

## **Minutes ACI 332 Task Group D & E – FOOTINGS AND FOUNDATION WALLS**

### **1. FOOTING TABLES**

The Task Group recommends that new, defensible, footing tables be included in the 2013 Edition of the Standard. These tables should be no more than two or three pages depending on the parameters selected for developing the matrix. Parameters presented in the PCA 100 Standard should be used as the basis. Sauter presented a list of potential parameters from which the Task Group will select (see attached).

A software tool (spreadsheet or program) should provide the basis so that additional parameters can be evaluated. CFA will work with Scott Humphries in the development of the program and determination of the parameters

### **2. PUBLIC COMMENT #25**

New supplementary language will be provided for the commentary for the 2013 Edition of the Standard to better explain the committee's stance on using concrete to displace water in the footing excavation. Below is a possible wording:

“Displacement of water in the footing excavation with placement of concrete may result in lower strength and greater shrinkage if some mixing of the water and concrete occurs. This will not impact the serviceability of the (reinforced) footing.”

### **3. MODERATELY REINFORCED DESIGN METHOD**

The Task Group recommends that the Residential Design Chapter (formerly Moderately Reinforced Design Methodology) be included in the 2013 Edition of the Standard. The CFA published the document as a white paper and will review all comments received with the Task Group for possible inclusion in the initial balloted version of the chapter. The inclusion of this approach will result in modified appendix tables in areas where structural reinforcement is required.

### **4. LINTEL DESIGN**

The Task Group recommends inclusion of a revised empirical lintel design in the 2013 Standard. The new design provides an empirical design for a 48" lintel span for an 8" deep x 8" thick lintel. This is in response to the need for a design wider than 36" since egress windows are required in most basements and it takes at least 40" in width for an egress unit. Raj Jalla and Brent Anderson provided input on reinforcing details.

### **5. CORNER DETAILING**

The Task Group did not act on information mentioned by Scott Humphries regarding corner detailing that is published by CRSI. That information can still be included in the Guide or Standard upon receipt of the information.

## 6. GUIDE UPDATE

Sauter agreed to spearhead the effort for updating the footing and walls chapters of the 332 Guide. He will solicit input from committee members and present information on the timeline requested by the Chair.

## 7. ABOVE GRADE DESIGN

No progress has been made on the above grade design parameters for concrete housing. The PCA 100 Standard is in the codes so those wishing to have empirical design for concrete housing have the tools needed.

The options still remain to either reference the entire document which includes connections and other details unrelated to concrete construction or to distill the concrete design parameters from the document and produce a condensed design chapter with only concrete components. This could be a lengthy process and noone has volunteered to do the work necessary. It might be appropriate to wait until the Residential Design Chapter has become part of the Standard before proceeding with this effort.

FOOTING MODEL PARAMETERS			
SOIL BEARING PRESSURE			
		1500	psf
		2000	psf
		2500	psf
		3000	psf
		3500	psf
		4000	psf
STRUCTURES			
	Slab on Ground		
	Basement		
	One Story		
	Two Story		
BASEMENT WALL THICKNESS			
	8"	100	psf
	10"	125	psf
	12"	150	psf
BASEMENT WALL HEIGHTS			
	8'		
	9'		
	10'		
MAIN FLOOR WALL			
	Wood/Siding	10	psf
	Wood/Veneer	50	psf
SECOND FLOOR WALL			
	Wood/Siding	10	psf
FIRST FLOOR SPANS			
	12'		
	14'		
	15'		
	16'		
	20'		
	30'		
SECOND FLOOR SPANS			
	24'		
	28'		
	30'		
FLOOR LOADING			
	Live Loads	Per Code	30 psf
	Dead Loads	Wood Frame	15 psf

ROOF LOADS			
Live Load	No Snow	20	psf
Live Load	Snow	30	psf
Live Load	Heavy Snow	40	psf
Dead Load	Shingles	15	psf
ROOF OVERHANG		2	ft
3rd STORY			
ATTIC/GABLE END			