



THE American Surveyor

A FOOT IN THE PAST... AN EYE TO THE FUTURE

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LOOK CLOSER

Using Pictures in Research

>> By Kenneth T. Mills, LS

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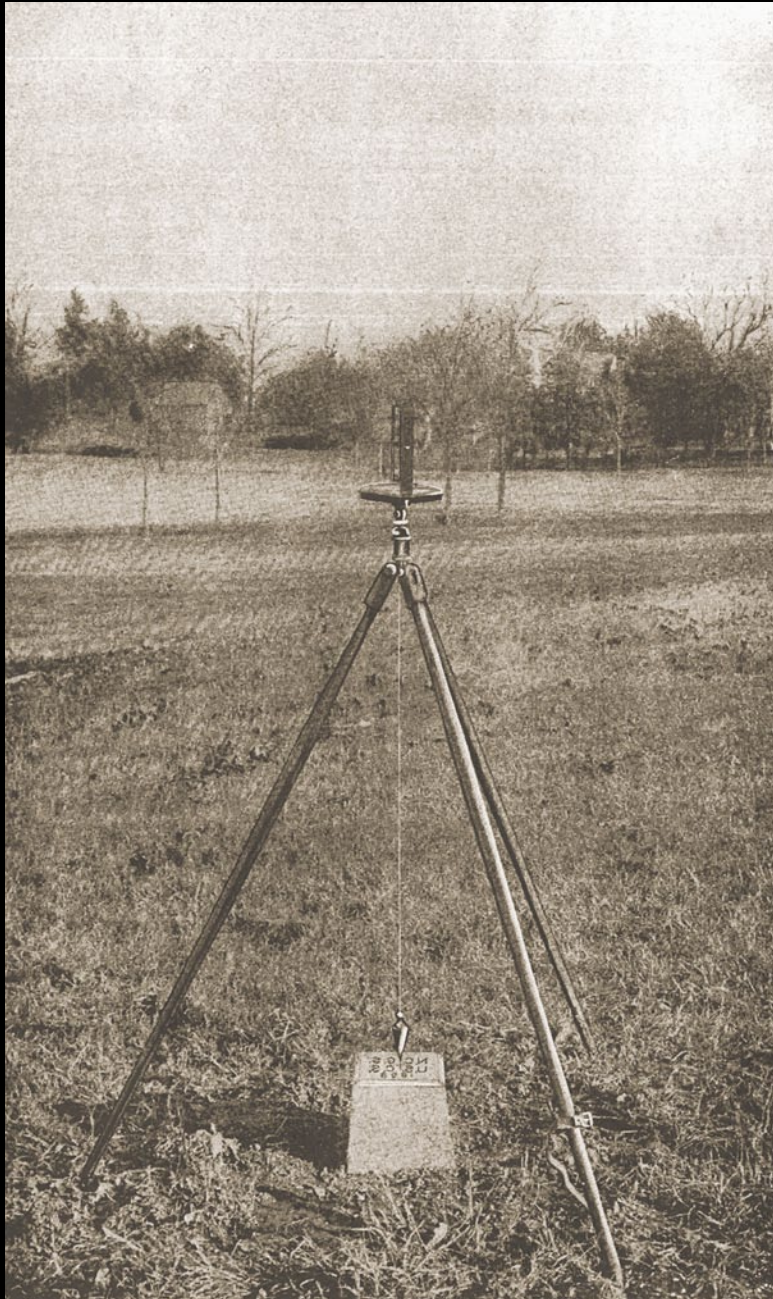
number of months ago I began a personal search for the two meridian monuments set in Marshall, North Carolina in 1898 by the U. S. Coast and Geodetic Survey. The monuments were used by local land surveyors to test their surveying compass on a true North-South line. Additional research on the North Carolina Geodetic Survey website showed three additional meridian monuments were set on the Island in the French Broad River in Marshall. One was placed in 1912, then another one in 1923 and the last one in 1928. These three monuments were single monuments with bearing to visible

buildings the surveyors could use to check their compass. All five of these have been removed or buried due to grading and construction.

I was interested in looking for the location of the original two monuments set in 1898 because they were set in downtown Marshall. (Lat. 35 47 50.83N) (Long. 82 41 03.52W)

Each monument is approximately 400 pounds of granite, about 4' 1/2 feet long, with one end dressed to a 6-inch beveled square and were set in the ground with 6 inches projecting out of the ground. The monuments were placed on a true North-South line so you could see from one to the other. The description of the location of the monuments, from the "Report of the Superintendent of the





A surveyor's compass set up over a meridian monument in North Carolina.

Coast and Geodetic Survey" in 1900, describes one as being "on the side of the hill above the Court-House." The other monument was located "true South of the first monument, near the jail fence."

I studied photography for more than 20 years and had a part time photography business for most of that time, which gave me considerable knowledge of how and where pictures are taken.

Also, earlier in my land surveying career I studied aerial photographs and how to measure objects seen in the pictures. So using my knowledge of photographs and the same forensic procedures I use during the land surveys I work on, I've been able to locate approximately where these two monuments were placed.

Since I was looking for the side of a hill on the North and the old jail

fence on the South, I decided to see if anyone in the area had any pictures of downtown Marshall around 1890 to 1910. I remember seeing one in the local paper a couple of years earlier, in which I could see an old early automobile. I sent a letter in the *News Record and Sentinal*, the local newspaper, asking anyone with old pictures of this time frame to contact me. I was contacted by Bruce Sprinkle and Dan Slagle, who have a number of pictures taken around 1900. Steve Garrison, the Madison County Manager, provided me with an important picture that helped me in my quest.

Steve Garrison sent me this picture of the old courthouse which was a two-story brick building. There was no information in the picture which I could use to position the building along Main Street. Steve said it was located on the East side of the branch which flows down from the hollow behind the current courthouse. From the picture, I was able to determine the courthouse building was approximately 42 feet, 8 inches wide.

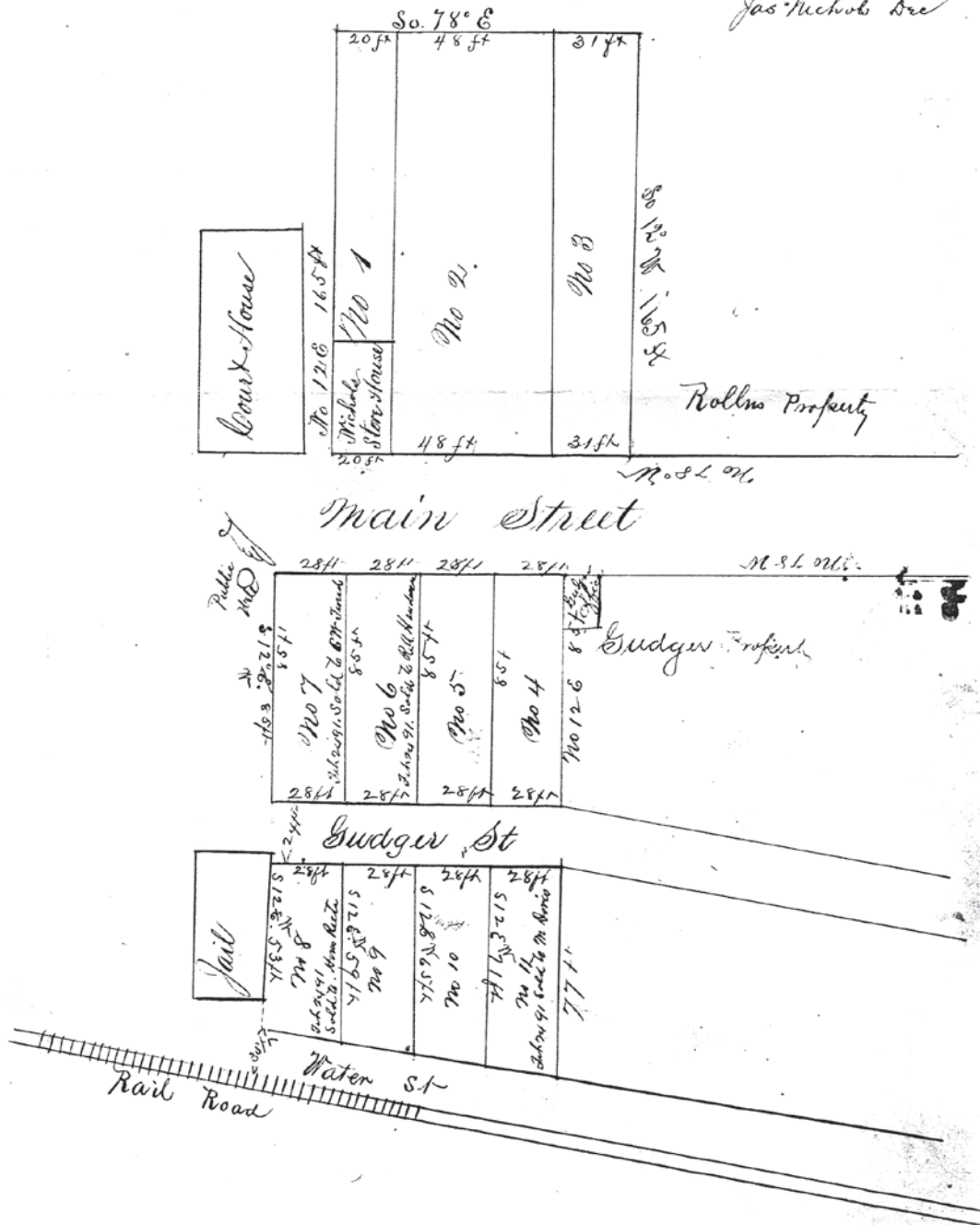
How did I get that dimension? Well I used the ruler shown in the picture. At this scale it's very difficult to see clearly. However, this picture is a .tiff file, which I entered into my CAD drawing program. Then I could zoom in very close. Surprisingly, the quality of the picture did not degrade so I was able to count the bricks across the face of the courthouse building. Counting the bricks in one row along with the mortar joints gave me the overall distance.

I think this picture was taken late in the 1880s or sometime in the 1890s. This courthouse building was taken down to make way for the existing courthouse, which was completed in 1905.

The next picture is a map sent to me by Steve Garrison. It was recorded with the Register of Deeds on March 3, 1893 and shows a survey of a portion of the down town area. I was able to enter this map into my CAD drafting program. The lots on the North side of

Plat of Jas's Nichols Dec^d Property in Marshall N.C.

Owned and sold by W.A. and J.A. Nichols heirs at law of
Jas. Nichols Dec^d



Registered March 3 1892

R. L. Fox
Register of Deeds



The courthouse in the late 1800's in Marshall, NC

Main Street are not tied to the lots on the South side of the street, but I was able to fix this problem with a trip downtown.

I took along a surveying instrument and located a number of the existing buildings along Main Street and Bailey Branch Road. Bailey Branch Road is a North-South road lying to the left side of Lot 7 and Lot 8 in this map. Gudger Street is now called Back Street and Water Street, along the railroad tracks, no longer exists.

I located the existing courthouse, the alley to the East, and the old brick building east of the alley. The brick building fit Lot 1 and Lot 2 on the map and the alley fit the space between Lot

1 and the "Court House" lot shown on the map. My 42-foot, 8-inch building in the first picture fit on the lot in the map. The existing branch, which is now piped under the existing courthouse, would have flowed past the left side of the lot on the map.

I located an old brick building on Lot 7 and the front of the buildings on Lot 6, Lot 5 and Lot 4 along Main Street. I also located the rear corner of the same buildings along Gudger Street.

The new Jail, which was completed in 1907, sits on Lot 8 and Lot 9 seen on the above survey map. The lot labeled "Jail" is in the current street. No jail was ever in this location.

I also located the existing rail road track and the culvert which drains the branch from the hollow above the courthouse.

I entered this location data into the computer program and positioned the existing buildings over the recorded map. By placing the front corner of the brick building at the upper left corner of Lot 7 on Main Street and lining the face of the new jail along the left edge of Lot 8 I get a good fit with all the other buildings I located. The location of the railroad, shown on the above map, matches my location of the existing railroad tracks.

If one monument was set on the hill behind the old courthouse, the monument would be across the branch where there is a hill in order to see past the front corner of the courthouse. The other monument, being due south and at the jail fence, would be in the same location as the current jail. This wouldn't work since the old jail was in place while the new jail was being constructed.

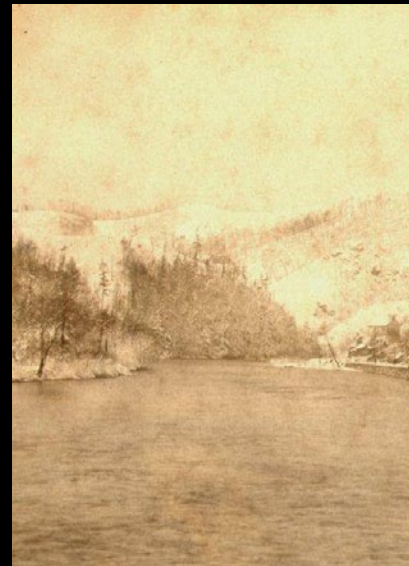
My next step was to locate the old jail and the stockade fence around the building. I talked to a number of people and no one could give me an idea where the old jail stood. Everyone I talked to gave me a different location.

I used the next four pictures to help me locate the former position of the old jail with the stockade fence.

This first picture shows what the old jail and stockade fence looked like. Using this picture I was able to calculate the size of the building, the approximate location of the door way through the fence and the right end of the fence by using my favorite ruler, the bricks in the chimney. I calculated the width of the building to be 23 feet wide and approximately 31 feet long. Based on the size of the end of the building I estimated the distance from the door way to the right end of the fence to be about 12 feet.



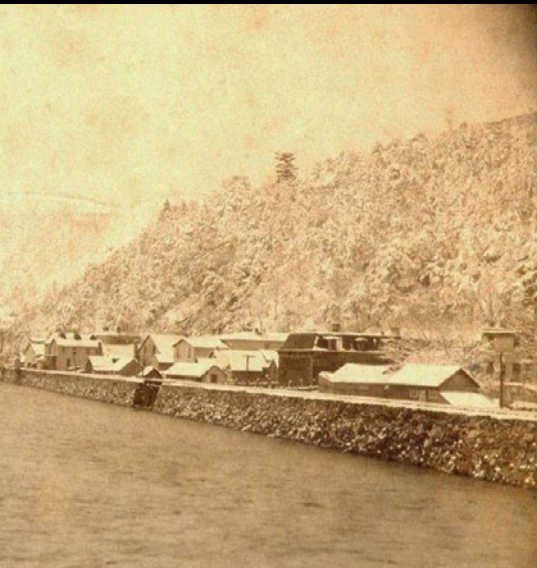
The old three story jail showing the unfinished stockade fence. The picture is facing the French Broad River.



Marshall, NC looking down river, and showing the old three story jail.



Peter Smith before his execution. The image shows the old three story jail, the finished stockade fence, the shed, and the elevation of the camera.



Down town Marshall, NC taken after 1907.

I know the end on the fence is at the right edge of the picture because when I zoomed into the corner I could see detail past the corner. Also the posts sticking up on the top of the fence have barbed wire attached to them and I could see the wire angling away from the corner and approximately parallel with the right face of the building.

There is some background detail just over the fence and to the right of the building. Zooming in on this area, I could make out a number of buildings in the hollow formed by two ridges. I couldn't see enough of the detail to decide whether I was looking across the river or toward the hollow above the existing courthouse.

The second picture shows the end of the old jail with the stockade fence and the railroad along the river. I zoomed in on this picture from the original so I could see the old jail clearly. You can also see the stockade fence around the jail building and the trestle where the branch drained into the river.

One important thing I noted in this picture is the jail has only one chimney. In this picture the chimney is on the right end of the building, which proves the previous picture was taken looking across the river. Also, this picture shows the old jail is near the edge of the river with the stockade fence extending to the base of the railroad embankment. At the

right edge of the picture you can see the rear of a two-story brick building, which I believe is the building at the corner of Main Street and Bailey Branch Road and sitting on Lot 7 of the old survey. The orientation of the brick building with the old jail appears to show the jail across the street from the brick building.

The third picture shows a number of interesting features. First, the current courthouse and the new jail building are still in place. The brick building, between the jail and courthouse, is the same one I located, which is on the old Lot 7 of the old survey map. The old Marshall town public well pump was housed in the small structure on the left side of this building and near Main Street.

Across the street, opposite the brick building is a two-story frame building. This building is very important in locating the old jail.

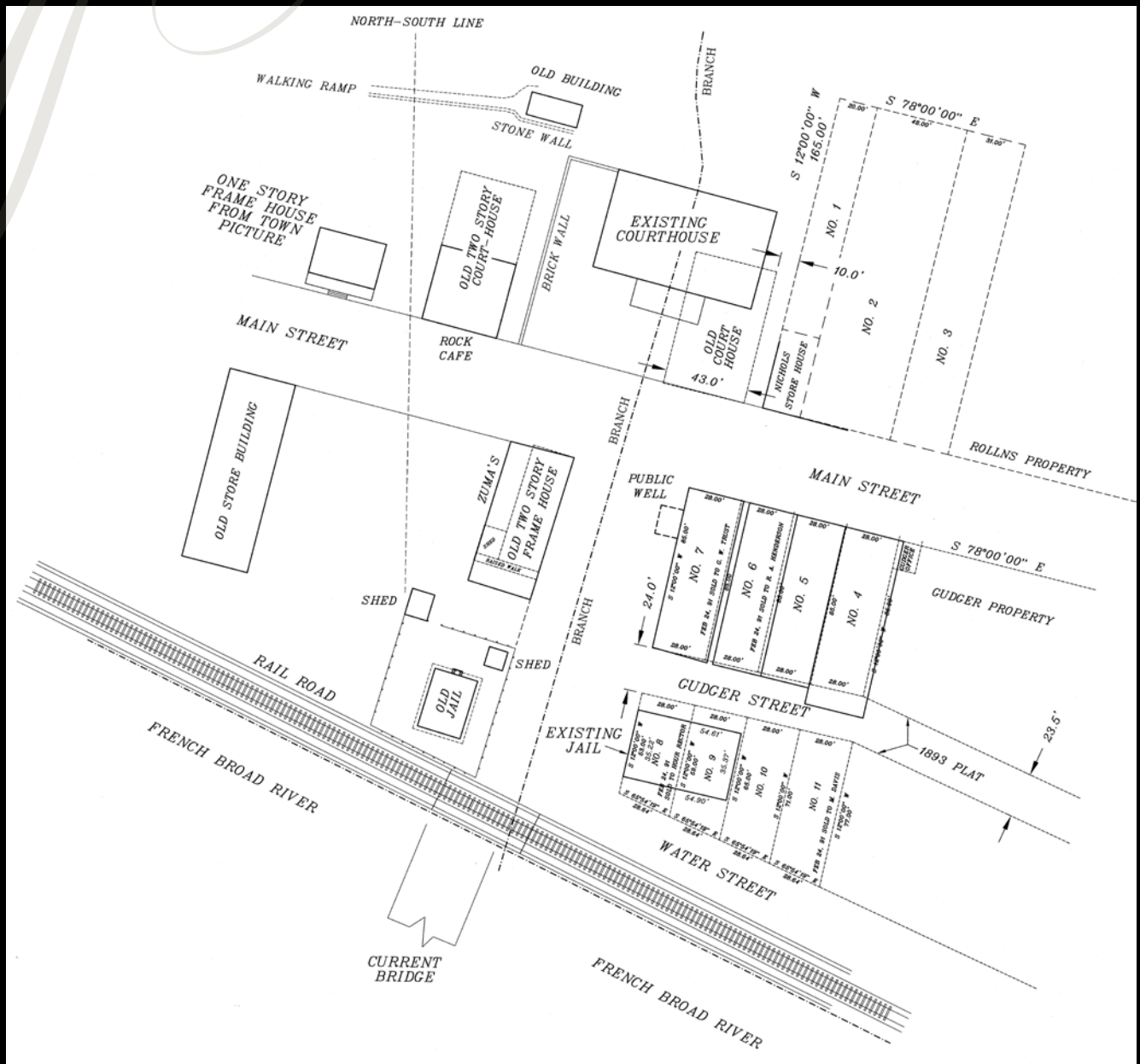
Note, on the left side of the building is a small attached shed. Also, across the rear of the building and shed is a raised walk, used to access the door in the shed as well as the rear door to the building.

I located corners of the courthouse, the brick building at the corner of Main Street and the Jail so I could create a proportional formula to calculate the distance of the frame building across the street from the brick building and the jail. The rear corner of the frame

building from the rear corner of the brick building calculated to be 67.7 feet apart. The distance from the old brick building across the street today to the rear of a newer brick building is 67.7 feet as inversed between the two points I located with the surveying instrument.

Look at the left end of the new jail. You can see a porch with steps. I have a close-up of the front of the new jail and there are nine steps from the ground up to the porch. Today the sidewalk in front of the jail is approximately at the same level as the porch in the picture. Approximately 7 feet of fill has been placed around the jail to bring the ground up to the current level of the road today.

The fourth picture was taken while Peter Smith was giving his last statement before he was hung. This picture helped me pin down the location of the old jail. First, look at the building on the left side of the picture. It has the same roof line and cornice as the old jail in the first jail picture I show. The door in the stockade fence, at the left rear of the shed, all the men are standing on, is the same one shown in the first jail picture. Using the number of men standing on the front of the shed roof I estimate the width of the shed to be about 12 feet wide. This is the same distance I estimated the fence to be from the doorway to the corner of the fence in the first jail picture.



CAD drawing showing the 1893 plat, existing buildings, former buildings, the old jail location and the north-south line where the monuments were placed.

Now, the photographer took this picture at about the same level as the men standing on the top of the shed. The camera he used was possibly a camera attached to a tripod so he could get as clear a picture as possible. Based on the angles from the camera to the three corners of the shed and the corner of the jail building, the camera would be near the end of the raised walk shown on the rear of the frame building as seen in the previous picture of the down town area.

At the time the picture of Peter Smith was taken, I believe the southern meridian monument was either under the shed shown in the picture or just to the right of the rear corner of the shed. Today this area is under a building.

Remember the amount of fill I mentioned before, to bring the ground level up to today's level at the new jail. The same is true for this area of the shed. So, if this is true and the monument was not broken or removed then the southern meridian monument is under about

7 feet of dirt fill, not to mention the existing building over the site.

What about the northern meridian monument? The current brick building appears to have been constructed in the same location as the two-story frame building shown in this picture. I plotted these buildings in the computer program as well as the Rock Café building, which is in the area past the car in this picture and to the left of the wall on the left side of the courthouse. The true North - South line from the shed shown in the

Peter Smith picture, passes by the left front corner of the Rock Café.

To the left of and behind the courthouse is a small building perched above a stone retaining wall in this picture. The retaining wall is still there today and at the rear of the new patio behind the Rock Café. Beginning at the left side of this building is a walking ramp supported by a stone retaining wall. I was able to get up on the ramp and search, from the building location in the picture, to the left, for about 100 feet. From my search I concluded there was no way a 4 1/2 foot monument could have been set in the ramp because of solid rock just below the ground surface.

However, just below the stone retaining wall, as seen in the above picture, there was a hill sloping from the stone wall down to the edge of Main Street. I think this is the hill area described in the 1900 report. Currently, the same area is flat. The dirt and the meridian monument were removed to make way for the existing parking areas and buildings.

The sketch is from my computer program and shows the buildings I located and some of the buildings I plotted from the town picture as seen above. You can see the location of the old jail across the street from the new jail and behind the frame building with the raised walk. The current brick building is on top of the frame building seen in the above picture. Around the old jail is the wooden stockade fence. At the upper left corner of the fence is the shed where Peter Smith stood.

The dashed line going up the picture from the shed is a true North-South line, which helped me to locate the northern meridian monument. You can see how this line misses the left corner of the Rock Café which replaced an older two-story frame building where court was held while the existing courthouse was being constructed.

Dan Slagle has a picture of this two-story building where the Rock Café is located today. He also has copies of some county records which have a note about the county renting some upstairs rooms

in this building to be used as courtrooms while the existing courthouse was under construction. If this is the "court-house" noted in the description of the location of the northern monument, then my location would be correct.

While doing this research I learned Marshall has a very interesting and colorful past. Should you get a chance to visit Marshall, take notice of the courthouse, the brick building on the corner, the jail, the railroad and the abutment supporting the tracks. All of these structures are more than 100 years old. *AS*

Ken Mills is a Professional Land Surveyor and the senior partner in Blue Ridge Land Surveying, Inc. located in Asheville, North Carolina. He is interested in the history of an area because of the detailed research needed to reestablish boundaries created a century or more ago. He lives in the Rector Corner area of Madison County and was fascinated with the challenge of locating the meridian monuments in Marshall.



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