

BEFORE THE METRO CONTRACT REVIEW BOARD

FOR THE PURPOSE OF ACCEPTING THE OREGON) Resolution No. 04-3417
CONVENTION CENTER EXPANSION CM/GC)
DELIVERY PROJECT REPORT) Introduced by Council President Bragdon
)

WHEREAS, the Metro Council is the Contract Review Board for the Metropolitan Exposition-Recreation-Commission (MERC); and

WHEREAS, the Metro Council charged MERC with the responsibility of managing and building the Oregon Convention Center Expansion; and

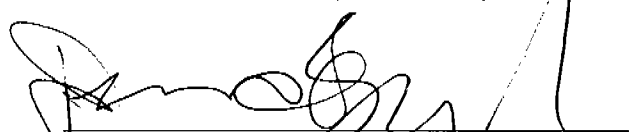
WHEREAS, the Metro Council, acting as MERC's Contract Review Board, authorized MERC to utilize the Contract Manger/General Contractor (CMGC) process for the Oregon Convention Center Expansion Project; and

WHEREAS, State Law, specifically, ORS 279.103, requires that MERC submit a report to the Metro Council, acting as MERC's Local Contract Review Board, containing findings relative to the success of the CM/GC process that was employed; and


WHEREAS, the Oregon Convention Center Expansion is now substantially completed and was delivered ahead of schedule, under budget, and without any significant litigation or claims; now, therefore,

BE IT RESOLVED, that the Metro Council accepts the Oregon Convention Center CM/GC delivery project report, attached as Exhibit A.

ADOPTED by the Metro Contract Review Board this 12th day of February, 2004.


David Bragdon, Council President

Approved as to Form:


Daniel B. Cooper, Metro Attorney



**Utilizing CM/GC Contracting for Construction
November 20, 2003
Karl Schulz, Sr. Project Manager, OCC Expansion**

Objective:

This report will define the advantages and disadvantages of the CM/GC process for the contracting of construction services for the Oregon Convention Center Expansion. Defined will be the benefits of this process.

Introduction:

The Expansion Project, a \$116 million addition to the Oregon Convention Center, provided 106,000 s. f. of Exhibit Hall, a 34,000 s.f. ballroom, 20 new meeting rooms, concessions, support areas, and an 800-space underground parking structure. The Expansion added approximately 700,000 s.f. of new space. The additions to the existing Oregon Convention Center provide almost 1 million total square feet of facility for convention use.

The stakeholders for this project include Metro, MERC, City of Portland, Multnomah County, the Hotel and Rental Car Industry, Portland Visitors Association, and citizens of Oregon. Their desire was to provide additional Convention Center space to provide more room and flexibility so as to draw additional and larger conventions and events to the Portland area.

Zimmer, Gunsel Frasca Architects (AGF) was selected to provide design services for the Expansion in December 1999. ZGF was also the architect firm for the existing Convention Center building. Their understanding of the project scope and issues defined their abilities which could be utilized in the construction of the project. Upon selection, ZGF immediately began the planning and designing of the Expansion.

Based on successes with previous projects, in 1999 the Metro Council approved the use of the CM/GC process for contracting construction services for the Oregon Convention Center Expansion in lieu of a competitive bidding process. As a result, the Metropolitan Exposition Recreation Commission (MERC), which manages the OCC on behalf of Metro, issued a request for proposals for construction management and general contractor (CM/GC) services.

Selection of the CM/GC was completed in January 2000. Hoffman Construction was selected to complete this project based on their experience with the CM/GC process and other projects of this size.

The most difficult challenge for the Project Team was to complete the Expansion for occupancy by April 15, 2003. This deadline could not be altered since the spaces to be built had already been contracted for events to be held in April 2003. If the schedule was not met, the events would have to be cancelled at an economic loss to the City. It was critical that the Expansion be completed on time to house these national shows that would provide a substantial positive economic impact to the region.

A second major challenge for the Project was the concern that the funding mechanism could be in jeopardy due to a ballot measure that was to be voted on in November 2000. Because of the wording of the referendum, the stakeholders who were managing the funding for the Project determined that the risks were too high to proceed on the construction of the Project until the referendum issue had been resolved. This would mean that the construction and the process for the Project would have to be delayed until after the election in November. Therefore, the design and

construction services were delayed for more than 6 months until the result of the ballot measure was known.

In order to make up the time lost, the design and construction schedule had to be compressed. Therefore, a fast-track delivery process had to be used for the Project. This required multiple bid packages, compressed construction periods, and intense design, construction, and project management efforts. Between January 2001 and February 2003, over ten bid packages were bid on and used for construction.

The Expansion Project construction was successfully completed for occupancy on April 1, 2003, fifteen days ahead of schedule. This success was completed despite design impacts that could not be anticipated. This document will also address how the impacts were managed successfully using management solutions that are available when using the CM/GC process.

History

Metro/MERC had the opportunity to select from a number of construction delivery processes for contracting the construction. Because of the variables and risk associated with the number of issues regarding the complexity of the construction of Convention Center Expansion, it was determined by Metro/MERC that the use of a CM/GC process would be the most appropriate. This decision was based on the fact that the CM/GC process would help reduce the risk of exposure on a number of the issues that will be defined in this document.

The selection process for the CM/GC was completed at the beginning of the project in 1999. Request for Proposals (RFP) for the CM/GC selection was advertised both locally and nationally. Six teams provided proposals. A number of the teams were joint-ventures. Of the six teams, three were short listed. Metro/MERC completed interviews with the utilization of an Advisory Committee consisting of individuals who had completed CM/GC processes for other projects in the region.

Hoffman Construction of Oregon was awarded the contract to provide CM/GC services for the Expansion. The selection was based on their experience and fee proposed to complete this work. Contract negotiations were entered into and agreed upon, and a contract for their CM/GC services was executed on January 31, 2001. The execution of the contract was delayed one year due to the referendum as previously discussed.

The impact of this delay was the Project had to move from a conventional design-build to a fast-track delivery process in order to meet the April 15, 2003 deadline for the first convention. Fast-track is a process utilized to shorten the overall length of a project. This requires the design team to distribute bid packages early before the final design of the building has been completed. Bid packages are released as they are designed and coordination of this must take place by the design team and the contractor to make sure that all components are properly designed and constructed. This requires an extensive amount of sophistication in both coordination and bidding to make sure that everything is provided. The CM/GC process allows for the bidding of bid packages as they are needed to meet schedule deadlines. A conventional design/build construction process would have required that all the design be completed before the bids could have been sought.

Execution of the CM/GC Process

By utilizing the CM/GC process, the owner, design team, and contractor could coordinate a fast-track schedule. The CM/GC process allows that a guarantee maximum price be developed by estimates on which a maximum cost contract can be executed. The next step is the coordination by the Project Team to make sure that the bid packages are developed, bud, and transferred into the contract of the CM/GC. In the execution of the Oregon Convention Center Expansion Project, over

ten bid packages totaling approximately \$93 million were bid and incorporated into the Project. The bid packages were released over approximately 1-1/2 years starting in December 2000 with the last bid packages being released in August 2002. This process allowed the design team to complete designs as required and to start construction as early as possible to shorten the amount of time needed for the completion of the overall project.

With the utilization of the CM/GC process's multiple bid packages, fast-track construction, and the flexibility that the CM/GC process allows for managing construction, the actual construction of the Oregon Convention Center Expansion was completed 15 days ahead of schedule. This allowed the building to be occupied by the national conventions after April 15th. Ultimately, the success of the Project has been defined by the ability to utilize the CM/GC process to compress the schedule and have the work completed at the high quality level designed.

Costs and Adjustments

The actual cost adjustments are defined below:

\$ 98,500,000	Original GMP
\$ -0-	Change Order 1 – Owner request to increased scope of work with savings to build tenant improvements
\$ 3,570,981	Change Order 2 – Owner request and funded to increase scope of work for CIP projects
\$ 1,100,500	Change Order 3 – Owner funding of improvements due to design errors
\$ -0-	Change Order 4 – Scope reduction to provide contingency for GMP until final determined
\$ (1,500,000)	Change Order 5 – Transfer of savings from GMP to owner
<u>\$ (1,196,349)</u>	Change Order 6 – Transfer of savings from GMP to owner

\$100,475,131 Final GMP

Findings

Metro has determined the following features were provided in the construction of the Expansion utilizing the CM/GC process:

- Provided budget management flexibility
- Provided the ability to open the parking garage for use by the public prior to the completion of the facility thus providing additional revenue to the Oregon Convention Center.
- Allowed the project to be fast-tracked to meet its critical schedule after a delay in notice to proceed was required.
- Provided the ability to incorporate changes in scope of work based on funding availability.
- Allowed for additional incorporation of scope without additional economic surcharge.
- Provided a process to deal with design documents deficiencies at the most economical costs.
- Provided a construction cost saving of \$2.5 million dollars under the designer estimate and Project construction budget. Final project change orders document this savings.
- Lessons Learned Report – Attached.

The CM/GC process, as opposed to the traditional low-bid process, allowed the Project to be completed at an accelerated rate using multiple bid packages and fast-track construction process. This saved approximately six months of construction time compared to a traditional design-bid-build delivery system. This also allowed the Project to make the needed adjustments when the Project

was delayed. A shorter Project schedule ultimately resulted in a cost savings of approximately \$121,000 of General Conditions costs. An additional \$250,000 of staff time to manage the Project was also not required.

Staffing demands for MERC were reduced since the CM/GC provided additional management and cost verification and tracking. The previous management team of the original Convention Center required 4 additional staff at an average cost of \$45,000 per year. The total cost of the additional staff of 4 employees for three years would have been \$540,000. Costs savings of \$911,000 was achieved for reduced management staff and time.

The shorter CM/GC project schedule allowed MERC to open the expanded OCC to the public earlier than would have been possible with a traditional bid-build process. It is estimated that the opening of the OCC Expansion by April 15, 2003 by using the fast-track system resulted in an economic impact and revenue for additional hotel room rentals, food and beverage purchases and approximately \$1.5-\$2.0 million.

Using the CM/GC process to meet the critical schedule prevented the Oregon Convention Center from having to cancel events. The direct cost of loss of shows would have been approximately \$75,000 for the shows that would have been relocated due to delays. This cost does not include legal cost exposure or long term negative impact to the convention business in Portland.

An accelerated Project schedule made available by the CM/GC process allowed for the completion of the new parking structure by April 15, 2002, one year earlier than the completion of the remaining components of the building. This required sophisticated coordination including temporary exiting tunnels, temporary use of elevators and stairwells. In addition, code-compliant issues had to be addressed. The early opening of the parking garage allowed for additional parking revenues for Metro/MERC of over \$300,000. In addition, this provided additional commercial flexibility for the Oregon Convention Center to provide on-site parking for events during construction.

The CM/GC process reduced the amount of change orders than would have been claimed with the traditional low bid process. During the preconstruction phase, the CM/GC and the architect collaborated and completed constructability reviews through the design phase. The CM/GC reviewed documents to make sure all the information provided was clear and correct, reducing the number of changes.

Secondly, the CM/GC contract limits the amount of mark up that can be assessed on a change order. A typical low-bid contractor may markup the process as much as 20% for work required by change order. In contrast, the CM/GC process of markups for change orders was included in the fee specified in the contract. No additional changes were allowed by the CM/GC for coordination of changes to their contract. The estimated cost savings of this feature was approximately \$1,517,000.

With the fast-track process, design and construction coordination were carried out simultaneously. Therefore, up-to-date cost reviews were completed by the contractor to verify that the Project was within budget. When items exceeded the budget, these items were V.E.'d (value engineered) to reduce the cost to meet the budget requirements. In a traditional bid-build process, estimated cost overruns would require that the Project be stopped, re-designed, and then re-bid. By utilizing the CM/GC method, the VE process can take place concurrently with the design. The value engineering process provided approximately \$8,202,146 worth of proposed savings for the Project during a design process that took a year and a half to complete. Not only were the costs that were identified saved, but the Project schedule was not impacted. Adjustments to the Project design schedule, if the

Project had come in over budget, would have been approximately four months. This type of delay would have had a financial impact to the Project of approximately \$550,000.

Conclusions:

The CM/GC provided two major benefits to Metro/MERC for this Project. The most critical was the on-schedule delivery of a complex building with multiple impacts to be resolved. If utilizing the conventional bid-build process, the Project would have been approximately six months to a year delayed from the necessary completion date of April 15, 2003. Second, the total cost of savings defined in this document equals over \$16 million worth of estimated savings for this Project. This is over 15% of the actual Project budget.

Ultimately the CM/GC process provided the best construction delivery process that allowed the Project to be completed on schedule and within budget, making this a successful project for Metro/MERC and the region.

STAFF REPORT

RESOLUTION NO. 04-3417, FOR THE PURPOSE OF ACCEPTING THE OREGON CONVENTION CENTER EXPANSION CM/GC DELIVERY PROJECT REPORT

Date: February 12, 2004

Prepared by: Mark B. Williams

BACKGROUND

The Metro Council is MERC's Public Contract Review Board. Acting as the Review Board, the Council authorized MERC to use the Construction Manager/General Contractor (CM/GC) delivery method to build the expanded center. State law requires that MERC generate a final report regarding the success of the use of the CM/GC process for the project. This final report is must then be submitted to the Metro Council, acting as MERC's Contract Review Board. MERC staff have submitted this report and the lessons learned as per the state requirement.

ANALYSIS/INFORMATION

1. Known Opposition.

None

2. Legal Antecedents.

ORS 279.103 requires that a report be submitted to the local contract review board (Metro Council) as to the findings of how the CM/GC process worked.

3. Anticipated Effects: (identify what is expected to occur if the legislation is adopted)

Compliance with state legal requirements.

4. Budget Impacts.

None

RECOMMENDATION

The Chief Operating Officer recommends that the Metro Council accept the Oregon Convention Center expansion CM/GC delivery project report.