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To: Nani Jacobson, Assistant Director, Environmental & Agreements
Metropolitan Council

From: Greg Mathis

Re: Southwest Light Rail Transit Project Research Design for Cultural Resources: Supplement Number 1, Additional Parameters for the Area of Potential Effect for Architecture/History Resources

Introduction

The parameters for the Area of Potential Effect (APE) for the Southwest Light Rail Transit Project (Project) are described in *Southwest Transitway: A Research Design for Cultural Resources* (Roise et al. 2010). Since the Project was still in the initial planning stage when the APE was established, the research design identified general APE limits for architecture/ history resources that were used for the preparation of the Draft Environmental Impact Statement (DEIS) for the Project. These limits encompass an area 300 feet on either side of the centerline of the corridor alignment and a quarter-mile (0.25 mile) radius around each station. The research design also includes five exceptions to these parameters. Three of these exceptions were to account for unique conditions related to specific locations and/or features of alignment alternatives that were not carried forward beyond the alternatives analysis in the DEIS, thus no they are no longer applicable to the current Project APE. The other two exceptions are more general in nature and still apply to the entire Project:

- Extending the APE more than 300 feet along some portions of the corridor to take into account visual effects, such as those across open areas; and
- Extending the APE outside of the 0.25 mile radius at some stations to account for project related work and/or anticipated development; and

In addition, the parameters outlined in the research design allow for extending the APE during the field survey to include property or properties not included in the established APE boundaries that a field surveyor recommended may be affected by the Project (Roise et al. 2010).

Recognizing that the full nature and scale of the Project would not become fully known until engineering and design work advanced, the APE parameters require that:

> As project planning proceeds, additional factors will be assessed to determine if there are other effects (direct, visual, auditory, atmospheric,

and/or changes in use which could require an expansion of the above APE. These factors include:

- Noise analysis, including areas where the use of bells and whistles is anticipated.
- Vibration analysis, including vibration related to project construction and operations.
- The specific locations of project elements, including operations/maintenance facilities, park-and-ride facilities, traction power substations, signal bungalows, and other infrastructure (Roise et al. 2010).

Subsequent to the completion of the DEIS, Project engineering and design has advanced from a conceptual level of design (approximately 1 percent design) to approximately 30 percent plans (Preliminary Plans) for the Locally Preferred Alternative. As Project design has progressed, a number of adjustments have been made to the Project, with some adjustment being more significant than others. The more significant adjustments included a shift in the alignment for a segment in the City of Eden Prairie and the addition of a proposed operation and maintenance facility (OMF) in the City of Hopkins. The APE was subsequently revised to account for these more significant changes, using the 300 feet/0.25 mile limits established by the research design. These adjustments to the architecture/history APE were documented in Section 106 consultation materials dated April 18, 2014.

Minor changes identified in the Preliminary Plans include minor adjustments to the Project alignment and slight shifts of station locations, and the redesign of portions of the Minneapolis segment as a result of a memorandum of understanding (MOU) between the Metropolitan Council and the City of Minneapolis entered into in August 2014. In addition, the Preliminary Plans have better defined a number of Project elements such as the construction limits of vehicular, bicycle and pedestrian access route improvements for stations, and the locations of potential floodplain mitigation sites. Many of these minor changes, which are both contiguous and noncontiguous to the Project corridor and station areas, extend beyond the 300 feet/0.25 mile APE limits, thus requiring a reevaluation of the APE for architecture/history resources.

Supplemental Parameters for the APE for Architecture/History Resources

A number of minor changes and additions were identified in the Preliminary Plans that extend beyond the previously defined APE limits of 300 feet on either side of the Project corridor and/or more than 0.25 miles from the center point of a LRT station. Many of these are consistent in their nature and scale, and resultant effects. Therefore, they can be classified into one of several categories. In addition, it is anticipated that additional similar types of Project elements will continue to be identified as Project planning progresses towards construction documents (100% plans).

The original parameters for the architecture/history APE only required that analysis be done to determine if the APE needed to be expanded. They did not provide parameters for establishing limits to account for effects beyond 300 feet of the alignment or 0.25 miles of stations. Therefore, MnDOT CRU, pursuant to its FTA delegated authority, has established additional parameters for the Project's architecture/history APE. The purpose of these supplemental parameters is to provide consistency in the applicability of the APE parameters to revise the APE for common types of Project elements that extend beyond 300 feet on either side of the project corridor and/or more than 0.25 miles from the center point of a LRT station. This includes those elements identified in the Preliminary Plans and those that will continue to be identified and/or refined as engineering and design advance towards 100% plans. These supplemental parameters are identified in Table 1.

Table 1. Additional Parameters for the Architecture/History APE

Project Element	APE Limit and Rationale
Modifications to Existing Roadways	
Modifications to existing collector (local) streets	All property within 125' from the perimeter of the construction limits/limits of disturbance (LOD) to account for potential minor visual, noise, and vibrations effects.
Modifications to existing major arterial streets	All property within 150' from the perimeter of the construction limits/LOD to account for potential changes in traffic and noise and vibrations effects.
Modifications to existing highways (limited access)	All property within 300' from the perimeter of the construction limits/LOD to account for potential changes in traffic and noise and vibrations effects.
Pedestrian and Bicycle Improvements	
Pedestrian (ADA) ramps	All property within 50' from the perimeter of the construction limits/LOD to account for potential minor visual effects and noise/vibrations during construction.
Sidewalks and trail improvements (no above grade elements other than curbs and medians)	All property within 100' from the perimeter of the construction limits/LOD to account for potential minor visual effects and noise/vibrations during construction.
Pedestrian enhancements (e.g. sidewalks and trails) that include above grade elements (e.g. lighting, trees, signage, etc.)	All property within 125' from the perimeter of the construction limits/LOD to account for potential minor visual effects and noise/vibrations during construction.
Barrow/Fill and Floodplain/Stormwater/Wetland Mitigation Areas	
Borrow/fill, and floodplain/stormwater/ wetland mitigation areas	Generally all property within 125' from the perimeter of the construction limits/LOD to account for vibrations during construction and potential permanent visual effects.

Bibliography

Roise, Charlene, Christina Harrison, Mike Justin, Mike Madson, and Joe Trnka.
2010 *Southwest Transitway: A Research Design for Cultural Resources (Updated 16 March 2010 and 2 April 2010)*. Hess, Roise and Company, Archaeological Research Services, and HDR Engineering, Minneapolis, Minnesota.

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