

Warren Smith & Partners

WESTMEAD HOSPITAL – MULTI-DECK CARPARK

SSD STATEMENT

HYDRAULIC & FIRE SERVICES



DOCUMENT INFORMATION

Client: Health Infrastructure
Project: Westmead Hospital Multi-Deck Carpark
Document Ref: SSD Statement – Hydraulic & Fire Services
Job No.: 4792000

CONSULTANT INFORMATION

Warren Smith & Partners Pty Limited
Consulting Civil, Hydraulic & Fire Protection Engineers

Level 1, 123 Clarence St
Sydney NSW 2000

Ph: +61 2 9299 1312
Fax: +61 2 9290 1295
Email: wsp@warrensmith.com.au
Web: www.warrensmith.com.au

DOCUMENT CONTROL

01	09/10/2015	Preliminary
Rev #	Date	Description of Change

APPROVALS

01	T. Wise	M. Price
Rev #	Authors	Reviewers

TABLE OF CONTENTS

1. SCOPE OF SERVICES 1

2. DESCRIPTION OF SERVICES 1

3. STANDARDS & DESIGN GUIDES 2

4. AUTHORITY INTEGRATION..... 3

1. SCOPE OF SERVICES

- Roof Drainage and Rainwater Downpipes (connection to external Stormwater Drainage System by Civil Consultant)
- Fire Hydrant & Fire Hose Reel System
- Potable Cold Water Service
- Sewer Drainage & Venting
- Subsoil Drainage to internal retaining walls
- Fire hydrant & Fire Sprinkler Infrastructure tanks and pumps for Campus wide system

2. DESCRIPTION OF SERVICES

Rainwater & Roof Drainage

The Multi-deck Carpark roof drainage system will collect rainwater from the concrete roof deck via a syphonic drainage system which will drop and then offset horizontally connecting to the OSD tank.

On Site Detention Tank and Stormwater Treatment Device will be the responsibility of the Civil Consultant.

Grated trench drains will be positioned at the bottom of the ramps at Entry Level and Roof Level.

Subsoil Drainage

A system of piped subsoil drainage will be provided at the base of all internal retaining walls and at the base of all battered banks and as required by the Structural Engineer. The subsoil drainage will be piped to a pump out pit as required and connected to the inground stormwater system.

Sewer Drainage

Sewer drainage will be provided for Plantroom floor drains only. Existing services shall be diverted and capped off accordingly.

Potable Cold Water

The Multi-deck Carpark will be provided with potable cold water with isolation valves provided at the base of each hose tap riser. Plantrooms will be provided with hose taps for charging floor drains. The potable cold water will connect to the existing internal Campus metered system.

Fire Hydrant & Fire Hose Reel Service

Fire Hydrants & Fire Hose Reels shall be installed throughout the Multi-deck Carpark.

The System shall comply with the NCC and current Australian Standards.

Fire Sprinkler & Fire Hydrant Infrastructure Services

The Ground Floor of the Carpark shall house the main Fire Hydrant and Fire Sprinkler Infrastructure Plant. This consists of booster valves, storage tanks, pumps and ancillary equipment.

The new Infrastructure will supply Fire Services to the existing Campus, Multi-deck Carpark and future Buildings.

3. STANDARDS & DESIGN GUIDES

The Hydraulic & Fire Services will be designed to the minimum of the following Standards except where noted in the deviation list:-

- National Construction Code (NCC)
- Plumbing Code of Australia (PCA)
- AS 3500 – Plumbing and Drainage Set
- AS 5601 – Gas Installations
- AS 2118.1 – 1999 – Automatic Fire Sprinkler Systems
- AS 2419.1 – 2005 – Fire Hydrant Installations
- AS 1668.1 – 1998 – The use of ventilation and air conditioning in Buildings
- AS 1670.1 – 2004 – Fire Detection, Warning, Control & Intercom Systems
- EPA – Rules and Guidelines
- Sydney Water Corporation
- Jemena
- Local Council Stormwater requirements
- TS 11 NSW Health Engineering Services and Sustainable Development Guidelines – 2007 (with noted deviation schedule)
- NSW Health Department Circulars

4. AUTHORITY INTEGRATION

Sydney Water

There will be little or no impact on the capacity of the Authority Sewer and Water mains. There will be no sanitary fixtures installed within the Carpark. A minimal number of general purpose hose taps will be installed.

A 300mm diameter Sydney Water sewer main is located three (3) metres outside the proposed Building outline on the north eastern corner. The Carpark structure will be piled and therefore should not impede on the Authorities sewer main, however Sydney Water will require structural plans to be submitted to confirm the Building meets their “zone of influence” requirements. A submission will be made to Sydney Water during the Design Development stage.

Jemena

No gas service will be installed within the carpark.

No Jemena Natural Gas mains are located within the vicinity of proposed Carpark

Warren Smith & Partners

WARREN SMITH & PARTNERS PTY LIMITED
CONSULTING ENGINEERS
ACN 002 197 088
Level 1, 123 Clarence Street
SYDNEY NSW 2000

EMAIL: wsp@warrensmith.com.au

TELEPHONE: 61 2 9299 1312

FACSIMILE: 61 2 9290 1295