

SEATTLE CENTER MONORAIL

CONDUCTOR RAIL SALVAGE Part of the Deferred Major Maintenance Program

REQUEST FOR PROPOSAL

Summary

Seattle Monorail Services (SMS) is seeking proposals from qualified firms to purchase salvage copper-headed steel power rail, cast iron and porcelain insulators, and associated hardware. Purchaser shall provide suitable, secure containers for the materials and transport the containers from the Seattle Center.

Seattle Monorail Services, LLC (SMS), operates and maintains the Seattle Center Monorail, which is owned by the City of Seattle.

Relevant Dates

Notify SMS of intent to respond: *Immediately*

Proposals due to SMS: **Friday December 11, 2009 @ 4 pm PST**

Notification of Selection: by December 16, 2009

Background

High voltage electrical power is transmitted to each train from sub-stations located at the two terminal stations by positive and negative power copper-on-steel rails attached to the sides of the concrete guideway beams. The original power rail system was installed in 1961-62, and is still in use today. After nearly 50 years of usage, the power rail system is being replaced. The old rail must be removed from the site. Proposals shall be for salvage of the rails, insulators, and associated hardware on two guideways.

Below are photos of insulator assemblies removed from the system, and sections of copper-headed steel rail with joint hardware still intact. The rail sections are being removed in 13.5 ft sections, but the joint connections remain in place. The joint connections consist of copper fish plates with steel flange supports.

Purchaser shall supply sufficient salvage bins to hold the materials: smaller tubs (like the Boeing tub) for insulators; and a bin which is long enough to hold 13.5 ft sections of rail, which can be covered and secured with a padlock, and which has an opening end gate. Purchaser shall be responsive upon request for pickup.



Porcelain/cast iron insulators.



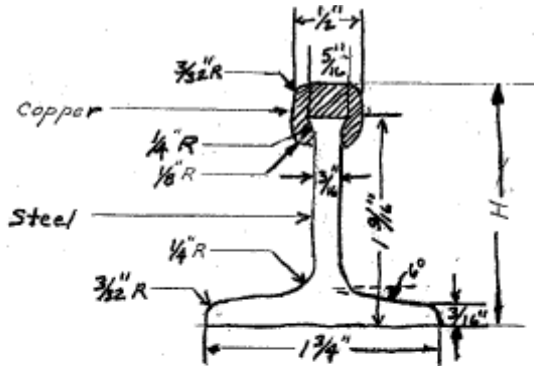
Copper-headed steel rail with joints cut and removed in 13.5-ft sections.

The Seattle Center Monorail has two guideways. The rail system will be removed and replaced one guideway at a time. Presently, components are being removed from the Red guideway, and the Blue guideway will be completed in early 2010. **The quantities listed below are related to one guideway, but salvage will include the materials for both guideways.**

<i>Estimated Components per Guideway (x2)</i>	Est. QTY	Est. Steel (lb)	Est. copper (lb)	Total (lb)	% Cu
<i>Est. no. of cast iron, steel, & porcelain insulators assemblies</i>	615			4,305	
<i>Joint hardware (copper/steel retained with cut rail segments)</i>	476	1430	390	1820	21%
<i>100mm² copper rail (F45/100)</i>	6060 ft	14,544	3,636	18,180	20%
<i>200mm² copper rail (F45/200)</i>	4000 ft	9,600	4,800	14,400	33%
<i>Estimated Total Weight</i>		25,574	8,826	38,705	25.7%*

*Percentage copper excludes total weight of insulators.

Below is a sketch of the cross section of the rail along with the weight per lineal ft and a photograph of the rail sections.



Standard No	S-901-A	S-901-B
Vahle Type No. *	F45/100	F45/200
Height "H"	1 7/8"	2 3/32"
Copper Area C.M.	0.155 S ₂ ln. 197,300	0.31 S ₂ ln. 394,600
Steel Area Equiv Copper C.M.	0.7 S ₂ ln 127,200	0.7 S ₂ ln 127,200
Total Equiv Copper C.M.	324,500	521,800
Copper Weight	0.6 #/ft	1.2 #/ft
Steel Weight	2.4 #/ft	2.4 #/ft
Total Weight	3.0 #/ft	3.6 #/ft

During pickup, Purchaser shall not interfere with passenger service or safety. Any damage or injury resulting from transporting bins or materials shall be the sole responsibility of the Purchaser.

The Purchaser shall provide services in full compliance with all applicable federal, state and local laws, rules, regulations, and orders of all governmental agencies.

Purchaser shall ensure that all materials collected are properly secured during transport and processed at a legitimate facility licensed and permitted to accept and process the material.

After each pickup, Purchaser shall provide SMS Project Manager the following:

- a. Certification of the weight of metal collected.
- b. Computation of the amount to be paid to SMS showing the price per ton or lb.
- c. A check payable to "Seattle Monorail Services" for the purchase price.

Schedule

Salvage bins must be delivered to the site immediately upon notification of selection. The materials for the first guideway are currently being removed and should be completely removed by December 20, 2009. Removal of materials from the second guideway is expected to begin in March 2010 and be completed by May 31, 2010. Purchaser shall work with SMS to provide appropriate bins and to remove filled containers.

Proposals

Proposals submitted for consideration shall include the following information:

- Experience and capabilities of the firm.
- References of similar projects, with contact information.
- Proposed sizes and type of containers to be used for salvage materials.
- Availability of trucks for pickup, and lead time needed to schedule a pickup.
- Price offered for materials. Complete the table below.

The rail segments are composed of 20% and 33% copper by weight for the 100 and 200 rails respectively. However, the rail types will be combined in one container. Including the steel clamps and copper connection pieces, the overall percentage of copper with respect to the steel is about 26% of the total weight (this calculation does not include the total weight of the insulator assemblies). Provide a price per pound for rail segments assuming 26% of the material is copper and the remainder is steel. For one guideway it is estimated that there will be 8,830 lb of copper mixed with 25,570 lb of steel.

The insulator assemblies are made up of two cast iron/porcelain insulators and are connected to each other with a steel stud. The weight of each unit is 7lb, of which 2.5lb is porcelain and the rest (4.5lb) is steel or cast iron.

The proposed prices for recycling scrap metal shall be honored by SMS and Purchaser for a minimum of ninety days. Thereafter, upon mutual agreement by SMS and Purchaser, prices may be adjusted on a quarterly basis. Price adjustments will be based on market fluctuations of the relevant metal category (e.g. No.1 heavy copper or mixed iron and steel). The index for determining price adjustments shall be the American Metals Market (AMM) or equivalent. Proposed prices should take into account related expenses to Purchaser, such as transporting materials.

	Weight per Guideway (GW)	Estimated total weight (TW=GW*2)	Price/lb (PF)	Estimated payment (TW*PF)
Porcelain/Cast Iron & Steel Insulator Assemblies (64% iron and steel by wt)	4,300 lb	8,600 lb	\$	\$
Copper-headed Steel Rail (26% copper and 74% steel by weight)	35,900 lb	71,800 lb	\$	\$

Email price proposals by 4 pm PST, Monday December 11, 2009. To schedule a site visit or requests additional information regarding this RFP email:

TO: projects@seattlemonorail.com
 Subject: Rail Salvage

Submittal Evaluation and Selection Process

Proposals will be evaluated by representatives from the City of Seattle, Seattle Center (Monorail System Owner), and Seattle Monorail Services (Monorail System Operator). Evaluation criteria will include but may not be limited to the following:

- Proposing firm's previous experience with project(s) of similar scope.
- Suitability and variety of available bins.
- The availability of respondent to begin work.
- Total price.

SMS anticipates selecting the successful respondent based on the evaluation criteria. SMS reserves the right to waive any irregularity in any response, to reject any and all responses, to re-advertise for proposals if desired, and to accept the response that is deemed by SMS and the City to be the most advantageous for the monorail system. All responses become the property of SMS and will not be returned. SMS also reserves the right to conduct interviews with one or more of the respondents prior to selecting a firm.

Neither SMS nor the City will be liable for any costs incurred by responders in the preparation and presentation of responses submitted in response to the RFP.

Disadvantaged business enterprise (DBE) firms are encouraged to respond.