LaPave Walkthrough

Concrete

Basics

- File is locked down to prevent overwriting of formulas
- Light blue cells are for user inputs, some may be drop downs
- Simulates a database
- Can handle multiple Projects/JMFs

Inputs

Project	H.006138
Project Desc	POPLAR ST BRIDGE OVER BONNABEL CANAL
Date	1/16/2015

MIXTURE SELECTION

Type	Producer/Supplier	Material
PCCS	PS00001030-Lafarge North America-U. S. Region 401 - Metairie	0901M00011-PCC Structural Class AA(M), with Air

SMM Mix ID | **Mix ID** 6 | **Counter** 30

Get Mix ID

MATERIAL SELECTION

Type	Producer/Supplier	Material
CEMENT	APS00000160-Holcim (US) Inc. - Theodore, AL	1001M00040-Portland Cement Type II-Port Cmt Type II - Holcim Theodore
FLY ASH 1		
FLY ASH 2		
SLAG		
FINE AGG 1	APS00007100-Standard Gravel Co.-PRA-Pearl River, LA	1003M03010-Agg, Sand, Concrete-Sand,Conc StandardGravelPRAPearlRiver
FINE AGG 2		
FINE AGG 3		
CRS AGG 1	APS00007350-Vulcan Materials Co-Cancun-Sactun, MEX	1003M03190-Agg, Cr Stone for PCC, Grade A-CrStnPCCGrA VulcanCancunSactun
CRS AGG 2		
CRS AGG 3		
CRS AGG 4		
OTHER AGG		
ADMIX 1	APS00002360-Euclid Chemical Company - Cleveland, OH	
ADMIX 2	APS00002360-Euclid Chemical Company - Cleveland, OH	1011M00040-Admixture - Air Entraining-Eucon Air 31 (Air Entraining) - Euclid
ADMIX 3		
ADMIX 4		

Most fields are dropdowns populated with Material Codes from SMM

[Get Mix ID] – Generates a unique mix id to be entered into SMM

Checks

CONCRETE JOB MIX CALCULATIONS

DESIGN	SPEC	TYPE	CLASS
ENGLISH	2006	Structural	AA(M)

MATERIAL	SMM CODES Producer/Supplier	SMM CODES Material	SP. GRAV	AMOUNT (LB)	VOLUME (CF)
CEMENT	APS00000160	1001M00040	3.15	658	3.348
FLY ASH 1					
FLY ASH 2					
SLAG					
FINE AGG 1	APS00007100	1003M03010	2.62	1083	6.624
FINE AGG 2					
FINE AGG 3					
CRS AGG 1	APS00007350	1003M03190	2.38	1639	11.036
CRS AGG 2					
CRS AGG 3					
CRS AGG 4					
OTHER AGG					
WATER				34.7	4.638
AIR %				5	1.350

YIELD	27.00	CUBIC FEET
Cement Factor	7.00	Bags/CY
Total Cement	658.00	Lbs/CY
W/C RATIO	5.0	Gal/Bag
W/C RATIO	0.44	BY WEIGHT

	Dosage rate (oz/cwt)	Calculated Dosage Rate(oz)
MIN 28 DAY CMP (psi)	LOW	Water Reducer
4400	3	
	Water Reducer Required	
MIN (LB/CY)	HIGH	
560	5	
MAX w/c	LOW	Air
0.44	0.5	3.3
AGG GRADE	HIGH	
A,P	1	6.6
TOTAL AIR	LOW	SP
5±1		

SLUMP (in)			HIGH
Non-Vibr	Vibr	Slip Form	
2-5	2-4	--	

If coarse aggregate is 100% crushed (stone), water may be increased 5%, but not above max.

For mass concrete, heat of hydration ≤ 70 calories/gram (290 kJ/kg) at 7 days. Water -reducer is required.

11/4/2015

LaPave - Concrete v.15.10.19

Mix design computations check

- Working on metric version
- Flags if items do not match spec of selected mix type

Checks

[New] – creates blank sheet
[<-] and [->] – scrolls through mix designs
[Submit] – saves mix design
[Copy] – creates a copy of selected mix design
[Export] – creates a file with data only (for email)
[Import] – imports data only file
[Import SMM Codes] – still working on this, will update the smm codes in the drop downs