A decorative graphic on the left side of the slide, consisting of a vertical black line intersecting a horizontal black line. To the left of the vertical line are three overlapping squares: a blue one at the top, a red one in the middle, and a yellow one at the bottom.

# Silverthorne Elementary

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Mike Arnold

*Director of Operations &  
Maintenance*

# Who We Are



OZ/boora Architects

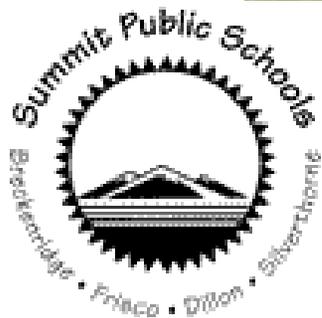
Beaudin Ganze Consulting Engineers

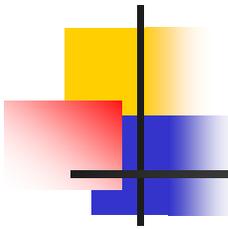
Adolfson and Petersen General Contractor

ARC Construction Managers



# Silverthorne Elementary



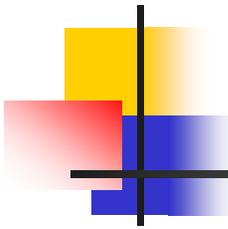


# About the School

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Type:	K-5
Size:	62,000 sq. ft., 2-stories
Student Capacity:	450
Construction Cost:	\$9 million
Completion Date:	June 2004





# Sustainable Design Goals

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## **Energy Efficiency**

- **Using Natural Resources**
- **Whole building energy analysis / Rebuild Colorado**
- **Building envelope, HVAC and lighting systems**
- **Building commissioning**
- **Integrated design process**

## **Quality Indoor Environment**

- **Low toxicity building products**
- **Fresh air ventilation**
- **Natural daylighting**

## **Environmental Responsibility**

- **Indoor water efficiency**
- **Environmentally appropriate landscaping**
- **Efficient transportation**
- **Electric automobile recharging stations**
- **Resource efficient building materials**



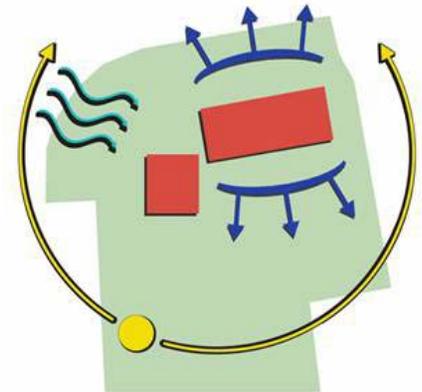
# Orientation

**North and south solar orientation for classroom and instruction spaces allows for direct light that is easily controlled.**

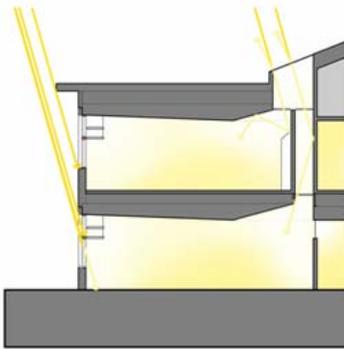
**Increasing the mass and insulation of the building envelope protects the building from the temperature swings at the heat of day and the cold of night.**

**Landscaping blocks winter storm winds and deposits snow at the edge of the property, away from entries and play areas.**

**Building mass opens up to stunning views of the surrounding valley and mountain ranges.**

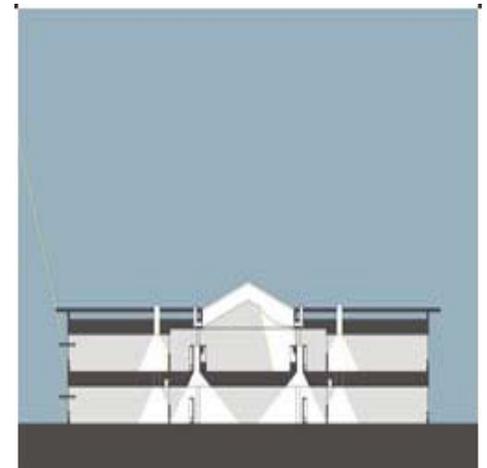
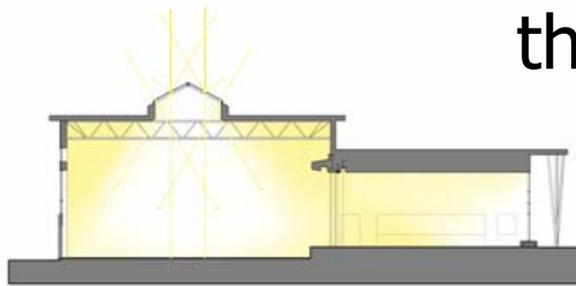


# Daylighting Design

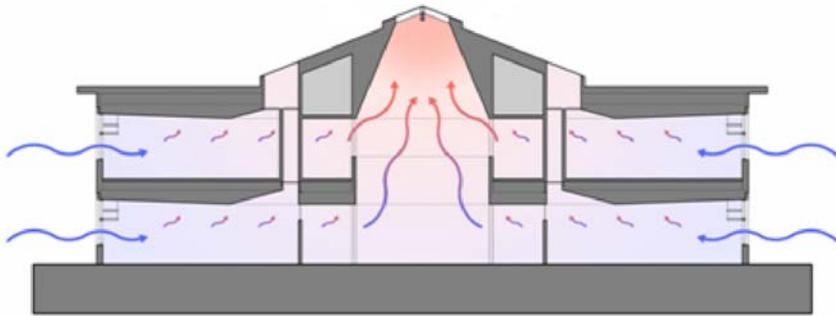


*Guiding principle:*

No electric lights should be needed in classrooms during the day.



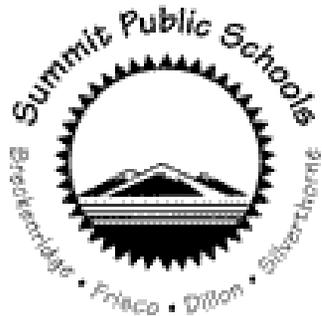
# Natural Ventilation

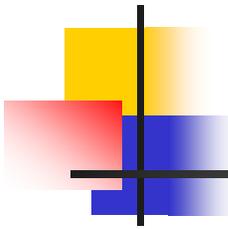


The building has no mechanical cooling, except in the computer rooms and office. Instead, the building relies on natural ventilation from its operable windows.



# Construction Photo





# Our Partners

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