

COLORADO DEPARTMENT OF TRANSPORTATION STAFF BRIDGE BRIDGE DETAIL MANUAL	Chapter: 7 Effective: April 12, 2000 Supersedes: July 7, 1994
ENGINEERING GEOLOGY	

7.1 PURPOSE

The purpose of this drawing is to give a graphic portrayal of the geological conditions at the site of the structure. This drawing is used to illustrate the outline, stationing, and location of the structure, the locations and results of test borings and proposed elevations of footing, piling or caissons.

7.2 RESPONSIBILITY

This drawing is prepared by the Geotechnical Section of the Central Laboratory or a Geotechnical Consultant. It shows the foundation data from the field investigation. The responsibility for the accuracy of the geological information presented on this drawing rests with the Geotechnical Engineer or Engineering Geologist.

7.3 SCALE

Suggested zoom scales for presenting the Plan and Elevation views in paper space are as follows:
1:5, 1:10, or 1:20.

7.4 PLAN AND ELEVATION

If the Geotechnical Section of the Central Laboratory is preparing the Engineering Geology sheet, a copy of the electronic file of the structure's General Layout, drawn at the correct project coordinates, shall be forwarded to the Geology Unit and placed in a folder for their use. Create a folder under hqcommon on DHQ20V/Geology, using the subaccount number and State Highway Number to name the folder, Example: 11351(SH24).

If Dview and twist were used on the General Layout drawing, display the twist angle in paper space outside the border of the plot area using a large enough text size so that it is easily noticed and does not get lost in the drawing.

The Engineering Geology shall be drawn to full scale in model space, at the correct project coordinates, using a Wblock from the electronics file of the General Layout to get the outline of the structure in Plan and Elevation. Check to see that the bottom of footings and the tips of piling and caissons are at the correct elevations.

Dview and twist in floating model space can then be utilized to rotate the views for illustration, without affecting the project coordinates.

7.5 CHECK ITEMS

Listed below are items that must be checked to see that they appear on the drawing.

1. Standard North Arrow.
2. Show the outline of the structure in both the Plan and Elevation views.
3. Show footings on the Elevation view, at their correct elevations.

4. Show piling and caissons, on the Elevation view, to their correct tip elevations.
5. Stations along Station Line.
6. Elevation reference on both left and right sides of the Elevation view.
7. Station Line terminology (Survey Line, Projected Line, etc.).
8. Project and Subaccount Number.
9. Check title block for information indicated in Section 7.6.
10. Initial and date blocks filled in.

7.6 TITLE BLOCK

This drawing is titled "ENGINEERING GEOLOGY". The feature intersected should be shown under "Engineering Geology".

The structure number or numbers and the first initial and last name of the Geologist and the person preparing the drawing shall be filled in.

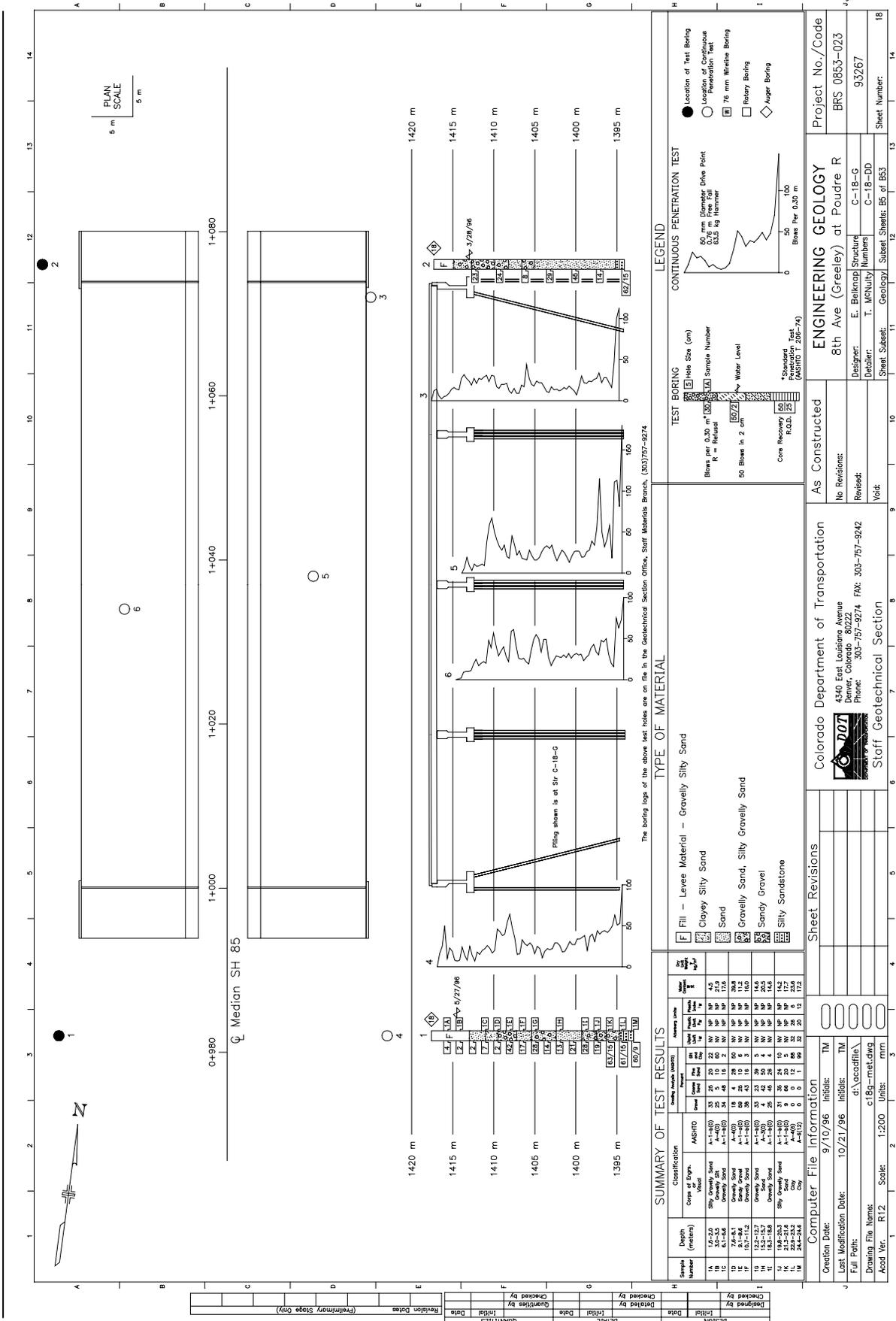


Figure 7-2