

Categorical Permission Alteration Description – 18. Retaining Walls

The categorical permission covers the construction, modification/repair, and replacement of retaining walls, subject to certain terms and conditions. Retaining walls within the levee embankment and toe must:

- Be constructed of reinforced concrete or equivalent durable material.
- Ensure proper drainage.
- Have a foundation adequate to prevent slides.
- Meet USACE requirements for stability demonstrated by appropriate modeling (including overturning, sliding, shear failure, global slope stability failure, and soil bearing capacity).
- Be designed by a licensed civil engineer regardless of height.

Retaining walls must not reduce the existing design flow capacity or the flowage area; if the intended wall is near the waterside or landside levee toe, a detailed geotechnical evaluation may be required.

Existing retaining walls that do not meet the above requirements may need to be removed. If a determination cannot be made of the impact of an existing retaining wall on the levee by visual inspection alone, a detailed geotechnical evaluation may be required.

Any excavation of the levee for installation of the retaining wall must be backfilled with material similar to the adjacent levee in 4- to 6-inch lifts and compacted to at least the same density as the adjacent undisturbed embankment or underlying foundation.

Upon recognition of signs that the retaining wall has become unstable, repairs must be undertaken as soon as possible. If the requester wishes to remove a retaining wall, the requester should contact the non-federal sponsor for information on removal and backfilling any excavation.

Categorical Permission Alteration Checklist – 18. Retaining Walls

Please note, the following checklist is intended for planning purposes only and reflects information that USACE reviewers will look for when considering a Section 408 request for retaining walls under the Categorical Permission. To be reviewed under the Categorical Permission, the proposed project must adhere to all requirements of the Categorical Permission, including the full alteration description (see previous page). The plans and narrative project description should reflect this information.

Installation Modification Replacement

Retaining walls within the levee embankment and toe will:

Be constructed of reinforced concrete or equivalent durable material:

Ensure proper drainage:

Have a foundation adequate to prevent slides:

Meet USACE requirements for stability demonstrated by appropriate modeling (including overturning, sliding, shear failure, global slope stability failure, and soil bearing capacity):

Be designed by a licensed civil engineer regardless of height:

Retaining walls will not reduce the existing design flow capacity or the flowage area:

Any excavation of the levee for installation of the retaining wall will be backfilled with material similar to the adjacent levee in 4- to 6-inch lifts and compacted to at least the same density as the adjacent undisturbed embankment or underlying foundation: Yes NA

Any work within the levee embankment or foundation? Yes No

Hydraulic blockage calculation $\geq 1\%$? Yes No

Hydraulic model used for hydraulic analysis? Yes No