e_{maks} = 0,10

Panjang minimum spiral dan kemiringan melintang :

D	R meter	v = 50		v = 60		v = 70		v = 80		v = 90		v = 100		v = 110	
		e	L_s	e	L_s	e	L_s	e	L_s	e	L_s	e	L_s	e	L_s
0°15'	5730	LN	0	LN	0	LN	0	LN	0	LP	0	LP	50	LP	60
0°30'	2864	LN	0	LN	0	LP	40	LP	50	LP	50	LP	60	LP	60
0°45'	1910	LN	0	LP	40	LP	40	0,018	50	0,020	50	0,023	60	0,025	60
1°00'	1432	LP	30	LP	40	0,020	40	0,022	50	0,026	50	0,030	60	0,023	60
1°15'	1150	LP	30	LP	40	0,022	40	0,028	50	0,033	50	0,038	60	0,042	60
1°30'	956	LP	30	0,021	40	0,028	40	0,034	50	0,039	50	0,045	60	0,050	70
1°45'	840	LP	30	0,025	40	0,032	40	0,039	50	0,045	50	0,052	60	0,058	70
2°00'	717	0,020	30	0,028	40	0,038	40	0,045	50	0,051	60	0,060	70	0,066	80
2°30'	524	0,023	30	0,034	40	0,045	40	0,055	60	0,065	70	0,074	80	0,083	90
3°00'	478	0,029	30	0,040	40	0,054	50	0,064	60	0,076	80	0,087	90	0,096	100
3°30'	410	0,034	30	0,047	40	0,062	50	0,074	70	0,087	90	0,096	100	0,100	110
4°00'	358	0,037	30	0,052	40	0,068	60	0,086	70	0,092	90	0,099	100	D_{maks} = 3,34°	
4°30'	319	0,042	30	0,057	50	0,074	60	0,087	70	0,097	90	0,100	100		
5°00'	287	0,045	30	0,062	50	0,079	70	0,092	80	0,100	90	D_{maks} =4,15°			
6°00'	239	0,053	40	0,071	50	0,088	70	0,098	80	D_{maks} = 5,26°					
7°00'	205	0,060	40	0,079	60	0,094	70	0,100	80						
8°00'	180	0,067	40	0,086	60	0,097	80	D_{maks} =6,83°							
9°00'	160	0,072	50	0,091	60	0,100	80								
10°00'	145	0,077	50	0,095	70	0,100	80								
11°00'	130	0,082	50	0,097	70	D_{maks} = 9,13°									
12°00'	120	0,086	60	0,099	70										
13°00'	110	0,090	60	0,100	70										
14°00'	103	0,093	60	D_{maks} = 12,79°											
15°00'	96	0,095	60												
16°00'	90	0,097	60												
17°00'	84	0,099	60												
18°00'	80	0,100	60												
19°00'	76	D_{maks} = 18,85°													

Keterangan :

LN = lereng jalan normal

LP = lereng luar diputar sehingga pengerasan mendapat kemiringan melintang sebesar lereng jalan normal.

Spiral di atas garis-garis adalah harga yang dianjurkan, tapi tidak diharuskan.

Trial and Error Perhitungan Tikungan

Trial and Error Perhitungan Tikungan I

Ls (m)	Rc (m)	θs (°)	Δc (°)	Lc (m)	ρ	Yc (m)	Xc (m)	p (m)	k (m)	Ts (m)	Tik.	Es (m)
60	478	3° 35' 45,6"	39°56 ' 6"	332,998	0,314	1,255	59,576	0,314	29,996	238,603	SCS	43,826
70	**319**	**6° 17' 9,6"**	**34° 33' 14,4"**	**192,287**	**0,640**	**2,561**	**69,916**	**0,643**	**34,988**	**174,394**	**SCS**	**29,721**
80	205	11° 10' 48"	24° 46' 3,72"	88,572	1,301	5,203	79,695	1,312	39,948	129,927	SCS	20,081

Trial and Error Perhitungan Tikungan II

Ls (m)	Rc (m)	θs (°)	Δc (°)	Lc (m)	ρ	Yc (m)	Xc (m)	p (m)	k (m)	Ts (m)	Tik.	Es (m)
60	478	3°35' 45,6"	34°5'38,4"	284,291	0,314	1,255	59,576	0,314	29,996	210,191	SCS	33,131
70	**319**	**6°17' 9,6"**	**28° 42' 47,5"**	**159,783**	**0,640**	**2,561**	**69,916**	**0,643**	**34,988**	**155,408**	**SCS**	**22,574**
80	205	11° 10' 48"	18° 55'37,2 "	67,684	1,301	5,203	79,695	1,312	39,948	117,672	SCS	15,467

***Trial and Error* Perhitungan Tikungan III**

Ls (m)	Rc (m)	θs (°)	Δc (°)	Lc (m)	ρ	Tc (m)	Tik	Ec (m)
50	1150	1° 14' 45,6"	22°23'16,4"	499,100	0,091	253,679	FC	20,646
50	**840**	**1° 42' 18"**	**21°28'6,6"**	**364,560**	**0,124**	**185,296**	**FC**	**20,194**
50	717	1°59'52,8"	20°53'0,2"	311,178	0,145	158,163	FC	17,237

***Trial and Error* Perhitungan Tikungan IV**

Ls (m)	Rc (m)	θs (°)	Δc (°)	Lc (m)	ρ	Tc (m)	Tik	Ec (m)
50	1150	1° 14' 45,6"	23°37'33,96"	523,941	0,091	266,743	FC	30,535
50	**840**	**1° 42' 18"**	**22°42'24,48"**	**382,706**	**0,124**	**194,838**	**FC**	**22,302**
50	717	1°59'52,8"	22°07'18,12"	326,666	0,145	166,308	FC	19,036

***Trial and Error* Perhitungan Tikungan V**

Ls (m)	Rc (m)	θs (°)	Δc (°)	Lc (m)	ρ	Tc (m)	Tik	Ec (m)
50	1150	1° 14' 45,6"	9°41'35,52"	244,431	0,091	122,739	FC	6.532
50	**840**	**1° 42' 18"**	**8°46'26,04"**	**178,541**	**0,124**	**89,653**	FC	**4,771**
50	717	1°59'52,8"	8°11'19,68"	152,368	0,145	76,525	FC	4,072

***Trial and Error* Perhitungan Tikungan VI**

Ls (m)	Rc (m)	θs (°)	Δc (°)	Lc (m)	ρ	Tc (m)	Tik	Ec (m)
50	1150	1° 14' 45,6"	3°21'0"	117,179	0,091	58,673	FC	1,495
50	**840**	**1° 42' 18"**	**2°25'50,52"**	**85,592**	**0,124**	**42,857**	FC	**1,092**
50	717	1°59'52,8"	1°50'44,16"	73,059	0,145	36,581	FC	0,932

***Trial and Error* Perhitungan Tikungan VII**

Ls (m)	Rc (m)	θs (°)	Δc (°)	Lc (m)	ρ	Tc (m)	Tik	Ec (m)
50	1150	1° 14' 45,6"	11°23'17,52"	278,436	0,091	139,978	FC	8,487
50	**840**	**1° 42' 18"**	**10°28'8,04"**	**203,379**	**0,124**	**102,245**	**FC**	**6,119**
50	717	1°59'52,8"	9°53'1,68"	173,598	0,145	87,273	FC	5,291

***Trial and Error* Perhitungan Tikungan VIII**

Ls (m)	Rc (m)	θs (°)	Δc (°)	Lc (m)	ρ	Yc (m)	Xc (m)	p (m)	K (m)	Ts (m)	Tik.	Es (m)
60	478	3 °35' 45,6"	49°30'57,96"	412,887	0,314	1,255	59,576	0,314	29,996	288,123	SCS	65,522
70	**358**	**5° 36' 7,2"**	**45° 30' 17,64"**	**284,183**	**0,570**	2,281	**69,933**	**0,663**	**35,937**	**229,494**	SCS	**49,559**
80	205	11° 10' 48"	34° 20'55,32 "	122,835	1,301	5,203	79,695	1,312	39,948	151,286	SCS	29,439

Trial and Error Perhitungan Tikungan IX

Ls (m)	Rc (m)	θs (°)	Δc (°)	Lc (m)	ρ	Yc (m)	Xc (m)	p (m)	k (m)	Ts (m)	Tik.	Es (m)
60	478	3 °35' 45,6"	50°35'30,48"	421,186	0,314	1,255	59,576	0,314	29,996	293,954	SCS	68,311
70	**319**	**6° 17' 9,6"**	**45° 12' 39,6"**	**251,589**	**0,640**	**2,561**	**69,916**	**0,643**	**34,988**	**211,383**	**SCS**	**46,083**
80	205	11° 10' 48"	11° 10'48 "	126,682	1,301	5,203	79,695	1,312	39,948	153,801	SCS	30,642

Trial and Error Perhitungan Tikungan X

Ls (m)	Rc (m)	θs (°)	Δc (°)	Lc (m)	ρ	Yc (m)	Xc (m)	p (m)	k (m)	Ts (m)	Tik.	Es (m)
60	478	3 °35' 45,6"	43°27'37,44"	362,393	0,314	1,255	59,576	0,314	29,996	256,363	SCS	51,173
80	**239**	**9° 35' 20,4"**	**31° 28' 25,68"**	**131,221**	**1,116**	**4,463**	**79,776**	**1,124**	**39,963**	**153,605**	**SCS**	**26,657**
80	205	11° 10' 48"	28°17'34,8 "	101,179	1,301	5,203	79,695	1,312	39,948	137,587	SCS	23,549

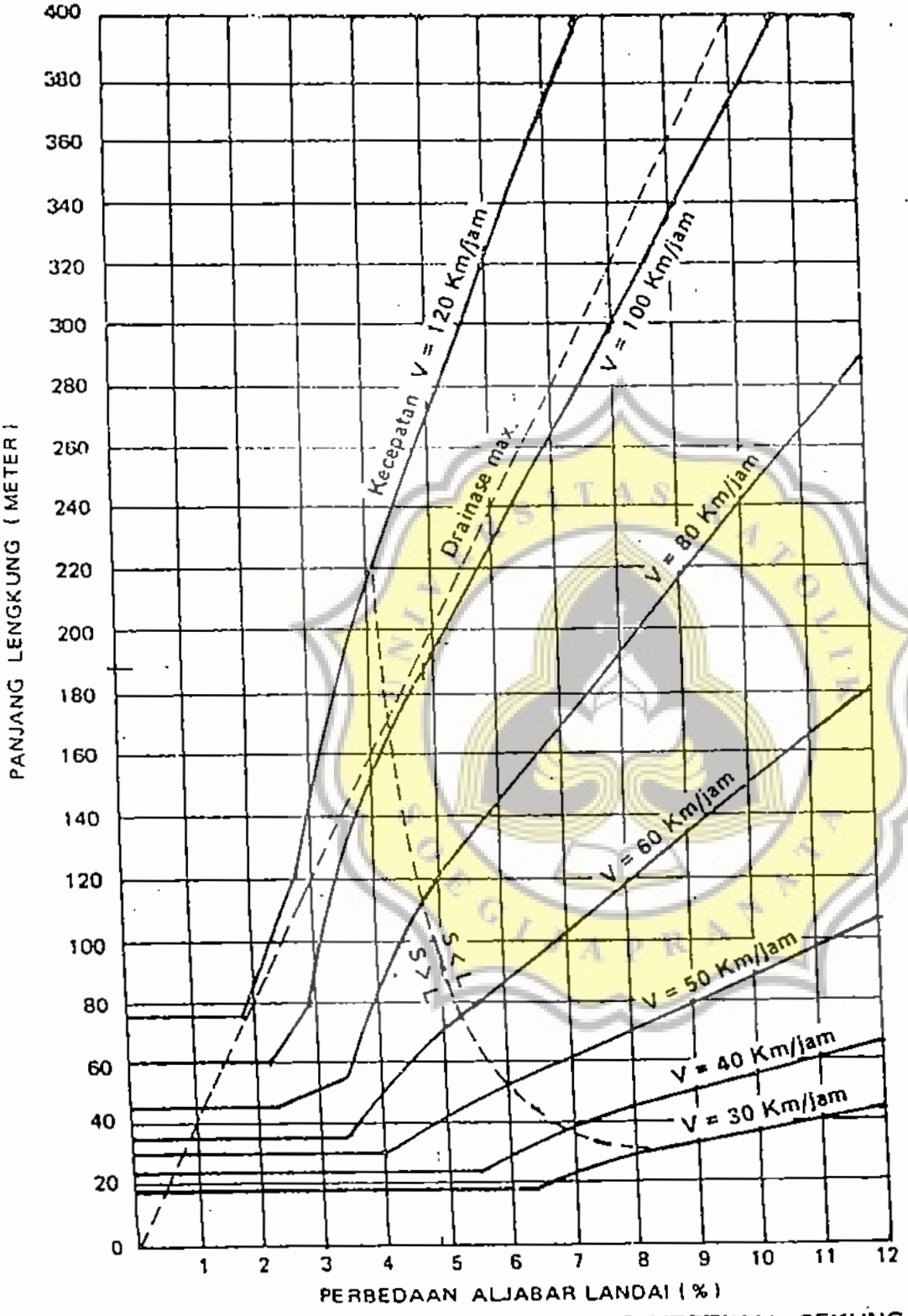
Trial and Error Perhitungan Tikungan XI

Ls (m)	Rc (m)	θs (°)	Δc (°)	Lc (m)	ρ	Yc (m)	Xc (m)	p (m)	k (m)	Ts (m)	Tik.	Es (m)
60	478	3 °35' 45,6"	54°35'13,56"	455,171	0,314	1,255	59,576	0,314	29,996	316,143	SCS	79,374
80	**239**	**9° 35' 20,4"**	**42° 36'1,44"**	**177,611**	**1,116**	**4,463**	**79,776**	**1,124**	**39,963**	**183,615**	**SCS**	**40,814**
80	205	11° 10' 48"	39°25'10,56 "	140,969	1,301	5,203	79,695	1,312	39,948	163,372	SCS	35,414

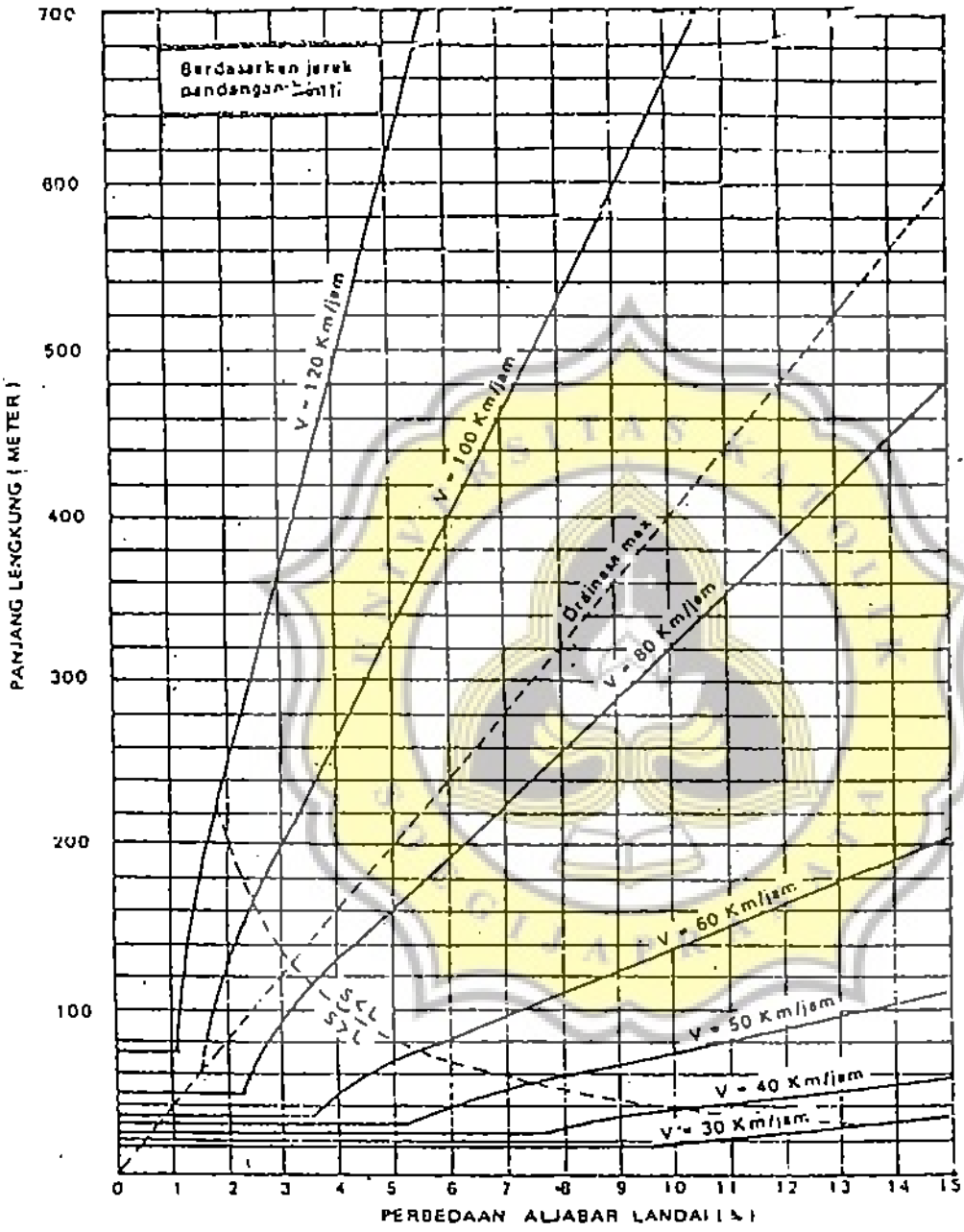
DAFTAR II

STANDAR PERENCANAAN ALINEMEN

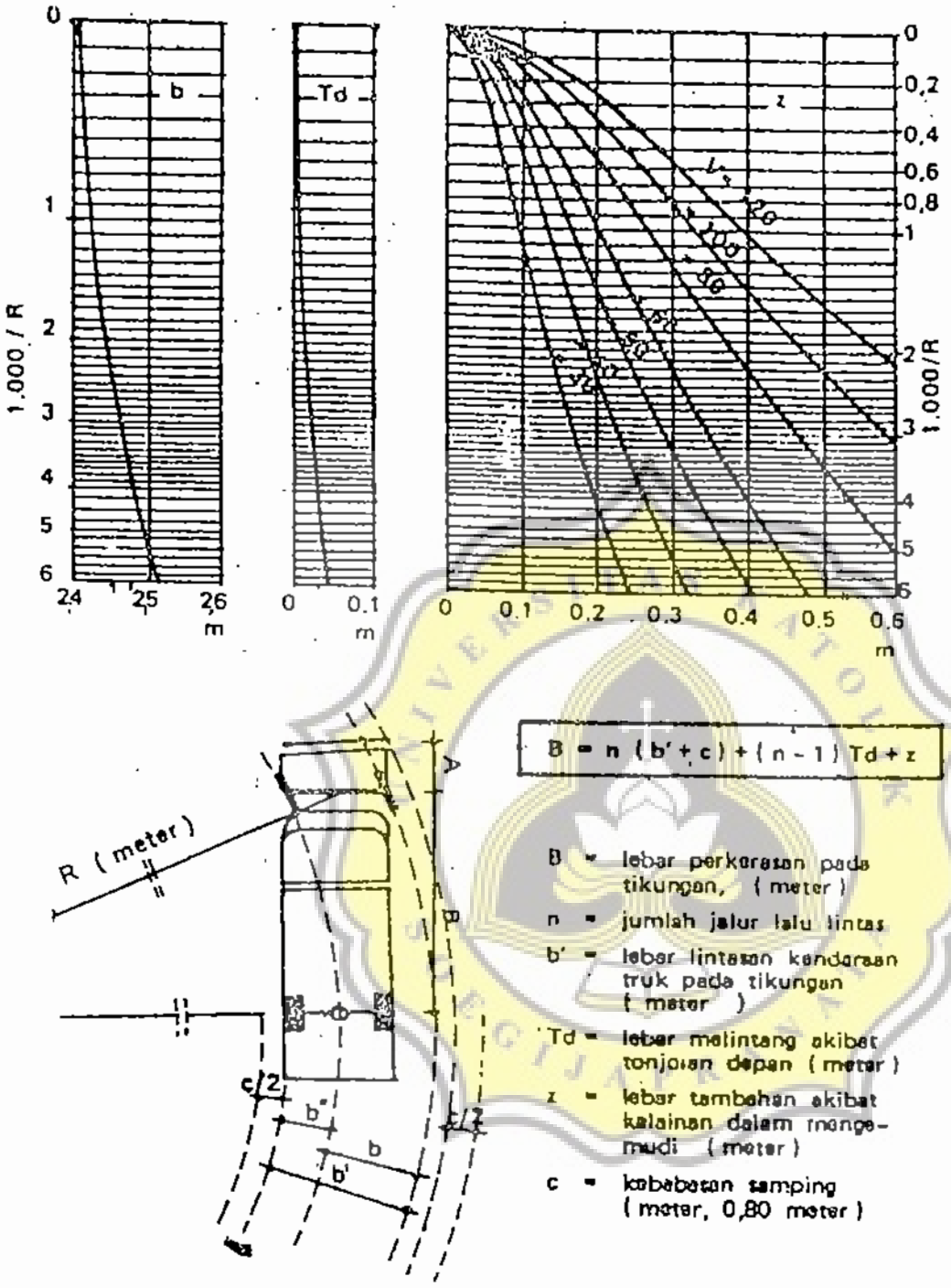
Kecepatan rencana km/jam	Jarak pandangan henti (m)	Jarak pandangan menyiap (m)	Jari2 lengkung minimum dimana miring tikungan tak perlu (m)	Batas jari2 lengkung tikungan dimana harus menggunakan busur peralihan (m)	Landai relatif maksimum antara tepi perkerasan
120	225	790	3000	2000	1/280
100	165	670	2300	1500	1/240
80	115	520	1600	1100	1/200
60	75	380	1000	700	1/160
50	55	220	660	440	1/140
40	40	140	420	300	1/120
30	30	80	240	180	1/100



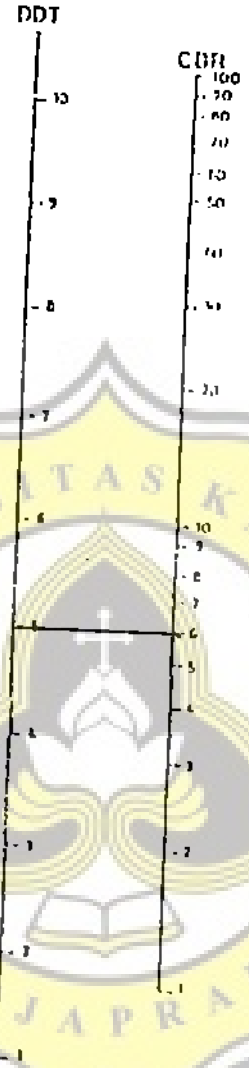
GRAFIK V. PANJANG LENGKUNG VERTIKAL CEKUNG



GRAFIK III. PANJANG LENGKUNG VERTIKAL CEMBUNG

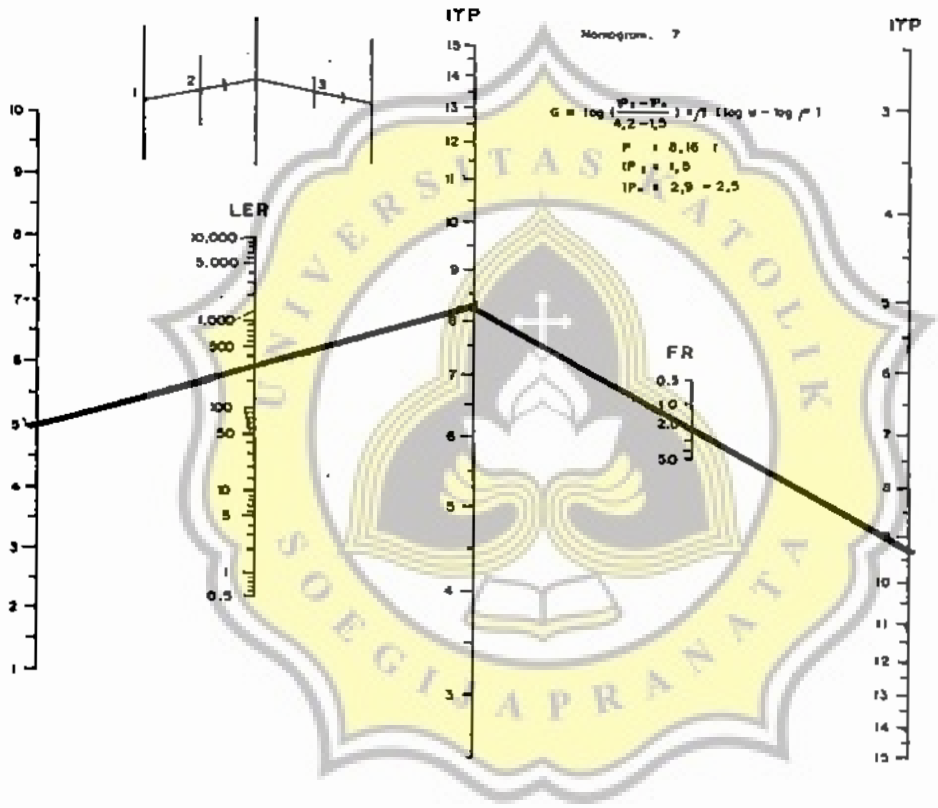


GRAFIK I. PELEBARAN PERKERASAN PADA TIKUNGAN



Gambar 1
KORELASI DDT DAN CBR

Catatan : Hubungan nilai CBR dengan garis mendatar kesebelah kiri diperoleh nilai DDT.



Nomogram untuk $IP_t = 1.5$ dan $IP_o = 2.9 - 2.5$ (25)
Gambar 5.9