

"PC2010" PORTABLE CLASSROOMS

The Newest Member of the NRB "2000" Classroom Series is now Greener than Ever

In 2000, we launched the PC2000 – a radically new steel portable classroom with a superior building envelope built to resist moisture intrusion and designed for a service life of over 25 years. Over the past decade, it has become the answer to many of the most critical environmental quality, life cycle performance and maintenance challenges that School Boards face today as they strive to effectively handle fluctuating enrolments. With more than 95% of the cellulose materials removed, it has the durability and performance characteristics to inhibit premature deterioration, including mold contamination, one of the main causes of poor indoor air quality

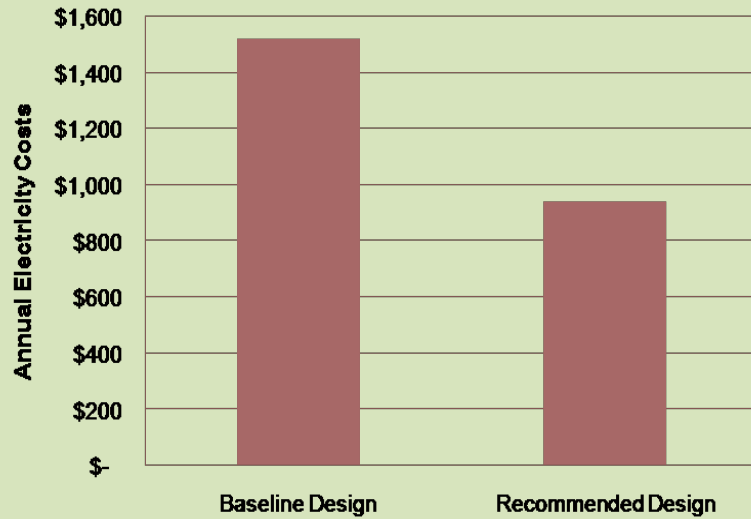
Introducing our New PC2010 –

Over 35% more energy efficient!*

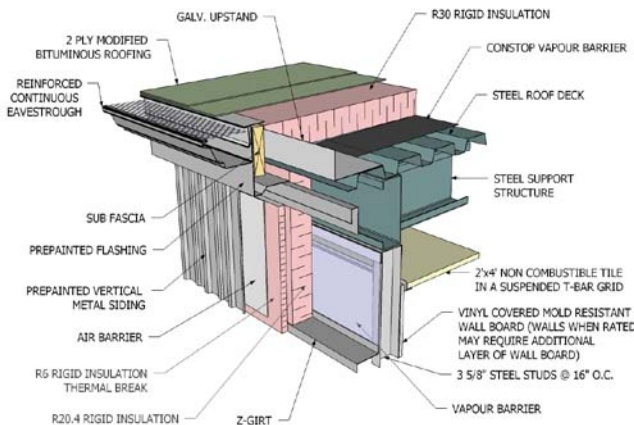
Our NEW PC2010 classroom building technology is the product of over 10 years of continuous research and development. Moreover, it is also a result of the direct input from many school boards where through comprehensive round table discussions; we explored the classroom's form and function, and delved into the need for better energy efficiency and reduced maintenance.

**Energy reduction percentages are based on third party energy modeling using NRCan's EE4 software v1.7. Results may vary depending on location and orientation.*

Three 4' x 5' awning vent high efficiency windows with low-e argon filled glass in fiberglass frames provide better energy savings and day-lighting



Baseline design = PC2000 conventional construction and features
 Recommended design = PC2010 enhanced construction and features



www.nrb-inc.com

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Full specifications and details are available on request.

"PC 2010" DESIGN PRINCIPLES

Full specifications and details are available on request
Additional options are also available.

Sustainable Design Principles Matter

Just like the PC2000, the **PC2010** will help school boards provide students and staff with a quieter, cleaner and healthier temporary learning environment. Its quality building envelope is of the same basic design, but has increased thermal protection, and now with 3 high efficiency windows. In addition to the improved insulating values, the HVAC system has the added features of a high efficiency ECM fan and energy recovery ventilator. Both the Unit Ventilator and the energy efficient lighting have integral occupancy sensors - all resulting in a more energy efficient, environmentally responsible classroom, saving hundreds of dollars per portable each year.

To address some of the primary maintenance issues, the new **PC2010** also has reinforced roof gutters, sheet flooring at the rear entry way and across the back of the classroom for better wear and cleaning ability, all to help reduce the cost of repairs and maintenance.

PC2010 Design Highlights:

- **All steel non-combustible** construction providing exceptional strength and longevity, with optimal levels of *recycled content* for greener construction.
- **Superior Insulation** – Walls - R-26.4 (3.3" rigid insulation within the "Z" bars, plus a layer of 1" over the "Z" bars to prevent thermal bridging). Roof assembly has R-30 rigid insulation to the exterior of the steel deck. This application moves the "dew point" away from the wall and roof cavity preventing possible condensation, while leaving open space for cables or wire. Floors are R-28 steel building insulation.
- **Low Maintenance Interiors** - wall finish is paperless mold resistant vinyl covered gypsum board, placed on a ¾" plastic strip to prevent wicking of water. Floor is a combination of 6' of sheet flooring at the rear entry area of the classroom for traffic and cleaning, with standard VCT throughout the balance.
- **Energy Efficient HVAC system** is a self contained unit ventilator with 10 kw of heating and 3 tons of cooling, plus a high efficiency ECM fan, RERV energy recovery unit, CO2 and occupancy sensors, and set back thermostat.
- **High efficiency awning-vent windows**, and a commercial grade door and levered lockset.

PC2000 and PC2010 Construction
Technology can also be used for temporary
multi-classroom complexes, daycares,
cafeterias and more!



When asked at a 2010 Product Development Forum conducted on Portable Classroom Design Strategies – this is what School Board Officials said:

75% in the survey agreed that steel construction is a #1 benefit, and 100% agreed it's in the top 3, for life cycle durability and resistance to deterioration!

A classroom producing energy savings with reasonable upfront costs that offer a payback in less than half its minimum 30 year life cycle is very beneficial.

One hour fire rating is a key feature for site flexibility and municipal approvals

Reducing maintenance and providing abuse or vandal resistance are very important design principles for their operations.



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