



Geology and Groundwater Evaluation Supporting Documentation

May 2016

Southwest LRT Project Technical Memorandum

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SOUTHWEST LRT (METRO GREEN LINE EXTENSION)

1 Purpose

The purpose of this technical memorandum is to summarize and document the technical reports that were used to evaluate geologic and groundwater conditions in the Southwest Light Rail Transit Project's Final Environmental Impact Statement (EIS).

2 List of Technical Reports

The sections below summarize all technical reports and memoranda produced to inform the analysis contained in Section 3.8 of the Project's Final EIS. The attachments specified in each summary contain full copies of each report for reference.

2.1 Geotechnical Evaluation, West Segment 1

This document provides detail of the geotechnical findings and recommendations between Southwest Station and an area just south of the proposed Nine Mile Creek Crossing. This document is located in Attachment A of this technical memorandum.

2.2 Geotechnical Evaluation, West Segment 2

This document provides detail of the geotechnical findings and recommendations between the Nine Mile Creek Crossing and the intersection of Bren Road East and Bren Road West, next to the proposed Opus Station. This document is located in Attachment B of this technical memorandum.

2.3 Geotechnical Evaluation, West Segment 3

This document provides detail on the geotechnical findings and recommendations between the intersection of Bren Road East and Bren Road West, next to the proposed Opus Station and the Hopkins OMF. This document is located in Attachment C of this technical memorandum.

2.4 Light Rail Track Plan and Profile, Segment W1

This document shows the proposed track elevation relative to the existing elevation. This document is located in Attachment D of this technical memorandum.

2.5 Light Rail Track Plan and Profile, Segment W2

This document shows the proposed track elevation relative to the existing elevation. This document is located in Attachment E of this technical memorandum.

2.6 Light Rail Track Plan and Profile, Segment W3

This document shows the proposed track elevation relative to the existing elevation. This document is located in Attachment F of this technical memorandum.

2.7 Light Rail Track Plan and Profile, Segment W3 – Locally Requested Capital Improvement 13

This document shows the proposed track elevation relative to the existing elevation. This document is located in Attachment F of this technical memorandum.

2.8 Light Rail Track Plan and Profile, Segment E1

This document shows the proposed track elevation relative to the existing elevation. This document is located in Attachment G of this technical memorandum.

2.9 Light Rail Track Plan and Profile, Segment E2

This document shows the proposed track elevation relative to the existing elevation. This document is located in Attachment H of this technical memorandum.

2.10 Light Rail Track Plan and Profile, Segment E3

This document shows the proposed track elevation relative to the existing elevation. This document is located in Attachment I of this technical memorandum.

2.11 Light Rail Track Plan and Profile, Segment E4

This document shows the proposed track elevation relative to the existing elevation. This document is located in Attachment J of this technical memorandum.

2.12 Preliminary Report of Geotechnical Exploration and Review, Track and Station Construction

This document provides detail on the geotechnical findings and recommendation between an area just east of the Hopkins OMF and the Project's eastern terminus. This document is located in Attachment K of this technical memorandum.

2.13 Preliminary Report of Geotechnical Exploration and Review, Shallow LRT Tunnel-Kenilworth Corridor

This document provides detail on the geotechnical findings and recommendations between the West Lake Street Bridge and the proposed Penn Station (an area just south of the intersection of Penn Avenue South and South Wayzata Boulevard). This document is located in Attachment L of this technical memorandum.

2.14 Kenilworth Shallow LRT Tunnel Basis of Design Technical Report

This document describes the shallow tunnel's design, construction, operation, and maintenance. The document also describes the geology, groundwater, and surface water conditions around the shallow tunnel and the effect the tunnel could have on those resources. This document is located in Attachment M of this technical memorandum.

2.15 Foundation and Design Reports

The foundation and design reports provide analysis and recommendations for the following structures:

- Light rail bridge over Excelsior Boulevard
- Light rail, freight, and trail bridges over Minnehaha Creek
- Light rail, freight, and trail bridges over Louisiana Avenue South
- South Connector freight rail bridges
- Cedar Lake Trail pedestrian bridge east of proposed Beltline Station
- Light rail and pedestrian bridge over Kenilworth Channel/Lagoon
- North Cedar Lake Trail pedestrian bridge southwest of proposed Penn Station
- Penn Avenue retaining wall and pedestrian bridge
- Light rail bridges/walls at Glenwood Avenue and over BNSF freight rail
- Light rail bridge over 5th Avenue North and North 7th Street

These documents are located in Attachment N of this technical memorandum.

Attachments

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