

RECOMMENDATION FOR USE OF CONSTRUCTION MANAGER AT RISK (CMAR) DELIVERY METHOD FOR Convenience Center #3 / Morrisville Public Works Joint Project

Oct 3, 2022



CONCEPT LAYOUT - D

Town of Morrisville Public Works & Wake County CC#3
August 19, 2020



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Feet

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CC#3 / Morrisville Public Works Project

RECOMMENDATION TO USE CMAR DELIVERY METHOD

INTRODUCTION & PROJECT OVERVIEW

The 2014 Convenience Center Master Plan recommended the expansion and relocation of Convenience Center #3 located at 266 Aviation Parkway in Morrisville. Due to the future NCDOT Aviation Parkway widening project and a restriction by the watershed easement associated with the Crabtree Creek Site#23 flood control structure at the rear of the County property, the expansion of Convenience Center #3 on the existing site cannot be accomplished. The Town of Morrisville's existing Public Works Facility will also be impacted by the widening of Aviation Parkway, and an earlier study also recommended expansion. The Town and County have partnered together to begin work on a single site encompassing both facilities. An Advanced Schematic Design Phase is currently on going and scheduled to be completed in February. Wake County and the design team will utilize this information to move forward into the next phases of the project; Design Development and Bid Document Preparation.

Due to the complexity and size of this project, and the need to maintain an efficient construction schedule and budget, staff proposes utilizing the Construction Manager at Risk (CMAR) delivery method for this project. This delivery method allows the owner to select a construction management firm that will act as a consultant to the owner during the design and bidding phases (preconstruction), and then act as the general contractor during the construction phase.

The following report provides a description of the CMAR delivery method and compares and contrasts it with traditional competitive bidding methods.

CMAR Delivery Method – WC CC#3/TOM PW

Recent State Statute Changes

June 2014 - NC Legislature – HB 1043:

- Advance justification by public bodies required for alternative project delivery approaches, such as CMAR or Design-Build (other than Multi-Prime, Single Prime, or Dual Bidding)
- Public Entity must conclude that CMAR is in the best interest of the project after comparing advantages and disadvantages of this method over traditional methods of construction project delivery
- This report will summarize the CMAR Delivery Method and how it compares to traditional competitive bid methods.

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Summary of Delivery Methods

Traditional Competitive Bid Methods

- Bids are publicly advertised, and prices submitted on required date.
- Contract is awarded to lowest responsible, responsive bidder
- No involvement by contractors in design phase of project
- Owner has no information about price or bid cost drivers until project is bid
 - Single Prime Construction – all work performed as single package – one GC to Owner
 - Multi-Prime Construction – 4-6 separate trade packages are bid to Owner
 - Dual Prime – Options A & B bid concurrently

Alternative Methods

- **Construction Manager at Risk**
 - Responsible for coordination and complete construction
 - Involvement begins in design phase
 - Prequalifies & publicly bids all subcontracts with enhanced MBE outreach
 - Quality based selection – similar to that of designers
- **Design - Build**
 - Similar to CMAR except design/construction by single entity (new to NC in 2013)

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Features of CMAR Delivery Method

- Involvement Throughout Project – Design Thru Construction
- Level of Transparency of Cost Information
- Subcontractor Prequalification
- Minority Business Enterprise Utilization
- Schedule Control & Efficiency
- Overall Quality Control

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Summary of Services – Design/Preconstruction

Preconstruction Phase (Consultant Role)

- Construction Budgets Developed w/ Detailed Cost Estimates
- Constructability Reviews (recommending most efficient methods)
- Value Engineering Analysis
- Schedule Development, Coordination & Tracking
- Develops Site Utilization & Phasing Plans
- Prequalification and Competitive Public Bid of Subcontracts

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Summary of Services – Construction

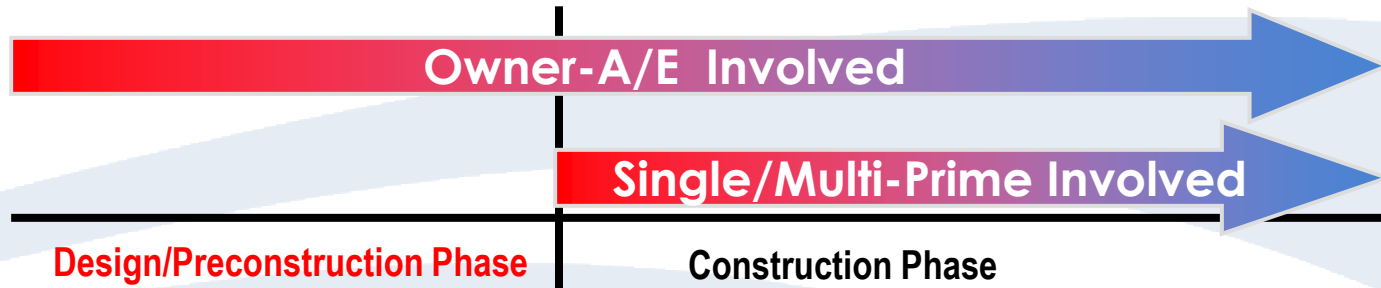
Construction Phase (Contractor Role)

- Guaranteed Maximum Price Contract – (“GMP”) – for defined scope
- Prequalified/Bonded Subcontractors
- Overall Management of Construction
- Constant Management of Schedule and Cost
- Assists Owner with Occupancy Transition and Move Management
- Acts as Owner’s “Fiduciary” (acts in best interest of the Owner)

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Involvement Throughout Project

Single or Multi-Prime Bid



CM At-Risk



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Level of Transparency

CMAR – Transparency in the overall process

- Contract is Open Book; easily checked
- Subcontractors prequalified
- Sub bids publicly opened and lowest responsive selected

Single Prime – Very limited transparency

- Only the total project bid amount is provided
- Method of subcontractor selection is not disclosed
- Cost assumptions are not disclosed
- Unqualified subcontractors may be used

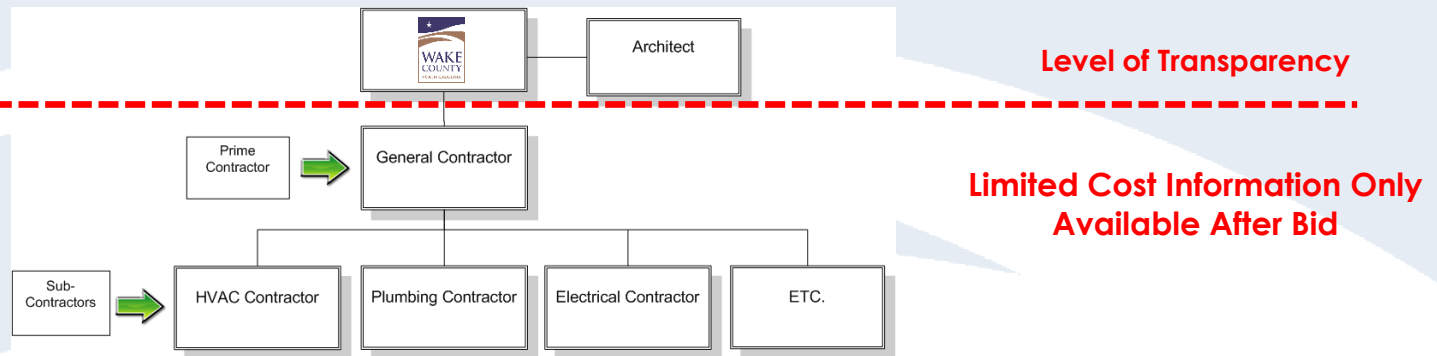
CMAR Delivery Method – WC CC#3/TOM PW

Level of Transparency

Comparison in Level of Transparency Illustrated here:

*Level of Transparency – point beyond which contractor's cost drivers and impacts are shared with Owner.

Traditional Single Prime Contracting



For Single Prime – no cost info before bid
– only limited cost information (closed book) after bid

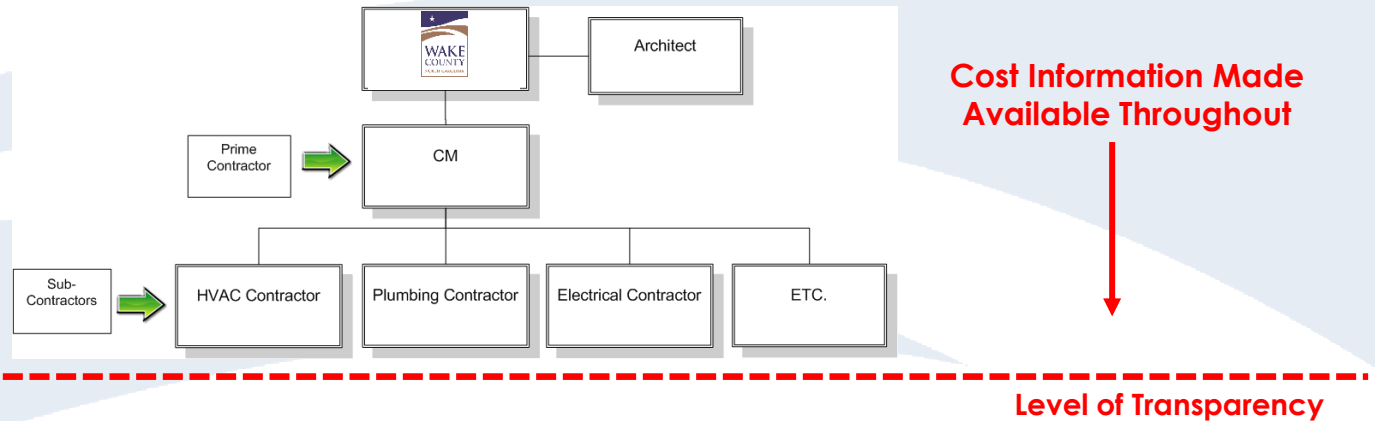
CMAR Delivery Method – WC CC#3/TOM PW

Level of Transparency

Comparison in Level of Transparency Illustrated here:

*Level of Transparency – point beyond which contractor's cost drivers and impacts are shared with Owner.

CMAR



For CMAR – cost information made available during design (open book) and throughout bid process

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Subcontractor Prequalification

- Subs are identified and evaluated
 - approved as capable and qualified
- On average – majority of subs are same as Single Prime
- Typically CMAR's have well developed sub relationships
- Over 95% of subcontracting dollars go to NC subs
- 90% of CM cost goes to the subcontractors

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Minority Business Enterprise Utilization

CMAR method provides:

- extensive MBE recruitment plans
- effort made to create small work packages that MBEs can bid
- more work contracted out since they cannot self-perform
- MBE business mentoring
- MBE Utilization consistently higher with CMAR (15 – 30%+)

Under Single Prime Contracting - minimal MBE outreach effort

- MBE Utilization Typ. Ranges from 0-15%
(Wake County Verifiable Goal is 10%)

CMAR Delivery Method – WC CC#3/TOM PW

Relative Cost of Delivery Methods

CM At Risk - Fee is negotiated and set in the contract

- On bid Day, CM does have the possibility to have higher cost due to:
 - More onsite personnel than Single Prime
 - More subs bonded with CM
 - MBE outreach effort
 - Effort required to pre-qualify subs as directed by Statutes
 - Preconstruction services

Single Prime Contracting

- Amount of profit included in bid determined by current market conditions
- Potential for Fee/ Profit Increase during project
- Lowest Bid may include unqualified subcontractors

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Relative Cost of Delivery Methods

Traditional Single Prime

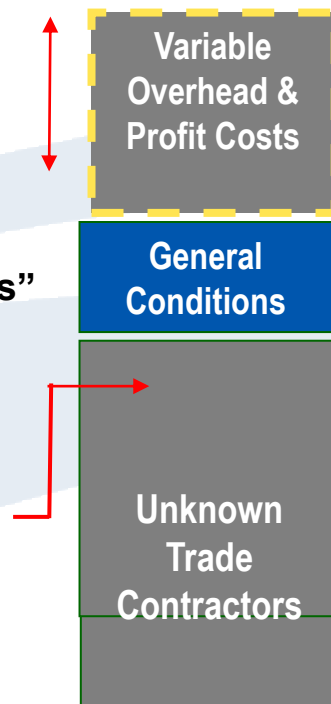
CM At Risk

Unknown/Variable
General Contractor
Goal – Max. Profit

Unknown General
Conditions due to
“Closed Book Process”

Owner has little
control over trade
contractor
selection

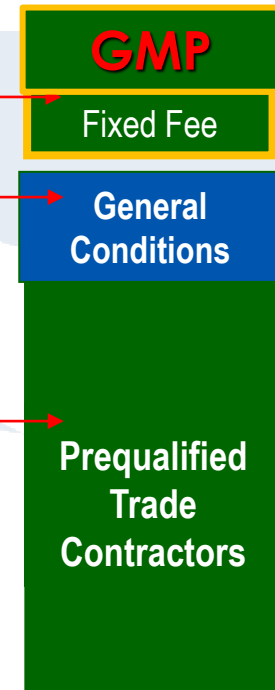
General Contractor
doesn't disclose
low bids publicly.



Established Fixed Fee
Percentage in Contract

Owner pays only for
General Conditions
authorized by contract;
These costs are open
book and “Auditable”

Owner receives lowest
bids from extensive list
of prequalified trade
contractors; Trade bids
opened publicly



***Conclusion** – Owner knows where cost impacts are beginning in design and has opportunity to adjust design/scope to reduce cost before bid.

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Summary & Conclusions

	CMAR	Single Prime
Ability to Select Prime Contractor	Advantage	
Integrated Team Involvement in Design Process	Advantage	
Prequalified Subcontractors	Advantage	
History of MBE Participation	Advantage	
Best Schedule Control – Faster Overall Delivery	Advantage	
Control of Fee/Profit Increases – Change Flexibility	Advantage	
Transparency of Overall Process	Advantage	
Owner Advocate vs. Adversary	Advantage	
Basic, Traditional Process Requires Less Planning		Advantage
Advance Public Justification of Use Not Required (per HB1043)		Advantage
Overhead Cost Applicability for Smaller Projects		Advantage

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Conclusion

As described throughout this report, the Construction Management at Risk delivery method brings owner, design team and construction professional together during the design phase of the project, in a collaborative effort that carries the project forward through the construction process in an open, and transparent manner.

The CMAR is selected by the Owner through a qualification based process, and is therefore committed to the Owner as an advocate, vested in the project during its design, rather than only being introduced to the project in a low bid competition, with no prior knowledge of the project goals, objectives, constraints and challenges.

For this particular project, with the combination of phasing construction and move in due to an existing operating Public Works Facility, along with multiple stakeholders all working on a single parcel, the CMAR approach provides numerous advantages. This includes the flexibility to bid components of the project at different times, such as an early bid package for site work or the PW facility only, which may enable fast tracking of the schedule. While there is some additional cost for preconstruction phase services during design, the cost and schedule planning expertise these services provide, brings value to the project which will ultimately yield a higher quality product and enhanced timeliness in project delivery as well as predictable cost control. Therefore, staff recommends the CMAR approach for this project.

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Preliminary Milestones

CMAR RFQ/Selection Process Begins	– October 2022
CMAR Selection Approval by Committee	– December 2022
Schematic Design Completion & Approval	– Feb 2023
Permitting and Construction Design	– Feb 2023– Mar 2024
Sitework Begins	– June 2024
Morrisville takes over new PW	– June 2025
Construction Completion	– December 2025

* CMAR provides flexibility for multiple bids/phased construction to various components of the project

** Schedule shown above is preliminary for illustration purposes; dates are subject to change