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Throughout the twentieth century, the Philadelphia District's military construction (MILCON) mission encompassed widely varying levels of responsibility, from significant project loads in times of war to periods when the district had no military construction role. These workload fluctuations reflected larger trends in the Corps and the military as a whole, from periods of massive mobilization and the need for an increased military infrastructure to efforts aimed at reducing military spending and downsizing defense installations. The North Atlantic Division responded to the changing needs of the military by balancing its MILCON workload across its stateside districts. Thus, the Philadelphia District's level

of construction support to Army and Air Force bases was largely dependent on other districts' capabilities. When demand was high, Philadelphia often supported more than one installation; in quieter times, its involvement was scaled back. Because of these fluctuations, the district had to exhibit flexibility in mobilizing quickly to respond to military construction needs; it was able to do this, thereby providing efficient and responsive service to the bases it served.

The Philadelphia District took on a significant MILCON role during the Second World War in response to the nation's mobilization efforts. The district participated in barracks construction to house the influx of recruits entering military service and

Facing page: pouring the foundation for a section of the Air Freight Terminal at Dover Air Force Base, Del.

constructed arsenal and ammunition facilities. It completed projects at installations such as Fort Dix, N.J., and Dover Army Airfield, Del. However, on 1 October 1944, the district's MILCON mission was transferred to New York and Baltimore, primarily so that the Philadelphia District could focus on civil works.¹

But the break from the MILCON mission was a brief one. In 1950, as the United States again faced increasing military needs because of the Cold War and the Korean conflict, the district resumed its MILCON role, performing work at McGuire, Dover, and Pittsburgh Air Force Bases. Projects included ordnance depot design and construction, building facilities for the Signal Corps, and conducting rehabilitation work at Fort Dix. After the Korean armistice, the district's work turned toward missile defense sites in the greater Philadelphia area as America braced itself against the threat of nuclear attack. Although the district successfully carried out its MILCON mission throughout the 1950s, by 1960 Corps officials

decided once more to transfer this work to New York and Baltimore.² Again, the transfer was temporary, although it lasted into the 1980s.

Installation Support: Fort Dix and McGuire Air Force Base

In the mid 1980s, Philadelphia District Engineer Lt. Col. Ralph Locurcio, facing a civil works mission that had declined from the 1970s because of the cancellation of projects such as Tocks Island and Trexler, sought to regain the district's MILCON role. In 1985, an opportunity presented itself when the North Atlantic Division was considering which district should construct what amounted to a completely new Army base at Fort Drum, N.Y. At a division meeting, Locurcio proposed transferring New York's responsibility for Fort Dix and McGuire Air Force Base to Philadelphia to allow the New York District to focus its efforts on constructing the new base. The division commander agreed with this suggestion, and in October 1985, after a twenty-five-year hiatus, the district resumed

MILCON operations as primary installation support provider to Dix and McGuire.³

Although the Philadelphia District now had responsibility for some military construction, it was not officially classified as a Corps Military District and thus did not directly receive MILCON funds. Instead, those monies were funneled through the Baltimore District, which had the Military District designation. However, to manage the increased workload, the Philadelphia District created the Military Project Management Branch within its Engineering and Construction Division, and continued to shape its workforce over the next several years as it recommenced construction assignments at these military installations.⁴

Much of the district's initial MILCON work was in operations and maintenance. For example, on an early trip to Fort Dix, Construction Branch Chief Brian Heverin found a sewage treatment center in particular disrepair. The steel frame of the facility was torn, and the pink insulation inside the wall was shredded. As Heverin

contemplated the cause of the building's deterioration, the answer rounded the corner: a goat.⁵ He wondered if this was an inauspicious introduction to the work needed at Fort Dix.

District officials wasted no time consulting with personnel at Dix and McGuire to identify past problems at the bases and determine what the Corps could do better. Resident engineers and contractors working at the bases told district staff that the contractors were concerned about getting paid on time, and the bases wanted projects completed on time. Another issue was the need

An aerial view of Fort Dix, N.J. (now part of Joint Base McGuire-Dix-Lakehurst), with the district-built wastewater treatment facility in the foreground



for better communication. The district responded by establishing a single point of contact and clear lines of accountability, streamlining and documenting business practices, equipping the resident engineer offices with updated telecommunications and information technology, and instituting monthly reports and meetings with the base civil engineers and the directorates of engineering and housing at Dix and McGuire. These innovations improved communications, which, in turn, improved levels of service to the bases.⁶

Over the next several years, the district handled a wide variety of MILCON projects. These included

improvements to existing infrastructure and renovations to family housing and enlisted personnel dormitories, as well as the design and construction of state-of-the-art military facilities, such as a flight simulator addition for McGuire and weapons ranges at Fort Dix. By 1992, the district had twenty-seven active military construction contracts in hand totaling \$61.3 million.⁷

One of the district's most significant and challenging projects in the 1990s was the construction of a tertiary wastewater treatment plant to serve both installations, one of the first such joint facilities, with a programmed project amount of \$49.7 million. Outdated treatment plants at both bases necessitated renovation to handle military, domestic, and industrial wastewater. This project was unusual in the parameters within which it had to be completed—a strict, court-ordered time frame—and the environmental impacts that had to be considered. Because of the installations' failure to meet water quality discharge standards, a court order had been issued

Resource Recovery Facility, Fort Dix





requiring standards to be met, meaning that the district had to work on an expedited timeline. In addition, the project was located in the Pinelands National Reserve in New Jersey, which Congress had designated a natural reserve in 1978. Because of this designation, effluent could not be discharged into surface waters but had to be treated “to achieve *drinking water quality* for total direct recharge to the protected Pinelands Aquifer.”⁸

The project required intensive coordination with the New Jersey Department of Environmental Protection (NJDEP), the Environmental Protection Agency (EPA), and the Pinelands Commission.⁹ During the course

of design and development, the district faced challenges in permit acquisition, compliance requirements, and changes in project effluent flow after the pilot tests had been completed.¹⁰ Although the project underwent significant alterations while in progress, the district succeeded in constructing the new facility at 14 percent below the programmed cost.¹¹

Completed in 1996, the project incorporated innovative technologies to meet the mandates of environmental protection coupled with the demands of treated wastewater flow. The plant featured “one of the first large-scale applications of an innovative biological nutrient removal (BNR) technology, the

Completed in 1996, the Tertiary Wastewater Treatment Facility was built to serve both Fort Dix and McGuire Air Force Base



Construction of the US Army Reserve Center at Fort Dix, N.J., built to accommodate units from other installations being closed under BRAC 2005

Bardenpho advanced activated sludge process, which removes nitrogen and phosphorus to extremely low levels.” Capable of handling 4.6 million gallons daily through “total effluent recharge to the aquifer,” the Fort Dix and McGuire Air Force Base tertiary wastewater treatment facility was “one of the first aquifer recharges of treated military wastewaters,” and was “hailed by both military and government officials as a monumental step toward environmental enhancement.”¹²

Beyond its joint work at Dix and McGuire, the district’s MILCON included significant

projects at each base. For example, at Fort Dix, the district oversaw the modernization and upgrading of base firing ranges. This \$6 million project involved the renovation of firing ranges for pistols, machine guns, grenade launchers, and light antitank weapons, as well as those for tank ranges (using both stationary and moving targets). In addition, the district constructed new tube-launched, optically tracked, wire-guided (TOW) missile ranges.¹³ These projects included building facilities such as weapons racks, classrooms, latrines, and ammo huts, and incorporated the installation of upgraded technology for remoted engagement target system (RETS) ranges.¹³ The firing range project began in 1986 and was scheduled for completion before 1990, but it was delayed in August 1988 after the EPA and the U.S. Fish and Wildlife Service required the creation of new wetlands to replace those lost in construction of the ranges, which was not part of the original scope of work. To meet these requirements, the district created an in-house design for

the mitigation of approximately nineteen acres of wetlands and procured the NJDEP's approval of the proposed site. Final inspections of the Fort Dix range upgrade occurred in the early 1990s.¹⁴

Meanwhile, at McGuire Air Force Base, the district oversaw the construction of a \$3 million addition to an existing C-141 flight simulator training facility for the 438th Military Airlift Wing. The project began in the early 1990s; two years in, the Air Force issued a temporary stop work order. Five months later, the district received a directive to "resume design with revised floor plan," which

increased the size of the facility from 14,000 to 16,800 square feet. The Corps designed the facility to house "2 modern state-of-the art C-141 flight training simulators" as well as offices, a classroom, debriefing rooms, a cockpit procedures trainer, and other amenities. Despite the challenge of adjusting to the changed floor plan, the addition was quickly completed and underwent a final inspection in 1994, after jurisdiction had been transferred back to the New York District (see below).¹⁵

In addition, in the late 1980s and early 1990s, the Philadelphia District managed the design and

McGuire's Flight Simulator Facility



construction of a nearly \$2 million security police complex at McGuire. The two-story facility was designed to house law enforcement, investigation, training, emergency services, and administration sections as well as a 900-square-foot armory. The project initially received only one construction bid in 1989 (30 percent higher than

the government estimate); it was reopened for bids the following year and eventually completed under the initial estimated project amount of \$2.3 million.¹⁶

Other projects at McGuire were geared toward health services facilities. The district managed a contract for the construction of a \$3.6 million, 17,000-square-foot dental clinic that included laboratories, executive offices, and storage rooms. As part of the project, the district demolished the old clinic. Simultaneously, the district served as in-house architect for a new building adjacent to McGuire's whole blood processing laboratory to house freezer units for the storage of whole blood.¹⁷

The Philadelphia District also completed projects at McGuire that involved family housing and barracks renovation. Between 1986 and 1993, the district completed in-house design work for the demolition of nearly three hundred termite-damaged and deteriorated buildings in disrepair. These multimillion dollar contracts involved asbestos removal and modifications to utility and

Military construction projects at McGuire Air Force Base in the 80s and 90s included both demolition (top) and renovation (bottom) of enlisted personnel housing





service lines. In the same period, the district oversaw the renovation of barracks and improvements to unaccompanied enlisted personnel housing and family housing; these included roof repairs, installation of new doors and windows, asbestos abatement, and installation of air-conditioning in family housing units. Finally, in the early 1990s, the district completed the in-house design of a 29,000-square-foot child development center with a capacity of three hundred children for McGuire, scheduled for construction contract award in September 1993.¹⁸ The district's MILCON

work served both soldiers and their families.

However, the resumption of the district's MILCON role at Dix and McGuire was relatively short-lived. On 12 October 1993, the Philadelphia District Military Project Management Branch attended its final in-progress review meeting for the two installations, as Corps officials transferred the bases back to the New York District in 1994. The branch noted in its October monthly report that its association with Fort Dix and McGuire Air Force Base "has been mutually beneficial" and wished the

Child Development Center at McGuire

installations continued success in working with the New York District.¹⁹ The phased transfer began on 1 October 1993, with active contracts transferred to the New York District by 1 October 1994 and a full transfer of contracting duties completed by December of that year. The only exception was the tertiary wastewater treatment facility, which the Philadelphia District would continue to administer “until financial closeout,” including the retention of resident personnel assigned to the project.²⁰ Nearly six years later, the district’s MILCON responsibility would return to Fort Dix through the Base Realignment and Closure Act (discussed below).

Installation Support: Dover Air Force Base

While its MILCON role was diminishing at Dix and McGuire, the district received a new assignment at another familiar base. In 1994, the Corps reassigned military construction at Dover Air Force Base from the Baltimore District to the

Philadelphia District. With this reassignment, the district inherited responsibility for a number of projects in progress at Dover, among them over \$12 million in new construction of airmen’s dormitories and a \$16 million replacement of an underground aircraft hydrant fueling system, as well as new design and construction assignments.²¹ The district applied the experience it had gained through its Dix and McGuire work to take a more active role in the design of new projects at Dover.

One of the first Dover projects the district designed was a \$5.9 million mobility passenger processing center. At 34,900 square feet, the new center was over twice the size of its predecessor and was designed to handle “more than 100,000 active military personnel, retirees, and dependents who pass through Dover AFB each year.”²² At the facility’s groundbreaking ceremony on 30 October 1995, North Atlantic Division Commander Brig. Gen. Milton Hunter commented on the district’s efforts and the partnership it had



Airman dormitories at Dover

A common area inside Dover's dormitories





Dover's then state-of-the-art Passenger Terminal



The award-winning Visiting Officers' Quarters at Dover



created with the state of Delaware and the base:

We prepared a state-of-the-art design in less than 10 months, thanks to a great effort by both the Philadelphia District and the base civil engineer. The State of Delaware worked closely with us to address all the environmental issues, and we benefited from strong congressional support. As a result, this facility will serve our airmen and women, soldiers, sailors and marines well into the 21st century.²³

Just two years later, on 10 October 1997, the terminal opened for business. Dover Air Force Base Commander Col. Felix M. Grieder expressed his thanks to the Corps for constructing, in his words, “the finest Air Force passenger terminal in the United States.”²⁴

For the district, this was just one project among many. By October 1996, Philadelphia was managing “14 projects totaling \$67 million out of its resident office at Dover.”²⁵ One of them was a projected \$6.8 million C-5 aerial delivery facility under in-house design by the district, which would be used by pilots to maintain required drop certifications.

The district was also involved in evaluating proposals for a 64,200-square-foot visiting officers' quarters for temporary duty personnel. This project, estimated at \$12 million and under Philadelphia contract management, received an Air Force award for design excellence in 1998. It opened its doors in February 2000.²⁶

Another MILCON project was notable for its solemn significance: the Charles C. Carson Center for Mortuary Affairs at Dover Air Force Base. As of 2008, the mortuary held numerous distinctions: it “not only serves as our Nation’s sole port mortuary but is the largest mortuary in the DoD [Department of Defense] and the only one located in the continental United States.”²⁷ The Philadelphia District undertook the mission to design and construct the 73,000-square-foot facility to replace the existing mortuary at Dover, which had been in service since 1955. The assignment, “designated an emergency project based on the 9/11 attacks and the continued threat of major terrorist activity,” included demolition of the existing mortuary



The Charles C. Carson Center for Mortuary Affairs at Dover Air Force Base is the Department of Defense's sole stateside mortuary

An interior view of the new facility





Fort Dix Consolidated Club



Timmerman Conference Center, Fort Dix



Ammunition Storage Facility, Fort Dix



Fire/Crash Rescue Station, Dover Air Force Base



Air Freight Terminal, Dover Air Force Base



Dover Air Force Base Consolidated Club

buildings and construction of a \$30 million, state-of-the-art facility. The district broke ground on 8 April 2002, and the mortuary officially opened in October 2004.²⁸ According to the Air Force, the center was responsible “for the return of all Department of Defense (DoD) personnel and dependents from Overseas Contingency Operations (OCO)” and, when requested, “maintains contingency response capabilities in the event of homeland mass fatalities.”²⁹ The mortuary was the first stopping point on United States soil in the return journey of all U.S. service personnel killed in the line of duty in operations abroad.³⁰

The district’s near-decade-long span of work at Dix and McGuire had prepared it for MILCON projects at Dover, and it applied the expertise it gained at those bases to its Dover work. Likewise, as the district moved into the 2000s, it expected to use the experience it had gained at Dover. This experience would prove important as the district dealt with changes produced by the Base Realignment and Closure program.

The Effects of the Base Realignment and Closure (BRAC) Program on MILCON

In October 1988, not long after the district resumed its MILCON activities, Congress enacted the Base Realignment and Closure Act (BRAC). According to the Department of Defense (DoD), this law was intended to allow DoD “to more readily close unneeded bases and realign others to meet its national security requirements.” The act stemmed from the ending of the Cold War in the late 1980s, which left the United States with a downsized military and excess facilities in the United States and in Europe. The law created BRAC commissions to “recommend specific base realignments and closures to the President, who in turn sent the commissions’ recommendations with his approval to the Congress.”³¹ Over the next eighteen years, five rounds of BRAC commissions either closed or realigned numerous bases in the United States. The Philadelphia District’s MILCON work emerged relatively unscathed from BRAC,

but it did experience some effects. The most significant were the closure of a Defense Logistics Agency facility in Philadelphia, the realignment of Fort Dix from an active Army training installation to an Army Reserve facility, and the addition of more MILCON work at Aberdeen Proving Ground in Maryland.

In 1993, the BRAC commission slated the Defense Personnel Support Center (DPSC) in Philadelphia for closure. This was a facility for which the district had provided some support in the preceding years. The center, known throughout the Second World War and up to 1965 as the Philadelphia Quartermaster Depot, was a branch of the Defense Logistics Agency tasked with providing the armed forces with the consumable items necessary for the execution of their duties. In the 1990s, the DPSC was the troop support center, supplying “armed services members with food, clothing, textiles, medicines, medical equipment, and construction supplies and equipment.”³² The Philadelphia District assisted with this mission by managing



both MILCON and operation and maintenance construction for the DPSC. These projects included heating and cooling system maintenance and roof repair as well as contaminant remediation for polychlorinated biphenyl (PCB) transformer removal and DDT clean-up. After BRAC designated the facility for closure, the district prepared to end its support at the center. When the DPSC officially closed in 1999, the district’s work at the facility ended as well.³³

Although BRAC removed some military facilities under the district’s jurisdiction, the program also added MILCON work. For example, because of

Headquarters building for the Defense Personnel Support Center before closure and redevelopment (currently leased by Defense Realty, LLC)

BRAC realignment of Fort Dix's responsibilities, the district once again received jurisdiction over it on 1 May 2000.³⁴ Dix retained its military training mission for Reserve personnel, so its MILCON needs continued.³⁵ Upon receiving responsibility for Fort Dix, the Philadelphia District immediately assumed work on several multimillion dollar projects in progress.

One of these projects was the construction of an approximately \$7 million centralized tactical vehicle wash facility that

incorporated access roads and drive-through prewash basins; another involved taking on contracting responsibilities for a nearly \$10 million ammunition supply point that would include an operations building, inspection building, residue turn-in building, and ten 2,000-square-foot storage magazines. Work on the supply point was delayed when ordnance was discovered at the job site, but six months later the project was back online, and it officially opened on 10 February 2003.³⁶

An armored personnel carrier proceeds through Fort Dix's Tactical Vehicle Wash Facility



The district also completed in-house design work for Dix in the early 2000s, modernizing the base in two distinct ways. Beginning in 2001, the district designed a complete \$13 million renovation of three barracks dating from the 1950s for officers' quarters. The three-story buildings required both interior and exterior renovations, including new windows, doors, interior partition walls, an upgraded dining facility, and connections for computers, telephones, and cable television.³⁷

The second modernization project occurred in 2004 when the district completed an in-house design of an urban assault course. The project reflected the changing nature of America's involvement in modern war, in which operations occur against armed insurgents in primarily populated areas. The course was "based on the most recent designs developed" by the Combined Arms Military Operations in Urban Terrain Task Force. The five-station facility incorporated "an Individual/Team Trainer, Squad/Platoon Trainer, Grenadier Gunnery Trainer,



Fort Dix ammunition storage facility under construction

Renovated barracks at Fort Dix





Fort Dix Annual Training Barracks, renovated by the District for the U.S. Army Reserve Command

Building new family housing units at Dover Air Force Base



Offense/Defense House, and an Underground Trainer.” The course included targets for each station, and although it was not designed as a live-fire range, the Grenadier Gunnery station could support the use of 40mm target practice rounds and 5.5mm service ammunition.

The total cost for the project was estimated at \$2.4 million.³⁸

The BRAC process also brought the Philadelphia District new work at Aberdeen Proving Ground in Maryland. The 2005 BRAC commission recommended the closure of Fort Monmouth, N.J., and the transfer of the Army’s research and development operations for Army Team C4ISR (Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance) to Aberdeen. Because the Baltimore District (which had responsibility for Aberdeen) was already facing an increased MILCON workload under BRAC, Baltimore out-sourced work on the C4ISR center (at one time estimated to be nearly \$500 million) to the Philadelphia District.³⁹ Most of the work involved constructing a 1.6-million-square-foot facility and streamlining Monmouth’s sixty to seventy buildings into thirteen new structures (plus one to be renovated) at Aberdeen. On 17 March 2008, a groundbreaking ceremony heralded the start of Phase I construction on the project.⁴⁰

By 2007, the North Atlantic Division had programmed \$275 million in MILCON work to the Philadelphia District for the next five years.⁴¹ Recognizing the increasing role the district was playing in military construction, the Corps restored its official designation as a Military District in 2009.⁴² With that designation, and with projects such as C4ISR, the Philadelphia District seemed poised to continue its MILCON work in the twenty-first century.

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New facilities under construction at Aberdeen Proving Ground, Md., in 2008 for relocation of the Army's Team C4ISR from Fort Monmouth, N.J.

An artist's rendering of the completed C4ISR complex at Aberdeen Proving Ground






Dover's new Air Traffic Control Tower, 2008

Throughout the twentieth century, the Philadelphia District's MILCON role fluctuated with the changing needs of the military. During periods of massive military build-up, the district was called on to provide military installation support where needed; it completed a number of construction assignments throughout the Northeast. Through the 1970s and the first half of the 1980s, the district had no MILCON mission,

but that hiatus ended in 1985 when new military construction necessitated a shared workload among Corps districts, resulting in the transfer of responsibilities for Fort Dix and McGuire Air Force Base to the Philadelphia District. In its resumed MILCON role, the district took on a wide variety of projects—from facilities for frontline soldiers, such as training courses and firing ranges, to renovation of barracks and family

housing. As the basing requirements of the military changed in the 1990s, so did its military construction needs and, accordingly, the district's MILCON duties. Dix and McGuire were transferred to other districts, but the Philadelphia District acquired work at Dover Air Force Base. The district took the changes in stride, applying lessons learned from its work at Dix and McGuire to Dover. As a result of the BRAC program, some of the district's MILCON work came to an end and the DPSC closed permanently; but the district gained

new work, including responsibility again for Fort Dix and the C4ISR project at Aberdeen Proving Ground. Despite the repeated transfers, the district maintained a strong association with its MILCON customers throughout this period and became known for its responsiveness to the needs of the various bases. This responsiveness allowed the district to complete projects in an efficient and cost-effective manner, earning it recognition for its outstanding work and cementing its military construction role for the future. 

- ¹ Snyder and Guss, *The District*, 142–144.
- ² Snyder and Guss, *The District*, 145, 150, 155.
- ³ Locurcio interview, 6–7; Snyder and Guss, *The District*, 155; Unpublished Morgan Draft District History, 132.
- ⁴ It is not clear why MILCON funds came through the Baltimore District and not the New York District. Paul Gaudini email to Joshua Pollarine, 20 April 2010, copy in possession of the authors.
- ⁵ Brian Heverin, conversation with Paul Sadin, 8 August 2009.
- ⁶ Heverin conversation, 8 August 2009; Edward Voigt, Chief, Public & Legislative Affairs, Philadelphia District, personal communication with Joshua Pollarine, 19 April 2011.
- ⁷ Construction Services Branch, Philadelphia District, “Orientation Briefing for LTC Richard F. Sliwoski, District Commander,” July 1992, Loose Papers, Drawer 3, John Burnes Office, Philadelphia District.
- ⁸ U.S. Army Corps of Engineers, Chief of Engineers, Design and Environmental Awards Program, “Fort Dix/McGuire Air Force Base Tertiary Wastewater Treatment Facility,” 1998, document provided by Paul Gaudini, Philadelphia District [emphasis in original]; Paul Gaudini email to Joshua Pollarine, 1 June 2010, copy in possession of the authors.
- ⁹ U.S. Army Corps of Engineers, Philadelphia District, Military Construction Management Report [hereafter Military Construction Management Report], “In Progress Review: Design Projects, Fort Dix, New Jersey,” 19 October 1988, A-2, File FY 1989 IPR Fort Dix, Drawer Dix IPR, Cabinet 10, files in 7th floor hallway, Philadelphia District; Military Construction Management Report, “In Progress Review: Design Projects, Fort Dix, New Jersey,” September 1988, A-2, File 1988 IPR Fort Dix, *ibid.*; Military Construction Management Report, “In Progress Review: Design Projects, Fort Dix, New Jersey,” October 1990, A-1.2, File FY 1991 IPR Fort Dix, *ibid.*
- ¹⁰ Military Construction Management Report, “In Progress Review: Design Projects, Fort Dix, New Jersey,” October 1989, A-2-1, File FY 1990 IPR Fort Dix, Drawer Dix IPR, Cabinet 10, files in 7th floor hallway, Philadelphia District. Although design started in 1988, a directive altering flow amount to 3.6 million gallons daily was not issued until 10 January 1991. Military Construction Management Report, “In Progress Review: Design Projects, Fort Dix, New Jersey,” 8 October 1991, A-1.1, File FY 1992 IPR Fort Dix, *ibid.*
- ¹¹ U.S. Army Corps of Engineers, Chief of Engineers, Design and Environmental Awards Program, “Fort Dix/McGuire Air Force Base Tertiary Wastewater Treatment Facility,” 1998, document provided by Paul Gaudini, Philadelphia District.
- ¹² U.S. Army Corps of Engineers, Chief of Engineers, Design and Environmental Awards Program, “Fort Dix/McGuire Air Force Base Tertiary Wastewater Treatment Facility,” 1998, document provided by Paul Gaudini, Philadelphia District.
- ¹³ Military Construction Management Report, “In Progress Review: Design Projects, Fort Dix, New Jersey,” October 1989, A-1, File FY 1990 IPR Fort Dix, Drawer Dix IPR, Cabinet 10, files in 7th floor hallway, Philadelphia District; Military Construction Management Report, “STAR Report, Military Construction, Fort Dix, New Jersey,” 23 June 1986, n.p., 33–34, 38, File FY 1986 IPR Ft Dix, Drawer McGuire IPR, Cabinet 8, files in 7th floor hallway, Philadelphia District; S. J. Bucolo, Acting Chief, Planning/Engineering Division, “SUBJECT: MCA PN 227, FY88, Range Upgrade, Fort Dix,” 24 September 1986, File FY 1986 IPR Ft Dix, Drawer McGuire IPR, Cabinet 8, files in 7th floor hallway, Philadelphia District.
- ¹⁴ Military Construction Management Report, “In Progress Review: Design Projects, Fort Dix, New Jersey,” 10 September 1991, C-2, File FY 1991 IPR Fort Dix, Drawer Dix IPR, Cabinet 10, files in 7th floor hallway, Philadelphia District; see also Military Construction Management Report, “In Progress Review: Design Projects, Fort Dix, New Jersey,” 19 October 1988, A-1, File FY 1989 IPR Fort Dix, Drawer Dix IPR, Cabinet 10, files in 7th floor hallway, Philadelphia District; “Fort Dix Military Construction,” 13 July 1992, 1, Loose Papers, Drawer 3, John Burnes Office, Philadelphia District.
- ¹⁵ Military Construction Management Report, “In Progress Review: Design Projects, BCE McGuire Air Force Base, New Jersey,” 9 October 1990, 4, File FY 1991 IPR McGuire AFB, Drawer McGuire IPR, Cabinet 8, files in 7th floor hallway, Philadelphia District; U.S. Army Corps of Engineers, Philadelphia District, Fort Dix/McGuire Resident Office, “In Progress Review, Military Construction Projects, Management Reports, McGuire A.F.B., New Jersey,” 12 October 1994, n.p., File FY 94 IPR McGuire, *ibid.*
- ¹⁶ Military Construction Management Report, “In Progress Review: Design Projects, BCE McGuire Air Force Base, New Jersey,” 11 October 1988, 3, File FY 1989 IPR McGuire AFB, Drawer McGuire IPR, Cabinet 8, files in 7th floor hallway, Philadelphia District; U.S. Army Corps of Engineers, Philadelphia District, Fort Dix/McGuire Resident Office, “In Progress Review, Military Construction Projects, Management Reports, McGuire A.F.B., New Jersey,” 12 October 1993, 5, File FY 94 IPR McGuire, *ibid.*; Military Construction Management Report, “In Progress Review: Design Projects, BCE McGuire Air Force Base, New Jersey,” 4 October 1989, 2, File FY 1990 IPR McGuire AFB, *ibid.*; Military Construction Management Report, “In Progress Review: Design Projects, BCE McGuire Air Force Base, New Jersey,” 9 October 1990, 2, File FY 1991 IPR McGuire AFB, *ibid.*
- ¹⁷ Military Construction Management Report, “In Progress Review: Design Projects, BCE McGuire Air Force Base, New Jersey,” 4 October 1989, n.p., File FY 1990 IPR McGuire AFB, Drawer McGuire IPR, Cabinet 8, files in 7th floor hallway, Philadelphia District.
- ¹⁸ Military Construction Management Report, “In Progress Review: Design Projects, Fort Dix, New Jersey,” September 1986, F-1, File FY 1986 IPR Ft Dix, Drawer McGuire IPR, Cabinet 8, files in 7th floor hallway, Philadelphia District; Military Construction Management Report, “In Progress Review: Design Projects, Fort Dix, New Jersey,” 10 September 1991, D-2, File FY 1991 IPR Fort Dix, Drawer Dix IPR, Cabinet 10, files in 7th floor hallway, Philadelphia District; Military Construction Management Report, “In Progress Review: Design Projects, Fort Dix, New Jersey,” September 1988, F-1, File 1988 IPR Fort Dix, Drawer Dix IPR, Cabinet 10, files in 7th floor hallway, Philadelphia District; Military Construction Management Report, “STAR Report, Military Construction, Fort Dix, New Jersey,” 23 June 1986, n.p., File FY 1986 IPR Ft Dix, Drawer McGuire IPR, Cabinet 8, files in 7th floor hallway, Philadelphia District; Military Construction Management Report, “In Progress Review: Design Projects, Fort Dix, New Jersey,” 12 October 1993, D-1, File FY 1993 IPR Fort Dix, Drawer Dix IPR, Cabinet 10, files in 7th floor hallway, Philadelphia District; Military Construction Management Report, “In Progress Review: Design Projects, Fort Dix, New Jersey,” October 1990, 2, File FY 1991 IPR Fort Dix, Drawer Dix IPR, Cabinet 10, files in 7th floor hallway, Philadelphia District; Military Construction Management Report, “In Progress Review: Design Projects, BCE McGuire Air Force Base, New Jersey,” 14 September 1993, 2, File FY 1993 IPR McGuire AFB, Drawer McGuire IPR, Cabinet 8, files in 7th floor hallway, Philadelphia District.
- ¹⁹ Military Construction Management Report, “In Progress Review: Design Projects, Fort Dix, New Jersey,” 12 October 1993, forward, File FY 1993 IPR Fort Dix, Drawer Dix IPR, Cabinet 10, files in 7th floor hallway, Philadelphia District.
- ²⁰ Draft, Memorandum of Understanding between New York District and Philadelphia District, North Atlantic Division, for Transfer of Military Programs Work, Fort Dix, N.J. and McGuire Air Force Base, N.J., 3 September 1993, 3, 4–6, File Military Transfer Aug-Sep 93, Drawer 2, John Burnes Office, Philadelphia District.
- ²¹ Military Construction Management Report, “In Progress Review: Construction Projects, BCE Dover Air Force Base, Delaware,” 6 September 1994, n.p., File FY 1994 IPR Dover AFB, DE, Drawer Dover IPR, Cabinet 10, files in 7th floor hallway, Philadelphia District; Military Construction Management Report, “In Progress Review: Design Projects, BCE Dover Air Force Base, Delaware,” 19 October 1994, 11, File FY 1994 IPR Dover AFB, DE, *ibid.*
- ²² “The Project Place: Getting the Job Done at Dover AFB,” *The Observer* (October 1996): 8; Military Construction Management Report, “In Progress Review: Design Projects, BCE Dover Air Force Base, Delaware,” 19 October 1994, 9, File FY 1994 IPR Dover AFB, DE, Drawer Dover IPR, Cabinet 10, files in 7th floor hallway, Philadelphia District.
- ²³ As quoted in “Work Begins on Passenger Terminal for Dover AFB,” *The Observer* (December 1995): 15.
- ²⁴ “Passenger Terminal, Dorms Completed at Dover,” *The Observer* (September/October 1997): 4.

- ²⁵ "The Project Place: Getting the Job Done at Dover AFB," 8.
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