

# STORAGE IN 60' & 80' IGLOO, 80' STRADLEY, AND 89' OVAL-ARCH MAGAZINES OF M23 CHEMICAL MINES PACKED 12 DRUMS (36 MINES) PER 4-WAY (PARTIAL) PALLET AND / OR OTHER CONFIGURATIONS

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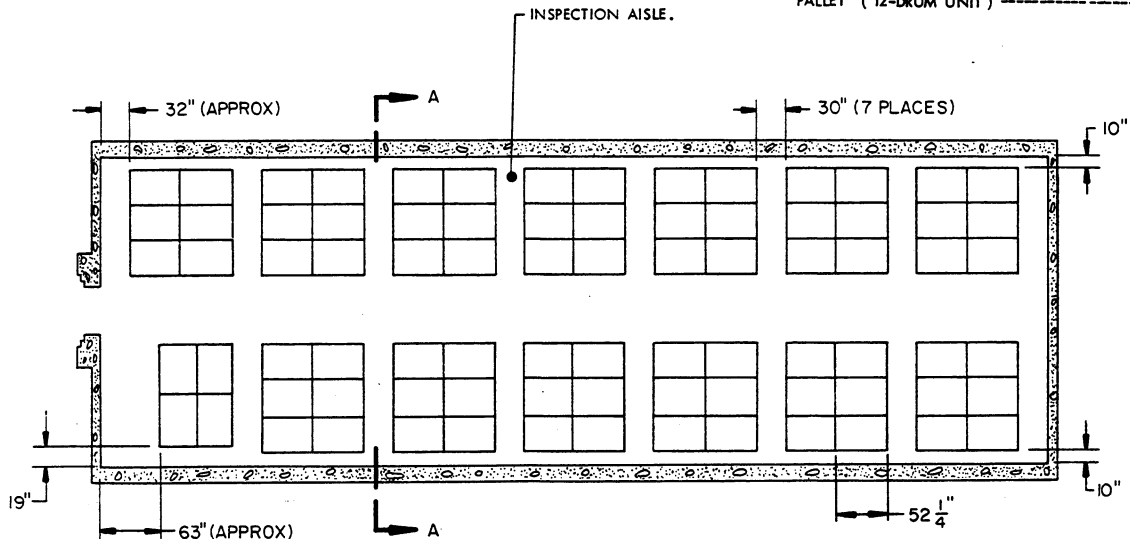
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REVISIONS		DATE	BY	FOR	APPROVED BY
1	DEC 76	JNW	Peter J. Chodera	REVISION	APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL DEVELOPMENT AND READINESS COMMAND (DARCOM)
2	OCT 79	KWJ	John L. Boyd	REVISION	APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL DEVELOPMENT AND READINESS COMMAND (DARCOM)
3	SEPT 80	KWJ	John L. Boyd	REVISION	APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL DEVELOPMENT AND READINESS COMMAND (DARCOM)
U. S. ARMY DARCOM DRAWING					
AUGUST 1976					
CLASS	DIVISION	DRAWING	FILE		
19	48	4043	CBI-14-22 C 2		

DO NOT SCALE

**STORAGE AS SHOWN  
80' IGLOO**

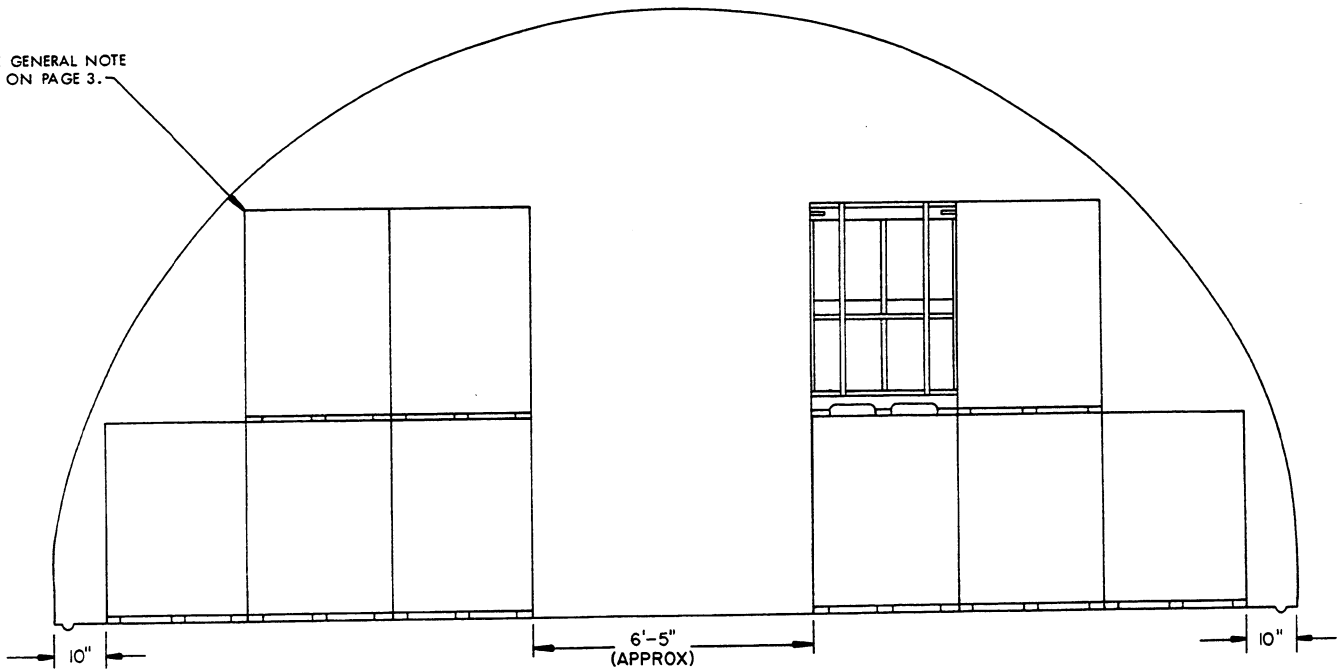
ITEM	QUANTITY
PALLET ( 12-DRUM UNIT )	134



**PLAN VIEW**

( 80' IGLOO )

SEE GENERAL NOTE  
"D" ON PAGE 3.



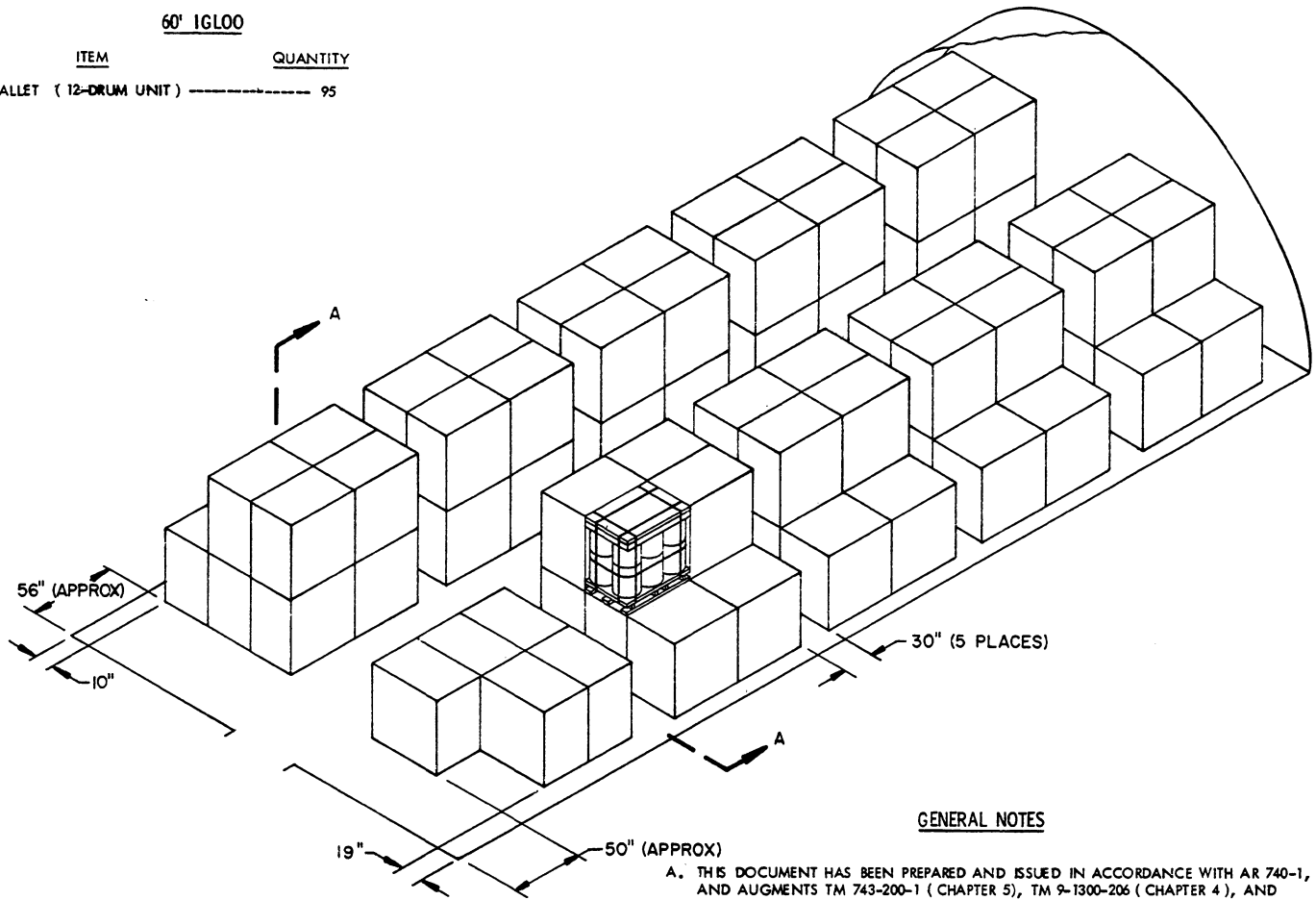
**SECTION A - A**

10 PALLET UNITS PER STACK

**STORAGE AS SHOWN**

**60' IGLOO**

ITEM	QUANTITY
PALLET ( 12-DRUM UNIT )	95



**ISOMETRIC VIEW**

( 60' IGLOO )

( GENERAL NOTES CONTINUED )

- H. OTHER COMPATIBLE ITEMS MAY BE STORED IN A MAGAZINE WHICH IS PARTIALLY FILLED WITH THE DESIGNATED ITEM.
- J. A COMBINATION OF MATERIAL HANDLING EQUIPMENT ( MHE ), SUCH AS FORKLIFT TRUCKS, PALLET JACKS, AND OTHER APPROVED EQUIPMENT, MAY BE USED TO PLACE AND/OR REMOVE UNITS WITHIN A STACK. IF SUITABLE MHE IS NOT AVAILABLE TO PERMIT PLACING AND/OR REMOVAL OPERATIONS WITHIN THE DESIGNATED CENTER AISLE, IT MAY BE NECESSARY TO OMIT ONE ROW OF UNITS ADJACENT TO THE CENTER AISLE TO GAIN ADDITIONAL OPERATING SPACE.
- K. REFER TO PAGE 26 FOR GUIDANCE RELATIVE TO LOT SEPARATION REQUIREMENTS WHEN STORING MULTIPLE LOTS WITHIN A MAGAZINE.
- L. THE STORAGE PROCEDURES DEPICTED FOR IGLOO MAGAZINES ARE ALSO APPLICABLE FOR STEEL ARCH MAGAZINES WHICH HAVE A SIMILAR CROSS SECTIONAL AREA.

**REVISIONS**

REVISION NO. 1, DATED DECEMBER 1976, CONSISTS OF:

1. ADDING NEW PROCEDURES FOR CRATED UNITS AND/OR NON-STANDARD PALLET UNITS.
2. UPDATING PROCEDURES FOR STANDARD 12-DRUM PALLET UNITS.
3. UPDATING MULTIPLE LOT STORAGE REQUIREMENTS.

REVISION NO. 2, DATED OCTOBER 1979, CONSISTS OF:

1. ADDING NEW DETAILED PROCEDURES FOR 16-DRUM PALLET UNITS.
2. UPDATING GENERAL NOTES.
3. DELETING GENERAL NOTE PREVIOUSLY APPLICABLE TO STORAGE OF 16-DRUM PALLET UNITS.

REVISION NO. 3, DATED SEPTEMBER 1980, CONSISTS OF:

1. ADDING NEW DETAILED PROCEDURES FOR 12-DRUM UNITS ON 40" X 48" PALLETS.
2. REMOVING DRAWING SUPERSESSION NOTE FROM COVER PAGE.

**GENERAL NOTES**

- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AR 740-1, AND AUGMENTS TM 743-200-1 ( CHAPTER 5 ), TM 9-1300-206 ( CHAPTER 4 ), AND TM 3-250.
- B. DETAILS:
  1. PALLET ( 12 DRUMS/ 35-1/2" X 52-1/4" PALLET AND 3 MINES/DRUM ):
    - DIMENSIONS ----- 52-1/4" LONG X 35-1/2" WIDE X 49-1/8" HIGH.
    - WEIGHT ----- 1,400 POUNDS ( APPROX ).
  2. CRATE ( 12 DRUMS/CRATE AND 3 MINES/DRUM ):
    - DIMENSIONS ----- 52-1/8" LONG X 36-3/4" WIDE X 52-5/8" HIGH.
    - WEIGHT ----- 1,510 POUNDS ( APPROX ).
  3. PALLET ( 16 DRUMS/PALLET AND 3 MINES/DRUM ):
    - DIMENSIONS ----- 51-1/2" LONG X 47" WIDE X 50" HIGH ( APPROX ).
    - WEIGHT ----- 2,000 POUNDS ( APPROX ).
  4. PALLET ( 12 DRUMS/40" X 48" PALLET AND 3 MINES/DRUM ):
    - ( IAW DARCOM DWG 19-48-4520-CB20PFI )
    - DIMENSIONS ----- 48" LONG X 44-3/4" WIDE X 50-5/8" HIGH.
    - WEIGHT ----- 1,650 POUNDS ( APPROX ).
- C. AISLE DIMENSIONS SHOWN IN THIS DRAWING MAY BE ADJUSTED TO SUIT LOCAL CONDITIONS AND/OR AVAILABLE MATERIALS HANDLING EQUIPMENT; HOWEVER, THIRTY-INCH ( 30" ) MINIMUM ACCESS AISLES WILL BE PROVIDED, AS SHOWN, UNLESS OTHERWISE INDICATED, TO FACILITATE INSPECTION.
- D. STORED UNITS MUST NOT CONTACT THE WALL OF A MAGAZINE. TO PROVIDE FOR THIS MANDATORY CLEARANCE REQUIREMENT, UNITS MAY BE ELIMINATED FROM THE DEPICTED STORAGE PATTERN AS NECESSARY.
- E. THE MAXIMUM FLOOR LOAD FOR A MAGAZINE, AS PRESCRIBED BY LOCAL STANDARDS, WILL NOT BE EXCEEDED.
- F. THE STORAGE PROCEDURES DEPICTED HEREIN FOR SPECIFIC TYPES OF MAGAZINES MAY ALSO BE UTILIZED TO STORE UNITS 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 COMPLIED WITH.
- G. THE MAGAZINE MUST COMPLY WITH ALL REQUIREMENTS AND BE APPROVED FOR THE STORAGE OF CHEMICAL ITEMS.

( CONTINUED AT LEFT )

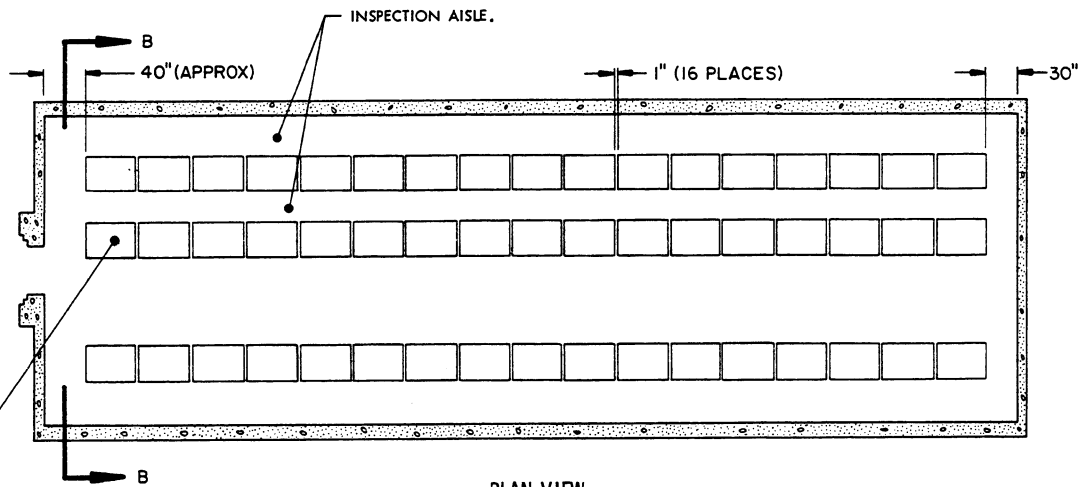
STORAGE AS SHOWN

80' IGLOO

ITEM

QUANTITY

CRATE ( 12-DRUM UNIT ) ----- 102

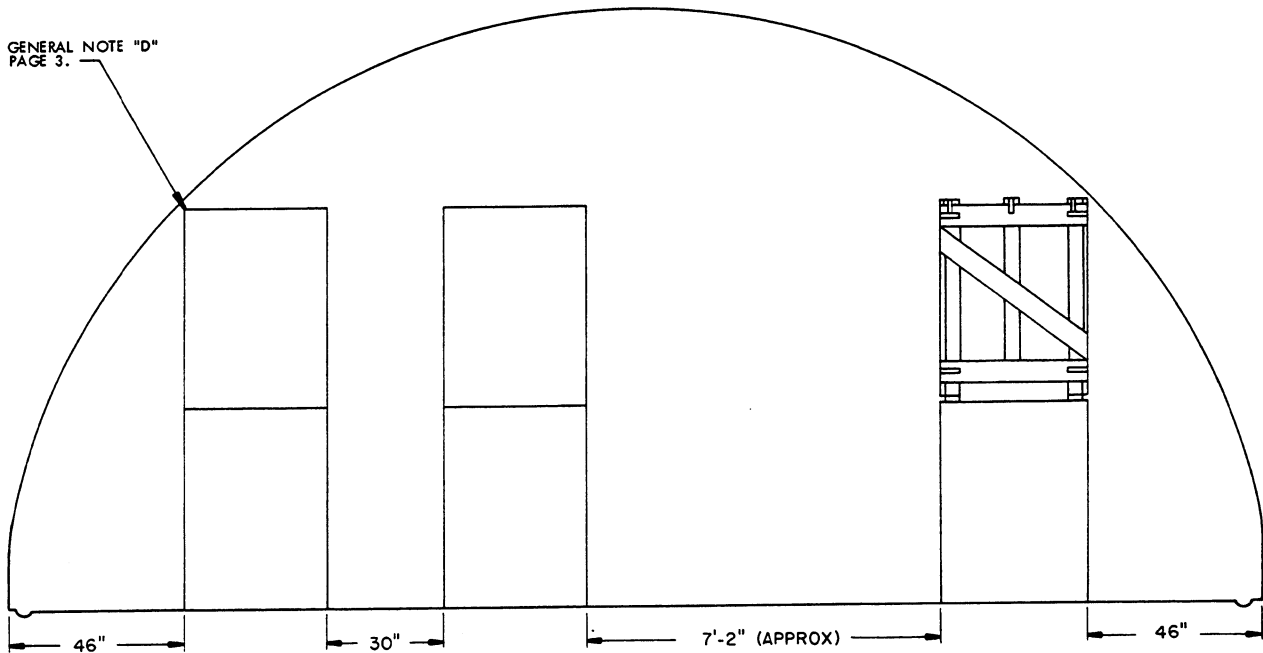


PLAN VIEW

( 80' IGLOO )

TO PROVIDE ADEQUATE OPERATING SPACE FOR MHE AT THE DOORWAY AREA, IT MAY BE NECESSARY TO OMIT THESE TWO UNITS.

SEE GENERAL NOTE "D" ON PAGE 3.



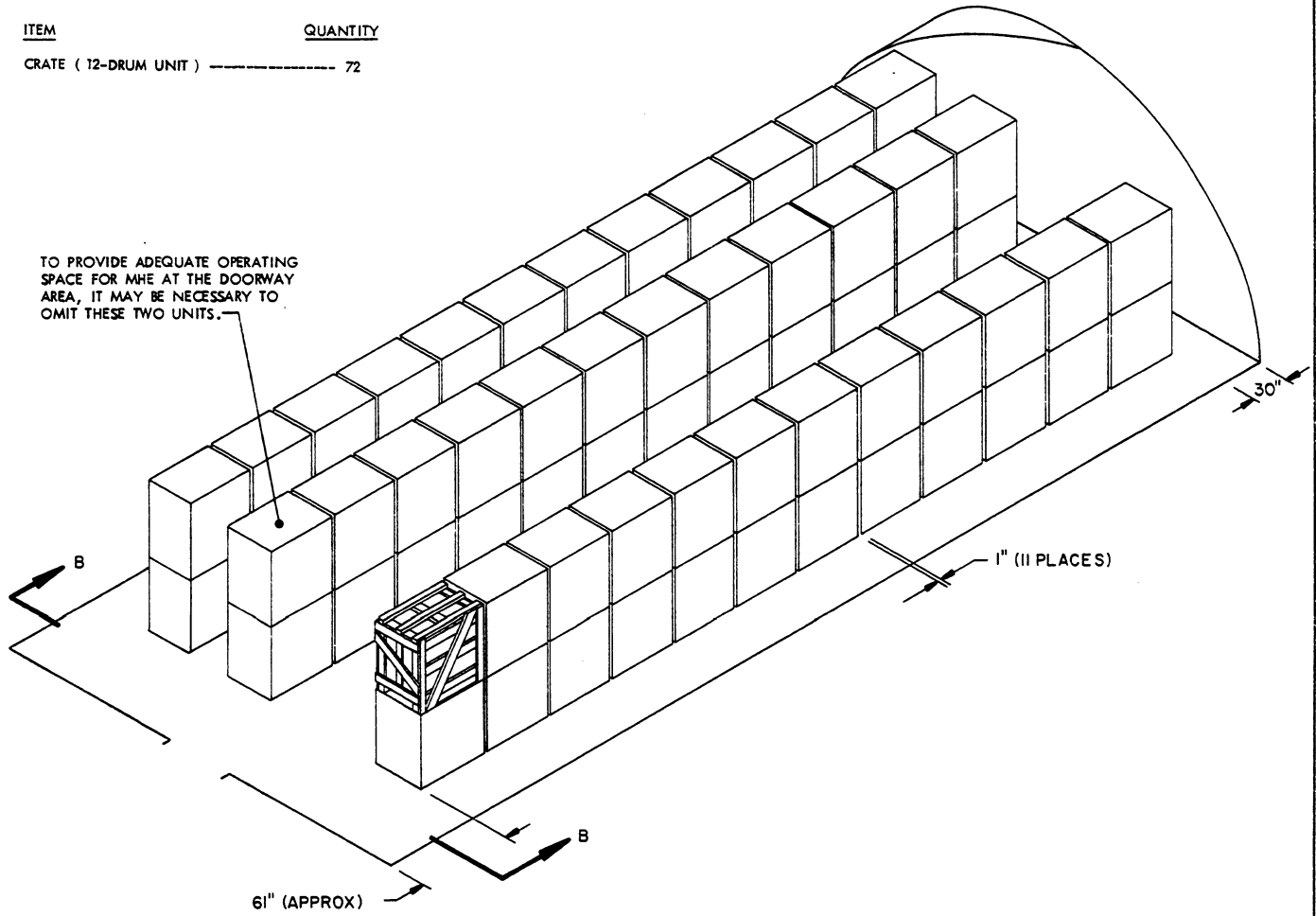
SECTION B-B

6 CRATED UNITS PER STACK.

STORAGE AS SHOWN

60' IGLOO

<u>ITEM</u>	<u>QUANTITY</u>
CRATE ( 12-DRUM UNIT ) -----	72



ISOMETRIC VIEW

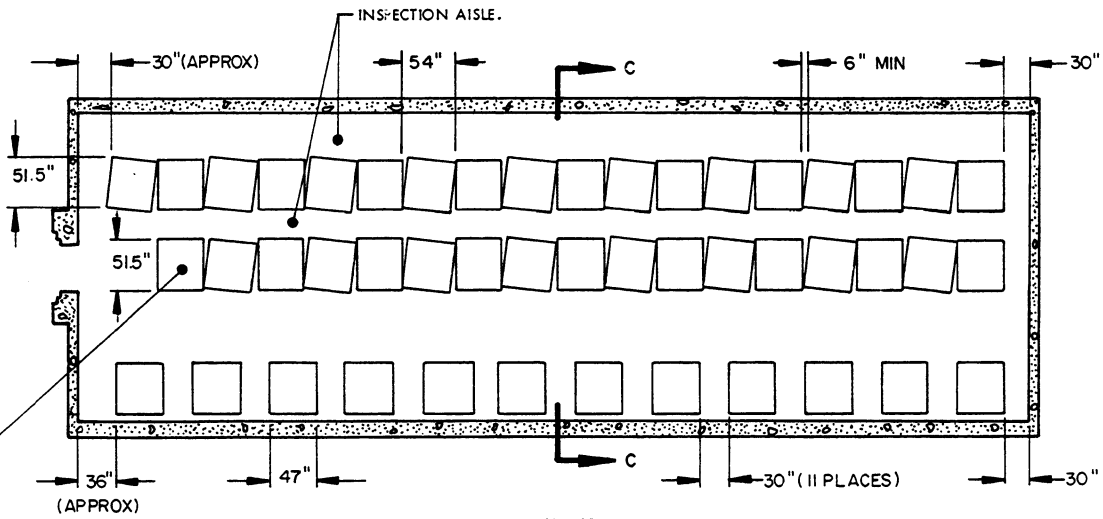
( 60' IGLOO )

SEE "GENERAL NOTES" ON PAGE 3.

STORAGE AS SHOWN

80' IGLOO

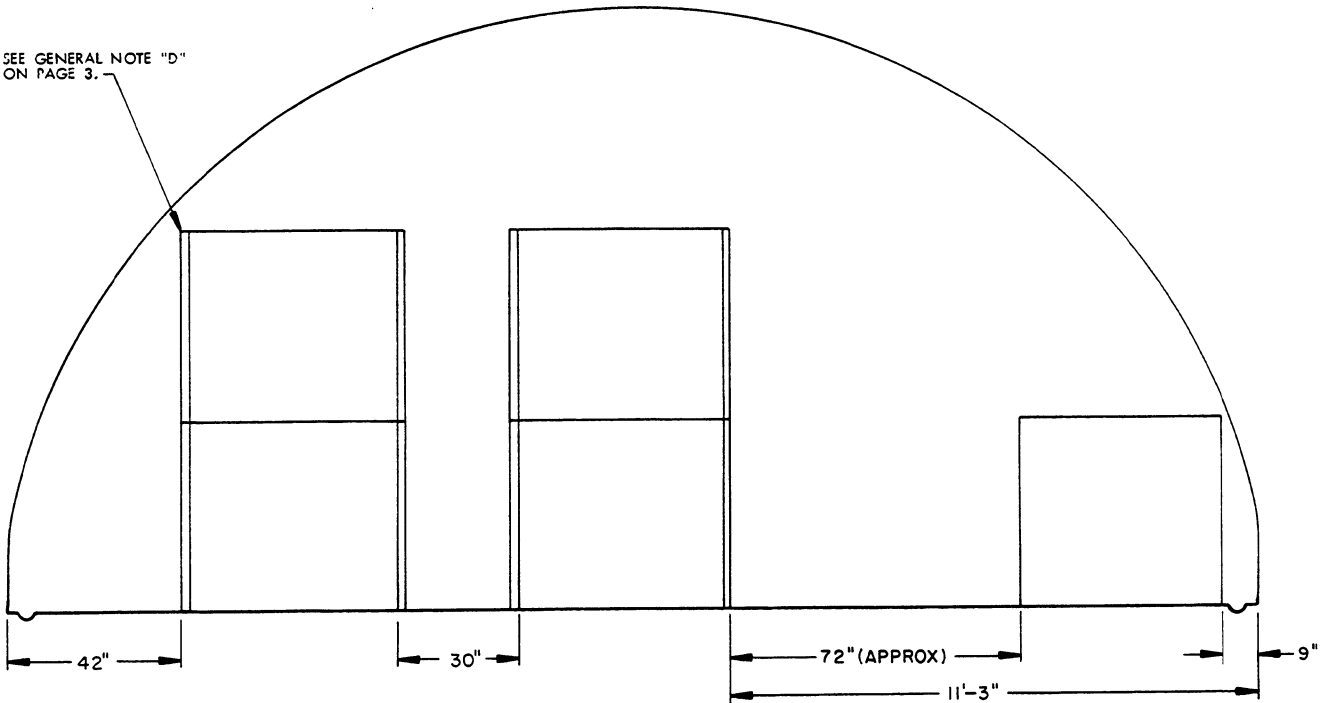
ITEM	QUANTITY
PALLET (16-DRUM UNIT)	82



PLAN VIEW  
(80' IGLOO)

TO PROVIDE ADEQUATE OPERATING SPACE FOR MHE AT THE DOORWAY AREA, IT MAY BE NECESSARY TO OMIT THESE TWO UNITS.

SEE GENERAL NOTE "D" ON PAGE 3.



SECTION C-C

STORAGE AS SHOWN

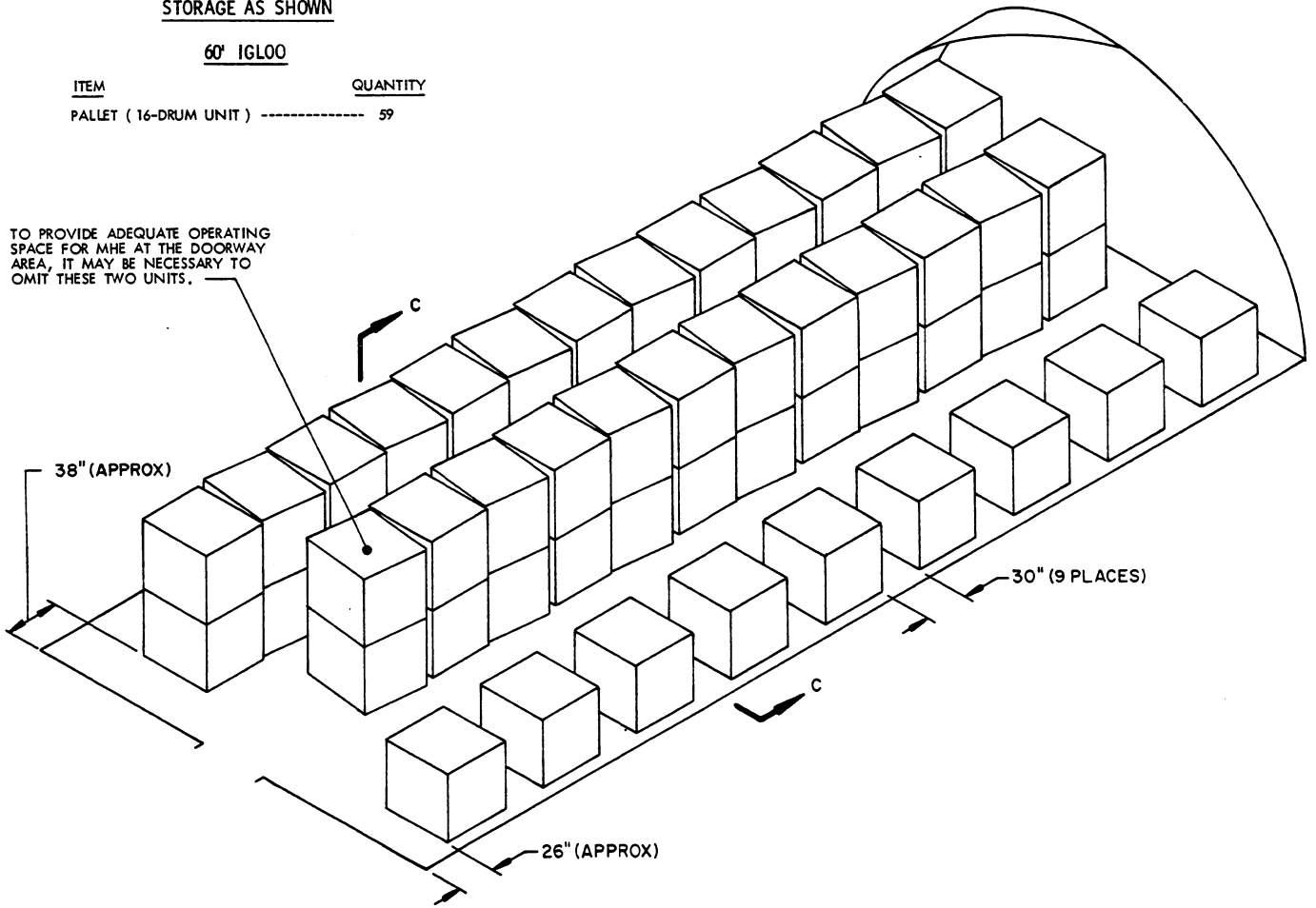
60' IGLOO

ITEM

QUANTITY

PALLET (16-DRUM UNIT) ----- 59

TO PROVIDE ADEQUATE OPERATING SPACE FOR MHE AT THE DOORWAY AREA, IT MAY BE NECESSARY TO OMIT THESE TWO UNITS.



ISOMETRIC VIEW

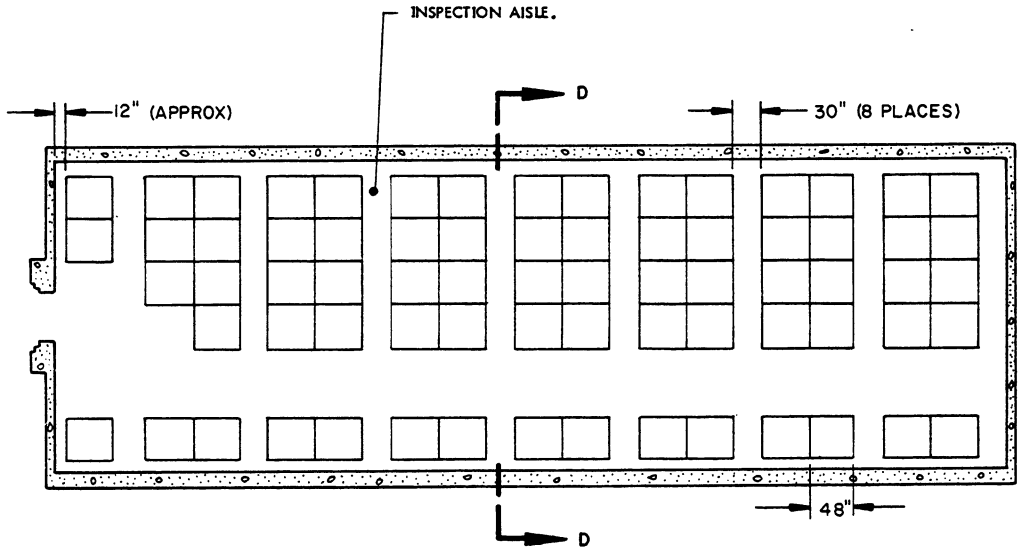
(60' IGLOO)

SEE "GENERAL NOTES" ON PAGE 3.

STORAGE AS SHOWN

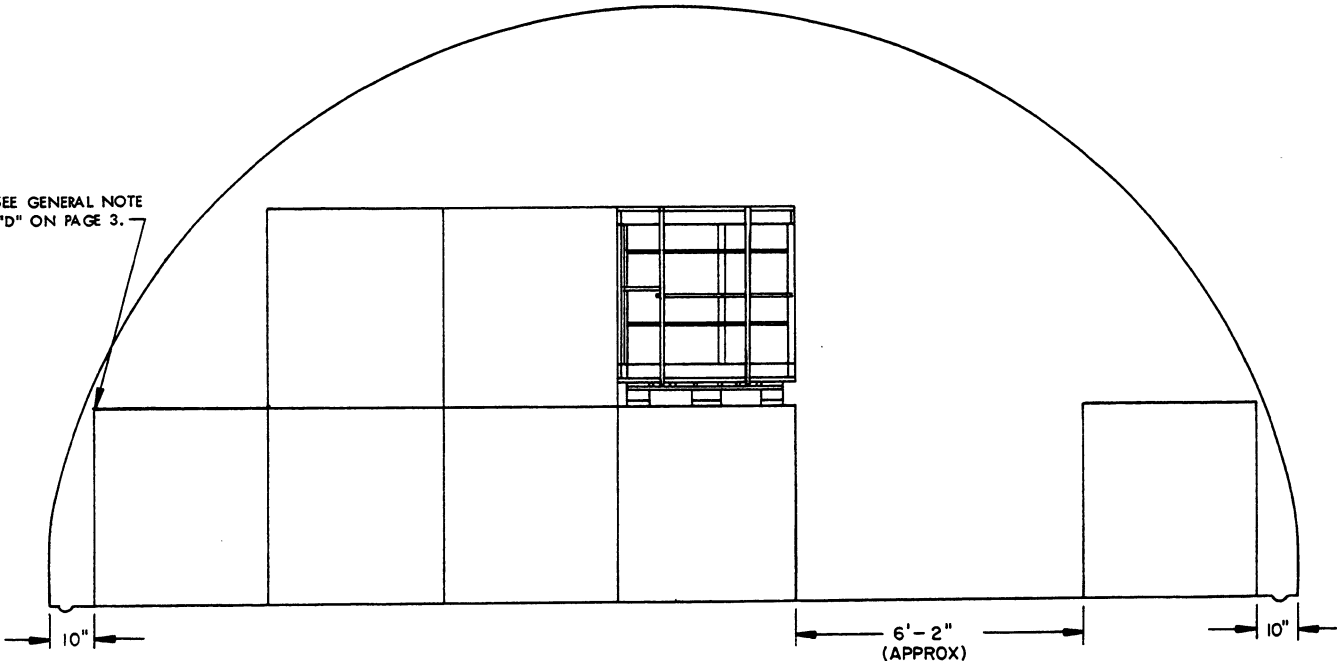
80' IGLOO

ITEM	QUANTITY
PALLET (12-DRUM UNIT)	114



PLAN VIEW  
(80' IGLOO)

SEE GENERAL NOTE  
"D" ON PAGE 3.



SECTION D-D  
8 PALLET UNITS PER STACK.



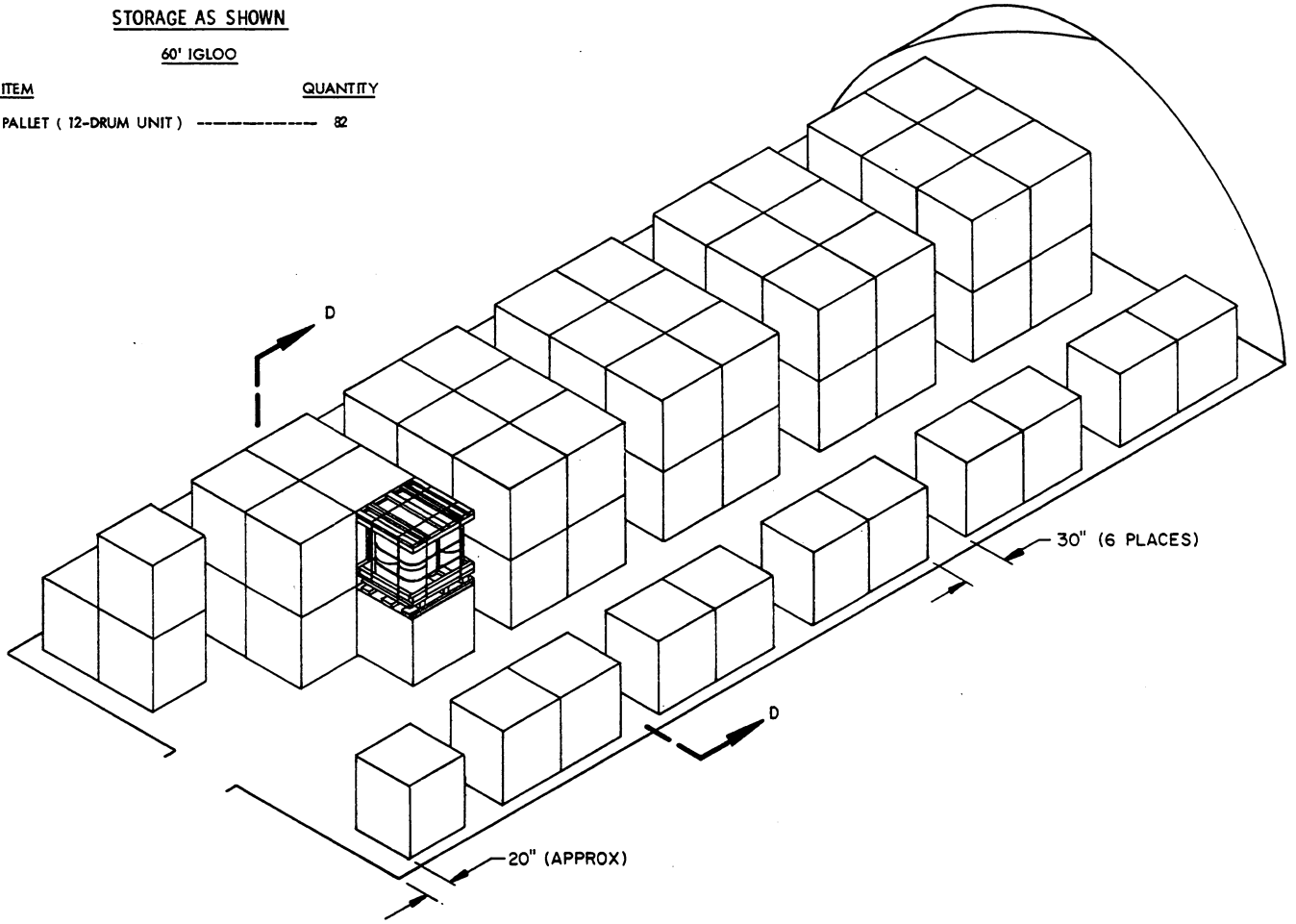
STORAGE AS SHOWN

60' IGLOO

ITEM

QUANTITY

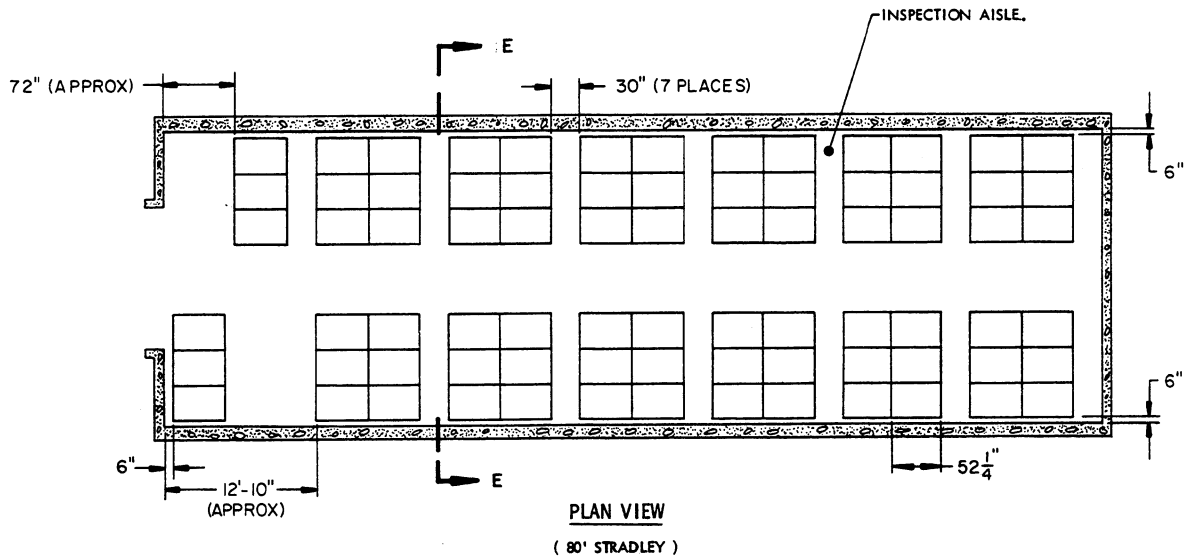
PALLET ( 12-DRUM UNIT ) ----- 82



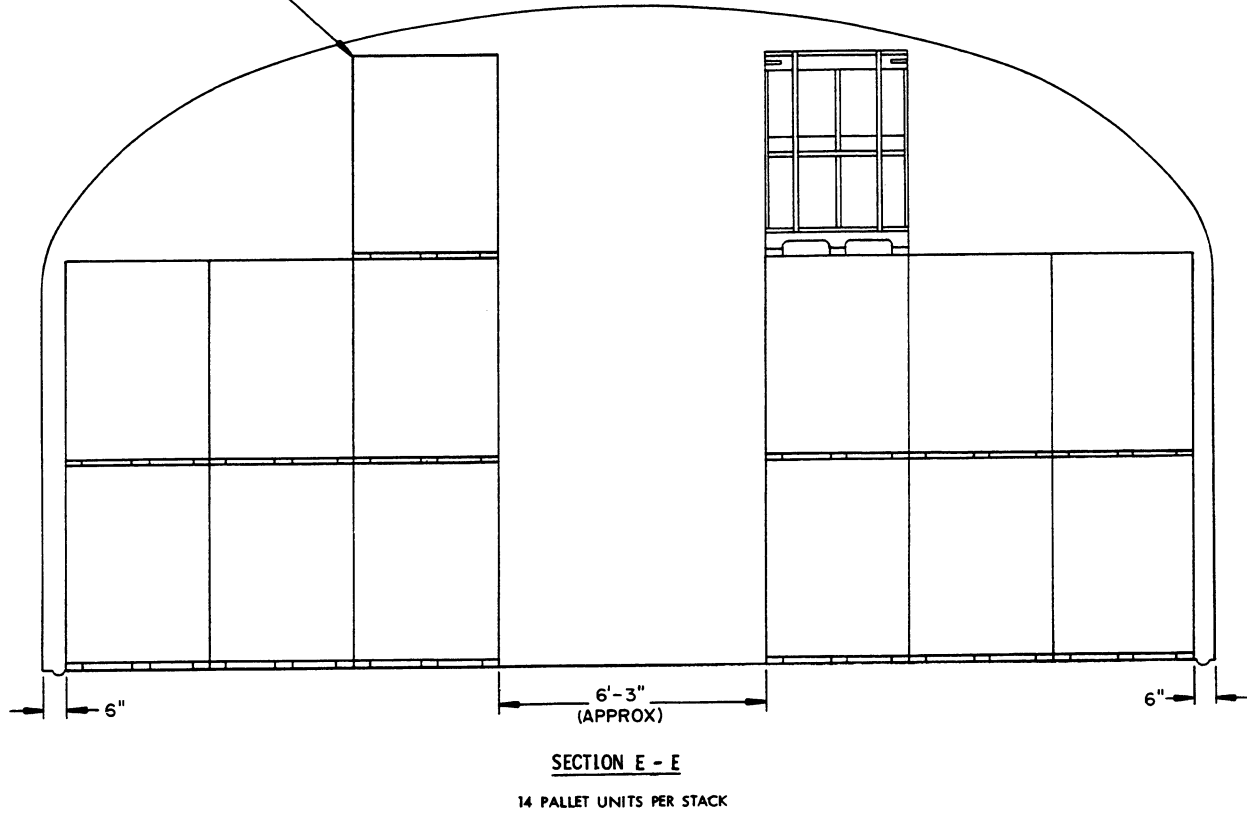
ISOMETRIC VIEW

( 60' IGLOO )

SEE "GENERAL NOTES" ON PAGE 3.

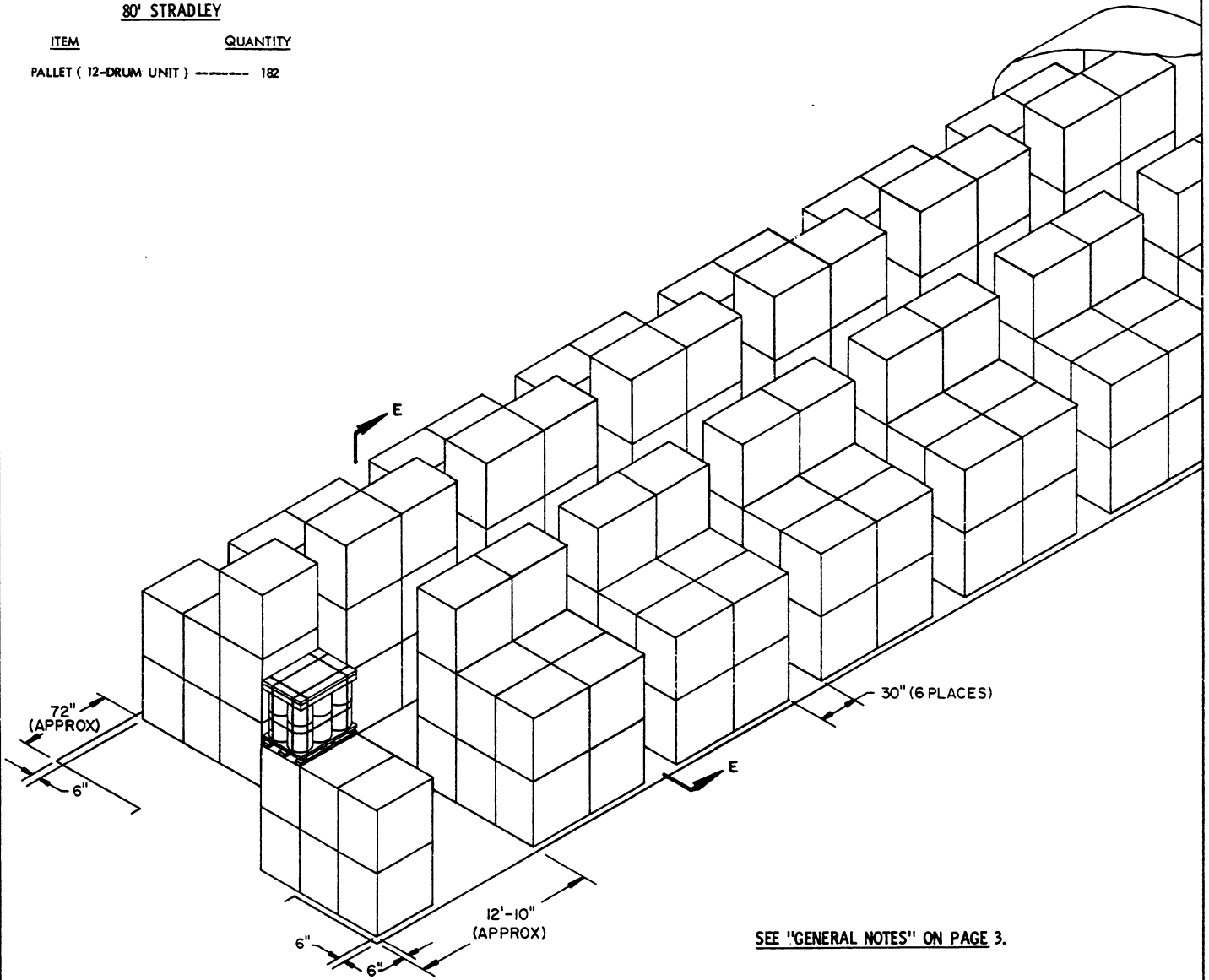


SEE GENERAL NOTE "D" ON PAGE 3.



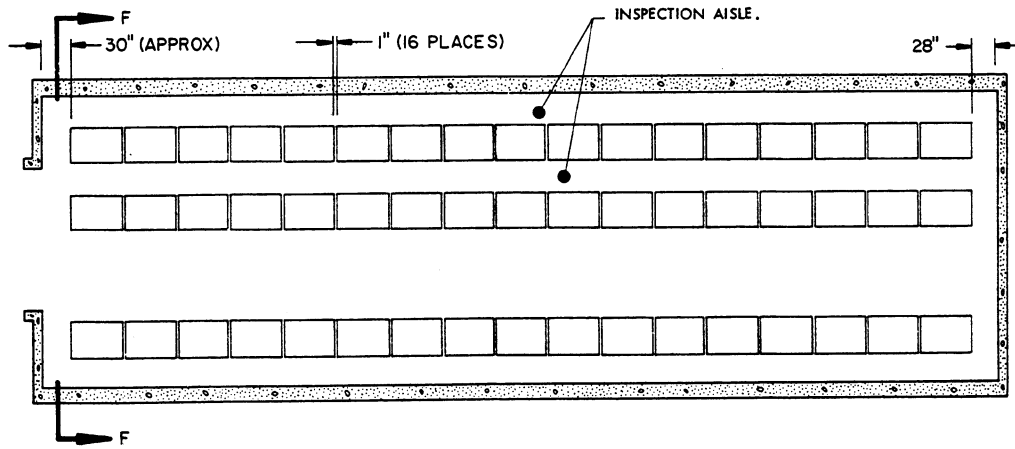
**STORAGE AS SHOWN**  
**80' STRADLEY**

<u>ITEM</u>	<u>QUANTITY</u>
PALLET ( 12-DRUM UNIT )	182



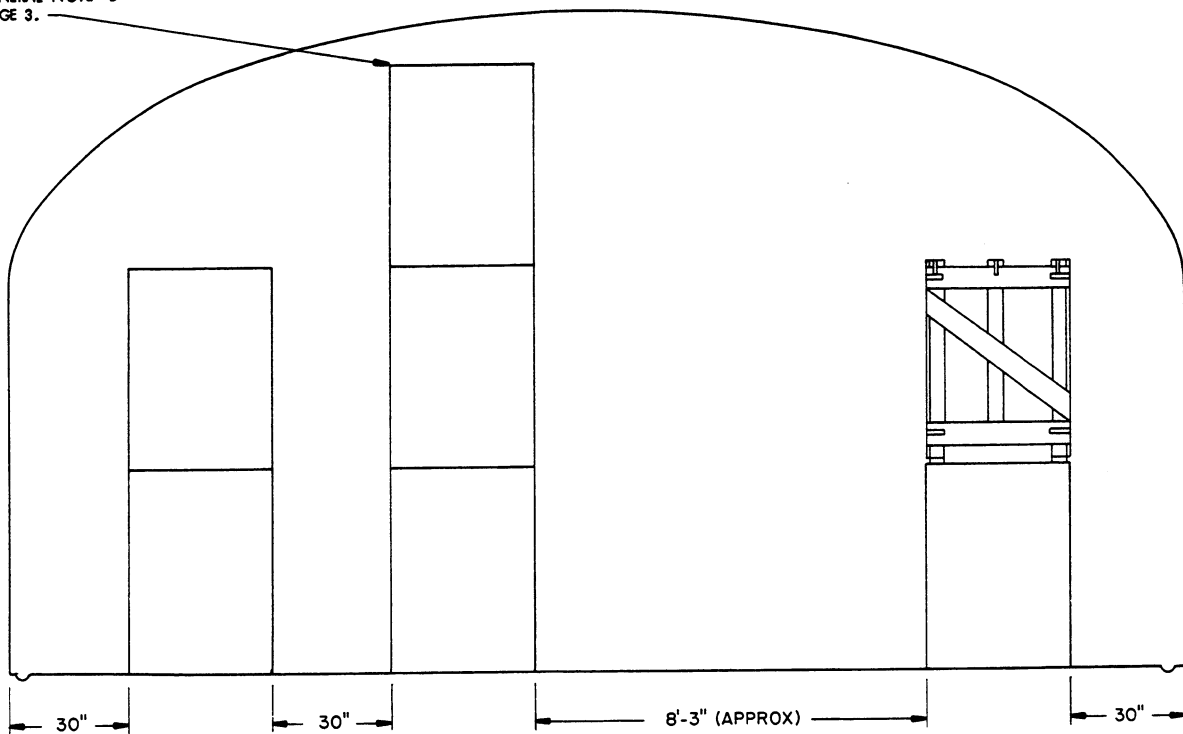
SEE "GENERAL NOTES" ON PAGE 3.

**ISOMETRIC VIEW**  
( 80' STRADLEY )



PLAN VIEW  
(80' STRADLEY)

SEE GENERAL NOTE "D"  
ON PAGE 3.



SECTION F-F  
7 CRATED UNITS PER STACK.

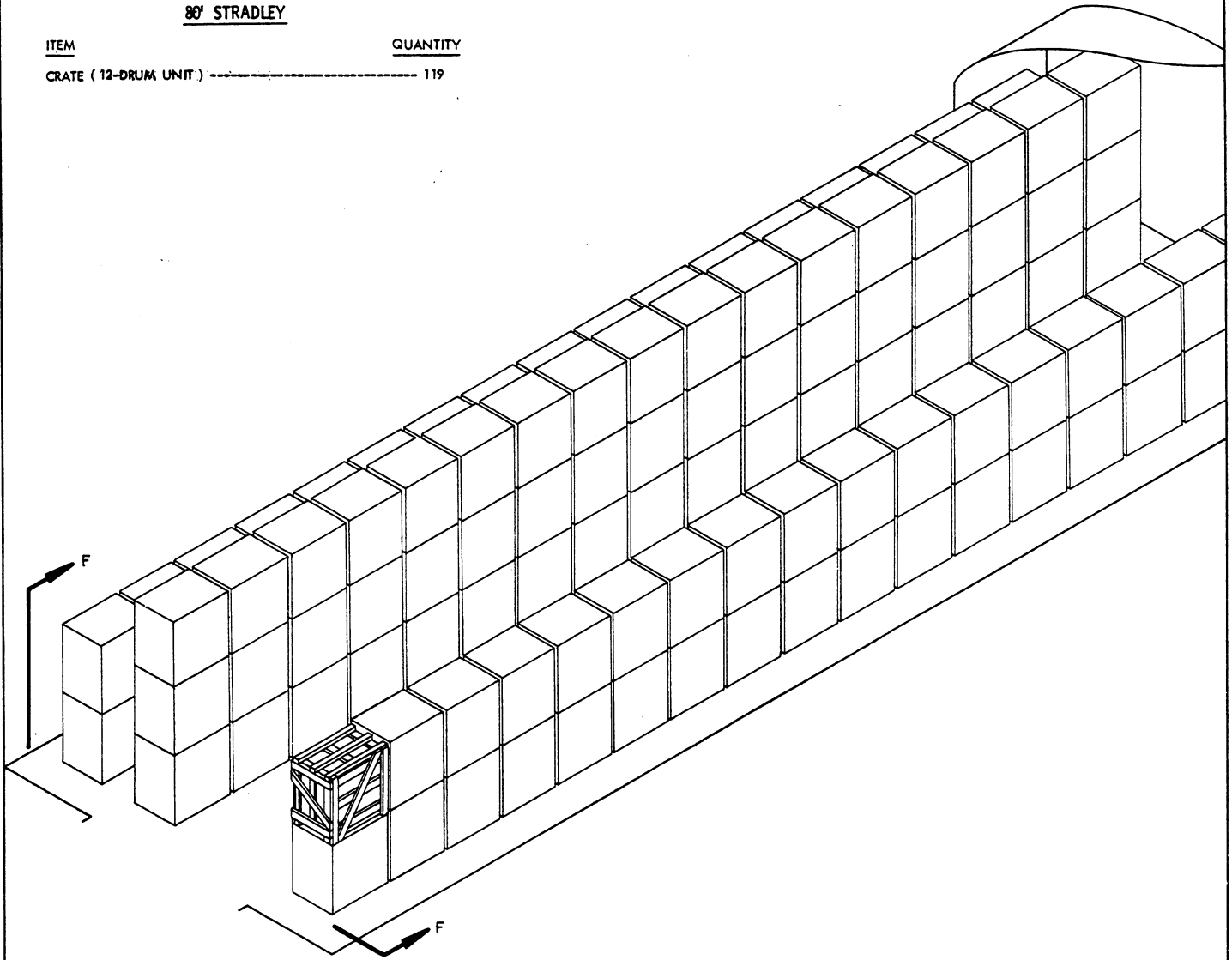
STORAGE AS SHOWN

80' STRADLEY

ITEM

QUANTITY

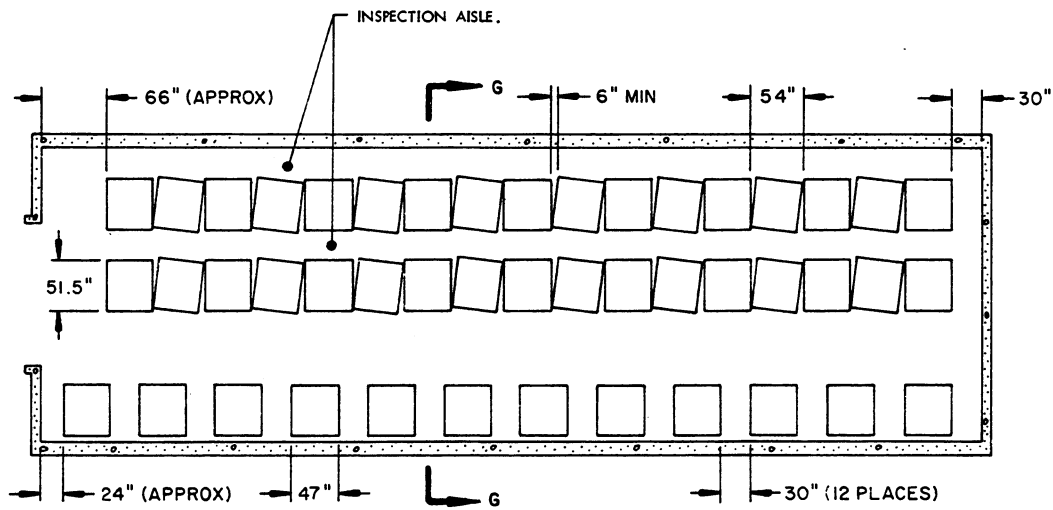
CRATE ( 12-DRUM UNIT ) ----- 119



ISOMETRIC VIEW

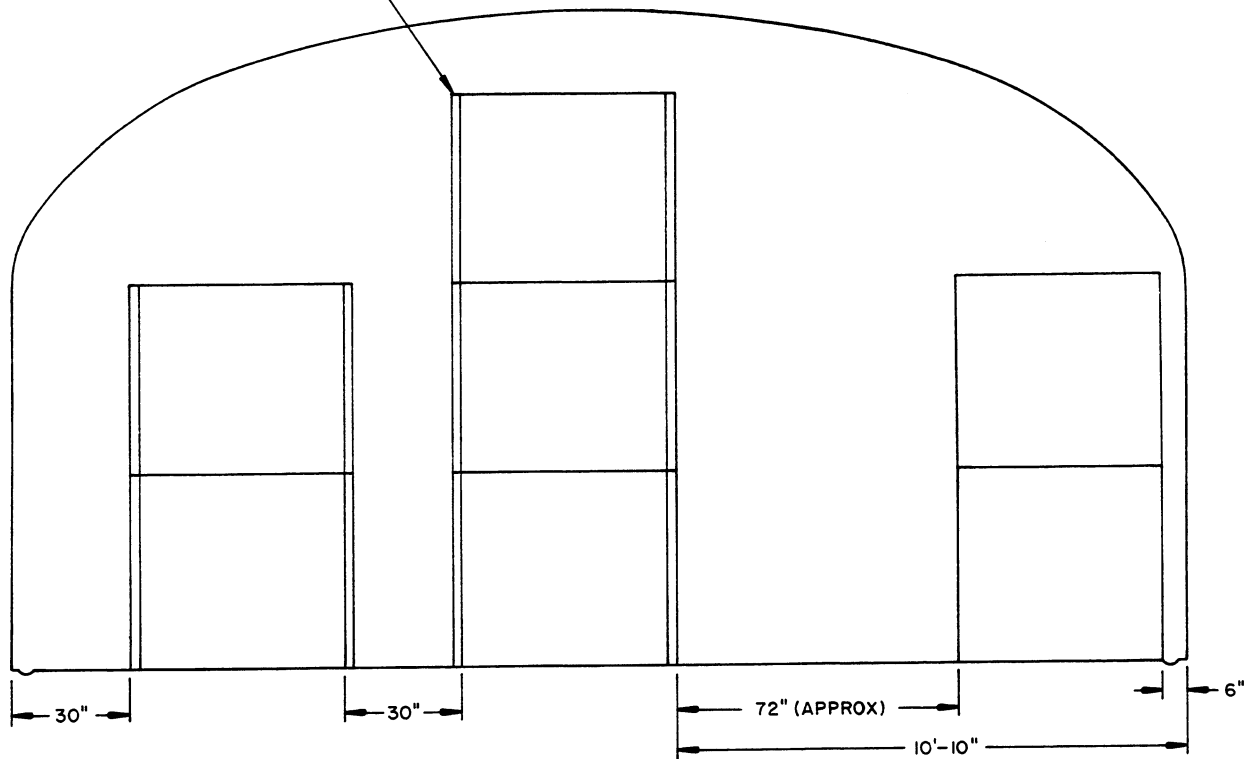
( 80' STRADLEY )

SEE "GENERAL NOTES" ON PAGE 3.



PLAN VIEW  
( 80' STRADLEY )

SEE GENERAL NOTE "D" ON PAGE 3.

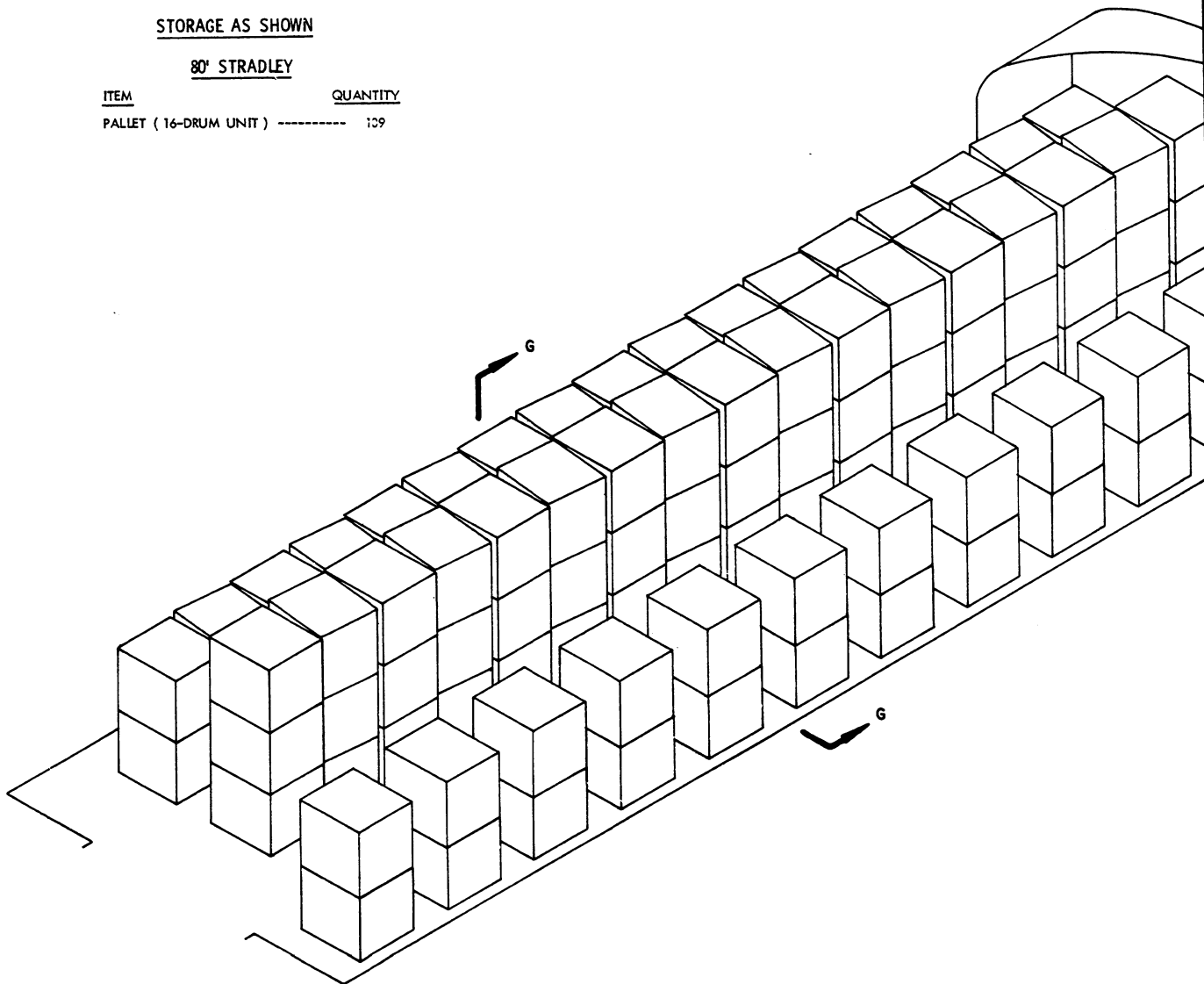


SECTION G-G

STORAGE AS SHOWN

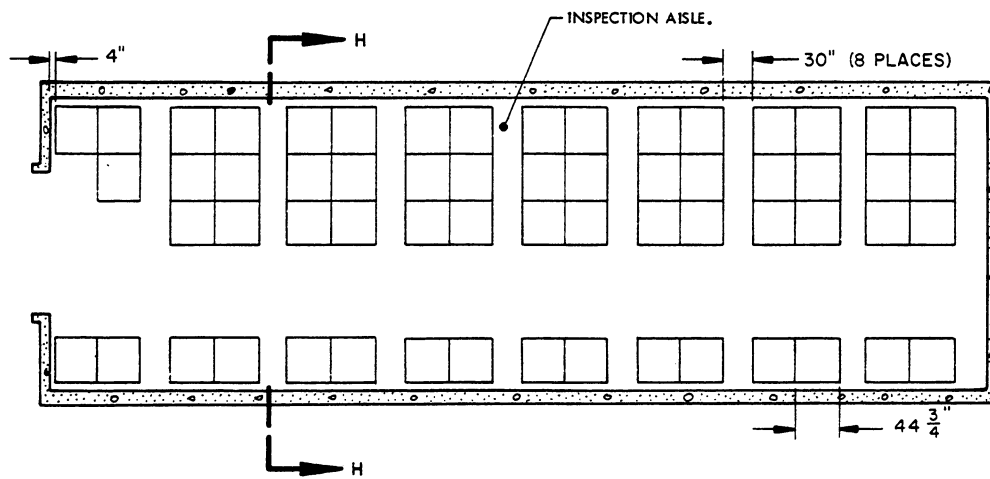
80' STRADLEY

<u>ITEM</u>	<u>QUANTITY</u>
PALLET ( 16-DRUM UNIT ) -----	109



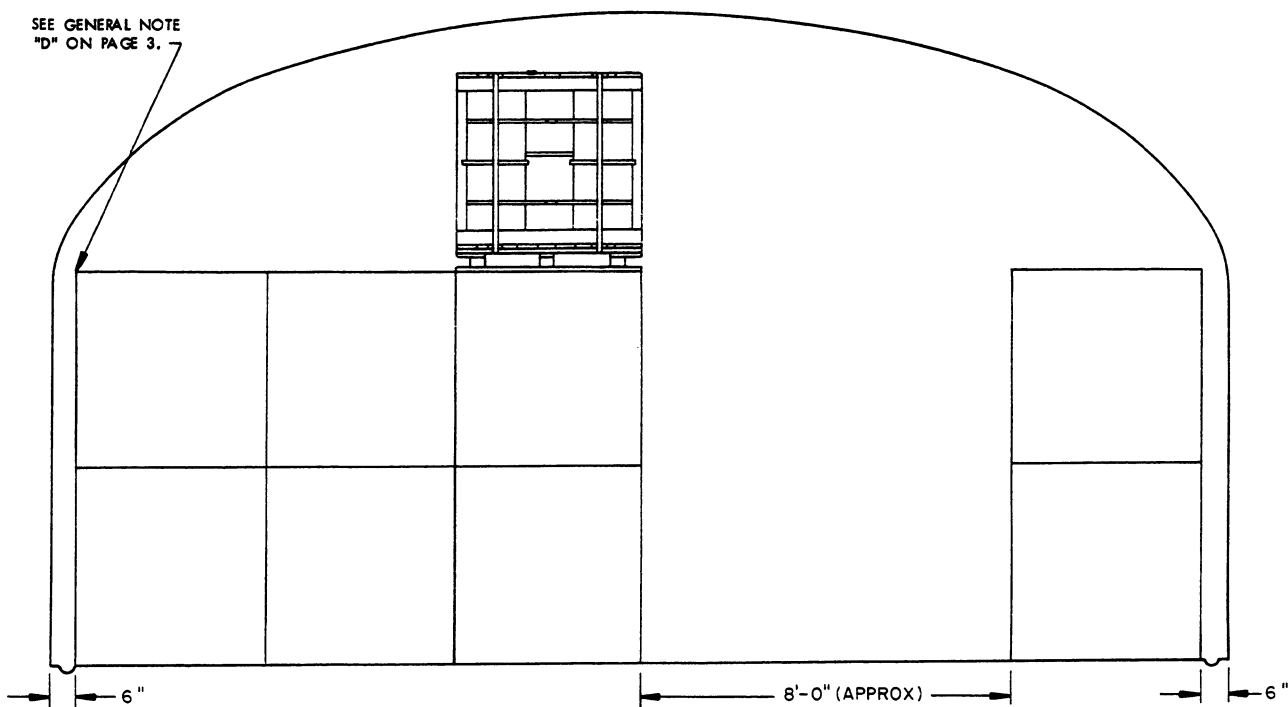
ISOMETRIC VIEW  
( 80' STRADLEY )

SEE "GENERAL NOTES" ON PAGE 3.



**PLAN VIEW**  
( 80' STRADLEY )

SEE GENERAL NOTE  
"D" ON PAGE 3.



**SECTION H-H**  
9 PALLET UNITS PER STACK.



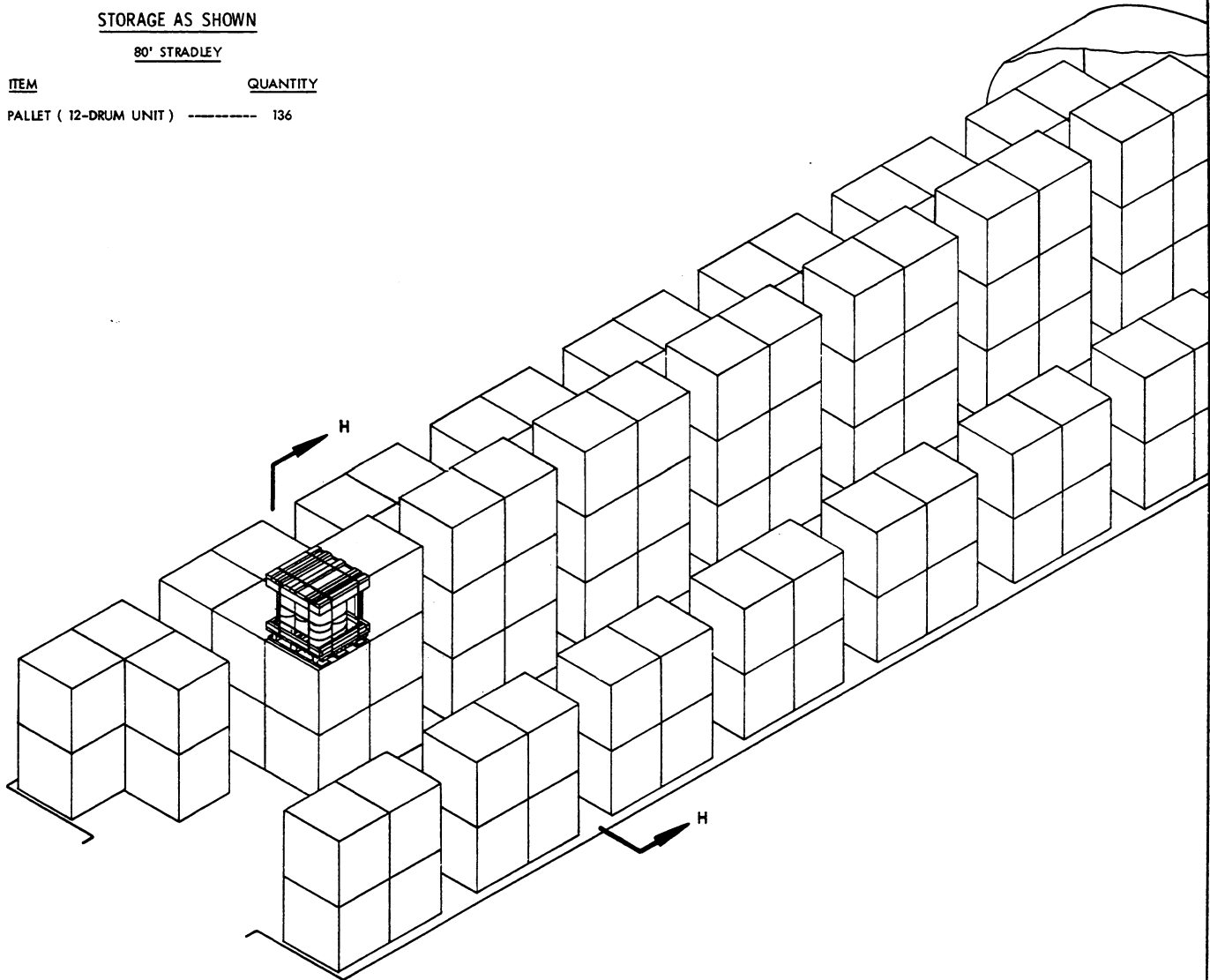
STORAGE AS SHOWN

80' STRADLEY

ITEM

QUANTITY

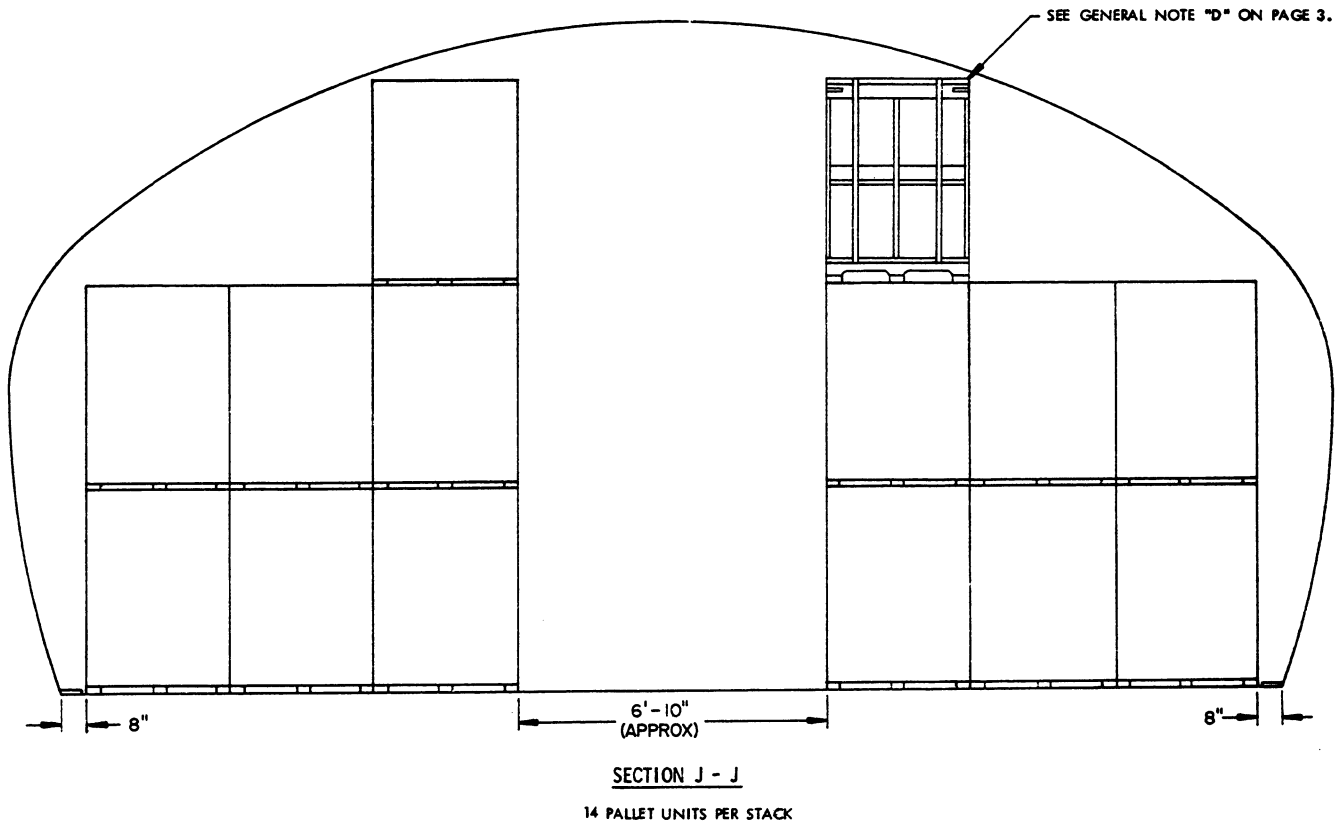
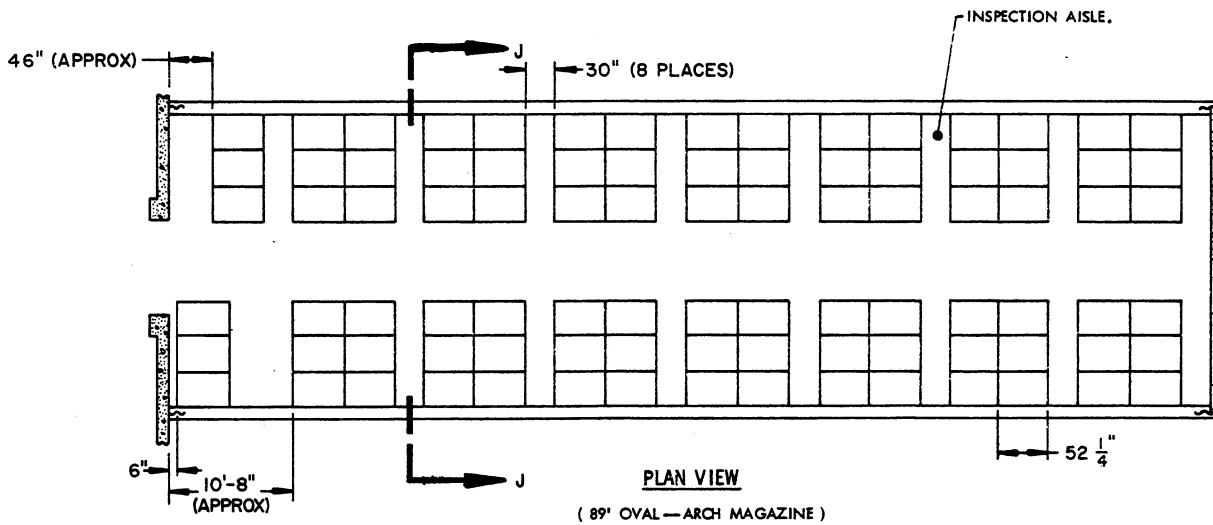
PALLET ( 12-DRUM UNIT ) ----- 136



ISOMETRIC VIEW

( 80' STRADLEY )

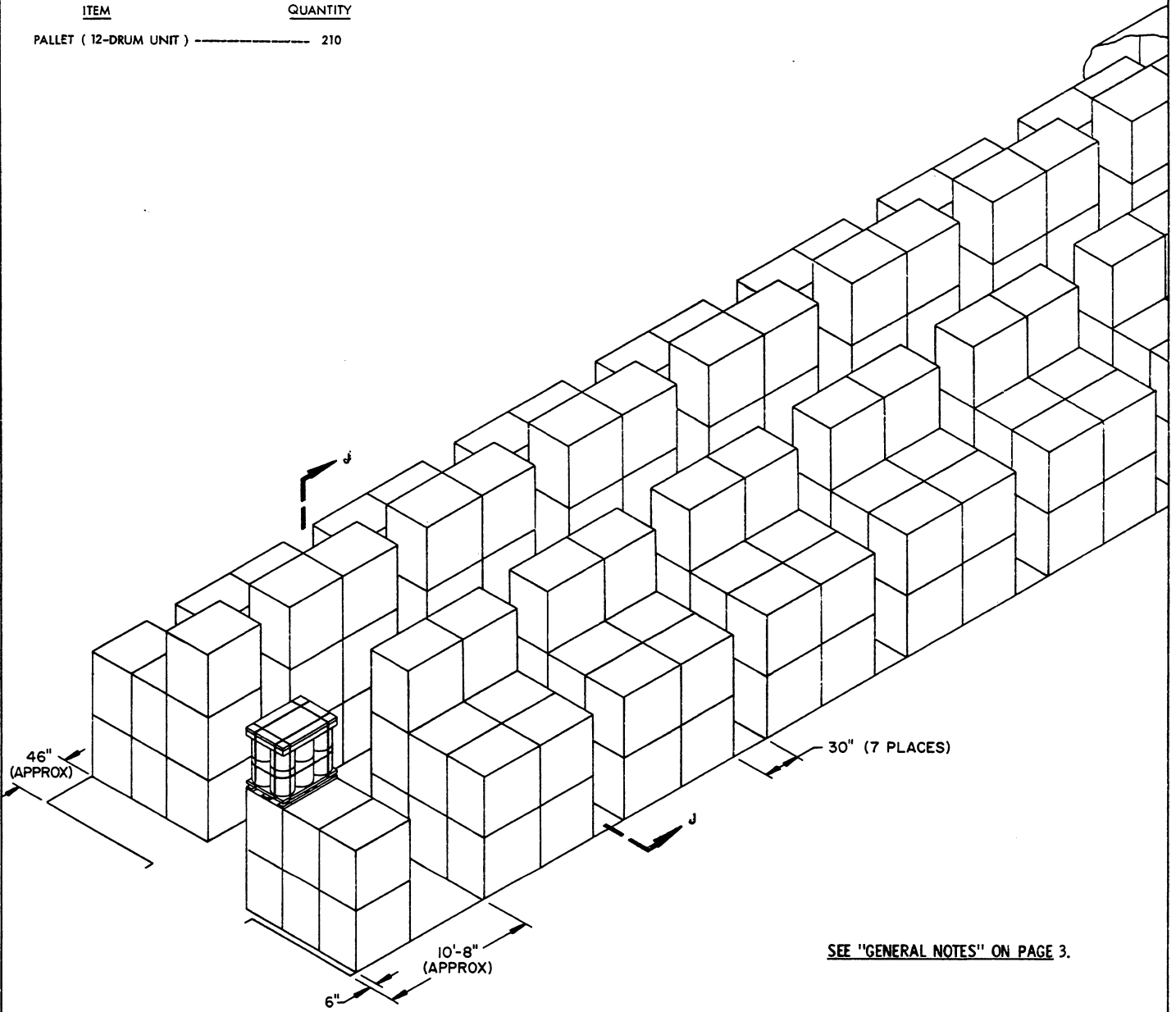
SEE "GENERAL NOTES" ON PAGE 3.



STORAGE AS SHOWN

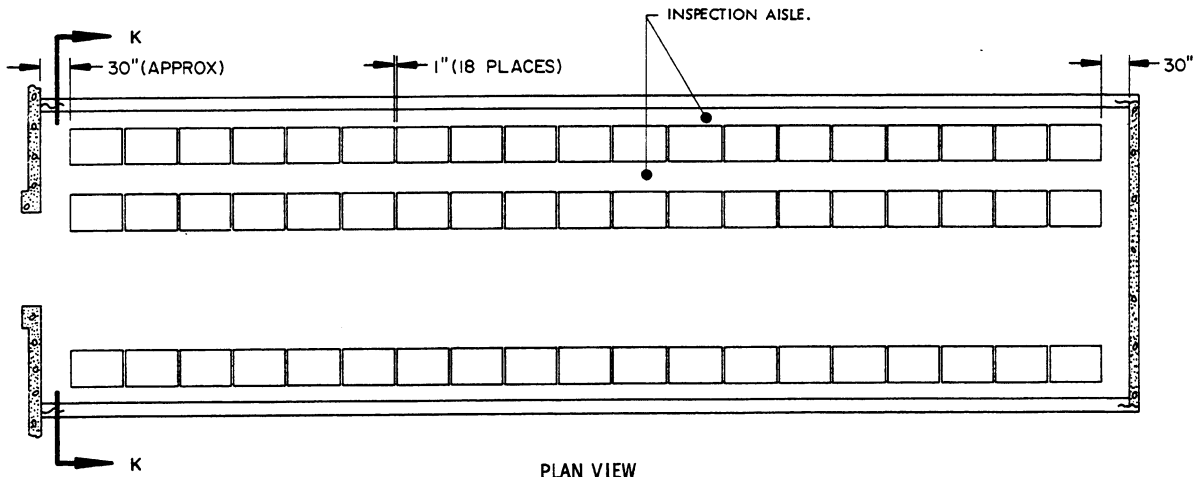
89' OVAL—ARCH MAGAZINE

<u>ITEM</u>	<u>QUANTITY</u>
PALLET ( 12-DRUM UNIT )	210



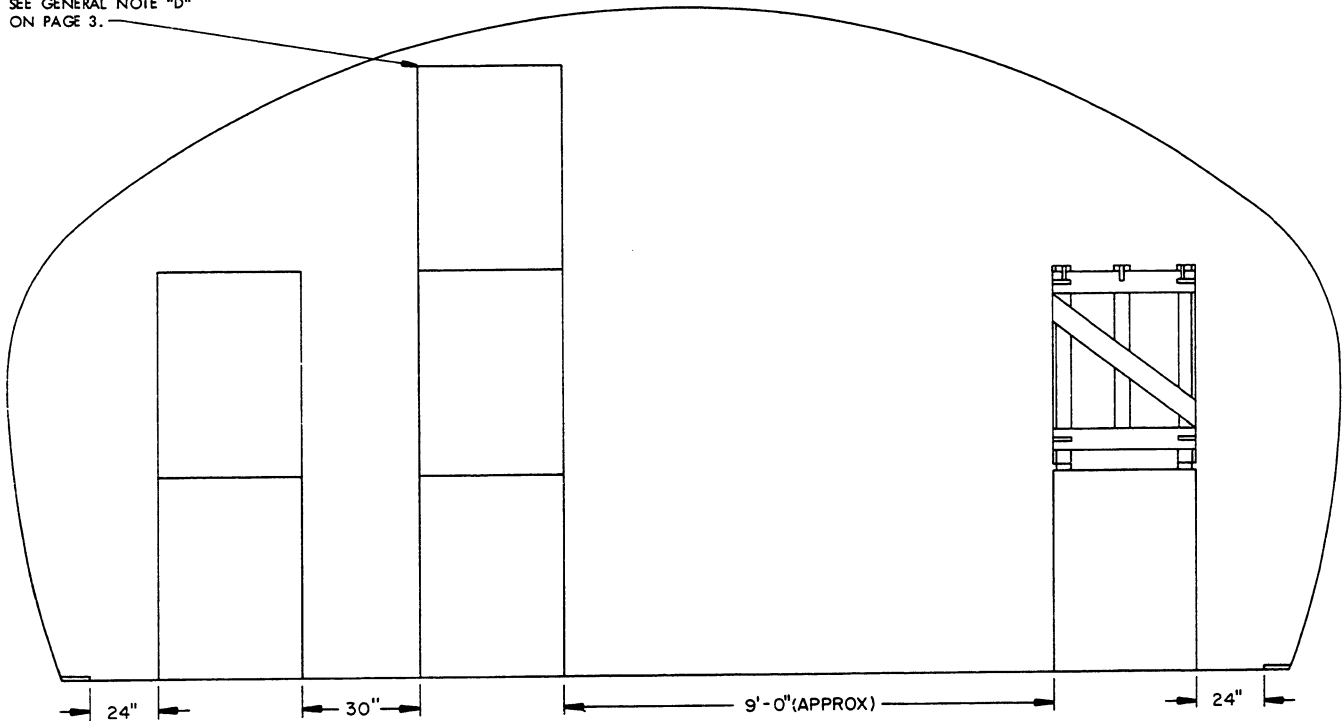
SEE "GENERAL NOTES" ON PAGE 3.

ISOMETRIC VIEW  
( 89' OVAL—ARCH MAGAZINE )



**PLAN VIEW**  
 (89' OVAL-ARCH MAGAZINE)

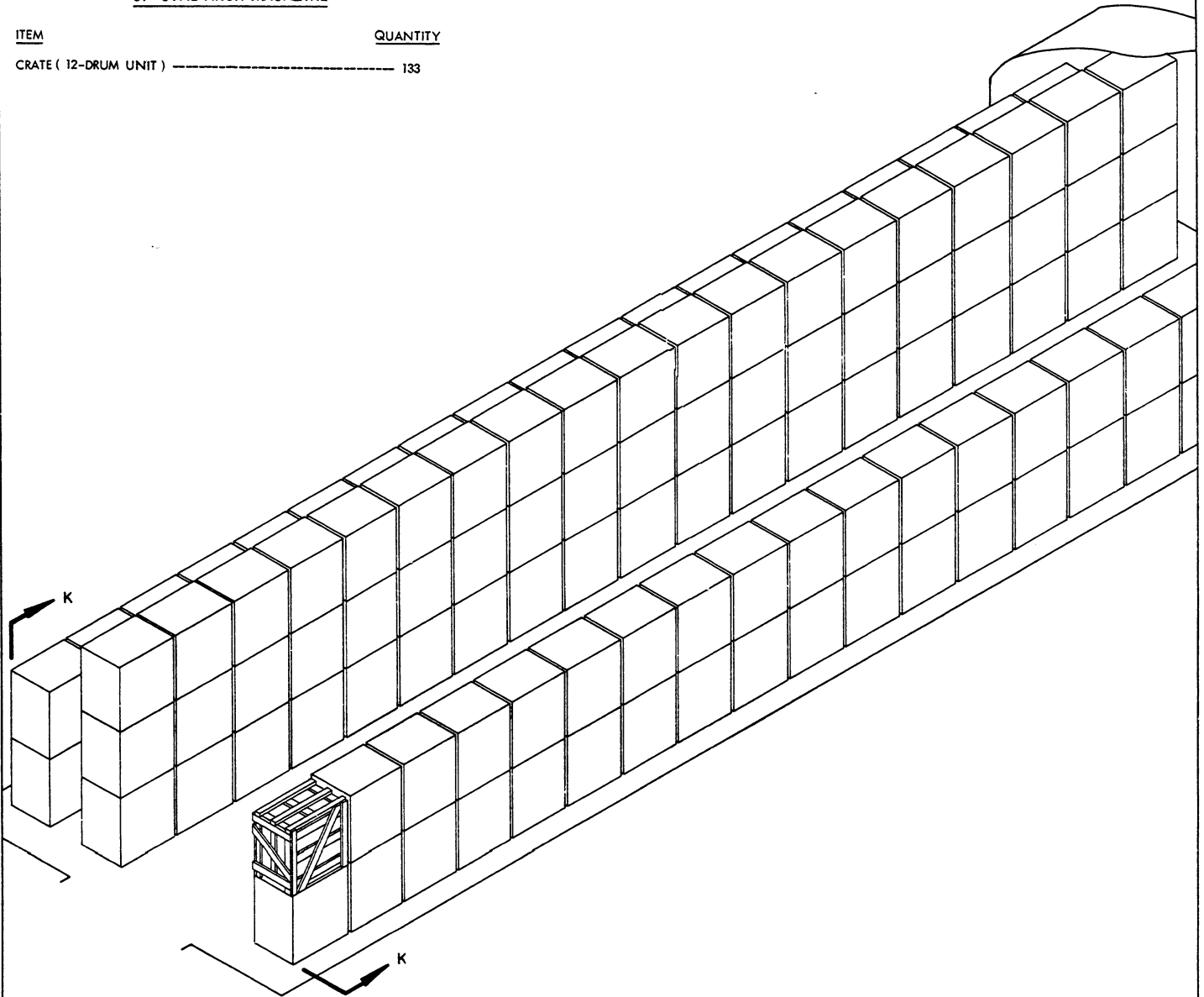
SEE GENERAL NOTE "D"  
 ON PAGE 3.



**SECTION K-K**  
 7 CRATED UNITS PER STACK.

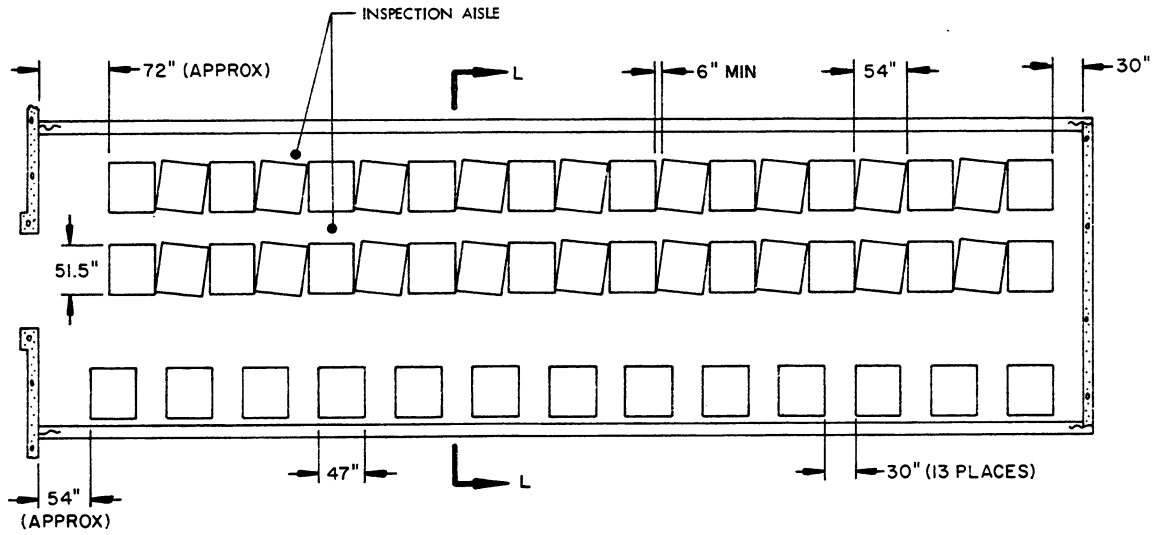
STORAGE AS SHOWN  
89' OVAL-ARCH MAGAZINE

<u>ITEM</u>	<u>QUANTITY</u>
CRATE ( 12-DRUM UNIT )	133



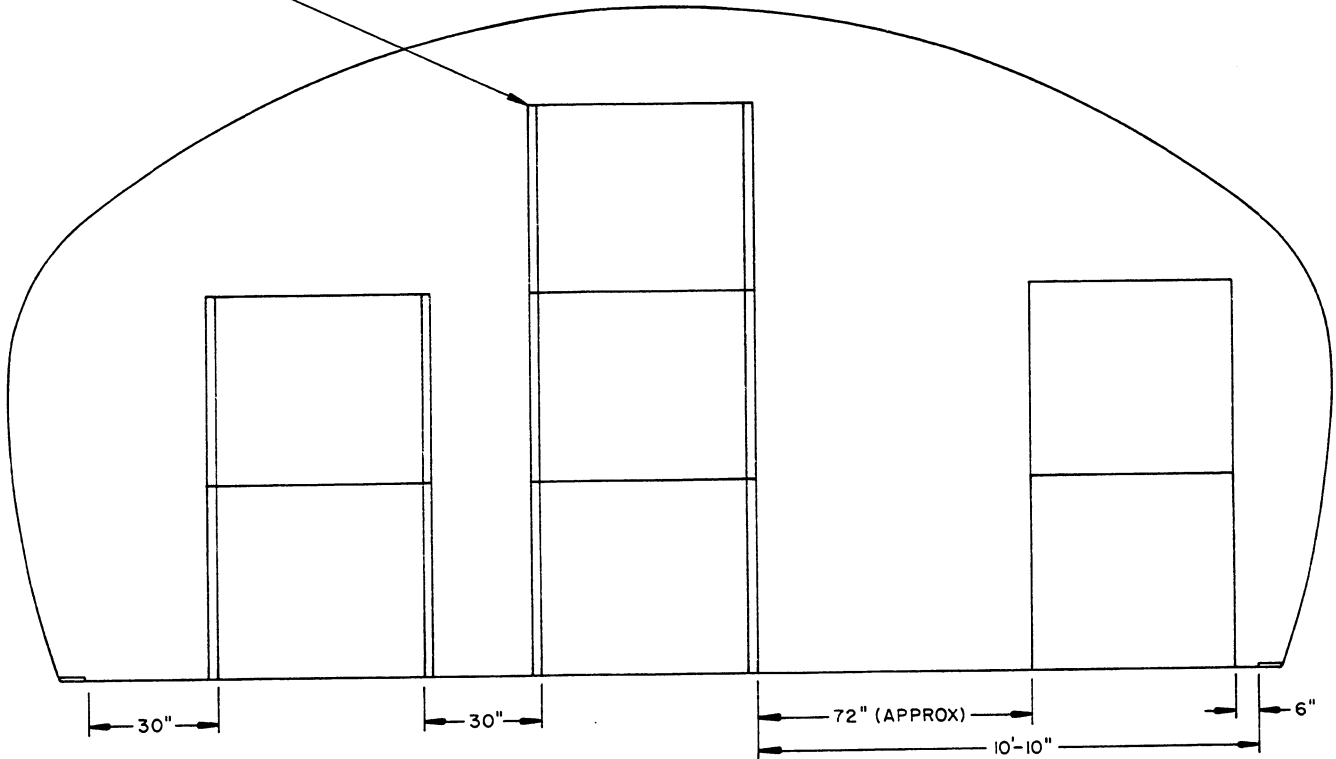
ISOMETRIC VIEW  
( 89' OVAL-ARCH MAGAZINE )

SEE "GENERAL NOTES" ON PAGE 3.



**PLAN VIEW**  
( 89' OVAL-ARCH MAGAZINE )

SEE GENERAL NOTE "D"  
ON PAGE 3.

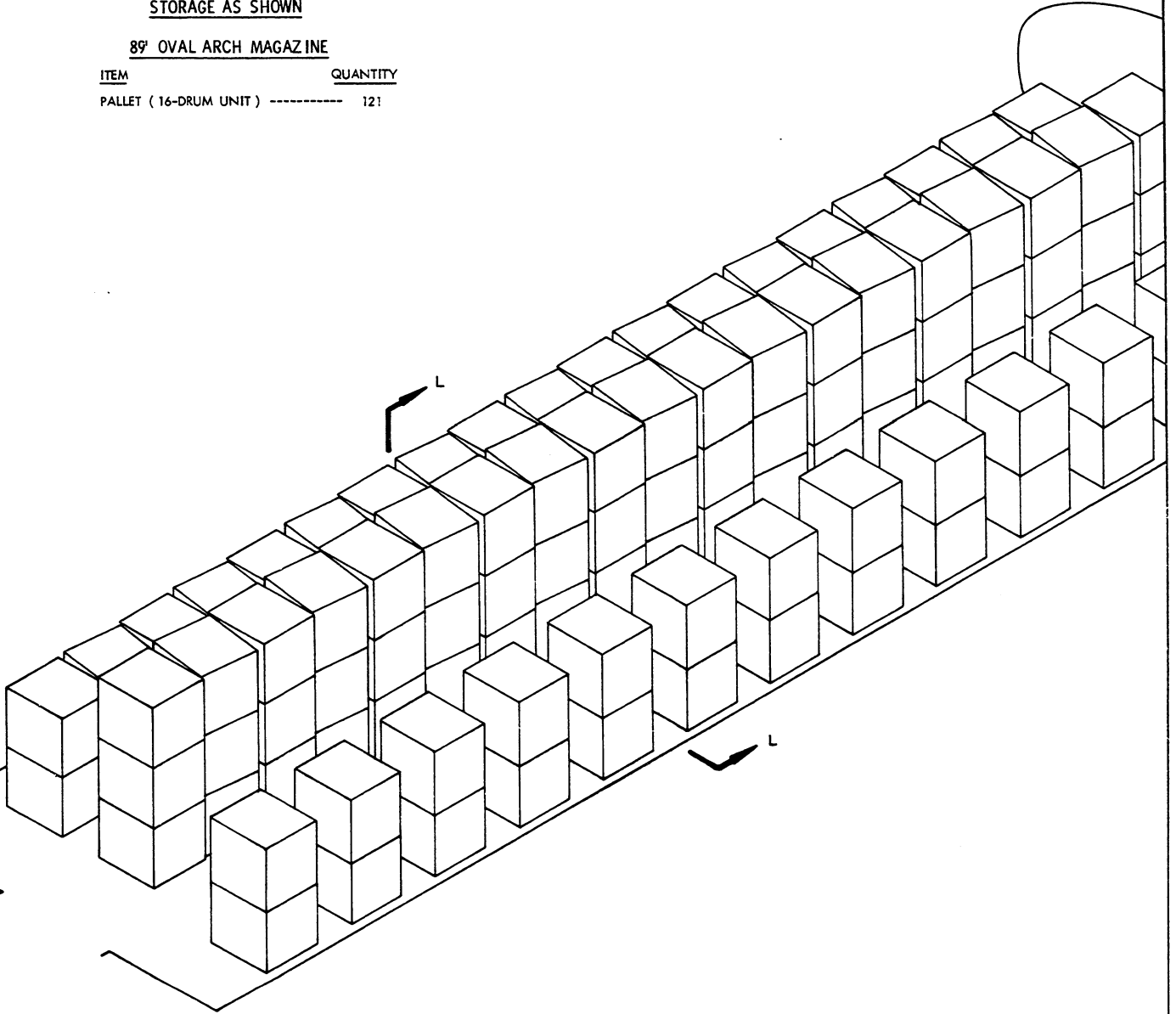


**SECTION L-L**

STORAGE AS SHOWN

89' OVAL ARCH MAGAZINE

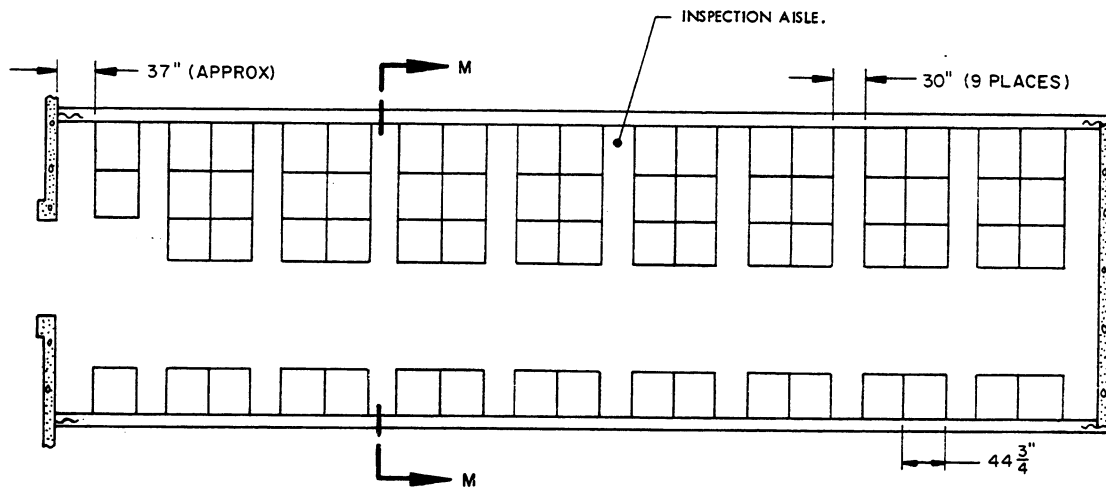
<u>ITEM</u>	<u>QUANTITY</u>
PALLET ( 16-DRUM UNIT ) -----	121



ISOMETRIC VIEW

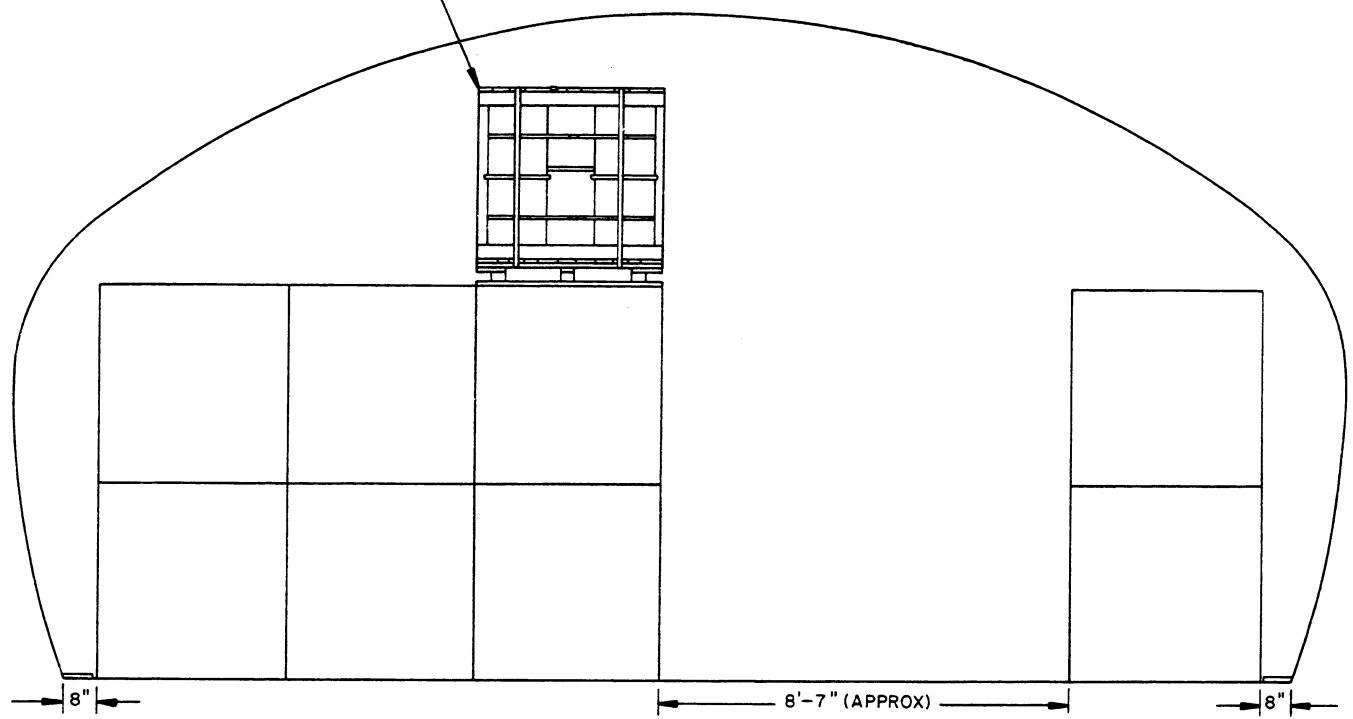
( 89' OVAL-ARCH MAGAZINE )

SEE "GENERAL NOTES" ON PAGE 3.



**PLAN VIEW**  
(89' OVAL-ARCH MAGAZINE)

SEE GENERAL NOTE "D" ON PAGE 3.

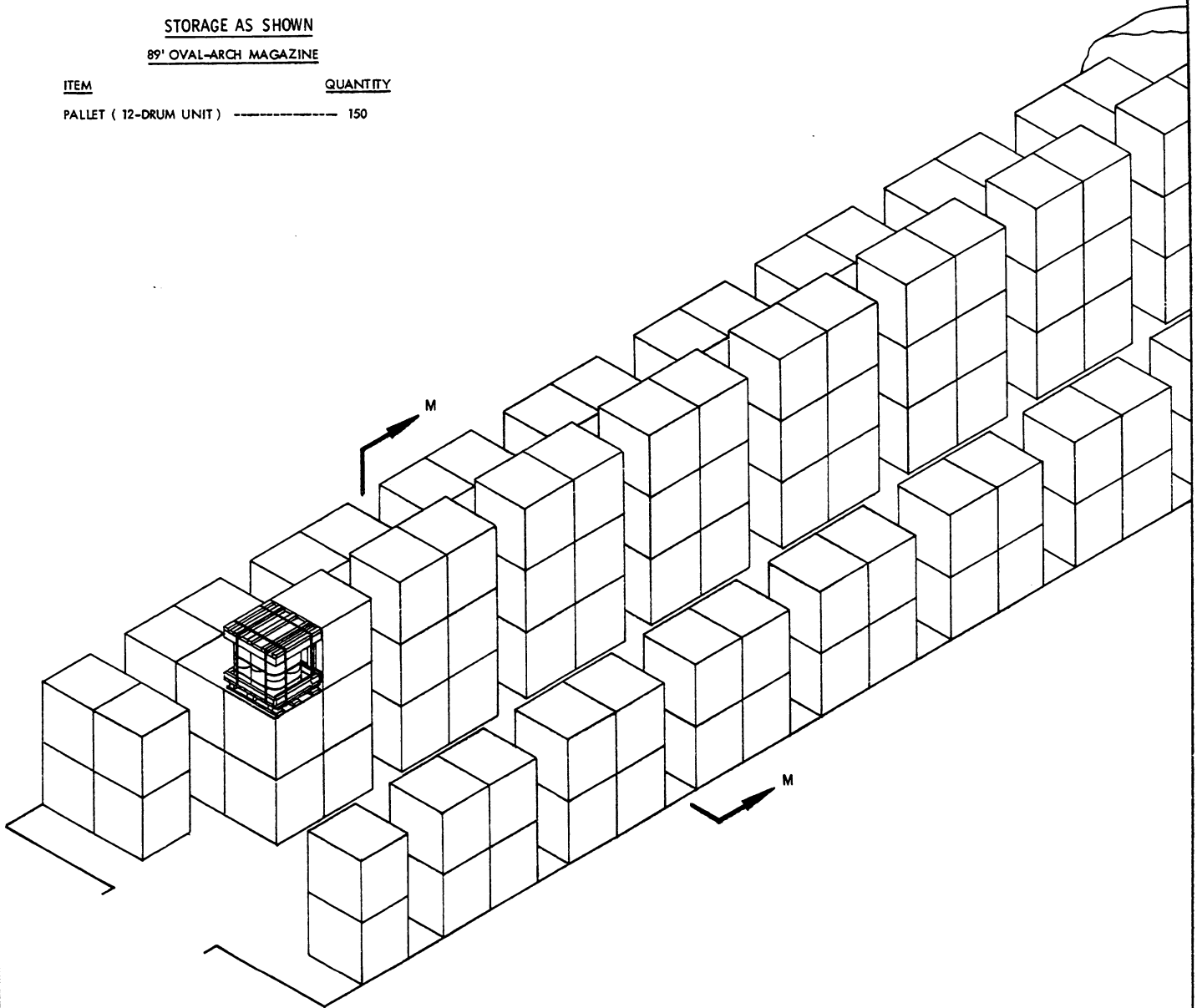


**SECTION M-M**  
9 PALLET UNITS PER STACK.



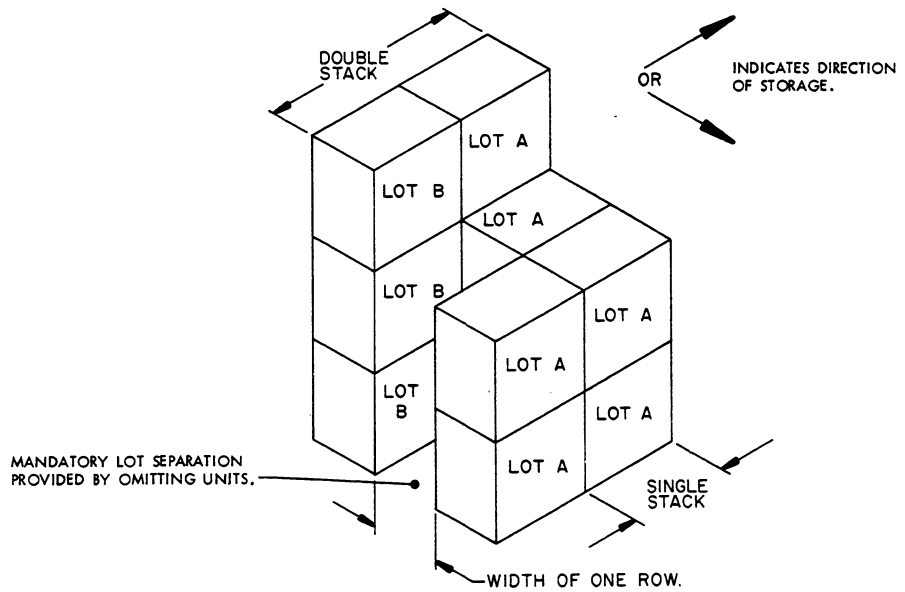
STORAGE AS SHOWN  
89' OVAL-ARCH MAGAZINE

<u>ITEM</u>	<u>QUANTITY</u>
PALLET ( 12-DRUM UNIT )	----- 150



ISOMETRIC VIEW  
( 89' OVAL-ARCH MAGAZINE )

SEE "GENERAL NOTES" ON PAGE 3.

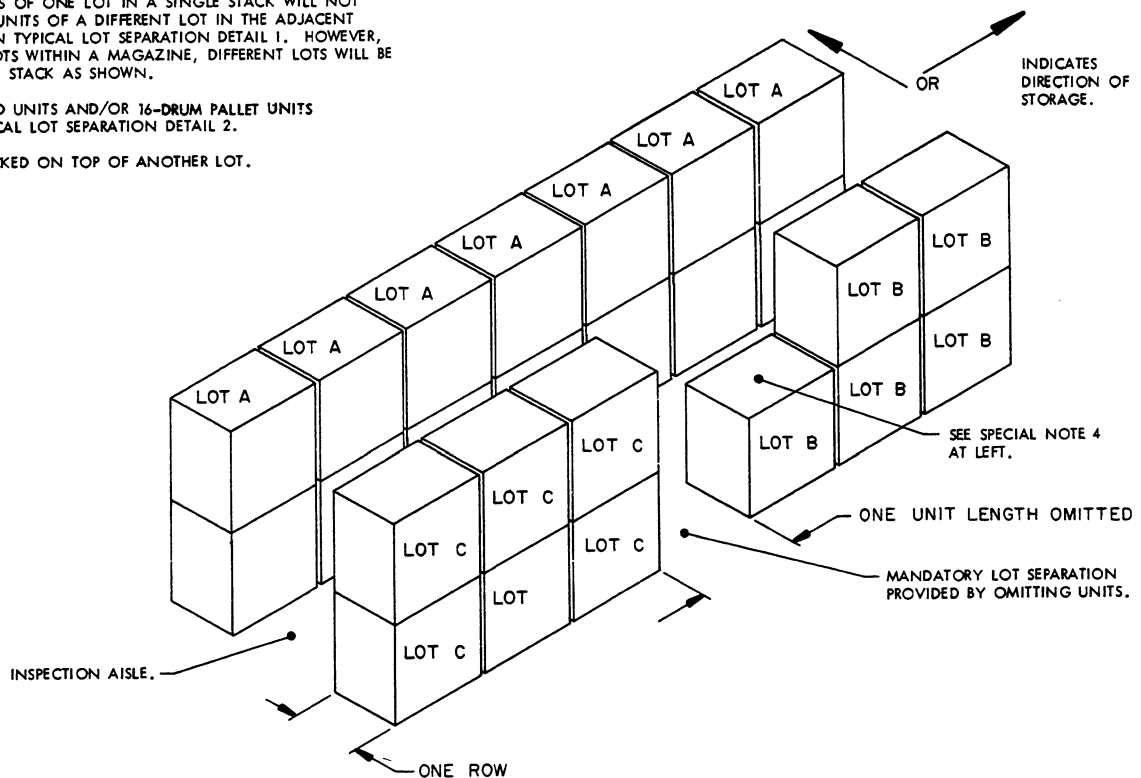


**SPECIAL NOTES:**

1. LOT SEPARATION WILL BE MAINTAINED WITHIN A STORAGE MAGAZINE. THE TYPICAL DETAILS ON THIS PAGE ILLUSTRATE POSSIBLE CONFIGURATIONS WHICH COMPLY WITH THE MANDATORY LOT SEPARATION REQUIREMENTS. OTHER CONFIGURATIONS MAY ALSO BE USED, PROVIDED THE OTHER CONFIGURATIONS COMPLY WITH THE BASIC REQUIREMENTS STATED HEREIN.
2. RELATIVE TO A DOUBLE STACK CONFIGURATION, AS DEPICTED FOR THE 12-DRUM PALLET UNIT, UNITS OF ONE LOT IN A SINGLE STACK WILL NOT REQUIRE SEPARATION FROM UNITS OF A DIFFERENT LOT IN THE ADJACENT SINGLE STACK AS SHOWN IN TYPICAL LOT SEPARATION DETAIL 1. HOWEVER, WHEN STORING MULTIPLE LOTS WITHIN A MAGAZINE, DIFFERENT LOTS WILL BE SEPARATED WITHIN A SINGLE STACK AS SHOWN.
3. LOT SEPARATION FOR CRATED UNITS AND/OR 16-DRUM PALLET UNITS WILL BE AS SHOWN IN TYPICAL LOT SEPARATION DETAIL 2.
4. ONE LOT WILL NOT BE STACKED ON TOP OF ANOTHER LOT.

**TYPICAL LOT SEPARATION DETAIL 1**

( 12-DRUM PALLET UNIT STACK DEPICTED IN OVAL-ARCH AND/OR STRADLEY MAGAZINE )



**TYPICAL LOT SEPARATION DETAIL 2**

( 12-DRUM CRATED UNIT STACK DEPICTED IN IGLOO MAGAZINE )