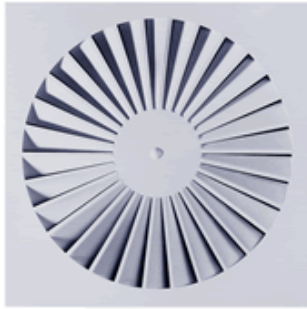


# CURRICULUM VITAE



*Mechanical Engineering Consultancy Services*



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## TABLE OF CONTENTS

1. **DSA Profile**
2. **Green Planning Australia**
3. **Project Experience**
4. **Key Personnel “Curriculum Vitae”**
5. **Management & Resources**
6. **Quality Assurance**
7. **Company Facility**
8. **Our Insurance**



## 1. COMPANY PROFILE

DSA Consulting is an Australian consulting Practice, which was incorporated in the ACT in 1995. The company has, through its directors and staff, a strong understanding of the requirements for engineering services in many building types.

The company is primarily a mechanical consulting practice performing work throughout Australia with affiliated companies to provide electrical services, biomedical services, fire services, hydraulic services and vertical transport services. The company has a wide experience in projects as indicated below:

- Hospitals
- Commercial Buildings
- Aged Care Facilities
- Office Buildings
- Factory Warehouses
- Pharmaceutical Plants
- Industrial Buildings
- Apartments , Hotels & Resorts
- Clubs
- Railway Stations
- Airline Terminals
- Public Buildings
- Police Stations
- Courts
- Defence Buildings
- Gaols
- And many more

The company specializes in services design for Hospital, Medical and Pharmaceutical Buildings, Commercial Buildings, Research and Laboratory facilities, Institutional Buildings, Offices, Warehouses and works in closely with the design team on all associated projects. The company has had considerable experience in Healthcare, which we believe makes for a good understanding of the systems required, and allows quick and accurate design and documentation.

We have a team of services consulting engineers to handle Mechanical, Electrical, Hydraulic, Fire, Biomedical engineering and Lift services that have worked together over the last 20 years.

The company's philosophy is centred strongly on employing people who have worked in both the consulting and contractor side. This we believe gives the company a depth of understanding in the construction of buildings and the practicality of design.

**Our philosophy in design is always focused on the reduction of energy without the expense of comfort to the occupants and we have won awards and contracts for buildings achieving this standard.**



## OUR SERVICES

- Mechanical Services
- Electrical Services
- Hydraulic Services
- Fire Services
- Medical Gases
- Ventilation
- Project Management
- Budget Costing
- Feasibility Study
- Fire/Smoke Analysis
- Energy Analysis
- NABERS RATINGS
- BCA Requirements

## COMPANY ACCREDITATION

The Director of the company is registered in three states of Australia as a certified Professional Engineer. Holding a PREQ in Queensland, Cert number 4935, and licensed Building Practitioner in Victoria, Registration number EM1255. This gives the ability to certify documents for compliance with the Building Code of Australia.



## ASSOCIATED COMPANIES

DSA Consulting has associated companies in both Melbourne and the Gold Coast, which allows us to handle work through the eastern seaboard of Australia.

## WHY WORK WITH DSA CONSULTING

- Extensive Engineering Consulting experience in all aspects of Hospital, Commercial, Residential, Retail/Office/Warehouse, Swim Centres, Learning Facilities and Aged Care Facilities.
- Involvement of the Director and Associate level personnel
- Accurate reliable cost estimating
- Practical Planning and Design
- Understanding of ESD

## 2. GREEN PLANNING AUSTRALIA

Green Planning Australia - An ESD Initiative of DSA Consulting, NABERS Certified, providing ESD solutions for Building Engineering Services focusing on energy conservation, energy efficiency and environmental sustainability.

***Our Services Include:***

- NABERS Ratings
- BCA – Section J Services
- Energy Analysis
- Building Thermal Performance Analysis

Green Planning Australia utilises energy modelling software to provide in-depth building energy analysis and NABERS ratings.

Green Planning Australia has the experience and practical knowledge to provide the input to make your project a successful outcome, both commercially and in the reduction of Green House Gases.

The following list of projects has been undertaken by Green Planning Australia:-

- Century 50 & 54 Norwest – 4.5 Stars
- 63 Waterloo Rd
- International Grains Research Centre - Narrabri
- Wyeth 4.5 Stars
- Newcastle Civic Hall
- Newcastle Administration Building
- Newcastle Art Gallery
- Eden Park 4 Star Rating
- Burbank stage 2. 4.5 star design. Rated in operation 5.0 stars
- Century 6, 4.5 stars
- Centrelink Dapto, 4.5 Stars
- BRI North Ryde 4.5 Stars
- Eden Norwest 4.5 Stars
- Eclipse Norwest 4 Stars
- Lismore Cancer Care Green Star – 4 stars
- 60 Waterloo Rd – 4.5 star design, operation 5.0 stars





# PROJECT EXPERIENCE



## **HOSPITAL/HEALTH EXPERIENCE**

- St Vincent’s Private Hospital Fitzroy – East Wing Redevelopment
- National Capital Private Hospital
- Northside Clinic
- North Shore Private Hospital
- Royal North Shore Hospital – Isolation Rooms
- Wollongong Private Hospital
- Sydney Private Hospital
- OGL Canberra
- Lake Macquarie Private Hospital and Medical Centre
- Westmead Institute of Health Research
- Sydney Adventist Hospital
- Victoria Parade Surgery
- Calvary John James Hospital
- Calvary Kogarah Hospital
- Gosford Hospital
- Concord Hospital
- Liverpool Hospital
- Port Macquarie Private Hospital
- St Andrew’s Private Hospital
- Tweed Hospital
- Westmead Hospital INR
- Kareena Hospital
- Westmead Childrens Hospital
- Dalcross Private Hospital
- Macarthur Private Hospital
- Sunnybank Private Hospital
- Norwest Private Hospital
- St George Private Hospital
- Strathfield Private Medical Centre
- Armidale Private Hospital
- Hillcrest Private Hospital
- Shepparton Private Hospital
- Prince of Wales Hospital, Randwick – Hospital for Women
- Prince of Wales Hospital, Randwick – Ambulatory Care & Services Centre, Acute Care Services
- Centenary Institute of Cancer Medicine & Cell Biology
- Nepean Medical Centre
- Westmead Medical Imaging
- Westmead Private Hospital
- Kareena Hospital – New Medical Centre
- Dudley Private Hospital – New Day Surgery Unit
- Westmead Children’s Hospital – Outpatients Building
- John Fawcner Private Hospital – New Ward extensions
- Shepparton Private Hospital – New Theatre Block and New Medical Centre
- Sunnybank Private Hospital – New Medical Centre
- Pacific Medical Centre Upgrades – Blacktown, Parramatta and Burwood
- St George Private Medical Centre
- St George Hospital Dialysis Unit
- Nepean Private Hospital



## **COMMERCIAL BUILDINGS**

- Chatswood Central CTI
- Century 50 & 54
- Norwest Quays, Norwest Business Park
- 18 Smith Street, Parramatta
- Wyeth Australia Head Office
- Lot 4021 Norwest Business Park
- Lot 4027 Norwest Business Park
- Lot 5081 Norwest Business Park
- Century Estate, Norwest Business Park
- Burbank Business Centre, Norwest Business Park
- Newcastle Civic Hall
- Atlas Building
- Virgin Active
- 9 Hunter Street
- Newcastle Administration Building
- Newcastle Art Gallery
- Eden Park
- Kent Road, Mascot
- Centrelink, Dapto
- Bri, North Ryde
- Ubeeco, Erskine Park
- Excell St, Banksmeadow
- Patrick Terminals, Botany Bay
- Westpac Percy St, Auburn
- Crumbrae & Dunkeld, Burnside Homes
- Rand Homebush Corporate Centre
- Site 6, King St Wharf, Sydney
- Building G, 350-374 Parramatta Rd, Homebush
- Fujitsu Fitout, Building E, Homebush
- Alpha N
- Ventracor Executive Offices, Chatswood
- 50 Yeo St, Neutral Bay
- 26 Talavera Road, North Ryde
- Novartis Head Office, North Ryde
- St James Tower Refurbishment



- The Australian Taxation Office Bankstown, including the computer rooms.
- John Danks warehouse and office - Huntingwood. Consisting of 10,000 square metres of warehouse and 1800 square metres of office.
- Just Jeans warehouse and office - Huntingwood. Consisting of 5,000 square metres of warehouse and 600 square metres of office.
- Bantex warehouse and office - Huntingwood. Consisting of 6,000 square metres of warehouse and 700 square metres of office.
- Specialty Slitting warehouse and office - Smithfield. Consisting of 3,000 square metres of warehouse and 200 square metres of office.
- Hagemeyer warehouse and office - Kingsgrove. Consisting of 8,000 square metres of warehouse and 2,000 square metres of office.
- Costello Place Warehouse and office complex
- Gosford Council Administration Building



**AGED CARE/RETIREMENT VILLAGES**

- RSL Bayside @ Byron Bay
- RSL Narrabeen – Colooli
- RSL Dardanelles Narrabeen Stage 2,3,4 and 5
- RSL Remembrance Village – Wagga Wagga
- RSL Old Darby & Joan Narrabeen
- RSL Cutler No 27 Narrabeen
- Graythwaite Gardens Rowland Village Dural
- Rowland Village third wing refurbishment Dural
- Huntingdon Gardens Bexley
- The Maronite Sisters Stages 1 and 2 Leichhardt Aged Care Facility
- Minchinbury Aged Care Kitchen
- Bankstown Aged Care Facility (Ark Health)
- Bayview Gardens Village (Acsa Group)
- John Paul Villages stage 2,3 and 4
- Riverlink Village Wellington (Riverlink Group)
- Allam Nursing Home (Maronite Sisters)
- Waterbrook Gardens Stage 1 Greenwich
- Cranbrook Kellyville stages 1 to 5 (Adco)
- St Vincent's Bathurst
- Anglican Retirement Village Baulkham Hills
- And many more



**RETAIL OUTLETS**

- Harris Farm Markets, Drummoyne
- Ikea Bulk retail store, Blacktown.
- Ikea Bulk retail store, Moore Park.
- Belrose Homemakers Bulky Goods Retail development
- Hudson Hardware Retail Outlet, Essendon
- St James Centre Arcade Refurbishment and extension
- IGA, Redfern
- IGA, Pyrmont
- IGA, Appin
- Franklins, Toukley
- Norwest Central Building C, Restaurant Precinct
- Alpha N Norwest including Retail precinct
- Portofino, Retail and Restaurant precinct, Homebush
- George Street, Strathfield
- IGA Supermarket, Blaxland
- IGA Supermarket, Mona Vale
- IGA Supermarket, Gladesville
- Castle Hill Homemaker City
- Megamart & Kmart, Garden Centre, Casula
- Bulky Goods for Autobarn & Bristol Paints, Auburn
- Bulky Goods Retail Development, Crossroads Casula
- St James Centre Arcade Upgrade
- Edgecliff Plaza Arcade Upgrade
- Northbridge Plaza Atrium Upgrade
- Chisholm Manufacturing Meat Preparation Upgrade
- Woolworths Supermarket, Forster
- Woolworths Supermarket and Shopping Arcade, Goulburn
- The Erina Shopping Centre extension and refurbishment
- The Lavington Square Shopping Centre upgrade and Extension
- No1 Mona Vale Road Shopping complex



**OFFICE/WAREHOUSE**

- Novartis Head Office
- AHG Head Office
- Perth House, Parramatta
- Pactum
- Fitout of Hitachi Head Office
- Fitout Call Centre, 2 floors of Teletech, Pennant Hills
- Fitout of Teletech, St Leonards - Level 1, 3, and 4 and upgrade to computer room
- Fitout for Novartis, North Ryde
- Fitout for Nick Scali, Birnie Avenue, Lidcombe
- Excell Street
- Hobson Engineering
- Lot 5081 Norwest Business Park
- Lot 7080 Meridian Place, Norwest Business Park
- Burbank Business Centre, Norwest Business Park



- Norwest Quays, Norwest Business Park
- Freedom Furniture
- Building 9 and 8B, Yennora Distribution Park
- Lot 3 Kings Park Estate
- Wakefield Business Park
- Campus Business Park Building A1, A2
- Birnie Avenue, Lidcombe Buildings D,C
- Pan Laboratories Warehouse & Office Villawood
- CSR Oberon MDF Site Factory
- John Danks warehouse and office, Huntingwood. Consisting of 10,000 square metres of warehouse and 1800 square metres of office
- Just Jeans warehouse and office, Huntingwood. Consisting of 5,000 square metres of warehouse and 600 square metres of office
- Bantex warehouse and office, Huntingwood. Consisting of 6,000 square metres of warehouse and 700 square metres of office
- Specialty Slitting warehouse and office, Smithfield. Consisting of 3,000 square metres of warehouse and 200 square metres of office
- Hagemeyer warehouse and office, Kingsgrove. Consisting of 8,000 square metres of warehouse and 2,000 square metres of office
- Costello Place Warehouse and office complex
- Century Estate Business Park
- Wyn Products Factory, warehouse and office, Dunheved. Consisting of 4,000 square metres of warehouse and factory and 100 square metres of office and control rooms
- Hycast Metals Factory, warehouse and office. Consisting of 5,000 square metres of warehouse and factory and 400 square metres of office and control rooms
- Lot 4021 Norwest Business Park
- Lot 4027 Inglewood, Norwest Business
- Diffuse Lighting Factory, Surry Hills

**UNIVERSITY/EARLY LEARNING CENTRES**

- University of Wollongong
- Macquarie University
- Roseville College
- Women’s College, University of Sydney
- Sydney Olympic Park – Anglican School
- St Andrew’s Church School
- Green Valley Islamic school
- NSW Schools facility - 6 schools
- Lindfield West Public School
- St Margaret Mary’s Primary School
- Wetherill Park TAFE Energy Testing facility
- St Joseph’s College, Gosford - Arts, Music and Technics Building
- St Patrick’s College Strathfield - Duffy Music Centre and Administration Building
- The Technology Building, University of Western Sydney, Werrington Campus
- The University of New South Wales, Institute of Languages Building, consisting of specialised Tutorial and Lecture rooms for Electronic Language Tuition
- The University of Sydney, Carslaw Building, consisting of ventilation of the Biology preparation areas, specialised air conditioning and the ventilation and air conditioning of the University Campus Security Office
- Crows Nest Girls High School. Classroom conversion and new amenities
- Michael Vale School, Bowral. Ventilation and air conditioning advice.
- Kings School Drama Theatre. New drama hall, stage, tutorial room and entrance foyer
- University of NSW Webster Building. Refurbishment of the whole building into music and drama school
- University of NSW Quadrangle Building. Addition of air conditioning to the non air conditioned floors
- University of NSW Unigym. Rectification of the existing plant serving the gymnasium and indoor pool

**CHILDCARE/DAY CARE CENTRES**

- UTS – Black Friars Day Care
- Day Care Centre, Brookvale
- Marketown Day Care Centre
- Virgin Day Care, Frenches Forest
- Virgin Day Care, Norwest



**POOL FACILITIES EXPERIENCE**

- Virgin Active – Pools, Pitt St, Frenches Forest, Norwest, Singapore, Bangkok, Collins St-Melbourne
- Prince Alfred Park Pool Upgrade & Tri-generation
- MLC School Aquatic Centre- Indoor Pool
- Port Macquarie Hospital - Hydro Pool
- Kareena Hospital – Hydro Pool
- Mater Hospital- Hydro Pool
- Calvary Kogarah – Hydro Pool
- North Gosford Private Hospital- Hydro therapy Pool
- Cypress Lakes Resort, Golden Door- Indoor Pool
- Noosa Private Hospital- Hydro therapy Pool
- Lingard Private Hospital- Hydro therapy Pool Rectifications
- Westmead Childrens Hospital-Hydrotherapy Pool
- New Luxury House 45 Burns Road- Indoor pool
- New apartment development 82 Harris Street, Pymont- Indoor lap pool.
- New apartment development 127 Murray Street, Pymont- Indoor lap pool.
- Refurbishment of a Luxury apartment building 80 Wollsey Road Point, Piper- New Indoor pool
- Blacktown Civic Indoor Pool design- calculations only
- Rectification work on the Manly Leagues Club- Indoor Pool
- Mercure Hotel, Railway Square- Indoor Pool and spa.
- Sydney Park Village- Indoor Pool
- Riverlink Retirement Village- Indoor Pool and Spa
- Mercure Hotel, Darling Harbour- Indoor Pool and spa.

## 4. KEY PERSONNEL



**David Shreeve**  
**Managing Director**

**Qualification:** Bachelor of Engineering (Hons) Mech – University of Technology.  
Registered Professional Engineer, QLD.  
Certified Building Practitioner Victoria.

Chairman AS1668.2/4 Standards Committee  
**Affiliations:** Member AIRAH, ASHRAE, CIBSE & NABERS

### **SUMMARY OF EXPERIENCE**

Mr Shreeve is the Managing Director of DSA Consulting. His role involves the co-ordination of the design team for all projects within the company and the hands on design of all projects. David has been involved in the mechanical services industry for the past 34 years as both a consultant and contractor. His projects include multi-storey buildings, commercial buildings, institutional buildings, computer facilities, hospital facilities and pharmaceutical facilities. David's experience in the contracting side as well as the consulting side gives him a good understanding of the practicalities of design which is reflected in the design of projects. During David's education, he specialised in heat transfer and control, writing his Thesis on Partial Ice Storage Systems for Multi Storey Buildings. David's main experience has been the design of air conditioning systems for Hospitals, both specialised systems and standard systems and he has been involved in feasibility studies, life cycle costing and energy audits.

### **PROFESSIONAL EXPERIENCE**

- 1995 DSA Consulting. Managing Director, started the company in March 1995. David co-ordinates the design of the mechanical services within the office and is actively involved in the marketing of the company and the day to day operations.
- 1988 Chan Associates - Associate Director. David expanded the company Chan Associates from a small to medium size mechanical consulting company. His primary role was as the senior design engineer. In this role, he oversaw the other design engineers and the draughting staff. David was also responsible for the implementation of the Quality Assurance System and the installation of Computerised draughting into the company. During his time with Chan Associates, David was responsible for the design and documentation of most of the larger projects, primarily specialising in the Hospital area.
- 1988 Ove Arup (London) - Building Appraisal Unit, Design Engineer HVAC. David was employed with Ove Arup on contract in the building appraisal unit. In this section, he was primarily responsible for the assessment of existing ventilation and air conditioning in existing buildings and the reporting and documentation of the required upgrades. The main project worked on was the refurbishment of the Royal College of Art.
- 1988 Drake & Scull (London) - HVAC Engineer. David was employed on a contract basis for Drake and Scull contracting principally as the consultant contractor liaison on the refurbishment of the London Hilton Hotel, Park Lane. In this role, he was responsible for the solving of mechanical services problems encountered on site as the building was refurbished and to the approval of the consultant.
- 1981 Wormald Air Conditioning - Design Construct Engineer. David started his career as an engineer with this company and studied part time for his degree whilst working as an engineer in the design construct field. David spent the first two years as an assistant to the senior design construct engineer, and then took over the running of projects from this point. The main area of work was the air conditioning of multi-storey buildings where the design was performed in house and then constructed by the company.

## 5. MANAGEMENT AND RESOURCES

David Shreeve is the director in charge of the overall design of the mechanical services on behalf of DSA Consulting. David Shreeve will be responsible for the liaison with the client. The project will be assigned to a design engineer from the company who will be responsible for the design and documentation of that building or project. David Shreeve will undertake the concept and review of all design so that the design remains on track and budget. Design guidelines will be produced for the project, which will be instigated as part of the design verification procedure in the quality assurance of the design; these guidelines along with a project standard CAD protocol will be used in the documentation. DSA will produce a fully detailed reverse brief outlining the scope of the mechanical services required. The design of the project necessitates the compliance with related project facility guidelines and specific BCA requirements. DSA have developed in-house guidelines to allow engineers to meet these requirements and to maintain a database of specific needs for each Operator. Standardized equipment manuals have been produced within the company for the selection of ventilation equipment. The manuals provide services co-ordination and installation details for all equipment to be installed into the buildings. These manuals allow the users to specify the operational requirements and allow the designers to order and document the equipment installation to meet the user requirements whilst maintaining a consistency of services.

## 6. QUALITY ASSURANCE

The company is operating a Quality Assurance program based around ISO 9000. This will be applied to all projects through the process of design and documentation. We believe this is a necessary task to be completed to maintain the quality of documentation.

### **The status of the quality system:-**

Quality manual and plan has been established.

Design and Draughting manual has been completed and implemented within the office.

Our quality assurance system has not been externally certified and at the moment, we do not plan to have it certified. We implement a quality system within the company to ensure that the client receives the highest possible quality in the production of designs and drawings.



## 7. COMPANY FACILITY

The company is fully set up for computerized engineering and draughting.

### SOFTWARE

AutoCAD

Revit

Microsoft Office

Camel

Beaver

### DATA EXCHANGE

Data Exchange Format – DWG & PDF



## 8. DOCUMENTATION



The company is fully set up for CAD and computerized engineering. Where practical, all work would be documented using CAD. The company operates AutoCAD. Drawings can be provided in .dwg or .PDF formats.





Our company utilizes CAMEL computerized heatload software for calculation of the building loads. This program has been specifically designed in Australia for Australian conditions.

Specifications would be produced using Word and will be available in PDF Format.

Engineering calculations are performed on the in-house software for heat load calculations, excel packages, the Camel Heatload program and ESP2 energy simulation.



## 8. INSURANCE

Insurance Type	Insurer	Policy No:	Cover	Expiry
Professional Indemnity	 	PIP-43794	\$10 million Primary Layer and \$10 million Excess Layer with \$40 million aggregate	18/08/2018
Public Liability	<p>Berkley Insurance Company t/as Berkley Insurance Australia via Focus Underwriting</p> 	OPK-27789	\$20 million	15/04/2018
Worker Compensation	<p>icare workers insurance</p> 	116408901	Statutory Requirement	31/08/2018