

Technical Issues in Mid Century Architecture

Hinman Research Building
Georgia Institute of Technology
Gaillard Hall
North Georgia College & State University

Jack Pyburn, FAIA
Lord Aeck Sargent, Architecture



Mid-20th Century Buildings Workshop

Facility Officers Conference/ Columbus, Ga./ 26 October 2011

Hinman Research Building

1939/1951
36,000 SF

First Purpose Built Research Building
Composite Construction
Concrete/Steel/Brick/Tile/Block



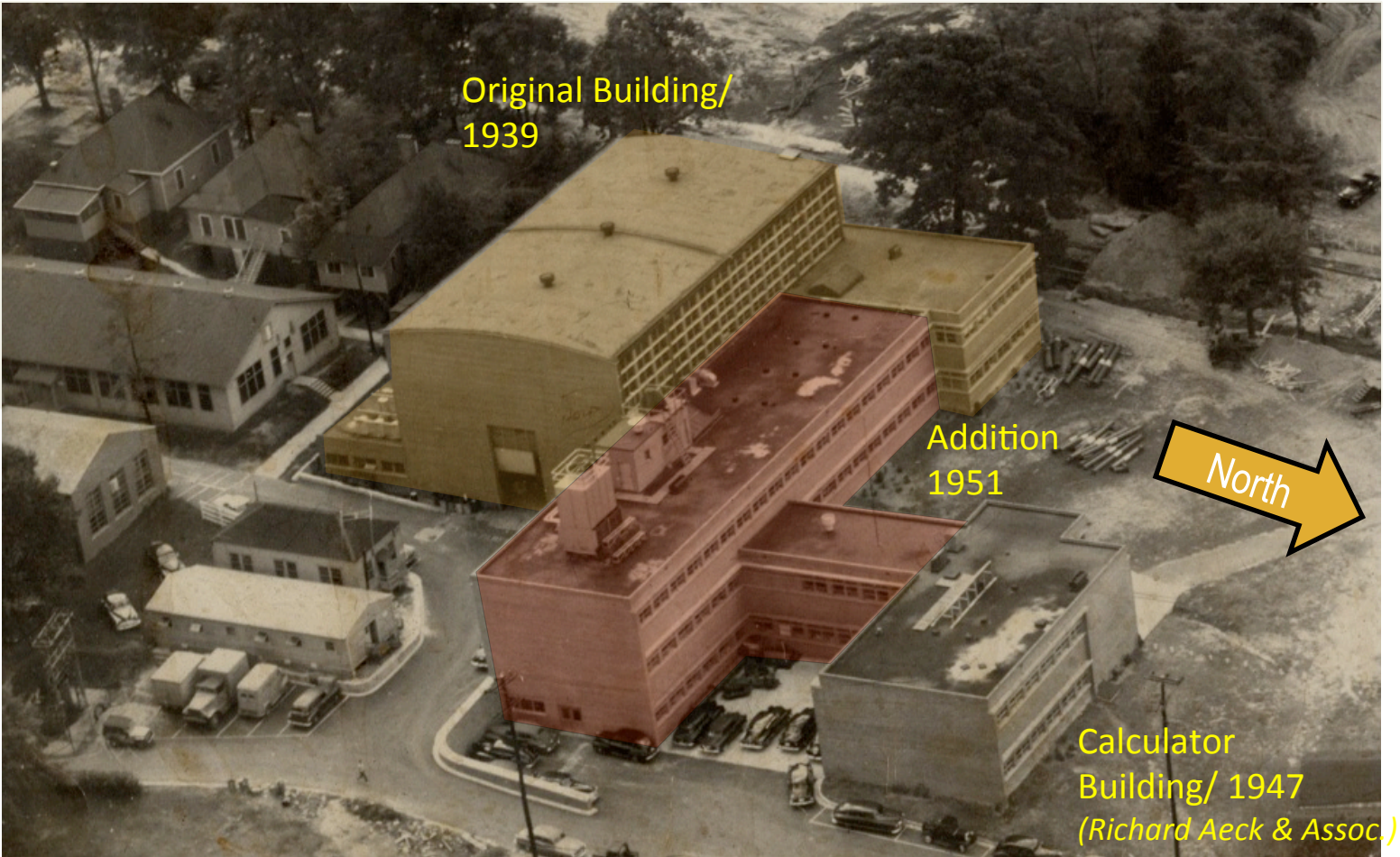
Concrete Deterioration
Steel Window Differed Maintenance
Single Pane Glass
Code Structural Deficiencies



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Hinman Context



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Hinman/ Construction Characteristics

1890	1900	1910	1920	1930	1940	1950
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Concrete

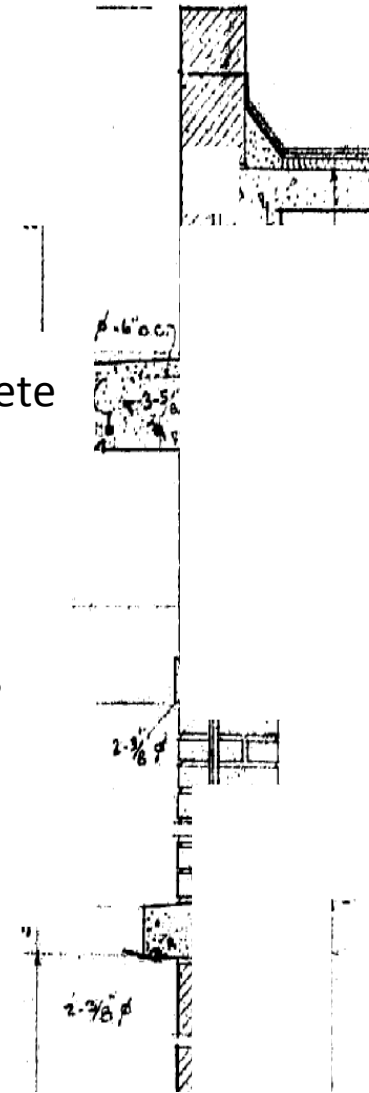
- Structural Concrete
- Architectural Concrete
- Cast in Place
- Precast

Steel

- Structural
- Light Gauge Trusses
- Windows

Masonry

- Structural Clay Tile
- Traditional Brick
- Glazed Tile



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Hinman/ Concrete

Cast in Place Structural
Cast In Place Architectural
Precast Architectural



Precast Architectural Concrete



Detail of Deterioration



Cast In Place Architectural Concrete



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Hinman/ Concrete



Repair



Reconstruction



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Hinman/ Concrete



Restored Architectural Cast in Place Concrete



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Hinman/ Concrete



Restored



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Hinman/ Windows



General Window Condition



Detail



Sash Condition



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Hinman/ Windows



Restored Windows w/ Insulated Glass



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Hinman/ Structural Code Deficiencies



Inadequate Resistance to Sheer



Diagonal Bracing



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Hinman/ Structural Code Deficiencies



Inadequate Unbraced Length



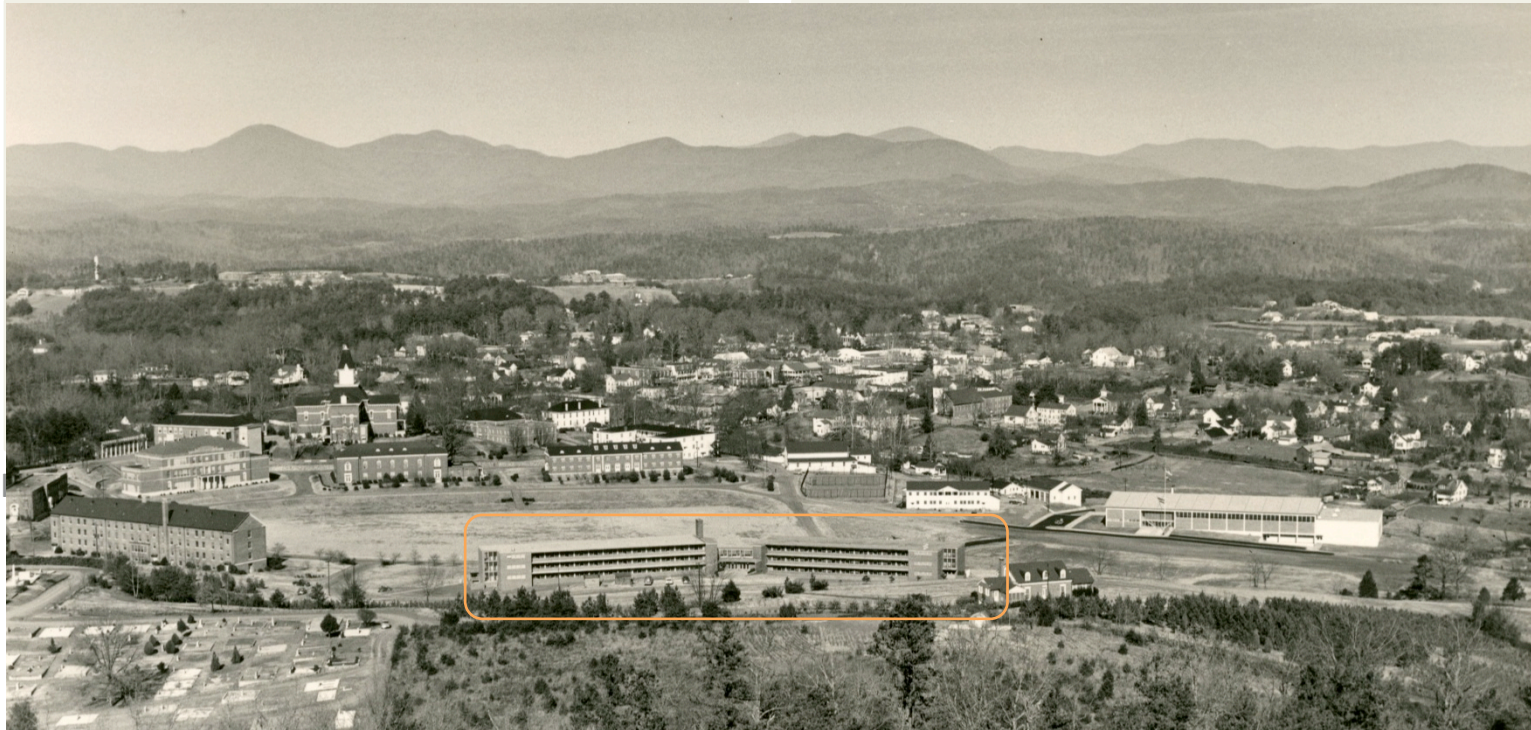
Supplemental Steel Framing



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Gaillard Hall



Constructed in Two Phases 1951/1959
Richard Aeck & Associates
256 Dormitory Rooms, Gang Bathrooms
3 Levels

New Program
• 166 Beds/ Suite Style
• Added Day Rooms

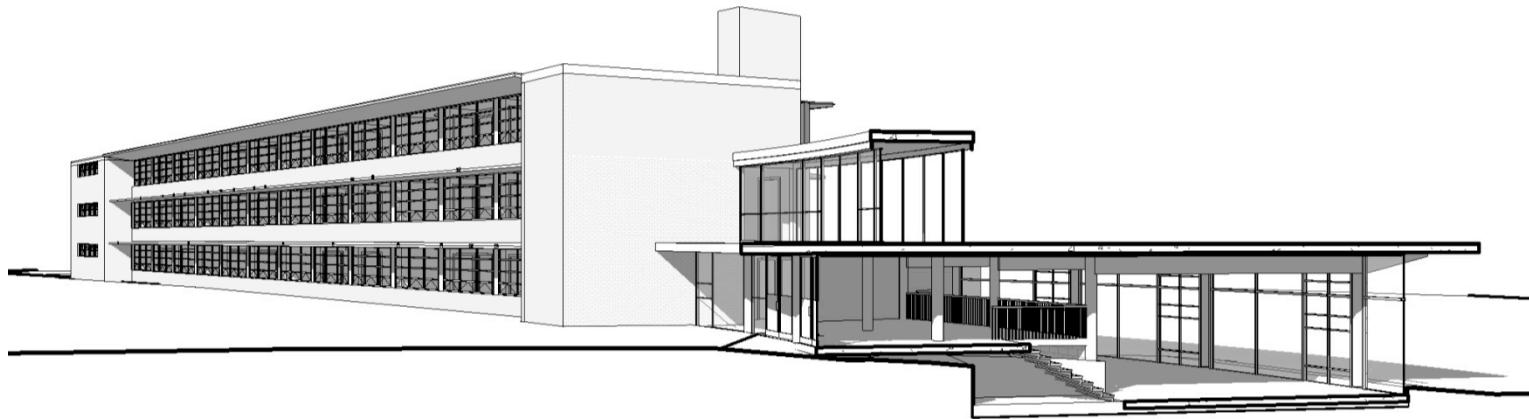


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Gaillard Hall/ Issues

ADA/ Elevator
Windows
Mechanical System
Original Wall Tile
Positive Byproducts of Changes



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Galliard Hall/ Windows



Replacement Windows



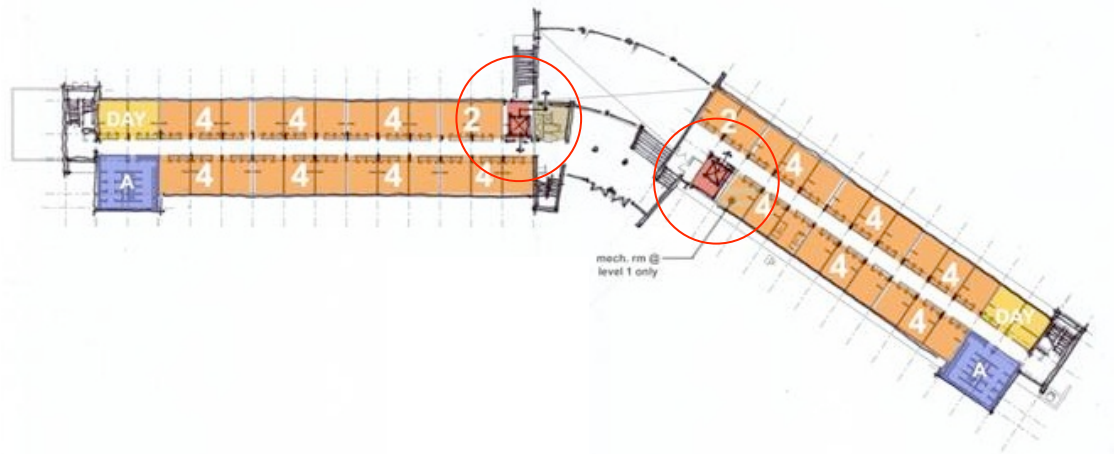
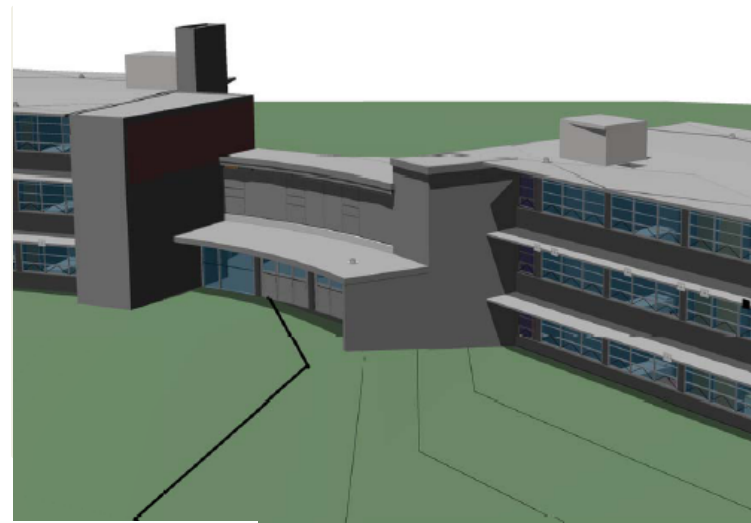
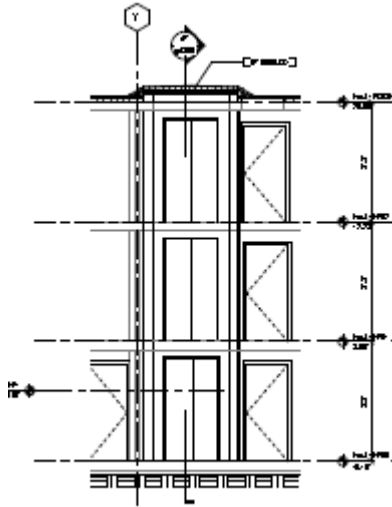
Original Windows



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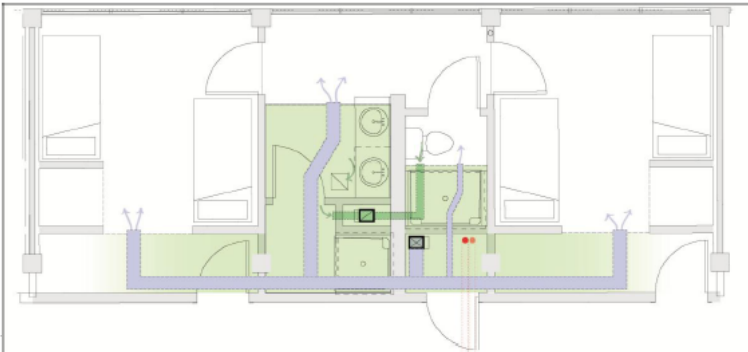
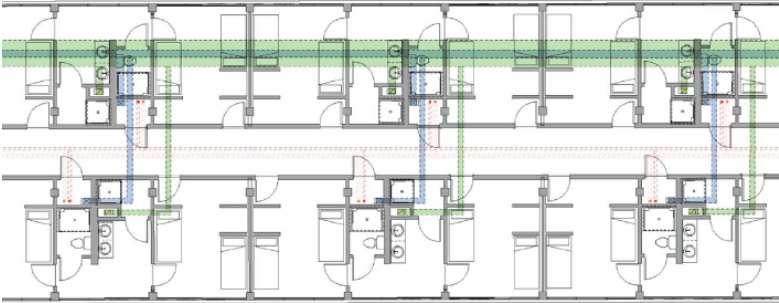
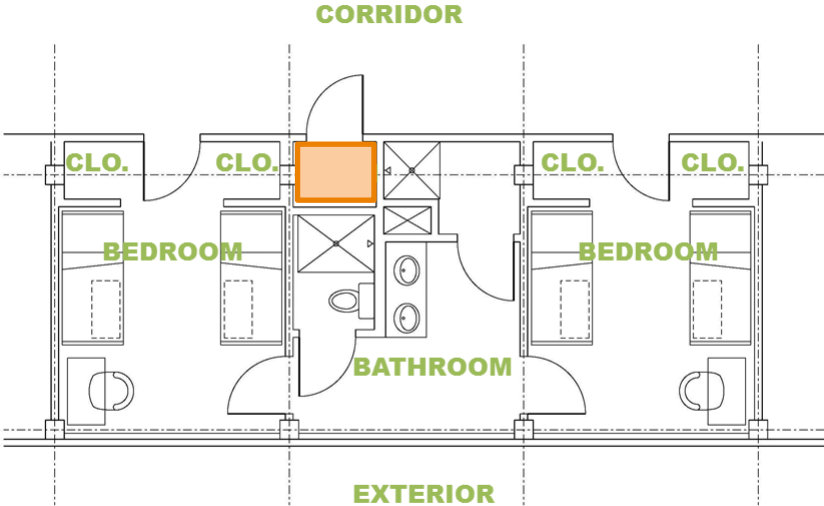
Gaillard Hall/ Elevator



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Gaillard Hall/ Mechanical Systems



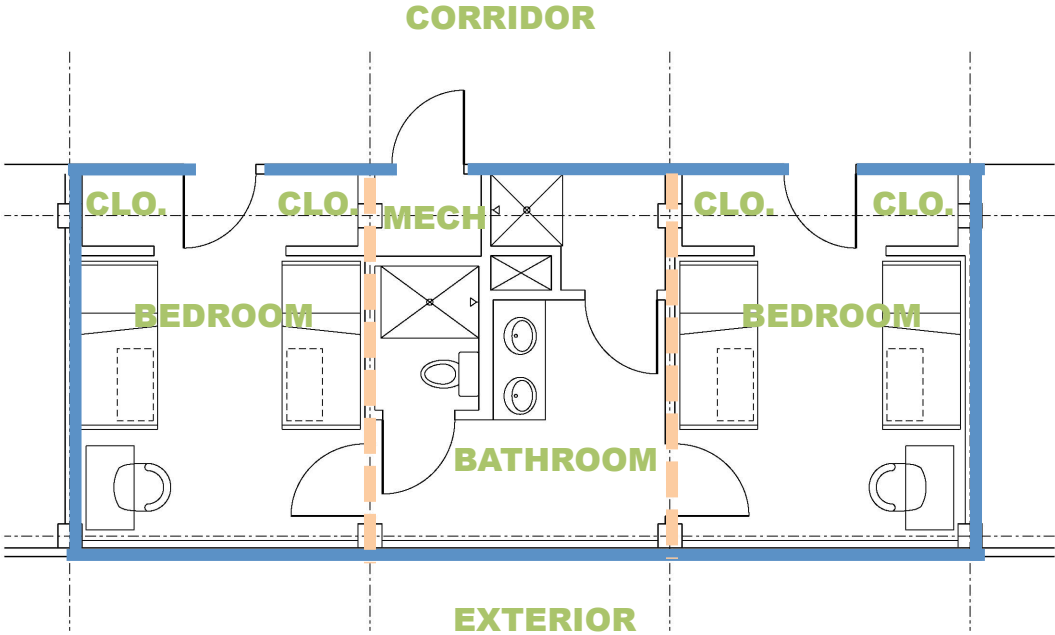
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Gaillard Hall/ Tile



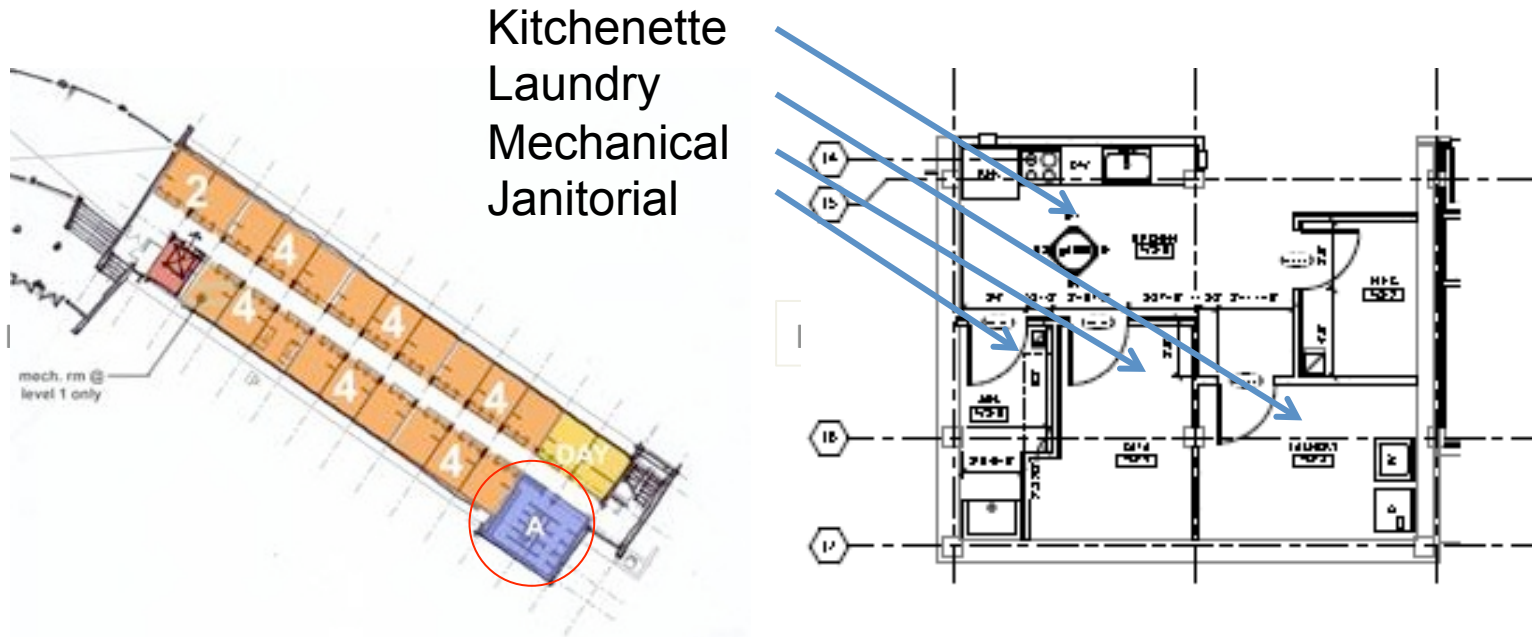
Tile Treatment



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Gaillard Hall/ Reuse of Gang Bathrooms



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