HCMTCB AGGREGATE CERTIFICATION

KEY ELEMENTS LIST

Release Date: December 1, 2009

PERFORMANCE CHECKLIST

AASHTO T-2 Sampling of Aggregates

Sampling Coarse Aggregate

Sampling From A Stockpile

By Hand

1 Sample increments taken from where in the pile?

2 How to prevent segregation?

Power Pile

1 Power equipment draws materials from?

2 Field sample combined from?

Sampling From A Conveyor Belt

1 Sampling locations selected how?

2 Number and relative size of increments?

3 Isolate sample increment using . . . ?

4 Collect how much material from between templates?

5 What to do with fines?

Field Sample Size - Coarse Aggregate

Show the evaluator the proper table in T 2
and determine the minimum size field
sample for the requested gradation.

PERFORMANCE CHECKLIST

AASHTO T-2 Sampling of Aggregates

Sampling From Flowing Aggregate Stream

1 Sampling locations selected how?

2 Number and relative size of increments?

3 Take each increment from . . . ?

4 Reduce segregation by what method?

Sampling From Roadway

1 Sampling locations selected how?

2 Number and relative size of increments?

3 Increments of what depth?

4 Do what with underlying material?

Sampling Fine Aggregate

Sampling From A Stockpile

1 Do what with outer layer?

2 Minimum size of sampling tube?

3 Minimum number of increments?

Field Sample Size

Have the applicant show the examiner the proper table in T - 2 and determine the minimum size field sample for fine aggregate.

PERFORMANCE CHECKLIST

AASHTO T-248 Reducing Field Samples of Aggregate to Testing Size

Coarse Aggregate

Size of Test Sample

Determine mass of sample needed
to run T 255, T 27, and T 11.

Mechanical Splitter

1 Set up splitter with proper size and number of chutes for maximum size particles in sample.

2 Sample properly distributed in pan or hopper.

3 Sample introduced to chutes at proper rate.

4 Sample properly reduced to specified size.

Quartering

1 Show evaluator where an alternate method is specified for quartering in the field if no level surface is available?

PERFORMANCE CHECKLIST

AASHTO T-248 Reducing Field Samples of Aggregate to Testing Size

Fine Aggregate

1 Determine mass of sample needed to run T 255, T 27, and T 11.

Mechanical Splitter

1 Specified number of chutes.

2 Minimum and maximum chute size.

3 Moisture condition of sample required to use splitter?

Quartering

1 Surface conditions?

2 Mixing procedure?

3 Flatten pile so each quarter contains the material originally in it.

4 Relative dimensions of resulting pile?

5 Divide pile into . . . ?

6 Retain what portions?

7 Treatment of fines?

Miniature Stockpile

1 Surface conditions?

2 Turn pile specified number of times.

3 Combine proper number of increments.

4 Brush spoon/sampling device after obtaining each increment.

PERFORMANCE CHECKLIST

AASHTO T-255 Total Moisture Content of Coarse and Fine Aggregates By Drying

Coarse Aggregate

1 Have applicant show examiner the proper table in T - 255 for test sample size.

2 Describe the sources of heat permitted to properly dry the sample.

3 Using the provided sample determine the mass of the oven dry sample within the specified tolerance.

4 Record required data promptly.

Fine Aggregate

1 Show examiner the proper table in T - 255 for test sample size.

2 Using the provided sample determine the mass of the oven dry sample within the specified tolerance.

3 Record required data promptly.

PERFORMANCE CHECKLIST

AASHTO T-11 Material Finer Than No 200 Sieve in Mineral Aggregates by Washing

Coarse Aggregate

1 Determine mass of sample within specified tolerance.

2 Ample amount of water added?

3 Wash sample until . . . ?

4 Pour wash water over what sieves?

5 Return material to sample as specified.

6 Dry washed sample to constant mass at what temperature?

7 Determine mass to specified tolerance.

Fine Aggregate

1 Determine mass of sample within specified tolerance.

2 Ample amount of water added?

3 Wash sample until . . . ?

4 Pour wash water over what sieves?

5 Return material to sample as specified.

6 Dry washed sample to constant mass at what temperature?

7 Determine mass to specified tolerance.

PERFORMANCE CHECKLIST

AASHTO T-27 Sieve Analysis of Fine and Coarse Aggregates

Coarse Aggregate

1 Assemble specified nest of sieves.

2 Describe the method for determining sufficiency of sieveing.

2a. Use what equipment?

2b. Hold sieve in what position?

2c. Hand bump sieve at what rate?

2d. Turn sieve how far at what interval?

2e. For sieves larger than No. 4?

2f. Sieve until?

3 Check each sieve for blinding.

3a. Calculate maximum amount of material for two sieves.

3b. Three methods for prevention of blinding.

4 Determine the mass of material retained on each sieve to the specified tolerance.

PERFORMANCE CHECKLIST

AASHTO T-27 Sieve Analysis of Fine and Coarse Aggregates

Fine Aggregate

1 Assemble and prepare specified nest of sieves.

2 Determine the mass of material retained on each sieve to the specified tolerance.

PERFORMANCE CHECKLIST

Dust Coating for Cover Aggregates

1 Obtain sample according to _____ .

2 Reduce sample to testing size according to _____ .

3 Dry sample at what temperature.

4 Separate field sample using what sieve?

5 Agitate long enough to _____ but not _____.

6 Discard what portion of sample?

7 Weigh to what tolerance? (In grams.)

8 Wash according to what test and method?

9 Dry to _____ at _____.

10 Calculation formula.

11 Report to nearest ____ percent.