

Panel Clad Enclosures

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Small panel materials

- Metal (aluminum)
- Composite
- Stone or concrete
- Wood or wood composite



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Enclosure Functions

- Support
- Control
 - Heat
 - continuous insulation layer
 - Air
 - continuous air barrier
 - Moisture (rain, construction, vapor)
 - Drainage plane
 - Fire, smoke, sound
- Finish



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Metal panels

- Advantages
 - Non combustible
 - Lightweight
 - Moisture tolerant materials
 - Beware steel connections
 - Prefabricated – speed, weather insensitive
 - Inherently separates primary structure



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Metal Panels

- **Disadvantages**

- Impact
- Small panels more flexibility on site and requires design precision
- Moderate to high cost



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Panel Control

- **Rain**

- Panels watertight
- Deal with the joints!

- **Air leakage**

- Air barrier needed, peel and stick or rigid
- Joints and continuity key

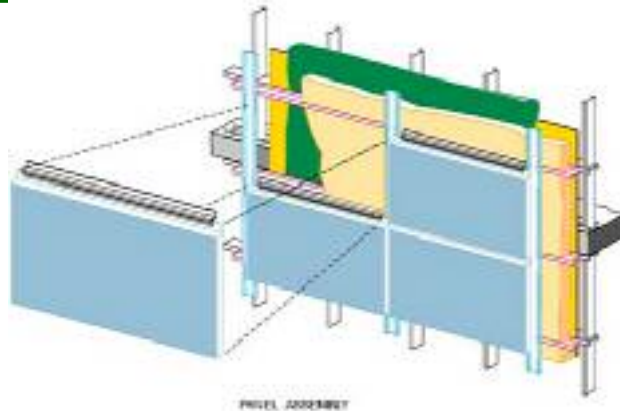
- **Many panels are a vapor barrier**

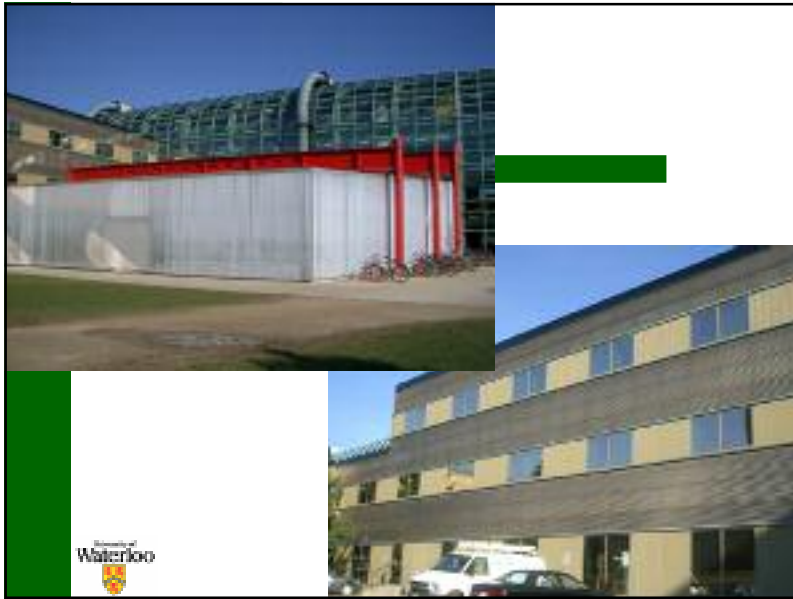
- ventilate

- **Fire Smoke Sound**



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Final Considerations

- **Finishes**
 - Cleaning of smooth surfaces, glare reparability
- **Impact resistance**



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