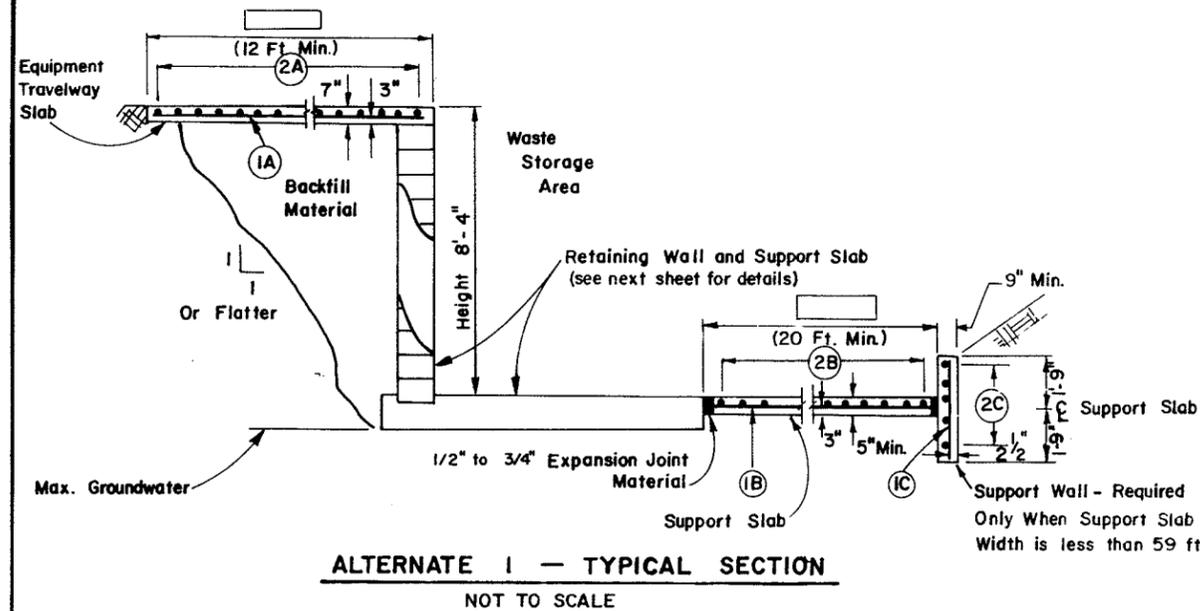
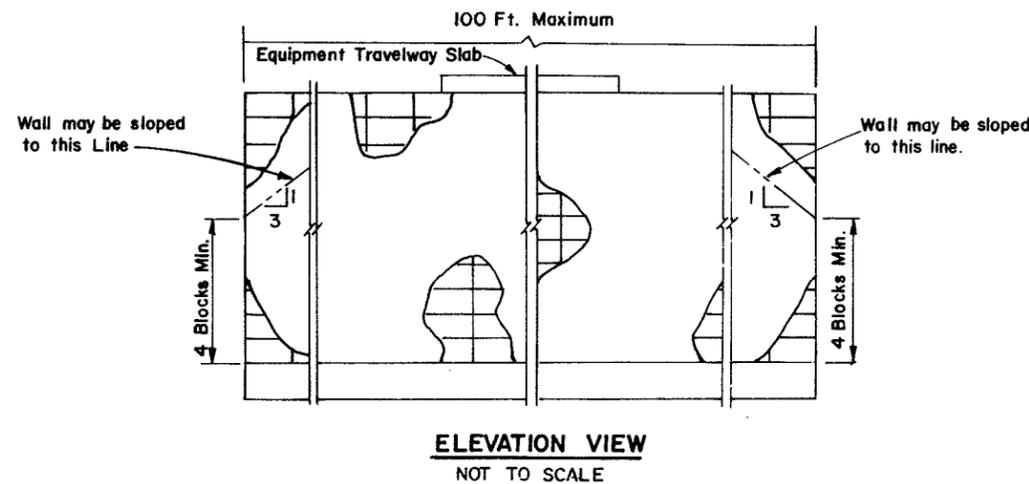


GENERAL CONSTRUCTION NOTES

- Construct equipment travelway slab at all locations along the wall that may be used for equipment travel. The maximum allowed size of equipment is a loaded 1,500 gallon tank wagon and or a 130 hp. size tractor.
- Construct a support slab (Alternate 1) or support structure (Alternate 2) except where one wall faces another wall.
- Concrete: Use 3,000 p.s.i. minimum 28 day compressive strength concrete with a maximum aggregate size 1 1/2" use a minimum of 6 bags of cement per cubic yard of concrete with a maximum of 6 gallons of water per bag of cement.
- Steel: Use deformed reinforcing steel  $f_s = 20,000$  p.s.i. minimum (Grade 40 or higher) Locate steel accurately in concrete. Hold firmly in place with wire ties and other accessories as needed.
- Stack bonded units should be reinforced horizontally with joint reinforcement spaced a maximum of 16 inches on center vertically.
- Concrete shall be evenly distributed in the forms and vibrated or tamped to assure maximum consolidation. Concrete shall be prevented from drying for at least 7 days after it is placed.
- Forms shall be mortar tight, substantial and unyielding. Forms shall not be removed until at least 1 day after placement of concrete. Defective concrete (eg. honey comb) shall be repaired promptly as instructed by SCS technician. Concrete shall be prevented from drying for at least 7 days.
- Do not pour concrete until SCS technician has inspected forms and steel placement.
- Do not backfill the walls until 10 days after the walls have been constructed.
- Backfill with free-draining, non-cohesive, granular materials such as gravel, sand or loamy sand. (Unified Classification: GP, GW, GM, GC, SP, SW, SC, or SM - SC.)
- Provide surface drainage away from the facility.
- For walls with a required length of more than 100 feet, divide the length into sections not exceeding 100 feet in length. Place expansion joint material between sections.
- The length of reinforcing bar splices shall equal at least 30 diameters of the smaller bar being spliced, but not less than 12 inches.
- Dimensions from face of concrete to reinforcing bars designate the clear distance. (minimum clear distance 2 inches).

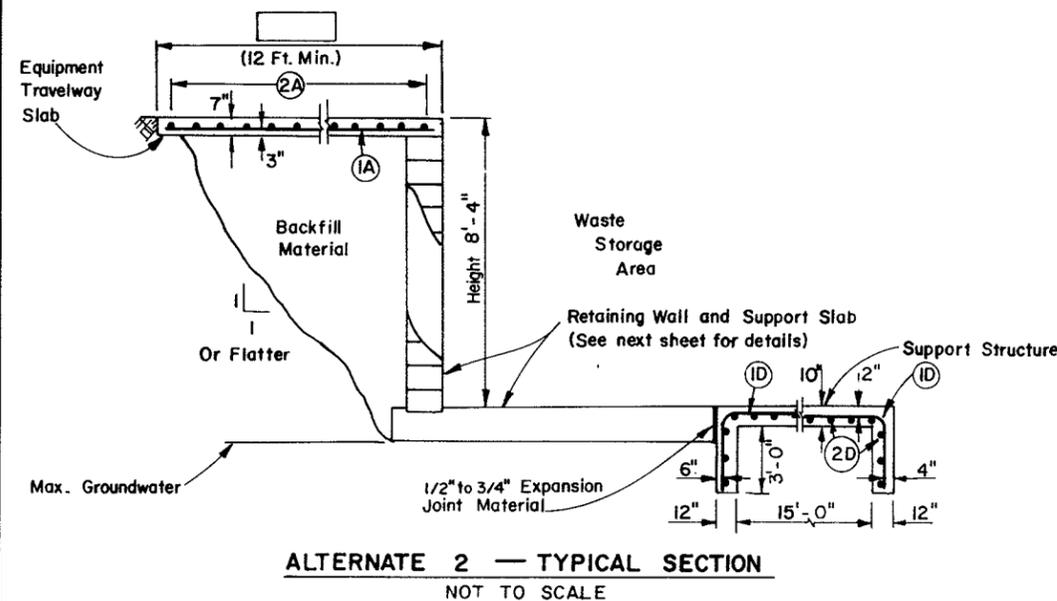


ALTERNATE 1 - TYPICAL SECTION  
NOT TO SCALE



CONCRETE BLOCK CONSTRUCTION NOTES

- Mortar mix (by volume): 1 part Portland Cement, 1 part masonry cement 4-6 parts sand in damp, loose condition.
- Mortar should be used within 2 hours after original mixing and should not stand more than one hour without remixing.
- Grout mix (by volume) for filling block cores: 1 part Portland Cement; 1/4 part masonry cement (optional); 2 1/2 parts fine aggregate, 1 1/2 parts coarse aggregate.
- Maximum size coarse aggregate 1/2".
- Materials used in construction should be of good quality. No second-hand materials shall be used.
- Grout fill each concrete block core and end connections (by hand).
- Concrete block  $f'_m = 1,500$  p.s.i. minimum. (ASTM C-90, Grade N, Type I)
- First course of blocks are to be laid in 3" of concrete heel (footing).
  - Lay maximum of 4 courses of blocks prior to filling cores.
  - Each filling of the cores shall end 4" below the top of the top course of blocks so as to form a construction joint.
  - Place lap steel in freshly poured concrete and tamp firmly around steel.
- The mortar bed shall be placed on all webs as well as the shell. (i.e. full mortar bedding is required).

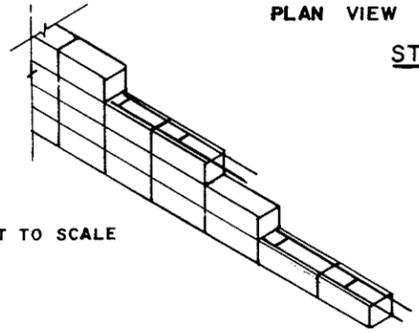
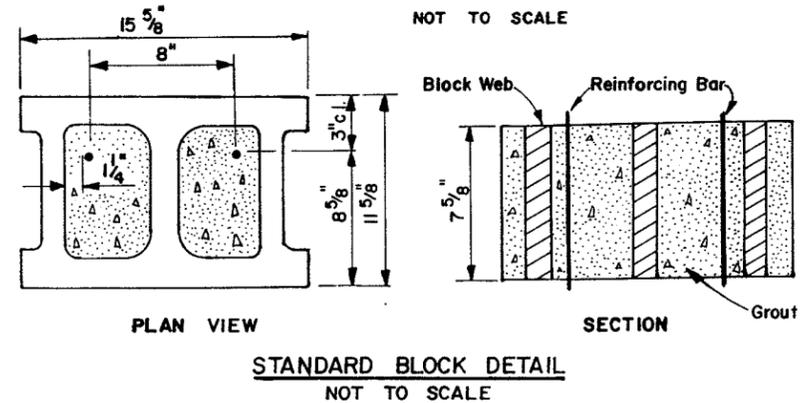
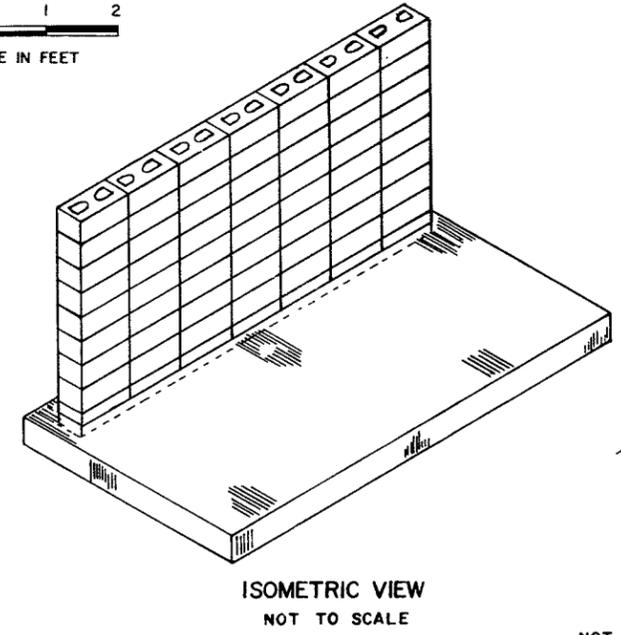
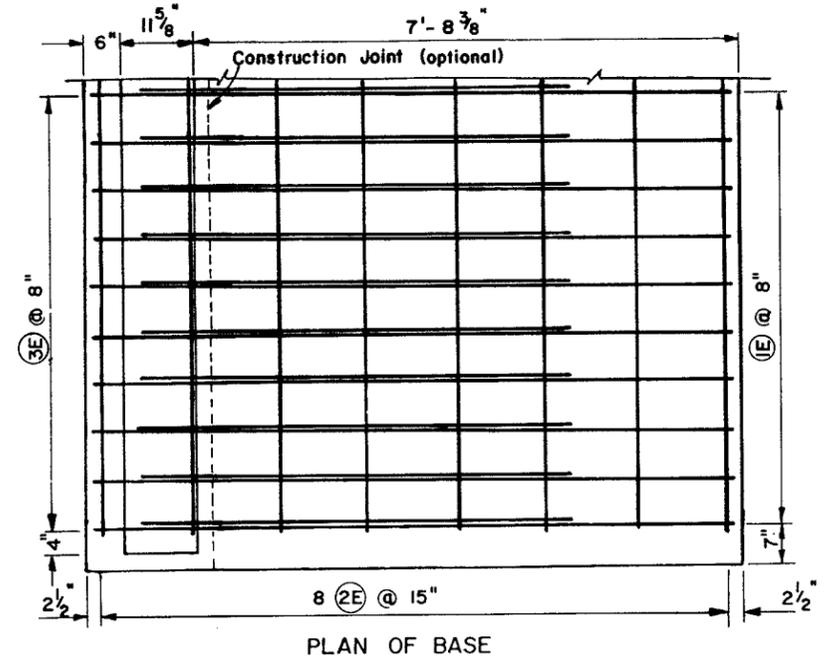
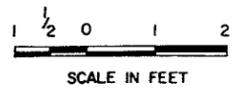
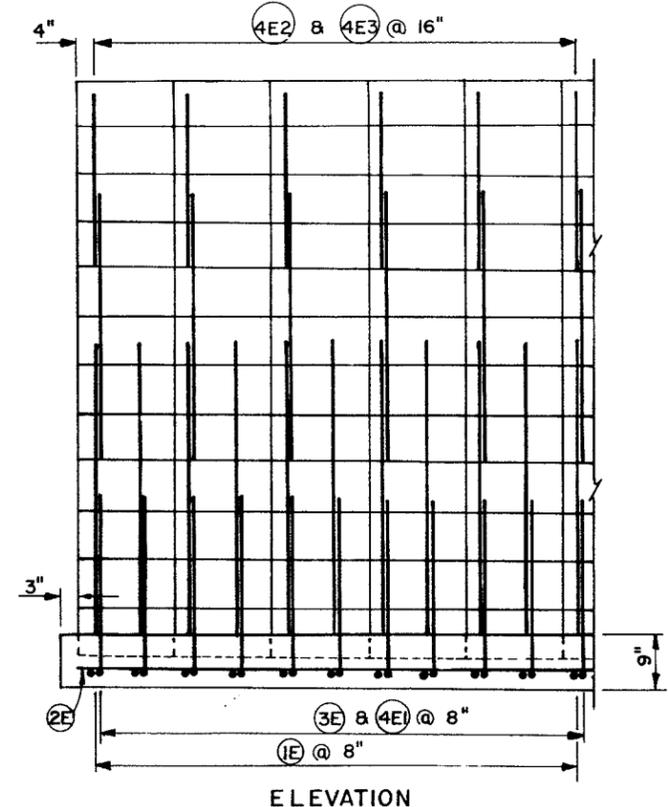
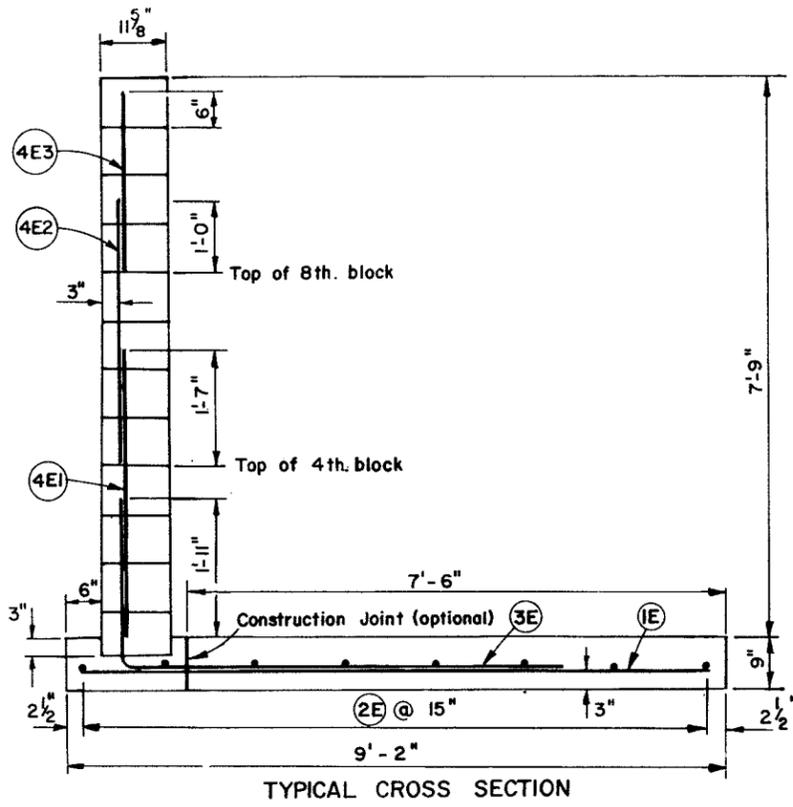


ALTERNATE 2 - TYPICAL SECTION  
NOT TO SCALE

BAR SCHEDULE								
MARK	SIZE	QUANTITY	LENGTH	TOTAL LENGTH	TYPE	B	C	LOCATION
1A	#4 @ 12"				1			Equip. Slab
2A	#4 @ 12"				1			Equip. Slab
1B	#3 @ 18"				1			Support Slab
2B	#3 @ 18"				1			Support Slab
1C	#4 @ 12"		3'-0"		1			Support Wall
2C	#5 @ 12"				1			Support Wall
1D	#5 @ 12"		12'-7"		2I	3'-5"	9'-2"	Support Str.
2D	#5 @ 12"				1			Support Str.

NOTE: Welded Wire Fabric, 6X6-6/6, may be substituted for Bar Marks 1B and 2B.

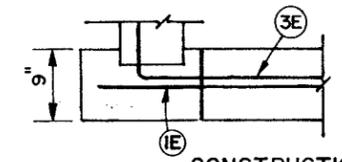
STACK BOND  
WALL HEIGHT 8 FOOT  
REINFORCED CONCRETE  
BLOCK RETAINING WALL  
FOR ANIMAL WASTE STORAGE



**MASONRY WALL REINFORCING DETAIL**  
 Blok-lok horizontal reinforcement or equivalent shall be used between every 2 courses of blocks. Standard #9 Ga. side wires X #9 Ga. cross ties shall be used. Cross ties will be spaced 16" o.c. maximum. Width between side wires will be 10."

BAR TYPES								
STRAIGHT TYPE I								
BAR SCHEDULE								
MARK	SIZE	QUANTITY	LENGTH	TOTAL LENGTH	TYPE	B	C	LOCATION
1E	4		8'-9"		I			
2E	5				I			
3E	6		8'-5"		2I	2'-5"	6'-0"	
4E1	6		4'-0"		I			
4E2	5		3'-8"		I			
4E3	3		2'-5"		I			

- NOTES:
- Bend radius 3 bar diameters  
 #5 - 1 7/8 inches
  - Minimum lap splice 30 bar diameters.  
 #3 - 12 inches  
 #4 - 15 inches  
 #5 - 19 inches  
 #6 - 23 inches
  - 0.27 Cu. Ft. of mortar / foot of wall.  
 0.10 Cu. Yds. of concrete grout / foot of wall.  
 0.26 Cu. Yds. of concrete / foot of base.



**CONSTRUCTION JOINT NOTE:**  
 1E bars do not have to continue through the construction joint.  
 1E bars may be cut at joint.

**CONSTRUCTION JOINT DETAIL**  
 NOT TO SCALE

**STANDARD BLOCK DETAIL**  
 NOT TO SCALE

**STACK BOND**  
 8 FT. REINFORCED CONCRETE  
 BLOCK RETAINING WALL FOR  
 ANIMAL WASTE STORAGE

U. S. DEPARTMENT OF AGRICULTURE  
 SOIL CONSERVATION SERVICE

Designed _____	Date _____	Approved by _____
Drawn _____		Title _____
Traced _____		Sheet _____
Checked _____		No. _____
		Drawing No. _____
		of _____