Winter 2022

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PAISLEY MILL
3D SECTION

The 3D wall section cuts through the adjacent part of the existing and new construction on the northeast side of the building. The main intent of the section is to demonstrate how the existing and the new parts of the building are integrated into each other on the basis of spatial design and wood frame construction. Also, this section puts emphasis on the differentiation of separation of the exterior and the interior of the building. It shows the balcony areas where the tourists and the locals can enjoy the view of the Teeswater river and the natural scenery around while sipping a beverage or reading a book. The section illustrates the fire rated wall assembly separating the exterior exit stair running through the balcony areas and the interior spaces. The heavy timber construction shown in the section through the first-floor attempts to preserve the existing construction as well as meet the required building codes and the structural requirements. While on the upper floors, new interior structure is developed, and the quality and the fire rating of the exterior is increased. The roof and foundation construction is restored in such a way via detailing techniques such as the rainscreen principle and the in order to prevent moisture seepage into the interior. Moreover, a Passive Haus heating approach is made via envelope detailing in order to reduce the energy consumption.

ASSEMBLIES:

R_1-ROOF ASSEMBLY
16mm ASPHALT SHINGLES -RED
ROOFING FELT MEMBRANE
2-50mm RIGID INSULATION
w/ SEEMS OFFSET
38x286mm ROOF RAFTERS w/
CEILING INSULATION AND
INSULATION BAFFLES
38x286mm CEILING JOIST
16mm PLYWOOD SHEATHING
AIR BARRIER
13mm DRYWALL

W_1-EXTERIOR WALL ASSEMBLY
19mm WOOD CLADDING
25mm AIR SPACE
AIR BARRIER
2-75mm RIGID INSULATION
16mm PLYWOOD SHEATHING
38X286mm WOOD STUDS c/w
BATT INSULATION
6mil. VAPOUR RETARDER
13mm DRYWALL

W_2-FOUNDATION WALL ASSEMBLY
10mm PLASTER FINISH
2-75mm RIGID INSULATION
WATER PROOFING
300mm CAST IN PLACE CONCRETE WALL
50mm RIGID INSULATION
38x89mm WOOD STUD WALL c/w
BATT INSULATION
6mil. VAPOUR RETARDER
13mm DRYWALL

F_1-INTERIOR FLOOR ASSEMBLY
19mm OAK FLOORING
16mm PLYWOOD SHEATHING
38x286 WOOD JOISTS @600mm o.c.
16mm PLYWOOD SHEATHING
13mm DRYWALL

F_2-EXTERIOR FLOOR ASSEMBLY
19mm BIRCH WOOD FLOORING w/
WEATHER RESISTANT COATINGS
16mm PLYWOOD SHEATHING
38x286 WOOD JOISTS @600mm o.c.
16mm PLYWOOD SHEATHING-FINSIHED

F_3-SLAB-ON-GRADE FLOOR ASSEMBLY
150mm CAST-IN -PLACE CONCRETE SLAB
6mil VAPOUR RETARDER
75mm RIGID INSULATION
100mm COMPACTED GRAVEL
UNDISTURBED EARTH