

Transmission Document

To : Tyler

Co : Wildcat Construction

Fax :

Pages : 13

Email :

Project : Wildcat1604 - COW Re-use Water Pump Station

Ref. : WILDCAT - 25

Address :

Date : 05/31/2016

Tyler,

Please receive the submittal package that you requested for the above mentioned project.

Please do not hesitate to contact the undersigned with questions regarding the proposed submittal and thank you for choosing Andale Ready Mix Central, Inc.

Sincerely,

Christopher James Carney

Quality Control and Assurance Department

Sales/QC

316-640-8750

chrisc@andalereadymix.com

MKEC ENGINEERING, INC.	
411 N. WEBB ROAD • WICHITA, KS 67206	
<input type="checkbox"/> Reviewed	<input type="checkbox"/> Revise and Resubmit
<input checked="" type="checkbox"/> Reviewed as Noted	<input type="checkbox"/> Rejected
<input type="checkbox"/> Not Required by the Contract Documents	
<small>Reviewed for conformance with the design concept of the Project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site; for information that pertains solely to the fabrication process or to techniques of construction; and for coordination of the work of all trades.</small>	
BY <u>Bryce Z. Babin</u>	DATE <u>6-6-16</u>

Mix List

Client : Wildcat Construction Date : 05/31/2016
 Project/Contract : Wildcat1604 - COW Re-use Water Pump Station / WILD CAT

Mix Design	Usage	Specified Strength (psi)	Aggregate Size	Cement Type	AE or NAE (%)	Slump (in)	Optional Products Service Codes	Quantity (yd ³)	Placement method
Plant : Wichita Plant - Wichita									
C400023A07	Structural	4 000	SCA3/CPA 4/57W67, ASTM C 33	Type I/II	4.0 to 7.0	4.00 ± 1.00			
C400023A03	Paving	4 000	SCA3/CPA 4/57W67, ASTM C 33	Type I/II	5.0 to 8.0	4.00 ± 1.00			

Mix Design Report

Mix design is ok for footings & foundation walls. Provide a non air-entrained mix for interior concrete slabs on grade.

Client : Wildcat Construction	Date : 05/31/2016
Project/Contract : Wildcat1604 - COW Re-use Water Pump Station / WILDCAT -	
Placement :	
Usage : Structural	
Mix Design No. : C400023A07	Description : 4000psi, Ash AE

Compressive Strength	4 000 psi at 28 Days	Submittal No.	WILDCAT - 25
Aggregate Size	SCA3/CPA4/57W67,	Plant	Wichita Plant, Wichita
Air %	4.0% to 7.0%	Volume	27.00 ft³
w/cm Ratio	0.45	U.W. at 6.0 % of air	141.3 lb/ft³
Slump	4.00 ± 1.00in	Slump with SuperP	

Constituents and Suppliers	Quantity (yd³)	Sp. Gr. SSD	Volume
Cement - 201 - Cement - Type I/II - - Buzzi Unicem, Cape Girardeau Complex	472 lb	3.150	2.40 ft³
Additive - 300 - Fly Ash - Type C - - Headwaters Resources, Springfield, MO	83 lb	2.760	0.48 ft³
Water - 101 - Water - City Water - City of Wichita	250.0 lb (30.0 Gal)	1.000	4.00 ft³
Stone - 401 - SCA3/CPA4/57W67, ASTM C 33 - Crushed stone - - Whitaker Aggregates	1194 lb	2.585	7.40 ft³
Sand - 400 - FA-A, ASTM C 33/404 - Natural sand - - Associated Materials, Maize	1815 lb	2.619	11.10 ft³
Admixture - 501 - AEA-92S - Air-entraining agent - - The Euclid Chemical Company,	(*)	1.010	(*)
Admixture - 512 - ChrysoEnviroMix i44 - Mid range water reducer - - Chryso Inc.,	(*)	1.040	(*)
Air Volume			1.62 ft³
Total	3814 lb		27.00 ft³

Optional Products :

Remarks :

1h - We are pleased to present a 4000 PSI concrete that meets the requirements of the most current standards of the American Concrete Institute when handled, placed, and tested in accordance with ASTM and ACI standards and recommended practices; 2b - The mix is submitted as per ACI 318-08, Chapter 5 (Field Experience Method); 3a - Our mix design are designed for a standard slump range of 4 ± 1 inch or otherwise specified. We recommend the use of superplasticizers to achieve higher desired slumps range from 5 to 8 inches without negatively impacting concrete strength.; 6a - We would like to be included on the distribution list for all concrete test results from the selected testing laboratory, the owner, or the general contractor, in accordance with ASTM C-94 and ACI 318.

(*) Based on technical sheet

Prepared by : Christopher James Carney, Sales/QC	Approved by : _____
Date : 05/23/2016	Date : //

Wichita Plant
3170 N. Ohio Wichita

Mix Design Report

Client : Wildcat Construction	Date : 05/31/2016
Project/Contract : Wildcat1604 - COW Re-use Water Pump Station / WILDCAT -	
Placement :	
Usage : Paving	✓ ✓
Mix Design No. : C400023A03	Description : 4000psi, CITY 6.6 SACK Ash AE

Compressive Strength	4 000 psi at 28 Days	Submittal No.	WILDCAT - 25
Aggregate Size	SCA3/CPA4/57W67.	Plant	Wichita Plant, Wichita
Air %	5.0% to 8.0% ✓	Volume	27.00 ft ³
w/cm Ratio	0.47 ✓	U.W. at 6.0 % of air	139.2 lb/ft ³
Slump	4.00 ± 1.00in	Slump with SuperP	6.00 ± 2.00 in

Constituents and Suppliers	Quantity (yd ³)	Sp. Gr. SSD	Volume
Cement - 201 - Cement - Type I/II - - Buzzi Unicem, Cape Girardeau Complex	527 lb	3.150	2.68 ft ³
Additive - 300 - Fly Ash - Type C - - Headwaters Resources, Springfield, MO	93 lb ✓	2.760	0.54 ft ³
Water - 101 - Water - City Water - City of Wichita	290.0 lb (34.7 Gal)	1.000	4.65 ft ³
Stone - 401 - SCA3/CPA4/57W67, ASTM C 33 - Crushed stone - - Whitaker Aggregates	1130 lb	2.585	7.00 ft ³
Sand - 400 - FA-A, ASTM C 33/404 - Natural sand - - Associated Materials, Maize	1718 lb	2.619	10.51 ft ³
Admixture - 501 - AEA-92S - Air-entraining agent - - The Euclid Chemical Company,	(*)	1.010	(*)
Admixture - 512 - ChrysoEnviroMix i44 - Mid range water reducer - - Chryso Inc.,	(*)	1.040	(*)
<p style="font-size: 1.2em; color: blue; transform: rotate(-15deg);">MAXIMUM SLUMP PER CITY SPECS IS 4"</p>			
Air Volume			1.62 ft ³
Total	3758 lb		27.00 ft³

Optional Products :

Remarks :
 1h - We are pleased to present a 4000 PSI concrete that meets the requirements of the most current standards of the American Concrete Institute when handled, placed, and tested in accordance with ASTM and ACI standards and recommended practices; 2b - The mix is submitted as per ACI 318-08, Chapter 5 (Field Experience Method); 3a - Our mix design are designed for a standard slump range of 4 ± 1 inch or otherwise specified. We recommend the use of superplasticizers to achieve higher desired slumps range from 5 to 8 inches without negatively impacting concrete strength.; 6a - We would like to be included on the distribution list for all concrete test results from the selected testing laboratory, the owner, or the general contractor, in accordance with ASTM C-94 and ACI 318.
 (*) Based on technical sheet

Prepared by : Christopher James Carney, Sales/QC	Approved by :
Date : 05/23/2016	Date : //

Wichita Plant
 3170 N. Ohio Wichita



Buzzi Unicem USA

MILL CERTIFICATION REPORT PORTLAND CEMENT - TYPE I/II (LOW ALKALI)

Certification Date: 03/09/16
Cement Type: I/II (low alkali)
Laboratory: Cape Girardeau Plant

We hereby certify that this cement complies with current ASTM C150 and AASHTO M85 Specifications.
The data presented below is the average of the cement that was shipped.

ASTM STANDARD REQUIREMENTS

CHEMICAL DATA

		SPEC. #
SiO ₂ - %	A	ASTM C-114
Al ₂ O ₃ - %	max 6.0	ASTM C-114
Fe ₂ O ₃ - %	max 6.0	ASTM C-114
CaO - %	A	ASTM C-114
MgO - %	max 6.0	ASTM C-114
SO ₃ - %	max 3.0***	ASTM C-114
Loss on Ignition - %	max 3.0	ASTM C-150
Insoluble Residue - %	max 0.75	ASTM C-114
CO ₂ in Cement - %	A	ASTM C-150
Limestone - %	max 5.0	ASTM C-150
CaCO ₃ in Limestone - %	min 70	ASTM C-150
Potential Phase Compounds:**		ASTM C-150
C ₃ S - %	A	ASTM C-150
C ₂ S - %	A	ASTM C-150
C ₃ A - %	max 8	ASTM C-150
C ₄ AF - %	A	ASTM C-150
C ₃ S + 4.75C ₃ A - %	max 100	ASTM C-150
Na ₂ O Equivalent - %	max 0.60 ✓	ASTM C-150

PHYSICAL DATA

Fineness - Blaine - m ² /kg	min 260	ASTM C-204
Autoclave Expansion %	max 0.80	ASTM C-151
Time of Set - Initial		ASTM C-191
Vicat (minutes)	min 45 max 375	
Air Content %	max 12	ASTM C-185
Compressive Strength:		ASTM C-109
1 day - psi (MPa)	A	
3 day - psi (MPa)	1740 (12.0)	
7 day - psi (MPa)	2760 (19.0)	
Heat Of Hydration (7 day)	A	ASTM C-186
Mortar Sulfate Expansion %	max 0.040	ASTM C-452

MILL CERTIFICATION VALUES

CHEMICAL DATA

SiO ₂ - %	20.3
Al ₂ O ₃ - %	4.3
Fe ₂ O ₃ - %	2.9
CaO - %	62.8
MgO - %	3.0
SO ₃ - %	2.7
Loss on Ignition - %	2.7
Insoluble Residue - %	0.51
CO ₂ in Cement - %	1.8
Limestone - %	4.8
CaCO ₃ in Limestone - %	83
Potential Phase Compounds:**	
C ₃ S - %	55
C ₂ S - %	16
C ₃ A - %	6
C ₄ AF - %	9
C ₃ S + 4.75C ₃ A - %	84.6
Na ₂ O Equivalent - %	0.51

PHYSICAL DATA

Fineness - Blaine - m ² /kg	399
Autoclave Expansion %	0.01
Time of Set - Initial	
Vicat Initial (minutes)	125
Air Content %	8.6
Compressive Strength:	
1 day - psi (MPa)	2200 (15.2)
3 day - psi (MPa)	3900 (26.9)
7 day - psi (MPa)	5030 (34.7)
Heat Of Hydration (7 day) - cal/g	77.9
Mortar Sulfate Expansion %	0.029

By 
Michael L. Bollinger - Quality Supervisor

^A Not applicable.

** Adjusted per ASTM C150 Annex A1E

*** It is permissible to exceed the values for SO₃ content, provided that the Mortar Bar Expansion C1038 does not exceed 0.020 % at 14 days.

BUZZI UNICEM USA, Cape Girardeau Plant

2524 South Sprigg Street, Cape Girardeau, MO. 63703, P.O. Box 520, Cape Girardeau, MO 63702-0520, Phone 573.335.5591

✓

Analytical Testing Service Laboratories, Inc.
P.O. Box 1118, Joplin, Missouri 64802
(417) 782-6573

Headwaters Resources
 4319 S.National # 127
 Springfield, MO 65810-2607
 (417)882-0965

January 08, 2015

Attn: Kristy Rotramel

Re: 59454 - Jeffrey Fly Ash Sample - 2000 Ton Composite - Unit 2 - 11/ 20-12/05 /2014

	AASHTO-M295 Class "C" <u>Requirements</u>	ASTM C-618 ✓ Class "C" <u>Requirements</u>	<u>Actual</u>
Fineness (+325 Mesh)	34% Max	34% Max	15.50%
Fineness Variation	5.0% Max	5.0% Max	0.10%
Moisture Content	3% Max	3% Max	0.09%
Density g/cm ³ C188	5% Max	****	2.76
Density Variation	5.0% Max	5.0% Max	0.83%
Loss on Ignition	5% Max	6% Max	0.20%
Soundness	0.8% Max	0.8% Max	0.12%
S.A.I., 7 Days	75% Min	75% Min	101.40%
S.A.I., 28 Days	75% Min	75% Min	107.70%
Water Req. % Control	105% Max	105% Max	94.20%
Silica SiO ₂	****	****	29.61%
Aluminum Oxide Al ₂ O ₃	****	****	19.90%
Ferric Oxide Fe ₂ O ₃	****	****	5.15%
Total	50% Min	50% Min	54.66%
Sulfur Trioxide SO ₃	5% Max	5% Max	2.56%
Calcium Oxide CaO	****	****	29.17%
Magnesium Oxide MgO	****	****	8.29%
Available Alkalies as Na ₂ O	1.50% Max	-----	1.41%

We certify the above was tested in accordance with ASTM C-618 and AASHTO M295.

Analytical Testing Service Laboratories, Inc.



John K. Cupp, Manager



EUCLID CHEMICAL

Product Certification

The Euclid Chemical Company
19215 Redwood Road
Cleveland, OH 44110-2799
Phone: 800-321-7628
Fax: 216-531-9596
www.euclidchemical.com

Prepared for:
ANDALE READYMIX
3170N OHIO
WICHITA, KANSAS 67219
Project:

3/30/2016

Certification of Eucon AEA-92S

The Euclid Chemical Company hereby certifies that its liquid admixture, Eucon AEA-92S, is formulated for use as an air entraining admixture and meets or exceeds the requirements of ASTM C-260, the Corps of Engineers Specification CRD-C-13, and AASHTO Specification M-154. Furthermore, it is also certified that Eucon AEA-92S contains no calcium chloride nor any added chloride ions other than those normally present in water.

For additional information please contact Euclid Chemical Technical Support at (800) 321-7628.

Euclid Chemical
Admixture Product Manager

CHRYSO® EnviroMix® i44



Multi-range water reducer – High SCM replacement ratio

■ Features

CHRYSO®EnviroMix® i44 is a high performance chemical admixture using proprietary polycarboxylate technology combined with innovative chemical engineering to provide the means to produce high performance concrete offering normal to accelerated setting characteristics, improved workability & finishability and improved strength development properties.

CHRYSO®EnviroMix® i44 is manufactured under rigid quality control measures to provide uniform, reliable results.

■ Benefits

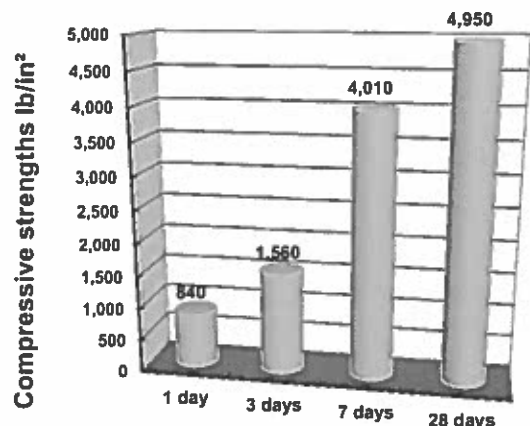
- Allows better utilization of mixes incorporating high volumes of pozzolans such as fly ash and improves workability retention
- Provides increased slump and flowability without increased water content
- Improves concrete quality by reducing the water-cement ratio for a given degree of workability
- Proprietary finishing aid improves workability and finishability
- Hydration catalysts accelerate concrete set and boosts early strength
- Reduces cracking and shrinkage
- Improves concrete chemical resistance and durability
- High SCM usage ratio contributes to the protection of our environment (Cf. reduction of CO² emission encouraged by LEED directives)
- Improves cementitious material performance (more psi/lb)

■ Areas of Application

CHRYSO®EnviroMix® i44 is recommended for all concrete mixes where significant water reduction, improved cementitious material performance (more psi/lb), normal to accelerated set times and enhanced finishing characteristics are desirable.

CHRYSO®EnviroMix® i44 is especially effective in improving the performance of concrete mixes containing high volumes of fly ash and other pozzolans.

Example: 40% fly ash / 60% cement
455 lbs cementitious total



CHRYSO

CHRYSO® EnviroMix® i44

■ Description:

Characteristics:

- Physical state: liquid
- Color: green
- Density: 1.04 ± 0.020 g/cc
- pH: 5.5 ± 2.0
- Cl⁻ ion content: Nil

CHRYSO®EnviroMix® i44 does not contain any purposely added calcium chloride or other chloride based components. It will not promote or contribute to corrosion of reinforcing steel in concrete.

Packaging:

- 55 gallon (210 L) drums
- 264 gallon (1000 L) totes
- bulk deliveries

Standard specifications:

CHRYSO®EnviroMix® i44 meets the requirements of ASTM C494, Types A & F for a high range water reducing admixture

■ Directions for use:

Dosage:

CHRYSO®EnviroMix® i44 is recommended for use at a dosage rate of 3 to 9 fluid ounces per 100 pounds (195 to 585 ml per 100 kg) of cement for a Type A and 10 to 18 fluid ounces per 100 pounds (652 to 1170 ml per 100 kg) of cement for a Type F.

Because local job conditions vary, please contact your local Chryso sales representative for further assistance if using outside recommended dosage ranges.

CHRYSO Inc. Tel: (800) 936-7553 – Fax: 972-772-6010

Southern Division	P.O. Box 190	Rockwall, TX	75032
Midwest Division	P.O. Box 129	Charlestown, IN	47111
Western Division	5090 Nome St	Denver, CO	80239
Eastern Division	200 C Leonard Rd	Lexington, NC	27295

The information contained in this document is given to the best of our knowledge and is the result of extensive and controlled testing. However, it cannot under any circumstances be considered as a warranty involving our liability in the case of misuse. Tests should be conducted before the product is used to ensure that the methods and conditions of use of the product are satisfactory. Our specialists remain at the disposal of customers if they require help with the application of the product for their specific needs.

Compatibility

CHRYSO®EnviroMix® i44 is compatible with all types of Portland cement, class C and F fly ash, slag, microsilica, calcium chloride, fibers and approved air entraining admixtures.

CHRYSO®EnviroMix® i44 can be used in all white, colored, and architectural concrete. For best results, each admixture must be dispensed separately into the concrete mix.

Precaution:

CHRYSO®EnviroMix® i44 may freeze at temperatures below 33° F (2° C). Although freezing does not harm CHRYSO®EnviroMix® i44, precautions should be taken to protect it from freezing. If CHRYSO®EnviroMix® i44 should happen to freeze, thaw and reconstitute with mechanical agitation.

Do Not Use Pressurized Air For Agitation.

Shelf life: 9 months

■ Safety:

CHRYSO®EnviroMix® i44 is not considered dangerous to handle. Please refer to the material safety data sheet for additional information.

About CHRYSO:

CHRYSO is a subsidiary of the multi-billion dollar specialty construction chemicals Group, Materis.

Worldwide leader for Concrete and Cement additives, CHRYSO has been servicing the construction Industry for over half a century with outstanding innovation and service.

As a result, CHRYSO's name and products have been associated with the most prestigious and demanding construction projects worldwide.

CHRYSO

AEA-92S

AIR ENTRAINING AGENT FOR CONCRETE

Euclid
Concrete
Admixtures



DESCRIPTION

AEA-92S is formulated for use as an air entraining admixture for concrete of all types and is manufactured under rigid control which assures uniform and precise performance. It should be added to the mix independently and not with other admixtures.

PRIMARY APPLICATIONS

- Ready mix concrete
- Structural concrete
- Mass concrete
- Paving concrete
- All exterior concrete

FEATURES/BENEFITS

- Provides a stable air void system with proper bubble size and spacing. This air void system protects concrete against damage caused by repeated freeze/thaw cycles
- Concrete is made more resistant to de-icing salts, sulfate attack and corrosive water
- Less mixing water can be used per yard (meter) of concrete and placeability is improved
- Minimizes bleeding and segregation of the concrete

TECHNICAL INFORMATION

AEA-92S is an aqueous solution compound of organic chemicals. It is compatible with concrete mixes containing other commonly used Euclid Chemical Company admixtures.

Appearance

AEA-92S is an amber colored material which, when added to concrete does not change the concrete's natural appearance.

PACKAGING

AEA-92S is packaged in bulk, 275 gal (1041 L) totes, 55 gal (208 L) drums and 5 gal (18.9 L) pails.

SHELF LIFE

2 years in original, unopened package.

SPECIFICATIONS/COMPLIANCES

AEA-92S meets or exceeds the requirements of the following specifications:

- Corps of Engineers Specification CRD C-13
- ASTM Specification C 260
- AASHTO Specification M 154
- ANSI/NSF STD 61

DIRECTIONS FOR USE

1/2 to 2 oz of AEA-92S/100 lb (30 to 120 ml of AEA-92S/100 kg) of cement will generally entrain 3% to 6% air in concrete. This amount will vary depending on type of cement, fineness of sand, addition of fly ash, temperature, design of the mix, etc. Concrete mixes must be tested regularly to confirm that the proper air content is achieved.

AEA-92S
Air Entraining Agent For Concrete

Master Format #: 03 3000

Revised: 3.07



The Euclid Chemical Company

19218 Redwood Rd. • Cleveland, OH 44110
Phone: [216] 531-9222 • Toll-free: [800] 321-7628 • Fax: [216] 531-9596
www.euclidchemical.com

An **RPM** Company



PRECAUTIONS/LIMITATIONS

- Consult your local Euclid Chemical representative for the proper dosage rate adjustments when using fly ash, slag or high range water reducers.
- Add to the mix independent of other admixtures.
- In all cases, consult the Material Safety Data Sheet before use.

WARRANTY: The Euclid Chemical Company ("Euclid") solely and expressly warrants that its products shall be free from defects in materials and workmanship for one (1) year from the date of purchase. Unless authorized in writing by an officer of Euclid, no other representations or statements made by Euclid or its representatives, in writing or orally, shall alter this warranty. EUCLID MAKES NO WARRANTIES, IMPLIED OR OTHERWISE AS TO THE MERCHANTABILITY OR FITNESS FOR ORDINARY OR PARTICULAR PURPOSES OF ITS PRODUCTS AND EXCLUDES THE SAME. If any Euclid product fails to conform with this warranty, Euclid will replace the product at no cost to Buyer. Replacement of any product shall be the sole and exclusive remedy available and buyer shall have no claim for incidental or consequential damages. Any warranty claim must be made within one (1) year from the date of the claimed breach. Euclid does not authorize anyone on its behalf to make any written or oral statements which in any way alter Euclid's installation information or instructions in its product literature or on its packaging labels. Any installation of Euclid products which fails to conform with such installation information or instructions shall void this warranty. Product demonstrations, if any, are done for illustrative purposes only and do not constitute a warranty or warranty alteration of any kind. Buyer shall be solely responsible for determining the suitability of Euclid's products for the Buyer's intended purposes.

CONCRETE
Aggregate properties

Client : Wildcat Construction Address : Project : Wildcat1604 - COW Re-use Water Pump Station								
Gradation and physical properties of Aggregates								
Product	400				401			
Supplier	Associated Materials - Maize				Whitaker Aggregates Inc. - Winfield			
Grading	FA-A, ASTM C 33/404				SCA3/CPA4/57W67, ASTM C 33 ✓			
Sieve analysis		%Passing				%Passing		
2 "		100.0				100.0		
1" 1/2		100.0				100.0		
1"		100.0				100.0 ✓		
3/4"		100.0				94.0 ✓		
1/2"		100.0				59.0		
3/8"		100.0 ✓				37.0 ✓		
# 4		99.0 ✓				6.0 ✓		
# 8		83.0 ✓				1.0 ✓		
# 16		67.0 ✓				1.0		
# 30		43.0 ✓				1.0		
# 50		18.0 ✓				1.0		
# 100		3.0 ✓				1.0		
# 200		0.6 ✓				0.9		
Description	Results	Standard	Legend	Date	Results	Standard	Legend	Date
Specific gravity SSD	2.619	ASTM C-128		05/14/2008	2.585	ASTM C - 127		05/14/2008
% Absorption	0.90	ASTM C-128		05/14/2008	2.60 ✓	ASTM C - 127		05/14/2008
Fineness Modulus	2.87 ✓	ASTM C - 136	✓	12/05/2008	6.58	ASTM C - 125		01/14/2015
Los Angeles					33.0 ✓	ASTM C - 131		01/14/2015
Soundness					9.0 ✓	ASTM C - 88		01/14/2015
Clay lumps	0.10 ✓	C142		03/02/2015				
Soundness Fine	2.4	ASTM C-88		03/02/2015				
Legend :								
Prepared by : Christopher James Carney, Sales/QC					Approved by :			
Date : 05/23/2016					Date : //			

CONCRETE
ACI strength test

Mix Design No. : **C400023A07** Period : **From 05/23/2015** evaluation To **05/23/2016**
 Plant : **Wichita Plant, Wichita** Usage : **Multiple**
 Compressive Strength : **4 000 psi to 28 Days** Aggregate size : **SCA3/CPA4/57W67, ASTM C 33**

Sample No.	Sampling date	Slump Field (in)	Slump Plant (in)	Air Before (%)	Air After (%)	Temp. (°F)	Test results (psi)					Average 28 Days	Moving avg. of (3)	Standard of (3)	CV of (3)
							3 Days	7 Days	28 Days	28 Days	28 Days				
16004	01/06/2016	6.00				67.0	4 458	5 624	5 491	133	5 558	5 455	211	3.87	
16003	01/06/2016	6.00				68.0	3 780	5 491	4 932	559	5 212	5 793	701	12.10	
16002	01/06/2016	6.00				68.0	4 186	5 618	5 572	46	5 595	5 654	888	15.71	
16001	01/05/2016	3.00				62.0	3 948	6 610	6 532	78	6 571	5 630	892	15.84	
15340	12/22/2015		5.50	5.7		75.0	3 981	4 860	4 733	127	4 797	5 266	406	7.71	
15331	12/18/2015		4.00	6.6		77.0		5 561	5 483	78	5 522	5 418	144	2.66	
15323	12/10/2015		4.00	7.2		76.0	4 271	5 490	5 466	24	5 478	5 196	314	6.04	
15320	12/08/2015		5.00	6.0		65.0		6 011	4 497	1 514	5 254	5 614	987	17.58	
15308	12/04/2015		7.00	6.3		78.0		4 913	4 801	112	4 857	5 898	954	16.17	
15338	11/24/2015	2.00		7.0			5 162	6 730			6 730	6 458	319	4.94	
15337	11/23/2015	2.75		5.3		79.0	4 773	6 107			6 107	6 024	558	9.26	
15336	11/23/2015	1.50		5.4		75.0	5 548	6 536			6 536	5 745	690	12.01	
15335	11/23/2015	3.50		7.8		70.0	4 356	5 429			5 429	5 578	405	7.26	
15242	08/31/2015		6.50	5.9		78.0		5 391	5 146	245	5 269	5 344	659	12.33	
15191	06/19/2015		4.00			72.0		6 044	6 029	15	6 037	5 333	661	12.39	
15171	05/27/2015	6.00		6.0		73.0	3 374	4 734	4 718	16	4 726				
15174	05/27/2015		3.75			71.0	3 772	5 345	5 125	220	5 235				

Reported by: **Chris Carney** Date : **05/23/2016** Verified by: _____