



Request for City Council Committee Action From the Department of Public Works

REVISED October 9, 2002 (*Revised text in italics*)

Date: October 17, 2002
To: Transportation and Public Works Committee
Referral to: None

Subject: Light Rail Transit – Traction Power Substation Screening Conceptual Architectural Design for Substation 10 & 13

Recommendation: Staff recommends the adoption of a Committee report approving the proposed architectural screening plans for Traction Power Substations (TPSS) 10 and 13, as indicated in the Aesthetic Review Package for the City of Minneapolis dated September 20, 2002 for TPSS #10 and October 9, 2002 for TPSS #13 on file with the City Engineer.

Previous Directives:

December 17, 1999 – City Council approved execution of Supplementary Project Cooperation Agreement between Met Council, Mn/DOT and Minneapolis providing for such approval by the City Council.

December 14, 2001 – City Council approved the proposed architectural screening plans for Traction Power Substations 7 (50th Street), 8 (46th Street), 9 (38th Street), 11 (south of 24th Street), and the Yard as indicated in the Architectural Review Package for the City of Minneapolis dated November 12, 2001.

Prepared or Submitted by: Heidi Hamilton, Engineer III – LRT Project

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Approved: Brian Lokkesmoe, Interim City Engineer, Director of Public Works
Presenters in Committee: Heidi Hamilton

Financial Impact (Check those that apply)

- No financial impact (If checked, go directly to Background/Supporting Information)
- Action requires an appropriation increase to the Capital Budget
- Action requires an appropriation increase to the Operating Budget
- Action provides increased revenue for appropriation increase
- Action requires use of contingency or reserves
- Other financial impact (Explain): To be reimbursed entirely from NRP funds
- Request provided to the Budget Office when provided to the Committee Coordinator

Background/Supporting Information

There will be eight traction power substations (TPSS) located within the City of Minneapolis to support the Hiawatha Light Rail Transit Line. This report makes recommendations about the proposed screening for the two traction power substations located at Lake Street (TPSS 10) and Downtown East (TPSS 13 – 4th Street/Chicago Avenue). The Minneapolis City Council approved the architectural screening for the five TPSS located at 38th Street Station, 46th Street Station, 50th Street Station, south of 24th Street, and within the LRT Maintenance Yard on December 14, 2001. This report also includes a status report on the traction power substations that will be located near the Cedar Riverside Station (TPSS 12) and the Warehouse District Station (TPSS 14), although no action is proposed on the remaining two substations at this time.

Substation Visual Design Approval

The Minnesota Department of Transportation (Mn/DOT) is required to submit the conceptual design of the architectural elements of the electrical substations to the Minneapolis City Council for approval per the terms of the Supplementary Project Cooperation Agreement between Met Council, Mn/DOT and Minneapolis.

The builders (Minnesota Transit Constructors - MnTC) noted in the submission of their architectural package for the traction power substations to the Hiawatha Project Office (HPO) that “substation visual design approval needs to be obtained from the Minneapolis City Council. Request for Proposal (RFP) documents included architectural design concepts for TPSS. However, Performance and Design Criteria Part 06 Section 10.2.1 states that MnTC “is not bound to a particular design concept for treating or screening substations” and “may propose other more cost effective concepts for visually treating or screening these substations as long as their visual appearance is acceptable to the community.” The builder also noted that MnTC is responsible for obtaining City Council approval for substation aesthetic treatment prior to completing the final design.

Each of the substations consists of a prefabricated substation unit with dimensions of approximately 15 feet wide by 45 feet long by 11 feet in height. The prefabricated substation units are made entirely of steel.

Traction Power Substations Proposed for Approval

Lake Street - TPSS 10

TPSS #10 will be located under the TH55 bridge, south of Lake Street. This is the TPSS location approved by the City in the Preliminary Design Plans for the LRT project. Although no additional screening will be necessary, the west wall of the south bridge abutment will be modified to construct the TPSS under the bridge. A metal access door and ventilation louvers that will be painted to blend with the color of the bridge will be constructed into the west and north faces of the south bridge

abutment of southbound TH55.

In fall 2001, the Hiawatha Project Office (HPO) proposed locating this traction power substation beneath the LRT flyover bridge, adjacent to a signal bungalow, rather than underneath the TH55 bridge. This proposal would have allowed the project to realize significant cost savings. Due to concerns expressed by the community at a public meeting about the TPSS being placed under the flyover bridge, the traction power substation will be located under the TH55 bridge as originally planned.

Downtown East - TPSS 13

TPSS #13 will be located in the northeast corner of 4th Street and Chicago Avenue, adjacent to the LRT tracks and northeast of the Downtown East LRT Station. The site upon which the TPSS is located is trapezoidal in shape and will also include a signal bungalow (a prefabricated box approximately 10' wide, 10' tall, and 10' -16' long).

The proposed screenwall design encloses the TPSS but not the signal bungalow. The previous screenwall proposal for TPSS 13, described in the original Committee report, included enclosing the signal bungalow within the screenwall. This modification had been made per the recommendation of City staff. Subsequent to that proposal, on the afternoon of October 9, 2002, HPO informed City staff that it would only be possible to enclose the signal bungalow within the TPSS screenwall if the City agreed to pay for the added cost of approximately \$95,000. HPO reported that there are no provisions in their contract with Minnesota Transit Contractors to require enclosure of the signal bungalow and that the project will not pay for the added cost of the larger wall. This late news is the reason for the revised Committee report.

Three of the four sides of the screening wall are proposed to be brick. The brick will blend well with the nearby brick buildings, brick pavers in Kirby Puckett Place, and the ornamental brick work that is a significant part of the Downtown East LRT Station, parking ramp and public plaza design.

The northeast wall of the enclosure will be painted concrete block. Painted concrete block is an appropriate treatment for the northeast wall considering that the adjacent land use is a surface parking lot and it is expected that this lot will be redeveloped with a building in the future that will hide this wall.

Although it would be preferable to enclose the signal bungalow within the TPSS enclosure, the Supplementary Project Cooperation Agreement between Met Council, Mn/DOT and Minneapolis does not include any provision that gives the City authority to require such. Therefore, we recommend approval of the proposed architectural screening of TPSS #13.

Traction Power Substations not Submitted for Approval at this Time – Status Report

Cedar Riverside - TPSS #12

TPSS #12 is not being recommended for architectural approval at this time. This TPSS is located within the maintenance yard, physically located in the turnaround loop on the north side of I-94 near the Cedar-Riverside LRT station. To date, although upgraded fencing has been proposed in prominent areas, no architectural screening has been proposed for this TPSS. Discussions with the Hiawatha Project Office are continuing regarding this site to sort through contractual obligations and other City of Minneapolis priorities to determine the most reasonable approach for this site and interrelated issues.

Warehouse District – TPSS #14

TPSS #14 will be located upon the parcel immediately north of the Warehouse District Station between Hennepin Avenue and 1st Avenue North. A break facility for the Light Rail Vehicle Operators will also be constructed on this parcel. Since there are many design issues yet to be worked out for this site, no proposal is brought forth for review at this time. City staff will continue to work with the Hiawatha Project Office and Metropolitan Council staff to address function and design concerns for this site. The architectural screening plan will be brought to the T&PW Committee at a future date for review and approval.

Staff Recommendation

Staff recommends the adoption of a Committee report approving the proposed architectural screening plans for Traction Power Substations (TPSS) 10 and 13, as indicated in the Aesthetic Review Package for the City of Minneapolis dated September 20, 2002 for TPSS #10 and October 9, 2002 for TPSS #13 on file with the City Engineer.

- c: Council Member Goodman
Council Member Johnson Lee
Council Member Schiff
Council Member Zimmerman
Council Member Zerby
Mark Garner
Mike Larson
Jack Byers
Dave Showalter, HPO

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