STORAGE IN APPROVED MAGAZINES OF SIDEWINDER (AIM-9X) MISSILE PACKED FOUR PER CNU-609 CON-TAINER

GENERAL NOTES AND MATERIAL SPECIFICATION 2 CONTAINER DETAILS 3 TYPICAL STORAGE IN ARCHED OR ROUNDED ROOF MAGAZINES 8,9 100'-8" L X 50'-0" W RECTANGULAR MAGAZINE 10,11 60'-0" L X 40'-0" W X 15'-0" H TYPE II BUNKER MAGAZINE 12,13 60'-0" L X 40'-0" W X 11'-0" H TYPE III BUNKER MAGAZINE 14,15 40'-0" L X 20'-0" W X 11'-0" H TYPE IV BUNKER MAGAZINE 16,17 DETAILS	ITEM	PAGE(S)
	CONTAINER DETAILS	8,9 10,11 12,13 14,15

U.S. ARMY MATERIEL COMMAND DRAWING													
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GENERAL NOTES

- 740-1 AND AUGMENTS TM 743-200-1 (CHAPTER 5).
- THE STORAGE PROCEDURES DEPICTED WITHIN THIS DOCUMENT ARE APPLI-CABLE FOR STORAGE IN VARIOUS TYPES AND SIZES OF MAGAZINES. THE STORAGE PROCEDURES DEPICTED FOR THE SPECIFIC TYPES OF MAGAZINES MAY ALSO BE UTILIZED TO STORE SIDEWINDER MISSILES IN OTHER TYPES OF APPROVED MAGAZINES. MINOR ADJUSTMENTS MAY BE MADE TO FACILITATE STORAGE IN OTHER TYPES OF MAGAZINES. HOWEVER, THE BASIC PRINCIPLES AS DEPICTED HEREIN WILL BE FOLLOWED.
- THE STORAGE PROCEDURES SPECIFIED HEREIN ARE APPLICABLE TO LOADS OF SIDEWINDER MISSILES PACKED FOUR MISSILES PER CNU-609 CONTAINER, SUBSEQUENT REFERENCE TO CONTAINER HEREIN MEANS THE CONTAINER WITH AMMUNITION ITEMS. <u>CAUTION:</u> THIS ITEM IS IN A "PROPULSIVE STATE" AND MUST BE STORED WITH THE FORWARD END FACING TOWARD A SIDEWALL OR REAR WALL AS INDICATED BY THE DIRECTIONAL ARROWS IN THE STORAGE VIEWS. NOTE THAT THE FORWARD END IS OPPOSITE TO THE END WITH THE HUMIDITY INDICATOR. FOR DETAILS OF THE CONTAINER, SEE PAGE 3 OR RAY-THEON DRAWING 2215440.
- THE CONTAINERS MAY BE STORED UNITIZED IN ACCORDANCE WITH NAVSEA DRAWING 6214173, BUT THIS IS NOT REQUIRED. NOTE THAT THIS COULD RE-SULT IN A REDUCTION OF QUANTITY STORED.
- <u>CAUTION</u>: THE ALLOWABLE "EXPLOSIVE LIMIT" ESTABLISHED FOR A MAGAZINE IS NOT TO BE EXCEEDED. THIS LIMITATION MAY REQUIRE A QUANTITY REDUCTION FROM THE STORAGE AS SHOWN.
- STORED CONTAINERS MUST NOT CONTACT THE SIDES OF A MAGAZINE. THEREFORE, CONTAINERS MUST BE STORED A MINIMUM OF 6" FROM THE SIDE-WALL OR CURVATURE OF THE MAGAZINE AS APPLICABLE. TO PROVIDE FOR THIS MANDATORY CLEARANCE REQUIREMENT, CONTAINERS MAY BE ELIMI-NATED FROM THE DEPICTED STORAGE PATTERN AS NECESSARY.
- AISLE DIMENSION SHOWN FOR STORAGE PROCEDURES IN MAGAZINES MAY BE ADJUSTED TO SUIT LOCAL CONDITIONS, VARIATIONS IN CONTAINER DIMENSIONS, AND/OR AVAILABLE MATERIALS HANDLING EQUIPMENT (MHE). HOW-EVER, A 24" MINIMUM INSPECTION AISLE MUST BE MAINTAINED AT THE AFT END OF THE CONTAINERS WHERE HUMIDITY INDICATORS ARE LOCATED.
- THE MAXIMUM FLOOR LOAD FOR A MAGAZINE AS PRESCRIBED WILL NOT BE EXCEEDED.
- IF AVAILABLE MHE PERMITS, ADDITIONAL CONTAINERS MAY BE STORED WITHIN THE MHE AREA AND/OR OTHER AVAILABLE AREA OF THE MAGAZINE.
- THE HEIGHT OF THE PACKAGE GUARD ON SOME FORKLIFT TRUCKS MAY NOT PERMIT PLACEMENT OF SOME TOP LAYER CONTAINERS IN THE STACKS SHOWN IN THE STORAGE VIEWS HEREIN, UNLESS TWO UPPER CONTAINERS ARE HANDLED AS ONE LIFT OR THE PACKAGE GUARD IS REMOVED (TINE CARRIAGE WILL IN MOST INSTANCES PROVIDE ADEQUATE PACKAGE GUARD PROTECTION). ONLY A FORKLIFT TRUCK OF ADEQUATE CAPACITY WILL BE USED WHEN LIFTING TWO CONTAINERS AS ONE LIFT.

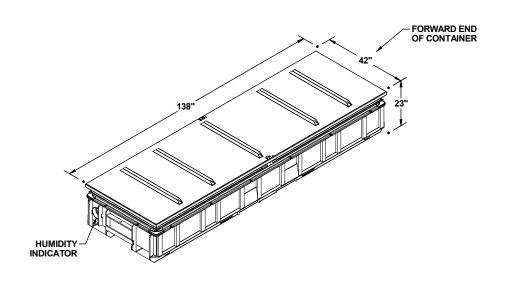
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(GENERAL NOTES CONTINUED)

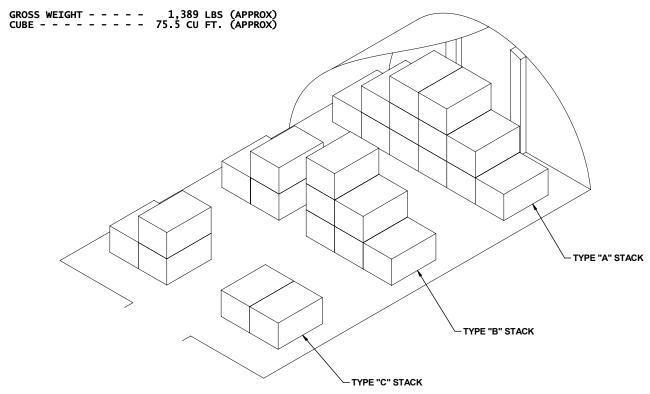
- THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AR L. STORAGE OF MULTIPLE LOTS IN A MAGAZINE WILL REQUIRE CAREFUL PRE-PLANNING SO AS TO INSURE MHE ACCESSIBILITY TO ANY LOT IN ACCORDANCE WITH REQUIREMENTS SET FORTH IN THE APPLICABLE "SPECIAL NOTES" SEC-TIONS OF THE MULTIPLE LOT STORAGE PROCEDURES SHOWN ON PAGES 18
 - M. ALTHOUGH SPECIFIC PROCEDURES ARE INCLUDED IN THIS DRAWING FOR STORING MULTIPLE LOTS WITHIN ONE STRUCTURE, THE BASIC STORAGE PAT-TERN AS SHOWN ON PAGES 4 THRU 17 CAN ALSO BE ADAPTED FOR STORAGE IERN AS SHOWN ON PAGES 4 I HRU 17 CAN ALSO BE ADAPTED FOR STORAGE MORE THAN ONE LOT, LOTS WHEN STORED IN ACCORDANCE WITH THE BASIC STORAGE PATTERN MAY BE STORED WITH ONE OR MORE ROWS USED FOR EACH LOT. A SPACE OF APPROXIMATELY 1" WILL HAVE TO BE LEFT BETWEEN ADJACENT ROWS CONTAINING DIFFERENT LOTS. IN BASIC STORAGE PATTERNS WHERE THE WIDTH OF A ROW IS ESTABLISHED BY THE 42" CONTAINER DIMENSION, EACH ROW MAY BE A DIFFERENT LOT AND READILY REMOVABLE. IN BASIC STORAGE PATTERNS WHERE THE WIDTH OF THE ROW IS ESTAB-LISHED BY THE 138" CONTAINER DIMENSION, A LOT MUST CONSISTS OF TWO OR MORE ROWS TO PROVIDE ADEQUATE SPACE TO ACCOMMODATE THE WIDTH OF A FORKLIFT TRUCK FOR STORING OR REMOVING THE LOT. THE 1" SPACE BETWEEN LOTS, AS STATED ABOVE WILL NOT BE EXCEEDED SOLELY TO ACCOMMODATE THE WIDTH OF A FORKLIFT TRUCK.
 - N. ANY "LIGHT" (INCOMPLETE CONTAINER) UNIT WILL NOT BE BURIED IN STOR-AGE, IT MUST BE POSITIONED ADJECENT TO AN AISLE, PREFERABLY IN FRONT
 - O. PORTIONS OF THE MAGAZINES. SUCH AS SIDEWALLS. END WALLS. AND ROOFS HAVE NOT BEEN SHOWN IN THE STORAGE VIEWS FOR CLARITY PURPOSES.
 - A PRODUCTION OR STORAGE FACILITY IS AUTHORIZED TO HAVE ONE INCOM-PLETE, PARTIAL CONTAINER PER LOT IN A STORAGE STRUCTURE. PROVIDED THE CONTAINER MUST BE RE-PACKED AS THE ORIGINAL LOAD.
 - THE USE OF NOMINAL SIZE 1" X 6" X 38" OR 2" X 6" X 38" FLOOR DUNNAGE UNDER EACH END OF EACH FIRST-LAYER CONTAINER IS OPTIONAL, ALTHOUGH THE USE OF THIS TYPE OF DUNNAGE IS DELINEATED WITHIN THIS STORAGE PROCEDURE DRAWING. THE PURPOSE OF FLOOR DUNNAGE IS TO HELP KEEP THE RUNNERS OF THE CONTAINERS DRY, THUS AIDING IN PREVENTING DETE-RIORATION DUE TO CORROSION. THEREFORE, FLOOR DUNNAGE SHOULD BE USED WHEN STORING IN A MAGAZINE THAT IS KNOWN TO HAVE A "DAMP" SLOPING TOWARD THE SIDEWALLS, THE DEPICTED STORAGE PATTERNS IN-CLUDE CONTAINER-STACKS WHICH STRADLE THE RIDGE OF THE FLOOR AT THE CENTER OF THE MAGAZINE. IT WILL BE NECESSARY THEREFORE, TO USE 2" THICK MATERIAL FOR THE FLOOR DUNNAGE UNDER THESE STACKS TO PREVENT THE BOTTOM OF THE FORKLIFT TINE POCKETS FROM CONTACTING THE FLOOR. STACK STABILIZING DUNNAGE IN THE FORM OF SHIMS WILL BE USED IF REQUIRED TO ACHIEVE SOUND AND ACCEPTABLE STABLE STACKS FROM THE FLOOR TO THE TOP OF THE STACK. SHIM MATERIAL OF VARYING THICKNESS OR THICKER FLOOR DUNNAGE WILL BE USED AS REQUIRED UNDER THE LOAD BEARING LOCATIONS AT THE ENDS OF THE FIRST-LAYER CONTAIN-ERS. SEE THE "FLOOR DUNNAGE AND SHIM LOCATION DETAIL" ON PAGE 18 FOR A TYPICAL INSTALLATION.
 - R. CONVERSION TO METRIC EQUIVALENTS: DIMENSIONS WITHIN THIS DOCUMENT ARE EXPRESSED IN INCHES, AND WEIGHTS ARE EXPRESSED IN POUNDS. WHEN NECESSARY, THE METRIC EQUIVALENT MAY BE COMPUTED ON THE BASIS OF ONE INCH EQUALS 25.4MM, AND ONE POUND EQUALS 0.454 KG.
 - OTHER COMPATIBLE ITEMS MAY BE STORED IN A MAGAZINE, WHICH IS PAR-TIALLY FILLED WITH THE DESIGNATED ITEM.

MATERIAL SPECIFICATION

SEE TM 743-200-1 (DUNNAGE LUMBER) AND VOLUNTARY PRODUCT STANDARD PS 20. <u>LUMBER</u> - - - - - - - :



CNU-609



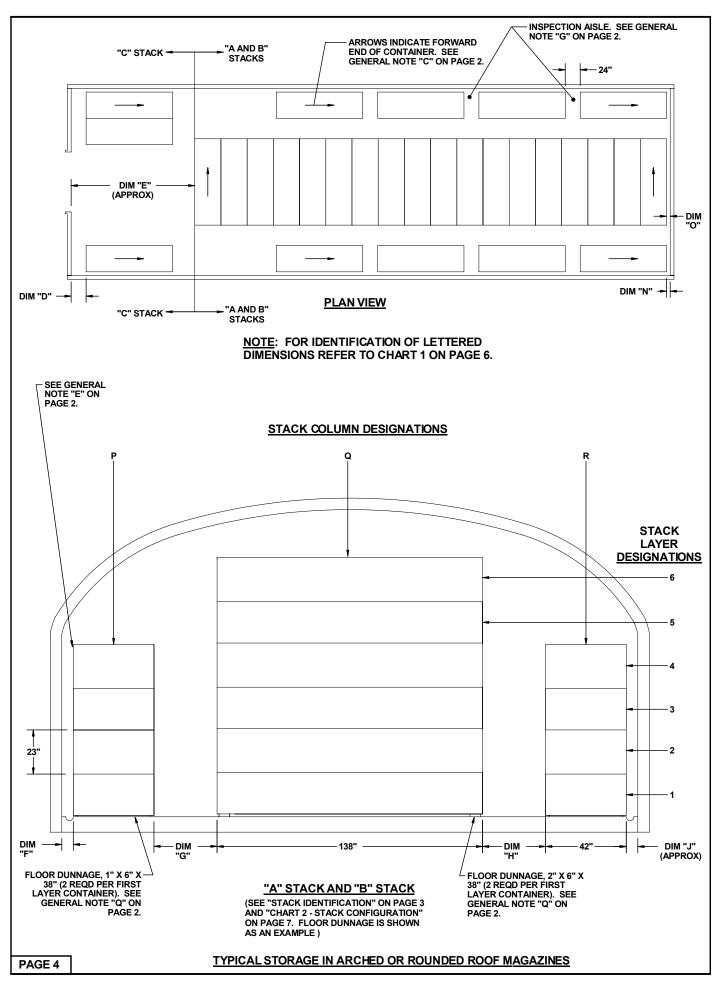
STACK IDENTIFICATION

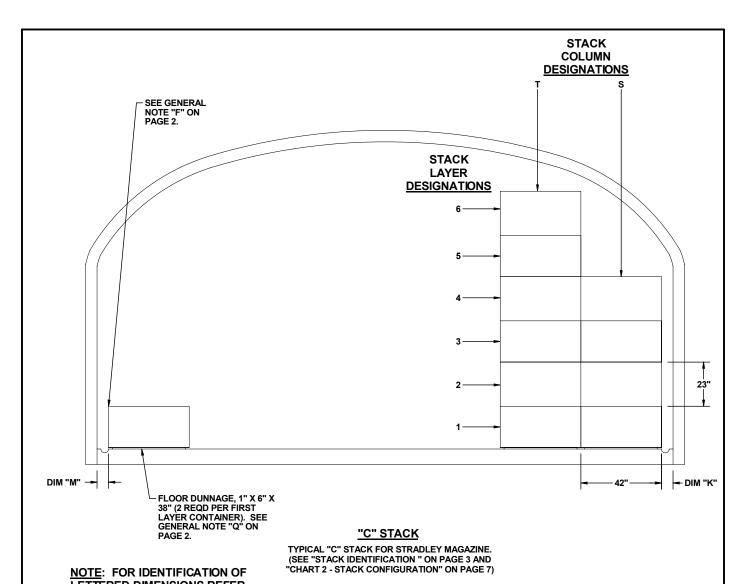
A TYPE "A" STACK IS IDENTIFIED AS A GROUP OF ITEMS /UNITS WHICH EXTENDS FULL WIDTH AND HEIGHT OF THE MAGAZINE, AND IS ONE ITEM/UNIT LONG IN THE LENGTH OF THE MAGAZINE.

A TYPE "B" STACK IS IDENTIFIED AS A GROUP OF ITEMS/UNITS WHICH EXTEND FULL WIDTH AND HEIGHT OF THE MAGAZINE, AND IS ONE UNIT/ITEM LONG, BUT HAS AN AISLE AT OR NEAR THE CENTER OF THE WIDTH OF THE STACK.

A TYPE "C" STACK IS IDENTIFIED AS A GROUP OF ITEMS/UNITS WHICH IS ONE UNIT/ITEM LONG AND CONSISTS OF PARTIAL STACKS ON EACH SIDE OF THE MAGAZINE, USUALLY ONE ITEM/UNIT HIGH ON ONE SIDE OF THE MAGAZINE.

PAGE 3





LETTERED DIMENSIONS REFER TO CHART 1 ON PAGE 6.

SPECIAL NOTES:

- 1. THE FOLLOWING NOTES, CHART 1 ON PAGE 6 AND CHART 2 ON PAGE 7 ARE PRESENTED AS GUIDANCE IN THE SELECTION OF A STORAGE PATTERN, AND IN DETERMINING THE QUANTITY OF CONTAINERS WHICH CAN BE STORED IN THE STORAGE MAGAZINES LISTED IN THE CHARTS MENTIONED ABOVE.
- 2. CHART 1 ON PAGE 6 DESCRIBES THE STORAGE MAGAZINE GENERAL DIMENSIONS AND THE DIMENSIONS OF THE CONTAINER SPACING WITHIN THE STORAGE MAGAZINES.
- 3. DIMENSIONS "A", "B" AND "C" HAVE BEEN OMITTED TO AVOID CONFUSION WITH STACKS "A", "B" AND "C".
- 4. CHART 2 ON PAGE 7 DETAILS THE QUANTITY OF CONTAINERS IN EACH TYPE OF MAGAZINE AND THE LAYOUT OF THE STACKS FOR EACH TYPE OF MAGAZINE. THE CHART SHOWS THE NUMBER OF CONTAINERS IN EACH STACK LAYER AND THE LOCATION OF THE CONTAINER ON EACH LAYER.

(CONTINUED AT RIGHT)

EXAMPLE:

CHART 2 – "C" STACK CONFIGURATION - LEFT SIDE MAGAZINE: STRADLEY

LAYER NUMBER 1: 2 (S-T) LAYER NUMBER 2: 2 (S-T) LAYER NUMBER 3: 2 (S-T) LAYER NUMBER 4: 2 (S-T) LAYER NUMBER 5: 1 (T) LAYER NUMBER 6: 1 (T)

EXPLANATION:

LAYER 1 (BOTTOM LAYER) HAS TWO CONTAINERS FROM THE "S" COLUMN (NEAREST THE LEFT SIDE OF THE MAGAZINE) TO THE "T" COLUMN.

LAYER 2 (ON TOP OF LAYER 1) HAS TWO CONTAINERS FROM THE "S" COLUMN (NEAREST THE LEFT SIDE OF THE MAGAZINE) TO THE "T" COLUMN.

LAYER 3 (ON TOP OF LAYER 2) HAS TWO CONTAINERS FROM THE "S" COLUMN (NEAREST THE LEFT SIDE OF THE MAGAZINE) TO THE "T" COLUMN.

LAYER 4 (ON TOP OF LAYER 3) HAS TWO CONTAINERS FROM THE "S" COLUMN

TYPICAL STORAGE IN ARCHED OR ROUNDED ROOF MAGAZINES

PAGE 5

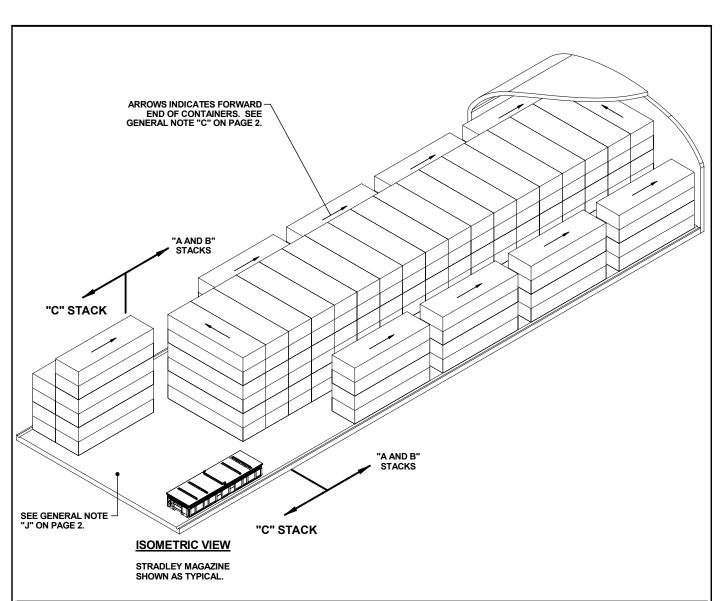


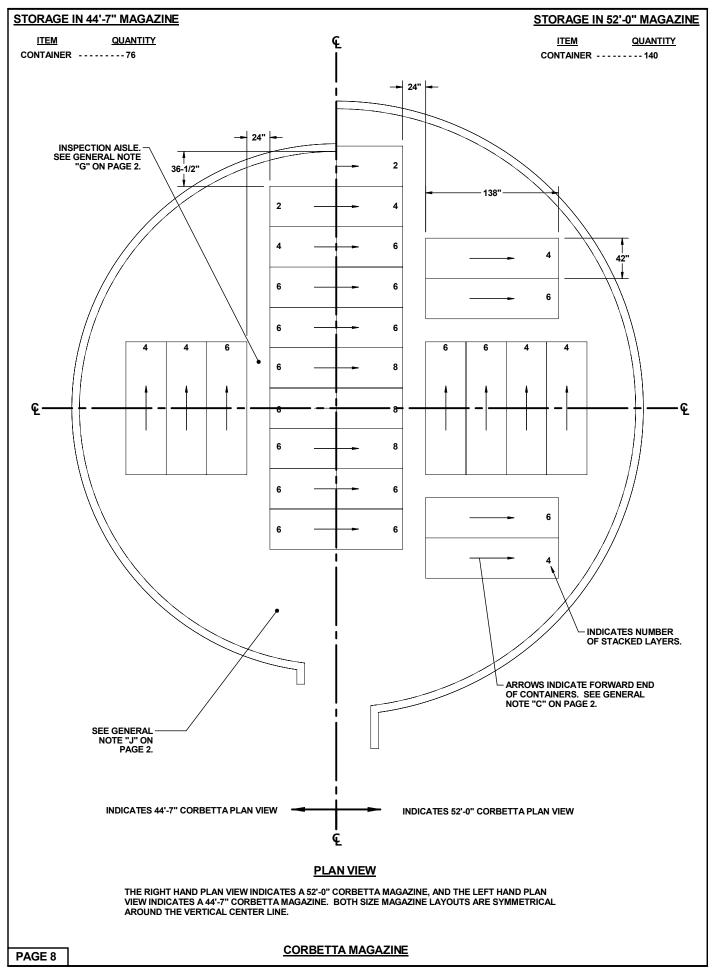
CHART 1 - DIMENSIONS														
M 4 0 4 7 1 1 1 5	M A GAZINE TYPE													
M A GAZINE DIM ENSIONS	IGLOO			ARCH 12' 26'-6" 25'-0"			ARCH 11'		ARCH 10'		OVAL ARCH	STRADLEY	STEEL	ARCH
LENGTH	40'-4"	60'-8"	8 1' - 0 "	81'-2"	40'-0"	80'-0"	40'-0"	80'-0"	40'-0"	80'-0"	89'-0"	80'-0"	59'-0"	89'-0"
WIDTH		26'-6"	•	26'-6"	25'-0"	25'-0"	25'	-0"	25'	-0"	24'-10"	25'-0"	25'-0"	24'-11"
HEIGHT	12'-9"			12'-1-3/4"			11' - 0 "		10'-0"		14'-5"	14'-0"	14'-0"	13'-6"
DIMENSIONS				CONTAINER SPACING DIMENSIONS										
DIM "D" ("C" STACK FRONT)	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"
DIM "E" (MHE AISLE APPROX)	15'-2"	14'-9"	14'-3"	16'-3"	14'-5"	15' - 11"	14'-5"	15' - 10 "	15'-0"	16'-6"	15' - 1"	16'-6"	16'-6"	15'-3"
DIM "F" ("B" STACK LEFT)	47"	47"	47"	7'-6"	38"	38"	32"	19 "	19 "	19 "	38"	6"	2 1"	2 1"
DIM "G" ("A TO B" LEFT)	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	33"	12 "	3"
DIM "H" ("A TO B" RIGHT)	35"	35"	35"	30"	26"	26"	24"	36"	24"	24"	33"	33"	24"	3 1"
DIM "J" ("B" STACK RIGHT)	12 "	12 "	12 "	13 "	13 "	13 "	19 "	20"	20"	20"	6"	6"	2 1"	2 1"
DIM "K" ("C" STACK LEFT)	48"	48"	48"	7'-6"	38"	38"	20"	19 "	19 "	19 "	38"	6"	2 1"	2 1"
DIM "L" (MHE AREA APPROX)	10 '-11"	10 '-11"	10 ' - 11"	10'-7"	10'-3"	10'-3"	11'-1"	11'-1"	10 ' - 1"	10 ' - 1"	10'-10"	13'-6"	11'-0"	10'-10"
DIM "M" ("C" STACK RIGHT)	12 "	12 "	12 "	13 "	13 "	13 "	19 "	20"	20"	20"	6"	6"	2 1"	2 1"
DIM "N" ("B" STACK BACK)	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"
DIM "O" ("A" STACK BACK)	6"	6"	6"	14 "	14 "	14 "	14 "	14 "	6"	6"	6"	6"	6"	6"

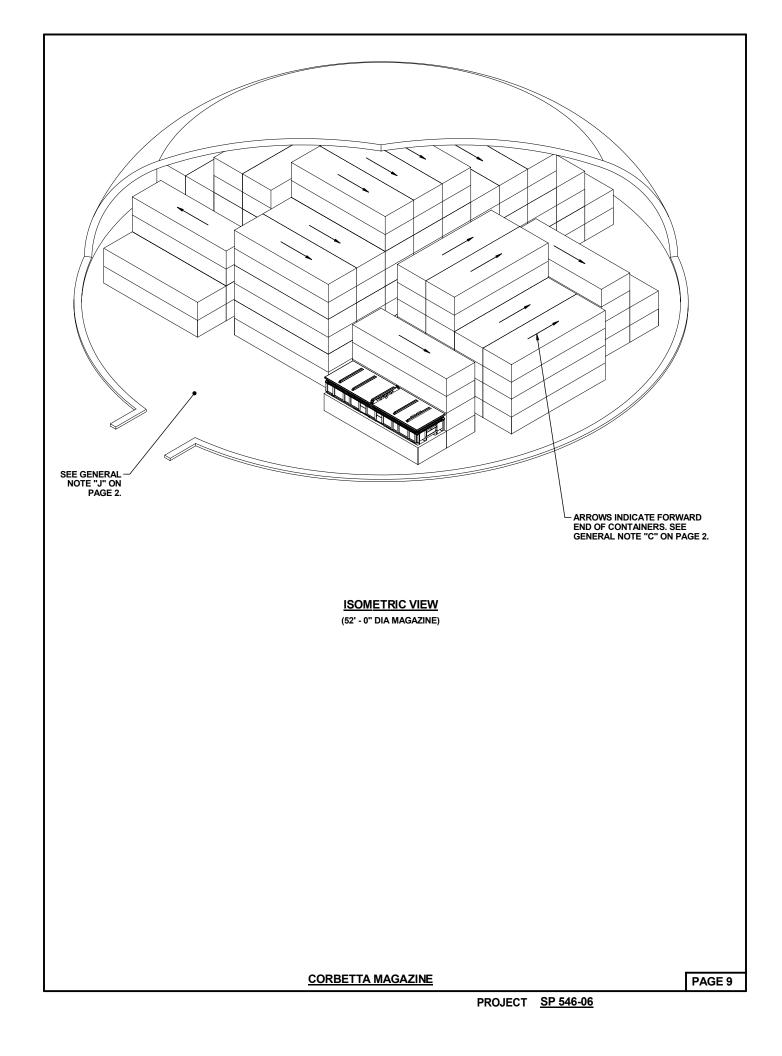
TYPICAL STORAGE IN ARCHED OR ROUNDED ROOF MAGAZINES

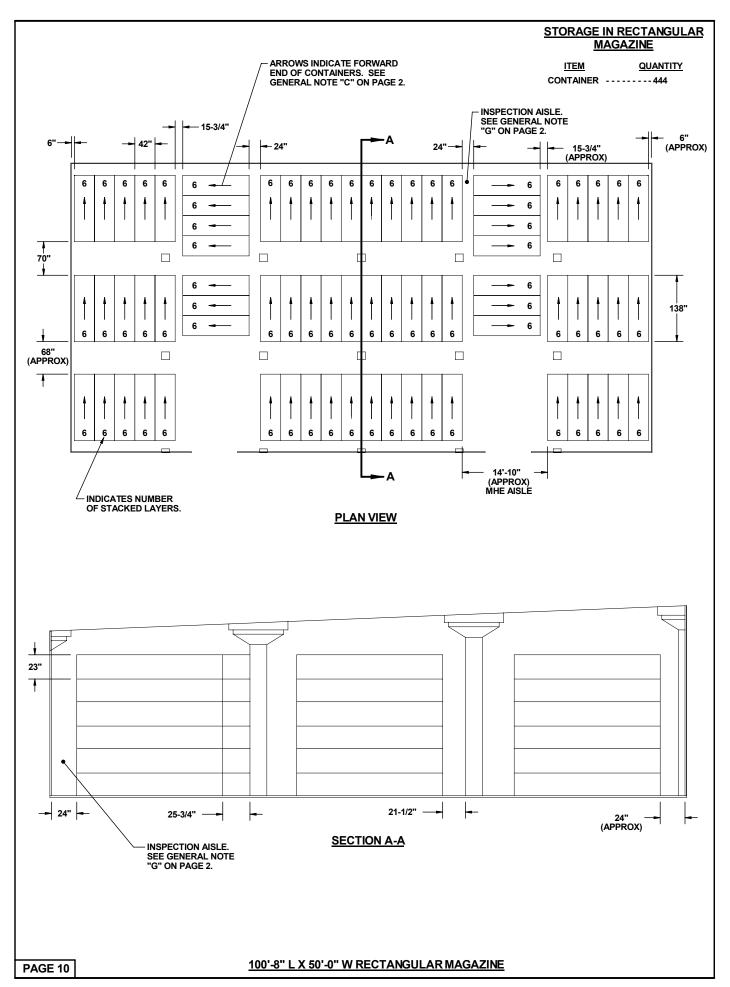
CHAPT 2 STACK CONFIGURATION															
CHART 2 - STACK CONFIGURATION MAGAZINE TYPE															
	IGLOO ARCH 12' ARCH 12' Y 25' W ARCH 11' ARCH 10' OVAL STEEL ARCH											ARCH			
QUANTITY PER	40'-4" L 60'-8" L 81'-0" L						-	40'-0" L			STRADLEY	59'-0" L			
M AGAZINE	59	10 7	14 3	10 5	43	10 5	39	95	39	95	18 9	159	10 7	177	
					"A"	STACK	CONFIGL	RATION	•	•	•	•			
LAYER							NTAINERS								
1		1(Q)			1(Q) 1(Q)		1(Q)			Q)	1(Q) 1(Q)	1(Q)	1(0		
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SINGLE		6		4	4		_			ı	6				
STACK TOTAL		ь		4	4	•	'	4		•	"	6 6			
NUMBER OF STACKS	7	13	18	18	7	18	7	18	7 18		21	18	12	21	
"A" STACKS			40.0						•		40.0	40.0		40.0	
TOTAL	42	78	10 8	72	28	72	28	72	28	72	12 6	10 8	72	12 6	
				•	B" STAC		IGURATI								
LAYER				·	<u>-</u>		NTAINERS								
1		1(P)		1(P)	1(1(1(1(P)	1(P)	1(P)		
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4	1(P) 1(P)			1(P)	1(0			,)	1(P)	1(P)	1(P) 1(P) 0		
5	0			0	Ċ		0)	1(P)	1(P)			
6		0		0	0		(0)	1(P)	1(P)	(P) 0		
SINGLE STACK TOTAL	K 4			4	4 4		2		2		6	6	4		
NUMBER	1	3	4	4	1		1	4	1 4		5	4	3	5	
OF STACKS	4	12	16	16	4	16	2	8	2	8	30	24	12	20	
TOTAL				"	B" STAC	K CONFI	IGURATION-RIGHT SIDE					<u> </u>	l		
LAYER						CO	NTAINERS	PER LAY	ER						
1		1(R)		1(R)	1(R)		R)	1(R)	1(R)	1(1		
2		1(R)		1(R) 1(R) 0			1(R)	1(R)	1(R) 1(R) 1(R) 1(R)			
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5		Ö		0	ď		0)	0	0 0			
6		0		0	C)	0		()	0	0 0		0	
SINGLE STACK		2		2	2 2			2		2		4 4			
TOTAL															
NUMBER OF STACKS	1	3	4	4	1	4	1	4	1	4	5	4	3	5	
"B" STACK TOTAL	2	6	8	8	2	8	2	8	2	8	20	16	12	20	
					C" STAC		GURATIO								
LAYER		2(S-T)		1		CO	NTAINERS				T		T		
1		2(S-T)			2(S-T)		2(S-T)		2(2-T)	2(S-T)	2(S-T)				
2	2(S-T)			2(S-T)			2(S-T)		2(S-T)		2(2-T)	2(S-T)	2(S		
3	2(S-T)			2(S-T)			1(T)		1(T)		2(2-T) 2(S-T)	2(S-T) 2(S-T)	2(S		
4 5	2(S-T) 1(T)		2(S-T) 0			1(T) 0		1(T) 0		2(S-T) 2(S-T)	2(S-1) 1(T)	2(S-T) 1(T)			
6 1(T)		Ö			0		Ō		2(2-T)	1(T)					
SINGLE STACK 10				ρ			6		6		12	10	10		
STACK TOTAL		10		8			6				'*	"	"	,	
NUMBER OF STACKS	BER 1			1			1		1		1	1	1		
"C" STACK	ACK 10				8			6 6		3	12	10	10		
LF TOTAL				"(C" STACI	K CONFIG	I GURATIO	N - RIGH	T SIDE]	<u> </u>	I.		
"C" STACK		1			1			1		1	1	1	1		
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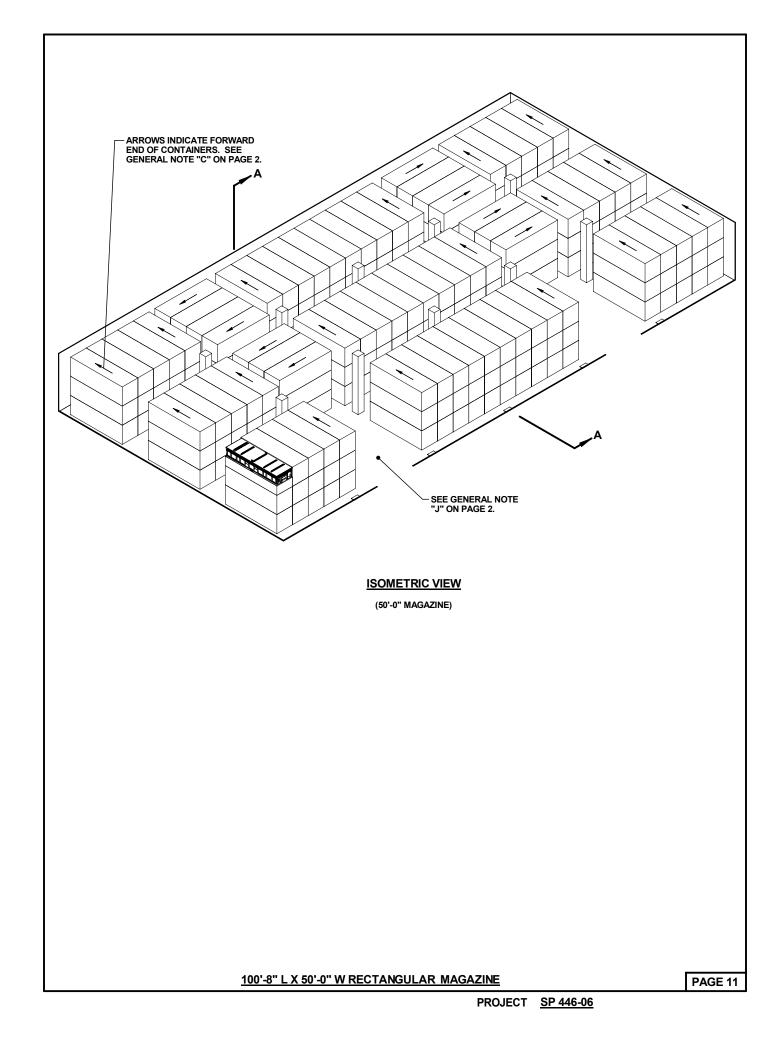
NOTE: REFER TO THE SPECIAL NOTES ON THE BOTTOM OF PAGE 5.

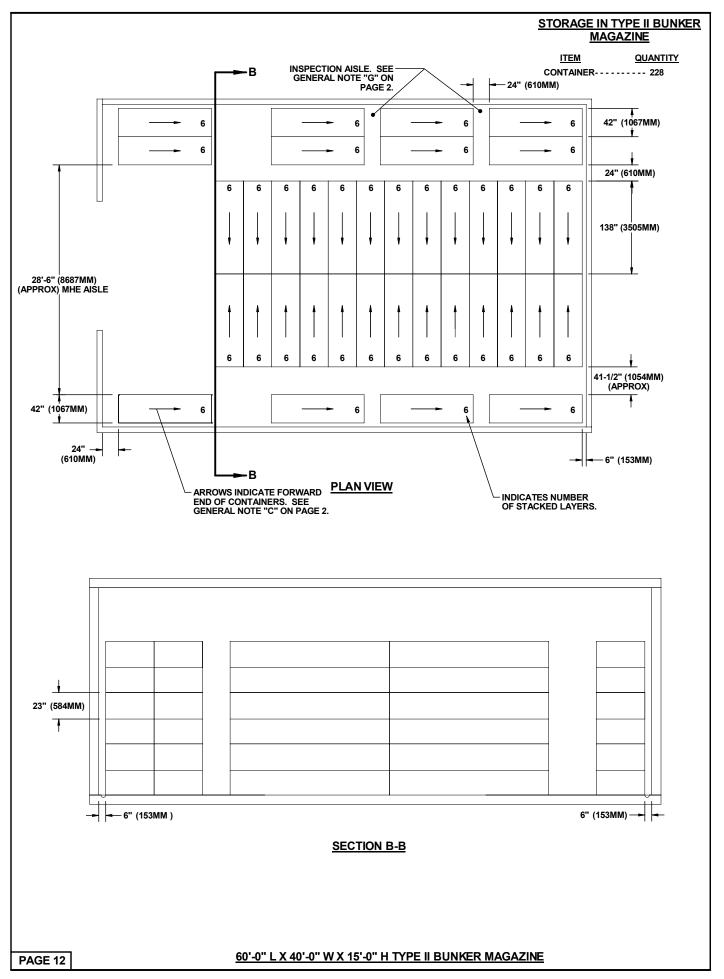
PAGE 7











PROJECT SP 446-06

