

# Showcasing Universal Design

**UD2014** Design Case Study

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## Background

Quadrangle Architects is a 100-person architecture and design studio in Toronto, Canada. We have a lifelong passion for combining our commitment to the principles of universal design with our design expertise. In 2012, we had a fantastic opportunity to showcase the power of universal design in our own studio. We moved our studio to a new location for the first time in 26 years, and we decided from the start to use the experience as an opportunity to showcase how the processes and principles of universal design can enhance the quality of the space for everyone. We have demonstrated that accessibility does not comprise design excellence, but is instead a catalyst for better design for all.

Our studio includes a specialized team of accessibility specialists, and we practice an integrated approach with the other architects and interior designers to create environments that are accessible to all. Our commitment to universal design goes far beyond the spaces that we design, and we are also tireless advocates for the power of universal design. We use our new studio to reinforce this advocacy by using it as an example and demonstration of our success.

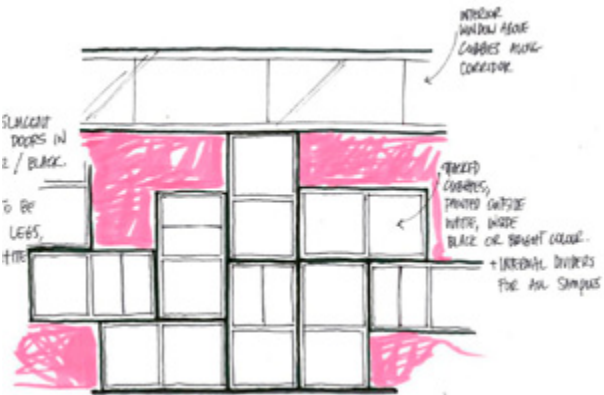
We know that inclusivity goes beyond the built space, and we have incorporated accessibility policies and approaches in our studio culture. All people who work at Quadrangle are trained in customer service for persons with disabilities, and our company website is fully accessible.





## Process

When the opportunity arose to design our new studio space, we knew that it was imperative to illustrate how universal design enhances the design process through early incorporation and an integrated approach. We ensured that all senior leaders of the firm were aware and fully committed to universal design. This is essential to ensure that everyone on the team is clear about the direction from the start. We organized an office-wide design charette where all staff members brought forward their ideas and dreams for our new space. Universal design principles were considered from the beginning and throughout the project development. We strategically 'future proofed' the studio to go far beyond current accessibility codes, in order to ensure that we would build a lasting legacy to universal design. We know that it can be difficult and expensive to retrofit spaces as social values change, so we decided to incorporate best practices as far as possible. We remained vigilant about the universal design features throughout the technical drawing, construction and furnishing phases to ensure that the ideas were not lost.





## Inclusive Design Features



Quadrangle's new studio demonstrates how an integrated design approach can enhance a space for all by seamlessly embodying the principles of universal design without sacrificing design quality or creativity. The studio highlights inclusiveness, equality, wellness and flexibility. Staff and visitors enter the space via elevators. The entire studio is on one level and welcomes all with a wide access approach – a sliding door fully opens during business hours – and a clear graphic identity. Everyone is welcome at Quadrangle. The reception area is spacious with access to wide open walkways. The lowered reception desk with knee clearances encourages approachability and welcomes persons using a wide variety of wheeled mobility devices. Large perimeter windows maximize the benefits of exposure to natural light and views throughout the space, making for a legible environment. No one is more than three desks away from a window.



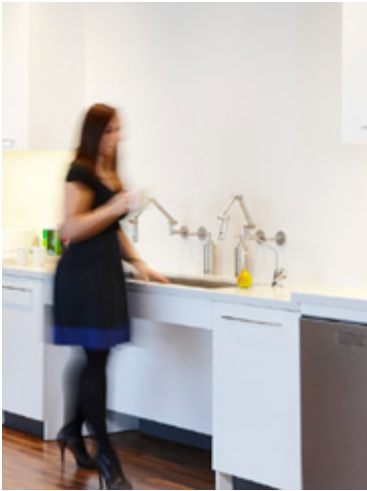
The fully open-concept plan ensures that everyone is treated equitably. Everyone at Quadrangle works in an open location, with similar workstations that are flexible to accommodate personalized needs and permit easy reconfiguration. All seating in the space is ergonomic, while bench style desks provide plenty of knee space. People are encouraged to display personal items on a cluster of bright millwork that surround the circulation route of the studio. The millwork accommodates different reach range abilities and is cane detectable. A bright colour palette is used throughout to promote a legible space.



The studio focuses on comfort, simplicity, ease of effort and space. Staying true to democracy of light throughout, all meeting rooms have glazed walls that are contrasted by branded vision strips. Creatively using Quadrangle building silhouettes, these strips provide wayfinding cues, as well as acting as functional vision strips for persons with low vision. Meeting areas have access to technology that gives the option of communication in different formats. Anyone can use these large, maneuverable spaces for meetings or collaborative sessions. Shared open workspaces encourage collaborative work, and include a variety of table heights and configurations, as well as access to technology.

Legible, clear wayfinding is accomplished through a simple circulation route with carpet that has a colour and texture contrast from the adjacent spaces. Pathways are designed with adequate width to comfortably accommodate persons using a wide range of mobility devices or service animals. Signage includes tactile and braille information.





The kitchen area features accessible appliances and millwork. Sinks accommodate a range of needs with flexible faucets, lowered counters and knee clearances below. Quadrangle's eating area, dubbed the 'Annex' includes multi-height counters, wide walkways and a fabulous view.



We incorporated a large universal toilet room that is designed to go well beyond minimum code requirements, accommodating the largest of mobility devices as well as space for personal attendants. We believe that this is an important step for three reasons: to ensure that any employee or visitor to our studio can comfortably use the toilet room; to showcase for our clients how going beyond the code can be easily incorporated in new construction on their projects; and finally to clearly demonstrate our commitment to inclusive design.



Because we considered the spatial requirements at the beginning of our design process, we were able to actually reduce the average space per person by 5% over our previous space, serving to illustrate that universal design does not need to adversely affect space efficiency or cost.

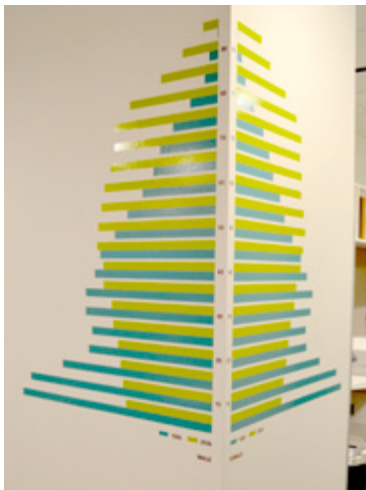




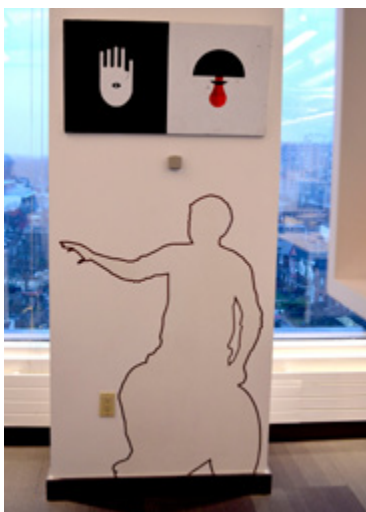
## Advocacy And The Living Lab



We designed the studio to be an informative model of universal design – broadening knowledge and demonstrating to staff, clients and visitors how accessible design can enhance their projects. A series of large informational graphics throughout the studio offer graphic interest, as well as serving as focal points for us to explain and discuss accessibility issues. Examples include: a colour graphic that illustrates appropriate colour contrast for legibility, a graphic age pyramid to discuss issues of our age-friendly design and silhouettes of persons in mobility devices to teach about reach range parameters. Our team has developed a series of brightly coloured templates for quickly verifying clear floor spaces and sink clearances on our projects.



The studio's unique approach to inclusive design is often shared with the larger design community through tours. The space itself is utilized to as a teaching environment, and we use our spaces for both internal and external informational presentations. Our new studio acts as a living lab for our in-house accessibility team to test innovative ideas and challenge conventional assumptions.



We demonstrate our support for the community with an art piece that is a collaboration between a local artist and a community group that provides low cost ramps to existing stores. The artwork highlights the simple ways that life can be made easier for all.





# Recognition

The studio has brought great recognition to Quadrangle through articles, interviews and presentations that highlight the universal design aspects of our studio. We were very proud to be honoured with an award from the International Association for Universal Design in 2013 for the design of our studio.

PROJECT: QUADRANGLE ARCHITECTURE STUDIO, TORONTO, CANADA



### HOUSE PROUD

In receiving award after award from news and design magazines, Quadrangle Architects has created a design atmosphere for their modern, exciting, sustainable design philosophy.

Quadrangle Architects is a leading architectural firm in Toronto, Canada. The firm's design philosophy is based on a commitment to sustainable design, universal design, and a focus on creating a work environment that is both functional and aesthetically pleasing. The firm's design philosophy is based on a commitment to sustainable design, universal design, and a focus on creating a work environment that is both functional and aesthetically pleasing.

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物理環境  
2 Physical Environment





Quadrangle's studio demonstrates how a work environment can be seamlessly designed for all without sacrificing aesthetics, it highlights inclusiveness, equality, wellness and flexibility. The entire studio is on one level and welcomes all with a wide access approach – a sliding door fully opens during business hours. The reception area is spacious, well lit and allows visitors to visit with dignity. A lowered and extended reception desk promotes accessibility. Natural light from perimeter windows allows employees well-being and creates a light environment. No one is more than three desks away from a window.

The fully open-concept plan encourages equality. All staff at all open locations with similar workstations that are flexible to accommodate the needs and styles of all. Staff are encouraged to freely create and personal items on a cluster of raised desks that surround the circulation route of the studio. The raised workstations allows staff range access and to communicate from the bottom. Raising height allows can be four-metre high, slight contrasting colours and textures are used to demarcate the circulation route from office areas.

全てのスタッフが平等に働くことができて、美観や機能性を損なわずに誰もが利用できる環境を実現しています。この設計では、美観性、平等性、ウェルネス、柔軟性を強調しています。スタジオ全体の設計は、誰もが平等に利用できる環境を実現しています。受付エリアは広々としており、明るく、訪問者が尊厳を持って訪問できるように設計されています。低く延長された受付デスクは、アクセシビリティを促進します。自然光は、周囲の窓から入り、従業員の健康と幸福を促進し、明るい環境を創出します。誰もから窓までの距離は3メートル以内です。



Quadrangle





## Summary

This is a “good news” story about how the power of universal design dramatically enhanced the design of our studio space, but also went far beyond the built environment component. The new studio has improved the way we work. It demonstrates our commitments to social and environmental sustainability. We have reduced the need to do costly renovations in the future. The design reinforces our brand foundation - inspiration realized. Our space is a great tool for education and advocacy so we can continue to elevate the knowledge and awareness of our colleagues and clients. Finally, our approach to our new studio has brought the firm valuable recognition as a design firm of choice.

Four things were essential to our success: commitment from the senior leadership of the firm; communication of the intention at all phases; incorporation of universal design principles early in the process; and inclusion of universal design specialists on the design team.

The design has brought about a shift in the studio culture, towards a more collaborative and inclusive environment. We use our studio as a catalyst to spread the word about universal design to clients and guests. Our studio is an example of the positive power of universal design.

### Image Credits:

Naomi Finlay  
Bob Gundu

