Joseph Lstiburek, Ph.D., P.Eng, ASHRAE Fellow
Building Science
Made In Canada, Eh?

Actually, not really, we copied the wrong idea.

Actually, not really, we copied the wrong idea.

We should have copied the Canadian idea not the Danish idea.

Arkansas Project - USA - 1974 Harry Tschumi Les Blades Frank Holtzclaw

Lyngby House - Denmark - 1975



Lyngby House - Denmark – 1975

Van Korsgaard – Technical University of Denmark

R-40 walls, R-60 roof

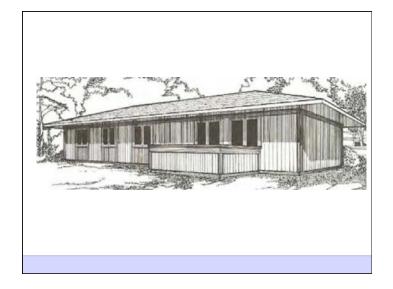
Air to air heat exchanger

Double walls

Double glazed windows with insulating shutters

Solar thermal – 8,000 gal storage tank

Lo Cal House - USA - 1976





Lo Cal House - USA – 1976 Wayne Shick and Bud Konzo R-30 double stud walls R-30 vented roof Triple glazed windows Air to air heat exchanger Double Wall Patented in US - 1976 Richard Bentley patent discusses airtightness and air-to-air heat exchangers

Saskatchewan Conservation House - 1977



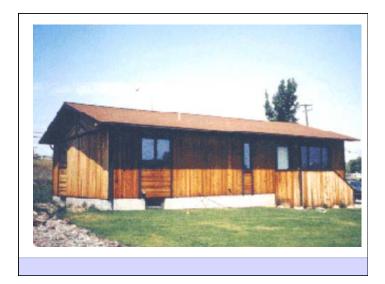
Saskatchewan Conservation House – 1977 R-40 double stud walls R-60 ceiling Triple glazed windows Air to air heat exchanger 0.8 ach@50 Pa Leger House - USA - 1977



Parade of Homes - Saskatoon - 1980

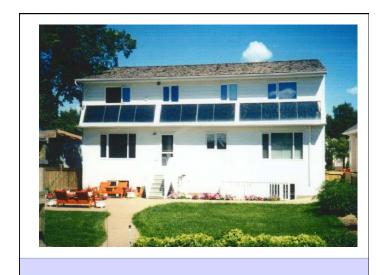


Buffalo Homes - Montana - 1985



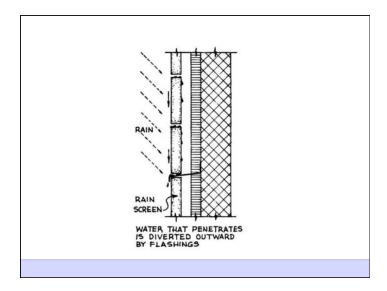
Dumont House - Saskatoon - 1990

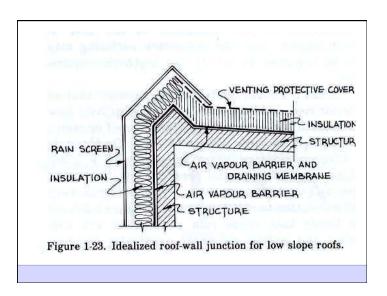


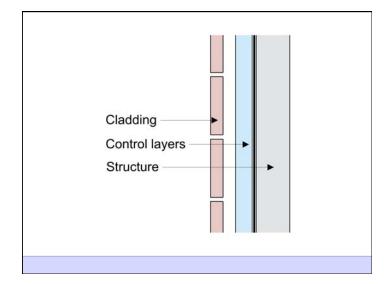


6 of 59

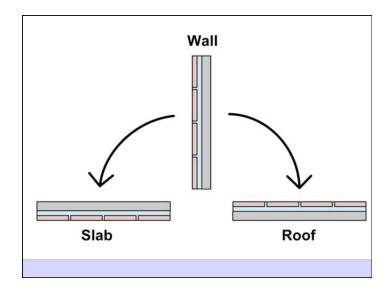
Another point of view.....

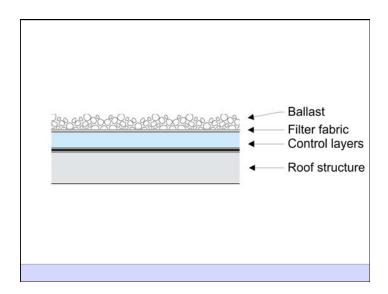


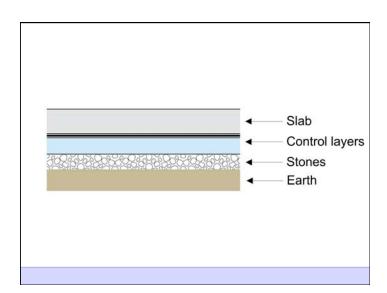


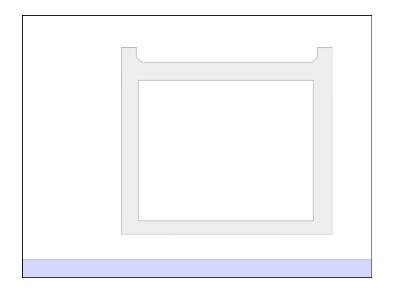


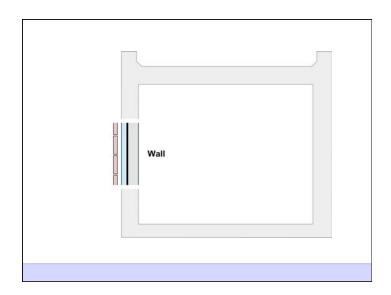
Rain Control Layer Air Control Layer Vapor Control Layer Thermal Control Layer

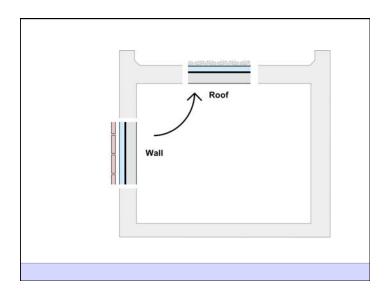


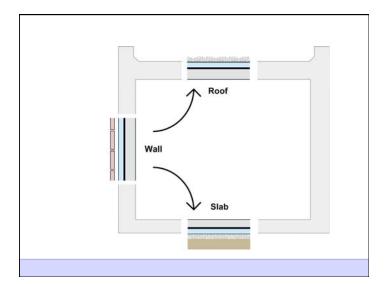


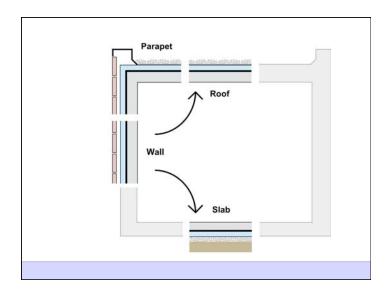


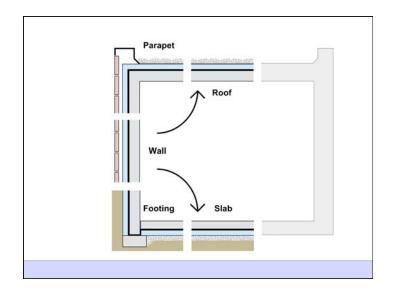


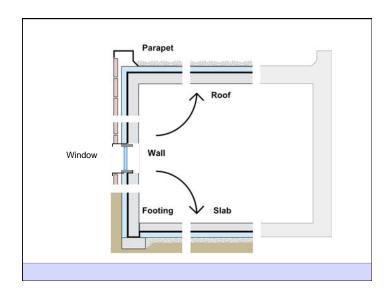


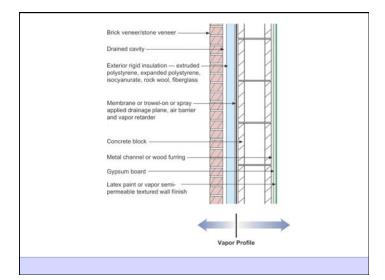


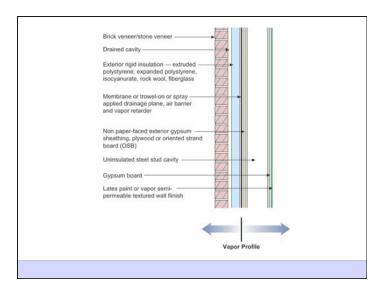


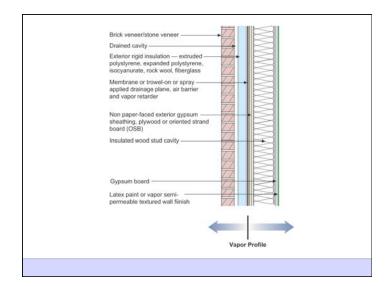












How I Spent 1979, 1980 and 1981

Carnarvon











Schomburg













King City



















Peterborough

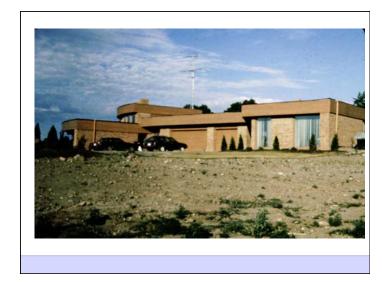


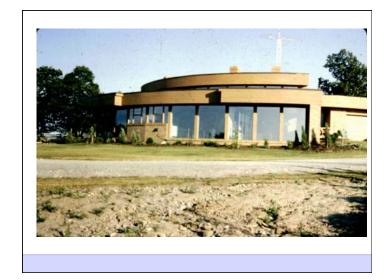














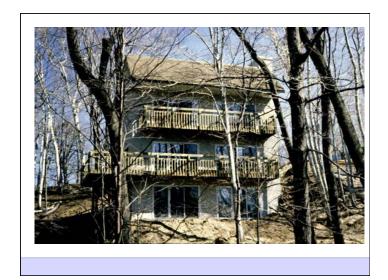






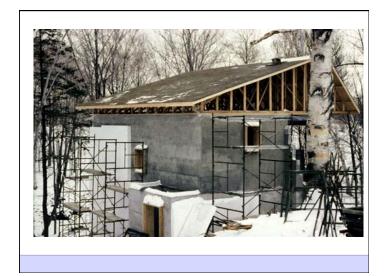


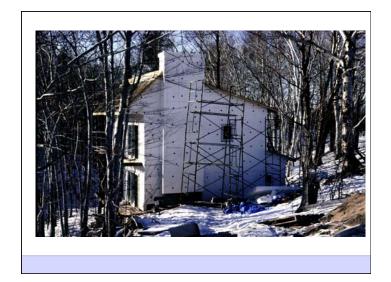
Collingwood















Newmarket















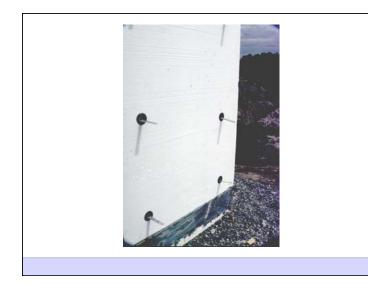












Liverpool, NS





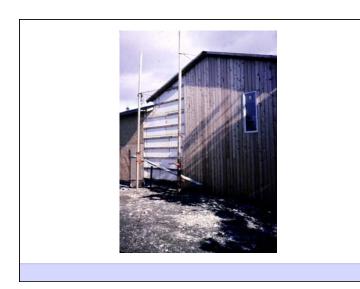








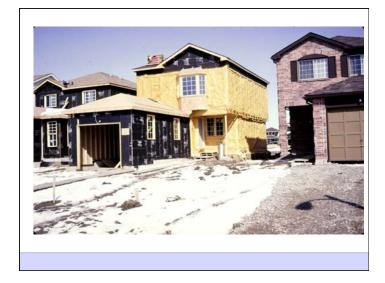








Brampton



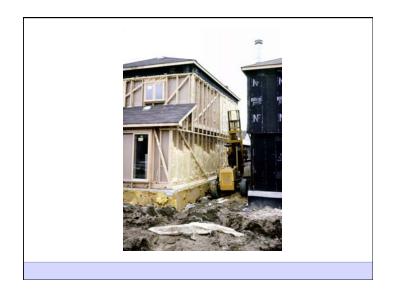










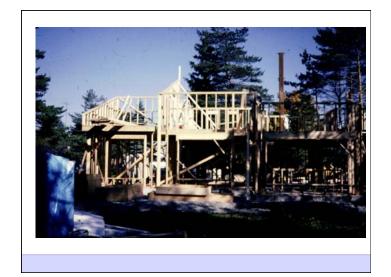


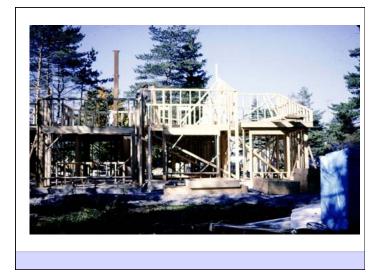
Unionville





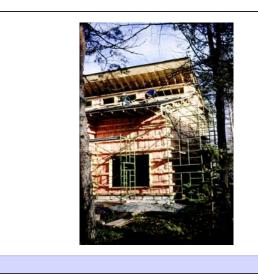




















Creemore



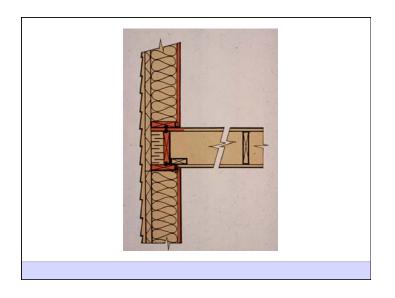












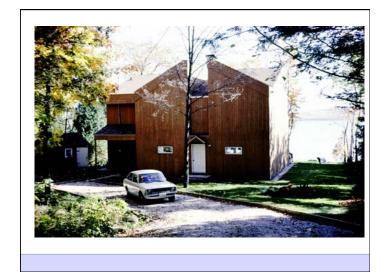


Eastern Townships, PQ





























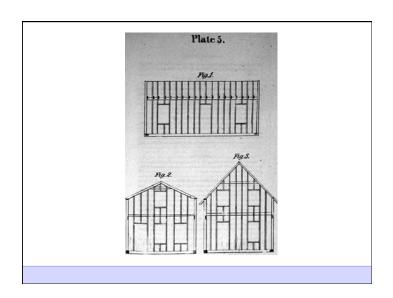


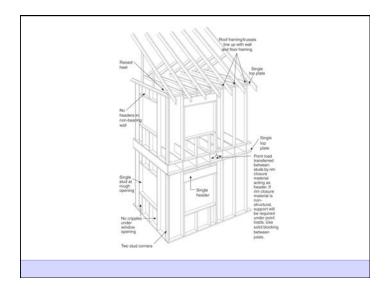






Twenty Five Years Later.....





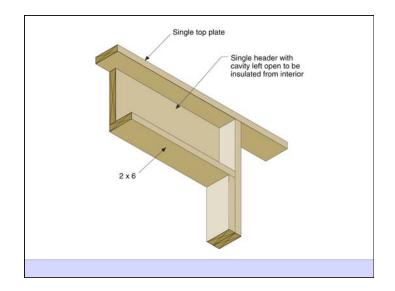


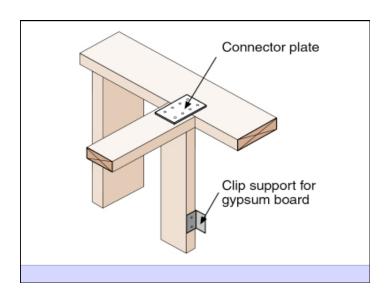


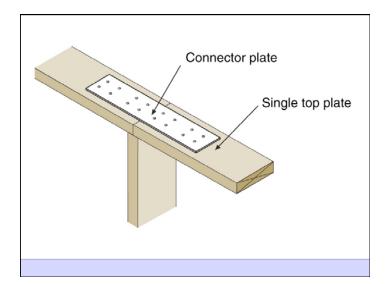


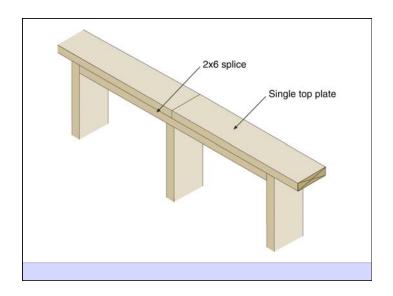


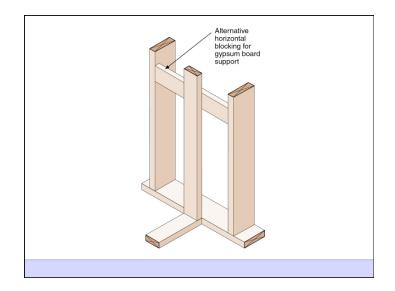
















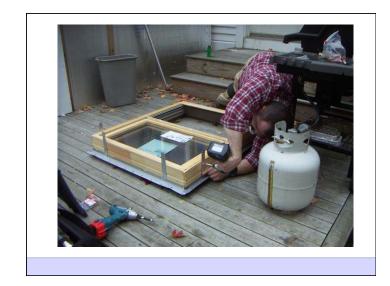


Westford House.....





















47 of 59



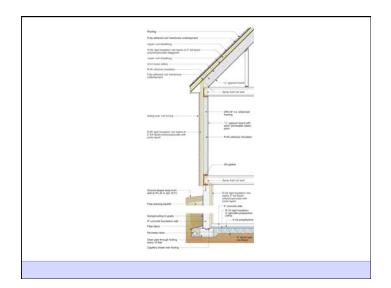












Net Zero Retrofit.....









































































