
HISTORIC STRUCTURE ASSESSMENT
**PONCHA SPRINGS
SCHOOL**



Figure 1. Poncha Springs School

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1.0 - INTRODUCTION

RESEARCH BACKGROUND AND PARTICIPANTS

PURPOSE OF THE PROJECT

The purpose of this project is to develop a comprehensive understanding of the condition and needs of the Poncha Springs School. The school is now used as the Town Hall and Museum. The second floor, which has a Stage and Kitchen, is used for community events.

CONSULTANTS

Gary W. Higgins, preservation architect, and Jackie W. Powell, preservation planner, of Central Colorado Preservation Partners, Inc. (CCPP), Salida, Colorado, contracted with the Town of Poncha Springs to complete this report. Unless stated otherwise, photographs were taken by CCPP.

Gary Trujillo, architect from Pueblo, Colorado, prepared auto-CADD drawings under an earlier contract with the Town of Poncha Springs. These drawings were provided to CCPP by the town, and were used as the basis for many of the drawings found in this report.

PROCESS TO COMPLETE THE REPORT

CCPP personnel photographed, sketched, and described the building and its surroundings, based on the outline provided by the State Historical Fund (SHF). They then evaluated the condition of the various elements of the building, and developed recommendations for preserving them.

All measurements and conditions must be verified in the field before being used for development of construction documents. All estimates must be updated based on the construction documents.

FUNDING PARTNERS

This project is funded in part by Colorado Historical Society State Historical Fund moneys (project # 2003-HA-015). The Town of Poncha Springs provided matching funds.

LOCATION

The Poncha Springs Town Hall and Museum is located at 330 Burnett Street, Poncha Springs, Colorado, in Chaffee County. The legal description of the property is:

Part of S 1/2 SE 1/4 NW 1/4 Section 10 T 49 N Range 8 East of the NMPM in the Town of Poncha Springs, Chaffee County, Colorado.

The property is located in Block 39, all lots of the Van Kleeks' Addition to the Town of Poncha Springs.

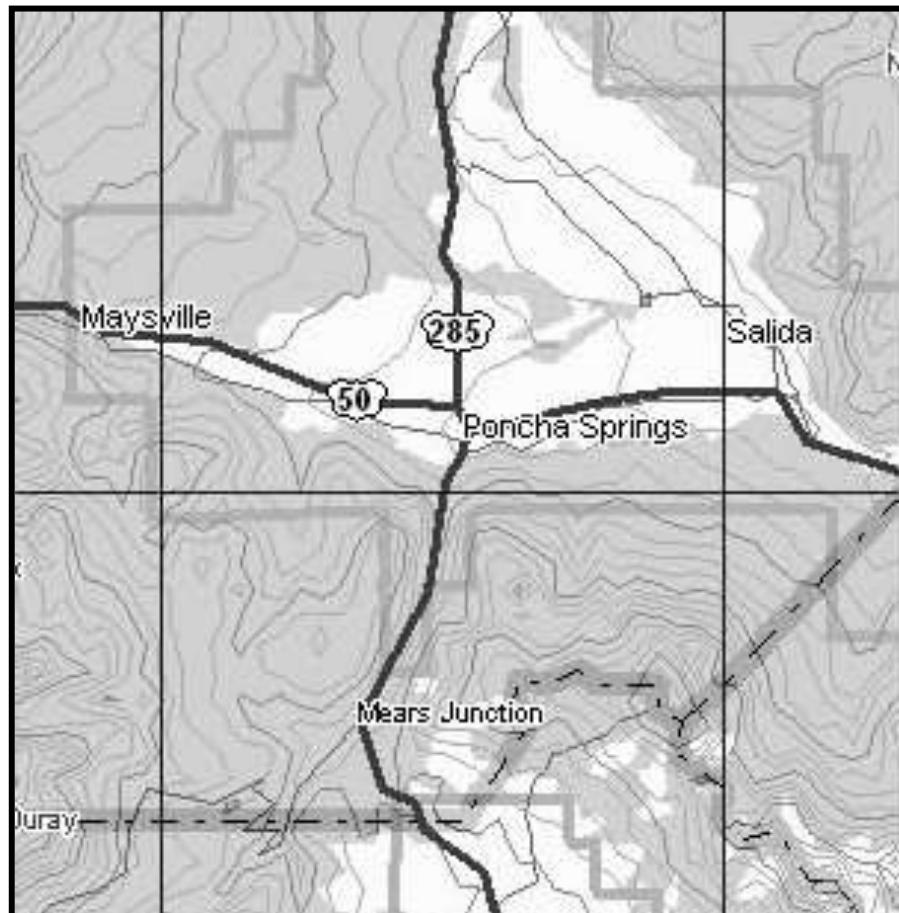


Figure 2. Vicinity Map.

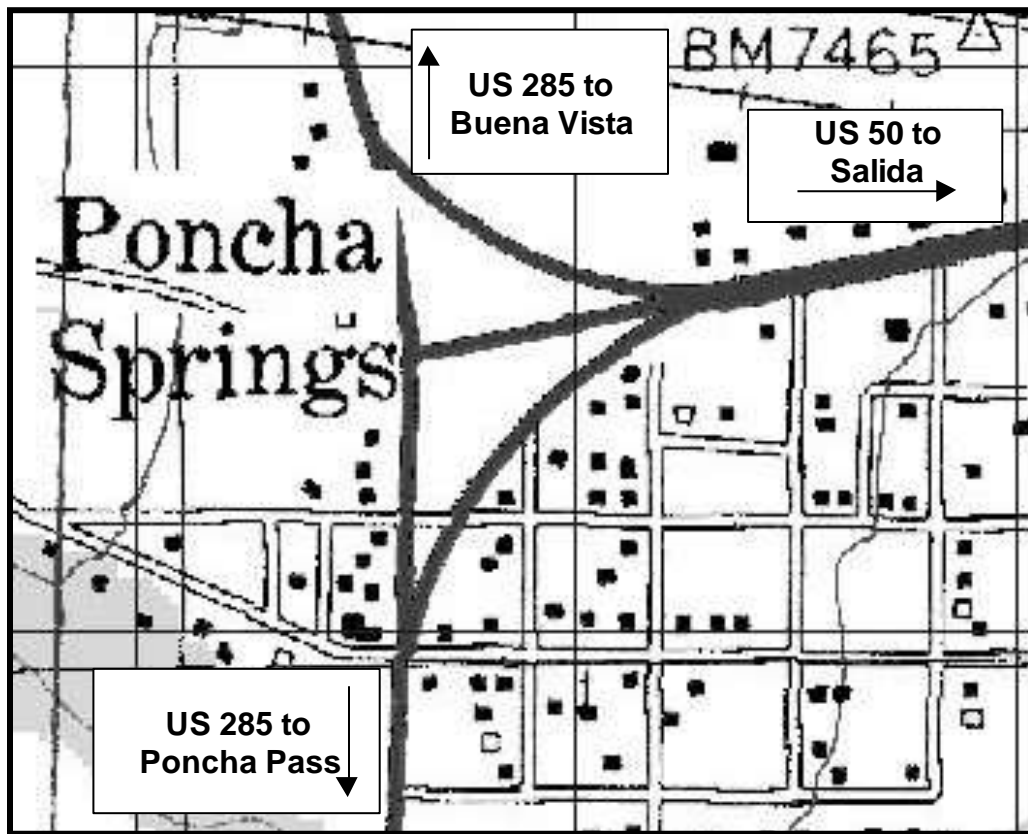
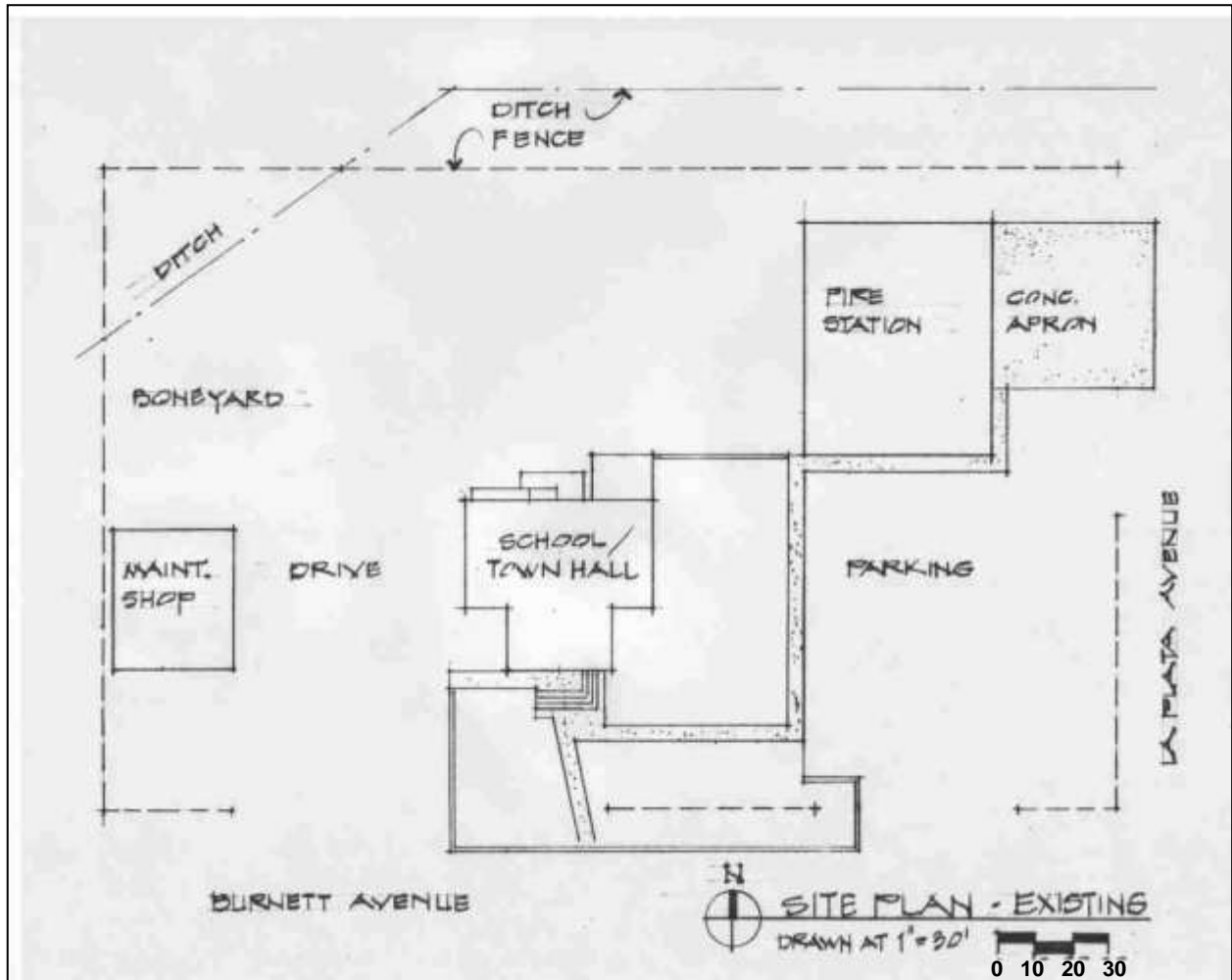


Figure 3. Poncha Springs School location.

SITE PLAN



2.0 HISTORY AND USE

ARCHITECTURAL SIGNIFICANCE AND CONSTRUCTION HISTORY¹

SIGNIFICANCE

The Poncha Springs School is historically significant under criterion C for its representation of the Italianate style architecture that is used in many stone buildings in Chaffee County. Today, as when originally constructed, the school is widely recognized as a town landmark and it continues to house activities that benefit the community.

CONSTRUCTION HISTORY

The Poncha Springs Schoolhouse is a two-story, rectangular, Late Victorian Italianate style structure. Typical of the symmetrical Italianate style buildings, the style is seen in the ornate shape of the front windows, smooth stone lintel type window heads, stone sills and in the rusticated quoins at the corners of the building, and especially in the belvedere style Cupola or bell tower complete with the original bell, which has a mansard roof with a concave profile.

Construction of the school started in 1881 and was completed in 1883. The builder was C.B. Furnash and the contractor was Robert Smith. This public institutional building sits on its original foundation made of concrete, with stucco covering and a starter row of quoins.² The building is clad in fired red tumbling bricks in a common bond pattern.

The roof is a T-shaped low hip roof with double wooden brackets supporting the wide overhanging eaves. The metal roof with gable construction with tin and mullion gable detail, matches that on the bell tower.

There are 22 double hung 2'-8" x 7'-5" [6'-6" on second floor] wood frame, two-part, sliding segmental [two-panes side-by-side double-hung sash] windows with rough hewn travertine [rhyolite] stone above and below. The Entry door also has a travertine stone header. The front has double doors with four molded panels per door. This is the third set of doors that has been on the building. The city still has the original doors in storage, and the new doors were made as close as possible to resemble the original doors. The last set of doors was installed in 1985. There is a stone located over the upstairs front windows with the date of construction. There are also four steps made of concrete leading to the front entrance and there is a small window above the doors. The entrance was remodeled recently to accommodate [people with disabilities.]

¹ Verbatim from National Register nomination, John Valentine, 1984. CAPP revisions in brackets. Please see Appendix A - Original Specifications, and Appendix B - Chronology, for addition construction information.

² The foundation is actually granite stones covered with a cementitious pargeing. What is called "a starter row of quoins" is usually referred to as the watertable.

Exterior alterations include a front porch added in 1915.³ This porch was built to protect the children from the wind and the cold. The porch was torn down in 1980. A 7' x 14' back porch was added in 1921 and is still used for storage for the town hall and Museum. As per state orders, a fire escape was added in 1942 and a 12' x 16' concrete vault was added to the back of the school in 1976 for safety of important papers and is in use at the present time. None of these additions have altered the [principal facades of the] original building. The additions were added next to the building and did not alter the original structure.

The interior of the schoolhouse consists of a foyer type entranceway, with a cloakroom and access to the second story with two matching stairways opposite one another with the original railings.

There were two classrooms downstairs and a large Auditorium with a Stage upstairs. The original curtain is still in use. A small Kitchen with wood cook stove was used to cook and feed the children. The upstairs walls and ceilings are stucco. Furniture upstairs included original benches and tables. At the present time, one of the first floor classrooms is used as a Museum, depicting past schoolrooms and the other classroom is used as the administrative Office of the town hall.

Major interior structural features include: (1) Bead board ceiling in the entrance way and 12 foot pressed tin panels with a floral design on the ceilings of the two classrooms. (2) The original slate [plaster or hyloplate] blackboards. (3) The original Oregon fir floors throughout the building. (4) Wainscoting 4' high around the rooms with windows and doors throughout, trimmed in 4" pine.

Interior alterations include the addition of plumbing and bathrooms, remodeling of the Kitchen, the replacement of the original carbide and kerosene lamps with electricity, and the conversion of wood and coal heat to natural gas.

Situated in the center of town and directly across from the Town Park, the school is surrounded by large cottonwoods that were planted in 1879. Presently the town garage sits approximately 150 feet west of present building. A firehouse sits to the southeast of the school and a small storage building sits on the back of the property. The schoolhouse, which sits on its original foundation, is made from locally fired red brick with rough-hewn travertine stone. Bond hauled the stone and was laid by Bowering. Bricks came from the Salida Brickyard and were hauled in by wagon.

This schoolhouse is one of the most prominent buildings in the community and is one of the local public historical buildings built with local materials

ADDITIONAL CONSTRUCTION HISTORY

The Poncha Springs Museum has several items that helped expand our knowledge of the construction history of the Poncha Springs School.

³ A storm porch enclosure and two new doors were paid for in October, 1926. Christine Morgan remembers wood steps when she went to school in the nineteen-teens. Floyd Cass Beck remembers cement steps. He began school in 1922 and the cement could have been added sometime later, when the 1926 enclosure was built. See *Appendix B - Chronology* for more information.

There is an audiotape of a February 1981 interview of three natives of Poncha Springs and former students at the school. They are Roy C. Albright (born December 6, 1885), Christine Bond Morgan (born October 1896) and Floyd Cass Beck (born July 3, 1916). Ms. Morgan was also a teacher at the school in the nineteen-teens and again in the decade before it closed in 1958.

The original specifications were found stored on the second floor of the school. (See Appendix A.) A box containing school district warrant stubs was also found there. These are dated 1926-1931, 1935, 1937, and 1941. Four ledgers of school financial records dating between 1936 and 1941 were also found.

On display in the Museum is the "Record of District Meetings", minutes of the Board of Directors of District #3, Chaffee County. This covers meetings from 1894 through 1905, and includes records of warrants issued from 1894 into 1907.

The cost of building the schoolhouse was \$6,500.⁴ The accessions book for Poncha Springs Museum shows the Museum holds six school bonds for \$1,000 each, which were paid between September 25, 1894 and August 31, 1897.

Handwritten notes by the late Mabel Davis were found in the Museum. They appeared to be an attempt to develop a timeline for the history of Poncha Springs. Information about the builders was found here.

Items from these sources that related to construction, renovations, or significant repairs to the school were noted and put in chronological order. This compilation, which helped understand some of the physical history of the Poncha Springs school building, is found in Appendix B. Where possible, entries are included in the assessment under appropriate building elements, e.g., interior finishes, Cupola, mechanical systems, etc.

An interesting aspect of examining these records was seeing the same names repeated in varying roles over the years. For example, a person could be a member of the school board and also be the janitor or repairman. Descendants of a number of individuals mentioned in the records still live in the Poncha Springs vicinity in 2004.

Early in the records, the school books, coal, nails, and probably just about anything else that was needed were purchased from the general store. Later, building materials came from a hardware store or a lumber company. There may have been a tradition of buying sporting goods for the pupils around Christmas time. One warrant is for a ball and bat, another later one is for a football, both in December. Entries about disinfectant, cleaning supplies and equipment, coal, and wood can also add to our knowledge about what operating a school was like in that time period.

None of the records indicate work done by community members on a volunteer basis. Although much may have been accomplished in that manner, it appears that the school was operated on a business-like basis, and that it was an important economic resource for both individuals and local businesses.

⁴ Swift, Kim. *Heart of the Rockies: A History of the Salida Area*, n.d.

The pattern over the years is one of gradually finishing and improving the building and grounds. New floors were laid in the schoolrooms, presumably to replace original ones that wore out. The upstairs was not finished until the 1920s. Window and door repair was a continuing thread. Indoor plumbing and a Kitchen were installed between 1922 and 1949, probably toward the later end of that period. Based on the Kitchen cabinetry and bath fixtures, these rooms appear to have been upgraded in the late 50s or early 60s, possibly after the Town of Poncha Springs took ownership of the building in 1961.

THE BUILDING TODAY

Entry into the building is up a set of concrete steps to a stoop to a pair of doors on the south façade. These open into an Entry area, to the right and left of which are stairs. Directly ahead are doors to the Town Hall and the Museum. Tucked under the stairs are the Boys Room (east) and Girls Room (west.)



Figure 4. Visitor chairs in Town Hall. Looking northwest.

The Town Hall is the eastern of the two main downstairs rooms. Here the Town Administrator, Town Clerk, and Assistant Administrator work on a daily basis. There is a conference table where the Town Board of Trustees holds its meetings. Visitors must sit in chairs tucked up against the wall to observe meetings or to wait to see a town official.

On the north wall of the Town Hall is a door leading to an Office, which was added to the original building as a vault in 1976. There is also a door to a Storage Room that was added to the original building in approximately 1921.

The Museum is located in the west half of the central downstairs portion of the building. It is nearly square, with the north-south dimension of approximately 26' slightly longer than the east-west 24'. Small meetings are sometimes held in this room. The window located on the west end of the north wall has been converted to a bookcase.

A door on the north wall leads from the Museum to the Storage Room mentioned above. This door cannot be opened.

The West Stair leads to the Second Floor Landing, where there is a door into the Auditorium. The East Stair dead-ends above the Boys Room. It originally continued into the Kitchen on the second floor, which might originally have been part of the Second Floor Landing and later divided off to be converted to a



Figure 5. Note bookcase in window opening behind mannequin. Museum, looking northwest.

Kitchen. The Second Floor Landing serves as an Entry to the Auditorium, and can also function as a coatroom. See "Entry and Stair Scenarios" below for further examination of this area of the building.

The Auditorium is 38' by 25', with the longer dimension east-west. There are no interior supports in the Auditorium space.

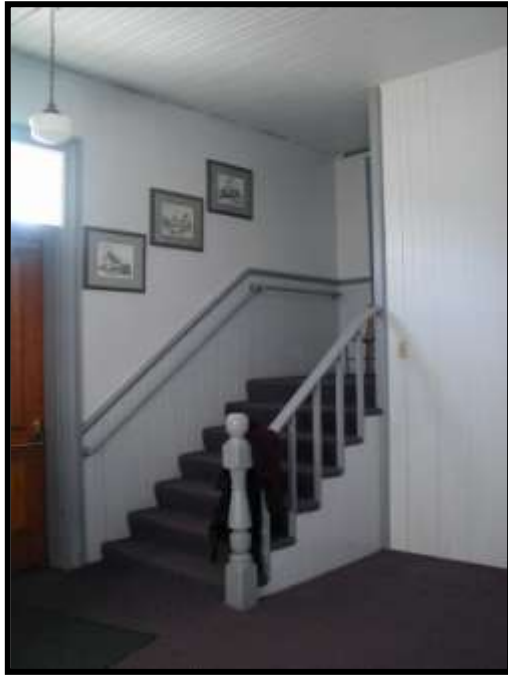


Figure 6. Foot of West Stair, looking southwest.



Figure 7. Auditorium, looking east from Stage. Note light fixtures, and heater suspended from east end of ceiling.

The west wall of the Auditorium is taken up by the Stage, which is elevated 2'-1" above the Auditorium floor. Within the Stage are movable partitions that form narrow passages on each side and across the back – wings and backstage.

CHARACTER-DEFINING ELEMENTS

The exterior of the building is a simple expression of the usually more elaborate Italianate style. It is symmetrical, with a low roof, deeply overhanging eaves with brackets mounted on a deep trim band. The Cupola, which has a low mansard roof with a concave profile, is common in Italianate buildings. Local materials were used to build the brick structure, with stone corner quoins.

The windows are tall and narrow, often paired. Those on the front, and the front door, have pedimented stone crowns or heads above them. Windows and doors on the sides and rear of the building have simple stone heads. The windows are two-over-two sash, vertically divided, which reinforces their verticality.

The north façade has the least integrity due to a number of changes made over the years. The west window on the north of the building was boarded up to become a bookcase. The east window on the north was enlarged to provide for a door to the vault/Office. The west of the

paired windows located in the center of the north wall upstairs was modified to become a fire exit door. The fire escape was added, as was the vault. The Storage Room was added during the building's intended use as a school, and therefore is a historic element.

The large trees both in front of the school and across the street in the municipal park add to the feeling of an important civic place. These, and the wood-and-pipe fence along the street, should be retained.

The interior of the building continues the formal symmetry of the exterior. The two classrooms and their entrances are identical, as were the stairs that reached the second floor. The Girls and Boys restrooms were unobtrusively tucked beneath the two stairs. This interior symmetry was disrupted when the upstairs was finished. Although it seems this space was intended to be divided for two more classrooms that would reflect the arrangement downstairs, it had become apparent that the student population would not be large enough to require more rooms. The upstairs was converted into a Stage and auditorium, and a Kitchen was installed that blocked second floor access from the East Stair.

Finishes are original, with layers of paint and carpet or linoleum added over the years. Much of the building has plaster walls and ceilings. Wide bead board wainscoting is found in the classrooms, on the entry ceiling, and surrounding the stairs. The wall between the present second floor landing and the Kitchen was added later, and has a narrower, different style bead board wainscoting, as does the freestanding closet on the landing. The two classrooms have elaborate embossed tin ceilings. Blackboards, some perhaps original, others modified, remain.

Some light fixtures remain, probably original from when electricity was installed in 1930. They are "schoolhouse globes" hanging by chains, in the Entry, Auditorium, Second Floor Landing, and Kitchen. Additional lighting is provided in the Town Hall and Museum by hanging fluorescent lights.

Door styles vary. What appear to be original doors are the four-panel type commonly found in late nineteenth century buildings. The door to the Office from the Town Hall is of this type, but may be newer.

Five-panel doors are found where the 1920s changes were made, including access to the Storage Room from the Museum and Town Hall, the Stage doors, and the Fire Exit door upstairs.

Two additional doors exist in the building. One is to the Girls Room, and it is two-panel, with the top panel taller than the bottom one. The other is the exterior exit from the Storage Room, which is a modern flush wood door.

The changes over the years are a part of the history of the building, and should not be removed or revised solely to return it to an earlier period. The citizens and government of Poncha Springs are to be commended for the care they have taken of the building over the years, and for leaving it so close to its original state. However, it is possible to add to the rear of the building to allow for universal accessibility and more space for the municipal function, if the addition meets the Secretary of the Interior's Guidelines for Rehabilitation.

ENTRAY AND STAIR SCENARIOS

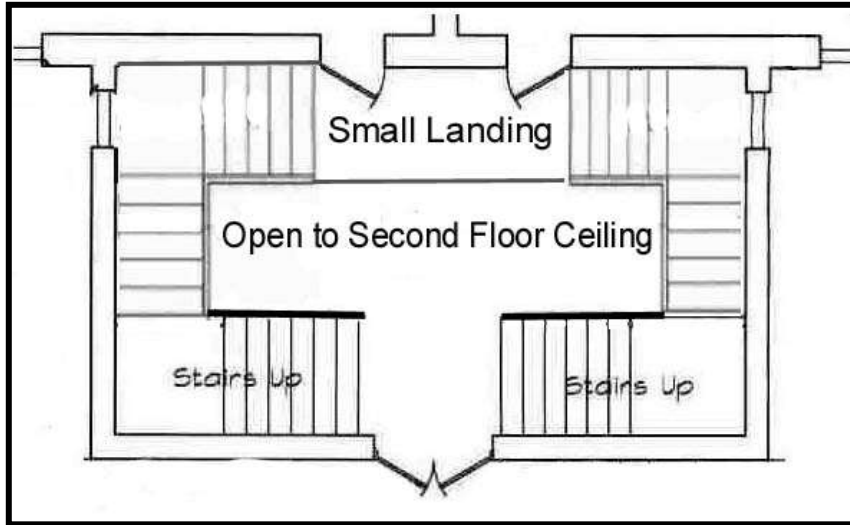
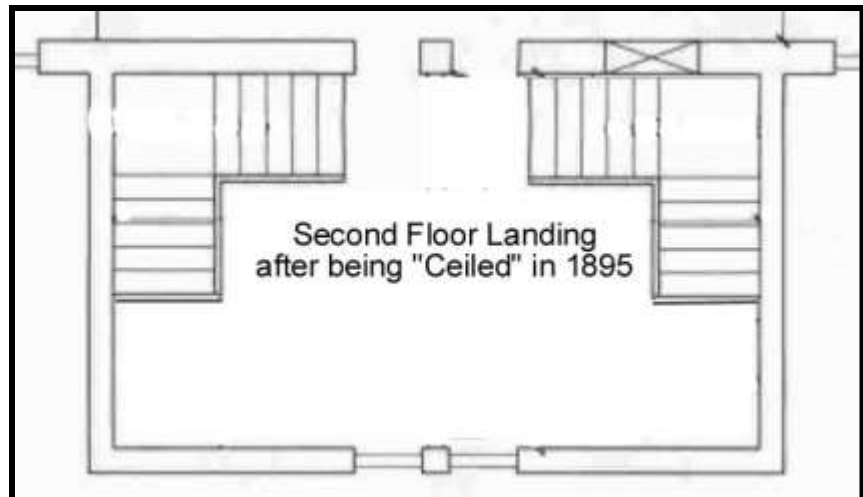


Figure 8. **Scenario A.** The stairs are open all the way up to a small landing in front of the two doors. This landing could have been partitioned so each stair would access only one of the planned classrooms. This symmetrical, open stair could be expected with this style of building. It would also have allowed more light into the space from the south windows above. However, no direct evidence has been found that supports this scenario.

Figure 9. **Scenario B.** This could have been the original configuration of the entry, and the ceiling installed in 1895 could have been another step in the gradual completion of the building -- covering the exposed joists on the underside of the second floor landing. Bead board also covers the underside of the stairs. The under-stair areas could have remained open to the larger space until the restrooms were installed between 1922 and 1949.



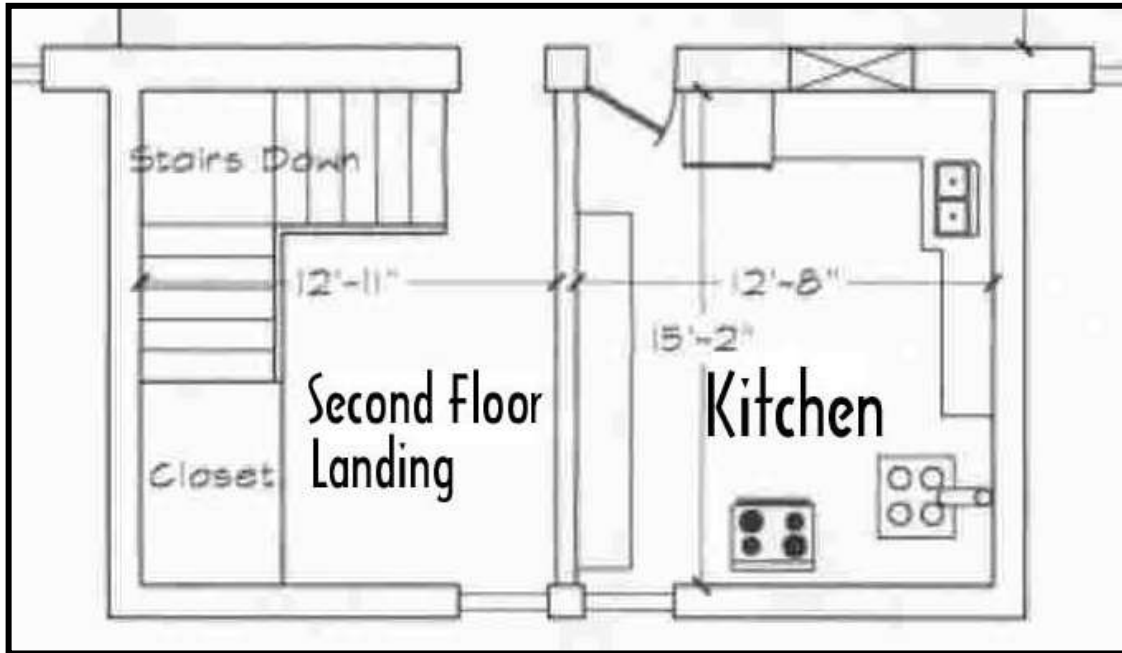


Figure 10. Landing-Kitchen Today. The north-south wall dividing the landing today was added later than the floor, possibly as late as the 1940s, because it is drywall. The top of this wall also spans the attic access that would have in turn allowed access to the Cupola and bell. There is a small hole in the entry ceiling that would have been where the bell rope emerged. The bead board wainscot on both sides of this wall is of a different style than that elsewhere in the entry and stair, but they are the same as that of the "closet" seen in the lower left of the landing.

PROPOSED USES

The Town of Poncha Springs plans to continue using the historic schoolhouse as its administrative offices, its Museum and a site for elections, meetings, and events. Additional space is needed for administrative purposes. The building is not universally accessible.



*Figure 11. History photograph of the Poncha Springs School, unknown date. Looking north.
Courtesy of the Denver Public Library Western History Collection.*



Figure 4. Poncha Springs School, south façade, 2002.



Figure 6. South and west facades. Looking northeast.



Figure 5. South and East facades. Looking northwest.

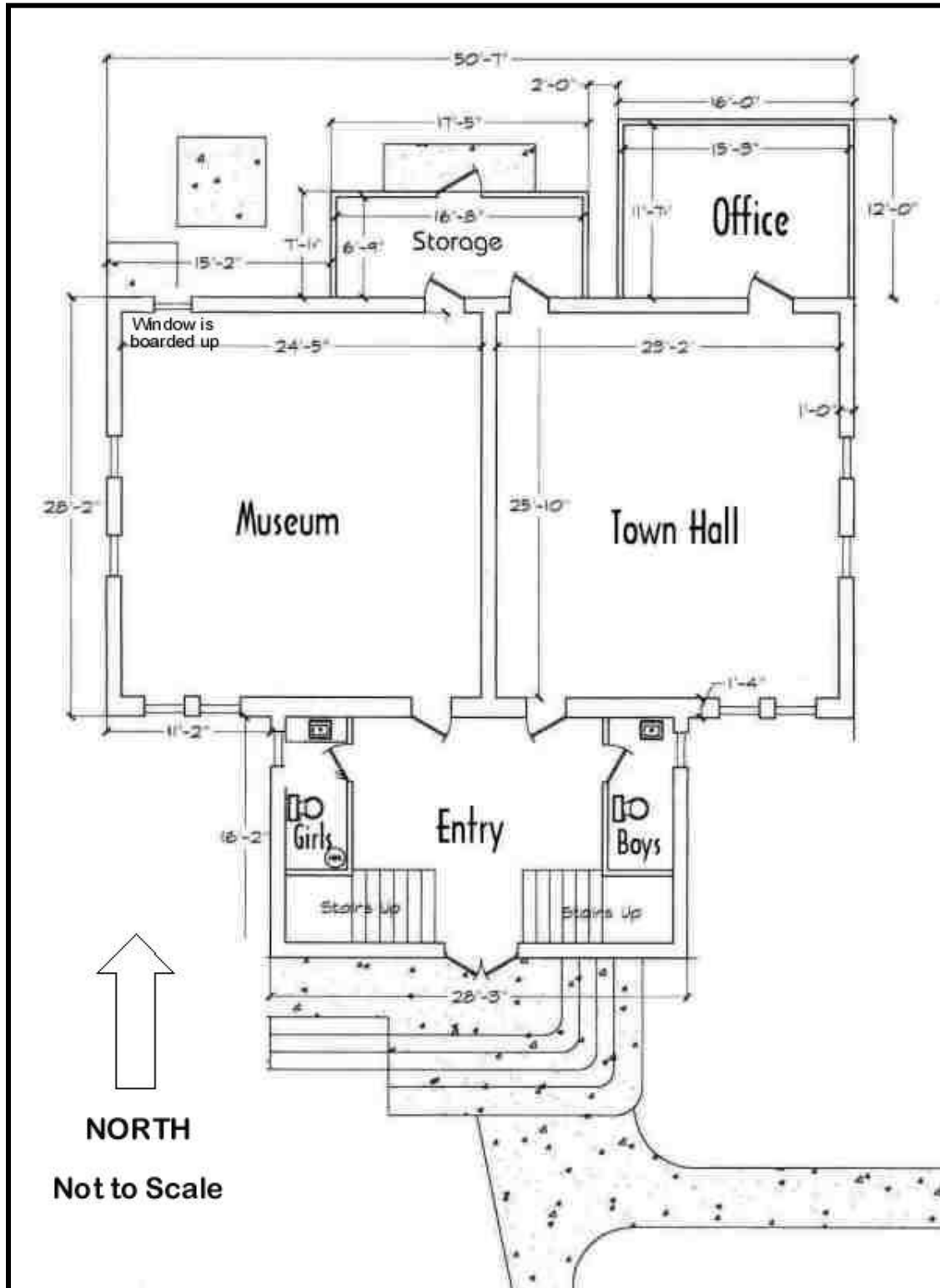


Figure 8. North façade. Note fire escape and upstairs exit door. Also note Storage Room in center below, and vault/Office to the left.

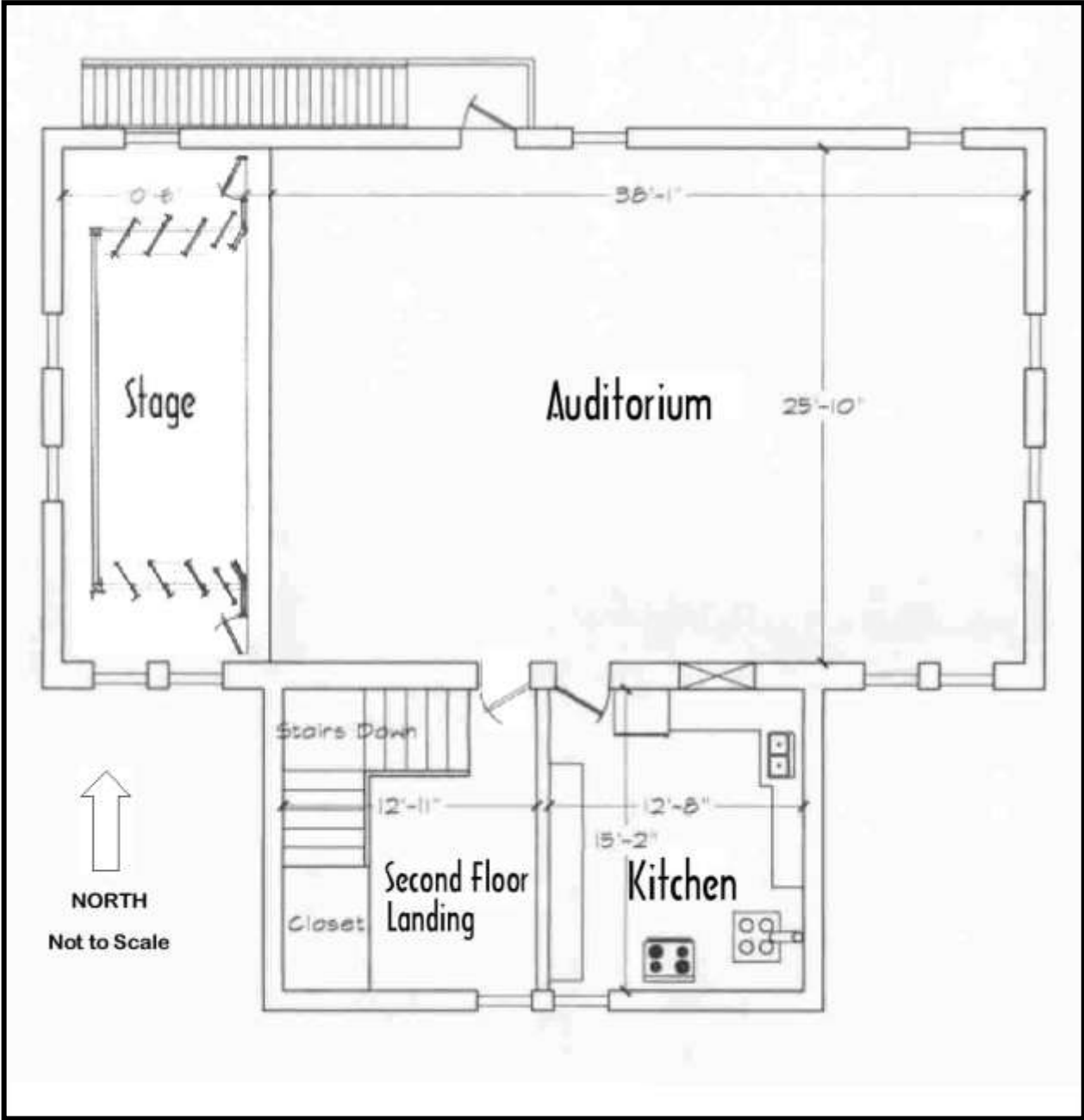


Figure 7. View from the southwest, between 1933 and 1967. Note center chimney just to left of Cupola. Note swing frame just to right of left tree. Trees along front fence just to right of school may still be standing. Photograph by Muriel Sibel Wolle, Western History Collection, Denver Public Library.

FIRST FLOOR SKETCH PLAN



SECOND FLOOR SKETCH PLAN



STRUCTURE CONDITION ASSESSMENT

SITE

ADDITIONAL CONSTRUCTION HISTORY

In the school photograph from around 1855, river cobbles ubiquitous to most of the Upper Arkansas River Valley are seen on the ground around the schoolhouse. On August 7, 1899, the school board decided "to remove the stones from the school grounds....And secretary was ordered to post notices for proposals for bids for cleaning school grounds from stones." No record of payment for removing the stones has been found.

Stones were easily available well into the 20th century, however, and were used by the pupils for various purposes. In the 1981 oral history tape Christine Morgan remembers " Oh, we played house! We built big houses out of rock, and the boys and girls all played together.... Well, they were [separated] later on, played on separate sides of the building. We had these houses built out of big rock and the girls tried to act just like their mothers, and in those days, you wore a hat and gloves and you had calling cards. And I can remember they made these little calling cards and when they'd go from one house to the other to visit they took their calling cards. And I was always the baby, because I think I was the youngest one in school. But, oh, we had a wonderful time playing house."

Cass Beck asks, " Well did they build those rock houses right outside where the yard is now?" and Christine responds, "No, that was the Fox and Geese ring."

After some discussion, it was clarified where the walls were, and Cass remembers "There were still some of them stone walls there when I went to school." Christine says, "We built them to last.... And out in front, I bet you picked up a lot of rock out there, too."

Cass remembers, "Oh, yeah, where they had them circles." "Fox and Geese ring," responds Christine, "But we had lots of snow then, and when we didn't have snow we played in that rock field." Cass says, "Oh, we did, too. Most of the time we played Fox and Geese when it snowed."

Christine Morgan remembers that the last time she went back to teach they had many more nice things for the children -- the slide, and merry-go-round, and swings. Cass said they put the swing up when he was in second grade. "They hauled some cedar posts in and put a swing up. I think that was the only thing we had. We had that one swing." This may be the swing visible southwest of the school near the front fence, in the Muriel Sibel Wolle photograph from between 1933 and 1967.

Bailey Hutchinson was paid \$1.50 in May of 1900 for fixing the fence at the school. In 1929 the janitor John Maleus was paid extra for putting in a gatepost.

In August 1904 the school board decided to build a shed for horses at the schoolhouse. Mrs. Morgan said, "After they had the barn put up, well then they rode and left the horses in there. Took 'em to the river every noon to water 'em. " Mr. Beck responded, "We did that for a while 'til it got so we didn't come back and we had to take turns and one kid or two would take all the horses to the water and the rest had to stay in school. Cause when they all went they didn't come back." Mr. Beck also recalled, "We used to fight to see who got to put their horse in the barn and who had to tie them up to the fence." It is unknown where this shed was located.

A coal shed was in place before July 1931, when C.A. Huffman was paid for repairing it. The location of this shed is also unknown.

ASSOCIATED LANDSCAPE FEATURES

DESCRIPTION

The grounds of the Poncha Springs School make up the municipal complex for the town. On the east and west are gravel parking areas and driveways. Directly north of the building is a series of gravel piles that appear to have been arranged into a children's bicycle course. On the south is a grassy area edged on the south by a two-rail pipe fence embedded in peeled log posts and on the north by a concrete sidewalk. This fence appears to be in the Wolle photo and a large amount of it still exists today. It surrounded the entire property and pieces have been removed for driveway entrances on the east and south. It is continuous on the west and north sides.



Figure 9. Fence at northwest corner of property. Note unusual corner turn, without corner post. Looking south.

To each side of and behind the school is an equipment shed (west) with fuel tanks. Off the northeast corner is Chaffee County Fire Station No. 4, a metal building clad with painted plywood siding.

Across the street to the south is the Town Park, with play equipment and restrooms.

This part of Poncha Springs has a number of large cottonwood trees. Many of these appear to be intentionally planted. At least two of the existing trees south of the school may be the same trees visible in the 1885 photograph; they look like the ones in the Wolle photograph.

CONDITION

The grounds are well kept and in good condition. The ancillary municipal buildings are far enough away from the school that they do not detract from it. However, they are of various styles and materials, and taken as a group have very little in common with each other or with the school.

The cottonwood trees are old enough that they could begin to die off in the near future.

RECOMMENDATIONS

Should any of the ancillary buildings need to be replaced in the future, their design should be compatible with, but not a copy of, the school. Metal buildings are to be avoided if possible unless they are clad with a durable material such as brick and compatibly designed. Consistency and compatibility of design among new ancillary buildings should be developed and codified into design guidelines.

A tree replacement program for the site - as well as for the park across the street - should be developed and implemented.

The existing pipe fence should be repaired and retained.

PARKING

DESCRIPTION

There is a gravel parking area to the east of the building. The front and east sides of the building have 1" to 1 1/2" deep gravel instead of grass. On the west side, in the corner between the body of the building and the projecting entry bay is an asphalt accessible parking area. Additional parking is available along the streets in front of the building and surrounding the Town Park.

CONDITION

The parking is in good condition, and is adequately sized for the uses of the building.

RECOMMENDATIONS

None. See grading recommendations under Foundations.

ARCHAEOLOGY

DESCRIPTION

No archaeology has been conducted at the Poncha Springs School site.

CONDITION

Unknown.

RECOMMENDATIONS

An archaeologist should monitor the excavations if ground disturbance is required during construction.

FOUNDATIONS

ADDITIONAL CONSTRUCTION HISTORY

ORIGINAL SPECIFICATIONS

Excavation

Trenches are to be dug out for all foundation walls fifteen inches deep. And the required width to receive the walls with footing courses.

Foundation

The foundation walls around the Main Building will be 22 in thick. The footing course will be not less than 6 inches thick. And will project 4 inches outside of foundation. The foundation including footings are to be two feet (2') six inches high under watertable.

The foundation walls under vestibule are to be built 18 inches thick built with footings same as main wall.

The cross partition wall sixteen (16) inches thick and carried up to the under side of joist all of the foundation walls will project one inch outside of the brick work.

These walls must be built of good solid [sic] lime stone or granite.

The wall to be well laid in good sand & lime mortar [sic]. and each stone well bedded. The face of these walls will be laid in what is known as broken ashler [sic] work. All joints to be well tucked and made plumb and level.

OTHER SOURCES

On August 30, 1899, H.H. Rose & Williams were paid \$35.00 for "cementing of schoolhouse foundation."

FOUNDATION SYSTEMS

DESCRIPTION

The foundation system is mortared granite ashlar blocks covered with a pargeted stucco coat. The stucco is scored into rectangular squares of 24" x 7 1/2" blocks in running bond. The National Register nomination states the foundation is concrete, but the preparer of the nomination probably mistook the stucco coat for concrete.

There is only one small foundation vent grill, in the center of the east west wall but it is a false vent, as the opening behind the vent does not penetrate the wall. Building crawl spaces in this era are usually quite shallow, but it is not observable in this building, so a depth cannot be

verified. Since there is no apparent water damage in the first floor system, the crawl space apparently is deep enough to adequately serve a ventilation purpose.

CONDITION

The foundation appears to be sound and no evidence of building movement was found. The brick cracking on the south wall appears to be older and the tie rod appears to have solved the problem some time ago.

The stucco pargeting on the face of the granite foundation is in poor condition. Much of it is loose and areas are missing.

RECOMMENDATIONS

Grade should be pulled away from the building and all foundation areas inspected for damage.

The loose stucco pargeting should be removed and replaced in kind. Missing areas should be replaced in kind and all the new pargeting should be made to blend with the sound existing parget coat. The new parget coat should be scored to match and continue the existing pattern.



Figure 10. Foundation. Note loose parget coat at left, and deteriorating stone water table above foundation.

PERIMETER FOUNDATION DRAINAGE AND BUILDING BACKFILL

DESCRIPTION

The site is basically flat with little slope away from the foundation walls. There are no records suggesting an underground perimeter drainage system exists and it is assumed there is none.

Grade around the building at the north, east and west walls is flat with no apparent attempt to create a slope away from the building. On the north side of the building, grade averages about 8 inches below the water table, on the east about 16 inches and on the west it is right up to the bottom of the water table and in a couple of places it covers the bottom inch or so. On the south side and completely surrounding the leg of the "T", grade has been brought up to, or above, water table height. Here, asphalt abuts the building on the west side of the "T", the concrete accessibility ramp and stairs abut the south side, and a flowerbed enclosed with wood landscape timbers abuts the east side.

CONDITION

Grading is poor to nonexistent, the gravelly soils are forgiving but water retention against the building has undoubtedly contributed to the deterioration of the watertable. The bottom of the watertable equates to the bottom of the joists and allowing grade to be at or above the bottom of joists will eventually allow water to enter the building and rot the joists. This is especially true with the watertable being in such poor condition.

The planting bed at the southeast corner where the T-leg and the main building meet is causing damage to both the watertable and the wall below. Water from plant watering splashes on the building and is retained against the building wall at the watertable and below causing deterioration in the watertable and the stucco parget coat on the foundation wall. There is no current evidence that the foundation is being undermined by the water, but this type of condition often results in foundation problems.

RECOMMENDATIONS

Grade at all building walls should be adjusted so it is no higher than 8 inches below the bottom of the watertable. Code calls for sloping grade away from the foundation wall so the fall is at least 6 inches over a distance of 10 feet. The hard concrete and asphalt surfaces do slope slightly away and need not be adjusted. In the other locations on the west side, sloping away will be difficult because grade is so flat, but the code minimum should be a goal. Any sloping will have to be accomplished by creating swales or installing a drop inlet on the west side and running a drain to the east around the north side of the building and daylighting it somewhere near or in the east parking lot. Alternatively, a pipe could be directed straight north to dumping water into the ditch at the north side of the property or south to Burnett Street. If it is possible to accomplish the goals with swales this method is preferable because closed pipe drains tend to get clogged and are a maintenance headache.

The planting bed on the southeast should be removed to stop some of the water damage. The bed could be pulled away from the building, a sloped hard surface installed against the building, and the bed reestablished at grade a distance away from the building wall.



Figure 11. Looking northwest at corner of east Entry wall and South Main Building wall, across planting bed. Note wide area of lighter color brick and eroded brick beneath faucet.

BUILDING STRUCTURAL SYSTEM

ADDITIONAL CONSTRUCTION HISTORY

ORIGINAL SPECIFICATIONS

Timbering

Joists in first & second floor 2x14 in. & three tiers of [Harrier ?] pine bridging. Size of bridging 1 1/2 x 3 inches well nailed with 10d nails in each end. Ceiling joists Rafters and Plates 2x6. Joists in the first and second floors will be placed 12 inches to center to be crowned 1 1/2 inches. Ceiling joists & rafters sixteen inches to center. The Roof to be stayed as is shown by detail drawings. The roof to be sheathed with native lumber Machine dressed to one thickness & tight joints.

Anchorage

There must be anchors fastened each end of every tenth joist in the second floor. These anchors must run back on the joist 18 inches and fastened with three 20 weight nails 3/8 in diameter and 4 inches long. The outside ends to recess into the walls through two courses and turn up 4 inches. Size of anchors 1/2 x 1 1/2 inches.

GENERAL STRUCTURAL SYSTEM

Poncha Springs School is a two story load bearing brick structure with wood floor and roof framing systems. There is a crawl space under the first floor.

Indirect methods of investigation indicate the floor joists in the main part of the building run east-west, bearing on the east and west exterior walls and on the north-south bearing wall in the center of the building.

FIRST FLOOR STRUCTURAL SYSTEM

There is no open area where the floor joists can be observed directly. While there is one small crawl space vent, when it was opened the hole it covers was seen to be only about 12" deep and did not penetrate the foundation wall because a large boulder was in the foundation at that location. However, the first floor framing is very likely identical to the second floor framing. [Note that the original specification under the heading "Timbering" calls for 2x14 joists at 12" on center joists at both floor systems.]

SECOND FLOOR STRUCTURAL SYSTEM

The second floor framing system is visible from only one place. Under the stage, there is a 10"x12" floor grate, which was lifted out to inspect the one observable joist space. Extrapolating from the observable conditions, the joists are 2"x12 3/4" At 12" on center running north-south. They span from wall to wall with no center beam. There is a set of cross bridging 6'-8" from the north wall. Another set can be seen toward the other end of the joist space, but a direct

measurement was not taken. It is probably the same distance from the south wall, which would imply that there is cross bridging at the 1/3 points of the joist spans.

STAIR STRUCTURAL SYSTEM

The stair framing may be accessed through the access door under the first run of the east stair and observed from underneath. Four stringers or carriages support the stair runs. These are 2" thick by 12 3/4" deep. [Note that the original specification calls for 2x14s for the "Horses" (stringers). This is the same size as called out for floor framing at both floors. In both instances, the actual joists are 1 1/4" shallower than the specifications call for. This implies either that 12 3/4" was the nominal size for 14" lumber (doubtful) or someone changed the installed size after the specifications were written (more likely).] The landings are framed with 1 1/2" to 2" thick by 5 1/2" to 6" deep joists at 14" on center.

ROOF FRAMING SYSTEM

DESCRIPTION

Roof framing in the main part of the building is 2x6s at 16 inches on center running north-south forming an approximately 6/12 pitch. Collar beams (2x6) span from wall to wall and are utilized as ceiling joists. These are spaced more closely. The ceiling joists are set on top of a wood plate that is apparently anchor-bolted to the top of the brick wall. Bricks are set end to end on the ceiling between each ceiling joist near the exterior wall apparently for blocking. A continuous 2x6 plate placed on top of the ceiling joist ends is notched slightly into each ceiling joist. The roof rafters are birdmouthed over this plate. The rafter tails are 24 inches long forming a 21 1/2" overhang. At center span a vertical 1x8 ties the collar beam (ceiling joists) to the rafters at the ridge. There is no ridge board. There are angled 2x4 struts from the collar beam to each rafter at about midpoint of each rafter span, set out about 15 inches from center span of the collar beam. Had they been installed at center span a true truss might have been formed. The 1" thick sheathing boards were installed with no spaces between boards.

The "T" leg roof is framed similarly at a 6/12 pitch with 2x 6s at 16 inches to 18 inches on center. It has the same type of roof rafter/ceiling joist end condition. The nominally six feet square framing for the Cupola bears on the ceiling joists and is nailed to the roof rafters where it penetrates the roof plane. The base of the framing is two 2" x 13" boards on edge running perpendicular to the ceiling joists below the east and west walls of the Cupola. Adjacent to these members are 2x verticals that penetrate the roof to support the Cupola structure above the roof. A wooden ladder ascends from the attic up into the Cupola.



Figure 12. Roof and ceiling framing at exterior wall plate. Note bricks between ceiling joists.

The roof is penetrated at each chimney (except the one that bears on the south main building wall--see discussion below) and at the bathroom vents. There is a former penetration at the northwest and northeast corners where 15" diameter galvanized steel vent pipe penetrated the second floor ceiling and roof. The pipe still exists in the ceiling at the northwest corner where the hole has been filled with a wood patch. A length of pipe lies loose on top of the ceiling at this location. It has a light coating of soot on the inside. The second floor and ceiling has been patched at these locations indicating this pipe formerly penetrated the floor system.

CONDITION

The roof structural system is in good condition. There is some water-staining on a few individual rafters, but it is not recent and whatever the causes, they apparently were remedied.

The 15" round penetrations for the pipes at the northeast and northwest corners of the building were retrofits. At each of these locations a section of a roof rafter was cut out and not headered off. Even when the pipes were removed the rafters were not repaired (See Figure 20).

Since the fascias are rotted in places, it is likely that some of the rafter tail ends may also be somewhat rotted.

RECOMMENDATIONS

Repair the cut rafters by sistering each side of the rafter for a minimum length of 3' over sound rafter each way from each cut end. Use 2x6 lumber.

Inspect the rafter tail ends at the time the fascia is repaired and replaced. Cut out rotted sections and sister the rafter tails to provide nailing for the fascia and soffit.



Figure 20. Pipe at ceiling penetration.



Figure 21. Loose pipe on ceiling at northwest corner of building.



Figure 22. Roof rafter sawn through at location of 15" pipe penetration.

BUILDING ENVELOPE - EXTERIOR WALLS

ADDITIONAL CONSTRUCTION HISTORY

ORIGINAL SPECIFICATIONS

Watertable

The watertable will extend around the entire building and to be seven inches thick on the face and not less than six inches wide. This stone will set over the foundation one inch, and 2 inches outside of brick wall. The top edges outside of brick will be pitched or beveled 5/8 in and back on top [to nose?] to brick. The face of this watertable: will be finished with a cross cut margin on 1 1/2 in from edge. The center Brick hammered down to margin.

Caps & Sills

All caps and sills will be finished the same as watertable.

Sills will project 1 1/2 inches over face of wall and 1 1/2 inches into each joint. Window sill five inches thick and not less than seven inches wide and to pitch out 3/8" in seven inches. Window, caps & coffers to be made from detail drawings & [???] will be nearer of a proper depth or height to receive [?] four courses of Brick and project one inch outside of brick. The joints to be beveled off as is shown by Plans to be arranged in the wall as is indicated by drawings. The face to be finished the same as watertable.

Door Sills

Door sills will be made the same thickness and beveled the same as watertable so as to permit the doors to swing out of the rooms in place of opening into the Building.

Brick Work

The size of the Brickwork on top of watertable: will be: Main Building 28 x 50 ft. Vestibule 28 ft front and sixteen feet back to Main. The watertable to be set 7/8 of one inch or the thickness of the floor above the joist. The foundation walls will be left down so as to receive the joist.

The first story of Main Building to have a sixteen inch wall and carried up to top of joist of second floor. The vestibule and second story of Main Building will have a wall twelve inches in thickness. The Gables may have a wall nine inches in thickness from upper edge of ceiling joists. Partition wall will be nine inches thick and carried up to top edges of ceiling joists.

Flues and air flues to be arranged the same as shown on plans. and well plastered inside. Chimney top built as indicated by plans. The height of brick walls from top of watertable to wall plate twenty six (26) feet & one inch. Two courses of brick will be laid up inside of wall plate after plate is put on to wall. This wall to be laid in good lime & sand mortar [sic] to be tied with every seventh course; a heading course. The joints to be laid as close and as small as can be laid with common Brick. The Brick to be of good hard brick and of a uniform collar [sic].

Cornice

The cornice will be made of Chicago lumber & as per detail drawings.

OTHER SOURCES

Handwritten notes by Mabel Davis, who had a deep knowledge of the history of Poncha Springs, indicate that that Bowering was the contractor who laid the brick and stone, and Bond hauled the stone and brick. The 1981 taped interview speculates that Nan Murphy's father, possibly named Rory, was the one that laid up the bricks on the school.

The Poncha Herald July 1, 1882 stated: "The foundation for the schoolhouse is laid and the lumber for the finish is being delivered on the ground. The brick is being burned near here. Mrs. B. Furnish has the contract. This will be the handsomest and most costly structure of its kind in the county." ⁵

In 1936, Poncha Lumber Company provided 70 brick for \$1.05 and 1 sack cement for \$1.00. This could have been used for any number of purposes: patching the brick at the bottom of the north end of the east and west walls; installing the tie rod (although no record of buying the tie rod has been found); or perhaps installing the cook stove chimney in the Kitchen.

The National Register Nomination states that the Storage Room behind the school was built in 1921. Local residents say it was built in 1922. No direct evidence was found for its construction in the documents recently collected.

Mr. Chas. Carigman built a storm porch and installed two new doors in 1926, for \$147.59. When Mrs. Morgan went to school there were wooden steps. She recollected that "In the first place there was just that step out there in the front and the wind was so terrible that they put that covered thing on there." When Mr. Beck attended, the steps were cement. Perhaps this enclosure was the second, to replace one that was there when Mrs. Morgan attended school between 1902 and 1916.

There are numerous entries for painting. They do not all specify whether they were exterior or interior.

EXTERIOR WALL CONSTRUCTION

The exterior wall construction is load bearing brick, 3 to 4 wythes thick, varying in actual thickness from approximately 13 1/2" to 18 1/4" including interior plaster finish. The lower walls are thicker than the upper, with the end wall chimneys being buried in the wall thickness on the main floor and projecting 4" into the interior at the upper end wall. At the base of the wall immediately above the foundation is a stone watertable made up of long rectangular stone blocks. Above the watertable, brick is laid up in running bond with a header course every eighth course.

Stone elements are integrated into the wall construction in several places, the door heads, window heads and sills, and building corners in addition to the watertable.

⁵ Hutchinson, W., Ed., *Under the Angel of Shavano*, "Chaffee County Schools" by Bessie M. Shewalter, p. 514.

At the top of the wall completely around the building is a wide trim board that is the backing for, and the lowest element of, the decorative wood cornice.

EXTERIOR FINISHES -- CORNICE

DESCRIPTION

The exterior finishes are integrated into the wall construction with the exception of the decorative cornice, which was constructed on the wall surface. The cornice is made up of the wide board band at the top of the brick with overlays of bracketing. At each building corner is a large double bracket. Directly underneath the ridge is a similar large double bracket. Between these, running on an angle along the rake is a series of 10 evenly spaced smaller single brackets resting on a projected horizontal bead. The brackets support a wood soffit at the roof overhang. A molded fascia is nailed to the end of the rafter tails. The entire cornice assembly is painted a dark green color. The other finishes include wood window frames and sash painted black and the front door and frame finished with a transparent coating.

CONDITION

The cornice assembly overall is in fair to poor condition. The wood trim board at the wall is in fair condition as are the brackets and soffit. The fascia is in poor condition exhibiting some level of rot on all facades. The corners of the fascia are split and somewhat rotted. There are rotted holes through the fascia on the west facade of the T-leg and about in the middle of the north wall of the main building, both of which can be seen from the attic. These are approximately 6" to 8" long and 3" high. This rot probably was caused by water dripping over the roof edge where the edge metal is in poor condition. From the attic it can be seen that there is no sub-fascia backing the decorative fascia. The holes in the fascia allow birds and bats to enter and live in the attic. Where the birds roost there are areas of bird droppings and at the east end of the building near the chimney the ceiling is covered with bat guano. It is likely the bats use this area because of the warmth provided by the chimney in the shoulder seasons. Additionally, there are holes in the cornice made by flickers in two locations at the northeast corner of the building and in at least one window head.

The exterior paint is very weathered, in poor condition.

RECOMMENDATIONS

Repair broken pieces of the cornice. Replace missing and severely deteriorated elements in-kind, including wood band, brackets, soffit and fascia.

Paint all wood elements.

EXTERIOR MASONRY - BRICK

DESCRIPTION

The 8 1/4 " x 2 1/4 " x 4" red brick is laid up with 1/2" to 5/8" joints making 3 courses equal to 8 1/4" The National Register nomination says it was supplied by the Salida Brickyard. Salida brick has a reputation of being a low fired relatively soft brick. However, the brick used here is

not exceptionally soft nor is the mortar. The mortar joints appear to have been struck nearly flush with the face of the brick then the horizontal joints were tooled with a pointed tool of some sort. The tool was held at an inclined angle resulting in a very narrow horizontal groove angling downward into the joint. This action caused the mortar to protrude from the face of the brick slightly and randomly, giving it a somewhat rough appearance. The grooving is similar to a style called grapevine pointing.



Figure 14. Grapevine brick pointing.

The brick is laid up in a common bond pattern with every eighth course a header rather than the more frequently used and better known standard of every fifth or sixth course. Each quoin is equal to 4 courses of brick. The joint at the bottom of the header courses time out with the top joints of alternate quoins, which allowed use of full brick. This probably indicates that the quoins were sized to work with the brick coursing.

A band of hard new brick of a lighter pinkish salmon color has been installed the full width of the front wall of the building, seven courses above the stone head at the front door. Around the corners at this elevation are the ends of a tie rod with the plates bearing against the

corner quoins. The tie rod was installed at a quoin joint; consequently the quoins were not seriously damaged nor filled with drill holes.



Figure 15. Note lighter colored brick course at tie rod above entry door. Looking northeast.

There is a patch near the north end of both the east and west main building walls. They are 2 to 3 bricks wide by 7 bricks high, starting 4 courses above the watertable. Portland cement seems to have been used, but it does not appear to be harming the wall, except in appearance. These are at approximately the same distance from the north wall as are the ceiling, floor, and roof penetrations for the 15" diameter pipe discussed in Building Structural System above.

The rear addition roof flashings into the rear main building wall have been mopped with roofing cement and painted silver. These materials are about 4 courses high and obscure the brick from view.

RECOMMENDATIONS

Remove all unnecessary hang-ons and utility pipes, conduits and wires. These services should be rerouted underground to other more appropriate locations. (Please see Mechanical and Electrical sections for more information).

Replace individual bricks that are in poor condition. These are the bricks that have holes drilled into them and any bricks that are broken and spalled. The bricks that were scratched up by the children should be retained in place as a visual reminder of the building's original use.

Replacement brick should closely match the original in color, texture, porosity, and compressive strength. This will undoubtedly require finding a source of used brick, preferably "Salida brick."

If no matching brick can be found, in some cases individual bricks may be removed and turned around. If no closely matching brick can be found, consideration could be given to removing and using individual bricks from the north main building wall that are visible in the Store Room addition. However, this method is fraught with pitfalls. What does one use to replace the removed Store Room bricks? If an elevator addition is added at the north wall, the Store Room wall may be visible as part of an interior space.

Repoint joints where pointing mortar is deteriorated and where inappropriate mortar has been used. The inappropriate mortar occurs at the tie rod and associated cracks at the south wall, and where hard mortar was used to in-fill holes at the north ends of the east and west walls. The existing mortar for both brick and stone should be tested for composition and the same composition used in the new mortar. The new pointing mortar should match the original in composition, color and joint type. The new joints should blend into the existing. The quantity of repointing is assumed to be 20% of the wall surface.

Monitor the crack above entry door with 2 or 3 strategically crack monitors (See Appendix C). It is suspected that this crack was part of an early settling of the building and that it is not moving today. Installing crack monitors will establish whether it is or is not moving.

Lightly clean brick in selected locations where staining is severe. These are the areas underneath the deteriorating window sills and low on the walls where plant watering has left a residue. As is the case with any masonry cleaning, the gentlest means possible should be used. Test areas should be established and testing conducted. The first tests should be using warm water only (no cleaning agents) and a soft bristled brush with a quick light rinse. Large amounts of water may penetrate the porous brick, precipitate salts and cause harm. Since the residues have an appearance of basic minerals from the water it might be tempting to use an acidic cleaning solution, but acid is very likely to cause harm and should be avoided. The soft brick could also be damaged with excessive brushing, even during use of warm water only.

The purpose of cleaning in this case is primarily to remedy a visual problem, although the residues could be causing damage to the brick. If cleaning an area of brick causes damage or a lightening or other unanticipated change in color, cleaning should be curtailed and a determination made regarding the wisdom of continuing with that method or whether cleaning should continue at all.

EXTERIOR MASONRY - STONE

DESCRIPTION

The stone trim elements -- watertable, door heads, window heads and sills, and quoins -- are a light gray/brown in color. The interior of the stone that has not been exposed to ultraviolet light and weather is considerably lighter in tone and much grayer than is the weathered surface, which is a rich light brown. In some light conditions the weathered stone has a pronounced but soft pinkish hue. The stone at the north side of the building appears to be lighter in color tending toward white. The whole of the stone shows inclusions that may have originated as gas bubbles during the formation of the rock. Some of these are 1/4" to 3/8" in diameter forming small pockets to 1/2" or even 3/4" deep. However, there is a considerable amount of variation from stone to stone with some having very little of this texture. Also, many of the stones higher in the wall are more lightly tooled than the majority of lower stones. The brownish gray stone is quite homogeneous except for the inclusions, but is exfoliating in loose layers as it deteriorates (See Materials Analysis).

The front of the building faces south and the stone head pieces of the main door and all the windows in these south walls are more decorative than those on the sides and back of the building. The head and sill assemblies at the south elevation only are made up of three parts, the horizontal sill or head member is the main element and on each end of both the sills and heads is a small rectangular stone bracket. The brackets project approximately 1/2" from the brick face and the sills and heads project about 1" to 1 1/2". This



Figure 16. Window sill with dentil tool marks.

gives the appearance of the bracket members playing a supporting role. There are no brackets at the side and rear windows.

The decorative stone window heads on the south elevation have a raised curved center but the others are simple rectangular shapes. Both have a drip underneath the front edge and a row of concave vertical tooling on the lower edge of the face giving the appearance of small dentils. The quoins project about 1 1/2" from the face of the brick and have random tool marks on the end face and horizontal line tooling on the long face. The top and bottom edge and the vertical edge that abuts the brick are chamfered. Although the detail is quite worn, it appears the top of the window and door heads were also chamfered.

CONDITION

Much of the stone is in poor to fair condition. Some individual pieces exhibit much more deterioration than others. Generally speaking, the window sills are very worn, some of them worn almost completely through. The watertable is deteriorated almost beyond recognition.

Along the west side where parking lot grade has been brought up, the watertable is at or below grade and is in very poor condition. The tops of the window and door heads are quite deteriorated, but many of their faces are in fair and even good condition. The corner quoins vary in condition from good to poor. The small brackets in their protected locations under the ends of the heads and sills are overall in good condition. Four stone heads have a vertical crack in their centers.



Figure 18. Quoin tooling, long face.

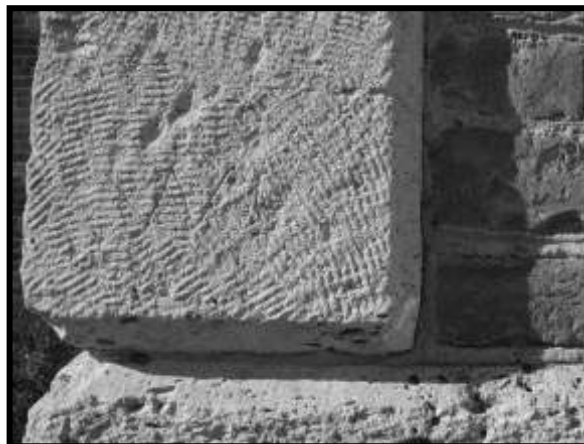


Figure 17. Quoin tooling, end face.

The second floor elements are in better condition than their first floor counterparts, probably because the roof overhang provides some protection. Some of the first floor pieces, especially sills and watertable have been patched with Portland cement based patch material. In most areas, the patching is loose from the stone it was intended to protect.

As this particular rhyolite deteriorates it breaks apart in sheets or layers from the top down, then the pieces break down into smaller pieces and finally it goes to powder. In some window sill areas erosion of the powder has stained the brick below.

Currently there are no known places in the building where moisture is penetrating the wall completely through. There is no efflorescence on either the inside or outside wall surfaces. However there must be areas inside the wall mass that are being wetted due to the poor condition of the window sills. And the watertable is not doing its job of conducting water away from the wall at the floor joist bearing points. Since there is no crawl space access, the floor joist end condition cannot be seen.



Figure 19. Quoin, good condition.



Figure 20. Quoin, fair condition.



Figure 21. Quoin, poor condition.



Figure 22. South façade, looking north. Decorative head at entry door, in poor condition. Left window sill above in fair condition. Right window sill above in poor condition.

Figure 23. West pair of windows on south façade. Both window heads are in good condition.





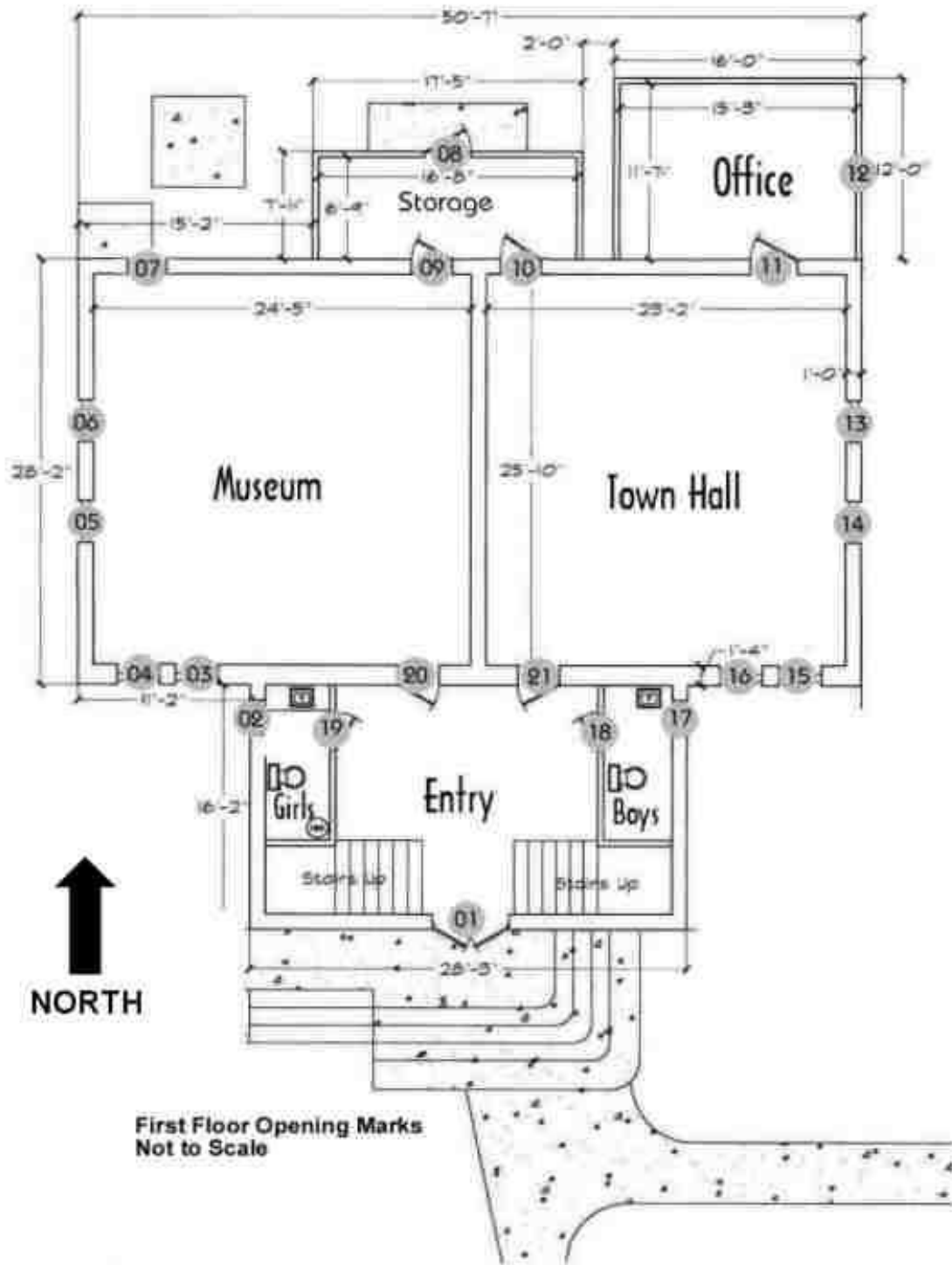
Figure 24. Watertable in fair condition. Note scored stucco parget coat below. This piece of watertable near the south end of the east well, main building, is a good candidate for use as a pattern for new watertable pieces.

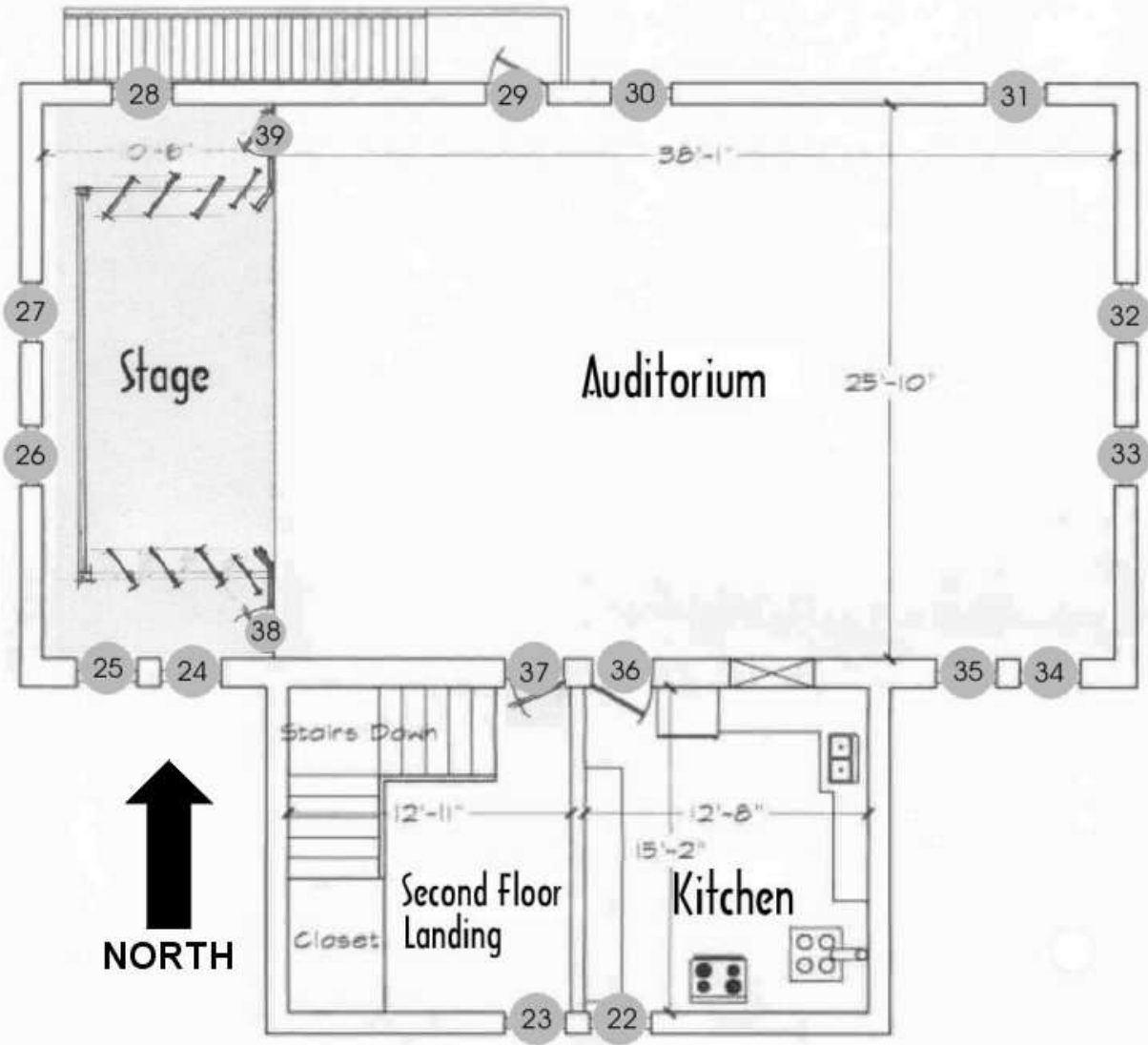


Figure 25. Close-up of watertable tooling.

Following are two evaluation tables of individual stone condition for each type of stone building element, except the watertable.

STONE CONDITION-- WINDOW / DOOR OPENINGS							
P=poor F=fair G=good Dec=Decorative							
OPENING MARK	HEAD	HEAD BRACKETS		SILL	SILL BRACKETS		NOTES
		Left	Right		Left	Right	
<i>FIRST FLOOR</i>							
01	P Dec			NA	NA	NA	
02	NA	NA	NA	NA	NA	NA	
03	P Dec	G	G	P	G	G	
04	P Dec	G	G	P	G	G	
05	P	NA	NA	P	NA	NA	
06	P	NA	NA	P	NA	NA	
07	P	NA	NA	P	NA	NA	
08	NA	NA	NA	NA	NA	NA	
09	?	?	?	NA	NA	NA	Head not observable
10	?	?	?	NA	NA	NA	Head not observable
11	?	?	?	NA	NA	NA	Head not observable
12	NA	NA	NA	NA	NA	NA	
13	F	NA	NA	P	NA	NA	
14	P	NA	NA	P	NA	NA	Head cracked
15	P Dec	F	F	P	P	P	
16	P Dec	F	P	P	P	P	
17	NA	NA	NA	NA	NA	NA	
18	NA	NA	NA	NA	NA	NA	Interior
19	NA	NA	NA	NA	NA	NA	Interior
20	NA	NA	NA	NA	NA	NA	Interior
21	NA	NA	NA	NA	NA	NA	Interior
<i>SECOND FLOOR</i>							
22	P Dec	G	G	P	G	P	
23	F Dec	G	G	P	G	G	
24	G Dec	G	G	P	G	G	
25	G Dec	G	G	P	G	P	
26	G	G	G	P	G	G	
27	F	G	G	P	G	G	
28	G	NA	NA	P	NA	NA	
29	F	NA	NA	NA	NA	NA	Head cracked, brick in-fill bet door & head
30	P	NA	NA	P	NA	NA	
31	G	NA	NA	P	NA	NA	
32	G	NA	NA	P	NA	NA	
33	P	NA	NA	P	NA	NA	Head cracked
34	G Dec	G	G	P	G	F	
35	G Dec	G	G	P	G	G	
36	NA	NA	NA	NA	NA	NA	Interior
37	NA	NA	NA	NA	NA	NA	Interior
38	NA	NA	NA	NA	NA	NA	Interior
39	NA	NA	NA	NA	NA	NA	Interior





**Second Floor Opening Marks
Not To Scale**

STONE CONDITION SCHEDULE---QUOINS							
P=poor F=fair G=good							
PIECE	MAIN BUILDNG				T-LEG (ENTRY WING)		
#26=Top stone	SW corner	NW corner	NE corner	SE corner	SE corner	SW corner	NOTES
#01=Bottom stone							
26	G	G	G	G	G	G	
25	P	F	G	G	P	F	
24	G	F	G	G	G	G	
23	G	F	P	G	G	P	
22	P	F	G	G	G	G	
21	F	F	G	F	P	G	
20	G	F	G	P	G	F	
19	P	G	G	F	G	G	
18	G	G	P	G	G	G	
17	G	G	G	P	P	G	
16	P	P	G	G	G	G	
15	P	P	F	G	G	F	
14	G	F	G	P	P	P	
13	P	P	G	F	G	G	
12	G	P	G	G	G	G	
11	G	P	F	F	P	G	
10	G	G	G	G	P	P	
09	G	F	G	G	P	F	
08	F	F	G	F	P	F	
07	G	F	G	F	P	F	
06	P	F	G	P	G	G	
05	G	G	G	G	P	P	
04	G	P	G	F	F	F	
03	F	G	G	G	P	G	
02	F	F	G	G	F	F	
01	P	P	G	F	F	P	

Those pieces identified as poor in the tables above should be replaced. All watertable pieces are in poor condition and are not included in the tallies above. Please see the Recommendations section for the total number of each piece type to be replaced. When construction documents are prepared for a construction project, the project architect should verify that the condition of each stone has not changed since this evaluation.

RECOMMENDATIONS

Replace severely deteriorated stone--those pieces in poor condition--on a piece by piece basis. The one watertable piece that has integrity should be removed from the wall and kept in storage. Note that this piece is in the east wall, third piece from the south end. It also should be used as a pattern for the others.

The quantity of stone to be replaced is:

Decorative door head	001	
Brackets at door head	000	
Decorative window heads	005	
Brackets at window heads	001	
Standard window heads	006	
Window sills	022	
Brackets at window sills	006	
Quoins	036	
<u>Watertable</u>	<u>048</u>	(132' perimeter to be replaced w/ pieces averaging 2'-9")
TOTAL NO. PIECES	124	

Discussion

Much of the stone is so badly deteriorated that replacement is the only available option. What to replace it with, however, is a very complex question. The quarry from which the stone originated has not yet been found and it is highly likely that it won't be found. The preparers continue to search, as does Dick Lippoth of Pinnacle Quarry and Development. Dick's search is a labor of love in that he is interested in documenting Colorado quarries. If the quarry is found prior to undertaking a construction project, the stone should be examined for soundness as a replacement. If it is sound and enough stone exists to provide all the needed replacement pieces, the cost of opening the quarry should be determined. If the cost is competitive, this option should be seriously considered.

If the quarry is not found, one alternative would be to substitute a similar rhyolite stone from a different quarry. The Castle Rock, Kerr Gulch and Nathrop quarries all have been reviewed on a preliminary basis. None of these stones matches the existing stone exactly. Castle Rock is very pink throughout, Kerr Gulch is similar in color and weathering characteristics resulting in a tan color with a pinkish hue but the texture is much smoother with no inclusions, and Nathrop stone is slightly grayer and weathers to more of a gray than a tan. Other elements to consider are that Castle Rock is an active quarry and also has a gray stone but the weathering characteristics of neither have been reviewed to date. This stone should be evaluated for potential use. Due to current ownership and other considerations, it may not be possible to reopen Kerr Gulch or Nathrop. However, at the present time, Kerr Gulch stone would be the preferred substitute and there is a possibility that enough good stone remains in the waster pile. There are numerous large blocks of stone in the pile and these should be scrutinized and evaluated.

Cast stone would be a reasonable alternative to natural stone if an acceptable natural stone cannot be found. It is durable, it can be made to match the predominant color of the existing stone and it can be reinforced. Additionally, it could be cast from molds taken from the existing stone. Several casts should be taken from different stones so the repetition is not noticeable. This would be especially important for the quoins and watertable where several stones in a row require replacement. Costs of cast stone or quarried stone are comparable.

The preparers also considered and investigated the possibility of consolidating and surface coating existing stone in the "fair" condition category that is not too badly deteriorated. This avenue of inquiry resulted in the conclusion that there is little available knowledge related to consolidation or surface coating of rhyolites. Extensive testing should precede any such action. Similarly, little has been done with the use of epoxies on rhyolite to rebuild missing features in a decorative piece of stone. Therefore, a rigorous testing period should precede any of these approaches. Consolidants and surface coatings have been shown to work with varying success on other types of stone but even in better known and more highly tested stone types, these treatments are not cure-alls and come with words of caution.⁶

The concept of reversibility comes into play. Quoting from C.A. Price in *Stone Conservation*:

No treatment should be used unless it can be removed at some future date, should that prove necessary. In the context of stone conservation, however, reversibility may be more idealistic than realistic. It can be extremely difficult, in practice, to remove even the most soluble of treatments. It is wiser therefore, to assume that a treatment, once applied, cannot ever be totally removed. Succeeding generations are going to have to live with our actions. ... Treatment is irreversible, in practice, but decay through neglect is irreversible too. ... Sometimes we will conclude that treatment is justified; other times we may conclude that we can safely defer treatment for the time being.

There is no question that much of the stone in the Poncha School is beyond treatment and is either causing damage to other parts of the building or will cause damage very soon. They are in the poor category, as they are no longer performing their intended function. These are being recommended for replacement. At the other end of the condition spectrum are those pieces that show a minor level of deterioration. These pieces are recommended for retention in place alongside those pieces that do not exhibit any deterioration. The middle category is the difficult one to deal with. Should they be replaced now as they are on their way to category "poor"? We recommend they be retained in place for the time being as they are still performing their intended function and it is not known how quickly they are deteriorating.

It is recommended that neither no consolidation be undertaken nor surface coatings applied, as there are too many unknowns about the consequences of these processes on rhyolite. While testing could be undertaken, it would necessarily be within a short time frame and therefore would not be conclusive and the end result could be more damaging than beneficial.

⁶ C.A. Price, *Stone Conservation*, Getty Conservation Institute, Santa Monica, CA, ISBN 0-89236-389-4. Personal communications with Richard Lippoth, Pinnacle Quarry and Development, Fort Collins, Colorado, and Norman Weiss, Adjunct Associate Professor, School of Architecture, Planning-Preservation, Columbia University, New York City.

CHIMNEYS

DESCRIPTION

There are four brick chimneys. Two identical chimneys are centered on each end wall of the main building wing. The exterior wall at these locations is flat. The east chimney projects into the room on the second floor but the west does not. Neither chimney protrudes into the interior spaces on the first floor where the wall is thicker. However, both chimneys project into the attic space approximately 4". These chimney projections are approximately 24" wide and extend from the second floor ceiling to the roof ridge. A similar chimney is centered on the "T" leg ridge at the south wall of the main structure where the two wings intersect. This chimney appears to bear on the south wall of the main wing. It is not visible as a projection into any of the habitable spaces on either floor and there is no evidence of a wall or ceiling penetration in any of the rooms below this chimney, It is 21" wide east-west and 13" deep north-south above the second floor ceiling. Six or seven courses near the top are corbeled in both directions, such that it would penetrate the roof at 31" wide and 17" deep. This technique was common in the 19th century to achieve a symmetrical exterior appearance. This chimney penetrates the roof but there is no trace of it on the interior of the building below the second floor ceiling. It can be seen at the T-leg ridge behind the Cupola in the Muriel Sibel Wolle photograph, taken between 1933 and 1967 in a view from the southwest. A fourth chimney bears on a wall bracket in the east wall approximately 2' north of the inside face of the south wall. This chimney apparently was installed when the Kitchen was constructed. It bears on a wood bracketed shelf in the Kitchen. The bracket is held in place with 2 through-wall bolts that have steel plates at the outside wall face.

All the original chimneys were 3' to 4' high above the building ridges. The shafts were decorative with recessed panels on all four sides and top terminations that were corbeled out and back in as construction progressed toward the top. It appears that all chimneys were dismantled to a point of 12" to 16" above roof line although it is not known whether the Kitchen chimney ever was very tall or what it looked like; All four chimneys are now topped with a silver painted metal cap and pipe extension topped with a rain cap. Silver paint also covers the chimney brick above the roof.

A gas floor heater in the Town Hall is vented through a stovepipe that penetrates the wall into the chimney just below the cove of the metal ceiling. There is evidence of another former stovepipe hole (now plastered closed) approximately 12" below the current one. On the second floor an overhead gas heater also vents into this chimney.

In the Museum a similar situation exists where the stovepipe from a pot belly wood stove penetrates the chimney through a stovepipe hole that is approximately in the location of the lower hole in the Town Hall. On the second floor behind the Stage a 6" stovepipe hole located just above the picture rail has been plastered up.

A stovepipe from a wood burning range in the second floor Kitchen utilizes the chimney at the east wall of the "T" leg addition. As stated above, there is no evidence of a stovepipe in either the wall or ceiling at the chimney at the ridge of the "T" leg.



Figure 27. Center chimney in attic. Note corbelling.



Figure 26. Center chimney above roof looking north from Cupola. Note silver paint on brick and cracked roofing cement.

Figure 29. Stovepipe in Town Hall. Note former stovepipe hole below picture rail, plastered up. Looking northeast.



Figure 28. Stovepipe in Museum. Note stovepipe hole location below picture rail. Looking west.



CONDITION

All the chimneys are in poor condition.

RECOMMENDATIONS

When the building is reroofed and after a new heating system is installed, the chimneys should be taken down to the roof line and rebuilt with their original detailing to their original height. They should be capped off and not used.



Figure 30. Stovepipe in east wall of Kitchen into retrofit chimney. Looking southeast.

EXTERIOR APPENDAGES

DESCRIPTION

There are two small shed roofed additions and a wood fire escape on the rear of the building. The larger easternmost addition was built as a vault and is constructed of 8" concrete blocks painted white. The room is accessed from the main building through a door in the west end of the Town Hall that probably was originally a window. This addition, which currently serves as the town administrator's Office has only one window, a small aluminum slider high in the east wall. The floor level is at the same level as the main building. There is no door to the outside.

The additions are only two feet apart, a condition that results in a very narrow and deep space between them. This condition promotes deterioration of both buildings.

The smaller storage addition is wood frame on an 8" concrete curb on a concrete slab on grade with horizontal drop siding, 5" to the weather. This addition is entered through a door at the west end of the Town Hall. It can also be entered from a door at the west end of the Museum, but that door is blocked at present. The floor level is a few inches lower than the main Office space. It has no windows but does have a door to the outside in the center of the north wall. It is also painted white on the exterior.

Both additions have been roofed with what appears to be the same sheet material. It has been painted with a white roofing coating. The roof pitches of both additions are approximately 4/12, which is slightly flatter than the main roof. It is not known whether the original roofing material was sheet goods or some other material, perhaps metal.

The wood fire escape exits the upstairs room through a 2'-6" wide door opening that was formerly a window. A 7'-4" x 3'-8" landing outside the door is supported on the storage addition roof. The 3'-8" wide fire escape stair is tight to the north wall and descends to the west. The open treads are installed at a 7 3/4" riser and a 9 1/2" tread. Stringers are 3" x 11 1/2" actual and are supported from the ground on posts at the third-span points. The guardrail at the landing is 3'-5" high with 2x4 top and mid-rails. The handrail is 3'-0" high above the tread nosings and also has only a 2x4 top and mid rails. There is no covering over the stair

CONDITION

The exterior appendages are in fair condition. Grade at the storage room walls has eroded out from under the concrete slab in places, leaving short lengths of the slab suspended in air. The



Figure 31. Rear (north) elevation, facing south. Three appendages, left to right: concrete block vault, now the Town Administrator's Office, storage shed, and exterior exit stair.

walls of both additions appear to be sound. The lower courses of siding on the storage addition are somewhat deteriorated. Both fascias appear to be in poor to fair condition. Paint is peeling at the fascias, which leads to the suspicion that moisture is getting into the fascias due to a poor flashing condition at the eaves. The same is true with the plywood shed end closures. The lower portions of the walls between these additions suffer from winter snow accumulation and inadequate drainage.

Both roofs appear to be poorly flashed into the brick wall of the main building. However, they are covered with roofing cement and roofing paint that obscures the detailing. Roofing paint often is applied to seal leaks, large and small, or otherwise improve the performance of a failing roof.

RECOMMENDATIONS

Regrade around additions for positive drainage. Fill and hand compact under concrete slab for storage addition.

Reroof both additions and install new flashing into the brick wall. Roofing should be a high quality sheet roofing such as the Siplast system or a high quality batten or standing seam metal roof system with joints and ribs at spacings to emulate the main roof, i.e., 24" panels with a v-crimp in the center. Install new roofing with a drip edge that extends well back under roofing and provides a minimum 1" drip beyond the face of the fascia. Extend roofing approximately 1" over the drip edge.

Repair split and deteriorated drop siding.

Repair fascias: replace deteriorated lengths of fascia in kind.

Replace plywood shed end closures.

Paint walls and fascias.



Figure 33. Storage Room, fascia and flashing. Northeast corner of Storage Room, looking south.



Figure 32. Vault fascia. Northeast corner, looking southwest.



*Figure 34. Storage Room flashing and roof from exterior fire stair.
Southeast corner of Storage Room, looking east.*



Figure 35. Storage Room slab erosion, northeast corner, looking south.

BUILDING ENVELOPE - ROOFING AND WATERPROOFING

ADDITIONAL CONSTRUCTION HISTORY

ORIGINAL SPECIFICATIONS

Roofing

The roof of House & Belfry will be covered with the best quality of (IC) tin laid with what is known as standing groove seam. The tin to be well tacked on each seam. The deck of Belfry and Bell Deck to be laid with flat seam. All roofing tin must be painted on the underside with one coat of lead & oil before it is laid on & two coats on the outside after roof is finished. There will be a scuttle hole made through the ceiling of the vestibule 2x3 and one through the Bell Desk of Belfry 2 ft x 2 ft 6 in and covered water tight and so arranged as to be removed.

Cupola

The Belfry to be of the size and height and finished as is shown on plans, and to have an iron cresting around the top, tot less than two feet and four inches high. Corner post not less than 3 ft 10 inches high. Care must be taken so as there will be no leakige [sic] around the screw heads where this is screwed on to the roof. This must be painted with two coats of lead & oil. This belfry is also to have a scuttle hole 20 x 24 inches in upper deck & be well secured on the lower side with hooks.

OTHER SOURCES

Roofing

In 1905 the school board discussed the necessity of painting the roof, but it was "laid over for a future meeting." This work could have been done in April and May of 1907, when Salida Lumber Co. supplied \$5.95 worth of paint for the schoolhouse, and D.E. Albright was paid \$18.00 for painting. Ted Holman did, in fact, paint the roof, and was paid \$20.00 for the job in July 1931.

Roofing tar from Panther Oil & Grease Co. was purchased for \$95.00 in May 1939. Labor costs of \$95.00 were evenly divided between Everett Schrader and Ted Holman in June, and at the same time a voucher for \$23.64 was issued to Snell Lumber Co. for "repairing of plant." We are assuming that the labor and other repair costs were related to the roofing tar.

Cupola

Sisson V. Turner placed a flagpole in 1898. It is unclear whether this was on the Cupola or on the grounds. A flagpole was repaired in 1933 for \$1.50.

In September 1928 G.J. Robinson was paid \$6.25 for repairs on bell and floor. In 1929 Harry Gould welded the bell for \$22.50. In 1930 Wm. E. Shrader screened the belfry.

Christine Morgan reminisced that "It used to be quite a deal, too, to turn that bell over, and then the kids would get to go up in the attic and turn it all back. That was quite a deal." Cass Beck remembers climbing up there a time or two to turned it back. He added, "Well, every time they had a dance somebody turned the bell upside down." Christine: "Tied a knot in the rope" Cass: "Tied a knot in the rope so it couldn't come back down,"

DESCRIPTION

ROOFING SYSTEMS

The existing roof is a metal panel type. The panels have wide double ribs or battens at the edge seams with a smaller rounded v-crimp in the middle to provide additional stability. The edge battens may incorporate a locking system, but it appears more likely that they are fastened with screws that penetrate the lapped sheets. Photos from the Cupola show screws located at the tops of the v-crimp, but these could be retrofits. The sheets are slightly less than 2 feet wide and approximately 9 feet long. The seam where the ends of the panels lap is about in the middle of each roof plane and is continuous across the plane. The eave edges appear to overhang an inch or two. At the rake edges the metal has been bent over the fascia with varying degrees of neatness. There is a metal edge bent over the fascia at the eaves. Roof color is generally and variously silver to gray. The whole roof has been painted. Some areas appear to have been treated with a gray patching compound. The areas at the northwest and northeast corners have been patched where the 15" round pipe was removed. These areas are one and a half panels wide and approximately 2 feet high. The roof is topped with a metal ridge roll that does not appear to be stamped to receive the double batten sheets

It is unlikely that this is the original roof. The ca.1885 photo shows what looks like a metal roof with rib spacing very similar to this one. If this is not the original roof, it probably is only the second generation roof. The original roof undoubtedly was not wood shingles as shingles were invariably installed on spaced sheathing during this period and these sheathing boards were laid tight. Standing seam roofs with rolled seams were popular in the area during this period and many high quality standing seam roofs still exist on buildings in Salida. Many are painted silver. There are several references to painting the roof in the school district warrant stubs described in the Additional Construction History section of this report but no colors were mentioned.

Lapping metal panel roofs of the Poncha School type were coming into common use in this period, but they were typically inexpensive roof systems used on outbuilding. The 1897 Sears catalog offers a steel panel roofing material that is referred to as "v-crimped Roofing." The panels were 24" wide and 8' long, painted both sides. The catalog states that it can be installed with lapped or lock jointed ends.

There is a recent vintage metal tripod supporting a small antenna at the intersection of the roof ridges. The wire connecting the antenna with its electronic equipment is laid loosely on the roof surface, and hangs off the south roof edge and enters the building through a window on the first floor.

SHEET METAL FLASHING

There are metal flashings at a number of roof penetrations, namely the Cupola and four brick chimneys. They appear to be well integrated into the roofing, however roof coating treatments could be obscuring deficiencies.

There are metal chimney covers with round 6" or 8" diameter extensions at each of the four chimneys.

DRAINAGE SYSTEM, GUTTERS AND DOWNSPOUTS

There are no gutters or downspouts and no evidence that there were any in the past.

CUPOLA

The Cupola is a wood framed structure with sheet metal siding approximately 6' square. Above the solid lower

walls are tall openings with round tops, two on each side. A window sill about 15" above the roof ridge supports the window opening framework. These vertical divisions also act as roof support posts. They are made of 1" material and constructed to emulate classical columns with a projected wood plinth at the base of each which rests on the continuous sill. At the top of the each vertical is a wood trim piece that gives the appearance of column capital from the round arched openings spring. There is one bracket at each corner column and a double bracket at each intermediate column. The brackets support the wide overhang of the roof above. The roof is an unribbed sheet metal covered concave mansard with a flat top. The flat top roofing material was not observable but probably is metal.

The ca. 1885 shows a horizontal member across the front openings approximately 12" to 18" above the continuous sill. It appears to be on the sides and rear also, creating a horizontal band or rail around the Cupola. The proportions look to be about like a 2 x 4 flat, i.e., with the edges fastened to the 1" thick vertical "columns". This same element can be seen in the Wolle photo, but does not seem to be continuous around all sides of the Cupola which could indicate that some of it was removed by that time. The 1" material used in the Cupola vertical framing seems too light and feels flimsy when one is sitting in the Cupola, so this banding may have been installed to provide stability to the vertical framing. This element does not survive today.

The Cupola was rehabilitated in recent years. The work included installing glass at each opening and wiring the bell in place so it cannot be rung. The bell has a long weld on the north face. It and its frame have been painted white.

A round wood flagpole is supported on the framing members at the second floor ceiling level and penetrates the Cupola floor and roof near the north (rear) Cupola wall.



Figure 36. Tipped roof antenna, to right of chimney cap. Looking north.

CONDITION

ROOF

The preparers of this HSA did not physically go on the roof, as there was no safe way to do so. Observations of condition were made from inside the Cupola and from the ground using binoculars.

The roof appears to be in fair to poor condition. There are no obvious leaking areas and no reports of such by the occupants. The patches on the north roof plane appear to be sound. The metal panel edges are loose at most of the roof corners and some are loose at the eaves. The ridge roll is bent and beaten up and is loose in some places. There has been a liberal amount of roofing cement used over the years. This cement obscures the detailing and flashings and prevents confident condition appraisal. It is likely that the roofing cement has been applied at various times to stop leaking areas.

The antenna tripod is screwed to the roof surface and mopped and painted with roof coating. The town should adopt the ethic that every penetration of a roof introduces a place for a new roof leak. The tripod attachment has introduced at least 3 new holes and possibly 6 or 9.

SHEET METAL FLASHING

The flashings at the main roof appear to be in fair to good condition. There is a red coloration on the roof at the base of the easternmost chimney. This probably is either rust or brick dust. All flashings and above-roof chimney brick are painted with a silver paint.

The Cupola flashings appear to be in fair condition, with the same liberal application of roofing cements as other flashings.

CUPOLA

Overall, the Cupola is in fair to poor condition. The wood framing is quite weathered and the paint has worn and flaked off. The fascia has numerous holes and splits. The brackets on all but the north side are cracked and weathered. There appears to have been a hatch cover in former times. Now the access from the attic is open with no cover. When the windows were installed, the cover was probably removed since the interior of the Cupola was expected to be protected from the weather. Now one of the windows is broken and another is cracked. The missing rail has decreased the stability of the structure. The mansard roof and the sides of the Cupola appear to be in good condition. The upper flat roof could not be observed, but the roof metal bent over and nailed into the edges is irregular and appears to be loose in several areas. This is partly due to the deteriorated wood being unable to hold nails.

The flagpole appears to be in fair to good condition.

RECOMMENDATIONS

ROOF

The roof should be replaced with a high quality sheet metal roof that closely resembles the existing roof or the apparent original standing seam roof. It should be minimum 24 gauge

galvalume (22 ga. preferred), AEP-Span or equal. AEP-Span offers the option of making custom panels. The color should be determined through paint analysis. A cost estimate for replacement is included in this HSA.

Inspect the attic space periodically for leaks. Leaks will likely show up as water staining on the underside of the roof boards and the roof rafters and around roof penetrations. If the water penetration becomes more severe it will show up in the attic as a pattern of drops on the top side of the ceiling where it can be inspected visually. More advanced leaking will show as water stains on the room side of the ceiling plaster.

Pending replacement, existing roofing should be screwed down at the corners and all places where roofing is found to be loose. Screws should be placed at the ribs and other high points. Use screws that will penetrate well into the sheathing being careful to avoid crushing the roofing ribs. Neoprene washers should be used on all screws.

Prep and paint roof per results of the paint analysis.

Painting the chimney brick above the roof is a poor practice and will ultimately result in severe brick deterioration. As stated earlier, brick dust may be the red coloration at the base of the east chimney and the silver coating may be the cause of the problem. When the chimneys are reconstructed on the roof (see recommendations under Chimney heading), new stepped flashings should be integrated into the brick joints.

The roof mounted antenna should be relocated to a less visible place and its wire rerouted to the interior. If it has to be on this building, one possibility is between the rear of the Cupola and the chimney to the north. If it is to be roof-mounted, steel eyes should be integrated into the existing roof or flashed into the new roof in a more permanent manner. Another possibility is to attach it to a pole anchored to the rear of the Cupola with standoffs. In either case the wire could be routed through the Cupola and into the building instead of being an exterior hang-on.

SHEET METAL FLASHING

All flashings should be replaced during roof replacement. If the red material is brick dust, the metal chimney cap should be removed and inspected for leaks. If it is rust, the source should be located and the condition corrected. All new flashings should be detailed so the mechanical make-up of the flashing detail keeps water out. Caulks, sealants, and roofing compounds should not be relied on to do the job and should be used sparingly, if at all.

CUPOLA

The Cupola should be completely rehabilitated. Rehabilitation should include stabilizing the verticals by repairing all broken elements and replacing deteriorated elements, repairing or replacing deteriorated brackets, soffits, and fascias in-kind. The missing 2x4 rail should be rebuilt and installed in its former location. There may be nail holes in its former location, and the historic photographs also should be used as a guide. The mansard roof and the upper flat roof should be inspected and repaired or replaced in-kind. The Cupola floor should be beefed up and waterproofed and a new roof hatch should be constructed with appropriate closures and seals. The window glass should be removed and heavy screens such as hardware cloth should be installed at the openings.

Paint color of the wood and metal elements should be determined through paint analysis and the whole assembly repainted. The flagpole should be inspected, treated with clear wood preservative, and fitted with a top pulley.

WINDOWS AND DOORS

ADDITIONAL CONSTRUCTION HISTORY

ORIGINAL SPECIFICATIONS

Window & Door Frames

All door & window frames to be made as is shown by detail drawings and of good dry "B" stock Chicago lumber. All window frames to be box frame.

Sash

Window sash to be lip [?] 1 3/4 inch in thickness size of glass 12x40 in first story upper story windows 12x36. All windows to be of 4 lights well bedded in sash. Each sash is to be hung with weights of a sufficient weight to balance the sash. Each window to be furnished with a good sash lock on the meeting rails.

Doors

Front doors to be double door 4 ft 8 in wide by eight ft high 1 3/4 in thick with transome [sic] of one light twenty inches wide double strength glass. Doors to swing out and to be provided with a good store door turnkey lock & handle 5 1/2 x 5 1/2 butts Head & foot bolts.

The back doors will be 2 ft 10 inches by 7 ft 1 3/8 with transome [sic] of a sufficient heighth [sic] to bring the headers in line with the head of windows & hung so as to swing out & fitted with 5 1/2 x 5 1/2 butts and a good lock. Inside doors 2 10 x 7 ft 1 3/8 hung so as to swing out into vestibule.

Inside Finish

Doors & windows to be cased & finished with "B" stock lumber (Chicago) as per details. All work to be plastered to ground & finished on the plastering.

Inside Lintels

There are to be inside lintels over each door & window 6x6 dry lumber. The space between the inside face of wall and the back of stone cap: to be filled sollid [sic].

OTHER SOURCES

Doors

A door lock and handles were purchased in March of 1895. Some doors were repaired in 1896, but it is not clear whether they were interior or exterior. In July of 1903 the school board authorized Mr. Deny Huffman to repair the front doors of the schoolhouse. A lock was repaired in 1926. Padlocks were purchased in July, 1933. Schoolhouse keys were bought in 1939.

Two new 2/6-6/0 doors were supplied in September 1936, each costing \$4.10. These are probably the ones that were replaced in 1986. Assuming there were no other replacements, the first two pairs of front doors lasted around 50 years each.

Windows

Glass replacement appears throughout the history of the building, beginning in May of 1896. There is no obvious pattern as to what time of year was better or worse for the windows -- based on the records available; the only months without window repairs were January, March, and December.

In at least one case, it is apparent that the windows being repaired were downstairs. A receipt from Salida Lumber Co., in September 1936 describes "2 glass 12x40 \$1.30 & putty 10¢."

DOORS, HARDWARE, TRIM, FINISHES

DESCRIPTION

The Entry doors to the school are double, four-panel doors clear-finished on both exterior and interior, each 2'-4" x 8'-0" x 13/4. They replaced earlier doors in 1986, but they are similar to those visible in the 1885 historic photograph.

There is a fixed-glass transom above the doors, with a dressed decorative rhyolite head above that on the exterior. The National Register Nomination states that these are replicas of earlier doors.

The interior doors to the Museum, the Town Hall, and the Boys Room are four-panel, with the two top panels taller than the bottom two. They are painted light blue with blue gray panels. Trim is blue gray. These doors are 13/8" x 2'-6" x 6'-10". The door to the Girls Room is two-panel, with the top panel taller than the bottom one. The door is painted light blue. Trim is blue gray.

The interior of the door from the Entry to the Museum is painted white.

The doors from the Entry to the Museum and Town Hall have castle-topped decorative hinges. The knobs are simple round brass, mounted in a

rectangular beveled lightweight brass plate with inoperative keyhole. Above each knob is a modern brass deadbolt lock. The Museum door

appears to be earlier than the Town Hall door, and may be original to the building.



Figure 37. Doors to Town Hall (right) and Museum (left). Looking north.

A second door in the Museum is on the east end of the Museum north wall, leading to the Storage Addition. It is a five-panel interior door, finished clear. There is a square fixed transom above it, its glass replaced with an opaque material. The door opens with a brass knob privacy set that is of recent modern design.

The Girls and Boys Room doors have modern brass hinges, and modern brass privacy door knobs with lock-release holes in the center.

A door has been fitted into the West Stair just above the first landing. It is made of vertical bead board on four horizontal 1x4 boards. A screen-door spring keeps the door closed. The handle is shaped metal, and the door is secured with a padlock and hasp.

The door from the Auditorium to the Kitchen is immediately east of the entrance from the landing. It and the door to the stair are identical. They are 1 3/8" x 2'-9 1/2" x 6'-10". A five-panel door to the fire escape is located near the center of the north wall of the Auditorium. It is an interior door, being 1 3/8" x 2'-6" x 6'-6". The nomination says this fire escape was built in 1942. Ghosts in the plaster above this door on the interior and brick inserted beneath a stone window head on the exterior indicate that the door opening was previously a window opening.



Figure 38. Five-panel door. Exit door from Auditorium, looking north.

Flanking the proscenium are two Stage doors that are five-panel clear-finished wood, with plain clear-finished board trim. They are 1 3/8" x 2'-0" x 6'-6". These doors have latch sets with round knobs and square escutcheons made of lightweight metal. They appear to be of a 1920s or 1930s vintage.

CONDITION

The front doors are quite weathered on the exterior, and in poor to fair condition. At least one of the panels is split letting light through. Generally, the interior doors and hardware are in good condition. The exit door to the outside from the Storage Room is in poor to fair condition.

RECOMMENDATIONS

Rehabilitate the front doors. Strip these doors of the clear finish. Note that it would be unusual to find doors in this period treated with a clear finish-most were painted. Paint exterior doors same color as other trim on the building, using exterior enamel to resist weathering. Paint interior doors. Replace the Storage Room exit door with a solid metal panel door; paint same color as other trim on building.

Other doors should be cleaned and painted. Hardware should be cleaned, lubricated, and adjusted for ease of operation. Trim should also be cleaned and where painted, should be repainted.

WINDOWS, HARDWARE, TRIM, FINISHES

DESCRIPTION

There are 22 double hung wood frame windows in the building. The downstairs window openings are 2'-9¹/₄" x 7'-4"; those upstairs are 2'-8" x 6'-6". Each sash is divided in half vertically, making the windows two-over-two. Many of the windows are placed in pairs, though in separate openings. There is tooled rhyolite stone above and below. The rhyolite above the south-facing windows and doors is shaped more elaborately than is the stone above the other windows.



Figure 39. Paired windows. Looking north.

From the exterior, on the south projecting bay that holds the Entry and Stairwells is a pair of windows just above the front door. One opens into the Second Floor Landing and the other opens into the Kitchen.

Two pairs of windows above each other are on each side of this projecting bay. Those to the east open into the Town Hall Offices at the first floor and the Auditorium at the second floor. Those to the west open to the Museum below and the Stage above. The glass in the latter is painted black.

On the east façade are four windows, two each on the first and second floors, directly above each other. The downstairs windows open to the Town Hall, the upstairs to the Auditorium.

This pattern is duplicated on the west façade, with the lower windows opening to the Museum and the upper opening to the Stage where the glass is painted black.



Figure 40. Interior windows, Auditorium. Looking southeast.

Along the north wall, the storage room and vault cover up the east and central windows downstairs, but the west window has been boarded up. On the interior it is used as a bookcase.

On the north façade upstairs, there are windows at the east and west ends. Originally there was a pair in the middle of the façade. The west one of this pair was modified to become the door to the fire escape.

There are no windows in the Entry.

The Boys Room and the Girls Room each have a one-over-one double hung window with frosted glass of perhaps 1940s vintage. The openings for these windows appear to have been cut into the brick when the restrooms were installed.

The original exterior windows have sash weights to lift the lower sash. There are nickel silver thumb turn locks on the meeting rails, and finger pulls. Frames, stools and sash of all windows on the second floor are finished clear. On the first floor they are painted white in the Museum and gray in the Office space.

A pass-through opening from the Auditorium into the Kitchen is east of the door to the Kitchen. The cover for this opening is operated by an ingenious homemade system of cables and weights that make it easy to slide a vertical plywood panel up and down between vertical tracks from inside the Kitchen.

Expanded metal security frames have been installed on the windows in the Museum. These are well installed with large steel eyes embedded in the brick joints.

CONDITION

The interiors of the windows are in good condition. Most remain operable although the sash is somewhat loose in some of the windows.

The exteriors of the windows are in fair to good condition, except the wood sills, which are generally in poor condition. As would be expected, those on the south and west facades of the first floor are in worse condition than those in the rest of the building.

Most of the glass has been poorly puttied; the putty was left unpainted and is deteriorating.

The expanded steel window coverings at the Museum are rusting and are so firmly installed that they preclude maintenance on the window sash, frames and sills.

The boarded up window in the Museum precludes performing maintenance on the frame and sash.

All the window glass behind the Stage on the second floor has been painted black and the frames have been boarded up from the interior. The black paint is flaking and peeling and the windows cannot be evaluated on the interior.

RECOMMENDATIONS

The interiors of the windows and trim need cleaning. Refinish the second floor clear matte finish, sanding lightly first. The sash should be adjusted, and sash cords replaced as necessary to work smoothly. The existing sash cords are brittle and about half are missing.

On the exterior, most windows need to be reglazed, retaining the existing glass. The wood sash, frame, and trim should be scraped to remove loose and deteriorated paint. Badly deteriorated wood should be patched. Severely weathered sills should be filled with epoxy and sanded smooth. Rotted elements should be replaced. All wood should be repainted.

The expanded metal security frames at the Museum windows should be removed unless there is an overriding reason for their existence. Security can be provided through other, less obtrusive means such as Plexiglas interior inserts.

While the existing windows are in fair condition, energy performance can be improved by installing storm windows. Storm windows and screens can be made in the traditional way with separate wood frames, wherein the sash and screens are changed out seasonally, or one of many other ways. Single track windows are available where upper and lower sashes mount in line over one another. Screens are available for this type unit but must be stored elsewhere. Operable interior storms would allow exterior screens to be in place continuously and would not require storage for any units.



Figure 42. Girls Room window from exterior, looking east.



Figure 41. Boys Room window from interior. Looking northeast.

INTERIOR FINISHES

ADDITIONAL CONSTRUCTION HISTORY

ORIGINAL SPECIFICATIONS

Floors

The floors to be laid with Chicago dressed & matched "A" flooring & thoroughly seasoned.

Stairs

There will be two flights of stairs: 21 rises in height. Steps to be 1½ inches of ash or yellow pine. Rises to be of 7/8 Chicago white pine. The post & rails made of white spruce and stained to imitate black walnut. Balister [sic] nice black walnut turned. Post to be turned except where the rail & stringer intersects them. The Horses to be sawed out of 2x14 native plank and placed not more than sixteen inches to center. The steps of have nosings as per detail drawings.

Plastering

The inside walls of the entire building to be plastered on the brick and put on to grounds to receive casings and wainscoting.

Ceilings will be lathed.

The plastering will be three coat work. The final coat hard finish of Plaster Paris. No second coat must be put on until the one preceeding [sic] is sufficiently dry to safely receive it. The above must be a first class job of plastering in every respect.

Wainscoting

All of the rooms & stairs are to be wainscoted four feet high and to be of Chicago beaded wainscoting 3/4 inch in thickness with cap [assobbia ?] as shown by details & finished with grained oak collar [sic] & varnished with two coats of varnish copal quality.

Plugging [sic] for Inside Finish

Lath are to be laid in the inside course of brick every 16 inches, laid into the joint dry: that is to say, without mortar.

Painting

All standing finish doors & windows to be painted with three coats of lead & oil any collar [sic] or shade that the school board may direct.

Blackboards

There will be blackboards plastered into the walls where ever the school board may direct providing there is not more than three in each room. These boards are to be made of a cement such as is usually used in blackboards of hard finish.

OTHER SOURCES

July 30, 1894 meeting minutes "On motion H.H. Rose and D. Albright were given the work of repairing the school rooms, said work being the layering of a new floor in the east school room and other small repairs needed for the comfort and safety of teachers and pupils." In September of that year, D.E. Albright was paid \$24.00 and H.H. Rose \$15.00 for work on the schoolhouse, and V.C. Davenport received \$41.27 for "lumber, etc."

In November 1894, more work was done. V.C. Davenport was paid \$2.45 for "building purpose." D.E. Albright and H.H. Rose were paid for labor, and Jay Bros was paid \$4.55 for lumber. J.A. Pender hauled the lumber, along with four tons of coal.

The August 7, 1895, school board minutes state that, "The purpose of meeting was to decide on repairs needed in and about the schoolhouse. On motion of P.C. Bond it was decided to ceil the hallway instead of plastering overhead." At least some of this work was accomplished soon after, in September, with V.C. Davenport providing building materials for \$30.72, and David Albright doing "repairs on schoolhouse" for \$21.00.

In September 1896, curtains were purchased from Haight Churcher for \$7.00. These may have remained in place until October 1929, when S.W. Sandusky provided 10 yards curtains for \$5.00. The latter, however, could have been related to completion of the auditorium that year. "New window shades" were bought from Mrs. C.E. Oatman in August of 1933; this implies there were earlier shades. More shades were bought from her in 1935.

Sometime in 1901, probably August or September. H.H. Rose calcimined the school. Calcimine, also spelled kalsomine and known as whitewash, was a white or tinted liquid containing zinc oxide, water, glue, and coloring matter used as a wash for walls and ceilings.

On August 17, 1901, the School Board decided to lay a new floor in the primary room. In September, R.M. Bratton was paid \$7.50 for labor, which seems quite low for laying a floor. In October, Salida Lumber Company received \$44.06 for "lumber, nails, etc."

Rose & Williams received \$20.00 for blackboard in January of 1906.

In February, Bateman Hardware Co. provided 25¢ worth of nails, and in March Mr. Albright was paid \$3.00 for "S.H. Repairs."

In the fall of 1906, Salida Lumber Company provided \$6.00 worth of paint. The work must not have been completed, because Salida Lumber Company provided another \$5.95 worth of paint in April, and D.E. Albright was paid \$16.00 in May for painting the schoolhouse.

There is a gap in the school warrant books at this point, which resume in 1926. In April 1928 Charles Carigman was paid \$4.00 for labor on schoolhouse. In July, Hanks Snell Lumber Co. provided "blackboard" and painted the Stage and inside woodwork for \$35.55.

This, and the piano entries below, are the first sign that the upstairs had been finished. Mrs. Morgan said, "Now, the upstairs wasn't finished when I was going to school. They had the big wide boards on the floor up there. But they did always have their elections upstairs.... And then, I guess I was about 13 years old, when we started that Rosebud Club, and we made money enough to fix the floor and bought that player piano and put it in there." If Mrs. Morgan was in first grade in 1902, the Rosebud Club must have begun around 1909. If all their fundraising through base sales and box socials was directed toward finishing the upstairs, so it must have taken a number of years to accumulate enough. The work may have been done incrementally as money became available.

In March 1929 C.E. Upp tuned the piano for \$7.00. H.D. PALMER tuned it again, this time for \$6.00, in January of 1936.

Hanks Snell was paid \$1.45 for "1 qt. B.B. Slating" in April 1929.

In October of 1929 Mr. Greenburg was paid \$27.00 for linoleum, presumably for the Kitchen. Salida Lumber Co. was paid \$4.10 for material for building and paint. In January 1930, Mr. Greenberg received \$1.50 for 15 feet of linoleum binding. Cass Beck recollects that the Kitchen was not there in 1922 when he started to school. Christine Morgan remembers it when she returned to teach in 1949. The cook stove appears to be of 1920s or 1930s vintage.

In 1930 Chas did a small amount of work on the schoolhouse. E. Brown, who was paid \$3.00. In November of that year \$65.00 was paid to the Madison Paint Co. for paint. A note below this looks like "lost."

Dickinson Paint Shop was paid \$37.70 in August 1933 to paint a school room. Dickinson also received \$35.00 for "kalsoning & painting room" in August 1935. Fred Sampson also did some repair work for \$15.00 that month. In October 1939 we find R.F. Dickinson once more cleaning and "kalsoning" school room. This was done for the cost of \$30.50.

E.A. Huffman supplied benches in May of 1935, perhaps the same ones that are in the Auditorium today.

In 1941 Salida Lumber Co. provide repairing materials -- lumber and plaster -- for \$2.23.

ENTRY AND STAIRS

DESCRIPTION

Wall Finish Materials

The exterior walls of the Entry, and the wall between the Entry and the Museum and Office, are plaster. There is a wainscot of 2 1/2" wide bead board at the bottom of all the plastered walls. This is topped with a chair rail, the top of which is 3'-9 1/2" above finished floor.

The walls dividing the bathrooms from the Entry are the same type of beaded board, extending to the ceiling. This beaded board is also used to enclose the space beneath the stairs that would otherwise be exposed to the Entry.

Walls and wainscoting are painted light blue. Chair rail is painted blue-grey.

Between the Town Hall door and the wall to the Boys Room is a piece of trim similar to the chair rail, with several coat hooks. This trim is painted blue-grey.



Figure 55. West Stair, looking southwest.



Figure 56. East Stair, looking southeast. Note black sign at top of wall to left of stair.

There are two stairs to the second floor, symmetrically located on the east and west sides of the Entry space. They are mirror images on one another. The East Stair has been floored over at the second floor level for construction of the Kitchen. (Please see the description of the Second Floor Landing, below, for further discussion of this change.) The West Stair is the primary access to the second floor today and is described below.

The wainscot up the West Stair is 6 1/2" wide bead board with a center bead on the south, west, and north sides (exterior walls). The walls above the wainscot are plaster. The ceiling is bead board. All is painted light blue. The east (interior) side of the stair is also bead board that terminates at the top of a balustrade on the second floor. The interior bead board wall turns to follow this run up to the Second Floor Landing. On the right (north) of the second landing is a bead board wall and door that closes the next two runs of the stair – and the second floor – off from the Entry. At the top of the stair, a newel post matching those on the first floor marks the end of the balustrade.

At the East Stair, a 5'-2" tall picket gate at the top of the first run of risers closes this stair off from public access. The pickets are painted light blue. The treads are uncarpeted wood. A black sign with white lettering hangs high on the wall just north of the East Stair. It says:

STATE OF COLORADO
STANDARD SCHOOL
APPROVED CLASS

Ceiling Finish Materials

The Entry ceiling and the area under the Stairs are covered with narrow beaded board. The beaded board beneath the stair is 5" wide, with a center bead. Near the center of the Entry ceiling is a patch in the bead board, with a hole through it. This lines up with a hole in the Second Floor Landing floor and ceiling, which probably was for the bell rope.

The ceiling of the West Stair above the first run is bead board. The second and third run of the stair and the second landing are open to the ceiling of the Second Floor Landing, which is plaster.

Floor Finish Materials

The Entry floor is carpet over 5" face dimension tongue and groove boards running north-south.

The West Stair and Landing are carpet over wood.

The East Stairs are wood. The first landing flooring is 3-1/4" face dimension tongue and groove boards running north-south.

Other

The West Stair leads to the Second Floor Landing, where there is a door into the Auditorium. The first run of the 4'-6" wide stair, consisting of 7 risers and 6 treads, ascends to the west. There is a 4'-9" landing at the top of this run of the stair.

The second run of the stair parallels the west wall of the building, and consists of 8 risers and 7 treads and it also ends with a 4'-9" landing.

The third run, ascending to the east, has 6 risers and 5 treads.

On the north (interior) side of the first run of the stair a wide banister with plan square 1-1/2" x 1-1/2" spindles ascends from a sturdy newel post.

Up the stairs from the wooden banister, lengths of steel pipe attached to the walls with pipe fittings serve as handrails.

CONDITION

The wall, ceiling, and floor finishes in the Entry and Stair are in good condition. The paint on the walls and woodwork is quite thick, and there is a chance that additional layers of paint would

blur the definition of the bead board and molding. Although the carpet is not historic, it reduces sound transmission and is safer during wet weather.

RECOMMENDATIONS

Painted surfaces should be cleaned with soap and water. Marks should be removed where possible with an eraser.

Carpet should be cleaned regularly, and replaced when worn.

TOWN HALL

DESCRIPTION

Wall Finishes

The walls are finished in plaster. There is a wainscot of 2-1/2" wide bead board at the bottom of all the plastered walls. Where there are not blackboards or windows, this is topped with a chair rail.

A picture rail circles the room at window- and door-head height.

Ceiling Finishes



Figure 43. Town hall ceiling, looking at northwest corner of the room.

The ceiling is embossed metal painted white. The field panels are a grid of squares that have a floral design at each corner of each square. The ceiling is rimmed with a raised embossed strip, or molding, on the outside of which is another wider strip, or filler panel, painted blue-grey, which has a smaller square and diagonal pattern more ornate than the main part of the ceiling. The cornice is wide metal panels painted white, with egg-and-dart patterns on the top and bottom edges, and a horizontally repeating sheaf pattern between these edges. This reaches around the entire room, except at the corners where there are grey painted gussets composed of ovals surrounded by olive or laurel wreaths.

The top side of the metal ceiling can be seen through the grate hole in the second floor under the stage, but there is no grate in the ceiling directly below the grate hole or anywhere along the joist space. The metal ceiling panels are nailed directly to wood strips, 7/8" thick by 1" to 1 1/2" wide, running east-west. In turn these strips are nailed directly to the bottom of the joists. Note that under the "Plastering" heading, the original specification calls for "Ceilings to be lathed." It is possible that the tin ceilings are not the first, but rather, the second ceilings in the Town Hall and Museum. It also is possible that the plaster ceilings were not installed per specification and tin was used instead of plaster or that the ceilings were left unfinished for some time and tin was installed as the first ceiling.

In the northeast corner of the room is a rectangular sheet metal patch. The floor of the Auditorium is patched in the same location above. These apparently allowed a 15" diameter sheet metal pipe to extend from the first floor, through the second floor and attic, and out the roof. An identical situation is found in the northwest corner of the building. A section of this pipe was found in the attic.

Floor Finishes

The floor is covered in carpet, but is probably the same as the Museum.

Tin Ceilings

Corrugated iron was used on ceilings as early as 1868. The ceilings that were common between 1880 and the 1930s were fancy designs stamped into the metal. In the 1940s metal production was diverted to war-time use. Compared to plaster and lath, tin or pressed metal was cheap, permanent, and fireproof. When painted, they looked like expensive, hand-carved plaster.

These ceilings were common in North America. Although they were introduced into Australia and South Africa in the late nineteenth century, they are virtually unknown in the rest of the world.

Peaking in popularity right around the turn of the last century, pressed metal ceilings were available from more than three dozen manufacturers, some offering hundreds of patterns. The panels often came pre-painted in grey, white, or red oxide.

The *field* panel is the design of the main panel in the room. It may cover the entire ceiling or be centered in the room. The *filler panel* is a panel with a simple over-all design such as a "hammered" or "dimpled" finish. This panel is used to center the *field panel* in the room. A *molding strip* may be used to enhance the appearance of the ceiling. It is installed between the *field panel* and the *filler panel*. The *cornice* is applied to the corner of the wall and ceiling.

Other

Blackboards on the north, south, and west walls are now used as bulletin boards, with maps, notices, and other materials taped to them. On the north wall, the blackboard is flanked with pegboard inserts, and fills the entire space between the two doors on that wall. The blackboard on the south wall extends from the entry door to the first window to the east, and also is flanked with pegboard inserts. The blackboard has been covered with white marking board. The blackboard on the west wall is centered on the wall.

CONDITION

The finishes in the Town Hall are in good condition.

RECOMMENDATIONS

Painted surfaces should be cleaned with soap and water. Marks should be removed where possible with an eraser.

Carpet should be cleaned regularly, and replaced when worn.

OFFICE**DESCRIPTION**

The Office, originally built as a vault for town records, has been completely redecorated. The east, north, and west walls are covered with blonde melamine paneling. The south wall is brick, originally on the north exterior of the building; it is painted orange. The ceiling is acoustical tile, and the floor is brown-gold carpet. There is a modern sliding window in the east wall. The ceiling is low, and slopes from south to north. Lighting is from a suspended fluorescent fixture. Electrical outlets are surface mounted.

CONDITION

The Office finishes are in good condition. However, the room is too small for its function as the town administrator's office.

RECOMMENDATIONS

For the moment, the room should be left as is. However, this is one of several examples of the need for more space for Town Hall functions. Should an addition be constructed or the second floor made accessible, this space could be returned to use as a storage area, possibly as a vault, by removing flammable materials and securing the door and window.

MUSEUM

DESCRIPTION

Wall Finishes

The walls are plaster, painted pink. A bead board wainscot painted light brown runs around the entire room, with a chair rail topping it where there are no windows or blackboards. The base at the bottom of the wainscot is quarter-round toe mold.

A picture mold, painted wall color, runs around the room at the top of the window and door trim.

Ceiling Finishes

The ceiling is embossed metal of the same style as in the Town Hall. In the Museum, however, it is all painted white.

Floor Finishes

The floor is 3-1/2" wide wood strip flooring running north-south.

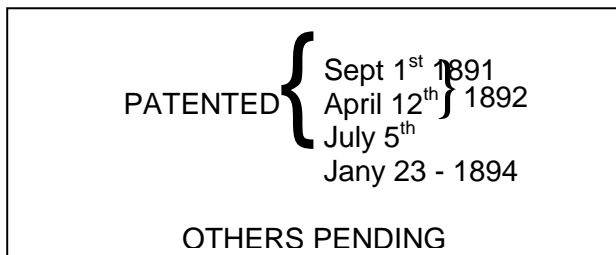
Other

The south, east, and north walls each has a long black chalkboard, not slate but probably Hyloplate. The east chalkboard has been covered with corkboard. A shelf is attached beneath it, with glass panels framed with clear-finished 1x4s providing protection for exhibits within this simply-built case.

The cast iron stove in the Museum is an "Estate Oak" Series No. 314. It was manufactured by "F & L Kahn & Bros of Hamilton O". Lettering around the bottom outside says "Pat'd April 12 & July 5 1892."

Inside the door to the stove is written EST OAK
34414 94

Inside the door to the firebox is a hinged panel with the following:



CONDITION

The finishes in the Museum are in good condition. An effort is needed to organize the collections and exhibits, and to assure that objects and collection records are properly conserved and stored. Light level adjustment and climate control are two of the more obvious aspects that need evaluation. These activities are not part of the current project.

RECOMMENDATIONS

None.

STORAGE ROOM

DESCRIPTION

Wall and Ceiling Finishes

The south wall of the Storage Room is brick, part of the original north exterior wall of the school. The other three walls and the ceiling are plaster, painted off-white. Shelves and cupboards mostly obscure the walls.

Floor Finishes

The floor is unpainted smooth concrete.

Other

The cupboard standing against the east wall of the Storage Room is made of bead board similar that that used to build the closet on the second floor landing.



Figure 44. Storage room, looking east. Note brick at right.

CONDITION

The Storage Room finishes are in good condition. However, the room is too small to provide adequate storage for Town Hall functions. Many items are stored in the blocked-off East Stair.

RECOMMENDATIONS

None.

SECOND FLOOR LANDING

DESCRIPTION

When the school was occupied in 1882, the upstairs was not finished. The two stairs led, one from each side, to the second floor. It is unclear whether these stairs were completely open to the entry or whether there was a floor at the top that extended between the two stairs. (See scenarios on page 13.) This would have formed a single room that encompassed both today's landing and the Kitchen next door. In the school district minutes from August 1895 it was decided to "ceil the hallway instead of plastering overhead." This could refer to installing bead board on existing floor joists instead of using plaster and lath. However, it could also refer to completion of an entire new floor within the entry. .

A wall was built dividing the space in half, the East Stair was floored over, and a Kitchen was installed sometime between 1922 and 1949.



Figure 45. Fire extinguisher. Another of these is found on shelves in the north wing of the Stage.

Wall Finishes

Three walls in this room (south, west, and north) are plaster.

The east wall is gypsum board on wood studs, with a wainscot of 1-5/8" wide bead board, finished with a clear varnish. It is topped with a one-inch half-round molding painted the same pale blue as the wall.

Ceiling Finishes

The ceiling is plaster. In the ceiling adjacent to the east wall is half of a hatch that leads to the attic. The other half of the hatch is in the Kitchen. In the Second Floor Landing floor directly beneath this hatch is a hole that extends to the Entry below. This apparently was for the bell rope.

Floor Finishes

At the top of the stair, a strip of carpet the same width as the stair tread continues to the east wall of the Second Floor Landing.

The remainder of the landing floor is 5-1/4" wide tongue and groove strip flooring, painted light brown.

Other

In the southwest portion of the landing is a tall bead board storage closet with a padlock hasp. The bead board is 1-5/8" wide, and is finished with a clear varnish.

Attached to this storage closet is a tear-drop-shaped "Red Comet" glass fire extinguisher.

CONDITION

The finishes on the Landing are in good condition.

RECOMMENDATIONS

None.

AUDITORIUM**DESCRIPTION****Wall Finishes**

All walls are lightly textured plaster, painted light blue.

There is a plain board chair rail 1-1/4" x 3/4", finished clear, that circles the room (except for the Stave) at the level of the window stool.

The baseboard is 1-1/2" high cove mold atop a plain 1" x 6" board, fronted by 3/4" quarter round toe. All is finished clear.

A picture mold, painted wall color, is located at the same height as the top of the window trim.

The chair rail, base, and picture mold surround three sides of the room, the fourth (west) side being the Stage.

Ceiling Finishes

The ceiling is lightly textured plaster, painted light blue.

Floor Finishes

The floor is 3-1/4" wide tongue and groove strip flooring, finished clear and laid diagonally southwest to northeast. It is slightly higher than the Second Floor Landing floor surface, and therefore appears to have been added atop the original floor. The flooring and baseboard extend under the Stage, where the baseboard shows considerable wear and the floor finish is almost non-existent.

There is a layer of flooring under the diagonal flooring. It is 7/8" thick tongue and groove with a 5" face dimension running east-west and is nailed directly to the joists. Subfloors do not appear to have been used in this building, so this probably is the original floor.

CONDITION

The finishes in the Auditorium are in good condition.

RECOMMENDATIONS

Paint walls and ceiling.

Buff floor.

STAGE

DESCRIPTION

Wall Finishes

Exterior walls are painted plaster. Wings on each side and a backstage passage across the west are partitioned off from the performance area. The partitions are wood fiber board similar to Upson Board (see Materials Analysis) framed and battened with 1x2 boards. The partitions at each side pivot at the top from a flat-laid 2x4 that spans from the proscenium to the backstage partition. All is painted white.

Ceiling Finishes

The ceiling is plaster painted white.

Floor Finishes

The floor is 3-1/4" wide softwood strip flooring, finished clear, and running east-west. The flooring bears on rough sawn 2x6s running north-south. There is no subfloor. At the outside walls (north and south) the joists bear on a 2x4 ledger which bears on short posts constructed on the auditorium floor. There are two 2x6 "beams" mounted on short posts at the one-third points of the auditorium width. The Stage floor joists are flush framed into these.

Other

The proscenium is angled inward slightly. It is trimmed with plain wood finished clear. Above it to the west is a rolled scrim. This can be let down by a rope attached to its south end.

Below each of the doors, recessed into the wall, is a box that can be pulled out by a handle. When reversed, the box provides two steps up to the Stage floor.



Figure 60. Steps up to south wing of the Stage.

The presence of Upson Board, the door and hardware vintage, and the fact that the Stage was constructed on the diagonal finish flooring is consistent with school records indicating the Stage was constructed in the late 1920s. There is backstage graffiti from as early as 1935.

CONDITION

The north wing is full of stored boxes.

RECOMMENDATIONS

None.

KITCHEN

DESCRIPTION

The Kitchen was built between 1922, when Cass Beck started school, but before 1949 when Christine Bond Morgan returned to teach. (See Additional History above.) It appears that the cabinetry was installed or updated after the Town took over the school building in 1961.

Wall Finishes

Three walls are plaster painted white; the west wall is drywall painted white.

The base is typical – 1" high cove mold over 1"x6" actual dimension board, over ¾" quarter-round. All is finished clear.

A ¾" x 4 3/8" plain board finished clear runs around the south and east walls. The bottom of this is at 5'-8" above the finished floor. Various holes indicate it was used for hooks or nails to hang utensils or other Kitchen items. An 11 5/8" x 4'-0" x 5/8" piece of plywood covered with wood patterned adhesive paper is screwed to this board at the center of the south wall. Fourteen brass cup hooks are attached to the board. A similar board, with 12 cup hooks, is located above the north end of the west cabinets.

On the west wall between the north wall and the cabinets, and the south wall and the cabinets, a clear finished bead board wainscot can be seen. This appears to extend all along the west wall, and may be a reason the cabinets are set out from the surface of the plaster wall. The bead pattern is spaced at 1-1/2". The wainscot reaches 3'-0 ¾" above finished floor, and is topped with quarter-round painted white. There is also a quarter-round toe mold, finished clear. Neither wainscoting nor evidence of it can be seen on the south and east walls. On the north wall, however, a white-painted wainscot identical to that on the stair in the second floor landing and topped with the same top molding, angles down toward the east behind the refrigerator. This shows that there originally was a stair up this side of the landing as well.

A white-painted board ladder built of modern 2x4s reaches from the east cabinet counter top to an attic access in the ceiling. This access is covered with a piece of plywood to fit the opening.

The pass-through between the Kitchen and the auditorium is covered with a vertical plywood panel that is opened and closed by an ingenious counter-weighted pulley system.

Ceiling Finishes

The ceiling is plaster, somewhat cracked. It is painted white. There is an oval patch near the hatch to the attic, another patch at the chimney bracket on the east wall.

Floor Finishes

The floor covering is vinyl sheet goods or late-style linoleum. This is laid on some sort of felt, which is above a wood underlayment that can only be observed in very small areas at the corners of the floor covering. The surface of this wood underlayment is below the level of the diagonal strip flooring in the auditorium.

Other



Figure 61. Kitchen cabinetry, looking northeast.



Figure 62. Wood or coal cookstove. Looking east.

Cabinetry

The west wall is lined with cabinets of approximately 1950s vintage, based on hardware style. Handles and hinges are chrome “streamline”. Doors are plywood with rounded edges. Similar units are arranged in an L shape on the east and north walls. The west end of the north cabinet has four drawers instead of a door. A double sink is located on the east wall.

The counter top is full 1" plywood, covered with laminated (Formica). There is a Formica covered backsplash 6 ½" high on the west and part of the east walls. The backsplash behind the sink on the east wall is 4" high. The backsplash on the west wall is topped with a plain board painted white, 7/8" x 2 ¼" wide. The cabinets are set slightly away from the wall, and this board prevents dropping things behind them. There is a ½" quarter round molding against the wall across the top of this board. There is a strip of ¾" cove mold where the backsplash and the counter top meet. This is true of the 6 ½" backsplash on both the east and west walls. There is no trim on the backsplash behind the sink. The shallow kick space has a quarter-round toe mold.

Wood or Coal Cookstove

The coal or wood cook stove is a Majestic, manufactured in St. Louis, Missouri. It has a yellowish-tan body with pinkish-beige doors and tan insets, and black enamel decorating paint around the warming shelf and sides. The stove sits 20" out from the east and south walls.

The cook top is 35 ¾" wide x 25" deep. It has two 8 1/8" burners on the left side, and a 20"-wide griddle plate on the right side. Above the cook top is an enameled back topped with a warming shelf. On the left and right side edge of the cook top are two slots with which work shelves could be attached. At the back right of the cooktop is a chrome knob that was probably used to control oven temperature.

The oven door occupies the front three-quarters of the stove, and a vertical door fills the rest of the space. Behind this door are three spaces arranged vertically. The wood was fed into the top opening, the hopper-style door to which is labeled with the name and location of the manufacturer. The middle space, labeled "AE 7-80" on its screwed-on iron cover, contains two rotating grates. These are turned with a square knob, the removable handle to which is missing. The bottom space is the ash drawer, the front of which is labeled "AE 7-8". On the left (north) side of the stove is a damper.

The gunmetal-colored stovepipe exits from a metal box on the back of the stove. This pipe appears to be single-walled. It disappears into a hoe in the chimney bracket at the top of the east wall. Also on the back of the stove are two 1 ¼" threaded male pipes, one 5" above the other, that extend about 3" away from the stove. They may have been associated with a water heating system.

CONDITION

The walls, ceilings, cabinetry, and trim are in fair to good condition. Some of the Formica has come unglued or is missing, especially along the front edges of the countertops. The floor covering is poor to fair.

RECOMMENDATIONS

The Kitchen needs a deep cleaning. In particular, the dead bird and other debris should be removed from the antique stove. Heat-resistant lay-off surfaces adjacent to the electric stove would help prevent spills.

If the Kitchen continues to be used for catering rather than for food preparation, no major upgrades are needed.

The floor covering should be removed and replaced with institutional-grade floor covering.

Countertops should be replaced with a more sanitary seamless system, with integral backsplash and front edge.

MECHANICAL SYSTEMS

ADDITIONAL CONSTRUCTION HISTORY

ORIGINAL SPECIFICATIONS

Registers

There will be four adjustable registers not less than ten inches in diameter one arranged in each room. These registers to be made of cast iron and placed about two feet below ceilings.

Ventilation

A ventilator will be constructed on the roof and extend down to connect with the air flue in the wall. This will be of galvanized iron as shown by drawings.

OTHER SOURCES

Heating and Ventilation

Two zinc stove pipes were purchased in September 1894, presumably to replace existing ones. Perhaps these were changed out to accommodate burning coal instead of wood, for four tons of coal was hauled to the school in November of 1894. In July 1903 it was decided "to employ C.E. Underwood to supply the school with coal to last through the school term six to seven tons being the amount generally used." A Mrs. Norris was paid to black two stoves at the same meeting. Additional purchases of coal from various suppliers appear from time to time in the financial records after this, as well as payments for wood.

A stove was repaired in 1931. Stove shakers were bought in 1937. In 1939, Y.R. Auto Co. replaced a stove for the price of \$40.00. Paine & Paine repaired stovepipe and wire in 1939. An entry in January 1941 shows Paine & Paine providing "replacements stove -- stove board, stove pipe & coal hods" for \$46.50.

Water Service

There may not have been water on the schoolhouse site until 1903. Some rural schools hauled drinking water from a community well (Tarryall School, Park County), or someone had the responsibility to supply it for the students (Valley View School, Chaffee County).

In 1895 the school board decided "to dig a well on the school grounds and the Secretary was ordered to post a notice for proposals for bids for digging and walling a well." However, in April the minutes state, "On account of water being turned in ditches near school grounds sooner than expected in the spring it was deemed advisable to postpone digging a well until next year or at such a time when the ground is not saturated with water."

In July 1902 the school board opened and read bids for digging and walling a well on school grounds. It is unclear whether this is the first well on the grounds, since it is more than five years

after the decision was made to dig one. Instructions for the successful bidders were that "The well must be four feet eight inches in diameter after being walled and walls must be 14 inches thick.... It was further resolved on motion to purchase a pump to be placed in the well for school use."

In January of 1903 J.D. McPherson and Richard Bratton were paid \$19.70 each for "digging well on school grounds." In April 1903, J.S. Beck was paid \$7.00 for "sinking well on school grounds."

Hartzel Fullenwider cleaned the well in 1926. Vern Huffman worked on the well in October of 1929, and in November Mrs. C.E. Calmus supplied a pump. Wm. E. Shrader "pumped the well" (installed the pump?) in 1930. Joe Trani cleaned the well and repaired the pump house in February 1934, and cleaned it again in August of that year.

In 1937, F.H. Fletcher was paid \$4.10 for "changing seats." There is no indication new desks were bought, and unless this was related to the benches purchased in 1935, we might assume that this small amount was for changing the seats in the privies.

In August 1940 J.W. Maxey drilled another well.

In the 1981 interview, Ms. Morgan and Mr. Beck talk about the drinking water at the school. Early on, Ms. Morgan remembers, "a bucket was passed and everyone drank out of that same dipper. Then they put in a kind of crock thing that had a little faucet on it." Mr. Beck remembers that "we each had our own drinking cup" to which Mrs. Morgan responds, "You must have been on that crock." They recollected that the well was "right there at the back door where they put that porch," apparently referring to today's storage room. Later they dug another well "up above", perhaps the one drilled in 1940.

Plumbing and Sewer

The 1885 photograph shows a wood privy to the northeast of the school. In June 1898, the school board "decided to build brick water closets on the school grounds in place of those now in use." (At the same meeting, use of tobacco on the school grounds was prohibited.) In August, warrants were paid for building materials and to "Rep'r Closets." The next we hear on this matter is in 1904, when a contract was let to John A. Woods for "...building a brick closet ... for the some [sic] of \$190.00...."

In May 1939 and again in May 1941, W.W. Nelson was paid \$25.00 to clean the vault.

Mrs. Morgan recollected that "it wasn't too long after [she came back to teach in 1949] that they put the inside restrooms and that nice drinking fountain..." Mr. Beck said he was on the school board when they put the inside water in. The toilets have been replaced fairly recently, the one in the Girls Room in 1989.

DESCRIPTION

HEATING, VENTILATION, AND AIR CONDITIONING

There is no heat in the Entry, or ventilation other than the exterior doors.

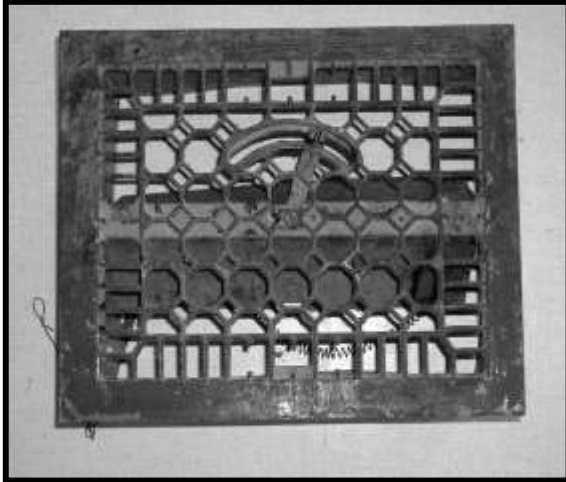


Figure 46. Floor grate found under the Stage.

An antique ventilation register is found at the top of the south wall of the Museum and a similar one in the Town Hall.

A 10" x 12" steel floor grate was found in the Auditorium floor beneath the stage. A sheet metal spring loaded vane mechanism is attached to the underside of the grate. A semicircular handle built into the grate operates it. The handle could be moved by foot. This grate could have been a supply grill from a ducted air system (warm air or ventilation) or it could have been a transfer grill to conduct heat to the second floor from the room below. There are no grills anywhere in the tin ceiling below to support or refute these conjectures.

In the Museum a potbellied iron stove vents through a chimney pipe flue that exits at the top of the west wall. A plug-in electric space heater sits at the north door. Ventilation is through the windows.

The sole heat in the Town Hall is a gas fired console style space heater sitting on the floor at the middle of the east wall. This heater vents up through a stove pipe connected to the main chimney in the east wall. There is a recent vintage ceiling fan above the console heater. There is a single electric baseboard unit on the north wall of the Administrators Office, the former vault. In the Auditorium, a noisy gas heater, suspended from the ceiling, vents into a plastered



Figure 48. Town Hall gas heater. Looking east (above).

Figure 47. Gas heater in Auditorium. Looking southeast (below).



chimney at the east wall that extends 4" into the room. This heater is better suited to an auto repair shop or warehouse space. Ventilation is through operable windows.

There are portable electric space heaters under most of the Town Hall occupants' desks and in the Boy's and Girl's Rooms to keep water lines from freezing.

There is no heating in the Second Floor Landing. Ventilation would have been through the window in the south wall.

There is no insulation in the building.

WATER AND GAS SERVICE

The building is on the town water system. The water line to the building comes from a main at Shavano Avenue on the west side of the property. There is a well and pump house located just south of the Maintenance Shop. It is no longer used.

Natural gas service is from a line that apparently is in Burnett Street. The meter is located at the south end of the east T-leg wall.

PLUMBING

Just west of the door to the Museum in the Entry is a porcelain and chrome drinking foundation, hung from the wall. The fountain drain exits into the floor. A plumbing vent pipe extends out of the floor just to the west of the fountain, and takes a right-angle turn to the west along the wall, disappearing into the Girls Room.

There is no water or plumbing in any of the primary spaces except the Kitchen. In this room there is a double compartment stainless sink. Water service comes up from the Boys Room below, where there is a water heater.

At the northwest corner of the second landing of the West Stair, a plumbing vent extends from the Girls Room on the first floor below up through the ceiling of the Second Floor Landing above. A similar vent is found in the northeast corner of the Kitchen, rising from the Boys Room up through the Kitchen ceiling.

SEWER

The building waste water discharges into the town sewer system. The building line extends to a main sewer line at La Plata Avenue on the east side of the property.

FIRE SUPPRESSION - SPRINKLERS

A fire extinguisher is mounted on the wall between the Town Hall and Museum doors. Another is mounted on the north wall of the town Hall to the right of the door to the Office. There is no fire extinguisher inside the Museum.

A fire extinguisher hangs next to the fire escape door on the north wall of the Auditorium. Another hangs in the Auditorium just east of the Kitchen door.

Attached to the upper northeast corner of the bead board storage closet on the Second Floor Landing is an antique glass globe fire extinguisher, with no fire extinguishing material in it. Another of these is found backstage, attached to the shelves against the north wall.

CONDITION

All heaters are inadequate to heat the spaces they serve. The console heater in the Town Hall provides a large amount of heat to a six-foot radius and little to the remainder of the room. It is an older style heater with a very low efficiency. The pot belly stove in the Museum is not used and, partially because of lack of heating, the Museum remains closed 9 months of the year. The overhead heater in the Auditorium is inefficient, noisy and inadequate to heat the space. The noise alone limits use of this space. The various electric space heaters are inadequate, unreliable and tax the minimal electrical system.

The plumbing system is archaic with steel supply pipes and cast iron waste and vent pipes. There are currently no known problems with the system. However, because of its archaic nature it is nearing the end of its serviceable life due to interior corrosion of the pipes.

When the second floor is made accessible, it is likely that more and larger functions will be held in the Auditorium. There is some concern that if a fire were to start anywhere in the building with a large number of people on the second floor, the potential for exiting problems would exist. There is no fire detection or suppression system in the building (except the portable fire extinguishers) and code provisions do not require a suppression system. The floor and stair systems are of wood construction and the exit stair is not one hour fire rated. There are a few marginally code deficient areas, such as the stair construction, that could be partially mitigated by installation of a fire detection and/or suppression system.

A detection system, if installed, would provide a warning of a fire in any part of the building to occupants in any other part of the building and if the building were unoccupied it would provide a notice to people outside. If desired, it could be equipped with a dialer to notify the fire department.

Traditionally, detection systems have been thought of as a life safety measure, and suppression systems as a property protection measure; however in recent years, suppression systems have been looked at for their life safety aspects also. Suppression systems knock down fire and smoke giving occupants additional time to exit the building.

RECOMMENDATIONS

Install a hydronic heating system to heat the entire building. It should have 3 zones, the Town Hall office space on one zone, Museum on another and the second floor on a third. The boiler could be located in the storage room or the vault/Office addition. The hydronic system should be a closed system using an anti-freeze fluid. A chase location must be established to route pipes from the boiler into the main building and to the upper floor.

Install a smoke detection system in the building. Provide outside horn and light.

Consider installing a sprinkler system in the major spaces in the building, including the Stage. If installed, it should be integrated into the rooms in the most unobtrusive way possible. The attic could serve as a routing space for the second floor where sprinkler heads could penetrate the

ceiling. At the first floor, removal of ceiling panels may or may not be a viable option. If some of them can be removed and replaced without compromising the ceiling integrity, and if there is no plaster above the metal ceiling, this option would be preferred. If removal of the metal cannot be done effectively and/or if there is a plaster ceiling above the metal, then sidewall mounted heads could be used. The pipe would be surface mounted, and if located above or below the picture mold it would be relatively unobtrusive.

Install fiberglass batt insulation or blown-in fire-treated cellulose insulation on top of the ceiling in the attic space. If batt insulation is used it should be unfaced or Kraft faced only with the paper side down. Do not use faced batts that incorporate a reflective coating as they can trap moisture between the top of the ceiling and the coating.

ELECTRICAL SYSTEMS

ADDITIONAL CONSTRUCTION HISTORY

CARBIDE LIGHTING SYSTEM

Between 1926 and 1930, light at Poncha Springs School was provided by a carbide lighting system. These systems “modernized” lighting in locations with no electricity or natural gas service. They often replaced kerosene or gasoline lights.⁷



Figure 66. An in-ground carbide generator. (Photo by Robin DeLoria.)



Figure 67. Interior of generator shown at left. (Photo by Robin DeLoria.)

An underground tank was installed and, when it was being used, there was a steady dripping of water into the calcium carbide, forming a gas (acetylene).⁸ The generator applies water to the calcium on demand by virtue of gas pressure or reservoir fullness; some had a floating inverted bucket reservoir. The gas would be piped through the building using copper tubing, serving as a source of power for lights.

Carbide generation is a dangerous process, because the generator can easily go over pressure, and must vent off.⁹ Generators were usually located at least 50 feet from the building they supplied, to prevent damage should the generator explode.¹⁰ These systems required frequent cleaning to remove the residue of the gas generating process.



Figure 49. A carbide lamp. (Photo by Robin DeLoria.)

⁷ David Reichert, www.enginads.com/sprkarcs.cgi/noframes/read/2711

⁸ From Beulah Hanna and Carra Holland, *History of Sardis, Tennessee*, Sardis Homecoming '86 Committee, May 1986, www.henderson-lea.hc.k12tn.net/donahue/sardis/sar-per.htm

⁹ "Franz", www.enginads.com/sprkarcs.cgi/noframes/read/2715

¹⁰ Robin DeLoria, www.enginads.com/sprkarcs.cgi/noframes/read/2710 Photos above also by Mr. DeLoria.

The white light was too bright, and damaged eyes, and worse, it smelled. It was sold as a system for lighting one or more buildings, and even for separate lamps, but was never competitive with gasoline or kerosene in the battle against electric light.¹¹

In the oral history interview previously cited, Mr. Beck said, “When I went to school there they had that carbide lights....And you had to be careful. They’d dump a little bit of carbide in that generator and a little bit of water and they was afraid it’d blow up. But it give off pretty good light, those carbide lamps. And they took those carbide lights out in [1930], and put the electric in. I don’t know who got them old carbide lights.”

The first mention of the carbide system was in January 1926, when C.E. Oatmore was paid \$16.00 for globes and fixtures for light system. J.A. Burnett was reimbursed \$2.73 for express on lighting fixtures on March 22, 1926, and Vern Huffman, who was also the janitor, was paid extra for repairing the light system. H.H. Fullenwider filled the carbide tank and carried water in August 1927. Bateman Hardware Co. provided carbide for a total of \$7.50 in March 1929. Vern Huffman worked on the carbide plant again in October 1929. More carbide was obtained from Bateman Hardware in April 1930.

An ad for selling the carbide plant was run in the Salida Mail in the summer of 1930, and Wm. E. Schrader wired the schoolhouse in September. The first Public Service Co. of Colorado bill was paid in October, in the amount of \$3.77. Light globes, which probably are what we call bulbs today, were purchased in January of 1931.

DESCRIPTION

ELECTRICAL SERVICE AND PANELS

Service enters the building at a meter located at the south end of the east wall of the Entry wing of the building. Service to the house meter is from underground. The underground service appears to feed from the south side of Burnett Avenue, where a feed line comes down the pole to a meter and then into the ground. An electrical panel for the building distribution is located on the east wall of the first landing of the East Stair.

ELECTRICAL DISTRIBUTION SYSTEM

There are surface-mounted electrical conduits at various points around the Entry. One running along the top of the south wall has an extension down to two knob switches just to the east of the exterior doors. It extends up the West Stair and also, along with some Romex, extends to the East Stair to a circuit box. Another conduit attached to the one at the



Figure 50. Electrical box in East Stair. Looking east.

¹¹ Fil Graff, Secretary, The International Guild of Lamp Reseearchers, www.daplic.com/lampguild/QandApage/archives/Qoooo299.htm

top of the south wall extends across the ceiling to a light fixture. From there, it runs to a junction box at the top center of the north wall, between the Entry and the Museum, and extends down the wall to the ceiling where there is a junction box from which it runs down the wall and disappears into the wall. From the same junction box, another conduit runs across the ceiling and into the Girls Room.

There are no electrical features in the West Stair.

In the Museum, an electrical conduit runs across the north side of the room.

At the Second Floor Landing, exposed Romex electrical wire runs up the west wall from behind the storage closet into the ceiling. It is loose from the wall. This may go to the ceiling light (see below).

In the Auditorium, a surface mounted box is on the wall below the pass-through to the Kitchen. From this, a conduit runs along the top of the baseboard to the center of the east wall, where it runs up to the gas heater. The switch for the two ceiling lights is located between the door to the landing and the door to the Kitchen. A third switch on this plate is for an unknown purpose.

A single light bulb is suspended from the ceiling in the center front of the Stage, approximately one foot behind the proscenium.

There is one four-outlet electrical box in the face of the Stage.

Electrical service apparently enters the Kitchen from the entry below, at the point where the light fixture is mounted. Pipe conduit is surface-mounted. There are dual outlets toward the north end of the west cabinets, running horizontally 1 ½" above the top of the backsplash. There is also a line feeding a dual outlet located above and behind the electric stove. Black-wired 220 V service comes from the floor to an outlet that supplies the stove.

Another duplex outlet with GFCI is located just to the right (south) of the sink. This circuit also supplies the refrigerator. It disappears into the north wall, and surfaces in the auditorium where it supplies one dual outlet and the gas heater.

There is a single chain-suspended small "schoolroom"-style light fixture in the center of the Kitchen ceiling. The electric line enters through what appears to be a former gas pipe.



Figure 51. Light fixture on Second Floor Landing.

LIGHTING

The Entry light fixture is a white globe suspended on a chain from the ceiling. Near it are two holes that could have supplied gas to an earlier fixture.

In the Museum, one four-tube fluorescent light fixture is suspended from the ceiling on the east half of the room.

In The Town Hall is lighted with a mixture of different types of suspended and wall mounted fluorescent fixtures.

A single white globe light fixture is suspended from the center of the ceiling of the Second Floor Landing.

Two larger globe lights are suspended from the middle of the north-south dimension of the Auditorium ceiling. They divide the space approximately into one-quarter, one-half, and one-quarter east-west.

FIRE DETECTION SYSTEM

There is no fire detection system.

SECURITY ALARM SYSTEM

There is no security alarm system.

CONDITION

The electrical system is outdated and inadequate to the needs of the building functions. The panel is too small, the number of outlets is too few. As is often the case with older buildings with substandard electrical systems, too many pieces of equipment get connected to any given 110v. outlet resulting in potential overloading of circuitry and increasing the potential of dangerous conditions. The location of the electrical service and meter near the building entry is unfortunate.

Lighting is inadequate in all the spaces for the uses of the building

RECOMMENDATIONS

Relocate all gas, electrical, and communication service entries underground to the rear of the building where they should enter into a common area, either the addition now being used as an Office or the one called the storage room. This space should include the boiler room, electrical panel board and communications space. The boiler room space will have to be upgraded to one hour construction. Wiring and communication lines could be routed through the chases developed for distribution of heating system piping.

Increase electrical capacity with a larger electrical panel and, if necessary to serve the increased needs of the building, a larger service.

Increase the number of outlets in all spaces using a low profile wire mold raceway distribution system at the top of the base board or immediately under the chalkboard rail. This system should be a wall mounted box type system, tall and thin, that will contain and conceal all the electrical and communications wiring unobtrusively and at the same time provide outlets. It should be easily opened to add more wires in the future.

Increase room lighting. In the Auditorium, use additional suspended schoolhouse globes, up to two rows with four in a row. In the Museum install up to four suspended schoolhouse globes. In the Town Hall install a coordinated system of suspended fluorescent fixtures that will provide an appropriate level of task lighting at desk top and will allow for flexible arrangement of Offices.

See recommendation for installing a fire detection system under Mechanical heading.

A security system is not being recommended.

4.0 ANALYSIS AND COMPLIANCE

HAZARDOUS MATERIALS

INTRODUCTION

Testing for lead paint and asbestos was not undertaken as part of the Poncha Springs School project.

It is quite common to find both lead and asbestos in historic buildings. Lead was used in paint to improve its durability and colorfast qualities. Asbestos had proven fire resistive, thermal, and chemical resistance, and high tensile strength properties and was woven into a broad range of building materials from around the 1920s to the 1980s.

The presence of either lead or asbestos in a historic building will increase rehabilitation costs if mitigation is required.

LEAD-CONTAINING PAINT

If paint tests positive for any amount of lead concentration or contamination, mitigation (removal or encapsulation), construction worker personal protection and air monitoring, and disposal of construction waste as hazardous materials may be required.

What triggers the need for mitigation?

OSHA's Lead Standard protects construction workers. Employers are required to provide minimal training for workers and to perform air monitoring to document exposure levels.

HUD and State of Colorado regulations protect building occupants. For instance, a day care center for children will demand a much higher level of mitigation than an Office building, due to the fact that children are more likely to ingest paint and because children are more seriously affected by lead poisoning.

EPA regulations protect the environment and require testing of lead waste pipes so lead will be disposed of properly and won't leach out into watertables.

What levels of mitigation are necessary or required?

While some rehabilitation activities or occupancies will obviate complete paint removal, there are three less-invasive options in other situations:

1. Scrape and sand loose paint (under controlled conditions).

2. If the paint surface is in good condition it may be possible to just paint over it.
3. Prohibit welding on or torch cutting of painted metal substrates.

What is implied by “controlled conditions”?

Whether lead-containing paint is being stripped completely or just scraped, the following conditions must be adhered to:

1. Qualified subcontractors who have been trained to do the work and who have undergone medical testing must perform paint removal.
2. Air monitoring by a qualified professional must be in place during the mitigation process.
3. Paint waste must be tested, documented by qualified professionals and disposed of properly.

ASBESTOS

From the 1920s to the 1980s, there were many materials that incorporated asbestos, but among the most common were:

- Fireproofing
- Roofing/flashing materials
- Exterior coating systems (a paint-like coating that usually has a textured surface)
- Asbestos/cement shingles and exterior wall panels (Transite)
- Roofing shingles and shingle siding
- Glazing putty at windows
- Pipe and pipe fitting insulation
- Vinyl sheet and tile flooring
- Plaster
- Construction adhesives
- Building insulation

“Friable” and “non-friable” are the two terms applied to asbestos, with “friable” evoking the most concern and the greatest level of care in removal and disposal. “Friable” means that when the material is disturbed in any way (sawn, moved, removed, cut, etc.), it will introduce asbestos fibers into the air that could be inhaled by unprotected workers and building users. Pipe and building insulation typically fall into this category and therefore require the highest degree of worker protection and controlled handling during the abatement process.

Non-friable materials tend to maintain their compositional integrity during abatement and therefore may not pose the same health risks. Abatement still requires proper methods, monitoring, and disposal to meet EPA, OSHA, and State of Colorado regulations.

It is important to identify all asbestos-containing materials as even non-friable materials may become friable under certain conditions (e.g., if asbestos-containing floor adhesive is sanded.)

SUMMARY

Lead containing paint and asbestos can present health risks to building users and construction workers, can trigger both state and federal hazardous material regulations for control and abatement, and can add significant cost to a rehabilitation project. It is recommended that hazardous material testing be performed prior to finalizing the rehabilitation or restoration budget. Qualified licensed professionals should execute all testing.

Their findings and recommendations should ultimately be worked into the rehabilitation plans with a word of caution: hazardous material abatement crews are not always sensitive to the issue of preserving historic materials (e.g., scraping lead-based paint may damage the underlying surfaces). Ideally, the General Contractor responsible for the rehabilitation work can perform abatement of historic, character-defining elements; if not he should watchfully manage any abatement subcontractors.

Please note that there are many other hazardous materials (e.g., radon, petrochemicals, PCBs, etc.) that may affect rehabilitation plans but that discussion is outside the scope of this report. Asbestos and lead-containing paint are the two most commonly found hazardous materials in historic buildings.

MATERIALS ANALYSIS

TESTING

Mortar analysis is beyond the scope of this document. Prior to any masonry work the existing mortars should be tested for composition. While in appearance the mortar for the brick and stone look similar, both should be tested and mortar of the original composition used. Likewise the pargeted foundation coat should be analyzed and the same mix used in the rehabilitation. Coloring agents may be used if the original colors cannot be matched exactly by the ingredients.

It may be advisable to test a sound piece of the existing stone for water vapor transmission against that selected for replacement.

BUILDING STONE

Identification of the stone started with the preparers subjecting samples to acid and viewing through low power microscope. There was neither reaction to acid nor any visible fossils present as would be expected of limestone or travertine. When ground up, the stone does not exhibit small grains, as does sandstone, rather it goes to powder. There were known granite quarries in the area in the early days, but this stone is neither dense nor heavy enough to be granite.

Jack Murphy, Curator of Geology at the Denver Museum of Nature and Science, was contacted and the stone described to him in a telephone conversation. He immediately suspected that it was rhyolite. He further suspected that it may have been quarried at Kerr Gulch, a few miles east of Howard as the Kerr Gulch quarry is known for having produced good building stones. One notable example is the old El Paso County Courthouse in Colorado Springs. Samples of the Poncha Springs School stone were sent to Jack and the preparers later met with him on several occasions. During these exchanges he positively identified it as a vugg (coarse) rhyolite (a volcanic tuff).

Upon seeing the samples, Jack dismissed Kerr Gulch as the source as the stone as Kerr Gulch rhyolite is quite uniform and not nearly this coarse. Jack enlisted Richard Lippoth, geologist and mining engineer, owner of Pinnacle Quarry and Development Co. in Fort Collins in the search for the source. Dick's research into old quarries in this area suggested a small quarry just north of Nathrop might have been the source, but upon examination, this stone appears to be denser, and although it has some inclusions, they are not as pronounced as the Poncha School stone.

The search continues.

UPSON BOARD

This paper board found on the Stage was called a "pure wood fiber board" by the Upson Company of Lockport N.Y. A sample was found in the Ladies Aid Society building in Alma, CO that bore a stamp with complete installation instructions and a copyright of 1917. It was typically installed in 4' by 8' sheets and joints were covered with thin wood battens. The preparers have encountered this material in several buildings in the central Colorado mountains. Often it has been found in buildings constructed in the late 19th century that were remodeled in the 1920s or 1930s. Today it is sometimes called "beaverboard."

BLACKBOARDS

There was no opportunity to look behind the existing blackboards, but we can assume that the first ones were built according to the original specifications for the building. They call for "Blackboards Plastered into the walls...to be made of a Cement such as is usually used in blackboards of hard finish."

The existing blackboards appear to be newer than original, and do not sound or feel like plaster when tapped.

According to school district financial records, Rose & Williams received \$20.00 for blackboard in January of 1906. In July 1928, Hanks Snell Lumber Co. provided "blackboard." In April 1929, Hanks Snell was paid \$1.45 for "1 qt. of BB Slating." These blackboards were likely what is known as Hyloplate.

A 1917 advertising flyer for Hyloplate Blackboard was found in the envelope with the original specifications. This touted Hyloplate, manufactured by Columbia School Equipment Works in Morrison, Illinois, as "The Blackboard with the Velvet Writing Surface" and boasts "The Result of Nearly a Third of a Century of Honest Effort to Produce the Best." The text states "32 years," which indicates it began being manufactured in 1885. It describes the backing as waterproof, made of four layers of wood pulp board cemented together under 40 tons of pressure, then dried and cured by special processes. "The result is a backing that will not bulge, warp, or curl up." There is no description of how the writing surface is applied, but "The writing surface on other blackboards is easily scratched, is brittle and crumbles to powder under hard crayon, or when scratched with the thumbnail."

A quick search of the internet for "Hyloplate" found seven references. The most interesting is the report of the Chief Inspector of Schools on what an "average" school in Alberta, Canada, was like in 1937.¹² The overall description is consistent with what is known about rural one-room schools in Colorado. The report states, "The blackboard is of Hyloplate, and is in fairly good condition."

A reference to "hyloplate blackboard" was found on a Clemson University website about Fants Grove School¹³ built in 1902 in Anderson County, South Carolina. This is now an archaeological site.

When the Rose Bud School in White County, Arkansas, opened in 1918, "Hyloplate blackboards are used and there are single desks and a teacher's desk in each room."¹⁴

A History of the Ste. Agathe Intermediate School from 1904 to 1936 includes in its description of the many improvements made in this Canadian Catholic school between 1914 and 1918 included Hyloplate blackboards.¹⁵

¹² www.quasar.ualberta.ca/css/Css_35_3/Ftdocuments_in_the_classroom.htm

¹³ www.clemson.edu/trails/history/fantsgrove.html

¹⁴ www.geocities.com/Heartland/Meadows/1844/rosebud.html

¹⁵ www.magma.ca/~g5kacz/saahist.htm

Montessori Education in Australia and New Zealand -- The Queensland Experience by Dr. Dan O'Donnell¹⁶ contains the following description of a New Zealand school around 1917. "Encircling each room was a continuous blackboard (a hyloplate) for the use of the children or teacher, while above the blackboard the walls were adorned with didactic pictures and works of art (copies from famous artists)."

"The Homeroom," a website for teachers and teaching in British Columbia, Canada includes a number of historical accounts.¹⁷ One provides a list of "Necessary equipment and supplies for a new school - to be purchased by the board of school trustees" from 1936. The list includes:

- 120 sq. ft. Hyloplate Blackboard with moulding and chalk trough.
- 1 Blackboard Pointer
- 1 box Coloured Chalk (half gross).
- 1 box White Chalk.
- ½ doz. Blackboard Erasers.

Canvas was also used as a writing surface, presumably after being coated with some sort of hard finish. A History of Dickinson County Schools (from a book written in 1893)¹⁸ states that, in this Kansas county, "Each district now owns a comfortable frame, brick or stone building, fitted out with patent desks, and provided with excellent slate, canvas, hyloplate of native stucco-plaster blackboards."

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A search for "blackboards" provided numerous archival images of school rooms or other locations with blackboards such as military training units. However, one site yielded a recipe for

Slating for Blackboards.

There are quite a number of ways of doing this class of work. The great secret in putting up a good blackboard is to use no oil of any description in any of the coats. If it is a plastered or papered surface you wish to slate, first give it a coat of glue size, then rub it down lightly with fine sandpaper, then give it a coat of shellac varnish and lampblack enough to give it a fair body. If on wood, omit the sizing. Then give two coats of either of the following :

1. Two quarts of alcohol, ¼ pound of shellac, 13 drachms lampblack, 20 drachms ultramarine blue, 4 ounces powdered Rochelle salts, 6 ounces powdered pumice stone.

2. One gallon alcohol, 1 pound shellac, ½ pound ivory black, 5 ounces emery flour, and 4 ounces ultramarine blue.

3. Take equal parts of pumice stone and red lead, and grind them in a mixture of turpentine and best varnish ; add enough lampblack to make a dark color, then thin with turpentine until it is perfectly flat. Apply with a brush and blend over.

4. One gallon wood naphtha, 1 pound shellac, 4 ounces of lampblack, 4 ounces ultramarine blue, 1½ pounds soft water, 2 ounces pumice, stone and powdered emery. The wood naphtha is cheaper than alcohol, and does as well.

5. One gallon shellac varnish, 4 pounds black manganese, 2 pounds soft water.

All the above must be kept well stirred while using them, and when you are through put what you have left in a bottle and cork it up, and it will keep for a long time. If, at any time, the slating is too thick, thin with alcohol.

¹⁶ www.aare.edu.au/96pap/odon96.009

¹⁷ www.mala.bc.ca/homeroom/Content/TopicsPrograms/2001/HEALTH36/health1.htm

¹⁸ skyways.lib.ks.us/genweb/education/1893book/dickinson.html

"Slating for Blackboards" as published in the June 1894 issue of *Manufacturer and Builder*.¹⁹ It is reproduced above.

¹⁹ Slating for Blackboards. [Manufacturer and builder/Volume 26, Issue 6, June 1894] cdl.library.cornell.edu/cgi-bin/moa/moa-cgi?notsid=abs1821

PAINT STUDY

INTRODUCTION

The paint study was not initially included in the HAS. At the request of the Poncha Town Administrator, it was undertaken primarily to determine original colors in the various rooms. Some additional information was gleaned at the same time and is included herein under the Conclusions heading.

METHODOLOGY

Cratering of paint layers in situ was the primary method used in the study. This method is accomplished by sand papering a small crater through the layers of paint. The crater is deepest at the lowest (earliest) paint layer and widest at the most recent layer. The layers are wetted slightly and viewed directly with the naked eye and/or with a hand-held pocket microscope.

The second method is called the serried method (serried meaning pressed close together in rows). In this method a sample is taken with a sharp knife and usually includes a piece of the substrate so one is assured of including the bottom paint layer. The sample is set in hot wax. After the wax sets the sample is inspected with a microscope. A variation is to hold a sample on edge with a pair of tweezers while viewing it under a microscope. Selected layers were matched to Benjamin Moore color chips. Benjamin Moore paints are commonly used as a standard for preservationist projects.

A handheld 30x Panasonic Light Scope model FF-393E microscope was used to examine both cratered and serried paint samples.

ANOMALIES AND RELIABILITY

White paints were not classified because the layering of white whites is difficult to detect. Individual layers of clear finish can sometimes be detected, especially if they have been the top layer long enough to become discolored or dirty. Faux graining can be detected as a color layer(s) but obviously cannot be duplicated from layer sampling.

Many conditions can affect color matching results. When using the wax method one must take care to prevent the hot wax from osmosing upward between the paint layers and contaminating the sample. Movement while handholding a serried sample can reduce reliability of observation. Paint changes color as it oxidizes, thus requiring interpretation of what the original color was when applied. Even today paint color varies from one container to the next. In the late 19th century paints were mixed on site resulting in variation from one batch to the next. Finding an exact match to an existing paint is very difficult because there is an infinite range of color when

adding pigment to a vehicle. Finally, human factors enter into the equation; using a handheld microscope on a fixed surface in the field is difficult, light conditions vary from one day to the next and one place to another and observers' ability to match color varies from one person to another.

Only selected layers of selected samples were matched, since there were redundancies and some layers were thin and affected by the layer below. In most cases more than one sample of the same color was examined. Light conditions were controlled to some degree by using the same artificial lamp in all observations. And a conscientious effort was made to find a close match, "the right match".

EXCERPTS FROM THE ORIGINAL SPECIFICATIONS RELATIVE TO PAINTS AND COATINGS

(See Appendix A for full text)

Stairs

The Post & Rails made of white spruce, and stained to imitate Black Walnut. Balister [sic] nice black walnut turned.

Wainscoting

All of the rooms and stairs to be wainscoted four feet high and be Chicago beaded wainscoting.. with cap...& finished with grained oak collar [sic] & varnished with two coats of varnish copal quality.

Painting

All standing finish doors & windows to be painted with three coats of lead & oil any collar [sic] or shade that the board may direct.

Blackboards

There will be Black Boards plastered into the walls where ever the school Board may direct providing there is not more than three in each room. These boards are to be of a Cement such as is usually used in blackboards of hard finish.

DESCRIPTION OF SAMPLES

Sample #01. Auditorium, north wall, west end of room near stage door, above chair rail.

Sample #02. Auditorium, south wall, between doors under right side of light switch cover plate.

Sample #03. Backstage, north wall, behind door.

Sample #04. Stage front, north side of "proscenium arch"

Note, No sample taken above picture rail backstage. The wall above the picture rail and the ceiling backstage is Tan1 except where the white paint-overs from the more recently painted stage ceiling covers some of the tan. A conclusion can be drawn from this that the Auditorium ceiling was painted the same color as the original wall color, "Tan 1".

Sample #05. Stage wing partitions (both north and south), stage side of partitions.

- Sample #06. Wood trim in north side of proscenium arch.
- Sample #07. Kitchen, south wall, east of window jamb.
- Sample #08. Kitchen, north wall east of door jamb above stair wainscot
- Sample #09. Kitchen, party wall with stair (west wall), near north end.
- Sample #10. West Stair, upper portion of 2nd run, west wall, textured surface.
- Sample #11. West Stair, lower portion of 2nd run, west wall, smooth surface.
- Sample #12. East Stair, east wall, 2nd run, just above wainscot.
- Sample #13. East Stair, beadboard wall (west wall), stair side of wall.
- Sample #14. Bull nose trim at south end of beadboard wall (west wall), stair side of wall.
- Sample #15. East Stair, east wall, 2nd run, above wainscot, [Check on difference bet this and sample #12]
- Sample #16. East Stair, south wall, 1st landing, top rail of wainscot.
- Sample #17. East Stair, south wall, 1st landing, beadboard wainscot.
- Sample #18. Entry, ceiling, north wall, above Museum door.
- Sample #19. Entry, sloping ceiling, under upper run of West Stair, adjacent to Sample #18.
- Sample #20. East Stair, lower run, handrail.
- Sample #21. East Stair, lower run, turned spindle (the only remaining original).
- Sample #22. East Stair, lower run, square spindle.
- Sample #23. East Stair, lower run, newel ball (underside)
- Sample #24. Town Hall (east main room), north end of west wall, above wainscot.
- Sample #25. Town Hall, north end of west wall, top rail of wainscot.
- Sample #26. Town Hall, north end of west wall, wainscot.
- Sample #27. Museum (west main room), north end of east wall approx 4'-6" above finished floor.
- Sample #28. Museum, north end of east wall, chalk board trim, just to the south of Sample #27, and about two feet lower.
- Sample #29. Museum, north end of east wall, wainscot.
- Sample #30. Museum, south wall, above entry door.
- Sample #31-33. Museum, ceiling, southeast corner. Field (#31), cove (#32) and corner egg medallion (#33) are identical layerings.
- Sample #34. Museum, picture mold, south end of east wall.

Definitions:

Beaverboard: paper board, e.g., the proprietary product called Upson Board (see discussion elsewhere in this section),

Beadboard: Tongue and groove wood wainscoting with a bead in the center and one side. Sometimes called car-siding.

SAMPLES #01-#04

Paint Layer	Sample #01 Auditorium, West end of north wall	Sample #02 Auditorium, South wall between doors	Sample #03 Backstage, North wall behind door	Sample #04 Stage front, side of arch	Comments
12					
11					
10					
09					
08					
07					
06					
05					
04					
03					
02	White	White	Aquamarine	Bluish White	
01	Tan 1	Tan 1	Tan 1	Tan*	*This layer may be beaverboard, not paint
Substrate	Coarse Plaster	Coarse Plaster	Coarse Plaster	Beaverboard	

SAMPLES #05-#08

Paint Layer	Sample #05 Stage wing partition	Sample #06 Stage, Arch trim	Sample #07 Kitchen, South wall	Sample #08 Kitchen, North wall	Comments
12					
11					
10					
09					
08					
07					
06					
05					
04			White	White	
03		Bluish White	Tan 1	Tan 1	
02	Bluish White	Blue-gray	Light Blue 1	Light Blue 1	
01	Blue-gray	Varnish	Blue-green 1*	Blue-green 1	*with Gray
Substrate	Beaverboard	Wood	Plaster	Plaster	

SAMPLES #09-#12

Paint Layer	Sample #09 Kitchen, Party wall (west)	Sample #10 West Stair, West wall	Sample #11 West Stair, West wall	Sample #12 East Stair, East wall	Comments
12					
11					
10					
09					
08					
07					
06					
05					
04					
03	White	White	White	Light Gray-white	
02	Tan 1	Tan 1	Tan 1	Tan	
01	Light Blue 1	Blue-green 1	Blue-green 1	Putty 1	
Substrate	Gypsum board	Plaster	Plaster	Plaster	

Note: An additional sample was taken at the top of the West Stair (North wall). The layering was found to be the same as Samples #10 and #11.

SAMPLES #13-#18

Paint Layer	Sample #13 East Stair, West wall	Sample #14 East Stair, West wall trim	Sample #15 East Stair, East wall	Sample #16 East Stair, Wainscot cap	Comments
12					
11					
10				Medium Gray	
09		Deck Gray		White	
08	White	White		Tan	
07	Tan	Tan		Cream 1	
06	Cream 1	Cream 1		Tan	
05	Light Brown w/Yellow	Light Brown w/Yellow		Pinkish Tan	
04	Slate Blue	Slate Blue		Reddish Brown 1	
03	Reddish Brown 1	Reddish Brown 1	White	Putty	
02	Light Putty	Light Putty	Light Putty	Mauve	
01	Putty 1*	Putty 1	Putty 1	Putty 1	*This may be varnish or graining
Substrate	Beadboard	Wood	Plaster	Wood	

SAMPLES #17-#20

Paint Layer	Sample #17 East Stair, Wainscot	Sample #18 Entry, Ceiling	Sample #19 Entry, Sloping ceiling	Sample #20 East Stair, Handrail	Comments
12					
11					
10					
09					
08		White	White		
07	Light Gray	Tan	Tan	Deck Gray	
06	Tan	Cream	Cream	Yellowish Brown	
05	Light Blue 1	Slate Blue	Slate Blue	Light Blue 1	
04	Greenish Yellow	Reddish Brown 1	Reddish Brown 1	Cream	
03	Reddish Brown 1	Tan	Tan	Greenish light Yellow	
02	Mauve	Cream	Cream	Dark Brown w/Red*	*May be Reddish Brown 1
01	Putty	Putty	Putty	Varnish	
Substrate	Beadboard	Beadboard	Beadboard	Wood-light color	

SAMPLES #21-#24

Paint Layer	Sample #21 East Stair, Round spindle	Sample #22 East Stair Square spindle	Sample #23 East Stair, Newell Ball	Sample #24 Town Hall, North end of west wall	Comments
12					
11					
10					
09				White	
08				Pale Yellow	
07				Light Blue 1	
06				Light Salmon	
05	Deck Gray		Deck Gray	Mauve	
04	Yellowish Brown		Dark Brown	Light Yellowish Cream	
03	Greenish light Yellow	Deck Gray	Yellowish Brown	Tan	
02	Dark Brown w/Red*	Yellowish Brown	Light Blue 1	Bluish Green	*May be Reddish Brown 1
01	Varnish	Light Blue 1	Greenish light Yellow*	Ochre 1	*There is no varnish layer. Perhaps originally the newel ball was oiled.
Substrate	Wood-medium brown*	Wood-light color	Wood-medium brown*	White plaster	*grain and color appear to be walnut

SAMPLES #25-#28

Paint Layer	Sample #25 Town Hall West wall, wainscot cap	Sample #26 Town Hall, West wall, wainscot	Sample #27 Museum, North end of east wall	Sample #28 Museum, N end of E wall, Chalkboard trim	Comments
12					
11	Deck gray		Tan		
10	White		Light Blue 1		
09	Light Blue 1		White		
08	Yellowish green	Light Gray	Mauve		
07	Slate blue	Light Blue 1	Yellow	White	
06	Creamy Tan	Lavender	Light Blue green	Light Blue	
05	Lavender	Tan	Black	Salmon	
04	Tan	Dark Putty	Dark Green	Grayish Putty	
03	Reddish Brown	Reddish Brown	Black	Dark Brown	
02	Putty	Light Putty	Dark Green	Putty	
01	Varnish	Putty	Black	Ochre Brown	
Substrate	Wood	Beadboard	Plaster	Wood	

SAMPLES #29-#32

Paint Layer	Sample #29 Museum, N end of E wall, wainscot	Sample #30 Museum, South wall, above door	Sample #31-33 Museum, SE corner of room. #31 Ceiling field #32 Ceiling cove #33 Ceiling corner egg medallion	Sample #34 Museum, Picture mold	Comments
12					
11					
10					
09					
08	Medium Brown	Beige			
07	Ochre	Light Blue 1		Beige	
06	Light Blue 1	White		Lt Blue 1	
05	Mauve	Mauve	White	White	
04	Putty	Yellow (thin)	Yellowish Cream	Lavender	
03	Reddish Yellow stain	Bluish Green*	Pale Lavender	Dark Brown	*Very intense color
02	Yellowish Cream	Putty	Gray*	Putty	*w/ hint of green
01	Putty	Ochre 1	Light Cream	Light Reddish stain*	*Stain is soaked into wood
Substrate	Beadboard	Plaster	Pressed metal ceiling	Wood-light colored	

COLOR MATCHES

SAMPLE: LOCATION & NUMBER	LAYER NUMBER and GENERIC NAME	BEST MATCH: Benjamin Moore Number and Name	ALTERNATE MATCHES: Benjamin Moore Number and Name
Auditorium, N. Wall #01	01 Tan 1	2158-50 Manila	
Auditorium, S. Wall #03	01 Tan 1	2158-50 Manila	
Kitchen, N. Wall #08	01 Blue-green 1	HC-132 Harrisburg Green	
Kitchen, N. Wall #08	02 Light Blue 1	HC-149 Buxton Blue	2062-60 Blue Hydrangea
West Stair, W. Wall #10	01 Blue-green 1	HC-132 Harrisburg Green	HC 128 Clearspring Green
West Stair, W. Wall #10	02 Tan 1	2153-50 Desert Tan	
East Stair, E. Wall #12	01 Putty 1	HC-104 Copley Gray	
East Stair, E. Wall #12	02 Tan	2152-40 Golden Tan	2153-50 Desert Tan
Town Hall, W. Wall #24	01 Ochre 1	HC-14 Princeton Gold	HC-13 Millington Gold 2151-30 Ochre
Town Hall, W. Wall #24	02 Bluish Green	HC-128 Clearspring Green	HC-127 Fairmont Green
Town Hall, W. Wall #24	04 Light Yellowish Cream	HC-4 Hawthorne Yellow	2024-50 Jasper Yellow
Town Hall, W. Wall #24	05 Mauve	2103-50 Sandblast	
Museum, E. Wall #27	08 Mauve	2103-50 Sandblast	2088-50 Cool Lava
Museum, E. Wall #27	10 Light Blue 1	2063-60 Sapphireberry	
Museum, Chalkboard trim #28	06 Light Blue 1	2063-60 Sapphireberry	
Museum, S. Wall #30	07 Light Blue 1	2063-60 Sapphireberry	
Museum Ceiling #31-#33	01 Light Cream	HC-6 Windham Cream	
Museum Ceiling #31-#33	02 Gray w/ Green tint	2142-50 Gray Mirage	
Exterior Wood Trim	Very dark Green	Essex Green: Exterior Ready Mix	

CONCLUSIONS AND PONDERINGS

1. The color study is not intended to be definitive. However it was undertaken methodically and will provide the Town with a good sampling of the original colors and a few subsequent early colors in the major spaces that would be appropriate for use.
2. It was not possible to assign a date to any layer in any sample since no written documentation (beyond the original specification) was found regarding specific painting activities. Hence, it was not possible to determine a whole building color scheme at any point in time. Even the first layers in all samples may not have existed simultaneously.
3. The Town Hall metal ceiling was not sampled. It is likely that the same paint was used on both the Museum ceiling (Sample#31) and the Town Hall ceiling.
4. The black layers in Sample #27 (layers 01, 03, and 05) probably are blackboard paints. It is not known what the intervening green layers are (layers 02 and 04). They are a vibrant dark teal green and could have been a primer or sizing preparation for the blackboard paints (see discussion under the Blackboards heading, this section).
5. Many of the items of the original specification have been found to have been installed in the building. It is likely that the putty color found as the first layer of the wainscotting is the oak grained finish called for in the specifications. Likewise, the only original baluster spindle (the round one in the first flight of the East Stair) and the newel in the East Stair appear to be walnut as called for in the original specifications.
6. Note that some generic color names found in different samples have slightly different matches. For example Light Blue 1 in Sample #08 is best matched to "HC-149 Buxton Blue" and the same apparent color, found in Samples # 27, #28, and #30, is best matched to "2063-60 Sapphireberry"
7. Comparative layering seems to corroborate that the second floor was left unfinished for a long time after the main floor was occupied.
8. The outside walls (plaster) at the two stairs have few paint layers and the layering sequences are different, with the possible exception of the second layer (Tan 1 vs. Tan) which could be the same color. No conclusion.
9. The beadboard wall separating the east stair and the entry (corresponding wall at west stair not sampled) closely follows the layering of the beadboard wainscot in the Town Hall. The first coats are graining and varnish, but later the beadboard was painted, usually the same colors as adjacent or nearby walls. There are 6 or 7 paint layers on each above the varnish layer, indicating the wainscots have been painted for some time.

TOWN HALL WALLS

(color chip here)

Layer 01
HC-14 Princeton Gold

(color chip here)

Layer 02
HC-128 Clearspring Green

(color chip here)

Layer 04
HC-4 Hawthorne Yellow

(color chip here)

Layer 05
2103-50 Sandblast

MUSEUM WALLS

(see above)

Layer 01
HC-14 Princeton Gold

(see above)

Layer 05
2103-50 Sandblast

MUSEUM CEILING

(color chip here)

Layer 01
HC-6 Windham Cream

(color chip here)

Layer 02
2142-50 Gray Mirage

EAST STAIR WALLS

WEST STAIR WALLS

(color chip here)

Layer 01
HC-104 Copley Gray

(color chip here)

Layer 02
2152-40 Golden Tan

(color chip here)

Layer 01
HC-132 Harrisburg Green

(color chip here)

Layer 02
2153-50 Desert Tan

AUDITORIUM WALLS and CEILING

KITCHEN WALLS

(color chip here)

(color chip here)

(see above)

(color chip here)

Layer 01
2158-50 Manila

Layer 02 (Walls)
White

Layer 01
HC-132 Harrisburg Green

Layer 02
HC-149 Buxton Blue

**"Light Blue 1" found in
VARIOUS LOCATIONS
and LAYERS**

EXTERIOR WOOD TRIM

(color chip here)

(color chip here)

2063-60 Sapphireberry

Ext Ready Mix: Essex Green

ZONING CODE COMPLIANCE

Zoning for the Poncha Springs School is ETC – Town Center. This is the commercial core of the town intended to serve a mix of local resident and visitor oriented retail, entertainment and civic uses with some accommodations.

Existing and proposed uses for the Poncha Springs School are consistent with this zoning.

BUILDING CODE COMPLIANCE

INTRODUCTION

The Colorado Historical Society has included a code compliance review in their Historic Structure Assessment Outline to assure that the subject structure can be used for (or continue to be used for) the purpose it is intended without compromise to the integrity of the resource. This is particularly important when a historic building is to be converted to a new use and rehabilitation for the new use could require destruction of the character defining elements of the building

The proposed program for the Poncha Springs School does not constitute a change in use. While no longer in use as a school, it is and has been for many years, used as a town hall, Museum, and community room with Kitchen.

The code review will assess the capability of the building to continue to provide for these uses and, if necessary, suggest use or load limitations based on preservation of character defining features.

The project architects of all future project(s) on this building should consult with the building official early in the design process for interpretations allowed under the code (edition in force at the time) and work with the building official to develop solutions that provide a high level of health and life safety and at the same time, preserve the integrity of the historic building and site.

It should also be noted that building codes establish minimum requirements. The owners of facilities must determine areas where prudence suggests exceeding minimums for health, life safety, building protection or comfort of occupants.

BASIC DATA

Code Authority: Chaffee County Building and Zoning Division
Building Official: Verle Curtis, Chief Building Official
(719) 539-2124
Building Code: International Building Code, 2000 Edition, adopted by the county,
effective 2003.

BUILDING CODE REQUIREMENTS

SPACE	AREA (sq. ft.)
Town Hall	872
Museum	278 net
Storage Area	123
Auditorium	1022
Stage-Platform	295

Kitchen: 103 net
 Restrooms: 47 sq. ft. each
 Entry and stairs w/o toilets 363
 Second Floor Landing/stair 103

Total area 4,087 sq. ft.
 (Includes both floors and the rear additions)

Construction Type: TYPE III-B

Occupancy Groups: Group A-3 and Group B

303.1 Assembly Group A. Assembly Group A occupancy includes, among others, the use of a building or structure, or a portion thereof, for the gathering together of persons for purposes such as civic, social or religious functions, recreation, food or drink consumption or awaiting transportation. A room or space used for assembly purposes by less than 50 persons and accessory to another occupancy, shall be included as part of that occupancy. Assembly occupancies shall include the following:...

A-1...

A-2...

A-3 Assembly uses intended for worship, recreation or amusement and other assembly uses not classified elsewhere in Group A, including, but not limited to...Auditoriums...Museums...

A-4...

A-5...

304.1 Business Group B. Business Group B occupancy includes, among other, the use of a building or structure, or a portion thereof, for Office, professional or service-type transactions, including storage of records and accounts. Business occupancies shall include, but not be limited to, the following:...Civic administration...

Specific code requirements. The table below is not exhaustively inclusive and the verbiage is not, in every citation, verbatim from the code. Note Items 1 and 2 providing for less than strict compliance with certain code provisions.

Item	Description	Code Reference
00	Applicability. Structures existing prior to December, 1974 (the date of adoption of building codes in Chaffee County) shall be made to conform to the requirements of this section or the provisions of 3402 or 3406.	Section 3409.2
01	Alterations and repairs. An existing building or portion thereof, which does not comply with the requirements of this code for new construction shall not be altered or repaired in such a manner that results in the building being less safe or sanitary than such building is currently, If, in the alteration or repair, the current level of safety or sanitation is to be reduced, the portion altered or repaired shall conform to the requirements of Chapters 2 through 12 and 14 through 33. (Chapter 13 is Energy Efficiency.)	Section 3409.2.4

Item	Description	Code Reference										
02	Historic Buildings. The provisions of this code relating to the construction, repair, alteration, addition, restoration and movement of structures, and change of occupancy shall not be mandatory for historic buildings, where such buildings are judged by the building official to not constitute a distinct life safety hazard.	Section 3406.1										
03	Construction Type III-B Fire resistance rating requirement of elements is as follows: <table style="width: 100%; border: none;"> <tr> <td style="width: 70%;">Exterior Bearing walls</td> <td style="width: 30%;">2 hours</td> </tr> <tr> <td>Interior bearing walls</td> <td>0</td> </tr> <tr> <td>Structural frame</td> <td>0</td> </tr> <tr> <td>Floor construction</td> <td>0</td> </tr> <tr> <td>Roof construction</td> <td>0</td> </tr> </table> The exterior brick walls of the Poncha School have an equivalent fire rating of 12 hours. (Please see Uniform Code for Building Conservation (UCBC) Item code W-12-M-1 p.119)	Exterior Bearing walls	2 hours	Interior bearing walls	0	Structural frame	0	Floor construction	0	Roof construction	0	Table 601
Exterior Bearing walls	2 hours											
Interior bearing walls	0											
Structural frame	0											
Floor construction	0											
Roof construction	0											
04	Construction Type: TYPE III-B -Allowed for A-3 Occupancy buildings no higher than 2 stories and 9,500 sq. ft per floor. Maximum height is 55 feet.	Table 503										
05	Occupancy Separation between Occupancy Group A and Occupancy Group B a 2 hour separation is required.	Table 302.3.3										
	First Floor Occupant Loads. "Maximum Floor Area Allowances per Occupant"	Table 1003.2.2.2										
06	Occupant load factor for the Town Hall is 100 square feet (gross) per person.	Ditto										
07	Occupant load factor for the Museum is 5 square feet per person (net).	Ditto										
08	Occupant load factor for storage areas is 300 square feet per person.	Ditto										
	Toilets, entry and stair are not part of occupant load calculations.	Ditto										
09	First floor occupant load for egress calculations is: <table style="width: 100%; border: none;"> <tr> <td style="width: 70%;">Town Hall</td> <td style="width: 30%;">9 people</td> </tr> <tr> <td>Museum</td> <td>49 people</td> </tr> <tr> <td>Storage room</td> <td>1 person</td> </tr> <tr> <td>Total</td> <td>59 people</td> </tr> </table>	Town Hall	9 people	Museum	49 people	Storage room	1 person	Total	59 people	Area of space divided by load factor for that space.		
Town Hall	9 people											
Museum	49 people											
Storage room	1 person											
Total	59 people											
	Second Floor Occupant Loads											
11	Occupancy load factor for assembly space is: 15 square feet per person when chairs only are used. 7 square feet per person when chairs and tables are used	Ditto										
12	Occupant load factor for stages and platforms is 15 square feet per person.	Ditto										
13	Occupant load factor for this type of kitchen should be assumed to be 5 to 7 square feet per person (net).	Ditto										

Item	Description	Code Reference
14	The upstairs landing and stair is considered to be an accessory space and not included in occupancy load calculations.	Ditto
15	<p>Second floor occupant load for egress calculations is:</p> <p>Auditorium 146 people Stage 20 people Kitchen 21 people</p> <p>Total 187 people</p> <p>Note: While the IBC appears to allow 187 people, the second floor has been posted at maximum 142 people by fire or code officials. This number should be enforced. Egress calculations in this document will be based on 142 people.</p>	Area of space divided by load factor for that space.
16	Two (2) means of egress required when Occupant Load of a room or space is 50 or more.	Table 1004.2.1
17	Stair width of required exit stairs must be 0.3 inches times the number of occupants served. (142 x 0.3 = 42.6") except stairs may not be less than 44" wide. Maximum riser height is 7" and treads 11" minimum.	Section 1003.3.3.1 Section 1003.3.3.3
18	Outdoor stairways and outdoor approaches to stairways shall be designed so that water will not accumulate on walking surfaces. ...platforms and landings that are part of exterior stairways in climates subject to snow or ice shall be protected to prevent the accumulation of same.	Section 1003.3.3.5.2
19	<p>Illuminated EXIT signs required.</p> <p>Exception 1, Exit signs are not required in rooms or areas which require only one exit.</p> <p>Exception 2. Main exterior exit doors or gates which obviously and clearly are identifiable as exits need not have exit signs where approved by the building official.</p>	Section 1003.2.10
20	Means of egress illumination. The means of egress, including the exit discharge, shall be illuminated at all times the building space served by the means of egress is occupied.	Section 1003.2.11
21	<p>The power supply for means of egress illumination shall normally be provided by the premise's electrical supply.</p> <p>In the event of a power failure, an emergency system shall automatically illuminate all of the following areas:</p> <ol style="list-style-type: none"> Exit access corridors, passageways, and aisles in rooms and spaces which require two or more means of egress. Exit access corridors and exit stairways located in buildings required to have two or more exits. 	Section 1103.2.11.2
22	Required exit doors shall provide a minimum clear width of 32" for occupant loads over 10. (A 36" wide door is the only standard size that will provide 32" clear.)	Section 1003.3.1.1
23	Exterior exit doors. Buildings used for human occupancy shall have at least one exterior door that meets the requirements of Section 1003.3.1.1.	Section 1005.3.1

Item	Description	Code Reference
24	Key locking hardware may be used on the egress side of required exit doors where the occupant load is less than 300 people. If key locking hardware is used, there must be a "readily visible, durable sign on or adjacent to the door stating, "THIS DOOR MUST REMAIN UNLOCKED DURING BUSINESS HOURS." The sign must be in letters not less than 1 inch high on a contrasting background. When unlocked the single door or both leaves of a pair of doors must be free to swing without operation of any latching device.	Section 1003.3.1.8
25	The unlatching of any leaf shall not require more than one operation.	Section 1003.3.1.8
26	In all Assembly Occupancy rooms and spaces, the maximum occupancy of the room must be posted near the main exit door from room.	Section 1003.2.2.5
27	Minimum plumbing fixtures for Group A Occupancies...halls, Museums... Water closets: Female 1 per 65; Male 1 per 125 (see International Plumbing Code for urinal requirements); Lavatories: 1 per 200; Drinking Fountains: 1 per 500. (Please also see Accessibility requirements)	Table 2902.1

CODE COMPLIANCE RECOMMENDATIONS

Item 05 points out a required 2 hour separation between the B occupancy (first floor) and the A occupancy (second floor) This requirement is technically infeasible because it would require an increase in second floor load capacity and installation of noncombustibles in both the framing and the ceiling and floor coverings. It also would be an adverse effect on the historic qualities of both the Town Hall and the Museum in that the metal ceilings would have to be removed, the new noncombustibles installed, and the metal ceiling reinstalled. For these reasons it is not recommended. However, installation of a fire detection and a fire suppression system has been costed out and labeled optional. Installation of a fire suppression system would reduce the two-hour separation requirement and have a similar effect on some other requirements. (Please see Mechanical systems section of this HSA).

Item 19. Install illuminated EXIT signs with battery back-up power at both doors in the auditorium.

Item 20 and 21. Install emergency illumination in the auditorium, stairway and entry.

Item 18. The current exterior exit stair is wood construction, which is not allowed by today's codes. It has openings in the guardrails and handrails that are too large and it is not covered against the weather. Remove the existing rear exterior exit stair and construct new covered stair exiting from same door. Use steel construction. Incorporate a metal roof, design as a stand-off, not physically connected to the historic building and to be compatible with it. Paint in a compatible color.

ACCESSIBILITY COMPLIANCE

SPECIFIC ACCESSIBILITY REQUIREMENTS

The table below is not exhaustively inclusive and the verbiage is not, in every citation, verbatim from the code.

Item	Description	Code Reference
01	Reference01The accessibility provisions excerpted below from Chapter 11 are the basic requirements for all new construction. The provisions excerpted from Chapter 34 are applicable to existing buildings (including historic) and may modify some of the provisions of Chapter 11.	
02	Where required. Buildings and structures, temporary or permanent, including their associated sites and facilities, shall be accessible to persons with physical disabilities.	Section 1103.1
03	Existing buildings accessibility. Existing buildings shall comply with Section 3408.	Section 1103.2.2
04	Site arrival points. Accessible routes within the site shall be provided from public transportation stops, accessible parking and accessible passenger loading zones, and public streets or sidewalks to the accessible building entrance served.	Section 1104.1
05	Connected spaces. When a building, or portion of a building, is required to be accessible, an accessible route shall be provided to each portion of the building, to accessible building entrances, connecting accessible pedestrian walkways and the public way	Section 1104.3
06	Multi level buildings and facilities. At least one accessible route shall connect each accessible level, including mezzanines, in multistory buildings and facilities. Exception 1. An accessible route is not required to floors, above and below accessible levels that have an aggregate area of not more than 3,000 square feet unless the level contains Offices of health care providers, passenger transportation facilities and airports or multiple tenant facilities of Group M.	Section 1104.4
07	Platform (wheelchair) lifts complying with ICC/ANSI A117.1 and installed in accordance with ASME A 7.1 shall be permitted as a component of an accessible route.	3408.7.2
08	Toilet and bathing facilities. Toilet rooms and bathing facilities shall be accessible.	Section 1108.2
09	Where toilet rooms are provided at least one accessible toilet room complying with Section 1108.2.1 shall be provided.	Section 3408.8.4

Item	Description	Code Reference
10	Where it is technically infeasible to alter toilet and bathing facilities to be accessible, an accessible unisex toilet or bathing facility is permitted. The unisex facility shall be located on the same floor and in the same area as the existing facilities.	Section 3408.7.9

ACCESSIBILITY DISCUSSION

The table above does not outline all accessibility requirements. Items such as 1/2" maximum thresholds, lever handles on doors, maximum settings for door closers, all the requirement for accessible toilets can be found in the verbiage of the Americans with Disabilities Act Accessibility Guidelines. This resource is a valuable addition to any municipality's reference shelf. The information also can be found on the U.S. Department of Justice website at "www.usdoj.gov/crt/ada".

The goal of the town should be to make all facilities as accessible as possible. It is evident by the accessible parking space and ramp to the main entrance that steps have been taken to comply with accessibility requirements.

ADA does not require the second floor of the Poncha Springs Town Hall to be made accessible because the second floor is less than 3,000 square feet (Please see Item 06 above). However, Colorado Revised Statutes requires that all town board meetings and the meetings of the various commissions be made accessible. However, the ability to continue the building effectively as a town hall requires that the upstairs auditorium be used for some or all of these meetings. If the meetings could be held on the second floor, the town administration Offices could be arranged more efficiently on the main floor. Additionally, the second floor auditorium is the only public space in town capable of holding 142 people. The town is committed to making this space accessible to all for community functions

Note that Platform lifts are permitted as part of an accessible route to a second floor (Please see Item 07 above).

On February 9, 2004 preliminary options for second floor accessibility were presented to the town board. They are labeled Concept "A" through Concept "E" and are illustrated in Appendix D. Concepts "A", "B" and "C" utilize a vertical platform lift, known as Limited Use/Limited Accommodation Elevators. Concept "D" would require a new compatible building addition on the rear of the building incorporating a full size commercial elevator, and Concept "E" would provide an inclined platform lift on the existing stair.

Concepts "B" and "C" do not work well with circulation and use of the building. The board felt Concept "E" had some appeal but were concerned about the possibility that the stair lift could impede emergency egress on the stairway. Concept "D" would provide a full service elevator and a new inside stairway to replace the aging and open-to-the-weather stair at the rear of the building. Concept "D" also could be designed to include new accessible toilets and become a link to a new addition if one were built in the future. This concept would also be the most expensive.

The board was most favorable to Concept "A" because it fits the circulation and building use pattern quite well and it would have minimal impact on the building fabric. It would be less expensive than Concept "D".

ACCESSIBILITY RECOMMENDATIONS

- Install lever handles on all doors.
- Install new LU/LA elevator per Concept "A" or "B". At the second floor the option of having a glass rail 42" high (rather than a full height enclosure) should be installed. In this type of shaft enclosure the controls are incorporated in the gate.
- Replace toilet room doors with 36" four panel out-swinging doors.
- While technically feasible to increase the size of the doors into the Town Hall and Museum it is not recommended because current door width is not excessively narrow and it would be very expensive for very little gain.
- Front entry door closers should be adjusted to operate easily and, yet, not blow open easily in the wind.

5.0 PRESERVATION PLAN

TREATMENT RECOMMENDATIONS

FOUR TREATMENT APPROACHES²⁰

Preservation places a high premium on the retention of all historic fabric through conservation, maintenance, and repair. It reflects a building's continuum over time, through successive occupancies, and the respectful changes and alterations that are made.

Rehabilitation emphasizes the retention and repair of historic materials, but more latitude is provided for replacement because it assumes that the property has suffered more deterioration prior to work. (Both Preservation and Rehabilitation standards focus attention on the preservation of those materials, features, finishes, spaces, and spatial relationships that, together, give a property its historic character.)

Restoration focuses on the retention of materials from the most significant time in a property's history, while permitting the removal of materials from other periods.

Reconstruction establishes limited opportunities to recreate a non-surviving site, landscape, building, structure, or object in all new materials.

RECOMMENDED TREATMENT FOR PONCHA SPRINGS SCHOOL

It is recommended that the Poncha Springs School be *preserved and rehabilitated*, with the exception of the three chimneys, which should be restored to their original configuration.

SUMMARY

Poncha Springs School is, overall, in good condition. It retains a tremendous amount of its original fabric. The changes made since its construction have not significantly damaged its integrity but rather reflect its change in use from a school to a community center. However, five areas need particular attention.

DEFERRED MAINTENANCE

On the exterior, wood elements have deteriorated due to sun, wind, and moisture. These need to be scraped and painted, and patched or otherwise repaired where needed.

The roof is in poor condition and needs to be replaced.

²⁰ Colorado Historical Society, State Historical Fund, *Historic Structure Assessment Annotated Scope of Work*, January 2003.

Some areas of brick (approximately 20%) need repointing. Although the brick has weathered somewhat, most of it remains in clean and in good condition. Any existing hard mortar should be removed and replaced with a softer mortar if this can be done without damaging the brick.

On the interior, the windows, doors, and hardware should be “tuned” – cleaned, repaired, and otherwise made sounder and easier to operate. A large number of the windows should be reglazed, reusing the same glass. Some should be rehabilitated.

The entire upstairs can use a good deep cleaning, particularly the Kitchen.

STONE REPLACEMENT

The stone is in poor to fair condition except in a very few instances. The window sills, waterable, and quoins are especially worn. Numerous pieces of stone should be replaced, and any Portland cement mortar associated with the stone should be removed and replaced with a softer mortar.

SECOND FLOOR ACCESS

Use of the second floor is restricted because of the necessity to use stairs to reach it. Several possibilities exist for correcting this situation, including a stair lift or a vertical lift in the entry, or an elevator tower on the rear. This tower could also provide fire egress from the second floor, which is now provided by an open stair that does not meet code.

ELECTRICAL AND MECHANICAL SYSTEMS

These systems are inadequate for current uses of the building. Although surface-mounted wiring is acceptable, the level of service throughout the building should be increased.

Heating also is inadequate. A baseboard hydroponic system is recommended.

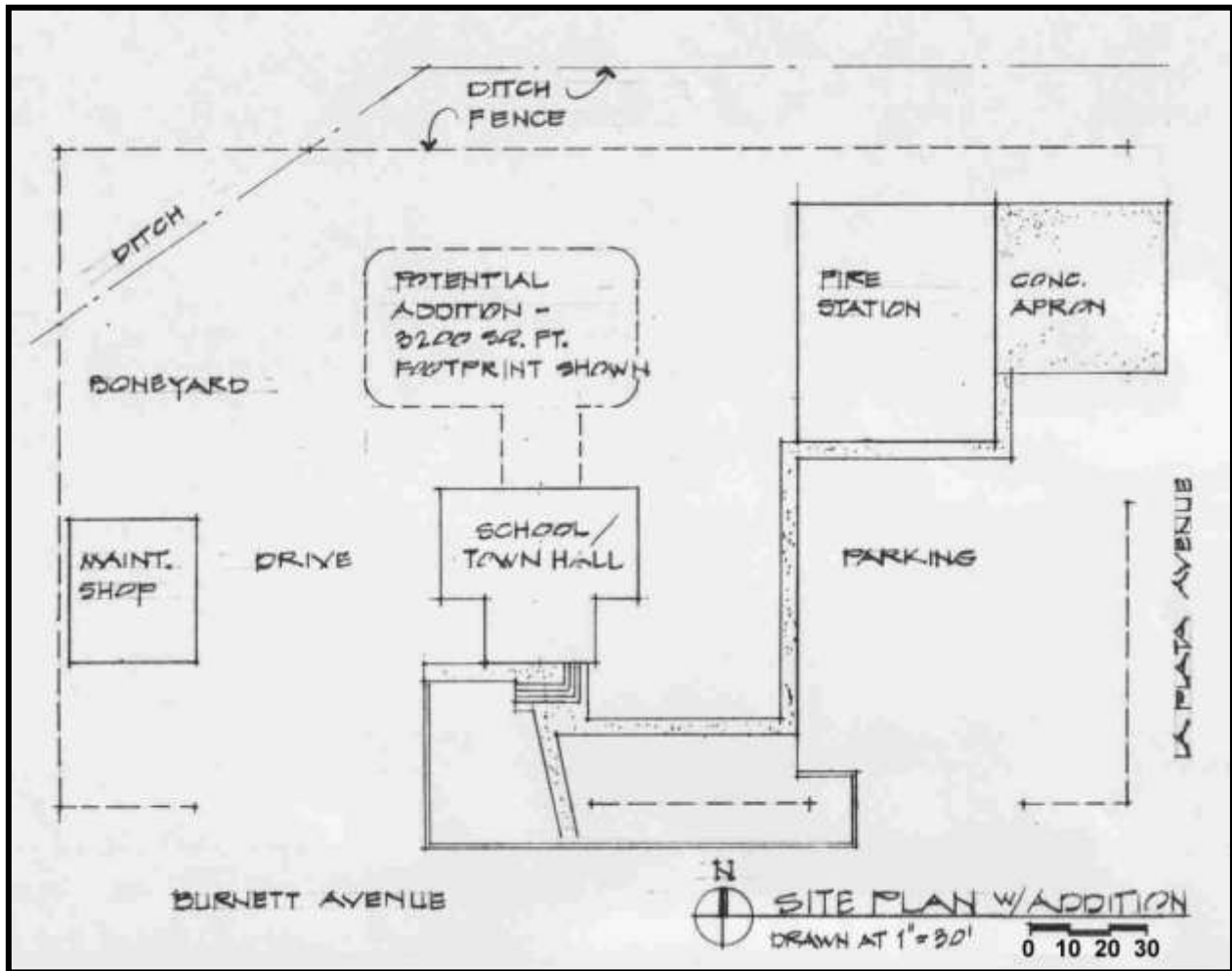
USABLE SPACE

Currently, the Town Hall function is squeezed into one of the former classrooms, a vault that was converted to an Office, and a small storage room. The Museum is located in the other classroom. As stated above, the Auditorium and Kitchen upstairs are not universally accessible and therefore cannot easily be used for civic functions. Miscellaneous items are stored in the closed-off East Stair and behind the Stage upstairs.

To provide more space for the Town Hall function, an addition should be considered. This would be less expensive than a new, separate building, especially if an entrance lobby with stair/elevator tower and accessible restrooms were provided between the old and the new building. The Museum and the Auditorium should be retained as important elements of the municipal complex. Retaining the Town Hall in this location would also preserve the “civic center” character of the municipal complex, with the fire station, maintenance facility, Town Hall, Auditorium, Museum, and town park all in one area of the town.

Such an addition would require demolition of at least the 1922 Storage Room and perhaps the 1976 concrete block vault addition as well. Both are substandard non-compatible appendages. Using the stair/elevator tower per Concept D, Appendix D, would replace the LU/LA and

emergency stair currently recommended in the HSA, and the estimates would need to be revised to reflect that.



PRIORITIZED AND PHASED WORK

First priority is rehabilitating the exterior of the building, and revising site grading to protect the building. Exposure to the weather continues to contribute to deterioration of wood, masonry, and the roof.

Second priority is rehabilitating the interior, including installing new heating and electrical systems, and performing code and accessibility work.

ESTIMATED COSTS

Estimated costs were removed from the document because prices change quickly.

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APPENDIX A -- ORIGINAL SPECIFICATIONS

SPECIFICATIONS FOR SCHOOL BUILDING IN SCHOOL DISTRICT #3, PONCHA SPRINGS, COLORADO

#1 [These are page numbers.] Specifications

of the material to be furnished and labor to be performed in the erection and completion of a Brick Schoolhouse for School District No. 3: at Poncha Springs Chaffee County Colorado

General Description

The size of the House. The arrangement of rooms stairways doors & windows: are shown on a set of Plans: which are to be considered a part of these specifications: and which with the writing and figures there and with the detail drawings are to be adhered to in every respect. The figures in all cases are to take the precedence of measurement on the Plans.

Excavation

Trenches are to be dug out for all foundation walls fifteen inches deep. And the required width to receive the walls with footing courses.

#2 Foundation

The foundation walls around the Main Building will be 22 in thick. The footing course will be not less than 6 inches thick. And will project 4 inches outside of foundation. The foundation including footings are to be two feet (2') six inches high under watertable.

The foundation walls under vestibule are to be built 18 inches thick built with footings same as main wall.

The cross partition wall sixteen (16) inches thick and carried up to the under side of joist all of the foundation walls will project one inch outside of the brick work.

These walls must be built of good solid [sic] lime stone or granite.

The wall to be well laid in good sand & lime mortar. [sic] and each stone well bedded. The face of these walls will be laid in what is known as broken ashler [sic] work. All joints to be well tucked and made plumb and level.

#3 Watertable

The watertable will extend around the entire building and to be seven inches thick on the face and not less than six inches wide. This stone will set over the foundation one inch, and 2 inches outside of brick wall. The top edges outside of brick will be pitched or bevelled 5/8 in and back on top [to nose ?] to brick. The face of this watertable will be finished with a cross cut margin on 1 1/2 in from edge. The center Brick hammered down to margin.

Caps & Sills

All caps and sills will be finished the same as watertable.

Sills will project 1 1/2 inches over face of wall and 1 1/2 inches into each joint. Window sill five inches thick and not less than seven inches wide and to pitch out 3/8 in in seven inches. Window, caps & coffers to be made from detail drawings & [???] will be nearer of a proper depth or height to receive {?} four courses of Brick and project one inch outside of brick. The joints to be beveled off as is shown by Plans to be arranged in the wall as is indicated by drawings. The face to be finished the same as watertable.

#4 Door Sills

Door sills will be made the same thickness and beveled the same as watertable so as to permit the doors to swing out of the rooms in place of opening into the Building.

Brick Work

The size of the Brickwork on top of watertable: will be: Main Building 28 x 50 ft. Vestibule 28 ft front and sixteen feet back to Main. The watertable to be set 7/8 of one inch or the thickness of the floor above the joist. The foundation walls will be left down so as to receive the joist.

The first story of Main Building to have a sixteen inch wall and carried up to top of joist of second floor. The vestibule and second story of Main Building will have a wall twelve inches in thickness. The Gables may have a wall nine inches in thickness from upper edge of ceiling joists. Partition wall will be nine inches thick and carried up to top edges of ceiling joists.

#5 Brick work continued

Flues and air flues to be arranged the same as shown on plans. and well plastered inside. Chimney top built as indicated by plans. The height of brick walls from top of watertable to wall plate twenty six (26) feet & one inch. Two courses of brick will be laid up inside of wall plate after plate is put on to wall. This wall to be laid in good lime & sand mortar [sic] to be tied with every seventh course; a heading course. The joints to be laid as close and as small as can be laid with common Brick. The brick to be of good hard brick and of a uniform collar [sic].

Timbering

Joists in first & second floor 2x14 in. & three tiers of [Harrier?] bridging. Size of bridging 1 1/2 x 3 inches well nailed with 10d nails in each end. Ceiling joists Rafters and Plates 2x6. Joists in the first and second floors will be placed 12 inches to center to be crowned 1 1/2 inches. Ceiling joists & rafters sixteen inches to center. The Roof to be stayed as is shown by detail drawings. The roof to be sheathed with native lumber Machine dressed to one thickness & tight joints.

#6 Floors

The floors to be laid with Chicago dressed & matched "A" flooring & thoroughly seasoned.

Window & Door Frames

All Door & Window frames to be made as is shown by detail drawings and of good dry "B" stock Chicago Lumber. All window frames to be Box frame.

Sash

Window sash to be Lip sash 1 3/4 inch in thickness size of Glass 12x40 in first story upper story windows 12x36. All windows to be of 4 lights well bedded in sash. Each sash is to be hung with weights of a sufficient weight to balance the sash. Each window to be furnished with a good sash lock on the meeting rails.

Doors

Front Doors to be double door 4 ft 8 in wide by eight ft high 1 3/4 in thick with transome of one light twenty inches wide double strength glass. Doors to swing out and to be provided with a good store door turnkey Lock & Handle 5 1/2 x 5 1/2 butts Head & foot bolts.

#7 Doors continued

The back Doors will be 2 ft 10 inches by 7 ft 1 3/8 with transome [sic] of a sufficient heighth [sic] to bring the headers in line with the head of windows & hung so as to swing out & fitted with 5 1/2 x 5 1/2 butts and a good Lock. Inside Doors 2 10 x 7 ft 1 3/8 hung so as to swing out into vestibule.

Cornice

The cornice will be made of Chicago lumber & as per detail drawings.

Belfry

The Belfry to be of the size and height and finished as is shown on plans, and to have an iron cresting around the top, not less than two feet and four inches high. Corner post not less than 3 ft 10 inches high. Care must be taken so as there will be no leakige [sic] around the screw heads where this is screwed on to the roof. This must be painted with two coats of lead & oil.

This belfry is also to have a scuttle hole 20 x 24 inches in upper deck & be well secured on the lower side with hooks.

#8 Roofing

The roof of House & Belfry will be covered with the best quality of (IC) tin laid with what is known as standing groove seam. The tin to be well tacked on each seam. The deck of Belfry and Bell Deck to be laid with flat seam. All roofing tin must be painted on the underside with one coat of Lead & oil before it is laid on & two coats on the outside after roof is finished. There will be a scuttle hole made through the ceiling of the vestibule 2x3 and one through the Bell Deck of Belfry 2 ft x 2 ft 6 in and covered water tight and so arranged as to be removed.

Stairs

There will be two flights of stairs: 21 rises in height. Steps to be 1 1/2 inches of ash or yellow pine. Rises to be of 7/8 Chicago white pine. The Post & Rails made of white spruce, and stained to imitate Black Walnut. Balister [sic] nice black walnut turned. Post to be turned except where the rail & stringer intersects them. The Horses to be sawed out of 2 x 14 native plant and placed not more than sixteen inches to center.

The steps to have nosings as per detail drawings.

#9 Plastering

The Inside walls of the entire building to be plastered on the brick and put on to grounds to receive casings and wainscoting.

Ceilings will be Lathed.

The plastering will be three coat work. The final coat hard finish of Plaster Paris. No second coat must be put on untill [sic] the one preceeding [sic] is sufficiently dry to safely receive it. The above must be a first class job of plastering in every respect.

Wainscoting

All of the rooms & stairs are to be wainscoted four feet high and to be of Chicago beaded wainscoting 3/4 inches in thickness with cap [assobbia] as shown by details & finished with grained oak collar [sic] & varnished with two coats of varnish copal quality.

Inside Finish

Doors & windows to be cased & finished with "B" stock Lumber (Chicago) as per details.

All work to be plastered to Grounds & finished on the plastering.

#10 Registers

There will be four adjustable registers not less than ten inches in diameter one arranged in each room. These registers to be made of cast iron and placed about two feet below ceilings.

Inside Lintels

There are to be inside lintels over each door & window 6x6 dry lumber. The space between the inside face of wall and the back of stone cap: to be filled solid [sic].

Plugging [sic] for Inside Finish

Lath are to be laid in the inside course of brick every 16 inches, laid into the joint dry: that is to say, without mortar.

Painting

All standing finish doors & windows to be painted with three coats of lead & oil any color [sic] or shade that the school board may direct.

Ventilation

A ventilator will be constructed on the roof and extend down to connect with the air flue in the wall. This will be of galvanized iron as shown by drawings.

#11 Final

Any part or thing belonging to item omitted or left out of these specifications and showing on plans will be considered as a part of these specifications.

Remarks

The plans & specifications above described & adopted by the Board of Trustees: must in all cases be the guide & reference in the construction of the Building. None but the best of mechanics in the mechanical work to be employed & their work is to be subject to the closest inspection.

The material named in the forgoing specifications must not be of inferior quality and without question the Building completed must be substantial & nearly finished before acceptance. The Board reserves the right to inspect all materials & work, & will reject all that is not in accordance with these specifications.

Other specifications added in next page.

[Page is not numbered]
Anchorage

There must be anchors fastened each end of every tenth joist in the second floor. These anchors must run back on the joist 18 inches and fastened with three 20 weight nails 3/8 in diameter and 4 inches long. The outside ends to recess into the walls through two courses and turn up 4 inches.

Size of anchors 1/2 x 1 1/2 inches.

Blackboards

There will be Black Boards plastered into the walls where ever the school Board may direct providing there is not more than three in each room. These Boards are to be made of a Cement such as is usually used in blackboards of hard finish.

APPENDIX B -- CHRONOLOGY

EXTRACTED FROM WARRANTS, MINUTES, ORAL HISTORY, AND OTHER REFERENCES

Handwritten notes by Mabel Davis were found in the Poncha Springs Museum that state that the school building was started in 1881 and that Bowering was the contractor who laid the brick and stone, and Bond hauled the stone and brick.

Floyd Cass Beck (FB) -- Didn't Nan – I think Nan's father 'as the one that laid the bricks up on the school.

Christine Morgan (CM – Nan Murphy?

FB – Mm-hm. I think his name was Rory, wasn't it? He's the one that laid the bricks. Well how long – It must have been – The building must have been up over twenty years then before they finished the upstairs.

The cost of construction was \$6,500. [Heart of the Rockies: A History of the Salida Area, Kim Swift.]

A Denver Public Library photograph from 1885 shows a privy built of wood northeast of the school. Due to the angle of the photograph, it cannot be determined if there was a matching privy to the northwest, although it is very likely that there was.

July 1894	Laying a new floor in the east school room, and other small repairs
September 1894	Two stove pipes, zinc, lumber, work on school building for 2 (?) laborers
November 1894	Three laborers plus lumber and the cost of hauling it.
September 1895	Labor for repairs on schoolhouse and building materials.
March 1895	Door lock and handles were purchased. School Board decided "to dig a well on school grounds and the Secretary was ordered to post a notice for proposals for bids for digging and walling a well on school grounds."
April 1895	The minutes of April 6 state, "On account of water being turned in ditches near school grounds sooner than expected in the spring it was deemed advisable to postpone digging a well until next year or at such a time when the ground is not saturated with water. "
May 1896	Payment for repairing doors and replacing window glass.

August 1895	Mrs. Annabel Hutchinson was the Secretary to the School Board. The minutes state that it was decided to ceil the hallway instead of plastering overhead.”
September 1896	Curtains were purchased.
January 1898	A bill from Salida Lumber Company for \$1,875.00 was allowed, as was a bill for placing a flag pole.
April 1898	A bill for glass and putty was paid.
June 1898	The School Board “decided to build brick water closets on the school grounds in place of those now in use.” At the same meeting, use of tobacco on the school grounds was prohibited.
October 1898	Warrants were paid for building materials and to “Rep’r Closets.”
August 1899	The schoolhouse foundation was cemented.
October 1899	Some building materials were purchased; their purpose was not stated.
May 1900	Bailey Hutchinson was paid \$1.50 for “fixing fence.”
August 1901	“Motion was made to lay a new floor in the primary room carried.” At about the same time, Mr. H.H. Rose was paid \$39.00 for Kalsoming [sic].
September and October 1901	A laborer was paid for work on the schoolhouse, and Salida Lumber Co. was paid \$44.06 for “lumber nails etc.”
July 1902	On motion the secretary was instructed to open and read bids for digging and walling a well on school grounds. J.D. McPherson and Richard Bratton jointly were found to be the lowest bidders. ..The well must be four feet eight inches in diameter after being walled and walls must be 14 inches thick....It was further resolved on motion to purchase a pump to be placed in the well for school use.”

CM – But that last time I went back to teach they had many more nice things for the children, you know. They had the slide, and merry-go-round, and swings. We never had any of that when we went to school, did we Roy?

FB – They put the swing up when I was in the second grade. They hauled some cedar posts in and put a swing up. I think that was the only thing we had. We had that one swing.

CM – Then it wasn't too long after that they put the inside restrooms and that nice drinking fountain. When I first went – Did they do that when you went there, Roy? Did they pass the water bucket for you to drink from?

RA – I don't remember.

FB – They did when I was in the little room they did, and everyone had to have their own cup.

CM – Oh, we didn't have cups, we had a dipper.

RA – I don't remember that....

CM – We passed the bucket and everyone drank out of that same dipper. Then they put in a kind of a crock thing that had a little faucet on it.

RA – I don't remember that...

CM -- Then you had a cup.

FB – I remember we each had our own drinking cup.

CM – You must have been on that crock.

FB – Could have been. You know they -- there's a new well now from what was there.

CM – They put the well up above. It used to be right there at the back door where they put that porch.

FB – Then they dug another – then they drilled another one. I think they've got a pretty deep well ...

CM – That was always good water behind there, too, at the door.

FB – I was on the school board when they put the inside water in.

CM – You were? That was nice.

FB – And they didn't have that barn there when you went to school.

CM – Nooo...

November 1902	Twelve pounds of nails were purchased for 60¢.
---------------	--

January 1902	J.D. McPherson and Richard Bratton were paid \$19.70 each for “digging well on school grounds.” In April, 1902, J.S. Beck was paid \$7.00 for “sinking well on school grounds.”
February 1902	Lumber and nails were purchased.
July 1903	The School Board decided to hire out repair of the front doors of the schoolhouse.
April 1904	\$7.48 was paid for fixtures for (?) porch.
August 1904	C.A. Underwood is the Secretary, and he spells the name of the town “Poncha.” His minutes cite). “...letting contract for building a brick closet which was let to John A. Woods for the some [sic]of \$190.00...also to Aneres [?] Lumber for building a shed for horses at schoolhouse....” Mr. Woods was paid \$194.00 for his work.
August and September 1905	J.A. Holcomb had become secretary. – “The necessity of painting the roof of the schoolhouse was discussed but laid over for a future meeting.” “Cups and stove pipe” were purchased for 60¢.
1906	In January, blackboard was purchased for \$20.00, and some repairs were done. Paint was bought in October of this year.
1907	More paint was bought, and the schoolhouse was painted in April or May.
1922	It is thought by local residents that the storage room behind the school was built in 1922. No direct evidence has yet been found.
1926	In January globes and fixtures for a light system were purchased, and in March express as paid on lighting fixtures. Also in March the janitor repaired the light systems, and the well was cleaned. A storm porch enclosure and two new doors were paid for in October.
<p>CM – Well they did put that porch on there. In the first place there was just that step out there in the front and the wind was so terrible that they put that covered thing on there.</p> <p>FB – But I think at one time that was higher and longer than it is now.</p> <p>CM – XXXX changed that. Well they had to because they put in cement floor -- steps. So, when I went there, there were wooden steps.</p> <p>FB – Well when I went there it was cement steps.</p>	
1927	Windows glass was installed in April, and glass and stain were purchased in November. In August H.H. Fullenwider was paid for filling the carbide tank and carrying water.

<p>CM – Now, the upstairs wasn't finished when I was going to school. They had the big wide boards on the floor up there. But they did always have their elections upstairs.... And then, I guess I was about 13 years old, when we started that Rosebud Club, and we made money enough to fix the floor and bought that player piano and put it in there. (First grade = 1902, so Rosebud Club began around 1909.) [Transcription. BUT – later in the transcription, she says she went there to teach in 1916, when she would have been only 14 or 15. She taught two years and then was married.]</p>	
1928	<p>Entries include buying blackboard and painting Stage and inside woodwork in July, and repairing the bell and floor in September.</p>
1929	<p>Carbide was bought in March. A quart of blackboard slating was purchased. The bell was welded in September. Ten yards of fabric for curtains were bought in October; there is no record of payment for sewing the curtains unless labor was included in the \$5.00 price. In October, more glass , building materials, and paint were bought, as was linoleum. Work was done on the well and the carbide plant, and a gate post was installed. A pump was bought in November, presumably replacing an earlier one. Extra work was done on the "hall" in November.</p>
<p>FB – What kind of lights did they have in the school when you was little?</p> <p>RA – Well, kerosene lamps, 'uz the only thing they had.</p> <p>FB – What did they have when you was there?</p> <p>RA – They didn't have any electricity then. [Laugh]</p> <p>CM – That first year I was there I can't remember we ever had any lamps.</p> <p>FB – When I went to school there they had that carbine lights.</p> <p>CM – They put that in after.</p> <p>FB – And you had to be careful. They'd dump a little bit of carbide in that generator and a little bit of water and they was afraid it'd blow up. But it give off pretty good light, those carbide lamps. And they took those carbide lights out in 1950, and put the electric in. I don't know who got them old carbide lights.</p>	
1930	<p>Linoleum binding was purchased in January. The carbide plant was removed in May or June, and an ad was placed in the Salida Mail, probably to sell it. Mr. Wm E. Shrader was paid in September for wiring schoolhouse, screening belfry, and pumping well. The first Public Service Co. of Colorado bill for lights was \$3.77, paid in October. Two warrants were related to paint. One in August was for "freight and damages, Madison Paint Co. \$1.58 damages via Chas Davis. This was for \$12.07 and paid to D&RGWRR Co. The second was for \$65.00 to Madison Paint Co, for paint [lost?].</p>

1931	Light globes were bought in January. The roof was painted in June. The coal shed was repaired and blackboard slated in July. [Was the coal shed what is now known as the storage room?] The stove was repaired in October.			
1933	Padlocks and glass were bought in July, and a door and window were repaired later that month. In August a school room was painted, and in September coal and new window shades were purchased. In October, the flag pole was repaired.			
1934	More new glass was put into a window in February. The well was cleaned and the pump house repaired. The pump was repaired in April. More glass was purchased in June, and the well was cleaned again in August. Other miscellaneous repairs took place in September.			
1935	E.A. Huffman was paid \$57.00 for benches in May. Some gravel was hauled in during July, and repair work was done in August. This included "kalsoning & painting room," shades, and glass, putty bolts, nails, and labor.			
1936	In January, the piano was tuned. In August, Salida Lumber Company delivered 2 doors - 2/6-6/0 \$8.20; 70 brick \$1.05; 1 sack cement \$1.00; 2 glass 12x40 \$1.30; and putty 10¢. This invoice was paid in September, as was C.E. Cowan for repair work.			
1937	Miscellaneous repairs were done in January and March. Glass was purchased and a window fixed in April F.H. Fletcher was paid \$4.10 for "changing seats" in October, and stove shakers were bought in December.			
1938	This year has only two entries -- one in January and the other in October -- for unspecified repairs.			
1939	This was a big year for school expenditures.			
	Jan.	Chandler	Schoolhouse keys	1.00
	May	Panther Oil & Grease Co.	Roofing Tar	95.00
	May	Ted Holman	Repair of Plant	3.00
	May	W.W. Nelson	Cleaning [privy?] vault	25.00
	June	Everett Schrader	Repair Work	42.50
	June	Ted Holman	Repair Work	42.50
	June	Snell Lumber Co.	Repairing of Plant	23.64
	July	Everett Schrader	Repairing plant	12.50
	Aug.	E.F. Holman	Repairing plant	22.50
	Oct.	Snell Lumber Co.	Repairing plant	14.84
	Oct.	Y.R. Auto Co.	Replacing stove	40.00
	Oct.	E.S. Holman	Repairing plant	10.00
	Oct.	R.F. Dickinson	Cleaning & Halsoing school room	30.50
	Nov.	Paine & Paine	Repairs stovepipe & wire	2.95
Nov.	Salida Lumber Co.	Lumber & nails	1.22	

1940	This was another big year for "maintenance of plant."			
	Jan.	E.F. Holman	Repairing plant	7.00
	May	Paine & Paine	Replacements	6.18
	June	E.A. Huffman	Replacements	21.00
	June	F.S. Albright	Replacements	24.50
	July	Snell Lumber Co.	Repairing plant	4.69
	Aug.	F.H. Fletcher	Repairing plant	23.00
	Aug.	J.H. Maxey	Drilling well	117.00
	Oct.	Edward Holman	Repairing plant	31.00
	Oct.	Snell Lumber Co.	Repairing plant	8.19
	Nov.	Fred D. Cuenin	Repair work	4.00
	Nov.	E.F. Holman	Repair work	15.00
	Dec.	Snell Lumber Co.	Repairs	2.85
1941	1941 In January of 1941, lumber and plaster were bought for repairs. Paine & Paine provided "replacements stove – stove board, stove pipe & coal hods." W.W. Nelson cleaned the vault in May. Other repairs were done in March, September, November, and December.			

In The Poncha Springs Story by Susan Marshall (1999), the last class graduated from Poncha Springs school in 1958. The school was closed and children were to be bussed to Salida. In 1961 the school was traded to the town.

Kitchen:

FB – Well, when did they put the Kitchen upstairs?

CM – Oh, I don't know, Cass, that was after we'd gone when they put that in. [After 1918 +/- but before 1949.]

FB – Well, when I started to school they didn't have a Kitchen there. (FB – When we was goin' – I started there in 22)

CM – No, they didn't have that.

FB – But later on they put the Kitchen in.

CM – Cause when I came back to teach, then they had the Kitchen there. So they did that during that time, I don't know when. (And then, when we came back down here, to live, that was in 49, and I taught there from 49 until 58.)

Apparently the Kitchen was installed between 1922 and 1949. Based on the style of cabinetry in the Kitchen, it is likely that the Kitchen was upgraded in the 1960s by the town, for community events.

APPENDIX C - CRACK MONITOR

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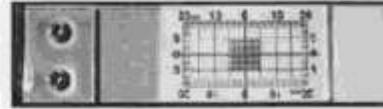
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AVONGARD CRACK MONITORS (USA)



This calibrated tell-tale is easy to install with screws, nails or epoxy (see [Quick Epoxy](#)). It is waterproof and weather resistant so it can be used inside or outside. The monitor is direct reading to an accuracy of one millimeter for horizontal or vertical movement. The Avongard Crack Monitor consists of two overlapping acrylic plates. One plate is white with a black millimeter grid, while the other is transparent with crosshairs centered over the grid. Once the Crack Monitor is in position across a crack, the crosshairs shift vertically or horizontally on the grid if movement occurs. Included is a crack [progress chart](#) for marking the position of the crossed cursor site, and for engineering evaluation later.

SPECIFICATIONS

Material:	Plexiglass(r) acrylic
Dimensions (each plate):	1.25 x 4 x 0.25 in.
Dimensions (overall):	1.25 x 5.75 x 0.25 in.
Dimensions (grid):	1.5 x 0.75 in / 40 x 20mm
Discrimination:	0.5 mm
Max. width movement:	0.750 in / 20mm
Max. upward movement:	0.375 in / 10mm
°F Coeff. Thermal Expansion:	3.80 x 10 ⁻⁵ in/in
°C Coeff. Thermal Expansion:	6.84 x 10 ⁻⁵ mm/mm

[Crack Monitors](#)

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item	price	item#
Avongard Crack Monitors		
1 - 9 units	\$16.00 ea	DEACM
10 - 99 units	\$14.00 ea	DEACM10
100 or more units	\$12.80 ea	DEACM100
PRG Flat Crack Monitors		
1 - 9 units	\$ 12.50 ea	SYC100
10 - 99 units	\$ 11.75 ea	SYC100-10
PRG Corner Crack Monitors		
1 - 9 units	\$ 13.50 ea	SYC200
10 - 99 units	\$ 12.50 ea	SYC200-10
PRG Standing Crack Monitors		
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10 - 99 units	\$ 16.00 ea	SYC300-10
Quick-set Epoxy (for crack monitors)	\$1.00 ea	RE2940
Crack Points	\$ 37.50 ea	SYC1030
Light Scale Loupe	\$ 105.00 ea	SYC2028
Chip & Fill Kit for masonry repairs	\$145.00 ea	SAE001
Rilem		
Rilem Tubes (vertical only)		
1 - 9 units	\$13.00 ea	PS229V
10 - 99 units	\$11.70 ea	PS229V1099
100 or more units	\$10.40 ea	PS229V100
Rilem Putty (1/2 lb)		
1 - 9 units	\$12.60 ea	PS1335
10 - 99 units	\$11.30 ea	PS1335-10
100 or more units	\$10.00 ea	PS1335-100
Sand Shaker - Sieve Analysis Field Kit	\$ 100.00 ea	KESS81

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APPENDIX D - VERTICAL ACCESS OPTIONS

PONCHA SPRINGS SCHOOL/TOWN HALL VERTICAL ACCESS OPTIONS

February 9, 2004

Concept sketches "A" through "D" show access routes to the second floor. These deal with vertical access only and do not consider all of the actions necessary to assure accessible toilets, adequate electrical power, etc. All except concept "D" and the Stair-lift Concept "E" show a Limited Use/Limited Accommodation (LU/LA) "elevator", also called a platform lift, similar to the Garaventa Genesis model.

A short discussion of each concept follows (please refer to sketches attached):

Concept "A"

Pro

It would require less intervention than the other concepts, requiring an opening to be cut through the second floor and a foundation upgrade.

It would be relatively transparent.

The stair handrails would stay in place.

The Girl's toilet could be made accessible.

Relatively reversible

Con

LU/LAs are slow, about 10 to 20 feet per minute.

Concept "B"

Pro

Would require expanding the Boy's Toilet to make it accessible.

Con

Would reduce the Kitchen space on 2nd floor.

LU/LAs are slow, about 10 to 20 feet per minute.

Concept "C"

Pro

Would allow both existing toilets to be made accessible.

Con

Requires a new corridor be constructed in a main space (Museum shown).

Would require redesigning the Stage on the 2nd floor, reducing its size.

LU/LAs are slow, about 10 to 20 feet per minute.

Concept "D"

This concept would construct an addition on the rear of the building to house a new full size commercial elevator.

Pro

Would incorporate a new exit stair and eliminate the existing open fire stair, which would save the cost of covering the existing stair.

Would provide the connecting link to a new addition, is an addition is built in the future.

Could provide space for new toilets on the second floor (and first floor if necessary or desired).

Con

Higher initial cost than other options

Requires a new corridor in a main space (Museum shown). This corridor might be unnecessary if the main entrance were to be established at the rear as in the case of a new larger addition.

Stairlift "Concept E" (Stair lift, also called inclined platform lift, similar to Garraventa Artira)

Pro

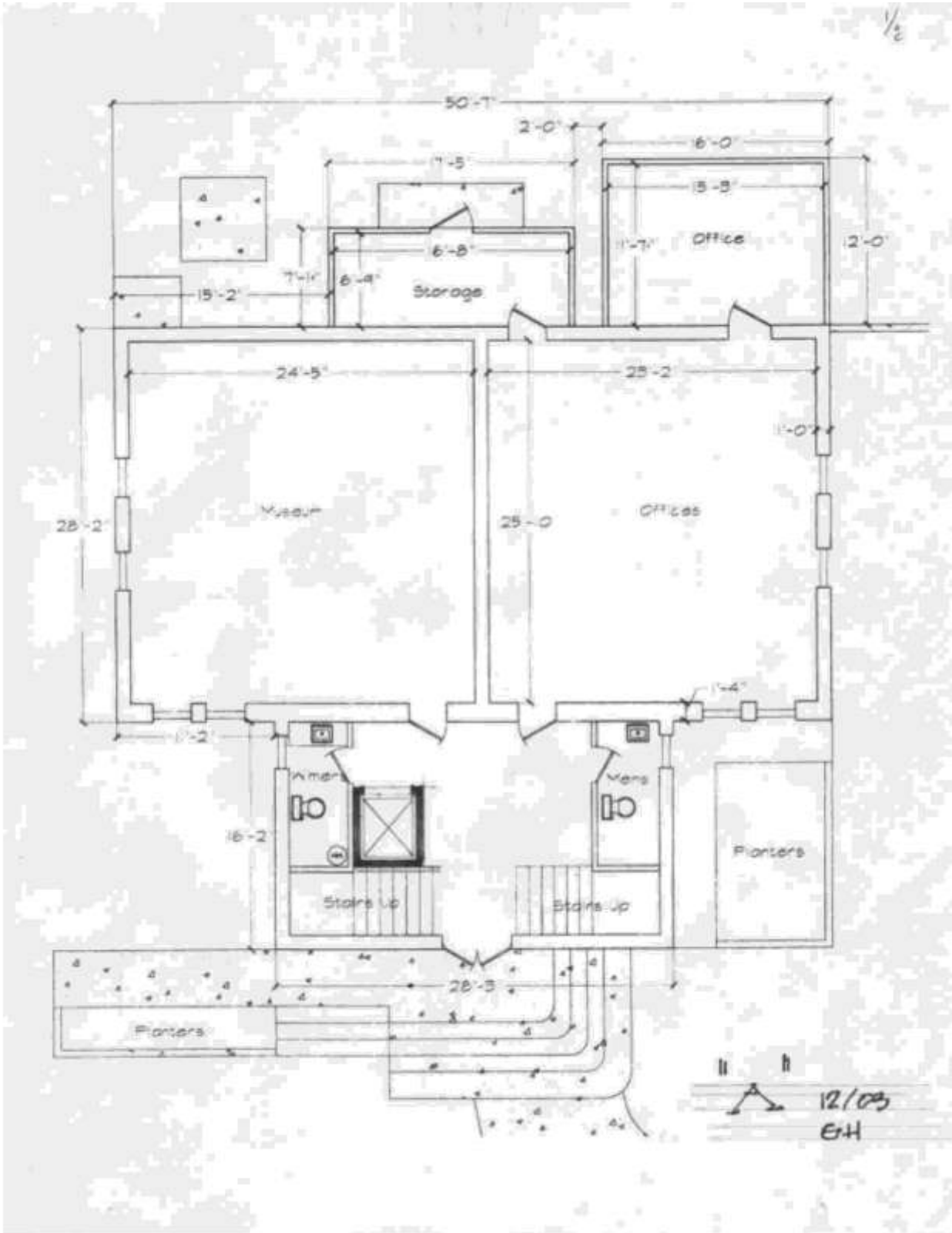
Mounts on existing stair.

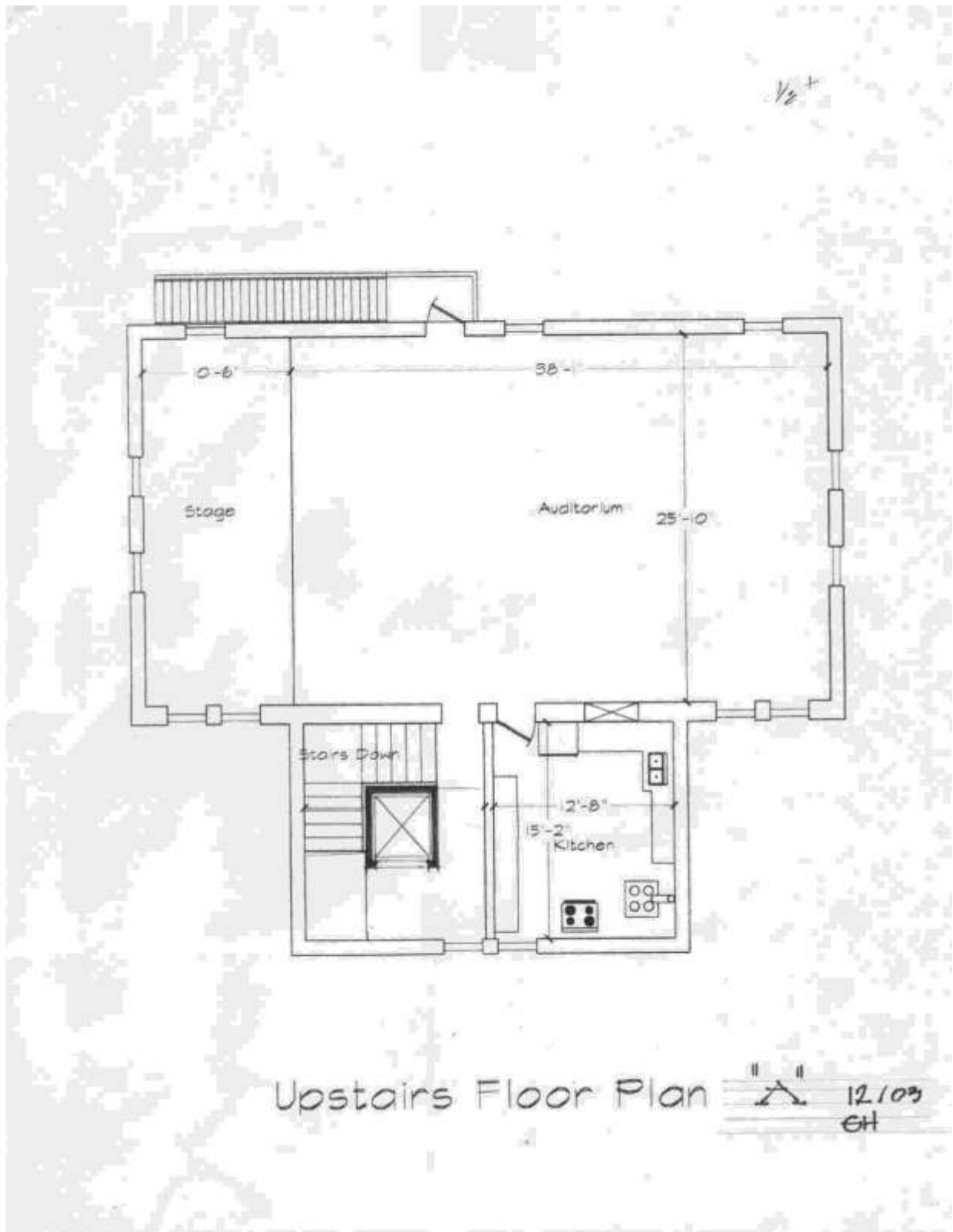
Requires the least building modification of all alternatives.

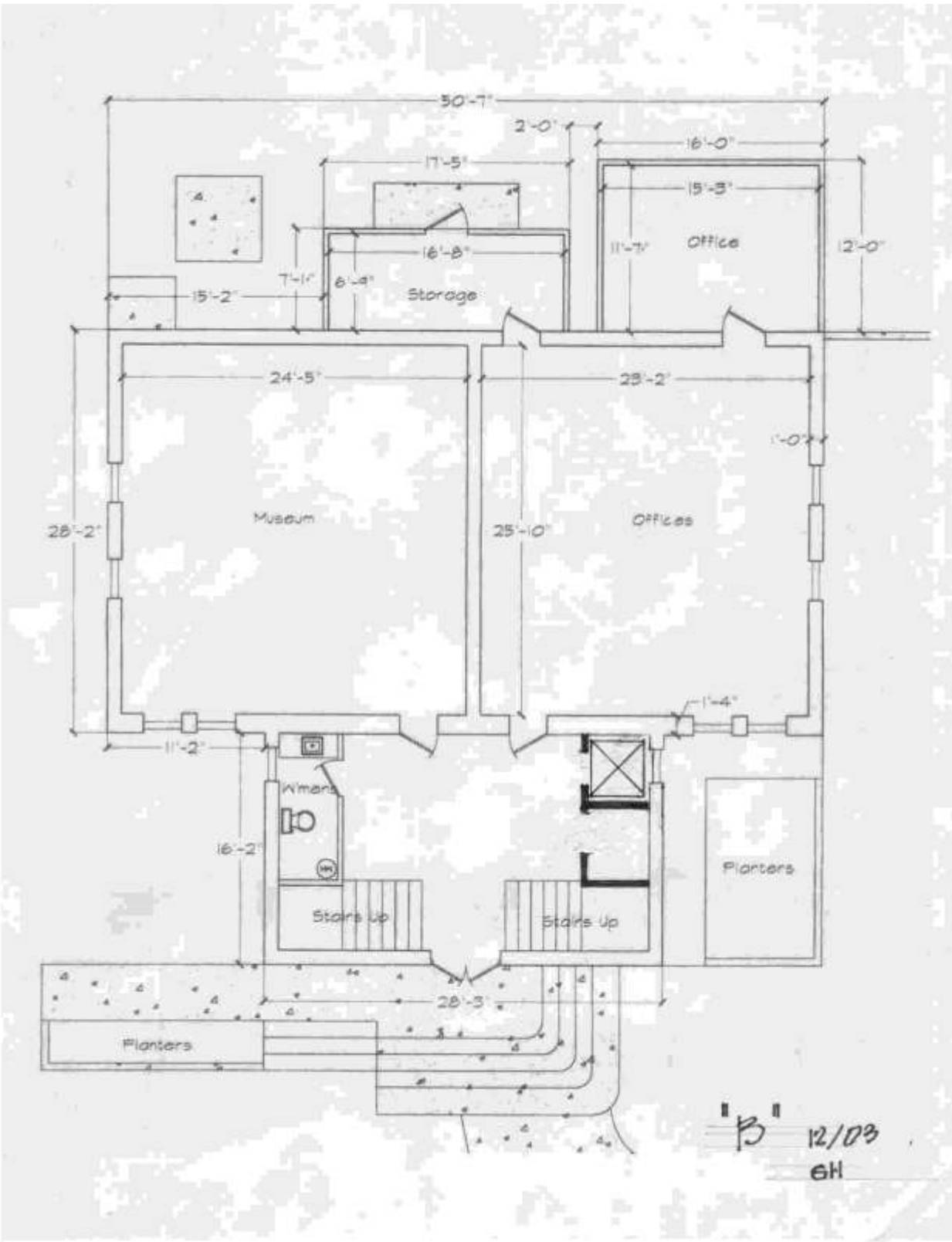
Con

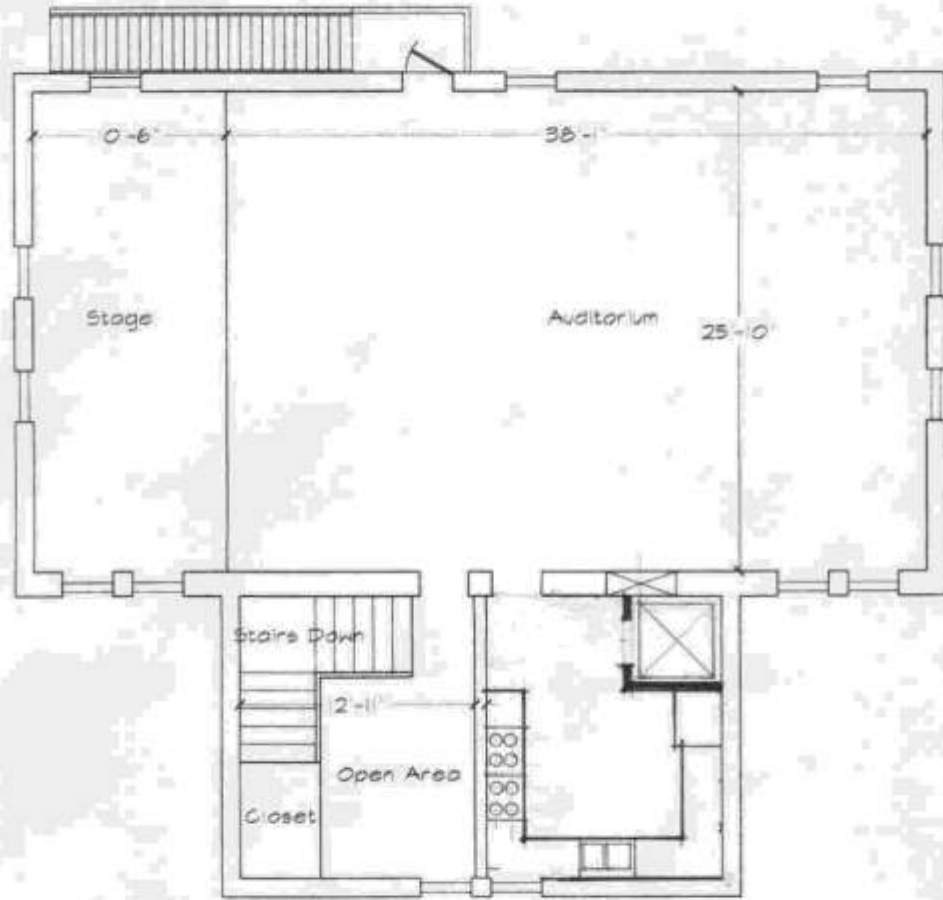
Reduces useable stair width when in operation.

Can be used by only one person at a time.









Upstairs Floor Plan "B" 12/03
EH

