

FM Consulting Case Studies

Gordon Rogers and Karla Reid

When discussing the use of FM consultants, FM's worldwide generally fall into two camps. 1) Those who say they can't afford, or have no use for consultants, and 2) Those who are very pleased that they are currently, or have recently utilized FM consultants. If you, an FM, or an executive with facilities responsibilities, wish to improve the performance of your facilities and facility management, an FM consultant could be worthwhile. What would be the extent of your time, effort, and expense to find out? What outcomes should you expect? While the members of FMCC do not have a formula to answer these questions definitively, the subject is always on our minds.

Disclosure: this article is written by CFM's who are consultants. However, instead of making the argument to hire a consultant, we thought it would be more practical to discuss real life case studies of our current and past consulting experiences.

Case Study #1 - Gordon Rogers, AIA, CFM of Kitchell CEM, Inc.

Discovery

My FM journey began one morning in early 2014 when the General Services (DGS) from our State called and asked for our help. They went on to explain that the central plant at a marque State building which was only 10-years old had seized. Over 5,000 occupants of this high-rise building were significantly impacted. I have eliminated the names and places in this story to protect confidentiality.

In our state, the various State departments and agencies construct and maintain buildings from their individual budget sources and are required by the legislature to have DGS procure and maintain their facilities. DGS has multiple divisions. The one responsible for FM was a branch called BPM, which was part of a Real Estate Division known as RESD. BPM serves many "Client" agencies, such as the Department of Transportation, Department of State Hospitals, Department of Motor Vehicles, etc.

BPM employs over 2,000 staff who provide FM services on some 282 State buildings totaling 26 million square feet. These services are charged by DGS to the client agencies as required by law.

When contacted by DGS, BPM didn't ask our organization to figure out how to fix the central plant. Instead we were asked to figure out why and how this happened, in an effort to prevent this type of catastrophic failure in the future. Interestingly enough, a "client" agency hired our firm through DGS. Our services were looked at as not necessary by BPM. If it were not for the Governor's office stepping in, we may have never accomplished what we have to date (late 2019.)

Initial engagement

We suggested development of a gap analysis to assess the current state of operations compared to what services BPM should deliver for the money spent by the client agency each month. The gap analysis demonstrated critical failures and deficiencies in several core FM competency areas that lead to the 10-year old central plant requiring \$20 million in repairs (by initial estimates).

Unbeknown to us at the time, the Legislative Analyst's office and Bureau of State Audits were conducting parallel investigations and all three teams came to the same conclusions.

Once our report was issued, we were contacted by a representative of the Governor's office and asked how we thought BPM could become more successful. We suggested FM Program Management where a Program Manager would imbed into BPM and help them develop strengths in all FM competencies. An RFP was issued and after submitting our SOQ and competing against other firms, our organization was awarded the contract.

The project gets underway

What we discovered next was challenging. In nearly every FM core competency, BPM was either understaffed, lacked legacy knowledge or completely overwhelmed. There was no organized Preventive Maintenance program. There was little or no skills training offered for technicians. Their Enterprise Asset Management (EAM) software was out of date and poorly configured. There was no quality control program. The whole group seemed like they were playing "whack a mole" at the arcade. They were substantially underfunded for the amount (\$4 billion) of identified backlog deferred maintenance projects.

BPM reorganized as its own Division within DGS and is now known as FMD. As Program Managers for the DGS-FMD, Kitchell, our firm, deployed the 11-core competency approach of IFMA, the International Facility Management Association. Our ongoing role as consultants on this Program is to provide recommendations and then, when approved, implement those recommendations throughout the organization.

Progressing: IFMA FM core competencies chart the routes

The following is a summary of our work effort/product for FMD over the past three years, presented using the FM core competencies derived and maintained by IFMA.

Technology: Upgraded EAM Software to latest cloud-based version; Tagged 16,000+ assets; Connected timekeeping and financial applications to EAM; Implemented customized EAM interface; Implemented mobile technology; Stood up state-wide telephony and work control/dispatch team; Implemented automated notifications and reports. *Editor's note: At Maximo World 2019 in Orlando Florida, FMD was awarded, "Best Overall Asset Performance Program."*

Property Management: Developed policy for leased facilities; Developed minimum service levels for FM services; Developed policy and procedures to maintain a "call list" of facility contacts including processes required to update all parties and list holders every 6 months.

Quality: Implemented audit procedures of in-house and vendor work; Implemented employee training programs for Life/Safety, High Performance Building engineering, and EAM proficiency; Configured EAM to prohibit unqualified/untrained personnel from being assigned risky tasks; Developed EAM-based QC functionality; Developed and administer follow-up survey to those originally requesting service.

Human Factors: Created and facilitate internal leadership teams; Developed quarterly Action Committee concept & structure composed of key voices at all levels of the organization. Action Committee members became evangelists for change; Facilitate EAM and Preventive Maintenance Governance Committees; Developed curriculum and conduct safety, skills and management training statewide.

Communication: Developed change management policy & procedures; Coordinated with Public Relations office; Coordinated with DGS Communications Department; Facilitated weekly Executive Team meetings; Facilitate quarterly Governance Committee meetings; Facilitated quarterly Action Committee meetings.

Emergency Preparedness & Business Continuity: Update critical contact database and contingency protocols; Implemented Incident Command System (ICS); Designated Emergency Operations Centers; Developed business continuity plans, escalation policy and communication protocols.

Environmental Stewardship & Sustainability: Developed and implemented project initiation process that evaluates in kind vs enhanced equipment replacement in support of the State's sustainability goals; Partner with other DGS Departments to coordinate ESCO, energy conservation and alternative funding strategies.

Operations & Maintenance: Developed and implemented robust maintenance program including written scheduled and unscheduled maintenance procedures and an audit policy; Established a statewide call center to address all customer/tenant and O&M facilities staff issues; Implemented web-based FM tracking & reporting tools so leadership can track work order status/progress. To complete asset tagging, we deployed five 3-person teams statewide over a four-month period.

Leadership & Strategy: Developed and implemented an asset management plan that is an essential element to the FMD Strategic Plan. Developed a process to manage unscheduled maintenance and resulting budget implications. Track trending progress in open work orders and causes. Recommend policy & practice changes to leadership. Developed and implemented Key Performance Indicators for continued improvement.

Project Management: Developed and implemented project prioritization policy; Monitoring and/or managing some 2,500 open past maintenance deficiencies; Managing construction projects from initial design through testing and closeout as funding becomes available. Implemented web-based program-level controls enabling leadership to monitor individual project progress (cost & schedule) in real time. The Governor's office had expressed concerns with increasing the paltry deferred maintenance (DM) budget because there was a lack of trust that additional funds would be utilized efficiently. Upon implementing this program, DM funding has increased every year.

Finance & Business: FMD requires DGS leadership approval for each new initiative recommended by Kitchell; Develop business-case documentation including (in some cases) chartering documents for each new policy or procedure requiring leadership support; Provide initiative management support.

Lessons learned

Our Program team is comprised of full-time FM leaders and support professionals who demonstrate project/team dedication, technical knowledge and skills, and communication.

Some lessons we have learned in this endeavor: 1) Do not underestimate the need for purposeful change management. 2) In a large organization, listen to stakeholder concerns and genuinely try to understand and address each perspective. 3) Some of the best ideas come from internal sources. 4) Involve all levels of the organization. 5) Leadership buy-in is fundamental to success. Leadership buy-in is not a one-time event, it is ever-occurring. To maintain leadership support, pertinent performance data should be organized and readily accessible. To this end, we established a robust dashboard that is

updated daily and connects with the EAM and Project Management software systems. The dashboard includes FM metrics including KPI's and Project health metrics on all ongoing DM projects.

Conclusion

This Case Study concerns a large project of multi-year duration, but FM consultants can provide similar services, selected and scaled in time, scope, and cost for an organization of any size, focusing on one or more of the Core Competency areas.

Case Study #2 - Karla Reid, MSc, MIFMA, independent consultant based in the Middle East

Discovery

My FM Consulting Case Study is against the backdrop of the lightbulb moment when someone realizes that "GO LIVE" is months away and there is no clear path to occupation of the facility...a facility to be opened, budgeted, staffed... even canapes acquired for the opening event. A very wide range of things need doing. This job is not for your usual event planner. It calls for an FM Consultant.

FM Consultancy is where engineering, people, financial & event management meet in final harmony to allow for the enjoyment of a constructed or retrofitted space.

Engagement

Let's begin at concept: a space is required, and an architect retained to design the space, and a project contractor to build it - with all associated budgets and programmes in place to support the project i.

What gets missed in the buildup of an idea to create space is what I refer to as the 4 pillars of the delivery of FM role; **Durability, Availability, Maintainability, Accessibility** (DAMA©). These can only be addressed effectively in an FM Consultant scope. The four emerge at once with the participation of an FM consultant.



Examples

A competent project team will ask these questions to ensure these FM Criteria are resolved as the project advances.

Re: *durability*, what impact of will the project have on operations? is usually understated that temporary facilities have to be propped where mess and changing

facilities were missed for the army of participants needed to keep the facility available.

Re: *availability*, what impact of will the project have on storage? Provisions for storage facilities are often missed and quick proposals have to be obtained for offsite storage solutions - which can be expensive.

Re: *maintainability*, equipment clearances for atria and foyers are often overlooked. In one instance 2mm porcelain tiles were installed on surfaces joined with supports for a manlift required to access the services at 20m aloft for emergency maintenance. It wasn't long before the tiles were cracked. A load bearing path had to be designed and installed for *accessibility*.

Solutions

An FM consultant can ensure answering of questions and prevention or resolution of scenarios like the above are through, guiding the project team to and through:

- ✓ Design Reviews
 - ✓ Energy and Sustainability plans disrupting typical high operation cost models
 - ✓ Maintenance Plans
 - ✓ Operational Readiness Plans
 - ✓ Development of Operational Budgets
 - ✓ Facilities Management Strategy for all related operation and maintenance
- activities required for facility's availability to its users
- ✓ Development of RFPs, tender management to mobilizing services
 - ✓ Manage Client Handover and Transition process from construction to operation

Discussion

Engagement in a complicated project on a compressed schedule is no easy feat. The FM Consultant answers the call with resoluteness and with a breadth of experience across various sectors and projects to smooth and speed the client project and transition to the new facility to make the client experience as seamless as possible. FM consulting is useful from the start. To prepare for a project, not only must the client determine in advance the costs of all aspects of design and construction, but how much it will cost to operate the building as well. All are within the competence of FM consultants, often in a single group, partnership, or individual FM.

Business operations and energy management example: The FM Consultant should participate in selection of MEP and HVAC equipment to ensure it meets the "DAMA". Day to day operations should inform the utilisation ratios set for this type of equipment which directly impacts the costs for operations, cost of leased areas, etc. It is well established that the end-user is not usually at the design table and your FM Consultant usually bridges that gap.

Conclusion

Design and Construction may last a few weeks, months, or years, but facility operation and maintenance continue as long as the designed lifecycle - typically 25 -50 years. In view of the continuous flux in techno-economic situations coupled with changing supply chains as encountered during both construction and operation, the FM Consultant has been the beacon in defining client responses to ensure durability, availability, maintainability, and accessibility - DAMA - as the facility comes into useful life. Involvement of an FM consultant working under these four principles can help essentially to ensure operations and maintenance performance for years to come.

Authors Gordon Rogers and Karla Reid are members of FMCC and participate regularly in the Council while maintaining their consulting practices.

Gordon Rogers (study 1), AIA, CFM is Secretary of the Public Sector Facilities Council and member of the FMCC. As an architect, Gordon brings a unique perspective and expertise to FM. Gordon plays a key role in integrating services covering the entire asset life-cycle; Master Planning, Capital Planning, Programming, Project and Construction Management, Engineering and Architectural Services and Facilities Management. Gordon's client-centric and pragmatic approach combined with his broad experience in design, construction, finance and strategic planning provide solutions that result in long-term relationships. Gordon may be contacted by email at grogers@kitchell.com.

Karla Reid (study 2), MSc, MIFMA is an FM Consultant based in the Middle East and has delivered FM Solutions for iconic projects across the UAE. Her core expertise is Transition Management of projects through design & construction to operation. A career spanning over 20 years across the Caribbean, United Kingdom (delivering solutions for key PFI Projects) and Middle East. Karla has been instrumental in bridging the gap between the Client, Project team and end-user always promoting FM Consultancy as a critical part of the design and construction process to achieve desired operations and end user-wellbeing. Karla can be contacted by email at archreid@yahoo.com