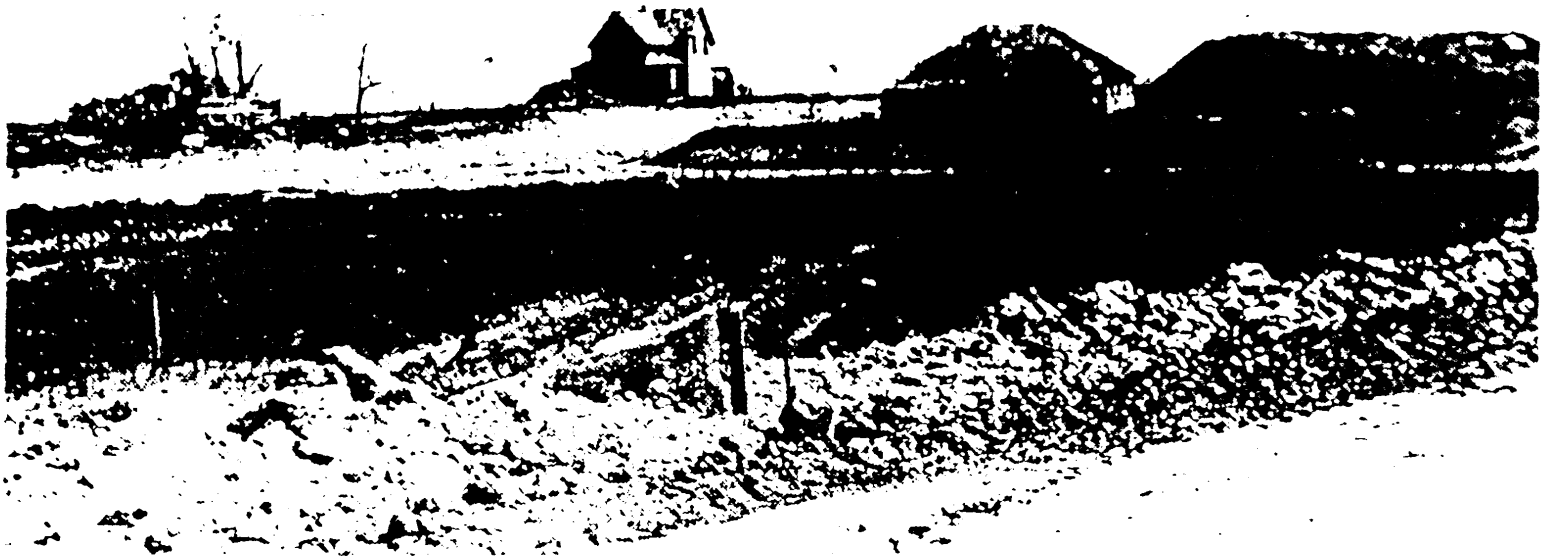
# Safeguard System Rises



**THIS OLD ABANDONED** farmstead once housed families who helped develop northeast North Dakota. An early deed shows it was owned by the Torgersons when in 1906 it was deeded to Gilbert Hefta. The property remained in the Hefta family until 1945 when it passed to the Gelner family. Last year its ownership went into the hands of the United States. But the house that was once a home remains and it waits gauntly for this too to pass. (Herald Photo by Art Raymond)

# s On North Dakota Pr

**INTRICATE LACEWORK OF** steel design builds in reality a mammoth protective wall on the Perimeter Acquisition Radar Building

Peering through the lacework of steel from the third floor one can see the power plant building below.

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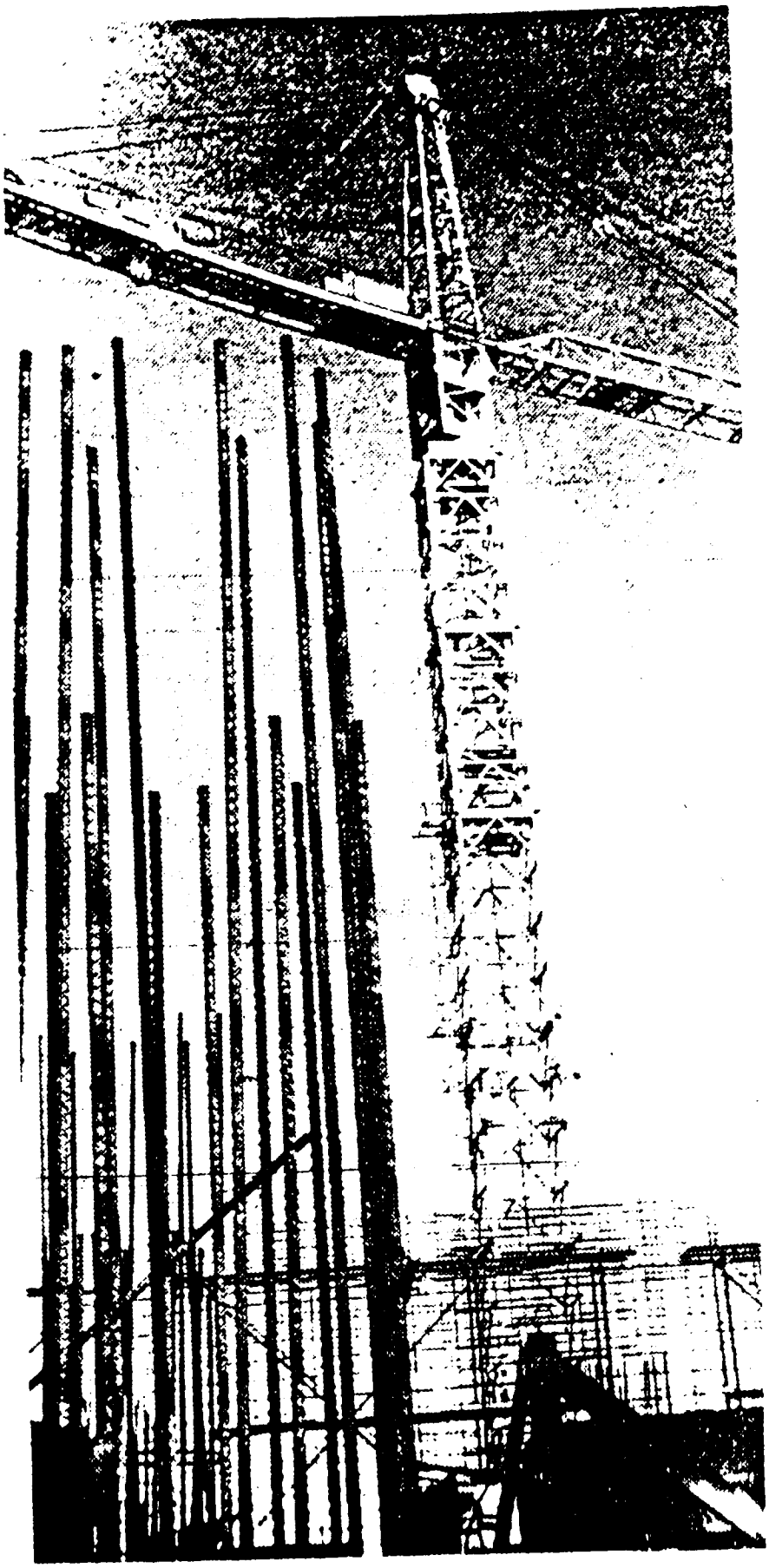

**STEEL BARS BY** the ton, soon to be encased in concrete, push toward the sky while looming over the scene is a giant power crane. It's all part of the scene at Safeguard construction in northeast North Dakota. This picture was taken at the Perimeter Acquistion Radar (PAR) site near Concrete, N.D. The story of ABM construction and impact is told in word and picture on Page 22. (Herald Photo By Raymond)

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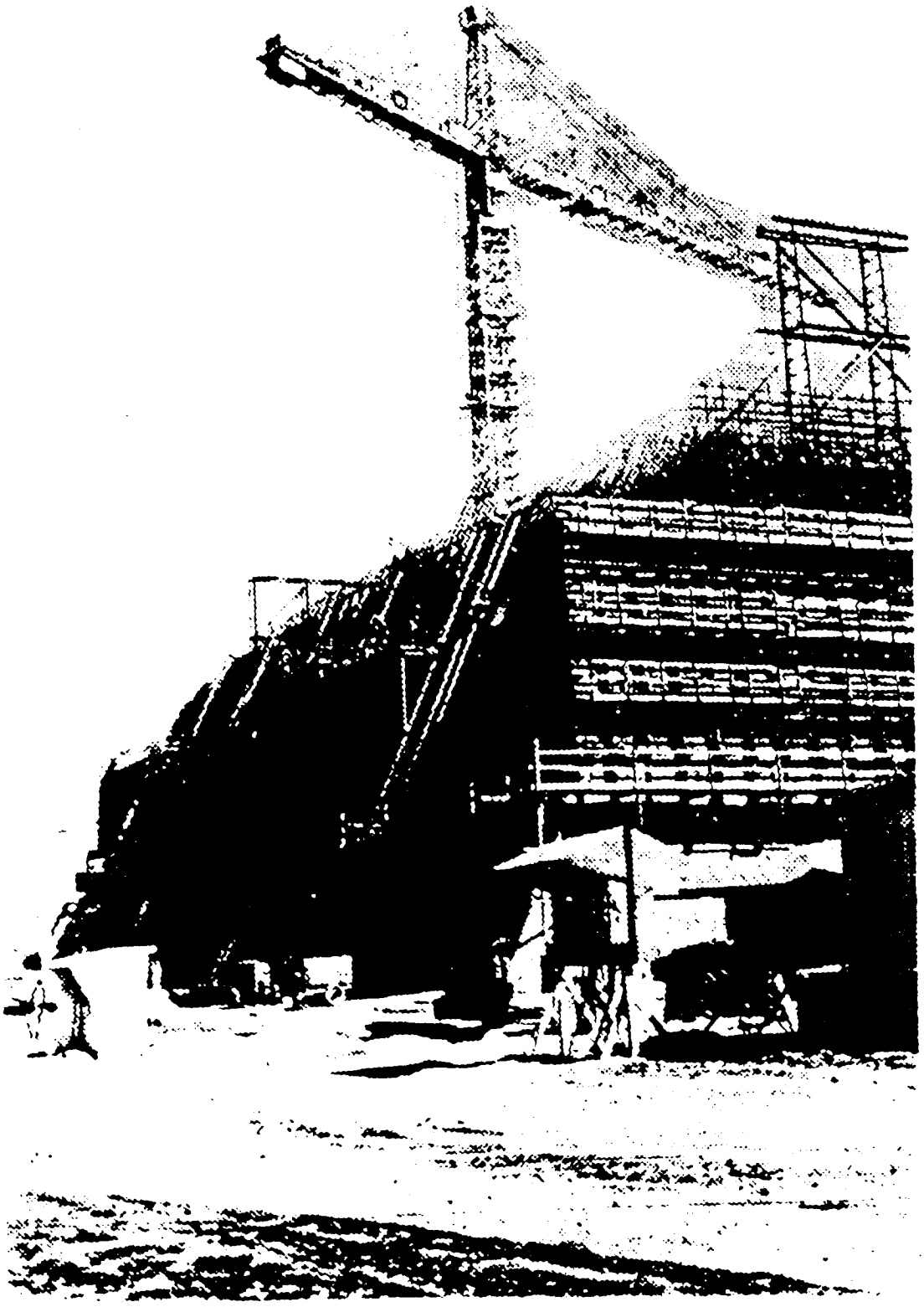

**PHASED ARRAY RADAR** penetrations are built into the face of this sloping wall. They will pick up information on enemy missile and will relay that information to computers. Pictured here last week as the second shift started work is the PAR building. The building now has reached its third floor.

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**SPRINT MISSILE HOLES** stand empty and wait for insertion of the housing which will contain the deadly Sprint. In the background rising starkly toward the sky are derricks which lift other units of housing in place over the Spartan missile emplacements. The missile field is north of the control and maintenance center.

SAFEGUARD SYSTEM RISES ON NORTH DAKOTA PRAIRIE - GFH 5-16-71 PAGE 22
By Art Raymond - Nekoma, ND

Windows, blind eyes of a farm house long abandoned stare vacantly at the scene of modern man's endeavor to be master of his own destiny.

Safeguard construction here is flanked on the southwest by an old cemetery. Overlooking from the northeast is the abandoned farm dwelling once lived in by the Torgersons and the Heftas, and more recently owned by the Gellner family.

In between, a part of the 2,464 ABM workers busily apply themselves to their task of flying steel and concrete downward and skyward to house and control deadly intercept missiles to protect America's Minuteman armada and repel enemy missile attack.

Poetically, the system is called "Safeguard." Realistically, it is the antiballistic missile system and in Department of Defense lingo it is the Grand Forks Site in northeast North Dakota.

Pinned down it is located in the SE1/4, Twp., 15,-159N-60W.

It is here that experts of Army defense and construction might are putting together the Missile Site Radar and its deadly Spartan and Sprint antiballistic missiles. Some 35 or 40 miles away, at Concrete, ND, the Perimeter Acquisition Radar (PAR) is being erected.

The big push in construction is expected to peak this season. Earlier forecasts predicted the number of workers would reach 3,500. Now both Col. John Lillebridge, area engineer for the US Army Corps of Engineers, and Bill Gilfillan, project manager for M-K, the prime contractor, say the peak will come closer to 3,000.

Early good weather enabled M-K and its associates to start pouring concrete March 31 at the PAR site and April 12 at the MSR site.

It's a mammoth job. For example, the Missile Site Control Building (MSCB) could hold the grain harvest from 100,000 acres in a good year. When finished, 33,000 cubic yards of concrete and 3,465 tons of steel will have been used in the MSCB.

The invitation to bid on the job - which started in April, 1970, weighed 65 tons - TONS. It contained 2,626,200 pages of architects drawings. 4,240,000 pages of specifications. If stacked page on top of page, it would have been twice as high as the Empire State Building in New York City. A single set of bid papers weighed over 200 pounds.

Yes, it's big and it costs a lot of money. Completion estimates - minus arming of the nuclear weapons system, is now now $165 million. The Morrison-Knudson payroll is about $750,000 - a quarter of a million, a week. The overall payroll, counting the Army Corps of Engineers military and civilian payroll and other associated industries, is about $1 million weekly.

The Safeguard's MSR site is just off the north edge of Nekoma, ND. There plunging skyward from the North Dakota prairie are the steel shafts soon to be encased in concrete of the Missile Site Control Building, of the Power Plant, of the Heat Sink and the adjacent missile farms where the Sprint and Spartan Missiles will soon nestle in their steel and concrete cocoons.

A tunnel will connect the farm field to the missile control center. In reality, the Spartan holes are three-in-one for there is the shaft for the missile itself, the shaft for blast relief and the shaft for maintenance. The holes for the Sprint are but a single hole. Numbers, in each case, are classified...as is the power of the nuclear warhead which will arm them.

New work started last week when Chris Berg of Seattle started that company's job and Warfield Corp., and Town Realty Inc., Milwaukee, started their job.

Berg won the contract to build non-technical support facilities at both the MSR site here and the PAR site at Concrete, ND. This work includes construction of an administration building, enlisted men's complex, community center, chapel, industrial building, sentry station, pumphouse roads, parking and utilities at Nekoma and Concrete.

The Milwaukee group has the contract to build two Remote Launch Sites for the Sprint Missile. One of these is northwest of Langdon and the other east of Langdon, ND.

The 60-mile pipeline from Fordville, ND to the two sites is complete and and water now is in use from the Fordville aquifer. Zurn Engineering of California had that contract. An eight million gallon storage tank and a five million gallon tank are under construction at the MSR and PAR sites respectively to hold the Fordville water.

The next big and ticklish job is installation of 11 16-cylinder engines. The generators will turn out 4,100 horsepower and each weighs 100 tons and holds 1,100 gallons of fuel. They are built, however, to burn either natural gas or diesel fuel. Their power is 3,000 KW an hour - enough to supply 11 Langdons with all of its power needs. Each engine costs $402,000 and the value of test equipment alone is $250,000.

The PAR building at Concrete, ND, holds the Phased Array Radar system. This unique system is rising slowly and the building now is on the third of its fifth floor. The Phased Array Radar face is at a 25 degree angle and contains 6,244 penetrations. The signals from these penetrations are fed to computers and transcribed to messages for man.

Construction pushes ahead. It is scheduled for completion in 1973.

Western Electric Co. is in charge of installation of the weapons system. It takes over when Morrison-Knutson and Associates have finished their job. However, Western Electric already is pushing in its crew and has 15 personnel on the job.