

**WARNING**  
 This plan may require structural and other changes to meet local site conditions, climatic loads, user requirements and applicable building regulations (such as the Canadian Farm Building Code). Before construction, the user of this plan is responsible to ensure that all required changes are made.

**INDEX TO PLAN**

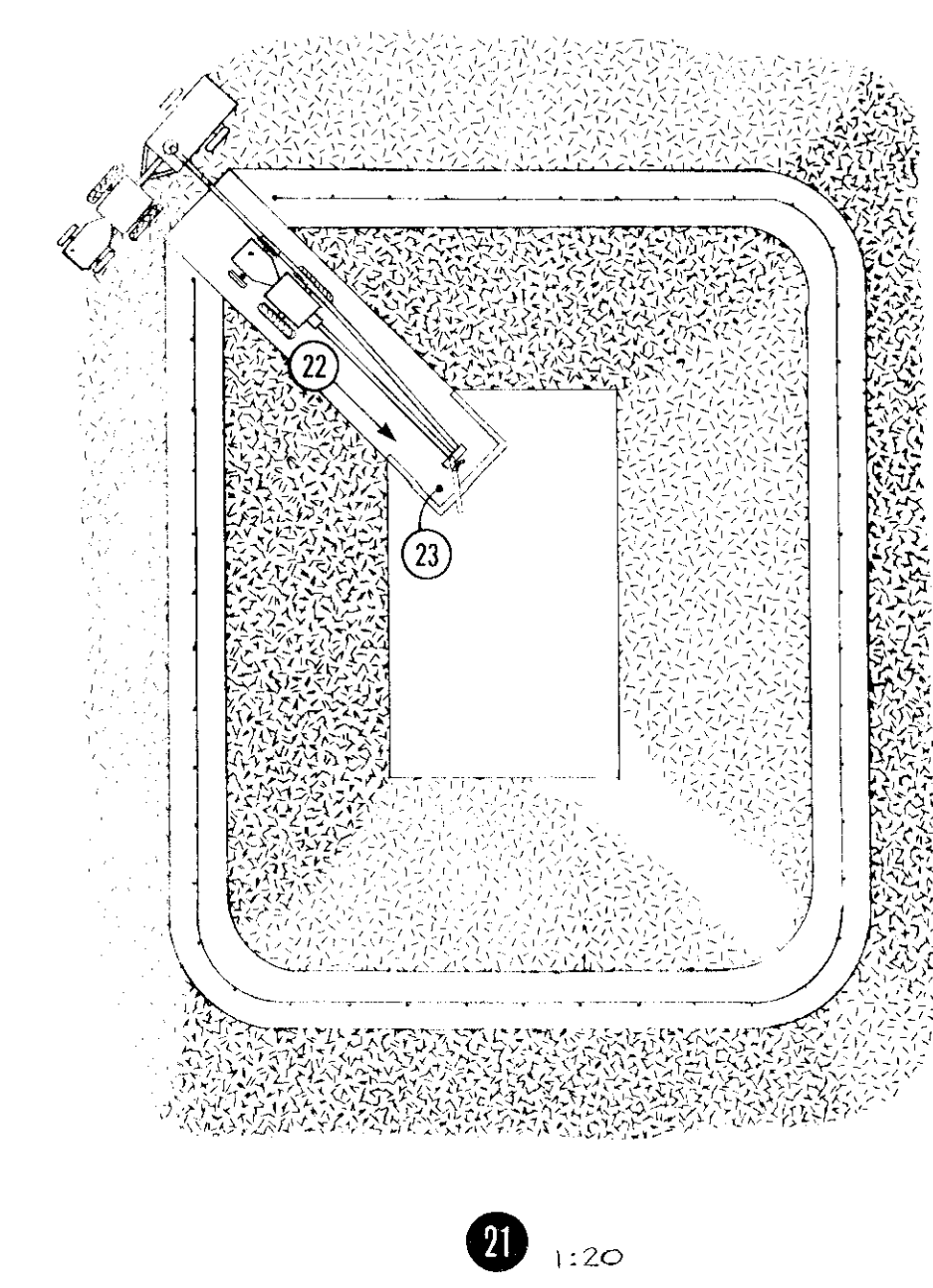
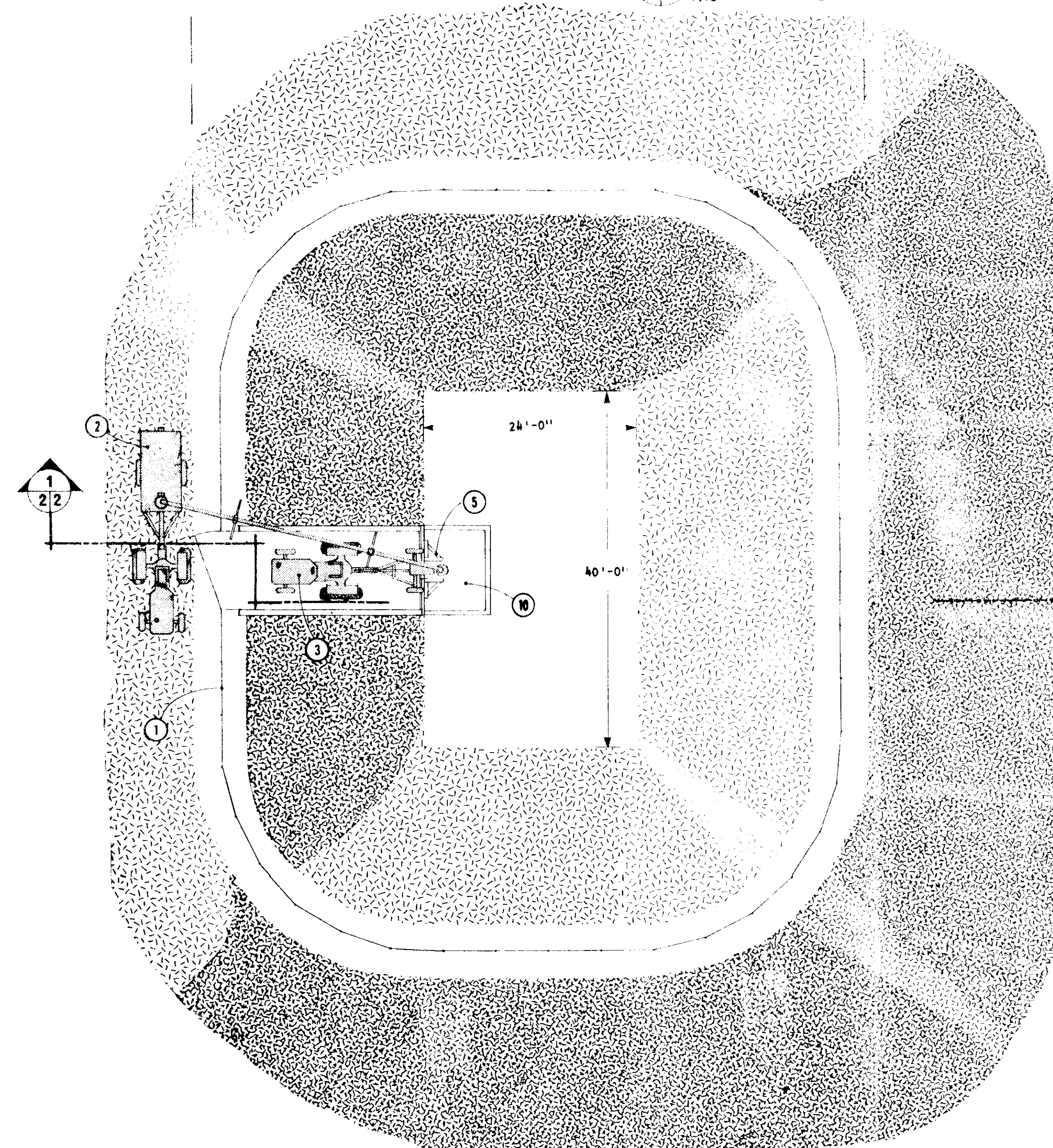
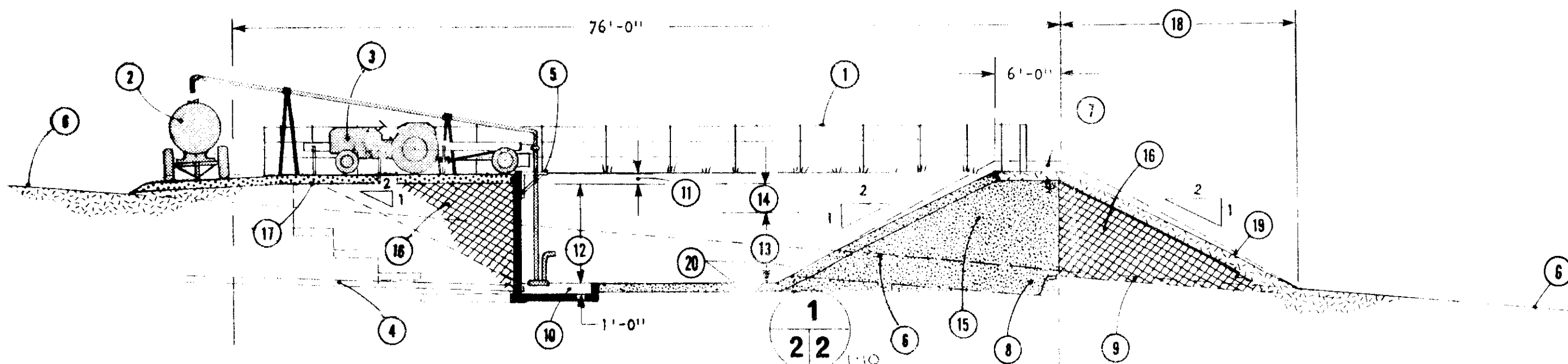
SHEET NO.	TITLE
1	Clay-Lined Manure Storage Pond
2	Plan and Section
3	Pumping Dock Details

Revised & re-numbered (was 2371)	JET	MAR/77	H.A.J.
SYM	REVISIONS	CHECKED	DATE APPROVED

**CANADA** FARM BUILDING PLAN SERVICE

**CLAY-LINED MANURE STORAGE POND**

DESIGNED J.E.T.	DATE JUL-73	<b>PLAN</b> <b>2702</b> SHEET 1 OF 3
DRAWN LEO BLAIS	REVISED MAR/77	
TRACED	SCALE N/A	
CHECKED H.A.J.		



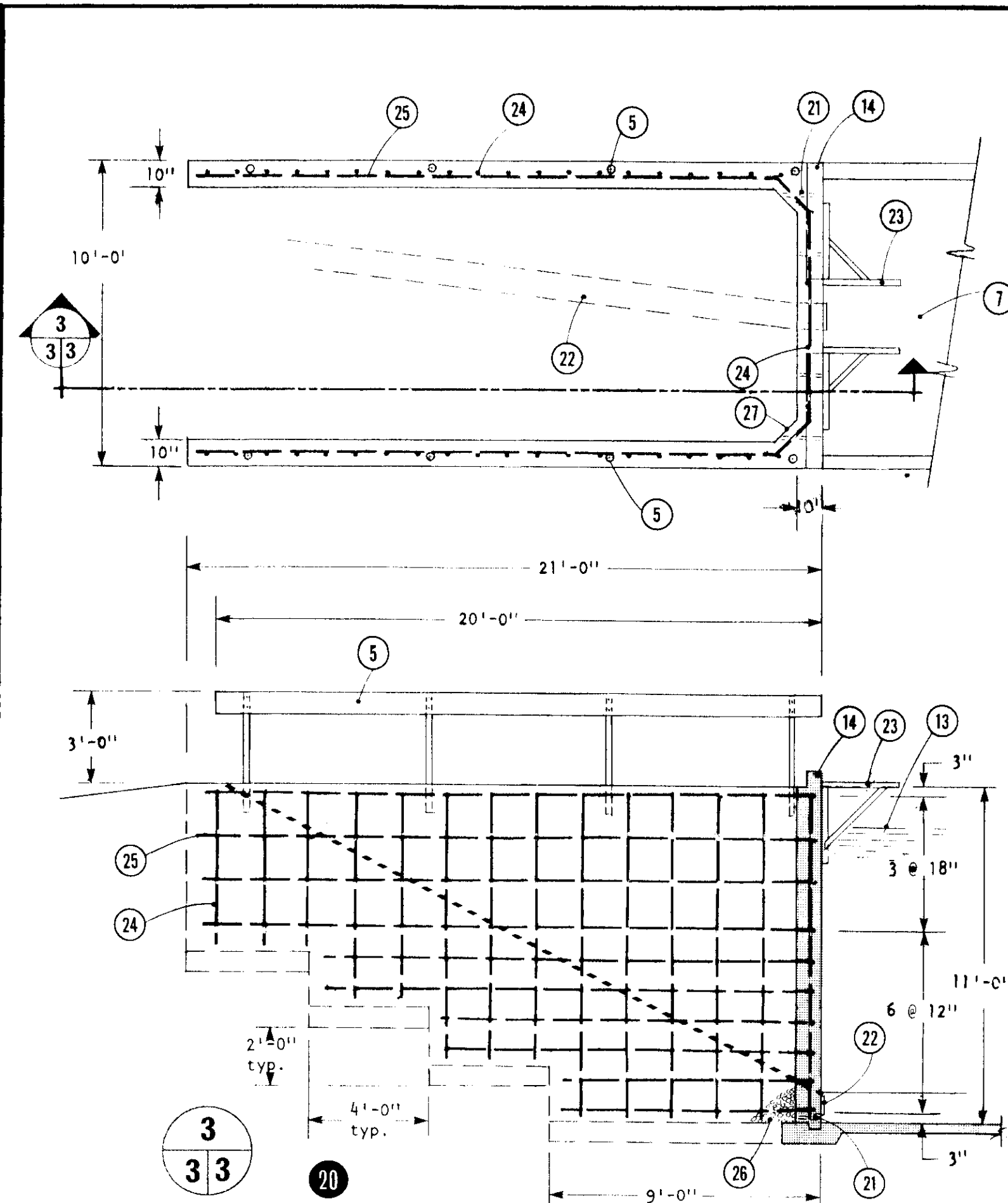
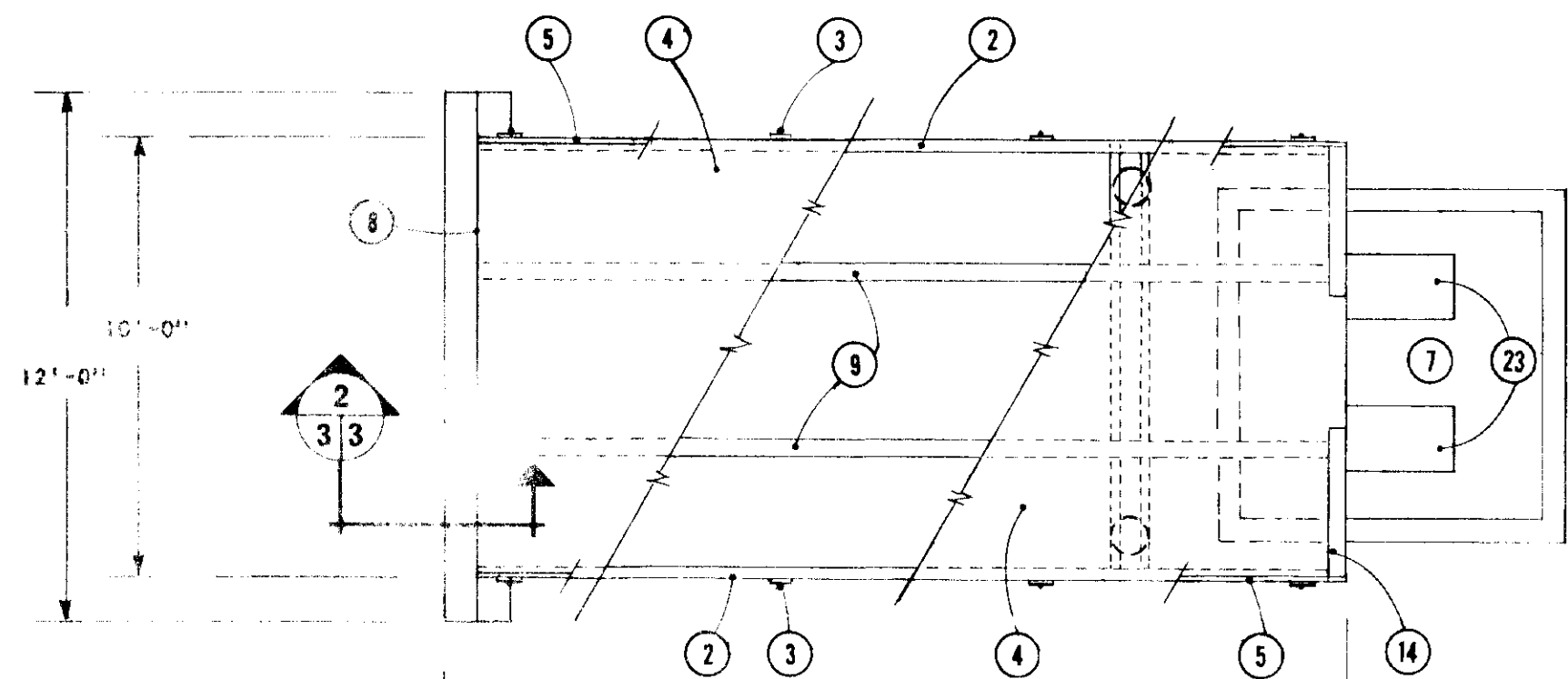
1. safety fence
2. vacuum tanker
3. tractor & agitator pump
4. 12" PVC pipe from plunger type manure pump, below frost, locate at north side of storage
5. pump support brackets to suit agitator pump (see pump manufacturer)
6. original grade
7. add 1'-0" of extra height to bank at low side to allow for settlement
8. remove original soil to 2'-6" below grade and fill to top of bank with clay well packed in 6" layers
9. remove 6" top soil from filled area before building bank
10. 7'-0" x 7'-0" x 1'-0" deep sump
11. 1'-0" freeboard
12. total storage depth, 9'
13. available manure storage varies (see table)
14. precipitation varies
15. compact clay
16. compact fill
17. 6" gravel or crushed stone
18. dimension varies with site slope
19. top soil on outside of earth embankment
20. clay floor & walls
21. alternate ramp for tractor-powered pit pumps designed for operating on slope
22. maximum ramp slope 1:3, concrete ramp surface deeply grooved for traction
23. ramp extends to 1' below storage floor for sump

A Detail No.  
 B Sheet No. On Which Detail Originates  
 C Sheet No. On Which Detail is Shown

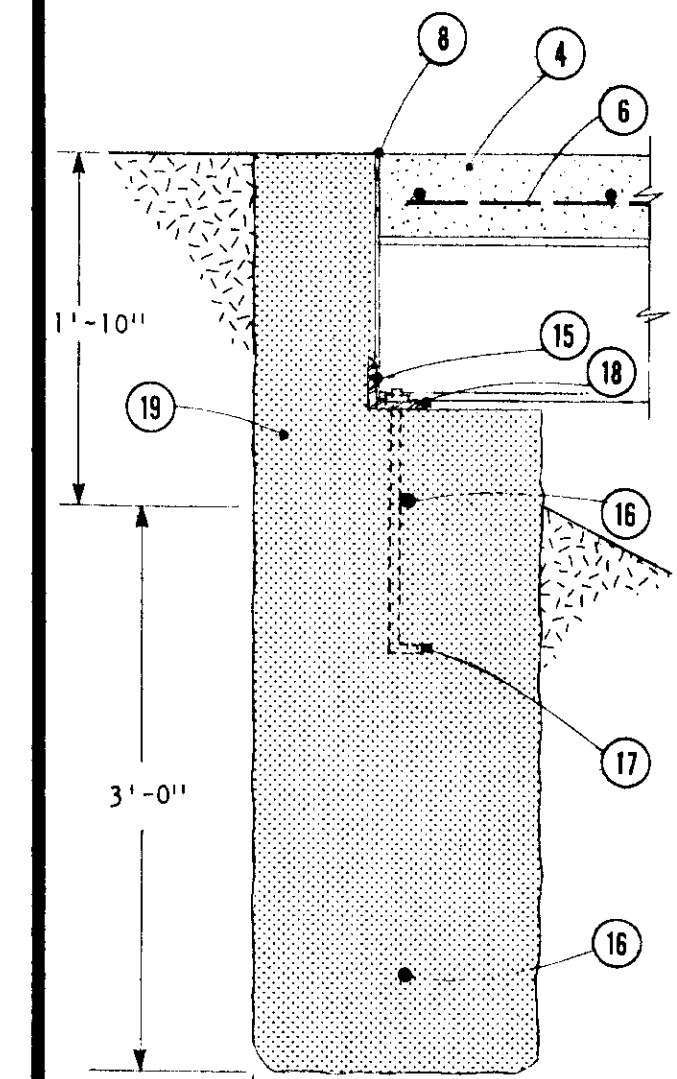
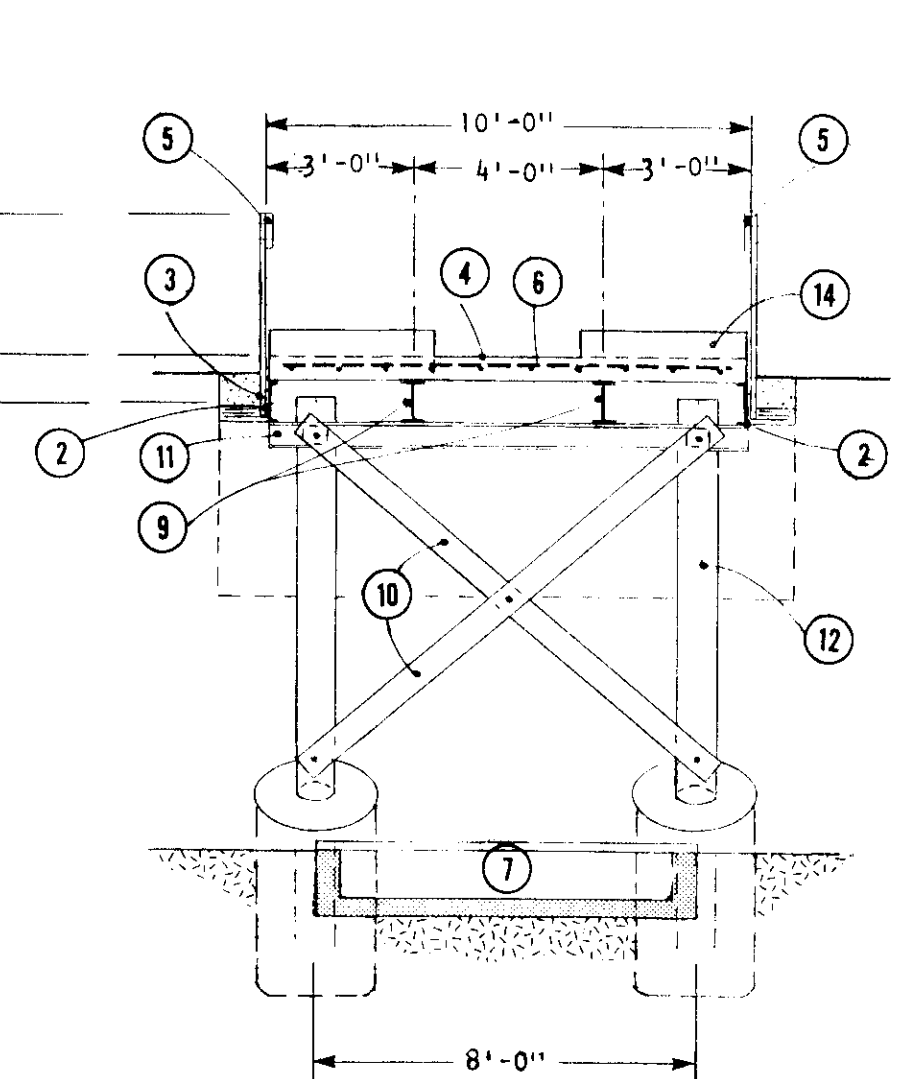
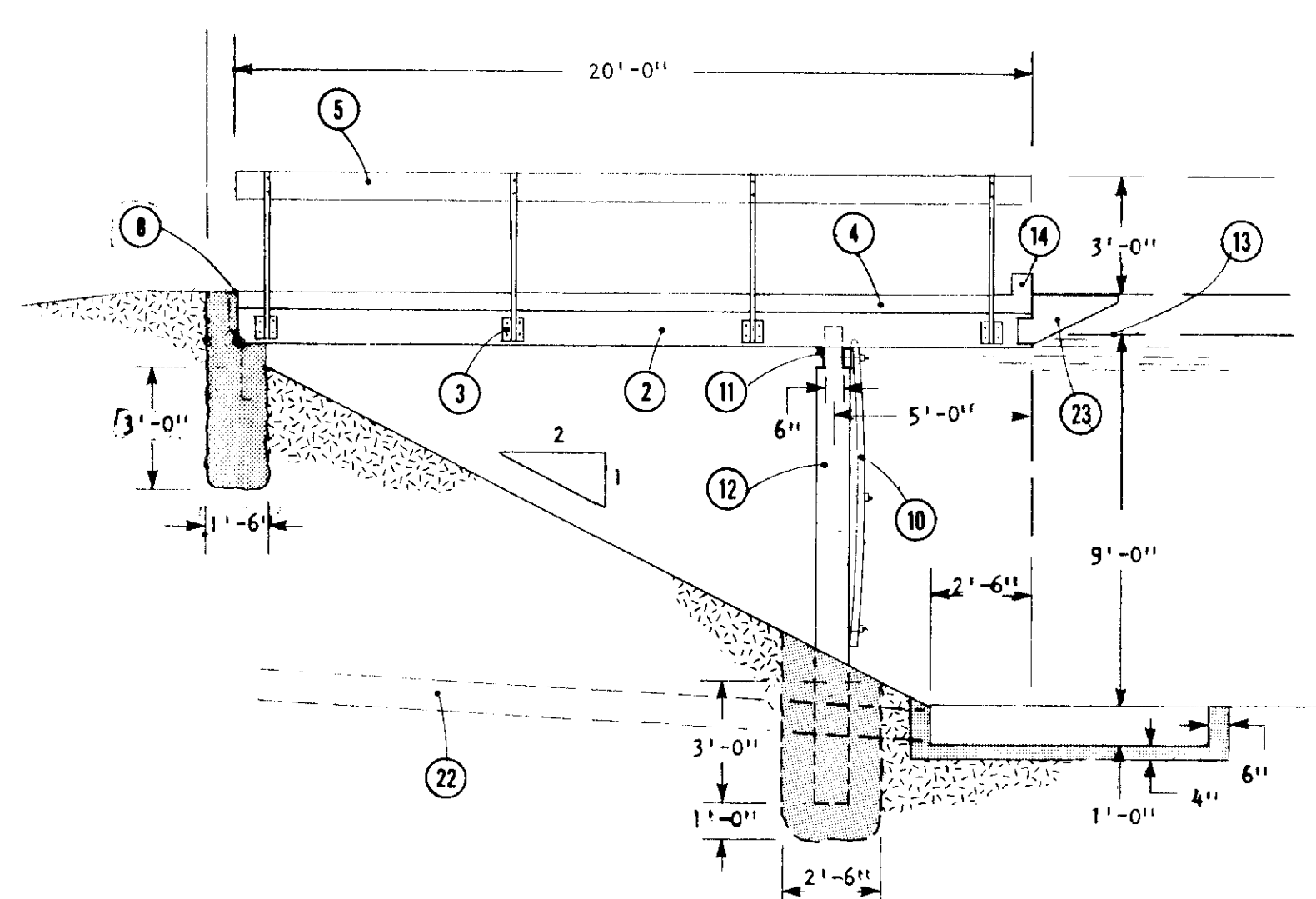
LIQUID MANURE STORAGE CAPACITIES		
Accumulated Precipitation during Storage Period (inches of water)	Manure Storage (cuft), Pond with 24 x 40-ft bottom, 9-ft storage depth	Manure Storage (cuft), Pond with 24 x 80-ft bottom, 9-ft storage depth
0	22,000	37,000
5	20,070	34,130
10	18,081	31,070
15	16,091	28,020
20	14,101	24,960
25	12,111	21,911
30	10,121	18,850
35	8,131	15,800
40	6,141	12,740

Revised & re-numbered (was 2371) J.E.T. MAR/77 H.A.J.

CANADA FARM BUILDING PLAN SERVICE  
 PLAN AND SECTION  
 DESIGNED J.E.T. DATE July/73 PLAN  
 DRAWN DATE REVISOR MAR/77 REVISION 2702  
 TRACED SCALE AS SHOWN SHEET 2 OF 3  
 CHECKED H.A.J.



- 1 wood and steel frame pumping dock with concrete deck
- 2 10" x 2 5/8" C @ 15.3 lb/ft., 20' long
- 3 1/4" x 6" x 6" flat steel plate welded to 1 1/2" galv. pipe - bolt to 10" C with 4 1/2" x 1 3/4" machine bolts, nuts and lock washers
- 4 10' x 20' x 5" thick concrete slab over ② and ⑨
- 5 2" x 8" x 20' guard rail, bolt to 1 1/2" galv. pipe posts with 2-3/8" carriage bolts, nuts and washers
- 6 #3 rebars @ 12" O.C. both ways, 2 1/2" from bottom
- 7 sump
- 8 construction joint
- 9 10" I beam @ 25.4 lb/ft., 20' long
- 10 2" x 6" brace - pressure treated
- 11 6" x 2" C @ 8.2 lb/ft. x 10' long - posts to be notched to fit, bolt to posts and weld to ② and ⑨ as in ⑱
- 12 10" top x 12" pressure treated post
- 13 max. liquid level 1' below top of pumping platform
- 14 6" x 6" concrete curb wheel stop
- 15 3" x 3" x 3/8" L 10' long
- 16 3/4" Ø x 11'-6" rebars
- 17 5/8" x 18" anchor bolt and nut, 6 req'd - 2 to be located 5" from each end of ⑬, 2 per I beam, 8" apart, one on each side
- 18 2" field weld - to both sides of 10" C ② & 10" I beam ⑨
- 19 anchor wall to be 12' long, bottom 2'-6" to be poured in trench of undisturbed firm soil
- 20 concrete pumping dock
- 21 3/4" pipe drains @ 2' O.C.
- 22 12" pvc pipe from plunger manure pump
- 23 pump support brackets to suit agitator pump (see manufacturer)
- 24 #6 vertical rebars 18" O.C. in side walls, 24" O.C. in front wall
- 25 #6 horizontal rebars 18" O.C.
- 26 crushed stone for drainage
- 27 9" cove



NOTE

All concrete to be 3000 P.S.I. min. strength at 28 days, air entrained.

All rebars to be 50,000 P.S.I. min. yield strength

Revised & re-numbered was (2371)	J.E.T.	MAR/77	H.A.J.
SYM	REVISIONS	CHECKED	DATE APPROVED

CANADA FARM BUILDING PLAN SERVICE

PUMPING DOCK DETAILS

DESIGNED J.E.T.	DATE July/73	PLAN
DRAWN J.E.T.	REVISED MAR/77	2702
TRACED	SCALE 1/4" = 1'-0"	SHEET 3 OF 3
CHECKED H.A.J.		

A Detail No.  
 B Sheet No. On Which Detail Originates  
 C Sheet No. On Which Detail is Shown

2  
 3/3 1" = 1'-0"