

APPENDIX 2: REQUEST FOR ENGINEERING & CONSTRUCTION CAPITAL PROJECTS STAFFING

BACKGROUND

In addition to the design, engineering, and construction of the major Measure R rail projects, Engineering and Construction manages a capital program in excess of \$1.0 Billion which is comprised of more than 25 different capital projects, many of which are broken into several separate design and construction contracts. Example projects currently in various stages of design and construction development include the Division 13 Bus Operations and Maintenance (O & M) facility, the Expo Santa Monica O & M facility, the Southwestern Yard O & M facility, the Rosa Parks Station improvements, Patsaouras Plaza Busway Station, the Emergency Security Operations Center (ESOC), and soundwall projects. Additionally, the capital support departments provide management and coordination of all joint development projects at Metro stations, engineering support and design work for Facilities Maintenance and General Services at our facilities and headquarters, and technical support for sustainability projects, highway projects, and regional rail.

ISSUE

The work effort for the capital projects which includes design, engineering, and construction management is done primarily by in-house staff. For larger and more complicated design projects, the services of design consultants are retained. When engineering assistance is needed to supplement staff or specific engineering capabilities are required, a task order contract with Maintenance Design Group is initiated. This contract is used for engineering task orders that are project-based, and may not be used to supplement or second Metro engineering staff.

For construction management (CM) Marris, Inc. and Jackie Patterson Engineering (both SBE's) provide CM services when required. Currently, Marris and JL Patterson are used to support the Division 13, Patsaouras Plaza, the North Hollywood Pedestrian Underpass, and the Universal City Pedestrian Bridge. These contracts are set to expire this year, and will be re-procured competitively to have on-call CM assistance when required.

Due to the expanding workload, new FY16 capital projects, and the number of new building projects such as the Rosa Parks Station and the AMC, the departments supporting the capital projects are currently short on resources and new resources are required to meet the goals and objectives of the departments. Also, interdepartmental resources have been reallocated from the capital projects resources to make sure the major rail projects have adequate management oversight. Therefore, existing staff is not sufficient based on the current workload to efficiently and effectively implement the work effort.

The resource allocation of staff for Capital Projects has not grown at a pace required to adequately support and oversee the engineering and construction of the dynamic and expanding capital program. This situation has created an over dependency on costly consultants to provide technical support.

DISCUSSION

Engineering and Construction is requesting three (3) additional positions to support the Capital Projects Program. These new non-contract positions may be terminated upon completion of the projects. Additional support staff is integral to the success of the Capital Program and new resources are required to meet the goals and objectives of the Division. In order to meet the challenges of the work effort, continue providing high-level and accurate construction and engineering support, and complete work within the schedules required, it is imperative that we increase our Capital Projects support staff as follows:

No.	Position Title
1	Director, Construction Management
1	Sr. Engineering Manager
1	Sr. Engineer
3	Total

ALTERNATIVE

The Board may decide not to approve the request for additional resources to support the Capital Projects Program. This is not recommended since history has proven that not having proper oversight on any project causes disruptions in the project development with a loss of potential cost savings of \$3.1 million. It is critical that additional resources be added to facilitate the effective and efficient engineering and construction of the projects.

**APPENDIX 2 – ENGINEERING & CONSTRUCTION
FY16 FTE Request for Capital Projects Support Staff**

No. FTE	Cost Center	Project No.	Position Title	Job Description	Justification	QTR Needed
1	8410	204071 -- MBL_REFUR, 205063 -- MBL PEDESTRIAN , 211005 -- MBL Signal System, 460323&460324 -- Soundwall	Director of Construction Management	Director of Construction Managers: This position develops and Implement polices and procedures for planning. Organizing, coordinating and controlling major Capital construction projects as well as large number of smaller projects. Plans and assigns work to subordinates, ensures that assignments are being accomplished and that Metro and Contractor staffs are following appropriate policies, plans and specifications. One (1) position is requested. The position will support Minor Capital Projects in support of the Rail Facilities Improvements, Rail Rehabilitation Projects, and Wayside Systems Projects, specifically Metro Blue Line Refurbishments, Blue Line Signal System Rehabilitation, and Pedestrian Swing Gates projects.	Construction Management Department does not have the personnel to assign to these activities at this point in time. Metro does not want to use consultants at this time due to the higher cost of consultants.	Q1
2	8410	204071 -- MBL_REFUR, 205063 -- MBL PEDESTRIAN , 211005 -- MBL Signal System, 460323&460324 -- Soundwall	Senior Construction Manager	Senior Construction Managers: This position oversees and manages rail facilities construction projects and ensures work is done according to specifications, within schedule and within budget. One position is requested. The position will support Minor Capital Projects in support of the Rail Facilities Improvements, Rail Rehabilitation Projects and Wayside Systems Projects, specifically Metro Blue Line Refurbishments, Blue Line Signal System Rehabilitation, and Pedestrian Swing Gates projects.	Construction Management Department does not have the personnel to assign to these activities at this point in time. Metro does not want to use consultants at this time due to the higher cost of consultants.	Q1
1	8380	202317 -- PATSAOURAS, 202324 -- Div 1, 460303 -- Green Line, 405555 --ROSA PARKS	Sr Engineer Manager (Structural))	This is an engineering position required to provide design and construction support services for the Rail and Bus Facilities Capital Program. The specific engineering discipline required is a Senior Structural Engineer. The senior engineer duties will include design and engineering of structures for bus and rail facility projects, including all building projects. In addition, the position will manage design and engineering work conducted by outside design professionals, and will also support active construction projects with structural engineering requirements. The position will also support the design of the Rosa Parks and Airport Metro Connector (AMC) projects for the Planning Department, which was not previously budgeted.	There is currently no position available in the department to support the structural building projects and upcoming work related to the Airport Metro Connector (AMC) and Rosa Parks Station projects. This position is required to provide efficient, timely, and high quality engineering services for the \$550 million facilities program portfolio.	Q1

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4	8320	860228 --- RC, 865518 --- WPL1, 865522 ---WPL2	Supervising Engineer (Mechanical ventilation)	To supervise structural items on the Regional and Purple Line Extension Sections 1 and 3 Projects and support upper management on miscellaneous Metro Operation tasks.	The Regional Connector and Purple Line Extension Section 1 and 2 projects have several structural elements that would require structural engineering reviews. Metro Engineering is expecting to receives a very large number of submittals that require our review. With the Design Builder already on board on two of these projects and their aggressive schedule to start construction in the summer, a new position is needed in order to assist the project in review of the structural items on these projects.	Q1
1	8010	212121 -- EOC/ROC/BOC	SR. ENGINEER	Project Management support for major capital projects for the Operations Control Center and others, as required. Duties include performing project management support and technical and administrative functions such as overseeing & administering design, procurement, construction and installation of rail and bus facilities and systems; Development of scope of work; Administers and monitors work and contract for compliance with schedule and budget; Evaluation of design proposals, bids & change orders; Conducting field & technical investigations; Manage engineering activities to ensure compliance with design criteria and applicable codes; Interface and coordinates with various Metro depts. and other agencies; and facilitates resolution of design, construction and operational issues.	The OCC Project estimated at over \$125 million is a significant and very complex project entailing integration of the Rail Operations Center (ROC), Bus Operations Center (BOC) and Emergency Operations Center (EOC) functions into a single facility to facilitate a more efficient and coordinated response to normal traffic activities and special events, as well as unexpected emergencies.	Q2