STORAGE IN APPROVED MAGAZINES OF COMPLETE ROUNDS PACKED IN CYLINDRICAL METAL CONTAINERS AND UNITIZED ON A 43-1/2" X 45-5/8" METAL PALLET

PA104 SERIES CONTAINER

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	U.S. ARMY MATERIEL C	OMMAND DE	RAWING
	APPROVED, U.S. ARMY INDUSTRIAL OPERATIONS COMMAND DRAFTSMAN	N INGERORG DE	PPE

wid a Piskouk M. DAEUMER **ENGINEER** SUPPLY ENGINEERING DIVISION APPROVED BY ORDER OF COMMANDING BENERAL, U.S. ARMY MATERIEL COMMAND LOGISTICS ENGINEERING AUGUST 1990 NOISIVID CLASS DRAWING U.S. ARMY DEFE FILE REVISION NO.1 DECEMBER 1-2-3-4-14-4145/7A 19 48 22PM1003 SEE THE REVISION LISTING ON PAGE 2.

DO NOT SCALE

GENERAL NOTES

- THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AR 740-1 AND AUGMENTS TM 743-200-1 (CHAPTER 5).
- THE STORAGE PROCEDURES SPECIFIED HEREIN 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 COMPLETE ROUNDS PALLET UNITS IN OTHER TYPES OF APPROVED MAGAZINES. MINOR ADJUSTMENTS MAY BE MADE TO FACILITATE SORAGE IN OTHER TYPES OF MAGAZINES, HOWEVER, THE BASIC PRINCIPLES AS DEPICTED HEREIN WILL BE FOLLOWED.
- THE STORAGE PROCEDURES SPECIFIED HEREIN ARE APPLICABLE FOR COMPLETE ROUNDS PACKED IN THE PA104 SERIES CONTAINER AND UNITIZED ON A 43-1/2" LONG BY 45-5/8" WIDE METAL PALLET WITH COVER. SUBSEQUENT REFERENCE TO PALLET UNIT MEANS THE PALLET UNIT WITH AMMUNITION ITEMS.
- FOR DETAILS OF THE PALLET UNIT, REFER TO U.S. ARMY AMC DRAWING 19-48-4079/68-20PM1002, AND TO PAGE 3 OF THIS
- CAUTION: THE ALLOWABLE "EXPLOSIVE LIMIT" ESTABLISHED FOR A MAGAZINE IS NOT TO BE EXCEEDED. THIS LIMITATION MAY REQUIRE A QUANTITY REDUCTION FROM THE STORAGE AS SHOWN.
- STORED PALLET UNITS MUST NOT CONTACT THE WALLS OF A MAGAZINE. TO PROVIDE FOR THIS MANDATORY CLEARANCE REQUIREMENT, UNITS MAY BE ELIMINATED FROM THE DEPICTED STORAGE PATTERN AS NECESSARY.
- AISLE DIMENSIONS SHOWN FOR STORAGE PROCEDURES IN MAGAZINES MAY BE ADJUSTED TO SUIT LOCAL CONDITIONS, VARIATIONS IN PALLET UNIT DIMENSIONS, AND/OR AVAILABLE MATERIALS HANDLING EQUIPMENT.
- THE MAXIMUM FLOOR LOAD FOR A MAGAZINE AS PRESCRIBED BY LOCAL STANDARDS WILL NOT BE EXCEEDED.
- THE HEIGHT OF THE PACKAGE GUARD ON SOME FORKLIFT TRUCKS MAY NOT PERMIT PLACEMENT OF SOME TOP LAYER UNITS IN THE STACKS SHOWN IN THE STORAGE VIEWS HEREIN, UNLESS TWO UPPER PALLET UNITS 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 PALLET UNITS AS ONE LIFT.
- THE MATERIALS HANDLING EQUIPMENT (MHE) AREA SHOULD BE OF SUFFICIENT DIMENSION TO PERMIT "TURN-AROUND" OF THE MHE WHEN STORING IN A MAGAZINE NOT EQUIPPED WITH PROPERLY SIZED APRONS FOR THAT PURPOSE. THE MHE AISLE IN ALL MAGAZINES IS BASED ON A FIGURE WHICH IS AT LEAST ?"-7" PLUS THE LENGTH OR WIDTH OF THE PALLET UNIT, AS APPLICABLE, OR THE LENGTH OF THE FORKLIFT TRUCK TINES (40"), WHICHEVER IS THE GREATEST. IF THE AVAILABLE MHE PERMITS, ADDITIONAL PALLET UNITS MAY BE STORED WITHIN THE MHE AREA AND/OR OTHER AVAILABLE AREA OF THE MAGAZINE.
- THE USE OF "FLOOR DUNNAGE" UNDER METAL PALLETS IS OPTIONAL, ALTHOUGH THE USE OF THIS TYPE OF DUNNAGE IS DELINEATED WITHIN THIS STORAGE PROCEDURE DRAWING. THE PURPOSE OF FLOOR DUNNAGE IS TO HELP KEEP THE RUNNERS OF A PALLET DRY, THUS AIDING IN PREVENTING DETERIORATION DUE TO CORROSION. THEREFORE, FLOOR DUNNAGE SHOULD BE USED WHEN STORING IN A MAGAZINE THAT IS KNOWN TO HAVE A "DAMP" FLOOR. ALSO, IN LIEU OF USING ONE-INCH THICK FLOOR DUNNAGE AS SPECIFIED, THE USE OF THICKER FLOOR DUNNAGE MAY BE REQUIRED, AND SHOULD BE USED, TO ACHIEVE THE DESIRED OBJECTIVE. THE DESIRED OBJECTIVE.
- DUNNAGE LUMBER SPECIFIED THROUGHOUT THIS PROCEDURAL DRAWING IS OF NOMINAL SIZE. FOR EXAMPLE, 1" X 6" MATERIAL IS ACTUALLY 3/4" THICK BY 5-1/2" WIDE AND 2" X 6" MATERIAL IS ACTUALLY 1-1/2" THICK BY 5-1/2" WIDE.
- STORAGE OF MULTIPLE LOTS IN A MAGAZINE WILL REQUIRE CAREFUL PRE-PLANNING SO AS TO INSURE MHE ACCESSIBILITY TO ANY LOT IN ACCORDANCE WITH REQUIREMENTS SET FORTH IN THE APPLICABLE "SPECIAL NOTES" SECTIONS OF THE MULTIPLE LOT STORAGE PROCEDURES TYPICALLY SHOWN ON PAGES 24 THRU

(CONTINUED AT RIGHT).

LUMBER - - - - - -: SEE TM 743-200-1 (DUNNAGE LUMBER) AND FED SPEC MM-L-751.

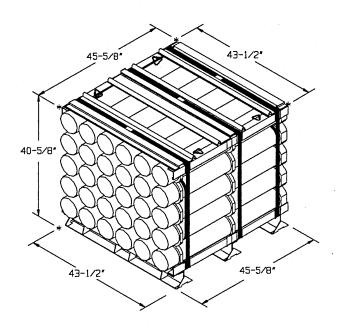
(GENERAL NOTES CONTINUED)

- ALTHOUGH SPECIFIC PROCEDURES ARE INCLUDED IN THIS DRAWING FOR STORING MULTIPLE LOTS WITHIN ONE STRUCTURE, THE BASIC STORAGE PATTERN AS SHOWN ON PAGES 4 THRU 23 CAN ALSO BE ADAPTED FOR THE STORING OF MORE THAN ONE LOT. LOTS WHEN STORED IN ACCORDANCE WITH A BASIC STORAGE PATTERN MAY BE STORED WITH ONE OR MORE ROWS USED FOR EACH LOT. A SPACE OF APPROXIMATELY 1" WILL HAVE TO BE LEFT BETWEEN ADJACENT ROWS CONTAINING DIFFERENT LOTS. IN BASIC STORAGE PATTERNS WHERE THE WIDTH OF A ROW IS ESTABLISHED BY THE 45-5/8" UNIT DIMENSION, EACH ROW MAY BE A DIFFERENT LOT AND BE READILY REMOVABLE. IN BASIC STORAGE PATTERNS WHERE THE WIDTH OF A ROW IS ESTABLISHED BY THE 43-1/2" UNIT DIMENSION, A LOT MUST CONSIST OF TWO OR MORE ROWS TO PROVIDE ADEQUATE SPACE TO ACCOMMODATE THE WIDTH OF A FORKLIFT TRUCK FOR STORING OR REMOVING THE LOT. HOWEVER, WHEN THE SIZE OF A LOT REQUIRES THE SPACE OF ONLY ONE ROW, PROVIDING THE STORAGE PRINCIPLES SPECIFIED ARE FOLLOWED AS CLOSELY AS POSSIBLE. THE 1" SPACE BETWEEN LOTS AS STATED ABOVE, WILL NOT BE EXCEEDED SOLELY TO ACCOMMODATE THE WIDTH OF THAT ROW, PROVIDING THE STORAGE PRINCIPLES SPECIFIED ARE FOLLOWED AS CLOSELY AS POSSIBLE. THE 1" SPACE BETWEEN LOTS AS STATED ABOVE, WILL NOT BE EXCEEDED SOLELY TO ACCOMMODATE THE WIDTH OF A FORKLIFT TRUCK. FOR ADDITIONAL REQUIREMENTS AND GUIDANCE, SEE THE SPECIAL NOTES FOR MULTIPLE-LOT STORAGE ON PAGES 24 THRU 30.
- ANY "LIGHT" PALLET UNIT THAT DOES NOT CONTAIN A FULL QUANTITY OF ROUNDS WILL NOT BE BURIED IN STORAGE. IT MUST BE POSITIONED ADJACENT TO AN AISLE, PREFERABLY IN FRONT OF THE LOT.
- O. PORTIONS OF THE MAGAZINES, SUCH AS SIDEWALLS, ENDWALLS, AND ROOFS, HAVE NOT BEEN SHOWN IN THE STORAGE VIEWS FOR CLARITY PURPOSES
- A PRODUCTION OR STORAGE FACILITY IS AUTHORIZED TO HAVE A PRODUCTION OR STORAGE FACILITY IS AUTHORIZED TO HAVE ONE INCOMPLETE, UN-BANDED PARTIAL UNIT LOAD PER LOT IN A STORAGE STRUCTURE. PRIOR TO SHIPMENT OF A PARTIAL UNIT, A LAYER MUST BE COMPLETED, IF APPLICABLE, BY THE POSITIONING OF ONE OR MORE FILLERS AS DELINEATED BY DRAWING 19-48-4079/6B-20PM1002. THE UNIT MUST THEN BE RE-BANDED WITH THE SAME SIZE AND QUANTITY OF STRAPS AS THE ORIGINAL UNIT.
- S. WHEN LOCAL STORAGE CONDITIONS ARE SUCH THAT AN AMMUNITION STORAGE MAGAZINE NET EXPLOSIVE WEIGHT LIMIT WILL BE REACHED BEFORE ALL AVAILABLE STORAGE SPACE WILL BE UTILIZED, A COMBINATION OF THE VARIOUS STORAGE PATTERNS DELINEATED HEREIN MAY BE USED IN LIEU OF BLOCK STORAGE PATTERNS TO FACILITATE INVENTORY, INSPECTION, THE USE OF MATERIALS HANDLING EQUIPMENT, SURVEILLANCE, ETC., OF THE AMMUNITION TO BE STORED WITHIN THE MAGAZINE.

REVISION

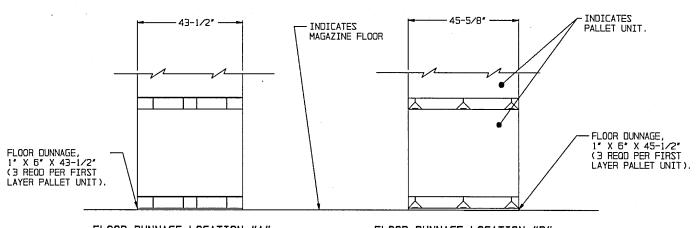
REVISION NO. 1, DATED DECEMBER 1995, CONSISTS OF:

CONVERTING TO CAD.



PA104 CONTAINER, 30/PALLET

UNIT WEIGHT - - - - - - 2,733 LBS (APPROX)
CUBE - - - - - - - - 46.7 CUBIC FEET

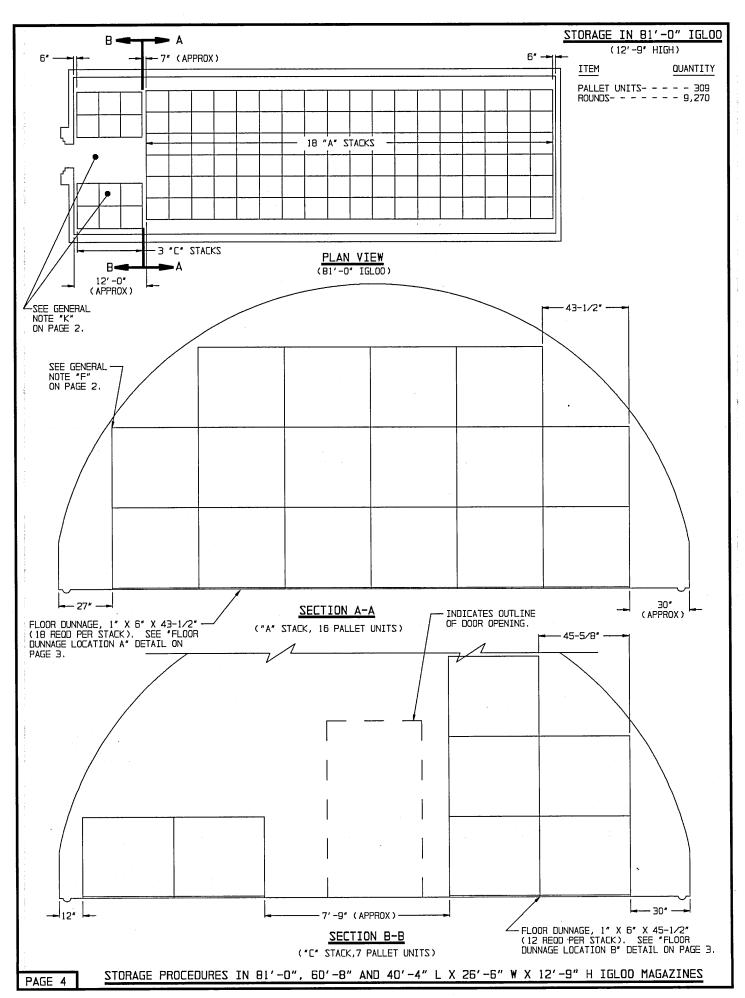


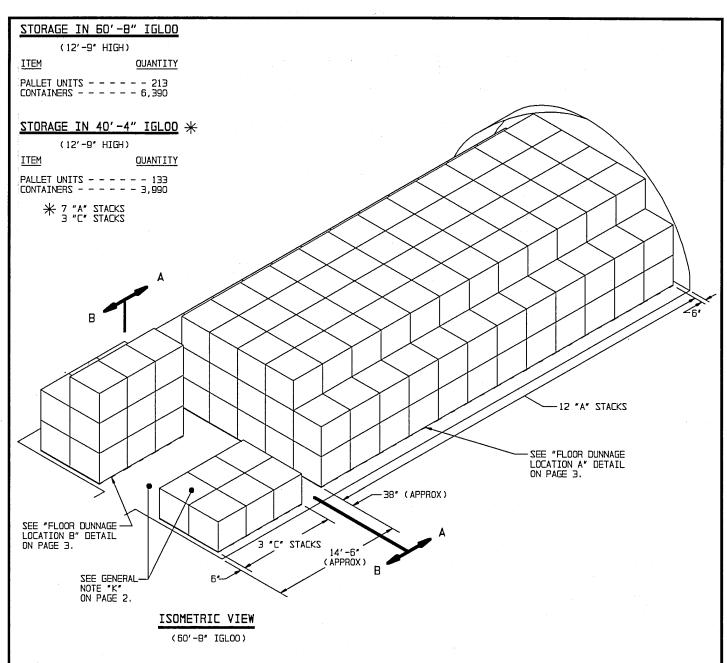
FLOOR DUNNAGE LOCATION "A"

FLOOR DUNNAGE LOCATION "B"

ISOMETRIC VIEWS WITHIN THIS DRAWING DO NOT DEPICT ALL FLOOR DUNNAGE THAT IS REQUIRED WHEN DUNNAGE IS USED. FLOOR DUNNAGE IS SHOWN AT SOME LOCATIONS TO PROVIDE POSITIONING GUIDANCE.

DETAILS





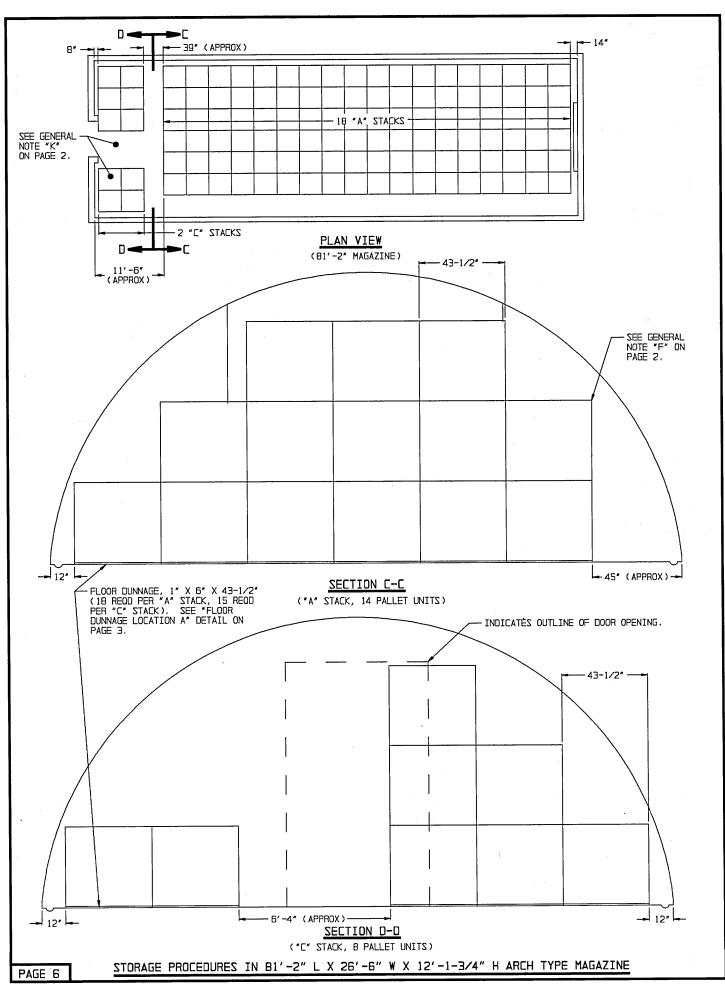
State Gray Barrell

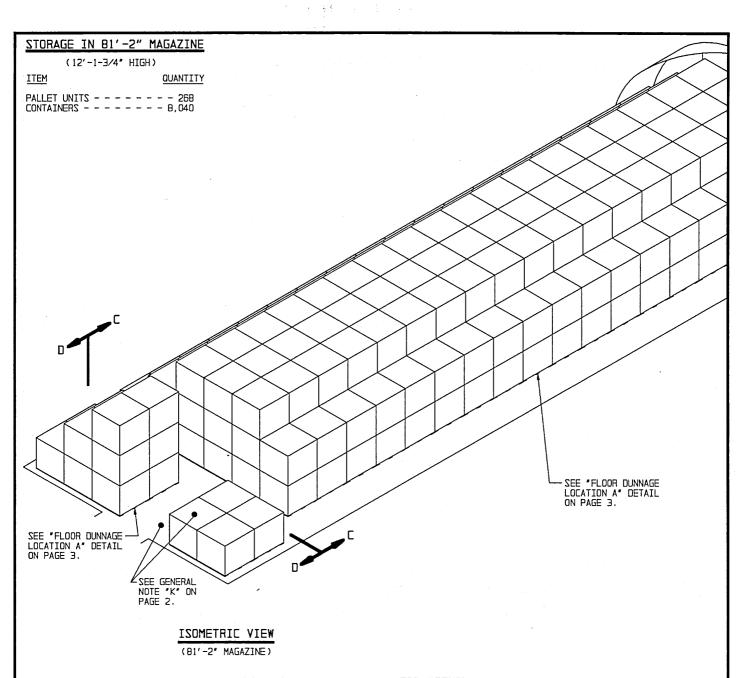
FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.

BILL OF MATERIAL (PER STACK) **			
1*X 6* DUNNAGE LUMBER		NAGE LUMBER	
TYPE STACK	LINEAR FEET	BOARD FEET	
A	66	33	
С	46	23	

** RANDOM LENGTH PIECES MAY BE USED, IF DESIRED.

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



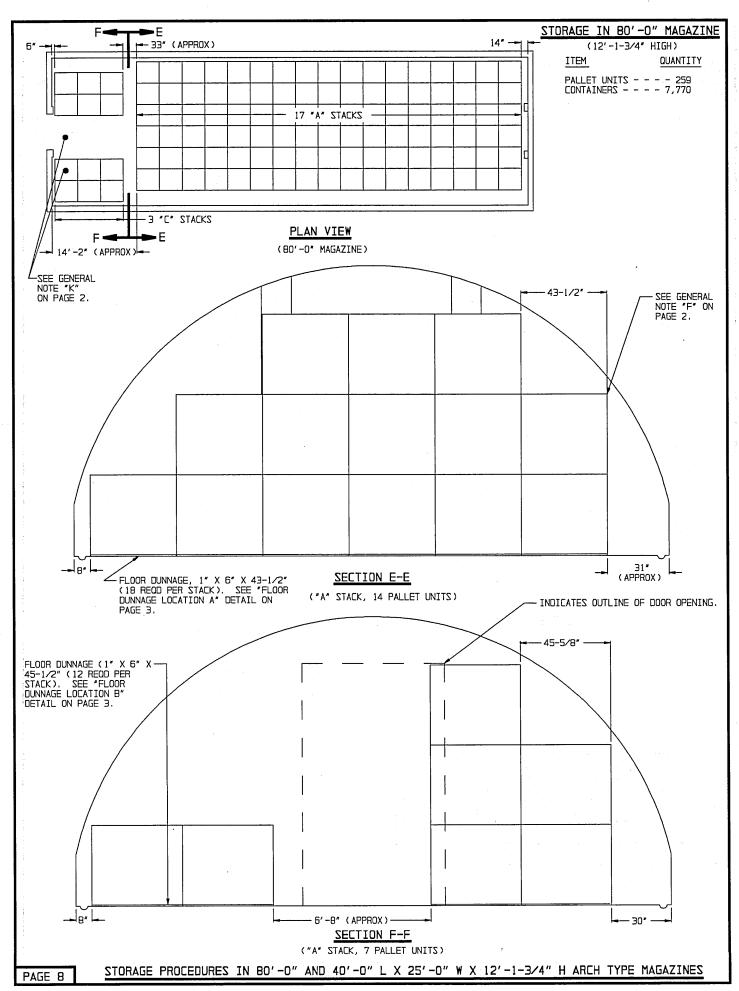


FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.

BILL OF MATERIAL (PER STACK) **			
1"X 6" DUNNAGE LUMBER			
TYPE STACK	LINEAR FEET	BOARD FEET	
A	66	33	
С	55	28	

** RANDOM LENGTH PIECES MAY BE USED, IF DESIRED.

STORAGE PROCEDURES IN B1'-2" L X 26'-6" W X 12'-1-3/4" H ARCH TYPE MAGAZINE

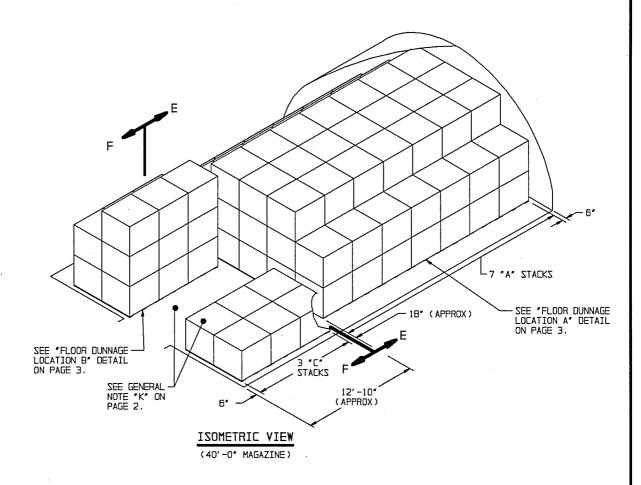


STORAGE IN 40'-0" MAGAZINE

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

ITEM

QUANTITY

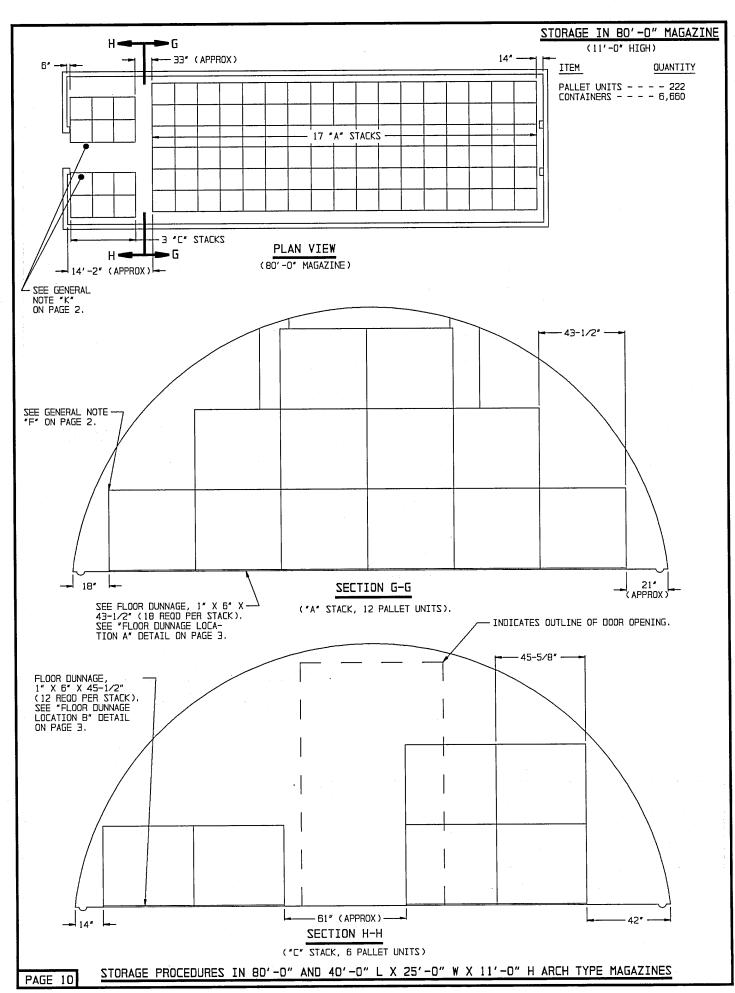


FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.

BILL OF MATERIAL (PER STACK) **			
	1"X 6" DUNNAGE LUMBER		
TYPE STACK	LINEAR FEET	BOARD FEET	
A	66	33	
С	46	23	

** RANDOM LENGTH PIECES MAY BE USED, IF DESIRED.

STORAGE PROCEDURES IN 80'-0" AND 40'-0" L X 25'-0" W X 12'-1-3/4" H ARCH TYPE MAGAZINES

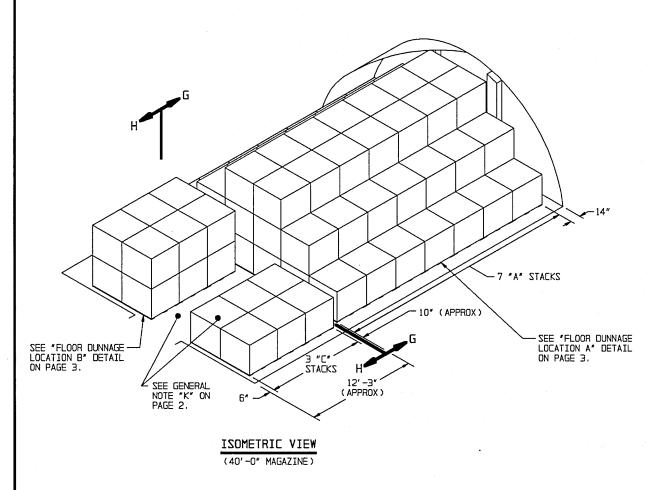


STORAGE IN 40'-0" MAGAZINE

(11'-0" HIGH)

ITEM QUANTITY

PALLET UNITS - - - - - - 102 CONTAINERS - - - - - - 3,060

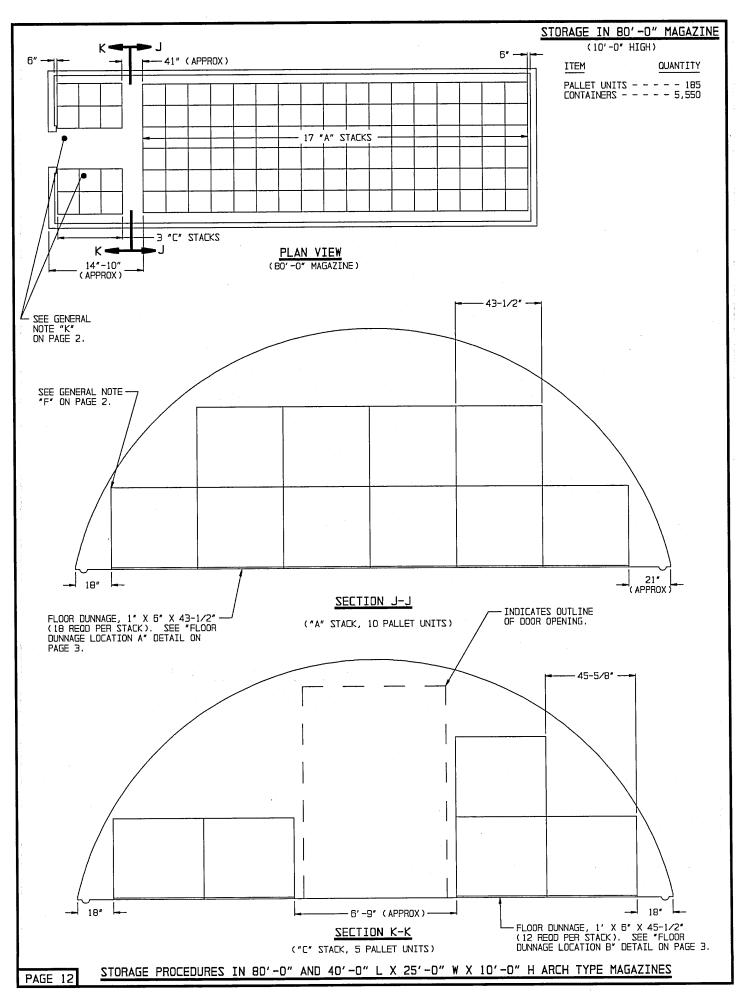


FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.

BILL OF MATERIAL (PER STACK) **			
1"X 6" DUNNAGE LUMBER			
TYPE STACK	LINEAR FEET	BOARD FEET	
A	66	33	
С	46	23	

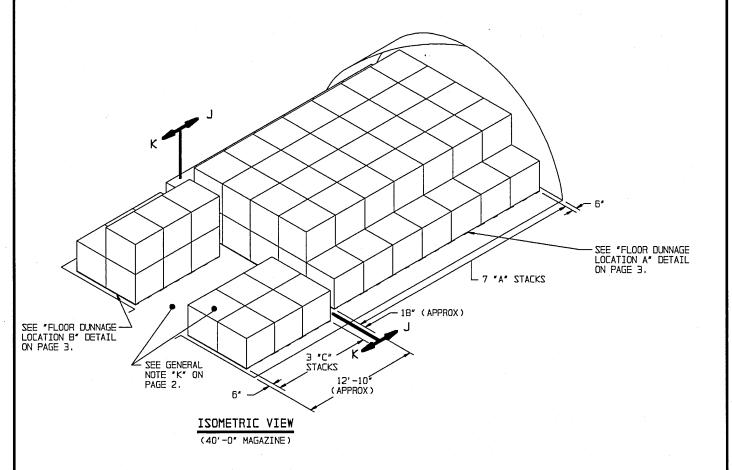
** RANDOM LENGTH PIECES MAY BE USED, IF DESIRED.

STORAGE PROCEDURES IN 80'-0" AND 40'-0" L X 25'-0" W X 11'-0" H ARCH TYPE MAGAZINES



<u>STORAGE IN 40'-0" MAGAZINE</u> (10'-0" HIGH) <u>OUANTITY</u>

PALLET UNITS - - - - - - - 85 CONTAINERS - - - - - - 2,550

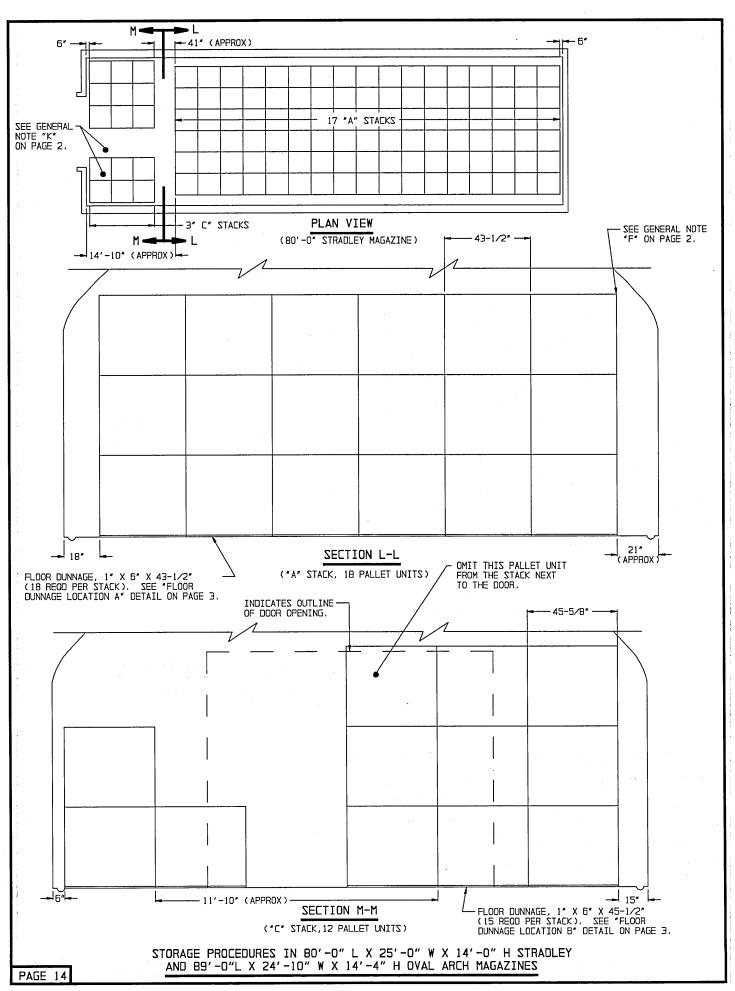


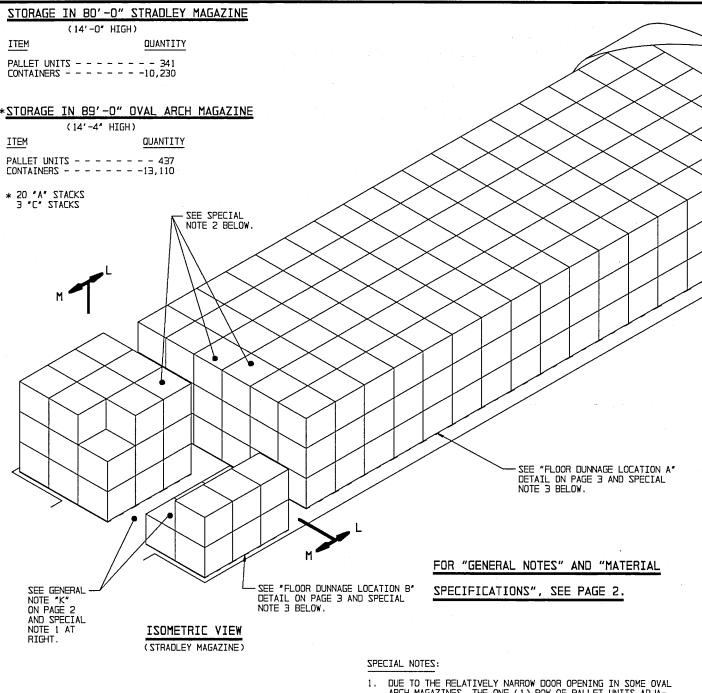
FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.

BILL OF MATERIAL (PER STACK) **		
1"X 6" DUNNAGE LUMBER		NAGE LUMBER
TYPE STACK	LINEAR FEET	BOARD FEET
A	66	33
	46	23

** RANDOM LENGTH PIECES MAY BE USED, IF DESIRED.

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



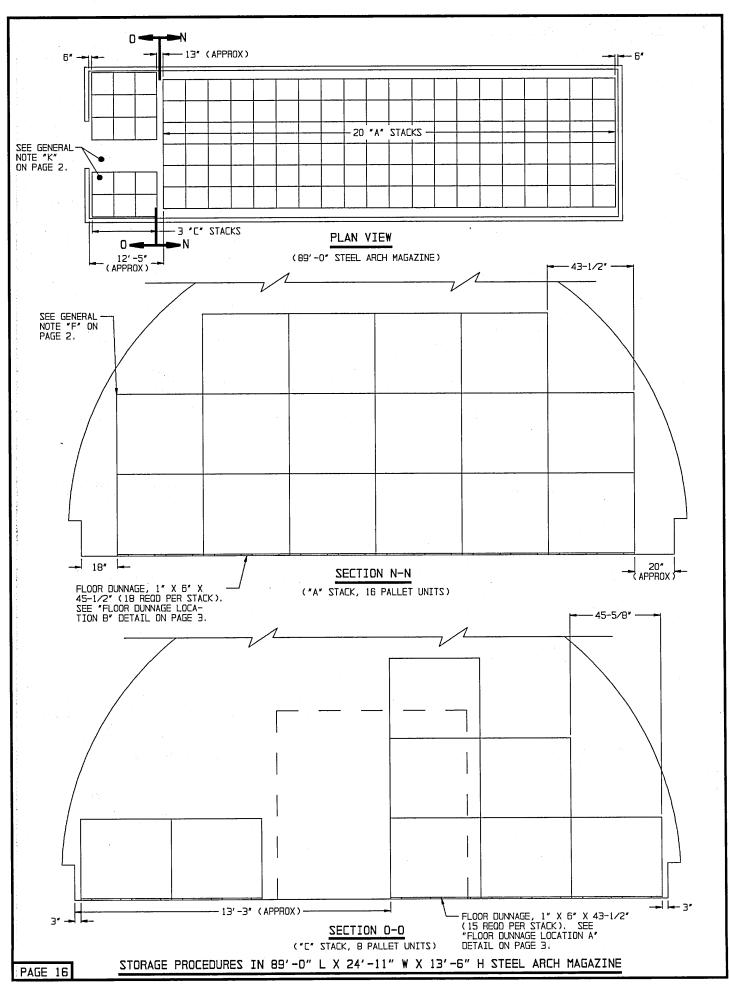


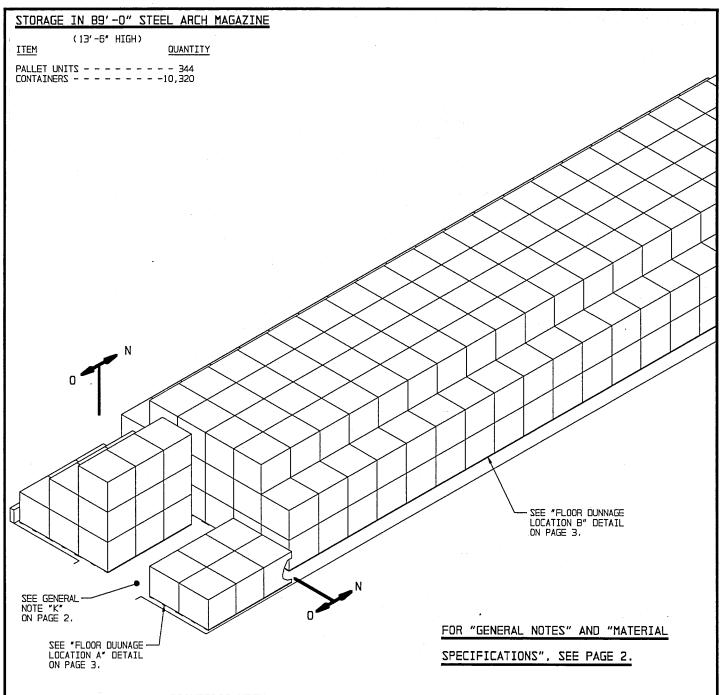
BILL OF MATERIAL (PER STACK) **			
1"X 6" DUNNAGE LUMBER			
TYPE STACK	LINEAR FEET	BOARD FEET	
A	66	33	
С	57	29	

** RANDOM LENGTH PIECES MAY BE USED, IF DESIRED.

- 1. DUE TO THE RELATIVELY NARROW DOOR OPENING IN SOME OVAL ARCH MAGAZINES, THE ONE (1) ROW OF PALLET UNITS ADJACENT TO THE OPERATING AISLE AS SHOWN IN THE "SECTION M-M" MAY HAVE TO BE OMITTED; THEN THREE PALLET UNITS CAN BE ADDED ON THE OPPOSITE SIDE OF THE OPERATING AISLE.
- 2. FOR STORAGE IN OVAL ARCH MAGAZINES, THE "A" STACKS WILL BE INCREASED TO 20 PALLET UNITS, AND THE "C" STACKS WILL BE INCREASED TO 13 PALLET UNITS, BY ADDING PALLET UNITS TO THE FOURTH LAYER AT THE LOCATIONS INDICATED IN THE "ISOMETRIC VIEW" ABOVE.
- 3. FOR STORAGE IN OVAL ARCH MAGAZINES, THE FLOOR DUNNAGE WILL BE POSITIONED LENGTHWISE IN THE MAGAZINE, IN LIEU OF CROSSWISE AS SHOWN.

STORAGE PROCEDURES IN 80'-0" L X 25'-0" W X 14'-0" H STRADLEY AND 89'-0" L X 24'-10" W X 14'-4" H OVAL ARCH MAGAZINES



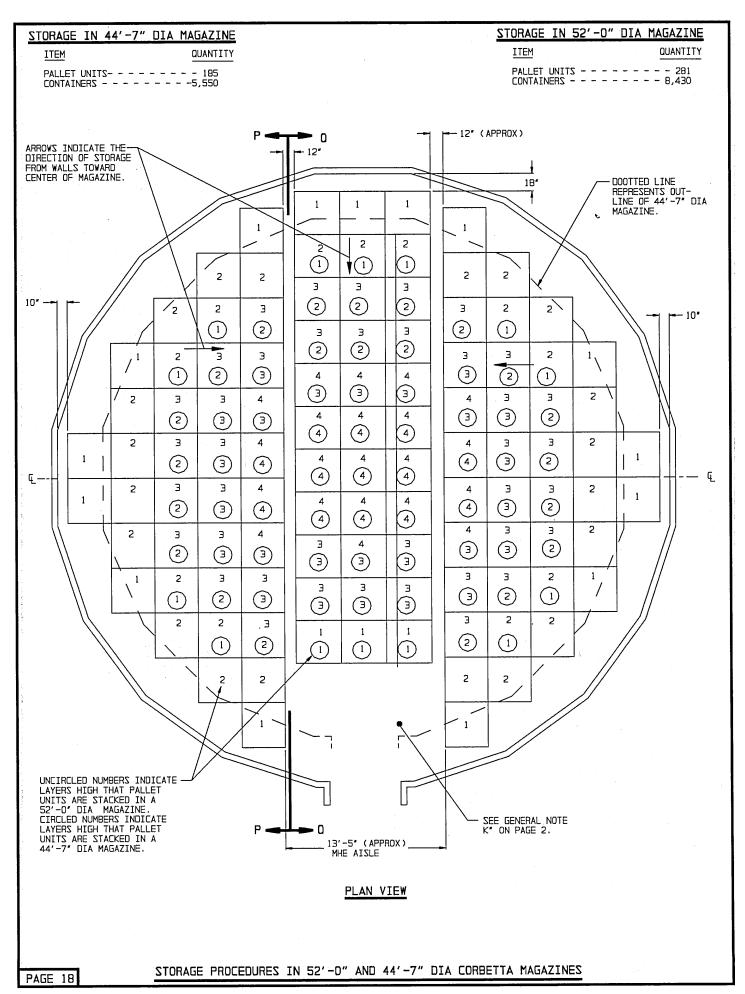


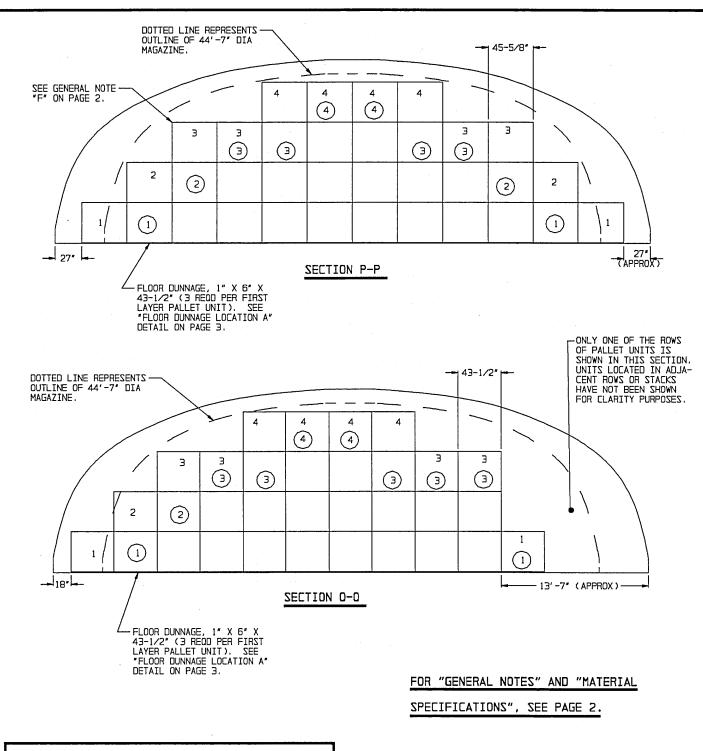
ISOMETRIC VIEW (STEEL ARCH MAGAZINE)

BILL OF MATERIAL (PER STACK) **			
1"X 6" DUNNAGE LUMBER			
TYPE STACK	LINEAR FEET	BOARD FEET	
A	69	35	
С	55	28	

** RANDOM LENGTH PIECES MAY BE USED, IF DESIRED.

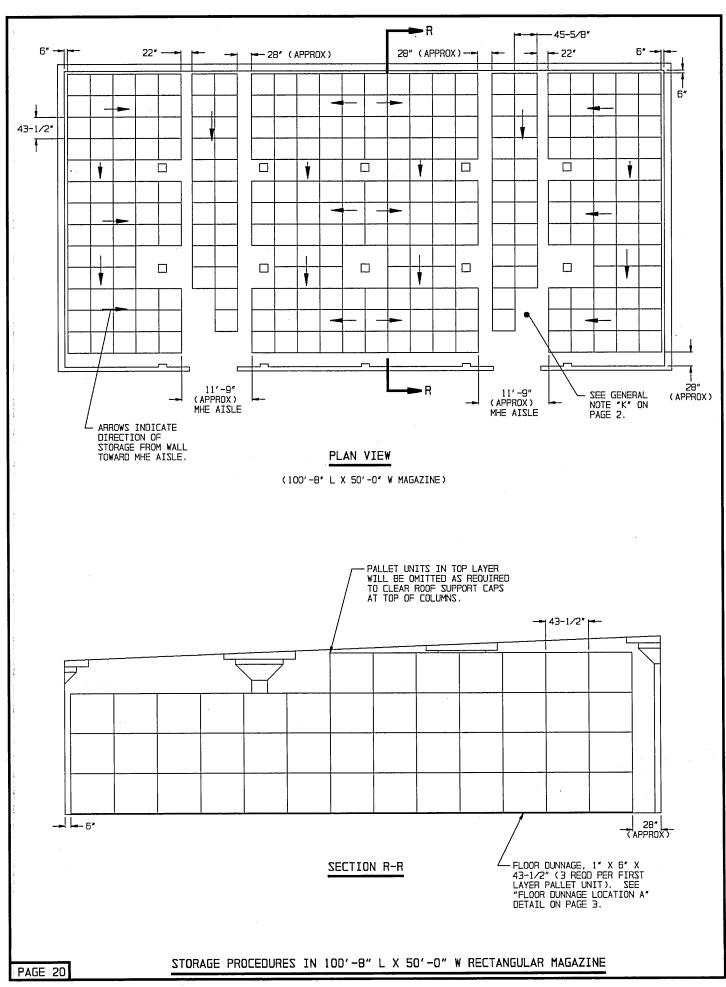
STORAGE PROCEDURES IN 89'-0" L X 24'-11" W X 13'-6" H STEEL ARCH MAGAZINE

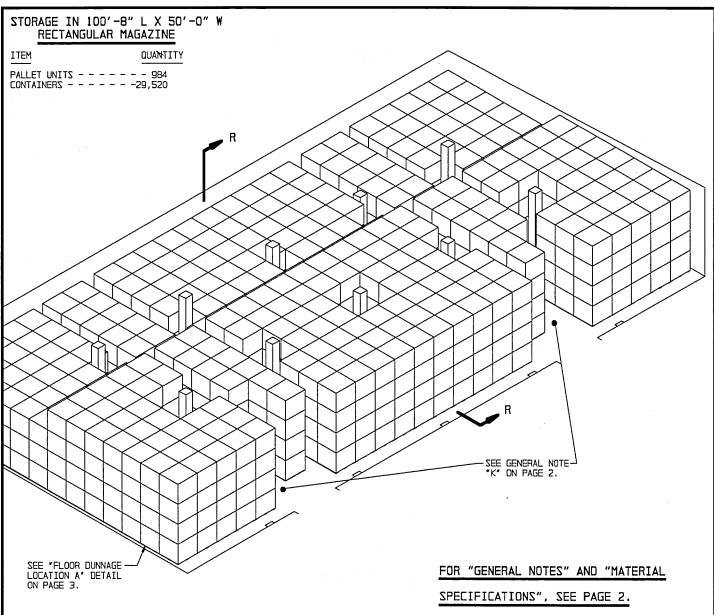




BILL OF MATERIAL	(PER FIRST LAY	ER PALLLET UNIT)
LUMBER	LINEAR FEET	BOARD FEET
1" X 6"	11.0	5.5

STORAGE PROCEDURES IN 52'-0" AND 44'-7" DIA CORBETTA MAGAZINES





ISOMETRIC VIEW

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

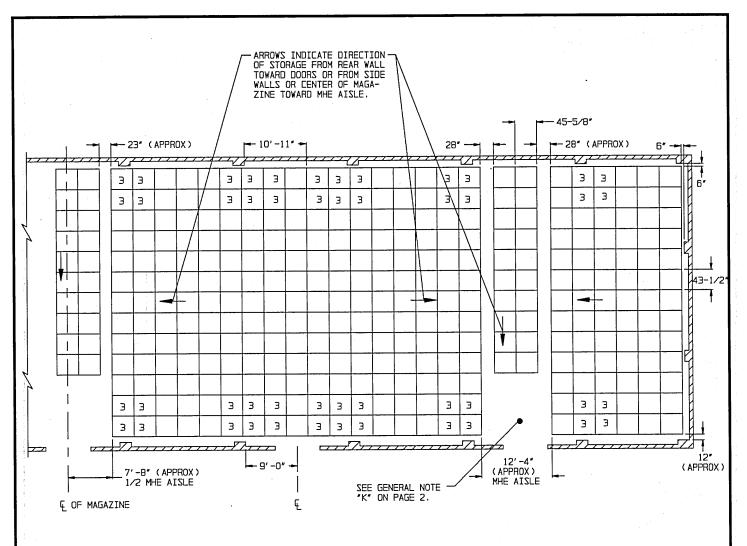
SPECIAL NOTE:

IF THE QUANTITY FOR A MAGAZINE IS TO BE REDUCED FROM WHAT IS SHOWN DUE TO THE PERMITTED "EXPLOSIVE LIMIT" OR FOR ANY OTHER REASON, SUCH AS A LIMITED QUANTITY TO BE STORED, THE DELINEATED PROCEDURES ARE TO BE ADJUSTED BY OMITTING STACKS RATHER THAN BY OMITTING LAYERS.

BILL OF MATERIAL	(PER FIRST LAYE	R PALLLET UNIT)
LUMBER	LINEAR FEET	BOARD FEET
1" X 6"	11	5.5

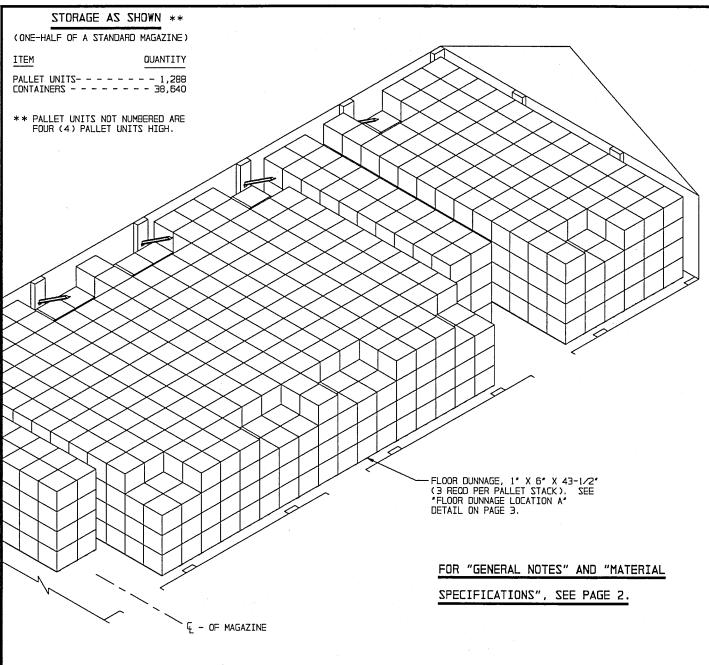
* RANDOM LENGTH PIECES MAY BE USED, IF DESIRED.

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



PLAN VIEW

(ONE-HALF OF A STANDARD MAGAZINE IS SHOWN).



ISOMETRIC VIEW

(ONE-HALF OF A STANDARD MAGAZINE IS SHOWN).

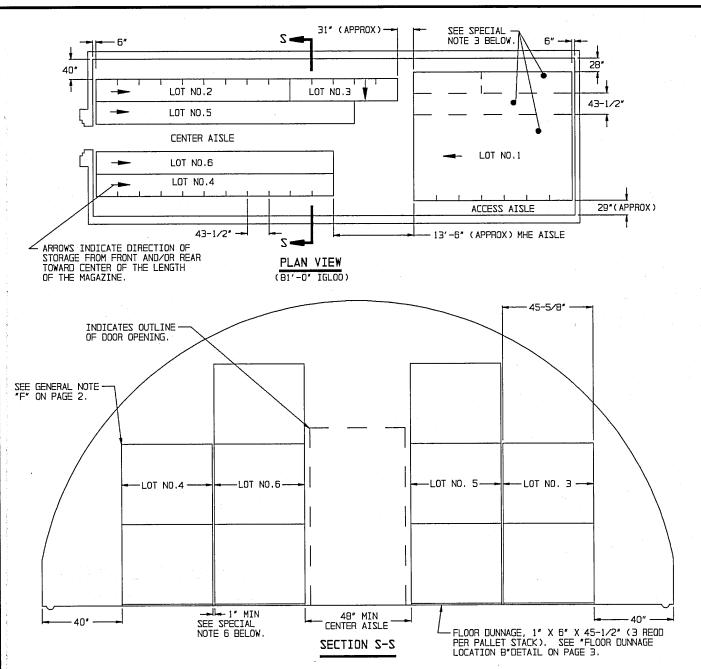
SPECIAL NOTE:

IF THE QUANTITY FOR A MAGAZINE IS TO BE REDUCED FROM WHAT IS SHOWN DUE TO THE PERMITTED "EXPLOSIVE LIMIT" OR FOR ANY OTHER REASON, SUCH AS A LIMITED QUANTITY TO BE STORED, THE DELINEATED PROCEDURES ARE TO BE ADJUSTED BY OMITTING STACKS RATHER THAN BY OMITTING LAYERS.

BILL OF MATERIAL	(PER FIRST LAY	R PALLLET UNIT
LUMBER	LINEAR FEET	BOARD FEET
1" X 6"	11	5.5

* RANDOM LENGTH PIECES MAY BE USED, IF DESIRED.

STORAGE PROCEDURES IN 217'-4" L X 50'-3" W X 14'-1-1/4" H STANDARD MAGAZINE



- 1. THE STORAGE PLANS AND CONFIGURATIONS SHOWN ON THIS PAGE ARE TYPICAL ONLY AND APPLY TO RELATIVELY LARGE LOTS. ADAPTATIONS MAY BE MADE AS NUMBER AND SIZES OF LOTS TO BE STORED IN MAGAZINE REQUIRE.
- 2. AN INSPECTION/INVENTORY AISLE MUST BE PROVIDED AT ONE SIDE OR END OF EACH LOT.
- 3. GENERALLY, THE LARGEST LOT SHOULD BE STORED IN THE REAR OF THE MAGAZINE. HOWEVER, THE REAR AREA MAY BE USED TO STORE MORE THAN ONE LOT BY ERECTING ROWS SIMILAR TO THOSE SHOWN IN THE FRONTAL AREA. A CENTER AISLE WILL NOT BE REOUTRED IN THE REAR AREA AS LONG AS EACH LOT IS ACCESSIBLE FOR REMOVAL AND INSPECTION/INVENTORY IN ACCORDANCE WITH OTHER CRITERIA SPECIFIED IN THESE SPECIAL NOTES AND IN THE GENERAL NOTES ON PAGE 2.
- 4. EACH LOT WITHIN THE MAGAZINE MUST BE ACCESSIBLE FOR MOVE-MENT BY MHE. A SINGLE LOT OF PALLET UNITS IS CONSIDERED "ACCESSIBLE" IF NO MORE THAN TWELVE (12) "LIFTS" OF AN-OTHER LOT OR LOTS HAVE TO BE MADE TO GAIN ACCESS TO THAT LOT. A "LIFT" MAY CONSIST OF ONE (1) OR MORE PALLET

(SPECIAL NOTES CONTINUED)

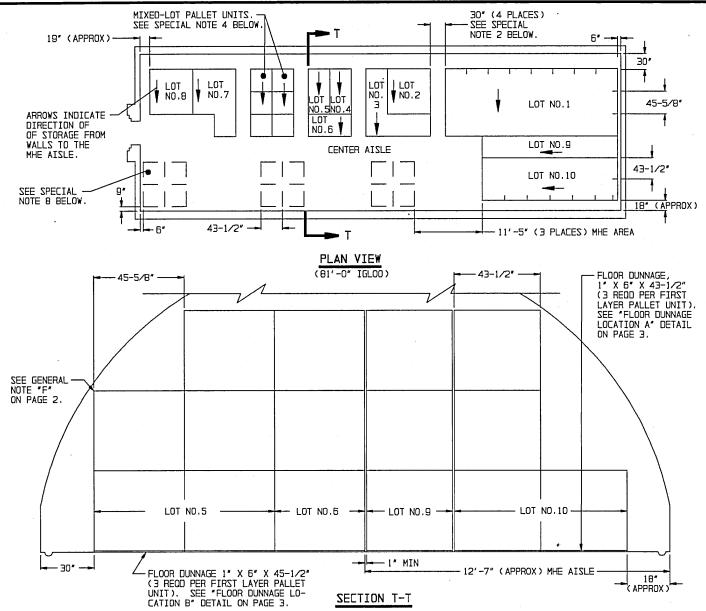
UNITS, PROVIDING THE CAPACITY OF THE MHE PERMITS, AND SAFE HANDLING IS NOT JEOPARDIZED.

- 5. FOR STORAGE OF MULTIPLE LOTS, THE DISTANCE FROM THE SIDEWALL WILL BE BASED ON THE OVERHEAD CLEARANCE REQUIRED FOR MHE.
- 6. WHEN TWO LOTS ARE STORED ADJACENT TO EACH OTHER, THEY SHOULD BE SEPARATED BY AT LEAST 1" TO PROVIDE CLEARANCE FOR REMOVAL OF EITHER LOT.
- 7. A 13'-B' MHE OPERATING AREA HAS BEEN SHOWN, THE MHE OPERATING AREA CAN BE ENLARGED AS REQUIRED TO SUIT AVAILABLE FORKLIFT TRUCK, AND SHOULD BE MADE SMALLER IF AVAILABLE MHE PERMITS. A "CENTER AISLE" (SPACE BETWEEN STORAGE ON EACH SIDE OF THE MAGAZINE) IS TO BE AT LEAST 48 INCHES WIDE. AN AISLE SLIGHTLY WIDER THAN 48 INCHES WILL ENHANCE FORKLIFT TRUCK MOVEMENT WITHIN A MAGAZINE; HOWEVER, THIS AISLE SHOULD NOT BE MADE WIDER IF A LOSS IN STORAGE RESULTS.

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PAGE 24

TYPICAL MULTIPLE-LOT STORAGE IN IGLOO AND ARCH TYPE MAGAZINES



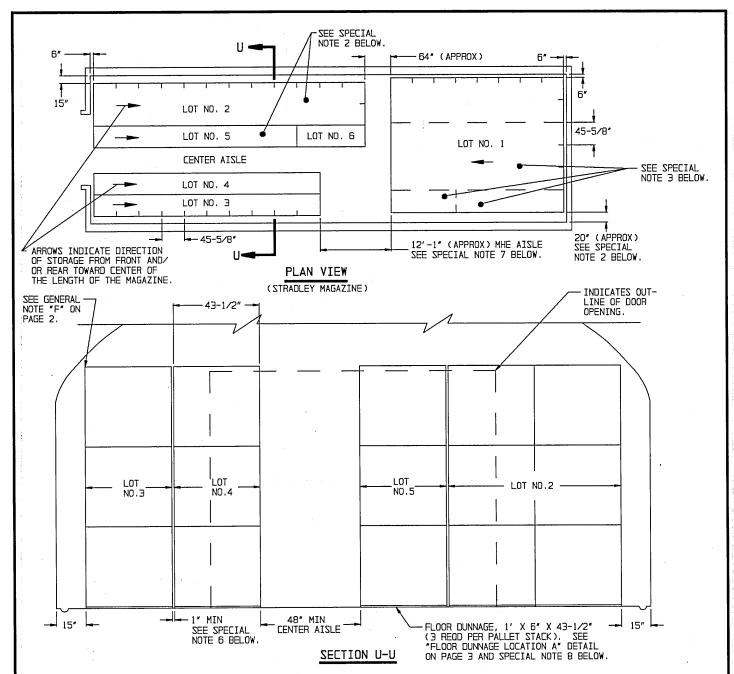
- THE STORAGE PLANS AND CONFIGURATIONS SHOWN ON THIS PAGE ARE TYPICAL ONLY AND APPLY TO STORAGE OF NUMEROUS SMALL LOTS. ADAPTATIONS MAY BE MADE AS NUMBER AND SIZES OF LOTS TO BE STORED IN MAGAZINE REQUIRE.
- 2. AN INSPECTION/INVENTORY AISLE NOT LESS THAN 18" WIDE MUST BE PROVIDED AT ONE SIDE OR END OF EACH LOT.
- 3. GENERALLY, THE LARGEST LOT SHOULD BE STORED IN THE REAR OF THE MAGAZINE. HOWEVER, THE REAR AREA MAY BE USED TO STORE MORE THAN ONE LOT BY ERECTING STACKS SIMILAR TO THOSE SHOWN IN THE FRONTAL AREA. AN MHE AISLE WILL BE REQUIRED ON ONE SIDE OF THE MAGAZINE, AND EACH LOT MUST BE ACCESSIBLE FOR REMOVAL AND INSPECTION/INVENTORY IN ACCORDANCE WITH OTHER CRITERIA SPECIFIED IN THESE SPECIAL NOTES AND IN THE GENERAL NOTES ON PAGE 2.
- 4. A MIXED-LOT PALLET UNIT MAY HAVE FROM TWO LOTS PER PALLET UNIT UPWARDS TO AS MANY DIFFERENT LOTS AS COMPLETE ROUNDS WITHIN THAT UNIT. HOWEVER, ALL COMPLETE ROUNDS AND LOTS WITHIN THE PALLET UNIT MUST HAVE THE SAME NATIONAL STOCK NUMBER AND CONDITION CODE.
- 5. EACH LOT WITHIN THE MAGAZINE MUST BE ACCESSIBLE FOR MOVE-MENT BY MHE. PALLET UNITS OF A SINGLE-LOT OR MIXED-LOT PALLET UNITS ARE CONSIDERED "ACCESSIBLE" IF NO MORE THAN TWELVE (12) "LIFTS" OF ANOTHER LOT OR LOTS HAVE TO BE MADE TO GAIN ACCESS TO THE SINGLE-LOT OR MIXED-LOT UNITS.

(CONTINUED AT RIGHT)

(SPECIAL NOTES CONTINUED)

- A "LIFT" MAY CONSIST OF ONE (1) OR MORE PALLET UNITS, PRO-VIDING THE CAPACITY OF THE MHE PERMITS AND SAFE HANDLING IS NOT JEOPARDIZED.
- 6. FOR STORAGE OF MULTIPLE LOTS, THE DISTANCE FROM THE SIDEWALL WILL BE BASED ON THE OVERHEAD CLEARANCE REQUIRED FOR MHE.
- WHEN TWO LOTS ARE STORED ADJACENT TO EACH OTHER, THEY SHOULD BE SEPARATED BY AT LEAST 1" TO PROVIDE CLEARANCE FOR REMOVAL OF EITHER LOT.
- B. AREAS ENCLOSED BY DOTTED LINES INDICATE LOCATIONS WHERE ADDITIONAL LOTS MAY BE STORED OR WHERE ADDITIONAL ITEMS MAY BE STORED, THAT ARE FROM THE LOT OR LOTS WHICH ARE DIRECTLY OR ALMOST DIRECTLY ACROSS THE CENTER AISLE ON THE OTHER SIDE OF THE MAGAZINE. COMPLIANCE WITH ALL OF THE MULTIPLE LOT CRITERIA AS SET FORTH ON THIS PAGE MUST BE OBSERVED. THE SIZE OF THE LOTS BEING STORED AND THE CRITERIA OF SPECIAL NOTE 5, RELATIVE TO "12 LIFTS", WILL BE MAJOR FACTORS IMPACTING ON THE NUMBER OF UNITS THAT CAN BE STORED IN AN "ADDITIONAL STORAGE LOCATION". AN 11'-5" MHE OPERATING AREA HAS BEEN SPECIFIED FOR ACCESS TO EACH "ADDITIONAL STORAGE LOCATION" BY FORKLIFT TRUCK. THE MHE OPERATING AREA CAN BE MADE SMALLER IF AVAILABLE MHE PERMITS. A "CENTER AISLE" (SPACE BETWEEN STORAGE ON ONE SIDE OF A MAGAZINE AND AN "ADDITIONAL STORAGE LOCATION") IS TO BE AT LEAST 48 INCHES WIDE. AN AISLE SLIGHTLY WIDER THAN 48 INCHES WILL ENHANCE FORKLIFT TRUCK MOVEMENT WITHIN A MAGAZINE; HOWEVER, THIS AISLE SHOULD NOT BE MADE WIDER IF A LOSS IN STORAGE RESULTS.

TYPICAL MULTIPLE-LOT STORAGE IN IGLOD AND ARCH TYPE MAGAZINES



PAGE 26

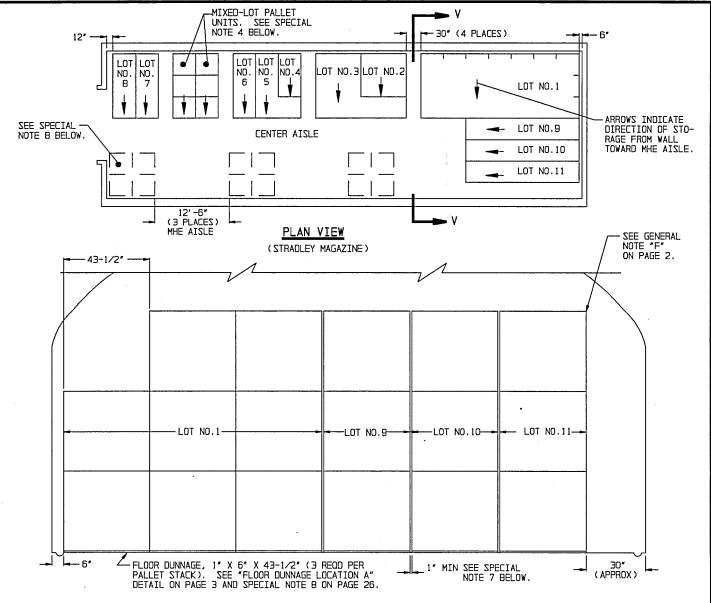
- THE STORAGE PLANS AND CONFIGURATIONS SHOWN ON THIS PAGE ARE TYPICAL ONLY AND APPLY TO STORAGE OF RELATIVELY LARGE LOTS ADAPTATIONS MAY BE MADE AS NUMBER AND SIZES OF LOTS TO BE STORED IN MAGAZINE REQUIRE.
- 2. AN INSPECTION/INVENTORY AISLE MUST BE PROVIDED AT ONE SIDE OR END OF EACH LOT.
- 3. GENERALLY, THE LARGEST LOT SHOULD BE STORED IN THE REAR OF THE MAGAZINE. HOWEVER, THE REAR AREA MAY BE USED TO STORE MORE THAN ONE LOT BY ERECTING ROWS SIMILAR TO THOSE SHOWN IN THE FRONTAL AREA. A CENTER AISLE WILL NOT BE REQUIRED IN THE REAR AREA AS LONG AS EACH LOT IS ACCESSIBLE FOR REMOVAL AND INSPECTION/INVENTORY IN ACCORDANCE WITH OTHER CRITERIA SPECIFIED IN THESE SPECIAL NOTES AND IN THE GENERAL NOTES ON PAGE 2.
- 4. EACH LOT WITHIN THE MAGAZINE MUST BE ACCESSIBLE FOR MOVEMENT BY MHE. A SINGLE-LOT OF PALLET UNITS IS CONSIDERED "ACCESSIBLE" IF NOT MORE THAN TWELVE (12) "LIFTS" OF ANOTHER LOT OR LOTS HAVE TO BE MADE TO GAIN ACCESS TO THAT LOT. A "LIFT" MAY CONSIST OF ONE (1) OR MORE PALLET UNITS, PROVIDING THE CAPACITY OF MHE PERMITS, AND SAFE HANDLING IS NOT JEOPARDIZED.

(SPECIAL NOTES CONTINUED)

- 5. FOR STORAGE OF MULTIPLE LOTS, THE DISTANCE FROM THE SIDEWALL WILL BE BASED ON THE OVERHEAD CLEARANCE REQUIRED FOR MHE.
- 6. WHEN TWO LOTS ARE STORED ADJACENT TO EACH OTHER, THEY SHOULD BE SEPARATED BY AT LEAST 1" TO PROVIDE CLEARANCE FOR REMOVAL OF EITHER LOT.
- 7. A 12'-1" MHE OPERATING AREA IS SHOWN. THE MHE OPERATING AREA CAN BE ENLARGED AS REOUTRED TO SUIT AVAILABLE FORKLIFT TRUCKS AND SHOULD BE MADE SMALLER IF AVAILABLE MHE PERMITS. A "CENTER AISLE" (SPACE BETWEEN STORAGE ON EACH SIDE OF THE MAGAZINE) IS TO BE AT LEAST 48" WIDE. A SLIGHTLY WIDER AISLE WILL ENHANCE FORKLIFT TRUCK MOVEMENT WITHIN A MAGAZINE; HOWEVER, THIS AISLE SHOULD NOT BE MADE WIDER IF A LOSS IN STORAGE RESULTS.
- B. WHEN STORING MULTIPLE LOTS IN OVAL ARCH OR STEEL ARCH MAGAZINES, FLOOR DUNNAGE MUST BE POSITIONED LENGTHWISE IN THE MAGAZINE AS SHOWN IN THE SECTION VIEWS ON PAGE 16. REFER TO THE APPLICABLE FLOOR DUNNAGE LOCATION DETAIL ON PAGE 3 FOR GUIDANCE.

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TYPICAL MULTIPLE-LOT STORAGE IN STRADLEY, STEEL ARCH, AND OVAL ARCH TYPE MAGAZINES



SECTION V-V

(SPECIAL NOTES CONTINUED)

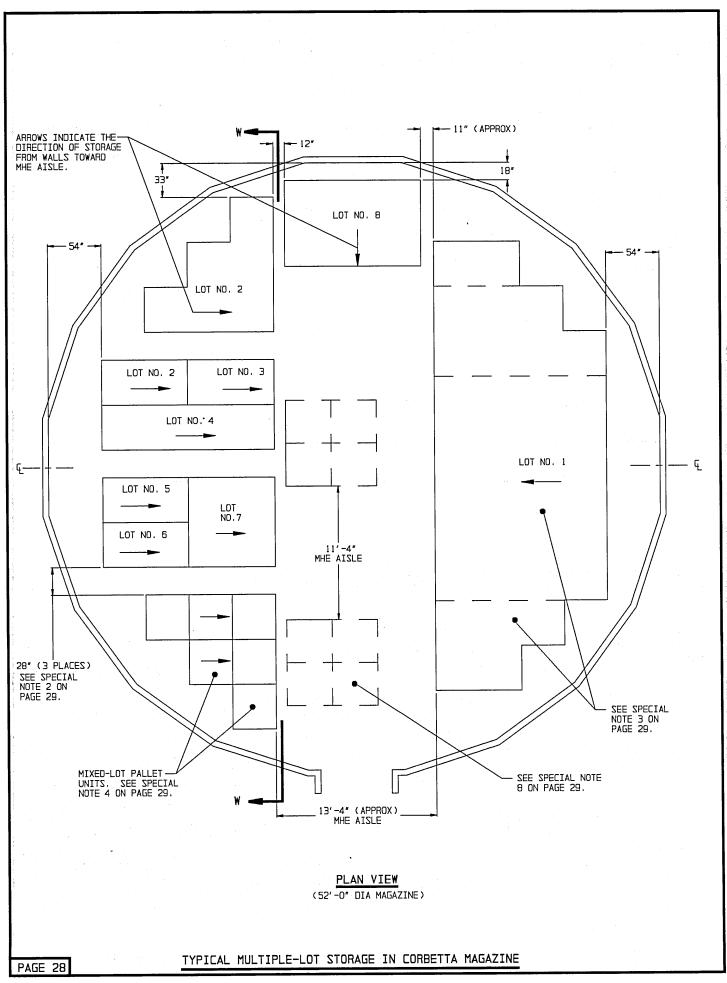
- THE STORAGE PLANS AND CONFIGURATIONS SHOWN ON THIS PAGE ARE TYPICAL ONLY AND APPLY TO STORAGE OF NUMEROUS SMALL LOTS. ADAPTATIONS MAY BE MADE AS NUMBER AND SIZES OF LOTS TO BE STORED IN MAGAZINE REQUIRE.
- AN INSPECTION/INVENTORY AISLE NOT LESS THAN 18" WIDE MUST BE PROVIDED AT ONE SIDE OR END OF EACH LOT.
- 3. GENERALLY, THE LARGEST LOT SHOULD BE STORED IN THE REAR OF THE MAGAZINE. HOWEVER, THE REAR AREA MAY BE USED TO STORE MORE THAN ONE LOT BY ERECTING STACKS SIMILAR TO THOSE SHOWN IN THE FRONTAL AREA. AN MHE AISLE WILL BE REQUIRED ON ONE SIDE OF THE MAGAZINE, AND EACH LOT MUST BE ACCESSIBLE FOR REMOVAL AND INSPECTION/INVENTORY IN ACCORDANCE WITH OTHER CRITERIA SPECIFIED IN THESE SPECIAL NOTES AND IN THE GENERAL NOTES ON PAGE 2.
- 4. A MIXED-LOT PALLET UNIT MAY HAVE FROM TWO LOTS PER PALLET UNIT UPWARDS TO AS MANY DIFFERENT LOTS AS COMPLETE ROUNDS WITHIN THAT UNIT. HOWEVER, ALL COMPLETE ROUNDS AND LOTS WITHIN THE PALLET UNIT MUST HAVE THE SAME NATIONAL STOCK NUMBER AND CONDITION CODE.
- 5. EACH LOT WITHIN THE MAGAZINE MUST BE ACCESSIBLE FOR MOVEMENT BY MHE. PALLET UNITS OF A SINGLE-LOT OR MIXED-LOT PALLET UNITS ARE CONSIDERED "ACCESSIBLE" IF NO MORE THAN TWELVE (12) "LIFTS" OF ANOTHER LOT OR LOTS HAVE TO BE MADE TO GAIN ACCESS TO THE SINGLE-LOT OR MIXED-LOT UNITS. A "LIFT" MAY CONSIST OF ONE (1) OR MORE PALLET

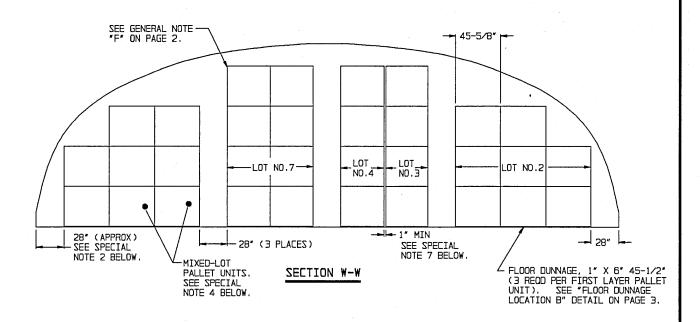
(CONTINUED AT RIGHT)

- UNITS, PROVIDING THE CAPACITY OF THE MHE PERMITS AND SAFE HAND-LING IS NOT FORWARDIZED.
- FOR STORAGE OF MULTIPLE LOTS, THE DISTANCE FROM THE SIDEWALL WILL BE BASED ON THE OVERHEAD CLEARANCE REQUIRED FOR MHE.
- WHEN TWO LOTS ARE STORED ADJACENT TO EACH OTHER, THEY SHOULD BE SEPARATED BY AT LEAST 1" TO PROVIDE CLEARANCE FOR REMOVAL OF EITHER LOT.
- 8. AREAS INCLOSED BY DOTTED LINES INDICATE LOCATIONS WHERE ADDITIONAL LOTS MAY BE STORED OR WHERE ADDITIONAL ITEMS MAY BE STORED, THAT ARE FROM THE LOT OR LOTS WHICH ARE DIRECTLY OR ALMOST DIRECTLY ACROSS THE CENTER AISLE ON THE OTHER SIDE OF THE MAGAZINE. COMPLIANCE WITH ALL OF THE MULTIPLE LOT CRITERIA AS SET FORTH ON THIS PAGE MUST BE OBSERVED. THE SIZE OF THE LOTS BEING STORED AND THE CRITERIA OF SPECIAL NOTE 5 RELATIVE TO '12 LIFTS', WILL BE MAJOR FACTORS IMPACTING ON THE NUMBER OF UNITS THAT CAN BE STORED IN AN "ADDITIONAL STORAGE LOCATION". MORE OR FEWER STACKS THAN SHOWN MAY BE STORED AT ANY ONE OF THE ADDITIONAL STORAGE LOCATIONS. A 12'-5" MHE OPERATING AREA HAS BEEN SPECIFIED FOR ACCESS TO EACH "ADDITIONAL STORAGE LOCATION" BY FORKLIFT TRUCK, THE MHE OPERATING AREA CAN BE ENLARGED TO SUIT AVAILABLE FORKLIFT TRUCKS, AND SHOULD BE MADE SMALLER IF AVAILABLE MHE PERMITS.

 A "CENTER AISLE" (SPACE BETWEEN STORAGE ON ONE SIDE OF A MAGAZINE AND AN "ADDITIONAL STORAGE LOCATION") IS TO BE AT LEAST 48 INCHES WIDE. AN AISLE SLIGHTLY WIDER THAN 48 INCHES WILL ENHANCE FORKLIFT TRUCK MOVEMENT WITHIN A MAGAZINE; HOWEVER, THIS AISLE SHOULD NOT BE MADE WIDER IF A LOSS IN STORAGE RESULTS.

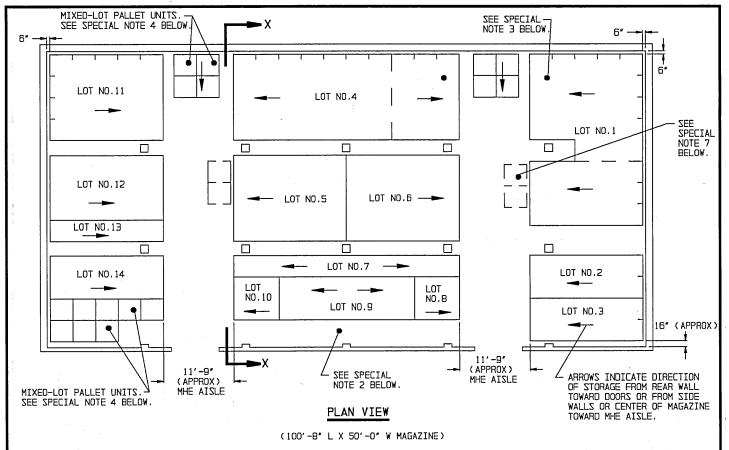
TYPICAL MULTIPLE-LOT STORAGE IN STRADLEY, STEEL ARCH AND OVAL ARCH TYPE MAGAZINES

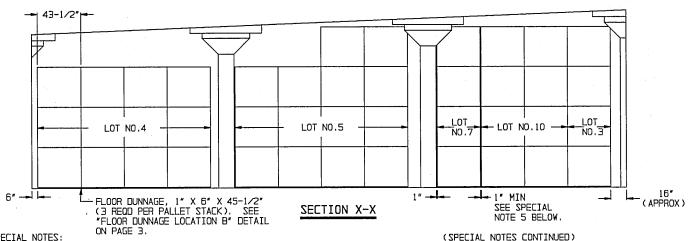




- THE STORAGE PLANS AND CONFIGURATIONS SHOWN ARE TYPICAL ONLY. ADAPTATIONS MAY BE MADE AS NUMBER AND SIZES OF LOTS TO BE STORED IN MAGAZINE REQUIRE.
- 2. AN INSPECTION/INVENTORY AISLE NOT LESS THAN 18" WIDE MUST BE PROVIDED AT ONE SIDE OF EACH LOT.
- 3. GENERALLY, THE LARGEST LOT SHOULD BE STORED ON ONE SIDE OF THE MAGAZINE. HOWEVER, BOTH SIDES MAY BE USED TO STORE MORE THAN ONE LOT BY ERECTING STACKS SIMILAR TO THOSE SHOWN ON THE LEFT SIDE. AN MHE AISLE WILL BE REQUIRED IN THE CENTER OF THE MAGAZINE, AND EACH LOT MUST BE ACCESSIBLE FOR REMOVAL AND INSPECTION/INVENTORY IN ACCORDANCE WITH OTHER CRITERIA SPECIFIED IN THESE SPECIAL NOTES AND IN THE GENERAL NOTES ON PAGE 2.
- 4. A MIXED-LOT PALLET UNIT MAY HAVE FROM TWO LOTS PER PAL-LET UNIT UPWARDS TO AS MANY DIFFERENT LOTS AS COMPLETE
 - ROUNDS WITHIN THAT UNIT. HOWEVER, ALL COMPLETE ROUNDS AND LOTS WITHIN THE PALLET UNIT MUST HAVE THE SAME NATIONAL STOCK NUMBER AND CONDITION CODE.
- 5. EACH LOT WITHIN THE MAGAZINE MUST BE ACCESSIBLE FOR MOVEMENT BY MHE. PALLET UNITS OF A SINGLE-LOT OR MIXED-LOT PALLET UNITS ARE CONSIDERED "ACCESSIBLE" IF NOT MORE THAN TWELVE (12) "LIFTS" OF ANOTHER LOT OR LOTS HAVE TO BE MADE TO GAIN ACCESS TO THE SINGLE-LOT OR MIXED-LOT UNITS. A "LIFT" MAY CONSIST OF ONE (1) OR TWO (2) PALLET UNITS, PROVIDING THE CAPACITY OF THE MHE PERMITS, AND SAFE HANDLING IS NOT JEOPARDIZED.
- FOR STORAGE OF MULTIPLE LOTS, THE DISTANCE FROM THE WALL WILL BE BASED ON THE OVERHEAD CLEARANCE REQUIRED FOR MHE.
- 7. WHEN TWO LOTS ARE STORED ADJACENT TO EACH OTHER, THEY SHOULD BE SEPARATED BY AT LEAST 1" TO PROVIDE CLEARANCE FOR REMOVAL OF EITHER LOT.

B. AREAS ENCLOSED BY DOTTED LINES INDICATE LOCATIONS WHERE ADDITIONAL LOTS OR ADDITIONAL ITEMS THAT ARE FROM A LOT OR LOTS ADJACENT TO THE MHE AISLE MAY BE STORED. COMPLIANCE WITH ALL OF THE MULTIPLE LOT CRITERIA AS SET FORTH ON THIS PAGE MUST BE OBSERVED. THE SIZE OF THE LOTS BEING STORED AND THE CRITERIA OF SPECIAL NOTE 5, RELATIVE TO "12 LIFTS", WILL BE MAJOR FACTORS IMPACTING ON THE NUMBER OF UNITS THAT CAN BE STORED IN AN "ADDITIONAL STORAGE LOCATION". MORE OR FEWER STACKS THAN SHOWN MAY BE STORED AT ANY ONE OF THE ADDITIONAL STORAGE LOCATIONS. AN 11'-4" MHE OPERATING AREA HAS BEEN SPECIFIED FOR ACCESS TO EACH "ADDITIONAL STORAGE LOCATION" BY FORKLIFT TRUCK. THIS OPERATING AREA IS BASED ON REQUIREMENTS OF FORKLIFT TRUCKS COMMONLY USED IN STORAGE MAGAZINES. THE MHE OPERATING AREA CAN BE ENLARGED AS REQUIRED TO SUIT AVAILABLE FORKLIFT TRUCKS, AND SHOULD BE MADE SMALLER IF AVAILABLE MHE PERMITS. A "CENTER AISLE" (SPACE BETWEEN STORAGE DO ONE SIDE OF THE MAGAZINE AND AN "ADDITIONAL STORAGE LOCATION" IS TO BE AT LEAST 48 INCHES WIDE. AN AISLE SLIGHTLY WIDER THAN 48 INCHES WILL ENHANCE FORKLIFT TRUCK MOVEMENT WITHIN A MAGAZINE; HOWEVER, THIS AISLE SHOULD NOT BE MADE WILLER IF A LOSS IN STORAGE RESULTS.





- SPECIAL NOTES:
- THE STORAGE PLANS SHOWN ARE TYPICAL ONLY. ADAPTATIONS MAY BE MADE AS NUMBER AND SIZES OF LOTS TO BE STORED IN MAGAZINE REQUIRE.
- AN INSPECTION/INVENTORY AISLE NOT LESS THAN 18" WIDE MUST BE PROVIDED AT ONE SIDE OR END OF EACH LOT.
- GENERALLY, THE LARGEST LOT SHOULD BE STORED IN THE REAR OR ON ONE SIDE OF THE MAGAZINE. HOWEVER, THESE AREAS MAY BE USED TO STORE MORE THAN ONE LOT BY ERECTING ROWS SIMI-Э. LAR TO THOSE SHOWN IN THE CENTER AREA OR AS TYPICALLY IN-INDICATED BY DOTTED LINES. EACH ADDITIONAL LOT MUST BE ACCESSIBLE FOR REMOVAL AND INSPECTION/INVENTORY IN ACCOR-DANCE WITH OTHER CRITERIA SPECIFIED IN THESE SPECIAL NOTES AND IN THE GENERAL NOTES ON PAGE 2.
- A MIXED-LOT PALLET UNIT MAY HAVE FROM TWO LOTS PER PALLET UNIT UPWARDS TO AS MANY DIFFERENT LOTS AS COMPLETE ROUNDS WITHIN THAT UNIT. HOWEVER, ALL COMPLETE ROUNDS AND LOTS WITHIN THE PALLET UNIT MUST HAVE THE SAME NATIONAL STOCK 4. NUMBER AND CONDITION CODE.

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- WHEN TWO LOTS ARE STORED ADJACENT TO EACH OTHER THEY SHOULD BE SEPARATED BY AT LEAST 1" TO PROVIDE CLEARANCE FOR REMOVAL OF EITHER LOT.
- EACH LOT WITHIN THE MAGAZINE MUST BE ACCESSIBLE FOR MOVEMENT BY MHE. PALLET UNITS OF A SINGLE-LOT OR MIXED-LOT PALLET UNITS ARE CONSIDERED "ACCESSIBLE" IF NOT MORE THAN TWENTY-FOUR (24) TLIFTS" OF ANOTHER LOT OR LOTS HAVE TO BE MADE TO GAIN ACCESS TO THE SINGLE-LOT OR MIXED-LOT UNITS. A "LIFT" MAY CONSIST OF ONE (1) OR MORE PALLET UNITS, PROVIDING THE CAPACITY OF THE MHE PERMITS, AND SAFE HANDLING IS NOT JEOPARDIZED.
 - AREAS ENCLOSED BY DOTTED LINES INDICATE LOCATIONS WHERE ADDI-AREAS ENCLOSED BY DOTTED LINES INDICATE LOCATIONS WHERE ADDITIONAL LOTS OR ADDITIONAL ITEMS, THAT ARE FROM A LOT OR LOTS ADJACENT TO THE MHE AISLE, MAY BE STORED. ADDITIONAL STACKS CAN BE POSITIONED BESIDE THOSE SHOWN; HOWEVER, THE SPACE BETWEEN THE LATERALLY ADJACENT STORED UNITS MUST BE AT LEAST THREE INCHES (3") WIDER THAN THE WIDEST UNIT WHICH MUST PASS THRU. THE SIZE OF THE LOTS BEING STORED AND THE CRITERIA OF SPECIAL NOTE 6, RELATIVE TO "24 LIFTS", WILL BE MAJOR FACTORS IMPACTING ON THE NUMBER OF PALLET UNITS THAT CAN BE STORED IN AN "ADDITIONAL STORAGE LOCATION". ALSO COMPLIANCE WITH ALL OF THE MULTIPLE-LOT CRITERIA AS SET FORTH ON THIS PAGE MUST BE OBSERVED.

TYPICAL MULTIPLE-LOT STORAGE IN RECTANGULAR MAGAZINE