FORT BELVOIR'S ENGINEER REPLACEMENT TRAINING CENTER

By Mr. Gustav Person

Visitors to Fort Belvoir, Virginia, are probably struck by the modern stone buildings that line the main thoroughfares. At the height of World War II, those areas were considerably different. They were home to the Engineer Replacement Training Center (ERTC), located north of the main post, which was formally inaugurated in March 1941 in the ramp-up to America's entry to that conflict. Conscription had been reintroduced in September 1940, and Fort Belvoir was transformed from a sleepy little Army post to a vast training establishment that, at the height of the war, turned out an average of 5,000 trained engineer Soldiers per month. A second ERTC was established at Fort Leonard Wood, Missouri, in May 1941 with cadre from Fort Belvoir; and a third, smaller ERTC was organized at Camp Abbot, Oregon, in the Deschutes National Forest in 1942.

Construction at Fort Belvoir during World War II marked the third major expansion effort in its history. The two previous periods began in 1912 when the War Department acquired the Belvoir peninsula, located on the Potomac River about 18 miles south of Washington, D.C., to train engineer Soldiers stationed at Washington Barracks

Photo courtesy of Fort Belvoir History Office

A wartime postcard shows the ERTC at Fort Belvoir.

(now Fort McNair) during the summer months. The U.S. Army Engineer School at Washington Barracks in the District of Columbia was simply too small for that mission when America entered World War I in 1917. Hundreds of temporary wooden buildings and other structures, lining a central parade/training ground, were quickly built at a new cantonment named Camp Andrew A. Humphreys. The Engineer School was formally transferred to Camp Humphreys in 1919, and the name was officially changed to Fort Humphreys in 1922, reflecting its new status as a permanent Army installation. Between 1926 and 1935, the Army demolished all temporary wooden buildings and replaced them with permanent brick buildings in what is now known as the Historic District. This area also contained modern barrack quadrangles for the two engineer regiments on post. The name changed again in February 1935 when President Franklin D. Roosevelt was persuaded to change the name to Fort Belvoir, to reestablish the post's links to its colonial past.

Replacement Training Center Construction

Twenty-one replacement training centers throughout the United States were scheduled to begin full operation around 15 March 1941. More than 60 projects were due for completion before that April. Construction had to be accomplished in the face of continuing shortages and changing requirements and at a season of the year when outdoor building work was normally suspended. Before 16 December 1941, the responsibility for nonmilitary post construction was vested in the construction division of the U.S. Army Quartermaster Corps. The U.S. Army Corps of Engineers was in charge of fortifications, roads, river and harbor work, and airfield construction; while the Quartermaster Corps was responsible for barracks, stores, and whatever else was required to house the Army. The areas of responsibility were often difficult to delineate; and as early as 1910, proposals were made to consolidate the construction function within one branch, usually the engineers. The constructing quartermaster at each post oversaw construction projects dealing with contractors, ordering materials, putting through change orders, and the many other details involved in ensuring that a job was completed on time and within budget. The Quartermaster Corps was also represented on post by the post quartermaster, who maintained buildings and utilities, fed men and animals, and provided transportation and clothing. The position of constructing quartermaster carried a great deal of responsibility, acting as the direct representative of the Quartermaster General in his principal construction duties. In December 1940, the construction division was directed by Lieutenant Colonel Brehon B. Somervell, who went on to plan and supervise the construction of the Pentagon. The operations branch chief was Colonel Leslie R. Groves, who later supervised the Manhattan Project.

By autumn 1940, the huge construction project was well underway to build "temporary" wooden barracks;

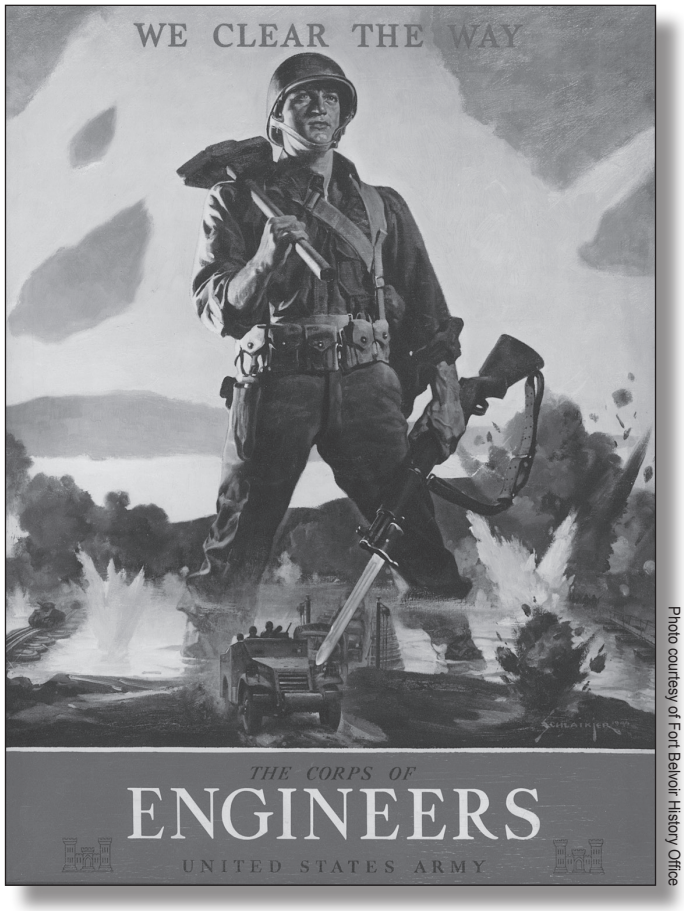

Photo courtesy of Fort Belvoir History Office

This recruiting poster was rendered in 1942 by famed poster artist Jes W. Schlaikjer.

headquarters, training, administration, and supply buildings; service clubs; and chapels at the new center, which had previously been a run-down farm near the main post. The new cantonment would later encompass 300 acres, and the entire Fort Belvoir installation expanded to include 10,000 acres. It was anticipated that the use of these buildings would only last 5 years, or the duration of the war. In fact, many were still in use in the 1980s and 1990s. (The last barracks building was demolished during a training exercise by the post fire department on 14 June 2004.) The site was selected not only because of its proximity to the main post, but also because its terrain was suited to all types of engineer training. All training facilities were within 2 miles of the cantonment area, except the combat firing range, which was about 4 miles away.

During this time, the U.S. War Department experienced considerable disputes with manufacturers due to its decision to build perishable wooden-frame buildings, rather than investing in permanent buildings of brick and tile. Makers of concrete and cinder blocks, cement siding, structural steel, and asbestos sheeting took up the cry for less restrictive designs. The bricklayers' union demanded work for its members. Congressmen asked the Army to reconsider. The typical barracks building was considered significant because of the new technologies employed, including the standardization of plans, prefabrication of

Photo courtesy of Office of History, Corps of Engineers

Lieutenant Colonel William M. Hoge served as first commander of the ERTC.

units, and an assembly line approach to production. The design for the enlisted men's barracks was developed during the 1930s by Works Progress (later Work Projects) Administration architects and draftsmen as part of a project to update the World War I cantonment plans. They were built of wood because ". . . American experience held that a war period was always a temporary period." These barracks were rectangular buildings, measuring 30 by 80 feet, with two stories, nine bays, and asphalt shingle-covered side gable roofs with projecting eaves. Each building covered a masonry foundation and included a single detached exterior side chimney. There were first- and second-floor entry porches in the gable end and dual side entries with entry porches. In addition to the barracks buildings, each complex included day rooms, organizational storehouses, and battalion storage buildings. Barracks buildings were designed to house 63- and 74-man units. A later type, designated "Modified Theater of Operations Type Construction," was adopted by the spring of 1942 as the shortages of materials began to be severely felt.

In all, 253 buildings were constructed in the ERTC, including 163 barracks buildings and 36 mess halls. Miles of roadways were paved to provide access to the complex. Most mess halls were designed to feed 1,000 Soldiers at each meal. In off-duty hours, Soldiers could visit two service clubs and four theaters. Entertainment facilities were later expanded to 11 recreation halls, although blacks and whites used separate facilities. During the first week of December 1941, engineer Soldiers began work on a large amphitheater in the center of the ERTC that could seat 6,250 Soldiers for shows, outdoor entertainment, and open-air classes. It was originally planned for new trainees to work on this project as part of their engineer training. A smaller amphitheater, seating 3,000 Soldiers, was also constructed. The new hospital incorporated 36 barracks type buildings and remained the station hospital until 1957. That site is now occupied by the post exchange and commissary.

By April 1943, most construction had been completed. At that time, Major General Eugene Reybold, Chief of Engineers, told officer candidates, "The mission of the Army's Corps of Engineers is developing with the progress of our attack. We are finishing up the biggest job of emergency construction the United States has ever seen. Now we're moving on to a job of construction overseas. . . . We've got a date with a certain paperhanger, and an engineer keeps his appointments."

Engineer Training

By mid-December 1940, a cadre had formed and the Engineer School appointed Lieutenant Colonel William M. Hoge as the first commanding officer of the ERTC. Hoge was a rising star within the Army. During his tour of duty there, he designed an obstacle course (popularly known as a "steeplechase for Soldiers") for military and physical fitness training, which later became the standard for all other training facilities within the Army. He served at Fort Belvoir until February 1942. In March 1944, Hoge was given command of the Provisional Engineer Special Brigade Group, which included two engineer special brigades. On 6 June 1944, Hoge's command played a significant part in securing the beachhead at Omaha Beach in Normandy; and he remained in command of the beachhead until July. Hoge was later appointed to command Combat Command B of the 9th Armored Division, which successfully defended St. Vith during the Battle of the Bulge. On 7 March 1945, the leading elements of his command seized the Ludendorff Railroad Bridge over the Rhine River at Remagen. After the war, he commanded the Engineer Center at Fort Belvoir from January 1946 to June 1948.

Activity was intense at the ERTC in early 1941 as the cadre organized headquarters, groups, battalions, and companies. The first group of 250 trainees arrived from the Replacement Center at Fort Lee, Virginia, on 17 March 1941. Thousands of workmen labored at landscaping, paving roads, laying sidewalks, and painting barracks; and the job of training Soldiers as fillers for units being organized for war began without delay. Fort Belvoir's total population expanded rapidly; and by November 1942, 30,260 personnel were assigned to the post. Eventually, the ERTC was to contain a headquarters company, a truck motor company, and three engineer training groups, totaling 10 battalions. Each battalion had four companies, each company had three platoons, and each platoon had

three squads. The basis for the assignment of trainees was 880 men per battalion, or a total capacity of 8,800 in the 10 battalions. Three battalions were composed of African-Americans with white officers and senior noncommissioned officers.

Nearby were sites for demolitions, field fortifications, roads, obstacles, weapons training areas, and fixed and floating bridges. Heavy engineer equipment, machines, and pontoon boats poured in. Between March 1942 and March 1943—

- 120 bridges were constructed.
- 400 timber obstacles were erected.
- 36 antitank ditches were dug.
- More than 200,000 yards of barbed wire were used to construct field fortifications.

For floating bridge training, a 2,000-foot channel was dredged so that six companies could train simultaneously. Accotink Creek, on the west side of the Belvoir peninsula, could accommodate four steel bridges, 16 wooden trestle bridges, and 48 foot bridges at one time. Bailey bridge training followed the final adoption of the bridge in February 1943.

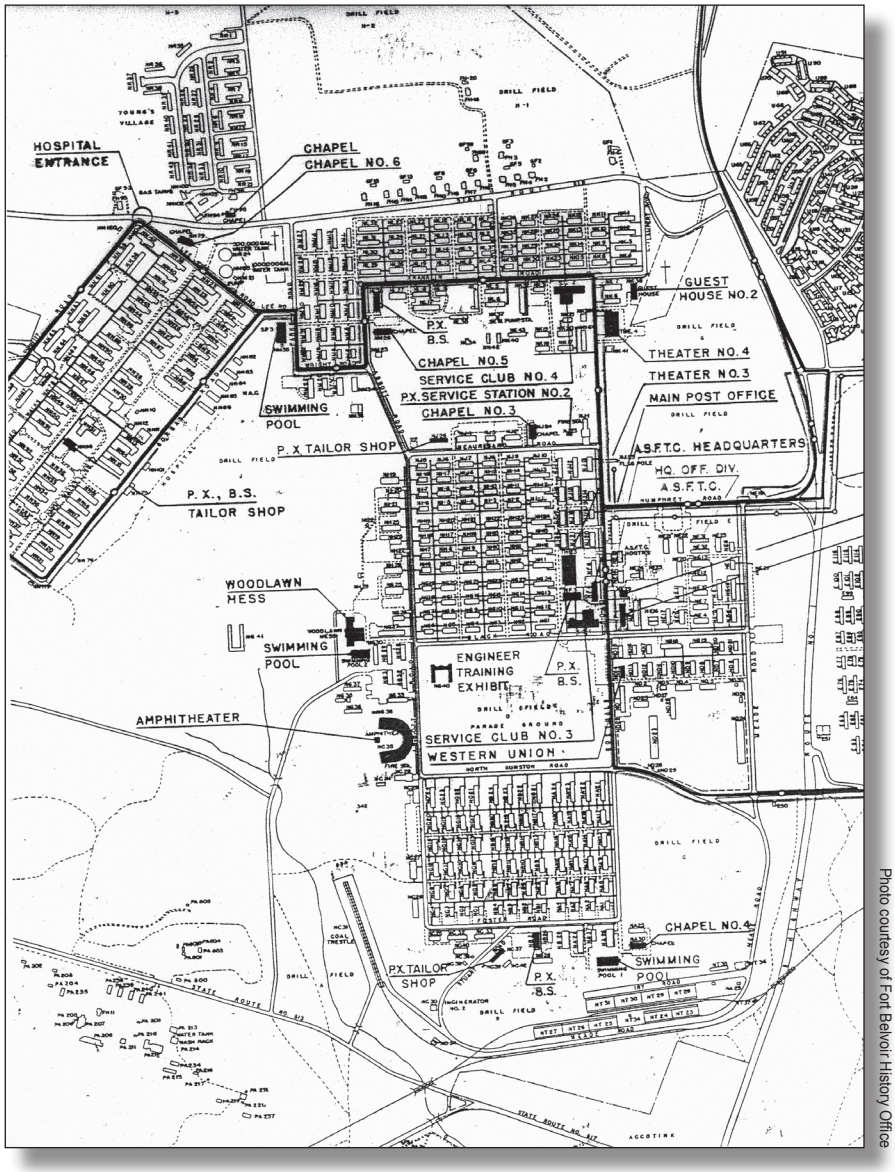

Photo courtesy of Fort Belvoir History Office

The large group of buildings in the center of this 1946 map is the ERTC.

In March 1941, a 12-week basic and advanced training course was organized. The course covered 40 engineer-related subjects. For 7 of the 12 weeks, engineer recruits combined technical with tactical instruction. Trainees learned the elements of reconnaissance; coordination with larger groups; and building fixed and floating bridges, roads, and obstacles. After the attack on Pearl Harbor, the course was shortened to 8 weeks; but in March 1942, it resumed the original length. For many of the Soldiers, this was the only training they received before arriving at a combat theater. By August 1943, the training cycle had been further expanded to 17 weeks and was designed to produce adequately trained specialists and nonspecialists.

By the time Brigadier General Lehman W. Miller assumed command on 2 July 1942, the need for trained specialists had reached emergency levels. It was also necessary to form separate schools to train Soldiers as clerks, equipment operators, carpenters, cooks, and other specialists. The Corps of Engineers actually required 727 occupational specialists per 1,000 troops. Selected trainees, who were closely screened at the reception station, soon began a course involving 4 weeks of basic training and 1 week of studying technical engineer subjects before assignment to a specialist school at Fort Belvoir or a civilian institution. One company from each of seven training battalions became a specialist company, training buglers, truck drivers, messengers, clerks, mess sergeants, cooks, or bakers.

In the spring of 1943, ERTC's emphasis shifted from furnishing fillers for new units to replacing battle casualties. Soldiers normally trained Monday through Friday and a half-day on Saturday. Higher headquarters required that all replacements must "so far as practicable . . . be subjected during training to every sight, sound and sensation of battle." Realistic conditions included live ammunition, land mines, and night bridging exercises. Experiences in North Africa called for more tanks to add realism and to test bridges and obstacles. Instructors also placed greater emphasis on building physical endurance.

Soldiers soon began training at locations off post such as the Blue Ridge Mountains near Luray, Virginia, where

Photo by Marny Malin

The ampitheater, built in 1942 by engineer trainees, is the only surviving ERTC structure.

Soldiers lived and trained for 3 weeks in the field under simulated combat conditions. Later on, this training moved to Fort A.P. Hill, southeast of Fredericksburg, Virginia. This training culminated in a 20-mile road march. Each Soldier carried a rifle, carbine, or pistol; field jacket; helmet; canvas leggings; gas mask; and cartridge belt with a first aid pack, canteen, and light pack.

Spring 1942 had brought a reorganization of the Army. The Services of Supply, a new command, assumed control of the Corps of Engineers except in matters of civil works. In April 1944, all training centers became known as Army Service Training Centers, with the added mission of training for extended field service. A noncommissioned officer leadership course was also developed.

The black lion on the ERTC distinctive unit insignia was from the coat of arms of the Fairfax family, who originally owned the land where Fort Belvoir stands. The family motto on the scroll, "FARE FAC," means "We teach by doing."

After V-J Day ended World War II, the ERTC established a separation point to assist veterans returning to civil life. Some training of replacements continued for occupation forces, but deactivation orders followed in December 1946. During the 5 years of its existence, the ERTC trained 147,000 engineer Soldiers. An additional 22,000 new second lieutenants were trained and commissioned at the post's officer candidate school.

The ERTC remained dormant until the advent of the Korean conflict, when it was reactivated in August 1950 under the command of Brigadier General Albert C. Lieber. The first trainees arrived on 12 September 1950 to begin an intensive 6-week cycle. Later the training program was lengthened to 16 weeks—8 weeks of infantry basic and 8 weeks of advanced engineering training. The ERTC had a headquarters battalion and four engineer training battalions, with at least 18 consecutively numbered companies. Five specialist courses in masonry, carpentry, plumbing, electricity, and air compression operation gave 2,000 trainees skills that they could use in military and civilian careers. In its 3 years of existence in this second iteration, the ERTC trained more than 37,000 Soldiers before closing down again on 31 December 1953.

Mr. Person is the installation historian at Fort Belvoir, Virginia. He retired from the New York State Division of Parole after 30 years of service and is a retired lieutenant colonel from the New York Army National Guard. He holds a master's degree in history from Queens College, City University of New York.