# STORAGE IN APPROVED MAGAZINES OF THE WARHEAD SECTION FOR THE SHRIKE MISSILE, PACKED 1 PER CNU-245/E CONTAINER

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U.S. ARMY MATERIEL COMMAND DRAWING					
APPROVED, U.S. ARMY ARMAMENT, MUNITIONS AND CHEMAÇAL COMMAND NLL	DRAFTSMAN D. WHITMORE				
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APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND	LOGISTICS ENGINEERING Thomas Mechele  JULY 1983				
William F Ernst				/	
U.S. ARMY DEFENSE AMMUNITION CENTER AND SCHOOL	CLASS	DIVISION	DRAWING	FILE	
REVISION NO. 1 AUGUST 1995	19	48	7059/	SP1-3-4-	
SEE REVISION LISTING ON PAGE 2	13	70	4C	14-22J16	

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 IN THIS DRAWING ARE APPLICABLE TO THE WARHEAD SECTION, (SHRIKE) PACKED ONE (1) PER CNU-245/E METAL SHIPPING AND STORAGE CONTAINER.
- C. FOR DETAILS OF THE CNU-245/E METAL SHIPPING AND STORAGE CONTAINER, SEE U.S. AIR FORCE DRAWING NO. 744071 AND THE "CONTAINER DETAIL" ON PAGE 3.

CONTAINER DIMENSIONS - - 42-5/8" LONG BY 18-1/2" WIDE BY 23-1/8" HIGH. GROSS WEIGHT - - - - - 286 POUNDS (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 CONTAINERS IN OTHER TYPES OF APPROVED MAGAZINES. MINOR ADJUSTMENTS MAY BE MADE TO FACILITATE STORAGE IN OTHER TYPES OF MAGAZINES, HOWEVER, THE BASIC PRINCIPLES
- E. AISLE DIMENSIONS AS SHOWN HEREIN MAY BE ADJUSTED TO SUIT LOCAL CONDITIONS AND/OR AVAILABLE MATERIAL HANDLING EQUIPMENT (MHE), HOWEVER, AN 18" MINIMUM INSPECTION AISLE MUST BE MAINTAINED AT THE AFT END OF THE CONTAINER WHERE THE HUMIDITY INDICATOR IS LOCATED.

AS DEPICTED HEREIN WILL BE FOLLOWED.

- F. 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
- G. WEDGES ARE REQUIRED TO PERMIT LEVEL STACKING OF THE CONTAINERS IN IGLOOS, ARCH TYPE AND STRADLEY MAGAZINES, WHICH HAVE FLOORS THAT SLOPE TOWARD THE SIDEWALL OF THE MAGAZINE. IN OVAL ARCH, STEEL ARCH, CORBETTA, AND RECTANGULAR MAGAZINES, STACK-STABILIZING DUNNAGE IN THE FORM OF "SHIMS" PROBABLY WILL BE REQUIRED TO ACHIEVE SOUND AND ACCEPTABLE STABLE STACKS. SHIM MATERIAL OF VARYING THICKNESS 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. SEE NOTE "L" BELOW.
- H. IF AVAILABLE MHE PERMITS, ADDITIONAL CONTAINERS MAY BE STORED WITHIN THE FRONTAL AREA AND/OR OTHER AVAILABLE AREA OF THE MAGAZINE.
- J. STORED CONTAINERS MUST NOT CONTACT THE WALLS OF A MAGAZINE. TO PROVIDE FOR THIS MANDATORY CLEARANCE REQUIREMENT, CONTAINERS MAY BE ELIMINATED FROM THE DEPICTED STORAGE PATTERN AS NECESSARY.
- K. OTHER COMPATIBLE ITEMS MAY BE STORED IN A MAGAZINE WHICH IS PARTIALLY FILLED WITH THE DESIGNATED ITEMS
- L. THE USE OF 1" X 6" X 18" FLOOR DUNNAGE UNDER CONTAINER STACKS, AS DEPICTED THROUGHOUT THESE PROCEDURES, IS OPTIONAL. THE PURPOSE OF USING FLOOR DUNNAGE IS TO KEEP THE SKIDS OF A CONTAINER 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. STACKS REQUIRING WEDGES, AS SPECIFIED IN NOTE "G" ABOVE, WILL NOT REQUIRE USE OF 1" X 6" FLOOR DUNNAGE, RANDOM LENGTH 1" X 6" FLOOR DUNNAGE MAY BE USED IF OPERATION OF MHE PERMITS.

(CONTINUED AT RIGHT)

### MATERIAL SPECIFICATIONS

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

STRAPPING - -: ASTM-D3953; FLAT STRAPPING, TYPE 1, HEAVY DUTY,

FINISH B, GRADE 2,

SEAL, STRAP -: ASTM-D3953; CLASS H, FINISH B (GRADE 2), DOUBLE NOTCH, STYLE I, II, OR IV.

ANTI-CHAFING

MATERIAL - - -: NEUTRAL BARRIER MATERIAL, MIL-B-121 (OR EGUAL).

### (SPECIAL NOTES CONTINUED)

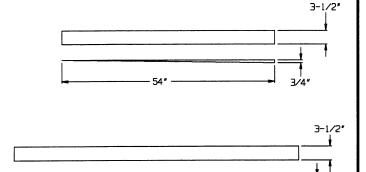
- M. STACK STABILIZING STRAPS, 3/4" X .028" OR THICKER BY 10'-0" STEEL STRAPPING WILL BE INSTALLED AROUND THE FOURTH-LAYER CONTAINERS OF TWO ADJACENT CONTAINER STACKS IF EITHER STACK IS FIVE OR MORE CONTAINERS HIGH; TWO (2) STRAPS ARE REQUIRED FOR EACH DOUBLE STACK SHOWN.

  CAUTION: A SINGLE STACK MUST NOT BE STACKED MORE THAN FOUR (4) CONTAINERS HIGH WITHOUT BEING STRAPPED TO AN ADJACENT STACK. POSITION ANTI-CHAFING MATERIAL UNDER STEEL STRAPPING AT ALL POINTS OF STRAP/CONTAINER CONTACT. SEAL THE LAP JOINT OF THE STRAPPING WITH ONE (1) STRAP SEAL LOCATED SO AS NOT TO BE IN CONTACT WITH THE CONTAINER.
- N. IF THE QUANTITY OF CONTAINERS FOR A MAGAZINE IS TO BE REDUCED FROM WHAT IS SHOWN HEREIN FOR ANY REASON, SUCH AS A LIMITED QUANTITY TO BE STORED THE DELINEATED PROCEDURES ARE TO BE ADJUSTED BY OMITTING STACKS RATHER THAN BY OMITTING LAYERS.
- O. THE HEIGHT OF THE PACKAGE GUARD ON SOME FORKLIFT TRUCKS
  MAY NOT PERMIT PLACEMENT OF SOME TOP LAYER CONTAINERS IN
  THE STACKS SHOWN IN THE STORAGE VIEWS HEREIN, UNLESS TWO
  UPPER CONTAINERS ARE HANDLED AS ONE LIFT OR THE PACKAGE
  GUARD IS REMOVED (TINE CARRIAGE WILL IN MOST INSTANCES
  PROVIDE ADEQUATE PACKAGE GUARD PROTECTION). ONLY A FORK
  LIFT TRUCK OF ADEQUATE CAPACITY WILL BE USED WHEN
  LIFTING TWO CONTAINERS AS ONE LIFT.
- P. 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.
- O. PORTIONS OF THE MAGAZINES, SUCH AS SIDEWALLS, ENDWALLS, AND ROOFS, HAVE NOT BEEN SHOWN IN THE STORAGE VIEWS FOR CLARITY PURPOSES.
- R. CONTAINERS PRESENTLY STORED IN ACCORDANCE WITH A PRIOR APPROVED DRAWING NEED NOT BE RE-STORED SOLELY TO CONFORM TO THE PROCEDURES SPECIFIED IN THIS DOCUMENT.
- S. FOR ADDITIONAL GUIDANCE, ATTENTION IS DIRECTED TO THE "SPECIAL NOTES" SECTIONS WHICH ARE IMMEDIATELY ADJACENT TO THE DEPICTED STORAGE METHODS.

### REVISIONS

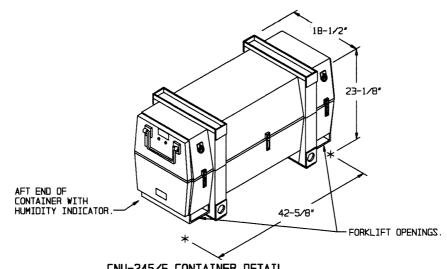
REVISION NO. 1 DATED AUGUST 1995 CONSISTS OF:

- UPDATING DRAWING FORMAT, GENERAL NOTES AND MATERIAL SPECIFICATIONS TO CURRENT STANDARDS.
- 2. ADDING PROCEDURES FOR STEEL ARCH MAGAZINES.

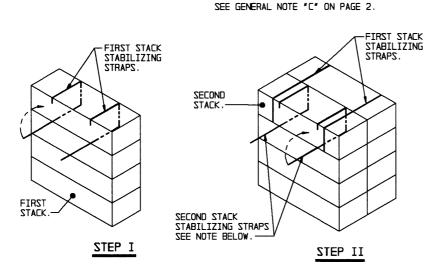


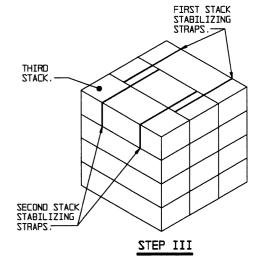
WEDGE DETAILS

- 72" -



### CNU-245/E CONTAINER DETAIL





### STACK STABILIZING STRAP DETAIL

NOTE: ALL STACKS MORE THAN 4 LAYERS HIGH MUST BE STRAPPED TO AN ADJACENT STACK WITH ONE PAIR OF STRAPS PER DOUBLE-STACK USING STEPS I AND II EXCEPT THAT SECOND STACK STABILIZING STRAPS SHOWN IN STEP II WILL BE ONITIED. IN ROWS WHERE THE QUANTITY OF STACKS IS AN UNEVEN NUMBER, (E.G., 45 STACKS AS SHOWN IN THE PLAN VIEW ON PAGE 4), STEPS I, II, AND III AS SHOWN WILL BE USED TO PROPERLLY STRAP THE LAST 3 STACKS TOGETHER. SEE GENERAL NOTE "M" ON PAGE 2 FOR ADDITIONAL GUIDANCE.

### I PETZ

POSITION THE BOTTOM THREE CONTAINERS IN THE "FIRST STACK". LAY THE TWO FIRST STACK STABILIZING STRAPS ACROSS THE TOP OF THE THIRD HIGH CONTAINER THEN POSITION THE FOURTH CONTAINER. POSITION THE STRAPS TO ENCIRCLE THE FORTH CONTAINER, AS SHOWN IN STEP I, AND LET ENDS OF STRAPS HANG OVER SIDE OF STACK

### STEP II

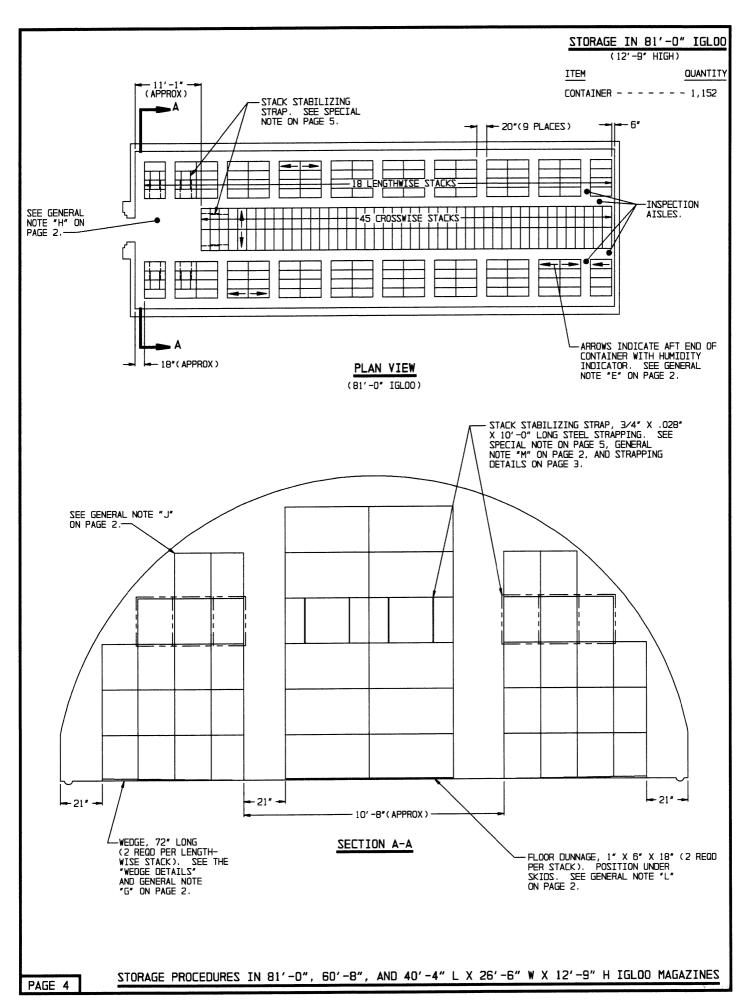
POSITION THE BOTTOM THREE CONTAINERS IN THE "SECOND STACK". LAY THE TWO SECOND STACK STABILIZING STRAPS ACROSS THE TOP OF THE THIRD HIGH CONTAINER THEN POSITION THE FOURTH CONTAINER. POSITION THE TWO FIRST STACK STABILIZING STRAPS TO ENCIRCLE THE FOURTH CONTAINER, AS SHOWN IN STEP II, AND SEAL EACH STRAP WITH ONE STRAP SEAL. POSITION THE FIFTH AND SIXTH CONTAINER ON TOP OF THE FOURTH CONTAINER IN THE FIRST STACK.

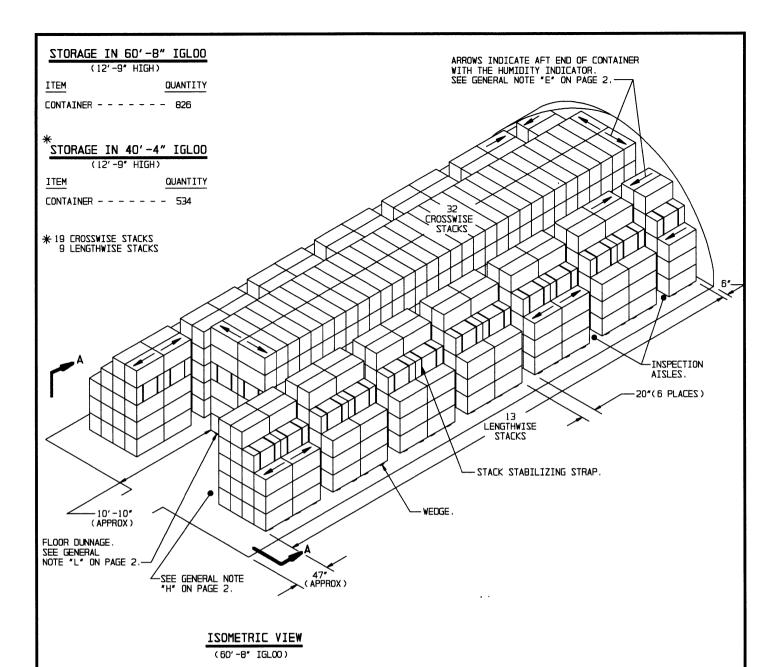
### STEP III

POSITION THE BOTTOM THREE CONTAINERS IN THE "THIRD STACK". LAY THE TWO SECOND STACK STABILIZING STRAPS ACROSS THE TOP OF THE THIRD HIGH CONTAINER. THEN POSITION THE FOURTH CONTAINER. POSITION THE TWO SECOND STACK STABILIZING STRAPS TO ENCIRCLE THE FOURTH CONTAINER, AS SHOWN IN STEP III, AND SEAL EACH STRAP WITH ONE STRAP SEAL. POSITION THE FIFTH AND SIXTH CONTAINER ON TOP OF THE FOURTH CONTAINER IN THE SECOND AND THIRD STACKS.

DETAILS

PAGE 3



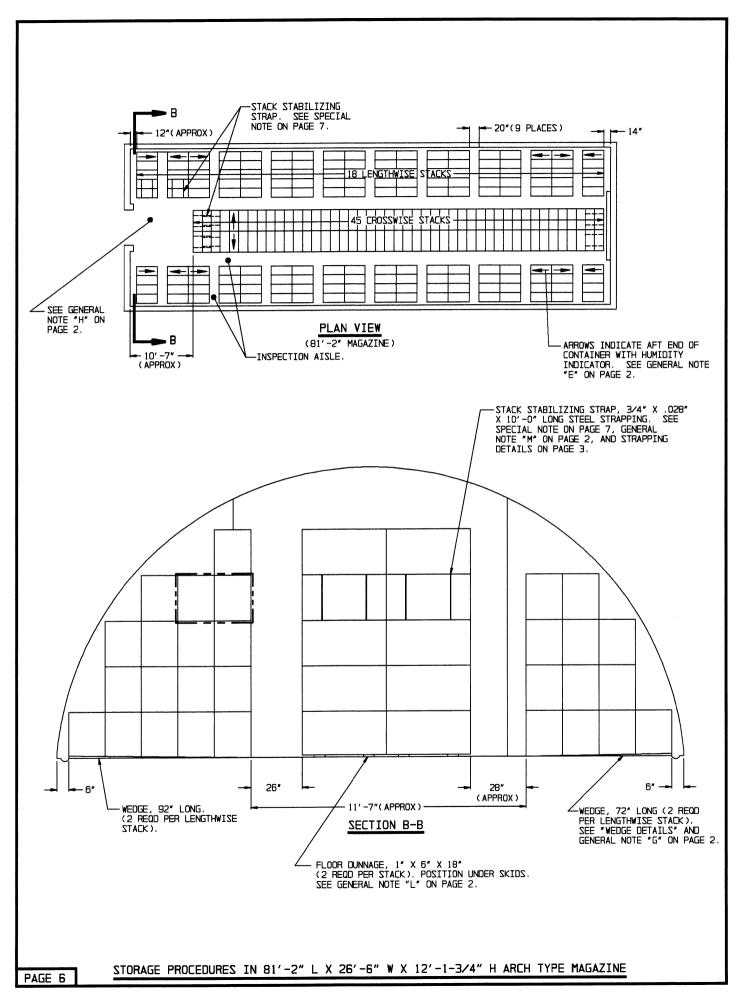


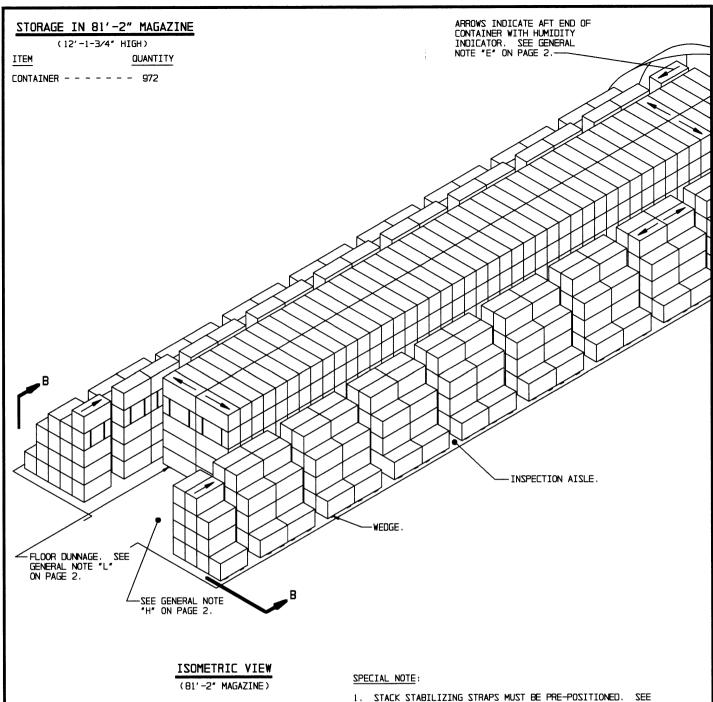
## SPECIAL NOTE:

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IN THE STACKS OF A ROW WHEN THE STACK IS FIVE CONTAINERS
OR MORE IN HEIGHT. SEE GENERAL NOTE "M" ON PAGE 2.
ALTHOUGH REQUIRED, ALL STACK STABILIZING STRAPS HAVE
NOT BEEN SHOWN IN SOME VIEWS FOR CLARITY PURPOSES.

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

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



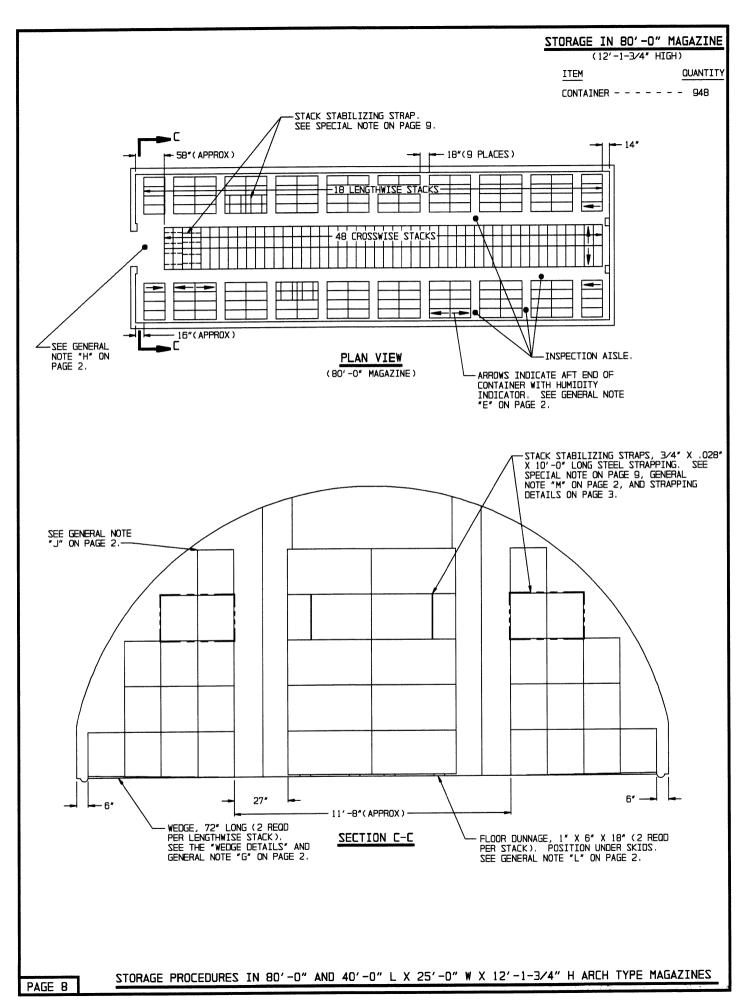


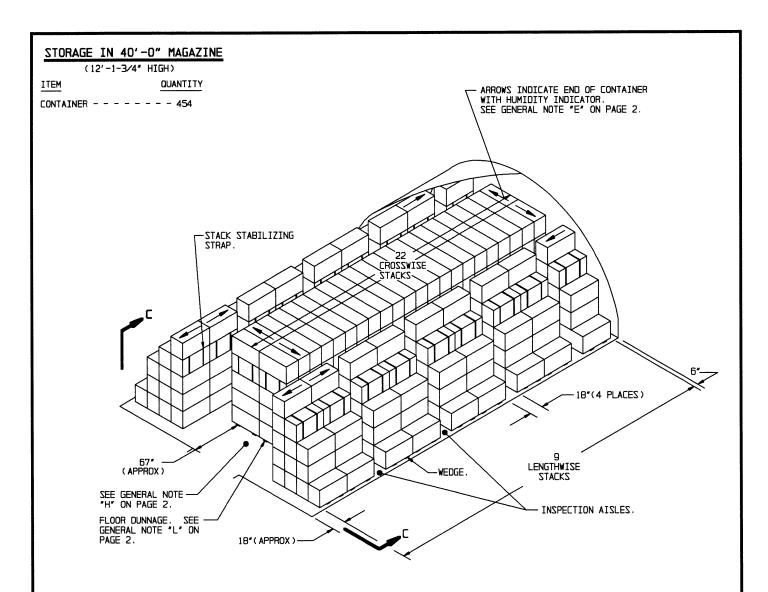
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STORAGE PROCEDURES IN 81'-2" L X 26'-6" W X 12'-1-3/4" H ARCH TYPE MAGAZINE

PAGE 7



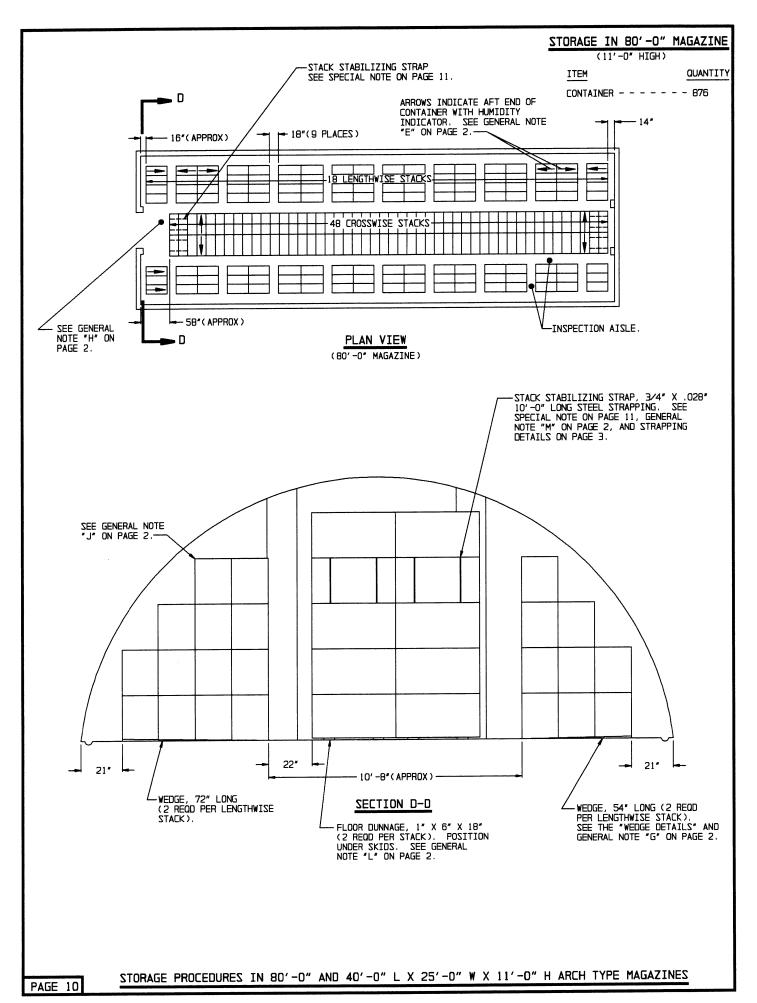


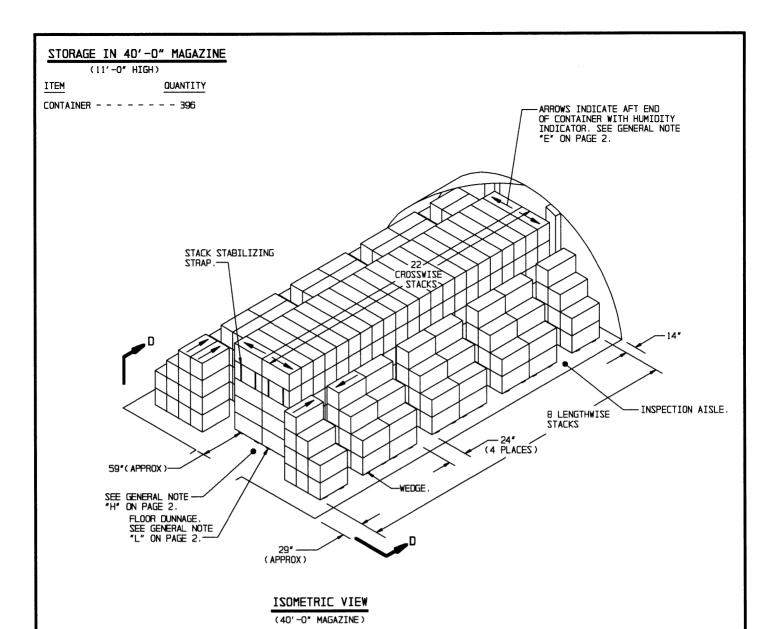
# ISOMETRIC VIEW (40'-0" MAGAZINE)

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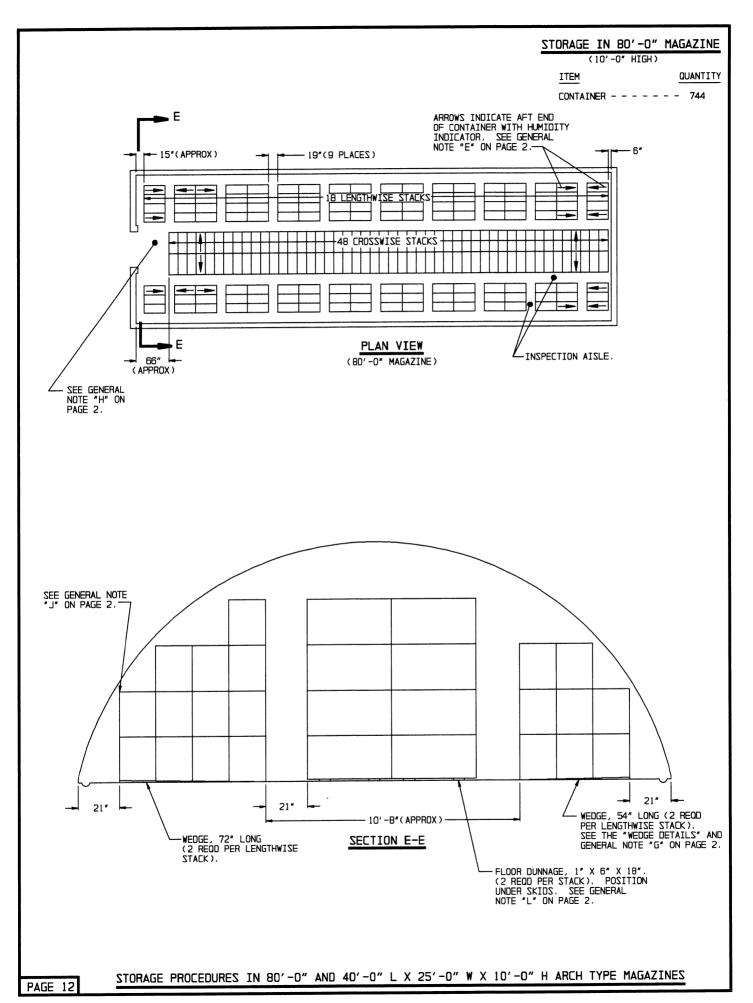


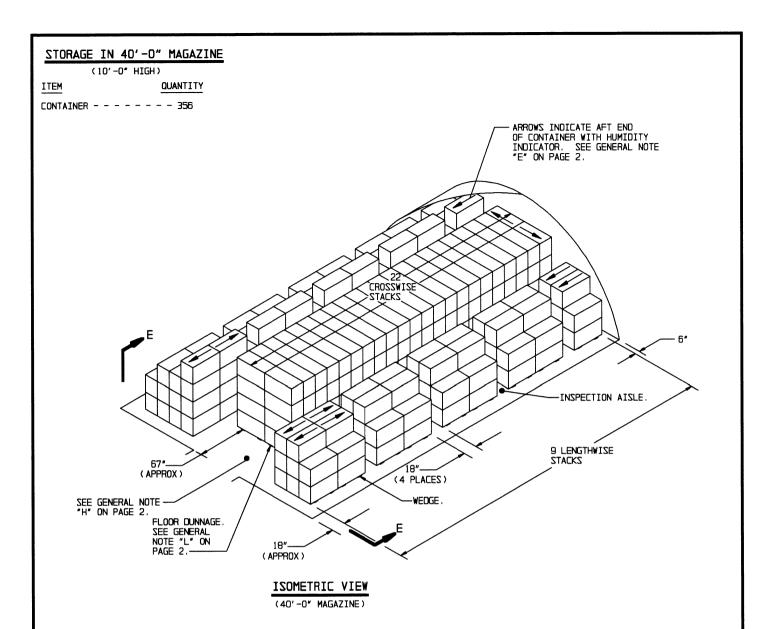


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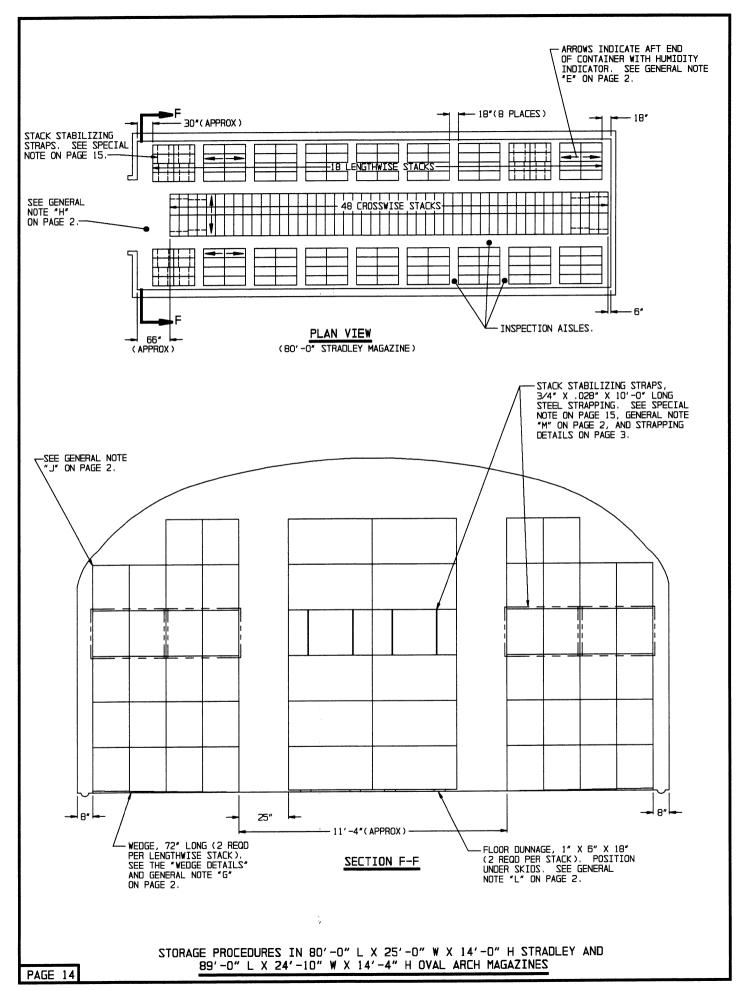
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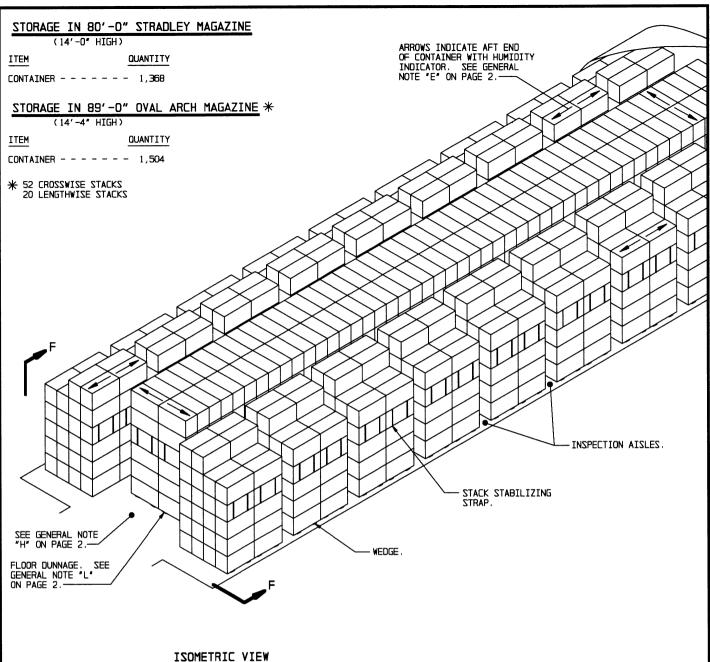




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STORAGE PROCEDURES IN 80'-0" AND 40'-0" L X 25'-0" W X 10'-0" H ARCH TYPE MAGAZINES





(80'-0" MAGAZINE)

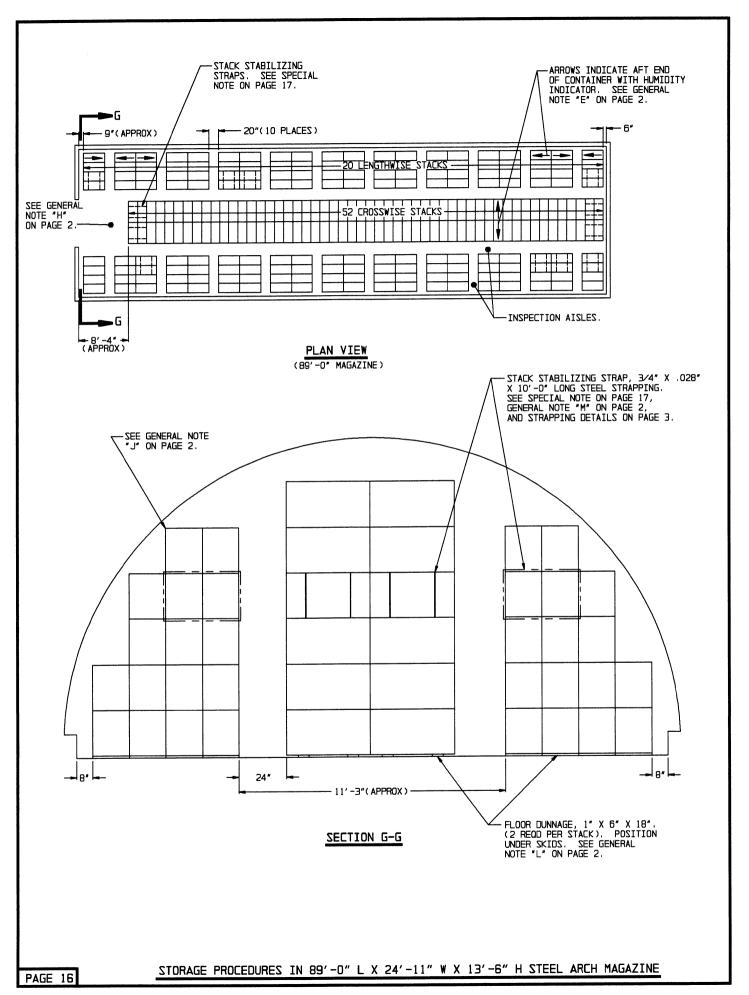
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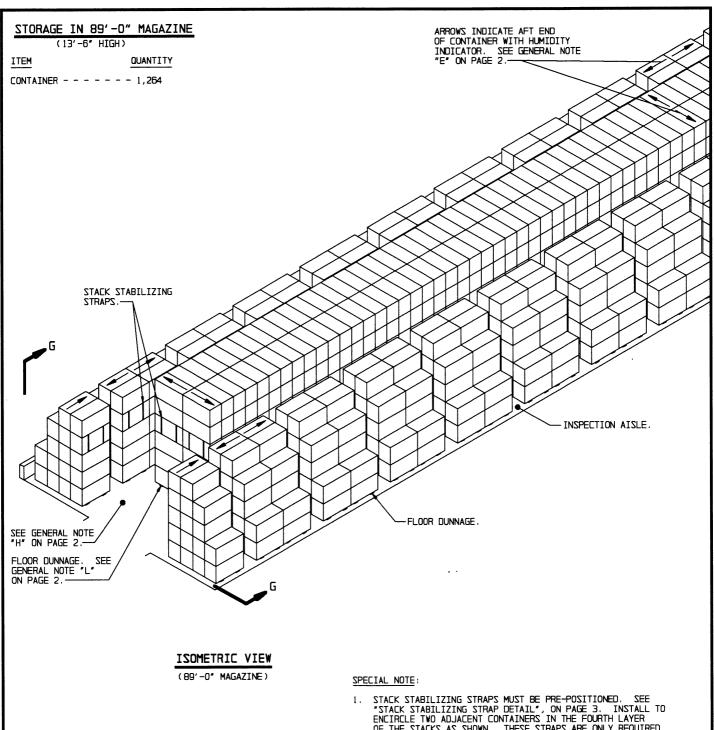
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STORAGE PROCEDURES IN 80'-0" L X 25'-0" W X 14'-0" H STRADLEY AND 89'-0" L X 24'-10" W X 14'-4" H OVAL ARCH MAGAZINES

PAGE 15





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

