Procedure Checklist FM 5-515: Limerock Bearing Ratio

		Р	F	N/A			
Soaking							
1.	Compacted specimens placed in soak tank						
2.	Water level in soak tank maintained at \pm 0.25 inches of the same elevation as the top of the						
	soil						
3.	Specimens soaked for 48 ± 4 hrs						
4.	Swell plate placed on each specimen before and during soaking						
5.	Specimens drained for 15 ± 2 minutes prior to penetration test						
6.	Drained on a visibly level surface						
Penetration Test							
7.	No surcharge on base materials specimens						
8.	A surcharge of 15 lbs. applied to stabilized subgrade specimen						
9.	A surcharge of 20 lbs. applied to embankment specimen						
10.	Manual - 10 lbs. seating load applied						
11.	Gauges then zeroed						
12.	Load applied through the piston at a contact rate of approx. 0.05 ± 0.005 inches/minute						
13.	Automatic - no seating load						
14.	Pen zeroed before loading (for strip chart recorders)						
15.	Readings taken at specified intervals						
16.	Continued until correction can easily be applied (with 0.1 inch deformation)						
17.	Number of specimens tested satisfactory						
18.	Unit load plotted as the ordinate (vertical).						
19.	Penetration in inches plotted as the abscissa (horizontal).						
20.	Smooth curve drawn through the plotted points						
Calculations							
21.	Tangent to curve drawn at point of greatest slope. Interception of tangent and penetration						
	axis chosen as corrected zero penetration						
22.	Corrected unit load (in psi) at 0.1 inch penetration divided by 800 psi						
23.	Then multiplied by 100 to obtain LBR value						
24.	Collection of LBR values plotted vs. moisture content						
25.	Peak LBR value determined						
Report							
26.	Report includes plot of moisture - density curve giving max. dry density (to nearest 0.1						
	PCF)and optimum moisture content (to nearest 0.1%)						
27.	A semi-log plot of LBR - moisture curve giving the max. LBR value						

Remarks: Comparison Criteria: Max. Density within 4.5 PCF (72.08 KCM) of the IA Result
% Optimum Moisture within 15% of the average
± 10% of the mean LBR value of the IA and technician

Date:	Technician:	IA Observer:	
Technician's E-m	ail Address:		
Emplover's/ Supe	ervisor's E-mail Address:		