# STORAGE IN APPROVED MAGAZINES OF SMALL DIAMETER BOMB CARRIAGE/SYSTEM PACKED IN CNU-660 CONTAINERS

### INDEX

ITEM

#### PAGE(S)

GENERAL NOTES AND MATERIAL SPECIFICATIONS	2
CONTAINER DETAILS	3
TYPICAL STORAGE IN ARCHED OR ROUNDED ROOF MAGAZINES	4-7
CORBETTA MAGAZINE	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
TYPICAL MULTIPLE-LOT STORAGE PROCEDURES	18-23
SHIM LOCATION DETAIL	24

# U.S. ARMY MATERIEL COMMAND DRAWING

APPROVED, U.S. ARMY FIELD SUPPORT COMMAND	<u>CAUTION:</u> VERIFY PRIOR TO USE AT WWW.DAC.ARMY.MIL THAT THIS IS THE MOST CURRENT VERSION OF THIS DOCUMENT. THIS IS PAGE 1 OF 24.									
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#### **GENERAL NOTES**

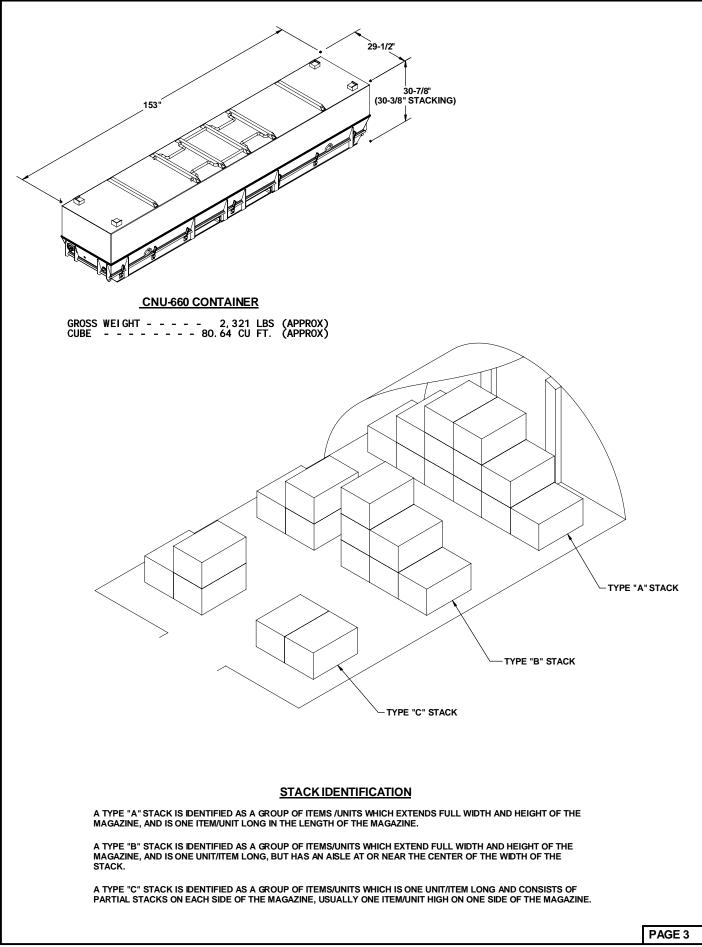
- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AR 740-1 AND AUGMENTS TM 743-200-1 (CHAPTER 5).
- B. THE STORAGE PROCEDURES DEPICTED WITHIN THIS DOCUMENT ARE APPLI-CABLE FOR STORAGE IN VARIOUS TYPES AND SIZES OF MAGAZINES. THE STORAGE PROCEDURES DEPICTED FOR THE SPECIFIC TYPES OF MAGAZINES MAY ALSO BE UTILIZED TO STORE SMALL DIAMETER BOMB CARRIAGE/SYSTEM 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.
- C. THE STORAGE PROCEDURES SPECIFIED HEREIN ARE APPLICABLE TO LOADS OF SMALL DIAMETER BOMB CARRIAGE/SYSTEMS PACKED ONE BRU-61A CAR-RIAGE SYSTEM AND FOUR GBU-39/B BOMBS PER CNU-660 CONTAINER. SUB-SEQUENT REFERENCE TO CONTAINER HEREIN MEANS THE CONTAINER WITH AMMUNITION ITEMS IN THEM. SEE PAGE 3 AND BOEING DRAWING 70P993153-1001 FOR DETAILS OF THE CONTAINER.
- D. <u>CAUTION:</u> THE ALLOWABLE "EXPLOSIVE LIMIT" ESTABLISHED FOR A MAGA-ZINE IS NOT TO BE EXCEEDED. THIS LIMITATION MAY REQUIRE A QUANTITY REDUCTION FROM THE STORAGE AS SHOWN.
- E. CONTAINER MUST NOT CONTACT THE SIDES OF A MAGAZINE. THEREFORE, CONTAINERS MUST BE STORED A MINIMUM OF 6" FROM THE SIDEWALL OR CURVATURE OF THE MAGAZINE AS APPLICABLE. TO PROVIDE FOR THIS MAN-DATORY CLEARANCE REQUIREMENT, UNITS MAY BE ELIMINATED FROM THE DEPICTED STORAGE PATTERN AS NECESSARY.
- F. AISLE DIMENSION SHOWN FOR STORAGE PROCEDURES IN MAGAZINES MAY BE N. ADJUSTED TO SUIT LOCAL CONDITIONS, VARIATIONS IN PALLET UNIT DIMEN-SIONS, AND/OR AVAILABLE MATERIALS HANDLING EQUIPMENT (MHE). HOW-EVER, A 24" MINIMUM INSPECTION AISLE MUST BE MAINTAINED AT THE END OF 0. THE CONTAINERS WHERE HUMIDITY INDICATORS ARE LOCATED.
- G. THE MAXIMUM FLOOR LOAD FOR A MAGAZINE AS PRESCRIBED WILL NOT BE EXCEEDED.
- H. IF AVAILABLE MHE PERMITS, ADDITIONAL CONTAINERS MAY BE STORED WITHIN THE MHE AREA AND/OR OTHER AVAILABLE AREA OF THE MAGAZINE.
- J. 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 COTAINERS 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.

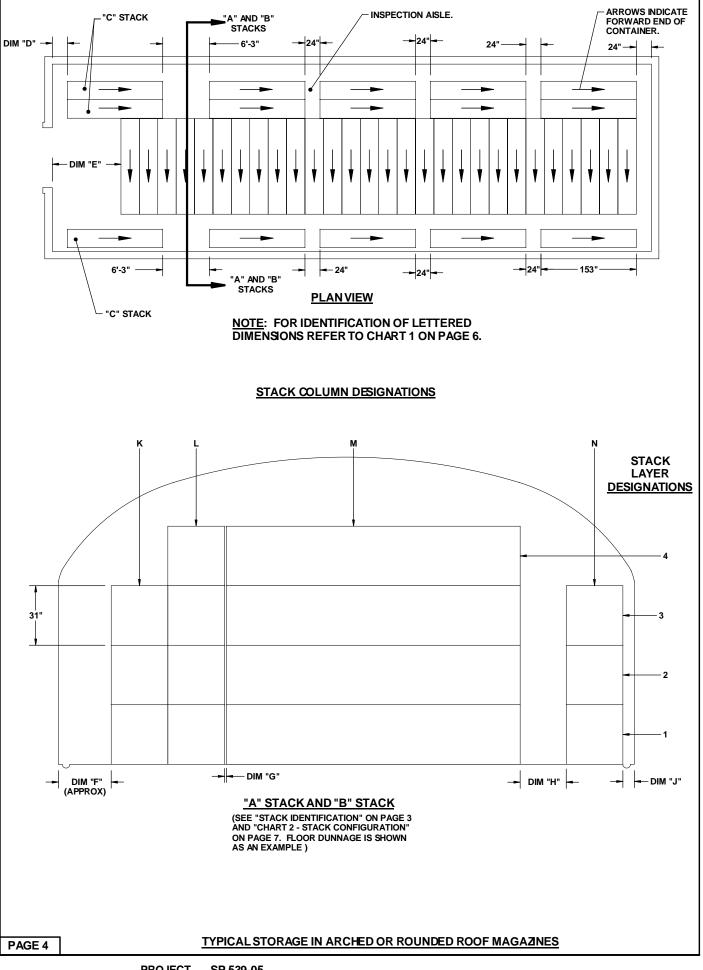
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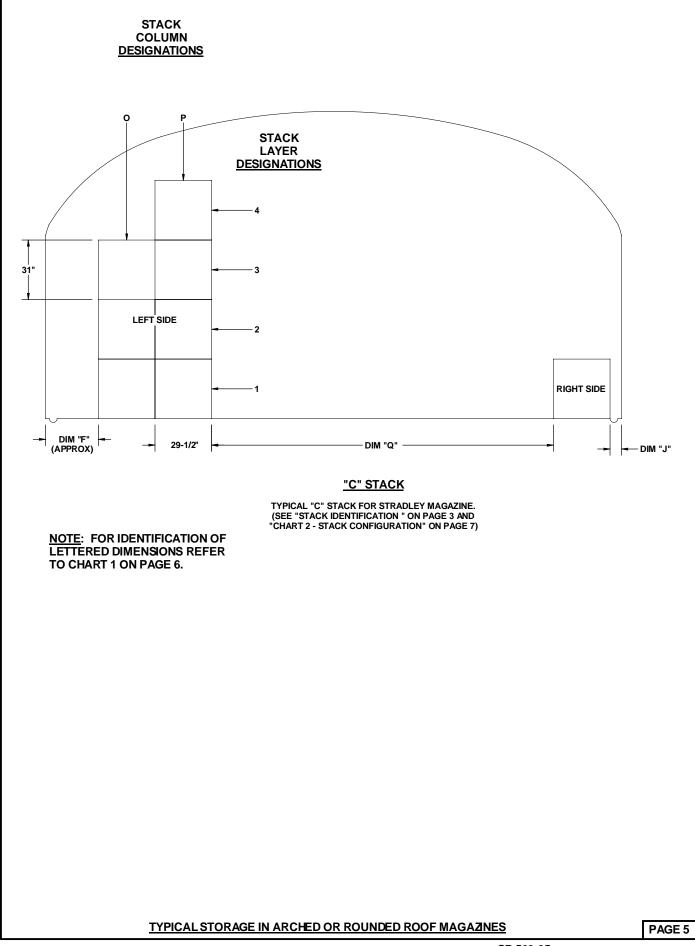
#### (GENERAL NOTES CONTINUED)

- K. 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 THRU 23.
- L. 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 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 PAT-TERNS WHERE THE WIDTH OF A ROW IS ESTABLISHED BY THE 29-1/2" CON-TAINER DIMENSION, EACH ROW MAY BE A DIFFERENT LOT AND READILY RE-MOVABLE. IN BASIC STORAGE PATTERNS WHERE THE WIDTH OF THE ROW IS ESTABLISHED BY THE 153"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. FOR ADDITIONAL RE-QUIREMENTS AND GUIDANCE, SEE SPECIAL NOTES FOR MULTIPLE-LOT STOR-AGE ON PAGES 18 THRU 23.
- M. ANY "LIGHT" CONTAINER THAT DOES NOT CONTAIN A FULL QUANTITY CNU-660 CONTAINERS WILL NOT BE BURIED IN STORAGE, IT MUST BE POSITIONED AD-JECENT TO AN AISLE, PREFERABLY IN FRONT OF THE LOT.
- . PORTIONS OF THE MAGAZINES, SUCH AS SIDEWALLS, END WALLS, AND ROOFS HAVE NOT BEEN SHOWN IN THE STORAGE VIEWS FOR CLARITY PURPOSES.
- D. IN IGLOO, ARCH TYPE AND STRADLEY MAGAZINES WHICH HAVE SLOPING FLOORS, THE DEPICTED STORAGE PATTERNS, IN SOME CASES, INCLUDE CON-TAINER STACKS WHICH STRADDLE THE RIDGE OF THE FLOOR AT THE CENTER OF THE MAGAZINE. FLOOR DUNNAGE IN THE FORM OF SHIMS WILL BE USED AS REQUIRED TO ACHIEVE SOUND AND ACCEPTABLE STABLES STACKS.
- P. 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.
- Q. OTHER COMPATIBLE ITEMS MAY BE STORED IN A MAGAZINE, WHICH IS PAR-TIALLY FILLED WITH THE DESIGNATED ITEM.

#### MATERIAL SPECIFICATIONS







PAGE 6

## TYPICAL STORAGE IN ARCHED OR ROUNDED ROOF MAGAZNES

STRADLEY MAGAZINE SHOWN AS TYPICAL.														
				СНА	RT 1 -	DIMEN	ISION	S						
MAGAZINE TYPE														
M AGAZINE DIM ENSIONS	IGLOO			ARCH 12' 26'-6" 25'-0"			ARCH 11'		ARCH 10'		OVAL ARCH	STRADLEY	STEEL AR	
LENGTH	40'-4"	60'-8"	81'-0"	81'-2"	-	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'		25'		24'-10"	25'-0"	25'-0"	24'-11
HEIGHT		12 '- 9 "		12'-1-3/4"		11'-0 "		10'	10'-0"		14'-0"	14'-0"	13'-6	
DIM ENSIONS PALLET UNIT SPACING DIM ENSIONS														
DIM "D" ("C" STACK FRONT)	24"	6 "	24"	24"	24"	24"	24"	24"	24"	24"	9 "	24"	6 "	9 "
DIM "E" (MHE AISLE APPROX)	8'-10"	9'-4"	10'-4"	10'-4"	8'-6"	11'-7"	8'-6"	11'-7"	8'-6"	11'-7"	8'-7"	9'-2"	10'-5"	8'-7"
DIM "F" ("B" STACK LEFT)	25"	26"	26"	30"	31"	3 1"	3 1"	3 1"	3 1"	3 1"	28"	27"	10 "	27"
DIM "G" ("A" TO "B" LEFT)	0 "	0 "	0 "	1"	1"	1"	1"	1"	1"	1	1"	1"	24"	0 "
DIM "H" ("A" TO "B" RIGHT)	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	24"	0 "	24"
DIM "J" ("C" STACK RIGHT)	27"	26"	26"	2 1"	31"	3 1"	3 1"	3 1"	3 1"	3 1"	6 "	6 "	24"	6"
DIM "Q" ("C" MHE AISLE)	14'-9"	14'-9"	14'-9"	14'-10"	14'-10"	14'-10"	14 - 10 "	14'-10"	14'-10"	14'-10"	14'-10"	14 '- 10 "	14'-9"	14 " - 9

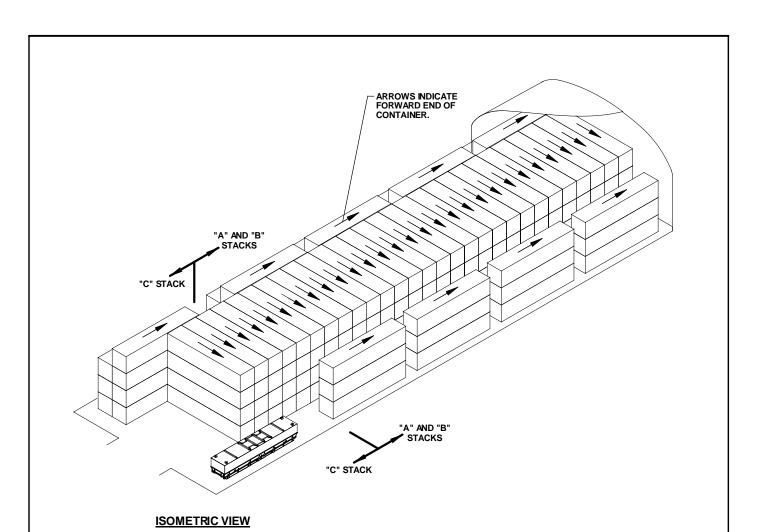
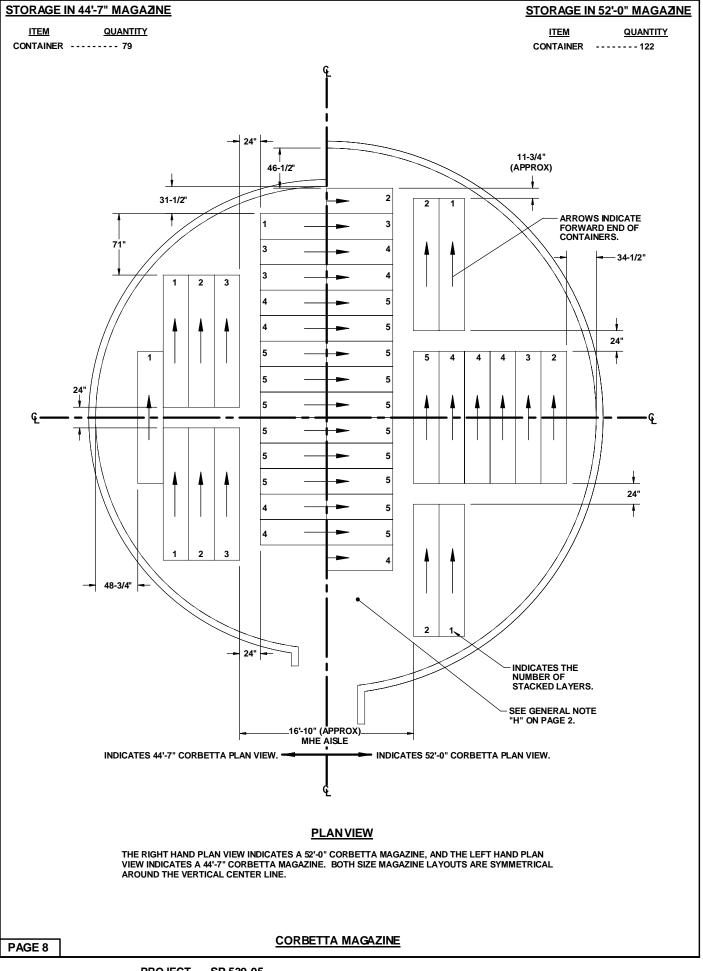
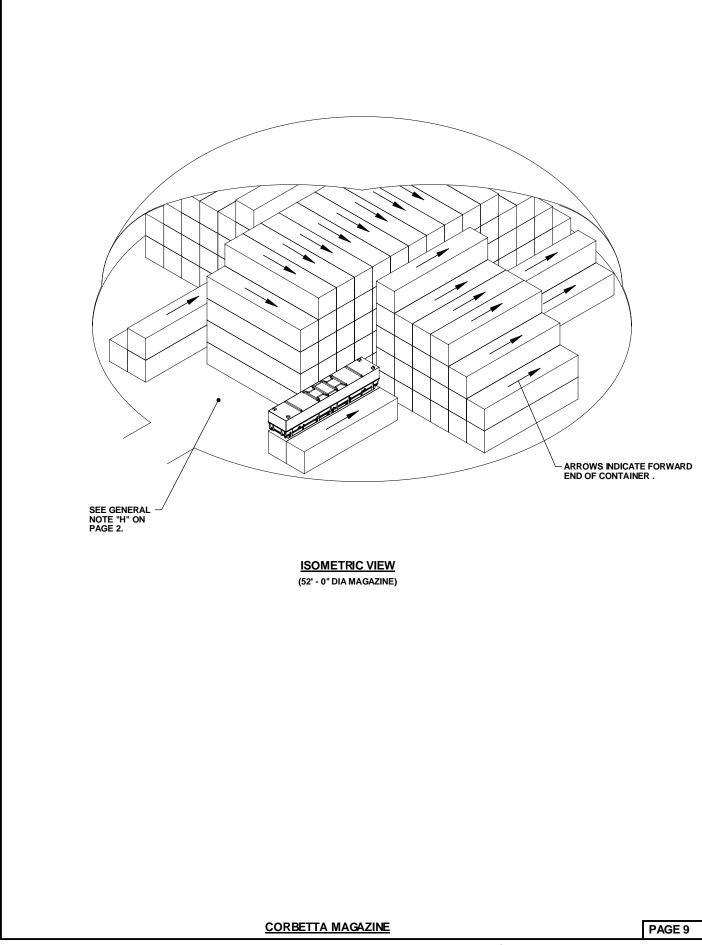


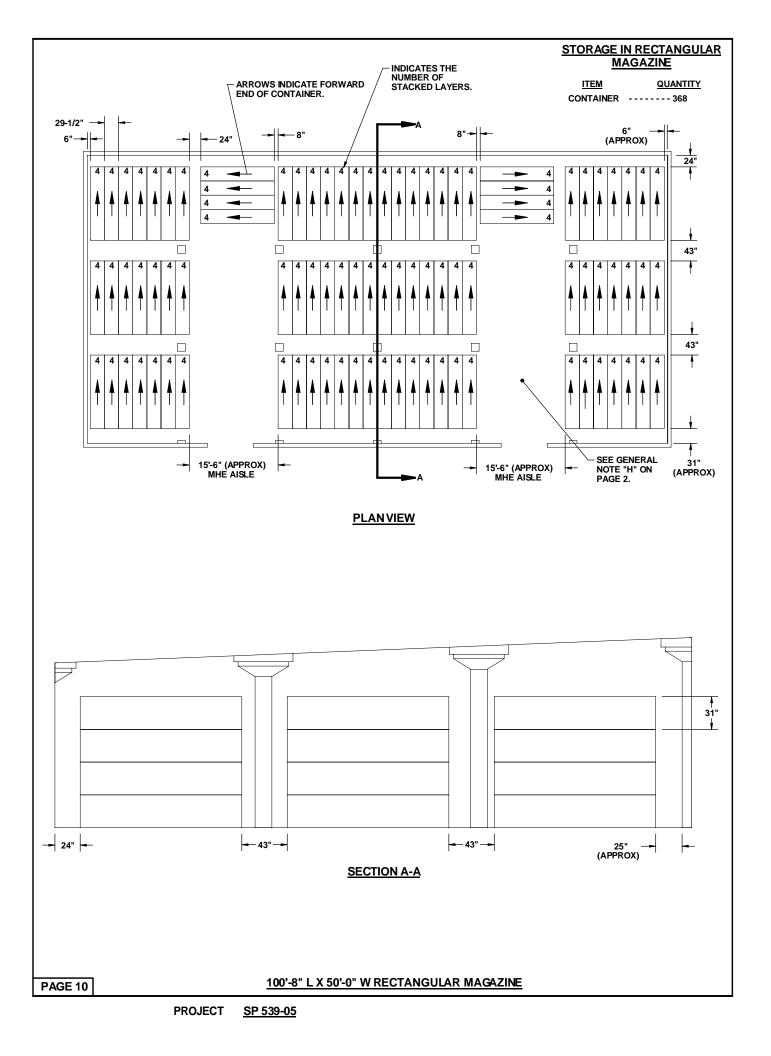
					CHART	2 - STA	CK CON	FIGURAT	ION					]
				-	-		ZINETY		-			-	-	
QUANTITY	40'-4" L	IGLOO 60'-8" L	81'-0" L	ARCH 12' 26'-6" W			-	H 11' 80'-0" L	ARC 40'-0" L		OVAL ARCH	STRADLEY	-	ARCH 89'-0" L
MAGAZINE	61	10 7	14 6	114	43	10 0	43	10 0	28	64	19 2	16 0	98	220
"A" STACK CONFIGURATION LAYER CONTAINERS PER LAYER														
LAYER 1		1M )		4/14							4/84.)	4/14	4/	
2		1(M)		1(M) 1(M)		M) M)		M) M)	1(1 1(1		1(M) 1(M)	1(M) 1(M)		M) M)
3		1(M)		1(M)	1(	1(M)		1(M)		0		1(M)	1(	M)
4 SINGLE		1(M)		0	(	)	(	)	C		1(M)	1(M)	1(	M )
STACK		4		3	3	3	:	3	2	!	4	4		1
NUMBER OF STACKS	12	20	28	28	12	27	12	27	12	27	32	28	19	32
"A" STACK TOTAL	48	80	112	84	36	81	36	8 1	24	54	128	112	76	12 8
"B" STACK CONFIGURATION - TO THE LEFT OF "A" STACK														
LAYER		0/1/		0/1/ 13				PER LAY			0/1/ 13	2/1/ 1	0/1/ 13	2/1/ 1
1 2		2 (K-L) 2 (K-L)		2 (K-L) 2 (K-L)		L) L)		L)	1(		2 (K-L) 2 (K-L)	2 (K-L) 2 (L-L)	2(K-L) 2(K-L)	2(K-L) 2(K-L)
3		1(L)		1(L)	Ċ	כ ו	i	1(L) 0		1	2 (K-L)	2 (K-L)	1(L)	2 (K-L)
4 SINGLE		0		0	<u> </u>	)	(	)	C	1	2 ( K- L)	1(L)	0	1(L)
STACK		5		5	2	2	:	2		1		7	5	7
NUMBER OF STACKS	1	3	4	4	1	4	1	4	1 4		5	4	2	5
"B" STACK TOTAL	5	15	20	20	2	8	2	8	1	4	40	28	10	35
			"	B" STACI	CONFIC		-	-	-	STACK				
LAYER 1		1(N)		1(N)	1(	COI N)		PER LAY		N)	1(N)	1(N)	1(N)	1(N)
2		1(N)		0		N)		1(N) 1(N) 1(N) 0			1(N)	1(N)	1(N)	0
3		0		0	0			0 0			1(N) 0	1(N)	1(N)	0
4 SINGLE		0		0	0			0		0		0	0	0
STACK TOTAL NUMBER		2		1		2	2		1		3	3	3	1
OF STACKS	1	3	4	4	1	4	1	4	1	4	5	4	2	5
"B" STACK TOTAL	2	6	8	4	2	8	2	8	1	4	15	12	6	5
LAYER				"	C" STAC	K CONFI		ON - LEF	-					
1		2(O-P)		2(O-P)	1(		1(		2(0	-P)	2(O-P)	2(O-P)	2(O-P)	2(O-P)
2		2(O-P)		2(O-P)	1(			1(P) 1(P)			2(O-P)	2(O-P)	2(O-P)	2(O-P)
3 4		1(P) 0		1(P) 0		)		0 0 0 0			2(O-P) 2(O-P)	2(O-P) 1(P)	1(P) 0	2(O-P) 1(P)
4 SINGLE	0 0 0					· · · · · ·					(,,,)	, v	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
STACK TOTAL		5		5	2	2	:	2	1		8	7	5	7
NUMBER OF STACKS		1		1		1		1 1			1	1	1	1
"C" STACK LF TOTAL		5		5		2		2	1		8	7	5	7
"C" STACK				"(		KCONFIC								
RT TOTAL		1			1			1	1		1	1		1
SPECIAL NOTES:							EXAME	<u>'LE</u> :						
THE FOLLOWING NOTES, CHART 1 ON PAGE 6 AND CHART 2 ON THIS PAGE ARE PRESENTED AS GUIDANCE IN THE SELECTION OF A STORAGE PATTERN, AND IN DETERMINING THE QUANTITY OF PALLET UNITS WHICH CAN BE STORED IN THE STORAGE MAGAZINES LISTED IN THESE CHARTS. CHART 1 ON PAGE 6 DESCRIBES THE STORAGE MAGAZINE GENERAL DIMEN- SIONS AND THE DIMENSIONS OF THE PALLET UNIT SPACING WITHIN THE STOF-														
AGE MAGAZINES. 3. DIMENSIONS "A", "B" AND "C" HAVE BEEN OMITTED TO AVOID CONFUSION														
WITH STAC	KS "A", "B	" AND "C".										S FROM THE " " COLUMN.	O" COLUMI	N (NEAR-
4. CHART 2 ON THIS PAGE DETAILS THE QUANTITY OF PALLET UNITS IN EACH TYPE OF MAGAZINE AND THE LAYOUT OF THE STACKS FOR EACH TYPE OF MAGAZINE. THE CHART SHOWS THE NUMBER OF UNITS IN EACH STACK LAYER AND THE LOCATION OF THE PALLET UNIT ON EACH LAYER. (NEAREST THE LEFT SIDE OF THE MAGAZINE) TO THE "P" COLUMN.														
LAYER 3 (ON TOP OF LAYER 2) HAS TWO CONTAINERS FROM (CONTINUED AT RIGHT) THE "P" COLUMN.										ERS FROM T	HE "O" COL	UMN TO		

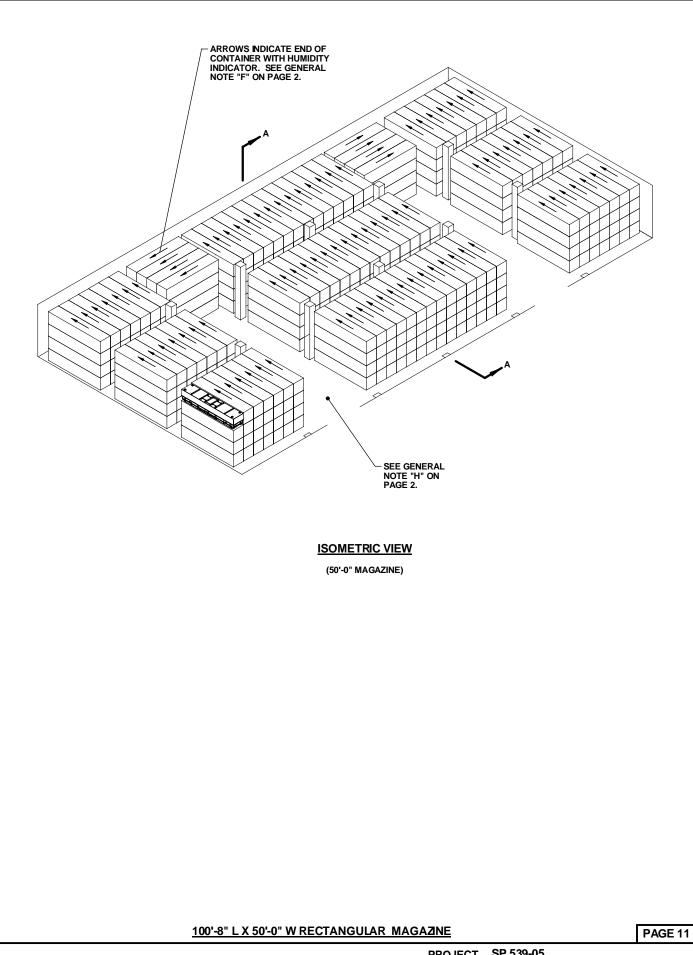
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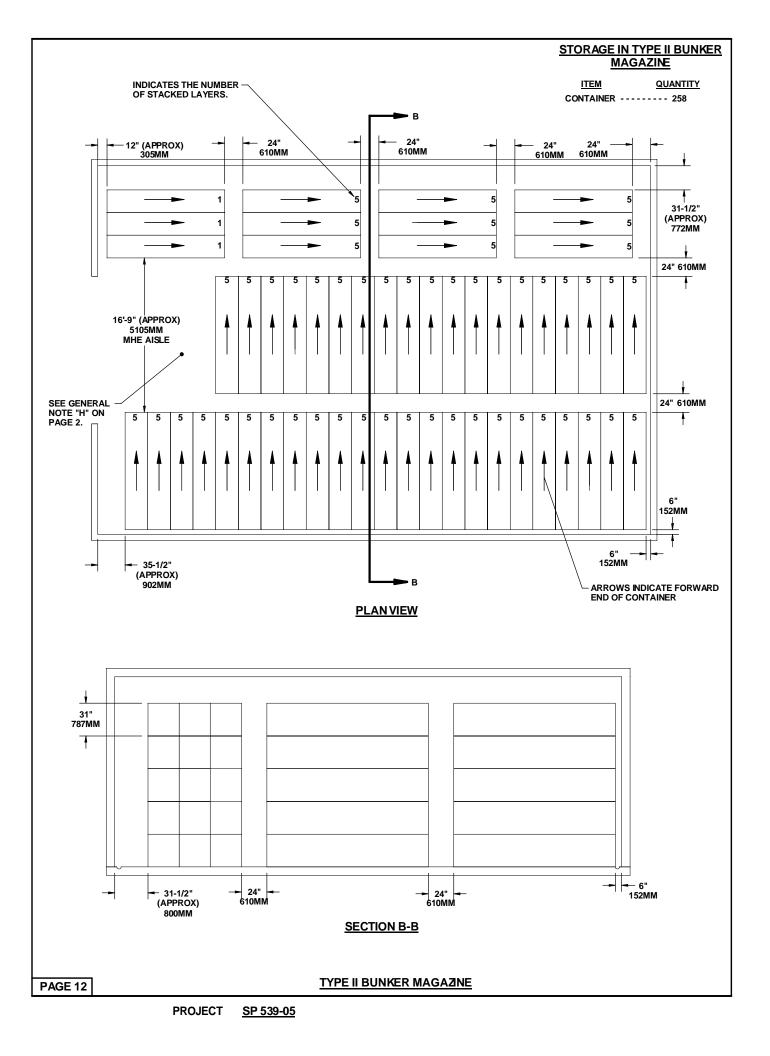
LAYER 4 (ON TOP OF LAYER 3) HAS ONE CONTAINER FROM AT THE "P" COLUMN (NEAREST THE DOOR).

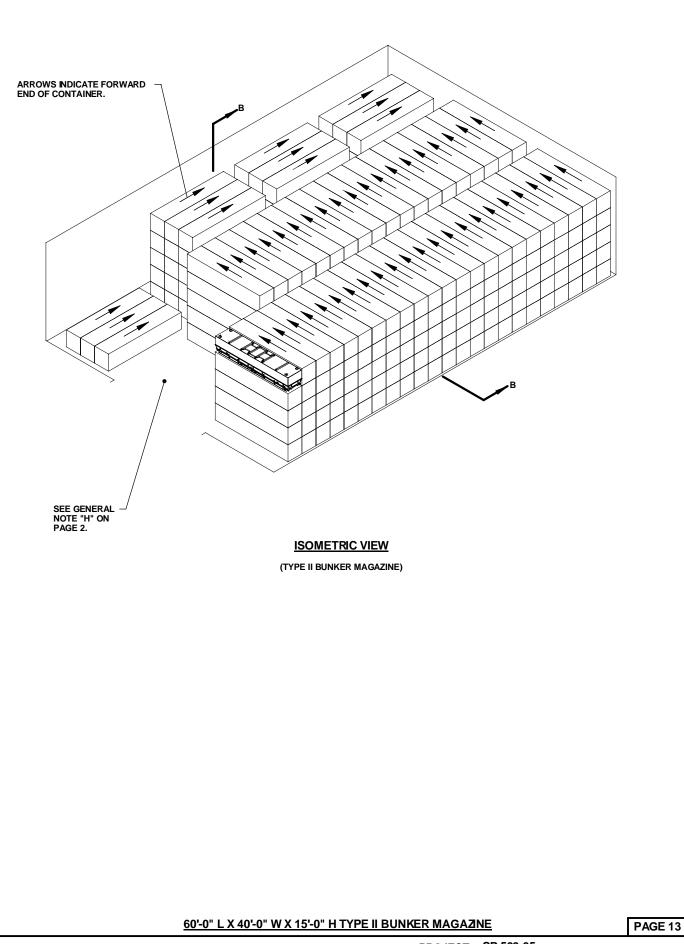


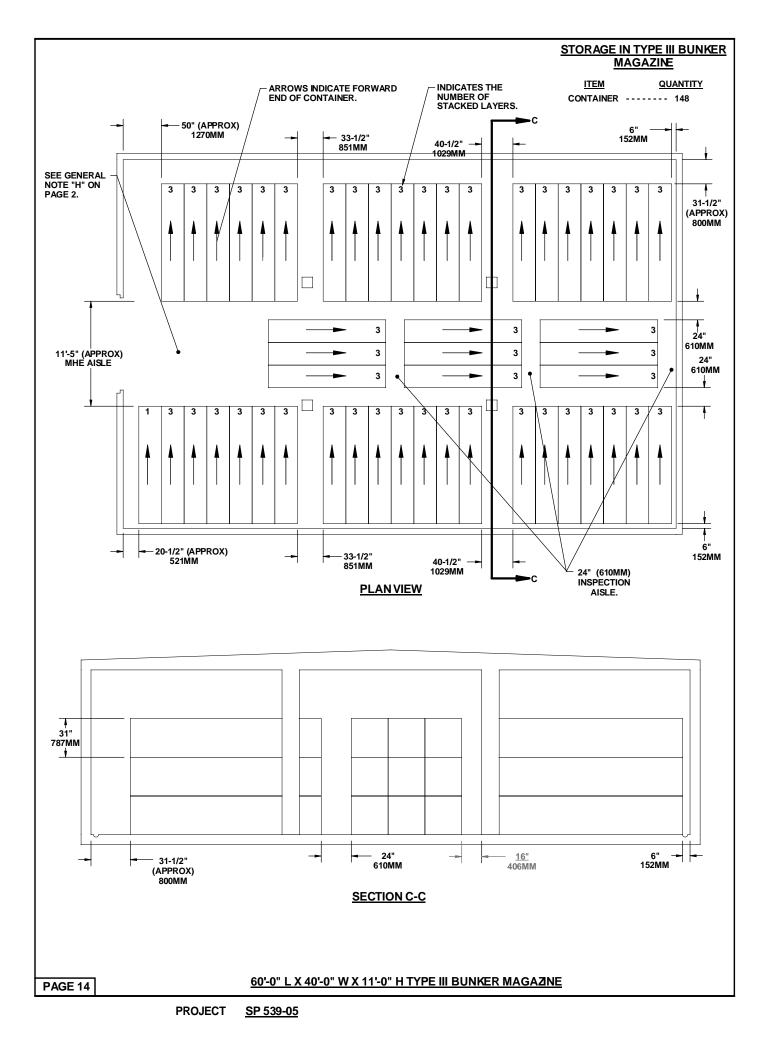


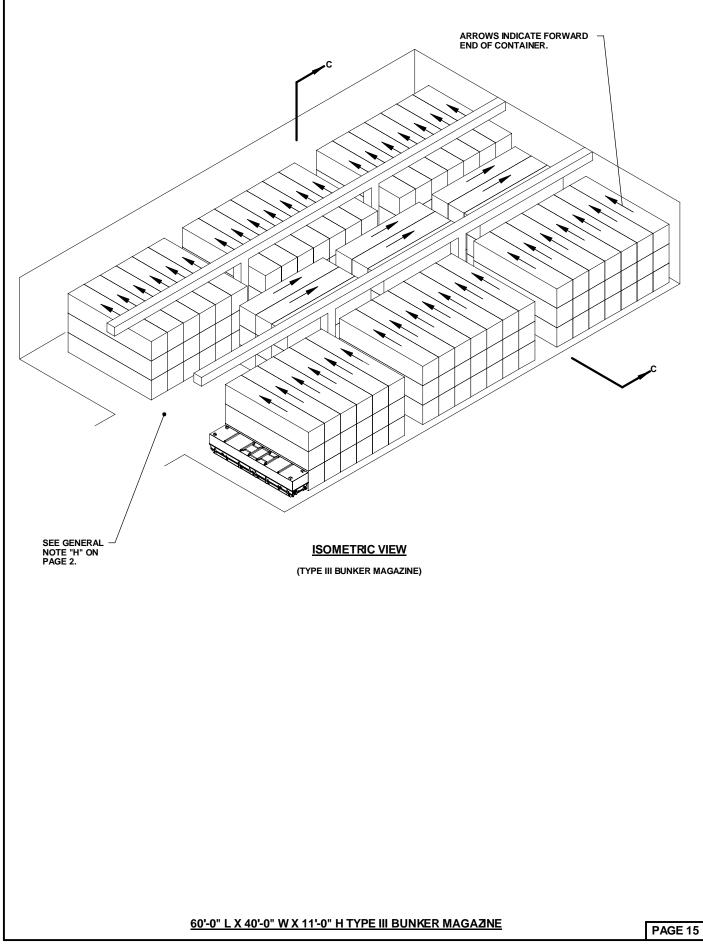


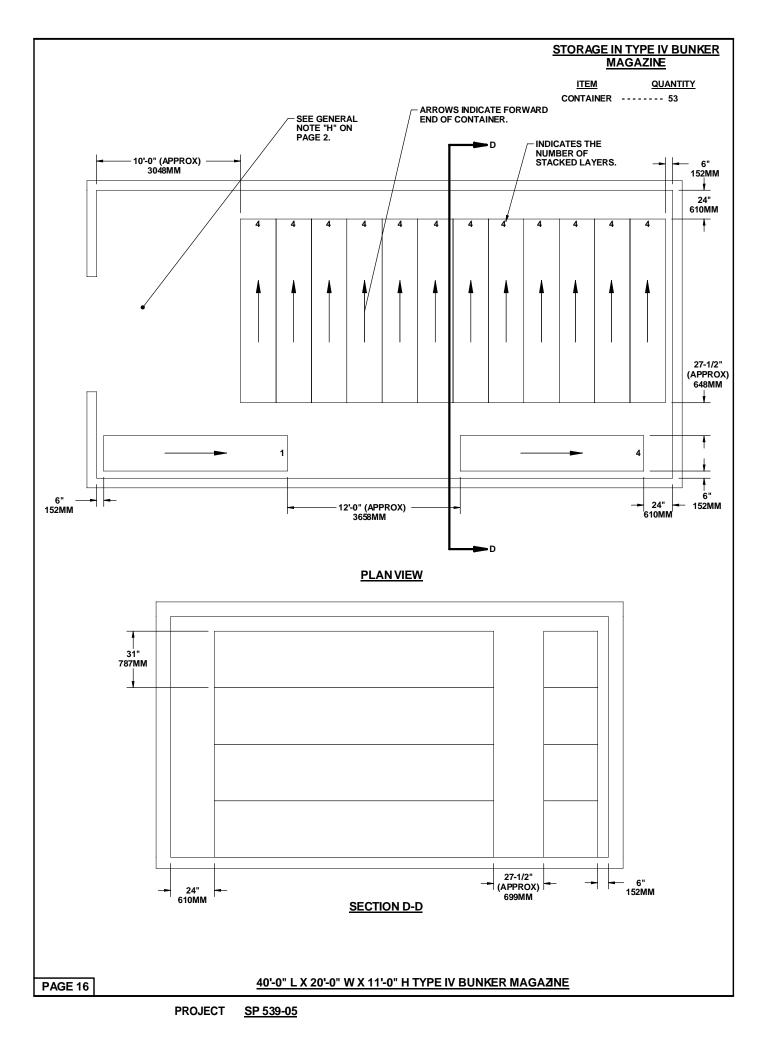


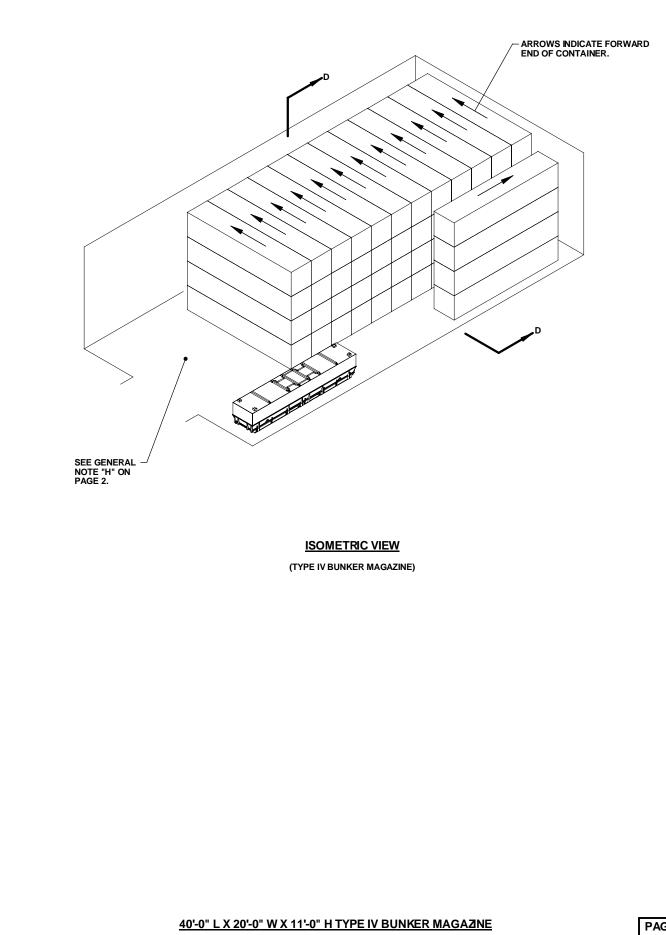




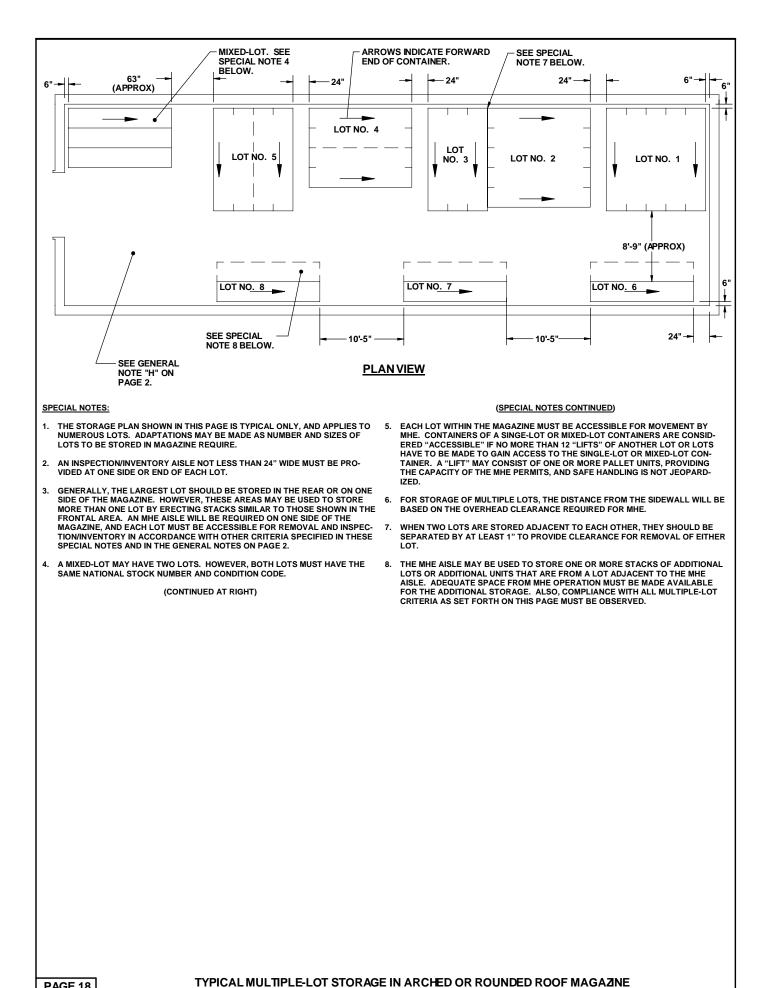




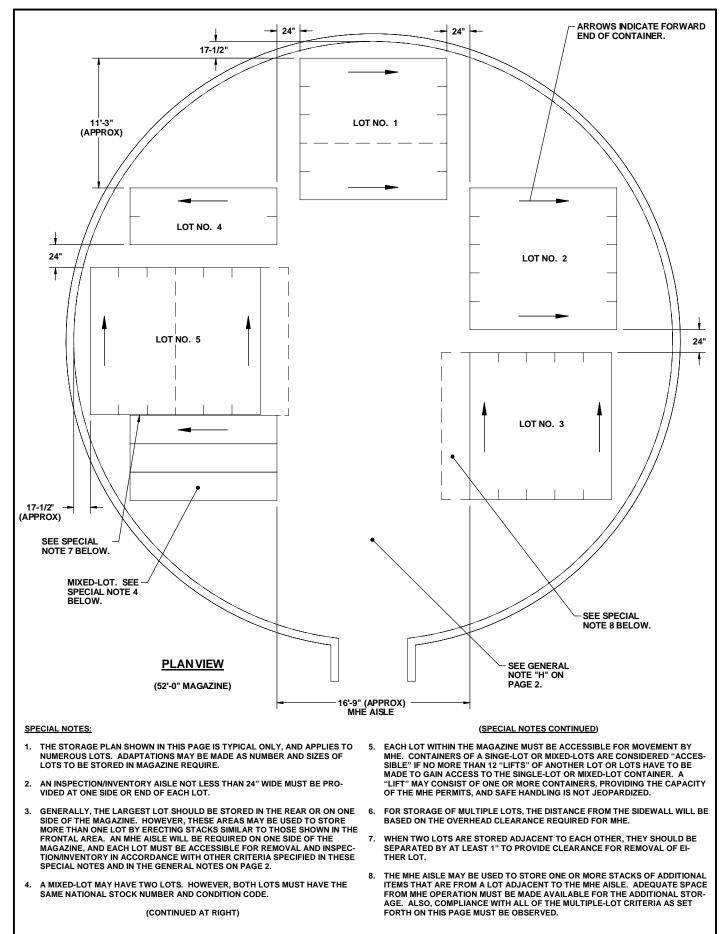




PAGE 17

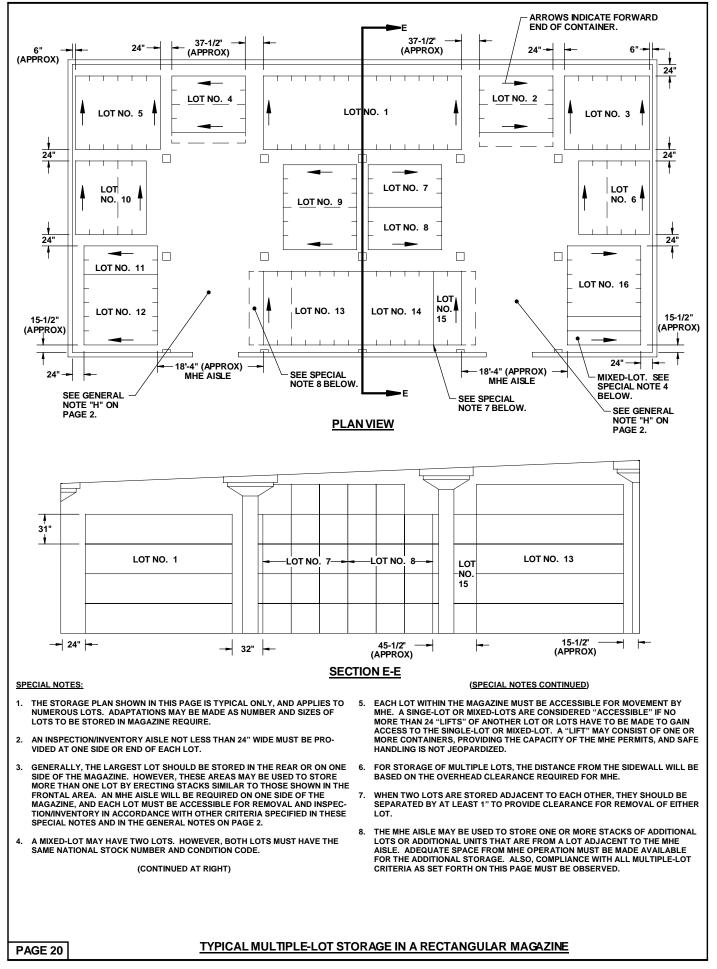


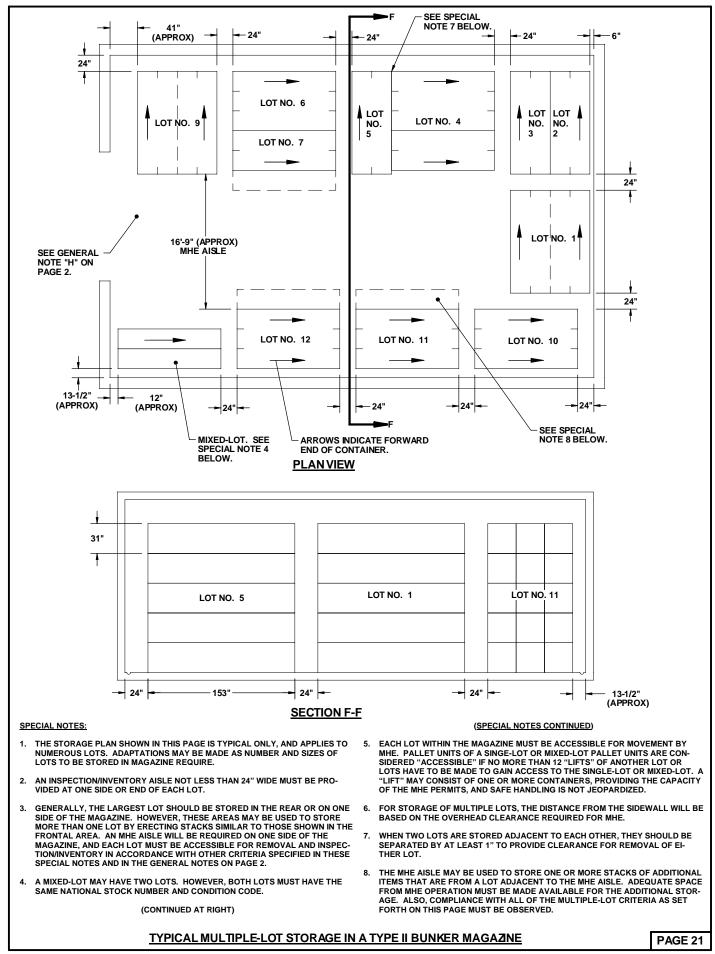
**PAGE 18** 



TYPICAL MULTIPLE-LOT STORAGE IN CORBETTA MAGAZINE

PAGE 19





PROJECT SP 539-05

