

FREDERICK L. WALTERS  
Historical Architect • Architectural Conservator  
2752 Burton Lane, P.O. Box 437, Cambridge, Idaho 83610

Office: 208-257-4228      Email: flwarch@ctcweb.net

Tuesday, October 24, 2017

Zach Swearingen  
Regional Wildlife Habitat Manager  
Idaho Department of Fish and Game  
Southwest Region  
3101 S. Powerline Rd.  
Nampa, Idaho 83686  
(208) 465-8465

Historic Stonebraker Ranch Barn

Dear Mr. Swearingen:

This letter report is presented as part of Idaho Heritage Trust's Technical Assistance Program. The report is based on the site visit of June 21<sup>st</sup>, 2017, and subsequent background research on the Stonebraker Ranch Barn. It will address what we have learned about the design development of the barn, its current condition, and address options for its future.

Design Development:

What we could ascertain on the development of the barn is based solely on the Stonebraker Photograph Collection in the Library at the University of Idaho.  
<https://www.lib.uidaho.edu/digital/stonebraker/>

The collection contains 540 photographs taken by William Stonebraker between circa 1900 and the 1930's. Within the collection are photographs of the corrals and the barn. Three photographs from the website have been copied as attachment to this report. A close study of these photographs reveals a great deal about the development of the barn.

The first photograph shows three men in front of a corral barn with an open haystack in the background. It is dated 1903. Note the large pole at the back of the haystack.

The second photograph, also dated 1903, shows the large pole next to the haystack. It shows in the lower right hand corner the door entrance to the west side wing of the barn. The large pole is a gin pole (sometimes spelled "gyn"), a vertical pole used as a lifting

devise. Though the photograph caption says it is of a man standing on the roof of a log cabin, this picture shows the barn being built around the haystack. The gin pole was used to lift wall logs and roof structure into place.

The third photograph shows Mr. Stonebraker with the completed barn in the background, full of hay.

The first two photographs indicated the barn was constructed in 1903.

#### Construction of the Barn

The barn is assembled completely out of log. There is no sawn lumber.

It has a central log rectangular crib 22 feet by 33 feet. Flanking the central crib on the east and west sides are 14 foot wide wings that run the full length of the barn and in which are feeding mangers. The walls of the central crib and side wings are logs with simple rectangular lap joints at the corners and cross wall intersections. Secondary frameworks of log columns and cross braces arise from the central crib walls as intermediate rafter support. The rafters are 36-foot long poles spiked to the sidewalls and terminate at a ridge beam.

The barn is built into a slight hillside, sloping from northeast to southwest. An investigation revealed no type of foundation or footing under the logs. At the northeast corner there are only five logs in the wall, while a sixth log is added as the wall moves to the west. The south wall has eight logs. It appears that the log walls were built at grade, and to adjust to the grade, logs were tapered to the contour of the grade.

Sometime in the past, the wall logs on the west side wing were removed and intermediate log columns substituted for support of the rafters.

#### Condition Assessment:

Depending on the location, the level of deterioration in the structure ranges from modest to significant. Most base logs have a high degree of deterioration. The upper logs of most walls are in relatively fair to good condition. The rafters have deterioration at their tails where moisture has been drawn back along the end grain. There is also significant surface degradation on the upper surface of the rafters

The central crib walls amazingly are still relatively level.

The major structural problem is the deterioration of the base logs at the northeast corner. The deterioration is causing settlement of this corner, which in turn is causing distortion and racking of the north wall of the barn.

#### Treatment Options:

There are four basic options for the future of the barn.



Option One: Do nothing

This option simply allows deterioration to continue with the eventual collapse of the roof framing. The log walls will slowly settle into the ground.

Option Two: Temporary Stabilization

This option would address the distortion and racking of the north wall. It would entail jacking up the northeast corner, removal of portions of deteriorated base logs, installation of temporary support, and jacking of the northeast corner of the central crib. It would include straightening of the east wall (it is 16" out of plumb), possibly stabilizing the corner with some exterior raker braces, and pulling the east wall to the west to close log joints.

Option Three: Preservation

This option would build upon option two, and include replacement of all deteriorated base logs, and complete leveling of the structure. As part of the process, some form of footing supports would be provided, along with selected site re-grading for control of surface water drainage. The rafter frame would be left open to the weather.

This option would require the following materials:

South Wall:

Replace 50 feet of 9" – 12" base logs  
Close up log joints

East Wall

Replace seven (7) 9"-12" wall logs  
Replace the rafter plate

North Wall

Replace two (2) logs of east wing  
Replace six (6) logs of west wing

West Wall

Replace rafter plate  
Replace eight (8) 9"-12" logs  
Replace loft floor of west wing with sixty (60) 7" x 14' logs

Option Four: Restoration

This option includes all the work of options two and three, plus the replacement of the roof rafters, roof purlins, and installation of a new cedar barn shake roof.

Replace thirty-four (34) 36' rafters; 7" at the heal and tapered to 4" at ridge  
Replace thirty-six (36) 3" x 35' roof purlins  
Provide and install twenty-five (25) squares of 30" barn shakes.

Options Three and Four will require the acquisition of substantial amount of log material. How that material is provided will be a major challenge given the barn's location. Once the log material is gathered and brought to the site, it is estimated the actual construction work would require eighty (80) man-days for option 4. Options two and three would be less, more in the vicinity of twenty man days for option two, and forty (40) for option three.

We hope this report will assist in any planning for the preservation of the historic Stonebraker Ranch Barn. If you have any questions, please do not hesitate to contact us.

Sincerely,

Frederick L. Walters

Cc: Katherine Kirk  
Executive Director • Idaho Heritage Trust

Eric Hasenoehrl  
Structural Engineer  
Keltic Engineering, Inc.

✓Michael W. Schaffer  
New Meadows, Idaho

Enc. Historic Photographs  
Base Drawings

[Reference URL](#)

## Corral at Stonebraker Ranch

[View Description](#)

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### Description

|                            |   |
|----------------------------|---|
| <b>Title</b>               | Corral at Stonebraker Ranch   |
| <b>Description</b>         | Three men in hats stand inside of a horse corral at the Stonebraker Ranch.  |
| <b>Date</b>                | 1903  |
| <b>Date is Approximate</b> | y   |
| <b>Keywords</b>            | corrals<br>log cabins<br>wooden buildings<br>exterior views   |
| <b>Latitude</b>            | 45.3893561  |
| <b>Longitude</b>           | -115.1976139  |
| <b>Digital Collection</b>  | Stonebraker Photograph Collection, University of Idaho Library Digital Initiatives, <a href="http://www.lib.uidaho.edu/digital/stonebraker/">http://www.lib.uidaho.edu/digital/stonebraker/</a> |
| <b>Donor</b>               | Donna Henderson   |
| <b>Box number</b>          | Photo Group 26, William Allen Stonebraker Photographs, Box 395  |
| <b>Identifier</b>          | PG26-S3-087   |
| <b>Rights</b>              | Digital image, University of Idaho Library, 2014.   |
| <b>Format Original</b>     | 3.5x5.5 black and white print   |
| <b>Type</b>                | Image;StillImage  |
| <b>Digital Format</b>      | image/jpeg  |

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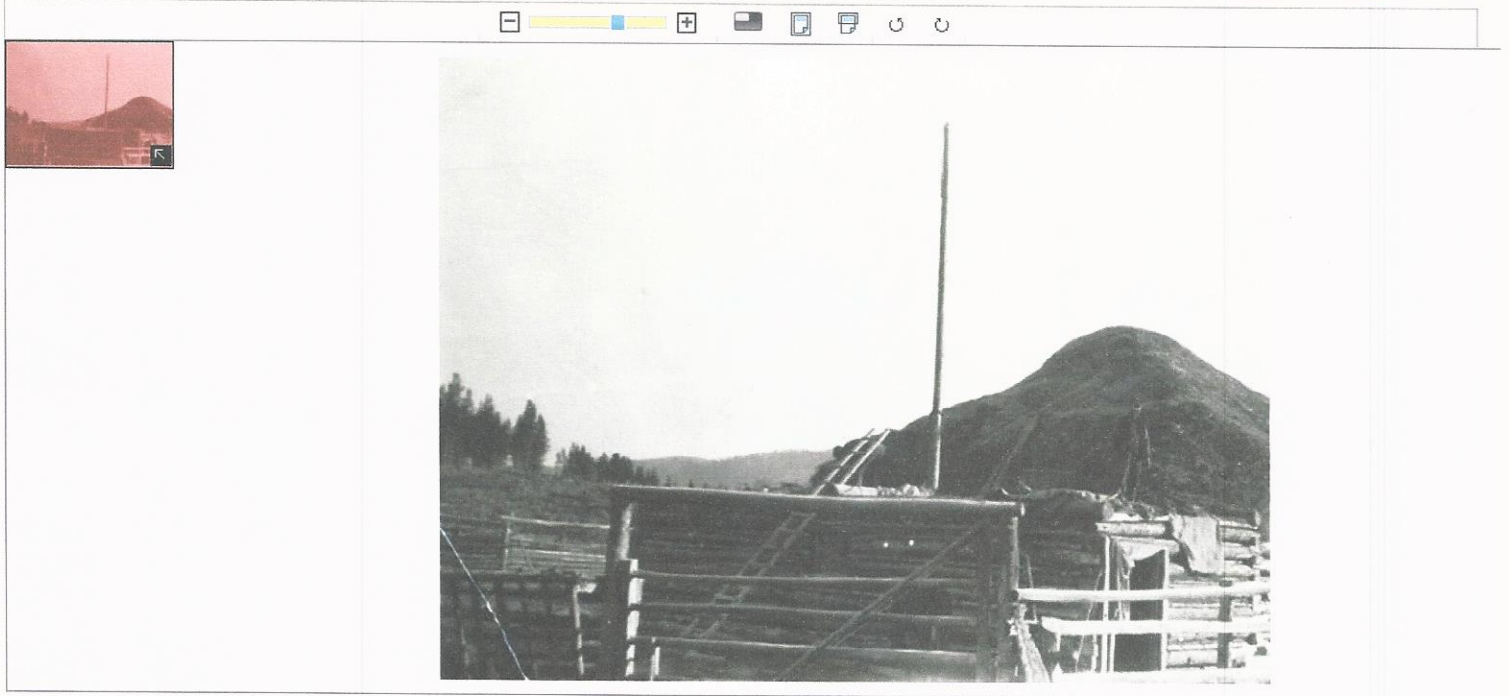


[Reference URL](#)

## Stonebraker Ranch Corral

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### Description

|                            |   |
|----------------------------|---|
| <b>Title</b>               | Stonebraker Ranch Corral  |
| <b>Description</b>         | A man stands on the roof of a log cabin next to the horse corral at the Stonebraker Ranch.  |
| <b>Date</b>                | 1903  |
| <b>Date is Approximate</b> | y   |
| <b>Keywords</b>            | fences<br>corrals   |
| <b>Latitude</b>            | 45.3893561  |
| <b>Longitude</b>           | -115.1976139  |
| <b>Digital Collection</b>  | Stonebraker Photograph Collection, University of Idaho Library Digital Initiatives, <a href="http://www.lib.uidaho.edu/digital/stonebraker/">http://www.lib.uidaho.edu/digital/stonebraker/</a> |
| <b>Donor</b>               | Donna Henderson   |
| <b>Box number</b>          | Photo Group 26, William Allen Stonebraker Photographs, Box 373  |
| <b>Identifier</b>          | PG26-S3-064   |
| <b>Rights</b>              | Digital image, University of Idaho Library, 2014.   |
| <b>Format Original</b>     | 3.5x5.5 black and white print   |
| <b>Type</b>                | Image;StillImage  |
| <b>Digital Format</b>      | image/jpg   |

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Reference URL

## W.A. Stonebraker and Mule Pack Train

View Description

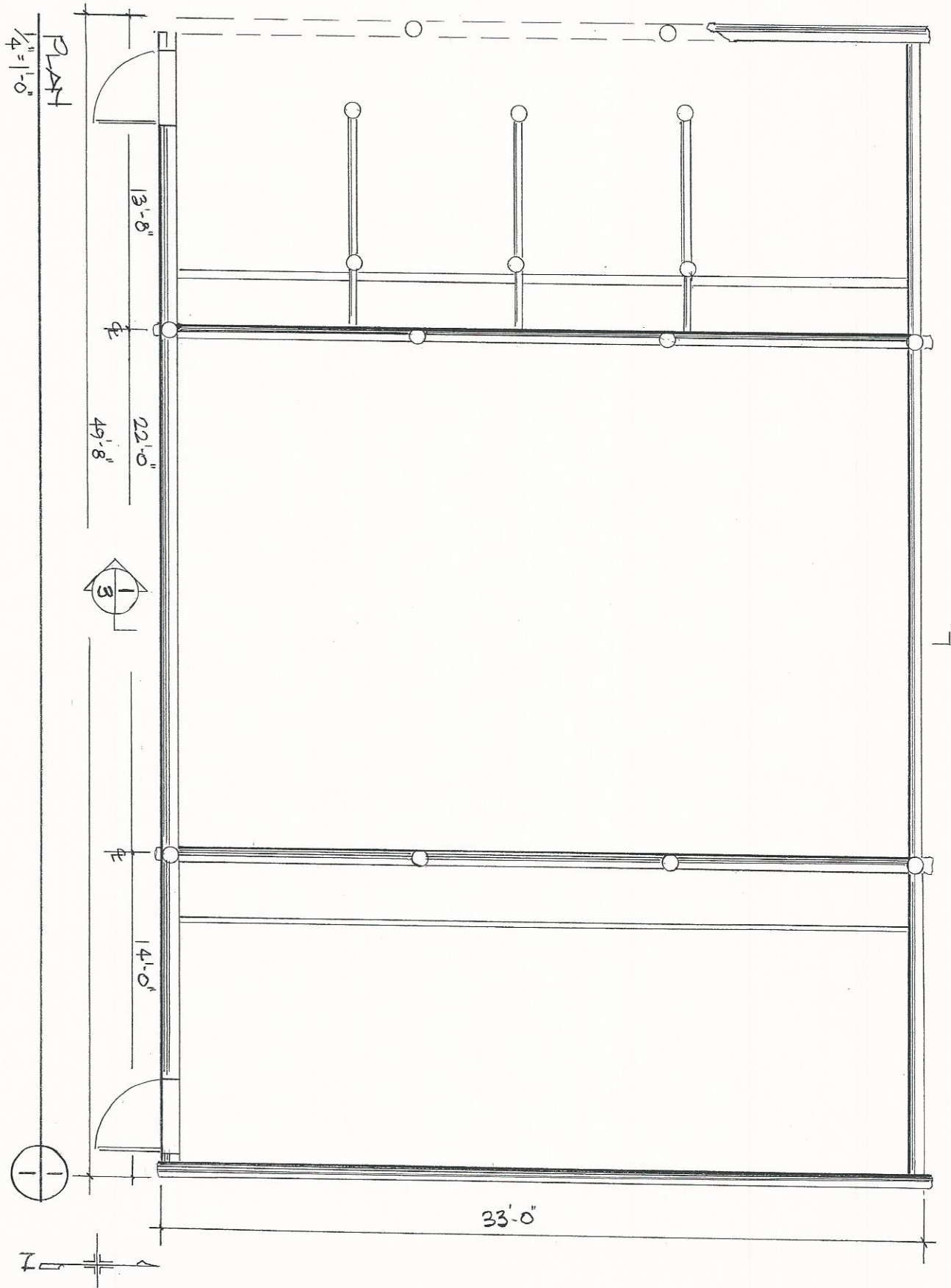
Download Print



### Description

|                           |   |
|---------------------------|---|
| <b>Title</b>              | W.A. Stonebraker and Mule Pack Train  |
| <b>Description</b>        | Al Stonebraker stands outside of his corral at the Stonebraker Ranch. A mule pack train waits behind him.   |
| <b>Date</b>               | 1931-09-01  |
| <b>Keywords</b>           | horses<br>mules<br>pack baskets<br>corrals<br>log cabins  |
| <b>Latitude</b>           | 45.3893561  |
| <b>Longitude</b>          | -115.1976139  |
| <b>Digital Collection</b> | Stonebraker Photograph Collection, University of Idaho Library Digital Initiatives, <a href="http://www.lib.uidaho.edu/digital/stonebraker/">http://www.lib.uidaho.edu/digital/stonebraker/</a> |
| <b>Donor</b>              | Donna Henderson   |
| <b>Box number</b>         | Photo Group 26, William Allen Stonebraker Photographs, Box 133  |
| <b>Identifier</b>         | 26-P091   |
| <b>Rights</b>             | Digital image, University of Idaho Library, 2014.   |
| <b>Format Original</b>    | 2.75x4.5 black and white print  |
| <b>Type</b>               | Image;StillImage  |
| <b>Digital Format</b>     | image/jpg   |

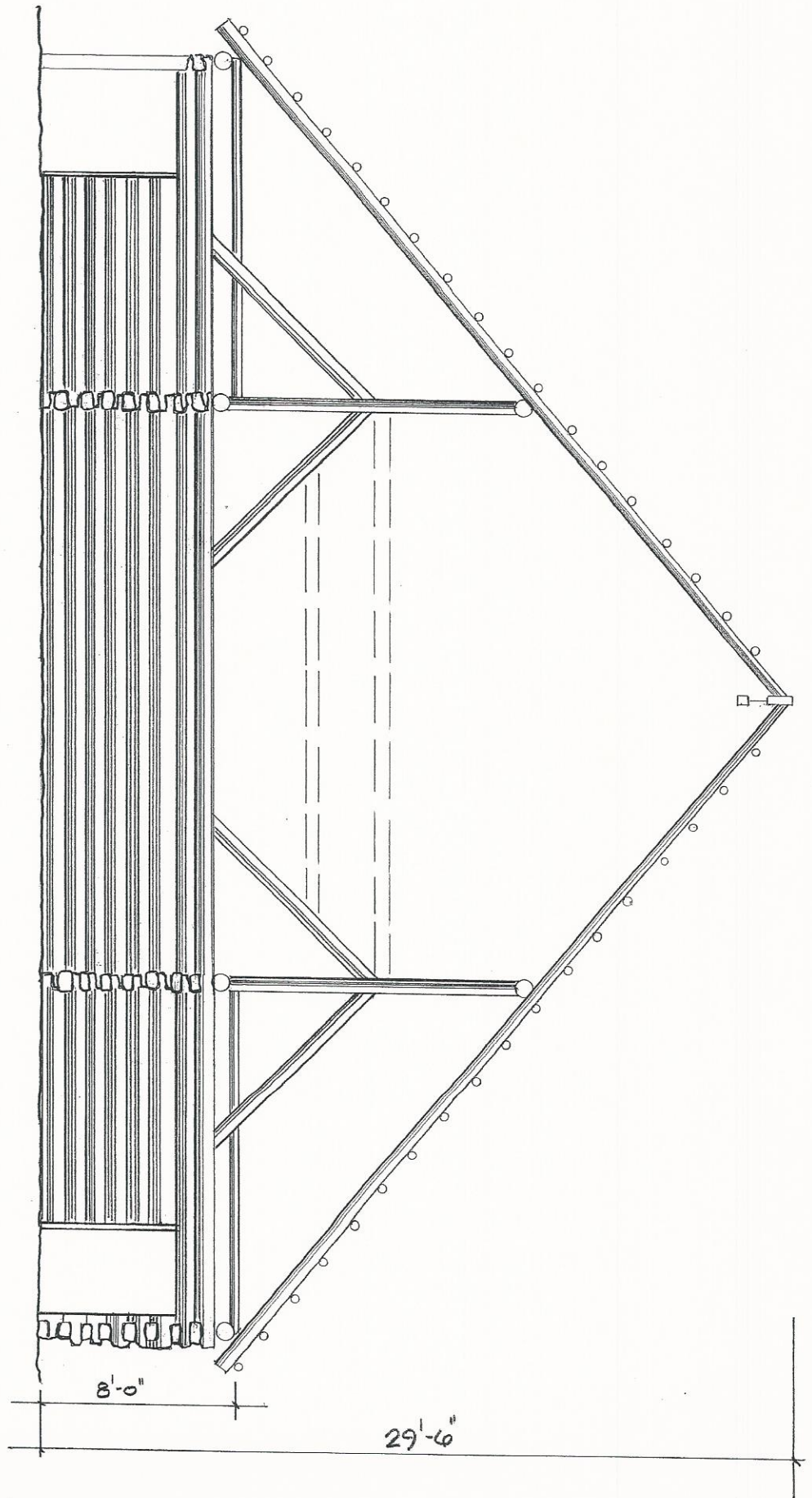
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SOUTH ELEVATION  
1/4" = 1'-0"

1  
2



SECTION  
1/4" = 1'-0"

1  
3

