

Washington Metropolitan Area Transit Authority
Board Action/Information Summary

<input checked="" type="radio"/> Action <input type="radio"/> Information	MEAD Number: 100637	Resolution: <input type="radio"/> Yes <input checked="" type="radio"/> No
---	------------------------	--

TITLE:

Heavy Track Equipment

PURPOSE:

To obtain approval to initiate and award competitive contracts to procure heavy equipment for Track and Structures/Systems Maintenance, (CIP-024) Right-of-way track. The purchase of heavy equipment will be utilized to perform various track maintenance and rehabilitation projects in support of Metro`s goals to create a safety culture, maintain and enhance Metro`s image and delivery quality service.

DESCRIPTION:

Tractor and trailers-\$300,000

The Office of Rail Track and Structures Systems Maintenance (TSSM) has the responsibility for maintenance and rehabilitation of Metro`s track infrastructure. For extensive and large track rehabilitation projects, TSSM utilizes off-site locations to pre-build track panels and associated components. Upon completion of this task, track panels are loaded onto flat cars or tractor trailers and transported to the job site.

One tractor and two trailers are needed by TSSM in multiple capacities. For major capital track rehabilitation projects, these units will be used to transport the heavy hi-rail track equipment, such as backhoes, and large track materials from various Metro staging areas directly to a right-of-way (ROW) job site via roadway. This method of transportation will create a larger work window for installations and alleviate the need for track access for delivery of these items, allowing other departments and contractors to utilize track access. The procurement of this equipment will allow overall improvement in service reliability through the rehabilitation of capital assets to minimize service disruptions and delays.

Tie inserters-\$1,800,000

TSSM currently has three tie inserters in its equipment inventory. TSSM is requesting two additional tie inserters to outfit a total of three work crews from track maintenance and two work crews for track production for the capital

crosstie replacement program. Outfitting crews with these additional tie inserters will allow crosstie replacement to be performed on weekends and in multiple locations.

Crossties are replaced when they become defective and no longer support and distribute the vertical loads of train weight, or no longer maintain correct rail gauge and alignment. An automated tie inserter is a rail-bound piece of equipment capable of the installation and removal of wooden and concrete crossties over the third rail. This equipment is specifically designed to remove the old and insert new railroad ties automatically while utilizing only one individual. The purchase of two additional tie inserters will enhance maintenance capabilities to minimize service disruptions and delays of the rail system thus maintaining and enhancing Metro`s image and allowing TSSM to use each resource wisely.

Tie Cranes-\$600,000

TSSM currently has three tie cranes in its equipment inventory. TSSM is requesting two additional tie cranes to outfit a total of three track maintenance work crews and two work crews for track production for the capital crosstie replacement program. Outfitting maintenance crews with these additional tie cranes will allow crosstie replacement to be performed on weekends and in multiple locations.

A tie crane is rail-bound equipment specifically designed for handling wooden or concrete railroad ties. The crane is designed with a lifting arm pivot on a base, enabling 360 degree rotation and a gripper for picking up concrete or wooden crossties. Additionally, as the Metro system ages, the number of ties requiring replacement increases.

Worker safety will improve with the ability to handle ties with equipment, rather than manually. The procurement of tie cranes will aid in the delivery of quality service as well as create a safety culture environment for track personnel and use each resource wisely.

Flat Cars-\$2,000,000

TSSM has a requirement for four flat cars in addition to the 31 currently in TSSM equipment inventory. These flat cars will be paired with four prime movers purchased through the American Reinvestment and Recovery Act. Flat cars are rail-bound units with an open, flat deck designed to safely and efficiently transport materials, tools and equipment for the tie replacement program and various other types of track rehabilitation projects throughout the mainline and rail yards. These additional flat cars support the rehabilitation activities of TSSM and enhance the quality of service provided to Metro`s ridership.

Excavator-\$750,000

To facilitate track maintenance requirements in the most effective manner, it is necessary to purchase one additional hi-rail excavator with specialized attachments. TSSM is pending delivery of an excavator purchased through the American Reinvestment and Recovery Act. Equipment with these capabilities will be used on Metro`s mainline to assist with the capital tie replacement program, capital turnout and crossover rehabilitation program and grading of the track bed. The purchase of this excavator allows TSSM personnel to efficiently improve the condition of the rail system, overall ride quality and reduce delays and service disruptions enhancing Metro`s image.

Multi-purpose hi-rail handler-\$600,000

TSSM is pending delivery of two of these types of handlers purchased through the American Reinvestment and Recovery Act. To facilitate track maintenance requirements in the most effective manner, it is necessary to purchase one additional multi-purpose hi-rail handler with specialized attachments. The multi-purpose hi-rail handlers will be primarily utilized in the capital running rail replacement program. This equipment has the capability of turning 360 degrees allowing for easy access to the rail train and flat cars for the distribution of rail and other track-related materials. Due to the versatility of this type of equipment will allow work to be performed in multiple locations by multiple work crews. Equipment with these capabilities is not currently available in TSSM`s equipment inventory.

Tamper-\$3,000,000

TSSM is requesting the purchase of one replacement ballast tamper. There are currently three tampers in inventory and the pending delivery of two additional tampers purchased through the American Reinvestment and Recovery Act, will increase the number of tampers to five. The tamper scheduled for replacement has exceeded its useful life of 20 years and, due to its condition, rehabilitation is not a viable option. A ballast tamper is a rail-bound machine that is used to lift the track and pack or tamp the track ballast under railway tracks. A tamper corrects the alignment of the rails to make them parallel and level, in order to achieve a more comfortable ride for passengers to meet Metro`s goal of delivering quality service. A ballast tamper is faster, more accurate, more efficient and less labor-intensive than hand tamping. This equipment is necessary to provide tamping equipment support for two maintenance crews and three capital production crews. The purchase of one additional tamper will allow track rehabilitation and maintenance crews to work in more than one area. TSSM personnel will be able to efficiently improve the condition of the rail system and overall ride quality and reduce delays and service disruptions enhancing Metro`s image.

Maintenance of Way Vehicle-\$900,000

TSSM requires two maintenance of way trucks, (MOW), to support the track emergency response teams. MOW trucks are hi-rail vehicles equipped with the

tools necessary to respond to emergency repairs, derailments and other high priority jobs along the right of way. These vehicles will have the capability to store all required tools to respond in a moment's notice so the mechanics can perform on-site repairs. Currently track personnel must use multiple types of equipment to transport tools and materials to the job site. This method is time consuming and delays the length of time of the repair. The procurement of these trucks allow TSSM personnel to efficiently improve the condition of the rail system and overall ride quality and reduce delays and service disruptions enhancing Metro's image.

Mobile Maintenance Unit-\$2,250,000

TSSM is requesting the procurement of one mobile maintenance unit. A mobile maintenance unit is an enclosed rail bound unit used mainly for maintenance work in the track area. The purpose of the mobile maintenance unit is to create a safe and ergonomic working area without long set up and dismantling times with a low number of required staff. The unit has an expanding body capable of covering the work area allowing work to be carried out during bad weather conditions as well as during the night. This unit has a useful life of 20 years and will be pulled by a Metro owned prime mover to the designated work location. The procurement of this unit will aid in the delivery of quality service as well as create a safety culture environment for track personnel.

Rail Truck-\$300,000

TSSM currently has one rail truck in the equipment inventory. The existing rail truck is over 20 years old and has exceeded its useful life and, due to its condition, rehabilitation is not a viable option. The replacement rail truck will be utilized by the emergency track repair crew to transport replacement rail, various tools and materials from rail yards to be loaded on flatcars for installation to the job site. The rail truck will provide flexibility to transport rail, equipment and materials over the road to desired locations or other rail yards when necessary. Purchasing this unit will aid in emergency track repair and adhere to Metro's goal of delivering quality service and enhancing Metro's image.

FUNDING IMPACT:

<p>Program: Capital Improvement Program- FY2011 Project: ROW Track Rehabilitation-CIP-024 Budget: \$44,449,390 This Action: \$12,500,000 Prior Approval: \$6,930,500 Remaining Budget: \$31,255,890-(labor and materials) Remarks: Tractor Trailers-\$300,000 Tie Inserter-\$1,800,000 Tie Crane-\$600,000 Flatcar-\$2,000,000 Excavator-\$750,000 Multi-Purpose Rail Handler-\$600,000 Tamper-\$3,000,000 Maintenance of Way Vehicle,\$900,000 Mobile Maintenance Unit -\$2,250,000 Rail Truck-\$300,000 Total for this request is \$12,500,000. Subject to the availability of funding and future years budget approval by the Board.</p> <p>Operating Budget Impact: Service agreements will be established for tractor trailers, maintenance of way vehicle and mobile maintenance unit and rail truck, estimate annual cost including fuel is \$5000 per unit. Car Track Equipment Maintenance (CTEM) will maintain the tie inserter, tie cranes, flat car, excavator, multi-purpose hi-rail handler and tamper with an estimate annual cost including fuel of \$600,000.</p>

RECOMMENDATION:

Approval to initiate and award competitive contracts to purchase track equipment for TSSM.