METROLINK®

Project Management Manual

PM Desk Book

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The Project Manager's Ten Commandments

Project Managers Shall:

1 Draft the Project Charter to define the scope, schedule, budget, and project limits. Update the Charter when changes occur or on a semiannual basis.

2 Make an independent cost estimate before receiving bids or proposals. Use your independent estimate as the basis for negotiating the proposed price, schedule and staffing.

3 Execute Contracts, Contract Task Orders, and Change Orders before performing work and only after verifying funding. Do not proceed otherwise.

4 Pay your Contractors quickly in accordance with the Prompt Payment Statute, but make sure the charges are valid. Disallow mischarges and short pay the Contractor the remaining balance. Don't hold up payment if you don't know what to do; go to your supervisor for guidance immediately.

5 Make timely, well-informed decisions. That is what we pay you to do. If you get stuck, don't dither; go to your Program Manager, Project Sponsor, and/or the PMO for guidance immediately. Seek advice from your fellow project managers for advice.

6 Communicate frequently to the Contractor, Program Manager, Project Sponsor, the PMO, your team, and key stakeholders about the status of the project, key milestones, significant issues, and risks. Act promptly on changes and don't surprise your Program Manager, Project Sponsor, or other stakeholders. Communicate challenges as well as successes. Bad news ages badly and often get worse with time. Good news doesn't age well, either.

7 Keep a PM Notebook containing the current updated Project Charter, PM Sheet, Change Order/Change Notice log, cooperative agreements, and key correspondence. Maintain an accurate project file.

8 Keep your PM Sheet up to date with a realistic schedule, cost estimate at complete, and a log of risks and potential changes well in advance of their occurrence.

9 Be engaged, be well informed, and control your Contractors and Consultants.

10 Close out your projects promptly.

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1.0 Introduction

1.1 Purpose and Structure of Manual

This Project Management Desk Manual details how projects are initiated and completed at Metrolink with specific emphasis on the role and duties of the Project Manager to ensure that projects are managed safely, efficiently, cost-effectively, and uniformly. Key concepts that apply to all Metrolink projects include:

- All projects are the direct product of a strategy for continuing the development and maintenance of the infrastructure and capabilities of Metrolink
- Specific funding/grant sources are defined for each project before approval and initiation
- All projects have a Project Sponsor and Project Manager who own the project from initiation through close-out
- All projects are approved for initiation and are monitored throughout their development by the Metrolink Executive Leadership Team
- All projects must go through a standard set of steps called the **PROJECT LIFECYCLE** (see Project Lifecycle section). This process defines every phase from strategy, initiation, planning, design, build/construction, and closeout; no deviations are allowed without the specific approval of the Program Manager and Project Sponsor
- All projects will be actively monitored by the Program Management Office (PMO) who will team with the Project Manager to provide timely project performance information to the Executive Leadership Team

This manual is to be studied and consistently used as a resource and guide by all persons who are directly or indirectly involved in any of the various phases of Metrolink projects. Although the primary focus is the Project Manager and the various functions that individual must routinely complete to safely navigate a project from its beginning to completion, there are many groups within Metrolink that either support the Project Manager's activities, directly partner with the Project Manager or other project team members on project-related work, or rely on information generated by the project management effort including:

- PTC and Engineering
- Signals and Communications
- Dispatch and Operator Services
- Network Control Systems
- System Safety, Security, & Compliance
- Contracts, Compliance, and Procurement
- Government Affairs
- Planning and Project Delivery
  - Facilities & Fleet Maintenance
  - Maintenance of Equipment
  - Business Analysts/Administrators
  - PMO
  - Planning & Development
    - Grants Funding and Reporting
- Finance
  - Grants Administration & Fiscal Mgmt

Therefore, it is vital that these persons understand how projects are managed, their required roles and responsibilities, and how all key functions within the project management process are to be completed. There is no room for non-compliance. The processes in this manual are not discretionary or negotiable.

In addition, there are standard checklists located in Appendix B: Quick Reference Checklists that provide guidance on Contract Task Orders (CTO) and Job Order Contracts (JOC), change orders, getting invoices paid and closing out projects.

1.2 Metrolink's Service Territory

The Southern California Regional Rail Authority (SCRRA) is a five-county joint powers authority (JPA) created to build, maintain and operate the Metrolink commuter rail system. Metrolink operates on rail rights-of-way owned by the member agencies.

The five JPA member agencies are:

- Los Angeles County Metropolitan Transportation Authority (Metro or MTA)
- Orange County Transportation Authority (OCTA)
- Riverside County Transportation Commission (RCTC)
- San Bernardino Council of Governments (SBCOG)
- Ventura County Transportation Commission (VCTC)

Although in the past, "SCRRA" referred to the JPA and "Metrolink" referred to the operating system, for the purpose of simpler communication "Metrolink" is the preferred reference for both. Please be aware of this distinction when reviewing and referring to older documents.

On behalf of the JPA agencies, Metrolink operates revenue passenger service and manages and oversees the infrastructure design, construction, rehabilitation, and maintenance of approximately 409 unduplicated route miles of railroad corridor. Metrolink provides input and reviews work on another 124 route miles owned by primarily the BNSF and UPRR railroads. Metrolink operates through track shared agreements with other railroads.

Metrolink provides service over seven routes to 61 stations over 540 route miles (as of Q2 2018). Fourteen of Metrolink's stations are located on the BNSF and UPRR shared track. All of the railroad infrastructure over which Metrolink operates is a part of the U.S. general railroad system of transportation and is subject to Federal Railroad Administration (FRA) regulations as embodied in the Code of Federal Regulations Title 49 Chapter II, Parts 200-299. Metrolink shares tracks and service territory with Class I freight carriers BNSF Railway and Union Pacific Railroad (UP) as well as Amtrak and North County Transit District- Coaster. Most of Metrolink's service territory features dense (greater than 50 trains daily) mixed passenger and freight traffic.

1.3 Typical Metrolink Projects

The typical Metrolink project is of a relatively low (less than $20 million) construction cost, but is more technically complex than indicated by the capital cost alone. Projects generally have multiple contractors (e.g. civil, signals, and communications) and scope that must be coordinated to produce a safe operational track at the end of a work window. Additionally, the safety and operational risks inherent to construction adjacent to active rail lines add to the complexity of the projects phasing and staging. In addition, Metrolink also manages very complex projects with budgets over $20 million, in some cases exceeding $100 million.

Metrolink's maintenance, rehabilitation and new capital projects are developed and designed using professional service consultants and constructed with contractors working under a variety of public works contracts using a number of procurement methods including:

- Invitation for Bid (IFB, sealed bids)
- Competitive Negotiated Service and Installation Contracts (requests for proposals with fully burdened labor rates)
- RFP's for Professional Services General Engineering Consultants (GEC) and Project Management/Construction Management (PM/CM) Consultants
- IFB and RFP Materials Procurements
- Design Build (DB) or Design Bid Build (DBB) Contracts
- Job Order Contracts (JOC)

Metrolink contracts involve the use of federal, state, and local grants and therefore must conform to funding and eligibility regulations and requirements of these funding sources. Metrolink also provides review and support services for external or third-party projects performed under reimbursable Construction and Maintenance (C&M) or Cooperative Agreements. These third-party projects are also typically funded with federal, state or local grant funds and any services performed must conform to the applicable funding requirements.

1.4 Safe Work

Much of Metrolink's maintenance, rehabilitation, and new capital projects involve additions and betterments, replacement and renovation, inspection and repair to the existing track, station, bridge, crossing, and signal and communication system infrastructure. Metrolink's infrastructure projects as well as any external or third-party projects generally must be accomplished in intense, short duration (6 to 48 hour) work windows at "off peak times" (night and weekends) to minimize passenger train delays. These types of projects have an elevated risk of exposure to unsafe behavior and safety impacts from external sources. The planning, execution and outcome of all Metrolink and any external projects impacting Metrolink's rail corridor **MUST** be performed with **SAFETY** at the **HIGHEST** priority.

Employees (as well as consultants, contractors and vendors) must keep safety at the forefront at all times. Projects on and near the operating railroad have an inherent life safety risk that employees can fail to appreciate. Accordingly, employees and managers need to keep in mind all aspects of employee safety on a Metrolink project. The specifics of safety issues and the required behavior are covered in Section 6.7.5.

Key safety considerations for Project Managers overseeing projects include:

- Risks of accident or incident due to the construction activities, e.g., does the construction activity pose an increased or abnormal risk due to the nature or the work such as working in confined spaces such as a tunnel or underground vault, working adjacent to tracks and a signal operating envelope for very long durations, working near high power electrical lines, excavation activities near underground pipelines, etc.
- Risks of accident of incident post construction, i.e., will the As-Built project result in an increased risk to the railroad and/or the public? For example, adding to the number of tracks and/or trains utilizing a level grade crossing can increase the risk of pedestrian or vehicular accidents.

1.5 Non-Construction Projects

Although the majority of Metrolink projects are related to construction and rehabilitation of the rail infrastructure system, there are projects involving equipment, Positive Train Control (PTC), information technology, procurement, finance, marketing and other disciplines that do not have construction components. These projects must still be developed and managed using the Project Lifecycle and will employ the dictates and procedures outlined in this manual. Any variations necessitated because of the non-construction nature of the project should be approved in advance by the Executive Leadership Team.

1.6 Operational and Lifecycle Impact of Projects

Projects generally have an impact to the ongoing operations for the railroad. Consequently, the Project Manager is to consider how the project increases or decreases the functionality and efficiency of the system (e.g., short-term disruptions versus long term benefits) as well as the effect on the operations and maintenance lifecycle, i.e., will the project add or subtract from the functionality of the railroad and how the project impacts the lifespan of the system and supporting infrastructure (will maintenance periods increase or decrease or will technology upgrades be periodically required?). These considerations are then added to the objectives or risks to the project.

2.0 Metrolink Projects

2.1 General Concepts

This section of the manual covers the key groups and individuals who are responsible for initiating projects, managing projects, providing oversight during the active phase of projects, or having ultimate authority to allow variations in the process (see Project Lifecycle section for additional details). It is critical that all persons either directly or indirectly involved in Metrolink projects clearly understand the roles and responsibilities of the groups and individuals involved in projects. Projects will not move forward unless all persons involved in Metrolink projects cooperate with these groups and individuals, and promptly comply with any requests for information that these groups or individuals may make.

2.2 Planning & Development

Planning & Development is responsible for developing the Strategic Capital Plan for the agency, modifying that plan as necessary, and linking the various projects within the plan to sources of funding or grants. Planning & Development works with the Metrolink Executive Leadership Team as well as various departments within the agency who:

- Have identified a project that they need to expand or supplement the present infrastructure; or
- Are responding to a third-party request; or
- Are responding to a project request from a Member Agency, or
- Are responding to a legislative mandate; or
- Are identifying rehabilitation needs.

Planning & Development determines if proposed projects in their present forms fit into the Strategic Capital Plan, if the plan should be modified to accommodate the projects in question, or if the scope and/or schedules of the proposed projects should be modified to more closely align with the plan.

Determining possible sources of funding is part of this initial assessment. The Planning & Development assists departments in the initial planning of proposed projects to enable them to prepare the necessary documents needed for review by the Executive Leadership Team.

2.3 Executive Leadership Team

The Executive Leadership Team (ELT) is comprised of the Metrolink Chief Executive Officer (CEO), Deputy CEO, Chief Operating Officer (COO), Deputy COO's, Chief Financial Officer (CFO), Chief Administrative Officer (CAO), and others designated by the CEO. The Executive Leadership Team performs the following duties:

- Reviews and approves applications for activation of projects
- Conducts regular reviews of project portfolio and major project progress
- Works with the Project Sponsors to resolve and approve resolution of important issues that develop on active projects
- Functions as an Executive-level advisory committee to the CEO

All persons who are directly or indirectly involved in a project are to promptly respond to information requests from members of the Executive Leadership Team. However, Project Managers are to communicate through their Project Sponsor or the Program Manager as the normal channel of communication and should only access others under extreme or non-standard conditions.

Once the project portfolio has been approved, a Rehab and New Capital Plan is developed which includes funding details for each project. The Rehab and New Capital Plan is submitted to Metrolink's Member Agencies to determine how funding responsibilities will be split as well as actual sources of funds. The final list of projects is then approved by the Member Agencies and submitted for approval by the Metrolink Board.

2.4 Project Sponsor

The Project Sponsor is accountable for the project from its beginning as an official project to its completion. The Project Sponsor is generally designated to a project or group of projects according to their areas of responsibility. For example, the DCOO of PTC and Engineering is often the Project Sponsor for rehab projects whereas the DCOO of Planning and Project Delivery may be the Project Sponsor for facilities projects.

The Project Sponsor can also function as the Program Manager for the program which covers the project or could be an agency executive or an employee who has specific expertise or knowledge that is of benefit to the project. The Project Sponsor ensures that:

- Appropriate resources are made available for the successful implementation and completion of the project. The Project Sponsor does not have any specific responsibility for project activities but is accountable for the successful completion of the project and has ultimate authority to approve or disapprove decisions.
- The Executive Leadership Team is promptly notified of all details concerning any issue that could have a significant impact on the success of the project.
- Any unresolved issues that may have an adverse impact on the project are elevated to the Executive Leadership Team in support of the Project Manager.

All persons directly or indirectly involved in a project must be aware of the responsibilities of the Project Sponsor and render support and assistance to the Project Sponsor as requested.

2.5 Program Manager

Program Managers have overall management responsibility for projects within their individual programs. Metrolink has Program Managers for the following programs:[1]

- Engineering/Standards
- Equipment
- Signals and Communications
- Capital Program Management (new construction)
- Rehabilitation
- Public (3rd Party) projects

Program Managers assist Planning & Development in the initial planning of projects and are responsible for providing oversight to multiple related projects and Project Managers. Program Managers are accountable for the programs that they oversee. In most cases the Program Managers also function as Project Sponsors for projects that fall into their area of responsibility. Occasionally, the Program Manager may be the Project Manager. The differences between the roles of the Project Sponsor and the Program Manager are outlined below:

- **Project Sponsor** usually acts as the Program Manager unless specific expertise or senior management leadership is needed. In such cases, the Project Sponsor role is filled by someone who meets the requisite need. The Project Sponsor oversees the Program Manager and the Project Manager and is ultimately accountable for the project and project outcomes.
- **Program Manager** usually does not act as the Project Manager. These roles are typically filled by separate people, unless (due to workload constraints), other Project Managers are unavailable. Another instance where the Program Manager also acts as the Project Manager is when the Program Manager possesses a specific technical expertise vital to a project. In such cases, the Program Manager may also fill the role of the Project Manager.

In those rare cases when the Program Manager is not the Project Sponsor or Project Manager, it is vital that the project team keep the Program Manager fully informed as a key supporting member of the project team. The Program Managers must have access to any and all project meetings, documents, and information regarding the projects within their individual programs.

The Program Manager must also comply with all the rules and processes described in this manual. The Program Manager must not hinder the efforts of the Project Sponsor and Project Manager of the project. If such an event arises, it is incumbent upon the Project Sponsor to elevate such concerns to the Executive Leadership Team.

[1] Note that organizationally, the Program Managers carry several titles. In the Department of Engineering & Construction, the Program Managers of Engineering, Capital Program Management, Rehabilitation, and Public Projects are the Assistant Directors of those respective groups.

2.6 Project Manager

At the time the project is approved, the Project Sponsor and Program Manager select a Project Manager. The Project Manager is a Metrolink employee unless the requirements of the project or lack of available Project Managers result in a need for outside resources.

The Project Manager is responsible for the project from its beginning to its completion. These responsibilities include:

- Running the day-to-day operation of the project.
- Ensuring that the project is managed and conducted in accordance with this manual, Metrolink engineering standards, Metrolink policies and procedures, and all applicable regulations and statutes.
- Providing updates and reports to the PMO on project progress, issues and risks, costs, scheduling, and other project details.
- Completing required project documentation.
- Working with other Metrolink departments to fulfill project needs such as Requests For Proposals, Invitations for Bid, contracts, etc.
- Reviewing and submitting project invoices.
- Working with the Program Manager when issues arise.
- Supporting the Project Sponsor's direct interaction with the Executive Leadership Team.

The Project Manager is the main conduit for project information to the Executive Leadership Team, the Program Management Office (PMO), the Project Sponsor, and the Program Manager. The Project Manager is to bring:

1) All unresolved issues related to the project to the Project Sponsor and Program Manager for ultimate resolution and
2) Any event or situation that is out of the norm or could have some adverse impact on the project to the attention of the Project Sponsor and the Program Manager.

The specific duties and responsibilities of the Project Manager are detailed in Section 3.0 of this manual

3.0 Project Manager Role and Responsibilities

3.1 Qualifications and Training

In general, Project Managers are Metrolink employees who through their education and experience have been approved to function in the Project Manager role by the Executive Leadership Team. Their experience (for construction projects) will include:

- Mixed commuter/freight rail industry infrastructure projects in dense traffic FRA-regulated corridors (e.g. track, communications, signal, grade crossings, stations, bridges, support facilities)
- Public agency contracting processes and federal, state, and local grant-related project control requirements
- Contract document reviews (plans, specifications, and estimates) and packaging construction contracts for advertisement, procurement, and award
- Knowledge related to obtaining the necessary local, state, and federal permits and arranging for utility protection and relocation
- Dealing with the California Public Contract Code, Public Utility Code, and California Public Works procurement: design-bid-build, design-build, and competitive negotiated contract delivery

3.1.1 Training Requirements

Furthermore, Project Managers must receive training on how to use the Metrolink Project Manager Manual and all supporting forms and documents. This training is conducted and/or coordinated by the Program Management Office (PMO). Success of training will be verified through standardized evaluations. Training must be refreshed bi-annually or as determined by the Executive Leadership Team.

Project Managers may be removed or required to take the training course again if the Program Manager or Executive Leadership Team determines deficiencies in performance on previous projects.

3.1.2 Non-Metrolink Employees

Individuals who are not Metrolink employees may be approved to function as a Project Manager for Metrolink by the Program Manager and/or Executive Leadership Team in those rare occasions where a unique skill set is required or when there are short term work load issues. Non-Metrolink contractors or consultants approved as Project Managers must meet all the requirements for the Project Manager role expected of a Metrolink employee. The Program Manager and/or the Executive Leadership Team is responsible for setting the standards for the position, approving and denying individuals for the position, maintaining a list of approved Project Managers, establishing and managing the training program (either directly or through oversight), and evaluating the performance of each Project Manager.

3.2 How Project Managers are Assigned

Project Manager assignments are the responsibility of the Program Manager. Assignments are based on experience, capabilities, and availability. In many cases, the person initiating the original project request will be considered for the position of Project Manager. However, the Director of the Metrolink department initiating the project may make recommendations to the Program Manager.

The usual practice will be for the Project Sponsor and the Program Manager to work together to review the available personnel to determine each person's experience and work load to determine the best fit. Nevertheless, Project Managers can be removed from a project or transferred to another project at any time by the Program Manager however, this practice should be discouraged and only undertaken when there are strong reasons to do so.

3.3 Project Manager Work Loads

The number of projects a Project Manager can handle is a function of project size, project complexity, size of support staff, similarity of projects in the mix, and each Project Manager's capabilities. The Project Sponsor, Program Manager, and the Director of the Metrolink department initiating the project, should very carefully determine workloads and then follow up to make certain that decisions have been correctly made to ensure that Project Managers are efficiently and effectively managing the projects assigned to them.

3.4 Project Manager Duties

This section of the manual does not present an all-inclusive list of every duty and responsibility that a Project Manager may have to cover on every of project, but it does address the primary considerations and areas of general responsibility. A practical Project Manager should use this guidance and common sense to determine what is appropriate. Whenever the Project Manager is unsure about a given duty, that individual should check with the Program Manager, the Project Sponsor, or elevate the matter to the attention of the Executive Leadership Team.

3.4.1 Project Ownership/Culture

Once a Project Manager is assigned to a given project, that Project Manager and the Project Sponsor own that project until the project is completed and closed out or the Project Manager is removed from the project. Ownership means that the Project Manager is responsible for the successful day-to-day management, completion of the project, and the successful resolution of all issues and risks that may arise. The Project Manager never gets to say, "I do not know" or "That is not my responsibility." The Project Manager is the captain of the ship.

The Project Manager is responsible for ensuring that:

- All contract activities are in compliance with the contract and are correct
- All permits are successfully obtained
- All laws and regulations are complied with
- All necessary third-party issues are addressed in a timely manner
- All the necessary reports are correct and on time
- All issues are resolved on the spot or elevated to the project sponsor or ultimately to the

- executive leadership team
- All necessary communication is done
- All invoices are properly handled and paid in a timely manner
- All monies due and owing to Metrolink are invoiced accurately and timely and are received timely
- Project authorized budgets are not exceeded without prior approvals from the project sponsoring agencies
- Third-party project cash deposits on hand are sufficient to cover all SCRRA expenses

This is not an all-inclusive list but it communicates that practically everything that happens on the project requires the involvement and knowledge of the Project Manager. If the Project Manager cannot handle something alone, the Project Manager must get the Project Sponsor and Program Manager involved, or ultimately elevate it to the Executive Leadership Team. Not only should the Project Manager be aware of these responsibilities, it is vital that all persons directly or indirectly involved in the project also understand the role of the Project Manager and make cooperation with and support of the Project Manager their highest priority.

3.4.2 The Project Lifecycle

The Project Lifecycle is described in detail in Section 6.0 The Project Lifecycle of this manual. This is the way Metrolink conducts projects and it is the responsibility of the Project Manager to either perform the individual tasks in the lifecycle or make sure they are completed and the necessary people and groups are involved. Not all phases of the Project Lifecycle will be required for every kind of project. It is the duty of the Project Manager to work with the Program Management Office (PMO) to determine which phases are needed for their project and to obtain approval from the Project Sponsor and Program Manager.

3.4.3 Construction Management

On most moderate to large projects the Project Manager will have a Resident Engineer and field construction management support staff to provide assistance. However, the Project Manager, independent of the size of the project, is responsible for all aspects of the management of construction. This will include but not be limited to:

- Becoming intimately familiar with the design plans and all manuals and standards which support the design
- Maintaining liaison with Metrolink, contractors, and third parties to ensure proper involvement and approvals
- Making sure the final product has the quality and detail contained in the design
- Managing and handling approvals of contractor submittals
- Managing budget and schedule and dealing with associated issues
- Making sure contractor complies with all laws and regulations and has secured the necessary permits

In the final analysis, the Project Manager must ensure that the contractor delivers on the contract, fulfills all obligations, and adequately addresses and characterizes any changed conditions or required changes to the design. The magnitude and impact of any issues that arise during construction should be managed by early detection and rapid response supported by intimate knowledge of the design and specifications.

During construction, the Resident Engineer is the Project Manager's greatest asset. The Resident Engineer manages and directly observes the contractor's work on a day-to-day basis. The Resident Engineer takes the leadership role to administer the construction contract to ensure that the contractor completes the full scope of the work safely, completely, to the required standard of quality, within the contract's Board-authorized price, and within the contract time specified for construction. To accomplish this, the Resident Engineer:

- Enforces the contractor's safety performance and compliance with operational rules, Job Hazard Analyses, and safe work practices;
- Monitors the contractor's performance against the contractor's submitted schedule and work plans;
- Ensures the contractor's compliance with quality standards by ordering re-work of substandard or incorrect work;
- Monitors and coordinates the contractor's communications with third parties as needed.

3.4.4 Project Visibility

Metrolink projects involve many stakeholders and persons or agencies who have interest in what is happening. These entities include:

- Member Agencies who may be funding or partially funding the project
- Other funding agencies
- Third parties that may be impacted by the project
- Agencies issuing permits required by the project
- The Executive Leadership Team, the Project Sponsor, Metrolink departments who may have initiated the project, and other departments within Metrolink that may be supporting the project

Some of these entities have formal and very specific reporting requirements while others just want to be kept informed. It is the responsibility of the Project Manager to determine what the scope and specific form of communication is for each entity and to make sure that those communication responsibilities are adequately discharged at all times. The Project Manager is also responsible for the content of all communication and any required follow up. The Project Manager should have a communication plan in place as part of the Project Management Plan that can be implemented for all reasonably foreseeable emergency situations.

3.4.5 Third Party/Local Agency Coordination

Projects often involve local agencies or third parties, require approvals from them, or can potentially impact them. The Project Manager has shared responsibility with the designers, contractors, and Resident Engineers to function as the conduit between Metrolink and third parties or local agencies for all matters that could be related to the project. The Project Manager has the ultimate responsibility in Metrolink to maintain project coordination as needed. This may involve coordinating work windows with local agencies or other railroads accessing track or other infrastructure components impacted by the project, dealing with access and utilities issues, managing all required local permits and approvals, bringing critical third-party issues to the attention of the appropriate individuals at Metrolink when that need arises, and developing and providing special reports and presentations for governing boards and external agencies when that activity is required.

4.0 Program Management Office (PMO)

The Project Management Office (PMO) is primarily a support and reporting function that also provides guidelines and standards for conducting projects at Metrolink. Its role is not to become directly involved in the day-to-day execution of projects or programs, but to work with the respective Project and Program Managers in providing management with reasonable assurance that the organization's projects are being run consistently and effectively, thereby giving management the information and tools that it needs to make appropriate decisions in a timely fashion.

4.1 PMO Responsibilities

Typical PMO responsibilities, in collaboration with the organization's project management community, include the following:

1. Development, review and implementation of project and program management procedures standards and practices specific to the organization's operating environment and taking into consideration all applicable constraints.
2. Establishment and maintenance of project management tools and techniques, and support the project managers in the use of the same.
3. Provision of third-party management reporting and analysis of project performance.
4. Organization and management of project management training for all appropriate organizational staff members
5. Promotion of the project management culture and disciplines throughout the organization
6. Provision of expert support for tools and techniques relating to planning, scheduling, tracking, risk management, scope management, financial management, status reporting, and other project management methods and disciplines.
7. Participation in project / program performance reviews.
8. Technical services relating to project scheduling, tracking and reporting.

Note: The Project Manager is to provide the PMO with periodic updates regarding the project and ask for assistance or advice from the PMO when necessary.

These are some of the roles and responsibilities that a Project Management Office will typically assume. The PMO Mission Statement and Value Proposition further describe the role of the PMO.

4.2 PMO Mission Statement

The department's Mission Statement summarizes the focus and role of the PMO.

PMO Mission Statement
The PMO provides support and guidance to successfully deliver projects through collaborative strategic problem solving and communication with all stakeholders

4.3 PMO Value Proposition

A Value Proposition is a promise of value to be delivered and acknowledged. The PMO Value Proposition is depicted below.

<table>
<tr><th colspan="2">The PMO provides value by:</th></tr>
<tr><td>Support & Coordination
Facilitating Projects by Acting as the Liaison between the PMs and Other Departments
Assisting the PMs in Completing Documentation
Expediting Document Approvals and Sign-offs
Monitoring Project Progress
Providing Project Management Training & Mentoring</td><td>Process Improvement
Monitoring the Project Delivery Process to Evaluate and Seek Out Potential Areas for Improvement
Researching and Implementing Project Management Best Practices</td></tr>
<tr><td>Information Sharing & Relationships
Communicating Program and Project Status
Issuing Dashboards, KPIs, & Metrics
Developing and Providing Reports to Internal and External Stakeholders to Meet Their Needs
Communicating & Coordinating the Distribution of Program and Project Information
Sustaining Relationships to Promote the Successful Delivery of Projects</td><td>Administration & Controls
Maintaining the PMO Methodology
Monitoring Project Delivery Process Performance and Risk Management
Ensuring that Projects Comply to Standard Operating Practices, Audit Guidelines, Regulatory Requirements, and Grant Conditions</td></tr>
</table>

5.0 Procurement/Contract Delivery

5.1 Teaming with Technical Groups

Metrolink projects are competitively procured in accordance with Metrolink's Contract & Procurement Policies & Procedures for goods and services. **CON-10, Competitive Procurement** outlines the procedure to use competitive sealed bids (Invitations for Bid, "IFB"), competitive negotiations (Requests for Proposal, "RFP") and other methods.

All planning and development of details for the procurement of any good or service will be accomplished by a two-person team comprised of the Project Manager and a Procurement Contract & Compliance Administrator. The Contract Administrator is assigned to the effort by the Director, Strategic Sourcing, Contracts & Supply. This team will determine the final specifications for the good or service, the procurement method and type of contracting to be employed; and prepare a list of acceptable bidders. This work is supervised by the Program Manager assigned to the project. The two team members will also report to their respective department directors. Any issues arising from this work will be resolved by the Program Manager and the two department directors.

5.2 Contract Management

The details of any contract other than a construction project will be managed by a staff member from Strategic Sourcing, Contracts & Supply assigned to the duty by the Director, Strategic Sourcing, Contracts & Supply. That individual with collaboration from the Project Manager will be responsible for ensuring the good or service is appropriately delivered, and the contract terms have been satisfied, and for monitoring the timely payment of invoices in accordance with the contract. This individual will work closely with the Project Manager to verify representations from the vendor, and to make certain that vendor is entitled to payment.

5.3 Coordination with the Program Management Office

The Project Manager will work closely with the Program Management Office (PMO) in their efforts to maintain and report timely information on the progress of project contracts and project performance relative to budget and schedule. Section 4.0 Program Management Office of this manual outlines the role of the PMO in establishing standards and comprehensive reporting and analysis necessary for Project Managers to effectively manage project costs and schedule performance.

6.0 The Project Lifecycle

All Metrolink projects follow the project lifecycle, illustrated in the following diagram. Metrolink projects begin with a Strategic Phase, Initiation Phase, and Planning Phase. For non-construction projects, the Bid Award Phase may follow the Planning Phase, prior to Design. Other deviations from the Project Lifecycle must be approved by the Program Manager and Project Sponsor.

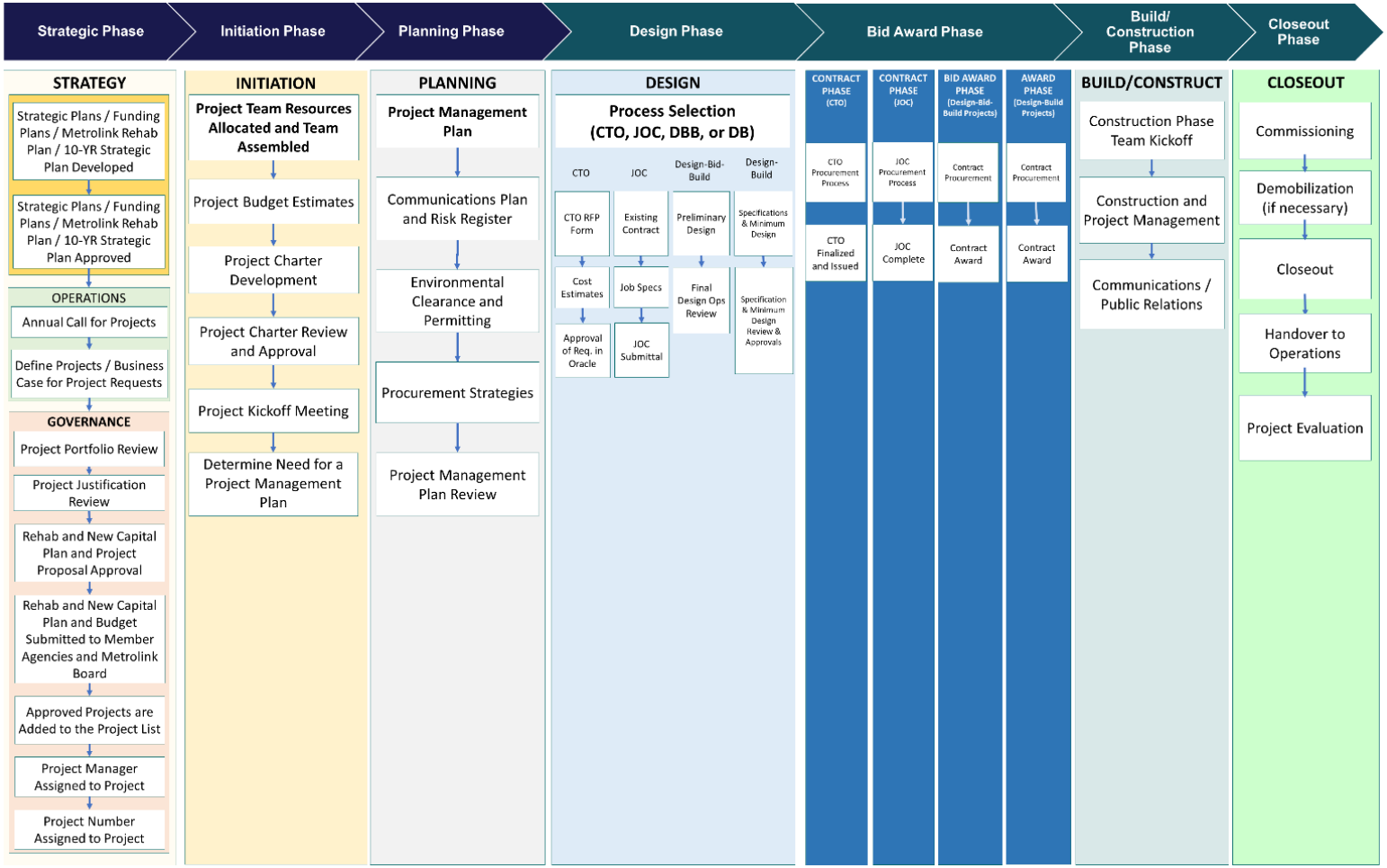

Figure 1: Project Lifecycle Overview

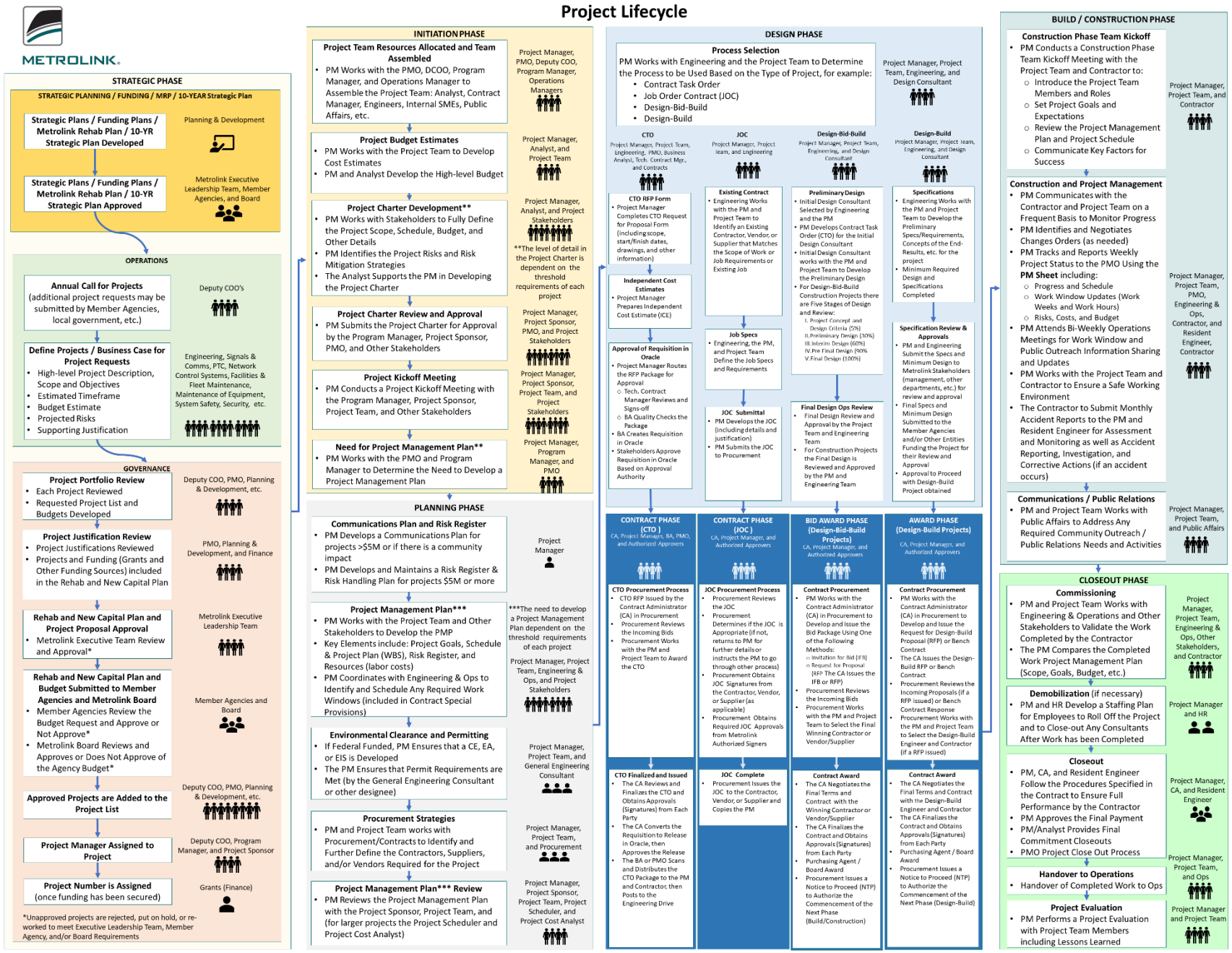

Figure 2: Project Lifecycle Details

6.1 Project Threshold Matrix

There are pre-established thresholds for projects that specify the documentation required. These thresholds are described in the matrix below. The Phase column indicates when the document is required or started.

Project Document	Phase	Threshold	Exclusions	Online Location or Template Name	Responsibility	Reference Guide Name	Reviewers	Approvers	Comments
Budget Submission Used to propose new projects for the next budget cycle	Strategic	All Projects		Budget System	Proposer / PMs	Project Business Case Guide	PMO (High Level Review)	Budget, DCOOs	PMO Review in November prior to Member Agency Review (tentative)
Project Charter (Light) Involves the input of information into the Budget System	Initiate	All Projects		Budget System - after project approval	PMs	Project Management Guide		PMO	Retain information in Budget System, and then move the information to PM Module Timeline - July to Aug for PM Input, 2 months after for PMO approval
Project Charter (Formal) Used to provide a basic outline of the project including the project scope, estimated budget, need, and desired outcomes	Initiate	$5M	Projects with PSR, PSR can be attached, and certain sections excluded from completion	Project Charter Document	PMs	Project Charter Document		PMO, Directors of Sponsor Group	If a PMP requires, use a Project Charter (Light version only)
Risk Listing (PM Module) Involves the input of risk information into the PM Module	Initiate	All Projects		PM Module	PMs		PMO	No Approval Necessary	Information entered in Accomplishments, Issues, Risks section in the PM Module

Project Document	Phase	Threshold	Exclusions	Online Location or Template Name	Responsibility	Reference Guide Name	Reviewers	Approvers	Comments
Risk Register and Handling (Formal) Used to document and track the negative and positive risks anticipated for the project	Planning	$5M		Risk Register (Formal)	PMs / BAs	Risk Register Spreadsheet		PMO, Directors of Sponsor Group	Risk SOP changes due to audit required for all projects- however rollout of other templates / processes can be staggered if needed
Communications Plan Used to define the methods and frequency of communications and identifies all stakeholders that must be included in project communications	Planning	Community Impact and/or > $5M		Communications Plan Document	PMs / BAs	Communications Plan Document	PMO, Public Affairs	No Approval Necessary	
Project Management Plan Used to assist the PM in thoroughly managing large, complex projects per regulatory requirements	Planning	Full Funded Grant Agreement and/or $100M or as Required by Member Agencies / Senior Management		Project Management Plan Document	PMs / BAs	Project Management Plan Document	PMO	Directors of Sponsor Group	NOTE: A Project Charter (Light) is used initially and is used to develop the PMP)
Project Close Document Used to document the key lessons learned and advance to knowledge of the Agency in order to complete future projects more effectively	Closeout	All Projects		Project Close Document	PMs / BAs	Project Close Document		PMO, Directors of Sponsor Group	1 page for smaller projects <$2.5M, more involved for larger projects

6.2 Strategic Phase

6.2.1 Strategic Phase Description

The inception for Metrolink-sponsored projects begin in the Strategic Phase. The foundation for the process is the development of the overall strategic vision and goals for the agency. This process is driven by Planning & Development who works with the Metrolink Executive Leadership Team and other departments to develop and update the organization's Strategic Plan, Funding Plans, the Metrolink Rehabilitation Plan (MRP), and 10-Year Delivery Plan. These plans and their requisite funding are then submitted for review and approval to Metrolink's Member Agencies and Board of Directors.

6.2.2 Strategic Phase References and Templates

The following references and guides provide additional information and templates for the Project Manager to utilize (as applicable):

Metrolink Strategic Plans

- Metrolink Rehabilitation Plan (MRP)
- Metrolink 10-Year Delivery Plan

Templates

- Business Case Template

6.2.3 Operations Call for Projects, Project Requests, and Business Cases

On an annual basis, there is an Operations "Call for Projects" that is overseen by each Deputy COO and the managers for their designated areas of responsibility. During this period, Operations personnel are asked to submit a list of new projects that they have identified as needed to maintain the functioning of the rail system, enhance efficiency, increase safety, or otherwise improve the agency's capabilities. Furthermore, additional projects may be requested by the Member Agencies or local municipalities. Each new project proposal is documented in a Business Case that includes the following minimum requirements:

- Scope and Objectives of the Project (e.g., specific equipment, mile markers, crossing or station locations, municipalities served, etc.)
- Description including the Need for the Project (e.g., compliance with new regulatory mandates, maintenance requirements, equipment or infrastructure aging studies, etc.)
- Estimated Budget and (if known) Potential Sources of Funding
- Estimated Schedule and/or Estimated Time to Complete (ETC)
- Projected Risks
- Resource Requirements
- Supporting Documentation and/or Photographs

6.2.4 Governance

6.2.4.1 Project Reviews and Justification

Metrolink's strategic business needs determine each project's justification and priority. This is the essential starting point for each project and ensures that projects are aligned with agency-wide goals, are guided by Metrolink's enterprise vision, and that funding is identified. The review of proposed projects and their justifications goes through several iterative validation steps:

- The Business Cases for the proposed projects are reviewed by each Deputy COO (supported by their managers and the PMO) who either approve, reject, or modify the proposals
- Planning & Development aligns each approved project with the agency's strategic plans and provides input into sources of project funding.
- Grants (Finance) matches the projects to existing or upcoming sources of funding.

The Deputy COO's conduct a final review and work with their teams develop the final portfolio of projects which is then added to the Rehab and New Capital Plan.

6.2.4.2 Rehab and Capital Plan Approval

Once the final Rehab and Capital Plan (including the final portfolio of projects and budgets) has been finalized, it is submitted to the Metrolink Executive Leadership Team for their review and approval. The Executive Leadership Team then submits the plan to Metrolink's Member Agencies and the Board of Directors for final authorization.[2]

6.2.4.3 Project List and Project Assignments

After the Rehab and Capital Plan has been authorized, the approved projects are added to Metrolink's Project List and a Project Manager is assigned. At this point, Finance works to secure the funds for each new project by obtaining funding commitments from the Member Agencies and/or other sources. Once the funding commitments have been received by Metrolink, the corresponding projects are assigned official project numbers. **Until then, the Project Manager cannot fund any preliminary work unless temporary funds are allocated and/or pre-award authority is granted by the Finance CFO**.

[2] Proposed projects that are not approved are either rejected, put on hold, or re-worked to meet Executive Leadership Team, Member Agency, or Board requirements.

6.3 Initiation Phase

6.3.1 Initiation Phase Description

The Initiation Phase is the first step once a Project Manager has been assigned to a project. During this phase, the Project Manager develops the basic infrastructure required for the project. The process includes assembly of the project team, a more fully defined project budget, development of the Project Charter, and a formal Project Kick-off meeting.

6.3.2 Initiation Phase References and Templates

The following references and guides provide additional information and templates for the Project Manager to utilize (as applicable):

PMO Standard Operating Practices

- PMO SOP PC 1.0 Project Initiation
- PMO SOP PC 4.0 Cost Management and PC 4.1 Quarterly Expenditure Forecast Development

Templates

- Project Charter Template

6.3.3 Resource Allocation and Project Team Assembly

The Project Manager assigns the project team in coordination with the Program Manager and Project Sponsor. Some team members will be involved throughout the course of the project, while other high-level team members may only be involved at key decision points. For smaller projects, one person may fill several roles. For larger projects, a separate Project Scheduler and Project Cost Analyst may be needed. In addition, it is important to consider dependencies on other departments and the need to obtain resource commitments from each group. For example, many projects require a Contract Administrator (CA) and a Business Analyst, while other projects may require support from Government and Regulatory Affairs, Public Affairs, and/or General Counsel support.

Typical team members based on the type and specific requirements of the project may include:

- Engineer and/or Resident Engineer
- Signals & Communications Engineer
- PTC Engineer
- Business Analyst
- Project Analyst
- Contract Administrator (CA)

Other part-time or occasional project team members, subject matter experts, or other resources include:

- Network Control Systems Engineer
- Facilities & Maintenance Resource
- Security
- Public Affairs
- Government & Regulatory Affairs
- General Counsel

Furthermore, the PMO is a key resource for the Project Manager during the entire lifecycle of the project.

6.3.4 Project Budget Estimates

The Project Manager utilizes the approved project budget as a baseline to more fully define a high-level project budget. This high-level project budget is to align with the project scope, goals, and objectives and is included in the Project Charter. Estimated costs are allocated to general cost categories. Refer to **PMO SOP 4.0 Cost Management** for guidance. The following list provides example budget categories that may be considered depending on the project and the information available:

- Materials
- Equipment (purchase or rental)
- Direct Labor (external)
- Construction Costs
- Contractor Fees
- Signals Costs
- Professional Services / Consulting Fees
- Design Fees
- Permit Fees
- Environmental Studies & Reports

The Project Manager works with the Program Management Office (PMO) to determine the cost categories to be included.

6.3.5 Project Charter

The Project Manager consults with the Program Manager and PMO to determine the requirements for the Project Charter (refer to Section 6.1 Project Threshold Matrix for documentation requirements). This decision is based on established project thresholds and the exact nature of the project. The Project Manager is then responsible for drafting the Project Charter. The Project Charter serves two key purposes:

- First, the Project Charter provides a single location to establish the foundation of the project. This foundation is comprised of several key components (see Project Charter Template and PMO SOP PC 1.0 Project Initiation for details). Sections of the Project Charter include:
    - Project Background
    - Project Scope
    - Project Goals and Objectives
    - Assumptions and Requirements
    - Project Risks, Potential Impacts, and Planned Risk Response Strategies
    - Project Roles (Project Sponsor, Department Head, Program Manager, and Stakeholders)
    - High-level Project Schedule
    - High-level Project Budget

  The Project Manager works with the project stakeholders to define the project scope and other project components. Similar to a building's foundation, a comprehensive and sound Project Charter will provide a base to build a stable and successfully-executed project.
- Second, the Project Charter serves as an agreement on the project scope and approach between the Project Sponsor, Project Manager, and project Stakeholders.
    - Metrolink projects rarely only affect one team or department. A stakeholder is anyone who has a vested interested in the project, and he/she may come from a different department or an outside third-party Public Agency.
    - The Project Manager will identify stakeholders and incorporate input at this beginning stage of the project. The risk of not doing so may result in significant re-work in later stages of the project, or delivering a solution which does not meet key needs.
    - If stakeholders do not agree with the content of the Charter, the Project Manager must work out key concerns and revise the Charter as needed. The project should not move forward without signoff from all stakeholders.

6.3.5.1 Project Charter Sign-off and Initiation Approval

As part of the Initiation Approval, the Project Manager submits and obtains approval of the Project Charter from the PMO, Project Sponsor and Program Manager, and all stakeholders identified in the Project Charter.

6.3.6 Project Kickoff Meeting

Once the Project Charter has been approved, the Project Manager conducts a Project Kickoff Meeting, which includes the Program Manager, Project Sponsor, project stakeholders, and project team members. The purpose of this meeting is to introduce stakeholders, introduce team members, review the Project Charter, present project objectives, review the timeline and milestones, and present the next steps. The kickoff meeting gives the green light for the project to move forward to the Planning Phase.

6.3.6.1 Project Kickoff Meeting Sample Agenda

- Introduction of Project Team Members and Stakeholders (including project roles)
- Project Charter Review
  - Project Purpose
  - Project Objectives
  - High-level Project Timeline and Milestones
- Other Project Considerations (public impact, risks, etc.)
- Next Steps

6.4 Planning Phase

6.4.1 Planning Phase Description

The importance of the Planning Phase cannot be over emphasized. It is during this phase where the Project Manager lays the groundwork for the project. The project directions that support the design are developed in detail in the form of the Project Management Plan. Spending the necessary time and effort during this phase paves the way for more successful subsequent phases.

6.4.2 Planning Phase References and Templates

The following references and guides provide additional information and templates for the Project Manager to utilize (as applicable):

PMO Standard Operating Practices

- PMO SOP PC 2.0 Schedule Development and Control and SOP PC 2.1 Schedule Updating
- PMO SOP PC 3.0 Project Management Progress Sheets
- PMO SOP PC 4.0 Cost Management and PC 4.1 Quarterly Expenditure Forecast Development
- PMO SOP PC 5.0 Risk Management
- PMO SOP PC 6.0 Project Management Plan

Templates

- Project Management Plan Template (for projects $100M and above)
- Risk Management Plan Template
- Project Requirements Template
- Project Communications Plan Template

6.4.3 Project Management Plan (PMP)

The need to develop a Project Management Plan is dependent on the threshold requirements for each project (refer to Section 6.1 Project Threshold Matrix for documentation requirements). The Project Management Plan outlines the steps necessary to complete the project on time, on budget, and to the specified requirements of the Project Charter (Light version). The Project Charter acts as a source document for the Project Management Plan. The Project Management Plan will incorporate: scope, schedule, cost, risk, and resources. As part of this phase, the project team will:

- Identify project goals – goals will be based on the project scope
- Develop the schedule - identify project milestones and tasks (including task timelines) needed to carry out project goals
- Develop the budget – further develop a detailed project budget and align it with the schedule (budget estimates should reflect the highest potential labor costs)
- Identify risks – develop a comprehensive list of risks and develop the plans to minimize and mitigate negative risks and take advantage of positive risks (e.g., complete the PM Module “Concerns” section and any required Risk Register)
- Identify resources – further determine a detailed description of roles and resources needed to carry out the project
- Develop safety plans - Throughout the project, safety considerations are paramount and are a part of all planning efforts

Developing the schedule is a main component of the Project Management Plan (refer to SOP PC 2.0 Schedule Development and Control). A key to an effective project schedule is to divide the work into clear and simple tasks and sub-tasks, i.e., develop a Work Breakdown Structure or WBS. The Project Manager and project team plan how the project will be executed in a realistic timeframe while still maintaining the quality of the project. The Project Manager adjusts the project schedule as needed throughout the course of the project (refer to SOP PC 2.1 Schedule Updating).

As part of the scheduling process:

- The Project Manager coordinates with the Engineering and Operations departments to discuss any potential for using a shifted work week
- Work windows are established (when applicable)
- The Project Manager and project team perform an analysis of the potential cost benefits of defining a non-standard work week

6.4.4 Environmental Clearance and Permitting

During the Planning Phase, if the project utilizes federal funds, the Project Manager must assure that the project clears the environmental impacts of the project in accordance with NEPA (National Environmental Policy Act). The regulations are described in detail in 23 CFR 771. The NEPA process requires Metrolink to disclose, avoid, and minimize impacts to the extent possible during project development. The FTA regional office can provide a checklist that will help evaluate the significance of potential impacts to determine if the project is exempt from further environmental review or if more detailed environmental studies must be performed.

Categorical Exclusion (CE) – If it is determined that the proposed project would not result in significant adverse impacts, a CE is prepared, and no further action, other than permitting, is necessary. Note that Metrolink has a categorical exclusion for projects that are to be performed strictly within the railroad right-of-way or on former railroad property. An example of this is the Eastern Maintenance Facility.

Environmental Assessment (EA) – In cases where the impacts or actions are not known, a more formal study (EA) is performed. At the conclusion of the EA study, Metrolink may receive a Finding of No Significant Impacts (FONSI).

Environmental Impact Statement (EIS) – If impacts to the environment are found to be significant, an EIS must be prepared. However, final design activities, property acquisition, purchase of construction materials or rolling stock, or project construction, cannot proceed until FTA approval is received. If new information is found or conditions change after FTA approval, a reevaluation may be required. Federal law prohibits beginning of final design before NEPA completion: an FTA Record of Decision (ROD), Finding of No Significant Impact (FONSI), or Categorical Exclusion (CE).

Environmental Permits and CEQA

Depending on the nature of the project, there are many permits that the Project Manager will have to be concerned with and acquire prior to construction. The applicable environmental regulation is outlined in Section 404 of the Clean Water Act which requires a permit from the U.S. Army Corps of Engineers for the discharge of dredged or fill materials into waters of the United States ("Waters of the United States" include wetlands and any waters deemed "navigable").

Outside the categorical exclusion mentioned above, Metrolink capital projects are generally subject to the requirements of the California Environmental Quality Act (CEQA). CEQA requires California's public agencies to identify significant environmental effects of their actions and either avoid them or mitigate them, where feasible.

It is the responsibility of the Project Manager to ensure that the General Engineering Consultant that performs the design has prepared the necessary environmental documents and has obtained the proper permits.

6.4.5 Project Management Plan Review

The Project Manager will review the Project Management Plan with the project team, PMO, Program Manager, and Project Sponsor. For larger projects, this review may also involve a Project Scheduler and Project Cost Analyst. Next, the project continues to the Design Phase.

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6.5 Design Phase

6.5.1 Design Phase Description

For construction projects, the Design Phase follows the Planning Phase. The order of the phases will be determined based on the project type. For example, for software projects, a contractor must be bid out before the Design Phase can begin.

6.5.2 Design Phase References and Templates

The following references and guides provide additional information and templates for the Project Manager to utilize (as applicable):

PMO Standard Operating Practices

- PMO SOP PC 3.0 Project Management Progress Sheets

6.5.3 Process Selection

There are four major processes utilized for projects. The Project Manager is to work with the Program Manager and consult with the Project Sponsor, PMO, and Contract Administrator to determine which process best meets the needs of the project. The typical options are:

- Job Order Contract (JOC)
- Design-Bid-Build (DBB)
- Design-Build (DB)
- Contract Task Orders (CTO)

In the future, alternate project delivery methods are also being considered for implementation at Metrolink. For example, Construction Manager/General Contractor (CMGC) is one possible additional method.

Each option has their uses, benefits, and drawbacks.

Option	Description	Benefits and Drawbacks
Job Order Contract (JOC)	A Job Order Contract is a multi-year agreement with pre-established construction tasks at fixed unit prices for on-call services, i.e., an umbrella contract for construction work. Job Order Contracts are a type of Indefinite Delivery/Indefinite Quantity (IDIQ) contract. The regulations for IDIQ are outlined in Federal Acquisition Regulation Section 16.504(a) (48 CFR 16.504). A JOC is normally used for smaller / simple projects and/or a project with routine or repetitive processes that are well known though the timing and/or amount of work may vary.	Benefits • Fast implementation leading to quicker delivery • Lower overhead cost • Reduced change orders • Simplified design • Pre-established pricing Drawbacks • Initial learning curve for the contractor and Agency when implementing a JOC for the first time • Potential lack of cost control if quoted estimates exceed actuals • Can result in increased paperwork to process each job order
Design-Bid-Build (DBB)	The traditional method used at Metrolink and many organizations for construction projects. Separate designers and construction contractors are selected. The design firm delivers a complete set of design documents. Based on the design, a solicitation is then issued to obtain fixed price bids from contractors to perform the work. Designers and contractors bear no contractual obligation to one another and the agency bears all risk associated with the completeness of the design documents.	Benefits • Linear, easy to understand process following a logical progression from design to bid to award to build • Competitive bidding for construction helps ensure that the selected contractor is best able to complete the work • The designer is accountable to the Agency, not to the contractor Drawbacks • Increased time required to follow each step of the process which can lead to significant project delays • Potential for more change orders (since the contractor is not involved in the initial design) • Construction costs not initially known so the initial estimated budget may not be accurate – if bids exceed the budget, the future of the project is placed in doubt or delayed • Competitive bidding process may lead to a low bid winner that requires more change orders later in the process

Option	Description	Benefits and Drawbacks
Design-Build (DB)	A single design/builder is selected to perform both design and construction under a single contract. Portions or all of the design and construction may be performed by the entity or subcontracted to other companies. DB is characterized by high levels of collaboration between the design and construction disciplines, input from multiple trades into the design, and a single entity bearing project risk. Typically, the general contractor is responsible contractually for this delivery method.	Benefits • Reduced time required from Design through Construction • Potential cost savings • Fewer change orders (since the contractor is involved at the outset during the design effort) • Reduced risk since the Design/Contractor is responsible for the completeness of the design and final construction Drawbacks • Need for increased oversight
Contract Task Orders (CTO)	A Contract Task Order (CTO) is a contract for services that does not specify the quantity of services but does include a fixed fee and a not to exceed cost. CTOs are not only used for design and other professional services, but in the case of Mass Construction, CTOs are used for major signal and communications construction.	Benefits • Reduced time required to process and implement • Contractually caps the cost of the services specified in the CTO • Enables flexibility in the methods and services to be delivered as long as the end results are achieved Drawbacks • Need for ongoing administration and oversight to ensure compliance with the contract terms • May result in change orders if additional services are required later in the project

6.5.4 JOC

Engineering works with the Project Manager and Project Team to identify an existing contractor, vendor, or supplier that matches the scope of work or job requirements or existing job. Key steps include:

- Engineering, the PM, and Project Team Define the Job Specs and Requirements
- PM Develops the JOC (including details and justification)
- PM Submits the JOC to Procurement for review and approval

Refer to Checklist #1: Initiate and Execute a Contract Task Order or Job Order Contract.

6.5.5 Design-Bid-Build Design Process

6.5.5.1 Design Consultant Selection

The process of selecting a design consultant may differ based on the project type. For construction projects, the Project Manager and Engineering team will select the design consultant from several existing design contracts, in accordance with Metrolink Contracts Department procedures. For non-construction projects, the Design Consultant and Build Consultant may be the same entity and may have been selected in an earlier phase.

Before the design work will be awarded to the design consultant, a Contract Task Order (CTO) will be prepared and approved. Please refer to Checklist #1 in this document for steps for initiating and executing a CTO.

6.5.5.2 Preliminary Design

After the design consultant has been awarded, the consultant will develop a preliminary design for review. Throughout stages of the design process, the Project Manager and Metrolink design team will monitor the contractor's cost, schedule, and quality of work against the scope of work.

For construction projects, the design progresses through five stages of design and review: Project Concept and Design Criteria (5%), Preliminary Design (30%), Interim Design (60%), Pre-final Design (90%), Camera Ready (100%). After each stage, the Project Manager and Metrolink Engineering team will review and approve the design. Please refer to the Design Quality Assurance Plan and the Design Procedures Manual for a full description of this process.

For non-construction projects, the stages of design may differ based on the type of project. For software projects, design deliverables for review may include software design specifications, system flow diagrams, and technical specifications.

6.5.5.3 Final Design

The Design Phase concludes with a Final Design review and approval from the project team and Metrolink design team. The key deliverable in this phase is the Final Design Specification, provided by the design consultant.

For construction projects, the Project Manager and Metrolink Engineering team will review and approve the Final Design Specification. The approval of the Final Design to the Camera Ready (100%) stage signifies that the project is ready to move to the Bid Award Phase.

For non-construction projects, the Project Manager and Metrolink design specialists will review and approve the Final Design Specification. The approval of the final design signifies that the project is ready to move to the next phase, which may be the Build/Construction Phase based on the project type.

6.5.6 Design-Build

Engineering Works with the PM and Project Team to develop the preliminary specs/requirements, concepts of the end-results, etc. for the project. Key steps include:

- Minimum Required Design and Specifications Completed
- PM and Engineering Submit the Specs and Minimum Design to Metrolink Stakeholders (management, other departments, etc.) for review and approval
- Final Specs and Minimum Design Submitted to the Member Agencies and/or Other Entities Funding the Project for their Review and Approval
- Approval to Proceed with Design-Build Project obtained

6.5.7 Contract Task Order

A Contract Task Order (CTO) is used as part of the Design-Bid-Build process as part of the Design process. The design consultant is issued a Contract Task Order (CTO) in order to proceed with developing the design. Refer to Checklist #1: Initiate and Execute a Contract Task Order or Job Order Contract.

In addition, a CTO is also used for specific types of work depending on the needs and requirements for the project. See Section 6.6 Bid Award Phase, Contract Task Order.

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6.6 Bid Award Phase

6.6.1 Bid Award Description

During the Bid Award Phase, a competitive procurement method must be used in accordance with Metrolink's Contract and Procurement Policies and Procedures. These procedures follow compliance with federal and state statutes and requirements for public agencies.

6.6.2 Bid Award Phase References and Templates

The following references and guides provide additional information and templates for the Project Manager to utilize (as applicable):

PMO Standard Operating Practices

- PMO SOP PC 3.0 Project Management Progress Sheets
- PMO SOP PC 4.0 Cost Management and PC 4.1 Quarterly Expenditure Forecast Development
- PMO SOP PC 7.0 Change Management
- PMO SOP PC 9.0 Contract Task Order Review and Approval

6.6.3 JOC Contract Process

A JOC is a master Job Order Contract. Individual Job Orders (JO) are issued against the JOC for specific scopes of work, similar to a CTO. The JOC contracting process includes the following major steps:

- Procurement reviews the JOC
- Procurement determines if the JOC is appropriate (if not, returns to the Project Manager for further details or instructs the Project Manager to go through other process)
- Procurement obtains JOC signatures from the contractor, vendor, or supplier (as applicable)
- Procurement obtains required JOC approvals from Metrolink authorized signers
- Procurement issues the JOC to the contractor, vendor, or supplier and copies the Project Manager

Refer to Checklist #1: Initiate and Execute a Contract Task Order or Job Order Contract.

6.6.4 Design-Bid-Build Bid Award Process

6.6.4.1 Procure Contract

The Project Manager works with the Contract Administrator (CA) to develop a competitive procurement for the scope of work. The Project Charter and Project Management Plan (if required) are used as source documents to develop the procurement.

Several competitive procurement methods may be utilized; the most common are one of the following:

- **Invitation For Bid (IFB)** – competitive sealed bids
- **Request For Proposal (RFP)** – competitive negotiations

Refer to Section 5.0 Procurement/Contract Delivery of this document for more detailed procurement guidelines.

6.6.4.2 Work Windows and Construction Work Week/Work Hour Restrictions

A work window is a period of time with a specific beginning time, ending time, and duration during which access to the operating envelope or operating system is provided for construction or installation purposes. The specification of work windows for inclusion in the contract documents is a coordinated effort between the Project Manager, the Engineering Department, and the Operations Department.

The contractor's work planning may or may not make use of all work windows. Work windows may be of a minor type, a single track outage type, a multiple track outage type, or a signal system type. Work windows are most often specified for overnight and weekend periods during overnight and weekend periods.

The Project Manager defines the "Construction Work Week" for inclusion in the Contract Special Provisions. The work week is established to meet project needs and related labor code requirements. The standard construction industry work week is Monday through Friday in daytime shifts. Establishing an alternate work week should be considered when work is to be performed during non-standard periods (i.e., night and weekends). Defining a valid alternate work week (agreed upon by the construction contractor and affected union locals) helps manage safety and operational constraints and sometimes allows exceptions to overtime rules and regulations. Managing these factors successfully reduces construction labor costs.

6.6.4.3 Liquidated Damages and Rail Service Interruptions

Before release of the Invitation for Bid or Request for Proposal, the Project Manager must calculate liquidated damages (LD's). These calculations MUST be made for each individual project and must account for the specific conditions of the project to be enforceable. Liquidated damages are not merely a punishment to the contractor for late performance.

Calculations of liquidated damages, including those for interim milestones, are to be made in accordance with the guidelines contained in the Federal Transit Administration (FTA) Best Practices Procurement Manual. See Vol. 3 of this Manual, Tab #24 for additional instruction.

A rail service interruption occurs when the contractor's construction operations exceed the approved time period (normally the work window) and as a consequence, revenue passenger train(s) encounter a delay to their scheduled operations. A delay may also occur when the contractor's work does not meet the requirements of the contract and such conditions impact the ability to return track to service. Under such conditions, the contract documents will stipulate an assessment against the contractor on the basis of a dollar amount per minute of delay per train with a cumulative total maximum assessment per day. Typical amounts may be $500 per minute per train and a daily maximum of $50,000. However specific numbers for each project must be supplied to the Contract Administrator by the Project Manager in consultation with the Operations Department.

6.6.4.4 Contract Award

The key deliverable in this phase is the contract between Metrolink and the contractor. This contract may be in the form of a competitively bid contract, a Contract Task Order (CTO), Agreement, or other document.

The Project Manager and project team works with the Contract Administrator to select the contractor, and sign the contract. Please refer to Section 5.0 Procurement/Contract Delivery of this document for more detailed contract guidelines. After the contract has been signed and awarded, the project is given the **Notice To Proceed** (NTP) to the Build/ Construction Phase.

6.6.5 Design-Build Award Process

The Design-Build award process is managed by Procurement / Contracts. Key steps include:

- Project Manager works with the Contract Administrator (CA) in Procurement to develop and issue the request for Design-Build Proposal (RFP) or Bench Contract
- The CA issues the Design-Build RFP or Bench Contract
- Procurement reviews the incoming proposals (if a RFP issued) or Bench Contract Response
- Procurement works with the Project Manager and Project Team to select the design-build engineer and contractor (if a RFP issued)

Note: the same considerations for Work Windows and Construction Work Week/Work Hour Restrictions and Liquidated Damages and Rail Service Interruptions outlined under the Design-Bid-Build process also apply to Design-Build contracts.

The final award of the Design-Build contract is managed by the Contract Administrator. The process includes:

- The CA negotiates the final terms and contract with the Design-Build engineer and contractor
- The CA finalizes the contract and obtains approvals (signatures) from each party
- The Purchasing Agent processes the contract for Board approval
- Once approved, Procurement issues a Notice to Proceed (NTP) to authorize the commencement of the next phase (Design-Build)

6.6.6 Contract Task Order

A Contract Task Order (CTO) involves the use of a CTO Request for Proposal Form. The Project Manager prepares an Independent Cost Estimate (ICE), then submits the CTO for approval in Oracle:

- Project Manager Routes the RFP Package for Approval
- Technical Contract Manager Reviews and Signs-off
- BA Quality Checks the Package
- BA Creates Requisition in Oracle
- Stakeholders Approve Requisition in Oracle Based on Approval Authority

The CTO RFP is then issued by the Contract Administrator (CA):

- Procurement reviews the incoming bids, then works with the Project Manager and Project Team to award the CTO
- The CA finalizes the CTO and obtains approvals (signatures) from each party
- The CA then converts the requisition to release in Oracle and approves the release
- The BA or PMO scans and distributes the CTO Package to the PM and Contractor, then posts to the Engineering Drive

Refer to Checklist #1: Initiate and Execute a Contract Task Order or Job Order Contract.

6.7 Construction Phase

6.7.1 Construction Phase Description

Construction involves the actual commencement of work on the project. The work is generally performed and/or coordinated by the selected contractor (with the Project Manager providing oversight) and involve several types of activities including:

- Commissioning / Decommissioning
- Demolition and Debris Removal
- Grading / Site Preparation
- Coordination with Utilities Carriers
- Coordination with Other Rail Entities and Work Window Allocation
- Coordination with PTC Configuration Management
- Equipment / Parts Ordering and Delivery
- Supply Ordering and Delivery
- Build / Construction Work
- Risk Management
- Safety Management
- Inspections
- Commissioning

For non-construction projects, some of the following sections may not apply, specifically sections regarding construction work hours and liquidated damages.

6.7.2 Construction Phase References and Templates

The following references and guides provide additional information and templates for the Project Manager to utilize (as applicable):

PMO Standard Operating Practices

- PMO SOP PC 2.0 Schedule Development and Control and SOP PC 2.1 Schedule Updating
- PMO SOP PC 3.0 Project Management Progress Sheets
- PMO SOP PC 4.0 Cost Management and PC 4.1 Quarterly Expenditure Forecast Development
- PMO SOP PC 5.0 Risk Management
- PMO SOP PC 6.0 Project Management Plan
- PMO SOP PC 7.0 Change Management

6.7.3 Team Kickoff

The Project Manager plans and conducts a kickoff meeting with the project team to start the Construction Phase. This kickoff meeting will serve several purposes:

- Introduce the project team members and roles
- Set project goals and expectations
- Review the Project Management Plan and project schedule
- Communicate key success factors

6.7.4 Construction Management

Throughout the Construction Phase, the Project Manager must be in frequent communication with the project team including the contractors and consultants on the project. The Project Manager will:

- Track and report on weekly project status
- Track and report on the project budget, costs (costs to date and projected costs), and schedule through the PM Sheet work tool (refer to PMO SOP PC 3.0 Project Management Progress Sheets)
- Be prepared to discuss project status at monthly department status meetings with the PMO

Refer to Section 3.0 of this manual for an additional description of the Project Manager's role in Construction Management. Refer to the Resident Engineer Manual for more specific information during the Construction Phase.

6.7.5 Safety

Safety management during the Construction Phase includes but is not limited to:

- Planning of work to avoid personal injury and property damage including Job Hazard
- Analyses (JHA's) for specific tasks
- Monitoring of work and practices to provide early detection of risks
- Protecting adjacent public and private properties to provide for safety of the public
- Providing safety training and incentive programs
- Complying with federal and state Occupational Safety and Health Acts (OSHA)

6.7.5.1 Role of the Project Manager in Safety Management

The protection of passengers, employees, contractors, consultants, and the public is paramount. The Project Manager's role is to establish an awareness and culture of safety. The Project Manager, with the assistance of the Resident Engineer, monitors contractor safety performance and compliance. The Project Manager will compare performance to contractual safety requirements, and will conduct regular safety audits and loss control surveys. If a rules violation or safety issue is observed, the Project Manager or the Resident Engineer will notify the Project Sponsor and the contractor's representative. The contractor must immediately take corrective action and respond in writing as required in the contractor's safety management plan.

6.7.5.2 Role of the Contractor in Safety Management

Contractors must have a safety management plan in place prior to commencing work. During the Construction Phase the contractor must assure safety on site, provide safety training to its employees, provide safe working conditions, and prevent accidents or damage to adjacent public and private property. When the contractor is notified of a safety violation by Metrolink or its own field staff, the contractor must immediately take corrective action and notify Metrolink in writing of the corrective action taken. Failure by the contractor to take corrective action may result in a termination of the contract.

6.7.5.3 Accident Investigation and Record Keeping

The contractor must investigate and report all accidents and possible operating rules violations without delay. The investigation will generate recommendations for corrective actions to prevent recurrence of similar incidents. The contractor will submit a monthly accident report to the Project Manager and Resident Engineer. These reports allow Metrolink to assess the contractor's safety performance. Safety performance is measured by recordable lost time accident frequency and the type and cause of accidents. Federal and state regulations mandate reporting of certain injury accidents.

6.7.6 Review Process

The Project Manager will hold a final review with key stakeholders, prior to closing out the project. The purpose of this review is to confirm that all tasks have been completed to satisfaction, and that stakeholders agree that the project has concluded.

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6.8 Closeout Phase

6.8.1 Closeout Phase Description

For the Closeout Phase, the Project Manager oversees the final details of the project. These tasks include final settlement of project contracts, acceptance of contract deliverables, collection of contract documents and records (such as as-built drawings, operation and maintenance manuals, and warranties, etc.), and approval of final payments.

6.8.2 Closeout Phase References and Templates

The following references and guides provide additional information and templates for the Project Manager to utilize (as applicable):

PMO Standard Operating Practices

- PMO SOP PC 2.1 Schedule Updating
- PMO SOP PC 3.0 Project Management Progress Sheets
- PMO SOP PC 4.0 Cost Management and PC 4.1 Quarterly Expenditure Forecast Development
- PMO SOP PC 8.0 Close-out
- Checklist #4 Close Out a Construction Contract

Templates

- Project Close Report Template

6.8.3 Commissioning

Proper commissioning is vital to the success of construction projects. Commissioning is the process of validating constructed systems and equipment in coordination with operations personnel and third parties and training the end users and maintenance personnel. The Project Manager ensures that the documentation, manufacturing requirements, systems, equipment, and operations are integrated, validated, and accepted.

Allocating adequate time and resources, and project dollars to commissioning will minimize the risk of delays, cost overruns, underperforming systems, and unreliable support equipment. The Project Manager begins the project with the end in mind through well-planned consideration of the final outcome to be achieved during the commissioning phase early during Project Initiation. The Project Manager must include the time and resources needed to train and fully familiarize the end users and maintenance personnel who will live with the final work product to ensure a successful handoff of the new facility from the construction team to the operations team.

6.8.4 Closeout Process

To settle and close the project the Project Manager, Contract Administrator, and the Resident Engineer follow the procedures specified in the contract's terms and conditions. The FTA has specific guidelines for this process. Key areas are outlined below.

For construction contracts, the Project Manager performs the following activities:

1. **Manuals and Training** – Ensure that the contractor delivers the operations and maintenance (O&M) manuals for work performed and provides any training for Agency staff.
2. **Beneficial Occupancy** – A contract is deemed substantially complete when the permitting authority issues a Certificate of Beneficial Occupancy to the Agency, then the Agency can occupy and begin use of the facility and equipment. The Project Manager ensures that the Resident Engineer prepares a punch list of open items for the contractor to complete.
3. **Guaranties and Warranties** – With beneficial occupancy confirmed the contractor has initiated the guaranties and warranties associated with the facility and equipment.
4. **Record or As-built Drawings** – Confirm that the Resident Engineer validates that the contractor has submitted the record drawings that show the as-built condition of the constructed facility and installed equipment.
5. **Final Inspection** – Lead a final walkthrough inspection of the facility to confirm that the contractor has completed the open punch list items and all work is completed correctly and to satisfaction.
6. **Notice of Completion** – Prepare and file a notice of completion with the County Recorders' office in the county where the project is located.
7. **Resolve Outstanding Changes/Claim Disputes** – The Project Manager resolves any outstanding contract disputes.
8. **Final Payment** – With the above activities completed, the Project Manager approves the final payment to the contractor, and the Agency can release retention and close the contract.
9. **Commissioning** – Assure that all other commissioning activities have been completed in a satisfactory manner.

For professional services contracts, the Project Manager performs the following activities:

1. **Verification of Scope Completion** – Confirm that the contractor has satisfactorily delivered the services called for in the contract scope of work and close out any open contract commitments related to the project.
2. **Contract Audit** – When contract payments are on a cost-plus fee basis, the Agency should have the right to audit the contractor's costs. The audit should verify direct labor rates, support for time charges, support for other direct costs, and justification for overhead rates.
3. Final Payment– Pending satisfactory completion of services and audit of costs, the Project Manager approves the final payment.

For construction projects, the Project Manager completes the Project Closeout checklist as referenced in this manual. This checklist references tasks required by the Resident Engineer, Project Manager, Contracts Administration & Procurement, and Finance. The Project Manager must also follow the PM Closeout Responsibilities as communicated by the Program Management Office (PMO). These responsibilities include submitting a Project Completion Report.

6.8.5 Project Demobilization

When a formal demobilization effort is required, the Project Manager must develop a staffing plan for the final phase of the project that plans the reduction in the Agency's own forces and those of the professional service consultants. If applicable, the Project Manager works with the Human Resources department to help manage the transition of staff off the project.

The Project Manager's final challenge once the demobilization plans are in place is to keep the project team's attention focused on the tasks needed to complete the project as opposed to what they will be doing once the project is over.

6.8.6 Project Evaluation

Before the project is over and key project staff has dispersed, the Project Manager holds a project evaluation in the form of a formal **Project Close Report**. For all projects, a meeting is conducted to capture:

- What Went Well – Ask the team the key positives of the project so that Metrolink can re-apply what went well. The goals are to determine what key tools, planning, communications methods, and experiences were needed to successfully execute the project. Project Managers should reapply this knowledge so that they do not have to "re-invent the wheel" for the next project.
- What Can Be Improved – Review what could be improved, determine what went wrong and could be fixed for the next time. Take the corrective actions needed for future projects. Lessons learned can consider technical, managerial, and process aspects of the project. They are to be discussed and documented as part of the Project Close Report, and most importantly, applied to future projects to lead to greater project success.

Although Project Managers may be ready to move on to the next project, they should make use of this unique opportunity to find out the Lessons Learned.

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7.0 Document History

07/15/2011 Project Management Desk Manual approved

Version History

Revision Date	Versions	Changes	Author
7/16/2018	Rev. 1.0	Updated format and contents, added new information and list of current reference materials.	PMO

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8.0 Appendix A: PM Manual Guides, Templates, and Reference Documents

PM MANUAL GUIDES, TEMPLATE, AND REFERENCE DOCUMENTS	
	GUIDE, TEMPLATE, OR DOCUMENT NAME
1	Project Charter Template
2	Communications Plan Template
3	Project Management Plan Template
4	Project Close Document Template
5	Project Business Case Guide
6	PC-01 Project Initiation Standard Operating Practice
7	PC-02 Scheduling Development and Control Standard Operating Practice
8	PC-02.1 Schedule Updating Standard Operating Practice
9	PC-03 PM Progress Sheets Standard Operating Practice
10	PC-04 Cost Management Standard Operating Practice
11	PC-04.1 Expenditure Forecast Standard Operating Practice
12	PC-05 Risk Management Standard Operating Practice
13	Risk Management Attachment A: Risk Register Template
14	Risk Management Attachment B: Risk Analysis Methods Guide
15	Risk Management Attachment C: Risk Handling Methods Guide
16	PC-06 Project Management Plan Standard Operating Practice
17	Project Management Plan Table of Contents
18	PC-07 Change Management Standard Operating Practice
19	PC-08 Closeout Standard Operating Practice
20	PC-09 Contract Task Order (CTO) Standard Operating Practice

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9.0 Appendix B: Quick Reference Checklists

The following checklists are summaries of the process to perform the subtasks required to achieve the objective.

CHECKLIST #1: Initiate and Execute a Contract Task Order (CTO) or Job Order Contract (JOC)

I. Contract Task Orders must have the following documentation attached to the CTO forms prior to submitting for approval.

	Project Manager Monthly Progress Summary Sheet
	Request for CTO Proposal with a detailed Scope of Services indicating the services required
	Funding Source (Federal/Local/State)
	Conflict of Interest Certification
	Fixed Fee Calculation Worksheet
	Engineer's Estimate that clearly matches the current task order request
	CTO Proposal from Vendor to include: ☐ Specific list of vendor deliverables and due dates for the current tasks ☐ What types of reports are required and how often, what types of status meetings are required and how often. ☐ Vendor updates to the list of deliverables and due dates monthly ☐ CTO staffing plan that includes all hours for the CTO, by individual and position by month over the life of the project. Plan must total to hours and labor costs negotiated. ☐ Resumes of proposed key staff to be included with the CTO proposal, if required.
	Memo to file explaining selection of specific firm
	Summary Record of Negotiations for the agreed hours and staffing levels
	Short letter from the Project Manager to the file justifying the need for the CTO, and outlining the Project Manager's estimate, comparison of vendor proposals, summary of negotiations, and justification of consultant administrative costs.

II. Documentation required post-award of CTO

	Vendor to provide a work plan for the task order within two weeks of signature
	Vendor to provide a CTO Task Order schedule, with enough detail to manage the task, within two weeks of signature. This will be the task order baseline from which the task order performance will be measured
	Vendor Staffing Plan updates (planned vs. actual) sent to SCRRA project team members on a monthly or quarterly basis

III. Responsibilities of Project Manager in Management of CTO

	Clarify the threshold for revisions (if any) for which some of the above may not be required at the level of detail required for larger CTO's
	Project Manager to check PM Sheet to ensure CTO amount is incorporated into the Estimate at Completion

.

CHECKLIST #2: Process a Change Order

	Project Manager reviews and approves scope of Change Notice sent by Resident Engineer ☐ RE prepares Fair Cost Estimate prior to negotiation with contractor ☐ RE negotiates $ amount and time impact of change with contractor ☐ A CN does not authorize a Contractor to commence performance of changed work.
	Resident Engineer sends Change Order package to Project Manager for review and approval ☐ Contractor RFI or other originating document present in CO package? ☐ Change Notice present in CO package? ☐ Fair Cost Estimate in CO package? ☐ Time Impact Analysis present in CO package? ☐ Cost Summary present in CO package (RE Fair Cost Estimate)? ☐ Summary Record of Negotiation present in CO package? Note: Contracts staff participation is required for Change Orders over $250K.
	Project Manager approves and initials Change Order
	Change Ordre Limits

Original Contract Amount	Maximum Individual Change Order Amount
Up to $50,000	$5,000
$50,000 - $250,000	10% of the original contract amount
$250,000 - $2,750.000	$25,000 plus 5% of the original contract amount in excess of $250,000
$2,750,001 and up	$210,000

	Project Manager obtains approvals for Change Orders ☐ < $210,000 Director of Engineering ☐ >$210,000 Board of Directors and CEO
	Upon receipt of approval, Procurement issues Change Order to contractor Reference: Resident Engineer (RE) Manual (Rev. 1 – 4/14/2014)

CHECKLIST #3: Get a Construction Invoice Paid

	Resident Engineer reviews Pay Application ☐ Resident Engineer and contractor representative verify & resolve quantities installed ☐ Resident Engineer forwards resolved pay application to contractor for signature ☐ Contractor concurs with resolved pay application and signs it
	Project Manager and Program Manager concur with Resident Engineer's approval of pay application
	Resident Engineer signs pay application and generally, this starts the 30-day time period within which the invoice must be paid. Check Contract for verification of the payment time periods.
	Resident Engineer sends pay application to Metrolink Accounting
	Accounting forwards pay application to the Contract Manager or BA
	BA returns approved pay application to Accounting for payment
	Accounting cuts check to contractor ☐ Accounting mails check to contractor, OR ☐ Project Manager takes receipt of check and ☐ Hand-delivers check to contractor, OR ☐ Overnight mails check to contractor

CHECKLIST #4: Close Out a Construction Contract

RESIDENT ENGINEER & CONTRACTOR	
	Certificate of Substantial Completion
	Notice of Completion
	Request for Final Acceptance
	Certificate of Final Acceptance
	Notice of Completion
	Closeout Book ☐ Punch List ☐ Permit Sign-Off ☐ Final Quantities Log ☐ Final Report – Material Testing/Special Inspections ☐ As-Built Schedule ☐ Warranties and Guarantees ☐ Maintenance and Operation Manuals ☐ Lien Releases from Subcontractors ☐ Certificate – "All Claims Resolved" ☐ Certificate – "No Claims for Subs" ☐ Certificate – "Warranties/Guarantees in Effect" ☐ Final Payment Application (in jacket of Closeout Book) ☐ Release of Retention Invoice (in jacket of Closeout Book) ☐ As-Built Drawings (General Engineering Consultant) ☐ Request for Final Payment
PROJECT MANAGER	
	Project Manager verifies, signs, and delivers completed closeout documents to the Contract Administrator
	Request for Release of Retention Project Manager requests Budgets to halt charges to Project Charge Number
PROCUREMENT	
	Contract Administrator files Notice of Completion
	Final Contract Status Report
	DBE Compliance
	Labor Compliance
	Request for Release of Retention
FINANCE	
	Affidavit of All Bills Paid
	Contractor Final Payment Release
	Release Retention