TED JACOB ENGINEERING GROUP

LEADING BY INNOVATION

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Our Story

2015 Cleveland Clinic Abu Dhabi

2014 Hyatt DHCC Hotel & Apartments

2013 Kaiser Oakland Medical Center

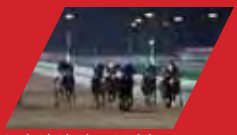
2012 Abu Dhabi National Exhibition Center

2012 Kaiser Los Angeles Medical Center

2006 UC Davis Medical Center

2005 Dubai International Financial Center

1987 Emirates Golf Club



1970 Nad Al Sheba Stables

Who We Are

Ted Jacob Engineering Group (TJEG) is a multi-discipline engineering consultancy firm with offices strategically located throughout the world. At the core of our business lie our people and our team comprises professional engineers with diverse experience across a wide range of disciplines, in many different markets and project types. We have worked with many internationally acclaimed clients on prestigious projects globally and experience has shown us that collaboration from the earliest conceptual stage is key to the successful delivery of world-class projects. Our services include:

- Project Management
- Structural Engineering
- Mechanical Engineering
- Electrical Engineering
- Plumbing Engineering
- Civil Engineering
- Lighting Design
- Audio Visual Design
- Acoustics Engineering
- Information Technology
- Fire & Life Safety Engineering
- Building Information Modeling
- Roads and Transportation
- Integrated Project Delivery
- Building Commissioning
- Sustainability Design
- Net Zero Energy
- Site Infrastructure
- Power Generation
- Construction Supervision
- Design Build
- Expert Witness

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Healthcare

Cleveland Clinic Abu Dhabi Hospital

Abu Dhabi, UAE

An iconic architectural design located in the heart of Abu Dhabi on the Al Maryah Island (formerly Sowwah Island), this state-of-the-art 364-bed hospital offers clinical care in conjunction with a 7-star experience for the citizens of Abu Dhabi as well as patients from abroad.

The 4.8 million sq. ft. hospital project includes the patient tower, a "swing wing" and an ICU tower and will include digestive disease, eye, heart & vascular, neurological and respiratory units. The project design team implemented evidence based design concepts to provide for unprecedented levels of patient-centered care while integrating the latest building technology for sustainability and energy efficiency.

Key engineering features of the project included a double curtain wall system, a variable volume 100% Outside Air with Heat Recovery HVAC system, and a gray water and condensate water recovery system.

The project will be Gold LEED Certified.

Kaiser Permanente
Oakland Medical Center Hospital Replacement
Oakland, California

Kaiser Permanente's flagship, high-rise, hospital will provide 620,000sf of inpatient care and 370,000sf of outpatient care, with two above and below grade parking structures. Inpatient care will include 349 beds, 13 operating rooms including hybrid and IMRI rooms and laboratory space. It also includes CT scan and MRI in the imaging department. Outpatient facilities include 6 operating rooms, cafeteria, MRI, and Linear accelerators.

A new central plant will provide steam, heating hot water, chilled water and 10 megawatts of back-up power. Back up fuel will provide uninterrupted utilities to the campus in the event of a power outage.

Drawings were produced in collaboration with the contractors using Lean and BIM design processes.

Following Green Guide for Healthcare standards, the innovative mechanical systems, including heat recovery, variable volume and efficient fan selections and configurations, reduce energy consumption by 38% compared with new, hospitals and 50% compared to older hospital designs. As a result of innovative plumbing and mechanical system designs, water consumption was also reduced by 36%.

Green innovation has also paid off in maximizing the available utility rebates for energy conservation.

Kaiser Permanente Vallejo Medical Center

Vallejo, California

The Kaiser Permanente Vallejo Medical Center expansion and renovation consists of 12 distinct project packages and is one of the healthcare provider's major undertakings in Northern California to address both patient growth and the California mandated SB-1953 requirements for seismic upgrade.

The main hospital tower has 188 beds and includes a surgery center, diagnostic imaging, women's services and a state-of-the-art rehab center. It features seventeen 100% Outside Air systems with Run-Around Heat Recovery. The systems are designed to provide flexibility in order to accommodate future health code requirements, in addition to providing energy efficiency and reduced first cost. The air handling units are located on the roof of the building to safeguard air intakes against Bio-terrorism.

The central plant houses chilled and heating hot water systems and emergency generators. A key feature of this plant is a separate gas-fire generator. With provisions for future heat recovery capability to function as a true co-generation system, this arrangement will provide operational flexibility.

Mills Peninsula Hospital Replacement

Burlingame, California

The 7-story 311-bed hospital replaces the existing Mills Peninsula Hospital in its entirety and will consist of the 460,000 sq. ft. Hospital and adjacent 180,000 sq. ft. Professional Office Building.

The new hospital includes Emergency Department, Operating Suites, 24-hr Pharmacy, Acute Care, Critical Care, Family Birth Center, Skilled Nursing Facility, Behavioral Health, Diagnostic and Treatment Services, Cafeteria Kitchen, Administrative and General Services.

The hospital is served by a 100% outside air HVAC system with heat recovery to maintain proper pressurization, cooling and indoor air quality.

Power for the facilities is provided by PG&E at 12 KV to the main switchgear in the Central Utility Plant. From there, power is distributed at 12KV to substations throughout the site. Emergency power is provided by three 2100 KW,

Kaiser Los Angeles Medical Center

Los Angeles, California

The Los Angeles Medical Center (LAMC) is one of Kaiser Permanente's largest inpatient hospitals in California. This replacement hospital will provide comprehensive acute inpatient care, including the most advanced tertiary care, cardiovascular surgery, pediatric intensive care, neurosurgery, spine surgery and high-risk obstetrics.

The tight urban site allowed for only a 100,000 sq. ft. footprint for the main hospital with no more than seven-story above grade and necessitated a highly efficient layout using vertical integration of hospital units to maximize the use of space.

The hospital HVAC system uses 100% outside air with heat recovery to prevent MDRTB transmission and to maintain good indoor air quality. The Central Plant housed centrifugal and gas engine-driven chillers, boilers and emergency generators.

California Pacific Medical Center

San Francisco, California

The campus will be the largest Sutter Medical Group Hospital in California. Designed to accommodate 555 beds for adults and women/children, the new hospital is organized around comprehensive centers of care. These provide surgery, obstetrics and imaging services to support inpatient units such as pediatrics, pediatric intensive care unit, intensive care unit, critical care unit and psychiatry, cafeteria and food service kitchen.

The hospital HVAC system uses 100% outside air with heat recovery to prevent multi-drug resistant tuberculosis (MDRTB) transmission and to maintain optimal air quality. Variable air volume systems will supply patient rooms. The air-handling units are located above the podium and above the towers. The central utility plant (CUP) houses chillers, boilers, cooling towers and emergency generators and is located at the top floors of the South Tower.

This project utilized the Integrated Project Delivery (IPD) method, with a collaborative design and management approach as well as Building Information Modeling (BIM) allowing for real-time conflict identification and resolution. The project is designed to meet the LEED Silver rating, making it one of the largest hospital projects ever to seek LEED certification.

Kaiser Fontana Medical Center

Ontario, California

This hospital will meet the new rigorous seismic safety standards established by the State of California under Senate Bill 1953 mandating that all hospitals remain functional after a major seismic event. The project includes a central plant and a support building housing medical offices, radiology, a pharmacy and a specialty clinic. The new hospital houses a variety of specialty services including a cardiac surgery department, a 51-bed emergency department, pediatric and neonatal ICU, inpatient dialysis unit, pediatrics, ICU, labor and delivery, cardiac cath lab and surgery.

The Design-Assist project delivery method was selected for this complex project in order to assure delivery on-time and on budget and the team utilized building information modeling (BIM) 3D modeling and coordination technology.

The new hospital structures will incorporate numerous sustainable and energy efficient design solutions with environmentally conscious features including energy efficient lighting, electrical, HVAC and plumbing systems including the use of reclaimed water for landscaping and cooling towers.

Lodi Memorial Hospital

Lodi, California

The new, 4-storey south wing hospital addition of 130,000 square feet replaces 90 patient bedrooms, along with the emergency and urgent care departments.

A new 14,500 sq. ft. central plant replaces the existing chiller plant and medical gas utilities serving the entire campus. It houses emergency generators and domestic water heaters to serve the south wing addition.

The central plant can accommodate the future addition of heating water boilers, domestic water heaters, steam boilers, and emergency generators to serve the entire campus.

Coalinga State Hospital

Coalinga, California

The project consists of a 1,500-bed mental health treatment facility and support buildings including central plant, maintenance, sewage and wastewater treatment facilities and water storage tanks. Also included are a major administration building, visitor's center and a PBX building. The project site is 115 acres.

Power for the facility is provided from the PG&E Coalinga substation at 12 KV to the main switchgear in the central plant. From there, power is distributed at 12 KV in a loop configuration to pad-mounted transformers throughout the site.

Emergency power is provided by four 2000 KW, 4160 generators located in the central plant. The generators are connected to paralleling synchronizing switchgear. Power is distributed in a loop configuration to pad-mounted transformers located at various locations.

Electrical systems are state-of-the-art, with features that provide for reliability redundancy and power monitoring for all major systems. An optical fiber system is used to network the entire site.

Children's Hospital Los Angeles

Los Angeles, California

This new 278-bed patient tower of 425,000 sq. ft. was designed to meet the seismic standards required by California State Senate Bill 1953 (SB1953). The hospital will provide acute care pediatric facilities, diagnostics and ancillary services, as well as a Level I emergency department / trauma center. The majority of the structure will be seven stories, with an emergency heliport located on top of the tower.

The new Patient Family Pavilion is an eight-storey building which includes 222 patient beds for pediatric and neonatal intensive care, pediatric ICU, laboratory, material management and administration services. The building includes one level below grade and seven levels above grade.

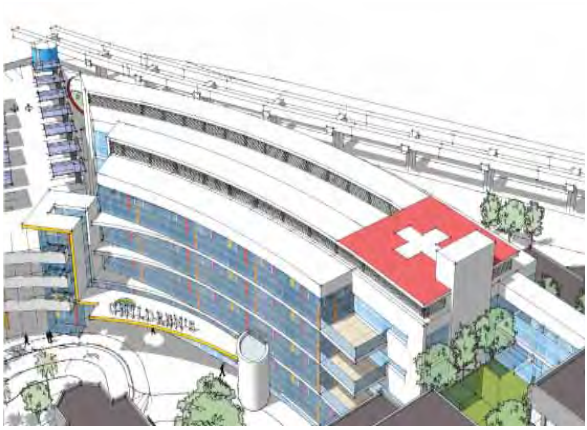
Children's Hospital Oakland

Oakland, California

The new 2012 Master Planning for the campus includes a new Outpatient Center, Patient Pavilion, Central Utility Plant, rerouting major utilities, Inpatient Remodel, and a new parking garage.

Phase 1 of the Inpatient Remodeling consists of phased renovations of the Post Anesthesia Care Unit, Pediatric Intensive Care Unit, Neonatal Intensive Care Unit Rehab and Main Entry. Over 100,000 ft² of renovation will improve efficiencies and bring departments to the latest standards in healthcare design.

Patient Pavilion Phase 2 is a new 145,000 ft², 5 story building that will provide 72 medical surgical beds and two floors of administration support. The facility is expected to be completed in 2016.



Republic of Iraq - General Hospitals
Maternity / Women Hospitals

Iraq

The key design aspects of environment, way finding, operational efficiency, staff effectiveness and market focused image were enhanced through subdivision of the hospital into its primary elements: a multi-specialty outpatient medical center, a high technology diagnostic and treatment center, the critical care wing, the intermediate care wing, a rehabilitation and medical inn, and staff residences.

The hospitals located in Wasit, Tamim and Salah Al Dein will accommodate 260 beds in a 183,000 sq. ft. facility. The 270,000 sq. ft. hospital located at Babylon will provide 400 patient beds, while the 160,000 sq. ft. facility at Karkh will hold 200.

The Hospitals' HVAC system is 100% outside air with heat recovery.

Babil Teaching Hospital

Al Hillah, Iraq

This 400-bed teaching hospital under the auspices of the Republic of Iraq Ministry of Health is located in Al Hillah, Iraq in the province of Babil. Construction of the 850,000 sq. ft. project is scheduled for completion in 2013.

Here, between the Tigris and Euphrates rivers lay the ancient ruins of Babylon (Babil, after which the region is named) in what was known as Mesopotamia, the cradle of civilization. The design concept for the project was based on the Hanging Gardens of Babylon and refers to significant contributions to geometry and astronomy of that era.

The iconic architectural design is coupled with engineering excellence in its use of a 100% Outside Air with Heat Recovery system, Displacement Ventilation system, and the use of the "hanging gardens" for shading. The building is designed towards LEED Gold standards.

Karbala Teaching Hospital

Karbala, Iraq

This 400-bed seven-storey hospital will provide all medical services to the general public and will also serve as a teaching facility. This new world class hospital will accommodate six maternity wards and 10 operating theaters.

Karbala is a city built around the Twin Shrines of Mashad Al- Husain and Mashad Al-Bass and lies 110 km southwest of the Iraqi capital of Baghdad. The hospital design references the significance of the shrines and provides state-of-the-art medical services for the use of the local population and by worshippers that visit Karbala.

The project is designed to meet LEED Gold Certification through the implementation of energy efficient systems.

Hospitality

Hyatt Capital Gate

Abu Dhabi, UAE

Phase 3 The Capital Gate 'Feature Tower' is a high quality iconic building located on the Abu Dhabi National Exhibition Centre site. It is distinguished by a dramatic steel and glass facade with a striking organic form.

With its cantilevered tea lounge and open air pool deck, it provides a unique presence on the skyline of Abu Dhabi and creates a memorable identity to the exhibition centre.

A sculptural stainless steel 'splash' flows down the front and at low level forms the hotel entrance canopy, flowing over the existing grandstand and acting as a solar shading device for both the building and the grandstand seating. A free form internal atrium with a dynamic glass roof brings natural light and space deep into the tower.

External lighting is designed to minimise both light pollution and energy consumption, based on a combination of low-level landscape lighting with façade lighting comprising a net of compact LED clusters integrated into the design of the steel glazing system.

The building is 35 storeys high and offers over 16,000 m² of high quality office space, as well as Abu Dhabi's first Hyatt hotel, 'The Hyatt@Capital Centre'. It stands at over 160 m tall.

Structurally, this challenging building sits on an intensive distribution of 490 piles which have been drilled 30 metres underground to accommodate the gravitational, wind and seismic forces caused by the distinctive lean of the building.

In January 2010 Capital Gate in Abu Dhabi was recognised as the world's furthest leaning man-made tower by the Guinness Book of World Records.

Hyatt DHCC Hotel & Apartments

Dubai, UAE

Situated in Healthcare City, these 166.5 m high towers were designed to provide amazing views of Dubai Creek and Sheikh Zayed Road skyline.

The 200,000 m² development will contain world-class retail, offices, hotel, and serviced apartment units. Each tower accommodates three dedicated service floors to satisfy all functional requirements. The project consists of mixed-use twin towers and is made up of three levels of podium, 43 floors of apartments, 34 floors of hotel tower and four levels of parking below grade.

The ground floor comprises hotel facilities, meeting rooms, function spaces, auditorium, hotel and apartment lobbies and service areas. Designed with health tourism in mind, the hotel tower is comprised of special medical rooms, suites and guest rooms.

Hotel in the Diplomatic Quarter for Saudi Hotel and Resorts Company

Riyadh, KSA

TJEG has been appointed by Perkins+Will as the MEP and Structural Engineering Design Consultant for a five-star hotel in the Diplomatic Quarter in Riyadh for Saudi Hotel and Resorts (Sharaco).

The hotel is a 40,000 m^2 structure clad in a unique facade that evoques the Saudi landscape and provides solar shading, with the centre of the development designed as an oasis-like podium.

TJEG and the project team are currently developing the Schematic Design for the project.

The low-rise, four-story structure is due for completion in 2016.

W Resort and Residence

Dubai, UAE

This Luxury Resort, situated on the Crescent of the Palm Jumeirah, will be a world class hotel resort and residential complex with spa, pool areas, water features and other amenities comprising approximately 100,000 m² of accommodation.

The resort will have 300 hotel rooms and 45 super luxury duplex, triplex apartments and penthouses.

The undulating building form takes full advantage of the views in this unique location by opening up vistas to the waterfront, creating intimate court spaces along the water edge.

Restaurants, retail outlets and function facilities are mostly located on the ground floor of the hotel wing, with a destination bar and restaurant at high level to take full advantage of the dual aspect views.

Aloft Hotel Abu Dhabi

Abu Dhabi, UAE

The 65,000m² hotel was delivered to an incredibly tight delivery program since work began on the project in March 2008. TJEG developed the Structural, Civil and MEP Engineering, as well as the site supervision for these disciplines.

With its urban influenced design, the 16-storey, 408 key hotel resides on top of the concourse and is linked directly to the Abu Dhabi National Exhibition Centre, a key part of the Capital Centre mixed use development

The loft-like rooms with nine-foot ceilings and oversized windows provide large, stylish bathrooms and hi-tech office and entertainment facilities.

Hilton Garden Inn & Double Tree by Hilton Hotels

Riyadh, KSA

TJEG is developing the Structural, Civil and MEP Engineering Design for this hotel in the Kingdom of Saudi Arabia.

The development is a large scale dual Hotel construction project that will be the first of its kind in the Middle East.

The 260-room Hilton Garden Inn development and the 110 serviced apartments of DoubleTree Suites by Hilton will share a host of business facilities including a large, multi-purpose function room, eight meeting rooms and four boardrooms. Individually, the Hilton Garden Inn Riyadh Financial District property will feature a business centre, swimming pool and health club as well as a restaurant and lobby lounge.

The 110 serviced apartments of DoubleTree Suites by Hilton Riyadh will include a full range of options from studios to one and two bedroom apartments. The property will also feature a business centre, health club, swimming pool, lobby lounge and two restaurants, one of which is speciality.

Ibis Hotel, Dubai International Convention Centre

Dubai, UAE

The engineers at Ted Jacob Engineering Group were commissioned to design the Structures and MEP for the Dubai International Convention Centre.

The Ibis Hotel, with 420 beds, was an integral part of the DICC development which incorporates a multi-use exhibition hall, a 20 storey office tower, a 7 storey car park and 2 hotels.

TJEG developed the Structural and MEP Engineering for the existing project, as well as for the proposed extension, pictured here.

Jumeirah Creekside Hotel

Dubai, UAE

Jumeirah Creekside Hotel is a luxury modern 5 star boutique hotel development, distinguished from the standard corporate hotel market. Located in the grounds of the existing Aviation Club, the 291 room, 60,000 m², 10 storey hotel commands magnificent views of the famous Dubai Creek.

The Hotel consists of three wings of rooms arranged around a central jewel-like glazed atrium. This 'living room' space rises full height from the reception to the feature rooftop pool which cantilevers out into the atrium void from the 8th floor sun deck. Glass bridges and scenic lifts cross this dynamic volume at various levels further adding to the drama of the space.

The ground and mezzanine floors are dedicated public spaces and provide boutique retail, top class meeting and function facilities, and a range of top quality restaurants and bars.

The external and internal materials convey a modern, vibrant, distinctive yet warm and inviting environment.

The use of operable façades, ceramic frits, warm tinted glazing, fair faced concrete and natural tactile materials such as bronze, natural stone and timber give the hotel a unique character.

Residential

West Wharf

Dubai, UAE

West Wharf is one of the first and finest residential buildings to be launched in the prestigious Business Bay development. It is a unique proposition and the architectural benchmark that others will aspire to.

A perfect fusion of form and function, West Wharf boasts a contemporary clean-line design that promises to become one of the most desirable addresses in Dubai. Set in a premier location on the Business Bay waterfront, the West Wharf contains 18 floors of ultra-luxurious accommodation with stunning lofts and townhouses in the podium, and studios and simplex/duplex apartments in the building.

West Wharf enjoys close proximity to the best of Dubai, overlooking Burj Khalifa, the world's tallest tower. Centrally located and close to DIFC, The project will also benefit from easy access to a carefully planned road network, water taxis, and Dubai's state of the art metro line. Quality of life is fundamental to the project's setting with restaurants, cafés, retail outlets and deluxe hotels situated nearby.

Lifestyle aspirations will be effortlessly achieved through a combination of harmonious design, desirable location and the insider exclusivity of West Wharf.

Silverene Towers

Dubai, UAE

Located in Dubai Marina, the 34 and 26 storey residential towers have two levels of common retail/ parking and three basement levels. The towers sums up to 117,600 m² built up area.

The engineers at Ted Jacob Engineering Group developed the MEP and Structural Engineering Design, as well as supervision.

The Views (The Greens plot No. 27)

Dubai, UAE

The Views is an iconic development in The Greens area of Dubai. This residential development is part of a successful community master plan, which is now a desirable address for both family's and young executives in Dubai.

Located in the proximity of Emirates Golf Club, all apartments overlook the lake and the green surroundings.

The client, EMAAR Properties, is a state owned developer, known for its high standards in buildings across the developments spectrum, from residential to retail malls.

The energy efficient design ensured a naturally ventilated basement car park, while also providing optimum layouts for apartments and parking layouts without the use of transfer structures at ground floor level.

The engineers at TJEG were in charge of the Structural, Electrical and Mechanical Engineering. The development was completed in 2003.

The Jewels

Dubai, UAE

The Jewels is a high-quality residential tower development within the master planned waterfront community of Dubai Marina. An iconic and easily recognisable development combining twin towers of 20 storeys each.

The development comprises 122 apartments with five villas at the base. It also utilises the waterfront area as a public space where seven retail outlets are planned for the future.

Marina Heights

Dubai, UAE

The Engineers at were appointed as design consultants and project managers for the Marina Heights Tower for The Abdul Salam Al Rafi group.

Completed in 2006, the 55-storey building incorporates both commercial and retail space within the podium.

The building utilises the use of sliding timber screens at podium level to allow both introverted and extroverted outlooks from the podium residential units. Pre-cast screens provide solar and wind protection to the side elevations.

Trident Grand Residence

Dubai, UAE

Trident Grand Residence is a 45 storey, 100,000m² mixed use development in the Dubai Marina area.

The tower consists of 42 residential condominium floors, all with large cantilever terraces taking advantage of sea and marina views. The podium features two levels of high end food and beverage outlets with terrace and sidewalk dining.

The development offers indoor and outdoor pools, gym, sauna, tennis and squash courts, club lounge, cigar bars and golf putting range.

Mixed Use

Dubai International Convention Centre

Dubai, UAE

The Dubai International Convention Centre incorporates a 13 storey office tower and multi-use exhibition hall located within the Dubai World Trade Centre complex.

The Convention Centre includes 9 exhibition halls, 10 conference halls and 19 meeting rooms. It can accommodate more than 6,500 delegates in just one of its multi-purpose halls.

TJEG provided the Structural, Mechanical and Electrical Engineering Design for the 45,200 m² Convention Hall, 67,300 m² Parking, 24,000 m² Exhibition Hall, and 47,700 m² Office Building & Podium. The project was completed in 2003.

Dubai International Financial Centre

Dubai, UAE

The Dubai International Financial Centre (DIFC) was conceived by the Government of Dubai for the benefit of the UAE and the wider region as a whole. Its remit is to create a regional capital market, offering investors and issuers of capital world-class regulations and standards.

In 2005, the engineers at TJEG were commissioned to design the six gate precinct buildings to provide a transparent and elegant backdrop to the existing Gensler/Hyder designed Gate Building. The design of the precinct buildings, with special consideration to their height and proportions, relate harmoniously to the Gate Building. They are exactly half the Gate Building's height and the distance between the Gate and the precinct buildings is exactly the same as the height of the Gate itself.

The development is interconnected by a full height glass air conditional link and decorative shaded colonnade which creates a human scale for the development.

There is easy movement from building to building within a controlled environment, with a fluid link to the vibrant cafés, restaurants and terraces around the natural landscaped plaza. Externally, the predominant material is high tech full height glass that clads the majority of the building. This is contrasted with warm coloured granite and fabric shades at lower levels. Internally, the use of marble, sandstone, granite and rich dark woods create a modern yet sophisticated internal working environment befitting the importance of the area and its tenants.

Completed in 2007, the precinct buildings are zoned to provide a mix of uses in a people friendly environment. Office floors provide flexible office space with views into the plaza, the adjacent Emirates Towers building and the adjoining DIFC developments.

Exhibition Centre: ADNEC Development - Phase 2

Abu Dhabi, UAE

The Abu Dhabi National Exhibition Centre is a world-class multi purpose complex which comprises over 55,000m² of uninterrupted gross internal exhibition space, together with 2 Hotels.

Phase 2 of this development sees the addition of five exhibition halls linked by a public concourse complete with front and back of house areas.

The state-of-the-art multi purpose exhibition complex includes a 3,168 m² atrium, 18,000 m² of U-shaped concourse, 2,000m² of food courts and a sizeable multi-storey car-park.

The halls, constructed in a U-shape, are fully linked with operable walls that can be retracted to provide a continuous space. Hall dividers can be partially removed to allow a show to expand to the concourse area. Included in the Phase 2 development is the design and construction of the Aloft Hotel.

The functional design of the ADNEC Exhibition Centre has been pivotal to the success of the venue. Since opening, it has attracted over one million visitors a year, and has contributed to the growth of Abu Dhabi's exhibition industry of over 25%.

Deerfields Town Square Shopping Mall

Abu Dhabi, UAE

Deerfields Town Square is a high quality, themed shopping mall located in the Al Bahia region of Abu Dhabi.

The 95,000 m² building is a testament to TJEG's Design and Engineering capabilities, due to the need for large open spaces, large floor to ceiling heights, extensive internal atrium and clear storey glazing along the central areas of the mall, bringing natural light into the retail areas.

TJEG's project delivery strategy and fast track design allowed for an early start on site and with its one-stop shop approach has ensured a seamless and integrated approach to design and delivery for the client who could accelerate the construction process.

Deerfields Town Square was open to the public in 2013.

Kent College Dubai

Dubai, UAE

The Kent College School will be located in Mohammed Bin Rashid City in the Meydan District of Dubai. It is a group of three blocks of schools (Nursery, Junior, and Senior) around a series of central facilities that include sports, dining and performance centers. The development includes an auditorium with a 600 seating capacity.

Ted Jacob Engineering Group was awarded the design for MEP, Structural, Civil, ELV, and Fire & Life Safety Engineering.

The finished project will have a capacity of 2,200 students and 250 staff.

American School of Dubai

Dubai, UAE

Designed to be a model of best practices for sustainable design in the Middle East, the new campus for the American School of Dubai is set on a 27-acre site in the Al Barsha district of Dubai.

The school accommodates 1,600 students in a Pre-K through 12th grade curriculum. Organized along a series of linear garden spaces, nearly every classroom is designed to face either north or south to take best advantage of beneficial natural daylight. Sustainability was incorporated through various subtle modifications, such as walkways and courtyards open to cooling northerly afternoon breezes off of the Arabian Gulf.

Roofs are shielded with louvered screens, further protecting the school from the hot sun. Each classroom "building" is designed with operable windows on two sides along with roof vents to allow for passive ventilation to take the place of traditional air conditioning during mild winter months—November to February.

High Technology

Facebook Menlo Park Campus

California, USA

The Facebook Menlo Campus will be occupied by up to 6,600 workers on the nine-building East Campus (57 acres) and as many as 2,800 workers in the five-building West Campus (22 acres). The two campuses will connect through a tunnel.

Our projects with Facebook consist of tenant improvements of their headquarters buildings, including medical facilities, offices space and meeting rooms.

Google
California, USA

Google has been estimated to run more than one million servers in data centers around the world, hosting the most visited website.

TJEG has worked with Google on more than 25 different locations. Our projects include tenant improvements of their headquarters buildings, development of Google design & sustainability standards, office space and lab development. We have also conducted a number of peer reviews.

Oracle

Various Locations, USA

Oracle Corporation is one of the largest companies specializing in developing and marketing computer hardware systems and software products, with offices all around the world.

Ted Jacob Engineering Group's experience with Oracle includes more than 150 projects throughout the U.S. ranging from complete buildings build outs, data centers and partial remodels.

Bellevue, Washington

Chicago, Illinois

Minneapolis, Minnesota

Costa Mesa, California

Austin, Texas

Colorado Springs, Colorado

Solar Innovation Centre

Dubai, UAE

The DEWA "Solar Innovation Centre" will be a science convention and visitors centre, showcasing the Mohammed bin Rashid Solar Park and its facilities highlighting it as part of Dubai Integrated Energy Strategy 2030. The centre will be host to Solar Technologies, its history, application and evolution as an essential energy generator. The centre will open its doors to visitors, students, business people, and professionals.

The Centre will host events, workshops, conferences, and exhibitions.

The Innovation Centre will portray a "green" Dubai, to be a leading example of sustainable development at regional and international level supporting the use of renewable resources.

The centre will be able to celebrate and narrate the potential of solar power and renewable energy.

Ted Jacob Engineering Group has been commissioned to develop the Engineering Design and Project Management for this prestigious project, during both design and construction stages.

Infrastructure

Abu Dhabi National Exhibition Centre (ADNEC) - Phase 4

Abu Dhabi, UAE

ADNEC Phase 4 is a mixed used development consisting of hotels, offices and residential buildings. The total site area is 150,000 m² with an overall GFA of 900,000 m².

TJEG was responsible for the overall design of all utilities including power (HV/LV), telecoms, storm water, irrigation, water, district cooling, foul sewer and gas.

TJEG was also responsible for obtaining all local authority approvals and on-site construction supervision.

Motorworld

Abu Dhabi, UAE

Located on a 350 hectare site to the East of Abu Dhabi, Motorworld is envisaged as the premier automotive retail experience for the region, housing all major car brands in a single convenient and easily accessible location. The project was planned to incorporate a total of 344 individual car showrooms, which are in turn supported by a range of complementary facilities including a driving school, car rental, registration center, testing location, service and specialty retail.

The design of the Motorworld masterplan establishes a clear division of functional zones and a natural circulation flow stemming from a primary curved spine. High profile automotive outlets are found along this main boulevard, with used car sales arranged in a more disciplined network of buildings.

Shaded pedestrian routes link each of the zones and will connect to future public transport routes passing through the site.

Al Awir Used Car Complex - Phase 2

Dubai, UAE

The Al Awir used car complex, Phase 2 facility is an eight pavilion showroom, designed to provide the Municipality with a commercial center, which centralized the various car showrooms, into a fully lettable, functional and viable business area.

In addition to the structure and building services, the scope included roads and infrastructure design, traffic analysis assessment as well as integrating into the public utilities networks to support the various car showrooms and workshops.

Infrastructure Development: Desert Rose, The Green City

Dohuk, Iraqi Kurdistan

Desert Rose is a 1,000,000 m² agricultural development located in the Northern Kurdistan region of Iraq, approximately 20 km west of the city of Dohuk.

The project consists of many different plots within the development including industrial areas such as food production greenhouses, cold storage, packing & processing and mills. The development also incorporates mixed-use areas including retail, apartments, educational establishments and convention centres.

TJEG were responsible for all engineering services relating to the roads and infrastructure for the Desert Rose project, working closely with the architect during the Master Planning stage to develop a best practice concept. The team then progressed this design, ultimately preparing tender documentation to allow the award of a contract and construction of all roads and associated infrastructure prior to the development of the individual plots.

Industrial

Aluminium Rod and Conductor Factory in KIZAD

Abu Dhabi, UAE

Located in the Khalifa Industrial Zone Abu Dhabi in a 50,750 m2 area, the Aluminium Rod and Conductor factory will include a 12,000 m2 factory with its ancillary buildings and facilities.

Currently developing the Detailed Design, TJEG works as Lead Consultant from concept design to construction works.

Emirates Aluminium Taweelah Phase 2 Services Buildings

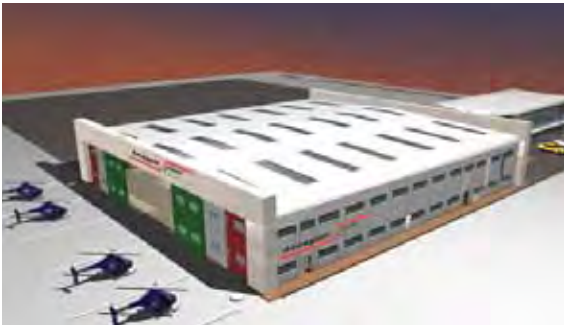
Abu Dhabi, UAE

The 1,537,065 m² project was delivered in 7 different packages, adding up to a total of 31 buildings. These include substations, casthouses, storage facilities, water treatment plants, laboratories and offices. EMAL Taweelah Phase 2 is currently under construction, at the KIZAD industrial Area in Abu Dhabi.

Aerogulf New Hangar Facilities
Dubai, UAE

Commissioned to design a new helicopter office and hangar facility for Aerogulf at Dubai airport.

The facility accommodates 1050 m² of hangar space with a further 3100 m² of workshop and office space.



Distribution Warehouse
Dubai, UAE
Transmed

Phase I consists of a distribution warehouse, associated buildings and landscaping.The warehouse is naturally ventilated, and displays a curved roof with horizontally laid aluminium cladding, featuring the companies corporate colors.

Internally, owing to a clear height of 10-12m, a mezzanine level exists over the marshalling area, providing office accommodation with maximum visual control of operations.

MBT Middle East Factory
Dubai, UAE

This combined office + manufacturing facility provide the regional offices for a major construction materials supplier. The accommodation consists of 2 levels of open plan offices and a large volume manufacturing facility at the rear portion of the site.

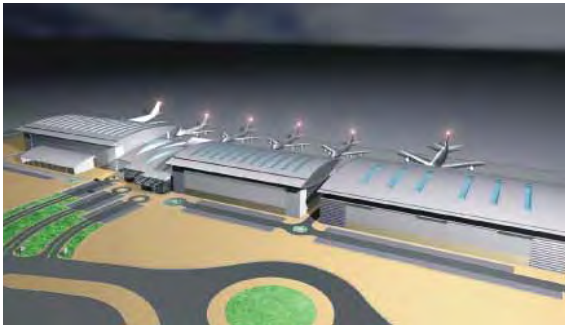
The Project also included testing laboratories for the Client's quality assurance system.

Abu Dhabi Metal Pipes & Profiles Industries Complex
Abu Dhabi, UAE
Adpico

Commisioned as consultant and project manager for a new industrial and offices complex.

The complex includes steel treatment plants for the preparation and finishing of large bore steel piping. The plant can produce pipe sections upto 2.4 m in diameter. The project also includes a large galvanizing plant.

The main manufacturing facility is designed so that the main office and administration headquarters will be housed within the mezzanine floor.



Executive Terminal & Hangar Buildings

Dubai, UAE
Dubai Civil Aviation

Commissioned to provide all services and project management for an Executive Terminal and Hangar facility for DCA sharing with two other aviation companies in Dubai International Airport.

The staggered aerofoil roofs are a response to vocabulary associated with aviation and adhere to the importance of roofscape within an airport.

Royal Flight hangars

Dubai International Airport, UAE
The Government of Dubai

Responsible for the design of this 16,300 m² hangar to accommodate two Boeing 727, one Boeing 707 and one Boeing 747, with administration and workshop facilities for the Royal Flight, together with access roads, standing areas and runways.

This commission was subsequently extended to include additional apron and hangarage to accommodate a Boeing 747.

Design Division Factory

Dubai, UAE
Engineer's Office

This combined office + manufacturing facility provides the H.Q for Design Division on a prominent Sheikh Zayed road site.

The accommodation consists of 2 levels of open plan offices and a large volume manufacturing facility at the rear portion of the building. The distinctive steel structure defines the entrance of this design orientated facility.

Courier Offices and Warehouse

Dubai, UAE
Federal Express

Architectural and Building services Engineering for the Courier distribution Warehouse and two floor Offices of the Management services, as well as Project management for the implementation of Office design.

Resumes

Ted Jacob

Title

PE, President

Introduction

Mr. Jacob has extensive experience in the design of healthcare and laboratory facilities. His experience included all aspects of design and construction, construction management and construction administration.

Education

- BS, Mechanical Engineering California Polytechnic State University, San Luis Obispo, CA

Registration

- Registered Mechanical Engineer in the State of California and Illinois
- ASHRAE Certified Healthcare Facilities Design Professional

Affiliations

- ASHRAE - American Society of Heating, Refrigeration and Air-conditioning Engineers
- ASPE - American Society of Plumbing Engineers
- CSHE - California Society of Healthcare Engineers

Speakers

- Arab Healthcare Conference 2008-2010, Dubai, UAE
- Cityscape sustainable Development, May 2008 Abu Dhabi, UAE
- Hospital Build & Design Upgrade 2009 2010 & 2012 Dubai, UAE
- Hospital Build Asia conference 2009- 2012, Singapore
- Hospital Build China conference 2011- 2012, Beijing, Hong Kong
- MEED Healthcare Conference 2008 and 2009, Dubai, UAE
- WCDH 2012, Kuala Lumpur, India

Awards

- Two First Place ASHRAE Awards for 2013 Technology Award and Region X 2012-2013 Technology Award for New Healthcare Facilities.
- First Place ASHRAE Awards for 2007 for Institutional Buildings

As founder and president of Ted Jacob Engineering Group, he has managed to expand the US based firm to be one of the most renowned engineering companies in the world. Mr. Jacob has completed projects from concept design through construction for healthcare facilities, research, advanced technologies, commercial, and residential. He has been a keynote speaker in many healthcare conferences throughout the world. His influence in Green Sustainable Design has rewarded him with multiple prestigious awards for occupant comfort, indoor air quality and energy conservation.

Experience

- Kaiser Fontana Hospital Replacement - 314-beds, 500,000sf Hospital, 33,100sf - Central Utility Plant (CUP), and 55,700sf Support Building, Fontana, CA.
- Kaiser Los Angeles Medical Center: Hospital Replacement, 448-bed, 900,000sf, $240M construction cost, Los Angeles, CA.
- Kaiser Oakland Hospital Replacement, 349-beds, 1,120,000sf total of Hospital, Central Utility Plant, two Medical Office Buildings and two parking garages. $950M construction cost, Oakland, CA
- Cleveland Clinic Abu Dhabi Hospital with 364-bed, 4.8M square feet including Patient Tower, Swing Wing and ICU Tower, Abu Dhabi, UAE.
- California Pacifi c Medical Center Cathedral Hill Campus- Women's, Children's and Acute Care Center, 555-beds, 1.2M square feet, $800M construction cost, San Francisco, CA.
- Mills-Peninsula Hospital Replacement, 311-Patient beds, 460,000sf Hospital and 180,000sf Professional Offi ce Building (POB), $672M construction cost, Burlingame, CA. The mechanical design won two First Place ASHRAE Awards for 2013 Technology Award and Region X 2012-2013 Technology Award for New Healthcare Facilities.
- Childrens Hospital Los Angeles: Hospital Replacement, New 278-bed Patient Tower, 425,000 sf, $212M construction cost, Los Angeles, CA.
- Lodi Memorial Hospital, 4-story South Wing Hospital Addition of 130,000sf, and 14,500sf Central Utility Plant, 15,000sf cafeteria & food service, $75M construction, Lodi, CA.
- Children's Hospital Oakland 2012 Master Planning including Inpatient Remodeling Phase 1 – 100,000sf and Patient Pavilion Building Phase 2 - 145,000sf, Oakland, CA.
- UC Davis Medical Center - Tower II building consists of 105-patient bed, 464,000 sf, and $120M construction cost, Sacramento, CA. The mechanical design won First Place ASHRAE 2003 Technology Award for New Health Care Facilities.
- UCSF Health Sciences East Building (HSE) Improvements Phase I, San Francisco, CA. The mechanical design won First Place in the 2004 ASHRAE Technology Awards for Institutional Buildings.
- Al Amal Psychiatric Hospital is a 250-Bed, 1.2M square feet of adults and adolescent psychiatric and/or drug and alcohol rehabilitation in both inpatient and outpatient, secure and non-secure settings complex, $750M construction cost, Dubai, UAE.

Cleveland Clinic, Abu Dhabi

Kaiser Oakland Medical Center, California

Mark Redmond

Title

PE, CEM, GBE, Principal

Mark's projects have included HVAC systems, building commissioning and trouble-shooting, master planning, central plants and life cycle analysis of systems. Mr. Redmond is a registered professional engineer in eight (8) states, a Certified Energy Manager and a Certified Green Building Engineer.

Introduction

Mr. Redmond has over thirty years of experience, with a focus on health care, in all phases of mechanical engineering from design through construction supervision.

Education

- BS, Mechanical & Environmental Engineering / 1978
- California Polytechnic State University, San Luis Obispo, CA

Registration

- Registered Mechanical Engineer in the State of California, Hawaii, Colorado, Arizona, Washington, Illinois, Texas and Michigan

Affiliations

- American Society of Heating Refrigeration Air-Conditioning Engineers (ASHRAE) Affiliations

Awards

- 2011 Award of Excellence for Architectural and Engineering Design- Los Angeles Business Council
- Four (4) First Place ASHRAE Technology Award for Engineering Design for Institutional Buildings

Experience

- Oracle Corporation - More than 150 projects across the United States including high tech office space and data centers
- Google - Numerous projects across the world including office space and lab facilities
- Kaiser Oakland Hospital Replacement including new hospital, medical office building, hospital service building, central utility plant & two (2) parking garages 1,120,000 sf., $950 million construction cost, Oakland, CA
- Children's Hospital Los Angeles: New Patient Tower 278-Bed, 425,000sf including 3,000ton chiller expansion to the existing plant, $212 million construction cost, Los Angeles, CA
- San Diego Children's Hospital - Master Plan and Cogeneration Analysis, San Diego, CA
- The Queen's Medical Center, Master Plan, Honolulu, Hawaii.
- Kaiser Medical Office Building Walnut Creek, CA
- Washington Hospital - 188,000 sq. ft. Medical Office Building 38,000 sq. ft., ICU/CCU and Patient Bed Building Addition, New 10,000 sq. ft. Central Plant and Hospital Remodel, Fremont, CA.
- Kaiser Walnut Creek Medical Center - Data Center Expansion; Addition of 10,000 sq. ft., Walnut Creek, CA.
- Kaiser Oakland Medical Center - Chiller and Boiler Replacement, Oakland, CA.
- Kaiser Oakland Medical Center - Eye Clinic Renovation, extension of primary Chilled and Hot Water System, Oakland, CA.
- Kaiser Oakland Hospital – Replacement Facility Master Planning, Oakland, CA.
- Summit Medical Center - $30 million numerous misc. projects such as emergency expansion, Ors', Dialysis etc. Also included seismic upgrade to meet SB 1953.
- UC Davis Medical Center - Energy Efficiency Upgrades, Sacramento, CA.
- Mt. Diablo Medical Center - Cooling Tower Replacement, Boiler NOX Retrofit, Chilled Water System Analysis and Retrofit, Concord, CA.
- UCSF Health Sciences West Building (HSW) Improvements Phase I, San Francisco, CA. The mechanical design won First Place in the 2007 ASHRAE Technology Awards for Institutional Buildings.
- UCSF Health Sciences East Building (HSE) Improvements Phase I, San Francisco, CA. The mechanical design won First Place in the 2004 ASHRAE Technology Awards for Institutional Buildings.
- UCSF Health Sciences Instruction and Research (HSIR) Building HVAC Master Plan, San Francisco, CA.
- Environmental Protection Agency Region IX Laboratory - 50,000 sq. ft. Laboratory building. Scope of work included retrofit individual fume hoods to a manifolded VAV system, boilers replacement and addition of the cogeneration system. The building contains primarily laboratory space and offices for the EPA.

Kaiser Permanente Oakland

Children's Hospital, Los Angeles

Octavian Dragos

Title
PE, Principal
Electrical Engineer

Octavian has an extensive experience in the design of electrical distribution systems (high and low voltage), emergency power, UPS, co-generation, lighting, life safety systems, isolations power, paging, intercom, MATV, nurse call systems and code blue systems. Mr. Dragos also has thorough experience in managing large projects with up to $200 million in construction cost. He is a member of the State Of California Building Standards Commission's Health Code Advisory Committee.

Introduction

Octavian Dragos has over thirty years of experience in the design of electrical systems with emphasis on healthcare facilities.

Education

- BS, Electrical Engineering / 1965 - Polytechnic Institute, Romania

Registration

- Registered Electrical Engineer in the State of California

Affiliations

- IEEE - The Institute of Electrical and Electronics Engineers, Inc.

Experience

- Cleveland Clinic Abu Dhabi Hospital with 364 Bed, 4.8 million sf, Abu Dhabi, UAE
- Danat Al Emarat Women's & Children's Hospital, 200-beds, 750,000sf., Abu Dhabi, UAE.
- Al Amal Psychiatric Hospital - 250 bed, 1,200,000 sf. Dubai, UAE
- Kaiser Los Angeles Medical Center - Hospital Replacement, 448-bed, 900,000 sf, $240 million construction cost, Los Angeles, CA.
- Children's Hospital Los Angeles – Hospital Replacement project, New 278-bed Patient Tower, 425,000 sf, $212 million construction cost, Los Angeles, CA
- Lodi Memorial Hospital – Central Plant and South Addition. Acute care hospital addition of 147,000 sf and new central plant to serve the entire campus. Lodi, CA.
- State of California Dept. of General Services Mental Health Facility, 1500-SVP bed, 1,200,000 sf, $350 million construction cost, Coalinga, CA.
- Mills-Peninsula Hospital Replacement, 311-Patient beds, 460,000sf Hospital and 180,000sf Professional Office Building (POB), $672M construction cost, Burlingame, CA. The mechanical design won two First Place ASHRAE Awards for 2013 Technology Award and Region X 2012-2013 Technology Award for New Healthcare Facilities.
- Coalinga District Hospital - New 48,000 sf Diagnostic and Treatment Building and 32,000 sf Skilled Nursing Facility, Coalinga, CA.
- San Mateo County Health Center - $110 million construction cost on New Central Plant, Skilled Nursing Facility, Hospital Additions and Renovations, San Mateo, CA.
- Kaiser Walnut Creek Medical Office Building: New 130,000sf Clinic Building, Walnut Creek, CA.
- Dominican Hospital New Hospital Addition and new 5 KV distributions and service for the campus, Santa Cruz, CA.
- Pacific Presbyterian Hospital - New Medical Office Building, San Francisco, CA.
- Mercy Southwest Hospital - New Hospital Building & 21 KV Services, Bakersfield, CA.
- SOHIO Firehouse and Medical Facility - New Facility Building, Electrical Service and Distribution, Prudhoe Bay, Alaska.
- VA San Francisco Medical Center Emergency Management Systems, San Francisco, CA.
- O'Connor Hospital New 415-bed Hospital, new Central Plant and Remodeling Existing Facility, San Jose, CA.
- MacNeal Hospital New 350-bed hospital addition and extensive remodel of existing hospital, Berwyn, Illinois.
- VA Medical Center, Seattle, Washington: New 500-bed hospital and support facility.
- United Health Services: 2 campuses, one in Binghamton and another in Johnson City, NY. Work inlcuded new Hospital Tower and extensive remodeling in both campuses.

Mills-Peninsula Replacement Hospital

Children's Hospital, Oakland

Hyung Ryu

Title

PE, CIPE, Principal
Plumbing/ Fire Protection Engineer

Introduction

Hyung Ryu has extensive experience in all phases of plumbing and fire protection engineering from design through construction supervision.

Education

- BS, Mechanical Engineering / 1973 - Iowa State University, Ames, Iowa

Registration

- Registered Mechanical Engineer in the State of California

Affiliations

- ASHRAE - American Society of Heating, Refrigeration and Air-conditioning Engineers ASHRAE
- ASPE - American Society of Plumbing Engineers ASME – American Society of Mechanical Engineer NFPA – National Fire Protection Association

Hyung has been involved in projects that have included plumbing systems, fire protection systems, process piping and medical and laboratory gas systems. He has over 30 years of experience in this field and has served as the Technical Vice President of the American Society of Plumbing Engineers (ASPE) San Francisco. He is also served on Codes and Standards Review Committee of the National Fire Protection Association (NFPA).

Experience

- Cleveland Clinic Abu Dhabi Hospital with 364 Bed, 4.8 million sf, Abu Dhabi, UAE
- Al Amal Psychiatric Hospital, 200-Bed, 650,000sf, Dubai.
- Danat Al Emarat Women's & Children's Hospital, 200-beds, 750,000sf., Abu Dhabi, UAE.
- Iraq General Hospitals - Five Maternity & Women's Hospitals (Babylon, Wasit, Tamim, Salah Al Dein and Karkh): 400-bed, 270,000sf including a multi-specialty – Outpatient Medical Center; a high-technology Diagnostic and Treatment Center, Critical Care Wing, Intermediate Care Wing, a rehabilitation and Medical Inn, and Staff Residences, Ministry of Health, Republic of Iraq.
- Kaiser Oakland Hospital Replacement including new hospital, medical office building, hospital service building, central utility plant & two (2) parking garages 1,120,000 sf., $950 million construction cost, Oakland, CA
- Kaiser Los Angeles Medical Center - Hospital Replacement, 448-bed, 900,000 sf, 240 million construction cost, Los Angeles, CA.
- California Pacific Medical Center Cathedral Hill - Women's and Children's Acute Care Center, 555-bed, 1.7 million sf, $800 million construction cost, San Francisco, CA.
- Mills-Peninsula Hospital Replacement, 311-Patient beds, 460,000sf Hospital and 180,000sf Professional Office Building (POB), $672M construction cost, Burlingame, CA. The mechanical design won two First Place ASHRAE Awards for 2013 Technology Award and Region X 2012-2013 Technology Award for New Healthcare Facilities.
- Kaiser Vallejo Medical Center – 2008 Tower, 188-bed, 491,000 sf, $190 million construction cost, Vallejo, CA.
- Children's Hospital Los Angeles – Hospital Replacement project, New 278-bed Patient Tower, 425,000 sf, $212 million construction cost, Los Angeles, CA.
- Lodi Memorial Hospital – Central Plant and South Addition. Acute care hospital addition of 147,000 sf and new central plant to serve the entire campus. Lodi, CA.
- San Mateo County Health Center - Hospital Expansion, 200-bed, 394,000 sf, $110 million construction cost, San Mateo, CA.
- UC Davis Medical Center - Tower II, 464,000 sf, $120 million construction cost, Sacramento, CA. The mechanical design won First Place ASHRAE 2003 Technology Award for New Health Care Facilities.

California Pacific Medical Center

Kaiser Oakland Hospital Replacement

Robert Mitchell

Title
Principal

With a strong managerial background, Bob's role involves Business Development and Operations with an emphasis in recent years on the management of the bid process for both the architectural and engineering aspects of a project.

Executing an engineering project is a complex workflow process requiring collaboration of many partners – the Client, the Design Team, Operators and End Users, all involved in the procurement and construction and Bob's experience within the management team benefits the project and the office as a whole by assisting and facilitating in the delivery of projects on demanding schedules and budgets.

Introduction

Bob is an Electrical Building Services Engineer with over forty years experience of design and supervision of a comprehensive range of building types and civil works. Much of this experience, almost 30 years, has been gained in the Middle East. A particular enthusiasm is for lighting design.

Education

- HND in Electrical Engineering with endorsement electronics - Paisley College of Technology
- I.Eng. MIIE (elec) ACIBSE

Registration

- Society of Engineers, UAE

Experience

2004 to date – Various managerial positions including roles in commercial, estimating and operations.

General Manager from 1996 to 2004 of multi-skill office in Dubai with ultimately 80 personnel. Principal Engineer named on Trade License.

1982 to 1996 as a senior design engineer on a large variety of projects, examples are;

- Development of Nad Al Sheba Golf Course and Horse Race complex in Dubai which included floodlighting of the entire 18 whole course and the illumination of the entire horse race track and a comprehensive range of equine facilities.
- Dubai Creek Golf Course and Marina – design of clubhouse electrical systems as well as course infrastructure.
- Retained by UNESCO on commission to condition survey and participate in proposals for the development of the Hermitage Museum and Art Galleries, St. Petersburg, Russia.
- Aircraft Hangars in Dubai
- Industrial complexes at Jebel Ali Free Zone including storage depots and logistical facilities
- Emirates Golf Club development
- Prison, Fire and Police Stations in the State of Qatar
- Doha Zoo – Phase 2
- Rumaillah Woman's Hospital upgrading, Doha, Qatar

In United Kingdom
Schools, banks, commercial offices


Nad Al Sheeba Golf Course, Dubai


Emirates Golf Club, Dubai

Zuhair Jassim

Title

Associate Structural Engineer

Zuhair is TJEG's Structural team leader, being the key point of contact for the structural coordination of design teams. His experience in fast track project delivery and his ability to prioritize and meet deadlines make him an effective design coordinator for major projects.

Zuhair joined Ted Jacob Engineering Group in 2013 after working with renowned engineering firms Aecom and RMJM, leading structural teams for projects in the UAE, Saudi Arabia and Bahrain. His structural experience and team spirit also allow him to support other teams with proposals, pricing, Concept, Schematic, Detailed Design Development and construction.

Holding a Structural Engineering license by different authorities, Zuhair also brings his experience obtaining approvals and performing peer reviews.

Introduction

Structural engineer with twenty years of extensive experience in structural design, supervision and handling of post contract works. Zuhair has been working in UAE for the last 10 years with multi-national engineering consulting firms responsible for complex and large scale developments in UAE and Gulf area. He also has experience working in Libya for 2 years and in Iraq, where he started his career.

Education

- MSc Degree in Structural and Material Engineering, Department of Building and Construction Engineering, University of Technology, Baghdad, Iraq 1999
- BSc Degree in Civil Engineering, College of Engineering, Al-Anbar University, Al-Anbar, Iraq 1993.

Licenses and Registration

- Holder of Dubai Municipality License as a Structural Engineer for Unlimited Buildings
- Holder of Sharjah Municipality Licence as a Structural Engineer for Unlimited Buildings
- Iraqi Engineers Union
- Society of Engineers, UAE

Experience

- Kent College Dubai, UAE - Nursery, Junior and Senior School with a capacity of 2,200 students and 250 staff
- Hilton Garden Inn & Double Tree, Riyadh KSA - Hotel and Serviced Apartments
- Lamar Towers, Jeddah, Saudi Arabia - Mixed use twin towers, 74 and 65 storeys high
- Dubai Tower Jeddah, Saudi Arabia - Mixed use 82 storey tower
- West Wharf Tower, Business Bay, Dubai - Residential Tower 2B+G+18
- National Oil & Gas Authority (NOGA) Tower, Bahrain - Office building, 50 storey with Podium Area
- Deerfields Shopping Mall, Abu Dhabi
- Lotus Mixed Use Complex, Mumbai, India - a 25 storey office building and a 50 storey serviced apartments building connected together

Noga Towers, Bahrain

Deerfields Shopping Mall, Abu Dhabi

Kenneth Wardlaw

Title
Associate - Civil/Highways

Introduction

Kenneth has ten years of experience in Civil Engineering, Highways & Car Parking Design and Infrastructure Design having worked as a Design Engineer, Site Engineer and Project Manager.

Education

- Bachelor of Sciences Degree with Honours in Civil Engineering - Edinburgh Napier University, Scotland

Registration

- Incorporated Engineer (IEng)
- Member of the Institution of Civil Engineers (MICE)
- Trakhees accredited Civil Engineer - ID #3821

Kenneth heads TJEG's Civil and Highways team, in addition to having the responsibility of leading projects within the Dubai office.

His experience includes:
Full detailed highways and car parking design from Concept to Construction.
Civil Engineering design including drainage and earthworks.
Preparation of contract documentation including drawings and specification.
Management of tender process and sub-consultants for specialist services.
Client, Colleague and sub-consultant liaison to deliver projects.
Local Authority liaison to gain approval of design works.

As project leader, he is responsible for client interfacing, ensuring design coordination between the different engineering disciplines, and delivery of projects in accordance with client requirements.

Experience

- Akoya by DAMAC, Dubai, United Arab Emirates - Three residential towers, G+30 including residential and retail
- Hillside Villas at Jumeirah Golf Estates, Dubai, United Arab Emirates - Twenty high-end bespoke villas comprising basement, ground floor and two upper levels
- Solar Innovation Center, Dubai, United Arab Emirates - Science, Convention and Visitor Center
- Kent College Dubai, UAE - Nursery, Junior and Senior School with a capacity of 2,200 students and 250 staff.
- Ducab Aluminium Rod and Conductor Factory in KIZAD, Abu Dhabi
- Desert Rose, The Green City, Dohuk, Iraqi Kurdistan – Master planning and full Highways & Infrastructure design for a 1,000,000 m² agricultural/industrial development.
- W Hotel, Dubai – Full highways and car parking design for a hotel and residential development.
- Oman Convention & Exhibition Centre, Oman – Design from Concept of highways and multi-storey car parking structure for a Convention and Exhibition Centre.
- NOGA, Bahrain – Full highways and car parking design for the new Headquarters building for the National Oil & Gas Association of Bahrain.
- BIBF, Bahrain – Full highways and car parking design for the new Bahrain Institute of banking and Finance campus in Bahrain.
- Deerfields Town Square, Abu Dhabi – Full highways and external car parking design, and coordination with project architects for internal parking design, for a Shopping Mall.
- Camp Condor, Iraq – Infrastructure Design
- American School, Dubai – Site Engineer
- A75 Arwdachie Improvement, Scotland – Geometric Highways and Drainage Design
- A702 Hartside Improvement, Scotland – Geometric Highways and Drainage Design
- A702 Wandel Improvement, Scotland – Geometric Highways and Drainage Design
- A702 Grangedell Improvement, Scotland – Geometric Highways and Drainage Design
- G042 Radar Mast, Scotland – Management of UK MOD Radar Mast upgrade works
- A69 Haydon Bridge Bypass, England – Clients Site Representative for construction of 3km of new highway and 4 structures.

Solar Innovation Center, Dubai

Desert Rose, Dohuk, Iraqi Kurdistan

Qamar Nizami

Title

Associate - Mechanical

Qamar's responsibilities include design of sustainable and practicable mechanical systems and his ability to implement effective design strategies with a blend of cost consciousness and adaptability. Qamar is responsible for Ensuring that TJEG's design and Post Contract services meet the needs of our clients and that all our departments are fully coordinated.

Qamar's core competencies include design and site supervision of Building Services Projects and District Cooling Plants.

Introduction

Qamar has a progressive range of experience in estimation, design detailing and execution of MEP projects in the Middle East and India. Projects experience in the Gulf include execution of some landmark and fast-track projects in the region, such as the Bahrain City Centre in Manama.

Education

- Bachelor of Science in Engineering (BSc Eng) - Jamia Millia Islamia University New Delhi, India 1996
- Master of Business Administration (MBA) - Jamia Millia Islamia University New Delhi, India 2000

Licenses and Registration

- Holder of Dubai Municipality License #102904 for Building Mechanical Engineering Services
- Trakhees accredited Mechanical Engineer - ID #3102

Experience

- Mulund Residential Development, Mumbai, India
- Hillside Villas at Jumeirah Golf Estates, Dubai, UAE
- Jumeirah Plots Development, Dubai - Residential and Shopping Centre
- Hilton Garden Inn Al Barsha, Dubai, UAE
- Kent College Dubai, UAE
- Ducab Aluminium Rod and Conductor Factory - Factory in KIZAD, Abu Dhabi, UAE
- W Hotel & Residences, Palm Jumeirah, Dubai, UAE
- Capital Centre Hotel, Abu Dhabi, UAE
- Emirates Aluminium Smelter Project (Phase II), Abu Dhabi, UAE
- Peer review of ventilation, air-conditioning and Building Management Systems at Bahrain Financial Harbour in Manama, Bahrain
- Oman Convention & Exhibition Centre, Muscat, Oman
- District Cooling Plant for Palm District Cooling at Jumeirah Village South, Dubai
- District Cooling Plant for Palm District Cooling at Palm Jumeirah Crescent, Dubai
- Bahrain City Centre, Manama
- Commercial Tower for National Oil and Gas Agency (NOGA) in Manama, Bahrain
- Mixed use Lotus Development for ENPAR in Mumbai, India
- Refurbishment of headquarters building of Dubai Chamber of Commerce and Industry (DCO), Dubai

Hilton Garden Inn Al Barsha, Dubai

Kent College Dubai

Cameron McKenzie

Title

Associate Principal - Electrical

Introduction

Cameron has over twelve years of experience with vast exposure in the building services industry being involved in designing, procurement and construction of electrical services and co-ordination with other disciplines.

Education

- Bachelor of Engineering Honours Degree in Electronic & Electrical Engineering - Edinburgh Napier University, Scotland

Registration

- Member of the Institution of Engineering and Technology
- Trakhees accredited Electrical Engineer - ID #3803

Cameron's work involves:

The full electrical services design and supervision of projects from conception through to detail design along with assisting the post contract team.

Preparing specifications and reports in relation to the project requirements.

Liaising with the client and design team and co-coordinating with sub consultants ensuring the relevant documents are issued on schedule.

Coordinating with local authorities for NOC approvals.

Preparation of load calculations, lighting, voltage drop, short circuit coordination and emergency load calculations using various software packages.

Experience

- DQ Marriot Hotel, Riyadh, KSA
- Kent College Dubai, UAE - Nursery, Junior and Senior School with a capacity of 2,200 students and 250 staff.
- Ducab Aluminium Rod and Conductor Factory in KIZAD, Abu Dhabi
- Desert Rose, The Green City, Dohuk, Iraqi Kurdistan – Master planning and full Highways & Infrastructure design for a 1,000,000 m^2 agricultural/industrial development.
- Emirates Aluminium Smelter Project (Phase II)
- Oman Convention and Exhibition Centre (Oman)
- National Oil & Gas Authority (NOGA) Tower, Bahrain
- Bahrain Institute of Business & Finance (BIBF), Bahrain
- Capital Gate, ADNEC (UAE)
- Dubai Tower, Doha (Qatar)
- Capital Centre Hotel, Abu Dhabi (UAE)
- TNI Tower, Abu Dhabi (UAE)
- Starwood Aloft Hotel, ADNEC, (UAE)
- Union Square (UK)
- RC Secondary School (UK)

Capital Gate, Abu Dhabi

NOGA Tower, Bahrain

Thomas Schindler

Title
PE, Principal

Thomas's engineering skills are applied to a broad range of projects, including medical facilities, labs, office spaces, performance spaces, media production and post-production facilities, and commercial projects. He prepares specifications and details, conducts field testing and data analysis, and develops remedial solutions for existing acoustical and audio problems.

He also has experience modeling programs to evaluate room designs for acoustical properties, constructions for sound insulation, and floor systems for impact isolation. Mr. Schindler has performed evaluations of community noise, mechanical noise, sound and impact transmission, and product sound power levels, in accordance with ANSI, ISO, and ASTM standards as well as other national and international acoustical standards and performance specifications.

Introduction

Thomas Schindler has more than thirty years of extensive experience in audio visual and acoustical engineering including architectural acoustics, building sound insulation, mechanical noise, and community noise assessments.

Education

- BS, Ocean Engineering - Florida Atlantic University, Boca Raton, FL

Registration

- Registered Engineer in the State of California. E.E. No. 15191

Affiliations

- Institute of Noise Control Engineering
- Institute of Electrical and Electronics Engineering
- American Society of Heating, Refrigerating and Air-Conditioning Engineers
- Allied Member of AIA San Francisco

Experience

- Veterans Affairs Ambulatory Care and Polytrauma Rehabilitation Medical Center, Palo Alto, CA
- University Medical Center, New Orleans, LA
- New Orleans Regional Medical Center Parking Garage and Thermal Facility, New Orleans, LA
- Lucile Packard Children's Hospital Vibration, Palo Alto, CA
- UC San Francisco China Basin Clinical Lab, San Francisco, CA
- UC San Francisco IVAS Pharmacy, San Francisco, CA
- UC San Francisco Mission Bay Life Sciences Buildings 41-43, San Francisco, CA
- UC Berkeley Etcheverry Hall M and Z Labs, Berkeley, CA
- Stanford Fairchild Laboratory, Stanford, CA
- Kaiser Walnut Creek Pathology Lab, Walnut Creek, CA
- Incyte Pharmaceuticals Labs, Palo Alto, CA
- Kaiser Oakland Behavioral Health Medicine Building, Oakland, CA
- Kaiser Oakland Labor and Delivery Facility, Oakland, CA
- Alza Biocenter, Mountain View, CA
- Kaiser Walnut Creek MRI, Walnut Creek, CA
- Kaiser Behavioral Medicine Building, Oakland, CA
- Mills Peninsula Medical Center MRI, San Mateo, CA
- Human Genome Lab at Lawrence Berkeley National Laboratory, Berkeley, CA

Human Genome Lab at Lawrence Berkeley National Laboratory, Berkeley

Southern Louisiana Veterans Health Care System Replacement Project, New Orleans

Shulamit Rabinovich

Title

PE, Principal

As a lead principal project engineer, Shulamit Rabinovich has designed and managed through construction some of the largest hospitals throughout the world. Her expertise in this field has earned her an international recognition for the design of sustainable healthcare facilities with substantial first cost and operational cost.

As a leader in her field, she has published articles and has earned many awards as a recognition of her effort in improving indoor air quality, energy and technological innovations. She has served on the Building Safety Board Committee overseeing the California Office of State Health Planning and Development (OSHPD).

Introduction

Shulamit Rabinovich has over thirty years of experience in the design of mechanical systems for large healthcare facilities including hospitals, medical office buildings, clinics and central plants.

Education

- MS, Mechanical Engineering / 1967 - State Technological Institute, Odessa, USSR

Registration

- Registered Mechanical Engineer in the States of California and Nevada

Affiliations

- BSB/OSHPD - California Building Safety Board (BSB) overseeing the Office of Statewide Health Planning and Development (OSHPD)
- BSB/OSHPD - BSB Mechanical/ Electrical Committee

Awards

- First Place ASHRAE 2003 Technology Award mechanical design for new Healthcare Facilities (UC Davis Medical Center)
- First Place ASHRAE 2013 Technology Award, Golden Gate Chapter (Mills Peninsula Hospital)
- First Place ASHRAE Region X 2012-2013 Technology Award Mechanical Design for New healthcare Facilities (Mills Peninsula Hospital)
- HPAC Magazine, 2013 HPAC Engineering Design Awards Winner

Experience

- California Pacific Medical Center Cathedral Hill Campus - Women's, Children's and Acute Care Center, 555-beds, 1.2 million sf, $1.2 billion construction cost, San Francisco, CA.
- Kaiser Los Angeles Medical Center, Stage 1: 448-beds, 900,000sf Hospital and Central Utility Plant, $240 million construction cost, Los Angeles, CA
- Kaiser Vallejo Medical Center 2008 Tower, 188-bed, 450,000sf Hospital including Central Utility Plant, $275 million construction cost, Vallejo, CA.
- Mills-Peninsula Hospital Replacement, 311-beds, 460,000sf Hospital and Central Utility Plant, 180,000sf Professional Office Building, $672 million construction cost, Burlingame, CA.
- UC Davis Medical Center - Tower II, 105-patient bed, 464,000sf, $120 million construction cost, Sacramento, CA.
- Al Amal Psychiatric Hospital, 250-bed, 1.2 million sf, $750 million construction cost, Dubai, UAE.
- Ventura County Superior Court & Juvenile Justice Complex, six (6) courtrooms, 420-beds, 205,000 sf. $150 million construction cost, Oxnard, CA
- Santa Clara County Juvenile Justice Complex, 210 detention and commitment beds, 18 Classrooms, 70,000 sf., $50 million construction cost, San Jose, CA
- Coalinga State Hospital, 1500-bed adult correctional and mental health facility, 1,300,000sf, $305 million construction cost, Coalinga, CA.
- Veterans Administration Northern California System - Martinez skilled nursing facility, 120-beds, 68,000sf, $12 million construction cost, Martinez, CA.
- Kaiser Fremont Medical Center - 200-bed, 202,000sf Hospital, $50 million construction cost, Central Plant And General Services Building, Fremont, CA.
- MacNeal Memorial Hospital - 220-bed, 300,000sf Hospital and Central Utility Plant, $80 million construction cost, Berwyn, IL.

Kaiser Los Angeles Medical Center, CA

California Pacific Medical Center, San Francisco, CA

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