



## **DESIGN STANDARDS FOR:     RETAINING WALLS**

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1. In accordance the latest edition of the International Building Code, retaining walls supporting a surcharge load or retaining walls over 4 feet in height shall be carefully engineered and detailed to ensure that drainage, hardware, footing sizes, and other necessary components are adequate for the site specific conditions. Calculations, drawings, and geotechnical report shall be submitted the Park's Project Manager and the City of Bellingham Permit Center for review and approval. An approved Building Permit is required for all retaining walls over 4 feet in height or walls retaining a surcharge load as described in the International Building Code, latest edition.
2. Retaining wall materials must be appropriate for the site and must be preapproved by the Park's Project Manager. Design options for retaining walls along trails are as follows. Alternative designs must be preapproved by the Park's Project Manager.
  - a. MSE Wall (Keystone or similar) in sandstone color
  - b. Geocell wall (or equal) in dark green or black color
  - c. Concrete crib-lock wall (or equal) with plantings and suitable planting soil in each open cell
  - d. Rock wall built to meet requirements of WSDOT and City of Bellingham Standards
3. Cast-in-Place Concrete may be used as appropriate and must be preapproved by the Park's Project Manager. This type of wall design shall include permanent graffiti coating. Finish texture, reveals, color, and stamped pattern must be preapproved by the Park's Project Manager.
4. All proprietary wall systems must be built by a qualified installer in accordance with the manufacturer's recommendations.
5. A pedestrian guardrail is required on top of retaining walls adjacent to the trail.
6. A 2 foot shoulder of WSDOT shoulder ballast rock is required between the edge of the trail surfacing and the inside face of the guardrail.
7. A 2 foot shoulder of WSDOT shoulder ballast rock is required between the edge of the trail surfacing and the face of the retaining wall on the uphill side of the trail.

END OF SECTION