

**PREDICTION OF DEFORMATIONS IN POST-
TENSIONED PRESTRESSED SUSPENDED SLABS
IN TALL BUILDINGS**

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B.E. Civil Engineering (Hons.)

A thesis submitted in fulfilment
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APPENDIX G

Detailed Outcomes of Data Analysis

MODULUS OF ELASTICITY DATA

$$E^* = m \cdot \sqrt{f_c}$$

$$m = 5850.6$$

Site and Lab cured

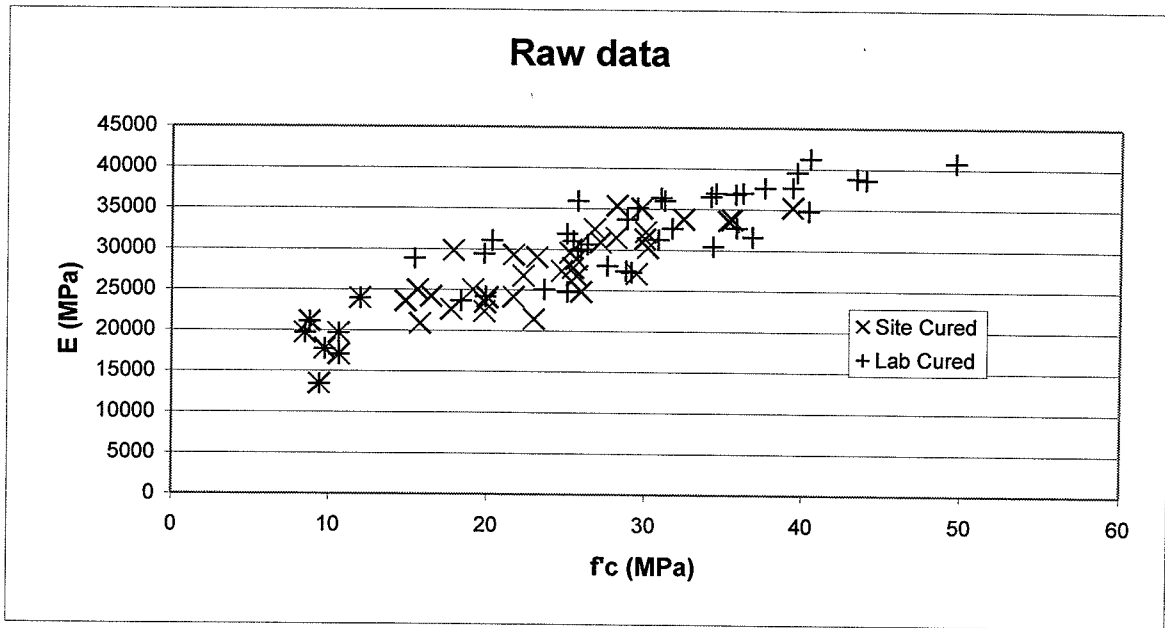
days	f _c (MPa)	E (MPa)	sqrt (f _c)	E - E*	(E-E*)/sqrt(f _c)
3	15.6	24974.33	3.949684	1866.315	472.523
7	23.11667	28995.33	4.807979	865.765	180.068
14	27.14667	30889.33	5.210246	406.266	77.974
28	30	32161	5.477226	115.944	21.168
56	35.275	33580.67	5.939276	-1167.662	-196.600
3	14.85	23582.7	3.85357	1037.005	269.102
7	20.02333	24040.67	4.474744	-2139.267	-478.076
28	25.67333	26700.33	5.066886	-2943.991	-581.026
3	16.45333	24194.33	4.056271	462.715	114.074
7	22.3	26694.33	4.722288	-933.882	-197.761
15	25.43	27694.5	5.042817	-1809.003	-358.729
29	28.1	31473	5.303772	442.750	83.478
1	9.74	17697	3.120897	-562.122	-180.115
3	15.77	20847	3.971146	-2386.586	-600.982
8	19.83	22357.33	4.453089	-3695.908	-829.965
14	21.67	24149.67	4.655105	-3085.489	-662.818
28	25.96	24811.67	5.095096	-4997.700	-980.884
1	8.495	19685	2.914618	2632.734	903.286
3	17.71	22592.67	4.208325	-2028.560	-482.035
14	29.44	27025	5.425864	-4719.560	-869.826
28	25.62	28789.33	5.06162	-824.182	-162.830
1	11.95	23948	3.456877	3723.194	1077.040
7	19.875	23435	4.458139	-2647.786	-593.922
14	22.96	21418.67	4.791659	-6615.416	-1380.611
1	10.64	17025.67	3.261901	-2058.410	-631.046
3	19.1	25013.67	4.370355	-555.530	-127.113
7	24.715	27301.33	4.971418	-1784.447	-358.941
14	30.14	30229.67	5.489991	-1890.074	-344.276
28	29.76	35038	5.455273	3121.382	572.177
1	9.41	13435.33	3.067572	-4511.805	-1470.807
3	17.855	29794.67	4.225518	5072.853	1200.528
7	29.96	31301.67	5.473573	-722.019	-131.910
14	35.485	33729.67	5.956929	-1121.941	-188.342
29	32.425	33783.67	5.694295	468.625	82.297
2	8.785	21086	2.96395	3745.114	1263.555
5	21.67	29266	4.655105	2030.844	436.262
7	25.24	29578	5.023943	184.921	36.808
14	28.17	35380	5.307542	4327.696	815.386
29	39.365	35225.67	6.274153	-1481.895	-236.190
1	10.61	19668	3.257299	610.844	187.531
17	26.76	32493.67	5.173007	2228.473	430.789
3	15.4	28819.33	3.924283	5859.921	1493.246

7	25.035	31928	5.003499	2654.530	530.535
14	31.19333	36037.33	5.585099	3361.152	601.807
28	37.58667	37684.33	6.130797	1815.495	296.127
3	19.78	29424	4.447471	3403.625	765.294
7	25.43333	31033	5.043147	1527.563	302.899
14	28.81667	33713.67	5.368116	2306.969	429.754
28	34.46	36983	5.870264	2638.433	449.457
3	19.88667	24185	4.459447	-1905.440	-427.282
7	27.58	27990.67	5.251666	-2734.733	-520.736
15	30.81333	31262	5.550976	-1214.540	-218.797
29	39.4	37722	6.274021	1015.216	161.813
1	9.74	17697	3.120897	-562.122	-180.115
3	18.32	23655	4.280187	-1386.662	-323.972
8	25.075	24788	5.007494	-4508.847	-900.420
14	29.09667	27212.33	5.394133	-4346.579	-805.798
28	34.29	30445	5.855766	-3814.747	-651.451
1	8.495	19685	2.914618	2632.734	903.286
3	23.59333	25071.67	4.857297	-3346.435	-688.950
14	36.81	31635.33	6.067125	-3860.985	-636.378
28	35.775	32720	5.981221	-2273.729	-380.145
1	11.95	23948	3.456877	3723.194	1077.040
7	25.7	29877.33	5.069517	217.619	42.927
14	28.755	27373.67	5.362369	-3999.409	-745.829
1	10.64	17025.67	3.261901	-2058.410	-631.046
3	25.915	30013.33	5.090678	229.814	45.144
7	31.69	32650	5.629387	-285.293	-50.679
14	40.375	34819	6.354133	-2356.488	-370.859
28	44.01	38625.67	6.634003	-187.233	-28.223
1	9.41	13435.33	3.067572	-4511.809	-1470.808
3	20.27	31083	4.502222	4742.302	1053.325
7	35.715	36842.33	5.976203	1877.961	314.240
14	43.42	38831	6.589385	279.142	42.362
7	29.475	35144.33	5.429088	3380.909	622.740
15	39.62	39569.67	6.294442	2743.404	435.846
29	40.455	41263.33	6.360425	4051.034	636.912
2	8.785	21086	2.96395	3745.114	1263.555
5	25.7	35957.67	5.069517	6297.952	1242.318
7	30.98	36379.33	5.565968	3815.081	685.430
14	36.185	37016	6.015397	1822.319	302.942
29	49.64	40770.67	7.045566	-450.122	-63.887
1	10.61	19668	3.257299	610.844	187.531
4	26.31	30655	5.129327	645.357	125.817
17	34.14	36542	5.842944	2357.269	403.439

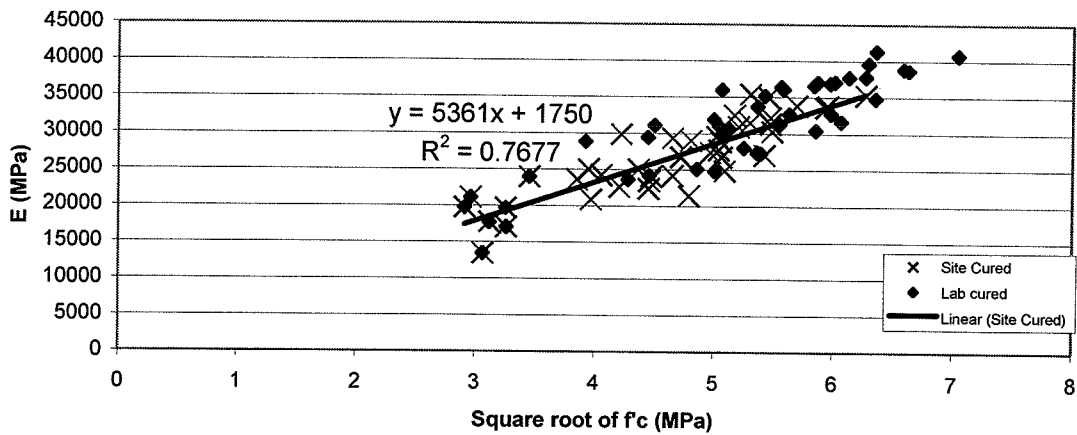
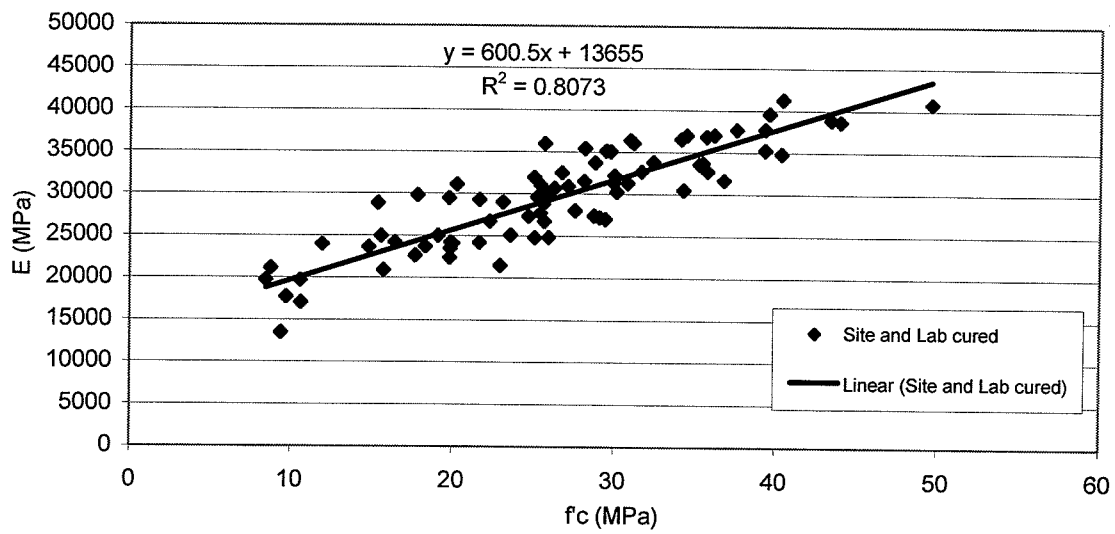
mean	25.05178	28698.3	4.899938	30.724425	17.64295578
stdev	9.745238	6513.113	1.027036	2846.8238	647.0463228
median	25.67333	29424	5.066886	184.92099	36.80794121
mode	9.74	17697	3.120897	-562.1218	-180.1154374
min	8.495	13435.33	2.914618	-6615.416	-1470.807593
max	49.64	41263.33	7.045566	6297.952	1493.246146

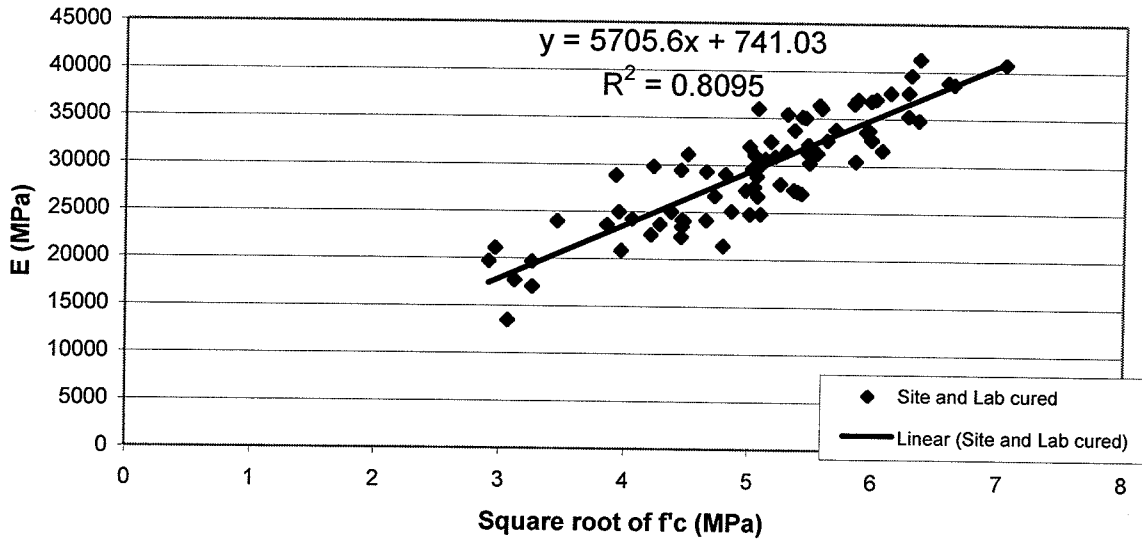
DATA ANALYSIS OF MODULUS OF ELASTICITY

Graph produced from AVERAGE values at each day, both lab and site cured.

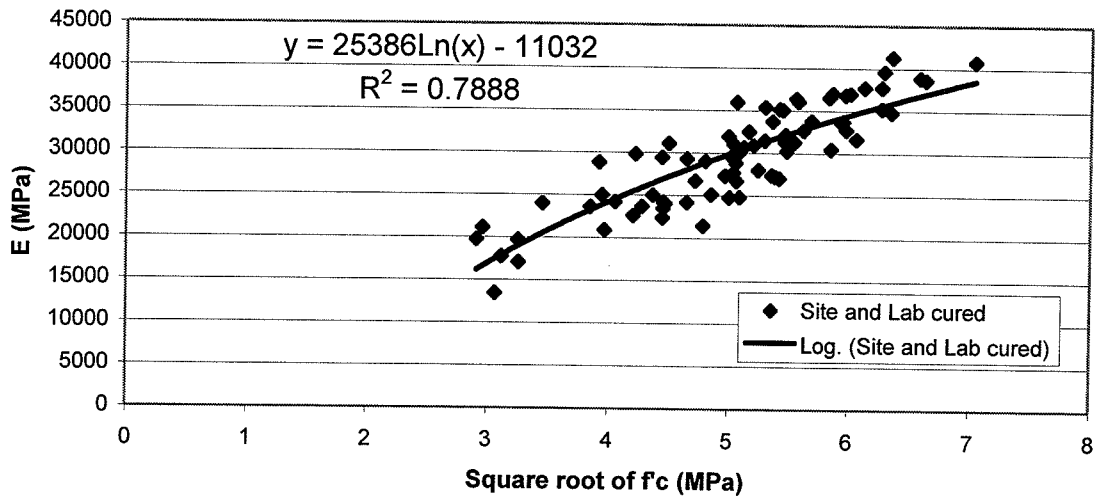


Linear relationship

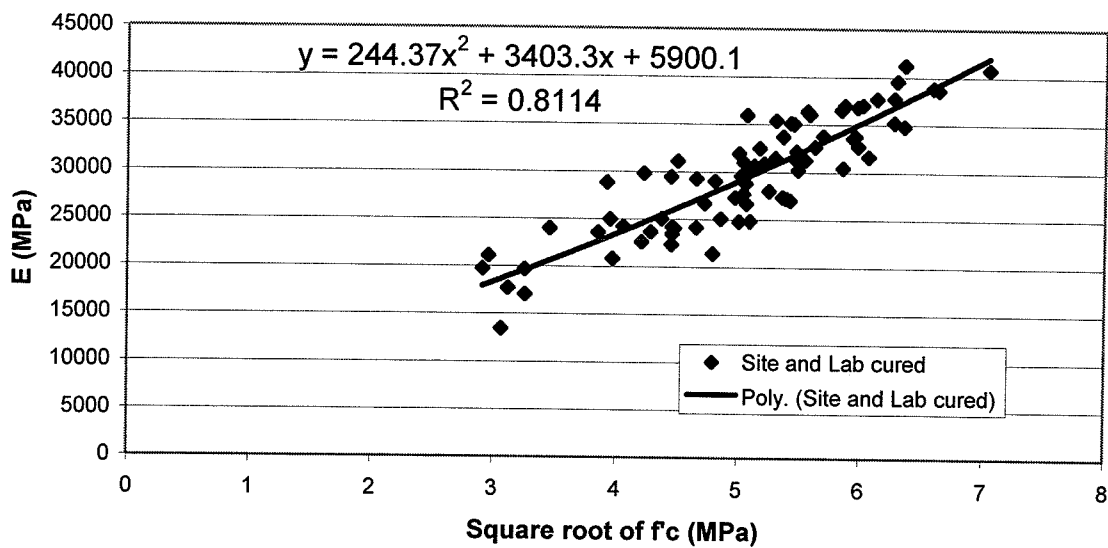




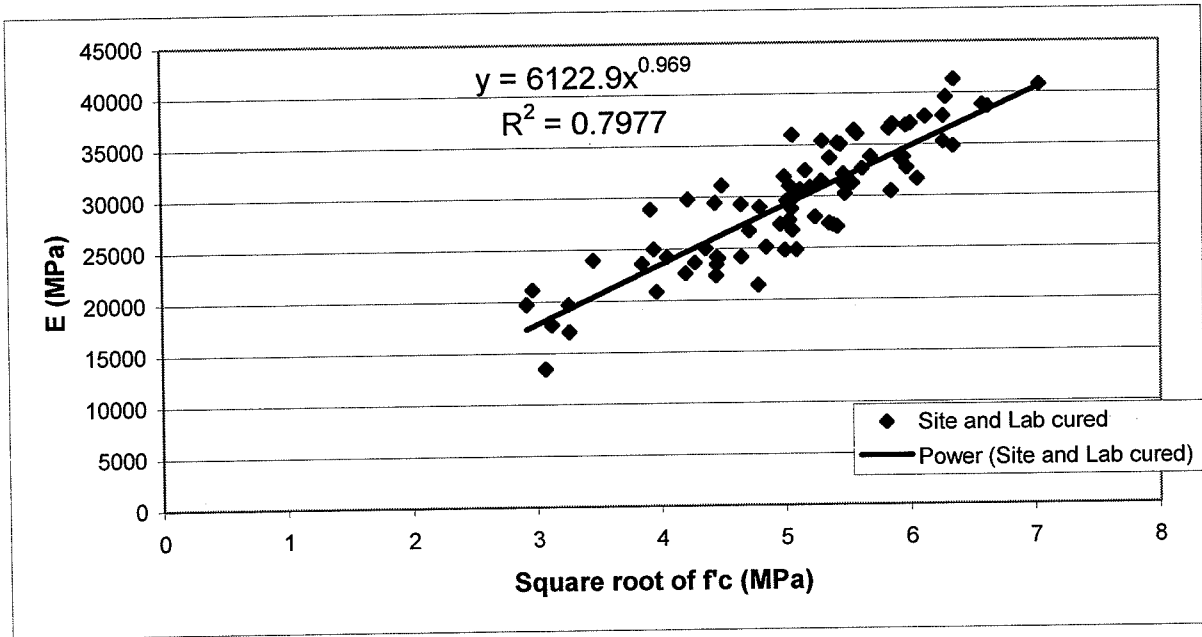
Logarithmic



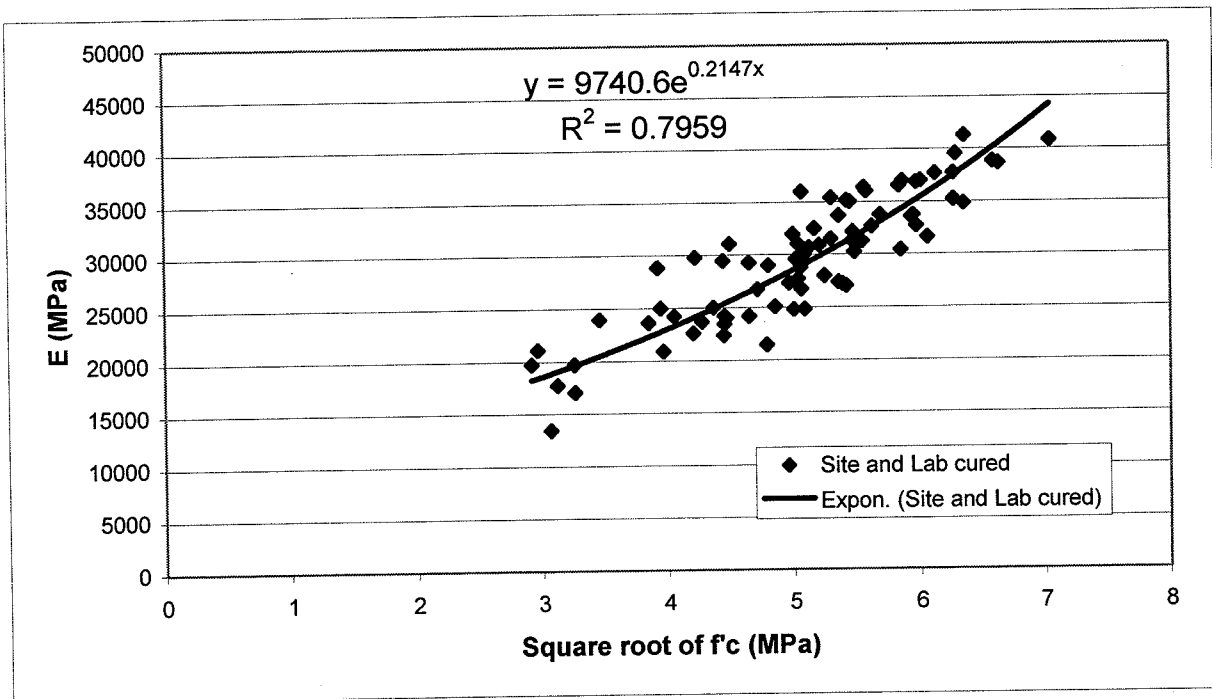
Polynomial



Power

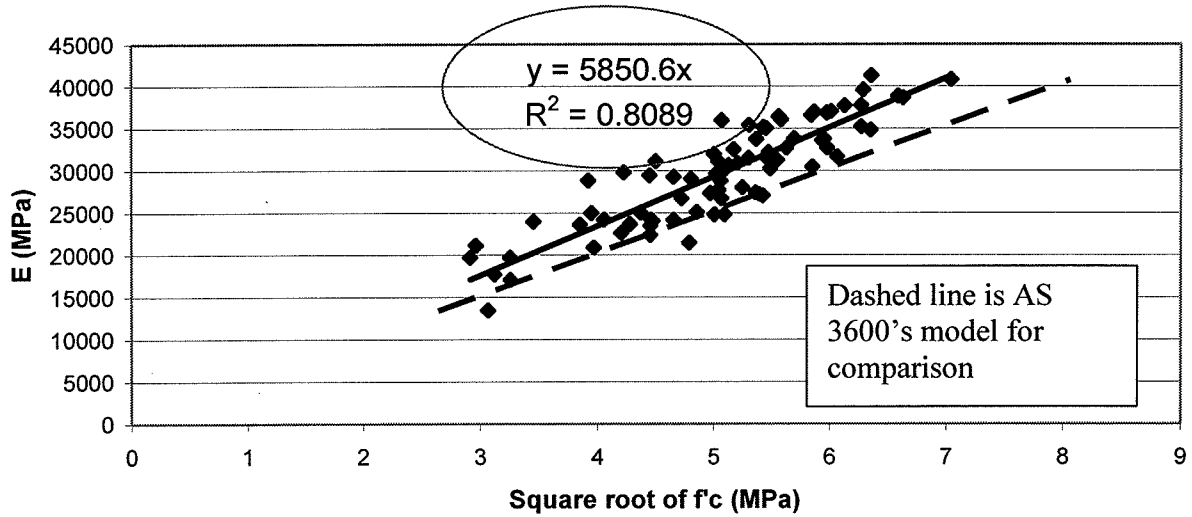


Exponential

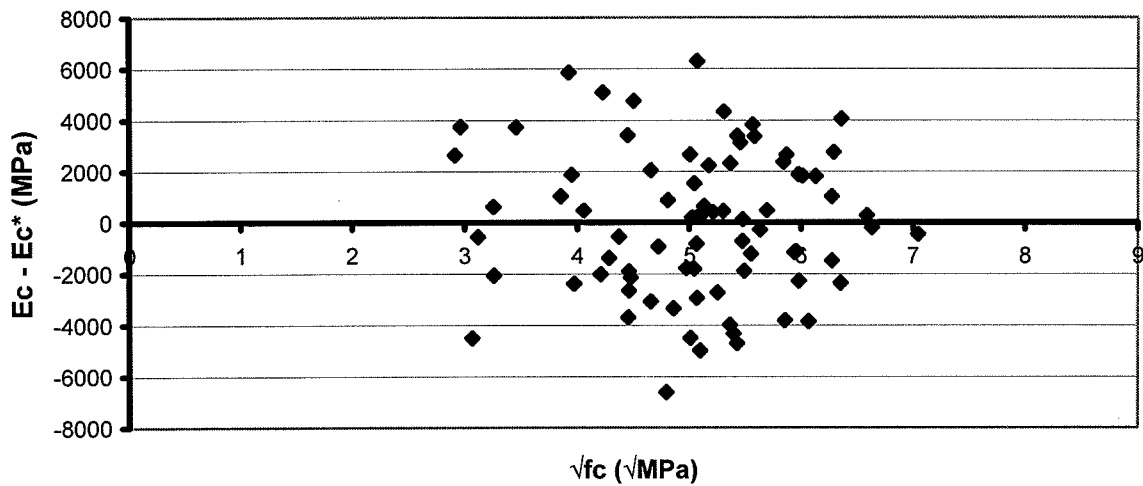


So from the above graphs the most logical relationship to use between E and f'c is:
 $E=5700\sqrt{f'c}$ which has an R^2 of 0.8095

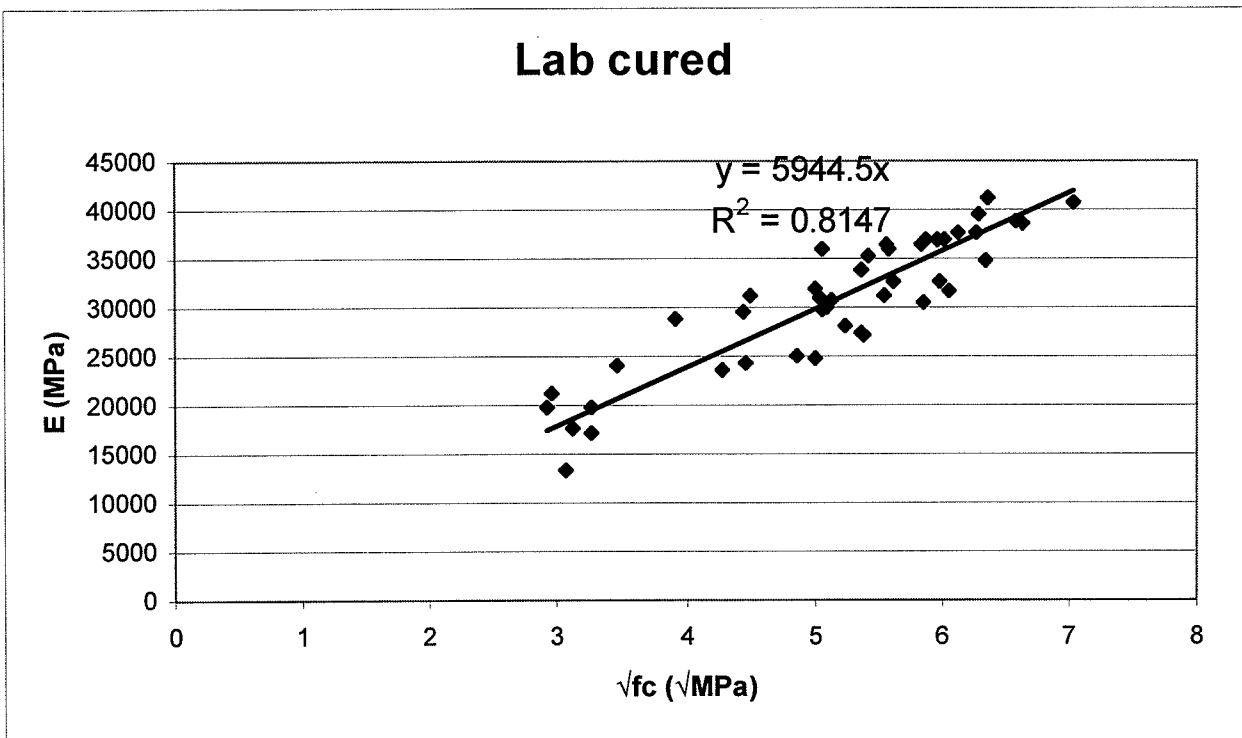
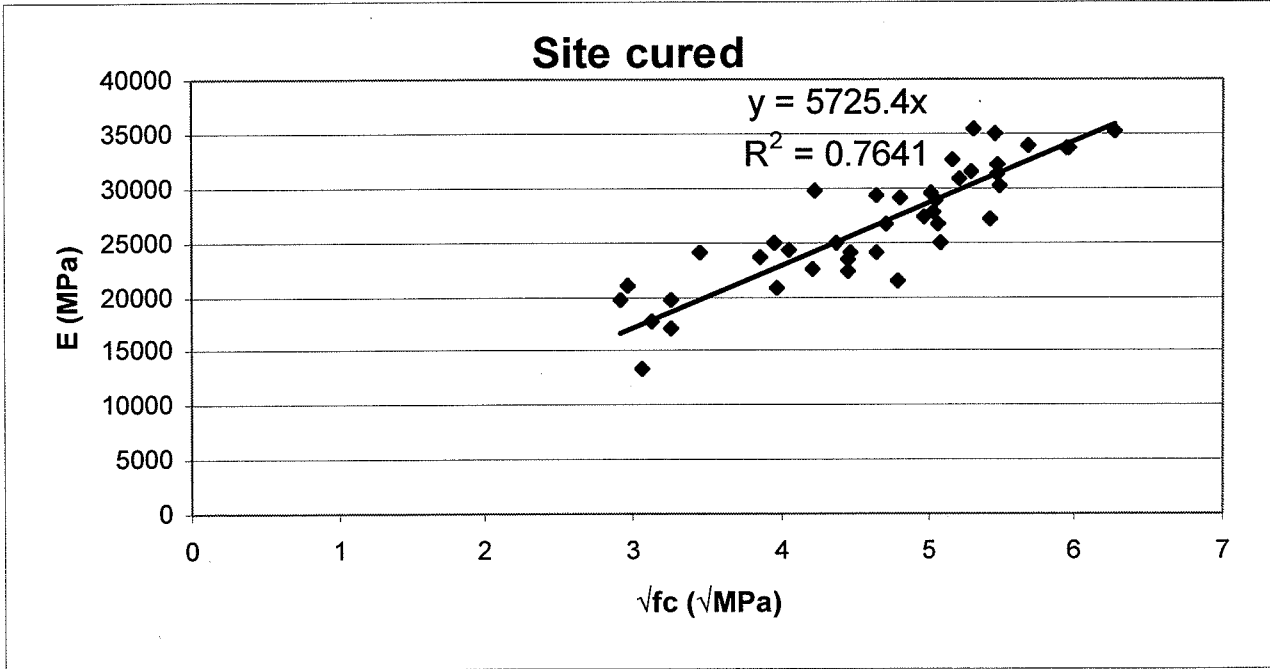
if we set the trendline to go through the origin we get the following:



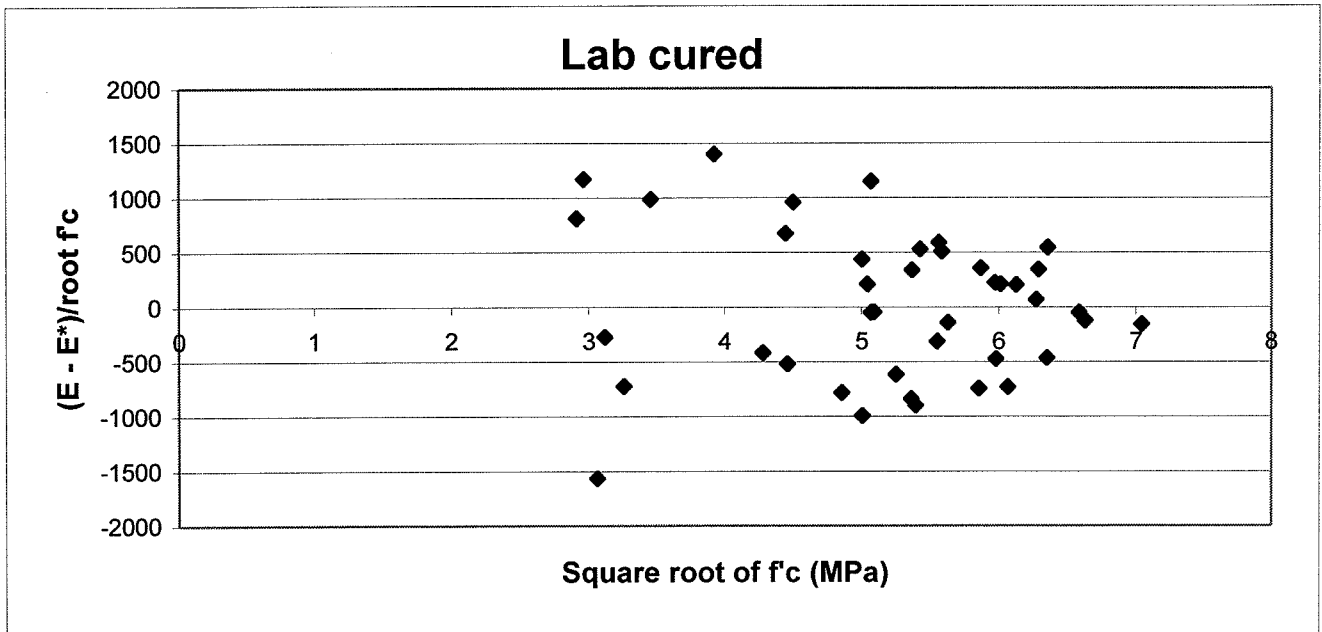
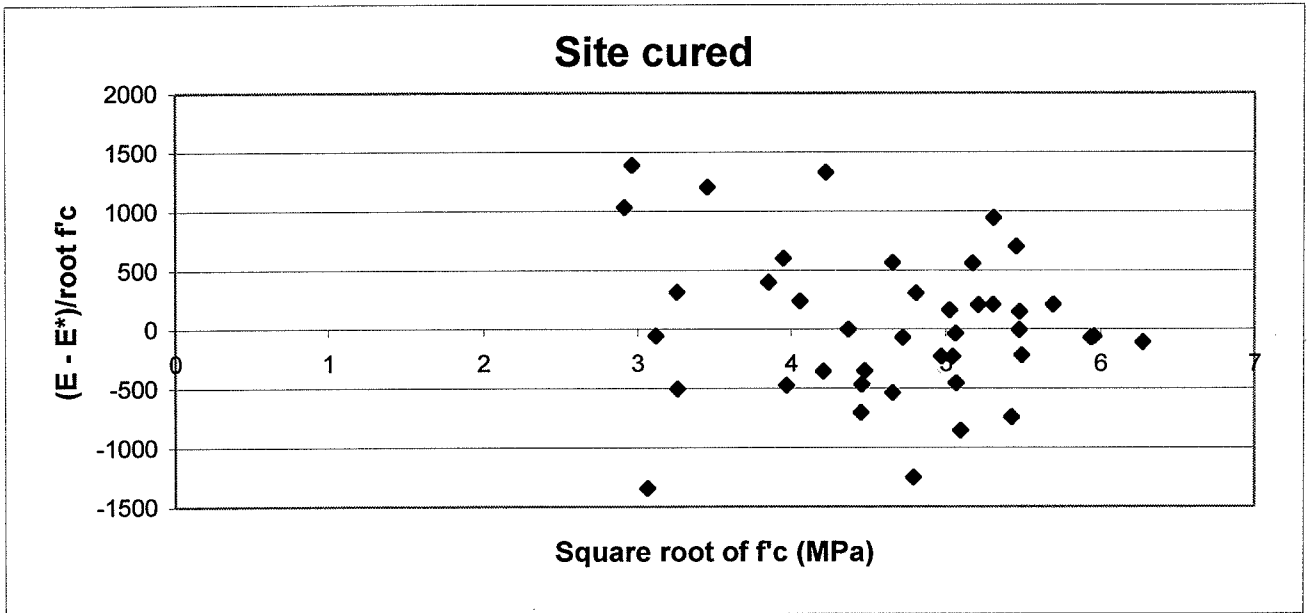
so now the relationship becomes:
 $E=5850.6\sqrt{f'c}$ which has an R^2 of .8089



Performing the previous analysis on the separate curing conditions we obtain the following.

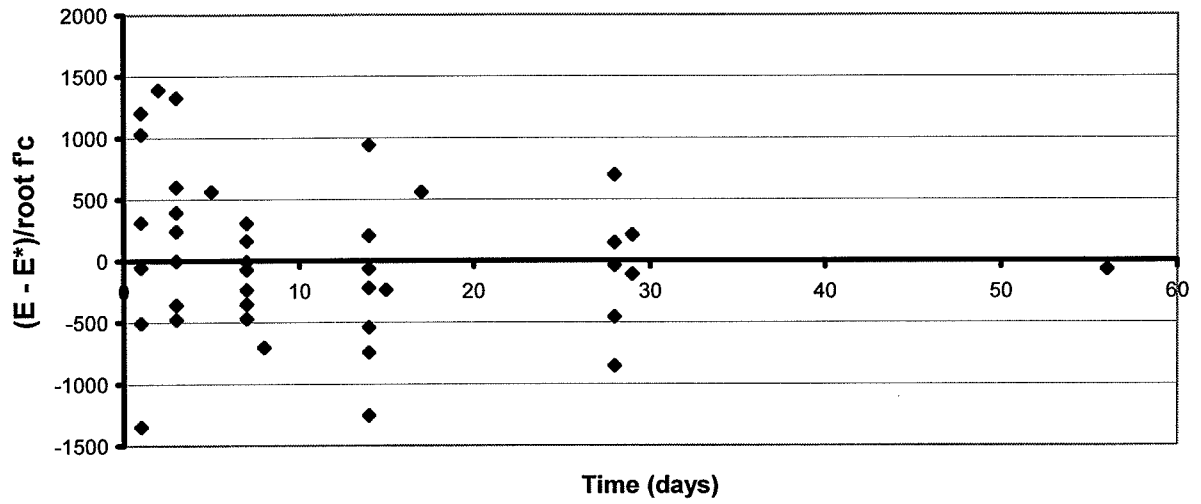


With the corresponding scatter with respect to root f_c -

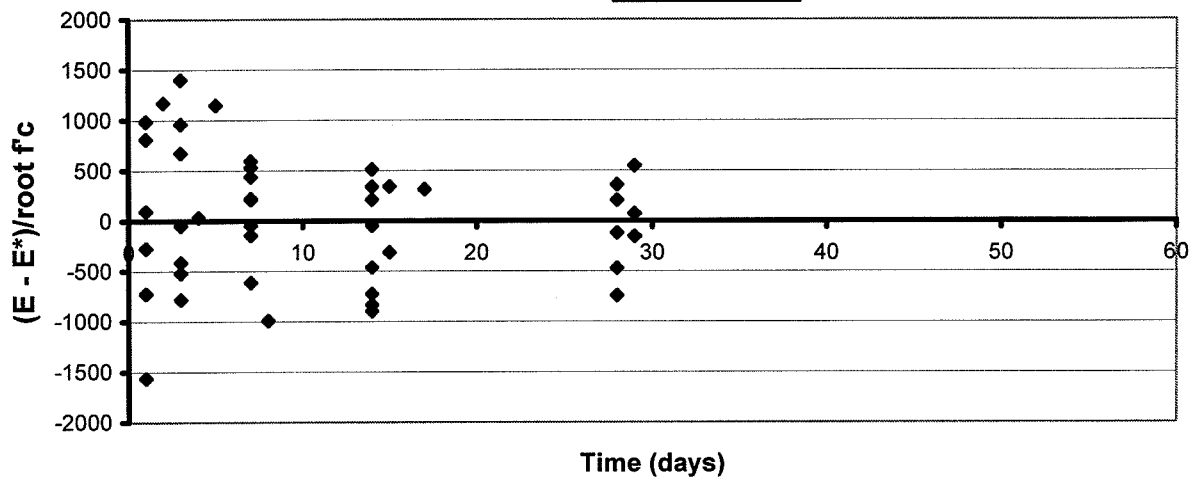


And the following scatter with respect to time

Site Cured

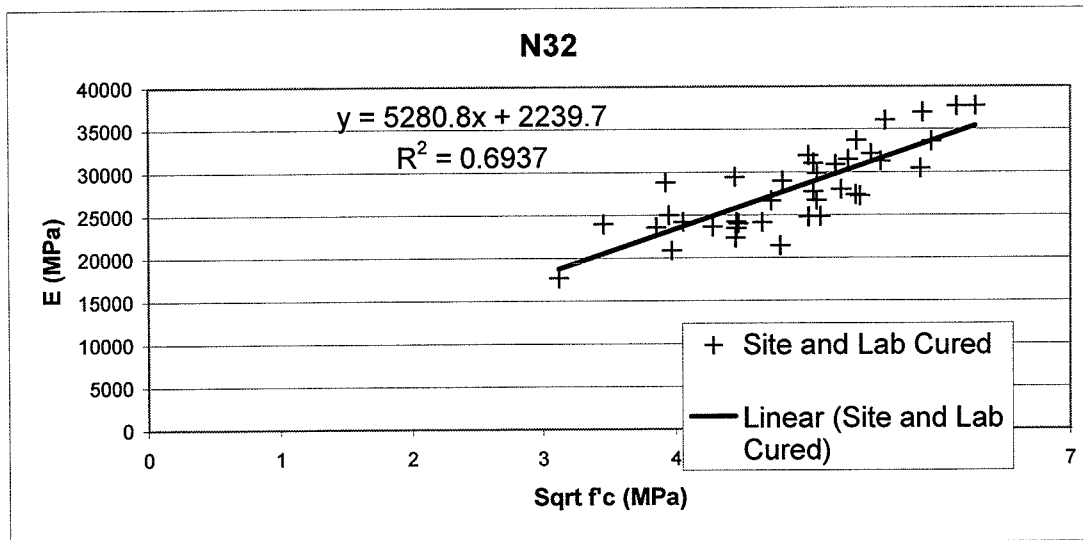
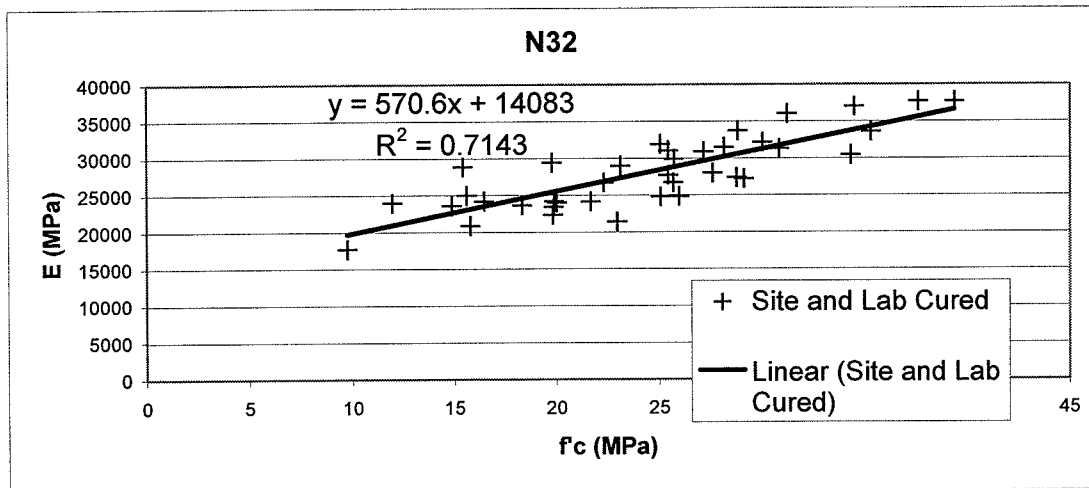
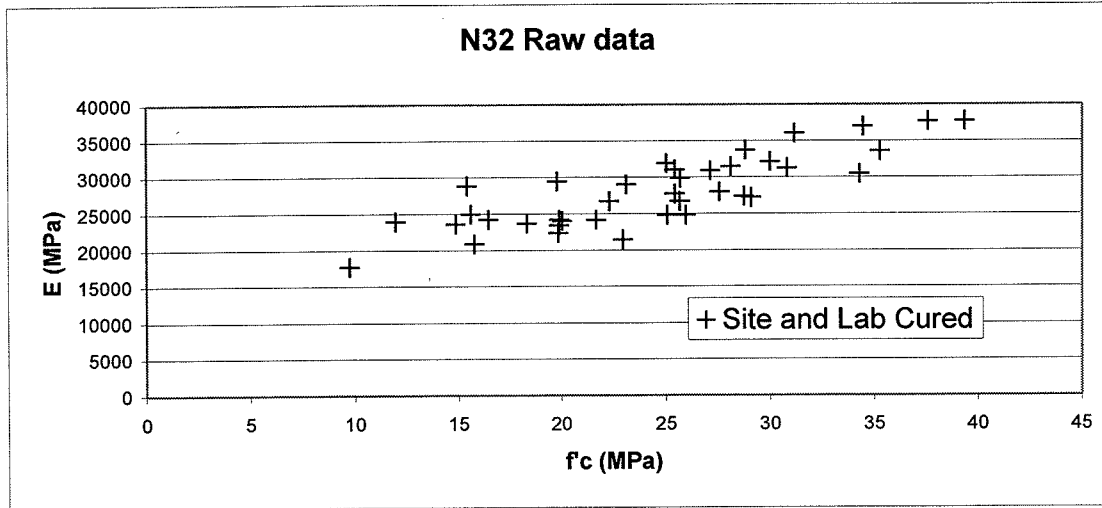


Lab Cured

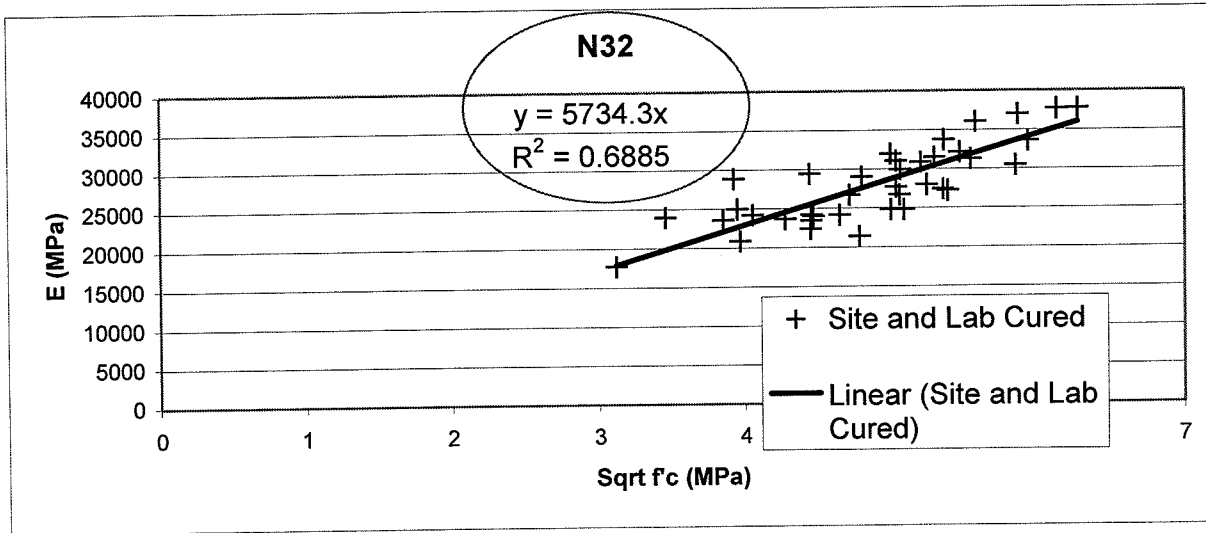


Performing the same analysis on the separate concrete mixes we obtain the following.

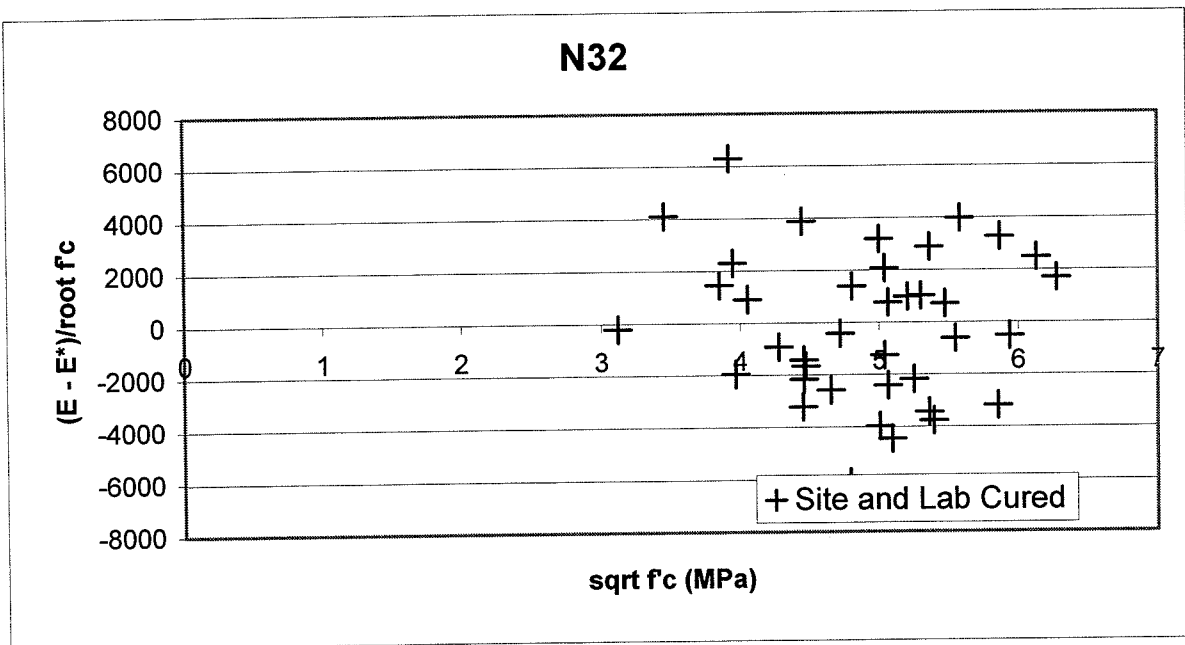
N32 DATA



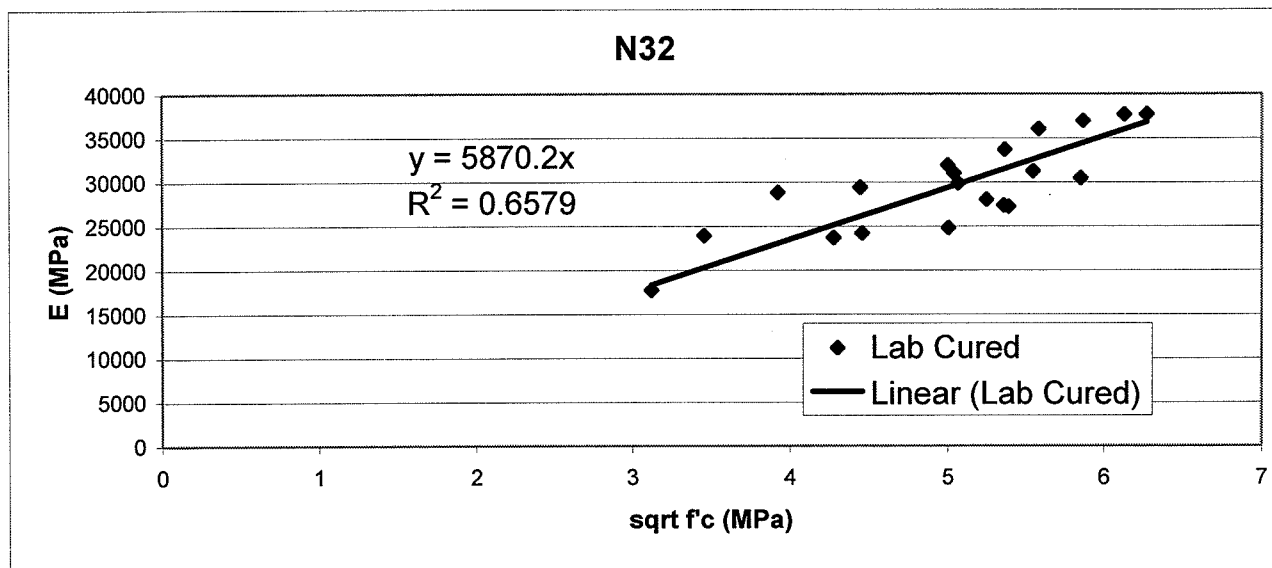
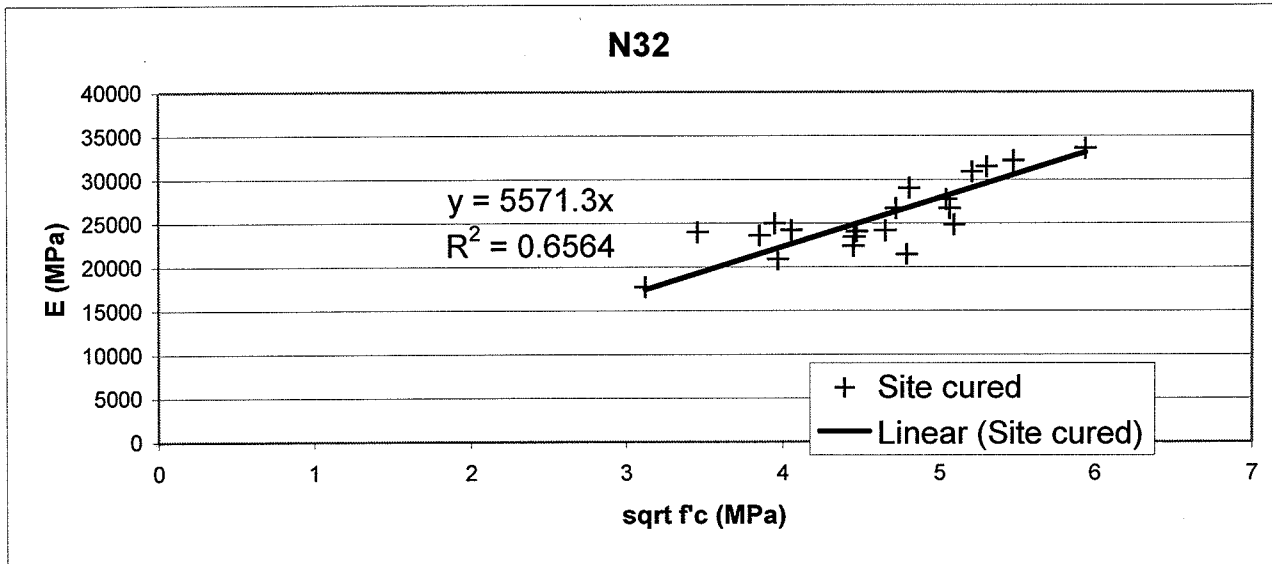
Model applied to N32 data.



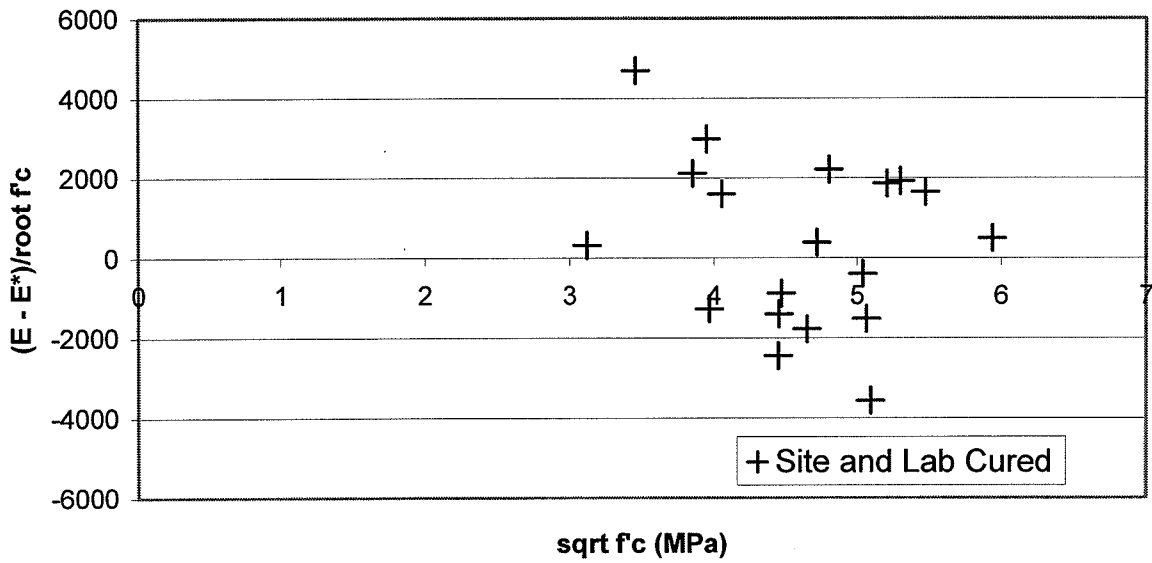
Corresponding Scatter



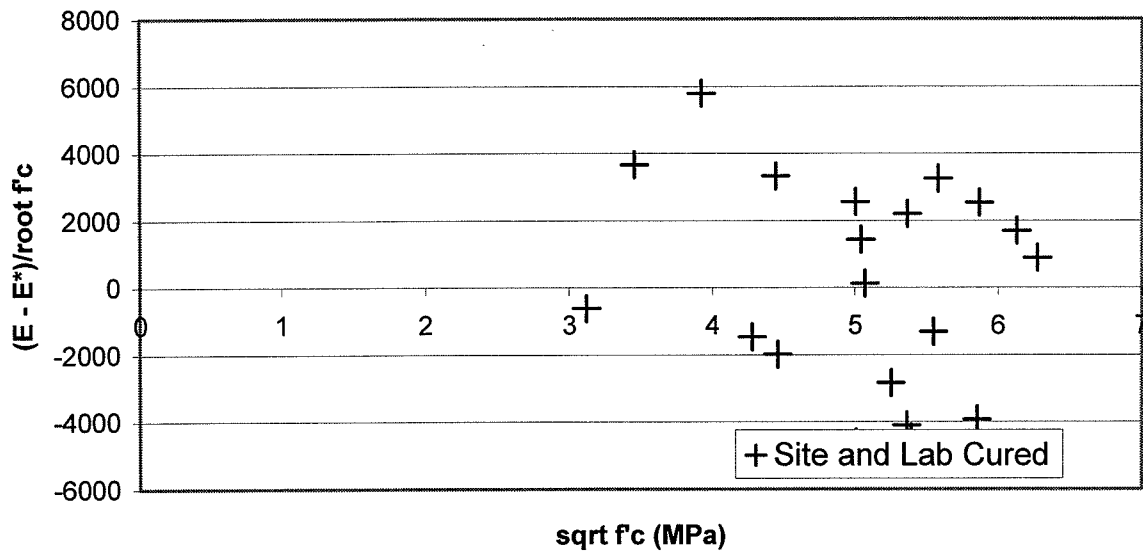
Separating site and lab cured we get:



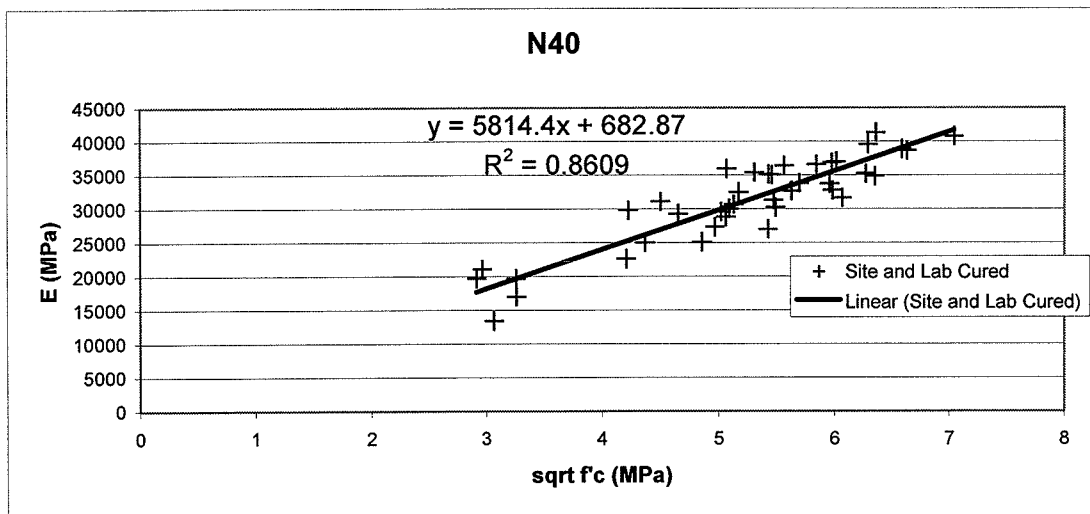
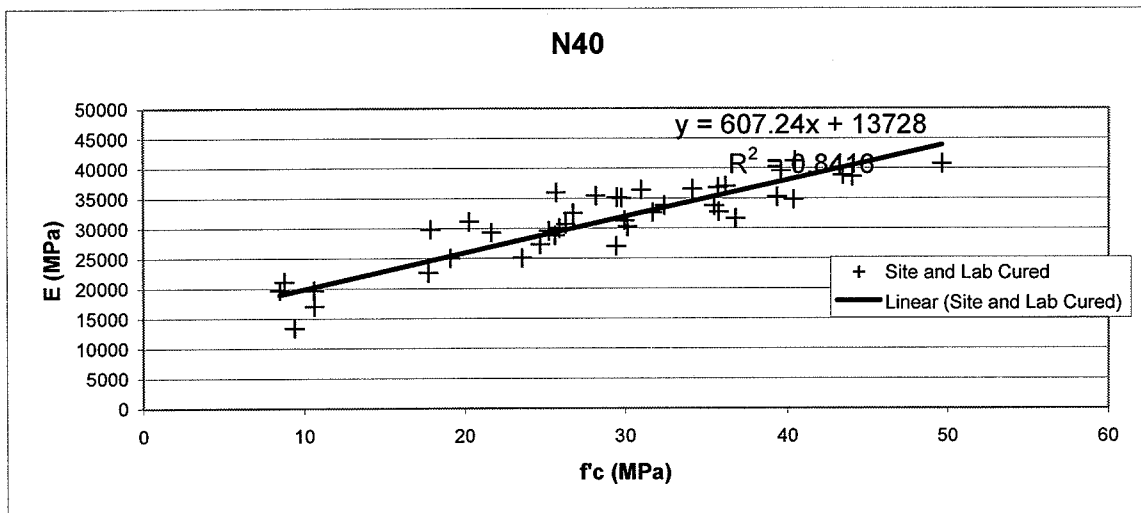
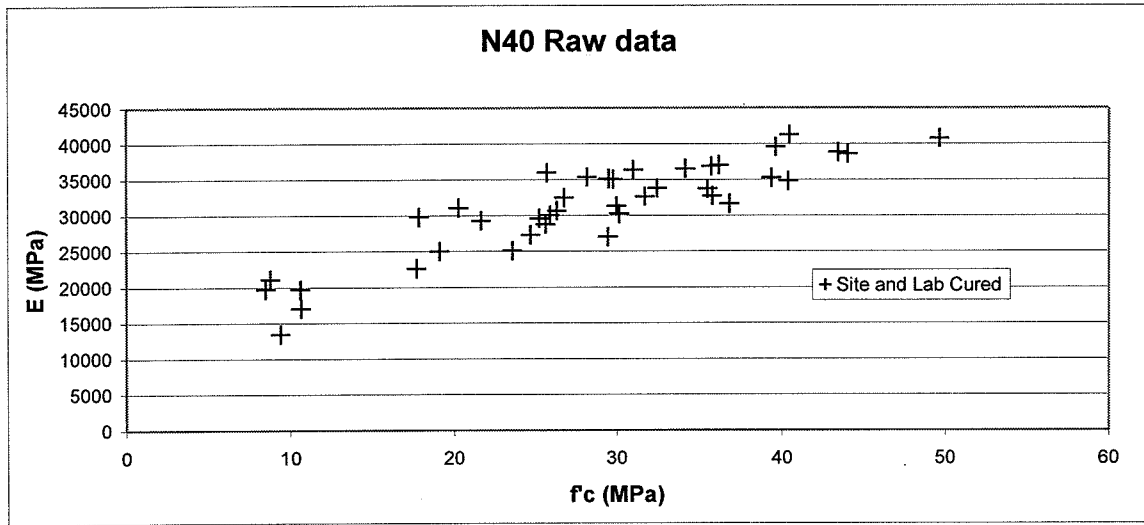
N32



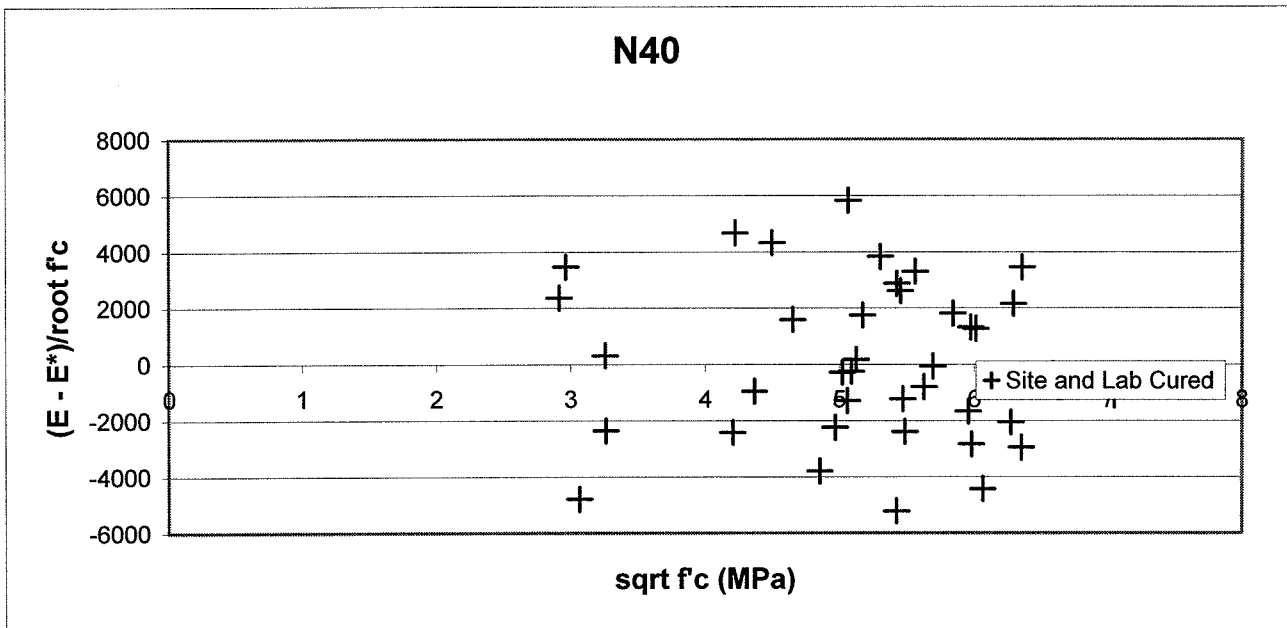
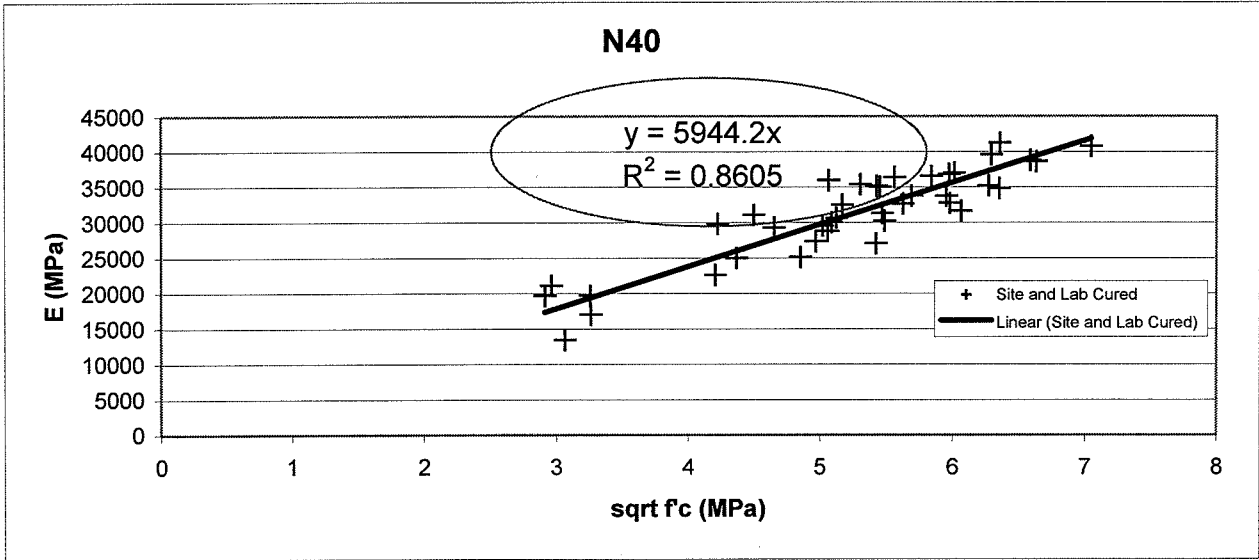
N32



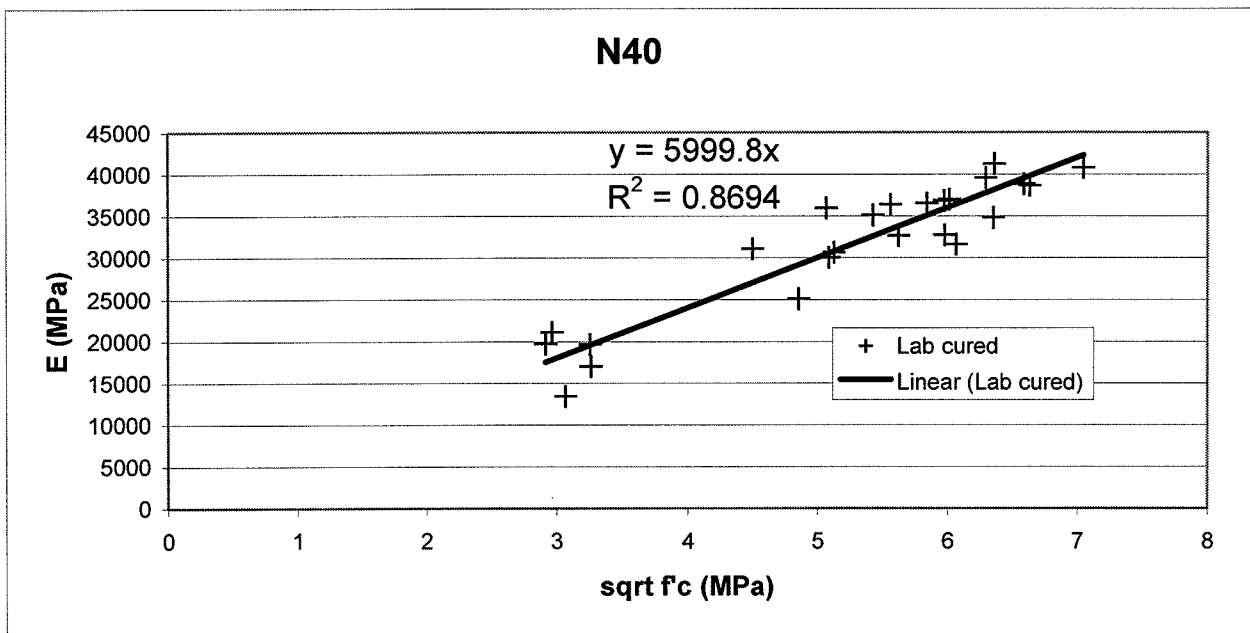
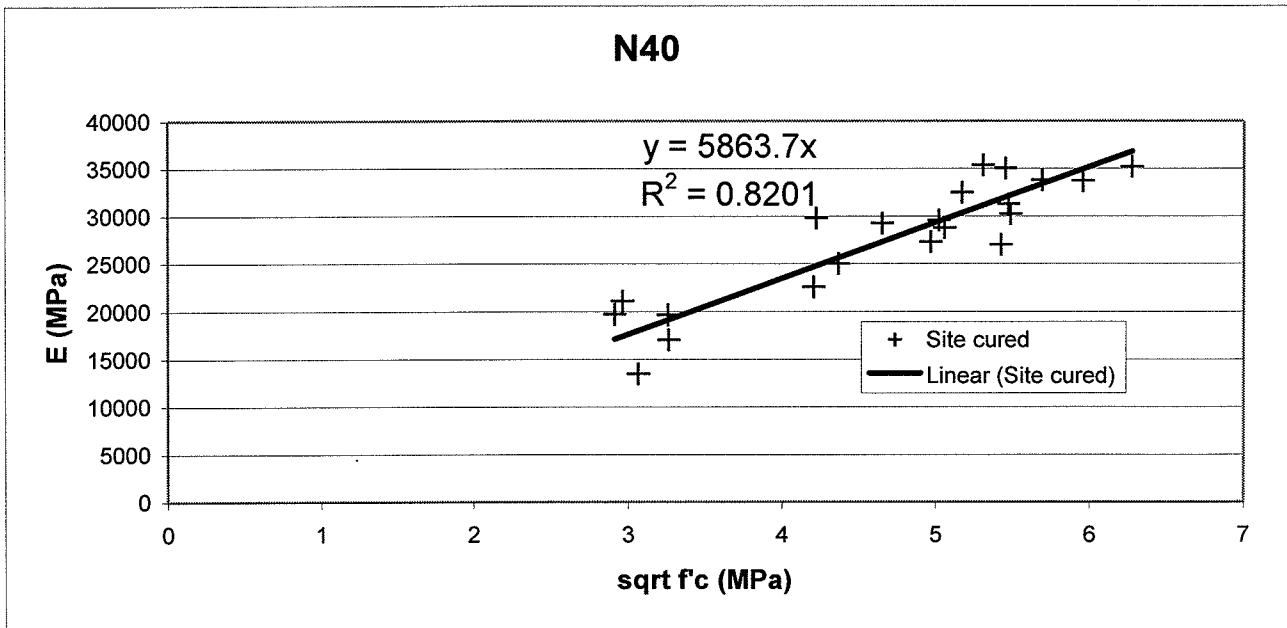
N40 DATA



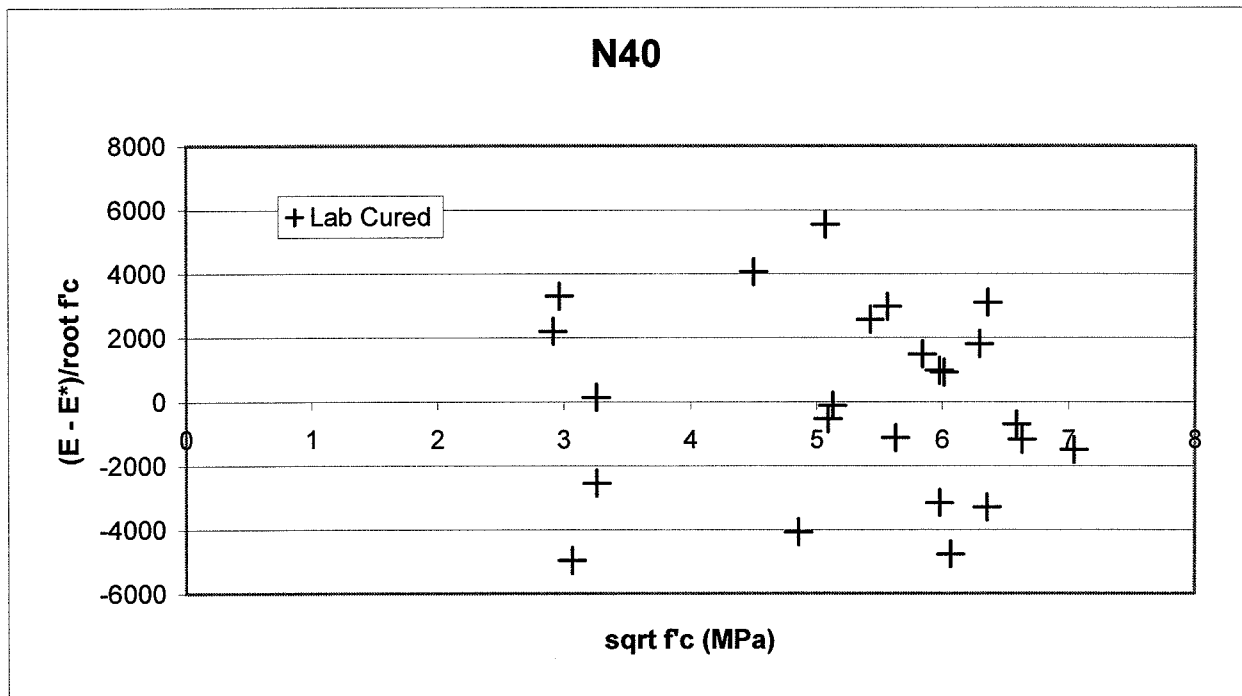
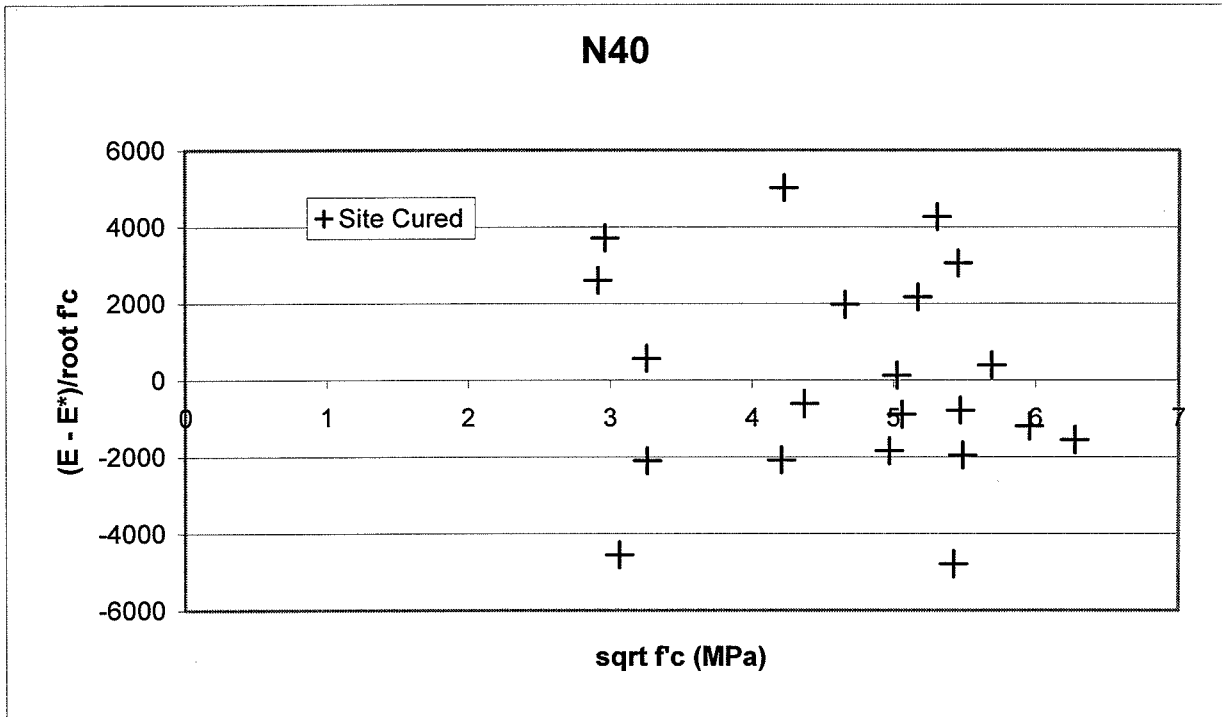
Model applied to N40 data.



Separating site and lab cured we obtain-



Which contains the following scatter with respect to root f_c .



In summary we have determined the following:

Both N32 and N40			
	Site Cured	Lab cured	Both
Linear equation	5725.4sqrt(fc)	5944.5sqrt(fc)	5850.6sqrt(fc)
Standard deviation	2629.5	2968.5	2846.824

N40			
	Site Cured	Lab cured	Both
Linear equation	5863.7sqrt(fc)	5999.8sqrt(fc)	5944.2sqrt(fc)
Standard deviation	2714.8	2893.1	2801.3

N32			
	Site Cured	Lab cured	Both
Linear equation	5571.3sqrt(fc)	5870.2sqrt(fc)	5734.3sqrt(fc)
Standard deviation	2402.2	3089.0	2830.2

Hence although there is minimal change in the relationship (i.e. 5725.4sqrt(fc) vs 5944.5sqrt(fc)) there is not enough to justify utilising different equations for different scenarios. The following equation is suffice for all ages, temperatures, curing locations and mixes:

$E=5850.6\sqrt{fc}$

TENSILE STRENGTH DATA

linear equation format $f't^* = n \cdot \sqrt{f'c} + y$
 power equation format $f't^* = a \cdot \sqrt{f'c}^b$

a = 0.2351
 b = 1.5316
 n = 0.8454
 y = -1.4146

Site and Lab cured						
	linear			power		
	f'c	f't	root f'c	f't - f't*	f't - f't*	f't - f't*/root f'c
	25.96	3	5.095096	0.107206	0.153395	0.030106465
	19.9	2.13	4.460942	-0.22668	-0.192279	-0.043102688
	22.96	2.65	4.791659	0.013731	0.058896	0.012291292
	35.09	3.205	5.923681	-0.38828	-0.380536	-0.064239734
	25.62	3.44	5.06162	0.575506	0.62199	0.122883584
	17.855	2.13	4.225518	-0.027653	-0.007225	-0.001709943
	30	2.74	5.477226	-0.475847	-0.440036	-0.080339281
	32.913	3.85	5.736985	0.414553	0.436086	0.07601301
	24.715	2.55	4.971418	-0.238237	-0.19146	-0.038512091
	29.76	3.52	5.455273	0.322712	0.359464	0.065892971
	26.68	2.87	5.165269	-0.082118	-0.036871	-0.007138222
	32.425	3.1	5.694295	-0.299357	-0.275083	-0.04830861
	25.2	3.02	5.023943	0.187359	0.234054	0.046587765
	10.61	1.4	3.257299	0.060879	-0.034648	-0.010637147
	25.41	2.94	5.040833	0.09308	0.139696	0.027712852
	26.76	3.2	5.173007	0.24134	0.286457	0.05537526
	34.29	3.61	5.855766	0.074135	0.087233	0.014896982
	25.7	2.68	5.069517	-0.191169	-0.144746	-0.028552245
	28.755	2.62	5.362369	-0.498747	-0.458473	-0.085498195
	35.775	3.745	5.981221	0.103076	0.105984	0.017719524
	20.27	2.59	4.502222	0.198422	0.234727	0.052135844
	35.715	3.31	5.976203	-0.327682	-0.324341	-0.054272069
	44.5567	4.48	6.675081	0.251487	0.174831	0.026191573
	31.69	2.82	5.629387	-0.524484	-0.496339	-0.088169225
	44.01	4.26	6.634003	0.066214	-0.004659	-0.000702226
	29.475	3.08	5.429088	-0.095151	-0.057331	-0.010559993
	40.455	4.3	6.360425	0.337497	0.301732	0.04743891
	30.98	3.42	5.565968	0.129131	0.160712	0.028873992
	49.64	4.52	7.045566	-0.021721	-0.156496	-0.022212035
	10.61	1.4	3.257299	0.060879	-0.034648	-0.010637147
	29.935	3.24	5.471289	0.029173	0.065241	0.01192432
	34.14	3.66	5.842944	0.134975	0.14904	0.025507758
mean	29.3092	3.1088	5.3504	0.0001	0.0104	0.0021
stdev	8.6665	0.7593	0.8394	0.2701	0.2686	0.0495
median	29.6175	3.0900	5.4422	0.0609	0.0271	0.0056
min	10.6100	1.4000	3.2573	-0.5245	-0.4963	-0.0882
max	49.6400	4.5200	7.0456	0.5755	0.6220	0.1229

N32 DATA ANALYSIS

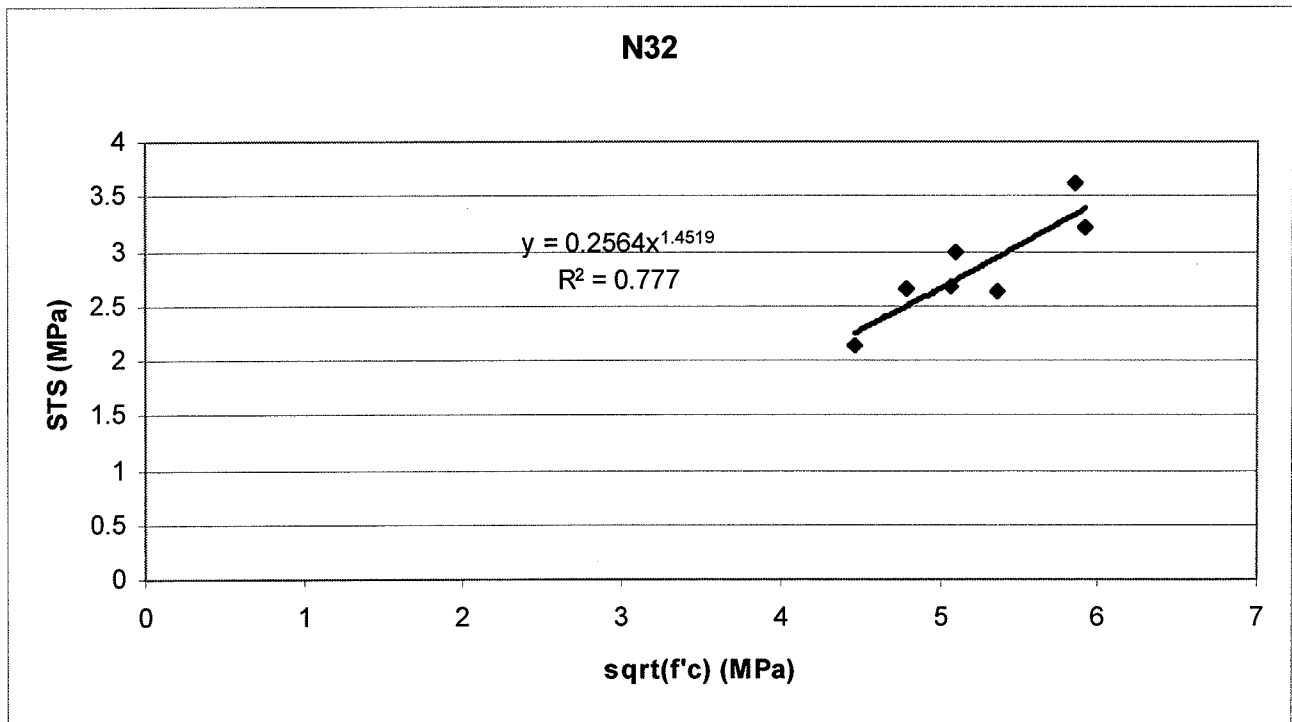
Power modelling

a = 0.2564

b = 1.4519

Site and Lab Cured				
Pour	f'c (MPa)	STS (MPa)	sqrt(f'c)	f't-f't*
2N28	25.96	3	5.095096	0.27333
3N7	19.9	2.13	4.460942	-0.118125
3N14	22.96	2.65	4.791659	0.15589
3N60	35.09	3.205	5.923681	-0.188469
2N28	34.29	3.61	5.855766	0.272872
3N7	25.7	2.68	5.069517	-0.026817
3N14	28.755	2.62	5.362369	-0.316777

stdev 0.232245



Linear Modelling

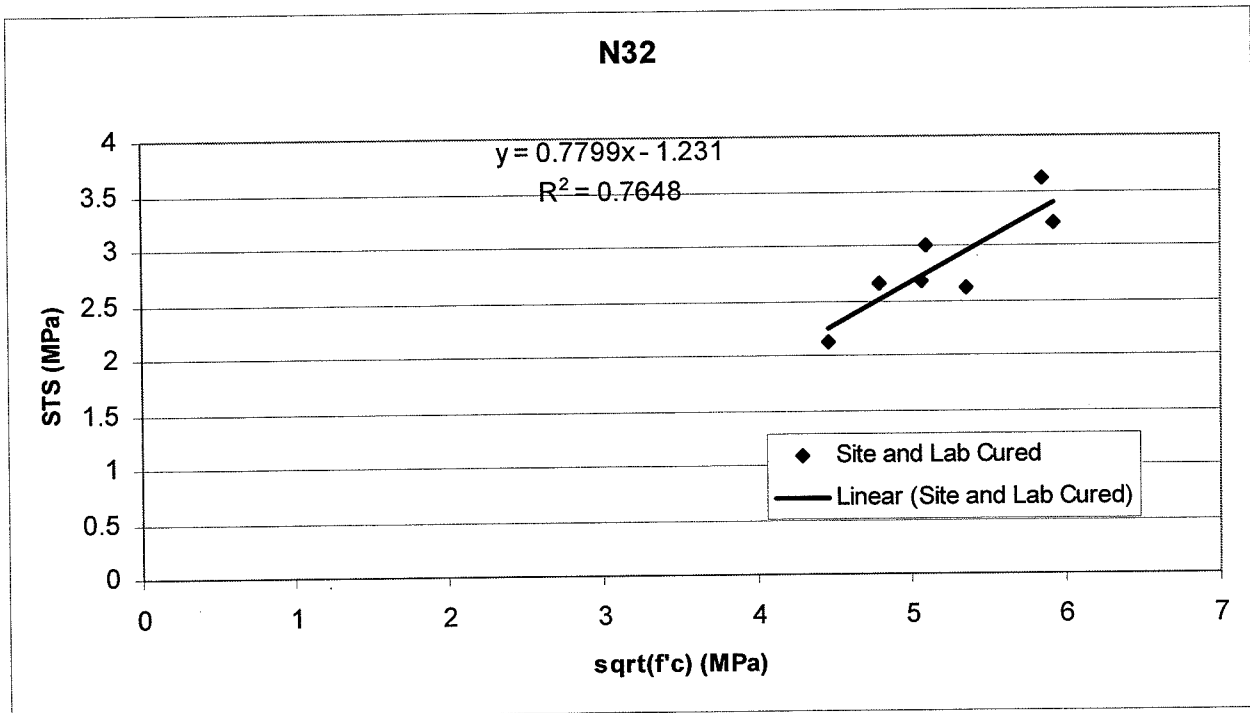
$$y = mx + c$$

$$m = 0.7799$$

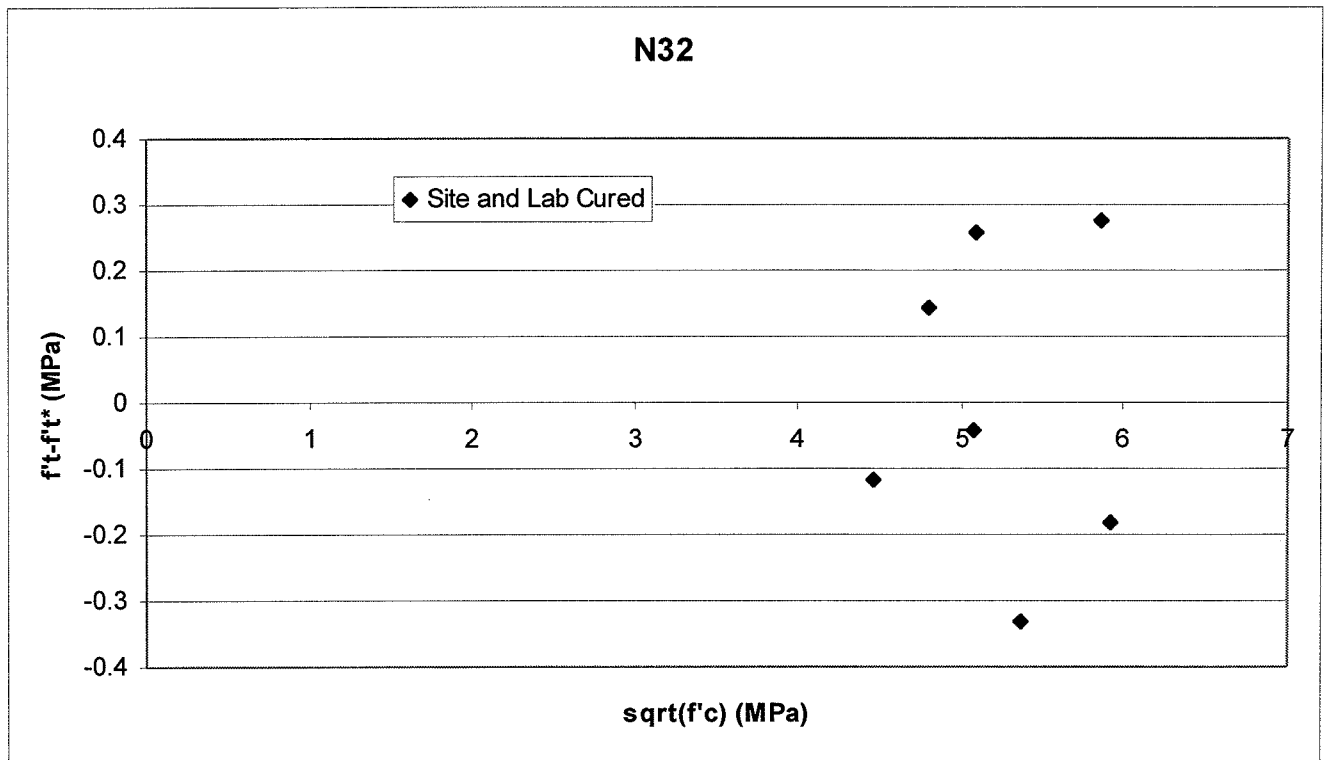
$$y = -1.231$$

Site and Lab Cured				
Pour	f _c (MPa)	STS (MPa)	sqrt(f _c)	f _t -f _t *
2N28	25.96	3	5.095096	0.257335
3N7	19.9	2.13	4.460942	-0.118088
3N14	22.96	2.65	4.791659	0.143985
3N60	35.09	3.205	5.923681	-0.183879
2N28	34.29	3.61	5.855766	0.274088
3N7	25.7	2.68	5.069517	-0.042716
3N14	28.755	2.62	5.362369	-0.331111

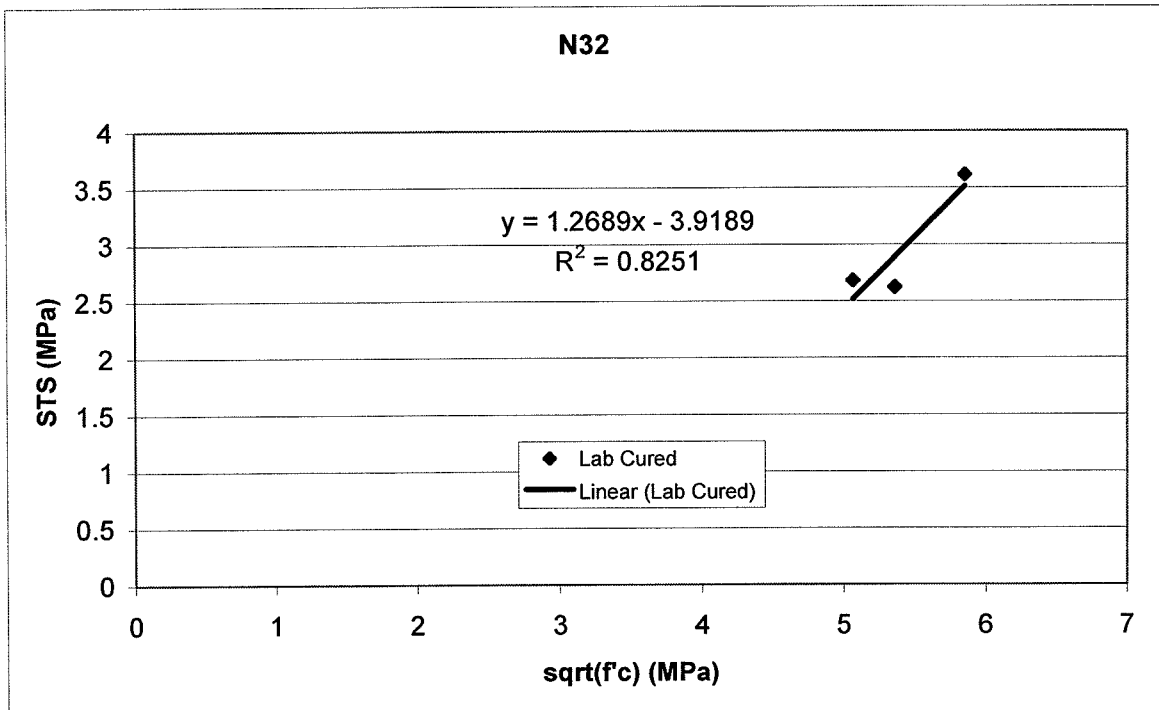
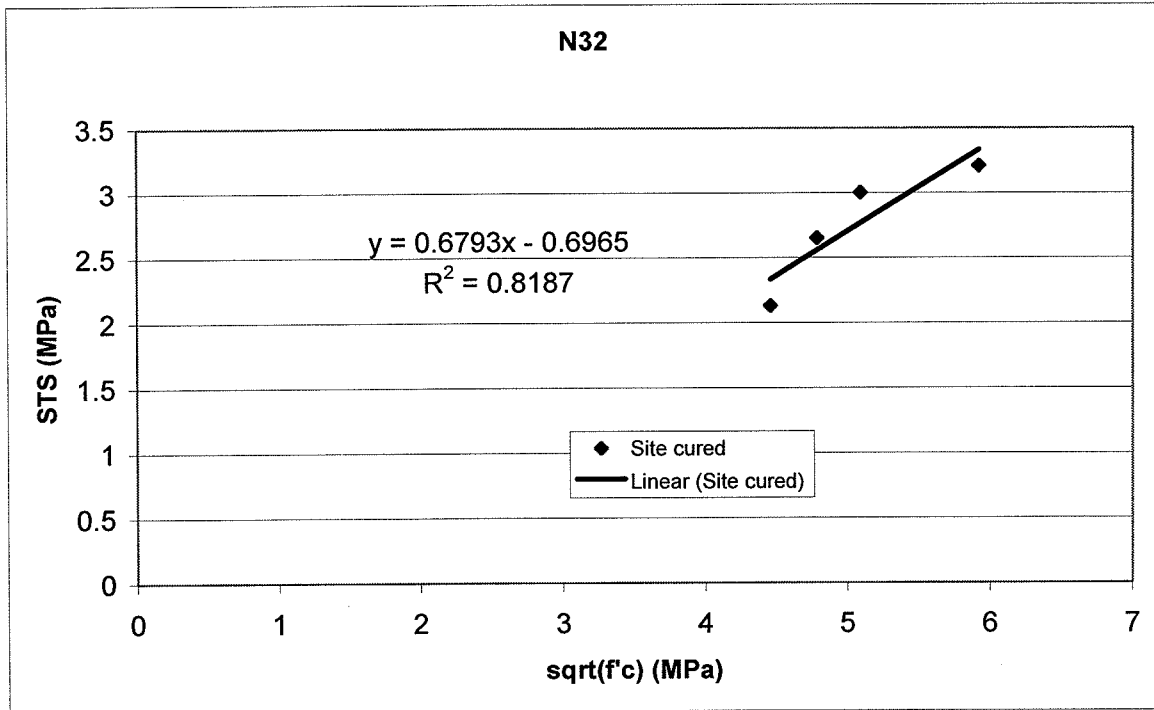
stdev 0.231406



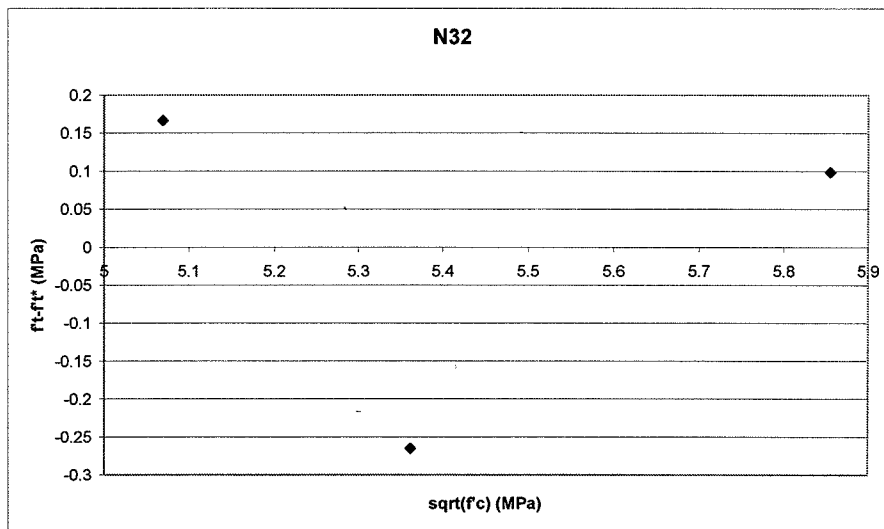
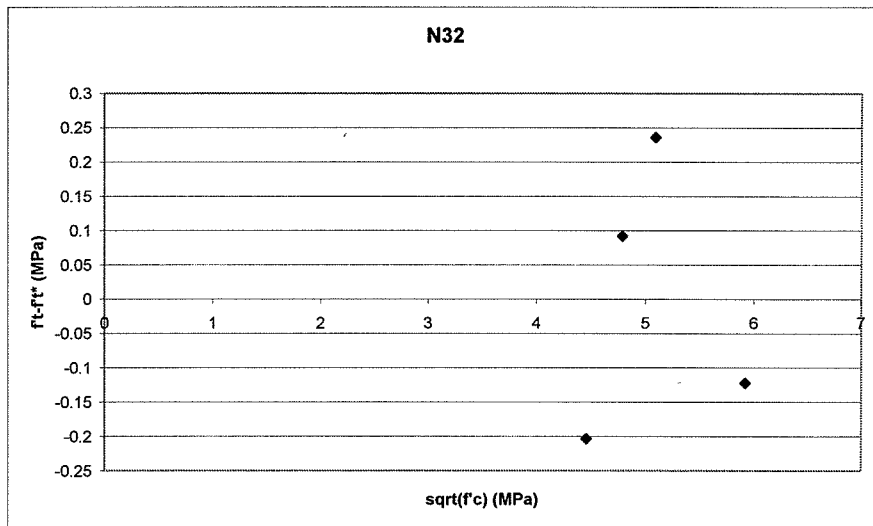
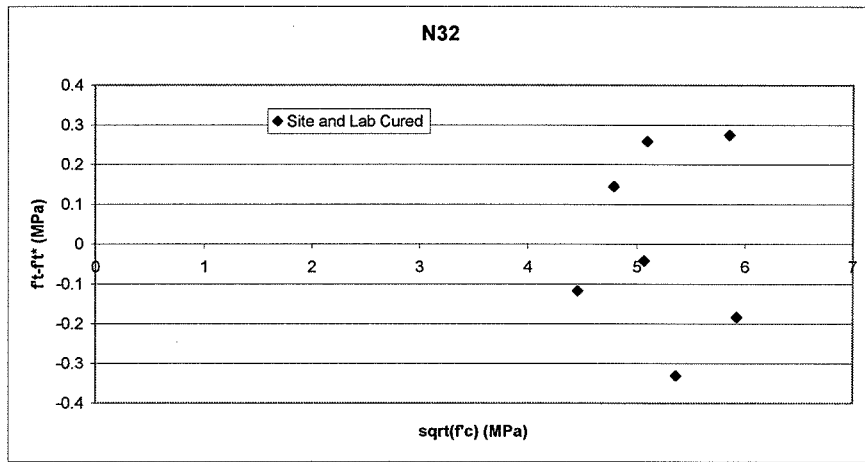
With the corresponding scatter –



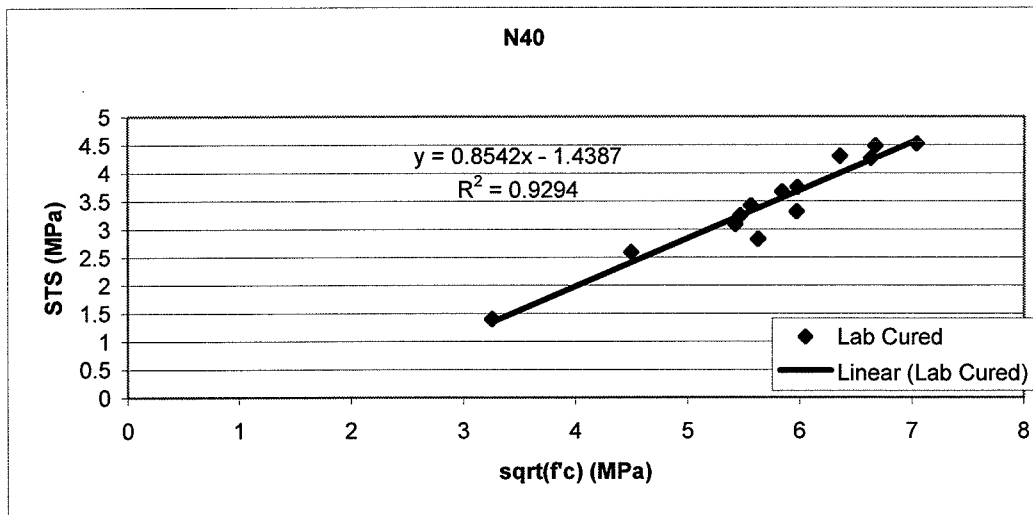
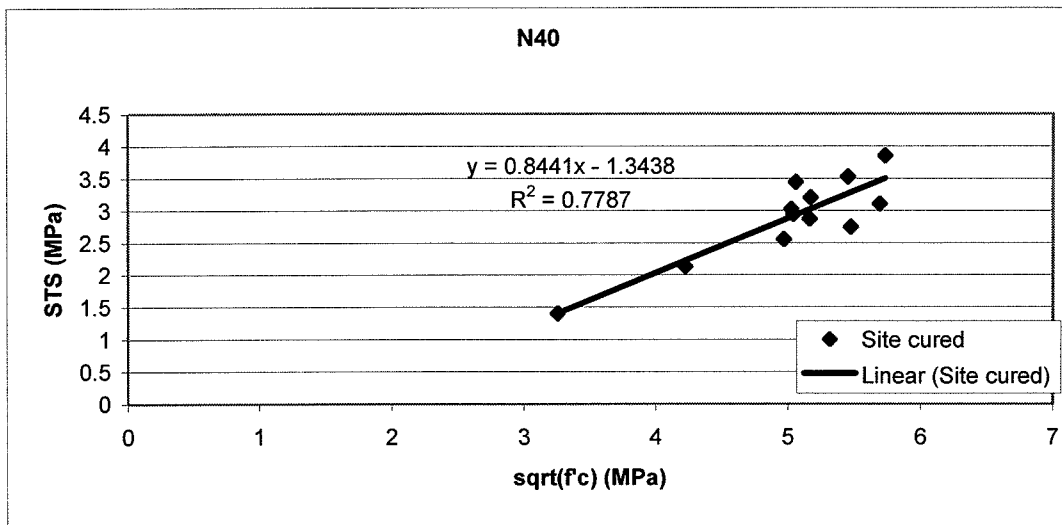
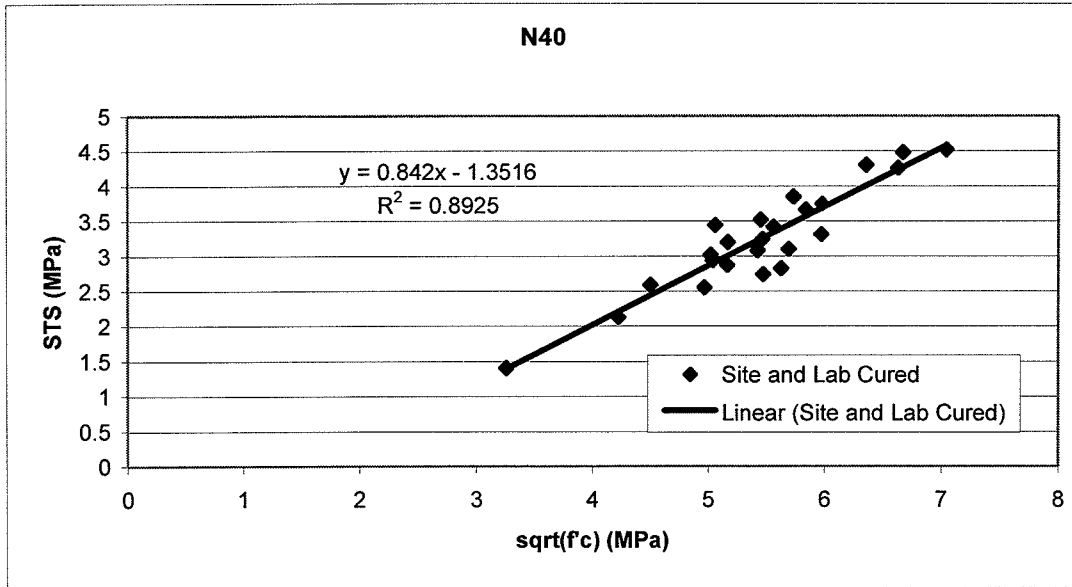
Separating site cured and lab cured data yields the following graphs -



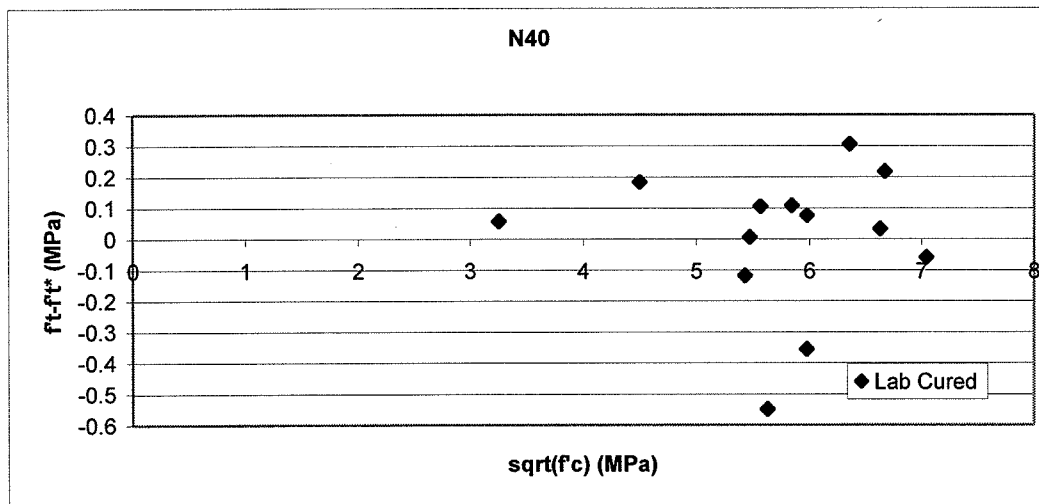
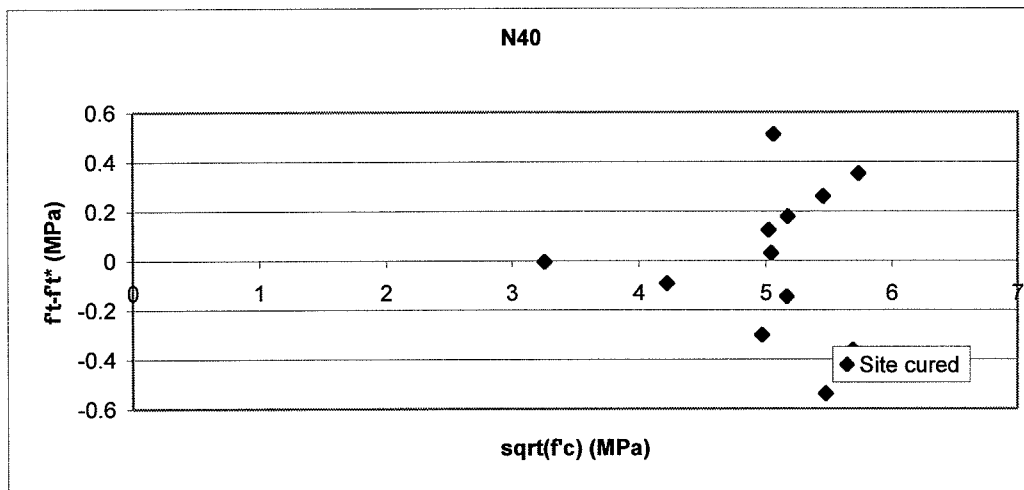
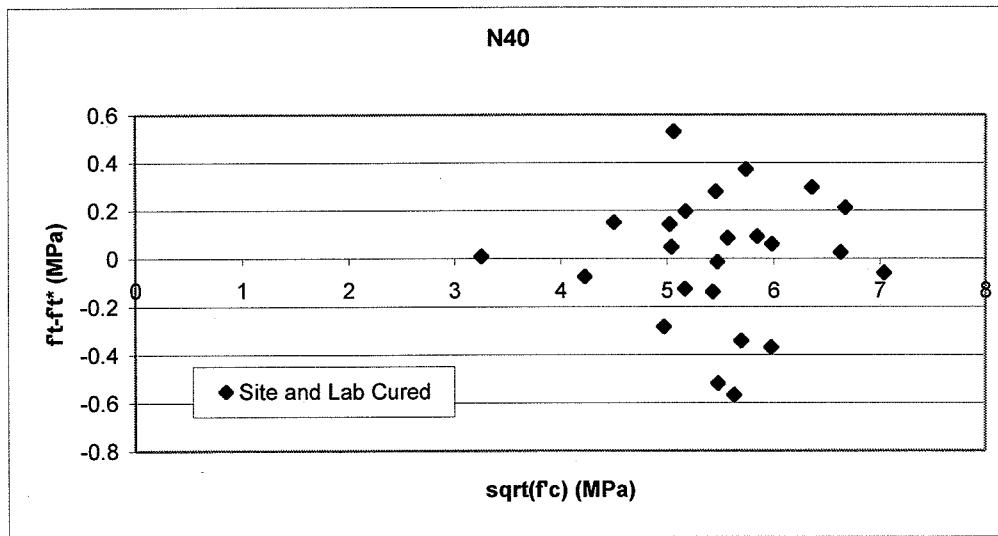
With the corresponding scatter with respect to root f_c



N40 DATA ANALYSIS



With the corresponding scatter-



SUMMARY

N32 and N40			
	Site Cured	Lab cured	Both
Linear equation	$0.8096\sqrt{fc} - 1.2168$	$0.8781\sqrt{fc} - 1.6168$	$0.8454\sqrt{fc} - 1.4146$
Standard deviation	0.294	0.257	0.270
Power equation	$0.2258\sqrt{fc}^{1.5638}$	$0.2244\sqrt{fc}^{1.5522}$	$0.2351\sqrt{fc}^{1.5316}$
Standard deviation	0.301	0.238	0.269

Linear equation is slightly less accurate, power equation is used in programming.

N40			
	Site Cured	Lab cured	Both
Linear equation	$0.8441\sqrt{fc} - 1.3438$	$0.8542\sqrt{fc} - 1.4387$	$0.842\sqrt{fc} - 1.3516$
Standard deviation	0.308	0.243	0.267
Power equation	$0.2132\sqrt{fc}^{1.6083}$	$0.2377\sqrt{fc}^{1.5259}$	$0.2386\sqrt{fc}^{1.5303}$
Standard deviation	0.312	0.235	0.269

N32			
	Site Cured	Lab cured	Both
Linear equation	$0.6793\sqrt{fc} - 0.6965$	$1.2689\sqrt{fc} - 3.9189$	$0.7799\sqrt{fc} - 1.231$
Standard deviation	0.200	0.232	0.231
Power equation	$0.3082\sqrt{fc}^{1.345}$	$0.0707\sqrt{fc}^{2.2055}$	$0.2564\sqrt{fc}^{1.4519}$
Standard deviation	0.209	0.222	0.232

APPENDIX H

Results of Deformation Prediction Methods.

Input and Output from Monte Carlo Simulation

N32, Strips 1 and 9, Long Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist(EW)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	5.60E+09
I (NS) 1	9.26E+09
I (EW) 2	1.60E+09
I (NS) 2	3.59E+09
I (EW) 3	2.24E+09
I (NS) 3	4.89E+09
top reo	12
lower reo	12
Ln	8.35

Prestress factors

Tendon force NS	3708.8 kN
Tendon force EW	3178.9 kN

eccentricity (NS direct)	100 mm
eccentricity #1 (NS dir)	40.55 mm
eccentricity #2 (NS dir)	-59.45 mm

eccentricity (EW direct)	130 mm
eccentricity #1 (EW dir)	55.55 mm
eccentricity #2 (EW dir)	-74.45 mm

Long term factors

Shrinkage strain	400 Microstrain
Creep Factor	2.6

Loads

Live load	3 kPa (unfactored)
LL reductio	0.4
Dead load	4.8 kPa (unfactored)
Extra dead	1.4 kPa (unfactored)
Total	7.4 MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

Factors for C & H [2]

c1	600 mm
l1	9.6 m
c1/l1	0.0625
beta	1.14
beta n	1.15
alpha1 (1)	0
alpha2 (1)	0
alpha1 (2)	1
alpha2 (2)	1
alpha1 (3)	1.13
alpha2 (3)	0.53

Ka 1	0.004553
Ka 2	0.002087
Ka 3	0.00218

Factors for C and M Long term E for camber

kc	0.7
H	70 %
t	1000 days
ti	7 days

$\Phi(10000,7)$ 1.674 kf

depth of slab defective	161.1
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Final output

	OUTPUT NS		OUTPUT EW		OUTPUT MID	
	MEAN (mm)	STDEV	MEAN (mm)	STDEV	MEAN (mm)	STDEV
1 C & M (d is whole span)	27.6	3.6	66.5	8.5	94.1	9.3
2 C & M (d is drop panel width)	71.3	9.2	232.7	29.9	303.9	31.3
3 C & M (d is 0.2 x span)	52.3	6.7	166.2	21.4	218.5	22.4
4 Naaman (d is whole span)	9.8	1.1	25.7	2.9	35.5	3.1
5 Naaman (d is drop panel width)	25.3	2.9	90.0	10.3	115.3	10.7
6 Naaman (d is 0.2 x span)	18.5	2.1	64.3	7.3	82.9	7.6

SUMMARY (Total Deformation)

	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-4.1	4.9	-8.9	12.0	-13.0	13.0
C & M (d is drop panel width)	-7.9	12.7	-27.9	42.1	-35.8	44.0
C & M (d is 0.2 x span)	-6.2	9.3	-20.3	30.1	-26.5	31.5
Warner					29.8	21.2

Deflection

	MEAN	STDEV	MEAN	STDEV	MEAN	STDEV
1 C & H [1] (d is whole slab)	-8.5	1.0	-21.8	2.5	-30.2	2.7
2 C & H [1] (d is drop panel width)	-21.9	2.5	-76.2	8.7	-98.1	9.1
3 C & H [1] (d is 0.2 x width)	-16.0	1.8	-54.4	6.2	-70.5	6.5
4a C & H [2] (using $\alpha(1)$)					-71.2	8.1
4b C & H [2] (using $\alpha(2)$)					-32.6	3.7
4c C & H [2] (using $\alpha(3)$)					-34.1	3.9
5 C & M [1] (d is whole slab)	-30.0	3.4	-74.1	8.5	-104.1	9.1
6 C & M [1] (d is drop panel width)	-77.4	8.8	-259.4	29.6	-336.8	30.9
7 C & M [1] (d is 0.2 x width)	-56.8	6.5	-185.3	21.2	-242.1	22.1
8 Naaman (d is whole slab)	-57.7	6.6	-142.5	16.3	-200.2	17.6
9 Naaman (d is drop panel width)	-148.9	17.0	-498.8	57.0	-647.7	59.5
10 Naaman [1] (d is 0.2 x width)	-109.3	12.5	-356.3	40.7	-465.6	42.6
11 Warner					-185.8	21.2

NS	North - South Direction	-1.7			
EW	East - West Direction		-1.3		
Both	Both Directions			-3.0	

N32, Strips 1 and 9, Short Term

INPUTS

Slab Geometry

slab depth	200
length (EV)	9.6
length (NS)	8.4
drop dist(EV)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	5.60E+09
I (NS) 1	9.26E+09
I (EW) 2	1.60E+09
I (NS) 2	3.59E+09
I (EW) 3	2.24E+09
I (NS) 3	4.89E+09
top reo	12
lower reo	12
Ln	8.35

depth of slab	
deffective	161.1

Prestress factors

Tendon force NS	3708.8	kN
Tendon force EW	3178.9	kN
eccentricity (NS direct)	100	mm
eccentricity #1 (NS dir)	40.55	mm
eccentricity #2 (NS dir)	-59.45	mm
eccentricity (EW direct)	130	mm
eccentricity #1 (EW dir)	55.55	mm
eccentricity #2 (EW dir)	-74.45	mm

Long term factors

Shrinkage strain	400	Microstrain
Creep Factor	2.6	

Loads

Live load	3	kPa (unfactored)
LL reductio	0.4	
Dead load	4.8	kPa (unfactored)
Extra dead	1.4	kPa (unfactored)
Total	7.4	MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

Factors for C & H [2]

c1	600	mm
l1	9.6	m
c1/l1	0.0625	
beta	1.14	
beta n	1.15	
alpha1 (1)	0	
alpha2 (1)	0	
alpha1 (2)	1	
alpha2 (2)	1	
alpha1 (3)	1.13	
alpha2 (3)	0.53	

Ka 1	0.004553
Ka 2	0.002087
Ka 3	0.00218

Factors for C and M Long term E for camber

kc	0.7	
H	70	%
t	1000	days
ti	7	days

$\Phi(10000,7)$ 1.674 kf

Final output

		OUTPUT NS		OUTPUT EW		OUTPUT MID	
		MEAN (mm)	STDEV	MEAN (mm)	STDEV	MEAN (mm)	STDEV
1	C & M (d is whole span)	9.5	1.1	22.9	2.7	32.5	2.9
2	C & M (d is drop panel width)	24.6	2.9	80.3	9.4	104.8	9.8
3	C & M (d is 0.2 x span)	18.0	2.1	57.3	6.7	75.4	7.0
4	Naaman (d is whole span)	2.7	0.3	7.2	0.8	9.9	0.9
5	Naaman (d is drop panel width)	7.0	0.8	25.1	2.9	32.1	3.1
6	Naaman (d is 0.2 x span)	5.2	0.6	17.9	2.1	23.1	2.2

1	C & H [1] (d is whole slab)	-2.4	0.3	-6.1	0.7	-8.4	0.8
2	C & H [1] (d is drop panel width)	-6.1	0.7	-21.2	2.5	-27.3	2.6
3	C & H [1] (d is 0.2 x width)	-4.5	0.5	-15.2	1.8	-19.7	1.9
4a	C & H [2] (using of[1])					-19.9	2.3
4b	C & H [2] (using of[2])					-9.1	1.1
4c	C & H [2] (using of[3])					-9.5	1.1
5	C & M [1] (d is whole slab)	-8.4	1.0	-20.7	2.4	-29.0	2.6
6	C & M [1] (d is drop panel width)	-21.6	2.5	-72.3	8.5	-93.9	8.9
7	C & M [1] (d is 0.2 x width)	-15.9	1.9	-51.7	6.1	-67.5	6.3
8	Naaman (d is whole slab)	-16.1	1.9	-39.7	4.7	-55.8	5.0
9	Naaman (d is drop panel width)	-41.5	4.9	-139.1	16.3	-180.6	17.0
10	Naaman [1] (d is 0.2 x width)	-30.5	3.6	-99.3	11.6	-129.8	12.2
11	Warner					-51.8	6.1

NS	North - South Direction	-1.7					
EW	East - West Direction		-1.3				
Both	Both Directions			-3.0			

	SUMMARY (Total Deformation)					
	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-0.5	1.5	1.0	3.6	0.5	3.9
C & M (d is drop panel width)	1.3	3.8	6.7	12.7	8.0	13.2
C & M (d is 0.2 x span)	0.5	2.8	4.4	9.0	4.9	9.5
Warner					-51.8	6.1

N32, Strips 2 and 8, Long Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist(EW)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	8.66E+09
I (NS) 1	6.40E+09
I (EW) 2	3.78E+09
I (NS) 2	1.80E+09
I (EW) 3	4.70E+09
I (NS) 3	2.56E+09
top reo	12
lower reo	12
Ln	8.35

Prestress factors

Tendon force EW	2649.1	kN
Tendon force NS	3576.3	kN

eccentricity (EW direct)	130	mm
eccentricity #1 (EW dir)	55.55	mm
eccentricity #2 (EW dir)	-74.45	mm

eccentricity (NS direct)	100	mm
eccentricity #1 (NS dir)	40.55	mm
eccentricity #2 (NS dir)	-59.45	mm

Long term factors

Shrinkage strain	400	Microstrain
Creep Factor	2.6	

Loads

Live load	3	kPa (unfactored)
LL reductio	0.4	
Dead load	4.8	kPa (unfactored)
Extra dead	1.4	kPa (unfactored)
Total	7.4	MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

depth of slab	
defective	161.1

Factors for C & H [2]

c1	600	mm
l1	9.6	m
c1/l1	0.0625	
beta	1.14	
beta n	1.15	
alpha1 (1)	0	
alpha2 (1)	0	
alpha1 (2)	1	
alpha2 (2)	1	
alpha1 (3)	1.13	
alpha2 (3)	0.53	

Factors for C and M Long term E for camber

kc	0.7	
H	70	%
t	1000	days
ti	7	days

Ka 1	0.004553
Ka 2	0.002087
Ka 3	0.00218

$\Phi(10000,7) = 1.674$ kf

Final output

	OUTPUT NS		OUTPUT EW		OUTPUT MID	
	MEAN (mm)	STDEV	MEAN (mm)	STDEV	MEAN (mm)	STDEV
1 C & M (d is whole span)	38.6	4.8	35.9	4.4	74.4	6.5
2 C & M (d is drop panel width)	137.2	16.9	82.2	10.1	219.3	19.7
3 C & M (d is 0.2 x span)	96.5	11.9	66.1	8.1	162.5	14.4
4 Naaman (d is whole span)	13.7	1.7	13.9	1.7	27.7	2.4
5 Naaman (d is drop panel width)	48.8	5.9	31.9	3.8	80.8	7.0
6 Naaman (d is 0.2 x span)	34.3	4.1	25.7	3.1	60.0	5.2

	MEAN	STDEV	MEAN	STDEV	MEAN	STDEV
1 C & H [1] (d is whole slab)	-12.3	1.5	-14.2	1.7	-26.5	2.3
2 C & H [1] (d is drop panel width)	-43.8	5.3	-32.4	3.9	-76.2	6.6
3 C & H [1] (d is 0.2 x width)	-30.8	3.7	-26.1	3.1	-56.9	4.9
4a C & R [2] (using c1[1])					-71.6	8.6
4b C & R [2] (using c1[2])					-32.8	3.9
4c C & R [2] (using c1[3])					-34.3	4.1
5 C & M [1] (d is whole slab)	-43.7	5.3	-48.2	5.8	-91.8	7.8
6 C & M [1] (d is drop panel width)	-155.2	18.7	-110.4	13.3	-265.6	22.9
7 C & M [1] (d is 0.2 x width)	-109.2	13.1	-88.7	10.7	-197.9	16.9
8 Naaman (d is whole slab)	-94.0	10.1	-92.6	11.1	-176.6	15.0
9 Naaman (d is drop panel width)	-298.5	35.9	-212.2	25.5	-510.8	44.1
10 Naaman [1] (d is 0.2 x width)	-209.9	25.2	-170.7	20.5	-380.6	32.5
11 Warner					-186.7	22.5

NS	North - South Direction	-1.7			
EW	East - West Direction		-1.3		
Both	Both Directions			-3.0	

SUMMARY (Total Deformation)

	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-6.8	7.1	-13.6	7.3	-20.3	10.2
C & M (d is drop panel width)	-19.7	25.2	-29.5	16.7	-49.2	30.2
C & M (d is 0.2 x span)	-14.4	17.7	-24.0	13.4	-38.3	22.2
Warner					-186.7	22.5

N32, Strips 2 and 8, Short Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist(EW)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	8.66E+09
I (NS) 1	6.40E+09
I (EW) 2	3.78E+09
I (NS) 2	1.80E+09
I (EW) 3	4.70E+09
I (NS) 3	2.56E+09
top reo	12
lower reo	12
Ln	8.35

Prestress factors

Tendon force EW	2649.1 kN
Tendon force NS	3576.3 kN
eccentricity (EW direct)	130 mm
eccentricity #1 (EW dir)	55.55 mm
eccentricity #2 (EW dir)	-74.45 mm
eccentricity (NS direct)	100 mm
eccentricity #1 (NS dir)	40.55 mm
eccentricity #2 (NS dir)	-59.45 mm

Loads

Live load	3 kPa (unfactored)
LL reductio	0.4
Dead load	4.8 kPa (unfactored)
Extra dead	1.4 kPa (unfactored)
Total	7.4 MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

Long term factors

Shrinkage strain	400 Microstrain
Creep Factor	2.6

Factors for C & H [2]

c1	600 mm
l1	9.6 m
c1/l1	0.0625
beta	1.14
beta n	1.15
alpha1 (1)	0
alpha2 (1)	0
alpha1 (2)	1
alpha2 (2)	1
alpha1 (3)	1.13
alpha2 (3)	0.53
Ka 1	0.004553
Ka 2	0.002087
Ka 3	0.00218

Factors for C and M Long term E for camber

kc	0.7
H	70 %
t	1000 days
ti	7 days
Φ(10000,7)	1.674 kf

depth of slab	
deffective	161.1

Final output

	OUTPUT NS		OUTPUT EW		OUTPUT MID	
	MEAN (mm)	STDEV	MEAN (mm)	STDEV	MEAN (mm)	STDEV
1 C & M (d is whole span)	13.3	1.6	12.4	1.5	25.7	2.2
2 C & M (d is drop panel width)	47.3	5.7	28.3	3.4	75.7	6.6
3 C & M (d is 0.2 x span)	33.3	4.0	22.8	2.7	56.1	4.9
4 Naaman (d is whole span)	3.8	0.5	3.9	0.5	7.7	0.7
5 Naaman (d is drop panel width)	13.6	1.6	8.9	1.1	22.4	1.9
6 Naaman (d is 0.2 x span)	9.5	1.1	7.1	0.9	16.7	1.4

SUMMARY (Total Deformation)						
	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-0.5	2.2	-2.3	2.2	-2.8	3.1
C & M (d is drop panel width)	2.5	7.7	-3.6	5.0	-1.0	9.2
C & M (d is 0.2 x span)	1.3	5.4	-3.1	4.0	-1.8	6.8
Wagner					-51.9	6.2

	MEAN	STDEV	MEAN	STDEV	MEAN	STDEV
1 C & H [1] (d is whole slab)	-3.4	0.4	-3.9	0.5	-7.4	0.6
2 C & H [1] (d is drop panel width)	-12.2	1.5	-9.0	1.1	-21.2	1.8
3 C & H [1] (d is 0.2 x width)	-8.6	1.0	-7.2	0.9	-15.8	1.3
4a C & H [2] (using α[1])					-19.9	2.4
4b C & H [2] (using α[2])					-9.1	1.1
4c C & H [2] (using α[3])					-9.5	1.1
5 C & M [1] (d is whole slab)	-12.1	1.5	-13.4	1.6	-25.5	2.2
6 C & M [1] (d is drop panel width)	-43.1	5.2	-30.7	3.7	-73.8	6.4
7 C & M [1] (d is 0.2 x width)	-30.3	3.6	-24.7	3.0	-55.0	4.7
8 Naaman (d is whole slab)	-23.3	2.8	-25.7	3.1	-49.1	4.2
9 Naaman (d is drop panel width)	-82.9	10.0	-58.9	7.1	-141.9	12.2
10 Naaman [1] (d is 0.2 x width)	-58.3	7.0	-47.4	5.7	-105.7	9.0
11 Warner					-51.9	6.2

NS	North - South Direction	-1.7				
EW	East - West Direction		-1.3			
Both	Both Directions			-3.0		

N32, Strips 3 and 8, Long Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist (EW)	3
drop dist (NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	8.66E+09
I (NS) 1	6.40E+09
I (EW) 2	3.78E+09
I (NS) 2	1.80E+09
I (EW) 3	4.70E+09
I (NS) 3	2.56E+09
top reo	12
lower reo	12
Ln	8.35

depth of slab	
defective	161.1

Prestress factors

Tendon force EW	3443.9	kN
Tendon force NS	3576.3	kN
eccentricity (EW direct)	130	mm
eccentricity #1 (EW dir)	55.55	mm
eccentricity #2 (EW dir)	-74.45	mm
eccentricity (NS direct)	100	mm
eccentricity #1 (NS dir)	40.55	mm
eccentricity #2 (NS dir)	-59.45	mm

Long term factors

Shrinkage strain	400	Microstrain
Creep Factor	2.6	

Loads

Live load	3	kPa (unfactored)
LL reduction	0.4	
Dead load	4.8	kPa (unfactored)
Extra dead	1.4	kPa (unfactored)
Total	7.4	MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

Factors for C & H [2]

c1	600	mm
l1	9.6	m
c1/l1	0.0625	
beta	1.14	
beta n	1.15	
alpha1 (1)	0	Ka 1 0.004553
alpha2 (1)	0	Ka 2 0.002087
alpha1 (2)	1	Ka 3 0.00218
alpha2 (2)	1	
alpha1 (3)	1.13	
alpha2 (3)	0.53	

Factors for C and M Long term E for camber

kc	0.7	
H	70	%
t	1000	days
ti	7	days

$\Phi(10000,7)$ 1.674 kf

Final output

	OUTPUT NS		OUTPUT EW		OUTPUT MID	
	MEAN	STDEV	MEAN	STDEV	MEAN	STDEV
	(mm)		(mm)		(mm)	
1 C & M (d is whole span)	38.7	4.7	46.8	5.7	85.5	7.4
2 C & M (d is drop panel width)	137.6	16.8	107.1	13.1	244.7	21.3
3 C & M (d is 0.2 x span)	96.7	11.8	86.2	10.5	182.9	15.8
4 Naaman (d is whole span)	13.8	1.7	18.2	2.2	32.0	2.7
5 Naaman (d is drop panel width)	49.0	5.9	41.6	5.0	90.6	7.7
6 Naaman (d is 0.2 x span)	34.5	4.1	33.5	4.0	67.9	5.8

Deflection						
	MEAN	STDEV	MEAN	STDEV	MEAN	STDEV
1 C & H [1] (d is whole slab)	-12.4	1.5	-14.2	1.7	-26.6	2.3
2 C & H [1] (d is drop panel width)	-44.0	5.3	-32.5	3.9	-76.5	6.6
3 C & H [1] (d is 0.2 x width)	-30.9	3.7	-26.2	3.1	-57.1	4.9
4a C & H [2] (using c1[1])					-71.8	8.6
4b C & H [2] (using c1[2])					-32.9	4.0
4c C & H [2] (using c1[3])					-34.4	4.1
5 C & M [1] (d is whole slab)	-43.8	5.3	-48.3	5.8	-92.1	7.8
6 C & M [1] (d is drop panel width)	-155.8	18.7	-110.7	13.3	-266.5	23.0
7 C & M [1] (d is 0.2 x width)	-109.5	13.2	-89.0	10.7	-198.6	17.0
8 Naaman (d is whole slab)	-84.2	10.1	-92.9	11.2	-177.2	15.1
9 Naaman (d is drop panel width)	-299.5	36.0	-212.9	25.6	-512.4	44.2
10 Naaman [1] (d is 0.2 x width)	-210.6	25.3	-171.2	20.6	-381.8	32.6
11 Warner					-187.3	22.5

NS	North - South Direction	-1.7			
EW	East - West Direction		-1.3		
Both	Both Directions			-3.0	

SUMMARY (Total Deformation)

	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-6.8	7.1	-2.8	8.2	-9.6	10.8
C & M (d is drop panel width)	-19.8	25.2	-4.9	18.7	-24.7	31.3
C & M (d is 0.2 x span)	-14.4	17.7	-4.2	15.0	-18.6	23.2
Warner					-187.3	22.5

N32, Strips 3 and 8, Short Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist(EW)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	8.66E+09
I (NS) 1	6.40E+09
I (EW) 2	3.78E+09
I (NS) 2	1.80E+09
I (EW) 3	4.70E+09
I (NS) 3	2.56E+09
top reo	12
lower reo	12
Ln	8.35

Prestress factors

Tendon force EW	3443.9	kN
Tendon force NS	3576.3	kN
eccentricity (EW direct)	130	mm
eccentricity #1 (EW dir)	55.55	mm
eccentricity #2 (EW dir)	-74.45	mm

eccentricity (NS direct)	100	mm
eccentricity #1 (NS dir)	40.55	mm
eccentricity #2 (NS dir)	-59.45	mm

Long term factors

Shrinkage strain	400	Microstrain
Creep Factor	2.6	

Loads

Live load	3	kPa (unfactored)
LL reduction	0.4	
Dead load	4.8	kPa (unfactored)
Extra dead	1.4	kPa (unfactored)
Total	7.4	MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

depth of slab defective	161.1
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Factors for C & H [2]

c1	600	mm
i1	9.6	m
c1/i1	0.0625	
beta	1.14	
beta n	1.15	
alpha1 (1)	0	
alpha2 (1)	0	
alpha1 (2)	1	
alpha2 (2)	1	
alpha1 (3)	1.13	
alpha2 (3)	0.53	

Ka 1	0.004553
Ka 2	0.002087
Ka 3	0.00218

Factors for C and M Long term E for camber

kc	0.7	
H	70	%
t	1000	days
ti	7	days

$\Phi(10000,7) = 1.674$ kf

Final output

		OUTPUT NS		OUTPUT EW		OUTPUT MID	
		MEAN (mm)	STDEV	MEAN (mm)	STDEV	MEAN (mm)	STDEV
1	C & M (d is whole span)	13.4	1.6	16.1	1.9	29.5	2.5
2	C & M (d is drop panel width)	47.5	5.7	37.0	4.4	84.5	7.2
3	C & M (d is 0.2 x span)	33.4	4.0	29.7	3.6	63.1	5.4
4	Naaman (d is whole span)	3.8	0.5	5.0	0.6	8.9	0.8
5	Naaman (d is drop panel width)	13.6	1.6	11.6	1.4	25.2	2.1
6	Naaman (d is 0.2 x span)	9.6	1.2	9.3	1.1	18.9	1.6

		OUTPUT NS		OUTPUT EW		OUTPUT MID	
		MEAN (mm)	STDEV	MEAN (mm)	STDEV	MEAN (mm)	STDEV
1	C & H [1] (d is whole slab)	-3.4	0.4	-3.9	0.5	-7.4	0.6
2	C & H [1] (d is drop panel width)	-12.2	1.5	-9.0	1.1	-21.2	1.8
3	C & H [1] (d is 0.2 x width)	-8.6	1.0	-7.3	0.9	-15.9	1.4
4a	C & H [2] (using $\alpha[1]$)					-19.9	2.4
4b	C & H [2] (using $\alpha[2]$)					-9.1	1.1
4c	C & H [2] (using $\alpha[3]$)					-9.5	1.1
5	C & M [1] (d is whole slab)	-12.2	1.5	-13.4	1.6	-25.6	2.2
6	C & M [1] (d is drop panel width)	-43.3	5.2	-30.8	3.7	-74.0	6.4
7	C & M [1] (d is 0.2 x width)	-30.4	3.7	-24.7	3.0	-55.2	4.7
8	Naaman (d is whole slab)	-23.4	2.8	-25.8	3.1	-49.2	4.2
9	Naaman (d is drop panel width)	-83.2	10.0	-59.1	7.1	-142.3	12.3
10	Naaman [1] (d is 0.2 x width)	-58.5	7.0	-47.6	5.7	-106.1	9.1
11	Warner					-52.0	6.3

NS	North - South Direction	-1.7			
EW	East - West Direction		-1.3		
Both	Both Directions			-3.0	

	SUMMARY (Total Deformation)					
	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-0.5	2.2	1.4	2.5	1.0	3.3
C & M (d is drop panel width)	2.6	7.7	4.9	5.8	7.5	9.7
C & M (d is 0.2 x span)	1.3	5.4	3.7	4.7	5.0	7.2
Warner					-52.0	6.3

N32, Strips 4 and 9, Long Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist(EW)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	5.60E+09
I (NS) 1	9.83E+09
I (EW) 2	1.60E+09
I (NS) 2	4.49E+09
I (EW) 3	2.24E+09
I (NS) 3	5.29E+09
top reo	12
lower reo	12
Ln	8.35

Prestress factors

Tendon force NS	3443.9 kN
Tendon force EW	3178.9 kN

eccentricity (NS direct)	100 mm
eccentricity #1 (NS dir)	40.55 mm
eccentricity #2 (NS dir)	-59.45 mm

eccentricity (EW direct)	130 mm
eccentricity #1 (EW dir)	55.55 mm
eccentricity #2 (EW dir)	-74.45 mm

Long term factors

Shrinkage strain	400 Microstrain
Creep Factor	2.6

Loads

Live load	3 kPa (unfactored)
LL reduction	0.4
Dead load	4.8 kPa (unfactored)
Extra dead	1.4 kPa (unfactored)
Total	7.4 MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

Factors for C & H [2]

c1	600 mm
l1	9.6 m
c1/l1	0.0625
beta	1.14
beta n	1.15
alpha1 (1)	0
alpha2 (1)	0
alpha1 (2)	1
alpha2 (2)	1
alpha1 (3)	1.13
alpha2 (3)	0.53

Ka 1	0.004553
Ka 2	0.002087
Ka 3	0.00218

Factors for C and M Long term E for camber

kc	0.7
H	70 %
t	1000 days
ti	7 days

$\Phi(10000,7) = 1.674$ kf

depth of slab	
effective	161.1

Final output

	OUTPUT NS		OUTPUT EW		OUTPUT MID	
	MEAN (mm)	STDEV (mm)	MEAN (mm)	STDEV (mm)	MEAN (mm)	STDEV (mm)
1 C & M (d is whole span)	24.2	3.0	66.7	8.2	91.0	8.7
2 C & M (d is drop panel width)	53.1	6.5	233.5	28.7	286.5	29.5
3 C & M (d is 0.2 x span)	45.1	5.5	166.8	20.5	211.8	21.3
4 Naaman (d is whole span)	8.6	1.0	25.9	3.1	34.5	3.2
5 Naaman (d is drop panel width)	18.9	2.2	90.7	10.8	109.6	11.0
6 Naaman (d is 0.2 x span)	16.0	1.9	64.8	7.7	80.8	7.9

	SUMMARY (Total Deformation)					
	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-5.9	4.5	-9.2	12.1	-15.1	12.9
C & M (d is drop panel width)	-11.0	9.9	-29.1	42.3	-40.0	43.4
C & M (d is 0.2 x span)	-9.6	8.4	-21.1	30.2	-30.7	31.3
Warner					-187.1	22.2

	OUTPUT NS		OUTPUT EW		OUTPUT MID	
	MEAN (mm)	STDEV (mm)	MEAN (mm)	STDEV (mm)	MEAN (mm)	STDEV (mm)
1 C & H [1] (d is whole slab)	-8.0	1.0	-21.9	2.6	-30.0	2.8
2 C & H [1] (d is drop panel width)	-17.6	2.1	-76.8	9.1	-94.4	9.3
3 C & H [1] (d is 0.2 x width)	-14.9	1.8	-54.8	6.5	-69.8	6.7
4a C & H [2] (using $\alpha[1]$)					-71.7	8.5
4b C & H [2] (using $\alpha[2]$)					-32.9	3.9
4c C & H [2] (using $\alpha[3]$)					-34.3	4.1
5 C & M [1] (d is whole slab)	-28.5	3.4	-74.6	8.9	-103.1	9.5
6 C & M [1] (d is drop panel width)	-62.4	7.4	-261.2	31.0	-323.6	31.9
7 C & M [1] (d is 0.2 x width)	-52.9	6.3	-186.6	22.1	-239.5	23.0
8 Naaman (d is whole slab)	-54.8	6.5	-143.5	17.0	-198.3	18.2
9 Naaman (d is drop panel width)	-119.9	14.2	-502.4	59.6	-622.3	61.3
10 Naaman [1] (d is 0.2 x width)	-101.8	12.1	-358.8	42.6	-460.6	44.2
11 Warner					-187.1	22.2

NS	North - South Direction	-1.7				
EW	East - West Direction		-1.3			
Both	Both Directions			-3.0		

N32, Strips 4 and 9, Short Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist(EW)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	5.60E+09
I (NS) 1	9.83E+09
I (EW) 2	1.60E+09
I (NS) 2	4.49E+09
I (EW) 3	2.24E+09
I (NS) 3	5.29E+09
top reo	12
lower reo	12
Ln	8.35

depth of slab	
effective	161.1

Prestress factors

Tendon force NS	3443.9 kN
Tendon force EW	3178.9 kN
eccentricity (NS direct)	100 mm
eccentricity #1 (NS dir)	40.55 mm
eccentricity #2 (NS dir)	-59.45 mm

eccentricity (EW direct)	130 mm
eccentricity #1 (EW dir)	55.55 mm
eccentricity #2 (EW dir)	-74.45 mm

Long term factors

Shrinkage strain	400 Microstrain
Creep Factor	2.6

Loads

Live load	3 kPa (unfactored)
LL reduction	0.4
Dead load	4.8 kPa (unfactored)
Extra dead	1.4 kPa (unfactored)
Total	7.4 MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
K3	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

Factors for C & H [2]

c1	600 mm
h1	9.6 m
c1/h1	0.0625
beta	1.14
beta n	1.15
alpha1 (1)	0
alpha2 (1)	0
alpha1 (2)	1
alpha2 (2)	1
alpha1 (3)	1.13
alpha2 (3)	0.53

Ka 1	0.004553
Ka 2	0.002087
Ka 3	0.00218

Factors for C and M Long term E for camber

kc	0.7
H	70 %
t	1000 days
ti	7 days

$\Phi(10000,7)$ 1.674 kf

Final output

	OUTPUT NS		OUTPUT EW		OUTPUT MID	
	MEAN (mm)	STDEV	MEAN (mm)	STDEV	MEAN (mm)	STDEV
1 C & M (d is whole span)	8.4	1.0	23.0	2.7	31.4	2.9
2 C & M (d is drop panel width)	18.3	2.2	80.5	9.6	98.8	9.8
3 C & M (d is 0.2 x span)	15.5	1.8	57.5	6.8	73.1	7.1
4 Naaman (d is whole span)	2.4	0.3	7.2	0.9	9.6	0.9
5 Naaman (d is drop panel width)	5.2	0.6	25.2	3.0	30.4	3.1
6 Naaman (d is 0.2 x span)	4.5	0.5	18.0	2.1	22.4	2.2

1 C & H [1] (d is whole slab)	-2.2	0.3	-6.1	0.7	-8.3	0.8
2 C & H [1] (d is drop panel width)	-4.9	0.6	-21.3	2.5	-26.2	2.6
3 C & H [1] (d is 0.2 x width)	-4.2	0.5	-15.2	1.8	-19.4	1.9
4a C & H [2] (using of[1])					-19.9	2.4
4b C & H [2] (using of[2])					-9.1	1.1
4c C & H [2] (using of[3])					-9.5	1.1
5 C & M [1] (d is whole slab)	-7.9	0.9	-20.7	2.5	-28.6	2.6
6 C & M [1] (d is drop panel width)	-17.3	2.1	-72.6	8.6	-89.9	8.8
7 C & M [1] (d is 0.2 x width)	-14.7	1.7	-51.8	6.1	-66.5	6.4
8 Naaman (d is whole slab)	-15.2	1.8	-39.9	4.7	-55.1	5.1
9 Naaman (d is drop panel width)	-33.3	4.0	-139.6	16.6	-172.9	17.0
10 Naaman [1] (d is 0.2 x width)	-28.3	3.4	-99.7	11.8	-128.0	12.3
11 Warner					-52.0	6.2

NS	North - South Direction	-1.7			
EW	East - West Direction		-1.3		
Both	Both Directions			-3.0	

SUMMARY (Total Deformation)

	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-1.2	1.4	1.0	3.7	-0.2	3.9
C & M (d is drop panel width)	-0.7	3.0	6.7	12.9	6.0	13.2
C & M (d is 0.2 x span)	-0.8	2.5	4.4	9.2	3.6	9.5
Warner					-52.0	6.2

N32, Strips 4 and 11, Long Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist(EW)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	5.60E+09
I (NS) 1	9.83E+09
I (EW) 2	1.60E+09
I (NS) 2	4.49E+09
I (EW) 3	2.24E+09
I (NS) 3	5.29E+09
top reo	12
lower reo	12
Ln	8.35

Prestress factors

Tendon force NS	3443.9 kN
Tendon force EW	3178.9 kN

eccentricity (NS direct)	100 mm
eccentricity #1 (NS dir)	40.55 mm
eccentricity #2 (NS dir)	-59.45 mm

eccentricity (EW direct)	130 mm
eccentricity #1 (EW dir)	55.55 mm
eccentricity #2 (EW dir)	-74.45 mm

Long term factors

Shrinkage strain	400 Microstrain
Creep Factor	2.6

Loads

Live load	3 kPa (unfactored)
LL reductio	0.4
Dead load	4.8 kPa (unfactored)
Extra dead	1.4 kPa (unfactored)
Total	7.4 MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

Factors for C & H [2]

c1	600 mm
I1	9.6 m
c1/I1	0.0625
beta	1.14
beta n	1.15
alpha1 (1)	0
alpha2 (1)	0
alpha1 (2)	1
alpha2 (2)	1
alpha1 (3)	1.13
alpha2 (3)	0.53

Factors for C and M Long term E for camber

kc	0.7
H	70 %
t	1000 days
ti	7 days

$\Phi(10000,7) = 1.674$ kf

depth of slab	
defective	161.1

Ka 1	0.004553
Ka 2	0.002087
Ka 3	0.00218

Final output

	OUTPUT NS		OUTPUT EW		OUTPUT MID	
	MEAN (mm)	STDEV	MEAN (mm)	STDEV	MEAN (mm)	STDEV
1 C & M (d is whole span)	24.2	3.0	66.7	8.2	91.0	8.7
2 C & M (d is drop panel width)	53.1	6.5	233.5	28.7	286.5	29.5
3 C & M (d is 0.2 x span)	45.1	5.5	166.8	20.5	211.8	21.3
4 Naaman (d is whole span)	8.6	1.0	25.9	3.1	34.5	3.2
5 Naaman (d is drop panel width)	18.9	2.2	90.7	10.8	109.6	11.0
6 Naaman (d is 0.2 x span)	16.0	1.9	64.8	7.7	80.8	7.9

1 C & H [1] (d is whole slab)	-8.0	1.0	-21.9	2.6	-30.0	2.8
2 C & H [1] (d is drop panel width)	-17.6	2.1	-76.8	9.1	-94.4	9.3
3 C & H [1] (d is 0.2 x width)	-14.9	1.8	-54.8	6.5	-69.8	6.7
4a C & H [2] (using c[1])					-71.7	8.5
4b C & H [2] (using c[2])					-32.9	3.9
4c C & H [2] (using c[3])					-34.3	4.1
5 C & M [1] (d is whole slab)	-28.5	3.4	-74.6	8.9	-103.1	9.5
6 C & M [1] (d is drop panel width)	-62.4	7.4	-261.2	31.0	-323.6	31.9
7 C & M [1] (d is 0.2 x width)	-52.9	6.3	-186.6	22.1	-239.5	23.0
8 Naaman [1] (d is whole slab)	-54.8	6.5	-143.5	17.0	-198.3	18.2
9 Naaman (d is drop panel width)	-119.9	14.2	-502.4	59.6	-622.3	61.3
10 Naaman [1] (d is 0.2 x width)	-101.8	12.1	-358.8	42.6	-460.6	44.2
11 Warner					-187.1	22.2

NS	North - South Direction	-1.7				
EW	East - West Direction		-1.3			
Both	Both Directions			-3.0		

SUMMARY (Total Deformation)

	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-5.9	4.5	-9.2	12.1	-15.1	12.9
C & M (d is drop panel width)	-11.0	9.9	-29.1	42.3	-40.0	43.4
C & M (d is 0.2 x span)	-9.6	8.4	-21.1	30.2	-30.7	31.3
Warner					-187.1	22.2

N32, Strips 4 and 11, Short Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist(EW)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	5.60E+09
I (NS) 1	9.83E+09
I (EW) 2	1.60E+09
I (NS) 2	4.49E+09
I (EW) 3	2.24E+09
I (NS) 3	5.29E+09
top reo	12
lower reo	12
Ln	8.35

Prestress factors

Tendon force NS	3443.9 kN
Tendon force EW	3178.9 kN
eccentricity (NS direct)	100 mm
eccentricity #1 (NS dir)	40.55 mm
eccentricity #2 (NS dir)	-59.45 mm

eccentricity (EW direct)	130 mm
eccentricity #1 (EW dir)	55.55 mm
eccentricity #2 (EW dir)	-74.45 mm

Long term factors

Shrinkage strain	400 Microstrain
Creep Factor	2.6

Loads

Live load	3 kPa (unfactored)
LL reductio	0.4
Dead load	4.8 kPa (unfactored)
Extra dead	1.4 kPa (unfactored)
Total	7.4 MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

depth of slab	
deffective	161.1

Factors for C & H [2]

c1	600 mm
l1	9.6 m
c1/l1	0.0625
beta	1.14
beta n	1.15
alpha1 (1)	0
alpha2 (1)	0
alpha1 (2)	1
alpha2 (2)	1
alpha1 (3)	1.13
alpha2 (3)	0.53
Ka 1	0.004553
Ka 2	0.002087
Ka 3	0.00218

Factors for C and M Long term E for camber

kc	0.7
H	70 %
t	1000 days
ti	7 days

$\Phi(10000,7)$ 1.674 kf

Final output

		OUTPUT NS		OUTPUT EW		OUTPUT MID	
		MEAN (mm)	STDEV	MEAN (mm)	STDEV	MEAN (mm)	STDEV
1	C & M (d is whole span)	8.4	1.0	23.0	2.7	31.4	2.9
2	C & M (d is drop panel width)	18.3	2.2	80.5	9.6	98.8	9.8
3	C & M (d is 0.2 x span)	15.5	1.8	57.5	6.8	73.1	7.1
4	Naaman (d is whole span)	2.4	0.3	7.2	0.9	9.6	0.9
5	Naaman (d is drop panel width)	5.2	0.6	25.2	3.0	30.4	3.1
6	Naaman (d is 0.2 x span)	4.5	0.5	18.0	2.1	22.4	2.2

		OUTPUT NS		OUTPUT EW		OUTPUT MID	
		MEAN (mm)	STDEV	MEAN (mm)	STDEV	MEAN (mm)	STDEV
1	C & H [1] (d is whole slab)	-2.2	0.3	-6.1	0.7	-8.3	0.8
2	C & H [1] (d is drop panel width)	-4.9	0.6	-21.3	2.5	-26.2	2.6
3	C & H [1] (d is 0.2 x width)	-4.2	0.5	-15.2	1.8	-19.4	1.9
4a	C & H [2] (using α [1])					-19.9	2.4
4b	C & H [2] (using α [2])					-9.1	1.1
4c	C & H [2] (using α [3])					-9.5	1.1
5	C & M [1] (d is whole slab)	-7.9	0.9	-20.7	2.5	-28.6	2.6
6	C & M [1] (d is drop panel width)	-17.3	2.1	-72.6	8.6	-89.9	8.8
7	C & M [1] (d is 0.2 x width)	-14.7	1.7	-51.8	6.1	-66.5	6.4
8	Naaman (d is whole slab)	-15.2	1.8	-39.9	4.7	-55.1	5.1
9	Naaman (d is drop panel width)	-33.3	4.0	-139.6	16.6	-172.9	17.0
10	Naaman [1] (d is 0.2 x width)	-28.3	3.4	-99.7	11.8	-128.0	12.3
11	Warner					-52.0	6.2

NS	North - South Direction	-1.7			
EW	East - West Direction		-1.3		
Both	Both Directions			-3.0	

	SUMMARY (Total Deformation)					
	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-1.2	1.4	1.0	3.7	-0.2	3.9
C & M (d is drop panel width)	-0.7	3.0	6.7	12.9	6.0	13.2
C & M (d is 0.2 x span)	-0.8	2.5	4.4	9.2	3.6	9.5
Warner					-52.0	6.2

N32, Strips 5 and 10, Long Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist(EW)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	8.66E+09
I (NS) 1	6.40E+09
I (EW) 2	3.78E+09
I (NS) 2	1.80E+09
I (EW) 3	4.70E+09
I (NS) 3	2.56E+09
top reo	12
lower reo	12
Ln	8.35

Prestress factors

Tendon force EW	2649.1 kN
Tendon force NS	3178.9 kN
eccentricity (EW direct)	130 mm
eccentricity #1 (EW dir)	55.55 mm
eccentricity #2 (EW dir)	-74.45 mm
eccentricity (NS direct)	100 mm
eccentricity #1 (NS dir)	40.55 mm
eccentricity #2 (NS dir)	-59.45 mm

Loads

Live load	3 kPa (unfactored)
LL reduction	0.4
Dead load	4.8 kPa (unfactored)
Extra dead	1.4 kPa (unfactored)
Total	7.4 MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

Long term factors

Shrinkage strain	400 Microstrain
Creep Factor	2.6

Factors for C & H [2]

c1	600 mm
l1	9.6 m
c1/l1	0.0625
beta	1.14
beta n	1.15
alpha1 (1)	0
alpha2 (1)	0
alpha1 (2)	1
alpha2 (2)	1
alpha1 (3)	1.13
alpha2 (3)	0.53

Ka 1	0.004553
Ka 2	0.002087
Ka 3	0.00218

Factors for C and M Long term E for camber

kc	0.7
H	70 %
t	1000 days
ti	7 days

$\Phi(10000,7)$ 1.674 kf

depth of slab defective 161.1

Final output

	OUTPUT NS		OUTPUT EW		OUTPUT MID	
	MEAN	STDEV	MEAN	STDEV	MEAN	STDEV
	(mm)		(mm)		(mm)	
1 C & M (d is whole span)	34.3	4.2	35.8	4.4	70.1	6.0
2 C & M (d is drop panel width)	121.9	14.9	82.1	10.0	204.0	17.9
3 C & M (d is 0.2 x span)	85.7	10.5	66.0	8.1	151.7	13.2
4 Naaman (d is whole span)	12.2	1.4	14.0	1.7	26.2	2.2
5 Naaman (d is drop panel width)	43.5	5.2	32.0	3.8	75.4	6.4
6 Naaman (d is 0.2 x span)	30.6	3.6	25.7	3.0	56.3	4.7

SUMMARY (Total Deformation)

	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-11.1	6.7	-13.7	7.2	-24.8	9.8
C & M (d is drop panel width)	-35.3	23.7	-29.7	16.5	-65.0	28.8
C & M (d is 0.2 x span)	-25.3	16.6	-24.1	13.3	-49.4	21.3
Warner					-187.0	22.2

	MEAN	STDEV	MEAN	STDEV	MEAN	STDEV
1 C & H [1] (d is whole slab)	-12.3	1.5	-14.2	1.7	-26.5	2.2
2 C & H [1] (d is drop panel width)	-43.9	5.2	-32.5	3.8	-76.4	6.5
3 C & H [1] (d is 0.2 x width)	-30.9	3.7	-26.1	3.1	-57.0	4.8
4a C & H [2] (using $\alpha[1]$)					-71.7	8.5
4b C & H [2] (using $\alpha[2]$)					-32.9	3.9
4c C & H [2] (using $\alpha[3]$)					-34.3	4.1
5 C & M [1] (d is whole slab)	-43.7	5.2	-48.2	5.7	-92.0	7.7
6 C & M [1] (d is drop panel width)	-155.5	18.4	-110.5	13.1	-266.0	22.6
7 C & M [1] (d is 0.2 x width)	-109.3	13.0	-88.9	10.5	-198.2	16.7
8 Naaman (d is whole slab)	-84.1	10.0	-92.8	11.0	-178.9	14.8
9 Naaman (d is drop panel width)	-299.0	35.4	-212.5	25.2	-511.5	43.5
10 Naaman [1] (d is 0.2 x width)	-210.2	24.9	-170.9	20.3	-381.2	32.1
11 Warner					-187.0	22.2

NS	North - South Direction	-1.7			
EW	East - West Direction		-1.3		
Both	Both Directions			-3.0	

N32, Strips 5 and 10, Short Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist(EW)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	8.66E+09
I (NS) 1	6.40E+09
I (EW) 2	3.78E+09
I (NS) 2	1.80E+09
I (EW) 3	4.70E+09
I (NS) 3	2.56E+09
top reo	12
lower reo	12
Ln	8.35

Prestress factors

Tendon force EW	2649.1 kN
Tendon force NS	3178.9 kN
eccentricity (EW direct)	130 mm
eccentricity #1 (EW dir)	55.55 mm
eccentricity #2 (EW dir)	-74.45 mm
eccentricity (NS direct)	100 mm
eccentricity #1 (NS dir)	40.55 mm
eccentricity #2 (NS dir)	-59.45 mm

Loads

Live load	3 kPa (unfactored)
LL reductio	0.4
Dead load	4.8 kPa (unfactored)
Extra dead	1.4 kPa (unfactored)
Total	7.4 MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

Long term factors

Shrinkage strain	400 Microstrain
Creep Factor	2.6

depth of slab	
defective	161.1

Factors for C & H [2]

c1	600 mm
l1	9.6 m
c1/l1	0.0625
beta	1.14
beta n	1.15
alpha1 (1)	0
alpha2 (1)	0
alpha1 (2)	1
alpha2 (2)	1
alpha1 (3)	1.13
alpha2 (3)	0.53

Ka 1	0.004553
Ka 2	0.002087
Ka 3	0.00218

Factors for C and M Long term E for camber

kc	0.7
H	70 %
t	1000 days
ti	7 days

$\Phi(10000,7) = 1.674$ kf

Final output

	OUTPUT NS		OUTPUT EW		OUTPUT MID	
	MEAN (mm)	STDEV	MEAN (mm)	STDEV	MEAN (mm)	STDEV
1 C & M (d is whole span)	11.9	1.4	12.4	1.5	24.2	2.0
2 C & M (d is drop panel width)	42.1	5.0	28.4	3.4	70.5	6.0
3 C & M (d is 0.2 x span)	29.6	3.5	22.8	2.7	52.5	4.4
4 Naaman (d is whole span)	3.4	0.4	3.9	0.5	7.3	0.6
5 Naaman (d is drop panel width)	12.1	1.4	8.9	1.1	21.0	1.8
6 Naaman (d is 0.2 x span)	8.5	1.0	7.1	0.8	15.6	1.3

SUMMARY (Total Deformation)

	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-2.0	2.0	-2.3	2.2	-4.3	3.0
C & M (d is drop panel width)	-2.7	7.2	-3.6	5.0	-6.3	8.7
C & M (d is 0.2 x span)	-2.4	5.0	-3.1	4.0	-5.5	6.4
Warner					-51.9	6.2

1 C & H [1] (d is whole slab)	-3.4	0.4	-3.9	0.5	-7.4	0.6
2 C & H [1] (d is drop panel width)	-12.2	1.4	-9.0	1.1	-21.2	1.8
3 C & H [1] (d is 0.2 x width)	-8.6	1.0	-7.3	0.9	-15.8	1.3
4a C & H [2] (using $\alpha[1]$)					-19.9	2.4
4b C & H [2] (using $\alpha[2]$)					-9.1	1.1
4c C & H [2] (using $\alpha[3]$)					-9.5	1.1
5 C & M [1] (d is whole slab)	-12.1	1.4	-13.4	1.6	-25.5	2.1
6 C & M [1] (d is drop panel width)	-43.2	5.1	-30.7	3.6	-73.9	6.3
7 C & M [1] (d is 0.2 x width)	-30.4	3.6	-24.7	2.9	-55.1	4.6
8 Naaman (d is whole slab)	-23.4	2.8	-25.8	3.1	-49.1	4.1
9 Naaman (d is drop panel width)	-83.1	9.8	-59.0	7.0	-142.1	12.1
10 Naaman [1] (d is 0.2 x width)	-58.4	6.9	-47.5	5.6	-105.9	8.9
11 Warner					-51.9	6.2

NS North - South Direction	-1.7					
EW East - West Direction			-1.3			
Both Both Directions					-3.0	

N32, Strips 6 and 10, Long Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist(EV)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	8.66E+09
I (NS) 1	6.40E+09
I (EW) 2	3.78E+09
I (NS) 2	1.80E+09
I (EW) 3	4.70E+09
I (NS) 3	2.56E+09
top reo	12
lower reo	12
Ln	8.35

Prestress factors

Tendon force EW	3178.9	kN
Tendon force NS	3178.9	kN
eccentricity (EW direct)	130	mm
eccentricity #1 (EW dir)	55.55	mm
eccentricity #2 (EW dir)	-74.45	mm
eccentricity (NS direct)	100	mm
eccentricity #1 (NS dir)	40.55	mm
eccentricity #2 (NS dir)	-59.45	mm

Loads

Live load	3	kPa (unfactored)
LL reductio	0.4	
Dead load	4.8	kPa (unfactored)
Extra dead	1.4	kPa (unfactored)
Total	7.4	MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

Long term factors

Shrinkage strain	400	Microstrain
Creep Factor	2.6	

Factors for C & H [2]

c1	600	mm
l1	9.6	m
c1/l1	0.0625	
beta	1.14	
beta n	1.15	
alpha1 (1)	0	
alpha2 (1)	0	
alpha1 (2)	1	
alpha2 (2)	1	
alpha1 (3)	1.13	
alpha2 (3)	0.53	
Ka 1	0.004553	
Ka 2	0.002087	
Ka 3	0.00218	

Factors for C and M Long term E for camber

kc	0.7	
H	70	%
t	1000	days
ti	7	days
Φ(10000,7)	1.674	kf

depth of slab	
deffective	161.1

Final output

		OUTPUT NS		OUTPUT EW		OUTPUT MID	
		MEAN (mm)	STDEV	MEAN (mm)	STDEV	MEAN (mm)	STDEV
1	C & M (d is whole span)	34.3	4.2	43.0	5.3	77.3	6.8
2	C & M (d is drop panel width)	121.9	15.0	98.5	12.2	220.4	19.3
3	C & M (d is 0.2 x span)	85.7	10.6	79.3	9.8	165.0	14.4
4	Naaman (d is whole span)	12.2	1.4	16.7	2.0	29.0	2.5
5	Naaman (d is drop panel width)	43.5	5.2	38.4	4.5	81.8	6.9
6	Naaman (d is 0.2 x span)	30.6	3.6	30.9	3.7	61.4	5.1

	SUMMARY (Total Deformation)					
	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-11.1	6.7	-6.5	7.8	-17.6	10.3
C & M (d is drop panel width)	-35.3	23.8	-13.2	17.9	-48.5	29.7
C & M (d is 0.2 x span)	-25.3	16.7	-10.9	14.4	-36.2	22.0
Warner					-187.0	22.2

		Deformation					
1	C & H [1] (d is whole slab)	-12.3	1.5	-14.2	1.7	-26.5	2.2
2	C & H [1] (d is drop panel width)	-43.9	5.2	-32.5	3.8	-76.4	6.5
3	C & H [1] (d is 0.2 x width)	-30.9	3.7	-26.1	3.1	-57.0	4.8
4a	C & H [2] (using o[1])					-71.7	8.5
4b	C & H [2] (using o[2])					-32.9	3.9
4c	C & H [2] (using o[3])					-34.3	4.1
5	C & M [1] (d is whole slab)	-43.7	5.2	-48.2	5.7	-92.0	7.7
6	C & M [1] (d is drop panel width)	-155.5	18.4	-110.5	13.1	-266.0	22.6
7	C & M [1] (d is 0.2 x width)	-109.3	13.0	-88.9	10.5	-198.2	16.7
8	Naaman (d is whole slab)	-84.1	10.0	-92.8	11.0	-176.8	14.8
9	Naaman (d is drop panel width)	-299.0	35.4	-212.5	25.2	-511.5	43.5
10	Naaman [1] (d is 0.2 x width)	-210.2	24.9	-170.9	20.3	-381.1	32.1
11	Warner					-187.0	22.2

NS	North - South Direction	-1.7			
EW	East - West Direction		-1.3		
Both	Both Directions			-3.0	

N32, Strips 6 and 10, Short Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist(EW)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	8.66E+09
I (NS) 1	6.40E+09
I (EW) 2	3.78E+09
I (NS) 2	1.80E+09
I (EW) 3	4.70E+09
I (NS) 3	2.56E+09
top reo	12
lower reo	12
Ln	8.35

depth of slab	
defective	161.1

Prestress factors

Tendon force EW	3178.9 kN
Tendon force NS	3178.9 kN

eccentricity (EW direct)	130 mm
eccentricity #1 (EW dir)	55.55 mm
eccentricity #2 (EW dir)	-74.45 mm

eccentricity (NS direct)	100 mm
eccentricity #1 (NS dir)	40.55 mm
eccentricity #2 (NS dir)	-59.45 mm

Long term factors

Shrinkage strain	400 Microstrain
Creep Factor	2.6

Loads

Live load	3 kPa (unfactored)
LL reduction	0.4
Dead load	4.8 kPa (unfactored)
Extra dead	1.4 kPa (unfactored)
Total	7.4 MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

Factors for C & H [2]

c1	600 mm
l1	9.6 m
c1/l1	0.0625
beta	1.14
beta n	1.15
alpha1 (1)	0
alpha2 (1)	0
alpha1 (2)	1
alpha2 (2)	1
alpha1 (3)	1.13
alpha2 (3)	0.53

Ka 1	0.004553
Ka 2	0.002087
Ka 3	0.00218

Factors for C and M Long term E for camber

kc	0.7
H	70 %
t	1000 days
ti	7 days

$\Phi(10000,7)$ 1.674 kf

Final output

	OUTPUT NS		OUTPUT EW		OUTPUT MID	
	MEAN (mm)	STDEV	MEAN (mm)	STDEV	MEAN (mm)	STDEV
1 C & M (d is whole span)	11.9	1.4	14.9	1.8	26.7	2.3
2 C & M (d is drop panel width)	42.1	5.0	34.1	4.0	76.2	6.4
3 C & M (d is 0.2 x span)	29.6	3.5	27.4	3.2	57.0	4.8
4 Naaman (d is whole span)	3.4	0.4	4.7	0.6	8.0	0.7
5 Naaman (d is drop panel width)	12.1	1.4	10.7	1.3	22.7	1.9
6 Naaman (d is 0.2 x span)	8.5	1.0	8.6	1.0	17.1	1.4

1 C & H [1] (d is whole slab)	-3.4	0.4	-3.9	0.5	-7.4	0.6
2 C & H [1] (d is drop panel width)	-12.2	1.4	-9.0	1.1	-21.2	1.8
3 C & H [1] (d is 0.2 x width)	-8.6	1.0	-7.3	0.9	-15.8	1.3
4a C & H [2] (using $\alpha[1]$)					-19.9	2.4
4b C & H [2] (using $\alpha[2]$)					-9.1	1.1
4c C & H [2] (using $\alpha[3]$)					-9.5	1.1
5 C & M [1] (d is whole slab)	-12.1	1.4	-13.4	1.6	-25.5	2.1
6 C & M [1] (d is drop panel width)	-43.2	5.1	-30.7	3.6	-73.9	6.3
7 C & M [1] (d is 0.2 x width)	-30.4	3.6	-24.7	2.9	-55.1	4.6
8 Naaman (d is whole slab)	-23.4	2.8	-25.8	3.1	-49.1	4.1
9 Naaman (d is drop panel width)	-83.0	9.8	-59.0	7.0	-142.1	12.1
10 Naaman [1] (d is 0.2 x width)	-58.4	6.9	-47.5	5.6	-105.9	8.9
11 Warner					-51.9	6.2

NS	North - South Direction	-1.7			
EW	East - West Direction		-1.3		
Both	Both Directions			-3.0	

SUMMARY (Total Deformation)

	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-2.0	2.0	0.2	2.4	-1.8	3.1
C & M (d is drop panel width)	-2.7	7.2	2.1	5.4	-0.6	9.0
C & M (d is 0.2 x span)	-2.4	5.0	1.4	4.4	-1.0	6.7
Warner					-51.9	6.2

N32, Strips 7 and 11, Long Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist(EW)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	5.60E+09
I (NS) 1	9.26E+09
I (EW) 2	1.60E+09
I (NS) 2	3.59E+09
I (EW) 3	2.24E+09
I (NS) 3	4.89E+09
top reo	12
lower reo	12
Ln	8.35

Prestress factors

Tendon force EW	3178.9	kN
Tendon force NS	2649.1	kN
eccentricity (EW direct)	130	mm
eccentricity #1 (EW dir)	55.55	mm
eccentricity #2 (EW dir)	-74.45	mm
eccentricity (NS direct)	100	mm
eccentricity #1 (NS dir)	40.55	mm
eccentricity #2 (NS dir)	-59.45	mm

Long term factors

Shrinkage strain	400	Microstrain
Creep Factor	2.6	

Loads

Live load	3	kPa (unfactored)
LL reductio	0.4	
Dead load	4.8	kPa (unfactored)
Extra dead	1.4	kPa (unfactored)
Total	7.4	MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

depth of slab	
deffective	161.1

Factors for C & H [2]

c1	600	mm
l1	9.6	m
c1/l1	0.0625	
beta	1.14	
beta n	1.15	
alpha1 (1)	0	
alpha2 (1)	0	
alpha1 (2)	1	
alpha2 (2)	1	
alpha1 (3)	1.13	
alpha2 (3)	0.53	
Ka 1	0.004553	
Ka 2	0.002087	
Ka 3	0.00218	

Factors for C and M Long term E for camber

kc	0.7	
H	70	%
t	1000	days
ti	7	days
$\Phi(10000,7)$	1.674	kf

Final output

		OUTPUT NS		OUTPUT EW		OUTPUT MID	
		MEAN	STDEV	MEAN	STDEV	MEAN	STDEV
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
1	C & M (d is whole span)	19.8	2.3	66.6	7.9	86.4	8.2
2	C & M (d is drop panel width)	51.0	6.0	233.1	27.5	284.1	28.2
3	C & M (d is 0.2 x span)	37.4	4.4	166.5	19.7	203.9	20.2
4	Naaman (d is whole span)	7.0	0.8	25.9	3.1	32.9	3.2
5	Naaman (d is drop panel width)	18.2	2.2	90.6	10.7	108.8	10.9
6	Naaman (d is 0.2 x span)	13.3	1.6	64.7	7.7	78.1	7.8

SUMMARY (Total Deformation)

	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-12.1	4.3	-9.3	11.8	-21.4	12.6
C & M (d is drop panel width)	-28.7	11.0	-29.3	41.4	-58.0	42.8
C & M (d is 0.2 x span)	-21.5	8.1	-21.3	29.6	-42.8	30.7
Warner					-187.0	22.1

1	C & H [1] (d is whole slab)	-8.5	1.0	-21.9	2.6	-30.5	2.8
2	C & H [1] (d is drop panel width)	-22.0	2.6	-76.7	9.1	-98.7	9.5
3	C & H [1] (d is 0.2 x width)	-16.2	1.9	-54.8	6.5	-71.0	6.8
4a	C & H [2] (using c[1])					-71.7	8.5
4b	C & H [2] (using c[2])					-32.9	3.9
4c	C & H [2] (using c[3])					-34.3	4.1
5	C & M [1] (d is whole slab)	-30.2	3.6	-74.6	8.8	-104.8	9.5
6	C & M [1] (d is drop panel width)	-78.0	9.2	-261.1	30.9	-339.1	32.3
7	C & M [1] (d is 0.2 x width)	-57.2	6.8	-186.5	22.1	-243.8	23.1
8	Naaman (d is whole slab)	-58.1	6.9	-143.5	17.0	-201.6	18.3
9	Naaman (d is drop panel width)	-149.9	17.8	-502.2	59.5	-652.1	62.1
10	Naaman [1] (d is 0.2 x width)	-110.1	13.0	-358.7	42.5	-468.8	44.4
11	Warner					-187.0	22.1

NS	North - South Direction	-1.7					
EW	East - West Direction			-1.3			
Both	Both Directions					-3.0	

N32, Strips 7 and 11, Short Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist(EW)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	5.60E+09
I (NS) 1	9.26E+09
I (EW) 2	1.60E+09
I (NS) 2	3.59E+09
I (EW) 3	2.24E+09
I (NS) 3	4.89E+09
top reo	12
lower reo	12
Ln	8.35

Prestress factors

Tendon force EW	3178.9 kN
Tendon force NS	2649.1 kN

eccentricity (EW direct)	130 mm
eccentricity #1 (EW dir)	55.55 mm
eccentricity #2 (EW dir)	-74.45 mm

eccentricity (NS direct)	100 mm
eccentricity #1 (NS dir)	40.55 mm
eccentricity #2 (NS dir)	-59.45 mm

Long term factors

Shrinkage strain	400 Microstrain
Creep Factor	2.6

Loads

Live load	3 kPa (unfactored)
LL reduction	0.4
Dead load	4.8 kPa (unfactored)
Extra dead	1.4 kPa (unfactored)
Total	7.4 MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

Factors for C & H [2]

c1	600 mm
l1	9.6 m
c1/l1	0.0625
beta	1.14
beta n	1.15
alpha1 (1)	0
alpha2 (1)	0
alpha1 (2)	1
alpha2 (2)	1
alpha1 (3)	1.13
alpha2 (3)	0.53

Ka 1	0.004553
Ka 2	0.002087
Ka 3	0.00218

Factors for C and M Long term E for camber

kc	0.7
H	70 %
t	1000 days
ti	7 days

$\Phi(10000,7)$ 1.674 kf

depth of slab defective	161.1
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Final output

	OUTPUT NS		OUTPUT EW		OUTPUT MID	
	MEAN (mm)	STDEV	MEAN (mm)	STDEV	MEAN (mm)	STDEV
1 C & M (d is whole span)	6.8	0.8	23.0	2.7	29.8	2.8
2 C & M (d is drop panel width)	17.6	2.1	80.5	9.5	98.1	9.8
3 C & M (d is 0.2 x span)	12.9	1.5	57.5	6.8	70.4	7.0
4 Naaman (d is whole span)	2.0	0.2	7.2	0.9	9.2	0.9
5 Naaman (d is drop panel width)	5.0	0.6	25.2	3.0	30.2	3.0
6 Naaman (d is 0.2 x span)	3.7	0.4	18.0	2.1	21.7	2.2

	SUMMARY (Total Deformation)					
	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-3.2	1.3	1.0	3.7	-2.2	3.9
C & M (d is drop panel width)	-5.7	3.3	6.7	12.8	1.0	13.2
C & M (d is 0.2 x span)	-4.6	2.4	4.4	9.2	-0.2	9.5
Warner					-52.0	6.2

	Deflection					
	MEAN	STDEV	MEAN	STDEV	MEAN	STDEV
1 C & H [1] (d is whole slab)	-2.4	0.3	-6.1	0.7	-8.5	0.8
2 C & H [1] (d is drop panel width)	-6.1	0.7	-21.3	2.5	-27.4	2.6
3 C & H [1] (d is 0.2 x width)	-4.5	0.5	-15.2	1.8	-19.7	1.9
4a C & H [2] (using $\alpha[1]$)					-19.9	2.4
4b C & H [2] (using $\alpha[2]$)					-9.1	1.1
4c C & H [2] (using $\alpha[3]$)					-9.5	1.1
5 C & M [1] (d is whole slab)	-8.4	1.0	-20.7	2.5	-29.1	2.6
6 C & M [1] (d is drop panel width)	-21.7	2.6	-72.5	8.6	-94.2	9.0
7 C & M [1] (d is 0.2 x width)	-15.9	1.9	-51.8	6.1	-67.7	6.4
8 Naaman (d is whole slab)	-16.1	1.9	-39.9	4.7	-56.0	5.1
9 Naaman (d is drop panel width)	-41.6	4.9	-139.5	16.5	-181.1	17.2
10 Naaman [1] (d is 0.2 x width)	-30.6	3.6	-99.6	11.8	-130.2	12.3
11 Warner					-52.0	6.2

NS	North - South Direction	-1.7			
EW	East - West Direction		-1.3		
Both	Both Directions			-3.0	

N40, Strips 1 and 9, Long Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist(EW)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	5.60E+09
I (NS) 1	9.26E+09
I (EW) 2	1.60E+09
I (NS) 2	3.59E+09
I (EW) 3	2.24E+09
I (NS) 3	4.89E+09
top reo	12
lower reo	12
Ln	8.35

Prestress factors

Tendon force NS	3708.8 kN
Tendon force EW	3178.9 kN

eccentricity (NS direct)	100 mm
eccentricity #1 (NS dir)	40.55 mm
eccentricity #2 (NS dir)	-59.45 mm

eccentricity (EW direct)	130 mm
eccentricity #1 (EW dir)	55.55 mm
eccentricity #2 (EW dir)	-74.45 mm

Long term factors

Shrinkage strain	400 Microstrain
Creep Factor	2.6

Loads

Live load	3 kPa (unfactored)
LL reductio	0.4
Dead load	4.8 kPa (unfactored)
Extra dead	1.4 kPa (unfactored)
Total	7.4 MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

depth of slab defective	161.1
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Factors for C & H [2]

c1	600 mm
l1	9.6 m
c1/l1	0.0625
beta	1.14
beta n	1.15
alpha1 (1)	0
alpha2 (1)	0
alpha1 (2)	1
alpha2 (2)	1
alpha1 (3)	1.13
alpha2 (3)	0.53

Ka 1	0.004553
Ka 2	0.002087
Ka 3	0.00218

Factors for C and M Long term E for camber

kc	0.7
H	70 %
t	1000 days
ti	7 days

$\Phi(10000,7)$ 1.674 kf

Final output

	OUTPUT NS		OUTPUT EW		OUTPUT MID	
	MEAN (mm)	STDEV	MEAN (mm)	STDEV	MEAN (mm)	STDEV
1 C & M (d is whole span)	24.2	5.1	58.2	12.3	82.4	13.3
2 C & M (d is drop panel width)	62.4	13.2	203.6	43.0	266.0	45.0
3 C & M (d is 0.2 x span)	45.8	9.7	145.4	30.7	191.2	32.2
4 Naaman (d is whole span)	9.4	1.2	24.6	3.1	33.9	3.3
5 Naaman (d is drop panel width)	24.1	3.0	86.0	10.8	110.2	11.2
6 Naaman (d is 0.2 x span)	17.7	2.2	61.5	7.7	79.2	8.0

	Deflection					
	MEAN	STDEV	MEAN	STDEV	MEAN	STDEV
1 C & H [1] (d is whole slab)	-8.1	1.0	-20.8	2.6	-28.9	2.8
2 C & H [1] (d is drop panel width)	-20.9	2.6	-72.8	9.1	-93.7	9.5
3 C & H [1] (d is 0.2 x width)	-15.3	1.9	-52.0	6.5	-67.4	6.8
4a C & H [2] (using $\alpha[1]$)					-68.0	8.5
4b C & H [2] (using $\alpha[2]$)					-31.2	3.9
4c C & H [2] (using $\alpha[3]$)					-32.6	4.1
5 C & M [1] (d is whole slab)	-28.7	3.6	-70.8	8.9	-99.5	9.6
6 C & M [1] (d is drop panel width)	-74.0	9.3	-247.9	31.0	-321.9	32.4
7 C & M [1] (d is 0.2 x width)	-54.3	6.8	-177.0	22.2	-231.4	23.2
8 Naaman (d is whole slab)	-55.2	6.9	-136.2	17.0	-191.4	18.4
9 Naaman (d is drop panel width)	-142.3	17.8	-476.6	59.7	-619.0	62.3
10 Naaman [1] (d is 0.2 x width)	-104.5	13.1	-340.5	42.6	-444.9	44.6
11 Warner					-177.5	22.2

NS	North - South Direction	-1.7				
EW	East - West Direction		-1.3			
Both	Both Directions			-3.0		

SUMMARY (Total Deformation)

	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-6.2	6.2	-13.9	15.2	-20.1	16.4
C & M (d is drop panel width)	-13.3	16.1	-45.5	53.0	-58.8	55.4
C & M (d is 0.2 x span)	-10.2	11.8	-32.9	37.9	-43.1	39.7
Warner					-177.5	22.2

N40, Strips 1 and 9, Short Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist(EV)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	5.60E+09
I (NS) 1	9.26E+09
I (EW) 2	1.60E+09
I (NS) 2	3.59E+09
I (EW) 3	2.24E+09
I (NS) 3	4.89E+09
top reo	12
lower reo	12
Ln	8.35

Prestress factors

Tendon force NS	3708.8	kN
Tendon force EW	3178.9	kN

eccentricity (NS direct)	100	mm
eccentricity #1 (NS dir)	40.55	mm
eccentricity #2 (NS dir)	-59.45	mm

eccentricity (EW direct)	130	mm
eccentricity #1 (EW dir)	55.55	mm
eccentricity #2 (EW dir)	-74.45	mm

Long term factors

Shrinkage strain	400	Microstrain
Creep Factor	2.6	

Loads

Live load	3	kPa (unfactored)
LL reductio	0.4	
Dead load	4.8	kPa (unfactored)
Extra dead	1.4	kPa (unfactored)
Total	7.4	MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

Factors for C & H [2]

c1	600	mm
l1	9.6	m
c1/l1	0.0625	
beta	1.14	
beta n	1.15	
alpha1 (1)	0	Ka 1 0.004553
alpha2 (1)	0	Ka 2 0.002087
alpha1 (2)	1	Ka 3 0.00218
alpha2 (2)	1	
alpha1 (3)	1.13	
alpha2 (3)	0.53	

Factors for C and M Long term E for camber

kc	0.7	
H	70	%
t	1000	days
ti	7	days

$\Phi(10000,7)$ 1.674 kf

depth of slab	
deffective	161.1

Final output

	OUTPUT NS		OUTPUT EW		OUTPUT MID	
	MEAN (mm)	STDEV	MEAN (mm)	STDEV	MEAN (mm)	STDEV
1 C & M (d is whole span)	9.1	1.1	21.8	2.7	30.9	2.9
2 C & M (d is drop panel width)	23.4	2.9	76.4	9.3	99.8	9.8
3 C & M (d is 0.2 x span)	17.2	2.1	54.6	6.7	71.7	7.0
4 Naaman (d is whole slab)	2.6	0.3	6.8	0.8	9.4	0.9
5 Naaman (d is drop panel width)	6.7	0.8	23.9	2.9	30.6	3.0
6 Naaman (d is 0.2 x span)	4.9	0.6	17.1	2.1	22.0	2.2

SUMMARY (Total Deformation)

	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-0.6	1.5	0.9	3.6	0.3	3.9
C & M (d is drop panel width)	1.2	3.8	6.3	12.6	7.4	13.1
C & M (d is 0.2 x span)	0.4	2.8	4.1	9.0	4.5	9.4
Wvarner					-49.3	6.0

Deflection	NS	EW	MID	NS	EW	MID
1 C & H [1] (d is whole slab)	-2.2	0.3	-5.8	0.7	-8.0	0.8
2 C & H [1] (d is drop panel width)	-5.8	0.7	-20.2	2.5	-26.0	2.6
3 C & H [1] (d is 0.2 x width)	-4.3	0.5	-14.4	1.8	-18.7	1.8
4a C & H [2] (using c[1])					-18.9	2.3
4b C & H [2] (using c[2])					-8.7	1.1
4c C & H [2] (using c[3])					-9.0	1.1
5 C & M [1] (d is whole slab)	-8.0	1.0	-19.7	2.4	-27.6	2.6
6 C & M [1] (d is drop panel width)	-20.6	2.5	-68.8	8.4	-89.4	8.8
7 C & M [1] (d is 0.2 x width)	-15.1	1.8	-49.2	6.0	-64.3	6.3
8 Naaman (d is whole slab)	-15.3	1.9	-37.8	4.6	-53.1	5.0
9 Naaman (d is drop panel width)	-39.5	4.8	-132.4	16.2	-171.9	16.9
10 Naaman [1] (d is 0.2 x width)	-29.0	3.5	-94.6	11.6	-123.6	12.1
11 Wvarner					-49.3	6.0

NS	North - South Direction	-1.7				
EW	East - West Direction		-1.3			
Both	Both Directions			-3.0		

N40, Strips 2 and 8, Long Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist(EW)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	8.66E+09
I (NS) 1	6.40E+09
I (EW) 2	3.78E+09
I (NS) 2	1.80E+09
I (EW) 3	4.70E+09
I (NS) 3	2.56E+09
top reo	12
lower reo	12
Ln	8.35

depth of slab	
deffective	161.1

Prestress factors

Tendon force NS	3576.3 kN
Tendon force EW	2649.1 kN

eccentricity (NS direct)	100 mm
eccentricity #1 (NS dir)	40.55 mm
eccentricity #2 (NS dir)	-59.45 mm

eccentricity (EW direct)	130 mm
eccentricity #1 (EW dir)	55.55 mm
eccentricity #2 (EW dir)	-74.45 mm

Long term factors

Shrinkage strain	400 Microstrain
Creep Factor	2.6

Loads

Live load	3 kPa (unfactored)
LL reduction	0.4
Dead load	4.8 kPa (unfactored)
Extra dead	1.4 kPa (unfactored)
Total	7.4 MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors for C & H [2]

c1	600 mm
l1	9.6 m
c1/l1	0.0625
beta	1.14
beta n	1.15
alpha1 (1)	0
alpha2 (1)	0
alpha1 (2)	1
alpha2 (2)	1
alpha1 (3)	1.13
alpha2 (3)	0.53

Ka 1	0.004553
Ka 2	0.002087
Ka 3	0.00218

Factors that account for slab location.

Factors for C and M Long term E for camber

kc	0.7
H	70 %
t	1000 days
ti	7 days

$\Phi(10000,7)$ 1.674 kf

Final output

	OUTPUT NS		OUTPUT EW		OUTPUT MID	
	MEAN (mm)	STDEV	MEAN (mm)	STDEV	MEAN (mm)	STDEV
1 C & M (d is whole span)	33.7	3.8	31.3	3.5	65.0	5.2
2 C & M (d is drop panel width)	119.8	13.5	71.7	8.1	191.5	15.8
3 C & M (d is 0.2 x span)	84.2	9.5	57.7	6.5	141.9	11.5
4 Naaman (d is whole span)	13.0	1.7	13.2	1.7	26.3	2.4
5 Naaman (d is drop panel width)	46.4	6.0	30.3	3.9	76.7	7.2
6 Naaman (d is 0.2 x span)	32.6	4.2	24.4	3.2	57.0	5.3

	MEAN	STDEV	MEAN	STDEV	MEAN	STDEV
1 C & H [1] (d is whole slab)	-11.7	1.5	-13.4	1.7	-25.1	2.3
2 C & H [1] (d is drop panel width)	-41.6	5.4	-30.8	4.0	-72.4	6.7
3 C & H [1] (d is 0.2 x width)	-29.3	3.8	-24.8	3.2	-54.0	5.0
4a C & H [2] (using $\alpha[1]$)					-67.9	8.8
4b C & H [2] (using $\alpha[2]$)					-31.1	4.0
4c C & H [2] (using $\alpha[3]$)					-32.5	4.2
5 C & M [1] (d is whole slab)	-41.5	5.4	-45.7	5.9	-87.2	8.0
6 C & M [1] (d is drop panel width)	-147.4	19.0	-104.9	13.5	-252.1	23.4
7 C & M [1] (d is 0.2 x width)	-103.6	13.4	-84.3	10.9	-187.9	17.3
8 Naaman (d is whole slab)	-79.7	10.3	-87.9	11.4	-167.6	15.3
9 Naaman (d is drop panel width)	-283.4	36.6	-201.5	26.0	-484.9	44.9
10 Naaman [1] (d is 0.2 x width)	-199.3	25.8	-162.0	20.9	-361.3	33.2
11 Warner					-177.3	22.9

NS	North - South Direction	-1.7				
EW	East - West Direction		-1.3			
Both	Both Directions			-3.0		

SUMMARY (Total Deformation)

	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-9.4	6.6	-15.7	6.9	-25.1	9.5
C & M (d is drop panel width)	-29.3	23.4	-34.3	15.8	-63.6	28.2
C & M (d is 0.2 x span)	-21.1	16.4	-27.8	12.7	-48.9	20.8
Warner					-177.3	22.9

N40, Strips 2 and 8, Short Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist(EW)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	8.66E+09
I (NS) 1	6.40E+09
I (EW) 2	3.78E+09
I (NS) 2	1.80E+09
I (EW) 3	4.70E+09
I (NS) 3	2.56E+09
top reo	12
lower reo	12
Ln	8.35

Prestress factors

Tendon force NS	3576.3 kN
Tendon force EW	2649.1 kN
eccentricity (NS direct)	100 mm
eccentricity #1 (NS dir)	40.55 mm
eccentricity #2 (NS dir)	-59.45 mm
eccentricity (EW direct)	130 mm
eccentricity #1 (EW dir)	55.55 mm
eccentricity #2 (EW dir)	-74.45 mm

Loads

Live load	3 kPa (unfactored)
LL reductio	0.4
Dead load	4.8 kPa (unfactored)
Extra dead	1.4 kPa (unfactored)
Total	7.4 MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

Long term factors

Shrinkage strain	400 Microstrain
Creep Factor	2.6

Factors for C & H [2]

c1	600 mm
l1	9.6 m
c1/l1	0.0625
beta	1.14
beta n	1.15
alpha1 (1)	0
alpha2 (1)	0
alpha1 (2)	1
alpha2 (2)	1
alpha1 (3)	1.13
alpha2 (3)	0.53

Ka 1	0.004553
Ka 2	0.002087
Ka 3	0.00218

Factors for C and M Long term E for camber

kc	0.7
H	70 %
t	1000 days
ti	7 days

$\Phi(10000,7) = 1.674$ kf

depth of slab
deffective 161.1

Final output

		OUTPUT NS		OUTPUT EW		OUTPUT MID	
		MEAN (mm)	STDEV	MEAN (mm)	STDEV	MEAN (mm)	STDEV
1	C & M (d is whole span)	12.7	1.6	11.8	1.5	24.4	2.2
2	C & M (d is drop panel width)	45.0	5.8	27.0	3.4	72.0	6.7
3	C & M (d is 0.2 x span)	31.7	4.0	21.7	2.8	53.4	4.9
4	Naaman (d is whole span)	3.6	0.5	3.7	0.5	7.3	0.7
5	Naaman (d is drop panel width)	12.9	1.6	8.4	1.1	21.3	2.0
6	Naaman (d is 0.2 x span)	9.1	1.2	6.8	0.9	15.9	1.4

		OUTPUT NS		OUTPUT EW		OUTPUT MID	
		MEAN (mm)	STDEV	MEAN (mm)	STDEV	MEAN (mm)	STDEV
1	C & H [1] (d is whole slab)	-3.3	0.4	-3.7	0.5	-7.0	0.6
2	C & H [1] (d is drop panel width)	-11.6	1.5	-8.6	1.1	-20.2	1.8
3	C & H [1] (d is 0.2 x width)	-8.1	1.0	-6.9	0.9	-15.0	1.4
4a	C & H [2] (using α [1])					-18.9	2.4
4b	C & H [2] (using α [2])					-8.7	1.1
4c	C & H [2] (using α [3])					-9.1	1.2
5	C & M [1] (d is whole slab)	-11.5	1.5	-12.7	1.6	-24.3	2.2
6	C & M [1] (d is drop panel width)	-41.0	5.2	-29.2	3.7	-70.2	6.4
7	C & M [1] (d is 0.2 x width)	-28.8	3.7	-23.5	3.0	-52.3	4.7
8	Naaman (d is whole slab)	-22.2	2.8	-24.5	3.1	-46.7	4.2
9	Naaman (d is drop panel width)	-78.9	10.1	-56.1	7.2	-135.0	12.4
10	Naaman [1] (d is 0.2 x width)	-55.5	7.1	-45.1	5.8	-100.6	9.1
11	Warner					-49.4	6.3

NS	North - South Direction	-1.7			
EW	East - West Direction		-1.3		
Both	Both Directions			-3.0	

	SUMMARY (Total Deformation)					
	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-0.5	2.2	-2.2	2.2	-2.8	3.1
C & M (d is drop panel width)	2.3	7.8	-3.5	5.1	-1.1	9.3
C & M (d is 0.2 x span)	1.1	5.5	-3.0	4.1	-1.9	6.8
Warner					-49.4	6.3

N40, Strips 3 and 8, Long Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist (EW)	3
drop dist (NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	8.66E+09
I (NS) 1	6.40E+09
I (EW) 2	3.78E+09
I (NS) 2	1.80E+09
I (EW) 3	4.70E+09
I (NS) 3	2.56E+09
top reo	12
lower reo	12
Ln	8.35

Prestress factors

Tendon force EW	3443.9	kN
Tendon force NS	3576.3	kN
eccentricity (EW direct)	130	mm
eccentricity #1 (EW dir)	55.55	mm
eccentricity #2 (EW dir)	-74.45	mm
eccentricity (NS direct)	100	mm
eccentricity #1 (NS dir)	40.55	mm
eccentricity #2 (NS dir)	-59.45	mm

Loads

Live load	3	kPa (unfactored)
LL reductio	0.4	
Dead load	4.8	kPa (unfactored)
Extra dead	1.4	kPa (unfactored)
Total	7.4	MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

Long term factors

Shrinkage strain	400	Microstrain
Creep Factor	2.6	

Factors for C & H [2]

ci	600	mm
l1	9.6	m
ci/l1	0.0625	
beta	1.14	
beta n	1.15	
alpha1 (1)	0	Ka 1 0.004553
alpha2 (1)	0	Ka 2 0.002087
alpha1 (2)	1	Ka 3 0.00218
alpha2 (2)	1	
alpha1 (3)	1.13	
alpha2 (3)	0.53	

Factors for C and M Long term E for camber

kc	0.7	
H	70	%
t	1000	days
ti	7	days

depth of slab	
deffective	161.1

$\Phi(10000,7) = 1.674$ kf

Final output

	OUTPUT NS		OUTPUT EW		OUTPUT MID	
	MEAN	STDEV	MEAN	STDEV	MEAN	STDEV
	(mm)		(mm)		(mm)	
1 C & M (d is whole span)	33.6	3.8	40.6	4.5	74.3	5.9
2 C & M (d is drop panel width)	119.6	13.4	93.1	10.4	212.7	17.0
3 C & M (d is 0.2 x span)	84.1	9.4	74.9	8.4	158.9	12.6
4 Naaman (d is whole span)	13.1	1.8	17.3	2.3	30.4	2.9
5 Naaman (d is drop panel width)	46.6	6.3	39.6	5.3	86.1	8.2
6 Naaman (d is 0.2 x span)	32.7	4.4	31.8	4.3	64.6	6.2

SUMMARY (Total Deformation)

	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-9.7	6.8	-6.6	7.7	-16.2	10.2
C & M (d is drop panel width)	-30.1	24.0	-13.4	17.6	-43.5	29.8
C & M (d is 0.2 x span)	-21.7	16.9	-11.0	14.2	-32.7	22.0
Warner					-178.0	24.0

	MEAN	STDEV	MEAN	STDEV	MEAN	STDEV
1 C & H [1] (d is whole slab)	-11.8	1.6	-13.5	1.8	-25.2	2.4
2 C & H [1] (d is drop panel width)	-41.8	5.6	-30.9	4.2	-72.7	7.0
3 C & H [1] (d is 0.2 x width)	-29.4	4.0	-24.9	3.4	-54.2	5.2
4a C & H [2] (using $\alpha[1]$)					-68.2	9.2
4b C & H [2] (using $\alpha[2]$)					-31.3	4.2
4c C & H [2] (using $\alpha[3]$)					-32.7	4.4
5 C & M [1] (d is whole slab)	-41.6	5.6	-45.9	6.2	-87.5	8.4
6 C & M [1] (d is drop panel width)	-148.0	20.0	-105.2	14.2	-253.2	24.5
7 C & M [1] (d is 0.2 x width)	-104.1	14.0	-84.6	11.4	-188.7	18.1
8 Naaman (d is whole slab)	-80.1	10.8	-88.3	11.9	-168.4	16.1
9 Naaman (d is drop panel width)	-284.6	38.4	-202.3	27.3	-486.9	47.1
10 Naaman [1] (d is 0.2 x width)	-200.1	27.0	-162.7	21.9	-362.8	34.8
11 Warner					-178.0	24.0

NS North - South Direction	-1.7			
EW East - West Direction		-1.3		
Both Both Directions			-3.0	

N40, Strips 3 and 8, Short Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist(EW)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	8.66E+09
I (NS) 1	6.40E+09
I (EW) 2	3.78E+09
I (NS) 2	1.80E+09
I (EW) 3	4.70E+09
I (NS) 3	2.56E+09
top reo	12
lower reo	12
Ln	8.35
depth of slab	
deffective	161.1

Prestress factors

Tendon force EW	3443.9 kN
Tendon force NS	3576.3 kN
eccentricity (EW direct)	130 mm
eccentricity #1 (EW dir)	55.55 mm
eccentricity #2 (EW dir)	-74.45 mm
eccentricity (NS direct)	100 mm
eccentricity #1 (NS dir)	40.55 mm
eccentricity #2 (NS dir)	-59.45 mm

Long term factors

Shrinkage strain	400 Microstrain
Creep Factor	2.6

Loads

Live load	3 kPa (unfactored)
LL reduction	0.4
Dead load	4.8 kPa (unfactored)
Extra dead	1.4 kPa (unfactored)
Total	7.4 MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

Factors for C & H [2]

c1	600 mm
l1	9.6 m
c1/l1	0.0625
beta	1.14
beta n	1.15
alpha1 (1)	0
alpha2 (1)	0
alpha1 (2)	1
alpha2 (2)	1
alpha1 (3)	1.13
alpha2 (3)	0.53
Ka 1	0.004553
Ka 2	0.002087
Ka 3	0.00218

Factors for C and M Long term E for camber

kc	0.7
H	70 %
t	1000 days
ti	7 days
φ(10000,7)	1.674 kf

Final output

		OUTPUT NS		OUTPUT EW		OUTPUT MID	
		MEAN	STDEV	MEAN	STDEV	MEAN	STDEV
		(mm)		(mm)		(mm)	
1	C & M (d is whole span)	12.7	1.7	15.3	2.1	28.0	2.7
2	C & M (d is drop panel width)	45.1	6.1	35.1	4.7	80.3	7.7
3	C & M (d is 0.2 x span)	31.7	4.3	28.3	3.8	60.0	5.7
4	Naaman (d is whole span)	3.6	0.5	4.8	0.6	8.4	0.8
5	Naaman (d is drop panel w)	12.9	1.7	11.0	1.5	23.9	2.3
6	Naaman (d is 0.2 x span)	9.1	1.2	8.8	1.2	17.9	1.7

		OUTPUT NS		OUTPUT EW		OUTPUT MID	
		MEAN	STDEV	MEAN	STDEV	MEAN	STDEV
1	C & H [1] (d is whole slab)	-3.3	0.4	-3.7	0.5	-7.0	0.7
2	C & H [1] (d is drop panel w)	-11.6	1.6	-8.6	1.2	-20.2	1.9
3	C & H [1] (d is 0.2 x width)	-8.2	1.1	-6.9	0.9	-15.1	1.4
4a	C & H [2] (using α[1])					-19.0	2.6
4b	C & H [2] (using α[2])					-8.7	1.2
4c	C & H [2] (using α[3])					-9.1	1.2
5	C & M [1] (d is whole slab)	-11.6	1.6	-12.8	1.7	-24.3	2.3
6	C & M [1] (d is drop panel w)	-41.1	5.5	-29.2	3.9	-70.3	6.8
7	C & M [1] (d is 0.2 x width)	-28.9	3.9	-23.5	3.2	-52.4	5.0
8	Naaman (d is whole slab)	-22.2	3.0	-24.5	3.3	-46.8	4.5
9	Naaman (d is drop panel w)	-79.1	10.7	-56.2	7.6	-135.3	13.1
10	Naaman [1] (d is 0.2 x width)	-55.6	7.5	-45.2	6.1	-100.8	9.7
11	Warner					-49.4	6.7

NS	North - South Direction	-1.7			
EW	East - West Direction		-1.3		
Both	Both Directions			-3.0	

SUMMARY (Total Deformation)

	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-0.5	2.3	1.3	2.7	0.8	3.6
C & M (d is drop panel width)	2.3	8.2	4.6	6.2	7.0	10.3
C & M (d is 0.2 x span)	1.1	5.8	3.5	5.0	4.6	7.6
Warner					-49.4	6.7

N40, Strips 4 and 9, Long Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist(EW)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	5.60E+09
I (NS) 1	9.83E+09
I (EW) 2	1.60E+09
I (NS) 2	4.49E+09
I (EW) 3	2.24E+09
I (NS) 3	5.29E+09
top reo	12
lower reo	12
Ln	8.35

depth of slab	
defective	161.1

Prestress factors

Tendon force NS	3443.9	kN
Tendon force EW	3178.9	kN

eccentricity (NS direct)	100	mm
eccentricity #1 (NS dir)	40.55	mm
eccentricity #2 (NS dir)	-59.45	mm

eccentricity (EW direct)	130	mm
eccentricity #1 (EW dir)	55.55	mm
eccentricity #2 (EW dir)	-74.45	mm

Long term factors

Shrinkage strain	400	Microstrain
Creep Factor	2.6	

Loads

Live load	3	kPa (unfactored)
LL reduction	0.4	
Dead load	4.8	kPa (unfactored)
Extra dead	1.4	kPa (unfactored)
Total	7.4	MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

Factors for C & H [2]

c1	600	mm
l1	9.6	m
c1/l1	0.0625	
beta	1.14	
beta n	1.15	
alpha1 (1)	0	
alpha2 (1)	0	
alpha1 (2)	1	
alpha2 (2)	1	
alpha1 (3)	1.13	
alpha2 (3)	0.53	

Ka 1	0.004553
Ka 2	0.002087
Ka 3	0.00218

Factors for C and M Long term E for camber

kc	0.7	
H	70	%
t	1000	days
ti	7	days

$\Phi(10000,7)$ 1.674 kf

Final output

	OUTPUT NS		OUTPUT EW		OUTPUT MID	
	MEAN	STDEV	MEAN	STDEV	MEAN	STDEV
	(mm)		(mm)		(mm)	
1 C & M (d is whole span)	21.1	2.4	58.1	6.6	79.2	7.0
2 C & M (d is drop panel width)	46.2	5.3	203.4	23.1	249.6	23.7
3 C & M (d is 0.2 x span)	39.2	4.5	145.3	16.5	184.5	17.1
4 Naaman (d is whole span)	8.2	1.0	24.6	3.1	32.8	3.3
5 Naaman (d is drop panel width)	17.9	2.3	86.1	10.9	104.1	11.1
6 Naaman (d is 0.2 x span)	15.2	1.9	61.5	7.8	76.7	8.0

	OUTPUT NS		OUTPUT EW		OUTPUT MID	
	MEAN	STDEV	MEAN	STDEV	MEAN	STDEV
1 C & H [1] (d is whole slab)	-7.6	1.0	-20.8	2.6	-28.5	2.8
2 C & H [1] (d is drop panel width)	-16.7	2.1	-72.9	9.2	-89.6	9.5
3 C & H [1] (d is 0.2 x width)	-14.2	1.8	-52.1	6.6	-66.3	6.8
4a C & H [2] (using $\alpha[1]$)					-68.1	8.6
4b C & H [2] (using $\alpha[2]$)					-31.2	4.0
4c C & H [2] (using $\alpha[3]$)					-32.6	4.1
5 C & M [1] (d is whole slab)	-27.1	3.4	-70.9	9.0	-97.9	9.6
6 C & M [1] (d is drop panel width)	-59.2	7.5	-248.1	31.4	-307.3	32.3
7 C & M [1] (d is 0.2 x width)	-50.3	6.4	-177.2	22.4	-227.5	23.3
8 Naaman (d is whole slab)	-52.0	6.6	-136.3	17.3	-188.4	18.5
9 Naaman (d is drop panel width)	-113.9	14.4	-477.1	60.4	-591.1	62.1
10 Naaman [1] (d is 0.2 x width)	-96.7	12.2	-340.8	43.1	-437.5	44.8
11 Warner					-177.7	22.5

NS	North - South Direction	-1.7			
EW	East - West Direction		-1.3		
Both	Both Directions			-3.0	

SUMMARY (Total Deformation)

	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-7.6	4.2	-14.1	11.1	-21.7	11.9
C & M (d is drop panel width)	-14.7	9.2	-46.0	39.0	-60.7	40.1
C & M (d is 0.2 x span)	-12.7	7.8	-33.2	27.9	-45.9	28.9
Warner					-177.7	22.5

N40, Strips 4 and 9, Short Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist(EW)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	5.60E+09
I (NS) 1	9.83E+09
I (EW) 2	1.60E+09
I (NS) 2	4.49E+09
I (EW) 3	2.24E+09
I (NS) 3	5.29E+09
top reo	12
lower reo	12
Ln	8.35

Prestress factors

Tendon force NS	3443.9	kN
Tendon force EW	3178.9	kN

eccentricity (NS direct)	100	mm
eccentricity #1 (NS dir)	40.55	mm
eccentricity #2 (NS dir)	-59.45	mm

eccentricity (EW direct)	130	mm
eccentricity #1 (EW dir)	55.55	mm
eccentricity #2 (EW dir)	-74.45	mm

Long term factors

Shrinkage strain	400	Microstrain
Creep Factor	2.6	

Loads

Live load	3	kPa (unfactored)
LL reduction	0.4	
Dead load	4.8	kPa (unfactored)
Extra dead	1.4	kPa (unfactored)
Total	7.4	MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

Factors for C & H [2]

c1	600	mm
l1	9.6	m
c1/l1	0.0625	
beta	1.14	
beta n	1.15	
alpha1 (1)	0	Ka 1 0.004553
alpha2 (1)	0	Ka 2 0.002087
alpha1 (2)	1	Ka 3 0.00218
alpha2 (2)	1	
alpha1 (3)	1.13	
alpha2 (3)	0.53	

Factors for C and M Long term E for camber

kc	0.7	
H	70	%
t	1000	days
ti	7	days

$\Phi(10000,7)$ 1.674 kf

depth of slab	
deffective	161.1

Final output

	OUTPUT NS		OUTPUT EW		OUTPUT MID	
	MEAN (mm)	STDEV	MEAN (mm)	STDEV	MEAN (mm)	STDEV
1 C & M (d is whole span)	7.9	1.0	21.9	2.8	29.8	2.9
2 C & M (d is drop panel width)	17.4	2.2	76.5	9.7	93.9	9.9
3 C & M (d is 0.2 x span)	14.8	1.9	54.6	6.9	69.4	7.2
4 Naaman (d is whole span)	2.3	0.3	6.8	0.9	9.1	0.9
5 Naaman (d is drop panel width)	5.0	0.6	23.9	3.0	28.9	3.1
6 Naaman (d is 0.2 x span)	4.2	0.5	17.1	2.2	21.3	2.2

	OUTPUT NS		OUTPUT EW		OUTPUT MID	
	MEAN (mm)	STDEV	MEAN (mm)	STDEV	MEAN (mm)	STDEV
1 C & H [1] (d is whole slab)	-2.1	0.3	-5.8	0.7	-7.9	0.8
2 C & H [1] (d is drop panel width)	-4.6	0.6	-20.3	2.6	-24.9	2.6
3 C & H [1] (d is 0.2 x width)	-3.9	0.5	-14.5	1.8	-18.4	1.9
4a C & H [2] (using $\alpha[1]$)					-18.9	2.4
4b C & H [2] (using $\alpha[2]$)					-8.7	1.1
4c C & H [2] (using $\alpha[3]$)					-9.1	1.1
5 C & M [1] (d is whole slab)	-7.5	1.0	-19.7	2.5	-27.2	2.7
6 C & M [1] (d is drop panel width)	-16.5	2.1	-68.9	8.7	-85.4	9.0
7 C & M [1] (d is 0.2 x width)	-14.0	1.8	-49.2	6.2	-63.2	6.5
8 Naaman (d is whole slab)	-14.5	1.8	-37.9	4.8	-52.3	5.1
9 Naaman (d is drop panel width)	-31.5	4.0	-132.5	16.8	-164.2	17.2
10 Naaman [1] (d is 0.2 x width)	-26.9	3.4	-94.7	12.0	-121.5	12.5
11 Warner					-49.4	6.2

NS	North - South Direction	-1.7				
EW	East - West Direction		-1.3			
Both	Both Directions			-3.0		

	SUMMARY (Total Deformation)					
	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-1.2	1.4	0.9	3.7	-0.4	4.0
C & M (d is drop panel width)	-0.7	3.0	6.3	13.0	5.6	13.4
C & M (d is 0.2 x span)	-0.9	2.6	4.1	9.3	3.2	9.7
Warner					-49.4	6.2

N40, Strips 4 and 11, Long Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist(EW)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	5.60E+09
I (NS) 1	9.83E+09
I (EW) 2	1.60E+09
I (NS) 2	4.49E+09
I (EW) 3	2.24E+09
I (NS) 3	5.29E+09
top reo	12
lower reo	12
Ln	8.35

Prestress factors

Tendon force NS	3443.9	kN
Tendon force EW	3178.9	kN

eccentricity (NS direct)	100	mm
eccentricity #1 (NS dir)	40.55	mm
eccentricity #2 (NS dir)	-59.45	mm

eccentricity (EW direct)	130	mm
eccentricity #1 (EW dir)	55.55	mm
eccentricity #2 (EW dir)	-74.45	mm

Long term factors

Shrinkage strain	400	Microstrain
Creep Factor	2.6	

Loads

Live load	3	kPa (unfactored)
LL reductio	0.4	
Dead load	4.8	kPa (unfactored)
Extra dead	1.4	kPa (unfactored)
Total	7.4	MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

depth of slab	
deffective	161.1

Factors for C & H [2]

c1	600	mm
l1	9.6	m
c1/l1	0.0625	
beta	1.14	
beta n	1.15	
alpha1 (1)	0	Ka 1 0.004553
alpha2 (1)	0	Ka 2 0.002087
alpha1 (2)	1	Ka 3 0.00218
alpha2 (2)	1	
alpha1 (3)	1.13	
alpha2 (3)	0.53	

Factors for C and M Long term E for camber

kc	0.7	
H	70	%
t	1000	days
ti	7	days
Φ(10000,7)	1.674	kf

Final output

		OUTPUT NS		OUTPUT EW		OUTPUT MID	
		MEAN	STDEV	MEAN	STDEV	MEAN	STDEV
		(mm)		(mm)		(mm)	
1	C & M (d is whole span)	21.1	2.4	58.1	6.6	79.2	7.0
2	C & M (d is drop panel width)	46.2	5.3	203.4	23.1	249.6	23.7
3	C & M (d is 0.2 x span)	39.2	4.5	145.3	16.5	184.5	17.1
4	Naaman (d is whole span)	8.2	1.0	24.6	3.1	32.8	3.3
5	Naaman (d is drop panel width)	17.9	2.3	86.1	10.9	104.1	11.1
6	Naaman (d is 0.2 x span)	15.2	1.9	61.5	7.8	76.7	8.0

SUMMARY (Total Deformation)

	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-7.6	4.2	-14.1	11.1	-21.7	11.9
C & M (d is drop panel width)	-14.7	9.2	-46.0	39.0	-60.7	40.1
C & M (d is 0.2 x span)	-12.7	7.8	-33.2	27.9	-45.9	28.9
Warner					-177.7	22.5

1	C & H [1] (d is whole slab)	-7.6	1.0	-20.8	2.6	-28.5	2.8
2	C & H [1] (d is drop panel width)	-16.7	2.1	-72.9	9.2	-89.6	9.5
3	C & H [1] (d is 0.2 x width)	-14.2	1.8	-52.1	6.6	-66.3	6.8
4a	C & H [2] (using α[1])					-68.1	8.6
4b	C & H [2] (using α[2])					-31.2	4.0
4c	C & H [2] (using α[3])					-32.6	4.1
5	C & M [1] (d is whole slab)	-27.1	3.4	-70.9	9.0	-97.9	9.6
6	C & M [1] (d is drop panel width)	-59.2	7.5	-248.1	31.4	-307.3	32.3
7	C & M [1] (d is 0.2 x width)	-50.3	6.4	-177.2	22.4	-227.5	23.3
8	Naaman (d is whole slab)	-52.0	6.6	-136.3	17.3	-188.4	18.5
9	Naaman (d is drop panel width)	-113.9	14.4	-477.1	60.4	-591.1	62.1
10	Naaman [1] (d is 0.2 x width)	-96.7	12.2	-340.8	43.1	-437.5	44.8
11	Warner					-177.7	22.5

NS	North - South Direction	-1.7					
EW	East - West Direction		-1.3				
Both	Both Directions			-3.0			

N40, Strips 4 and 11, Short Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist(EV)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	5.60E+09
I (NS) 1	9.83E+09
I (EW) 2	1.60E+09
I (NS) 2	4.49E+09
I (EW) 3	2.24E+09
I (NS) 3	5.29E+09
top reo	12
lower reo	12
Ln	8.35

depth of slab	
defective	161.1

Prestress factors

Tendon force NS	3443.9 kN
Tendon force EW	3178.9 kN

eccentricity (NS direct)	100 mm
eccentricity #1 (NS dir)	40.55 mm
eccentricity #2 (NS dir)	-59.45 mm

eccentricity (EW direct)	130 mm
eccentricity #1 (EW dir)	55.55 mm
eccentricity #2 (EW dir)	-74.45 mm

Long term factors

Shrinkage strain	400 Microstrain
Creep Factor	2.6

Loads

Live load	3 kPa (unfactored)
LL reductio	0.4
Dead load	4.8 kPa (unfactored)
Extra dead	1.4 kPa (unfactored)
Total	7.4 MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

Factors for C & H [2]

c1	600 mm
l1	9.6 m
c1/l1	0.0625
beta	1.14
beta n	1.15
alpha1 (1)	0
alpha2 (1)	0
alpha1 (2)	1
alpha2 (2)	1
alpha1 (3)	1.13
alpha2 (3)	0.53
Ka 1	0.004553
Ka 2	0.002087
Ka 3	0.00218

Factors for C and M Long term E for camber

kc	0.7
H	70 %
t	1000 days
ti	7 days
$\Phi(10000,7)$	1.674 kf

Final output

		OUTPUT NS		OUTPUT EW		OUTPUT MID	
		MEAN (mm)	STDEV	MEAN (mm)	STDEV	MEAN (mm)	STDEV
1	C & M (d is whole span)	7.9	1.0	21.9	2.8	29.8	2.9
2	C & M (d is drop panel width)	17.4	2.2	76.5	9.7	93.9	9.9
3	C & M (d is 0.2 x span)	14.8	1.9	54.6	6.9	69.4	7.2
4	Naaman (d is whole span)	2.3	0.3	6.8	0.9	9.1	0.9
5	Naaman (d is drop panel width)	5.0	0.6	23.9	3.0	28.9	3.1
6	Naaman (d is 0.2 x span)	4.2	0.5	17.1	2.2	21.3	2.2

		OUTPUT NS		OUTPUT EW		OUTPUT MID	
		MEAN (mm)	STDEV	MEAN (mm)	STDEV	MEAN (mm)	STDEV
1	C & H [1] (d is whole slab)	-2.1	0.3	-5.8	0.7	-7.9	0.8
2	C & H [1] (d is drop panel width)	-4.6	0.6	-20.3	2.6	-24.9	2.6
3	C & H [1] (d is 0.2 x width)	-3.9	0.5	-14.5	1.8	-18.4	1.9
4a	C & H [2] (using $\alpha[1]$)					-18.9	2.4
4b	C & H [2] (using $\alpha[2]$)					-8.7	1.1
4c	C & H [2] (using $\alpha[3]$)					-9.1	1.1
5	C & M [1] (d is whole slab)	-7.5	1.0	-19.7	2.5	-27.2	2.7
6	C & M [1] (d is drop panel width)	-16.5	2.1	-68.9	8.7	-85.4	9.0
7	C & M [1] (d is 0.2 x width)	-14.0	1.8	-49.2	6.2	-63.2	6.5
8	Naaman (d is whole slab)	-14.5	1.8	-37.9	4.8	-52.3	5.1
9	Naaman (d is drop panel width)	-31.6	4.0	-132.5	16.8	-164.2	17.2
10	Naaman [1] (d is 0.2 x width)	-26.9	3.4	-94.7	12.0	-121.5	12.5
11	Warner					-49.4	6.2

NS	North - South Direction	-1.7					
EW	East - West Direction			-1.3			
Both	Both Directions					-3.0	

SUMMARY (Total Deformation)

	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-1.2	1.4	0.9	3.7	-0.4	4.0
C & M (d is drop panel width)	-0.7	3.0	6.3	13.0	5.6	13.4
C & M (d is 0.2 x span)	-0.9	2.6	4.1	9.3	3.2	9.7
Warner					-49.4	6.2

N40, Strips 5 and 10, Long Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist(EW)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	8.66E+09
I (NS) 1	6.40E+09
I (EW) 2	3.78E+09
I (NS) 2	1.80E+09
I (EW) 3	4.70E+09
I (NS) 3	2.56E+09
top reo	12
lower reo	12
Ln	8.35

Prestress factors

Tendon force EW	2649.1 kN
Tendon force NS	3178.9 kN

eccentricity (EW direct)	130 mm
eccentricity #1 (EW dir)	55.55 mm
eccentricity #2 (EW dir)	-74.45 mm

eccentricity (NS direct)	100 mm
eccentricity #1 (NS dir)	40.55 mm
eccentricity #2 (NS dir)	-59.45 mm

Long term factors

Shrinkage strain	400 Microstrain
Creep Factor	2.6

Loads

Live load	3 kPa (unfactored)
LL reductio	0.4
Dead load	4.8 kPa (unfactored)
Extra dead	1.4 kPa (unfactored)
Total	7.4 MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

Factors for C & H [2]

c1	600 mm
l1	9.6 m
c1/l1	0.0625
beta	1.14
beta n	1.15
alpha1 (1)	0
alpha2 (1)	0
alpha1 (2)	1
alpha2 (2)	1
alpha1 (3)	1.13
alpha2 (3)	0.53
Ka 1	0.004553
Ka 2	0.002087
Ka 3	0.00218

Factors for C and M Long term E for camber

kc	0.7
H	70
t	1000 days
ti	7 days

$\Phi(10000,7)$ 1.674 kf

depth of slab	
effective	161.1

Final output

	OUTPUT NS		OUTPUT EW		OUTPUT MID	
	MEAN	STDEV	MEAN	STDEV	MEAN	STDEV
	(mm)		(mm)		(mm)	
1 C & M (d is whole span)	29.8	3.4	31.2	3.6	61.1	4.9
2 C & M (d is drop panel width)	106.1	12.1	71.5	8.1	177.6	14.6
3 C & M (d is 0.2 x span)	74.6	8.5	57.5	6.6	132.1	10.7
4 Naaman (d is whole span)	11.6	1.4	13.2	1.6	24.8	2.2
5 Naaman (d is drop panel width)	41.2	5.1	30.3	3.7	71.5	6.3
6 Naaman (d is 0.2 x span)	29.0	3.6	24.4	3.0	53.3	4.7

SUMMARY (Total Deformation)

	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-13.3	6.1	-15.8	6.7	-29.1	9.1
C & M (d is drop panel width)	-42.9	21.8	-34.5	15.3	-77.4	26.7
C & M (d is 0.2 x span)	-30.7	15.4	-28.0	12.3	-58.7	19.7
Warmer					-177.3	21.9

	MEAN	STDEV	MEAN	STDEV	MEAN	STDEV
1 C & H [1] (d is whole slab)	-11.7	1.4	-13.4	1.7	-25.1	2.2
2 C & H [1] (d is drop panel width)	-41.6	5.1	-30.8	3.8	-72.4	6.4
3 C & H [1] (d is 0.2 x width)	-29.3	3.6	-24.8	3.1	-54.0	4.7
4a C & H [2] (using $\alpha[1]$)					-67.9	8.4
4b C & H [2] (using $\alpha[2]$)					-31.1	3.8
4c C & H [2] (using $\alpha[3]$)					-32.5	4.0
5 C & M [1] (d is whole slab)	-41.4	5.1	-45.7	5.6	-87.2	7.6
6 C & M [1] (d is drop panel width)	-147.4	18.2	-104.8	12.9	-252.1	22.3
7 C & M [1] (d is 0.2 x width)	-103.6	12.8	-84.3	10.4	-187.9	16.5
8 Naaman (d is whole slab)	-79.7	9.8	-87.9	10.9	-167.6	14.6
9 Naaman (d is drop panel width)	-283.4	35.0	-201.5	24.9	-484.9	42.9
10 Naaman [1] (d is 0.2 x width)	-199.3	24.6	-162.0	20.0	-361.3	31.7
11 Warmer					-177.3	21.9

	NS	EW	Both
NS North - South Direction	-1.7		
EW East - West Direction		-1.3	
Both Both Directions			-3.0

N40, Strips 5 and 10, Short Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist(EW)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	8.66E+09
I (NS) 1	6.40E+09
I (EW) 2	3.78E+09
I (NS) 2	1.80E+09
I (EW) 3	4.70E+09
I (NS) 3	2.56E+09
top reo	12
lower reo	12
Ln	8.35

depth of slab	
deffective	161.1

Prestress factors

Tendon force EW	2649.1 kN
Tendon force NS	3178.9 kN
eccentricity (EW direct)	130 mm
eccentricity #1 (EW dir)	55.55 mm
eccentricity #2 (EW dir)	-74.45 mm
eccentricity (NS direct)	100 mm
eccentricity #1 (NS dir)	40.55 mm
eccentricity #2 (NS dir)	-59.45 mm

Long term factors

Shrinkage strain	400 Microstrain
Creep Factor	2.6

Loads

Live load	3 kPa (unfactored)
LL reduction	0.4
Dead load	4.8 kPa (unfactored)
Extra dead	1.4 kPa (unfactored)
Total	7.4 MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

Factors for C & H [2]

c1	600 mm
l1	9.6 m
c1/l1	0.0625
beta	1.14
beta n	1.15
alpha1 (1)	0
alpha2 (1)	0
alpha1 (2)	1
alpha2 (2)	1
alpha1 (3)	1.13
alpha2 (3)	0.53

Factors for C and M Long term E for camber

kc	0.7
H	70 %
t	1000 days
ti	7 days

$\Phi(10000,7) = 1.674$ kf

Ka 1	0.004553
Ka 2	0.002087
Ka 3	0.00218

Final output

	OUTPUT NS		OUTPUT EW		OUTPUT MID	
	MEAN	STDEV	MEAN	STDEV	MEAN	STDEV
	(mm)		(mm)		(mm)	
1 C & M (d is whole span)	11.2	1.4	11.7	1.4	23.0	2.0
2 C & M (d is drop panel width)	39.9	4.9	26.9	3.3	66.9	5.9
3 C & M (d is 0.2 x span)	28.1	3.5	21.6	2.7	49.7	4.4
4 Naaman (d is whole span)	3.2	0.4	3.7	0.5	6.9	0.6
5 Naaman (d is drop panel width)	11.4	1.4	8.4	1.0	19.9	1.8
6 Naaman (d is 0.2 x span)	8.0	1.0	6.8	0.8	14.8	1.3

1 C & H [1] (d is whole slab)	-3.3	0.4	-3.7	0.5	-7.0	0.6
2 C & H [1] (d is drop panel width)	-11.6	1.4	-8.5	1.1	-20.1	1.8
3 C & H [1] (d is 0.2 x width)	-8.1	1.0	-6.9	0.8	-15.0	1.3
4a C & H [2] (using $\alpha(1)$)					-18.9	2.3
4b C & H [2] (using $\alpha(2)$)					-8.7	1.1
4c C & H [2] (using $\alpha(3)$)					-9.0	1.1
5 C & M [1] (d is whole slab)	-11.5	1.4	-12.7	1.6	-24.2	2.1
6 C & M [1] (d is drop panel width)	-40.9	5.1	-29.1	3.6	-70.0	6.2
7 C & M [1] (d is 0.2 x width)	-28.8	3.6	-23.4	2.9	-52.2	4.6
8 Naaman (d is whole slab)	-22.1	2.7	-24.4	3.0	-46.6	4.1
9 Naaman (d is drop panel width)	-78.7	9.7	-56.0	6.9	-134.7	11.9
10 Naaman [1] (d is 0.2 x width)	-55.4	6.8	-45.0	5.6	-100.4	8.8
11 Warner					-49.2	6.1

NS North - South Direction	-1.7				
EW East - West Direction			-1.3		
Both Both Directions				-3.0	

SUMMARY (Total Deformation)

	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-2.0	2.0	-2.2	2.1	-4.2	2.9
C & M (d is drop panel width)	-2.7	7.1	-3.5	4.9	-6.1	8.6
C & M (d is 0.2 x span)	-2.4	5.0	-3.0	3.9	-5.4	6.3
Warner					-49.2	6.1

N40, Strips 6 and 10, Long Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist(EW)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	8.66E+09
I (NS) 1	6.40E+09
I (EW) 2	3.78E+09
I (NS) 2	1.80E+09
I (EW) 3	4.70E+09
I (NS) 3	2.56E+09
top reo	12
lower reo	12
Ln	8.35

Prestress factors

Tendon force EW	3178.9	kN
Tendon force NS	3178.9	kN
eccentricity (EW direct)	130	mm
eccentricity #1 (EW dir)	55.55	mm
eccentricity #2 (EW dir)	-74.45	mm
eccentricity (NS direct)	100	mm
eccentricity #1 (NS dir)	40.55	mm
eccentricity #2 (NS dir)	-59.45	mm

Loads

Live load	3	kPa (unfactored)
LL reductio	0.4	
Dead load	4.8	kPa (unfactored)
Extra dead	1.4	kPa (unfactored)
Total	7.4	MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

Long term factors

Shrinkage strain	400	Microstrain
Creep Factor	2.6	

depth of slab	
deffective	161.1

Factors for C & H [2]

c1	600	mm
l1	9.6	m
c1/l1	0.0625	
beta	1.14	
beta n	1.15	
alpha1 (1)	0	
alpha2 (1)	0	
alpha1 (2)	1	
alpha2 (2)	1	
alpha1 (3)	1.13	
alpha2 (3)	0.53	
Ka 1	0.004553	
Ka 2	0.002087	
Ka 3	0.00218	

Factors for C and M Long term E for camber

kc	0.7	
H	70	%
t	1000	days
ti	7	days

$\Phi(10000,7) = 1.674$ kf

Final output

	OUTPUT NS		OUTPUT EW		OUTPUT MID	
	MEAN	STDEV	MEAN	STDEV	MEAN	STDEV
	(mm)		(mm)		(mm)	
1	29.9	3.4	37.5	4.3	67.4	5.5
2	106.3	12.1	85.9	9.8	192.2	15.6
3	74.7	8.5	69.1	7.9	143.9	11.6
4	11.6	1.4	15.9	1.9	27.5	2.4
5	41.2	4.9	36.4	4.4	77.6	6.6
6	29.0	3.5	29.3	3.5	58.2	4.9

SUMMARY (Total Deformation)

	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-13.2	6.0	-9.5	6.9	-22.8	9.2
C & M (d is drop panel width)	-42.8	21.4	-20.1	15.9	-63.0	26.7
C & M (d is 0.2 x span)	-30.6	15.1	-16.4	12.8	-47.0	19.8
Warner					-177.3	21.2

	MEAN	STDEV	MEAN	STDEV	MEAN	STDEV
1	-11.7	1.4	-13.4	1.6	-25.1	2.1
2	-41.6	5.0	-30.8	3.7	-72.4	6.2
3	-29.3	3.5	-24.8	3.0	-54.0	4.6
4a					-68.0	8.1
4b					-31.2	3.7
4c					-32.5	3.9
5	-41.5	5.0	-45.7	5.5	-87.2	7.4
6	-147.4	17.6	-104.8	12.5	-252.2	21.7
7	-103.7	12.4	-84.3	10.1	-188.0	16.0
8	-79.7	9.5	-88.0	10.5	-167.7	14.2
9	-283.5	33.9	-201.5	24.1	-485.1	41.6
10	-199.4	23.9	-162.1	19.4	-361.5	30.8
11					-177.3	21.2

NS	North - South Direction	-1.7			
EW	East - West Direction		-1.3		
Both	Both Directions			-3.0	

N40, Strips 6 and 10, Short Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist(EW)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	8.66E+09
I (NS) 1	6.40E+09
I (EW) 2	3.78E+09
I (NS) 2	1.80E+09
I (EW) 3	4.70E+09
I (NS) 3	2.56E+09
top reo	12
lower reo	12
Ln	8.35

Prestress factors

Tendon force EW	3178.9	kN
Tendon force NS	3178.9	kN
eccentricity (EW direct)	130	mm
eccentricity #1 (EW dir)	55.55	mm
eccentricity #2 (EW dir)	-74.45	mm
eccentricity (NS direct)	100	mm
eccentricity #1 (NS dir)	40.55	mm
eccentricity #2 (NS dir)	-59.45	mm

Loads

Live load	3	kPa (unfactored)
LL reduction	0.4	
Dead load	4.8	kPa (unfactored)
Extra dead	1.4	kPa (unfactored)
Total	7.4	MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

Long term factors

Shrinkage strain	400	Microstrain
Creep Factor	2.6	

Factors for C & H [2]

c1	600	mm
l1	9.6	m
c1/l1	0.0625	
beta	1.14	
beta n	1.15	
alpha1 (1)	0	
alpha2 (1)	0	
alpha1 (2)	1	
alpha2 (2)	1	
alpha1 (3)	1.13	
alpha2 (3)	0.53	

Ka 1	0.004553
Ka 2	0.002087
Ka 3	0.00218

Factors for C and M Long term E for camber

kc	0.7	
H	70	%
t	1000	days
ti	7	days

Φ(10000,7) 1.674 kf

depth of slab
defective 161.1

Final output

		OUTPUT NS		OUTPUT EW		OUTPUT MID	
		MEAN (mm)	STDEV	MEAN (mm)	STDEV	MEAN (mm)	STDEV
1	C & M (d is whole span)	11.2	1.3	14.1	1.7	25.3	2.2
2	C & M (d is drop panel width)	40.0	4.8	32.3	3.9	72.3	6.2
3	C & M (d is 0.2 x span)	28.1	3.4	26.0	3.1	54.1	4.6
4	Naaman (d is whole span)	3.2	0.4	4.4	0.5	7.6	0.7
5	Naaman (d is drop panel width)	11.5	1.4	10.1	1.2	21.6	1.8
6	Naaman (d is 0.2 x span)	8.1	1.0	8.1	1.0	16.2	1.4

		OUTPUT NS		OUTPUT EW		OUTPUT MID	
		MEAN (mm)	STDEV	MEAN (mm)	STDEV	MEAN (mm)	STDEV
1	C & H [1] (d is whole slab)	-3.3	0.4	-3.7	0.4	-7.0	0.6
2	C & H [1] (d is drop panel width)	-11.6	1.4	-8.6	1.0	-20.1	1.7
3	C & H [1] (d is 0.2 x width)	-8.1	1.0	-6.9	0.8	-15.0	1.3
4a	C & H [2] (using α[1])					-18.9	2.3
4b	C & H [2] (using α[2])					-8.7	1.0
4c	C & H [2] (using α[3])					-9.0	1.1
5	C & M [1] (d is whole slab)	-11.5	1.4	-12.7	1.5	-24.2	2.1
6	C & M [1] (d is drop panel width)	-41.0	4.9	-29.1	3.5	-70.1	6.0
7	C & M [1] (d is 0.2 x width)	-28.8	3.4	-23.4	2.8	-52.2	4.4
8	Naaman (d is whole slab)	-22.2	2.7	-24.4	2.9	-46.6	3.9
9	Naaman (d is drop panel width)	-78.8	9.4	-56.0	6.7	-134.7	11.6
10	Naaman [1] (d is 0.2 x width)	-55.4	6.6	-45.0	5.4	-100.4	8.5
11	Warner					-49.3	5.9

NS	North - South Direction	-1.7			
EW	East - West Direction		-1.3		
Both	Both Directions			-3.0	

	SUMMARY (Total Deformation)					
	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-2.0	1.9	0.1	2.3	-1.8	3.0
C & M (d is drop panel width)	-2.7	6.8	1.9	5.2	-0.8	8.6
C & M (d is 0.2 x span)	-2.4	4.8	1.3	4.2	-1.1	6.4
Warner					-49.3	5.9

N40, Strips 7 and 11, Long Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist(EW)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	5.60E+09
I (NS) 1	9.26E+09
I (EW) 2	1.60E+09
I (NS) 2	3.59E+09
I (EW) 3	2.24E+09
I (NS) 3	4.89E+09
top reo	12
lower reo	12
Ln	8.35

Prestress factors

Tendon force EW	3178.9	kN
Tendon force NS	2649.1	kN

eccentricity (EW direct)	130	mm
eccentricity #1 (EW dir)	55.55	mm
eccentricity #2 (EW dir)	-74.45	mm

eccentricity (NS direct)	100	mm
eccentricity #1 (NS dir)	40.55	mm
eccentricity #2 (NS dir)	-59.45	mm

Long term factors

Shrinkage strain	400	Microstrain
Creep Factor	2.6	

Loads

Live load	3	kPa (unfactored)
LL reductio	0.4	
Dead load	4.8	kPa (unfactored)
Extra dead	1.4	kPa (unfactored)
Total	7.4	MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

depth of slab defective	161.1
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Factors for C & H [2]

c1	600	mm
l1	9.6	m
c1/l1	0.0625	
beta	1.14	
beta n	1.15	
alpha1 (1)	0	
alpha2 (1)	0	
alpha1 (2)	1	
alpha2 (2)	1	
alpha1 (3)	1.13	
alpha2 (3)	0.53	

Ka 1	0.004553
Ka 2	0.002087
Ka 3	0.00218

Factors for C and M Long term E for camber

kc	0.7	
H	70	%
t	1000	days
ti	7	days

$\Phi(10000,7)$ 1.674 kf

Final output

	OUTPUT NS		OUTPUT EW		OUTPUT MID	
	MEAN	STDEV	MEAN	STDEV	MEAN	STDEV
	(mm)		(mm)		(mm)	
1	17.2	2.0	58.1	6.9	75.4	7.2
2	44.5	5.3	203.4	24.0	247.9	24.6
3	32.7	3.9	145.3	17.2	177.9	17.6
4	6.7	0.9	24.6	3.1	31.3	3.3
5	17.3	2.2	86.1	11.0	103.4	11.2
6	12.7	1.6	61.5	7.9	74.2	8.0

SUMMARY (Total Deformation)

	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-13.1	4.2	-14.0	11.4	-27.2	12.1
C & M (d is drop panel width)	-31.2	10.8	-45.9	39.8	-77.2	41.2
C & M (d is 0.2 x span)	-23.4	7.9	-33.2	28.4	-56.6	29.5
Warmer					-177.7	22.7

	MEAN	STDEV	MEAN	STDEV	MEAN	STDEV
1	-8.1	1.0	-20.8	2.7	-28.9	2.9
2	-20.9	2.7	-72.9	9.3	-93.8	9.7
3	-15.3	2.0	-52.1	6.7	-67.4	6.9
4a					-68.1	8.7
4b					-31.2	4.0
4c					-32.6	4.2
5	-28.7	3.7	-70.9	9.1	-99.6	9.8
6	-74.1	9.5	-248.0	31.7	-322.1	33.1
7	-54.4	7.0	-177.2	22.7	-231.5	23.7
8	-55.2	7.1	-136.3	17.4	-191.5	18.8
9	-142.4	18.2	-477.0	61.0	-619.4	63.6
10	-104.6	13.4	-340.7	43.6	-445.3	45.6
11					-177.7	22.7

NS	North - South Direction	-1.7				
EW	East - West Direction		-1.3			
Both	Both Directions			-3.0		

N40, Strips 7 and 11, Short Term

INPUTS

Slab Geometry

slab depth	200
length (EW)	9.6
length (NS)	8.4
drop dist(EW)	3
drop dist(NS)	2.4
column size	625
column size	625
cover	25
I (EW) 1	5.60E+09
I (NS) 1	9.26E+09
I (EW) 2	1.60E+09
I (NS) 2	3.59E+09
I (EW) 3	2.24E+09
I (NS) 3	4.89E+09
top reo	12
lower reo	12
Ln	8.35

Prestress factors

Tendon force EW	3178.9	kN
Tendon force NS	2649.1	kN
eccentricity (EW direct)	130	mm
eccentricity #1 (EW dir)	55.55	mm
eccentricity #2 (EW dir)	-74.45	mm
eccentricity (NS direct)	100	mm
eccentricity #1 (NS dir)	40.55	mm
eccentricity #2 (NS dir)	-59.45	mm

Loads

Live load	3	kPa (unfactored)
LL reductio	0.4	
Dead load	4.8	kPa (unfactored)
Extra dead	1.4	kPa (unfactored)
Total	7.4	MPa

Miscellaneous Concrete properties

Poisson's ratio	0.15
Density	2400
K1	1
K2	0.5
kcs	1.7
short term load factor	0.5
long term load factor	0.25

Factors that account for slab location.

Long term factors

Shrinkage strain	400	Microstrain
Creep Factor	2.6	

Factors for C & H [2]

c1	600	mm
l1	9.6	m
c1/l1	0.0625	
beta	1.14	
beta n	1.15	
alpha1 (1)	0	
alpha2 (1)	0	
alpha1 (2)	1	
alpha2 (2)	1	
alpha1 (3)	1.13	
alpha2 (3)	0.53	

Ka 1	0.004553
Ka 2	0.002087
Ka 3	0.00218

Factors for C and M Long term E for camber

kc	0.7	
H	70	%
t	1000	days
ti	7	days

φ(10000,7) 1.674 kf

depth of slab
defective 161.1

Final output

	OUTPUT NS		OUTPUT EW		OUTPUT MID	
	MEAN (mm)	STDEV	MEAN (mm)	STDEV	MEAN (mm)	STDEV
1 C & M (d is whole span)	6.5	0.8	21.8	2.8	28.3	2.9
2 C & M (d is drop panel width)	16.7	2.1	76.5	9.8	93.2	10.0
3 C & M (d is 0.2 x span)	12.3	1.6	54.6	7.0	66.9	7.2
4 Naaman (d is whole span)	1.9	0.2	6.8	0.9	8.7	0.9
5 Naaman (d is drop panel width)	4.8	0.6	23.9	3.1	28.7	3.1
6 Naaman (d is 0.2 x span)	3.5	0.4	17.1	2.2	20.6	2.2

1 C & H [1] (d is whole slab)	-2.3	0.3	-5.8	0.7	-8.0	0.8
2 C & H [1] (d is drop panel width)	-5.8	0.7	-20.2	2.6	-26.1	2.7
3 C & H [1] (d is 0.2 x width)	-4.3	0.5	-14.5	1.8	-18.7	1.9
4a C & H [2] (using α[1])					-18.9	2.4
4b C & H [2] (using α[2])					-8.7	1.1
4c C & H [2] (using α[3])					-9.1	1.2
5 C & M [1] (d is whole slab)	-8.0	1.0	-19.7	2.5	-27.7	2.7
6 C & M [1] (d is drop panel width)	-20.6	2.6	-68.9	8.8	-89.5	9.2
7 C & M [1] (d is 0.2 x width)	-15.1	1.9	-49.2	6.3	-64.3	6.6
8 Naaman (d is whole slab)	-15.3	2.0	-37.9	4.8	-53.2	5.2
9 Naaman (d is drop panel width)	-39.6	5.1	-132.5	16.9	-172.1	17.7
10 Naaman [1] (d is 0.2 x width)	-29.0	3.7	-94.6	12.1	-123.7	12.7
11 Warner					-49.3	6.3

NS	North - South Direction	-1.7				
EW	East - West Direction		-1.3			
Both	Both Directions			-3.0		

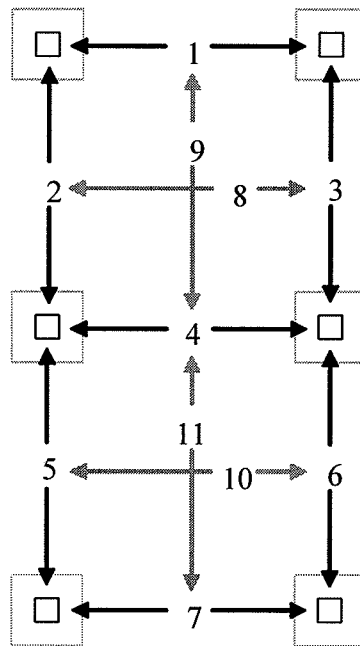
	SUMMARY (Total Deformation)					
	NS mean	NS stdev	EW mean	EW stdev	MID mean	MID stdev
C & M (d is whole span)	-3.2	1.3	0.9	3.8	-2.3	4.0
C & M (d is drop panel width)	-5.5	3.4	6.3	13.2	0.8	13.6
C & M (d is 0.2 x span)	-4.5	2.5	4.1	9.4	-0.4	9.7
Warner					-49.3	6.3

Input and Output from Finite Element Analysis

INPUT FOR FINITE ELEMENT ANALYSIS

Strip	Moment of Inertia (mm ⁴)				Total Length (m)	Trib Area Width (m)	Slab Depth (mm)	Length of Left Drop panel (m)	Length of right drop panel (m)	
		left	middle	right						
1	Sectional Moment of Inertia	b = drop panel width	8.58E+09	1.60E+09	8.58E+09	7.8	7.35	200	1.2	1.2
		b = 0.4*span	1.07E+10	2.56E+09	1.07E+10					
		b = span	1.64E+10	6.40E+09	1.64E+10					
		b = Weff (Eurocode)	5.25E+09	9.80E+08	5.25E+09					
		b = Weff (Ansourian's)	4.20E+09	7.84E+08	4.20E+09					
	Average Moment of Inertia	b = drop panel width		3.59E+09						
		b = 0.4*span		4.89E+09						
		b = span		9.26E+09						
		b = Weff (Eurocode)		2.20E+09						
		b = Weff (Ansourian's)		1.76E+09						
2	Sectional Moment of Inertia	b = drop panel width	8.58E+09	1.60E+09	8.58E+09	8.975	6.7	200	1.5	1.5
		b = 0.4*span	1.01E+10	2.24E+09	1.01E+10					
		b = span	1.54E+10	5.60E+09	1.54E+10					
		b = Weff (Eurocode)	6.00E+09	1.12E+09	6.00E+09					
		b = Weff (Ansourian's)	4.80E+09	8.96E+08	4.80E+09					
	Average Moment of Inertia	b = drop panel width		3.78E+09						
		b = 0.4*span		4.70E+09						
		b = span		8.66E+09						
		b = Weff (Eurocode)		2.65E+09						
		b = Weff (Ansourian's)		2.12E+09						
3	Sectional Moment of Inertia	b = drop panel width	8.58E+09	1.60E+09	8.58E+09	8.975	8.4	200	1.5	1.5
		b = 0.4*span	1.01E+10	2.24E+09	1.01E+10					
		b = span	1.54E+10	5.60E+09	1.54E+10					
		b = Weff (Eurocode)	6.00E+09	1.12E+09	6.00E+09					
		b = Weff (Ansourian's)	4.80E+09	8.96E+08	4.80E+09					
	Average Moment of Inertia	b = drop panel width		3.78E+09						
		b = 0.4*span		4.70E+09						
		b = span		8.66E+09						
		b = Weff (Eurocode)		2.65E+09						
		b = Weff (Ansourian's)		2.12E+09						
4	Sectional Moment of Inertia	b = drop panel width	1.07E+10	2.00E+09	1.07E+10	7.75	9.6	200	1.2	1.2
		b = 0.4*span	1.21E+10	2.56E+09	1.21E+10					
		b = span	1.84E+10	6.40E+09	1.84E+10					
		b = Weff (Eurocode)	5.25E+09	9.80E+08	5.25E+09					
		b = Weff (Ansourian's)	4.20E+09	7.84E+08	4.20E+09					
	Average Moment of Inertia	b = drop panel width		4.49E+09						
		b = 0.4*span		5.29E+09						
		b = span		9.83E+09						
		b = Weff (Eurocode)		2.20E+09						
		b = Weff (Ansourian's)		1.76E+09						
5	Sectional Moment of Inertia	b = drop panel width	8.58E+09	1.60E+09	8.58E+09	8.975	6.7	200	1.5	1.5
		b = 0.4*span	1.01E+10	2.24E+09	1.01E+10					
		b = span	1.54E+10	5.60E+09	1.54E+10					
		b = Weff (Eurocode)	6.00E+09	1.12E+09	6.00E+09					
		b = Weff (Ansourian's)	4.80E+09	8.96E+08	4.80E+09					
	Average Moment of Inertia	b = drop panel width		3.78E+09						
		b = 0.4*span		4.70E+09						
		b = span		8.66E+09						
		b = Weff (Eurocode)		2.65E+09						
		b = Weff (Ansourian's)		2.12E+09						
6	Sectional Moment of Inertia	b = drop panel width	8.58E+09	1.60E+09	8.58E+09	8.975	8.4	200	1.5	1.5
		b = 0.4*span	1.01E+10	2.24E+09	1.01E+10					
		b = span	1.54E+10	5.60E+09	1.54E+10					
		b = Weff (Eurocode)	6.00E+09	1.12E+09	6.00E+09					
		b = Weff (Ansourian's)	4.80E+09	8.96E+08	4.80E+09					
	Average Moment of Inertia	b = drop panel width		3.78E+09						
		b = 0.4*span		4.70E+09						
		b = span		8.66E+09						
		b = Weff (Eurocode)		2.65E+09						
		b = Weff (Ansourian's)		2.12E+09						
7	Sectional Moment of Inertia	b = drop panel width	8.58E+09	1.60E+09	8.58E+09	7.8	7.35	200	1.2	1.2
		b = 0.4*span	1.07E+10	2.56E+09	1.07E+10					
		b = span	1.64E+10	6.40E+09	1.64E+10					
		b = Weff (Eurocode)	5.25E+09	9.80E+08	5.25E+09					
		b = Weff (Ansourian's)	4.20E+09	7.84E+08	4.20E+09					
	Average Moment of Inertia	b = drop panel width		3.59E+09						
		b = 0.4*span		4.89E+09						
		b = span		9.26E+09						
		b = Weff (Eurocode)		2.20E+09						
		b = Weff (Ansourian's)		1.76E+09						
8	Average Moment of Inertia	b = drop panel width		1.80E+09		8.4	9.6	200	n/a	n/a
		b = 0.4*span		2.56E+09						
		b = span		6.40E+09						
		b = Weff (Eurocode)		9.80E+08						
		b = Weff (Ansourian's)		n/a						
9	Average Moment of Inertia	b = drop panel width		1.60E+09		9.6	8.4	200	n/a	n/a
		b = 0.4*span		2.24E+09						
		b = span		5.60E+09						
		b = Weff (Eurocode)		1.12E+09						
		b = Weff (Ansourian's)		n/a						
10	Average Moment of Inertia	b = drop panel width		1.80E+09		8.4	9.6	200	n/a	n/a
		b = 0.4*span		2.56E+09						
		b = span		6.40E+09						
		b = Weff (Eurocode)		9.80E+08						
		b = Weff (Ansourian's)		n/a						
11	Average Moment of Inertia	b = drop panel width		1.60E+09		9.6	8.4	200	n/a	n/a
		b = 0.4*span		2.24E+09						
		b = span		5.60E+09						
		b = Weff (Eurocode)		1.12E+09						
		b = Weff (Ansourian's)		n/a						

Prestressing Properties		
Strip	e1 + e1 (mm)	Tendon Force P (kN)
1	100	3708.8
2	130	2649.1
3	130	3443.9
4	100	3443.9
5	130	2649.1
6	130	3178.9
7	100	2649.1
8	100	3576.3
9	130	3178.9
10	100	3178.9
11	130	3178.9



OUTPUT FOR FINITE ELEMENT ANALYSIS

STRIP 1

INPUT

RANGE OF E

	Ec1 (MPa)	Ec2 (MPa)	Ec3 (MPa)	Ec4 (MPa)
Ec (28days)	35,700	31,300	40,100	33,100
Eci (7days)	29,200	26,800	33,200	29,900

RANGE OF I

	I1 (mm ⁴)	I2 (mm ⁴)	I3 (mm ⁴)
Iaverage	3.59E+09	4.89E+09	9.26E+09
Idrop panel	8.58E+09	1.07E+10	1.64E+10
Islab	1.60E+09	2.56E+09	6.40E+09

At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-4.9	-3.6	-1.9	Ec1	-13.1	-9.6	-5.1	Ec1	-14.9	-11.0	-5.8	Ec1	-15.5	-11.4	-6.0	Ec1	-18.7	-13.7	-7.2
Ec2	-5.3	-3.9	-2.1	Ec2	-14.3	-10.5	-5.6	Ec2	-16.3	-12.0	-6.3	Ec2	-17.0	-12.5	-6.6	Ec2	-20.4	-15.0	-7.9
Ec3	-4.3	-3.1	-1.7	Ec3	-11.5	-8.5	-4.5	Ec3	-13.1	-9.7	-5.1	Ec3	-13.7	-10.1	-5.3	Ec3	-16.4	-12.1	-6.4
Ec4	-4.7	-3.5	-1.8	Ec4	-12.9	-9.5	-5.0	Ec4	-14.7	-10.8	-5.7	Ec4	-15.3	-11.2	-5.9	Ec4	-18.3	-13.5	-7.1

Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-8.5	-5.4	-2.3	Ec1	-22.9	-14.6	-6.1	Ec1	-26.1	-16.6	-7.0	Ec1	-27.2	-17.3	-7.3	Ec1	-32.6	-20.8	-8.7
Ec2	-9.3	-5.9	-2.5	Ec2	-25.1	-15.9	-6.7	Ec2	-28.6	-18.2	-7.7	Ec2	-29.7	-18.9	-8.0	Ec2	-35.7	-22.7	-9.5
Ec3	-7.5	-4.8	-2.0	Ec3	-20.2	-12.8	-5.4	Ec3	-23.0	-14.6	-6.2	Ec3	-23.9	-15.2	-6.4	Ec3	-28.7	-18.3	-7.7
Ec4	-8.3	-5.3	-2.2	Ec4	-22.6	-14.4	-6.0	Ec4	-25.7	-16.4	-6.9	Ec4	-26.7	-17.0	-7.2	Ec4	-32.1	-20.4	-8.6

At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	4.5	3.3	1.7	Ec1	10.9	8.0	4.2	Ec1	12.5	9.2	4.9	Ec1	12.9	9.5	5.0	Ec1	15.6	11.5	6.1
Ec2	4.9	3.6	1.9	Ec2	11.9	8.7	4.6	Ec2	13.6	10.0	5.3	Ec2	14.1	10.4	5.5	Ec2	17.0	12.5	6.6
Ec3	3.9	2.9	1.5	Ec3	9.6	7.0	3.7	Ec3	11.0	8.1	4.3	Ec3	11.4	8.4	4.4	Ec3	13.8	10.1	5.3
Ec4	4.4	3.2	1.7	Ec4	10.6	7.8	4.1	Ec4	12.2	9.0	4.7	Ec4	12.6	9.3	4.9	Ec4	15.3	11.2	5.9

Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	7.8	5.0	2.1	Ec1	19.0	12.1	5.1	Ec1	21.9	13.9	5.9	Ec1	22.7	14.4	6.1	Ec1	27.4	17.4	7.3
Ec2	8.5	5.4	2.3	Ec2	20.7	13.2	5.6	Ec2	23.8	15.2	6.4	Ec2	24.7	15.7	6.6	Ec2	29.8	19.0	8.0
Ec3	6.9	4.4	1.8	Ec3	16.7	10.7	4.5	Ec3	19.2	12.2	5.2	Ec3	19.9	12.7	5.3	Ec3	24.1	15.3	6.4
Ec4	7.7	4.9	2.0	Ec4	18.6	11.8	5.0	Ec4	21.4	13.6	5.7	Ec4	22.1	14.1	5.9	Ec4	26.7	17.0	7.2

At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-0.4	-0.3	-0.1	Ec1	-2.2	-1.6	-0.9	Ec1	-2.4	-1.8	-0.9	Ec1	-2.6	-1.9	-1.0	Ec1	-3.0	-2.2	-1.2
Ec2	-0.4	-0.3	-0.2	Ec2	-2.5	-1.8	-1.0	Ec2	-2.7	-2.0	-1.1	Ec2	-2.9	-2.1	-1.1	Ec2	-3.3	-2.5	-1.3
Ec3	-0.3	-0.2	-0.1	Ec3	-1.9	-1.4	-0.8	Ec3	-2.1	-1.6	-0.8	Ec3	-2.3	-1.7	-0.9	Ec3	-2.7	-2.0	-1.0
Ec4	-0.4	-0.3	-0.1	Ec4	-2.3	-1.7	-0.9	Ec4	-2.5	-1.8	-1.0	Ec4	-2.6	-1.9	-1.0	Ec4	-3.1	-2.3	-1.2

Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-0.7	-0.4	-0.2	Ec1	-3.8	-2.4	-1.0	Ec1	-4.2	-2.7	-1.1	Ec1	-4.5	-2.9	-1.2	Ec1	-5.3	-3.4	-1.4
Ec2	-0.7	-0.5	-0.2	Ec2	-4.3	-2.7	-1.2	Ec2	-4.7	-3.0	-1.3	Ec2	-5.0	-3.2	-1.3	Ec2	-5.8	-3.7	-1.6
Ec3	-0.6	-0.4	-0.2	Ec3	-3.4	-2.2	-0.9	Ec3	-3.8	-2.4	-1.0	Ec3	-4.0	-2.5	-1.1	Ec3	-4.7	-3.0	-1.2
Ec4	-0.7	-0.4	-0.2	Ec4	-4.0	-2.5	-1.1	Ec4	-4.4	-2.8	-1.2	Ec4	-4.6	-2.9	-1.2	Ec4	-5.4	-3.4	-1.4

STRIP 2

INPUT

RANGE OF E

	Ec1 (MPa)	Ec2 (MPa)	Ec3 (MPa)	Ec4 (MPa)
Ec (28days)	35,700	31,300	40,100	33,100
Eci (7days)	29,200	26,800	33,200	29,900

RANGE OF I

	I1 (mm ⁴)	I2 (mm ⁴)	I3 (mm ⁴)
Iaverage	3.78E+09	4.70E+09	8.66E+09
I _{drop panel}	8.58E+09	1.01E+10	1.54E+10
I _{slab}	1.60E+09	2.24E+09	5.60E+09

At transfer	Short Term 1						Short Term 2						Short Term 3						Long Term												
I	Average I																														
	ON VALUES (mm)			DEFLECTION VALUES (mm)			DEFLECTION VALUES (mm)			DEFLECTION VALUES (mm)			DEFLECTION VALUES (mm)			DEFLECTION VALUES (mm)			DEFLECTION VALUES (mm)												
	Range of I (mm ⁴)			Range of E (MPa)			Range of I (mm ⁴)			Range of E (MPa)			Range of I (mm ⁴)			Range of E (MPa)			Range of I (mm ⁴)			Range of E (MPa)									
	I1	I2	I3	E	I1	I2	I3	E	I1	I2	I3	E	I1	I2	I3	E	I1	I2	I3	E	I1	I2	I3	E	I1	I2	I3				
	-7.4	-5.9	-3.2	Ec1	-19.9	-16.0	-8.7	Ec1	-22.7	-18.2	-9.9	Ec1	-23.6	-19.0	-10.3	Ec1	-28.3	-22.8	-12.4	Ec1	-28.3	-22.8	-12.4	Ec1	-28.3	-22.8	-12.4	Ec1	-28.3	-22.8	-12.4
	-8.0	-6.5	-3.5	Ec2	-21.8	-17.5	-9.5	Ec2	-24.8	-20.0	-10.8	Ec2	-25.8	-20.7	-11.3	Ec2	-31.0	-24.9	-13.5	Ec2	-31.0	-24.9	-13.5	Ec2	-31.0	-24.9	-13.5	Ec2	-31.0	-24.9	-13.5
	-6.5	-5.2	-2.8	Ec3	-17.5	-14.1	-7.6	Ec3	-20.0	-16.1	-8.7	Ec3	-20.8	-16.7	-9.1	Ec3	-24.9	-20.1	-10.9	Ec3	-24.9	-20.1	-10.9	Ec3	-24.9	-20.1	-10.9	Ec3	-24.9	-20.1	-10.9
	-7.2	-5.8	-3.1	Ec4	-19.6	-15.8	-8.6	Ec4	-22.3	-18.0	-9.8	Ec4	-23.2	-18.7	-10.1	Ec4	-27.9	-22.4	-12.2	Ec4	-27.9	-22.4	-12.2	Ec4	-27.9	-22.4	-12.2	Ec4	-27.9	-22.4	-12.2

II	Sectional I																						
	ON VALUES (mm)			DEFLECTION VALUES (mm)			DEFLECTION VALUES (mm)			DEFLECTION VALUES (mm)			DEFLECTION VALUES (mm)			DEFLECTION VALUES (mm)							
	Range of I (mm ⁴)			Range of E (MPa)			Range of I (mm ⁴)			Range of E (MPa)			Range of I (mm ⁴)			Range of E (MPa)							
	I1	I2	I3	E	I1	I2	I3	E	I1	I2	I3	E	I1	I2	I3	E	I1	I2	I3	E	I1	I2	I3
	-13.0	-9.4	-4.0	Ec1	-35.1	-25.4	-10.8	Ec1	-40.1	-29.0	-12.3	Ec1	-41.6	-30.2	-12.8	Ec1	-50.0	-36.3	-15.3	Ec1	-50.0	-36.3	-15.3
	-14.2	-10.3	-4.4	Ec2	-38.4	-27.8	-11.8	Ec2	-43.8	-31.7	-13.4	Ec2	-45.5	-33.0	-14.0	Ec2	-54.7	-39.6	-16.8	Ec2	-54.7	-39.6	-16.8
	-11.5	-8.3	-3.5	Ec3	-30.9	-22.4	-9.5	Ec3	-35.3	-25.6	-10.8	Ec3	-36.7	-26.6	-11.2	Ec3	-44.0	-31.9	-13.5	Ec3	-44.0	-31.9	-13.5
	-12.7	-9.2	-3.9	Ec4	-34.6	-25.1	-10.6	Ec4	-39.5	-28.6	-12.1	Ec4	-41.0	-29.7	-12.6	Ec4	-49.2	-35.6	-15.1	Ec4	-49.2	-35.6	-15.1

At transfer	Short Term 1						Short Term 2						Short Term 3						Long Term								
I	Average I																										
	ON VALUES (mm)			CAMBER VALUES (mm)			CAMBER VALUES (mm)			CAMBER VALUES (mm)			CAMBER VALUES (mm)			CAMBER VALUES (mm)			CAMBER VALUES (mm)								
	Range of I (mm ⁴)			Range of E (MPa)			Range of I (mm ⁴)			Range of E (MPa)			Range of I (mm ⁴)			Range of E (MPa)			Range of I (mm ⁴)			Range of E (MPa)					
	I1	I2	I3	E	I1	I2	I3	E	I1	I2	I3	E	I1	I2	I3	E	I1	I2	I3	E	I1	I2	I3	E	I1	I2	I3
	5.2	4.2	2.3	Ec1	12.7	10.2	5.6	Ec1	14.6	11.8	6.4	Ec1	15.1	12.2	6.6	Ec1	18.3	14.7	8.0	Ec1	18.3	14.7	8.0				
	5.7	4.6	2.5	Ec2	13.9	11.1	6.1	Ec2	15.9	12.8	7.0	Ec2	16.5	13.3	7.2	Ec2	19.9	16.0	8.7	Ec2	19.9	16.0	8.7				
	4.6	3.7	2.0	Ec3	11.2	9.0	4.9	Ec3	12.9	10.3	5.6	Ec3	13.3	10.7	5.8	Ec3	16.1	12.9	7.0	Ec3	16.1	12.9	7.0				
	5.1	4.1	2.2	Ec4	12.4	10.0	5.4	Ec4	14.3	11.5	6.2	Ec4	14.8	11.9	6.5	Ec4	17.9	14.4	7.8	Ec4	17.9	14.4	7.8				

II	Sectional I																		
	ON VALUES (mm)			CAMBER VALUES (mm)			CAMBER VALUES (mm)			CAMBER VALUES (mm)			CAMBER VALUES (mm)			CAMBER VALUES (mm)			
	Range of I (mm ⁴)			Range of E (MPa)			Range of I (mm ⁴)			Range of E (MPa)			Range of I (mm ⁴)			Range of E (MPa)			
	I1	I2	I3	E	I1	I2	I3	E	I1	I2	I3	E	I1	I2	I3	E	I1	I2	I3
	9.2	6.7	2.8	Ec1	22.5	16.3	6.9	Ec1	25.8	18.7	7.9	Ec1	26.7	19.4	8.2	Ec1	32.3	23.4	9.9
	10.1	7.3	3.1	Ec2	24.5	17.7	7.5	Ec2	28.1	20.4	8.6	Ec2	29.1	21.1	8.9	Ec2	35.2	25.5	10.8
	8.1	5.9	2.5	Ec3	19.8	14.3	6.1	Ec3	22.7	16.5	7.0	Ec3	23.5	17.0	7.2	Ec3	28.4	20.6	8.7
	9.0	6.5	2.8	Ec4	21.9	15.9	6.7	Ec4	25.2	18.3	7.7	Ec4	26.1	18.9	8.0	Ec4	31.5	22.8	9.7

At transfer	Short Term 1						Short Term 2						Short Term 3						Long Term					
I	Average I																							
	FORMATION (mm)			TOTAL DEFORMATION (mm)			TOTAL DEFORMATION (mm)			TOTAL DEFORMATION (mm)			TOTAL DEFORMATION (mm)			TOTAL DEFORMATION (mm)								
	Range of I (mm ⁴)			Range of E (MPa)			Range of I (mm ⁴)			Range of E (MPa)			Range of I (mm ⁴)			Range of E (MPa)								
	I1	I2	I3	E	I1	I2	I3	E	I1	I2	I3	E	I1	I2	I3	E	I1	I2	I3					
	-2.1	-1.7	-0.9	Ec1	-7.2	-5.8	-3.1	Ec1	-8.1	-6.5	-3.5	Ec1	-8.5	-6.8	-3.7	Ec1	-10.1	-8.1	-4.4					
	-2.3	-1.9	-1.0	Ec2	-7.9	-6.3	-3.4	Ec2	-8.9	-7.1	-3.9	Ec2	-9.3	-7.5	-4.1	Ec2	-11.0	-8.9	-4.8					
	-1.9	-1.5	-0.8	Ec3	-6.3	-5.1	-2.8	Ec3	-7.1	-5.7	-3.1	Ec3	-7.5	-6.0	-3.3	Ec3	-8.9	-7.1	-3.9					
	-2.1	-1.7	-0.9	Ec4	-7.2	-5.8	-3.1	Ec4	-8.1	-6.5	-3.5	Ec4	-8.4	-6.8	-3.7	Ec4	-10.0	-8.0	-4.4					

II	Sectional I																		
	FORMATION (mm)			TOTAL DEFORMATION (mm)			TOTAL DEFORMATION (mm)			TOTAL DEFORMATION (mm)			TOTAL DEFORMATION (mm)						
	Range of I (mm ⁴)			Range of E (MPa)			Range of I (mm ⁴)			Range of E (MPa)			Range of I (mm ⁴)			Range of E (MPa)			
	I1	I2	I3	E	I1	I2	I3	E	I1	I2	I3	E	I1	I2	I3	E	I1	I2	I3
	-3.8	-2.7	-1.2	Ec1	-12.6	-9.2	-3.9	Ec1	-14.2	-10.3	-4.4	Ec1	-14.9	-10.8	-4.6	Ec1	-17.8	-12.9	-5.4
	-4.1	-3.0	-1.3	Ec2	-13.9	-10.1	-4.3	Ec2	-15.7	-11.4	-4.8	Ec2	-16.4	-11.9	-5.0	Ec2	-19.5	-14.1	-6.0
	-3.3	-2.4	-1.0	Ec3	-11.1	-8.1	-3.4	Ec3	-12.6	-9.1	-3.9	Ec3	-13.2	-9.5	-4.0	Ec3	-15.6	-11.3	-4.8
	-3.7	-2.7	-1.1	Ec4	-12.7	-9.2	-3.9	Ec4	-14.2	-10.3	-4.4	Ec4	-14.9	-10.8	-4.6	Ec4	-17.7	-12.8	-5.4

STRIP 3

INPUT

RANGE OF E

	Ec1 (MPa)	Ec2 (MPa)	Ec3 (MPa)	Ec4 (MPa)
Ec (28days)	35,700	31,300	40,100	33,100
Eci (7days)	29,200	26,800	33,200	29,900

RANGE OF I

	I1 (mm ⁴)	I2 (mm ⁴)	I3 (mm ⁴)
laverage	3.78E+09	4.70E+09	8.66E+09
ldrop panel	8.58E+09	1.01E+10	1.54E+10
lslab	1.60E+09	2.24E+09	5.60E+09

At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-9.3	-7.4	-4.0	Ec1	-24.9	-20.0	-10.9	Ec1	-28.4	-22.9	-12.4	Ec1	-29.6	-23.8	-12.9	Ec1	-35.5	-28.6	-15.5
Ec2	-10.1	-8.1	-4.4	Ec2	-27.3	-21.9	-11.9	Ec2	-31.1	-25.0	-13.6	Ec2	-32.3	-26.0	-14.1	Ec2	-38.8	-31.2	-16.9
Ec3	-8.1	-6.5	-3.6	Ec3	-21.9	-17.6	-9.6	Ec3	-25.0	-20.1	-10.9	Ec3	-26.0	-20.9	-11.4	Ec3	-31.3	-25.2	-13.7
Ec4	-9.0	-7.3	-3.9	Ec4	-24.6	-19.8	-10.7	Ec4	-28.0	-22.5	-12.2	Ec4	-29.1	-23.4	-12.7	Ec4	-34.9	-28.1	-15.2
Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-16.3	-11.8	-5.0	Ec1	-44.0	-31.9	-13.5	Ec1	-50.2	-36.4	-15.4	Ec1	-52.2	-37.8	-16.0	Ec1	-62.7	-45.5	-19.2
Ec2	-17.8	-12.9	-5.5	Ec2	-48.2	-34.9	-14.8	Ec2	-54.9	-39.8	-16.8	Ec2	-57.1	-41.4	-17.5	Ec2	-68.5	-49.7	-21.0
Ec3	-14.4	-10.4	-4.4	Ec3	-38.7	-28.1	-11.9	Ec3	-44.2	-32.0	-13.6	Ec3	-46.0	-33.3	-14.1	Ec3	-55.2	-40.0	-16.9
Ec4	-16.0	-11.6	-4.9	Ec4	-43.4	-31.5	-13.3	Ec4	-49.5	-35.8	-15.2	Ec4	-51.4	-37.3	-15.8	Ec4	-61.7	-44.7	-18.9
At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	6.8	5.5	3.0	Ec1	16.5	13.3	7.2	Ec1	19.0	15.3	8.3	Ec1	19.7	15.8	8.6	Ec1	23.8	19.1	10.4
Ec2	7.4	6.0	3.2	Ec2	18.0	14.5	7.9	Ec2	20.7	16.7	9.0	Ec2	21.4	17.2	9.4	Ec2	25.9	20.8	11.3
Ec3	6.0	4.8	2.6	Ec3	14.5	11.7	6.3	Ec3	16.7	13.4	7.3	Ec3	17.3	13.9	7.6	Ec3	20.9	16.8	9.1
Ec4	6.6	5.3	2.9	Ec4	16.2	13.0	7.1	Ec4	18.6	14.9	8.1	Ec4	19.2	15.5	8.4	Ec4	23.2	18.7	10.1
Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	12.0	8.7	3.7	Ec1	29.2	21.2	9.0	Ec1	33.6	24.3	10.3	Ec1	34.7	25.2	10.7	Ec1	42.0	30.4	12.9
Ec2	13.1	9.5	4.0	Ec2	31.8	23.1	9.8	Ec2	36.6	26.5	11.2	Ec2	37.9	27.4	11.6	Ec2	45.7	33.1	14.0
Ec3	10.6	7.7	3.2	Ec3	25.7	18.6	7.9	Ec3	29.5	21.4	9.1	Ec3	30.6	22.1	9.4	Ec3	36.9	26.8	11.3
Ec4	11.7	8.5	3.6	Ec4	28.5	20.7	8.7	Ec4	32.8	23.7	10.0	Ec4	33.9	24.6	10.4	Ec4	41.0	29.7	12.6
At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-2.5	-2.0	-1.1	Ec1	-8.4	-6.7	-3.7	Ec1	-9.4	-7.6	-4.1	Ec1	-9.9	-8.0	-4.3	Ec1	-11.8	-9.5	-5.1
Ec2	-2.7	-2.1	-1.2	Ec2	-9.3	-7.4	-4.0	Ec2	-10.4	-8.4	-4.5	Ec2	-10.9	-8.8	-4.8	Ec2	-12.9	-10.4	-5.6
Ec3	-2.2	-1.7	-0.9	Ec3	-7.4	-5.9	-3.2	Ec3	-8.3	-6.7	-3.6	Ec3	-8.7	-7.0	-3.8	Ec3	-10.4	-8.3	-4.5
Ec4	-2.4	-1.9	-1.0	Ec4	-8.4	-6.8	-3.7	Ec4	-9.5	-7.6	-4.1	Ec4	-9.9	-8.0	-4.3	Ec4	-11.7	-9.4	-5.1
Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-4.3	-3.1	-1.3	Ec1	-14.8	-10.7	-4.5	Ec1	-16.7	-12.1	-5.1	Ec1	-17.5	-12.7	-5.4	Ec1	-20.8	-15.1	-6.4
Ec2	-4.7	-3.4	-1.4	Ec2	-16.3	-11.8	-5.0	Ec2	-18.4	-13.3	-5.6	Ec2	-19.2	-13.9	-5.9	Ec2	-22.8	-16.5	-7.0
Ec3	-3.8	-2.8	-1.2	Ec3	-13.1	-9.5	-4.0	Ec3	-14.7	-10.7	-4.5	Ec3	-15.4	-11.2	-4.7	Ec3	-18.3	-13.3	-5.6
Ec4	-4.2	-3.1	-1.3	Ec4	-14.9	-10.8	-4.6	Ec4	-16.7	-12.1	-5.1	Ec4	-17.5	-12.7	-5.4	Ec4	-20.7	-15.0	-6.3

STRIP 4

INPUT

RANGE OF E

	Ec1 (MPa)	Ec2 (MPa)	Ec3 (MPa)	Ec4 (MPa)
Ec (28days)	35,700	31,300	40,100	33,100
Eci (7days)	29,200	26,800	33,200	29,900

RANGE OF I

	I1 (mm ⁴)	I2 (mm ⁴)	I3 (mm ⁴)
laverage	4.49E+09	5.29E+09	9.83E+09
ldrop panel	1.07E+10	1.21E+10	1.84E+10
lslab	2.00E+09	2.56E+09	6.40E+09

At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-5.0	-4.2	-2.3	Ec1	-13.3	-11.3	-6.1	Ec1	-15.2	-12.9	-6.9	Ec1	-15.8	-13.4	-7.2	Ec1	-19.0	-16.1	-8.7
Ec2	-5.4	-4.6	-2.5	Ec2	-14.6	-12.4	-6.7	Ec2	-16.6	-14.1	-7.6	Ec2	-17.3	-14.7	-7.9	Ec2	-20.8	-17.6	-9.5
Ec3	-4.4	-3.7	-2.0	Ec3	-11.7	-10.0	-5.4	Ec3	-13.4	-11.4	-6.1	Ec3	-13.9	-11.8	-6.4	Ec3	-16.7	-14.2	-7.6
Ec4	-4.8	-4.1	-2.2	Ec4	-13.1	-11.2	-6.0	Ec4	-15.0	-12.7	-6.8	Ec4	-15.6	-13.2	-7.1	Ec4	-18.7	-15.9	-8.5
Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-8.6	-6.8	-2.9	Ec1	-23.2	-18.3	-7.7	Ec1	-26.5	-20.9	-8.8	Ec1	-27.6	-21.7	-9.1	Ec1	-33.1	-26.1	-10.9
Ec2	-9.4	-7.4	-3.1	Ec2	-25.4	-20.0	-8.4	Ec2	-29.0	-22.9	-9.6	Ec2	-30.2	-23.8	-10.0	Ec2	-36.2	-28.5	-12.0
Ec3	-7.6	-6.0	-2.5	Ec3	-20.5	-16.1	-6.8	Ec3	-23.4	-18.4	-7.7	Ec3	-24.3	-19.1	-8.0	Ec3	-29.2	-23.0	-9.6
Ec4	-8.4	-6.6	-2.8	Ec4	-22.9	-18.1	-7.6	Ec4	-26.1	-20.6	-8.6	Ec4	-27.2	-21.4	-9.0	Ec4	-32.6	-25.7	-10.8
At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	3.3	2.8	1.5	Ec1	8.0	6.8	3.6	Ec1	9.2	7.8	4.2	Ec1	9.5	8.1	4.3	Ec1	11.5	9.7	5.2
Ec2	3.6	3.0	1.6	Ec2	8.7	7.4	4.0	Ec2	10.0	8.5	4.6	Ec2	10.4	8.8	4.7	Ec2	12.5	10.6	5.7
Ec3	2.9	2.5	1.3	Ec3	7.0	6.0	3.2	Ec3	8.1	6.9	3.7	Ec3	8.4	7.1	3.8	Ec3	10.1	8.6	4.6
Ec4	3.2	2.7	1.5	Ec4	7.8	6.6	3.6	Ec4	9.0	7.6	4.1	Ec4	9.3	7.9	4.2	Ec4	11.2	9.5	5.1
Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	5.7	4.5	1.9	Ec1	13.9	11.0	4.6	Ec1	16.0	12.6	5.3	Ec1	16.6	13.1	5.5	Ec1	20.0	15.8	6.6
Ec2	6.2	4.9	2.1	Ec2	15.2	12.0	5.0	Ec2	17.4	13.7	5.8	Ec2	18.1	14.2	6.0	Ec2	21.8	17.2	7.2
Ec3	5.0	4.0	1.7	Ec3	12.2	9.7	4.0	Ec3	14.1	11.1	4.6	Ec3	14.6	11.5	4.8	Ec3	17.6	13.9	5.8
Ec4	5.6	4.4	1.8	Ec4	13.6	10.7	4.5	Ec4	15.6	12.3	5.2	Ec4	16.2	12.8	5.3	Ec4	19.5	15.4	6.5
At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-1.7	-1.4	-0.8	Ec1	-5.3	-4.5	-2.4	Ec1	-6.0	-5.1	-2.8	Ec1	-6.3	-5.4	-2.9	Ec1	-7.5	-6.4	-3.4
Ec2	-1.8	-1.5	-0.8	Ec2	-5.9	-5.0	-2.7	Ec2	-6.6	-5.6	-3.0	Ec2	-6.9	-5.9	-3.2	Ec2	-8.3	-7.0	-3.8
Ec3	-1.5	-1.2	-0.7	Ec3	-4.7	-4.0	-2.2	Ec3	-5.3	-4.5	-2.4	Ec3	-5.6	-4.7	-2.5	Ec3	-6.6	-5.6	-3.0
Ec4	-1.6	-1.4	-0.7	Ec4	-5.3	-4.5	-2.4	Ec4	-6.0	-5.1	-2.8	Ec4	-6.3	-5.3	-2.9	Ec4	-7.5	-6.3	-3.4
Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-2.9	-2.3	-1.0	Ec1	-9.3	-7.3	-3.1	Ec1	-10.5	-8.3	-3.5	Ec1	-11.0	-8.7	-3.6	Ec1	-13.1	-10.3	-4.3
Ec2	-3.2	-2.5	-1.0	Ec2	-10.3	-8.1	-3.4	Ec2	-11.6	-9.1	-3.8	Ec2	-12.1	-9.5	-4.0	Ec2	-14.4	-11.4	-4.8
Ec3	-2.6	-2.0	-0.8	Ec3	-8.2	-6.5	-2.7	Ec3	-9.3	-7.3	-3.1	Ec3	-9.7	-7.7	-3.2	Ec3	-11.6	-9.1	-3.8
Ec4	-2.8	-2.2	-0.9	Ec4	-9.3	-7.4	-3.1	Ec4	-10.5	-8.3	-3.5	Ec4	-11.0	-8.6	-3.6	Ec4	-13.0	-10.3	-4.3

STRIP 5

INPUT

RANGE OF E

	Ec1 (MPa)	Ec2 (MPa)	Ec3 (MPa)	Ec4 (MPa)
Ec (28days)	35,700	31,300	40,100	33,100
Eci (7days)	29,200	26,800	33,200	29,900

RANGE OF I

	I1 (mm ⁴)	I2 (mm ⁴)	I3 (mm ⁴)
laverage	3.78E+09	4.70E+09	8.66E+09
ldrop panel	8.58E+09	1.01E+10	1.54E+10
lslab	1.60E+09	2.24E+09	5.60E+09

At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-7.4	-5.9	-3.2	Ec1	-19.9	-16.0	-8.7	Ec1	-22.7	-18.2	-9.9	Ec1	-23.6	-19.0	-10.3	Ec1	-28.3	-22.8	-12.4
Ec2	-8.0	-6.5	-3.5	Ec2	-21.8	-17.5	-9.5	Ec2	-24.6	-20.0	-10.8	Ec2	-25.8	-20.7	-11.3	Ec2	-31.0	-24.9	-13.5
Ec3	-6.5	-5.2	-2.8	Ec3	-17.5	-14.1	-7.6	Ec3	-20.0	-16.1	-8.7	Ec3	-20.8	-16.7	-9.1	Ec3	-24.9	-20.1	-10.9
Ec4	-7.2	-5.8	-3.1	Ec4	-19.6	-15.8	-8.6	Ec4	-22.3	-18.0	-9.8	Ec4	-23.2	-18.7	-10.1	Ec4	-27.9	-22.4	-12.2

Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-13.0	-9.4	-4.0	Ec1	-35.1	-25.4	-10.8	Ec1	-40.1	-29.0	-12.3	Ec1	-41.6	-30.2	-12.8	Ec1	-50.0	-36.3	-15.3
Ec2	-14.2	-10.3	-4.4	Ec2	-38.4	-27.8	-11.8	Ec2	-43.8	-31.7	-13.4	Ec2	-45.5	-33.0	-14.0	Ec2	-54.7	-39.6	-16.8
Ec3	-11.5	-8.3	-3.5	Ec3	-30.9	-22.4	-9.5	Ec3	-35.3	-25.6	-10.8	Ec3	-36.7	-26.6	-11.2	Ec3	-44.0	-31.9	-13.5
Ec4	-12.7	-9.2	-3.9	Ec4	-34.6	-25.1	-10.6	Ec4	-39.5	-28.6	-12.1	Ec4	-41.0	-29.7	-12.6	Ec4	-49.2	-35.6	-15.1

At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	5.2	4.2	2.3	Ec1	12.7	10.2	5.6	Ec1	14.6	11.8	6.4	Ec1	15.1	12.2	6.6	Ec1	18.3	14.7	8.0
Ec2	5.7	4.6	2.5	Ec2	13.9	11.1	6.1	Ec2	15.9	12.8	7.0	Ec2	16.5	13.3	7.2	Ec2	19.9	16.0	8.7
Ec3	4.6	3.7	2.0	Ec3	11.2	9.0	4.9	Ec3	12.9	10.3	5.6	Ec3	13.3	10.7	5.8	Ec3	16.1	12.9	7.0
Ec4	5.1	4.1	2.2	Ec4	12.4	10.0	5.4	Ec4	14.3	11.5	6.2	Ec4	14.8	11.9	6.5	Ec4	17.9	14.4	7.8

Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	9.2	6.7	2.8	Ec1	22.5	16.3	6.9	Ec1	25.8	18.7	7.9	Ec1	26.7	19.4	8.2	Ec1	32.3	23.4	9.9
Ec2	10.1	7.3	3.1	Ec2	24.5	17.7	7.5	Ec2	28.1	20.4	8.6	Ec2	29.1	21.1	8.9	Ec2	35.2	25.5	10.8
Ec3	8.1	5.9	2.5	Ec3	19.8	14.3	6.1	Ec3	22.7	16.5	7.0	Ec3	23.5	17.0	7.2	Ec3	28.4	20.6	8.7
Ec4	9.0	6.5	2.8	Ec4	21.9	15.9	6.7	Ec4	25.2	18.3	7.7	Ec4	26.1	18.9	8.0	Ec4	31.5	22.8	9.7

At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-2.1	-1.7	-0.9	Ec1	-7.2	-5.8	-3.1	Ec1	-8.1	-6.5	-3.5	Ec1	-8.5	-6.8	-3.7	Ec1	-10.1	-8.1	-4.4
Ec2	-2.3	-1.9	-1.0	Ec2	-7.9	-6.3	-3.4	Ec2	-8.9	-7.1	-3.9	Ec2	-9.3	-7.5	-4.1	Ec2	-11.0	-8.9	-4.8
Ec3	-1.9	-1.5	-0.8	Ec3	-6.3	-5.1	-2.8	Ec3	-7.1	-5.7	-3.1	Ec3	-7.5	-6.0	-3.3	Ec3	-8.9	-7.1	-3.9
Ec4	-2.1	-1.7	-0.9	Ec4	-7.2	-5.8	-3.1	Ec4	-8.1	-6.5	-3.5	Ec4	-8.4	-6.8	-3.7	Ec4	-10.0	-8.0	-4.4

Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-3.8	-2.7	-1.2	Ec1	-12.6	-9.2	-3.9	Ec1	-14.2	-10.3	-4.4	Ec1	-14.9	-10.8	-4.6	Ec1	-17.8	-12.9	-5.4
Ec2	-4.1	-3.0	-1.3	Ec2	-13.9	-10.1	-4.3	Ec2	-15.7	-11.4	-4.8	Ec2	-16.4	-11.9	-5.0	Ec2	-19.5	-14.1	-6.0
Ec3	-3.3	-2.4	-1.0	Ec3	-11.1	-8.1	-3.4	Ec3	-12.6	-9.1	-3.9	Ec3	-13.2	-9.5	-4.0	Ec3	-15.6	-11.3	-4.8
Ec4	-3.7	-2.7	-1.1	Ec4	-12.7	-9.2	-3.9	Ec4	-14.2	-10.3	-4.4	Ec4	-14.9	-10.8	-4.6	Ec4	-17.7	-12.8	-5.4

STRIP 6

INPUT

RANGE OF E

	Ec1 (MPa)	Ec2 (MPa)	Ec3 (MPa)	Ec4 (MPa)
Ec (28days)	35,700	31,300	40,100	33,100
Eci (7days)	29,200	26,800	33,200	29,900

RANGE OF I

	I1 (mm^4)	I2 (mm^4)	I3 (mm^4)
laverage	3.78E+09	4.70E+09	8.66E+09
ldrop panel	8.58E+09	1.01E+10	1.54E+10
lslab	1.60E+09	2.24E+09	5.60E+09

At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)			
Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-9.3	-7.4	-4.0	Ec1	-24.9	-20.0	-10.9	Ec1	-28.4	-22.9	-12.4	Ec1	-29.6	-23.8	-12.9	Ec1	-35.5	-28.6	-15.5
Ec2	-10.1	-8.1	-4.4	Ec2	-27.3	-21.9	-11.9	Ec2	-31.1	-25.0	-13.6	Ec2	-32.3	-26.0	-14.1	Ec2	-38.8	-31.2	-16.9
Ec3	-8.1	-6.5	-3.6	Ec3	-21.9	-17.6	-9.6	Ec3	-25.0	-20.1	-10.9	Ec3	-26.0	-20.9	-11.4	Ec3	-31.3	-25.2	-13.7
Ec4	-9.0	-7.3	-3.9	Ec4	-24.6	-19.8	-10.7	Ec4	-28.0	-22.5	-12.2	Ec4	-29.1	-23.4	-12.7	Ec4	-34.9	-28.1	-15.2
Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)			
Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-16.3	-11.8	-5.0	Ec1	-44.0	-31.9	-13.5	Ec1	-50.2	-36.4	-15.4	Ec1	-52.2	-37.8	-16.0	Ec1	-62.7	-45.5	-19.2
Ec2	-17.8	-12.9	-5.5	Ec2	-48.2	-34.9	-14.8	Ec2	-54.9	-39.8	-16.8	Ec2	-57.1	-41.4	-17.5	Ec2	-68.5	-49.7	-21.0
Ec3	-14.4	-10.4	-4.4	Ec3	-38.7	-28.1	-11.9	Ec3	-44.2	-32.0	-13.6	Ec3	-46.0	-33.3	-14.1	Ec3	-55.2	-40.0	-16.9
Ec4	-16.0	-11.6	-4.9	Ec4	-43.4	-31.5	-13.3	Ec4	-49.5	-35.8	-15.2	Ec4	-51.4	-37.3	-15.8	Ec4	-61.7	-44.7	-18.9
At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)			
Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	6.3	5.1	2.7	Ec1	15.3	12.3	6.7	Ec1	17.5	14.1	7.7	Ec1	18.2	14.6	7.9	Ec1	21.9	17.6	9.6
Ec2	6.8	5.5	3.0	Ec2	16.6	13.4	7.3	Ec2	19.1	15.4	8.3	Ec2	19.8	15.9	8.6	Ec2	23.9	19.2	10.4
Ec3	5.5	4.4	2.4	Ec3	13.4	10.8	5.9	Ec3	15.4	12.4	6.7	Ec3	16.0	12.8	7.0	Ec3	19.3	15.5	8.4
Ec4	6.1	4.9	2.7	Ec4	14.9	12.0	6.5	Ec4	17.1	13.8	7.5	Ec4	17.7	14.3	7.7	Ec4	21.4	17.2	9.4
Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)			
Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	11.1	8.0	3.4	Ec1	27.0	19.5	8.3	Ec1	31.0	22.4	9.5	Ec1	32.1	23.2	9.8	Ec1	38.7	28.1	11.9
Ec2	12.1	8.8	3.7	Ec2	29.4	21.3	9.0	Ec2	33.7	24.5	10.3	Ec2	34.9	25.3	10.7	Ec2	42.2	30.6	12.9
Ec3	9.8	7.1	3.0	Ec3	23.7	17.2	7.3	Ec3	27.2	19.7	8.4	Ec3	28.2	20.4	8.7	Ec3	34.1	24.7	10.4
Ec4	10.8	7.9	3.3	Ec4	26.3	19.1	8.1	Ec4	30.2	21.9	9.3	Ec4	31.3	22.7	9.6	Ec4	37.8	27.4	11.6
At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)			
Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-3.0	-2.4	-1.3	Ec1	-9.6	-7.8	-4.2	Ec1	-10.9	-8.8	-4.8	Ec1	-11.4	-9.2	-5.0	Ec1	-13.6	-10.9	-5.9
Ec2	-3.2	-2.6	-1.4	Ec2	-10.6	-8.6	-4.6	Ec2	-12.0	-9.6	-5.2	Ec2	-12.5	-10.1	-5.5	Ec2	-14.9	-12.0	-6.5
Ec3	-2.6	-2.1	-1.1	Ec3	-8.5	-6.8	-3.7	Ec3	-9.6	-7.7	-4.2	Ec3	-10.1	-8.1	-4.4	Ec3	-12.0	-9.6	-5.2
Ec4	-2.9	-2.3	-1.3	Ec4	-9.7	-7.8	-4.2	Ec4	-10.9	-8.8	-4.8	Ec4	-11.4	-9.1	-5.0	Ec4	-13.5	-10.9	-5.9
Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)			
Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-5.3	-3.8	-1.6	Ec1	-17.0	-12.3	-5.2	Ec1	-19.2	-13.9	-5.9	Ec1	-20.1	-14.6	-6.2	Ec1	-24.0	-17.4	-7.4
Ec2	-5.7	-4.1	-1.8	Ec2	-18.8	-13.6	-5.8	Ec2	-21.2	-15.4	-6.5	Ec2	-22.2	-16.1	-6.8	Ec2	-26.3	-19.1	-8.1
Ec3	-4.6	-3.3	-1.4	Ec3	-15.0	-10.9	-4.6	Ec3	-17.0	-12.3	-5.2	Ec3	-17.8	-12.9	-5.4	Ec3	-21.1	-15.3	-6.5
Ec4	-5.1	-3.7	-1.6	Ec4	-17.1	-12.4	-5.2	Ec4	-19.2	-13.9	-5.9	Ec4	-20.1	-14.6	-6.2	Ec4	-23.8	-17.3	-7.3

STRIP 7

INPUT

RANGE OF E

	Ec1 (MPa)	Ec2 (MPa)	Ec3 (MPa)	Ec4 (MPa)
Ec (28days)	35,700	31,300	40,100	33,100
Eci (7days)	29,200	26,800	33,200	29,900

RANGE OF I

	I1 (mm ⁴)	I2 (mm ⁴)	I3 (mm ⁴)
laverage	3.59E+09	4.89E+09	9.26E+09
ldrop panel	8.58E+09	1.07E+10	1.64E+10
lslab	1.60E+09	2.56E+09	6.40E+09

At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)			
Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)			
Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3
Ec1	-4.9	-3.6	-1.9	Ec1	-13.1	-9.6	-5.1	Ec1	-14.9	-11.0	-5.8	Ec1	-15.5	-11.4	-6.0	Ec1	-18.7	-13.7	-7.2
Ec2	-5.3	-3.9	-2.1	Ec2	-14.3	-10.5	-5.6	Ec2	-16.4	-12.0	-6.3	Ec2	-17.0	-12.5	-6.6	Ec2	-20.4	-15.0	-7.9
Ec3	-4.3	-3.1	-1.7	Ec3	-11.5	-8.5	-4.5	Ec3	-13.2	-9.7	-5.1	Ec3	-13.7	-10.0	-5.3	Ec3	-16.4	-12.1	-6.4
Ec4	-4.8	-3.5	-1.8	Ec4	-12.9	-9.5	-5.0	Ec4	-14.7	-10.8	-5.7	Ec4	-15.3	-11.2	-5.9	Ec4	-18.4	-13.5	-7.1
Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)			
Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)			
Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3
Ec1	-8.5	-5.4	-2.3	Ec1	-22.9	-14.6	-6.1	Ec1	-26.1	-16.6	-7.0	Ec1	-27.2	-17.3	-7.3	Ec1	-32.6	-20.8	-8.7
Ec2	-9.3	-5.9	-2.5	Ec2	-25.1	-15.9	-6.7	Ec2	-28.6	-18.2	-7.7	Ec2	-29.7	-18.9	-8.0	Ec2	-35.7	-22.7	-9.5
Ec3	-7.5	-4.8	-2.0	Ec3	-20.2	-12.8	-5.4	Ec3	-23.0	-14.6	-6.2	Ec3	-23.9	-15.2	-6.4	Ec3	-28.7	-18.3	-7.7
Ec4	-8.3	-5.3	-2.2	Ec4	-22.6	-14.4	-6.0	Ec4	-25.7	-16.4	-6.9	Ec4	-26.7	-17.0	-7.2	Ec4	-32.1	-20.4	-8.6
At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)			
Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)			
Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3
Ec1	3.2	2.4	1.2	Ec1	7.8	5.7	3.0	Ec1	8.9	6.6	3.5	Ec1	9.3	6.8	3.6	Ec1	11.2	8.2	4.3
Ec2	3.5	2.6	1.4	Ec2	8.5	6.2	3.3	Ec2	9.7	7.2	3.8	Ec2	10.1	7.4	3.9	Ec2	12.2	8.9	4.7
Ec3	2.8	2.1	1.1	Ec3	6.8	5.0	2.7	Ec3	7.9	5.8	3.0	Ec3	8.1	6.0	3.2	Ec3	9.8	7.2	3.8
Ec4	3.1	2.3	1.2	Ec4	7.6	5.6	2.9	Ec4	8.7	6.4	3.4	Ec4	9.0	6.6	3.5	Ec4	10.9	8.0	4.2
Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)			
Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)			
Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3
Ec1	5.6	3.6	1.5	Ec1	13.6	8.7	3.6	Ec1	15.6	9.9	4.2	Ec1	16.2	10.3	4.3	Ec1	19.5	12.4	5.2
Ec2	6.1	3.9	1.6	Ec2	14.8	9.4	4.0	Ec2	17.0	10.8	4.6	Ec2	17.6	11.2	4.7	Ec2	21.3	13.6	5.7
Ec3	4.9	3.1	1.3	Ec3	12.0	7.6	3.2	Ec3	13.7	8.7	3.7	Ec3	14.2	9.1	3.8	Ec3	17.2	10.9	4.6
Ec4	5.5	3.5	1.5	Ec4	13.3	8.5	3.6	Ec4	15.3	9.7	4.1	Ec4	15.8	10.1	4.2	Ec4	19.1	12.2	5.1
At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)			
Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)			
Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3
Ec1	-1.7	-1.2	-0.6	Ec1	-5.3	-3.9	-2.1	Ec1	-6.0	-4.4	-2.3	Ec1	-6.3	-4.6	-2.4	Ec1	-7.5	-5.5	-2.9
Ec2	-1.8	-1.3	-0.7	Ec2	-5.9	-4.3	-2.3	Ec2	-6.6	-4.9	-2.6	Ec2	-6.9	-5.1	-2.7	Ec2	-8.2	-6.0	-3.2
Ec3	-1.5	-1.1	-0.6	Ec3	-4.7	-3.4	-1.8	Ec3	-5.3	-3.9	-2.1	Ec3	-5.5	-4.1	-2.1	Ec3	-6.6	-4.8	-2.6
Ec4	-1.6	-1.2	-0.6	Ec4	-5.3	-3.9	-2.1	Ec4	-6.0	-4.4	-2.3	Ec4	-6.3	-4.6	-2.4	Ec4	-7.4	-5.5	-2.9
Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)			
Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)			
Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3
Ec1	-2.9	-1.8	-0.8	Ec1	-9.3	-5.9	-2.5	Ec1	-10.5	-6.7	-2.8	Ec1	-11.0	-7.0	-2.9	Ec1	-13.1	-8.3	-3.5
Ec2	-3.2	-2.0	-0.8	Ec2	-10.2	-6.5	-2.7	Ec2	-11.5	-7.3	-3.1	Ec2	-12.1	-7.7	-3.2	Ec2	-14.4	-9.1	-3.8
Ec3	-2.6	-1.6	-0.7	Ec3	-8.2	-5.2	-2.2	Ec3	-9.3	-5.9	-2.5	Ec3	-9.7	-6.2	-2.6	Ec3	-11.5	-7.3	-3.1
Ec4	-2.8	-1.8	-0.8	Ec4	-9.3	-5.9	-2.5	Ec4	-10.5	-6.7	-2.8	Ec4	-10.9	-7.0	-2.9	Ec4	-13.0	-8.3	-3.5

STRIP 8

INPUT

RANGE OF E

	Ec1 (MPa)	Ec2 (MPa)	Ec3 (MPa)	Ec4 (MPa)
Ec (28days)	35,700	31,300	40,100	33,100
Eci (7days)	29,200	26,800	33,200	29,900

RANGE OF I

	I1 (mm ⁴)	I2 (mm ⁴)	I3 (mm ⁴)
laverage	1.80E+09	2.56E+09	6.40E+09
ldrop panel	1.80E+09	2.56E+09	6.40E+09
lslab	1.80E+09	2.56E+09	6.40E+09

At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-17.1	-12.0	-4.8	Ec1	-45.9	-32.3	-12.9	Ec1	-52.4	-36.8	-14.7	Ec1	-54.5	-38.3	-15.3	Ec1	-65.4	-46.0	-18.4
Ec2	-18.6	-13.1	-5.2	Ec2	-50.2	-35.3	-14.1	Ec2	-57.3	-40.3	-16.1	Ec2	-59.6	-41.9	-16.7	Ec2	-71.5	-50.3	-20.1
Ec3	-15.0	-10.5	-4.2	Ec3	-40.4	-28.4	-11.4	Ec3	-46.1	-32.4	-13.0	Ec3	-47.9	-33.7	-13.5	Ec3	-57.6	-40.5	-16.2
Ec4	-16.7	-11.7	-4.7	Ec4	-45.3	-31.8	-12.7	Ec4	-51.6	-36.3	-14.5	Ec4	-53.6	-37.7	-15.1	Ec4	-64.3	-45.2	-18.1
Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-17.0	-12.0	-4.8	Ec1	-45.8	-32.2	-12.9	Ec1	-52.3	-36.7	-14.7	Ec1	-54.3	-38.2	-15.3	Ec1	-65.3	-45.9	-18.4
Ec2	-18.5	-13.0	-5.2	Ec2	-50.1	-35.2	-14.1	Ec2	-57.2	-40.2	-16.1	Ec2	-59.4	-41.8	-16.7	Ec2	-71.3	-50.2	-20.1
Ec3	-15.0	-10.5	-4.2	Ec3	-40.3	-28.3	-11.3	Ec3	-46.0	-32.4	-12.9	Ec3	-47.8	-33.6	-13.5	Ec3	-57.5	-40.4	-16.2
Ec4	-16.6	-11.7	-4.7	Ec4	-45.2	-31.8	-12.7	Ec4	-51.5	-36.2	-14.5	Ec4	-53.5	-37.6	-15.0	Ec4	-64.2	-45.1	-18.0
At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	10.0	7.0	2.8	Ec1	24.3	17.1	6.8	Ec1	27.9	19.6	7.9	Ec1	28.9	20.3	8.1	Ec1	34.9	24.6	9.8
Ec2	10.9	7.7	3.1	Ec2	26.5	18.6	7.4	Ec2	30.4	21.4	8.6	Ec2	31.5	22.2	8.9	Ec2	38.1	26.8	10.7
Ec3	8.8	6.2	2.5	Ec3	21.4	15.0	6.0	Ec3	24.6	17.3	6.9	Ec3	25.4	17.9	7.2	Ec3	30.7	21.6	8.6
Ec4	9.8	6.9	2.7	Ec4	23.7	16.7	6.7	Ec4	27.3	19.2	7.7	Ec4	28.2	19.9	7.9	Ec4	34.1	24.0	9.6
Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	10.0	7.0	2.8	Ec1	24.3	17.1	6.8	Ec1	27.9	19.6	7.8	Ec1	28.9	20.3	8.1	Ec1	34.9	24.5	9.8
Ec2	10.9	7.6	3.1	Ec2	26.4	18.6	7.4	Ec2	30.4	21.3	8.5	Ec2	31.4	22.1	8.8	Ec2	38.0	26.7	10.7
Ec3	8.8	6.2	2.5	Ec3	21.3	15.0	6.0	Ec3	24.5	17.2	6.9	Ec3	25.4	17.8	7.1	Ec3	30.7	21.6	8.6
Ec4	9.7	6.9	2.7	Ec4	23.7	16.7	6.7	Ec4	27.2	19.1	7.7	Ec4	28.2	19.8	7.9	Ec4	34.0	23.9	9.6
At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-7.0	-5.0	-2.0	Ec1	-21.6	-15.2	-6.1	Ec1	-24.5	-17.2	-6.9	Ec1	-25.5	-18.0	-7.2	Ec1	-30.5	-21.4	-8.6
Ec2	-7.7	-5.4	-2.2	Ec2	-23.7	-16.7	-6.7	Ec2	-26.9	-18.9	-7.6	Ec2	-28.0	-19.7	-7.9	Ec2	-33.4	-23.5	-9.4
Ec3	-6.2	-4.4	-1.7	Ec3	-19.0	-13.4	-5.4	Ec3	-21.6	-15.2	-6.1	Ec3	-22.5	-15.8	-6.3	Ec3	-26.9	-18.9	-7.6
Ec4	-6.9	-4.8	-1.9	Ec4	-21.5	-15.1	-6.1	Ec4	-24.3	-17.1	-6.8	Ec4	-25.4	-17.8	-7.1	Ec4	-30.2	-21.2	-8.5
Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-7.0	-4.9	-2.0	Ec1	-21.5	-15.1	-6.1	Ec1	-24.4	-17.2	-6.9	Ec1	-25.5	-17.9	-7.2	Ec1	-30.4	-21.4	-8.6
Ec2	-7.7	-5.4	-2.2	Ec2	-23.7	-16.7	-6.7	Ec2	-26.8	-18.8	-7.5	Ec2	-28.0	-19.7	-7.9	Ec2	-33.4	-23.5	-9.4
Ec3	-6.2	-4.3	-1.7	Ec3	-19.0	-13.4	-5.3	Ec3	-21.5	-15.1	-6.0	Ec3	-22.5	-15.8	-6.3	Ec3	-26.8	-18.9	-7.5
Ec4	-6.9	-4.8	-1.9	Ec4	-21.5	-15.1	-6.0	Ec4	-24.3	-17.1	-6.8	Ec4	-25.3	-17.8	-7.1	Ec4	-30.1	-21.2	-8.5

STRIP 9

INPUT

RANGE OF E

	Ec1 (MPa)	Ec2 (MPa)	Ec3 (MPa)	Ec4 (MPa)
Ec (28days)	35,700	31,300	40,100	33,100
Eci (7days)	29,200	26,800	33,200	29,900

RANGE OF I

	I1 (mm ⁴)	I2 (mm ⁴)	I3 (mm ⁴)
laverage	1.60E+09	2.24E+09	5.60E+09
ldrop panel	1.60E+09	2.24E+09	5.60E+09
lslab	1.60E+09	2.24E+09	5.60E+09

At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-28.6	-20.5	-8.2	Ec1	-77.1	-55.0	-22.0	Ec1	-88.0	-62.8	-25.1	Ec1	-91.5	-65.3	-26.1	Ec1	-109.9	-78.5	-31.4
Ec2	-31.2	-22.3	-8.9	Ec2	-84.3	-60.2	-24.1	Ec2	-96.2	-68.7	-27.5	Ec2	-100.0	-71.4	-28.6	Ec2	-120.1	-85.8	-34.3
Ec3	-25.2	-18.0	-7.2	Ec3	-67.9	-48.5	-19.4	Ec3	-77.4	-55.3	-22.1	Ec3	-80.5	-57.5	-23.0	Ec3	-96.7	-69.1	-27.6
Ec4	-28.0	-20.0	-8.0	Ec4	-76.0	-54.3	-21.7	Ec4	-86.6	-61.9	-24.8	Ec4	-90.0	-64.3	-25.7	Ec4	-108.0	-77.1	-30.9

Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-28.6	-20.4	-8.2	Ec1	-76.9	-54.9	-22.0	Ec1	-87.8	-62.7	-25.1	Ec1	-91.3	-65.2	-26.1	Ec1	-109.6	-78.3	-31.3
Ec2	-31.1	-22.2	-8.9	Ec2	-84.2	-60.1	-24.0	Ec2	-96.0	-68.6	-27.4	Ec2	-99.8	-71.3	-28.5	Ec2	-119.8	-85.6	-34.2
Ec3	-25.1	-17.9	-7.2	Ec3	-67.7	-48.4	-19.3	Ec3	-77.3	-55.2	-22.1	Ec3	-80.3	-57.4	-23.0	Ec3	-96.5	-68.9	-27.6
Ec4	-27.9	-19.9	-8.0	Ec4	-75.8	-54.2	-21.7	Ec4	-86.4	-61.7	-24.7	Ec4	-89.8	-64.2	-25.7	Ec4	-107.8	-77.0	-30.8

At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	17.0	12.1	4.9	Ec1	41.3	29.5	11.8	Ec1	47.4	33.9	13.5	Ec1	49.1	35.1	14.0	Ec1	59.3	42.4	16.9
Ec2	18.5	13.2	5.3	Ec2	45.0	32.1	12.8	Ec2	51.7	36.9	14.8	Ec2	53.5	38.2	15.3	Ec2	64.6	46.2	18.5
Ec3	14.9	10.7	4.3	Ec3	36.3	25.9	10.4	Ec3	41.7	29.8	11.9	Ec3	43.2	30.8	12.3	Ec3	52.2	37.3	14.9
Ec4	16.6	11.8	4.7	Ec4	40.3	28.8	11.5	Ec4	46.3	33.1	13.2	Ec4	47.9	34.2	13.7	Ec4	57.9	41.4	16.5

Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	16.9	12.1	4.8	Ec1	41.2	29.4	11.8	Ec1	47.3	33.8	13.5	Ec1	49.0	35.0	14.0	Ec1	59.2	42.3	16.9
Ec2	18.5	13.2	5.3	Ec2	44.9	32.0	12.8	Ec2	51.5	36.8	14.7	Ec2	53.4	38.1	15.3	Ec2	64.5	46.1	18.4
Ec3	14.9	10.6	4.3	Ec3	36.2	25.9	10.3	Ec3	41.6	29.7	11.9	Ec3	43.1	30.8	12.3	Ec3	52.0	37.2	14.9
Ec4	16.5	11.8	4.7	Ec4	40.2	28.7	11.5	Ec4	46.2	33.0	13.2	Ec4	47.8	34.2	13.7	Ec4	57.8	41.3	16.5

At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-11.6	-8.3	-3.3	Ec1	-35.8	-25.6	-10.2	Ec1	-40.5	-29.0	-11.6	Ec1	-42.4	-30.3	-12.1	Ec1	-50.6	-36.1	-14.5
Ec2	-12.7	-9.1	-3.6	Ec2	-39.4	-28.1	-11.3	Ec2	-44.5	-31.8	-12.7	Ec2	-46.5	-33.2	-13.3	Ec2	-55.5	-39.6	-15.8
Ec3	-10.2	-7.3	-2.9	Ec3	-31.6	-22.5	-9.0	Ec3	-35.7	-25.5	-10.2	Ec3	-37.3	-26.7	-10.7	Ec3	-44.6	-31.8	-12.7
Ec4	-11.4	-8.1	-3.3	Ec4	-35.7	-25.5	-10.2	Ec4	-40.3	-28.8	-11.5	Ec4	-42.1	-30.1	-12.0	Ec4	-50.1	-35.8	-14.3

Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)			
Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)			Range of E (MPa)	Range of I (mm ⁴)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-11.6	-8.3	-3.3	Ec1	-35.7	-25.5	-10.2	Ec1	-40.5	-28.9	-11.6	Ec1	-42.3	-30.2	-12.1	Ec1	-50.5	-36.0	-14.4
Ec2	-12.7	-9.0	-3.6	Ec2	-39.3	-28.1	-11.2	Ec2	-44.4	-31.7	-12.7	Ec2	-46.4	-33.1	-13.3	Ec2	-55.3	-39.5	-15.8
Ec3	-10.2	-7.3	-2.9	Ec3	-31.5	-22.5	-9.0	Ec3	-35.7	-25.5	-10.2	Ec3	-37.2	-26.6	-10.6	Ec3	-44.5	-31.8	-12.7
Ec4	-11.4	-8.1	-3.2	Ec4	-35.6	-25.5	-10.2	Ec4	-40.2	-28.7	-11.5	Ec4	-42.0	-30.0	-12.0	Ec4	-50.0	-35.7	-14.3

STRIP 10

INPUT

RANGE OF E

	Ec1 (MPa)	Ec2 (MPa)	Ec3 (MPa)	Ec4 (MPa)
Ec (28days)	35,700	31,300	40,100	33,100
Eci (7days)	29,200	26,800	33,200	29,900

RANGE OF I

	I1 (mm ⁴)	I2 (mm ⁴)	I3 (mm ⁴)
laverage	1.80E+09	2.56E+09	6.40E+09
ldrop panel	1.80E+09	2.56E+09	6.40E+09
lslab	1.80E+09	2.56E+09	6.40E+09

At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)			
Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)			
Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3
Ec1	-17.1	-12.0	-4.8	Ec1	-45.9	-32.3	-12.9	Ec1	-52.4	-36.8	-14.7	Ec1	-54.5	-38.3	-15.3	Ec1	-65.4	-46.0	-18.4
Ec2	-18.6	-13.1	-5.2	Ec2	-50.2	-35.3	-14.1	Ec2	-57.3	-40.3	-16.1	Ec2	-59.6	-41.9	-16.7	Ec2	-71.5	-50.3	-20.1
Ec3	-15.0	-10.5	-4.2	Ec3	-40.4	-28.4	-11.4	Ec3	-46.1	-32.4	-13.0	Ec3	-47.9	-33.7	-13.5	Ec3	-57.6	-40.5	-16.2
Ec4	-16.7	-11.7	-4.7	Ec4	-45.3	-31.8	-12.7	Ec4	-51.6	-36.3	-14.5	Ec4	-53.6	-37.7	-15.1	Ec4	-64.3	-45.2	-18.1
Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)			
Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)			
Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3
Ec1	-17.0	-12.0	-4.8	Ec1	-45.8	-32.2	-12.9	Ec1	-52.3	-36.7	-14.7	Ec1	-54.3	-38.2	-15.3	Ec1	-65.3	-45.9	-18.4
Ec2	-18.5	-13.0	-5.2	Ec2	-50.1	-35.2	-14.1	Ec2	-57.2	-40.2	-16.1	Ec2	-59.4	-41.8	-16.7	Ec2	-71.3	-50.2	-20.1
Ec3	-15.0	-10.5	-4.2	Ec3	-40.3	-28.3	-11.3	Ec3	-46.0	-32.4	-12.9	Ec3	-47.8	-33.6	-13.5	Ec3	-57.5	-40.4	-16.2
Ec4	-16.6	-11.7	-4.7	Ec4	-45.2	-31.8	-12.7	Ec4	-51.5	-36.2	-14.5	Ec4	-53.5	-37.6	-15.0	Ec4	-64.2	-45.1	-18.0
At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)			
Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)			
Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3
Ec1	8.9	6.3	2.5	Ec1	21.6	15.2	6.1	Ec1	24.8	17.5	7.0	Ec1	25.7	18.1	7.2	Ec1	31.0	21.8	8.7
Ec2	9.7	6.8	2.7	Ec2	23.5	16.6	6.6	Ec2	27.0	19.0	7.6	Ec2	28.0	19.7	7.9	Ec2	33.8	23.8	9.5
Ec3	7.8	5.5	2.2	Ec3	19.0	13.4	5.3	Ec3	21.8	15.3	6.1	Ec3	22.6	15.9	6.4	Ec3	27.3	19.2	7.7
Ec4	8.7	6.1	2.4	Ec4	21.1	14.8	5.9	Ec4	24.2	17.0	6.8	Ec4	25.1	17.6	7.1	Ec4	30.3	21.3	8.5
Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)			
Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)			
Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3
Ec1	8.9	6.2	2.5	Ec1	21.6	15.2	6.1	Ec1	24.8	17.4	7.0	Ec1	25.6	18.0	7.2	Ec1	31.0	21.8	8.7
Ec2	9.7	6.8	2.7	Ec2	23.5	16.5	6.6	Ec2	27.0	19.0	7.6	Ec2	27.9	19.6	7.9	Ec2	33.8	23.7	9.5
Ec3	7.8	5.5	2.2	Ec3	19.0	13.3	5.3	Ec3	21.8	15.3	6.1	Ec3	22.6	15.9	6.3	Ec3	27.2	19.2	7.7
Ec4	8.7	6.1	2.4	Ec4	21.1	14.8	5.9	Ec4	24.2	17.0	6.8	Ec4	25.0	17.6	7.0	Ec4	30.3	21.3	8.5
At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)			
Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)			
Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3
Ec1	-8.2	-5.7	-2.3	Ec1	-24.3	-17.1	-6.8	Ec1	-27.6	-19.4	-7.8	Ec1	-28.8	-20.2	-8.1	Ec1	-34.4	-24.2	-9.7
Ec2	-8.9	-6.3	-2.5	Ec2	-26.7	-18.8	-7.5	Ec2	-30.2	-21.3	-8.5	Ec2	-31.5	-22.2	-8.9	Ec2	-37.7	-26.5	-10.6
Ec3	-7.2	-5.0	-2.0	Ec3	-21.4	-15.1	-6.0	Ec3	-24.3	-17.1	-6.8	Ec3	-25.3	-17.8	-7.1	Ec3	-30.3	-21.3	-8.5
Ec4	-8.0	-5.6	-2.2	Ec4	-24.2	-17.0	-6.8	Ec4	-27.4	-19.2	-7.7	Ec4	-28.5	-20.0	-8.0	Ec4	-34.0	-23.9	-9.6
Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)			
Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)				Range of I (mm ⁴)			
Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3	Range of E (MPa)	I1	I2	I3
Ec1	-8.1	-5.7	-2.3	Ec1	-24.2	-17.0	-6.8	Ec1	-27.5	-19.3	-7.7	Ec1	-28.7	-20.2	-8.1	Ec1	-34.3	-24.1	-9.6
Ec2	-8.9	-6.2	-2.5	Ec2	-26.6	-18.7	-7.5	Ec2	-30.2	-21.2	-8.5	Ec2	-31.5	-22.1	-8.9	Ec2	-37.6	-26.4	-10.6
Ec3	-7.2	-5.0	-2.0	Ec3	-21.4	-15.0	-6.0	Ec3	-24.2	-17.0	-6.8	Ec3	-25.3	-17.8	-7.1	Ec3	-30.2	-21.2	-8.5
Ec4	-8.0	-5.6	-2.2	Ec4	-24.1	-17.0	-6.8	Ec4	-27.3	-19.2	-7.7	Ec4	-28.4	-20.0	-8.0	Ec4	-33.9	-23.9	-9.5

STRIP 11

INPUT

RANGE OF E

	Ec1 (MPa)	Ec2 (MPa)	Ec3 (MPa)	Ec4 (MPa)
Ec (28days)	35,700	31,300	40,100	33,100
Eci (7days)	29,200	26,800	33,200	29,900

RANGE OF I

	I1 (mm^4)	I2 (mm^4)	I3 (mm^4)
laverage	1.60E+09	2.24E+09	5.60E+09
ldrop panel	1.60E+09	2.24E+09	5.60E+09
Islab	1.60E+09	2.24E+09	5.60E+09

At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)				DEFLECTION VALUES (mm)			
Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-28.6	-20.5	-8.2	Ec1	-77.1	-55.0	-22.0	Ec1	-88.0	-62.8	-25.1	Ec1	-91.5	-65.3	-26.1	Ec1	-109.9	-78.5	-31.4
Ec2	-31.2	-22.3	-8.9	Ec2	-84.3	-60.2	-24.1	Ec2	-96.2	-68.7	-27.5	Ec2	-100.0	-71.4	-28.6	Ec2	-120.1	-85.8	-34.3
Ec3	-25.2	-18.0	-7.2	Ec3	-67.9	-48.5	-19.4	Ec3	-77.4	-55.3	-22.1	Ec3	-80.5	-57.5	-23.0	Ec3	-96.7	-69.1	-27.6
Ec4	-28.0	-20.0	-8.0	Ec4	-76.0	-54.3	-21.7	Ec4	-86.6	-61.9	-24.8	Ec4	-90.0	-64.3	-25.7	Ec4	-108.0	-77.1	-30.9
Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-28.6	-20.4	-8.2	Ec1	-76.9	-54.9	-22.0	Ec1	-87.8	-62.7	-25.1	Ec1	-91.3	-65.2	-26.1	Ec1	-109.6	-78.3	-31.3
Ec2	-31.1	-22.2	-8.9	Ec2	-84.2	-60.1	-24.0	Ec2	-96.0	-68.6	-27.4	Ec2	-99.8	-71.3	-28.5	Ec2	-119.8	-85.6	-34.2
Ec3	-25.1	-17.9	-7.2	Ec3	-67.7	-48.4	-19.3	Ec3	-77.3	-55.2	-22.1	Ec3	-80.3	-57.4	-23.0	Ec3	-96.5	-68.9	-27.6
Ec4	-27.9	-19.9	-8.0	Ec4	-75.8	-54.2	-21.7	Ec4	-86.4	-61.7	-24.7	Ec4	-89.8	-64.2	-25.7	Ec4	-107.8	-77.0	-30.8
At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)				CAMBER VALUES (mm)			
Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	17.0	12.1	4.9	Ec1	41.3	29.5	11.8	Ec1	47.4	33.9	13.5	Ec1	49.1	35.1	14.0	Ec1	59.3	42.4	16.9
Ec2	18.5	13.2	5.3	Ec2	45.0	32.1	12.8	Ec2	51.7	36.9	14.8	Ec2	53.5	38.2	15.3	Ec2	64.6	46.2	18.5
Ec3	14.9	10.7	4.3	Ec3	36.3	25.9	10.4	Ec3	41.7	29.8	11.9	Ec3	43.2	30.8	12.3	Ec3	52.2	37.3	14.9
Ec4	16.6	11.8	4.7	Ec4	40.3	28.8	11.5	Ec4	46.3	33.1	13.2	Ec4	47.9	34.2	13.7	Ec4	57.9	41.4	16.5
Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	16.9	12.1	4.8	Ec1	41.2	29.4	11.8	Ec1	47.3	33.8	13.5	Ec1	49.0	35.0	14.0	Ec1	59.2	42.3	16.9
Ec2	18.5	13.2	5.3	Ec2	44.9	32.0	12.8	Ec2	51.5	36.8	14.7	Ec2	53.4	38.1	15.3	Ec2	64.5	46.1	18.4
Ec3	14.9	10.6	4.3	Ec3	36.2	25.9	10.3	Ec3	41.6	29.7	11.9	Ec3	43.1	30.8	12.3	Ec3	52.0	37.2	14.9
Ec4	16.5	11.8	4.7	Ec4	40.2	28.7	11.5	Ec4	46.2	33.0	13.2	Ec4	47.8	34.2	13.7	Ec4	57.8	41.3	16.5
At transfer				Short Term 1				Short Term 2				Short Term 3				Long Term			
Average I				Average I				Average I				Average I				Average I			
TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)				TOTAL DEFORMATION (mm)			
Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-11.6	-8.3	-3.3	Ec1	-35.8	-25.6	-10.2	Ec1	-40.5	-29.0	-11.6	Ec1	-42.4	-30.3	-12.1	Ec1	-50.6	-36.1	-14.5
Ec2	-12.7	-9.1	-3.6	Ec2	-39.4	-28.1	-11.3	Ec2	-44.5	-31.8	-12.7	Ec2	-46.5	-33.2	-13.3	Ec2	-55.5	-39.6	-15.8
Ec3	-10.2	-7.3	-2.9	Ec3	-31.6	-22.5	-9.0	Ec3	-35.7	-25.5	-10.2	Ec3	-37.3	-26.7	-10.7	Ec3	-44.6	-31.8	-12.7
Ec4	-11.4	-8.1	-3.3	Ec4	-35.7	-25.5	-10.2	Ec4	-40.3	-28.8	-11.5	Ec4	-42.1	-30.1	-12.0	Ec4	-50.1	-35.8	-14.3
Sectional I				Sectional I				Sectional I				Sectional I				Sectional I			
Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)			Range of E (MPa)	Range of I (mm^4)		
	I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3		I1	I2	I3
Ec1	-11.6	-8.3	-3.3	Ec1	-35.7	-25.5	-10.2	Ec1	-40.5	-28.9	-11.6	Ec1	-42.3	-30.2	-12.1	Ec1	-50.5	-36.0	-14.4
Ec2	-12.7	-9.0	-3.6	Ec2	-39.3	-28.1	-11.2	Ec2	-44.4	-31.7	-12.7	Ec2	-46.4	-33.1	-13.3	Ec2	-55.3	-39.5	-15.8
Ec3	-10.2	-7.3	-2.9	Ec3	-31.5	-22.5	-9.0	Ec3	-35.7	-25.5	-10.2	Ec3	-37.2	-26.6	-10.6	Ec3	-44.5	-31.8	-12.7
Ec4	-11.4	-8.1	-3.2	Ec4	-35.6	-25.5	-10.2	Ec4	-40.2	-28.7	-11.5	Ec4	-42.0	-30.0	-12.0	Ec4	-50.0	-35.7	-14.3