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Paisley Mill

Architecture - Studio 6 Project

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Winter 2022

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*Sheridan College*

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# 3D Wall Section Assembly Details



## • GREEN ROOF

- 200mm PLANT MATERIAL
- 50mm (2 in.) GRAVEL
- 1mm VAPOUR BARRIER
- 50mm RIGID INSULATION
- 1mm SLIGHT SLOPE AND DRAIN FOR WATER
- 50mm METAL DECKING
- SUPPORT JOISTS (REFER TO STRUCTURAL DWGS)

## • GREEN WALL

- 20mm WOOD HORIZONTAL SIDING (ORIGINAL)
- 25mm (1 in.) AIR SPACE
- 50mm (2 in.) RIGID INSULATION
- 6mm (1/4 in.) PLYWOOD SHEATHING
- 38x 140 mm (NOMIAL 2X6 in.) STUDS@ 600mm (24 in.) O.C. w/ SPRAY FOAM INSULATION
- A/V BARRIER
- 16mm (5/8 in.) MOLD RESISTANT BOARD
- 20mm (1 1/2 in.) PLANT MATERIAL

## • EXTERIOR HORZ. WOOD SIDING WALL

- 20mm WOOD HORIZONTAL SIDING (ORIGINAL)
- 25mm (1 in.) AIRSPACE
- 50mm (2 in.) RIGID INSULATION
- 6mm (1/4 in.) PLYWOOD SHEATHING
- 38 x 140 mm (NOMIAL 2 X 6 in.) STUDS@ 600mm (24 in.) O.C. w/ INSULATION
- AN BARRIER
- 12.7mm (1/2 in.) GYPSUM BOARD

## • FOUNDATION WALL

- 50mm (2 in.) RIGID INSULATION
- DAMPPROOFING
- 200mm (8 in.) POURED CONCRETE
- FOUNDATION WALL (AB)
- 0.15mm POL YETHELENE (MB) PERFORATED ABOVE GRADE
- 38 x 89 MM (NOMIAL 2 X 4 in.) STUDS@ 600mm (24 in.) O.C.
- FIBREGLASS INSULATION
- POL YETHELENE (VR)
- 12.7mm (1 1/2 in.) GYPSUM BOARD

Focusing on *harmony* between architecture and nature, we strive to put sustainability in the forefront with this design of the Paisley Butterfly Conservatory. In this wall section we highlight the green roof, the green wall, and rainwater recycling. Keeping the original Paisley Mill's timber construction and wood siding we hope to reduce the amount of waste needed in construction. Through use of a green roof, we will allow the rainwater we harvest to irrigate the green wall. Designed using new, emerging green wall technology a large portion of the walls in the butterfly conservatory will be layered with substrate, growing medium, and hydroponics to create a lush environment for our butterflies. Large glass and metal east-facing entrance wall along with skylights allows for ample sunlight to enter the conservatory. The feature sculptures and furniture will be made from the repurposed mill equipment in association with local community artists.

The conservation education areas will also allow for children's school field trips and patrons of any age to walk the local trails and get a glimpse of local wildlife. In creating a space for the public to engage with and experience *harmony* with butterflies we are hoping to convey passion for conservation and biodiversity.

