

BEST PRACTICE INITIATIVE
QUALITY MANAGEMENT OVERSIGHT (QMO)

Goal

The goal of Metro's Quality Management Oversight Program Management was to develop and implement a systemized approach to project oversight for all Program Management department projects. This initiative falls under the Metro Vision 2028 Strategic Plan goal number 5.4 which states: "Metro will apply prudent commercial business practices to create a more effective agency."

Background

Issue:

The idea of Metro considering improvements to its contractor oversight approach was described in a peer review conducted by Kevin Diviness of Denver's RTD transit agency. RTD has had success with a similar approach to program and project oversight, that prompted Metro's Program Management department to explore the possible implementation of similar oversight techniques and best practices on Metro's capital program. It's important because Metro, like most agencies, understands that it doesn't have all the answers related to best practices and sometimes looks to the successes achieved by other agencies that have deployed proven best practices that may be different than some of Metro's. The above noted peer review was initiated as a result and became the catalyst in the development of the QMO Program best practices related to project oversight to help us achieve our goals.

How the issue was brought to the department's attention:

Metro's Chief Program Management Officer, Rick Clarke experienced this oversight approach as a best practice prior to coming to Metro. In addition, the Quality Management department had previously identified that our Quality Management System needed to be updated. These factors combined with the ideas from the peer review prompted a more serious discussion about improving our overall quality management oversight approach.

Best Practice

Overview on best practice:

Implement a risk-based quality management oversight (QMO) program and requirements management database tool to monitor Metro's consultants' and

contractors' activities and performance throughout project delivery. Monitoring activities include the implementation of management systems as well as design and construction work products. The QMO program will provide a consistent and more effective way for all project teams at Metro to oversee quality and management of their capital program projects.

Partnerships:

Quality Management department has formed strong relationships with the project teams and senior executives of the Program Management and other supporting departments during this initiative.

Funding:

It is anticipated that the costs for the QMO Program will be more than offset by savings resulting from a reduction of engineering and construction management consultant staff resources on the projects. This is due to the implementation of the risk-based priority planning and sampling methods, progressive acceptance and related accelerated project closeout, and the efficiencies of executing the oversight activities through the integrated QMO database that all project participants use to execute their role in the processes. These savings are augmented with mitigations of potential claims, rework, and scope creep, that are achieved through the defensible requirements-based approach to oversight, and a greater focus on activities with higher risk activities of the contractors, and overall continuous improvements on the projects.

For the Quality Management department's role in implementing the QMO Program, aside from the minimal annual QMO Program wide management resources, there are no financial impacts beyond what the Board authorizes through the life-of-project (LOP) budgets.

Project costs:

The costs associated with this initiative include consultant fees, Metro has contracted with a Quality Management Consultant team of quality management experts to assist with the development and implementation of the QMO Program.

Process

The deployment of the best practices of the QMO Program are in progress. The proposed QMO Plan and Procedures will apply to all Metro groups supporting the Program Management department, including engineering and construction consultants performing oversight on the capital projects. This requires replacing or

updating the current policies and procedures. This will result in a standardized, consistent, and integrated oversight approach to measure contractor performance of both end-products and processes to control the work. The approach uses a risk-based prioritization and sampling to focus on activities having higher risk. Performance data is leveraged for data analytics, identification of trends, and reporting to provide constructive performance feedback for continuous improvements.

The Program Management Department, with the support and expertise of the Quality Management Consultant, has begun to implement the QMO Program on the first two pilot projects. The Westside Purple Line Extension Sections 2 & 3 began implementing the QMO Program 14 months ago, currently 80% of the QMO Program procedures are being utilized on these projects, and the results of the program have been favorable for Metro and well received by the contractors.

The Quality Management Department completed a thorough review and revision of all quality related sections of the design-build and design-bid-build contracts, and construction management support services contracts to ensure consistency in language and approach. This exercise was done to ensure that potential bidders are clear on Metro's policy for managing quality and that the results of their performance will be transparent to all project stakeholders.

Results

Metro is currently undertaking the largest transportation construction program in the nation. Recognizing that a consistent application of oversight is key to effective project delivery, Metro has implemented a systemized approach to project oversight. The QMO Program, currently implemented on Westside Purple Line Extension Sections 2 & 3, has proven to provide the following benefits to Metro:

- Improved confidence and accountability to project stakeholders through the transparent results of performance on key design and construction activities.
- Improved communications to project participants through monthly QMO Program reports and Quarterly reviews of performance and improvement actions.
- Improved effectiveness of project oversight staff resources, through training on the revised approach and reallocation of resources focus and efforts within and the project teams.
- Improved quality of contract requirements and Metro procedures because of the review and analysis of Metro policy's, plans, procedures, and procurement documents.

How the agency utilized this best practice:

The QMO Program deployment on the Westside Purple Line Extensions Sections 2 and 3. In addition, the Quality Management Department is working toward the ISO 9001: 2015 registration for the capital program projects. This effort follows a plan, schedule, and progress tracking. An ISO Steering Committee has been established to lead this effort through to registration. Continued implementation of the QMO Program on current and newly added projects is the primary focus over the next two years. Metro plans to award multiple major capital improvement projects in FY22 and FY23, most of which will utilize the QMO Program.

Top three initiative achievements:

1. Buy-in on the approach from Metro leadership and project stakeholders.
2. Program and project level quarterly reviews of contractor performance supported by performance data and resulting trend analysis.
3. 80% of the QMO Program Processes and Procedures have been implemented on the pilot projects.

Additional Resources

1. Gap analysis report
2. Kevin Diviness report
3. QMO plan and procedures
4. Quarterly review presentations
 - a. Program Level
 - b. PLE 2
 - c. PLE 3
5. QMO awareness training