# FAR EAST DISTRICT 2021 YEAR IN REVIEW US ARMY CORPS OF ENGINEERS



US Army Corps of Engineers® Far East District



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### UNCLASSIFIED

# **2021 YEAR IN REVIEW**

#### An Annual FED Publication

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of Engineers®

- 03 Korea Relocation Program Update
- 04 Commander's Letter
- 06 Programs and Project Management Division
- 07 Construction Division
- 08 Central Resident Office Projects
- 14 Humphreys Area Office Projects
- Family Housing Resident Office
- Pyeongtaek Resident Office
- Security Operations Resident Office
- 29 Kunsan Resident Office Projects
- 32 Southern Resident Office Projects
- 39 Engineering Division
- 43 Contracting Division
- 43 Office of Counsel
- 44 Information Management Office

46 List of Acronyms

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## **FROM THE EDITOR**

Thank you for entrusting the Public Affairs Office with sharing the Far East District's story. In the second year of the pandemic, FED learned, evolved, and continued to deliver engineering solutions in the Republic of Korea. PAO has worked diligently to compile and present the many FED projects, feats, and achievements of the past year. It is PAO's honor to share this collection of FED's accomplishments in the 2021 Year in Review.



Susan Y. Lee Chief of Public Affairs. Far East District

District Commander | Col. Christopher W. Crary Public Affairs Officer | Susan Y. Lee US Army Corps Public Affairs Specialist | Kim Chong-yun Far East District Public Affairs Specialist | Sameria Zavala Public Affairs Specialist | An Yo-han





The number of buildings being demolished

More than 40 miles of water piping has been installed and tested in the new land. Another 40 miles of new roads will be built. Total miles of cabling installed is

## From the Far East District Commander **To Our Valued Stakeholders**



**Christopher W. Crarv** Colonel, U.S. Army Commanding

The Year-in-Review is provided to you, our customers and stakeholders, to highlight the many significant projects that began, continue, or were completed during the past year.

During 2021, the District remained productive and continued delivering engineering solutions as a result of the strong teamwork with our many stakeholders, alliance partners, and industry firms. We carry out our programs successfully due to the support of and relationships with our partners external to the District. The achievements presented in this Year-In-Review are shared accomplishments. I want to thank all our teammates for their hard work, collaboration, and partnership throughout the year.

Throughout the peninsula, our team of dedicated professionals continued to Build Strong and meet the construction and engineering needs of U.S. Forces Korea (USFK) and the Alliance.

As of March 2022, approximately 95 percent of the Yongsan Relocation Plan (YRP) and 96 percent of the Land Partnership Plan (LPP) are complete, all part of the \$10.7 billion dollar transformation and relocation program in the Republic of Korea.

For Fiscal Year 2021, Contracting Division awarded a total of 573 actions totaling \$175 million.

Our active project list details the scope of work the District is responsible for: ranging from the massive military construction that continues at U.S. Army Garrison (USAG) Humphreys, to upgrades at Osan and Kunsan Air Bases, to the multitude of projects within American and Korean installations throughout the peninsula.

At Osan Air Base, the Central Resident Office (CRO) oversaw several readiness projects, supporting contingency facilities and upgrading aircraft hangar fire-protection systems. During the spring, CRO completed the Osan AB main runway, a five-year project involving five phases. The upgrades increase the readiness and warfighting capabilities the U.S. Seventh Air Force (7AF). In January 2022, CRO completed the Air Freight Terminal and accompanying Vehicle Maintenance and Storage Facility. Construction on the Main Gate is nearing completion and construction of the new Chapel is in progress. In early 2022, a planning charette for a U.S. Space Force (USSF) Headquarters Korea was completed. This is the first USSF project for the District and a milestone for the U.S. military's newest service branch.

In Area III, the Humphreys Area Office (HAO) made significant progress on numerous projects in support of YRP and LPP. Additionally, in Fiscal Year (FY) 2021, 25 task orders were awarded, and eight task orders were completed, totaling \$15 million in Area III.

The Pyeongtaek Resident Office (PRO) successfully turned over the 3rd Military Intelligence aircraft maintenance hangar complex. This hangar is the largest aircraft maintenance hangar in the DoD inventory. The Army Regional Correctional Facility is underway with an anticipated completion in 2023. This project experienced delays due to shipping disruptions of offshore materials. Two new projects include a new two-story aviation hangar to support attack and reconnaissance aircraft systems, which began construction in January 2022, and a satellite communications facility, which was awarded at the end of December 2021.

In July 2021, the 30 percent redesign of a new Korea Air Operations and Intelligence Center (KAOIC)

facility was completed. The 60 percent design is in forward operating headquarters facility for the III Maprogress. The project will provide an integrated joint rine Expeditionary Force. In May, a much-anticipated and coalition Command and Control center for 7AF and Defense Logistics Agency warehouse was turned over, replacing warehouses that were built in the 1960s. In Republic of Korea Air Force Operations Command the summer, the District broke ground on a new Camp (AFOC). The Battle Command Training Center was Walker Lodge, which is on track for completion in 2023. completed and turned over in November. This project was significant in that it was the first U.S.-awarded Construction on the indoor training pool, Camp Walksecured facility that was completed jointly by the U.S. er access control point, and the last of four Camp and ROK governments. Walker Army Family Housing Towers is underway.

The Family Housing Resident Office (FHRO) completed several significant upgrades and support projects throughout the year. FHRO started the year with turnover of the USFK Commanding General's Housing. Construction on two of four Unaccompanied Enlisted barracks and three of six Family Housing towers are well underway. Two barracks will be complete in the summer and three Family Housing towers are currently being outfitted with furniture. The Family Pet Care Center was completed in December, ahead of the holidays. The pet care center, roundabouts and expanded parking spaces, and family housing facilities are a few of several facility and installation upgrades that represent USFK and the District's commitment to providing world-class facilities and making Korea the assignment of choice.

At Kunsan Air Base, the Kunsan Resident Office (KRO) made significant progress on the Aircraft Flow-Through Fuel System, completing construction of two fuel storage tanks, the pump houses, and filter building. This project upgrades readiness for the Wolf Pack by enabling hot-pit refueling while aircraft are parked in covered flow-through shelters.

During 2021, KRO also began the groundwork for the second 3 phases of a 9-phase plan to upgrade Kunsan's hardened aircraft maintenance shelters and provide safe working conditions for Airmen maintaining weapons systems.

In Area IV, the Southern Resident Office (SRO) stayed busy with maintenance, repair, and upgrade projects in Daegu, Camp Carroll, Camp Walker, and Chinhae. In April, SRO completed construction on a four-story Operations Center. This facility serves as a



Finally, we rounded out February 2022 with a special visit from USACE Commanding General and 55th Chief of Engineers, LTG Scott Spellmon. He traveled throughout the peninsula to several project sites within the District's robust portfolio and witnessed firsthand the complexity and magnitude of the work FED does to secure our Nation and Allies.

As in years past, the Far East District continues to support annual joint and combined forces training events on the peninsula. We look forward to enhancing our coordination with the Ministry of National Defense (MND) and the Defense Installation Agency (DIA), to provide ready and capable field engineering forces, enabling CFC and USFK to complete their missions, if called upon.

2021 presented challenges due to the evolving pandemic; however, the challenges improved our flexibility and resourcefulness. The program we execute is unique to others within USACE, and it demands the very best of our initiative, innovation, partnership, and hard work. The outlook for 2022 is bright. Our goals remain resolute. We will continue to award, complete, and deliver critical projects to support the warfighter, their Families, and our Korean Allies.





# Programs & Project

FLOW

2021 was a challenging year all-around. Programs and Project Management Division (PPMD) managed through COVID-related hurdles from restrictions of movement, quarantines, and base access limitations to restrictions on dining in at establishments and shopping off installation. Through the pandemic environment, PPMD continued to deliver our services, expertly maneuvering through the challenges we encountered.

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PRESTRESSED CONCRETE TRUMINION GIRDER

The past year brought several PPMD leadership changes. Richard Byrd was promoted from Far East District Deputy District Engineer for Programs and Project Management (DPM) to the Regional Business Director (SES) for USACE's Southwestern Division located in Dallas, Texas. As Byrd transitioned to Dallas, Texas, Chad McLeod assumed leadership of PPMD and currently serves as DPM. McLeod previously served as Chief of Construction at FED. In addition to internal FED promotions, two FED employees were promoted to DPM positions in other districts; Jennifer Moore and Nik Fernandez accepted DPM roles at the Honolulu District and Albuquerque District, respectively.

PPMD has also saw four out of its five Branches change leadership during CY21. Chris Brincefield took on the Chief's role of the Security Operations Branch. Following the departure of Jennifer Moore to Hawaii, Larry Grant moved into the Air Force Branch Chief role. Daniel Gilstrap backfilled Tom Burton, former Chief of the Installation Support Branch. And finally, Daniel Foltz transferred from his former role as Deputy Chief of Construction to become the Chief of the Programs Support Branch, backfilling the role that Fernandez previously filled.

Despite leadership changes and the COVID operating environment, PPMD and FED efforts resulted in exceptional performance. Approximately \$2 billion in project efforts spread across 127 projects were executed. These actions touched all areas of the project lifecycle from initiation, execution and control to closeout. The project types also range across the spectrum from MILCON, Sustainment, Restoration and Modernization (SRM), Host Nation, and Support for Others.

A few of the 2021 PPMD Highlights are:

- Relocation of K2/Daegu Airport initial requirements package development (Air Force Branch)
- Elevator Study (Installation Support Branch)
- Award of a \$30 million Design Build Multiple Award Task Order Contract (MATOC) (Installation Support Branch)
- Security Operations Branch Transfer to Baltimore District complete (Security Operations Branch)
- Special Measures Agreement (SMA) Challenges. Army, Navy and Marine Branch, led FED through the challenges the SMA imparted on FED.
- 5 PPMD teammates became PROSPECT Instructors (Byrd, Fernandez, Gilstrap, Grant, Banks)
- Extensive District-wide Program Analyst Training (Programs) Support Branch)

Ultimately, PPMD continued to deliver programs and projects to support our warfighters and their Families. The amount of work accomplished in 2021 is a testament to everyone in PPMD on their Project Delivery Business Process (PDBP) acumen, their flexibility and agility in the business space, as well as their approach to the ad-hoc telework requirements, both internal and external to PPMD. As we look to the future, this train does not project to slow down. The new SMA is in place and FED is maneuvering through a significant uptick in host nation project efforts. USAG Humphreys is starting to see more SRM-type work. The Korea Air Operations & Intelligence Center (KAOIC) is progressing through design. And Yongsan Residual is in its infancy in the project lifecycle and is expected to take off as a priority for the District.

## **Construction Services Branch**

The Construction Services Branch (CSB) consists of a Contract Administration Team (CAT) and a Budget and Accounting Team (BAT).

CSB supported Area/Resident Offices and the Contracting Division (CD) with construction contract execution and administration. It also supported CD by preparing and managing the budget and construction work placement and expenses.

In 2021, the CAT negotiated 33 Job Order Contract (JOC) task orders with a value of approximately \$22 million, processed more than 286 contract changes for CD, and reviewed execution of contract modifications with a value of approximately \$53.9 million. The CAT monitored and managed execution of work placement in the amount of \$560.6 million out of the scheduled work placeCorps of Engineers goals.

The BAT prepared, executed, and monitored CD's budget and laborcharging. Construction Division executed \$20,466,000, equating to 99.9% of the scheduled budget amount of \$20,484,000. The rate of direct charging for CD was 88.04%, which was in line with the target for the District.

Mr. Yi Tong-hyon, Civil Engineer was temporarily assigned to Southern

## **Quality Assurance Branch**

The Quality Assurance Branch (OAB) provides robust support for Construction Division by leading a diverse team of 25 employees in all engineering disciplines. One of the core competencies of QAB is providing technical support and assistance to Area and Resident Offices. QAB engineers are experts in their respective fields, and collectively, they enable QAB to fill gaps in knowledge at Resident Offices and leverage construction expertise across all field offices.

Submittal and shop drawing review is one of the main capacities by which QAB supports field offices. Although a routine duty for anyone involved in construction, submittal review is crucial to ensure only approved, high-quality construction materials are used on the facilities that we construct. During construction, one of the main ways of ensuring a high standard of construction quality is performing scheduled on-site inspections of construction. These comprise of on-site inspections, total building commissioning, and Testing, Adjusting, and Balancing (TAB). In addition, before construction begins, QAB performs Biddability, Constructability, Operability, Environmental, and Sustainability (BCOES) reviews during the design phase to minimize project cost and schedule growth by ensuring potential problems are caught early. In 2021, QAB was instrumental in bringing multiple challenging projects to completion, including the Battle Command Training Center Secure Use Facility, Command General Officer's House, and 3rd Military Intelligence (MI) Aircraft Mainte-



ment of \$585.3 million. The Project Scheduler performed review of 12 initial project schedules and conducted seven time-impact analyses. The CAT performed 94 biddability reviews. Additionally, the CAT processed 57 evaluations under Contractor Performance Appraisal Report System (CPARS), and processed 44 contract close-outs in a timely manner, meeting U.S. Army Resident Office, to support Construction Management of several projects from Nov. 3 to Dec. 3, 2021.

The Construction Services Branch conducted Construction Management Evaluations for the Central Resident Office in November 2020, and for the Pyeongtaek Resident Office in January 2021, to improve construction management for the field offices. The CAT supported the Pacific Ocean Division Design and Construction Evaluation (DCE) Team during their evaluation in April 2021. CSB also provided training events to field offices for Project Scheduling. Additionally, CSB provided guidance and instruction to field offices within CD related to construction contract administration, and budget and accounting areas.

nance Hangar Complex.

OAB is tasked with the management and instruction of the Construction Quality Management for Contractors (CQM-C) Training. All quality control managers who perform construction work in the Far East District are required to take CQM-C training. Despite the challenges of conducting in-person gatherings due to COVID-19, each CQM-C conducted in 2021 had a full audience.

Throughout 2021, QAB continued to demonstrate the versatility of its diverse team of engineers and the ability to adapt to changes in mission, challenges, and construction workload while remaining a pillar of support for the Construction Division.



#### **ROKFC-in-Kind**, Construct Main Runway

This ROKFC-in-Kind project was awarded on 26 September 2016. The \$75 million project involved five phases through a period of five years. It included overlay of the existing 9,000-foot Runway, 09R-27L, with approximately 4 inches of asphalt bond breaker, 16-18-inch-thick Portland Cement Concrete (PCC) / concrete, new overruns, new taxiway transitions, paved shoulders, pavement markings, arresting barriers, airfield lighting, and necessary grading. Additionally, this project involved over 6,000 linear feet of ductwork, 62,000 cubic meters of concrete,

and 61,000 tons of asphalt paving. The project was completed in April 2021 when the final two phases were completed and turned over to the base in May 2021.

Phases 1 and 2 of this project began with the construction of two temporary taxiways located at each end of the runway to provide aircraft with access to the outside runway during construction. Phase 3 of construction of the Main Runway, began in late December 2017, was completed two years later, and was partially used as an active taxiway. The final two phases of work were completed on April 27, 2021.

#### **ROKFC-in-Kind**, Air Freight **Terminal, Osan Air Base**

This ROKFC-in-Kind project was awarded on Sept. 29, 2017. This \$35 million project provided a cargo terminal and administration building, vehicle maintenance and storage building, fire protection and alarm systems, energy monitoring control system (EMCS) connection, and building information system. This project included demolition of existing buildings, site development, utilities and connections, lighting, Portland Cement Concrete (PCC) paving, parking, walks, curbs and gutters, storm drainage, information system, landscaping, and signage.



New 09R-27L Main Runway

Phase I, Airfreight terminal, was completed in August 2020 and Phase II, Vehicle Maintenance & Storage Facility (VMF). was completed in January 2022. The project was completed in January 2022 and turned over to the base in February 2022.

#### **ROKFC-in-Kind.** Construct **Munitions Storage Area** (Alpha Site)

This ROKFC-in-Kind project was awarded on Sept. 30, 2016. This \$150 million project was to construct 46 Large and nine Small Munitions Storage Magazines (MSMs), Supporting facilities to include inert storage facilities, ISO pads, entry control, and defense fighting position facilities.

In August 2021, 5 years of construction for the Alpha Munitions project was completed and turned over to the base. This project sets the conditions for the \$225 million Delta Munitions project. The Delta Munitions project is scheduled for award in summer of CY22 with a construction completion in CY25. The completion of these projects will enhance the warfighting capabilities of 7th Air Force.

#### **ROKFC-in-Kind**, Main Gate **Entry Control Facility**

This ROKFC-in-Kind project was awarded on January 22, 2019, with con-



During this calendar year, the contractor completed the remaining portion of the retaining walls, AC road paving near the elementary school and widened the main road near the gas station, the main gate building, the vehicle inspection facility and canopies, and the new





Large Munition Storage Magazines Facilities

struction completion scheduled for April 2022. This \$12.5 million project is to construct access control facilities at the Osan Air Base (AB) Main Gate, which includes a visitor control center, vehicle inspection canopies with guard booths, gate house, and an overwatch building. This project will substantially improve the security of the base with an access control system and enhance antiterrorism force protection that will ensure the safety and deterrence of security threats to Airmen stationed at Osan Air Base.



**Rendering of Munition Storage Area** (Alpha Site)

Visitor Control Center (VCC). The new VCC was turned over to the base in January 2022. The construction is currently 96 percent complete.

Air Freight Terminal Vehicle Maintenance Facility

#### **ROKFC-in-Kind**, Aircraft **Fuel Maintenance Dock**

This ROKFC-in-Kind project was awarded in September 2016. This \$16 million project will be the primary fuel system maintenance dock at Osan Air Base. The current facilities are inadequate causing a maintenance backlog of F-16 and A-10 aircraft. The new facility will be larger and better equipped to ensure fighter aircraft are able to receive critical maintenance. The facility includes safety systems such as vapor detection, splinter and chemical protection, and better fire protection to ensure that the aircraft and crews work in a safe environment. The contractor was scheduled to complete the project in July 2020. Due to COVID-19 and various factors, the project was delayed significantly. The facility was partially turned over and occupied in February 2022. The required testing and commissioning of Fire Suppression System by CONUS personnel will be scheduled after the contractor completes correction of deficiencies.

#### **ROKFC-in-Kind**, 5th **Reconnaissance Squadron Operations**

The construction contract, 2019UMMA747 for this ROKFC-in-Kind project was awarded in October 2019. This \$8.5 million project will be a shelter for a U2 aircraft. Minor maintenance may occur in this facility at Osan Air Base. The project includes all utilities, site work, pavements, airfield lighting, heating, ventilation, emergency generator, air conditioning (HVAC), electrical system, communications, fire suppression system, security fence with intrusion detection system (IDS), sewer lift station, bike rack facility, storm drainage system repairs/upgrade and demolition. The project was awarded in October 2019 but construction did not start until July 2020 due to delayed site release. Structural steel work, wall and roof panel work were completed in CY21. The construction is 58 percent complete. Re-design of fire suppression systems (No High-Expansion foam system) is ongoing per the latest AF directive.



**Osan Main Gate Entry Control Facility** 



Aircraft Fuel System Maintenance Dock Exterior



**5th Reconnaissance Squadron Hangar** 



**Backside View of Chapel Center** 

#### YRP, Construct Chapel Center

This Chapel project was awarded on Nov. 11, 2020. The current project value is \$12.1 million. Completion is scheduled for May 9, 2023. The site of the new Chapel is the site of the existing Chapel, Chapel Annex. The new 24,154



square foot facility includes a 300-seat Worship Center, utilizing individual auditorium style fixed seats on a sloped floor, a Choir Rehearsal room, a Religious Education wing with classrooms and a Resource Center with Religious Education Director offices. It will also feature a Fellowship Hall to serve as overflow for large capacity services/

functions and for community activities to accommodate approximately 150 people serviced by a kitchen and pantry, a Blessed Sacrament, a Multi-Faith Worship Center with ablution/purification rooms. The Administrative Area includes Chaplain offices, a conference room, other administrative support offices, and waiting area. The facility includes other support spaces such as public restrooms, a coat room, storage and mechanical/ electrical and communications rooms.

The project is currently 15 percent complete. The contractor has completed the structural foundation, concrete wall placement, and installed the majority of structural steel members this year.

#### **SRM**, Repair Fire Protection in Hangar B1731 – Air Force **O&M** Project

This \$5.9 million Hangar project at Osan Air Base was awarded in September 2018. This project includes the following principal work: replacement of office areas and latrine, including structures; installation of a new mechanical room; and replacement of HVAC &

Aircraft Hangar B1731



plumbing systems. This project also provides necessary repairs and includes selective demolition of components within the facility. The main component of the project is installation of the Hi-Expansion Foam Fire Protection System. The project began in September 2018 and was completed in May of 2021.

#### SRM, Repair Fire Protection System in Hangar B1173 – Air Force O&M Project

This \$4.3 million hangar B1173 project at Osan Air Base (AB)was awarded in September 2020 as one of multiple construction contracts spread across the entire Pacific region to upgrade the fire protection systems of U.S. Air Force hangars. This aircraft maintenance hangar can fit up to two aircraft. Hangar B1173 is going to be one of first two aircraft hangars at Osan AB that will not have a High-Expansion (Hi-Ex) Foam system. Instead of the Hi-Ex foam

#### Aircraft Hangar B11731

system, it will incorporate a wet-pipe sprinkler system (extra hazard) and infrared fire-detection system. In addition to updating the fire-suppression systems, the project also upgrades the electrical, architectural, structural, and HVAC systems in the 40-year-old hangar. Project is scheduled to be complete in December 2022.

#### Air Force Job Order Contract (JOC)

In 2021, work was completed on two task orders that were awarded in the previous and current fiscal years. Total contract amount for completed task orders is \$1.38 million. The Osan Air Base airfield pavement repair, with a contract amount of \$1.4 million, is ongoing.

1. Complete: W912UM20F0155, Excavation and Waterproofing Below Grade Wall at Osan Hospital. (Contract amount: \$380,305)

2. Complete: W912UM20F0159,

Replace Water Storage Tanks Suwon Air Base. (Contract amount: \$1,001,180)

3. Ongoing: W912UM17D0007, F0002, Repair Airfield Pavement Osan Air Base. (Contract amount: \$1,410,721)

This year, the following four JOC projects at Osan and Suwon Air Bases were awarded for a total contract amount of \$ 2.88 million.

1. W912UM21F0112, Replace Existing Exterior Lights with New LED Lights, Suwon Air Base. (Contract amount: \$244,836)

2. W912UM21F0091, Repair Intel Squadron Operations, B321 Osan Air Base. (Contract amount: \$682,875)

3. W912UM21F0109, Repair Military Family House Infrastructure, Osan Air Base. (Contract amount: \$429,787)

4. W912UM21F0093, Replace Instrument Landing System, Inside Runway, Osan Air Base. (Contract amount: \$1,519,263)

#### ROKFC-in-Kind, Contingency Operations Center and Barracks, Icheon

The construction contract for this ROKFC-in-Kind project was awarded in October 2018. This \$13 million project provided a subterranean operations center and several features to meet operational requirements. The barracks portion of the facility will consist of open bays designed to accommodate personnel, hygiene facilities, and a lounge area on each floor. The facility is equipped with several safety features. The project was completed in May 2021 and turned over to the base in July 2021.

#### ROKFC-in-Kind, Repair Collective Protective System, CP TANGO

The repair of the Collective Protective System at Command Post (CP) TANGO was awarded on September 29, 2017, as a ROKFC-in-Kind project for a total of \$14.1 million. The Collective Protective System (CPS) repairs upgraded the CPS at CP TANGO. The repair work included the replacement of the existing M49 filter system to M98 filter system. Like the M49 filters, the M98 filters will remove toxic chemical and biological warfare agents in gaseous (vapor) and aerosol (particulate) forms from the airstream.

The project was successfully completed on Aug. 3, 2021. The final inspections included third-party certification inspection of the CPS by the USACE Protective Design Center and the Army's Chemical Biological Center. CP TANGO now has a certified CPS system that will enable the contingency war fighting components the ability to fight tonight in a chemical, nuclear, or biological environment.

#### **ROKFC-in-Kind, Operations** Facility, K-16

The construction contract for this ROKFC In-Kind project was awarded on October 10, 2018, with construction completion scheduled for December 18, 2020. Due to various modifications the Replace Water Storage project completion was extended to April 2022. This \$16.2 million project is to renovate and upgrade the existing B-606 facility at K-16 Airfield. The work includes heating, ventilation, and air conditioning for office areas, interior electrical, plumbing, partitions, roof, structural elements, insulation, fire protection, alarm system, and architectural modifications as necessary. Work also includes upgrades to operational, logistical, and security requirements. The project has been broken into two phases, A & B. The project also includes a requirement to keep either phase operational during the



Repair Airfield Pavement, Osan Air Base



Replace Water Storage Tanks, Suwon Air Base

construction.

The project is currently 91 percent complete. During 2021, phase A has was completed and is currently in use. Phase B began in April 2021. During construction, several unanticipated site conditions were encountered. In addition to the repair of these issues, the customer also increased the scope of work. Despite adding more than \$2 million in additional scope of work, phase B is substantially complete and will undergo testing and commission in the first quarter of CY 2022.



## **Family Housing Resident Office**

#### AFH050.S2 YRP, Command General Officer's AFH090 MILCON, Army Family Housing Housing

The AFH050 officer housing community area was completed in May 2018. Constructed adjacent to those housing units is the USFK Command General Officer's house. The unit serves as a residence and as a functional workspace for the Commander and staff. The project was awarded in August 2019 and completed in February 2021.

This project consists of three high-rise, multi-story family housing apartment towers. It will accommodate a total of 216 family dwelling units for Senior Non-Commissioned Officers (E7-E8) and their families (144 three-bedroom units, 54 fourbedroom units, and 18 five-bedroom units). The project includes ancillary facilities such as "tot lots," multi-age playgrounds, and underground parking to accommodate 250 vehicles. The project



AFH090 MILCON, Army Family Housing

is located next to similar family housing towers on USAG Humphreys. The project was awarded to contractor Yojin Construction and Engineering Co., Ltd. on Feb. 26, 2019. The contractor completed the structural concrete work for all three towers' superstructure and is currently working on interior mechanical, electrical, and plumbing. The project is scheduled for completion in February 2023 and is currently 73 percent complete. The total cost of the project to date is approximately \$136 million.

#### **AFH100 MILCON, Family Housing New** Construction

The project consists of three 12-story family housing apartment towers to accommodate a total of 216 family dwelling units (144 three-bedroom units [1,800 square feet], 54 fourbedroom units [2,100 square feet], and 18 five-bedroom units [2,500 square feet]). Ancillary facilities include two tot lots (for **AFH100 MILCON, Family Housing New Construction** ages 2-5 years), a multi-age playground (for ages 5-12 years), pavilions/gazebos/BBQ shelters, an outdoor basketball court, and 30 outdoor) segregated by size and type. The interior care recreational trails, outdoor fitness equipment, and an underservice includes 20 cat cages and 20 dog cages. Interior support ground parking structure to accommodate 250 vehicles. The space includes administrative areas consisting of customer serproject is located next to existing family housing apartment vice/reception with a small retail area, an administrative office, towers and is adjacent to a multipurpose athletic field. The public/staff bathrooms, an employee lounge, and utility and project was awarded to Daewoo E&C on Aug. 31, 2017, and storage spaces. The project was awarded to Krima Construction, the total cost of the project to date is approximately \$123.6 Co., on Sept. 6, 2019. The total cost of the project is approximillion. The project is near substantial completion, and correcmately \$4 million. The project was completed on Dec. 10, 2021, tive work is ongoing to prepare for final acceptance. The projand is scheduled to open in early 2022. ect is anticipated to be turned over toward the end of March 2022.

#### SPT180 NAF, Family Pet Care Center

This project renovates the existing parking lot around the The new 7,000-square foot Family Pet Care Center facil-Burke Skies Center, a Child and Youth Services Center, at ity includes interior space for 30 dog boarding runs (30 indoor USAG Humphreys. The purpose is to increase the number of



Rendering of AFH090 MILCON, Army Family Housing



#### C TYPE CONTRACT (W912UM21C0005), **Repair Parking HHBN and Burke Skies**

parking spaces and provide drop-off & pick-up points serving the facility, and to provide new parking spaces on the access road to nearby buildings B-6315, 6317, and 6319, as well as an asphalt troop trail with a fire lane to 11th street. This project will be completed in two phases to allow traffic passage. This project was awarded to PNI Inc, on Aug. 25, 2021. The total cost of this project to date is approximately \$1.9 million. The estimated completion date is Oct. 1, 2022.



**Repair Parking HHBN and Burke Skies** 

#### **Design-Build Contract, Repair Existing** Parking Lot Near Walk-in Gate

This \$5 million project consisted of demolishing existing site features and utilities, then providing new parking lots with curbs, gutters, and lighting as well as new storm drainage systems. The roadway improvements support three major roadrelated Camp Humphreys Directorate of Public Works (DPW) objectives: improving transportation efficiency, increasing traffic capacity, and enhancing traffic and pedestrian safety. A unique characteristic of this project was the "environmentally

friendly" parking areas, consisting of paver stones and live grass, allowing a large parking area but reducing some of the drawbacks (drainage, heat retention, unsightliness, etc.) of large, paved areas. The construction was executed in three phases: Phase-1 was the parking lot near American Street, Phase-2 was the parking lot at the MWR area, and Phase-3 was the parking lot in front of a Morale, Welfare, and Recreation (MWR) restaurant. The project is a Design-Build (DB) contract and was awarded to Yuil E&C Co., Ltd. in September 2019. The total cost of the project is approximately \$5.8 million. The project was completed on Jan. 11, 2022.



Design-Build Repair Existing Parking Lot Near Walk-in Gate

#### **Design-Build Contract, Repair Traffic** Intersection at 11th Street and Indian Head Avenue

This project replaced timed traffic signals with a traffic circle at the intersection of 11th Street and Indian Head Avenue. The scope of civil works replaced the existing intersection with concrete pavement, a drainage system, and site items (including concrete sidewalks, ramps, headers, and curbs) to support the roundabout. The scope of electrical work demolished existing equipment, control line, and handhole accommodating the traffic signal system and replaced it with a new underground secondary line. The existing street lighting system was then relocated. This project is a Design-Build contract awarded to Yuil E&C Co., Ltd. in September 2019. The total cost of the project to date is approximately \$3.5 million. The project reached substantial completion and opened for use on Dec. 14, 2021. The remaining works are site restoration features and will be completed before the scheduled contract completion date of March 8, 2022.

#### **Design-Build Contract, Repair Traffic Intersection at Pacific Victors Ave and Martin** Street

This design-build project consists of roundabout design and construction, intersection reconfiguration and associated work including gate electronic signage notification, utility



Design-Build Repair Traffic Intersection at 11th Street and Indian Head Avenue

design and relocation, lighting, storm system design and relocation, and pedestrian and bicycle lane rerouting. Although some work remains, including removal of the bypass road and reinforcement of underground utilities, the project is open and in use. The contract was awarded to Yuil E&C Co., Ltd. in September 2020. The total cost of the project to date is approximately \$2.8 million. The project reached substantial completion and opened for use on Jan. 5, 2022. The remaining works are site restoration features which will be completed as weather improves.



**Design-Build Repair Traffic Intersection at Pacific Victors Avenue and Martin Street** 

## **Pyeongtaek Resident Office**

#### AV051 CY16 ROKFCin-Kind, 3rd MI Aircraft Maintenance Hangar Complex

This ROKFC-in-Kind project is designed to construct a modified Aviation Maintenance Hangar Complex (fixed wing) and a parking apron. The contract value is approximately \$103 million, which was awarded to Hyundai Engineering and Construction by Republic of Korea, Ministry of National Defense -Defense Installation Agency (MND-DIA) in late September 2016. The hangar complex meets the requirements of a certified 14 CFR Part 145 FAA Repair Station and meets the Army Aviation Facility (TI 800-01 Appendix K) standards for the 3rd Military Intelligence (MI) Battalion (BN) Aerial Exploitation (AE). It includes five dual purpose maintenance and wash bays: one large bay for RC-7 aircraft and four small bays for RC-12 aircraft. Additionally, it includes two Company Operations Facilities (COFs), an Entry Control Point with space for Quick Reaction Forces (QRF), and two Multiple Antenna Platforms. The hangar complex will also have a POL/ Hazmat Storage; Battery Shop; covered Ground Support Equipment (GSE) Storage; covered wash rack; fuel vehicle parking; hangar access aprons for the maintenance and storage hangars; four space aircraft parking (MOC pads) one RC-7, three RC-12; and 150 POV parking spaces. The complex will be within the airfield security perimeter and have exterior security lighting, passive vehicle barriers, and landscaping for visual screening. Special foundations are included in this project. The project was designed to achieve a minimum LEED® v3.0 Silver Certification. The aircraft parking hangar interior was constructed of a dry shake Portland Cement Concrete (PCC) hardener and paved PCC apron.

The PCC Apron portion of the project was turned over Aug. 8, 2020, and the Hangar Complex was substantially completed in December 2021.



Rendering of AV051 3rd MI Aircraft Maintenance Hangar Complex



AV051 3rd MI Aircraft Maintenance Hangar Complex



AV051 RC-7 Storage Bay, Maintenance Bay and RC-12 Storage Bay



AV051 Administration Building

#### AV061 CY21 ROKFC-in-Kind Attack Reconnaissance Battalion Hangar

This \$75 million project is to construct a non-standard, two-story Attack Assault-Cavalry Aviation Maintenance hangar with five bays for service of 24 AH-64 Apache helicopters and three bays for 12 RQ-7 Shadow unmanned aircraft systems (UAS). The hangar includes space for one headquarter troop and three attack/reconnaissance troops (with Shadow platoons), one maintenance troop, and one forward support troop headquarters. The hangar will include administrative offices, tool storage, parts storage, bench repair, COMSEC vault, training/break room, latrines, utility room, allied shops, special shops, Aviation Life Support Equipment (ALSE) shop to facilitate over-water operations, secure storage (arms vault, avionics equipment storage, and nonsensitive secure storage), aircraft part supply, tool storage (A92 tool set), flight operations area, contractor logistics support, company administration and supply, and a readiness module. As all storage and shops will be located on the first floor, a cargo elevator will not be required. All hangar doors will be electrically operated. Administrative and company operation functions are typically located on the second floor. Utility work includes extending natural gas, water, sewer, power, and communication services to the building; and re-routing



Rendering of AV061 Attack Reconnaissance Battalion Hangar

water utilities destructed by the construction. This facility will be designed to make maximum use of natural climate, ventilation, and lighting, as well as use of energy efficient window and building insulation. The hangar will include two, ten-ton overhead bridge cranes and a five-ton overhead.

Notice to Proceed (NTP) was Jan. 17, 2022, with a Contract Completion Date scheduled for Oct. 11, 2026.

#### AV062 CY21 ROKFC-in-Kind Aircraft Parking & Taxi Lane



Existing AV062 Type 1 Aircraft Parking

This \$15 million project is to construct 57,000 square meters of Portland Cement Concrete (PCC) Aircraft Parking and Taxi lane for type I Aircraft Parking. The project was awarded to POSCO Construction & Engineering Co, by Republic of Korea, Ministry of National Defense – Defense Installation Agency (MND-DIA) in July 2020. This is located within USAG Humphreys, specifically along the North-West intersection of Taxiway "B" and Taxiway "T". This phase of the project requires the construction of a parallel taxiway extension (Taxiway Extension-2) from the existing AV050 apron/taxiway to connect to existing Taxiway "B". Taxiway Exten-

New AV062 Type 1 Aircraft Parking

sion-1, which will function as a taxi lane at its end-state, connecting Taxiway "T" to the future Aircraft Parking Apron. The new Taxiway Extension-1 and Extension-2 shall be PCC paved with Asphalt shoulders, which will include taxiway edge lighting, tie downs with ground points, pavement markings, storm drainage, waterline, demolition, and site improvements.

USACE Transportation System Center (TSC) subject matter experts conducted a workshop, observed and reviewed the PCC placement methods with the integrated Project Delivery Team (PDT) and construction contractor, October 2021, to ensure the conditions were set to meet design requirements. The contractor will perform additional test lanes and start the production lanes in March 2022. Contract Completion Date for this project is scheduled for Sept. 30, 2022.

#### OS060 ROKFC-in-Kind, Army Regional Correctional Facility

This \$16.6 million Correctional Facility project was awarded to Wooseok Construction Co. in November 2018 with a 1,236 calendar-day construction duration. The progress is slightly behind schedule due to a delay in receiving offshore materials.

This single-story building will replace the existing facility, built in 1975, which fails to comply with current requirements, such as Army Regulation (AR 190-47 The Army Corrections System). The primary correctional facility includes two distinct controlled areas with special construction requirements. One of the two controlled areas includes 40 individual prisoner cells divided into seven blocks. The other controlled area includes a controlled access sally port entrance, indoor recreation area, prisoner intake area, central master/main control centers, multipurpose room to be used for visitation and religious services, and a dining facility (DFAC) with a full kitchen. Outside the controlled areas includes management and administration office spaces and staff classroom, etc. The facility also features an electronic security system consisting of detention

door locks, intercoms, duress alarm,

CCTV, and vehicle access control systems with control/monitor workstations in central master and main control rooms. There will also be two fenced outdoor recreation areas as well as a perimeter fence. The user is the Army Correctional Unit (USARCF-K).

Construction completion was originally scheduled for April 11, 2022. However, the completion is expected to be delayed approximately one year due to a interruptions in the receipt of offshore materials and a re-design of the fire smoke control system.

In 2021, Ethylene Propylene Diene Monomer (EPDM) roofing, Exterior Insulation and Finish System (EIFS), and construction of exterior walls and windows were completed. Interior architec-



**Rendering of OS060 Army Regional Correctional Facility** 



**OS060** Army Regional Correctional Facility Building

tural, mechanical, electrical, and exterior utilities works are currently in progress.

#### UEH120A CY18 ROKFCin-Kind, Unaccompanied Enlisted Personnel Housing, Phase 2 (2 Towers, UEH120B)

UEH120A, a \$66.3 million project, was awarded to Daewoo E & C on March 2019 and UEH120B, a \$64 million project, was awarded to Hyundai Engineering Co., Ltd. in May 2020 by the Ministry of National Defense – Defense Installation Agency (MND-DIA). Both projects involve construction of two eightstory Unaccompanied Enlisted Personnel Housing (UEPH) facilities that can house 302 personnel and comply with the current Army Standard.

The UEPH will include private modules with individual living/sleeping rooms, closets, and a combination of shared kitchens/bathrooms for use by a maximum of two people. Each UEPH will include four elevators per building (one freight elevator and three passenger elevators). The support areas include circulation spaces (stairs and corridors), mechanical, electrical, communication spaces, exterior boot wash areas, and outdoor storage buildings. The common areas include an entry lobby, Charge of Quarters (CQ) station with a counter, vending areas, ice machines, janitor's closet, public phones, and toilets. Laundry facilities will be consolidated on each level in the facility along with a provision for a field gear cleaning area (mud room) on the ground floor. Paving, sidewalks, curbs, gutters, dumpster/pad/trash enclosures, storm drainage, area security lighting, and fuel storage tank (IAW USFK policies/regulations) will be constructed outside the UEPH. Additionally, two multi-purpose recreation courts, two 30-personnel gazebos, one BBQ shelter, six covered bicycle racks, and landscaping to include all grass, trees, and vegetation within the project boundaries will be included for health and morale of the personnel.

Completion of UEPH120A is scheduled for July 30, 2022, and UE-H120B is scheduled for Feb. 2, 2023.



#### CY18/19 ROKFC-in-Kind, VMF & CO OPS Complex of 3rd CAB (VMF130) and Echelon Above BDE EN BN VMF (VMF140)

Two projects, VMF130/140 were awarded under one contract at a value of \$134 million on July 16, 2020, with a 1,320 calendar-day construction duration. The contact was awarded to POSCO E&C. This \$134 million contract has a current CCD (Contract Completion Date) of April 5, 2024, and is currently 20 percent complete. The project site of VMF140 is that



Rendering of UEH120A Unaccompanied Enlisted Personnel Housing

UEH120A Unaccompanied Enlisted Personnel Housing

of an existing detention basin. As such, approximately 650,000 cubic meters of engineered fill and 60,000 square yards of soil preparation were required to provide a proper foundation to construct a Vehicle Maintenance Facility. The project area of VMF130 is 23 acres and that of VMF140 is 37 acres, totaling an area of approximately 60 acres.

VMF130 includes one large 58,200 square foot Tactical Equipment Maintenance Facility Complex (TEMF), one 18,670 square foot Admin Module, 300-person and 450-person Readiness Modules for six Company Operations with two covered hardstands, an organizational storage facility, five hazmat storages, 77,110 square yards of concrete organizational parking for tracked vehicles, and a privately operated vehicle parking area.

VMF140 includes one large 58,200 square foot TEMF with three Organizational Storage Buildings, three Petroleum, Oil, Lubricants (POL) Storage Buildings, one 20,400 square foot Battalion Headquarters Echelon Above Brigade (EAB), 500-person and 550-person Readiness Modules for six Company Operations with one Administrative Module and two covered hardstands, 120,200 square yards of concrete organizational parking, and a privately operated vehicle parking area.

#### SAT010 CY20 ROKFC-in-Kind, PN A20R601, Satellite **Communications Facility**

This project is to construct a 2,280-square meter Satellite Communications Earth Station (SATCOM)/Terminal Control Facility (TCF) with two antenna pads, including space for mission/operations control, general administration, prescribed load list, weapons storage, conference, training, and secured storage, and a storage shed. Supporting facilities include redundant power (auxiliary emergency generators), heating, ventilation and air conditioning systems, secure telephone system and local area network equipment, and fire



**Rendering of UEH120B Unaccompanied Enlisted Personnel Housing** 



**UEH120B Unaccompanied Enlisted Personnel Housing** 



Rendering of Vehicle Maintenance Facility, VMF 130/140

detection/suppression systems, intrusion detection system, uninterruptible power supply, Utility Monitoring Control Systems, building information systems, and antiterrorism measures.

This project was awarded to DaeBo E&C on Dec. 29, 2021, in amount of \$32 million. The contract duration is 1,034 days with Construction Completion Date (CCD) of Nov. 16, 2024.

#### C Type Contract, Repair Flood Gates #1, #2 & West Gate

This project is to replace the existing manually operated debris screen bars at Flood Gates 1 and 2 with motorized debris screen bars. The project also includes replacement of manually operated security bars at the West Flood Gate with motorized security bars. Both motorized debris screen bars at Flood Gates 1 and 2 and the motorized security bar at West Flood Gate will have manual controls. Additionally, Directorate of Public Works (DPW) requested to add a service vehicle access at Flood Gates 1 and 2, as well as an access road and fencing at the West Flood Gate. Improper maintenance of the debris screen bars exposes the

outfall drainage structures to possible clogging. This could result to serious flooding and issues for USAG Humphreys. The Contract Completion Date for this project is July 31, 2022.

**Upgrades**, S-719





Lift Station Upgrades, S-719

## **C** Type Contract, Lift Station

The existing lift station, S-719, was constructed 20 years ago. Due to the age of the lift station, a request was made to upgrade the existing system through Sustainment Restoration and Modernization (SRM) contract. This project was awarded to Fine E&C on Aug. 21, 2020, for \$1.7 million and was substantially completed on Oct.1, 2021. The sewage

**Repair Flood Gates** 

and motor's flow capacity increased from 13,500 liters per minute (LPM) to 18,200 LPM after the completion of this project.

#### C Type Contract (W912UM20C0008) S-1280 **Upgrade HVAC & Parking** Lot Renovation

This \$2.1 million project was awarded to Dukdong Industry Co., Ltd, in September 2020. The project is to upgrade the existing heating, ventilation, emergency generator, air conditioning (HVAC) system, and existing parking lot for the Administrative Building (S-1280). The parking lot will consist of 19 parallel parking stalls, three Americans with Disabilities Act (ADA) parking stalls, 37 perpendicular parking stalls, a loading zone, light poles, and landscaping. The mechanical project scope is to replace the existing HVAC system and provide standalone HVAC units within secure areas. The identified critical rooms will be added to the emergency power system and require standalone Direct Expansion (DX) mini-split systems to maintain the building. The Contract Completion Date for this project is July 31, 2022

#### C Type Contract (W912UM21C0004) Repair **Building S-535**

This \$1.9 million project was awarded to SEOHAI Construction Co.,





Upgrade HVAC & Parking Lot Renovation, S-1280



Repair Drainage Canal from 7th to 11th Street

Ltd, in August 2021. This project is to renovate the building, S-535, to meet current standards and upgrade the fire protection system. The area of the facility is approximately 15,550 square feet and will be utilized as a swing space. The project site is situated on the southwestern side of USAG Humphreys. The Notice to Proceed (NTP) was issued on Aug. 18, 2021, with a contract duration of 480 calendar days. The Contract Completion Date is Dec. 11, 2022.

#### JOC, FY21, AREA III JOB **ORDER CONTRACTS:** IDIQ Contracts-

W912UM19D0006 This contract is an indefinite delivery, indefinite quantity, firm fixed price Job Order Contract (JOC) for maintenance, repair, renovation, and minor construction projects at various U.S. Army installations in Area III & IV. This contract involves a wide variety of individual construction-type projects by issuance of task orders. During fiscal year 21, 25 task orders were awarded and 8 projects were completed at USAG Humphreys. The combined value of FY21 awarded task orders is roughly \$15 million. A few of the notable task orders that were awarded were the FED Office Renovations on the 4th Floor, Installation of the Gazebos behind FED, and Repair

of heating, ventilation, emergency gen-

erator, air conditioning (HVAC) systems

at 2 different dining facilities.









Repair HVAC System, B-6321

Paint 7 Water Towers

Floor Sealant for SPT060

65th MED B-711 & 3033

## **Security Operations Resident Office**

#### C4I010 YRP, Communications Center

The C4I010 Communications Center is essential to the needed communications systems and infrastructure support for the many critical facilities being relocated through the Yongsan Relocation Program (YRP). The project is in the final phase of construction with a current contract value of \$193 million. The facility is expected to be complete in March 2022. The remaining work includes deficiency corrections and integrated building commissioning.

The Communications Center is a multi-story building. The building is divided into three main components: a protected area, an unprotected area, and attached parking garage. The facility is equipped with systems to ensure it meets operational, emergency, and contingency requirements. This facility will provide services and support for USAG Humphreys Command, Control, Communication, Computers, and Intelligence (C4I) requirements.

#### C4I010 YRP, Phase III Facility

This contract was originally awarded to ECC International (ECCI); however, a new consolidated contract was awarded to Gilbane Federal on April 18, 2017, to continue the construction. The project is currently valued at \$60 million and at 97 percent completion. The projected completion is Fall 2022. The remaining work includes equipment repairs, deficiency corrections, and integrated building commissioning.

The Phase III Facility is an 82,698 square foot, two-story secure facility containing administrative offices, a data center, and a utility plant. This Yongsan Relocation Project is fully funded by the Republic of Korea (ROK) Government. The construction complies with DoD Standards for Overseas Sensitive Compartmented Information Facility (SCIF) construction.

#### C4I080, Command Center Humphreys

Command Center Humphreys (CC Humphreys) was awarded to two companies: Hyundai Engineering Construction for non-secure construction and Gilbane Federal for secure construction. The facility was re-designed to incorporate the relocation of the Combined Forces Command (CFC). Currently, the combined construction contract value is \$387 million. The facility is approximately 95 percent complete with projected completion in Spring 2022.

This 377,000-square foot two-story, below grade heavily reinforced facility contains administrative offices, operation centers, and data centers. The hardened underground secure facility supports the mission requirements for USFK's staff elements, component commands, and intelligence agencies at USAG Humphreys. The facility is equipped with several systems to ensure it meets operational, security, and emergency requirements. The facility can operate autonomously for a designated period with no or limited outside services. Construction complies with Intelligence Community Directive (ICD) 705 Standards for Overseas SCIF construction.

#### C4I090 YRP, Battle Command Training Center (BCTC) Secure Use Facility (SUF)

The BCTC SUF is a \$20 million secure facility constructcompletion date of April 22, 2022. ed by B.L. Harbert, International (BLHI). The project delivery team included the construction contractor (BLHI), security contractor (PAE), ROK Ministry of National Defense U.S. **YRP, Combined Forces Command Relocation** Forces Korea Relocation Office (MURO), and the FED. The Combined Forces Command (CFC) Relocation project BCTC SUF is a secured work area of 10,523 square feet that consists of six components under three separate contracts. This houses administrative and operations offices, a secure commuincludes renovation of four existing office buildings (PMO, nications center, training spaces. It is equipped with several ROKA10, Korea Battle Simulation Center, Vessey), Command, features to ensure it meets operational, security, and emergency Control, Communication, Computers, and Intelligence (C4I) requirements. The project was completed and turned over on

Nov. 5, 2021. This is the first U.S.awarded, secured facility completed jointly by the US-ROK governments at USAG Humphreys.

#### SPT110A YRP. Downtown **Business Park II 175th Finance Management Center**

The 175th Finance Management Center design is based on the USAG Humphreys Installation Planning Standards (IPS) located at Downtown Business Park II, where there are other completed business facilities that are already in use. This latest office facility will have nine self-contained suites to be assigned to various divisions and to the





C4I010 Communications Center



C4I080 Command Center Humphreys

Director's administrative group. This \$12 million project is being constructed by Seong Bo Construction Industry Co., Ltd. The project is about 95 percent complete with a scheduled



C4I030 Phase III Facility

improvements for all four buildings, new parking and parade ground upgrades, and various site/civil improvements (CFC Civil). Facility and site renovations are required to support the relocation of CFC operations.

The building renovation contract was awarded to Il-kwang; The C4I contract was awarded to KWM; and the civil contract was awarded Poong-lim Construction in 2021. The overall completion of the CFC campus is 93 percent, with the campus on track to be completed at the end of April 2022.

#### OS030 (YRP) and OS031 (ROK-in-Kind) Fuel Oil Facility

This facility was jointly constructed by Daelim Consortium and Namwha Construction under OS030, Yongsan Relocation Program/Korea Land and Housing (YRP/LH) Corporation funded project, and OS031, ROK-in-Kind funded. The combined project value is approximately \$45 million.

The facility is equipped with two 84,000-gallon operational storage tanks with pump houses, a Control/Filter building, a Fuels/Army Oil Analysis Program (AOAP) Lab, a filling station with JP-8 truck fill stand, a diesel filling station with 48,000-gallon storage, and gasoline filling station with 24,000-gallon storage. The fuel tanks were installed using the method commonly referred to as cut-and cover construction, where steel tanks are encased in 20-inch concrete and partially buried. This facility also has loading capabilities that can send fuel via truck or rail to other mission areas throughout the peninsula. The Defense Logistics Agency facility will serve to support U.S. Forces Korea and Eighth Army's warfighting missions. The second stage of construction was turned over on Dec. 7, 2021.



Downtown Business Park II 175th Finance Management Center



OS030 and OS031 Fuel Oil Facility

# Projects

#### CY18 ROKFC-in-Kind, **Construct 3rd Generation** HAS, Phase 4-6

This \$102.3 million contract was awarded to Hyundai Engineering Co. in 2019. The project scope is to remove outdated first-generation aircraft shelters and construct eighteen 3rd Generation Hardened Aircraft Shelters (HAS). This project is similar in scope and complexity to the Phase 1, 2, 3 project that constructed twenty 3rd generation HAS.

While Phase 1, 2, 3 was constructed on undeveloped land, Phase 4, 5, 6 will be constructed on the footprint of existing facilities and requires close coordination with local airfield management and Wing Safety. During the 2021, ground settlement and pile driving were completed to construct foundation and floor slabs. Installation of reinforcing bars for foundations and floor slabs were completed for all HAS, and concrete placement for the floor slabs of six HASs were finished. Vertical construction including erection



Hardened Aircraft Shelters (HAS), Phase 4-6



of arch liner panels will commence in February 2022.

#### CY19 ROKFC-in-Kind, **Upgrade Aircraft Flow-Through Fuel System (Wolf** Pack)

This \$16.8 million project was awarded to Samil Enterprise Co. in February 2020. The project scope consists of two 5,000 barrel "cut and cover" fuel storage tanks, 1,800 Gallons per

minute (GPM) pumphouses on top of each tank, and a filter/control building. The new system will connect to the existing Type IV hydrant fuel system, which is located at the Wolf Pack Flow-Through. This will allow hot-pit refueling by means of underground fuel pipes, while the aircraft are parked in covered "flow-through shelters."

In 2021, construction of two fuel storage tanks, pump houses, and filter building were completed. Installation of fuel pipes and filter separator in the filter building are in progress. System commissioning (Cx) is scheduled for October 2022 to complete the facility approximately three months ahead of the current Contract Completion Date (CCD) of March 9, 2023. Key to this project's success is on-time delivery of fuel required for the Cx and performance testing, which will require close coordination with the contractor, Defense Logistics Agency (DLA), Architect-Engineer contractor, USACE POL Mandatory Center of Expertise (POL-MCX), and Air Force Petroleum.



Aircraft Flow-Through Fuel System Upgrade



Hardened Aircraft Shelters (HAS), Phase 4-6

## SRM, Job Order Contract (JOC)

Various task orders were executed under the Korea-wide Job Order Contract for Sustainment, Restoration, and Modernization (SRM) for a total amount of \$922,412. Among the task orders completed in 2021 was Repair Taxiway "F" at Kunsan Air Base. This \$514,000 project repaired deteriorated Portland Cement Concrete (PCC) slabs, cracks, spalls, and reseal the pavement joints. The work was completed in November 2021.

Another task order completed in 2021 was Site Improvement to 501st Military Intelligence (MI) Operational Ground Station (OGS) 12, Gwangju Air Base. This \$112,000 project constructed concrete pavement and an electrical system for the 501st MI OGS 12. The work was completed in June 2021.

Task order W912UM21F0114, Repair HVAC System at Hospital at Kunsan Air Base was award in September 2021. Construction will begin in April 2022.



Hardened Aircraft Shelters (HAS), Phase 4-6



Repair Taxiway "F"

# Southern Resident **Office Projects**

#### **MILCON, Army Family Housing Tower 3**

This \$50 million project is the third of the four planned Army Family Housing (AFH) Towers to be constructed at Camp Walker. This tower is a site adapted design, which includes the same or similar amenities as AFH Tower 1 and 2. This project is to construct a 15-story Family housing apartment tower comprised of 90 apartments (4 five-bedroom units, 26 four-bedroom units, and 60 three-bedroom units) for Company Grade Officers (CGO), and Senior Non-Commissioned Officers (SNCO), and their Families. Each floor will accommodate 6 apartments. This

project includes a two-story above-ground parking garage connecting the tower to accommodate 135 vehicles. Construction started in June 2019 and was substantially completed on Dec. 30, 2021. End-User agency began installing new furniture on Jan. 4, 2022.

#### **MILCON, Army Family Housing Tower 4**

This \$54.9 million project is the last of the four planned Army Family Housing (AFH) Towers to be constructed at Camp



**MILCON, Army Family Housing Tower 3** 

Walker and is a site adapted design which includes the same or similar amenities as AFH Tower 1, 2, and 3. This project is to construct a 15 story Family housing apartment tower comprised of 90 apartments (4 five-bedroom units, 26 four-bedroom units and 60 three bedroom units) for Company Grade Officers (CGO), Senior Non Commissioned Officers (SNCO), and their Families. The size and cost of the units are the same for CGOs and SNCOs. Each floor will accommodate 6 apartments. The project includes living areas, kitchen, bathrooms, bedrooms, storage, and private entrance, with ancillary facilities such as tot lots, multi-age playgrounds, picnic pavilions, gazebos, an electrical substation, natural gas governor building, and a parking garage connecting the tower to accommodate 135 vehicles. Construction started in October 2019 and is scheduled to be completed in January 2023.

#### LPP-in-Kind, H-805 Relocation, Camp Walker and Camp Carroll

One of the few Land Partnership Plan (LPP)-in-Kind projects in Area IV, the \$43.4 million H-805 Relocation project consists of five project sites; three in Camp Walker and two in Camp Carroll. This project consisted of a land swap with the City of Daegu and funding for multiple facilities displaced by the swap as well as funding for a brand-new Access Control Point. Site 1 in Camp Walker is the residual of what will remain Upgrade Electrical System, Camp Henry as U.S. property at H-805. This residual consists of a limited use helipad, helicopter parking pad, and a Vehicle Maintenance Facility. Site 2 in Camp Walker, Parcel 2, is located at a new **ROKFC-in-Kind**, Sustainment Facilities property given by the ROK Government as a replacement for Upgrade, PH-1 DLA Warehouse, Camp Carroll H-805. Located along the east side of the Camp Walker, behind the AAFES/PX building, this area will be used to store 40-foot This \$52 million construction project includes the construccargo containers. In Camp Carroll, a new H-832 helipad, parktion of a 25,000+ square meter general purpose warehouse and ing pads for CH-47 helicopters, POV parking, and a 2-story 20,000 square feet of HAZMAT/POL storage isolated from the Flight Operations Center was built which is being utilized by main warehouse. The project includes demolition of several the Airfield Division that was originally located in Camp existing buildings, a new paved truck access road, perimeter Walker. In addition, a new land farm was relocated in Camp security fencing, trucking yard, loading docks, and approxi-Carroll. In December 2020, the remaining portion of the Camp mately 50,000 square feet of covered Pre-Engineered Building Walker Vehicle Maintenance Facility parking and new Perim-(PEB) swing spaces. The swing space was turned over to the eter Wall were completed. Finally, in 2020 work started on the DLA user in December 2018. The project was completed and last phase, a new Access Control Point. The contractor began turned over in May 2021. this final portion of the H-805 Relocation in September 2020, with a completion date of March 2023.

#### **ROKFC-in-Kind**, Upgrade Electrical System, **Camp Henry**

This \$26 million project includes upgrade of the electrical distribution system from outdated 5.7 Kilovolt (KV) to a new 22.9 KV system. Work includes new underground primary and secondary electrical lines, ducts, manholes, pad mounted transformers, pad mounted switchgear, pad mounted junction box, other associated hardware, testing, and connection of new 22.9 KV feeders to a new switching station at Camp Henry. This project was awarded in September 2016 and is scheduled for completion in early April 2022.



#### **OMN, Well Head and Valve Box, Chinhae**

This \$63,000 Job Order Contract (JOC) was awarded on May 21, 2020 to replace the existing valve boxes and waterlines for four wells at Chinhae Naval Base in Korea. This project was a joint effort between FED Geotech Branch and the contractor. The replacement of well heads was completed by FED's In-House Geotech Branch. The contractor's scope of work included demolition of existing valve pits and installation of new valve pits with new drain lines and sump pumps. The Contract Required Completion Date (CCD) was April 2021, however the Contractor completed the project in February 2021, two months ahead of schedule.



Marine Air Ground Task Force Operations Center, Camp Mujuk

#### **ROKFC-in-Kind, Marine Air Ground Task Force Operations Center, Camp Mujuk**

This \$51.3 million project is a four-story Operations Center which provides a forward operating Headquarters facility for the III Marine Expeditionary Force (MEF). The facility will provide working spaces for personnel. Key features include an operations center with watch floor, Commander's Battle Cabin, a secured operations center with server room, Communication Security Office and vault, health services center and aid station, Contamination Control area, and Non-tactical and tactical parking. The facility was completed and turned over to the enduser on April 27, 2021.

#### Renovate Building 233 to New Post Office, **Camp Carroll**

Renovation of Building 233 to house the Post Office and Logistics Support Area (LSA) storage located at Camp Carroll. The one-story 13,000 square foot (SF) facility will be converted into a Post Office (7,000 SF) and Logistics Support Area storage (6,000 SF). The scope of work includes, but is not limited to, loading docks, building accessibility, and provision of a loading dock. This project will also replace the existing steam boiler with a new hot water heater system of the same capacity. The project was awarded in September 2020 and was turned over to the end user Feb. 14, 2022.

#### OMA, Renovation of Building 1685, Camp Henry

This project was awarded on Sept. 24, 2020. This project is a complete renovation and upgrade of the existing building #1685 on Camp Henry. Work includes upgrade and replacement



Post Office, Camp Carroll

of architectural, electrical, mechanical, fire protection, telecommunication, and exterior underground utility system for the two-story existing building. The current construction cost is about \$4.1 million. The Construction Completion Date (CCD) is May 3, 2022.

#### OMAF, Repair Building 3571 and 3605, Daegu Air Base

This \$3 million project was awarded on Dec. 31, 2018. The scope of work was a full architectural, structural, electrical, mechanical, fire protection, telecommunication, and exterior underground utility system renovation of buildings 3571 and 3605 at Daegu Air Base. Building 3571 was turned over on Oct. 14, 2021, and Building 3605 on Nov. 15, 2021.

#### **Upgrade Fire Protection System, FRED**

This project is to replace the existing fire protection, fire alarm, and mass notification systems for Building 1020 (Company HQ Building) and Building 1030 (Vehicle Maintenance Building). Work includes removal of the existing fire suppression system, as well as the installation of a new fire pump system to provide the required flow and volume of fire water. The project also includes supporting electrical system upgrades and connections to provide a complete and functional fire protection and alarm/ notification system that meets U.S. life safety code requirements. The project construction is scheduled to complete end of March 2022.

#### **ROKFC-in-Kind, Upgrade Electrical System,** Phase II, Camp Carroll

This \$41 million project on Camp Carroll is an upgrade of necting new 22.9 KV feeders to a new switching station. The the electrical distribution system from outdated 5.7 kilovolt scope of work also includes converting the overhead Commu-(KV) to 22.9 KV, to include upgrades to underground primary nication and CATV lines to underground. The project was and secondary electrical lines, ducts, manholes, handholes, pad awarded in May 2020 and is scheduled to be completed in mounted transformers, pad mounted switchgear, pad mounted January 2023. junction box, other associated hardware, and testing and con-





**Renovation of Building 1685, Camp Henry** 



Repair Building 3605, Daegu Air Base



#### **Commissary Roof Replacement, Camp Walker**

This \$1.5 million Job Order Contract (JOC) is to replace the failed original Korean clay tile roof with a standing seam metal roof and to replace the existing metal roofing portion with a new Ethylene Propylene Diene Monomer (EPDM) system. This work is to address multiple leaks that were allowing water into the Camp Walker Commissary. The project delivery team partnered with the USAG Daegu Fire Department, testing the roof by spraying over 10,000 gallons of water on the roof to test for leaks. This also gave the Fire Department valuable hands-on training. The project was awarded in July 2020 and completed on Oct. 6, 2021, five months ahead of schedule.

#### **Golf Pro Shop Renovation, Camp Walker**

This project involved a \$1.1 million upgrade to the golf shop at the Evergreen club. This is a non-appropriated funds (NAF) funded construction project. Camp Walker's golf course is one of its main attractions. The renovated club provides users with more space while also improving Daegu's morale, welfare, and recreation activities. The renovation includes an expansion of the Golf Pro shop, construction of administrative space, vestibules, restroom locker rooms, and shower facilities. Construction started in March 2020 and was completed on time and turned over to end-user on March 12, 2021.

#### **ROKFC-in-Kind**, Repair/Replace Sewer Piping System, Camp Walker

This project is a \$3.6 million upgrade to the Camp Walker sewer system. This host-nation funded project is to replace undersized and under-capacity sewer piping throughout the installation. The scope of work includes new sewage lift stations, sewer manholes, asphalt pavement, and sodding, while also demolishing old lines and septic tanks. The project also includes a new connection point to the city of Daegu's wastewater treatment plant. The project's construction started in May 2020 and is scheduled to be complete in April 2022.

#### Upgrade Fire Alarm Systems at Co-located **Operating Air Bases in Korea**

This project is a \$2.4 million replacement of obsolete fire alarm transceiver antenna systems and panels. This project replaced 74 facility systems at Daegu Air Base (AB), 35 facility systems at Gwangju AB, 31 facility systems at Suwon AB, and 22 facility systems at Gimhae AB. Construction started in June 2020 and was completed in February 2021. This project is an improvement of the 607th Material Maintenance Squadron (MMS) co-located operating bases, which support reception and bed-down of off-peninsula units.



Commissary Roof Replacement, Camp Walker



#### **ROKFC-in-Kind, Indoor Training Pool**

This \$7.4 million project was awarded Feb. 20, 2019, to demolish the existing outdoor swimming pool and replace it with a new 25-meter, 4-lane pool with water filtration/recirculation system. This indoor training pool replaced the existing outdoor pool to allow year-round use by end-users who have strict training requirements of a weather protected facility. When not in use for training, this pool will be available for the Sailors and their families stationed at Commander, Fleet Activities Chinhae. The Contract Required Completion Date (CCD) is May 3, 2022.

#### **Repair Water Damaged Areas Bldg 606**

This \$144,000 Job Order Contract was awarded on Sept. 24, 2021, in response to an emergency where the building suffered severe water damage. The scope of work entailed partial demolition of interior space on the first and second floors. Construction was completed on Nov. 15, 2021.

#### **Replace Heating Equipment Tri Service** Hangar

This \$500,000 Job Order Contract (JOC) is to replace the heating system in the Tri Service Hangar (TSH), Pohang. The work includes the removal and replacement of existing electrical and mechanical items such as the pad mounted transformer, wires/conduits, heating ventilation units, unit heaters, hot water circulation pump, control system, as well as other features. The project was awarded in September 2021 and will be completed in September 2022.

Indoor Training Pool



**Exterior of Indoor Training Pool** 

#### **ROKFC-in-Kind, Install Commercial Power,** FRED

This \$14.5 million project is to provide proper access roads, concrete pads for all systems and equipment, communications, and permanent power infrastructure to better sustain the Forward Operation Site (FOS) site. The project was awarded in October 2021 and is scheduled to be completed in October 2026.

#### **Repair Humidity Problems at Building 711**

The \$615,000 project involves partial demolition of existing Building 711 interior followed by repair and renovation of the facility. It comprises of Architectural (ceiling replacement), Mechanical (repairing/providing heat pumps units, reprogramming DDC, testing and rebalancing HVAC system), and Electrical work (removing/reinstalling light fixtures, CCTV camera, PA system speakers, safety switch and circuit breaker). It was awarded on Sept. 10, 2021, and is expected to be completed on Aug. 23, 2022.

#### **Repair Elevated Water Tanks, Area IV, Daegu**

The \$3.4 million Job Order Contract (JOC) project is for the repair of nine elevated water tanks (4 at Walker, 3 at Carroll, 1 at Busan, and 1 at Henry). This consists of exterior repainting, replacement of outside ladder and cage, cathodic protection, and other accessories. The project began in March 2021 and is expected to be completed on Dec. 23, 2022.

#### **DoDEA Elementary School Projects Playground**

The \$646,000 JOC Project is to replace the deteriorated existing playground equipment and rubber surfacing materials in the play area of the elementary school as well as to paint alternative playground activities on the replaced rubber surfacing. This project was awarded on Sept.17, 2021, and it is expected to be completed on Aug. 3, 2022.

#### **Additional Amenities and Bridge Between Towers 1 & 2**

The \$592,000 project provides for the construction of amenities for the Camp Walker Army Family Housing Towers 1 & 2. It was awarded on Aug. 5, 2021. Amenities consist of a dog park, picnic/pavilion area, bus stop, and a pedestrian bridge between the Tower 1 & 2 playground and parking structures. The pedestrian bridge was completed and turned over on Aug. 15, 2021, in anticipation of the summer school break. All other amenities are scheduled to be completed in March 2022.

#### NAFA Army Lodging Facility Replacement, **Camp Walker**

This \$24 million project is to construct a seven-floor, 82room Army Lodging Facility on Camp Walker, Daegu, Korea,

which will replace the existing lodge. The new lodge will consist of 47 family suites, 35 extended-stay guest rooms, various offices, dining, and staff and utility rooms. Construction began on May 6, 2021. The anticipated completion date is Oct. 23, 2023.

#### **OMAF.** Construct LAMS Airfield Concrete Pad, Phase II, K-2 Daegu Air Base

This \$1.4 million project consists of the construction of three Large Area Maintenance Shelter (LAMS) airfield concrete parking pads and the replacement of taxiway lights at Daegu Air Base. Work includes, but is not limited to, provision of new Portland Cement Concrete (PCC) pavement, Asphalt Concrete (AC) shoulder, pavement, grounding, taxiway edge lights and associated circuits/conduits, and other necessary works. The project was awarded in November 2021 and is scheduled to be completed on Sept. 2, 2022.



Additional Amenities and Bridge Between Towers 1& 2



Army Lodging Facility Replacement, Camp Walker



## **Cost Engineering Branch**

In FY21, Cost Engineering Branch completed 13 Independent Government Estimates (IGEs) for MILCON/Host Nation funded projects including Military Construction Army (MCA), Military Construction Air Force (MCAF), Operations and Maintenances Army (OMA), Operations and Maintenance Air Force (OMAF), Indefinite Delivery Indefinite Quantity (IDIQ), and Republic of Korea Funded Construction (ROKFC)/Yongsan Relocation Program (YRP) projects peninsula-wide totaling more than \$80 million. In addition to IGEs for new projects, the branch completed 44 Job Order Contracts (JOC) and Basic Change Document (BCD) IGEs totaling \$23.6 million, and reviewed 134 Current Working Estimates (CWEs) prepared by Architecture and Engineering (A-E) firms. The following seven in-house projects have had fully developed estimates:

- 1. 100% CWE for UEH100A with PA \$176.0 million USAG Humphreys
- 90%, 95% and 100% CWE for Install Commercial Power with PA \$25 million Camp Carroll 2.
- 3.
- 5. 90% CWE for Munitions Storage Area Delta Phase 1 with PA \$84.0 million - Osan Air Base
- 90% CWE for Munitions Storage Area Delta Phase 2 with PA \$171 million Osan Air Base 6.
- 7. 90% CWE for UEH100B with PA \$211 million USAG Humphreys

Cost Engineering Branch completed 32 IGEs totaling \$19 million for the A-E design IDIQ contract to assist in awarding A-E task orders. Cost Engineering is involved in all meetings and site visits with A-E contractors and assists with negotiations. Cost Engineering Branch has continued to support construction modifications by preparing IGEs and assisting with negotia-

tions as requested.

## Design Branch

For all projects that are designed in-house, the Design near completion include the \$154 million Unaccompanied En-Branch (EDD) is the engineering office that carries the unique listed Personnel Housing 100B / USAG Humphreys project, the capability and responsibility of being the District's Designer of \$63 million Attack Reconnaissance Battalion Hangar / USAG Record (DOR). The Design Branch Chief views this DOR func-Humphreys project, the \$252 million Relocate Munitions Stortion as perhaps the most authentic expression of engineering age Area Move Delta / Osan Air Base (AB) project, and the \$211 performed in the District. It demands highly technical credenmillion Unaccompanied Enlisted Personnel Housing 100B tials from the EDD staff of 44 team members. USAG Humphreys project. Among several other efforts, addi-In support of U.S. Forces Korea, it is EDD's mission to tional projects worth highlighting that have kicked-off in the develop and deliver project designs for the purpose of construcpast year include the AV071 General Support Aviation Battalion tion, operation, and maintenance of U.S. and Host Nation Hangar / USAG Humphreys project, the Consolidated Fire and funded projects. Through unity of vision and cohesive action Military Police Station / Camp Walker project, the Life Support among EDD's architects, engineers of all disciplines, technical Area Barracks #4 / Camp Mujuk project, and the U.S. Space leads and managers, specification writers, and administrative Force Operations Center / Osan AB project. With an Engineerteam, EDD continues to deliver dependable and innovative ing Division office renovation to create additional workspace engineering solutions throughout the lifecycle of their projects. currently underway, we look forward to watching the Design Over the past year, EDD has executed on a large variety Branch grow its staff in number and capability in the year to of projects of different scopes and effort. Among the highlights, come.

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95% and 100% CWE for Attack Reconnaissance Battalion (ARB) Hangar with PA \$99 million - USAG Humphreys 90% and 95% CWE for Repair Roof, 8th Army, B12400 with PA \$3.5 million - USAG Humphreys

This workload is expected to increase continuously throughout the next few years.

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This workload is expected to increase continuously throughout the next few years.

## Geotechnical and Environmental Engineering

Fiscal year 2021 continued to be a challenging time for the Geotechnical and Environmental Branch (EDG), which adjusted its workload due to CO-VID-19 and the delay of the Special Measures Agreement (SMA) between the U.S. and Republic of Korea. Throughout the year, EDG provided high-quality work that resulted in the completion of 185 geotechnical, environmental, groundwater resource, geospatial, and laboratory/field testing projects, investigations, reports, and supports, with a final balanced operating budget of approximately \$6.8 million.

There were several significant personnel changes in the Branch; Dr. Haekyung Kim, Supervisory Environmental Engineer from USFK Command Engineer and Minjae Park, Supervisory Civil Engineer from USACE Fort Worth District were hired in March 2021 and July 2021, respectively. Jeon Sun-ah promoted to KGS-11 Geologist. Pak Hyon-sok, Plumber KWB-4, was hired in October 2021 to the Water Well Maintenance team.

In FY21, EDG was led by: Sarah Woo (Chief, Geotechnical and Environmental Branch), Minjae Park (Chief, Geotechnical Section), Dr. Haekyung Kim (Chief, Environmental Section), Dr. Pak Chun-pom (Chief, Geomatics and Support Section), and Pak Song-hyon (Chief, Geology and Hydrology Section).

The Geotechnical Section (EDG-G) prepared 16 geotechnical design and analysis reports to evaluate the physical and engineering properties of the subsurface materials and provide geotechnical engineering requirements for the project structures of ROKFC-in-Kind and USFK projects. In addition, 20 construction support projects included construction surveillance as an authorized representative of indicator pile driving, construction Requests For Information (RFI) reviews, construction recommendations, settlement monitoring installation inspection, and report reviews were performed. For the USFK projects, Geotechnical engineers performed as contracting officer Quality Assurance (QA) of the test pile program, which included Pile

Driving Analyzer (PDA) tests, static load tests, lateral load tests, and pullout tests. The Materials Testing Laboratory (MTL) of the Geotechnical Section performed 3 inspections of concrete and asphalt batch plants and 12 Quality Control (QC) laboratory inspections for a wide range of projects at USAG Humphreys, Camp Walker, Osan AB, Camp Carroll, and Kunsan AB. These are critical for the contractor to be provided a quality concrete, asphalt and testing services during construction. Additionally, 50 field QA supports related to soil and concrete were completed over the last year at USAG Humphreys, Osan AB, Camp Walker, and Chinhae AB. MTL also supported 9 projects providing Geotechnical designers with accurate test results of soil properties through soil classification and consolidation, California Bearing Ratio (CBR), Dynamic Cone Penetration (DCP), and direct shear testing.

Between Sept. 27 and Oct. 8, 2021, MTL hosted an American Concrete Institute certification program locally taught by trainers from the U.S. Army Corps of Engineers (USACE) Savannah District, Materials Testing Regional Technical Center of Expertise, and the USACE Engineering Research and Development Center (ERDC), based in Vicksburg, Mississippi. About 20 people from FED offices throughout the Korean peninsula participated in the training. Topics covered various concrete tests through hands-on practice, demonstration, and performance certification testing. The certification lasts five years and best serves those who are required to check or inspect the concrete quality on construction sites.

The Environmental Section (EDG-E) strives to achieve sustainability while providing a full range of environmental quality (compliance, conservation, and pollution prevention) support to military installations on the peninsula. EDG-E performed 54 various in-house and contract projects in FY21. EDG-E supported the USACE mission by developing Preliminary Reports of Environmental Findings (PREFs). In PREF, environmental conditions identified during the

geotechnical investigations at the respective construction sites are summarized for stakeholders to make informed decisions. EDG-E in-house staff provided asbestos surveys to identify asbestos containing building materials (ACBM) in preparation for subsequent demolition and renovation activities. The asbestos survey consists of field investigations comprised of destructive sampling to determine ACBM quantities, laboratory testing of representative bulk samples, and preparation of an asbestos survey report. Field investigations were conducted by Asbestos Hazard Emergency Response Act (AHERA)-certified inspectors in EDG-E. Roughly 200 building surveys were completed in FY21. The survey reports were used by installations for follow-on asbestos abatement actions as appropriate for building renovations or demolition. EDG-E also provided support by developing various types of environmental compliance plan updates: Navy On-Scene Coordinator Plan Update for Commander Fleet Activities (CFA) Chinhae; Spill Prevention and Response Plan Update for CFA Chinhae, Osan Air Base, and USAG Yongsan-Casey; Potable Water System Master Plan Update, Asbestos Management Plan Update for USAG Yongsan-Casey; and, Cross Connection Control and Backflow Prevention plan and Stormwater Pollution Prevention Plan for Camp Mujuk. Other survey and/or study type projects were Lead Hazard Abatement for Indoor Firing Range, Water Pressure Study for Fire Protection System and water Quality Improvement Study, Lead-based Paint survey, Hazardous Waste Sampling and Analysis, Water Well Feasibility Study, and Alternate Groundwater Source Study. EDG-E has 5 Environmental IDIQ Contractors to support various environmental engineering projects. Some notable contract projects in FY21 were: Hexavalent Chromium clean-up for hangars on USAG Humphreys to clean surfaces contaminated with Hexavalent Chromium (VI) from 5 different aviation hangars; Contingency Water Supply Study to evaluate the condition and viability of the existing water system and to recommend a new contingency water supply system for the future development of Osan Air Base.

The Geomatics and Support Section (EDG-D) supported the Branch, District, and customer organizations by providing topographic surveys, expert geospatial data analyses and products, sharing geospatial data, promoting database standards, and managing the District Geographic Information System (GIS). By partnering with USFK, DPWs, 8th Fighter Wing/51st Civil Engineering Squadron, MARFORK and MND DIA/ MURO, EDG-D conducted topographic surveys for 31 projects in support of the Division's Design Branch and A/E firms while also completing joint US-ROK installation boundary surveys for 4 USFK installations: Dagma Range, LTA-180, Story Range and Watkins Range. Notable projects were: Electric Distribution System Upgrade at Osan Air Base, Repair/Replacement Concrete Apron at Yechon Air Base and General Support Aviation Battalion Maintenance Hangar (AV071) at Camp Humphreys. EDG-D conducted construction quality surveillance at various project sites at USAG Humphreys, Kunsan and Osan Air Bases to verify final grades and validate completion of ground settlement prior to facility construction. EDG-D provided services for Environmental GIS database collection for the storm sewer system at DLA Sites at Pohang/Yechon Air Bases. EDG-D was responsible for reviewing all District as-design Computer-aided Design (CADD) drawing products and construction as-built CADD drawings for compliance with required geospatial & A/E/C CADD standards. Essential geospatial support was provided for Branch project execution by ensuring that the Branch GIS remained up-to-date with acquired project data and imagery, and by supporting installation of the latest version of GIS software to the Branch users.

The Geology and Hydrology Section (EDG-H) conducted geotechnical subsurface exploration and geologic field investigations supporting the District's military design and construction program. In FY21, EDG-H completed a total of 77 borings for 12 geotechnical and environmental site investigation





2021 YEAR IN REVIEW FAR EAST DISTRICT 41

projects at five USFK installations to include: Combined Air Operations and Intelligence Center (KAOIC), Osan AB; Type 1 Aircraft Parking Apron and Parallel Taxiway (AV170), Camp Humphreys; ROKFC-in-Kind N22R700 Relocation of Water Treatment Plant and Magazine Storage Pad, CFA Chinhae, CFA Chinhae; New Army Lodging Facility, Camp Humphreys; and Monitoring well install for Wellhead Protection Plan, Camp Casey. EDG-H also provided services for developing groundwater resources and maintaining water supply wells in various USFK installations. In-house water well drilling capability is essential for FED to perform the critical missions of groundwater investigation and water well development, supporting USFK in both armistice and contingency situations. Water well services during FY21 included preventive well maintenance for 119 water wells and 39 instances of emergency well repair maintenance at 21 USFK installations, providing clean potable water for facilities use. The water well team performed well maintenance, sampling, and pump testing for nine water wells at Suwon and Daegu ABs for Co-located Operating Bases (COBs) water well project, 607th Material Management Squadron (MMS). The water well team drilled two exploratory water wells at Camp Mujuk, Marine Corps Installations Pacific (MCIPAC) for Alternate Groundwater Source Survey project.

### **Technical Services Branch**

The Technical Services Branch (EDT) manages the quality of designs and provides oversight to safeguard U.S. codes and regulations and users' facility requirements throughout the project lifecycle for the Far East District. EDT supports the District's mission by providing technical resources and delivering reliable and innovative engineering solutions throughout the duration of projects. The Branch also leads and coordinates the Architecture-Engineering (A-E) Review and Responsibility Board (AERRB) which evaluates high-dollar damages to the government as a result of design deficiencies. This effort is a collaboration between Office of Counsel (OC), Programs and Project Management Division (PPMD), Construction Services Branch, and Construction Division Resident Offices.

Despite a year of changes in leadership and personnel, EDT continued to execute the District's challenging A-E design mission. Former EDT Branch Chief, Nick Kaechler, and A-E services section (EDT-A) Chief, David Schlesinger, moved to Engineering Division (ED). The interim EDT Chief is Sun H. Lee. The EDT-A Chief is Insung Park from Design Management Section. The Design Management Section (EDT-D) continues to be led by Choe Kwang-kyu.

The Design Management Section (EDT-D) continued to perform strong and active for pre-award A-E contracting, postaward design management and construction Request for Information (RFI) support. Two former Design Managers, Sun H. Lee and Insung Park, moved from EDT-D to EDT and EDT-A, respectively. Each individual Design Manager (DM), as A-E contract negotiator, Technical Lead (TL) for AEs and Contracting Officer's Representative (COR) have been able to overcome challenges for awarding AE contracts. DMs were deeply involved in negotiating and awarding design Task Orders and working on a new Multiple Award Task Order Contract (MA-TOC), Indefinite Delivery Indefinite Quantity (IDIQ) A-E contract, in addition to post-award design management following award of contracts and construction RFI/technical support. DMs have been involved with monitoring A-E responsibility and documenting performance through evaluations as well as COR functions such as production of Monthly Status Reports (MSR), self-nomination in Joint Appointment Module, Contract

Completion/Close out, Progress Payment/Final Payment, Interim/Final/Addendum Contractor Performance Assessment Reporting System (CPARS). DMs also serve as Technical Leads for each A-E contract. Design Management Section will continue to perform duties as Design Manager/Technical Lead/ COR function from A-E contract award to construction completion to comply with Engineering Division's operating ideology of taking a project from cradle to grave.

The Technical Review Section (EDT-T) remained steady and committed to focusing on compliance with applicable criteria and DoD regulations to meet customers' needs consistent with law, code, public policy, and sound engineering principles and judgments for projects across the peninsula. EDT-T reviewed Quality Assurance (QA), Design Quality Control Plan (DOCP), Biddability, Constructability, Operability, Environmental, and Sustainability (BCOES), RFIs and contract modifications, rendered determinations on design deficiencies discovered during construction, provided technical support for the AERRB, participated in Value Engineering workshops, and provided design revalidation reports to begin re-preparing delayed and outdated project designs for construction award.

The A-E Services Section (EDT-A) reorganized for efficient management and operations of the design contract process. Insung Park has been serving as the EDT-A chief. Simon Kim and Bruce Bae joined EDT-A from Construction Division, and Kim Kyong-tae was transferred to 607th Material Maintenance Squadron (MMS) at Gwangju. EDT-A participates in the process of A-E design contracts by developing solicitation/procurement documents such as Task Order Requirement Notices (TORN), Statement of Work (SOW), and technical design requirements as required. EDT-A also performs review and analysis of A-E design proposals, government cost estimates for negotiations of new design and modification contracts for Military Construction (MILCON), Sustainment, Renovations, and Modernization (SRM), and host nation funded projects, to maintain the Government's negotiating position ensuring pricing is at a fair and reasonable price. To support the heavy volume of future projects, a new \$200 million IDIQ contract is being awarded.



The Far East District Contracting Division brings to unity the United States Forces Korea (USFK) mission with the local Korean community, and U.S. businesses to provide planning, engineering, design, and construction management services across the full spectrum of operations from peace to war - in direct support of USFK in Armistice and contingency operations in order to provide quality deliverables throughout the peninsula. Here is one of the highlights of Fiscal Year 2021!

#### \$30 Million Design-Build (D-B) Construction Services, Multiple Award Task Order Contract (MATOC), Korea Wide

This \$30 million Multiple Award Task Order Contract c. Reduced Government Liability. D-B Contractor is liable for both the design and construction d. Fewer modifications. D-B Contractor is responsible for both the design and construction This MATOC is intended for construction services for Sustainment, Restoration and Modernization (SRM) projects throughout the Korean peninsula, which may include renovation/repairs of facilities, civil, mechanical, electrical, plumbing heating and ventilation works. Such facilities include but are not limited to warehouses, aircraft hangars, roads, retaining walls, irrigation systems, fuel tanks, administrative, dormitory a. Time Savings. Quicker contract award and allows for and community support facilities. Task orders for individual projects with estimated construction value of between \$500,000 and \$7,500,000 will be awarded on a competitive basis between b. One Point of Contact. No Government coordination the four MATOC contractors.

(MATOC) was awarded in September 2021 to four construction contractors for a three year period. While the traditional approach to construction requires contracts with two separate entities, a designer and a contractor, a design-build contract combines these two entities, so one company is responsible for both the design and construction of the project. The Far East District Project Delivery Team (PDT) took on this new initiative, the first of its kind for the District to better serve our customers' needs and requirements. This D-B Construction procurement vehicle provides for: the start of construction before design completion between the designer and the construction contractor



Far East District Office of Counsel (OC) supported the District's missions and its customers during the year by completing approximately 230 legal reviews of pre- and post-award acquisition actions with a total value over \$3.2 billion, including Yongsan Relocation Program (YRP), ROKFC-in-Kind, Military Construction, and Sustainment, Restoration and Modernization projects; contract and task order solicitations and awards; option exercises; modifications; Architect-Engineer (A-E) design awards; and contract terminations.

Among its many acquisition activi-

ties, OC supported the District Project Delivery Team's (PDT) selection of several most highly qualified candidates for a new \$200 million Architecture-Engineering (A-E) design services Multiple Award Task Order Contract (MA-TOC), and helped with award of the first design-build MATOC prepared by FED in many years. OC and FED's Contracting Division wrote and staffed the justification document that increased the existing ordering capacity of FED's 2019 A-E design MATOC, allowing the District to meet new, additional design requirements for its stakeholders. Counsel

secured higher headquarters concurrence with funding for emergency replacement of defectively designed hot water heaters in Family Housing Tower 2 at Camp Walker; and at the end of the year, was actively supporting the District's PDT through extensive vertical coordination with Division and Headquarters on legal issues surrounding study of concrete cracking issues affecting several family housing towers at USAG Daegu.

Counsel continued its busy litigation schedule during the year. It defended the Agency against Government Accountability Office (GAO) bid protest,

B-419067.3, by Sunglim Const. Co., Ltd. In March, it obtained a favorable Armed Services Board of Contract Appeals (ASBCA)'s decision, denying all contract claims by ECC International, LLC under Appeal Nos. 61176 and 62029, arising out of Contract No. W912UM-12-C-0058, Construction of the 501st Brigade Headquarters (HQ) Complex Administration Building, USAG Humphreys, Korea (\$1.35 million total claimed). In September, Counsel secured settlement and dismissal with prejudice of claims by Thomas J. Davis, Inc. of ASBCA appeal Nos. 62634, 62948, 62941, 62942, 62943, and 62944 (claimed). The settlement released the Government of all potential liability of approximately \$24 million.

In 2021, Counsel continued its work to report and suppress procurement fraud affecting FED. Working with the U.S. Army Criminal Investigation Command, local criminal prosecutors, the U.S. Army Suspension and Debarment Official (SDO), and FED's Contracting Division, Counsel supported the investigation, prosecution and conviction of seven prequalified FED construction contractors who were discovered to have rigged bids for 23 task order solicitations valued at nearly \$38 million. The contractors were removed from FED's prequalification list and, at the end of the year, were pending proposed debarment by the Army SDO.

# Information **Management Office**

In FY21, the Information Management Office focused on improving speed and access to all applications by upgrading the telecommunication infrastructure, replacing hardware, and reaccrediting our system. In January, Operations Service Branch completed the first infrastructure project, which increased the circuit size from 100 megabytes to 500 megabytes between Camp Humphreys and the USACE Data Center in Portland. This upgrade immediately showed benefits with the access to stateside systems such as Corps of Engineers Financial Management System (CEFMS). From January through April, Networking Team upgraded the telecommunication infrastructure between Camp Humphreys and the remote offices in Osan, Kunsan, Daegu, and Busan. We partnered with 1st Signal Brigade to use their BlackCore network, which required the installation of fiber runs to support the new speed capability. By the end of April, the network speed increased from 10 Megabytes to 1 Gigabyte for all remote sites, along with wireless capability. Cyber Security mandates dictated the replacement of 60 iPhones to ensure continued security compliance and to prepare for the FED migration to the USACE Cloud. The Unified Communication Manager life cycled 3 Voice gateways and 178 Voice over Internet Protocol (VoIP) phones to improve security and meet DoD Security Technical Implementation Guide (STIG) requirements. System Administrators life cycled the hardware supporting the FED Virtual Machine Software (VMware) (virtual) platform by replacing 8 end-of-life servers with 6 new high-powered servers with solid state memory and multiple processors. All the Email, SharePoint, ProjectWise, and file servers run virtually on this VMware Platform and everyone in the organization has benefited from this upgrade, which has improved the speed, accessibility, reliability and resiliency of the platform.

Customer Support started the year off with upgrading the operating system on all the computer laptops based on Corps of Engineers Daily Task Order (DTO) OPORD 2020-074, which mandated the upgrade to Windows 10 version 1909 no later than (NLT) March 31, 2021. In May, they transitioned to a new service desk system and completed 8,327 tickets throughout the year on inquiries, hardware problems, software problems, life cycle replacement of hardware, printers, copiers, phones, Virtual Private Network (VPN) connections, WebEx, Teams, photography, videography, passport, printing, and special events and projects. Customer support ordered 315 new laptops for life cycle replacement and replaced 192 systems. Most laptop orders (270) were impacted by the COVID supply chain shortage of computer chips causing a late delivery in October. To further complicate distribution, we were informed via DTO that the desktop and laptop operating systems had to be upgraded again to the new 20H2 version NLT March 30.

From March through June, all of Information Management Office prepared our three-year accreditation package for a review by Information System Engineering Command (ISEC). ISEC inspected 30 policy documents, 70 STIG checklists, and used automated tools to scan every piece of hardware, software, server, storage, and network devices. We received ISEC's results in September, fixed vulnerabilities, uploaded supporting evidence, developed programs of actions and milestones to document plans for correcting findings that could not be immediately fixed, and submitted a final package to Army Network Enterprise Technology Command (Netcom) for review in October. In December, Netcom requested additional documentation updates. We updated the information, resubmitted, and anticipate final approval of an Authority to Operate decision for 3 years in early 2022.



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## List of Acronyms

ACBM	Asbestos Containing Building Materials	D
ADA	Americans with Disabilities Act	D
AE	Architect-Engineer (Architecture-Engi-	D
	neering)	
AERRB	Architecture-Engineering Review and	D
	Responsibility Board	D
AFH	Army Family Housing	D
ALSE	Aviation Life Support Equipment	D
AOAP	Army Oil Analysis Program	D
ARB	Attack Reconnaissance Battalion	E
ASBCA	Armed Services Board of Contract Ap-	E
	peals	E
BAT	Budget and Accounting Team	E
BCD	Basic Change Document	
BCOES	Biddability, Constructability, Operability,	E
	Environmental, and Sustainability	E
BCTC	Battle Command Training Center	E
C4I	Command, Control, Communication,	E
	Computers, and Intelligence	E
CAT	Contract Administration Team	E
CBR	California Bearing Ratio	E
CCD	Contract Completion Date	E
CD	Construction Division	E
CEFMS	Corps of Engineers Financial Manage-	E
	ment System	E
CFA	Commander Fleet Activities	E
CGO	Company Grade Officers	
COBs	Co-located Operating Bases	F
COF	Company Operations Facilities	F
COR	Contracting Officer's Representative	G
CPARS	Contractor Performance Assessment	G
	Reporting System	G
CQ	Charge of Quarters	G
CQM-C	Construction Quality Management for	н
	Contractors	н
CRO	Central Resident Office	н
CWE	Current Working Estimates	
DB	Design-Build	I
DCP	Dynamic Cone Penetration	10
DFAC	Dining Facility	I
DIA	Defense Installation Agency	IF
	<u> </u>	

DLA	Defense Logistics Agency
DM	Design Manager
DPM	Deputy for Programs and Project Man-
	agement
DOR	Designer of Record
DPW	Directorate of Public Works
DQCP	Design Quality Control Plan
DTO	Daily Task Order
DX	Direct Expansion
EAB	Echelon Above Brigade
ED	Engineering Division
EDD	ED Design Branch
EDG	ED Geotechnical and Environmental
	Branch
EDG-D	EDG Geomatics and Support Section
EDG-E	EDG Environmental Section
EDG-G	EDG Geotechnical Section
EDG-H	EDG Geology and Hydrology Section
EDPM	Ethylene Propylene Diene Monomer
EDT	ED Technical Services Branch
EDT-A	ED A-E Services Section
EDT-T	ED Technical Review Section
EIFS	Exterior Insulation and Finish System
EMCS	Energy Monitoring Control System
EPDM	Ethylene Propylene Diene Monomer
ERDC	USACE Engineering Research and
	Development Center
FED	Far East District
FOS	Forward Operation Site
GAO	Government Accountability Office
GIS	Geographic Information System
GPM	Gallons per minute
GSE	Ground Support Equipment
HAS	Hardened Aircraft Shelters
HQ	Headquarters
HVAC	Heating, Ventilation, Emergency Gen-
	erator, Air Conditioning
ICD	Intelligence Community Directive
IDIQ	Indefinite Delivery Indefinite Quantity
IGEs	Independent Government Estimates
IPS	Installation Planning Standards

ISEC	Information System Engineering Com-
	mand
JOC	Job Order Contract
KAOIC	Korea Air Operations and Intelligence
	Center
KBSC	Korea Battle Simulation Center
KRO	Kunsan Resident Office
LAMS	Large Area Maintenance Shelter
LCS	Labor Cost Sharing
LPM	Liters per Minute
LPP	Land Partnership Program
LSA	Logistics Support Area
MATOC	Multiple Award Task Order Contract
MCAF	Military Construction Air Force
MCIPAC	Marine Corps Installations Pacific
MEF	Marine Expeditionary Force
MILCON	Military Construction
MMS	Material Maintenance Squadron
MND	Ministry of National Defense
MSM	Small Munitions Storage Magazines
MSR	Monthly Status Reports
MTL	Materials Testing Laboratory
MURO	Ministry of National Defense U.S.
	Forces Korea Relocation Office
MWR	Morale, Welfare, and Recreation
NAF	Non-Appropriated Funds
Netcom	Network Enterprise Technology Com-
	mand
NTP	Notice to Proceed
OC	Office of Counsel
OGS	Operational Ground Station
OMA	Operations and Maintenance
PCC	Portland Cement Concrete
PDA	Pile Driving Analyzer
PDBP	Project Delivery Business Process
PDT	Project Delivery Team
PEB	Pre-Engineered Building
POD	Pacific Ocean Division
POL-MCX	Petroleum, Oil, Lubricants-Mandatory
00140	Center of Expertise
PPMD	Programs and Project Management
	Division

PREFs	Preliminary Reports of Environmental
04	Findings
QA	Quality Assurance
QAB	Quality Assurance Branch
QRF	Quick Reaction Forces
RFI	Requests For Information
ROKFC	Republic of Korea Funded Construc- tion
SATCOM	Satellite Communications Earth Station
SCIF	Sensitive Compartmented Information
	Facility
SDO	Suspension and Debarment Official
SES	Senior Executive Service
SMA	Special Measures Agreement
SNCO	Senior Non-Commissioned Officers
SOCKOR	Special Operations Command Korea
SRM	Sustainment, Restoration and Modern-
	ization
SRO	Southern Resident Office
STIG	Security Technical Implementation
	Guide
SUF	Secure Use Facility
TAB	Testing, Adjusting, and Balancing
TCF	Terminal Control Facility
TEMF	Tactical Equipment Maintenance Facil-
	ity Complex
TL	Technical Lead
TORN	Task Order Requirement Notices
TSC	Transportation System Center
TSH	Tri Service Hangar
UAS	Unmanned Aircraft Systems
UEPH	Unaccompanied Enlisted Personnel
	Housing
USACE	U.S. Army Corps of Engineers
USFK	U.S. Forces Korea
VCC	Visitor Control Center
VMF	Vehicle Maintenance Facility
VoIP	Voice over Internet Protocol
WWDR	Water Well Drilling Rig
YRP	Yongsan Relocation Program
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US Army Corps Of Engineer ® Far East District



Central Resident Office

## FED HQ

Humphreys Area Office

Pyeongtaek Resident Office
Family Housing Resident Office
Security Operations Resident Office

Kunsan Resident Office

Southern Resident Office

Busan Project Office