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 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 is 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.

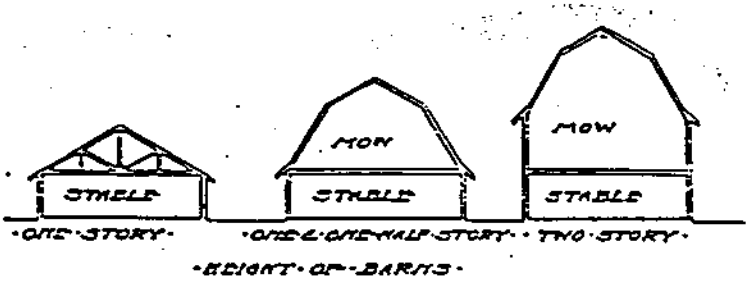
Barns may also be classified by number of stories and by roof type. The one-story barn in simply a stable, without feed storage above, and may be used as a wing in connection with a storage barn, or as a separate building. The one-story barn is usually the lowest in cost of any of the heights, but not 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 low rafters may come just over the loft-floor joists.

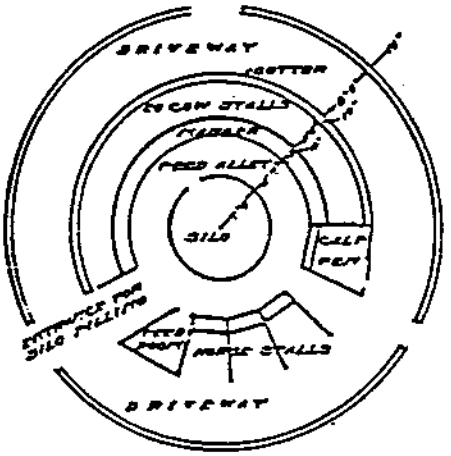
The two-story barn is the most economical and the most common general purpose barn. The walls are from 8 to 18 feet above the first story. The self-supporting plank frame roof is recommended for best results in hay storage.

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 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 not 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 12 for height of barns and roof shapes).

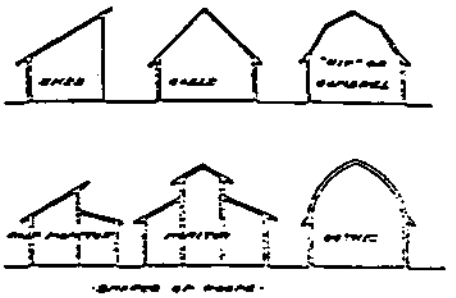
Barn foundations should be extended below the frost line and down into firm soil. The foundation wall should be not less than 10" thick if of concrete. Stone walls are made abut 2′ thick. The foundation of masonry should be carried at least 1′ above the ground to keep the framing from the damp ground.

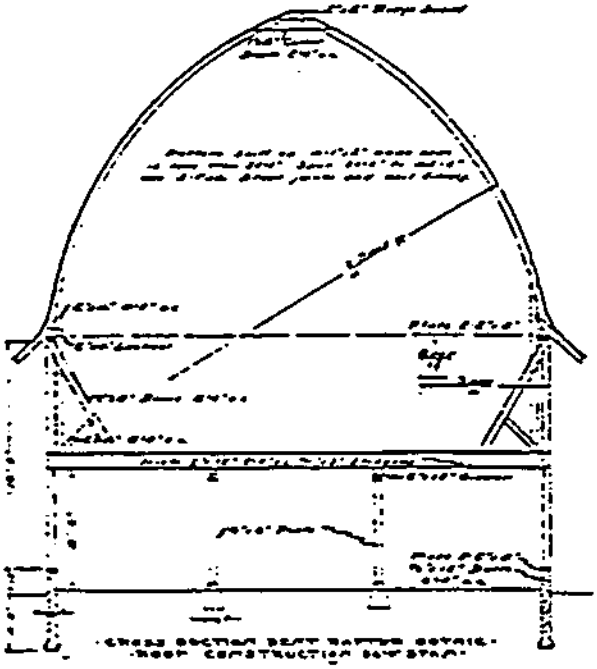


HEIGHT OF BARNS



FLOOR PLAN 60'6" ROUND BARN





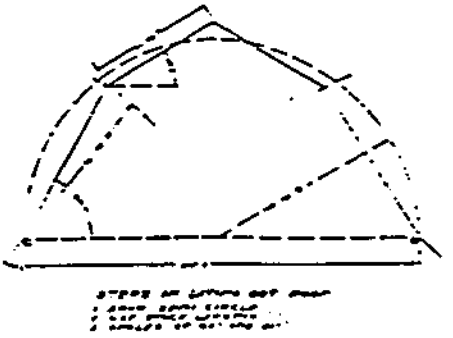


Figure 12
Barn Types By
Roof Shapes and Stories

Barn floors are made 4 1/2 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 2 1/2 " 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 or 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 usuals 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 4 1/2" 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 sheeting 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 sheeting 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 1/4 to 1/2. 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 or 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 of 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.

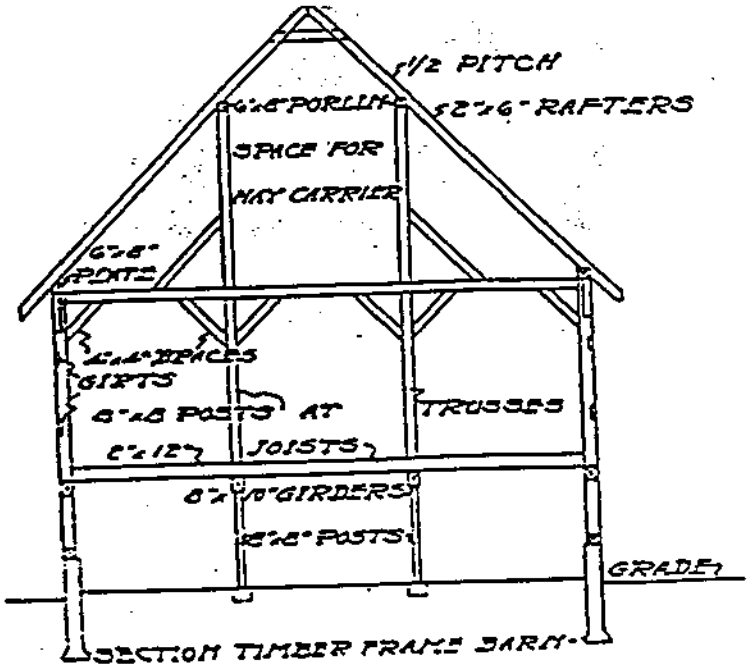
The framing of the round barn is similar to that for the braced rafter barn. The members of the frame converge to the center, making the round frame very strong. The two slope gambrel roof is most often used. Since the round barn will be about 60 feet or more in diameter, longer length lumber is required 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 13 for some types of barn framing).

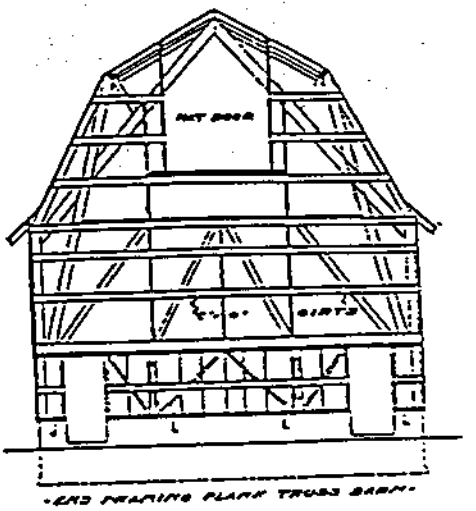
The USDA Bulletins of the early 20th century give two designs for small barns for the farmer who has but small capital to expend. The first is called the $450 barn. It is 37′ x 34′ and 12′ high at the eaves and 29 1/2′ to the peak. The loft is supported by sixteen 8′ x 8′ post (round) while the roof 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 7 1/2′ x 8 1/2′. 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.

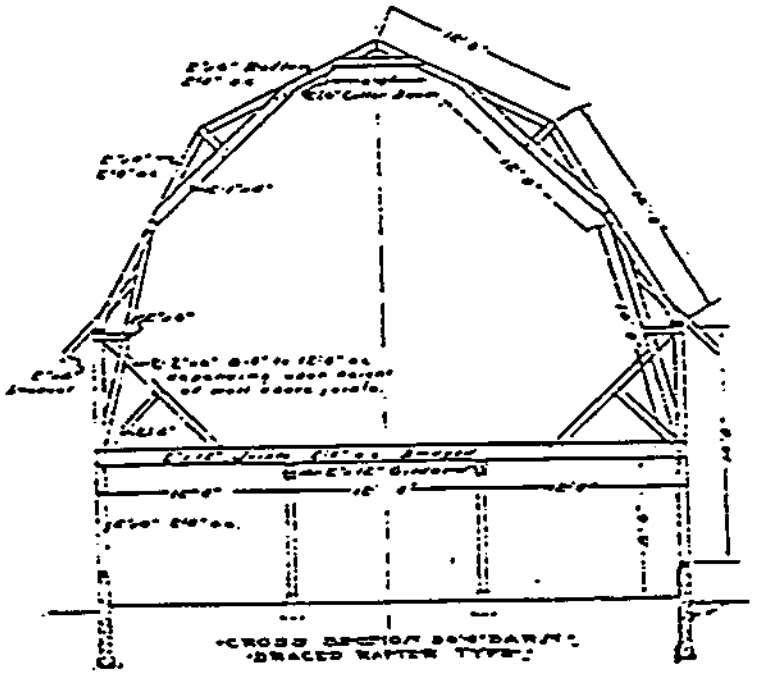
Design No. 2 provides for the $275 barn. It is 24′ x 24′ and 16′ high at the eaves. It is divided into stable and wagon and carriage rooms. The stable affords room for three head of cattle and two horses. The loft will hold approximately 10 tons of hay. The design permits the erection of sheds on each side of the main building which would increase the capacity of the barn to 15 head of stock or more (see Figures 14 and 15).

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







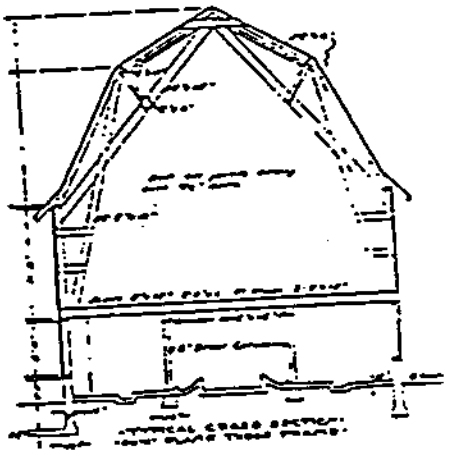


Figure 13
Barn Framing

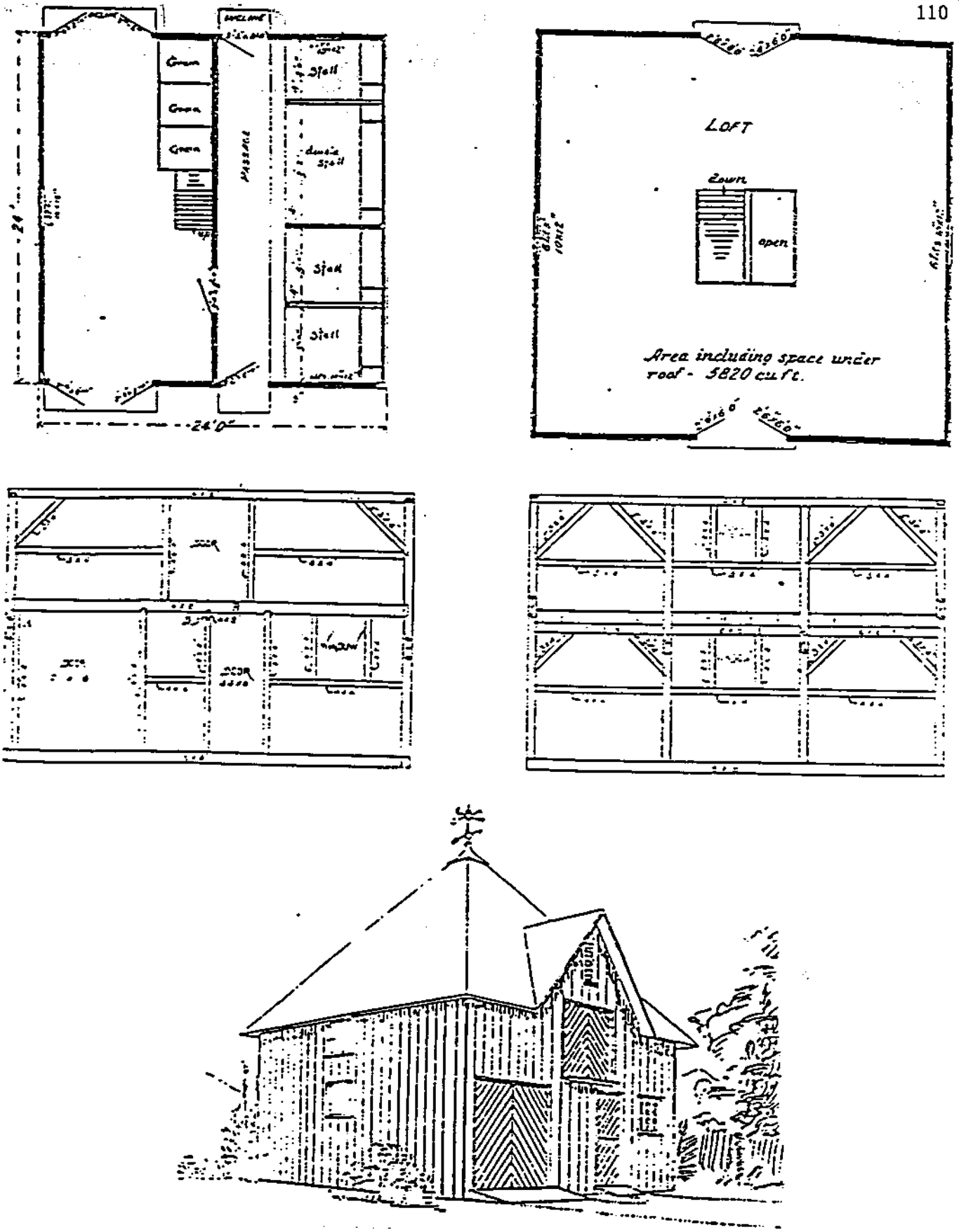


Figure 14
Floor Plan, End and Side,
and Perspective
$275 Barn

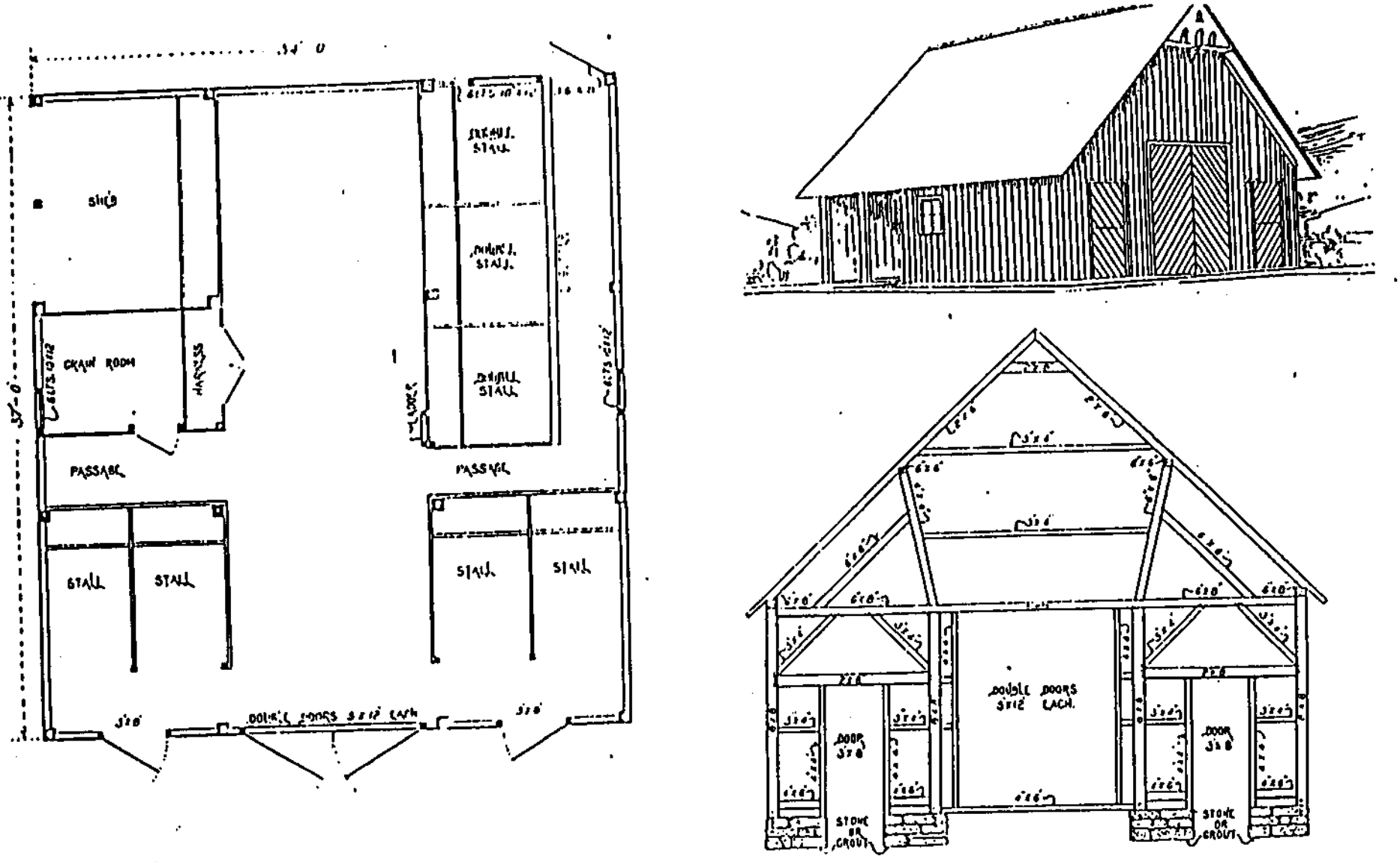


Figure 15
Floor Plan, End Construction,
and Perspective $450 Barn

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 16).

The German Bank Barn

Although there are many variants of the German barns, the type most likely to be encountered in Region 3, is the Sweitzer barn. It is basically a 2 1/2 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

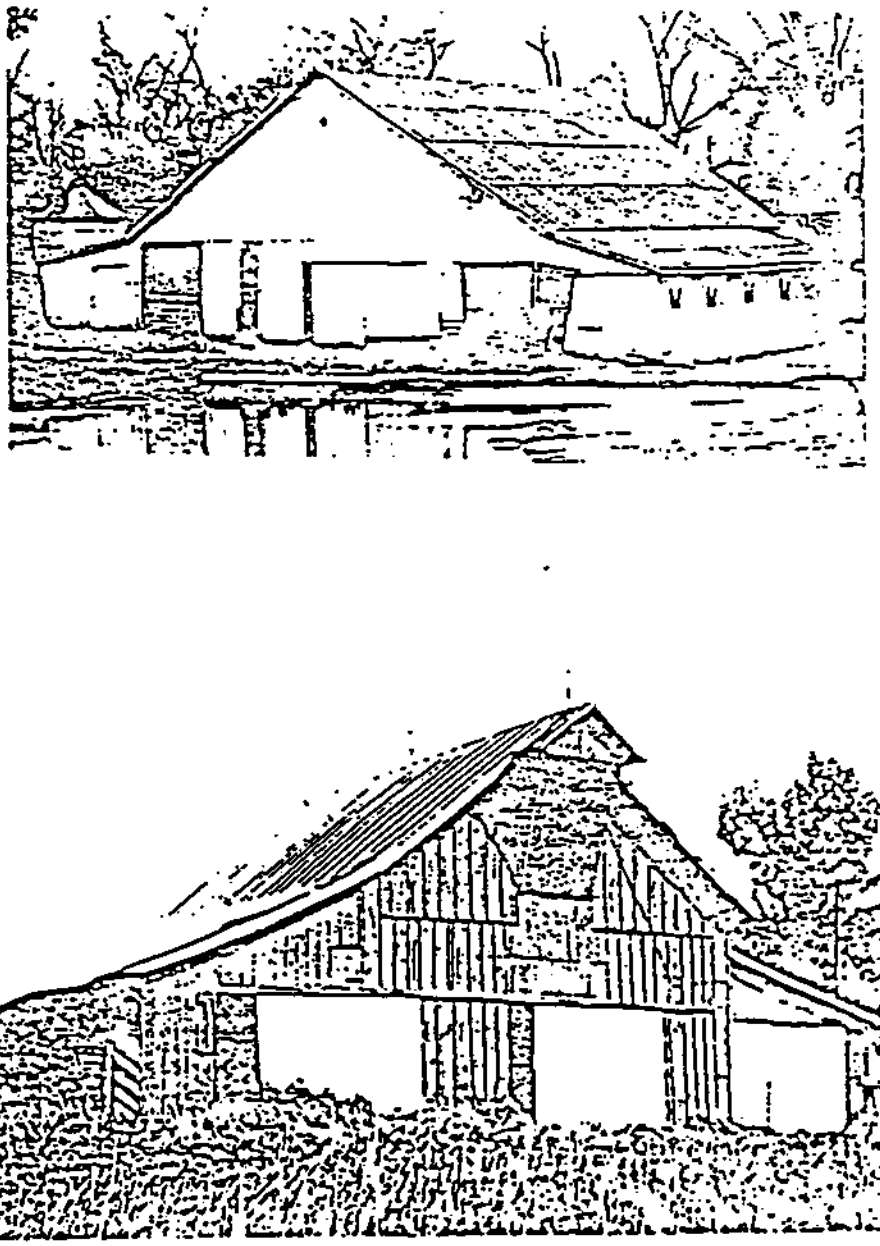


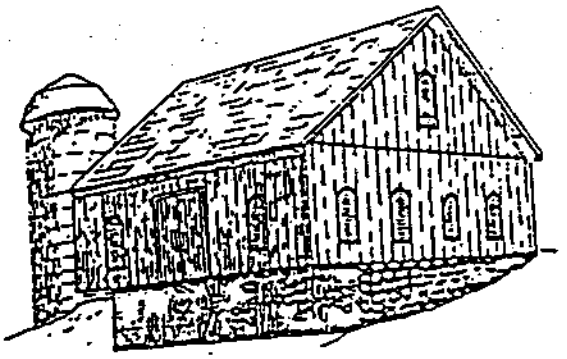
Figure 16
Midwest Three-Portal Barn

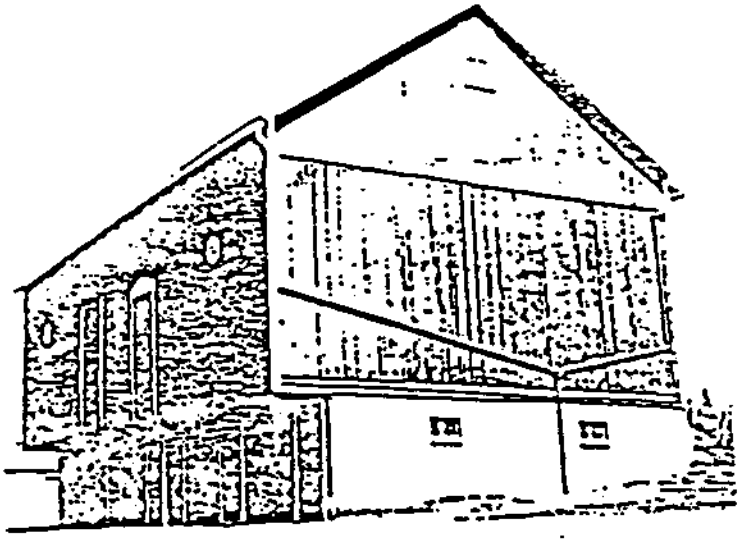
barn. The forebay offers several advantages. First, because it extends out over the feed lot, it affords projection for stock in inclement weather. Second, the projection obviates the necessity of shoveling snow away from the basement doors. Third, chutes cut into its floor provide a means by which feed, 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 asymmetrical, 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 s simple. There are usually three units on the second floor and rows f 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 or 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 17).

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 3 prior to 1930 because the region was an important agricultural part of Oklahoma's economy. Census data indicate that farms in the region by 1900 averaged approximately 140 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





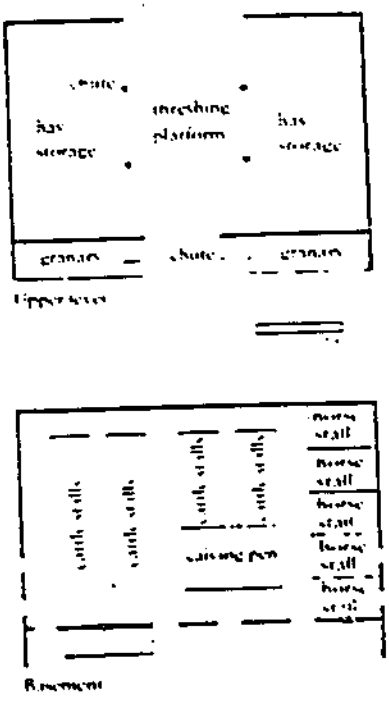


Figure 17
Sweitzer Barn
and Floor Plan

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 3. 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, or Gothic. Although roofing materials may have been replaced over time, it must retain the original roof lines.

The three-portal barn must posses 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 2 1/2 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 asymmetrical 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.

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, manger, 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 heights, 8 1/2′ 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 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 manager 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 ar 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.

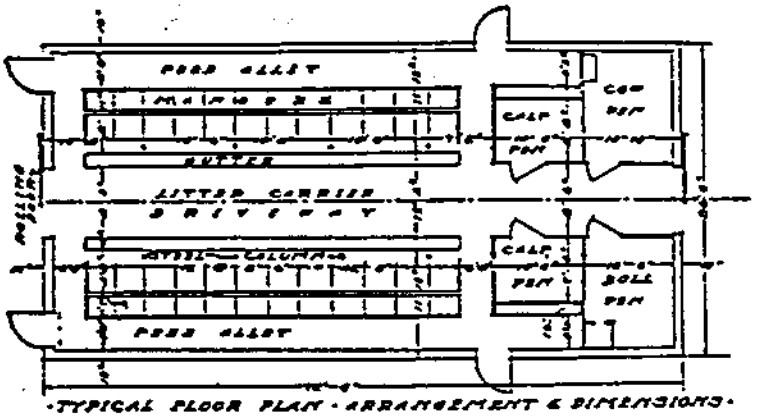
Concrete is the most desirable material for the dairy barn floor. For the standing platform, wood blocks or cork brick are commonly used. The latter materials are laid on a concrete base (see sketches of typical dairy barn floor plan in Figure 18).

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.

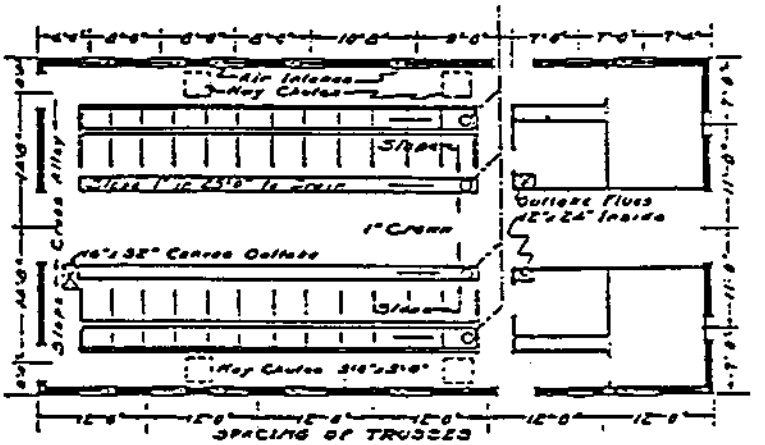
During the last quarter of the nineteenth century, the Agricultural Experiment Station at the University of Wisconsin developed a type of barn suited to the dairy industry. It became popular throughout the Midwest and Great Plains and would likely be the style found on dairy farms in Region 3.

Wisconsin Dairy Barn

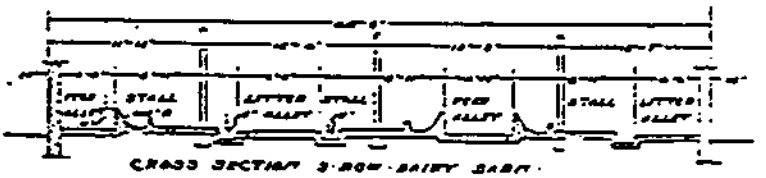
The combination of lumber-truss construction and the gambrel roof was followed. The Wisconsin dairy barn is normally only about 36' wide, but often a hundred feet or more in length. Because of the narrow width the Wisconsin dairy barn prototype provides excellent interior light, one of its most important 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



·TYPICAL FLOOR PLAN · ARRANGEMENT & DIMENSIONS·



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



CROSS SECTION

Figure 18
Floor Plan and Cross Section
Typical Dairy Barn

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 requirement of large dairy herds (see Figure 19).

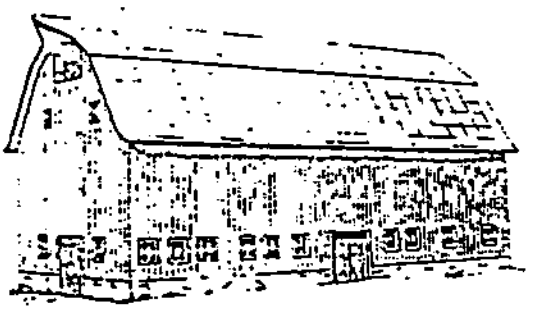
II. Significance

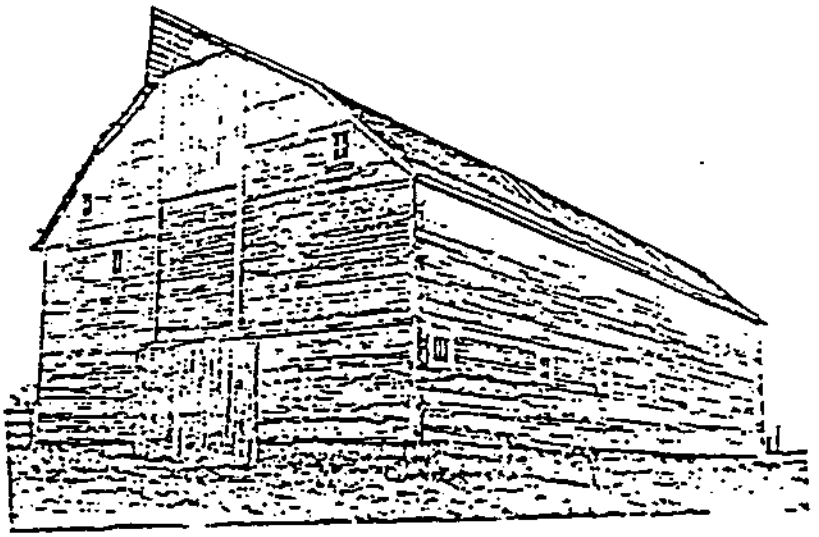
Dairy barns were a significant property type in Management Region 3 prior to 1930 because milk production averaged approximately 770,000 gallons per county by the year 1910. During the next 20 years, milk output increased to 2.8 million gallons per county per annum. Dairy barns as a separate farmstead 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





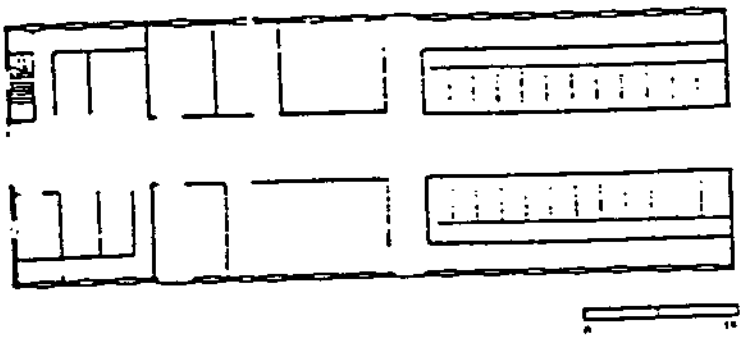


Figure 19
Wisconsin Type Dairy Barn

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.

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 1/2′, and utilized 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.

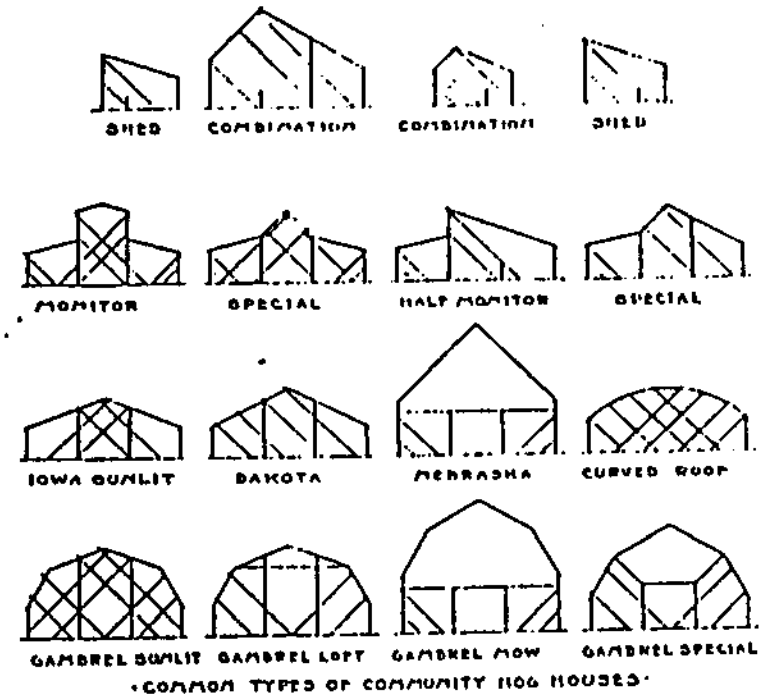
There are several types of community hog houses which are categorized by roof type: shed roof, combination-roof, monitor, half-monitor, gambrel, and gable roof. The shed roof type is usually a one-row house, 12 to 14 feet wide. The roof consists of a single pitch, and the windows are in the front wall. 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 20).

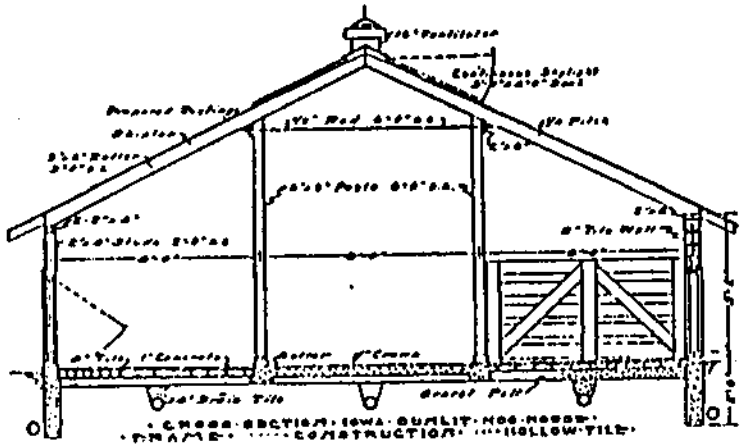
Poultry House

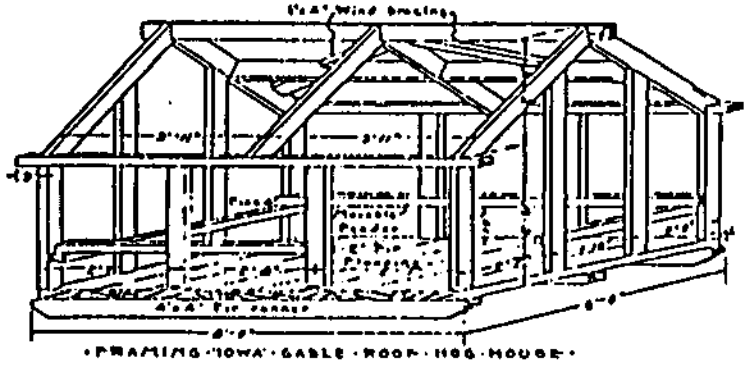
The two types of poultry houses in common use are the colony, or small house, and the community, or permanent house. The colony houses are usually built on sills, which serve as runners so the house can be moved. Four by four-inch wood sills are commonly used in the construction, together with 1" flooring, 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



·COMMON TYPES OF COMMUNITY HOG HOUSES·


·CROSS-SECTION·IOWA·GUNLIT·HOG·HOUSE·
·FRAME·····CONSTRUCTION·····HOLLOW·TILE·


·FRAMING·IOWA·GABLE·ROOF·HOG·HOUSE·

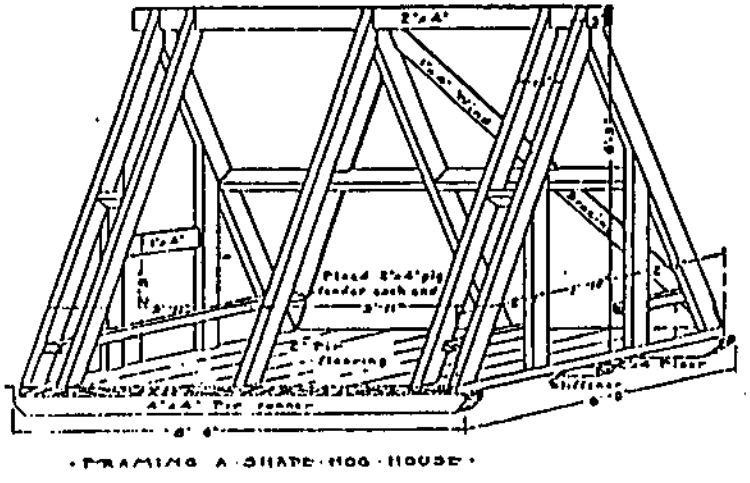

·FRAMING·A·SHADE·HOG·HOUSE·

Figure 20
Types of Hog Houses

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 21).

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.

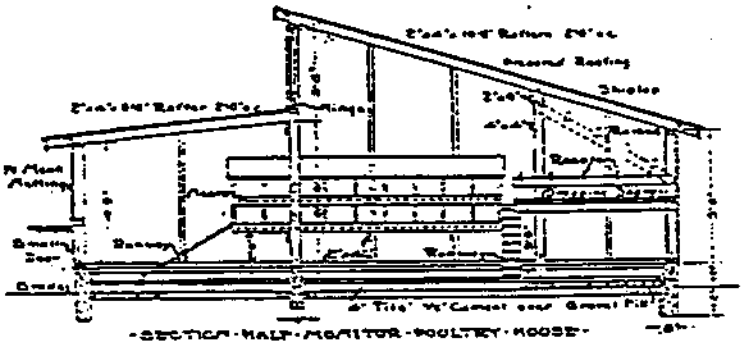
The monitor barn consists of a main part, 16 to 24 feet wide, for hay storage, and the hay space extends to the ground. On two or three sides of the barn are sheds for the stock, each 14 to 20 feet wide. Hay is fed into racks from the loft, and wide doors are provided at the ends of each shed.

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 22).

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 farthest 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 3 because all nineteen counties were raising cattle, sheep, swine, horses, and poultry by 1910. The number of swine in 1910 ranged from 9,628 in Washington County to 35,148 in Osage County. Horse population ranged from 2,633 in Adair to 12,551 in Osage. Poultry figures indicate a range of 45,375 in Washington to 127,777 in Pawnee. Finally, sheep production ranged from 7 in Wagoner to 1,730 in Osage. By 1930 swine numbered more than 10,000 in each county



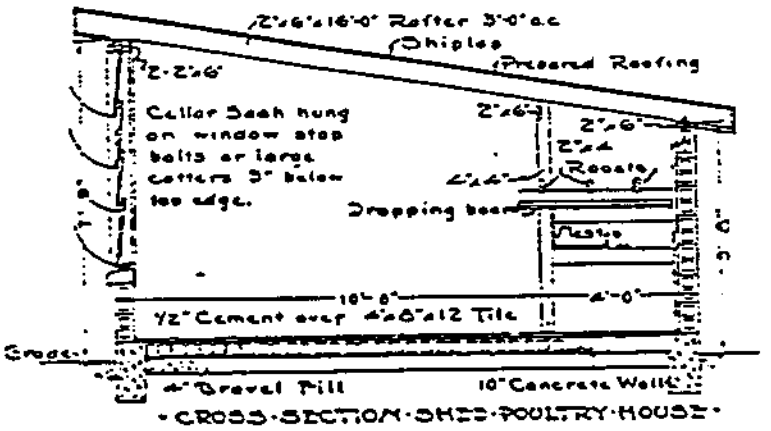
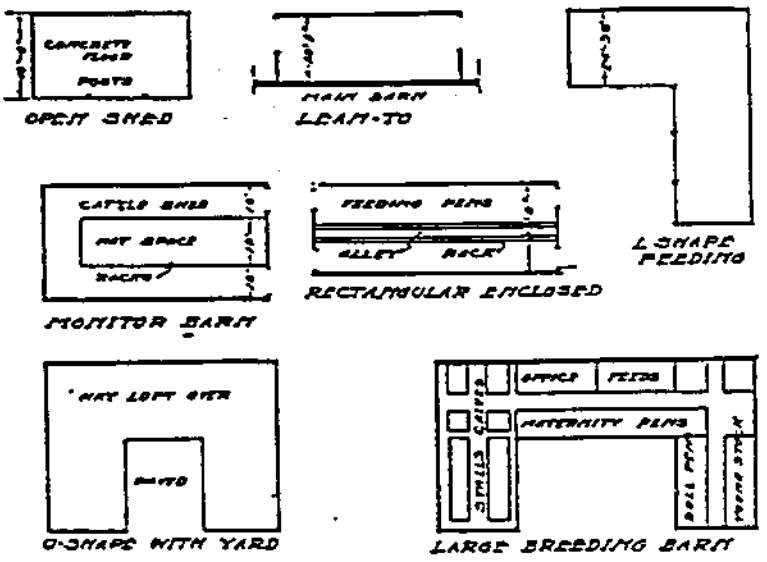
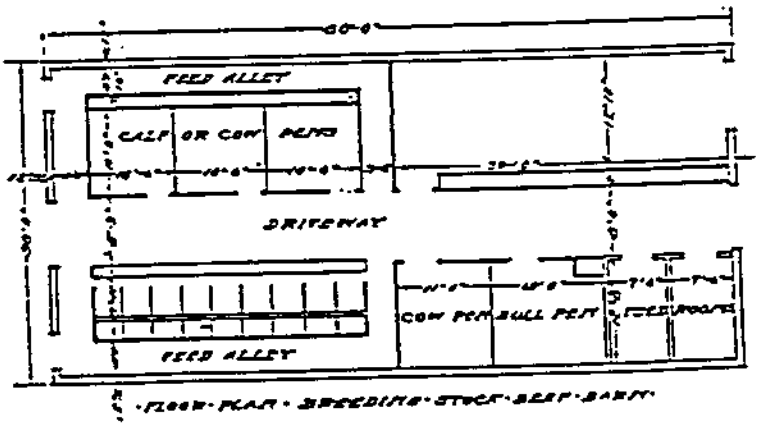


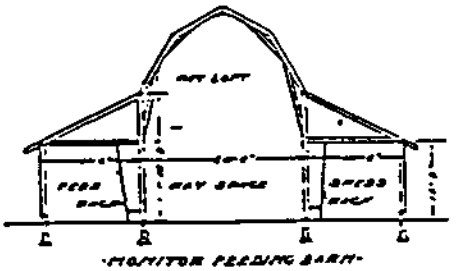
Figure 21
Types of Poultry Houses



·COMMON TYPES OF BEEF BARNS·



·FLOOR PLAN · BREEDING STOCK · BEEF BARN·



·MONITOR FEEDING BARN·

Figure 22
Beef and Sheep Barns

except one, sheep production had increased in all nineteen counties, horses numbered more than 2,000 in each county, and poultry had reached to over 70,000 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 farthest away from the farmhouse. They should be located on a working farm and should have been used to provide shelter for hogs and their letters. 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.

GRANARIES AND CRIBS

I. Description

Grain was a principal crop on a large number of farms in Region 3 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 block of windows and its elevation on several short piers of wood, stone, or cement block. Both of these features

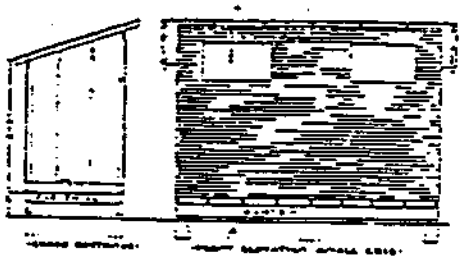
are to make the structure as animal proof as possible and to raise the structure above the damp ground. The interior of the granary was usually divided into a series of bins or compartment for ease of grain holding and to permit storage of more than one grain (see Figure 23).

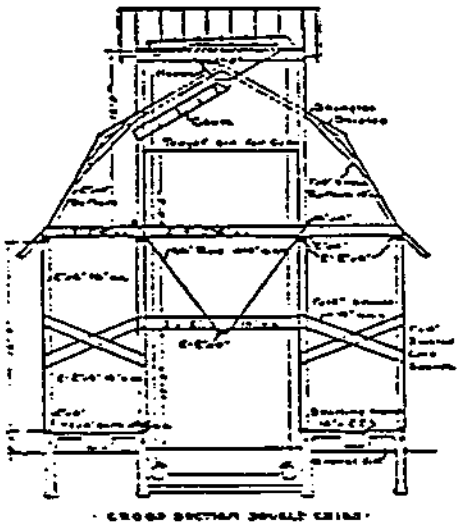
Individual corn cribs were constructed of logs, timber frame, masonry, or metal. One of the functions of the corn crib was to permit the slow drying of the corn in order to reduce losses from mold and mildew. To accomplish this, the crib must possess certain basic design features, which can be used to 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 bottom most 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 24). 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.

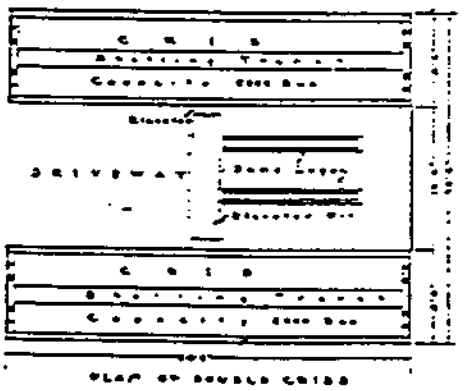
Granaries and cribs should be located on a pre-1930 farmstead in a rural setting and should stand on their original construction sites. They should be located near the feeding barns, hog house, and poultry house in the farmstead plan. They should be located so that a wagon may be driven through it, or 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 3 before 1930. By 1930, three counties (McIntosh, Muskogee, and Osage) produced more than 1 million bushels of corn each year and three counties (Craig, Mayes, and Rogers) produced more than 250,000 bushels of oats. Ottawa, Mayes, and Delaware were the major producers of wheat with over 100,000 bushels







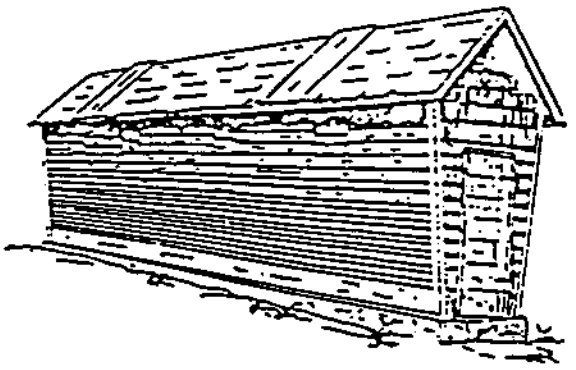


Figure 23
Single and Double Corn Cribs

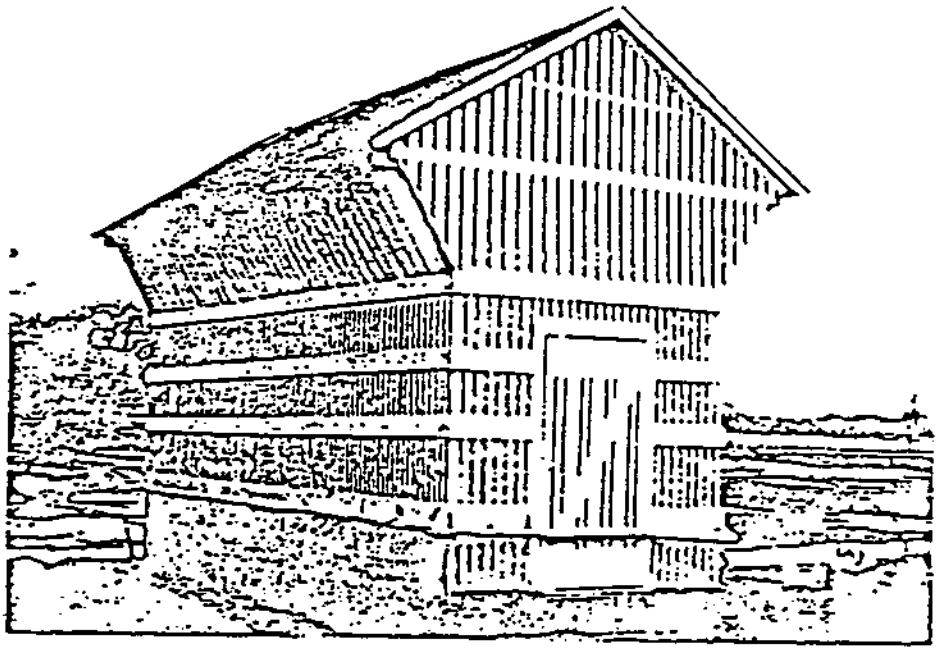


Figure 24
Corn Crib of Unusual Design

each. 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.

IMPLEMENT AND MACHINE SHEDS

I. Description

Farm equipment storage facilities were necessary on the farms in Region 3 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 25. 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

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′	3′
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	5′	26′
Wagon	7′	14′
Buggy	6′	9′
Tractor	7′	12′
Automobile		12′

Figure 25
Inventory of Machines
ca. 1925

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 26).

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

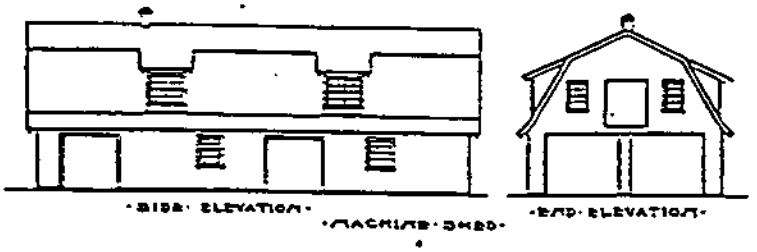
II. Significance

Implement and machine sheds were significant structures in Management Region 3 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, 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 shed 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.



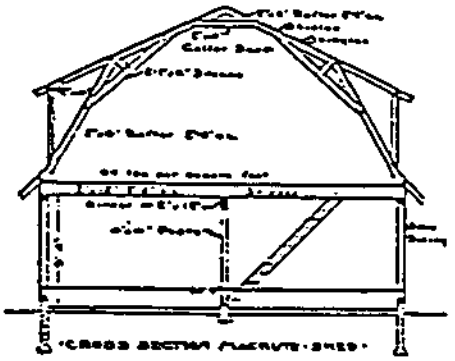


Figure 26
Machine Shed Construction

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.

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, 92) 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 consist 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

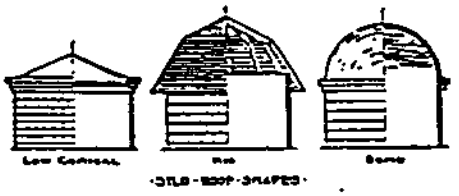
edge to form a curve, is used. The bar is about 1/8" x 1 1/2" in size, and bonds well into the joint. The wall should be laid up carefully as it is not porous. The interior is plastered with a cement mortar to insure a smooth, tight wall.

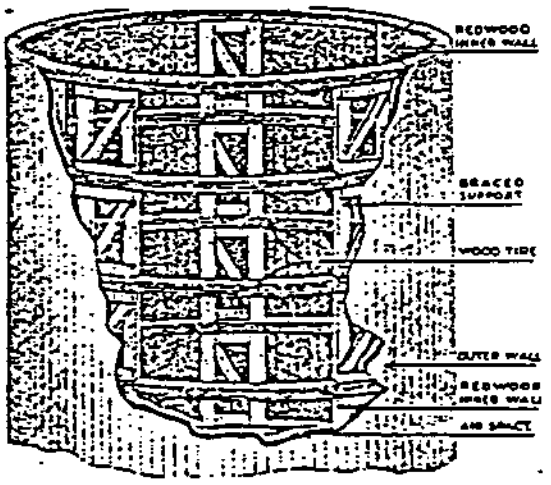
The use of hollow tile or clay blocks was first used in 1908. The blocks used are 4" to 6" thick. One or more air spaces are formed in the block. Some blocks have special grooves to receive the reinforcing. The silo blocks are curved to the form of the silo wall. The reinforcing consists of heavy steel 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 27).

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.

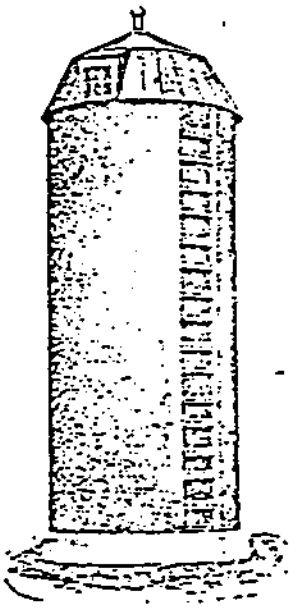
The cement-stave silo was first used in 1904. The Playford cement stave is book-shaped, 2 1/2" thick, 10" wide, and 28" long. The Interlocking patent has an interlocking end joint. The Caldwell block has an end step joint and reinforcing in the block. The Perfection block has a hollow side joint which 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.

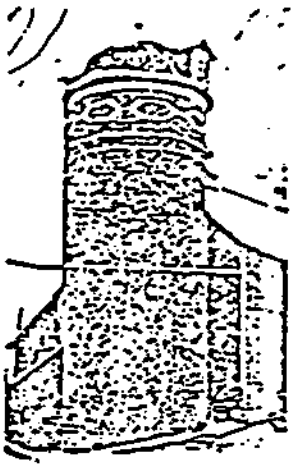




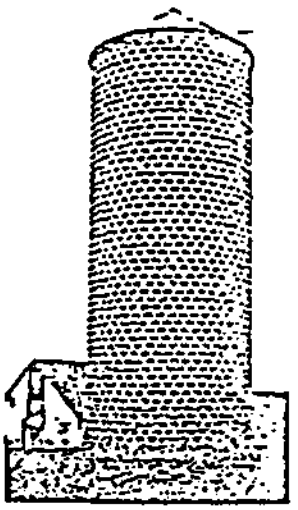
Wood Hoop Silo Construction



Wood Hoop Silo



Brick Silo



Hollow Clay Silo

Figure 27

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 28).

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 3 1/2 to 4 feet deep.

Doors for the silo may be of 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.

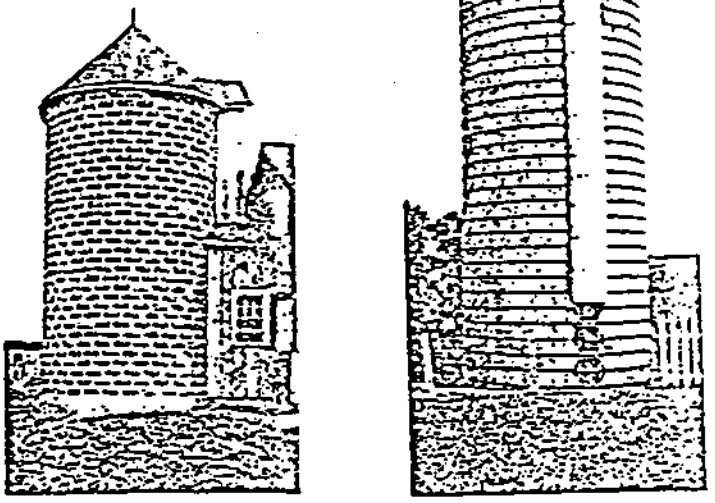
Roof types of silos vary and in many localities no roof is used. The two roof types commonly found are the low conical and the round gambrel, sometimes know locally as the "hip" roof. The conical roof may be made of wood, concrete, or metal. The wood roof is of ordinary frame construction , using 2" 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.

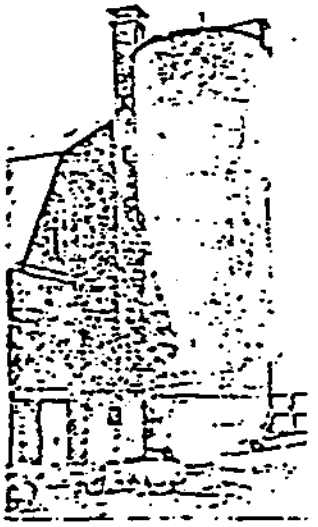
II. Significance

Silos played an important role in the agricultural history of Management Region 3 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.



Concrete Block Silo

Concrete Stave Silo



Monolithic Concrete Silo

Figure 28
Concrete Block Silo
Concrete Stave Silo
Monolithic Concrete Silc

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 7 1/8" x 1 1/2" 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 eligibly must be associated with a farming operation in Region 3 prior to 1930.

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 farmstead 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 year 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 as 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 houses, and cattle-feeding shed should be near together for convenience 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 reasonable 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 shelter 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 loaded 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.

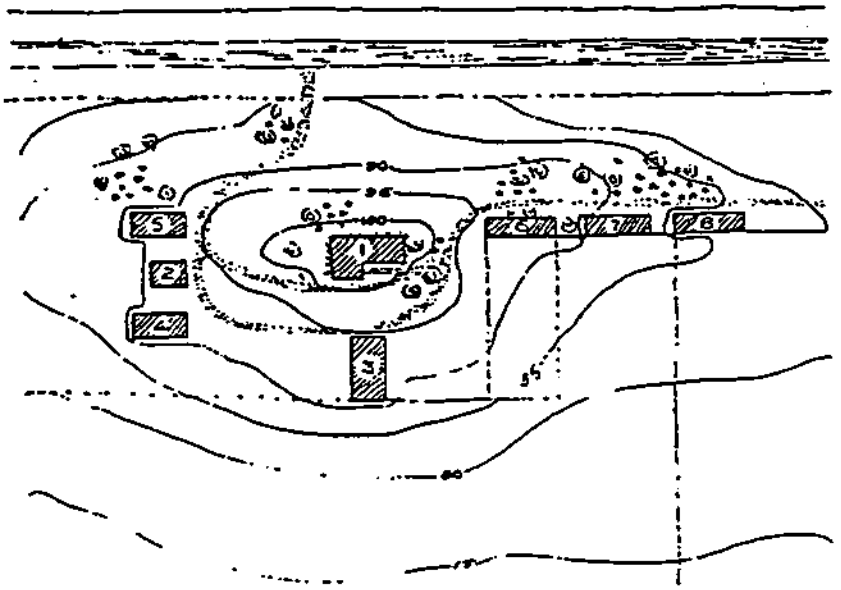
The poultry house may be nearer the dwelling than other buildings, but should be kept away from the barns and grains storage buildings. It should face the south and be located on porous, well-drained soil. The ice house, milk house, and pump house may be located between the house and the dairy barn.

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 in 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 the 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 29).

Figure 29

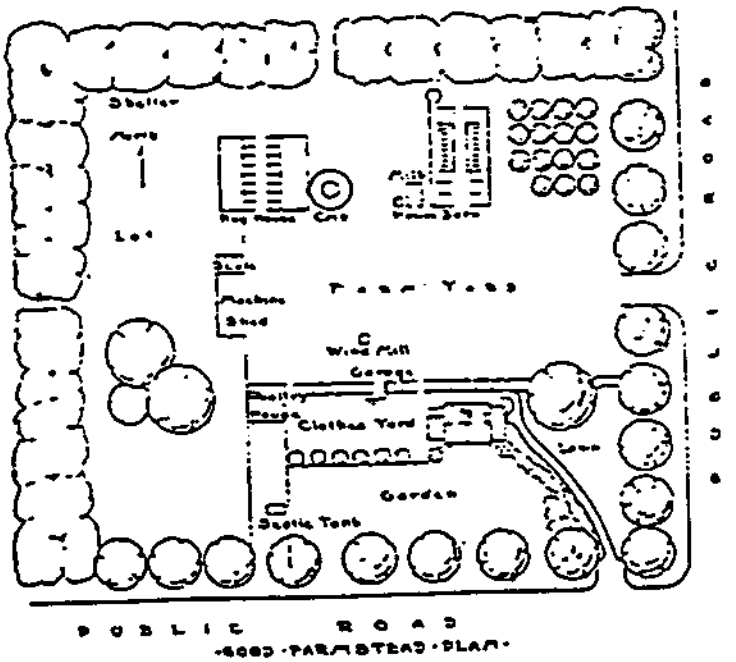
The Oklahoma Farmstead



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. Some near land level enough for cane and alfalfa.



-GOOD FARMSTEAD PLAN-

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 3 in the pre-1930 period because by 1910 all the counties except one contained between 1,000 and 3,500 farms. By 1930 the total acreage in farmland in Region 3 had reached to more than 6,000,000. 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 field 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 relations 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 3 prior to 1930, should have the outbuildings arranged around a rectangular, somewhat to the rear of the farm house, 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.

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, (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, and 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 4 1/2" 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 tracks, 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 30).

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

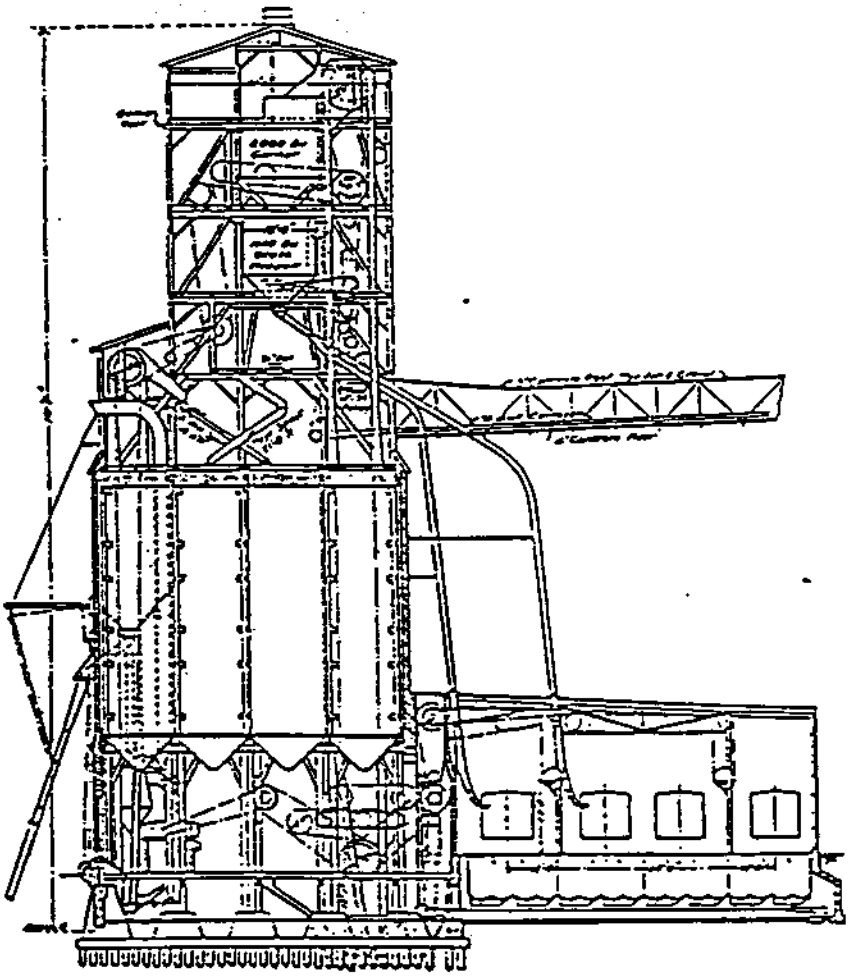


Figure 30
Transverse Section of
Timber Working House

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′ approximately high; the garner and scale story is 26 1/2′ high; and the machinery story is 13′ high. The walls below and above the bins are covered with No. 24 corrugated steel laid with 1 1/2 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 31).

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 by 12" x 12" x 6", the channel tile 12" x 4" x 5", the outside facing tile made of similar material, but semi-glazed

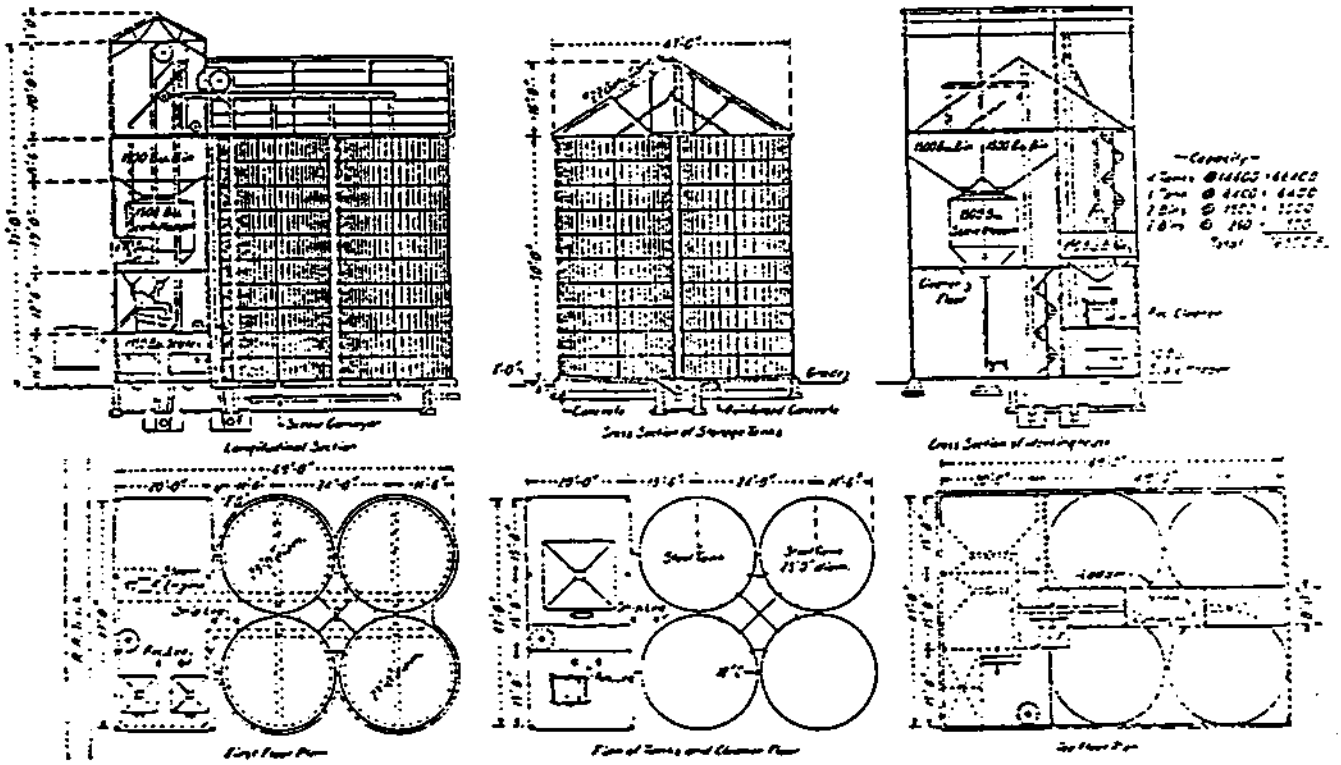


Figure 31
Steel Country Elevator

and 12" x 12" x 1 1/4". 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 32).

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 2 1/2" 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 3 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 market 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

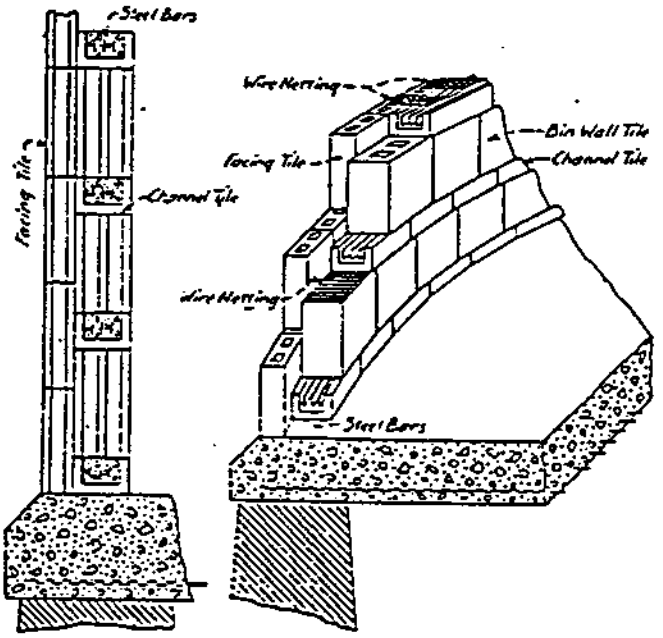


Figure 32
Details of Tile Grain Bin

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 3 must be situated in a small town, and along a railroad track 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 3, 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 flatware to break joints and bind 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.

Annotated List of Historic Properties
Agriculture
Region #3

I. ADAIR COUNTY

A. Stilwell

(1) Bryan-Adair House

Location: 5 miles east of Stilwell, off SH 51
Date: 1833
Significance: A chinked log structure built by Joel Mayes Bryan in 1833 serves as the heart of this two-story, eight-room house. It is believed to be the oldest standing house in Oklahoma built by a white man (O.L.I.).

(2) Golda's Mill

Location: Section 16, T16N, R24E
Date: Late 1830's/early 1840's
Significance: This was the first grist mill built on Bitting Creek. It was in ruins when Dr. Nicholas Bitting, a Methodist preacher, came to this area after 1876. He operated the mill with its white granite buhrs cut in France between 1882 and the mid-1890's, often running at its full capacity of 200 bushels a day. J.C. Worley operated it for 20 years beginning in 1908. Mrs. Golda Unkefer purchased the property, including its 24' x 54' main building, in 1950. The mill was destroyed by fire Oct. 5, 1983 (National Register of Historic Places).

(3) Starr Ranch Properties (3)

Location: Section 15, T15N, R25E
Date: 1908-1911
Significance: The two-story, wood frame, northernmost house was built in 1908 by Sam J. Starr. The wood frame, two-story house in the southeast portion of the property was built in 1910, also by Sam J. Starr. The one-story house in the southwest portion of the property was built in 1911 by Colbert Starr. All three houses represent a middle-sized, prosperous Indian ranch of the early twentieth century (O.L.I.).

II. CHEROKEE COUNTY

A. Cookson

(1) Ballew Ranch House

Location: Section 14, T14N, R22E
Date: ca. 1900-1901
Significance: Moved to a location several miles east of its original location in 1951, this one-story frame house represents a small subsistence ranch of the late nineteenth/early twentieth centuries (O.L.I.).

B. Tahlequah

(1) Walkingstick House

Location: Buxton Road, west of Highway 62
Date: ca. 1833
Significance: This house is located close to the Walkingstick Spring, which served as a principal source of water for area residents for many years. The original one and one-half story structure was constructed by John Walkingstick of the Cherokee Nation. John Watt constructed the chiseled stone chimney. The structure was moved 150' from its original location in 1973 for the Oklahoma Highway Department (O.L.I.).

III. CRAIG COUNTY

A. Vinita

(1) Knowles/Sellmeyer Ranch House

Location: Section 13, T25N, R21E
Date: 1909
Significance: Currently owned by Raymond Sellmeyer, the ranch was founded in 1909 by J. Franklin Knowles and is representative of a small subsistence ranch of the early 20th century in northeast Oklahoma (O.L.I.).

(2) Mitchell Cabin

Location: NW/4, SW/4, Section 25, T27N, R19W
Date: 1938-1941
Significance: This home, built by Dr. Robert L. Mitchell, sits on land that was part of the family allotment in the Cooweescoowee District of the Cherokee Nation. It is constructed of logs and contains material from cabins in the surrounding area dating 1840-1869. Cornerstones

CRAIG COUNTY, Vinita, continued

from Sequoyah's home and the Cherokee Female Seminary are also part of this log house (O.L.I.).

(3) Nugent/Heathcock Ranch House

Location: Section 18, T23N, R21E
Date: 1913
Significance: This property contains a two-story frame house and represents a middle-size subsistence ranch of the early twentieth century. It was founded by Claude Nugent, a native of Arkansas, in the first decade of the century (O.L.I.).

B. Welch

(1) Hancock Ranch Houses (2)

Location: Section 2, T28N, R18E
Date: 1908
Significance: The first house is a stone structure built in 1910. The second house was built in 1920 and is a frame structure with siding. Both houses represent an early twentieth century, medium-sized, subsistence ranch in Oklahoma (O.L.I.).

IV. CREEK COUNTY

A. Bristow

(1) Allen Ranch House

Location: Section 6, T15N, R10E
Date: ca. 1869
Significance: The original ranch house consisted of a one-story, two-room log cabin. Four rooms were added around 1904, and a two-story, four-room addition was added in 1911. This structure represents a mid-size Indian ranch of the late nineteenth century which prospered over the years (O.L.I.).

B. Oilton

(1) Territorial Days Half-Dugout

Location: vicinity of Oilton
Date: 1898
Significance: This structure was constructed by W.E. Dunn, a Kansas homesteader who was respon-

CREEK COUNTY, Oilton, continued

sible for planning the townsite of Oilton. It represents one of the first forms of settlement architecture in Oklahoma Territory (O.L.I.).

V. DELAWARE COUNTY

A. Afton

(1) Stand Watie Log House

Location: NE/4, NE/4, NW/4, Section 15, T25N, R22E
Date: Believed to be ca. 1838
Significance: It is believed this one and one-half story hewn log house was built by the celebrated Confederate officer Stand Watie. If the construction date could be verified, this structure would rank with Sequoyah's cabin in terms of age and notoriety (O.L.I.).

B. Grove

(1) Grove Cheese Factory

Location: Block 10, Lot 4
Date: Early 1920's
Significance: This cobblestone building was constructed through labor and monetary donations provided by the Grove Chamber of Commerce and local businessmen. Dairymen were persuaded to move from Wisconsin to Oklahoma to operate the facility, with local milk producers supplying milk. The plant operated on a cooperative basis for approximately two years before closing (O.L.I.).

(2) Parks/DeWitt Ranch House

Location: Section 33, T25N, R25E
Date: 1901
Significance: The Parks Ranch was established by Thomas Jefferson Parks in the 1840's in northeastern Delaware County. The two-story frame ranch house was built by Johnson Calvin Parks on the site of the original log cabin that burned during the Civil War. This structure represents a small, successful subsistence ranching operation of the late nineteenth/early twentieth centuries in Oklahoma (O.L.I.).

DELAWARE COUNTY, Grove, continued

(3) Stand Watie Farm Site

Location: NW/4, NW/4, NW/4, Section 33, T24N, R24E
Date: Unknown
Significance: Located along Honey Creek, this farm site belonged to Confederate officer Stand Watie (O.L.I.).

(4) Stand Watie Homesite

Location: NW/4, NW/4, SE/4, Section 33, T24N, R24E
Date: Unknown
Significance: This site is located on the "Monkey Island" Peninsula of Grand Lake, and contains the burial plot of Confederate officer Stand Watie (O.L.I.).

(5) Rodeo Grounds

Location: Grove, Oklahoma
Date: Unknown
Significance: This site functions as rodeo grounds for the surrounding area (O.L.I.).

C. West Siloam Springs

(1) Hildebrand Mill

Location: SW/4, Section 24, T20N, R24E
Date: ca. 1845
Significance: The original mill was destroyed by flood in 1892, and was replaced by the present mill, which was constructed in 1907. It contained one of the original buhrs brought over from France, and operated as a mill until 1967 (National Register of Historic Places).

VI. MAYES COUNTY

A. Choteau

(1) Farmers and Merchants Bank

Location: 201 West Main
Date: 1908
Significance: This two-story commercial structure housed the second bank founded in Choteau, and is representative of Midwestern small town commercial architecture. It is the only surviving structure from that time period associated

MAYES COUNTY, Choteau, continued

with financial activity (National Register of Historic Places).

B. Pryor

(1) Daniel Webster Vann House

Location: Four miles west of Pryor on SR 20
Date: 1880's
Significance: Large stone blocks and an accomplished stone mason were used in constructing the full basement of this two-story structure, making it unique in the Pryor vicinity. It served as the home of a leading Cherokee family for approximately forty years (O.L.I.).

(2) Mayes Ranch House

Location: Section 17, T21N, R20E
Date: 1857
Significance: The ranch was established and the house built by Samuel Mayes, who gained access to land in Indian Territory through marriage to a Cherokee. Samuel Houston Mayes, one of two sons to inherit the ranch, enlarged the house in 1874, building around the original house. The wood frame, two-story house contains a balcony and sun deck, and represents a middle-sized, successful Indian ranch of the late nineteenth century (O.L.I.).

VII. MCINTOSH COUNTY

A. Checotah

(1) James Eddy Farm House

Location: NW/4, Section 26, T12N, R18E
Date: ca. 1945
Significance: Unknown (O.L.I.).

B. Eufaula

(1) First Soil Conservation District Dedication Site

Location: 2 miles west and 1 1/2 miles north of Eufaula
Date: 1939
Significance: This forty-acre site is home of the McIntosh County Soil Conservation District, which was the dedication grounds and demonstration site for the first soil conservation dis-

MCINTOSH COUNTY, Eufaula, continued

trict in the U.S. Formation of this district marked the beginning of extensive soil conservation on privately-owned farms in the U.S. (National Register of Historic Places).

C. Hanna

(1) Cochrane's Gin

Location: Corner of Huts and Main Streets, 2 blocks east of main intersection
Date: ca. 1902
Significance: Also known as the Spillman Gin, this structure was constructed of corrugated metal. The office/scale house, cotton house, and gin building are still intact, while the seed storage house no longer exists. This structure is one of two remaining cotton gins out of four which originally served this cotton-producing area. It ceased operation at the end of World War II when cotton production dropped due to soil exhaustion (O.L.I.).

(2) Winston Gin

Location: SW/4, SW/4, Section 36, T9N, R13E
Date: Unknown
Significance: Buildings still intact include a clapboard office/scale house, a tiered octagonal cotton house, and a seed house. The concrete floor of the gin building and some of the concrete piers for the loading platforms are still visible. This is the oldest of two cotton gins remaining in the Hanna vicinity (O.L.I.).

D. Pierce

(1) W.E. Johnson Gin and Store

Location: NW/4, Section 15, T11N, R15E
Date: 1917 (gin)/1920 (store)
Significance: Both of these structures were constructed by W.E. Johnson and represent the once thriving rural commercial center of Pierce. The one-story, commercial storefront store is constructed of stone with a brick facade. At one time it contained a barbershop, doctor's office, drug store, gasoline pump, grist mill, post office, and general merchandise. Due to a fatal accident, the cotton gin was moved 1/4 mile south of its original location in 1930. It is constructed of corrugated metal and rises

MCINTOSH COUNTY, Pierce, continued

several levels above ground. Structures still intact include a seed house, storage, and gin building. This facility is the largest of three remaining gins in the county (O.L.I.).

VIII. MUSKOGEE COUNTY

A. Muskogee

(1) Fewel Ranch House

Location: Section 21, T15N, R17E
Date: ca. 1921
Significance: This ranch was established by Rollow Fewel on inherited land, and at one time consisted of 4,000-5,000 acres of land and approximately 500 head of registered hereford cattle. Mr. Fewel remained active in local agricultural operations until his death in 1975. The ranch is representative of a medium-sized northeastern Oklahoman ranch, and remains in operation today (O.L.I.).

(2) Kershaw Ranch House

Location: Section 9, T31N, R18E
Date: 1912
Significance: Consisting at one time of over 1300 acres of land, the Kershaw Ranch was founded in 1912 by L.R. Kershaw, a pioneer breeder of Abereen Angus in Oklahoma. The ranch is representative of a medium-sized subsistence ranch in early 20th century Oklahoma (O.L.I.).

(3) Southern Electric - Stout Roller Mill

Location: 302 Commercial
Date: ca. 1898
Significance: In addition to being one of the oldest buildings in Muskogee, this structure houses the only water-powered elevator in Muskogee and possibly in all of Oklahoma. It is also the only remaining structure in northeast Oklahoma which was part of a roller mill operation (Farmer's Corn Mill) (O.L.I.).

B. Warner

(1) Shinn Ranch House

Location: Section 33, T12N, R19E
Date: 1908

MUSKOGEE COUNTY, Warner, continued

Significance: The Shinn Ranch was founded by C.M. Shinn, a Cherokee, before the turn of the century. At one time, the ranch consisted of 200-300 acres of land and approximately 100-150 head of cattle, and was typical of a small subsistence ranch. Shinn and his son, Jess, constructed the one-story, 32'x 28' frame house, which consisted of four rooms and an open porch. C.M. Shinn died in 1939, and his son, Jess, owns the property and leases the land (O.L.I.).

IX. NOWATA COUNTY

A. Lenapah

(1) Lowry Ranch House

Location: Section 18, T28N, R7E
Date: 1911
Significance: William Lafayette Lowry established this ranch in 1904, which at one time consisted of 10,000 acres of land and hundreds of head of cattle. The two-story frame house was originally 32'x 35', and had a concrete balcony over the front porch where cowboys slept in the summer. A 16' room was added on the north side in the 1930's, a 20' room was added on the southwest corner in 1961, and the concrete balcony was removed in 1970. The ranch is representative of a large, family-owned, profit-oriented ranch in early 20th century Oklahoma, and is still operated by the Lowry family today (O.L.I.).

X. OKFUSKEE COUNTY

A. Okemah

(1) Sowders Ranch House

Location: NE/4, SW/4, Section 30, T13N, R10E
Date: 1913
Significance: Established in 1905 by M.F. Sowders, the Sowders Ranch consisted of a 160-acre homestead. In addition to raising cattle, hogs and horses were raised and wheat and oats were grown. This was typical of small ranchers who did not own enough good land to survive on raising cattle alone. The one-story, four-room, 28'x 28' house was built with stone hauled from a hill located on the ranch. It is representa-

OKFUSKEE COUNTY, Okemah, continued

tive of a very small subsistence ranch in the early 20th century, and is still owned by the Sowders family (O.L.I.).

XI. OKMULGEE COUNTY

A. Beggs

(1) Isparhecher Home and Grave

Location: NW/4, Section 34, T15N, R11E
Date: ca. 1890
Significance: This structure was the second and final home of Isparhecher, principal chief of the Creek Nation from 1895 to 1899. The T-shaped, one-story frame structure has an open porch across the front and a screened-in back porch on the west side of the "T". Isparhecher, who was born in the old Creek Nation in Alabama, came to Oklahoma with his parents, who settled at Cussetah Town near present-day Okmulgee. He took up farming and stock raising when they died, and except when he was engaged in public service for his people, he remained on this land until his death in 1902 (O.L.I.).

B. Morris

(1) Russell Mill and Elevator

Location: 201 South 3rd
Date: Unknown
Significance: Although the construction date is unknown, it is known that James Russell bought the mill and elevator from a Mr. Brown in 1906. This is evidenced by a sign painted on the front which reads "Russell Mill and Elevator, Since 1906." The mill was originally run by steam, and a water pond was located just east of the elevator (O.L.I.).

C. Okmulgee

(1) Arrowhead Ranch House

Location: Section 32, T15N, R14E
Date: 1930
Significance: Enus Wilson, Sr., a wealthy, full-blooded Creek Indian, established this ranch in the 1920's. It consisted of 1,640 acres of land and several hundred head of registered Hereford cattle, and was representative of

a small but profitable Indian ranch based on the breeding of high-grade cattle. The two-story, 76'x 71' Italian Renaissance-style house is constructed of brick with a green tiled roof, and was designed by L.P. Conkling and built entirely by members of the Creek tribe. A three-car garage with servant's quarters above sits next to the house (O.L.I.).

(2) Miller Ranch House and Barn

Location: Section 6, T15N, R14E
Date: ca. 1880 (barn)/1882 (ranch house)
Significance: This "L"-shaped, two-story frame house was built by Bluford Miller, but was cut in half, with one section being moved and made into a foreman's quarters. Although the foreman's quarters no longer exists, the remaining original frame structure serves as the foundation for the present two-story brick structure built in 1921. The house measures 55'x 47' and contains 14 rooms, while the barn measures 36'x 36' (O.L.I.).

XII. OSAGE COUNTY

A. Barnsdall

(1) Talley Ranch House/Hall Ranch House

Location: Section 9, T24N, R10E
Date: 1885-1890
Significance: Representing a middle-sized, subsistence ranch of the late nineteenth/early twentieth century, this house has served as headquarters to numerous Osage County ranching families. The ranch was well-known and the site of numerous dances, as well as an outlaw hideout during the 1920's. The two-story frame house measures 50'x 30' and consists of eight rooms. Past owners include Ed Talley, Joe Quentin, and the Rogers family. Charles Hall, Sr. purchased the ranch in 1935, and it is currently owned and operated by Mrs. Charles Hall, Jr. and her son (O.L.I.).

B. Bowring

(1) Mullendore Cross Bell Ranch House

Location: Section 28, T29N, R12E
Date: 1927-1930

OSAGE COUNTY, Bowring, continued

Significance: E.C. Mullendore, Jr. built this two-story, native stone structure with the help of prisoners from McAlester Penitentiary. The house measures 65'x 61' and served as headquarters of one of the largest family-owned ranches in northeastern Oklahoma. E.C. Mullendore, Jr. married the daughter of an Osage chief in 1927, and established the ranch headquarters on allotment land. He established the ranch in the early 1920's, purchasing his first cattle from his father, who began ranching in Osage and Pawnee Counties in the 1890's. At one point in time, Mr. Mullendore managed five ranches consisting of 130,000 acres in Kansas and Oklahoma. Three of the ranches have been sold, and today E.C. Mullendore owns the Hulah Ranch. The Mullendore Cross Bell Brand has been used by the family for 100 years (O.L.I.).

C. Burbank

(1) Donelson Ranch House

Location: Section 28, T26N, R5E
Date: 1917
Significance: This structure represents a large, financially successful, family-owned ranch of early 20th century Oklahoma. It is built from native stone, and originally measured 50'x 49' and consisted of four rooms with walls 18" thick. In the 1920's, a frame addition, measuring 50' x 13' and consisting of an upstairs and two additional rooms on the back, was added. The ranch was founded around 1898 by Dave Donelson, who married an Osage Indian woman and obtained land use rights in Indian Territory. After allotment, Donelson and his son, R.L., purchased several thousand acres of land and raised cattle. The ranch is operated today by R.L.'s widow (O.L.I.).

D. Hominy

(1) 3-D Ranch

Location: T21 & 22N - R10 & 11E; T23N - R10 & 11E; T1 & 22N - R9E
Date: 1880's
Significance: The 3-D Ranch was one of the largest ranches in Osage County in the late 1880's. This area was ideal for grazing cattle due to the bluestem grass present. Tom Wagner

OSAGE COUNTY, Hominy, continued

leased 60,000 acres of land from A.W. Hoots in 1889 (O.L.I.).

E. Pawhuska

(1) Blacksmith's House

Location: 210 West Main
Date: 1872
Significance: Constructed of sandstone blocks, this structure was the first house built in Pawhuska. It was built to entice a Swiss blacksmith named Delarve to live in the area, and is typical of early settlers' homes in the area. It confirms the importance of a blacksmith to the tribe, and represents acculturation of the Osage to white culture through increased participation in a non-Indian economy (O.L.I.).

(2) Chapman-Barnard Ranch House

Location: Section 3, T27N, R8E
Date: 1919-1920
Significance: Former oilmen James A. Chapman and Horace G. Barnard built this twelve-room, brick house measuring 50'x 90'. It is representative of the largest corporate, profit-oriented ranch in northeastern Oklahoma. The ranch was established in 1915 by the two oilmen, and originally consisted of 1200 acres of land. By the 1950's, it had grown to over 100,000 acres of land, and produced Hereford cattle. Although the founders are deceased, the ranch continues in operation and the ranch house now serves as an office and bunk house (O.L.I.).

(3) Easley Ranch House/Rocking Chair Ranch House

Location: Section 25, T28N, R10E
Date: 1903-1910
Significance: Constructed of native, hand-cut stone quarried nearby at Mission Head Creek, this twelve-room, 70'x 41' house was built by an Osage named William Easley. The structure represents a large, family-owned Indian ranch of the early 20th century. The ranch was established around 1900 when Easley received several thousand acres through allotment. Approximately 500 head of cattle were run on it, but despite its size, the ranch was unsuccessful and Easley was forced to sell in the 1920's. The present

OSAGE COUNTY, Pawhuska, continued

ranch is smaller, but continues to operate today (O.L.I.).

F. Pearsonia

(1) Conner Ranch House

Location: Section 21, T27N, R8E
Date: 1918
Significance: Originally a boarding house in the town of Pearsonia, this two-story frame structure represents a medium-size Indian ranch in northeast Oklahoma in the early 1900's. Tobe Pearson founded the ranch in the late 1800's, and raised cattle on it prior to allotment. He moved the thirteen-room, 54'x 32' house onto his ranch in 1926 (O.L.I.).

G. Skiatook

(1) Captain Family Homes

Location: NE/4, SE/4, Section 32, T22N, R12E; NW/4, NE/4, Section 31, T22N, R12E; and SW/4, SE/4, Section 21, T22n, R12E
Date: 1870's (1st structure)/1880's (2nd & 3rd structure)
Significance: These three structures were occupied by members of the same family. The houses appear similar, and supposedly had the same unknown builder supervise their construction. Augustus Captain and his wife, Jane, were early settlers in the area, and built the first structure in the 1870's. Following the death of Augustus, his widow and her new husband built the second structure in the 1880's. A third structure was also built in the 1880's by a daughter. It is known as the Green Yeargain House, and today serves as a Farrier's College (O.L.I.).

XIII. OTTAWA COUNTY

A. Miami

(1) McNaughton Barn

Location: NW/4, NW/4, NW/4, Section 24, T28N, R24E
Date: early 1880's
Significance: This barn was used in some of the agricultural and mining activities of Max Mirage

OTTAWA COUNTY, Miami, continued

View Farm, one of the early business and social centers for northeast Oklahoma. The farm was established when J.P. McNaughton, the first Euro-American to survey and mine lead and zinc deposits in Ottawa County, purchased more than 800 acres of land on Spring River. The barn served as the first post office in this part of the state, as well as a jail, stage coach terminal, and trading post (O.L.I.).

XIV. PAWNEE COUNTY

A. Blackburn

(1) L.M. Ranch

Location: NW/4, Section 31, T22N, R7E
Date: 1901
Significance: The L.M. Ranch represents an early ranching facility which later became a subsistence family farming unit. The architecture present is an example of the local style and type using materials available locally (O.L.I.).

B. Maramec

(1) M.B. Cave Farm

Location: NW/4, Section 10, T20N, R6E
Date: 1898-1902
Significance: Built of locally available native stone, the well-built stone house, barn, and out-buildings represent owner-constructed stone buildings of the territorial period (O.L.I.).

C. Pawnee

(1) Blue Hawk Peak Ranch

Location: W/2, Section 6, T21N, R5E
Date: 1910
Significance: This rustic mansion utilizes buff-colored, rough stone quarried at Blue Hawk Peak. The 14-room house contains rare hardwood throughout its interior, and the exterior utilizes red mortar and a red tile roof. The barn, house, and log cabin are in excellent condition (National Register of Historic Places).

PAWNEE COUNTY, Pawnee, continued

(2) Corliss Steam Engine

Location: Pawnee Fairgrounds
Date: ca. 1913
Significance: Invented by G.H. Corliss in 1850, this engine was built to convert heat energy into mechanical work, and was an improvement over engines in existence at that time. The engine weighs 700 tons, has a 30 ft., 14-ton flywheel, and utilizes an area measuring 9'x 10.5'. It has been described as one of the most important advances in steam power since James Watt's era, and some refer to it as the "eighth wonder of the world." The smelter at Blackwell was served by the engine for more than 60 years. The engine has been moved to the Pawnee Fairgrounds by the Oklahoma Steam Thresher Association, and remains in operating condition today (National Register of Historic Places).

XV. ROGERS COUNTY

A. Chelsea

(1) Lane/Goff Ranch House

Location: Section 30, T24N, R18E
Date: 1901
Significance: This two-story, Victorian-style wood frame house was built by Cap Lane, a Chelsea pharmacist, and his wife, Maud Ethel Rogers, who was the sister of Will Rogers. The house measures 40'x 75' and has a floored attic. Lane established Sunset Farm in 1890, and was involved in cattle and farming. The house was built after fire destroyed their previous home on the site. After their deaths in the 1920's, Charles and John Goff purchased the ranch in 1930 and established one of the finest racehorse farms in Oklahoma. This ranch house is representative of a small Oklahoma ranch with an owner involved in community affairs and outside interests (O.L.I.).

B. Claremore

(1) Schrimsher Home

Location: E/2, SE/4, Section 20, T21N, R16E
Date: 1860
Significance: Constructed of logs, this structure is one of the oldest, and possibly the old-

ROGERS COUNTY, Claremore, continued

est, in Rogers County. Renovations were done in 1885, and the logs were covered with clapboard. This house was the home of John Schrimsher, who was a cattleman, county councilman, farmer, judge, senator from the Cooweescoowee District of the Cherokee Nation, sheriff, tribal delegate to Washington, D.C., and one of the county's most prominent citizens (O.L.I.).

C. Oologah

(1) Will Rogers Birthplace

Location: SE/4, Section 13, T23N, R15E
Date: 1873
Significance: Site of the birthplace of famous humorist Will Rogers, this two-story, seven-room frame house was one of the finest in Indian Territory at the time of its construction. Over time, the rooms have not changed except in their use. The house was purchased by the State of Oklahoma in 1960 and moved to a hilltop overlooking the original site, since the original site was flooded by construction of the Oologah Dam and Reservoir (O.L.I.).

D. Sageeyah

(1) Hanes Home

Location: 1 mile west of old Oklahoma Highway 88
Date: ca. 1880
Significance: This two-story "I" house is one room deep, two rooms wide, has two end chimneys, a gable roof, and a perpendicular addition on the back side. It is significant because it is one of the oldest and most continuously occupied homes in northeast Oklahoma, and it served as the first school in the community of Sageeyah in the Cooweescoowee District of the Cherokee Nation. In addition, it is a classic example of an "I" house, a folk architectural style originating in Iowa, Illinois, and Indiana (O.L.I.).

XVI. SEQUOYAH COUNTY

A. Sallisaw

(1) Garvin Ranch House

Location: Section 6, T11N, R25E

SEQUOYAH COUNTY, Sallisaw, continued

Date: 1919
Significance: Measuring 32'x 50', this white, one-story house is representative of a late 19th century Cherokee Indian ranch in northeast Oklahoma. The ranch was established by Ben F. Garvin in the 1880's, and consisted of 1,000 head of cattle on open range prior to allotment. After allotment, the ranch was reduced to 360 acres. The ranch is operated today by the founder's descendants (O.L.I.).

(2) Hines Round Barn

Location: 401 South Adams
Date: 1912-1913
Significance: Although the reason for building this structure in a circular fashion is unknown, it is significant in that it is one of three round barns in Oklahoma. Associated with W.R. Hines, a prominent financier in eastern Oklahoma, this stucture is approximately 200 feet in circumference, and actually consists of 20 sides with 10' sections of poured concrete as walls. The roof consists of two sections of vertical ribbing supported by a center scaffolding rising from the ground floor (National Register of Historic Places).

B. Vian

(1) Miller Ranch House/Three-Bar Ranch House

Location: Section 23, T12N, R22E
Date: Unknown
Significance: This ranch house began as a one-story log structure, and was built by a family named Anderson sometime before the Civil War. It was constructed using wooden dowels and handmade nails with square heads, and originally sat on stone pillars with the space below being used for chickens. A Cherokee named Jacksquam Miller established the ranch in the early 1850's, and lived in the house and ran several hundred head of cattle. The Trotter family obtained the ranch in the 1930's, and renovated the house, strengthening the foundation using stone from the original chimneys and enclosing the dog run in the center of the house to give it the appearance of a 37'x 45' frame house. This ranch is representative of an open range Indian ranch in the mid-19th century (O.L.I.).

SEQUOYAH COUNTY, Vian, continued

(2) Seven Bar Ranch House/Hladkey Ranch House

Location: Section 36, T13N, R21E
Date: late 1860's
Significance: Originally a wood frame structure measuring 40'x 19' and containing a floor made from red oak logs, the Hladkey ranch house has had three additions and now measures 65'x 38'. The ranch, originally named the Seven Bar Ranch, was established around 1900 by R.B. Wilson, and reached a size of 7,000 acres. It was sold by his nephew in 1960 to the Hladkeys, and now consists of 1,900 acres. It is representative of a subsistence-oriented, medium-size ranch in early 20th century Oklahoma (O.L.I.).

XVII. TULSA COUNTY

A. Bixby

(1) Brown's Mill/Plummer Grain Elevator

Location: SW/4, Section 13, T17N, R13E
Date: 1909 (Grain Elevator)
Significance: Samuel Plummer established a grain elevator in 1909 and constructed a building in 1917 along the railroad tracks in the town's first industrial area. The elevator sold and shipped seed to dealers. Around this same time, G.A. Brown operated a mill and a cotton gin (O.L.I.).

B. Broken Arrow

(1) Haskell State School of Agriculture

Location: 808 East College
Date: 1910
Significance: This three-story, red brick building measured 51'x 81', and served as the one and only major building on the campus of the Haskell State School of Agriculture. The structure features a classic projecting entryway and a severe, one-story portico supported by two large Doric columns. The college closed in 1917, and the building has served Broken Arrow High School as a fine arts building for the past 60 years (National Register of Historic Places).

TULSA COUNTY, continued

C. Collinsville

(1) Clark's Feed Store

Location: Block 46, Lots 4 and 5
Date: ca. 1915
Significance: Unlike many commercial buildings, this structure is symmetrical and has four sides of interest. The front features brick columns and a band of dentils, and the second story is surrounded by arched windows. This structure has served as a automobile agency and repair shop, a dairy store, and a livestock sale barn from the late 1940's to 1971 (O.L.I.).

(2) Tri-County Feed and Supply

Location: Block 47, Lot 21
Date: 1900-1907
Significance: One of the earliest commercial structures on Main Street, this two-story, red brick building features arched windows with decorative brick work and dentils across the top of the building. The structure was previously owned by F.M. Cox and J.R. Fitts (O.L.I.).

D. Skiatook

(1) B.F. Pinson and Sons Blacksmith and Machine Work

Location: Block 27, Lots 13 and 14
Date: 1905
Significance: Built by Benjamin F. Pinson, this blacksmith shop was one of the earliest in Skiatook. After his death, Walter W. Pinson managed the shop. This blacksmith and machine shop was equipped with cutting and drilling machinery, as well as with lathes (O.L.I.).

(2) Halsell Ranch/Bird Creek Ranch

Location: Section 3, T20N, R13E
Date: 1880
Significance: This large ranch was established by a Texan who married into the Cherokee tribe. The existing structures were built around 1907; the original structures were located approximately in the same vicinity (O.L.I.).

TULSA COUNTY, continued

E. Tulsa

(1) Couch Farm

Location: SE/4, SE/4, Section 12, T18N, R14E
Date: ca. 1900
Significance: This farm was owned by the Couch family, who arrived around 1907 and was one of the first families in Broken Arrow. At one point in time, they owned approximately 1,000 acres of land. This land was divided among family members and some of it has been sold. The farmhouse is typical of farmhouses of that time period, and features 3 gables and a hip roof covering a verandah curving around 3 sides of the house. This structure is one of the few remaining farmhouses located in the vicinity of Broken Arrow, and is located on 400 acres of the original land which the Fred Couch family owns today (O.L.I.)

(2) Fairgrounds Pavilion

Location: Vicinity of Yale Avenue and 21st Street South
Date: 1932
Significance: Constructed at a cost of $267,000 and paid for by a Tulsa bond issue, this massive, steel-reinforced structure features buff-colored brick and multi-colored panels at the roofline featuring motifs such as heads of bulls, rams, and other livestock (O.L.I.).

(3) John J. Wetzel Family Home

Location: SE/4, SE/4, Section 36, T18N, R13E
Date: ca. 1915
Significance: This wood frame structure features a gabled roof, and served as the Tulsa County home of 89'er John J. Wetzel (O.L.I.).

(4) Sperry Post Office/Carson Ranch

Location: Northeast of 106th Street North and Peoria
Date: Prior to 1902
Significance: This ranch house was the location of Sperry's first post office, and helped to establish one of the two settlements of Sperry. The post office was relocated to the present Sperry townsite in 1907 (O.L.I.).

TULSA COUNTY, Tulsa, continued

(5) Tecumseh Perryman House

Location: SE/4, SW/4, Section 21, T19N, R12E
Date: 1903-1940
Significance: Possibly one of Tulsa County's oldest homes, this structure originally was one-story constructed of native sandstone; the second story was added at a later date (O.L.I.).

XVIII. WAGONER COUNTY

A. Porter

(1) Van Tuyl Homeplace

Location: S/2, SW/4, Section 19, T16N, R17E
Date: 1905
Significance: This two-story, single chimney frame farmhouse is constructed in a "T" shape, giving each of the six rooms a window on three sides. The house is built on stone supports which allow air circulation underneath the house. This structure is representative of a substantial, well-built farmhouse constructed at the turn of the century (O.L.I.).

XIX. WASHINGTON COUNTY

A. Bartlesville

(1) Carr-Bartles Mill Site

Location: Section 19, T28N, R13E
Date: 1870
Significance: Nelson F. Carr erected this gristmill on the Caney River in the Cherokee Nation. Jacob Bartles purchased the mill, and added a flour mill and store in 1868. This settlement soon diffused south to a higher elevation and became Bartlesville (O.L.I.).

(2) Scudder Ranch House

Location: Section 6, T27N, R14E
Date: 1880's
Significance: This two-story frame house measures 26'x 53' and was constructed by Cherokee Indians using native rough-cut timber and hand-made square nails. An original upstairs balcony on the west side was destroyed by fire on an unknown date, and a concrete addition was added on an unknown date. The house presently has four

WASHINGTON COUNTY, Bartlesville, continued

rooms upstairs and five rooms downstairs, and is used as a bunkhouse. The ranch was established when G.H. and Jerry Scudder arrived in Washington County prior to WWI. At one point in time it consisted of 5,000 acres of land and 1,000 head of cattle. It represents a large, family-owned ranch in early 20th century Oklahoma, and is an example of white ranchers gaining ownership of Indian-built homes after allotment. The ranch continues in operation today (O.L.I.).

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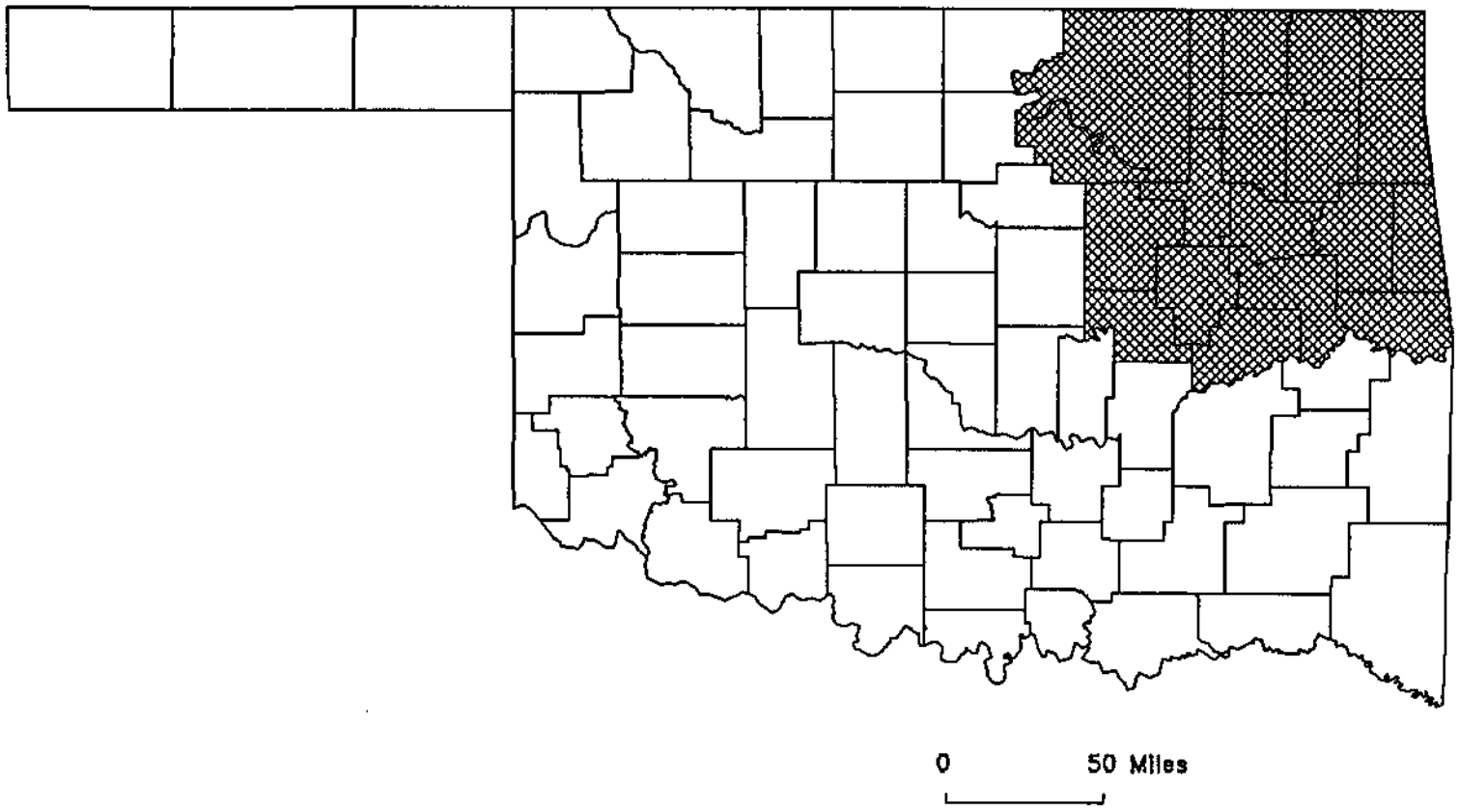
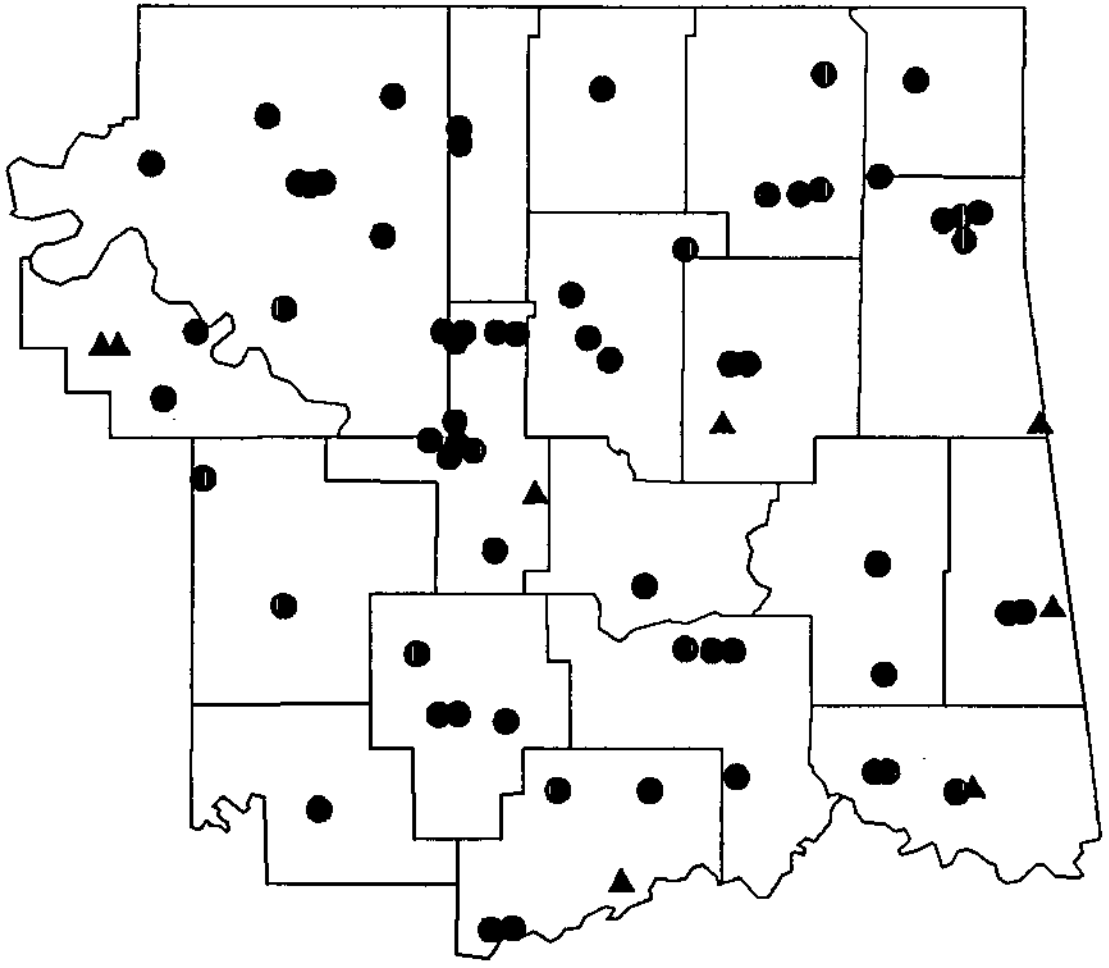
Agricultural Theme in Management Region #3
(1830–1930)



National Register and O.L.I. Properties
Agriculture Theme
Management Region #3



Legend

▲ National Register

● O.L.I.

N=71

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

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