

2012

Presentation to the Senate Capital Investment Committee



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MOCA

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History

- **1984:** Miller Dunwiddie – Study on Public Spaces
- **1988:** Miller Dunwiddie – Comprehensive Plan and implementation
- **2001:** Pre-Design for Interior Restoration of the Capitol
- **2007:** Pre-Design Update and Conceptual Design
- **2007:** Capitol Restoration Working Group
- **2008:** Asset Preservation Work – Exterior Dome
- **2011:** Asset Preservation Work – Deterioration

28 Years of Planning

Capitol Preservation Commission

A Moment in Time

117 years ago a The Board of State Capitol Commissioners came together to make a 100 year decision.

“We built the State Capitol on the theory that nothing was too good for Minnesota.”

Cass Gilbert, Jan. 1901

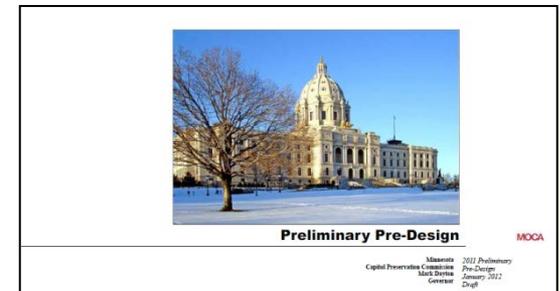
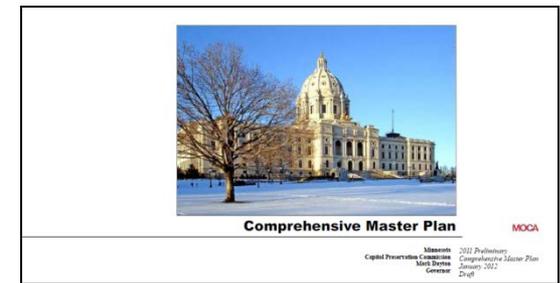


Today the State of Minnesota has a similar opportunity. The Legislature has not only the responsibility to preserve the past but to protect and assure the Capitol's future.

Capitol Preservation Commission Planning Process

The Report from the Capitol Preservation Commission outlines the overall actions of the Commission and recommendations to the legislature as identified in the following documents:

- **Comprehensive Master Plan**
 - 20 year or longer view of the Capitol. Includes restoration, preservation and maintenance; long term planning.
- **Preliminary Pre-design**
 - Restoration focused towards the immediate actions to preserve the Capitol.
- **Design Guidelines and Imperatives**
 - Informative document that address specific critical design elements that are the most important elements of the restoration.



Comprehensive Master Plan

Challenges

- 1. Focus on fixing of the building*** – The Governor challenged the Commission to be Good Stewards.
- 2. We are at a tipping point*** – The Capitol has reached a point in its life, where restoration is critical to extend the life of the building and reduce costs for the next 100 years.
- 3. Work within the footprint of the building*** – No expansion beyond the Cass Gilbert Building.

Capitol Preservation Commission

Planning Process

Guiding Principles

1. Architectural Integrity

- It is critical to preserve the integrity of the building and its great architecture.
- Not everything must be absolutely returned to the 1905 plan.
- The building must work for the next 100 years.
- Consideration should be giving to how Cass Gilbert had planned it in 1905.

2. Building Function

- The building must work to improve and support the function of Government.

3. Life Safety and Security

- The Capitol must be safe from security threats, fire and deterioration of systems.
- It must provide for accessibility of all Minnesotans.
- The building needs to be current on life safety codes.

Findings of the Planning Process

- **The stone exterior is deteriorating rapidly.**
- **The mechanical systems are at the end of their useful life.**
 - Maintenance issues
 - No direct source of outside air in the rotunda
 - The plumbing systems are at risk of leaking
 - Much of the plumbing system is not accessible
- **The electrical systems are inadequately sized.**
 - Electrical service to be upgraded to 480 volts

Capitol Preservation Commission

Planning Process

- **Life-safety systems need to be improved.**
 - No smoke control system
 - Limited sprinkler system
 - Exit stairwells are not code compliant
 - Security design and technology to mitigate security vulnerabilities
 - The Capitol needs to be safe for all
- **Technology systems need to be improved.**
 - Wiring is haphazardly strung/installed
 - Below the level of service now needed
- **Accessibility is inadequate or nonexistent.**
 - 100 years ago, access for the disabled not considered
 - Needs modernization with respect to accessibility

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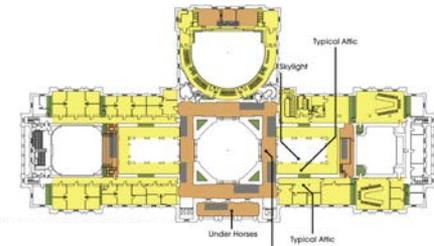
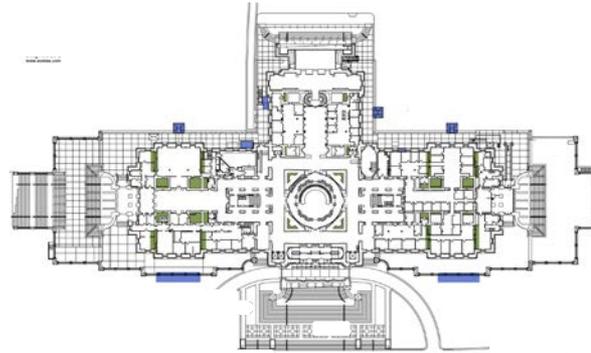
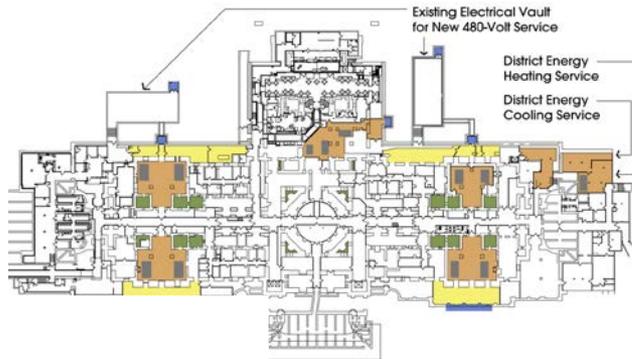
Planning Process

- **Committee Rooms need to be better organized.**
 - Meeting spaces should accommodate public viewing of the proceedings
- **The Public struggles to find Legislators located in the Capitol.**
 - The physical location of offices should be improved for public access
- **Accommodations for visitors should be improved.**
 - School buses and school children to visit Capitol
 - To witness and participate in the sessions
- **Communications between the Senate and House Chamber.**
 - Currently the building does not support movement between the bodies
- **Restoration of the Capitol .**
 - Should be a 100 year building life expectancy

Mechanical and Electrical Approach

- Modern systems require connectivity throughout the building. The challenge is make connections where none were intended.
 - Outside Connections
 - Equipment Locations
 - Horizontal Distribution
 - Vertical Distribution

Capitol Preservation Commission Planning Process



Basement

- Reuse existing mechanical Space
- Provide for additional mechanical space
- Use Cass Gilbert vertical distribution Concept.

Ground through 3rd

- Expand on use Cass Gilbert vertical distribution Concept.

Attic and Roof

- Capture existing space for mechanical and electrical space
- Create new space
- Develop new horizontal duct runs
- Provide ventilation at roof

Mechanical Systems

- Two System Approach:
 - **Mixed Air System** – A traditional approach of re-circulating building air mixed with a portion of fresh air. Requires standard size ductwork and equipment.
 - **De-coupled Cooling Systems** – A new more efficient approach delivers a high concentration of fresh air for ventilation. Less air is circulated requiring smaller equipment and ductwork. Devices located in each room provide more individual temperature control.

Capitol Preservation Commission
Planning Process

Reduced Useable Square Footage

The restoration will impact the usable square footage of the Capitol:

- **Mechanical & Electrical** – Cass Gilberts original vertical shafts will be used and new one will be created in close proximity.
- **Restrooms** – Code requires additional facilities and accessibility. New restroom space will impact each floor.
- **Exit Stairways** – Code requires a safe and secure means of egress from the upper floors of the Capitol.

Useable Area Lost (SF)	Basement	Ground	First	Second	Third	Total
Useable Area Lost MEP	0	1900	2576	998	648	6122
Useable Area Lost Stair & Toilets	1800	365	1451	1353	959	5928
Total Useable Lost Space	1800	2265	4027	2351	1607	12050

This equates to about 7% of useable space

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Planning Process

Schedule Goals

- Minimize time chambers and direct support areas are unavailable.
- Government must be able to function well at all levels during the restoration (in the Capitol Building or in swing space).
- Acceptance of some inconvenience for the public good.
Governor Dayton, in the 2012 State of the State address, said that this vote would be one of the most self-less votes of their career – to kick us out of the building for 4 years if necessary.

Schedule Milestones

- **July 2012** – Start Design
- **July 2013** – Start Relocation
- **September 2013** – Start Construction
- **September 2016** – Finish Major Construction
- **December 2017** – Finish Interior Finish Work

Construction Sequence

- **Plan** - The current plan is to sequence the work by starting with the work associated around the Chambers and working out from the chambers to other parts of the Capitol.
- **Goals** -
 - 1) The chambers will be used for each session,
 - 2) The legislature will work in the building for as long as possible, and
 - 3) To minimize disruption to legislative process.
- **Process** - All sequencing options will be evaluated and a final sequencing plan will be developed by Dec. 2012 once the CM@r is under contract and has evaluated scope and schedule

Benefits to Minnesota

Preserving the Architectural Integrity

- Restoration of the Capitol
- Restoration and Preservation of the State's most significant historical monument and a working State Capitol for the next 100 years



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Benefits to Minnesota

Preserving the Architectural Integrity

Exterior Envelope

- Repairs to the Exterior Stone
- Window Replacement
- Roof Replacement



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Benefits to Minnesota

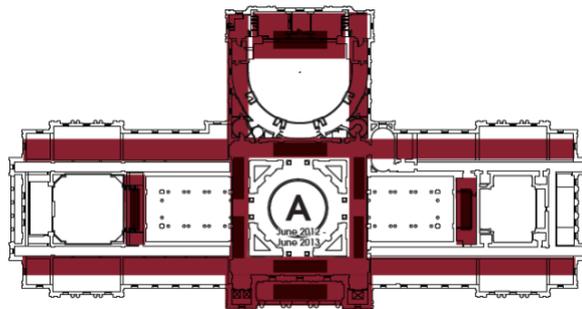
Preserving the Architectural Integrity

Mechanical Systems

- Provide for a more comfortable environment for all
- Ventilation of Rotunda and other public spaces

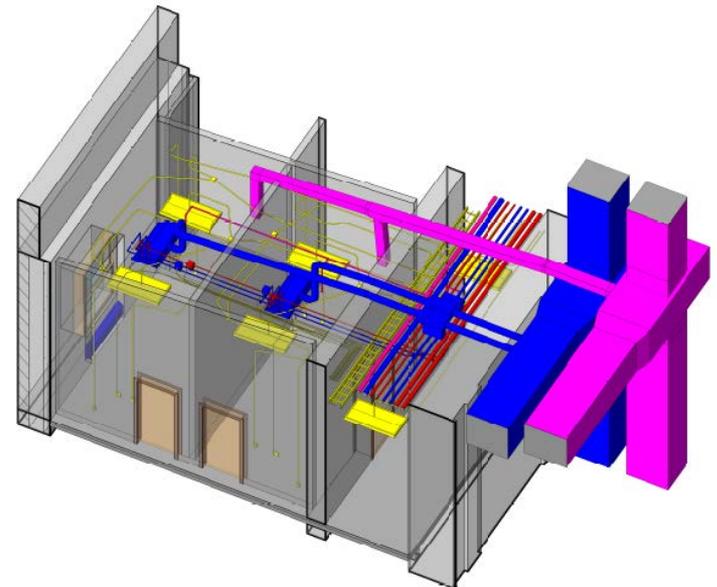
Electrical Systems

- Improved energy efficiency
- Greater technology capacity
- Public accessibility WiFi



Sequence One –B Duct work installation

Floors Included:
Fourth Floor



Benefits to Minnesota

Preserving the Architectural Integrity

- Restore and repair the damaged decorative arts with in the Capitol



Benchmarking. Benchmarking is a process that uses information from other State Capitols, comparing their scope and costs, allows for identification of what the restoration might cost prior to defining the full scope of the restoration project.

Cost Benchmarking – What did they spend?

- Escalation at 2% per year from 2007 to 2011
- Escalation at 4% (+/-) per year from 2011 to 2015
- For Estimating Purposes, 2015 picked as Midpoint of Minnesota Capitol Preservation Work

Scope Benchmarking – What did they buy regarding?

- Adjusted Scope
- Our Guiding Principles:
 - Architectural Integrity
 - Building Function
 - Life Safety

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Cost

State Capitol	Renovated Square Footage	Escalated to 2015	Adjusted Program	Adjusted \$/SF
Kansas Capitol	300,000 SF	\$205 million	\$187 million	\$624/SF
Michigan Capitol	225,000 SF	\$94 million	\$94million	\$416/SF
Ohio Capitol	273,000 SF	\$184million	\$184million	\$674/SF
Texas Capitol	360,000 SF	\$318 million	\$223million	\$620/SF
Utah Capitol	310,000 SF	\$265 million	\$152million	\$492/SF
Virginia Capitol	117,000 SF	\$105 million	\$98 million	\$736/SF
Wisconsin Capitol	240,000 SF	\$203 million	\$203 million	\$848/SF
AVERAGE	260,725 SF	\$196million	\$163million	\$600/SF
Minnesota Capitol*	387,000 SF	\$337million	\$198million	\$523/SF

* This is a benchmark only and is not intended to be a cost estimate for the renovation. Cost estimate will be completed as part of the pre-design and project definition phase.

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Cost

Cost Estimate

The restoration of the Capitol is estimated to cost \$241,000,000 in FY2012 dollars.

- The benchmark average cost per square foot was \$600, not including swing space, furniture, fixtures, and equipment costs.
- At \$241,000,000, the restoration of the Minnesota State Capitol is estimated to cost \$625 per square foot.

Minnesota State Capitol Restoration Budget Recommendation By MOCA December 31, 2011		
Program Costs		
Construction Costs	\$ 126,544,011.74	
Contractor Contingency	\$ 10,559,280.94	8.34%
Contractor Fee	\$ 4,619,685.41	3.65%
Total Construction Costs	\$ 141,722,978.09	
Owner Project Costs		
Project Management	\$ 1,483,000.00	1.05%
Architects	\$ 15,331,000.00	10.82%
Pre-design - A/E Package	\$ 500,000.00	0.35%
Construction Contingency	\$ 14,832,000.00	10.47%
Telecommunications (voice & data)	\$ 5,746,000.00	4.05%
Inspections - Special construction and General	\$ 741,000.00	0.52%
Commissioning Energy services	\$ 2,000,000.00	1.41%
Security Equipment	\$ 1,851,000.00	1.31%
Furniture	\$ 7,416,000.00	5.23%
Total Owner Project Costs	\$ 49,900,000.00	
Total Project Costs	\$ 191,622,978.09	
Inflation at 11.79%	\$ 22,592,349.12	11.79%
Total with inflation	\$ 214,215,327.21	
Other Project Costs		
Design Guidelines/Master Plan	\$ 700,000.00	0.33%
CM PreConstruction	\$ 2,225,000.00	1.04%
Relocation moving costs	\$ 2,000,000.00	0.93%
Historic Structure Report	\$ 741,000.00	0.35%
General Expenses	\$ 741,000.00	0.35%
Swing Space	\$ 20,000,000.00	
Total Owner Costs	\$ 26,407,000.00	
Total Program Costs	\$ 240,622,327.21	
Total Estimated Cost	\$ 241,000,000.00	

An appropriation of \$241 Million allocated as follows⁰:

- **FY2013:** \$77.4 Million* - Design/Exterior/*Sequence A*: Attic
- **FY2014:** \$69 Million - *Sequence C*: West/North
- **FY2015:** \$41.6 Million - *Sequence B*: East
- **FY2016:** \$53 Million - *Sequence D*: Public Space

⁰ Operating costs not included.

* Includes \$2 million general fund for relocation.