



What's inside

3	Design with community in mind
5	Forward thinking
7	Culture and Design Excellence
9	Creativity & Innovation
11	Emergent Trends
13	The Five Parameters
15	Exemplary Projects
16	Bridgepoint Active Healthcare
22	Canada House
28	Bruce Learning Center
34	The National Center for Cancer Care and Research
40	Reed School Site Analysis + Conceptual Designs
46	Cambridge Memorial Hospital
52	Djavad Mowafaghian Center for Brain Health
58	Richard J. Lee Elementary School
64	University of Saskatchewan Graduate House
70	Honorable Mention Projects
72	Mary Idema Pew Learning and Information Commons
76	MassArt Treehouse
80	Ice District Tower E / Stantec Tower
84	Muttart Conservatory Re-Lighting
88	Central Michigan University Biosciences
92	Iqaluit International Airport
96	Robert R. Shaw Center for Science, Technology, Engineering, Art, and Math
100	Solitair Brickell
104	The Pointe
108	Toronto Police Service 14 Division
112	UCSF Mission Bay Medical Center
116	Wabasca Child Care Center Opportunity Daycare
120	Wagmatcookewey K-12 School
124	Western Union Corporate Campus
128	Realized Projects
130	Cleveland Institute of Art
134	George Brown College
138	Process of Selection & Acknowledgments



Design with community in mind

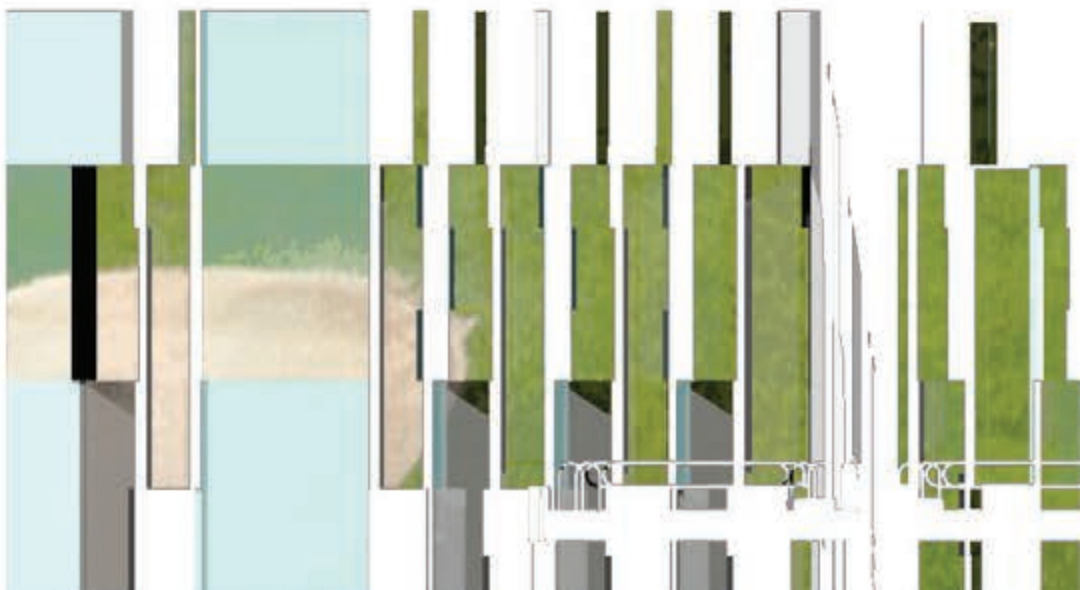
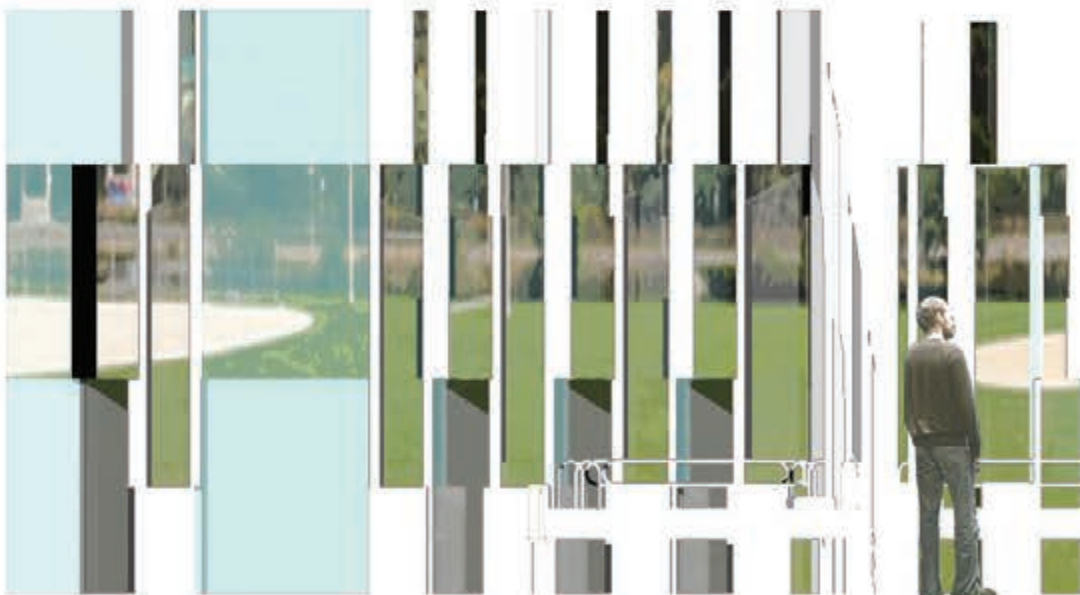
At its heart, building design is about creating meaningful and responsive environments for people. Interior or exterior, we create spaces that are engaging and uplifting, that contribute to our sense of health and wellbeing, and the sustainable stewardship of our communities.

Achieving these objectives requires an intimate understanding of the myriad of issues and drivers that influence a project. We respond to the climatic and contextual conditions of the site and consider how they can influence healthy and sustainable design. We design with the end user and public citizen in mind, to address programmatic function while enriching the public realm. We design spaces that optimize the intended use, but remain nimble to accommodate the unexpected. And, most importantly, we anticipate how design can influence desired behaviors and advance building performance.

Each design solution is defined by the unique culture and context of its community, and by the natural fabric of the place—its materiality, scale, patterns, landmarks, edges, and key public spaces. These are the elements that create a sense of place and belonging.

At Stantec, **design with community in mind** means the design of thoughtful projects that are people-centric, that advance our clients' missions and enrich the communities that surround them.





Forward thinking

The world around us continues to experience change at an ever increasing pace. The communities we live in are growing and evolving—increasingly influenced by the ubiquitous technology that surrounds us.

In response, our clients are transforming their enterprises to meet the needs of the industries they serve. Never before has there been a more exciting and relevant time to be a designer of the built environment. Rapid urbanization, aging infrastructure, environmental stewardship and community building all stand to gain from our tireless research, thoughtfulness, curiosity and creativity.

Stantec Design Volume 3 celebrates the best work across Stantec's Buildings practice. In this publication, we share innovative approaches, aspirations and achievement of our client's vision across our sectors and disciplines. This collection of projects demonstrates our deep-seated commitment to design.

It is apparent through the number and quality of the submissions that our designers continue to push boundaries and reach beyond the status quo to deliver excellence in everything we craft. We have never had more talent and opportunity than we have today.

Design is at the core of our practice. It is the key value that we deliver to our partners and our clients. We achieve excellence and creativity when we think outside our traditional disciplines. This collection of work illustrates the power of inter-disciplinary collaboration to uncover innovation, leading to stronger contributions to our communities and business outcomes for our clients.

We are incredibly proud of our commitment to design excellence at Stantec. We are pleased to share this compilation with you and demonstrate the strength, diversity and vibrancy of our design community and culture.



Anton Germishuizen + Michael Moxam + Rebel Roberts
Co-Chairs, Design Excellence Council

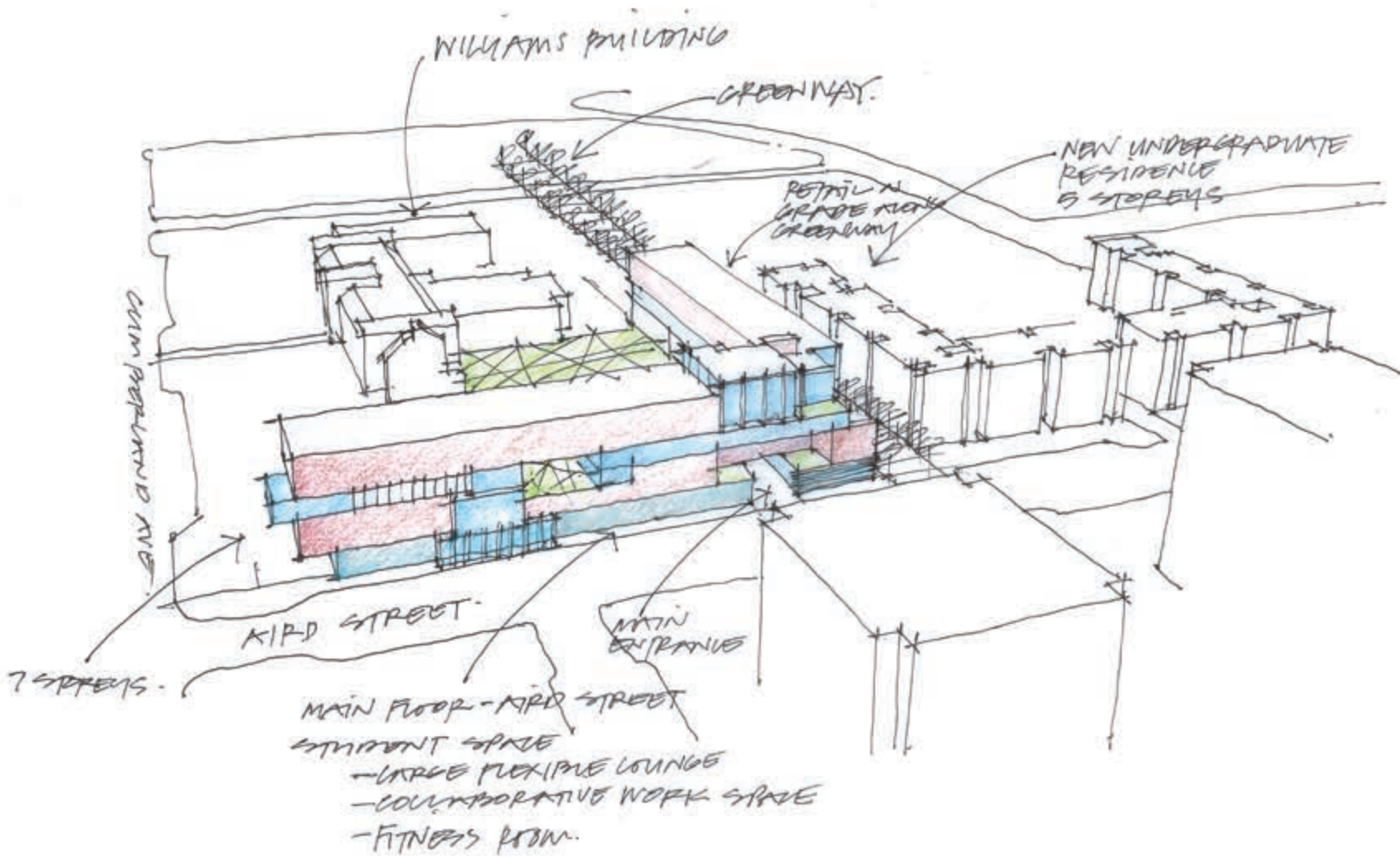


Culture and Design Excellence

Design is the key value we deliver to our clients and our communities.

Innovation occurs at the convergence of many disciplines: Architecture, Engineering, Landscape Architecture, Interior Design, Environmental Design, Ecology, Sustainability and more. We drive value through a client-centered and responsive process—one that is collaborative and focused on meeting the business needs of our clients and our shared community objectives.

Our best work occurs through the early and tireless collaboration between architects, engineers, landscape architects, interior designers, lighting designers and environmental designers. Our design philosophy focuses on finding innovative and creative solutions that lie at the intersection of disciplines. Central to this has been our commitment to the Five Parameters of Design Excellence, Stantec's evolving design covenant that serves as the cornerstone of our organization-wide design culture.



Creativity & Innovation

We recognize that innovation and creativity are essential for us to continue being competitive in the marketplace. Launched in 2015, our Creativity & Innovation (C&I) Program nurtures the efforts of our people to explore any idea that benefits us, our clients, or our communities.

Creativity is no small endeavor. It is something to be pursued aggressively and tirelessly—and Stantec is serious about achieving creative outcomes. That's why we've earmarked \$2 million annually in a Greenlight fund that will finance the good ideas around the world. Half the money is dedicated to research and development ideas, the balance is dedicated to other ideas worth supporting. Anyone staff member can apply, all you need is a good idea!

Greenlight proposals are internally juried across our business lines and awarded funding based on merit and potential value added in the design process. Criteria include:

- Projects that improve and advance the design process, client engagement and end user feedback
- Projects that advance emerging technologies in visualization and practice applications
- Projects that promote change and disruptive thinking



Emergent Trends

Change is everywhere. Innovation continues to emerge from many places, often unexpected and usually at the intersections of markets, sectors, disciplines and cultures. The following areas present particular promise and interest to our clients and designers:

Humanism – People and the human experience, when considered as a central design driver, enhance project outcomes and deliver greater returns on investment. From education to healthcare to living and working communities, understanding the desires of people and influencing desired behaviors through design provides our clients with better business performance.

Community Building – Every new intervention presents an opportunity to consider the impact our work has on the environment. How can it contribute to create a unique sense of place? The built environment must contribute to the public realm in a way that is beneficial to the positive and coherent growth of our cities, towns and neighborhoods. We must strive to create community legacy through built form.

Resiliency – Urbanism continues to accelerate. Cities represent the largest concentration of human population. Safeguarding human life, protecting capital investments and securing a sustainable future for infrastructure and the built environment remain top priorities. We know natural disasters—extreme floods, storms, and power outages—are a reality. We need to plan for the future differently.

Designing with a clear understanding and a strong position on climate and environmental stewardship is simply the right thing to do. It drives healthier environments and communities, yielding tangible returns beyond pure economics. Planning for the unforeseen is an area of growing interest in a rapidly changing and unpredictable world.

Systems Thinking – The challenges inherent in today's world are increasingly complex. Our community ecosystems are interdependent and connected. Our projects are a part of a greater whole. The design process must account for this fact. In response, the magnitude of the challenges designers face must be addressed at the systems and multi-disciplinary level. Understanding the system-wide impact and implication of seemingly isolated interventions must inform our design thinking.

Performance – Design must conform to expectation and drive value through function, engineering and environmental efficiency over time. As designers we have the responsibility to work with our clients to achieve value and program clarity. And we must challenge ourselves to have the design validate improved performance.

Yield – Good design must yield a measurable outcome. It must positively impact the client's business case. Creatively thinking about monetization and optimization strategies generates a competitive advantage for our clients. More than ever, we look to design and technology to deliver value in unconventional ways.



The Five Parameters

Entering its second iteration of development, The Five Parameters continue to gain strength in defining the essential meaning of design excellence at Stantec.

Established in 2011, the Five Parameters are a spark for dialogue within our practice. They provide a framework to consider when approaching a design challenge and criteria against which we can measure progress and results.

Never imagined as a static device, the Five Parameters continue to evolve as new design voices, talent and perspectives join the Stantec family. The latest version is the product of many voices, from all corners of our practice. They represent our collective design thinking, culture and attitude and above all, define the value we deliver to our clients.

Defining the Five Parameters of Design

Every project has the opportunity to achieve success at many different levels: success in program resolution, success in community building, success in sustainability, and success in creating a rich environment that is supportive of its purpose.

Our philosophy and methodology is focused on study, research and investigation to reveal where these opportunities reside and to ensure we achieve something important within each measure of success. This ambition has led us to define the "Five Parameters of Design."

The parameters provide us with a way of organizing our thinking as we initiate work on a project. They speak to how, as designers, we can approach a set of project circumstances with clarity and purpose. They define a process led by discovery and push us to ask the right questions to realize projects that perform and are crafted for legibility, longevity, and thereby create a legacy for our clients and communities.

Clarity - *driven by a clear idea*

The genesis of each project is a clear idea, founded on an intimate understanding of client, site, program, and community history, culture and context. Articulated through diagrams, models and narrative, this storyline defines the project's essential meaning.

Purpose - *a thoughtful approach*

The focus of our work is the enrichment of human experience and wellbeing. Thoughtful attention to place making, spatial sequence, light, material and detail advance public realm and community building.

Discovery - *challenging pre-conceptions through curiosity*

Design inspires us. With a mindset to challenge preconceptions, we ask the right questions, critically evaluate ideas, and reveal appropriate solutions.

Performance - *measurable objectives*

Responsible design combines function and significance. Measurable performance encompasses functional planning, integrated engineering and environmental responsiveness to achieve value, meaning and clarity.

Craft - *material legibility*

The idea behind a project is legible through its built form. The attention, care and consistency with which we select and assemble systems and materials bring the project to life.

Our design philosophy and the Five Parameters are founded on a full and complete understanding of our client's requirements, culture, ambitions and aspirations. To truly know and understand this requires a methodology that completely engages our clients as an integral part of the design team.

Exemplary



Bridgepoint Active Healthcare

Canada House

Bruce Learning Center

The National Center for Cancer Care and Research

Reed School Site Analysis + Conceptual Designs

Cambridge Memorial Hospital

Djavad Mowafaghian Center for Brain Health

Richard J. Lee Elementary School

University of Saskatchewan Graduate House

BRIDGEPOINT ACTIVE HEALTHCARE

VISION Bridgepoint Health’s new model for active healthcare—one where patients take control of their own health and well-being—required a new approach to design, one where community connectivity and landscape integration inform the core of the facility design. The new hospital is the first step toward reversing the fortress-like reality of the existing site (including a 1950’s hospital and the operating jail). The design draws the community and the landscape into and through the site and building as a key organizing device.

Conceived as a Village of Care, the hospital supports individuals coping with complex chronic disease. The building design optimizes the therapeutic benefits of access to nature and landscape and provides views of the city to ensure patients and staff feel connected to the world around them.

RESPONSIVE DESIGN Bridgepoint’s site sits on the brow of a key piece of geography within this city—Riverdale Park. This incredible urban landscape connects the residential community to the east and south with the city to the west. The concept envisions receiving all of these connections within its public space—the “Urban Porch.”

The design approach builds on a 2006 master plan which creates a new connected precinct of the Riverdale residential community. The master plan organizes the existing hospital site into a 9-square grid with the historic Don Jail occupying the central square. The new 10-story Bridgepoint Health facility is located on the northwest edge. New parks and a civic plaza from Broadview Avenue and future mixed use development blocks completes the new campus.

A new civic plaza replaces the former hospital and provides the key community connector for the hospital and the larger precinct. The main entry lobby of the hospital becomes a crossroads connecting north-south and east-west to the landscape, the city and the community. Landscape is drawn vertically through the building, culminating in a roof garden for patients and staff.

INNOVATION *Activate, energize + connect:* The ground floor is conceived as an urban porch providing food, retail, education space, and access to two outdoor terraces. The 10th floor roof garden features a large accessible terrace, access to a greenhouse and extends the therapeutic benefits of nature vertically through the building. The café, within the urban porch, and the roof garden level are highly successful spaces and have become key milestones in patient recovery and rehabilitation.

For every patient, a window: The syncopated pattern of horizontal and vertical windows appears random but is in fact a deliberate expression of each individual patient and their healing experience. The horizontal windows provide the patient with generous light and views, even if bedridden. The vertical bay windows offer ground-to-sky views from a bed and are a symbol of hope that expresses the goal of Bridgepoint to rehabilitate patients, encourage them get out their room and reintegrate themselves with their community.


Connection to History: The carefully restored historic Don Jail (1864) is given new life as the administrative wing of the new hospital and provides public access and awareness to the historic role it once played in the city. Three mushroom-like canopies, preserved from the existing building, remain as a memory of the original building and act as powerful sculptural element within the landscape.

.....

Client:	Bridgepoint Active Healthcare
Location:	Toronto, Ontario
Completion Date:	Phase 1 - April 2013, Phase 2 - 2015
Cost:	CAD \$622M
Project Team:	Michael Moxam, Stuart Elgie, Deanna Brown, Jane Wigle, Rich Hlava, Norma Angel, Sylvia Kim, Ko Van Klaveren, Tim Lee, Diana Anderson, Krista Wright, William Touzo, Kyle Arnott, Sonia Avolio, Terry Wilk, Denis Hashimoto, John Wieser, David Kennard, Bryna Rabishaw, Emily Andreae
PDC & Design:	Stantec KPMB Architects
Proponent:	HDR Diamond Schmitt Architects

.....





PERFORMANCE Bridgepoint is LEED Silver certified with energy savings of 30% improvement over Canada's Model National Energy Code for Buildings and a 32% improvement over LEED baseline water use. The building envelope incorporates a number of durable and low-maintenance materials including local stone, zinc metal panels and ipe wood. Low-iron glazing is used throughout to enhance the perception of the surrounding landscape. Solar heat gain is mitigated through low-E coatings. Interior materials are selected to support ongoing maintenance and infection control.

CRAFT Every material decision reinforces the central ideas of community connectivity and patient experience. The urban porch is clad in stone and scribes a line from ground to porch roof that suggests a force line of landscape vertically through the building. The porch soffits and ceiling are wood-clad and connect the exterior to the interior in a seamless manner. The field material on the inpatient tower is zinc to provide a subtle background for the iconic vertical windows. Finally, the landscape connects inside to out, the site to the park, and city to the community provides an essential layer of accessibility and community amenity.

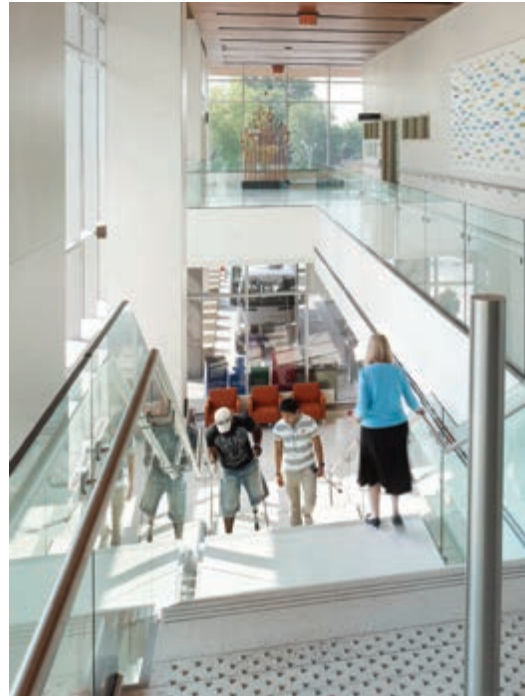
VALUE When Bridgepoint started its journey toward a new facility, they knew better design was essential for proper delivery of care for patients with chronic disease. It was decided to scientifically test design assumptions via an independent post-occupancy study to determine how well the solutions proposed in the new facility met their design intentions and clinical results.

In 2014, Bridgepoint's Research Collaboratory released the results of North America's largest post-occupancy study on hospital design and outcomes. The findings will be used in three ways: to adapt and improve Bridgepoint on an ongoing basis, to contribute knowledge to international research on healthcare design, and to set new standards for best practices in the field design evaluation methodology itself. Two years after opening, the results are impressive:

- Bridgepoint is the number one referral hospital in the Greater Toronto Area.
- Patient satisfaction results indicate 98.5% would recommend Bridgepoint.
- 90% of staff rate Bridgepoint as a good or very good place to work.
- Average length of inpatient days for stroke patients has been reduced by 12 days.

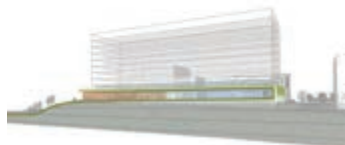








Park Forms Porch



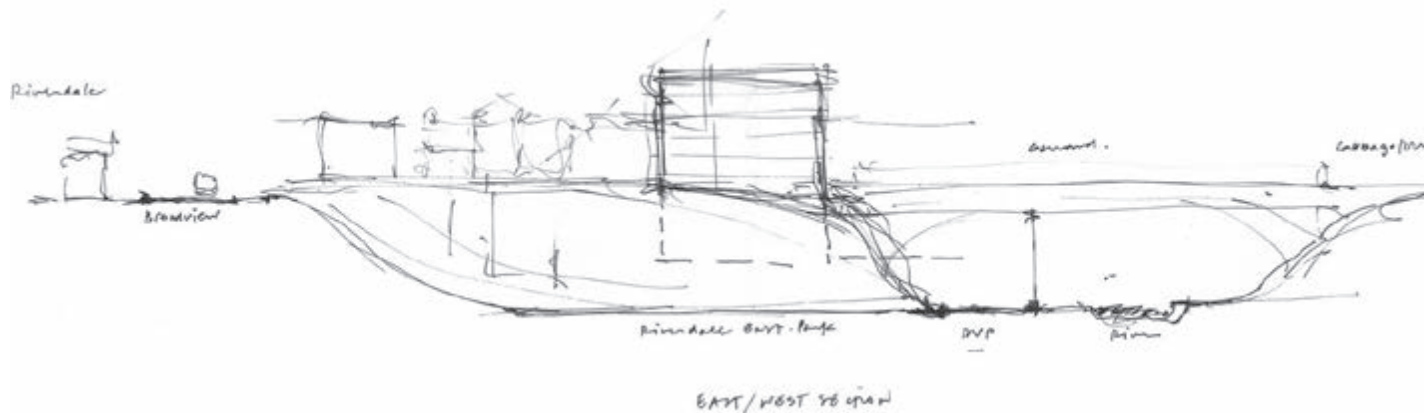
Community Access



Vertical Landscape



Inpatient Tower



Jury Comments

Bridgepoint Active Healthcare offers an exciting vision for the future of healthcare, the architecture and urban planning of healthcare projects. With ample access to natural light, the adjacent park and community are drawn in, connecting the often insular spaces of a hospital to the world beyond. The idea of community connection and landscape integration is sensitively considered and brought to life by the “Urban Porch,” bringing the community to the hospital’s front steps and inviting them inside with a host of public amenities. More personally, each patient room is fit with floor to ceiling windows that offer the patient connection to the community via clear site lines from the patient’s bed. From the exterior the syncopated pattern of the patient room windows animates the façade, giving it a distinct personality. The rooftop terrace extends the landscape and, by extension, the community is drawn up to the top of Bridgepoint, extending the views outwards across the park and the city. The idea is carefully fabricated in astute material selection and assembly. Local stone is drawn from the landscape to connect the urban porch to the landscape and park beyond. A continuous ipe wood clad soffit at the public ground floor draws people from the outside in, while the low iron glass enhances transparency, facilitating visual connection. In short, Bridgepoint is exemplary of the intent of all Five Design Parameters driven by a clear idea and sensitivity to the human experience while advancing the healthcare typology in Canada and more broadly, North America.

CANADA HOUSE

Canada House, located on Trafalgar Square in London, has been Canada's diplomatic home in the United Kingdom since 1925. It was designed in 1824 by Robert Smirke, architect of the British Museum, as the Union Club and the Royal College of Physicians and Surgeons. In 2012, Canada sold its other UK diplomatic station on Grosvenor Square and bought the building next to Canada House, 2-4 Cockspur Street. Originally built in the 1920s as the Sun Life of Canada Building, it also served as the headquarters for the Canadian Army during World War II.

While 2-4 Cockspur had little of heritage value in its interiors, the original Canada House is a listed building with significant heritage features, albeit somewhat tired and suffering from benign neglect and ad hoc renovations over the years.

.....

Client:	Department of Foreign Affairs and Trade Development, Canada
Location:	London, United Kingdom
Completion Date:	February 2015
Cost:	£38M
Project Team:	Aaron Taylor, Noel Best, Cindy Rodych, James Pooley, Faizel Patel, Aaron Carty-Nibbs, Charles Ivory, JoEllen Kelly, Jean Pierre Vos, Erin Saucier, David Christian

.....

VISION Stantec's commission was to integrate, renovate and revitalize these buildings—providing state-of-the-art facilities for the staff and public, celebrating Canada's culture and technology, and asserting Canada's position at center stage London.

RESPONSIVE DESIGN To recognize the broad diversity of Canada's people, culture and geography, each of the principal meeting rooms are named for a particular province or territory—from Newfoundland to the Yukon—and each room features art, craft, and furniture from that locale.

The design challenge was to design a striking, contemporary, and evocative space while honoring the historic building. Contemporary interiors are overlaid and interwoven with the restored classical features, creating an interesting dialogue across time, culture, and history.

Canada is one of the world's largest exporter of timber products, making wood a natural choice to unify elements and themes expressed in Canada House. Installations range from traditional craft in paneling and parquet to contemporary expression in furniture design and finishes.

INNOVATION Open workspaces provide flexible and varied accommodation, supporting a variety of diplomatic functions. From layout to furnishings, this workplace exemplifies contemporary design. It blends collaborative and independent staff workspaces to increase productivity and satisfaction.

High quality artwork, some of it specifically commissioned from Canada's best, is placed throughout the building in both the public rooms and the private workspaces. This is one of the most striking features of the new Canada House. One staff member commented excitedly that "It is like working in an art gallery."







PERFORMANCE Canada House was traditionally very inward looking with heavy drapes and dark furnishings. Opening the windows to the light and views, reinstating covered skylights and introducing new ones have brought significant benefits to occupants and to building energy performance.

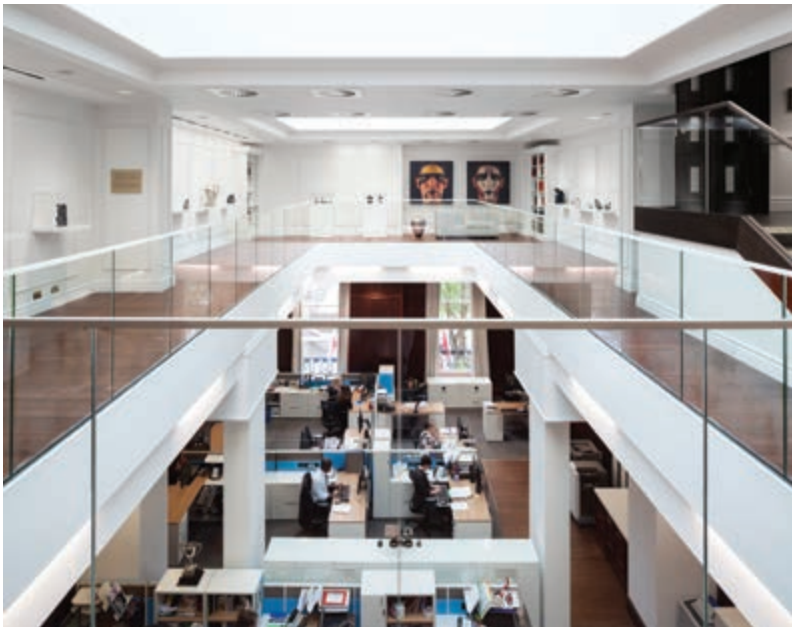
In addition to the skylights, the north roof was transformed into a terrace with a green roof and a green wall. The space offers spectacular views onto Trafalgar Square and out across central London. This terrace will most certainly become a key destination for celebratory events at Canada House.

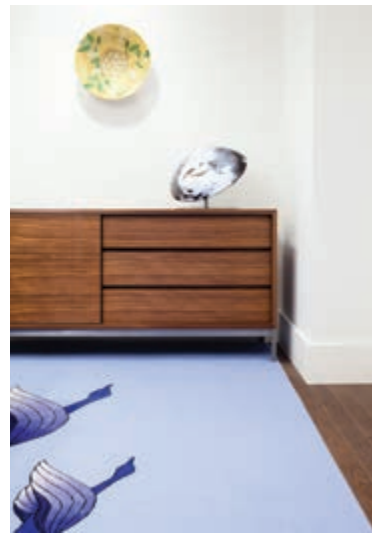
CRAFT Finely designed products are featured throughout Canada House. In the historic building, Omar Arbel's spectacular light sculpture is a contemporary counterpoint in the neoclassical staircase.

Traditional craft is evident in the stone carving and gilding of new maple leaves and lettering into architrave of Canada House.

Into the original atrium of 2-4 Cockspur features a new cascading staircase. The stair rises vertically through five levels, but also steps horizontally across the space—inspired by the step wells of India. This configuration brings the daylight from above onto all of the surfaces and spaces below, at the same time providing wonderful visual connectivity for everyone within the atrium—creating a vibrant social space at the heart of the complex.

A Chestnut canoe—a Canadian icon—is placed at the base of this staircase. The canoe is finished in the classic design of the Hudson's Bay blanket. This is a visual centerpiece for the staff recreation space and pub, The Bulldog and Beaver.





Jury Comments

Canada House is a triumph. The design is simple, restrained, and beautiful. The team was able to infuse a quality of light that is truly incredible. There is a timeless feel to the design—not just because of the heritage aspects of the building, but also because the contemporary additions and insertions are elegant and well considered. This interplay between new and old creates a unique character. There is a quiet strength in this design.

There is clearly a Canadian bent to the design, but this theme is not overbearing. It is woven into the design, with a high level of sophistication so that it is completely embedded within the building instead of feeling tacked-on. More than one juror suggested that this project represents a standard of design excellence that they aspire to.

This is a building that represents Canada well.

BRUCE LEARNING CENTER

The Bruce Learning Center (BLC) is a 330,000 SF training facility located at the Bruce Power Nuclear Generating Station in Tiverton, Ontario. The new building—which will consolidate a training program currently scattered across several buildings—is a significant addition to an existing facility (120,000 SF) requiring over 90% of the current building be demolished while minimizing disruption to the training program. The program includes a wide variety of space types including a large, high-bay industrial space (shops) high-fidelity simulators and associated support spaces (ops), 40 high-tech classrooms of varying sizes, office space for 400 staff and students, and staff amenities such as a 300-person cafeteria, a gym, and generous lounge spaces.

The Bruce Learning Center is located right inside the main entrance to the Bruce Power campus. Due to its location and its function—all employees must undergo training before starting their employment—the BLC acts as the front door to Bruce Power. As such, it is important that this building be welcoming to both employees and visitors, and through its embodiment of Bruce Power's values—which place people first—create a positive first impression.

Client: Bruce Power
Location: Tiverton, Ontario
Completion Date: 2018
Cost: CAD \$116.5M
Project Team: Tom Kyle, Justin Perdue, James Arvai, Matteo Maneiro, Olivia Keung, Mark Huang, James Strong, Andrew Cole, Reg Gasparet, Janet Gasparotto, My-Linh Elliot, Zoe Johnson, Lucas Eyong, Herbert Roerig, Kenny Smith, Robert Carkner, Barry Dempsey, Kyle Arnott, Maria Kyveris, Krista Walkey, Alan Schnerch.



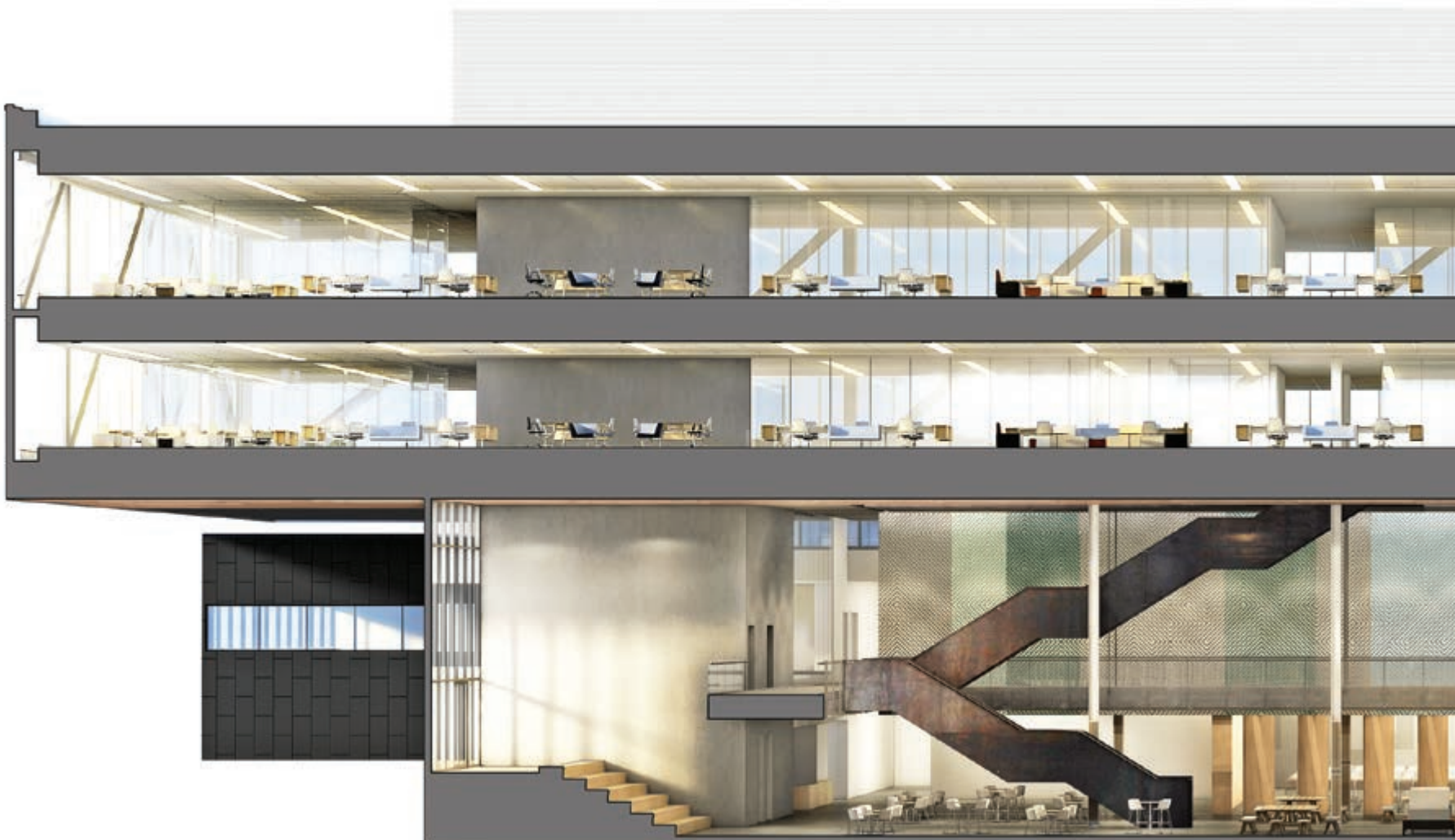




THE IDEA The concept for the BLC is simple: consolidate each program type into a block—shops, ops, classrooms, and office—and then organize those blocks around the amenity program. The ops, shops, and classroom program blocks are connected back to the amenity spaces by linear corridors which pin-wheel off of the main lobby / cafeteria. The office block hovers over the top of the main lobby / cafeteria forming a 12m cantilever to help define the entry and protect it from the harsh winter weather. This basic structure creates a highly efficient and rational design that is easy for users to comprehend and navigate.

The clarity of the massing led to a material strategy that the design team dubbed “precision industrial.” In order to honor the industrial nature of the site, the team selected metal cladding (steel, aluminum, and zinc) and then detailed this palette in a crisp and modern fashion to help define the program masses while integrating them all within a common architectural language.

The simplicity of the parti creates a building that is highly responsive to the future needs of the client. The training program has changed significantly over the last 30 years (necessitating the new building) and it is likely that it will continue to change in the future. The building massing—along with the grouping and standardization of spaces—means that in the future if needs change, the building can change with them either by interior reconfiguration or expansion.



THE PROCESS The design team approached this project with energy and rigor, and found a willing partner in Bruce Power. We asked many questions, and iterated rapidly, to find design solutions that met the client's needs while also challenging pre-conceptions and expanding their expectations.

The culture at Bruce Power is dominated by engineering and physics. Asking questions and demanding data to support answers is encouraged. During the design process, the client team asked us to develop a way of evaluating the different options we were proposing, to help in the decision-making process. In response, we created and defined eight design criteria: Legibility, Flexibility, Expandability, Efficiency, Interaction, Disruption, Alignment, and Cost. By using these criteria and presenting them in a clear and comprehensible matrix, options could be compared and the client was able to make significant decisions quickly and with confidence. As the design progressed, these criteria acted as a design anchor for the project team. Whenever a difficult decision was required, the team simply referred to the criteria and asked: "Am I strengthening or weakening the core principles of this project?"

THE RESULT On the back of a strong idea, a committed client, and a rigorous design process, the team delivered a building design that accurately reflects the people first culture of Bruce Power and supports continued safe and profitable power generation through improved training.

The design of the building has been carefully calibrated in order to be respectful of its industrial context while simultaneously elevating the standard of design at the site. As the front door of Bruce Power, the BLC will create a strong and lasting first impression for staff and visitors alike, helping Bruce Power attract and retain the most talented candidates. The Bruce Learning Center is a reminder that regardless of sector, a strong idea and an energetic and comprehensive design process can yield design excellence where one might least expect it.



LEVEL 4

01 office / workstations (staff)

LEVEL 3

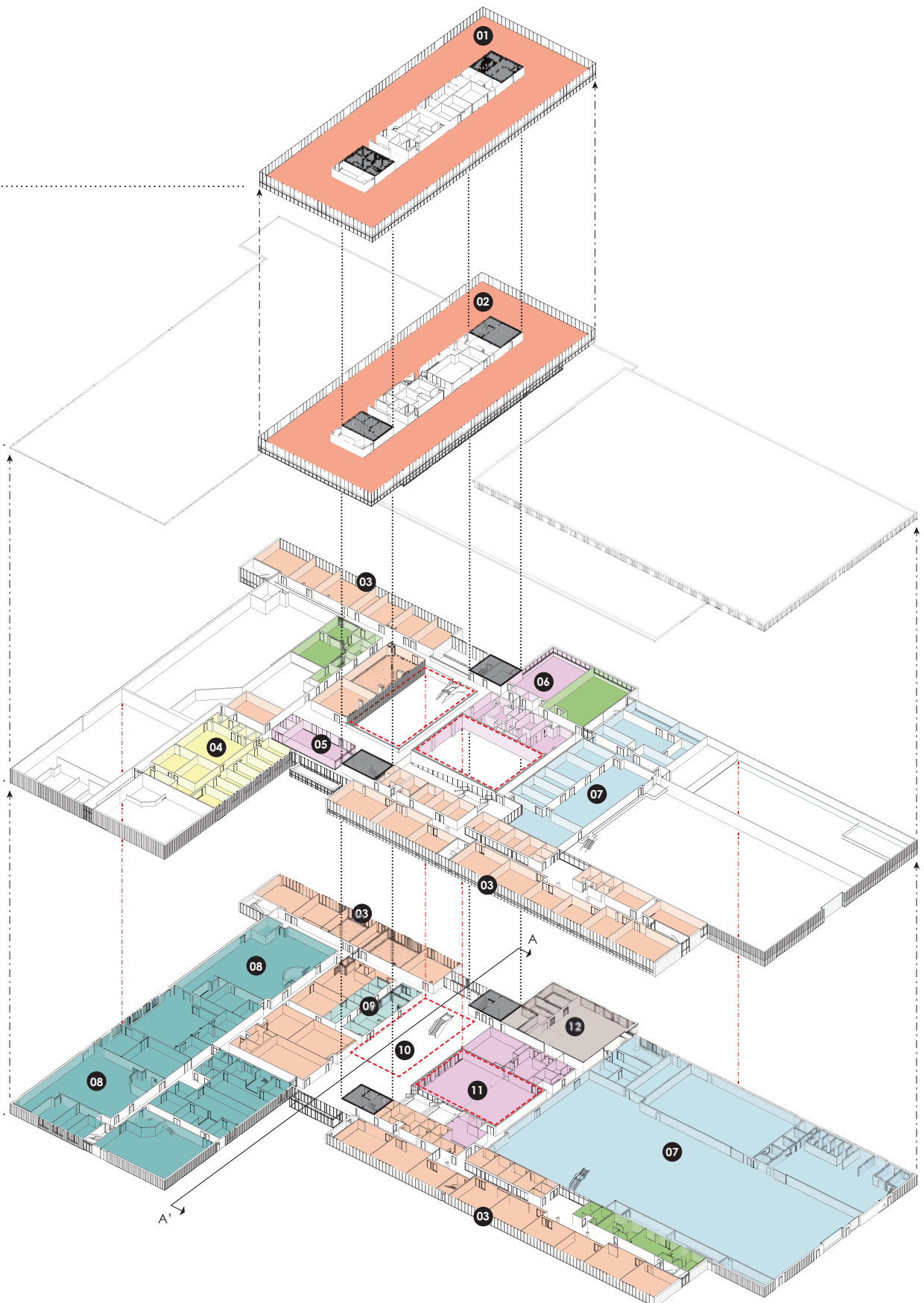
02 office / workstations (candidates)

LEVEL 2

03 classrooms
04 certification testing
05 lounge
06 gym
07 shops

LEVEL 1

08 existing simulators
09 onboarding
10 central amenity / cafeteria
11 auditorium
12 service



EXPLODED AXONOMETRIC



Jury Comments

The new training facility required a design that clearly organized many program spaces for a transient population while achieving a beautiful design aesthetic. The organization of the program into specific blocks creates the clarity. The detailing of the exterior skin and coloration of the façades continue to bring clarity through the creation of a sophisticated yet cohesive language for the complex. The team has coined the aesthetic of the building—“precision industrial.” This term aptly describes the industrial nature of the site, the modern design aesthetic and the massing arrangement of the program elements.

The project’s eight design criteria established by the design team are a clever design rubric. They gave the design team not only a consistent design measure for the emerging options but also a clear way to engage with the client in decision-making throughout the design process. The crafting of these goals has brought clarity, consistency and quality to the design process.

The team transformed challenging design problems into a sophisticated architecture. They achieved this despite the challenges of phasing of an existing facility, the organization of large program spaces, and an underwhelming site surrounded by parking. The design creates an unexpected high-design feel for a facility that might otherwise be ordinary and finds an intimate balance between drastic scales of space. Designed with flexibility and change in mind, this building responds to the client’s changing training and education needs over time, preparing them for business success now and in the future.

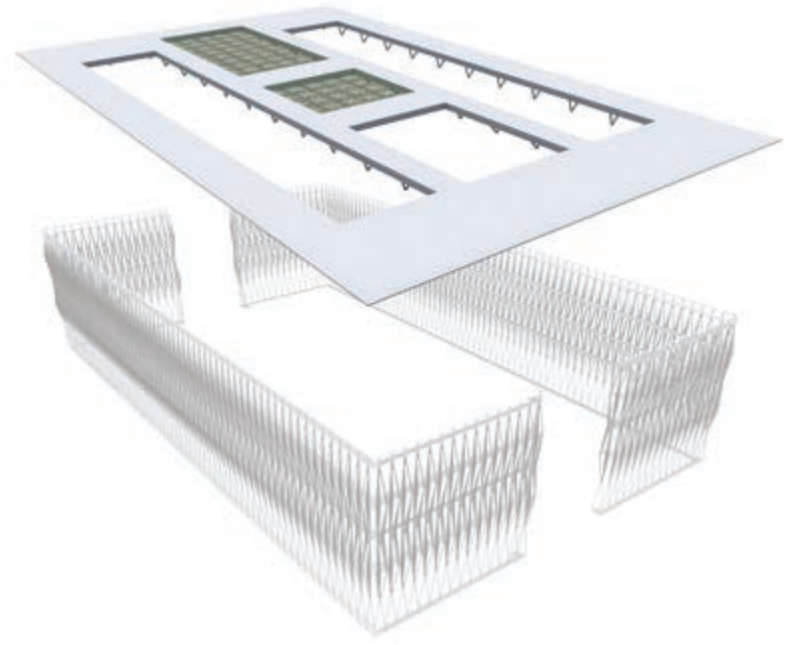
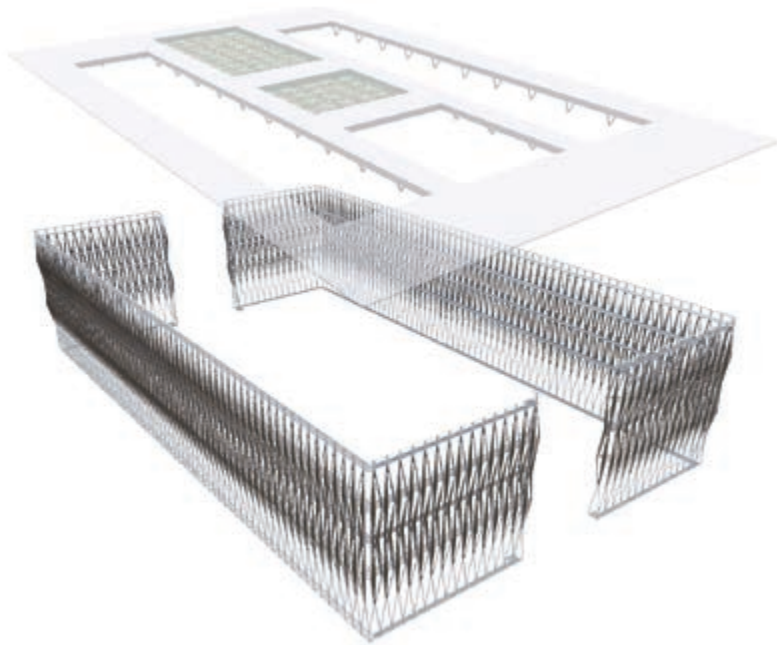
The interior design of the facility could easily have been banal, but instead a warm, welcoming and textural solution is offered. A central amenity space creates a welcoming communal space. Furniture is used to separate and define areas that support work and social interactions. A well-defined entry sequence upon arrival at the site reinforces the front door concept and creates a strong and lasting impression for staff and visitors. A strong concept and a rigorous process have delivered a design that puts people and the community at the forefront of their design.

THE NATIONAL CENTER FOR CANCER CARE AND RESEARCH

Client: Hamad Medical Corporation
Location: Doha, Qatar
Completion Date: 2023
Cost: USD \$960M
Project Team: David Martin, Dan Zak, Tejpal Bhogal, Catherine Zeliotis, Ileana Alexandratos, Dean Murph, Anu Sabherwal, Dorian Holzapfel, Nathan Werner, Martha Mitchel, Lynn Befu, Velimira Drummer, Mary Lee, Jerzy Wollak, Dean Kaardal, Thys Fourie, John Karman, Robert Abbenhuis, Keith Bate, Pritpal Matharu, Lanny Flynn, Jason Kamihira, Peyman Ansari, Liam Farrel, Joel Martineau, Stephanie Anderson, Michael Moxam, Jonathan Wilson, Len Castro







A world-class cancer facility, the NCCCR will set a new global trend for how modern health facilities can maximize healing, cure discovery and cancer prevention within a truly unique, nurturing and decidedly non-institutional environment. The 83,000 SM facility sits above 125,000 SM of parking and support infrastructure. The project will seamlessly integrate within a master plan which will transform the Hamad Bin Khalifa Medical City Campus (HBKMCC) into an urban health precinct in Doha. Comprised of dozens of new buildings, HBKMCC is an ensemble which will establish a new standard of excellent care for patients in Qatar and the Gulf Region.

PARTI Inspiration is drawn from a lily seed pod, as an example of how life begins. Emulating this moment, the building form embraces the Rumailah Square facing north, symbolic of Doha's past, while opening at the center to create the Corniche Gardens, a significant volume of internal and external gardens, facing east to West Bay, to embrace Doha's future. At the convergence of these two urban forces, the Light Hall recalls historical courtyard architecture in Qatar and creates the threshold, where life in the NCCCR begins.

Individual experiences are characterized by the integration of light and nature—a constellation of gardens order the space into a series of therapeutic environments while lending order to whole. Over 200 gardens are integrated into the fabric of the building to provide a unique experience.

FUNCTION A series of communities organize clinical activities to create legibility and reduce the perceptual scale into a non-intimidating and supportive occupant experience.

- Ambulatory Day Zone
- Central Staff Zone
- Inpatient Sleep Zone

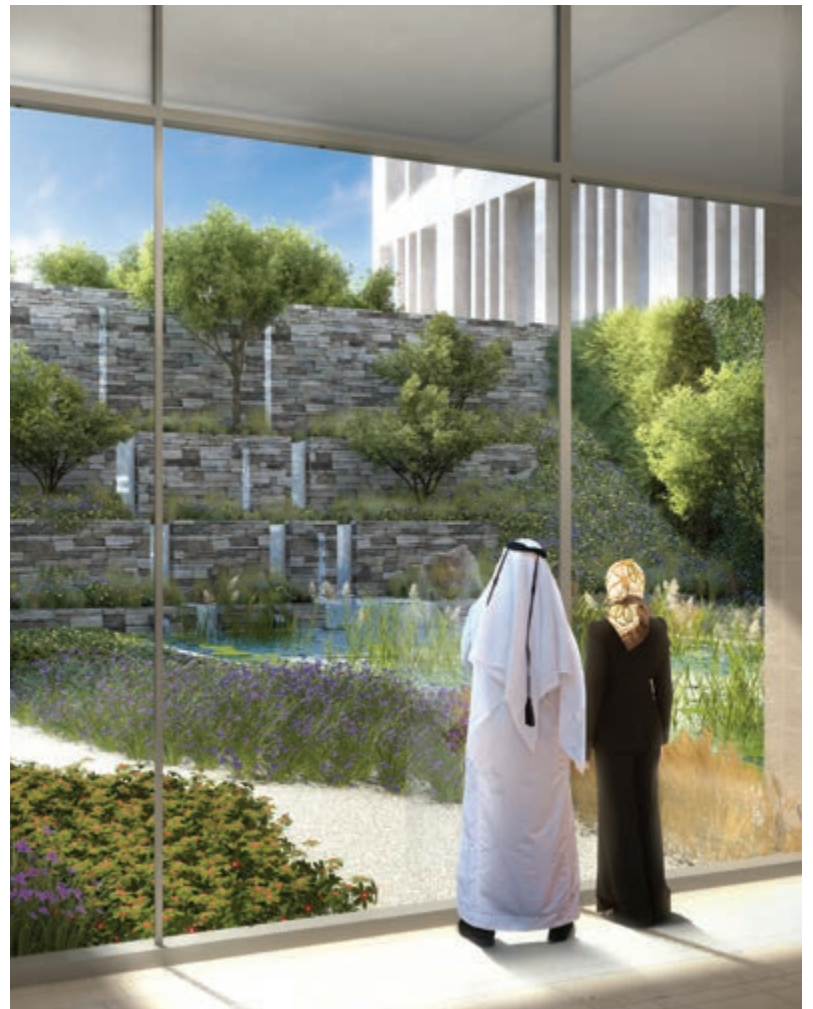
The clinical solution was guided by key clinical planning objectives:

- Separate entries for cancer patients, non-cancer patients (haematology, genetics, breast clinic, etc.) and inpatient admissions, following best practice design and to respond to local cultural sensitivities.
- Create a central wayfinding point for all departmental entries.
- Concentrate the high volume patient flows on the lower, ground and first floors.
- Separate patient, staff/bed and material management flows.
- Enhance views to daylight and nature from all circulation zones.

LANGUAGE The architectural language integrates with overall master plan objectives to enhance campus cohesion. The limestone-clad podium's scale and rhythm informs the pedestrian experience, the vertical towers include a veil to maximize views while providing protection from heat gain and glare.

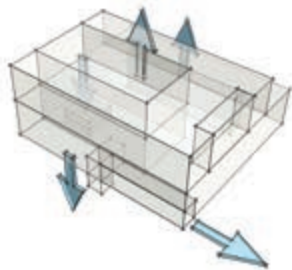
A roof plan reinforces a sense of sanctuary while simultaneously reducing heat gain. The roof serves as a platform for solar panels, which are part of an integrated sustainability strategy to combat the severe climatic conditions. A story-high band establishes a visual datum at level 1 to further legislate scale and order.







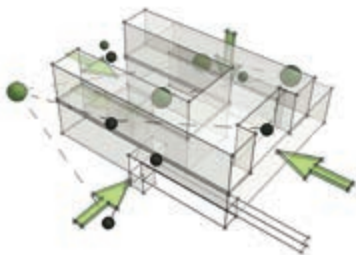
Volume



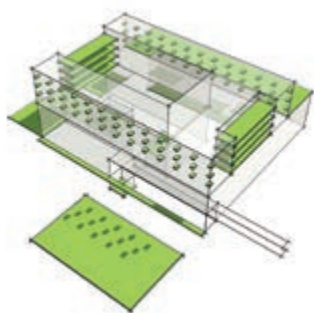
Sliding of Volumes



Resultant Volumes



Constellation of Seed Pods



Constellation of Gardens



Jury Comments

The inspiration and relationship of the design to the parti is particularly strong for this project. This relationship gives harmony to the programmatic complexity of a facility of this magnitude. A correlation between functional zone and expression in the massing lends clarity to the building. This unified expression for the various buildings on site creates cohesion for the campus. Attention to the differing needs between the outpatient (day) and inpatient (sleep) zones helps discreetly maintain a diverse patient population, and minimizes disruptions to sensitive patient populations. The allusion to a massive mashrabiya veiling the upper levels harmonizes with the architectural traditions of the Middle East but acts as more than just a token, fulfilling its traditional role, lending privacy to the patient rooms and signaling a change in use for the upper levels.

While the Light Hall drives daylight deep into the building, it is also enclosed enough so that the courtyards begin to feel like internal neighborhoods, dissolving the boundary between indoor and outdoor, and breaking down the massive scale and institutional nature of the complex. The lush landscaping and application of vegetated roofs throughout the facility, particularly at each patient room, diffuses the urban setting and reinforces a sense of sanctuary. Patient rooms thoughtfully accommodate family and visitors, and the single loaded corridors afford all patients a view to the exterior and contribute to a quieter ward. This tranquil setting is forgiving and accommodating, ideal for the treatment of cancer, which is a particularly reflective and personal medical struggle.



REED SCHOOL SITE ANALYSIS + CONCEPTUAL DESIGNS

.....
Client: Arlington Public Schools
Location: Arlington, Virginia
Completion Date: November 2014
Cost: n/a
Project Team: Bill Bradley, Rob Winstead, Tracy Eich, Wilfredo Rodriguez, Raul Pinol-Marti, Emy Semprun, Ivan Bustamante, Mark Adamiak
.....





To address a pressing need for 800 additional seats for middle schoolers, Arlington Public Schools embarked upon an ambitious campaign to vet a wide range of solutions for student accommodation. Over a three-month period, designers hosted more than a dozen meetings with community members to identify concerns, test options, respond to feedback, and present results. Key stakeholders asked designers to address a myriad of concerns including: traffic, parking, reduced green space, a local farmers' market. The design team also had to accommodate community activities already on site including: a public library, recreation fields, community garden, walking paths, sledding hill as well as providing appropriate educational venues for the diverse array of learners.

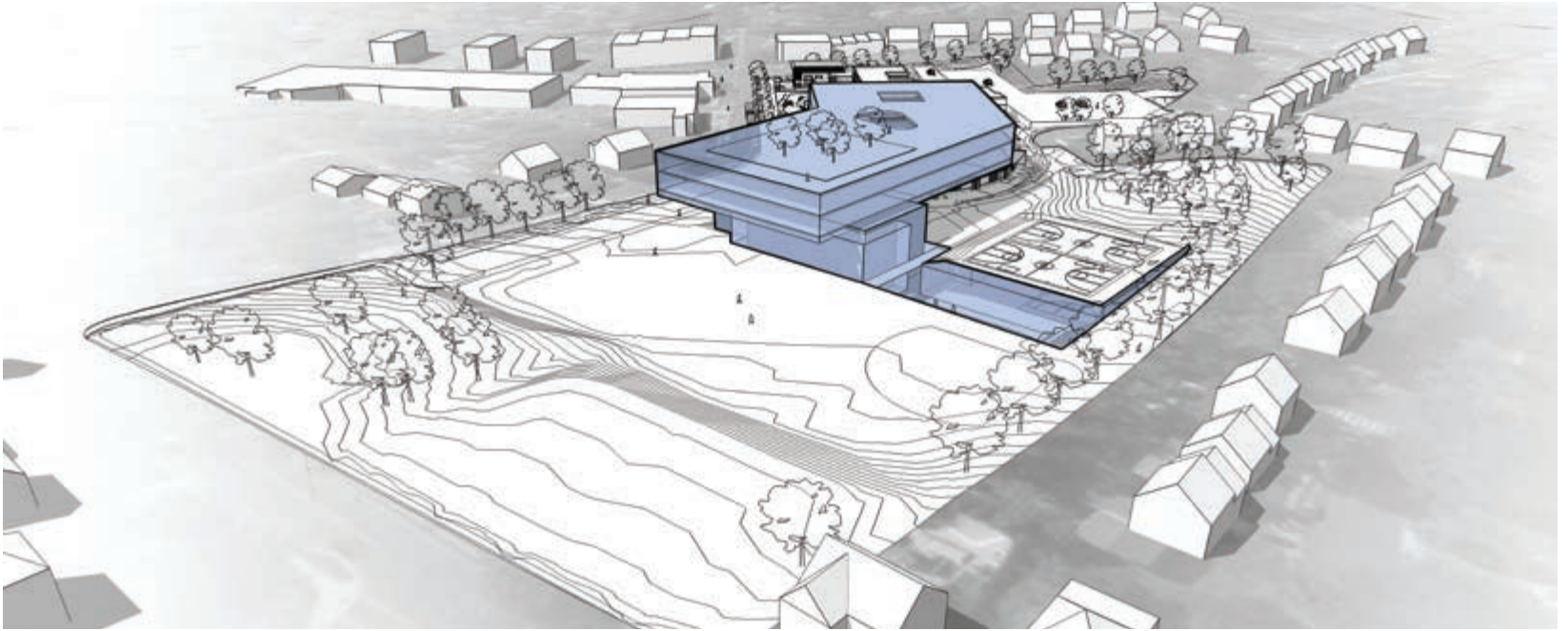
The final design addresses all of the above by leveraging available space in the existing facility and floating new space above it. The unique treehouse form has little impact on the site while adding 84,000 SF above the existing structure. The final, 165,000 SF school is characterized as follows:

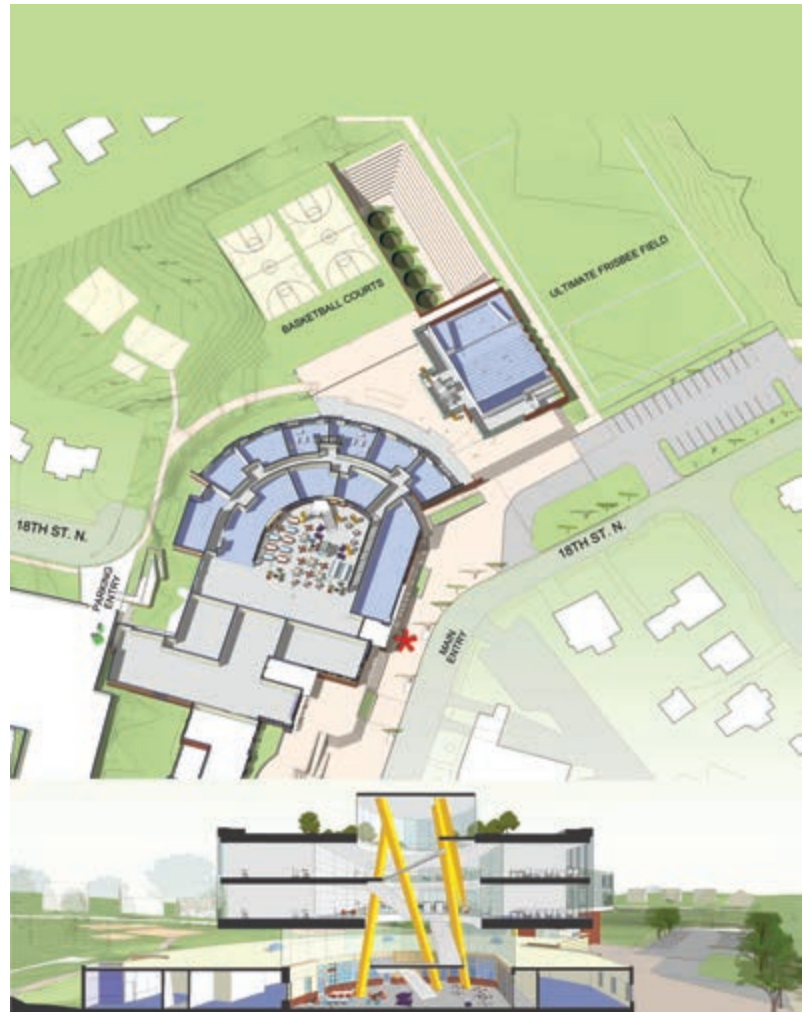
- Safe and secure – a school designed foremost to safeguard its occupants
- Healthy and high-performing – a high-quality environment designed to support learning and minimize operational costs
- Differentiated – a variety of educational places and spaces that lend themselves to change depending on the activity occurring within them
- Active – modern facilities for physical education and extra-curricular activities
- Unique, fun, and inspiring – a unique design response intended to enhance the unique program housed within it.



Intensive engagement throughout the design process built trust and support for the vision which delivers a creative learning environment for students and an enriched community asset for all.

The community was vocal in their support of the innovative design, its potential as a learning environment, and the way in which it created more community assets without compromising those that were already well-established on the site.







Jury Comments

The conceptual design for the expansion of the Reed School is inspired, with moves that are simple and bold. Hovering above the existing campus, the architectural gesture is entirely transformative and yet not overly disruptive. The pure form of the massing and the choice of a monolithic curtain wall provide long term flexibility for a scheme that would have shoehorned the program between existing buildings. Additionally, the scheme allows green space to be maximized on a constrained site for the benefit of students and the surrounding community. The articulation of the building picks up on cues from the Westover Library at the street corner, and the transparent glass volume also neatly creates a bookend for the opposite side of the campus.

Inside, the organically punctured balconies help to dissolve the massive floor plate and create a sense of internal community through the interconnectivity of levels and activities. The free-flowing common space that weaves between the levels provides ample opportunity for a variety of teaching environments and social activities, creating opportunity for a very dynamic engaging setting for learning. The cluster of massive columns supporting the addition are expressive of the structural achievement necessary to facilitate the addition, evoking an uplifting sensation while also energizing the atrium space and unifying the floors of the building. Lastly, the vegetated plaza roof is laden with amenities to ensure that every square foot of the building is highly utilized.

CAMBRIDGE MEMORIAL HOSPITAL

VISION *River / Landscape / Communities* Cambridge Memorial Hospital is a regional community hospital that serves the residents of the four communities that form Cambridge—Galt, Hespler, Prescott and Blair. The communities are organized along two intersecting rivers, the Grand River and Speed River. The rivers and the bridges that connect across them inspire the essential orientation and material expression of the new expansion. Local landscape is celebrated in the two large courtyards that mediate the space between the new and existing buildings. The local tradition of stone masonry construction and mill buildings is reflected in material selection. Using this common vernacular, the hospital becomes a healing place that is representative of and familiar to the residents of all four communities.

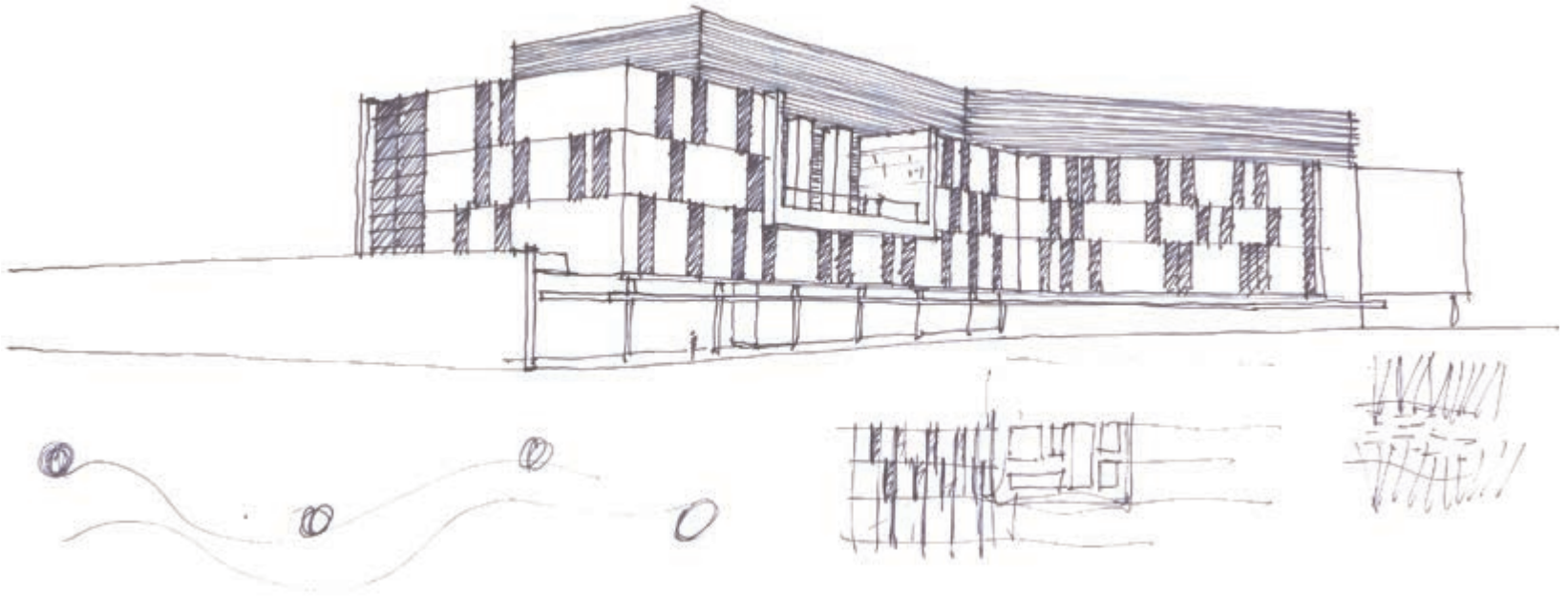
.....

Client: Cambridge Memorial Hospital
Location: Cambridge, Ontario, Canada
Completion Date: Ongoing
Cost: CAD \$187M
Project Team: Michael Moxam, Diego Morettin, Barbara Miszkiel, Lloyd Hilgers, Olivera Sipka, Eugene Chumakov, Brian Moeller, Gerard Dourado, Iva Radikova, Rich Hlava, Ricky Papa, Essam Basta, Solmaz Eshraghi, Afsaneh Karamizadeh, Nadja Baljovic, Mahshid Matin, Renee Liu, Anthony Lue, Chi-Ae Goodman, Zoe Johnson, Sarah O'Connor-Hassan, Nancy Lindsay

.....







RESPONSIVE DESIGN Three of the five key design objectives developed with CMH representatives are: create an environment of wellness, create a positive work environment and establish a strong community connection. These are strongly achieved through the inspiration of River, Landscape and Communities.

Views to the river are achieved for patient rooms and family space through the geometry of the inpatient tower. A transparent bridge link connects the new and existing inpatient towers echoing the tradition of bridges in the area. The full height glazing along the length of the link establishes an intimate connection to the river and is core to the intuitive wayfinding inherent in the concept.

The landscape of the Cambridge area is reflected in the two courtyards that mediate new and existing built form. The courtyards are the central organizing elements of the expanded facility. The main entry is centrally located and offers immediate visual connection to the large landscaped courtyard. This courtyard is a significant contributor to the intuitive wayfinding program. Feature stairs and elevators are located so that the courtyard is visible from each level upon arrival, providing immediate orientation and wayfinding for patients, families and visitors.

INNOVATION The inpatient tower bends toward the river like a divining rod, establishing strong visual connection to the river for the first time on this campus. Similar to many mid-twentieth century institutions located on a waterfront, the service and back of house zones were located on the water side. The concept for CMH returns the riverfront to building users as a significant visual amenity and source of passive stress reduction.

Notched terraces located on the east and west elevations at Level 3 provide the necessary outdoor space for the inpatient mental health program. The notch in the building mass provides the additional benefit of allowing natural light and direct views to the river and landscape from the inpatient corridor systems of the Level 4 and 5, a very unique and beneficial condition for an inpatient unit.

PERFORMANCE The final two design objectives, design for flexibility and operational efficiency are achieved through facility planning. A highly efficient approach is taken to achieve appropriate staffing models. In the new tower, each of the three inpatient floors are divided into four inpatient clusters accessed at the center of the floor plate. This configuration ensures direct patient supervision while minimizing walking distance for staff. Similarly, the existing patient tower is renovated to accommodate



two inpatient clusters also accessed from the center. A glazed bridge link connects these two key access points. Level 1 and 2 are organized around two courtyards. Each key program component has an address off of the main courtyard to facilitate wayfinding and functional proximity. The structural grid dimensions were studied during the design stage to protect the ability to accommodate program change in the future. Similarly, floor-to-floor heights in the new construction are designed to not only accommodate immediate service needs but to allow space for further technological interventions in the future.

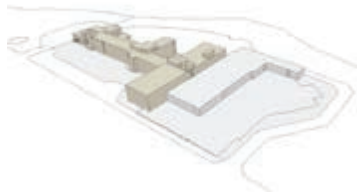
CRAFT The principal expression of the project is inspired by the light reflected from the surface of the Grand River. Reflected light is expressed as the syncopated rhythm of fenestration on the inpatient tower elevation. The ceramic panel cladding presents a clean, tight surface while the nearly flush rhythmically placed patient windows conjure the idea of light reflecting off water.

The main entry and lobby are seen as the main square of the expanded hospital. Inspired by local masonry traditions, the concept uses natural stone as its primary material. The stone moves seamlessly from outside to inside and into the main courtyard visually connecting the visitor from

landscape to landscape. A clear delineation of the Level 2 podium and the three-story patient tower is achieved through material use and approach to fenestration.

VALUE Cambridge Memorial Hospital has been operating in below standard facilities for many years. This significant expansion and renovation establishes a long-term strategy for regeneration of the entire campus, improves the quality of environment for both staff and patient populations, and propels the delivery of health services in the Cambridge community well into the 21st century.





01 Existing Hospital



02 Courtyards



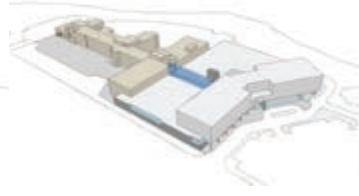
03 Podium + Entry



04 Vertical Connection



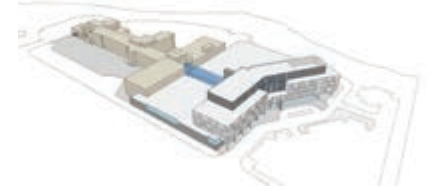
05 Bridge Link



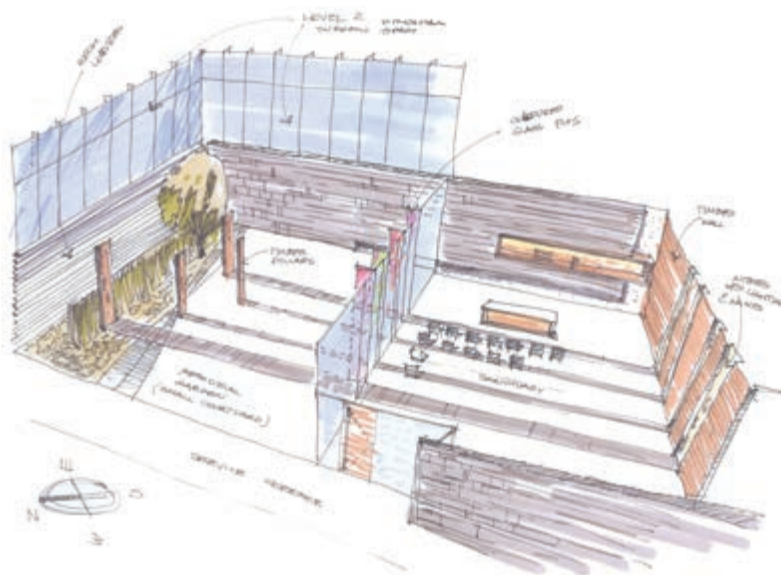
06 Inpatient Tower + Terrace Notches



07 Skin



08 Service



Jury Comments

Cambridge Memorial Hospital demonstrates a clear design strategy for the overall intervention both at the scale of the site and the connection to the existing hospital. The analysis of the vertical connection and the podium entry creates an interesting courtyard arrangement that provides great outdoor connections, clear entry and enhancement of the public realm. The core objective—re-orientating patient spaces towards the river—and emphasis on views and daylight is exemplary. Inspired by the larger context of the communities found at two intersecting rivers informs the way the new and the old come together. The new addition has the sinuosity of the adjacent river forms and creates the connecting nodes at the inner courtyard.

It is rare and refreshing to see the objectives of a healthy environment, coupled with the needs of a P3 delivery model where time and cost are major considerations. It is especially challenging to meet strict planning efficiencies while exceeding patient environment considerations. By doing initial planning diagrams, placing the mass of the building away from the existing hospital, the larger ground floor program allows for courtyard openings—bringing light deep into the floor plate.

It is clear from the exterior treatment the prioritization of massing was critical. The envelope cloaking the mass and its varied windows hint at the function of the spaces within. Careful selection of materials that meet the exterior environment and project needs achieve a holistic design without becoming superfluous.

DJAVAD MOWAFAGHIAN CENTER FOR BRAIN HEALTH



The pioneering 14,000 SM research facility contains wet and dry labs in addition to patient clinics, all of which are dedicated to neurological and psychiatric diseases ranging from Lou Gehrig's, Parkinson's and Alzheimer's' diseases to Multiple Sclerosis and resistive psychosis. The project was conceived over 10 years ago by Dr. Max Cynader along with a host of research faculty, neuroscientists, psychiatrists, nurses and clinical staff. The building balances clinical treatment and research spaces to create an interdisciplinary environment that supports discovery.

The driving vision focused on three aspects which formed the basis of the design—translating discovery and healing, motivating and inspiring patients, and campus cohesion.

.....

Client:	University of British Columbia
Location:	Vancouver, BC
Completion Date:	February 2014
Cost:	CAD \$40M
Project Team:	David Martin, Peter Wreglesworth, Wilf Lach, Ray Wolfe, Lynn Befu, Marc Trudeau, Darryl Richards, Lorel McLaren

.....





PARTI The Institute combines clinical and research functions into a translational research facility which capitalizes on the synergies of combining these traditionally isolated populations to advance the development of cures and therapies for those suffering brain dysfunction. The design synthesizes these functional and aspirational elements with the existing health sciences precinct site to complement and contribute to the enrichment of the UBC campus.

The building parti evolved through this synthesis, yielding a simple organizational principle—two interlocking boxes—which simultaneously address the urban scale of Wesbrook Mall, a major campus roadway, and the lower scale of the health sciences quarter. With this simple move, the project establishes a clear boundary condition for UBC's campus perimeter, strengthens the definition of Wesbrook Mall and creates a gateway for the health sciences precinct.

RESPONSIVE DESIGN The new facility exemplifies an emerging trend, where medical professionals are seeking a new breed of medicine that blends the art of caring with the science of curing. This new facility harnesses the best of these aspirations into a translational medical and research environment in which healing and learning are intrinsically intertwined, the insights of one discipline informing the other to enhance patient care and accelerate research efficacy. A network of collision zones are strategically located throughout the building, inspired by the pattern of synapses in the human brain. These zones encourage impromptu interaction between researchers, patients, clinicians and students.

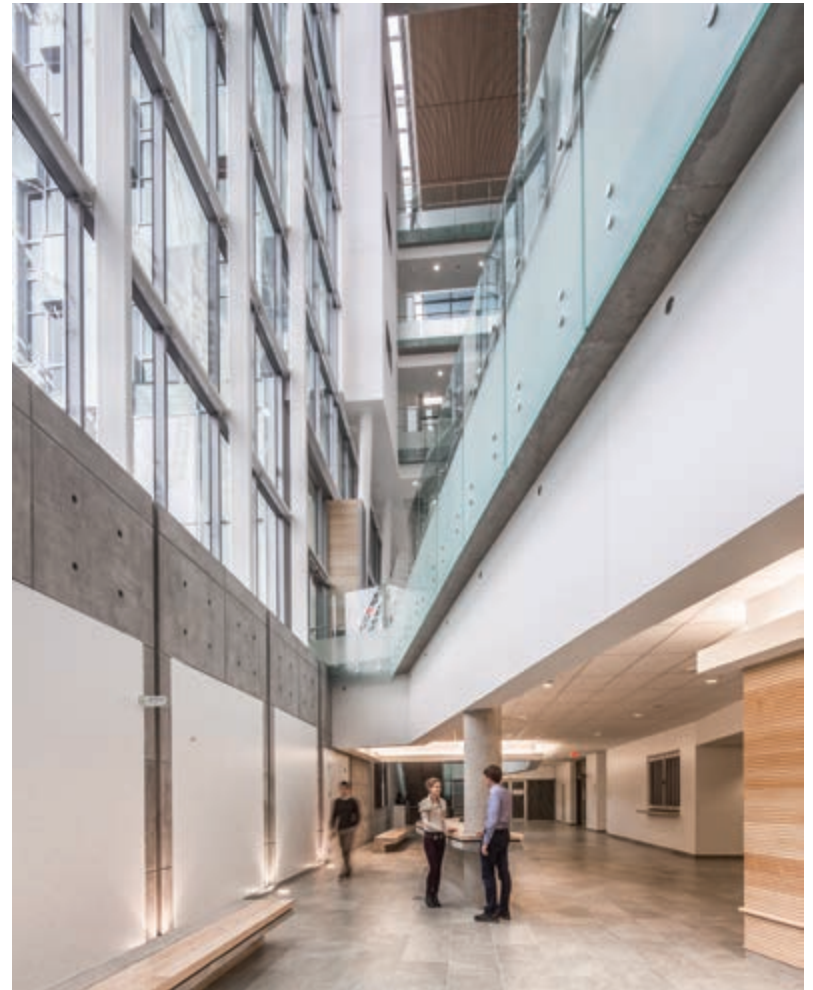
Connectivity within the building is complemented by the inclusion of pedestrian links to adjacent buildings with functional adjacencies to enhance overall campus cohesion.

INNOVATION With a heavily scientific program, the Center faced the typical dilemma of intense energy use. A decentralized plant concept effectively eliminates vertical air supply routes. In concert with a number of sustainability features, energy consumption is reduced 25% below baseline. These innovations also allowed the elimination of a traditional 1.5-story centralized plant on the roof which enables a more elegant roofline and contributes to the quality and definition of the urban and campus condition.



PERFORMANCE Highly efficient and intelligent planning characterizes the geometry of the building. Labs are modular, flexible, adaptable and functionally driven, yet remain human in character. Wherever possible, labs feature views of the surrounding landscape and mountains. Opportunities for collaboration and efficiency drive the design of the interior. Interaction nodes promote the exchange of ideas via interconnected communal stairs.

Clinical areas feature highly efficient, open staffing and patient areas which, although clinically driven, embrace the idea of creating a sense of sanctuary. Their design promotes the overarching goal of 100% participation with ongoing research. In order to achieve the 100% target patients must feel comfortable and supported by the architectural environment, that it is designed with their unique needs in mind. And they must feel connected to something bigger than themselves, that they are doing good and perpetuating the search for a cure.



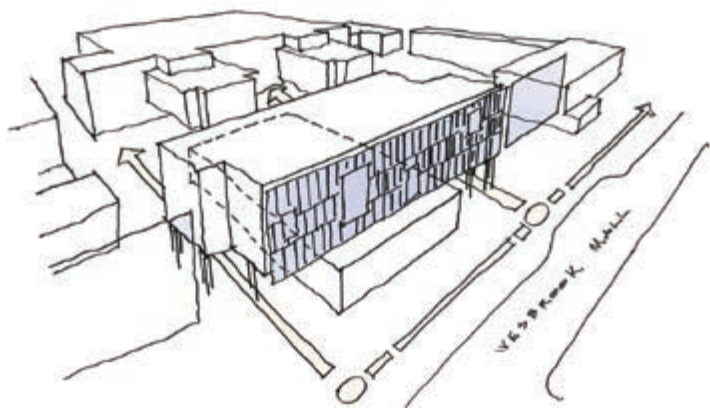
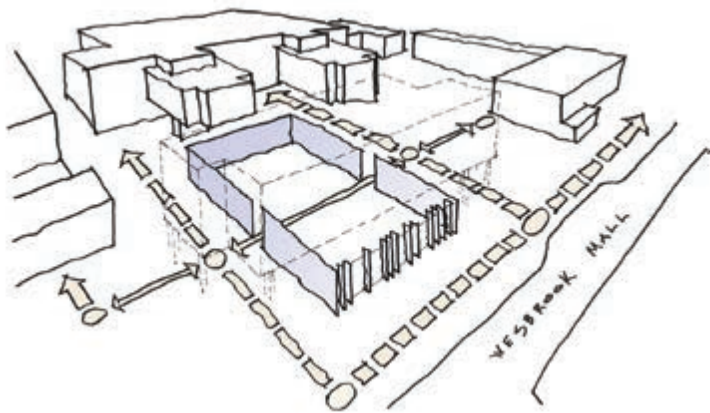
CRAFT In the spirit of early modernism which orders and characterizes the UBC campus, the new center’s expressive mass is a reflection of its constituent parts. It integrates the institute’s programmatic function and architectural form while establishing a framework of architectural language and quality expression.

The research laboratories are light and “of the sky,” celebrating the science and optimism of the health sciences’ forward thinking aspirations, architecturally they are expressed via high performance glazing. The patient areas are “of the garden” to ground the complex and support the campus narrative via their elegant light colored brick which is common to the campus pedestrian experience.

Synapse, a key ingredient of positive brain function, serves as inspiration for the building and drives the functional layout to achieve interaction among users. A network of space, ordered by the “synapse atrium,” promotes cross collaboration and teamwork.

These three components—the “clinic ground,” the “research air” and the “synapse atrium” are the guiding principles of the design, aiming to synthesize program and urban requirements into architecture which is an expression of this ideal. All elements are connected by a network of interactive space, light and airy to reflect confidence and optimism for cure discoveries. Abstractions of synaptic connections are integrated into the architectural enclosure to exemplify these concepts.





Jury Comments

The concept for the David Mowafaghian Center for Brain Health establishes a clear legibility of the two key programmatic components, research and treatment. While meeting the programmatic elements of the project, the DMC for Brain Health reaches further, by establishing a new gateway for the health science precinct and reinforcing connectivity at the campus scale. The “wobbly” columns support the projecting lab volume while creating an unexpected public art intervention on campus.

The “Synapse Atrium,” the key organizing device, cleverly connects the program to campus, initiates a series of collision zones or collaboration areas which are designed to connect clinicians and researchers in casual interaction to encourage discovery.

The conceptual idea of the clinics as “of the ground gardens” and the labs as “of the sky” is expressed in their materiality, resulting in a highly legible composition with clear campuswide intentions.





RICHARD J. LEE ELEMENTARY SCHOOL

Richard J. Lee Elementary School is designed as a compact, Net-Zero, transformational learning environment that is visually open and makes excellent use of space. The client desired a non-traditional curriculum and the exterior expresses this unique plan. The design provides a variety of choices for task-focus or casual spaces, giving students responsibility for their own learning, while teachers facilitate. Instead of traditional classrooms, grades are organized into learning communities placed around a central collaboration space.

Client: Coppel Independent School District
Location: Dallas, Texas
Completion Date: August 2014
Cost: USD \$21M
Project Team: Terry Hoyle, Taryn Kinney, Mike Elmore, Al Hernandez, Dan Fletcher, Lorenzo Navarrete, Wes McElhany, Damien Martin, Brad Robichaux, Gwen Morgan, Robby Vogel, Fred Tooley, John Small, Engiell Tomaj, Dwayne Henderson





VISION The design supports the client's intent for a non-traditional curriculum. The vision was defined by stakeholders touring commercial and educational buildings, performing pedagogical analyses and developing design strategies that support the goals to inspire, celebrate, and create. The process went beyond the project by redefining the entire district's vision and recreating its culture, resulting in a transformational school district and learning environment.

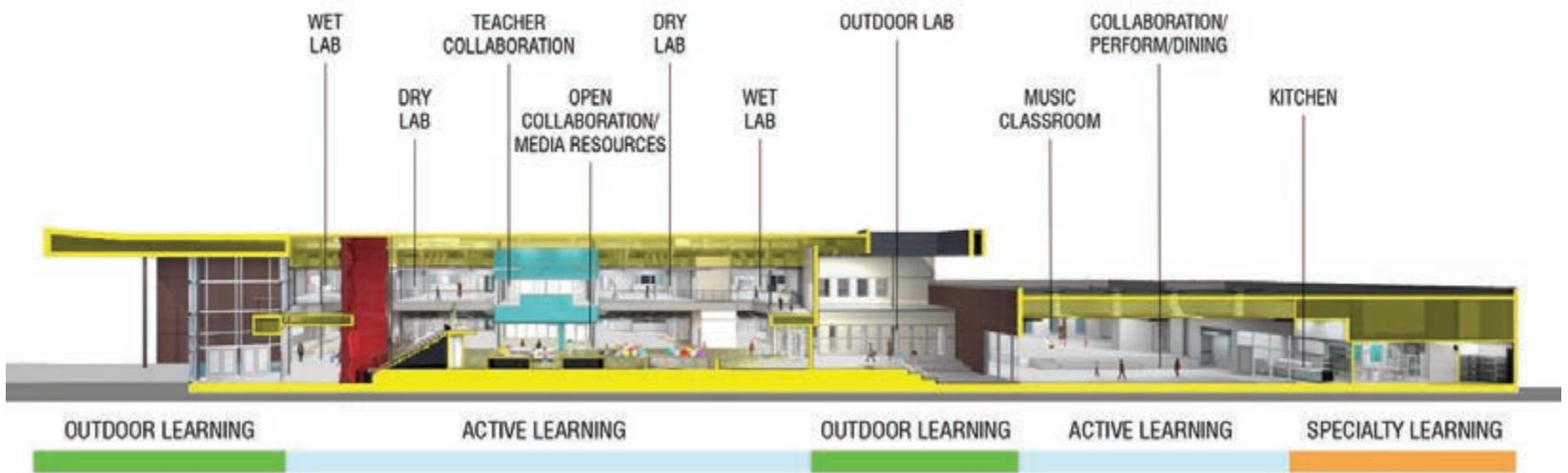
RESPONSIVE DESIGN The exterior reflects the innovative learning environment within. A showcase for the district, the building serves the community by making available the gym, instruction, dining, and outdoor spaces. The building serves to transform the community by exposing it to the transformational education model within and through engagement opportunities like continuing education, exposure to sustainable design, and technology.

INNOVATION In this innovative challenge-based school, the students come first. Unique spaces provide inspiration for learning from individual to collaborative. The instructional model and the building design supports hands-on learning tailored to individual learning styles that allow students to develop their critical thinking, problem solving, and presentation skills through collaborative and team-based opportunities. The design allows flexibility and adaptability for continuous school transformation.

PERFORMANCE LEED Gold certified, Lee Elementary is the first net-zero elementary school in the state. Being net-zero, the facility produces as much energy as it uses. Geothermal HVAC, gray water usage, locally manufactured materials, and 100% LED lighting are just some of the sustainable design features. The design incorporates advanced energy modeling to optimize the plan and building placement while controlling the impact of solar gain. The building is designed as a teaching tool with visual graphics used to educate students and the community about sustainability.

CRAFT Varied types of learning zones are created to accommodate each student's learning preference, be it focused, active or collaborative. The open design provides connectivity, transparency, and inclusivity while promoting informal supervision. Dining becomes a collaboration and performance space. The library transforms into an extension of the small learning communities. Even the exterior spaces normally reserved for play or support become spaces for active learning.





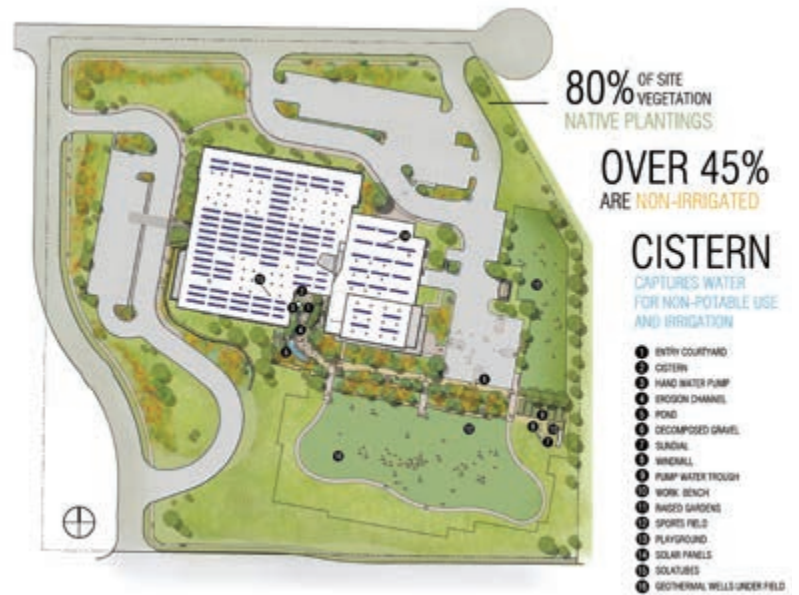
Jury Comments

The diagram of the school creates a series of interconnected neighborhoods. Not only is the school connected internally but also with its local community by creating opportunities of use beyond the pedagogical needs of the primary users. The planning of the classrooms around a central open atrium allows for learning to happen at a number of scales.

The planning approach creates a high degree of flexibility and adaptability for a variety of teaching and learning opportunities.

This project excels in the energy performance department, designed to the lofty goal of net-zero energy use in a challenging location due to extreme climactic conditions. By taking advantage of orientation and landscape, this building achieves what few projects do. Covered, outdoor learning spaces allow students to spend more time outdoors while still being protected during warmer months.

Through intelligent planning moves, such as placing the majority of classrooms facing north and shading the southern-facing windows with deeper insets, ample natural light reaches students in learning environments. Bringing students out of classrooms into open collaboration and outdoor learning laboratories allows greater flexibility and interaction, allowing for different styles of learning.



UNIVERSITY OF SASKATCHEWAN GRADUATE HOUSE

The University of Saskatchewan's new Graduate Residence is a 120,000 SF, five-story building located in the College Quarter precinct of the Saskatoon campus. Located outside of the historic core campus, and embedded within the city, this project takes the platform of a university residence and creates a dialogue about student life, urbanity and city building. The project challenges the University's building traditions and forges a new relationship between the institution and the growing city of Saskatoon.

The University of Saskatoon is undergoing a major shift in student demographics. The University has greatly expanded its graduate and research programs, which has attracted an increasingly diverse out-of-province and international graduate student population. In addition to cultural diversity, students range in age from their early 20s to their mid-50s. Graduate students are relocating to Saskatoon for significant periods of time, and in order to attract the best candidates the University wanted to provide these students with a home environment that reflects the contemporary student experience, and recognizes that with such a diverse population a successful student residence will need to be responsive to differing desires for privacy and community.

Client: University of Saskatchewan
Location: Saskatoon, Saskatchewan, Canada
Completion Date: 2014
Cost: CAD \$30M
Project Team: Stephen Phillips, Dathe Wong, Justin Perdue, Edmar Canlas, Jim Siemens, Tammy Denby, Dale Fraess, Gunta Mackars, Azza Askar, Ted Gaudet, George Fan





UNIVERSITY OF
SASKATCHEWAN

Graduate House
1004 AIRD STREET





THE IDEA The residence is designed to provide students with choice both in the nature of their home environment and the ways in which they interact with the campus. Graduate students need more than just a place to lay their head. Graduate studies encourage students to find their own way to engage the academic community, to define and utilize methods of learning that help them reach their maximum potential.

The design team started work on the building at the scale of the individual student and their immediate home environment: the unit. Six unit type choices reflect the diverse student population. Standard bachelor and two-bedroom units are appropriate for more socially active students. Double-height loft spaces and two-story units appeal to those who desire more private study space or those with spouses or families.

Beyond the scale of the units individually, the mix of these units—and how they were arranged in the building—was also important. The site geography naturally led to an L-shaped building with two wings—Prospect and Refuge. The Prospect wing addresses the College Quarter’s Greenway, the main pedestrian thoroughfare. This wing is comprised mainly of the standard two-bedroom unit type and features large common student lounges that project beyond the face of the building, reaching out into the public realm. Architecturally, it is bold and highly articulated. The Refuge wing has a private, more subdued and residential character which relates to the adjacent neighborhoods. There is a wide variety of unit types in this wing, and it meets the needs of students who like to read and study either alone or in small groups in more private and intimate spaces.

The two wings also feature different types of shared spaces. In the Refuge wing, smaller study spaces are provided on each level to facilitate group work. In the Prospect wing, large, often double-height student lounges are the hubs of activity, gathering students from across the building to interact socially. The main student lounge and other public programs are also in the base of this wing. The two-story lounge is not only the major gathering space for students living in the building, but also the public face of the building which addresses the greater campus community. By closely connecting the main lounge with the new Greenway, the design approach contributes to the success of the new College Quarter precinct and its mandate to holistically and sustainably engage the growing city of Saskatoon while maintaining a strong dialogue with the core campus.

A NEW TYPE OF RESIDENCE FOR A NEW TYPE OF STUDENT As the first building in the University’s College Quarter, the residence sets a bold new design standard for the many buildings to come and makes a statement about the future the institution envisions for itself. The design of the Graduate Student Residence responds to diverse student population at the University and reflects the richness of graduate student life in built form. The design process was driven by a desire to derive the solution from a thorough analysis of student needs and to address those needs at a variety of scales. The final result is a building that is uniquely sensitive and responsive to the individual student experience and provides a space where a diverse group of people can truly feel at home.



Jury Comments

“I can see myself living here” said Chad Mertz

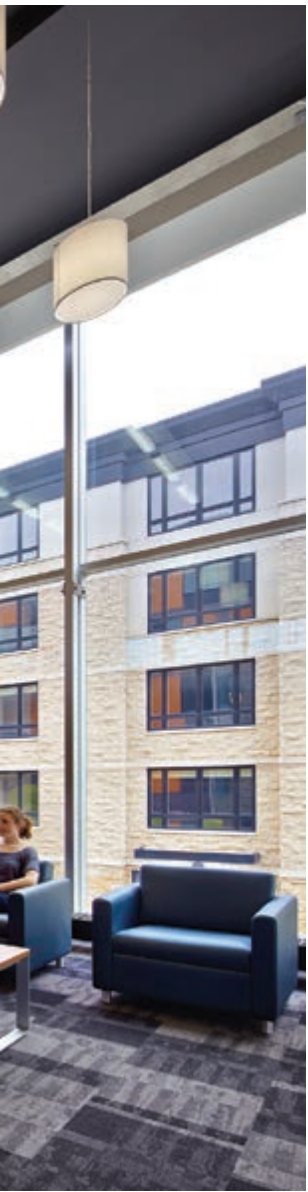
This was the guiding thought as discussion focused on how the University of Saskatchewan Graduate House strikes all the right balances between modern student experience and home environment, private and community spaces, city and campus, and shifting boundaries of work and play.

The jury appreciated the juxtaposition of the Prospect and the Refuge wing and how they clearly represented the design concept. The consideration given to the social, private, and familial needs of a diverse graduate student body is evident in both the individual unit and the community space typologies. Taking advantage of the L-shaped building when choosing unit placement further highlights the meticulous design process. “The thought and organization behind the design is particularly smart,” says Julie Zitter. “Being able to get all of that into one building is challenging—it’s an impressively well done design.”

The design process clearly articulates the project intent, and the final result elegantly communicates the intent visually.

“How the two wings address the surrounding context was powerful, in that the introverted refuge wing addresses the neighborhood and the extroverted prospect wing addresses the campus.” said Josh Sawyer. The assembly of materials clearly represented the design idea for the building.

The design purposefully strengthens the external connection to the entire campus and the public realm. Carefully selected exterior materials communicate the various internal activities throughout the building.



Honorable Mention

Mary Idema Pew Learning and Information Commons

MassArt Treehouse

Ice District Tower E / Stantec Tower

Muttart Conservatory Re-Lighting

Central Michigan University Biosciences

Iqaluit International Airport

Robert R. Shaw Center for Science, Technology,
Engineering, Art, and Math

Solitair Brickell

The Pointe

Toronto Police Service 14 Division

UCSF Mission Bay Medical Center

Wabasca Child Care Center Opportunity Daycare

Wagmatcookewey K-12 School

Western Union Corporate Campus

MARY IDEMA PEW LEARNING AND INFORMATION COMMONS

VISION Virtually everything about the building design is informed by the habits, expectations and academic requirements of today's students, resulting in a facility that looks and feels much different than a traditional academic library. To understand students' personal, social and academic needs, the design team embarked on an intense visioning process for the new library which began with benchmarking trips to state-of-the-art libraries across the country to survey best practices and opportunities for improvement at similar facilities. Furthermore, the team expanded their benchmarking to include retail, museum and hospitality spaces across the United States to provide a diversity of perspective

RESPONSIVE DESIGN - A SPACE FOR EVERYONE

With the library footprint freed up by the Automated Storage and Retrieval System (ASRS), the design team focused on incorporating a range of spaces to give students choice in the new library. The team created zones that are engineered to separate groups of users with different needs: quiet spaces for those who want no distractions and high-energy zones for multi-taskers and groups who want to be in the middle of things.

Flexibility is a core design principle as well, and allows students to select the environment and tools that works best for their learning needs. Flexible furniture, equipment, service points, seasonal outdoor spaces, and lighting are incorporated throughout the building to encourage students to manipulate their environments based on their needs. Students can choose from 31 types of indoor and outdoor seating, including expansive window seats, upholstered niches and a wide variety of chairs that allow different postures for different tasks.

INNOVATION The project set a new bar for achievement during the interview where the client demanded innovation beyond what, at the time, was considered forward thinking design for academic libraries. The client saw that the library as a typology needed to significantly evolve to respond to how students will and want to learn in the future.

A key design strategy employed at the library was removing the book. During early visioning sessions, designers identified that students needed more areas for both group and individual study. An ASRS provided a solution. The ASRS has the ability to house up to 600,000 of the less-utilized volumes in a 40' high vault on the eastern side of the building that occupies only 3,500 square feet of assignable floor space, as opposed to the 60,000 square feet of assignable floor space that would be required with conventional shelving. Patrons are able to request a book from virtually anywhere via the internet-based catalog and the volume will arrive at the service desk in less than one minute. In turn, the ASRS opens up the library footprint to accommodate the visionary program.

PERFORMANCE

With aspirations for the highest levels of LEED certification, the building is designed to further the university's commitment to sustainability. Visioning sessions included specific sustainable design visioning to determine where and how to leverage sustainable technologies.

Stantec designed the building with a predicted annual energy use intensity (EUI) of 90 kBtu/ft², which is a 44 percent improvement over a code minimum building. A partnership with GVSU and the U.S. Department of Energy's Commercial Building Partnerships (CBP) program also identified additional areas that could give more savings over this already high performing value. This joint analysis and design effort has resulted in a building that should perform at a 50% improvement over the next generation of ASHRAE standards. Post opening the building has achieved LEED Platinum certification.

CRAFT

The building's exterior is as impressive as its interior. Natural stone cladding wraps the building, echoing a deep appreciation for Grand Valley's rich architectural context and symbolically protecting the books within. The stone is reminiscent of the lost characteristics of the location: a once heavily wooded site cascading through deep ravines to the banks of the Grand River. Set in a random pattern, the material speaks to the inherent care and craftsmanship necessary for construction. The natural face of the stone encounters a rigid metal grid in which it is framed, offering a dialogue between tradition and contemporary, man and nature, and craft and machine.

Client: Grand Valley State University
Location: Allendale, MI
Completion Date: December 2013
Cost: USD \$44M
Project Team: Tod Stevens, Michael Hopkins, Tom Baier,
Patrick Calhoun, Joe Lapinski, Joe Mitra,
Janice Suchan, Mike Styczynski





Jury Comments

The Mary Idema Pew Library at Grand Valley State University is a highly evolved, student centered learning center. It is a building that reflects its program and time, while engaging campus life through transparency, function and technology. Innovation is demonstrated in the approach to design of learning venues and in the tools for collaboration that respond to student needs. The design approach challenges the conventional library model and redefines the building type through the use of digital technology and space configuration. An automated storage and retrieval system frees up space for learning environments and student interaction, while conventional stack space for traditional browsing supported certain collections. The design advances performance by providing students with spaces that accommodate different learning styles, clear and efficient planning and flexible furniture, all of which enhance the campus experience. Student spaces are located to exploit natural daylight and provide warm textures and a much needed human scale.

At the campus scale, the building serves as a beacon and destination for student interaction and learning, a welcoming place to gather. The articulation of the massing reflects the building program while the window strategies reflect the functions housed within. The building is disciplined in its use of materials and craftsmanship giving it a timeless, modernist character.





MASSART TREEHOUSE

VISION Inspired by Gustav Klimt's Tree of Life painting, the multi-hued tower has become an icon on the Boston skyline, rising amid its masonry neighbors in a captivating juxtaposition of old and new along the Avenue of the Arts.

Boston has a reserved architectural culture, and when the building opened, the Treehouse was controversial. Now three years later, the project has been published many times, described as the "most interesting high-rise in years" by the *Boston Globe* architecture critic, and was a finalist for the "Best Tall Building of the Americas" from the Council for Tall Buildings.

INNOVATIVE DESIGN Klimt's "Tree of Life" painting, which symbolizes growth, rebirth and change, captured MassArt's spirit and its desire to be expressed as a provocative art institution in the city of Boston, while providing a powerful artistic emblem to help guide design decisions. As the design was refined, Klimt's organic composition and warm color palette continuously inspired the design team.

The exterior is a mosaic of composite aluminum panels of varying depths, hues, and glosses. Dark browns at the curving base mimic tree trunk bark before growing progressively lighter to make the building shimmer at the top. Green windows punctuate the façade like leaves of a tree. While the metal rain screen suited a highly constrained State College budget, the attention to detail belies its economy.

PROGRAM The tower contains 493 beds for freshmen and sophomores in semi-suites for 2, 3, 4, or 5 people. The ground floor café and living room are public, a second floor health center is shared with two neighboring universities, and the third level includes a communal kitchen, game room, laundry and fitness room for the residents. Work rooms and lounges on each floor encourage artistic dialogue, interdisciplinary friendships, and travel between floors.

Client: Massachusetts College of Art & Design
Location: Boston, Massachusetts
Completion Date: 2014
Cost: USD \$51M
Project Team: BK Boley, Tamara Roy, David Lunny,
Frances Hughes, Colleen Arria, Brett Lambert,
Ray Kettner, Dorothy Deak



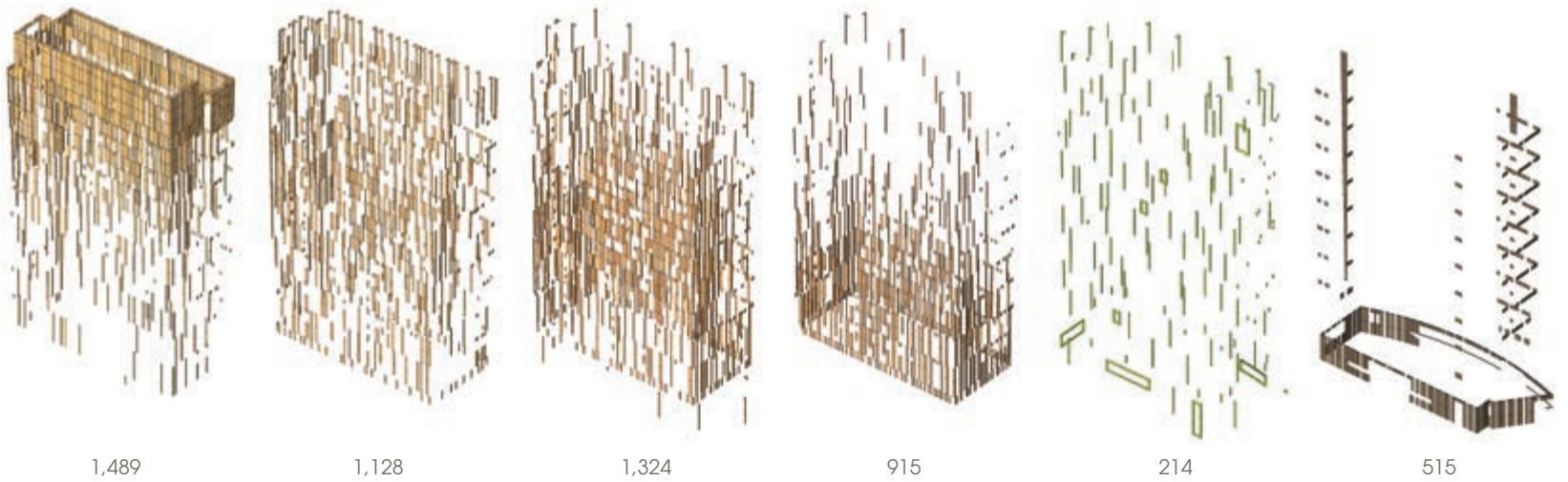
"Tree of Life" Gustav Klimt, 1909

RESPONSIVE DESIGN The architects spearheaded a highly interactive process with students, residence life staff, administration, and faculty, holding numerous focus groups, workshops, and an 80-person charrette. The café was designed in conjunction with an architecture design studio, and all of the artwork was commissioned from alumni.

Regarding environmental sustainability, the project team implemented a super insulated skin with punched windows, reserving the use of floor to ceiling glazing for the lounges and workrooms that face north, away from the direct sun. Solar tint on the south side helps to reduce heat gain. As a result, the building has achieved LEED Gold certification.

CRAFT While the exterior clearly expresses great care in its material assemblies, the interior equally asserts invention within limited means. Designers relied on modest materials such as carpet, paint, and wood veneer panels to develop a bold visual statement. Marker paint frames the entrance to every student suite, encouraging creative expression. Vibrant colors transform the experience of every two floors. With color-coordinated sofas, swivel chairs, and ottomans, each lounge color gives a unique identity to the community of students and RAs living there.





The façade contains over 5,500 metal panels, 5 custom colors, 5 panel widths, and 5 panel depths

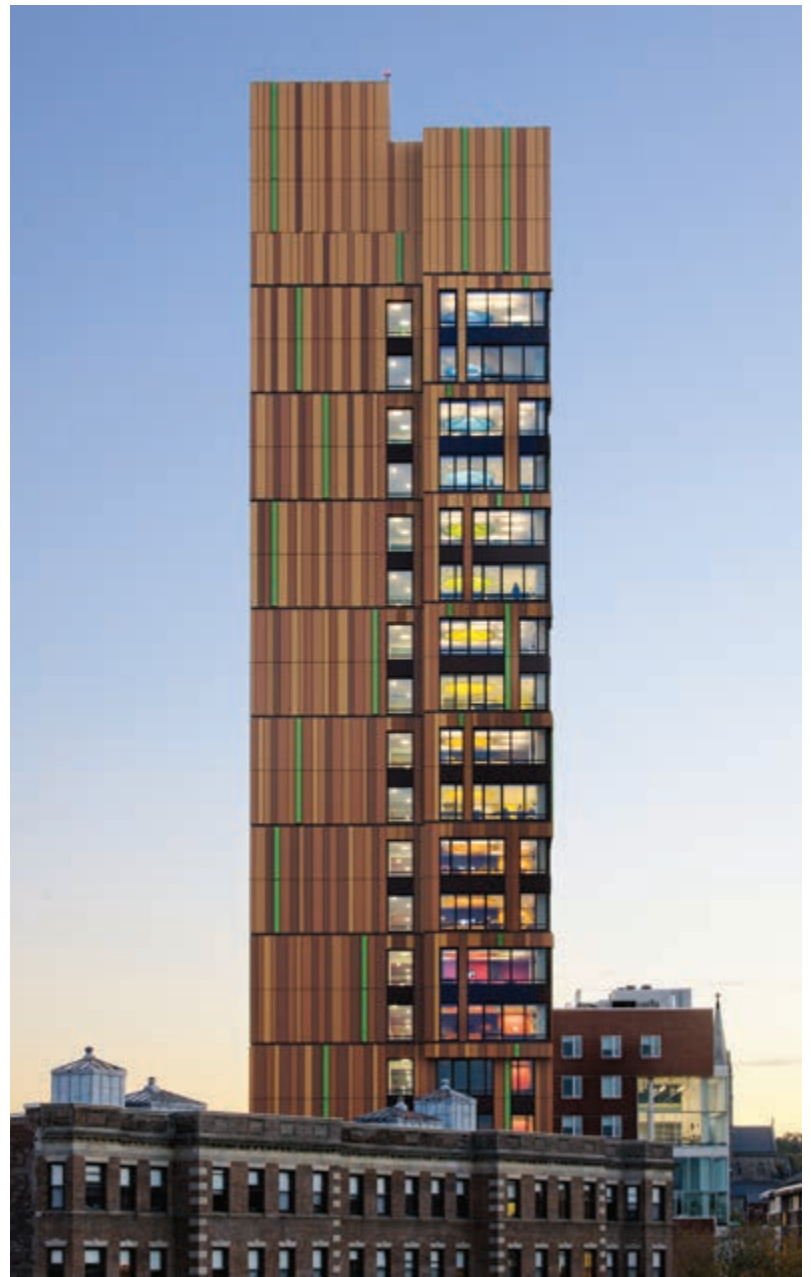
Jury Comments

The MASSart Treehouse is a well-executed project, rooted in a strong idea.

The jury felt that though the building is actually quite massive relative to its context, the design of the façade breaks down that mass, creating a distinctive feature. This building has a fairly low ratio of glazed openings on the façade, and yet the textured envelope is visually interesting and playful. The designers are to be commended for avoiding the generic glass box and instead creating something dynamic and beautiful which is true to the program housed within.

The public spaces are well day-lit and colorful—somewhat whimsical even. It is easy to imagine students comfortably inhabiting these spaces and making them their own.

For anyone embarking on the design of a student residence, MassArt Treehouse is worth taking a long and considered look at as a precedent.





ICE DISTRICT TOWER E / STANTEC TOWER

At 66 floors, Tower E will anchor the southeast corner of the Edmonton Arena District outdoor plaza, creating a new beacon on the City of Edmonton skyline. Upon completion, it will rival the Bow in Calgary as one of the tallest structures in Alberta and be home to the highest Canadian residential addresses, west of Toronto.

Situated on the northwest corner of the intersection of 102nd Street and 103rd Avenue, the mixed use development enriches the diversity and energy of the Edmonton Arena District (EAD) through close to 1.3 million square feet of retail, restaurant, office and residential program spaces.

As per the EAD master plan, the podium extents of E/F define the eastern and southern cornerstones of the plaza development. While the street side podium elevations are defined by a formal massing arrangement, the plaza massing responds in a fluid and dynamic manner. In plan, the curvature of the podium footprint defines the southern plaza edge with similar fluidity and sweeping gestures as the arena structure which reaches over 104th Avenue and touches down into the center of the plaza. This sweeping elevation is carried through the remainder of the adjacent plaza developments to limit corner and edge conditions that would restrict natural pedestrian traffic flows and reduce visibility into and through the plaza.

“The dominant stature of Tower E introduces a fresh and compelling transformation to the Edmonton skyline and will be integral to the city’s reinvention.

In addition to the fluidity of the podium at grade, the second and third floors step back to allow accessible balconies for tenants that overlook the activity on the plaza below. While offering an attractive amenity to tenants, this treatment also improves the public experience at grade through the stepped reduction of building face which limits the extent of shadows cast into the public plaza.

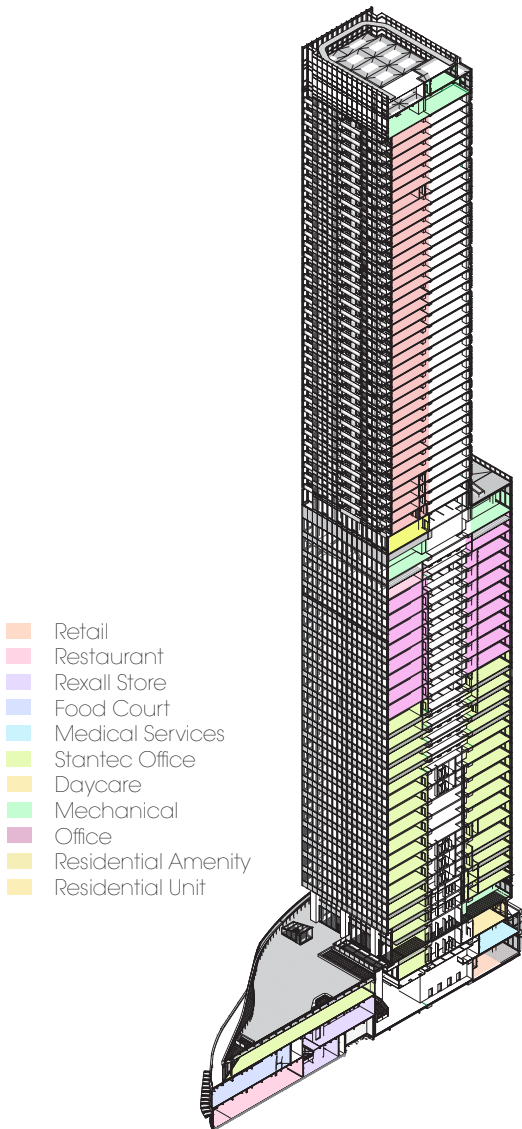
Solar studies informed the positioning and orientation of the tower sitting on the podium. The tower slides to eastern extents of the podium. The floor plate’s larger dimension is oriented along a north/ south axis to limit the shadows cast onto the public realm. This building orientation also provides the functional benefit of permitting independent lobbies for commercial and residential tenants.

The residential lobby, located off of 102nd Street, provides a private entrance and quick connection to a bank of residential elevators for tenants making their way to the upper residential floors. The commercial elevator banks are accessible through a grand double-height lobby which intersects the podium space in a north/south alignment and connects the 103rd Avenue at the midblock location, through to the plaza.

Within the podium, the atrium space is envisioned as a dynamic and bustling interchange as pedestrian traffic enter the lobby at grade, via the second floor pedway networks, as well as via elevators from the underground parkade. Nestled between the tower core to the east and parkade access to the west, escalator banks climb through the double height space between the main floor and second floor public concourse level. Directly above the escalators, a skylight well pierces the third office floor of the podium permitting afternoon sun to flood the lobby with sunlight.

Client: Ice District Development Partnership for Ice District Properties (a Joint Venture)
Location: Edmonton, Alberta
Completion Date: Spring 2019
Cost: CAD \$400M
Project Team: Monica Basulto, Frederic Brisson, Darren Burns, Rosemarie Cerezo, Ketty Kalaria, Katherine Kim, May Khaikaew, Roman Latta, Jason Lowe, Maribeth McCarvill, Clarence Nery, Matt Roper, Ciro Ruiz, Derreck Travis, Ivan Velikov, John Webster, Terrance Wong, Amy Wowk.





Jury Comments

Located in the heart of Canada's largest mixed-use sports and entertainment district, at 66 floors, Tower E, is poised to become Western Canada's most exciting and highest residential address. This technically astute 1.3 million square foot mixed-use podium-tower will be located on the southwest corner of the new Edmonton Arena District Plaza, south of the Edmonton Oilers fluid new arena.

The shape of the podium echoes the fluid curves of the new arena, providing a sinuous perimeter to the plaza while giving the pedestrian a fluid sense of movement into and through it. This sense of fluidity is further articulated in the stepped ribbons of the podium floors. The ribbons pull back to maximize the amount of sunlight touching the plaza while creating balconies overlooking the plaza to allow public engagement with plaza events from multiple vantage points. Like the shaping of the stepped podium, the tower was carefully positioned and oriented on the site to maximize daylight exposure of the public plaza. The articulation of the simple stepped form of the tower, while pragmatic, clearly registers the change in program. The lower floors practically accommodate the desire for larger office plates with higher demands on elevators and for regular connection to the podium with immediate access to neighborhood amenities; while the upper floors reduced foot prints meet the requirements of residence capitalizing on the remarkable vantage point from such great heights.

MUTTART CONSERVATORY RE-LIGHTING

“How do you enhance an already iconic structure with beauty, function, and sustainability in mind?”



.....

Client:	City of Edmonton
Location:	Edmonton, Alberta
Completion Date:	December 2012
Cost:	CAD \$585,000
Project Team:	Chris Barr, Dennis Morawski, Cathy Paul

.....

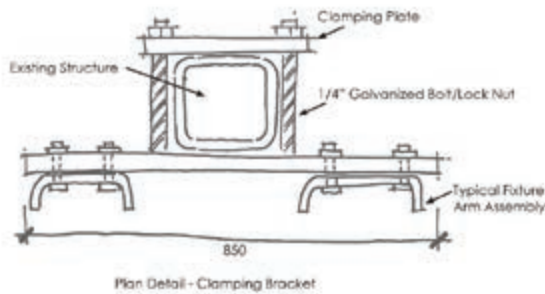
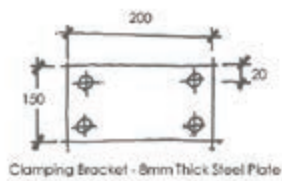
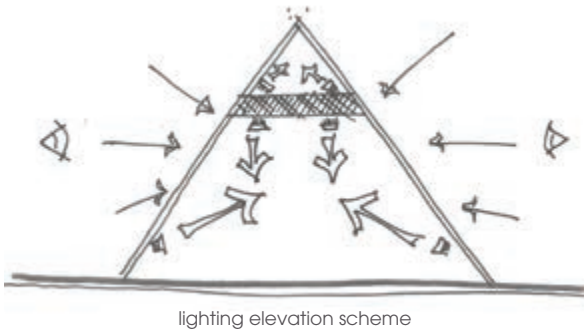


VISION The Muttart Conservatory Re-Lighting project incorporates a new lighting system inside the existing structure and uses the structure as a canvas for the lighting to project around the entire perimeter of the pyramids. This strategy achieves the desired appealing visual effect and keeps the luminaires in a controlled environment.

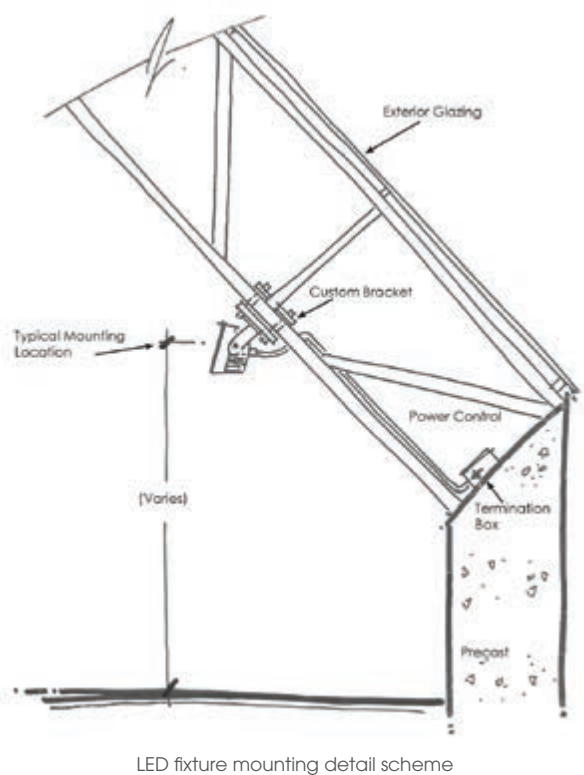
The Muttart Conservatory is one of Edmonton's most iconic structures. The four glass pyramids (Arid, Temperate, Tropic, and Feature) house many trees and plants from all over the world and are connected by a center lobby and concession facility. Each pyramid provides a unique environment for different plant species. The facilities are available to the public during open hours and for rental functions—in fact, the pyramids are one of the most popular rental facilities for receptions and weddings in Edmonton.

The city's goal for the project was to replace the existing interior and exterior lighting systems with a dynamic and energy-efficient system. The design choice was a system of color-changing LED fixtures, with a sophisticated control system.

RESPONSIVE DESIGN With limited space on the existing structure and a need to provide communication services and power supply to new lights, determining mounting locations was challenging. The solution was to position the fixtures onto the existing structure and then to aim the lights to the opposite side of the pyramid. Using this strategy, the aluminum mullions can be used as a reflective surface, while avoiding unwanted glare to the surrounding neighborhoods.



LED fixture custom bracket



INNOVATION The installed lighting system consists of 156 new high-performance, color-changing RGB (red, green, and blue) LED luminaires, with a DMX 512 protocol lighting control system—commonly used in theatrical/stage lighting. With the ability to provide individual color to each fixture and controlling the intensity with the separate address, this standard has infinite color options within the spectrum. Furthermore, the system has an astronomical time clock with possibility of broadcasting programmable lighting scenes and control over daylight savings time changes/sunset times.

Calculation of the lighting results was done in the computer software AGI32—generated model for evaluation. This software was used to determine proper aiming angles to provide the desired horizontal and vertical illumination levels within the pyramids.

PERFORMANCE When it comes to plant growth and efficiency, LED indoor lights have many advantages over conventional high-intensity discharge (HID) lights:

- LED lights last six times longer
- Eco-friendly LEDs use no toxic metals
- Energy savings range from 50%-70% over HID lights
- No cooling necessary; no plant burn/decreased risk of fires
- Maximum chlorophyll absorption and flower production
- Less frequent watering due to lower lighting temperature.

Moreover, certain red and blue wavelengths contain the right amount of energy to charge the chlorophyll electrons to a higher energy level, making the colored lights most effective for photosynthesis.

CRAFT By installing the luminaires inside the pyramid structure and aiming the light so that it is reflected by the aluminum mullions and the foliage of the plants, the illuminated pyramids now provide a visual experience that highlights the iconic Muttart facilities and reflects against the downtown skyline. The new lighting system provides the Muttart with infinite opportunities to program different ways to light up the river valley community throughout the year.





Jury Comments

The solution for this project is an intriguing one. It takes a simple move and transforms not only the architecture and structure but transforms the user experience in the space surrounding it. “The team was highly successful at taking something ordinary and almost nondescript and essentially changing the city’s night sky,” said Scotty Denney. The existing architecture relied on the daylight to create interaction, and with this simple move of adding LED lighting transforms the dormant elements at night into a highly interactive exhibition.

Each pyramid references a type of ecology with the conservatory, and the lighting provides some opportunity for enhancing this reference. “I like that the lighting can be changed based on seasons, daylight savings time, or even express artistically the ecology each pyramid represents,” said Julie Zitter.

The amount of rigor put into testing the performance of the lighting was appreciated. Projects such as this require an amount of thoughtfulness and testing to ensure the design intent is realized. “I love how the lighting feels clean, as if the glass pyramids are glowing. You don’t see any overlap, soft spots, or even the light source to allude that they pyramids are doing anything other than glowing,” said Josh Sawyer.

“To me, it feels like the pyramids got a technology upgrade and were brought into the 21st century”, said Chad Mertz.

CENTRAL MICHIGAN UNIVERSITY BIOSCIENCES

VISION Conventional wisdom within architecture creates fixed forms, spaces, and processes but our experience and relationship with architecture doesn't exist in static terms. The study of biology allows us to understand complex structures, organizational strategies, and environments which produce compelling and rich experiences.

Biology enables architecture to think in broader terms inclusive of people, processes, organizational strategies, and environments. The project explores the intersection of architecture and biology to define spaces that encourage open-ended opportunities for growth, exchange, and flexibility.

The design of Central Michigan University's new Biosciences complex supports the natural, social and building ecology when addressing programming needs and adjacencies, the movement of air, water, and light in the aesthetic approach and materiality for the building, and the cultural development of people within.

RESPONSIVE DESIGN Implicit within the conversation are ways to imagine how the Bioscience project connects and integrates with the campus as well as how it connects and integrates experiences within itself.

.....
Client: Central Michigan University
Location: Mt. Pleasant, Michigan
Completion Date: March 2017
Cost: USD \$73M
Project Team: Michael Hopkins, Tod Stevens, Ben Telian,
Mickey Walsh, Mike Styczynski
.....



INNOVATION Innovation starts with the client. CMU is unique in that they introduce undergraduates to research very early in their education.

The visual and physical connection of non-researchers to the research is the driver for a large atrium space. This large atrium space acts as a threshold between research assistants and students. Interstitial meeting spaces bridge either end of the atrium to encourage the formal and informal meeting of student assistants and undergraduates.

This atrium passes through the building and acts as a large pre-function and student gathering space at the main entries of the building—welcoming those that enter. The entries engage the primary campus mall, draw students and public into the building and expose people to biosciences.



PERFORMANCE The laboratories are designed around the safe and efficient movement of air. A central mechanical shaft (similar to the atrium threshold) cuts through the center of the building with open lab and research assistants spaces flanking it. The design team encouraged the owner to place research offices remote from the labs allowing research assistants access to natural daylight. This in turn enabled the design team to connect the labs to the atrium threshold.

CRAFT The materiality of the building is a balance of owner preferences, building structural requirements, and mechanical requirements. The buildings cast-in-place concrete frame is exposed to reveal one element of the building's ecology (structure). The exterior deploys terracotta and zinc

rain screen systems. The glazing is comprised of a vertical stripe ceramic frit that changes in density dependent on its level of solar heat gain. Punch windows at offices reflect the solitary nature of the office spaces. Windows in the laboratories are a direct translation of the isles between benches and grad students. Areas of large spans of glass represent places of collaboration and entry. All decisions for material size respond to the rigid module of the research lab (22'-0," 11'-0," 5'-6," 2'-9," etc). The lower roofs over the main entry and multipurpose room are covered in sedum that is sourced from a local vendor. The interior is comprised of domestic white oak, exposed concrete superstructure, custom stainless steel guardrails, and polished concrete floors made with locally sourced aggregate. Greens walls greet visitors at every entry while oak benches invite collaboration.

“The new Biosciences complex consists primarily of open research labs, four teaching labs, an active learning classroom, and a large multipurpose space. The complexity of such a building required us to work closely with our in-house engineering team. The design team was able to test ideas quickly and efficiently, saving the client time and money while resulting in a hyper-efficient and critical laboratory building.





Jury Comments

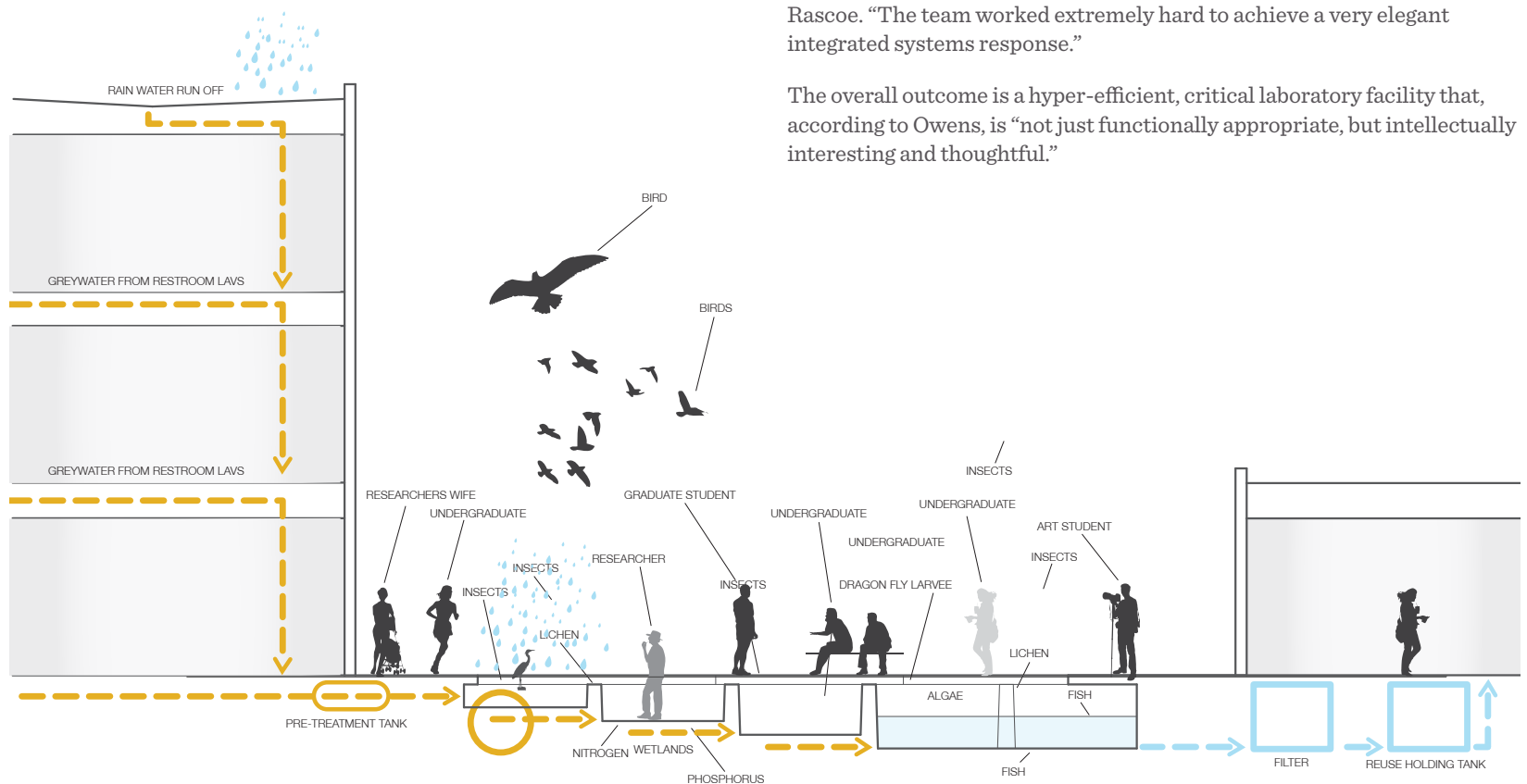
The jury felt what elevates the Biosciences Building from a beautiful building to an intriguing work of architecture is how every aspect of the project consistently echoes the dynamic nature of biology and the environment. The design purposefully considers natural, social, and building ecologies at every step, from programming and space functionality to aesthetics and materials.

“There is a strong relationship between the building programs of biosciences that is articulated through the craft of this project,” says Christian Owens. There is purpose behind every decision, whether it’s including punch windows to delineate solitary research spaces, installing expansive areas of glass to reflect the openness of collaboration spaces, or even exposing the building’s concrete frame to display the building ecology.

Perhaps the most captivating feature is the atrium threshold that cuts through the building core and has research spaces and undergraduates spaces flanked on either side. This thoroughfare creates a visual and physical connection—not just between researchers and bioscience students, but to the public and other students as they pass through the building and see biosciences up close and personal. “The atrium is a truly interesting form of passive learning and is a highly appealing feature for a lab environment, which is typically very closed off,” says Josh Sawyer.

Careful consideration of the need for efficient air movement and utility access led to locating the research labs around a mechanical core that is similar to the atrium. Mechanical and structural requirements also heavily influenced building materials and added to the building complexity. “This project seems to be a mechanical beast,” says Frank Rascoe. “The team worked extremely hard to achieve a very elegant integrated systems response.”

The overall outcome is a hyper-efficient, critical laboratory facility that, according to Owens, is “not just functionally appropriate, but intellectually interesting and thoughtful.”



IQALUIT INTERNATIONAL AIRPORT





Iqaluit, formerly known as Frobisher Bay, is now the capital of Nunavut, the Territory spanning the eastern half of Canada's Arctic. The new Airport Terminal Building, currently under construction, is the first P3 airport building in North America. While a relatively modest size at just under 10,000 square meters, this is a very important facility as it serves not only as the government and administration center, but also serves as the hub connecting the remote villages of the Territory with the south. As there are virtually no connecting roads in the far north, the airport takes on an especially important role in the community.

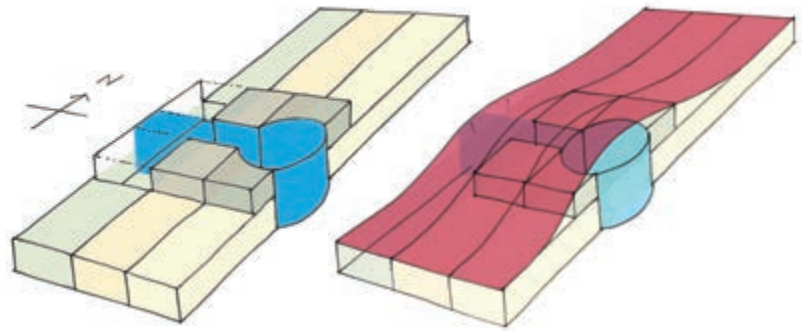
VISION To provide a strong architectural presence and distinctive cultural character, commensurate with the airport's dual role as critical transportation infrastructure and as an important community meeting space in the capital.

RESPONSIVE DESIGN Given the harsh winter climate, the building is designed to minimize both the volume and the surface area and to deflect the strong winds and drifting snow.

The Arrivals Rotunda—in a form that alludes to an Inuit igloo—is both a public crossroads and a community space. It serves as a natural meeting space for travelers, and also as a public assembly space for community events and presentations.

The exterior color palette, in bright red and shades of blue and grey, is both dramatic and culturally consistent with community practice. And it is equally emphatic as its predecessor—the bright yellow terminal building built in 1986.

Client: Arctic Infrastructure Partners Limited
 Location: Iqaluit, Nunavut
 Completion Date: Spring 2017
 Cost: Terminal Buildings CAD \$63M, Civil Works CAD \$68M
 Project Team: Noel Best, Cecilia Einarson, Rick Clark, Janice Hicks, Evelyn Pajek, Shawn Lawrie, Alvaro Fernandez de Mesa, Adrien Pralong, Lanny Flynn, Andreas Haase, Ross Abdurahman, Jim Jay, Aleks Milojkovic, Kevin Hodgins, Leslie Merrithew, Andrew Johnson, Stanis Smith



building massing: functions, daylight and roof form

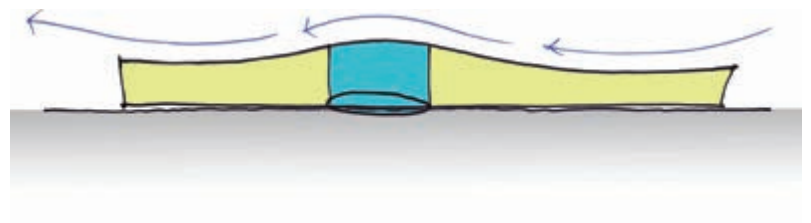
INNOVATION A unique circulation plan addresses the complex set of security separations while enhancing intuitive wayfinding and minimizing walking distances.

The terminal is built on permafrost. In order to keep the heat from the building melting this substrata, a system of passively circulating thermosyphons beneath the floor slab keeps the ground below in its naturally frozen state, providing a solid bearing for the building foundations.

PERFORMANCE Daylight is a precious commodity in the north and energy costs are extremely high. Consequently, the quantity of glazing has been kept at an optimal minimum, at the same time being strategically placed to bring the low winter light deep into both the public spaces and the administrative offices.

To minimize walking distances, the public spaces are all on one level, with a seamless transition from the parking lot, into the terminal, and then out to the aircraft. A modest change in grade at the airside interface allows for the future implementation of passenger boarding bridges.

CRAFT Artistic production is an integral part of Inuit culture. Strategic locations throughout the terminal are provided to allow for the placement of sculpture and two dimensional work. In the rendering of the Rotunda, Kenojuak Ashevak's iconic print of "The Enchanted Owl" is shown, reproduced at a large scale in cut steel plate.



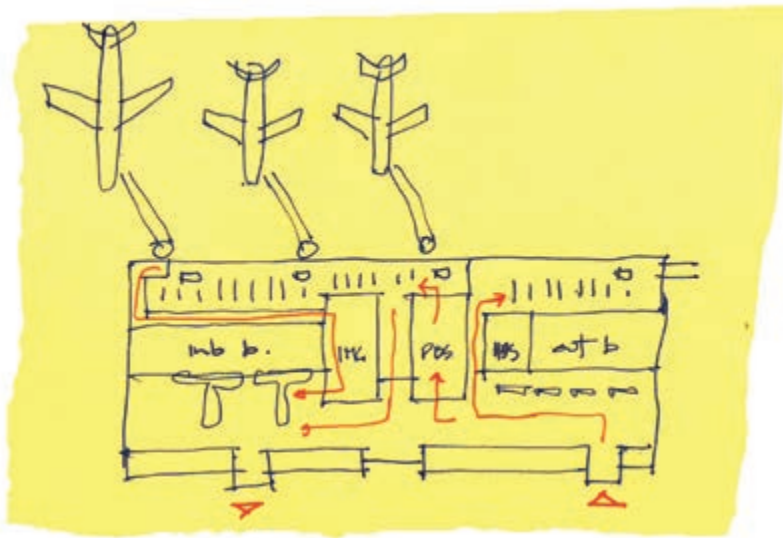
building profile: roof form and the prevailing wind



wood model



“P3 competitions are won, not only on the quality of the design, but also on the financing, the construction cost and the operations plan. Stantec, with an integrated discipline team, provided an innovative design at a cost competitive price.”



Jury Comments

The thoughtfulness of the formal gesture and responsiveness to climatic conditions helps the Iqaluit International Airport to settle into surrounds and function in a seamless manner. The fluidity of the streamlined profile harkens to aerodynamics and the fundamentals of flight itself, which is subtle but a connection likely not lost on the general public. The red exterior is a daring move and provides warm visual contrast against the subarctic landscape. Inside, the planning manages the intricacies and redundancies of a complex circulation network in a concise manner, fitting to a neat footprint and allowing simple maneuvering for both travelers and staff. Incorporation of a public meeting space for the community is accomplished without being additive, a difficult duality of program that marries seamlessly with the public circulation functions of the airport. Attention to detail, from the articulation of glazing to the accommodation of local artwork into the program, helps the new airport to feel like it has always belonged in its place.



ROBERT R. SHAW
CENTER FOR SCIENCE,
TECHNOLOGY,
ENGINEERING, ART,
AND MATH



VISION The need to transform learning to support building new skills necessary for future jobs is urgent. Katy Independent School District has taken the bold yet incremental step of opening the Robert R. Shaw Center for STEAM (Science, Technology, Engineering, Art, and Math), a new type of learning environment that serves all ages of learners and builds connections across community and professionals. The visioning and planning process challenged stakeholders to think divergently about the needs of future learners and educators. The following vision goals were identified to shape the project design:

- The STEAM Project Center will catalyze dynamic relationships across Katy ISD through the intersection of creative students, passionate teachers, and fully engaged mentors.
- The STEAM Project Center will enable creativity, communication, collaboration, and flexibility as roles are explored and responsibilities rotated; for example: teachers will be learners, students will be leaders, and mentors will be collaborators.
- The STEAM Project Center will offer a new forum for learners to explore diverse interests through hands-on activities relevant to our changing world.

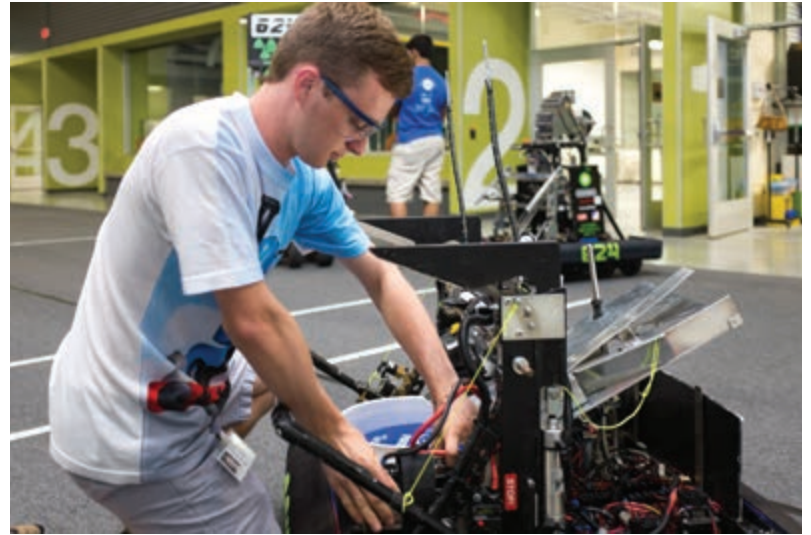
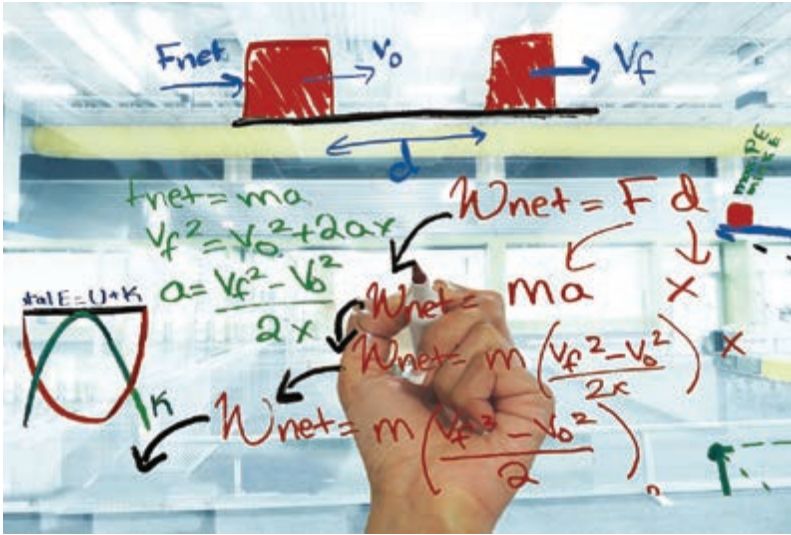
RESPONSIVE DESIGN The new facility anchors the entry corner of a central site shared with a district stadium and two existing learning facilities. The STEAM Center's Northeast corner is peeled away to offer an entry plaza to the facing high school and adjacent Career and Technical Center. To signify a change in learning activities within, the facility boasts simple forms and minimal materials, a marked a change in aesthetic from the district's traditional red-brick schools.

.....

Client:	Katy Independent School District
Location:	Houston, Texas
Completion Date:	Spring 2015
Cost:	USD \$4.9M
Project Team:	Luis Ayala-Vargas, Tracy Eich, Taryn Kinney, Matt Gvist, Raul Pinol-Marti, Raechel Schneider, Laura Sachtleben, Jennifer Henrikson

.....





INNOVATION Schools for the last century have been designed to segregate students that are trained to use their heads from those that are trained to use their hands. Alternatively, the STEAM Center provides a highly connected, transparent environment allowing learners to move fluidly through a learning process of thinking, modeling, making, and demonstrating. To facilitate simultaneous, varied projects, the Center is organized into three zones: central highly adaptable large-group area, flanking shared resource areas, and focused project bays.

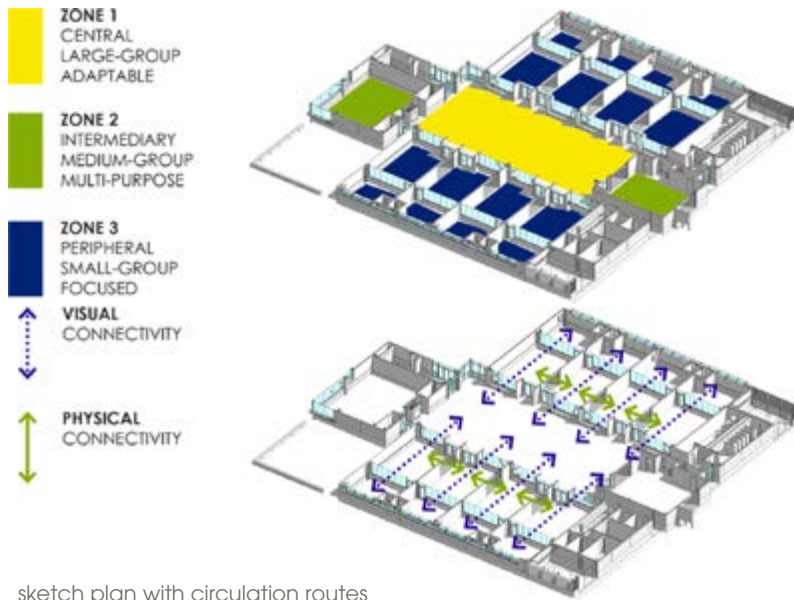
The Zone 1 high-bay space is naturally-lit from above while providing direct visual connectivity to the eight project bays. A large digital screen enables a variety of activities: guest lecturers, robotics practice, mock crime scene investigation, and exhibitions. Zone 2 includes a technology immersive professional meeting room and a shared shop for high-budget tools. Zone 3 project bays can be assigned individually per project or connected through lateral overhead doors to accommodate teaming. Each bay has clerestory windows, ample wall space to store tools, and white boards for brainstorming.

PERFORMANCE The STEAM Center introduces new modes of learning into a conservative, suburban community. The specialized planning, organization, and aesthetics offer an innovative alternative for learning.

In the first three months, the STEAM Center hosted over 2000 students from across the district. The clear and flexible design allows the facility to accommodate a variety of functional needs. This facility has been recognized as a Texas Collaborative for High Performance Schools designed facility.

CRAFT Katy ISD challenged Stantec with a limited budget, a tight timeline for implementation, and an urgent need to redefine learning. Strategic engagement of a broad group of stakeholders set a clear direction for a highly functional facility that supports hands-on learning and ultimate flexibility. A clear plan allows users to adapt the environment for numerous project types while extending the project bays to the south could double future capacity.





sketch plan with circulation routes

Jury Comments

Driven by a clear idea—the reference to large industrial work spaces—the Robert R. Shaw Center for Science, Technology, Engineering, Art, and Math is precisely ordered around the high bay environment.

Born out of urgency for learners of all ages to connect with professionals to learn hands-on skills, connecting mind and body, the learning center facilitates communication and enables collaboration. Connections are achieved through flexible workspaces that encourage students to creatively explore a diverse range of interests through hands on activities.

The project is carefully organized around the high bay, a central space that facilitates large group presentations and demonstrations. Naturally lit by a ribbon of clerestory windows, the high bay is flanked by eight project bays, four to the east and four to the west; a shared resource area to the north; and a shared workshop to the south. Each project bay includes a project shop, also naturally lit via clerestory windows. Ample wall space provides storage space for tools and white boards for brainstorming.

The industrial driven idea is clearly articulated in the use of oversized numbers identifying each project bay, the alertness and energy embodied in the bright, bold and disciplined chromatic resolution, and the simplified material palette.



SOLITAIR BRICKELL

VISION The design is inspired by the shadow, light and pattern of a medjool palm trunk and how it is connected to the modern tropical living environment of south Florida.

RESPONSIVE DESIGN The most striking design feature is the north elevation. At the tower, it features a simple yet Classic movement of alternating balcony guardrail treatments. Glazed segments face northeast to guide views towards Biscayne Bay, while solid rails face northwest. This alternation creates diagonal lines on the façade. From below, the planes read like butterflying planes that are carried down to the parking base to integrate the tower and its plinth.

INNOVATION Space was a challenge in incorporating the owner's program into the very small site. We designed a compact tower core to accommodate the parking requirements while maintaining efficiency of the core to maximize rentable unit spaces. We designed multiple construction sequencing diagrams and worked through the strategy for construction while maintaining operations in the existing building. Another innovative solution to the site constraints was to locate the pool in the 48th floor, allowing all residents access to the panoramic view of the city.

PERFORMANCE The development is aiming for National Green Buildings Standard (NGBS) certification at the Silver level.

CRAFT The material selection of the façade accentuates the design vision of the project. The interior and exterior of the building are seamlessly woven together with design elements. The connection between inside and outside is extruded through small abstract touches from the metal basket weave of the reception desk to the lobby's stacked wood ceiling.

Client: ZOM
Location: Miami, Florida
Completion Date: September 2017
Cost: USD \$114M
Project Team: Jon Cardello, Camila Querasian, Scott Booth,
Jaime Ruiz, Ruben Ramos, Jimmy Sinis, Mara Wine,
Daren Chen, Susan LaFleur, Katy Fetrow,
Andrea Preciado, Agustin Salas Ferrer



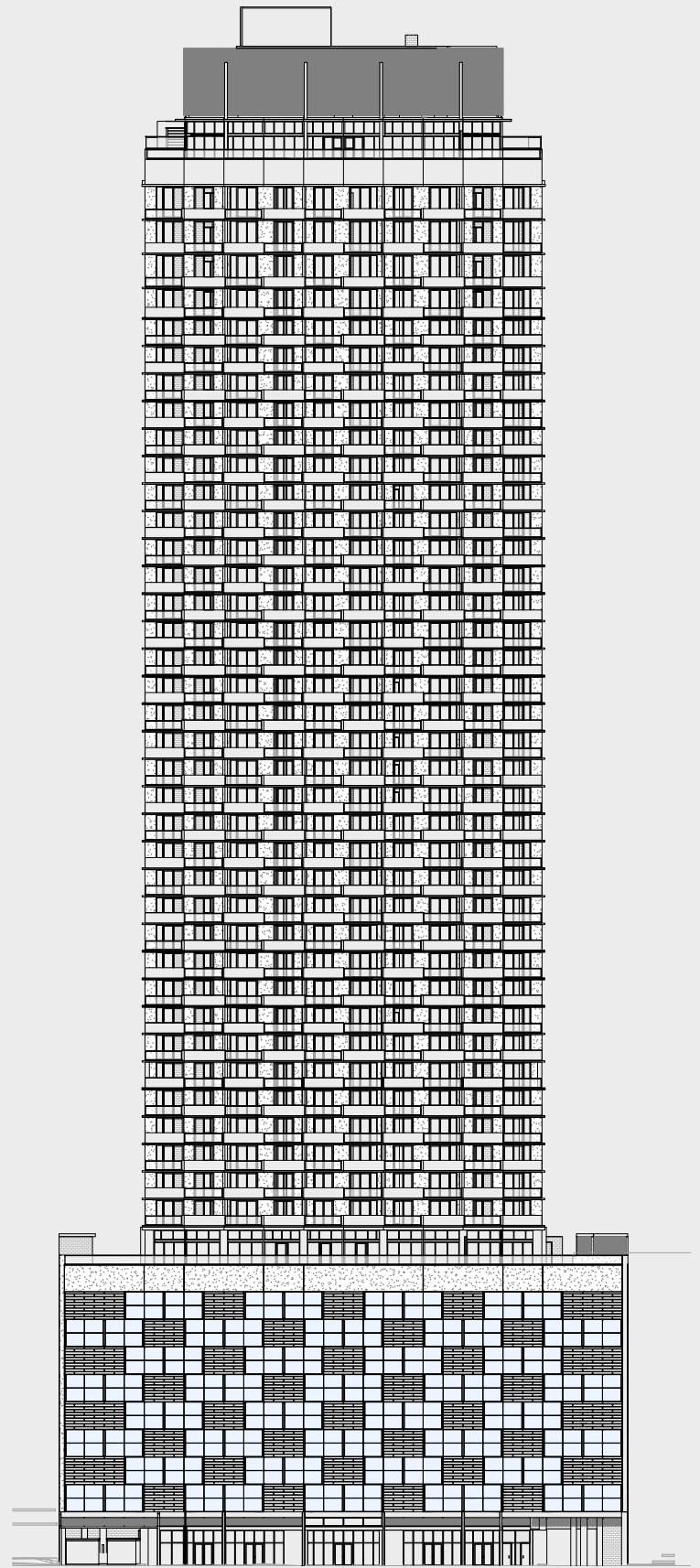






Jury Comments

Inspired by the medjool palm tree trunk's diamond pattern, Solitair Brickell is a stunningly simple, elegant, and smart offering to the city—a provocative icon rooted in the regional landscape. Beyond enticing potential investors and home owners, the novel façade of Solitair reconnects the community with local vegetation and the geography they inhabit. The effect is thoughtfully rendered through the repeated offset articulation of the floor plate and the simple binary assembly of the balcony guards—glass facing northeast, opaque white facing northwest. The design of the balconies has a striking effect, like a swarm of butterflies fluttering toward the ground. In response to the tight site, the roof is topped with a pool, offering what can only be imagined as spectacular panoramic views of the city. Early in the project, the design is driven by the idea of carrying the prescient elements of the façade through the public spaces, including the simple repetitive diamond pattern, linear wood, and bold monolithic massing.







THE POINTE

VISION The Pointe seeks to create an entertainment oasis that will transform the area of downtown Nassau into a destination and landmark for visitors, condo owners and locals alike.

RESPONSIVE DESIGN & INNOVATION The programmatic components of the project are strategically organized around a parti that maximizes access to the site for both visitors and locals. Three main structures are organized adjacent to the marina: a hotel / entertainment village, a condo, and an efficient parking structure with class “A” office space.

A winding boardwalk allows visitors to stroll from the cruise ship port, alongside a restaurant on the ocean and into the entertainment village. The retail complex will feature a range of local artisan boutiques and unique dining experiences. The village will also provide beach bars, a rooftop nightclub, and a movie theatre, all accented with lush tropical foliage. The use of local building materials and practices anchors the project in its context while its dynamic design brings new contemporary life to the tropical island.

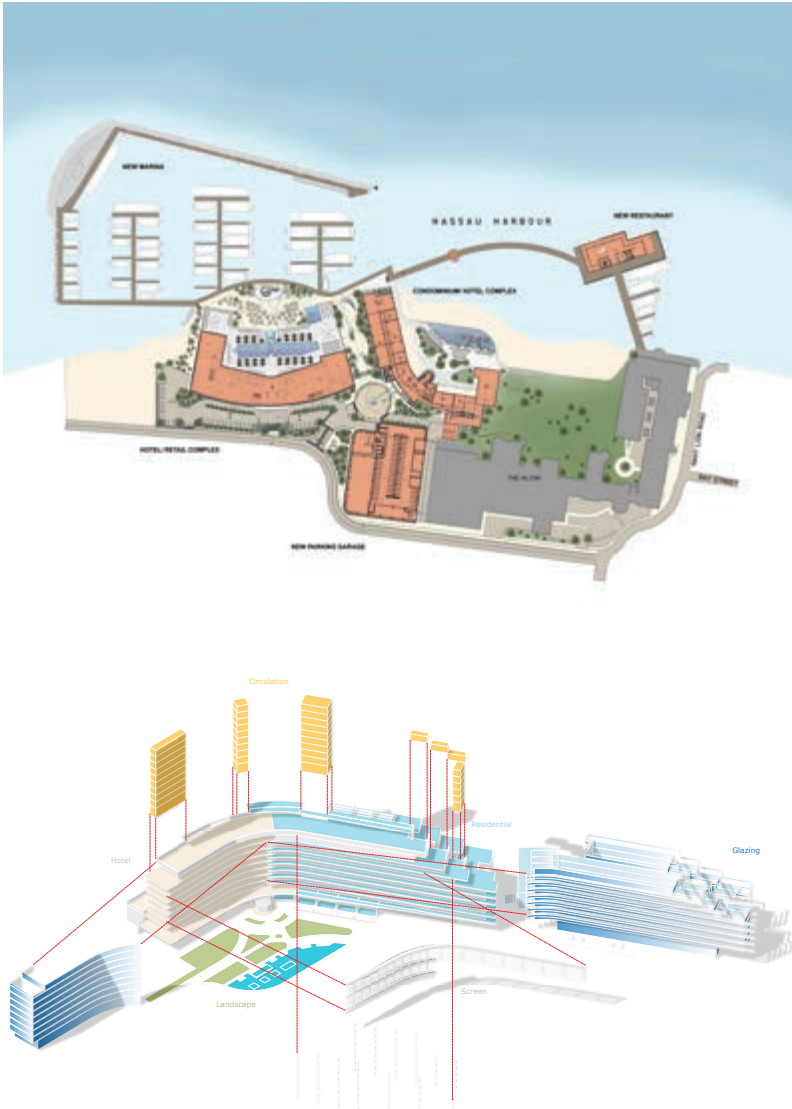
PERFORMANCE & VALUE The Pointe aims to revitalize an oceanfront urban area in downtown Nassau. The Pointe aspires to do what is right for the people and the culture of its place. Planned as an entertainment oasis, The Pointe’s value is found in its inviting and efficient parti, designed to revitalize an oceanfront district and improve neighboring communities.

Working with the client’s resources in technology and construction, the design team was able to reduce the construction cost to maximize the project’s value for the client and the community.

.....

Client:	China Construction of America
Location:	Nassau, New Providence, Bahamas
Completion Date:	March 2017
Cost:	\$150 Million Bahamian Dollars
Project Team:	Jon Cardello, Camila Querasian, Scott Booth, Susan LaFleur, Agustin Salas Ferrer

.....



Jury Comments

The Pointe achieves a provocative engagement with the water's edge; a dance between respect and defiance that is performed artfully. The shape of the massing itself is reminiscent of the ebbing tide and has a soft undulating quality, while the plan balances conformance to the city geometry and moments where the building veers and addresses the shoreline very aggressively. A hard edge on the land side of the building is responsive to the urban context, while terraces help the massing to respectfully dissolve at the water's edge. Like a jetty, the building form helps to divide the shoreline into protected harbors and creates a series of distinct outdoor rooms for each of the buildings.

Avoiding any sense of forced destination vernacular, The Pointe is refreshingly contemporary while retaining a sense of contextual appropriateness through its use of material. A stratified approach to landscaping provides levels of privacy and intimacy in an otherwise bustling setting. Moments of intimacy are created where the buildings glide past one another. Despite being quite large, the garage structure is well integrated into the site and therefore not an offensive presence. Overall, the project brings life and revitalization to what is now an underutilized waterfront.



TORONTO POLICE SERVICE 14 DIVISION

VISION The concept envisions the police facility as a garden within Toronto's inner city Dufferin Grove neighborhood. 19th century single family homes surround the site. A masonry landscape wall organizes the site into public and secure zones. Outside the wall is a new community landscape, including a revitalized community park. Secure functions reside inside the wall, including office, interview, booking, and detention spaces.

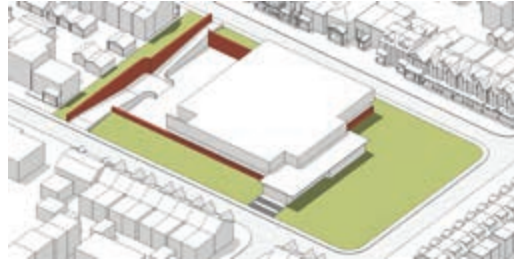
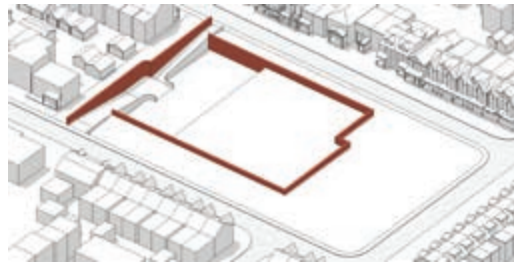
RESPONSIVE DESIGN Arranged into two levels, the functional police programs create an appropriate scale connection to the surrounding residential community. To preserve the surface for community use, the majority of parking, as well as the booking and detention functions, are located below grade. The relatively modest publicly accessible areas, including the entry lobby and community room, project a welcoming and inviting image to the community. They are located on the public side of the landscape wall and expressed as a garden pavilion in the landscape.

Client: Toronto Police Service
Location: Toronto, Ontario, Canada
Completion Date: June 2012
Cost: CAD \$28.3M
Project Team: Michael Moxam, Tom Kyle, Emanuel Resendes,
Guy Bisailon









INNOVATION This project had an unprecedented level of community involvement throughout the design process. Two community members were part of the design steering committee, fully integrated in decision-making from concept through construction. Through this process we gained an intimate understanding of community concerns and aspirations. The expression of porch in the design of the entry pavilion was a direct result of this resident input. While the serious and necessary functions of policing occur efficiently within the building, it projects an image of a community center to the neighborhood.

PERFORMANCE The project is one of the flagships of the Toronto Police Service and its Community Policing Initiative. Post occupancy reviews indicate that the building is serving occupants very well. The LEED Silver certified building uses a number of sustainable strategies, including geothermal heating and cooling, heat pumps, storm water run-off strategies, 30% reduction in water use, and green roofs covering 50% of the roof area.

CRAFT Core to the project's ultimate success was community engagement and buy-in for the design solution. Through the forum of regular community meetings, the design team used simple concept drawings to articulate and communicate the garden idea effectively to the police and community residents.

The materiality of the project reinforces the key design ideas. The community tradition of red brick defines the key landscape wall, giving it prominence and clarity in the overall composition. The transparency of the garden pavilion entry lobby and the clear expression of the landscape wall passing through reinforce a connection to community and the park. Natural stone and steel accents on the interior defer to the main level masonry wall and are naturally separated through glazing.



Jury Comments

This project is situated in the middle of a charming Toronto neighborhood of traditional houses. The team deftly created a city block experience that doesn't overwhelm the buildings around them and integrates the new building with the surrounding neighborhood. A building of this size could easily have dwarfed the neighboring homes and covered the block with inexpensive on grade parking, yet the team made the decision to create a community park and lawn areas at the front and sides of the building and locate the majority of the parking underground. The formerly disconnected site is much more welcoming and is now a community destination.

The concept of a garden pavilion allows the building to be visually transparent and reinforces the community programming found inside. A large masonry feature wall at the front façade of the building introduces materials from the surrounding neighborhood seamlessly into the building interior while creating a message of security that includes rather than excludes.



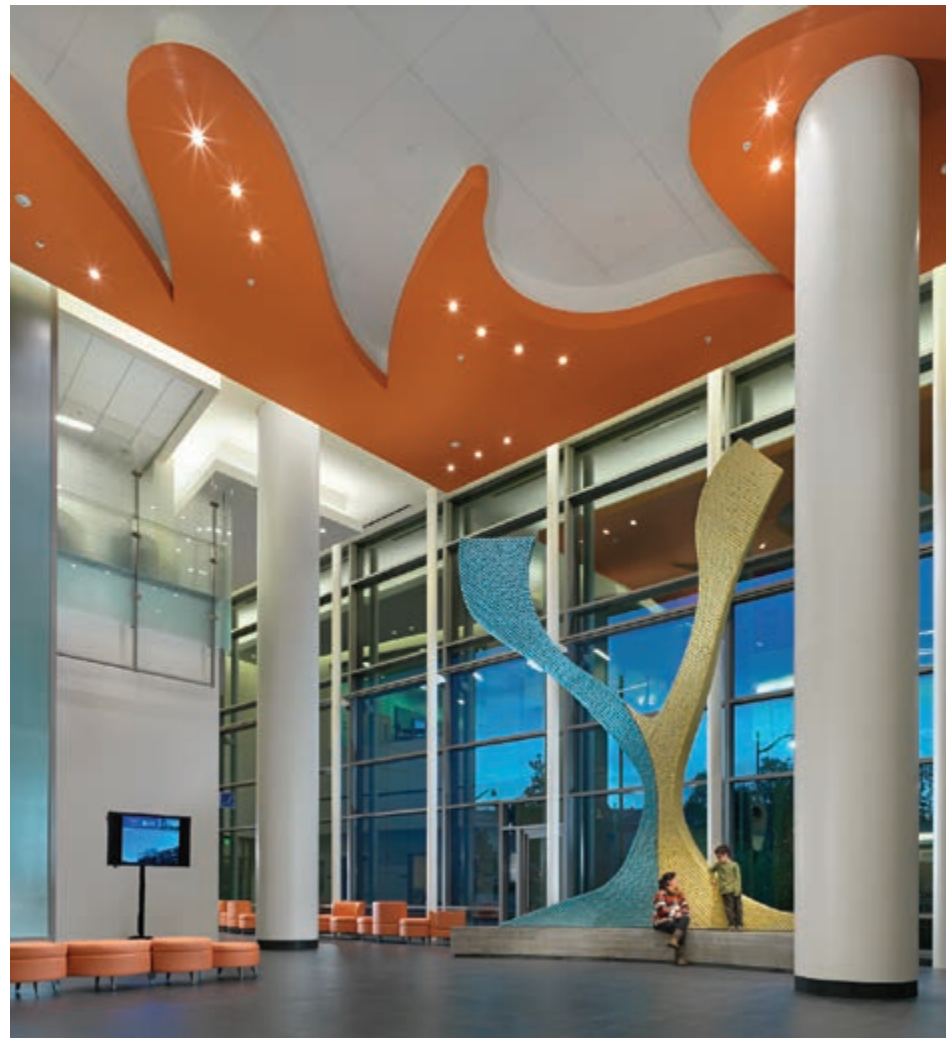


UCSF MISSION BAY MEDICAL CENTER

VISION

Transform patient care - The UCSF Medical Center at Mission Bay sets a new standard for patient—and family-centered healthcare, safety, sustainability and translational medicine. With this new campus, UCSF furthers its mission to advance health worldwide, accelerating the path from scientific discovery to patient treatment. The center anchors an emerging district of San Francisco and provides a home for three key hospitals—Children’s, Women’s and Cancer—as well as a large outpatient building. With a simple composition and clearly delineated forms, each hospital is given a distinct identity and presence to support its patient population. The development is a strong example of how architecture can contribute not only to patient outcomes but also to the public realm. UCSF catalyzes urbanization and creates a healthy community for patients, families, and staff. But the facilities strive to be more—to be a beacon for health within the Bay area and beyond.

Client: University of California San Francisco
Location: Mission Bay Neighborhood, San Francisco, CA
Completion Date: 14 August, 2014, Opened: February 2015
Cost: USD \$760M
Project Team: Lynn Befu, Cristina Bontia, Annie Coull, Sam D’Amico, Victor Fong, Chaojun Gu, Ho Suk Han, Laurel Harrison, Adoria Huey, Ann Killeen, Tyler Krehlik, Mary Lee, Anna Limkin, Jeffrey Logan, Christophere Martin, Herb Moussa, Cathryn Peterson, Brett Roberts, William Rostenberg, Zigmund Rubel, Don Sadler, Scott Shaver, Reinaldo Soto-Santiago, Sandra Stoner, Roger Swanson, Cheryl Tan



RESPONSIVE DESIGN

The vision for the project was clear and simple—transform patient care. The delivery of this transformative idea expands the patient experience through a collection of healing gardens and art installations interwoven through public and patient care areas.

Art - The art program is comprised of commissioned pieces across all three buildings, while within each building is a dedicated art program that supports the identity and uniqueness of each hospital community. The client established a multimillion dollar budget and a dedicated art committee at project outset to facilitate the development and curation of art within the building design. The team worked with a range of local artists to create site-specific installations, and partnered with a local science museum for tactile, engaging pieces.

Healing Gardens - Healing the land on a brownfield site. Making contaminated soil useable. These were the first of many steps in turning this tightly packed urban site into a place defined by healing gardens.

A variety of garden types are embedded within the project—each tailored to its location—at grade or roof level—and to the users it serves. Beautiful contemplative gardens allow patients to enjoy panoramic views or sit quietly, others promote strolling or play for active use, and bioswales filter water before it enters the storm water system. Green edges greet the surrounding neighborhoods, creating strong community connections via walking / cycling paths and the public plaza at the center of the site.

The gardens and art program are integrated throughout the patient care areas, supporting identity and punctuating the journey with a variety of scale, type and texture to support the breadth of human experience in the healthcare setting.

INNOVATION

Design Integration - An innovative project required innovative delivery, in this case IPD (Integrated Project Delivery). The IPD process brought together over 100 professionals from all disciplines into a facility on site, dubbed the Integrated Center for Design and Construction (ICDC). From the ICDC the entire design team worked side-by-side with the owner and contractor from the earliest stages of the design to create a community united around a common vision of transforming patient care. The creation of this community allowed the development of a shared culture that transcended the traditional and separate contracts, supporting creative and innovative resolution of issues with remarkable speed via an incredibly sophisticated multi-platform BIM model. The result is a completed project with over \$200M in savings, while incorporating \$55M of significant programmatic changes which finished 8 days ahead of schedule.

PERFORMANCE

Set new benchmark for healthcare sustainability - As a place of healing, it was critical that the facility honor that mission by being a steward for wellness and by being a well building itself—to set a new standard for health and sustainability. The medical center is targeting 50% less power consumption than the average U.S. hospital, making it among the top performers in California, and one of the few hospitals in the state to achieve LEED Gold certification. Though exciting, LEED was a secondary goal; a more robust sustainability agenda drove decision making and added dimension to key design ideas. This is tangible in the healing gardens. While the gardens fulfill a basic human need—a desire to connect to natural elements, they also serve a very functional purpose, to reduce stormwater runoff and insulate the building to minimize energy needs.



Jury Comments

This project achieves excellence at many levels. As a healthcare facility, the design combines children's, women's and cancer care in a unique patient-centered complex. The design meets the functional needs of advanced healthcare standards through warm, empathetic and humanistic environments. Interior spaces, finishes and wayfinding contribute to reduce stress and place the patient at the center of a caring experience. From an urban design perspective, the redefinition of 4th Street as a private right of way, with the creation of relevant outdoor space and a clear entry progression to identifiable programs, further enhances the humanist agenda of the project. The articulation of the massing, varied fenestration and restrained materials palette all complement the disciplined approach to the design. The sustainable design elements include green roofs that double as outdoor space for patients, water conservation through rainwater collection systems, daylighting strategies and energy reduction targets. Quite simply, this project exceeds expectations.

CRAFT

The team used a concept of kaleidoscope to solve the potential identity crisis derived from balancing the overarching UCSF brand and the diverse patient population. The kaleidoscopic idea of light and refraction transforming an experience resonated with the users. The opportunity was to adapt the base shared design language and recompose the elements to create highly visible entry points, lending a unique identity to each hospital component. For example the Children's Hospital is expressed as a glass box rotated about its axis. The bands of sunshades and vertical fins that are perpendicular to the façade are articulated by dichroic art glass that both transmit and refract colored light into the patient rooms.

With the exterior palate carrying the primary mandate of supporting a cohesive UCSF identity, interior palate was particularly important in supporting identity and natural wayfinding. Adult spaces use subtle colors and sophisticated materials like stone and wood, while children's spaces are energized by color and movement.

VALUE

UCSF opened for operation in 2015. The reception—from patients, their families, and the staff—has been overwhelmingly positive. Years of work and dozens of people created a beautiful space that will heal San Francisco's population for decades to come.

According to UCSF's website "UCSF Medical Center at Mission Bay is our newest state-of-the-art hospital complex that has been designed to ensure that our facilities match UCSF's top-notch patient care. Our new hospitals were built with a focus on the patient's experience every step of the way"

"There is the security of knowing you are in a place that has everything you ever need." Dr. Elena Gates



WABASCA CHILD CARE CENTER OPPORTUNITY DAYCARE

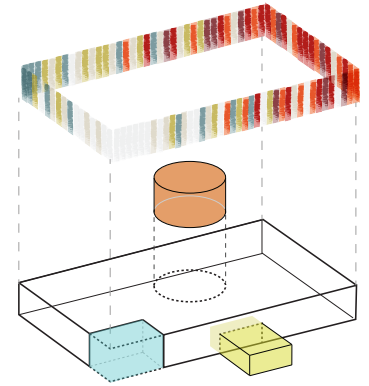
VISION - A STAGE FOR THE IMAGINATION Lie on your back and look up at the ceiling. Roll onto your stomach and have a look around. Children explore their world very differently than adults and that's what inspired our design of Opportunity No. 17's new daycare. We decided to approach the design from the eyes of a child. Primary learning with colors and shapes are the inspiration for the daycare: a box of crayons and blocks of primary shapes. The colors wrap the building in a vibrant gradient while shapes define major spaces. The new daycare is the first project built out of a larger master plan and will provide enough room for 150 infants, toddlers and preschoolers.

RESPONSIVE DESIGN - PLAY | CREATE | LEARN Everything is designed through the eyes of a child. With different sizes and sill heights, the windows are fun, playful and located at a child's level to encourage crouching, hiding and peeking. The large red portal into the rotunda creates a guide into the children's area while fun, colorful building block seating invites children to sit, crawl and play. Each room has a designated color theme set against a neutral palette which allows instructor flexibility. The floor colors peek under the door into the main corridor to create a focal node for children.

Client: MD of Opportunity No. 17
Location: Wabasca, Alberta
Completion Date: March 2015
Cost: CAD \$5.6M
Project Team: Heather Bretz, Hemna Marwah, Michelle Smith
Cowman, Fadilah Hamid, Enzo Vicenzino,
Ron Bonnett, Dennis Darling, Don Oser







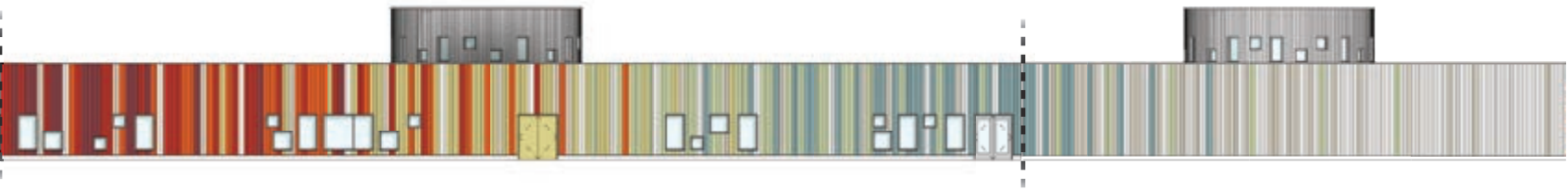
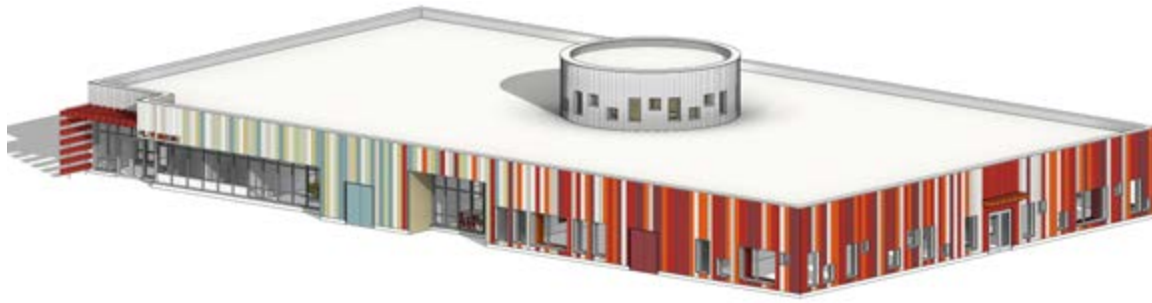
PERFORMANCE - DESIGN INFLUENCING FUNCTION

“It looks so good...beautiful. This building is way too nice to be in Wabasca.” The client’s excitement of the colorful design confirmed that we fulfilled our vision. The client outfitted each room with furniture and storage elements that reinforce the design intent and their intention to use the window nook to read stories to the children is telling. We considered the impact of the northern climate throughout the design. Deep overhangs finished with a wood-look, maintenance-free metal panel bring material warmth and respond to the northern climate. During the summer, the overhang will protect from the bright and long daylight hours, while allowing the brief winter sun to filter into the building. Heated flooring throughout the facility responds to children sitting, playing, crawling and laying on the floor.

INNOVATION - SIMPLE | UNIQUE | FUN The daycare design challenges the remote and economic pressures facing communities in northern climates. The single story flat roof structure includes a typical metal panel wall assembly, keeping in mind simple construction methods and detailing. The cost effective metal panels are laid out in a vibrant gradient across the façade. This illustrates a fun and unique use of an otherwise standard building material, while challenging the notions that design in northern Alberta is best served by modular/prefab construction.

CRAFT - ELEGANT CANOPIES & CONTRACTOR CARE The contractor took care. The interior and exterior finishing and detailing was done with pride and brings the design intent to life. The rotunda’s curved form, inset windows, colorful painted stripes, acoustic panels and lighting installation create an exciting, identifiable and fully realized space within the daycare. The rotunda and cafeteria are connected through flowing colorful stripes that carry out to the exterior panels. The canopies are bold and elegant. Finished with brightly colored metal bars and topped with glass, the canopies respond to the color and dimension of the vertical paneling while protecting staff, parents and children from the rain and snow.





Jury Comments

The design of the Opportunity Daycare is driven by a clear and concise conceptual approach which leverages the tactile and visual experience of children at play in the creation of a playful and exciting childcare space. Vibrant colors for wayfinding. Windowsill heights for toddlers. Heated floors for warm play surfaces. These elements reveal the design team's concern for both the end users—children at play—and delivering a functional and lasting architectural project in a remote context and extreme climate. The Opportunity Daycare is an exceptional example of a nuanced, community-centric design project executed with care.

WAGMATCOOKEWEY K-12 SCHOOL

The south sloping site looks across the community and lakes and beautifully meets the aspirations of the community. The central block is bracketed by narrow east primary and west secondary wings organized in tree-themed pods of three grades each. Undulating wood ceilings span the pods, while live deciduous trees provide natural summer shade. This links Mi'kmaq ecological, cultural, and economic history with physical form: the plants and animals that rely on the trees, the stories, the foods and medicines, the tools. A landscaped area with a variety of traditional plantings and a natural playground are visible from the lobby and reception and provide natural play and learning opportunities. Robust low maintenance finishes include partitions of abuse resistant drywall, and floors of polished concrete (circulation) and linoleum (classrooms) floors. The building achieves very low energy costs by leveraging ICF wall construction, increased roof insulation, heat recovery strategies along with passive solar design, natural ventilation and shading strategies.

Client: Wagmatcook First Nation
Location: Wagmatcook, Nova Scotia
Completion Date: June 2013
Cost: CAD \$10M (not including land and fee)
Project Team: Leif-Peter Fuchs, Tami Johnson, Nan Ruggles,
Ilich Lorenz-Luca, Julie Duncan, Rowan Lubke



VISION

- The entire community from chief and council to teachers, staff, students, parents and elders were key participants of visioning workshops.
- Connected to other learning communities inside the school as well as in the world outside
- Responsive to the diverse learning needs of the students and evolving learning models
- Engaged with the universe beyond schooling: nature, community, physical activity
- Healthy for both the bodies and the spirits of students and staff

RESPONSIVE DESIGN

- Accommodate differentiated learning, variation in cohort size, evolution of teaching and technology
- Bring troubled learners back into the school with the rest of the student body
- Sense of student identity and progression through the grade levels
- Transparency and connection between grades and between students and adults
- Clear and intuitive circulation
- Accommodate formal and informal interaction and learning
- Open to the community: Elders Center, Mi'kmaq language room, inviting lobby, cultural displays
- A real connection to nature and the land
- Robust building fabric and systems, low maintenance and operational costs, but humane and friendly

PERFORMANCE While the project team decided not to pursue LEED certification, the design makes extensive use of green building strategies. The focus was low tech options and opportunities to capitalize on program-systems building synergies.

Energy model and life-cycle costing demonstrated that the combination of a high performance building envelope with a fresh air supply provided by a dual-core push-pull HRV system with 90% efficiency results in a very low heating load. This allowed the building to use heat with electric radiant ceiling panels. The result is a low energy, low maintenance HVAC system with no fossil fuels or tanks on site, and free of radiator panels that become dented over time.

The system is complemented by passive design strategies such as a single-loaded corridor along the entire south face of the building. This, combined with the four pod spaces between classrooms and lobby, creates a dynamic buffer zone. The circulation zone stretches east to west with ample south-facing glazing to add winter heat. Operable windows at the north and south façades provide natural cross ventilation in the summer. Flooring in all these areas consists of polished concrete, providing not only a fly-wheel effect for temperature control, but a beautiful, highly durable and low maintenance finish. The circulation areas with their ample daylight are equipped with LED lighting for longevity and ease of maintenance, as well as motion detectors for energy efficiency.





INNOVATION In contrast to the hard shell, instructional spaces are designed to allow future adaptation to changing learning models. Walls are high acoustic performance gypsum board construction, with abuse resistant board on all corridor walls. Electrical and communication systems are selected to provide ample power and data outlets in addition to a wireless system for maximum flexibility of technology application. Presently, students are provided with laptops which, after class, are stored and charged in special storage closets. All classrooms have smartboards.

Accommodating the learning needs of students initially seemed impossible due to greatly varying sizes of cohorts and a lack of funds. Over multiple concept design sessions, classrooms were arranged in two groups of four with small, medium and large dual access classrooms. The computer lab was converted to Mi'kmaq language room, which also serves as a multi-purpose meeting, teaching and community space. This strategy saved significant floor space without compromising learning space.

CRAFT The straight, single-loaded corridors with large windows facing both out and into the classrooms fulfill Crime Prevention Through Environment Design principles of maintenance, territoriality and natural surveillance. They also provide a direct connection to the natural environment. Outside the south-facing glazing, deciduous trees were planted to provide summer shade and sun penetration in the winter, but more importantly provide a direct connection to nature for the students. There are four different types of trees to give identity to the four pods, each with undulating wood ceilings.





Jury Comments

As evident in its clear parti, Wagmatcookewey has been thoughtfully and carefully put together. The origins of the project are firmly rooted in the design team's ability to listen, clarify, and synthesize the vision by asking the right questions of the community. Students at Wagmatcookewey benefit from an environment which supports a healthy spirit, mind, and body. The values of the stakeholders including the chief, council, elders, parents, staff and teachers form the storyline of the project. The community's vision to engage nature, the community, and the physical world are reflected in the organization of the parti, in place making, way finding, access to natural light, and ventilation.

The axial plan, virtually aligned to the cardinal points, separates the school into two wings, the junior-senior high school wing to the west and the primary-elementary wing to the east, through the community commons running north-south at the intersection of the two wings. The identity of each wing is clear, distinguished cardinally complete with a single loaded corridor that performed a host of duties including passive solar heat gain in the summer, facilitating natural ventilation in summer, and connecting the community aspects of the school and lives of the students with both nature and the broader community. The central community commons brings the community, students, parents, teachers, and elders together via its position and programmatic offering, including the Mi'kmaq language room and cultural displays. What really stands out is the clarity of the parti, the organization of the massing, and the connection to landscape and nature, building on the vision to draw in community.



WESTERN UNION CORPORATE CAMPUS

INTRODUCTION The challenge at the Western Union Headquarters campus was to harness Western Union's fascinating, 160-year history into a three-dimensional brand expression that would measurably affect employee collaboration, recruitment, and retention.

Western Union, one of America's greatest and longest standing technology companies, depends on its ability to attract and retain the best and the brightest in the technology industry. Their competition is formidable. As the company, and the entire tech sector, has grown and evolved throughout the decades, the physical environment at the Western Union World Headquarters campus, in Englewood, Colorado, had fallen out of step with the fast-paced, highly amenitized, employee-centric, tech office scene.

To foster innovation and embody Western Union's continuing commitment to enhancing collaboration and innovation, Stantec, in cooperation with RNL and the Western Union client team, was invited to create a series of conspicuously social, highly collaborative spaces from previously underutilized areas within the Western Union campus buildings. The drab and under-performing corporate cafeteria, dozens of underutilized management offices, and many former work-station cubicles were targeted for transformation into new, highly utilized, collaboration zones. Research ensued, conventions were challenged, employees were reorganized, the creative corporate culture and workspace was rapidly dismantled and reassembled into a highly collaborative, brand immersive, vibrant expression of the mission and values that have sustained the Western Union culture through its remarkable 16 decades of success. The newly renovated Western Union Café, with its fresh, digitally enabled Stadium Club and Food Truck Café, has become an indispensable workspace as well as the social and symbolic heart of the campus.



Few American companies have the rich, colorful history or the proven track record of positively affecting people's lives across the globe, as does Western Union. The majority of the approximately twelve hundred employees working at the Western Union campus have not had the opportunity to meet the people whose lives have benefited from their hard work. In order to enhance the sense of mission and satisfaction for employees, and to celebrate the successes of their efforts, the environmental branding team used images and stories of Western Union customers to add meaning to the working environment. Also, since Western Union is a global company and works in over a hundred currencies, the visual language of the world's currencies and collections of proverbs from the world's cultures became a primary visual language of the environmental graphic approach.

Client: The Western Union Company
Location: Englewood, Colorado, USA
Completion Date: 2014
Cost: Not Disclosed
Project Team: Larry Weeks, Nate Hawley, Julie Andresen,
Rachel Evans, Keith Harley, Nick Mucilli
Partnership: RNL Architecture



“The Western Union Headquarters campus has become a working symbol of the company’s heritage and future. Employee collaboration has increased, and the sense of pride is palpable. The design team has created a global brand standards manual to allow aspects of the Headquarters campus program to be deployed in Western Union locations throughout the world.



VISION A powerful vision, initiated by Western Union's leadership and Stantec, was required to encourage an entrenched Western Union workforce to abandon familiar working tendencies and methodologies in favor of an entirely new paradigm for the workplace, with an unprecedented emphasis on communication, innovation and collaboration. The design team's ability to capture and leverage the corporate vision of Western Union into a three-dimensionally branded, highly immersive expression of the mission that unites the Western Union workforce has resulted in increases in employee collaboration, retention and pride of place.

RESPONSIVE DESIGN In response to the Western Union leadership's charge to create an environment that fuels collaboration and innovation, the design team quickly realized that the new working environment must serve as a bridge that connects the diverse working styles of a multi-generational workforce. Based on the notion that project teams which succeed socially will likely succeed collaboratively as well, an entirely new category of workspaces were created which straddled the line between social retreat zones and workspaces. Today, these are among the most highly utilized and productive places within the campus environment.

INNOVATION Innovation fosters innovation. By creating bold, unexpected environments within which a reshuffled workforce can come together to collaborate in new and refreshing ways, the resulting work products reflect the benefits gained from fresh, broadened perspectives.

PERFORMANCE The new workspaces and collaboration zones at Western Union are in high demand and have visibly enhanced opportunities for collaboration among employees. Pride of place among campus workers has risen as a direct result of the redesign. Efficiencies have been realized by utilizing new spaces, both indoors and outdoors, as opportunities for people to come together and collaborate.

CRAFT Customer stories conveyed. Global currencies, celebrated. A remarkable corporate history. The design team's craft and artistry brings Western Union's accomplishments to life, leaving employees and visitors inspired.



Jury Comments

Incredibly bright and energetic, the new headquarters for Western Union transforms a company with such a historic legacy into a fresh new generation start-up company, which must reinvigorate the staff to take the company well into the future. We appreciated the bold use of color, particularly the brand-derived yellow, which lends vibrancy to the work environment. A creative application of wayfinding signage allows it to morph into gestures rather than simple applique, giving movement to the space rather than just identification.



Realized Projects

Design Volumes 1 and 2 featured a number of projects in the design phase. The following section features the final product of a few outstanding projects from prior publications.

Cleveland Institute of Art

George Brown College

CLEVELAND INSTITUTE OF ART

CONTEXT The Cleveland Institute of Art is an independent college of art and design committed to leadership and vision in all forms of visual arts education advanced through a progressive, interdisciplinary curriculum.

The Institute is located on Euclid Avenue, east of Cleveland's downtown core, in the vibrant University Circle neighborhood.

The school consolidated in to a one building campus in 2011, after renovating a former industrial structure originally built as a manufacturing facility for the Ford Motor Company in 1914. The building was added to the National Register of Historic Places in 1976. Cleveland Institute of Art named the building the Joseph McCullough Center for Visual Arts following its remodeling.

Client: Cleveland Institute of Art
Location: Cleveland, Ohio
Completion Date: 2015
Disciplines: Architecture, Interior Design, Mechanical and Electrical Engineering
Design Team: Katherine Antarikso, Elizabeth Behmer, Benjamin Bleicher, Michael Carter, Arman Chowdhury, Jason DeMarco, Barbara Forestall, Anton Germishuizen, David Hornicak, Gregory Jarold, Janeen Jaworski, Richard Karcher, John Kosar, Jr., Thomas Krejci, Katharine Land, Keith Lutz, Rocco Magrino, Mary McGrellis, Scott Mitchell Taylor, Rebecca Mizikar, Ivan Nemecek, Christopher Panichi, Florence Petrus, Lawrence Pol, Amie Rini, Marcella Robertson, Jennifer Rogers, Matthew Rooke, Lois Roth, Renee Shirey, Jennifer Story, Evaine Sing, David Spehar



“The addition pays homage to the historic McCullough Building while projecting a dynamic and varied façade reflective the state-of-the-art learning occurring within.





BRIEF The project's primary objective was to consolidate the Institute into a one building campus, allowing for community engagement while providing a state-of-the-art learning environment for the Institute's faculty and students. The two primary project elements are the renovation of the existing McCullough Building to accommodate workshops and studios and a new 80,000 sf addition to the southwest to accommodate new administrative offices, student and faculty galleries, flexible studios for technology and a cinematheque.

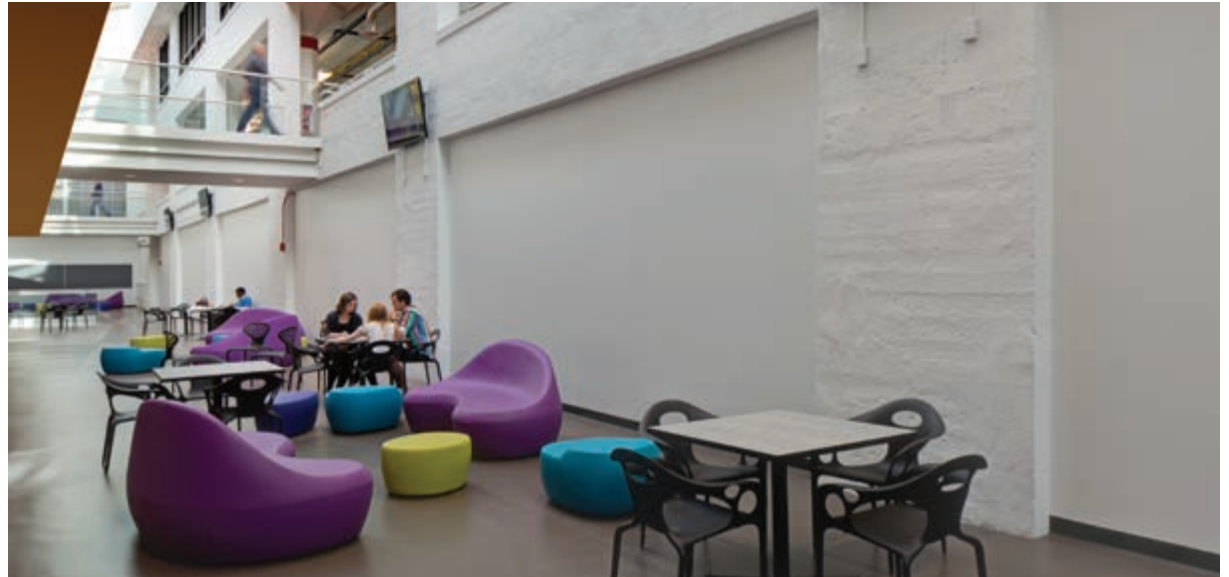
Given the urban context, a key consideration of the planning was to create a safe and secure student environment while offering a welcoming face to the community. A communal mixing space on the second floor is added as an atrium between the existing structure and the new addition. With access to ample daylight and visual connections through the building, this venue serves as the defacto heart of the campus. Campus amenity and open space is provided through the atrium and a green roof element over the cinematheque.

The program and diversity of learning environments are aligned with the building: robust spaces in the existing industrial building accommodate the studio functions for ceramics, sculpture and some of the workshop oriented instructional spaces while the new addition is designed around technology-

driven clean studios for the fine and digital arts. Applying strategies from our corporate workplace practice, we developed a flexible, universal learning workstation concept for the digital arts that optimized the space, drove efficiency into the planning and provided the client with maximum flexibility as programs changed or grew during the academic cycles.

THE NEW BUILDING The new addition is designed as a simple bar building containing the academic program, lifted off the ground to reinforce visual connectivity to the program at the pedestrian level. This expression is in contrast to the existing masonry and terracotta accents of the historic building; the proportions of the Euclid Avenue façade are literally derived from the historic structure.

Community engagement was a priority of the Institute in the siting and expression of the addition, which adds to the richness of the of the urban experience in this vibrant renewal district. Three key strategies achieve these dual goals. A clear storefront at the pedestrian level, at the main entry provides visual connection from the exterior. The integration of a digital media mesh on the south façade allows program-related media to be projected to the city beyond. And, at the east side of the building, a separately expressed mass creates a prominent address for the publicly accessible cinematheque.







GEORGE BROWN COLLEGE

VISION Imagine a building that reduces stress, catalyzes urban revitalization and makes sure healthcare becomes an economic asset to Toronto, Ontario, Canada, and ultimately the world.

This 47,000m² integrated vertical campus was conceived to consolidate the Schools of Dental Health, Health and Wellness, Health Services Management and Nursing into a single, purpose-built facility for 3,500 students and 500 faculty, with simulation labs and assessment clinics to provide public services for dental, health mobility assessment and hearing. It also includes a library, retail, food services, student amenity space, and a multi-purpose auditorium.

RESPONSIVE DESIGN The philosophical basis for the shaping of this eight-story vertical campus was in response to the 2002 Romanow Commission Report which recommended the delivery of healthcare services move to a team-based, patient-centered approach. Recognizing that Integrated Professional Education (IPE) is the keystone to achieving this shift, the design directly supports the IPE pedagogy. The vertical campus typology is reimagined as a continuous “learning landscape.” Physical and psychological well-being is reinforced by dedicating 40% of the program to the public realm. The scale and massing comprises three major volumes, and the expression celebrates the human-made and natural history of the lakefront site and is inspired by the nautical forms and shapes associated with the shipping industry.

Client: George Brown College
Location: Toronto, Ontario
Completion Date: 2012
Disciplines: Architecture/Interior Design (Stantec/KPMB),
Mechanical, Electrical, Structural Engineering,
Sustainability / LEED Consulting / Energy Modeling
Design Team: Michael Moxam, Stuart Elgie, Trish Piwowar,
Stephen Phillips, Rich Hlava, Gerard Dourado,
Mick Dobbins, John Ciarmela, Nancy Lindsay,
Ko van Klaveren, Pani Eslami

PERFORMANCE Sustainability and durability were drivers of this LEED Gold certified project; as was occupant health, comfort and wellbeing, given the program focus.

Light and Air: With a window-to-wall ratio of 66%, ample daylight floods the interior. Low-iron glazing provides high visibility, while high-thermal performing cladding systems and automated window shades control solar gain. A custom frit pattern mimics the reflection of light off the water, but also discourages bird collisions. Photo sensors control artificial lights at the perimeter to adapt to natural light levels while occupancy/daylight sensors minimize energy usage.

Water: Efficient plumbing fixtures minimize consumption, with 4,000 FTEs, the potable water consumption is 0.10L/sm/occupant/yr. Water-efficient plants reduce irrigation by >50% of LEED baseline. The green roof and cistern contain rainwater on site, reducing suspended solids and phosphorous in runoff by 80% and 40% respectively.

Energy: Compared to the ASHRAE 90.1 reference building, GBC achieves 44% energy use savings and 33% energy cost savings. Increased efficiency is achieved with variable speed drives on motors and air handling units with heat recovery. Green power was purchased for half of the regulated energy for two years.

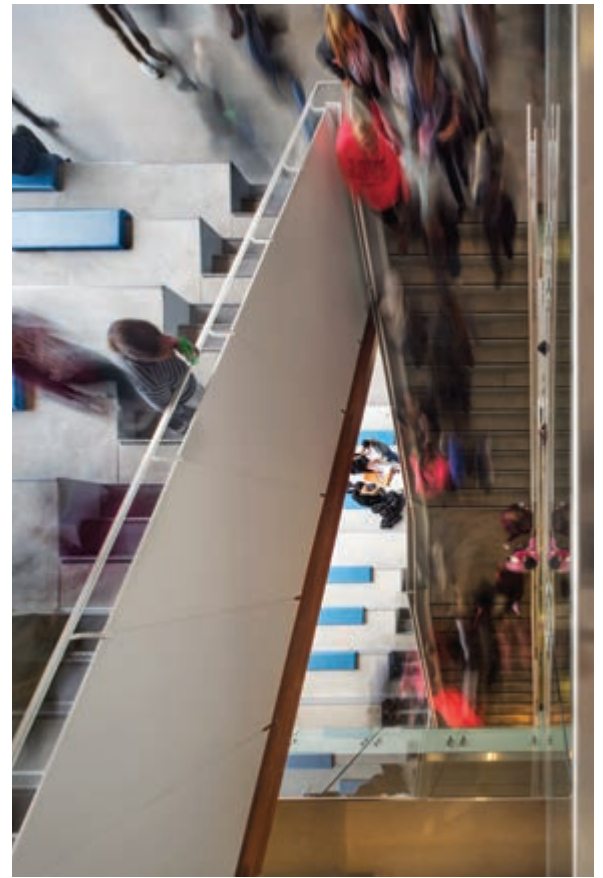
INNOVATION The new campus creates a valued community hub-reaching beyond its program to offer something greater to the community it serves. The building is a beacon for George Brown College and the value of community colleges to the economic health of Ontario. It also fulfills Waterfront Toronto's goals for design excellence, increased community services, economic and sustainable development, and access to public transit and the provision of an animated public realm.

The project is located between Sherbourne Common to the east and Corus Entertainment to the west. The plan layout maximizes views east to the developing waterfront and south to Lake Ontario and the Toronto Islands. The main entrance off of Queen's Quay is designed at the scale of a large transit hub to accommodate the 4,000+ people arriving and departing daily.



CRAFT The section diagram of public spaces—the learning landscape—is a clear physical manifestation of the program and vision of the project. The massing reinforces the sectional intent while enhancing the expression of the vertical campus and leveraging the natural beauty and nautical heritage of the site. In assembly, the building is well crafted, with careful consideration made to the articulation of the skin systems and massing.

CLIENT VALUE The flexible design supports constant change, including the development of new continuing education programs, a significant source of revenue for the College. The design has inspired a new level of donor interest. To date \$5.0 million has been raised for naming opportunities including \$4.0 million, the largest single donation in the history of the College. The diverse program of amenities is generating significant new revenue streams. Although consistently a TOP 100 Canada Employer, 2014 was the first year George Brown received an “A” for physical space, with notable mention to its “recently completed waterfront campus... equipped with informal learning spaces, open-concept workstations, rooftop terraces, and state-of-the-art laboratories.” The College reports that because the design is seen as new and innovative, organizations now want to partner with the building. For example, the simulation centers and assessment clinics have inspired partnerships with St. Michael’s Hospital, the Canadian Diabetic Association and Baycrest Hospital. The project has been recognized with numerous awards including a Governor General’s Medal in Architecture (2016), an Architectural Record Good Design is Good Business Award (2015), Canadian Green Building Award (2015) and City of Toronto Urban Design Award (2013).





Process of Selection & Acknowledgments

It is clear that the Design Volume program resonates. This year we had unprecedented participation with an increase in submissions from 23 in DV2 to 74 in DV3. The submissions represented a broad cross-section of work underway or recently completed in 30 of our offices ranging from Alaska to Florida to Newfoundland and Labrador to the Middle East.

We also saw an increase in participation across our disciplines with projects submitted by architecture, interior design, mechanical, electrical, structural, lighting design, landscape architecture, and branding and experience teams.

The Process

Michael Moxam, Anton Germishuizen, Stephen Phillips, and Andrea Johnson met in late 2015 to review the submissions received. During this review, we pinned up every submission received, grouped by sector and conducted a first review. Selected projects (51) were divided into six jury tranches each containing a variety of projects by sector and geography. Jury chairs were assigned in selected offices:

Winnipeg, Manitoba	Michael Banman
Toronto, Ontario	Justin Perdue
Vancouver, British Columbia	Ray Wolfe
Boston, Massachusetts	Elizabeth VonGoeler
Philadelphia, Pennsylvania	Matthew Eastman
Austin, Texas	Christian Owens

Each jury chair was asked to engage as diverse a group of local jurors as possible including architects, interior designers, building engineers, landscape architects, and urban planners in the spirit of our integrated and multidisciplinary approach to design.

Jurors were asked to judge the projects against Stantec's Five Parameters and award projects that were either exemplary (outstanding achievement of the five parameters) or honorable mention (fully realizing all five parameters) awards.

We congratulate all the selected teams and wish to thank the juries for their commitment to this process.

Jury Teams

Winnipeg

Michael Banman	Chair & Architect
Blair Fraser	Structural Engineer
Dora Baker	Architectural Intern
Fletcher Noonan	Architectural Intern
Lindsay Lagman	Landscape Architect
Todd Littleford	Interior Designer

Toronto

Justin Perdue	Chair & Architect
Janet Gasparotto	Interior Designer
John Archondakis	Architect
Matt Cable	Sustainability Analyst
James Strong	Graduate Architect
Somayeh Mousazadeh	Graduate Architect

Vancouver

Ray Wolfe	Chair & Architect
Matthew Emerson	Intern Architect
Kim Glauber	Intern Architect
Mark Travis	Architect
Roman Latta	Architect

Boston

Elizabeth von Goeler	Chair & Architect
Steven Tierney	Landscape Architect
Eric Weyant	Architect
John Feidelson	Interior Designer

Philadelphia

Matthew Eastman	Chair & Architect
Katherine Antarikso	Architect
Tracy Chin	Architect
Gabriel Hohag	Architect
Jennie Hydro	Interior Designer
Eric Kukieza	Mechanical Engineer

Austin

Christian Owens	Chair & Architect
Chad Mertz	Structural Engineer
Josh Sawyer	Architect
Julie Zitter	Interior Designer
Tom Oehler	Architect
Scotty Denney	Architect
Frank Rascoe	Architect

Acknowledgments

We wish to thank the following individuals for their participation and commitment to realizing this publication.

Buildings Leadership

Leonard Castro	Executive Vice President, Buildings
Anton Germishuizen	Senior Vice President, Buildings
Stephen Phillips	Vice President, Buildings
Margie Simmons	Senior Vice President, Buildings
Bob Wood	Senior Vice President, Buildings

Core Creative Team

Anton Germishuizen	Senior Vice President, Buildings
Michael Moxam	Vice President, Buildings
Andrea Johnson	Director of Marketing & Communications, Buildings
Mike Kesteven	Senior Graphic Designer

