



<input type="checkbox"/> Project Name:
<input type="checkbox"/> Application Number:

1.0 APPLICABILITY

- 1.1. ___ Retaining Walls, where required, per section 12.03.003 item A5 of the NCC Code as defined below:
 - 1.1.1. ___ Walls equal to or greater than four (4) feet exposed height.
 - 1.1.2. ___ Wall failure would result in loss of life, damage to property or interrupt the use of public utilities.
 - 1.1.3. ___ Where tiered walls with single wall heights less than 4 feet are envisioned, the higher elevation wall shall be located at a distance no less than twice the height of the lower elevation wall (e.g. if the lower wall is 3 feet high, the face of the wall at the higher elevation must be at least 6 feet horizontally from the face of the lower wall)

2.0 SUBMISSION REQUIREMENTS

- 2.1.1. ___ One completed copy of the Retaining Wall Engineering Checklist signed, sealed and dated by a Delaware P.E.
- 2.2. ___ One copy of the Retaining Wall Plan prepared in accordance with the requirements of section 3 below.
- 2.3. ___ One copy of the Retaining Wall Design Calculations signed, sealed and dated by a Delaware P.E. and prepared in accordance with section 5 below.
- 2.4. ___ One copy of soil data source used in design in accordance with section 4. Geotechnical Surveys shall be signed, sealed and dated by a Delaware P.E.
- 2.5. ___ One copy of the Retaining Wall Structural Drawings signed, sealed and dated by a Delaware P.E. and prepared in accordance with section 3 below

3.0 PLAN REQUIREMENTS

- 3.1. ___ Provide retaining wall plan view, elevation view and section detail view drawings that show:
 - 3.1.1. ___ The wall profile (Length, height, width/thickness, etc.)
 - 3.1.2. ___ Retained material profile (Length, height, width, etc.)
 - 3.1.3. ___ Foundation/base, toe, heel, key, stem, rebar details, etc.
 - 3.1.4. ___ Surcharge load/material, if applicable
 - 3.1.5. ___ Location of drains (French, Weep holes, etc.)
 - 3.1.6. ___ Design Rebar Schedule

4.0 SOIL DATA

- 4.1. ___ Provide soil parameters and the soil data source (if data assumed state reason for assumptions). Soil Data information may be provided on the Retaining Wall Plan or in a separate letter referencing this checklist
 - 4.1.1. ___ Retained material friction angle
 - 4.1.2. ___ Infill soil friction angle

- 4.1.3. ___ Surcharge load/material, if applicable
- 4.1.4. ___ Soil settlement potential
- 4.1.5. ___ Cohesion
- 4.1.6. ___ Allowable bearing pressure of foundation soils
- 4.1.7. ___ Soil density, heel
- 4.1.8. ___ Soil density, toe, if different

5.0 DESIGN CALCULATIONS

- 5.1. ___ Detailed design calculations provided show adequate factor of safety against the following conditions with minimums shown in parentheses
 - 5.1.1. ___ Sliding (1.5)
 - 5.1.2. ___ Overturning (1.5)
 - 5.1.3. ___ Bearing (3.0) if allowable design bearing pressure is greater than 2,000 psf.
 - 5.1.4. ___ Global Stability (1.3) for tiered retaining walls and walls with soil surcharge above the top of the wall with a slope greater than or equal to 1V:3H.
- 5.2. ___ Design Code(s) used _____

6.0 CONSTRUCTION MATERIALS

- 6.1. ___ Provide class, grade and material specifications for the retaining wall forming material
 - 6.1.1. ___ Concrete
 - 6.1.2. ___ Reinforced Concrete
 - 6.1.3. ___ Wood
 - 6.1.4. ___ Masonry
 - 6.1.5. ___ Other Material (Specify) _____
- 6.2. ___ Codes/Standards used for material specification _____

7.0 CERTIFICATION OF PROFESSIONAL ENGINEER/LAND SURVEYOR

I, the undersigned, hereby certify that I am a Professional Engineer registered in the State of Delaware and it is my opinion that, to the best of my knowledge, each element of this checklist was considered and addressed in accordance with all applicable regulations, codes, standards, guidelines and policies.

Signature and Seal of P.E.

Date

Submission of this Checklist does not relieve the applicant from his/her responsibility to comply with all applicable regulations, codes, standards, guidelines and policies. The Department of Land Use reserves the right to revise this Checklist periodically as the need arises.