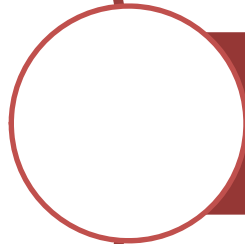


*Historical Trends*

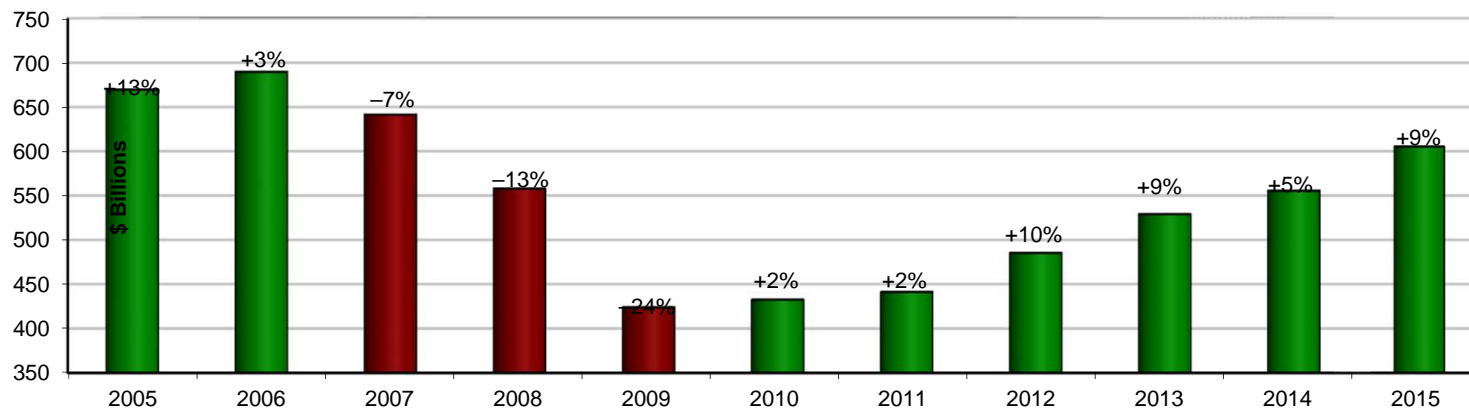


*What Happened in 2013 - 15?*



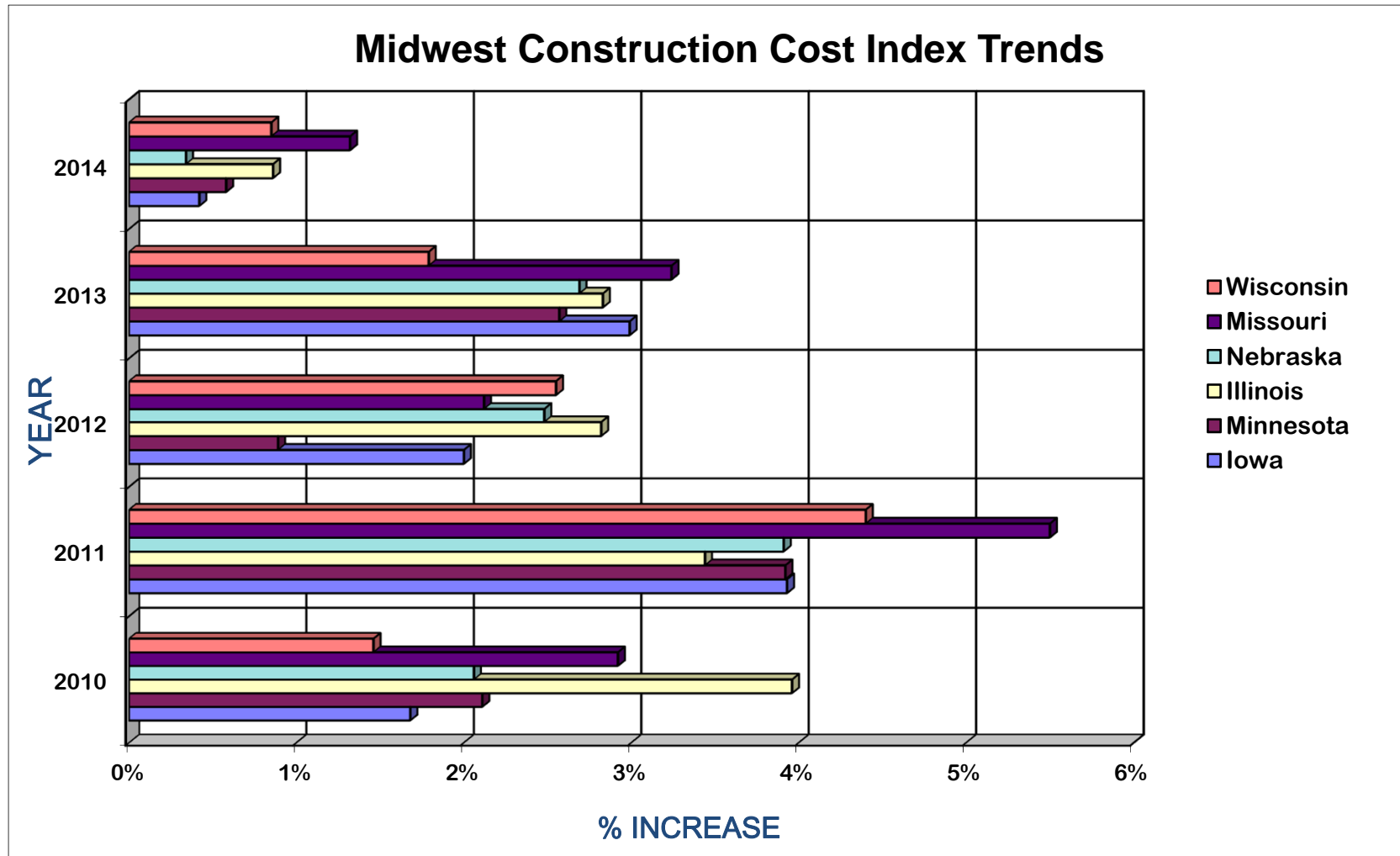
*Mitigating the Impact*

# Historical Trends



The McGraw-Hill Construction forecast for total value of contract awards, including residential, is projected to increase by 9% for 2015. The above chart illustrates total contract awards including the annual percentage of growth for the construction industry. It is expected that many public works markets that pulled back in 2014 will stabilize in 2015 and no longer slow overall growth.

# Historical Trends



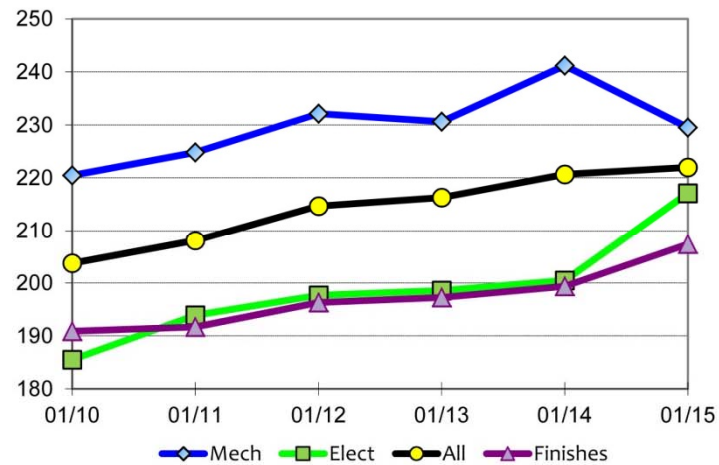
# Historical Trends

Date	Mech	Percent	Elect	% Incr.	Finishes	% Incr.	All	% Incr.
01/10	220.5	1.61%	185.5	-3.89%	190.9	-1.50%	<b>203.8</b>	<b>0.34%</b>
01/11	224.8	1.95%	193.9	4.53%	191.7	0.42%	<b>208.1</b>	<b>2.11%</b>
01/12	232.1	3.25%	197.7	1.96%	196.3	2.40%	<b>214.7</b>	<b>3.17%</b>
01/13	230.6	-0.65%	198.6	0.46%	197.3	0.51%	<b>216.3</b>	<b>0.75%</b>
01/14	241.2	4.60%	200.5	0.96%	199.4	1.06%	<b>220.7</b>	<b>2.03%</b>
01/15	229.5	-4.85%	217.1	8.28%	207.4	4.01%	<b>222.0</b>	<b>0.59%</b>

Five Year Average 1.73%

## MINNEAPOLIS, MINNESOTA

CONSTRUCTION COST INDEX



NOTE: A construction cost index number is a percentage ratio of a cost at a stated time to the national average cost of the same item at a base period. The base period used for this index is January 1, 1993. In other words, these index figures represent relative construction factors (or if you prefer, multipliers). January 1993 = 100.0 percent. Source: Means CCI

# Historical Trends



STEEL

2005



DRYWALL

2006



ASPHALT

2008



PROPANE

2013



CEMENT

2014

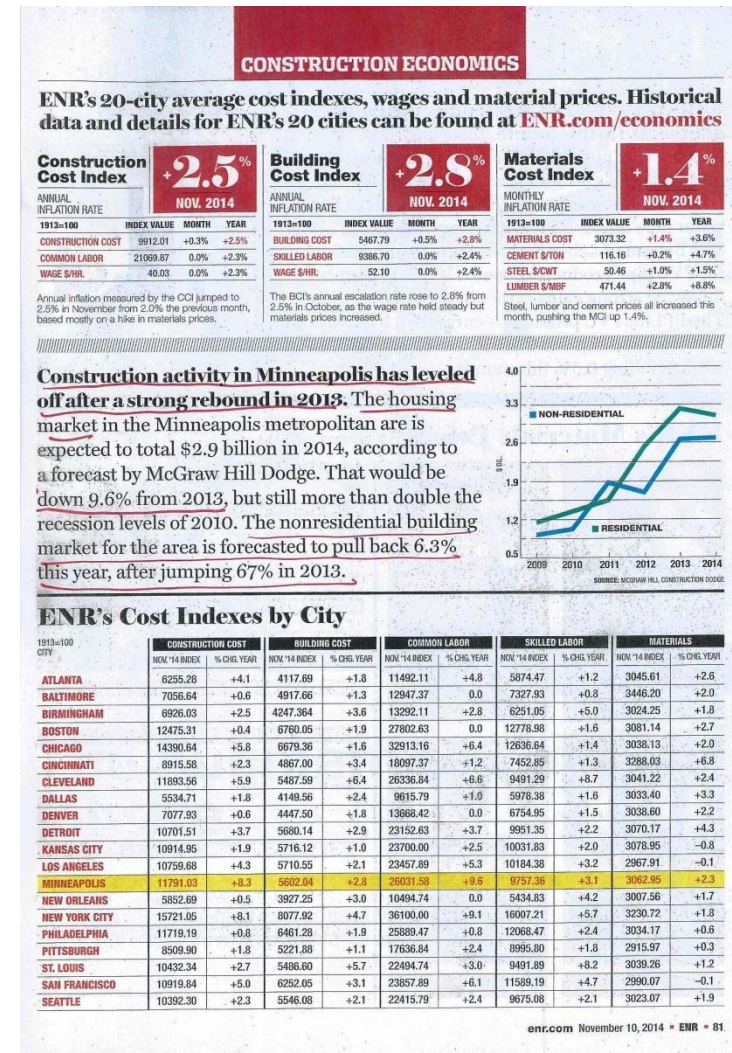


PRECAST GLAZING

2015

# What Happened in 2013 - 2015?

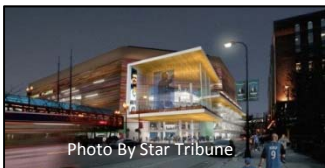
- Housing Market –Double the Recession Levels of 2010
- Non-Residential Building Market Jumped 67% in 2013
- Labor Costs Up 9.6% from 2013 to 2014
- Material Costs Up 2.3% from 2013 to 2014



# What Happened in 2013 - 2015?

## PROJECTS

- 2014 Bonding Bill
  - \$100M Housing
  - \$448M Business & Economic Development
  - \$128M Roads, Bridges, Transportation
  - \$240M Higher Education
- Large Public & Private Projects: Viking Stadium, State Capitol Renovation, Mayo Civic Center, Higher Education, Road Construction, Target Center
- Surge in Private projects
- Owner's Re-contacting General Contactors





# What Happened in 2013 - 2015?

## MATERIAL SHORTAGES

- Cement
- Precast
- Glazing

## LABOR SHORTAGES

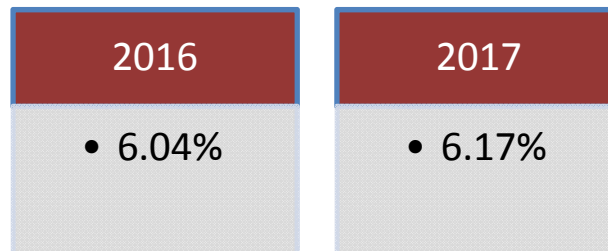
- Masons
- Ironworkers
- Skilled, Experienced Labor

## RESULTS

- Lack of Bidders
- Increased Inflation
- Schedule Impacts

# Forecast for 2016

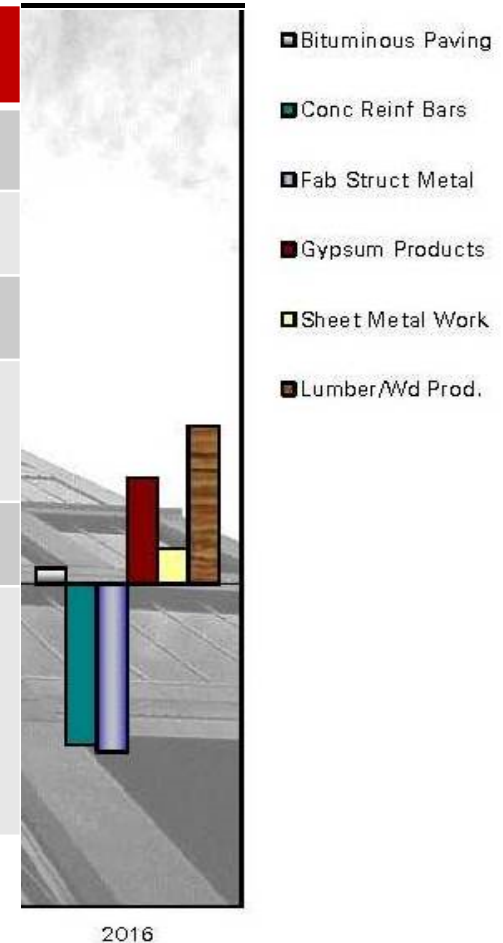
- Contractors Continue to be Busy
  - Continuing Need for Skilled Labor & Management
  - Some Easing on Material Availability
  - Increased Inflation
- 
- Recommended Inflation:



Projects with complex scopes have higher inflation

# Forecast for 2016

MATERIALS	
CONCRETE	Availability OK, but price increasing
PRECAST	Continuing Long Lead Time
STEEL	Price increase expected in March
ARCH MTL PANELS	Increased Cost & Long Lead Time
GLAZING	Continuing Long Lead Times
DOORS, & HDWR, MILLWORK, MEP	Increased lead times



# Forecast for 2016

## LABOR

- Still short supply of ironworkers, masons, fitters, tile setters
- Unions are adding apprentices
- All Contractors continue to be busy



# Mitigating the Impact

What Can You Do?

**PLAN AHEAD**

**AFTER BID**

**DURING CONSTRUCTION**

# Mitigating the Impact

## What Can You Do?

### RESEARCH THE MARKET

- Talk to Contractors
- Consult Cost Forecasts
  - Engineering News Record
  - State of MN Inflation Indicators
  - State of MN Budget & Economic Forecast
  - RS Means Cost Indicators
  - Local News
  - CPMI Construction Cost Indicators

**Building Projects Inflation Schedule**  
(Projected Rates For FY 2016 - 2017)

Midpoint of Construction	MMB MULTIPLIER	Midpoint of Construction	MMB MULTIPLIER
Jul-15	0.00%	Jan-19	24.88%
Aug-15	0.44%	Feb-19	25.61%
Sep-15	0.88%	Mar-19	26.34%
Oct-15	1.32%	Apr-19	27.08%
Nov-15	1.76%	May-19	27.82%
Dec-15	2.21%	Jun-19	28.57%
Jan-16	2.74%	Jul-19	29.32%
Feb-16	3.28%	Aug-19	30.07%
Mar-16	3.82%	Sep-19	30.83%
Apr-16	4.36%	Oct-19	31.59%
May-16	4.90%	Nov-19	32.36%
Jun-16	5.45%	Dec-19	33.13%
Jul-16	6.00%	Jan-20	33.91%
Aug-16	6.55%	Feb-20	34.69%
Sep-16	7.10%	Mar-20	35.48%
Oct-16	7.66%	Apr-20	36.27%
Nov-16	8.22%	May-20	37.06%
Dec-16	8.79%	Jun-20	37.86%
Jan-17	9.37%	Jul-20	38.66%
Feb-17	9.96%	Aug-20	39.47%
Mar-17	10.56%	Sep-20	40.28%
Apr-17	11.16%	Oct-20	41.10%
May-17	11.76%	Nov-20	41.92%
Jun-17	12.37%	Dec-20	42.75%
Jul-17	12.98%	Jan-21	43.58%
Aug-17	13.59%	Feb-21	44.42%
Sep-17	14.21%	Mar-21	45.26%
Oct-17	14.83%	Apr-21	46.11%
Nov-17	15.45%	May-21	46.96%
Dec-17	16.08%	Jun-21	47.82%
Jan-18	16.73%	Jul-21	48.68%
Feb-18	17.39%	Aug-21	49.55%
Mar-18	18.05%	Sep-21	50.42%
Apr-18	18.71%	Oct-21	51.30%
May-18	19.38%	Nov-21	52.18%
Jun-18	20.05%	Dec-21	53.07%
Jul-18	20.73%	Jan-22	53.96%
Aug-18	21.41%	Feb-22	54.86%
Sep-18	22.09%	Mar-22	55.76%
Oct-18	22.78%	Apr-22	56.67%
Nov-18	23.47%	May-22	57.58%
Dec-18	24.16%		

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# Mitigating the Impact

What Can You Do?

## BID DOCUMENTS

- Material Choices may Impact Timing
  - Precast vs. Masonry
  - Curtainwall Systems
- Be sure the products specified are available
- Minimize ambiguities in the specs & drawings



# Mitigating the Impact

## What Can You Do?

### BID DOCUMENTS

- Keep bid forms simple
- Keep Number of Alternates & Addenda to a Minimum
- Be specific about completion dates

3.1.6 EXPERIENCE/CAPABILITIES:

3.1.6.1 Qualifications.

- Provide background history on your firm. Provide a brief description of the work the firm does and types of products manufactured. Also including the number of employees, years in business, etc.
- List the office locations that will be responsible for the work.
- If your team consists of a partnership with another firm, clearly identify the parameters of this partnership, why it was formed, and who the subcontract will be assigned to.
- Provide name, title and role of key contact.
- Provide a list of the specific team members (personnel), including those of any subcontractors, who will be assigned to this project.
  - Clearly indicate the role each individual will play in the project.
  - Include titles and assigned project tasks.
- Any changes in personnel who work on the project must be preceded by submission of qualifications to and approval by the Owner.
- Provide a brochure or other materials describing the type of services and previous experience of your firm.

3.1.6.2 Experience. A list of 3 projects of a similar nature as completed in the last 20 years by the responding firm. List of relevant projects must include:

- the type of furniture reproduced,
- date of completion,
- total contract amount for your work,
- owner, location,
- name and current telephone phone number for a reference.

3.1.6.3 Proposed Work plan. This shall include:

- Plan for reviewing existing shop drawing and approval process.
- Include a brief description of furniture.
- Include a schedule of project completion.

3.1.6.4 Past Claims. Regardless of compensation involving:

- Litigation, Arbitration and
- Other claims for completion.
- Provide project name and description.

4.0 EVALUATION OF PROPOSALS

4.1 Representatives of the State will review the proposals. The Construction Manager and needed to complete its evaluation. All proposals submitted in a separate sealed envelope. Qualitative criteria have been evaluated and identified as follows:

EXPERIENCE/CAPABILITIES (continued)

1 Qualifications (continued)

- Name, title and experience of key contact.  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Role: \_\_\_\_\_  
Years with Firm: \_\_\_\_\_ Years of Experience: \_\_\_\_\_  
Brief Description of Technical Expertise: \_\_\_\_\_  
\_\_\_\_\_
- Attach a brochure or other materials describing the type of services and previous experience of your firm to this Qualification Form.  
My Company  HAS  HAS NOT provided a brochure or other materials.

2 Experience:

- On Attachment #2 Reference Verification Form provide the information required in paragraph 3.1.7.2 to satisfy this item AND answer the question below:  
Experience. The Respondent (the firm who will hold the contract) named above has completed at least 3 similar projects in the past 20 years. Similar projects must include refinishing or restoration work on similar types of furnishings.  
Company listed above  HAS  HAS NOT completed at least three (3) similar projects in the past 20 years that include refinishing or restoration work on similar types of furnishings.

3 Proposed Work Plan:

- Briefly describe your plan for reviewing and accessing existing furniture, process for refurbishment, plans to meet and respond to different phases, shop drawing and approval process, mock-up process.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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# Mitigating the Impact

## What Can You Do?

### BID DOCUMENTS

DIVISION 01 – GENERAL REQUIREMENTS

**SECTION 01 32 16**  
**SCHEDULES AND REPORTS**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 1 Specification sections, apply to work of this section.

B. Section 02100 Proposal Requirements.

1.2 COORDINATION

A. The Contractor shall closely coordinate scheduling with all other Contractors and the Owner's Representative.

1.3 MILESTONES

A. The Owner has established milestone dates for the project as follows:

Selection of Potential Best Value Proposer	January 2015
Pre – Award Clarification Phase	February 2015
Anticipated Award and Notice to Proceed	March 2015
Existing Grand Lobby and Ballroom Off-Line – Start Demolition	No sooner than date of Notice to Proceed
Skyway & User Passage Route - Substantial Completion	December 1, 2015
Remodeling Area E – Start Construction (existing offices)	No sooner than date of Notice to Proceed
Remodeling Area E - Substantial Completion	December 1, 2015
Chiller Area Construction	November 2015 – February 2016
New Construction - Substantial Completion	December 1, 2016
Rochester Civic Theatre - Substantial Completion	December 1, 2016
Existing Kitchen Remodeling Area J	April – June 2017
Remodeling Area B	January –August 2017
Auditorium Renovations Area C Including New Locker Rooms (B122, B123, B124 and B125)	June – August 2017
Final Project Completion	September 2017

B. A "Milestone" is a scheduled activity representing the start or end of a series of activities or an accomplishment or an event in the course of the project. The date of the Milestone is a significant point in time and is contractually binding on the Contractors.

C. The milestone dates are part of the Contract. If the project start date shall be delayed through no fault of the Contractor the completion milestones shall be adjusted accordingly, upon application to the Owner for an extension or delay of such dates and approval by the Owner of

CPMI © 01 32 16 – 1/9 01080457.10  
JAN 10/22/2014

**SECTION 01 3216**  
**CONSTRUCTION PROGRESS SCHEDULE**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 1 Specification sections, apply to work of this section.

1.2 COORDINATION

A. The Contractor shall closely coordinate scheduling with all other Contractors and the CM. Contractor shall coordinate work closely with the Contractors of other current and future contracts.

1.3 PHASING/MILESTONES

The Construction Manager has established Phases and Milestone dates for the project as follows:

<b>Anticipated Contract Award</b>	<b>14 October 2015</b>
<b>Start Work on site</b>	<b>19 October 2015</b>
<b>Substantial Completion</b>	<b>15 July 2016</b>
<b>Final Completion</b>	<b>29 July 2016</b>

B. A "Milestone" is a scheduled activity representing the start or end of a series of activities or an accomplishment or an event in the course of the project. The date of the Milestone is a significant point in time and is contractually binding on the Contractors.

C. The milestone dates are part of the Contract. If the project start date shall be delayed through no fault of the Contractor the completion milestones shall be adjusted accordingly, upon application to the Owner for an extension or delay of such dates and approval by the Owner of a change order to the extent consistent with the Contract Documents. Upon such extension or change of milestone dates, there shall be no increase in the Contract Price unless otherwise required by the Contract Documents.

1.4 PROGRESS/RESTRICTIONS

The work will start immediately upon mobilization and continue uninterrupted.

1.5 PRELIMINARY SCHEDULE

A. The Contractor and Subcontractor shall, within ten (10) calendar days after award of Contract, provide their own data to the CM reflecting the actual plan of operation for the Project consistent with the Master Schedule. Schedule input data shall include a comprehensive list of all activities of the construction phase of the Project, including submittals (Shop Drawings, Samples, Product Data), procurement of material (fabrication, delivery) and on-site activity (erection, installation, construction).

B. The Contractor shall identify for each activity duration, sequence, activity description, crew size and dollar value. Submittal activities shall be listed with the anticipated date of submittal. Procurement activities shall be listed with the duration required for fabrication

Chaffield Center for the Arts 01 3216 - 1 CONSTRUCTION PROGRESS SCHEDULE  
LHB Project No. 140378

# Mitigating the Impact

What Can You Do?

## BID REQUIREMENTS

- Give Contractors Enough Time To Bid & To Construct
- Consider Time Of Year for Start Date
- Liquidated Damages May Affect Cost



# Mitigating the Impact

What Can You Do?

## **BID ALTERNATES & CONTINGENCIES**

- Manage Owner Expectations
- Use Bid Alternates (Add Only) to Protect the Budget
- Bid Contingency to Protect the Budget

# Mitigating the Impact

What Can You Do?

## **“WOO” THE CONTRACTORS**

- Email and Contact Contractors, Subcontractors & Suppliers about your job
- Talk about your project well ahead of bid
- Be sure Suppliers know about the project

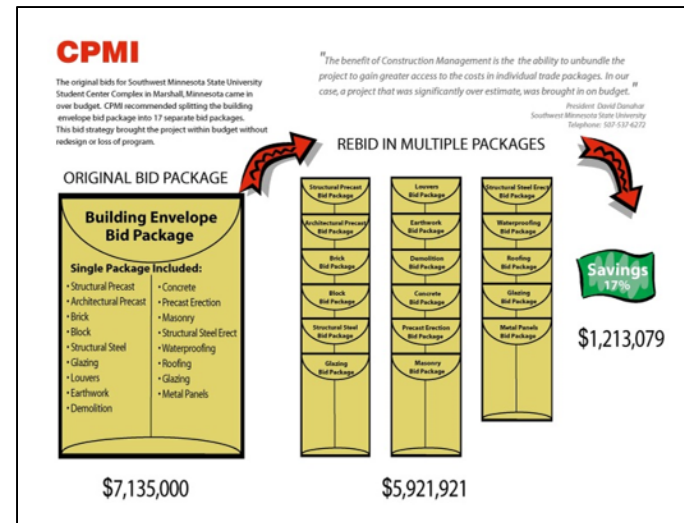
# Mitigating the Impact

## What Can You Do?

### AFTER BID

- Work with Low Bidder on VE Options
- Investigate Why Bids were Over
- May need to Rebid

ITEM	100% S.D.		Initially Accepted	Adjustment Or Rejected	Comments
	Goal				
<b>SITE ITEMS</b>					
7 Tunnel to Robert Street Ramp as Alternate	-1,272,500		8-May-03		
8 Delete Cobault Blue glass wall at Robert Street	-74,900		8-May-03		
<b>9 Change exterior paving</b>					
a. Change granite pavers to Architectural Sidewalks	-235,900		8-May-03		
b. Change Architectural Sidewalks to Standard			8-May-03	Not preferred by A/E (-\$53K)	
c. Change Tumble Glass Walkway Assembly to Arch Sidewalk			8-May-03	Not preferred by A/E (-\$66K)	
d. Pave Columbus Street - ADD (Remove/replace bituminous only)	50,000		21-May-03	Request from Admin to include in project - does not include curb/sidewalk or landscaping replacement	
<b>10 Reduce landscaping</b>					
a. Eliminate Water Feature and Other Landscape Features	-100,000		21-May-03	Not preferred by A/E (-\$53K)	
b. Change Retaining Walls to Keystone Type & Alum Rail to Steel			8-May-03	\$87K - Not recommended by A/E - Concrete remains	
<b>MECHANICAL/ELECTRICAL ITEMS</b>					
11 Delete Fire & Jockey Pump	-57,700		8-May-03	Not Required by Code	
12 Delete Domestic Water Booster Pump	-41,700		8-May-03	Not Required by Code	
13 Delete Atrium Smoke Exhaust System	-1,035,000		8-May-03	Sprinkler Deluge System will comply with code	
14 Reduce Mechanical System Costs by Up to 5%			8-May-03	Not preferred by OPR (-\$403K)	
15 Reduce Electrical/Spec. Elec. System Costs by up to 5%			8-May-03	Not preferred by A/E (-\$422K)	
a. Use Security Consultant (Kroll) Estimate	-100,000		21-May-03	OPR needs estimate for review	
b. Reduce Sound Masking (White Noise) \$0.55/SF + Mark-ups	-125,000		21-May-03	Based on 2 past projects from A/E	
c. Reduce Electrical \$0.25/SF	-100,000		21-May-03	Overall \$/SF \$0.25 above average A/E projects	
<b>OTHER</b>					
16 Use New Escalator Costs (3.2% instead of 4%)	-700,000		8-May-03	Based On New State MN Finance Inflation Schedule	
17 Transfer funds from Construction to Telecommunications Budget	-450,000		21-May-03	Includes Data Center UPS system & PDU's with infrastructure as defined by Telecom Equip. List	
18 Transfer funds from Escalation Budget to Construction				Not Preferred by SAO (-\$1M)	
19 Reduce Rotunda to Two Story					
20 Reduce A/E Design Contingency (-1%)	-637,000		21-May-03	A/E Used to Balance shortfall (10% to 9%) - Based on completeness of both estimates & market conditions	



# Mitigating the Impact

What Can You Do?

## **DURING CONSTRUCTION**

- Mitigate Claims for Delay due to Material Availability
- Get Labor Rates at the start of the project
- Work with Contractors on Critical Material & Labor issues

Turn Around Shop Drawings Quickly

Be Open to Creative Sequencing of Construction

- Answer RFIs Quickly



# DISCUSSION