

**Oregon Department of Transportation**

Delivery & Operations Division/

Engineering & Technical Services

7163 ­‑ Geotechnical Engineering,

Engineering Geology & Hazmat Section

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**DATE: Wednesday, November 22, 2023**

**TO:** Susan C. Ortiz, P.E., G.E.

State Geotechnical Engineer

**FROM: Curran Mohney Phone: (503) 508-3628**

**Engineering Geology Program Lead**

Oregon Department of Transportation

**SUBJECT: Proposed Revision to Geotechnical Design Manual**

**To Section Number** 20.5.6

**Problem Statement:**

The current GDM Section 20.5.6 does not give sufficiently definitive direction to include the location and layout of structures and features in the Geotechnical Datasheet section and cross-section view(s).

[Provide a copy of the section being revised]

20.5.6 Sections and Cross-Sections

Sheets displaying sections or cross-sections are typically used to improve understanding for

large structures/features or complex subsurface conditions. However, they are required for all

landslides and for cuts, and embankments that are large enough to necessitate subsurface

exploration. Cross-sections should be considered for wide or skewed structures, structures

founded on spread footings, and where variable-lengths of deep foundations result from high

local relief or geologic structure.

Plan views may be shown on section and cross-section sheets where needed. Illustrate the

section line on the Plan View of the primary geotechnical data sheet and label with the section

arrow and designation when section sheets are utilized.

Illustrate the existing ground line along the section and the Engineering Geologic graphic

columns as described above under Profile. Sections drawn on a grid with the elevations labeled

on the left and right side of the grid table and the horizontal offset from centerline labeled on the

bottom of the grid or on the bottom and top of the grid. Grid lines may be subdued to avoid

conflict with Engineering Geologic graphic columns showing interpretations or the various

Engineering Geologic graphic column labels.

Cross-sections developed perpendicular to the centerline alignment may be labeled as

“SECTION ‘Station’ “. Sections developed at angles other than perpendicular are labeled as

“SECTION ‘alphabetic letter – alphabetic letter’ “.

**Proposal:**

Update the language in GDM Section 20.5.6 to direct users to include the location and layout of all existing, previous, or abandoned structures on the section and cross-section view(s) of Geotechnical Datasheets.

[Provide a copy of the proposed revised language here]

20.5.6 Sections and Cross-Sections

Sheets displaying sections or cross-sections are typically used to improve understanding for

large structures/features or complex subsurface conditions. However, they are required for all

landslides and for cuts, and embankments that are large enough to necessitate subsurface

exploration. Cross-sections should be considered for wide or skewed structures, structures

founded on spread footings, and where variable-lengths of deep foundations result from high

local relief or geologic structure.

Plan views may be shown on section and cross-section sheets where needed. Illustrate the

section line on the Plan View of the primary geotechnical data sheet and label with the section

arrow and designation when section sheets are utilized.

Illustrate the existing ground line along the section and the Engineering Geologic graphic

columns as described above under Profile. Sections drawn on a grid with the elevations labeled

on the left and right side of the grid table and the horizontal offset from centerline labeled on the

bottom of the grid or on the bottom and top of the grid. Grid lines may be subdued to avoid

conflict with Engineering Geologic graphic columns showing interpretations or the various

Engineering Geologic graphic column labels.

Cross-sections developed perpendicular to the centerline alignment may be labeled as

“SECTION ‘Station’ “. Sections developed at angles other than perpendicular are labeled as

“SECTION ‘alphabetic letter – alphabetic letter’ “.

Show existing structure(s) or feature(s), the proposed structure(s) or feature(s), and previous or

abandoned structures on the Sectional view(s). For bridges, locate and label existing and

proposed bent and abutment locations. Show the footprint or general layout of other existing or

proposed structures and features.

**Analysis / Research / Other Supporting Data:**

None

Attached:



**Geotechnical Engineering, Engineering Geology & HazMat Section Response:**

Accepted for consideration as submitted

Accepted for consideration as noted

Proposal tabled, see Remarks

Proposal not accepted, see Remarks

**Remarks:**

[Enter Remarks here]



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