

# WOMEN AND NEWBORN HOSPITAL



**ARCHITECT** SMITH CARTER ARCHITECTS AND ENGINEERS INCORPORATED IN ASSOCIATION WITH PARKIN ARCHITECTS  
**LOCATION** WINNIPEG, MANITOBA

**ABOVE** THE HOSPITAL'S MAIN ENTRANCE AT THE CORNER OF WILLIAM AVENUE AND SHERBROOK STREET IS OPEN AND WELCOMING, AS THE BULK OF THE BUILDING IS LIFTED TWO STOREYS ABOVE GRADE, SUPPORTED BY PLAYFULLY ANGLED COLUMNS.

The Women and Newborn Hospital will replace the existing Women's Pavilion at the Health Sciences Centre (HSC) campus constructed over 60 years ago. The 173-bed facility has a floor area of 37,000 square metres and is designed with the patient and family in mind. The building is a five-storey structure above one level of underground parking for patient use. An overhead link and underground tunnel connect the new hospital to the campus, linkages required for critical medical support services and connection to the central power plant systems.

There are no significant surrounding buildings that directly inform the design of the new building. The east and south façades will be the public faces of the new hospital. Conceptually, they will be transparent, delicate, well-detailed, and reflective of the women's health programs contained within. The design intent is to simplify the number of different materials in

the building, using products that relate to the existing scale, texture, and character of the neighbourhood. With this in mind, the building will utilize high-performance unitized fritted curtain wall and shingled zinc cladding. Green roofs will reduce rainwater runoff and provide a natural outdoor environment for patient and staff views. A dramatic and welcoming two-storey main entrance and covered dropoff area will occupy the corner of William Avenue and Sherbrook Street. Further, the south façade of the building will have a striking integrated photovoltaic array enclosing a three-storey staff lounge suspended above the entry on levels three to five that will form the architectural signature corner.

Using a public consultation process, three principles were identified to guide the design such that the new building should be a place to serve the unique and diverse health-care needs of women through the life cycle; a place to advance care, through excellence in research and education; and a place that is welcoming, respectful, calming and peaceful. Fundamentally, the design is rooted in the philosophy of patient and family-centred care, environmental sustainability, and accommodation of the many different cultures of Manitoba and downtown Winnipeg.

A central atrium stair orients and guides patients and families to clinic areas. Consolidation and organization of medical services is another important feature of the design. One of the most significant improvements over the existing hospital is the inclusion of a 60-bed Neonatal Intensive Care Unit (NICU).

The site is located at the northeast corner of the HSC campus. In the context of the neighbourhood, this will be an important edge to the campus, as it interfaces with the community and provides an opportunity for the HSC to create a welcoming image for the campus. The critical design interface is oriented towards the residential properties on the north side of Elgin Avenue, and the building massing responds to the West Alexander and Centennial Neighbourhood Plan. The plan requires a landscaped front yard to



match the residential zoning, and a tapered façade as the building height increases to preserve sunlight and reduce the scale. The height is also restricted to five storeys, with no vehicular access off Elgin Avenue.

Winnipeg has the largest remaining urban elm forest in North America. This is due to an ongoing unique “banding” program initiated locally when Dutch Elm Disease was first detected on the continent. The canopy created by the elm branches on the neighbourhood streets is striking and precious. This became the design concept for the building façade along Sherbrook Street.

The building is targeting LEED Gold certification and includes plans for 100-percent fresh air in the building, as opposed to recirculated air. Heat-wheel technology to reclaim heat and recycled materials from the deconstructed Weston Bakery on site are key sustainable features. Specifically, the most important sustainable criteria will be “indoor environmental quality” which will include air quality, an abundance of natural daylighting, and low VOC-emitting materials, all for the health, comfort and productivity of occupants.

The interior design is feminine, sensitive to the needs of women, warm to the touch and gently exhilarating to the eye. Passive daylighting strategies have been incorporated throughout the building—most significantly through a large atrium that penetrates all floors. A woman’s need for privacy has been addressed by an entrance for new mothers separated from those used by women and families experiencing loss or other potentially devastating health issues.

The building envelope is conceived as a skin, conveying support and enclosure. It is easily maintainable in the context of the severe Winnipeg climate and gritty urban location. Simplicity of design, longevity of materials, and efficient systems are the underlying objectives; the concept of biomimicry is used to design and construct a building that will function as elegantly and efficiently as a flower, a building informed by its eco-region’s native characteristics.

**JC:** Hospital programs are complex and rigid, which often results in cold and hard objects that relate to neither patient comfort nor context. This project demonstrates that hospital design can be elevated to another level of excellence.

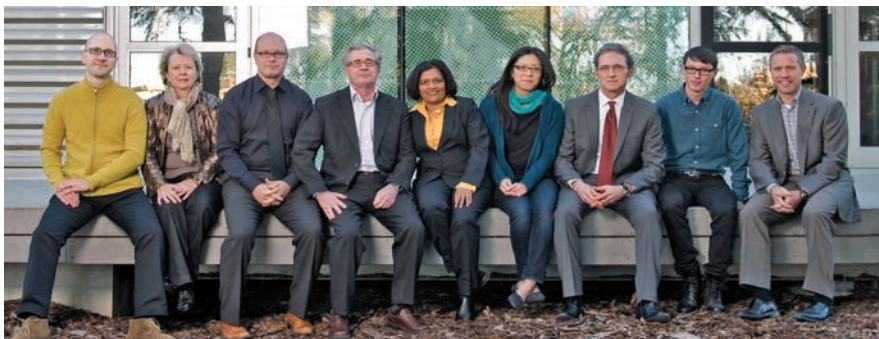
**AK:** The urban hospital can be the anathema of critical architecture. It is a building type so subservient to its program, the orthodoxy of planning strategies, the relationship between patients and users, and the terrifyingly complex matrix of functional demands, that the normative challenges of compelling space and form often recede in priority and investment. This project delicately and convincingly finds the cracks where moments of excellence can take root. Through careful and compelling manipulation of the ground plane, massing at grade, public space, and urban linkages, it defines a delightful series of moments where the user and the building meet. It is good urbanity and good space acting in concert to engage the user. The project uses equally compelling strategies of transparency/opacity along the façade to animate and define the addition while respecting and clarifying the existing context, creating an identity that balances the complexity of the building with the necessary legibility of the building type. This project takes the urban hospital as an opportunity to redefine its context, and to delight users who are often most in need of it.

**JL:** This project provoked a very important discussion about how we define “excellence.” The architects of this building took on a very difficult mandate which is to open up the ground floor of the hospital. In doing so, they virtually inverted the type as it is currently designed—which is, typically, hermetic. In addition, they extended their reach to the landscape and made a very open and civic institution. That’s a remarkable achievement.



**ABOVE, TOP TO BOTTOM** THE HOSPITAL’S MAIN ENTRANCE; THE NORTH ELEVATION IN THE CONTEXT OF ELGIN AVENUE; A PHOTOMONTAGE OF THE NORTHEAST CORNER IN ITS URBAN CONTEXT.

**CLIENT** PROVINCE OF MANITOBA/WINNIPEG REGIONAL HEALTH AUTHORITY/HEALTH SCIENCES CENTRE  
**ARCHITECT TEAM** SMITH CARTER ARCHITECTS AND ENGINEERS INCORPORATED (PRIME CONSULTANT); SCOTT STIRTON, JIM WESELAKE, DOUG CORBETT, JARET KLYMCHUK, JAVIER URIBE, LORI PENNER, LARRY HAMILTON, BHAVANA BONDE, RON PIDWVERBESKY, DONINA TODD, GEOFF BULMER, PHILIP HARMS, TAM NGUYEN, CLIFFORD GOODWILL, DANIEL MELENDEZ, GALEN JOHNSON, PARKIN ARCHITECTS (HEALTH-CARE PLANNING AND CLINICAL AREAS DESIGN); LYNNE WILSON-ORR, CAMERON SHANTZ, SOHAIL AKHTAR, CHANTAL TRUDEL, ANGELOUE LUCAS-WITTE, JENNIFER HALIBURTON, FARIVA VAHID.  
**STRUCTURAL** CROSIER KILGOUR AND PARTNERS  
**MECHANICAL/ELECTRICAL** SMS ENGINEERING  
**LANDSCAPE/INTERIORS** SMITH CARTER ARCHITECTS AND ENGINEERS  
**ARCHITECTURAL RENDERING** NORM U AG+I  
**PHOTOGRAPHY** SMITH CARTER ARCHITECTS AND ENGINEERS INC./DAVID LIPNOWSKI  
**AREA** 280,000 FT<sup>2</sup>  
**BUDGET** N/A  
**COMPLETION** FALL 2014



Established in 1947, Smith Carter Architects and Engineers Incorporated has been an integrated firm virtually since its inception. Through its offices located in Winnipeg, Calgary, Ottawa and Atlanta, Smith Carter works with clients from government, institutions and private-sector organizations across Canada and around the world. Collaboration has facilitated innovation at Smith Carter and areas of expertise range across all types of complex projects, with specialties in the design of health-care and research facilities. Projects include: the Canadian Museum for Human Rights, a complex building designed and constructed completely with BIM (Building Information Modelling); Manitoba Hydro Place; and SC<sub>3</sub>, Smith Carter's third purpose-built headquarters, winner of a Governor General's

Award and the first building in Manitoba to achieve LEED Platinum certification. SC<sub>3</sub> serves as a beta test site to investigate and develop new understandings of how buildings and people work. Arguably the most health-care-experienced architect in Canada, Parkin Architects Limited is a longstanding, award-winning leader in this highly specialized field, providing services to clients across Canada and internationally. Ninety percent of Parkin's staff of over 100 architects, planners, designers and project managers are engaged solely in hospital commissions. Clients include some of the foremost institutions in Canada, many of which have worked with Parkin for over 20 years, and continue to return for their ongoing planning and design needs. In addition to the more traditional servi-

ces such as master planning, design of new and renovated buildings, site planning and project management, Parkin plays a significant leading role in strategic and operational planning with many of its clients. Smith Carter Architects and Engineers team members in above left photo, from left to right: Javier Uribe, Lynne Wilson-Orr, Jaret Klymchuk, Jim Weselake, Bhavana Bonde, Tam Nguyen, Doug Corbett, Clifford Goodwill, Scott Stirton. Parkin Architects Limited team members in above right photo, from left to right: Sohail Akhtar, Chantal Trudel, Cameron Shantz, Jennifer Haliburton, Joy Raymer, Sarah Rahimaldeen, Oksana Posatskaya, Lynne Wilson-Orr, Angeliq Lucas-Witte, Farima Vahid.