Cogen Technologies

When/Where: Following my graduation from Texas A&M in May 1998, I joined Linbeck Construction in Houston, Texas. After completing a new hire orientation and Office Engineer training in June `98, I was assigned to my first professional office project. Cogen Technologies was located in Houston's high-rise district, downtown in the Pennzoil Plaza, 711 Louisiana St, on the 33rd Floor. The corporate headquarters at the time were occupied and involved careful coordination with the office manager. After several visits to the job, I began to notice a peculiar and growing collection of NFL related fan paraphernalia; banners, old game tickets, trinkets, signed jerseys, awards, certificates of recognition, etcetera. There were many enshrined glass cases. I realized many years later that I was working in and building the makeshift offices for the Houston NFL Holdings group. The group, chaired by Mr. Bob McNair, owns and operates the Houston Texans.

What: Cogen's office expansion involved a 15,000 SF, $2m - high profile Tenant Improvement project.

Who: *"Cogen Technologies, Inc. develops, owns, operates, acquires, and finances power generation facilities in the United States. It produces electricity and steam. The company is based in Houston, Texas"* - Bloomberg, Businessweek. During the project, CEO and Owner of Cogen Technologies, Bob McNair, bid $700 million for (and subsequently won) the NFL's 32nd franchise!

"Robert C. McNair, a leading businessman, sportsman and philanthropist in the city of Houston for more than 50 years, is the founder, chairman and chief executive officer of the Houston Texans.

McNair is perhaps best known in the business community as the founder of Cogen Technologies, which was sold in 1999 for 1.2b to Enron. Cogen was the largest privately-owned cogeneration company in the world, with aggregate capacity of 1,400 megawatts." - Houston Texas Official Website

Achievements: The office improvement was a success and my first exposure to commercial office work. I was the Project Engineer; working closely with the Project Manager and the Architect to deliver the new home of Cogen Technologies and the launch pad offices of the Houston Texans.

I learned many things the first year out of school. One of the most important breakthroughs however, was discovering the significance and power of networking. I met Mr. Craig Winburn at Linbeck Contractors. Craig and I both left Linbeck to work on other projects but we have maintained contact over the years. Thanks Craig!

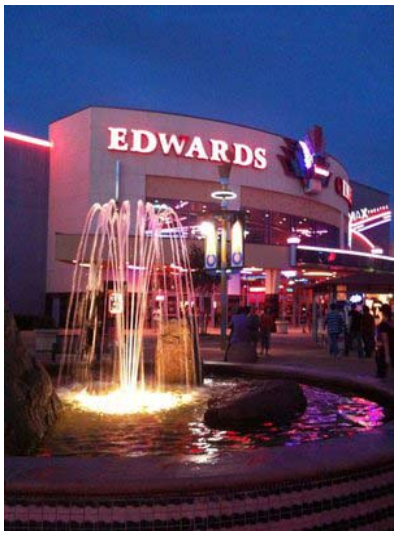
It's the Place!

MarqE

When/Where: After completing Cogen in the spring of 1999, I went to work on the Houston PLC Entertainment Center featuring the city's second IMAX Theater Project. I was Project Engineer for the General Contractor, Snyder Langston. Snyder Langston was based in Irvine, California.

What: The Project was a fast-track 350,000 SF, $40 million outdoor mall and 23 screen theater shopping centre. The Houston PLC Entertainment Center is now better known as "The Marq*E".

Who: The California chain, Edwards Cinemas, was the anchor tenant and scheduled its grand opening just before the December 1999 holidays. Prime tenants include Dave & Buster's, Surfer's Paradise, LA Fitness, Café Adobe and Red Robin.



Achievements: Tilt panel construction was highly decorated with a west coast design theme that was well received in Houston. I had the opportunity to work closely with IMAX's FF&E delivery program. IMAX displayed an impressive blend of ingenuity and a bit of Hollywood extravaganza at every detail.

At subcontractor coordination and owner meetings, I was an appendage to the Project Manager; listening, recording and issuing meeting minutes. The project came with the owner's onsite Representative who's trailer sat next to ours. Some mornings you could find him rummaging around with subcontractors working all the information perspectives. I was given the opportunity to work directly with the project's Construction Administration services/Architect, Robert Malabashian [RTKL, Los Angeles] to process RFIs and Submittals. As a rather *green* Project Engineer, the Superintendent would let me know (sometimes in public displays of humiliation) how important communications were and specifically the time sensitivity of Transmittal, Submittals and RFIs. The schedule was relentless – December was coming fast! The work of acquiring, reviewing, transmitting and returning timely project documentation were lessons that left a devout impact on me. The critical interaction of related parties to the documents (Subcontractor, GC, Architect and Engineer) were forever impressed.

In time, I was able to gain the Architect's confidence. I worked with Mr. Malabashian, side-by-side on some occasions, to resolve construction issues in the field during his site visits. Everyone's efforts resulted in the spectacular, on-time, opening of Houston's newest IMAX theatre and outdoor shopping mall.

QUERENCIA

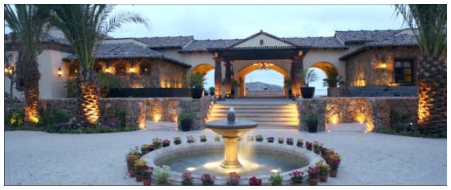
When/Where: Late in the winter of 1999, I received my first international assignment. I remember the phone call from Mr. Craig Winburn, "do you want to move to Cabo San Lucas?" I was on a plane to Mexico 2 weeks later to work on an ongoing Planned Residential Community project as one of several Project Engineers for Kitchell Contractors, an Arizona based contractor.

What: Querencia's 1st Phase of Residential Development consisted of 840 acres and approximately $70,000,000 worth of infrastructure. Amenities included a world-destination, Tom Fazio design Golf Course.

Who: The vision of the project came from the pioneering team, Gaylord Entertainment, Nashville, TN. Gaylord Entertainment owns several Hotel and Entertainment brands but is best known for the Grand Ole Opry in Nashville and for the 70's Variety show, *Hee Haw*.

Achievements: I was responsible for the Project Engineering duties related to the completion of the Golf Course. Much of the course construction interfaced with the civil disciplines; roads, irrigation reservoirs, reclaimed water, as the course switched back and forth over the site. Frequently, our team coordinated with The Keith Companies, resident Engineer (Brian) from Costa Mesa, CA. I worked closely with Wadsworth, the US Based Golf Course Contractor and the Fazio Course Design Associates.

Querencia presented a unique set of labor, material procurement and communication challenges due to its remote location on the southern tip of Baja. Our team worked with Mr. Steve Fleshman, the Owner's on-site Representative. Craig was Kitchell's on site Project Manager. Mr. Winburn introduced our team of young engineers to the many intangible, yet interconnected components of planned community development.



Querencia's first phase of development included approximately 300 private residential home sites, a sales center, golf club & course support facilities. Utility construction included a central wastewater treatment plant & low-pressure residential sewer system, roads, irrigation reservoirs & offsite reservoir, transmission pipeline & pump stations and related wet/dry utilities. Querencia experienced early political and financial instability during its development however it has emerged as "one of Mexico's most treasured addresses". Design and construction of new Custom Homes continues today at Querencia.

When/Where: In early 2001, Mr. Mike Rock invited me to join the Hokuli'a team in Hawaii to help bolster the staff. At the time, Mr. Rock was Executive Project Director for Hokuli'a and Querencia and President of Kitchell's Master Planned Communities Division.

What: Hokuli'a was like Querencia in terms of program but was double its size in land. Hokuli'a was already underway when I arrived. The project's first phase of development featured a sales center, a makeshift half-way house temporarily serving as the Club House. The 1550 acre project featured approximately 600 custom home sites, a Nicklaus Design golf course, irrigation lakes, roads, infrastructure, and a bypass highway serving the surrounding community.

Who: 1250 Oceanside Partners, a subsidiary of the Lyle Anderson Companies, Phoenix, AZ, was the project's Developer. Japan Airlines initially participated with 1250 Oceanside and held 75% ownership interests in the project. Due to overwhelming development opposition, Japan Airlines exercised an early exit option. The project survives today. The development of Hokuli'a has been difficult and its future uncertain as financial issues and legal debate overshadow the success of the project.

Achievements: Initially, I was tasked with managing the completion of the Golf Course. I had the great pleasure of working with Temecula based Weitz Golf International and the hand selected Nicklaus Course Design Associates. The Nicklaus Course Design Associates assured that the course plan followed the guiding Nicklaus design principles. As the project progressed, my involvement grew so proportionately. Mr. Rock allowed me to assist with monthly cost reports prepared for Mr. Neal Iverson, Oceanside's representative. To support me in my new role, I began attending upper level meetings with Mr. Rock, Mr. Bill Thornton, Kitchell's Project Manager and other Oceanside consultants.

As part of the Developer's contribution to the surrounding community, a 5 mile section of the Mamalahoa Bypass Road was to be developed from Captain Cook to the south end of Ali'i Drive to ease the traffic in the small village of Kealakekua. I was directly responsible for RFP's working with Belt Collins, the Highway Engineer, to produce various iterations of the Highway Project Budget. Keiwit Pacific Co. was the awarded contractor.

Hokuli'a faced the same problems most remote projects of this size and scope face: there were shortages of materials, labor and equipment transportation issues. Hokuli'a was different from other projects however. The project faced unexpected social challenges that affected its progress and completion. Heavy excavation activities throughout the site began uncovering ancient Hawaiian lava tubes. As part of the established project protocol, when lave tube breaches were encountered; archeologists were dispatched to complete a spatial map of the cave and to catalogue the cave's artifacts as they were discovered. The more we mapped, the more we discovered the incredible network of historic cave systems that existed beneath site. As part of the exploration of each tube, significant archeological discoveries declared the tube opening a protected cultural site. Construction was either suspended indefinitely or re-directed so as to not interfere with the site. Legal debate followed for many years following our involvement with the project.

When/Where: With Hokuli'a facing an uncertain future; Mr. Rock suggested a move to Phoenix, Arizona in January 2002 to join the Kitchell Corporation.

Who: During the Hokuli'a project, the owner required that we report monthly expenditures and future cost projections through a 3rd party database software system as opposed to using excel or Kitchell's internal job costing software. In most cases, internal accounting reports are cryptic to people outside of the organization. Kitchell employed Prolog – an Enterprise Software Solution used to "Log" job data and produce job cost reports and other reports related to Job Status. Prolog manages various [course-of-construction] project *information* divisions in Packages. For example, the RFI component is a module that stores electronic data related to a Request-For-Information *record*. Submittals, Transmittals, Meeting Minutes, Cost, Schedule and other important records are kept in a similar modular fashion. Enterprise Software Solutions are computer programs that are implemented across a company platform and utilized by all related business segments of the company.

What/Significance: I produced customized budget and cost variance projection reports to satisfy Owner reporting requirements across the company. Throughout the process, I developed specialized skills in database manipulation through training available from the Software Manufacturer. It was possible to customize a Prolog cost-report print out (or any other type of job data output) by modifying the location of data fields using a separate program known as Crystal Reports. Crystal Reports was the native software used to build the default reporting options already embedded in Prolog.

With many aspects of information management in our daily lives going web-based in the late 90's and early 2000, the construction industry was not far behind developing software for the purpose of web-based project management. Prolog, by Meridian Project Systems (MPS), soon offered "Project-Talk" as an ASP (Application Service Provider) or what is now commonly referred to as a web portal. ASP users subscribe in monthly or yearly intervals instead of purchasing a license. This was the fundamental difference between ASPs and traditional *Software*. Modern web portals such as Linkedin and Facebook are not user fee based. They are database applications that generate revenue with advertising or other subscription methods and have morphed in complexity but built on the legacy code established by former ASP software architecture.

MPS offered advanced database training classes designed specifically for the *Prolog Database System* and for creating specialized reports with *Crystal Reports*. I completed three MPS certifications – one in Hawaii, another in Phoenix and the last in Sacramento as part of my training. I developed an adaptation plan, launched, troubleshot and provide technical support for Kitchell's electronic project controls initiative. I worked with the Arizona Schools Facility Board (a Kitchell Contractor's Project) and with the Cultural Arts Division[1] of Kitchell-CEM[2] to launch Kitchell's pioneering program.

[1] Kitchell CEM (Capital Expenditures Management) is a business segment of the Kitchell Corporation centered on Government work – City, State & Federal Facilities. [2] The Cultural Arts Division of CEM focused particularly on Fine Art venues and city ornamentation projects.

Creative Air - Aircraft Hangar

When/Where: I completed Kitchell's web-based project controls pilot program by July 2002. Soon after, I learned that *The Beck Group* (a Dallas, Texas contractor) recently opened an office in Phoenix. Project controls software ASP solutions management were my day-to-day function with the Kitchell Corporation. I realized that I was beginning to steer hard towards a computer science career. This was a deviation from Construction Management as a career path. A move to Beck would help me reposition in the industry.

One of the curriculum requirements at Texas A&M was a summer internship with a construction company. In the summer of 1997, I interned with The Beck Group in Dallas, Texas so it seemed natural to approach the Beck Phoenix office. Coincidently, Beck was looking for new recruits in Arizona. Beck was reintroducing itself to the Arizona market although Beck had built some mid-rise buildings, downtown Phoenix in the 70's. Beck brought a 3 man management team along with an array of national clientele to help carve out its share of the market.

What: Creative Air was the first project I completed for Beck. The aircraft hangar, a 24,000 SF tilt-panel building, provided space for one jet aircraft, offices, restrooms/showers and Pilot's sleeping quarters.

Who: The aircraft hangar kept *Executive One*, the private jet for Pet Smart, the building's tenant. The developer was from Virginia Beach, Virginia.

Achievements: The project presented us with challenges not typical of commercial construction. We learned a great deal and struggled with some of these atypical features particular to aviation construction.

The Hangar door consisted of bi-parting, folding metal panels that rolled on light rail driven by electrical motors at either end of the doors. The doors were big enough to accommodate a Gulf Stream 650 approximately 25' tall with a 100' wing span. The specialty door was custom built to suite the application. We experienced various mechanical and design issues during startup and delivery of the doors. Eventually, we successfully commissioned this very challenging component of the project.

The floor coating was a industrial-grade specification epoxy. The product specifications instructed the contractor to employ the special inspection services of a 3rd party consultant. Surface preparation procedures and material applications were observed by the inspector. The selection of the inspector was to be authorized by the Manufacturer. This was an important element of arbitration. Although the prescribed procedures and methods were followed, the floor coating failed due to an unforeseen element that affected the floor coating from beneath the concrete slab. It was later discovered that a subterranean watershed intersected areas of the Scottsdale Air Park field. Unfortunately, this discovery was not made in the original geotechnical report. Extreme summer heat combined with rain produced a powerful vapor-drive through the slab. The moisture was captured by the impermeable epoxy coating and revealed as thousands of tiny bubbles on the surface of the mirror-like finish.

The issue was unresolved initially but ultimately defended in arbitration. This was the first instance in which I had limited involvement in legal debate related to a defective construction case. I was responsible for producing testing records other documents related to the application of the product. It was ultimately found that the moisture source and the resulting *Alkali-Silica Reactivity* (a rather obscure chemical reaction [triggered by excessive moisture] that degrades concrete) was not the fault of the contractor.

USDA Forest Service Building

When/Where: After completing the Creative Air project in February 2003, I was assigned to the USDA Forest Service building in Flagstaff, Arizona. Most of my work was out of the Phoenix office and was focused on the preconstruction phase of the federal *design build* project.

What: The four-level masonry and steel structure was rather ordinary. The office project was special due to its building envelope; designed to counter the harsh freeze-thaw and other winter conditions common in Flagstaff.

Who: The developer, Eland Energy, partnered with the Beck Group to design, bid and then build the Forest Service's principal office in the area.

Achievements: Although the project was successfully completed without memorable incident, the most striking recount of this project relates to the interaction between the Architect and Structural Engineer. I was responsible for coordinating the structural review with the New Mexico Architect and the Phoenix based Engineer. The immediate explosive exchanges between the ill-tempered Structural Engineer and the soft spoken Architect were a clear sign of a rough road ahead. The Architect had a history of working for the US Forest Service on prior projects so she set the standard and pace for the project. Beck hired the Structural Engineer and other consultants.

It appeared the characters of the Architect & Engineer were bi-polar opposites that repelled each other. Our first meeting was a complete disaster and it seemed impossible that the two consultants would agree on anything. I found myself having to steer the Architect and Engineer during meetings to stay on course. Design coordination was accomplished in time but the battle scars remained at least until the steel structure was complete.

Crate&Barrel

When/Where: The preconstruction phase of the US Forest Service Building lasted until approximately December 2003. I was released from the project and my good friend Ron Emes took over the construction phase of the US Forest Service Building. Althozgh I did assist briefly in the early stages of project buyout, I was soon after appointed to the Crate & Barrel Home Store in Tucson, Arizona. Throughout the project, I commuted from Phoenix to Tucson on a weekly basis staying at nearby hotels. On one occasion, I believe it was near the end of the project, I did enjoy a stay at The Westin - La Paloma Resort, just down the street from the Project.

What: The 21,500 SF tenant improvement project was located at La Encantada Mall. The outdoor mall was Westcor's (the mall developer) latest outdoor creation featuring a magnificently planed - split level design featuring an array of select shops and restaurants. My understating is that La Encantada Mall has become the choice shopping and dining setting for the surrounding community and nearby resorts.

Who: The onsite construction team consisted of a Beck Superintendent who joined me from Dallas. Ron Ohm was the Senior Project Manager and stationed in Phoenix.

Achievements: The Owner's management team, an Owner's Representative and two Architects, had a very long history of managing Crate & Barrel projects. Mr. Peter Wehrli, the Crate & Barrel Architect, assured the delivery of the Crate & Barrel brand while Mr. John Mobes, a 3rd party Architectural firm - Good, Fulton & Farrell Architects (GFF), provided Construction Administration Services for the Owner.

Because of my prior experience with web-based project controls at the Kitchell Corporation, I was able to help GFF with a new initiative dedicated to reducing hard copy documentation on the project. Web-based collaboration was something that came naturally to me so my course was to keep building and improving GFF's process. I used *Adobe Acrobat Professional* to markup drawings and jobsite images for Mr. Mobes. This process virtually eliminated *FedEx* and the use of a fax for transmittal of project information. Towards the end of the project, I used *AutoCAD* to produce small details that were missing or to propose solutions necessary for the completion of the project. The Crate & Barrel team honored me with approval of most of the ideas and suggestions I submitted for the project.

When/Where: The Crate & Barrel project in Tucson was complete in August 04. I moved to Rocky Point, Mexico in September 2004 to meet with the Beck Mexico Team and two members of Pelican Partners. From the Pelican team, I met with Chris Faul and Jonathan Beck. I was later introduced to principal partner, Jim Dow. Bella Sirena was underway and approximately 15% complete at the time. The concrete structure of the upper floors of the 2 west towers casts large shadows on the shrinking Sandy Beach. The project was being self-performed by the developer, Pelican.

What: Initially, the Beck Mexico office contacted the Beck Phoenix office to request pre-construction assistance given our proximity to the site. Beck Mexico first contracted with Pelican Partners for consultation purposes from September 2005 to January 2005. During this time, I was joined by Rene Muñoz, a senior cost estimator from the Mexico City office. Mr. Muñoz prepared Beck's cost estimate. My primary objective was to help Pelican identify problem areas related to their internal construction process. The Owner's construction team made up mostly of local construction experience was experiencing growing pains. In addition to ongoing field related issues, the breakdown of communication [Mexico construction operations, and Pelican leaders] lead to the misalignment of the parties.

Who: Pelican Partners was a development group from Seattle, Washington, formed exclusively for this project. The group, lead by Mr. Jim Dow, was purported to have financial ties to Mr. Paul Allen. Mr. Dow and select members of the residential building group (Schuchart/Dow) lead the development efforts at Bella Sirena. The US arm of Pelican Partners was later called Bear Holdings. I joined Bear Holdings January 15, 2005; the day Beck was awarded the contract for completion of the project. As most other developments on Sandy Beach, the Pelican Team was facing difficulties with labor, materials, contractor & market conditions. The project also experienced difficulties with Federal authorities and Local Municipalities.

Achievements:
Please refer to narrative section 3.7.0, Management Roles & Responsibilities for full scope of detail.