## **ORIGINATION FORM**

## **Proposed Revisions to the Specifications**

(Please provide all information - incomplete forms will be returned)

Date:	Office:				
Originator:	Specification Section:				
Telephone:	Article/Subarticle:				
email:					
**Will the proposed revision require changes to	o:				
Publication	Yes	No		Staff Contacted date contacted	
Standard Plans Index					
Traffic Engineering Manual					
FDOT Design Manual					
Construction Project Administration Manual					
Basis of Estimate/Pay Items					
Structures Design Guidelines					
Approved Product List					
Materials Manual					
**This section must be completed prior to pro Will this revision necessitate any of the followir		oposed revis	ions.		
Design Bulletin Construction Bulletin	E	stimates Bull	etin	<b>Materials Bulletin</b>	
Are all references to external publications curre	ent?	Yes	No		
If not, what references need to be updated? (PI	lease inclu	ide changes i	in the redline o	document.)	
Why does the existing language need to be cha	nged?				
Are these changes applicable to all Department	: jobs?	Yes	No		



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## MEMORANDUM

**DATE:** January 2, 2020

**TO:** Specification Review Distribution List

**FROM:** Daniel Strickland, P.E., State Specifications Engineer

**SUBJECT:** Proposed Specification: **5480805 Retaining Wall Systems.** 

In accordance with Specification Development Procedures, we are sending you a copy of a proposed specification change.

This change was proposed by Larry Jones from the Structures Design Office to clarify existing language, correct typographical errors and address FTBA requested revision to thick lift compaction language.

Please share this proposal with others within your responsibility. Review comments are due within four weeks and should be sent to Mail Station 75 or online at <a href="http://fdotewp1.dot.state.fl.us/programmanagement/development/industryreview.aspx">http://fdotewp1.dot.state.fl.us/programmanagement/development/industryreview.aspx</a>. Comments received after January 30, 2020, may not be considered. Your input is encouraged.

DS/rf Attachment

## RETAINING WALL SYSTEMS (REV 12-20-20)

SUBARTICLE 548-8.5.2 is deleted and the following substituted:

**548-8.5.2** Thick Lift Option for Compacted Select Backfill: If through field tests, the Contractor can demonstrate that the compaction equipment can achieve density for the full depth of a thicker lift, and if approved by the Engineer, the backfill may be constructed in successive courses of not more than 10 inches compacted thickness.

The Engineer will approve based approval on results of a full height test wall constructed using the Contractor's or each MSE wall sub-contractor's the Contractor's specified compaction procedures effort. The length of the test wall shall be the length required to produce one LOT of not less than 500 feet at the top of the wall. When all individual walls using this option are less than 500 feet, the test wall may be broken into two segments comprising separate LOTs. Both segments must be accepted to determine the required % compaction for the remaining walls. For each Contractor or MSE wall sub-contractor, tThe height of the test wall shall be at least 20 feet or the highest wall in the projectusing this option, whichever is less. Shorter walls may be constructed using these procedures until a full height test wall is constructed. Notify the Engineer prior to beginning construction of a test wall.

Perform one set of QC density tests per thick lift of the test wall on the backfill within three feet behind the wall face and one set of QC density tests per thick lift of the test wall on the backfill placed beyond three feet behind the wall face, at random locations within each LOT. At each QC density test, the set will include testing the entire lift thickness and a dig down test of the bottom 6 inches. Excavate materials as needed to allow testing of the bottom 6 inches, at no expense to the Department. Maintain the exposed surface as close to undisturbed as possible; no further compaction will be permitted during the test preparation. The Department will perform verification testing of density for the bottom 6 inches and the entire lift thickness at the frequency indicated in 548-9.6. All QC tests and a Department Verification test must meet the density required by 548-9.4.

Identify the test wall with the required % compaction effort and thickness in the Logbook. For the material within three feet behind the wall face, the minimum density required on the thick lift will be the average of all the passing QC results obtained on the thick lifts of the test wall within the three feet behind the wall face. For the material placed beyond three feet behind the wall face, the minimum density required will be the average of all the passing QC results obtained on the thick lifts of the test wall beyond three feet behind the wall face. Perform dig down density tests to verify the density of the bottom 6 inches if the thick lift density does not meet or exceed the thick lift density results during the test wall. The Contractor may elect to place material in 6 inches compacted thickness at any time. Once approved, a change in the source of backfill material will require the construction of a new test wall. Do not change the compaction effort once the test wall is approved. The Engineer will periodically verify the density of the bottom 6 inches during thick lift operations. If unable to achieve the required density, remove and replace or repair the test wall to comply with the specifications at no additional expense to the Department. The Engineer may terminate the use of thick lift construction and instruct the Contractor to revert to the 6 inches maximum lift thickness if the Contractor fails to achieve satisfactory results or meet the requirements of this Section.