

# MWPS-74002

## Pesticide Storage and Mixing Building

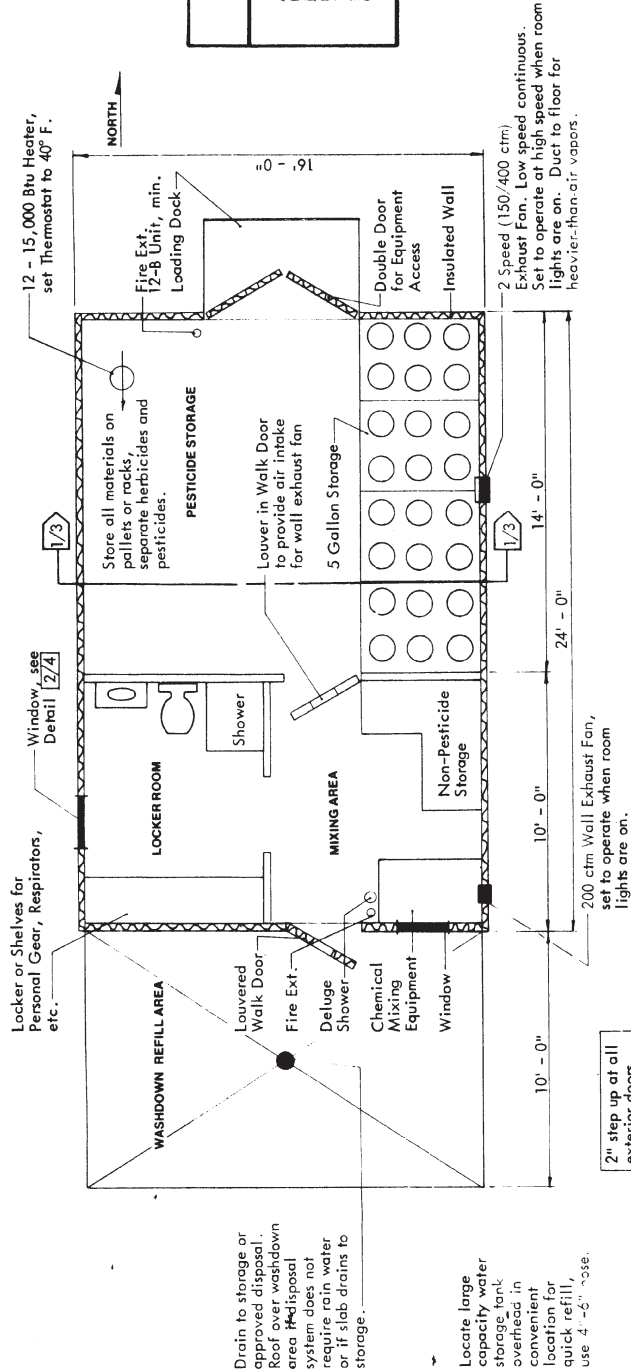
### CAUTION!

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.**

### 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.

| MIDWEST PLAN SERVICE                                                                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cooperative Extension Work in<br>Agriculture and Home Economics<br>and Agricultural Experiment Stations<br>of North Central Region - USDA Cooperating |
| Pesticide Storage & Mixing<br>Building                                                                                                                |
| Title Page                                                                                                                                            |
| MIDWEST PLAN NO. 74002                                                                                                                                |



FLOOR PLAN—1/1

**NOTES:**

With prevailing winds from the west, orient the building ridge north-south with the storage area to the north. With this orientation, prevailing winds will blow across entrances instead of into them, carrying toxic fumes from mixing and filling operation away from the building.

Surround the area with a security fence, provide locks for exterior doors.

Place signs to warn of dangerous chemicals. Chemicals marked with a skull and crossbones are highly toxic. Solids are usually handled as granules, dusts, and powders. This presents a dust explosion hazard when these materials are dispersed into the air.

Precise calculations and care in mixing can greatly reduce leftover pesticides. Consult with state and local officials for approved disposal methods.

Consider direct-load mixing equipment for increased safety.

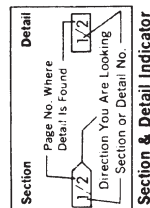
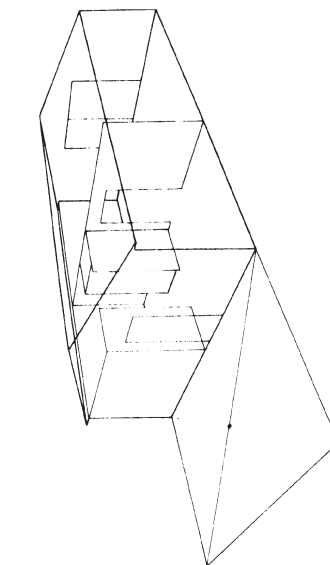
Install vacuum breakers on water lines used for filling rigs to prevent backflow of pesticides into the water supply.

Install stop and waste valves on all lines entering untreated areas.

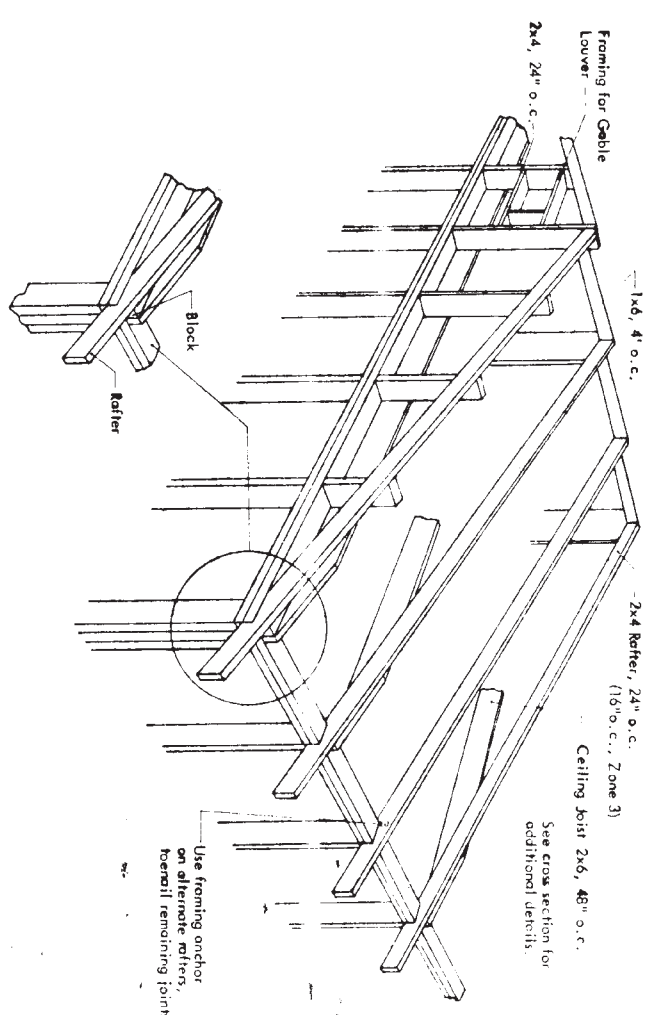
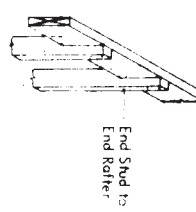
Contact state and local officials to verify compliance with all current regulations in your area.

Locate the building on sites where flooding is unlikely. Choose an area such that natural runoff from the storage area or seepage through soil or runoff from fire fighting will not contaminate residential areas, livestock feeding areas, streams or ponds.

Use a mechanical can crusher to properly dispose of 5-gallon cans.



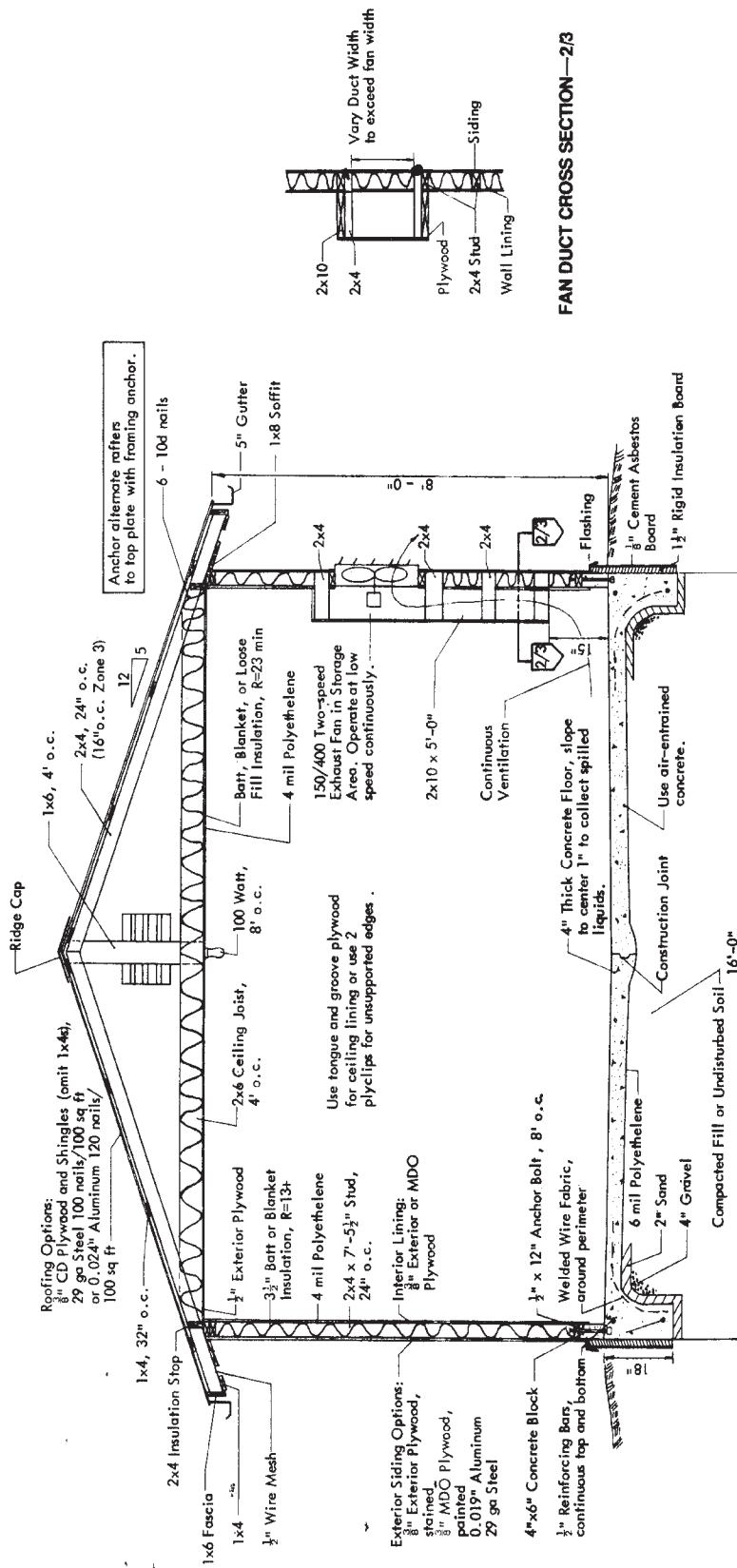
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| <b>MWPS MIDWEST PLAN SERVICE</b><br>Cooperative Extension & Research in Agriculture<br>& Home Economics in the 12 North Central<br>Universities—USDA Cooperating |                        |                |                                                       |
| <b>PESTICIDE STORAGE<br/>AND MIXING BUILDING</b>                                                                                                                 |                        |                |                                                       |
| 4 Pages                                                                                                                                                          | Plan No.<br>mwps 74002 | Page<br>1 of 4 | Copyright © 1979 Midwest Plan Service, Ames, IA 50011 |



**CEILING AND ROOF FRAMING DETAIL --- 1/2**

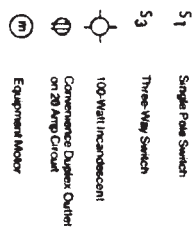
| Quantity | Description                                        |
|----------|----------------------------------------------------|
| 60       | 2x4x7 5/1" Studs                                   |
| 26       | 2x4x10 Sills and Plates                            |
| 18       | 2x4x10 Parting                                     |
| 6        | 2x6x16 Ceiling Joists                              |
| 2        | 2x4x16 Gable End Framing                           |
| 2        | 1x6x8 Header Supports                              |
| 25       | 1x6x8 Studs                                        |
| 15       | 1x6x8 Pressure Treated Fences                      |
| 10       | 1x8x8 (not plywood or Tally) Soft-<br>firs         |
| 700 ft   | Well Lining                                        |
| 400 ft   | Ceiling Lining                                     |
| 300 ft   | Stud Lining                                        |
| 450 ft   | Roofing Material                                   |
| 200 ft   | 3/12x24x18 Batt or Blanket Weath-<br>er insulation |
| 200 ft   | Insulation                                         |
| 10       | 1x12x24x18 Perimeter Insulation                    |
| 10       | Plaster                                            |
| 1        | 1x12x18 Cement Abutment                            |
| 10       | Board                                              |
| 60       | 3/4"x3x4x15 1/2" Yellow Core<br>Concrete Blocks    |
| 14       | 1/2x12x18 Anchor Bolts                             |
| 10 yards | 1/2x12x18 Concrete                                 |
| 10       | Sand and Gravel Fill as Required                   |
| 400 ft   | 8 mil. Polyethylene                                |
| 2        | 1x6x10x1 Fire Extinguishers                        |
| 1        | Deluge Shovel                                      |
| 2        | Louvered Walk Doors                                |
| 1        | Double Walk Door                                   |
| 12       | 12x12" Endwall Louvers                             |
| 4        | 22x22" Double Strength Glass                       |

Miscellaneous Framing for Windows and Doors  
 Electrical Equipment, see Data  
 1/4  
 Plumbing for Locker Room and  
 Mixing Equipment



CROSS SECTION—1/3

FAN DUCT CROSS SECTION—2/3



**NOTES:**

Ground all noncurrent-carrying equipment and wiring at the same point. Do not use the equipment frame as a ground. Provide overcurrent protection for branch circuits or conductors. Use 12 AWG minimum copper wire or equivalent. Do not use aluminum conductors. Do not use a single personal protective equipment (PPE) for operation when the equipment is energized. Do not touch the metal enclosure panel.

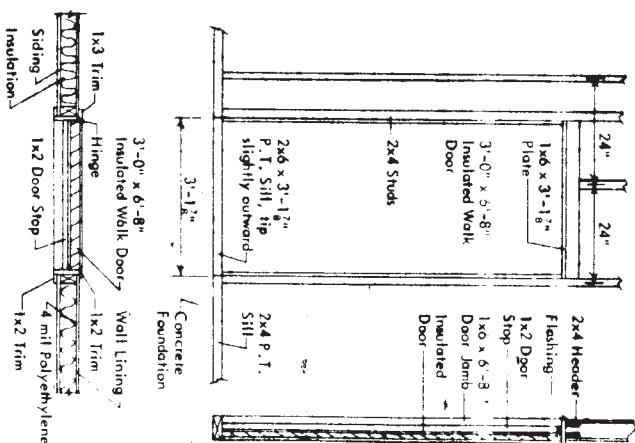
Install all electrical work in the mating area to meet the provisions of the National Electrical Code Class 1, Division 1 installations. Construct physical barriers and controls outside the room to reduce access to a competent electrician.

**General Provisions—Class 1 Division 1 Installations**

Place wiring in insulated metal conduit or Type IIIc cable with approved termination fittings. Use explosion proof boxes, fittings, and joints treated for connection to non-ferrous metals.

Seal conduit and cables to prevent passage of vapors and gases from any one section of the electrical installation to another. Use gaskets on tight fixtures.

For Class 1 installations, controllers must be approved for Class 1 installations.

[illegible]

**WALK DOOR DETAIL--3/4"**