

PROJECT OVERVIEW

CLIENT INFORMATION

“Our data center philosophy is to design and develop highly efficient data centers with increased power densities and high reliability that provide an optimized solution for our tenants.”

The owner of the project, DuPont Fabros Technology, is a leader in data center development and operation in the United States. The company prides itself on its ability to own, develop, operate, and manage some of the most highly advanced and secure data centers. DuPont Fabros has attracted prominent national and international clients over the years, such as Microsoft and Yahoo!. DuPont currently has three data centers located in Ashburn, VA, one in Reston, VA, one in Bristow, VA, and one in Elk Grove Village, IL. Currently, data centers are in construction in Ashburn, VA, Santa Clara, CA, and Piscataway, NJ. DuPont Fabros considers these three projects as one job entitled Project Seven. In the near future, DuPont intends to develop two more data centers in Ashburn (MADC6 and MADC7) and another in Santa Clara. Thus, it is obvious to see that DuPont Fabros' main reason for constructing MADC5 is purely and simply...growth. As technology continues to expand across the world, there becomes a greater need for buildings to house, power, and cool computer servers that support such technology. Where there is a need for data centers, DuPont will provide.

In general, cost, schedule, and safety are all fundamental expectations for DuPont Fabros. The owner expects that the project will come in under budget due to the up-front exhaustive cost analysis. Both the owner and CM continue to work throughout the project to discover value engineering ideas to further increase cost savings. It is extremely important that the project finish on time primarily for bank and marketing reasons. The owner markets that the data center will be finished and ready to move in at a certain date and it is vital that the said date is reached. Otherwise, there is a potential for a great loss of money. In order to do assure the schedule is reached, the construction management company reviews the schedule weekly and looks to shorten the schedule as much as possible. Lastly, the owner strives for a completed project with no lost days of work as a result of injury. As long as the aforementioned expectations are reached, the owner will be quite satisfied.

DuPont Fabros is highly interested in three key sequencing issues. The first being the design portion of the project. The design and construction document stage of the project is one of the largest tasks that the owner and designers go through prior to any construction. The next crucial stage involves permitting. Receiving building and land permits can make or break a project, thus striking a great interest in the owner. Lastly, MADC5 is a two-phase construction project. As such, the owner is extremely interested in the completion of Phase 1 as quick and complete as possible. The shell of Phase two will be constructed and finished along with the complete build-out of Phase 1. Once enough tenants become interested, the construction of Phase 2 will commence (Phase 2 design was completed along with Phase 1).

PROJECT DELIVERY SYSTEM

The MADC5 project utilizes a construction manager at-risk delivery method with Holder Construction Company. DuPont selected Holder based on their longtime standing relationship and trust that Holder will successfully perform the work. Actually, Holder has been hailed as the number one firm data center contractor by ENR, which explains why DuPont has selected them for all of their projects.

In such a CM-at-Risk delivery method, the owner holds contracts with the design team – architect and engineers – while the construction management company holds contracts with the subcontractors. Since the construction manager guarantees the cost and schedule, the risk is allocated to the CM. Throughout this delivery method Holder will be responsible for conducting Owner-Architect-Contractor meetings and Subcontractor meetings to facilitate cost and schedule management. In addition, even though there is not a contract between the contractor and design teams, there still remain open lines of communication between all parties. All in all, the owner, contractor, and design team has taken the team approach to successfully deliver MADC5.

CONTRACT TYPES

There are three main contract types utilized throughout the project including a standard form of agreement between owner and contractor with a cost plus fee, guaranteed maximum price (GMP), and lump sum.

The owner would not release the information regarding the type of contract that they hold with the design team.

DuPont holds a Standard Form of Agreement between Owner and Contractor with a cost plus fee with Holder Construction. In the past, DuPont has held a GMP contract with Holder, however DuPont decided to change based on the repetitive nature of the design. MADC5 is a near replica of ACC4, thus DuPont is more aware of the overall budget to construct MADC5. The cost plus fee contract allows any savings on the project to be directed back to the owner. Another benefit is that since the owner is responsible for any changes beyond the contract cost, the building will be constructed exactly to the owner's satisfaction.

As for the subcontractor contracts, Holder is contractually responsible for the subcontractors and holds all contracts. All of the contracts are lump sum, with the exception of the mechanical and electrical trades. For the lump sum contracts, the subcontractors were hard-bided and carried an allowance if the scope was somewhat unclear. As for the mechanical and electrical trades, a GMP contract was chosen because the trades are responsible for a majority of the project cost, there is a great chance of changes to be made to the systems, and a GMP provided better fees, making it a win-win for DuPont and Holder. A qualification interview took place with the mechanical and electrical trades, which required the subcontractors to submit a general conditions estimate and fee proposal. Once selected, the contract would state that the subcontractor had accepted based on a GMP that was to be determined.

The previously mentioned contracts seem appropriate for the CM-at-Risk delivery method. Holder is an extremely experienced contractor, one of the top CM-at-Risk contractors according to ENR, which is able

to manage several contracts. In addition, the excellent rapport between DuPont and Holder allows for DuPont to fully trust in their contractor and know that whatever Holder decides to do will be in the owner's best interest.

BONDS AND INSURANCE

DuPont does not require bonding for the MADC5 project.

Unlike most projects where all subcontractors are required to carry their own insurance, the subcontractors on MADC5 have been enrolled in a Contractor Controlled Insurance Program (CCIP). Holder buys the insurance policy for the entire job which includes Worker's Compensation/Employers Liability, General Liability, and Excess Liability. This program was chosen because it is a cost savings for the owner since the insurance costs are covered in one fee and there are not fees for each contractor and Holder's modifier rate is much lower compared to the individual subcontractors. In the end, it is a win-win situation.

However, there is additional insurance that is not encompassed by the CCIP but required by all subcontractors including Automobile Liability, Off-site Worker's Compensation/Employer's Liability, Off-site General Liability, and Contractor's Equipment.

KEY CONTACTS

OWNER

DuPont Fabros Technology | Bob Berlinsky (Sr. Vice President of Construction)

ARCHITECT

Donnally, Vujcic, & Associates, LLC | Ron Runnion (Project Manager)

ENGINEERS

CCG Facilities Integration, Inc | Tom Breard (Project Manager)
Rathgeber/Goss Associates | Mike Goss (Structural Engineer/Project Manager)

CM @ RISK

Holder Construction Company | Blake Edwards (Project Manager)

KEY CONSULTANTS

EBL Fire Engineering | Fire Protection Consultant
EMO Energy Solutions, LLC | LEED Consultant
Hood, Patterson, and Dewar Incorporated | Commissioning Agent

ORGANIZATIONAL CHART

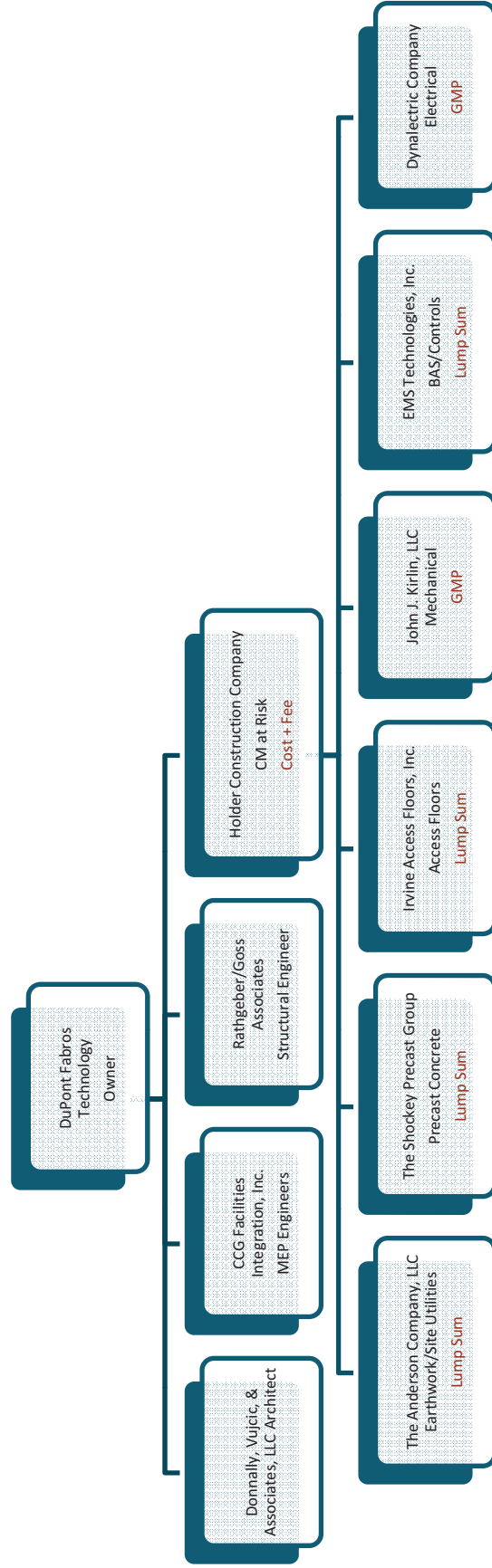


Figure 1 - Project Organizational Chart

PROJECT MANAGEMENT

Holder Construction Company consistently provides expertise in both project management and supervision to every project. Each staff is strategically selected based upon the size, complexity, and duration of the project at hand. Typically, the project will have a Vice President assigned to the project that overlooks the entire process, but is rarely on site. A Project Manager directs the project management staff, while a Superintendent will administer the field supervising staff. Despite a slight existence of a hierarchy, there is an abundant feeling of equality and respect that creates a team atmosphere for the entire job. Each member of the team has their own trade responsibilities, but constantly works together to successfully complete the project.

The MADC5 project, however, required a slightly different staffing plan due to its involvement with other projects. MADC5 is one of three data centers being constructed for DuPont Fabros at the same time, but in different locations. The owner refers to the projects as one overall project entitled, "Project Seven." As a result, the overall project staff for MADC5 has a larger staff and a couple prominent management positions to oversee the project. Project Seven has a Senior Project Manager to oversee management and a Regional General Superintendent to oversee field supervision.

As for MADC5, the project is led by a Project Manager and Superintendent. The management side includes a Senior Engineer, MEP Coordinator, two Project Engineers, two Office Engineers, a Field Office Processor, and an Administrative Assistant. In the field, there is a Safety Coordinator, Assistant Superintendent, Senior Field Coordinator, and a Field Coordinator.

Team Member Descriptions

Rick Morgan | Sr. VP – Responsible for all data center projects
Tom Shumaker | VP – Responsible for all Mid Atlantic operations/business development
Gavin Kalley | Sr. Project Mgr. – Sr. leadership for all Project Seven (MADC5, NEDC, NWDC)
Blake Edwards | Project Mgr. – Project Manager for ACC4, MADC5, BLU, & BL2
Chris Brogdon | Reg. Gen. Superintendent – Field leadership for all Mid Atlantic projects
Joe Ubario | Superintendent – MADC5 Project Superintendent
Mark Maska | Sr. Field Coordinator – MADC5 Field Supervision
Tyler Antil | Field Coordinator – MADC5 Field Supervision
Paul Jorgensen | MEP Coordinator – MEP Management
Mark Bacus | Sr. Project Engineer – Cost & MEP Management
Jonathan Galvin | Project Engineer – BIM Coordination & trade management
Greg Smith | Project Engineer – LEED Coordination & trade management
Aaron Martens | Office Engineer – Trade management
Angel Holthus | Office Engineer – Trade management
Monjia Belizaire | Office Engineer – Trade management

Please see Figure 2 - Project Team Staffing Plan on the following page.

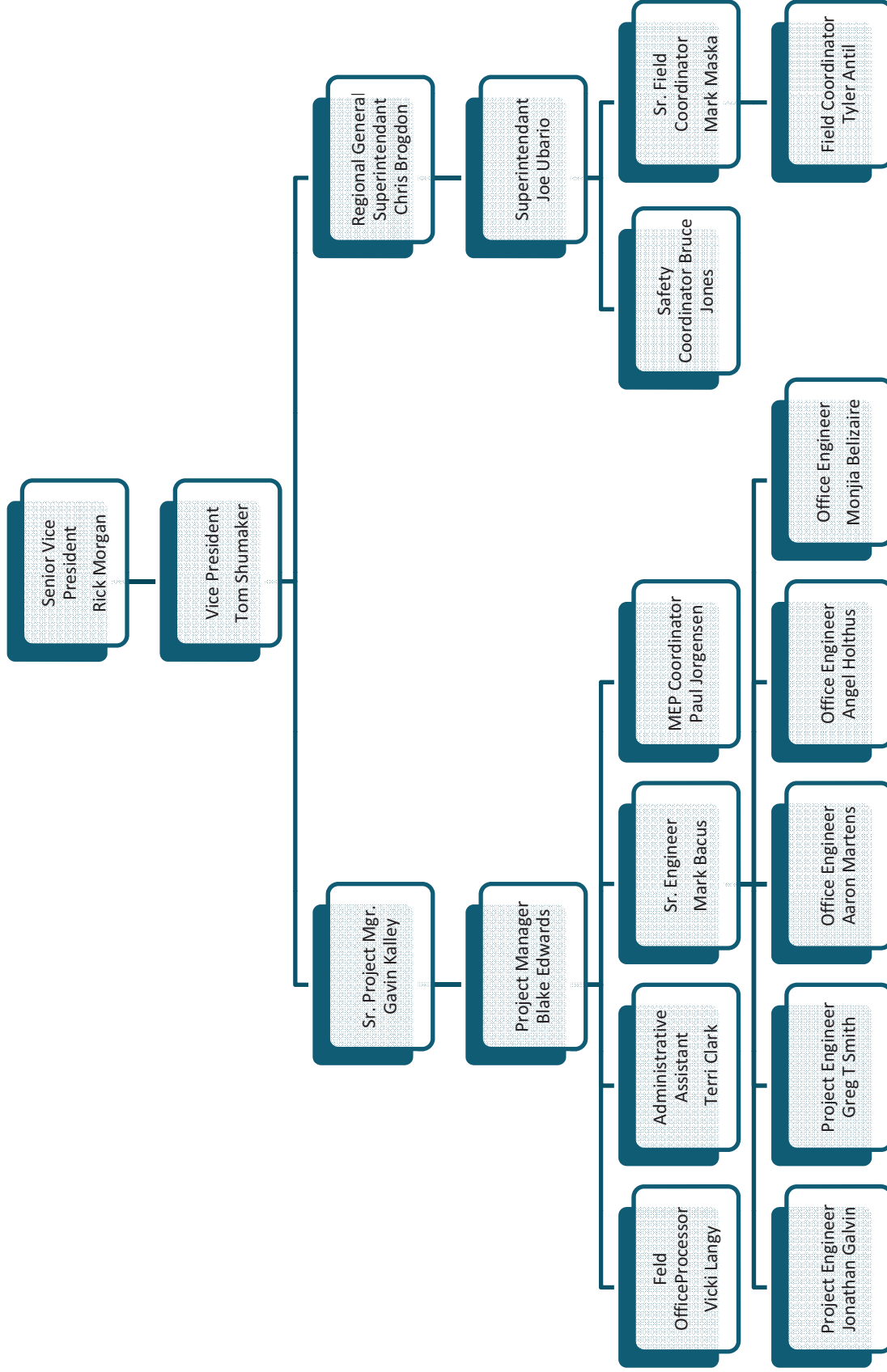


Figure 2 - Project Team Staffing Plan