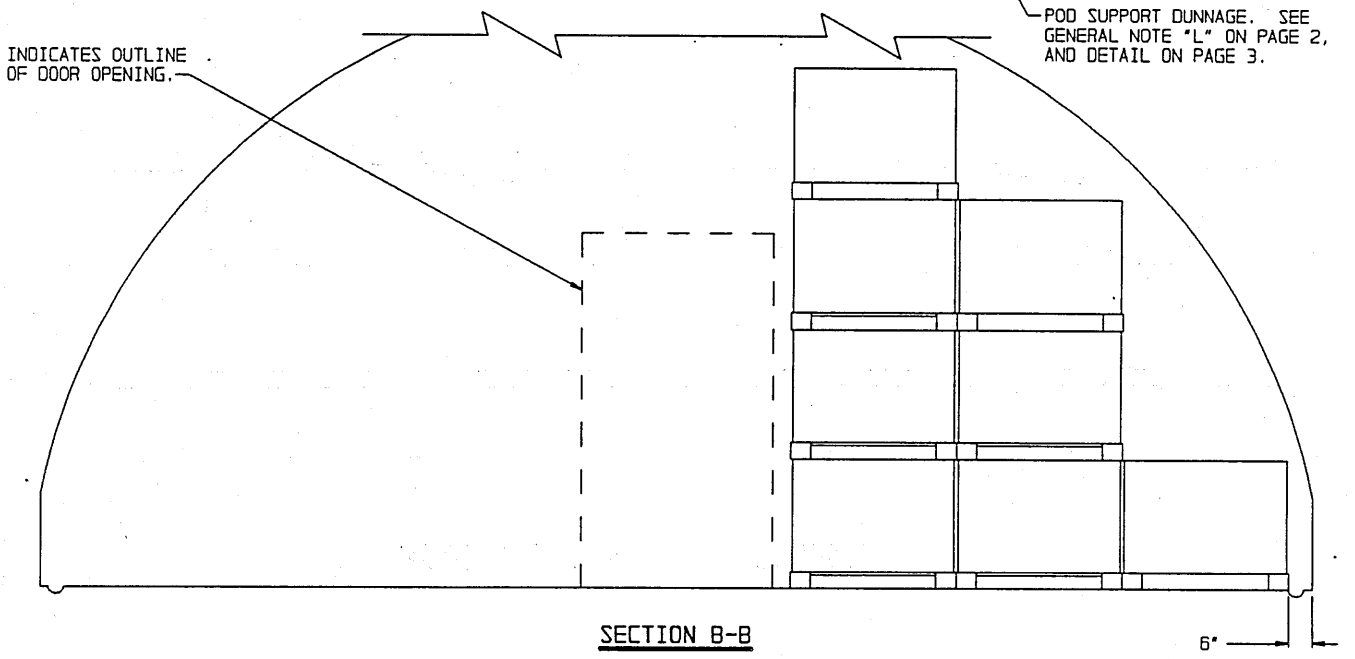


PLAN VIEW

(81'-0" IGLOO)



SECTION A-A



SECTION B-B

STORAGE PROCEDURES IN 81'-0", 60'-8", AND 40'-4" L X 26'-6" W X 12'-9" H IGLOO MAGAZINES

PROJECT CB 93-90

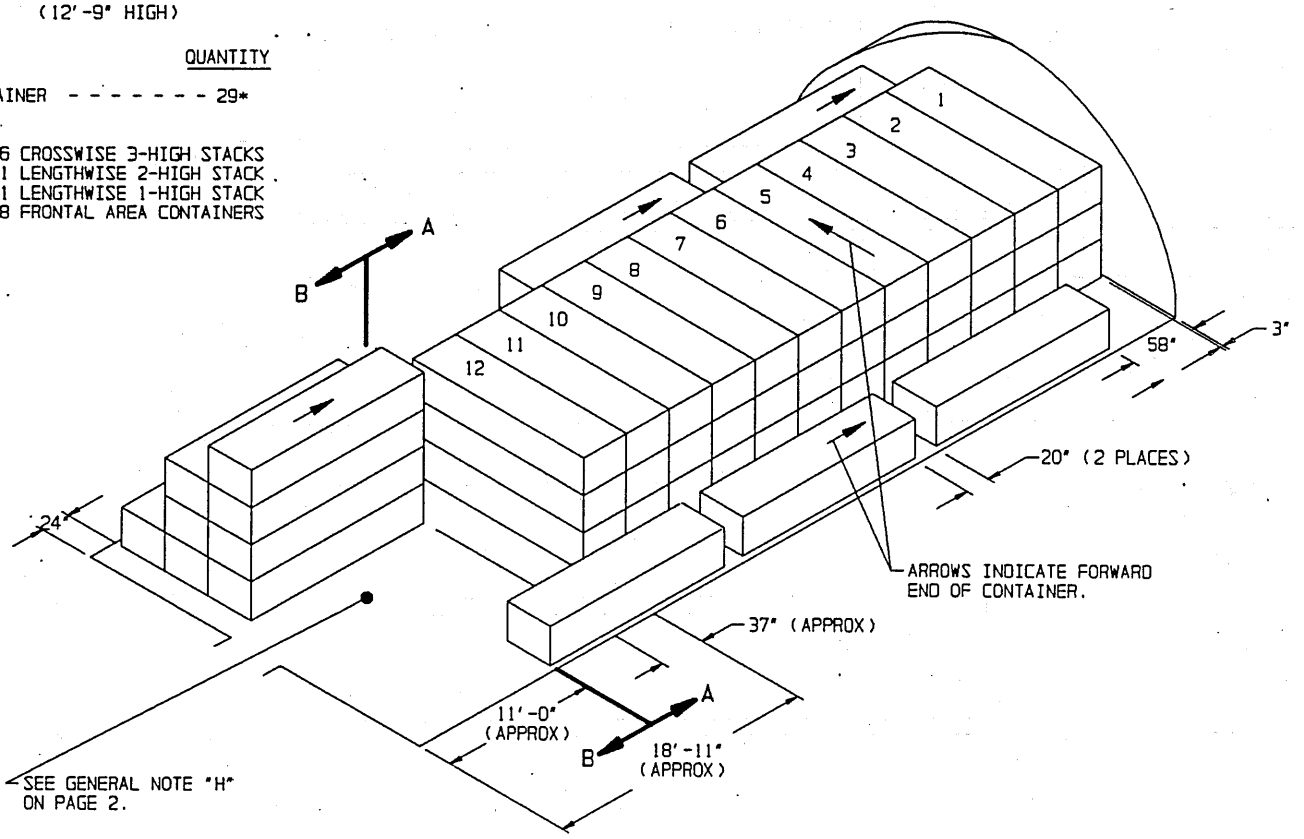
STORAGE IN 60'-8" IGLOO
(12'-9" HIGH)

ITEM	QUANTITY
CONTAINER - - - - - - - -	51

STORAGE IN 40'-4" IGLOO
(12'-9" HIGH)

ITEM	QUANTITY
CONTAINER - - - - - - - -	29*

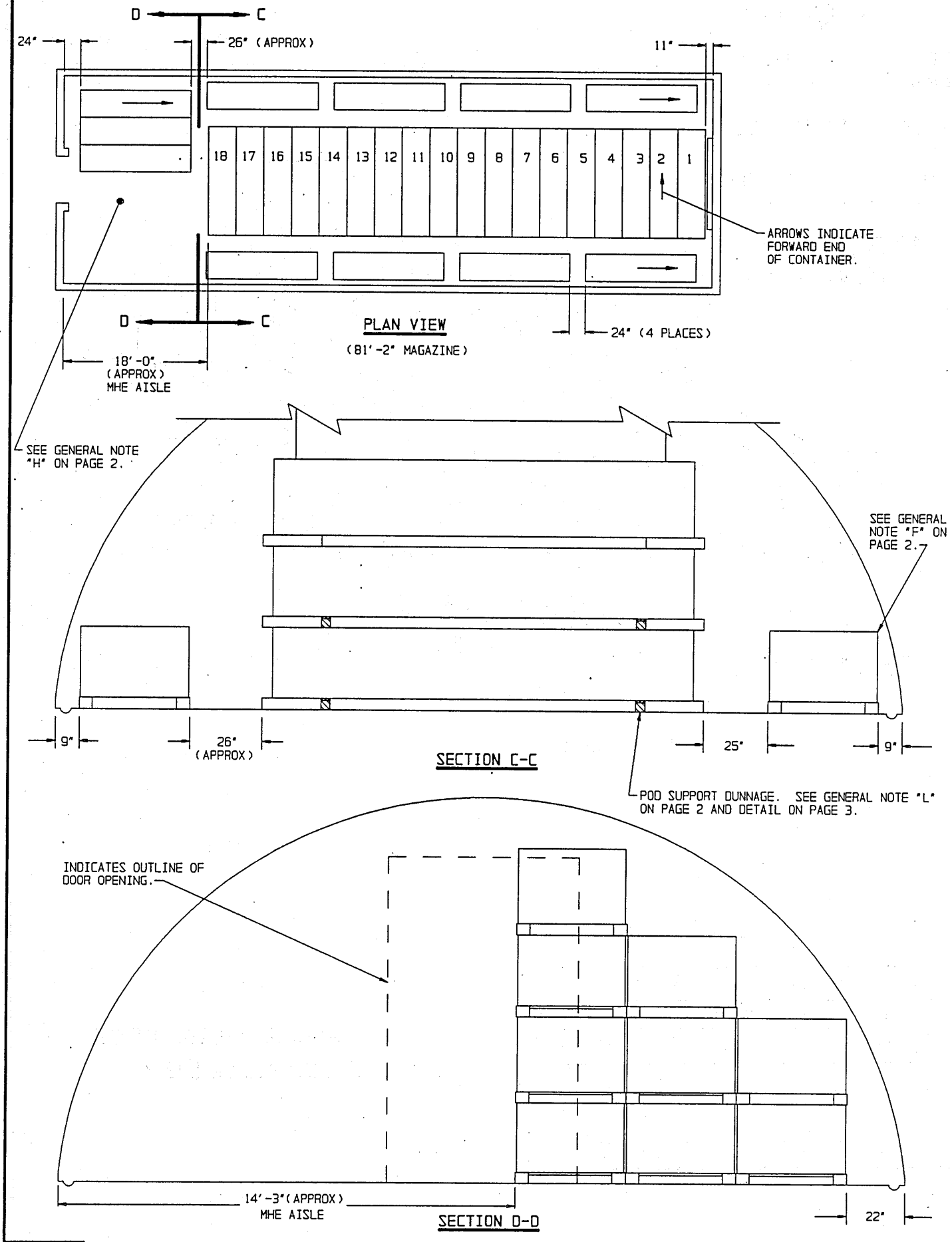
* 6 CROSSWISE 3-HIGH STACKS
1 LENGTHWISE 2-HIGH STACK
1 LENGTHWISE 1-HIGH STACK
8 FRONTAL AREA CONTAINERS



ISOMETRIC VIEW
(60'-8" IGLOO)

BILL OF MATERIAL PER CONTAINER STACK					
NO. OF CNTRS HIGH	1" X 4" LUMBER		4" X 4" LUMBER		NAILS
	LINEAR FEET	BOARD FEET	LINEAR FEET	BOARD FEET	6d (2")
ONE	- - -	- - -	- - -	- - -	- - -
TWO	6.92	2.30	6.92	9.22	8
THREE	13.83	4.61	13.83	18.44	16
FOUR	20.75	6.92	20.75	27.66	24

FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.



PAGE 6

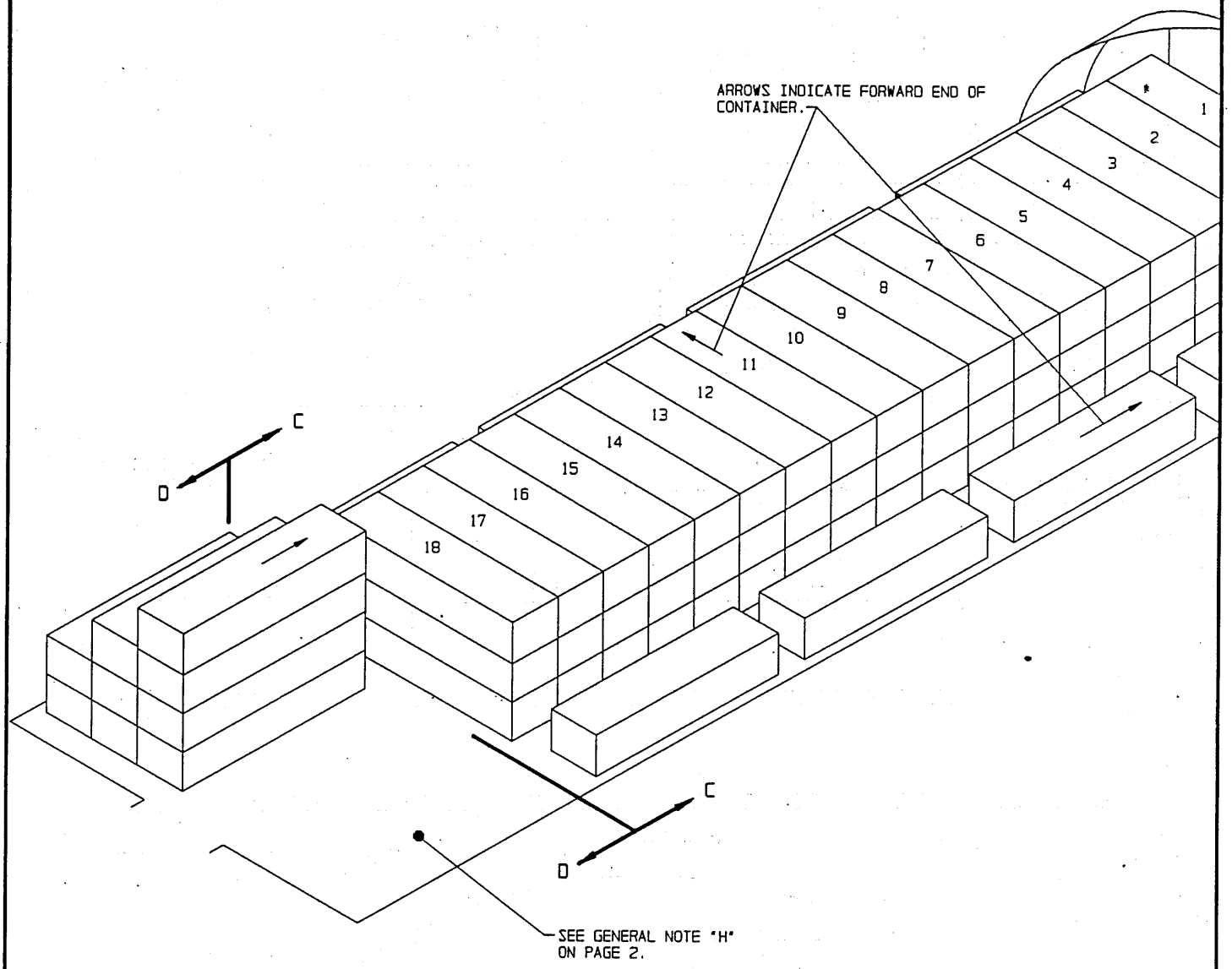
STORAGE PROCEDURES IN 81'-2" L X 26'-6" W X 12'-1-3/4" H ARCH TYPE MAGAZINE

PROJECT CB 93-90

STORAGE IN 81'-2" MAGAZINE

(12'-1-3/4" HIGH)

ITEM	QUANTITY
CONTAINER	71



ISOMETRIC VIEW

(81'-2" MAGAZINE)

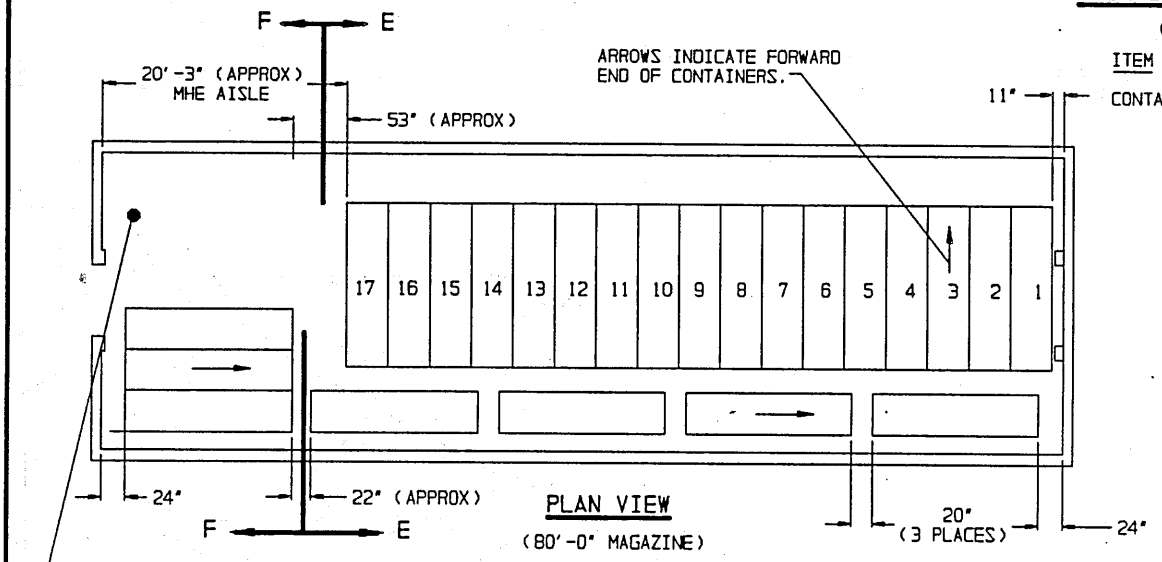
BILL OF MATERIAL PER CONTAINER STACK					
NO. OF CNTRS HIGH	1" X 4" LUMBER		4" X 4" LUMBER		NAILS
	LINEAR FEET	BOARD FEET	LINEAR FEET	BOARD FEET	6d (2")
ONE	- - -	- - -	- - -	- - -	- - -
TWO	6.92	2.30	6.92	9.22	8
THREE	13.83	4.61	13.83	18.44	16
FOUR	20.75	6.92	20.75	27.66	24

FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.

STORAGE IN 80'-0" MAGAZINE

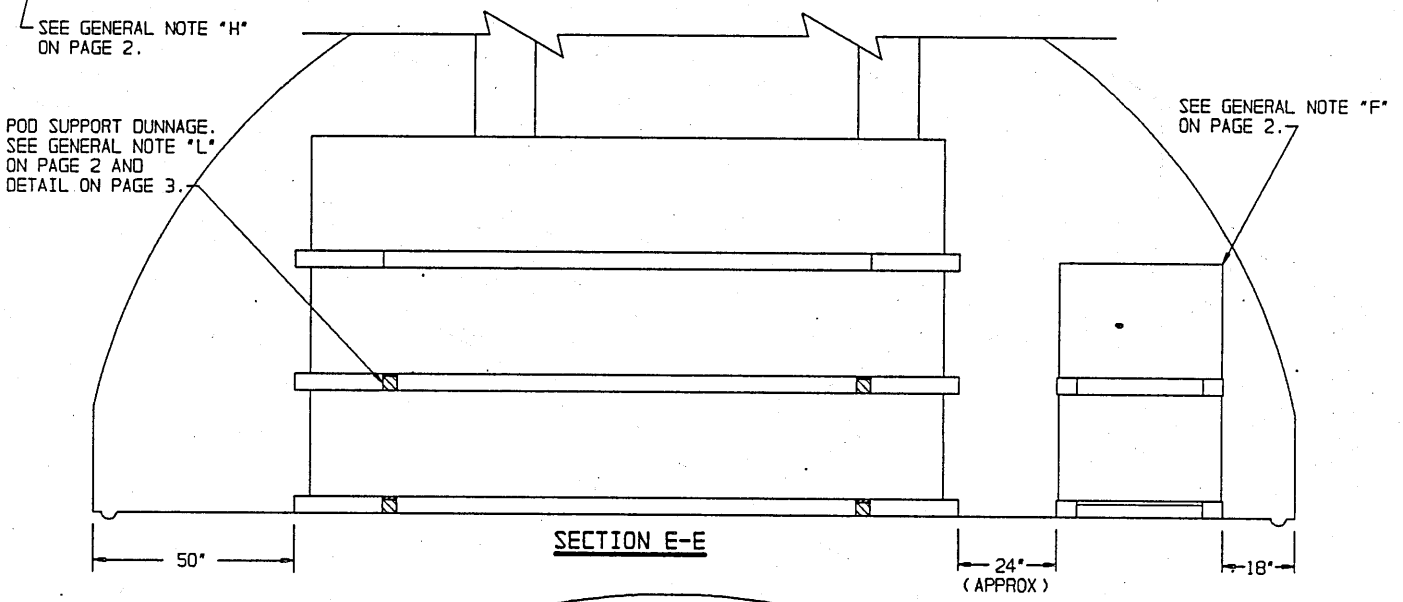
(12'-1-3/4" HIGH)

ITEM	QUANTITY
CONTAINER	67

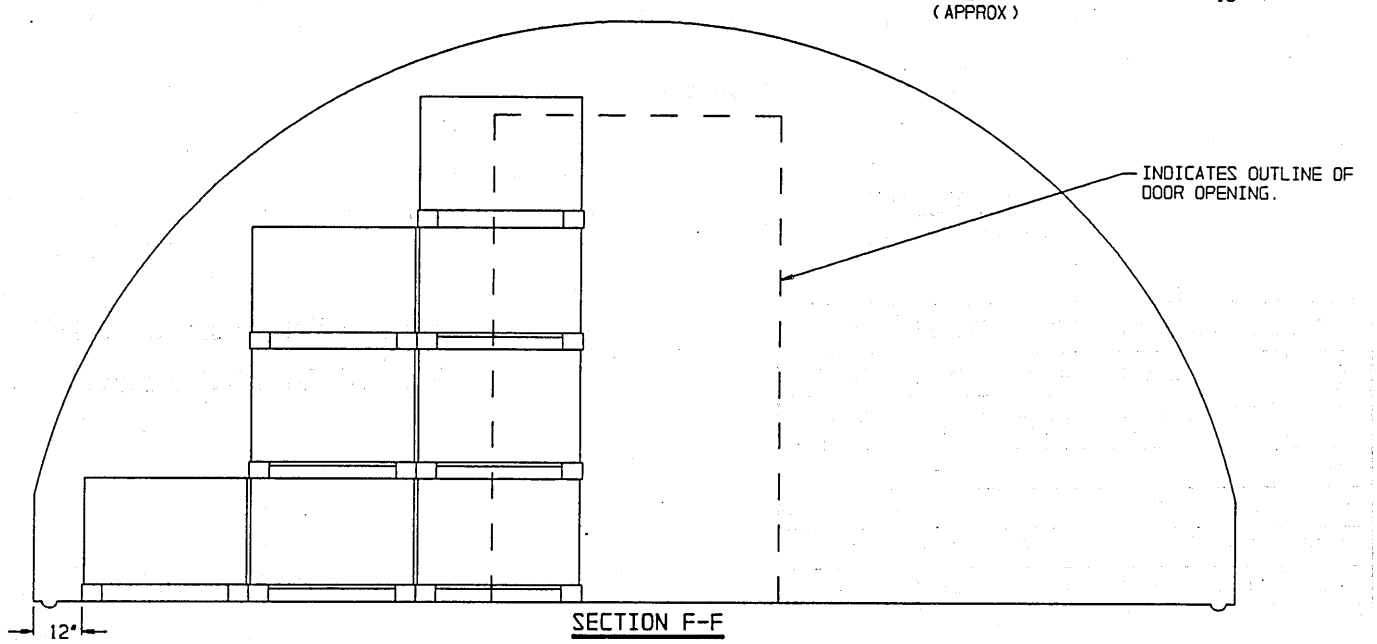


PLAN VIEW

(80'-0" MAGAZINE)



SECTION E-E

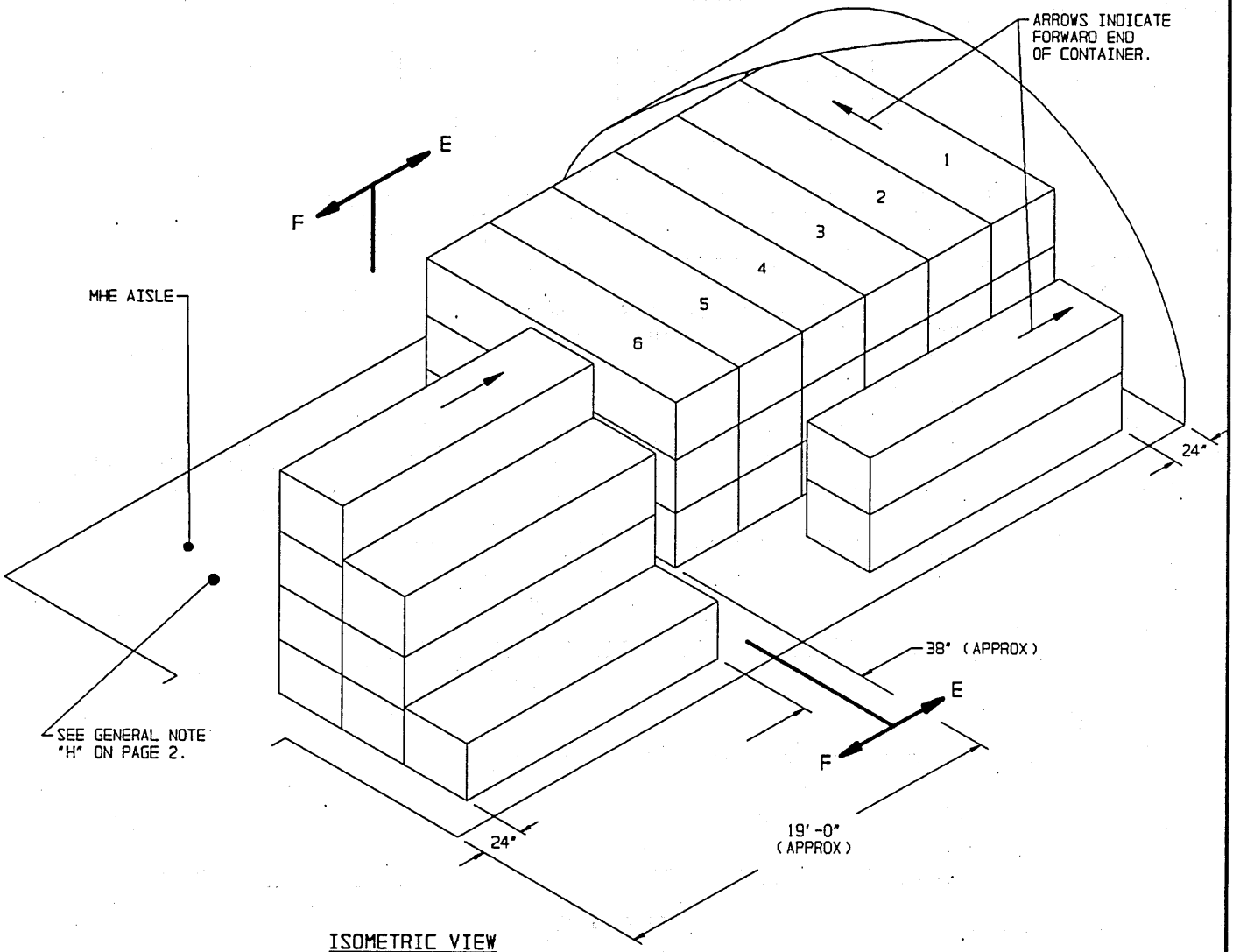


SECTION F-F

STORAGE IN 40'-0" MAGAZINE

(12'-1-3/4" HIGH)

ITEM	QUANTITY
CONTAINER	28



ISOMETRIC VIEW

(40'-0" MAGAZINE)

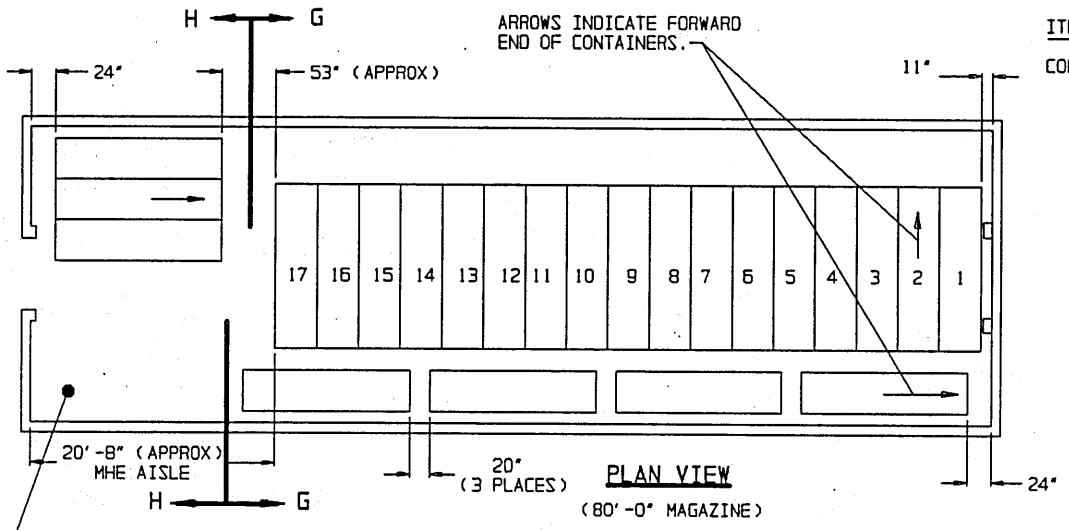
BILL OF MATERIAL PER CONTAINER STACK					
NO. OF CNTRS HIGH	1" X 4" LUMBER		4" X 4" LUMBER		NAILS
	LINEAR FEET	BOARD FEET	LINEAR FEET	BOARD FEET	6d (2")
ONE	- - -	- - -	- - -	- - -	- - -
TWO	6.92	2.30	6.92	9.22	8
THREE	13.83	4.61	13.83	18.44	16
FOUR	20.75	6.92	20.75	27.66	24

FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.

STORAGE IN 80'-0" MAGAZINE

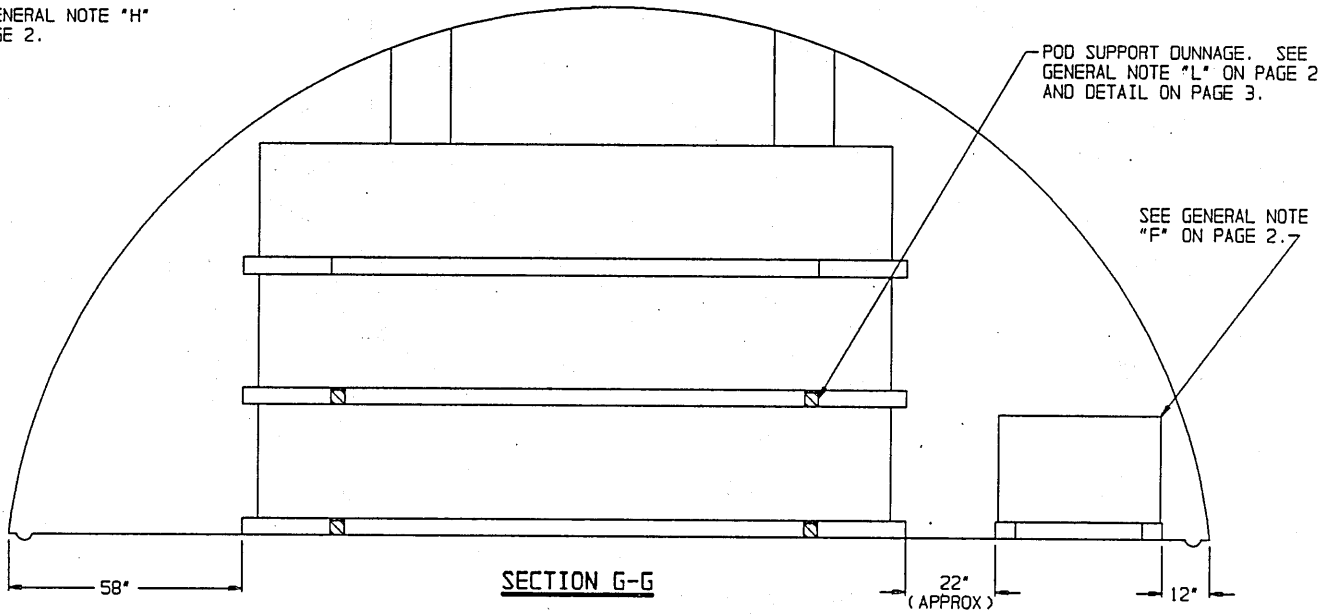
(11'-0" HIGH)

ITEM	QUANTITY
CONTAINER	61

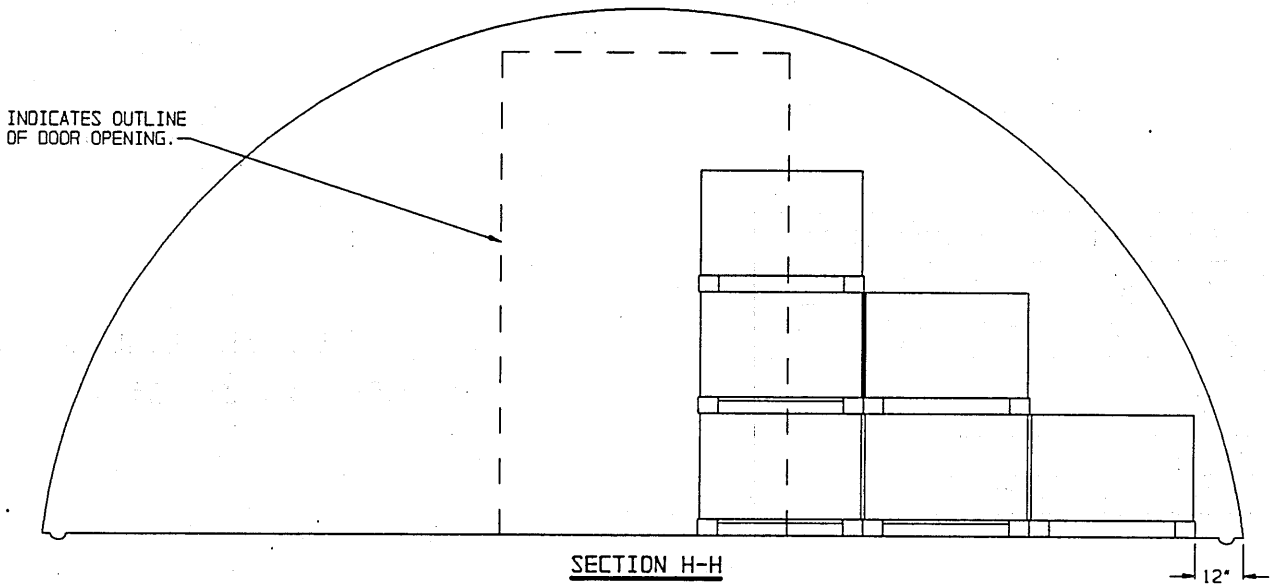


PLAN VIEW
(80'-0" MAGAZINE)

SEE GENERAL NOTE "H" ON PAGE 2.



SECTION G-G

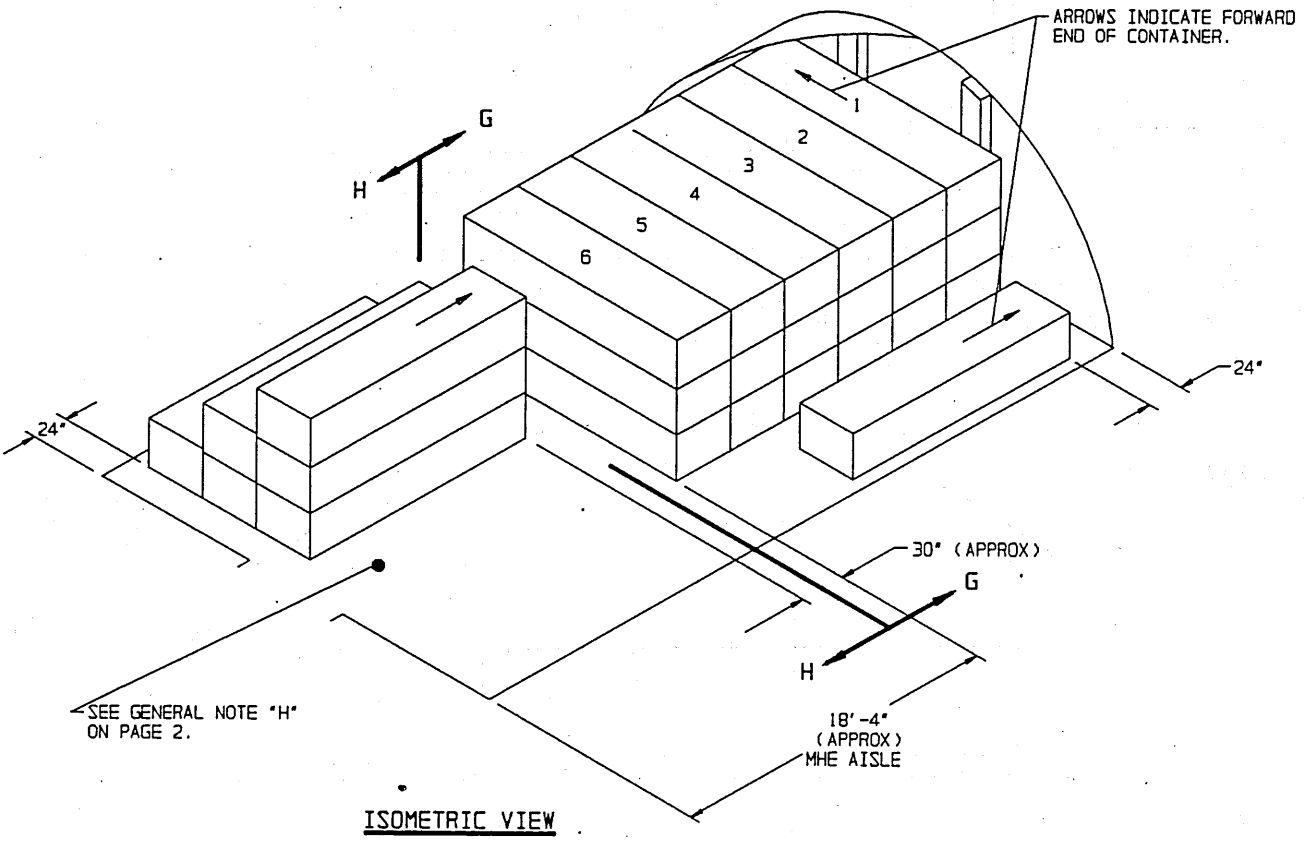


SECTION H-H

STORAGE IN 40'-0" MAGAZINE

(11'-0" HIGH)

ITEM	QUANTITY
CONTAINER	25



ISOMETRIC VIEW

(40'-0" MAGAZINE)

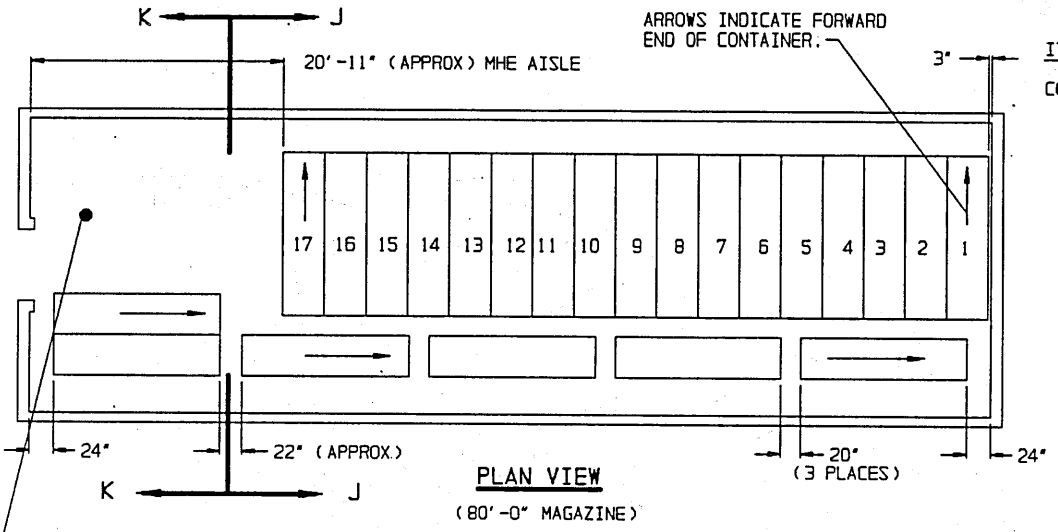
BILL OF MATERIAL PER CONTAINER STACK					
NO. OF CNTRS HIGH	1" X 4" LUMBER		4" X 4" LUMBER		NAILS
	LINEAR FEET	BOARD FEET	LINEAR FEET	BOARD FEET	6d (2")
ONE	- - -	- - -	- - -	- - -	- - -
TWO	6.92	2.30	6.92	9.22	8
THREE	13.83	4.61	13.83	18.44	16

FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.

STORAGE IN 80'-0" MAGAZINE

(10'-0" HIGH)

ITEM	QUANTITY
CONTAINER	47

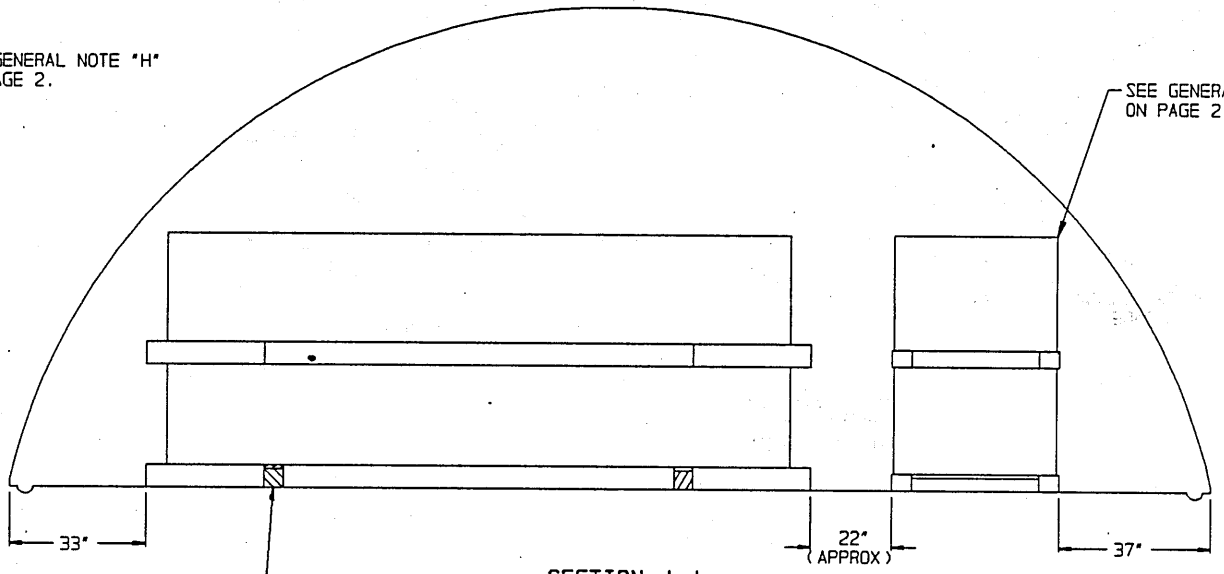


PLAN VIEW

(80'-0" MAGAZINE)

SEE GENERAL NOTE "H" ON PAGE 2.

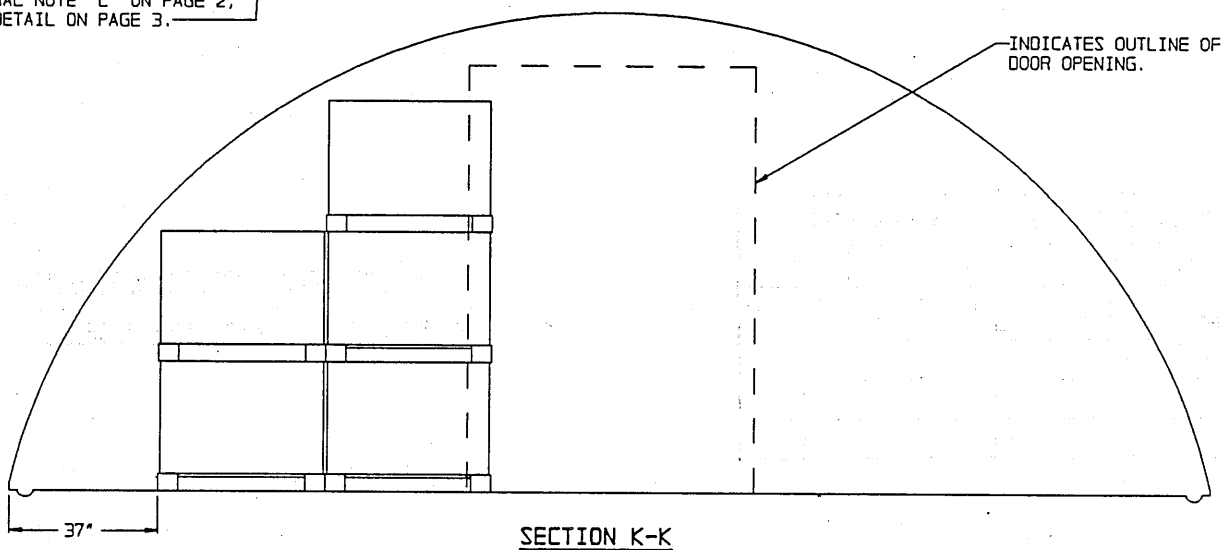
SEE GENERAL NOTE "F" ON PAGE 2.



SECTION J-J

POD SUPPORT DUNNAGE. SEE GENERAL NOTE "L" ON PAGE 2, AND DETAIL ON PAGE 3.

INDICATES OUTLINE OF DOOR OPENING.



SECTION K-K

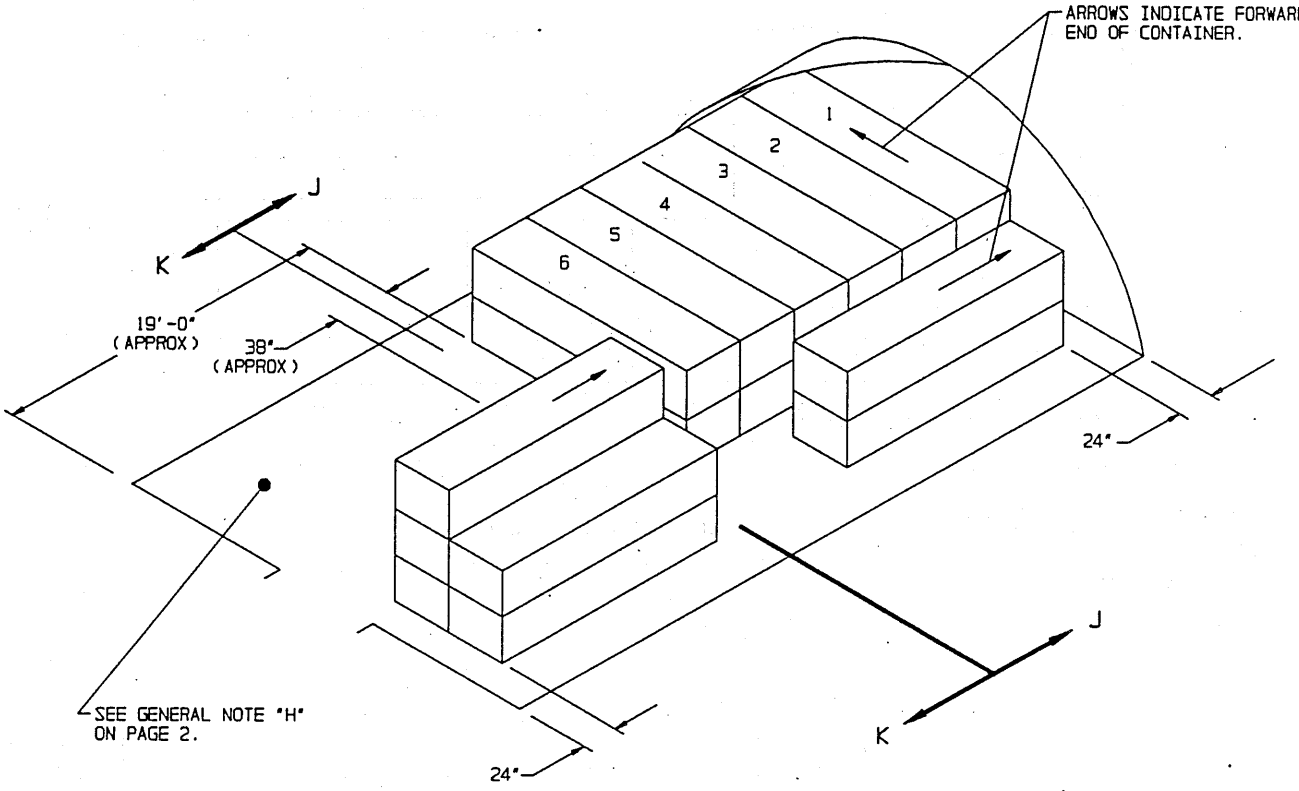
STORAGE PROCEDURES IN 80'-0" AND 40'-0" L X 25'-0" W X 10'-0" H ARCH TYPE MAGAZINES

PROJECT CB 93-90

STORAGE IN 40'-0" MAGAZINE

(10'-0" HIGH)

ITEM	QUANTITY
CONTAINER	19

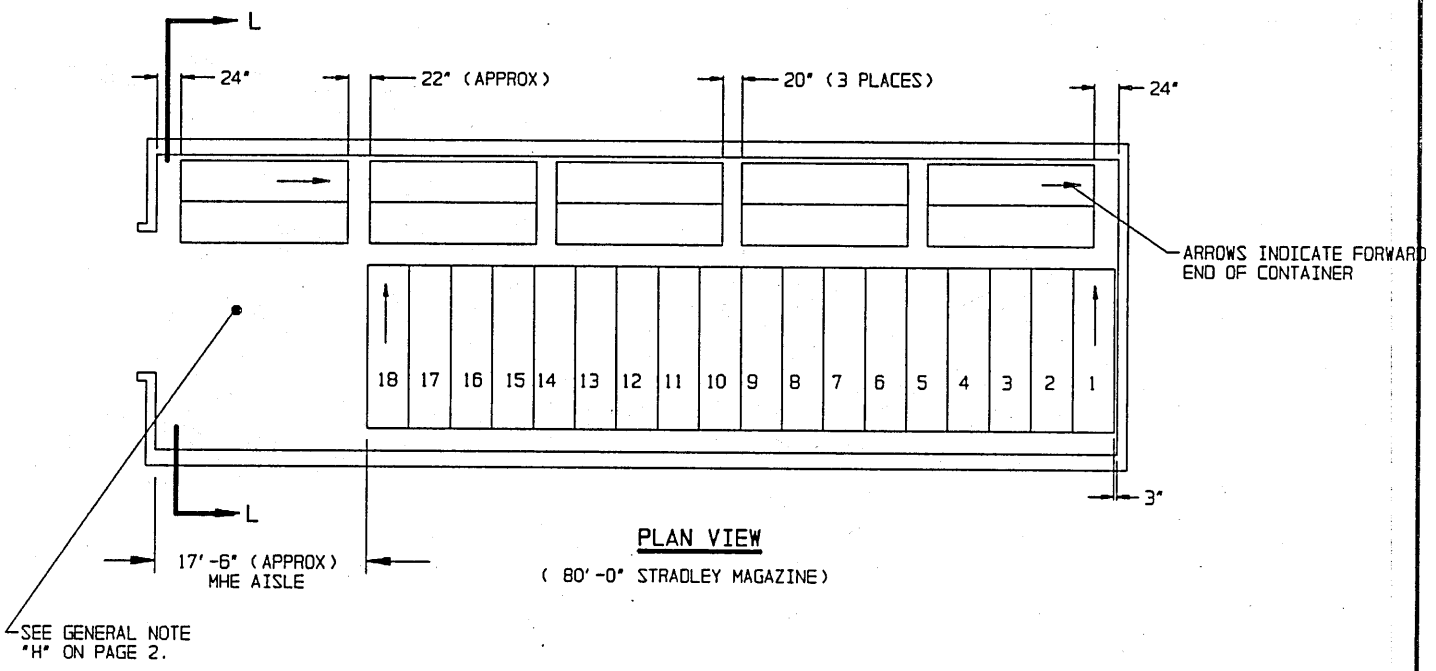


ISOMETRIC VIEW

(40'-0" MAGAZINE)

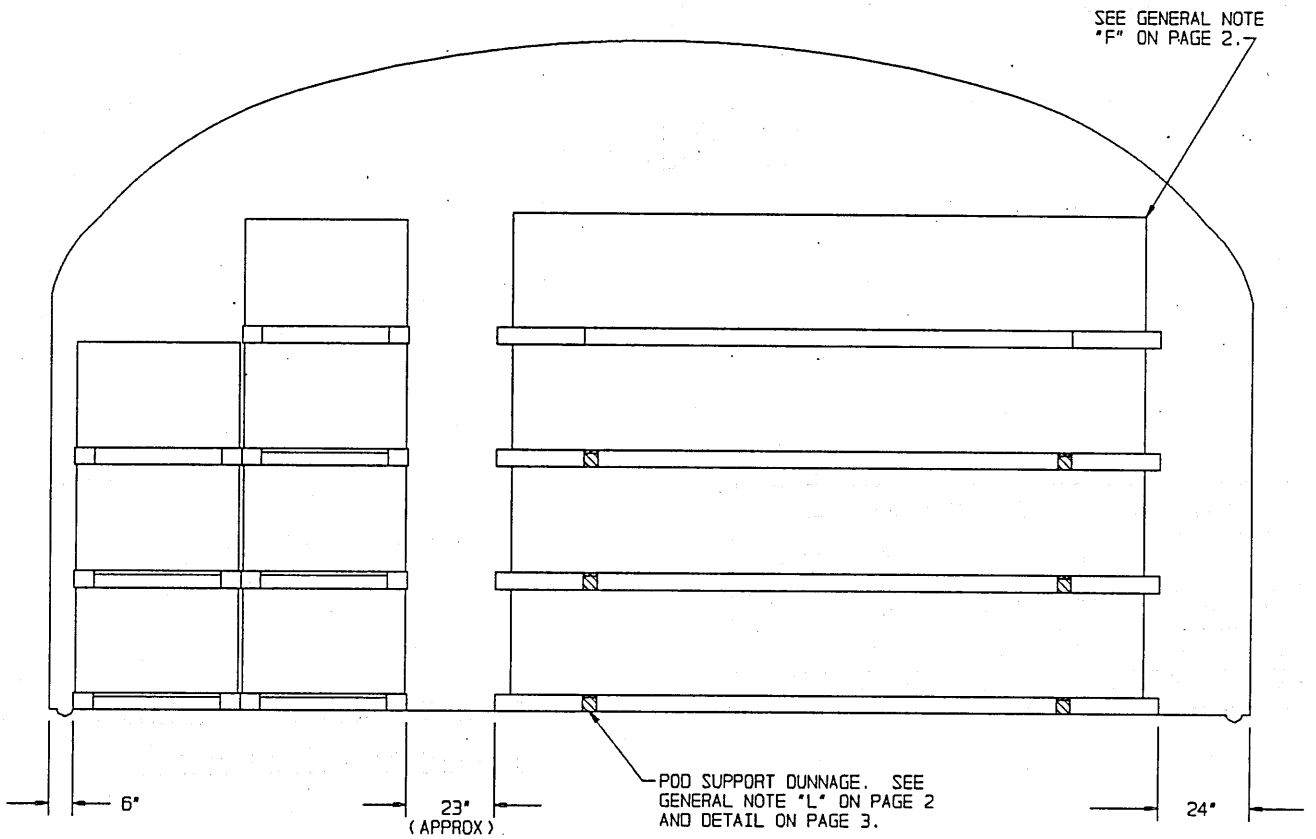
BILL OF MATERIAL PER CONTAINER STACK					
NO. OF CNTRS HIGH	1" X 4" LUMBER		4" X 4" LUMBER		NAILS
	LINEAR FEET	BOARD FEET	LINEAR FEET	BOARD FEET	6d (2")
TWO	6.92	2.30	6.92	9.22	8
THREE	13.83	4.61	13.83	18.44	16

FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.



PLAN VIEW

(80'-0" STRADLEY MAGAZINE)



SECTION L-L

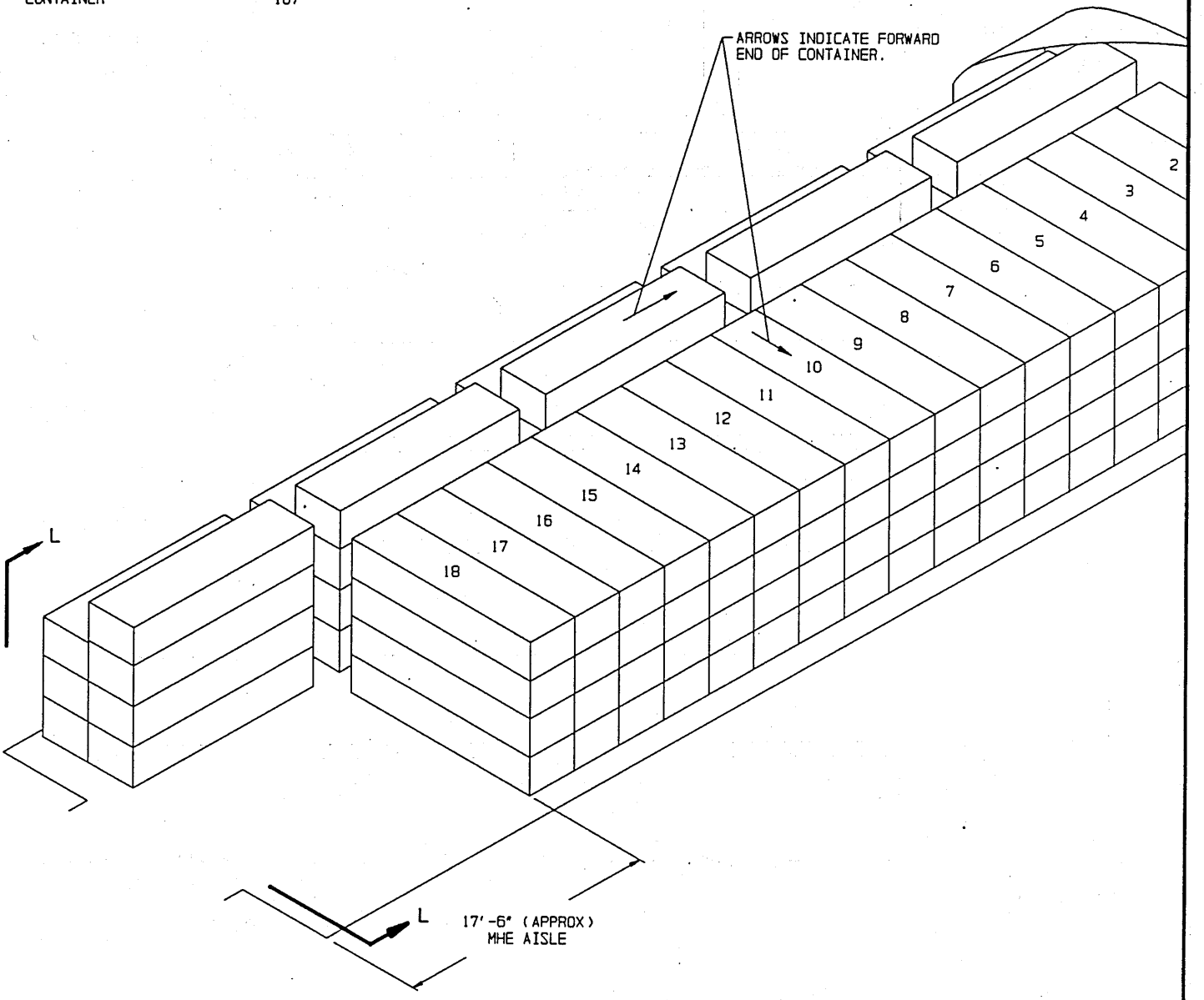
STORAGE PROCEDURES IN 80'-0" L X 25'-0" W X 14'-0" H STRADLEY MAGAZINE

PROJECT CB-93-90

STORAGE IN STRADLEY MAGAZINE

(14'-0" HIGH)

ITEM	QUANTITY
CONTAINER	107

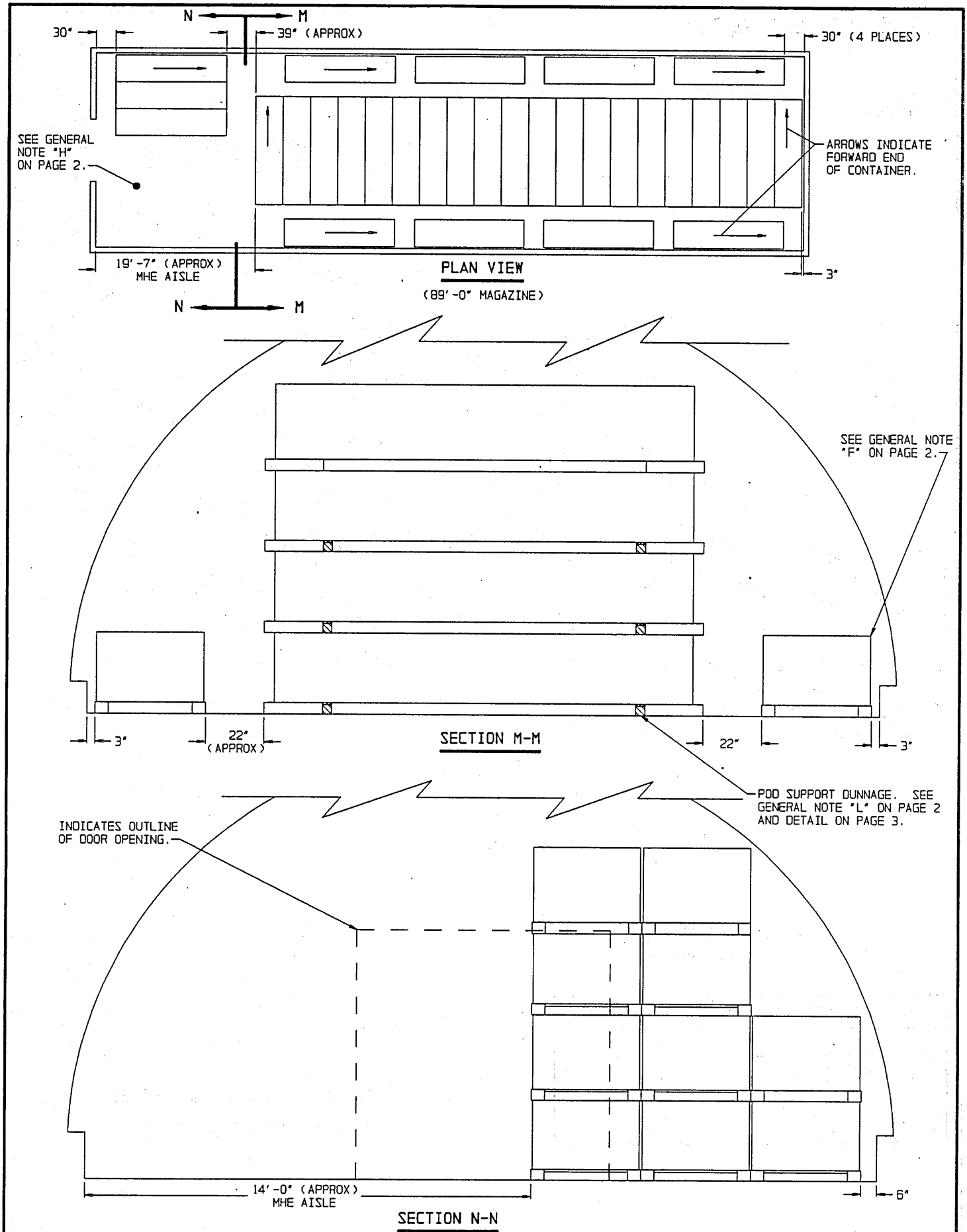


ISOMETRIC VIEW

(STRADLEY MAGAZINE)

BILL OF MATERIAL PER CONTAINER STACK					
NO. OF CNTRS HIGH	1" X 4" LUMBER		4" X 4" LUMBER		NAILS
	LINEAR FEET	BOARD FEET	LINEAR FEET	BOARD FEET	6d (2")
THREE	13.83	4.61	13.83	18.44	16
FOUR	20.75	6.92	20.75	27.66	24

FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.



PAGE 16

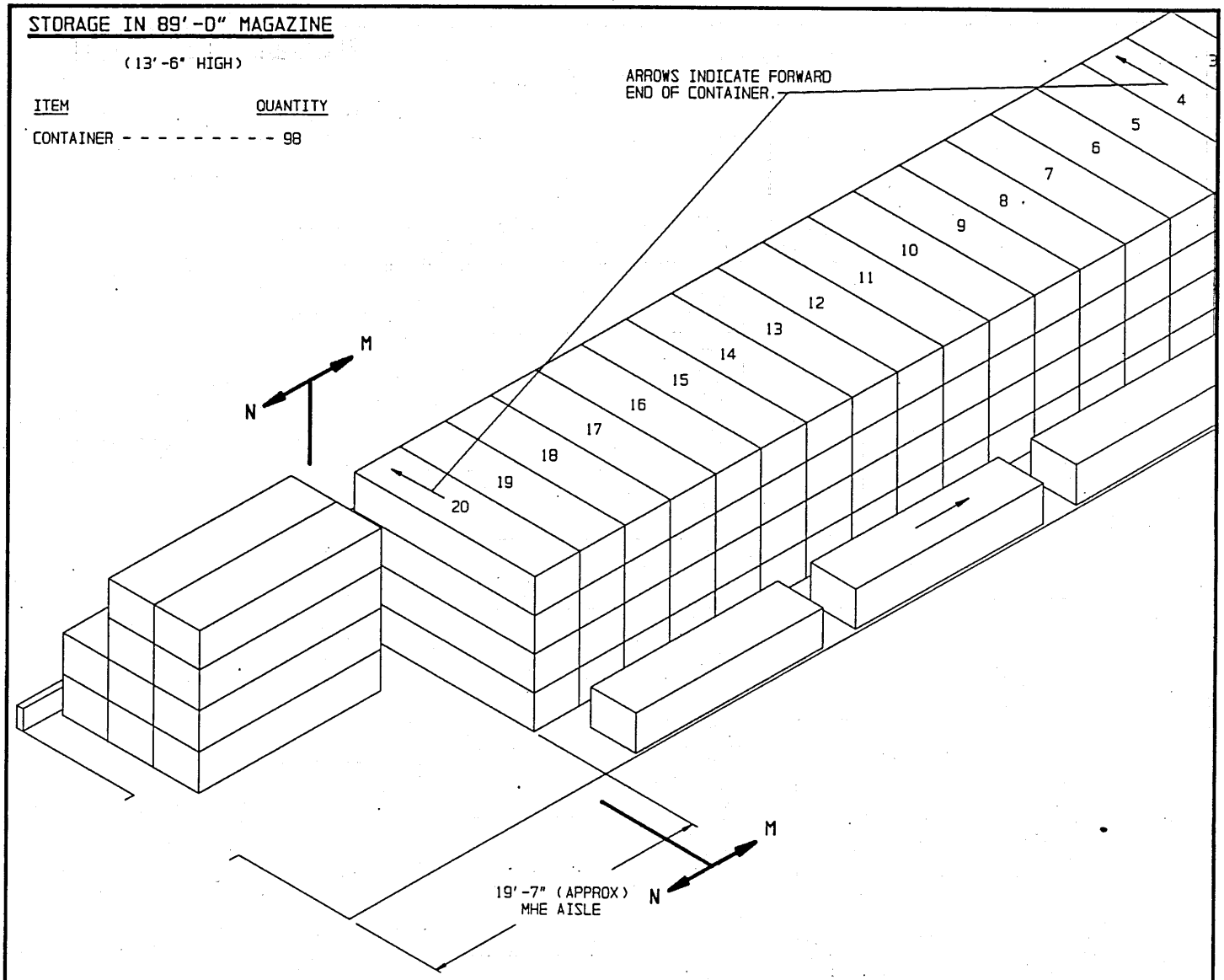
STORAGE PROCEDURES IN 89'-0" L X 24'-11" W X 13'-6" H STEEL ARCH MAGAZINE

PROJECT CB 93-90

STORAGE IN 89'-0" MAGAZINE

(13'-6" HIGH)

ITEM	QUANTITY
CONTAINER	98

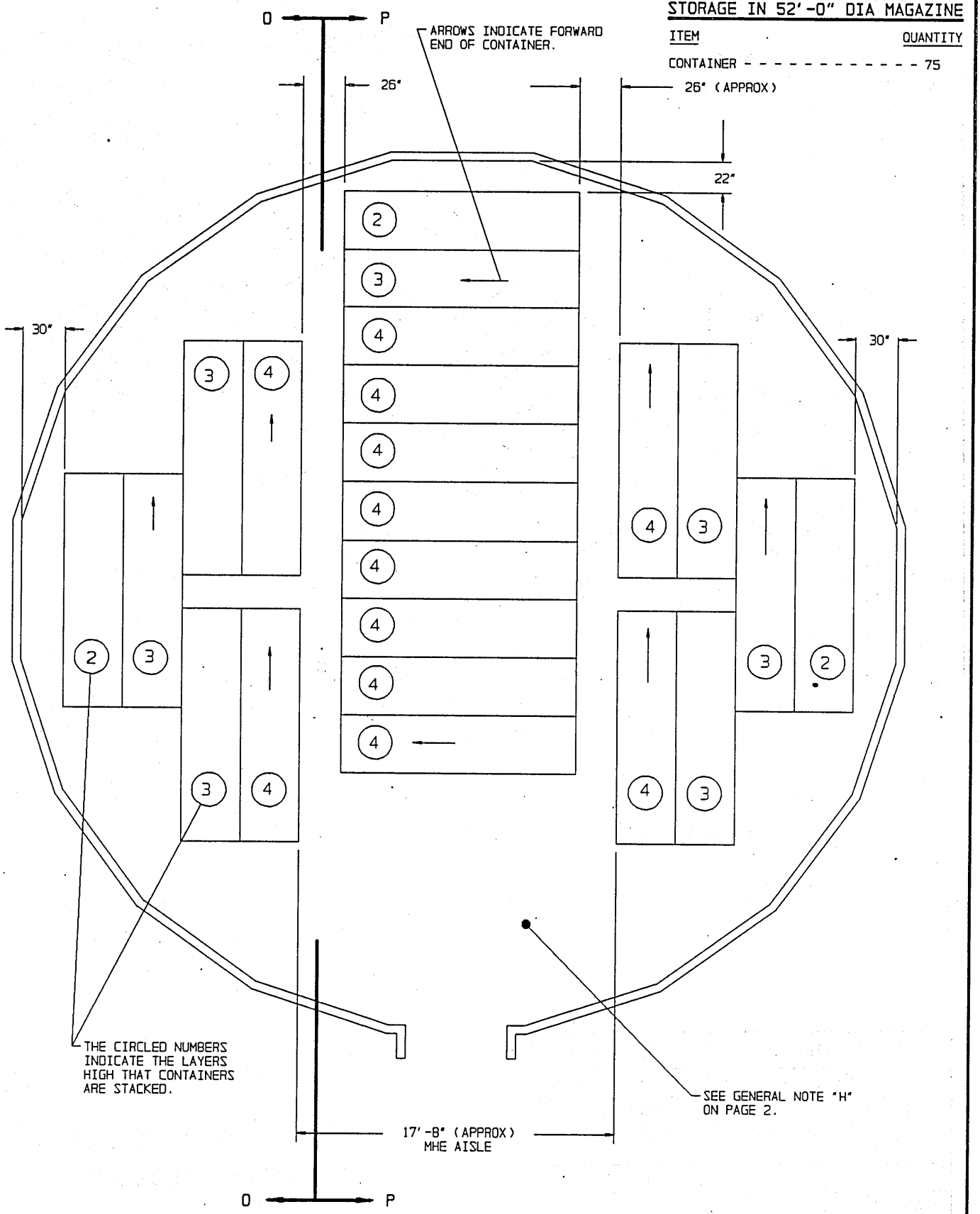


ISOMETRIC VIEW

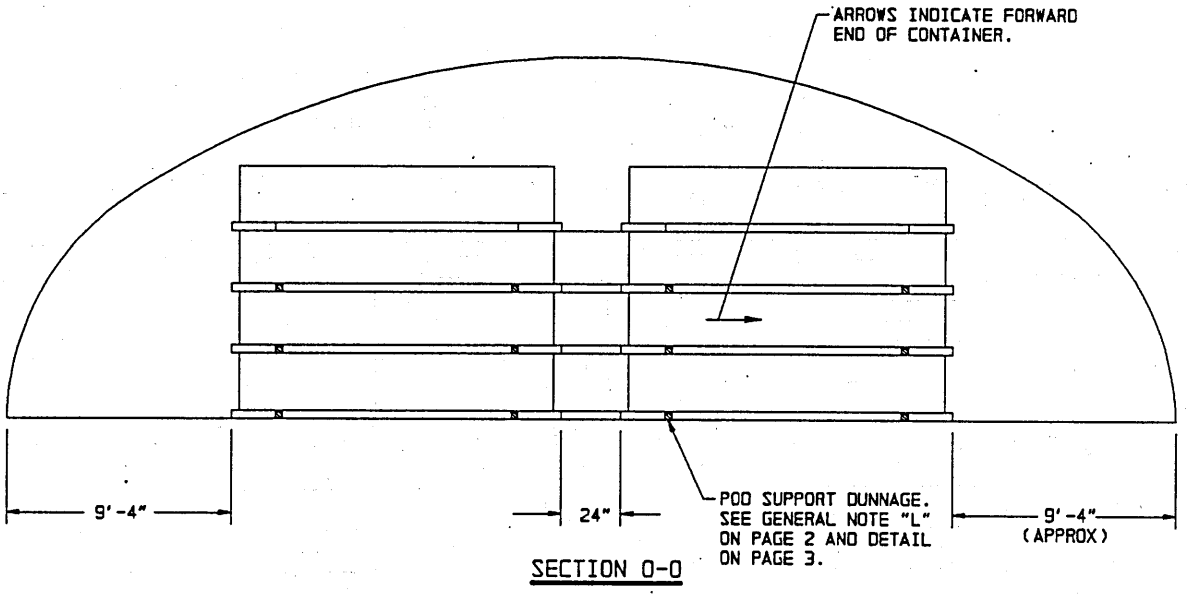
(89'-0" MAGAZINE)

BILL OF MATERIAL PER CONTAINER STACK					
NO. OF CNTRS HIGH	1" X 4" LUMBER		4" X 4" LUMBER		NAILS
	LINEAR FEET	BOARD FEET	LINEAR FEET	BOARD FEET	6d (2")
ONE	- - -	- - -	- - -	- - -	- - -
TWO	6.92	2.30	6.92	9.22	8
FOUR	20.75	6.92	20.75	27.66	24

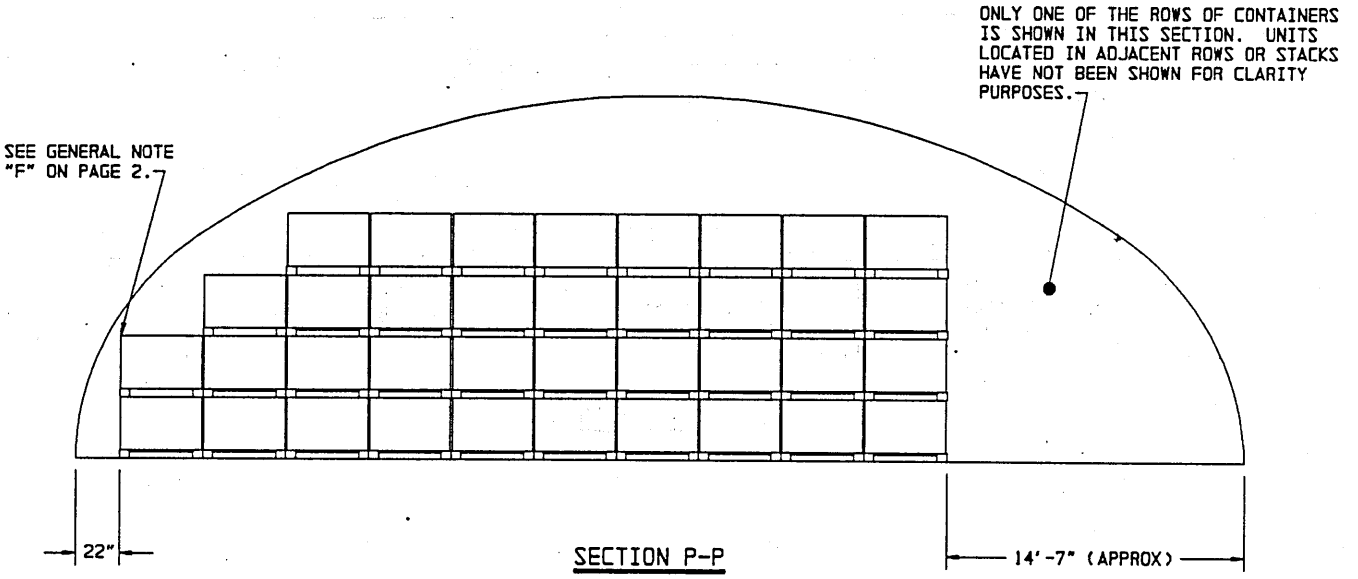
FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.


STORAGE IN 52'-0" DIA MAGAZINE
ITEM
QUANTITY
CONTAINER - - - - - - - - - - - - - 75
O
P
ARROWS INDICATE FORWARD END OF CONTAINER.
26"
26" (APPROX)
22"
30"
30"
THE CIRCLED NUMBERS INDICATE THE LAYERS HIGH THAT CONTAINERS ARE STACKED.
SEE GENERAL NOTE "H" ON PAGE 2.
17'-8" (APPROX) MHE AISLE
O
P

PLAN VIEW



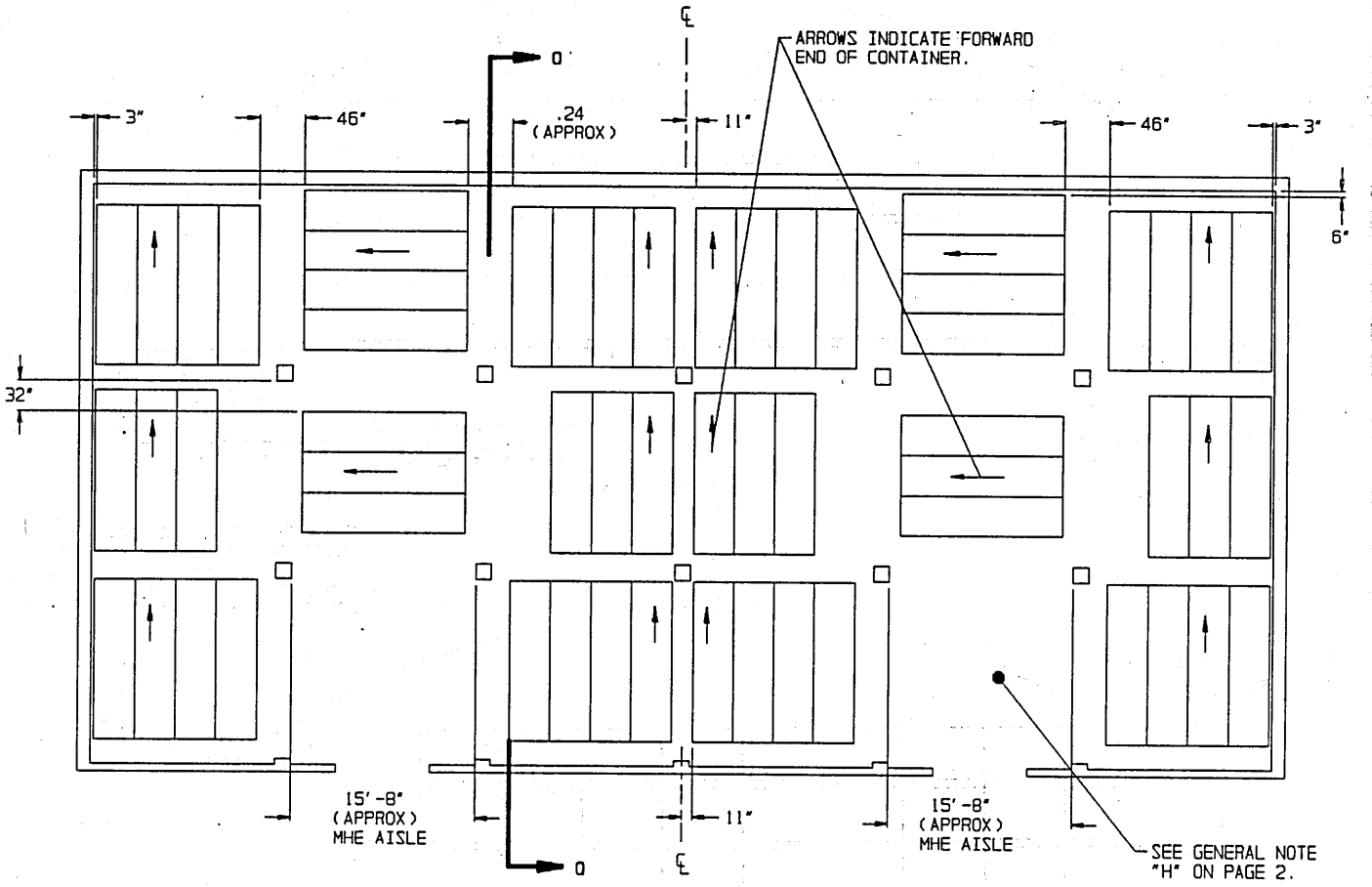
SECTION O-O



SECTION P-P

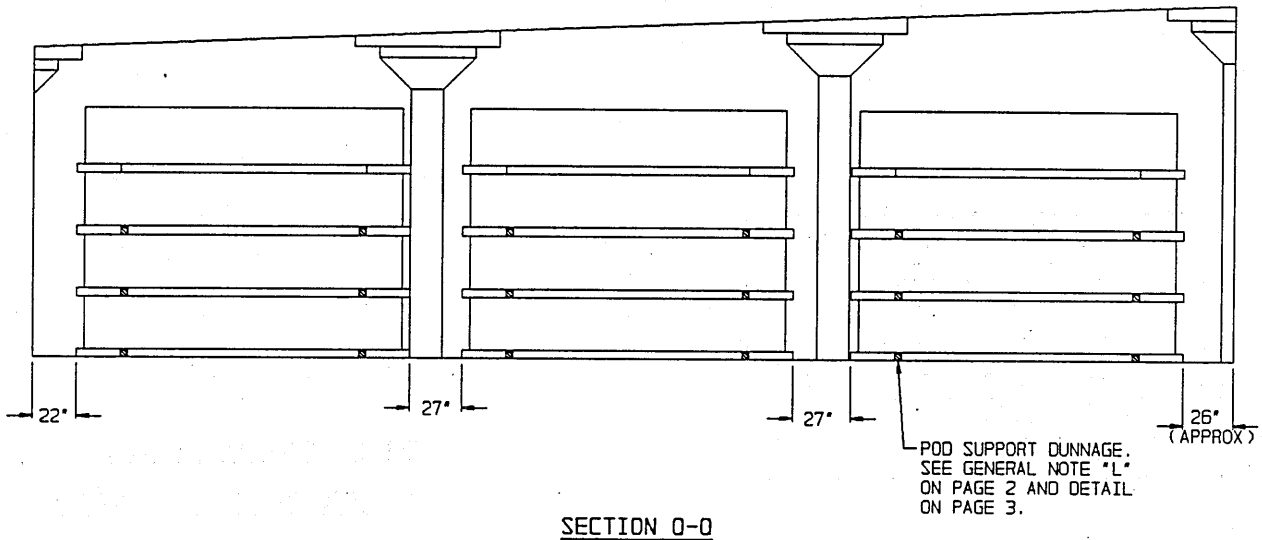
BILL OF MATERIAL PER CONTAINER STACK					
NO. OF CNTRS HIGH	1" X 4" LUMBER		4" X 4" LUMBER		NAILS
	LINEAR FEET	BOARD FEET	LINEAR FEET	BOARD FEET	6 (2")
TWO	6.92	2.30	6.92	9.22	8
THREE	13.83	4.61	13.83	18.44	16
FOUR	20.75	6.92	20.75	27.66	24

FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.



PLAN VIEW

(100'-8" L X 50'-0" W MAGAZINE)

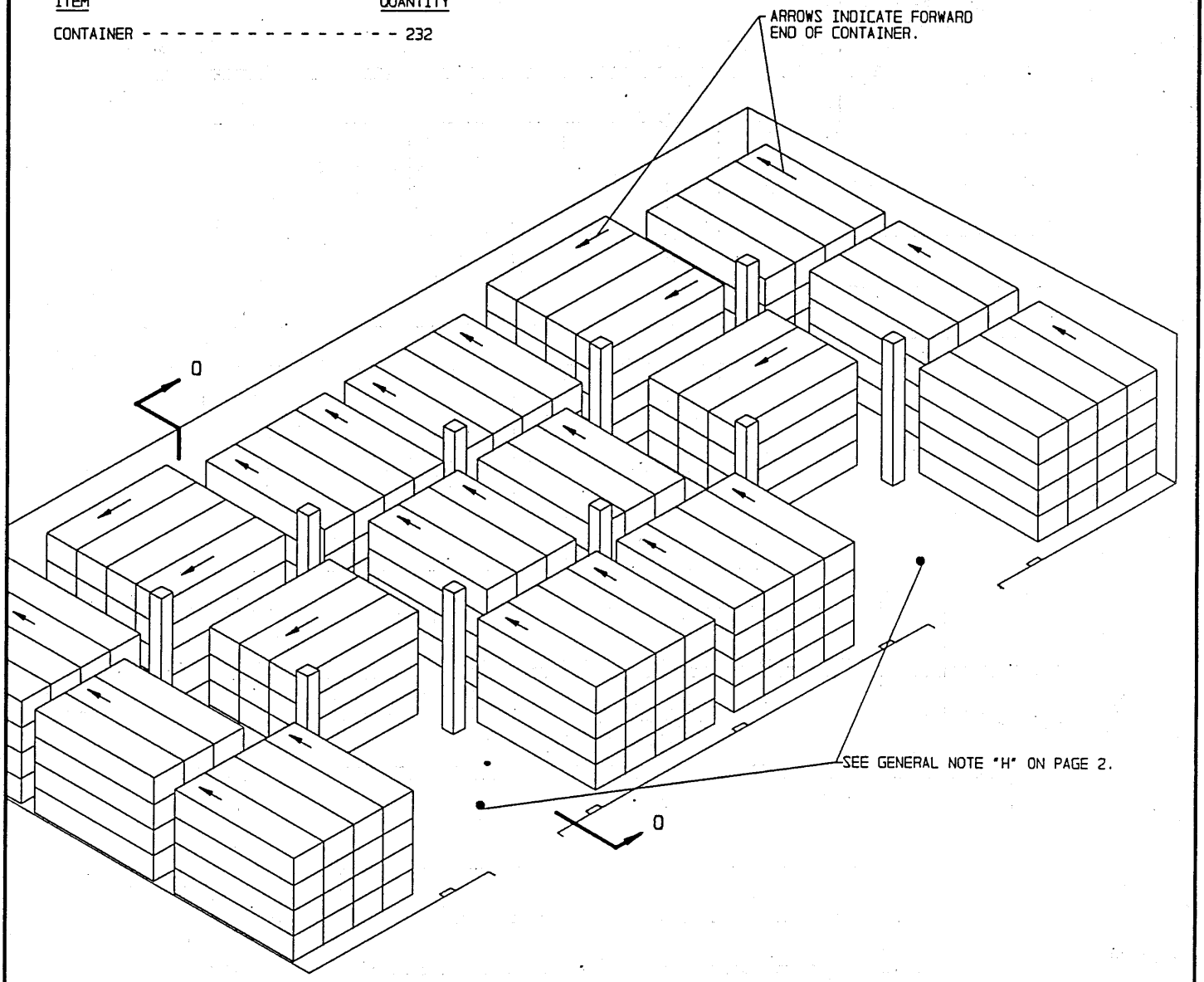


SECTION 0-0

STORAGE PROCEDURES IN 100'-8" L X 50'-0" W RECTANGULAR MAGAZINE

STORAGE IN 100'-8" L X 50'-0" W MAGAZINE

ITEM	QUANTITY
CONTAINER	232

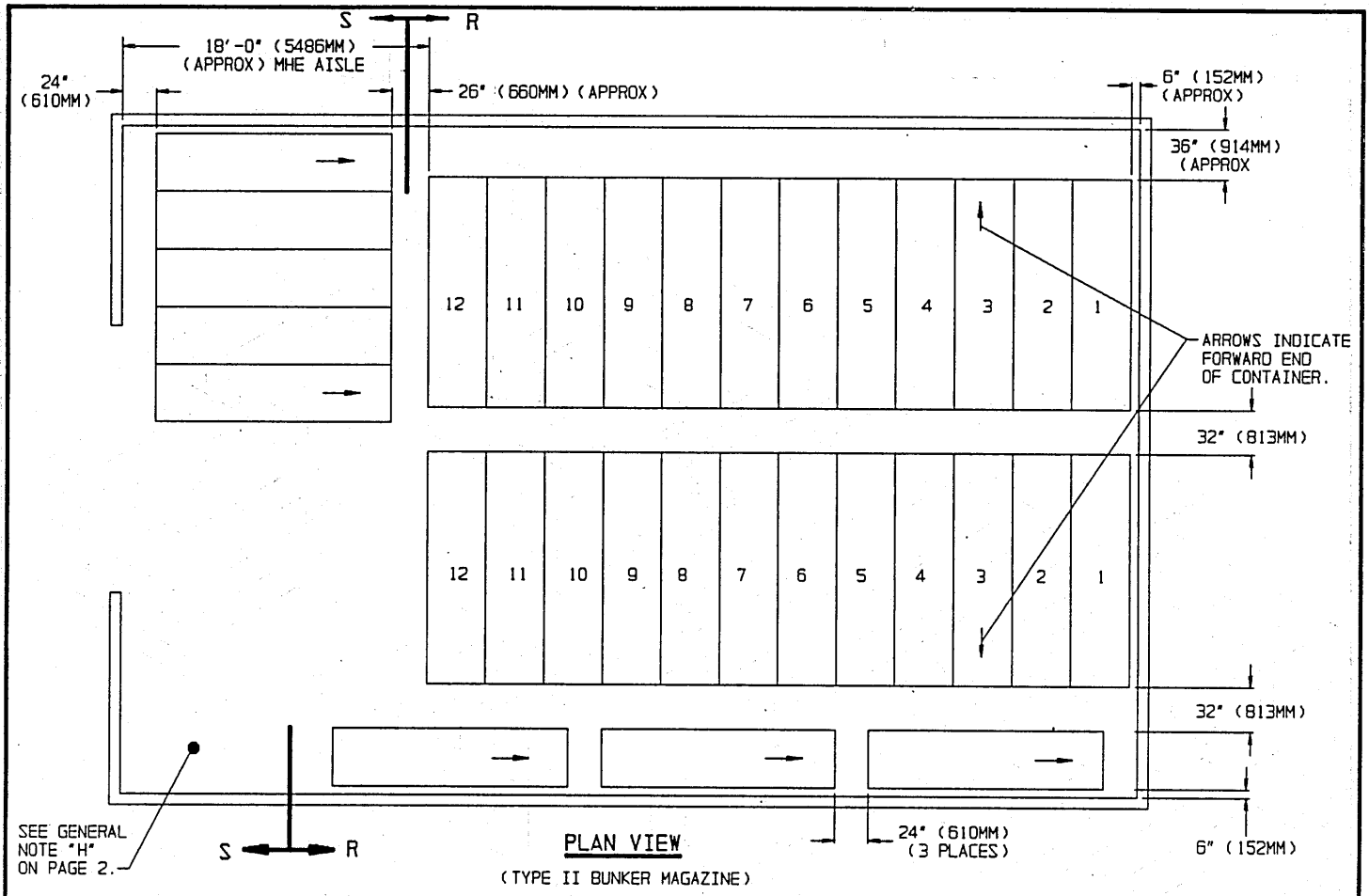


ISOMETRIC VIEW

(100'-8" L X 50'-0" W MAGAZINE)

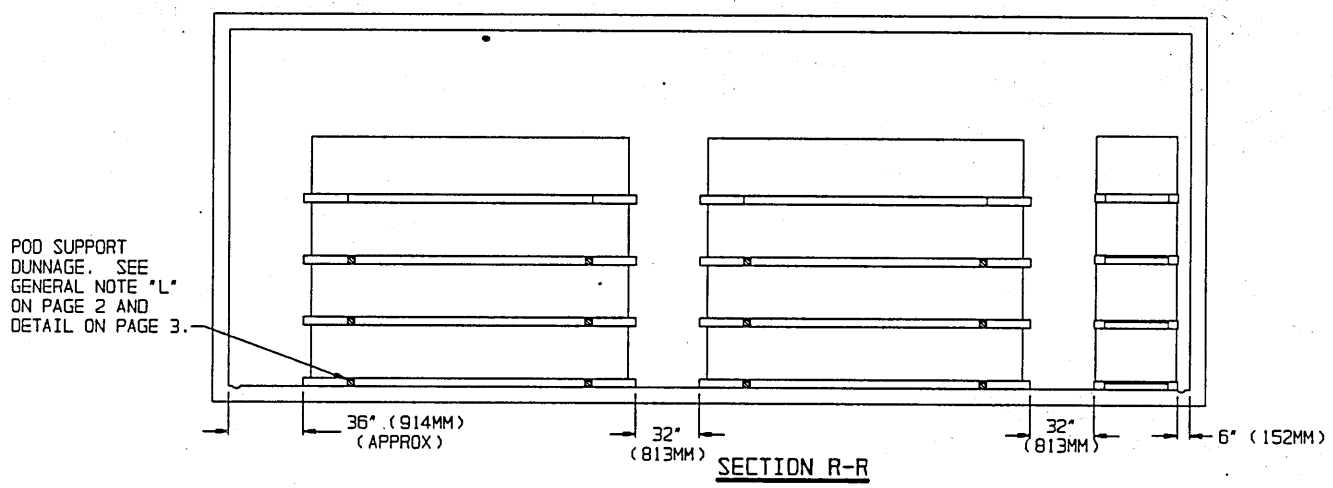
FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.

BILL OF MATERIAL PER CONTAINER STACK					
NO. OF CNTRS HIGH	1" X 4" LUMBER		4" X 4" LUMBER		NAILS
	LINEAR FEET	BOARD FEET	LINEAR FEET	BOARD FEET	6d (2")
FOUR	20.75	6.92	20.75	27.66	24

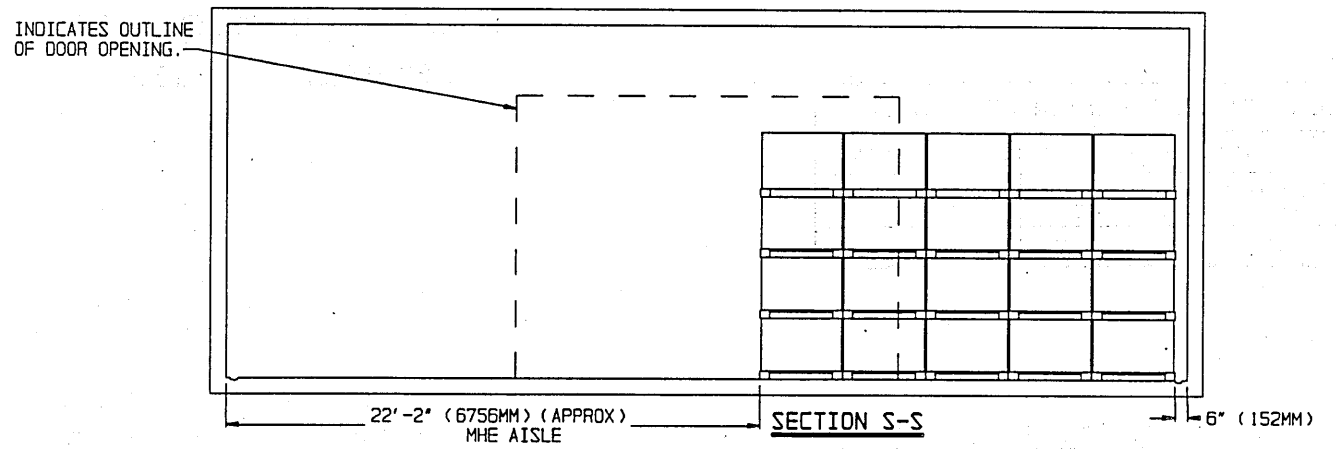


PLAN VIEW

(TYPE II BUNKER MAGAZINE)



SECTION R-R

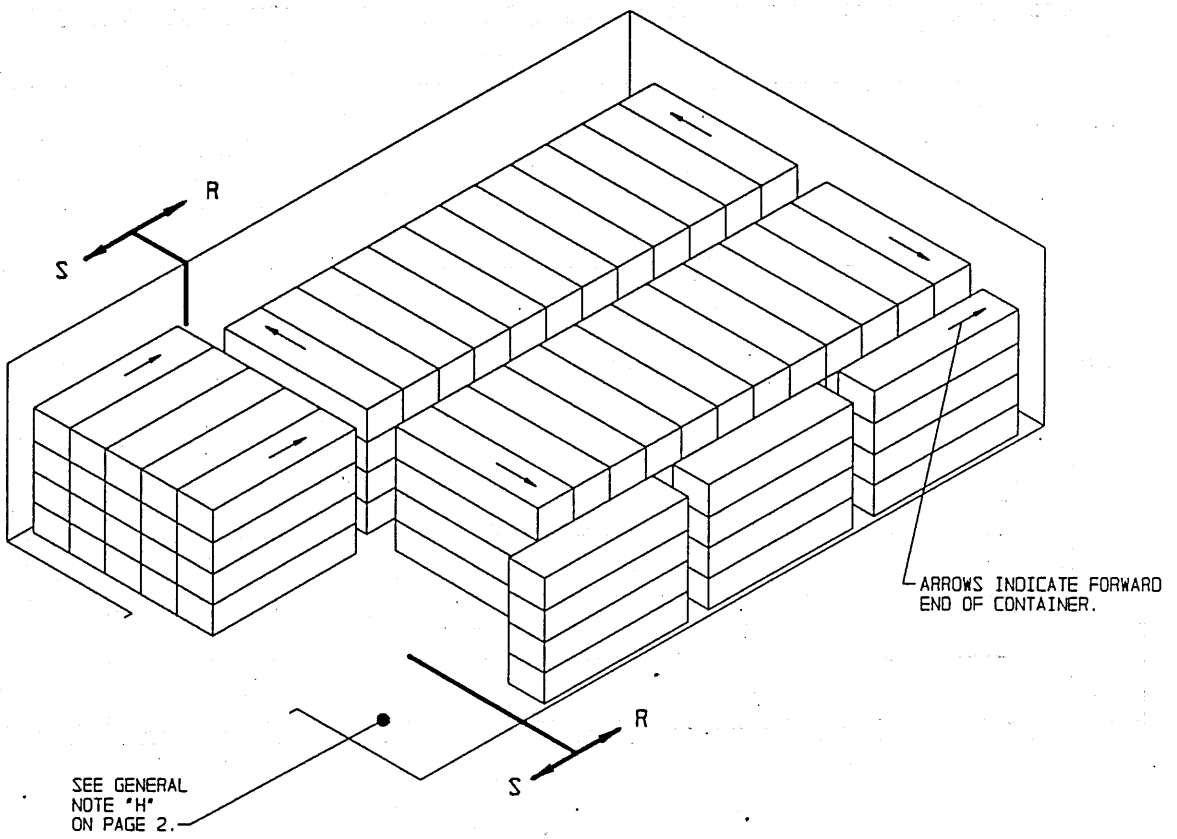


SECTION S-S

STORAGE PROCEDURES IN 60'-0" L X 40'-0"W X 15'- 0" H TYPE II BUNKER MAGAZINE

STORAGE IN TYPE II BUNKER MAGAZINE

ITEM	QUANTITY
CONTAINER	128

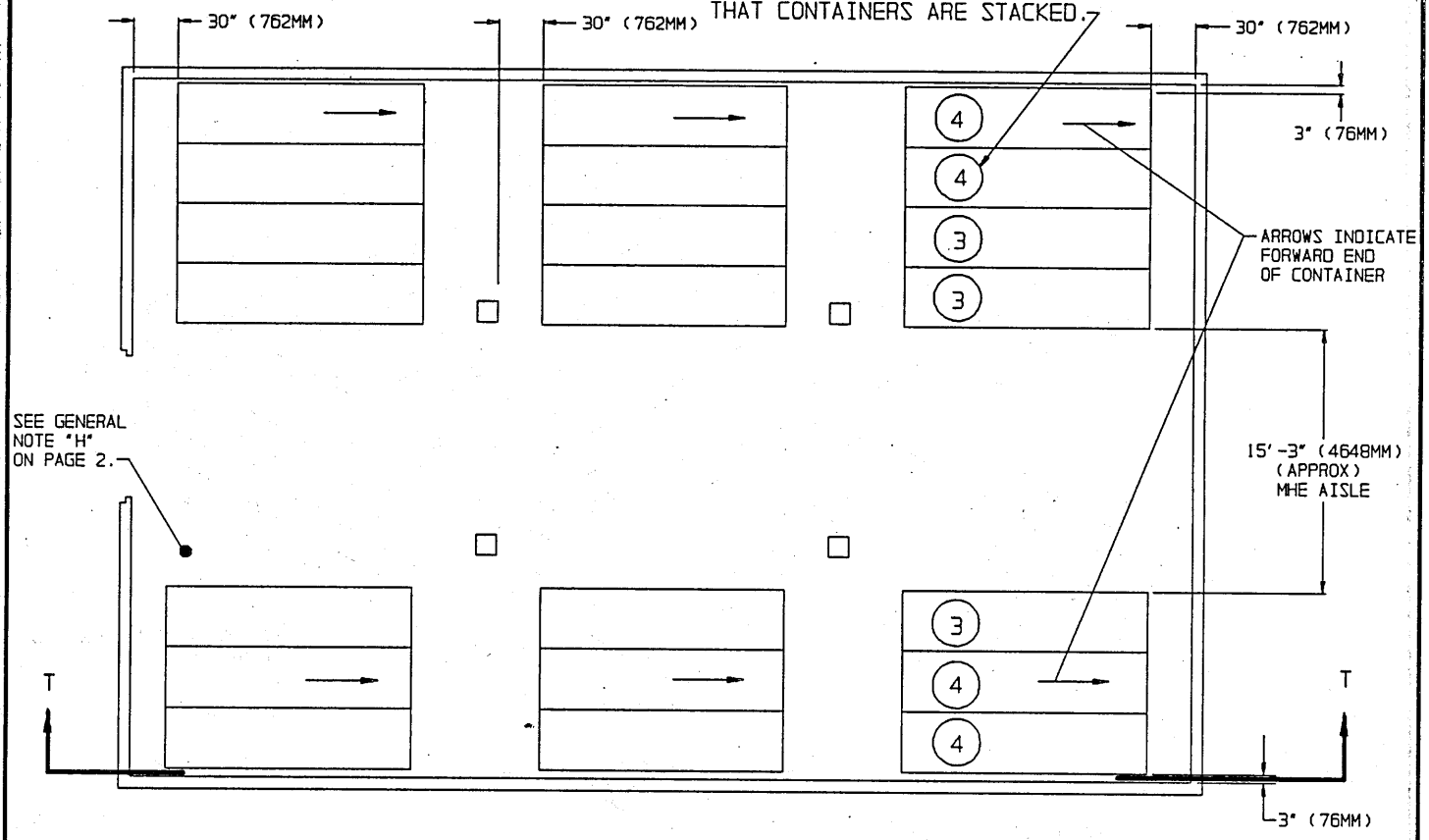


ISOMETRIC VIEW

(TYPE II BUNKER MAGAZINE)

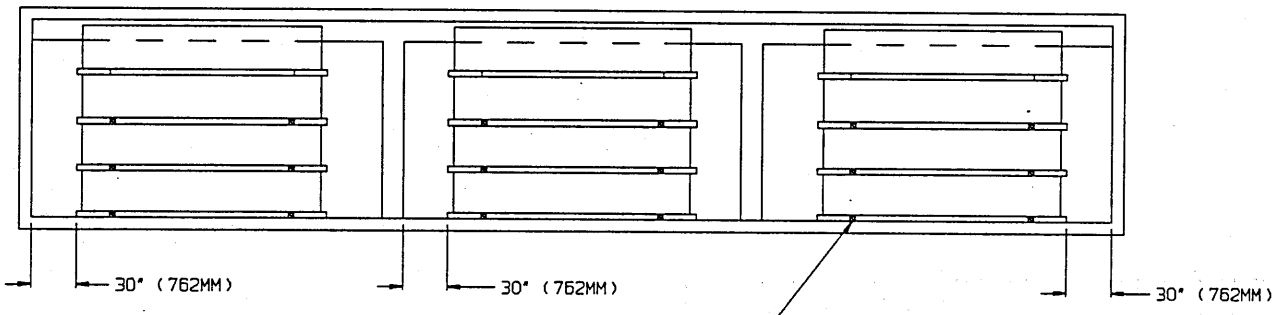
BILL OF MATERIAL PER CONTAINER STACK					
NO. OF CNTRS HIGH	1" X 4" LUMBER		4" X 4" LUMBER		NAILS
	LINEAR FEET	BOARD FEET	LINEAR FEET	BOARD FEET	6d (2")
FOUR	20.75	6.92	20.75	27.66	24

FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.



PLAN VIEW

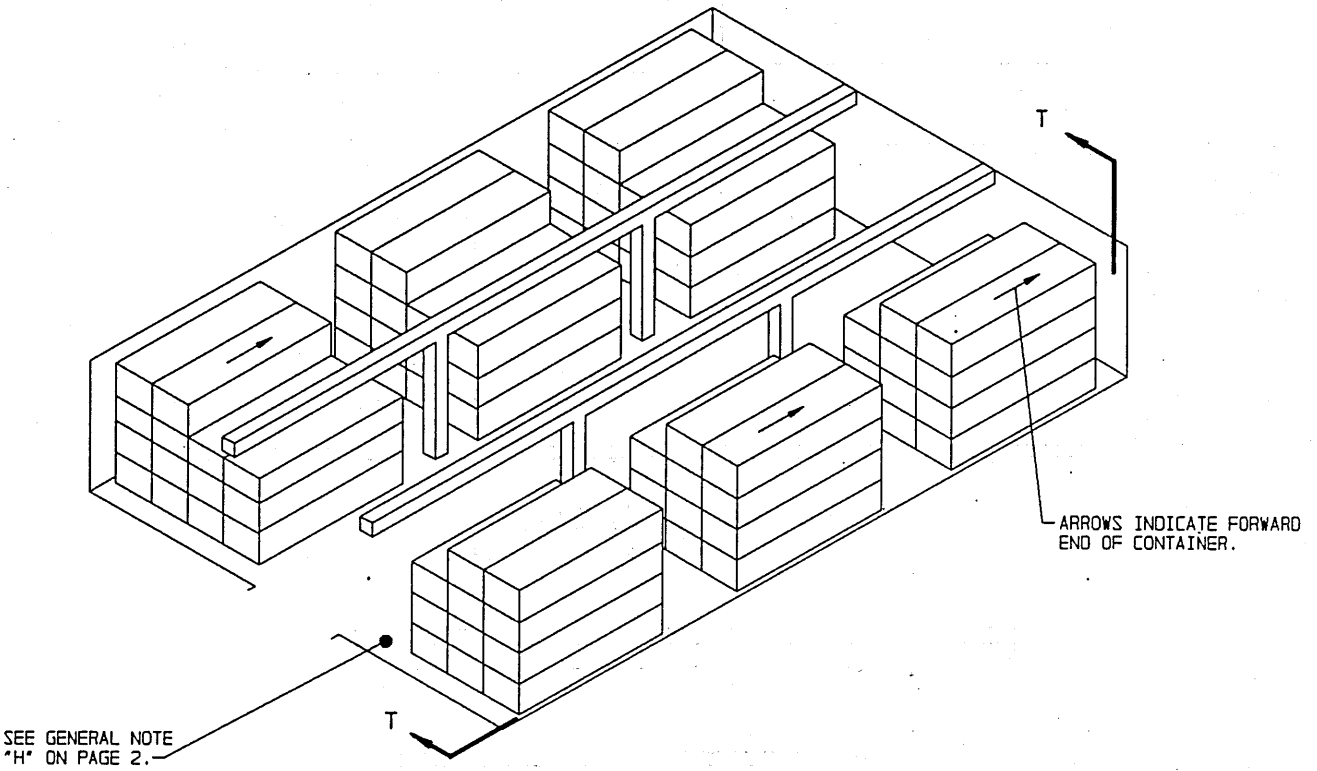
(TYPE III BUNKER MAGAZINE)



SECTION T-T

STORAGE IN TYPE III BUNKER MAGAZINE

ITEM	QUANTITY
CONTAINER	75

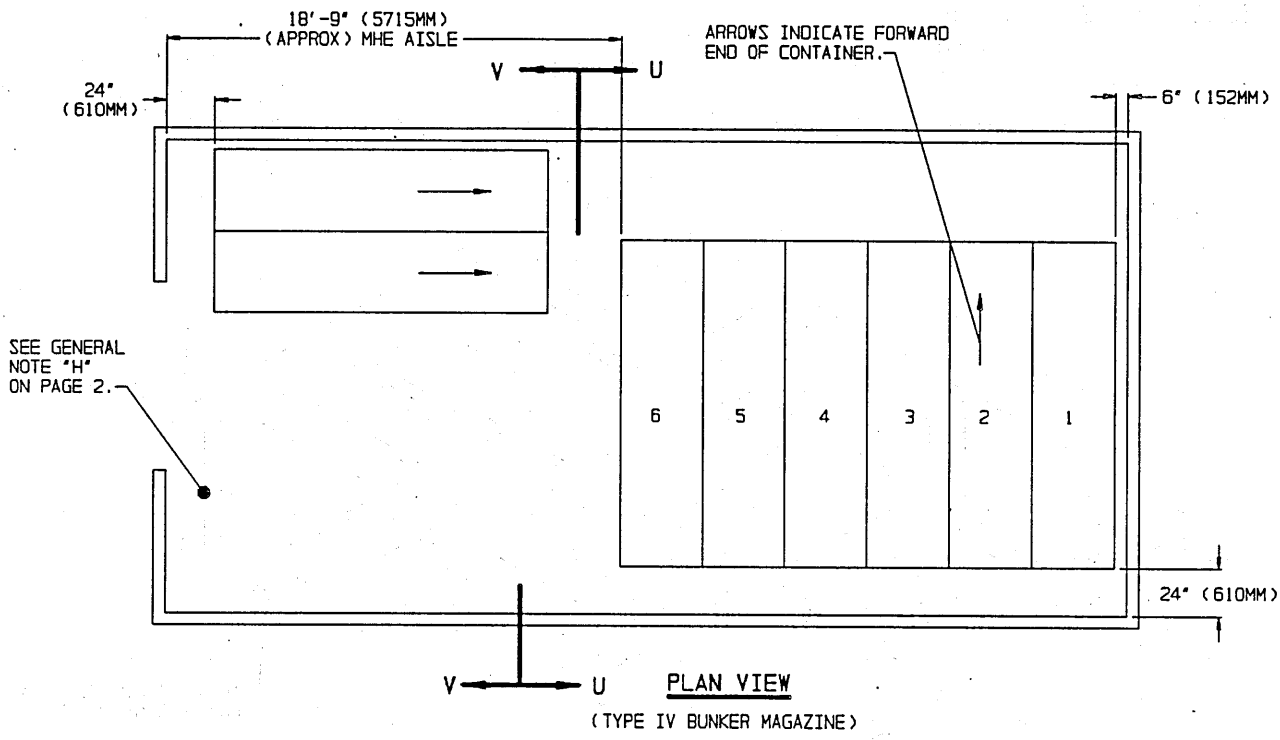


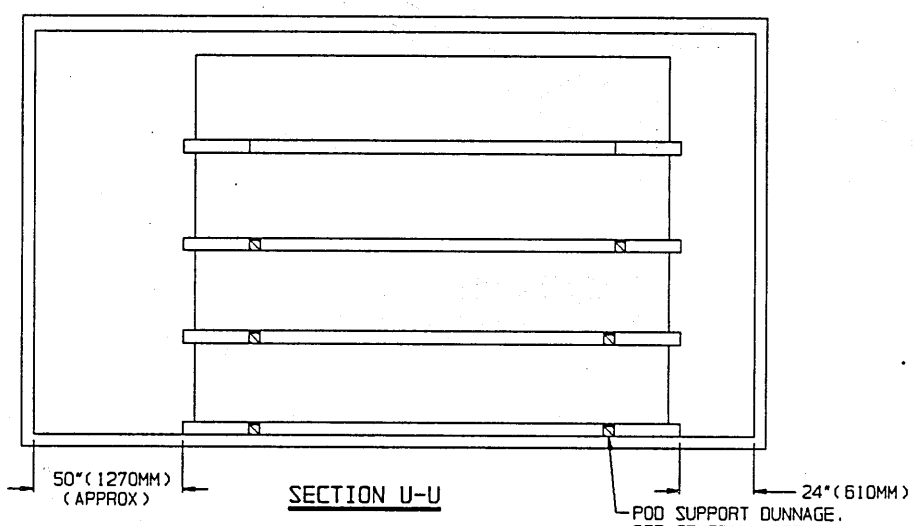
ISOMETRIC VIEW

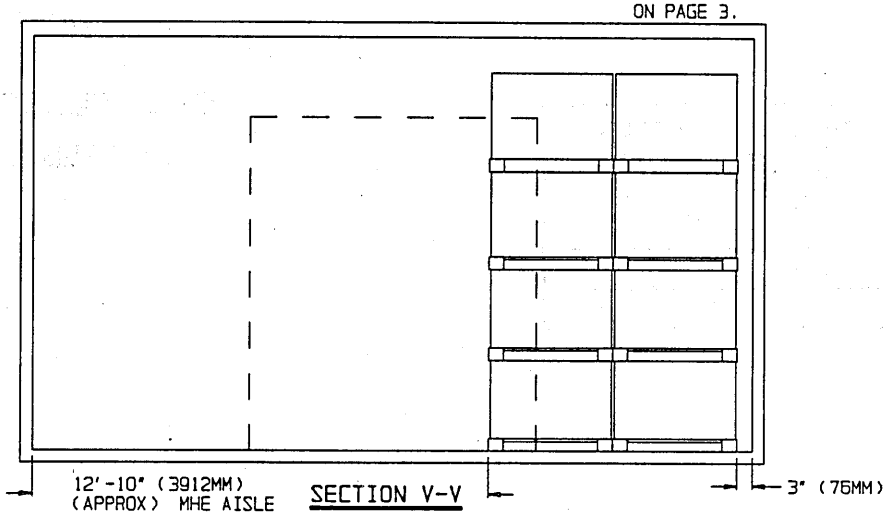
(TYPE III BUNKER MAGAZINE)

BILL OF MATERIAL PER CONTAINER STACK					
NO. OF CNTRS HIGH	1" X 4" LUMBER		4" X 4" LUMBER		NAILS
	LINEAR FEET	BOARD FEET	LINEAR FEET	BOARD FEET	6d (2")
THREE	13.83	4.61	13.83	18.44	16
FOUR	20.75	6.92	20.75	27.86	24

FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.





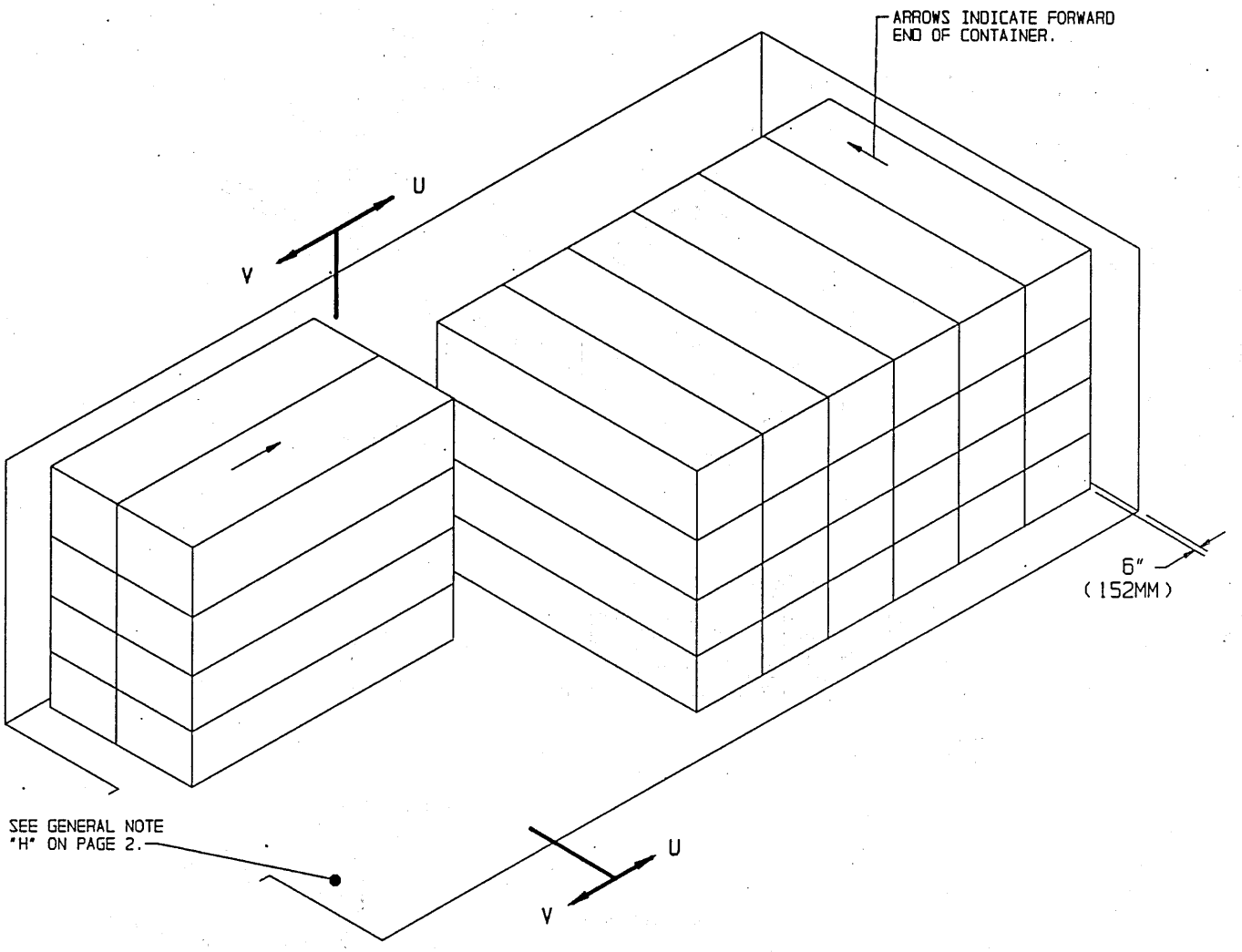


STORAGE PROCEDURES IN 40'-0" L X 20'-0" W X 11'-0" H TYPE IV BUNKER MAGAZINE

PROJECT CB 93-90

STORAGE IN TYPE IV BUNKER MAGAZINE

ITEM	QUANTITY
CONTAINER	32



ISOMETRIC VIEW

(TYPE IV BUNKER MAGAZINE)

BILL OF MATERIAL PER CONTAINER STACK					
NO. OF CNTRS HIGH	1" X 4" LUMBER		4" X 4" LUMBER		NAILS
	LINEAR FEET	BOARD FEET	LINEAR FEET	BOARD FEET	6d (2")
FOUR	20.75	6.92	29.75	27.86	24

FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.

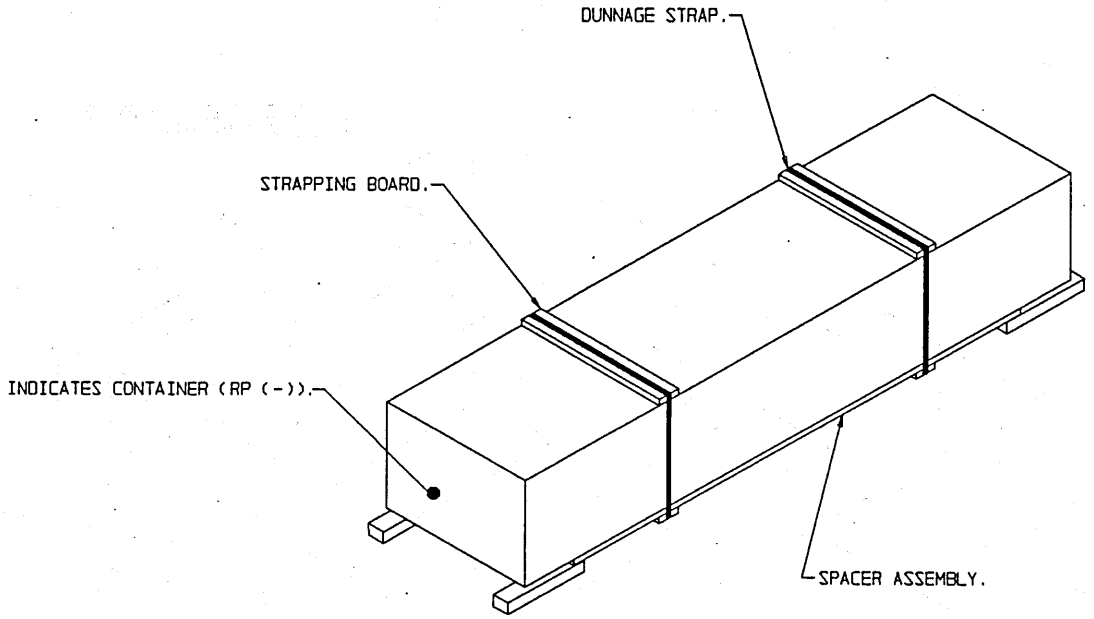


FIGURE 1

THIS VIEW DEPICTS AN UPPER LAYER CONTAINER WITH DUNNAGE/DUNNAGE ASSEMBLIES ATTACHED, AS REMOVED FROM A BOX CAR LOAD. STRAPPING BOARDS AND SPACER ASSEMBLY MAY REMAIN WITH CONTAINER DURING STORAGE. SEE SPECIAL NOTES 1 AND 2 ON PAGE 29.

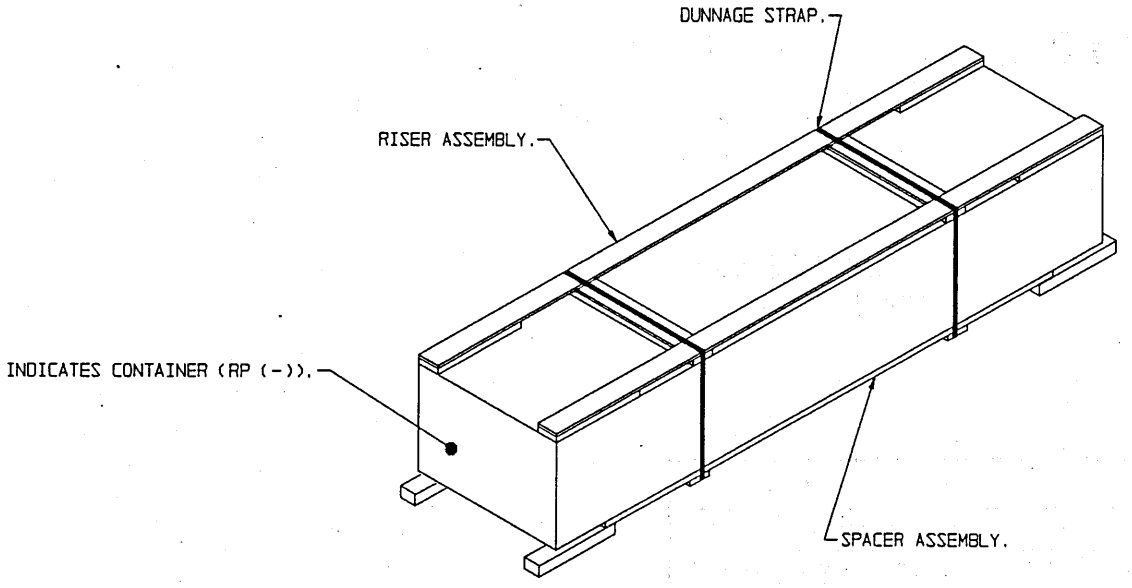
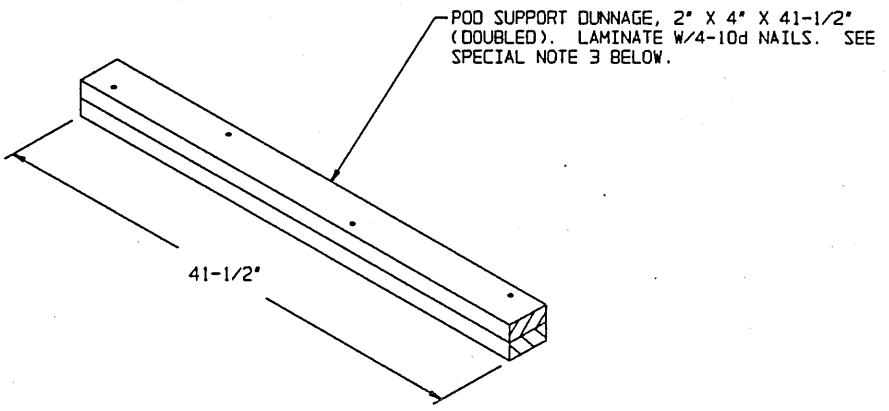


FIGURE 2

THIS VIEW DEPICTS A LOWER LAYER CONTAINER WITH DUNNAGE ASSEMBLIES ATTACHED, AS REMOVED FROM A BOX CAR LOAD. REMOVE BOTH DUNNAGE ASSEMBLIES BEFORE STORING CONTAINER UNLESS THE CONTAINER IS TO BE STORED IN THE TOP LAYER OF A STACK.

ROCKET PODS WITH RISER AND SPACER ASSEMBLIES ATTACHED



ALTERNATIVE POD SUPPORT ASSEMBLY

SPECIAL NOTES:

1. TWO (2) POD SUPPROT ASSEMBLIES ARE REQUIRED UNDER THE FRAME OF EACH FIRST-LAYER CONTAINER WHICH HAS ONE OR MORE CONTAINERS ON TOP. WHEN THE FIRST-LAYER CONTAINER HAS A SPACER ASSEMBLY ATTACHED, AS SHOWN IN THE FIGURE 1 VIEW ON PAGE 28, THE POD SUPPORT DUNNAAGE WILL CONSIST OF LAMINATED 2" X 4" X 41-1/2" LONG PIECES IN LIEU OF THE LAMINATED 1" X 4" AND 4" X 4" X 41-1/2"LONG POD SUPPORT DUNNAGE SHOWN ON PAGE 3. SEE THE "ALTERNATIVE POD SUPPORT ASSEMBLY" DETAIL ABOVE.

2. EACH UPPER LAYER ROCKET POD/CONTAINER WHICH HAS A SPACER ASSEMBLY ATTACHED, EXCEPT FOR THE VERY TOP CONTAINER IN A STACK, WILL HAVE THE LAMINATED 2" X 4" POD SUPPORT ASSEMBLIES POSITIONED UNDER IT AT EACH INWARD END OF THE CONTAINER SKIDS. EACH UPPER LAYER ROCKET POD/CONTAINER NOT HAVING A SPACER ASSEMBLY ATTACHED, EXCEPT FOR THE VERY TOP ONE IN A STACK, WILL HAVE THE LAMINATED 1" X 4" AND 4" X 4" POD SUPPORT DUNNAGE POSITIONED UNDER IT AS IS SHOWN WITHIN THE STORAGE VIEWS HEREIN.

3. FOR STABILITY PURPOSES, IT IS DESIRED THAT THE SKIDS OF A LOWER CONTAINER SUPPORT A PORTION OF THE WEIGHT OF THE CONTAINERS ABOVE. THE THICKNESS OF THE ALTERNATIVE SUPPORT ASSEMBLY SHOULD BE ADJUSTED AS NECESSARY TO PROVIDE PROPER SUPPORT BUT STILL MAINTAIN CONTACT BETWEEN THE METAL BOTTOM OF THE UPPER CONTAINER SKIDS AND THE TOP FRAME OF THE LOWER CONTAINER OR THE MAGAZINE FLOOR, AS APPLICABLE, TO PROVIDE PROPER ELECTRICAL CONDUCTIVITY. THE THICKNESS OF THE ALTERNATIVE SUPPORT ASSEMBLY MAY BE REDUCED BY SUBSTITUTING A COMBINATION OF 1" X 4" X 41-1/2" LONG LUMBER AND VARIOUS THICKNESSES OF 3-1/2" WIDE BY 41-1/2" LONG PLYWOOD FOR ONE THICKNESS OF THE 2" X 4" MATERIAL. THE THICKNESS MAY BE INCREASED BY ADDING A 1/4" OR THICKER PLYWOOD PIECE.