



- inspection
- evaluation
- research

construction materials

H. H. HOLMES TESTING LABORATORIES, INC.

Report No. 5

170 Shepard Avenue - Wheeling, Illinois 60090 - Area Code 708 541-4040 - Fax: 708-537-9098

November 14, 1995

Lab No. CH 2378

File No. 9265.1

Applied Concrete Technology, Inc.
P.O. Box 4015
Arlington Heights, IL 60006-4015

Re: Test Mixes (made 10-10-95)

QUANTITIES OF CONSTITUENT MATERIALS PER NOMINAL CUBIC YARD OF CONCRETE

<u>Materials:</u>	Cement	: Illinois Type I
	Fine Aggregate	: Natural Sand - Meyer McHenry
	Coarse Aggregate	: #67 Limestone - Vulcan McCook
	Admixtures	: Daravair - W.R. Grace
		: Mix Water Conditioner - ACT

<u>Mix No.</u>	<u>5</u>
Cement (lbs)	517
Natural Sand (lbs)	1400
#67 Limestone (lbs)	1775
Water (lbs)	249
Daravair (oz/cu. yd.)	3
Mix Water Conditioner - ACT (oz./cwt.)	-
W/C Ratio	0.48
Slump (in.)	4.5
Air % by Volume	5.6
Concrete Temp. (deg. F.)	65
Ambient Temp. (deg. F.)	70

<u>Compressive Strength (psi)</u>		<u>Shrinkage - ASTM C-157 (%)</u>		
7 Days	3520	Age	Bar #1	Bar #2
	3307			
28 Days	4528	1 Day	0.001	0.001
	4598	3 Days	0.004	0.004
<u>Flexural Strength (psi)</u>		7 Days	0.007	0.008
7 Days	473	14 Days	0.021	0.014
28 Days	557	21 Days	0.028	0.017
		28 Days	0.030	0.020

Respectfully submitted,

Richard E. Nelson Jr.

Richard E. Nelson, Jr.
President

Todd R. Nelson

Todd R. Nelson
Vice President



H. H. HOLMES TESTING LABORATORIES, INC.

Report No. 6 - 170 Shepard Avenue - Wheeling, Illinois 60090 - Area Code 708 541-4040 - Fax: 708-537-9090

November 14, 1995

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Applied Concrete Technology, Inc.
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Re: Test Mixes (made 10-10-95)

QUANTITIES OF CONSTITUENT MATERIALS PER NOMINAL CUBIC YARD OF CONCRETE

<u>Materials:</u>	Cement	: Illinois Type I
	Fine Aggregate	: Natural Sand - Meyer McHenry
	Coarse Aggregate	: #67 Limestone - Vulcan McCook
	Admixtures	: Daravair - W.R. Grace
		: Mix Water Conditioner - ACT

<u>Mix No.</u>	<u>6</u>
Cement (lbs)	517
Natural Sand (lbs)	1400
#67 Limestone (lbs)	1775
Water (lbs)	274
Daravair (oz/cu. yd.)	-
Mix Water Conditioner - ACT (oz./cwt.)	10
W/C Ratio	0.53
Slump (in.)	4.75
Air % by Volume	3.7
Concrete Temp. (deg. F.)	66
Ambient Temp. (deg. F.)	70

<u>Compressive Strength (psi)</u>		<u>Shrinkage - ASTM C-157 (%)</u>		
7 Days	4156	Age	Bar #1	Bar #2
	3891	1 Day	0.003	0.002
28 Days	5306	3 Days	0.005	0.004
	5412	7 Days	0.005	0.004
<u>Flexural Strength (psi)</u>		14 Days	0.009	0.010
7 Days	502	21 Days	0.013	0.016
28 Days	612	28 Days	0.015	0.018

Respectfully submitted,

Richard E Nelson Jr

Richard E. Nelson, Jr.
President

Todd R. Nelson
Vice President