Education

BSME, SUNY at University of Buffalo, New York Graduate Studies (Part Time), Polytechnic Institute of NY, (now NYU Engineering)

Career Achievement USA Patent 4,669,625

Awards NASA Achievement Award

Professional RegistrationProfessional Engineer in

Professional Affiliation American Society of Mechanical Engineers

American Society of Civil Engineers

New York

New Jersey

Employment History Argus Consulting, Inc. Chief Engineer

Hatch Mott MacDonald Principal Associate

Han-Padron Associates Associate

Ammann & Whitney AE Associate

Garsite Products, Inc. VP Engineering

Frederick R Harris, Inc Principal Engineer Over 40 years of diversified mechanical, civil and electrical engineering experience in program management, (PGM) project management (PM), facility planning (FP) and engineering management (EM) for prestigious commercial and military construction projects in the USA and international. Projects ranges from the first supertanker terminal in the western hemisphere in the Bahamas; tanker terminals in NY City, Libya and Costa Rica; container ship terminals in Oman and in Israel; Airport fuel systems at JFK, LGA, EWR, Bradley International Airport, SJO Costa Rica, PTY Panama; aviation facilities in Fort Hood, Fort Drum, Davis Monthan, and Fort Irwin; USPS general mail facilities in NY, NJ and FL; Midtown Ferry Terminal in New York City; and railroad fueling facilities for NJ Transit and NY's Metro North railroad.

Selected Project Experience

- LaGuardia Airport Redevelopment Project, Terminal B, Hydrant Fuel System, Concourses A and B, LGA Gateway Partners, (PM/EM 2015-2019); Final design of a hydrant fuel system for Concourses A and B and construction administration services. The initial terminal design per PANYNJ Contract was for 35 gates and modified by agreement with the airlines to a maximum of 28 gates over a three-year period.
 - Airport Hydrant Fuel System Master Plan, New Mexico City Airport, Mexico City, Mexico (PM/FP): Hydrant fuel system analysis and planning for a new multi-terminal airport having a fuel farm with initial fuel delivery via tank trucks then via pipeline, twin fuel distribution mains with connections for phased expansion to future terminal, fuel storage tanks, pump station, operations and maintenance buildings.
- Airport Fuel Farm and Hydrant Fuel System Extension, Recope, Juan Santamaria Airport, San Jose, Costa Rica (PGM/PM/FP/EM): Director General etc. for a three-company consortium to provide planning, engineering, construction and commissioning of a new fuel farm and pipeline extension from the existing terminal's hydrant fuel system pump/filtration facility, supply pipeline modification, existing fuel supply fuel farm pump and metering upgrades.
- Hydrant Fueling Systems, Delta Air Lines, Terminal 4 Concourse B Phase 1, Phase 2 Expansions, John F. Kennedy International Airport, Jamaica, NY (PM/EM): Design of hydrant fuel system mains for the Concourse B Phase 1 and Phase 2 extensions, construction administration and resident engineer services.
- Hydrant Fueling Systems, Delta Air Lines, Terminal 4 Concourse A Phase 3, Expansion, John F. Kennedy International Airport, Jamaica, NY (PM/EM): Analysis, planning and 30 percent design of the hydrant fuel system for the Phase 3 Concourse extension. Finalization of the rerouting of Terminal 5 and Terminal 4 mains under the extended concourse were finalized.
- Hydrant Fueling Systems, Delta Air Lines, Terminal 3, John F. Kennedy International Airport, Jamaica, NY (PM/EM): Decommissioning design for the existing hydrant fuel system mains and design of a new hydrant fuel system piping, pits and valve vault for three new hardstand positions. Project included construction administration and resident engineer services.
- Hydrant Fueling Systems, Delta Air Lines, Terminal 2, John F. Kennedy International Airport, Jamaica, NY (PM/EM): Decommissioning design for the existing hydrant fuel system mains and design of a new hydrant fuel system piping, pits and valve vault for three new hardstand positions. Project included construction administration and resident engineer services.
- Hydrant Fueling Systems, JetBlue Airlines, Terminal 5 and 5i, John F. Kennedy International Airport, Jamaica, NY: (PM/EM) Design documents required for the selective demolition of the existing hydrant fuel system and design of the hydrant fuel system for Jetblue Airlines at Terminal 5 and 5i.
- Hydrant Fueling System, Japan Airlines Cargo Facility, Building 151, John F. Kennedy International Airport, Jamaica, NY (PM); Design-build design documents for hydrant fueling system for three 747 cargo aircraft.
- American Airlines, JFK International Airport, New York (EM): Site utilities for a 3-gate fast track design including hydrant fueling system modifications within American's lease line and on the Port Authority's fuel piping beyond the lease line
- Satellite & Bulk Fuel Farms Restoration, John F. Kennedy International Airport, Jamaica, NY (PM): Repair of API 650 jet fuel storage tanks at the satellite and bulk fuel farms as were indicated in API 653 inspection Reports.
- UST Emergency Generator System Tank Replacement at the Port Authority of New York & UST Replacement, Newark Liberty International Airport, Newark, NJ (PM): Design to replace underground storage tanks for the EWR AirTrain emergency generator system.

Selected Project Experience (continued)

- British Airways Terminal Expansion Project, JFK International Airport, New York (PM): Site utilities including hydrant fueling system renovation and expansion, water supply to the terminal building, 2 vehicle fueling stations, type 1 glycol and type 2 glycol storage and dispensing facilities, industrial waste piping, and below ground pre-conditioned air distribution piping systems.
- US Airways Terminal C, LaGuardia Airport, New York: Deputy (PM): Site utilities, building plumbing and fire protection systems, 80 ton per hour snow melting system, underground fuel storage and distribution systems, and gas piping systems for a new aircraft terminal.
- Fuel Farm Code Compliance and Conditions Assessments, Teterboro Airport, Linden, NJ (PM): prepare a code and conditions assessment report for the mechanical equipment at two fuel farms in Teterboro Airport.
- Perimeter Security System, Teteboro Airport, NJ (PM): Project Manager in charge of providing the design of electrical and communications infrastructure including electrical power and signal design systems.
- Hydrant Fueling System Expansion Master Plan, Dulles International Airport, Washington, D.C. (PM): Design of the northeast quadrant hydrant fuel systems master plan for three new midfield terminals.
- Hydrant Fueling System, Dulles International Airport, Washington, D.C. (EM): Design of a new 18-inch hydrant fuel main from the remote jet apron to the northeast midfield terminal building area to replace the existing fuel main while keeping the hydrant fuel system operational.
- Upgrade Repair Hydrant and Isolation Valve Pits/Repairs to POL Product Reclaim Systems, Air National Guard at McGuire Air Force Base, NJ (PM): provide an evaluation and design to develop the construction documents necessary to address deficiencies in the POL and hydrant fueling systems serving the National Guard.
- UST Fuel Storage Facility, New York Police Department Marine Operations Building & Police Boat Marina, Marine Army Terminal, Brooklyn, NY (EM): design of building fuel oil storage and supply system, vehicle fueling storage and dispensing systems, building plumbing and fire protection systems, and overseeing the design of the HVAC system by a sub-consultant.
- Corporate Air Fueling Facility, Bradley International Airport, Windsor Locks, CT (PM): Design of a 250,000 gallon jet fuel, aviation gas and glycol bulk UST fuel storage and dispensing facility using underground steel storage tanks, aboveground receiving, filtering, dehydrating, and dispensing equipment on a loading island, canopy and pavement.
- Kenn Air Fueling Facility, Gainesville, FL (PM): Design of a 90,000 gallon jet fuel and aviation gas bulk fuel storage and dispensing facility using aboveground steel storage tanks, aboveground receiving, filtering, dehydrating, and dispensing equipment on a loading island, tank and equipment dikes, pavement and fuel spill diverting and retaining system. The maximum aboveground storage tank size was 30,000 gallons.
- Page Avjet Corp. Fueling Facility, Philadelphia International Airport, Philadelphia, PA (PM): Design of a 70,000 gallon jet fuel and aviation gas bulk fuel storage and dispensing facility using underground steel storage tanks, above ground receiving, filtering, dehydrating, and dispensing equipment on a loading island, pavement and fuel spill diverting and retaining system.
- Port Authority of NY and NJ, Stapleton Supertanker Terminal, Pipelines, and Tank Farm (EM): Preliminary design of a supertanker terminal, trans-Staten Island pipelines, 2 tank farms and distribution pipelines. The mechanical systems included the crude oil supertanker petroleum piping, land side crude oil booster pump station, twin crude oil pipelines across Staten Island, 2 submarine pipelines under the Arthur Kill from Staten Island to Linden, NJ, a tank farm and pumping station in Linden, NJ, and twin overland pipelines to Exxon's Bayway Refinery and to Chevron's Amboy Refinery.