Subterranean Skylight Roof: A Kaleidoscope of Seasons

LIONEL GROULX STATION, MONTREAL, QC

Recognized for its lively culture and distinct seasons, Montreal is deserving of a metro station that embodies the energy of the city above. From the vivid blossoms of spring to the tranquil cover of snow in winter, both locals and tourists to the city are used to the kaleidoscope of colours and emotions that follow each passing season. The proposed subterranean skylight roof aims to seamlessly blend Montreal's above-ground beauty with its underground infrastructure. Through the creative use of light, colour, and innovation, this project aims to submerge the spirit of Montreal's shifting seasons, offering both tourists and commuters an engaging and immersive experience. Individuals entering the metro station will be greeted not only by the efficiency of public transit, but also by a visual voyage through Montreal's ever-changing environment over the seasons.

The architectural idea relies around a number of skylights built on the metro station's roof. These skylights are more than simply practical pieces; they act as dynamic canvases, casting varied colours and patterns depending on the season. As commuters approach the station, they will be immersed in a symphony of colours and patterns that reflect the natural environment above ground. Each skylight serves as a doorway, encouraging travellers to embark on a sensory trip through Montreal's seasons, from the bright colours of autumn leaves to the gentle pastels of spring blooms. By seamlessly merging nature-inspired designs with cutting-edge technology, the underground skylight roof offers a harmonic combination of the natural and the urban, improving the commuter experience while honouring Montreal's distinct personality.

The Subterranean Skylight Roof project combines art, technology, and urban architecture, redefining the metro station as a dynamic and engaging venue that captures the essence of Montreal's seasons. This concept challenges established architectural standards by seamlessly merging cutting-edge LED lighting technology, elaborate pattern projection, and variable skylight angles to provide a completely immersive experience. The skylight roof of the metro station is more than just a practical feature that lets in natural light and airflow; it's a canvas for artistic expression that makes the station a living, breathing piece of art that changes with the seasons. In addition to improving the space's visual appeal, the interaction of light, colour, and pattern makes passengers feel more connected to nature and improves their everyday journey. the Subterranean Skylight Roof project's cutting-edge elements go beyond aesthetics to provide real advantages in terms of comfort and sustainability. The initiative helps the city achieve its environmental goals by lowering energy consumption and carbon impact by utilizing natural light instead of artificial lighting as much as possible. The Subterranean Skylight Roof has the potential to become an iconic monument within Montreal's transportation system, signifying the city's dedication to innovation, sustainability, and quality of life. This is because of its unique design and transforming impact. This project, which is a shining example of both ingenuity and practicality, not only improves the metro station but also Montreal's urban environment by creating a place that will appeal to locals and tourists for many years to come.



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Color-changing Panels:

The skylight panels are equipped with LED lighting technology that can change colors seamlessly. During spring, soft pastel hues reminiscent of blooming flowers can fill the station. In summer, vibrant tones evoke the energy of festivals and outdoor activities. Autumn brings warm earthy tones, while winter sees cool blues and whites reminiscent of snow.



Pattern Projection:

Beyond colors, the skylights can also project patterns onto the station floor, simulating falling leaves in autumn, snowflakes in winter, or flower petals in spring. These patterns add an extra layer of ambiance, immersing commuters in the seasonal atmosphere.



Adjustable Angles:

To adapt to the changing angle of sunlight throughout the year, the skylights are equipped with mechanisms that adjust their angle or intensity. This ensures optimal natural light penetration while minimizing glare and heat during the summer months.



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