

King Fahd University of Petroleum & Minerals
CIVIL ENGINEERING DEPARTMENT

CE 441

DESIGN OF PAVEMENT

Fall 2002-2003

HOMEWORK # 9

DESIGN OF AIRPORT PAVEMENTS

It has been estimated that the following aircraft will use a certain taxiway.

Aircraft	Wt (lb)	No. Departures	Aircraft	Wt (lb)	No. Departures
B-727	210,000	300,000 (D)	VC-10	360,000	200,000 (DT)
B-737	115,500	200,000(D)	CONCORDE	450,000	3,000 (DT)
B-707	333,600	60,000(DT)			
B-747	820,000	20,000(DDT)			

Using FAA method design the taxiway for:

- Flexible pavement if subgrade CBR = 10 .
- Rigid pavement if:

The design "k" is 250 pci, the average 90-day MR is 600 psi. Determine the thickness of concrete pavement for these conditions.