

Warren  
Smith &  
Partners

CONSULTING ENGINEERS

# HYDRAULIC SERVICES CAPABILITY STATEMENT

HYDRAULIC

FIRE

CIVIL

SYDNEY WATER ACCREDITED  
WATER SERVICING  
CO-ORDINATOR AND DESIGNER

# COMPANY STRUCTURE AND EXPERTISE

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DARLING HARBOUR INTERNATIONAL CONVENTION CENTRE (ICC) HOTEL

Warren Smith & Partners Pty Limited, Consulting Hydraulic, Fire and Civil Engineers, was incorporated and registered on the 10th August, 1981. We have been involved with over 5,800 projects of all development classifications and scale. Our project experience extends to not only NSW, but throughout Australia and abroad.

## Our firm provides specialist engineering services:-

- Due diligence, compliance, condition and investigation reporting
  - Precinct strategic services master planning
  - Master planning, concept and schematic design
  - Design development and contract documentation
  - Sustainable and strategic system capex and opex analysis
  - Construction administration
- Project management
  - Feasibility studies
  - Risk management
  - Safety in design analysis
  - Fit for purpose analysis

# COMPANY STRUCTURE AND EXPERTISE

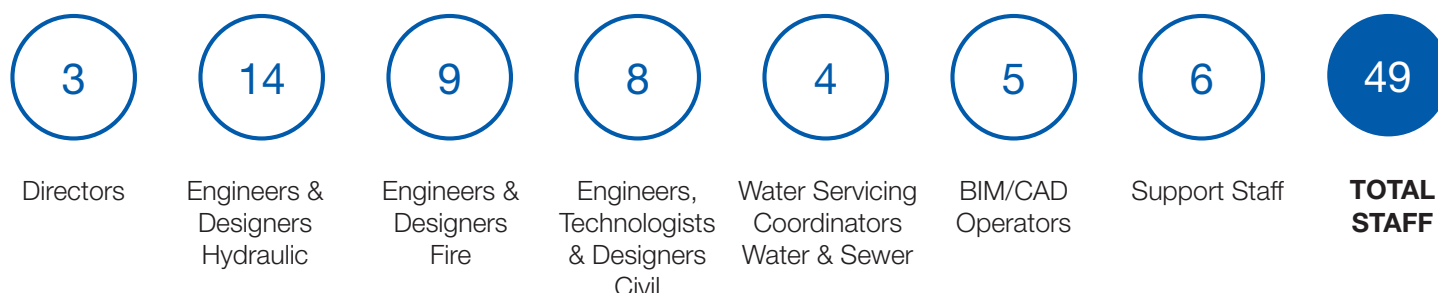
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## Our key personnel and directors have comprehensive industry experience and knowledge.

Our managers, without exception are all long term employees of Warren Smith & Partners. Our directors and key hydraulic personnel are:

		Years in industry	Years with WS+P
Mr Warren Smith	Managing Director	45	35
Mr Andreas Heintze	Chief Operating Officer	33	26
Mr Michael Cahalane	Director – Civil & Water Engineering	15	11
Mr Mark Price	Design Manager – Hydraulic	35	33
Mr Grahame Barnes	Project Manager – Hydraulic	33	32
Mr Dirk Nagelschmidt	Project Manager – Hydraulic	25	14
Mr Campbell Hazelton	Project Manager – Hydraulic & ICT	20	7
Mr Tom Wise	Technical Manager – Hydraulic	9	7

Currently, our firm consists of the following directly employed staff:-



## Our engineers, technologists and designers are qualified professional members of the following organisations:-

- Association of Hydraulic Services Consulting (NSW) inc (AHSCA)
- Chartered Institution of Building Services Engineers (CIBSE)
- American Society of Plumbing Engineers (ASPE)
- Engineers Australia (EA)



ART GALLERY OF NSW



# COMPANY STRUCTURE AND EXPERTISE

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Warren Smith & Partners provide excellent service, using innovative technology and adaptable designs to suit the client's desire to have well engineered, functioning systems in the most cost effective and timely manner possible.

We act in the best interests of our clients, priding ourselves as being one of the most progressive, innovative and commercially orientated consulting practices in Australia. We service both new and repeat clients to ensure a sustainable consulting engineering practice with the highest industry reputation and standards.

We are constantly striving for excellence and our company's objectives reflect our continued pursuit toward this aim.

Our performance, since inception has resulted in our continued involvement with leading property developers, institutions, builders, project managers, architects and other services consultants in Australia.

Our willingness to accept full responsibility for our performance, guarantees our clients the best possible results in terms of time, cost and quality.

It is the company's policy to maximise directly employed and professionally trained staff to build an in-house resource base with a high level of expertise and depth. This policy allows us to deliver a coordinated controlled outcome, generally not available in our industry, through the common practice of sub-consulting.

The excellent and thorough service we provide is reflected in the number of repeat clients with which our practice continues to work closely with.

Our objectives are:

- To produce and deliver excellent cost effective design
- To provide dependable professional service with unquestionable integrity
- To continually research and develop new design techniques
- To maintain our position as leaders in our profession
- To be friendly and approachable
- To co-operate within a team



# HYDRAULIC SERVICES

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The hydraulic services team, whilst following our company objective, focus on selecting the correct systems for the project and conserving energy in the most cost effective manner.

Selecting the best fit system within the building is one of the most critical parts as the system needs to align with the brief, built form, functionality, and internal planning. The hydraulic services teams design intelligence allows them to work with the team, assess the brief and deliver the most effective system.

## Hydraulic services specialise in:

- Cold water services
- Heated water services
- Non-drinking water services
- Sanitary plumbing systems
- Sanitary drainage systems
- Roof drainage systems (internal to the building)
- Surface and subsurface drainage systems (internal to the building)
- On-site wastewater management systems
- On-site liquid trade waste systems
- Natural gas services
- Liquid petroleum gas services
- Speciality water systems, sanitary plumbing systems, sanitary drainage systems and on-site treatment systems

## Software for design and analysis:

- Revit – design documentation and analysis
- Pipes building services – water pipe network hydraulic analysis
- SF pressure drop for windows - analysis software for fluids and gases
- T\*Sol - domestic hot water system fuel energy analysis



# KEY PROJECTS

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## Barangaroo South, International Towers Sydney T1, T2 & T3 (2011)

### Client:

Lend Lease

### Contact:

Mr Paul Elkington  
(02) 9236 6111

### Scope of works:

- Develop the hydraulic services documents through concept, schematic, design development and construction documentation phases.
- The hydraulic services systems for the commercial and retail components of the project included: sewer drainage, trade (grease) waste drainage, stormwater drainage, sanitary plumbing, trade waste plumbing, urinal waste plumbing (yellow pipe urea harvesting), domestic cold water, domestic hot water, recycled (black) water, rainwater re-use, natural gas.
- Coordination of all hydraulic services with other building trade services, structure and architecture, using 3D Revit 'BIM' modelling software with Navisworks 'clash detection'.

## Barangaroo South, Stage 1B Residential Towers (2014 – Current)

### Client:

Lend Lease

### Project Value:

\$1b

### Contact:

Greg Smith  
0412 054 902

### Scope of works:

- Develop the hydraulic services documents from schematic design through to design development and the maximum tender pricing.
- Hydraulic services for residential and retail included: sewer drainage, stormwater drainage (internal), trade waste drainage, sanitary plumbing, trade waste plumbing, domestic cold water, domestic hot water, natural gas and rainwater reuse.
- Coordinate all hydraulic services with all building services in Revit. Provide Quantity Take Off (QTO) information to assist in comparing hydraulic tenders.

## Sydney Opera House Western Foyer (2010), Building Renewal Project (2017)

### Client:

Sydney Opera House

### Project Value:

\$300m

### Contact:

Mr Paul Shumack  
(02) 9250 7361

### Scope of Works:

- Develop the hydraulic services documents through concept, schematic, design development and construction documentation phases.
- Hydraulic services included: sewer drainage, stormwater drainage (internal), trade waste plumbing and drainage, sanitary plumbing, domestic cold water, domestic hot water, non potable hot and cold water and natural gas.



# KEY PROJECTS

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## University of Sydney – Nanoscience Hub (2010 – 2014)

### Client:

Lend Lease

### Project Value:

\$90m

### Contact:

Ms Cherylene Teoh  
(02) 9277 2438

### Scope of Works:

- Assist AECOM and Architectus with building rainwater drainage requirements for the new western road overland flow.
- Provide overland flow strategy, levels and rainwater flow calculations for building overland flow paths and disposal of roof drainage system.
- Attend necessary meetings and site inspections.
- Re-coordinate services in Revit for raised ceiling to level 3 and level 4 areas based on new revised architecturals.

- Attend necessary coordination meetings.
- Redesign, document and coordination hydraulic services due to mechanical plant increase as requested by Sydney University.
- Recalculate water and gas services.
- Provide additional drainage services.
- Design and document condensate stacks for additional mechanical fan coil units.



## Blacktown & Mt Druitt Hospitals, Stages 1 & 2 (2014 – Current)

### Client:

Health Infrastructure

### Project Value:

\$586m

### Contact:

Mr Andrew Paris  
0427 211 604

### Scope of works:

- Develop the hydraulic services documents through the schematic development, design development, construction documentation phases.
- Construction administration phase.
- Hydraulic services included: sewer drainage, stormwater drainage (internal), trade waste drainage, sanitary plumbing, trade waste plumbing, domestic cold water, domestic hot water, non potable hot and cold water, reverse osmosis water, natural gas, rainwater reuse.

# KEY PROJECTS



## Top Ryde City (2010 – 2013)

**Client:**

Lend Lease

**Project Value:**

\$700m

**Contact:**

Mr Kevin Weston  
0407 245 500

**Scope of Works:**

- Stormwater system diversion
- Sanitary plumbing
- Trade waste plumbing
- Potable hot and cold water systems
- Provision for future residential buildings



## ELF Kapooka, Wagga Wagga (2010)

**Client:**

Sinclair Knight Merz Pty Ltd

**Project Value:**

\$200m

**Contact:**

Mr Simon Raper  
(02) 8079 6400

**Scope of Works:**

- Sewer drainage
- Potable hot and cold water systems
- Fire hydrant system
- Fire hose reel system
- Trade waste plumbing
- Roof drainage
- Natural gas service



## SICEEP Hotel, Darling Harbour Live (2012 – 2017)

**Client:**

Lend Lease

**Project Value:**

\$250m

**Contact:**

Ms Madeleine Macdessi  
(02) 9236 6111

**Scope of works:**

- Sewer drainage including connection to Sydney Water infrastructure
- Trade waste drainage including the design of the commercial kitchen and laundry as well as the required trade waste pre-treatment
- Stormwater drainage to connect to external civil drainage system
- Sanitary plumbing
- Trade waste plumbing
- Sizing of roof gutters
- Syphonic roof rainwater downpipes to rainwater reuse tank
- Domestic cold water service including point of entry filtration system
- Reused rainwater reuse pipe distribution system
- Domestic hot water service including heat exchangers



# Warren Smith & Partners

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