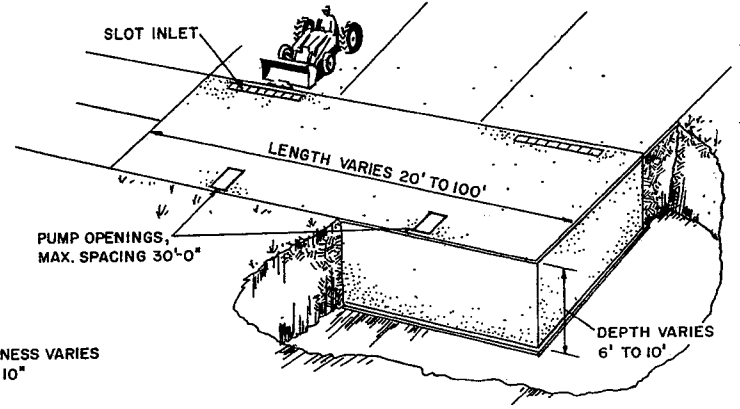


**CROSS-SECTION**



**GENERAL VIEW**

**TABLE I - WALL THICKNESS AND VERTICAL REINFORCEMENT**

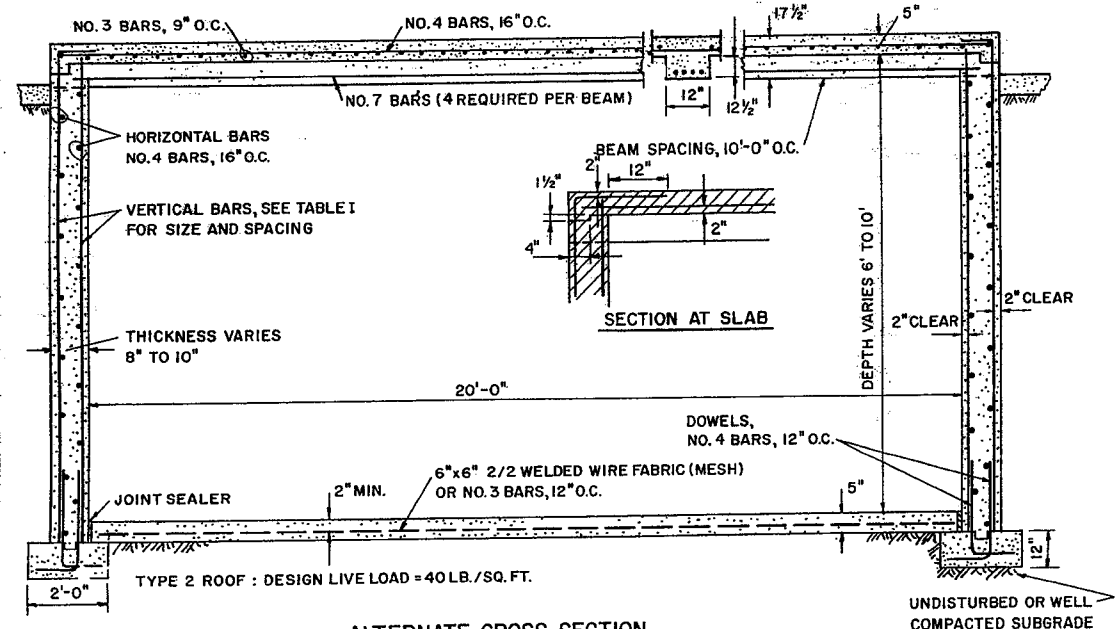
HEIGHT, FT.	THICKNESS, IN.	REINFORCEMENT SIZE & SPACING	REMARKS
6	8	NO. 5 @ 9" O.C.	SINGLE CURTAIN
8	9	NO. 4 @ 12" OUTSIDE NO. 5 @ 10" INSIDE	DOUBLE CURTAIN SEE DETAIL
10	10	NO. 5 @ 9" OUTSIDE NO. 5 @ 7" INSIDE	DOUBLE CURTAIN SEE DETAIL

**TABLE II - APPROXIMATE CAPACITIES IN GALLONS - 20 FT. INSIDE WIDTH**

DEPTH, FT.	LENGTH, FT.				
	20	40	60	80	100
6	18,000	36,000	54,000	72,000	90,000
8	24,000	48,000	72,000	96,000	120,000
10	30,000	60,000	90,000	120,000	150,000


**NOTE**

ESTIMATE TANK VOLUME REQUIRED FOR CATTLE AT 15 GAL. PER HEAD PER DAY.  
 ESTIMATE TANK VOLUME REQUIRED FOR HOGS AT 1 1/2 GAL. PER HEAD PER DAY.



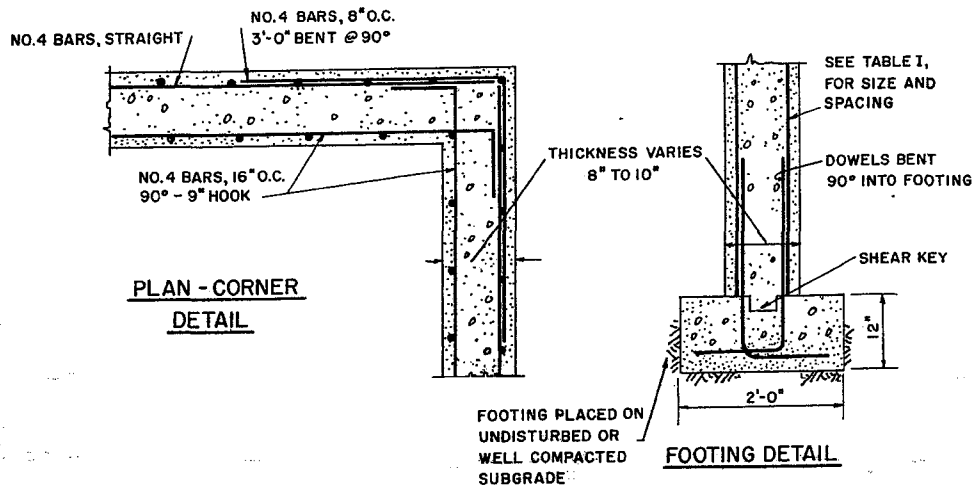
**ALTERNATE CROSS-SECTION**

NOT DESIGNED TO SUPPORT TRACTOR AND/OR SPREADER TRAFFIC



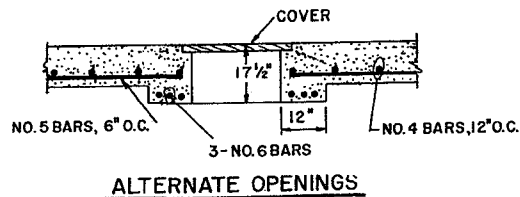
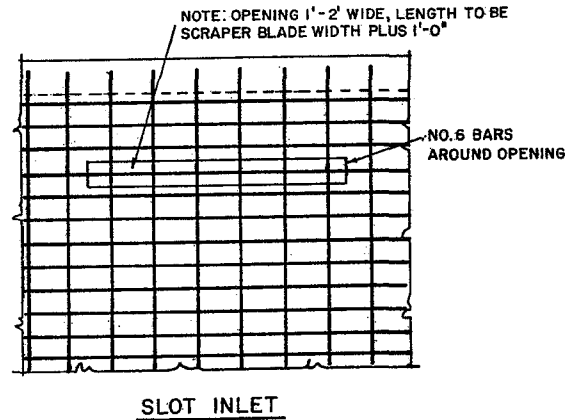
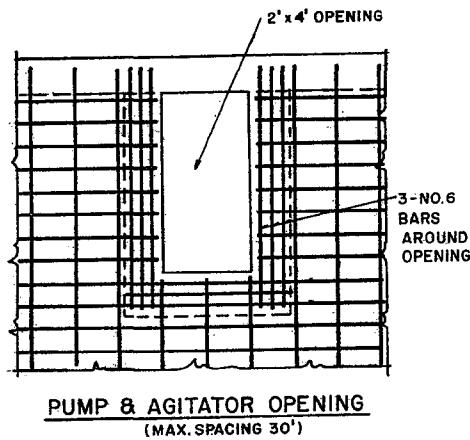
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PCA '65	EX. 5981	SHEET 1 OF 3



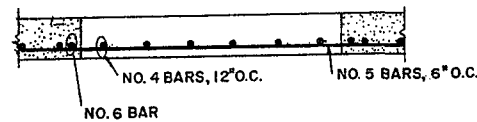
### GENERAL NOTES

1. SUGGESTED MIX DESIGN SPECIFY MIX CONTAINING 6 BAGS OF PORTLAND CEMENT PER CU. YD. AND NOT MORE THAN 6 GAL. OF WATER PER BAG OF CEMENT. SPECIFY 5-7% ENTRAINED AIR.
2. PRECAST PLANK OR DOUBLE TEES MAY BE USED AS ALTERNATE ROOF SYSTEM. CONSULT MFG. FOR DETAILS.
3. THE TANK COVER SHOULD BE INSTALLED BEFORE WALLS ARE BACKFILLED.
4. SIZE AND SHAPE OF PUMP, AGITATOR AND FILL OPENINGS MAY VARY. CONSULT EQUIPMENT MFG. FOR DETAILS.
5. BARN CLEANER OR GUTTER INLET MAY BE ADAPTED TO SYSTEM.
6. A FLAP VALVE IN THE FLOOR MAY BE USED IN AREAS SUBJECT TO HIGH WATER TABLE TO AVOID FLOATATION OR BOUYANCY PROBLEMS WHEN TANK IS EMPTY.
7. THESE TANKS MAY BE BUILT ABOVE GROUND USING TYPE-2 ROOF.
8. FORMS TO BE TIGHT, STRAIGHT AND WELL BRACED. FORMS SHOULD BE OILED TO PERMIT EASY REMOVAL.
9. STD. MFG. WALL FORMS MAY BE USED IN WALL CONSTRUCTION.
10. CONCRETE MUST BE EVENLY DISTRIBUTED IN FORMS AND SPADED OR MECH. VIBRATED TO ASSURE CONSOLIDATION.
11. FORMS FOR CAST-IN-PLACE TANK COVER MUST BE ADEQUATELY SHORED. SHORING AND FORMS MUST BE REMOVED THROUGH PUMP AND AGITATOR OPENING.
12. THE AREA SURROUNDING THE TANK SHOULD BE PAVED, (MIN. WIDTH 10') OR PAVED APPROACH RAMPS BUILT.

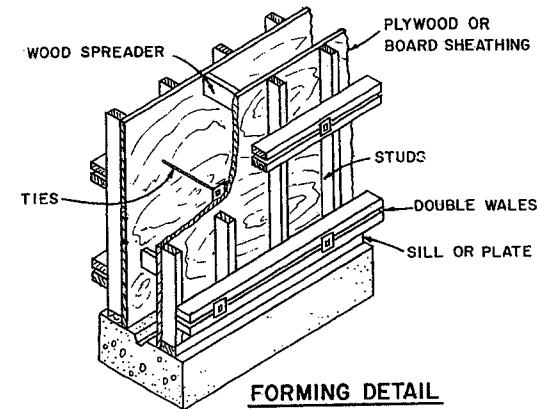
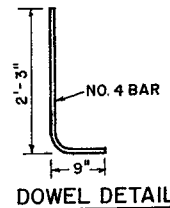


NOTE \* DROP BEAM MAY BE INVERTED AND USED  
AS CURB FOR EASE IN FORMING OPENING

**CROSS-SECTION AT PUMP & AGITATOR OPENING**



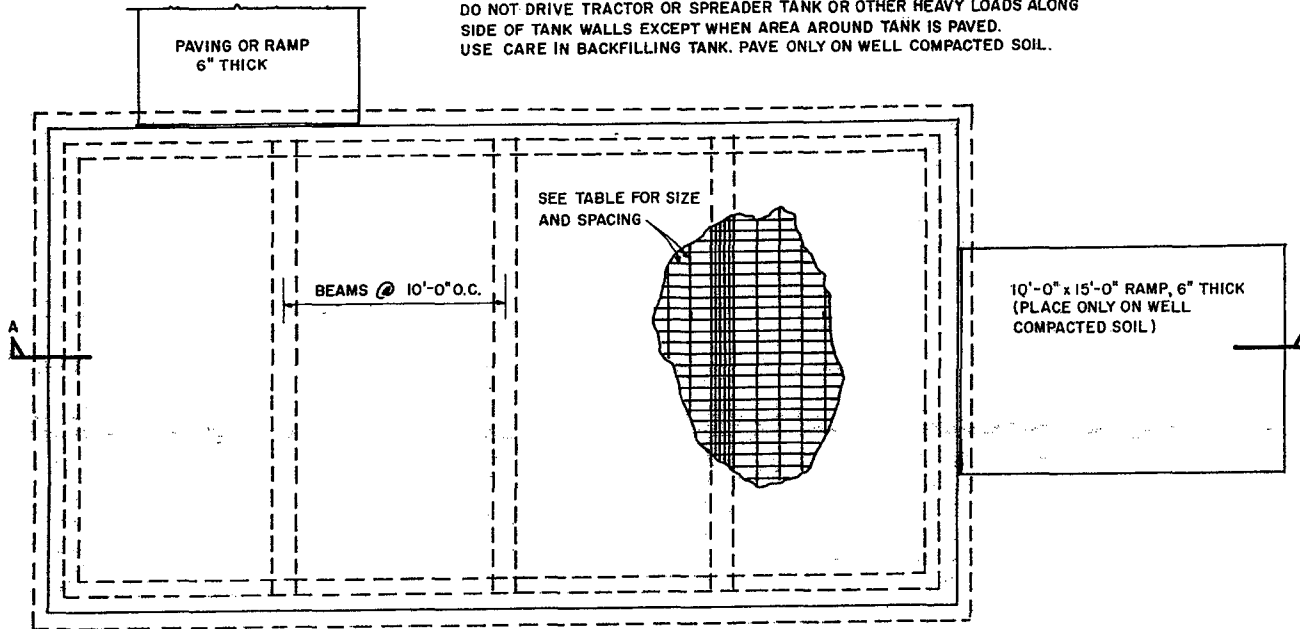
NOTE.  
BOTTOM REINFORCING STEEL  
EXTENDS ACROSS OPENING  
TO ACT AS SAFETY GRATING



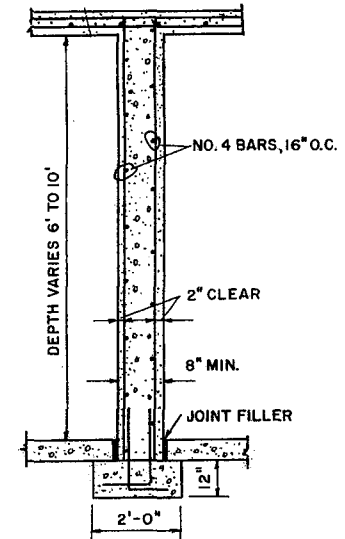
RECTANGULAR CONCRETE  
MANURE TANK

PCA '65 EX. 5981 SHEET 2 OF 3

NOTE: PAVE AROUND TANK AS ALTERNATE TO APPROACH AND EXIT RAMP.  
 IF AREA AROUND TANK IS NOT PAVED, PROVIDE APPROACH RAMP AS SHOWN.  
 DO NOT DRIVE TRACTOR OR SPREADER TANK OR OTHER HEAVY LOADS ALONG  
 SIDE OF TANK WALLS EXCEPT WHEN AREA AROUND TANK IS PAVED.  
 USE CARE IN BACKFILLING TANK. PAVE ONLY ON WELL COMPACTED SOIL.

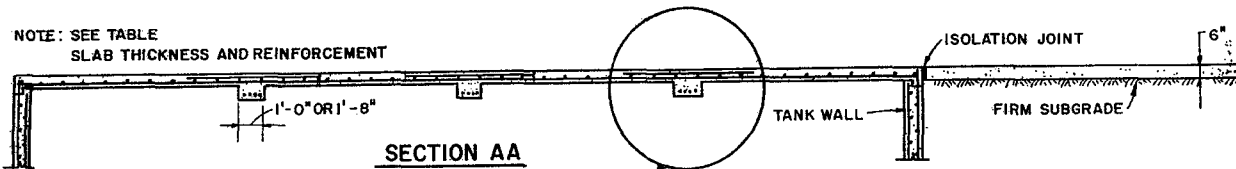


**PLAN VIEW  
TANK AND RAMP**

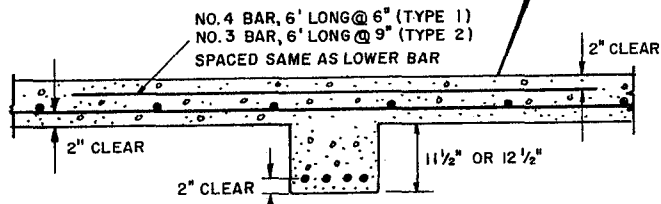


**CROSS-SECTION  
PARTITION WALL  
(OPTIONAL)**

NOTE: SEE TABLE  
SLAB THICKNESS AND REINFORCEMENT



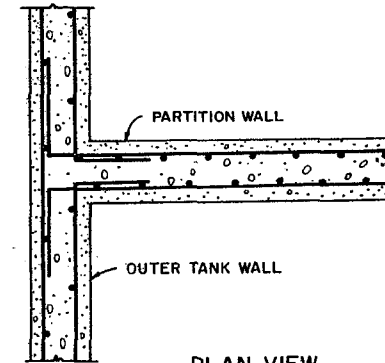
**SECTION AA**



**BEAM & SLAB DETAIL**

**TABLE-IV - VERTICAL REINFORCEMENT  
FOR PARTITION WALL**

HEIGHT, FT.	THICKNESS, IN.	REINFORCEMENT REQUIRED (EACH CURTAIN)
6	8	NO. 4 BARS, 12" O.C.
8	8	NO. 4 BARS, 12" O.C.
10	10	NO. 5 BARS, 9" O.C.



**PLAN VIEW  
PARTITION WALL**

**TABLE III - THICKNESS AND REINFORCEMENT REQUIRED FOR BEAM AND SLAB COVER**

	BEAM SIZE INCLUDING SLAB	REINFORCEMENT REQUIRED IN BEAM	SLAB THICKNESS	SLAB REINFORCEMENT PERPENDICULAR TO BEAMS	SLAB REINFORCEMENT PARALLEL TO BEAMS
TYPE 1 ROOF	20"x17 1/2"	5-NO. 8 BARS	6"	NO. 5 BARS, 6" O.C.	NO. 4 BARS, 12" O.C.
TYPE 2 ROOF	12"x17 1/2"	4-NO. 7 BARS	5"	NO. 3 BARS, 9" O.C.	NO. 4 BARS, 16" O.C.



RECTANGULAR CONCRETE  
MANURE TANK

PCA '65 EX. 5981 SHEET 3 OF 3

## Disclaimer

This site makes available conceptual plans that can be helpful in developing building layouts and selecting equipment for various agricultural applications. These plans do not necessarily represent the most current technology or construction codes. They are not construction plans and do not replace the need for competent design assistance in developing safe, legal and well-functioning agricultural building system. The LSU Agriculture Center, the Mid-West Plan Service, the United States Department of Agriculture and none of the cooperating land-grant universities warranty these plans.