

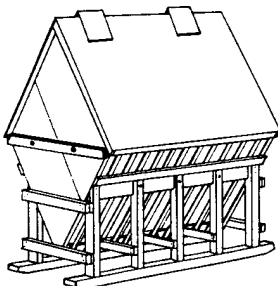
MWPS-74401

Portable Fertilizer Storage

An 8' x 8' x 16' plywood bin on skids. the bin is rotated 45° and supported above the skids to form a hopper bottom. Capacity is 24 ton.

WARRANTY DISCLAIMER

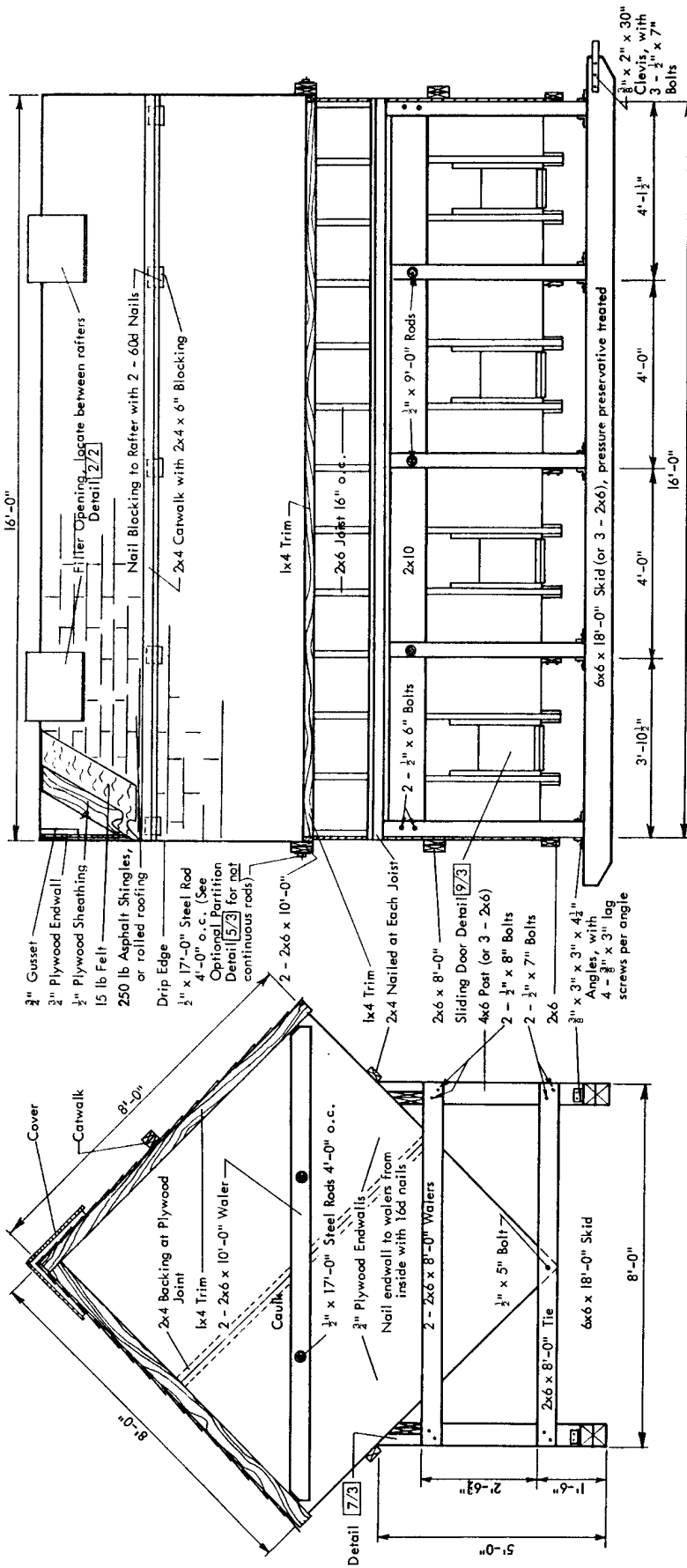
This plan provides conceptual information only. **Neither MidWest Plan Service nor any of the cooperating land grant universities, or their respective agents or employees, have made, and do not hereby make, any representation, warranty or covenant with respect to the specifications in this plan.** Additional professional services will be required to tailor this plan to your situation, including but not limited to: assurance of compliance with codes and regulations; review of specifications for materials and equipment; supervision of site selection, bid letting and construction; and provision for utilities, waste management, roads or other access.



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Cooperative Extension Work in Agriculture and Home Economics and Agricultural Experiment Stations of North Central Region - USDA Cooperating
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CAUTION!

Additional professional services will be required to tailor this plan to your situation, including but not limited to: assurance of compliance with codes and regulations; review of specifications for materials and equipment; supervision of site selection, bid letting and construction; and provision for utilities, waste management, roads or other access. **Furthermore, any deviation from the given specifications may result in structural failure, property damage, and personal injury including loss of life.**



END ELEVATION 1/1

Capacity = 1 1/2 tons of 60 pct fertilizer per 1 ft of bin length.

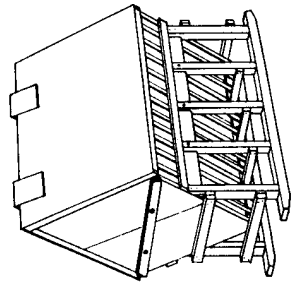
It is important to provide racking strength in the frame to resist possible unbalanced loading. Bolt 2x6 bottom ties to joists and nail endwall to 8'-0" walers from inside with 16d nails.

Secure the empty bin against wind, locate it in a sheltered area with posts at each corner. Fasten crosspieces over the skids to the posts.

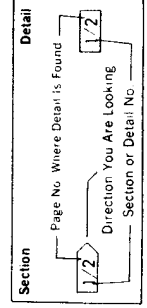
Park the bin on a solid, level site to prevent settling and permit easier unloading.

Do not attempt to move a loaded bin; the skid structure is not strong enough to withstand it.

Adapted from North Dakota State University Plan #732-1-4



SIDE ELEVATION 2/1



Section & Detail Indicator

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24 TON

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BILL OF MATERIALS

NO.	DESCRIPTION
26	2x6x8'-0" Joists
26	2x4x8'-0" Rafters
2	2x10x16'-0" Girders
2	2x8x16'-0" Girders
5	2x4x16'-0" Sill & Blocks
1	2x4x16'-0" Calwalk
2	2x4x8'-0" Blocks
2	2x6x16'-0" Walkers
4	2x6x8'-0" Walkers
4	2x6x8'-0" Walkers
10	2x6x8'-0" Walkers
2	6x6x18'-0" Skids (pressure preservative treated)
2	1x4x8'-0" Trim
4	3/4" x 4'-0" x 8'-0" T&G Plywood Floor
8	3/4" x 4'-0" x 8'-0" Plywood Endwalls
1	3/4" x 4'-0" x 8'-0" Plywood Roof
1	3/4" x 4'-0" x 8'-0" Plywood Filler Opening, Sliding
3	Doors & Gussets
3	2x4x8'-0" Blocking & Door Guides
1	2x2x8'-0" Blocking
1	1x6x2'-0" Endwall Spacer
2	1/2" x 17'-0" Steel Rods
2	1/2" x 9'-0" Steel Rods
3	Asphalt Shingles, or rolled roofing
260 sq ft	Building Feet
8'-0"	3-8 x 3 x 3" Angle
180	3-8 x 3 x 3" Lag Screws
5	1/2" x 5" Bolts
20	1/2" x 5" Bolts
1	1/2" x 6" Bolts
82	1/2" Heavy Plate Washers
52	1/2" NUTS
2	1/2" x 2" x 30" Clevis
18'-0"	Z-Flashing
64'-0"	Drip Edge
20 lb	8d Nails
15 lb	16d Nails
10 lb	6d Nails
2 lb	50d Nails
	Resorcinol Resin Glue
	Use plain steel or stainless steel nails. Do not use galvanized nails.

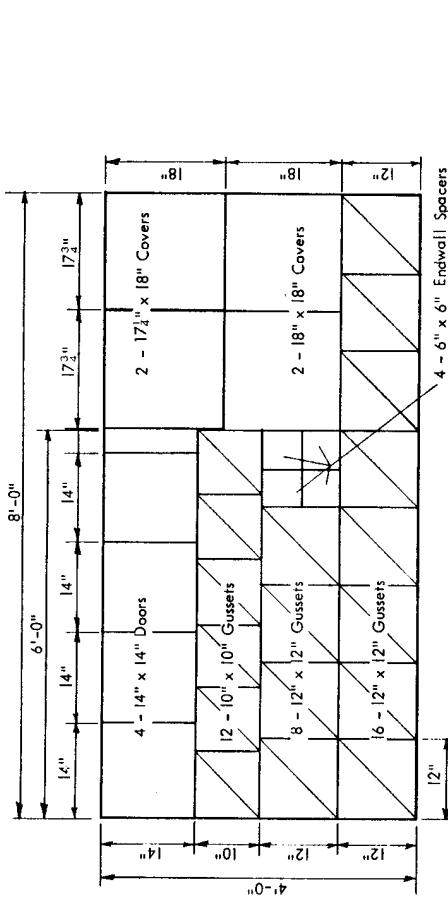
OPTIONAL PARTITION

2	3/4" x 4'-0" x 8'-0" Plywood
7	2x4x8'-0" Blocks
2	2x6x10'-0" Walkers
4	1/2" Heavy Plate Washers
4	1/2" Nuts

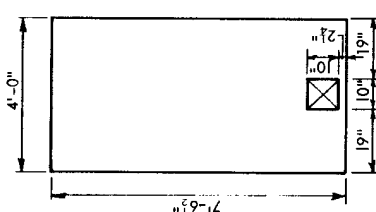
Substitute: 4 - 1/2" x 9'-0" Rods for 2 - 1/2" x 17'-0" Rods

LUMBER SPECIFICATIONS

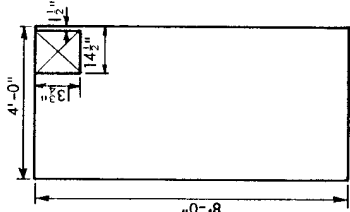
Dimension Lumber
 2x4 Construction Grade (Doug Fir, Southern Yellow Pine or Hem Fir).
 2x6 & up No. 2 or better (Doug Fir, Southern Yellow Pine or Hem Fir).
 Plywood
 Roof Sheathing—1/2" C-C Ext (Identification Index = 32/16).
 Bin Floor, Partitions & Endwalls—3/4" C-C Ext (Identification Index = 48/24).
 Skids
 Pressure Preservative Treated (Southern Yellow Pine or equivalent) creosote—10 pcr. Pentac—0.50 pcr. ACA or CCA (Type A or B)—0.40 pcr.



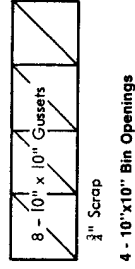
4'-0" x 8'-0" Sheet of 3/4" Plywood



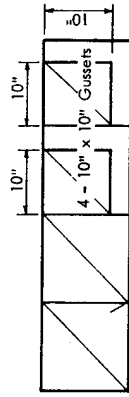
3/4" Plywood Floor Sheet With Sliding Door Opening



1/2" Plywood Roof Sheet With Filler Opening

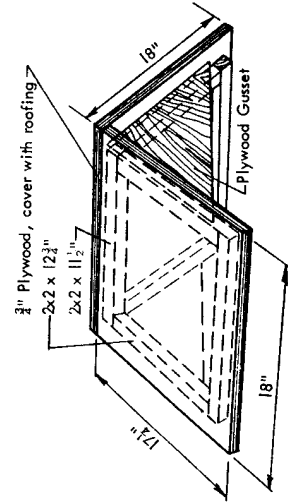


8 - 10" x 10" Bin Openings
 3/4" Scrap

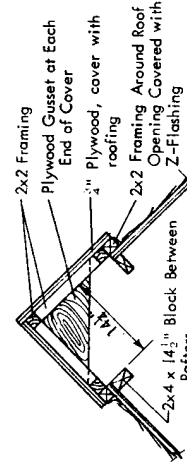


4 - 10" x 10" Bin Openings
 4 - Gussets for Hatch Covers

CUTTING DIAGRAMS 1/2

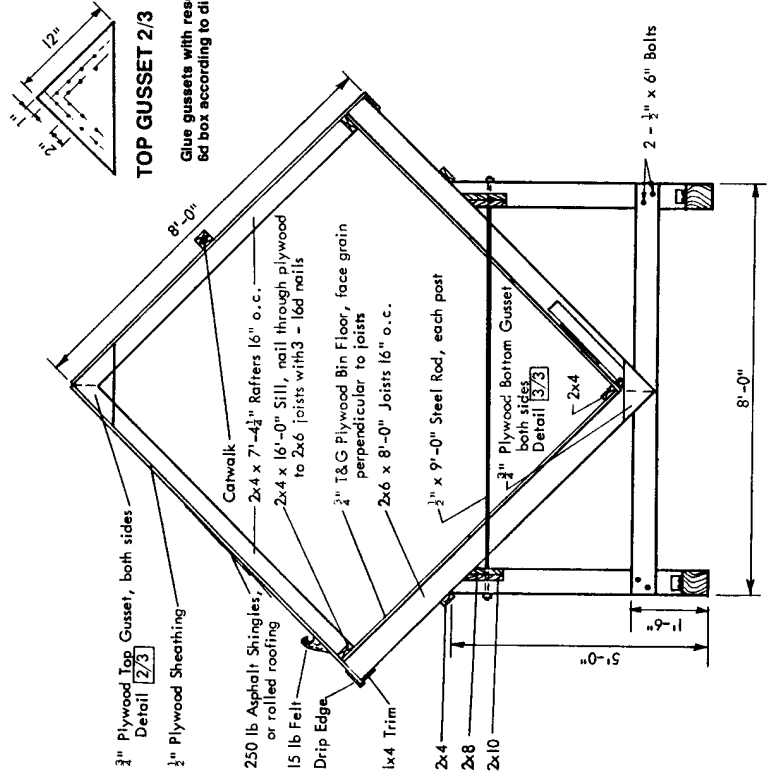


FILLER OPENING 2/2

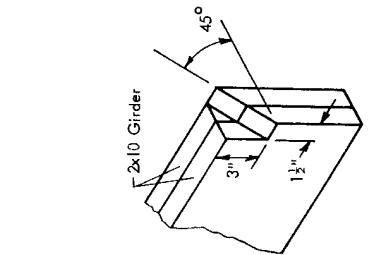


COVER DETAIL 3/2

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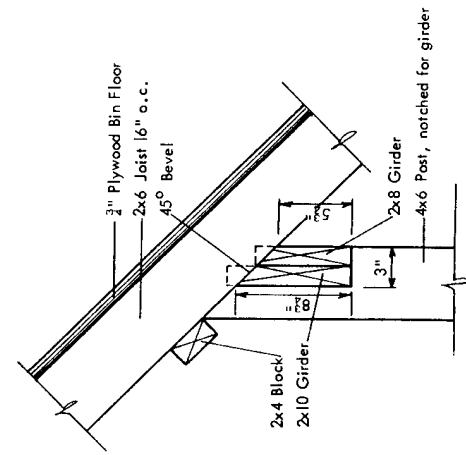


SECTION 1/3

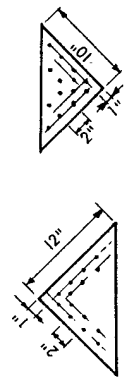


OPTIONAL GIRDER 8/3

Notches for joists cut with hand tools.

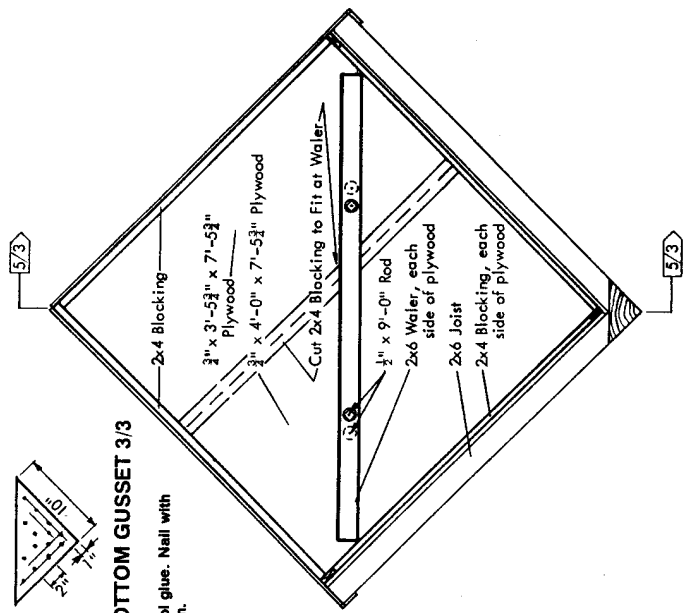


SUPPORT DETAIL 7/3

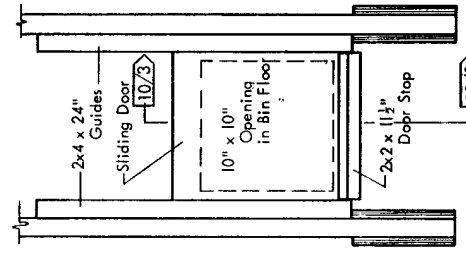


TOP GUSSET 2/3 **BOTTOM GUSSET 3/3**

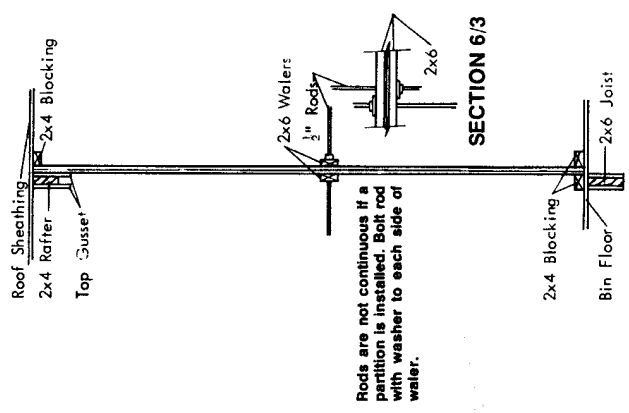
Glue gussets with resorcinol glue. Nail with 6d box according to diagram.



OPTIONAL PARTITION 4/3



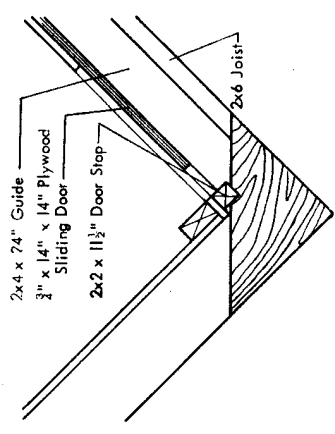
SLIDING DOOR DETAIL 9/3



Rods are not continuous if a partition is installed. Bolt rod with washer to each side of waler.

SECTION 5/3

SECTION 6/3



SECTION 10/3

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