Illinois Department of Transportation
Division of Highways / Bureau of Construction
2300 South Dirksen Parkway, Springfield, Illinois 62764

Subject:
PCC Patching -
Opening Road to Traffic

CONSTRUCTION MEMORANDUM NO. 08-75

Effective: **January 1, 2008**

Expires: **Indefinite**

The purpose of this Construction Memorandum is to provide the Resident Engineer a guideline of estimated hours required for class PP-2, PP-3 or PP-4 PCC patching mixture specified in Article 1020.04, to obtain opening strengths as specified in Article 701.17(e)(3).

The following Tables 1 and 2 list estimated hours from placement to obtain opening strengths for various initial ambient temperatures when class PP-2, PP-3 or PP-4 concrete is used. These tables are provided for informational purposes only. Patches shall be opened to traffic based on the minimum flexural or compressive strength requirements of Article 701.17(e)(3) as determined by beam or cylinder breaks.

TABLE 1
ESTIMATED HOURS FROM PLACEMENT TO OPENING TO TRAFFIC
(Based on 300 psi (2,050 kPa) Opening Flexural Strength or 1600 psi (11000 kPa) Opening Compressive Strength)

Estimated Number of Hours to Opening

Ambient Temperature @ Placement		Class PP-2, PP-3 or PP-4 Concrete	Class PP-2, PP-3 or PP-4 Concrete with Insulation
°C	(°F)		
13-14	55-58	25	11
15-16	59-61	22	8
17-18	62-65	20	7
19-20	66-68	17	6
21-22	69-72	15	5
23-24	73-75	12	5
25-26	76-79	10	5
27-28	80-83	8	5
29-30	84-86	6	5
31-32	87-90	5	5
33-34	91-93	5	5*
Above 34	Above 93	5	5*

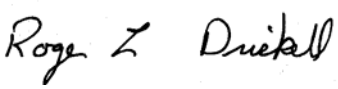
*Do not place insulation when ambient air temperature is greater than 90°F (32°C)

TABLE 2
ESTIMATED MINIMUM HOURS FROM PLACEMENT TO OPENING TO TRAFFIC
(Based on 600 psi (4,150 kPa) Opening Flexural Strength or 3,200 psi (22,100 kPa) Opening Compressive Strength)

Estimated Number of Hours to Opening

Ambient Temperature @ Placement		Class PP-2, PP-3 or PP-4 Concrete	Class PP-2, PP-3 or PP-4 Concrete with Insulation
°C	(°F)		
13-14	55-58	29	15
15-16	59-61	25	11
17-18	62-65	22	10
19-20	66-68	20	9
21-22	69-72	17	8
23-24	73-75	15	8
25-26	76-79	13	8
27-28	80-83	11	7
29-30	84-86	9	6
31-32	87-90	8	6
33-34	91-93	8	6*
Above 34	Above 93	8	6*

*Do not place insulation when ambient air temperature is greater than 90°F (32°C)



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