

# STORAGE IN APPROVED MAGAZINES OF AMMUNITION AND COMPONENTS PACKED IN CYLINDRICAL METAL CONTAINERS AND UNITIZED ON METAL PALLETS

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## U. S. ARMY MATERIEL COMMAND DRAWING

APPROVED, U.S. ARMY ARMAMENT, MUNITIONS AND  
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SEE THE REVISION LISTING ON PAGE 2.

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 FOR PALLETIZED AMMUNITION AND COMPONENTS, INCLUDING WHITE PHOSPHORUS (WP) AND PLASTICIZED WHITE PHOSPHORUS (PWP), PACKED IN CYLINDRICAL METAL OR PLASTIC CONTAINERS, UNITIZED ON VARIOUS SIZES OF METAL PALLETS.
- C. REFER TO THE BASIC PROCEDURE DRAWING 19-48-4231-20PM1006 FOR "UNITIZATION PROCEDURES FOR AMMUNITION AND COMPONENTS ON 4-WAY ENTRY METAL PALLETS". THIS BASIC DRAWING WILL BE AUGMENTED BY SEPARATELY ISSUED APPENDICES BEARING THE SAME DRAWING AND FILE NUMBER. AN APPENDIX WILL DELINEATE THE APPROVED CONFIGURATION OF A UNIT LOAD FOR ONE ITEM OF AMMUNITION OR FOR A CATEGORY OF AMMUNITION ITEMS. AN INDEX OF THE UNITIZATION PROCEDURES IS CONTAINED IN APPENDIX O, HAVING DRAWING NUMBER 4231/O AND FILE NUMBER 20PM1006.
- D. WHEN STORING 120MM CARTRIDGES, DODAC 1315-C791 AND 1315-C792 THE OPENING END OF THE CONTAINERS, FOR THE OUTER STACKS SHALL BE LOCATED INWARD TO PROVIDE ADDITIONAL SECURITY WHILE IN STORAGE.
- E. THE STORAGE PROCEDURES DEPICTED WITHIN THIS DOCUMENT ARE APPLICABLE FOR STORAGE IN VARIOUS LENGTH IGLOO, ARCH TYPE, STRADLEY, OVAL-ARCH, STEEL ARCH, AND STANDARD MAGAZINES AS WELL AS TYPE II, III, AND IV AMMUNITION BUNKERS. THE STORAGE PROCEDURES DEPICTED FOR THE SPECIFIC TYPES OF MAGAZINES MAY ALSO BE UTILIZED TO STORE AMMUNITION ITEMS IN OTHER TYPES OF APPROVED STORAGE STRUCTURES. MINOR ADJUSTMENTS MAY BE MADE TO FACILITATE STORAGE IN OTHER TYPES OF STORAGE STRUCTURES, HOWEVER, THE BASIC PRINCIPLES AS DEPICTED HEREIN WILL BE FOLLOWED.
- F. PALLETIZED UNITS MUST NOT CONTACT THE WALLS, CEILINGS, COLUMNS OR BEAMS OF A MAGAZINE. TO PROVIDE FOR THIS MANDATORY CLEARANCE REQUIREMENT, PALLETIZED UNITS MAY BE ELIMINATED FROM A DEPICTED STORAGE PATTERN, OR SIDE AISLE DIMENSIONS MAY BE INCREASED, AS APPLICABLE.
- G. AISLE DIMENSIONS SHOWN FOR STORAGE PROCEDURES IN MAGAZINES AND BUNKERS MAY BE ADJUSTED TO SUIT LOCAL CONDITIONS, VARIATIONS IN PALLET UNIT DIMENSIONS, AND/OR AVAILABLE MATERIALS HANDLING EQUIPMENT.
- H. THE MATERIALS HANDLING EQUIPMENT (MHE) AREA SHOULD BE OF SUFFICIENT DIMENSION TO PERMIT "TURN-AROUND" OF MHE WHEN STORING IN MAGAZINES NOT EQUIPPED WITH PROPERLY SIZED APRONS FOR THAT PURPOSE. THE MHE AISLE IN ALL MAGAZINES IS BASED ON A FIGURE WHICH IS AT LEAST 7'-7" PLUS THE LENGTH OR WIDTH OF THE PALLET UNIT, AS APPLICABLE, OR THE LENGTH OF THE FORKLIFT TRUCK TINES (40"), WHICHEVER IS THE GREATEST. IF THE AVAILABLE MHE AND/OR THE SPACE PERMITS, ADDITIONAL PALLETIZED UNITS MAY BE STORED WITHIN THE MHE AREA AND/OR OTHER AVAILABLE AREA OF THE MAGAZINE.
- J. IF DESIRED, AND IF NOT IN VIOLATION OF SURVEILLANCE REQUIREMENTS/PROCEDURES, ONE (1) SURVEILLANCE "CONTROL UNIT" SAMPLE MAY BE WITHHELD FROM EACH STORED LOT. IF THE MAGAZINE CONTAINS ONLY ONE (1) LOT IT IS RECOMMENDED THAT THIS "CONTROL UNIT" BE PLACED JUST INSIDE THE DOOR WHERE IT IS EASILY ACCESSIBLE. IF THE MAGAZINE CONTAINS SEVERAL LOTS, THE "CONTROL UNIT" SAMPLES SHOULD BE PLACED ADJACENT TO THE MHE OPERATING AISLE FOR ACCESSIBILITY.
- K. CAUTION: THE ALLOWABLE "EXPLOSIVE LIMIT" ESTABLISHED FOR A MAGAZINE IS NOT TO BE EXCEEDED.

(CONTINUED AT RIGHT)

## MATERIAL SPECIFICATIONS

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

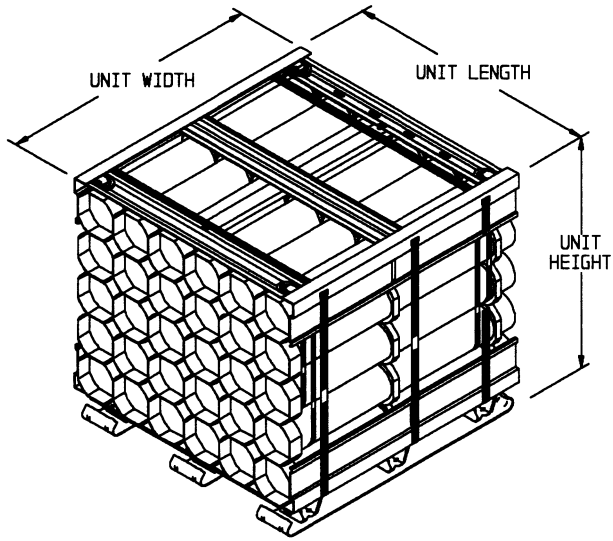
## (GENERAL NOTES CONTINUED)

- L. IF THE QUANTITY OF UNITS FOR A MAGAZINE IS TO BE REDUCED FROM WHAT IS SHOWN HEREIN DUE TO THE PERMITTED EXPLOSIVE LIMIT OR FOR ANY OTHER REASON, THE DELINEATED PROCEDURES ARE TO BE ADJUSTED BY OMITTING STACKS RATHER THAN BY OMITTING TIERS (LAYERS).
- M. STORAGE OF MULTIPLE LOTS IN A MAGAZINE WILL REQUIRE CAREFUL PREPLANNING SO AS TO INSURE MHE ACCESSIBILITY TO ANY LOT IN ACCORDANCE WITH REQUIREMENTS SET FORTH IN THE APPLICABLE "SPECIAL NOTES" SECTION OF THE MULTIPLE-LOT STORAGE PROCEDURES TYPICALLY SHOWN ON PAGES 76 THRU 82 AND ON PAGES 102 AND 103.
- N. WHEN STACKING LOW-HEIGHT PALLETIZED UNITS, IT MAY BE NECESSARY TO STACK THE TOP TWO PALLETIZED UNITS PRIOR TO LIFTING INTO POSITION, TO PREVENT THE FORKLIFT FORK TINES, CARRIAGE, OR GUARD FROM CONTACTING THE WALL OR CEILING OF A MAGAZINE.
- O. THE USE OF "FLOOR DUNNAGE" UNDER METAL PALLETS IS OPTIONAL. THE PURPOSE OF FLOOR DUNNAGE IS TO HELP KEEP THE RUNNERS OF A PALLET DRY, THUS AIDING IN PREVENTING DETERIORATION DUE TO CORROSION. THEREFORE, FLOOR DUNNAGE SHOULD BE USED WHEN STORING IN A MAGAZINE THAT IS KNOWN TO HAVE A "DAMP" FLOOR. ALSO, IN LIEU OF USING ONE-INCH THICK FLOOR DUNNAGE AS SPECIFIED BY THE "FLOOR DUNNAGE LOCATION" DETAILS ON PAGE 83, THE USE OF THICKER FLOOR DUNNAGE MAY BE REQUIRED, AND SHOULD BE USED, TO ACHIEVE THE DESIRED OBJECTIVE.
- P. ANY "LIGHT" PALLETIZED UNIT THAT DOES NOT CONTAIN A FULL QUANTITY OF CONTAINERS WILL NOT BE BURIED IN STORAGE. IT MUST BE POSITIONED ADJACENT TO AN AISLE, PREFERABLY IN THE FRONT OF THE LOT.
- Q. WHEN LOCAL STORAGE CONDITIONS ARE SUCH THAT AN AMMUNITION STORAGE MAGAZINE NET EXPLOSIVE LIMIT WILL BE REACHED BEFORE ALL AVAILABLE STORAGE SPACE WILL BE UTILIZED, A COMBINATION OF THE VARIOUS STORAGE PATTERNS DELINEATED HEREIN MAY BE USED, IN LIEU OF BLOCK STORAGE PATTERN, TO FACILITATE INVENTORY, INSPECTION, THE USE OF MATERIALS HANDLING EQUIPMENT, SURVEILLANCE, ETC., OF THE AMMUNITION TO BE STORED WITHIN THE MAGAZINE.
- R. 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 EMPTY CONTAINERS AS DELINEATED BY DRAWING 19-48-4231-20PM1006. THE UNIT MUST THEN BE RE-BANDED WITH THE SAME SIZE AND QUANTITY OF STRAPS AS THE ORIGINAL UNIT.
- S. CONVERSION TO METRIC EQUIVALENTS: DIMENSIONS WITHIN THIS DOCUMENT ARE EXPRESSED IN INCHES, AND WEIGHTS ARE EXPRESSED IN POUNDS. WHEN NECESSARY, THE METRIC EQUIVALENTS MAY BE COMPUTED ON THE BASIS OF ONE INCH EQUALS 25.4MM, AND ONE POUND EQUALS 0.454KG.
- T. PALLETIZED AMMUNITION AND/OR COMPONENTS PRESENTLY STORED IN ACCORDANCE WITH A PRIOR APPROVED DRAWING NEED NOT BE RE-STORED SOLELY TO CONFORM TO THE PROCEDURES SPECIFIED IN THIS DOCUMENT.
- U. PORTIONS OF THE MAGAZINES, SUCH AS SIDEWALLS, END WALLS, AND ROOFS, HAVE NOT BEEN SHOWN IN THE STORAGE VIEWS FOR CLARITY PURPOSES.

## REVISION

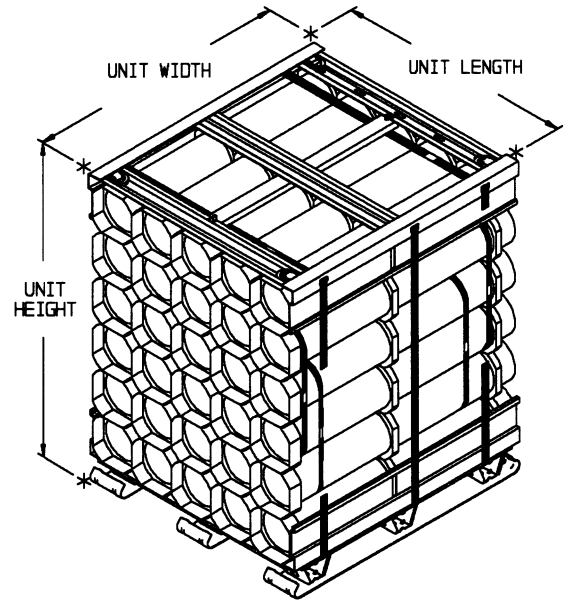
REVISION NO. 1, DATED APRIL 1994, CONSISTS OF:

1. UPDATING DRAWING FORMAT
2. CHANGING GENERAL NOTE "D" ON PAGE 2.



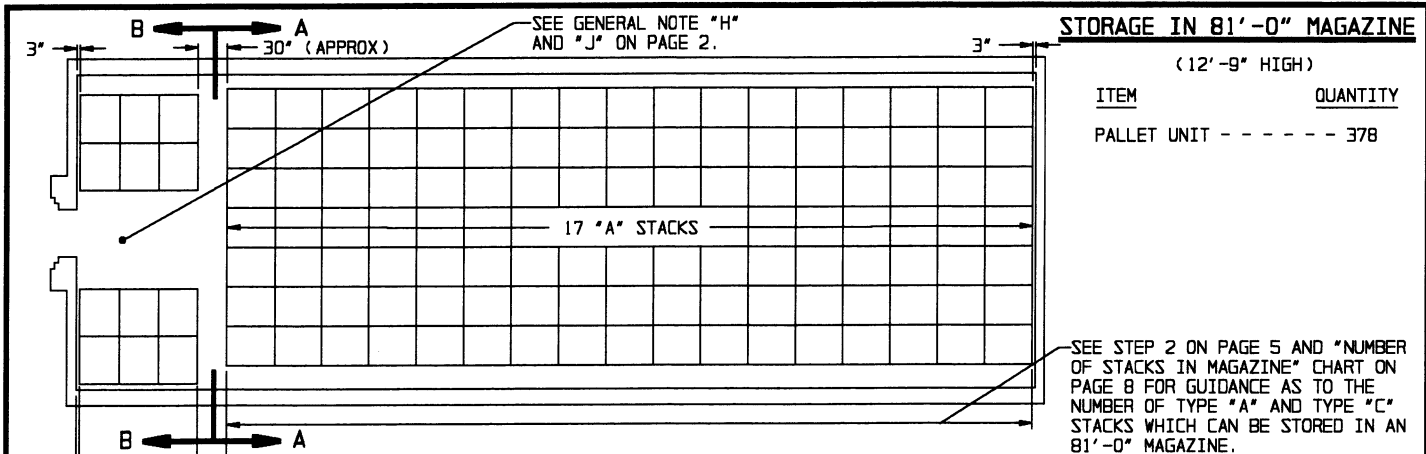
**TYPICAL PALLETIZED UNIT (40" X 44 PALLET)**

THE UNIT SHOWN IS 42-3/4" LONG BY 44-1/2" WIDE BY 40-3/8" HIGH.



**TYPICAL PALLETIZED UNIT (40" X 44" PALLET)**

THE UNIT SHOWN IS 40-1/8" LONG BY 44-1/2" WIDE BY 51-3/4" HIGH.  
 (SEE GENERAL NOTE "D" ON PAGE 2 FOR INSTRUCTIONS FOR STORING  
 A SPECIFIC ITEM, WHEN UNITIZED IN ACCORDANCE WITH UNITIZATION  
 DRAWING 19-48-4231/48-20PM1006 SHOWN ABOVE.)

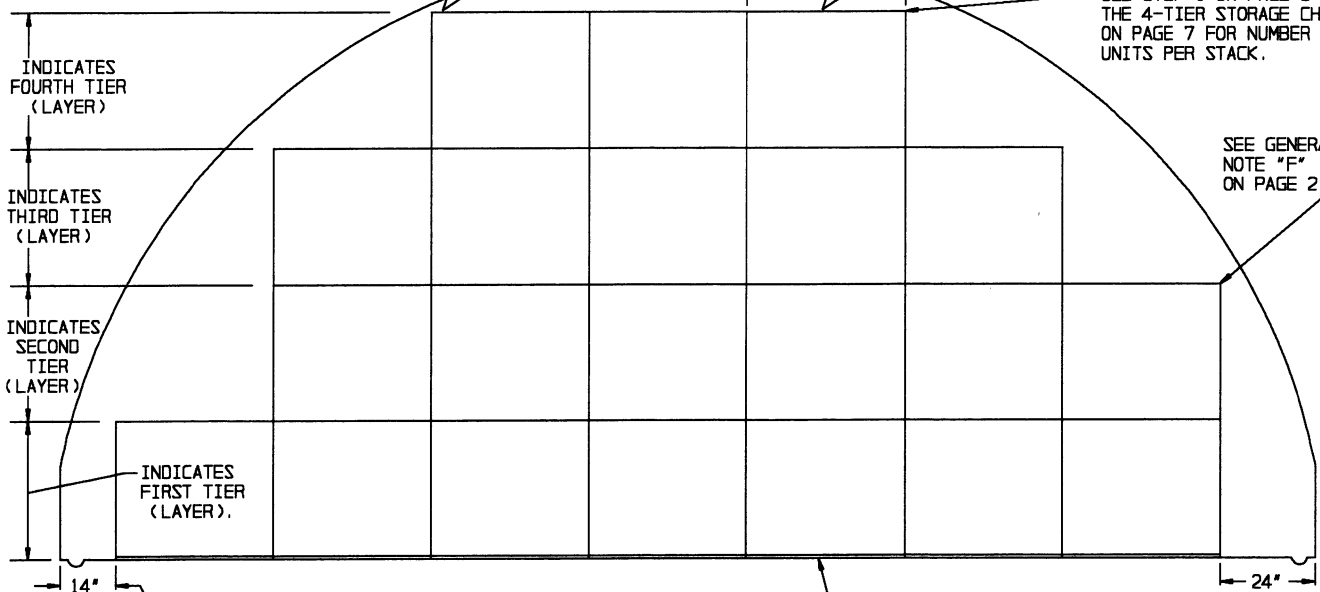


**STORAGE IN 81'-0" MAGAZINE**  
(12'-9" HIGH)

ITEM	QUANTITY
PALLET UNIT	----- 378

SEE STEP 2 ON PAGE 5 AND "NUMBER OF STACKS IN MAGAZINE" CHART ON PAGE 8 FOR GUIDANCE AS TO THE NUMBER OF TYPE "A" AND TYPE "C" STACKS WHICH CAN BE STORED IN AN 81'-0" MAGAZINE.

**PLAN VIEW**  
(81'-0" MAGAZINE)



SEE STEP 1 ON PAGE 5 AND THE 4-TIER STORAGE CHART ON PAGE 7 FOR NUMBER OF UNITS PER STACK.

SEE GENERAL NOTE "F" ON PAGE 2.

**SECTION A-A**  
(21 PALLET UNITS PER STACK).

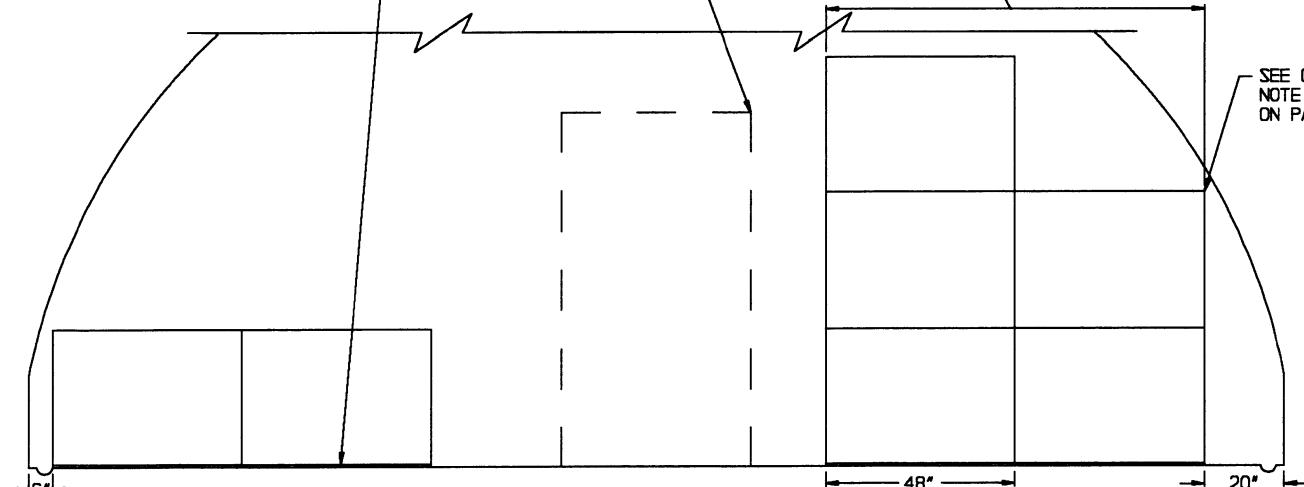
FLOOR DUNNAGE. SEE THE "FLOOR DUNNAGE LOCATION" DETAILS ON PAGE 83 AND GENERAL NOTE "O" ON PAGE 2.

FLOOR DUNNAGE. SEE THE "FLOOR DUNNAGE LOCATION" DETAIL ON PAGE 83, AND GENERAL NOTE "O" ON PAGE 2.

INDICATES OUTLINE OF DOOR OPENING.

SEE STEPS 3 AND 4 ON PAGE 5 AND CHARTS NO. 1 THROUGH 5 ON PAGE 9 FOR GUIDANCE AS TO THE NUMBER OF UNITS DEEP IN THE TYPE "C" STACKS IN THE MHE AREA.

SEE GENERAL NOTE "F" ON PAGE 2.



**SECTION B-B**  
SEE "CHART NO. 6 AND 7 ON PAGE 9 FOR SIDE AISLE DIMENSIONS FOR OTHER HEIGHT UNITS.

**TYPICAL STORAGE PROCEDURES**

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

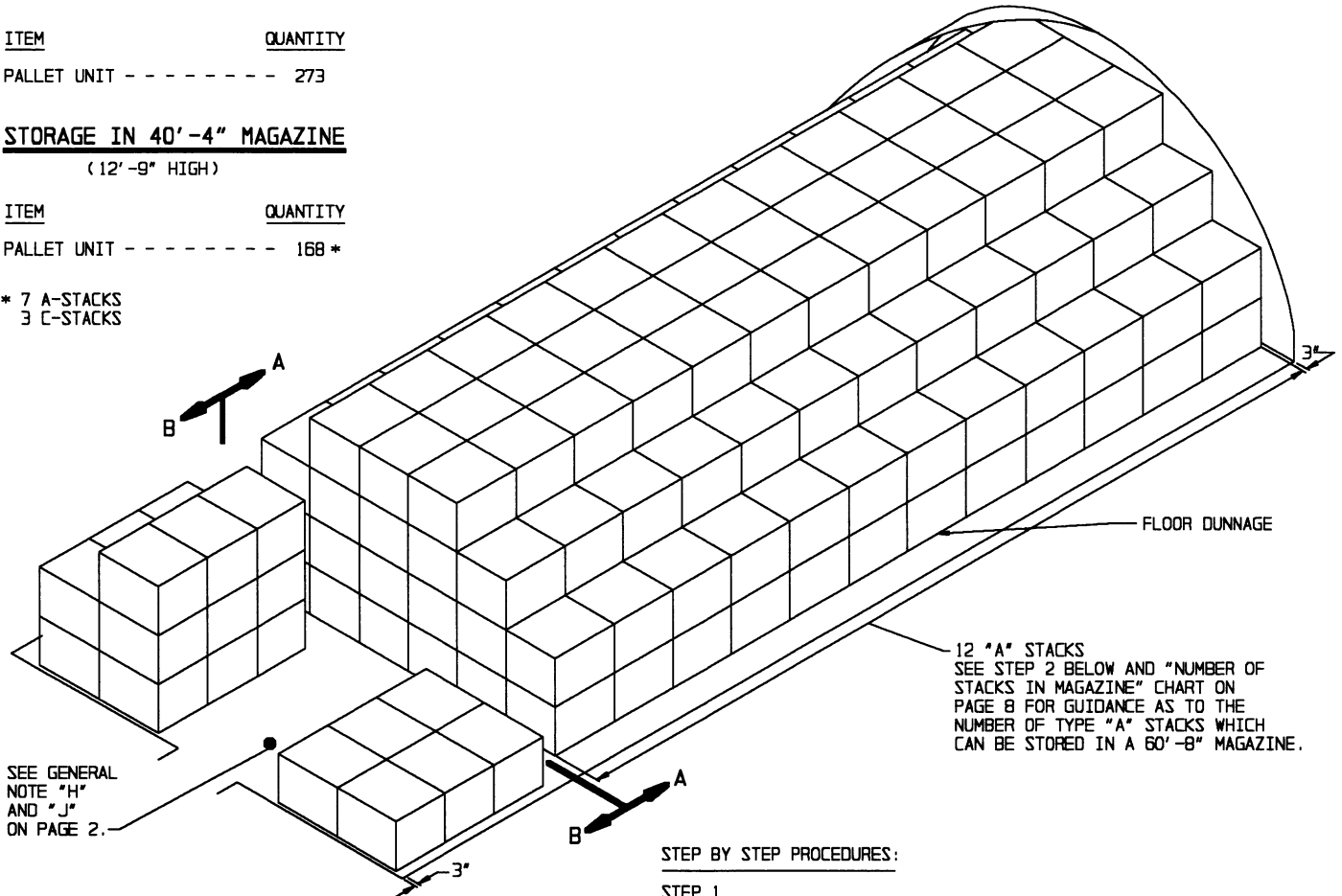
**STORAGE IN 60'-8" MAGAZINE**  
(12'-9" HIGH)

ITEM	QUANTITY
PALLET UNIT - - - - -	273

**STORAGE IN 40'-4" MAGAZINE**  
(12'-9" HIGH)

ITEM	QUANTITY
PALLET UNIT - - - - -	168 *

\* 7 A-STACKS  
3 C-STACKS



**ISOMETRIC VIEW**  
(60'-8" MAGAZINE)

12 "A" STACKS  
SEE STEP 2 BELOW AND "NUMBER OF STACKS IN MAGAZINE" CHART ON PAGE 8 FOR GUIDANCE AS TO THE NUMBER OF TYPE "A" STACKS WHICH CAN BE STORED IN A 60'-8" MAGAZINE.

**SPECIAL NOTES:**

1. THE TYPICAL PALLET UNIT SHOWN HAS OVERALL DIMENSIONS OF 40" LONG BY 48" WIDE BY 34-1/2" HIGH. THE QUANTITY OF UNITS, THE NUMBER OF STACKS, ROWS, AND TIERS (LAYERS) WILL VARY, DEPENDENT UPON THE SIZE OF THE UNIT. PALLET UNITS WILL BE STACKED IN VERTICAL ALIGNMENT AS SHOWN BY THE STORAGE VIEW ABOVE AND ON PAGE 4. AS MANY UNITS AS POSSIBLE WILL BE STORED WITHIN THE MAGAZINE.
2. THE STACKING PATTERN SHOWN ABOVE AND ON PAGE 4 DEPICT THE PALLET UNIT LENGTH POSITIONED ACROSS THE MAGAZINE. IF IT IS DESIRED TO STORE PALLET UNITS WHICH ARE LONGER THAN 46" IN SUCH A MANNER THAT THE LENGTH OF THE UNIT IS ACROSS THE WIDTH OF THE MAGAZINE, DOUBLE-DOOR EQUIPPED MAGAZINES WILL FACILITATE HANDLING. THE USE OF DOUBLE DOORS IS NOT MANDATORY, HOWEVER, IN IGLOOS HAVING SINGLE DOORS, THE LONGER UNITS MUST BE "DOUBLE-HANDLED".
3. REFER TO PAGES 76 AND 77 FOR GUIDANCE IN THE STORAGE OF MULTIPLE LOTS.
4. THE CHARTS ON PAGES 6 THROUGH 9 ARE PRESENTED AS GUIDANCE IN THE DEVELOPMENT OF A PATTERN FOR THE STORAGE OF PALLET UNITS OF AMMUNITION AND COMPONENTS IN ARCH TYPE (IGLOO) MAGAZINES. NOTICE: THE CHARTS ARE FOR GUIDANCE PURPOSES ONLY. VARIATIONS IN PALLET OVERALL SIZES, THE COMPACTNESS OF THE PLACEMENT WITHIN A MAGAZINE, AS WELL AS VARIANCES IN THE INSIDE DIMENSIONS OF THE MAGAZINE CAN CAUSE DISCREPANCIES WITHIN THE CHARTS. THE PROCEDURES ARE PRESENTED AS GUIDANCE IN USING THE DEPICTED CHARTS.

**STEP BY STEP PROCEDURES:**

**STEP 1**

FROM THE STORAGE CHARTS ON PAGE 7 SELECT THE NUMBER OF TIERS TO BE STORED, THE QUANTITY OF UNITS IN EACH TIER, AND THE LEFT SIDE AISLE DIMENSION. LOCATE IN THE LEFT HAND COLUMN, AND ACROSS THE TOP OF THE CHARTS THE EXACT UNIT HEIGHT AND LENGTH/WIDTH. (IN SOME CASES IT MAY BE NECESSARY TO USE THE NEXT HIGHER OR WIDER DIMENSION FOR FRACTIONAL HEIGHT OR WIDTH UNITS). USING THESE FIGURES PROJECT DOWN AND ACROSS BOTH CHARTS AS SHOWN BY THE DIRECTIONAL ARROWS, AND BY THE DOTTED LINE EXAMPLE IN THE "4-TIER STORAGE" CHART AND THE "LEFT SIDE AISLE DIMENSIONS, 4-TIER STORAGE" CHART ON PAGE 7. THE SAME PROCEDURES WILL BE USED FOR THE 2, 3, AND 5-TIER STORAGE CHARTS.

**STEP 2 (NUMBER OF TYPE "A" AND TYPE "C" STACKS IN THE MAGAZINE).**

LOCATE IN THE LEFT HAND COLUMN OF "NUMBER OF STACKS IN MAGAZINE" CHART ON PAGE 8, THE UNIT LENGTH OR WIDTH, AS APPLICABLE FOR THE ORIENTATION OF THE UNITS BEING STORED. OPPOSITE THAT LENGTH OR WIDTH FIGURE IS SPECIFIED THE APPROXIMATE NUMBER OF TYPE "A" STACKS (FULL STACKS ACROSS THE WIDTH OF THE MAGAZINE), AS WELL AS THE NUMBER OF TYPE "C" STACKS (PARTIAL STACKS AT THE FRONT OF THE MAGAZINE) THAT CAN BE POSITIONED IN AN 81'-0", 60'-8" AND 40'-4" LONG MAGAZINE.

**STEP 3 (NUMBER OF PALLETS DEEP IN TYPE "C" STACKS).**

LOCATE IN THE LEFT HAND COLUMN OF CHART NUMBER 1 ON PAGE 9 THE LINE WHICH SPECIFIES A PALLET UNIT HEIGHT RANGE THAT CONTAINS THE HEIGHT OF THE UNIT TO BE STORED. ALONG THAT LINE LOCATE THE COLUMN WHICH CONTAINS THE LENGTH OR WIDTH OF THE UNIT, AS APPLICABLE, WHICH IS TO BE POSITIONED ACROSS THE WIDTH OF THE MAGAZINE. THE HEADING AT THE BASE OF THAT COLUMN WILL INDICATE THE NUMBER OF PALLETS DEEP WHICH CAN BE STORED AT EACH SIDE OF THE DOOR OPENING IN THE FIRST TIER OF A TYPE "C" STACK. REFER TO CHART NUMBERS 6 OR 7 ON PAGE 9 TO FIND THE MINIMUM SIDE AISLE DIMENSIONS FOR THE TYPE "C" STACKS.

**STEP 4**

REPEAT STEP 3 FOR CHARTS 2 AND 5 AS APPLICABLE, TO DETERMINE THE NUMBER OF PALLETS DEEP WHICH CAN BE STACKED ON THE LEFT SIDE OF THE DOOR IN THE SECOND THROUGH FOURTH TIERS.

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

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

UNIT HT IN INCHES	2-TIER STORAGE (UNIT LENGTH OR WIDTH IN INCHES)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
MAX	6	5	5	5	5	5	5	5	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3
54	8	8	7	7	7	7	7	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	4
53	8	8	7	7	7	7	7	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	4
52	8	8	7	7	7	7	7	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	4
51	8	8	7	7	7	7	7	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	4
52	8	8	7	7	7	7	7	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	4

UNIT HT IN INCHES	2-TIER STORAGE (LEFT SIDE AISLE DIMENSIONS)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
54	17	14	27	24	20	17	13	13	28	25	22	19	16	13	12	13	13	27	24	22	19	17	14	12	15
53	17	14	27	24	20	17	13	12	28	25	22	19	16	13	12	12	12	27	24	22	19	17	14	12	15
52	17	14	11	24	20	17	13	11	11	25	22	19	16	13	11	11	11	27	24	22	19	17	14	12	15
51	17	14	11	24	20	17	13	11	11	25	22	19	16	13	11	11	11	27	24	22	19	17	14	12	15
50	17	14	10	24	20	17	13	10	10	10	22	19	16	13	10	10	10	24	22	19	17	14	12	15	

UNIT HT IN INCHES	3-TIER STORAGE (UNIT LENGTH OR WIDTH IN INCHES)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
49	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	1	1	1	1	1	1
48	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
47	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
46	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
45	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
44	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
43	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
42	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
41	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
40	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
39	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
38	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6

UNIT HT IN INCHES	3-TIER STORAGE (LEFT SIDE AISLE DIMENSIONS)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
49	9	9	14	24	20	17	12	9	9	9	44	42	9	9	9	9	9	24	24	19	17	14	12	9	
48	17	13	9	9	38	15	13	9	9	9	44	42	39	9	9	20	18	12	24	22	19	17	14	12	9
47	12	9	9	9	38	9	9	9	9	21	18	16	9	9	9	9	9	9	9	48	12	12	12	9	
46	12	12	9	9	18	9	9	9	12	9	9	18	16	12	10	9	9	9	9	45	43	41	39	36	
45	33	8	8	8	18	15	12	8	8	8	8	33	8	8	8	8	8	8	8	48	47	45	43	41	
44	15	8	8	10	8	15	12	8	8	8	8	39	39	36	34	32	8	8	8	45	45	42	39	36	
43	15	12	8	8	8	15	12	8	8	8	8	39	39	36	34	32	8	8	8	45	42	39	36	36	
42	7	7	7	7	7	33	32	7	7	7	7	36	36	34	30	28	21	7	7	42	42	39	36	36	
41	7	7	7	7	7	33	30	28	27	7	7	36	36	33	30	28	20	19	15	7	12	12	12	36	
40	7	7	7	7	7	30	28	26	22	7	7	33	33	30	28	26	15	12	11	15	12	9	9	7	
39	6	30	27	24	6	6	30	28	26	24	16	6	6	33	30	28	26	24	12	9	6	6	6	6	
38	6	30	27	24	6	6	30	28	26	24	15	12	15	12	9	30	28	26	23	12	6	6	6	6	

UNIT HT IN INCHES	4-TIER STORAGE (UNIT LENGTH OR WIDTH IN INCHES)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
MAX	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	1	1	1	1	0	0	0	1	1
37	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3
36	7	7	7	7	7	7	7	7	7	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5
35	8	8	8	7	7	7	7	7	7	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5
34	8	8	7	7	7	7	7	7	7	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5
33	8	8	7	7	7	7	7	7	7	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5
32	8	8	8	8	7	7	7	7	7	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5
31	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
30	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8

UNIT HT IN INCHES	4-TIER STORAGE (LEFT SIDE AISLE DIMENSIONS)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
37	6	6	27	23	18	13	13	11	28	24	22	12	9	6	10	6	30	27	25	22	6	6	6	12	11
36	6	6	6	23	15	12	12	9	8	21	21	6	6	6	21	30	28	26	24	21	15	12	6	12	9
35	13	12	10	24	9	8	6	30	27	24	22	13	9	6	10	6	6	22	22	6	6	6	6	6	21
34	9	6	27	24	20	14	6	10	6	20	20	19	6	6	6	6	6	50	48	46	44	44	44	44	21
33	15	8	6	24	21	9	6	10	6	46	44	41	6	6	18	18	18	6	6	48	46	44	42	41	34
32	17	6	6	6	17	17	6	17	6	17	6	41	39	6	28	18	17	17	6	46	44	42	40	39	
31	16	6	6	6	36	36	6	6	16	16	16	39	36	27	24	21	24	24	18	18	16	42	39	36	
30	15	6	6	6	6	33	33	26	21	21	21	15	15	33	33	18	18	15	15	15	15	15	15	39	36

UNIT HT IN INCHES	5-TIER STORAGE (UNIT LENGTH OR WIDTH IN INCHES)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
MAX	2	2	2	2	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1
29	4	4	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3
28	6	6	6	6	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4
27	8	8	8	8	7	7	7	7	7	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5
26	8	8	8	8	7	7	7	7	7	7	7	6	6	6	6	6	6	5	5	5	5	5	5	5	5

UNIT HT IN INCHES	5-TIER STORAGE (LEFT SIDE AISLE DIMENSIONS)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
29	14	9	9	6	14	14	6	18	18	14	18	18	14	36	34	32	21	18	14	22	18	14	14	6	6
28	13	6	18	15	13	15	30	28	21	15	13	18	13	13	9	6	6	18	13	13	18	17	13	6	6
27	12	6	21	18	12	15	12	9	26	12	12	12	12	12	6	6	6	12	12	12	12	12	12	12	6
26	15	13	9	11	11	11	11	6	6	11	11	11	11	15	11	11	11	11	11	11	11	6	30	30	28

NUMBER OF STACKS IN MAGAZINE												
UNIT DIMENSION LENGTHWISE IN MAGAZINE	81'-0" IGLOO				60'8" IGLOO				40'-4" IGLOO			
	* "A" STACKS		"C" STACKS		* "A" STACKS		"C" STACKS		* "A" STACKS		"C" STACKS	
	NO.	MHE AISLE	NO.	SPACE REMAIN	NO.	MHE AISLE	NO.	SPACE REMAIN	NO.	MHE AISLE	NO.	SPACE REMAIN
59"	13	16'-10"	3	22"	9	16'-2"	3	14"	5	15'-6"	3	6"
58"	14	13'-1"	2	38"	9	16'-11"	3	26"	5	15'-11"	3	14"
57"	14	14'-3"	2	54"	10	12'-11"	2	38"	5	16'-4"	3	22"
56"	14	15'-5"	3	12"	10	13'-9"	2	50"	5	16'-9"	3	30"
55"	14	16'-10"	3	34"	10	14'-7"	3	7"	6	12'-7"	2	38"
54"	15	13'-3"	2	48"	10	15'-5"	3	32"	6	13'-1"	2	46"
53"	15	14'-6"	3	12"	11	11'-10"	2	33"	6	13'-7"	2	54"
52"	16	11'-4"	2	30"	11	12'-9"	2	46"	6	14'-1"	3	10"
51"	16	12'-9"	2	48"	11	13'-8"	3	8"	6	14'-7"	3	19"
50"	16	14'-1"	3	16"	11	14'-7"	3	22"	6	15'-1"	3	28"
49"	17	11'-4"	2	35"	12	11'-5"	2	36"	6	15'-7"	3	37"
48"	17	12'-9"	3	6"	12	12'-5"	2	50"	7	12'-1"	2	46"
47"	17	14'-2"	3	26"	12	13'-5"	3	17"	7	12'-8"	3	8"
46"	18	11'-9"	2	46"	12	14'-5"	3	32"	7	13'-3"	3	18"
45"	18	13'-3"	3	21"	13	11'-8"	2	47"	7	13'-10"	3	28"
44"	19	11'-7"	2	42"	13	12'-9"	3	18"	7	14'-5"	3	38"
43"	19	12'-8"	3	20"	13	13'-10"	3	34"	8	11'-5"	3	5"
42"	19	14'-3"	3	42"	14	11'-5"	3	8"	8	12'-1"	3	16"
41"	20	12'-5"	3	23"	14	12'-7"	3	25"	8	12'-9"	3	27"
40"	20	14'-1"	4	6"	14	13'-9"	3	42"	8	13'-5"	3	38"
39"	21	12'-6"	3	30"	15	11'-8"	3	20"	8	14'-1"	4	10"
38"	22	11'-1"	3	16"	15	12'-11"	3	38"	9	11'-7"	3	22"
37"	22	12'-11"	3	41"	16	11'-1"	3	19"	9	12'-4"	3	34"
36"	23	11'-9"	3	30"	16	12'-5"	3	38"	9	13'-1"	4	10"
35"	23	13'-8"	4	21"	16	13'-9"	4	22"	10	10'-11"	3	23"

\* THE NUMBER OF TYPE "A" STACKS SPECIFIED FOR A MAGAZINE IS BASED ON HAVING A MATERIAL HANDLING EQUIPMENT OPERATING AREA (DISTANCE FROM THE FACE OF THE LAST TYPE "A" STACK TO THE MAGAZINE FRONT WALL) OF 7'-7" PLUS THE LENGTH OR WIDTH OF THE PALLET UNIT, AS APPLICABLE, OR THE LENGTH OF THE FORKLIFT TRUCK TINES (40"), WHICHEVER IS THE GREATEST. ADDITIONAL TYPE "A" STACKS MAY BE STORED IF THE AVAILABLE MATERIALS HANDLING EQUIPMENT PERMITS.



NOTICE:  
ALL UNIT HEIGHT/WIDTH DIMENSIONS  
AND SIDE AISLE DIMENSIONS ARE  
EXPRESSED IN INCHES.

CHART NO. 1			
UNIT HT	UNIT LENGTH OR WIDTH		
50-54	35-40	40-55	55-59
40-50	35-41	41-56	56-59
26-40	35-43	43-57	57-59
UNIT HT	3 AND 2	2 AND 2	2 AND 1
NUMBER OF PALLETS DEEP IN FIRST TIER OF TYPE "C" STACKS			

CHART NO. 2			
UNIT HT	UNIT LENGTH OR WIDTH		
53-54		35-42	42-59
52-53		35-43	43-59
51-52		35-44	44-59
50-51		35-45	45-59
49-50		35-46	46-59
48-49		35-47	47-59
47-48		35-48	48-59
46-47		35-49	49-59
44-46		35-50	50-59
43-44		35-51	51-59
42-43	35	35-52	52-59
41-42	35	35-53	53-59
39-41	35-36	36-54	54-59
38-39	35-36	36-55	55-59
37-38	35-37	37-55	55-59
36-37	35-37	37-56	56-59
34-36	35-38	38-57	57-59
33-34	35-38	38-58	58-59
28-33	35-39	39-58	58-59
26-28	35-40	40-59	
26	35-41	41-59	
UNIT HT	3	2	1
NUMBER OF PALLETS DEEP IN SECOND TIER OF TYPE "C" STACKS			

CHART NO. 7			
UNIT HEIGHT	MINIMUM SIDE AISLE	UNIT HEIGHT	MINIMUM SIDE AISLE
54-55	51	39-40	26
53-54	49	38-39	24
52-53	47	37-38	23
51-52	45	36-37	22
50-51	43	35-36	21
49-50	41	34-35	20
48-49	39	33-34	19
47-48	38	32-33	18
46-47	36	31-32	17
45-46	34	30-31	16
44-45	33	29-30	15
43-44	32	28-29	14
42-43	30	27-28	13
41-42	28	26-27	12
40-41	27	26	11

THIS CHART IS FOR USE WHEN STACKING THE FIRST TWO TIERS IN VERTICAL ALIGNMENT AS SHOWN IN "SECTION B-B" ON PAGE 4.

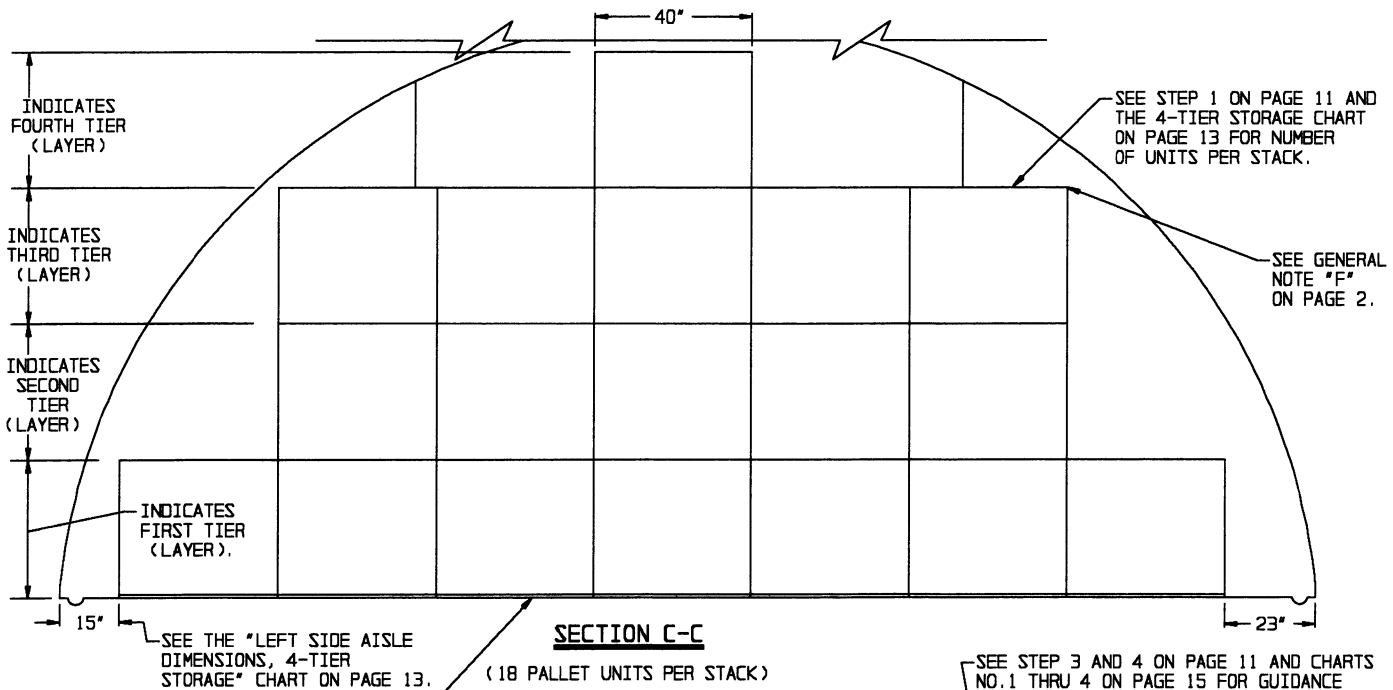
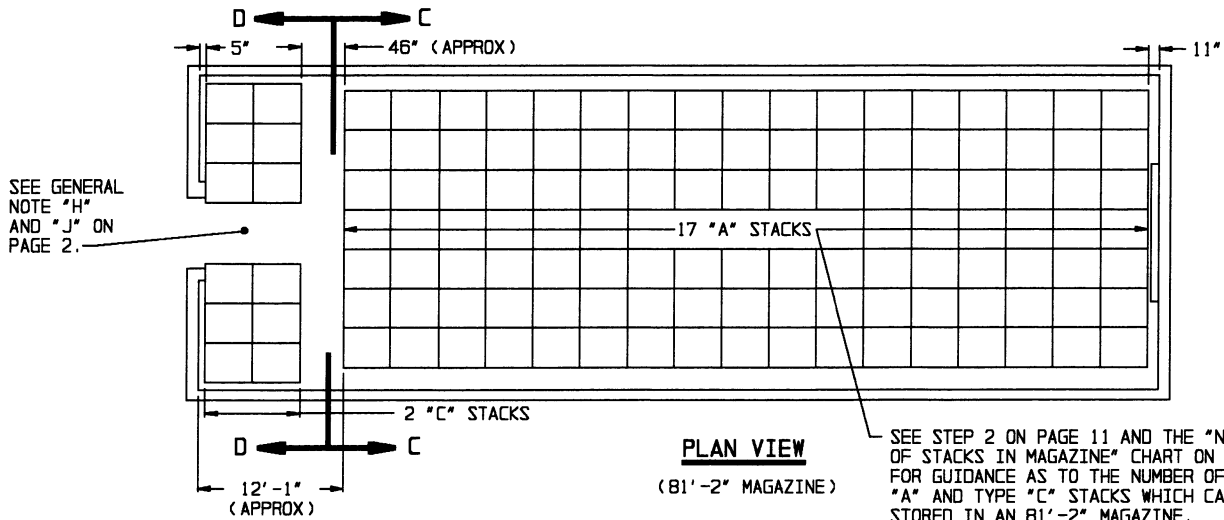
CHART NO. 3			
UNIT HT	UNIT LENGTH OR WIDTH		
43-44			35
40-43			35-56
39-40		35	35-59
38-39		35-37	37-59
37-38		35-39	39-59
36-37		35-41	41-59
35-36		35-42	42-59
34-35		35-44	44-59
33-34		35-46	46-59
32-33		35-47	47-59
31-32		35-48	48-59
30-31		35-50	50-59
29-30		35-51	51-59
28-29	35	35-52	52-59
27-28	35	35-53	53-59
26-27	35-36	36-54	54-59
26	35-36	36-55	55-59
UNIT HT	3	2	1
NUMBER OF PALLETS DEEP IN THIRD TIER OF TYPE "C" STACKS			

CHART NO. 4		
UNIT HT	UNIT LENGTH OR WIDTH	
32-33		35-50
30-32		35-59
29-30	35-36	36-59
28-29	35-38	38-59
27-28	35-41	41-59
26-27	35-42	42-59
26	35-45	45-59
UNIT HT	2	1
NUMBER OF PALLETS DEEP IN FOURTH TIER OF TYPE "C" STACKS		

CHART NO. 5	
UNIT HT	UNIT LENGTH OR WIDTH
27-28	35
26-27	35-46
26	35-56
UNIT HT	1
NUMBER OF PALLETS DEEP IN FIFTH TIER OF TYPE "C" STACKS	

CHART NO. 6	
UNIT HEIGHT	MINIMUM SIDE AISLE
52-54	12
50-52	11
49-50	10
45-49	9
42-45	8
39-42	7
26-39	6

NOTE:  
A SIDE AISLE GREATER THAN THE MINIMUM DIMENSION GIVEN IN CHART NO. 6 AND CHART NO. 7 MAY BE USED TO ACHIEVE A MAXIMUM STACKING PATTERN WITHIN THE "C" STACKS.



FLOOR DUNNAGE. SEE THE "FLOOR DUNNAGE LOCATION" DETAIL ON PAGE 83 AND GENERAL NOTE "O" ON PAGE 2.

INDICATES OUTLINE OF DOOR OPENING.

SEE STEP 3 AND 4 ON PAGE 11 AND CHARTS NO. 1 THRU 4 ON PAGE 15 FOR GUIDANCE AS TO THE NUMBER OF UNITS DEEP IN THE TYPE "C" STACKS IN THE MHE AREA.

SEE GENERAL NOTE "F" ON PAGE 2.

SEE CHART NO. 5 OR 6 ON PAGE 15 FOR SIDE AISLE DIMENSIONS FOR OTHER HEIGHT UNITS.

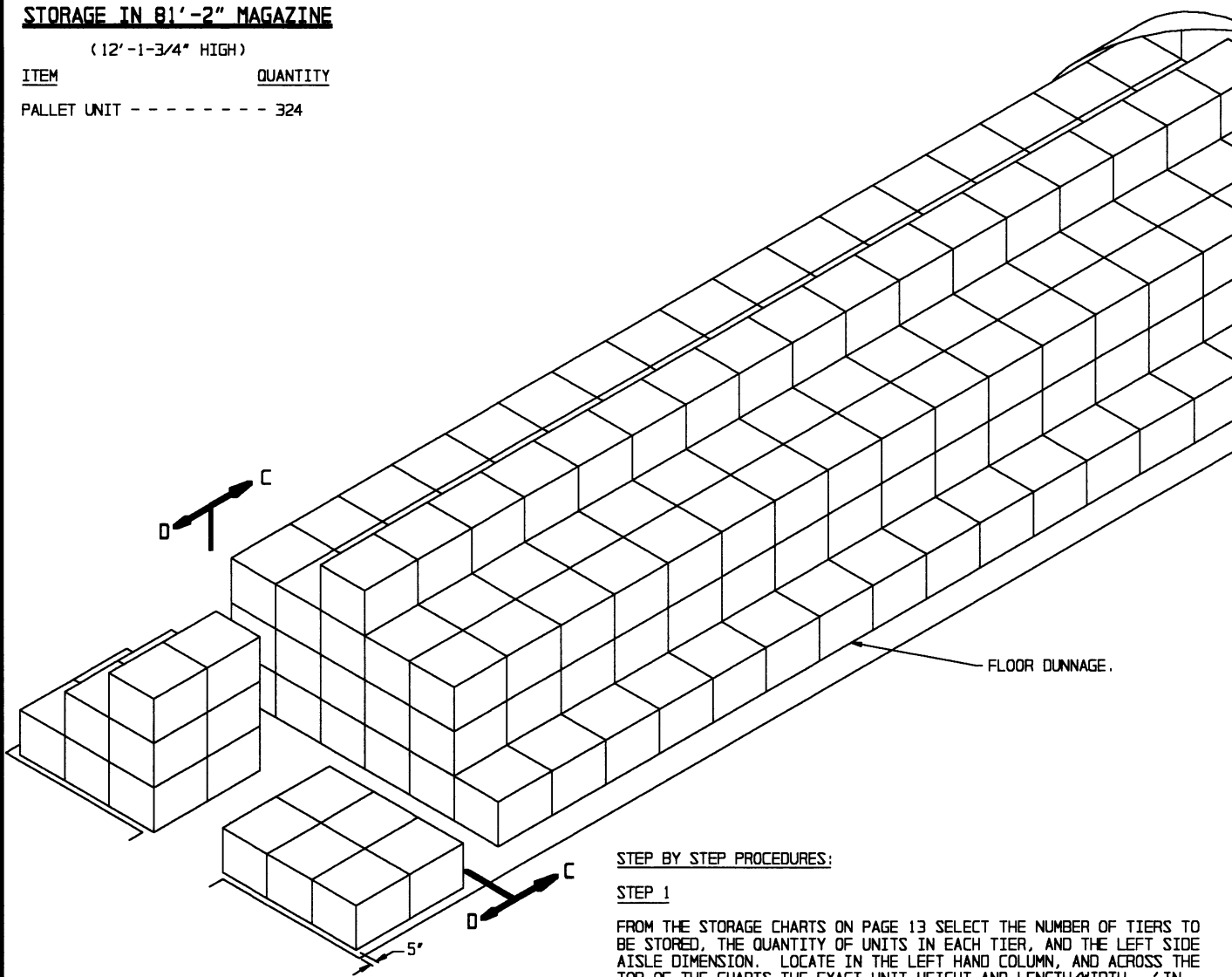
**SECTION D-D**

**STORAGE IN 81'-2" MAGAZINE**

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

ITEM QUANTITY

PALLET UNIT - - - - - 324



**ISOMETRIC VIEW**

(81'-2" MAGAZINE)

**SPECIAL NOTES:**

1. THE TYPICAL PALLET UNIT SHOWN HAS OVERALL DIMENSIONS OF 40" LONG BY 48" WIDE BY 34-1/2" HIGH. THE QUANTITY OF UNITS, THE NUMBER OF STACKS, ROWS, AND TIERS (LAYERS) WILL VARY, DEPENDENT UPON THE SIZE OF THE UNIT. PALLET UNITS WILL BE STACKED IN VERTICAL ALIGNMENT AS SHOWN BY THE STORAGE VIEW ABOVE AND ON PAGE 10. AS MANY UNITS AS POSSIBLE WILL BE STORED WITHIN THE MAGAZINE.
2. THE STACKING PATTERN SHOWN ABOVE AND ON PAGE 10 DEPICT THE PALLET UNIT LENGTH POSITIONED ACROSS THE MAGAZINE. HOWEVER, IT MAY BE MORE ADVANTAGEOUS TO STACK THE UNITS WITH THE WIDTH ACROSS THE MAGAZINE.
3. REFER TO PAGES 76 AND 77 FOR GUIDANCE IN THE STORAGE OF MULTIPLE LOTS.
4. THE CHARTS ON PAGES 12 THROUGH 15 ARE PRESENTED AS GUIDANCE IN THE DEVELOPMENT OF A PATTERN FOR THE STORAGE OF PALLET UNITS OF AMMUNITION AND COMPONENTS IN ARCH TYPE MAGAZINES. NOTICE: THE CHARTS ARE FOR GUIDANCE PURPOSES ONLY. VARIATIONS IN PALLET UNIT OVERALL SIZES, THE COMPACTNESS OF PLACEMENT WITHIN A MAGAZINE, AS WELL AS VARIANCES IN THE INSIDE DIMENSIONS OF THE MAGAZINE CAN CAUSE DISCREPANCIES WITHIN THE CHARTS. THE PROCEDURES AT RIGHT ARE PRESENTED AS GUIDANCE IN USING THE DEPICTED CHARTS. NOTE THAT ALL DIMENSIONS ARE EXPRESSED IN INCHES.

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

**STEP BY STEP PROCEDURES:**

**STEP 1**

FROM THE STORAGE CHARTS ON PAGE 13 SELECT THE NUMBER OF TIERS TO BE STORED, THE QUANTITY OF UNITS IN EACH TIER, AND THE LEFT SIDE AISLE DIMENSION. LOCATE IN THE LEFT HAND COLUMN, AND ACROSS THE TOP OF THE CHARTS THE EXACT UNIT HEIGHT AND LENGTH/WIDTH. (IN SOME CASES IT MAY BE NECESSARY TO USE THE NEXT HIGHER OR WIDER DIMENSION FOR FRACTIONAL HEIGHT OR WIDTH UNITS). USING THESE FIGURES PROJECT DOWN AND ACROSS BOTH CHARTS AS SHOWN BY THE DIRECTIONAL ARROWS, AND BY THE DOTTED LINE EXAMPLE IN THE "4-TIER STORAGE" CHART AND THE "LEFT SIDE AISLE DIMENSIONS, 4-TIER STORAGE" CHART ON PAGE 13. THE SAME PROCEDURES WILL BE USED FOR THE 2, 3, AND 5-TIER STORAGE CHARTS.

**STEP 2 (NUMBER OF TYPE "A" AND TYPE "C" STACKS IN THE MAGAZINE).**

LOCATE IN THE LEFT HAND COLUMN OF "NUMBER OF STACKS IN MAGAZINE" CHART ON PAGE 14, THE UNIT LENGTH OR WIDTH, AS APPLICABLE FOR THE ORIENTATION OF THE UNITS BEING STORED. OPPOSITE THAT LENGTH OR WIDTH FIGURE IS SPECIFIED THE APPROXIMATE NUMBER OF TYPE "A" STACKS (FULL STACKS ACROSS THE WIDTH OF THE MAGAZINE), AS WELL AS THE NUMBER OF TYPE "C" STACKS (PARTIAL STACKS AT THE FRONT OF THE MAGAZINE) THAT CAN BE POSITIONED IN AN 81'-2" LONG MAGAZINE.

**STEP 3 (NUMBER OF PALLETS DEEP IN TYPE "C" STACKS).**

LOCATE IN THE LEFT HAND COLUMN OF CHART NUMBER 1 ON PAGE 15 THE LINE WHICH SPECIFIES A PALLET UNIT HEIGHT RANGE THAT CONTAINS THE HEIGHT OF THE UNIT TO BE STORED. ALONG THAT LINE LOCATE THE COLUMN WHICH CONTAINS THE LENGTH OR WIDTH OF THE UNIT, AS APPLICABLE, WHICH IS TO BE POSITIONED ACROSS THE WIDTH OF THE MAGAZINE. THE HEADING AT THE BASE OF THAT COLUMN WILL INDICATE THE NUMBER OF PALLETS DEEP WHICH CAN BE STORED AT EACH SIDE OF THE DOOR OPENING IN THE FIRST TIER OF A TYPE "C" STACK. REFER TO CHART NUMBERS 5 OR 6 ON PAGE 15 TO FIND THE MINIMUM SIDE AISLE DIMENSIONS FOR THE TYPE "C" STACKS.

**STEP 4**

REPEAT STEP 3 FOR CHARTS 2 THROUGH 4 AS APPLICABLE, TO DETERMINE THE NUMBER OF PALLETS DEEP WHICH CAN BE STACKED ON THE LEFT SIDE OF THE DOOR IN THE SECOND THROUGH FOURTH TIERS.

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

UNIT HT	2-TIER STORAGE (UNIT LENGTH OR WIDTH IN INCHES)																								
IN INCHES	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
MAX	5	5	5	5	5	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3
54	7	7	7	7	7	7	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	4	4
53	7	7	7	7	7	7	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	4	4
52	8	7	7	7	7	7	6	6	6	6	6	6	6	4	4	4	4	4	4	4	4	4	4	4	4
51	8	7	7	7	7	7	6	6	6	6	6	6	6	4	4	4	4	4	4	4	4	4	4	4	4
50	8	7	7	7	7	7	6	6	6	6	6	6	6	4	4	4	4	4	4	4	4	4	4	4	4
49	8	7	7	7	7	7	6	6	6	6	6	6	6	4	4	4	4	4	4	4	4	4	4	4	4
48	8	7	7	7	7	7	6	6	6	6	6	6	6	4	4	4	4	4	4	4	4	4	4	4	4

UNIT HT	2-TIER STORAGE (LEFT SIDE AISLE DIMENSIONS)																								
IN INCHES	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
54	34	31	27	22	20	16	34	31	28	25	22	16	16	16	34	32	29	27	24	22	19	16	16	16	16
53	34	31	27	22	20	18	34	31	28	25	22	16	16	16	34	32	29	27	24	22	19	16	16	16	16
52	15	31	27	24	20	17	15	31	28	25	22	19	15	15	15	32	29	27	24	22	19	15	15	15	15
51	14	31	27	24	20	17	14	31	28	25	22	19	16	14	14	32	29	27	24	22	19	14	14	14	14
50	14	31	27	24	20	17	14	14	28	25	22	19	14	14	14	29	27	24	22	18	14	14	14	18	15
49	14	31	27	24	20	14	14	14	28	25	22	19	14	14	14	29	27	24	22	19	13	14	18	15	15
48	13	13	27	24	20	13	13	13	28	25	22	19	13	13	13	13	13	27	24	22	19	13	13	18	15

UNIT HT	3-TIER STORAGE (UNIT LENGTH OR WIDTH IN INCHES)																								
IN INCHES	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
47	0	0	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46	8	6	7	5	7	7	7	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6
45	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
44	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
43	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
42	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
41	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
40	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
39	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
38	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
37	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
36	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7

UNIT HT	3-TIER STORAGE (LEFT SIDE AISLE DIMENSIONS)																								
IN INCHES	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
47	13	13	27	24	20	17	13	13	13	47	48	19	13	13	13	13	13	13	24	22	19	17	13	15	15
46	12	12	12	24	20	17	12	12	12	47	44	19	16	12	12	12	12	27	24	22	19	17	12	15	12
45	12	12	12	12	20	17	12	12	12	47	44	19	16	12	18	12	12	12	51	49	47	45	15	12	12
44	12	12	12	12	12	12	12	18	12	22	19	16	11	12	12	12	12	12	51	49	47	45	43	41	39
43	11	11	11	11	11	11	11	11	11	22	19	16	11	11	11	11	11	11	49	47	45	43	41	39	39
42	11	11	15	24	20	17	13	11	11	22	19	16	11	11	11	11	11	11	49	47	45	43	41	39	39
41	17	10	10	10	20	17	13	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
40	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
39	10	10	10	10	10	37	13	10	10	10	10	10	10	10	42	39	37	34	33	24	24	19	17	43	41
38	34	9	9	9	9	37	34	31	9	9	9	9	9	9	39	37	34	32	30	30	18	15	19	17	14
37	34	31	9	9	9	37	34	31	27	27	9	9	9	9	39	37	34	32	29	18	15	12	9	14	12
36	8	31	27	8	8	8	34	31	28	24	16	19	16	13	10	32	29	27	15	12	8	8	8	8	8

UNIT HT IN INCHES	4-TIER STORAGE (UNIT LENGTH OR WIDTH IN INCHES)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
MAX	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3
	7	7	7	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	8	7	7	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
34 →	2	2	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1
	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3
	7	6	7	7	6	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	8	8	7	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
33	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1
	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3
	7	6	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	8	8	7	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
32	3	2	2	3	3	3	2	2	2	2	2	2	2	2	1	2	2	2	2	1	1	1	1	1	1
	5	6	6	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3
	7	6	6	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	8	8	8	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
31	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1
	6	6	6	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	3	3	3	3	3	3
	7	6	6	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	8	8	8	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
30	4	4	4	4	3	3	3	3	3	3	3	3	3	3	2	3	2	2	2	3	3	3	3	3	3
	6	6	6	6	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	3	3	3	3	3	3
	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	8	8	8	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
29	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	6	6	6	6	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	8	8	8	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6

UNIT HT IN INCHES	4-TIER STORAGE (LEFT SIDE AISLE DIMENSIONS)																										
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59		
35	8	31	27	8	15	15	15	31	28	25	12	19	16	13	10	32	29	27	15	12	8	8	26	8	8		
34 →	8	8	27	24	15	15	13	10	24	25	12	8	8	13	10	32	29	27	24	18	12	8	14	12	9		
33	8	14	23	8	14	8	34	31	28	25	18	15	16	13	8	32	29	27	24	18	12	8	24	24	24		
32	7	9	7	21	21	12	7	7	28	25	9	7	13	7	7	7	7	7	24	21	7	7	7	7	24		
31	7	10	7	24	21	7	7	7	21	7	7	7	7	7	7	21	21	21	24	21	7	45	36	34	30		
30	9	6	6	6	20	6	6	10	6	6	45	6	6	30	6	21	29	27	24	22	6	6	6	28	26		
29	6	6	6	6	6	6	6	10	6	6	6	6	6	6	6	26	26	25	24	27	24	22	18	45	43	41	27

UNIT HT IN INCHES	5-TIER STORAGE (UNIT LENGTH OR WIDTH IN INCHES)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
MAX	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
	4	4	4	4	4	3	3	3	3	3	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3
	6	6	6	6	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
28	8	7	6	7	7	7	6	5	5	5	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5
	8	8	8	7	7	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
27	2	2	2	1	1	2	1	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1
	4	4	4	4	5	5	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3
	6	6	6	6	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	8	7	6	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	8	8	8	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
26	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1
	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	6	6	6	6	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	8	7	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	8	8	7	7	7	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6

UNIT HT IN INCHES	5-TIER STORAGE (LEFT SIDE AISLE DIMENSIONS)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
28	17	6	6	17	17	17	6	10	6	17	22	17	6	6	24	17	17	17	24	22	19	17	14	12	9
27	17	6	9	24	20	6	6	17	17	17	17	17	17	17	14	12	10	21	16	16	16	17	9	6	9
26	16	6	18	15	15	15	6	6	15	15	15	15	15	15	15	15	6	6	15	15	15	15	6	6	9

NUMBER OF STACKS IN MAGAZINE				
UNIT DIMENSION	81'-2" x 26'-6" x 12'-1-3/4" ARCH TYPE MAGAZINE *			
LENGTHWISE IN MAGAZINE	"A" STACKS		"C" STACKS	
	NO	MHE AISLE	NO	SPACE REMAIN
59"	13	16' - 4"	3	14"
58"	14	12' - 5"	2	28"
57"	14	13' - 9"	2	46"
56"	14	14' - 11"	3	6"
55"	14	16' - 1"	3	23"
54"	15	12' - 7"	2	40"
53"	15	13' - 10"	2	57"
52"	15	15' - 1"	3	22"
51"	16	12' - 1"	2	40"
50"	16	13' - 5"	3	8"
49"	16	14' - 9"	3	27"
48"	17	12' - 1"	2	46"
47"	17	13' - 6"	3	18"
46"	17	14' - 11"	3	38"
45"	18	12' - 7"	3	13"
44"	18	14' - 1"	3	34"
43"	19	12' - 0"	3	12"
42"	19	13' - 7"	3	34"
41"	20	11' - 9"	3	15"
40"	20	13' - 5"	3	38"
39"	21	11' - 10"	3	22"
38"	21	13' - 7"	4	8"
37"	22	12' - 3"	3	33"
36"	23	11' - 1"	3	22"
35"	23	13' - 0"	4	13"

\* MAGAZINE HAS A PILASTER.

- THE NUMBER OF TYPE "A" STACKS SPECIFIED FOR A MAGAZINE IS BASED ON HAVING A MATERIAL HANDLING EQUIPMENT OPERATING AREA (DISTANCE FROM THE FACE OF THE LAST TYPE "A" STACK TO THE MAGAZINE FRONT WALL) OF 7'-7" PLUS THE LENGTH OR WIDTH OF THE PALLET UNIT, AS APPLICABLE, OR THE LENGTH OF THE FORKLIFT TRUCK TINES (40"), WHICHEVER IS THE GREATEST. ADDITIONAL TYPE "A" STACKS MAY BE STORED IF THE AVAILABLE MATERIALS HANDLING EQUIPMENT PERMITS.

NOTICE:  
ALL UNIT HEIGHT/WIDTH DIMENSIONS  
AND SIDE AISLE DIMENSIONS ARE  
EXPRESSED IN INCHES.

CHART NO. 1				
UNIT HT	UNIT LENGTH OR WIDTH			
47-54	35-40	40-43	43-54	54-59
39-47	35-41	41-44	44-55	55-59
26-39	35-42	42-45	45-56	56-59
UNIT HT	3 AND 3	3 AND 2	2 AND 2	2 AND 1
	NUMBER OF PALLETS DEEP IN FIRST TIER OF TYPE "C" STACKS			

CHART NO. 2			
UNIT HT	UNIT LENGTH OR WIDTH		
53-54		35-37	37-58
52-53		35-38	38-59
51-52		35-39	39-59
50-51		35-40	40-59
49-50		35-41	41-59
48-49		35-42	42-59
47-48		35-43	43-59
46-47		35-44	44-59
45-46		35-45	45-59
44-45		35-46	46-59
43-44		35-47	47-59
42-43		35-48	48-59
40-42		35-49	49-59
39-40		35-50	50-59
38-39		35-51	51-59
36-38		35-52	52-59
35-36	35	35-53	53-59
32-35	35-36	36-54	54-59
29-32	35-37	37-55	55-59
27-29	35-38	38-56	56-59
26-27	35-39	39-57	57-59
UNIT HT	3	2	1
	NUMBER OF PALLETS DEEP IN SECOND TIER OF TYPE "C" STACKS		

CHART NO. 6			
UNIT HEIGHT	MINIMUM SIDE AISLE	UNIT HEIGHT	MINIMUM SIDE AISLE
54-55	60	38-41	33
52-54	57	37-38	30
51-52	54	35-37	27
50-51	51	33-35	24
48-50	48	30-33	21
47-48	45	28-30	18
45-47	42	26-28	17
43-45	39	26	15
41-43	36		
THIS CHART IS FOR USE WHEN STACKING THE FIRST TWO TIERS IN VERTICAL ALIGNMENT.			

CHART NO. 3		
UNIT HT	UNIT LENGTH OR WIDTH	
43-44		35-36
42-43		35-45
41-42		35-48
40-41		35-52
37-40		35-56
36-37	35	35-59
35-36	35-37	37-59
34-35	35-39	39-59
33-34	35-40	40-59
32-33	35-42	42-59
31-32	35-43	43-59
30-31	35-45	45-59
29-30	35-46	46-59
28-29	35-47	47-59
27-28	35-49	49-59
26-27	35-50	50-59
26	35-51	51-59
UNIT HT	2	1
	NUMBER OF PALLETS DEEP IN THIRD TIER OF TYPE "C" STACKS	

CHART NO. 4		
UNIT HT	UNIT LENGTH OR WIDTH	
32-33		35-36
31-32		35-44
30-31		35-52
28-30		35-57
27-28	35	35-59
26-27	35-37	37-59
26	35-39	39-59
UNIT HT	2	1
	NUMBER OF PALLETS DEEP IN FOURTH TIER OF TYPE "C" STACKS	

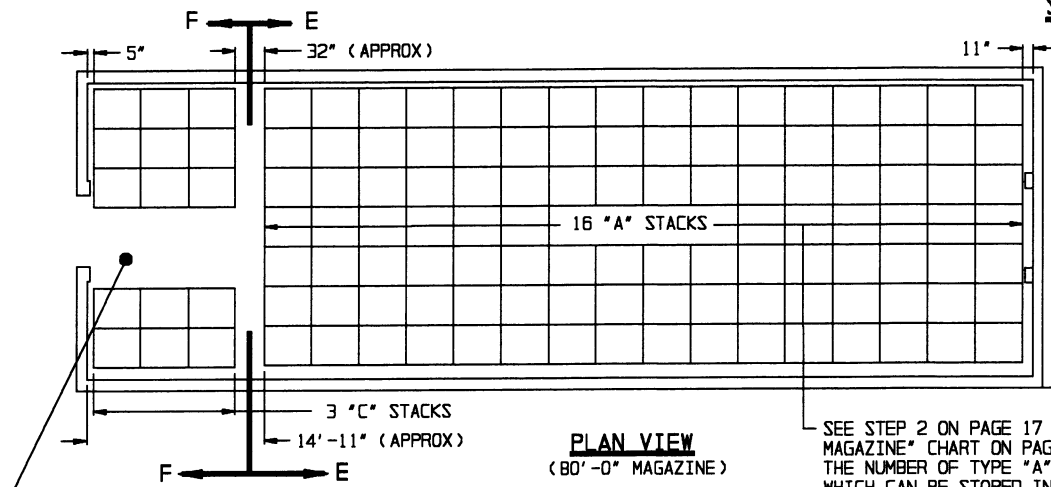
CHART NO. 5	
UNIT HEIGHT	MINIMUM SIDE AISLE
53-54	16
51-52	15
48-51	14
46-48	13
43-46	12
41-43	11
38-41	10
36-38	9
32-36	8
30-32	7
26-30	6
THIS CHART IS FOR USE WHEN STACKING PALLET UNITS AS SHOWN IN SECTION D-D ON PAGE 10.	

NOTE:  
A SIDE AISLE GREATER THAN THE MINIMUM DIMENSION GIVEN IN CHART NO.5 AND CHART NO.6 MAY BE USED TO ACHIEVE A MAXIMUM STACKING PATTERN WITHIN THE "C" STACKS.

**STORAGE IN 80'-0" MAGAZINE**

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

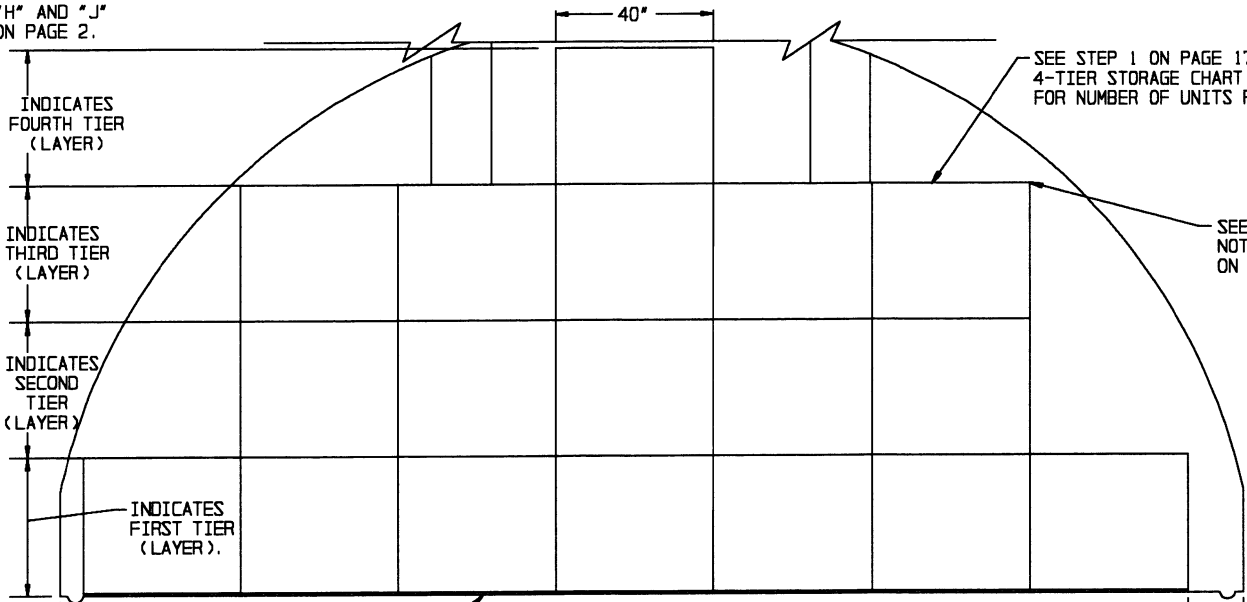
ITEM	QUANTITY
PALLET UNIT - - - - -	315



**PLAN VIEW**  
(80'-0" MAGAZINE)

SEE STEP 2 ON PAGE 17 AND "NUMBER OF STACKS IN MAGAZINE" CHART ON PAGE 20 FOR GUIDANCE AS TO THE NUMBER OF TYPE "A" AND TYPE "C" STACKS WHICH CAN BE STORED IN AN 80'-0" MAGAZINE.

SEE GENERAL NOTES "H" AND "J" ON PAGE 2.



**SECTION E-E**  
(18 PALLET UNITS PER STACK)

SEE STEP 1 ON PAGE 17 AND THE 4-TIER STORAGE CHART ON PAGE 19 FOR NUMBER OF UNITS PER STACK.

SEE GENERAL NOTE "F" ON PAGE 2.

SEE THE "LEFT SIDE AISLE DIMENSIONS 4-TIER STORAGE" CHART ON PAGE 19.

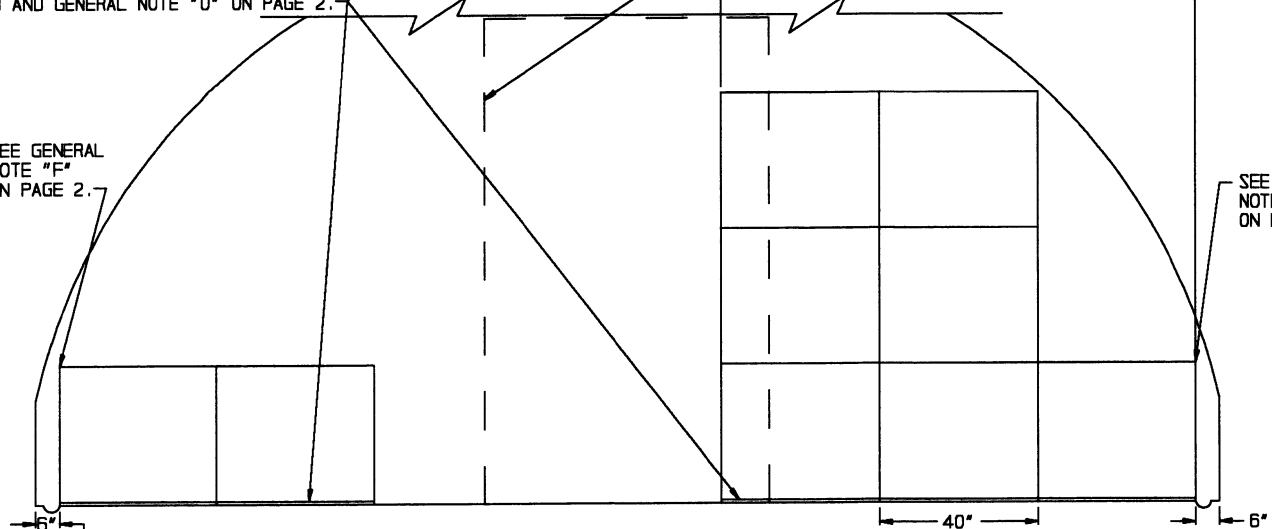
SEE STEP 3 AND 4 ON PAGE 17 AND CHARTS NO. 1 THRU 4 ON PAGE 21 FOR GUIDANCE AS TO THE NUMBER OF UNITS DEEP IN THE TYPE "C" STACKS IN THE MHE AREA.

FLOOR DUNNAGE. SEE THE "FLOOR DUNNAGE LOCATION" DETAIL ON PAGE 83 AND GENERAL NOTE "O" ON PAGE 2.

INDICATES OUTLINE OF DOOR OPENING.

SEE GENERAL NOTE "F" ON PAGE 2.

SEE GENERAL NOTE "F" ON PAGE 2.



**SECTION F-F**

SEE CHART NO. 5 OR 6 ON PAGE 21 FOR SIDE AISLE DIMENSIONS FOR OTHER HEIGHT UNITS.

**TYPICAL STORAGE PROCEDURES**

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

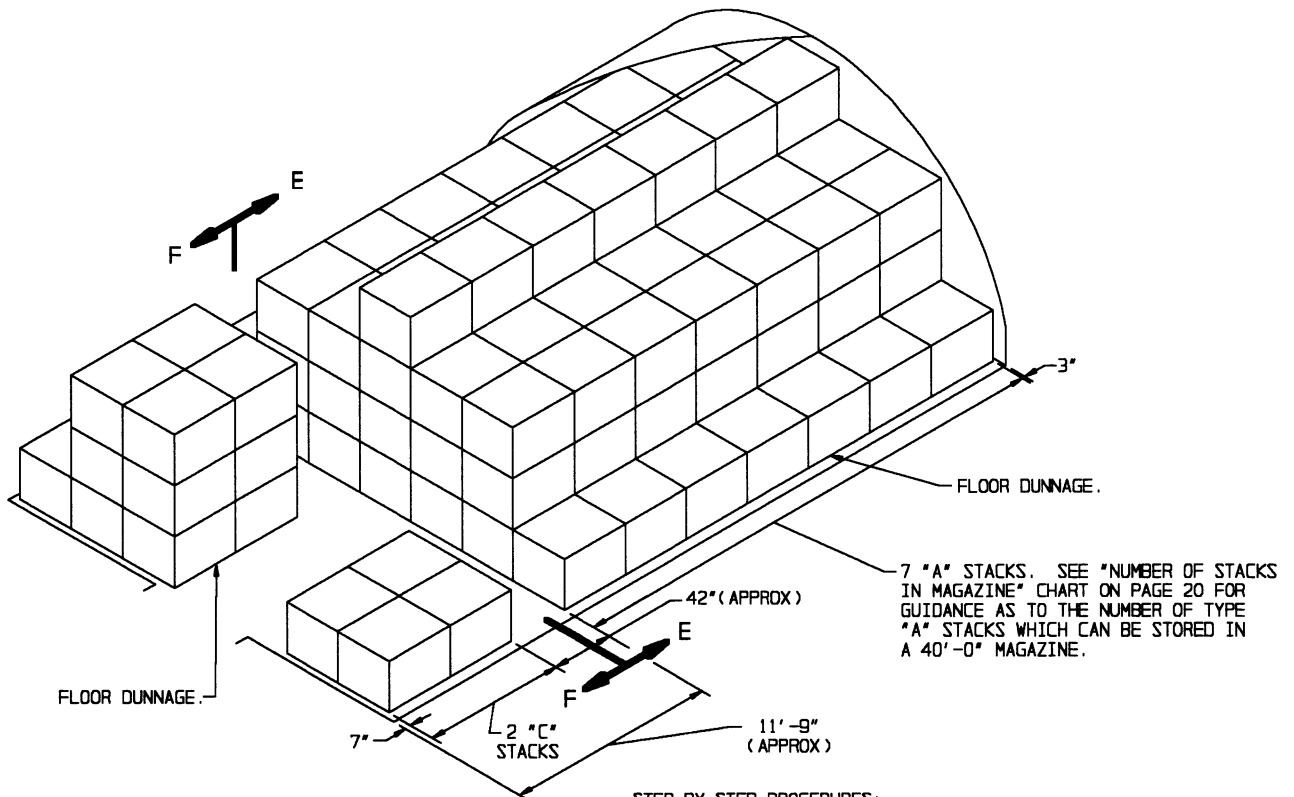


**STORAGE IN 40'-0" MAGAZINE**

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

ITEM QUANTITY

PALLET UNIT - - - - - 153



**ISOMETRIC VIEW**

(40'-0" MAGAZINE)

**STEP BY STEP PROCEDURES:**

**STEP 1**

FROM THE STORAGE CHARTS ON PAGE 19 SELECT THE NUMBER OF TIERS TO BE STORED, THE QUANTITY OF UNITS IN EACH TIER, AND THE LEFT SIDE AISLE DIMENSION. LOCATE IN THE LEFT HAND COLUMN, AND ACROSS THE TOP OF THE CHARTS THE EXACT UNIT HEIGHT AND LENGTH/WIDTH. (IN SOME CASES IT MAY BE NECESSARY TO USE THE NEXT HIGHER OR WIDER DIMENSION FOR FRACTIONAL HEIGHT OR WIDTH UNITS). USING THESE FIGURES PROJECT DOWN AND ACROSS BOTH CHARTS AS SHOWN BY THE DIRECTIONAL ARROWS, AND BY THE DOTTED LINE EXAMPLE IN THE "4-TIER STORAGE" CHART AND THE "LEFT SIDE AISLE DIMENSIONS, 4-TIER STORAGE" CHART ON PAGE 19. THE SAME PROCEDURES WILL BE USED FOR THE 2, 3, AND 5-TIER STORAGE CHARTS.

**STEP 2 (NUMBER OF TYPE "A" AND TYPE "C" STACKS IN THE MAGAZINE).**

LOCATE IN THE LEFT HAND COLUMN OF "NUMBER OF STACKS IN MAGAZINE" CHART ON PAGE 20, THE UNIT LENGTH OR WIDTH, AS APPLICABLE FOR THE ORIENTATION OF THE UNITS BEING STORED. OPPOSITE THAT LENGTH OR WIDTH FIGURE IS SPECIFIED THE APPROXIMATE NUMBER OF TYPE "A" STACKS (FULL STACKS ACROSS THE WIDTH OF THE MAGAZINE), AS WELL AS THE NUMBER OF TYPE "C" STACKS (PARTIAL STACKS AT THE FRONT OF THE MAGAZINE) THAT CAN BE POSITIONED IN AN 80'-0" AND 40'-0" LONG MAGAZINE.

**STEP 3 (NUMBER OF PALLETS DEEP IN TYPE "C" STACKS).**

LOCATE IN THE LEFT HAND COLUMN OF CHART NUMBER 1 ON PAGE 21 THE LINE WHICH SPECIFIES A PALLET UNIT HEIGHT RANGE THAT CONTAINS THE HEIGHT OF THE UNIT TO BE STORED. ALONG THAT LINE LOCATE THE COLUMN WHICH CONTAINS THE LENGTH OR WIDTH OF THE UNIT, AS APPLICABLE, WHICH IS TO BE POSITIONED ACROSS THE WIDTH OF THE MAGAZINE. THE HEADING AT THE BASE OF THAT COLUMN WILL INDICATE THE NUMBER OF PALLETS DEEP WHICH CAN BE STORED AT EACH SIDE OF THE DOOR OPENING IN THE FIRST TIER OF A TYPE "C" STACK. REFER TO CHART NUMBERS 5 AND 6 ON PAGE 21 TO FIND THE MINIMUM SIDE AISLE DIMENSIONS FOR THE TYPE "C" STACKS.

**STEP 4**

REPEAT STEP 3 FOR CHARTS 2 THROUGH 4 AS APPLICABLE, TO DETERMINE THE NUMBER OF PALLETS DEEP WHICH CAN BE STACKED ON THE LEFT SIDE OF THE DOOR IN THE SECOND THROUGH FOURTH TIERS.

**SPECIAL NOTES:**

1. THE TYPICAL PALLET UNIT SHOWN HAS OVERALL DIMENSIONS OF 40" LONG BY 48" WIDE BY 34-1/2" HIGH. THE QUANTITY OF UNITS, THE NUMBER OF STACKS, ROWS, AND TIERS (LAYERS) WILL VARY, DEPENDENT UPON THE SIZE OF THE UNIT. PALLETIZED UNITS WILL BE STACKED IN VERTICAL ALIGNMENT AS SHOWN BY THE STORAGE VIEW ABOVE AND ON PAGE 16. AS MANY UNITS AS POSSIBLE WILL BE STORED WITHIN THE MAGAZINE.
2. THE STACKING PATTERN SHOWN ABOVE AND ON PAGE 16 DEPICT THE PALLET UNIT LENGTH POSITIONED ACROSS THE MAGAZINE. HOWEVER IT MAY BE MORE ADVANTAGEOUS TO STACK THE UNITS WITH THE WIDTH ACROSS THE MAGAZINE.
3. REFER TO PAGES 76 AND 77 FOR GUIDANCE IN THE STORAGE OF MULTIPLE LOTS.
4. THE CHARTS ON PAGES 18 THROUGH 21 ARE PRESENTED AS GUIDANCE IN THE DEVELOPMENT OF A PATTERN FOR THE STORAGE OF PALLET UNITS OF AMMUNITION AND COMPONENTS IN ARCH TYPE MAGAZINES. NOTICE: THE CHARTS ARE FOR GUIDANCE PURPOSES ONLY. VARIATIONS IN PALLET UNIT OVERALL SIZES, THE COMPACTNESS OF PLACEMENT WITHIN A MAGAZINE, AS WELL AS VARIANCES IN THE INSIDE DIMENSIONS OF THE MAGAZINE CAN CAUSE DISCREPANCIES WITHIN THE CHARTS. THE PROCEDURES AT RIGHT ARE PRESENTED AS GUIDANCE IN USING THE DEPICTED CHARTS. NOTE THAT ALL DIMENSIONS ARE EXPRESSED IN INCHES.

**FOR "GENERAL NOTES" AND "MATERIAL**

**SPECIFICATIONS", SEE PAGE 2.**

**TYPICAL STORAGE PROCEDURES**

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

UNIT HT IN INCHES	2-TIER STORAGE (UNIT LENGTH OR WIDTH IN INCHES)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
MAX	5	5	5	5	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3
54	7	7	7	7	6	6	6	6	6	6	6	5	5	5	5	4	5	5	5	5	4	4	4	4	4
53	5	5	5	5	5	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3
52	7	7	7	7	7	6	6	6	6	6	6	5	5	5	5	4	5	5	5	5	4	4	4	4	4
51	5	5	5	5	5	5	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3
50	7	7	7	7	7	6	6	6	6	6	6	5	5	5	5	4	5	5	5	5	4	4	4	4	4
49	6	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3
48	7	7	7	7	7	6	6	6	6	6	6	6	5	5	5	4	4	4	4	4	4	4	4	4	4

UNIT HT IN INCHES	2-TIER STORAGE (LEFT SIDE AISLE DIMENSIONS)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
54	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
53	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
52	13	12	11	10	10	10	10	10	10	10	10	10	10	10	50	10	10	10	10	10	10	10	10	10	10
51	24	21	18	14	10	10	45	10	10	10	10	10	10	10	50	48	10	10	10	10	10	10	10	10	
50	10	10	10	10	10	10	45	10	10	10	10	10	10	10	48	46	10	10	10	10	10	10	10	10	
49	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	48	46	44	42	42	39	39	9	9	
48	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	48	46	44	39	39	9	9	9	9	

UNIT HT IN INCHES	3-TIER STORAGE (UNIT LENGTH OR WIDTH IN INCHES)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
47	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	1	1	1	1	0	0	0	0	0	
46	6	6	5	5	5	5	5	5	5	5	0	0	1	1	1	1	1	1	1	1	0	0	1	1	
45	7	7	7	7	7	6	6	6	6	6	4	4	4	4	4	4	3	3	3	3	3	3	3	3	
44	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	
43	6	6	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
42	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
41	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
40	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	4	4	4	4	4	4	4	4	4	
39	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
38	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	4	4	4	4	4	4	4	4	4	
37	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
36	7	7	6	6	6	6	6	6	6	6	5	5	5	5	5	4	4	4	4	4	4	4	4	4	

UNIT HT IN INCHES	3-TIER STORAGE (LEFT SIDE AISLE DIMENSIONS)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
47	8	8	18	15	11	8	8	8	8	36	36	8	8	8	8	20	18	15	13	8	8	8	8	8	
46	8	8	8	8	8	8	8	8	8	40	38	8	8	36	36	8	18	15	13	10	36	8	8	8	
45	8	8	36	8	8	8	8	8	8	18	13	8	8	12	8	8	18	15	13	10	8	8	8	8	
44	7	7	33	33	7	7	7	7	7	18	16	13	9	7	7	7	36	15	13	10	7	7	7	7	
43	7	7	18	10	8	7	7	7	7	7	16	13	7	7	7	7	44	42	40	38	36	34	33	27	
42	12	9	7	14	7	7	7	7	7	7	16	13	7	7	7	7	44	42	40	38	36	34	32	30	
41	6	6	6	6	6	6	6	6	6	6	34	35	33	30	27	6	6	6	6	38	36	34	32	30	
40	6	6	6	27	30	27	6	6	6	6	6	35	33	27	20	19	18	17	16	40	38	36	34	30	
39	6	6	6	6	27	27	6	6	6	6	35	33	30	27	27	14	13	12	11	9	8	34	32	30	
38	6	6	6	6	24	24	19	6	6	6	35	33	30	27	24	11	10	9	6	40	38	36	34	30	
37	24	24	6	6	24	24	24	15	14	13	11	24	24	24	24	9	6	6	6	6	6	32	30	28	
36	21	21	6	6	21	21	21	9	8	7	6	6	6	24	24	21	6	6	6	6	6	32	30	28	

UNIT HT IN INCHES	4-TIER STORAGE (UNIT LENGTH OR WIDTH IN INCHES)																									
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	
MAX 35	1 5 7 7	1 5 7 7	1 5 6 7	0 5 6 7	1 5 5 7	1 5 5 7	0 5 6 6	0 4 6 6	0 4 6 6	1 4 6 6	0 4 5 6	0 4 4 6	0 4 4 6	0 4 4 6	1 3 5 5	1 3 5 5	1 3 5 5	1 3 4 5	1 3 4 5	1 3 4 5	1 3 4 5	1 3 3 5	1 3 3 5	1 3 3 5	1 3 3 5	1 3 3 5
34 →	2 6 8	1 7 8	1 7 7	1 6 7	1 5 7	1 5 7	1 5 6	2 4 6	2 4 6	1 4 5	1 4 5	1 4 5	1 4 5	1 3 5	1 3 5	1 3 5	1 3 5	1 3 4	1 3 4	1 3 4	1 3 4	1 3 3	1 3 3	1 3 3	1 3 3	1 3 3
33	3 5 7 7	3 5 7 7	3 5 6 7	2 5 6 7	2 5 6 7	2 5 6 6	2 4 6	2 4 6	2 4 6	2 4 5	2 4 5	2 4 5	2 4 5	2 4 4	2 4 4	2 4 4	2 4 4	2 4 4	2 4 4	2 4 4	2 4 3	2 4 3	2 4 3	2 4 3	2 4 3	2 4 3
32	3 5 7 7	3 5 7 7	3 5 6 7	3 5 6 7	3 5 5 7	3 5 5 6	2 4 6	2 4 6	2 4 6	2 4 5	2 4 5	2 4 5	2 4 5	2 4 4	2 4 4	2 4 4	2 4 4	2 4 4	2 4 4	2 4 4	2 4 4	2 4 3	2 4 3	2 4 3	2 4 3	2 4 3
31	3 6 7 7	4 6 7 7	3 5 6 7	3 5 6 7	3 5 5 7	3 5 5 6	3 5 5 6	3 5 5 6	3 5 5 6	3 5 4 6	3 5 4 6	3 5 4 6	3 5 4 6	3 5 4 5	3 5 4 5	3 5 4 5	3 5 4 5	3 5 4 4	3 5 4 4	3 5 4 4	3 5 4 4	3 5 4 4	3 5 4 4	3 5 4 4	3 5 4 4	3 5 4 4
30	4 6 7 7	4 6 7 7	4 5 6 7	4 5 6 7	4 5 5 7	4 5 5 6	4 5 5 6	4 5 5 6	4 5 5 6	4 5 4 6	4 5 4 6	4 5 4 6	4 5 4 6	4 5 4 5	4 5 4 5	4 5 4 5	4 5 4 5	4 5 4 4	4 5 4 4	4 5 4 4	4 5 4 4	4 5 4 4	4 5 4 4	4 5 4 4	4 5 4 4	4 5 4 4
29	4 6 7 8	4 6 6 8	4 6 6 7	4 6 6 6	4 5 6 6	4 5 6 6	4 5 5 6	4 5 5 6	4 5 5 6	4 5 4 6	4 5 4 6	4 5 4 6	4 5 4 6	4 5 4 5	4 5 4 5	4 5 4 5	4 5 4 5	4 5 4 4	4 5 4 4	4 5 4 4	4 5 4 4	4 5 4 4	4 5 4 4	4 5 4 4	4 5 4 4	4 5 4 4

UNIT HT IN INCHES	4-TIER STORAGE (LEFT SIDE AISLE DIMENSIONS)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
35	24	21	12	10	10	8	21	21	21	9	6	6	6	6	25	24	21	15	11	6	9	6	6	6	6
34 →	6	18	18	6	9	6	6	21	18	6	6	6	18	24	24	24	21	18	6	6	6	6	6	6	6
33	21	19	18	6	6	27	24	21	18	6	6	6	6	6	48	46	44	44	6	6	6	18	18	18	18
32	18	18	18	9	6	6	6	18	18	6	6	6	18	18	6	6	45	43	41	41	30	27	25	24	18
31	15	6	15	6	6	6	6	6	39	37	6	6	15	15	15	15	15	42	40	38	24	24	24	21	18
30	15	6	15	6	6	15	15	6	39	37	35	35	35	27	24	22	19	17	16	6	6	18	18	15	15
29	6	6	6	33	6	14	14	14	14	14	14	35	17	16	15	14	14	14	14	14	8	33	33	33	33

UNIT HT IN INCHES	5-TIER STORAGE (UNIT LENGTH OR WIDTH IN INCHES)																									
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	
MAX 28	1 5 5 7	1 5 5 7	1 4 5 7	1 3 5 7	1 3 5 6	1 3 5 6	1 3 5 6	1 3 4 6	0 4 6 6	0 4 6 6	0 4 5 6	1 3 5 5	1 3 4 5	0 3 5 5	0 3 5 5	0 3 5 5	1 3 5 5	1 3 5 5	1 3 5 5	0 4 5 5	1 3 5 5	1 3 5 5	1 3 5 5	0 3 4 4	0 3 4 4	
27	2 4 6 7	2 4 6 7	2 4 5 7	1 4 5 7	1 4 5 6	2 4 6 6	2 4 6 6	2 4 6 6	1 4 4 6	2 4 4 6	2 4 4 6	2 4 4 6	2 4 4 6	2 4 3 6	2 4 3 6	2 4 3 6	2 4 3 6	2 4 4 6	2 4 4 6	2 4 4 6	2 4 4 6	2 4 4 6	2 4 4 6	2 4 4 6	2 4 4 6	
26	3 5 6 7	3 5 6 7	2 5 6 7	3 5 5 7	3 5 5 6	3 5 5 6	2 4 6	2 4 6	2 4 6	2 4 6	2 4 6	2 4 6	2 4 6	2 4 6	2 4 5	2 4 5	2 4 5	2 4 5	2 4 5	2 4 5	2 4 5	2 4 5	2 4 5	2 4 5	2 4 5	2 4 5

UNIT HT IN INCHES	5-TIER STORAGE (LEFT SIDE AISLE DIMENSIONS)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
28	25	24	18	13	6	13	13	13	16	15	14	30	30	13	13	13	13	20	17	15	6	10	6	14	14
27	6	11	16	15	30	30	17	10	18	15	12	11	30	27	12	11	11	11	11	11	11	6	11	11	30
26	10	10	10	14	12	6	10	10	10	10	10	6	6	6	10	10	10	10	10	10	10	6	10	10	10

NUMBER OF STACKS IN MAGAZINE								
UNIT DIMENSION LENGTHWISE IN MAGAZINE	80'-0" x 25'-0" x 12'-1-3/4" ARCH TYPE MAGAZINE *				40'-0" x 25'-0" x 12'-1-3/4" ARCH TYPE MAGAZINE **			
	● "A" STACKS		"C" STACKS		● "A" STACKS		"C" STACKS	
	NO.	MHE AISLE	NO.	SPACE REMAIN	NO.	MHE AISLE	NO.	SPACE REMAIN
59"	13	15'-2"	2	59"	5	15'-2"	2	57"
58"	13	16'-3"	3	16"	5	15'-7"	3	6"
57"	14	12'-7"	2	32"	5	16'-0"	3	14"
56"	14	13'-9"	2	48"	5	16'-5"	3	22"
55"	14	14'-11"	3	9"	6	12'-3"	2	30"
54"	14	15'-11"	3	26"	6	12'-9"	2	42"
53"	15	12'-8"	2	46"	6	13'-3"	2	50"
52"	15	13'-11"	2	8"	6	13'-9"	2	6"
51"	15	15'-2"	3	26"	6	14'-3"	2	15"
50"	16	12'-3"	2	44"	6	14'-9"	3	24"
49"	16	13'-7"	3	13"	6	15'-3"	3	33"
48"	16	14'-11"	3	32"	7	11'-9"	2	42"
47"	17	12'-4"	2	51"	7	12'-4"	2	51"
46"	17	13'-9"	3	24"	7	12'-11"	2	14"
45"	18	11'-5"	2	44"	7	13'-6"	3	24"
44"	18	12'-11"	3	20"	7	14'-1"	3	34"
43"	18	14'-5"	3	41"	7	14'-8"	3	44"
42"	19	12'-5"	3	20"	8	11'-9"	2	12"
41"	19	14'-0"	3	42"	8	12'-5"	3	23"
40"	20	12'-3"	3	24"	8	13'-1"	3	34"
39"	20	13'-11"	3	8"	8	13'-9"	3	6"
38"	21	12'-5"	3	32"	9	11'-3"	3	18"
37"	22	11'-1"	3	19"	9	12'-0"	3	30"
36"	22	12'-11"	3	8"	9	12'-9"	3	6"
35"	23	11'-10"	3	34"	9	13'-6"	4	19"

\* MAGAZINE HAVING PILASTERS  
 \*\* MAGAZINE W/O PILASTERS

- THE NUMBER OF TYPE "A" STACKS SPECIFIED FOR A MAGAZINE IS BASED ON HAVING A MATERIAL HANDLING EQUIPMENT OPERATING AREA (DISTANCE FROM THE FACE OF THE LAST TYPE "A" STACK TO THE MAGAZINE FRONT WALL) OF 7'-7" PLUS THE LENGTH OR WIDTH OF THE PALLET UNIT, AS APPLICABLE, OR THE LENGTH OF THE FORKLIFT TRUCK TINES (40"), WHICHEVER IS THE GREATEST. ADDITIONAL TYPE "A" STACKS MAY BE STORED IF THE AVAILABLE MATERIALS HANDLING EQUIPMENT PERMITS.

NOTICE:  
ALL UNIT HEIGHT/WIDTH DIMENSIONS  
AND SIDE AISLE DIMENSIONS ARE  
EXPRESSED IN INCHES.

CHART NO. 1			
UNIT HT	UNIT LENGTH OR WIDTH		
51-54	35-41	41-54	54-59
42-51	35-42	42-54	54-59
26-42	35-43	43-54	54-59
UNIT HT	3 AND 2	2 AND 2	2 AND 1
	NUMBER OF PALLETS DEEP IN FIRST TIER OF TYPE "C" STACKS		

CHART NO. 2			
UNIT HT	UNIT LENGTH OR WIDTH		
53-54		35-36	36-56
52-53		35-37	37-57
51-52		35-38	38-58
50-51		35-39	39-59
49-50		35-40	40-59
48-49		35-41	41-59
47-48		35-42	42-59
46-47		35-43	43-59
45-46		35-44	44-59
44-45		35-45	45-59
42-44		35-46	46-59
41-42		35-47	47-59
40-41		35-48	48-59
38-40		35-49	49-59
37-38		35-50	50-59
35-37		35-51	51-59
34-35		35-52	52-59
33-34	35	35-52	52-59
31-33	35	35-53	53-59
29-31	35-36	36-54	
26-29	35-37	37-55	
UNIT HT	3	2	1
	NUMBER OF PALLETS DEEP IN SECOND TIER OF TYPE "C" STACKS		

CHART NO. 6			
UNIT HEIGHT	MINIMUM SIDE AISLE	UNIT HEIGHT	MINIMUM SIDE AISLE
52-54	51	38-41	27
50-52	48	36-38	24
49-50	45	34-36	21
48-49	42	31-34	18
46-48	39	28-31	15
44-46	36	27-28	12
42-44	33	26-27	11
41-42	30	26	10

THIS CHART IS FOR USE WHEN STACKING THE FIRST TWO TIERS IN VERTICAL ALIGNMENT.

CHART NO. 3		
UNIT HT	UNIT LENGTH OR WIDTH	
42-43		35-41
41-42		35-46
40-41		35-51
36-40		35-54
35-36	35-36	36-59
34-35	35-38	38-59
33-34	35-40	40-59
32-33	35-41	41-59
31-32	35-42	42-59
30-31	35-43	43-59
29-30	35-45	45-59
28-29	35-46	46-59
27-28	35-47	47-59
26-27	35-48	48-59
26	35-49	49-59
UNIT HT	2	1
	NUMBER OF PALLETS DEEP IN THIRD TIER OF TYPE "C" STACKS	

CHART NO. 4		
UNIT HT	UNIT LENGTH OR WIDTH	
31-32		35-43
27-31		35-49
26-27	35-36	36-59
26	35-38	38-59
UNIT HT	2	1
	NUMBER OF PALLETS DEEP IN FOURTH TIER OF TYPE "C" STACKS	

CHART NO. 5	
UNIT HEIGHT	MINIMUM SIDE AISLE
52-54	12
49-52	10
47-49	9
44-47	8
41-44	7
24-41	6

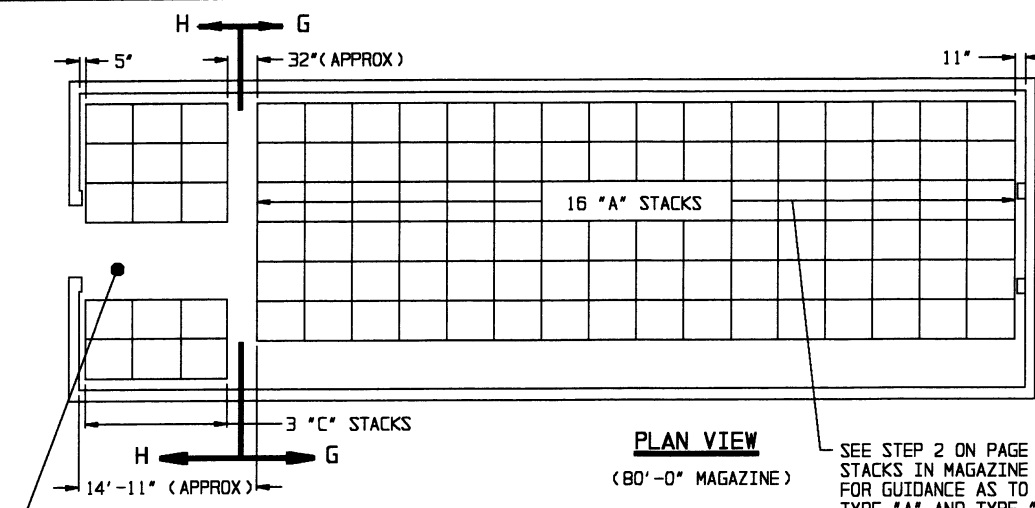
THIS CHART IS FOR USE WHEN STACKING PALLET UNITS AS SHOWN IN SECTION F-F ON PAGE 16.

NOTE:  
A SIDE AISLE DIMENSION GREATER THAN THE MINIMUM DIMENSION GIVEN IN CHART NO. 5 AND NO. 6 MAY BE USED TO ACHIEVE A MAXIMUM STACKING PATTERN WITHIN THE "C" STACKS.

**STORAGE IN 80'-0" MAGAZINE**

(11'-0" HIGH)

ITEM	QUANTITY
PALLET UNIT - - - - -	248



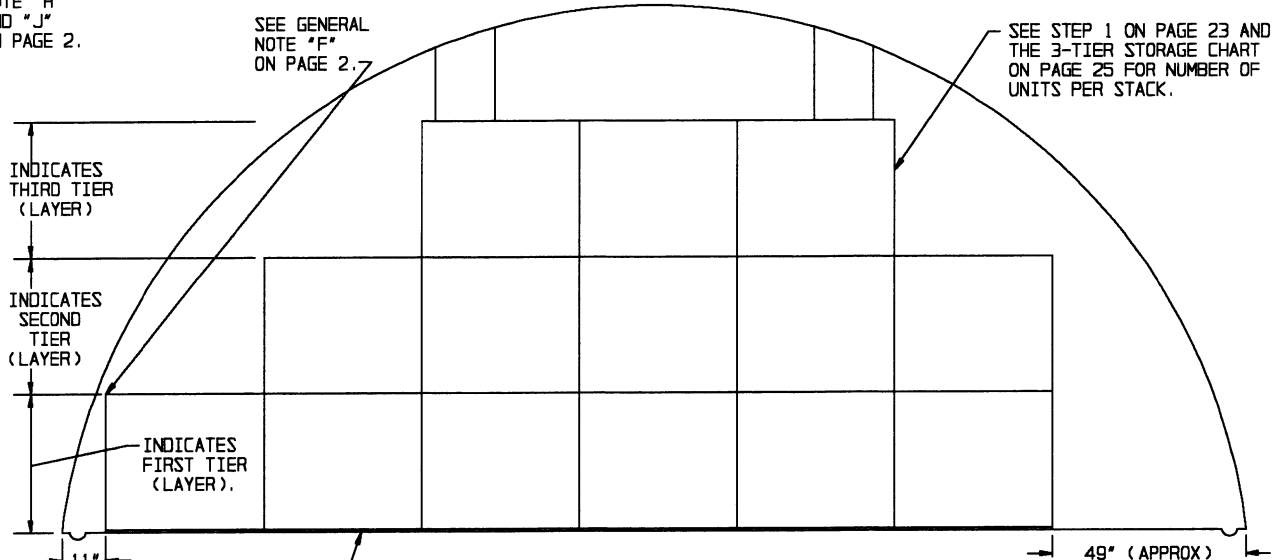
**PLAN VIEW**  
(80'-0" MAGAZINE)

SEE STEP 2 ON PAGE 23 AND "NUMBER OF STACKS IN MAGAZINE" CHART ON PAGE 26 FOR GUIDANCE AS TO THE NUMBER OF TYPE "A" AND TYPE "C" STACKS WHICH CAN BE STORED IN AN 80'-0" MAGAZINE.

SEE GENERAL NOTE "H" AND "J" ON PAGE 2.

SEE GENERAL NOTE "F" ON PAGE 2.

SEE STEP 1 ON PAGE 23 AND THE 3-TIER STORAGE CHART ON PAGE 25 FOR NUMBER OF UNITS PER STACK.



**SECTION G-G**

(14 PALLET UNITS PER STACK)

SEE STEP 3 AND 4 ON PAGE 23 AND CHARTS NO. 1 THRU 3 ON PAGE 27 FOR GUIDANCE AS TO THE NUMBER OF UNITS DEEP IN THE TYPE "C" STACKS IN THE MHE AREA.

INDICATES THIRD TIER (LAYER)

INDICATES SECOND TIER (LAYER)

INDICATES FIRST TIER (LAYER)

11"

49" (APPROX)

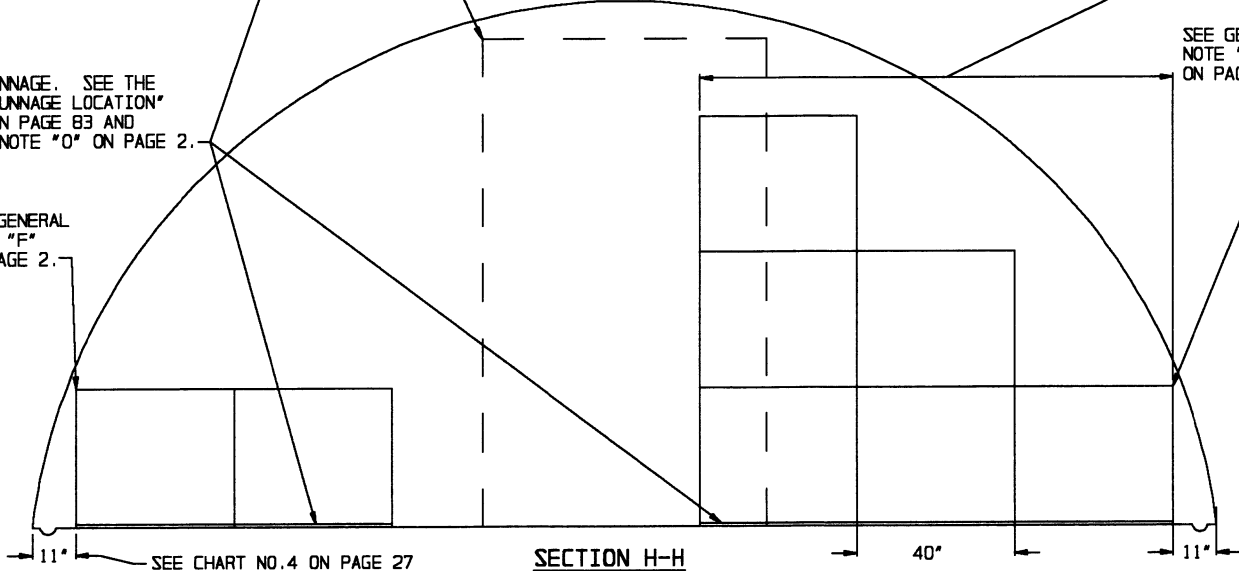
SEE THE "LEFT SIDE AISLE DIMENSIONS 3-TIER STORAGE" CHART ON PAGE 25.

INDICATES OUTLINE OF DOOR OPENING.

SEE GENERAL NOTE "F" ON PAGE 2.

FLOOR DUNNAGE. SEE THE "FLOOR DUNNAGE LOCATION" DETAIL ON PAGE 83 AND GENERAL NOTE "O" ON PAGE 2.

SEE GENERAL NOTE "F" ON PAGE 2.



**SECTION H-H**

SEE CHART NO. 4 ON PAGE 27 FOR SIDE AISLE DIMENSIONS FOR OTHER HEIGHT UNITS.

11"

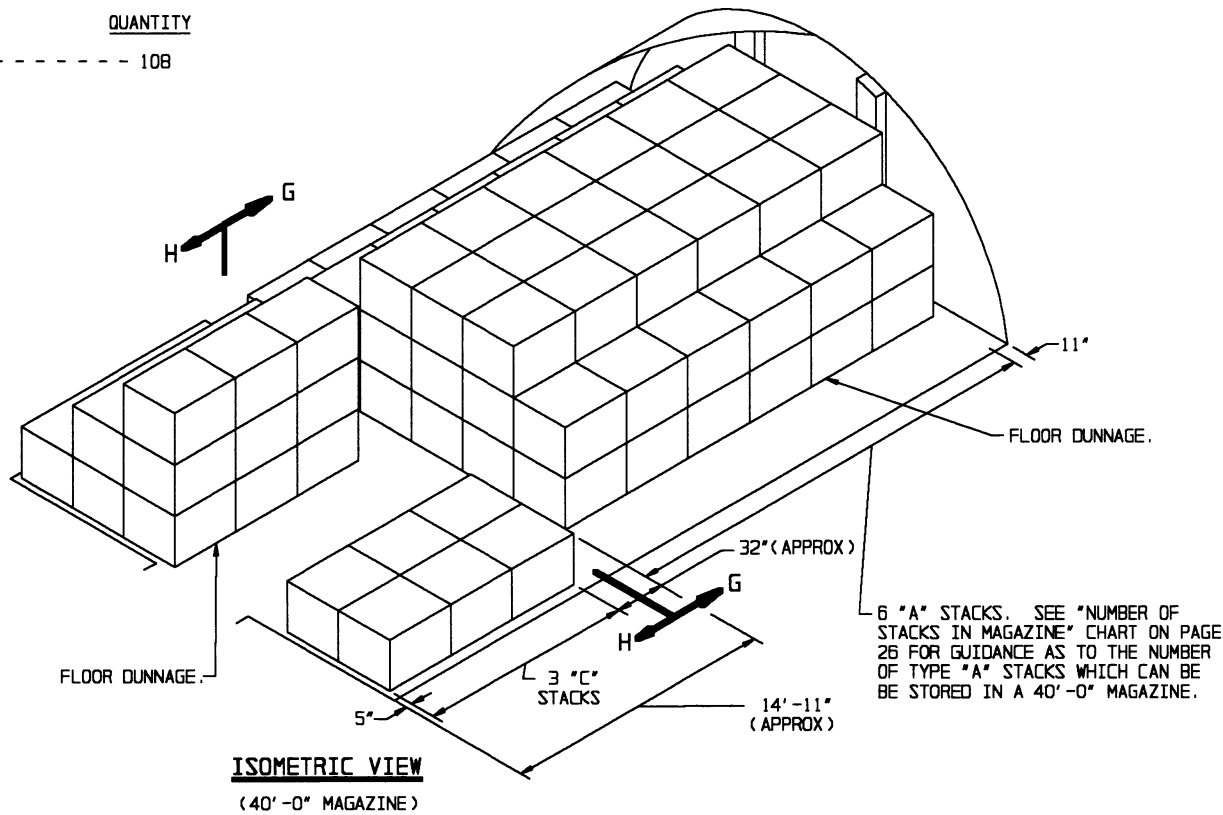
40"

11"

**STORAGE IN 40'-0" MAGAZINE**

(11'-0" HIGH)

ITEM	QUANTITY
PALLET UNIT - - - - -	108



**SPECIAL NOTES:**

1. THE TYPICAL PALLETIZED UNIT SHOWN HAS OVERALL DIMENSIONS OF 40" LONG BY 48" WIDE BY 34-1/2" HIGH. THE QUANTITY OF UNITS, THE NUMBER OF STACKS, ROWS, AND TIERS (LAYERS) WILL VARY, DEPENDENT UPON THE SIZE OF THE UNIT. PALLET UNITS WILL BE STACKED IN VERTICAL ALIGNMENT AS SHOWN BY THE STORAGE VIEW ABOVE AND ON PAGE 22. AS MANY UNITS AS POSSIBLE WILL BE STORED WITHIN THE MAGAZINE.
2. THE STACKING PATTERN SHOWN ABOVE AND ON PAGE 22 DEPICT THE PALLET UNIT LENGTH POSITIONED ACROSS THE MAGAZINE. HOWEVER, IT MAY BE MORE ADVANTAGEOUS TO STACK THE UNITS WITH THE WIDTH ACROSS THE MAGAZINE.
3. REFER TO PAGES 76 AND 77 FOR GUIDANCE IN THE STORAGE OF MULTIPLE LOTS.
4. THE CHARTS ON PAGES 24 THROUGH 27 ARE PRESENTED AS GUIDANCE IN THE DEVELOPMENT OF A PATTERN FOR THE STORAGE OF PALLET UNITS OF AMMUNITION AND COMPONENTS IN ARCH TYPE MAGAZINES. NOTICE: THE CHARTS ARE FOR GUIDANCE PURPOSES ONLY. VARIATIONS IN PALLET UNIT OVERALL SIZES, THE COMPACTNESS OF PLACEMENT WITHIN A MAGAZINE, AS WELL AS VARIANCES IN THE INSIDE DIMENSIONS OF THE MAGAZINE CAN CAUSE DISCREPANCIES WITHIN THE CHARTS. THE PROCEDURES AT RIGHT ARE PRESENTED AS GUIDANCE IN USING THE DEPICTED CHARTS. NOTE THAT ALL DIMENSIONS ARE EXPRESSED IN INCHES.

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

**STEP BY STEP PROCEDURES:**

**STEP 1**

FROM THE STORAGE CHARTS ON PAGE 25 SELECT THE NUMBER OF TIERS TO BE STORED, THE QUANTITY OF UNITS IN EACH TIER, AND THE LEFT SIDE AISLE DIMENSION. LOCATE IN THE LEFT HAND COLUMN, AND ACROSS THE TOP OF THE CHARTS THE EXACT UNIT HEIGHT AND LENGTH/WIDTH. (IN SOME CASES IT MAY BE NECESSARY TO USE THE NEXT HIGHER OR WIDER DIMENSION FOR FRACTIONAL HEIGHT OR WIDTH UNITS). USING THESE FIGURES PROJECT DOWN AND ACROSS BOTH CHARTS AS SHOWN BY THE DIRECTIONAL ARROWS, AND BY THE DOTTED LINE EXAMPLE IN THE "3-TIER STORAGE" CHART AND THE "LEFT SIDE AISLE DIMENSIONS, 3-TIER STORAGE" CHART ON PAGE 25. THE SAME PROCEDURES WILL BE USED FOR THE 2 AND 4-TIER STORAGE CHARTS.

**STEP 2 (NUMBER OF TYPE "A" AND TYPE "C" STACKS IN THE MAGAZINE).**

LOCATE IN THE LEFT HAND COLUMN OF "NUMBER OF STACKS IN MAGAZINE" CHART ON PAGE 26, THE UNIT LENGTH OR WIDTH, AS APPLICABLE FOR THE ORIENTATION OF THE UNITS BEING STORED, OPPOSITE THAT LENGTH OR WIDTH FIGURE IS SPECIFIED THE APPROXIMATE NUMBER OF TYPE "A" STACKS (FULL STACKS ACROSS THE WIDTH OF THE MAGAZINE), AS WELL AS THE NUMBER OF TYPE "C" STACKS (PARTIAL STACKS AT THE FRONT OF THE MAGAZINE) THAT CAN BE POSITIONED IN AN 80'-0" AND 40'-0" LONG MAGAZINE.

**STEP 3 (NUMBER OF PALLETS DEEP IN TYPE "C" STACKS).**

LOCATE IN THE LEFT HAND COLUMN OF CHART NUMBER 1 ON PAGE 27 THE LINE WHICH SPECIFIES A PALLET UNIT HEIGHT RANGE THAT CONTAINS THE HEIGHT OF THE UNIT TO BE STORED. ALONG THAT LINE LOCATE THE COLUMN WHICH CONTAINS THE LENGTH OR WIDTH OF THE UNIT, AS APPLICABLE, WHICH IS TO BE POSITIONED ACROSS THE WIDTH OF THE MAGAZINE. THE HEADING AT THE BASE OF THAT COLUMN WILL INDICATE THE NUMBER OF PALLETS DEEP WHICH CAN BE STORED AT EACH SIDE OF THE DOOR OPENING IN THE FIRST TIER OF A TYPE "C" STACK. REFER TO CHART NUMBER 4 ON PAGE 27 TO FIND THE MINIMUM SIDE AISLE DIMENSIONS FOR THE TYPE "C" STACKS.

**STEP 4**

REPEAT STEP 3 FOR CHARTS 2 AND 3 AS APPLICABLE, TO DETERMINE THE NUMBER OF PALLETS DEEP WHICH CAN BE STACKED ON THE LEFT SIDE OF THE DOOR IN THE SECOND AND THIRD TIERS.

UNIT HT IN INCHES	2-TIER STORAGE (UNIT LENGTH OR WIDTH IN INCHES)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
MAX	3	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
54	7	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
53	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
52	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
51	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
50	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
49	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
48	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
47	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
46	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
45	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
44	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
43	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4

UNIT HT IN INCHES	2-TIER STORAGE (LEFT SIDE AISLE DIMENSIONS)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
54	20	36	36	32	32	20	20	36	36	36	33	33	30	28	24	24	20	30	30	30	30	30	24	24	24
53	19	36	36	32	32	26	19	19	36	36	33	33	30	28	24	24	19	30	30	30	30	30	24	24	24
52	19	36	36	30	30	27	24	22	19	30	30	30	30	19	19	19	19	19	19	19	65	19	19	19	19
51	18	18	30	30	30	24	24	21	18	30	30	30	18	18	18	18	18	18	18	62	62	62	62	62	24
50	23	22	27	24	22	20	18	17	17	17	17	17	17	17	17	17	17	17	17	17	59	59	59	59	59
49	21	20	19	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	60	60	58	58
48	20	19	18	17	17	17	17	17	17	17	17	55	55	17	17	17	17	17	17	17	17	60	60	58	58
47	18	17	16	16	16	16	16	16	16	16	16	16	53	53	16	16	16	16	16	16	16	16	60	58	58
46	15	15	15	15	15	15	15	15	15	15	15	15	51	51	15	15	15	15	15	15	15	15	15	58	58
45	15	15	15	15	15	49	15	15	15	15	15	15	15	49	49	15	15	15	15	15	15	15	15	15	15
44	14	14	14	14	14	46	46	14	14	14	14	14	14	46	46	46	46	46	14	14	14	14	14	14	14
43	14	14	14	14	14	45	14	14	14	14	14	14	14	45	45	45	45	45	14	14	14	14	14	14	14



UNIT HT IN INCHES	3-TIER STORAGE (UNIT LENGTH OR WIDTH IN INCHES)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
42	5	5	5	5	5	5	5	5	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3
41	2	7	5	5	5	5	5	5	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3
40	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1
39	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1
38	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2
37	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2
36	4	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2
35	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2
34	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2
33	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
32	5	5	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	2	2	2	2

UNIT HT IN INCHES	3-TIER STORAGE (LEFT SIDE AISLE DIMENSIONS)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
42	25	22	18	15	14	14	45	43	14	14	14	14	14	14	25	23	20	18	15	14	14	14	14	14	14
41	13	13	13	13	13	13	45	43	13	13	13	13	13	13	25	23	20	18	15	13	13	13	13	13	13
40	13	13	13	13	13	13	25	22	19	16	13	13	13	13	23	20	18	15	13	13	13	13	13	13	13
39	13	13	13	13	13	13	13	22	19	16	13	13	13	13	48	46	44	42	40	38	34	13	13	13	13
38	14	22	18	15	12	12	45	43	40	38	35	12	12	12	12	46	44	42	40	38	36	27	26	25	
37	12	12	12	12	12	12	12	43	40	38	33	33	12	12	12	46	44	42	40	38	36	34	26	24	
36	12	12	12	12	12	12	12	40	38	35	32	27	12	12	12	46	44	42	40	38	36	34	24	21	
35	11	11	11	11	11	11	11	11	40	38	35	33	30	21	25	23	20	18	15	12	11	27	29	29	
34	11	11	11	11	11	11	11	11	38	35	33	30	27	18	15	11	18	15	12	11	27	29	29	29	
33	11	11	11	28	28	18	17	11	38	35	33	30	21	18	15	11	11	15	12	11	27	27	27	27	
32	24	19	10	27	27	27	27	12	12	12	12	10	27	27	10	10	10	27	27	10	30	30	27	27	

UNIT HT IN INCHES	4-TIER STORAGE (UNIT LENGTH OR WIDTH IN INCHES)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
MAX	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
31	7	6	6	5	5	6	6	5	5	5	5	5	5	5	4	4	4	3	3	3	3	3	3	3	3
30	3	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1
29	5	5	5	5	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	2	2	2
28	7	7	7	7	7	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5
27	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2
26	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5

UNIT HT IN INCHES	4-TIER STORAGE (LEFT SIDE AISLE DIMENSIONS)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
31	26	18	14	15	12	26	26	10	10	10	10	26	26	26	23	23	10	12	12	10	10	10	10	10	10
30	24	15	12	10	30	27	24	24	24	14	12	10	10	10	27	24	12	10	10	24	24	24	22	22	22
29	24	24	12	12	24	23	23	9	9	23	9	9	9	9	21	21	9	9	9	23	23	23	32	31	31
28	20	20	9	9	9	9	9	9	9	9	9	9	20	20	9	45	45	44	43	30	27	24	24	20	20
27	8	8	8	8	8	8	8	8	8	39	39	27	26	25	24	23	22	21	40	40	40	24	19	19	19
26	8	8	8	27	26	25	24	8	37	37	24	24	21	18	18	18	18	12	37	37	37	18	18	18	18

NUMBER OF STACKS IN MAGAZINE								
UNIT DIMENSION  LENGTHWISE IN  MAGAZINE	80'-0" x 25'-0" x 11'-0" ARCH TYPE MAGAZINE *				40'-0" x 25'-0" x 11'-0" ARCH TYPE MAGAZINE *			
	● "A" STACKS		"C" STACKS		● "A" STACKS		"C" STACKS	
	NO.	MHE AISLE	NO.	SPACE REMAIN	NO.	MHE AISLE	NO.	SPACE REMAIN
59"	13	15' - 2"	2	59"	5	14' - 6"	2	51"
58"	13	16' - 3"	3	16"	5	14' - 11"	2	58"
57"	14	12' - 7"	2	32"	5	15' - 4"	2	65"
56"	14	13' - 9"	2	48"	5	15' - 9"	3	16"
55"	14	14' - 11"	2	64"	5	16' - 2"	3	24"
54"	14	15' - 11"	3	26"	5	16' - 5"	3	32"
53"	15	12' - 8"	2	46"	6	12' - 5"	2	40"
52"	15	13' - 11"	3	8"	6	12' - 11"	2	48"
51"	15	15' - 2"	3	26"	6	13' - 5"	2	56"
50"	16	12' - 3"	2	44"	6	13' - 11"	3	14"
49"	16	13' - 7"	3	13"	6	14' - 5"	3	23"
48"	16	14' - 11"	3	32"	6	14' - 11"	3	32"
47"	17	12' - 4"	2	51"	7	11' - 6"	2	41"
46"	17	13' - 9"	3	24"	7	12' - 1"	2	50"
45"	18	11' - 5"	2	44"	7	12' - 8"	3	14"
44"	18	12' - 11"	3	20"	7	13' - 3"	3	24"
43"	18	14' - 5"	3	41"	7	13' - 10"	3	34"
42"	19	12' - 5"	3	20"	7	14' - 5"	3	44"
41"	19	14' - 0"	3	42"	8	11' - 7"	3	13"
40"	20	12' - 3"	3	24"	8	12' - 3"	3	24"
39"	20	13' - 11"	4	8"	8	12' - 11"	3	35"
38"	21	12' - 5"	3	32"	8	13' - 7"	4	8"
37"	22	11' - 1"	3	19"	9	11' - 2"	3	20"
36"	22	12' - 11"	4	8"	9	11' - 11"	3	32"
35"	23	11' - 10"	3	34"	9	12' - 8"	4	9"

\* MAGAZINE HAVING PILASTERS

- THE NUMBER OF TYPE "A" STACKS SPECIFIED FOR A MAGAZINE IS BASED ON HAVING A MATERIAL HANDLING EQUIPMENT OPERATING AREA (DISTANCE FROM THE FACE OF THE LAST TYPE "A" STACK TO THE MAGAZINE FRONT WALL) OF 7'-7" PLUS THE LENGTH OR WIDTH OF THE PALLET UNIT, AS APPLICABLE, OR THE LENGTH OF THE FORKLIFT TRUCK TINES (40"), WHICHEVER IS THE GREATEST. ADDITIONAL TYPE "A" STACKS MAY BE STORED IF THE AVAILABLE MATERIALS HANDLING EQUIPMENT PERMITS.

NOTICE:  
ALL UNIT HEIGHT/WIDTH DIMENSIONS  
AND SIDE AISLE DIMENSIONS ARE  
EXPRESSED IN INCHES.

CHART NO. 1			
UNIT HT	UNIT LENGTH OR WIDTH		
52-54	35-38	38-54	54-59
48-52	35-39	39-54	54-59
42-48	35-40	40-54	54-59
31-42	35-41	41-54	54-59
26-31	35-42	42-54	54-59
UNIT HT	3 AND 2	2 AND 2	2 AND 1
	NUMBER OF PALLETS DEEP IN FIRST TIER OF TYPE "C" STACKS		

CHART NO. 3		
UNIT HT	UNIT LENGTH OR WIDTH	
38-39		35-38
37-38		35-44
36-37		35-49
32-36		35-54
31-32	35	35-59
30-31	35-37	37-59
29-30	35-38	38-59
28-29	35-40	40-59
27-28	35-41	41-59
26-27	35-42	42-59
26	35-44	44-59
UNIT HT	2	1
	NUMBER OF PALLETS DEEP IN THIRD TIER OF TYPE "C" STACKS	

CHART NO. 2		
UNIT HT	UNIT LENGTH OR WIDTH	
48-54		35-53
47-48	35	35-54
46-47	35-36	36-55
45-46	35-37	37-56
44-45	35-38	38-57
43-44	35-39	39-58
42-43	35-40	40-59
41-42	35-41	41-59
40-41	35-42	42-59
39-40	35-43	43-59
38-39	35-44	44-59
36-38	35-45	45-59
35-36	35-46	46-59
34-35	35-47	47-59
32-34	35-48	48-59
31-32	35-49	49-59
29-31	35-50	50-59
27-29	35-51	51-59
26-27	35-52	52-59
UNIT HT	2	1
	NUMBER OF PALLETS DEEP IN SECOND TIER OF TYPE "C" STACKS	

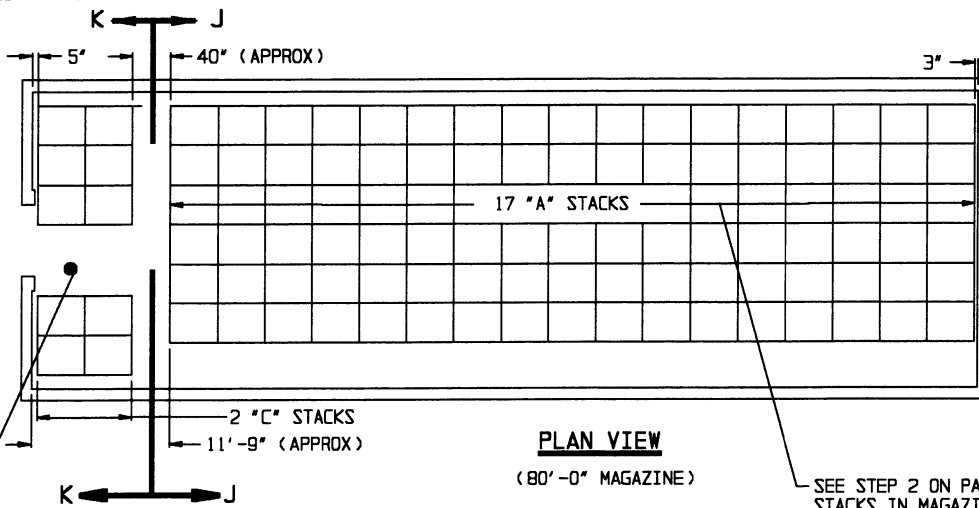
CHART NO. 4	
UNIT HEIGHT	MINIMUM SIDE AISLE
52-54	19
51-52	18
48-51	17
47-48	16
45-47	15
42-45	14
39-42	13
36-39	12
33-36	11
31-33	10
28-31	9
26-28	8
THIS CHART IS FOR USE WHEN STACKING PALLET UNITS AS SHOWN IN SECTION H-H ON PAGE 22.	

NOTE:  
A SIDE AISLE DIMENSION GREATER THAN THE MINIMUM DIMENSION GIVEN IN CHART NO. 5 AND NO. 6 MAY BE USED TO ACHIEVE A MAXIMUM STACKING PATTERN WITHIN THE "C" STACKS.

**STORAGE IN 80'-0" MAGAZINE**

(10'-0" HIGH)

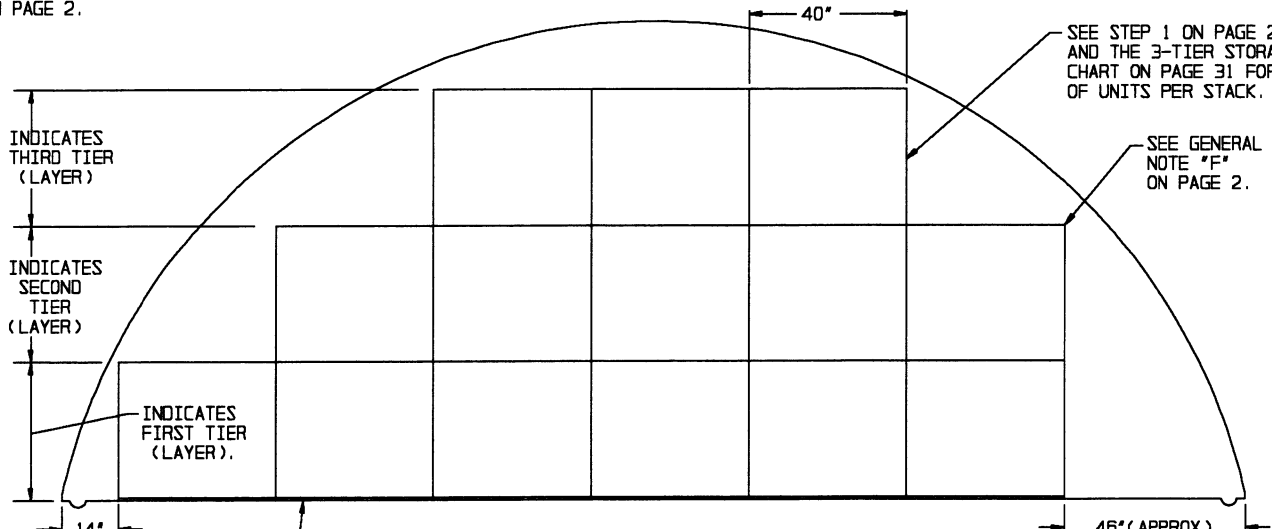
ITEM	QUANTITY
PALLET UNIT - - - - -	254



**PLAN VIEW**  
(80'-0" MAGAZINE)

SEE STEP 2 ON PAGE 29 AND "NUMBER OF STACKS IN MAGAZINE" CHART ON PAGE 32 FOR GUIDANCE AS TO THE NUMBER OF TYPE "A" AND TYPE "C" STACKS WHICH CAN BE STORED IN AN 80'-0" MAGAZINE.

SEE GENERAL NOTE "H" AND "J" ON PAGE 2.



**SECTION J-J**  
(14 PALLETIZED UNITS PER STACK)

SEE STEP 1 ON PAGE 29 AND THE 3-TIER STORAGE CHART ON PAGE 31 FOR NUMBER OF UNITS PER STACK.

SEE GENERAL NOTE "F" ON PAGE 2.

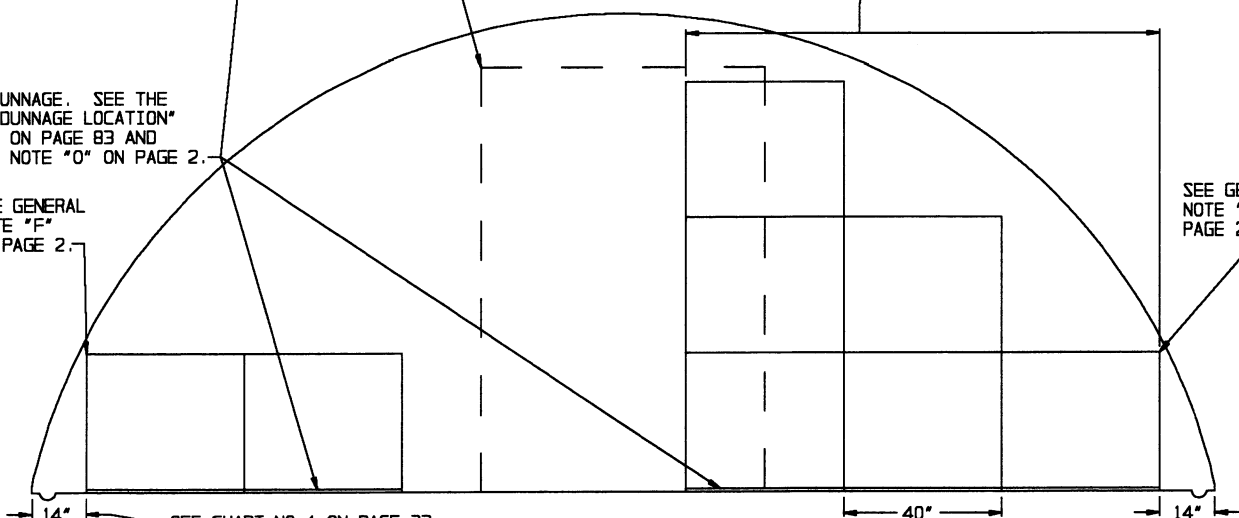
SEE THE "LEFT SIDE AISLE DIMENSIONS 3-TIER STORAGE" CHART ON PAGE 31.

SEE STEP 3 AND 4 ON PAGE 29 AND CHARTS NO. 1 THRU 3 ON PAGE 33 FOR GUIDANCE AS TO THE NUMBER UNITS DEEP IN THE TYPE "C" STACKS IN THE MHE AREA.

FLOOR DUNNAGE. SEE THE "FLOOR DUNNAGE LOCATION" DETAILS ON PAGE 83 AND GENERAL NOTE "O" ON PAGE 2.

SEE GENERAL NOTE "E" ON PAGE 2.

SEE GENERAL NOTE "F" ON PAGE 2.

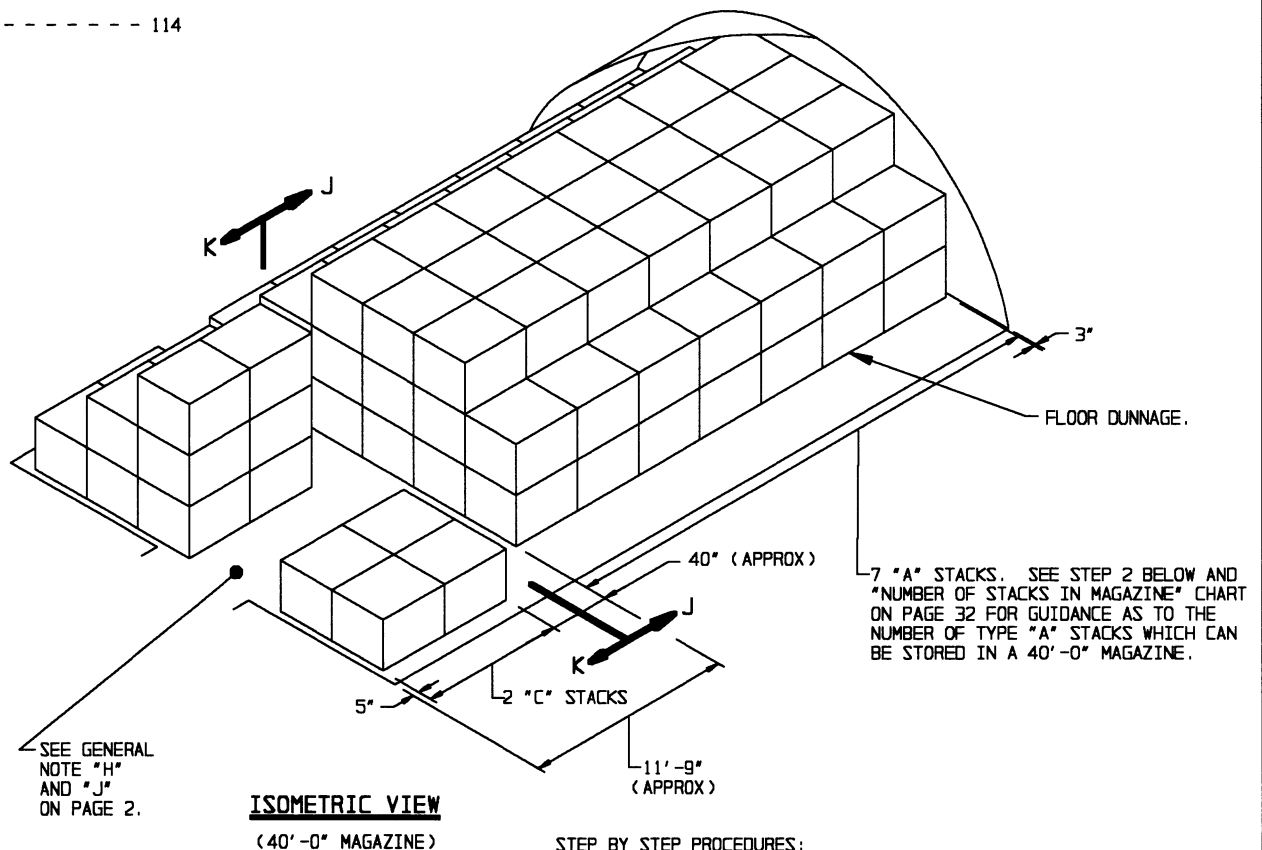


**SECTION K-K**

**STORAGE IN 40'-0" MAGAZINE**

(10'-0" HIGH)

ITEM	QUANTITY
PALLET UNIT - - - - -	114



**STEP BY STEP PROCEDURES:**

**STEP 1**

FROM THE STORAGE CHARTS ON PAGE 31 SELECT THE NUMBER OF TIERS TO BE STORED, THE QUANTITY OF UNITS IN EACH TIER, AND THE LEFT SIDE AISLE DIMENSION. LOCATE IN THE LEFT HAND COLUMN, AND ACROSS THE TOP OF THE CHARTS THE EXACT UNIT HEIGHT AND LENGTH/WIDTH. (IN SOME CASES IT MAY BE NECESSARY TO USE THE NEXT HIGHER OR WIDER DIMENSION FOR FRACTIONAL HEIGHT OR WIDTH UNITS). USING THESE FIGURES PROJECT DOWN AND ACROSS BOTH CHARTS AS SHOWN BY THE DIRECTIONAL ARROWS, AND BY THE DOTTED LINE EXAMPLE IN THE "3-TIER STORAGE" CHART AND THE "LEFT SIDE AISLE DIMENSIONS, 3-TIER STORAGE" CHART ON PAGE 31. THE SAME PROCEDURES WILL BE USED FOR THE 2 AND 4-TIER STORAGE CHARTS.

**STEP 2 (NUMBER OF TYPE "A" AND TYPE "C" STACKS IN THE MAGAZINE).**

LOCATE IN THE LEFT HAND COLUMN OF "NUMBER OF STACKS IN MAGAZINE" CHART ON PAGE 32, THE UNIT LENGTH OR WIDTH, AS APPLICABLE FOR THE ORIENTATION OF THE UNITS BEING STORED. OPPOSITE THAT LENGTH OR WIDTH FIGURE IS SPECIFIED THE APPROXIMATE NUMBER OF TYPE "A" STACKS (FULL STACKS ACROSS THE WIDTH OF THE MAGAZINE), AS WELL AS THE NUMBER OF TYPE "C" STACKS (PARTIAL STACKS AT THE FRONT OF THE MAGAZINE) THAT CAN BE POSITIONED IN AN 80'-0" AND 40'-0" LONG MAGAZINE.

**STEP 3 (NUMBER OF PALLETS DEEP IN TYPE "C" STACKS).**

LOCATE IN THE LEFT HAND COLUMN OF CHART NUMBER 1 ON PAGE 33 THE LINE WHICH SPECIFIES A PALLET UNIT HEIGHT RANGE THAT CONTAINS THE HEIGHT OF THE UNIT TO BE STORED. ALONG THAT LINE LOCATE THE COLUMN WHICH CONTAINS THE LENGTH OR WIDTH OF THE UNIT, AS APPLICABLE, WHICH IS TO BE POSITIONED ACROSS THE WIDTH OF THE MAGAZINE. THE HEADING AT THE BASE OF THAT COLUMN WILL INDICATE THE NUMBER OF PALLETS DEEP WHICH CAN BE STORED AT EACH SIDE OF THE DOOR OPENING IN THE FIRST TIER OF A TYPE "C" STACK. REFER TO CHART NUMBER 4 ON PAGE 33 TO FIND THE MINIMUM SIDE AISLE DIMENSIONS FOR THE TYPE "C" STACKS.

**STEP 4**

REPEAT STEP 3 FOR CHARTS 2 AND 3 AS APPLICABLE, TO DETERMINE THE NUMBER OF PALLETS DEEP WHICH CAN BE STACKED ON THE LEFT SIDE OF THE DOOR IN THE SECOND AND THIRD TIERS.

**SPECIAL NOTES:**

1. THE TYPICAL PALLETIZED UNIT SHOWN HAS OVERALL DIMENSIONS OF 40" LONG BY 48" WIDE BY 34-1/2" HIGH. THE QUANTITY OF UNITS, THE NUMBER OF STACKS, ROWS, AND TIERS (LAYERS) WILL VARY, DEPENDENT UPON THE SIZE OF THE UNIT. PALLET UNITS WILL BE STACKED IN VERTICAL ALIGNMENT AS SHOWN BY THE STORAGE VIEW ABOVE AND ON PAGE 28. AS MANY UNITS AS POSSIBLE WILL BE STORED WITHIN THE MAGAZINE.
2. THE STACKING PATTERN SHOWN ABOVE AND ON PAGE 28 DEPICT THE PALLET UNIT LENGTH POSITIONED ACROSS THE MAGAZINE. HOWEVER, IT MAY BE MORE ADVANTAGEOUS TO STACK THE UNITS WITH THE WIDTH ACROSS THE MAGAZINE.
3. REFER TO PAGES 76 AND 77 FOR GUIDANCE IN THE STORAGE OF MULTIPLE LOTS.
4. THE CHARTS ON PAGES 30 THROUGH 33 ARE PRESENTED AS GUIDANCE IN THE DEVELOPMENT OF A PATTERN FOR THE STORAGE OF PALLETIZED UNITS OF AMMUNITION AND COMPONENTS IN ARCH TYPE MAGAZINES. NOTICE: THE CHARTS ARE FOR GUIDANCE PURPOSES ONLY. VARIATIONS IN PALLET UNIT OVERALL SIZES, THE COMPACTNESS OF PLACEMENT WITHIN A MAGAZINE, AS WELL AS VARIANCES IN THE INSIDE DIMENSIONS OF THE MAGAZINE CAN CAUSE DISCREPANCIES WITHIN THE CHARTS. THE PROCEDURES AT RIGHT ARE PRESENTED AS GUIDANCE IN USING THE DEPICTED CHARTS.

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

UNIT HT IN INCHES	2-TIER STORAGE (UNIT LENGTH OR WIDTH IN INCHES)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
MAX	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1
54	7	6	6	6	6	6	6	6	6	6	6	4	4	4	4	4	4	4	4	4	4	4	4	4	4
53	7	6	6	6	6	6	6	6	6	6	6	4	4	4	4	4	4	4	4	4	4	4	4	4	4
52	7	6	6	6	6	6	6	6	6	6	6	4	4	4	4	4	4	4	4	4	4	4	4	4	4
51	7	6	6	6	6	6	6	6	6	6	6	4	4	4	4	4	4	4	4	4	4	4	4	4	4
50	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
49	6	6	6	6	6	6	6	6	6	6	6	4	4	4	4	4	4	4	4	4	4	4	4	4	4
48	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
47	7	6	6	6	6	6	6	6	6	6	6	4	4	4	4	4	4	4	4	4	4	4	4	4	4
46	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
45	7	7	6	6	6	6	6	6	6	6	6	4	4	4	4	4	4	4	4	4	4	4	4	4	4
44	7	7	7	6	6	6	6	6	6	6	6	4	4	4	4	4	4	4	4	4	4	4	4	4	4
43	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
42	7	7	7	6	6	6	6	6	6	6	6	4	4	4	4	4	4	4	4	4	4	4	4	4	4
41	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
40	7	7	7	6	6	6	6	6	6	6	6	4	4	4	4	4	4	4	4	4	4	4	4	4	4
39	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4

UNIT HT IN INCHES	2-TIER STORAGE (LEFT SIDE AISLE DIMENSIONS)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
54	26	26	26	26	26	26	26	26	26	26	26	48	48	48	48	48	44	44	42	40	39	26	26	26	26
53	25	25	25	25	25	25	25	25	25	25	25	48	48	48	48	48	44	44	42	40	39	36	25	25	25
52	25	25	25	25	44	43	42	41	40	25	25	25	25	42	42	42	42	42	30	30	30	30	30	30	30
51	24	24	24	24	24	42	42	42	39	36	36	34	24	24	36	36	36	36	36	36	30	30	30	30	30
50	42	42	23	23	39	39	39	39	39	36	33	33	30	30	23	36	36	36	36	36	36	30	30	30	30
49	38	38	36	22	22	22	36	36	36	36	30	30	30	25	24	22	30	30	30	30	30	24	24	24	24
48	22	36	36	30	32	22	36	36	36	36	30	30	30	22	22	22	30	30	30	30	30	24	24	24	24
47	21	36	36	30	30	28	26	21	36	36	24	24	24	21	21	21	21	21	21	24	24	21	21	21	21
46	20	30	30	30	30	24	24	21	24	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
45	26	20	24	24	24	21	20	20	20	20	20	20	20	20	20	20	20	20	20	62	62	62	62	62	
44	25	22	19	24	24	20	19	19	19	19	19	19	19	19	19	19	19	19	19	19	58	58	58	58	
43	22	22	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	60	60	60	60
42	20	20	18	18	18	18	18	18	18	18	18	53	53	18	18	18	18	18	18	18	18	18	18	18	18
41	18	18	18	18	18	18	18	18	18	18	18	51	51	18	18	18	18	18	18	18	18	18	18	18	18
40	17	17	17	17	17	17	17	17	17	17	17	51	51	18	18	18	18	18	18	18	18	18	18	18	18
39	17	17	17	17	17	17	17	17	17	17	17	17	17	51	50	48	48	46	17	17	17	17	17	17	17

UNIT HT IN INCHES	3-TIER STORAGE (UNIT LENGTH OR WIDTH IN INCHES)																												
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59				
MAX 38	1	1	1	1	1	1	1	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0			
37	5	5	5	5	5	5	5	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3				
36	7	7	7	7	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4				
35	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
34	5	5	5	5	5	5	5	5	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3				
33	7	7	7	7	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4				
32	2	2	1	1	1	1	2	2	2	2	2	2	2	1	2	2	2	2	1	1	1	1	1	1	1				
31	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4				
30	7	7	7	7	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4				

UNIT HT IN INCHES	3-TIER STORAGE (LEFT SIDE AISLE DIMENSIONS)																												
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59				
38	25	22	18	16	16	16	45	16	16	16	16	16	16	30	50	48	29	27	16	16	16	16	16	16	16				
37	16	16	16	16	16	16	45	42	16	16	24	20	16	16	25	23	20	18	16	16	16	16	16	16	16				
36	15	15	15	15	15	15	25	22	19	15	15	15	15	15	50	49	48	18	15	15	15	15	15	15	15				
35	20	18	16	15	15	15	25	22	19	16	15	15	15	15	50	48	46	44	42	39	15	15	15	15	15				
34	14	14	14	14	14	14	42	19	16	14	14	14	14	14	48	46	44	42	40	38	30	28	26	25					
33	14	14	14	14	14	14	43	40	38	36	14	14	14	14	48	46	44	42	40	38	36	30	24	20					
32	13	13	37	34	13	13	13	40	38	35	28	27	28	25	23	46	44	42	40	38	36	34	24	24					
31	13	13	37	34	31	13	13	40	38	35	33	24	24	20	23	20	18	15	13	38	36	34	32	18					
30	12	12	37	34	31	12	12	40	38	35	33	30	20	18	15	12	18	15	12	38	36	34	32	30					

UNIT HT IN INCHES	4-TIER STORAGE (UNIT LENGTH OR WIDTH IN INCHES)																												
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59				
MAX 29	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
28	5	5	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	2	2	2	2	2				
27	7	7	7	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	4	4	4	4	4				
26	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
25	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2				
24	6	6	6	6	6	6	5	5	5	5	5	5	5	5	4	4	3	3	3	3	3	3	3	4	4				
23	7	7	7	7	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	4	4	4	4				
22	3	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1				
21	5	5	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3					
20	7	6	6	6	6	6	5	5	5	5	5	5	5	5	4	4	3	3	3	3	3	3	3	3					
19	7	7	7	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	4	4	4	4				
18	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2				
17	5	5	5	5	5	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	2	2	2	2	2				
16	7	6	6	5	5	6	6	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4				
15	7	7	7	7	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	4	4	4	4	4	4				

UNIT HT IN INCHES	4-TIER STORAGE (LEFT SIDE AISLE DIMENSIONS)																												
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59				
29	25	22	12	34	31	28	20	22	19	16	15	33	30	12	12	12	18	15	13	38	36	34	32	30					
28	12	12	27	31	28	12	12	12	38	35	33	30	28	24	15	20	18	15	13	12	12	12	12	32	30				
27	26	15	11	34	31	28	24	15	11	16	13	11	11	28	26	11	11	11	11	11	11	11	11	11	11				
26	25	14	12	15	11	28	25	11	11	11	13	11	11	11	11	11	11	11	36	34	38	36	34	32	30				

NUMBER OF STACKS IN MAGAZINE								
UNIT DIMENSION	80'-0" x 25'-0" x 10'-0" ARCH TYPE MAGAZINE				40'-0" x 25'-0" x 10'-0" ARCH TYPE MAGAZINE			
	● "A" STACKS		"C" STACKS		● "A" STACKS		"C" STACKS	
MAGAZINE	NO.	MHE AISLE	NO.	SPACE REMAIN	NO.	MHE AISLE	NO.	SPACE REMAIN
59"	13	15'-10"	3	7"	5	15'-2"	2	58"
58"	13	16'-11"	3	23"	5	15'-7"	3	7"
57"	14	13'-3"	2	39"	5	16'-0"	3	15"
56"	14	12'-5"	2	55"	5	16'-5"	3	23"
55"	14	15'-7"	3	16"	6	12'-3"	2	31"
54"	15	12'-3"	2	34"	6	12'-9"	2	40"
53"	15	13'-6"	2	51"	6	13'-3"	2	48"
52"	15	14'-9"	3	16"	6	13'-9"	3	4"
51"	15	16'-0"	3	34"	6	14'-3"	3	13"
50"	16	13'-1"	2	52"	6	14'-9"	3	22"
49"	16	14'-5"	3	21"	6	15'-3"	3	31"
48"	17	11'-9"	2	40"	7	11'-9"	2	40"
47"	17	13'-2"	3	12"	7	12'-4"	2	49"
46"	17	14'-7"	3	32"	7	12'-11"	3	12"
45"	18	12'-3"	3	7"	7	13'-6"	3	22"
44"	18	13'-9"	3	28"	7	14'-1"	3	32"
43"	19	11'-8"	3	6"	7	14'-8"	3	42"
42"	19	13'-3"	3	28"	8	11'-9"	3	10"
41"	20	11'-5"	3	9"	8	12'-5"	3	21"
40"	20	13'-1"	3	32"	8	13'-1"	3	32"
39"	21	11'-6"	3	16"	8	13'-9"	3	43"
38"	21	13'-3"	3	40"	9	11'-3"	3	16"
37"	22	11'-11"	3	27"	9	12'-0"	3	28"
36"	22	13'-9"	4	16"	9	12'-9"	3	40"
35"	23	12'-8"	4	7"	9	13'-6"	4	17"

- THE NUMBER OF TYPE "A" STACKS SPECIFIED FOR A MAGAZINE IS BASED ON HAVING A MATERIAL HANDLING EQUIPMENT OPERATING AREA (DISTANCE FROM THE FACE OF THE LAST TYPE "A" STACK TO THE MAGAZINE FRONT WALL) OF 7'-7" PLUS THE LENGTH OR WIDTH OF THE PALLET UNIT, AS APPLICABLE, OR THE LENGTH OF THE FORKLIFT TRUCK TINES (40'), WHICHEVER IS THE GREATEST. ADDITIONAL TYPE "A" STACKS MAY BE STORED IF THE AVAILABLE MATERIALS HANDLING EQUIPMENT PERMITS.



NOTICE:  
ALL UNIT HEIGHT/WIDTH DIMENSIONS  
AND SIDE AISLE DIMENSIONS ARE  
EXPRESSED IN INCHES.

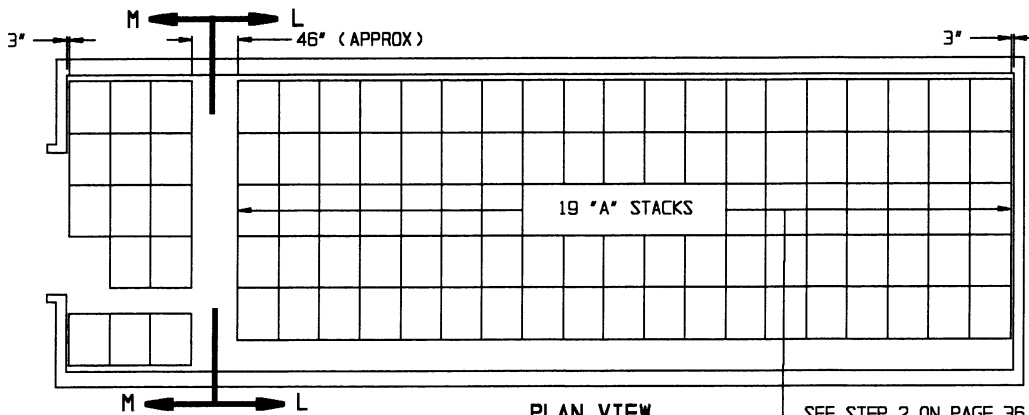
CHART NO. 1			
UNIT HT	UNIT LENGTH OR WIDTH		
52-54	35-37	37-43	43-52
47-52	35-38	38-45	45-54
42-47	35-39	39-46	46-55
36-42	35-40	40-48	48-56
31-36	35-41	41-49	49-57
26-31	35-42	42-51	51-59
UNIT HT	2 AND 3	2 AND 2	2 AND 1
	NUMBER OF PALLET DEEP IN FIRST TIER OF TYPE "C" STACKS		

CHART NO. 3		
UNIT HT	UNIT LENGTH OR WIDTH	
35-MAX		35-39
34-35		35-45
33-34		35-49
32-33		35-54
28-32	35	35-59
27-28	35-37	37-59
26-27	35-39	39-59
26	35-40	40-59
UNIT HT	2	1
	NUMBER OF PALLET DEEP IN THIRD TIER OF TYPE "C" STACKS	

CHART NO. 2		
UNIT HT	UNIT LENGTH OR WIDTH	
53-MAX		35
52-53		35-37
51-52		35-41
50-51		35-45
49-50		35-48
48-49		35-51
42-48		35-54
41-42	35	35-54
40-41	35-37	37-55
39-40	35-38	38-55
38-39	35-39	39-56
37-38	35-40	40-56
36-37	35-41	41-57
35-36	35-42	42-57
33-35	35-43	43-58
32-33	35-44	44-59
31-32	35-45	45-59
30-31	35-46	46-59
29-30	35-47	47-59
27-29	35-48	48-59
26-27	35-49	49-59
26	35-50	50-59
UNIT HT	2	1
	NUMBER OF PALLET DEEP IN SECOND TIER OF TYPE "C" STACKS	

CHART NO. 4			
UNIT HEIGHT	MINIMUM SIDE AISLE	UNIT HEIGHT	MINIMUM SIDE AISLE
53-54	26	40-42	18
51-53	25	38-40	17
50-51	24	36-38	16
49-50	23	34-36	15
47-49	22	32-34	14
46-47	21	30-32	13
44-46	20	27-30	12
42-44	19	26-27	11

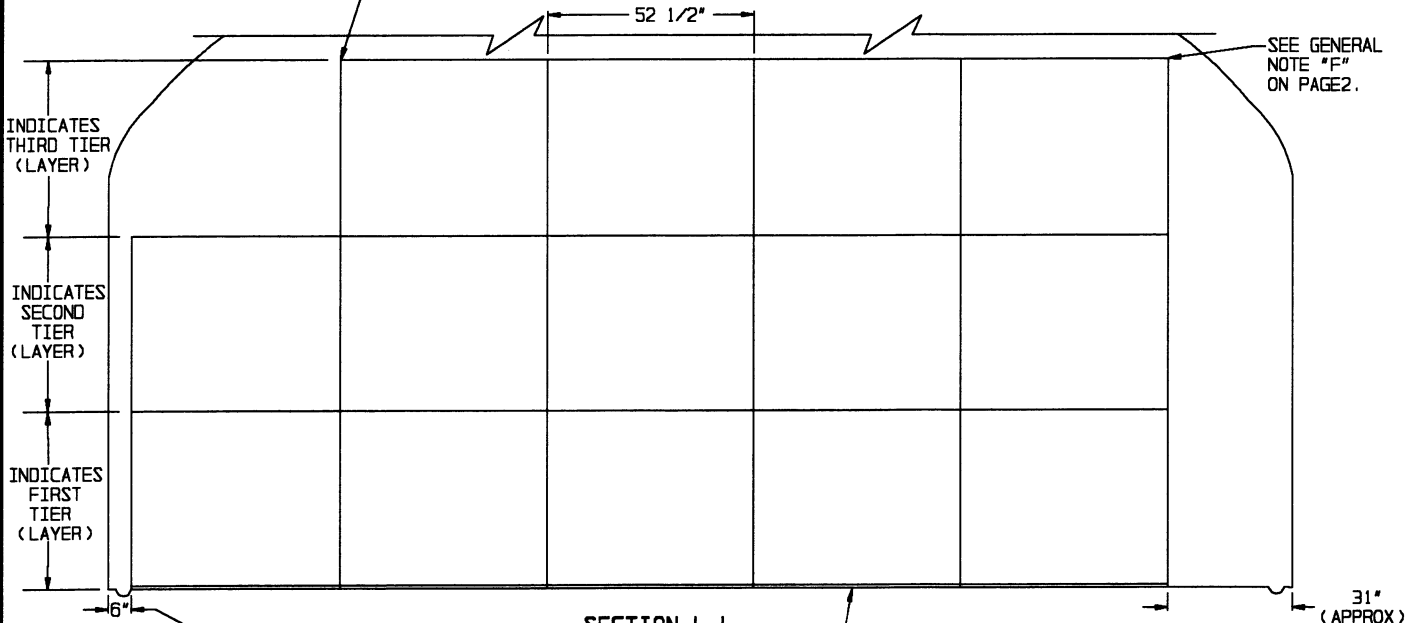
NOTE:  
A SIDE AISLE GREATER THAN THE MINIMUM DIMENSION GIVEN IN CHART NO.4 MAY BE USED TO ACHIEVE A MAXIMUM STACKING PATTERN WITHIN THE "C" STACKS.



**PLAN VIEW**  
(80'-0" STRADLEY MAGAZINE)

SEE STEP 1 AND THE "3-TIER STORAGE" CHARTS ON PAGE 36.

SEE STEP 2 ON PAGE 36 AND "NUMBER OF STACKS IN MAGAZINE" CHART ON PAGE 39 FOR GUIDANCE AS TO THE NUMBER OF TYPE "A" AND TYPE "C" STACKS WHICH CAN BE STORED IN AN 80'-0" STRADLEY MAGAZINE.

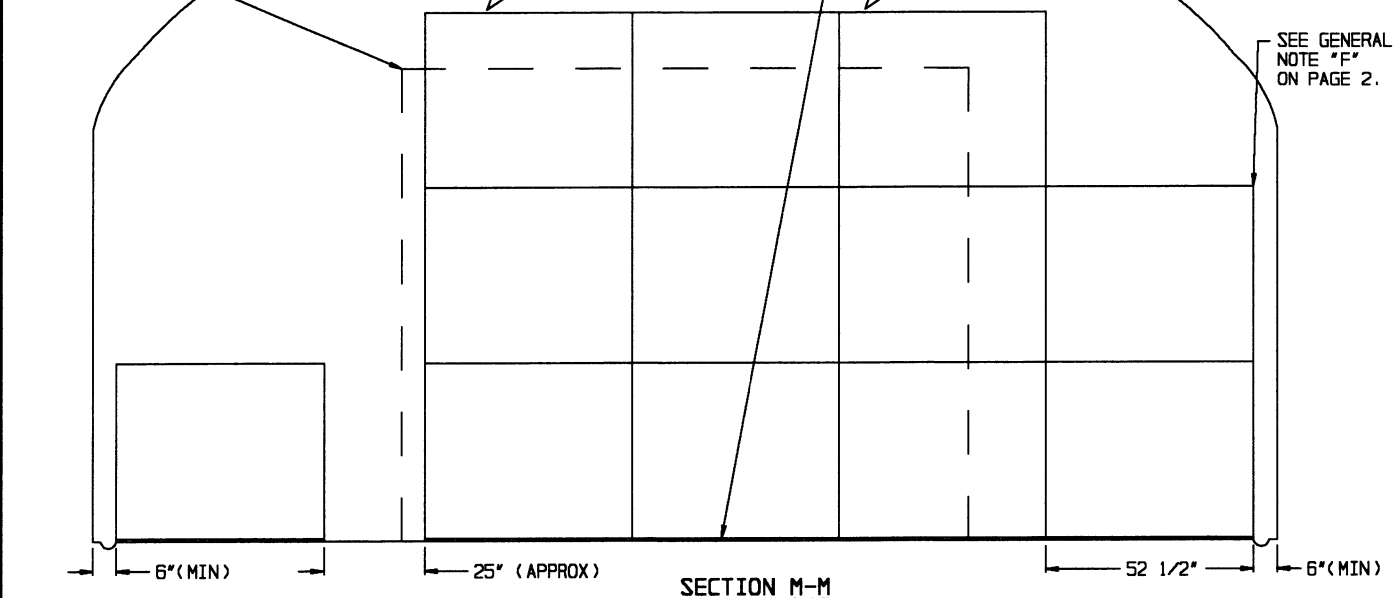


**SECTION L-L**  
(14 UNITS PER "A" STACK)

SEE STEP 1 AND THE "LEFT SIDE AISLE DIMENSIONS, 3-TIER STORAGE" CHART ON PAGE 36.

FLOOR DUNNAGE. SEE THE "FLOOR DUNNAGE LOCATION" DETAILS ON PAGE 83, AND SPECIAL NOTE 7 ON PAGE 35, AND GENERAL NOTE "O" ON PAGE 2.

INDICATES OUTLINE OF DOOR OPENING.



**SECTION M-M**

TYPICAL 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

**STORAGE IN 80'-0" STRADLEY MAGAZINE**

(14'-0" HIGH)

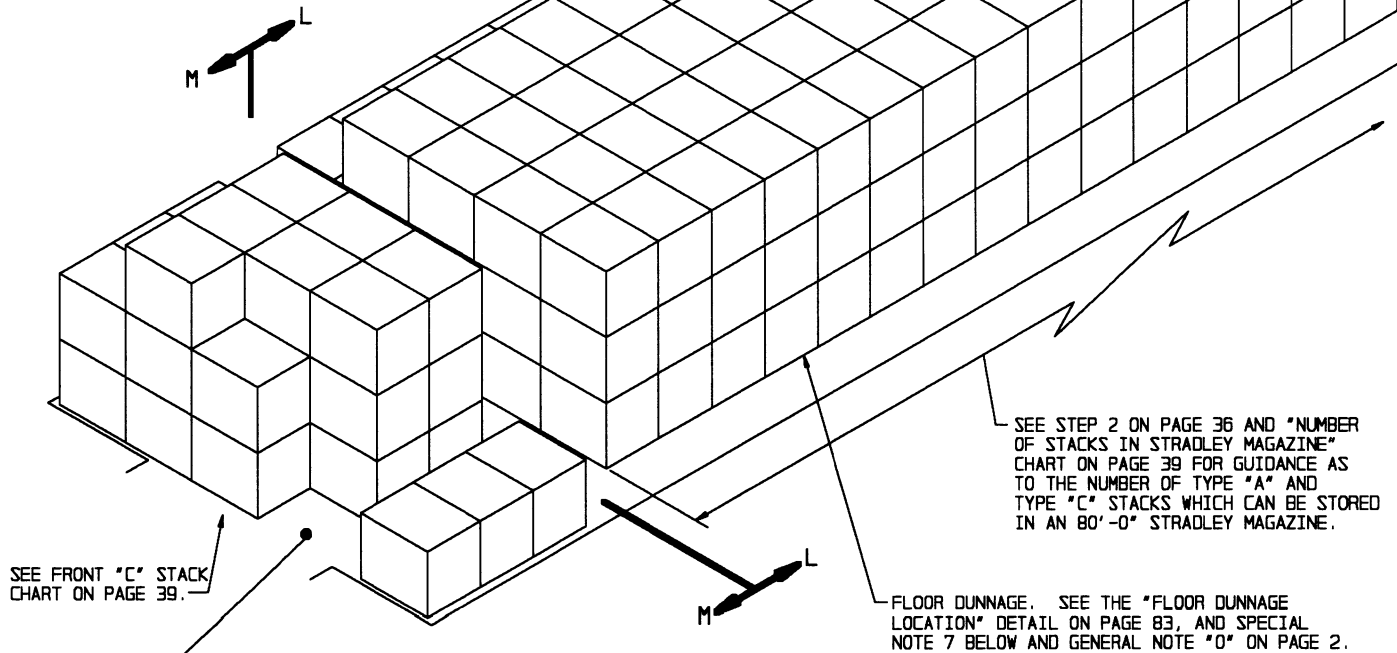
ITEM	QUANTITY
PALLET UNIT - - - - -	298

**STORAGE IN 89'-0" OVAL ARCH MAGAZINE \***

(14'-4" HIGH)

ITEM	QUANTITY
PALLET UNIT - - - - -	334

\*SEE STEP 2 ON PAGE 36 AND "NUMBER OF STACKS IN OVAL ARCH MAGAZINE" CHART ON PAGE 39 FOR GUIDANCE AS TO THE NUMBER OF TYPE "A" AND TYPE "C" STACKS WHICH CAN BE STORED IN AN 89'-0" OVAL ARCH MAGAZINE. SEE SPECIAL NOTE 6 BELOW.



**ISOMETRIC VIEW**

(80'-0" STRADLEY MAGAZINE)

SEE FRONT "C" STACK CHART ON PAGE 39.

SEE GENERAL NOTE "H" AND "J" ON PAGE 2.

SEE STEP 2 ON PAGE 36 AND "NUMBER OF STACKS IN STRADLEY MAGAZINE" CHART ON PAGE 39 FOR GUIDANCE AS TO THE NUMBER OF TYPE "A" AND TYPE "C" STACKS WHICH CAN BE STORED IN AN 80'-0" STRADLEY MAGAZINE.

FLOOR DUNNAGE. SEE THE "FLOOR DUNNAGE LOCATION" DETAIL ON PAGE 83, AND SPECIAL NOTE 7 BELOW AND GENERAL NOTE "O" ON PAGE 2.

**SPECIAL NOTES:**

**SPECIAL NOTES CONTINUED**

5. PALLET UNITS WITHIN THE TYPE "C" STACKS MAY BE STORED EITHER IN THE SAME ORIENTATION AS THE TYPE "A" STACKS IN THE MAGAZINE OR TURNED 90° TO THOSE IN THE TYPE "A" STACKS. BY STUDYING THE "NUMBER OF STACKS IN MAGAZINE" CHART AND "C" STACK CHART IT CAN BE DETERMINED WHICH POSITIONING WILL RESULT IN THE GREATER NUMBER OF PALLET UNITS. NOTE THAT THE NUMBER OF TYPE "C" STACKS SPECIFIED IN THE "NUMBER OF STACKS IN MAGAZINE" CHART ON PAGE 39 IS BASED ON THE UNITS BEING IN THE SAME ORIENTATION AS THOSE IN THE TYPE "A" STACKS, ALSO THE "C" STACKS WILL HAVE A MINIMUM SIDE AISLE OF 6". SEE THE "C" STACK SIDE AISLE CHART ON PAGE 39.
6. FOR STORAGE IN OVAL ARCH MAGAZINES, ONE (1) ROW OF PALLET UNITS MAY NEED TO BE OMITTED FROM THE DOORWAY AREA OF THE MAGAZINE, BECAUSE OF THE RELATIVELY NARROW DOOR OPENING IN SOME OVAL ARCH MAGAZINES.
7. NOTE THAT FLOOR DUNNAGE IN OVAL ARCH MAGAZINES WILL BE POSITIONED LENGTHWISE IN LIEU OF CROSSWISE AS SHOWN.

1. THE TYPICAL PALLET UNIT SHOWN HAS OVERALL DIMENSIONS OF 41-1/4" LONG BY 52-1/2" WIDE BY 44-1/2" HIGH. THE QUANTITY OF UNITS, THE NUMBER OF STACKS, ROWS, AND TIERS (LAYERS) WILL VARY, DEPENDENT UPON THE SIZE OF THE UNIT. PALLET UNITS WILL BE STACKED IN VERTICAL ALIGNMENT AS SHOWN BY THE STORAGE VIEW ABOVE AND ON PAGE 34. AS MANY UNITS AS POSSIBLE WILL BE STORED WITHIN THE MAGAZINE.
2. THE STACKING PATTERN SHOWN ABOVE AND ON PAGE 34 DEPICT THE PALLET UNIT WIDTH POSITIONED ACROSS THE MAGAZINE. HOWEVER, IT MAY BE MORE ADVANTAGEOUS TO STACK THE UNITS WITH THE LENGTH ACROSS THE MAGAZINE.
3. REFER TO PAGES 76 AND 77 FOR GUIDANCE IN THE STORAGE OF MULTIPLE LOTS.
4. THE CHARTS ON PAGES 37 THROUGH 39 ARE PRESENTED AS GUIDANCE IN THE DEVELOPMENT OF A PATTERN FOR THE STORAGE OF PALLET UNITS OF AMMUNITION AND COMPONENTS IN STRADLEY AND OVAL ARCH MAGAZINES. NOTICE: THE CHARTS ARE FOR GUIDANCE PURPOSES ONLY. VARIATIONS IN PALLET UNIT OVERALL SIZES, THE COMPACTNESS OF PLACEMENT WITHIN A MAGAZINE, AS WELL AS VARIANCES IN THE INSIDE DIMENSIONS OF THE MAGAZINE CAN CAUSE DISCREPANCIES WITHIN THE CHARTS. THE PROCEDURES ON PAGE 36 ARE PRESENTED AS GUIDANCE IN USING THE DEPICTED CHARTS.

**FOR "GENERAL NOTES" AND "MATERIAL**

(CONTINUED AT LEFT)

**SPECIFICATIONS". SEE PAGE 2.**

TYPICAL 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

**STEP BY STEP PROCEDURES:**

**STEP 1**

USING THE UNIT DEPICTED IN THE STORAGE VIEWS ON PAGES 34 AND 35 FOR AN EXAMPLE, SELECT FROM THE STORAGE CHARTS BELOW THE NUMBER OF TIERS TO BE STORED, THE QUANTITY OF UNITS IN EACH TIER, AND THE LEFT SIDE AISLE DIMENSION. LOCATE IN THE LEFT HAND COLUMN AND ACROSS THE TOP OF THE CHARTS, THE EXACT UNIT IN HEIGHT AND LENGTH/WIDTH. FOR FRACTIONAL HEIGHT OR WIDTH, USE THE NEXT WIDER DIMENSION IF THE FRACTION EXCEEDS 1/8" OR THE NEXT HIGHER DIMENSION IF THE FRACTION EXCEEDS 1/2". USING THESE FIGURES PROJECT DOWN AND ACROSS EACH CHART AS SHOWN BY THE DIRECTIONAL ARROWS, AND BY THE DOTTED LINE EXAMPLES. THE SAME PROCEDURES WILL BE USED FOR THE 4, 5, AND 6-TIER STORAGE CHARTS ON PAGES 37 AND 38.

**STEP 2 (NUMBER OF TYPE "A" AND TYPE "C" STACKS IN THE MAGAZINE)**

LOCATE IN THE LEFT HAND COLUMN OF "NUMBER OF STACKS IN MAGAZINE" CHART ON PAGE 39, THE UNIT LENGTH OR WIDTH, AS APPLICABLE FOR THE ORIENTATION OF THE UNIT TO BE STORED. OPPOSITE THAT LENGTH OR WIDTH FIGURE IS SPECIFIED THE APPROXIMATE NUMBER OF TYPE "A" STACKS (FULL STACKS ACROSS THE WIDTH OF THE MAGAZINE) AS WELL AS THE NUMBER OF TYPE "C" STACKS (PARTIAL STACKS AT THE FRONT OF THE MAGAZINE) THAT CAN BE POSITIONED IN AN 80' LONG STRADLEY OR AN 89' OVAL ARCH MAGAZINE.

**STEP 3 (NUMBER OF PALLETS WIDE IN TYPE "C" STACKS)**

LOCATE IN THE LEFT HAND COLUMN OF "REAR "C" STACK (S) CHART" ON PAGE 39 THE LINE WHICH SPECIFIES A PALLET UNIT DIMENSION RANGE THAT CONTAINS THE LENGTH OR WIDTH OF THE UNIT TO BE STORED. ALONG THAT LINE IS A COLUMN WHICH INDICATES THE NUMBER OF PALLETS THAT CAN BE STORED AT EACH SIDE OF THE MAGAZINE IN THE FIRST TYPE "C" STACK, SUCH AS 4 ON ONE SIDE AND 1 ON THE OPPOSITE FOR UNITS WHICH ARE FROM 47" TO 53" WIDE. THESE QUANTITIES ARE BASED ON A DOOR OPENING WIDTH OF 12'-0"; QUANTITIES MAY VARY FOR OTHER WIDTH OPENINGS. THE "FRONT "C" STACK CHART" ON PAGE 39 SPECIFIES THE HEIGHT RANGE FOR THE INDICATED NUMBER OF TIERS AS PERTAINS TO THE PALLET UNITS IN THE TYPE "C" STACK WHICH IS DIRECTLY IN FRONT OF THE DOOR OPENING. NOTE THAT THE HEIGHT RANGES FOR UNITS IN FRONT OF THE DOOR OPENING ARE BASED ON A DOOR HEIGHT 0 10'-0".

UNIT HT IN INCHES	3-TIER STORAGE (UNIT LENGTH OR WIDTH IN INCHES)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
54	2	2	2	1	1	1	1	2	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1
53	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
52	4	4	3	3	3	3	3	3	3	3	3	3	3	2	2	3	3	3	3	3	3	3	3	3	2
51	4	4	4	4	4	3	3	4	4	3	3	3	2	2	3	3	3	3	3	3	3	3	3	3	2
50	4	4	5	5	4	4	3	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	
49	5	4	5	5	5	5	5	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	
48	6	6	5	5	5	5	5	5	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	
47	6	6	5	5	5	5	5	5	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	
46	6	6	6	5	5	5	5	5	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	4	
45	6	6	6	6	5	5	5	5	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	4	
44	6	6	6	6	5	5	5	5	5	5	5	4	4	4	5	4	4	4	4	4	3	3	3	4	
43	6	6	7	6	6	5	5	6	6	5	5	4	4	4	5	5	5	4	4	3	3	3	4	4	
42	7	7	7	7	6	6	6	6	6	6	5	5	5	5	5	5	5	4	4	4	3	3	4	4	

UNIT HT IN INCHES	UNIT LENGTH OR WIDTH IN INCHES				
	35-36	36-41	41-48	48-57	57-59
42-45					
UNIT HEIGHT	8	7	6	5	4
	8	7	6	5	4
NUMBER OF UNITS WIDE IN FIRST AND SECOND TIERS OF TYPE "A" STACKS					

NOTE THAT THE CIRCLED FIGURES IN THE CHART AT LEFT AND ABOVE ADD UP TO 14 UNITS PER "A" STACK AS SHOWN IN "SECTION L-L" ON PAGE 34.

UNIT HT IN INCHES	3-TIER STORAGE (LEFT SIDE AISLE DIMENSIONS)																									
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	
54	6	6	6	6	6	6	24	6	6	6	6	6	6	6	24	22	19	17	14	12	9	7	6	6	6	
53	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	34	32	
52	6	6	6	6	6	6	6	6	6	6	6	6	6	6	26	25	6	6	6	6	6	6	6	6	32	30
51	6	6	6	6	6	6	21	20	6	6	6	6	6	6	24	22	19	17	14	12	9	7	6	6	28	
50	6	6	17	16	6	6	21	18	15	12	6	6	6	6	24	22	19	17	14	12	9	7	6	6	6	
49	6	6	17	16	12	9	6	21	18	15	12	6	6	6	6	22	19	17	14	12	9	6	6	6	6	
48	6	6	17	16	12	9	6	18	15	12	9	6	6	6	6	19	17	14	12	9	6	6	6	6	6	
47	6	6	17	16	12	9	6	6	6	15	12	9	6	6	6	6	6	6	14	12	9	6	6	6	6	
46	6	6	6	16	12	9	6	6	6	15	12	9	6	6	6	6	6	6	6	14	12	9	6	6	32	32
45	6	6	6	6	12	9	6	6	6	12	9	6	6	6	6	6	6	6	6	6	6	6	6	28	28	
44	6	6	6	6	12	9	6	24	6	6	6	6	6	6	24	22	6	6	6	6	6	6	6	30	28	
43	6	6	20	6	6	9	6	21	20	6	6	9	6	6	24	22	20	20	6	6	9	6	6	30	28	
42	6	6	17	17	6	6	21	17	17	6	6	6	6	6	24	22	19	17	17	6	6	6	6	30	28	

UNIT HT IN INCHES	4-TIER STORAGE (UNIT LENGTH OR WIDTH IN INCHES)																												
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59				
MAX	0	0	1	1	1	1	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0			
41	7	6	7	7	6	6	5	6	6	6	6	6	5	4	4	5	5	5	5	5	3	3	3	3	4	4			
40	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	2	1				
39	7	6	7	7	7	6	5	6	6	6	6	6	5	4	5	5	5	5	5	5	5	4	3	4	4				
38	4	4	3	3	3	3	3	3	3	2	2	2	2	2	3	3	3	3	3	3	3	3	3	2	2				
37	8	6	7	7	7	7	5	6	6	6	6	6	5	4	5	5	5	5	5	5	5	5	3	4	4				
36	4	4	4	4	4	3	4	4	4	4	4	4	3	2	3	3	3	3	3	3	3	3	3	2	2				
35	8	6	7	7	7	7	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	4	4	4				
34	5	4	5	5	5	5	3	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3				
	8	8	7	7	7	7	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	4	4				
	6	6	5	5	5	5	5	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3				
	8	8	7	7	7	7	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	4	4				
	6	6	6	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3	4	3				
	8	8	7	7	7	7	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	4	4				
	8	8	7	7	7	7	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	4	4				
UNIT HT	NUMBER OF UNITS WIDE IN THIRD AND FOURTH TIERS OF TYPE "A" STACKS																												

UNIT HT IN INCHES	UNIT LENGTH OR WIDTH IN INCHES				
	35-36	36-41	41-48	48-57	57-59
34-41					
UNIT HT	8 8	7 7	6 6	5 5	4 4
	NUMBER OF UNITS WIDE IN FIRST AND SECOND TIERS OF TYPE "A" STACKS				

UNIT HT IN INCHES	4-TIER STORAGE (LEFT SIDE AISLE DIMENSIONS)																												
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59				
41	6	6	17	14	6	6	6	21	15	15	15	6	6	6	24	22	19	17	15	15	6	9	6	30	30				
40	6	6	17	16	12	6	6	21	18	15	12	12	6	6	12	22	19	17	15	12	12	6	6	34	12				
39	10	6	17	16	10	10	6	10	10	10	10	10	6	6	25	25	10	10	10	10	10	10	6	30	30				
38	8	6	8	8	8	8	24	21	18	15	8	8	8	27	24	22	19	17	15	12	8	8	6	30	30				
37	6	6	17	14	11	10	6	21	18	15	12	6	6	6	6	22	19	17	15	12	6	6	6	6	6				
36	6	6	17	14	11	6	6	6	18	15	12	9	6	6	6	6	19	17	15	12	6	6	6	6	6				
35	6	6	6	14	11	6	6	6	6	15	12	6	6	6	6	6	6	6	15	12	6	6	6	34	6				
34	6	6	6	6	11	6	6	6	6	6	12	6	6	6	6	6	6	6	6	12	6	6	6	34	29				

UNIT HT IN INCHES	5-TIER STORAGE (UNIT LENGTH OR WIDTH IN INCHES)																												
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59				
MAX	0	0	1	1	1	1	1	0	1	0	0	0	0	0	1	1	1	1	0	0	1	1	1	0	0				
33	6	6	6	6	5	5	5	6	5	5	5	4	4	4	5	5	4	4	4	4	3	3	3	4	4				
32	2	2	3	3	3	3	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	2	1	2	2				
31	6	6	7	6	6	5	6	6	5	5	5	5	4	4	5	5	5	5	4	4	4	3	3	4	4				
30	4	4	3	3	3	3	3	3	2	3	2	2	2	2	3	3	3	3	3	3	2	2	1	2	2				
29	6	6	7	7	6	5	6	6	6	6	5	5	4	4	5	5	5	5	5	4	4	3	3	4	4				
28	4	4	5	5	5	4	3	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3				
	7	6	7	7	7	6	5	6	6	6	6	5	4	4	5	5	5	5	5	5	5	4	3	4	4				
	8	6	7	7	7	7	5	6	6	6	6	6	6	6	4	5	5	5	5	5	5	5	4	4	4				
	6	6	6	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	3	3	3	3	4	3	3				
	8	7	7	7	7	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	4	4				
UNIT HT	NUMBER OF ROWS WIDE IN FOURTH AND FIFTH TIERS OF TYPE "A" STACKS																												

UNIT HT IN INCHES	UNIT LENGTH OR WIDTH IN INCHES				
	35-36	36-41	41-48	48-57	57-59
28-33	8	7	6	5	4
	8	7	6	5	4
	8	7	6	5	4
UNIT HEIGHT	NUMBER OF ROWS WIDE IN FIRST THRU THIRD TIERS OF TYPE "A" STACKS				

UNIT HT IN INCHES	5-TIER STORAGE (LEFT SIDE AISLE DIMENSIONS)																												
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59				
33	6	6	9	6	6	6	6	24	6	6	6	6	6	6	24	24	18	16	6	6	10	8	6	30	30				
32	6	6	19	10	8	6	6	19	19	6	6	6	6	6	24	24	19	19	6	6	6	6	6	30	30				
31	6	6	16	16	6	6	6	16	16	16	6	6	6	6	24	24	19	16	16	13	6	6	6	13	13				
30	6	6	17	17	12	6	6	12	12	12	12	12	6	6	24	24	19	17	12	12	12	6	6	12	12				
29	9	6	17	17	14	9	6	9	9	9	9	9	9	9	24	19	17	12	12	9	9	6	9	9					
28	6	6	7	17	14	7	6	7	7	7	7	7	7	6	7	7	7	7	12	7	7	7	33	33					

UNIT HT IN INCHES	6-TIER STORAGE (UNIT LENGTH OR WIDTH IN INCHES)																												
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59				
MAX	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	2	1					
27	6	6	6	6	5	5	5	5	5	4	4	4	4	4	4	4	4	4	3	3	3	3	4	3					
26	4	4	4	3	3	3	3	3	3	3	2	2	2	2	3	3	3	2	2	2	2	1	2	2					
	6	6	6	6	6	5	5	5	5	5	5	4	4	4	5	5	5	5	4	4	3	3	3	4	4				
UNIT HT	NUMBER OF ROWS WIDE IN FIFTH AND SIXTH TIERS OF TYPE "A" STACKS																												

UNIT HT IN INCHES	UNIT LENGTH OR WIDTH IN INCHES				
	35-36	36-41	41-48	48-57	57-59
26-27	8	7	6	5	4
	8	7	6	5	4
	8	7	6	5	4
	8	7	6	5	4
UNIT HEIGHT	NUMBER OF ROWS WIDE IN FIRST THRU FOURTH TIERS OF TYPE "A" STACKS				

UNIT HT IN INCHES	6-TIER STORAGE (LEFT SIDE AISLE DIMENSIONS)																												
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59				
27	6	6	6	6	6	6	6	8	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	32	32				
26	6	6	6	6	6	6	6	6	6	6	6	6	6	6	24	20	20	20	6	6	6	6	6	30	30				

NUMBER OF STACKS IN STRADLEY MAGAZINE				
UNIT DIMENSION	80' L X 25' W X 14' H STRADLEY MAGAZINE			
LENGTHWISE IN	* "A" STACKS		○ "C" STACKS	
MAGAZINE	NO.	MHE AISLE	NO.	SPACE REMAIN
59"	13	15'-10"	3	8"
58"	13	16'-11"	3	24"
57"	14	13'-3"	2	40"
56"	14	12'-5"	2	56"
55"	14	15'-7"	3	17"
54"	15	12'-3"	2	39"
53"	15	13'-6"	2	53"
52"	15	14'-9"	3	18"
51"	15	16'-0"	3	36"
50"	16	13'-1"	2	54"
49"	16	14'-5"	3	23"
48"	17	11'-9"	2	42"
47"	17	13'-2"	3	14"
46"	17	14'-7"	3	34"
45"	18	12'-3"	3	9"
44"	18	13'-9"	3	30"
43"	19	11'-8"	3	8"
42"	19	14'-5"	3	30"
41"	20	11'-5"	3	11"
40"	20	13'-1"	3	34"
39"	21	11'-6"	3	18"
38"	21	13'-3"	3	42"
37"	22	11'-11"	3	29"
36"	22	13'-9"	4	18"
35"	23	12'-8"	4	9"

REAR "C" STACK(S) CHART	
UNIT DIMENSION ACROSS MAGAZINE	NUMBER OF UNITS WIDE IN REAR TYPE "C" STACK(S)
54"-59"	3 AND 1
53"-54"	3 AND 2
47"-53"	4 AND 1
40"-47"	4 AND 2
35"-40"	5 AND 2
35"	6 AND 2

THE NUMBER OF TIERS IN THE REAR TYPE "C" STACK(S) WILL BE THE SAME AS THE NUMBER OF TIERS AS THE NUMBER OF TIERS IN THE "A" STACKS. FOR THE "EXAMPLE UNIT" WE HAVE ALREADY CONCLUDED THIS TO BE IN THE 3-TIER STORAGE BRACKET. FROM THE "C" STACK CHART ABOVE WE FIND THAT 4 UNITS CAN BE POSITIONED ON THE LEFT SIDE OF THE MAGAZINE AND ONE UNIT CAN BE POSITIONED ON THE RIGHT OF THE DOOR. NOW FROM THE 4-WIDE 3-TIER STACK SUBTRACT ONE UNIT FROM THE PALLET STACK ADJACENT TO THE SIDEWALL FOR A TOTAL OF 12 UNITS AS SHOWN IN SECTION M-M ON PAGE 34.

\* THE NUMBER OF TYPE "A" STACKS SPECIFIED FOR A MAGAZINE IS BASED ON HAVING A MATERIAL HANDLING EQUIPMENT OPERATING AREA (DISTANCE FROM THE FACE OF THE LAST TYPE 'A' STACK TO THE MAGAZINE FRONT WALL) OF 7'-7" PLUS THE LENGTH OR WIDTH OF THE PALLET UNIT, AS APPLICABLE, OR THE LENGTH OF THE FORKLIFT TRUCK TINES (40"), WHICHEVER IS THE GREATEST. ADDITIONAL TYPE "A" STACKS MAY BE STORED IF THE AVAILABLE MATERIALS HANDLING EQUIPMENT PERMITS.

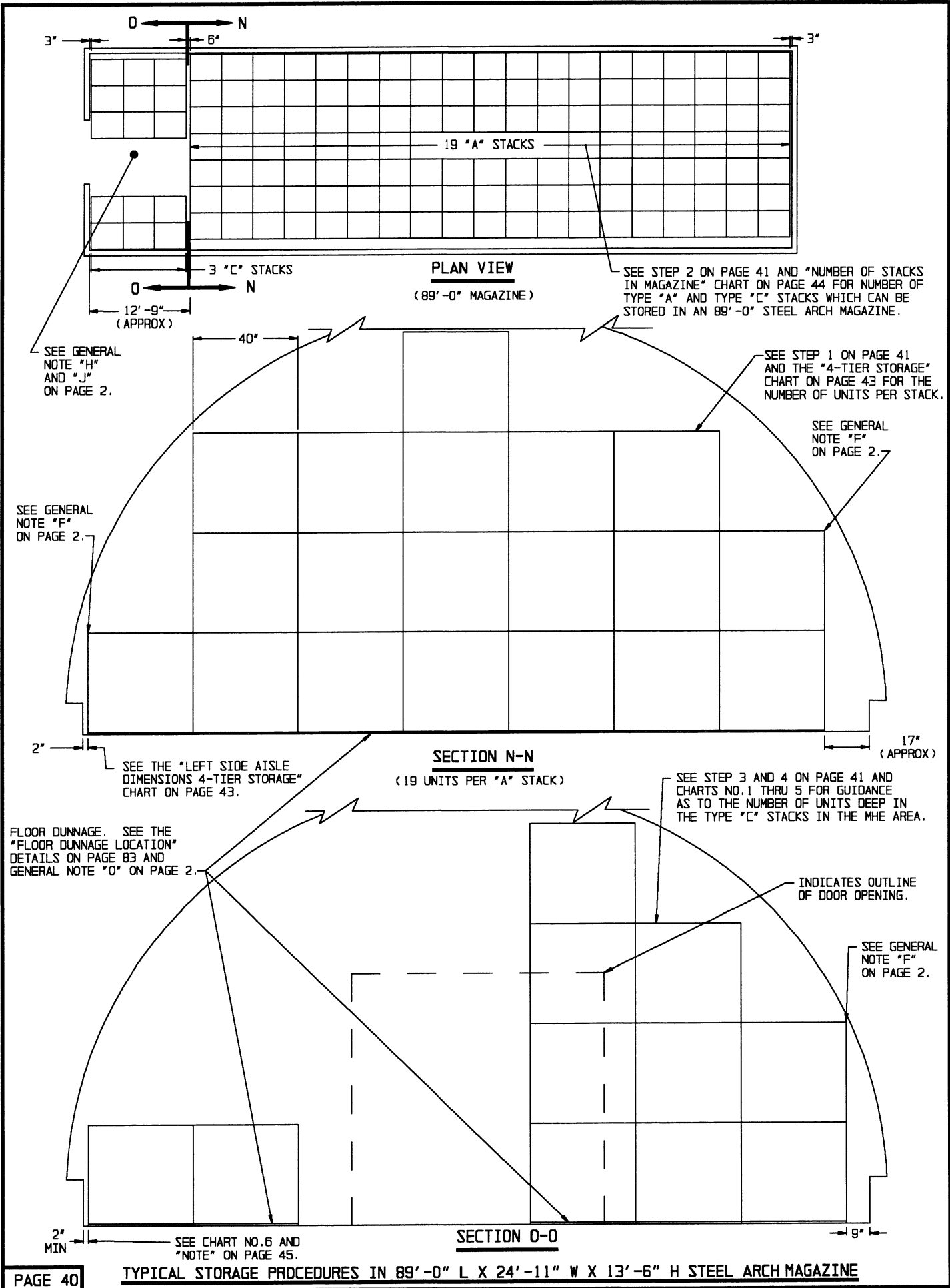
○ NOTE THAT THE "C" STACKS MAY BE MOVED CLOSER TO THE "A" STACKS TO ACHIEVE MAXIMUM STORAGE WHEN SPACE REMAINING PERMITS.

NUMBER OF STACKS IN OVAL ARCH MAGAZINE				
UNIT DIMENSION	89' L X 24'-10" W X 14'-4" H OVAL ARCH MAGAZINE			
LENGTHWISE IN	* "A" STACKS		○ "C" STACKS	
MAGAZINE	NO.	MHE AISLE	NO.	SPACE REMAIN
59"	15	15'-0"	2	59"
58"	15	16'-3"	3	18"
57"	16	12'-9"	2	36"
56"	16	14'-1"	2	54"
55"	16	15'-5"	3	17"
54"	17	12'-3"	2	36"
53"	17	13'-8"	2	58"
52"	17	15'-1"	3	22"
51"	18	12'-3"	2	42"
50"	18	13'-9"	3	12"
49"	19	11'-2"	2	33"
48"	19	12'-9"	3	6"
47"	19	14'-4"	3	28"
46"	20	12'-1"	2	50"
45"	20	13'-9"	3	27"
44"	21	11'-9"	3	6"
43"	21	13'-6"	3	30"
42"	22	11'-9"	3	12"
41"	22	13'-7"	3	37"
40"	23	12'-1"	3	22"
39"	24	10'-9"	3	9"
38"	24	12'-9"	3	36"
37"	25	11'-8"	3	26"
36"	26	10'-9"	3	18"
35"	26	12'-11"	4	12"

FRONT "C" STACK(S) CHART	
NUMBER OF TIERS	UNIT HEIGHT RANGE IN "C" STACK DIRECTLY IN FRONT OF DOOR OPENING.
2	38"-54"
3	29"-38"
4	26'-29"

STACK SIDE AISLE	
UNIT HEIGHT	MINIMUM SIDE AISLE
26"-54"	6"

NOTE:  
A LEFT SIDE AISLE GREATER THAN 6" MAY BE USED TO ACHIEVE A MAXIMUM STACKING PATTERN WITHIN THE "C" STACKS.

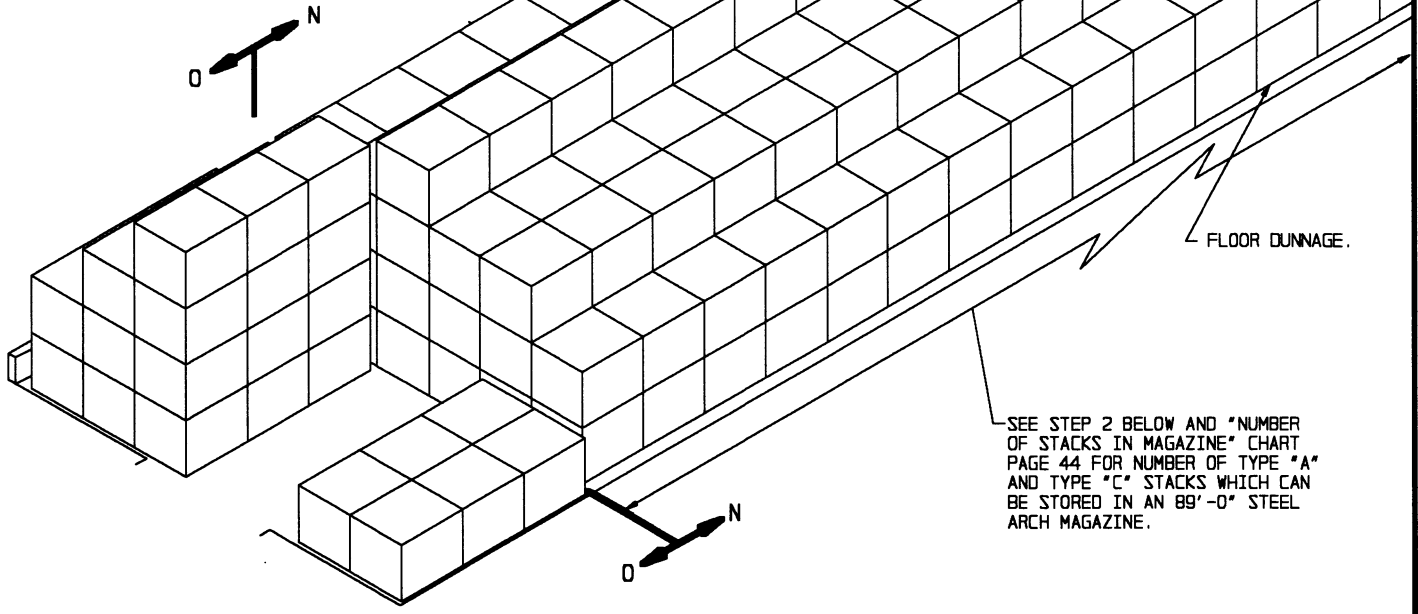




**STORAGE IN 89'-0" MAGAZINE**

(13'-6" HIGH)

ITEM	QUANTITY
PALLET UNIT - - - - -	451



**ISOMETRIC VIEW**  
(89'-0" MAGAZINE)

**SPECIAL NOTES:**

1. THE TYPICAL PALLET UNIT SHOWN HAS OVERALL DIMENSIONS OF 40" LONG BY 48" WIDE BY 38" HIGH. THE QUANTITY OF UNITS, THE NUMBER OF STACKS, ROWS, AND TIERS (LAYERS) WILL VARY, DEPENDENT UPON THE SIZE OF THE UNIT. PALLET UNITS WILL BE STACKED IN VERTICAL ALIGNMENT AS SHOWN BY THE STORAGE VIEW ABOVE AND ON PAGE 40. AS MANY UNITS AS POSSIBLE WILL BE STORED WITHIN THE MAGAZINE.
2. THE STACKING PATTERN SHOWN ABOVE AND ON PAGE 40 DEPICT THE PALLET UNIT LENGTH POSITIONED ACROSS THE MAGAZINE. IT MAY BE MORE ADVANTAGEOUS TO STACK THE UNITS WITH THE WIDTH ACROSS THE MAGAZINE.
3. REFER TO PAGES 76 AND 77 FOR GUIDANCE IN THE STORAGE OF MULTIPLE LOTS.
4. THE CHARTS ON PAGES 42 THROUGH 45 ARE PRESENTED AS GUIDANCE IN THE DEVELOPMENT OF A PATTERN FOR THE STORAGE OF PALLET UNITS OF AMMUNITION AND COMPONENTS IN ARCH TYPE MAGAZINES. NOTICE: THE CHARTS ARE FOR GUIDANCE PURPOSES ONLY. VARIATIONS IN PALLET UNIT OVERALL SIZES, THE COMPACTNESS OF PLACEMENT WITHIN A MAGAZINE, AS WELL AS VARIANCES IN THE INSIDE DIMENSIONS OF THE MAGAZINE CAN CAUSE DISCREPANCIES WITHIN THE CHARTS. THE PROCEDURES AT RIGHT ARE PRESENTED AS GUIDANCE IN USING THE DEPICTED CHARTS.

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

**STEP BY STEP PROCEDURES:**

**STEP 1**

FROM THE STORAGE CHARTS ON PAGE 43 SELECT THE NUMBER OF TIERS TO BE STORED, THE QUANTITY OF UNITS IN EACH TIER, AND THE LEFT SIDE AISLE DIMENSION. LOCATE IN THE LEFT HAND COLUMN, AND ACROSS THE TOP OF THE CHARTS THE EXACT UNIT HEIGHT AND LENGTH/WIDTH. (IN SOME CASES IT MAY BE NECESSARY TO USE THE NEXT HIGHER OR WIDER DIMENSION FOR FRACTIONAL HEIGHT OR WIDTH UNITS). USING THESE FIGURES PROJECT DOWN AND ACROSS BOTH CHARTS AS SHOWN BY THE DIRECTIONAL ARROWS, AND BY THE DOTTED LINE EXAMPLE IN THE "4-TIER STORAGE" CHART AND THE "LEFT SIDE AISLE DIMENSIONS, 4-TIER STORAGE" CHART ON PAGE 43. THE SAME PROCEDURES WILL BE USED FOR THE 2,3,5 AND 6-TIER STORAGE CHARTS.

**STEP 2 (NUMBER OF TYPE "A" AND TYPE "C" STACKS IN THE MAGAZINE).**

LOCATE IN THE LEFT HAND COLUMN OF "NUMBER OF STACKS IN MAGAZINE" CHART ON PAGE 44, THE UNIT LENGTH OR WIDTH, AS APPLICABLE FOR THE ORIENTATION OF THE UNITS BEING STORED. OPPOSITE THAT LENGTH OR WIDTH FIGURE IS SPECIFIED THE APPROXIMATE NUMBER OF TYPE "A" STACKS (FULL STACKS ACROSS THE WIDTH OF THE MAGAZINE), AS WELL AS THE NUMBER OF TYPE "C" STACKS (PARTIAL STACKS AT THE FRONT OF THE MAGAZINE) THAT CAN BE POSITIONED IN AN 89'-0" MAGAZINE.

**STEP 3 (NUMBER OF PALLETS DEEP IN TYPE "C" STACKS).**

LOCATE IN THE LEFT HAND COLUMN OF CHART NUMBER 1 ON PAGE 45 THE LINE WHICH CONTAINS THE LENGTH OR WIDTH OF THE UNIT, AS APPLICABLE, WHICH IS TO BE POSITIONED ACROSS THE WIDTH OF THE MAGAZINE. THE ADJACENT COLUMN SPECIFIES THE NUMBER OF PALLET UNITS THAT CAN BE STORED AT EACH SIDE OF THE MAGAZINE IN THE FIRST TIER, AS SHOWN BY THE DOTTED LINE EXAMPLE, AND BY "SECTION 0-0" ON PAGE 40. REFER TO CHART NO.6 ON PAGE 45 TO FIND THE MINIMUM SIDE AISLE DIMENSIONS FOR THE TYPE "C" STACKS.

**STEP 4**

REPEAT STEP 3 FOR CHARTS 2 THROUGH 5 AS APPLICABLE, TO DETERMINE THE NUMBER OF PALLETS DEEP WHICH CAN BE STACKED ON THE LEFT SIDE OF THE DOOR IN THE SECOND THROUGH FIFTH TIERS.

UNIT HT IN INCHES	2-TIER STORAGE (UNIT LENGTH OR WIDTH IN INCHES)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
54	6	6	6	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3
53	8	8	7	7	7	7	7	6	6	5	6	6	6	6	5	5	5	5	4	4	5	5	5	5	4

UNIT HT IN INCHES	2-TIER STORAGE (LEFT SIDE AISLE DIMENSIONS)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
54	3	3	3	3	3	3	3	3	3	36	3	3	3	3	3	3	3	40	38	38	3	3	3	3	3
53	3	3	3	3	3	3	3	3	3	36	3	3	3	3	3	3	3	40	38	38	3	3	3	3	3

UNIT HT IN INCHES	3-TIER STORAGE (UNIT LENGTH OR WIDTH IN INCHES)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
MAX	1	1	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1
52	6	6	6	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	3	3	3	3	3	3	3
51	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1
50	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
49	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
48	3	2	3	3	2	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
47	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2
46	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2
45	4	4	4	4	3	4	4	3	3	3	3	3	3	3	3	3	3	2	2	2	3	2	2	2	2
44	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3
43	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
42	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
41	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
40	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6

UNIT HT IN INCHES	3-TIER STORAGE (LEFT SIDE AISLE DIMENSIONS)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
52	2	2	2	2	2	2	2	2	2	2	35	32	30	2	2	2	2	2	15	12	10	7	5	2	2
51	2	2	2	2	28	2	2	2	2	2	2	35	32	30	28	18	15	2	2	2	12	10	7	5	2
50	2	2	2	2	27	27	2	2	2	2	12	9	6	2	2	2	2	2	2	2	2	2	2	2	2
49	2	2	2	2	10	7	2	9	6	3	2	9	6	2	2	2	2	2	2	39	37	35	33	31	29
48	24	2	9	9	10	7	2	2	2	2	2	9	6	2	2	2	2	2	2	39	36	34	32	30	28
47	7	3	6	3	2	2	2	2	2	2	2	32	30	28	2	2	2	2	2	2	36	34	32	30	28
46	2	2	2	2	2	2	2	2	2	2	2	32	30	28	25	23	2	2	2	2	36	34	32	30	28
45	2	2	2	2	2	27	25	19	2	2	2	32	30	28	25	23	23	2	2	2	9	34	32	30	28
44	25	2	2	2	2	27	25	21	18	2	2	30	28	25	23	23	9	9	6	6	6	6	6	6	2
43	24	21	18	2	2	26	24	21	18	13	2	2	30	27	24	22	20	18	6	5	2	6	2	2	2
42	24	21	18	2	2	26	24	21	18	16	8	2	6	27	24	22	20	18	2	2	2	6	2	2	2
41	24	21	15	10	2	26	24	21	18	16	6	3	6	3	24	22	20	18	15	2	2	2	2	2	2
40	24	21	15	14	6	26	24	21	18	16	6	2	2	2	24	22	20	18	15	2	2	2	2	2	14

UNIT HT IN INCHES	4-TIER STORAGE (UNIT LENGTH OR WIDTH IN INCHES)																												
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59				
MAX 39	1	1	1	1	1	1	1	1	1	0	0	1	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1		
38 →	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4			
37	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6			
36	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7			
35	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8			
34	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9			
33	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10			
32	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			

UNIT HT IN INCHES	4-TIER STORAGE (LEFT SIDE AISLE DIMENSIONS)																												
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59				
39	2	21	18	13	6	2	2	13	13	13	13	1	2	27	24	24	21	18	13	13	2	6	6	2	2				
38 →	6	3	12	12	2	2	24	21	18	15	12	7	2	12	12	24	18	15	12	12	2	2	12	12	12				
37	3	2	18	15	11	2	12	21	18	15	12	6	2	2	12	2	15	12	11	11	2	12	12	12	12				
36	2	21	16	12	10	6	2	10	18	15	12	2	2	2	10	10	2	2	40	38	36	34	30	27	24				
35	2	2	15	12	9	2	2	9	2	15	12	2	2	2	9	9	9	9	38	36	34	33	27	24	24				
34	2	8	8	12	9	2	8	8	8	2	34	32	30	21	21	18	9	8	14	14	8	34	32	30	30				
33	7	2	7	2	30	27	21	7	7	7	7	7	7	30	27	15	15	12	9	14	12	9	34	32	30				
32	7	2	7	7	7	27	25	16	12	15	12	11	7	27	26	12	9	7	12	9	7	30	30	30	30				

UNIT HT IN INCHES	5-TIER STORAGE (UNIT LENGTH OR WIDTH IN INCHES)																												
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59				
MAX 31	2	2	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1				
30	4	4	5	4	5	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4				
29	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6				
28	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7				
27	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8				

UNIT HT IN INCHES	5-TIER STORAGE (LEFT SIDE AISLE DIMENSIONS)																												
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59				
31	6	2	18	6	12	24	24	12	12	6	9	6	6	27	24	18	15	12	6	12	9	6	2	6	6				
30	5	2	9	8	8	6	24	21	15	15	12	9	6	2	6	21	21	6	5	5	5	5	5	5	5				
29	5	2	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5				
28	6	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4				
27	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	24	21	19	16	15	2	2	35	15	15				

UNIT HT IN INCHES	6-TIER STORAGE UNIT HT (UNIT LENGTH OR WIDTH IN INCHES)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
MAX	2	2	2	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1
26	4	4	4	4	4	3	3	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	6	6	6	5	5	5	5	4	5	5	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3
	6	6	6	6	6	6	5	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	8	8	7	7	7	7	7	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	4
	8	8	7	7	7	7	7	6	6	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	4

UNIT HT IN INCHES	6-TIER STORAGE UNIT HT (LEFT SIDE AISLE DIMENSIONS)																								
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
26	2	2	2	2	2	2	2	18	2	2	2	2	2	18	18	14	14	14	14	14	2	2	2	2	12

NUMBER OF STACKS IN MAGAZINE				
UNIT DIMENSION LENGTHWISE IN MAGAZINE	89'-0" X 24'-11" X 13'-6" STEEL-ARCH MAGAZINE			
	"A" STACKS		"C" STACKS	
	NO.	MHE AISLE	NO.	SPACE REMAIN
59"	15	15'-0"	2	59"
58"	15	16'-3"	3	18"
57"	16	12'-9"	2	36"
56"	16	14'-1"	2	54"
55"	16	15'-5"	3	17"
54"	17	12'-3"	2	36"
53"	17	13'-8"	2	58"
52"	17	15'-1"	3	22"
51"	18	12'-3"	2	42"
50"	18	13'-9"	3	12"
49"	19	11'-2"	2	33"
48"	19	12'-9"	3	6"
47"	19	14'-4"	3	28"
46"	20	12'-1"	2	50"
45"	20	13'-9"	3	27"
44"	21	11'-9"	3	6"
43"	21	13'-6"	3	30"
42"	22	11'-9"	3	12"
41"	22	13'-7"	3	37"
40"	23	12'-1"	3	22"
39"	24	10'-9"	3	9"
38"	24	12'-9"	3	36"
37"	25	11'-8"	3	26"
36"	26	10'-9"	3	18"
35"	26	12'-11"	4	12"

CHART NO. 1	
UNIT DIMENSION ACROSS MAGAZINE	NUMBER OF UNITS WIDE IN TYPE "C" STACKS
55-59	3 AND 1
46-55	3 AND 2
37-46	4 AND 2
35-37	5 AND 2
35	5 AND 3
NUMBER OF PALLETS DEEP IN FIRST TIER OF TYPE "C" STACKS	

CHART NO. 4			
UNIT HT IN INCHES	UNIT LENGTH OR WIDTH IN INCHES		
38-39			35-59
37-38			45-59
36-37			46-59
35-36		35-37	51-59
34-35		35-37	55-59
32-34		35-41	
31-32		35-46	
30-31		35-46	
28-30	35-36	36-46	
26-28	35-37	37-47	
UNIT HT	4	3	2
NUMBER OF PALLETS DEEP IN FOURTH TIER OF TYPE "C" STACKS			

CHART NO. 2				
UNIT HT IN INCHES	UNIT LENGTH OR WIDTH IN INCHES			
50-54		35-40	40-51	51-59
49-50		35-41	41-52	52-59
48-49		35-42	42-52	52-59
47-48		35-42	42-54	54-59
45-47		35-43	43-55	55-59
44-45		35-43	43-56	56-59
43-44		35-44	44-56	56-59
41-43		35-44	44-57	57-59
40-41	35	35-45	45-57	57-59
39-40	35	35-45	45-58	58-59
37-39	35	35-46	46-58	58-59
36-37	35-36	36-46	46-58	58-59
32-36	35-36	36-46	46-59	
26-32	35-37	37-46	46-59	
UNIT HT	5	4	3	2
NUMBER OF PALLETS DEEP IN SECOND TIER OF TYPE "C" STACKS				

CHART NO. 5			
UNIT HT IN INCHES	UNIT LENGTH OR WIDTH IN INCHES		
30-31			35-59
28-30		35-37	37-59
26-28	35-37	37-47	47-59
UNIT HT	3	2	1
NUMBER OF PALLETS DEEP IN FIFTH TIER OF TYPE "C" STACKS			

CHART NO. 3				
UNIT HT IN INCHES	UNIT LENGTH OR WIDTH IN INCHES			
50-51			35-37	37-51
49-50			35-46	46-59
48-49			35-47	47-59
47-48			35-56	56-59
46-47		35-37	37-59	
45-46		35-39	39-59	
44-45		35-43	43-59	
43-44		35-45	45-59	
41-43		35-46	46-59	
40-41	35	35-46	46-59	
39-40	35-36	36-46	46-59	
38-39	35-37	37-46	46-59	
37-38	35-38	38-48	48-59	
36-37	35-39	39-50	50-59	
35-36	35-40	40-51	51-59	
34-35	35-40	40-52	52-59	
32-34	35-41	41-52	52-59	
31-32	35-42	42-53	53-59	
30-31	35-37	37-54	54-59	
26-30	35-37	37-55	55-59	
UNIT HT	4	3	2	1
NUMBER OF PALLETS DEEP IN THIRD TIER OF TYPE "C" STACKS				

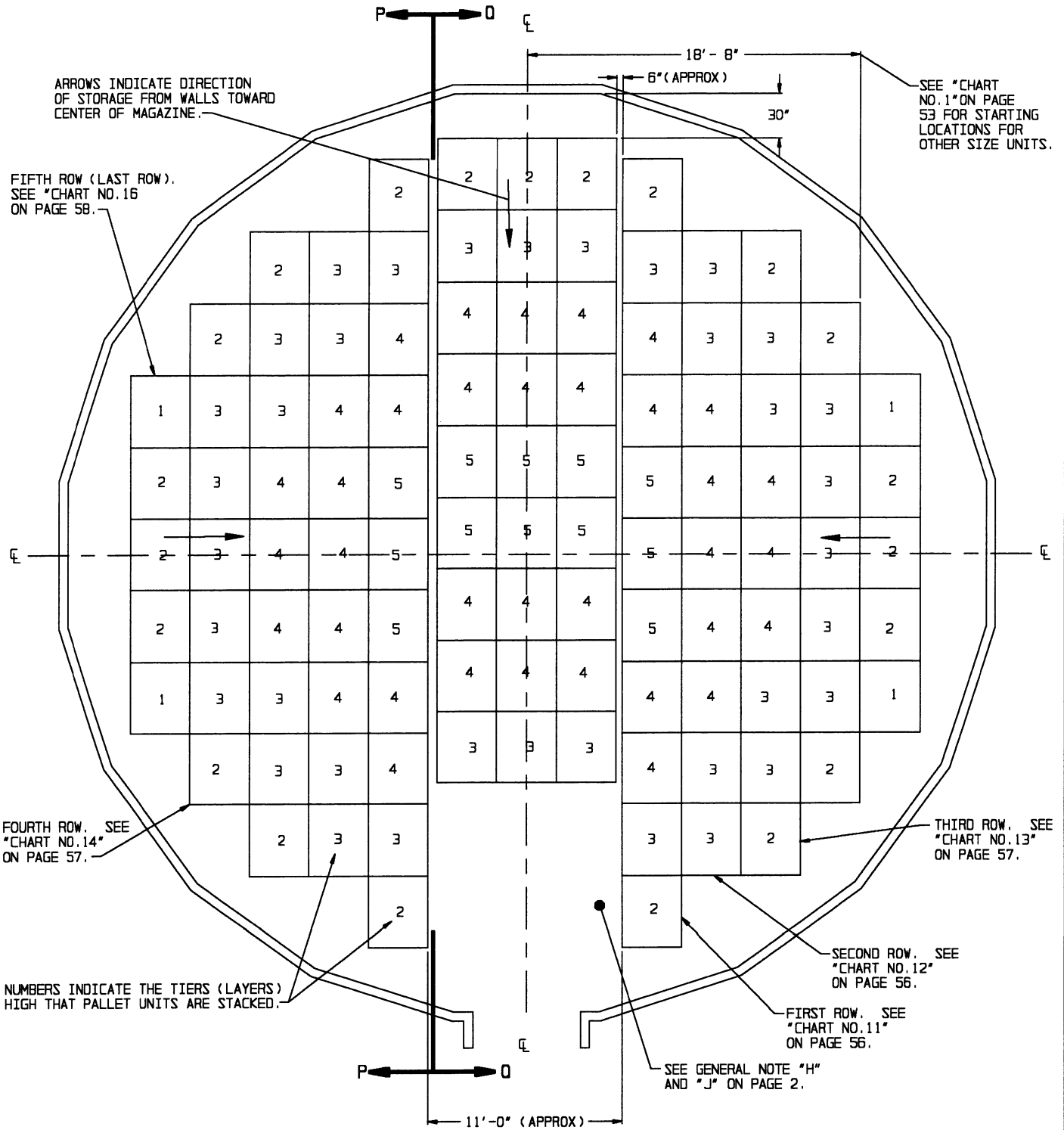
CHART NO. 6	
UNIT HEIGHT	MINIMUM SIDE AISLE
26"-54"	2"

NOTE:  
A LEFT SIDE AISLE GREATER THAN 2" MAY BE USED TO ACHIEVE A MAXIMUM STACKING PATTERN WITHIN THE "C" STACKS AS SHOWN IN THE "SECTION 0-0" VIEW ON PAGE 40.

**STORAGE IN 52'-0" DIA MAGAZINE**

ITEM \_\_\_\_\_ QUANTITY \_\_\_\_\_

PALLET UNIT - - - - - 358

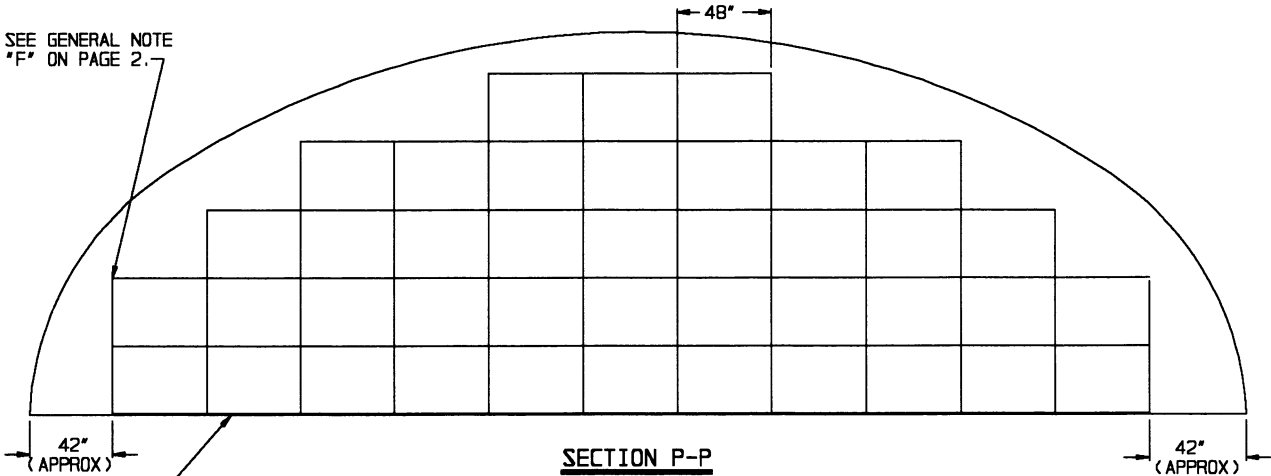


**PLAN VIEW**

(52' DIA MAGAZINE)

THE PALLET UNIT SHOWN IS 40" LONG BY 48" WIDE BY 34-1/2" HIGH. FIVE-ROW STORAGE AT EACH SIDE OF THE MHE AISLE IS APPLICABLE FOR ALL PALLET UNITS WHICH ARE FROM 39" TO 44" IN LENGTH. SEE "CHART NO. 1" ON PAGE 53 FOR GUIDANCE AS TO THE NUMBER OF ROWS THAT CAN BE POSITIONED ON EACH SIDE OF THE CORBETTA AND THE DISTANCE FROM THE CENTER LINE FOR PLACEMENT OF THE LAST ROW (THE FIRST ROW TO BE POSITIONED).

SEE GENERAL NOTE "F" ON PAGE 2.

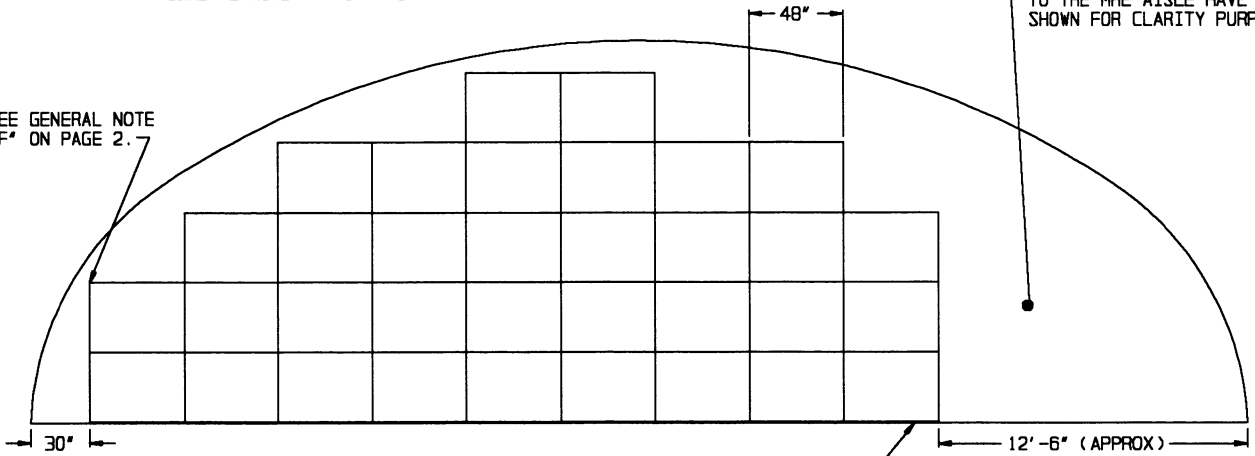


**SECTION P-P**

FLOOR DUNNAGE. SEE THE "FLOOR DUNNAGE LOCATION" DETAIL ON PAGE 83 AND GENERAL NOTE "O" ON PAGE 2.

PALLET UNITS IN ROWS ADJACENT TO THE MHE AISLE HAVE NOT BEEN SHOWN FOR CLARITY PURPOSES.

SEE GENERAL NOTE "F" ON PAGE 2.



**SECTION O-O**

FLOOR DUNNAGE.

**SPECIAL NOTES:**

**(SPECIAL NOTES CONTINUED)**

1. THE TYPICAL PALLET UNIT SHOWN HAS OVERALL DIMENSIONS OF 40" LONG BY 48" WIDE BY 34-1/2" HIGH. THE QUANTITY OF UNITS, THE NUMBER OF ROWS AND TIERS (LAYERS) WILL VARY, DEPENDENT UPON THE SIZE OF THE UNIT BEING STORED. SEE THE SPECIAL NOTES AND CHARTS ON PAGES 52 THRU 67 FOR GUIDANCE. AS MANY UNITS AS POSSIBLE WILL BE STORED WITHIN THE MAGAZINE.
2. PALLET UNITS WILL BE STACKED IN VERTICAL ALIGNMENT AS SHOWN. STORAGE WILL BE ACCOMPLISHED BY FORMING ROWS PARALLEL TO AND ON EITHER SIDE OF A MINIMUM WIDTH MHE AISLE. THE MINIMUM WIDTH MHE AISLE IS BASED ON THE DIMENSION OF THE PALLET UNIT WHICH IS POSITIONED PERPENDICULAR TO THE AISLE AND IS EQUAL TO 7'-7" PLUS THE LENGTH OR WIDTH OF THE PALLET UNIT, AS APPLICABLE, OR THE LENGTH OF THE FORKLIFT TINES (40"), WHICHEVER IS THE GREATEST.
3. AS SHOWN BY THE PARTIAL PLAN VIEWS ON PAGES 48 THRU 51, PALLET UNITS CAN BE STORED WITH EITHER THE PALLET LENGTH OR PALLET WIDTH PERPENDICULAR TO THE MHE AISLE. ONE PALLET POSITIONING MAY ALLOW THE STORAGE OF MORE UNITS THAN THE OTHER, AND THE BEST METHOD MAY BE DETERMINED BY CALCULATING QUANTITIES FROM THE VARIOUS CHARTS.
4. REFER TO PAGES 80 AND 81 FOR GUIDANCE IN THE STORAGE OF MULTIPLE LOTS.
5. IN SOME CASES, THE ACTUAL STORAGE QUANTITY FOR A TIER IN A ROW MAY BE ONE LESS UNIT THAN SPECIFIED BY A CHART. THE NUMBER OF UNITS SPECIFIED BY A CHART IS BASED ON THE MAXIMUM AVAILABLE WIDTH AT THAT LOCATION, WHEREAS THE ACTUAL QUANTITY IN A TIER OF A ROW MUST BE AN EVEN NUMBER IF THE PREVIOUSLY POSITIONED TIER AND/OR ROW CONTAINS AN EVEN NUMBER, OR MUST BE AN ODD NUMBER IF THE ALREADY-POSITIONED TIER AND/OR ROW HAS AN ODD NUMBER OF UNITS.
6. IF DESIRED, AND IF NOT IN VIOLATION OF SURVEILLANCE REQUIREMENTS/PROCEDURES, ONE (1) SURVEILLANCE "CONTROL UNIT" SAMPLE MAY BE WITHHELD FROM EACH STORED LOT. IF THE MAGAZINE CONTAINS ONLY ONE (1) LOT IT IS RECOMMENDED THAT THIS "CONTROL UNIT" BE PLACED JUST INSIDE THE DOOR WHERE IT IS EASILY ACCESSIBLE. IF THE MAGAZINE CONTAINS SEVERAL LOTS, THE "CONTROL UNIT" SAMPLES SHOULD BE PLACED ADJACENT TO THE MHE OPERATING AISLE FOR ACCESSIBILITY.

(CONTINUED AT RIGHT)

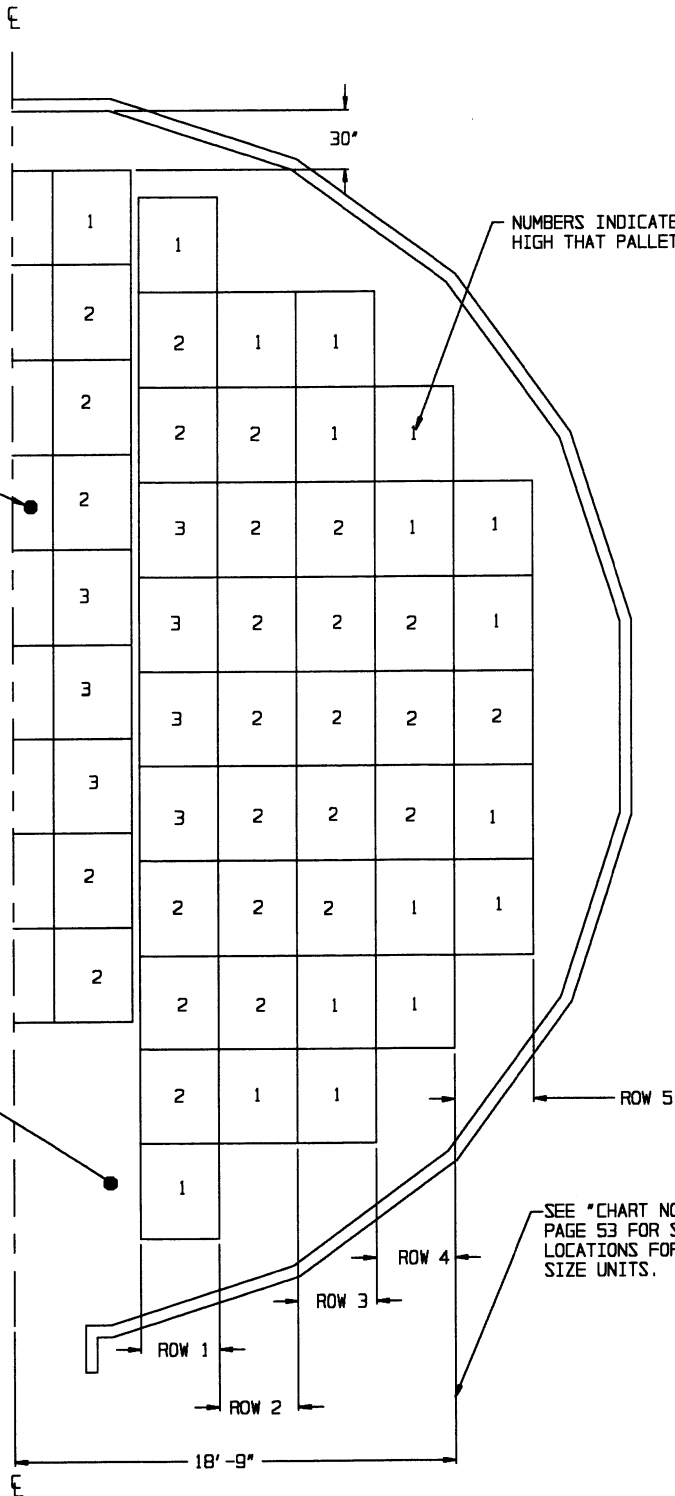
**FOR "GENERAL NOTES" AND "MATERIAL SPECIFICATIONS", SEE PAGE 2.**

SEE "CHART NO. 45" ON PAGE 67 FOR SIZE RANGE OF UNITS ACROSS THE WIDTH OF THE MHE AISLE. SEE "CHART NO. 46" ON THAT PAGE FOR GUIDANCE AS TO THE NUMBER OF TIERS (LAYERS) HIGH THAT UNITS CAN BE STACKED AND FOR THE NUMBER OF UNITS WHICH CAN BE STORED IN THE LENGTH OF THE MHE AISLE.

NUMBERS INDICATE THE TIERS (LAYERS) HIGH THAT PALLET UNITS ARE STACKED.

SEE GENERAL NOTE "H" ON PAGE 2.

SEE "CHART NO. 1" ON PAGE 53 FOR STARTING LOCATIONS FOR OTHER SIZE UNITS.



**PARTIAL PLAN VIEW**

(52' DIA MAGAZINE)

THE PALLET UNIT SHOWN IS 40" LONG BY 48" WIDE BY 52-3/4" HIGH. FIVE-ROW STORAGE AT EACH SIDE OF THE MHE AISLE IS APPLICABLE FOR ALL PALLET UNITS WHICH ARE FROM 39" TO 44" IN LENGTH.

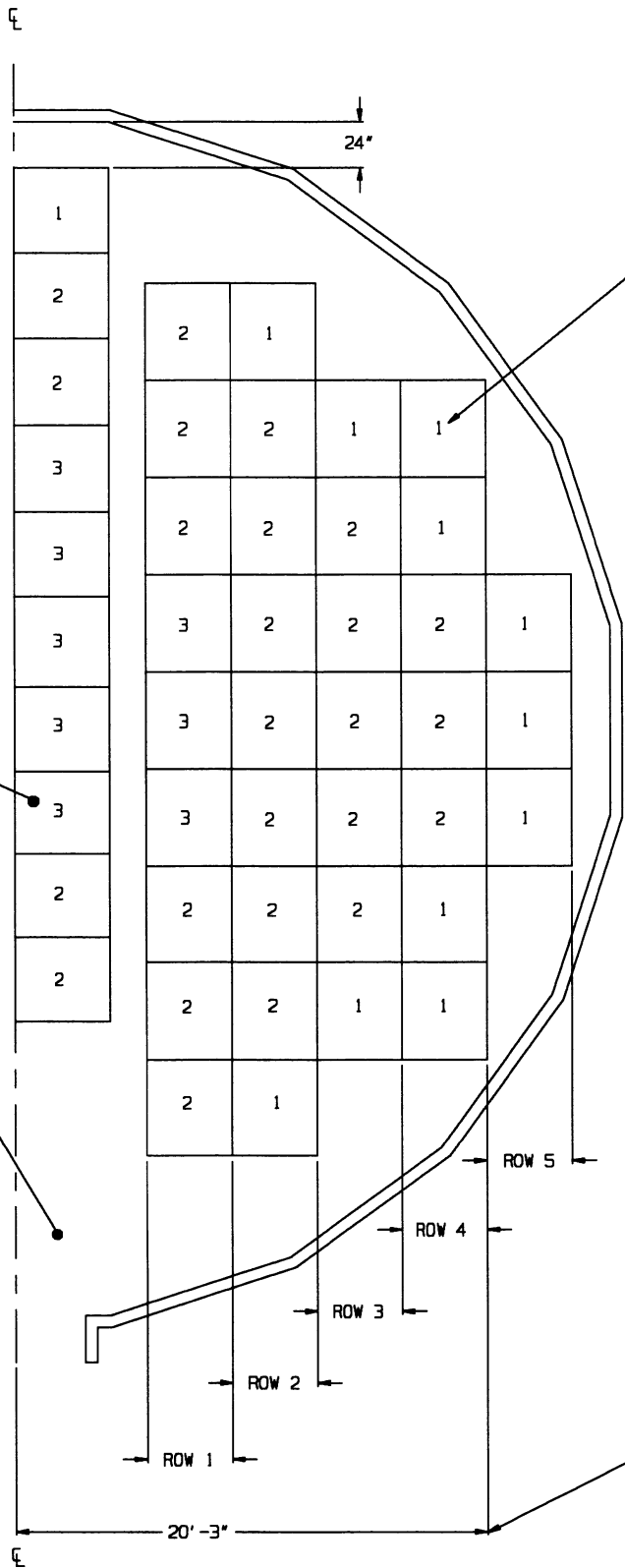


SEE "CHART NO. 45" ON PAGE 67 FOR SIZE RANGE OF UNITS ACROSS THE WIDTH OF THE MHE AISLE. SEE "CHART NO. 46 ON THAT PAGE FOR GUIDANCE AS TO THE NUMBER OF TIERS (LAYERS) HIGH THAT UNITS CAN BE STACKED AND FOR THE NUMBER OF UNITS WHICH CAN BE STORED IN THE LENGTH OF THE MHE AISLE.

SEE GENERAL NOTE "H" ON PAGE 2.

NUMBERS INDICATE THE TIERS (LAYERS) HIGH THAT PALLET UNITS ARE STACKED.

SEE "CHART NO. 1" ON PAGE 53 FOR STARTING LOCATION FOR OTHER SIZE UNITS.



**PARTIAL PLAN VIEW**

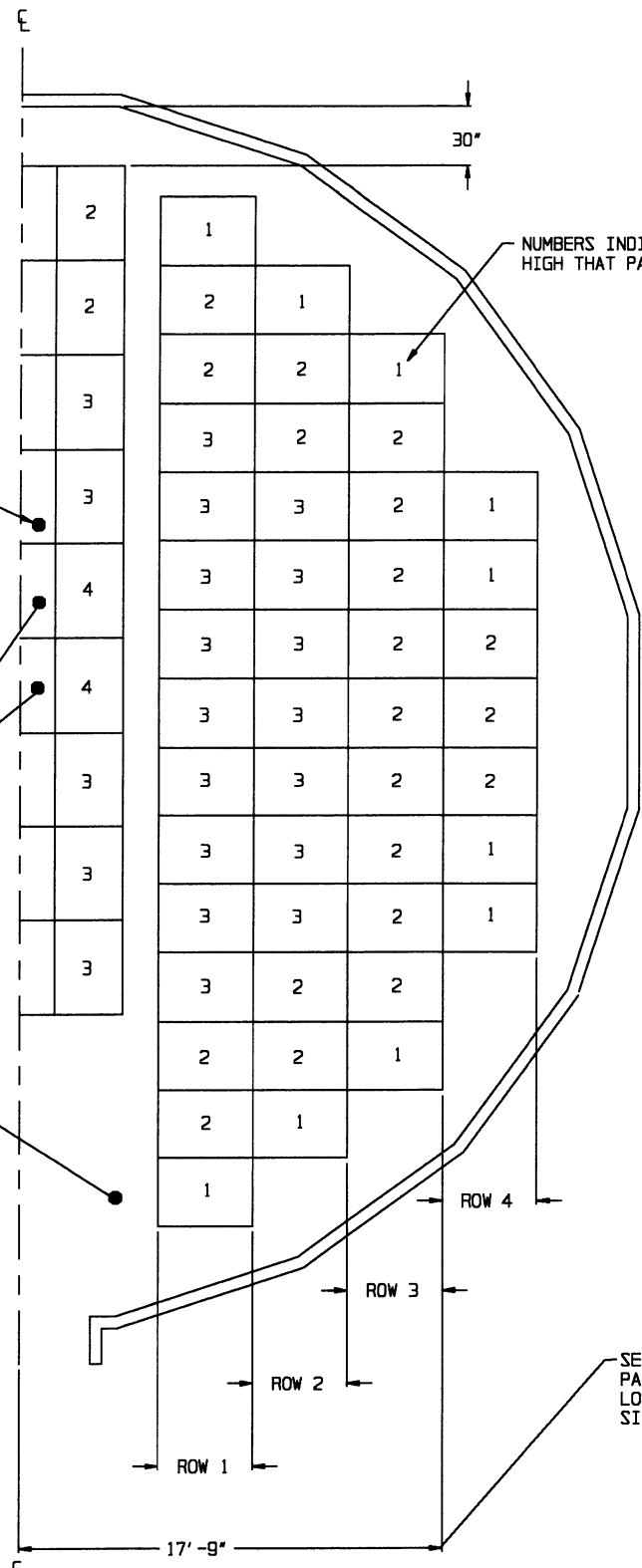
THE PALLET UNIT SHOWN IS 44" LONG BY 50" WIDE BY 52-1/2" HIGH. FIVE-RROW STORAGE AT EACH SIDE OF THE MHE AISLE IS APPLICABLE FOR ALL PALLET UNITS WHICH ARE FROM 39" TO 44" IN LENGTH.

SEE "CHART NO. 45" ON PAGE 67 FOR SIZE RANGE OF UNITS ACROSS THE WIDTH OF THE MHE AISLE. SEE "CHART NO. 46" ON THAT PAGE FOR GUIDANCE AS TO THE NUMBER OF TIERS (LAYERS) HIGH THAT UNITS CAN BE STACKED AND FOR THE NUMBER OF UNITS WHICH CAN BE STORED IN THE LENGTH OF THE MHE AISLE.

ALTHOUGH NOT INCLUDED IN CHART NO. 46, THIS UNIT CAN BE STACKED FOUR (4) HIGH AT THESE LOCATIONS.

SEE GENERAL NOTE "H" ON PAGE 2.

NUMBERS INDICATE THE TIERS (LAYERS) HIGH THAT PALLET UNITS ARE STACKED.



**PARTIAL PLAN VIEW**

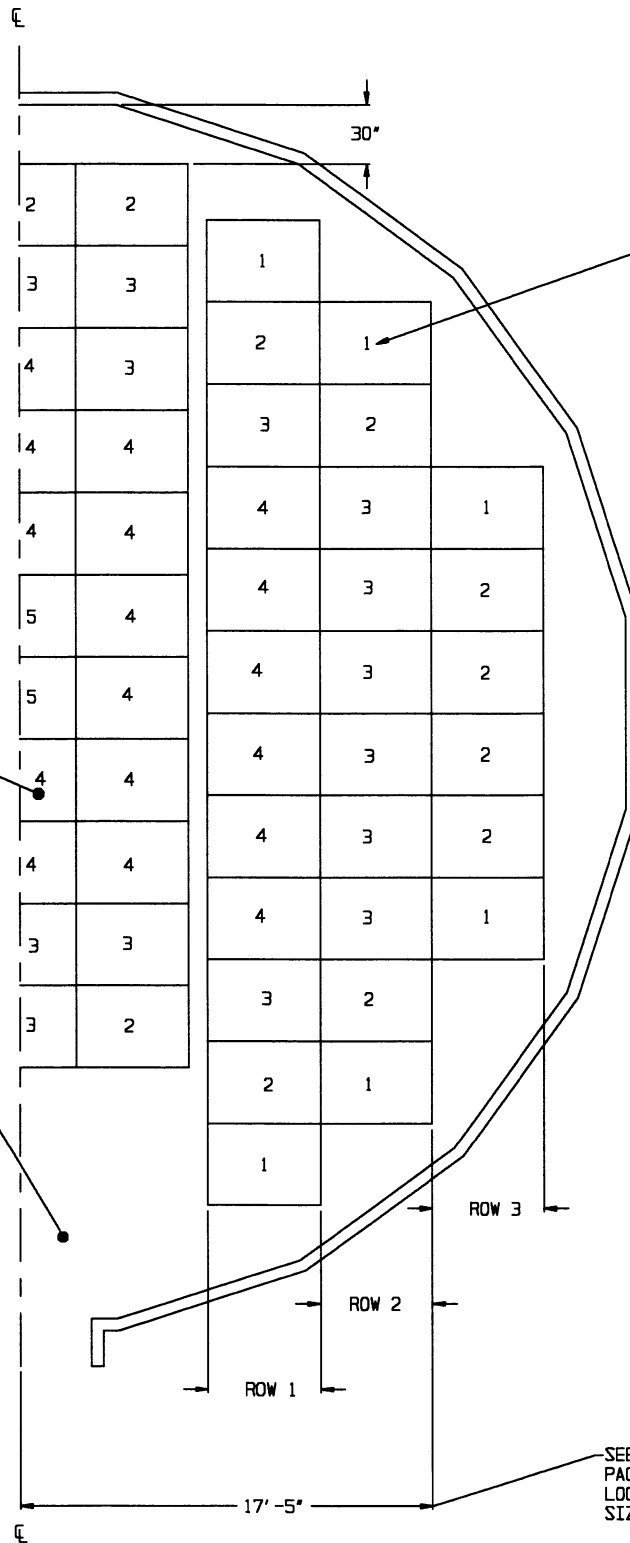
THE PALLET UNIT SHOWN IS 35" LONG BY 48" WIDE BY 42-1/2" HIGH. FOUR-ROW STORAGE AT EACH SIDE OF THE MHE AISLE IS APPLICABLE FOR ALL PALLET UNITS WHICH ARE OVER TO 45-1/2" IN WIDTH.

SEE "CHART NO. 1" ON PAGE 53 FOR STARTING LOCATIONS FOR OTHER SIZE UNITS.

SEE "CHART NO. 45" ON PAGE 67 FOR SIZE RANGE OF UNITS ACROSS THE WIDTH OF THE MHE AISLE. SEE "CHART NO. 46 ON THAT PAGE FOR GUIDANCE AS TO THE NUMBER OF TIERS (LAYERS) HIGH THAT UNITS CAN BE STACKED AND FOR THE NUMBER OF UNITS WHICH CAN BE STORED IN THE LENGTH OF THE MHE AISLE.

SEE GENERAL NOTE "H" ON PAGE 2.

NUMBERS INDICATE THE TIERS (LAYERS) HIGH THAT PALLET UNITS ARE STACKED.



**PARTIAL PLAN VIEW**

THE PALLET UNIT SHOWN IS 41-5/8" LONG BY 57" WIDE BY 36" HIGH. THREE-RW STORAGE AT EACH SIDE OF THE MHE AISLE IS APPLICABLE FOR ALL PALLET UNITS WHICH ARE FROM 55" TO 59" IN WIDTH.

SEE "CHART NO. 1" ON PAGE 53 FOR STARTING LOCATIONS FOR OTHER SIZE UNITS.

SPECIAL NOTES:

(SPECIAL NOTES CONTINUED)

1. THE CHARTS ON PAGES 53 THRU 67 ARE PRESENTED AS GUIDANCE IN THE DEVELOPMENT OF A PATTERN FOR THE STORAGE OF PALLET UNITS OF AMMUNITION AND COMPONENTS IN 52'-0" DIAMETER CORBETTA MAGAZINES. TO A CERTAIN EXTENT, THE CHARTS MAY ALSO BE USED IN CALCULATING THE QUANTITY OF UNITS WHICH CAN BE STORED. NOTICE: THE CHARTS ARE FOR GUIDANCE PURPOSES ONLY. VARIATIONS IN PALLET UNIT OVERALL SIZES, THE COMPACTNESS OF PLACEMENT WITHIN A MAGAZINE, AS WELL AS VARIANCES IN THE INSIDE DIMENSIONS OF THE CORBETTA MAGAZINE CAN CAUSE DISCREPANCIES WITHIN THE CHARTS.
2. THE STORAGE LAYOUTS DEPICTED FOR CORBETTA MAGAZINES ARE CALCULATED BY ASSUMING A MINIMUM WIDTH MHE AISLE EXTENDING FROM THE DOOR OPENING TO THE REAR OF THE MAGAZINE. THE ROW OF PALLET UNITS ADJACENT TO THE MHE AISLE, DESIGNATED HEREIN AS THE FIRST ROW, IS POSITIONED ON A LINE WHICH IS ONE-HALF OF THE WIDTH OF THE MINIMUM MHE AISLE FROM THE CENTER LINE OF THE MAGAZINE. THIS HALF OF THE MHE AISLE IS BASED ON THE DIMENSION OF THE UNIT WHICH IS PERPENDICULAR TO THE AISLE.
3. THE FOLLOWING STEP-BY-STEP PROCEDURES ARE PRESENTED AS GUIDANCE IN USING THE DEPICTED CHARTS. SEE THE "EXAMPLE" ON THIS PAGE.

STEP 1

DETERMINE THE STACKING PATTERN TO BE USED BY VIEWING THE EXAMPLES ON PAGES 46 THRU 51.

STEP 2

FROM CHART NO.1 ON PAGE 53, FIND THE NUMBER OF ROWS WHICH CAN BE STORED ON EACH SIDE OF THE MHE AISLE BASED ON THE DIMENSION OF THE UNIT WHICH IS TO BE PERPENDICULAR TO THE AISLE. ALSO FIND THE STARTING DISTANCE FROM THE CENTER LINE FOR THE PLACEMENT OF THE LAST ROW WHEN COUNTING FROM THE CENTER OF THE MAGAZINE (THE FIRST ROW TO BE POSITIONED WHEN STORING). ALSO INDICATED IN CHART NO.1 ARE THE REFERENCED CHART NUMBERS APPLICABLE FOR STORAGE OF THE PALLET UNITS AND THE PAGES ON WHICH THE CHARTS ARE LOCATED.

STEP 3

FROM THE APPLICABLE CHART FOR THE DIMENSION PERPENDICULAR TO THE MHE AISLE, AND FOR THE LAST ROW, BE IT THE THIRD, FOURTH, FIFTH, OR SIXTH, LOCATE THE "FIRST" TIER (LAYER) IN THE LEFT COLUMN FOR WHICH THE NUMBER OF UNITS WIDE IS TO BE DETERMINED. LOCATE THE HEIGHT OF THE UNIT IN THE SECOND COLUMN. ALONG THAT LINE LOCATE THE COLUMN WHICH CONTAINS THE LENGTH OR WIDTH OF THE PALLET UNIT, AS APPLICABLE. THE HEADING AT THE BOTTOM OF THAT COLUMN WILL INDICATE THE NUMBER OF PALLET UNITS WIDE FOR THAT TIER.

STEP 4

LOCATE THE "SECOND" TIER IN THE LEFT HAND COLUMN. LOCATE THE HEIGHT OF THE UNIT IN THE SECOND COLUMN. ALONG THAT LINE LOCATE THE COLUMN WHICH CONTAINS THE LENGTH OR WIDTH OF THE PALLET UNIT, AS APPLICABLE. THE HEADING AT THE BOTTOM OF THAT COLUMN WILL INDICATE THE NUMBER OF PALLET UNITS WIDE FOR THAT TIER.

STEP 5

REPEAT STEP 4 FOR THE THIRD AND SUBSEQUENT TIERS UNTIL THE HEIGHT OF THE PALLET UNIT BEING STORED DOES NOT APPEAR IN THE SECOND COLUMN.

STEP 6

REPEAT STEPS 3,4, AND 5 FOR EACH SUBSEQUENT ROW UP TO THE FIRST, WHICH IS NEXT TO THE MHE AISLE.

STEP 7

REFER TO CHART NO.45 ON PAGE 67 FOR GUIDANCE AS TO THE NUMBER OF ROWS WIDE WHICH CAN BE STORED IN THE MHE AISLE.

STEP 8

REFER TO CHART NO. 46 ON PAGE 67 FOR GUIDANCE AS TO THE NUMBER OF PALLET UNITS LONG IN THE MHE AISLE IN THE VARIOUS TIERS BASED ON THE HEIGHT AND THE LENGTH AND/OR WIDTH OF THE UNIT.

EXAMPLE

THE PALLET UNIT SHOWN IN THE "PARTIAL PLAN VIEW" ON PAGE 50 HAS BEEN SELECTED FOR THE EXAMPLE. THE UNIT IS 35" LONG BY 48" WIDE BY 42-1/2" HIGH. A STORAGE PATTERN CAN BE DETERMINED BY FOLLOWING THE DOTTED-LINE EXAMPLE WITHIN CHART NO.1 ON PAGE 53, CHART NO.21 THRU 23 ON PAGES 59 AND 60, CHART NO.26 ON PAGE 61, AND CHARTS NO.45 AND 46 ON PAGE 67 IN CONJUNCTION WITH USING THE STEP-BY-STEP PROCEDURES SPECIFIED AT LEFT.

TO START, LOCATE IN THE LEFT HAND COLUMN OF CHART NO.1 ON PAGE 53, THE FIGURE 48" WHICH IS THE DIMENSION OF THE PALLET UNIT WHICH IS POSITIONED PERPENDICULAR TO THE MHE AISLE. FOLLOWING THE ARROWS ALONG THE DOTTED LINE TO THE RIGHT INDICATES THAT FOUR ROWS CAN BE STORED ON EACH SIDE OF THE MHE AISLE. CONTINUING TO THE RIGHT THE NEXT COLUMN INDICATES THAT THE NEAR EDGE OF THE FOURTH AND LAST ROW (FIRST ROW TO BE POSITIONED) IS 17'-9" FROM THE CENTER LINE OF THE MAGAZINE THAT EXTENDS FROM THE DOOR OPENING TO THE REAR WALL. THE NEXT COLUMN TO THE RIGHT SPECIFIES THE USE OF CHART NOS.21-23 AND 26 FOR 48"WIDE UNITS. THE NEXT COLUMN INDICATES THESE CHARTS ARE ON PAGES 59 TO 61.

TO FIND THE NUMBER OF PALLET UNITS WHICH CAN BE STORED IN THE FOURTH ROW, TURN TO CHART NO. 26 ON PAGE 61. FIND THE "FIRST" TIER SQUARED IN WITH DOTTED LINES IN THE FIRST COLUMN. THE 42-1/2" HEIGHT IS WITHIN THE 26"-54" RANGE IN THE SECOND COLUMN. FOLLOW THE ARROW FURTHER TO THE RIGHT. THE 35" LENGTH IS WITHIN THE 35"-39" RANGE WHICH IS SQUARED IN. FOLLOW THE ARROWS DOWN TO THE NUMERAL IN THE HEADING AT THE BOTTOM OF THAT COLUMN WHICH SPECIFIES THAT 7 PALLET UNITS 35" LONG CAN BE POSITIONED ACROSS THE MAGAZINE IN THE FIRST TIER. NEXT FIND THE SQUARED-IN "SECOND" TIER IN THE FIRST COLUMN. FOLLOW THE ARROWS DOWN TO THE 42"-45" RANGE WHICH INCLUDES THE HEIGHT OF 42-1/2". FOLLOW THE ARROW ALONG THE DOTTED LINE TO THE RIGHT. THE 35" LENGTH IS WITHIN THE 35"-40" RANGE. FOLLOW THE ARROWS DOWN TO THE NUMERAL IN THE HEADING AT THE BOTTOM OF THAT COLUMN WHICH SPECIFIES THAT 4 UNITS 35" LONG CAN BE STORED IN THE SECOND TIER OF THE FOURTH ROW. THE 42-1/2" HEIGHT DIMENSION IS NOT INCLUDED UNDER THE THIRD-TIER LISTING, THEREFORE, THE FOURTH ROW IS LIMITED TO TWO TIERS.

REFER TO CHART NO.23 ON PAGE 60 AND FOLLOW THE SAME STEPS TO DETERMINE THE NUMBER OF PALLET UNITS IN THE THIRD ROW. REFER TO CHARTS NO. 22 AND 21 ON PAGE 59 FOR SECOND ROW AND FIRST ROW GUIDANCE.

AN MHE AISLE APPROXIMATELY 11'-6" WIDE REMAINS IN THE CENTER OF THE MAGAZINE. LOCATE THE SQUARED-IN 11'-6" - 11'-8" DIMENSION IN THE AISLE WIDTH COLUMN OF CHART NO.45 ON PAGE 67. FOLLOWING THE ARROWS TO THE RIGHT THE 35" LENGTH IS WITHIN THE 35"-42" RANGE. FOLLOW THE ARROWS DOWN TO THE HEADING AT THE BOTTOM OF THAT COLUMN WHICH INDICATES THE PALLET UNITS CAN BE STORED 3 WIDE IN THE MHE AISLE. CHART NO.46 ON PAGE 67 CAN BE USED IN ESTIMATING THE NUMBER OF PALLET UNITS LONG THAT CAN BE STORED IN THE MHE AISLE. FIND THE "FIRST" TIER SQUARED IN WITH DOTTED LINES IN THE FIRST COLUMN. THE 42-1/2" HEIGHT IS WITHIN THE 26"-54" RANGE IN THE SECOND COLUMN. FOLLOW THE ARROW FURTHER TO THE RIGHT. THE 48" WIDTH IS WITHIN THE 46"-50" RANGE WHICH IS SQUARED-IN. FOLLOW THE ARROWS DOWN TO THE NUMERAL IN THE HEADING AT THE BOTTOM OF THAT COLUMN WHICH SPECIFIES THAT 9 PALLET UNITS 48" WIDE CAN BE STORED IN THE FIRST TIER OF THE MHE AISLE IN EACH ROW. NEXT FIND THE SQUARED-IN "SECOND" TIER IN THE FIRST COLUMN. FOLLOW THE ARROW DOWN TO THE 42"-45" RANGE WHICH INCLUDES THE HEIGHT OF 42-1/2". FOLLOW THE ARROWS ALONG THE DOTTED LINE TO THE RIGHT. THE 48" WIDTH IS WITHIN THE 44"-49" RANGE WHICH IS SQUARED IN. FOLLOW THE ARROWS DOWN TO THE NUMERAL IN THE HEADING AT THE BOTTOM OF THAT COLUMN WHICH SPECIFIES THAT 9 PALLET UNITS 48" WIDE CAN ALSO BE STORED IN THE SECOND TIER OF EACH ROW. NEXT FIND THE SQUARED-IN "THIRD" TIER IN THE FIRST COLUMN. FOLLOW THE ARROW DOWN TO THE 42"-45" RANGE AND THEN TO THE RIGHT ALONG THE DOTTED LINE TO THE RIGHT. THE 48" WIDTH IS WITHIN THE 46"-52" RANGE WHICH IS SQUARED-IN. FOLLOW THE ARROWS DOWN TO THE NUMERAL IN THE HEADING AT THE BOTTOM OF THAT COLUMN WHICH SPECIFIES THAT 7 PALLET UNITS CAN BE STORED IN THE THIRD TIER OF EACH ROW. ALTHOUGH THE 42-1/2" HEIGHT IS NOT INCLUDED IN THE CHART OF THE FOURTH TIER BECAUSE UNITS AT 45" HIGH WILL NOT CLEAR THE CEILING, TWO PALLET UNITS CAN BE STORED IN EACH ROW.

(CONTINUED AT RIGHT)

CHART NO. 1					
UNIT DIM	WIDTH ALLOWED FOR ONE-HALF OF MHE AISLE	NO. OF ROWS EACH SIDE	DISTANCE FROM CENTER LINE TO LAST ROW	CHART NOS.	CHART PAGES
35"	65"	6	20'-0"	2-7	53-55
36"	65"	6	20'-5"	2-6,8	53-55
37"	65"	6	20'-10"	2-6,9	53-55
38"	65"	6	21'-3"	2-6,10	53-55
39"	65"	5	18'-5"	2-6	53-55
40"	65"	5	18'-9"	11-14, 16	56-58
41"	66"	5	19'-2"	11-14, 17	56-58
42"	66"	5	19'-6"	11-14, 18	56-58
43"	67"	5	19'-11"	11-14, 15, 19	56-58
44"	67"	5	20'-3"	11-13, 15, 20	56-58
45-1/2"	68"	4	17'-1"	21-24	59-60
46"	68"	4	17'-2"	21-23, 25	59-61
47"	69"	4	17'-6"	21-23, 25	59-61
48"	69"	4	17'-9"	21-23, 26	59-61
49"	70"	4	18'-1"	21-23, 27	59-61
50"	70"	4	18'-4"	21-23, 28	59-61
51"	71"	4	18'-8"	29-32	62-63
52"	71"	4	18'-11"	29-31, 33	62-63
53"	72"	4	19'-3"	29-31, 34	62-63
54"	72"	4	19'-6"	29-31, 35	62-63
55"	95"	3	17'-1"	36-37, 38	64-65
56"	95"	3	17'-3"	36-37, 39	64-65
57"	95"	3	17'-5"	36-37, 40	64-65
58"	95"	3	17'-7"	41-42, 43	-66
59"	95"	3	17'-9"	41-42, 44	-66

CHART NO. 2											
TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET WIDTH									
FIRST	26"-54"	45.5'-46"	46'-50"	50'-50.5"							
	26"-30"	45.5'-46"	46'-50"	50'-51.5"							
SECOND	30"-36"		45.5'-47"	47'-51.5"							
	36"-39"		45.5'-46"	46'-51.5"							
	39"-42"		45.5'		50'-51.5"						
	42"-45"			45.5'-49"	49'-51.5"						
	45"-48"			45.5'-47"	47'-51.5"						
	48"-51"			45.5'-46"	46'-51.5"						
	51"-54"				45.5'-50.5"	50.5'-51.5"					
	26"-27"		45.5'-46.5"	46.5'-50"	50'-51.5"						
	27"-30"			45.5'-49"	49'-51.5"						
	30"-33"			45.5'-47"	47'-51.5"						
THIRD	33"-36"			45.5'-50"	50'-51.5"						
	36"-39"			45.5'-48"	48'-51.5"						
	39"-42"				45.5'-50"	50'-51.5"					
	42"-45"				45.5'-46"	46'-51.5"					
	45"-48"				45.5'-47"	47'-51.5"	47'-51.5"				
	48"-51"					45.5'-46"	46'-51.5"				
	51"-54"						45.5'-46"	46'-51.5"			
	26"-27"				45.5'-50"	50'-51.5"					
	27"-30"				45.5'-47"	47'-51.5"					
	30"-33"					45.5'-48"	48'-51.5"	47'-51.5"			
FOURTH	33"-36"					45.5'-47"	47'-51.5"				
	36"-39"						45.5'-46"	46'-51.5"			
	39"-42"							45.5'-51"	51'-51.5"		
	42"-45"							45.5'-46"	46'-51.5"	45.5'-51.5"	
FIFTH	45"-48"										
	48"-51"										
	51"-54"										
	26"-27"					45.5'-46"	46'-51.5"				
27"-30"							45.5'-46"	46'-51.5"			
30"-33"									45.5'-48"	48'-51.5"	
TIER	UNIT HEIGHT	12	11	10	9	8	7	6	5	4	3
NUMBER OF UNITS WIDE IN FIRST ROW FOR UNITS 35"-39" LONG											

CHART NO. 3

TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET WIDTH											
		11	10	9	8	7	6	5	4	3	2		
FIRST SECOND	26"-54"	45.5"-46"	46"-51"	51"-51.5"									
	26"-30"	45.5"-46"	46"-51"	51"-51.5"									
	30"-36"		45.5"-48"	48"-51.5"									
	36"-39"		45.5"-47"	47"-51.5"									
	39"-42"			45.5"-50"	50"-51.5"								
	42"-45"			45.5"-48"	48"-51.5"								
	45"-51"			45.5"-47"	47"-51.5"								
	51"-54"				45.5"-49"	49"-51.5"							
	THIRD	26"-27"		45.5"-47"	47"-51.5"								
		27"-30"			45.5"-49"	49"-51.5"							
30"-33"				45.5"-47"	47"-51.5"								
33"-36"					45.5"-49"	49"-51.5"							
36"-39"					45.5"	45.5"-51.5"							
39"-42"						45.5"-47"	47"-51.5"	47"-51.5"					
42"-45"							47"-51.5"	47"-51.5"					
45"-48"									45.5"-51.5"				
48"-51"										45.5"-48"	48"-51.5"		
FOURTH		26"-27"				45.5"-49"	49"-51.5"						
	27"-30"					45.5"-51.5"							
	30"-33"						45.5"-51"	51"-51.5"					
	33"-36"							45.5"-46"	46"-51.5"				
FIFTH	26"-27"										45.5"-51.5"		
	27"-30"												
TIER	UNIT HEIGHT	11	10	9	8	7	6	5	4	3	2		
NUMBER OF UNITS WIDE IN SECOND ROW FOR UNITS 35"-39" LONG													

CHART NO. 4

TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET WIDTH									
		9	8	7	6	5	4	3			
FIRST SECOND	26"-54"	45.5"-49"	49"-51.5"								
	26"-30"	45.5"-49"	49"-51.5"								
	30"-33"	45.4"-48"	48"-51.5"								
	33"-36"	45.5"-46"	46"-51.5"								
	36"-39"		45.5"-50"	50"-51.5"							
	39"-42"		45.5"-49"	49"-51.5"							
	42"-45"		45.5"-46"	46"-51.5"							
	45"-48"			45.5"-51"	51"-51.5"						
	48"-51"			45.5"-48"	48"-51.5"						
	51"-54"			45.5"-46"	46"-51.5"						
THIRD	26"-27"		45.5"-49"	49"-51.5"							
	27"-30"		45.5"-46"	46"-51.5"							
	30"-33"			45.5"-49"	49"-51.5"						
	33"-36"			45.5"-46"	46"-51.5"						
	36"-39"				45.5"-46"	46"-51.5"					
	39"-42"					46"-51.5"	47"-51.5"				
FOURTH	42"-45"									45.5"-51.5"	
	26"-27"			45.5"-46"	46"-51.5"						
	27"-30"					45.5"-51.5"					
FIFTH	30"-33"						45.5"-49"			49"-51.5"	
	26"-27"									45.5"-51.5"	
TIER	UNIT HEIGHT	9	8	7	6	5	4	3			
NUMBER OF UNITS WIDE IN THIRD ROW FOR UNITS 35"-39" LONG											

CHART NO. 5							
TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET WIDTH					
FIRST	26"-54"	45.5"	45.5"-51.5"				
SECOND	26"-30"	45.5"	45.5"-51.5"				
	30"-33"		45.5"-49"	49"-51.5"			
	33"-39"		45.5"-48"	48"-51.5"			
	39"-42"			45.5"-49"	49"-51.5"		
	42"-45"			45.5"-47"	47"-51.5"		
	45"-48"				45.5"-51"		
	48"-51"				45.5"	51"-51.5"	
THIRD	51"-54"					45.5"-51.5"	51"-51.5"
	26"-27"						
	27"-30"					45.5"-47"	47"-51.5"
TIER	UNIT HEIGHT	8	7	6	5	4	3
		NUMBER OF UNITS WIDE IN FOURTH ROW FOR UNITS 35"-39" LONG					

CHART NO. 6					
TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET WIDTH			
FIRST	26"-54"	45.5"-47"	47"-51.5"		
SECOND	26"-30"	45.5"-47"	47"-51.5"		
	30"-33"		45.5"-50"	50"-51.5"	
	33"-36"		45.5"-48"	48"-51.5"	
	36"-39"			45.5"-50"	50"-51.5"
	39"-42"				45.5"-51.5"
TIER	UNIT HEIGHT	5	4	3	2
		NUMBER OF UNITS WIDE IN FIFTH ROW FOR UNITS 35"-39" LONG			

CHART NO. 9			
TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET WIDTH	
FIRST	26"-54"	45.5"-51"	51"-51.5"
SECOND	26"-30"	45.5"-51"	51"-51.5"
	30"-33"		45.5"-51.5"
TIER	UNIT HEIGHT	3	2
		NUMBER OF UNITS WIDE IN SIXTH ROW FOR UNITS 37" LONG	

CHART NO. 7					
TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET WIDTH			
FIRST	26"-54"	45.5"-51.5"			
SECOND	26"-30"	45.5"-51.5"			
	30"-33"	45.5"-46"	46"-51.5"		
	33"-36"		45.5"-51.5"		
	36"-39"		45.5"-50"	50"-51.5"	
	39"-42"			45.5"-51.5"	
THIRD	42"-45"				45.5"-49"
	26"-27"				
	27"-30"				45.5"-49"
TIER	UNIT HEIGHT	4	3	2	1
		NUMBER OF UNITS WIDE IN SIXTH ROW FOR UNITS 35" LONG.			

CHART NO. 8				
TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET WIDTH		
FIRST	26"-54"	45.5"-51.5"		
SECOND	26"-33"	45.5"-51.5"		
	33"-36"	45.5"-49"	49"-51.5"	
	36"-39"			45.5"-51.5"
TIER	UNIT HEIGHT	3	2	1
		NUMBER OF UNITS WIDE IN SIXTH ROW FOR UNITS 36" LONG		

CHART NO. 10			
TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET WIDTH	
FIRST	26"-54"	45.5"-51.5"	
SECOND	26"-30"	45.5"-51.5"	
	30"-33"		45.5"-48"
TIER	UNIT HEIGHT	2	1
		NUMBER OF UNITS WIDE IN SIXTH ROW FOR UNITS 38" LONG	

CHART NO. 11

TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET WIDTH								
FIRST	26"-54"	48"-49"	49"-54"	54"-59"						
SECOND	26"-30"	48"-49"	49"-54"	54"-59"						
	30"-33"	48"	48"-52"	52"-58"	58"-59"					
	33"-36"	48"	48"-51"	51"-56"	56"-59"					
	36"-39"		48"	48"-55"	55"-59"					
	39"-42"			48"-54"	54"-59"					
	42"-45"			48"-53"	53"-59"					
	45"-48"			48"-52"	52"-58"	58"-59"				
THIRD	48"-54"			48"-51"	51"-57"	57"-59"				
	26"-27"	48"-49"		49"-54"	54"-59"					
	27"-30"			48"-53"	53"-59"					
	30"-33"			48"-52"	50"-58"	58"-59"				
	33"-36"			48"-51"	48"-57"	57"-59"				
	36"-39"			48"-56"	48"-56"	56"-57"	57"-59"			
	39"-42"					48"-56"	56"-59"			
	42"-45"					48"-54"	54"-59"			
	45"-48"						48"-55"	55"-59"		
	48"-51"						48"-56"	48"-56"	56"-59"	
	51"-54"								48"-59"	
FOURTH	26"-27"		48"-51"	51"-57"	57"-59"					
	27"-30"			48"-52"	52"-59"					
	30"-33"			48"	48"					
	33"-36"				48"-55"			55"-59"		
	36"-39"							48"-55"		
FIFTH	26"-27"					48"-54"	48"-59"			
	27"-30"								54"-59"	
	30"-33"								48"-52"	54"-59"
SIXTH	26"-27"								48"-59"	52"-59"
TIER	UNIT HEIGHT	11	10	9	8	7	6	5	4	3
NUMBER OF UNITS WIDE IN FIRST ROW FOR UNITS 40"-44" LONG										

CHART NO. 12

TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET WIDTH								
FIRST	26"-54"	48"-51"	51"-56"	56"-59"						
SECOND	26"-30"	48"-51"	51"-56"	56"-59"						
	30"-33"		48"-52"	52"-58"	58"-59"					
	33"-36"		48"-51"	51"-57"	57"-59"					
	36"-39"		48"-50"	50"-56"	56"-59"					
	39"-42"		48"	48"-54"	54"-59"					
	42"-45"			48"-52"	52"-59"					
	45"-48"			48"-51"	51"-58"	58"-59"				
	48"-51"			48"-50"	50"-57"	57"-59"				
THIRD	51"-54"			48"-49"	49"-56"	56"-59"				
	26"-27"	48"-49"		49"-55"	55"-59"					
	27"-30"			48"-52"	52"-59"					
	30"-33"			48"-51"	51"-58"	58"-59"				
	33"-36"			48"-49"	49"-56"	56"-59"				
	36"-39"				48"-49"	48"-51"				
	39"-42"					48"-54"	54"-59"			
	42"-45"					51"-57"	51"-59"			
	45"-48"					48"	48"	48"-59"		
FOURTH	26"-27"		48"-49"	49"-56"	56"-59"					
	27"-30"				48"-54"					
	30"-33"				48"-52"			52"-59"		
	33"-36"							48"		
FIFTH	26"-27"							48"-57"	48"-59"	
	27"-30"								54"-59"	48"-54"
TIER	UNIT HEIGHT	10	9	8	7	6	5	4	3	2
NUMBER OF UNITS WIDE IN SECOND ROW FOR UNITS 40"-44" LONG										



CHART NO. 13										
TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET WIDTH								
FIRST SECOND	26"-54"	48"	48"-52"	52"-59"						
	26"-30"		48"-52"	52"-59"						
	30"-33"		48"-49"	49"-56"						
	33"-36"		48"	48"-54"	54"-59"					
	36"-39"			48"-53"	53"-59"					
	39"-42"			48"-50"	50"-58"	58"-59"				
	42"-45"			48"-49"	49"-57"	57"-59"				
	45"-48"				48"-52"	52"-59"				
	48"-51"				48"-51"	51"-59"				
	51"-54"					48"-54"	54"-59"			
	THIRD		26"-27"		48"-52"	52"-59"				
27"-30"			48"-49"	49"-57"	57"-59"					
30"-33"				48"-52"	52"-59"					
33"-36"					48"-54"	54"-59"				
36"-39"					48"	48"-59"				
39"-42"							48"-59"			
42"-45"								48"-59"		
FOURTH	26"-27"				48"-54"	54"-59"				
	27"-30"					48"-59"				
	30"-33"						48"-54"	54"-59"		
FIFTH	26"-27"							48"-54"	54"-59"	
TIER	UNIT HEIGHT	9	8	7	6	5	4	3	2	1
NUMBER OF UNITS WIDE IN THIRD ROW FOR UNITS 40"-44" LONG										

CHART NO. 14								
TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET WIDTH						
FIRST SECOND	26"-54"	48"-50"	50"-58"	58"-59"				
	26"-30"		50"-58"	58"-59"				
	30"-33"		48"	48"-56"	56"-59"			
	33"-36"			48"-54"	54"-59"			
	36"-42"			48"-52"	52"-59"			
	42"-45"				48"-56"	56"-59"		
	45"-48"				48"-52"	52"-59"		
	48"-51"					48"-59"		
	51"-54"						48"-59"	
	THIRD		26"-27"		48"-50"	50"-59"		
			27"-30"			48"-56"	56"-59"	
30"-33"				48"	48"-59"			
33"-36"					48"-59"			
FOURTH	26"-27"				48"-59"			
TIER	UNIT HEIGHT	7	6	5	4	3		
NUMBER OF UNITS WIDE IN FOURTH ROW FOR UNITS 40" TO 42" LONG								

CHART NO. 15								
TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET WIDTH						
FIRST SECOND	26"-54"	48"-50"	50"-58"	58"-59"				
	26"-30"		50"-58"	58"-59"				
	30"-33"		48"-53"	53"-59"				
	33"-36"		48"-52"	52"-59"				
	36"-39"		48"	48"-57"	57"-59"			
	39"-42"			48"-54"	54"-59"			
	42"-48"			48"	48"-59"			
	48"-51"				48"-59"			
	51"-54"					48"-59"		
	THIRD		26"-30"		48"	48"-59"	48"	48"-59"
			30"-33"			48"-59"		
33"-36"					48"	48"-59"		
FOURTH	26"-27"				48"	48"-59"		
TIER	UNIT HEIGHT	7	6	5	4	3	2	
NUMBER OF UNITS WIDE IN FOURTH ROW FOR UNITS 42"-44" LONG								

CHART NO. 16						
TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET WIDTH				
FIRST SECOND	26"-54" 26"-30" 30"-33" 33"-36" 36"-39" 39"-42" 42"-45" 45"-54"	48"-51" 48"-51" 48"-49"	51"-59" 51"-59" 49"-59" 48"-54" 48"-51"	54"-59" 51"-59" 48"-54"	54"-59" 48"-56"	56"-59" 48"-54"
THIRD	26"-27" 27"-30"			48"-51"	51"-59" 48"-56"	56"-59"
TIER	UNIT HEIGHT	5	4	3	2	1
NUMBER OF UNITS WIDE IN FIFTH ROW FOR UNITS 40" LONG						

CHART NO. 17					
TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET WIDTH			
FIRST SECOND	26"-54" 26"-30" 30"-33" 33"-36" 36"-39" 39"-42" 42"-45" 26"-30"	48"-54" 48"-54" 48"-53" 48"-51"	54"-59" 54"-59" 53"-59" 51"-59" 48"-50"	50"-59" 48"-59"	48"-59" 48"-59"
THIRD					
TIER	UNIT HEIGHT	4	3	2	1
NUMBER OF UNITS WIDE IN FIFTH ROW FOR UNITS 41" LONG.					

CHART NO. 18				
TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET WIDTH		
FIRST SECOND	26"-54" 26"-30" 30"-33" 33"-36"	48"-59" 48"-59"	48"-59"	48"-59"
TIER	UNIT HEIGHT	3	2	1
NUMBER OF UNITS WIDE IN FIFTH ROW FOR UNITS 42" LONG				

CHART NO. 19			
TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET WIDTH	
FIRST SECOND	26"-54" 26"-30" 30"-33" 33"-36"	48"-59" 48"-59" 48"-52"	52"-59" 48"-59"
TIER	UNIT HEIGHT	3	2
NUMBER OF UNITS WIDE IN FIFTH ROW FOR UNITS 43" LONG			

CHART NO. 20				
TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET WIDTH		
FIRST SECOND	26"-54" 26"-27" 27"-30"	48" 48"	48"-59" 48"-59"	48"-59"
TIER	UNIT HEIGHT	3	2	1
NUMBER OF UNITS WIDE IN FIFTH ROW FOR UNITS 44" LONG				

CHART NO. 21

TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET LENGTH													
		15	14	13	12	11	10	9	8	7	6	5	4	3	
FIRST SECOND	26"-54"	35"-36"	36"-38"	38"-41"	41"-44"										
	26"-30"	35"-36"	36"-38"	38"-41"	41"-44"										
THIRD	30"-33"		35"-36"	36"-39"	39"-42"	42"-44"									
	33"-36"		35"-36"	36"-38"	38"-42"	42"-44"									
	36"-39"			35"-38"	38"-41"	41"-44"									
	39"-42"			35"-37"	37"-40"	40"-43"	43"-44"								
	42"-45"			35"-36"	36"-39"	39"-42"	42"-44"								
	45"-48"				35"-38"	38"-41"	41"-44"								
	48"-51"				35"-36"	36"-40"	40"-44"								
	51"-54"				35"	35"-39"	39"-43"	43"-44"							
	26"-30"		35"-36"	36"-39"	39"-42"	42"-44"		43"-44"							
	30"-33"			35"-37"	37"-40"	40"-44"									
FOURTH	33"-36"			35"	35"-39"	39"-43"	43"-44"								
	36"-39"				35"-36"	36"-39"	39"-44"								
	39"-42"					35"	35"-38"	38"-43"	43"-44"						
	42"-45"						35"-37"	37"-42"	42"-44"						
	45"-48"							35"	35"-40"	40"-44"	35"	35"-42"	42"-44"	40"-44"	
	48"-51"												35"-40"	40"-44"	
	51"-54"														
	26"-27"				35"	35"-39"	39"-43"	43"-44"							
	27"-30"					35"-36"	36"-39"	39"-44"							
	30"-33"						35"	35"-38"	38"-43"	43"-44"					
FIFTH	33"-36"								38"-43"	43"-44"					
	36"-39"								35"	35"-40"	40"-44"				
	39"-42"											35"-37"	37"-44"		
42"-45"															
45"-48"															
48"-51"															
51"-54"															
26"-27"								35"-36"	36"-41"	41"-44"					
27"-30"											35"-39"	39"-44"			
TIER	UNIT HEIGHT	15	14	13	12	11	10	9	8	7	6	5	4	3	
NUMBER OF UNITS WIDE IN FIRST ROW FOR UNITS 45-1/2"-50" WIDE															

CHART NO. 22

TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET LENGTH												
		13	12	11	10	9	8	7	6	5	4	3		
FIRST SECOND	26"-54"	35"	35"-38"	38"-41"	41"-44"									
	26"-30"	35"	35"-38"	38"-41"	41"-44"									
THIRD	30"-33"		35"-37"	37"-40"	40"-44"									
	33"-36"		35"-36"	36"-39"	39"-43"	43"-44"								
	36"-39"		35"	35"-38"	38"-42"	42"-44"								
	39"-42"			35"-37"	37"-41"	41"-44"								
	42"-45"			35"-36"	36"-39"	41"-44"								
	45"-48"				35"-38"	38"-42"	42"-44"							
	48"-51"				35"-36"	36"-41"	41"-44"							
	51"-54"				35"	35"-39"	39"-44"							
	26"-27"		35"-38"	38"-41"	41"-44"									
	27"-30"		35"-36"	36"-40"	40"-44"									
FOURTH	30"-33"			35"-37"	37"-42"	42"-44"								
	33"-36"			35"	35"-39"	39"-44"								
	36"-39"				35"	35"-39"	39"-44"							
	39"-42"						42"-44"							
	42"-45"						39"-44"							
	45"-48"						35"	35"-40"	40"-44"	36"-43"	43"-44"	35"	35"-44"	
	48"-51"													
	51"-54"													
	24"-27"				35"	35"-39"	39"-44"							
	26"-30"						37"-43"							
FIFTH	30"-33"								43"-44"	39"-44"				
	33"-36"								35"-39"	39"-44"				
	26"-27"								35"	35"-42"	42"-44"	35"	35"-44"	
TIER	UNIT HEIGHT	13	12	11	10	9	8	7	6	5	4	3		
NUMBER OF UNITS WIDE IN SECOND ROW FOR UNITS 45-1/2"-50" WIDE														

CHART NO. 23

TIER		UNIT SIZE RANGE FOR PALLET LENGTH							
FIRST	26"-54"	35"-36"	36"-39"	39"-44"					
SECOND	26"-30"	35"-36"	36"-39"	39"-44"					
	30"-33"		35"-38"	38"-42"	42"-44"				
	33"-36"		35"-36"	36"-40"	40"-44"				
	36"-39"		35"	35"-39"	39"-44"				
	39"-42"			35"-38"	38"-42"	42"-44"			
	42"-45"			35"-36"	36"-40"	40"-44"			
	45"-48"				35"-38"	38"-44"			
	48"-51"				35"	35"-40"	40"-44"		
	51"-54"					35"-37"	40"-44"		
THIRD	26"-27"		35"	35"-40"	40"-44"				
	27"-30"			35"-36"	36"-40"	40"-44"			
	30"-33"				35"-36"	36"-42"	42"-44"		
	33"-36"					35"-37"	37"-44"		
	36"-39"						35"	35"-42"	42"-44"
FOURTH	26"-27"					35"-37"	37"-44"		
	27"-30"							35"-38"	38"-44"
TIER	UNIT HEIGHT	11	10	9	8	7	6	5	4
NUMBER OF UNITS WIDE IN THIRD ROW FOR UNITS 45-1/2"-50" WIDE									

CHART NO. 24

TIER		UNIT SIZE RANGE FOR PALLET LENGTH							
FIRST	26"-54"	35"-36"	36"-41"	41"-44"					
SECOND	26"-30"	35"-36"	36"-41"	41"-44"					
	30"-33"		35"-37"	37"-43"	43"-44"				
	33"-36"		35"-36"	36"-42"	42"-44"				
	36"-39"			35"-36"	36"-43"	43"-44"			
	39"-42"				35"-40"	40"-44"			
	42"-45"				35"-36"	36"-43"	43"-44"		
	45"-48"					35"-36"	36"-44"		
	48"-51"						35"-36"	36"-44"	
	51"-54"							36"-44"	35"-44"
THIRD	26"-27"				35"-40"	40"-44"			
	27"-30"				35"-36"	36"-43"	43"-44"		
	30"-33"					35"-36"	36"-44"		
	33"-36"								35"-44"
FOURTH	26"-27"								35"-44"
TIER	UNIT HEIGHT	9	8	7	6	5	4	3	2
NUMBER OF UNITS WIDE IN FOURTH ROW FOR UNITS 45-1/2" WIDE									

CHART NO. 25									
TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET LENGTH							
FIRST SECOND	26"-54"	35"	35"-40" 35"-40" 35"	40"-44" 40"-44" 35"-38" 35"-37"	38"-44" 37"-44" 35"-38" 35"-36"	38"-44" 36"-43" 35"-36"	43"-44" 36"-44" 35"-36"	36"-44"	35"-44"
	26"-30"								
	30"-33"								
	33"-36"								
	36"-39"								
	39"-42"								
	42"-45"								
	45"-48"								
	48"-51"								
	51"-54"								
THIRD	26"-27"	35"-38"	38"-44" 35"-36"	36"-44"	36"-44"	36"-40"	40"-44"		
	27"-30"								
	30"-33"								
	33"-36"								
TIER	UNIT HEIGHT	9	8	7	6	5	4	3	2
NUMBER OF UNITS WIDE IN FOURTH ROW FOR UNITS 46" TO 47" WIDE									

CHART NO. 26								
TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET LENGTH						
FIRST SECOND	26"-54"	35"-39" 35"-39" 35"-37"	39"-44" 39"-44" 37"-44" 35"-40" 35"-36"	40"-44" 36"-44" 35"-40"	40"-44" 35"-40"	40"-44" 35"-39"	39"-44"	
	26"-30"							
	30"-33"							
	33"-36"							
	36"-39"							
	39"-42"							
	42"-45"							
	45"-48"							
	48"-51"							
	51"-54"							
THIRD	26"-27"	35"-36"	36"-43"	43"-44" 35"-40"	40"-44" 35"-39"	39"-44"		
	27"-30"							
	30"-33"							
	33"-36"							
TIER	UNIT HEIGHT	7	6	5	4	3	2	
NUMBER OF UNITS WIDE IN FOURTH ROW FOR UNITS 48" WIDE								

CHART NO. 27								
TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET LENGTH						
FIRST SECOND	26"-54"	35"-36" 35"-36"	36"-42" 36"-42" 35"-39" 35"-37"	42"-44" 42"-44" 39"-44" 37"-44" 35"-39"	39"-44" 35"-42" 35"-36"	42"-44" 36"-44"	35"	35"-44"
	26"-30"							
	30"-33"							
	33"-36"							
	36"-39"							
	39"-42"							
	42"-45"							
	45"-48"							
	48"-51"							
	51"-54"							
THIRD	26"-27"	35"-42" 35"-36"	42"-44" 36"-44"	35"-44"	36"-44"	35"-44"		
	27"-30"							
	30"-33"							
	33"-36"							
TIER	UNIT HEIGHT	7	6	5	4	3	2	1
NUMBER OF UNITS WIDE IN FOURTH ROW FOR UNITS 49" WIDE								

CHART NO. 28						
TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET LENGTH				
FIRST SECOND	26"-54"	35"-38" 35"-38" 35"-37"	38"-44" 38"-44" 37"-44" 35"-40"	40"-44" 35"-43" 35"-36"	43"-44" 36"-44"	35"-44"
	26"-30"					
	30"-33"					
	33"-36"					
	36"-39"					
	39"-42"					
	42"-45"					
	45"-48"					
	48"-51"					
	51"-54"					
THIRD	26"-27"	35"-36"	36"-44"	36"-44"	35"-44"	
	27"-30"					
	30"-33"					
	33"-36"					
TIER	UNIT HEIGHT	6	5	4	3	2
NUMBER OF UNITS WIDE IN FOURTH ROW FOR UNITS 50" WIDE						

CHART NO. 29

TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET LENGTH													
		15	14	13	12	11	10	9	8	7	6	5	4	3	
FIRST	26"-54"	35"	35"-38"	38"-40"	40"-44"										
SECOND	26"-30"	35"	35"-38"	38"-40"	40"-44"										
	30"-33"		35"	35"-38"	38"-41"	41"-44"									
	33"-36"		35"	35"-38"	38"-41"	41"-44"									
	36"-39"			35"-37"	37"-40"	40"-44"									
	39"-42"			35"-36"	36"-39"	39"-42"	42"-44"								
	42"-45"			35"	35"-38"	38"-42"	42"-44"								
	45"-48"				35"-37"	37"-40"	40"-44"								
	48"-51"				35"	35"-39"	39"-43"	43"-44"							
	51"-54"					35"-37"	37"-41"	41"-44"							
THIRD	26"-27"			35"-36"	36"-39"	39"-43"	43"-44"								
	27"-30"			35"	35"-38"	38"-42"	42"-44"								
	30"-33"				35"-36"	36"-40"	40"-44"								
	33"-36"					35"-37"	37"-41"	41"-44"							
	36"-39"					35"	35"-38"	38"-43"	43"-44"						
	39"-42"						35"	35"-39"	39"-44"						
	42"-45"							35"	35"-39"	39"-44"					
	45"-48"								35"-36"	36"-43"	43"-44"	38"-44"			
	48"-51"														
FOURTH	26"-27"				35"	35"-38"	38"-42"	42"-44"							
	27"-30"					35"	35"-38"	38"-43"	43"-44"						
	30"-33"						35"-37"	37"-41"	41"-44"						
	33"-36"							35"-38"	38"-44"						
	36"-39"														
FIFTH	26"-27"							35"-36"	36"-40"	40"-44"					
	27"-30"														
TIER	UNIT HEIGHT	15	14	13	12	11	10	9	8	7	6	5	4	3	
NUMBER OF UNITS WIDE IN FIRST ROW FOR UNITS 51"-54" WIDE															

CHART NO. 30

TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET LENGTH													
		12	11	10	9	8	7	6	5	4					
FIRST	26"-54"	35"-36"	36"-40"	40"-44"											
SECOND	26"-30"	35"-36"	36"-40"	40"-44"											
	30"-33"	35"	35"-39"	39"-43"	43"-44"										
	33"-36"	35"	35"-38"	38"-42"	42"-44"										
	36"-39"		35"-37"	37"-41"	41"-44"										
	39"-42"		35"-36"	36"-39"	39"-44"										
	42"-45"			35"-38"	38"-42"	42"-44"									
	45"-48"			35"-36"	36"-40"	40"-44"									
	48"-51"				35"-37"	37"-42"	42"-44"								
	51"-54"				35"-37"	37"-41"	41"-44"								
THIRD	26"-27"		35"-37"	37"-40"	40"-44"										
	27"-30"			35"-38"	38"-42"	42"-44"									
	30"-33"			35"	35"-39"	39"-44"									
	33"-36"				35"-37"	37"-41"	41"-44"								
	36"-39"					35"-37"	37"-42"	42"-44"							
	39"-42"						35"	35"-41"	41"-44"						
	42"-45"														
FOURTH	26"-27"					35"-37"	37"-41"	41"-44"							
	27"-30"														
	30"-33"														
FIFTH	26"-27"														
TIER	UNIT HEIGHT	12	11	10	9	8	7	6	5	4					
NUMBER OF UNITS WIDE IN SECOND ROW FOR UNITS 51"-54" WIDE															

CHART NO. 31																						
TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET LENGTH																				
FIRST SECOND	26"-54"	35"-37"	37"-42"	42"-44"	42"-44"	42"-44"	42"-44"	42"-44"														
	26"-30"								35"-37"	37"-42"	42"-44"	42"-44"	42"-44"	42"-44"								
THIRD	30"-33"	35"-37"	37"-42"	42"-44"	42"-44"	42"-44"	42"-44"	42"-44"														
	33"-36"								35"-38"	38"-44"	39"-44"	39"-44"	39"-44"									
	36"-39"								35"-37"	37"-42"	35"-39"	36"-42"	35"-39"	35"-39"								
	39"-42"								35"-37"	37"-43"	43"-44"	40"-44"	38"-44"	35"-41"	41"-44"							
	42"-45"															35"-36"	35"-40"	35"-40"	35"-39"	35"	35"-44"	
	45"-48"															35"-37"	37"-43"	43"-44"	40"-44"	38"-44"	35"-41"	35"-44"
	48"-51"															35"-37"	37"-43"	43"-44"	40"-44"	38"-44"	35"-41"	35"-44"
	51"-54"															35"-37"	37"-43"	43"-44"	40"-44"	38"-44"	35"-41"	35"-44"
	26"-27"															35"-37"	37"-43"	43"-44"	40"-44"	38"-44"	35"-41"	35"-44"
	27"-30"															35"-37"	37"-43"	43"-44"	40"-44"	38"-44"	35"-41"	35"-44"
30"-33"	35"-37"	37"-43"	43"-44"	40"-44"	38"-44"	35"-41"	35"-44"															
33"-36"	35"-37"	37"-43"	43"-44"	40"-44"	38"-44"	35"-41"	35"-44"															
36"-39"	35"-37"	37"-43"	43"-44"	40"-44"	38"-44"	35"-41"	35"-44"															
FOURTH	26"-27"	35"-37"	37"-43"	43"-44"	40"-44"	38"-44"	35"-41"	35"-44"														
TIER	UNIT HEIGHT	9	8	7	6	5	4	3														
NUMBER OF UNITS WIDE IN THIRD ROW FOR UNITS 51"-54" WIDE																						

CHART NO. 32									
TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET LENGTH							
FIRST SECOND	26"-54"	35"	35"-42"	42"-44"	42"-44"	42"-44"			
	26"-30"						35"-42"	42"-44"	42"-44"
THIRD	30"-33"	35"	35"-39"	39"-44"	35"-44"	35"			
	33"-36"						35"	35"-44"	35"-44"
	36"-39"						35"	35"-44"	35"-44"
	39"-42"						35"	35"-44"	35"-44"
	26"-27"						35"	35"-44"	35"-44"
	26"-27"						35"	35"-44"	35"-44"
TIER	UNIT HEIGHT	6	5	4	3	2			
NUMBER OF UNITS WIDE IN FOURTH ROW FOR UNITS 51" WIDE									

CHART NO. 33									
TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET LENGTH							
FIRST SECOND	26"-54"	35"-38"	38"-44"	38"-44"	39"-44"	39"-44"			
	26"-30"						35"-38"	38"-44"	38"-44"
THIRD	30"-33"	35"-38"	38"-44"	38"-44"	39"-44"	39"-44"			
	33"-36"						35"-39"	35"-44"	35"-44"
	36"-39"						35"-38"	35"-36"	36"-44"
	36"-39"						35"-38"	35"-36"	36"-44"
TIER	UNIT HEIGHT	5	4	3	2	1			
NUMBER OF UNITS WIDE IN FOURTH ROW FOR UNITS 52" WIDE									

CHART NO. 34							
TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET LENGTH					
FIRST SECOND	26"-54"	35"-42"	42"-44"	42"-44"	42"-44"		
	26"-30"					35"-42"	42"-44"
THIRD	30"-33"	35"-42"	42"-44"	42"-44"	42"-44"		
	33"-36"					40"-44"	36"-44"
	36"-39"					35"-36"	36"-44"
TIER	UNIT HEIGHT	4	3	2	1		
NUMBER OF UNITS WIDE IN FOURTH ROW FOR UNITS 53" WIDE							

CHART NO. 35					
TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET LENGTH			
FIRST SECOND	26"-54"	35"-37"	37"-44"	37"-44"	37"-44"
	26"-30"				
THIRD	30"-33"	35"-37"	37"-44"	37"-44"	37"-44"
	33"-36"				
TIER	UNIT HEIGHT	4	3	2	1
NUMBER OF UNITS WIDE IN FOURTH ROW FOR UNITS 54" WIDE					

CHART NO. 36

TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET LENGTH									
		12	11	10	9	8	7	6	5	4	
FIRST SECOND	26"-54"	40"-42"	42"-44"								
	26"-30"	40"-42"	42"-44"								
	30"-33"	40"-41"	41"-44"								
	33"-36"	40"	40"-44"								
	36"-39"	40"	40"-44"								
THIRD	39"-42"		40"-42"	42"-44"							
	42"-45"		40"-42"	42"-44"							
	45"-48"		40"-41"	41"-44"							
	48"-51"		40"	40"-43"	43"-44"						
	51"-54"			40"-42"	42"-44"						
FOURTH	26"-27"		40"-43"	43"-44"							
	27"-30"		40"-42"	42"-44"							
	30"-33"		40"	40"-44"							
	33"-36"			40"-42"	42"-44"						
	36"-39"				40"-42"	42"-44"					
FIFTH	39"-42"										
	42"-45"										
	45"-48"										
	48"-51"										
	51"-54"										
TIER	UNIT HEIGHT	12	11	10	9	8	7	6	5	4	
NUMBER OF UNITS WIDE IN FIRST ROW FOR UNITS 55"-57" WIDE											

CHART NO. 37

TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET LENGTH								
		10	9	8	7	6	5	4	3	
FIRST SECOND	26"-54"	40"-41"	41"-44"							
	26"-30"	40"-41"	41"-44"							
	30"-33"	40"	40"-44"							
	33"-36"	40"	40"-44"							
	36"-39"		40"-44"							
THIRD	39"-42"		40"-41"	41"-44"						
	42"-45"		40"	40"-44"						
	45"-48"			40"-43"	43"-44"					
	48"-51"			40"-41"	41"-44"					
	51"-54"			40"-43"	43"-44"	43"-44"				
FOURTH	26"-27"		40"	40"-44"						
	27"-30"			40"-43"	43"-44"					
	30"-33"				40"-44"					
	33"-36"				40"-44"					
	36"-39"					40"-44"				
FIFTH	39"-42"									
	42"-45"									
	45"-48"									
	48"-51"									
	51"-54"									
TIER	UNIT HEIGHT	10	9	8	7	6	5	4	3	
NUMBER OF UNITS WIDE IN SECOND ROW FOR UNITS 55"-57" WIDE										



CHART NO. 38						
TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET LENGTH				
FIRST SECOND	26"-54"	40"-44"				
	26"-27"	40"-44"				
THIRD	27"-30"	40"-44"				
	30"-36"	40"-41"	41"-44"			
	36"-39"	40"	40"-44"			
	39"-42"		40"-44"			
	42"-45"			40"-44"		
	45"-48"			40"-43"	43"-44"	
	48"-51"				40"	40"-44"
	26"-27"		40"-44"			
	27"-30"			40"-44"		
	30"-33"				40"-44"	
TIER	UNIT HEIGHT	6	5	4	3	2
NUMBER OF UNITS WIDE IN THIRD ROW FOR UNITS 55" WIDE						

CHART NO. 39						
TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET LENGTH				
FIRST SECOND	26"-54"	40"-44"				
	26"-27"	40"-44"				
THIRD	27"-30"	40"-42"	42"-44"			
	30"-33"	40"-41"	41"-44"			
	33"-36"	40"	40"-44"			
	36"-39"		40"-43"	43"-44"		
	39"-42"		40"	40"-44"		
	42"-45"			40"-44"		
	45"-48"				40"-44"	
	26"-27"		40"-43"	43"-44"	40"-44"	40"-44"
	27"-30"			40"-44"		
	30"-33"				40"-42"	42"-44"
TIER	UNIT HEIGHT	6	5	4	3	2
NUMBER OF UNITS WIDE IN THRID ROW FOR UNITS 56" WIDE						

CHART NO. 40						
TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET LENGTH				
FIRST SECOND	26"-54"	40"-42"	42"-44"			
	26"-27"	40"-42"	42"-44"			
THIRD	27"-30"	40"-41"	41"-44"			
	30"-33"	40"	40"-44"			
	33"-36"		40"-44"			
	36"-39"		40"	40"-44"		
	39"-42"			40"-44"		
	42"-45"			40"	40"-44"	
	45"-48"				40"-42"	42"-44"
	26"-27"		40"	40"-44"		
	27"-30"			40"	40"-44"	
					40"-44"	
TIER	UNIT HEIGHT	6	5	4	3	2
NUMBER OF UNITS WIDE IN THRID ROW FOR UNITS 57" WIDE						

CHART NO. 41

TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET LENGTH								
FIRST SECOND	26"-54" 26"-30" 30"-33" 33"-36" 36"-39" 39"-42" 42"-45" 45"-48" 48"-51" 51"-54"	40"-41" 40"-41" 40"-41" 40"	41"-44" 41"-44" 41"-44" 40"-44" 40"-43" 40"-42" 40"-41" 40"							
THIRD	26"-27" 27"-30" 30"-33" 33"-36" 36"-39" 39"-42" 42"-45" 45"-48" 48"-51"		40"-43" 40"-41" 40"	43"-44" 40"-42" 43"-44" 41"-44" 40"-44" 40"-42"	43"-44" 42"-44"					
FOURTH	26"-27" 27"-30" 30"-33" 33"-36" 36"-39" 26"-27" 27"-30"			40"-42"	42"-44"	40"-44" 40"			40"-42"	42"-44" 40"-44"
FIFTH	26"-27" 27"-30"								40"-44"	40"-44"
TIER	UNIT HEIGHT	12	11	10	9	8	7	6	5	4
NUMBER OF UNITS WIDE IN FIRST ROW FOR UNITS 58"-59" WIDE										

CHART NO. 42

TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET LENGTH								
FIRST SECOND	26"-54" 26"-30" 30"-33" 33"-36" 36"-39" 39"-42" 42"-45" 45"-48" 48"-51" 51"-54"	40" 40"	40"-44" 40"-44" 40"-44" 40"-44" 40"-42" 40"							
THIRD	26"-27" 27"-30" 30"-33" 33"-36" 36"-39" 39"-42" 42"-45" 45"-48" 48"-51"		40"-42"	42"-44" 40"-44" 40"-44" 40"-43" 40"	43"-44" 40"-44" 40"-43"	43"-44"				
FOURTH	26"-27" 27"-30" 30"-33" 33"-36" 36"-39" 39"-42" 42"-45"				40"-43"	43"-44" 40"-41"	41"-44"	40"-44"	40"-41"	41"-44"
FIFTH	26"-27" 27"-30" 30"-33" 33"-36"								40"-41" 40"-41"	41"-44" 41"-44"
TIER	UNIT HEIGHT	10	9	8	7	6	5	4	3	2
NUMBER OF UNITS WIDE IN SECOND ROW FOR UNITS 58"-59" WIDE										

CHART NO. 43

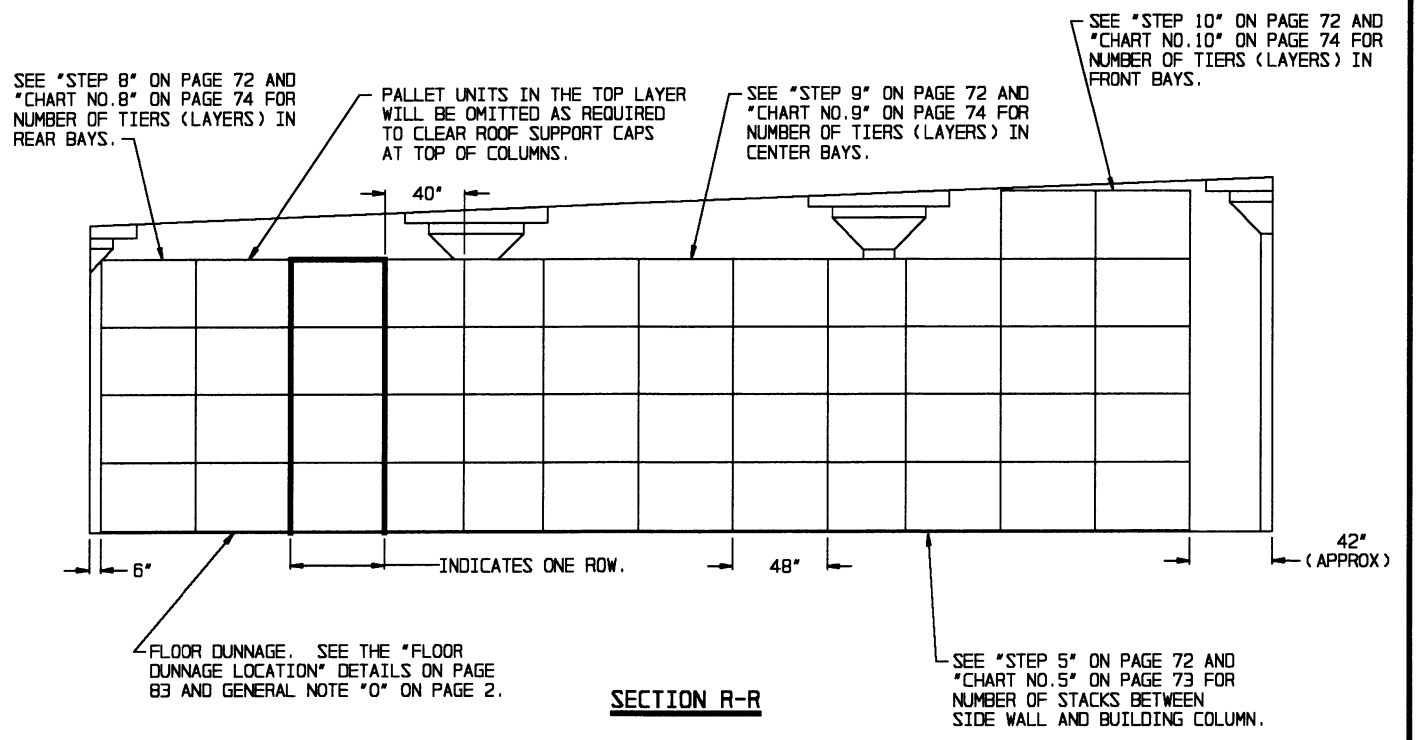
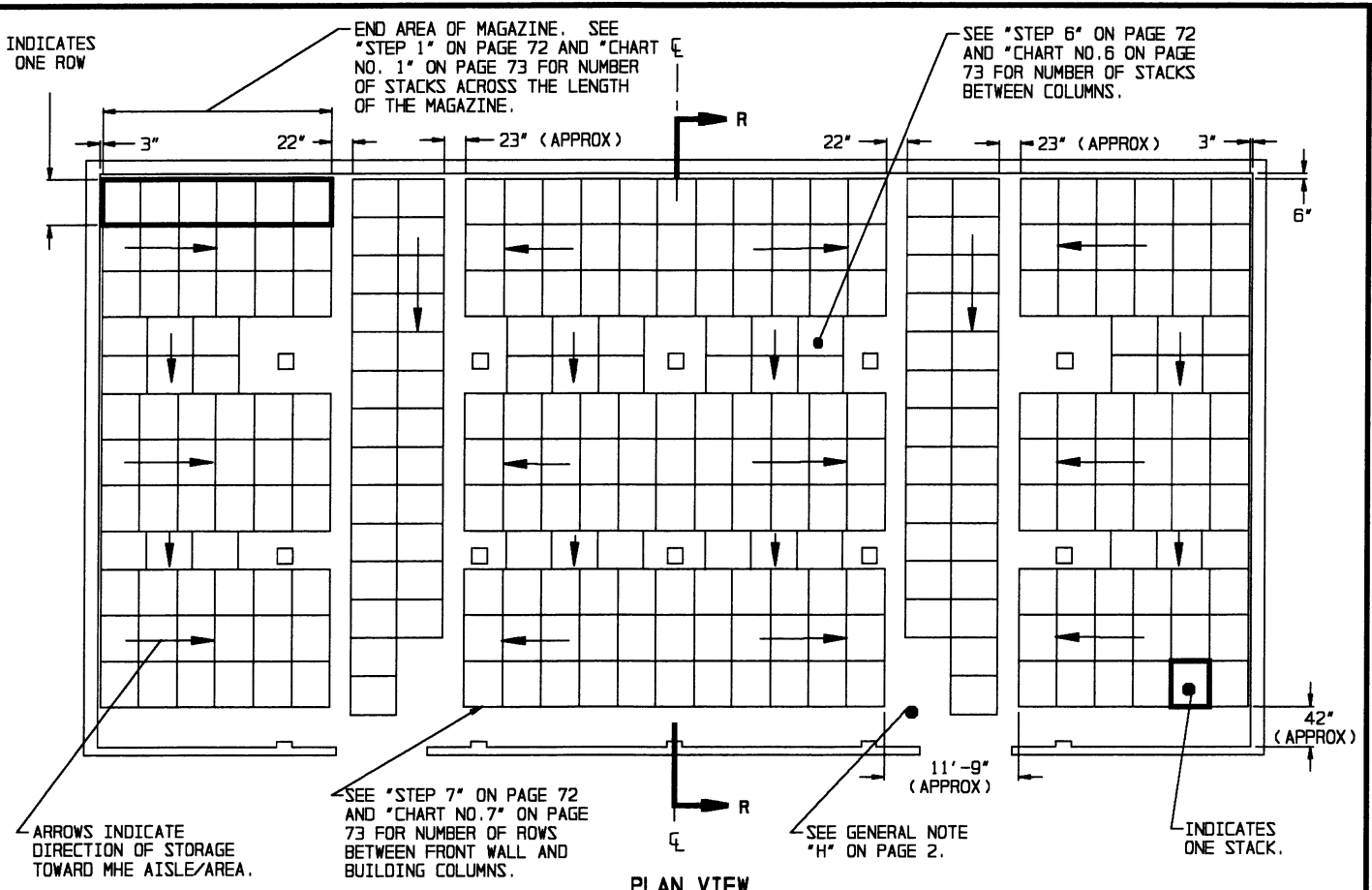
TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET LENGTH				
FIRST SECOND	26"-54" 26"-30" 30"-33" 33"-36" 36"-39" 39"-42" 42"-45"	40" 40"	40"-44" 40"-44" 40"-43" 40"-42"	42"-44" 40"-44" 40"-43"	43"-44" 40"-44"	
THIRD	26"-27" 27"-30" 30"-33"		40"-44"	40"-44"	40"-44"	
TIER	UNIT HEIGHT	6	5	4	3	2
NUMBER OF UNITS WIDE IN THIRD ROW FOR UNITS 58" WIDE						

CHART NO. 44

TIER	UNIT HEIGHT	UNIT SIZE RANGE FOR PALLET LENGTH			
FIRST SECOND	26"-54" 26"-30" 30"-33" 33"-36" 36"-39" 39"-42" 42"-45"	40"-44" 40"-44" 40"-43" 40"	40"-44" 40"-44"	40"-44"	40"-44"
THIRD	26"-27" 27"-30"		40"	40"-44"	40"-44"
TIER	UNIT HEIGHT	5	4	3	2
NUMBER OF UNITS WIDE IN THIRD ROW FOR UNITS 59" WIDE					

CHART NO. 45		
AISLE WIDTH	UNIT SIZE RANGE IN MHE AISLE WIDTH	
10'-10" TO 10'-11"	35'-39"	39'-54"
11'-0" TO 11'-2"	35'-40"	40'-54"
11'-3" TO 11'-5"	35'-41"	41'-54"
11'-6" TO 11'-8"	35'-42"	42'-54"
11'-9" TO 11'-11"	35'-43"	43'-54"
12'-0"	35'-44"	44'-54"
	54'-59"	
AISLE WIDTH	3 WIDE	2 WIDE

CHART NO. 46													
TIER	UNIT HEIGHT	UNIT SIZE RANGE											
FIRST	26'-54"	35'-36"	36'-39"	39'-42"	42'-46"	46'-52"	52'-58"	58'-59"					
	SECOND	26'-30"	35'-36"	36'-39"	39'-42"	42'-46"	46'-52"	52'-58"	58'-59"				
	30'-36"	35"	35'-38"	38'-42"	42'-46"	46'-51"	51'-57"	57'-59"					
	36'-39"	35"	35'-38"	38'-41"	41'-45"	45'-50"	50'-56"	56'-59"					
	39'-42"		35'-37"	37'-41"	41'-45"	45'-50"	50'-55"	55'-59"					
	42'-45"		35'-37"	37'-40"	40'-44"	44'-49"	49'-55"	55'-59"					
	45'-48"		35'-36"	36'-40"	40'-44"	44'-49"	49'-54"	54'-59"					
	48'-51"		35'-36"	36'-39"	39'-43"	43'-48"	48'-54"	54'-59"					
	51'-54"		35"	35'-38"	38'-42"	42'-47"	47'-53"	53'-59"					
THIRD	26'-27"		35'-37"	37'-41"	41'-45"	45'-50"	50'-55"	55'-59"					
	27'-30"		35'-37"	37'-40"	40'-44"	44'-49"	49'-54"	54'-59"					
	30'-33"		35'-36"	36'-39"	39'-43"	43'-48"	48'-54"	54'-59"					
	33'-36"		35"	35'-38"	38'-42"	42'-47"	47'-53"	53'-59"					
	36'-39"		35'-38"	38'-41"	41'-46"	46'-52"	52'-54"	54'-58"					
	39'-42"		35'-37"	37'-41"	41'-46"	46'-52"	52'-54"	54'-58"					
	42'-45"		35'-36"	36'-40"	40'-44"	44'-49"	49'-54"	54'-59"					
	45'-48"				35'-38"	38'-41"	41'-46"	46'-52"					
	48'-51"					35'-38"	38'-42"	42'-48"	48'-57"	57'-59"			
	51'-54"					35'-37"	37'-42"	42'-48"	48'-59"	48'-59"			
FOURTH	26'-27"		35"	35'-38"	38'-42"	42'-46"	46'-51"	51'-59"					
	27'-30"			35'-37"	37'-40"	40'-45"	45'-51"	51'-58"	58'-59"				
	30'-33"			35"	35'-39"	39'-43"	43'-48"	48'-55"	55'-59"				
	33'-36"					35'-36"	36'-40"	40'-45"	45'-52"	52'-59"			
	36'-39"							35'-39"	39'-44"	44'-50"	50'-59"		
	39'-42"							35'-39"	39'-44"	44'-50"	50'-59"		
FIFTH	26'-27"						35'-39"	39'-44"	44'-50"	50'-59"			
	27'-30"							35'-39"	39'-44"	44'-50"	50'-59"		
	30'-33"							35'-38"	38'-45"	45'-59"			
	33'-35"							35'-38"	38'-45"	45'-59"	45'-59"		
SIXTH	26'-27"								35'-40"	40'-47"	47'-59"	35'-38"	38'-56"
TIER	UNIT HEIGHT	13	12	11	10	9	8	7	6	5	4	3	2
NUMBER OF UNITS LONG IN THE MHE AISLE													



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

ITEM	QUANTITY
PALLET UNIT	1,224

CENTER AREA OF MAGAZINE. SEE "STEP 1" ON PAGE 72 AND "CHART NO. 1" ON PAGE 73 FOR NUMBER OF STACKS ACROSS THE LENGTH OF THE MAGAZINE.

SEE "STEP 3" ON PAGE 72 AND "CHART NO. 3" ON PAGE 73 FOR NUMBER OF ROWS BETWEEN REAR WALL AND BUILDING COLUMNS. SEE "STEP 8" ON PAGE 72 AND "CHART NO. 8" ON PAGE 74 FOR NUMBER OF TIERS (LAYERS) IN REAR BAYS.

INDICATES ONE ROW.

SEE "STEP 9" ON PAGE 72 AND "CHART NO. 9" ON PAGE 74 FOR THE NUMBER OF TIERS (LAYERS) IN CENTER BAYS.

INDICATES BUILDING COLUMN.

FLOOR DUNNAGE.

SEE "STEP 10" ON PAGE 72 AND "CHART NO. 10" ON PAGE 74 FOR NUMBER OF TIERS (LAYERS) IN FRONT BAYS.

SEE GENERAL NOTE "H" ON PAGE 2.

INDICATES ONE ROW.

INDICATES ONE STACK.

SEE "STEP 5" ON PAGE 72 AND "CHART NO. 5" ON PAGE 73 FOR NUMBER OF STACKS BETWEEN SIDE WALL AND BUILDING COLUMN.

(SPECIAL NOTES CONTINUED)

**ISOMETRIC VIEW**

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

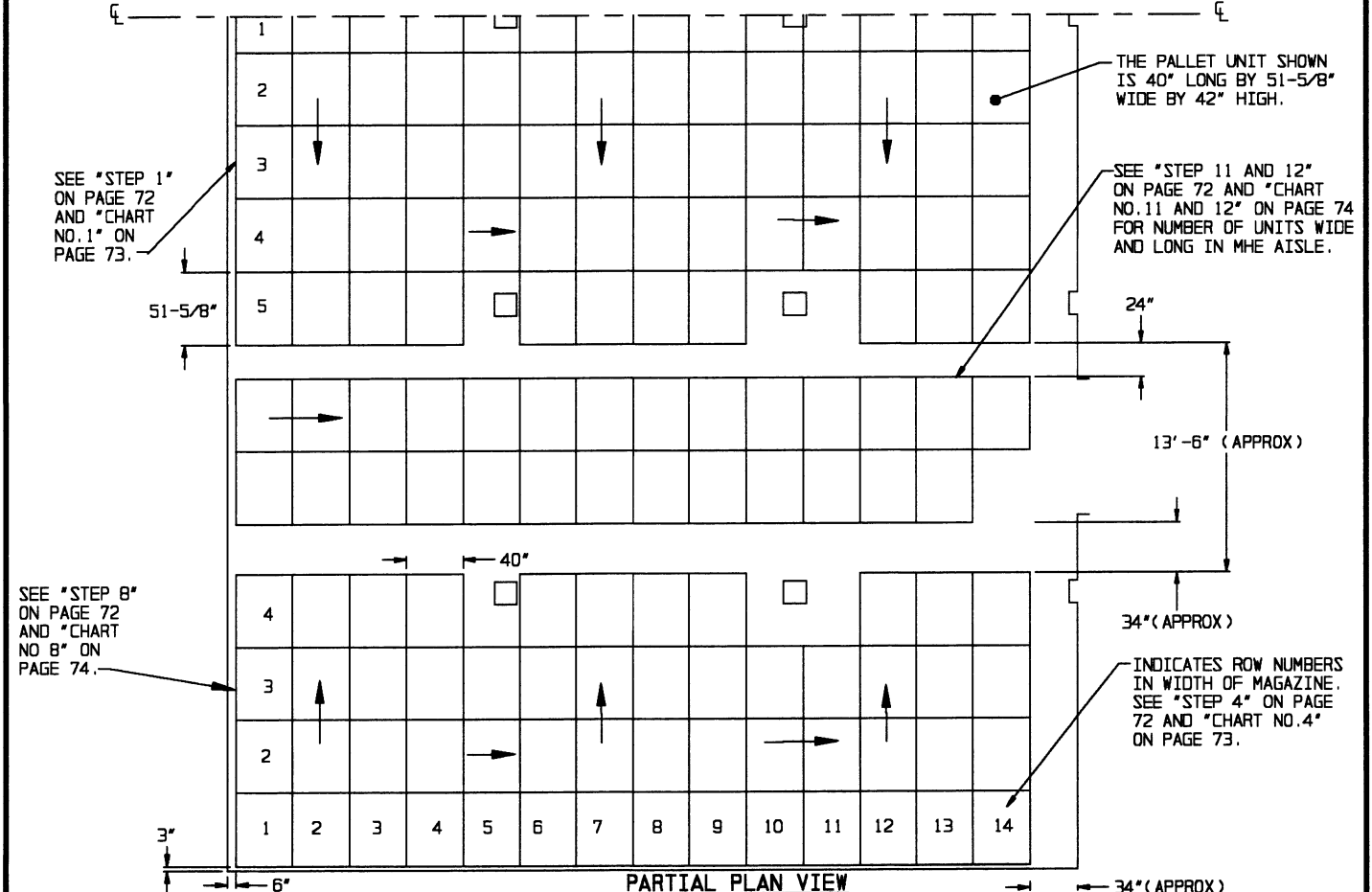
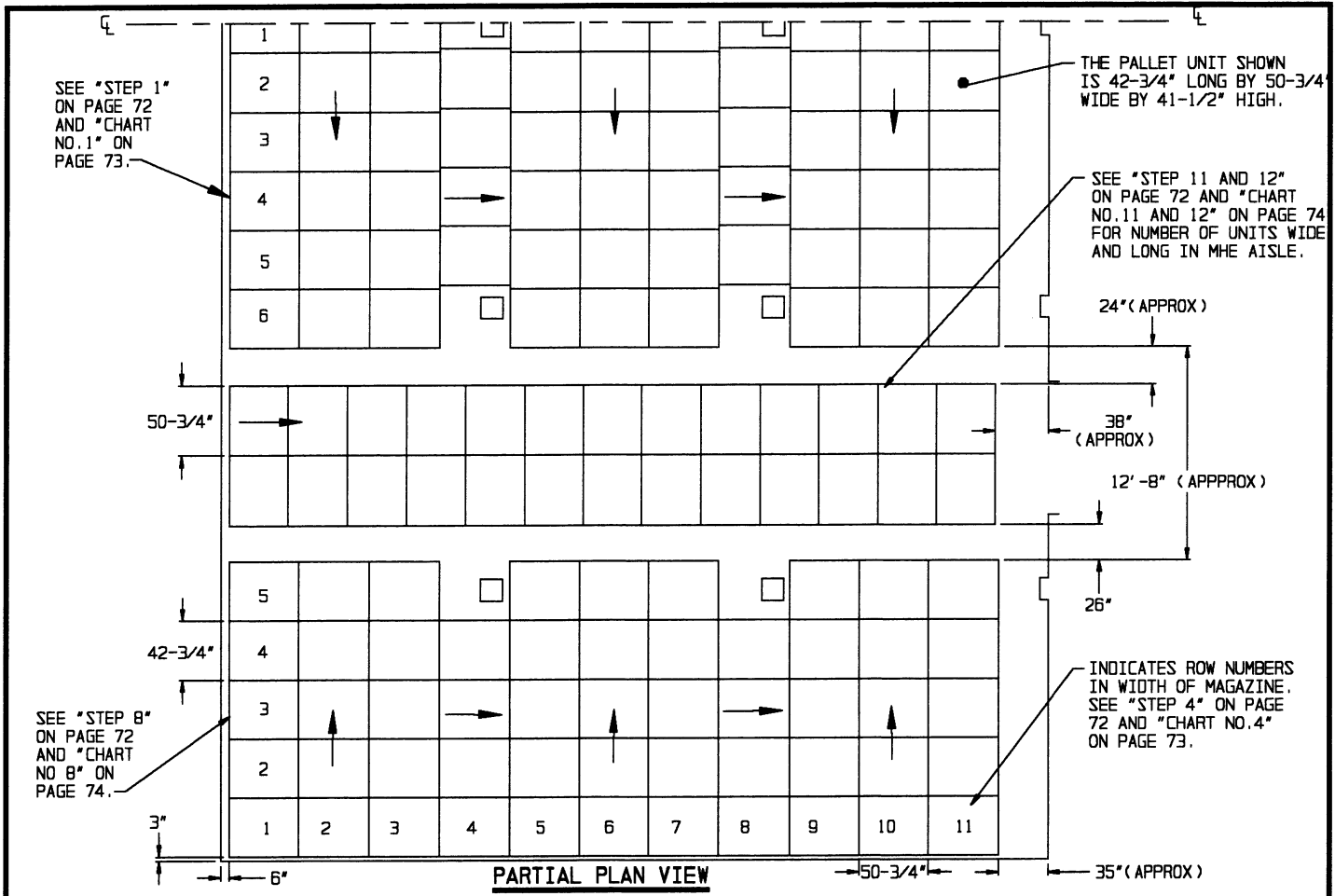
**SPECIAL NOTES:**

1. THE TYPICAL PALLET UNIT SHOWN HAS OVERALL DIMENSIONS OF 40" LONG BY 48" WIDE BY 34-1/2" HIGH. THE QUANTITY OF UNITS, THE NUMBER OF STACKS, ROWS AND TIERS (LAYERS) WILL VARY DEPENDENT UPON THE SIZE OF THE UNIT BEING STORED. SEE THE SPECIAL NOTES AND CHARTS ON PAGE 72 THRU 74 FOR GUIDANCE. AS MANY UNITS AS POSSIBLE WILL BE STORED WITHIN THE MAGAZINE.
2. A SIX INCH (6") MINIMUM SPACE WILL BE ALLOWED BETWEEN THE REAR WALL AND THE PALLET UNITS. A MINIMUM OF THREE INCHES (3") WILL BE PROVIDED BETWEEN A SIDE WALL AND THE UNITS. A MINIMUM OF ONE INCH (1") CLEARANCE IS REQUIRED BETWEEN THE STORED UNITS AND THE BUILDING COLUMNS, CLEARANCE IS NOT REQUIRED BETWEEN STORED UNITS.
3. THE ARROWS ON THE PLAN VIEWS HEREIN INDICATE THE DIRECTION OF STORAGE FROM THE SIDE WALLS AND/OR CENTER AREA TOWARD THE MHE AISLE, OR FROM THE REAR WALL TOWARD THE FRONT WALL, OR WITHIN THE MHE AISLE FROM THE REAR WALL TOWARD THE DOOR OPENINGS. PALLET UNITS STORED ALONG THE REAR WALL, AS WELL AS SOME UNITS POSITIONED AT RIGHT ANGLES TO THE MHE AISLE NEAR THE TEN BUILDING COLUMNS, NEED NOT BE STORED IN THE DIRECTION INDICATED BY THE "DIRECTION OF STORAGE" ARROWS IF THE LIFTED PALLET UNITS WILL CLEAR THE ROOF SUPPORT CAPS AT THE TOP OF THE COLUMNS, AND THOSE WITHIN THE REAR WALLS (IF PRESENT).
4. 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 CASES PROVIDE ADEQUATE PACKAGE GUARD PROTECTION). ONLY A FORKLIFT OF ADEQUATE CAPACITY WILL BE USED WHEN LIFTING TWO PALLET UNITS AS ONE LIFT.
5. AS SHOWN BY THE PARTIAL PLAN VIEWS ON PAGES 70 AND 71 PALLET UNITS STORED IN THE END AREA AND IN THE CENTER AREA CAN BE STORED EITHER ALL IN ONE POSITION, WITH EITHER LENGTH OR THE WIDTH BEING PARALLEL TO THE SIDE WALL, OR CAN BE STORED USING A COMBINATION OF POSITIONS. LIKEWISE, PALLET UNITS IN THE MHE AISLE CAN BE STORED EITHER LENGTHWISE OR CROSSWISE OR A COMBINATION OF THE TWO POSITIONS.
6. REFER TO PAGE 82 FOR GUIDANCE IN THE STORAGE OF MULTIPLE LOTS.
7. THE NUMBER OF STACKS LONG IN THE CENTER AREA ROW AND IN THE END AREA ROWS OF THE MAGAZINE IS BASED ON HAVING A MATERIAL HANDLING EQUIPMENT OPERATING AISLE (DISTANCE FROM A STACK IN AN END AREA TO A STACK IN THE CENTER AREA) OF 7'-7" PLUS THE LENGTH OR WIDTH OF THE PALLET UNIT, AS APPLICABLE, OR THE LENGTH OF THE FORKLIFT TRUCK TINES (40"), WHICHEVER IS THE GREATEST.
8. IF DESIRED, AND IF NOT IN VIOLATION OF SURVEILLANCE REQUIREMENTS/PROCEDURES, ONE (1) SURVEILLANCE "CONTROL UNIT" SAMPLE MAY BE WITHHELD FROM EACH STORED LOT. IF THE MAGAZINE CONTAINS ONLY ONE (1) LOT IT IS RECOMMENDED THAT THIS "CONTROL UNIT" BE PLACED JUST INSIDE THE DOOR WHERE IT IS EASILY ACCESSIBLE. IF THE MAGAZINE CONTAINS SEVERAL LOTS, THE "CONTROL UNIT" SAMPLES SHOULD BE PLACED ADJACENT TO THE MHE OPERATING AISLE FOR ACCESSIBILITY.

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

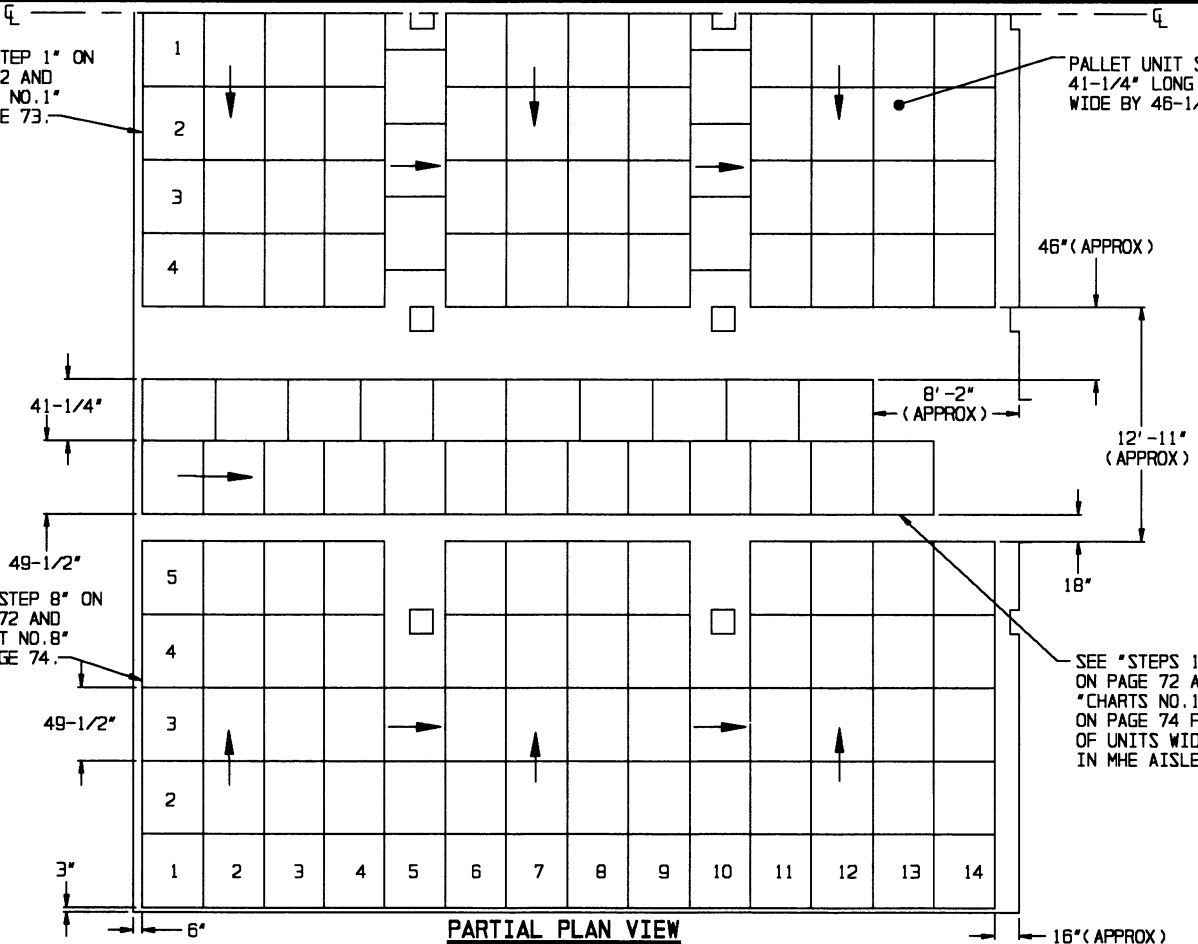
(CONTINUED AT RIGHT)

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



**TYPICAL STORAGE PATTERNS IN 100'-8" L X 50'-0" W RECTANGULAR MAGAZINE**

SEE "STEP 1" ON PAGE 72 AND "CHART NO. 1" ON PAGE 73.



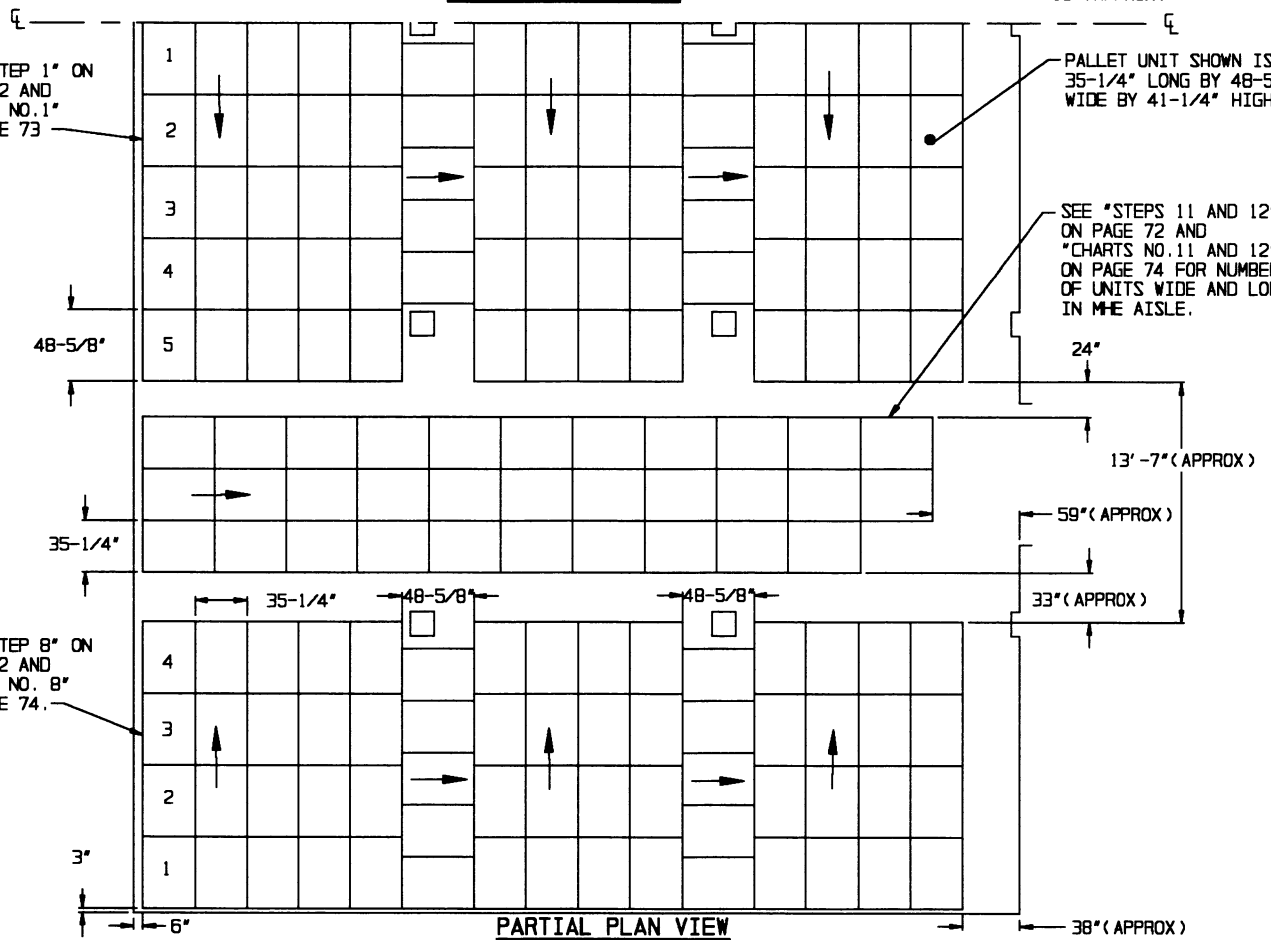
PALLET UNIT SHOWN IS 41'-1/4" LONG BY 49'-1/2" WIDE BY 46'-1/2" HIGH.

SEE "STEP 8" ON PAGE 72 AND "CHART NO. 8" ON PAGE 74.

SEE "STEPS 11 AND 12" ON PAGE 72 AND "CHARTS NO. 11 AND 12" ON PAGE 74 FOR NUMBER OF UNITS WIDE AND LONG IN THE AISLE.

**PARTIAL PLAN VIEW**

SEE "STEP 1" ON PAGE 72 AND "CHART NO. 1" ON PAGE 73.



PALLET UNIT SHOWN IS 35'-1/4" LONG BY 48'-5/8" WIDE BY 41'-1/4" HIGH.

SEE "STEPS 11 AND 12" ON PAGE 72 AND "CHARTS NO. 11 AND 12" ON PAGE 74 FOR NUMBER OF UNITS WIDE AND LONG IN THE AISLE.

SEE "STEP 8" ON PAGE 72 AND "CHART NO. 8" ON PAGE 74.

**PARTIAL PLAN VIEW**

**TYPICAL STORAGE PATTERNS IN 100'-8" L X 50'-0" W RECTANGULAR MAGAZINE**

- THE CHARTS ON PAGES 73 AND 74 ARE PRESENTED AS GUIDANCE IN THE DEVELOPMENT OF A PATTERN FOR THE STORAGE OF PALLET UNITS OF AMMUNITION AND COMPONENTS IN 100'-8" LONG BY 50'-0" WIDE RECTANGULAR MAGAZINES. TO A CERTAIN EXTENT, THE CHARTS MAY ALSO BE USED IN CALCULATING THE QUANTITY OF UNITS WHICH CAN BE STORED. NOTICE: THE CHARTS ARE FOR GUIDANCE PURPOSES ONLY. VARIATIONS IN PALLET UNIT OVERALL SIZES, THE COMPACTNESS OF PLACEMENT WITHIN A MAGAZINE, AS WELL AS VARIANCE IN THE INSIDE DIMENSIONS OF THE RECTANGULAR MAGAZINE CAN CAUSE DISCREPANCIES WITHIN THE CHARTS.
- THE FOLLOWING STEP-BY-STEP PROCEDURES ARE PRESENTED AS GUIDANCE IN USING THE DEPICTED CHARTS. SEE THE "EXAMPLE" ON THIS PAGE.

STEP 1

LOCATE IN THE LEFT HAND COLUMN OF CHART NO.1 ON PAGE 73 THE LENGTH OR WIDTH DIMENSION RANGE WHICH INCLUDES THE DIMENSION OF THE UNIT TO BE STORED IN THE 100'-8" LENGTH OF THE MAGAZINE. OPPOSITE THAT LENGTH OR WIDTH FIGURE IS A COLUMN WHICH INDICATES THE NUMBER OF STACKS WHICH CAN BE PLACED IN THE END AREAS OF THE MAGAZINE, AND A COLUMN WHICH INDICATES THE NUMBER OF STACKS WHICH CAN BE PLACED IN THE CENTER AREA.

STEP 2

LOCATE IN THE LEFT HAND COLUMN OF CHART NO.2 THE LENGTH OR WIDTH DIMENSION RANGE WHICH INCLUDES THE DIMENSION OF THE UNIT TO BE STORED IN THE 50'-0" WIDTH OF THE MAGAZINE. OPPOSITE THAT LENGTH OR WIDTH DIMENSION IS INDICATED THE TOTAL NUMBER OF ROWS WHICH CAN BE STORED.

STEP 3

LOCATE IN THE LEFT HAND COLUMN OF CHART NO.3 THE LENGTH OR WIDTH DIMENSION RANGE WHICH INCLUDES THE DIMENSION OF THE UNIT TO BE STORED IN THE 50'-0" WIDTH OF THE MAGAZINE. OPPOSITE THAT LENGTH OR WIDTH DIMENSION IS INDICATED THE NUMBER OF ROWS WHICH CAN BE PLACED BETWEEN THE REAR WALL OF THE MAGAZINE AND THE REARMOST ROW OF BUILDING COLUMNS.

STEP 4

LOCATE IN THE LEFT HAND COLUMN OF CHART NO.4 THE LENGTH OR WIDTH RANGE WHICH INCLUDES THE DIMENSION OF THE UNIT TO BE STORED IN THE 50'-0" WIDTH OF THE MAGAZINE. OPPOSITE THAT LENGTH OR WITH DIMENSION IS INDICATED THE ROW NUMBERS OF THE ROWS WHICH WILL FALL BEHIND THE BUILDING COLUMNS, AS NUMBERED FROM THE REAR OF THE MAGAZINE TOWARD THE DOOR. NOTE THAT THESE ROW NUMBERS ARE ONLY APPLICABLE IF ALL THE UNITS IN THE MAGAZINE, WITH THE EXCEPTION OF THOSE IN THE MATERIAL HANDLING EQUIPMENT AISLE, ARE ORIENTED IN THE SAME DIRECTION. SEE THE "PARTIAL PLAN VIEWS" ON PAGE 70 FOR TYPICAL APPLICATIONS. ALSO NOTE THAT A COMBINATION OF PALLET UNIT ORIENTATIONS IS PERMISSIBLE AND SHOULD BE USED IF SUCH PLACEMENT RESULTS IN INCREASED STORAGE QUANTITIES.

STEP 5

LOCATE IN THE LEFT HAND COLUMN OF CHART NO.5 ON PAGE 73 THE LENGTH OR WIDTH RANGE WHICH INCLUDES THE DIMENSION OF THE UNIT TO BE STORED IN THE 100'-8" LENGTH OF THE MAGAZINE. OPPOSITE THAT LENGTH OR WIDTH DIMENSION IS INDICATED THE NUMBER OF STACKS WHICH CAN BE PLACED BETWEEN THE SIDEWALL OF THE MAGAZINE AND THE ADJACENT BUILDING COLUMN.

STEP 6

LOCATE IN THE LEFT HAND COLUMN OF CHART NO.6 THE LENGTH OR WIDTH RANGE WHICH INCLUDES THE DIMENSION OF THE UNIT TO BE STORED IN THE 100'-8" LENGTH OF THE MAGAZINE. OPPOSITE THAT LENGTH OR WIDTH DIMENSION IS INDICATED THE NUMBER OF STACKS WHICH CAN BE PLACED BETWEEN LONGITUDINALLY ADJACENT BUILDING COLUMNS IN THE CENTER AREA.

STEP 7

LOCATE IN THE LEFT HAND COLUMN OF CHART NO.7 THE LENGTH OR WIDTH RANGE WHICH INCLUDES THE DIMENSION OF THE UNIT TO BE STORED IN THE 50'-0" WIDTH OF THE MAGAZINE. OPPOSITE THAT LENGTH OR WIDTH DIMENSION IS INDICATED THE NUMBER OF ROWS WHICH CAN BE PLACED BETWEEN THE BUILDING COLUMNS NEAREST THE DOORS AND THE PILASTERS WITHIN THE FRONT WALL OF THE MAGAZINE.

STEP 8

LOCATE IN THE LEFT HAND COLUMN OF CHART NO. 8 ON PAGE 74 THE HEIGHT RANGE WHICH INCLUDES THE HEIGHT OF THE UNIT TO BE STORED. OPPOSITE THAT HEIGHT FIGURE IS INDICATED THE NUMBER OF TIERS (LAYERS) WHICH CAN BE STORED IN THE REAR BAYS. THIS IS THE AREA FURTHEST FROM THE DOOR, BETWEEN THE REARMOST ROW OF COLUMNS AND THE REAR WALL.

STEP 9

LOCATE IN THE LEFT HAND COLUMN OF CHART NO. 9 THE HEIGHT RANGE WHICH INCLUDES THE HEIGHT OF THE UNIT TO BE STORED. OPPOSITE THAT HEIGHT FIGURE IS INDICATED THE NUMBER OF TIERS (LAYERS) WHICH CAN BE STORED IN THE CENTER BAYS. THIS IS THE AREA BETWEEN THE TWO ROWS OF COLUMNS.

STEP 10

LOCATE IN THE LEFT HAND COLUMN OF CHART NO.10 THE HEIGHT RANGE WHICH INCLUDES THE HEIGHT OF THE UNIT TO BE STORED. OPPOSITE THAT HEIGHT FIGURE IS INDICATED THE NUMBER OF TIERS (LAYERS) WHICH CAN BE STORED IN THE FRONT BAYS. THIS IS THE AREA IMMEDIATELY INSIDE THE DOORS.

STEP 11

LOCATE IN THE LEFT HAND COLUMN OF CHART NO.11 THE LENGTH OR WIDTH RANGE WHICH INCLUDES THE DIMENSION OF THE UNIT TO BE STORED IN THE 100'-8" LENGTH OF THE MAGAZINE. THE COLUMN IMMEDIATELY ADJACENT INDICATES THE NUMBER OF ROWS WHICH CAN BE PLACED IN THE MHE AREA WIDTH WHEN THE UNITS ARE ORIENTED THE SAME AS THE UNITS IN THE LATERALLY ADJACENT ROWS. THE NEXT COLUMN INDICATES THE NUMBER OF ROWS AND THE LENGTH OR WIDTH DIMENSION RANGE OF THE UNITS WHEN THEY ARE ROTATED 90° TO THOSE IN THE LATERALLY ADJACENT ROWS.

STEP 12

LOCATE IN THE LEFT HAND COLUMN OF CHART NO.12 THE LENGTH OR WIDTH RANGE WHICH INCLUDES THE DIMENSION OF THE UNIT TO BE STORED IN THE LENGTH OF THE MHE AISLE (THE 50'-0" WIDTH OF THE MAGAZINE). OPPOSITE THAT LENGTH OR WIDTH DIMENSION IS INDICATED THE NUMBER OF STACKS IN THE ROWS WITHIN THE MHE AISLE, WHEN SUFFICIENT SPACE IS ALLOWED AT THE FRONT OF THE MAGAZINE FOR PLACEMENT OF THE UNITS WITH A FORKLIFT TRUCK. NOTE THAT ADDITIONAL STACKS MAY BE POSITIONED IN ONE OR MORE OF THE ROWS WHEN THE ROWS ARE ALIGNED WITH THE DOOR OPENING AND/OR WHEN THE AVAILABLE MHE PERMITS.

EXAMPLE

THE PALLET UNIT SHOWN IN THE "PARTIAL PLAN VIEW" AT THE TOP, OF PAGE 70 HAS BEEN SELECTED FOR THE EXAMPLE. THE UNIT IS 42-3/4" LONG BY 50-3/4" WIDE BY 41-1/2" HIGH. A STORAGE PATTERN CAN BE DETERMINED BY FOLLOWING THE DOTTED-LINE EXAMPLE WITHIN CHART NO.1 THRU 12 IN CONJUNCTION WITH USING THE STEP-BY-STEP PROCEDURES SPECIFIED ON THIS PAGE.

TO FIND THE NUMBER OF PALLET STACKS IN THE 100'-8" LENGTH OF THE MAGAZINE LOOK IN THE LEFT HAND COLUMN OF CHART NO.1 UNDER THE UNIT LENGTH OR WIDTH. THE 42-3/4" UNIT LENGTH IS WITHIN THE 42" TO 43" RANGE. FOLLOWING THE ARROWS ALONG THE DOTTED LINE TO THE RIGHT, THE FIRST COLUMN INDICATES THAT 5 STACKS CAN BE STORED IN EACH END AREA AND THE SECOND COLUMN INDICATES THAT 11 STACKS CAN BE STORED IN THE CENTER AREA. USING THE SAME PROCEDURE, THE NUMBER OF ROWS ACROSS THE 50'-0" WIDTH OF THE MAGAZINE CAN BE DETERMINED FROM CHART 2. CHART NO.3 SPECIFIES THE NUMBER OF ROWS WHICH CAN BE PLACED BETWEEN THE REAR WALL OF THE MAGAZINE AND THE REARMOST ROW OF BUILDING COLUMNS. BY FOLLOWING THE ARROW ALONG THE DOTTED LINE TO THE RIGHT IN CHART NO.4 WE FIND THAT ROW NUMBER 4 AND ROW NUMBER 8 WILL BE BEHIND THE COLUMNS WHEN ALL THE UNITS ARE POSITIONED SO THE 50-3/4" WIDTH DIMENSION IS PLACED SO AS TO BE IN THE WIDTH OF THE MAGAZINE. CHARTS NO. 5, 6, AND 7 ON PAGE 73 SPECIFY THE NUMBER OF STACKS BETWEEN THE SIDEWALL AND THE ADJACENT COLUMN, THE NUMBER OF STACKS BETWEEN LONGITUDINALLY ADJACENT COLUMNS, AND THE NUMBER OF ROWS BETWEEN THE FRONT WALL OF THE MAGAZINE AND THE FRONT ROW OF COLUMNS.

CHARTS NO.8, 9, AND 10 ON PAGE 74 INDICATE THE NUMBER OF TIERS (LAYERS) THAT CAN BE STORED IN THE REAR BAY, CENTER BAY, AND FRONT BAY RESPECTIVELY. CHART NO.11 INDICATES IN THE SECOND COLUMN THE NUMBER OF ROWS WHICH CAN BE PLACED IN THE MHE AISLE WHEN POSITIONED WITH THE DIMENSION SPECIFIED IN THE FIRST COLUMN LENGTHWISE IN THE MAGAZINE. THE THIRD COLUMN OF THE CHART INDICATES ONE OR MORE ALTERNATIVE PLACEMENT DIMENSIONS WHICH MAY BE MORE ADVANTAGEOUS. NOTE THAT A COMBINATION OF PALLET UNIT POSITIONS IS PERMITTED, AS TYPICALLY SHOWN BY THE "PARTIAL PLAN VIEW" AT THE TOP OF PAGE 71. CHART NO.12 ON PAGE 74 INDICATES THE NUMBER OF STACKS WHICH CAN BE PLACED IN THE LENGTH OF THE MHE AISLE. ADDITIONAL UNITS MAY BE POSITIONED IN ONE OR BOTH ROWS IF THE SPACE AND/OR AVAILABLE MHE PERMITS.

- THE UNIT SIZE RANGE (LENGTH OR WIDTH) AND THE UNIT HEIGHT DIMENSIONS COVER ALL THE SIZES WITHIN THE RANGE SPECIFIED.



CHART NO. 1		
NUMBER OF STACKS ACROSS THE LENGTH		
UNIT LENGTH OR WIDTH	NUMBER OF STACKS	
	END AREA	CENTER AREA
35"	6	14
OVER 35" TO 36"	6	14
OVER 36" TO 37"	6	13
OVER 37" TO 38"	6	12
OVER 38" TO 39"	6	12
OVER 39" TO 40"	6	11
OVER 40" TO 41"	5	12
OVER 41" TO 42"	5	12
OVER 42" TO 43"	5	11
OVER 43" TO 44"	5	10
OVER 44" TO 45"	5	10
OVER 45" TO 46"	5	9
OVER 46" TO 47"	5	9
OVER 47" TO 48"	4	10
OVER 48" TO 49"	4	10
OVER 49" TO 50"	4	9
OVER 50" TO 53"	4	8
OVER 53" TO 57"	4	7
OVER 57" TO 59"	4	7

CHART NO. 2	
NUMBER OF ROWS ACROSS THE WIDTH	
UNIT LENGTH OR WIDTH	NUMBER OF ROWS
35" TO 36"	16
OVER 36" TO 38-1/2"	15
OVER 38-1/2" TO 41-1/4"	14
OVER 41-1/4" TO 44-1/2"	13
OVER 44-1/2" TO 48"	12
OVER 48" TO 52-1/2"	11
OVER 52-1/2" TO 57"	10
OVER 57" TO 59"	9

CHART NO. 3	
NUMBER OF ROWS BETWEEN REAR WALL AND COLUMNS	
UNIT LENGTH OR WIDTH	NUMBER OF ROWS
35" TO 36"	5
OVER 36" TO 45"	4
OVER 45" TO 59"	3

CHART NO. 5	
NUMBER OF STACKS BETWEEN SIDE WALL AND COLUMN	
UNIT LENGTH OR WIDTH	NUMBER OF STACKS
35" TO 36-1/2"	5
OVER 36-1/2" TO 45-1/2"	4
OVER 45-1/2" TO 59"	3

CHART NO. 4	
* ROWS WHICH FALL BEHIND COLUMNS	
UNIT LENGTH OR WIDTH	ROW NUMBERS
35" TO 38-1/4"	5,6 AND 11
OVER 38-1/4" TO 39-1/4"	5,6,10 AND 11
OVER 39-1/4" TO 40"	5,10 AND 11
OVER 40" TO 42-1/2"	5 AND 10
OVER 42-1/2" TO 45"	5 AND 9
OVER 45" TO 48"	4 AND 9
OVER 48" TO 49-1/2"	4 AND 8
OVER 49-1/2" TO 49-3/4"	4,8 AND 9
OVER 49-3/4" TO 55"	4 AND 8
OVER 55" TO 57"	4,7 AND 8

CHART NO. 6	
NUMBER OF STACKS BETWEEN COLUMNS	
UNIT LENGTH OR WIDTH	NUMBER OF STACKS
35" TO 37"	5
OVER 37" TO 46-1/2"	4
OVER 46-1/2" TO 59"	3

\* PALLET UNITS WHICH ARE MORE THAN 57" WIDE WILL BE STORED IN ROWS BETWEEN THE COLUMNS (NO UNITS BEHIND COLUMNS).

CHART NO. 7	
NUMBER OF ROWS BETWEEN FRONT WALL AND COLUMNS	
UNIT LENGTH OR WIDTH	NUMBER OF ROWS
35" TO 35-1/2"	5
OVER 35-1/2" TO 44-1/2"	4
OVER 44-1/2" TO 59"	3

CHART NO. 11		
NUMBER OF ROWS WIDE IN MHE AISLE		
UNIT DIM LENGTHWISE IN MAGAZINE	UNIT AT SAME POSITION	ALTERNATIVE UNIT POSITION
35"	3	2 AT 45-1/2" TO 51-1/2"
OVER 35" TO 36"	3	2 AT 45-1/2" TO 48"
OVER 36" TO 37"	2	2 AT 45-1/2" TO 51"
OVER 37" TO 38"	2	2 AT 45-1/2" TO 54"
OVER 38" TO 39"	2	2 AT 45-1/2" TO 48"
OVER 39" TO 40"	2	2 AT 45-1/2" TO 46"
OVER 40" TO 41"	2	2 AT 48" TO 54"
OVER 41" TO 42"	2	2 AT 48" TO 51"
OVER 42" TO 43"	2	2 AT 48" TO 54"
OVER 43" TO 44"	2	2 AT 48" TO 51"
OVER 44" TO 45"	2	2 AT 48" TO 54"
OVER 45" TO 46"	2	3 AT 35"
OVER 46" TO 47"	2	3 AT 35" TO 39"
OVER 47" TO 48"	2	3 AT 35" TO 36"
OVER 48" TO 49"	2	2 AT 40" TO 44" OR
OVER 49" TO 50"	2	3 AT 35" TO 39"
OVER 50" TO 51"	2	2 AT 40" TO 44" OR
OVER 51" TO 52"	2	3 AT 35" TO 38"
OVER 52" TO 53"	2	2 AT 40" TO 44" OR
OVER 53" TO 59"	2	3 AT 35" TO 39"
		2 AT 40" TO 44"

CHART NO. 12	
NUMBER OF STACKS LONG IN MHE AREA *	
UNIT LENGTH OR WIDTH	NUMBER OF STACKS
35"	13
OVER 35" TO 38"	12
OVER 38" TO 41-1/2"	11
OVER 41-1/2" TO 46"	10
OVER 46" TO 51"	9
OVER 51" TO 56"	8
OVER 56" TO 59"	7

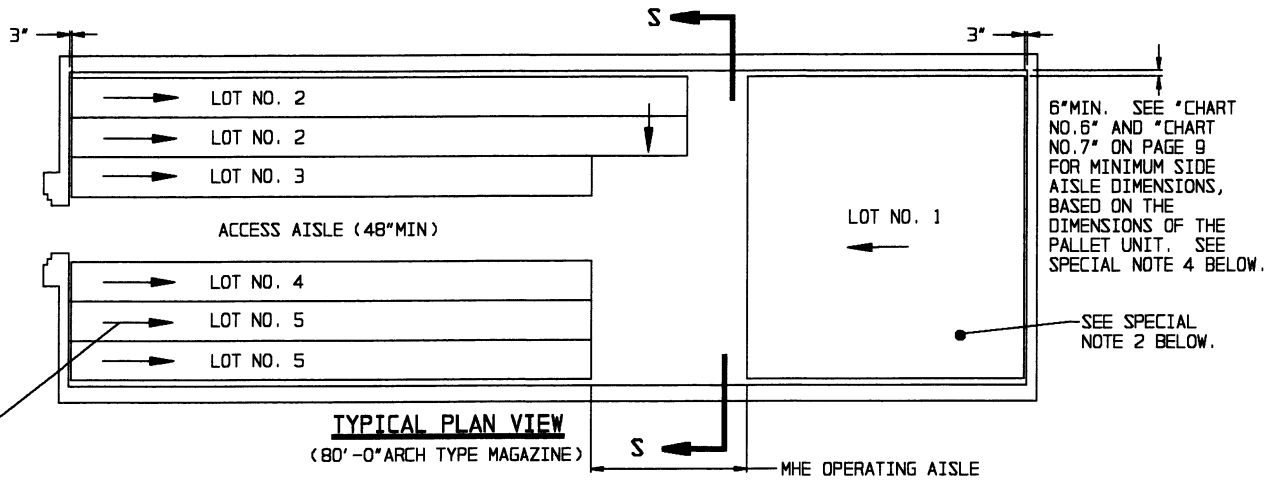
\* SEE GENERAL NOTE "H" ON PAGE 2.

CHART NO. 10	
NUMBER OF TIERS IN FRONT BAYS	
UNIT HEIGHT	NUMBER OF TIERS
26" TO 28"	6
OVER 28" TO 34"	5
OVER 34" TO 43"	4
OVER 43" TO 54"	3

CHART NO. 9	
NUMBER OF TIERS IN CENTER BAYS	
UNIT HEIGHT	NUMBER OF TIERS
26" TO 27"	6
OVER 27" TO 32"	5
OVER 32" TO 41"	4
OVER 41" TO 54"	3

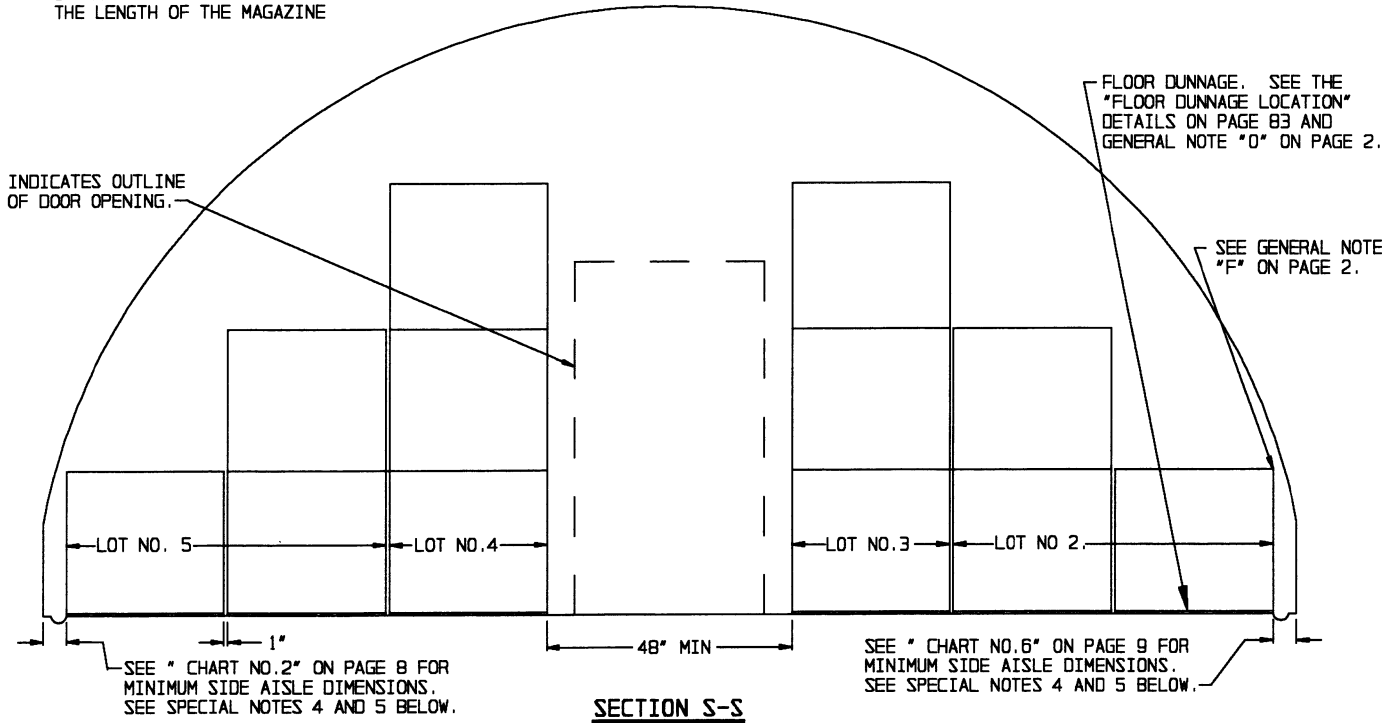
CHART NO. 8	
NUMBER OF TIERS IN REAR BAYS	
UNIT HEIGHT	NUMBER OF TIERS
26"	6
OVER 26" TO 31"	5
OVER 31" TO 39"	4
OVER 39" TO 52"	3
OVER 52" TO 54"	2

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ARROWS INDICATE DIRECTION OF STORAGE FROM FRONT AND/OR REAR TOWARD CENTER OF THE LENGTH OF THE MAGAZINE

**TYPICAL PLAN VIEW**  
(80'-0" ARCH TYPE MAGAZINE)



**SECTION S-S**

**SPECIAL NOTES:**

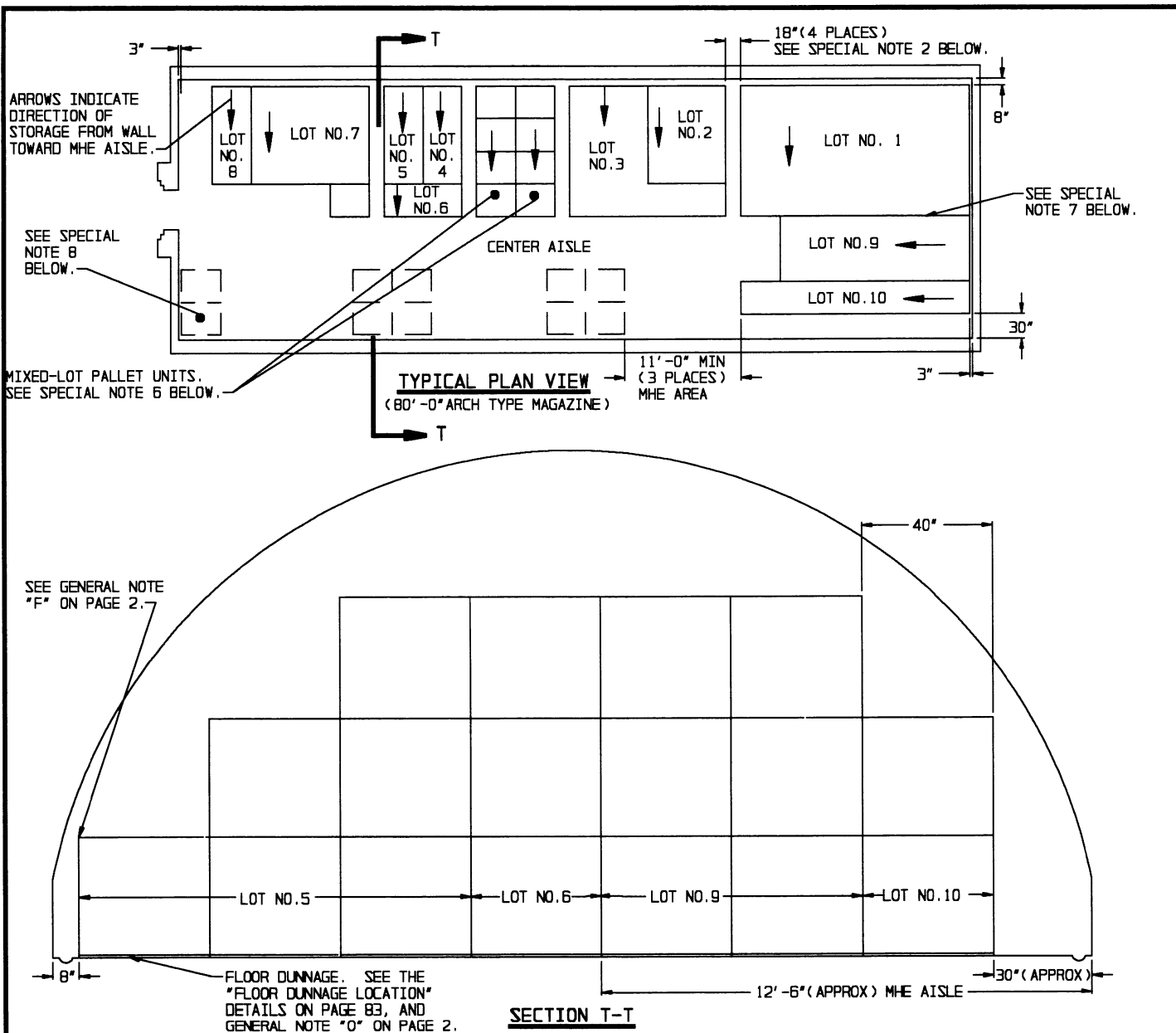
1. THE MULTIPLE LOT STORAGE PLAN SHOWN IS TYPICAL ONLY. ADAPTATIONS MAY BE MADE TO THE STORAGE PLAN AS THE NUMBER AND SIZES OF LOTS TO BE STORED IN THE MAGAZINE REQUIRE.
2. THE LARGEST LOT WILL BE STORED IN TYPE "A" STACKS ACROSS THE REAR OF THE MAGAZINE. IF THE LOT OCCUPIES LESS THAN 1/4 OF THE MAGAZINE, STORAGE IN THE REAR OF THE MAGAZINE OF MORE THAN ONE (1) LOT MAY BE ERECTED IN ROWS SIMILAR TO THAT SHOWN IN THE FRONTAL AREA. A 48" ACCESS CENTER AISLE WILL NOT BE REQUIRED FOR LOTS STORED IN THE REAR OF THE MAGAZINE. THE SMALLER LOTS WILL BE STORED IN ROWS RUNNING THE LENGTH OF THE MAGAZINE. LOTS WILL NOT BE MIXED WITHIN STORAGE STACKS, BUT ONLY TO THE EXTENT THAT ITEMS OF ONE LOT WILL NOT BE STACKED ON TOP OF ITEMS OF ANOTHER LOT.
3. EXCEPT FOR EACH ROW ADJACENT TO THE ACCESS AISLE, LOTS CONSISTING OF NARROW UNITS MUST BE STORED TWO (2) UNITS WIDE TO PROVIDE SUFFICIENT OPERATING WIDTH FOR THE MATERIALS HANDLING EQUIPMENT (MHE). IF THE UNIT DIMENSION WHICH IS POSITIONED ACROSS THE MAGAZINE, LENGTH OR WIDTH, AS APPLICABLE, IS GREAT ENOUGH TO PROVIDE SUFFICIENT MHE OPERATING WIDTH, LOTS NEED NOT BE STORED IN DOUBLE ROWS.

**SPECIAL NOTES CONTINUED**

4. THE SIDE AISLE DIMENSIONS FOR MULTIPLE LOT STORAGE, AS SPECIFIED IN CHARTS 6 AND 7 ON PAGE 9 MAY NEED TO BE INCREASED TO PROVIDE OVERHEAD CLEARANCE FOR THE MHE.
5. CHARTS NO.6 AND 7 ON PAGE 9 ARE APPLICABLE FOR SIDE AISLE DIMENSIONS IN 26'-6" WIDE BY 12'-9" HIGH IGLOO MAGAZINES. CHARTS NO.5 AND 6 ON PAGE 15 WILL BE USED FOR SIDE AISLE DIMENSIONS IN 26'-6" WIDE BY 12'-1-3/4" HIGH ARCH TYPE MAGAZINES. CHARTS NO.5 AND 6 ON PAGE 21 AND CHARTS NO.4 AND 5 ON PAGE 27 ARE APPLICABLE FOR 25'-0" WIDE BY 12'-1-3/4" AND 11'-0" HIGH ARCH TYPE MAGAZINES, RESPECTIVELY. REFER TO CHARTS NO.4 AND 5 ON PAGE 33 FOR SIDE AISLE DIMENSIONS IN 25'-0" WIDE BY 10'-0" HIGH ARCH TYPE MAGAZINES.

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**TYPICAL MULTIPLE-LOT STORAGE IN IGLOO AND ARCH-TYPE MAGAZINES**

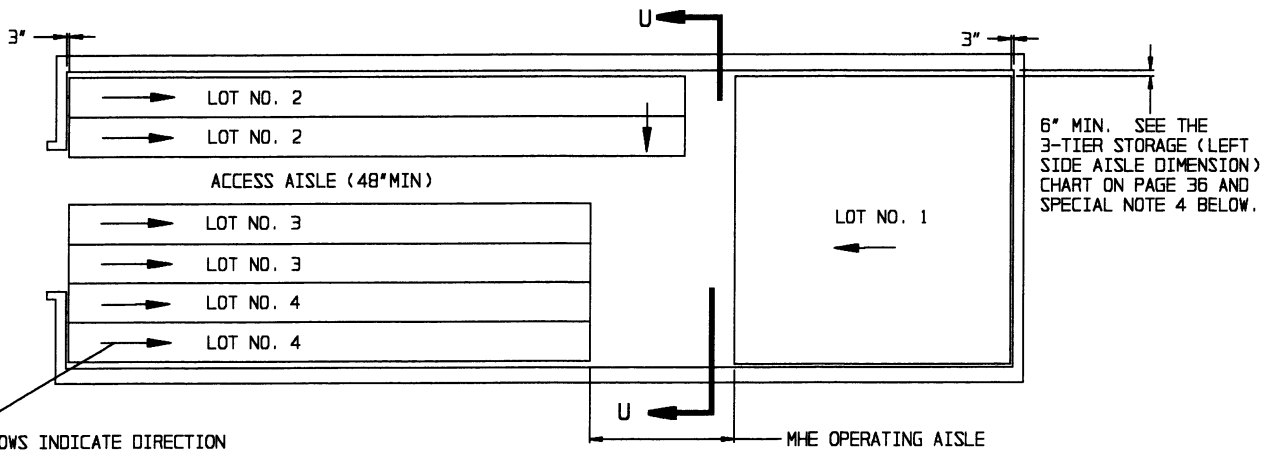


**SPECIAL NOTES:**

1. THE STORAGE PLANS AND CONFIGURATIONS SHOWN ON THIS PAGE ARE TYPICAL ONLY AND APPLY TO STORAGE OF NUMEROUS LOTS. THE PALLET UNITS SHOWN HAVE OVERALL DIMENSIONS OF 40" LONG BY 48" WIDE BY 37-5/8" HIGH. ADAPTATIONS MAY BE MADE TO SUIT THE DIMENSIONS OF THE PALLET TO BE STORED AND AS NUMBER AND SIZES OF LOTS IN MAGAZINE REQUIRE.
2. AN INSPECTION/INVENTORY AISLE NOT LESS THAN 18" WIDE MUST BE PROVIDED AT ONE SIDE OF EACH LOT.
3. GENERALLY THE LARGEST LOT SHOULD BE STORED 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. 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 MORE PALLET UNITS, PROVIDING THE CAPACITY OF THE MHE PERMITS, AND SAFE HANDLING IS NOT JEOPARDIZED.
5. FOR STORAGE OF MULTIPLE LOTS, THE DISTANCE FROM THE SIDEWALL WILL BE BASED ON THE OVERHEAD CLEARANCE REQUIRED FOR MHE.

**(SPECIAL NOTES CONTINUED)**

6. A MIXED-LOT PALLET UNIT MAY HAVE FROM TWO LOTS PER PALLET UNIT UPWARDS TO AS MANY DIFFERENT LOTS AS CONTAINERS WITHIN THAT UNIT. HOWEVER, ALL ITEMS AND LOTS WITHIN THE PALLET UNIT MUST HAVE THE SAME NATIONAL STOCK NUMBER AND CONDITION CODE.
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. AREAS INCLOSED BY DOTTED LINES INDICATE LOCATIONS WHERE ADDITIONAL LOTS MAY BE STORED OR WHERE ADDITIONAL ITEMS MAY BE STORED, THAT ARE FROM THE LOT OR LOTS WHICH ARE DIRECTLY OR ALMOST DIRECTLY ACROSS THE CENTER AISLE ON THE OTHER SIDE OF THE MAGAZINE. COMPLIANCE WITH ALL OF THE MULTIPLE-LOT CRITERIA AS SET FORTH ON THIS PAGE MUST BE OBSERVED. THE SIZE OF THE LOTS BEING STORED AND THE CRITERIA OF SPECIAL NOTE 5, RELATIVE TO "12 LIFTS", WILL BE MAJOR FACTORS IMPACTING ON THE NUMBER OF UNIT LOADS THAT CAN BE STORED IN AN "ADDITIONAL STORAGE LOCATION". AN 11-FOOT MHE OPERATING AREA HAS BEEN SPECIFIED FOR ACCESS TO EACH "ADDITIONAL LOCATION" BY FORKLIFT TRUCK. 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 48 INCHES WIDE. AN AISLE SLIGHTLY WIDER THAN 48 INCHES WILL ENHANCE FORKLIFT TRUCK MOVEMENT WITHIN A MAGAZINE; HOWEVER, THIS AISLE SHOULD NOT BE MADE WIDER IF A LOSS IN STORAGE RESULTS.

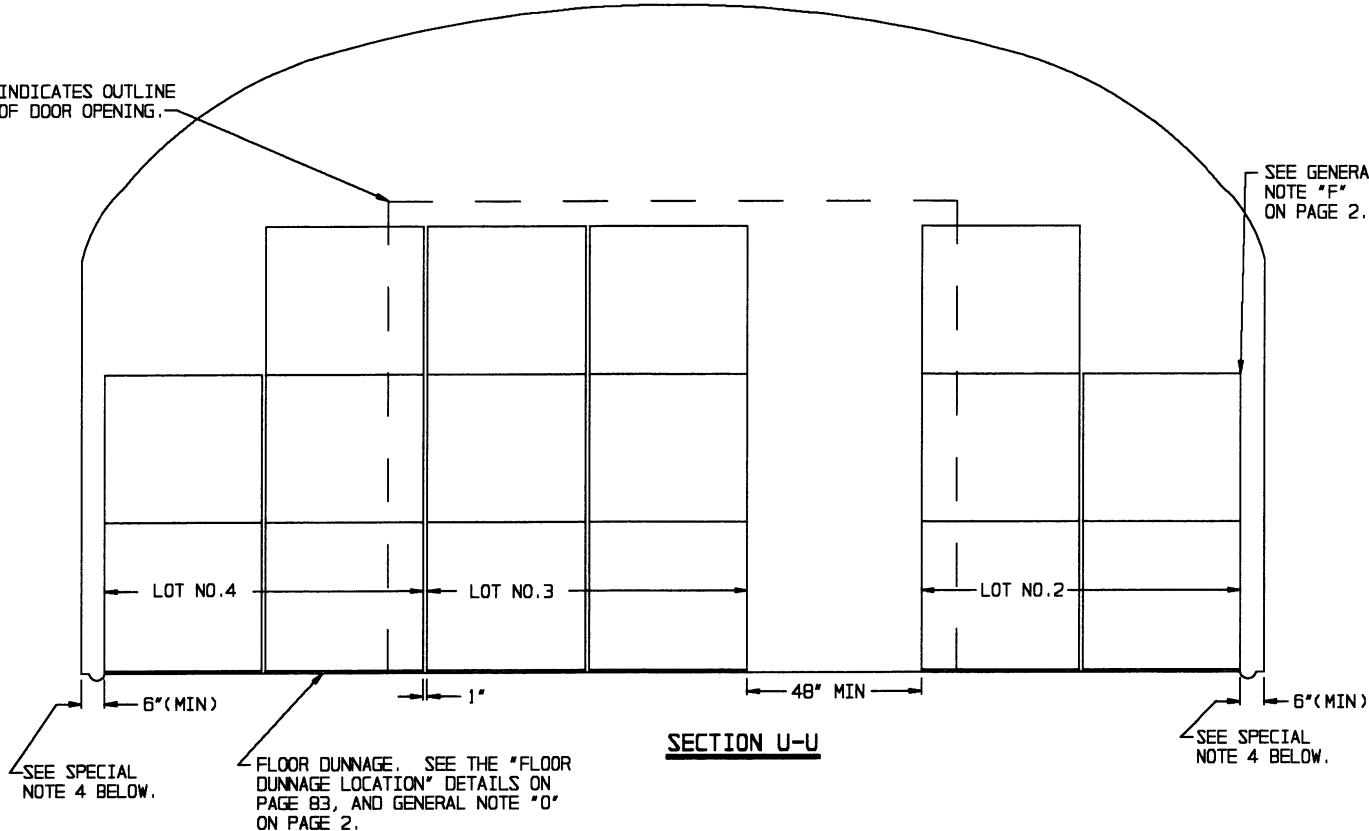


ARROWS INDICATE DIRECTION OF STORAGE FROM FRONT AND/OR REAR TOWARD CENTER OF THE LENGTH OF THE MAGAZINE.

**TYPICAL PLAN VIEW**  
(80'-0" STRADLEY MAGAZINE)

INDICATES OUTLINE OF DOOR OPENING.

SEE GENERAL NOTE "F" ON PAGE 2.



**SECTION U-U**

SEE SPECIAL NOTE 4 BELOW.

FLOOR DUNNAGE. SEE THE "FLOOR DUNNAGE LOCATION" DETAILS ON PAGE 83, AND GENERAL NOTE "O" ON PAGE 2.

SEE SPECIAL NOTE 4 BELOW.

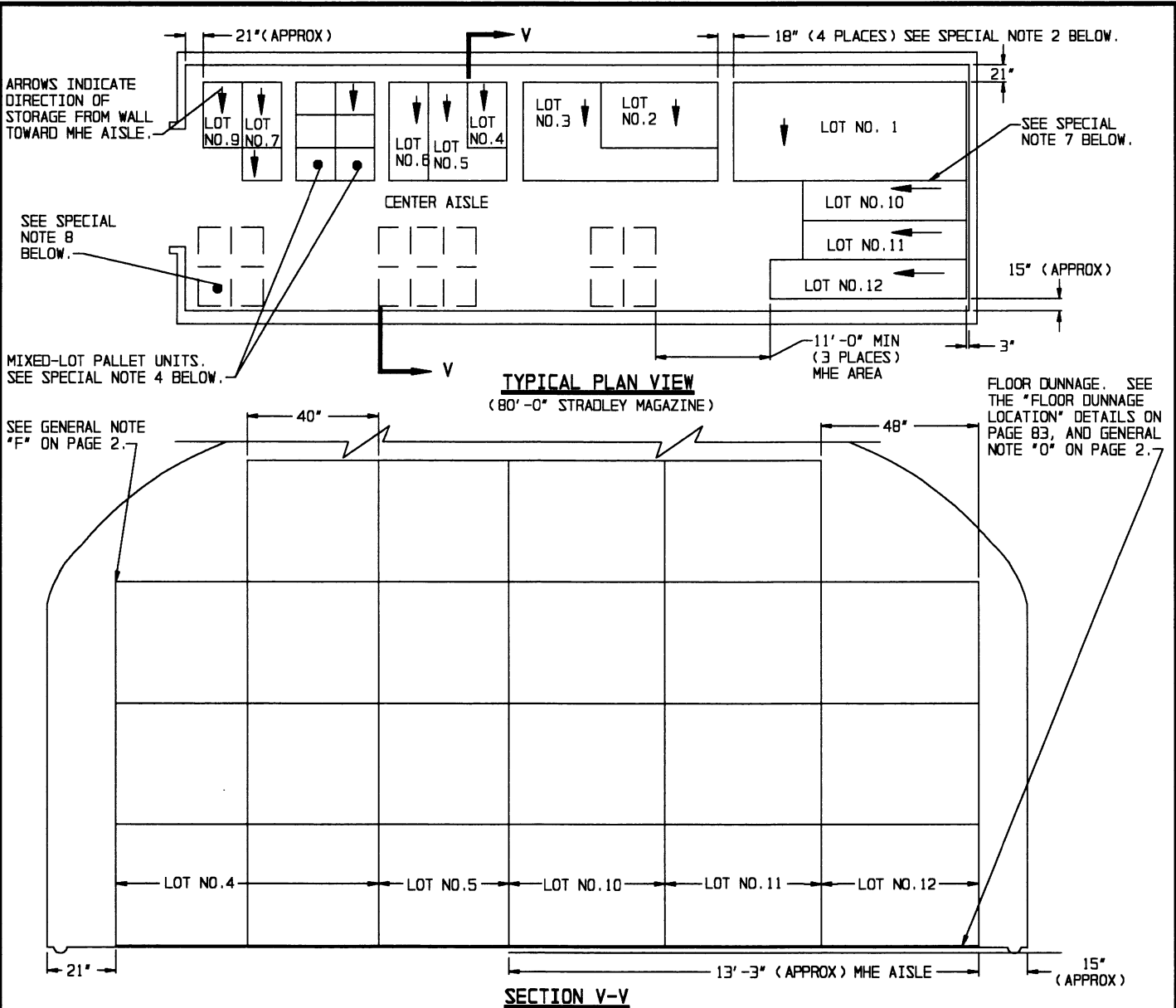
**SPECIAL NOTES:**

1. THE MULTIPLE LOT STORAGE PLAN SHOWN IS TYPICAL ONLY. ADAPTATIONS MAY BE MADE TO THE STORAGE PLAN AS THE NUMBER AND SIZES OF LOTS TO BE STORED REQUIRE.
2. THE LARGEST LOT WILL BE STORED IN TYPE "A" STACKS ACROSS THE REAR OF THE MAGAZINE. IF THE LOT OCCUPIES LESS THAN 1/4 OF THE MAGAZINE, STORAGE IN REAR OF MAGAZINE OF MORE THAN ONE (1) LOT MAY BE ERCTED IN ROWS SIMILAR TO THAT SHOWN IN THE FRONTAL AREA. A 48" ACCESS AISLE WILL NOT BE REQUIRED FOR LOTS STORED AT REAR OF MAGAZINE. THE SMALLER LOTS WILL BE STORED IN ROWS RUNNING THE LENGTH OF THE MAGAZINE. LOTS WILL NOT BE MIXED WITHIN STORAGE STACKS, BUT ONLY TO THE EXTENT THAT ITEMS OF ONE LOT WILL NOT BE STACKED ON TOP OF ITEMS OF ANOTHER LOT.

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**(SPECIAL NOTES CONTINUED)**

3. EXCEPT FOR EACH ROW ADJACENT TO THE ACCESS AISLE, LOTS CONSISTING OF NARROW UNITS MUST BE STORED TWO (2) UNITS WIDE TO PROVIDE SUFFICIENT OPERATING WIDTH FOR THE MATERIALS HANDLING EQUIPMENT (MHE). IF THE UNIT DIMENSION WHICH IS POSITIONED ACROSS THE MAGAZINE, LENGTH OR WIDTH, AS APPLICABLE, IS GREAT ENOUGH TO PROVIDE SUFFICIENT MHE OPERATING WIDTH, LOTS NEED NOT BE STORED IN DOUBLE ROWS.
4. THE 6" SIDE AISLE DIMENSION (8" FOR OVAL ARCH TYPE MAGAZINES) MAY NEED TO BE INCREASED, OR THE TOP UNIT IN THE OUTER ROW MAY NEED TO BE OMITTED, IN ORDER TO PROVIDE OVERHEAD CLEARANCE FOR THE MHE.
5. THE ACCESS AISLE, WHICH IS SHOWN IN AN OFF-CENTER LOCATION, MAY BE LOCATED ON THE CENTER OF THE MAGAZINE IF DESIRED.



**SPECIAL NOTES:**

1. THE STORAGE PLANS AND CONFIGURATIONS SHOWN ON THIS PAGE ARE TYPICAL ONLY AND APPLY TO STORAGE OF NUMEROUS SMALL LOTS. ADAPTATIONS MAY BE MADE TO SUIT THE DIMENSIONS OF THE PALLET TO BE STORED AND AS NUMBER AND SIZES OF LOTS IN MAGAZINE REQUIRE. THE TYPICAL PALLET UNIT SHOWN IS 40" LONG BY 48" WIDE BY 37" HIGH.
2. AN INSPECTION/INVENTORY AISLE NOT LESS THAN 18" WIDE MUST BE PROVIDED AT ONE SIDE OF EACH LOT.
3. GENERALLY THE LARGEST LOT SHOULD BE STORED 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 CONTAINERS WITHIN THAT UNIT. HOWEVER, ALL ITEMS AND LOTS WITHIN THAT 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 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

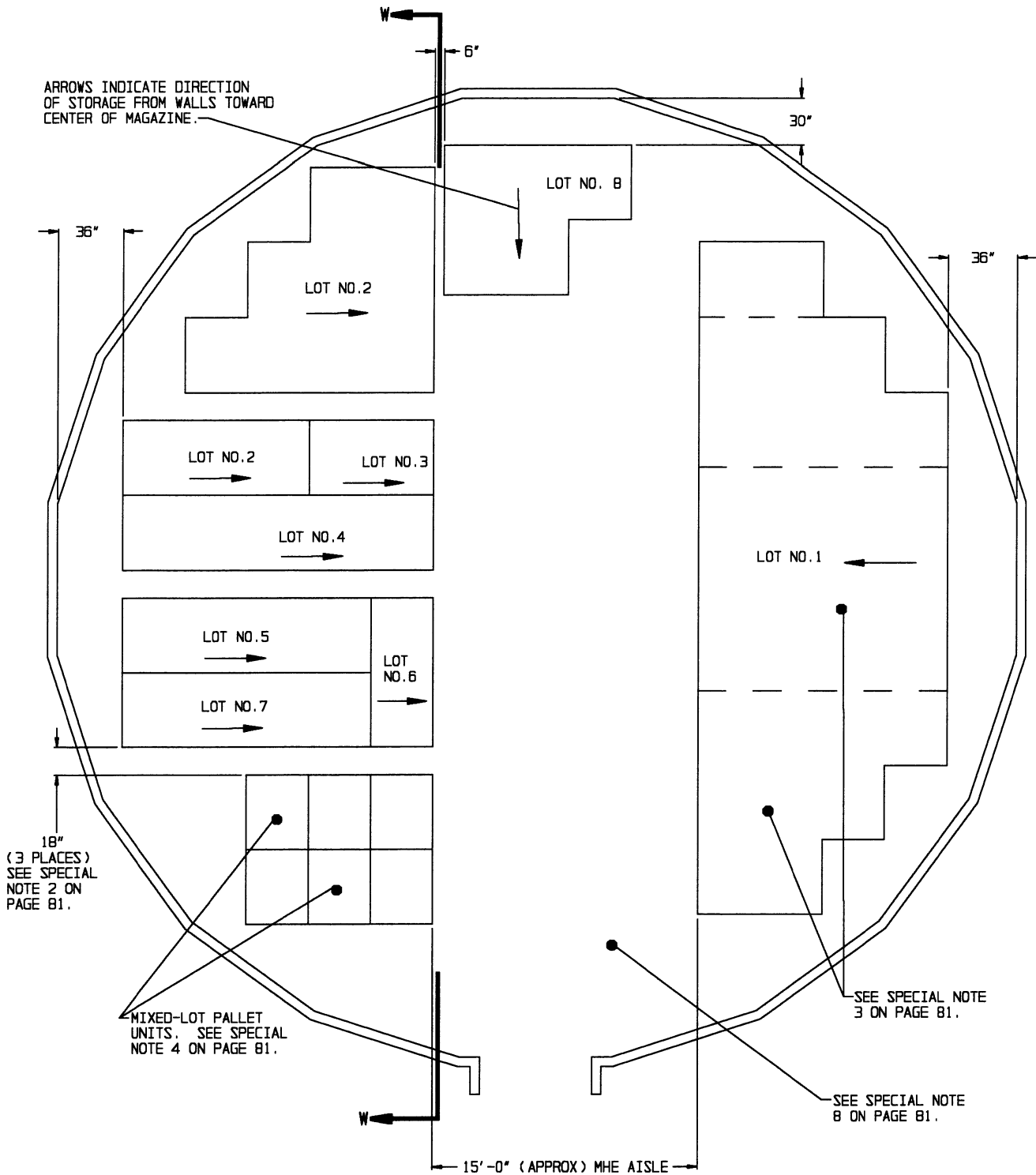
**(SPECIAL NOTES CONTINUED)**

- 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 SIDEWALL WILL BE BASED ON THE OVERHEAD CLEARANCE REQUIRED FOR THE 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. 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". AN 11-FOOT MHE OPERATING AREA HAS BEEN SPECIFIED FOR ACCESS TO EACH "ADDITIONAL LOCATION" BY FORKLIFT TRUCK. 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 48 INCHES WIDE. AN AISLE SLIGHTLY WIDER THAN 48 INCHES WILL ENHANCE FORKLIFT TRUCK MOVEMENT WITHIN A MAGAZINE; HOWEVER, THIS AISLE SHOULD NOT BE MADE WIDER IF A LOSS IN STORAGE RESULTS.

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

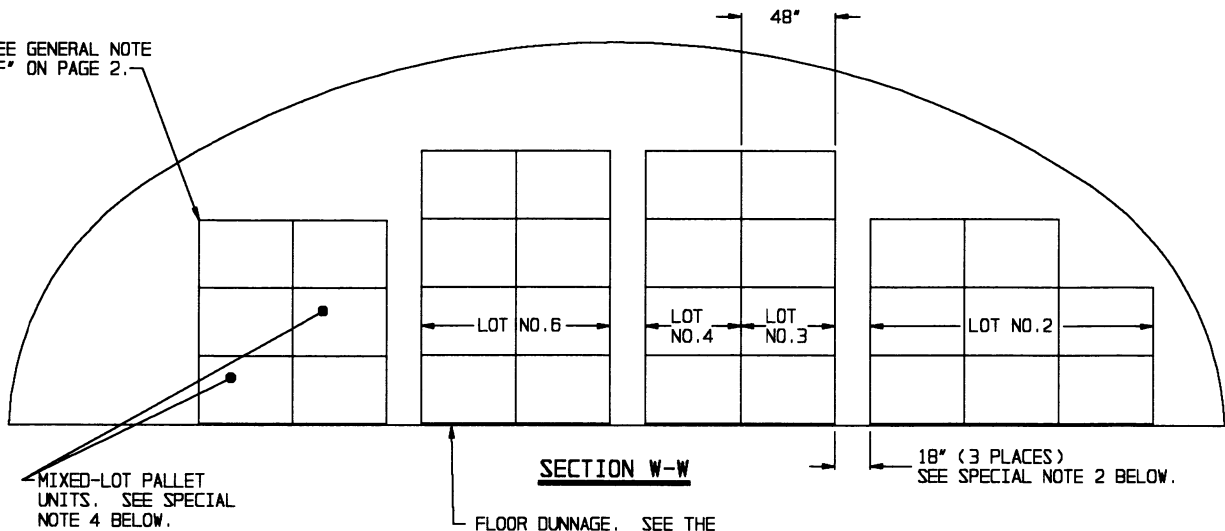
ARROWS INDICATE DIRECTION OF STORAGE FROM WALLS TOWARD CENTER OF MAGAZINE.



**TYPICAL PLAN VIEW**  
(52'-0" DIA MAGAZINE)

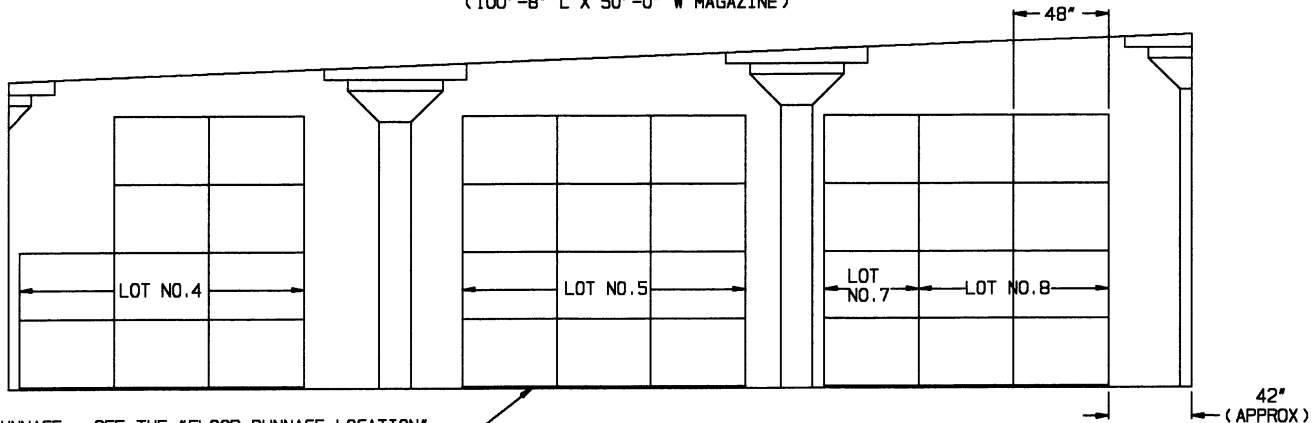
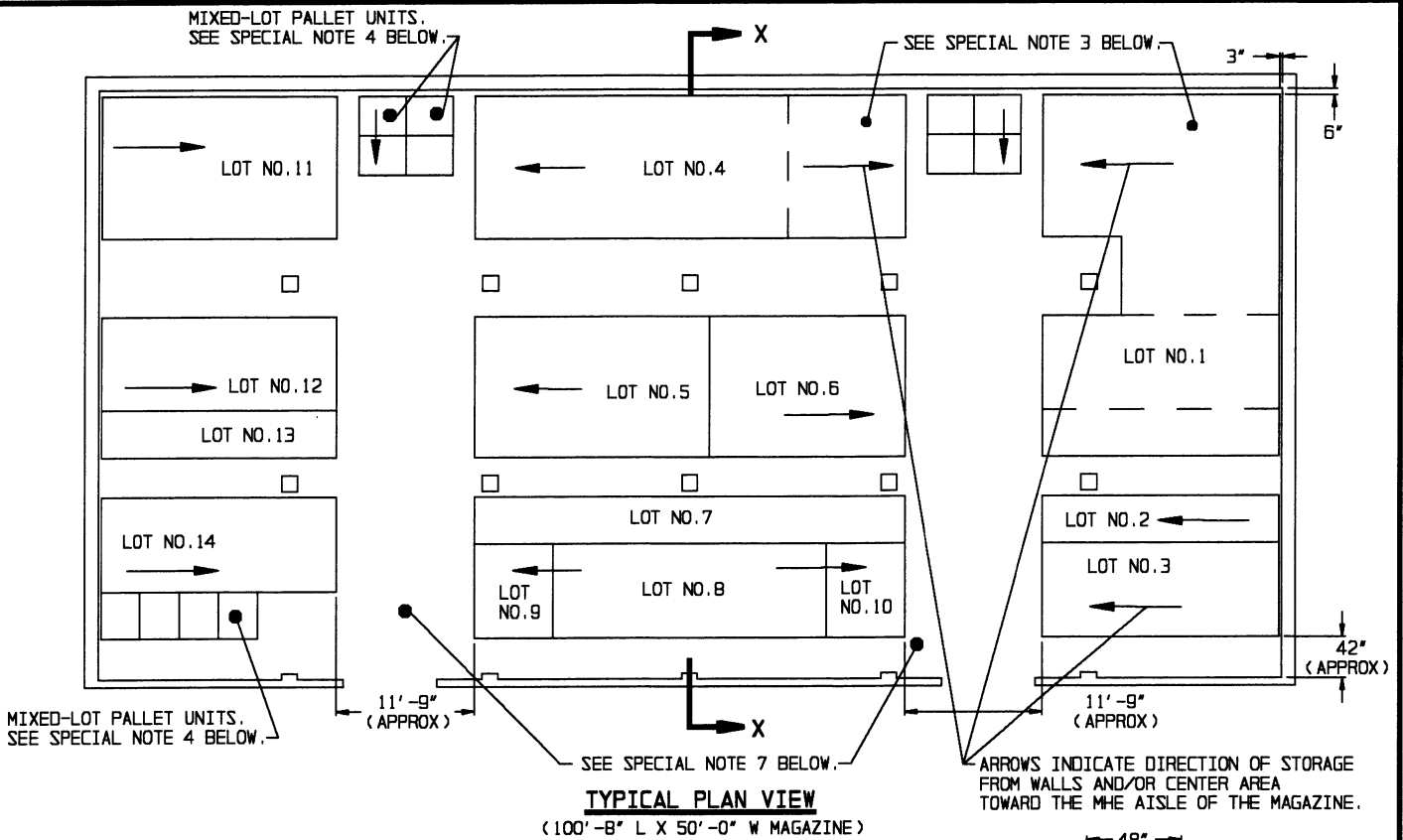


SEE GENERAL NOTE  
"F" ON PAGE 2.



SPECIAL NOTES:

1. THE STORAGE PLANS SHOWN ARE TYPICAL ONLY. ADAPTATIONS MAY BE MADE TO SUIT THE DIMENSIONS OF THE PALLET TO BE STORED AND AS NUMBER AND SIZES OF LOTS IN MAGAZINE REQUIRE.
2. AN INSPECTION/INVENTORY AISLE NOT LESS THAN 18" WIDE MUST BE PROVIDED AT ONE SIDE OF EACH LOT.
3. GENERALLY, THE LARGEST LOT SHOULD BE STORED ON ONE SIDE OF THE MAGAZINE. HOWEVER, BOTH SIDES MAY BE USED TO STORE MORE THAN ONE LOT BY ERECTING 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 CONTAINERS WITHIN THAT UNIT. HOWEVER, ALL ITEMS AND LOTS WITHIN THE PALLET UNIT MUST HAVE THE SAME NATIONAL STOCK NUMBER AND CONDITION CODE.
5. EACH LOT WITHIN THE MAGAZINE MUST BE ACCESSIBLE FOR MOVEMENT BY MHE. PALLET UNITS OF A SINGLE-LOT OR MIXED-LOT PALLET UNITS ARE CONSIDERED "ACCESSIBLE" IF NO MORE THAN TWELVE (12) LIFTS OF ANOTHER LOT OR LOTS HAVE TO BE MADE TO GAIN ACCESS TO THE SINGLE-LOT OR MIXED-LOT UNITS. A "LIFT" MAY CONSIST OF ONE (1) OR MORE PALLET UNITS, PROVIDING THE CAPABILITY 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 77 AND 79 FOR THE "ADDITIONAL STORAGE LOCATIONS" (SHOWN BY DOTTED LINES). ADEQUATE SPACE FOR MHE OPERATION, AS DESCRIBED ON PAGES 77 AND 79, 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.



FLOOR DUNNAGE. SEE THE "FLOOR DUNNAGE LOCATION" DETAILS ON PAGE 83 AND GENERAL NOTE "O" ON PAGE 2.

**SECTION X-X**

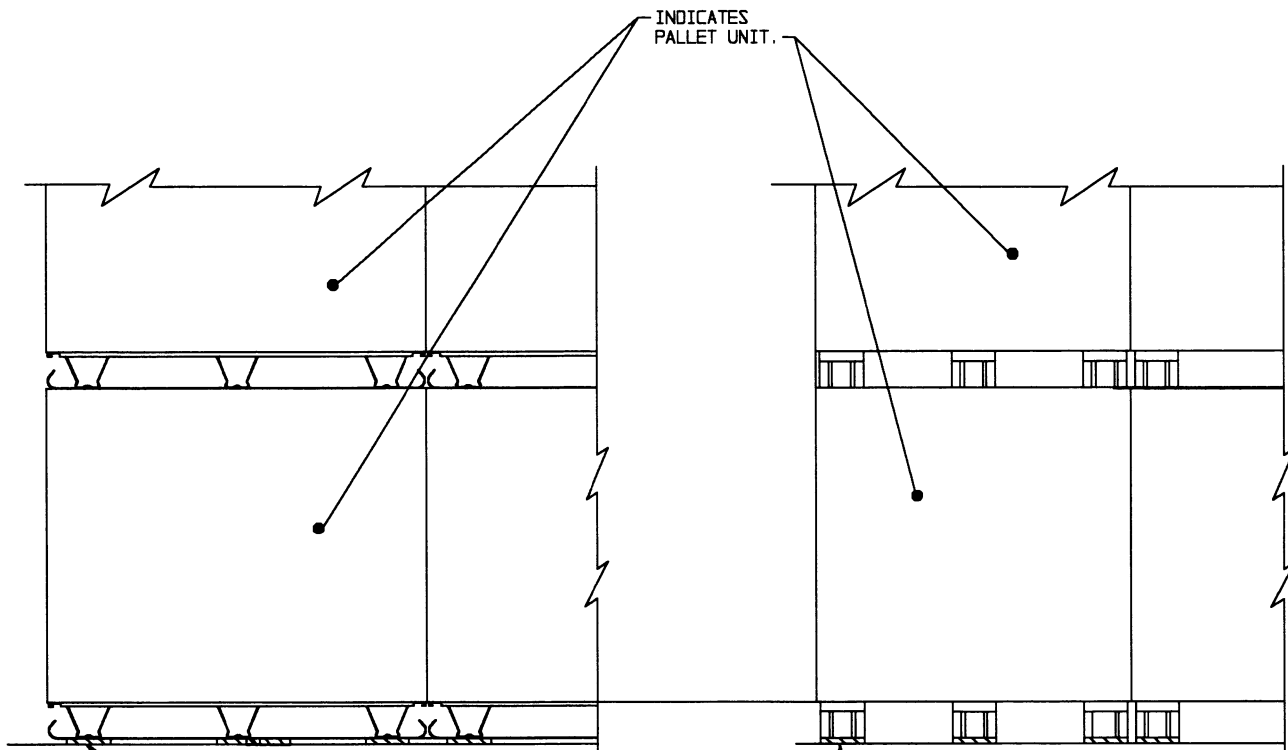
**SPECIAL NOTES:**

1. THE STORAGE PLANS SHOWN ARE TYPICAL ONLY. ADAPTATIONS MAY BE MADE TO SUIT THE DIMENSIONS OF THE PALLET TO BE STORED AND AS NUMBER AND SIZES OF LOTS IN MAGAZINE REQUIRE.
2. AN INSPECTION/INVENTORY AISLE NOT LESS THAN 18" WIDE MUST BE PROVIDED AT ONE SIDE OF EACH LOT.
3. GENERALLY, THE LARGEST LOT SHOULD BE STORED 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 CENTER AREA OR AS TYPICALLY INDICATED 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 CONTAINERS WITHIN THAT UNIT. HOWEVER, ALL ITEMS AND LOTS WITHIN THE PALLET UNIT MUST HAVE THE SAME NATIONAL STOCK NUMBER AND CONDITION CODE.
5. EACH LOT WITHIN THE MAGAZINE MUST BE ACCESSIBLE FOR MOVEMENT BY MHE. PALLET UNITS OF A SINGLE-LOT OR MIXED-LOT PALLET UNITS ARE CONSIDERED "ACCESSIBLE" IF NO MORE THAN TWENTY-FOUR

(CONTINUED AT RIGHT)

**(SPECIAL NOTES CONTINUED)**

- (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 THE 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. 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 77 AND 79 FOR THE "ADDITIONAL STORAGE LOCATIONS" (SHOWN BY DOTTED LINES). ADEQUATE SPACE FOR MHE OPERATION, AS DESCRIBED ON PAGES 77 AND 79, 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.
8. THE DEPICTED MULTIPLE-LOT STORAGE PROCEDURES FOR RECTANGULAR MAGAZINES MAY BE USED AS GUIDANCE FOR THE STORAGE OF MULTIPLE LOTS IN TYPE II AND TYPE III AMMUNITION BUNKERS.



FLOOR DUNNAGE, 1" X 6" X PALLET WIDTH.  
 (3 REQD PER FIRST LAYER PALLET UNIT).  
 POSITION UNDER STRONG POINTS OF PALLET.  
 SEE GENERAL NOTE "0" ON PAGE 2.

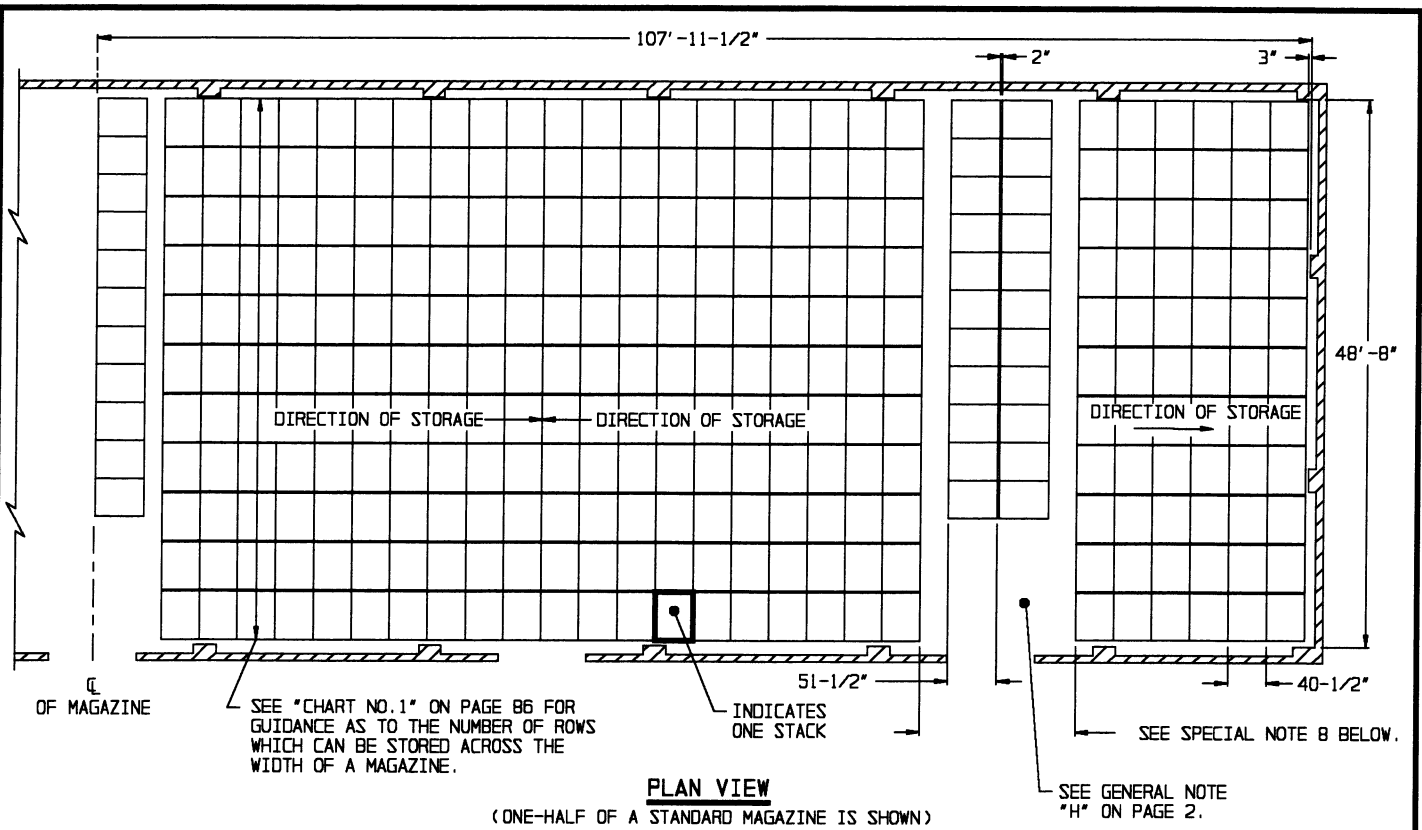
FLOOR DUNNAGE LOCATION A

FLOOR DUNNAGE, 1" X 6" X PALLET LENGTH.  
 (3 REQD PER FIRST LAYER PALLET UNIT).  
 SEE GENERAL NOTE "0" ON PAGE 2.

FLOOR DUNNAGE LOCATION B

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

DETAILS



ITEM	QUANTITY
PALLET UNIT - - - - -	939

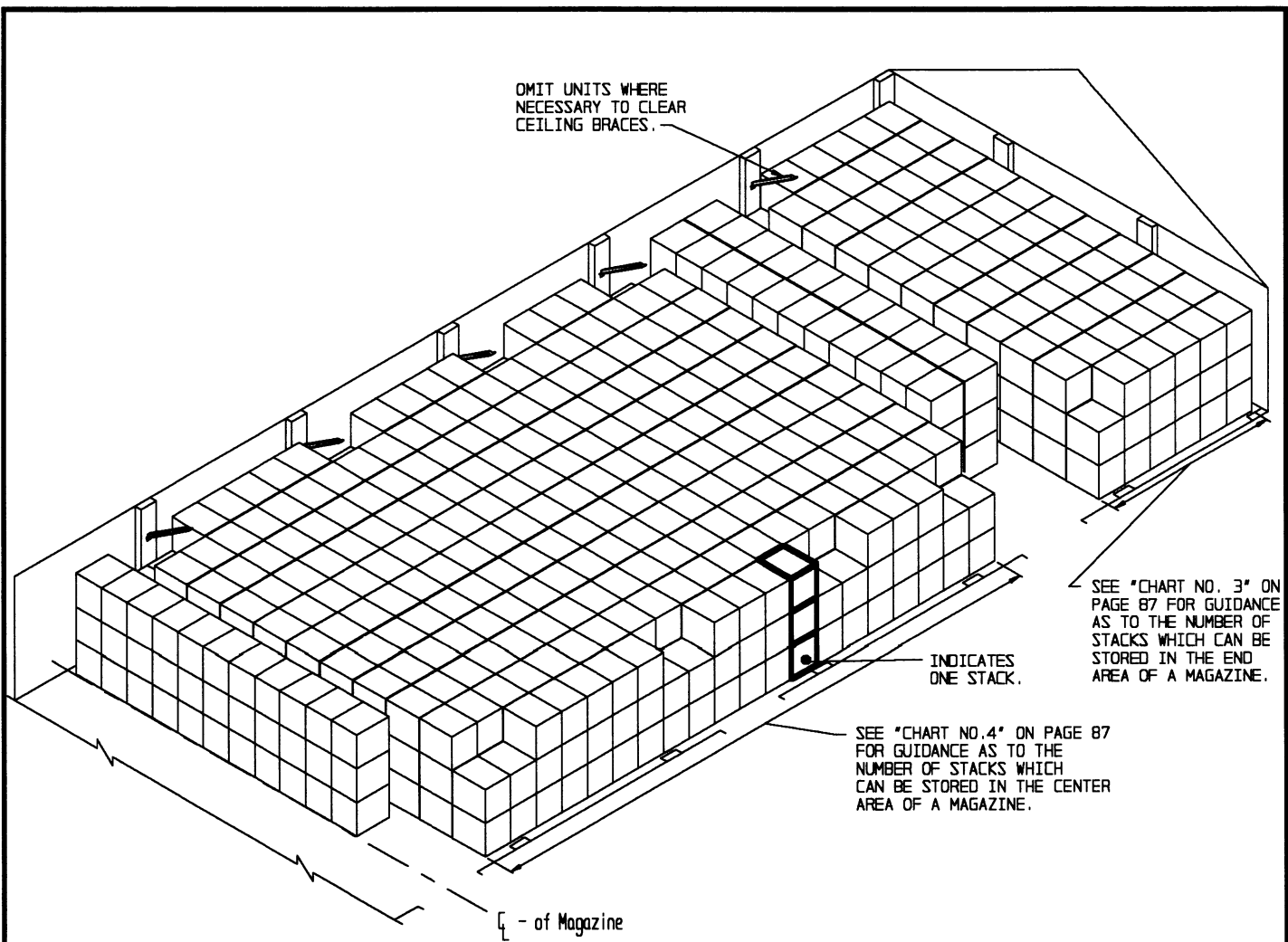
**SPECIAL NOTES:**

1. THE TYPICAL PALLET UNIT SHOWN HAS OVERALL DIMENSIONS OF 40-1/2" LONG BY 51-1/2" WIDE BY 46" HIGH. THE QUANTITY OF UNITS, THE NUMBER OF STACKS, ROWS, AND TIERS (LAYERS) WILL VARY DEPENDENT UPON THE SIZE OF THE UNIT TO BE STORED. SEE THE SPECIAL NOTES AND CHARTS ON PAGES 86 AND 87 FOR GUIDANCE. AS MANY UNITS AS POSSIBLE WILL BE STORED WITHIN THE MAGAZINE.
2. A THREE INCH (3") MINIMUM SPACE MUST BE PROVIDED BETWEEN THE STORED PALLET UNITS AND THE PILASTERS OF THE MAGAZINE. AS MANY UNITS AS POSSIBLE WILL BE STORED ACROSS THE WIDTH OF THE MAGAZINE. THE EXCESS SPACE REMAINING SHOULD BE EQUALLY DIVIDED BETWEEN THE ROWS. AT LEAST ONE INCH (1) SHOULD BE MAINTAINED SO AS TO FACILITATE STORAGE PLACEMENT AND TO PROVIDE FOR LOT SEPARATION, AS APPLICABLE.
3. IN SOME INSTANCES, LOTS CONSISTING OF NARROW UNITS MUST BE STORED TWO (2) UNITS WIDE TO PROVIDE SUFFICIENT OPERATING WIDTH OF THE MATERIALS HANDLING EQUIPMENT (MHE). IF THE UNIT DIMENSION WHICH IS POSITIONED ACROSS THE WIDTH OF THE MAGAZINE, LENGTH OR WIDTH OF THE PALLET UNIT AS APPLICABLE, IS GREAT ENOUGH TO PROVIDE SUFFICIENT MHE OPERATING WIDTH, 2-WIDE STORING WILL NOT BE NECESSARY.
4. FOR STANDARD MAGAZINES WITH CEILINGS, THE MAXIMUM HEIGHT OF STACKS WILL BE 13'-6". SEE "CHART NO.2 ON PAGE 87 FOR GUIDANCE AS TO THE NUMBER OF TIERS (LAYERS) WHICH CAN BE STORED, BASED ON THE HEIGHT OF THE UNIT. IN STANDARD MAGAZINES THAT DO NOT HAVE CEILINGS, PALLET UNITS MAY BE STORED BETWEEN THE TRUSSES TO WITHIN 18" OF THE ROOF RAFTERS AS LONG AS THE MAXIMUM FLOOR LOAD PRESCRIBED BY LOCAL STANDARDS IS NOT EXCEEDED AND THE STABILITY OF THE STACK IS MAINTAINED.
5. PALLET UNITS WILL BE OMITTED WHERE NECESSARY TO CLEAR CEILING BRACES.

**(SPECIAL NOTES CONTINUED)**

6. CAUTION; THE ALLOWABLE "EXPLOSIVE LIMIT" ESTABLISHED FOR A MAGAZINE IS NOT TO BE EXCEEDED.
7. MAXIMUM FLOOR LOADS PRESCRIBED BY LOCAL STANDARDS WILL NOT BE EXCEEDED.
8. CHARTS ARE SHOWN ON PAGES 86 AND 87 WHICH CAN BE USED AS GUIDANCE IN DEVELOPING A STORAGE PATTERN AND IN CALCULATING THE QUANTITY OF UNITS WHICH CAN BE STORED. THE NUMBER OF STACKS SPECIFIED IN CHARTS NO.3 AND 4 ARE BASED ON A MATERIALS HANDLING EQUIPMENT (MHE) AISLE OF AT LEAST 7'-7" PLUS THE LENGTH OR WIDTH OF THE PALLET UNIT, AS APPLICABLE, OR THE LENGTH OF THE FORKLIFT TRUCK TINES (40") WHICHEVER IS GREATEST. THE NUMBER OF STACKS AND/OR THE SIZE RANGE OF UNITS MAY VARY IF THE AVAILABLE MHE CAN OPERATE IN NARROWER AISLES.
9. THE BASIC STORAGE PATTERN AS SHOWN CAN ALSO BE USED FOR THE STORING OF MORE THAN ONE LOT. LOTS MAY BE STORED WITH ONE OR MORE ROWS FOR EACH LOT. 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 TWENTY-FOUR (24) "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 THE MHE PERMITS, AND SAFE HANDLING IS NOT JEOPARDIZED.
10. IF DESIRED, AND IF NOT IN VIOLATION OF SURVEILLANCE REQUIREMENTS/PROCEDURES, ONE (1) SURVEILLANCE "CONTROL UNIT" SAMPLE MAY BE WITHHELD FROM EACH STORED LOT. IF THE MAGAZINE CONTAINS ONLY ONE (1) LOT IT IS RECOMMENDED THAT THIS "CONTROL UNIT" BE PLACED JUST INSIDE THE DOOR WHERE IT IS EASILY ACCESSIBLE. IF THE MAGAZINE CONTAINS SEVERAL LOTS, THE "CONTROL UNIT" SAMPLES SHOULD BE PLACED ADJACENT TO THE MHE OPERATING AISLE FOR ACCESSIBILITY.

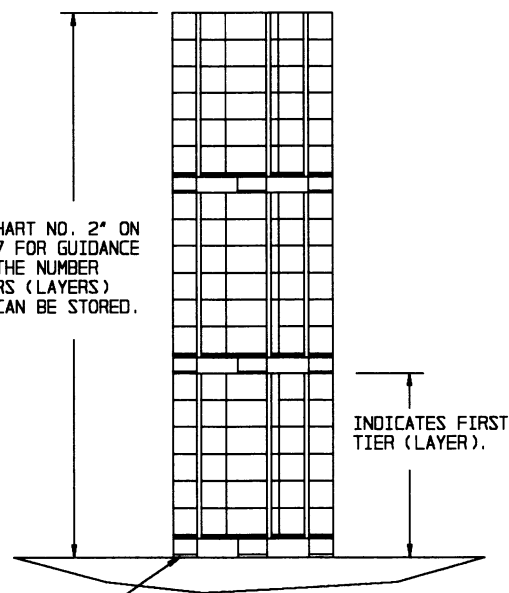
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**ISOMETRIC VIEW**  
 (ONE-HALF OF A STANDARD MAGAZINE IS SHOWN).

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

SEE "CHART NO. 2" ON PAGE 87 FOR GUIDANCE AS TO THE NUMBER OF TIERS (LAYERS) WHICH CAN BE STORED.



FLOOR DUNNAGE, SEE THE "FLOOR DUNNAGE LOCATION" DETAIL ON PAGE 83, AND GENERAL NOTE "0" ON PAGE 2.

**TYPICAL STACK**

**SPECIAL NOTES:**

1. THE CHARTS ON THIS PAGE AND ON PAGE 87 ARE PRESENTED AS GUIDANCE IN THE DEVELOPMENT OF A PATTERN FOR THE STORAGE OF PALLETIZED UNITS OF AMMUNITION AND COMPONENTS IN STANDARD MAGAZINES. TO A CERTAIN EXTENT, THE CHARTS MAY ALSO BE USED IN CALCULATING THE QUANTITY OF UNITS WHICH CAN BE STORED. NOTICE: THE CHARTS ARE FOR GUIDANCE PURPOSES ONLY. VARIATIONS IN PALLETIZED UNIT OVERALL SIZES, THE COMPACTNESS OF PLACEMENT WITHIN A MAGAZINE, AS WELL AS VARIANCE IN THE INSIDE DIMENSIONS OF THE STANDARD MAGAZINE CAN CAUSE DISCREPANCIES WITHIN THE CHARTS.
2. THE FOLLOWING STEP-BY-STEP PROCEDURES ARE PRESENTED AS GUIDANCE IN USING THE DEPICTED CHARTS. SEE THE "EXAMPLE" BELOW.

CHART NO. 1	
NUMBER OF ROWS ACROSS THE WIDTH	
LENGTH OR WIDTH OF UNIT	NUMBER OF ROWS
35"	16
OVER 35" TO 37"	15
OVER 37" TO 40"	14
OVER 40" TO 43"	13
OVER 43" TO 47"	12
OVER 47" TO 52"	11
OVER 52" TO 56"	10
OVER 56" TO 59"	9

STEP 1

LOCATE IN THE LEFT HAND COLUMN OF CHART NO. 1 THE LENGTH OR WIDTH DIMENSION RANGE WHICH INCLUDES THE DIMENSION OF THE UNIT TO BE STORED. OPPOSITE THAT LENGTH OR WIDTH FIGURE IS INDICATED THE NUMBER OF ROWS WHICH CAN BE STORED ACROSS THE WIDTH OF THE MAGAZINE AT THAT DIMENSION.

STEP 2

LOCATE IN THE LEFT HAND COLUMN OF CHART NO. 2 THE HEIGHT RANGE WHICH INCLUDES THE HEIGHT OF THE UNIT TO BE STORED. OPPOSITE THAT HEIGHT FIGURE IS INDICATED THE NUMBER OF TIERS (LAYERS) WHICH CAN BE STORED BENEATH THE TRUSSES OF THE MAGAZINE.

STEP 3

LOCATE IN THE LEFT HAND COLUMN OF CHART NO. 3 THE LENGTH OR WIDTH DIMENSION RANGE WHICH INCLUDES THE DIMENSION OF THE UNIT TO BE STORED. OPPOSITE THAT LENGTH OR WIDTH FIGURE IS INDICATED THE NUMBER OF STACKS WHICH CAN BE STORED IN THE LENGTH OF AN END AREA OF A MAGAZINE.

STEP 4

REPEAT STEP 3 FOR CHART NO. 4 TO DETERMINE THE NUMBER OF STACKS WHICH CAN BE STORED IN THE LENGTH OF A CENTER AREA OF A MAGAZINE.

EXAMPLE

THE PALLETIZED UNIT SHOWN IN THE TYPICAL STORAGE VIEWS ON PAGE 84 AND 85 HAS BEEN SELECTED FOR THE EXAMPLE. THE UNIT IS 40-1/2" LONG BY 51-1/2" WIDE BY 46" HIGH. A STORAGE PATTERN CAN BE DETERMINED BY FOLLOWING THE DOTTED-LINE EXAMPLE WITHIN THE CHARTS, IN CONJUNCTION WITH USING THE STEP-BY-STEP PROCEDURES SPECIFIED ABOVE. THE 47" TO 52" DIMENSION RANGE IS INDICATED IN THE LEFT HAND COLUMN OF CHART NO. 1, WHICH IN THIS EXAMPLE REPRESENTS THE PALLET UNIT WIDTH. IN THE SECOND COLUMN OF THE CHART IS INDICATED THE FIGURE 11 WHICH SPECIFIES THE NUMBER OF ROWS WHICH CAN BE POSITIONED ACROSS THE WIDTH OF THE MAGAZINE. THE OVER 40" TO 54" DIMENSION RANGE INDICATED IN THE LEFT HAND COLUMN OF CHART NO. 2 INCLUDES THE HEIGHT OF THE UNIT BEING STORED. IN THE SECOND COLUMN IS INDICATED THE FIGURE 3 WHICH SPECIFIES THE NUMBER OF TIERS (LAYERS) WHICH CAN BE POSITIONED WITHOUT EXTENDING ABOVE THE BOTTOM SURFACES OF THE TRUSSES. THE OVER 38" TO 44" DIMENSION RANGE INDICATED IN THE LEFT HAND COLUMN OF CHART NO. 3 INCLUDES EITHER THE LENGTH OR WIDTH OF THE UNIT. IN THE RIGHT HAND COLUMN OF THE CHART IS INDICATED THE FIGURE 6 WHICH SPECIFIES THE NUMBER OF STACKS WHICH CAN BE STORED IN THE LENGTH OF AN END AREA OF A MAGAZINE. THE OVER 39" TO 41" DIMENSION RANGE INDICATED IN THE LEFT HAND COLUMN OF CHART NO. 4 INCLUDES THE LENGTH OF THE PALLET UNIT. IN THE RIGHT HAND COLUMN OF THE CHART IS INDICATED THE FIGURE 20 WHICH SPECIFIES THE NUMBER OF STACKS WHICH CAN BE STORED IN THE LENGTH OF A CENTER AREA OF A MAGAZINE.

FOR STORAGE WITHIN THE MHE AISLE, THE OVER 50' TO 51-1/2" DIMENSION RANGE INDICATED IN THE LEFT HAND COLUMN OF CHART NO. 5 ON PAGE 87 INCLUDES THE WIDTH OF THE UNIT BEING STORED. IN THE SECOND COLUMN IS INDICATED THE FIGURE 2 WHICH SPECIFIES THE NUMBER OF ROWS WHICH CAN BE POSITIONED IN THE AISLE WIDTH WHEN THE UNITS ARE ORIENTED THE SAME AS THE UNITS IN THE LATERALLY ADJACENT ROWS. THE 40" TO 44" DIMENSION RANGE IN CHART NO. 6 INCLUDES THE LENGTH OF THE UNIT. IN THE SECOND COLUMN IS INDICATED THE FIGURE 10 WHICH SPECIFIES THE NUMBER OF UNITS LONG IN EACH ROW. ADDITIONAL UNITS MAY BE POSITIONED IN ONE OR BOTH ROWS IF THE SPACE AND/OR AVAILABLE MHE PERMITS.

CHART NO. 2	
MAXIMUM NUMBER OF TIERS UNDER TRUSSES	
UNIT HEIGHT	NUMBER OF TIERS
26" TO 27"	6
OVER 27" TO 32"	5
OVER 32" TO 40"	4
OVER 40" TO 54"	3

CHART NO. 3	
NUMBER OF STACKS LONG IN END AREA	
UNIT LENGTH OR WIDTH	NUMBER OF STACKS
35" TO 38"	7
OVER 38" TO 44"	6
OVER 44" TO 52"	5
OVER 52" TO 59"	4

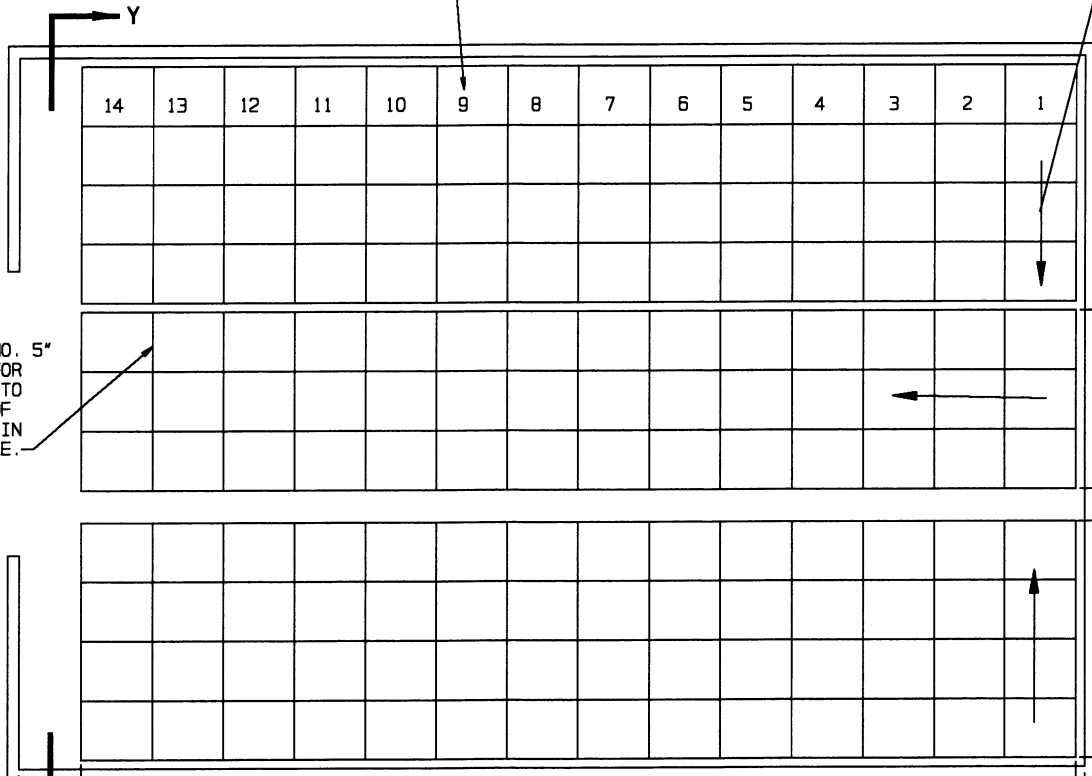
CHART NO. 4	
NUMBER OF STACKS LONG IN CENTER AREA	
UNIT LENGTH OR WIDTH	NUMBER OF STACKS
35" TO 36"	23
OVER 36" TO 37"	22
OVER 37" TO 39"	21
OVER 39" TO 41"	20
OVER 41" TO 43"	19
OVER 43" TO 45"	18
OVER 45" TO 48"	17
OVER 48" TO 51"	16
OVER 51" TO 56"	15
OVER 56" TO 59"	14

CHART NO. 6	
NUMBER OF STACKS LONG IN MHE AREA	
UNIT LENGTH OR WIDTH	NUMBER OF STACKS
35" TO 38"	12
OVER 38" TO 40"	11
OVER 40" TO 44"	10
OVER 44" TO 48"	9
OVER 48" TO 54"	8
OVER 54" TO 59"	7

CHART NO. 5		
NUMBER OF ROWS WIDE IN MHE AREA		
UNIT DIMENSION LENGTHWISE IN MAGAZINE	NUMBER OF ROWS WIDE	
	UNIT AT SAME POSITION	ALTERNATIVE UNIT POSITION
35" TO 36"	3	2 AT 45-1/2" TO 51-1/2"
OVER 36" TO 38"	2	2 AT 45-1/2" TO 51-1/2"
OVER 38" TO 39"	3	2 AT 45-1/2" TO 51-1/2"
OVER 39" TO 40"	3	2 AT 45-1/2" TO 54"
OVER 40" TO 44"	2	2 AT 48" TO 54"
OVER 44" TO 47"	3	3 AT 35" TO 39"
OVER 47" TO 50"	2	3 AT 35" TO 39" OR
OVER 50" TO 51-1/2"	2	2 AT 40" TO 44"
OVER 51-1/2" TO 59"	2	2 AT 35" TO 39"
		2 AT 40" TO 44"

ARROWS INDICATE DIRECTION OF STORAGE FROM SIDEWALLS TOWARD THE MHE AISLE AND/OR WITHIN THE MHE AISLE FROM THE REAR WALL TOWARD THE DOOR OPENING.

INDICATES A ROW NUMBER.



SEE "CHART NO. 5" ON PAGE 91 FOR GUIDANCE AS TO THE NUMBER OF STACKS LONG IN THE MHE AISLE.

SEE "CHART NO. 4" ON PAGE 91 FOR GUIDANCE AS TO THE NUMBER OF ROWS WIDE IN THE MHE AISLE.

42" (1066MM) (APPROX)

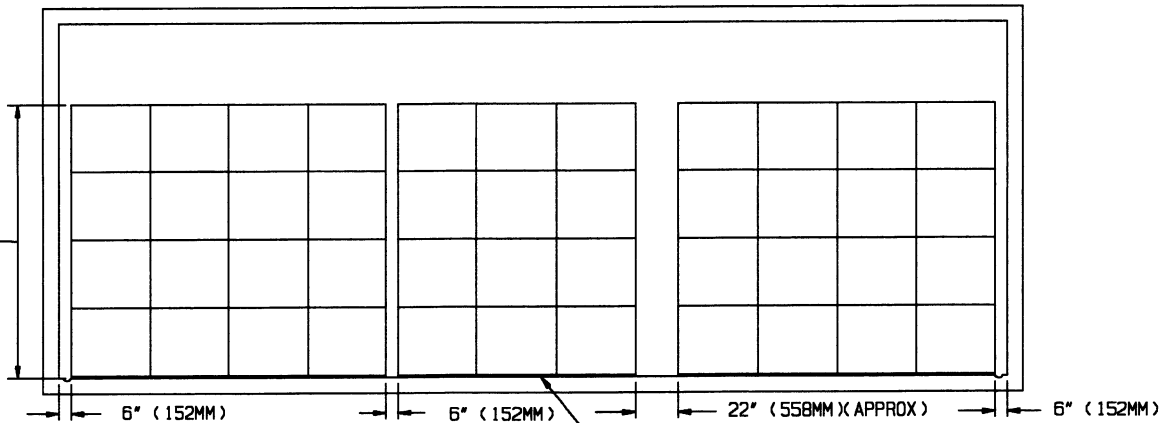
6" (152MM)

**PLAN VIEW**  
(TYPE II BUNKER MAGAZINE)

SEE "CHART NO. 2" ON PAGE 91 FOR GUIDANCE AS TO THE NUMBER OF ROWS ACROSS THE LENGTH OF THE BUNKER.

SEE "CHART NO. 1" ON PAGE 91 FOR GUIDANCE AS TO THE NUMBER OF STACKS ACROSS THE WIDTH OF THE BUNKER.

SEE "CHART NO. 3" ON PAGE 91 FOR GUIDANCE AS TO THE NUMBER OF TIERS (LAYERS) WHICH CAN BE STORED.



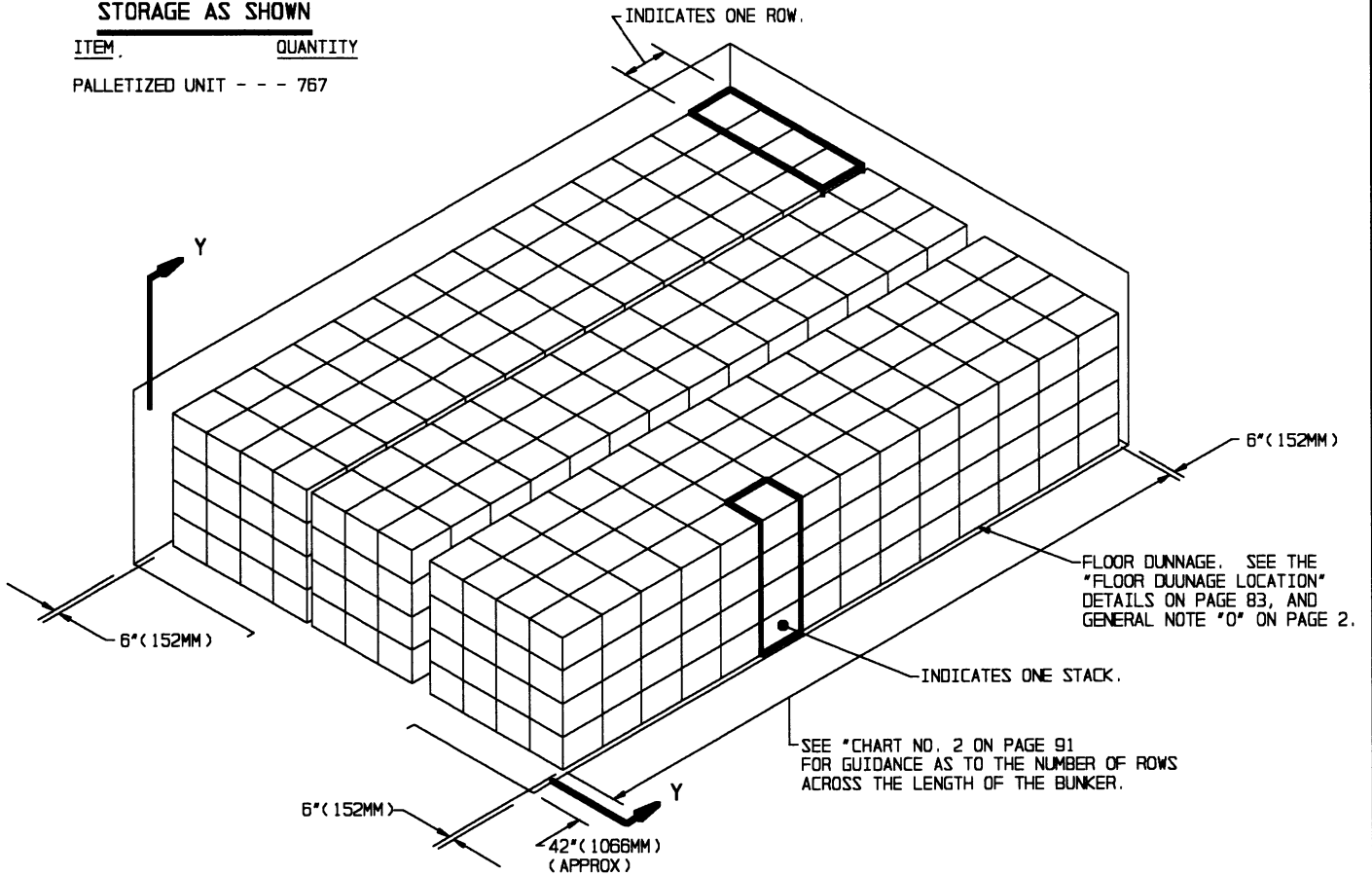
**SECTION Y-Y**

FLOOR DUNNAGE. SEE THE "FLOOR DUNNAGE LOCATION", DETAILS ON PAGE 83, AND GENERAL NOTE "O" ON PAGE 2.



**STORAGE AS SHOWN**

ITEM.                      QUANTITY  
 PALLETIZED UNIT - - - 767



**ISOMETRIC VIEW**  
 (TYPE II BUNKER MAGAZINE)

**SPECIAL NOTES:**

1. THE TYPICAL PALLETIZED UNIT SHOWN HAS OVERALL DIMENSIONS OF 40" LONG BY 48" WIDE BY 34-1/2" HIGH. THE QUANTITY OF UNITS, THE NUMBER OF STACKS, ROWS AND TIERS (LAYERS) WILL VARY DEPENDENT UPON THE SIZE OF THE UNIT BEING STORED. SEE THE SPECIAL NOTES AND CHARTS ON PAGES 90 AND 91 FOR GUIDANCE. AS MANY UNITS AS POSSIBLE WILL BE STORED WITHIN THE AMMUNITION BUNKER.
2. A 6" (152MM) MINIMUM SPACE WILL BE PROVIDED BETWEEN THE REAR WALL AND/OR A SIDE WALL AND THE PALLETIZED UNITS.
3. THE ARROWS ON THE PLAN VIEW ON PAGE 88 INDICATE THE DIRECTION OF STORAGE FROM THE SIDE WALLS TOWARD THE MHE AISLE, OR WITHIN THE MHE AISLE FROM THE REAR WALL TOWARD THE DOOR OPENING.
4. 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 CASES PROVIDE ADEQUATE PACKAGE GUARD PROTECTION). ONLY A FORKLIFT OF ADEQUATE CAPACITY WILL BE USED WHEN LIFTING TWO PALLET UNITS AS ONE LIFT.
5. PALLET UNITS ALONG EACH SIDE OF THE BUNKER MAY BE STORED WITH EITHER THE UNIT LENGTH OR THE UNIT WIDTH ACROSS THE WIDTH OF THE BUNKER. ONE POSITIONING MAY PROVIDE DENSER STORAGE THAN THE OTHER, AND THE BEST METHOD SHOULD BE PRIOR DETERMINED BY STUDYING THE CHARTS ON PAGE 91.

(CONTINUED AT RIGHT)

**(SPECIAL NOTES CONTINUED)**

6. IN SOME INSTANCES, ROWS OF NARROW UNITS MUST BE STORED TWO (2) UNITS WIDE TO PROVIDE SUFFICIENT OPERATING WIDTH FOR THE MATERIALS HANDLING EQUIPMENT (MHE). IF THE UNIT DIMENSION WHICH IS POSITIONED ACROSS THE WIDTH OF THE BUNKER, LENGTH OR WIDTH OF THE PALLETIZED UNIT AS APPLICABLE, IS GREAT ENOUGH TO PROVIDE SUFFICIENT MHE OPERATING WIDTH, 2-WIDE STORAGE WILL NOT BE NECESSARY.
7. REFER TO THE "TYPICAL MULTIPLE-LOT STORAGE FOR RECTANGULAR MAGAZINE" ON PAGE 82 FOR GUIDANCE IN THE STORAGE OF MULTIPLE LOTS IN A TYPE II BUNKER.
8. THE NUMBER OF STACKS LONG IN THE ROW ON EACH SIDE OF THE MAGAZINE IS BASED ON HAVING A MATERIAL HANDLING EQUIPMENT OPERATING AISLE (DISTANCE FROM A STACK ON ONE SIDE OF THE CENTER AISLE TO A STACK ON THE OPPOSITE SIDE OF THE AISLE) OF 7'-7" PLUS THE LENGTH OF THE FORKLIFT TRUCK TINES (40"), WHICHEVER IS THE GREATEST.
9. IF DESIRED, AND IF NOT IN VIOLATION OF SURVEILLANCE REQUIREMENTS/PROCEDURES, ONE (1) SURVEILLANCE "CONTROL UNIT" SAMPLE MAY BE WITHHELD FROM EACH LOT. IF THE MAGAZINE CONTAINS ONLY ONE (1) LOT IT IS RECOMMENDED THAT THIS "CONTROL UNIT" BE PLACED JUST INSIDE THE DOOR WHERE IT IS EASILY ACCESSIBLE. IF THE MAGAZINE CONTAINS SEVERAL LOTS, THE "CONTROL UNIT" SAMPLES SHOULD BE PLACED ADJACENT TO THE MHE OPERATING AISLE FOR ACCESSIBILITY.

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

SPECIAL NOTES:

(SPECIAL NOTES CONTINUED)

1. THE CHARTS ON PAGE 91 ARE PRESENTED AS GUIDANCE IN THE DEVELOPMENT OF A PLAN FOR THE STORAGE OF PALLETIZED UNITS OF AMMUNITION AND COMPONENTS IN 60'-0" LONG BY 40'-0" WIDE TYPE II AMMUNITION BUNKERS. TO A CERTAIN EXTENT, THE CHARTS MAY ALSO BE USED IN CALCULATING THE QUANTITY OF UNITS WHICH CAN BE STORED. NOTICE: THE CHARTS ARE FOR GUIDANCE PURPOSES ONLY. VARIATIONS IN PALLETIZED UNIT OVERALL SIZES, THE COMPACTNESS OF PLACEMENT WITHIN THE BUNKER, AS WELL AS VARIANCE IN THE INSIDE DIMENSIONS OF THE BUNKER CAN CAUSE DISCREPANCIES WITHIN THE CHARTS.
2. THE FOLLOWING STEP-BY-STEP PROCEDURES ARE PRESENTED AS GUIDANCE IN USING THE DEPICTED CHARTS. SEE THE "EXAMPLE" BELOW.

STEP 1

LOCATE IN THE LEFT HAND COLUMN OF CHART NO. 1 ON PAGE 91 THE LENGTH OR WIDTH DIMENSION RANGE WHICH INCLUDES THE DIMENSION OF THE UNIT TO BE STORED IN THE 40'-0" WIDTH OF THE BUNKER. OPPOSITE THAT LENGTH OR WIDTH FIGURE ARE TWO COLUMNS. THE FIRST COLUMN INDICATES THE NUMBER OF STACKS WHICH CAN BE PLACED BETWEEN ONE SIDEWALL AND THE MHE AISLE. THE SECOND COLUMN INDICATES THE NUMBER OF STACKS WHICH CAN BE PLACED ON THE OPPOSITE SIDE OF THE MHE AISLE.

STEP 2

LOCATE IN THE LEFT HAND COLUMN OF CHART NO. 2 THE LENGTH OR WIDTH DIMENSION RANGE WHICH INCLUDES THE DIMENSION OF THE UNIT TO BE STORED IN THE 60'-0" LENGTH OF THE BUNKER. OPPOSITE THAT LENGTH OR WIDTH DIMENSION IS INDICATED THE TOTAL NUMBER OF ROWS WHICH CAN BE STORED BETWEEN THE 6" AISLE AT THE REAR OF THE BUNKER AND THE FRONT WALL.

STEP 3

LOCATE IN THE LEFT HAND COLUMN OF CHART NO. 3 THE HEIGHT RANGE WHICH INCLUDES THE HEIGHT OF THE UNIT TO BE STORED. OPPOSITE THAT HEIGHT FIGURE IS INDICATED THE NUMBER OF TIERS (LAYERS) WHICH CAN BE STORED.

STEP 4

LOCATE IN THE LEFT HAND COLUMN OF CHART NO. 4 THE LENGTH OR WIDTH RANGE WHICH INCLUDES THE DIMENSION OF THE UNIT WHICH IS TO BE STORED IN THE 40'-0" WIDTH OF THE BUNKER. THE COLUMN IMMEDIATELY ADJACENT INDICATES THE NUMBER OF ROWS WHICH CAN BE PLACED IN THE MHE AREA WIDTH WHEN THE UNITS ARE ORIENTED THE SAME AS THE UNITS IN THE LATERALLY ADJACENT ROWS. THE NEXT COLUMN INDICATES THE NUMBER OF ROWS AND THE LENGTH OR WIDTH DIMENSION RANGE OF THE UNITS WHEN THEY ARE ROTATED 90° TO THOSE IN THE LATERALLY ADJACENT ROWS.

STEP 5

LOCATE IN THE LEFT HAND COLUMN OF CHART NO. 5 THE LENGTH OR WIDTH RANGE WHICH INCLUDES THE DIMENSION OF THE UNIT TO BE STORED IN THE LENGTH OF THE MHE AISLE. OPPOSITE THAT LENGTH OR WIDTH DIMENSION IS INDICATED THE NUMBER OF STACKS IN THE ROWS WITHIN THE MHE AISLE, WHEN SUFFICIENT SPACE IS ALLOWED AT THE END OF THE ROWS FOR PERSONNEL TO ENTER THE DOOR AND PROCEED TO THE ACCESS AISLE. NOTE THAT ADDITIONAL STACKS MAY BE POSITIONED IN ONE OR MORE ROWS IF SPACE PERMITS.

EXAMPLE

THE PALLETIZED UNIT SHOWN IN THE VIEWS ON PAGES 88 AND 89 HAS BEEN SELECTED FOR THE EXAMPLE. THE UNIT IS 40" LONG BY 48" WIDE BY 34-1/2" HIGH. A STORAGE PATTERN CAN BE DETERMINED BY FOLLOWING THE DOTTED-LINE EXAMPLE WITHIN CHARTS NO. 1 THROUGH 5 ON PAGE 91 IN CONJUNCTION WITH USING THE STEP-BY-STEP PROCEDURES ABOVE.

TO FIND THE NUMBER OF PALLET STACKS IN THE 40'-0" WIDTH OF THE BUNKER, LOOK IN THE LEFT HAND COLUMN OF CHART NO. 1 ON PAGE 91 UNDER THE UNIT LENGTH OR WIDTH. THE 40" IS WITHIN THE OVER 37"-42" RANGE. FOLLOWING THE ARROWS ALONG THE DOTTED LINE TO THE RIGHT, THE FIRST COLUMN INDICATES THAT 4 STACKS CAN BE STORED ON ONE SIDE OF THE MHE AISLE AND THE SECOND COLUMN INDICATES THAT 4 STACKS CAN BE STORED ON THE OPPOSITE SIDE.

(CONTINUED AT RIGHT)

TO FIND THE NUMBER OF ROWS IN THE 60'-0" LENGTH OF THE BUNKER, LOOK IN THE LEFT HAND COLUMN OF CHART NO. 2. THE 48" WIDTH IS WITHIN THE OVER 46-1/2" TO 50" RANGE. FOLLOWING THE ARROW ALONG THE DOTTED LINE TO THE RIGHT INDICATES THAT 14 ROWS CAN BE PLACED IN THE BUNKER.

TO FIND THE NUMBER OF TIERS (LAYERS) WHICH CAN BE STORED, LOCATE THE UNIT HEIGHT OF 34-1/2" WITHIN THE OVER 29" TO 34-3/4" RANGE IN CHART NO. 3. FOLLOWING THE ARROW ALONG THE DOTTED LINE TO THE RIGHT WE FIND THAT 5 TIERS CAN BE STORED.

IN CHART NO.4 THE 40" LENGTH DIMENSION WHICH IS ACROSS THE WIDTH OF THE BUNKER IS WITHIN THE OVER 39" TO 41" RANGE. THE ADJACENT COLUMN INDICATES THE NUMBER OF ROWS WIDE IN THE MHE AISLE WHEN THE PALLET UNITS ARE ORIENTED THE SAME AS THE LATERALLY ADJACENT ROWS. THE FIGURE 3 IN THAT COLUMN SPECIFIES THAT 3 ROWS AT 40" ACROSS THE WIDTH OF THE MHE AISLE CAN BE POSITIONED.

IN CHART NO. 5 THE 48" WIDTH DIMENSION WHICH IS POSITIONED LENGTHWISE WITHIN THE MHE AISLE IS WITHIN THE OVER 46" TO 49" RANGE. FOLLOWING THE ARROW ALONG THE DOTTED LINE TO THE RIGHT INDICATES THAT 14 STACKS CAN BE POSITIONED WITHIN THE LENGTH OF THE MHE AISLE. THIS ALLOWS SUFFICIENT SPACE FOR PASSAGE BETWEEN THE LAST PALLET STACKS AND THE DOOR.

3. THE UNIT SIZE RANGE (LENGTH OR WIDTH) AND THE UNIT HEIGHT DIMENSIONS COVER ALL THE SIZES WITHIN THE RANGE SPECIFIED.

CHART NO. 1		
NUMBER OF STACKS ACROSS THE WIDTH		
UNIT LENGTH OR WIDTH	NUMBER OF STACKS	
	ONE SIDE	OPPOSITE SIDE
35" TO 37"	5	4
OVER 37" TO 42"	4	4
OVER 42" TO 48"	4	3
OVER 48" TO 54"	3	3
OVER 54" TO 59"	3	2

CHART NO. 2	
NUMBER OF ROWS ACROSS THE LENGTH	
UNIT LENGTH OR WIDTH	NUMBER OF ROWS
35"	20
OVER 35" TO 37"	19
OVER 37" TO 39"	18
OVER 39" TO 41"	17
OVER 41" TO 44"	16
OVER 44" TO 46-1/2"	15
OVER 46-1/2" TO 50"	14
OVER 50" TO 54"	13
OVER 54" TO 59"	12

CHART NO. 3	
NUMBER OF TIERS	
UNIT HEIGHT	NUMBER OF TIERS
26" TO 29"	6
OVER 29" TO 34-3/4"	5
OVER 34-3/4" TO 43-1/2"	4
OVER 43-1/2" TO 54"	3

CHART NO. 4		
NUMBER OF ROWS WIDE IN MHE AREA		
UNIT DIMENSION ACROSS WIDTH OF MAGAZINE	NUMBER OF ROWS WIDE	
	UNIT AT SAME POSITION	ALTERNATIVE UNIT POSITION
35"	4	3 AT 45-1/2" TO 47"
OVER 35" TO 37"	3	2 AT 45-1/2" TO 51-1/2"
OVER 37" TO 38"	4	3 AT 45-1/2" TO 50-1/2"
OVER 38" TO 39"	3	3 AT 45-1/2" TO 48"
OVER 39" TO 41"	3	2 AT 48" TO 54"
OVER 41" TO 42"	2	2 AT 48" TO 54"
OVER 42" TO 43"	3	3 AT 48" TO 51-1/2" OR
		2 AT 51-5/8" TO 54"
OVER 43" TO 44"	3	3 AT 48" TO 49" OR
		2 AT 49-1/8" TO 54"
OVER 44" TO 45"	3	4 AT 35" OR "
OVER 45" TO 47"	2	3 AT 35-1/8" TO 39"
OVER 47" TO 48"	2	3 AT 35" TO 39"
		3 AT 40" OR
OVER 48" TO 49"	3	2 AT 40-1/8" TO 44"
		4 AT 40" OR
OVER 49" TO 50"	3	3 AT 40-1/8" TO 44"
OVER 50" TO 59"	2	3 AT 40" TO 44"
		3 AT 40" TO 44"

CHART NO. 5	
NUMBER OF STACKS LONG IN MHE AREA	
UNIT LENGTH OR WIDTH	NUMBER OF STACKS
35" TO 36"	19
OVER 36" TO 38"	18
OVER 38" TO 40-1/2"	17
OVER 40-1/2" TO 43	16
OVER 43" TO 46"	15
OVER 46" TO 49"	14
OVER 49" TO 53"	13
OVER 53" TO 57"	12
OVER 57" TO 59"	11

SEE "CHART NO. 1" ON PAGE 97 FOR GUIDANCE AS TO THE NUMBER OF STACKS ACROSS THE WIDTH OF THE BUNKER.

INDICATES A ROW NUMBER.

SEE "CHART NO. 3" ON PAGE 97 FOR THE NUMBERS OF THE ROWS OF PALLET UNITS WHICH FALL BEHIND THE CONCRETE PILLARS.

SEE "CHART NO. 4" ON PAGE 97 FOR GUIDANCE AS TO THE NUMBER OF STACKS BETWEEN THE SIDEWALL AND A PILLAR.

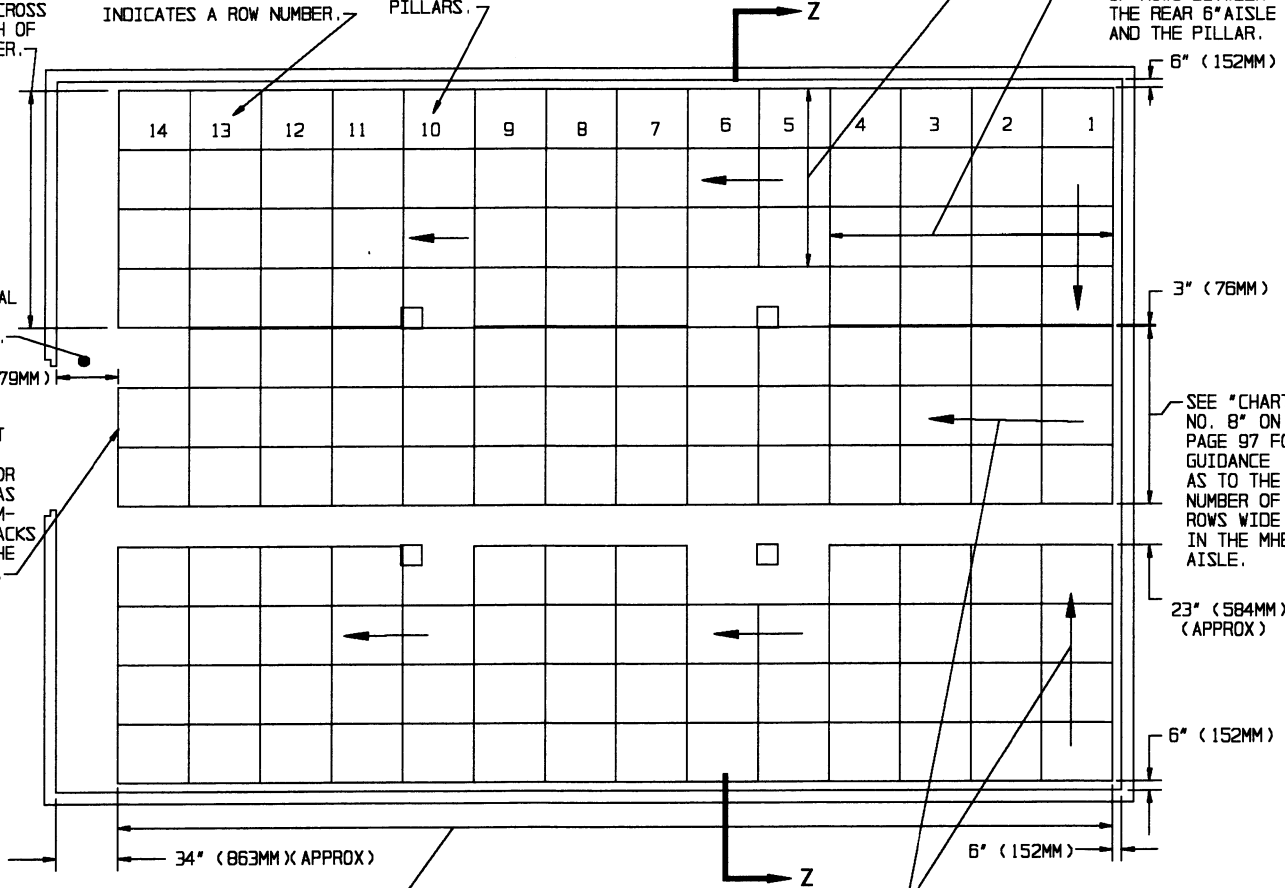
SEE "CHART NO. 2" ON PAGE 97 FOR GUIDANCE AS TO THE NUMBER OF ROWS BETWEEN THE REAR 6" AISLE AND THE PILLAR.

SEE GENERAL NOTE "H" ON PAGE 2.

SEE "CHART NO. 9" ON PAGE 97 FOR GUIDANCE AS TO THE NUMBER OF STACKS LONG IN THE MHE AISLE.

SEE "CHART NO. 8" ON PAGE 97 FOR GUIDANCE AS TO THE NUMBER OF ROWS WIDE IN THE MHE AISLE.

23" (584MM) (APPROX)



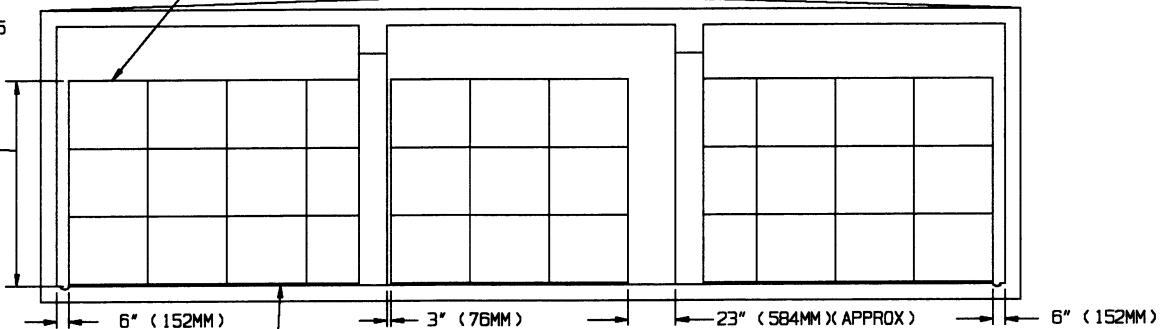
**PLAN VIEW**  
(TYPE III BUNKER MAGAZINE)

ARROWS INDICATE DIRECTION OF STORAGE FROM SIDEWALLS TOWARD THE MHE AISLE, OR FROM THE REAR TOWARD THE FRONT WALL AND/OR WITHIN THE MHE AISLE FROM THE REAR WALL TOWARD THE DOOR OPENING.

SEE "CHART NO. 7" ON PAGE 97 FOR GUIDANCE AS TO THE NUMBER OF ROWS ACROSS THE LENGTH OF THE BUNKER.

SEE "CHART NO. 6" ON PAGE 97 FOR GUIDANCE AS TO THE NUMBER OF FULL-HEIGHT STACKS BEHIND THE BEAM IN THE BUNKER.

SEE "CHART NO. 5" ON PAGE 97 FOR GUIDANCE AS TO THE NUMBER OF TIERS (LAYERS) WHICH CAN BE STORED.

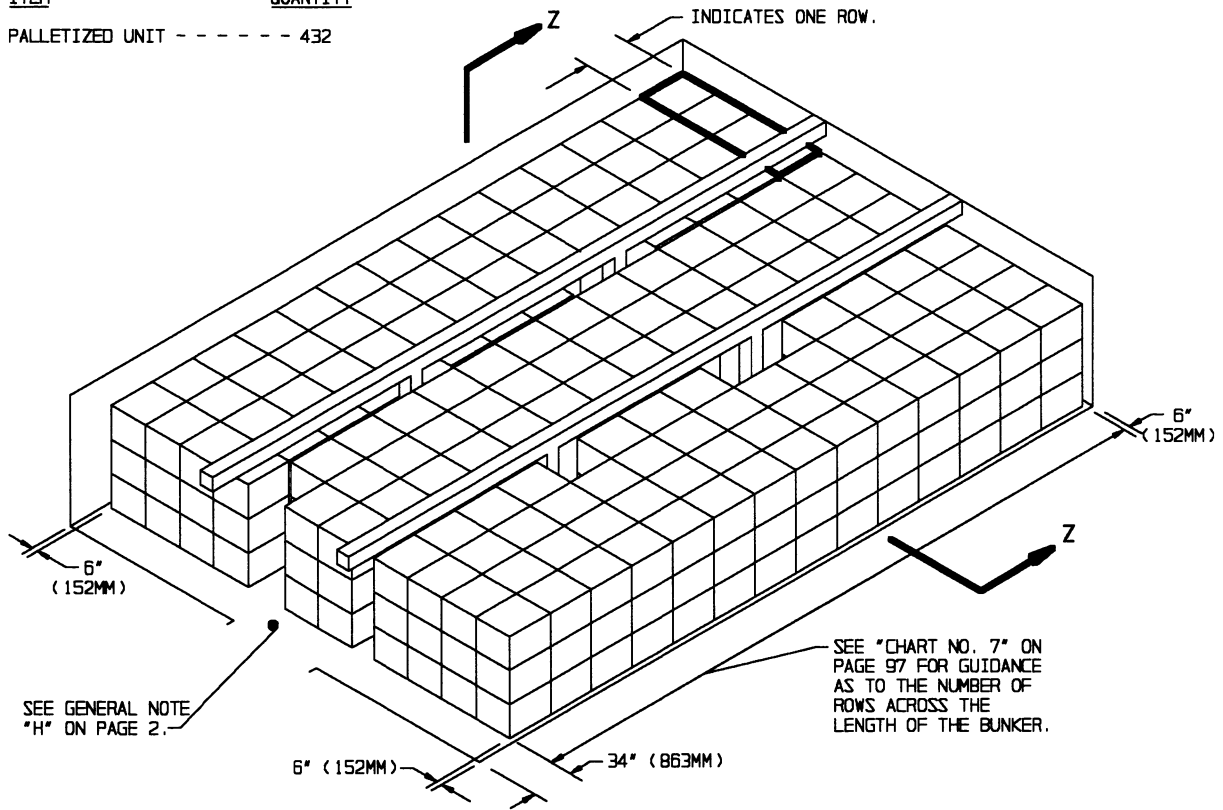


**SECTION Z-Z**

FLOOR DUNNAGE. SEE THE "FLOOR DUNNAGE LOCATION", DETAILS ON PAGE 83, AND GENERAL NOTE "O" ON PAGE 2.

**STORAGE AS SHOWN**

ITEM	QUANTITY
PALLETIZED UNIT - - - - -	432



**ISOMETRIC VIEW**

(TYPE III BUNKER MAGAZINE)

**SPECIAL NOTES:**

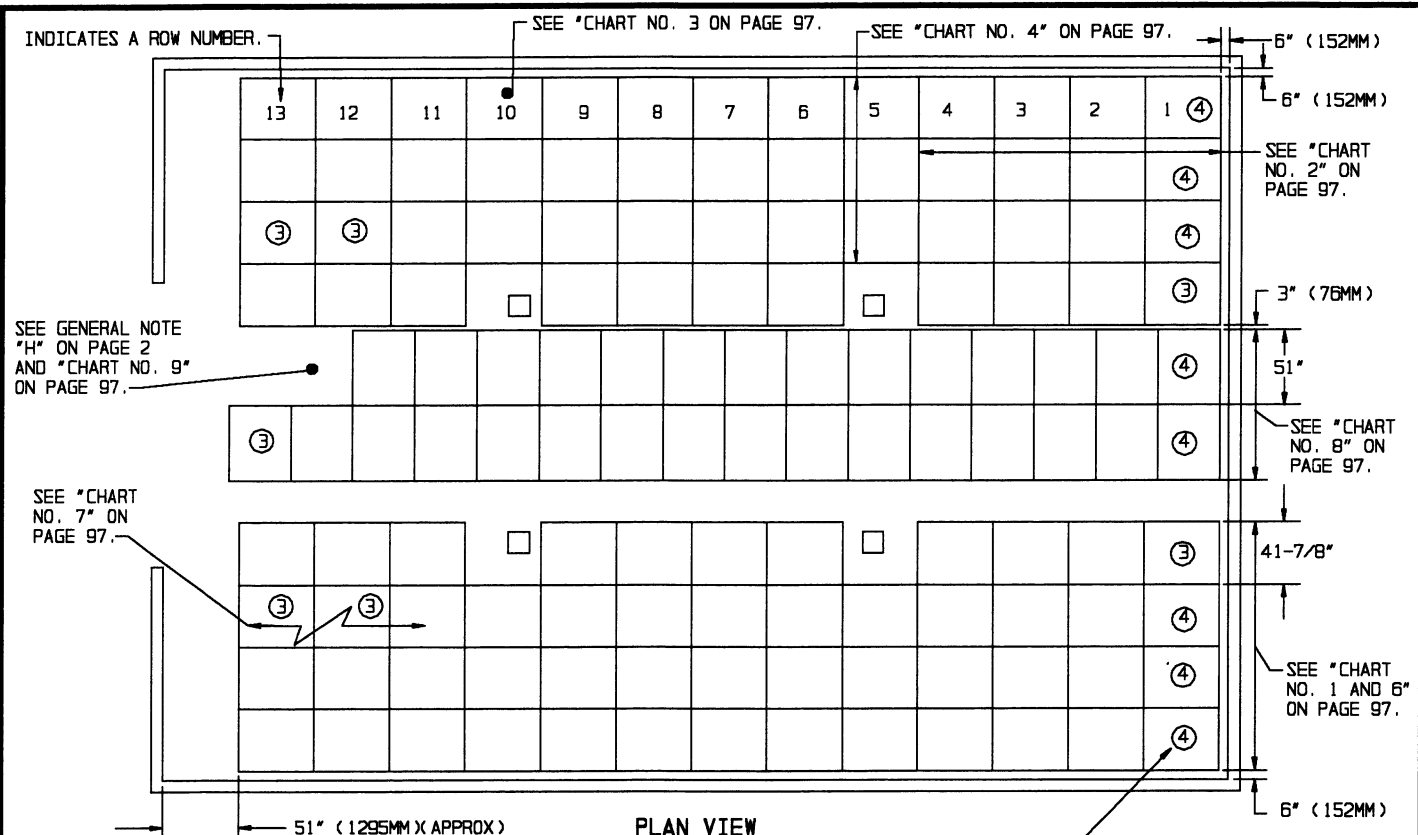
1. THE TYPICAL PALLETIZED UNIT SHOWN HAS OVERALL DIMENSIONS OF 40" LONG BY 48" WIDE BY 34-1/2" HIGH. THE QUANTITY OF UNITS, THE NUMBER OF STACKS, ROWS AND TIERS (LAYERS) WILL VARY DEPENDENT UPON THE SIZE OF THE UNIT BEING STORED. SEE THE SPECIAL NOTES ON PAGE 96 AND CHARTS NO. 1 THROUGH 9 ON PAGE 97 FOR GUIDANCE. AS MANY UNITS AS POSSIBLE WILL BE STORED WITHIN THE AMMUNITION BUNKER.
2. A 6" (152MM) MINIMUM SPACE WILL BE PROVIDED BETWEEN THE REAR WALL, THE FRONT WALL, AND/OR THE SIDEWALLS AND THE PALLETIZED UNITS. CLEARANCE IS NOT REQUIRED BETWEEN THE STORED UNITS AND THE BUILDING PILLARS, ALTHOUGH A THREE INCH (3") (76MM) SPACE IS SHOWN TO FACILITATE STORAGE OPERATIONS.
3. THE ARROWS ON THE PLAN VIEW ON PAGE 92 INDICATE THE DIRECTION OF STORAGE FROM A SIDEWALL TOWARD THE MHE AISLE, OR FROM THE REAR TOWARD THE FRONT WALL, AND/OR WITHIN THE MHE AISLE FROM THE REAR WALL TOWARD THE DOOR OPENING.
4. 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 BUNDLED AS ONE LIFT OR THE PACKAGE GUARD IS REMOVED (TINE CARRIAGE WILL IN MOST CASES PROVIDE ADEQUATE PACKAGE GUARD PROTECTION). ONLY A FORKLIFT TRUCK OF ADEQUATE CAPACITY WILL BE USED WHEN LIFTING TWO PALLET UNITS AS ONE LIFT.

(CONTINUED AT RIGHT).

**(SPECIAL NOTES CONTINUED)**

5. PALLET UNITS ALONG EACH SIDE OF THE BUNKER MAY BE STORED WITH EITHER THE UNIT LENGTH OR THE UNIT WIDTH ACROSS THE WIDTH OF THE BUNKER. ONE POSITIONING MAY PROVIDE DENSER STORAGE THAN THE OTHER, AND THE BEST METHOD SHOULD BE PRIOR DETERMINED BY STUDYING THE CHARTS ON PAGE 97. FOR PLANNING PURPOSES, THE DISTANCE TO THE NEAR SIDE AND FAR SIDE OF THE FIRST COLUMN FROM THE 6" AISLE AT THE REAR IS 227" AND 241"; THE NEAR AND FAR SIDE OF THE SECOND COLUMN IS 467" AND 481" FROM THE 6" AISLE.
6. IN SOME INSTANCES, ROWS OF NARROW UNITS MUST BE STORED TWO (2) UNITS WIDE TO PROVIDE SUFFICIENT OPERATING WIDTH FOR THE MATERIALS HANDLING EQUIPMENT (MHE). IF THE UNIT DIMENSION WHICH IS POSITIONED ACROSS THE LENGTH OF THE BUNKER, LENGTH OR WIDTH OF THE PALLETIZED UNIT AS APPLICABLE, IS GREAT ENOUGH TO PROVIDE SUFFICIENT MHE OPERATING WIDTH, 2-WIDE STORAGE WILL NOT BE NECESSARY.
7. REFER TO THE "TYPICAL MULTIPLE-LOT STORAGE FOR RECTANGULAR MAGAZINE" ON PAGE 82 FOR GUIDANCE IN THE STORAGE OF MULTIPLE LOTS IN A TYPE III BUNKER.
8. IF DESIRED, AND IF NOT IN VIOLATION OF SURVEILLANCE REQUIREMENTS/PROCEDURES, ONE (1) SURVEILLANCE "CONTROL UNIT" SAMPLE MAY BE WITHHELD FROM EACH STORED LOT. IF THE MAGAZINE CONTAINS ONLY ONE (1) LOT IT IS RECOMMENDED THAT THIS "CONTROL UNIT" BE PLACED JUST INSIDE THE DOOR WHERE IT IS EASILY ACCESSIBLE. IF THE MAGAZINE CONTAINS SEVERAL LOTS, THE "CONTROL UNIT" SAMPLES SHOULD BE PLACED ADJACENT TO THE MHE OPERATING AISLE FOR ACCESSIBILITY.

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

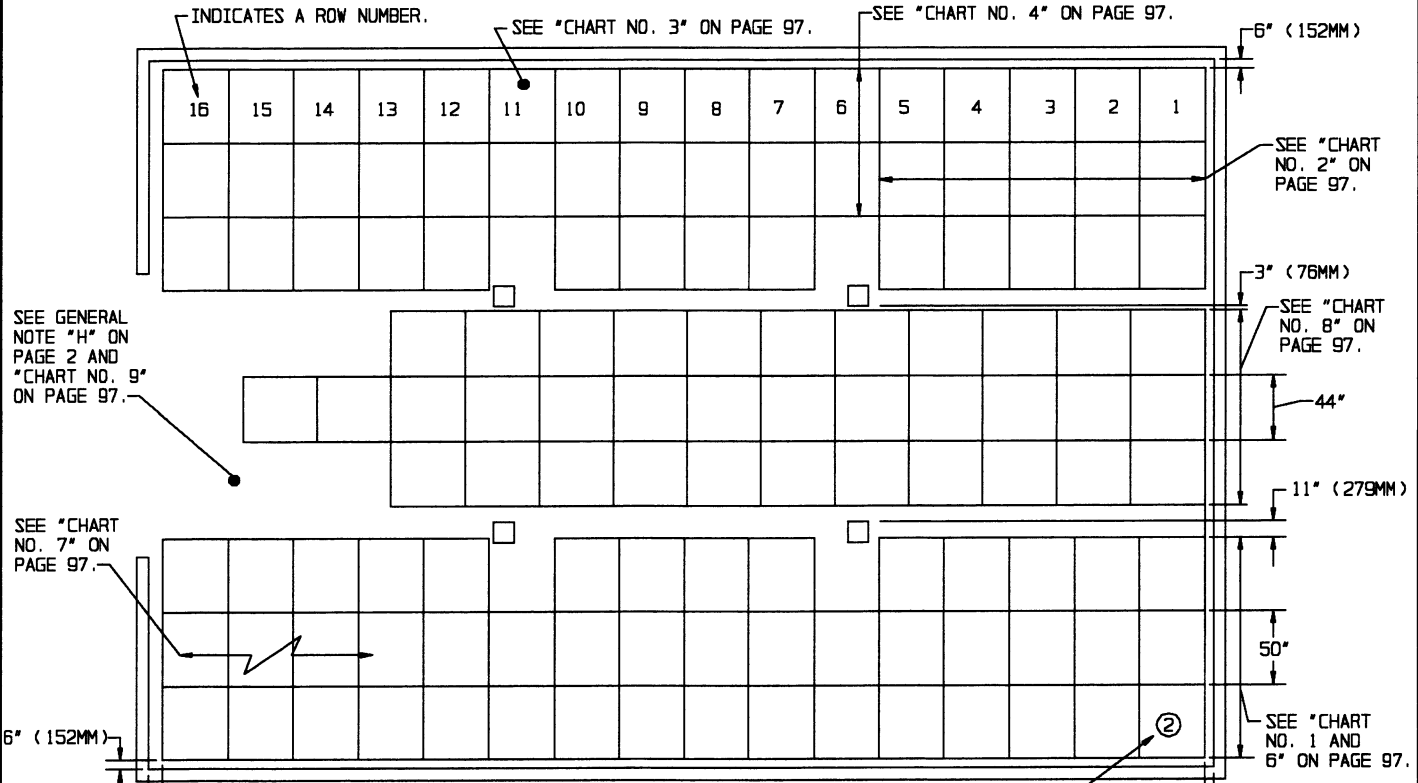


**PLAN VIEW**

(TYPE III BUNKER MAGAZINE)

THE PALLET UNIT SHOWN IS 41-7/8" LONG BY 51" WIDE BY 30" HIGH. ALL STACKS ARE FOUR TIERS (LAYERS) IN HEIGHT EXCEPT THOSE UNDER THE BEAMS. STORAGE AS SHOWN IS 493 PALLET UNITS.

INDICATES NO. OF TIERS (LAYERS) HIGH. SEE "CHART NO. 5" ON PAGE 97.

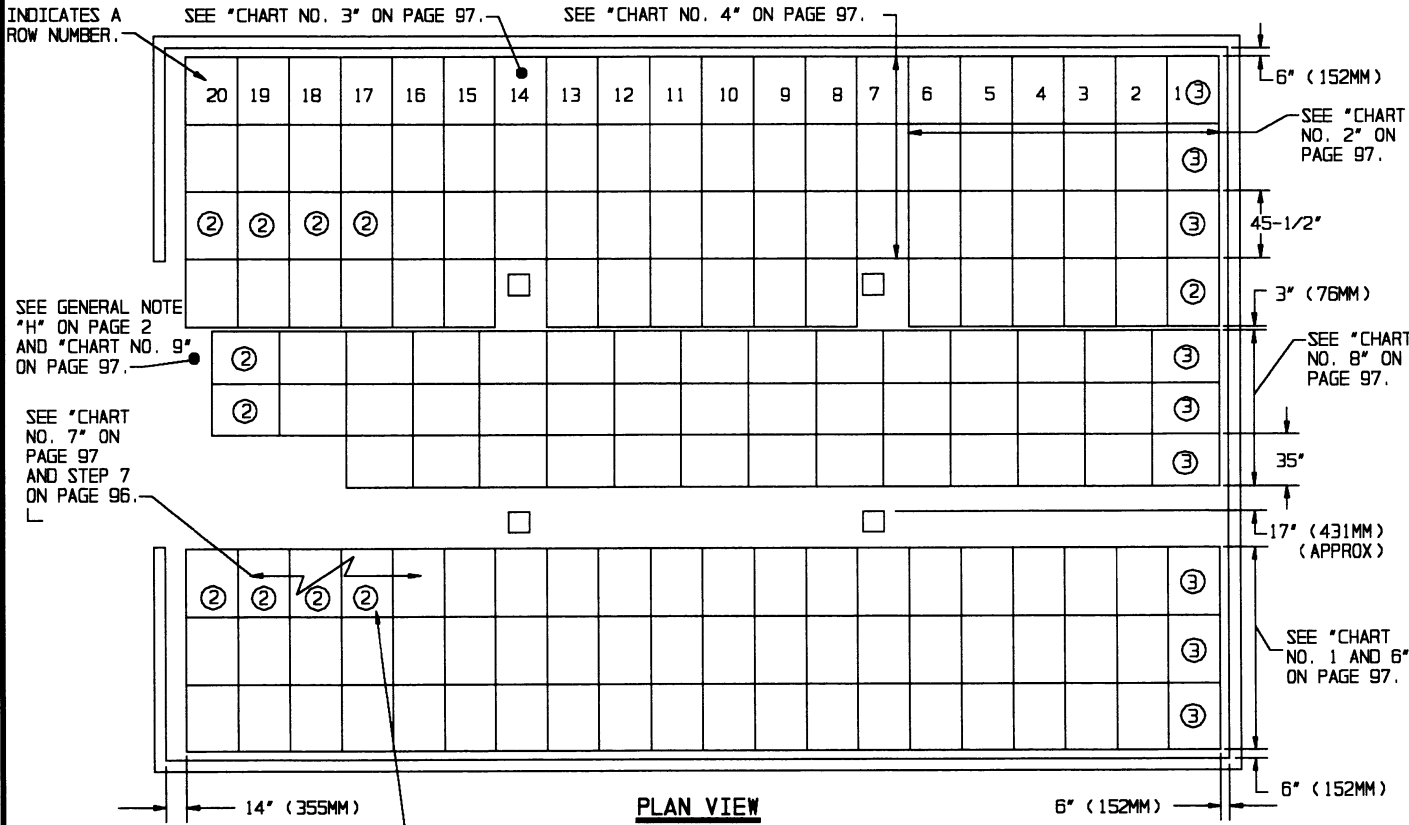


**PLAN VIEW**

(TYPE III BUNKER MAGAZINE)

THE PALLET UNIT SHOWN IS 44" LONG BY 50" WIDE BY 52-1/2" HIGH. ALL STACKS ARE TWO TIERS (LAYERS) IN HEIGHT. STORAGE AS SHOWN IS 254 PALLET UNITS.

INDICATES NO. OF TIERS (LAYERS) HIGH. SEE "CHART NO. 5" ON PAGE 97.

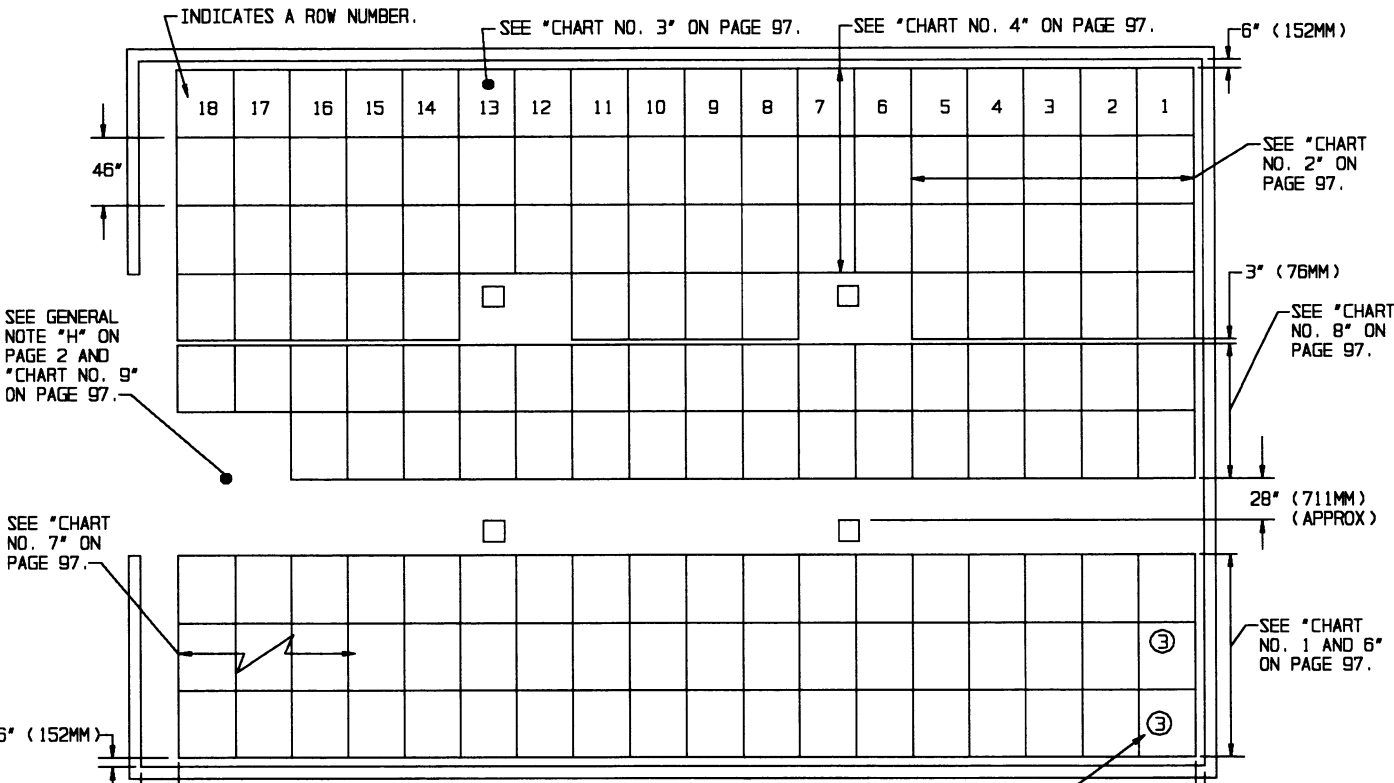


**PLAN VIEW**

(TYPE III BUNKER MAGAZINE)

THE PALLET UNIT SHOWN IS 35" LONG BY 45-1/2" WIDE BY 42" HIGH. ALL STACKS ARE THREE TIERS (LAYERS) IN HEIGHT EXCEPT THOSE UNDER THE BEAMS AND THOSE NEAR THE DOOR. STORAGE AS SHOWN IS 515 PALLET UNITS.

INDICATES NUMBER OF TIERS (LAYERS) HIGH. SEE "CHART NO. 5" ON PAGE 97.



**PLAN VIEW**

(TYPE III BUNKER MAGAZINE)

THE PALLET UNIT SHOWN IS 38-1/4" LONG BY 46" WIDE BY 34" HIGH. ALL STACKS ARE THREE TIERS (LAYERS) IN HEIGHT. STORAGE AS SHOWN IS 468 PALLET UNITS.

INDICATES NO. OF TIERS (LAYERS) HIGH. SEE "CHART NO. 5" ON PAGE 97.

SPECIAL NOTES:

(SPECIAL NOTES CONTINUED)

1. THE CHARTS ON PAGE 97 ARE PRESENTED AS GUIDANCE IN THE DEVELOPMENT OF A PLAN FOR THE STORAGE OF PALLETIZED UNITS OF AMMUNITION AND COMPONENTS IN 60'-0" LONG BY 40'-0" WIDE TYPE III AMMUNITION BUNKERS. TO A CERTAIN EXTENT, THE CHARTS MAY ALSO BE USED IN CALCULATING THE QUANTITY OF UNITS WHICH CAN BE STORED. NOTICE: THE CHARTS ARE FOR GUIDANCE PURPOSES ONLY. VARIATIONS IN PALLETIZED UNIT OVERALL SIZES, THE COMPACTNESS OF PLACEMENT WITHIN A BUNKER, AS WELL AS VARIANCE IN THE INSIDE DIMENSIONS OF THE BUNKER CAN CAUSE DISCREPANCIES WITHIN THE CHARTS.
2. THE FOLLOWING STEP-BY-STEP PROCEDURES ARE PRESENTED AS GUIDANCE IN USING THE DEPICTED CHARTS. SEE THE "EXAMPLE" AT RIGHT.

STEP 1

LOCATE IN THE LEFT HAND COLUMN OF CHART NO. 1 ON PAGE 97 THE LENGTH OR WIDTH DIMENSION RANGE WHICH INCLUDES THE DIMENSION OF THE UNIT TO BE STORED IN THE 40'-0" WIDTH OF THE BUNKER. OPPOSITE THAT LENGTH OR WIDTH FIGURE ARE TWO COLUMNS. THE FIRST COLUMN INDICATES THE NUMBER OF STACKS WHICH CAN BE PLACED BETWEEN ONE SIDEWALL AND THE MHE AISLE. THE SECOND COLUMN INDICATES THE NUMBER OF STACKS WHICH CAN BE PLACED ON THE OPPOSITE SIDE OF THE MHE AISLE.

STEP 2

LOCATE IN THE LEFT HAND COLUMN OF CHART NO. 2 THE LENGTH OR WIDTH DIMENSION RANGE WHICH INCLUDES THE DIMENSION OF THE UNIT TO BE STORED IN THE 60'-0" LENGTH OF THE BUNKER. OPPOSITE THAT LENGTH OR WIDTH DIMENSION IS INDICATED THE NUMBER OF ROWS WHICH CAN BE PLACED BETWEEN THE REAR WALL OF THE BUNKER AND THE REAR MOST CONCRETE PILLAR WHEN A 6" SPACE IS ALLOWED AT THE WALL.

STEP 3

LOCATE IN THE LEFT HAND COLUMN OF CHART NO. 3 THE LENGTH OR WIDTH DIMENSION RANGE WHICH INCLUDES THE DIMENSION OF THE UNIT TO BE STORED IN THE 60'-0" LENGTH OF THE BUNKER. OPPOSITE THAT LENGTH OR WIDTH DIMENSION IS INDICATED THE NUMBER OF ROWS WHICH WILL BE BEHIND THE CONCRETE PILLARS WHEN ALL UNITS ARE POSITIONED IN THE SAME DIRECTION.

STEP 4

LOCATE IN THE LEFT HAND COLUMN OF CHART NO. 4 THE LENGTH OR WIDTH DIMENSION RANGE WHICH INCLUDES THE DIMENSION OF THE UNIT TO BE STORED IN THE 40'-0" WIDTH OF THE BUNKER. OPPOSITE THAT LENGTH OR WIDTH DIMENSION IS INDICATED THE NUMBER OF PALLETS WHICH CAN BE PLACED BETWEEN THE SIDEWALL OF THE BUNKER AND THE ADJACENT CONCRETE PILLAR.

STEP 5

LOCATE IN THE LEFT HAND COLUMN OF CHART NO. 5 THE HEIGHT OF THE UNIT TO BE STORED. OPPOSITE THAT FIGURE ARE TWO COLUMNS. THE FIRST COLUMN INDICATES THE NUMBER OF TIERS (LAYERS) WHICH CAN BE POSITIONED UNDER THE BEAMS OF THE BUNKER. THAT IS ALSO THE MAXIMUM HEIGHT FOR PALLET STACKS WHICH ARE NOT AT LEAST 1" MORE THAN ONE FULL PALLET UNIT LENGTH OR WIDTH, AS APPLICABLE, BEHIND THE BEAM. THE SECOND COLUMN INDICATES THE NUMBER OF TIERS FOR ALL OTHER PALLET STACKS.

STEP 6

LOCATE IN THE LEFT HAND COLUMN OF CHART NO. 6 THE LENGTH OR WIDTH DIMENSION RANGE WHICH INCLUDES THE DIMENSION OF THE UNIT TO BE STORED IN THE 40'-0" WIDTH OF THE BUNKER. OPPOSITE THAT LENGTH OR WIDTH DIMENSION IS INDICATED THE NUMBER OF FULL-HEIGHT STACKS WHICH CAN BE PLACED BETWEEN THE SIDEWALL OF THE BUNKER AND THE BEAM.

STEP 7

LOCATE IN THE LEFT HAND COLUMN OF CHART NO. 7 THE LENGTH OR WIDTH DIMENSION RANGE WHICH INCLUDES THE DIMENSION OF THE UNIT TO BE STORED IN THE 60'-0" LENGTH OF THE BUNKER.

(CONTINUED AT RIGHT)

OPPOSITE THAT LENGTH OR WIDTH DIMENSION IS INDICATED THE NUMBER OF ROWS WHICH CAN BE PLACED IN THE LENGTH OF THE BUNKER, ALLOWING A 6" (152MM) SPACE ACROSS THE REAR OF THE BUNKER. NOTE THAT THE SPECIFIED FIGURE IS ONLY APPLICABLE WHEN ALL UNITS IN THE LENGTH OF THE BUNKER ARE POSITIONED IN THE SAME DIRECTION.

STEP 8

LOCATE IN THE LEFT HAND COLUMN OF CHART NO. 8 THE LENGTH OR WIDTH RANGE WHICH INCLUDES THE DIMENSION OF THE UNIT TO BE STORED IN THE 40'-0" WIDTH OF THE BUNKER. THE COLUMN IMMEDIATELY ADJACENT INDICATES THE NUMBER OF ROWS WHICH CAN BE PLACED IN THE MHE AREA WIDTH WHEN THE UNITS ARE ORIENTED THE SAME AS THE UNITS IN THE LATERALLY ADJACENT ROWS. THE NEXT COLUMN INDICATES THE NUMBER OF ROWS AND THE LENGTH OR WIDTH DIMENSION RANGE OF THE UNITS WHEN THEY ARE ROTATED 90° TO THOSE IN THE LATERALLY ADJACENT ROWS.

STEP 9

LOCATE IN THE LEFT HAND COLUMN OF CHART NO. 9 THE LENGTH OR WIDTH RANGE WHICH INCLUDES THE DIMENSION OF THE UNIT TO BE STORED IN THE LENGTH OF THE MHE AISLE (THE 60'-0" LENGTH OF THE BUNKER). OPPOSITE THAT LENGTH OR WIDTH DIMENSION IS INDICATED THE NUMBER OF STACKS IN THE ROWS WITHIN THE MHE AISLE, WHEN SUFFICIENT SPACE IS ALLOWED AT THE FRONT OF THE BUNKER FOR PLACEMENT OF THE UNITS WITH A FORKLIFT TRUCK. NOTE THAT ADDITIONAL STACKS MAY BE POSITIONED IN ONE OR MORE OF THE ROWS WHEN THE ROWS ARE ALIGNED WITH THE DOOR OPENING AND/OR WHEN THE AVAILABLE MHE PERMITS.

EXAMPLE

THE PALLETIZED UNIT SHOWN AT THE TOP OF PAGE 94 HAS BEEN SELECTED AS THE EXAMPLE. THE UNIT IS 41-7/8" LONG BY 51" WIDE BY 30" HIGH. A STORAGE PATTERN CAN BE DETERMINED BY FOLLOWING THE DOTTED-LINE EXAMPLE WITHIN CHARTS NO. 1 THROUGH 9 IN CONJUNCTION WITH USING THE STEP-BY-STEP PROCEDURES AT LEFT.

TO FIND THE NUMBER OF PALLET STACKS IN THE 40'-0" WIDTH OF THE BUNKER, LOOK IN THE LEFT HAND COLUMN OF CHART NO. 1 ON PAGE 97 UNDER THE UNIT LENGTH OR WIDTH.

THE 41-7/8" DIMENSION IS WITHIN THE OVER 37" TO 42" RANGE FOLLOWING THE ARROWS ALONG THE DOTTED LINE TO THE RIGHT, THE FIRST COLUMN INDICATES THAT 4 STACKS CAN BE STORED ON ONE SIDE OF THE MHE AISLE AND THE SECOND COLUMN INDICATES THAT 4 STACKS CAN ALSO BE STORED ON THE OPPOSITE SIDE.

BY FOLLOWING THE ARROW ALONG THE DOTTED LINE TO THE RIGHT FROM THE OVER 45" TO 54" RANGE IN CHART NO. 2 WE FIND THAT 4 ROWS CAN BE PLACED BETWEEN THE REAR WALL OF THE BUNKER AND THE FIRST PILLAR WHEN ALLOWING A 6" (152MM) SPACE ACROSS THE REAR OF THE BUNKER. IN CHART NO. 3 THE 51" WIDTH DIMENSION WHICH IS POSITIONED IN THE LENGTH OF THE BUNKER IS WITHIN THE 48" THRU 51" RANGE.

FOLLOWING THE ARROW ALONG THE DOTTED LINE TO THE RIGHT WE FIND THAT ROW NO. 5 WILL FALL BEHIND THE FIRST PILLAR AND ROW 10 WILL FALL BEHIND THE SECOND PILLAR WHEN ALL THE UNITS ARE POSITIONED SO THE 51" WIDTH DIMENSION IS PLACED SO AS TO BE IN THE LENGTH OF THE BUNKER. TO FIND THE NUMBER OF STACKS BETWEEN THE SIDEWALL AND A PILLAR, LOCATE IN CHART NO. 4 THE OVER 36" TO 48" DIMENSION IN THE FIRST COLUMN WHICH INCLUDES THE 41-7/8" LENGTH DIMENSION THAT IS POSITIONED ACROSS THE WIDTH OF THE BUNKER. FOLLOWING THE ARROW ALONG THE DOTTED LINE TO THE RIGHT, THE SECOND COLUMN INDICATES THAT 3 PALLET STACKS CAN BE POSITIONED.

TO FIND THE NUMBER OF TIERS (LAYERS) WHICH CAN BE STORED, LOCATE THE UNIT HEIGHT OF 30" WITHIN THE 29-1/2" TO 32-1/2" RANGE IN THE LEFT HAND COLUMN OF CHART NO. 5. FOLLOWING THE ARROWS ALONG THE DOTTED LINE TO THE RIGHT, THE FIRST COLUMN INDICATES THAT 3 PALLET UNITS CAN BE STACKED UNDER THE BEAM. THE SECOND COLUMN INDICATES THAT 4 TIERS (LAYERS) CAN BE STORED IN ALL OTHER LOCATIONS WITHIN THE BUNKER, WITH THE POSSIBLE EXCEPTION OF STACKS ADJACENT TO THE DOOR OPENING WHICH MAY BE LIMITED BECAUSE OF THE DOOR HEIGHT.

IN CHART NO. 6 THE NUMBER OF FULL-HEIGHT STACKS WHICH CAN BE PLACED BETWEEN THE BEAM AND THE SIDEWALL OF THE BUNKER CAN BE DETERMINED BY LOCATING THE UNIT LENGTH OF 41-7/8" (THE DIMENSION POSITIONED ACROSS THE WIDTH) WHICH IS WITHIN THE OVER 35' TO 48" RANGE. FOLLOWING THE ARROW TO THE RIGHT WE FIND THAT 3 FULL-HEIGHT STACKS CAN BE POSITIONED.

(CONTINUED ON PAGE 104)



CHART NO. 1		
NUMBER OF STACKS ACROSS THE WIDTH		
UNIT LENGTH OR WIDTH	NUMBER OF STACKS	
	ONE SIDE	OPPOSITE SIDE
35" TO 37"	5	4
OVER 37" TO 42" OVER 42" TO 48"	4	3
OVER 48" TO 54"	3	3
OVER 54" TO 59"	3	2

CHART NO. 2	
NUMBER OF ROWS BETWEEN REAR WALL AND PILLAR	
UNIT LENGTH OR WIDTH	NUMBER OF ROWS
35" TO 37-1/2"	6
OVER 37-1/2" TO 45"	5
OVER 45" TO 56" OVER 56" TO 59"	4 3

CHART NO. 3	
ROWS WHICH FALL BEHIND PILLARS	
UNIT DIMENSIONS ACROSS LENGTH OF BUNKER	ROW NUMBERS
35"	7 AND 14
36"	7, 13 AND 14
37"	7 AND 13
38"	6, 7 AND 13
39"	6, 7, 12 AND 13
40" AND 41"	6 AND 12
42" AND 43"	6, 11 AND 12
44"	6 AND 11
45" AND 46"	5, 6, AND 11
47"	5, 6, 10 AND 11
OVER 48" THRU 51"	5 AND 10
52"	5, 9 AND 10
53" THRU 56"	5 AND 9
57" AND 58"	4, 5 AND 9
59"	4, 5, 8 AND 9

CHART NO. 4	
NUMBER OF STACKS BETWEEN SIDE WALL AND PILLAR	
UNIT LENGTH OR WIDTH	NUMBER OF STACKS
35" TO 36"	4
OVER 36" TO 48" OVER 48" TO 59"	3 2

CHART NO. 5		
NUMBER OF TIERS (LAYERS) HIGH		
UNIT HEIGHT	UNDER BEAM	ELSEWHERE
26" TO 29-1/2"	4	4
OVER 29-1/2" TO 32-1/2" OVER 32-1/2" TO 39"	3	3
OVER 39" TO 43"	2	3
OVER 43" TO 54"	2	2

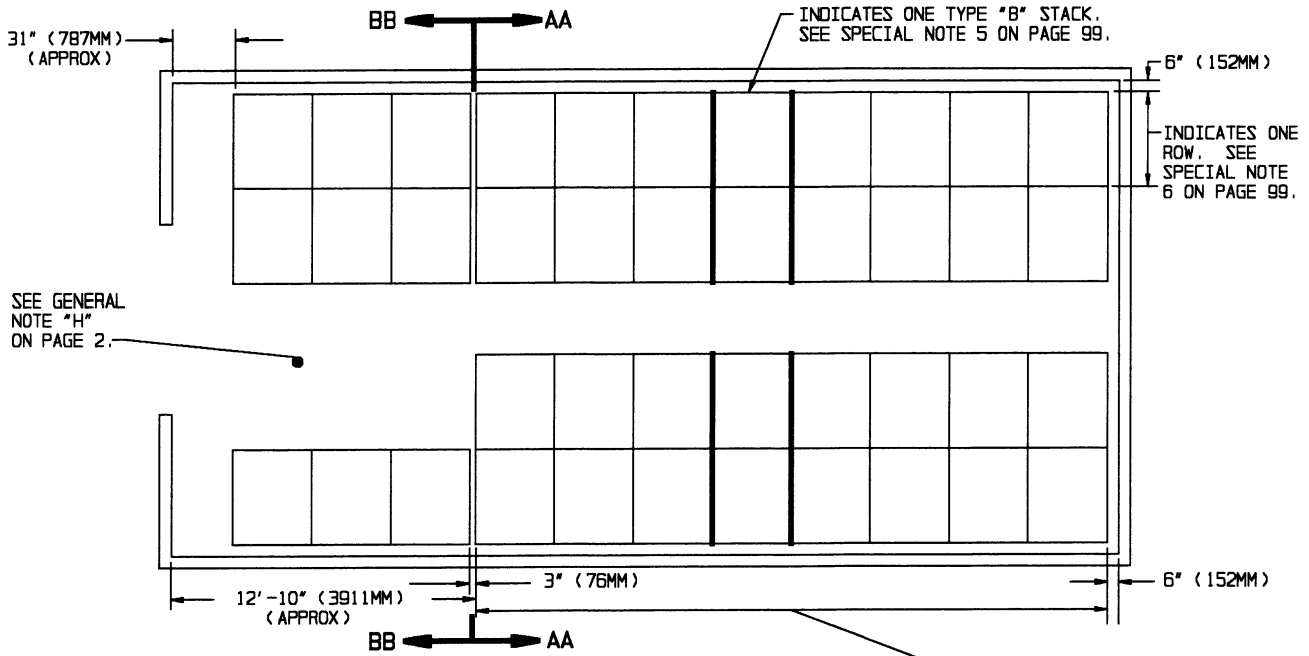
CHART NO. 6	
NUMBER OF FULL-HEIGHT STACKS BEHIND BEAM	
UNIT LENGTH OR WIDTH	NUMBER OF STACKS
35" OVER 35" TO 48" OVER 48" TO 59"	3 3 2

CHART NO. 7	
NUMBER OF ROWS ACROSS THE LENGTH	
UNIT LENGTH OR WIDTH	NUMBER OF ROWS
35"	20
OVER 35" TO 37"	19
OVER 37" TO 39"	18
OVER 39" TO 41-1/4"	17
OVER 41-1/4" TO 44"	16
OVER 44" TO 46-3/4"	15
OVER 46-3/4" TO 50-1/4"	14
OVER 50-1/4" TO 54" OVER 54" TO 59"	13 12

CHART NO. 8		
NUMBER OF ROWS WIDE IN MHE AISLE		
UNIT DIM WIDTHWISE IN BUNKER	NUMBER OF ROWS WIDE	
	UNIT AT SAME POSITION	ALTERNATIVE UNIT POSITION
35" TO 37"	3	2 AT 45-1/2" TO 51-1/2"
OVER 37" TO 39"	3	3 AT 45-1/2" TO 46-1/2"
OVER 39" TO 41"	3	2 AT 48" TO 54"
OVER 41" TO 42" OVER 42" TO 43"	2 3	2 AT 48" TO 54"
OVER 43" TO 44"	2	2 AT 48" TO 54"
OVER 44" TO 45"	2	3 AT 35" TO 39"
OVER 45" TO 47"	2	3 AT 35" TO 37-1/2"
OVER 47" TO 48"	2	2 AT 40" TO 44"
OVER 48" TO 59"	2	3 AT 40" TO 44"

CHART NO. 9	
NUMBER OF STACKS LONG IN MHE AREA *	
UNIT LENGTH OR WIDTH	NUMBER OF STACKS
35" TO 36-1/2"	16
OVER 36-1/2" TO 39"	15
OVER 39" TO 41-3/4"	14
OVER 41-3/4" TO 44-3/4" OVER 44-3/4" TO 48-1/4"	13 12
OVER 48-1/4" TO 52-1/4"	11
OVER 52-1/4" TO 54"	10
OVER 54" TO 59"	9

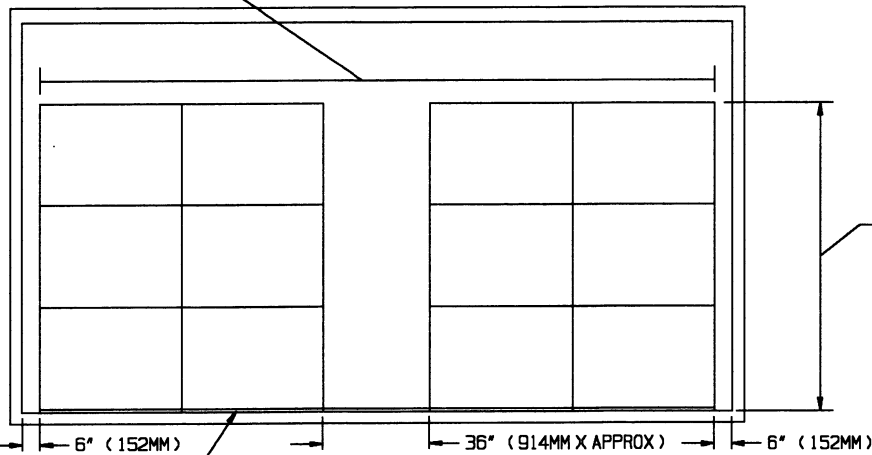
\* SEE GENERAL NOTE "H" ON PAGE 2.



**PLAN VIEW**  
(TYPE IV BUNKER MAGAZINE)

SEE "CHART NO. 1 ON PAGE 101 FOR GUIDANCE AS TO NUMBER OF ROWS ACROSS THE WIDTH OF THE BUNKER.

SEE "CHART NO. 3" ON PAGE 101 FOR GUIDANCE AS TO THE NUMBER OF TYPE "B" AND TYPE "C" STACKS WHICH CAN BE STORED IN A 40'-0" L TYPE IV AMMUNITION BUNKER.

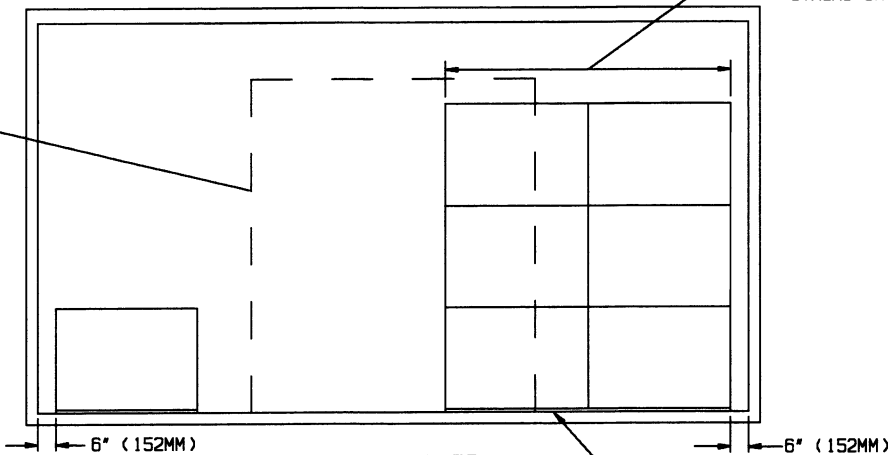


**SECTION AA-AA**  
(12 PALLETIZED UNITS PER STACK)

FLOOR DUNNAGE. SEE THE "FLOOR DUNNAGE LOCATION" DETAILS ON PAGE 83 AND GENERAL NOTE "O" ON PAGE 2.

SEE "CHART NO. 4" ON PAGE 101 FOR GUIDANCE AS TO THE NUMBER OF UNITS DEEP IN THE TYPE "C" STACKS IN THE FRONTAL AREA.

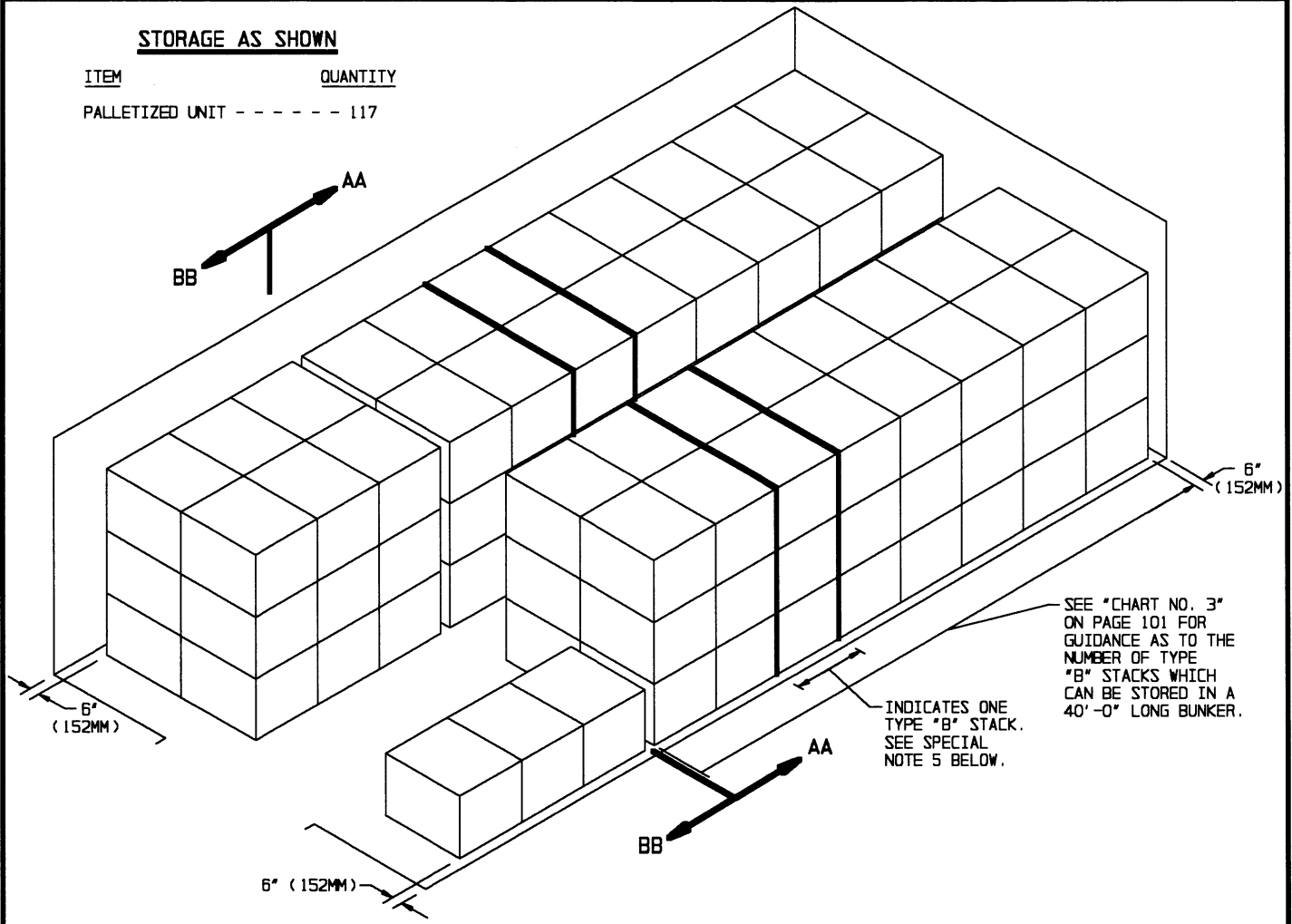
INDICATES OUTLINE OF DOOR OPENING.



**SECTION BB-BB**

**STORAGE AS SHOWN**

ITEM	QUANTITY
PALLETIZED UNIT - - - - -	117



**ISOMETRIC VIEW**

(TYPE IV BUNKER MAGAZINE)

**SPECIAL NOTES:**

- THE TYPICAL PALLETIZED UNIT SHOWN HAS OVERALL DIMENSIONS OF 40" LONG BY 48" WIDE BY 34-1/2" HIGH. THE QUANTITY OF UNITS, THE NUMBER OF STACKS, ROWS AND TIERS (LAYERS) WILL VARY DEPENDENT UPON THE SIZE OF THE UNIT BEING STORED. SEE THE SPECIAL NOTES AND CHARTS ON PAGES 100 AND 101 FOR GUIDANCE. AS MANY UNITS AS POSSIBLE WILL BE STORED WITHIN THE AMMUNITION BUNKER.
- A 6" (152MM) MINIMUM SPACE WILL BE PROVIDED BETWEEN REAR WALL, FRONT WALL AND/OR SIDEWALLS AND THE PALLETIZED UNITS.
- 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 CASES PROVIDE ADEQUATE PACKAGE GUARD PROTECTION). ONLY A FORKLIFT OF ADEQUATE CAPACITY WILL BE USED WHEN LIFTING TWO PALLET UNITS AS ONE LIFT.
- PALLET UNITS MAY BE STORED WITH EITHER THE UNIT LENGTH OR UNIT WIDTH ACROSS THE THE WIDTH OF THE BUNKER. ONE POSITIONING MAY PROVIDE DENSER STORAGE THAN THE OTHER, AND THE BEST METHOD SHOULD BE PRIOR DETERMINED BY STUDYING THE CHARTS ON PAGE 101.

(CONTINUED AT RIGHT)

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

**(SPECIAL NOTES CONTINUED)**

- THE NUMBER OF TYPE "B" STACKS SPECIFIED BY CHART NO. 3 ON PAGE 101 FOR A 40'-0" LONG BUNKER IS BASED ON HAVING A MATERIAL HANDLING EQUIPMENT AREA (DISTANCE FROM THE FACE OF THE LAST TYPE "B" STACK TO THE FRONT WALL OF THE BUNKER) OF 7'-7" (2311MM) PLUS THE LENGTH OR WIDTH OF THE PALLET UNIT, AS APPLICABLE, OR THE LENGTH OF THE FORKLIFT TRUCK TINES (40" OR 1016MM), WHICHEVER IS GREATEST. ADDITIONAL TYPE "B" STACKS MAY BE STORED IF THE AVAILABLE MATERIALS HANDLING EQUIPMENT PERMITS.
- IF DESIRED, THE TYPE "C" STACKS IN THE FRONTAL AREA MAY BE OMITTED AND THE 4 ROWS SHOWN (OR 5 ROWS OR SIX ROWS AS SPECIFIED BY THE CHART NO. 1) FOR THE TYPE "B" STACKS MAY EACH BE FORMED AS A SEPARATE LOT. A SPACE OF AT LEAST 1" SHOULD BE ALLOWED TO PROVIDE CLEARANCE FOR REMOVAL OF EITHER LOT. IN SOME INSTANCES, LOTS CONSISTING OF NARROW UNITS MUST BE STORED TWO (2) UNITS WIDE TO PROVIDE SUFFICIENT OPERATING WIDTH FOR THE MATERIALS HANDLING EQUIPMENT (MHE). IF THE UNIT DIMENSION WHICH IS POSITIONED ACROSS THE WIDTH OF THE BUNKER IS GREAT ENOUGH TO PROVIDE SUFFICIENT MHE OPERATING WIDTH, 2-WIDE STORING WILL NOT BE NECESSARY. SEE PAGES 102 AND 103 FOR ADDITIONAL MULTIPLE-LOT STORAGE GUIDANCE.
- IF DESIRED, AND IF NOT IN VIOLATION OF SURVEILLANCE REQUIREMENTS/PROCEDURES, ONE (1) SURVEILLANCE "CONTROL UNIT" SAMPLE MAY BE WITHHELD FROM EACH STORED LOT. IF THE MAGAZINE CONTAINS ONLY ONE (1) LOT IT IS RECOMMENDED THAT THIS "CONTROL UNIT" BE PLACED JUST INSIDE THE DOOR WHERE IT IS EASILY ACCESSIBLE. IF THE MAGAZINE CONTAINS SEVERAL LOTS, THE "CONTROL UNIT" SAMPLES SHOULD BE PLACED ADJACENT TO THE MHE OPERATING AISLE FOR ACCESSIBILITY.

SPECIAL NOTES:

1. THE CHARTS ON PAGE 101 ARE PRESENTED AS GUIDANCE IN THE DEVELOPMENT OF A PLAN FOR THE STORAGE OF PALLETIZED UNITS OF AMMUNITION AND COMPONENTS IN 40'-0" LONG BY 20'-0" WIDE TYPE IV AMMUNITION BUNKERS. TO A CERTAIN EXTENT, THE CHARTS MAY ALSO BE USED IN CALCULATING THE QUANTITY OF UNITS WHICH CAN BE STORED. NOTICE: THE CHARTS ARE FOR GUIDANCE PURPOSES ONLY. VARIATIONS IN PALLETIZED UNIT OVERALL SIZES, THE COMPACTNESS OF PLACEMENT WITHIN A BUNKER, AS WELL AS VARIANCE IN THE INSIDE DIMENSIONS OF THE BUNKER CAN CAUSE DISCREPANCIES WITHIN THE CHARTS.
2. THE FOLLOWING STEP-BY-STEP PROCEDURES ARE PRESENTED AS GUIDANCE IN USING THE DEPICTED CHARTS. SEE THE "EXAMPLE" BELOW.

STEP 1

LOCATE IN THE LEFT HAND COLUMN OF CHART NO. 1 ON PAGE 101 THE LENGTH OR WIDTH DIMENSION RANGE WHICH INCLUDES THE DIMENSION OF THE UNIT TO BE STORED IN THE 20'-0" WIDTH OF THE BUNKER. OPPOSITE THAT LENGTH OR WIDTH FIGURE IS A COLUMN WHICH INDICATES THE NUMBER OF PALLET STACKS OR ROWS ACROSS THE WIDTH OF THE BUNKER.

STEP 2

LOCATE IN THE LEFT HAND COLUMN OF CHART NO. 2 THE HEIGHT RANGE WHICH INCLUDES THE HEIGHT OF THE UNIT TO BE STORED. OPPOSITE THAT HEIGHT FIGURE IS INDICATED THE NUMBER OF TIERS (LAYERS) WHICH CAN BE STORED.

STEP 3

LOCATE IN THE LEFT HAND COLUMN OF CHART NO. 3 THE LENGTH OR WIDTH DIMENSION NEAREST THE DIMENSION OF THE UNIT WHICH IS POSITIONED LENGTHWISE IN THE BUNKER. OPPOSITE THAT LENGTH OR WIDTH FIGURE IS SPECIFIED THE APPROXIMATE NUMBER OF TYPE "B" STACKS (STACKS ACROSS THE BUNKER, USUALLY WITH AN AISLE BUT NOT NECESSARILY) AND THE NUMBER OF TYPE "C" STACKS (PARTIAL STACKS AT THE FRONT OF THE BUNKER) THAT CAN BE POSITIONED IN A 40'-0" LONG BUNKER. SEE SPECIAL NOTE 5 ON PAGE 99 FOR THE CRITERIA USED IN DETERMINING THE NUMBER OF TYPE "B" STACKS SPECIFIED WITHIN THE CHART.

STEP 4

LOCATE IN THE LEFT HAND COLUMN OF CHART NO. 4 THE LENGTH OR WIDTH DIMENSION RANGE WHICH INCLUDES THE DIMENSION OF THE UNIT TO BE STORED IN THE 20'-0" WIDTH OF THE BUNKER. OPPOSITE THAT LENGTH OR WIDTH FIGURE ARE TWO COLUMNS. THE FIRST COLUMN INDICATES THE NUMBER OF STACKS DEEP WHICH CAN BE POSITIONED ON ONE SIDE OF THE DOOR OPENING WITH A FORKLIFT TRUCK, TO A HEIGHT AS SPECIFIED BY CHART NO. 2. THE SECOND COLUMN INDICATES THE NUMBER OF ONE-HIGH STACKS WHICH CAN BE POSITIONED ON THE OPPOSITE SIDE BY USING A PALLET JACK AFTER COMPLETING ALL THE TIERS ON THE FIRST SIDE.

EXAMPLE

THE PALLETIZED UNIT SHOWN IN THE VIEWS ON PAGES 98 AND 99 WILL BE USED FOR THE EXAMPLE. THE UNIT IS 40" LONG BY 48" WIDE BY 34-1/2" HIGH. A STORAGE PATTERN CAN BE DETERMINED BY FOLLOWING THE DOTTED-LINE EXAMPLE WITHIN CHARTS NO. 1 THROUGH 4 ON PAGE 101 IN CONJUNCTION WITH USING THE STEP-BY-STEP PROCEDURES ABOVE.

TO FIND THE NUMBER OF ROWS OR PALLET STACKS IN THE 20'-0" WIDTH OF THE BUNKER, LOOK IN THE LEFT HAND COLUMN OF CHART NO. 1 ON PAGE 101 UNDER THE UNIT LENGTH OR WIDTH. THE 48" DIMENSION IS WITHIN THE OVER 44-1/2" TO 54" RANGE. FOLLOWING THE ARROWS ALONG THE DOTTED LINE TO THE RIGHT, INDICATES THAT 4 STACKS OR ROWS CAN BE STORED ACROSS THE BUNKER.

TO FIND THE NUMBER OF TIERS (LAYERS) WHICH CAN BE STORED, LOCATE THE UNIT HEIGHT OF 34-1/2" WITHIN THE OVER 32-1/2" TO 43" RANGE IN THE LEFT HAND COLUMN OF CHART NO. 2. FOLLOWING THE ARROW ALONG THE DOTTED LINE TO THE RIGHT INDICATES THAT 3 TIERS (LAYERS) CAN BE STORED IN THE BUNKER.

(CONTINUED AT RIGHT)

(SPECIAL NOTES CONTINUED)

TO FIND THE NUMBER OF TYPE "B" AND TYPE "C" STACKS WHICH CAN BE STORED IN A BUNKER, LOOK AT CHART NO. 3. SINCE WE ARE POSITIONING THE 48" UNIT WIDTH ACROSS THE WIDTH OF THE BUNKER, WE NOW LOOK FOR THE UNIT LENGTH OF 40" IN THE LEFT HAND COLUMN. FOLLOWING THE ARROWS TO THE RIGHT INDICATES THAT 8 TYPE "B" STACKS CAN BE STORED IN A 40'-0" LONG BUNKER, WITH A SPACE OF APPROXIMATELY 12'-10" REMAINING FOR AN MHE AREA. AFTER ALLOWING A 3" SPACE AT THE FRONT OF THE TYPE "B" STACKS, WE FIND BY FOLLOWING THE ARROW TO THE RIGHT THAT 3 TYPE "C" STACKS (POSITIONED THE SAME AS IN THE BALANCE OF THE BUNKER) CAN BE STORED, WITH APPROXIMATELY 31" OF SPACE AT THE FRONT WALL.

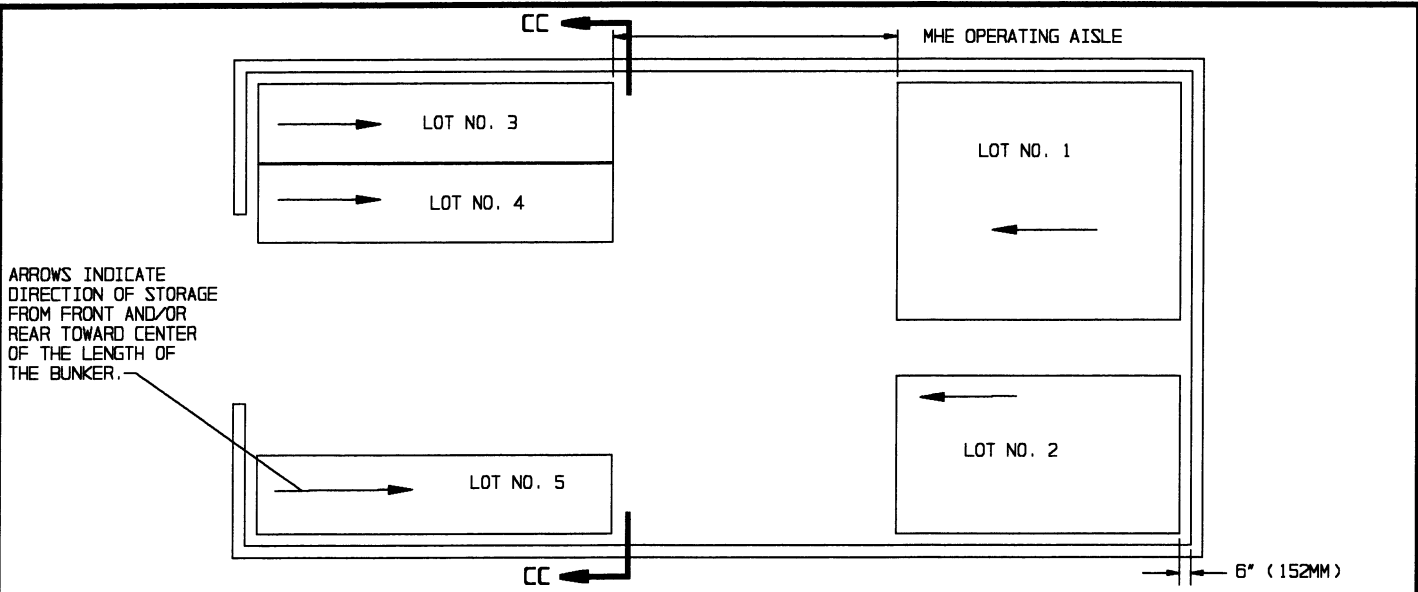
TO FIND THE NUMBER OF PALLET STACKS IN EACH TYPE "C" STACK, LOCATE THE UNIT LENGTH OR WIDTH IN THE LEFT HAND COLUMN OF CHART NO. 4. FOLLOWING THE ARROWS ALONG THE DOTTED LINE TO THE RIGHT, THE FIGURE IN THE FIRST COLUMN INDICATES THAT 2 PALLET STACKS CAN BE PLACED AT THE LEFT SIDE OF THE DOOR OPENING, WITH A FORKLIFT TRUCK, TO THE NUMBER OF TIERS AS SPECIFIED BY CHART NO. 2. THE SECOND COLUMN INDICATES THAT 1 PALLET UNIT CAN BE PLACED ON THE OPPOSITE SIDE WITH A PALLET JACK AFTER COMPLETING ALL THE TIERS ON THE LEFT SIDE.

CHART NO. 1	
NUMBER OF ROWS ACROSS THE WIDTH	
UNIT LENGTH OR WIDTH	NUMBER OF ROWS
35" TO 37"	6
OVER 37" TO 44-1/2"	5
OVER 44-1/2" TO 55"	4
OVER 55" TO 59"	3

CHART NO. 2	
NUMBER OF TIERS (LAYERS) HIGH	
UNIT HEIGHT	NUMBER OF TIERS
26"	5
OVER 26" TO 32-1/2"	4
OVER 32-1/2" TO 43"	3
OVER 43" TO 54"	2

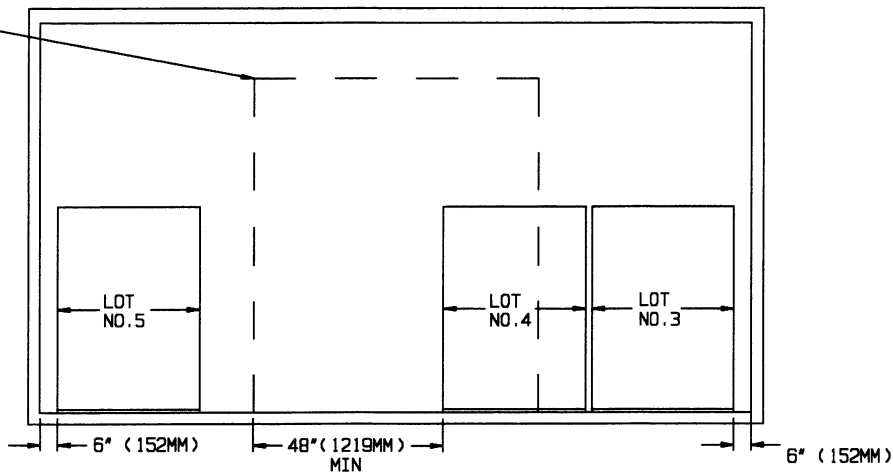
CHART NO. 3				
NUMBER OF STACKS IN BUNKER				
UNIT DIMENSION LENGTHWISE IN BUNKER	"B" STACKS		"C" STACKS	
	NO.	M-E AISLE	NO.	SPACE REMAIN
59"	5	14'-11"	2	55"
58"	5	15'- 4"	2	62"
57"	5	15'- 9"	3	12"
56"	5	16'- 2"	3	20"
55"	5	16'- 7"	3	28"
54"	6	12'- 6"	2	39"
53"	6	13'- 0"	2	47"
52"	6	13'- 6"	2	55"
51"	6	14'- 0"	3	12"
50"	6	14'- 6"	3	21"
49"	6	15'- 0"	3	30"
48"	7	11'- 6"	2	39"
47"	7	12'- 1"	2	48"
46"	7	12'- 8"	3	11"
45"	7	13'- 3"	3	21"
44"	7	13'-10"	3	31"
43"	8	10'-10"	2	41"
42"	8	11'- 6"	3	9"
41"	8	12'- 2"	3	20"
40"	8	12'-10"	3	31"
39"	8	13'- 6"	3	42"
38"	9	11'- 0"	3	15"
37"	9	11'- 9"	3	27"
36"	9	12'- 6"	3	39"
35"	9	13'- 3"	4	16"

CHART NO. 4		
NUMBER OF UNITS DEEP IN TYPE "C" STACKS		
UNIT DIMENSION CROSSWISE	ONE SIDE	OPPOSITE SIDE
35" TO 38"	3	1
OVER 38" TO 54"	2	1
OVER 54" TO 59"	1	1



**TYPICAL PLAN VIEW**  
(TYPE IV BUNKER MAGAZINE)

INDICATES OUTLINE OF DOOR OPENING.



**SECTION CC-CC**

**SPECIAL NOTES:**

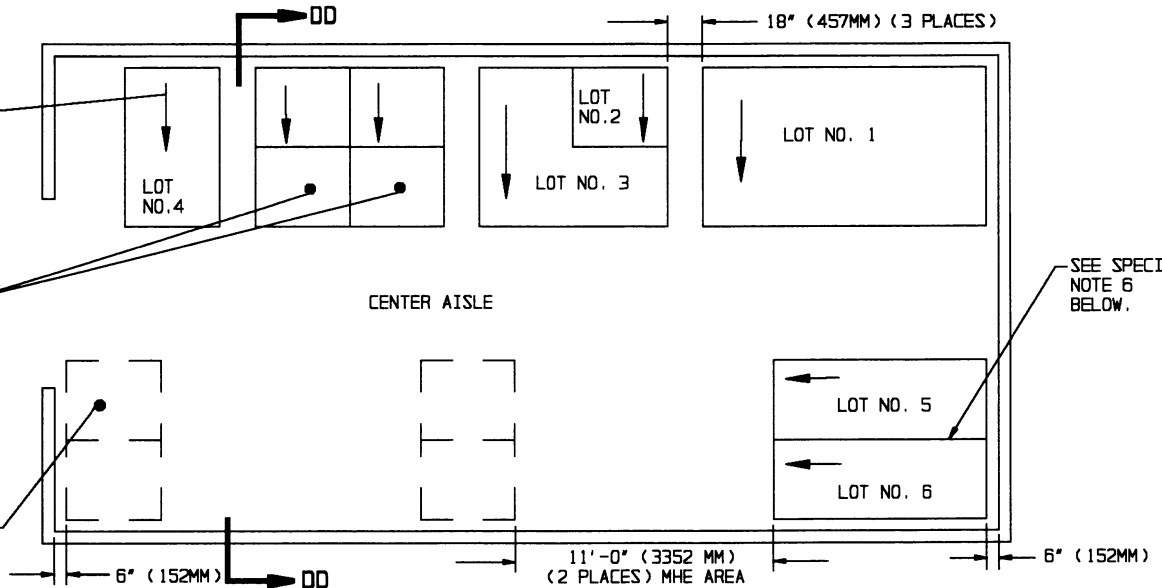
1. THE MULTIPLE LOT STORAGE PLAN SHOWN IS TYPICAL ONLY. ADAPTATIONS MAY BE MADE TO THE STORAGE PLAN AS THE NUMBER AND SIZES OF LOTS TO BE STORED IN THE BUNKER REQUIRE.
2. THE LARGEST LOT WILL BE STORED IN TYPE "B" STACKS ACROSS THE REAR OF THE BUNKER. SEE "CHART NO. 1" ON PAGE 101 FOR GUIDANCE AS TO THE NUMBER OF ROWS IN THESE STACKS. IF THE LOT OCCUPIES LESS THAN 1/4 OF THE MAGAZINE, STORAGE IN THE REAR OF THE BUNKER OF MORE THAN ONE (1) LOT MAY BE ERECTED IN ROWS SIMILAR TO THAT SHOWN IN THE FRONTAL AREA. THE SMALLER LOTS WILL BE STORED IN ROWS RUNNING THE LENGTH OF THE BUNKER. LOTS WILL NOT BE MIXED WITHIN STORAGE STACKS, BUT ONLY TO THE EXTENT THAT ITEMS OF ONE LOT WILL NOT BE STACKED ON TOP OF THE ITEMS OF ANOTHER LOT.
3. EXCEPT FOR EACH ROW ADJACENT TO THE EXCESS SPACE, AT THE REAR, OR ON EITHER SIDE OF THE DOOR OPENING, LOTS CONSISTING OF NARROW UNITS MUST BE STORED TWO (2) UNITS WIDE TO PROVIDE SUFFICIENT OPERATING WIDTH FOR THE MATERIALS HANDLING EQUIPMENT (MHE). IF THE UNIT DIMENSION WHICH IS POSITIONED ACROSS THE BUNKER, LENGTH OR WIDTH, AS APPLICABLE, IS GREAT ENOUGH TO PROVIDE SUFFICIENT MHE OPERATING WIDTH, LOTS NEED NOT BE STORED IN DOUBLE ROWS.
4. FOR ADDITIONAL GUIDANCE IN THE STORAGE OF MULTIPLE LOTS, SEE THE TYPICAL PLAN VIEW AND THE SPECIAL NOTES ON PAGE 103.

ARROWS INDICATE DIRECTION OF STORAGE FROM WALL TOWARD THE MHE AISLE.

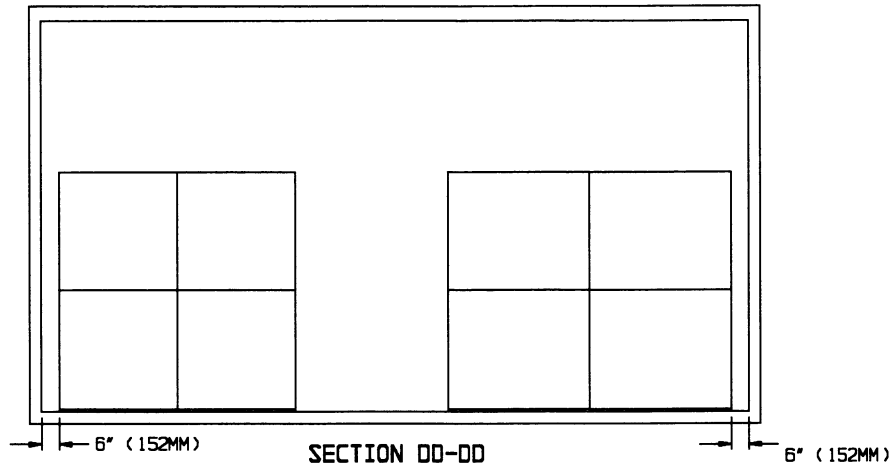
MIXED-LOT PALLET UNITS SEE SPECIAL NOTE 4 BELOW.

SEE SPECIAL NOTE 7 BELOW.

SEE SPECIAL NOTE 6 BELOW.



**TYPICAL PLAN VIEW**  
(TYPE IV BUNKER MAGAZINE)



**SECTION DD-DD**

**SPECIAL NOTES:**

1. THE STORAGE PLANS AND CONFIGURATIONS SHOWN ON THIS PAGE ARE TYPICAL ONLY AND APPLY TO STORAGE OF NUMEROUS SMALL LOTS. ADAPTATIONS MAY BE MADE TO SUIT DIMENSIONS OF THE PALLET TO BE STORED AND AS NUMBER AND SIZES OF LOTS IN BUNKER REQUIRE. THE TYPICAL PALLETIZED UNIT SHOWN IS 40" LONG BY 48" WIDE BY 40" HIGH.
2. AN INSPECTION/INVENTORY AISLE NOT LESS THAN 18" WIDE MUST BE PROVIDED AT ONE SIDE OF EACH LOT.
3. GENERALLY, THE LARGEST LOT SHOULD BE STORED IN THE REAR OF THE BUNKER. 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 BUNKER, 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 CONTAINERS WITHIN THAT UNIT. HOWEVER, ALL ITEMS AND LOTS WITHIN THE PALLET UNIT MUST HAVE THE SAME NATIONAL STOCK NUMBER AND CONDITION CODE.
5. EACH LOT WITHIN THE BUNKER 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.

**(SPECIAL NOTES CONTINUED)**

- A "LIFT" MAY CONSIST OF ONE (1) OR MORE PALLET UNITS, PROVIDING THE CAPACITY OF THE 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. AREAS ENCLOSED BY DOTTED LINES INDICATE LOCATIONS WHERE ADDITIONAL LOTS MAY BE STORED, OR WHERE ADDITIONAL ITEMS MAY BE STORED, THAT ARE FROM THE SAME 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 THE 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 MHE PERMITS. A "CENTER AISLE" (SPACE BETWEEN STORAGE ON ONE SIDE OF THE MAGAZINE AND AN "ADDITIONAL STORAGE LOCATION") IS TO BE AT LEAST 48 INCHES WIDE. AN AISLE SLIGHTLY WIDER THAN 48 INCHES WILL ENHANCE FORKLIFT TRUCK MOVEMENT WITHIN THE BUNKER; HOWEVER, THIS AISLE SHOULD NOT BE MADE WIDER IF A LOSS IN STORAGE RESULTS.

(CONTINUED AT RIGHT)

TO FIND THE NUMBER OF ROWS IN THE 60'-0" LENGTH OF THE BUNKER, LOOK IN THE LEFT HAND COLUMN OF CHART NO. 7. THE 51" WIDTH IS WITHIN THE OVER 50-1/4" TO 54" RANGE. FOLLOWING THE ARROW ALONG THE DOTTED LINE TO THE RIGHT INDICATES THAT 13 ROWS CAN BE PLACED IN THE BUNKER WHEN ALLOWING A 6" (152MM) SPACE ACROSS THE REAR. IN CHART NO. 8 THE 41-7/8" DIMENSION WHICH IS ACROSS THE WIDTH OF THE BUNKER IS WITHIN THE OVER 41" TO 42" RANGE. THE ADJACENT COLUMN INDICATES THE NUMBER OF ROWS WIDE IN THE MHE AISLE WHEN THE PALLET UNITS ARE ORIENTED THE SAME AS THE LATERALLY ADJACENT ROWS. THE FIGURE 2 IN THAT COLUMN SPECIFIES THAT 2 ROWS AT 41-7/8" LONG CAN BE POSITIONED ACROSS THE WIDTH OF THE MHE AISLE. HOWEVER, FOLLOWING THE ARROW ALONG THE DOTTED LINE TO THE RIGHT INDICATES THAT 2 ROWS WITH THE 51" WIDTH ACROSS THE WIDTH OF THE BUNKER CAN BE POSITIONED IN THE WIDTH OF THE MHE AISLE. NOTE THAT GREATER DENSITY OF STORAGE CAN BE OBTAINED BY SELECTING THE LARGEST DIMENSION OF THE UNIT TO BE POSITIONED ACROSS THE WIDTH OF THE MHE AISLE. IN CHART NO. 9 THE 41-7/8" DIMENSION WHICH IS POSITIONED LENGTHWISE WITHIN THE MHE AISLE IS WITHIN THE OVER 41-3/4" TO 44-3/4" RANGE. FOLLOWING THE ARROW ALONG THE DOTTED LINE TO THE RIGHT INDICATES THAT 13 STACKS CAN BE POSITIONED WITHIN THE LENGTH OF THE MHE AISLE. THIS ALLOWS SUFFICIENT SPACE INSIDE THE DOOR OPENING FOR THE FORKLIFT TRUCK OPERATING AREA. NOTE THAT ADDITIONAL STACKS MAY BE STORED IF THE ROWS ARE ALIGNED WITH THE DOOR OPENING OR IF THE AVAILABLE MHE PERMITS.

3. THE UNIT SIZE RANGE (LENGTH OR WIDTH) AND THE UNIT HEIGHT DIMENSION COVER ALL THE SIZES WITHIN THE RANGE SPECIFIED.