



Krupakaran “Krup” Kolandaivelu, P.E.

Vice President, Engineering

EDUCATION

- ME, Lamar University - Civil / Structural Engineering
- BS, Bangalore University, India - Civil Engineering

PROFESSIONAL REGISTRATIONS

- Registered Professional Engineer/Structural Engineer in twenty-four states
- VT P.E. License No. 18.0086971
- TIA – TR-14, Structural Standards for Communication and Small Wind Turbine Support Structures – Engineering Committee Member. Subcommittee member – Antenna Mounts Standard, Existing Structures and Structural Loads AdHoc groups
- New York City Department of Buildings – Code Committee Member, Wind BC16 – subcommittee member
- Delaware Valley Association of Structural Engineers (DVASE), Member
- Certified SAP (Safety Assessment Program) Evaluator, by California Emergency Management Agency

EXECUTIVE SUMMARY

Mr. Kolandaivelu is Vice President of Engineering for TKK Engineering D.P.C. Inc. (TKK)/Network Building & Consulting, LLC (NB+C). Mr. Kolandaivelu has over 20 years of progressive experience in all phases of engineering design and construction and oversees the firm's Engineering practice group. He has led other team members in the development of civil, structural, and electrical design from schematic through construction stages of projects. Mr. Kolandaivelu is actively involved in civil and structural engineering design and analysis of telecommunication structures, zoning analysis, municipal ordinance review and interpretation, expert testimony, site visits and construction observations, including IBC special inspections. His project experience includes structural analysis and design of structures with materials including steel, concrete, masonry, and wood. Project management and design experience includes significant new construction of commercial, institutional, residential, water and wastewater treatment plants, educational buildings, wireless telecommunication facilities, utility structures, restorations, rehabilitation and adaptive reuse of buildings. He has managed the construction aspects of projects including shop drawing reviews, field inspections, contractor issues and payment requests. Mr. Kolandaivelu has appeared at various local zoning and planning boards hearings, providing expert testimony for site design and wireless telecommunications structures installation.

PROJECT EXPERIENCE

Verizon Wireless, Macro New Site Builds, Northern NJ – Chief Engineer responsible for structural design and analysis of numerous Verizon Wireless macro new site build projects located in Bergen, Passaic, Essex, Hudson, Morris, Union, and Monmouth counties. Typical macro site designs include equipment platforms and custom antenna mounts located on building rooftops, custom mounts on water tanks, and ground mounted steel equipment platforms. Scope included design and analysis of proposed infrastructure and structural analysis of the existing supporting structures.

Verizon Wireless, Macro Site Upgrades, PA, NJ, DE – Chief Engineer responsible for structural design and analysis of numerous Verizon Wireless macro upgrade projects located in the tri-state market. Scope of work included analysis of existing mounts, supporting structures and structural modification designs.



Verizon Wireless, Small Cell Site Designs, Northern NJ – Chief engineer responsible for structural design and analysis of numerous Verizon Wireless small cell sites located in Bergen, Passaic, Essex, Hudson, Morris, Union, and Monmouth counties. Typical small cell designs include ballast and or façade mounted antenna supports and a lunar equipment platform located on the building roof and analysis of the existing building structure.

AT&T Tower Mount Analysis, Upstate NY – Chief engineer responsible for analysis of existing tower mounts for proposed AT&T antenna and equipment upgrades. Project included mount modification design, where existing mounts were not adequate to support the proposed upgrades. Supporting structures included self-support towers, guyed towers and monopoles. Mounting configurations included tri-sector mount frames, single sector mount frames and t-arm mounts. Analyzed mounts in accordance with the requirements of TIA-222-F and TIA-222-G.

AT&T Upgrade Design/Analysis, NYC & Northern NJ – Chief Engineer responsible for analysis of existing antenna supports for proposed AT&T antenna upgrades. Analysis performed in accordance with the requirements of TIA-222-G.

NYC DOB Special Inspections – Director of TKK Special Inspection Agency in New York City. Oversee the special inspections program for New York City projects. Performed and supervised rooftop site inspection in NYC.

Whitemarsh Wastewater Treatment Plant, Whitemarsh Township, Montgomery County, PA – Project Engineer for structural analysis and design for replacement of existing sludge handling facility in the Whitemarsh wastewater treatment plant. Determined the impact of replacing existing sludge dewatering equipment with a new rotary press and lime handling system on the existing structure and reinforced the existing structure for new loadings. Analyzed existing elevated concrete slab and concrete beams for the new loadings and proposed retrofit for the existing concrete slab and beams. Designed new concrete pad for the new equipment, and wood frame structure for the sludge conveyor area.

Philadelphia Gas Works (PGW), Philadelphia, PA – Project Engineer for Property Condition Assessment for fourteen (14) of PGW facilities as part of real estate utilization plan. Conducted site visits to review and assess the existing conditions of the selected facilities, prepared, and presented slide show presentation to the clients on existing building conditions. Also, developed Property Condition Assessment Reports, identifying readily observable deficiencies and conditions that may require repair works, and prepared preliminary cost estimation for the proposed repair works.

Mannington Mills Solar Panel Roof Evaluation, Mannington, Salem County, NJ - Project Engineer for the structural analysis of an existing steel frame industrial complex, to establish the residual Live Load capacity of the existing framing and provide calculations for the existing framing supporting the new superimposed Solar Panel Loads, and associated Snow Loads.
