

TECHNICAL NOTE ON HIGHWAY CLASSIFICATION SYSTEM IN PRC

1. **Road Classification and Design Standards in PRC.** The road classification and technical standards for design, construction, rehabilitation and maintenance of roads in PRC are divided into five classes according to their service status. Table 1 shows the classification of roads in PRC.

Table 1: Classification of Roads in PRC

Classification	Description
National Highway	Connects the capital of PRC with provinces, major industrial centers, links north-south and east-west of PRC
Provincial Highway	Connects capitals of provinces and major centers of provinces
County Highway	Connects all counties of PRC
Township Road	Roads of extra large cities
Special Road	Roads for special use

PRC = People's Republic of China.

Sources: *Transport, Communications, Tourism and Infrastructure Development Division of the United Nations Economic and Social Commission for Asia and the Pacific*; Department of Highways, Ministry of Communication, China. July 2010.

2. **Technical Standards.** Technical Standards of Highway Engineering is used for the new construction and rehabilitation of highways. According to these standards, highways are divided into five categories that are based on their function and traffic volumes. Highway design standards are summarized in Table 2.

Table 2: Class of Roads in PRC

Class	Annual Average Daily Traffic	Design Speed (km per hour)
Expressway	25,000-100,000	120-60
I	15,000-30,000	100-60
II	3,000-7,500	80-40
III	1000-4000	60-30
IV	< 1500	40-20

Sources: *Transport, Communications, Tourism and Infrastructure Development Division of the United Nations Economic and Social Commission for Asia and the Pacific*; Department of Highways, Ministry of Communication, China. July 2010.

3. A brief summary of major technical criteria by highway class is shown in Table 3, Table 4, and Table 5.

Table 3: Road Classification by Standards

Class	Width (m)
Expressways	28.0
Class I	25.5
Class II	12.0
Class III	8.5
Class IV	7.0

Sources: *Transport, Communications, Tourism and Infrastructure Development Division of the United Nations Economic and Social Commission for Asia and the Pacific*; Department of Highways, Ministry of Communication, China. July 2010.

Table 4: Design Elements by Highway Class according to the Technical Standards of Highway Engineering

Highway Class	Expressway						Class I		Class II		Class III		Class IV	
Design speed (km/hr)	120			100	80	60	100	60	80	40	60	30	40	20
Number of Traffic Lanes	8	6	4	4	4	4	4	4	2	2	2	2	1 or 2	
Carriage way width (m)	2x15	2x11.25	2x7.5	2x7.5	2x7.5	2x7	2x7.5	2x7	9	7	7	6	3.5 or 6	
Subgrade width (m)	Normal	42.5	35.0	27.5	26.0	24.5	22.5	25.5	22.5	12	8.5	8.5	7.5	6.5
	Variable Value	40.3	33	25.5	24.5	23	20	24	20	17				4.5 or 7
Absolute minimum radius of horizontal curve (m)	650			400	250	125	400	125	250	60	125	30	60	15
Stopping Sight Distance (m)	210			160	110	75	160	75	110	40	75	30	40	20
Maximum Grade (%)	3			4	5	5	4	6	5	7	6	8	6	9
Truck loads	Truck Super 20						Truck Super 20 Truck 20		Truck 20				Truck 10	
	Trailer 120						Trailer 120 Trailer 100		Trailer 100				Crawler 50	

Sources: *Transport, Communications, Tourism and Infrastructure Development Division of the United Nations Economic and Social Commission for Asia and the Pacific*; Department of Highways, Ministry of Communication, China. July 2010.

Table 5: Height Clearance of Roads in PRC

Road Categories	Height Clearance (m)
Expressway	5.0
Class I, II	5.0
Class III, IV	4.5

Sources: *Transport, Communications, Tourism and Infrastructure Development Division of the United Nations Economic and Social Commission for Asia and the Pacific*; Department of Highways, Ministry of Communication, China. July 2010.