

Curriculum Vitae



Name: Martin J Halford

Profession: Structural/Civil Engineer

Year of Birth: 1955

Nationality: British

Qualifications: BSc CEng MICE

Current Position: Director of V-Consult Limited

SPECIALISATION: Providing engineering consultancy services to clients involved in building and construction. Particular expertise in structural steelwork and reinforced concrete. Major projects experience.

KEY EXPERIENCE: Structural steelwork, reinforced concrete, masonry and foundation design on a wide range of commercial, industrial and offshore projects. Seismic design, wind engineering, concrete durability, fatigue design of tubular structures. Use of computer methods for structural analysis and design. High rise design and construction.

Experience with V-Consult Limited from February 2002:

SCHOOL BUILDINGS, HACKNEY. Scheme and detailed design for two new steel framed buildings providing new facilities, including classrooms, assembly hall and sports hall. Omnicore precast floor system with Slimflor beams [Client: Mouchel].

HIGH RISE BUILDING, AL KHOBAR, KSA. Peer review for a mixed use reinforced concrete framed high rise building in Saudi Arabia [Client: Confidential].

HIGH RISE OFFICE BUILDING, DUBAI. 400m high rise tower. Steel framed alternative design at concept design stage. Scheme design for 120m top section in structural steel at scheme design stage. Review of wind tunnel test results. Scheme design for supports to wind turbines and client logo attached to top section [Client: Atkins Middle East].

THAMESLINK BOROUGH VIADUCT, LONDON. Scheme and detailed design for 70m span tubular steel bridge over Borough High Street. Scheme and detailed design for associated new railway viaducts between Southwark Street Bridge and London Bridge Station. Associated foundation design and interface with LU for piling in close proximity to running tunnels and other structures below ground [Client: Atkins Rail].

HIGH RISE APARTMENT BUILDING, DUBAI. Concept and scheme design for a 55-storey 'twisting tower'. Reinforced concrete framing with both steel braced RC punched wall alternatives investigated for the external elevations.

HEADQUARTERS OFFICE BUILDING, BAHRAIN. Design reviews at both scheme and detailed design stages for a steel framed corporate headquarters building to be constructed on a man-made island in Manama, Bahrain. Office floors suspended from heavy cantilevered trusses at roof level [Client: Atkins Middle East].

HIGH RISE HOTEL, BAHRAIN. Review of the scheme stage design for a 300m high reinforced concrete framed hotel building to be constructed on a man-made island in Manama, Bahrain. VE alternative design for reinforced main cores and link walls [Client: Atkins Middle East].

HIGH RISE OFFICE DEVELOPMENT, DUBAI. Scheme design for a 68 storey 300m high office building. Slender reinforced concrete core. Steel and reinforced concrete framed alternatives for floors and perimeter 'tube'. Detailed design of cantilevered 'Diamond Exchange' at podium level in tubular steelwork [Client: Atkins Middle East].

HIGH RISE OFFICE DEVELOPMENT, BAHRAIN. Concept, scheme and detailed design for twin 240m high office towers framed in reinforced concrete. Detailed design for piled raft foundations. Finite element analysis and design of primary structure. Supervision of detailed design for other

elements of frame and floors. Scheme design for associated low rise steel structures and top section steel framed 'spire' and panoramic lift enclosure on the towers [Client: Atkins Middle East].

MISCELLANEOUS PROJECTS, HAVERING, UK. Various small projects involving adding disabled access and other improvements to schools and library buildings and a design check for a school extension. [Client: Mouchel Parkman].

RETAIL DEVELOPMENT, WATFORD, UK. Detailed design for additional car parking bays and exit ramp in structural steelwork with carbon fibre reinforcement of existing reinforced concrete beams [Client: Mouchel Parkman].

RETAIL DEVELOPMENT, NORWICH, UK. Scheme and detailed design for a major new shopping development close to the City Centre. Deep basement with contiguous pile perimeter wall. In situ and pre-cast concrete framed floors. Steel framed construction for anchor store on 10.8m x 10.8m grid [Client: Mouchel Parkman].

RETAIL DEVELOPMENT, ROMFORD, UK. FE Analysis and Detailed design of BubbleDeck slabs for a retail development in Romford Market [Client: DDA].

THAMESLINK 2000 BOROUGH MARKET, LONDON, UK. Responsible for scheme and detailed design for the proposed 70 metre span Railway Viaduct across Borough High Street. Tubular steel triangular truss and deep plate girder construction. Piers and piled foundations in close proximity to LUL tunnels. Fatigue design [Client: Atkins Rail].

FOIL ROOF STRUCTURES, UK. Detailed design for two foil roof structures infilling existing courtyards, one for commercial premises the other for a school. Tubular steel construction [Client: DDA].

Experience with Atkins, August 1977 to January 2002:

COMMERCIAL DEVELOPMENT, BRACKNELL, UK. Responsible for the civil and structural engineering for a 220,000 sq. ft. corporate headquarters building in Bracknell. Reinforced concrete superstructure on piled foundations constructed adjacent to reclaimed landfill site.

ROSTAMANI TOWER, DUBAI. Scheme design and review of detailed design for a 54 storey residential tower in Dubai. Reinforced concrete construction on a piled raft foundation. Core and outrigger stability system to limit sway deflections.

DVD MANUFACTURE, WARSAW, POLAND. Feasibility study for construction of new DVD manufacturing facility within existing plant on the outskirts of Warsaw.

MILLENNIUM TOWER, PORTSMOUTH, UK. Scheme design for the 170 metre high tower forming part of the Gunwharf development in the historic dockyard area of Portsmouth.

ODYSSEY, LONDON DOCKLANDS, UK. Responsible for the civil and structural engineering scheme design for this 400 apartment residential scheme fronting on to the River Thames. Several apartment blocks varying from 12 to 20 storeys plus 4/5 storey affordable homes.

INFRASTRUCTURE DEVELOPMENT, KENT, UK. Project Manager for the masterplanning of a major infrastructure development in Ashford, Kent comprising District Centre, 1500 homes and 20 Ha of commercial use.



BA WORLD CARGOCENTRE, HEATHROW AIRPORT, UK. Responsible for the civil, structural and multi-discipline design management for this 300 metre long, 95 metre wide, 35 metre high cargo facility forming the 'hub' for BA's cargo operations worldwide. Reinforced concrete floors with spans of up to 15 metres. Approximately 8,000 Tonnes of structural steelwork, including plate girders spanning 30 metres. The building uniquely incorporates high bay racking systems supported on suspended upper floors. The consignment store is supported on a metal deck composite floor approximately 18 metres above ground level and is a proprietary free standing racking system. The ULD store is supported off a reinforced concrete slab approximately 7 metres above ground level and is a steel framed structure supplied and installed as an integral part of the mechanical handling systems. This supports the cladding and roofing on this part of the building. The project also included extensive roads, paved areas and associated infrastructure, both airside and landside.

BURJ AL ARAB AND JUMEIRAH BEACH HOTEL, DUBAI, UAE. Resident in Dubai and responsible for the civil and structural engineering design of a 321 metre high 200 suite Tower Hotel located offshore on a man-made island. The hotel, which was completed in 1999, is now known as 'Burj Al Arab'. During the same period also responsible for the 600 bedroom 26 storey Jumeirah Beach Hotel and associated marine and civil engineering works. This smaller hotel forms part of the same overall development and was completed in 1997. The Chicago Beach Resort Development was the largest building project in the world at the time of its construction.



OFFICE DEVELOPMENT, BRACKNELL, UK. Civil and structural engineering design for a major 280,000 sq. ft Head Office Relocation Project, including construction of a new highway and recreational facilities on and adjacent to a former landfill site.

AIRCRAFT MAINTENANCE FACILITIES, SAUDI ARABIA. Tender design and technical assistance to joint venture contractor client bidding for B747-400 maintenance facilities at 3 sites in Saudi Arabia.

ROOSECOTE POWER STATION FOR ASEA BROWN BOVERI, CUMBRIA, UK. Structural design work associated with refurbishing and extending the existing building as a new 220MW gas turbine power station.

RESORT HOTEL FOR CASABELLA KOWA, Responsible for the scheme design development for a 400 bedroom hotel and landscaped gardens on Oshima Island in Southern Japan.

DEVELOPMENT AT KINGS CROSS FOR P&O DEVELOPMENTS LTD, LONDON, UK. Conceptual design for a 10 storey steel framed office building. Advice in connection with the King's Cross Railway Bill.

OFFICE DEVELOPMENT, LONDON, UK. Conceptual designs for site redevelopment. Various options ranging from refurbishment to reconstruction with a 60 storey tower.

BUCHAN ALPHA, NORTH SEA. Investigations into failure of the mooring arm of the loading buoy. Fatigue assessment. Strengthening proposals.



OFFICE DEVELOPMENT FOR CAVIAPEN TRUSTEES LTD, LONDON, UK. Structural design for an 8 storey reinforced concrete framed office building. Single storey basement. Granite clad facades.

HINKLEY POINT 'C' POWER STATION FOR THE CEBG, UK. Responsible for the design of the Cooling Water Pumphouse superstructure and the steelwork within the pumpwell.

WEST BURTON 'B' POWER STATION FOR THE CEBG, UK. Responsible for the conceptual design of the structural steelwork for a generic 2 x 900MW coal-fired power station.

HINKLEY POINT 'A' POWER STATION FOR THE CEBG, UK. Responsible for a technical audit of calculations for the CO₂ duct support systems.

OIL TANK INVESTIGATIONS FOR KUWAIT PETROLEUM, EUROPOORT, HOLLAND. Structural investigations in connection with two 80 metre diameter oil tanks including the

development of repair strategy and tender documentation for implementation of the repairs.

STRUCTURAL ASSESSMENT FOR BRITISH NUCLEAR FUELS PLC, UK. Responsible for the audit of structural steelwork calculations for two major projects at the Sellafield site.

MARKS & SPENCER SATELLITE, CAMBRIDGE, UK. Responsible for the design of a steel framed shopping development, including the retention of three existing facades above the shop front.

COMPUTER COMPLEX FOR THE AUTOMOBILE ASSOCIATION, UK. Scheme design and formulation of the Client's technical requirements for a design and construct contract.

INDUSTRIAL DEVELOPMENT FOR BRITISH TELECOMMUNICATIONS PLC, UK. Responsible for the design of new and refurbished steel framed buildings, paved areas and car parks.

PAVILHAO GIMNODESPORTIVO STEEL ROOF STRUCTURES, MACAO, HONG KONG. Responsible for the design of the steel roof structures for an exhibition hall and a theatre.

WAFER FABRICATION FACILITY FOR STC PLC, UK. Responsible for all aspects of the civil and structural engineering design. Specialist advice on raised floor and partitioning systems.

SELBY COALFIELD FOR THE NATIONAL COAL BOARD, UK. Design checks on the Rapid Loading Stations and other bunkers and hoppers for handling coal.

SHOPPING DEVELOPMENT FOR ST MARTINS PROPERTY INVESTMENTS, UK. Design of a multi-storey shopping centre development in reinforced concrete and structural steelwork.

BRAE A MODULE 26 FOR MARATHON OIL (UK) LTD. Structural analysis and design of the Power Generation Module including design of lifting frames and sea fastenings for barge transportation.

PRODUCTION PLANT FOR BRITISH LEYLAND CARS LIMITED, SOLIHULL, UK. Supervision of construction of a major new production facility for Range Rover vehicles including ancillary buildings and infrastructure. Liaison with client during plant installation phase.

DRAX POWER STATION COMPLETION FOR THE CEBG, UK. Design of the structural steelwork for the Boiler House including design of the boiler suspension steelwork and principle connections.

Portal Websites

V-Consult Limited owns and operates the Virtual Engineer Internet portal website. The site includes product, software and outsourcing supplier listings for the building and construction industries as well as many other industry links. The address is <http://www.virtual-engineer.net>

Software Applications

Development of web based software applications for professionals working in the building and construction industries. Current projects include software for customer relations management (CRM) and for structural analysis and design.

Recent Publications

July/Aug 1997: Concrete Magazine - Chicago Beach Resort Development, Dubai

Nov/Dec 1998: Concrete Engineering International - A First Resort

August 2000: Modern Steel Construction - Designing a Landmark for the UAE

2001: Steel Construction Yearbook 2001 - Architectural Structures - Innovation in Steel

December 2008: Joint paper with Arshad Khan on the Bahrain World Trade Center presented at 8th International Conference on Multi-purpose High-Rise Towers and Tall Buildings, Abu Dhabi.

The paper on Designing a Landmark for the UAE can be found on the Modern Steel Construction website.

Interests

Outdoor activities such as walking, cycling, camping, canal holidays, canoeing, sailing. Also, computers, [web design](#), mobile internet etc