



Design Memorandum

TO: All Design Section Staff
FROM: Amy Leland
DATE: December 20, 2023
SUBJECT: WSDOT MSE Wall Support Abutment Bearing Limits
NUMBER: 2023-04

This design memorandum provides revisions to the Bridge Design Manual M 23-50.22 and shall be considered active after the date of this memorandum. This memorandum provides revisions to BDM section 7.7.3.A for MSE wall supported abutment soil bearing resistance criteria.

Bridge Design Manual Revisions

Section 7.7.3A Bearing Resistance – Service, Strength, and Extreme Event Limit States is revised as follows:

The last paragraph shall be revised to the following:

Spread footings supported on SE walls or geosynthetic walls shall be designed with soil bearing resistance criteria following GDM (2022) Section 15.5.3.6. See GEM Section 15.5.3.6 for additional requirements. ~~Nominal bearing resistances not to exceed 6.0 ksf at service limit states and 9.0 ksf at strength and extreme event limit states. A vertical settlement monitoring program shall be conducted where nominal bearing resistance exceeds 4.0 ksf at service limit states or 7.0 ksf at strength or extreme event limit states. See GDM Section 15.5.3.5 for additional requirements.~~

Background

There was an inconsistency between the BDM and GDM. This update removes this discrepancy.

Contact Information

If you have any questions regarding this policy memorandum, please contact Amy Leland (amy.leland@wsdot.wa.gov) at (360) 705-7181 or Andrew Fiske (andrew.fiske@wsdot.wa.gov) at (360)301-6928.