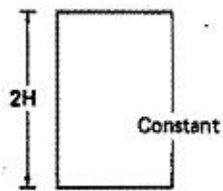
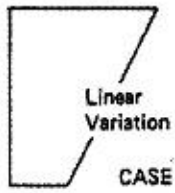
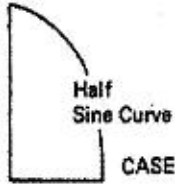
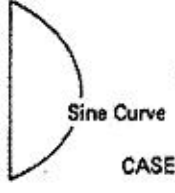
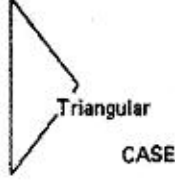


Lecture 15 보충자료 #1

<Perloff, William H, (1976), Soil mechanics : Principles and applications, Ronald Press>

TABLE 7.6
One-Dimensional Consolidation Theory:
Solutions for Four Cases of initial Excess Pore
Water Pressure Distribution in Double-Drained
Stratum.

Average Degree of Consolidation for Various Values of T	Average Degree of Consolidation, U (%)				Distributions of Initial Excess Pore Water Pressure
	Case 1	Case 2	Case 3	Case 4	
T					
0.004	7.14	6.49	0.98	0.80	
0.008	10.09	8.62	1.95	1.60	
0.012	12.36	10.49	2.92	2.40	
0.020	15.96	13.67	4.81	4.00	
0.028	18.88	16.38	6.67	5.60	
0.036	21.40	18.76	8.50	7.20	
0.048	24.72	21.96	11.17	9.60	
0.060	27.64	24.81	13.76	11.99	
0.072	30.28	27.43	16.28	14.36	
0.083	32.51	29.67	18.52	16.51	
0.100	35.68	32.88	21.87	19.77	
0.125	39.89	36.54	26.54	24.42	
0.150	43.70	41.12	30.93	28.86	
0.175	47.18	44.73	35.07	33.06	
0.200	50.41	48.09	38.95	37.04	
0.250	56.22	54.17	46.03	44.32	
0.300	61.32	59.50	52.30	50.78	
0.350	65.82	64.21	57.83	56.49	
0.400	69.79	68.36	62.73	61.54	
0.500	76.40	76.28	70.88	69.95	
0.600	81.56	80.69	77.25	76.52	
0.700	85.59	84.91	82.22	81.65	
0.800	88.74	88.21	86.11	85.66	
0.900	91.20	90.79	89.15	88.80	
1.000	93.13	92.80	91.52	91.25	
1.500	98.00	97.90	97.53	97.45	
2.000	99.42	99.39	99.28	99.26	

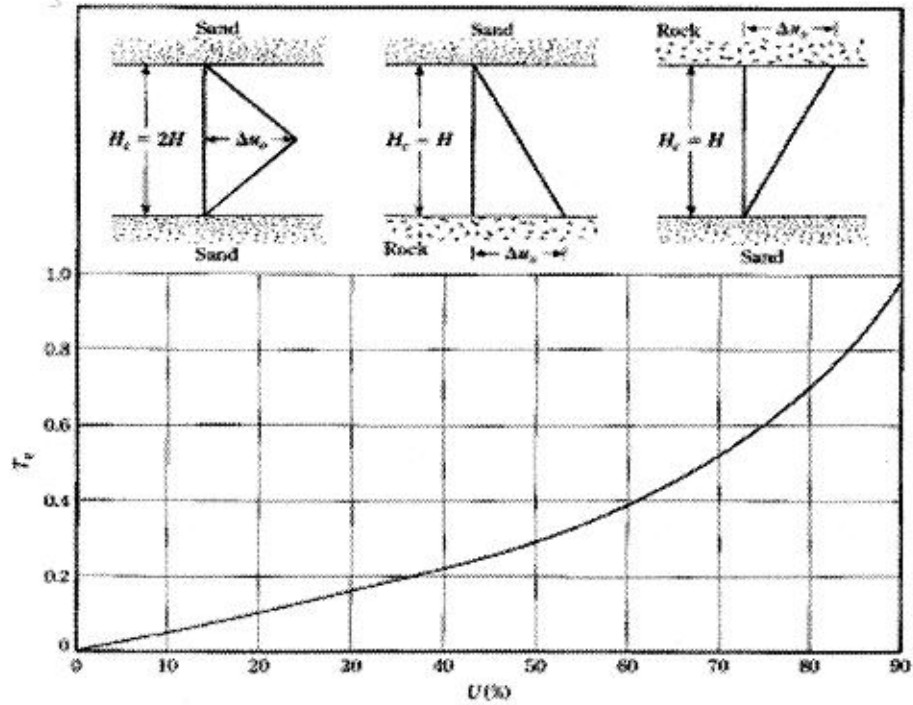
<Perloff, William H. (1976), Soil mechanics : Principles and applications, Ronald Press>

TABLE 7.7
One-Dimensional Consolidation Theory: Time
Factor for Various Average Degrees of
Consolidation Double-Drained Stratum

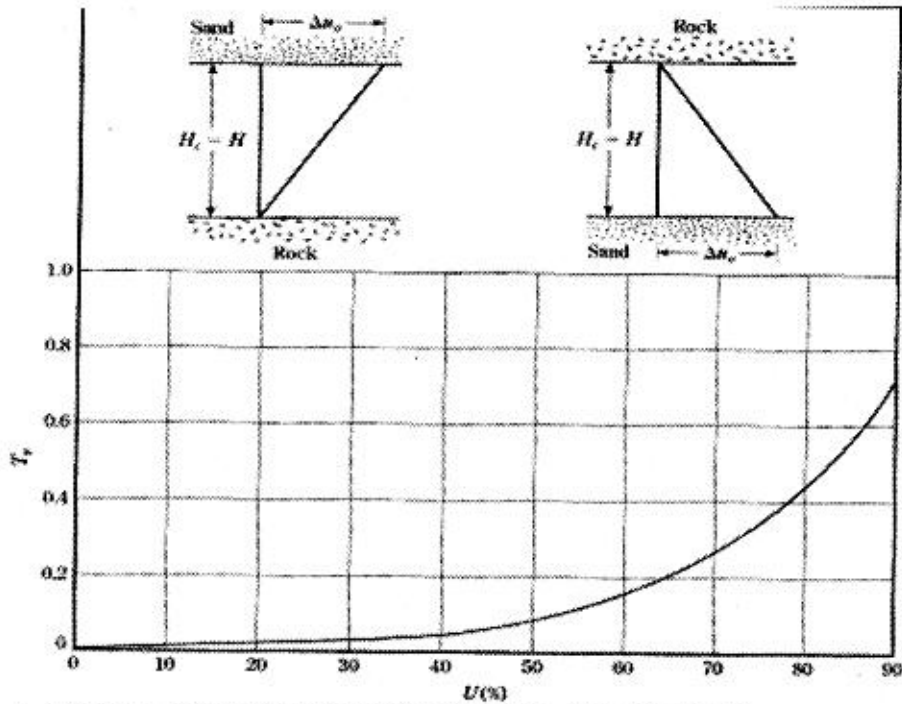
<i>U</i> (%)	Time Factor <i>T</i>			
	Case 1	Case 2	Case 3	Case 4
0	0	0	0	0
5	0.0020	0.0030	0.0208	0.0250
10	.0078	.0111	.0427	.0500
15	.0177	.0238	.0659	.0753
20	.0314	.0405	.0904	.101
25	.0491	.0608	.117	.128
30	.0707	.0847	.145	.157
35	.0962	.112	.175	.187
40	.126	.143	.207	.220
45	.159	.177	.242	.255
50	.197	.215	.281	.294
55	.239	.257	.324	.336
60	.286	.305	.371	.384
65	.342	.359	.425	.438
70	.403	.422	.488	.501
75	.477	.495	.562	.575
80	.567	.586	.652	.665
85	.684	.702	.769	.782
90	<u>0.848</u>	0.867	0.933	0.946
95	<u>1.129</u>	1.148	1.214	1.227
100	∞	∞	∞	∞

NOTE: See Table 7.6 for description of initial excess pore pressure distribution.

T_v 에 따른 U 의 변화 - 삼각형 초기과잉간극수압 분포



▲ 그림 1.30 7.에 따른 U 의 변화 - 삼각형 초기과잉간극수압 분포



▲ 그림 1.31 삼각형 형태의 초기 과잉 간극수압 분포도 - 7.에 따른 U 의 변화