NPS Form 10-900
(Oct. 1990)

OMB No. 10024-0018

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Kern's Fort

other names/site number Michael Kern's Cabin

2. Location

street & number 305 Dewey Street ● not for publication

city or town Morgantown ☐ vicinity

state WV code WV county Monongalia code 061 zip code 26505

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this ☒ nomination ☐ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property ☒ meets ☐ does not meet the National Register criteria. I recommend that this property be considered significant ☐ nationally ☒ statewide ☐ locally. (☐ See continuation sheet for additional comments.)

William G. Farmer 2.16.93
Signature of certifying official/Title Date

State of Federal agency and bureau

In my opinion, the property ☐ meets ☐ does not meet the National Register criteria. (☐ See continuation sheet for additional comments.)

Signature of certifying official/Title Date

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is:

Signature of the Keeper — Date of Action

- ☐ entered in the National Register.
  - ☐ See continuation sheet.
- ☐ determined eligible for the National Register
  - ☐ See continuation sheet.
- ☐ determined not eligible for the National Register.
- ☐ removed from the National Register.
- ☐ other, (explain:)

Kern's Fort
Name of Property

Monongalia County, WV
County and State

5. Classification

Ownership of Property
(Check as many boxes as apply)

- [X] private
- [ ] public-local
- [ ] public-State
- [ ] public-Federal

Category of Property
(Check only one box)

- [X] building(s)
- [ ] district
- [ ] site
- [ ] structure
- [ ] object

Number of Resources within Property
(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
1	2	buildings
		sites
		structures
		objects
1	2	Total

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing.)

N/A

Number of contributing resources previously listed in the National Register

N/A

6. Function or Use

Historic Functions
(Enter categories from instructions)

Domestic/Single Dwelling
Defense/Fortification

Current Functions
(Enter categories from instructions)

Domestic/Single Dwellings
(2 Non-contributing buildings on two parcel area)

7. Description

Architectural Classification
(Enter categories from instructions)

Colonial
Other
Log House

Materials
(Enter categories from instructions)

foundation Rubble Sandstone
walls Wood Clapboard
roof Asphalt Shingles
other Brick Chimney

Narrative Description
(Describe the historic and current condition of the property on one or more continuation sheets.)

Kern's Fort
Name of Property

Monongalia County, WV
County and State

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- [x] **A** Property is associated with events that have made a significant contribution to the broad patterns of our history.
- [x] **B** Property is associated with the lives of persons significant in our past.
- [x] **C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- [ ] **D** Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations
(Mark "x" in all the boxes that apply.)

Property is: N/A

- [ ] **A** owned by a religious institution or used for religious purposes.
- [ ] **B** removed from its original location.
- [ ] **C** a birthplace or grave.
- [ ] **D** a cemetery.
- [ ] **E** a reconstructed building, object, or structure.
- [ ] **F** a commemorative property.
- [ ] **G** less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance
(Enter categories from instructions)

Exploration/Settlement
Defense/Military
Architecture
Commerce

Period of Significance

1772 - 1880
1774-1795

Significant Dates

1772
1774, 1795

Significant Person
(Complete if Criterion B is marked above)

Michael Kerns

Cultural Affiliation

N/A

Architect/Builder

Michael Kerns

Narrative Statement of Significance
(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

Bibilography
(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):

- [ ] preliminary determination of individual listing (36 CFR 67) has been requested
- [ ] previously listed in the National Register
- [ ] previously determined eligible by the National Register
- [ ] designated a National Historic Landmark
- [ ] recorded by Historic American Buildings Survey # _____
- [ ] recorded by Historic American Engineering Record # _____

Primary location of additional data:

- [x] State Historic Preservation Office
- [ ] Other State agency
- [ ] Federal agency
- [x] Local government
- [x] University
- [ ] Other

Name of repository:

WVU- WVC (Colson Hall) & Monongalia County Courthouse

Kern's Fort
Name of Property

Monongalia County, WV
County and State

10. Geographical Data

Acreage of Property Less than one acre

UTM References
(Place additional UTM references on a continuation sheet.)

	Zone	Easting	Northing
1	17	590140	4386480
2			
3			
4			

☐ See continuation sheet

Verbal Boundary Description
(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification
(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title Pamela Ball Redmond

organization PBR Investigations date September 1992

street & number 625 Brandon Street telephone (304) 296-3013

city or town Morgantown state WV zip code 26505

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

A **USGS map** (7.5 or 15 minute series) indicating the property's location.

A **Sketch map** for historic districts and properties having large acreage or numerous resources.

Photographs

Representative **black and white photographs** of the property.

Additional items
(Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of SHPO or FPO.)

name Terry Belks Brooks

street & number 305 Dewey Street telephone (304) 296-3013 above

city or town Morgantown state WV zip code

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 *et seq.*).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects (1024-0018), Washington, DC 20503.

Description

Kern's Fort, or Michael Kern's Cabin, was built in 1772. Michael Kerns, an immigrant from Holland, built the log house soon after arriving in the Decker's Creek area.

The building site he chose sat on the Southeast side of Decker's Creek. Kern's had a land patent for 600 acres total. This 600 acres included what is currently Greenmont and the Fifth Ward area of Morgantown.

The Kern's Fort log house has the legal description of Parcel 468 on Map 29. It sits back from the city sidewalk approximately 35 feet. The house sits on the corner of Arch and Dewey Streets. Earlier the house had an Arch Street address, but is now known as 305 Dewey Street.

The front of the log house faces Arch Street. This is the North side of the property.

Basic overall shape of the plan is irregular. Originally the house was rectangular in shape. At some point in the 19th century (mid-to-late) a frame addition was added to the rear of the house. The frame addition consisted of a inset-type porch with room. This porch and room addition has a shed appearance, due to the shed roof over both.

The rear shed room addition has a doorway entrance to the extra room. The extra room was built to house a small kitchen area. (It continues to be used for that purpose today.)

The foundation of the house is constructed of rubble type sandstone. This rubble stone foundation is evident under the original section of the house. The porch and room frame addition has a cut type, rock-faced stone foundation under the room section. Porch area has a concrete slab. Shed porch roof is supported by a wood turned post.

Kern's Fort is one story with an attic loft. The house has the general appearance of a Continental log house. Rectangular shape with front doorway offset to the left side. The front door (North side) is constructed of wood and is board and batten in style, with one lite. Originally the doors would have been solid with no glass. Currently there are four exterior wood doors.

Windows are 2/2. There are also two small d/h windows. (Front right facade, and left side rear.) The windows appear to have been added

in the 19th century, probably when the porch and room addition was built. (According to McAlester's A Field Guide to American Houses it was very common for log houses to be added onto with frame porch and room additions.)

The exterior walls are currently covered with wood clapboards. (Probably second set, at least, since the house was built in 1772.) The original exterior fabric was hand-hewn chestnut logs. These massive logs, which are visible from the interior of the house, appear to be approximately 19-20" wide. (When Kerns came to this area it was unpopulated and the trees were virgin-type timber. According to published sources the large broadaxe Kerns used to fell the trees was donated to the Monongalia County Historical Society. They in turn donated it to the WVU West Virginia and Regional History Collection.)

Kern's Fort has a side gable roof, with shed roof over the frame porch and room addition. The current roof fabric is asphalt shingles. The original fabric was most likely wood shingles.

The chimney on Michael Kern's Fort is made of red brick. The chimney appears quite old, but the original material was probably stone. The chimney has a center ridge placement.

As mentioned previously , the interior of the house is dominated visually by the massive hand-hewn chestnut logs. The logs appear to be in excellent condition. Of course, the chinking has probably been replaced many times since Kerns built it in 1772.

The interior room plan is currently one small shed room that is used as a kitchen. (Rear of the house facing Elmina Street, or South end of the house.) Additionally there are two rooms that are original. The interior attic steps are made of wood slabs and are very narrow and steep. They lead to the attic sleeping loft.

Other than the massive, chestnut, hand-hewn logs, and narrow attic stairway, the only other interior detail of note are the two square portholes notched into the logs. These portholes are in the rear exterior wall that faces Elmina Street, or South side of house. These portholes, or gunholes, were used to position the muskets into, in order to fire on raiding Indians, or other enemies.

Currently the log house is in excellent repair. Until very recently, nationally known author, and authority on Appalachian plant life, Dr. Maurice Brooks, 90+ years old, retired WVU professor lived in the historic house. Although Dr. Brooks is still alive, he is not able to live in the house at this time. It is currently being rented out to

two WVU male students.

In terms of historic integrity the Kern's Cabin, or Kern's Fort, is still situated on its original building site. The setting has of course changed since 1772. At that time it was a desolate outpost in a pioneer wilderness. Today Kern's Fort sits on its knoll surrounded by early 20th century houses.

The house maintains original fabrics in terms of exterior log walls. The fabrics that have been added, with the exception of roofing material, were added many years ago, probably mid-to-late 19th century.

As stated earlier this property has the legal description of Parcel 468 on map 29. This parcel which has a total area of less than an acre, is approximately 97' x 147.18' . The Kern's Fort log house sits on the front, North half section of Lot 13, which faces Arch Street.

Additionally, there are two other buildings on Parcel 468. These include a very fine brick Foursquare style house, in original and pristine condition. The house was built for the Col. W.J. Bland family in the late 1920s. The tan brick Foursquare house has cut stone foundation, wrap-around porch, and slag glass windows. (It is interesting to note that the current owner of Parcel 468, Terry Belk Brooks stated to me in an interview "that the basement of her house has a stone spring. The spring feeds a stone channel that was used to cool foods." I found out after my interview with Brooks, through research in a 1927 publication, produced by the Monongalia County Historical Society, that Brook's house sits on the exact location of the original Kern's Fort Spring House. (See photo of spring house taken before constuction of Brooks house. I know the location is exact because of the positioning of the current standing houses across the street.) This house 321 Dewey Street is located on the back, or South side of Lot 13, directly behind the Kern's Fort log house.

Parcel 468 also contains one additional building which has the address 511 Elmina Street. This building is a garage apartment. It is constructed of rock-faced concrete blocks and clapboards. It too was constructed in the 1920s. It is situated on Lot 14, on rear/South section of lot.

Both 321 Dewey and 511 Elmina are non-contributing buildings. They are both in excellent condition.

The surface and sub-surface soil of Parcel 468 are intact. Landscape features have been in place for many years. Old hardwood trees, shrubs, and holly trees surround the property.

The only other landscape feature of note is the memorial stone with bronze plaque that was placed on the site, along the Arch and Dewey Street corners, in October 1927, by the national, state, and local members of the Daughters of the American Revolution. It was stated on the October day: "This memorial is erected in what was known as Greenmont, in the Second Ward of the city, formerly the James Reay property, and near the spring which furnished the water for our ancestors in the fort when it was surrounded by warlike redskins."

Inscription On Monument:

This Tablet marks the site of
Kern's Fort
Erected at the Beginning of Dunmore's War
1774
Placed by the Elizabeth
Ludington Hagans Chapter
Daughters of the American Revolution
1927

Note: See 1927 historic photo of memorial celebration and current photo of memorial.

Statement of Significance

Kern's Fort is located in the Greenmont section, or Second Ward section of Morgantown, West Virginia. This area lies to the Southeast of downtown Morgantown. Morgantown, West Virginia is located on the northern border of Pennsylvania and West Virginia. Morgantown has been associated with education since the early part of the 19th century. Although the education system started here with church related schools and academies, it became the home of West Virginia University. West Virginia University is a land-grant institution founded in 1867 under the terms of the 1862 Morrill Act, as amended in 1864 to include the state of West Virginia.

Kern's Fort meets the National Register criterion A through two areas of significance: Exploration/Settlement and Defense/Military. Criterion A involves associations with broad patterns, or events in history. Kern's Fort was associated with the early settlement period of what is now Morgantown, West Virginia.

Native Americans, primarily Delawares and Mingoes, used the area now known as Morgantown for hunting and fishing purposes. They were known to have hunting camps located along the Cobun Creek area of what was to become Monongalia County. A few traders and explorers were also known to have passed through this area as well. During the early settlement period of the mid-eighteenth century there was only sparse settlement to the west of the mountains.

Permanent settlements were dangerous until after the close of the French and Indian War in 1763. A period of peace with the Native Americans came in 1763. Settlers then came along the (National) Old Trails Road, and started settlements to the west.

Many pioneers passed through Fort Necessity (in present day Pennsylvania) while on their way to their new destinations. Michael Kerns was probably one of those settlers.

Michael Kerns (also spelled variously as Kearnes and Carnes) emigrated to America from Holland in the early 1770s. Kerns was known to have arrived at the port of New York. He then traveled to Pennsylvania by way of New Jersey. While crossing westward across Pennsylvania, he stopped in Westmoreland County, Pennsylvania long enough to marry Susan Weatherholt. Kerns and his new wife made their way to neighboring Fayette County, Pennsylvania, and after crossing the mouth of the Cheat River, they arrived in what was to later become Morgantown.

Michael and Susan Kerns acquired a large tract of land (approximately 600 acres) that was both unpopulated and a virtual unbroken forest.

Reportedly, at this time in 1772, only Isaac Lemaster had built a cabin (1770) in what is now known as Morgantown. (Zackwill Morgan had been in this area as early as 1766, but was only here on an impermanent basis. Morgan returned to the area in 1774 on a permanent basis when he obtained, through purchase, Isaac Lemaster's claim.)

In 1772 Michael and Susan Kerns built their cabin across the Decker's Creek in a Southeasterly direction from Lemaster's cabin. Thus, Michael Kern was, perhaps, the first permanent settler of what is now Morgantown.

The Kerns tract of land, approximately 600 acres, covered what is now known as Greenmont, and all of what was to become the Fifth Ward of Morgantown. (See 1781 Survey of Kerns (Carnes) property taken from Monongalia County Survey Book No. 1.)

Kerns felled the numerous chestnut trees in order to build his cabin. The site had everything Kerns felt was important to survival. A high vantage point; trees; good spring, and the mouth of a fast running creek nearby. The creek later to be named Decker's Creek, led directly into the Monongahela River. Thus, transportation was also good.

Unfortunately, the period of peace with the Native Americans came to a close in the spring of 1774. This was the beginning of the Dunmore's War.

At this time in 1774 only two families were reportedly living in what was to become Morgantown. The Kerns and the Morgans. Sources state that "neither man sold off any land until Morgan began to sell lots in 1784 or 1785. Then laid off his ground into building lots in 1785."

When the Dunmore War started in 1774, Kern built a stockaded fort around his cabin. At this time there were real threats of Indian attacks by Delawares and Mingoes.

According to Sanuel T. Wiley, in the History of Monongalia County, published in 1883, Kern's Fort "was a stockaded fort, built on the lands of Michael Kern, just back of the present Fairground, and between the old Kern's houses (now occupied by James Reay) and Decker's Creek. It had a command of the surrounding country. It

was among the largest forts in the county, and was the general rallying ground, in times of more than usual danger for the west side." (Those living on the west side of the Monongahela River.)

There were several other forts in the area of what was to become Monongalia County. These were Fort Martin; Fort Cobun (along Cobun Creek); and Prickett's Fort (along the Monongahela in what was to become the Fairmont area). (See Map of Principal Pioneer Forts of the Upper Monongahela Valley, taken from Core's, Prelude, Vol. 1.)

According to published sources "the fort was a meeting place in times of danger and a stopping place for new settlers coming into the area." Evidently many found refuge at the fort while in the process of trying to build a home of their own.

Thus the exploration/settlement period was intimately connected with the other area of significance under criteria A: defense/ military.

Although the records do not show the military using this fort it was used for defense purposes. Mention is made of military/militia assisting those at Kern's Fort by fighting off Indians closer to their camps.

One incident that is reported in a 1927 published account states that "in 1778 Cobun's Fort, which stood somewhere in what is now known as the Tank Field owned by the Standard Oil Company, was attacked and burned. Two men that were attacked and killed,Miller and Woodfin, were brought on poles to Kearnes Fort. Their hands and feet were tied together and poles run through them. The other folks in this little settlement evidently escaped to the fort too." (Kern's Fort) Evidently roaming frontier guards from nearby forts helped defend Kern's Fort.

Kern's Fort was necessary from 1774 until the end of the Revolutionary War. But evidently the fear of Indian attacks persisted much longer, up until General Wayne's Treaty was signed in 1795. According to published sources, the last Indian raid occurred in the area in 1791. Thus, the period of significance for Kern's Fort is 1772 through 1795.

Michael Kern was noted as an early pioneer of the area, and as the first (probable), or one of the first, of Morgantown's businessmen. Kerns built the first grain mill in the area. It was powered by water from Decker's Creek. It was located along the (current) Decker's Creek Road area. Kerns is also said to have been responsible for building the first public road in the county -- the old Rock Forge Road.

Mr. Kerns also owned another business, the first boat works in Morgantown (mid-1780s). The Kern's Boat Yard was located at the mouth of Decker's Creek (beneath the current South High Street Bridge). Kerns built flatboats that were used by those wishing to travel west to Kentucky. The boatyard was in business many years and later was used to move farm products down the Monongahela River to their markets.

Thus, the property is significant under Criterion B because it was the home of Michael Kerns, pioneer settler and prominent businessman of early Morgantown.

Kern's Fort, built in 1772, is significant under Criterion C because it embodies the distinctive characteristics of a mid-eighteenth century hand-hewn log house. Additionally, it is significant under Criterion C because it continues to display the original logs (later covered with clapboard). It should also be mentioned that this is the only original colonial fort building that is standing in the county and in the whole of north-central West Virginia.

Although Kern's Fort has not been evaluated under Criterion D, it has nonetheless provided some clues of its colonial past. Documented and published sources appearing through the years have stated that archaeological remains continue to be found in close proximity to this site. Statements about Indian relics in the vicinity of the Second Ward Elementary School (Wilson Avenue), etc. exist. Sources record these in 1883 and 1927. Additionally, during more recent times, excavations for gardens have produced musket balls and Indian arrowheads.

Published materials also state that " Kerns, and Revolutionary soldiers and their families were buried in the area of the fort." Unfortunately, the exact location is unknown. According to Samuel T. Wiley's History of Monongalia County,

> "One of the oldest cemeteries in the district was the old Kern's graveyard, near the site of Kern's Fort, and likely commenced in the forting days of 1774. The old sandstone

tombstones, it is said, were torn up, and the graves of the dead were leveled down by the plow. Human greed for gain had no respect for the sleep of the honored Revolutionary dead."

Note: I believe that this means that when the area was developed in the 1860s for the fairgrounds and race track (located on the present site of Green Street), it was probably destroyed.

Additionally, the Kern's Fort site was associated with several Native American tribes, namely the Delaware and Mingo. Members of these tribes visited the area, both on hunting excursions, and visits to the fort for purposes of war and friendship. It is written that a well-known Indian chief, Chief Bald Eagle, was a frequent, friendly visitor to the Kerns' house. Unfortunately he was killed by two white men on his way to the Kerns' house.

Kern's Fort stands on the original location that Kerns selected for it in 1772. Michael Kerns' 600 original acres and adjacent lands associated with the fort were long ago swallowed up by the expanding residential sections of Morgantown. The Greenmont neighborhood, of which Kern's Fort is a part, is a working class area that continues to reflect Morgantown's history from settlement days to the present.

Period Of Significance

The period of significance begins with the date of construction (1772) of the cabin. This date is now commonly accepted as 1772. The period of significance extends to c. 1880, the approximate date of the application of the small addition and the appearance of wood siding on the log walls.

Kern's Fort, Morgantown, Monongalia County, W.V.

Part 9
Bibliography

Core, Earl L. The Monongalia Story. Prelude, Vol. 1. Parsons: McClain Printing Company, 1974.

Monongalia Historical Society. Sesqui-Centennial of Monongalia County, West Virginia. Charleston: Tribune Printing Co., 1927.

Wiley, Samuel T. History of Monongalia County. Kingwood: Preston Publishing Company, 1883.

WVU Public History Option. Morgantown: A Bicentennial History. Terra Alta: Pioneer Press, 1985.

Monongalia County Courthouse Records. Surveyor Book No. 1 and Deed Books.

Kern's Fort, Morgantown, Monongalia County, W.V.

Geographical Data

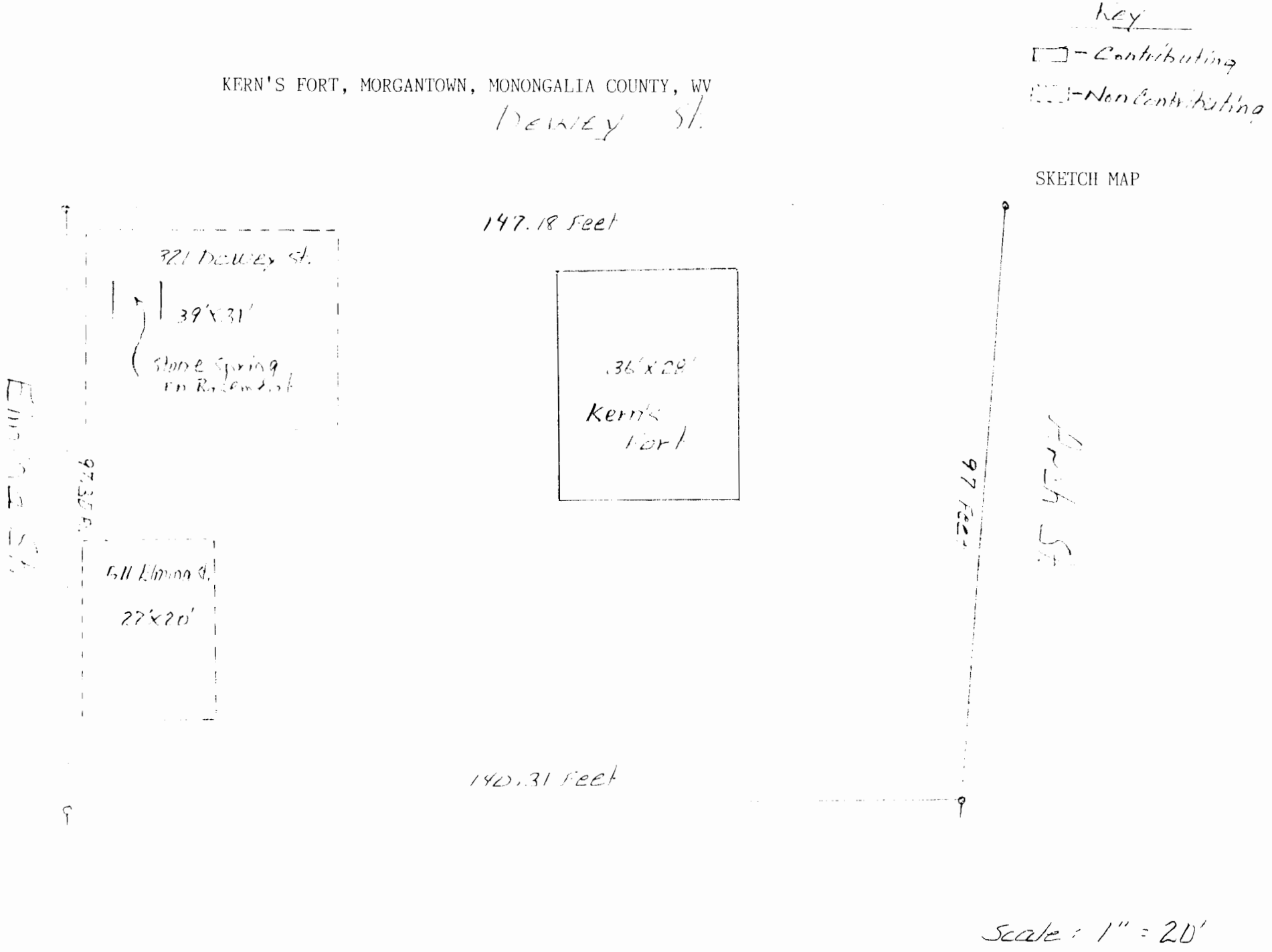
Verbal Boundary Description:

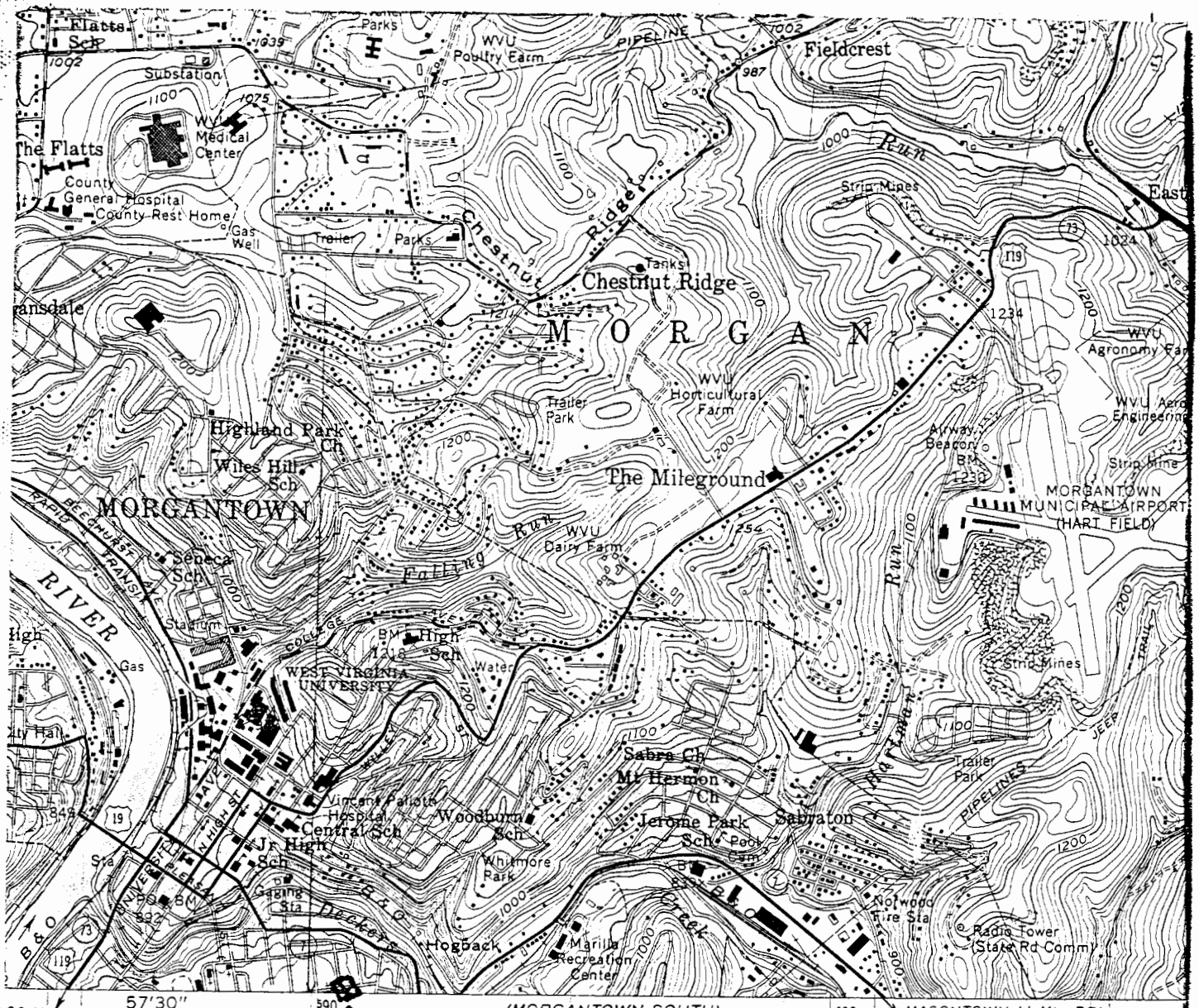
The nominated parcel is south and east of downtown Morgantown in the Greenmont section. Michael Kern's Cabin/Fort stands on what is now the corner of Arch and Dewey Streets. The legal description is as follows: Parcel 468/Map 29. Parcel 468 includes lots 13 and 14 of the C.L. Reay Plan. Total area of the two lots is 97' wide (facing Arch) and 147.18' (facing Dewey). Lot 13 contains the Kern's Fort (the nominated resource) and the Brooks home (noncontributing). Lot 14 contains noncontributing carriage house/ garage apartment.

Boundary Justification

The nominated resource stands on a city lot surrounded by early 20th century residential developments. The expansion of the city of Morgantown in the late 19th and early 20th century has determined the setting of the property. The nominated building remains exactly where it was constructed, surrounded by a small yard.

KERN'S FORT, MORGANTOWN, MONONGALIA COUNTY, WV





SCALE 1:24 000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

41'
IILS

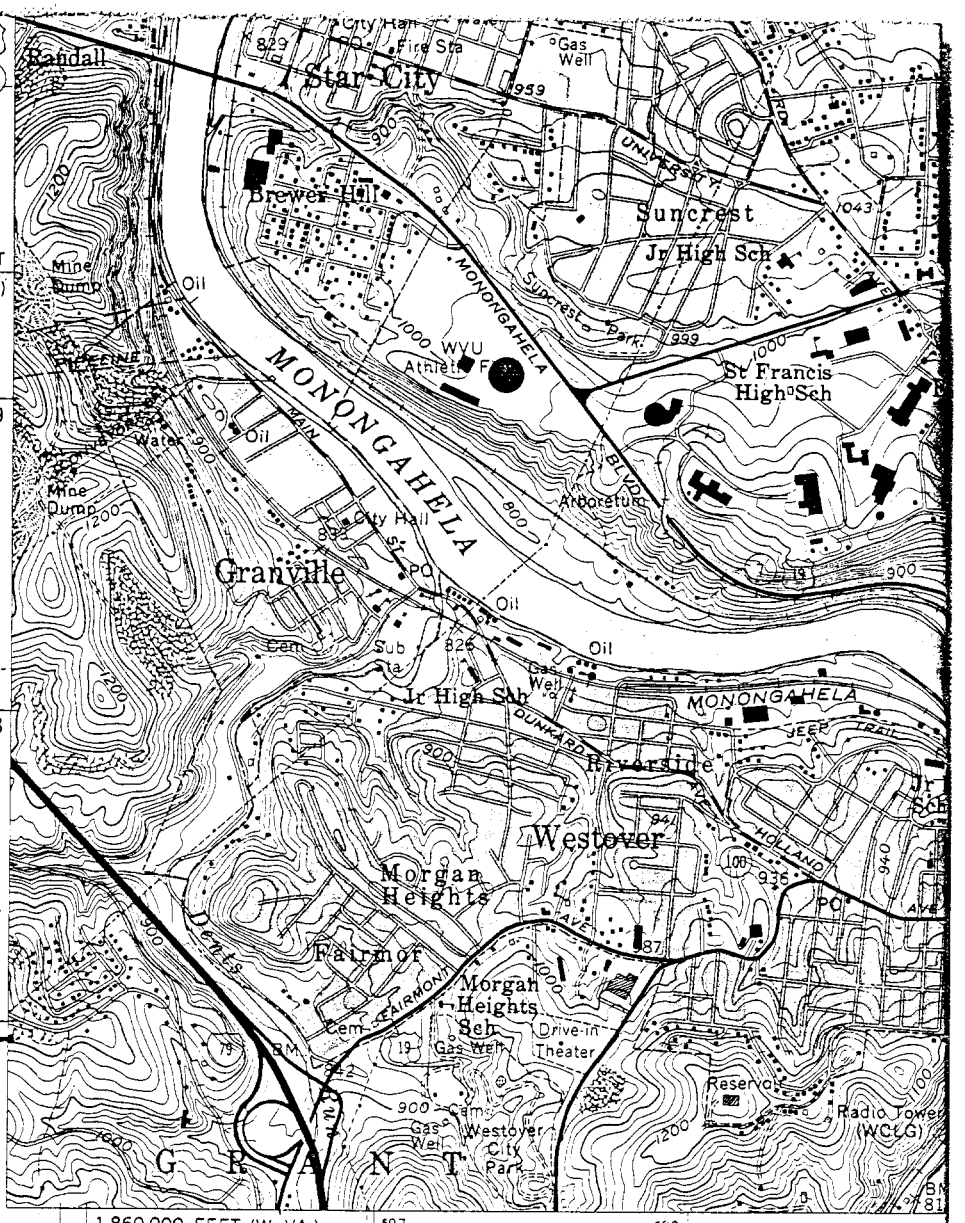
GNETIC NORTH
R OF SHEET

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

Revisions show
taken 1976.

Kern's Fort /
Michael Kern's
cabin
305 Dewey street
Sept. 1992

Pamela Ball Redmond
625 Brandon St.
Morgantown, WV
UTM: 26505
17 | 590140 | 4386480



(RIVESVILLE)
4963 II SE

Zone 17

Mapped, edited, and published by the Geological Survey

Control by USGS, USC&GS, and USCE

Topography from aerial photographs by Kelsh plotter
Aerial photographs taken 1955. Field check 1957

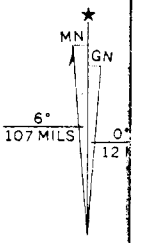
Polyconic projection. 1927 North American datum
10,000-foot grids based on West Virginia coordinate system, north zone, and Pennsylvania coordinate system, south zone
1000-meter Universal Transverse Mercator grid ticks, zone 17, shown in blue

Fine red dashed lines indicate selected fence and field lines visible on aerial photographs. This information is unchecked

Contours in strip mine areas from 1955 photography

Red tint indicates areas in which only landmark buildings are shown

Unchecked elevations are shown in brown
Purple tint indicates extension of urban areas



UTM GRID AND 1976 MA
DECLINATION AT CENTE

305