# STORAGE IN APPROVED MAGAZINES OF COMPLETE ROUNDS PACKED IN CYLINDRICAL METAL CONTAINERS ON 4-WAY ENTRY PALLETS

# PA98 SERIES CONTAINER

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| U.S. ARMY MATERIEL COMMAND DRAWING                                  |                                   |          |         |                     |  |  |
|---|-----------------------------------|----------|---------|---------------------|--|--|
| APPROVED, U.S. ARMY INDUSTRIAL OPERATIONS COMMAND                   | DRAFTSMAN D. WHITMORE             |          |         |                     |  |  |
| David a Eisterik  | ENGINEER M. DAEUMER               |          | 2       |                     |  |  |
| AMSTA-AR-ESK  | SUPPLY ENGINEERING DIVISION       |          | Erague  |                     |  |  |
| APPROVED BY ORDER OF COMMANDING CENERAL, U.S. ARMY MATERIEL COMMAND | LOGISTICS ENGINEERING Thous Wille |          |         |                     |  |  |
| Jary Cl. Com  | MAY 1987 /                        |          |         |                     |  |  |
| U.S. ARMY DEFENSE AMMUNITION CENTER AND SCHOOL                      | CLASS                             | NOISIVIO | DRAWING | FILE                |  |  |
| REVISION NO. 1 OCTOBER 1995   | 19                                | 48       | 4145/5  | 1-2-3-4-<br>14-22PM |  |  |
| SEE REVISION LISTING ON PAGE 2                                      | 15                                |          | 7170/0  | 1003                |  |  |

DO NOT SCALE

#### **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 HEREIN ARE APPLICABLE TO COMPLETE ROUNDS PACKED IN PA98 SERIES CONTAINERS ON A 40" BY 48" WOODEN PALLET.
- C. FOR DETAIL OF THE PALLET UNIT SEE PAGE 3. FOR UNITIZATION PROCEDURES SEE U.S. ARMY AMC DRAWING 19-48-4079/5-20PM1002.

#### PALLET UNIT:

DIMENSIONS - - 43-5/8" LONG BY 53" WIDE BY 41-3/4" HIGH. GROSS WEIGHT - 2,795 POUNDS (APPROX) CUBE - - - - 55.9 CUBIC FEET (APPROX)

- D. 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 PALLET 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 FOLLOWED.
- E. 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.
- F. 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.
- G. 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.
- H. THE MAXIMUM FLOOR LOAD FOR A MAGAZINE AS PRESCRIBED BY LOCAL STANDARDS WILL NOT BE EXCEEDED.
- J. IF AVAILABLE MHE PERMITS, ADDITIONAL PALLETIZED UNITS MAY BE STORED WITHIN THE MHE AREA AND/OR OTHER AVAILABLE AREA OF THE MAGAZINE.
- K. IF THE QUANTITY OF PALLET UNITS FOR A MAGAZINE IS TO BE REDUCED FROM WHAT IS SHOWN HEREIN 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.
- L. 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.
- M. 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 22 THRU
- N. ALTHOUGH SPECIFIC PROCEDURES ARE INCLUDED IN THIS DRAWING FOR STORING MULTIPLE LOTS WITHIN ONE STRUCTURE, THE BASIC STORAGE PATTERNS AS SHOWN ON PAGES 4 THRU 21 CAN ALSO BE ADAPTED FOR THE STORING OF MORE THAN ONE LOT, HOWEVER, THE USE OF A STAGGERED LAYER STORAGE PATTERN AS SHOWN IS PROHIBITED. MULTIPLE LOTS OF PALLET UNITS WHEN STORED IN ACCORDANCE WITH THE BASIC STORAGE PATTERN MAY BE STORED WITH ONE OR MORE STACKS USED FOR EACH LOT. LOTS WILL NOT BE MIXED, EXCEPT TO THE EXTENT THAT UNITS OF ONE LOT WILL NOT BE STACKED ON TOP OF PALLET UNITS FROM ANOTHER LOT. MULTIPLE LOTS OF PALLET UNITS MAY BE STORED WITH ONE OR MORE ROWS USED FOR EACH LOT. (A ROW RUNS FROM THE REAR OF THE MAGAZINE TO THE FRONT). EACH LOT WITHIN THE MAGAZINE MUST BE ACCESSIBLE FOR REMOVAL AND INSPECTION/INVENTORY IN ACCORDANCE WITH OTHER CRITERIA SPECIFIED IN THESE GENERAL NOTES AND IN THE SPECIAL NOTES ON PAGES 22 THRU 2B.

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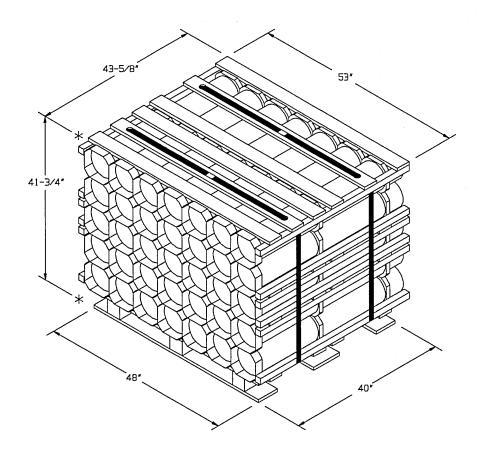
#### (GENERAL NOTES CONTINUED)

- O. 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.
- P. 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 19-48-4079/5-20PM1002. THE UNIT MUST THEN BE RE-BANDED WITH THE SAME SIZE AND QUANTITY OF STRAPS AS THE ORIGINAL UNIT.
- O. PORTIONS OF THE MAGAZINES, SUCH AS SIDEWALLS, END WALLS, AND ROOFS, HAVE NOT BEEN SHOWN IN THE STORAGE VIEWS FOR CLARITY PURPOSES.
- R. CONVERSION TO METRIC EQUIVALENTS: DIMENSIONS WITHIN THIS DOCUMENT ARE EXPRESSED IN INCHES, AND WEIGHTS ARE EXPRESSED IN POUNDS. WHEN NECESSARY, THE METRIC EQUIVALENT MAY BE COMPUTED ON THE BASIS OF ONE INCH EQUALS 25.4 MM, AND ONE POUND EQUALS 0.454 KG.

#### REVISIONS

REVISION NO. 1, DATED OCTOBER 1995 CONSISTS OF:

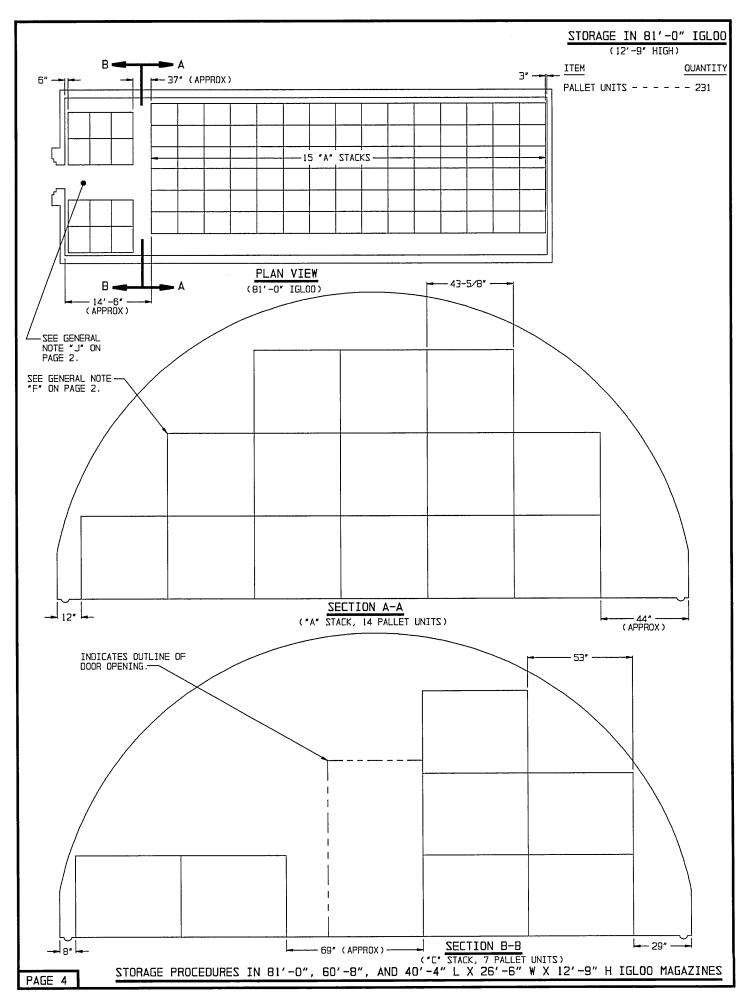
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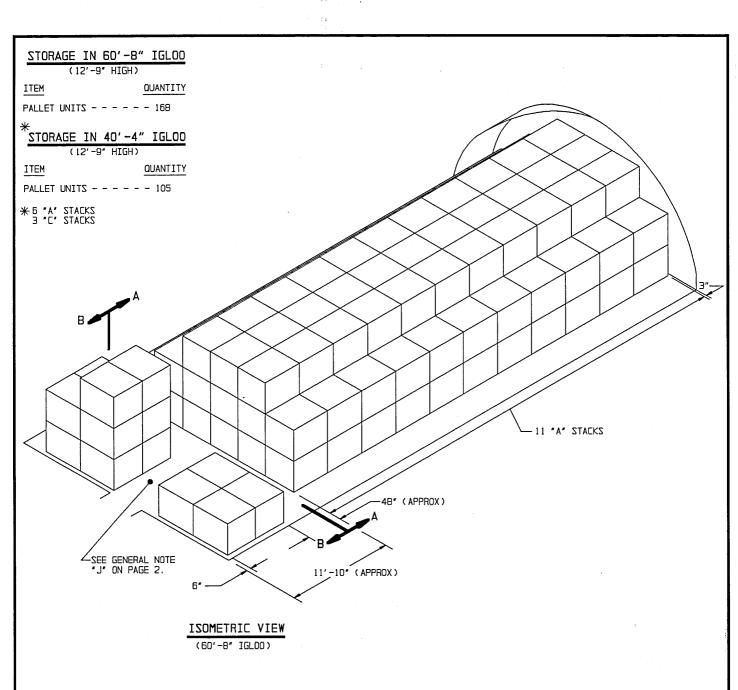


# PALLET UNIT DETAIL

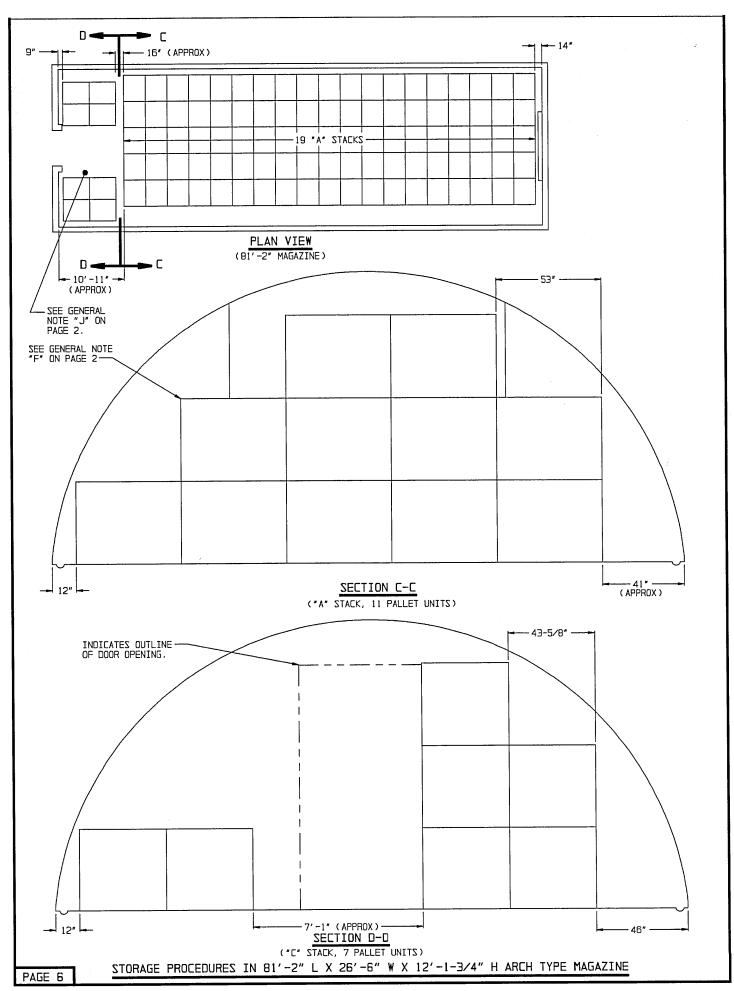
GROSS WEIGHT - - - - - - 2,795 LBS (APPROX)
CUBE - - - - - - - - - 55.9 CUBIC FEET (APPROX)

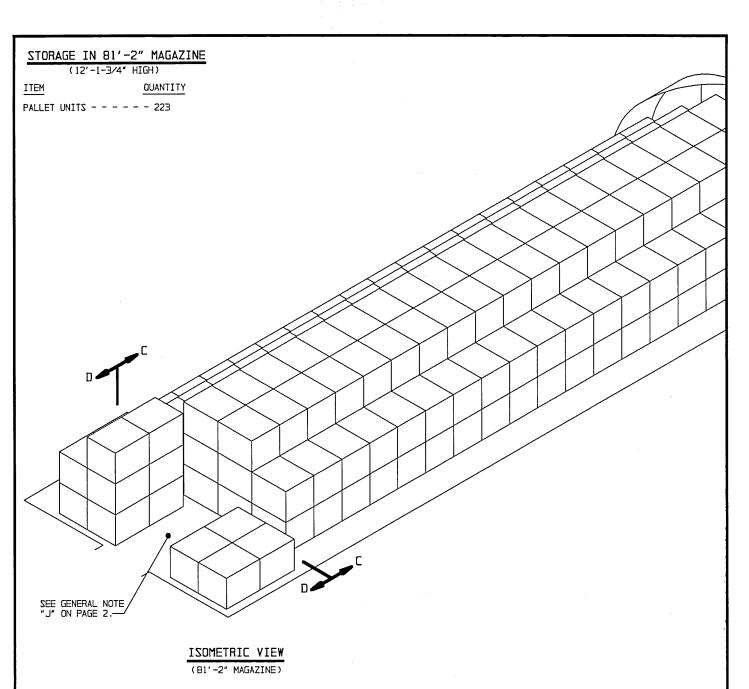
DETAILS

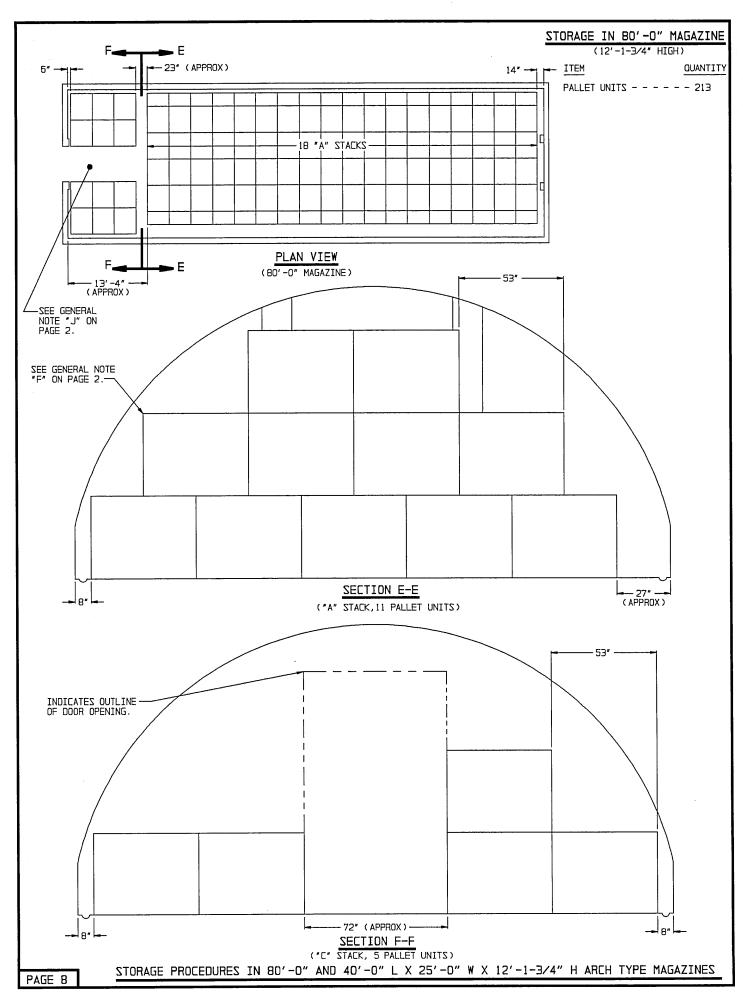




FOR "GENERAL NOTES", SEE PAGE 2.







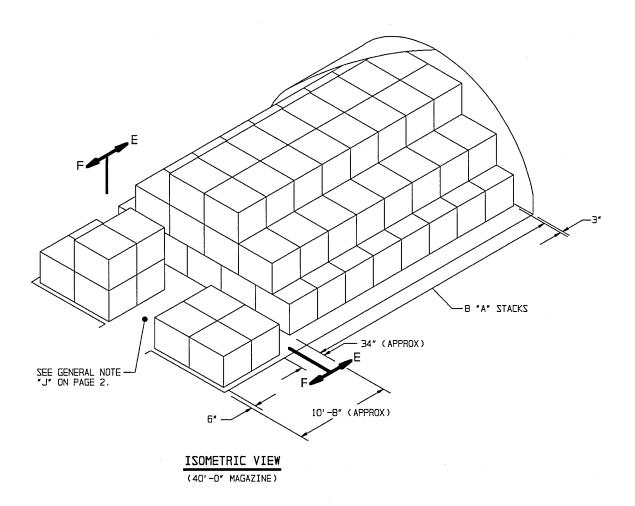
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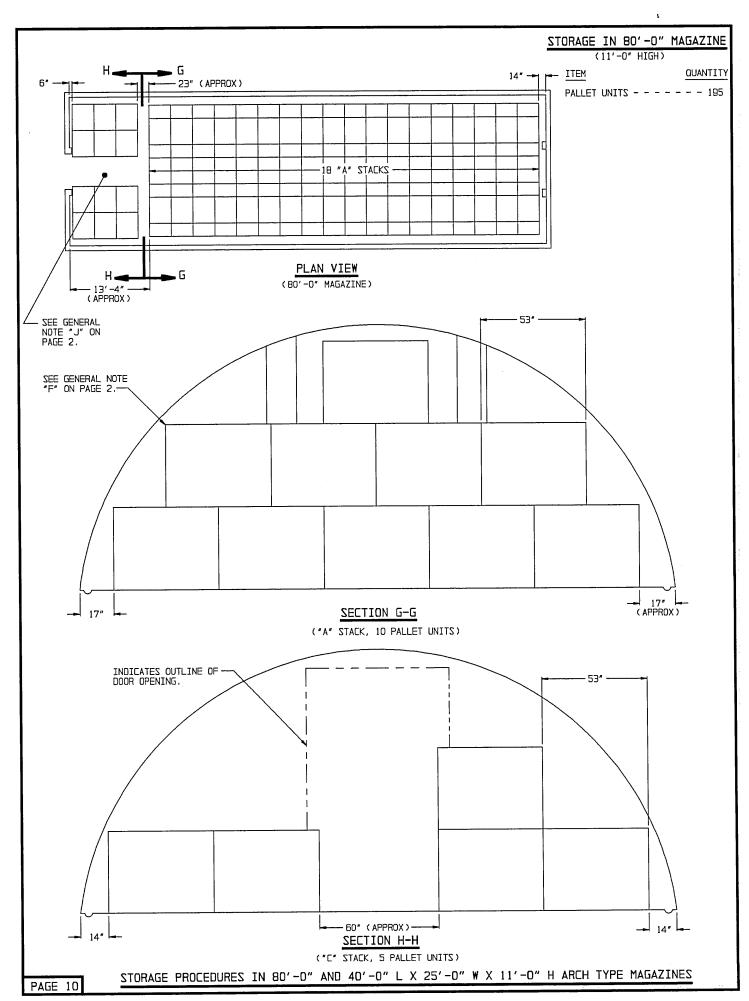
(12'-1-3/4" HIGH)

ITEM

QUANTITY

PALLET UNITS - - - - - 98





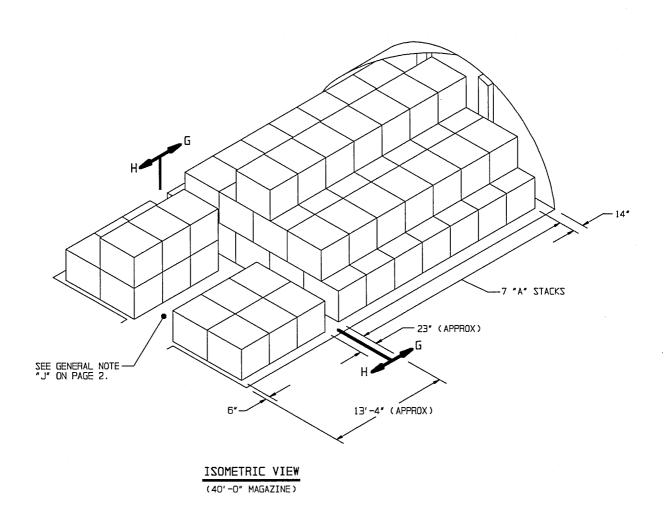
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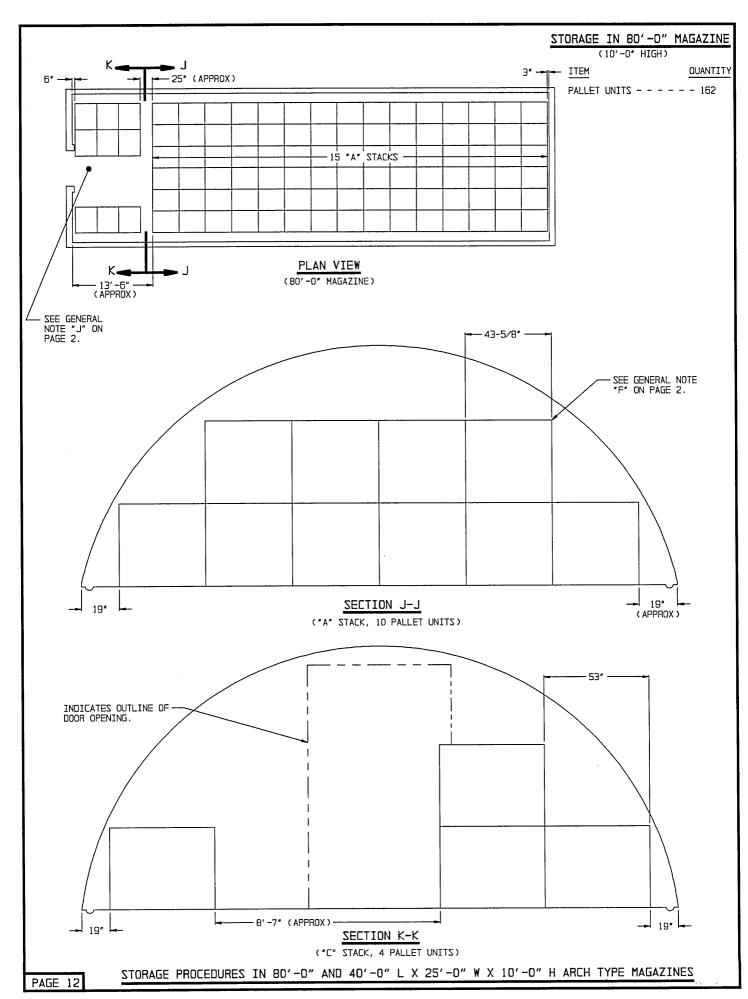
(11'-0" HIGH)

ITEM

QUANTITY

PALLET UNITS - - - - - - 85





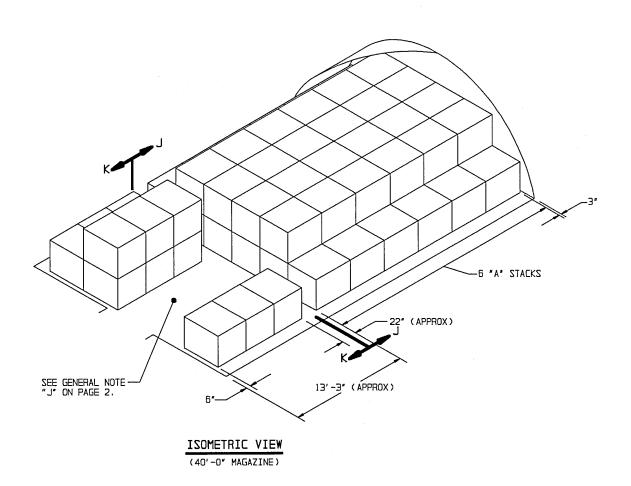
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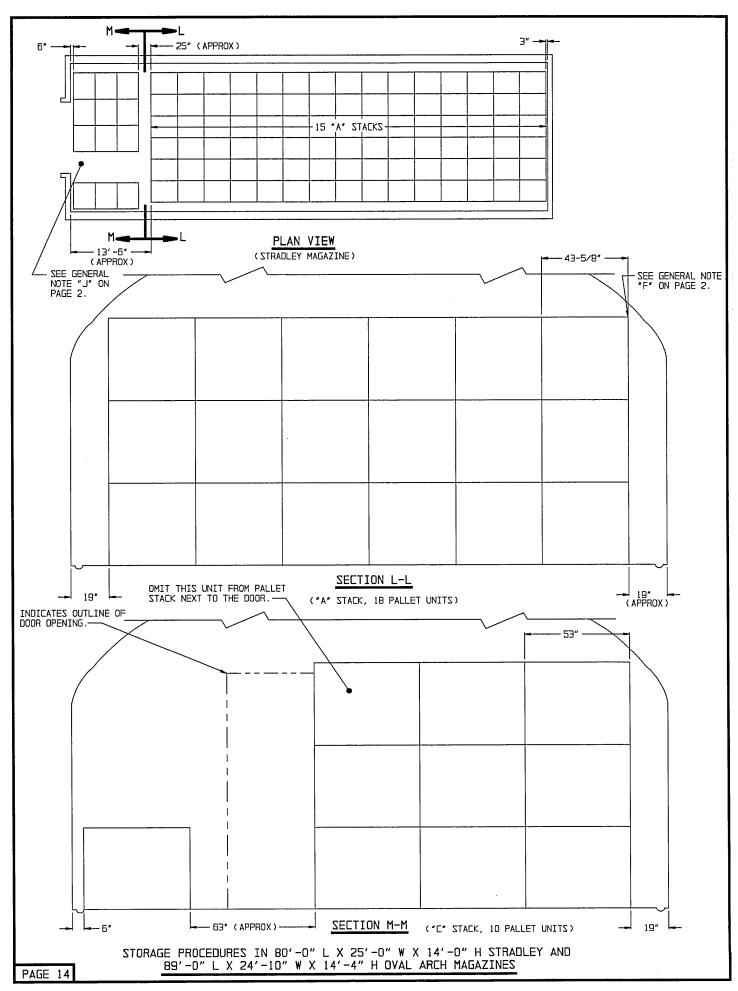
(10'-0" HIGH)

ITEM

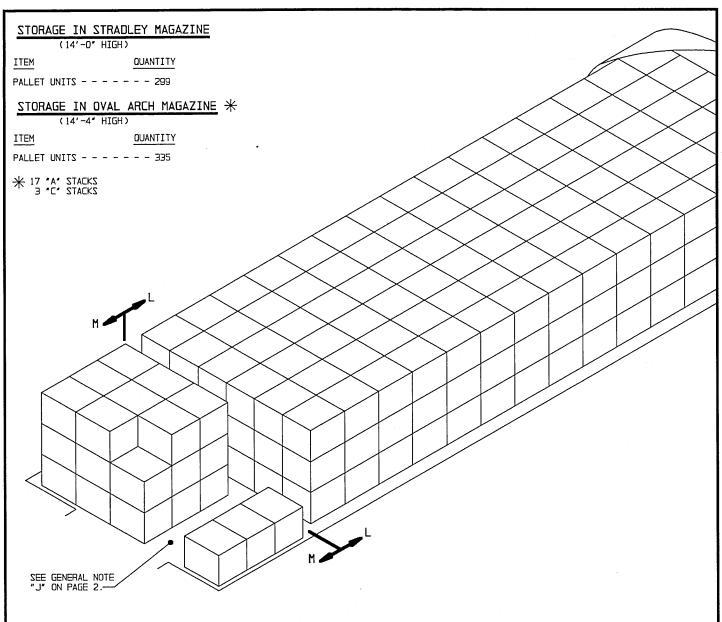
QUANTITY

PALLET UNITS - - - - - 72





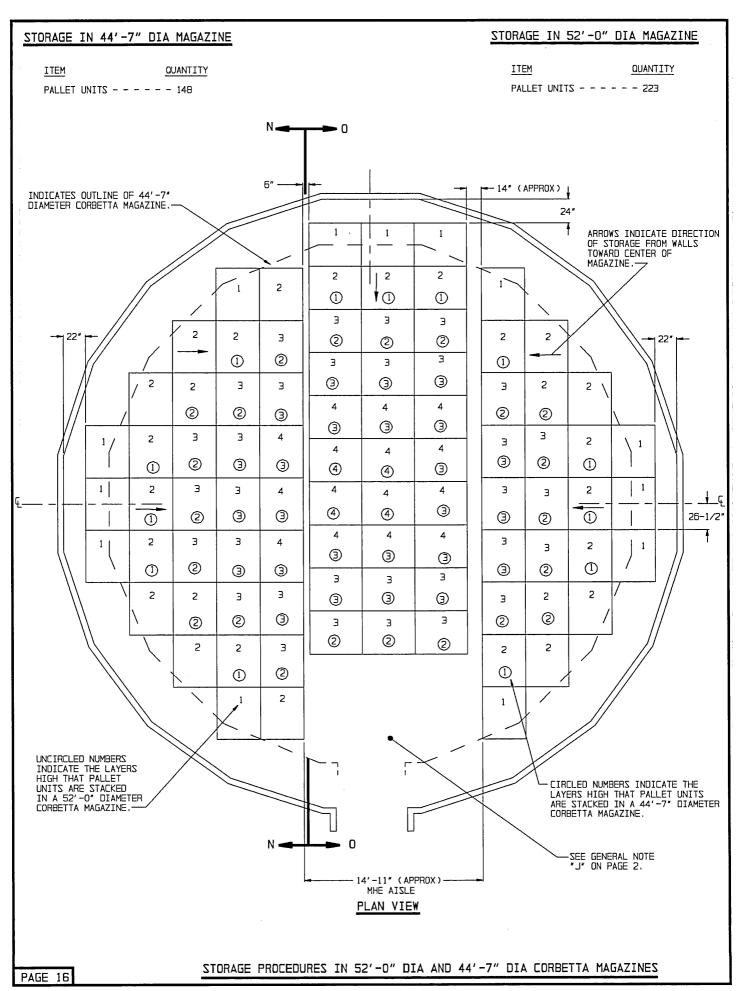
PROJECT CA 155/5-76

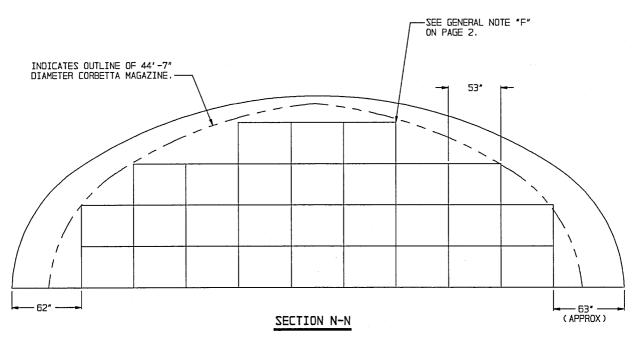


(STRADLEY MAGAZINE)

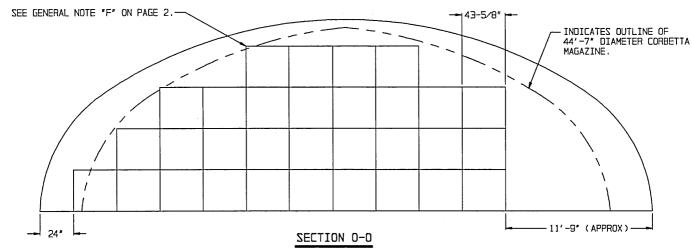
FOR "GENERAL NOTES", SEE PAGE 2.

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 DVAL ARCH MAGAZINES





(28 UNITS PER THIS STACK IN A 52'-0" DIAMETER MAGAZINE, 19 UNITS PER THIS STACK IN A  $44^{\prime}$ -7" DIAMETER MAGAZINE)



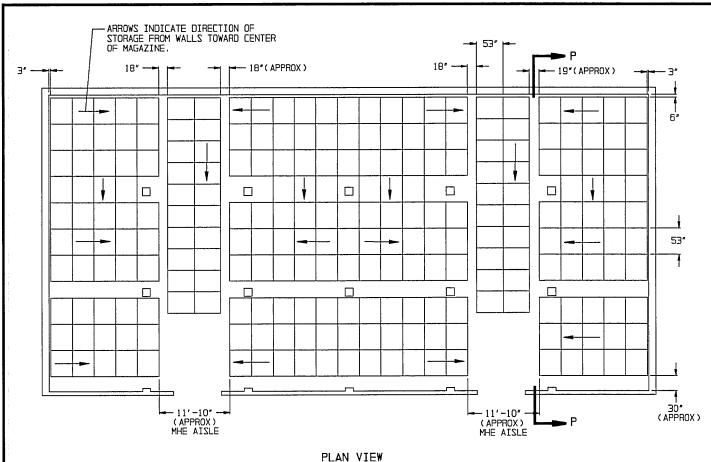
(31 UNITS PER THIS STACK IN A 52'-0" DIAMETER MAGAZINE, 23 UNITS PER THIS STACK IN A 44'-7" DIAMETER MAGAZINE)

## FOR "GENERAL NOTES", SEE PAGE 2.

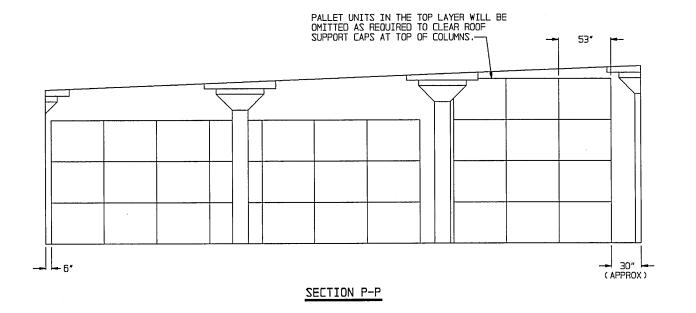
### SPECIAL NOTE:

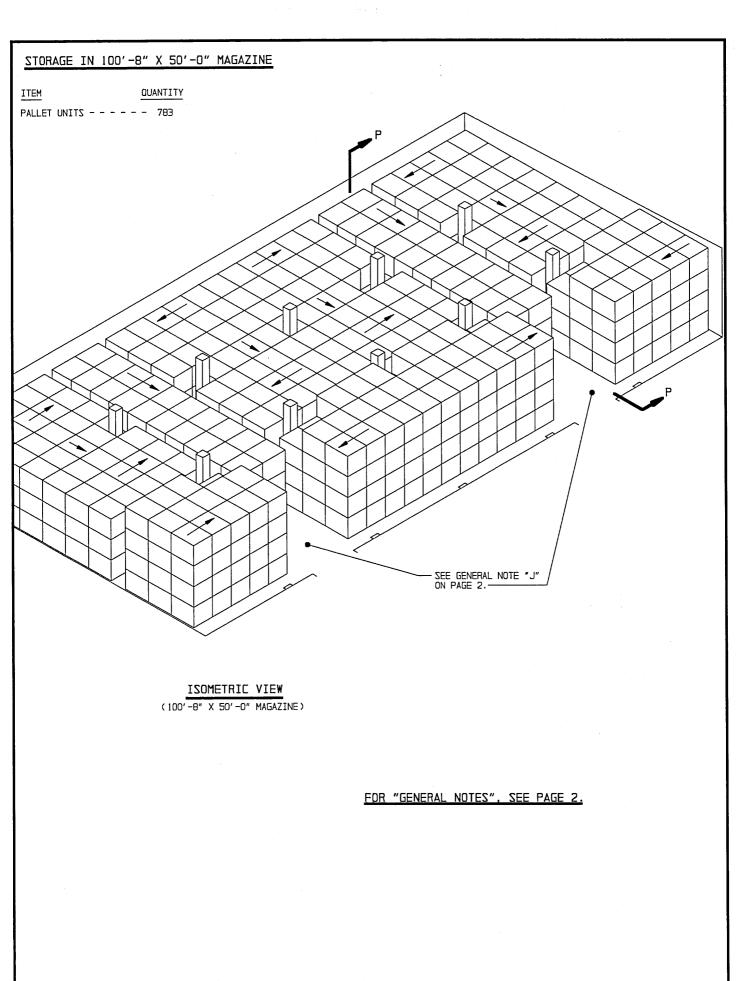
THE PRINCIPLES OF STORAGE IN A 52'-0" DIAMETER CORBETTA MAGAZINE CAN ALSO BE APPLIED FOR STORAGE IN 44'-7" DIAMETER OR OTHER DIAMETER COBETTA MAGAZINES. SOME PALLET STACKS MUST BE OMITTED AND PALLET UNITS MAY NEED TO BE OMITTED FROM SOME PALLET STACKS TO PROVIDE THE NECESSARY CLEARANCE FROM THE MAGAZINE WALL.

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

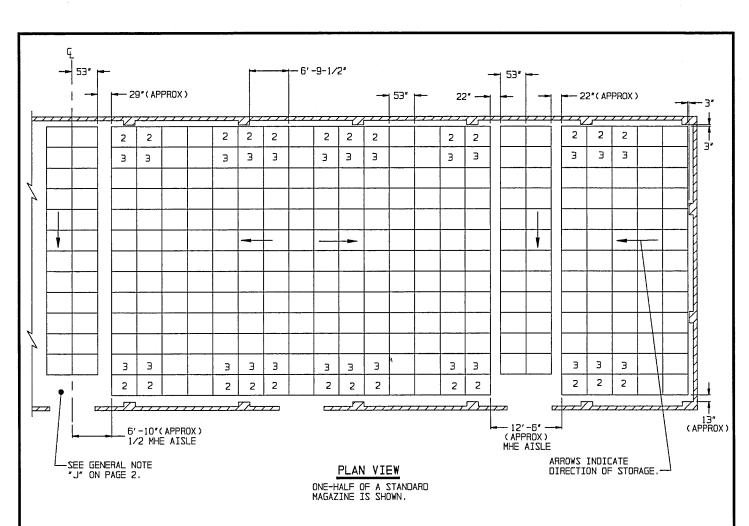


PLAN VIEW
(100'-8" X 50'-0" MAGAZINE)





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



# STORAGE AS SHOWN \*

ONE-HALF OF A STANDARD MAGAZINE

ITEM

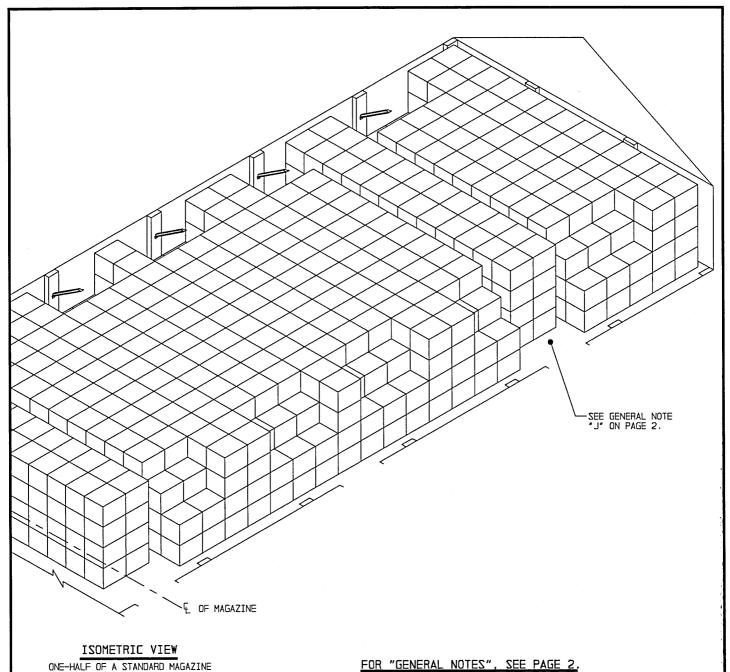
PAGE 20

QUANTITY

PALLET UNITS - - - - - - 1,106

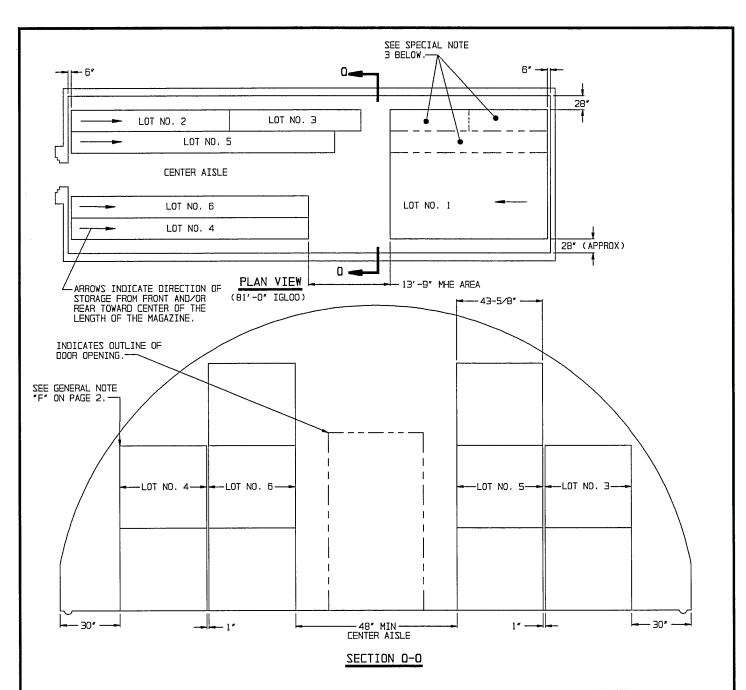
\* STACKS NOT NUMBERED ARE FOUR (4) PALLET UNITS HIGH.

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



ONE-HALF OF A STANDARD MAGAZINE IS SHOWN.

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



PAGE 22

- THE STORAGE PLANS AND CONFIGURATIONS SHOWN ON THIS PAGE ARE TYPICAL ONLY AND APPLY TO RELATIVELY LARGES LOTS. ADAPTATIONS MAY BE MADE AS THE NUMBER AND SIZE OF LOTS TO BE STORED IN THE 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 NONE 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 TWO (2) PALLET UNITS, PROVIDING THE CAPACITY OF MHE PERMITS, AND SAFE HANDLING IS NOT JEOPARDIZED.

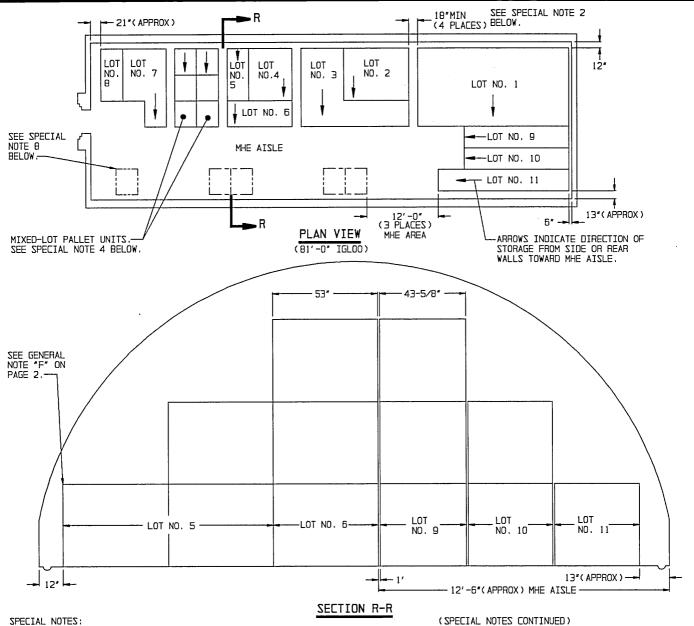
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### (SPECIAL NOTES CONTINUED)

- 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 13'-9' MHE OPERATING AREA HAS BEEN SHOWN. 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 ON EACH SIDE
  OF MAGAZINE) IS TO BE AT LEAST 4B INCHES WIDE. AN AISLE
  SLIGHTLY WIDER THAN 4B INCHES WILL ENHANCE FORKLIFT TRUCK
  MOVEMENT WITHIN A MAGAZINE; HOWEVER, THIS AISLE SHOULD NOT BE
  MADE WIDER IF A LOSS OF STORAGE RESULTS.

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TYPICAL MULTIPLE-LOT STORAGE IN IGLOO AND ARCH TYPE MAGAZINES



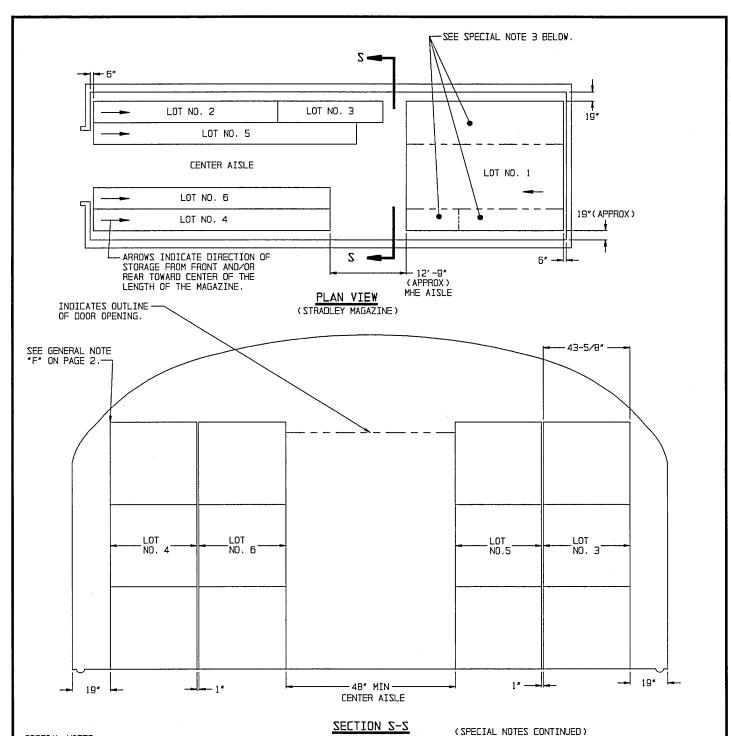
- SPECIAL NOTES:
- THE STORAGE PLANS AND CONFIGURATIONS SHOWN ON THIS PAGE ARE TYPICAL ONLY AND APPLY TO NUMEROUS SMALL LOTS. ADAPTATIONS MAY BE MADE AS NUMBER AND SIZES OF LOTS TO BE STORED IN MAGAZINE REQUIRE.
- AN INSPECTION/INVENTORY AISLE NOT LESS THAN 18° WIDE MUST BE PROVIDED AT ONE SIDE OR END OF EACH LOT.
- 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.
- A MIXED-LOT PALLET UNIT MAY HAVE FROM TWO LOTS PER PALLET UPWARDS TO AS MANY DIFFERENT LOTS AS COMPLETE ROUNDS WITHIN THAT UNIT, HOWEVER, LOTS WITHIN THE PALLET UNIT MUST HAVE THE SAME NATIONAL STOCK NUMBER AND CONDITION CODE.
- EACH LOT WITHIN THE MAGAZINE MUST BE ACCESSIBLE FOR MOVEMENT BY MHE. PALLET UNITS OF A SINGLE-LOT OR MIXED-LOT UNITS ARE CONSIDERED "ACCESSIBLE" IF NO MORE THAN TWELVE (12) "LIFTS" CONSIDERED "ALLESSIBLE" IF NO MORE HAN IWELVE (12) "LIFIS" 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.

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- FOR STORAGE OF MULTIPLE LOTS, THE DISTANCE FROM THE SIDEWALL WILL BE BASED ON THE OVERHEAD CLEARANCE REQUIRED BY 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.
  - AREAS ENCLOSED BY DOTTED LINES INDICATE LOCATIONS WHERE ADDITIONAL LOTS 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 ILLETS" WILL BE MA 100 BEACTORS THRACTIVE ON THE SIZEOUS PROPERTY. WILL BE MAJOR FACTORS IMPACTING ON THE NUMBER OF UNITS THAT CAN BE STORED IN AN "ADDITIONAL STORAGE LOCATION" THAT CAN BE STORED IN AN "ADDITIONAL SIDMADE LULATION".

    MORE OR FEWER STACKS THAN SHOWN MAY BE STORED AT ANY ONE OF
    THE ADDITIONAL LOCATIONS. A 12'-0" MHE OPERATING AREA HAS
    BEEN SPECIFIED FOR ACCESS TO EACH "ADDITIONAL STORAGE LOCATION"
    BY FORKLIFT TRUCK. THIS OPERATING AREA IS BASED ON
    REOUITEMENTS OF FORKLIFT TRUCKS COMMONLY USED IN STORAGE
    MAGAZINES. THE MHE OPERATING AREA CAN BE ENLARGED AS MAGAZINES. THE MHE OPERATING AREA CAN BE ENLAHUEU AS REQUIRED TO SUIT AVAILABLE FORKLIFT TRUCKS, AND SHOULD BE MADE SMALLER IF AVAILABLE MHE PERMITS. A "CENTER AISLE CSPACE BETWEEN STORAGE ON ONE SIDE OF THE MAGAZINE AND AN "ADDITIONAL STORAGE LOCATION") IS TO BE AT LEAST 56" WIDE. AISLE SLIGHTLY WIDER THAN 56" WILL ENHANCE FORKLIFT TRUCK MOVEMENT WITHIN A MAGAZINE. HOWEVER, THIS AISLE SHOULD ANMOVEMENT WITHIN A MAGAZINE. HOWEVER, THIS AISL NOT BE MADE WIDER IF A LOSS IN STORAGE RESULTS.

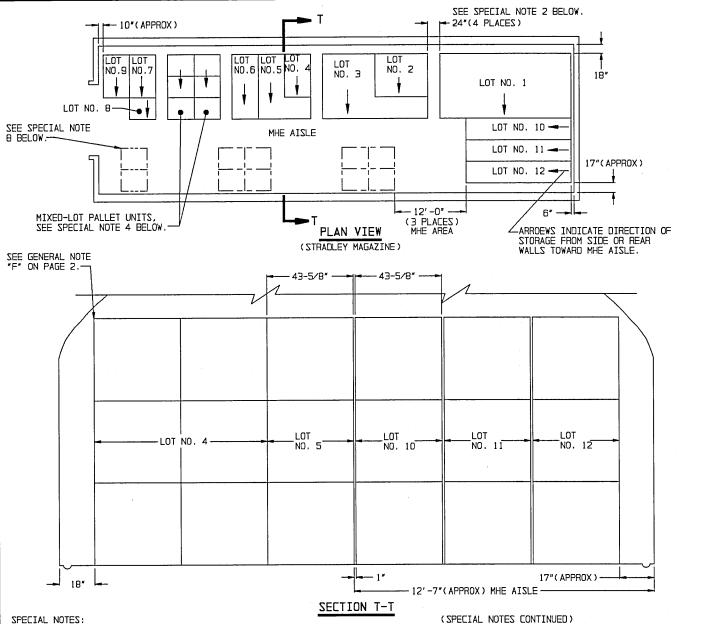
TYPICAL MULTIPLE-LOT STORAGE IN IGLOO AND ARCH TYPE MAGAZINES



- . THE STORAGE PLANS AND CONFIGURATIONS SHOWN ON THIS PAGE ARE TYPICAL ONLY, AND APPLY TO 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. FOR STORAGE OF MULTIPLE LOTS, THE DISTANCE FROM THE SIDEWALL WILL BE BASED ON THE OVERHEAD CLEARANCE REQUIRED FOR MHE.
- 5. EACH LOT WITHIN THE MAGAZINE MUST BE ACCESSIBLE FOR MOVEMENT BY MHE. A SINGLE-LOT OF PALLET UNITS IS CONSIDERED "ACCESSIBLE" IF NO 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 TWO (2) PALLET UNITS, PROVIDING THE CAPACITY OF MHE PERMITS, AND SAFE HANDLING IS NOT JEOPARDIZED.
- 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'-9" MHE OPERATING AREA HAS BEEN SHOWN. 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 ON EACH SIDE OF THE MAGAZINE IS TO BE AT LEAST 48 INCHES WIDE. AN AISLE SLIGHTLY WIDER THAN 48" WILL ENHANCE FORKLIFT TRUCK MOVEMENT WITHIN A MAGAZINE, HOWEVER, THIS AISLE SHOULD NOT BE MADE WIDER IF A LOSS OF STORAGE RESULTS.

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

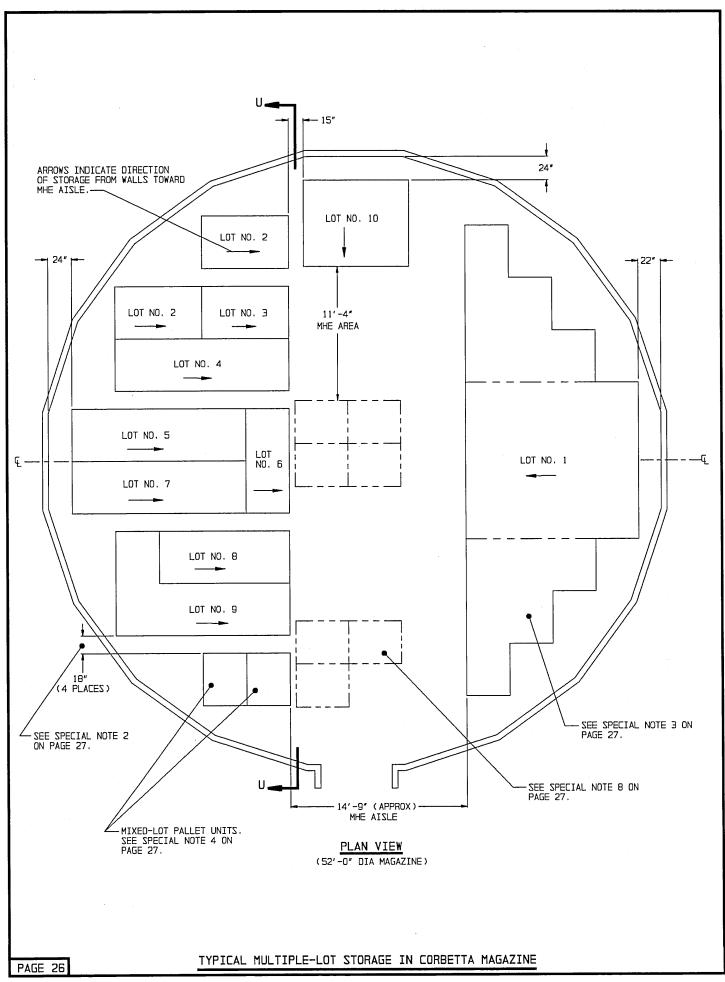


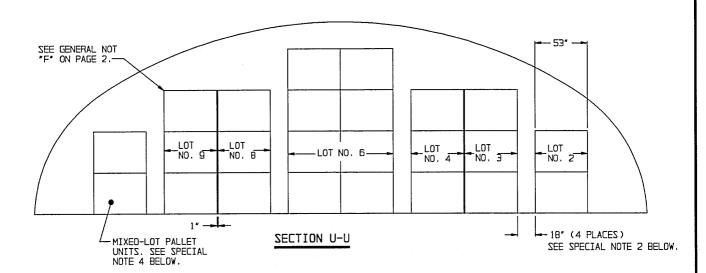
- THE STORAGE PLANS AND CONFIGURATIONS SHOWN ON THIS PAGE ARE TYPICAL ONLY, AND APPLY TO NUMEROUS SMALL LOTS. ADAPTATIONS MAY BE MADE AS NUMBER AND SIZES OF LOTS TO BE STORED IN MAGAZINE REQUIRE.
- AN INSPECTION/INVENTORY AISLE NOT LESS THAN 18" WIDE MUST BE PROVIDED AT ONE SIDE OR END OF EACH LOT.
- 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.
- A MIXED-LOT PALLET UNIT MAY HAVE FROM TWO LOTS PER PALLET UPWARDS TO AS MANY DIFFERENT LOTS AS COMPLETE ROUNDS WITHIN THAT UNIT, HOWEVER, LOTS WITHIN THE PALLET UNIT MUST HAVE THE SAME NATIONAL STOCK NUMBER AND CONDITION CODE.
- EACH LOT WITHIN THE MAGAZINE MUST BE ACCESSIBLE FOR MOVEMENT BY MHE. PALLET UNITS OF A SINGLE-LOT OR MIXED-LOT 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 TWO (2) PALLET UNITS, PROVIDING THE CAPACITY OF THE MHE PERMITS AND SAFE HANDLING IS NOT JEOPARDIZED.

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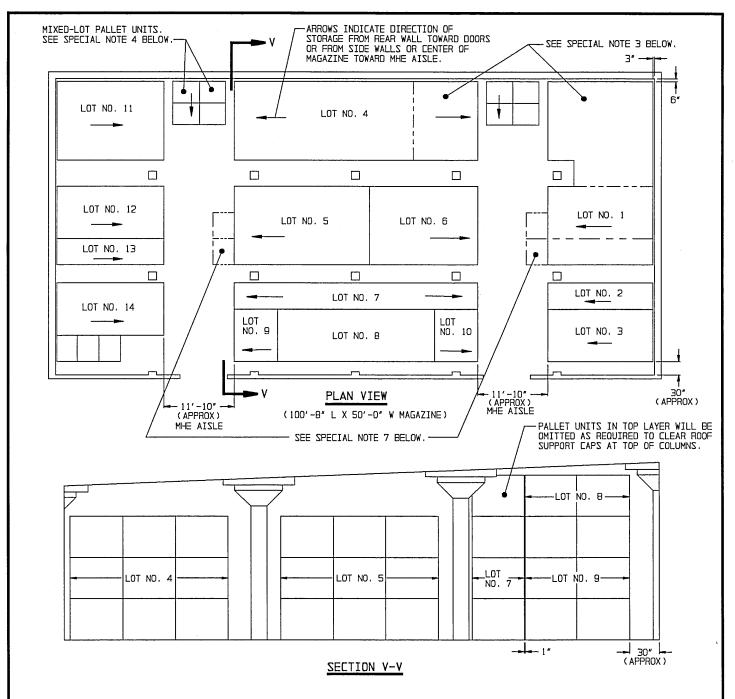
- FOR STORAGE OF MULTIPLE LOTS, THE DISTANCE FROM THE SIDEWALL WILL BE BASED ON THE OVERHEAD CLEARANCE REQUIRED BY MHE.
- WHEN TWO LOTS ARE STORED ADJACENT TO EACH OTHER, THEY SHOULD BE SEPARATED BY AT LEAST 1" TO PROVIDE CLEARANCE FOR REMOVAL OF EITHER LOT.
  - AREAS ENCLOSED BY DOTTED LINES INDICATE LOCATIONS WHERE ADDITIONAL LOTS OR WHERE ADDITIONAL LITEMS 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 LOCATIONS. A 12'-O" 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 FORKLIFT TRUCKS, AND SHOULD BE MADE SMALLER IF AVAILABLE MHE PERMITS. A "CENTER AISLE (SPACE BETWEEN STORAGE LOCATION") IS TO BE AT LEAST 56" WIDE. AN AISLE SLIGHTLY WIDER THAN 56" 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 AND OVAL ARCH TYPE MAGAZINE





- THE STORAGE PLANS AND CONFIGURATIONS SHOWN ON THIS PAGE AND ON PAGE 26 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.
- 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 ROWS SIMILAR TO THOSE SHOWN ON THE LEFT SIDE. EACH ADDITIONAL 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 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 TWO (2) PALLET UNITS, PROVIDING THE CAPACITY OF THE MHE PERMITS, AND SAFE HANDLING IS NOT JEOPARDIZED.
- 6. 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 MAY BE STORED OR WHERE ADDITIONAL ITEMS MAY BE STORED, THAT ARE FROM A LOT OR LOTS ADJACENT TO THE MHE AISLE. 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 PALLET 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 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 ON ONE SIDE OF A MAGAZINE AND AN "ADDITIONAL STORAGE LOCATION") IS TO BE AT LEAST 56" WIDE. AN AISLE SLIGHTLY WIDER THAN 56" WILL ENHANCE FORKLIFT TRUCK MOVEMENT WHITHIN A MAGAZINE. HOWEVER, THIS AISLE SHOULD NOT BE MADE WIDER IF A LOSS IN STORAGE RESULTS.



- THE STORAGE PLANS AND CONFIGURATIONS SHOWN ON THIS PAGE 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 OR END OF EACH LOT.
- 3. 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 SIMILAR TO THOSE SHOWN IN THE SMALLER SIZED LOTS, OR AS TYPICALLY SHOWN BY DOTTED LINES. EACH ADDITIONAL 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 LOTS WITHIN THE PALLET UNIT MUST HAVE THE SAME NATIONAL STOCK NUMBER AND CONDITION CODE.

#### (SPECIAL NOTES CONTINUED)

- 5. 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.
- 6. EACH LOT WITHIN THE MAGAZINE MUST BE ACCESSIBLE FOR MOVEMENT BY MHE. PALLET UNITS OF A SINGLE-LOT ARE CONSIDERED "ACCESSIBLE" IF NO MORE THAN TWENTY FOUR (24) "LIFTS" OF ANOTHER LOT OR LOTS HAVE TO BE MADE TO GAIN ACCESS TO THE SINGLE LOT. 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.
- 7. THE MHE AISLE MAY BE USED TO STORE ADDITIONAL LOTS, OR ADDITIONAL ITEMS THAT ARE FROM A LOT ADJACENT TO THE MHE AISLE, AS SHOWN IN THE AREAS ENCLOSED BY DOTTED LINES. ADEOUATE SPACE FOR MHE OPERATION MUST BE AVAILABLE FOR THE ADDITIONAL STORAGE. ALSO, COMPLIANCE WITH ALL OF THE MULTIPLE-LOT CRITERIA AS SET FORTH ON THIS PAGE MUST BE OBSERVED.

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TYPICAL MULTIPLE-LOT STORAGE IN RECTANGULAR MAGAZINE