CHURCHILL MEADOWS COMMUNITY CENTRE AND PARK

This project is about a pavilion and a park, and the way they work together as a public amenity, a destination, a gathering space, and simply as a place. The building is a compass, setting up the form of the park, and is an orientation device for the activity that springs from within it and around it. The park is a series of spaces for fitness, leisure, and community gathering to unfold in a richly textured and undulating landscape.
The City of Mississauga is providing a new park and community centre as part of the overall Ninth Line Lands development between Highway 403 and 401. The project will serve this urban densification along the City's western boundary, along a tributary of 16-mile creek, with a recreation centre and a 50-acre park development consisting of a series of outdoor trails, fitness stations, a basketball court, playground, splash pad, and multiple sports fields, as well as a seasonal dome for winter use. A protected wetland and storm-water management pond form natural features on the site. Environmental stewardship zones, emphasis on natural heritage and settlement history of the area, and community art installations will occur throughout the trail system. This trail system will connect with a series of new and existing pedestrian trails extending into the city fabric. The site will be a destination point in this system.

Formerly agricultural land, the new park combines active sports fields and large swaths of landscape to create topography, seasonality, spatial diversity and mystery throughout the site. The landscape has been designed to get better with time, change throughout the year and throughout the day, and to be open-ended enough to accept decades of different programming. The design extends and improves the ecological health of the site while creating a social and recreation hub for the community.

The 75,000sf community centre will be a focal point within the site with light-permeable cladding encasing a leisure and lap pool, triple gymnasium, and multi-purpose rooms. The building's simple form faces each cardinal direction, to which the main sports fields also align for preferred orientation to the sun. The parking areas are pushed to the north and south boundaries to create a car-free core where the majority of amenity spaces are situated in close proximity to the protected wetland. The sports fields extend outwards from this core and reinforce the north/south orientation. A measured trail loop with fitness stations and interpretive signage loosely ties all these spaces together. Reclaimed soil from site excavations has been used to create a new topography on this relatively flat former agricultural field. These small rolling hills are situated at the edges of the sports fields and the central green lawn in front of the facility to create informal seating and destination points within the site.
Multi-Use Court
Natural Heritage Pond
Skate Park
Gathering Hillside
Hillside Slide
Children’s Playground
Splash Pad
Social Pods
Outdoor Fitness Equipment Stations
Measured Fitness & Walking Track
Integrated Wayfinding
Loop Variety
The building appears as a simple form within the landscape, however, it reveals a heavy timber structure beneath its expanded metal mesh envelope and a complex internal ceiling of forms used to control light and sound.

A changeroom and service bar flanks the pool and gymnasium which are fully glazed towards the central park amenity spaces. A central lobby bisects the narrow bar, bringing visitors directly from the entry plaza to a point in the plan where the majority of the park and building components can be seen. The visitor will feel that they have almost stepped right into the park once they are in the front door. The changeroom corridors are also fully glazed so that some of the internal workings of the community centre are visible to those arriving at the facility. The building creates overhangs on its long sides to provide covered connections from the ninth line at the north to the soccer fields and covered dome in the south. These overhangs act as park shade structures adjacent to the playground and splash pad as well as covered bicycle parking and a walking track around the building. This depth also helps to mitigate glare into the pool and gymnasium.
A series of activities have been grouped together under an undulating ceiling. The gym, lobby and pool have been covered by a stretched membrane assembly shaped to reflect and absorb both sound and natural light. These inverted peaks form continuous loops over each pool, the lobby and the gym courts. They are lined with LED light fixtures highlighting the spaces within the space and hopefully containing some of the sound within them as well. Micro perforations in the membrane ceiling let sound pass through to acoustic insulation. Natural light drops into the space from a series of skylights above, reflecting off the membrane ceiling. The aim, beyond the practical function of eliminating glare and excess heat gain, is to provide more enigmatic space with this slightly subtle source of light like a lit cavern of some sort.
The gym, lobby and pool are wrapped with a dense array of glulam columns which provide the structural and curtainwall framing on the west half of the building. The glulam framing extends outwards to form a deep overhang and is clad in expanded aluminum mesh which permits filtered light through to the building while protecting the wood framing from light and rain. The glulams are black spruce and designed to work in groups of 3 to resist bending forces applied from the roof load. Braced stiffly under the precast bench, the members are spaced with a very minimal horizontal steel member at the mid span. The lateral restraint systems of the building are buried within the changeroom bar on the east side of the building. The result is a simple wood structure with almost no visible bracing members. Slopes of the soffit framing are designed at a steep pitch to discourage bird nesting. Glazing units connect directly to the glulam columns by means of a toggle system set between the lites and directly fastened to the glulam columns. The glass is held off the wood by 30mm and will appear to float just in front of the wood. All glass, wood and soffit components are set on a 1200mm spacing.