

2012

Capitol Preservation Commission Comprehensive Master Plan



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MOCA

Feb. 29, 2012

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

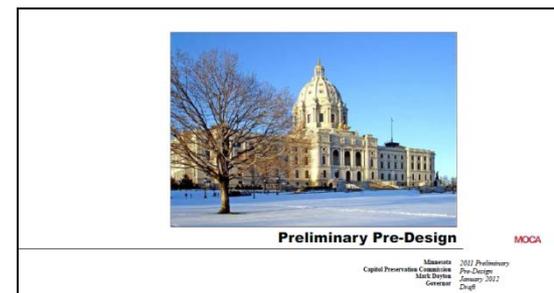


The Capitol Preservation Commission has a similar opportunity. The Commission has not only the responsibility to preserve the past but to protect and assure the Capitol's future.

Document Organizational Structure

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

Comprehensive Master Plan

A 20 year plan that covers;

- Living Document to provide guidance
- Restoration 2012 – 2017
- Maintenance & Stewardship 2017 - 2032



Findings

- **The stone exterior is deteriorating rapidly.**
- **The mechanical systems are nearing the end of their useful life.**
 - Maintenance Issues.
 - No direct source of outside air In 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.

Findings

- **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:**
 - Are 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

Findings

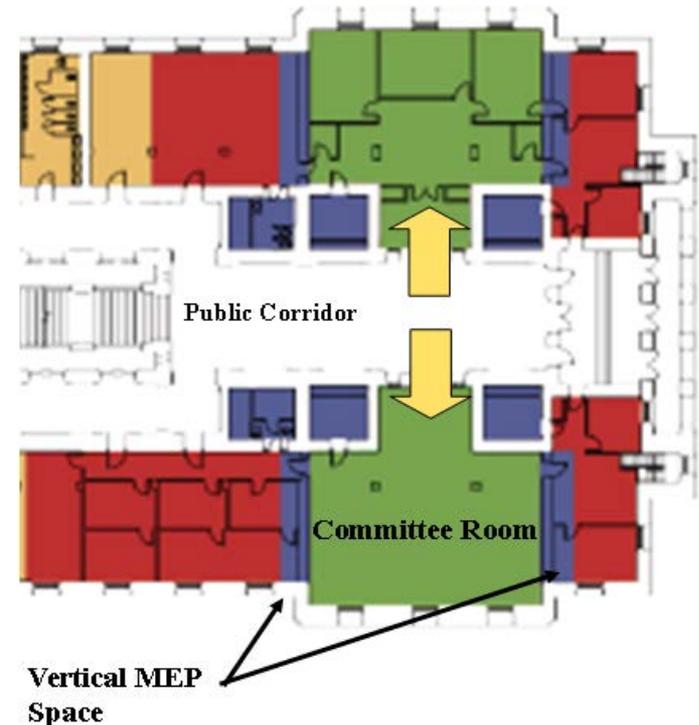
- **Committee Rooms need to be better organized**
 - Meeting spaces should accommodate public viewing of the proceedings.
- **The Public struggles to find Legislators located in the Capitol**
 - The physical location of offices should be improved for public access.
- **Accommodations for visitors should 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.

Comprehensive Master Plan

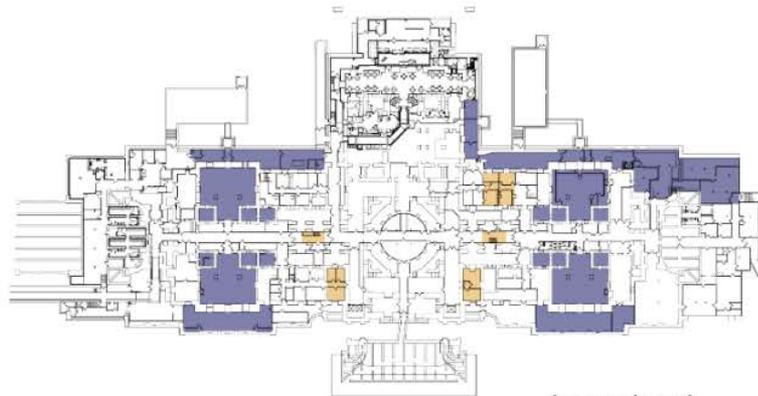
- Architectural Integrity

The Cass Gilbert solution;
Use what he designed
and provided.

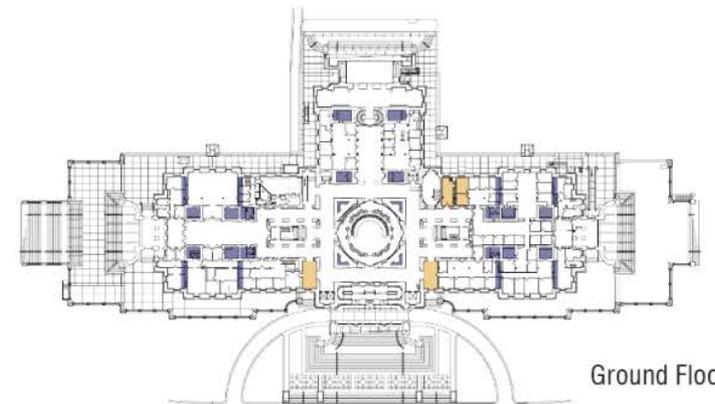
- Vertical Distribution Zones
 - Chases
 - Wiring
 - Mechanical Systems
- Large spaces for meetings
- Flexible Work Space



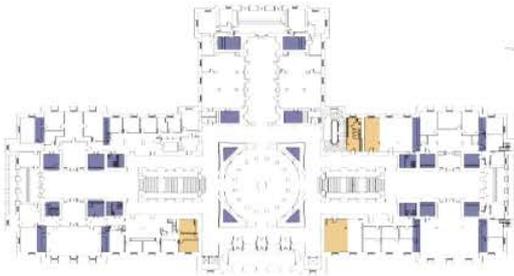
Mechanical Systems Concept



Lower Level



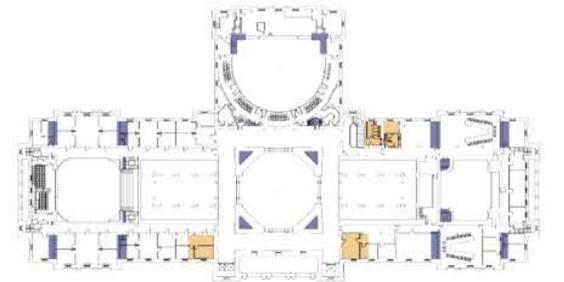
Ground Floor



1st Floor



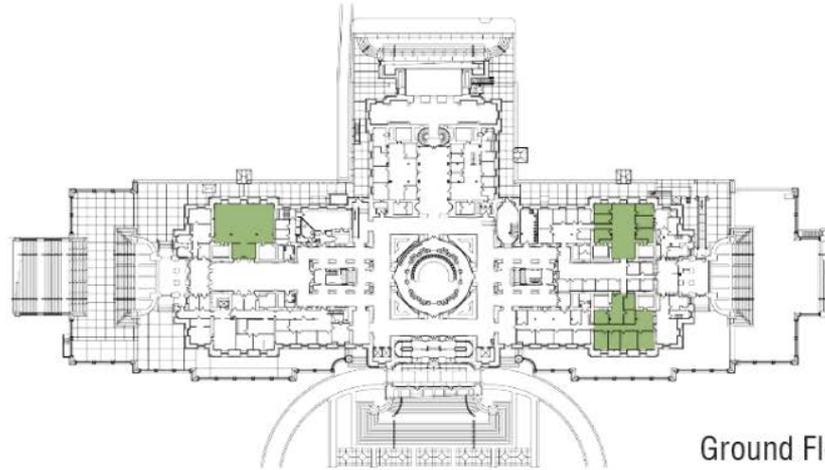
2nd Floor



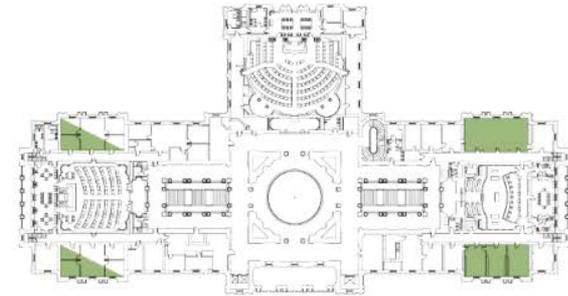
3rd Floor

Building off of Cass Gilbert's design utilize the Vertical Shafts and mechanical space allocated in the building.

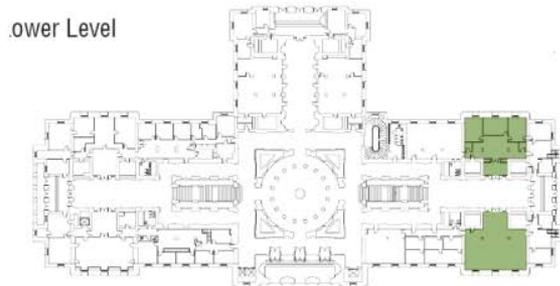
Public Meeting/Committee Rooms



Ground Floor

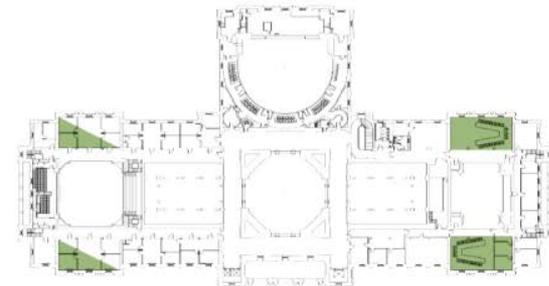


2nd Floor



Lower Level

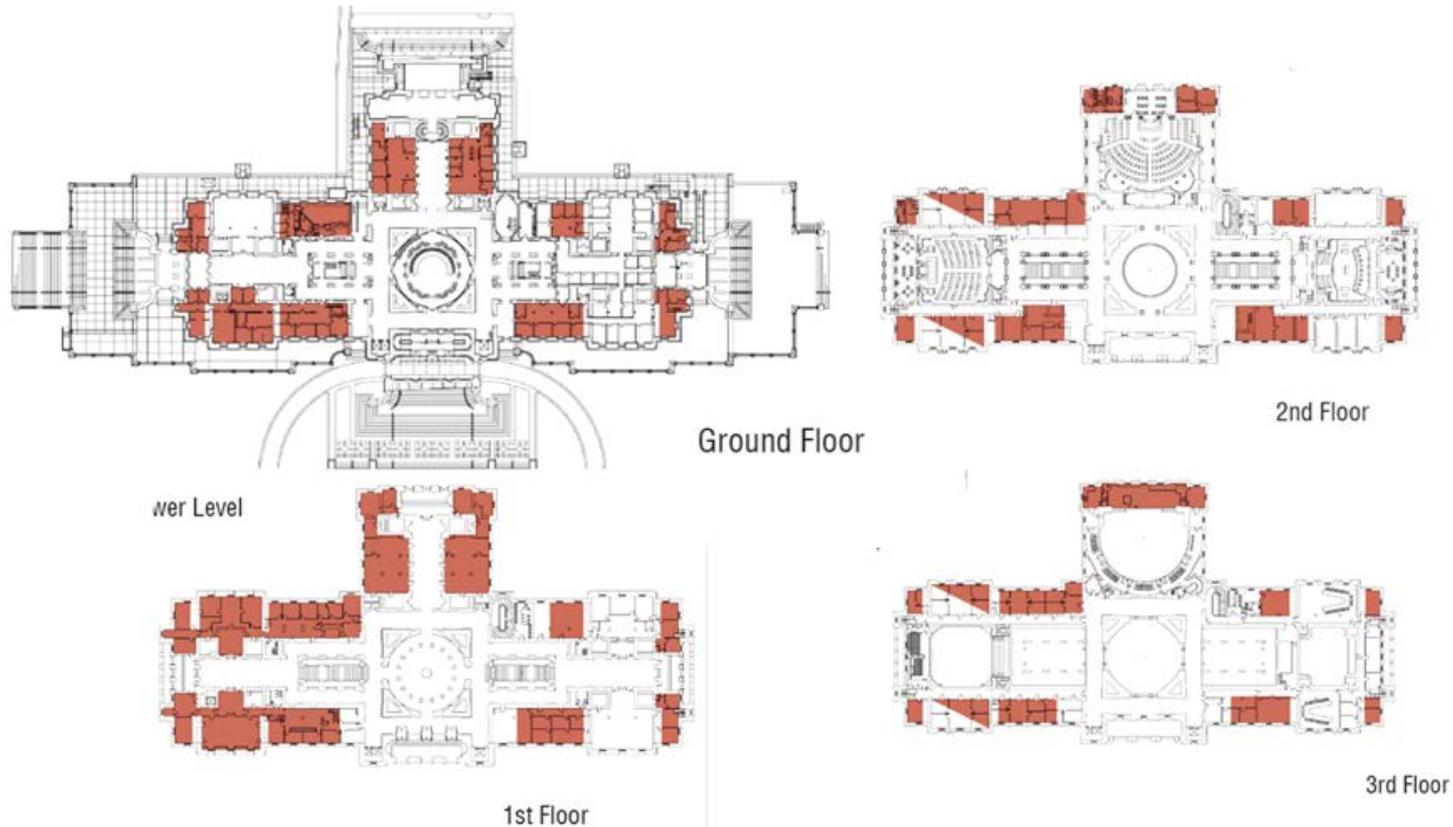
1st Floor



3rd Floor

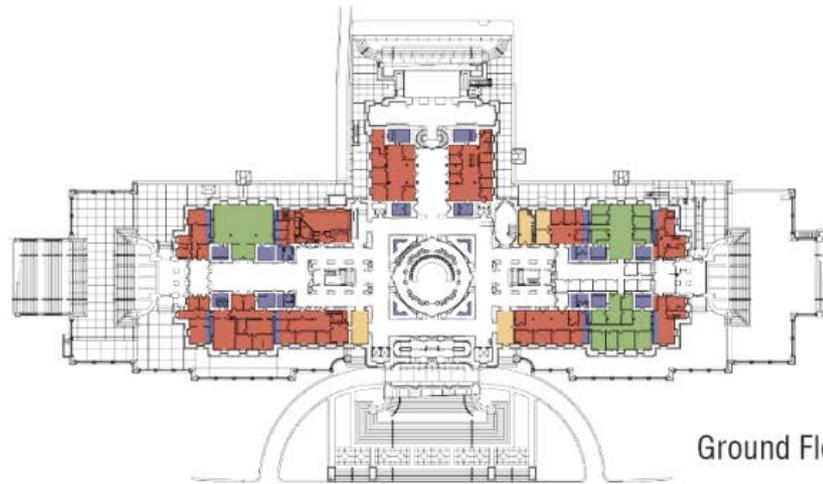
Cass Gilbert provided a large open “column free” space in each quadrant on each floor of the Capitol – these are ideal for meeting space

Government Tenant Office Space

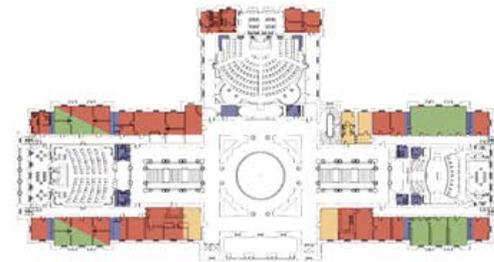


Cass Gilbert originally designed the Capitol to house every state agency. These spaces were flexible and accommodated many different uses. The plan preserves that concept.

Space Utilization Diagrams

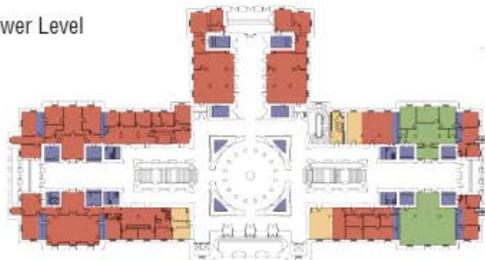


Ground Floor

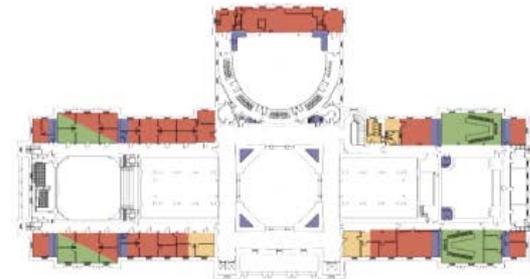


2nd Floor

Lower Level



1st Floor



3rd Floor

Generic Space Plan

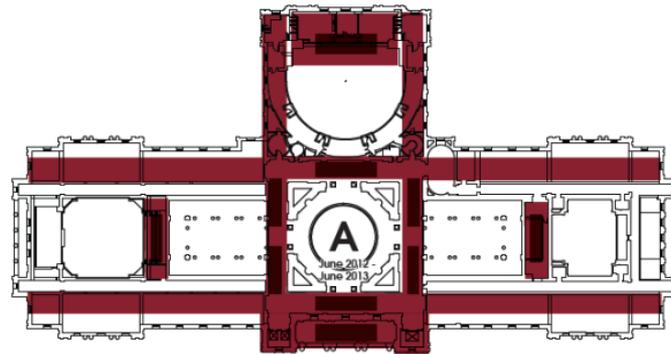
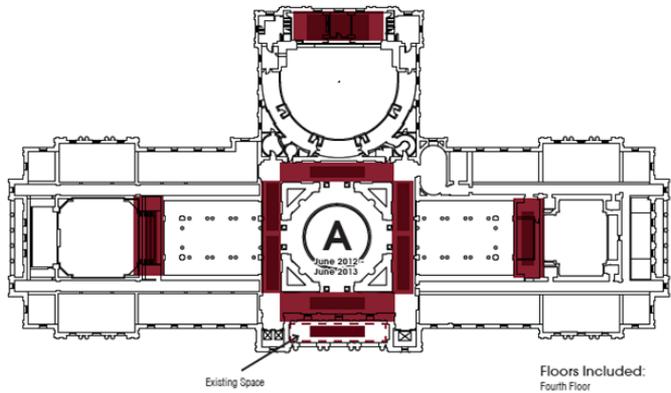
- MEP
- Office Space
- Stair / Toilet
- Meeting Space

Space Planning Scenarios that provide for flexible space use/tenant finish approach . This will provide flexibility and allow the decision of space organization to continue by the Commission.

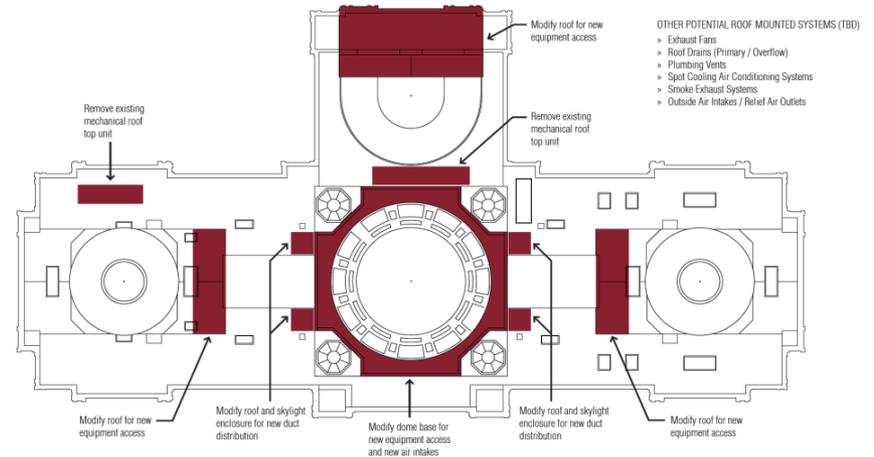
Capitol Preservation Commission

Sequence "A"

FY 2012 – 2013 – Retain Consultants Provide Attic Mechanical & Electrical



Sequence One -B Duct work installation

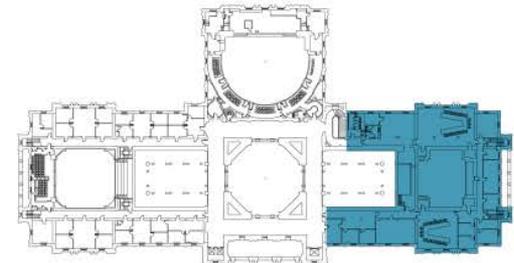
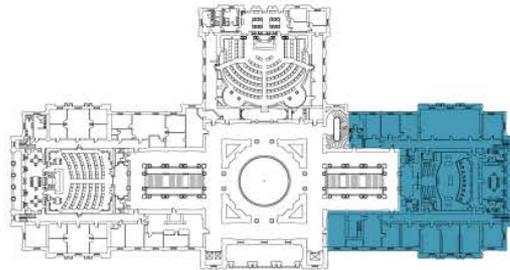
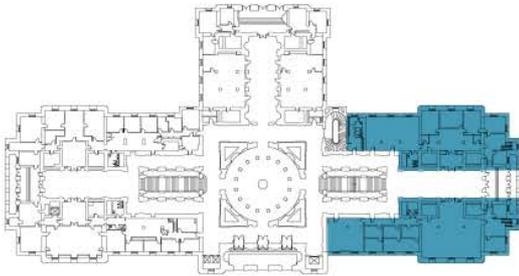
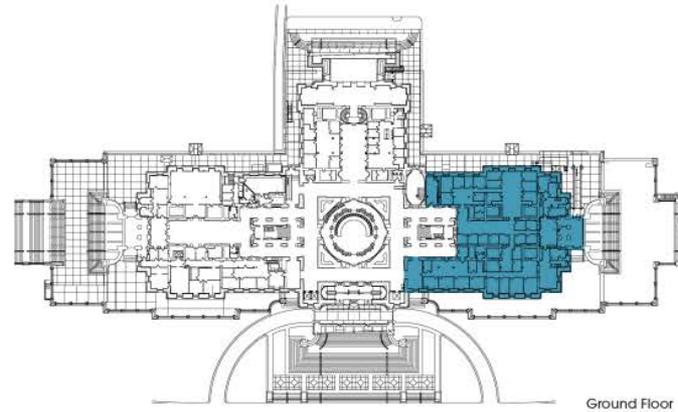
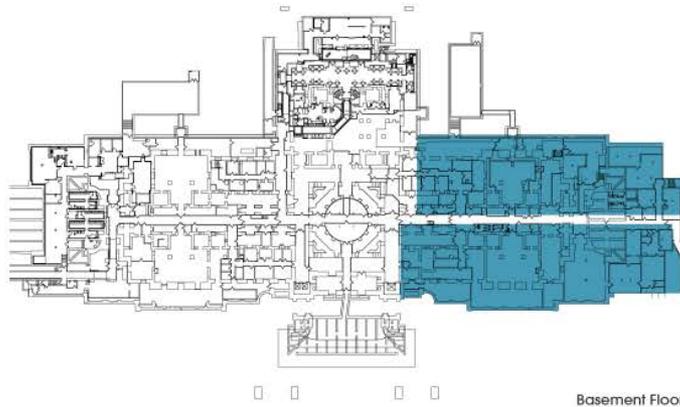


Roof Plan

Capitol Preservation Commission

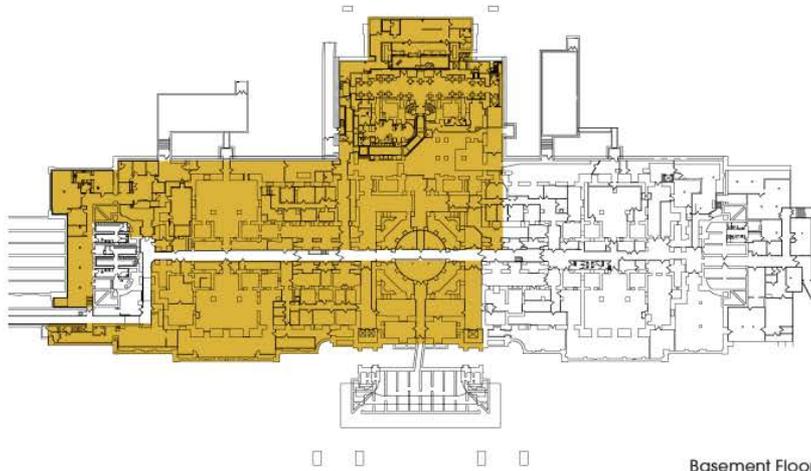
Sequence “B”

FY 2013 – 2014 – Restoration of the East Wing, Close and Relocate Occupants

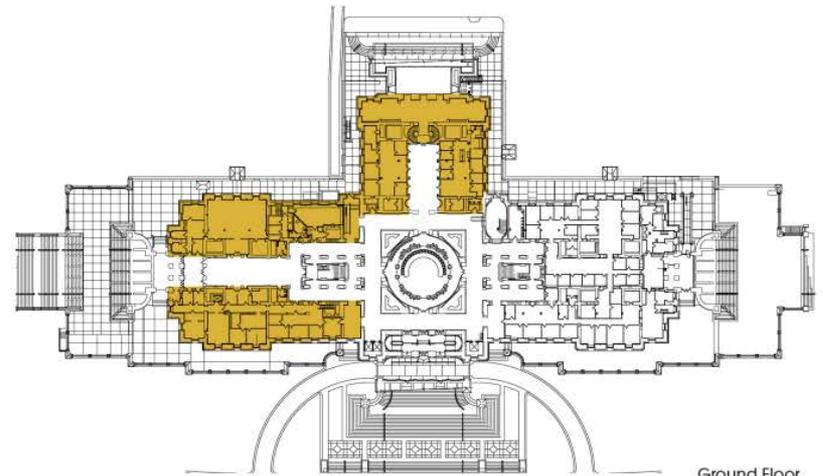


Capitol Preservation Commission Sequence “C”

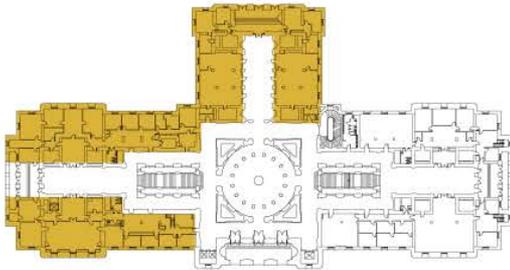
FY 2014 – 2016 Restoration of the North and West Wings, Close entire Capitol



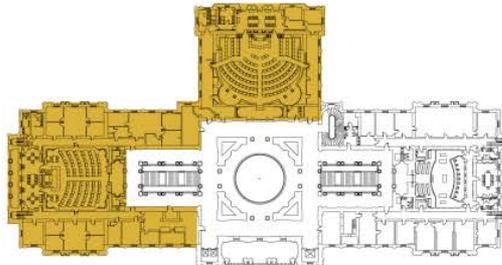
Basement Floor



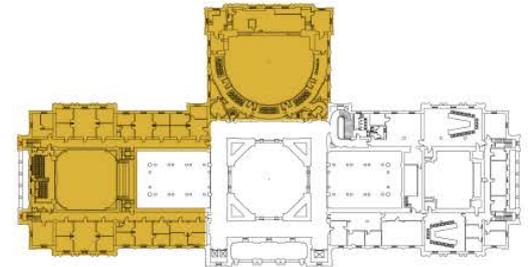
Ground Floor



First Floor



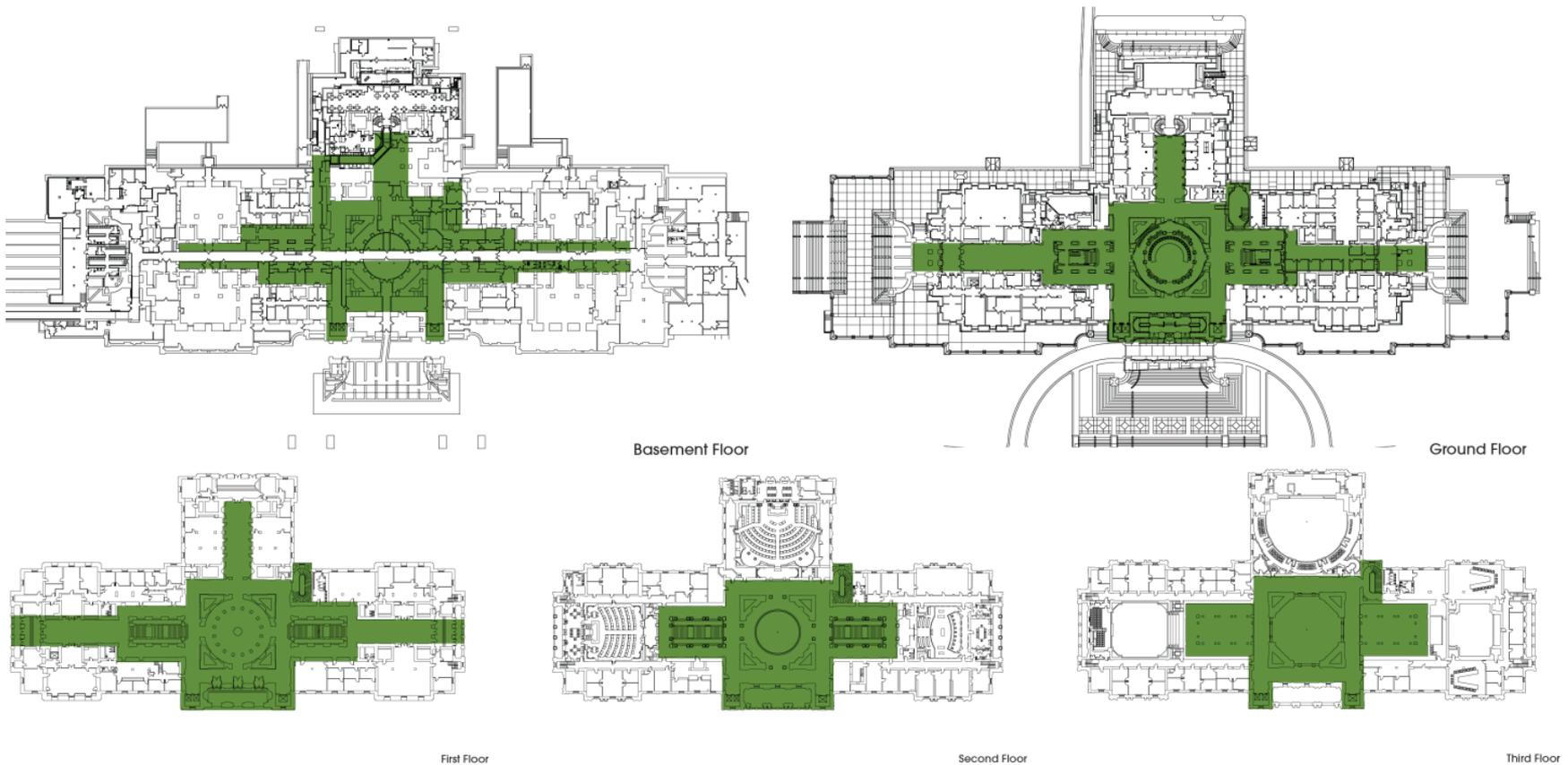
Second Floor



Third Floor

Capitol Preservation Commission Sequences “D”

FY 2015 to 2016 Restoration of the Public Spaces



Commission Questions

Over the past month, members of the Commission have asked several questions about the Master Plan, Schedule and Funding. These questions include:

- ***Space Planning*** – Can the MEP work progress without changing the physical layout of the office space and committee rooms?
- ***Sequencing*** – Could the work be re-sequenced to allow for more time in the Capitol and less time in the swing space.

Commission Questions

- ***Schedule*** – Instead of Closing the Capitol in 2014 thru 2016 is there a way to:
 - Work more shifts
 - Compress the schedule and keep the building open
 - Allow the Chambers to be used during the legislative session instead of relocating them.
- ***Cost*** – can the cost be reduced by compressing the schedule or reducing the amount of work associated with the remodel.

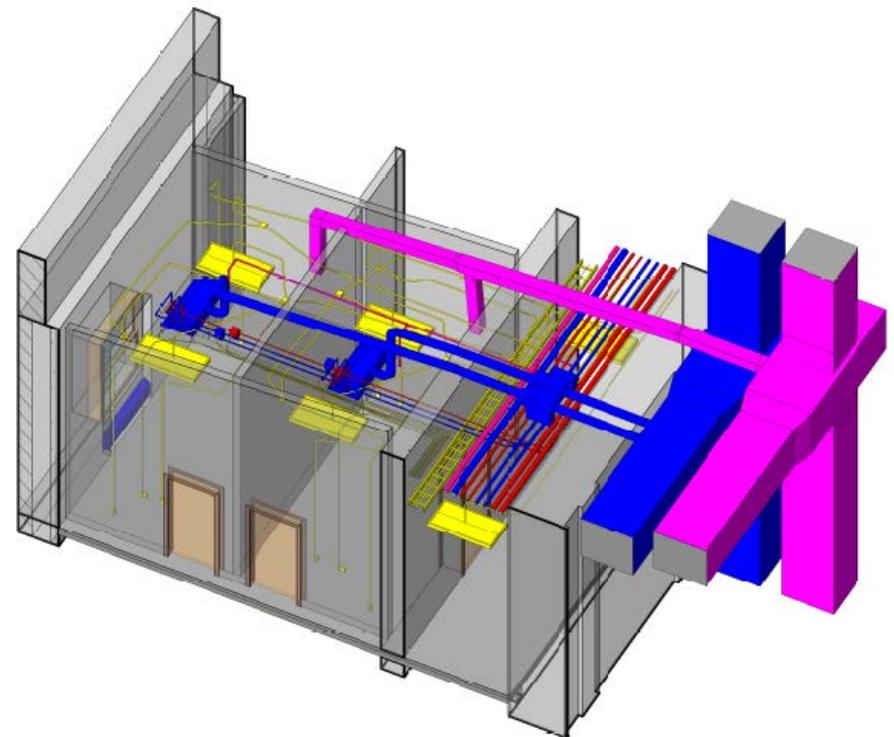
Commission Questions

Space Planning – Can the MEP work progress without changing the physical layout of the office space and committee rooms?

The Office Space and the Committee Rooms are wrapped in a cocoon of Mechanical and Electrical equipment.

While Sequence “A”, “B” and “C” all focus on the vertical main distribution systems they also distribute horizontally air, power and data to each of the spaces.

It is not really practicable to distribute these services to the spaces without major amounts of rework to those spaces.



Commission Questions

Sequencing – Could the work be re-sequenced to allow for more time in the Capitol and less time in the swing space.

Original Sequence Provided for:

Sequence “A” – Attic Mechanical and Electrical to begin without occupant disruption.

Sequence “B” – provided for the West wing to proceed with minimal disturbance to the legislature and to allow more time to resolve space planning (2013).

Sequence “C” – was planned to complete the process by closing the building for the most expeditious process. Capitol would be closed for 2015 legislative session.

Alternate Sequence Provides for:

Sequence “A” – Attic Mechanical and Electrical to begin without occupant disruption.

Sequence “C” – Would shift the disruption from 2015 to 2014. The west/north wings would be closed, the chambers open with limited access. Space planning decisions would need to be resolved in 2012.

Sequence “B” – provided for the West wing to proceed with minimal disturbance to the legislature

Commission Questions

Scheduling – Impacts (Subject to discussions with the selected a CMr)

Original Schedule Provided for:

Time – Began 2012, completed in 2016 successively closing the capitol with each sequence. The decorative paint work ending towards end of 2016.

Design Jul. 2012 – May 2012
Sequence “A” – May 2013 – Jan. 2014 (8)
Sequence “B” – Sep. 2013 – Jan. 2016 (28)
Sequence “C” – Apr. 2014 – Oct. 2016 (30)
Sequence “D” – Jun. 2015 – Oct. 2016 (16)

Shift Work – Did not contemplate shift work as a necessity to complete. Only as needed.

Alternate Schedule Provides for:

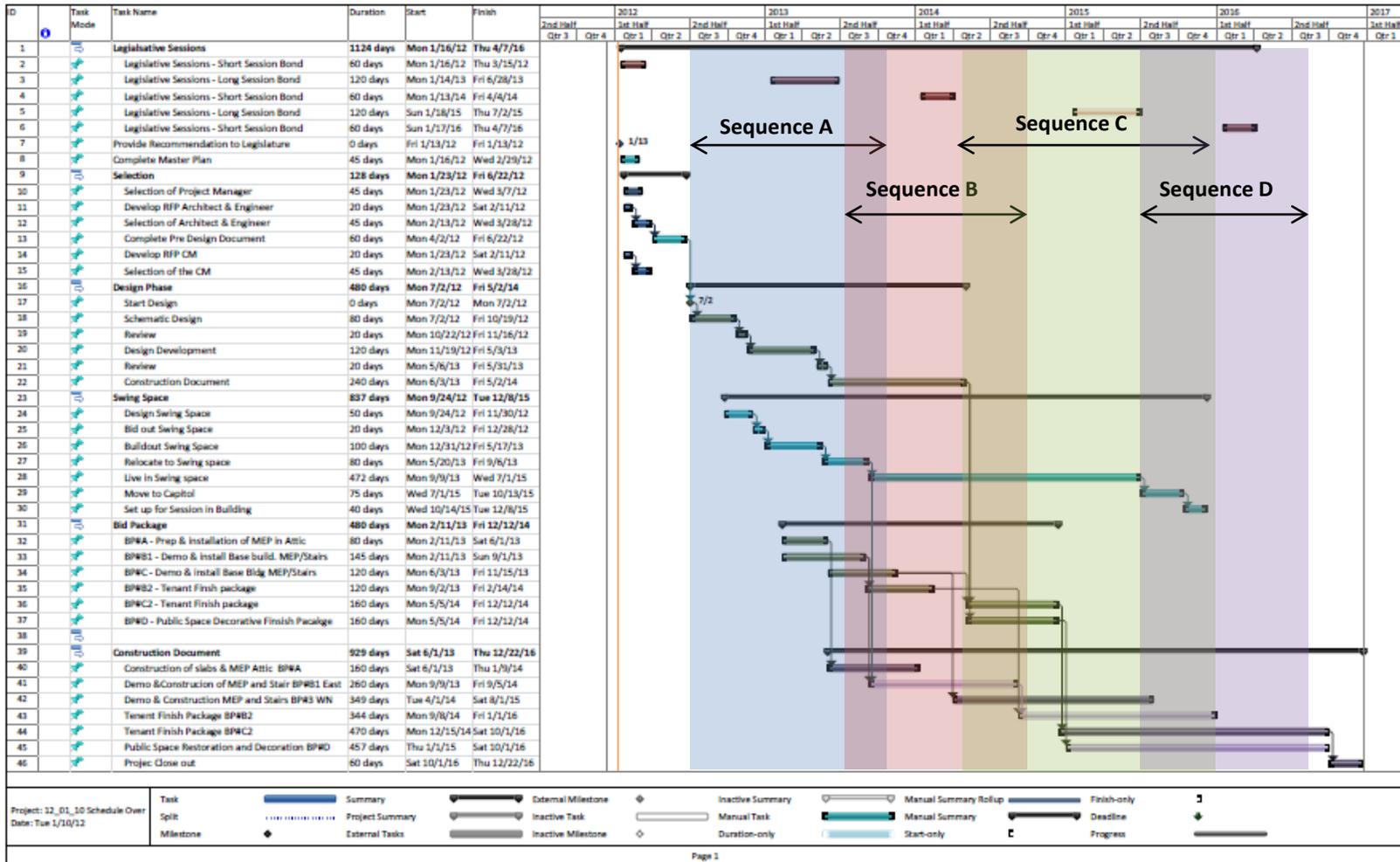
Time – Begins in 2012, completes in 2016 reopening Capitol following sequence “C”. The decorative paint work ending towards the end of 2016.

Design Jul. 2012 – May 2012
Sequence “A” – May 2013 – Mar. 2014 (11)
Sequence “C” – Sep. 2013 – Nov. 2014 (14)
Sequence “B” – Aug. 2014 – Jan. 2015 (17)
Sequence “D” – Sep. 2015 – Oct. 2016 (13)

Shift Work – The CMr may need to utilize shift work to meet the tighter construction sequences

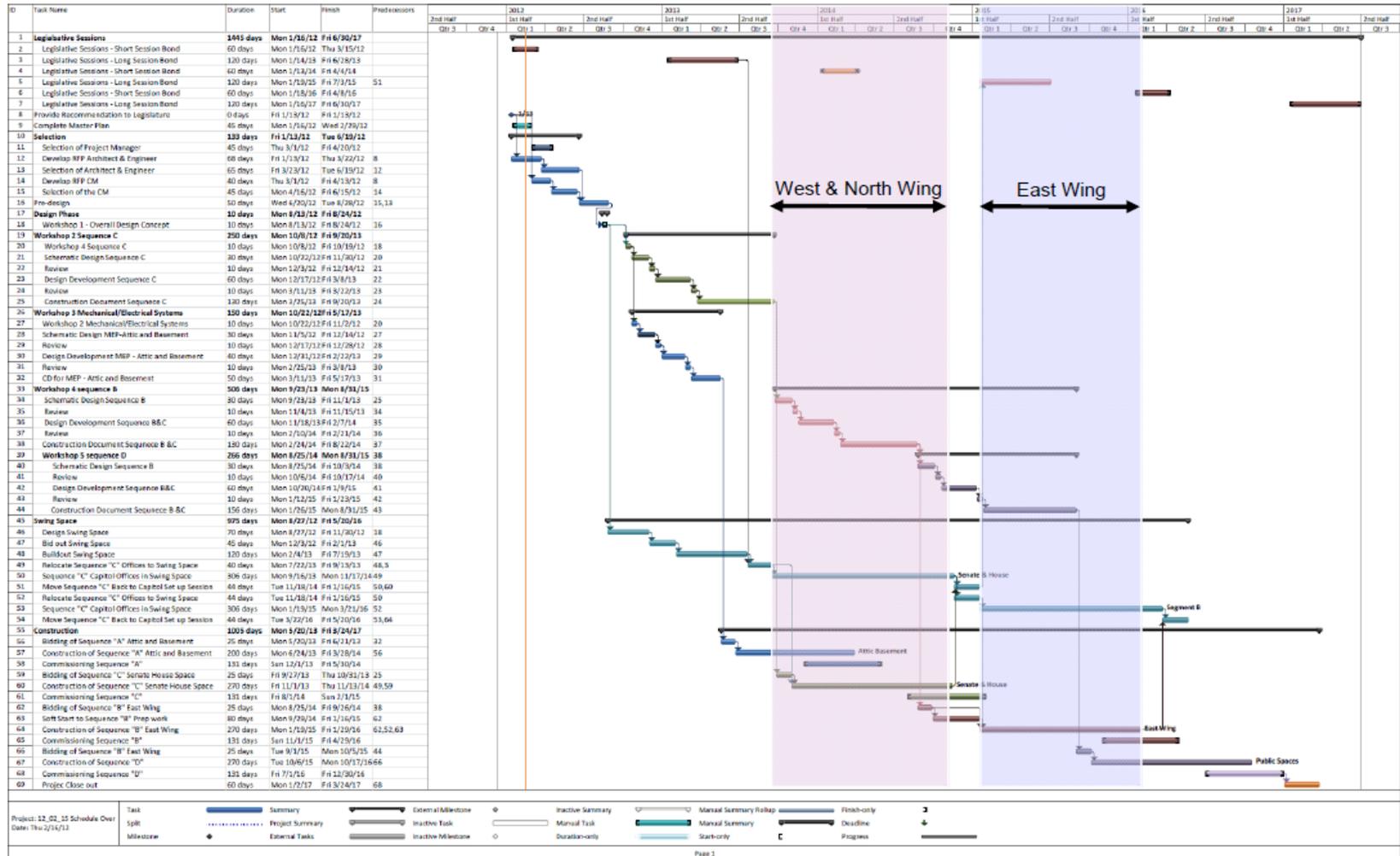
Capitol Preservation Commission Commission Questions

Schedule – Original (page 56)



Capitol Preservation Commission Commission Questions

Schedule – Alternate Re-sequenced (Page 69)



Commission Questions

Cost – can the cost be reduced by compressing the schedule or reducing the amount of work associated with the remodel.

Original Cost

Cost Comparison – Cost were developed based upon the schedule and the way the work would typically proceed in a normal restoration project.

Sequence “A” - \$ 40,000,000

Sequence “B” - \$106,000,000

Sequence “C” - \$ 48,000,000

Sequence “D” - \$ 47,000,000

Costs are a combination of Construction, Owner Costs and FF&E.

Alternate Cost

Cost Comparison – Cost have been developed based upon the schedule and the way the work breaks down within the various sequences.

Sequence “A” - \$77,400,000

Sequence “C” - \$69,000,000

Sequence “B” - \$41,600,000

Sequence “D” - \$53,000,000

Costs are a combination of Construction, Owner Costs and FF&E

Commission Questions

Cost – can the cost be reduced by compressing the schedule or reducing the amount of work associated with the remodel.

Original Cost

Cost – Cost were developed based upon the scope and schedule and the way the work would typically proceed in a normal restoration project.

Original Concept

- 1. Sequence “A” was limited in scope to preparation for MEP.*
- 2. Sequence “B” & “C” were overlapped to take advantage of one mobilization cost.*
- 3. Shift work was not considered*
- 4. Occupancy was not considered*

Alternate Cost

Cost – Cost have been developed based upon scope the schedule and the way the work breaks down within the various sequences.

Changes & Variables:

- 1. Moved more work to Sequence “A” in order to accomplish as much as possible prior to start of Sequence “C”.*
- 2. Sequence “C” & “B” are whole phases.*
- 3. Unknown if Shift work (not overtime) will add money to the project. This is most critical in Sequence “C”.*
- 4. Unknown Impact for work while occupied.*

Capitol Preservation Commission Commission Questions

**Org.
Cost
(pg. 54)**

Minnesota State Capitol Restoration Budget Recommendation By MOCA December 31, 2011			Sequence 1 Attic	Sequence 2 East	Sequence 3 North/West	Sequence 4 Public
			Bonding Year 2012		Bonding Year 2014	
Program Costs						
Construction Costs	\$ 127,684,811.74		\$ 10,200,000.00	\$ 63,100,000.00	\$ 27,750,000.00	\$ 25,495,000.00
Contractor Contingency	\$ 9,510,544.94	7.45%	\$ 759,742.35	\$ 4,699,974.71	\$ 2,066,946.09	\$ 1,898,983.44
Contractor Fee	\$ 4,659,613.41	3.65%	\$ 372,229.52	\$ 2,302,714.02	\$ 1,012,683.27	\$ 930,391.35
Total Construction Costs	\$ 141,854,970.09		\$ 11,331,971.87	\$ 70,102,688.73	\$ 30,829,629.35	\$ 28,324,374.79
			\$ 11,401,000.00	\$ 70,642,000.00	\$ 31,064,000.00	\$ 28,615,000.00
Owner Project Costs						
Project Mangement	\$ 1,483,000.00	1.05%	\$ 371,000.00	\$ 371,000.00	\$ 371,000.00	\$ 370,000.00
Architects	\$ 15,331,000.00	10.81%	\$ 11,998,000.00	-	\$ 3,333,000.00	-
Predesign - A/E Package	\$ 500,000.00	0.35%	\$ 500,000.00			
Construction Contingency	\$ 14,832,000.00	10.46%	\$ 1,070,000.00	\$ 7,612,000.00	\$ 3,259,000.00	\$ 2,891,000.00
Telecommunications (voice & data)	\$ 5,746,000.00	4.05%		\$ 2,517,000.00	\$ 1,078,000.00	\$ 2,151,000.00
Inspections - Special construciton and General	\$ 741,000.00	0.52%	\$ 185,250.00	\$ 185,250.00	\$ 185,250.00	\$ 185,250.00
Commissioning Energy services	\$ 2,000,000.00	1.41%	\$ 500,000.00	\$ 500,000.00	\$ 500,000.00	\$ 500,000.00
Security Equipment	\$ 1,851,000.00	1.30%		\$ 1,295,700.00	\$ 555,300.00	
Furniture	\$ 7,416,000.00	5.23%				\$ 7,416,000.00
Total Owner Project Costs	\$ 49,900,000.00		\$ 14,624,250.00	\$ 12,480,950.00	\$ 9,281,550.00	\$ 13,513,250.00
Total Project Costs	\$ 191,754,970.09		\$ 25,956,221.87	\$ 82,583,638.73	\$ 40,111,179.35	\$ 41,837,624.79
Inflation at 11.79%	\$ 22,607,910.97	11.79%	\$ 3,060,238.56	\$ 9,736,611.01	\$ 4,729,108.05	\$ 4,932,655.96
Total with inflation	\$ 214,362,881.07		\$ 29,016,460.43	\$ 92,320,249.73	\$ 44,840,287.40	\$ 46,770,280.75
Other Project Costs						
Design Guidelines/Master Plan	\$ 700,000.00	0.33%	\$ 700,000.00			
CM PreConstruction	\$ 2,225,000.00	1.04%	\$ 1,230,000.00		\$ 995,000.00	
Relocation moving costs	\$ 2,000,000.00	0.93%		\$ 1,000,000.00	\$ 1,000,000.00	
Historic Structure Report	\$ 741,000.00	0.35%	\$ 741,000.00			
General Expenses	\$ 741,000.00	0.35%	\$ 67,000.00		\$ 674,000.00	
Swing Space	\$ 20,000,000.00		\$ 8,000,000.00	\$ 12,000,000.00		
Total Owner Costs	\$ 26,407,000.00		\$ 10,738,000.00	\$ 13,000,000.00	\$ 2,669,000.00	\$ -
Total Program Costs	\$ 240,769,881.07		\$ 39,754,460.43	\$ 105,320,249.73	\$ 47,509,287.40	\$ 46,770,280.75
Total Estimated Cost	\$ 241,000,000.00		\$ 40,000,000.00	\$ 106,000,000.00	\$ 48,000,000.00	\$ 47,000,000.00
Bond Request				\$ 146,000,000.00		\$ 95,000,000.00

Capitol Preservation Commission Commission Questions

**Alt.
Cost
(pg. 67)**

Minnesota State Capitol Restoration Budget Recommendation By MOCA December 31, 2011			Sequence A Attic	Sequence C North/West	Sequence B East	Sequence D Public
			Bonding Year 2012		Bonding Year 2014	
Program Costs						
Construction Costs	\$ 127,684,811.74		\$ 36,661,570.20	\$ 37,817,732.24	\$ 16,545,556.64	\$ 36,658,977.50
Contractor Contingency	\$ 9,510,544.94	7.45%	\$ 2,730,720.33	\$ 2,816,836.53	\$ 1,232,388.24	\$ 2,730,527.21
Contractor Fee	\$ 4,659,613.41	3.65%	\$ 1,337,894.00	\$ 1,380,085.93	\$ 603,798.50	\$ 1,337,799.39
Total Construction Costs	\$ 141,854,970.09		\$ 40,730,184.53	\$ 42,014,654.70	\$ 18,381,743.38	\$ 40,727,304.11
Owner Project Costs						
Project Mangement	\$ 1,483,000.00	1.05%	\$ 425,807.17	\$ 439,235.46	\$ 192,168.98	\$ 425,788.39
Architects	\$ 15,331,000.00	10.81%	\$ 15,331,000.00	\$ -	\$ -	\$ -
Predesign - A/E Package	\$ 500,000.00	0.35%	\$ 500,000.00	\$ -	\$ -	\$ -
Construction Contingency	\$ 14,832,000.00	10.46%	\$ 4,258,645.97	\$ 4,392,946.95	\$ 1,921,949.00	\$ 4,258,458.08
Telecommunications (voice & data)	\$ 5,746,000.00	4.05%		\$ 2,690,000.00	\$ 3,056,000.00	\$ -
Inspections - Special construciton and General	\$ 741,000.00	0.52%	\$ 212,760.02	\$ 219,469.64	\$ 96,019.70	\$ 212,750.64
Commissioning Energy services	\$ 2,000,000.00	1.41%	\$ 574,251.07	\$ 592,360.70	\$ 259,162.49	\$ 574,225.74
Security Equipment	\$ 1,851,000.00	1.30%		\$ 555,300.00	\$ 1,295,700.00	\$ -
Furniture	\$ 7,416,000.00	5.23%		\$ 4,449,600.00	\$ 2,224,800.00	\$ 741,600.00
Total Owner Project Costs	\$ 49,900,000.00		\$ 21,302,464.24	\$ 13,338,912.75	\$ 9,045,800.17	\$ 6,212,822.84
Total Project Costs	\$ 191,754,970.09		\$ 62,032,648.77	\$ 55,353,567.46	\$ 27,427,543.55	\$ 46,941,210.32
Inflation at 11.79%	\$ 22,607,910.97	11.79%	\$ 7,313,649.29	\$ 6,526,185.60	\$ 3,233,707.38	\$ 5,534,368.70
Total with inflation	\$ 214,362,881.07		\$ 69,346,298.06	\$ 61,879,753.06	\$ 30,661,250.93	\$ 52,475,579.01
Other Project Costs						
Design Guidelines/Master Plan	\$ 700,000.00	0.33%	\$ 700,000.00	\$ -		
CM PreConstruction	\$ 2,225,000.00	1.04%	\$ 719,786.52	\$ -	\$ 1,505,213.48	
Relocation moving costs	\$ 2,000,000.00	0.93%	\$ 646,999.12	\$ 1,000,000.00	\$ 353,000.88	
Historic Structure Report	\$ 741,000.00	0.35%	\$ 741,000.00	\$ -		
General Expenses	\$ 741,000.00	0.35%	\$ 67,000.00	\$ 674,000.00		
Swing Space	\$ 20,000,000.00	9.33%	\$ 6,469,991.23	\$ 5,000,000.00	\$ 8,530,008.77	
Total Owner Costs	\$ 26,407,000.00		\$ 9,344,776.88	\$ 6,674,000.00	\$ 10,388,223.12	\$ -
Total Program Costs	\$ 240,769,881.07		\$ 78,691,074.94	\$ 68,553,753.06	\$ 41,049,474.05	\$ 52,475,579.01
Total Estimated Cost	\$ 241,000,000.00		\$ 77,400,000.00	\$ 69,000,000.00	\$ 41,600,000.00	\$ 53,000,000.00
Bond Request				\$ 146,400,000.00		\$ 94,600,000.00

Capitol Preservation Commission

Commission Request

***Questions on the
Comprehensive Master Plan***

Capitol Preservation Commission Commission Request

Approval of the Capitol Preservation Commissions Comprehensive Master Plan



Comprehensive Master Plan

MOCA

Minnesota 2012
Capitol Preservation Commission *Comprehensive Master Plan*
Mark Dayton February 2012
Governor Final