

Army National Guard Readiness Center

Arlington, Virginia

Arne Kvinnesland | Construction Management

Project Team

Owner: Army National Guard General Contractor: Tompkins Builders, Inc. Architect: CH2M Hill, AECOM **Engineer:** AECOM

Project Overview

Function: Comm/Office/Federal Size: 251,500 sf office building 435 space parking garage Stories: Office Building: 3 stories below grade 5 stories above grade Parking Garage: 3.5 stories below grade 1.5 stories above grade Cost: \$100,000,000 Delivery Method: Design-Bid-Build

Structural System

Cast-In-Place Concrete and Structural Steel

- Shear Wall lateral bracing system
- Multi-layer mat slab foundation system
 - Typical Bay Size: 20'x25' 20'x30'
 - Typical Column Size: 1'-10"x1'-10"
 - Structural Steel: HSS Type

Mechanical System

Hydronic four-pipe heating and chilled water

- AHUs and VAV terminal units on each floor
 - **Building Automation System controls**
 - individual FCUs throughout each floor Mechanical Room on each floor
 - housing Air Handling Units
- **Emergency generators and Energy Recovery** Units in Mechanical Penthouse

Electrical System

- 35.4kV Total Utility Load
- (2) 15kV medium voltage feeders at building
- 480/277, 3 phase, 4 wire system in building
- 208/120, 3 phase, 4 wire lighting system
- (2) 1500 kW diesel-powered generators back-up power •



E-portfolio: http://www.engr.psu.edu/ae/thesis/portfolios/2010/aik5011/ Special thanks to the Army National Guard and Tompkins Builders, Inc. for images and data