SOIL STRENGTH PROFILE FOR GEOTECHNICAL DESIGN
Mr. Brad Miller  
Project Manager  
Coastal Protection and Restoration Authority  
P. O. Box 44027  
Baton Rouge, LA 70804-4027

Dear Mr. Miller

The Corps of Engineers New Orleans District Engineering Division has completed the review of the Soil Strength Profiles for the Mississippi River Reintroduction into Maurepas Swamp project as well as all subsequent submittals. The comments have been addressed satisfactorily and the proposed soil strength lines are acceptable.

The geotechnical criteria to be used in the design of the diversion structure and levee are given below:

a. Floodward Stability FOS=1.30 for Water at EL. 0.0 (Method of Planes/Spencer's)

b. Landward Stability with no water against levee FOS = 1.50 (Spencer's) Design Check - not absolute value

c. Landward Stability with Water at Flowline FOS = 1.30 (Method of Planes/Spencer's)

d. Landward Stability with water at top of levee FOS = 1.20 (Method of Planes/Spencer's)

Please feel free to contact me if you have any questions on the above. The point of contact for this effort is Ms. Pam DeLoach at (504) 862-2621.

Sincerely,

[Signature]

Walter O. Baumy, Jr., P.E.  
Chief, Engineering Division
Lake Maurepas Diversion
ST. John The Baptist Parish, LA
Station 4340+00 to 4360+00

Appendix

Water Content (%)

Elevation, NAVD 88

(UC & UU) Shear Strength (psf) vs. CPT Interpreted Shear Strength (psf) - Nc=18

CPT-17 (2008) EL. 31.0 ft
CPT-2B (2013) - EL. 20.07 ft

Proposed Design Shear Strengths - Levee Area (Nc=18)

Water Content (%)

Elevation, NAVD 88

(UC & UU) Shear Strength (psf) vs. CPT Interpreted Shear Strength (psf) - Nc=18

CPT-17 (2008) EL. 31.0 ft
CPT-2B (2013) - EL. 20.07 ft

Proposed Design Shear Strengths - Levee Area (Nc=18)

Wet Density γ (pcf)

γ = 112.5 pcf
γ = 107 pcf
γ = 120 pcf
γ = 112.5 pcf

Wet Density (USACE 1994)
Wet Density (Proposed)

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