# STORAGE IN APPROVED MAGAZINES OF BULK EXPLOSIVES PACKED IN FIBERBOARD BOXES UNITIZED ON 35" X 45-1/2" AND 40" X 48" 4-WAY ENTRY PALLETS

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NOTE: THIS DRAWING, INCLUDING REVISIONS SUPERSEDES DRAWING NO. 19-48-4097-1-14PB-1002, DATED JANUARY 1972

MATERIEL COMMAND ARMY DRAWING APPROVED, U.S. ARMY INDUSTRIAL OPERATIONS COMMAND DRAFTSMAN INGEBORG DEPPE / D. WHITMORE M. DAEUMER ENGINEER SUPPLY ENGINEERING AMSTA-AR-ESK NOIZIVID APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND LOGISTICS ENGINEERING **FEBRUARY** 1987 NOISIVIO CLASS DRAWING FILE U.S. ARMY DEFENSE AMMUNITION CENTER AND SCHOOL REVISION NO. 2 DECEMBER 1996 1-3-4-14 4097 19 48 22 PA1009 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 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 BULK EXPLOSIVE 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.
- CAUTION: THE ALLOWABLE "EXPLOSIVE LIMIT" ESTABLISHED FOR A MAGAZINE IS NOT TO BE EXCEEDED. STORAGE OF SOME SPECIFIC TYPES OF BULK EXPLOSIVES MUST ALSO COMPLY WITH CURRENT DIRECTIVE AND REGULATORY REQUIREMENTS OTHER THAN AS SPECIFIED IN THIS DRAWING.
- 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.
- IF AVAILABLE MHE PERMITS, ADDITIONAL PALLET UNITS MAY BE STORED WITHIN THE MHE AREA AND/OR OTHER AVAILABLE AREA OF THE MAGAZINE. NOTE THAT IF THE EXPLOSIVE LIMIT OF THE MAGAZINE HAS BEEN MET, ADDITIONAL PALLET UNITS OF NON-EXPLOSIVE MATERIAL MAY BE STORED IN THE MHE AREA OR OTHER AVAILABLE AREA OF THE MAGAZINE. G.
- 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 L. WHEN LIFTING TWO PALLET UNITS AS ONE LIFT.
- STACK-STABILIZING DUNNAGE IN THE FORM OF "SHIMS" MAY BE REQUIRED TO ACHIEVE SOUND AND ACCEPTABLE STABILE STACKS. SHIM MATERIAL OF VARYING THICKNESSES WILL BE USED AS REQUIRED TO GAIN LEVEL OR NEARLY LEVEL STACKS AND SOLID BEARING WITHIN A STACK FROM THE FLOOR OF A MAGAZINE TO THE TOP OF THE STACK.
- PORTIONS OF THE MAGAZINES, SUCH AS SIDEWALLS, END WALLS, AND ROOFS, HAVE NOT BEEN SHOWN IN THE STORAGE VIEWS FOR CLARITY PURPOSES.
- 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 44 THRU
- 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 43 CAN ALSO BE ADAPTED FOR THE STORING OF MORE THAN ONE LOT RATHER LARGE LOTS OF THE STRETCH NET METHOD UNITS WHICH ARE STORED MORE THAN ONE LAYER HIGH MUST BE STORED AT LEAST TWO ROWS WIDE, WITH THE UPPER LAYER UNITS CENTERED OVER THE JOINT BETWEEN THE FIRST LAYER UNITS FOR EACH LOT, IN ACCORDANCE WITH A BASIC STORAGE PATTERN. SMALL LOTS OF THE STRECH NET METHOD UNITS MAY BE STACKED IN VERTICAL ALIGNMENT AS TYPICALLY SHOWN

(CONTINUED AT RIGHT)

### MATERIAL SPECIFICATION

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

### (GENERAL NOTES CONTINUED)

ON PAGE 45. LOTS OF THE SIDE PANEL METHOD UNITS MAY BE ARRANGED WITH VERTICAL STACKS AND 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 45-3/4" OR 48-1/4" DIMENSION OF THE UNIT, 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 37" OR 40-1/2" DIMENSION OF THE UNIT, 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, IT IS PERMISSIBLE TO STORE THAT LOT WITH THE 45-3/4" OR 49-1/4" DIMENSION ESTABLISHING THE WIDTH OF THAT ROW, PROVIDING THE STORAGE PRICIPLES 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 44 THRU 50. ON PAGES 44 THRU 50.

- N. ANY "LIGHT" PALLET UNIT THAT DOES NOT CONTAIN A FULL QUANTITY OF UNITS WILL NOT BE BURIED IN STORAGE. IT MUST BE POSITIONED ADJACENT TO AN AISLE, PREFERABLY IN FRONT OF THE LOT.
- BULK EXPLOSIVES PRESENTLY STORED IN ACCORDANCE WITH A PRIOR APPROVED DRAWING NEED NOT BE RE-STORED SOLELY TO CONFORM TO THE PROCEDURES SPECIFIED IN THIS DOCUMENT.

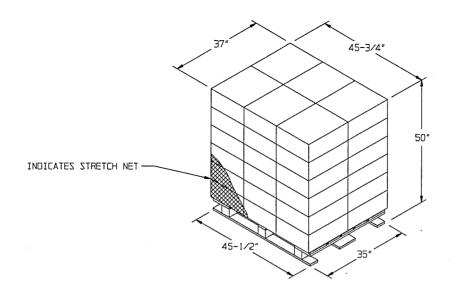
### REVISIONS

REVISION NO. 1, DATED FEBRUARY 1987, CONSISTS OF:

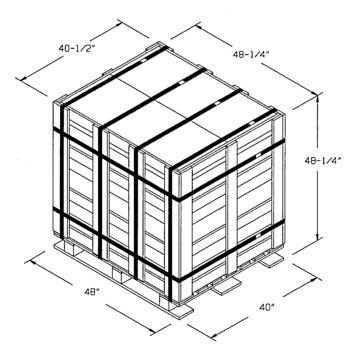
- DELETING THE PALLETIZING AND STORAGE PROCEDURES FOR THE 34-BOX PALLET UNIT.
- ADDING PROCEDURES FOR STORAGE OF THE 36-BOX PALLET UNIT, STRETCH NET METHOD, AND THE 36-BOX PALLET UNIT, SIDE PANEL METHOD.

REVISION NO. 2, DATED DECEMBER 1996 CONSISTS OF:

- 1. CONVERTING DRAWING TO CAD.
- 2. DUE TO THE HEIGHT DIMENSION OF IGLOO MAGAZINES AS SHOWN ON PAGES 4 AND 5, REVISING STORAGE PROCEDURES AND PALLET UNIT QUANTITIES AS NECESSARY.



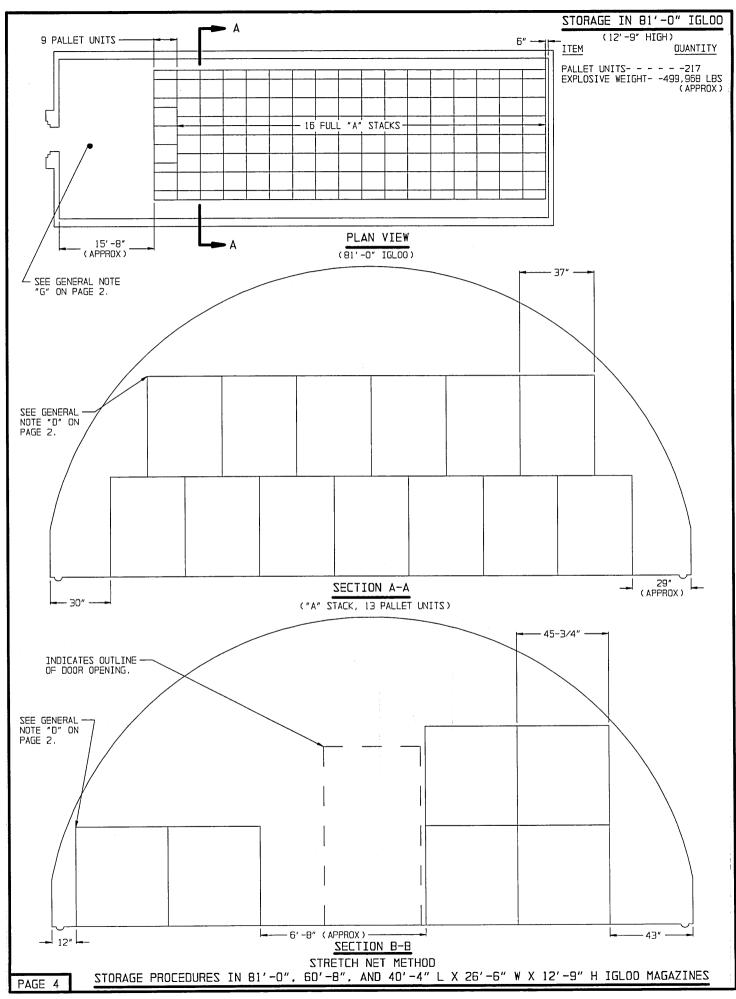
# STRETCH NET METHOD

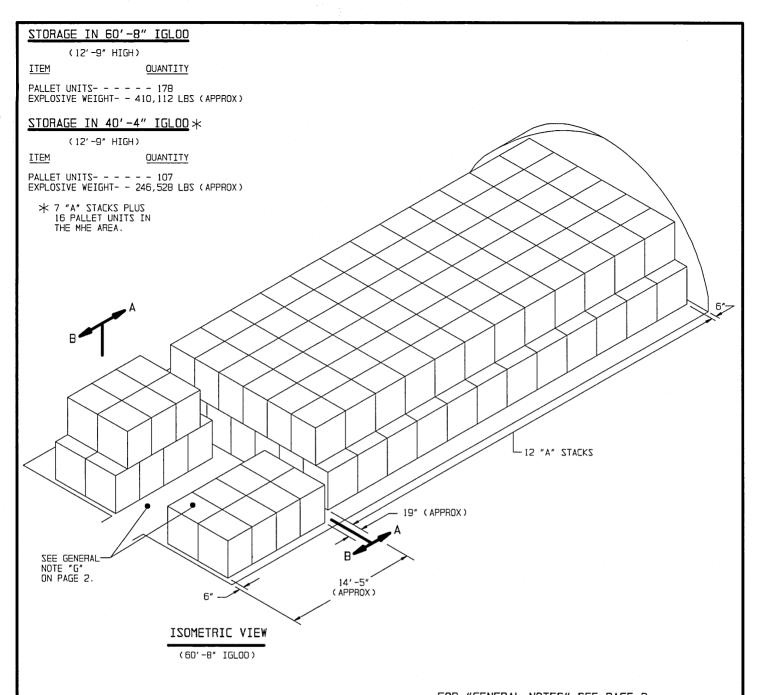


## SIDE PANEL METHOD

36 BOXES OF EXPLOSIVES AT 54 LBS - - - - 1,944 LBS (APPROX) TOTAL WEIGHT - - - - - - - - - - - 2,116 LBS (APPROX) CUBE - - - - - - - - - - - - - 54.6 CU FT FOR UNITIZATION PROCEDURES, REFER TO U.S. ARMY AMC DRAWING C-AMXSV-4071

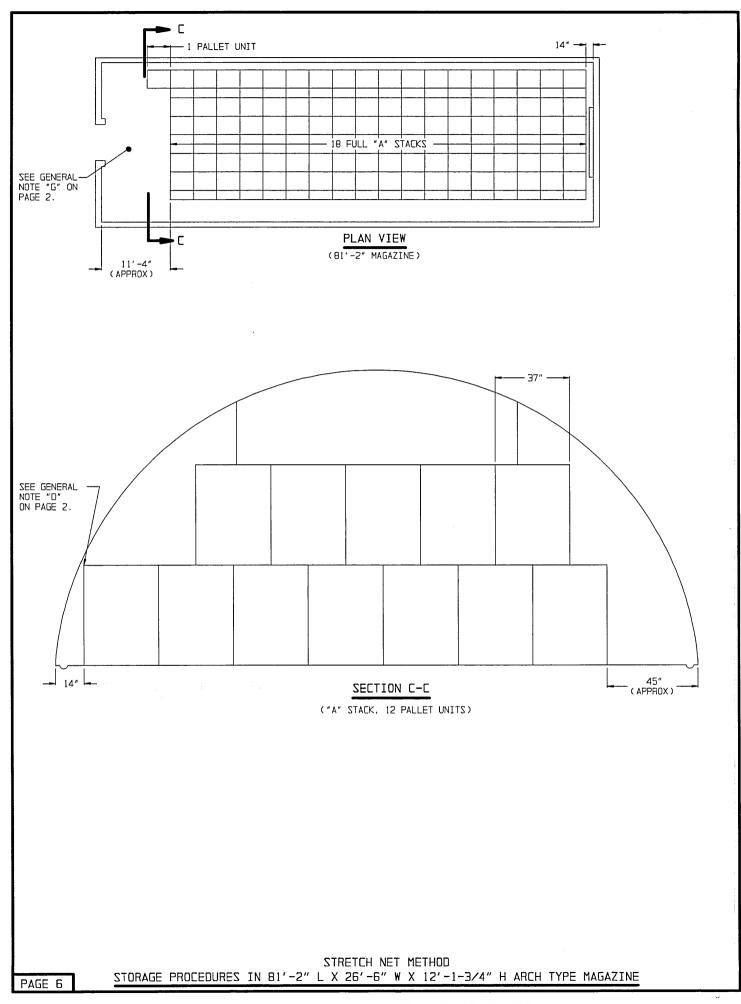
PALLET UNIT DETAILS

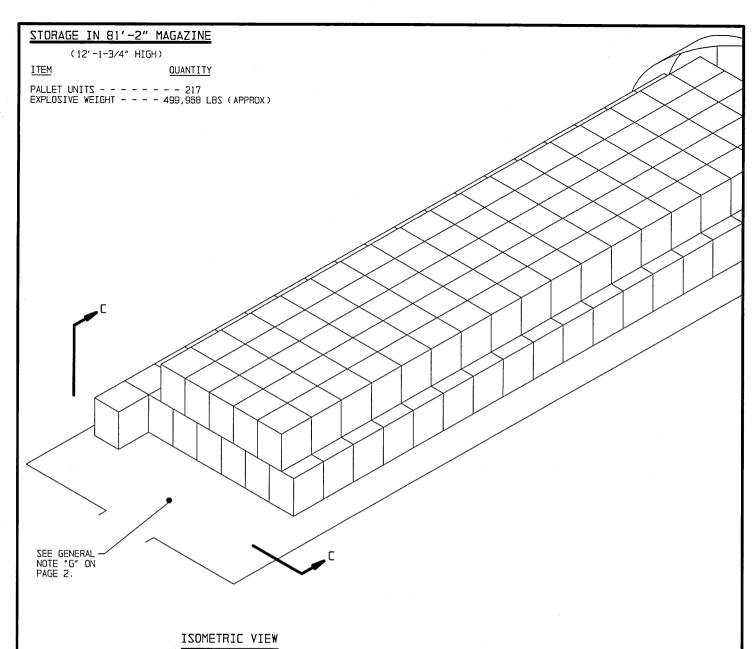




STRETCH NET METHOD

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



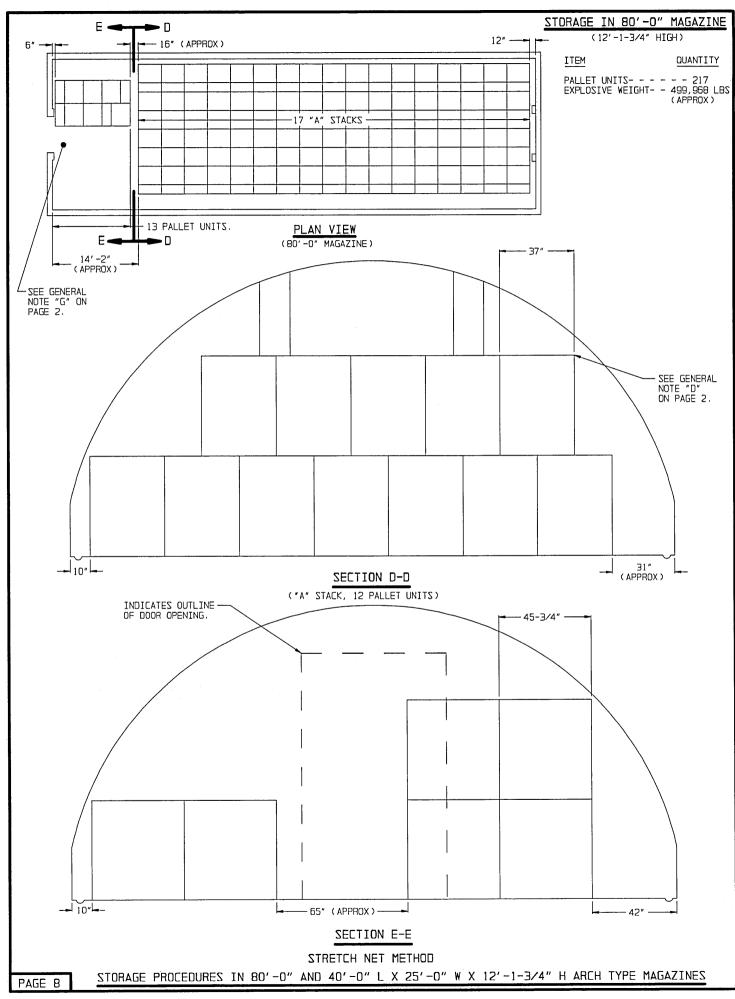


STRETCH NET METHOD

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

PAGE 7

(81'-2" MAGAZINE)

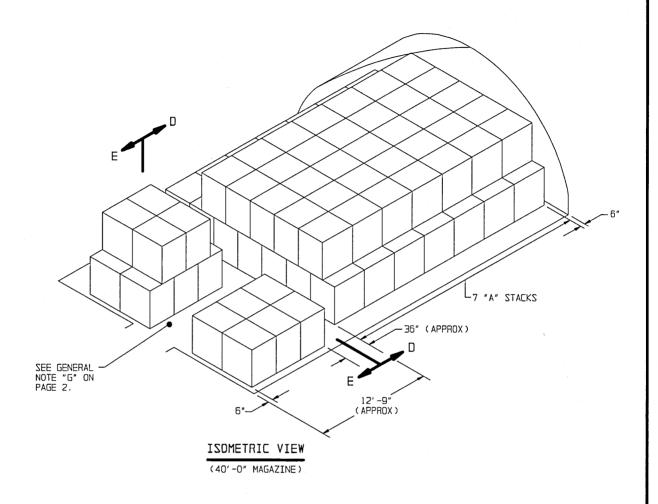


(12'-1-3/4" HIGH)

ITEM

QUANTITY

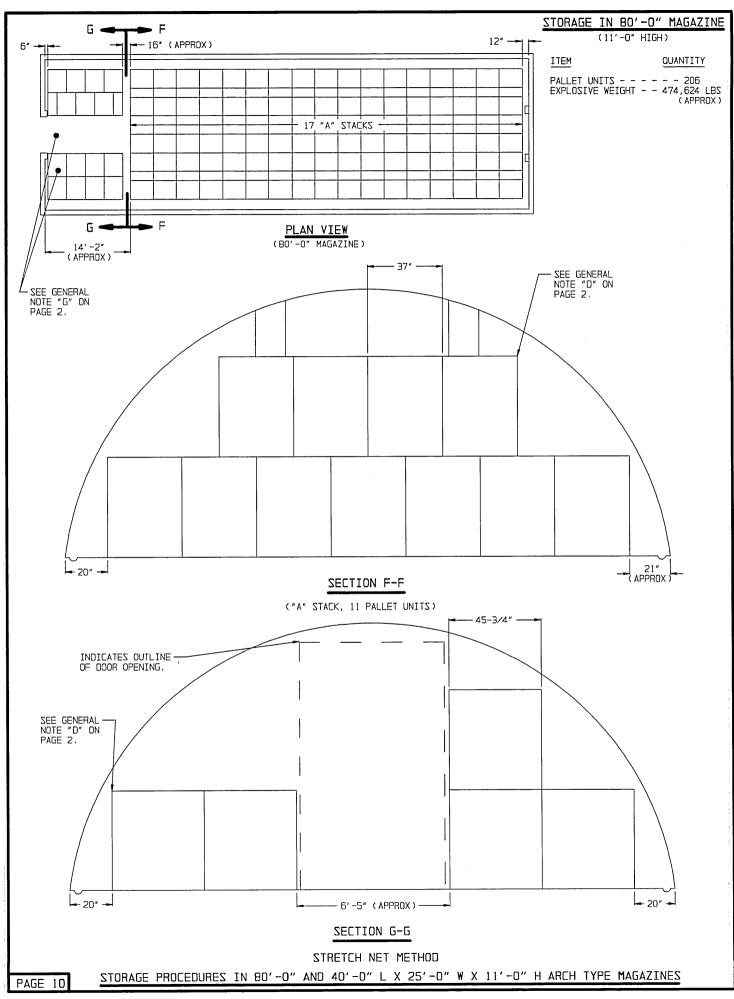
PALLET UNITS- - - - - - 100 EXPLOSIVE WEIGHT- - 230,400 LBS (APPROX)



FOR "GENERAL NOTES" SEE PAGE 2.

STRETCH NET METHOD

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

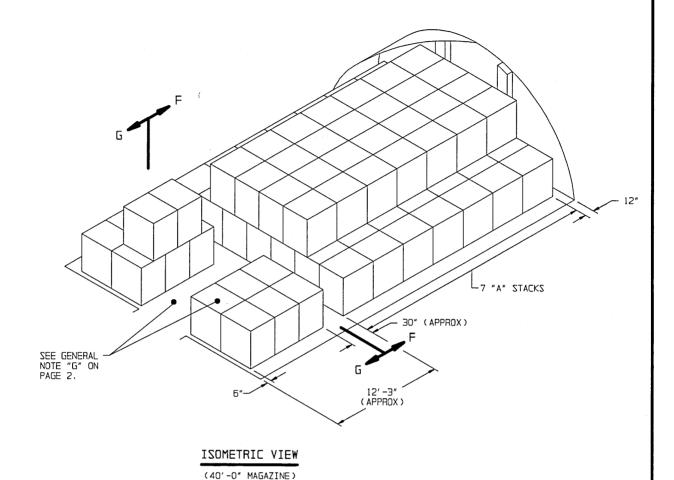


(11'-0" HIGH)

ITEM

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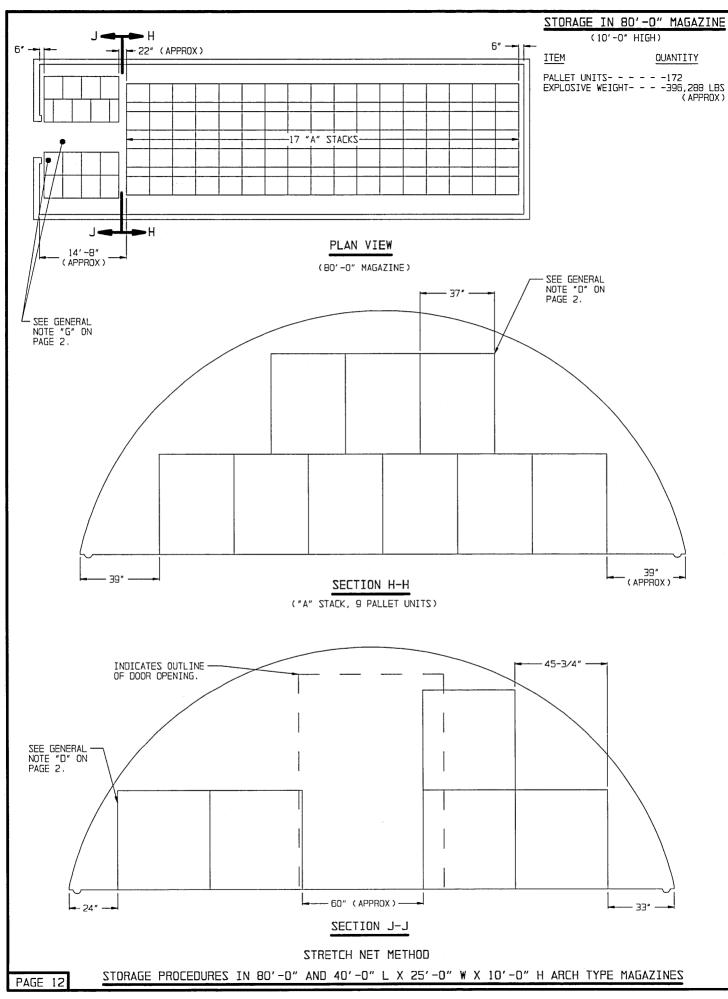
PALLET UNITS- - - - - - - - - 91 EXPLOSIVE WEIGHT- - 209,664 LBS (APPROX)



FOR "GENERAL NOTES" SEE PAGE 2.

STRETCH NET METHOD

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

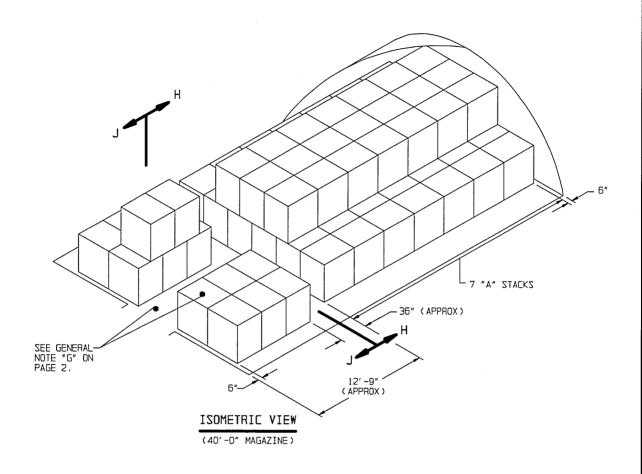


(10'-0" HIGH)

ITEM

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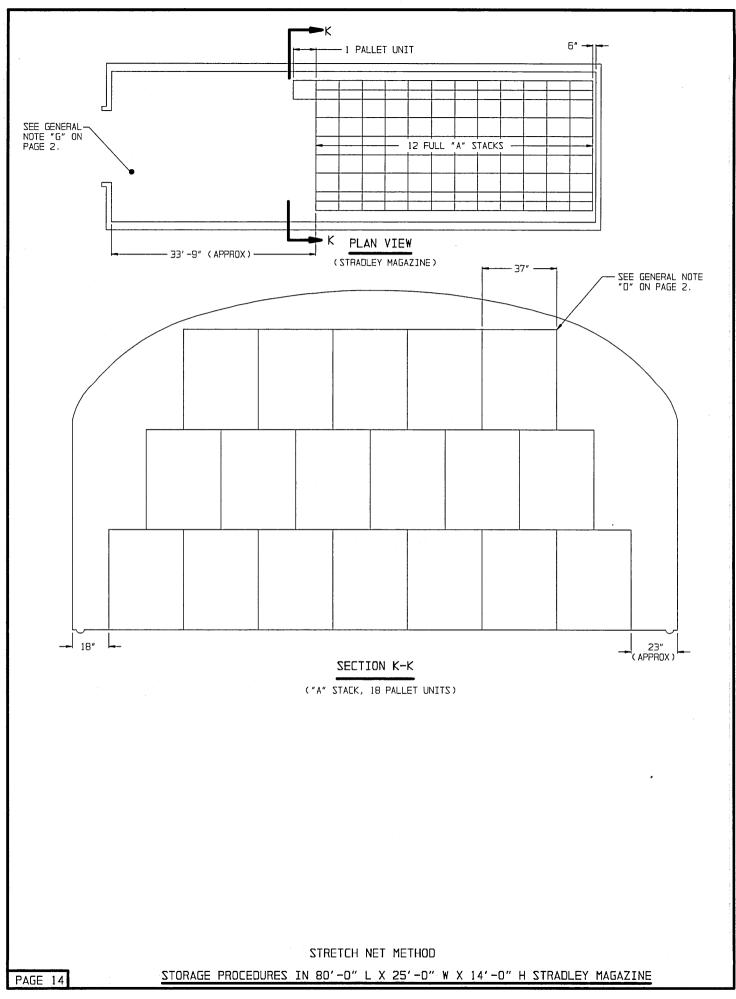
PALLET UNITS - - - - 77 EXPLOSIVE WEIGHT - - 177,408 LBS (APPROX)

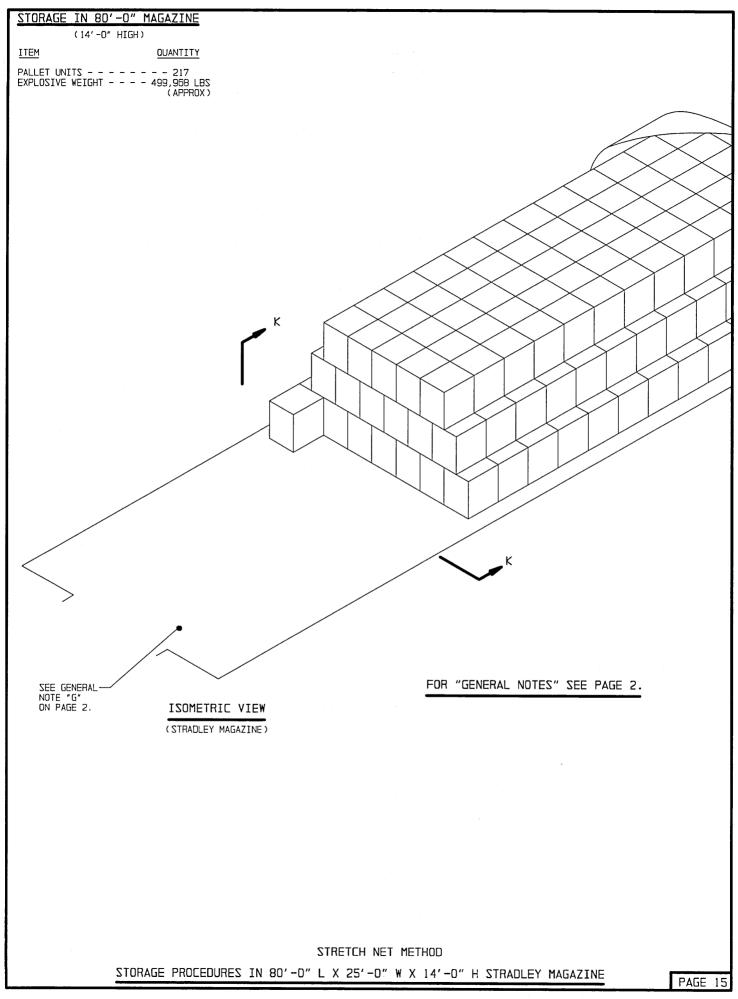


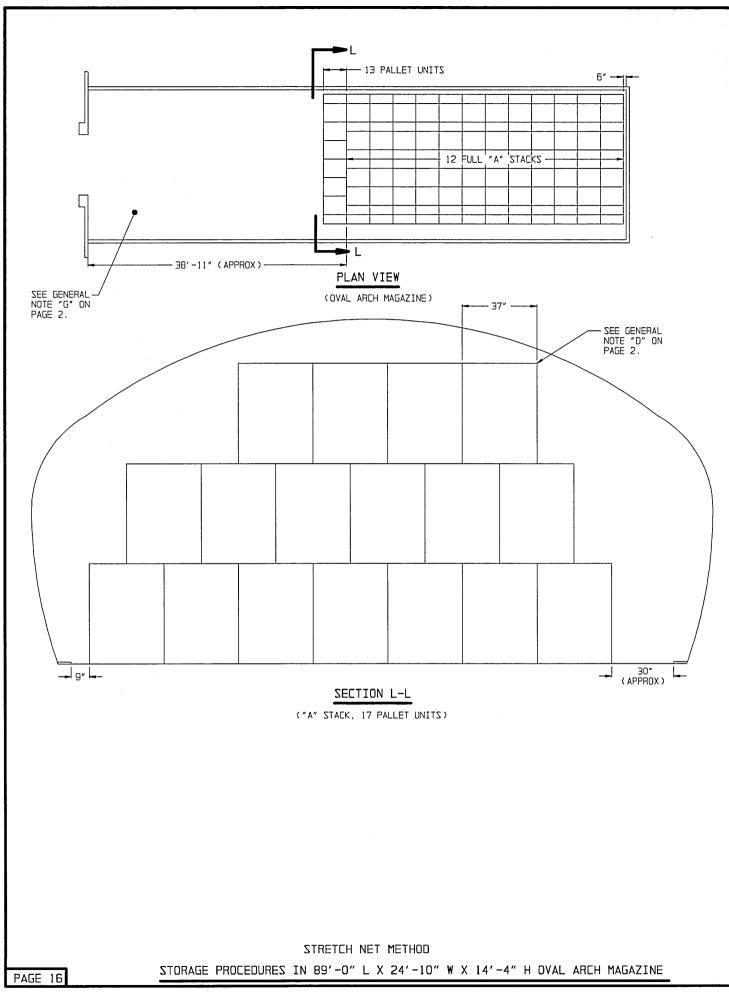
FOR "GENERAL NOTES" SEE PAGE 2.

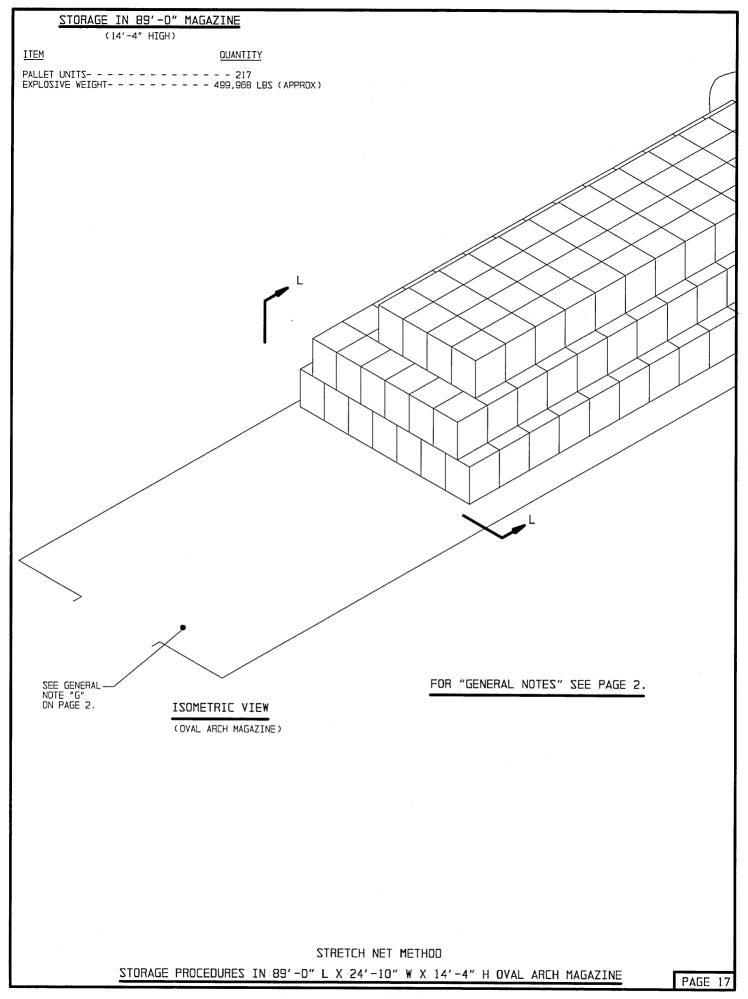
STRETCH NET METHOD

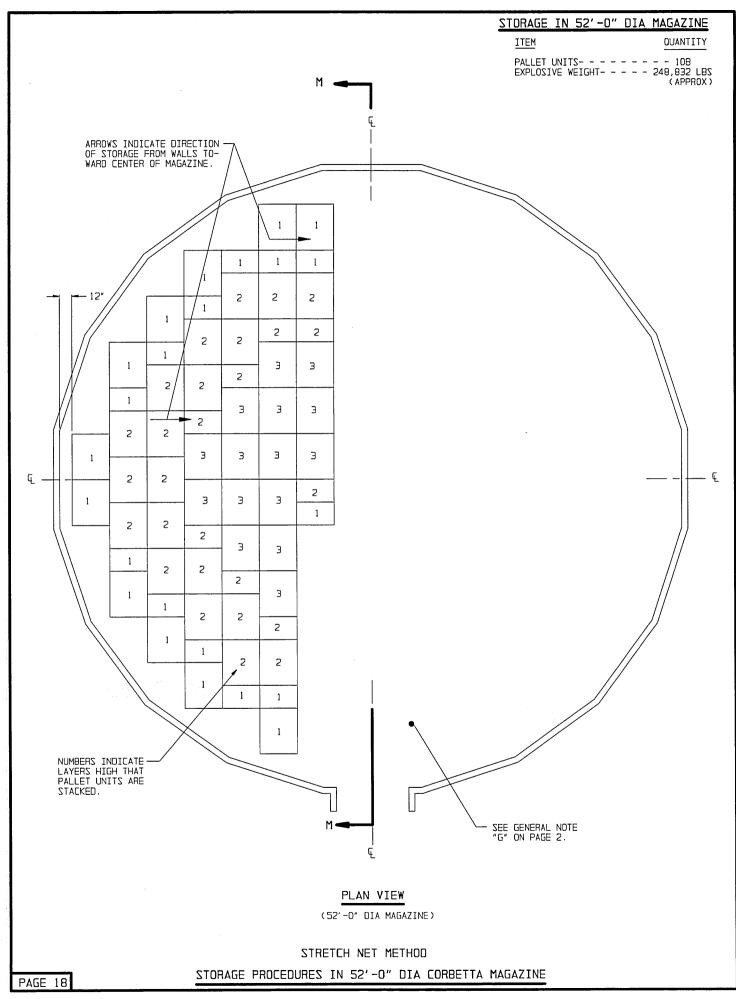
STORAGE PROCEDURES IN 80'-0" AND 40'-0" L X 25'-0" W X 10'-0" H ARCH TYPE MAGAZINES

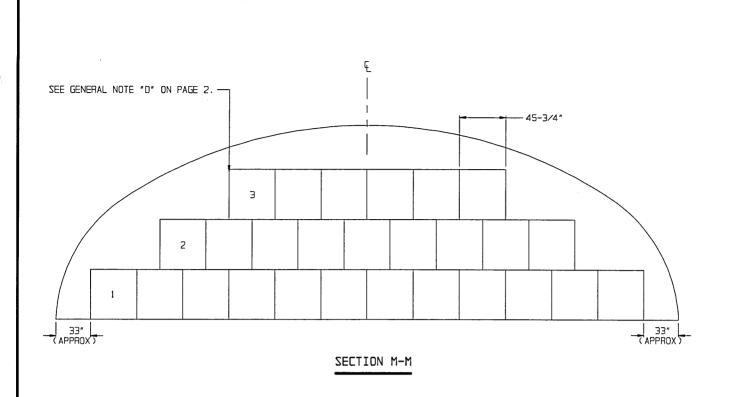






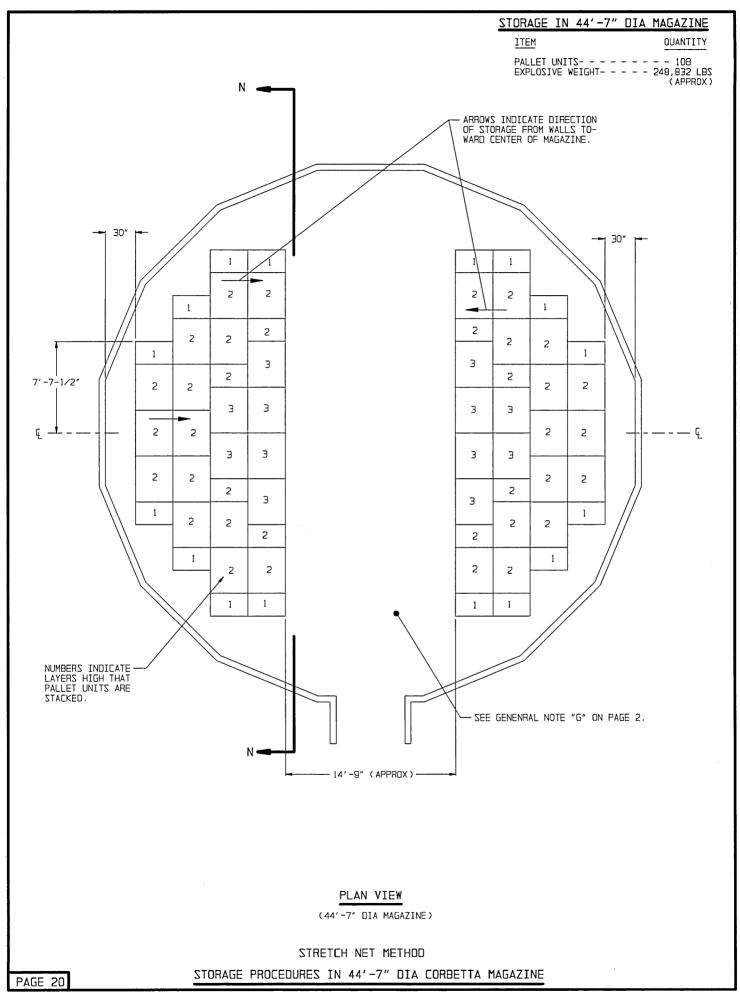


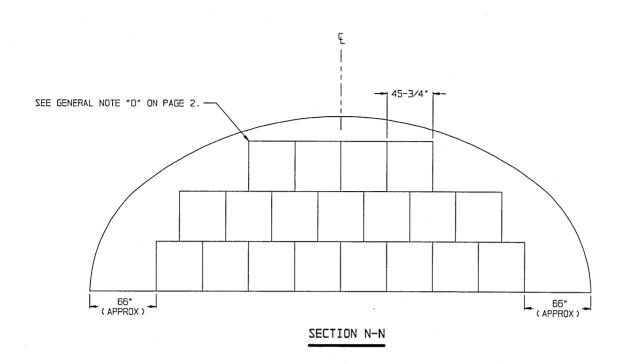




STRETCH NET METHOD

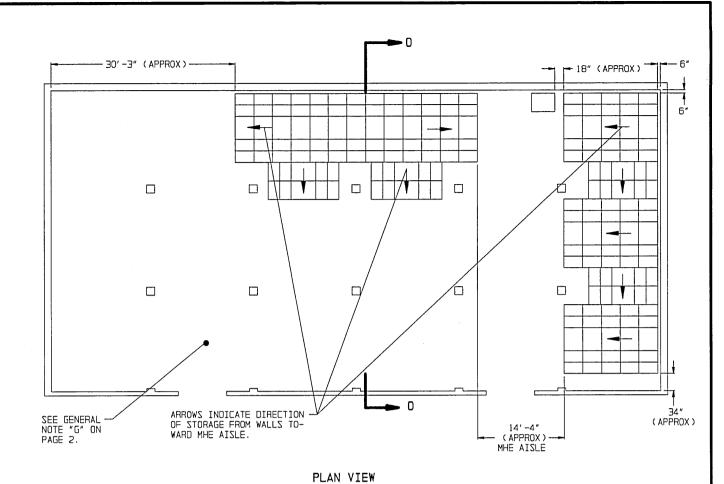
STORAGE PROCEDURES IN 52'-0" DIA CORBETTA MAGAZINE



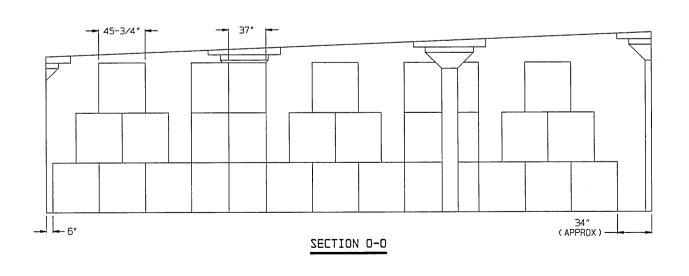


STRETCH NET METHOD

STORAGE PROCEDURES IN 44'-7" DIA CORBETTA MAGAZINE

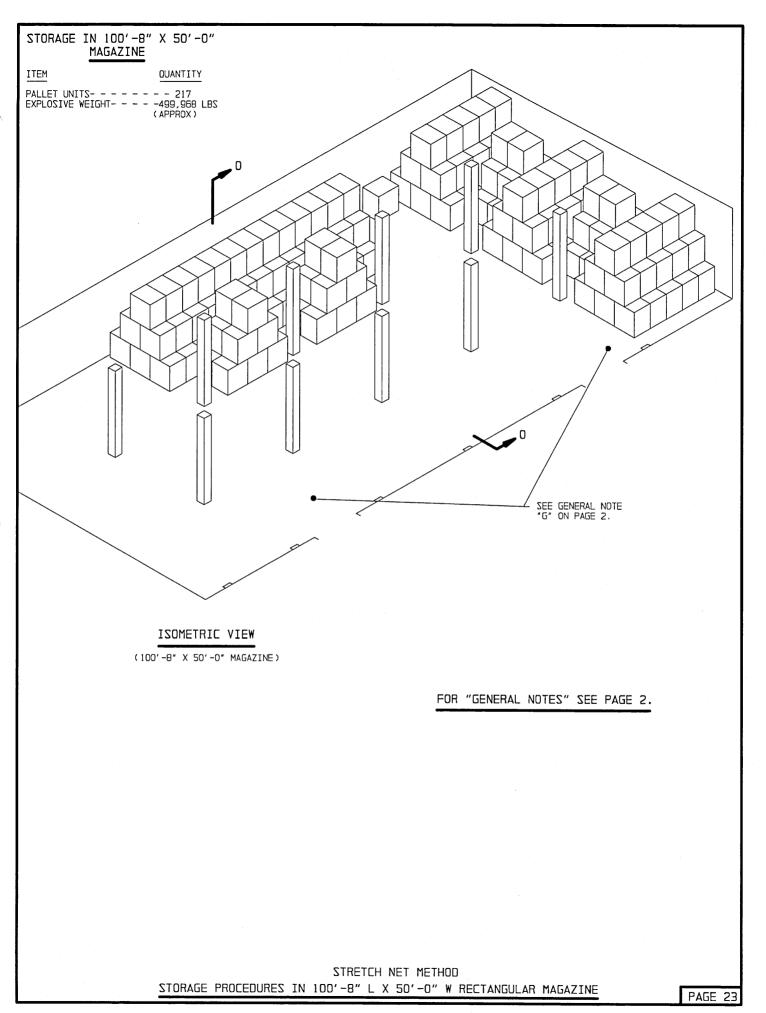


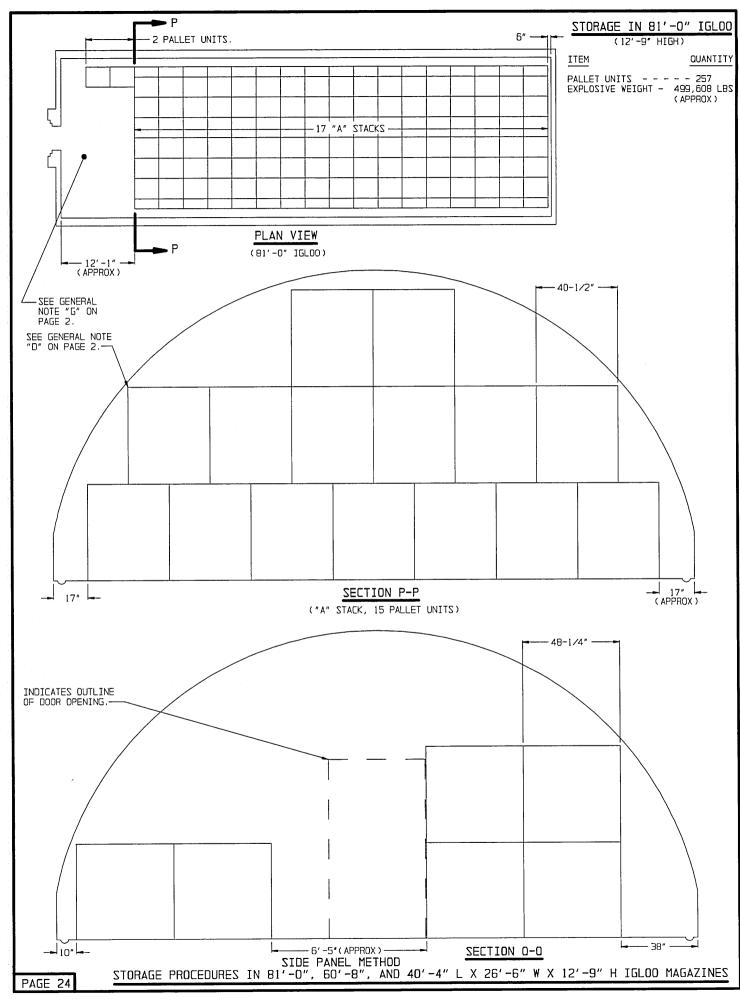
(100'-8" X 50'-0" MAGAZINE)

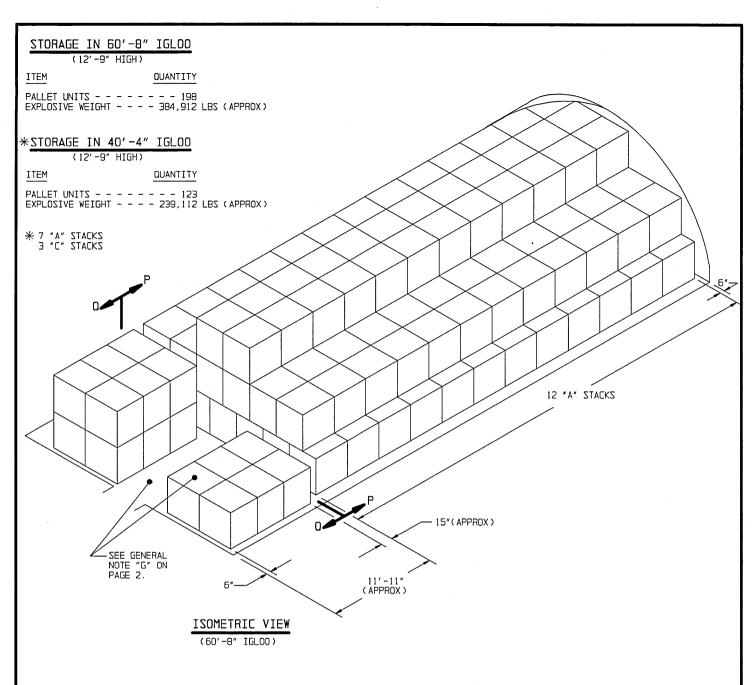


STRETCH NET METHOD

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

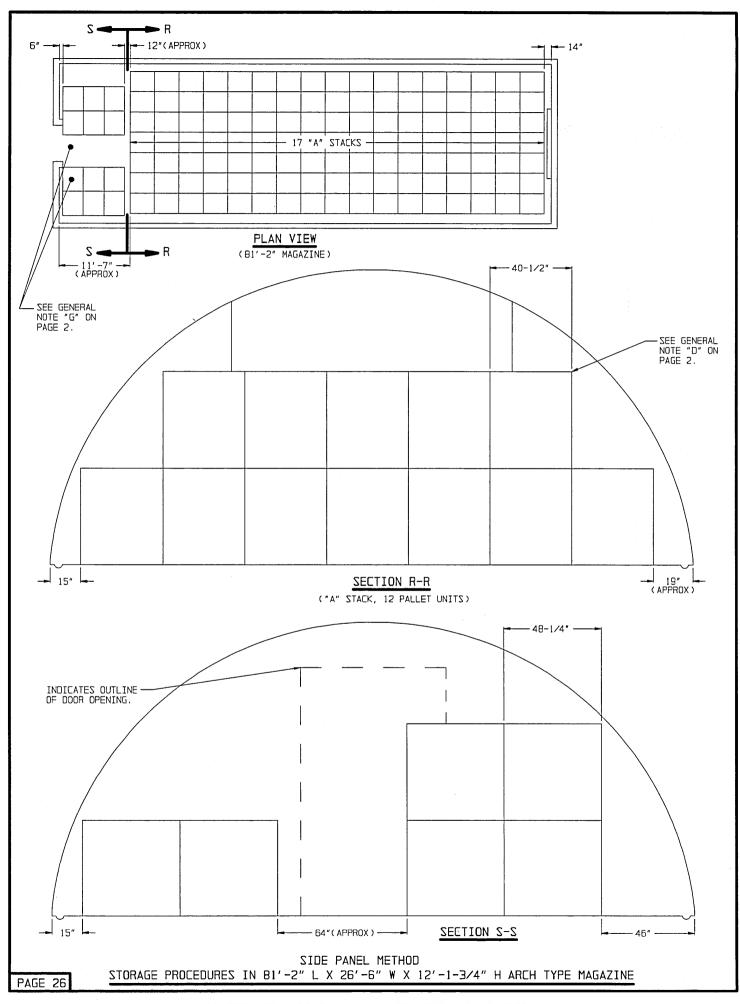


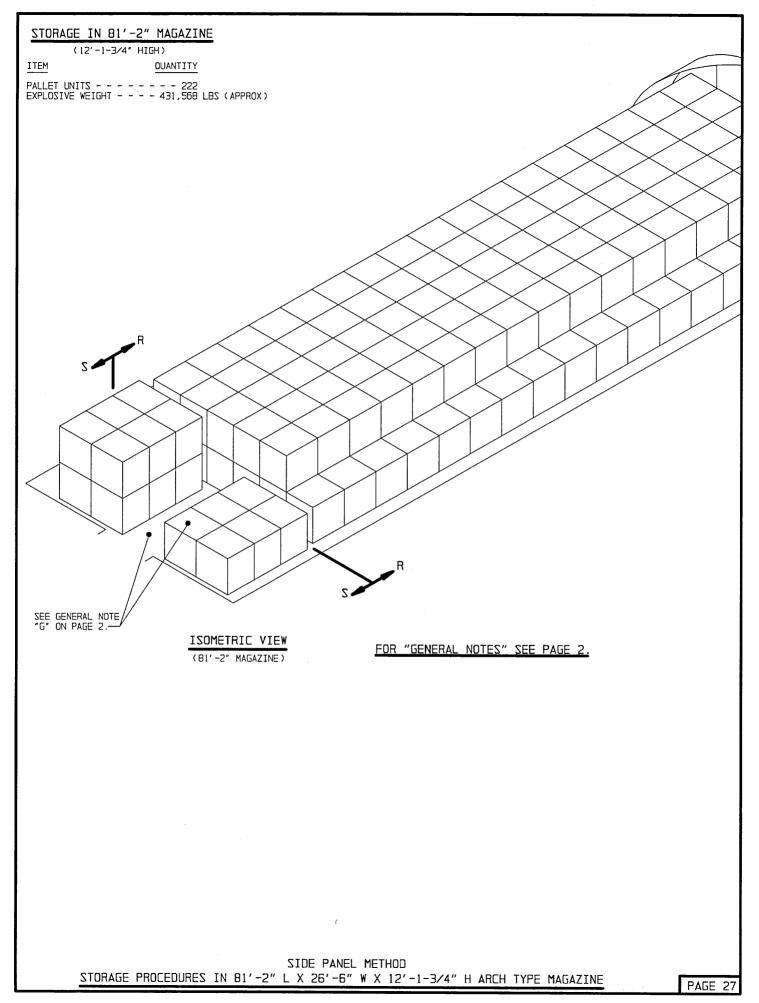


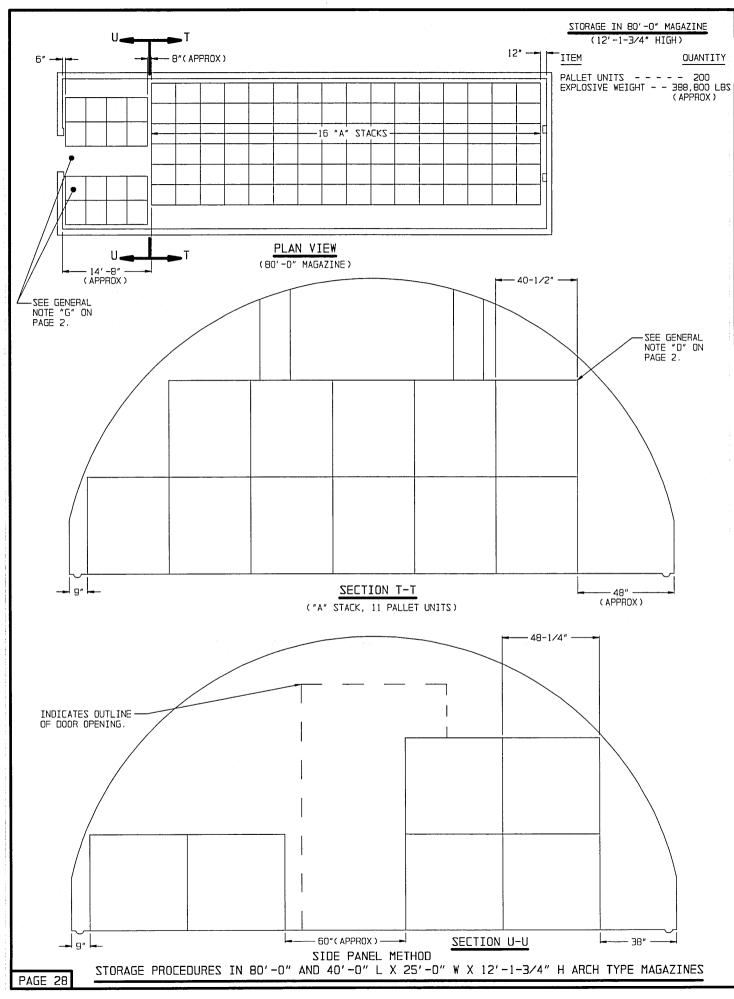


SIDE PANEL METHOD

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





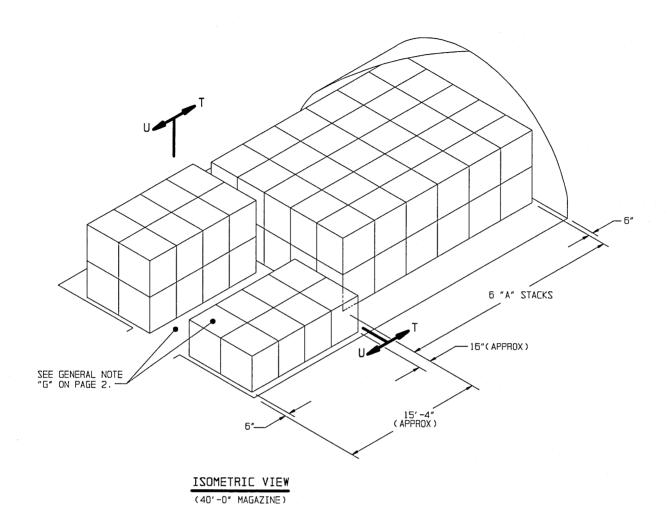


(12'-1-3/4" HIGH)

ITEM

QUANTITY

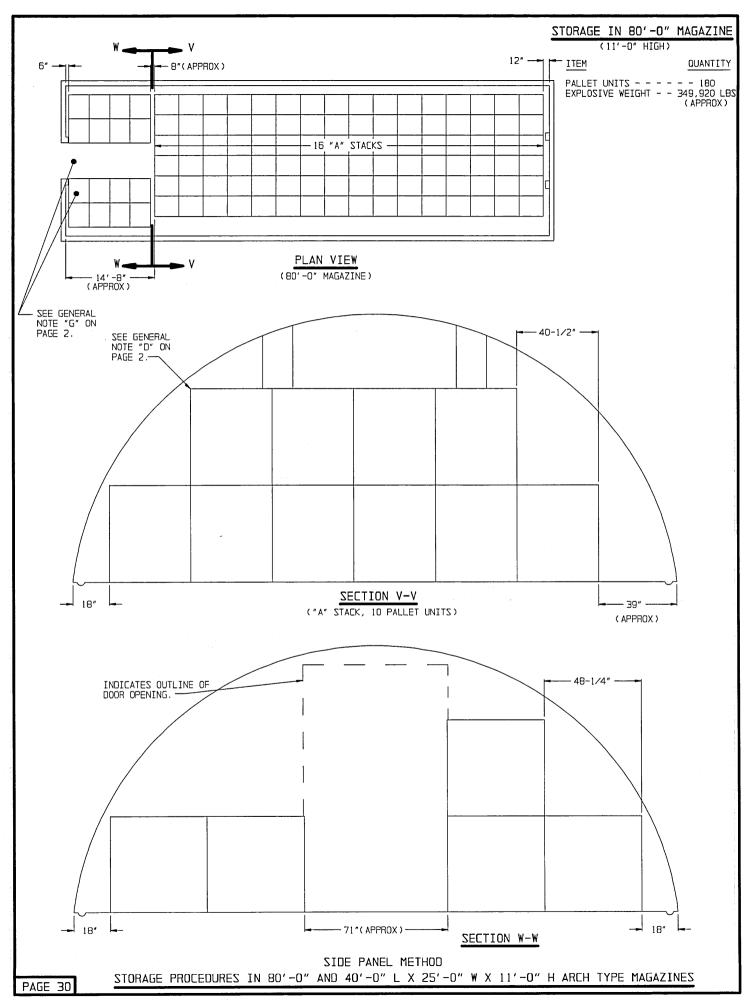
PALLET UNITS - - - - - - 90 EXPLOSIVE WEIGHT - - - 174,960 LBS (APPROX)



FOR "GENERAL NOTES" SEE PAGE 2.

SIDE PANEL METHOD

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

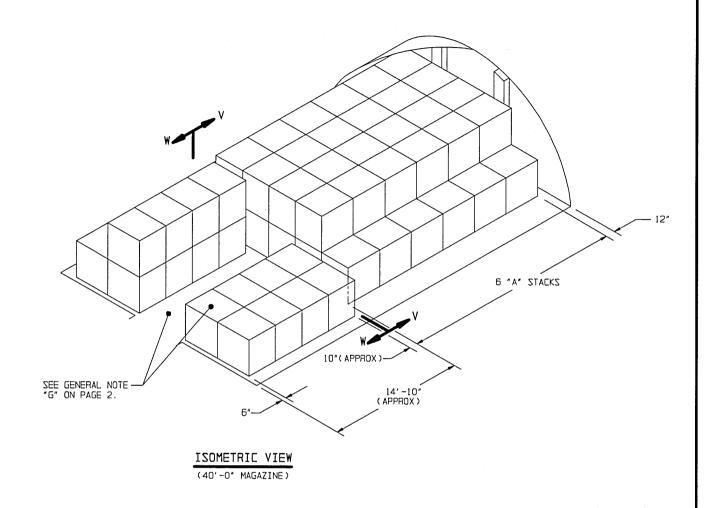


(11'-0" HIGH)

ITEM

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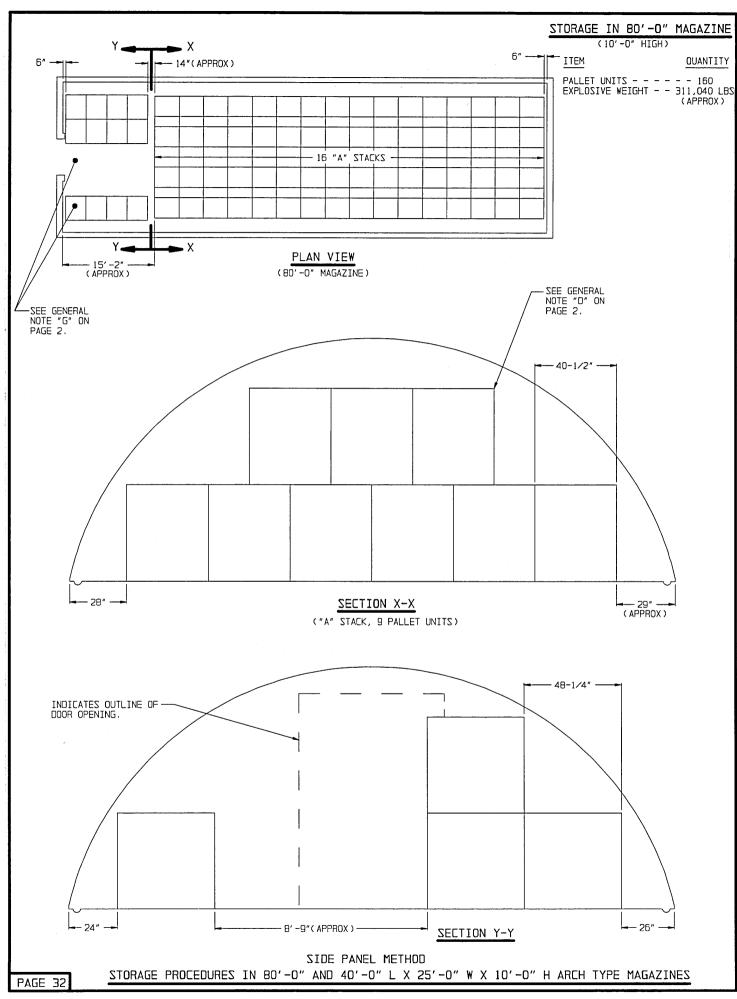
PALLET UNITS - - - - - - 80 EXPLOSIVE WEIGHT - - - - 155,520 LBS (APPROX)



FOR "GENERAL NOTES" SEE PAGE 2.

SIDE PANEL METHOD

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

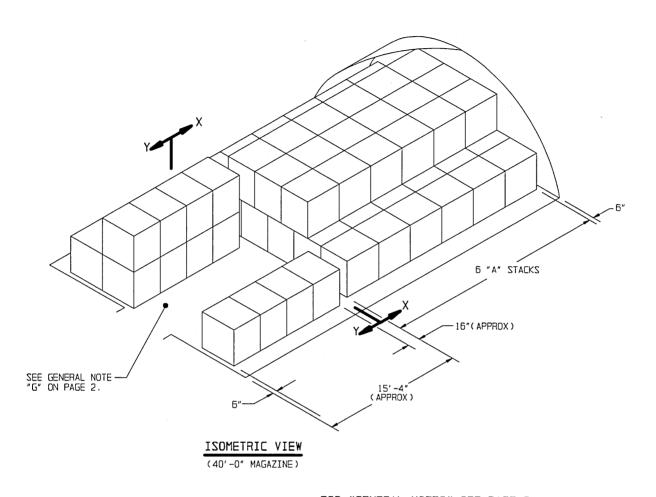


(10'-0" HIGH)

ITEM

QUANTITY

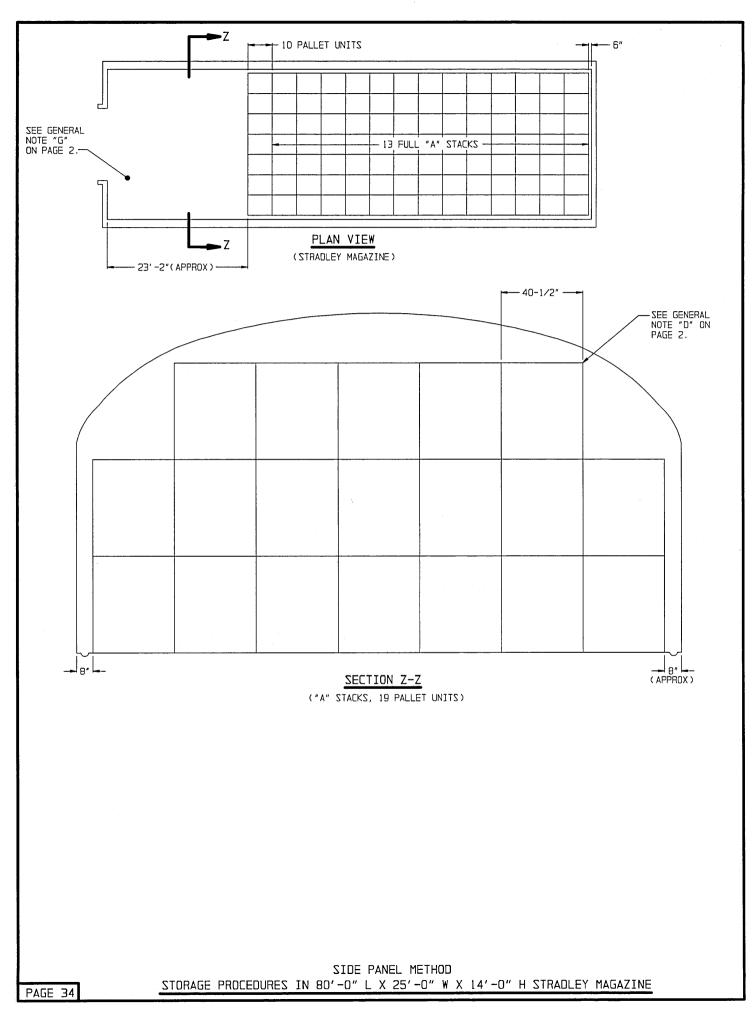
PALLET UNITS - - - - - - 70
EXPLOSIVE WEIGHT - - - 136,080 LBS (APPROX)

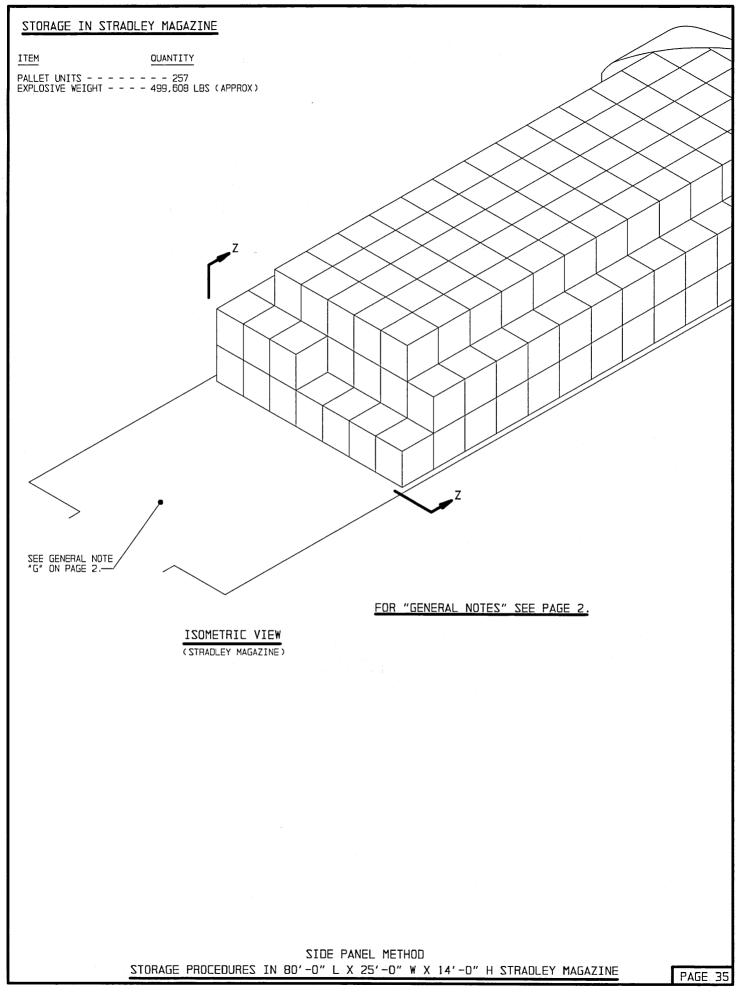


FOR "GENERAL NOTES" SEE PAGE 2.

SIDE PANEL METHOD

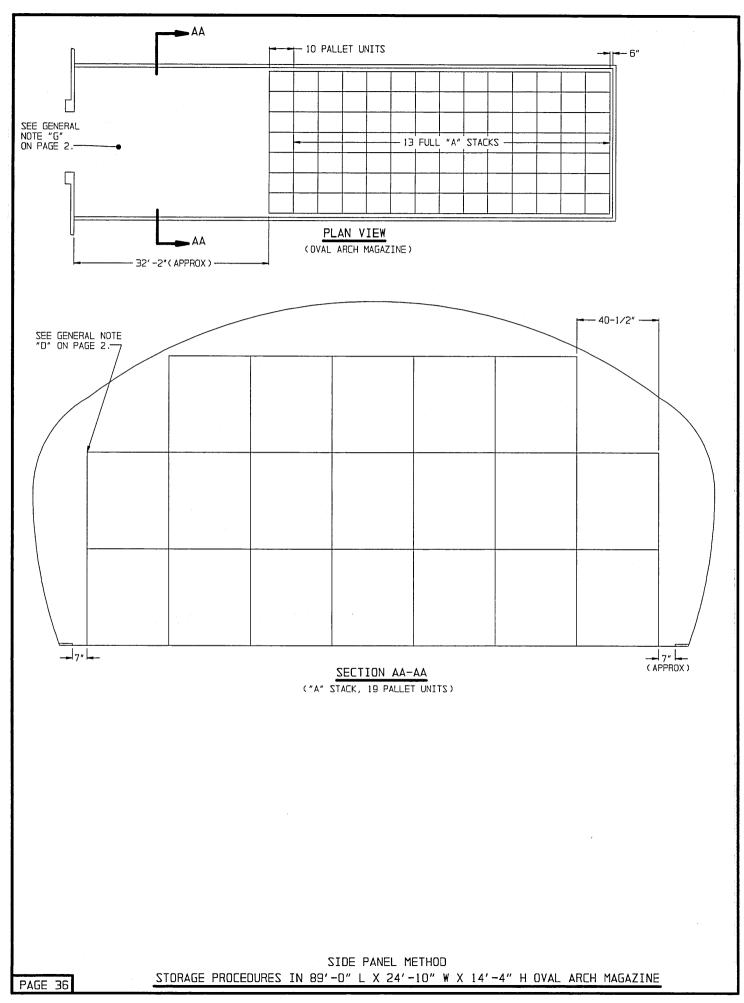
STORAGE PROCEDURES IN 80'-0" AND 40'-0" L X 25'-0" W X 10'-0" H ARCH TYPE MAGAZINES

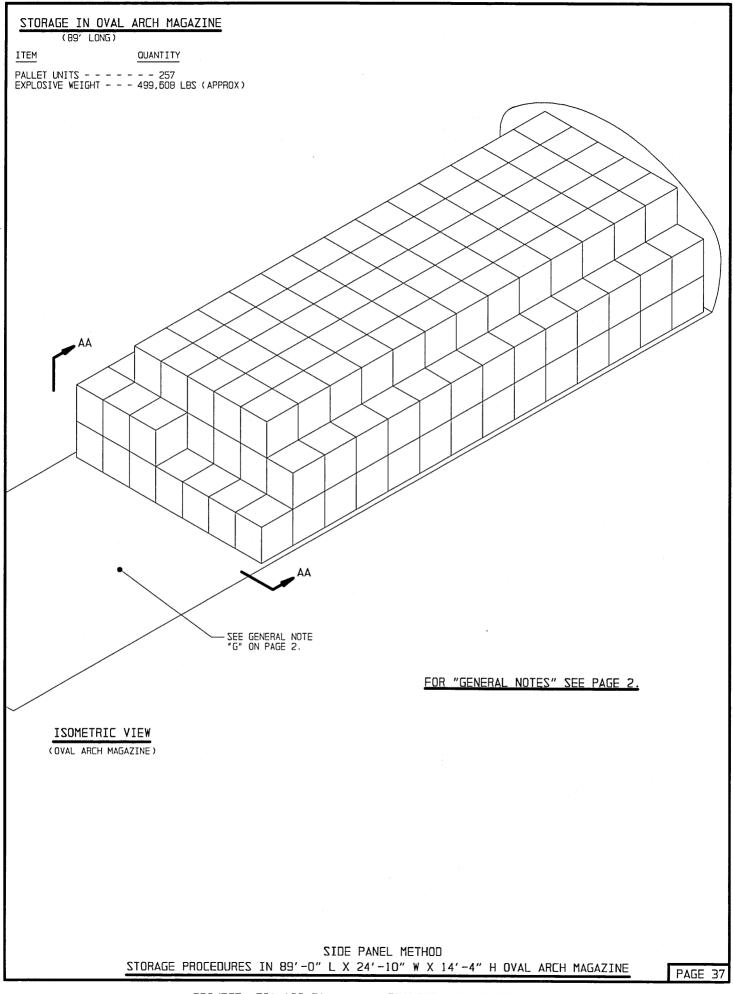


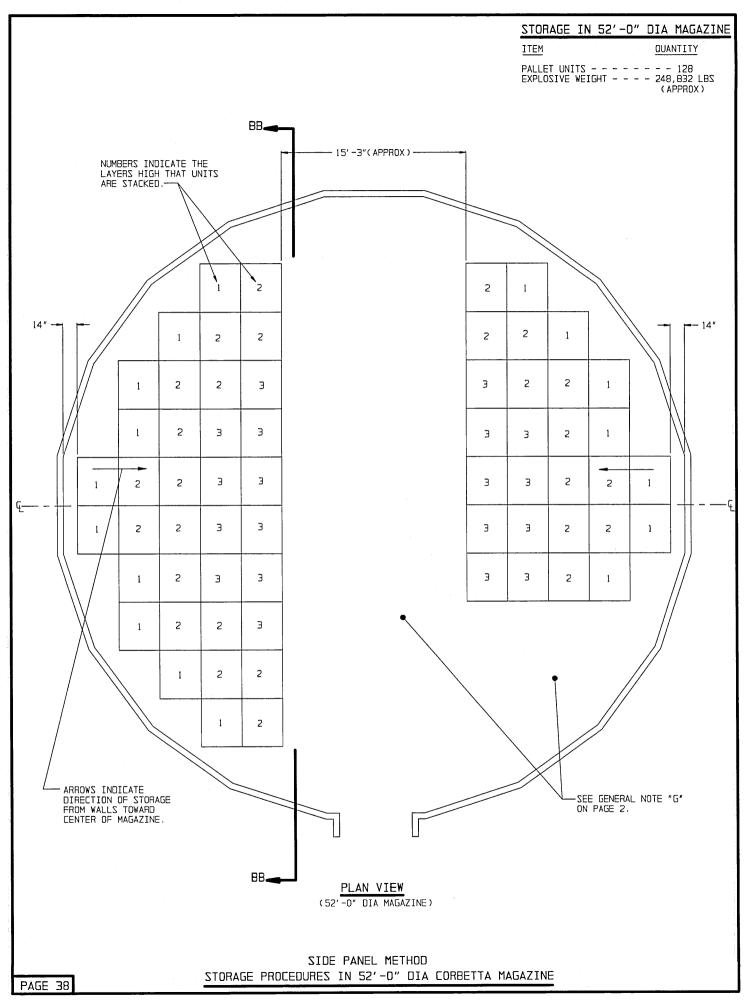


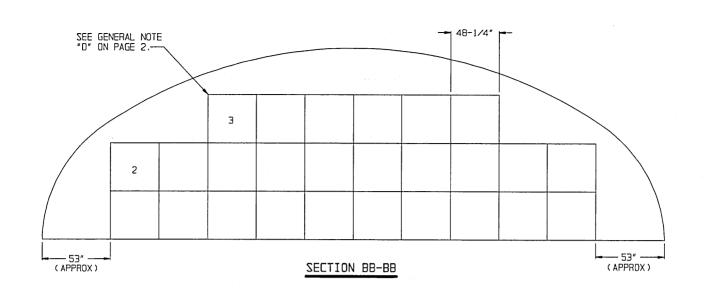
PROJECT FSA 129-71

DRAWING 19-48-4097



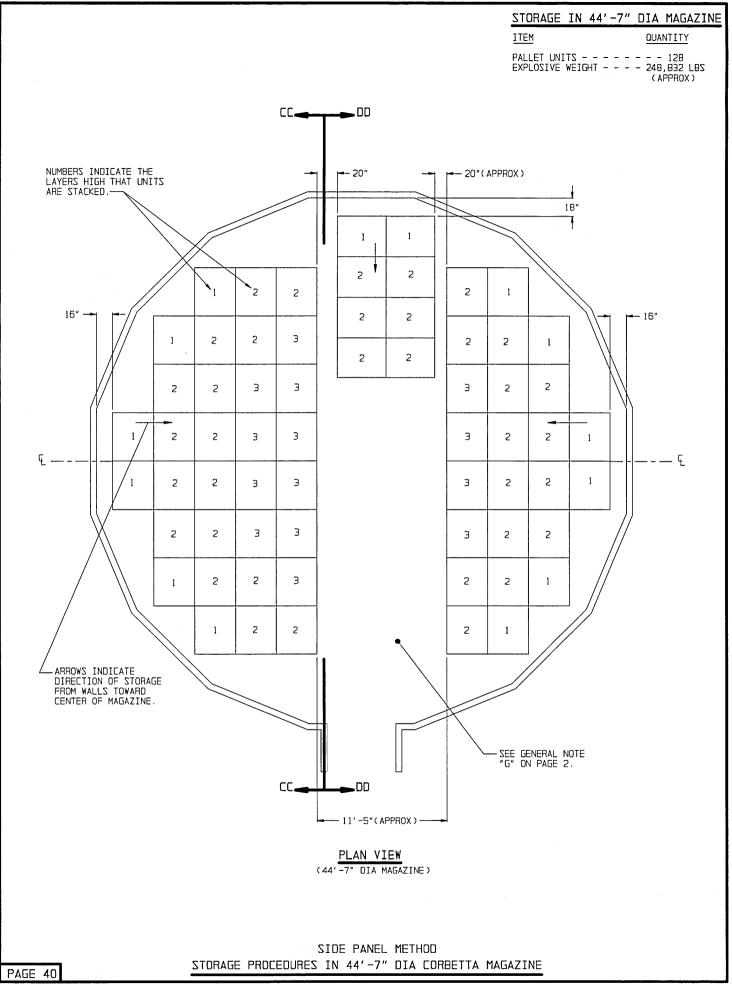


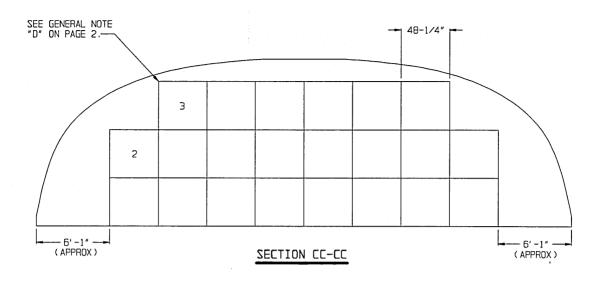


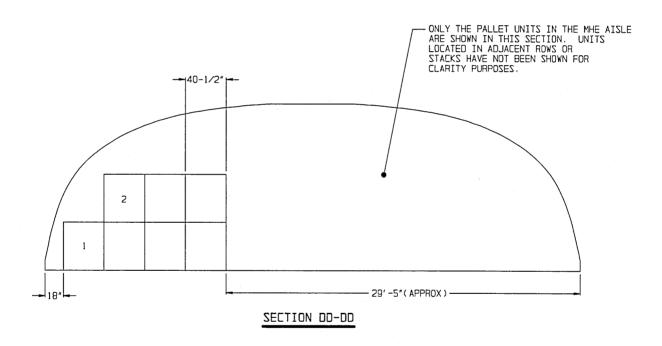


FOR "GENERAL NOTES" SEE PAGE 2.

SIDE PANEL METHOD
STORAGE PROCEDURES IN 52'-0" DIA CORBETTA MAGAZINE

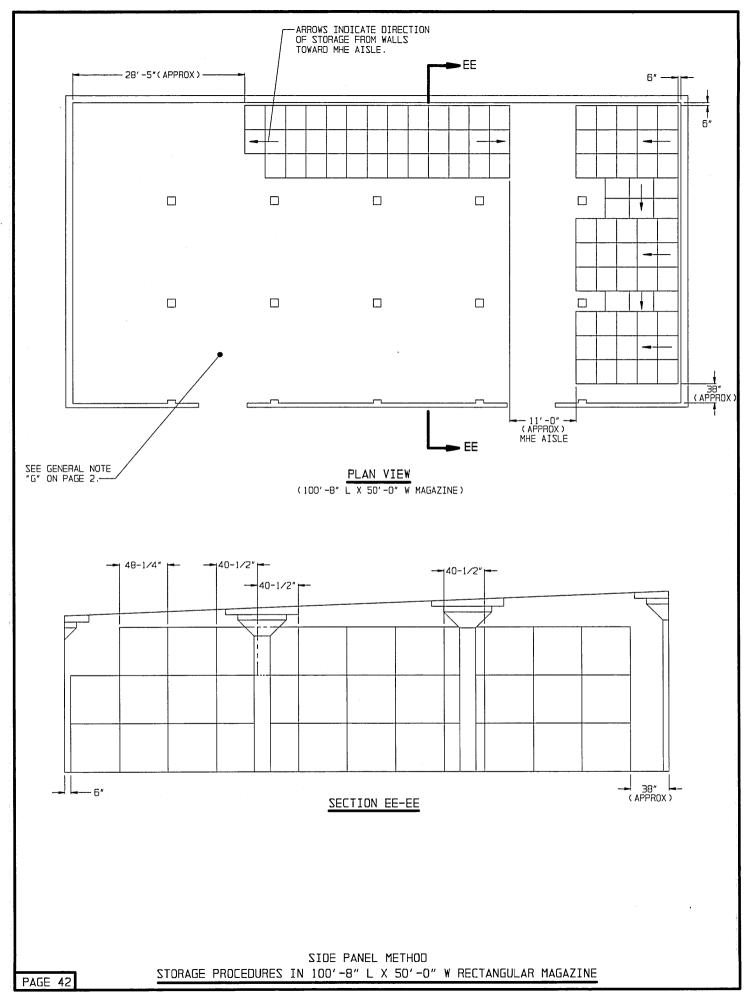


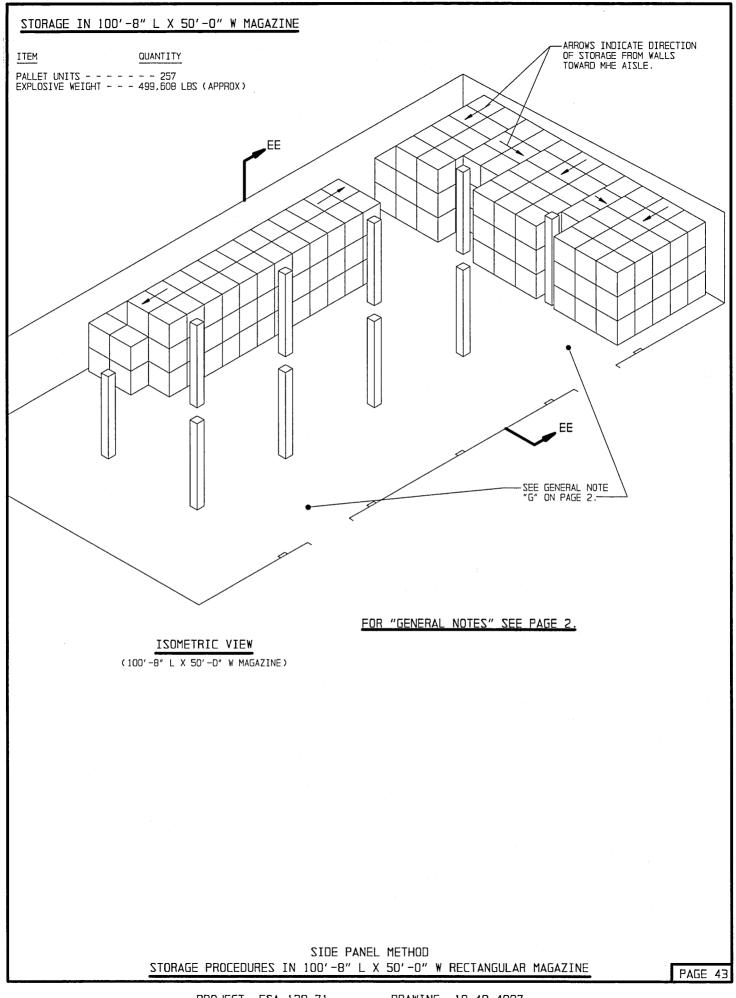


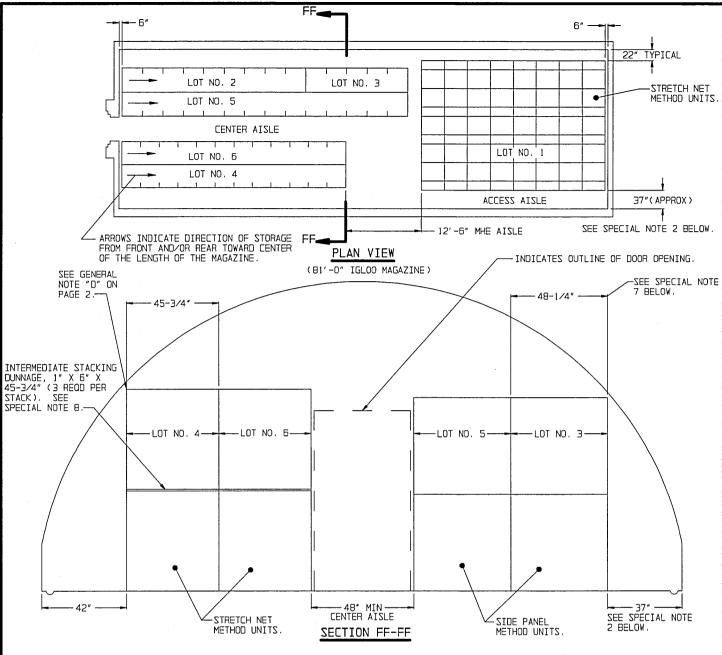


FOR "GENERAL NOTES" SEE PAGE 2.

SIDE PANEL METHOD
STORAGE PROCEDURES IN 44'-7" DIA CORBETTA MAGAZINE







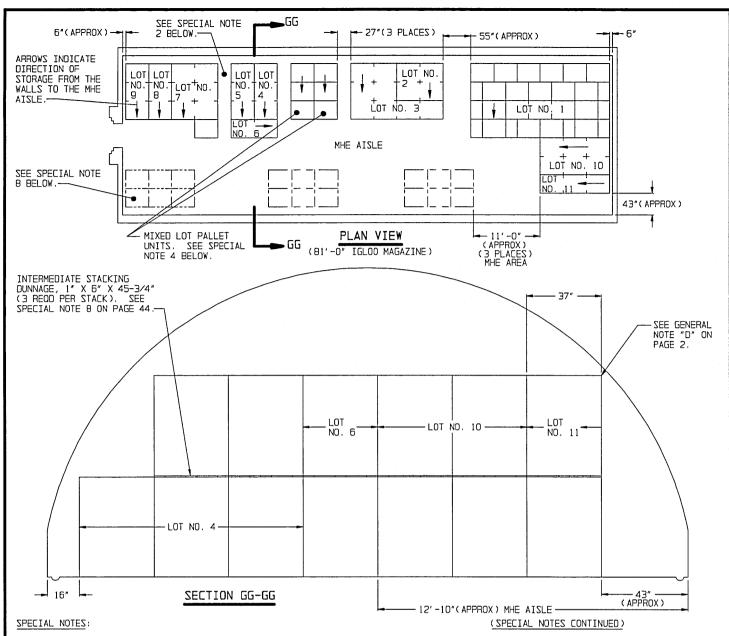
- 1. THE STORAGE PLANS AND CONFIGURATIONS SHOWN ON THIS PAGE ARE TYPICAL ONLY, AND APPLY TO RELATIVELY LARGE LOTS. BOTH THE STRETCH NET METHOD AND THE SIDE PANEL METHOD UNITS ARE SHOWN. LOT NUMBERS 1, 4, AND 6 ARE STRETCH NET METHOD UNITS. LOTS NUMBERED 2, 3, AND 5 ARE SIDE PANEL METHOD UNITS. ADAPTATIONS 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 8. 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 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 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 SIDEWALLS 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. WHEN STORING IN IGLOO AND/OR ARCH TYPE MAGAZINES WHICH HAVE DOOR OPENINGS LESS THAN APPROXIMATELY 52" WIDE, THE SIDE PANEL METHOD UNITS, TYPICALLY SHOWN WITH THE 48-1/4" DIMENSIONS ACROSS THE WIDTH OF THE MAGAZINE (LOTS NUMBERED 2, 3, AND 5), MUST BE HANDLED FROM THE 40-1/2" SIDE AND STORED WITH THAT DIMENSION OF THE UNITS ACROSS THE WIDTH OF THE MAGAZINE.
- 8. <u>CAUTION</u>: WHEN STORING STRETCH NET METHOD UNITS IN VERTICAL ALIGNMENT (NOT STAGGERED) INTERMEDIATE DUNNAGE MUST BE POSITIONED BETWEEN LAYERS OF STACKED UNITS.

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TYPICAL MULTIPLE-LOT STORAGE IN IGLOO AND ARCH TYPE MAGAZINES

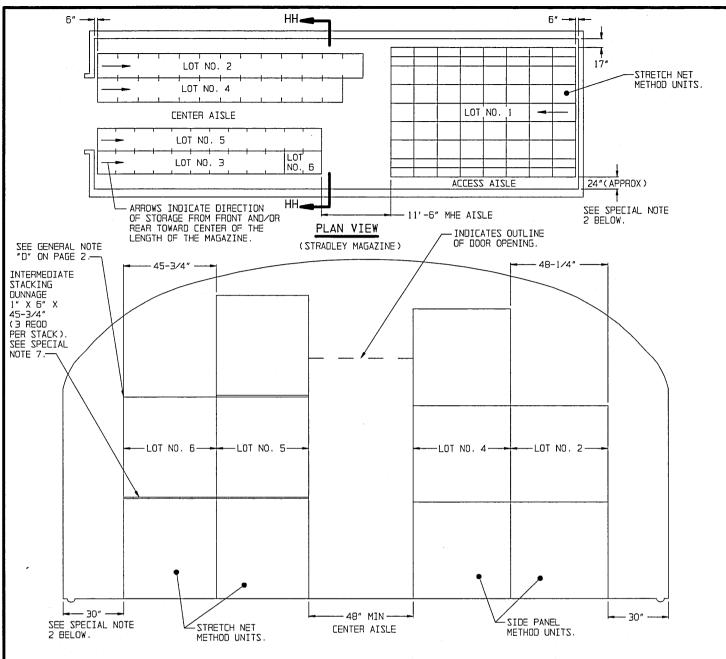


- 1. THE STORAGE PLANS AND CONFIGURATIONS SHOWN ON THIS PAGE ARE TYPICAL ONLY, AND APPLY TO STORAGE OF NUMEROUS SMALL LOTS. THE STRETCH NET METHOD UNITS ARE SHOWN. THE PROCEDURES MAY ALSO BE APPLIED FOR THE STORAGE OF THE SIDE PANEL METHOD UNITS. ADAPTATIONS MAY BE MADE AS NUMBER AND SIZES OF LOTS TO BE STORED IN MAGAZINE REQUIRE.
- 2. AN INSPECTION/INVENTORY AISLE NOT LESS THAN 18" WIDE MUST BE PROVIDED AT ONE SIDE OF EACH "BURIED" 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 REOUIRED 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 BOXES 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 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 MORE PALLET UNITS, PROVIDING THE CAPACITY OF 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 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.
  - 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 UNIT LOADS 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 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 HORMITS. A "CENTER AISLE" (SPACE BETWEEN STORAGE ON ONE SIDE OF A MAGAZINE AND A "ADDITIONAL STORAGE LOCATION") IS TO BE AT LEAST 48 INCHES WIDE (AT LEAST 52" IF THE SIDE PANEL METHOD UNIT IS HANDLED FROM THE 48-1/4" SIDE FOR STORAGE). AN AISLE SLIGHTLY WIDER 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 IGLOO AND ARCH TYPE MAGAZINES



## SECTION HH-HH

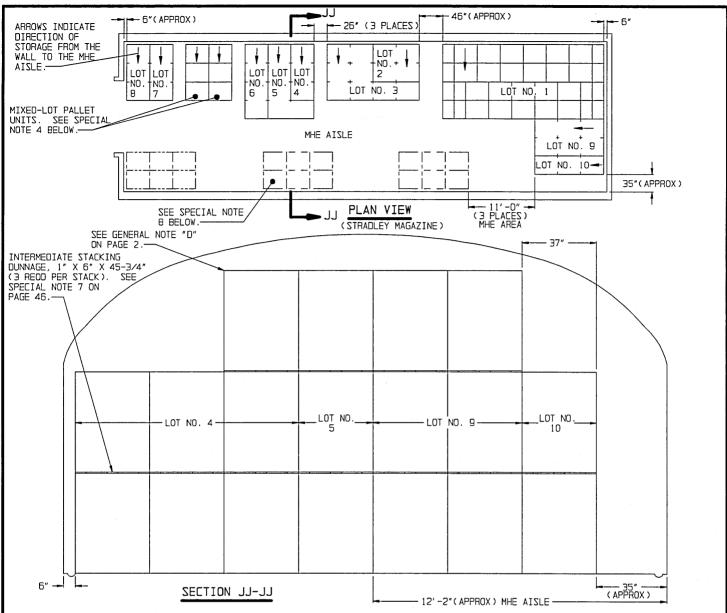
# (SPECIAL NOTES CONTINUED)

- 1. THE STORAGE PLANS AND CONFIGURATIONS SHOWN ON THIS PAGE ARE
  TYPICAL ONLY, AND APPLY TO RELATIVELY LARGE LOTS. BOTH THE
  STRETCH NET METHOD AND THE SIDE PANEL METHOD UNITS ARE SHOWN.
  LOT NUMBERS 1, 3, 5, AND 6 ARE STRETCH NET METHOD UNITS. LOTS 6.
  NUMBERED 2, AND 4 ARE SIDE PANEL METHOD UNITS. 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 REOUIRED 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 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 MORE PALLET UNITS, PROVIDING THE CAPACITY OF MHE PERMITS, AND SAFE HANDLING IS NOT JEOPARDIZED.

- FOR STORAGE OF MULTIPLE LOTS, THE DISTANCE FROM THE SIDEWALLS 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. CAUTION: WHEN STORING STRETCH NET METHOD UNITS IN VERTICAL ALIGNMENT (NOT STAGGERED) INTERMEDIATE DUNNAGE MUST BE POSITIONED BETWEEN LAYERS OF STACKED UNITS.

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



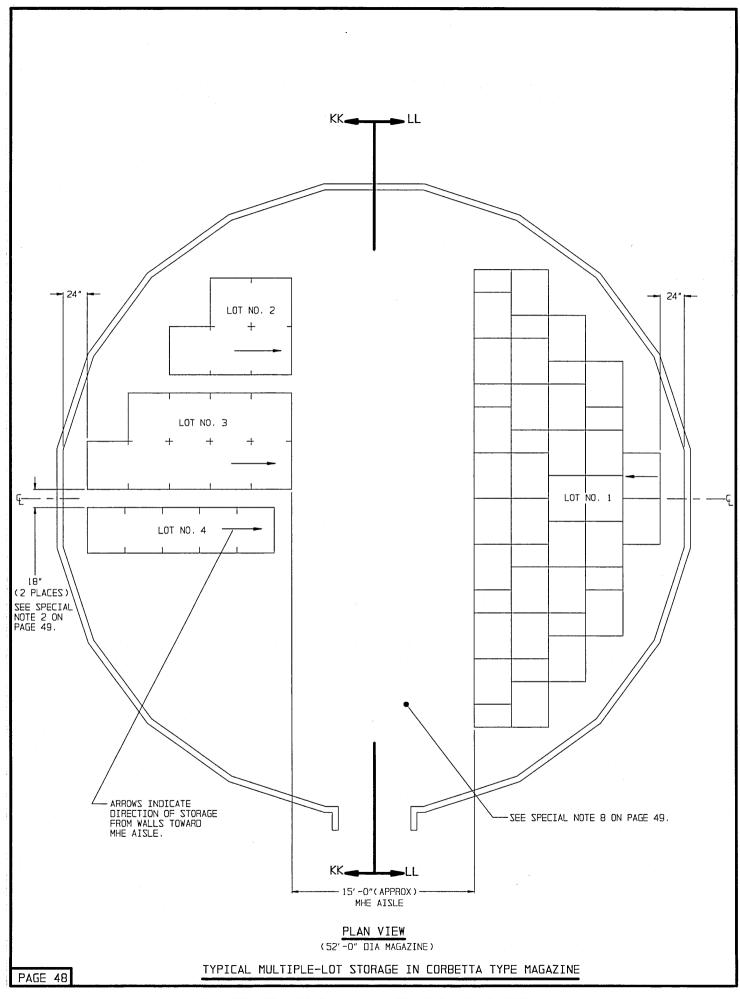
- 1. THE STORAGE PLANS AND CONFIGURATIONS SHOWN ON THIS PAGE ARE TYPICAL ONLY, AND APPLY TO STORAGE OF NUMEROUS SMALL LOTS. THE STRETCH NET METHOD UNITS ARE SHOWN. THE PROCEDURES MAY ALSO BE APPLIED FOR THE STORAGE OF THE SIDE PANEL METHOD UNITS. ADAPTATIONS MAY BE MADE AS NUMBER AND SIZES OF LOTS TO BE STORED IN MAGAZINE REDUIRE.
- 2. AN INSPECTION/INVENTORY AISLE NOT LESS THAN 18" WIDE MUST BE PROVIDED AT ONE SIDE OF EACH "BURIED" 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 BOXES 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 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 MORE PALLET UNITS, PROVIDING THE CAPACITY OF MHE PERMITS, AND SAFE HANDLING IS NOT JEOPARDIZED.

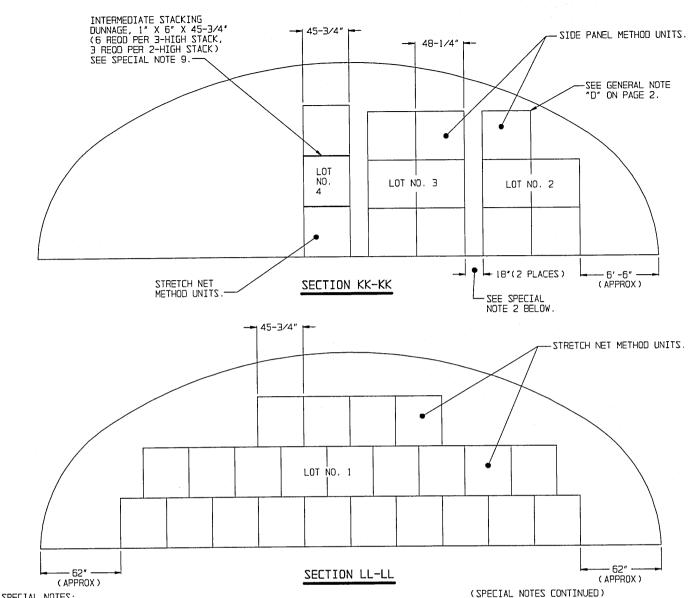
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# (SPECIAL NOTES CONTINUED)

- 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.
  - 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 UNIT LOADS 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-FOOT 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 HHE 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 (AT LEAST 52" IF THE SIDE PANEL METHOD UNIT IS HANDLED FROM THE 48-1/4" SIDE FOR STORAGE). AN AISLE SLIGHTLY WIDER 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 MAGAZINES

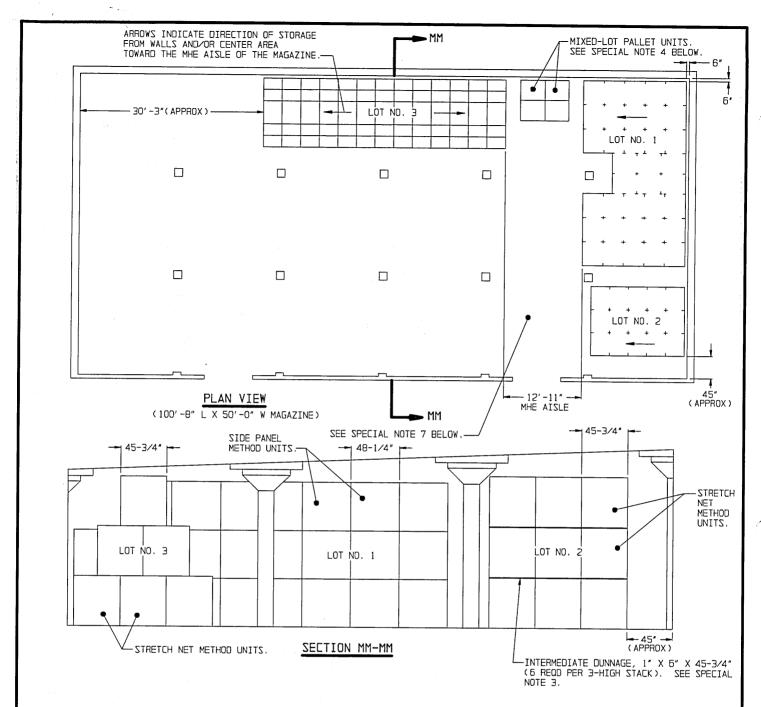




- THE STORAGE PLANS SHOWN ARE TYPICAL ONLY. BOTH THE STRETCH NET METHOD AND THE SIDE PANEL METHOD ARE SHOWN. LOT NUMBERS 1 AND 4 ARE STRETCH NET METHOD UNITS. LOTS NUMBERED 2 AND 3 ARE SIDE PANEL METHOD UNITS. ADAPTATIONS MAY BE MADE AS NUMBER AND SIZES OF LOTS TO BE STORED IN MAGAZINE REQUIRE. A 52'-0" DIAMETER CORBETTA MAGAZINE IS SHOWN. THE PRINCIPLES ALSO APPLY TO 44'-7" DIAMETER MAGAZINES.
- 2. AN INSPECTION/INVENTORY AISLE NOT LESS THAN 18" WIDE MUST BE PROVIDED AT ONE SIDE OF EACH "BURIED" LOT. THERE ARE NO BURIED LOTS SHOWN ON THESE PAGES. LOT NUMBER 2 ON PAGE 47 IS A TYPICAL EXAMPLE OF A BURIED LOT.
- 3. GENERALLY, THE LARGEST LOT SHOULD BE STORED ON ONE 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 BOXES 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 MORE PALLET UNITS, PROVIDING THE CAPACITY OF 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.
- 8. THE MHE AISLE MAY BE USED TO STORE ONE OR MORE STACKS OF ADDITIONAL LOTS OR ADDITIONAL ITEMS THAT ARE FROM A LOT ADJACENT TO THE MHE AISLE. THIS ADDITIONAL STORAGE IS TO BE ARRANGED IN A MANNER SIMILAR TO ARRANGEMENTS DEPICTED ON PAGES 45 AND 47 FOR THE "ADDITIONAL STORAGE LOCATIONS" (SHOWN BY DOTTED LINES). ADEQUATE SPACE FOR MHE OPERATION, AS DESCRIBED ON PAGES 45 AND 47, MUST BE MADE AVAILABLE FOR THE ADDITIONAL STORAGE. ALSO, COMPLIANCE WITH ALL OF THE MULTIPLE-LOT CRITERIA AS SET FORTH ON THIS PAGE MUST BE OBSERVED.
- 3. <u>CAUTION</u>: WHEN STORING STRETCH NET METHOD UNITS IN VERTICAL ALIGNMENT (NOT STAGGERED) INTERMEDIATE DUNNAGE MUST BE POSITIONED BETWEEN LAYERS OF STACKED UNITS.

(CONTINUED AT RIGHT) TYPICAL MULTIPLE-LOT STORAGE IN CORBETTA TYPE MAGAZINE



PAGE 50

- 1. THE STORAGE PLANS SHOWN ARE TYPICAL ONLY. BOTH THE STRETCH NET 5.
  METHOD AND THE SIDE PANEL METHOD UNITS ARE SHOWN. LOT NUMBERS
  2 AND 3 ARE STRETCH NET METHOD UNITS. LOT NUMBER 1 IS THE SIDE
  PANEL METHOD UNIT. 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 "BURIED" LOT. THERE ARE NO BURIED LOTS SHOWN ON THIS PAGE. LOT NUMBER 2 ON PAGE 47 IS A TYPICAL EXAMPLE OF A BURIED LOT.
- 3. GENERALLY, THE LARGEST LOT SHOULD BE STORED IN THE REAR OR ON ONE SIDE OF THE MAGAZINE. 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. CAUTION: WHEN STORING STRETCH NET METHOD UNITS IN VERTICAL ALIGNMENT (NOT STAGGERED) INTERMEDIATE DUNNAGE MUST BE POSITIONED BETWEEN LAYERS OF STACKED UNITS.
- 4. A MIXED-LOT PALLET UNIT MAY HAVE FROM TWO LOTS PER PALLET UNIT UPWARDS TO AS MANY DIFFERENT LOTS AS BOXES WITHIN THAT UNIT. HOWEVER, ALL LOTS WITHIN THE PALLET UNIT MUST HAVE THE SAME NATIONAL STOCK NUMBER AND CONDITION CODE.

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### (SPECIAL NOTES CONTINUED)

- 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 TWENTY-FOUR (24) "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 UNITS, PROVIDING THE CAPACITY OF MHE PERMITS, AND SAFE HANDLING IS NOT JEDPARDIZED.
- 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. THE MHE AISLE MAY BE USED TO STORE ONE OR MORE STACKS OF ADDITIONAL LOTS OR ADDITIONAL ITEMS THAT ARE FROM A LOT ADJACENT TO THE MHE AISLE. THIS ADDITIONAL STORAGE IS TO BE ARRANGED IN A MANNER SIMILAR TO ARRANGEMENTS DEPICTED ON PAGES 45 AND 47. FOR THE "ADDITIONAL STORAGE LOCATIONS" (SHOWN BY DOTTED LINES). ADEQUATE SPACE FOR MHE OPERATION, AS DESCRIBED ON PAGES 45 AND 47, MUST BE MADE AVAILABLE FOR THE ADDITIONAL STORAGE. 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

PROJECT FSA 129-71

DRAWING 19-48-4097