



**Miller Hall 1960**



**Ohio Hall 1938**

**Best Bang for Your Buck The Re-Use of Ohio and Miller Halls**

Fort Valley State University



**Miller Hall 2012**



**Ohio Hall 2012**

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# The Design Team

*Architects* Surber Barber  
Choate & Hertlein Architects

*Interiors* Hillsman

*MEP* SLKing & Associates

*Civil* Pella Design Group

*IT & A/V* J&A Engineering

*Lighting* iLight Studio

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# Ohio Hall Existing Conditions



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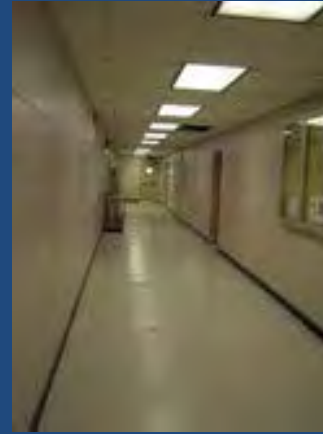


# Ohio Hall Existing Conditions



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# The Task.....

- Insert energy efficient systems
- Address the building envelope
- Accommodate new programs
- Achieve ADA /Code Compliance
- Maintain historic features
- Bring new vitality to old spaces



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# Ohio Hall

## The Program

### ADA and Code Compliance



Entry Floor



Typical Floor

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# Ohio Hall Building Envelope



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# Ohio Hall Maintain Historic Features



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# Ohio Hall Revitalized Spaces



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# Miller Hall

## The Program

### ADA and Code Compliance



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# Miller Hall Energy Study



## Construction Investment VS Energy Payback

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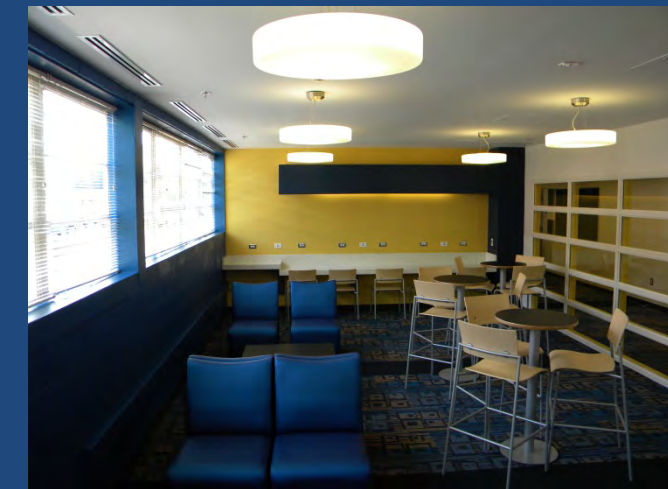
# Miller Hall

## Building Envelope



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# Miller Hall Revitalized Spaces



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# Miller Hall

## Revitalized Spaces





# Best Bang for Your Buck

Ohio Hall Renovation \$160/sq ft

New Dorm Construction

Stick Built \$100-150/sq ft

Institutional Grade \$200-250/sq ft

Miller Hall Renovation \$108/sq ft

New Classroom Construction \$191-215/sf ft

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# Best Bang for Your Buck

## Ohio Hall

Refurbished Windows	\$164,000
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New Windows	\$187,000
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## Miller Hall

Refurbished Windows	\$72,000
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New Windows	\$187,000
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# Best Bang for Your Buck

## Ohio Hall and Miller Halls

Variable Refrigerant Flow System \$40/sf

4-Pipe System \$48/sf



# Best Bang for Your Buck

Ohio

Refurbish Quarry Tile	\$26,290
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New Solid Surface Tile	\$30,156
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# Issues in Renovating Older Buildings in General and Using Ohio and Miller Halls at Fort Valley State as examples



# Outline of this discussion

- **Site – Alternative uses for the land**
- **Building Envelope**
  - Foundation and moisture
  - Floors, walls and structural frame
  - Roof
- **Abatement of Asbestos and lead**
- **Interior Finishes**
  - Floors
  - Walls
  - Ceilings
  - Trim
  - Window and Doors
- **MEP**
- **Life Safety ADA and other code issues**
- **Davis Bacon Act**



# Structure – Foundation & Moisture



From the outside

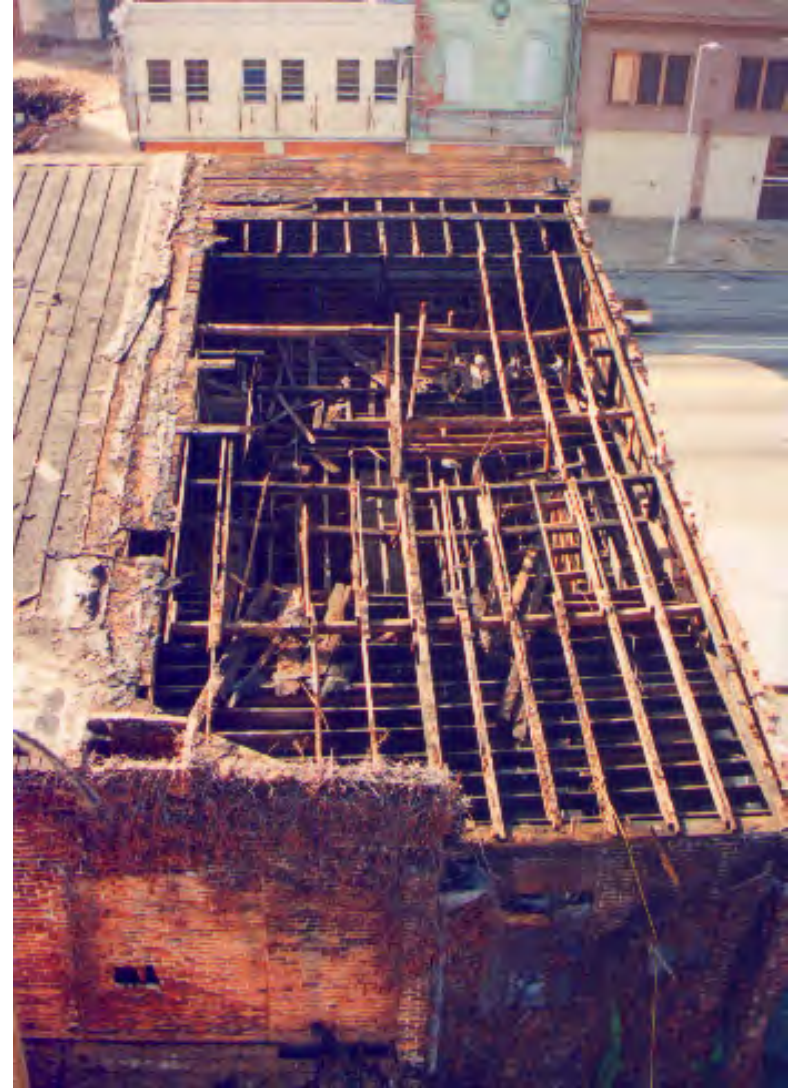
# Structure – Foundation & Moisture



From the inside



# Structure – Roof and Walls





# Structure – Roof and Walls



# Structure – Roof and Walls





# Roof - Slate





# Roof - Metal



# Exterior Sheet metal



**Sand and wash with a good de-glosser.  
Prime with recommended Primer  
2 coats of aliphatic urethane.  
1 coat of clear aliphatic urethane.  
Mercer Admin was installed Fall 1999  
Cost = \$2.25/SF**



# Exterior Wood



Wash **with a good de-glosser.**

Prime with oil based primer

2 coats of 100% acrylic house paint

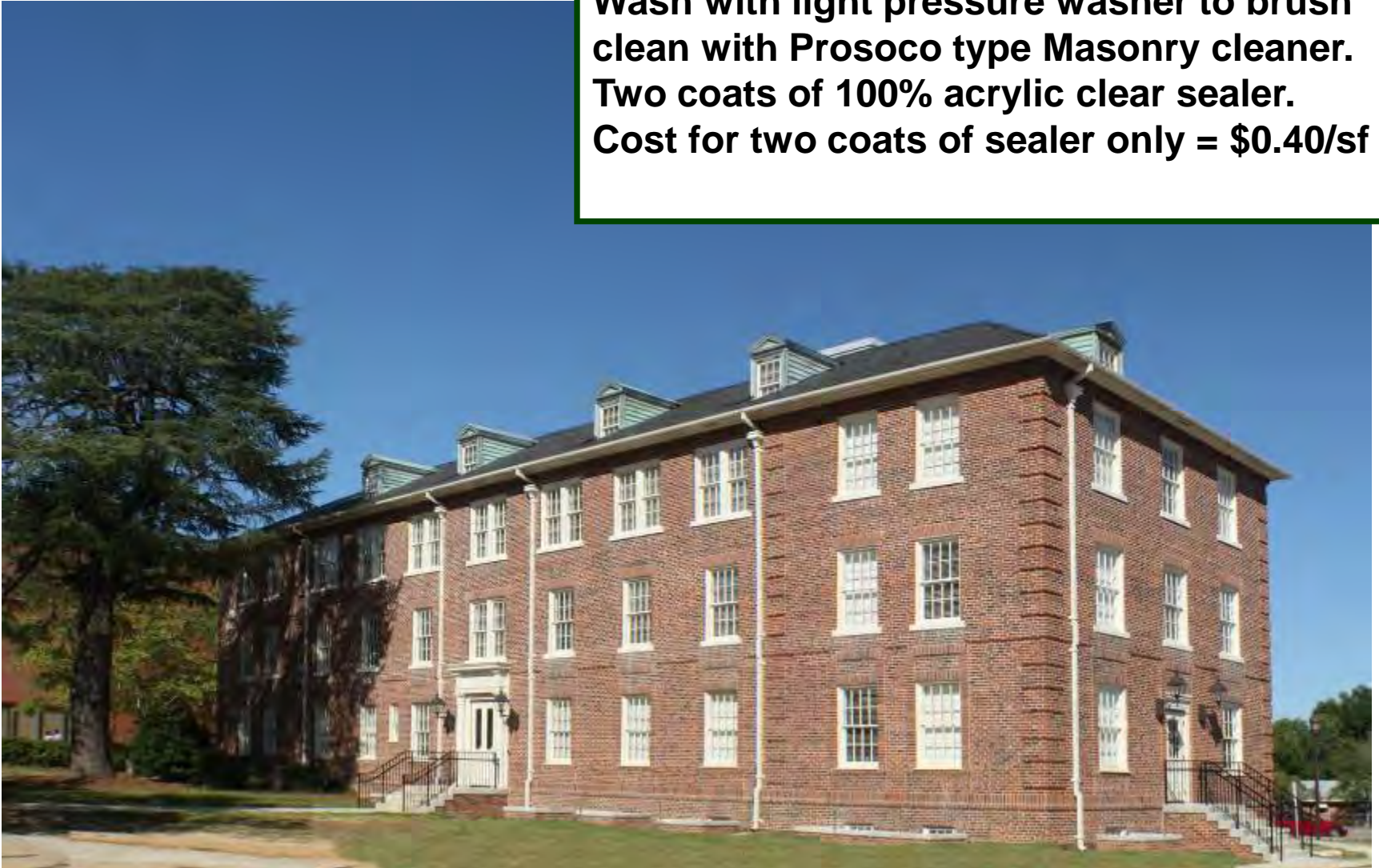
Should last 8-10 Years with touch up only

Cost depends on many factors.



# Exterior Brick

**Tuck point part or all if necessary.  
Wash with light pressure washer to brush  
clean with Prosoco type Masonry cleaner.  
Two coats of 100% acrylic clear sealer.  
Cost for two coats of sealer only = \$0.40/sf**



# Exterior Brick

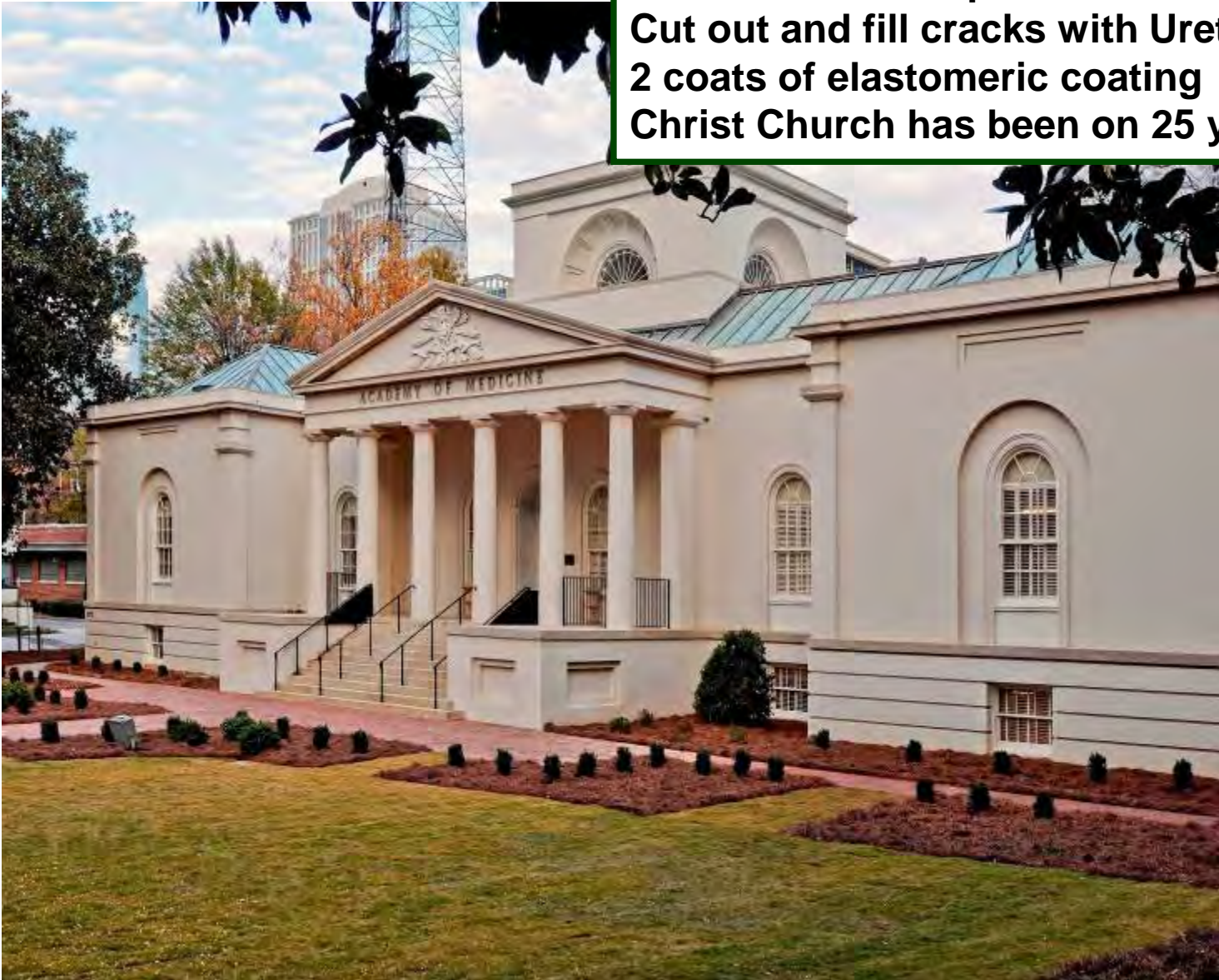


**St. Joe was still working after 10 years  
Hay House absolutely stopped the leaks**



# Exterior Stucco

**Brick: Clean and pressure wash.  
Cut out and fill cracks with Urethane.  
2 coats of elastomeric coating  
Christ Church has been on 25 years**





# Exterior Stucco

**Brick: Clean and pressure wash.  
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# Abatement of Asbestos and lead

Prices vary quite a large amount on lead abatement.

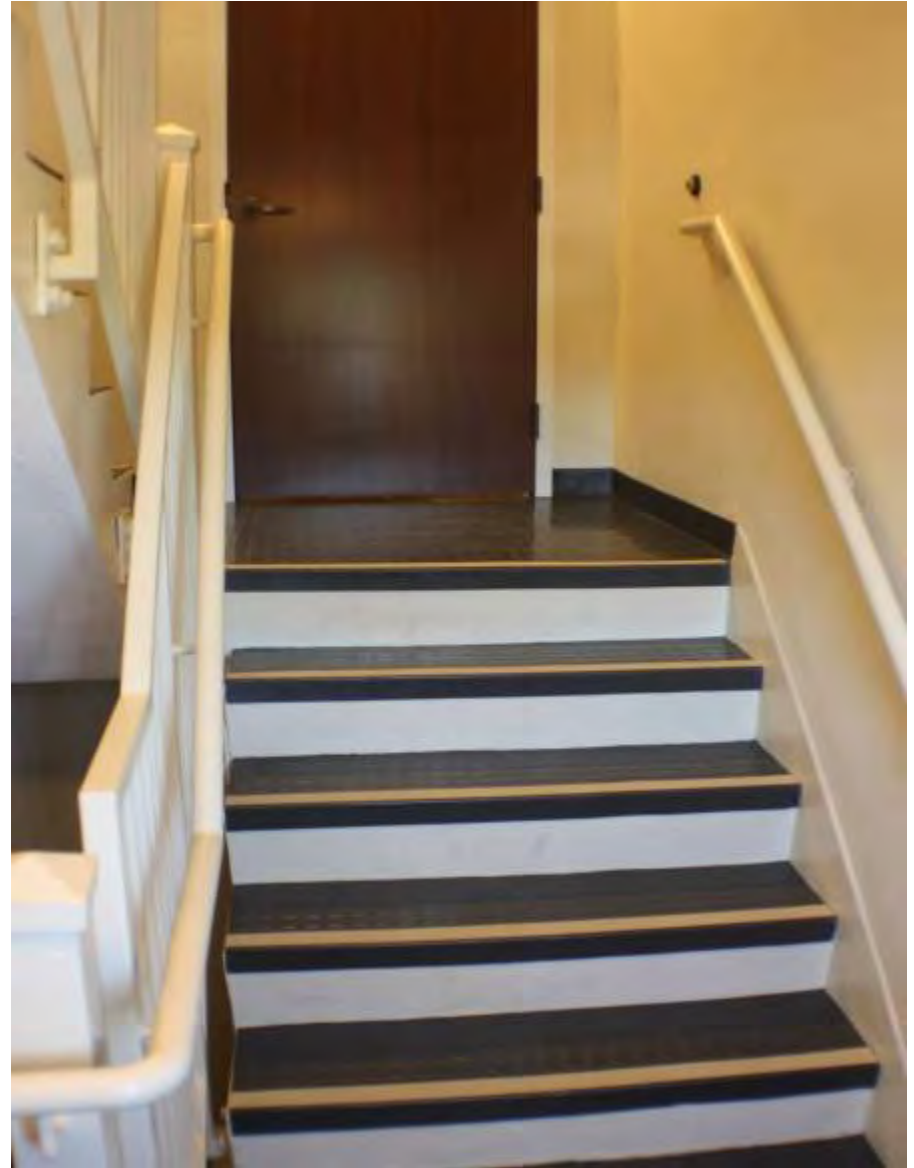
Dannenburg Bldg in Macon the prices varied from \$30,000 to \$250,000.

Remove flaking paint and encapsulate for walls, ceilings and trim.





# Interior Finishes - Floors





# Interior Finishes - Floors

Removed sleepers and topping. Installed leveling concrete.  
Installed VCT over concrete.



# Interior Finishes - Floors

Removed sleepers and topping. Installed leveling concrete.  
Installed VCT over concrete.



# Floors - Wood

- Sand and Refinish floors  
\$1.50 to \$3.00 /SF
- You can sand a floor about 3 times
- If the floor can't be sanded you can hand scrape.
- Most floors we have seen have been sanded 1 time
- Old floors are a full 1" and so can be sanded more
- Engineered wood floors over underlayment can work well.





# Floors - Tile

Removed VCT with hydrochloric acid. Then flooded the floor with mineral spirits and scrubbed with a wire brush. Finally used a floor machine with an open sanding disk.



Cleaned quarry tile floors at Ohio Hall

# Interior Finishes - Walls

Patch Plaster \$1.50 /SF Avg to Bad condition

New Plaster \$3.00 / SF

GWP on furring:

Furring strips \$1.10 per lf

Gyp board installed \$1.00 per sf

Assume 1lf/sf of wall for furring strip

so total cost around \$2.10 per sf

# Interior Finishes – Windows





# Interior Finishes – Windows



Removed Broken Panes and glazing. Removed the rest of the glazing and figured we would break 1/3<sup>rd</sup> of glass. Used hand tools. Re-glazed all windows and painted with oil based paint. Cost averaged 1 man-hr per pane. So assume \$25/hr at 3 panes per window = \$75 per window.



# Interior Finishes – Trim & Doors

Issues with doors and hardware.



# Mechanical Electrical Plumbing

Cost of various HVAC systems..





# Life Safety, ADA, and Other issues



Life Safety and ADA beyond my pay grade.

Davis-Bacon increases costs in two ways:

Initial rate difference

Workers slow down.

# Reuse Benefits to FVSU

Ohio      Maximum number of beds  
Historic Honors Dorm  
Student and Alumni Satisfaction

Miller     High Tech Quality Classrooms  
Revitalized Lecture Hall  
Student Commons  
Quality Faculty Offices  
Faculty and Alumni Satisfaction

Furthered the Goals of the FVSU Master Plan

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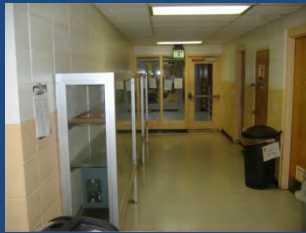
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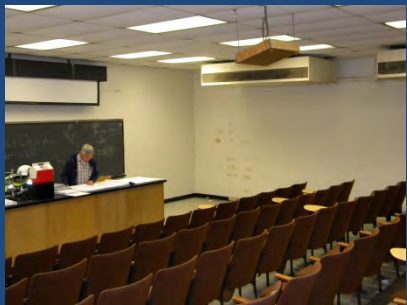


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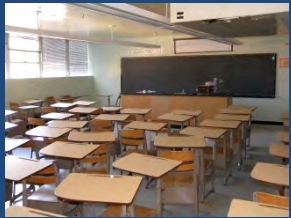


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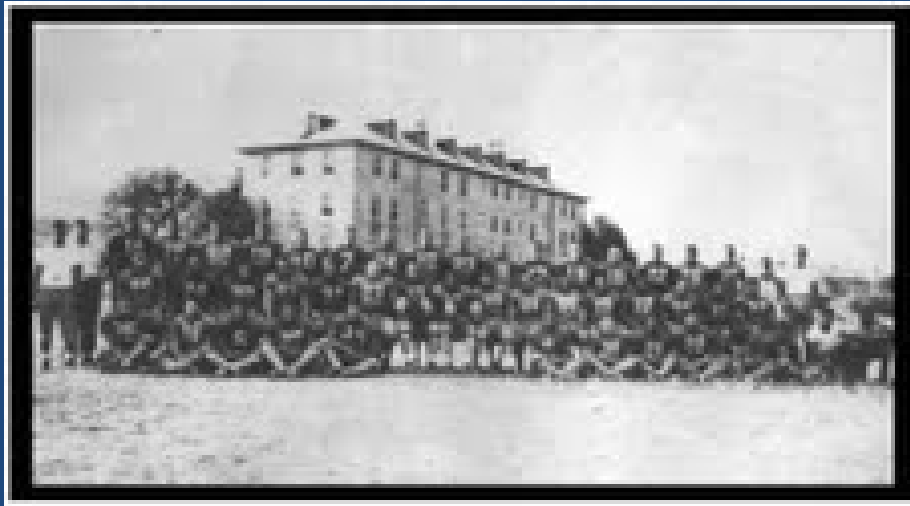


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Value  
Historic Preservation  
Sustainability  
FVSU Satisfaction



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