

Hale Allen Jones

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HALE ALLEN JONES

At Hale Allen Jones we have provided a quality engineering consultancy to the construction industry for over 35 years. Our experience and knowledge of Structural, Civil and Highway Engineering enables us to offer an excellent service to Developers, Contractors, Individual Clients, Architects and Surveyors.

The Practice originally dates back to 1968 with the current Practice being formed in 1986 by the merger of two established firms, Eagling & Allen and Hale & Associates and therefore there has been a continuous involvement in Consulting Engineering since 1968.

Over the years the Practice has gained expertise in many fields of Engineering with Partners and staff having undertaken commissions in all areas of work.

The nature of the commissions has ranged from a partial service to a complete service including design and construct works and total management of multi-disciplined Engineering contracts. Also, the Practice has been involved in emergency stabilising works and specialist advice.

As well as general work as Consulting Engineers the Practice undertakes work as Expert Witnesses, Planning Supervisors for the Health and Safety CDM Regulations and also acting as Party Wall Surveyors under the Party Wall etc Act 1996.

The Practice maintains a suite of the latest computer analysis, design and drawing programmes enabling complex structures and problems to be quickly and rapidly assessed and drawn. This includes all aspects of structural, civil, highway and drainage design.

All projects have the involvement of one or more of the Partners or Associate and they are involved in the day to day Engineering and administration of the projects. Technical staff are allocated to an individual project as required.

There is a regular appraisal of work in the office and we have our own Engineering and Management Control Systems.

To comply with the CDM Regulations full Designer Risk Assessments are carried out on every project with a system for carrying out the necessary checks.



Chrisp Street Project, London

Short Description

This project regards the design of a landmark building that would integrate with the plans for the future development of the area. The structure is 15 storeys high but is comprised of a stepped design and has three roof terraces at 5th, 11th and potentially at 15th floor levels.

There is a commercial restaurant area proposed at ground floor with separate private and affordable flats above the first floor. The internal wall construction is to be of lightweight stud partitions of robust construction as required by the present Building Regulations and there is some scope for later flexibility in the final layouts of the rooms, with options available for the number of bedrooms that can be accommodated in the flat layouts.

Project Information

Owner: Vasthouse Ltd
Architect: BUJ
General Contractor: Bell Projects Ltd
Engineering Office: Hale Allen Jones

Construction Start: 05/2007
Construction End: 08/2009
Location: London, United Kingdom



An RC framed structure in central London to accommodate social and private housing accommodation together with commercial use at ground floor level.

Scia software was used to model the structure from the Architects planning drawings to initially assess the preliminary pile loads and provisionally assess reinforcement requirements.

Background

The site occupies approximately 0.1165 hectares and is located to the south side of Carmen Street, immediately alongside the Docklands Light Railway. The site development was intricately linked with the development of a new DLR Station known as Langdon Park (now open) and required close liaison with the DLR and some exchange of land was negotiated with the DLR to achieve the developments. A new footbridge over the DLR is situated at the end of Carmen Street, and will be clearly defined in the gateway between 120 - 132 Christ Street and an adjoining future development scheduled for construction to the north of Carmen Street. The prestige development of the site was considered instrumental in the proposed redevelopment of the area from the Canary Wharf Development four stations away on the DLR and this building is intended to encourage and be a potential catalyst in the development of this sector of the Borough.

BUJ Architects therefore embarked upon the design of a landmark building that would integrate with the plans for the future development of the area. The structure is 15 storeys high but is comprised of a stepped design and has three roof terraces at 5th, 11th and potentially at 15th floor levels. The columns did not always line through and areas of heavily reinforced stiffened edge beam were introduced along perimeter edges to support intermediate column positions following a decision by the Architects to deduce the number of columns at ground floor level during the construction stages.

There is a commercial restaurant area proposed at ground floor with separate Private and Affordable flats above first floor. The internal wall construction is to be of lightweight stud partitions of robust construction as required by the present Building Regulations and there is some scope for later flexibility in the final layouts of the rooms, with options available for the number of bedrooms that can be accommodated in the flat layouts.

Scia Software was used to model the structure from the Architects planning drawings to initially assess the preliminary pile loads and provisionally assess reinforcement requirements. The structure consists of reinforced concrete pile caps supporting the lift and stair core walls together with the column loads. The structure is primarily of concrete flat slab construction with three transition floor structures, supported by an

Used software: ESA-Prima Win

assortment of circular square and rectangular columns. The wind shear was the subject of a separate analysis with all columns input as being pin ended to ensure the full wind forces were transferred directly into the stair and lift core walls.

Detailed punching shear checks were carried out at essential locations using a variety of hand calculations in combination with proprietary manufacturers programs which were then compared during a checking evaluation. Final detailed design and detailing followed in accordance with a tight productivity program. The results were effective in achieving a compact and economic analysis and design. Various revisions to the design were easily accommodated within the tight construction program as the design continued to evolve and the construction progressed. There were the usual last minute requests for additional ducts in the floor plate. The output was clear and easily interpreted by the detailers. Scia Software enabled these requests to be fully analysed, and revised details issued, prior to the concrete pour. Once again this program has proved to be essential in the evaluation of the structure and enabled issue of information dead lines to be met.

