

# Exterior Wall Section Sample

THIS CONVENTIONAL WOOD TRUSS ROOF SYSTEM IS INSULATED ABOVE THE CEILING. THE ATTIC SPACE IS VENTILATED. A VAPOR BARRIER (POLYETHYLENE SHEET) IS PLACED ABOVE THE CEILING GYPSUM BOARD ON THE INTERIOR (WARM) SIDE OF THE INSULATION.

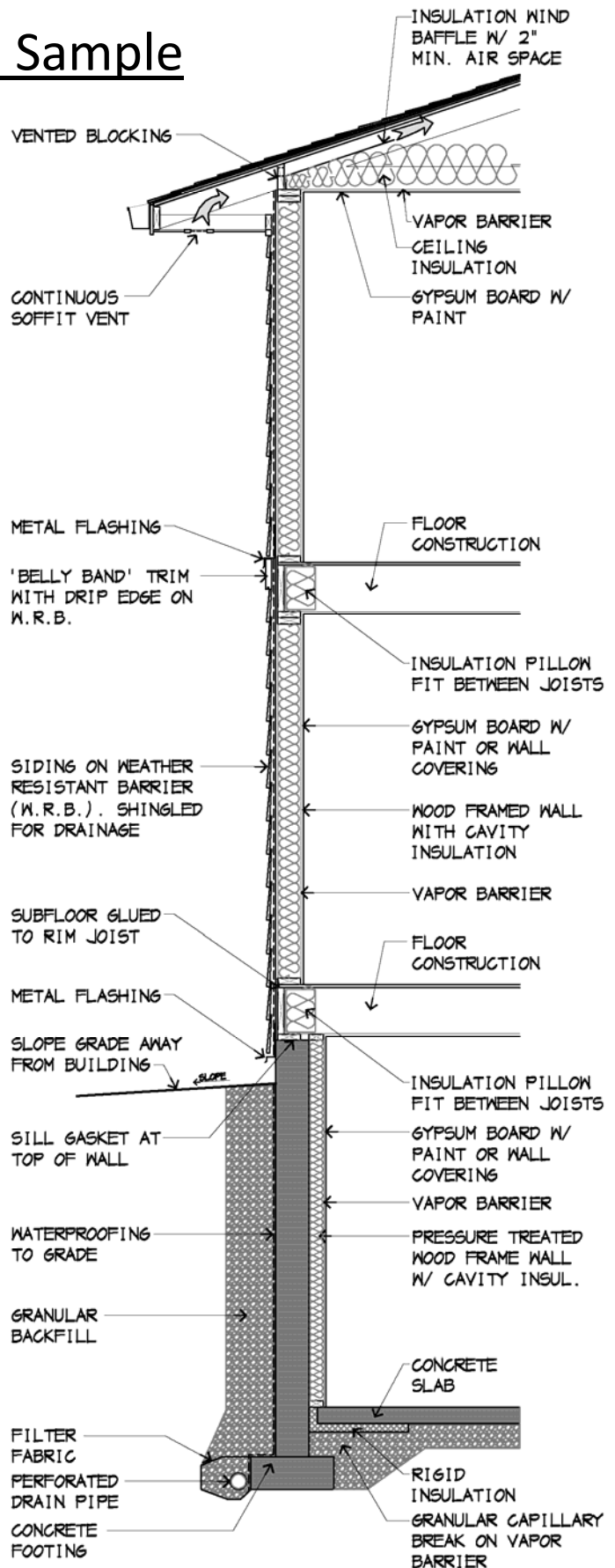
## KEY CHARACTERISTICS:

- THE ATTIC IS VENTILATED PROMOTING DRYING TO THE EXTERIOR.
- THE VAPOR BARRIER ACTS AS A AIR RETARDER TO CONTROL AIR MOVEMENT AND ALSO ACTS AS A VAPOR DIFFUSION RETARDER.
- AIR MOVEMENT IS FURTHER CONTROLLED BY LIMITING AND SEALING ALL PENETRATIONS BETWEEN THE CONDITIONED SPACE AND THE ATTIC.

THIS CONCRETE BASEMENT WALL ASSEMBLY ILLUSTRATES CAVITY INSULATION IN A WOOD FRAME WALL ON THE INTERIOR SIDE OF THE FOUNDATION WALL. CAVITY INSULATION IS PLACED BETWEEN THE JOISTS ON THE RIM SIDE INTERIOR. A LAYER OF RIGID INSULATION IS ALSO SHOWN AT THE PERIMETER OF THE CONCRETE FLOOR SLAB.

## KEY CHARACTERISTICS:

- RAINWATER IS CONTROLLED BY GUTTERS AND DOWNSPOUTS, IMPERMEABLE CAP OVER BACKFILL, AND GRADE SLOPING AWAY FROM THE BUILDING.
- GROUNDWATER IS CONTROLLED BY FREE DRAINING BACKFILL AND A DRAIN PIPE AT THE FOOTING.
- CAPILLARY SUCTION IS CONTROLLED BY A WATERPROOF COATING ON THE EXTERIOR WALL, A BREAK OVER THE FOOTING, A BREAK OVER THE TOP OF THE CONCRETE WALL AND A LAYER OF GRAVEL UNDER THE SLAB.
- AIR MOVEMENT IS CONTROLLED BY SEALING THE SILL/RIM JOIST AREA.
- VAPOR DIFFUSION FROM THE SURROUNDING SOIL IS CONTROLLED BY THE WATERPROOF COATINGS ON THE WALL EXTERIOR AND THE VAPOR BARRIER AT THE CAPILLARY BREAK.
- VAPOR DIFFUSION FROM THE INTERIOR IS PREVENTED FROM ENTERING THE CONSTRUCTION ASSEMBLIES BY A VAPOR BARRIER INSTALLED ON THE INTERIOR (WARM) SIDE OF THE INSULATION.



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