



Standard Test Procedures Manual

Section: SAMPLING

Subject: SAMPLING LOCATION BY RANDOM
METHOD

1. SCOPE

1.1 Description of Test

This practice covers the determination of random locations at which core samples will be taken.

2. APPARATUS AND MATERIALS

2.1 Equipment Required

A computer using DOS and equipped with a 5 1/4 floppy or 3 1/2 diskette drive and an internal clock.

A disk containing the program SHT Testing Location Selector Version 4.3

A printer for hard copy records is recommended.

2.2 Data Required

- a) Lot number
- b) Lot number, subplot number and section number within the subplot for EPS projects.
A section number is assigned to each continuous stretch of material except for those exclusions to random sampling as stated in the specification.
- c) Width of section to be sampled.
- d) Starting and ending chainage of each section.
- e) Left and right off-set parameters. The off-sets are true from centreline. Off-sets to the left of centreline in the direction of the control section are negative and off-sets to the right are positive.
- f) Samples are not to be taken within 0.5 m of an unsupported edge and 0.1 m of a supported edge.

3. PROCEDURE

3.1 Test Procedure

After the computer and the printer have been turned on, insert the program disk into the appropriate drive. Enter "TESTING" if the computer has a CGA monitor or "TESTING EGA" if the computer has an EGA/VGA monitor.

Enter the data as prompted to obtain the resultant random test site location and hard copy printout if a printer is available.

4. RESULTS AND CALCULATIONS

4.1 Reporting Results

The Engineer will supply the Contractor with the locations of each test site by written memo or by duplicate copy of the print out for EPS projects.

4.2 Calculation Examples

4.2.1 One Sample per Sublot (EPS Asphalt Concrete Density)

Control Section 302-01

Lot #1
Sublot #5

Date: 01-23-1992 Time: 13:05:29

Data for Section #1

Lift = Lane	=	Lt	
Starting Station	=	km	0.000
Ending Station	=	km	0.500
Left Offset (m)	=		-4.50
Right Offset (m)	=		-0.50

Data for Section #2

Lift = Lane	=	Rt	
Starting Station	=	km	1.100
Ending Station	=	km	0.500
Left Offset (m)	=		0.50
Right Offset (m)	=		4.60

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The location of the core for this subplot is given below.

The coring will take place in:

Section	Station (km)	Offset (m)	Lift	Lane
2	0.946	4.4	1	Rt

4.2.2 Three Samples per Sublot with Offset
(EPS Granular Base Density)
(EPS Granular Base Properties)

Control Section 302-01 Lot #1
Sublot #5

Date: 01-23-1992 Time: 09:40:54

Data for Section #1

Lift = 1 Lane = Both
 Starting Station = km 0.000
 Ending Station = km 0.400
 Left Offset (m) = -4.60
 Right Offset (m) = 4.60

Data for Section #2

Lift = 2 Lane =Rt
 Starting Station =km 0.000
 Ending Station =km 0.300
 Left Offset (m) = 3.70
 Right Offset (m) = 4.50

The location of the density testing in this subplot is given below.

The three locations are:

Section	Station (km)	Offset (m)	Lift	Lane
2	0.137	4.0	2	Rt
1	0.311	-3.3	1	Lt
2	0.024	4.3	2	Rt

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4.2.3 Random Number Generator

First Number Input 1

Second Number 49

The Random Numbers Are: 24, 26, 23, 48, 3, 42.

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APPROVAL SHEET

New Revision Date of Previous Document 92-04-07

Effective Date: 92-04-11

Description of Revision (Reason for Revision):

Section 2.2 b) has a section number referring to a continuous stretch of material instead of asphalt concrete. Exclusions to random sampling are stated in the specification instead of EPS 4101. Section 2.2 f) had the following statement deleted, "The End Product Specifications for Granular Base 3505 - EPS and Asphalt Concrete 4100-EPS have specific limitations on sampling locations at the start end and edges of sublots", because this is no longer true.

Review/Implementation Process:

Recommended by Contracts section of TSAP.

Other Manuals/Policies Affected:

Nil

Follow Up/Training Required:

Nil

Comments/Concerns/Implications (Budget/Environment/Stakeholders):

Prepared by Daryl MacLeod 94-12-09
Date

Recommended by Daryl MacLeod 94-12-09
Materials Standards Engineer Date

Approval Recommended by R.A. Widger 94-12-20
Senior Materials Engineer Date

Approved by A. R. Gerbrandt 94-12-21
Dir., Technical Standards & Policies Branch Date

Electronic File Updated 95-01-31

Update Mailed - -