Capitol Preservation Commission
Comprehensive Master Plan

David H. Hart, FAIA
MOCA
Feb. 29, 2012
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 responsibly to preserve the past but to protect and assure the Capitol’s future.
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

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
• 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.
Capitol Preservation Commission

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
Building off of Cass Gilbert’s design utilize the Vertical Shafts and mechanical space allocated in the building.
Cass Gilbert provided a large open “column free” space in each quadrant on each floor of the Capitol – these are ideal for meeting 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 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 – Duct work installation.
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
Capitol Preservation Commission

Sequences “D”

FY 2015 to 2016 Restoration of the Public Spaces
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.
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.
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.
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.
Capitol Preservation Commission

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

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)

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)
**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.
**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

<table>
<thead>
<tr>
<th>Program Costs</th>
<th>Sequence 1 Bonding Year 2012</th>
<th>Sequence 2 Bonding Year 2014</th>
<th>Sequence 3 North/West</th>
<th>Sequence 4 Public</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Construction Costs</strong></td>
<td>$127,684,811.74</td>
<td>$10,200,000.00</td>
<td>$63,100,000.00</td>
<td>$27,750,000.00</td>
</tr>
<tr>
<td>Contractor Contingency</td>
<td>$9,510,544.94</td>
<td>$759,742.35</td>
<td>$4,699,974.71</td>
<td>$2,066,946.09</td>
</tr>
<tr>
<td>Contractor Fee</td>
<td>$4,659,613.41</td>
<td>$372,229.52</td>
<td>$2,302,714.02</td>
<td>$1,012,683.27</td>
</tr>
<tr>
<td><strong>Total Construction Costs</strong></td>
<td>$141,854,970.09</td>
<td>$11,331,971.87</td>
<td>$70,102,688.73</td>
<td>$30,829,629.35</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Owner Project Costs</th>
<th>Sequence 1 Bonding Year 2012</th>
<th>Sequence 2 Bonding Year 2014</th>
<th>Sequence 3 North/West</th>
<th>Sequence 4 Public</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Management</td>
<td>$1,483,000.00</td>
<td>$371,000.00</td>
<td>$371,000.00</td>
<td>$371,000.00</td>
</tr>
<tr>
<td>Architects</td>
<td>$15,331,000.00</td>
<td>$11,998,000.00</td>
<td>$-</td>
<td>$3,333,000.00</td>
</tr>
<tr>
<td>Predesign - A/E Package</td>
<td>$500,000.00</td>
<td>$500,000.00</td>
<td>$-</td>
<td>$-</td>
</tr>
<tr>
<td>Construction Contingency</td>
<td>$14,832,000.00</td>
<td>$1,070,000.00</td>
<td>$7,612,000.00</td>
<td>$3,259,000.00</td>
</tr>
<tr>
<td>Telecommunications (voice &amp; data)</td>
<td>$5,746,000.00</td>
<td>$1,230,000.00</td>
<td>$1,078,000.00</td>
<td>$2,151,000.00</td>
</tr>
<tr>
<td>Inspections - Special construction and General</td>
<td>$741,000.00</td>
<td>$185,250.00</td>
<td>$185,250.00</td>
<td>$185,250.00</td>
</tr>
<tr>
<td>Commissioning Energy services</td>
<td>$2,000,000.00</td>
<td>$500,000.00</td>
<td>$500,000.00</td>
<td>$500,000.00</td>
</tr>
<tr>
<td>Security Equipment</td>
<td>$1,851,000.00</td>
<td>$1,295,700.00</td>
<td>$1,295,700.00</td>
<td>$1,295,700.00</td>
</tr>
<tr>
<td>Furniture</td>
<td>$7,416,000.00</td>
<td>$5,23%</td>
<td>$5,23%</td>
<td>$5,23%</td>
</tr>
<tr>
<td><strong>Total Owner Project Costs</strong></td>
<td>$49,900,000.00</td>
<td>$14,624,250.00</td>
<td>$12,480,950.00</td>
<td>$9,281,550.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other Project Costs</th>
<th>Sequence 1 Bonding Year 2012</th>
<th>Sequence 2 Bonding Year 2014</th>
<th>Sequence 3 North/West</th>
<th>Sequence 4 Public</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design Guidelines/Master Plan</td>
<td>$700,000.00</td>
<td>$700,000.00</td>
<td>$700,000.00</td>
<td>$700,000.00</td>
</tr>
<tr>
<td>CM PreConstruction</td>
<td>$2,225,000.00</td>
<td>$1,230,000.00</td>
<td>$1,230,000.00</td>
<td>$995,000.00</td>
</tr>
<tr>
<td>Relocation moving costs</td>
<td>$2,000,000.00</td>
<td>$1,000,000.00</td>
<td>$1,000,000.00</td>
<td>$1,000,000.00</td>
</tr>
<tr>
<td>Historic Structure Report</td>
<td>$741,000.00</td>
<td>$741,000.00</td>
<td>$741,000.00</td>
<td>$741,000.00</td>
</tr>
<tr>
<td>General Expenses</td>
<td>$741,000.00</td>
<td>$67,000.00</td>
<td>$67,000.00</td>
<td>$674,000.00</td>
</tr>
<tr>
<td>Swing Space</td>
<td>$20,000,000.00</td>
<td>$8,000,000.00</td>
<td>$12,000,000.00</td>
<td>$12,000,000.00</td>
</tr>
<tr>
<td><strong>Total Owner Costs</strong></td>
<td>$26,407,000.00</td>
<td>$10,738,000.00</td>
<td>$13,000,000.00</td>
<td>$2,669,000.00</td>
</tr>
</tbody>
</table>

| Total Estimated Cost | $241,000,000.00 | $40,000,000.00 | $106,000,000.00 | $48,000,000.00 | $47,000,000.00 | $47,000,000.00 | $47,000,000.00 |
| Bond Request | $241,000,000.00 | $40,000,000.00 | $106,000,000.00 | $48,000,000.00 | $47,000,000.00 | $47,000,000.00 | $47,000,000.00 |
# Capitol Preservation Commission

## Commission Questions

### Minnesota State Capitol Restoration Budget Recommendation By MOCA

#### December 31, 2011

<table>
<thead>
<tr>
<th>Program Costs</th>
<th>Sequence A</th>
<th>Sequence C</th>
<th>Sequence B</th>
<th>Sequence D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Costs</td>
<td>$127,684,811.74</td>
<td>$36,661,570.20</td>
<td>$2,730,720.33</td>
<td>$1,337,894.00</td>
</tr>
<tr>
<td>Contractor Contingency</td>
<td>$9,510,544.94</td>
<td>$36,658,977.50</td>
<td>$2,816,836.53</td>
<td>$1,380,085.93</td>
</tr>
<tr>
<td>Contractor Fee</td>
<td>$4,659,613.41</td>
<td>$37,817,732.24</td>
<td>$1,232,388.24</td>
<td>$603,798.50</td>
</tr>
<tr>
<td><strong>Total Construction Costs</strong></td>
<td><strong>$141,854,970.09</strong></td>
<td><strong>$40,730,184.53</strong></td>
<td><strong>$18,381,743.38</strong></td>
<td><strong>$40,727,304.11</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Owner Project Costs</th>
<th>Sequence A</th>
<th>Sequence C</th>
<th>Sequence B</th>
<th>Sequence D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Management</td>
<td>$1,483,000.00</td>
<td>$425,807.17</td>
<td>$425,807.17</td>
<td>$425,807.17</td>
</tr>
<tr>
<td>Architects</td>
<td>$15,331,000.00</td>
<td>$425,807.17</td>
<td>$425,807.17</td>
<td>$425,807.17</td>
</tr>
<tr>
<td>Predesign - A/E Package</td>
<td>$500,000.00</td>
<td>$500,000.00</td>
<td>$500,000.00</td>
<td>$500,000.00</td>
</tr>
<tr>
<td>Construction Contingency</td>
<td>$14,832,000.00</td>
<td>$4,258,645.97</td>
<td>$1,921,949.00</td>
<td>$1,921,949.00</td>
</tr>
<tr>
<td>Telecommunications (voice &amp; data)</td>
<td>$5,746,000.00</td>
<td>$2,690,000.00</td>
<td>$3,056,000.00</td>
<td>$3,056,000.00</td>
</tr>
<tr>
<td>Inspections - Special construction and General</td>
<td>$741,000.00</td>
<td>$212,760.02</td>
<td>$96,019.70</td>
<td>$96,019.70</td>
</tr>
<tr>
<td>Commissioning Energy services</td>
<td>$2,000,000.00</td>
<td>$592,360.70</td>
<td>$259,162.49</td>
<td>$259,162.49</td>
</tr>
<tr>
<td>Security Equipment</td>
<td>$1,851,000.00</td>
<td>$555,300.00</td>
<td>$1,295,700.00</td>
<td>$1,295,700.00</td>
</tr>
<tr>
<td>Furniture</td>
<td>$7,416,000.00</td>
<td>$4,449,600.00</td>
<td>$2,224,800.00</td>
<td>$2,224,800.00</td>
</tr>
<tr>
<td><strong>Total Owner Project Costs</strong></td>
<td><strong>$49,900,000.00</strong></td>
<td><strong>$21,302,464.24</strong></td>
<td><strong>$9,045,800.17</strong></td>
<td><strong>$9,045,800.17</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Project Costs</th>
<th>Sequence A</th>
<th>Sequence C</th>
<th>Sequence B</th>
<th>Sequence D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Costs</td>
<td>$141,854,970.09</td>
<td>$40,730,184.53</td>
<td>$18,381,743.38</td>
<td>$40,727,304.11</td>
</tr>
<tr>
<td>Owner Project Costs</td>
<td>$49,900,000.00</td>
<td>$21,302,464.24</td>
<td>$9,045,800.17</td>
<td>$9,045,800.17</td>
</tr>
<tr>
<td><strong>Total Program Costs</strong></td>
<td><strong>$191,754,970.09</strong></td>
<td><strong>$62,032,648.77</strong></td>
<td><strong>$27,427,543.55</strong></td>
<td><strong>$52,475,579.01</strong></td>
</tr>
</tbody>
</table>

**Total Program Costs with inflation**

<table>
<thead>
<tr>
<th>Total Program Costs with inflation</th>
<th>Sequence A</th>
<th>Sequence C</th>
<th>Sequence B</th>
<th>Sequence D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Costs</td>
<td>$141,854,970.09</td>
<td>$40,730,184.53</td>
<td>$18,381,743.38</td>
<td>$40,727,304.11</td>
</tr>
<tr>
<td>Owner Project Costs</td>
<td>$49,900,000.00</td>
<td>$21,302,464.24</td>
<td>$9,045,800.17</td>
<td>$9,045,800.17</td>
</tr>
<tr>
<td><strong>Total Program Costs with inflation</strong></td>
<td><strong>$214,362,881.07</strong></td>
<td><strong>$69,346,298.06</strong></td>
<td><strong>$30,661,250.93</strong></td>
<td><strong>$53,000,000.00</strong></td>
</tr>
</tbody>
</table>

**Bond Request**

<table>
<thead>
<tr>
<th>Bonding Year 2012</th>
<th>Bonding Year 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>$94,600,000.00</td>
<td>$146,400,000.00</td>
</tr>
</tbody>
</table>
Questions on the
Comprehensive Master Plan
Approval of the Capitol Preservation Commissions

Comprehensive Master Plan