GENERAL PURPOSE BARNS

I. Description

Barns as a property type may be classified in different ways. In shape the barn may be classed under one of the following: square, rectangular, L-, T-, or U-shaped, and round.

The square barn is economical, and if this shape permits the use of a good floor plan there is no problem. For barns longer than 34 to 36 feet there is no advantage in increasing the width to correspond to the length.

The rectangular barn of sufficient width to accommodate two rows of stock is the most common shape. The length can then be made to suit any condition, or existing barns may be extended, if the herds are increased. There is no limit to the length of a rectangular barn, 150 feet is common.

The L-shaped barn is desirable because a sheltered yard may be formed in the angle of the two parts. The main part should serve for the principal stock, the ell being used as a feeding area or cattle shed. To avoid interference with light and ventilation, the main barn should be placed with the long axis north and south, and the wing attached at the north end on either side.

The T-shaped barn in the common arrangement for a two-story feed and hay barn, and a one-story stable. One section may be built to meet the requirements for a time, and the other added as the herds are increased.

The U-shaped barn usually consists of two separate barn units, parallel to each other, and connected by a feed storage, passage, or shelter wall. The sheltered yard so formed is valuable.

The round barn encloses the most area with a given length of wall, for the same reason that a circle encloses the most area. Since there is less exposure than in other shapes, the barn is warmer. Round construction is the strongest type and there are no corners for the carpenter or mason to construct, so there is time saved in the construction. The usual plan includes a silo in the center of the barn, which makes feeding convenient when the stock faces the center. A floor plan for a 60' round barn is given in Figure 9.

Barns may also be classified by number of stories and by roof type. The one-story barn in simply a stable, without feed storage above, and may be used as a wing in connection with a storage barn, or as a separate building. The one-story barn is usually the lowest in cost of any of the heights, but not necessarily the most economical, as the same roof and foundation might be utilized in building additional hay space. The one-story barn is usually of the gable or shed roof type.

The story and a half barn provides a certain amount of hay space, the side walls above the stable being not more than 6 feet high. If a gambrel roof is used, the lower rafters may come just over the loft-floor joists.

The two-story barn is the most economical and the most common general purpose barn. The walls are from 8 to 18 feet above the first story. The self-supporting plank frame roof is recommended for best results in hay storage.

The most common roof shapes for barns are: (1) shed, (2) gable, (3) gambrel or "hip", (4) monitor, (5) half-monitor, and (6) Gothic or arched. The shed roof is a single-slope and simply constructed type used principally for a "lean-to" in connection with another building. The pitch is low, usually not over one-third pitch is used. The gable roof is the most common two-slope roof. The common pitches range from one-fourth to one-half. The gambrel roof which has two slopes on each side is undoubtedly the most practical for the farm barn. The lower set of rafters is set at about 60° with the horizontal and the upper slope at about 30°. The gambrel roof is easily made self-supporting, affording an unobstructed loft. The Gothic, vaulted, or arched roof has become popular because there are no obstructions in the loft. The shape of the roof may vary from nearly flat up to a height equal to about 2/3 the width of the barn. The higher shapes afford the most hay storage and are easier to construct. The monitor barn results from the higher roof on the center or main part of the barn, and sheds on either side (See Figure 9 for height of barns and roof shapes).

Barn foundations should be extended below the frost line and down into firm soil. The foundation wall should be not less than 10" thick if of concrete. Stone walls are made about 2' thick. The foundation of masonry should be carried at least 1' above the ground to keep the framing from the damp ground.

Barn floors are made 4½ or 5 inches thick of two-course concrete. Anchors and bolts are placed when the concrete is poured. Floors should be given sufficient slope to carry all water to the drains.

The types of permanent materials used in barn walls are concrete, hollow tile, brick, stone and concrete blocks. Concrete walls are made 10 to 12" thick. Two inch plank frames around the openings are necessary.

Hollow tile walls should be 8 to 12" thick. The mortar joints average 5/8" thick. Portland cement mortar, either white or colored, may be used.

Cement blocks are laid up in much the same matter as the hollow tile, and form an 8 to 12" wall.

Brick and stone are used only to a limited extent. Brick walls should be at least 9" thick. The average brick is 2½" x 4" x 8" in size, and requires a mortar joint 1/4 to 3/8" thick. Stone walls are 20 to 24" thick, laid up with cement mortar.

If the foundation is made continuous, the sill usually consists of two pieces of 2" lumber, 6, 8, or 10" wide, according to the thickness of the wall. The sill should be laid in a bed of mortar, on the foundation, and made level. If bolts have been placed in the foundation, the sill may be bolted fast. The double thickness sill can be spliced by breaking joints, and the strength is not harmed. In barns built on piers, the sill is of the heavy timber type, perhaps 10" square. The wall plate is of the same material and construction as the sill; it is fastened to the studding and serves as a seat for the rafters. The vertical wall members vary from 2" x 4" material to 2" x 10". The usual spacing in barns is 2' apart on centers. Studs are doubled at each side of the openings, and are double or triple at the corners. The columns or posts may be of solid timber, built-up lumber, or of iron or steel.

The common sizes are 6" x 6" wood, or 4 and 4½" iron or steel. The length of the column and the load to be supported should be considered for best economy. In "face-out" floor plans the posts should come at the rear of the stall partitions, and in the "face-in" plan the posts are placed just behind the stall frame. Steel posts, concrete filled, are preferred to any other type. The built-up girder, made from several thicknesses of 2" lumber, is preferred. The joists can be distributed so the girder is not weakened at any one point; the continuous beam is somewhat stronger than the simple beam that is broken at each support. The girder should be supported by a post at intervals not greater than 14 feet. The floor joists are 2" thick, and vary according to the load, from 8 to 12" deep. The joists should run crosswise of the barn, and be lapped above the girder. The total length of the joists across the barn should exceed the barn width by about 2', to allow for lapping. The usual spacing is 2' apart on centers. Joists should be bridged once in 8 feet, and twice in a 14' span. Barn rafters are almost without exception made of 2" x 6" material, and spaced 2' on centers. Long rafter lengths are sometimes supported between the plate and ridge with a purlin. In the self-supporting roof, the rafters are usually braced in pairs, to form trusses. Wall sheathing is often omitted in barns, and the siding nailed directly on the studding. If sheathing is used, the usual material is either shiplap, or inch boards, No. 2 grade being generally used. Some sheathing is put on diagonally for the bracing effect, though usually it is placed horizontally. Roof sheathing for prepared roofing or slate or asphalt shingles is put on solid. For wood shingles, the sheathing consists of 1" x 4" boards laid with a 2" space between them. The most common forms of siding for barns are bevel siding, drop siding, matched boards, and plain boards with batten. Either horizontal or vertical siding may be used, and the kind depends on the type of framing. The plank truss frame usually takes vertical siding and the braced rafter frame the horizontal siding. Weather-resistant woods such as white pine, cypress, cedar, and redwood are preferable for siding. Ceiling lumber is matched, dressed, and beaded, and is used in place of sheathing on the projecting ends of the rafter, if the open cornice is used. Clear pine or fir is the most common material used, the 5/8" thickness being most widely used. Loft floors should be made of dressed and matched lumber, the most suitable material being pine or fir, 1" x 6" flooring.

Barns may also be classified by the type of framing. There are several types including: (1) timber frame, (2) plank frame, (3) braced rafter, (4) plank truss, (5) gambrel roof framing, (6) wide barn framing, (7) Gothic roof framing, and (8) round barn framing.

The timber frame consists of sills, posts, girders, and braces of large timbers, ranging up to 12" x 12" pieces, the heavy pieces being usually mortised together.

The plank-frame barn is built without the use of any material larger than 2" x 12". The greatest length necessary is about 24 feet for a few braces or supports, and these pieces may be spliced from shorter lengths. Girders or posts requiring more strength than is given by one piece are built up from two or more 2" pieces. The sizes of material used in the plank frame are figured for spans of from 32 to 40 feet.

Gable roof framing is commonly used for one-story barns. The roof pitch varies from ¼ to ½. The building should be tied together at the plate either

by ceiling joists or cross ties, to prevent spreading. Rafters are 2" x 4" in size for spans under 20 feet, and 2" x 6" for all spans greater than 20 feet. A purlin plate, intermediate between the plate and ridge and supported by posts from the floor, is needed.

Gambrel roof framing should follow these three principles:

(1) Since the arch is one of the strongest forms of construction, the gambrel roof is probably strongest when it forms an arch. The ridge should fall above the curve and the break within the semicircle. To secure a truss approaching the lines of this arch, construct a semicircle with a radius equal to one-half the width of the building. Place the center of the semicircle on a level with the plates and midway between.

(2) The use of stock lengths of lumber is economical, and the roof should be designed to use stock-length materials. The upper and lower rafters may be about the same length, or the upper pair 2' shorter than the lower ones. Lengths of 16 and 12 feet work out well for the 36 foot barn.

(3) The lower slope of the gambrel roof should be approximately 60° with the horizontal, and the upper slope about 30°.

Braced rafter framing consists of studding spaced 2 feet apart on centers. The floor joists are set crosswise of the barn with the same spacing as the studs. The distinguishing feature of the braced rafter frame is the fact that each set of four rafters is braced at all angles, to form a light truss, which supports the roof through a length of 2 feet, which is the spacing of the rafters, no purlins or extra framing is necessary. Each truss consists of two lower rafters, two upper rafters, a collar beam, or tie, and upper and lower braces. The upper braces are made approximately the same length as the upper rafters, and extend from the center of the upper rafters to a point about 7 feet below the angle of the roof on the lower rafter. The lower brace is about the same length as the lower rafter, and extends from just above the second floor to the point where the upper brace attaches. The braced rafter barn framing should be made from 2" x 6" lumber. The braces are sometimes made of 2 pieces of 1" x 6" or 1" x 8" material. The studding for this type should be 2" x 6" or 2" x 8".

In the plank truss frame, the trusses are placed 10 to 16 feet apart. These trusses support the entire roof load. The space between the trusses is filled in with braces and rafters. In the first story of the plank truss barn, the wall studding are not spaced at regular intervals, but according to the openings. Diagonal braces are placed at frequent intervals between the openings to strengthen the frame. The plate under the joists serves as the header for the top of the openings. At the truss intervals, several pieces of studding are set together to form a post on which the truss is supported. Each truss is made up of the following parts: a cross tie extends across the building at the truss, which consists of three pieces, the same size as the joists. The pieces are set with short blocks between them, for splicing, which gives a three-ply piece, with two 2" spaces. Purlin supports extend from the joist line to the purlin. They are made up of two pieces of 2" x 10" or 2" x 12" material, with a 2" space between the pieces. Roof or purlin supports extend from just below the plate to the ridge of the roof. The wall

post consists of two pieces of 2" x 8", with a 2" space between. A 2" x 4" brace extends from the purlin to the ridge. These pieces, together with the short braces, form the truss.

In Gothic roof framing, the shape of the roof is a pointed arch and is secured by taking a radius equal to three-fourths the width of the barn to find the curve of the rafters. The center is taken at a point 3 or 4 feet below the level of the plate, and an arc is described through the plate and the center of the barn at the ridge. The point of meeting of the two arcs drawn determines the ridge and the shape of the entire roof. The lookout is a reverse curve, on a 5-foot radius, and fits smoothly into the rafter curve. The most common method of building the rafters is to lay out the shape of the rafter on a smooth surface, and to fit 1" x 4" pieces to the form. Five or six pieces are bent to shape and nailed to form a rafter of the correct shape and strength. The rafters are spaced 2 feet apart in the building, and tied at the ridge.

The framing of the round barn is similar to that for the braced rafter barn. The members of the frame converge to the center, making the round frame very strong. The two slope gambrel roof is most often used. Since the round barn will be about 60 feet or more in diameter, longer length lumber is required in the roof frame. Since the framing parts become closer together as they approach the center, there is more material in the round barn frame than is necessary for strength (see Figure 10 for some types of barn framing).

The USDA Bulletins of the early 20th century give two designs for small barns for the farmer who has but small capital to expend. The first is called the $450 barn. It is 37' x 34' and 12' high at the eaves and 29½' to the peak. The loft is supported by sixteen 8' x 8' post (round) while the roof is supported by eight 6' x 6' purline posts. The first floor provides for 4 horse stalls and 3 double cow stalls, while a shed opening into a small yard affords additional room for stock. A clear space, 12' x 37', is left down the center, which would accommodate several implements and leave room for a considerable amount of forage at the rear end. The loft would accommodate from 20 to 25 tons of hay. The granary is 7½' x 8½'. The design calls for flooring the driveway at the height of 12' above the ground, and the side spaces over stalls and shed at a height of 8'. In the center a space 10' x 12' should be left for pitching hay into the loft. The timbers should be mortised and pinned with hard wood pins. Attached figures illustrate the floor plan, end bents, and elevations of the $450 barn.

Design No. 2 provides for the $275 barn. It is 24' x 24' and 16' high at the eaves. It is divided into stable and wagon and carriage rooms. The stable affords room for three head of cattle and two horses. The loft will hold approximately 10 tons of hay. The design permits the erection of sheds on each side of the main building which would increase the capacity of the barn to 15 head of stock or more (see Figures 11 and 12).

Three-Portal Barn

The most common barn type found in the heartland of America during the late nineteenth and early twentieth century was the Midwest three-portal barn. It is believed they were introduced to the United States directly from Europe by German settlers. They are sometimes locally referred to as feeder barns

because they were used in housing livestock. Two variations can be identified, primarily on the basis of plan. The first type is merely an expanded barn achieved by adding enclosed side aisles. In some instances such additions are clearly an afterthought and the roof line is broken, indicating the addition of a later roof to cover the added aisle. Such an aisle is sometimes used to stable livestock. Early gable roofs in many cases have been replaced by gambrel roofs, but the addition of the aisle roof is still easy to identify. In the twentieth century, barns were built with original gambrel roofs spread to cover the side aisles. The second type of the Midwest three portal barn represents the culmination of this line of evolutionary development. The central aisle has been reduced to a narrow walkway, but flanking cribs or stables have been added. The dimensions of this barn are between 36' and 42' on a side, and often the gable wall is longer than the side wall. The roof line may or may not be broken, depending upon whether or not the barn was fully conceived or simply grew by accretion. In addition to providing hay storage, these barns were used to house livestock and machinery, and often grain as well (see Figure 13).

The German Bank Barn

Although there are many variants of the German barns, the type most likely to be encountered in Region 6, especially Kingfisher County where Germans settled in Oklahoma, is the Sweitzer barn. It is basically a 2½ story building. The lower floor, devoted primarily to cattle stalls, stables, and other space for animals, is normally partially excavated. Such a situation in which the structure is built into the hillside helps conserve heat in the winter season and, conversely, provides a cooler environment in summer. The lower story is constructed of stone or concrete. The upper floor is conventionally divided into three units -- either two cribs and a drive-space or three bays. Entry to the upper floor is by double wagon doors centered on the upslope side of the barn. The center area of this level was designed originally for use as a threshing floor. This use is verified by the occurrence of threshing doors in an opposing position, opening out over the feeding lot. These doors have no entry or access function, but serve only to promote the winnowing associated with grain threshing by hand. Side bays permitted storage of farm machinery and tools as well as unthreshed grain. Often a bay was used as a hay mow. Threshed grain usually was stored in granary bins built into the forebay of the barn. The most distinctive structural feature of the Sweitzer barn is this forebay, the second-story projection or overhand on the downslope side of the barn. The forebay offers several advantages. First, because it extends out over the feed lot, it affords projection for stock in inclement weather. Second, the projection obviates the necessity of shoveling snow away from the basement doors. Third, chutes cut into its floor provide a means by which feed, straw, and hay can be dropped directly to the stock in the feed lot below. Finally, the forebay permits a larger second story than is provided by the foundation walls. The forebay is supported by cantilevered beams. Posts or columns are not normally used for support of the forebay. The barn may be constructed of logs, timber frame, birch, or stone, but the forebay is invariably of timber framing covered with plank siding. In early designs, the gable roof of the barn is assymetrical, with the forebay continuing the roof line, but in later designs a symmetrical roof line appears. The Sweitzer barn is crowned by a commodious loft used for hay storage. The interval plan of the barn is

simple. There are usually three units on the second floor and rows of cow stalls and stables separated by aisles on the lower level. Access to the lower level is provided by a number of Dutch doors positioned on the wall under the forebay. Barn proportions are usually three to two, i.e., three bays wide and two bays deep, although barns four to seven bays are not unknown. Furthermore, the width and depth of a bay may not be equal in size (see Figure 14).

The general purpose barn should be located on a pre-1930 farmstead about 150 to 200 feet from the farmhouse and, if possible, in the direction away from the prevailing summer winds. The general purpose barn should stand on its original site.

II. Significance

General purpose barns were significant historic resources in Management Region 6 prior to 1930 because the region was an important agricultural part of Oklahoma's economy. Census data indicate that farms in the region by 1890 averaged approximately 160 acres and were fairly diversified in terms of producing crops and livestock. Therefore, general purpose barns which provided a variety of functions were common. General purpose barns usually housed two or more classes of livestock (horses, dairy cows, or beef cattle) and the barn was designed to combine facilities for feeding and housing several animals and that the different classes of livestock be separated. If milk was produced, housing of dairy cattle had to meet certain legal requirements for the production of graded milk including ample light, ventilation, and sanitation. In most cases, horses and cows should be separated by a tight wall and it was not a good practice for cattle and horses to share a common feed or litter alley.

III. Registration Requirements

To be eligible for listing in the National Register of Historic Places, general purpose barns must retain integrity of setting, materials, and design. The general purpose barn should be located on a pre-1930 farmstead and should be set with the long axis to the north and south for best lighting and to form a protection for a sheltered yard. The general purpose barn should be 150 to 200 feet from the farmhouse, and if possible, in the direction away from the prevailing summer winds. The general purpose barn should be located on its original site and not been moved to another location on the farm acreage, or to a nearby farm or town.

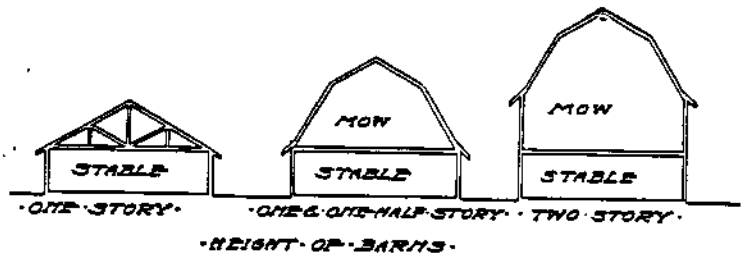
General purpose barns to be eligible must retain one of the basic floor plans. For rectangular style, it should be approximately 30' X 150' and should be able to accommodate two rows of stock. The square barn should be approximately 36' X 36'. The L-shaped barn should be placed with the long axis north and south with the ell, or wing, attached to at the north end on either side. The U-shaped barn should consist of two separate barn units, parallel to each other, and connected by a passage or shelter wall. The round barn should be approximately 60' in diameter.

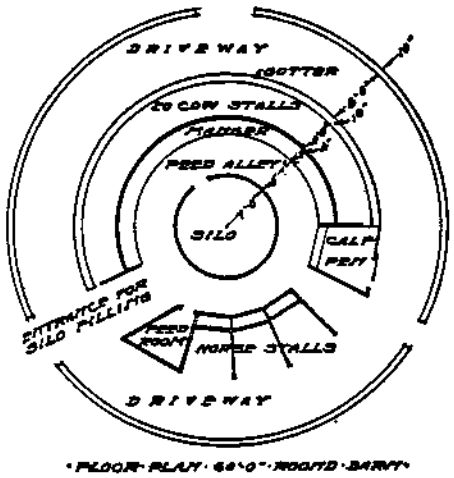
The general purpose barn should retain the original walls of either wood or stone, both the most common materials in Region 6. It should not have any additions or other major alterations such as synthetic siding or other materials which would detract from its architectural integrity. The roof design must be intact and follow any one of several shapes including shed, gable, gambrel, monitor, half-monitor, or Gothic. Although roofing materials may have been replaced over time, it must retain the original roof lines.

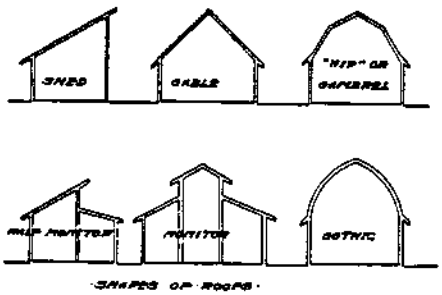
The three-portal barn must possess certain features to be eligible. It should have a broadly-pitched gable roof with three openings, or aisles, through the barn. One of these aisles is placed in the main section and the other two are located in the shed type sections on either side of the main part. Construction materials were milled lumber and roofs were originally shake shingles. Original siding should remain intact, however, wood shake shingles may have been replaced with corrugated metal materials.

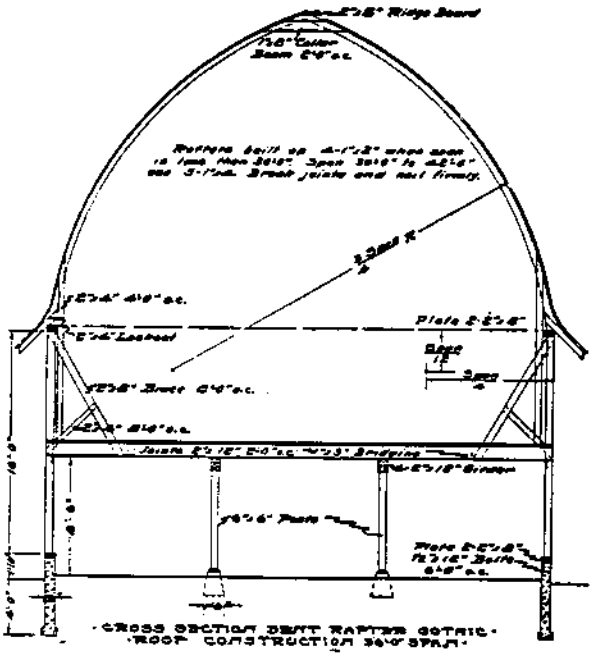
The German bank barn to be eligible must contain certain features. The most distinctive design element, which must be present, is the forebay, a second-story projection or overhang on the downslope side of the barn. It should be a 2½ story barn with the lower floor partially excavated into a hillside. This lower floor must be designed to accommodate cattle stalls and stables. The second floor should be divided into three units--either two cribs and a drive-space or three bays. The upper half story should be used as a hay loft. The construction materials may vary from timber frame to stone, but the forebay should be of timber framing with plank siding. The roof shape should be an assymetrical gable with the forebay continuing the roof line.

The general purpose barn must have been associated with a pre-1930 farming operation and used for shelter for farm animals and storage for grain, hay, and other farm produce.









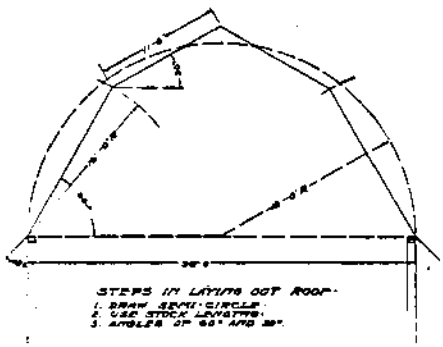
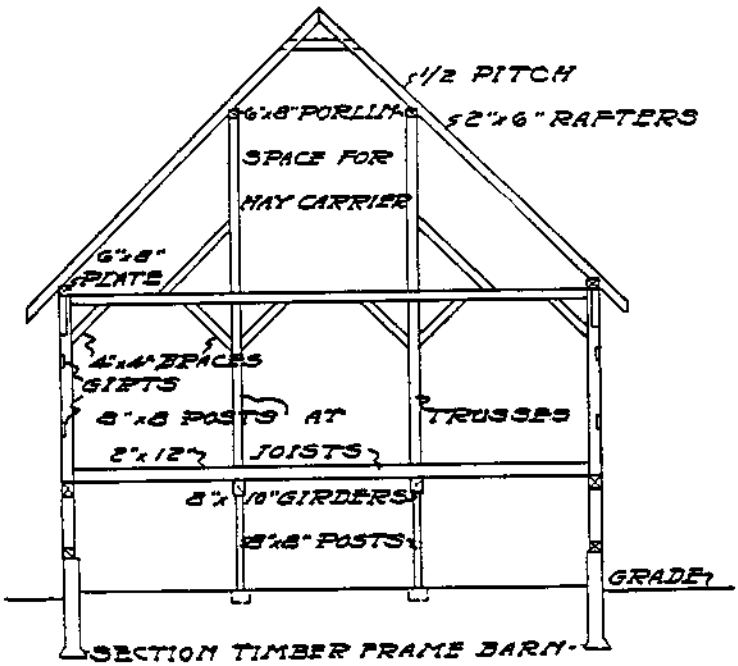
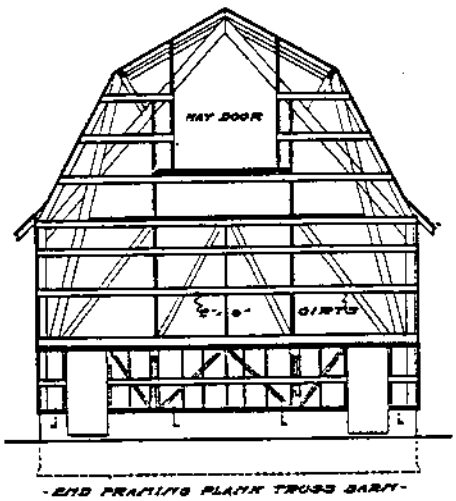
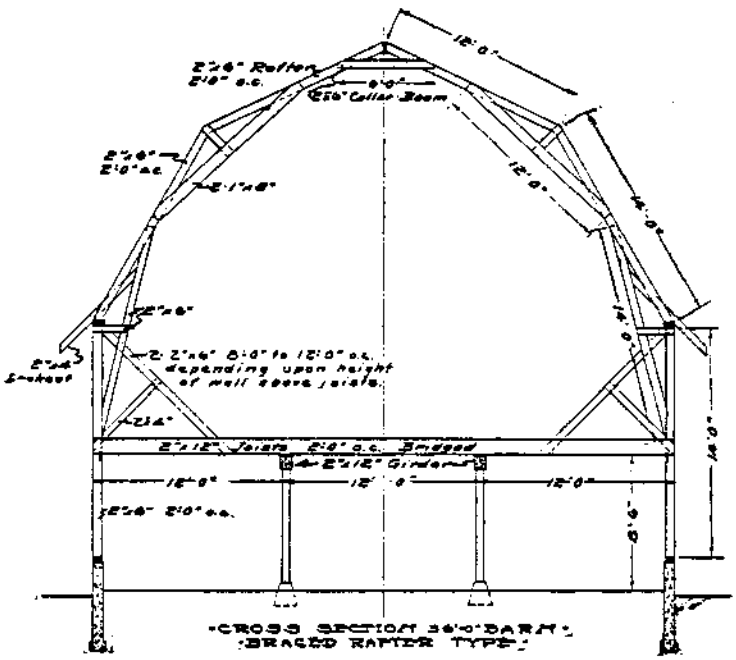
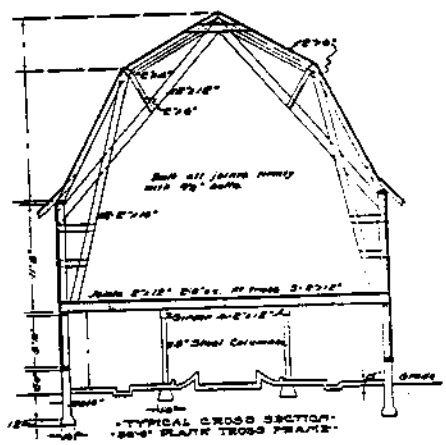


Figure 9
Barn Types By Roof Shapes and Stories



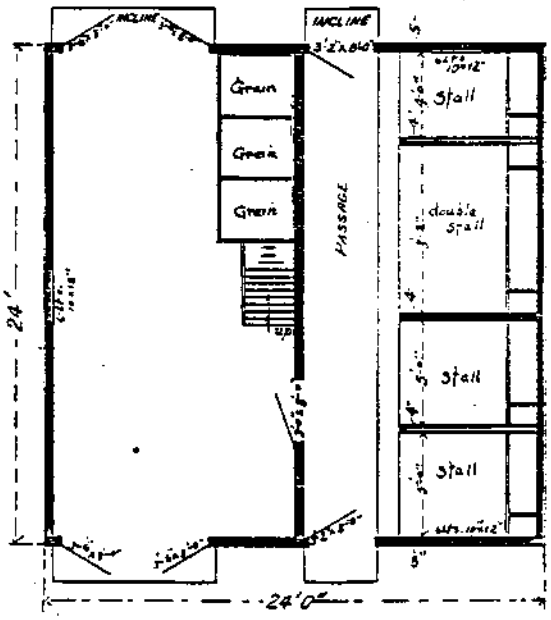


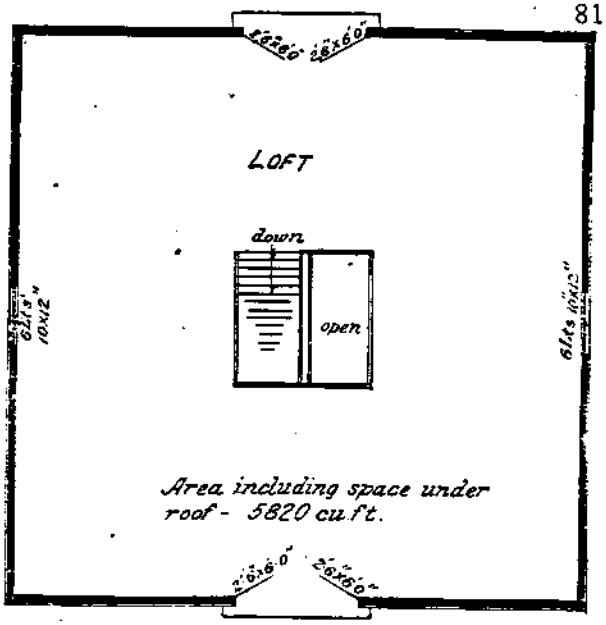


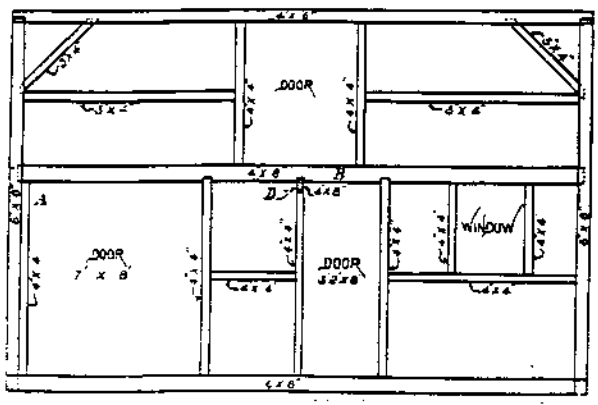


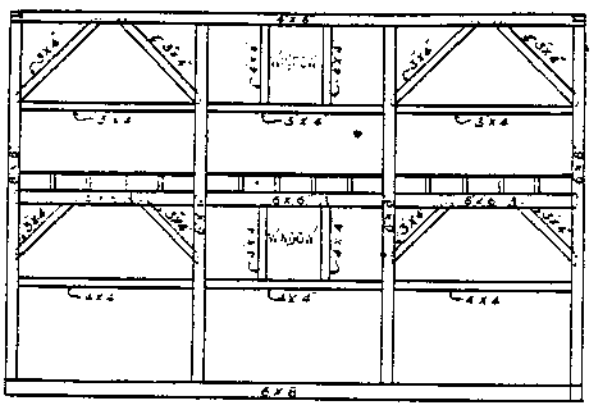
Barn Framing

Figure 10









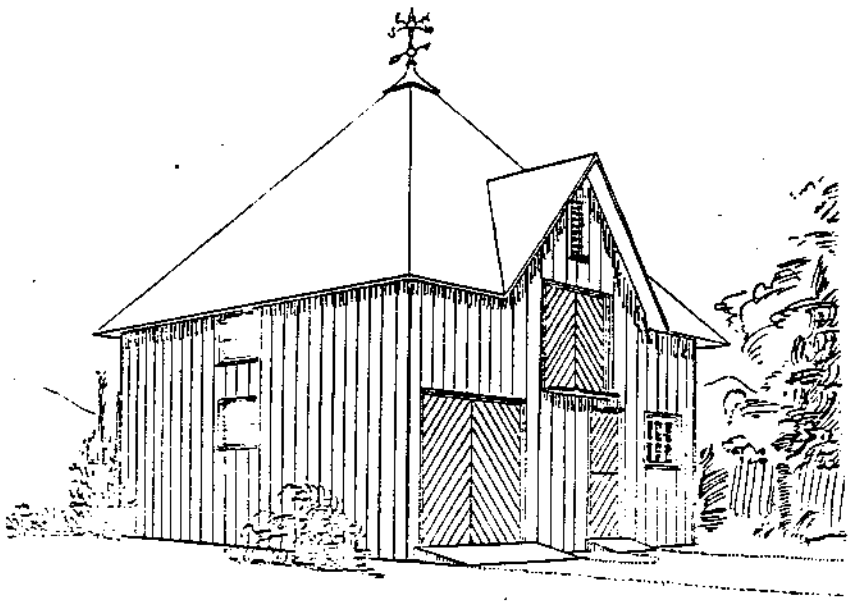
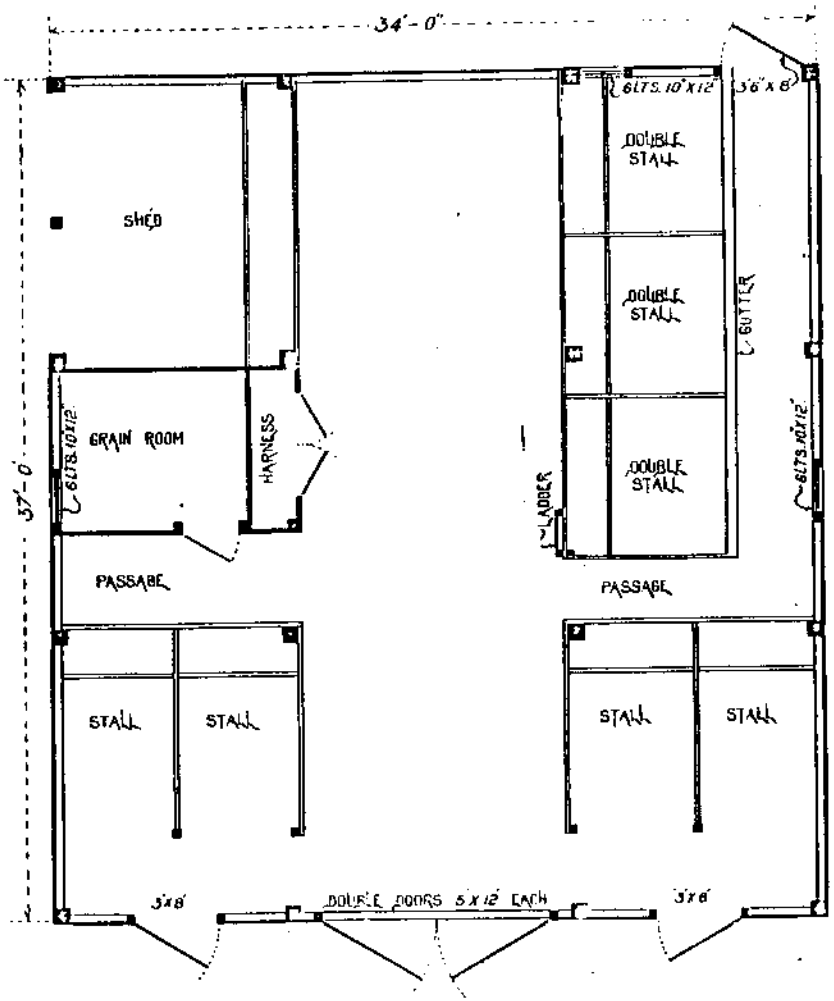
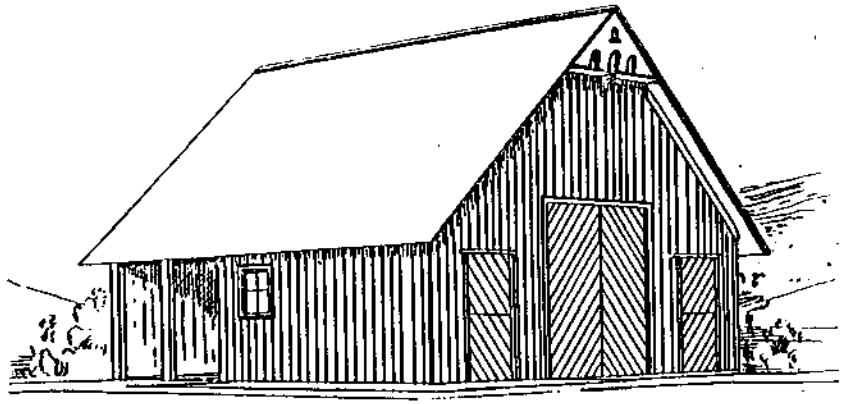


Figure 11

Floor Plan, End and Side, and Perspective

#275 Barn





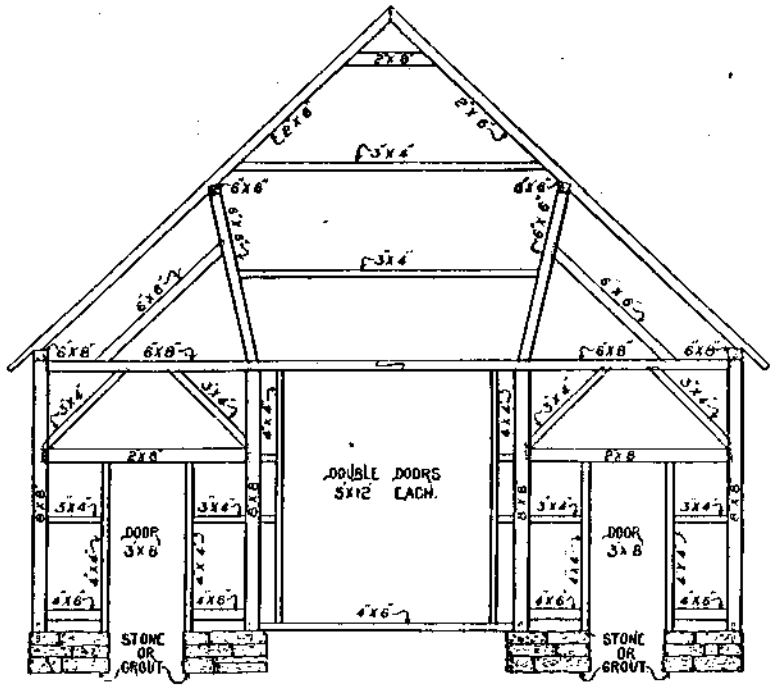


Figure 12

Floor Plan, End Construction, and Perspective
#450 Barn

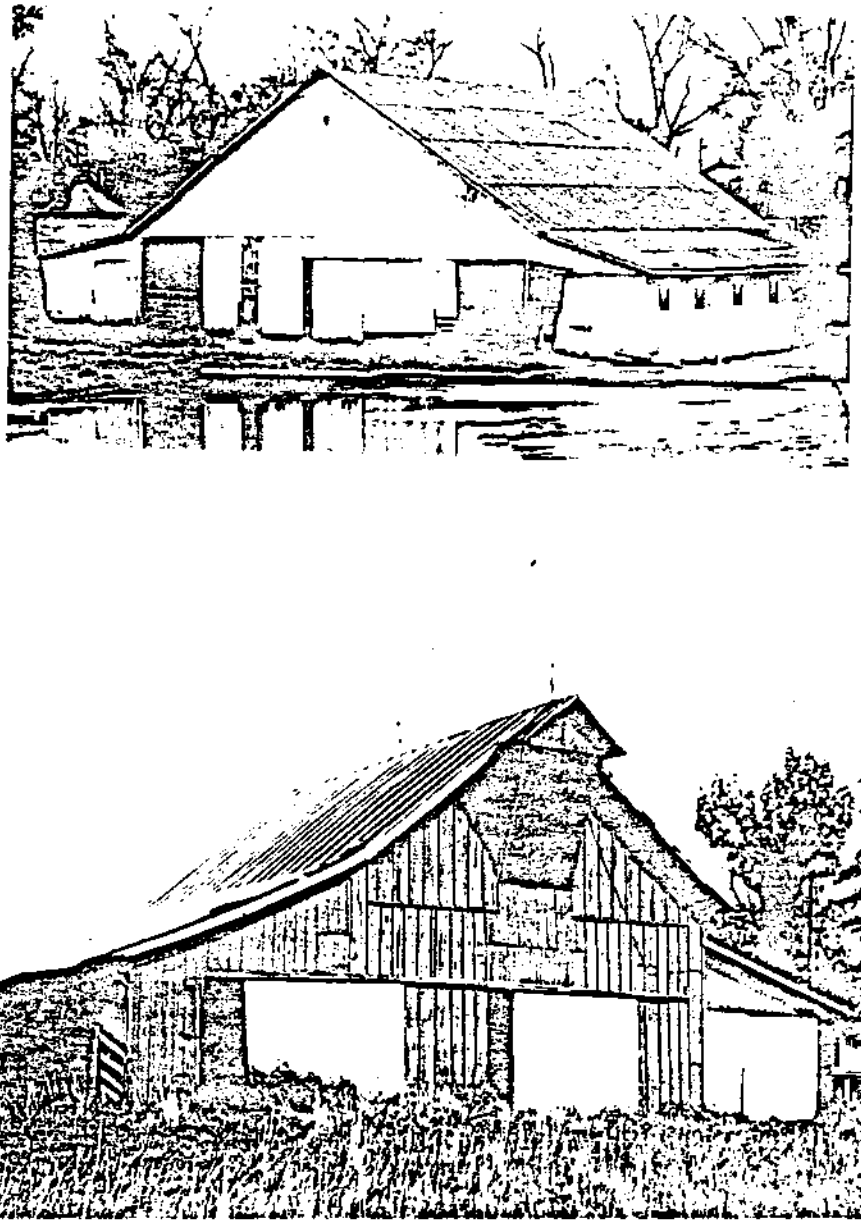
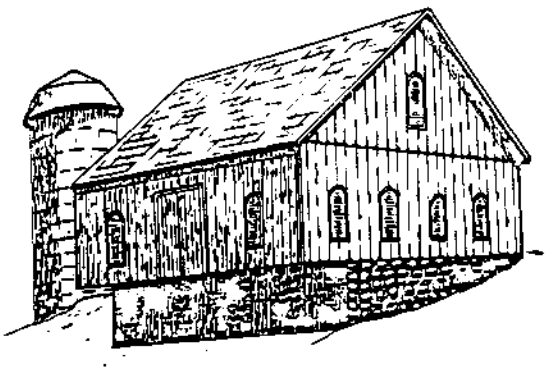
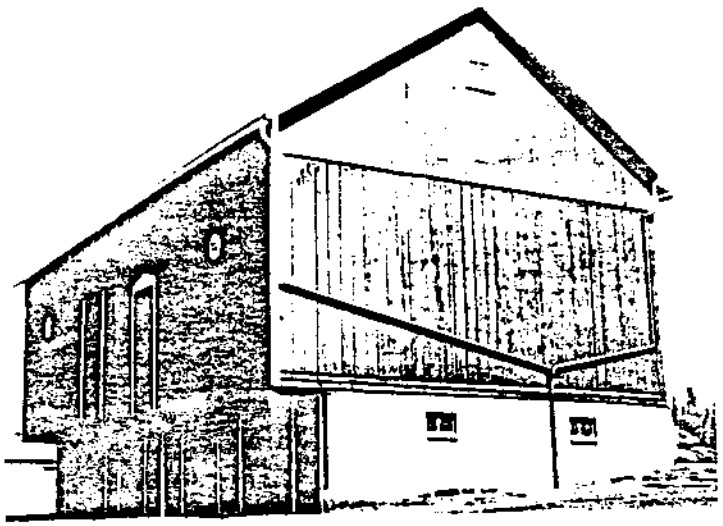


Figure 13

Midwest Three-Portal Barn





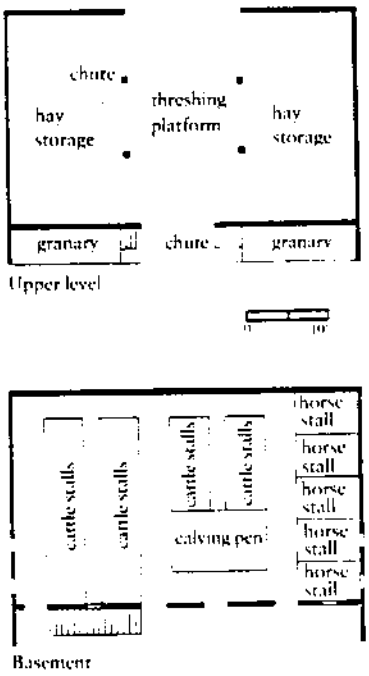


Figure 14

Sweitzer Barn and Floor Plan

DAIRY BARNS

I. Description

Dairy barns as an agricultural property type require greater care in design than any other farm building except the farmhouse. It is not possible to standardize complete dairy barn descriptions because each farm furnishes an individual problem. The items of stalls, mangers, gutters, alleys, and pens pose problems of standardization, however, the following paragraphs present several features found in dairy barns during the pre-1930 period.

In terms of ceiling height, 8½' is the best. Ceilings below 8' afford too little headroom, and interfere with correct lighting. The height is measured from the alley at the rear of the stalls to the under side of the joists.

The best width for the dairy barn is between 32 and 38 feet, providing for two rows of stalls lengthwise of the barn. A width of 34 to 36 feet works out to the best advantage in affording correct widths of alleys and stalls.

The length of the dairy barn depends entirely on the amount of stock to be housed. Barns of 150' or more in length are not uncommon.

Cows in stalls may face the outer wall, with a single cleaning alley in the center, or they may face on a center feeding alley. Cow stalls are of varying widths of from 3'2" to 3'6". An average length of stall platform from curb to gutter is 4'8" as this length will care for the average dairy animal.

The dairy manger should follow the recommended U.S.D.A. standard measurements:

Width (Inches)	Height of Front (Inches)
20	6
24	12
28	18
32	24

The shape of the bottom of the manger is formed by the arc of a circle between the front of the curb and the manger front. The radius of the arc is 18", and is centered at a point 7" in front of the stall frame. Concrete is the recommended material for the manger.

The curb forms the rear of the manger, and serves to hold the stanchions and stall frame. Bolts, plates, or anchors are placed in the curb at the time the concrete is poured, and the equipment is bolted fast later. The curb is 6" high, and 4 to 6" wide.

The gutter is usually 16" wide. On the stall side the depth is 7 to 8 inches, and on the alley side about 4 inches. The bottom of the gutter should be made level crosswise rather than sloping and the litter alley made about 3" lower then the platform.

The feed alley should be from 5 to 6 feet wide if the cows face the center of the barn. In the face-out arrangement the minimum width should be 3'6", and 4' is considered the best width. A center litter alley should be from 6 to 8 feet, and at least 4 feet 6 inches when the stock face the center.

In case a driveway through the barn is desired, 8 feet is the minimum width between gutters or mangers. The best alley widths, in connection with the widths given above for stall, manger, curb, and gutter, can readily be secured in the common widths of 34 to 36 feet for the entire barn.

Concrete is the most desirable material for the dairy barn floor. For the standing platform, wood blocks or cork brick are commonly used. The latter materials are laid on a concrete base (see sketches of typical dairy barn floor plan in Figure 15).

The dairy barn should be located on a pre-1930 farmstead usually about 150 to 200 feet from the farm house and in the direction away from the prevailing summer winds. It should be located on its original site.

During the last quarter of the nineteenth century, the Agricultural Experiment Station at the University of Wisconsin developed a style of barn suited to the dairy industry. It became popular throughout the Midwest and Great Plains and would likely be the style found on dairy farms in Region 6.

Wisconsin Dairy Barn

The combination of lumber-truss construction and the gambrel roof was followed. The Wisconsin dairy barn is normally only about 36' wide, but often a hundred feet or more in length. Because of the narrow width the Wisconsin dairy barn prototype provides excellent interior light, one of its most important advantages. Rows of small windows are designed to maximize light penetration. The interior is arranged to accommodate two rows of stanchions, with horse stalls at one end. The main central aisle runs from gable to gable and a short transverse aisle may connect doors midway on the sides of the structure. Ceiling heights are rarely more than 8 to 9 feet, to conserve the heat generated by the animals in the winter. The Wisconsin dairy barn incorporates a system of ventilator chutes in its interior design in order to provide sufficient ventilation for cooling. Conspicuous roof ventilators are thus usually an exterior feature of Wisconsin dairy barns. The very large loft, created in part by the gambrel roof, provides maximum storage area for the hay and feed requirements of large dairy herds (see Figure 16)

II. Significance

Dairy barns were a significant property type in Management Region 6 prior to 1930 because milk production had reached approximately 2,000 gallons per county by the year 1900. During the next 30 years, milk output increased to over 5 million gallons per county per annum. Dairy barns as a separate farmstead unit became increasingly necessary because of the type of commodity produced in them--milk. Because it was used for human consumption, sanitary requirements of light, ventilation, drainage, and cleanliness became important factors. In most cases, the dairy barn became the second most important building in the farmstead and was kept as clean as the farmhouse kitchen. Another important consideration was convenience and the floor plan of the dairy barn had to be arranged to meet certain specifications if the producer was to market graded milk. The dairy barn was also significant because of the daily demands in the production of milk. Morning and evening the cows had to be milked each day of the year so proper arrangement of equipment was also necessary in order to reduce the amount of labor needed.

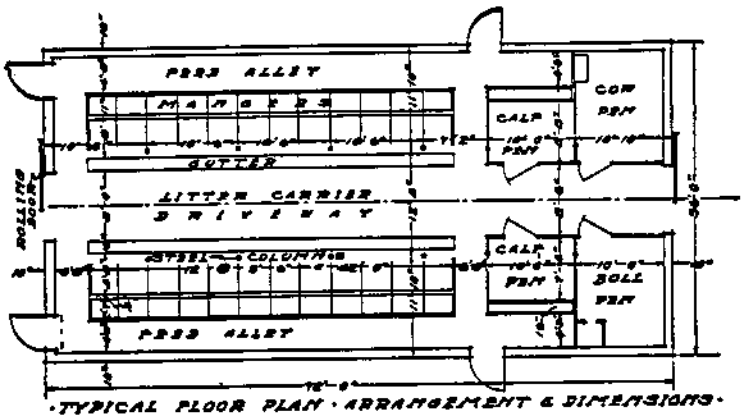
III. Registration Requirements

To be eligible for listing in the National Register of Historic Places, dairy barns should retain integrity of setting, materials, and design. The dairy barn should be located on a pre-1930 farmstead usually about 150 to 200 feet from the farmhouse and in the direction away from the prevailing summer winds. The dairy barn should be placed with the long axis north and south in order to secure direct sunlight on the stalls for as much of the day as possible.

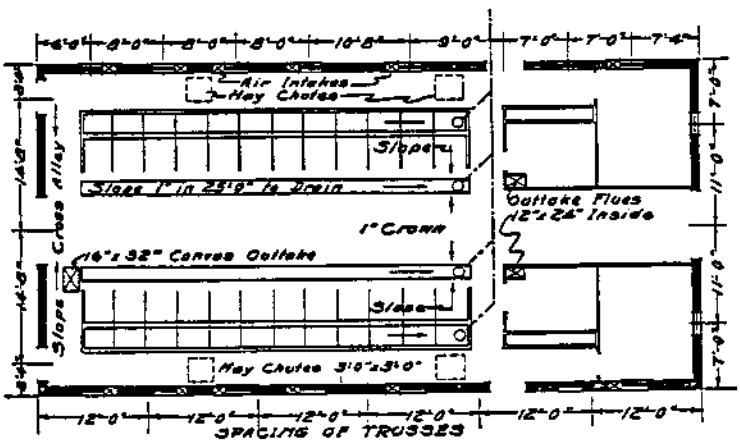
Original construction materials of either wood or stone must be present. Lumber-truss construction and a gambrel roof should be retained to be eligible. The dimensions may vary, but should be approximately 32' X 100' and about 8-10' high. Dairy barns should contain certain exterior features including rows of small windows and several metal cupolas on the gambrel roof ridge to provide ventilation. Roofing materials may have been replaced over time due to weathering, however, the basic roof lines must remain intact.

The dairy barn should not have any additions and be free of new siding or any materials that would affect its historic and architectural integrity.

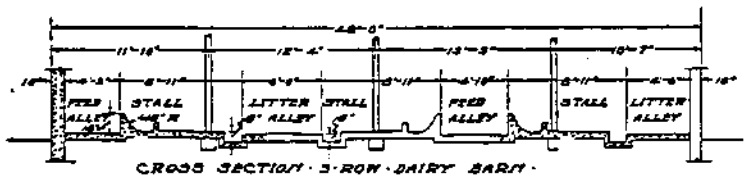
The dairy barn's eligibility should also be based on the fact that it was a working dairy barn on a pre-1930 farmstead and was a building located within a pre-1930 farmstead which was considered a working farm operation.



·TYPICAL FLOOR PLAN · ARRANGEMENT & DIMENSIONS·



·FLOOR PLAN SHOWING LOCATION OF DOOR WINDOWS· ·DRAINS· HAY CHUTES· AND VENTILATING FLUES·



CROSS SECTION · 3-ROW · DAIRY BARN ·

Figure 15
Floor Plan and Cross Section Typical Dairy Barn

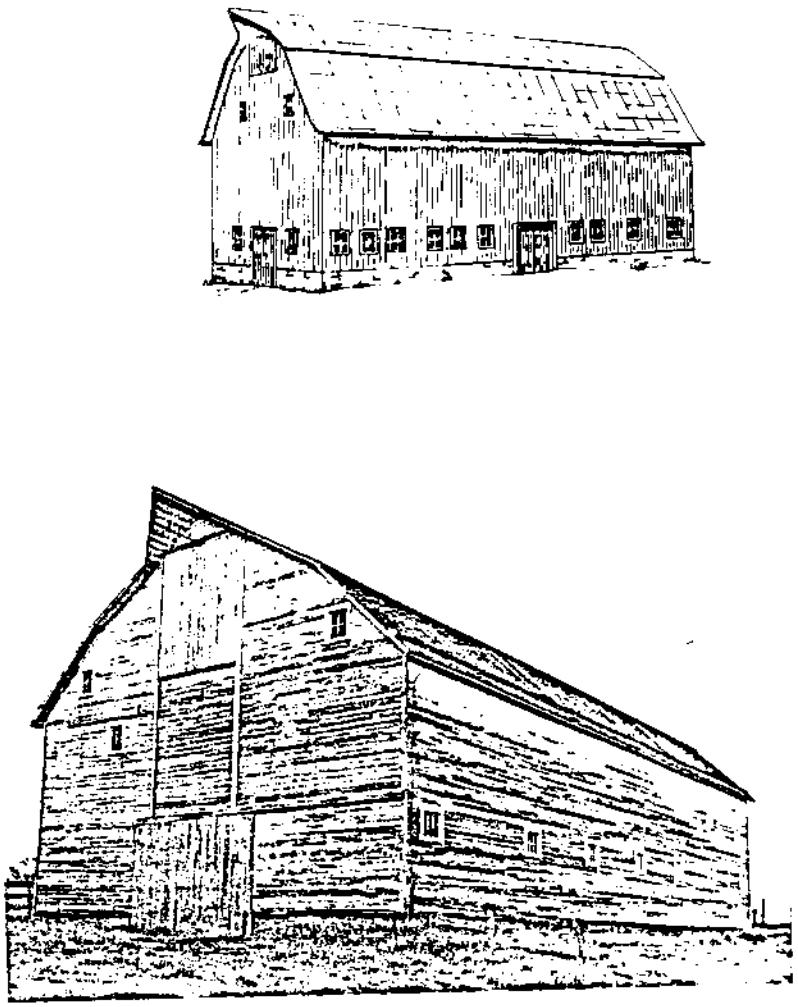


Figure 16
Wisconsin Type Dairy Barn

FARM ANIMAL STRUCTURES

Hog Houses

I. Description

There are two types of hog houses: movable and community. The most common type of movable hog houses are the gable-roof, combination, and A-shaped. The gable-roof hog house has a vertical side wall of about $2\frac{1}{2}'$, and utilizes the full area of the floor. The roof is of two equal pitches. End doors are provided for entrance, and large doors are placed in one slope of the roof, for airing and sunlight. The side walls may be nailed tightly to the studding, or they may be hinged at the top to open outward, to provide shade in the summer. The object of the combination-roof hog house with unequal pitches is to afford more headroom and more direct sunlight when the house is faced to the south. The construction is not essentially different from the gable-roof house. The A-shaped house does not have side walls, but the A-shaped roof is carried to the floor. This simplifies the framing, and reduces the amount of material needed. The angle of the roof with the floor affords a space which protects the little pigs from being crushed by the mother. The sides may be hinged at the side or top, forming doors. The door hinged at the top provides shade, while the doors hinged at the side permit better airing and direct sunlight.

Construction of the movable house types is practically the same. The size found most satisfactory is 6' x 8'. The runners or the sills of the house should be made of 4" x 4" fir, cypress, or other moisture-resistant wood, beveled at the ends for easy moving. For the floor 2" x 12" lumber is necessary, the planks being nailed directly to the runners. Framing is entirely of 2" x 4" material, usually yellow pine. One thickness of covering of 8" or 10" shiplap is all usually needed.

There are several types of community hog houses which are categorized by roof type: shed roof, combination-roof, monitor, half-monitor, gambrel, and gable roof. The shed roof type is usually a one-row house, 12 to 14 feet wide. The roof consists of a single pitch, and the windows are in the front wall. The rear wall is about 5' high, and the front wall is 6 to 9 feet in height. It is used for the one-row or small two-row house. The monitor roof house is set north and south and has no windows in the roof. The monitor or center portion is made higher, and a row of windows placed on each side of the monitor, for the purpose of getting direct sunlight. The half-monitor roof house is popular as a south-front house. The side walls are 4 to 5 feet high, and the total height of the house is 12 to 14 feet. There are two rows of windows, one row in the upper and one row in the lower south wall. The gambrel roof with two slopes on each side affords good lighting arrangements. There are four rows of windows in the roof, providing light in the pens throughout the day. The gable-roof house has three variations: Iowa Sunlit, the Nebraska, and the Dakota. The Iowa Sunlit is set with the long axis north and south, a continuous row of windows being placed in each slope. The Nebraska house is set north and south, but the walls are made 6 to 7 feet high, with all windows in the side walls. The roof is made at a half pitch, and feed and bedding storage is provided in a loft. The Dakota type has the long axis to the east and west, and has two rows of windows in the south slope. The doors may be omitted from the north wall, and the wall banked for warmth (see accompanying sketches of movable and community hog house types in Figure 17).

Poultry Houses

The two types of poultry houses in common use are the colony, or small house, and the community, or permanent house. The colony houses are usually built on sills, which serve as runners so the house can be moved. Four by four-inch wood sills are commonly used in the construction, together with 1" flooring, 2" x 4" framing, and tight boards for the covering. Two types of roofs are used for the colony house. The shed-roof house is 5' high at the rear and 7' high in front with a door and window in the south side. A size of 6' x 8' is standard for the shed-roof house. The gable-roof house, usually 6' x 8', has side walls 5' high with a door and window in the end.

The community poultry house may be classified by roof type: shed, gable, combination, or half-monitor. The shed-roof house is usually 14 feet wide. The roof is a single slope, and the house should face south. The north wall is made 5' high, and the front is about 8' high. The walls may be either of hollow tile or frame. This type house is frequently built with an open front. The gable-roof house has two-slopes, low walls, and a steep-pitch roof. The windows are placed in the gable ends. The combination roof house has a short rafter in the south slope, giving more headroom than the shed type. The south wall will accommodate full-size windows, and the doors are placed in the ends. The half-monitor, or "sawtooth" house has a front wall covered with screened openings, and adjustable windows in the monitor, or center of the house. The front part provides a scratching shed 8 or more feet wide, and the usual width of 10 feet is available for equipment (see Figure 18).

Feeding Barns for Beef Cattle and Sheep

Although there are various shapes and kinds of structures used for feeding livestock, the common ones may be classed as either open-shed barn, monitor barns, or closed barns. The open-shed barn may be a single shed, closed on three sides, and open to the south, or it may be L- or U-shaped, open on the yard. One-story sheds with one slope, gable, or combination roof are economical. Two-story shed barns are open along one side, but there is a loft for hay storage. Shed barns are often connected in the form of an L to the general purpose barn.

The monitor barn consists of a main part, 16 to 24 feet wide, for hay storage, and the hay space extends to the ground. On two or three sides of the barn are sheds for the stock, each 14 to 20 feet wide. Hay is fed into racks from the loft, and wide doors are provided at the ends of each shed.

The two-story closed barn harmonizes well with the other barns on a farmstead, affords ample hay storage overhead, and can be built with a self-supporting roof. The hay can be fed through chutes. The feed alley is usually built higher than the pen floors (see attached sketches for beef and sheep barns in Figure 19).

Farm animal structures should be located on a pre-1930 farmstead and must stand on their original sites. Hog houses should be located on a site fartherest away from the farmhouse, poultry houses should be located closer to the farmhouse than other farm buildings, and sheep and beef cattle barns should be located near silos, cribs, or main barn.

II. Significance

Farm animal structures were significant resources in management Region 6 because all seven counties were raising cattle, sheep, swine, and poultry by 1900. The number of swine in 1900 ranged from 17,178 in Canadian County to 50,440 in Lincoln County. Beef cattle in each of the seven counties numbered from 20,000-30,000 in 1900. Poultry figures indicate a range of 85,293 in Cleveland County to 200,174 in Lincoln County. Finally, sheep production ranged from 166 in Kingfisher County to almost 3,000 in Lincoln. By 1930 swine numbered more than 10,000 in each county, sheep production had increased in all seven counties, beef cattle numbered more than 20,000 in each county, and poultry had reached to over 150,000 in each county. Proper housing for farm animals resulted in a more sanitary farmstead and a more healthful place for the animals. Fewer losses resulted from disease and more animals per herd or flock were raised. Better housing also helped in reducing labor. Furthermore, it was essential that livestock be handled in good quarters if the farmer was interested in development of pure-bred breeding.

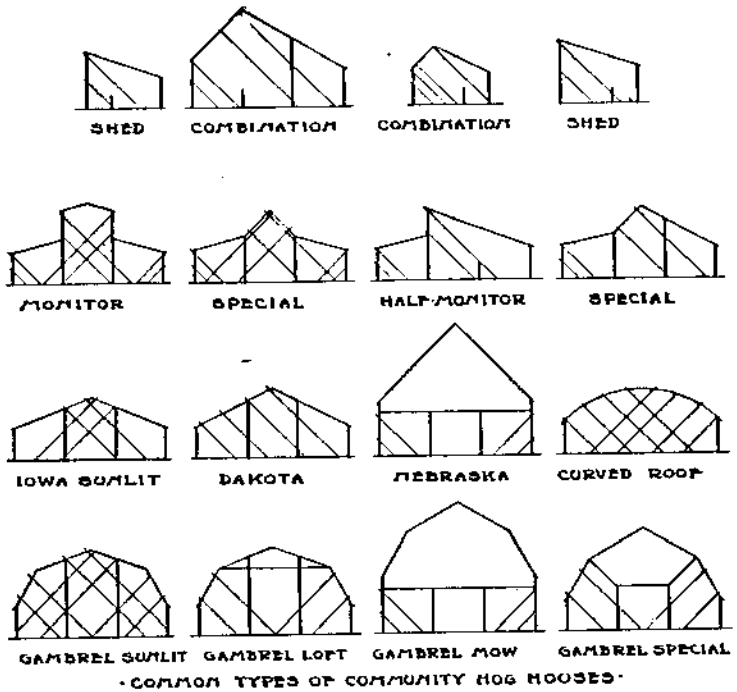
III. Registration Requirements

To be eligible for listing in the National Register of Historic Places, farm animal buildings should retain integrity of setting, materials, and design.

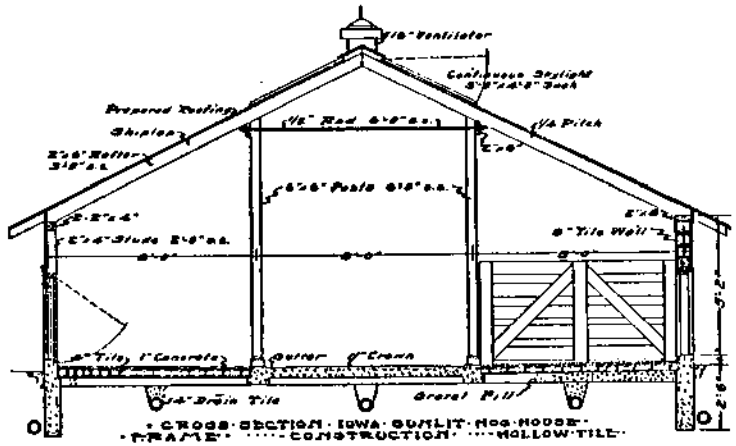
Hog houses should be located on a pre-1930 farmstead fartherest away from the farmhouse. They should be located on a working farm and should have been used to provide shelter for hogs and their litters. Hog houses should follow one of the basic designs that were in use prior to 1930. These included shed, monitor, half-monitor, gambrel, or gable. Walls of the hog house must include original construction materials of either frame or concrete. Roof framing should consist of 2 X 4 or 2 X 6 material. The design style should be either community or portable, although the latter may have been removed from its original site.

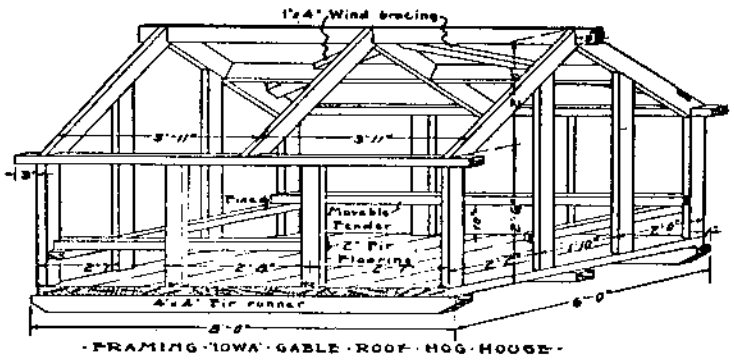
The poultry house should be placed with the long axis east and west, and may be located closer to the farmhouse than other buildings. It must be located on a pre-1930 farmstead and should have been used to house laying hens on a working farm prior to 1930. Construction materials should be timber frame, however, hollow tile walls were also in use prior to 1930. The design should follow either the colony or community style, both were common during the pre-1930 period. Colony type houses should possess a shed roof, whereas the community style houses may be either shed, gable, or half-monitor. Windows should be placed in the south wall of the poultry house to furnish sunlight.

Sheep and beef cattle barns should be located on a pre-1930 farmstead and should be placed near silos, cribs, or main barn. They should stand on their original construction sites and should have been used for housing and feeding sheep and beef cattle on a working farm operation prior to 1930. These barns should contain original construction materials, either wood or stone, and should follow one of the pre-1930 designs--open-shed, monitor, or closed. The open-shed barn should be a single-shed either closed on three sides and open to the south, or L-or U- shaped open to a yard. The monitor style should be 16 to 24 feet wide with sheds 14-20 feet wide on either side. The closed barn should be two stories with the second floor used for hay storage.

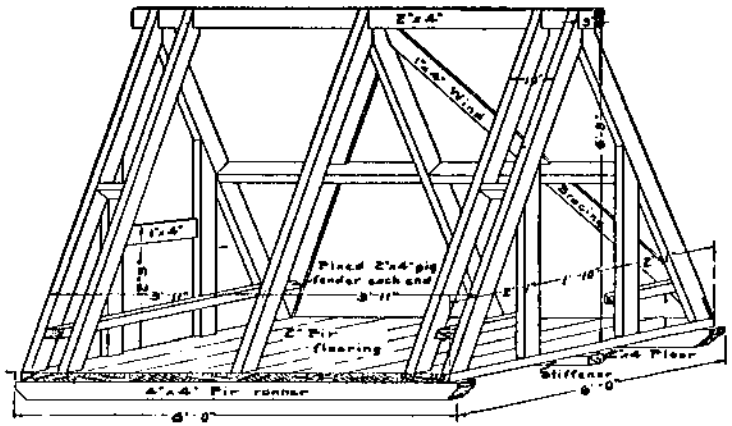


·COMMON TYPES OF COMMUNITY HOG HOUSES·





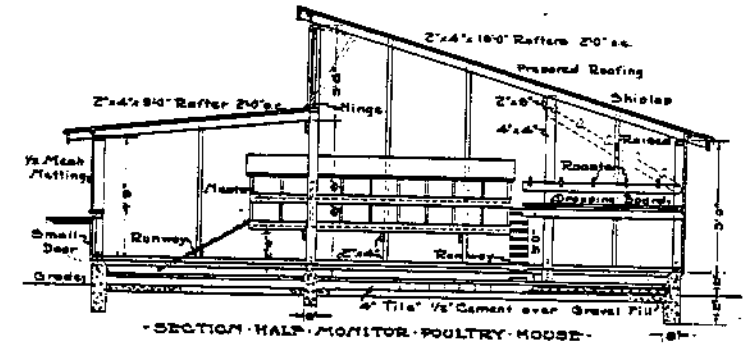
·FRAMING·IOWA·GABLE·ROOF·HOG·HOUSE·



·FRAMING A SHAPE·HOG·HOUSE·

Types of Hog Houses

Figure 17



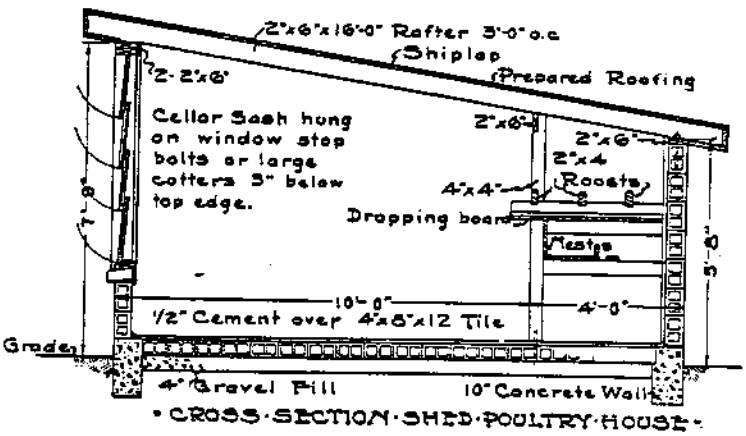
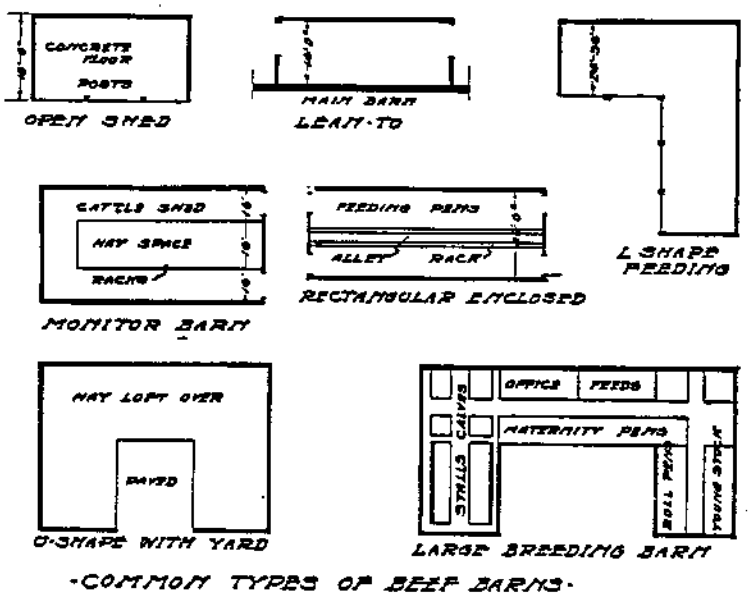
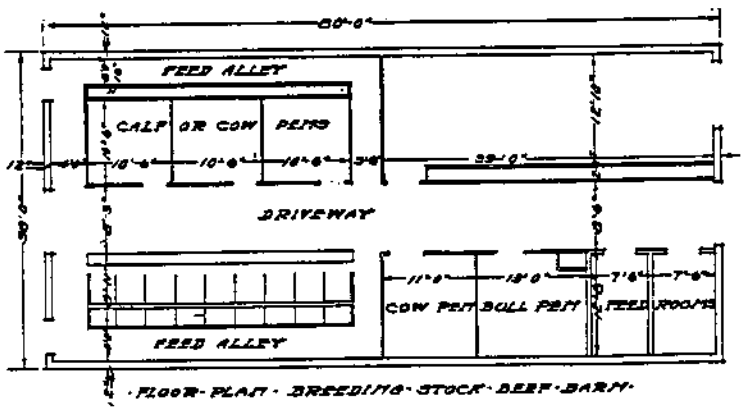


Figure 18

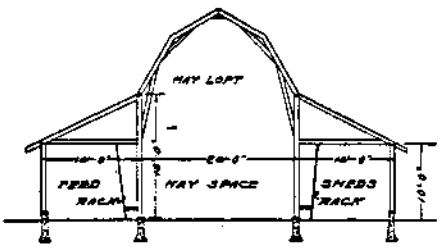
Types of Poultry Houses



·COMMON TYPES OF BEEF BARNS·



·FLOOR PLAN · BREEDING STOCK · BEEF · BARN·



·MONITOR FEEDING BARN·

Figure 19
Beef and Sheep Barns

GRANARIES AND CRIBS

I. Description

Grain was a principal crop on a large number of farms in Region 6 prior to 1930. The market value of grains made it essential that care be taken to preserve and market the crop in the best condition. Lack of proper structures to house grain resulted in losses due to weather condition, rodents, and fluctuating prices. Moreover, a good grain storage facility made it possible to hold the crop for favorable prices.

The three types of storage buildings for grain are the corn crib, granary, and combined crib and granary, or farm elevator. If corn is the only product to be stored, the separate crib for ear corn, with possibly a tight bin for shelled corn is all that is required. The separate granary is used for small grains. The building is tightly constructed with strong walls and heavy floors. All granary designs should be figured for wheat storage as it is the heaviest grain.

The width of the corn crib is determined by the condition of the corn when cribbed. In most sections of the country, the corn is cribbed before it is fully dry. To prevent spoiling and allow for thorough drying, the width should be between 8 and 9 feet. Double cribs have a driveway 10 to 14 feet wide. Grain bins should not be more than 10 feet wide for convenience. The double crib and granary will be from 20 to 30 feet wide. A length of 36 feet will accommodate the grain on most farms. Ten feet is about the maximum height of bin or crib for hand shoveling. With elevating machinery, the height may be made as desired. The best height is from 16 to 20 feet from foundation to eaves. The capacity of the building is determined by the yields, acreage, kind of grain, and type of farming. The total yield should be calculated, and the grain storage designed to hold the crop.

The most common shape for the combined crib and granary is square or rectangular. Frame construction is easiest to handle in the rectangular building. Hollow tile and concrete were especially adapted to round buildings, and for this reason the round crib and granary have been used.

Individual granaries are characterized by a lack of windows and its elevation on several short piers of wood, stone, or cement block. Both of these features are to make the structure as animal proof as possible and to raise the structure above the damp ground. The interior of the granary was usually divided into a series of bins or compartments for ease of grain holding and to permit storage of more than one grain (see Figure 20).

Individual corn cribs were constructed of logs, timber frame, masonry, or metal. One of the functions of the corn crib was to permit the slow drying of the corn in order to reduce losses from mold and mildew. To accomplish this, the crib must possess certain basic design features, which can be used to identify the structure. First, the walls must contain a high proportion of open area, usually attained by use of widely spaced, narrow slats. Second, the structure must be narrow in order to ensure adequate circulation of air. Widths ranged from 6 to 10 feet in the Great Plains. The earliest corncribs used unhewn or split logs of small diameter, usually laid up with saddle notching. The bottommost logs were placed on log or stone piers. Although many often were left open, the best cribs had wood-shingle, gable roofs. At a second stage of development, in order to provide the maximum weather

protection and, at the same time, to assist in gravity unloading, the sides were constructed to slant outward toward the top, giving the crib a coffinlike gable profile (see attached photo in Figure 21). The largest opening is usually a man-size door in the gable wall. A final diagnostic element of the early corncrib design was the use of an overhanging skirt of lumber or metal, about a foot or two above the ground. This was a device to reduce as far as possible the depredations of rats, mice, and other small animals.

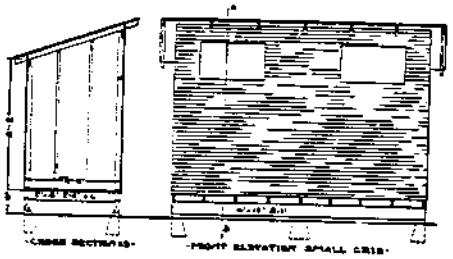
Granaries and cribs should be located on a pre-1930 farmstead in a rural setting and should stand on their original construction sites. They should be located near the feeding barns, hog house, and poultry house in the farmstead plan. They should be located so that a wagon may be driven through it, or pass alongside.

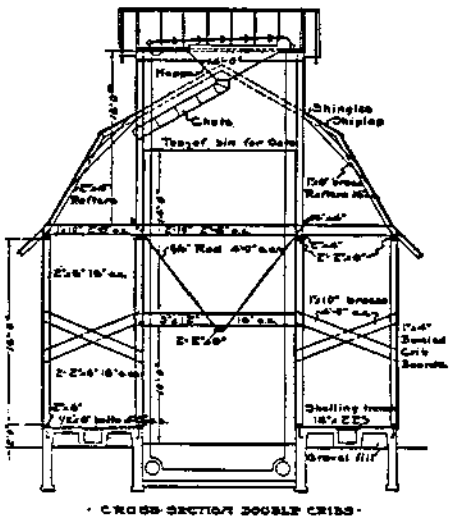
II. Significance

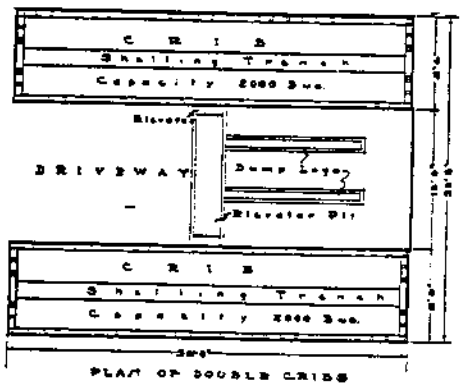
Granaries and cribs as agricultural structures were an important class of resources because corn, wheat, and oats were principal crops raised on farms in Region 6 before 1930. By 1930 two counties (Kingfisher and Canadian) produced more than 1 million bushels of wheat each year and Canadian County produced more than 1 million bushels of corn. The market value of these crops made it imperative to preserve and market them in the best condition. Lack of storage facilities resulted in losses due to weather conditions, rodents, and fluctuating prices.

III. Registration Requirements

To be eligible for listing in the National Register of Historic Places, granaries and cribs should be located on a pre-1930 farmstead near the feeding barns, hog house, and poultry house. The buildings should be located so that a wagon may be driven through it, or pass alongside. Granaries and cribs should be located on a working farm of the pre-1930 period and they should stand on their original sites. Original construction materials must remain intact. Either timber frame construction for square or rectangular plans, or hollow tile for round plans, must be present to be eligible. Dimensions should be approximately 8-9 feet wide, 36-40 feet long, and 10 feet high. Corn cribs must possess certain design features to be eligible including widely spaced, narrow slats or sides; narrow in width in order to enhance air circulation; and an overhanging skirt of metal or lumber to protect against rodents.







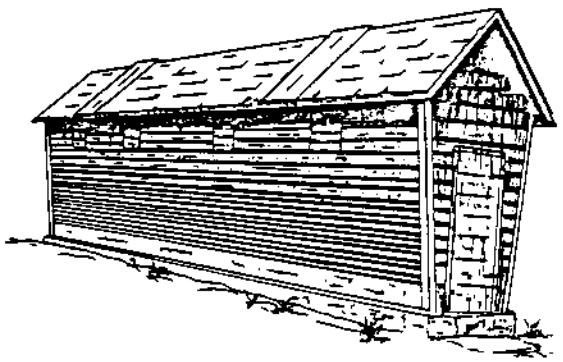


Figure 20

Single and Double Corn Cribs

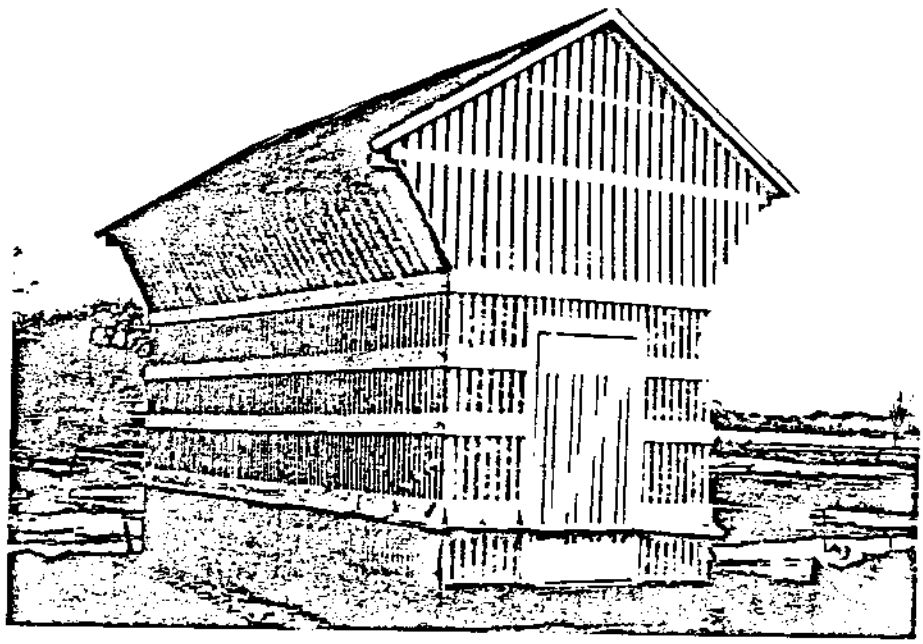


Figure 21

Corn Crib of Unusual Design

IMPLEMENT AND MACHINE SHEDS

I. Description

Farm equipment storage facilities were necessary on the farms in Region 6 in the 1920s. The necessary qualifications for machinery sheds were to give protection, afford convenience in storage, and provide plenty of space. To meet the requirements of protection, the machine shed should be tightly enclosed on all sides and have a tight roof. Continuous doors along one side are preferable to the open shed. Windows at intervals will supply light by which to work. A concrete or plank floor is desirable as an added protection. In terms of convenience, correct width, proper location of doors, and large openings are needed. The grouping of machinery according to seasonal use is recommended. Sufficient space dictates taking an inventory of machines, and measurements made to determine the size of the building. A sample inventory of the 1920s is shown in Figure 22. An even width between 18 and 30 feet is customary. The length should be made in units of 10 or 12 feet for best results in storing. Ten feet is the maximum height to accommodate the usual farm machines.

The open-shed building afforded a cheap protection from rain and snow, but was not as desirable as the closed type. The shed was open to the east for best results. The closed building with doors along one side afforded full protection, and was recommended as the best. Two-story buildings had loft space for small machines and tools.

Frame construction was most commonly used. Hollow tile or cement products may be used in the wall construction as in any other building.

The roof shape is usually of the shed, gable, gambrel, or combination type. The combination roof has two unequal slopes with the object of securing greater headroom with the least material.

In terms of construction, the frame walls are made of 1" siding or boarding on 2" x 6" studding spaced 2' apart, with nailing strips and braces between. The walls should be carried to a height of 10' to the plate. The roof frame must be cross braced and trussed for strength. The kind of framing will depend on the width.

The floor may be of plank or concrete. Doors should be strongly built, and set on a good type of track and rollers. For the continuous door it is possible to secure a parallel track outfit which makes it possible to open up any part of the building (see attached sketches of implement shed in Figure 23).

Implement and machine sheds should be located on a pre-1930 farmstead and should stand on their original construction sites.

II. Significance

Implement and machine sheds were significant structures in Management Region 6 in the pre-1930 era because farm machines needed care and housing. When farm equipment was simple in construction and low in cost, the loss was not serious and a small space in the barn or crib was sufficient to house the more important implements. However, by the 1920s, farm machinery was becoming

expensive and the equipment lost value rapidly when constantly exposed to the weather. U.S.D.A. reports in 1922 placed the annual loss, in depreciation due to lack of shelter, at more than 100 million dollars. The value of shelter for machinery was estimated at increasing the life of farm implements by five years or more, a savings which paid for the cost of shelter in a short time. Sheltered machinery, therefore, proved to last longer, retained better appearance, and was more efficient than neglected equipment. The necessary qualifications for machine and implement sheds were that they provided protection, afforded convenience in storage, and allowed for plenty of space.

III. Registration Requirements

To be eligible for listing in the National Register of Historic Places, implement and machine sheds should retain integrity in setting, design, and materials. The machine and implement sheds should be easily accessible from the fields and horse barn. A location on the lane or drive to the fields is desirable. The shed must be located on a pre-1930 farmstead and must have been used to store farm implements and machinery prior to 1930. To be eligible, the shed must be located on its original site.

Construction should consist of original timber frame materials with no major additions or alterations. It should be free of any synthetic siding or other materials which would detract from its architectural integrity. Original roofing materials may have been replaced with corrugated metal, however, the original roof lines should remain intact.

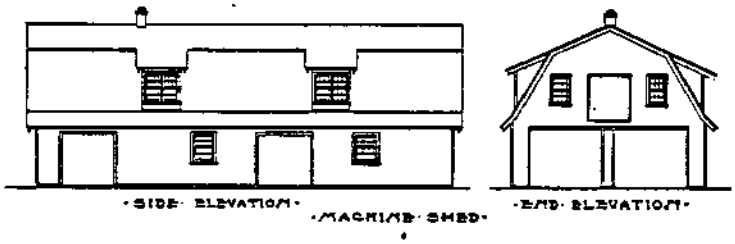
The design of the machine shed should be about 18 to 30 feet wide, length should be in units of 10 or 12 feet, and height should be 10 feet. The roof shape should either be shed, gable, or gambrel, all were used in the pre-1930 period. Interior space should be arranged with the idea of storing machinery by groups according to seasonal usage. Doors should be located on each side of building in order that wagons, spreaders, and tractors may be driven in and out of the shelter without hand labor.

To be eligible, the machine and implement shed must be associated with a farming operation that existed prior to 1930.

Implement	Width	Length
Walking plow	2′	7′
Gang plow	5′	9′
Engine plow, 4 gang	7′ 6″	12′
Harrow, per section	1′ 6″	5′
Disk harrow	8′	4′
Land roller	8′	3′
Grain drill, 8 hoe	5′	10′ 6″
Corn planter	6′	5′
1-row cultivator	5′	7′
2-row cultivator	7′ 6″	7′
Sulky rake	5′	11′
Side delivery rake	10′ 6″	12′
Sweep rake	10′	12′
Hay loader	9′	10′ 6″ 10′ high
Mower	6′	6′
Binder, 7′ cut	9′	14′
Silage cutter	7′	12′
26-inch thresher	8′	26′
Wagon	7′	14′
Buggy	6′	9′
Tractor	7′	12′
Automobile		12′

Inventory of Machines
ca. 1925

Figure 22



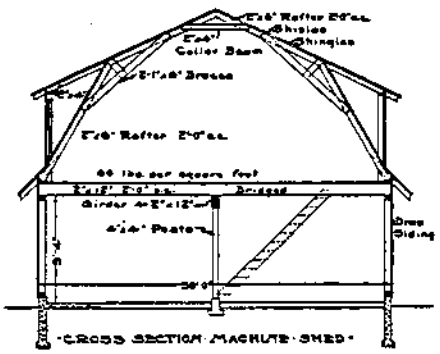


Figure 23

Machine Shed Construction

SILOS

I. Description

The silo as a property type is one of the most important buildings on the farm for the preservation of green forage. Construction materials are of either wood or masonry. There are five types of wood silos: (1) wood-stave, (2) panel, (3) triple-wall, (4) wood-hoop, and (5) creosoted-stave. Masonry silo types include: (1) brick, (2) hollow tile, and (3) concrete. Concrete silos may be concrete block, cement staves, or monolithic concrete.

The most common wood silo is the wood-stave type. The staves are made from a high grade of cypress, white pine, redwood, fir, or hemlock. The size of the stave is about 2" x 6", and each one is beveled to fit the curve of the silo, and tongued and grooved to give a tight fit. Bracing by means of stay wires is necessary to prevent the silo from blowing down.

The panel silo consists of ribs or uprights set 20-24" apart, and matched boards set horizontally between the ribs. Steel hoops are placed around the silo and hold the boards in place. This silo is not round, but is in the form of a many-sided polygon, each panel being straight.

The triple wall silo is the ordinary stave type with a layer of insulating material over the staves, and a thin drop siding bent to form, and nailed over the outside. The siding serves as hooping, and protects the staves.

The wood-hoop silo is made by building large wooden hoops, from four to five thicknesses of thin wood, bent to the circle. They are spaced 24 to 30 inches apart, and matched flooring is placed inside and outside the hoops. This affords a double wall with dead air space.

The creosoted-stave silo is the wood stave type treated with creosote preservative to lengthen the life of the wood. The three methods of creosoting are painting, dipping, and immersing under pressure. The latter method is preferable as the creosote is forced into the pores of the wood.

The brick silo is the most common of the masonry group. Paving brick are used in the construction of the brick silo. The chief difficulty is to secure proper horizontal reinforcing in a 4-inch wall, with a narrow mortar joint. A flat bar, crimped on the inner edge to form a curve, is used. The bar is about 1/8" x 1 1/2" in size, and bonds well into the joint. The wall should be laid up carefully as it is not porous. The interior is plastered with a cement mortar to insure a smooth, tight wall.

The use of hollow tile or clay blocks was first used in 1908. The blocks used are 4" to 6" thick. One or more air spaces are formed in the block. Some blocks have special grooves to receive the reinforcing. The silo blocks are curved to the form of the silo wall. The reinforcing consists of heavy steel wire embedded in the mortar joints. Reinforced concrete jambs are used, and these are tied across at intervals, to prevent spreading. The continuous door is used. The mortar joints should be pointed both on the inside and outside wall as a precaution against leakage. Since the vertical joints are the weakest part of a tile silo, care must be taken to fill the joint and secure a good bond. As an additional safeguard the silo should be given a

wash of pure cement and water inside to fill the pores. Either the conical or gambrel roof may be used (see Figure 24).

For the concrete block silo, any number of patented blocks may be used for construction. Some are curved, and have imitation rock faces. Others are made in various forms, and named from the form. Reinforcing is either embedded in the block or placed in the mortar joint. Stucco is sometimes applied to the surface for appearance and to fill up the pores. A pure cement wash is applied to the interior.

The cement-stave silo was first used in 1904. The Playford cement stave is book-shaped, 2½" thick, 10" wide, and 28" long. The Interlocking patent has an interlocking end joint. The Caldwell block has an end step joint and reinforcing in the block. The Perfection block has a hollow side joint which is filled with mortar. The staves are set with the end joints broken, or interlocked, and the silo staves bound with steel hoops, similar to the wood staves. In medium or large silos, it is advisable to place a hoop at the middle and end of the stave, or about 15" apart. This requires special door spreaders for the hoops. The hoops are 9/16 to 5/8 inch in diameter, and threaded at the ends. After the silo is erected, the hoops are tightened, and the interior given a cement wash.

Monolithic concrete silos are of solid concrete. Standard forms are used, and the entire work is done on the building site. The walls are usually built of a rich mixture of concrete in the proportion of 1:2:4. It should be well spaded to give a smooth wall, and prevent the aggregates from separating. The reinforcing is embedded in the wall (see Figure 25).

The solid concrete foundation is the most common of all silo types. It should be made 10" wide, and extend from below the frost line to a point several inches above grade. A 1:2:4 wet mixture of concrete should be used. The trench should be laid out to the diameter of the silo. The foundation should be 3½ to 4 feet deep.

Doors for the silo may be of the individual or continuous type. The individual doors are spaced at intervals of about 4 feet on centers, each door set in a separate frame. The continuous door has sides, or jambs of masonry or steel, and cross-ties prevent the jambs from spreading, the ties serving as a ladder in many silos.

Chutes are used to cover the doors, and afford a means of throwing down silage without trouble from the wind. Chutes may be of wood, metal, or concrete.

Roof types of silos vary and in many localities no roof is used. The two roof types commonly found are the low conical and the round gambrel, sometimes known locally as the "hip" roof. The conical roof may be made of wood, concrete, or metal. The wood roof is of ordinary frame construction, using 2" x 4" rafters, sheathing, and shingles. The gambrel roof is made of frame construction. The metal roof is a commercial product. Concrete roofs must be reinforced and supported until concrete has set.

During the pre-1930 period, silos ranged in diameter from 10-20 feet and were 28 to 40 feet high.

Silos should be located on a pre-1930 farmstead near the dairy barn or beef-feeding structure. They should be located on their original construction site.

II. Significance

Silos played an important role in the agricultural history of Management Region 6 because they allowed farmers to preserve green forage. The silo afforded an economical storage, preserved the corn or forage crop in a succulent, palatable condition, and utilized the crop completely as a feed. A silo must possess several features essential to insure good, sweet silage.

Essential features include strong, smooth, and tight walls. Walls should be made sufficiently strong, by reinforcement, to resist the bursting pressure of the silage. During settlement of silage, the silage slides down the wall. Projections or rough joints hinder free and easy settlement, and air pockets are formed, which causes spoilage. Silo walls must be air and water tight--retention of moisture inside the silo and exclusion of air.

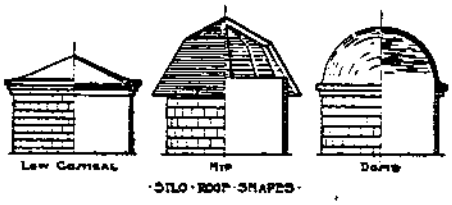
III. Registration Requirements

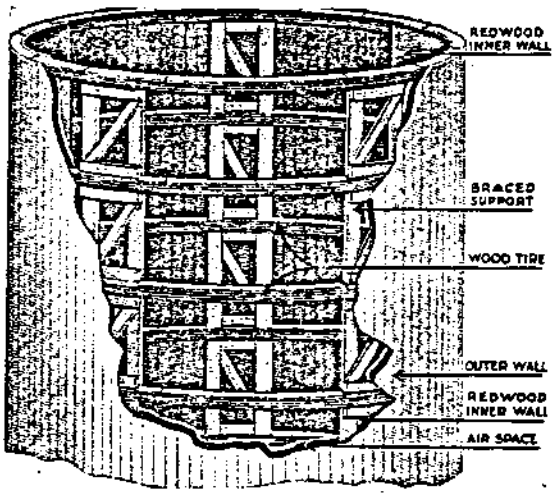
To be eligible for listing in the National Register of Historic Places, silos should retain integrity of setting, materials, and design. The silo should be located on a pre-1930 farmstead near the dairy barn or beef-feeding structure. It must stand on the original site of construction and should have been used to store silage.

Original construction materials must be present. The wood-stave type should be constructed of cypress, white pine, fir, or hemlock. The size of the stave should be approximately 2" X 6", and each one should be beveled to fit the curve of the silo, and should be tongued and grooved to give a tight fit. The panel silo should consist of wood ribs or uprights set 20-24" apart with matched boards set horizontally between the boards. Steel hoops should be placed around the silo to hold boards in place. The wood- hoop silo should be made of large wooden hoops, from 4-5 thicknesses of wood, bent to the circle and spaced 24-30" apart. The brick silo materials should include paving brick walls, usually 4" thick, with a narrow mortar joint. It should also contain a flat bar, crimped on the inner edge, to form a curve. The bar should be 1/8" X 1½" in size and bonded into the joint. The interior should be plastered with a cement mortar. The hollow tile or clay block silo should consist of blocks approximately 4-6" thick. Reinforcing should consist of heavy steel wire embedded in the mortar joints. The mortar joints should be pointed on both the inside and outside walls.

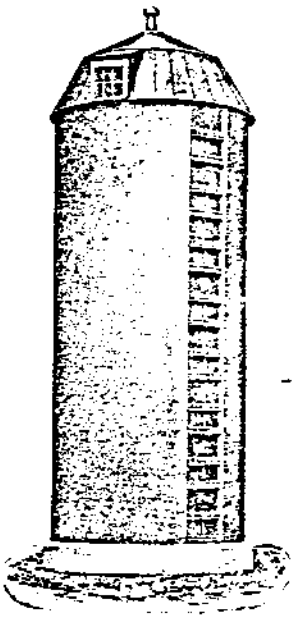
In terms of design, silos should range in diameter from 10-20 feet and 28-40 feet high. Roof types should be either low conical or round gambrel, both were common in the pre-1930 period. The conical roof should be constructed of wood, concrete, or metal. The wood roof should be made of frame construction, using 2" X 4" rafters.

The silo to be considered for eligibility must be associated with a farming operation in Region 6 prior to 1930.

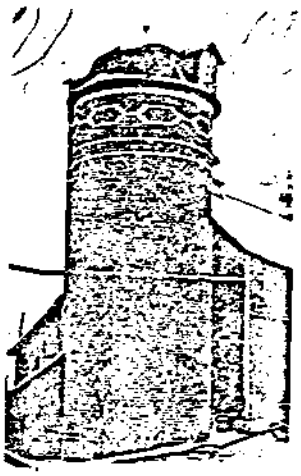




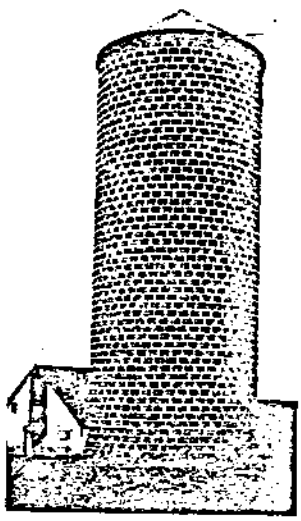
Wood Hoop Silo Construction



Wood Hoop Silo

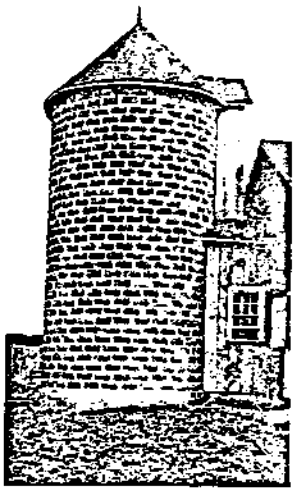


Brick Silo

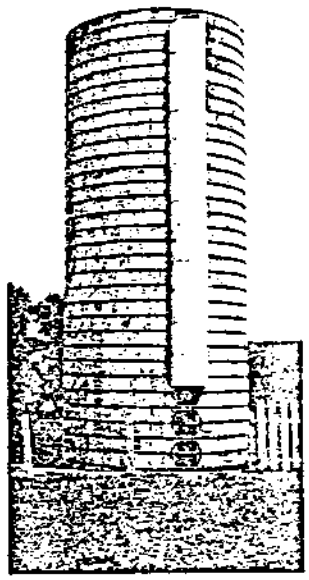


Hollow Clay Silo

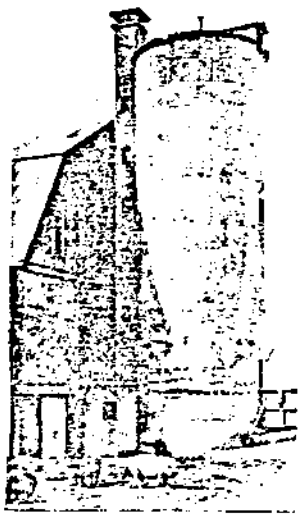
Figure 24



Concrete Block Silo



Concrete Stave Silo



Monolithic Concrete Silo

Figure 25

WELLS AND WINDMILLS

I. Description

Farmsteads in Region 6 prior to 1930 depended upon wells for their water supply. In the simplest instances, the water is raised from a dug well covered by a well-head structure, which may be round or square, about 3 feet high to prevent accidental entry, but low enough so as not to hinder water drawing, and covered usually by a gable roof raised up on wooden pillars. In other wells, water is lifted by mechanical pumps usually placed on a simple, square wooden platform. The labor involved in operating the pump to lift water was so considerable that the power of the wind was frequently harnessed to serve as the driving force. Windmills became the most conspicuous farm structures, especially in the Great Plains. Derived from the European wind-driven gristmills, the American windmill used to lift water was invented in the middle of the nineteenth century in Connecticut.

Rapidly adapted by farmers in the Great Plains to lift water, for livestock especially, they also were later used to generate electricity. The standard farm windmill consisted of a light, but strong, steel frame of four sloping legs, braced at intervals. A steel ladder provided access to the blade and rudder mechanism which required periodic maintenance, repair, and especially lubrication. Unlike traditional European windmills, which had enormous paddle blades, the American windmill possessed a series of curved steel blades set in a rosette pattern. The advantage which the American windmill had over European counterparts was that only the blades and rudder rotated and these were designed to automatically follow any wind shifts. Thus, the windmill worked constantly no matter what the wind's direction.

Windmills should be located over a deep water well usually near a pre-1930 farmstead, or in a livestock field on a working farm operation of the 1889-1930 period. It should stand on its original site. The windmill should be associated with a pre-1930 farming operation and should be located on its original site.

II. Significance

Windmills were significant historic resources in Management Region 6 because farmers used it to modify the physical environment of the land. With little surface water available, windmills furnished the power for tapping the ground water of the region which was used for several purposes pertinent to agriculture. They furnished water for the boilers of the first railroads into the region which were needed to bring agricultural equipment and supplies as well as to ship agricultural produce to distant markets. They made it possible for farmers to wean their livestock from their close proximity to the region's few streams and push the livestock onto otherwise dry upland pasture. Finally, they provided farm families with the vital liquid of life.

III. Registration Requirements

To be eligible for listing in the National Register of Historic Places, windmills should retain integrity of setting, materials, and design. The windmill should be located over a deep water well usually near pre-1930 farmstead, or in a livestock field, dependent upon its primary function. The materials should be either wood or steel. During the first two decades of

American windmill manufacture (1870-1890), all mills were wooden. By the 1890s, the production of steel had become less expensive to allow its use in increasing numbers. However, wood windmills continued in production until the 1940s and Oklahoma was one of the last strongholds of wooden mills because farmers believed they were more durable, easier to repair, and pumped more water than their steel competitors. In terms of design, there were more than 100 different types of windmills (wooden and steel) marketed prior to 1930. A Field Guide to American Windmills by Baker (see Bibliography) should be consulted for specific design details. A common farm windmill should consist of several features: strong steel or wood frame of four sloping legs, braced at intervals; a wood or steel ladder providing access to the blade and rudder mechanism, and a series of curved blades set in a rosette pattern.

The windmill should be associated with a pre-1930 farming operation and should be located on its original site.

FARMSTEADS

I. Description

The farmstead is defined as the individual locations of buildings, arrangement of buildings in relation to one another, and the location of driveways, trees, and other features which comprise the total picture. There were two types of farmsteads in use prior to 1930: concentrated and distributed.

The concentrated group includes all of the buildings under one roof, or all of the buildings connected, that is the structures are connected to form a sheltered yard or court. The advantage of this type is in economy of construction and the convenience of handling the work. The disadvantages are that fire risk is great, animal odors are objectionable in the house, and the yard space for stock is restricted. Few farmsteads of the concentrated type were used in Oklahoma prior to 1930.

The distributed system of farmstead was the type most commonly found in Oklahoma prior to 1930. The buildings are far enough apart to avoid stable odors in the house, fire risk is decreased, and better sanitary conditions exist. The buildings should, however, be located closely enough together to reduce to a minimum the labor required.

The best farmsteads usually arrange the out-buildings around a rectangle, somewhat to the rear of the house, and on one side. The house is the most prominent building with the main barn next in importance. The object in the grouping is to plan the buildings in such a manner that all may be entered without passing through gates. The feed lots should be located to the rear of the barns and away from the house.

Aside from the main grouping of buildings, others should be located near each other according to their uses. The tool shed, machine shelter, and garage should be near each other because of similarity of uses. The corn crib, hog house, and cattle-feeding shed should be near together for convenience in feeding.

The farmhouse should be nearer to the public road than other buildings with the object of showing the house to the best advantage. The barn, public road, and part of the fields should be visible from the farmhouse. The best distance from the road to the house is between 100 and 150 feet. This location affords a reasonably large lawn, and places the house away from the dust of the road. The facing of the house is usually made with respect to the road, and an east or south front is usually preferred. The lawn should be fenced in order to keep poultry and small animals away.

The stock barns should be set with the long axis to the north and south, for best lighting, and to form a protection for a sheltered yard. The barn should be 150 to 200 feet from the house, and if possible, in the direction away from the prevailing summer winds.

If hogs are raised, the hog house should be farther from the house than the barns, on account of the odors, but near the cribs, for ease in feeding.

The granary and corn crib should be located for convenience in filling from the fields, and convenient for the sheller and grinder. For feeding work, the grain buildings should be near the feeding lots and hoghouse. There should be a driveway leading to and from the grain buildings. A location between the main barn and the hog house is most desirable.

Machinery shed should be located for convenience in getting the equipment in and out of shelter. These buildings may be nearer the house than the barns, while the garage should be near the house.

The poultry house may be nearer the dwelling than other buildings, but should be kept away from the barns and grain storage buildings. It should face the south and be located on porous, well-drained soil. The ice house, milk house, and pump house may be located between the house and the dairy barn.

In regard to landscaping, an evergreen windbreak to the north and west of the buildings is desirable. The south side of the buildings should be nearly free of trees in order to take advantage of the summer winds. Fruit trees, shade trees, and flowering plants and shrubs are desirable additions to every farmstead. The farm home should have an orchard and a garden. Most of the planting should be along the side and back of the lawn rather than in front of the house.

The garden should be near the house, and not closer to the road than the house. The use of a show pasture in front, or to the side of the farmstead will serve a dual role of displaying the best animals, and providing a clean, permanent pasture near the house, instead of cultivated, dusty fields (see Figure 26).

The farmstead should be located on a pre-1930 farm and must be on its original site.

II. Significance

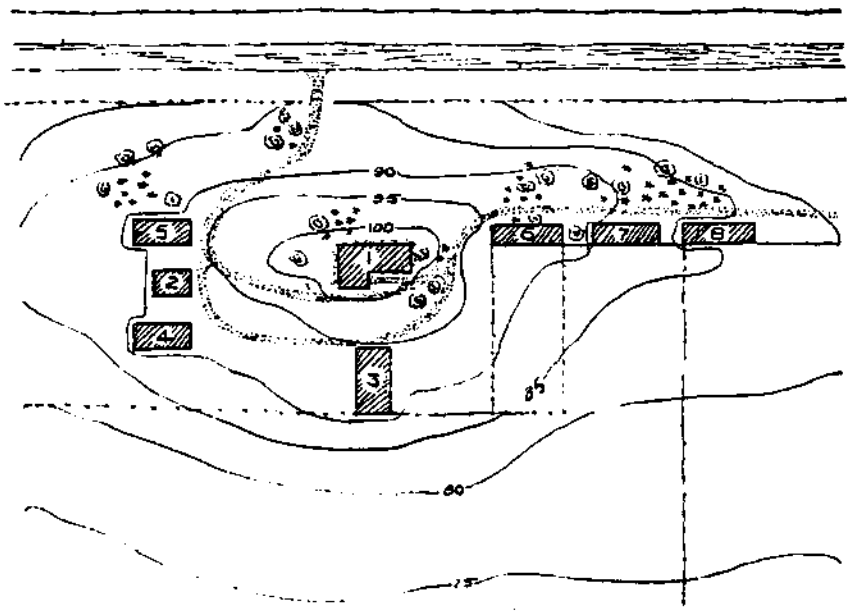
Farmsteads as a property type were significant resources in Management Region 6 in the pre-1930 period because by 1900 each of the seven counties contained between 2,000 and 3,000 farms. By 1930 the total acreage in farmland in Region 6 had reached to more than 3,000,000. The development of a good farmstead plan was advantageous to the farm family because of efficiency, appearance, and sanitation. Efficiency was gained in grouping the buildings in order to reduce the amount of farm labor. Planning of the location of gates and fences as well as distance to the fields had a noticeable effect on the efficiency of the worker. Appearance of the farmstead played an important role in the value of the farm and affected the farmer's standing in the community. Sanitation was affected by the contour of the land, drainage, and soil texture. The relationship of the stock barns to the dwelling was also an important factor in sanitation.

III. Registration Requirements

To be eligible for listing in the National Register of Historic Places, farmsteads should retain integrity in setting and design. Farmsteads should be located with three factors under consideration: outside concerns, natural conditions, and relation of the buildings within the group. Outside concerns

should focus on transportation and access to schools, churches, and neighbors. In terms of natural conditions, a water supply source was necessary as well as proper drainage. The farmstead should be located so that surface water is carried away from the buildings. The barnyard should not drain toward the house, or toward a well. A light porous soil is desirable over heavy clay. A timbered area or hill in the direction of prevailing winds in winter affords an excellent windbreak. The distributed system of farmsteads, the most common in Region 6 prior to 1930, should have the outbuildings arranged around a rectangular, somewhat to the rear of the farmhouse, and to one side. The house should be the most prominent building with the main barn next in importance. The buildings should be arranged so that all may be entered without passing through gates. The feed lots should be located to the rear of the barns and away from the house. The machine shed and garage should be located near each other because of similarity of uses. The corn crib, hog house, and feeding barns should be grouped together for convenience in feeding.

The farmstead should be associated with a pre-1930 farming operation and should have been used as the focal point in coordinating farm activities, providing shelter for the farm family and farm animals, and storage for farm produce and machinery. The farmstead should stand on its original site.



A North Frontage is Desirable in Oklahoma

If we have a slope south of a highway the opportunity for attractive lawn plantings is increased because of protection from south wind; our best shrubs and trees develop on the north side of a building.

1. Residence on the crest of the knoll and protected by conifers from the northwest wind, with deciduous trees to break the hot afternoon sun.
2. Haybarn between the stables.
3. Machinery shed south of the house.
4. Horsebarn close enough to encourage leaving implements at the shed.
5. Dairy barn on well drained soil; a basement barn can be readily built.
6. Poultry close enough to be seen from the kitchen.
7. Sheep on the southeast slope.
8. Swine near land level enough for rape and alfalfa.

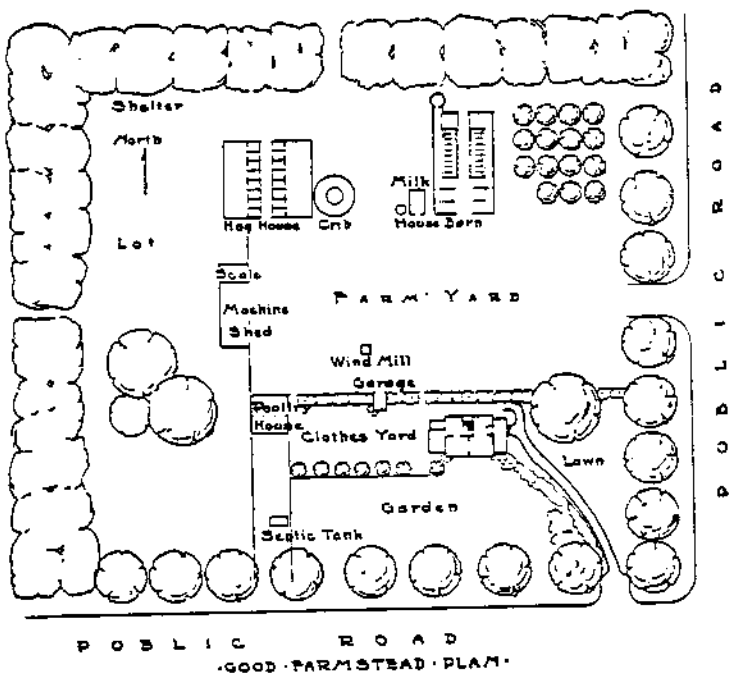


Figure 26

GRAIN ELEVATORS

I. Description

Grain elevators as a property type may be divided into two classes according to the arrangement of the bins and elevating machinery: (1) elevators which are self-contained, with all the storage bins in the main elevator or working house, and (2) elevators having a working house containing the elevating machinery, while the storage is in bins connected with the working house by conveyors. The working house is usually rectangular in shape, with square or circular bins; while the independent storage bins are usually circular.

With reference to construction materials, grain elevators may be divided into (1) timber, (2) steel, (3) concrete, and (4) tile, and (5) brick. Timber was the earliest material used in building grain elevators, and was still extensively used for small county elevators in the early twentieth century in Oklahoma. The working house is a plank and frame structure usually about 70' x 120'. The first story is built of heavy post and girder work; on top of this are the bins, 45' deep, made of 2" laminated planking, and the bins are surmounted by a cupola five stories in height. The walls are covered with galvanized corrugated steel, and the roof is covered with a tar and gravel roofing. The foundation of the working house is a monolithic concrete slab reinforced with steel rods. All timber shall be of yellow pine, furnished rough. The bins shall be constructed of planking in courses laid as follows: all walls shall be laid up plumb and true, forming square corners in the bins. Each course of planking shall be securely nailed with 30-d wire nails 4½" long. At all interior crossings two nails shall be driven in each end of each piece of plank in the 4" and 6" walls. The floors shall consist of two thicknesses, the first to be 7/8" shiplap, the second layer to be a 2" x 6" dressed on one side and matched through the trackway, and the second layer over the balance of the floor shall be a 1" x 6" flooring. All flooring should be thoroughly dry yellow pine. The floor of the engine house shall have the bottom thickness of 7/8" shiplap and the top thickness of 1" x 2" dressed and matched hard maple flooring (see Figure 27).

During the early part of the twentieth century, steel became the principal material for grain elevators. In designing steel grain elevators, particular attention should be given to the horizontal joints of the bin, and to the strength of the bin to act as a column to support the grain. These elevators generally consisted of a steel working house having a bin capacity of approximately 240,000 bushels and eight steel storage bins having a storage capacity of around 100,000 bushels each, making a total storage capacity of over 1 million bushels. The steel working house is approximately 64' x 70' with 14' sheds on two ends and one side. The sub-story of the building is 26'. The bins are approximately 65' high and are supported by steel columns. The spouting story is 24' high; the garner and scale story is 26½' high; and the machinery story is 13' high. The walls below and above the bins are covered with No. 24 corrugated steel laid with 1½ corrugations side lap and 3" end lap. The roof is covered with No. 22 corrugated steel laid directly on the steel purlins and 2 corrugations side lap and 6" end lap. The eight steel storage bins are 44' in diameter and 80' high and rest on separate concrete foundations. The bins are constructed of steel plates stiffened with Z-bars. The bins are covered with a steel plate roof supported on roof trusses. A conveyor gallery 10' wide and 8' high extends from the working house over the bins (see Figure 28).

Reinforced concrete elevators were in use by the time of statehood in Oklahoma in 1907. They were commonly built following Type 2, i.e., elevators having a working house, which contained the elevating machinery, connected to the storage bins by conveyors. The working house was usually built of steel or timber, and the bins of reinforced concrete. The circular concrete bins were approximately 42' outside diameter and 80' high with walls of concrete 9" thick reinforced with steel rods. Horizontal reinforcing rods were 3/4" in diameter and vertical rods were 5/8" in diameter. The lapped portions of the horizontal rods and the crossings of the horizontal and vertical rods were to be fastened together with No. 14 annealed wire, or steel clips. The roofs of the tanks are to be made of 3" book tile supported by steel purlins, covered with a tar and gravel roofing. The floor of the conveyor gallery is to be made of 3" book tile, supported on a steel framework, and covered with a top dressing composed of one part Portland cement and two parts sand.

In the tile grain elevators, the working house is constructed of steel or timber and the bins of tile. The storage tank walls will consist of special semi-porous hollow tile made to conform to the circular nature of the tank. The main wall tile shall be 12" x 12" x 6", the channel tile 12" x 4" x 5", the outside facing tile made of similar material, but semi-glazed and 12" x 12" x 1¼". The wall tile shall be set in the wall with cells running vertically and all set with full flush mortar joints sides and bottoms. The channel tile shall be set to break joints with the wall tile. Each course of channel tile shall contain at least two complete steel bands. The facing tile are laid in courses with a full mortar bed and are tied to the main wall of tanks by wire fabric (see Figure 29).

In the brick circular storage bins, the wall is a three course wall, the two inner courses being laid solid, a space of 3" being left between the two inner courses and the outer course, making a wall 16" thick. The outer course is bonded to the two inner courses by wire bonds, passing through the air space. A channel is formed every 12" in height in the inner wall by splitting a course of brick, making the channel about 2½" wide and a brick high, and a brick from the inner surface. The steel reinforcement is placed in this channel, and is grouted with one to two Portland cement grout. Rectangular storage bins of brick were made as follows: the bins are made rectangular in sets, with brick pilasters at the outside corners, and columns at the interior corners of the bins. Bars passing through the walls are made of brick arches, with the concave side of the arch outside.

Grain elevators should be located in a small town and along a railroad track used prior to 1930, and should stand on their original site.

II. Significance

Grain elevators were an important cultural resource associated with the agricultural history of Management Region 6 because of the large quantities of grain (wheat, corn, and oats) being produced in the area prior to 1930. Farmers needed storage facilities in order to handle these quantities before shipping to markets beyond the local elevator. Traditionally, the surplus grain, i.e., that amount produced above the farmer's need for feeding his own livestock, was hauled to the country/small town elevator in wagons. The small town elevator was always located at or near the railroad station. The wagon was weighed and driven up an incline onto the dump; here the back end of the wagon was dropped and the front end raised so that the grain ran into the dump

hopper, the empty wagon was then weighed and the amount of grain determined. If the grain in the country elevator was to be stored for some time, it was conveyed to storage bins outside the main elevator. It was usually run through a cleaner where the dust and defective grains were removed. Country elevators allowed farmers to hold their grain for a better price, provided adequate storage of grain to prevent waste and spoilage, and were able to accommodate large amounts of grain during harvest season. Railroad cars would transport grain from the country elevator to a larger terminal elevator where it was reshipped by rail to milling facilities in the Midwest such as Kansas City or Minneapolis.

III. Registration Requirements

To be eligible for listing in the National Register of Historic Places, grain elevators should retain integrity of setting, materials, and design. The grain elevator in Region 6 must be situated in a small town, e.g., Kingfisher, and along a railroad truck used prior to 1930. The grain elevator should stand on its original site to be considered for National Register listing. In terms of materials, the small town elevator, the most common in Region 6, should be constructed of timber frame, yellow pine furnished rough. The timber type elevator should consist of pieces of 2" X 4", 2" X 6", or 2" X 8" laid flatwise to break joints and find the structure together. Original materials must be intact to be considered for eligibility. Design elements should follow the self-contained model where the storage bins were located in the main elevator, or working house. The design of the working house should be rectangular in shape, approximately 70' wide by 120' long. The first story should be constructed of heavy post and girder work. The bins should be approximately 45' deep, made of laminated 2" planking. The total height of the timber elevator should be approximately 70'. The timber elevator to be eligible should be free of any major alterations and should not be covered with any synthetic siding or other materials that would detract from its architectural integrity. The elevator should be associated with a small town elevator operation that existed prior to 1930.

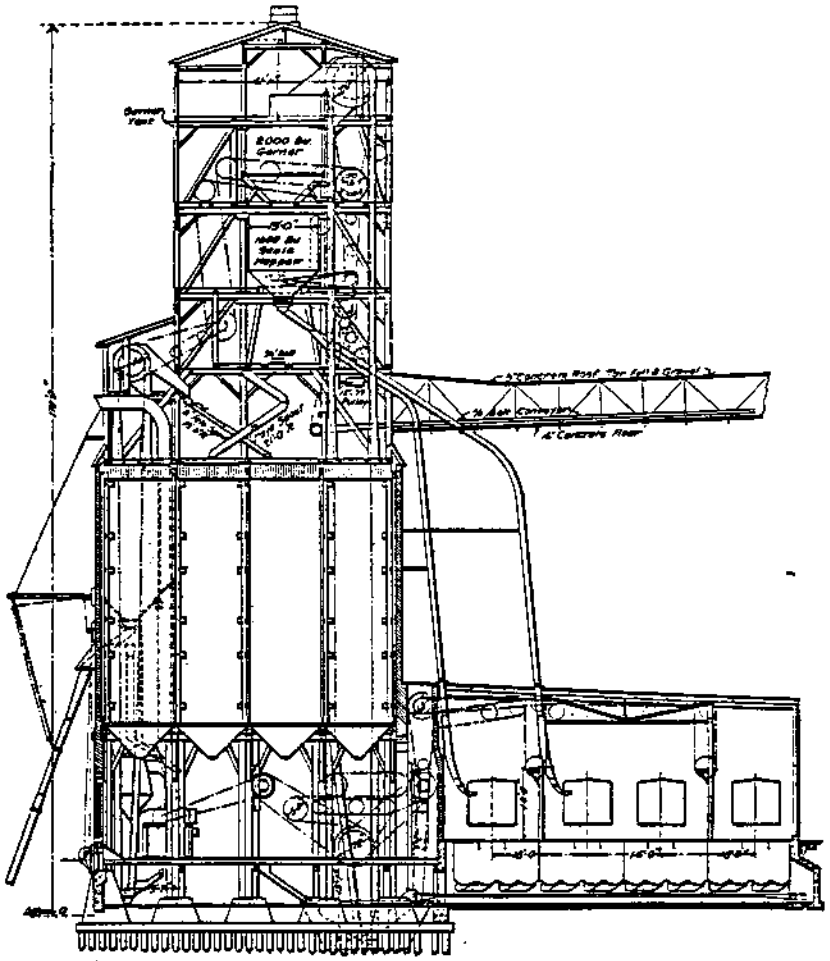


Figure 27

Transverse Section of Timber Working House

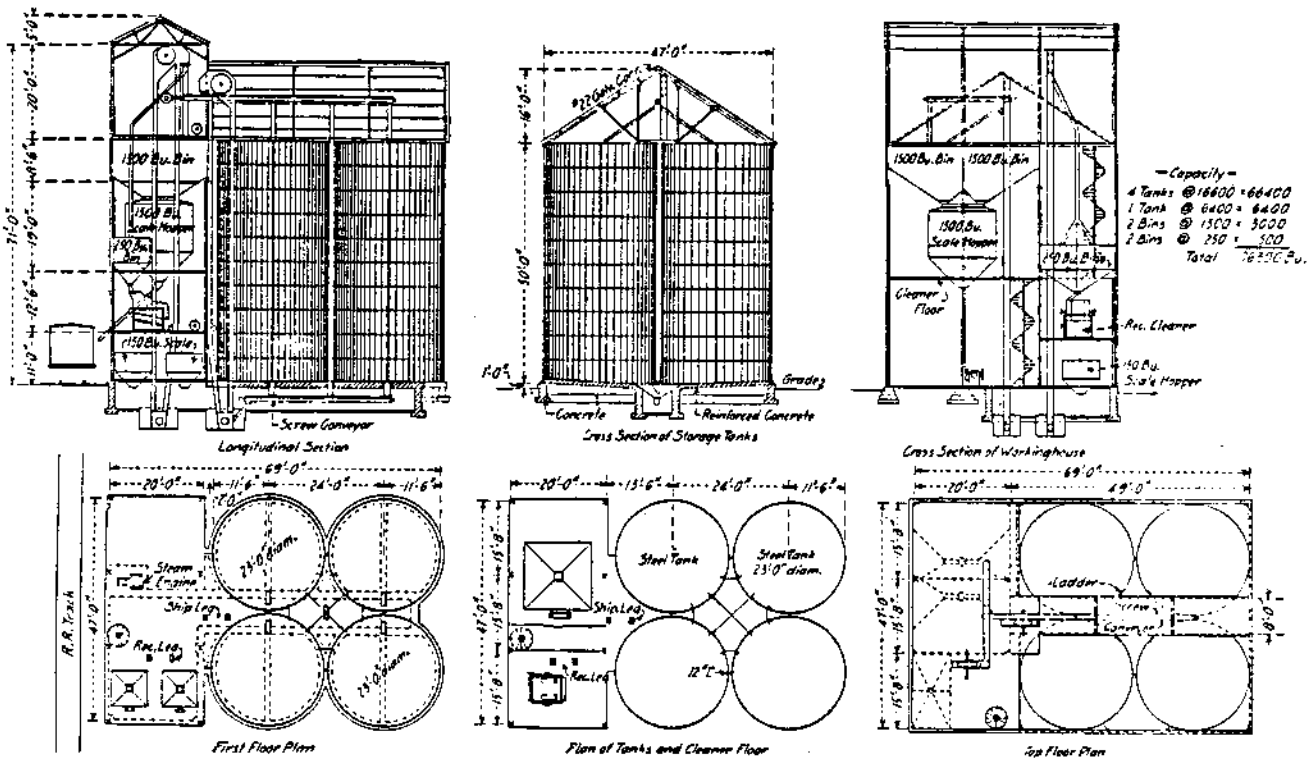


Figure 28

Steel Country Elevator

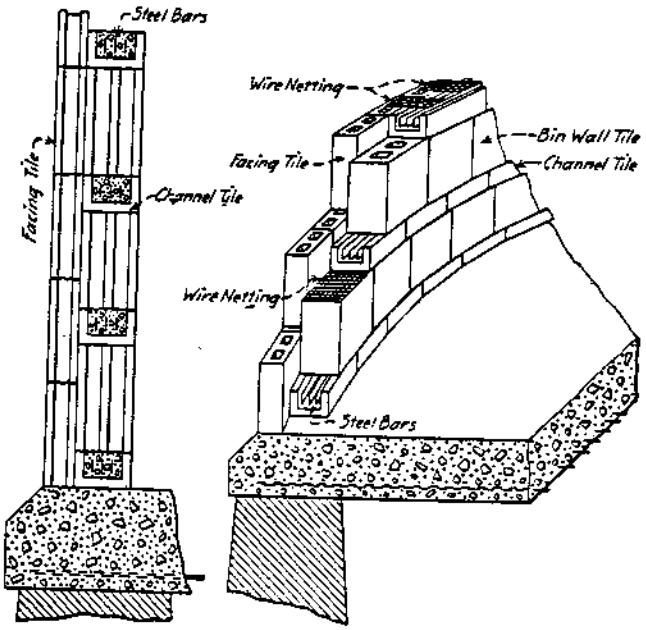


Figure 29
Details of Tile
Grain Bin

Annotated List of Historic Properties
Agriculture
Region #6

I. CANADIAN COUNTY - NONE

II. CLEVELAND COUNTY - NONE

III. KINGFISHER COUNTY

(1) Danne, Joseph Farmstead

Location: 4½ miles NW of Kingfisher, T 16N, R7W.
Date: 1893
Condition: Fair
Significance: Danne Developed a variety of wheat called Triumph which was instrumental in keeping a large number of farmers in business during the 1950's.

(2) Weimer Barn

Location: SE/4, NE4, Sec. 21, T17N, R7W
Date: 1909
Condition: Excellent
Significance: Architecturally significant, the barn is of conventional design, but larger than most in Oklahoma. At ground level, it was constructed of solid concrete building blocks poured on the site. The blocks measure 8 X 8 X 24 inches and help to explain why the barn has retained its integrity for almost 80 years (OLI).

IV. LINCOLN COUNTY -

(1) Kendrick Log Cabin

Location: S½, Sec. 11, T15N, R5E
Date: Unknown
Condition: Poor
Significance: Representative of a building type first used by farmers who settled in Lincoln County.

V. LOGAN COUNTY - NONE

VI. OKLAHOMA COUNTY

A. Arcadia

(1) Arcadia Round Barn

Location: On U.S. Highway 66 in downtown Arcadia
Date: 1898
Condition: Fair

OKLAHOMA COUNTY, Arcadia, continued

Significance: Unique because of its design, the barn is a two-story structure originally used for grain, hay, and livestock. It was later used to house a harness and livery stable business. Throughout its history, the barn served as a community center because of its hardwood flooring and central location in the community (National Register of Historic Places).

B. Oklahoma City

(1) Bourne Dairy

Location: 5801 Eastern Avenue
Date: 1900
Condition: Fair
Significance: It served as one of the largest dairies in Oklahoma during the late Territorial/early statehood period. The main building housed a herd of approximately 200 cows. The building and silo are good examples of rustic commercial architecture (National Register of Historic Places).

(2) Cotton Exchange Building

Location: 218 North Harvey
Date: 1923
Condition: Excellent
Significance: Historically important because cotton was the principal cash crop in Oklahoma during the 1920s and the building served to centralize cotton purchasing company offices in one location. It is also architecturally significant because of the building's design by Hawk and Parr who had designed the Masonic Temple in Guthrie (National Register of Historic Places).

(3) Farmer's Public Market

Location: 311 South Klein
Date: 1928
Condition: Good
Significance: It is one of the oldest and largest of farmer's markets in Oklahoma having opened on June 16, 1928. Farm produce from throughout the state was marketed here (National Register of Historic Places).

(4) Rock Island Plow Company Building

Location: 29 East Reno
Date: 1909
Condition: Good
Significance: Built by the Rock Island Railroad Corporation of Chicago, it was one of the many wholesale firms dealing in agricultural implements during the peak period of agriculture in Oklahoma. In 1932 the Rock Island Plow Company liquidated its operations in Oklahoma City (National Register of Historic Places).

VII. PAYNE COUNTY

A. Cushing

(1) Burkey Creamery

Location: SW Corner of Intersection of West Cherry and South Central Streets
Date: 1927
Condition: Fair
Significance: One of the few creameries still intact in Oklahoma. Representative of the small town creamery which served the surrounding agriculture population. It had one large churn and a boiler (National Register of Historic Places).

B. Stillwater

(1) Magruder Plots of Oklahoma State University

Location: NE/4, SE/4, Section 16, T19N, R2E
Date: 1892
Condition: Excellent
Significance: First planted in 1892, the plots have provided important information for Oklahoma's farmers regarding continuous wheat production, long term fertilization, and soil productivity. Moved in 1947 to provide space for dormitory construction, the plots were transplanted with great care (National Register of Historic Places).

C. Hopkins Sandstone Farm House and Farmstead

Location: NE/4, NE/4, NE/4, Section 15, T18N, R4E
Date: 1899
Condition: Good
Significance: Representative of a Territorial Era farmstead and use of locally produced native sandstone for construction materials. Farmstead is example of early white settlers adaptation to new environment of the Oklahoma Territory (National Register of Historic Places).

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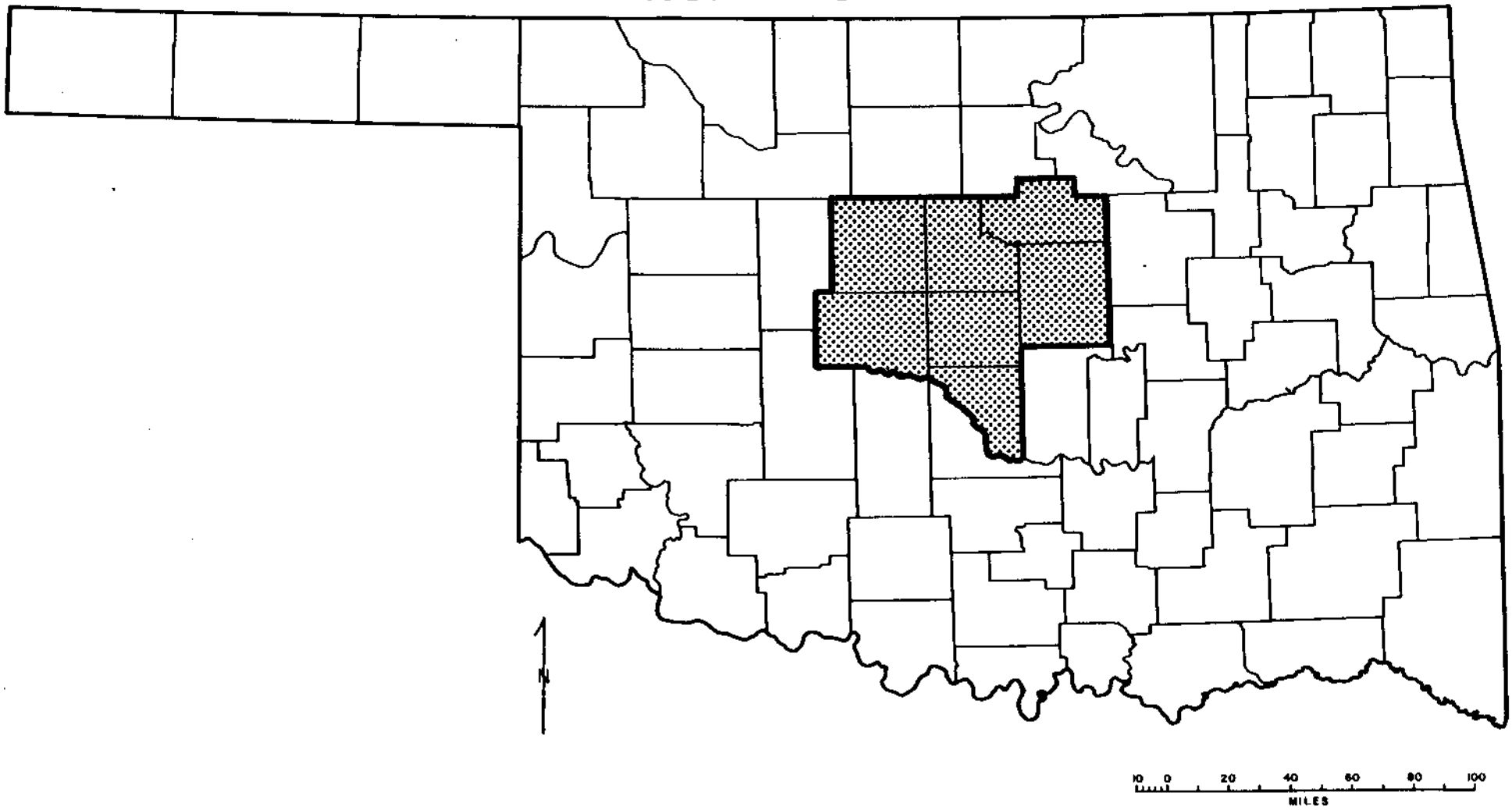
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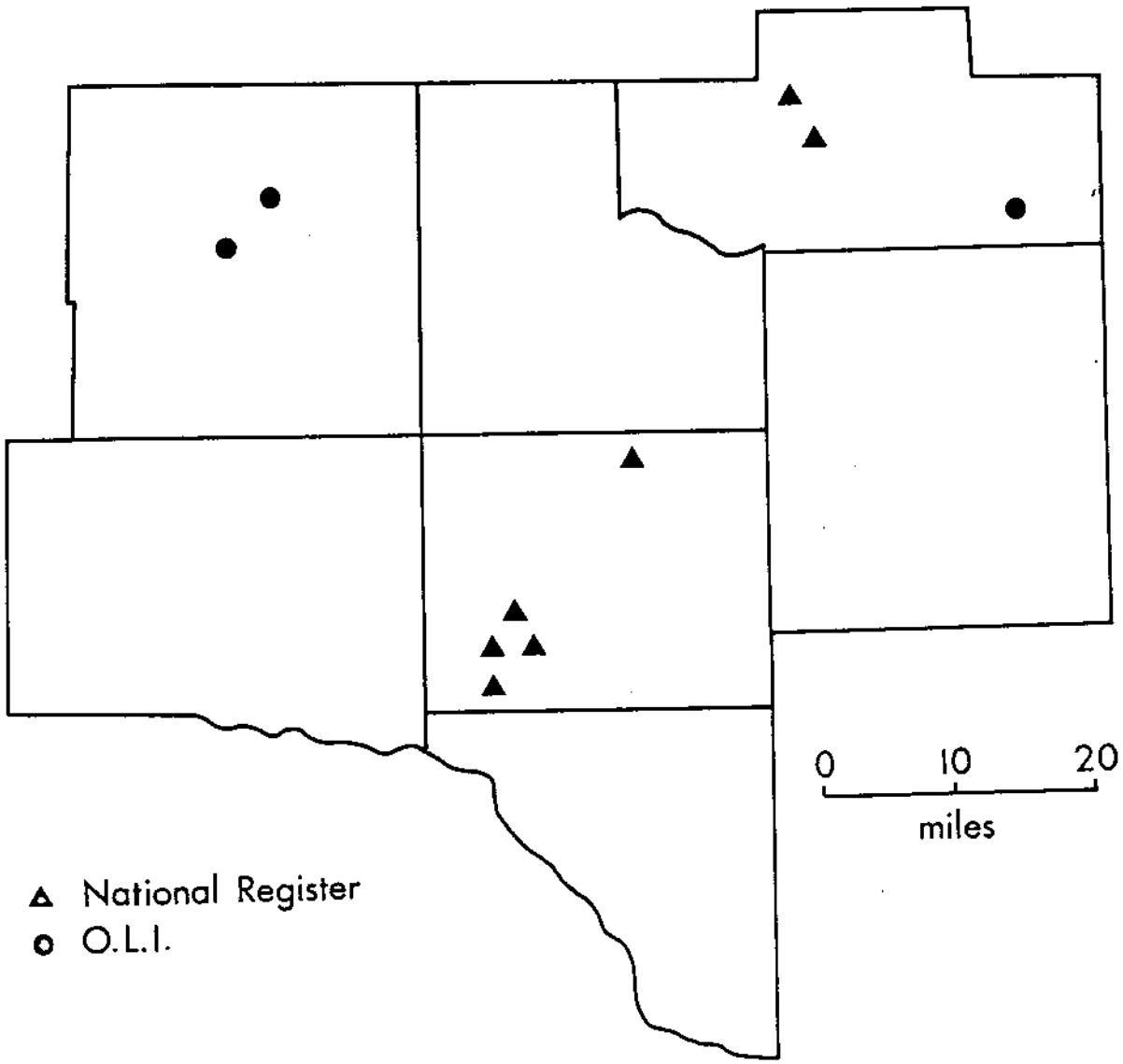
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Agricultural Theme In Management Region #6
1889 – 1930



National Register and O.L.I. Properties
Agricultural Theme Region #6



Source: State Historical Preservation Office
Oklahoma Historical Society
Oklahoma City, Oklahoma

THREATS TO RESOURCES

Agriculture is one of the most important historical themes for the State Historic Preservation Office in Oklahoma to address in its comprehensive preservation planning activities. Agriculture has been and continues to be a major industry in the state. While it is so important in the historical development of the state, there has been relatively little research and study of agriculture. Also, the SHPO determined through a review of its inventory that agriculture-related properties are under-represented. The continued development of the agriculture context for this region, and other parts of the state, will help the SHPO and others gain a better understanding of the kinds of resources existing, what threatens them, and what preservation treatments may be the most workable.

Threats the SHPO staff has identified include simple neglect and lack of public awareness about the importance of preserving barns, farmsteads, and other property types. Also, many agriculture-related buildings and structures become obsolete, and farmers must build new barns and sheds to accommodate new equipment or other needs. As the SHPO solicits public input for the further development of this context, and for refinement in subsequent years, other threatening factors will no doubt be determined.

GOALS AND PRIORITIES FOR RESOURCE PRESERVATION

The resources discussed in this historic context represent significant aspects of Oklahoma's past. Following are the priorities established to foster the highest possible levels of preservation for these properties. Estimated time frames for completion are also set forth. It is fully anticipated that additional priorities will be established as the context is updated to address changes in attitudes, changes in available financial incentives, developments in technology, and the simple passage of time.

PRIORITIES	PROJECTED COMPLETION DATE	ACTUAL COMPLETION DATE	METHOD OF ACCOMPLISH-MENT
Identification/Evaluation:			
Thematic survey of Agricultural Resources in Canadian County.	1988	No response to RFP	Subgrant

PRIORITIES	PROJECTED COMPLETION DATE	ACTUAL COMPLETION DATE	METHOD OF ACCOMPLISH-MENT
Registration:			
Multiple Property nomination for Region #6	1992		Subgrant
Grant Program for Individual Properties with Agriculture-related resources as priorities.	1989	1989	Subgrant
Repeat Grants for Individual Pro-perties.	1990		
Recordation (HABS/HAER):			

PRIORITIES	PROJECTED COMPLETION DATE	ACTUAL COMPLETION DATE	METHOD OF ACCOMPLISH-MENT

Protection:

PRIORITIES	PROJECTED COMPLETION DATE	ACTUAL COMPLETION DATE	METHOD OF ACCOMPLISH-MENT
Public Education and Awareness:			
Develop the Oklahoma Centennial Farm & Ranch Program.	1989	1989	SHPO & Dept. of Agriculture
Session on Rural Preservation at 1989 Preservation Conference.	1989	1989	Guest Speaker
Session on Rural Preservation at 1990 Preservation Conference.	1990		
Establish a data base of information on agencies and organizations concerned with rural conservation.	1989	1989	SHPO

INCORPORATION INTO BROADER PLANNING PROCESS

As the Oklahoma Historical Society develops an agency-wide plan, materials generated from the historic context development, survey efforts, and National Register nominations, as well as HABS/HAER documentation will be available to those designing museum exhibits or preparing other public programs. Energy has been identified as one of the major themes of study for the Society's overall planning effort.

Additionally, the State Historic Preservation Office will provide a copy of the agriculture context document to each community in Region #6 that becomes a Certified Local Government (as well as other contexts as they are developed) so that the local governments can use the regional information as they develop local plans for preservation of historic sources. The local contexts will follow the same format as that established by the SHPO for regional context documents.

Finally, through regular workshops on the preservation planning process, the SHPO will make information available to federal, state, and local agencies on the resources identified and their significance in the history of agriculture in Oklahoma so that these properties will be considered in other planning efforts.

REFINING THE CONTEXT

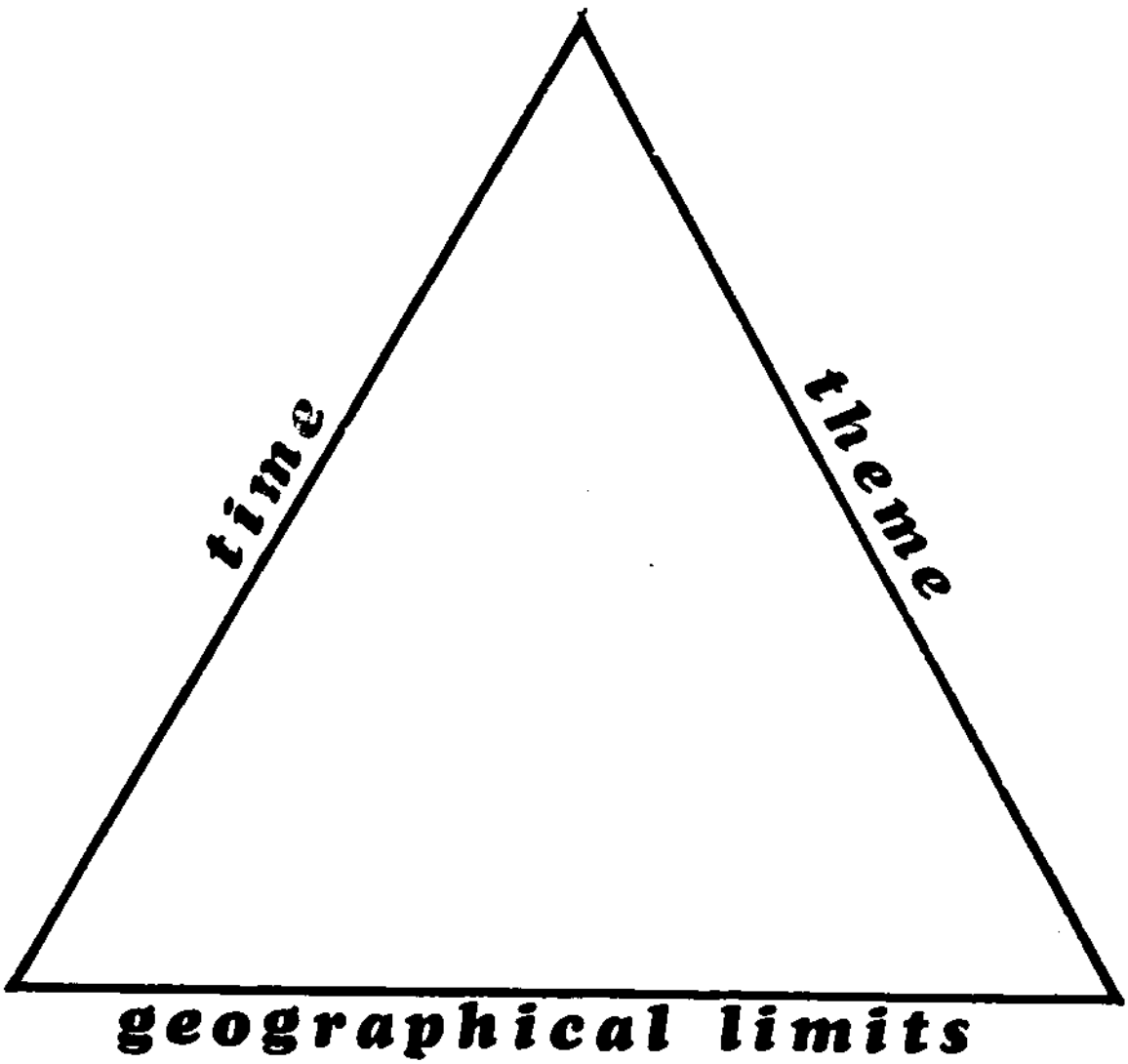
Every three years the context will be reviewed. Additional information about scholarly research in the field will be incorporated. Data obtained as the results of other survey efforts through subgrants, CLGs, and review and compliance activities will be included in the list of known properties. The public will be asked in the Fall of 1989 to participate in the further development of the operating plan for this context. Similar efforts will be repeated during the tri-annual context review. The revised document will be distributed as described above.

As the context document was developed through a subgrant, publicly advertised, public input has been a major factor in this planning effort. The revised context will be submitted to professionals for review.

A CALL FOR PUBLIC INPUT

HISTORIC PROPERTIES ASSOCIATED WITH AGRICULTURE

MANAGEMENT REGION #6



Oklahoma Historical Society
State Historic Preservation Office
Wiley Post Historical Building
Oklahoma City, OK 73105

PLANNING TO PRESERVE THE PAST

To often the phrase "long range planning" brings to mind the image of an expensively produced volume of unrealistic goals and objectives no one will ever take from the shelf. The, when planning efforts are well defined and concerned interest participate in the planning process, results will be useful. The "Secretary of the Interior's Standards for Preservation Planning" provides the State Historic Preservation Office an outline for developing priorities for protection of Oklahoma's important historic and prehistoric resources.

There are three basic principles for preservation planning. First, important historic properties cannot be replaced if they are destroyed. Second, in order for preservation planning to be effective, it must begin before identification of all significant resources is completed. Third, for such planning efforts to be meaningful, public participation is essential.

Preservation planning results in documents that provide a framework for determining where resource surveys are needed, what types of properties are most important, what standards must be met for properties to be eligible for the National Register of Historic Places, and what preservation strategies should be used for particular resources. The basis for preservation planning is the historic context. Every context consists of a historical theme, geographic limits, and chronological period. Contexts can be developed at the state, regional, or local level. The planning document contains a narrative description of the

MANAGEMENT REGIONS FOR OKLAHOMA'S COMPREHENSIVE PRESERVATION PLANNING PROCESS (HISTORIC COMPONENT)

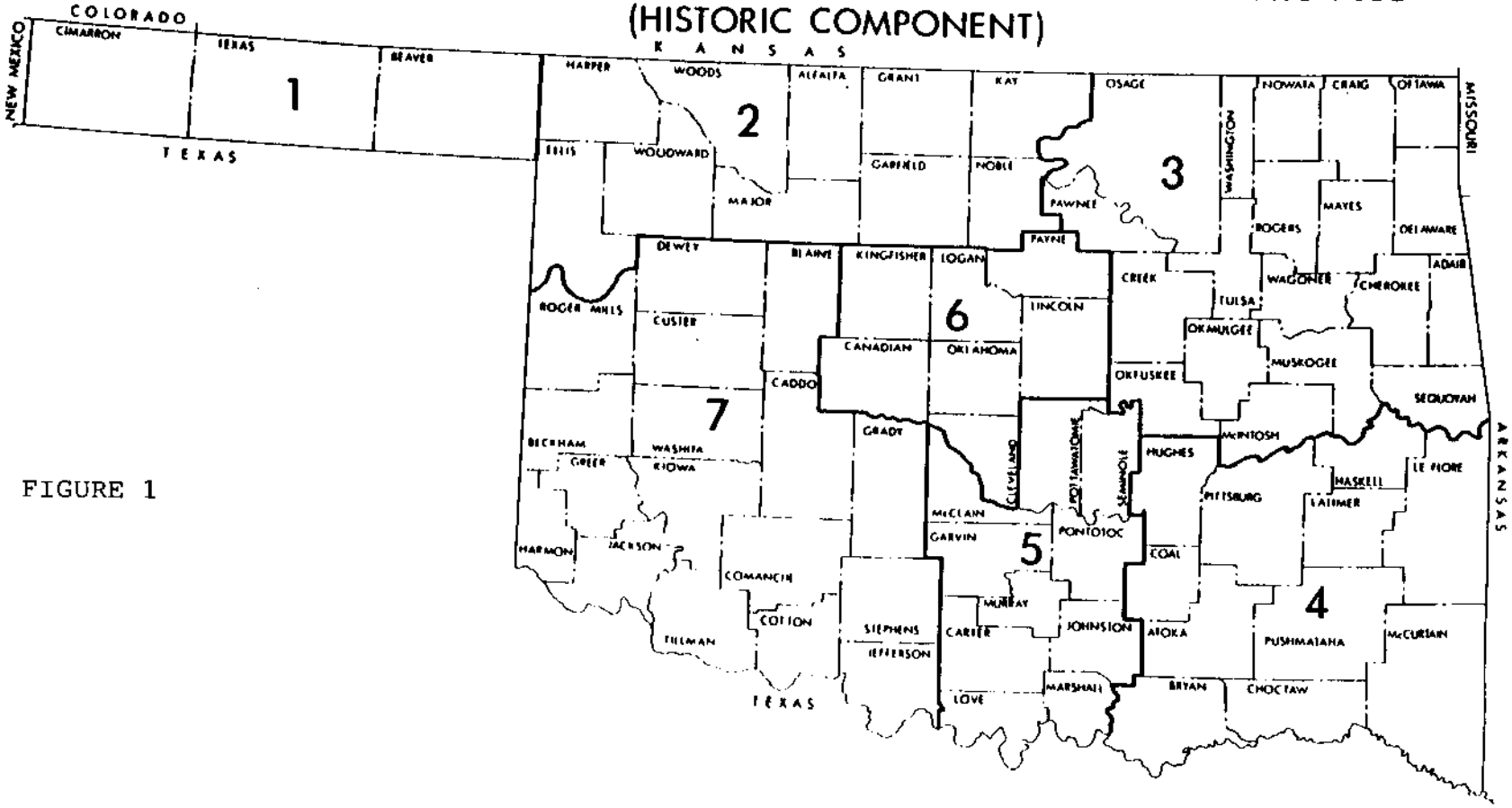


FIGURE 1

historical theme, bibliography, list of known associated properties, property type analysis for evaluating specific resources, and goals and priorities for treating significant properties.

Among the broad themes identified as important in Oklahoma's past is agriculture. Currently under study is agricultural development in northwestern, northeastern, and central Oklahoma (shown as Management Region #2, #3, and #6 in Figure 1). The historical narrative, bibliography, list of known properties, and property type analysis are completed for Management Regions #2 and #6. Management Region #3 will be finished by August, 1990. At this time additional public input will aid the State Historic Preservation Office to set goals and priorities for important resources associated with the agriculture preservation theme in these areas.

OKLAHOMA HISTORICAL SOCIETY
STATE HISTORIC PRESERVATION OFFICE

HISTORIC CONTEXT FOR AGRICULTURE
IN MANAGEMENT REGION #6

QUESTIONNAIRE

1. Which types of agriculture-related properties do you consider most important to preserve? (Number in order of importance.)

___Farm Houses
___Livestock Handling Facilities
___Barns
___Stock Pens
___Sheds
___Equipment Storage Facilities
___Farmsteads
___Silos
___Elevators/Mills
___Irrigation Systems
___Dairy Barns
___Cooperative-Owned Business Buildings
___Agricultural Research Stations
___Conservation Projects
___Other_____

2. Which property types do you think are the most threatened? (Please number in order of the most threatened.)

___Farm Houses
___Livestock Handling Facilities
___Barns
___Stock Pens
___Sheds
___Equipment Storage Facilities
___Farmsteads
___Silos
___Elevators/Mills
___Irrigation Systems
___Dairy Barns
___Cooperative-Owned Business Buildings
___Agricultural Research Stations
___Conservation Projects
___Other_____

3. In your opinion, what are the greatest threats to historic resources associated with agricultural development in this part of Oklahoma? (Use additional sheets if needed.) Provide specific examples.

4. Do you think any of these threats can be alleviated? If so, through what means?

5. Are you involved in efforts to preserve resources related to agriculture in this region of Oklahoma? If so, what are these efforts? If not, would you like to participate in programs designed to preserve these properties?

6. Do you know other individuals or organizations who/that would be interested in the preservation of Oklahoma's agriculture-related resources? If so, please list.

7. Listed below are several "preservation treatments". Please number in order of most importance to the preservation of threatened agriculture-related resources.

_____Nomination to the National Register of Historic Places.
_____Documentation through high quality photographs.
_____Documentation through Historic American Engineering Record (HAER) drawings.
_____Publication of information about the importance of these resources.
_____Public presentations on the importance of these resources.
_____Acquisition of resources by concerned preservation organizations.
_____Acquisition of easements to the property.
_____Other:

8. In your opinion, what are the three (3) most important properties in this region of Oklahoma associated with the history of agriculture?

1. _____

2. _____

3. _____

9. Would you like to be informed of further developments in the State Historic Preservation Office's work on this historic context? _____Yes _____No

10. Name _____

Address _____

_____

Please return to:
State Historic Preservation Office
ATT: Melvena Heisch
Oklahoma Historical Society
Wiley Post Historical Building
Oklahoma City, Oklahoma 73105

Due Date: January 31, 1990