

# **LONG TERM PAVEMENT PERFORMANCE PROGRAM DIRECTIVE**

**For The Technical Direction Of The LTPP Program**

**Program Area: SPS**

**Directive Number: S-8**

**Date: March 30, 1994**

**Supersedes: Selected SPS-2  
Documents**

**Subject: SPS-2 Materials Sampling and Testing Requirements**

Attached are revisions of selected tables in the SPS-2 Materials Sampling and Testing Requirements that was issued in SPS Directive S-7 dated February 9, 1994. Distribute to appropriate State Agencies involved or interested in SPS-2 projects and incorporate these changes into all SPS-2 projects.

**Approved:** Paul Teng

**Date:** 3/30/94

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**MEMORANDUM**

March 23, 1994

To: Monte Symons

From: Jonathan Groeger, John Miller

Subject: Transmittal of Revised Pages for the SPS-2 Material Sampling and Testing  
Guidelines  
Work Order No. 4, FHWA Contract No. DTFH61-92-C-00134  
PCS/LAW Reference No. 792-92-04020

Attachment: As stated.

cc: A. Lopez

Enclosed are several revised pages for the SPS-2 Field Material Sampling, Handling and Laboratory Testing document, dated January, 1994. These pages were revised because test PC02 (Split Tensile Strength) had been left off of them for the molded cylinder specimens.

As per the advice of Aramis Lopez, we have taken the liberty of sending an unofficial copy by fax to each Regional Engineer to help those who are in the process of developing SPS-2 Sampling and Testing plans. However, an official transmittal from your office of these pages should be sent to the RCO's as soon as possible.

Please do not hesitate to call if you have any questions concerning this document.

**Table 13 -Tracking Table of Portland Cement Concrete Testing  
in the State/Province Laboratory (or their designee) for the Primary SPS-2 Experiment (Continued)**

| Sample Location Number | Sample Number | Lab Test Number | Steps Involved in Laboratory Handling and Testing Sequence |                   |                    |              |                |                 |
|------------------------|---------------|-----------------|------------------------------------------------------------|-------------------|--------------------|--------------|----------------|-----------------|
|                        |               |                 | Required Laboratory Tests Per Layer                        |                   |                    | Extra Sample | Sample Storage | Sample Disposed |
|                        |               |                 | First                                                      | Second            | Third              |              |                |                 |
| C85                    | CP85          | 1               | PC06/P66                                                   | PC01/P61 (1 year) |                    | No           | (b)            | Yes             |
| C86                    | CP86          | 2               | PC06/P66                                                   | PC02/P62 (14 day) |                    | No           | (b)            | Yes             |
| C87                    | CP87          | 2               | PC06/P66                                                   | PC02/P62 (28 day) |                    | No           | (b)            | Yes             |
| C88                    | CP88          | 2               | PC06/P66                                                   | PC02/P62 (1 year) |                    | No           | (b)            | Yes             |
| C89                    | CP89          | 2               | PC06/P66                                                   | PC04/P64 (1 year) |                    | No           | (b)            | Yes             |
| C90                    | CP90          | 2               | PC06/P66                                                   | PC05/P65          | PC04/PC64 (28 day) | No           | (b)            | Yes             |
| C91                    | CP91          | 1               | PC06/P66                                                   | PC01/P61 (14 day) |                    | No           | (b)            | Yes             |
| C92                    | CP92          | 1               | PC06/P66                                                   | PC01/P61 (28 day) |                    | No           | (b)            | Yes             |
| C93                    | CP93          | 1               | PC06/P66                                                   | PC01/P61 (1 year) |                    | No           | (b)            | Yes             |
| C94                    | CP94          | 1               | PC06/P66                                                   | PC05/P65          | PC04/P64 (28 day)  | No           | (b)            | Yes             |
| C95                    | CP95          | 2               | PC06/P66                                                   | PC06/P66 (14 day) |                    | No           | (b)            | Yes             |
| C96                    | CP96          | 2               | PC06/P66                                                   | PC02/P62 (28 day) |                    | No           | (b)            | Yes             |
| C97                    | CP97          | 2               | PC06/P66                                                   | PC02/P62 (1 year) |                    | No           | (b)            | Yes             |
| C98                    | CP98          | 2               | PC06/P66                                                   | PC04/P64 (1 year) |                    | No           | (b)            | Yes             |
| C99                    | CP99          | 2               | PC06/P66                                                   |                   |                    | Yes          | (b)            | No              |

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in the State/Province Laboratory (or their designee) for the Primary SPS-2 Experiment (Continued)**

| Sample Location Number | Sample Number | Lab Test Number | Steps Involved in Laboratory Handling and Testing Sequence |        |       |              |                |                 |
|------------------------|---------------|-----------------|------------------------------------------------------------|--------|-------|--------------|----------------|-----------------|
|                        |               |                 | Required Laboratory Tests Per Layer                        |        |       | Extra Sample | Sample Storage | Sample Disposed |
|                        |               |                 | First                                                      | Second | Third |              |                |                 |
| B21                    | GX01          | 3               | PC01/P61 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GX02          | 3               | PC02/P62 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GY01          | 3               | PC01/P61 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GY02          | 3               | PC02/P62 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GZ01          | 3               | PC01/P61 (1 year)                                          |        |       | No           | (d)            | Yes             |
|                        | GZ02          | 3               | PC02/P62 (1 year)                                          |        |       | No           | (d)            | Yes             |
|                        | FX01          | 3               | PC09/P69 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | FY01          | 3               | PC09/P69 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | FZ01          | 3               | PC09/P69 (1 year)                                          |        |       | No           | (d)            | Yes             |
| B22                    | GX03          | 3               | PC01/P61 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GX04          | 3               | PC02/P62 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GY03          | 3               | PC01/P61 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GY04          | 3               | PC02/P62 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GZ03          | 3               | PC01/P61 (1 year)                                          |        |       | No           | (d)            | Yes             |
|                        | GZ04          | 3               | PC02/P62 (1 year)                                          |        |       | No           | (d)            | Yes             |
|                        | FX02          | 3               | PC09/P69 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | FY02          | 3               | PC09/P69 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | FZ02          | 3               | PC09/P69 (1 year)                                          |        |       | No           | (d)            | Yes             |

**Table 13 -Tracking Table of Portland Cement Concrete Testing  
in the State/Province Laboratory (or their designee) for the Primary SPS-2 Experiment (Continued)**

| Sample Location Number | Sample Number | Lab Test Number | Steps Involved in Laboratory Handling and Testing Sequence |        |       |              |                |                 |
|------------------------|---------------|-----------------|------------------------------------------------------------|--------|-------|--------------|----------------|-----------------|
|                        |               |                 | Required Laboratory Tests Per Layer                        |        |       | Extra Sample | Sample Storage | Sample Disposed |
|                        |               |                 | First                                                      | Second | Third |              |                |                 |
| B23                    | GX05          | 3               | PC01/P61 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GX06          | 3               | PC02/P62 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GY05          | 3               | PC01/P61 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GY06          | 3               | PC02/P62 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GZ05          | 3               | PC01/P61 (1 year)                                          |        |       | No           | (d)            | Yes             |
|                        | GZ06          | 3               | PC02/P62 (1 year)                                          |        |       | No           | (d)            | Yes             |
|                        | FX03          | 3               | PC09/P69 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | FY03          | 3               | PC09/P69 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | FZ03          | 3               | PC09/P69 (1 year)                                          |        |       | No           | (d)            | Yes             |
| B24                    | GX07          | 3               | PC01/P61 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GX08          | 3               | PC02/P62 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GY07          | 3               | PC01/P61 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GY08          | 3               | PC02/P62 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GZ07          | 3               | PC01/P61 (1 year)                                          |        |       | No           | (d)            | Yes             |
|                        | GZ08          | 3               | PC02/P62 (1 year)                                          |        |       | No           | (d)            | Yes             |
|                        | FX04          | 3               | PC09/P69 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | FY04          | 3               | PC09/P69 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | FZ04          | 3               | PC09/P69 (1 year)                                          |        |       | No           | (d)            | Yes             |

**Table 13 -Tracking Table of Portland Cement Concrete Testing  
in the State/Province Laboratory (or their designee) for the Primary SPS-2 Experiment (Continued)**

| Sample Location Number | Sample Number | Lab Test Number | Steps Involved in Laboratory Handling and Testing Sequence |        |       |              |                |                 |
|------------------------|---------------|-----------------|------------------------------------------------------------|--------|-------|--------------|----------------|-----------------|
|                        |               |                 | Required Laboratory Tests Per Layer                        |        |       | Extra Sample | Sample Storage | Sample Disposed |
|                        |               |                 | First                                                      | Second | Third |              |                |                 |
| B25                    | GX09          | 3               | PC01/P61 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GX10          | 3               | PC02/P62 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GY09          | 3               | PC01/P61 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GY10          | 3               | PC02/P62 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GZ09          | 3               | PC01/P61 (1 year)                                          |        |       | No           | (d)            | Yes             |
|                        | GZ10          | 3               | PC02/P62 (1 year)                                          |        |       | No           | (d)            | Yes             |
|                        | FX05          | 3               | PC09/P69 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | FY05          | 3               | PC09/P69 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | FZ05          | 3               | PC09/P69 (1 year)                                          |        |       | No           | (d)            | Yes             |
| B26                    | GX11          | 3               | PC01/P61 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GX12          | 3               | PC02/P62 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GY11          | 3               | PC01/P61 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GY12          | 3               | PC02/P62 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GZ11          | 3               | PC01/P61 (1 year)                                          |        |       | No           | (d)            | Yes             |
|                        | GZ12          | 3               | PC02/P62 (1 year)                                          |        |       | No           | (d)            | Yes             |
|                        | FX06          | 3               | PC09/P69 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | FY06          | 3               | PC09/P69 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | FZ06          | 3               | PC09/P69 (1 year)                                          |        |       | No           | (d)            | Yes             |

**Table B.8 -Tracking Table of Portland Cement Concrete Testing  
in the State/Province Laboratory for the SPS-2A Experiment (or their designee) (Continued)**

| Sample Location Number | Sample Number | Lab Test Number | Steps Involved in Laboratory Handling and Testing Sequence |        |       |              |                |                 |
|------------------------|---------------|-----------------|------------------------------------------------------------|--------|-------|--------------|----------------|-----------------|
|                        |               |                 | Required Laboratory Tests Per Layer                        |        |       | Extra Sample | Sample Storage | Sample Disposed |
|                        |               |                 | First                                                      | Second | Third |              |                |                 |
| B11                    | GX01          | 3               | PC01/P61 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GX02          | 3               | PC02/P62 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GY01          | 3               | PC01/P61 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GY02          | 3               | PC02/P62 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GZ01          | 3               | PC01/P61 (1 year)                                          |        |       | No           | (d)            | Yes             |
|                        | GZ02          | 3               | PC02/P62 (1 year)                                          |        |       | No           | (d)            | Yes             |
|                        | FX01          | 3               | PC09/P69 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | FY01          | 3               | PC09/P69 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | FZ01          | 3               | PC09/P69 (1 year)                                          |        |       | No           | (d)            | Yes             |
| B12                    | GX03          | 3               | PC01/P61 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GX04          | 3               | PC02/P62 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GY03          | 3               | PC01/P61 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GY04          | 3               | PC02/P62 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GZ03          | 3               | PC01/P61 (1 year)                                          |        |       | No           | (d)            | Yes             |
|                        | GZ04          | 3               | PC02/P62 (1 year)                                          |        |       | No           | (d)            | Yes             |
|                        | FX02          | 3               | PC09/P69 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | FY02          | 3               | PC09/P69 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | FZ02          | 3               | PC09/P69 (1 year)                                          |        |       | No           | (d)            | Yes             |

**Table B.8 -Tracking Table of Portland Cement Concrete Testing  
in the State/Province Laboratory for the SPS-2A Experiment (or their designee) (Continued)**

| Sample Location Number | Sample Number | Lab Test Number | Steps Involved in Laboratory Handling and Testing Sequence |        |       |              |                |                 |
|------------------------|---------------|-----------------|------------------------------------------------------------|--------|-------|--------------|----------------|-----------------|
|                        |               |                 | Required Laboratory Tests Per Layer                        |        |       | Extra Sample | Sample Storage | Sample Disposed |
|                        |               |                 | First                                                      | Second | Third |              |                |                 |
| B13                    | GX05          | 3               | PC01/P61 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GX06          | 3               | PC02/P62 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GY05          | 3               | PC01/P61 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GY06          | 3               | PC02/P62 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GZ05          | 3               | PC01/P61 (1 year)                                          |        |       | No           | (d)            | Yes             |
|                        | GZ06          | 3               | PC02/P62 (1 year)                                          |        |       | No           | (d)            | Yes             |
|                        | FX03          | 3               | PC09/P69 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | FY03          | 3               | PC09/P69 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | FZ03          | 3               | PC09/P69 (1 year)                                          |        |       | No           | (d)            | Yes             |
| B14                    | GX01          | 3               | PC01/P61 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GX02          | 3               | PC02/P62 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GY01          | 3               | PC01/P61 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GY02          | 3               | PC02/P62 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GZ01          | 3               | PC01/P61 (1 year)                                          |        |       | No           | (d)            | Yes             |
|                        | GZ02          | 3               | PC02/P62 (1 year)                                          |        |       | No           | (d)            | Yes             |
|                        | FX01          | 3               | PC09/P69 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | FY01          | 3               | PC09/P69 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | FZ01          | 3               | PC09/P69 (1 year)                                          |        |       | No           | (d)            | Yes             |



**Table B.8 -Tracking Table of Portland Cement Concrete Testing  
in the State/Province Laboratory for the SPS-2A Experiment (or their designee) (Continued)**

| Sample Location Number | Sample Number | Lab Test Number | Steps Involved in Laboratory Handling and Testing Sequence |        |       |              |                |                 |
|------------------------|---------------|-----------------|------------------------------------------------------------|--------|-------|--------------|----------------|-----------------|
|                        |               |                 | Required Laboratory Tests Per Layer                        |        |       | Extra Sample | Sample Storage | Sample Disposed |
|                        |               |                 | First                                                      | Second | Third |              |                |                 |
| B15                    | GX03          | 3               | PC01/P61 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GX04          | 3               | PC02/P62 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GY03          | 3               | PC01/P61 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GY04          | 3               | PC02/P62 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GZ03          | 3               | PC01/P61 (1 year)                                          |        |       | No           | (d)            | Yes             |
|                        | GZ04          | 3               | PC02/P62 (1 year)                                          |        |       | No           | (d)            | Yes             |
|                        | FX02          | 3               | PC09/P69 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | FY02          | 3               | PC09/P69 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | FZ02          | 3               | PC09/P69 (1 year)                                          |        |       | No           | (d)            | Yes             |
| B16                    | GX01          | 3               | PC01/P61 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GX02          | 3               | PC02/P62 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GY01          | 3               | PC01/P61 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GY02          | 3               | PC02/P62 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GZ01          | 3               | PC01/P61 (1 year)                                          |        |       | No           | (d)            | Yes             |
|                        | GZ02          | 3               | PC02/P62 (1 year)                                          |        |       | No           | (d)            | Yes             |
|                        | FX01          | 3               | PC09/P69 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | FY01          | 3               | PC09/P69 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | FZ01          | 3               | PC09/P69 (1 year)                                          |        |       | No           | (d)            | Yes             |

**Table B.8 -Tracking Table of Portland Cement Concrete Testing  
in the State/Province Laboratory for the SPS-2A Experiment (or their designee) (Continued)**

| Sample Location Number | Sample Number | Lab Test Number | Steps Involved in Laboratory Handling and Testing Sequence |        |       |              |                |                 |
|------------------------|---------------|-----------------|------------------------------------------------------------|--------|-------|--------------|----------------|-----------------|
|                        |               |                 | Required Laboratory Tests Per Layer                        |        |       | Extra Sample | Sample Storage | Sample Disposed |
|                        |               |                 | First                                                      | Second | Third |              |                |                 |
| B17                    | GX07          | 3               | PC01/P61 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GX08          | 3               | PC02/P62 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GY07          | 3               | PC01/P61 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GY08          | 3               | PC02/P62 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | GZ07          | 3               | PC01/P61 (1 year)                                          |        |       | No           | (d)            | Yes             |
|                        | GZ08          | 3               | PC02/P62 (1 year)                                          |        |       | No           | (d)            | Yes             |
|                        | FX04          | 3               | PC09/P69 (14 day)                                          |        |       | No           | (d)            | Yes             |
|                        | FY04          | 3               | PC09/P69 (28 day)                                          |        |       | No           | (d)            | Yes             |
|                        | FZ04          | 3               | PC09/P69 (1 year)                                          |        |       | No           | (d)            | Yes             |

## LTPP SPS DIRECTIVES

3-30-94

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