ASPHALT BINDER

Section 10 – Random Sampling Density

Section 10 - 1

1

Random Sampling Density

- Determine total production – weigh tickets
- Determine length and width – engineer
- Determine number of lots
  - One lot ≤ 1500 t
  - One lot = 7 tests
  - Production < 1500 t; Use 1 lot, 7 tests
  - Production > 1500 t; Use 2 or more lots, 7 tests each
  - Lot can extend beyond 1 day

Section 10 - 2

2

Random Sampling Density (continued)

- Select Random Numbers (0 to 1)
  - Table
  - Computer
  - Any other acceptable method
- Procedure with Table
  - Enter Table at any point to get entry number
  - Select row or column containing entry number; yield – 7 random number set
  - Use for longitudinal locations
  - Select other row or column containing entry number; yield; 7 random number set
  - Use for transverse locations

Section 10 - 3

3

Random Sampling Density (continued)

- Determine lot size and sublot size
  - Divide total length by number of lots – log length
  - Divide length of lot by 7 – sublot length

Section 10 - 4

4

Random Sampling Density (continued)

- Determine lot and sublot locations
  - Find begin paving station
  - Add sublot length to beginning station
    - Results – End station sublot 1, Begin station sublot 2
  - Add sublot length to beginning station of sublot 2
    - Results – End station sublot 2, Begin station sublot 3
  - Repeat for 7 sublots
  - Check by adding lot length to beginning station and compare to end station of sublot 7

Section 10 - 5

5

Random Sampling Density (continued)

- Determine horizontal test locations
  - Multiply first random number of set 1 by sublot length
  - Subtract distance from end of sublot 1
  - Repeat for each sublot
- Determine transverse test locations
  - Subtract 0.6 meters from width
  - Multiply first random number of set 2 by result of step 1
  - Add 0.3 to result of step 2
  - Repeat for each sublot

Section 10 - 6

6

Project _____ Tested By _____

A Total Production To be tested	B Beginning Station	C Ending Station	D Total feet Paved (C – B = D) Lot Length	Width Paved (feet)	E Width Paved Minus 2 (feet)
1350	240+80.00	344+80.00	10,400’	14	12’

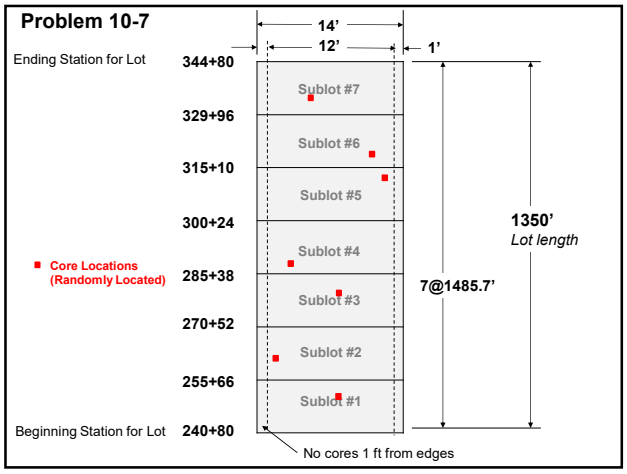
F Number of Lots Represented (A/1500)	G Tons Per lot (A/F)	H Feet per lot (D/F)	I Feet represented Per test (H/7)
1	1350’	10,400’	1485.7’

1350/1500 = 0.9
Must be whole number

Number	J Random Number	Section Represented Beginning st. Ending st K	L	Test Station L=(J * I)	M Random Number	Dist. From Edge Horizontal Distance feet (EnM)-1 ft	Lane 1.Right 2.Center 3.Left	Lift 1.Upper 2.Lower 3.Total
1	0.389	240+80	255+66	249+88	0.527	7.3		
2	0.620	255+66	270+52	261+31	0.025	1.3		
3	0.379	270+52	285+38	279+74	0.528	7.3		
4	0.869	285+38	300+24	287+33	0.263	4.2		
5	0.105	300+24	315+10	313+54	0.932	12.2		
6	0.667	315+10	329+96	320+05	0.745	9.9		
7	0.643	329+96	344+80	335+25	0.339	5.1		

Section 10 - ?

7



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