SRG ENGINEERING, INC.

CONSULTING STRUCTURAL ENGINEERS

1000 1000 1000 1000 1000 1000 1000 100	
TRANS	MITTAL SHEET
TO:	FROM:
Mr. Mike Nugent	Steven Grant, P.E.
City of Portland, Code Enforcement	рате: 4/11/2005
MAIL/STREET: 389 Congress Street	we are sending you: Statement of Final Inspection, Field, Lab, and Test Reports by SWC/SRG.
TOWN, STATE, ZIP: Portland, ME 04101	sender's reference number: 04-107
RE: Motion Industries Addition	метнод оf sнiрмент: 1 st class US mail
☑ FOR YOUR USE ☑ AS REQUESTED	☐ FOR REVIEW/COMMENT ☐ PLEASE RESUBMIT
NOTES/COMMENTS:	
Hi Mike,	
Here are the reports for the above mentione	d project. Please call if you have any questions.
Best wishes.	$_{a} \otimes$
Sincerely,	
57Eve	$\mathcal{N}_{\mathcal{I}}$
Steven R. Grant, President	U
Encs.	

Cc: Dennis Waters at PATCO on April 11, 2005 via 1st class US Mail.

S E A M

Structural Engineering A	ssociation of Maine
FINAL REPORT OF SPEC	CIAL INSPECTIONS
PROJECT: MOTION FNDYSTIES. LOCATION: 190 RAND ROAD, POR	ADDITION
LOCATION: 190 RAND ROAD POR	TUND
PERMIT APPLICANT: PATCO CONSTR	CTION, TW
APPLICANT'S ADDRESS: 1293 MAN	5%
SANFORD, ME	TAIL TAIL TO THE PARTY OF THE P
STRUCTURAL ENGINEER OF RECORD: STRUCTURAL ENGINEER OF	SRG ENGINEERING, INC. P.O. Box 925
ARCHITECT OF RECORD: JUHN GNIBIDION,	CANAMINE 04039
GENERAL CONTRACTOR: PATES CONSTI	WETAN IN
To the best of my information, knowledge, and required for this project, and described in submitted for the project, have been complete.	d belief, the Special Inspections the Statement of Special Inspections
The following discrepancies that were cutstant	ed,
The following discrepancies that were outstar No dated, have been correct	cted:
	<u> </u>
(Use additional sheets, if necessary)	
	t and numbered to
Interim reports submitted to this final repor basis for, and are to be considered an integr	al part of this final report.
Cubmittad D	and this
Submitted By: SPECIAL INSPECTOR	THE OF MANUAL PROPERTY OF THE
STEVEN R. GRANT	Steven
STEVEN K. GRANT NAME/ AME/ 4-11-05	R. *
Vinley 4-11-05	Grant \$ 6825
SIGNATURE DATE	TO TO IS TENTO
	MAL EMMIN
	Special Inspector's P.E. Seal
	i i.e. odai

SRG Engineering, Inc. P. O. Box 925 Gray, ME 04039-0925 Tel:(207)-657-7323 Fax:(207)-657-7342 Project No.:04-107

Project Name:

Date: December 3, 2004 Motion Industries Addition

Project Location:

Portland, Maine Overcast, 30's

Weather Conditions: Contact Person(s):

Steven Grant-SRG Eng.

(Contractor was not present)

Discussion/Observations:

Observations are as follows:

- 1. Excavation for wall footings was complete for the wall closest to Rand Road and the longer exterior wall. Light snow covered the excavations.
- 2. Six (6) photographs taken for the record.



Diagram:	s:

Copies To:

SRG Engineering, Inc. P. O. Box 925 Gray, ME 04039-0925 Tel:(207)-657-7323 Fax:(207)-657-7342 Project No.:04-107

Date: December 21, 2004

Project Name:

Motion Industries Addition

Project Location:

Portland, Maine Weather Conditions: Overcast, 30's

Contact Person(s):

Steven Grant-SRG Eng.

Tom Landry-PATCO

Discussion/Observations:

Observations are as follows:

- 1. Reinforcing at the interior piers on grid line 2 was in place. Footings were cast the day before.
- 2. Blankets were in place over the grid line 2 interior footings and pier reinforcement.
- 3. Pier concrete is to be placed within the next day.
- 4. All other foundations and footings are in place.

Grant

Diagrams:

Copies To: Tue

SRG Engineering, Inc. P. O. Box 925 Gray, ME 04039-0925 Tel:(207)-657-7323 Fax:(207)-657-7342 Project No.:04-107

Project Name:

Date: January 3, 2005 **Motion Industries Addition**

Project Location:

Contact Person(s):

Portland, Maine Weather Conditions: Overcast, Low 40's

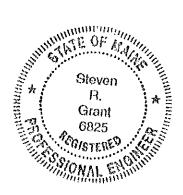
Steven Grant-SRG Eng. (GC not present)

Discussion/Observations:

Observations are as follows:

1. Concrete piers at grid line 2 are in and backfilled.

2. 4 Photos taken for the record.



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Copies To:

SRG Engineering, Inc. P. O. Box 925 Gray, ME 04039-0925 Tel:(207)-657-7323 Fax:(207)-657-7342 Project No.:04-107

Date: March 25, 2005

Project Name:

Motion Industries Addition

Project Location:

Portland, Maine

Contact Person(s):

Weather Conditions: Mostly Sunny, Low 40's Steven Grant-SRG Eng.

(GC not present)

Discussion/Observations:

Observations are as follows:

1. Metal structure is fully erected with metal roof and siding in place.

2. Concrete slab-on-grade was placed day before. Control joint locations were cut per plan. Contractor chose not to provide isolation joint at exterior column piers.

3. Steel beam line for crane support is not in place yet.

4. The following locations were noted to have either wood shims and/or plywood templates located between column base plate and top of concrete: B-1, E-1, F-1, D-2, E-2, and F-2. As discussed with Dennis Waters this week on the telephone, all wood must be removed and replaced with either continuous solid steel shims or non-shrink structural grout. Please notify SRG Engineering when this is completed so we can provide a final observation necessary to file final forms with the City.

5. 23 digital photos taken for the record. Emailed to Dennis Waters (PATCO) on 3/26/05.

Diagrams:

Grant

Copies To: Fu	Copies	To:	5	Œ
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Signed: Ath Gal

FIELD REPORT #5 of 5

SRG Engineering, Inc. P. O. Box 925 Gray, ME 04039-0925 Tel:(207)-657-7323 Fax:(207)-657-7342 Project No.:04-107

Date: April 8, 2005

Project Name:

Motion Industries Addition

Project Location:

Portland, Maine

Contact Person(s):

Weather Conditions: Mostly Sunny, mid 40's Steven Grant-SRG Eng.

(GC not present)

Discussion/Observations:

Observations are as follows:

1. Metal structure is fully erected (except for future crane rail beam) with metal roof and siding in place.

2. PATCO removed wood between column base plates and supporting foundation at all locations. These locations have been filled with non-shrink structural grout.

3. Seven (7) digital photos taken for the record. Emailed to Dennis Waters (PATCO) on 4/10/05.

Diagrams:

Copies To: Fie





DAILY CONSTRUCTION REPORT

Project: Motion Industries Addition

Project No.: 04-0841

Client: SRG Engineering, Inc.

Client's Rep.: Steve Grant

Date: December 8, 2004

Weather: cloudy with flurries

Work in Progress: placement of footing between G/3 and C/1

Work Performed by SWC Rep.: concrete and rebar inspections; and digital photos of concrete placement

General Observations, Discussions, Etc: This S.W. Cole rep arrived onsite and met with Patco Construction rep Tom Doyle and reviewed the shop drawings for the foundation written up by Harmac Rebar. Following reviewing the shop drawings a rebar inspection was done on the footing between foundation lines G/3 to C/1, the findings were:

- Correct size rebar used
- Number and spacing of bars correct
- Reinforcing steel splices adequate
- Vertical dowels at column locations C, D, & E on 1line as well as vertical dowels between column lines were wet stuck following concrete placement
- Concrete coverage around rebar was adequate

Findings of the concrete inspection were as follows:

Concrete slump: 3.75"

Concrete air entrainment: 7.8%

Concrete and ambient temperatures during placement: 52 & 36 degrees Fahrenheit
 Tom Doyle was informed of all field results and that there is no specified slump or air entrainment

specification according to the structural documents as written by SRG Engineering. The concrete placement is to be covered with insulation blankets following insertion of vertical dowels. The concrete specimens were left in an insulated cure-box filled with 70 +/- degree water.

On Site: 10:35am to 12:30pm

SWC Rep.: David CoWallis, Jr

GRAY, ME OFFICE

286 Portland Road, Gray, ME 04039, Tel (207) 657-2866, Fax (207) 657-2840, (E) infogray@swcole.com, (I) www.swcole.com





DAILY CONSTRUCTION REPORT

Client's Rep.: Steve Grant

Project: Motion Industries Addition

Project No.: 04-0841

Client: SRG Engineering, Inc.

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Date: December 7, 2004

Weather: cloudy with flurries

Work in Progress: forming 100' of footing

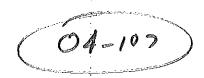
Work Performed by SWC Rep.: observations of sub-grade and construction in progress; and digital photos

General Observations, Discussions, Etc: This S.W. Cole rep was informed upon arrival by the concrete foreman that the concrete placement scheduled for today was canceled, reason for cancellation was due to the concrete supplier unable to deliver concrete today. The concrete crew was forming and tying rebar for approximately 100' of footing. The sub-grade was snow dusted, it was observed that the footing line native sub-grade was over excavated and approximately 10 to 12" of 1 ½" crushed stone was placed on the native soils. It was unable to be visually determined whether the excavation was done with a smooth or tooth edge bucket; the equipment was not onsite. The concrete placement is to be rescheduled for tomorrow at which time a rebar inspection and concrete inspection will be conducted. Patco Construction rep was not onsite during time of site visit.



On Site: 8:40am to 9:10am

SWC Rep.: David CoWallis, Jr



DAILY CONSTRUCTION REPORT

Project: Motion Industries Addition Project No.: 04-0841 Client: SRG Engineering Date: December 13, 2004 Client Rep: Steve Grant Temp, Range: 40 General Contractor: Patco Construction Weather; m, cloudy Work Performed By SWC Rep: Sub-Grade Obs. Rebar Insp. Concrete Tests Soil Tests General Obs. Digital Photos General Observations, Discussions, Etc.: This representative arrived onsite as scheduled for a rebar and concrete inspection of the wall section between 3' B of building line C/1 and A/3. Upon arrival the concrete crew was completing formwork and installation of reinforcing steel. Following completion of formwork and reinforcing the findings are as follows: The horizontal #4 bars were installed appropriately including corner bars at A/1 The spacing of the footing vertical dowels were at 16 to 18" OC The required size and number of reinforcing bars were per Harmac shop drawings The concrete coverage around the reinforcing bars was found to be acceptable The #5 horizontal bars and the #4 vertical bars required to be installed at 48"OC were wet stuck following concrete placement The #4 U-bar in pier A/3 was drilled and secured with epoxy as required This representative inspected the 6.5cy of 3000psi concrete delivered by F. R. Carroll for the wall placement and determined the following: Concrete slump was 5.75" Concrete air entrainment was 5.8% Concrete temp was 63 degrees Fahrenheit The concrete was internally vibrated following the same placement procedure that was done on the wall placement that occurred on 12/9/04. The concrete specimens were left inside the existing Motion industries building and the placement was to be covered with insulating blankets following finishing top of the wall. According to a discussion with Patco rep the wall will be stripped tomorrow and a rap will be built over today's placement to gain access into the addition for backfilling to be done by Gorham Sand & Gravel and placement of the footings for the columns along three line. Recommendations to Contractor/Owner's Rep.: Arrived at: 12:31pm SWC Rep: David A CoWallis Jr. Departed at: 2:10pm SWC Eng.: GRAY, ME OFFICE 286 Portland Road, Gray, ME 04039, Tel (207)657-2866, Fax (207)657-2840, (E) intogray@swcolc.com, (I) www.swcolc.com

04 107)

DAILY CONSTRUCTION REPORT

Project: Motion Industries Addition

Client: SRG Engineering Client Rep: Steve Grant

General Contractor: Patco Construction

Project No.: 04-0841

Date: December 10, 2004

Temp, Range: 30's

Weather: cloudy w/ light precipitation

Work Performed By SWC Rep:

Sub-Grade Obs. Soil Tests

Rebar Insp. General Obs. x Concrete Tests
x Digital Photos

X

General Observations, Discussions, Etc.: This representative arrived onsite as Gorham Sand & Gravel was completing placement of the 12 to 14" lift of 1 ½" crushed stone on the excavated native soil sub-grade. The excavation of the footing sub-grade between building lines C/1 to A/3 and was done so using a smooth edged bucket, none of the excavated sub-grade was exposed upon arrival. Some of the excavated material was loaded up and hauled off site.

S.W. Cole rep inspected the formwork and reinforcing steel in the portion of the addition foundation scheduled to be placed today; footing between C/1 to A/3. The reinforcing steel was inspected and found to meet the intent of the structural drawings from SRG Engineering and the rebar shop drawings from Harmac Rebar. The reinforcing steel was found to be installed as follows:

- Size of bar specified and lap splices were acceptable
- Concrete coverage around rebar was acceptable
- Location and spacing of the bars per drawings

• Vertical #4 wall dowels and #8 vertical pier dowels were wet stuck after the concrete was placed. The concrete placement consisted of 6cy of 3000psi concrete with '4" aggregate and hot water added. This representative tested the load with regards to concrete temp, slump and air entrainment, the results are as follows:

- Concrete slump was 3.75"
- Concrete air entrainment was 6.8%
- Concrete temp was 60 degrees Pahrenheit

The concrete was found to meet the intent of the requirements specified on the project structural documents supplied by SRG Engineering. The concrete specimens were left in an insulated cure-box with 70+/-degree water. Insulating blankets were to be applied following completion of insertion of rebar into the footing. The forms from the wall placement yesterday were stripped and the wall was left exposed.

Recommendations to Contractor/Owner's Rep.:

Arrived at: 12:39pm

Departed at: 2:25pm

SWC Rep: David A CoWallis Jr.

SWC Eng.:

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Other offices in Augusta, Bangor and Caribou, Maine & in Somersworth, New Hampshire

PAGE 4/4





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DAILY CONSTRUCTION REPORT

Project: Motion Industries Addition

Project No.: 04-0841

Client: SRG Engineering, Inc.

Client's Rep.: Steve Grant

Date: December 9, 2004

Weather: m. cloudy 40's

Work in Progress: forming and placement of foundation wall

Work Performed by SWC Rep.: concrete and rebar inspections, and digital photos

General Observations, Discussions, Etc: This representative arrived and inspected the formwork and reinforcing steel in-place from building line G/3 to approximately 3' E of C/1 (assuming that 1 line runs east to west). The reinforcing steel was inspected and findings are as follows:

- Correct size rebar used
- Number and spacing of bars correct
- Reinforcing steel splices adequate
- #4 vertical dowels specified at a 48' OC spacing were wet stuck following concrete placement
- Concrete coverage around rebar was adequate
- The #5 horizontal bars were found to be placed at an elevation approx. middle of the wall, this
 was corrected by the concrete contractor and were placed in the top 4 to 6" of the wall

Findings of the concrete inspection were as follows:

- Concrete slump: 4.0
- Concrete air entrainment: 7.2%
- Concrete and ambient temperatures during placement: 68 & 40 degrees Fahrenheit
- Two loads were delivered totaling 11cy, both loads slumps were less than 4"

It was discussed with Patco's superintendent that the reinforcing detail was not the norm with the wall #4 vertical dowels designed for a 48" OC spacing and the footing #4 vertical dowels designed with an 18" spacing, thereby not creating a continuous bond with from the footer to the wall. The superintendent was also asked to schedule the next inspection site visit so that the native sub-grade could be inspected.

On Site: 1:22pm to 3:10pm

SWC Rep.: David CoWallis, Jr

GRAY, ME OFFICE

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(04-102)



• Geotechnical Engineering • Field & Lab Testing • Scientific & Environmental Consulting

DAILY CONSTRUCTION REPORT

Project: Motion Industries Addition Client: SRG Engineering Client Rep: Steve Grant General Contractor: Patco Construction		Project No.: 0 Date: Decemb Temp. Range: Weather: clou	er 10, 2004	
Work Performed By SWC Rep:	Sub-Grade Obs. Soil Tests	Rebar Insp. General Obs.	x Concrete Tests x Digital Photos	X X
General Observations, Discussions, Etc completing placement of the 12 to 14" excavation of the footing sub-grade bet bucket, none of the excavated sub-grade and hauled off site. S.W. Cole rep inspected the forscheduled to be placed today; footing bet the intent of the structural drawings from reinforcing steel was found to be installed. Size of bar specified and lap split. Concrete coverage around rebart. Location and spacing of the bars. Vertical #4 wall dowels and #8 with the concrete placement consisted of for representative tested the load with regards. Concrete slump was 3.75" Concrete air entrainment was 6.8. Concrete temp was 60 degrees F. The concrete was found to meet the intent by SRG Engineering. The concrete signsulating blankets were to be applied for the wall placement yesterday were stripped.	lift of 1 ½" crus tween building lir was exposed upo ormwork and rein tween C/1 to A/3 in SRG Engineerin d as follows: ices were acceptable was acceptable s per drawings vertical pier dowel cy of 3000psi co is to concrete temp 8% fahrenheit t of the requireme pecimens were le llowing completion	shed stone on the excanes C/1 to A/3 and was not arrival. Some of the inforcing steel in the property of the property of the content of the property of the pr	vated native soil sub-gras done so using a smo excavated material was ortion of the addition for was inspected and four rawings from Harmac Robbert and hot water addition, the results are as for ject structural document re-box with 70±/- degrassion of the soil of the so	rade. The soft edged loaded up foundation do mee ebar. The sollows:
Recommendations to Contractor/Owner's	Rep.:			
Arrived at: 12:39pm Departed at: 2:25pm		SWC Rep: SWC Eng.	David A CoWallis Jr.	
GRAY, ME OFFICE 286 Portland Road, Gray, ME 04039, Tel (207)657-	2866, Fax (207)657-21	840, (E) <u>infogray@swcole.co</u>	n, (I) www.swcole.com	

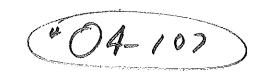




DAILY CONSTRUCTION REPORT

Project: Motion Industries Addition Client: SRG Engineering Client Rep: Steve Grant General Contractor: Patco Construction		Project No.: O Date: Decemb Temp. Range: Weather: m. c	er 13, 2004 40	
Work Performed By SWC Rep:	Sub-Grade Obs. Soil Tests	Rebar Insp. General Obs.	x Concrete Tests Digital Photos	x x
General Observations, Discussions, Etc.: inspection of the wall section between completing formwork and installation of findings are as follows: • The horizontal #4 bars were inst • The spacing of the footing vertic • The required size and number of • The concrete coverage around th • The #5 horizontal bars and the # concrete placement • The #4 U-bar in pier A/3 was dri This representative inspected the 6.5cy of determined the following: • Concrete slump was 5.75" • Concrete air entrainment was 5.8 • Concrete temp was 63 degrees Forms and the following was to be covered with insulating with Patco rep the wall will be stripped to the addition for backfilling to be done by along three line. Recommendations to Contractor/Owner's	reinforcing steel. Falled appropriately in al dowels were at 16 reinforcing bars were reinforcing bars were reinforcing bars were reinforcing bars requiled and secured with 3000psi concrete of the same place pecimens were left in by blankets following the same place pecimens were left in by blankets following blankets following the sand & Corporation of the same place pecimens were left in by blankets following blankets following the sand & Corporation of	re C/I and A/3. Up Following completion including corner bars to 18" OC re per Harmac shop cas found to be acceptived to be installed at the epoxy as required delivered by F. R. Comment procedure that inside the existing Marg finishing top of the will be built over todal Gravel and placement	t was done on the wall place to wall. According to the wall place	following ement and placement g and the liscussions
Departed at: 2:10pm		SWC Rep: SWC Eng.:	David A CoWallis Jr.	
GRAY, ME OFFICE 286 Portland Road, Gray, ME 04039, Tel (207)657-2	866, Fax (207)657-2840,	(E) infogray@swcole.com	1, (I) www.swcole.com	





DAILY CONSTRUCTION REPORT

Project: Motion Industries Addition

Project No.: 04-0841

Client: SRG Engineering, Inc.

Client's Rep.: Steve Grant

Date: December 9, 2004

Weather: m. cloudy 40's

Work in Progress: forming and placement of foundation wall

Work Performed by SWC Rep.: concrete and rebar inspections, and digital photos

General Observations, Discussions, Etc: This representative arrived and inspected the formwork and reinforcing steel in-place from building line G/3 to approximately 3' E of C/1 (assuming that 1 line runs east to west). The reinforcing steel was inspected and findings are as follows:

- Correct size rebar used
- Number and spacing of bars correct
- · Reinforcing steel splices adequate
- #4 vertical dowels specified at a 48' OC spacing were wet stuck following concrete placement
- Concrete coverage around rebar was adequate
- The #5 horizontal bars were found to be placed at an elevation approx. middle of the wall, this
 was corrected by the concrete contractor and were placed in the top 4 to 6" of the wall

Findings of the concrete inspection were as follows:

- Concrete slump: 4.0
- Concrete air entrainment: 7.2%
- Concrete and ambient temperatures during placement: 68 & 40 degrees Fahrenheit
- Two loads were delivered totaling 11cy, both loads slumps were less than 4"

It was discussed with Patco's superintendent that the reinforcing detail was not the norm with the wall #4 vertical dowels designed for a 48" OC spacing and the footing #4 vertical dowels designed with an 18" spacing, thereby not creating a continuous bond with from the footer to the wall. The superintendent was also asked to schedule the next inspection site visit so that the native sub-grade could be inspected.

On Site: 1:22pm to 3:10pm

SWC Rep.: David CoWallis, Jr

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DAILY CONSTRUCTION REPORT

Project: Motion Industries Addition Client: 8RG Engineering Client Rep: Steve Grant General Contractor: Patco Construction		Da Te	oject No.: 04 ite: Decembe mp. Range: 1 eather: sunny	er 21, 2004 20's	
Work Performed By SWC Rep:	Sub-Grade Obs. Soil Tests	\vdash	r Insp. ral Obs.	X Concrete Tests Digital Photos	x x
General Observations, Discussions, Etc.: This S. W. Cole rep arrived this by Patco representative that the placement ambient temperature. This representative arrived one conducted an inspection of the rebar in the per Harmac shop drawings with respect the intent of the design. The subgrade be F.R. Carroll delivered 6cy of 30 Construction. Per discussion with Tom I accelerant additives but not Calcium Cheproperties: 2" slump, 2% air entrainment from the placement and left in an insulate with insulated blankets. The column ped	morning for the so nt was pushed back site for the 12pm he column footing to size and numbe eneath the placemen 100psi concrete with Doyle, Patco Const aloride. The concret, and 60 degrees F ed cure-box with 7	c to between concrete s at C, D, a r of reinform locations h 2%Pozzu truction per ete was instahrenheit.	for the reschand E on 2 ling bars, span was free of the caccelera rmission had spected and if One set of five water. The	heduled concrete supplementation. The reinforcing was bacing and concrete consolid frost. ting additive) as ordere been given by Steve Ground to have the follower concrete speciments a concrete placement was	y and cold ement and is installed verage met d by Patco rant to use wing field were cast
Recommendations to Contractor/Owner's This representative discussed with backfill material used to backfill the moisture-density proctor. The fact that testing had been done was also discussed building soils and backfill column piers p	ith Tom Doyle of I foundation inside the foundation had. Gorham Sand &	and out for d been bac	r lab analysis ckfilled prior	s, determination of grai	n size and ompaction
Arrived at: 8:15am/11:37am Departed at: 8:28am/12:53pm			SWC Rep: SWC Eng.;	David A CoWallis Jr.	

Other offices in Augusta, Bangor and Caribou, Maine & in Somersworth, New Hampshire

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DAILY CONSTRUCTION REPORT

	Project: Motion Industries Addition Client: SRG Engineering Client Rep: Steve Grant General Contractor: Patco Construction		Project No.: (Date: December Temp. Range: Weather: m. c	ber 22, 2004 : 30's	
	Work Performed By SWC Rep:	Sub-Grade Obs. Soil Tests	Rebar Insp. General Obs.	x Concrete Tests Digital Photos	X X
	General Observations, Discussions, Etc. This representative arrived onsit on 2 line at C, D, and E lines. Prior inspection of the rebar and formwork w specified on the Harmac shop drawings the intent of the project documents with the bars. The #6 hair-pin bars were instal. The concrete delivered by F. R. water and 2% Pozz 20 (accelerating age 2.6% air entrainment and a mix tempera results. The concrete sample specimens of the project documents with the bars. The concrete sample specimens of the project documents with the bars. The concrete sample specimens of the project documents with the bars. The concrete sample specimens of the project documents with the bars. The concrete sample specimens of the project documents with the bars.	te for a 2:30pm conto the placement was done. The contour and project document respect to number lied into the pier contour. Carroll consisted into the concrete atture of 67 degree.	of the 1.5cy of concurrence contractor instance. The reinforcing and size of bars, spancete as specified. I of 1.5cy of 3000psi of was tested mid load as Fahrenheit. Tom Do	rete delivered by F. R. (lled the appropriate rebain g was inspected and foun cing and concrete covera- concrete that was batched and found to have a slum oyle was informed of the	Carroll ar that was do to mee ge around with hospitals of 5.5"
	Recommendations to Contractor/Ownbe thawed and verified of such was discuit prior to placement of the interior slab. material in-place is still necessary.	issed with Tom Do	oyle again. The intent	is to close the building ir	and heat
ı	Arrived at: 2:26pm Departed at: 3:15pm		SWC Rep SWC Eng	o: David A CoWallis Jr.	

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SRG ENGINEERING

CRUSHED GRAVEL

Material Source INPLACE/ FD TESTS #1&3

Project Name

Material Type

Client

Report of Gradation

Project Number_04-0841

Lab ID

3192G

Date Received

3/16/2005

Date Complete

3/17/2005

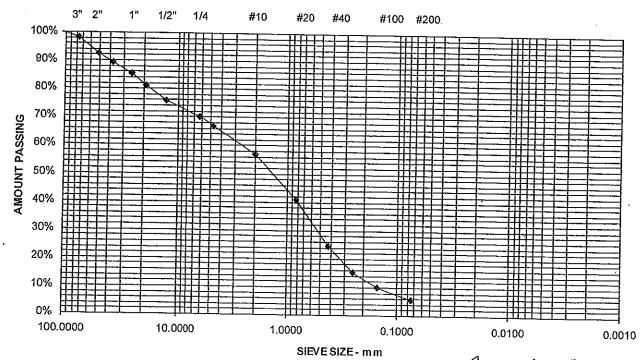
Tested By

KATIE GUSTAFSON

STANDARD			
DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	SPECIFICATIONS (%)
150 mm	6''	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	98	
50 mm	2"	93	
38.1 mm	1-1/2"	89	
25.0 mm	1"	85	
19.0 mm	3/4"	81	/
12.5 mm	1/2"	76	de la companya de la
6.3 mm	1/4"	ه 70	
4.75 mm	No. 4	67 L	
2.00 mm	No. 10	57	
850 um	No. 20	41	
425 um .	No. 40	25	
250 um	No. 60	15	
150 um	No. 100	10	
75 um	No. 200	5.6	

PORTLAND - MOTION INDUSTRIES ADDITION - PINE TREE

INDUSTRIAL PARK - MATERIALS TESTING



Comments

Roger E. Domingo

286 Portland Road, Gray, ME 04039-9586 - Tel. (207) 657-2866 - Fax (207) 657-2840

Date Reviewed 2/2/10

F. R. Carroll, Inc. .

P. O. Box 9

Limerick, Me. 04048

207-793-2742 207-793-8753

November 16, 2004

Patco Const. Sanford, Me.

Attn: Ron

Re: Concrete Mix Design

re a light, a state is

3500 psi.- 3/4"

Stone 3/41! 1750 Lbs. Sand 1400 Lbs. Cement 564 Lbs. Water 32.5 Gal. Pollyheed 997 4.0 Oz. Microsir ... 2.0 Oz. Water Cement Ratio .48

SHOP DRAWING / SUBMITTAL REVIEW			
Engineer's Review	Contractor's Response		
No exceptions taken			
Engineer's review is for general conformation concept and contract documents. Markin not be construed as relieving the contract with the project's plans and specifications from. The contractor remains responsible for confirming and correlating all quantities selecting fabrication processes, for tech performing his work in a sale mariner. SRG Engineering, Inc.	ngs or comments shall tor from compliance s, nor departures there- e for details and accuracy, es and dimensions, for		

The above weights are based on the use of Ciment Quebec Type II, F. R. Carroll's aggregates, Master Builders air entraining agent(Microair), and Master Builders water reducer (Pollyheed 997). .

10000 The quantities are given in the oven dried state(no free or absorbed moisture). The oven dried quantities are the basic quantities which will be adjusted for moisture, slump, and yield.

If you have any questions, please feel free to give me a call.

an work and the fire addition to a new problems with the

Sincerely,

Michael P. Carroll

V. P. Concrete Division

FAX TRANSMITTAL

TO:

SRG-ENGINEERING - Steve Grant

FR:

Jason Gardner 519

DATE:

12-21-04

TOTAL # OF PAGES: (Including Cover Sheet)

FAX#:

657-7342

MESSAGE:

Per your recommendation, the 3000p.s.i. concrete mix design shall be used for the foundation walls & footings. The 3500p.s.i. concrete mix design shall be used for the slab on both of the following-jobs:

Job #2677 - Motion Industries

Job # 2663 - Big Moose Harley

Please feel free to contact us if you have any questions. Thank you.

SHOP DRAWING / SUBMITTAL REVIEW			
Engineer's Review	Contractor's Response		
No exceptions taken Rejected ☐ Note markings ☐ Comments Attached ☐	Confirm Resubmit		
Engineer's review is for general conformation concept and contract documents. Marking not be construed as relieving the contract with the project's plans and specifications from. The contractor remains responsible for confirming and correlating all quantities selecting fabrication processes, for temperforming his work in a safe manner. SRG Engineering, Inc.	ngs or comments shall tor from compliance s, nor departures there- e for details and accuracy, es and dimensions, for		

\$.04-107·

F. R. Carroll, Inc. P. O. Box 9 Limerick, Me. 04048

207-793-2742 207-793-8753

November 16, 2004

Patco Const. Sanford, Me.

Atta: Ron

Re: Concrete Wix Design

Water Cement Ratio

3000 psl.- 3/4"

Stone 3/4"

Sand

1750 Lbs.

1450 Lbs.

Cement

517 Lbs.

Water

Pollyheed 997

4.0 Oz.

Microair

2.0 Oz.

This is whis more mand

This is whis more mand

The formal more

That is a formal more

That

The above weights are based on the use of Ciment Quebec Type II, F. R. Carroll's aggregates, Master Builders air entraining agent(Microsir), and Master Builders water reducer(Pollyheed 997).

The quantities are given in the oven dried state(no free or absorbed moisture). The oven dried quantities are the basic quantities which will be adjusted for moisture, slump, and yield.

If you have any questions, please feel free to give me a call.

.52

Sincerely,

Michael P. Carroll

V. P. Concrete Division



ASTM C-31 & C-39

Project Name: PORTLAND - MOTION INDUSTRIES ADDITION - PINE

TREE INDUSTRIAL PARK - MATERIALS TESTING

Project Number:

Client Contract Number:

04-0841

Client:

SRG ENGINEERING

Concrete

Supplier: F. R. CARROLL

General

Contractor:

PLACEMENT INFORMATION

Date Cast:

12/9/2004

Time Cast: 2:30

Date Received:

12/11/2004

Placement Location: Wall G/3 to 3' of C/1

Placement Method:

Chute

Cylinders Made By:

DAC

Placement Vol. (yd3): 11

Aggregate Size (in): 3/4

DELIVERY INFORMATION

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F)

64.3 Maximum (°F)

70.7

TEST RESULTS

Slump (in) (C-143):

4.0

7.2

Air Content (%) (C-231): Air Temp (°F):

40

Conc. Temp (°F) (C-1064): 68 Load Number:

Admixtures:

1 14

Mixer Number: Ticket Number:

3975

Cubic Yards:

5,5

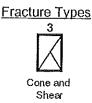
Design (psi):

3000

Book	Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In) ²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
	438-2A		6.00	28.27	12/16/2004	Lab	7	4	72.5	2570
	438-2B		6.00	28.27	1/6/2005	Lab	28	4	94.0	3330 / /
	438-2C		6.00	28.27	1/6/2005	Lab	28	4	92.0	3250
	438-2D				Hold	Lab				0200 D



Cone and Split







Remarks:



ASTM C-31 & C-39

Project Name: PORTLAND - MOTION INDUSTRIES ADDITION - PINE

TREE INDUSTRIAL PARK - MATERIALS TESTING

Project Number:

04-0841

Client:

SRG ENGINEERING

General Contractor:

Concrete

Supplier: F. R. CARROLL

Client Contract Number:

PLACEMENT INFORMATION

Date Cast:

12/10/2004

Time Cast: 1:54

66.2

Date Received:

12/11/2004

Placement Location: Footing Between C/1 & A/3

Placement Method:

Chute

Cylinders Made By: DAC Placement Vol. (yd3): 6

Aggregate Size (in): 3/4

DELIVERY INFORMATION

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F)

Air Temp (°F):

57.5 Maximum (°F)

Admixtures:

TEST RESULTS

Slump (in) (C-143):

Air Content (%) (C-231):

Conc. Temp (°F) (C-1064):

3.75

6.8

38 60

Load Number:

1

Mixer Number:

14

Ticket Number:

3958

Cubic Yards:

6

Design (psi):

3000

 Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In) ²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
438-3A		6.00	28.27	12/17/2004	Lab	7	4	111.0	3930
438-3B		6.00	28.27	1/7/2005	Lab	28	4	162.0	5730
438-3C		6.00	28,27	1/7/2005	Lab	28	4	165.0	5840
438-3D				Hold	Lab		•	100.0	3040 0

Split

Fracture Types Cone and Shear







ASTM C-31 & C-39

Project Name: PORTLAND - MOTION INDUSTRIES ADDITION - PINE

TREE INDUSTRIAL PARK - MATERIALS TESTING

Project Number:

04-0841

Client:

SRG ENGINEERING

Concrete

General Contractor:

Supplier: F. R. CARROLL

Client Contract Number:

PLACEMENT INFORMATION

Date Cast:

12/21/2004

Placement Location: FOOTINGS LINE 2 C, D AND E

Time Cast: 12:30

Date Received:

12/22/2004

Placement Method:

TAILGATE

Cylinders Made By:

Placement Vol. (yd3): 6

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Maximum (°F)

DELIVERY INFORMATION

Admixtures:

2% POZZUTEC 20

TEST RESULTS

Air Temp (°F):

Minimum (°F)

Slump (in) (C-143):

Air Content (%) (C-231):

Conc. Temp (°F) (C-1064):

2.0

2.0

60

20

Load Number:

Mixer Number:

1 7

Ticket Number: **Cubic Yards:**

4052 6

Design (psi):

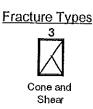
3000

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In) ²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
438-5A		6.00	28.27	12/28/2004	Lab	7	4	119.5	4230 /
438-5B		6.00	28.27	1/18/2005	Lab	28	4	148.0	5240
438-5C		6.00	28.27	1/18/2005	Lab	28	4	155,0	5480
438-5D				Hold	Lab	20	7	100,0	3460

Hold



Cone and Split





Lab





ASTM C-31 & C-39

Project Name: PORTLAND - MOTION INDUSTRIES ADDITION - PINE

TREE INDUSTRIAL PARK - MATERIALS TESTING

Project Number:

04-0841

Client:

SRG ENGINEERING

General Contractor:

Concrete Supplier: F. R. CARROLL

Client Contract Number:

PLACEMENT INFORMATION

Date Cast:

12/22/2004

Time Cast: 2:58

Date Received:

12/23/2004

Placement Location: COLUMN PIERS C, D, & E ON 2 LINE

Placement Method:

TAILGATE

Cylinders Made By: DAC Placement Vol. (yd3): 1.5

Aggregate Size (in): 3/4

DELIVERY INFORMATION

INITIAL CURING CONDITIONS

Temperatures

Admixtures:

2% POZZUTEC

Minimum (°F)

Maximum (°F)

TEST RESULTS

Slump (in) (C-143):

Air Content (%) (C-231):

Conc. Temp (°F) (C-1064):

5.5

2.6

Air Temp (°F):

37 67 Load Number:

Mixer Number:

4

1

Ticket Number: **Cubic Yards:**

4069 1.5

Design (psi):

3000

****	Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In)²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
	438-6A		6.00	28.27	12/29/2004	Lab	7	4	64.0	2260 ,
	438-6B		6.00	28.27	1/19/2005	Lab	28	4	91.0	3220
	438-6C		6.00	28.27	1/19/2005	Lab	28	4	87.0	3080
	438-6D				Hold	Lab				



Cone and Split

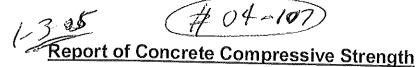
Fracture Types Cone and Shear





Remarks:





ASTM C-31 & C-39

Project Name: PORTLAND - MOTION INDUSTRIES ADDITION - PINE

TREE INDUSTRIAL PARK - MATERIALS TESTING

Project Number:

04-0841

Client:

SRG ENGINEERING

General Contractor:

Concrete

Supplier: F. R. CARROLL

Client Contract Number:

PLACEMENT INFORMATION

Date Cast:

12/22/2004

Time Cast: 2:58

Date Received:

12/23/2004

Placement Location: COLUMN PIERS C, D, & E ON 2 LINE

Placement Method:

TAILGATE

Cylinders Made By: DAC Placement Vol. (yd3): 1.5

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F)

Maximum (°F)

DELIVERY INFORMATION

Admixtures:

2% POZZUTEC

TEST RESULTS

Slump (in) (C-143):

5.5

2.6

Load Number:

1

Mixer Number:

4

Air Temp (°F):

37

Ticket Number:

4069

Conc. Temp (°F) (C-1064):

Air Content (%) (C-231):

67

Cubic Yards:

1.5

Design (psi):

3000

Cylinder Designation	Cylinder Diameter (in)	Cross Sectional Area(In) ²		Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
438-6A	6.00	28.27	12/29/2004	Lab	7			
438-6B					,	4	64.0	2260
430.00			1/19/2005	Lab	28			
438-6C			1/19/2005	Lab	28			
438-6D			Hold	Lab				















ASTM C-31 & C-39

Project Name: PORTLAND - MOTION INDUSTRIES ADDITION - PINE

TREE INDUSTRIAL PARK - MATERIALS TESTING

Project Number:

Client Contract Number:

04-0841

Client:

SRG ENGINEERING

General Contractor: Concrete

Supplier: F. R. CARROLL

PLACEMENT INFORMATION

Date Cast:

12/8/2004

Time Cast: 12:00

75.9

Date Received:

12/9/2004

Placement Location: Footing G/3 to C/1

Placement Method:

Chute

Cylinders Made By: DAC Placement Vol. (yd³): 10

Aggregate Size (in): 3/4

DELIVERY INFORMATION

INITIAL CURING CONDITIONS

Temperatures

69.9 Maximum (°F)

Admixtures:

TEST RESULTS

Minimum (°F)

Air Temp (°F):

Slump (in) (C-143):

Air Content (%) (C-231):

Conc. Temp (°F) (C-1064):

3.75

7.8

36 52 Load Number:

Mixer Number:

1 9

Ticket Number:

3956

Cubic Yards:

10

Design (psi):

3000

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In) ²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
438-1A		6.00	28.27	12/15/2004	Lab	7	4	68.0	2410
438-1B		6.00	28.27	1/5/2005	Lab	28	4	94.0	3330
438-1C		6.00	28.27	1/5/2005	Lab	28	4	94.0	3330
438-1D				2/2/2005	Lab	56			

Cone and

Fracture Types Cone and Shear

Shear





ASTM C-31 & C-39

Project Name: PORTLAND - MOTION INDUSTRIES ADDITION - PINE

TREE INDUSTRIAL PARK - MATERIALS TESTING

Project Number:

04-0841

Client:

SRG ENGINEERING

Concrete

General Contractor:

Supplier: F. R. CARROLL

Client Contract Number:

PLACEMENT INFORMATION

Date Cast:

12/13/2004

Time Cast: 1:47

Date Received:

12/14/2004

Chute

Placement Location: Wall A/3 to 3' East of C/1

Placement Method: Cylinders Made By:

Placement Vol. (yd3): 6.5

Aggregate Size (in): 3/4

DELIVERY INFORMATION

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F)

60.4 Maximum (°F)

68.7

TEST RESULTS

Slump (in) (C-143):

5.75

5.8

Air Content (%) (C-231): Air Temp (°F):

Conc. Temp (°F) (C-1064):

40

63

Load Number:

Admixtures:

Mixer Number:

8

1

Ticket Number:

3995 6.5

Cubic Yards:

3000

Design (psi):

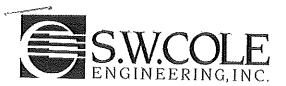
 Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In)²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)	
438-4A		6.00	28.27	12/20/2004	Lab	7	· 4	71.5	2530	= 4
438-4B		6.00	28.27	1/10/2005	Lab	28	4	105.0	3710	V
438-4C		6.00	28,27	1/10/2005	Lab	28	4	105.0	3710	r
438-4D				Hold	Lab		•		0,10	

Cone and Split

Fracture Types Cone and Shear

Shear

Columnar



12-29-08 ASTM C-31 & C-39

Project Name: PORTLAND - MOTION INDUSTRIES ADDITION - PINE

TREE INDUSTRIAL PARK - MATERIALS TESTING

Project Number:

04-0841

Client:

SRG ENGINEERING

General Contractor:

Concrete

Supplier: F. R. CARROLL

Client Contract Number:

PLACEMENT INFORMATION

Date Cast:

12/21/2004

Time Cast: 12:30

Date Received:

12/22/2004

Placement Location: FOOTINGS LINE 2 C, D AND E

Placement Method:

TAILGATE

Cylinders Made By:

DAC

Placement Vol. (yd3): 6

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F)

Maximum (°F)

DELIVERY INFORMATION

Admixtures:

2% POZZUTEC 20

TEST RESULTS

Air Temp (°F);

Slump (in) (C-143):

2.0

2.0

Conc. Temp (°F) (C-1064):

Air Content (%) (C-231):

20

Load Number:

Mixer Number:

4052

Ticket Number: Cubic Yards:

6

1

7

Design (psi):

3000

Cylinder Designation	 Cylinder Diameter (in)	Cross Sectional Area(In) ²		Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
438-5A	6.00	28.27	12/28/2004	Lab	7	4	119.5	Commence of Commen
438-5B			1/18/2005		,	-	119.5	4230
438-5C				Lab	28			,
			1/18/2005	Lab	28			
438-5D			Hold	Lab				•

Cone and Split







12.22.04



Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: PORTLAND - MOTION INDUSTRIES ADDITION - PINE

TREE INDUSTRIAL PARK - MATERIALS TESTING

Project Number:

Client Contract Number:

04-0841

Client:

SRG ENGINEERING

General

Concrete

Supplier: F. R. CARROLL

Contractor:

Date Cast:

PLACEMENT INFORMATION

12/8/2004

Time Cast: 12:00

75.9

Date Received:

12/9/2004

Placement Location: Footing G/3 to C/1

Placement Method:

Chute

Cylinders Made By: DAC Placement Vol. (yd³): 10

Aggregate Size (in): 3/4

DELIVERY INFORMATION

INITIAL CURING CONDITIONS

Temperatures

69.9 Maximum (°F)

TEST RESULTS

Minimum (°F)

Slump (in) (C-143):

3.75

Air Content (%) (C-231):

7.8

Air Temp (°F):

36 52

Conc. Temp (°F) (C-1064):

Load Number:

Admixtures:

Mixer Number:

9

Ticket Number: Cubic Yards:

3956 10

1

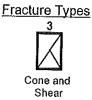
Design (psi):

3000

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In)²		Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
438-1A		6.00	28.27	12/15/2004	Lab	7	4	68.0	
438-1B				1/5/2005	Lab	28	7	00.0	2410
438-1C				1/5/2005					
400 4B				1/0/2000	Lab	28			
438-1D				Hold	Lab				













ASTM C-31 & C-39

Project Name: PORTLAND - MOTION INDUSTRIES ADDITION - PINE

TREE INDUSTRIAL PARK - MATERIALS TESTING

Project Number:

04-0841

Client:

SRG ENGINEERING

General Contractor:

Concrete

Supplier: F. R. CARROLL

Client Contract Number:

PLACEMENT INFORMATION

Date Cast:

12/10/2004

Time Cast: 1:54

Date Received:

12/11/2004

Placement Location: Footing Between C/1 & A/3

Placement Method:

Chute

Cylinders Made By: DAC

Placement Vol. (vd3); 6

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F)

57.5

Maximum (°F)

66.2

TEST RESULTS

Air Temp (°F):

Slump (in) (C-143):

3,75

Air Content (%) (C-231):

Conc. Temp (°F) (C-1064):

6.8

38

60

DELIVERY INFORMATION

Admixtures:

Load Number: 1

Mixer Number:

14

Ticket Number:

3958

Cubic Yards:

6

Design (psi):

3000

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In)²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
438-3A		6.00	28,27	12/17/2004	Lab	7	4	111.0	3930
438-3B				1/7/2005	Lab	28			1/
438-3C				1/7/2005	Lab	28			V
438-3D				Hold	Lah				

Cone and Split

Fracture Types Cone and Shear





Columnar







ASTM C-31 & C-39

Project Name: PORTLAND - MOTION INDUSTRIES ADDITION - PINE

TREE INDUSTRIAL PARK - MATERIALS TESTING

Project Number:

04-0841

Client:

SRG ENGINEERING

General Contractor:

Concrete

Supplier: F. R. CARROLL

Client Contract Number:

PLACEMENT INFORMATION

Date Cast:

12/13/2004

Time Cast: 1:47

Date Received:

12/14/2004

Placement Location: Wall A/3 to 3' East of C/1

Placement Method:

Chute

Cylinders Made By: DAC

Placement Vol. (yd³): 6.5

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F)

Maximum (°F)

TEST RESULTS

Slump (in) (C-143):

5.75

Air Content (%) (C-231):

5.8

Air Temp (°F):

40

Conc. Temp (°F) (C-1064): 63 **DELIVERY INFORMATION**

Admixtures:

Load Number:

Mixer Number: 8

Ticket Number:

3995

1

Cubic Yards:

6.5

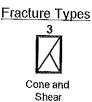
Design (psi):

3000

Cylinder Designation		Cross Sectional Area(In)²		Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
438-4A	6.00	28,27	12/20/2004	Lab	7	_	***************************************	
438-4B			·,			4	71.5	2530
438-4C			1/10/2005	Lab	28			
			1/10/2005	Lab	28			
438-4D			Hold	Lab				V



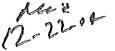












ASTM C-31 & C-39

Project Name: PORTLAND - MOTION INDUSTRIES ADDITION - PINE

TREE INDUSTRIAL PARK - MATERIALS TESTING

Project Number:

04-0841

Client:

SRG ENGINEERING

Client Contract Number:

General

Contractor:

Concrete

Supplier: F. R. CARROLL

PLACEMENT INFORMATION

Date Cast:

12/9/2004

Time Cast: 2:30

Date Received:

12/11/2004

Placement Location: Wall G/3 to 3' of C/1

Placement Method:

Chute

Cylinders Made By: DAC Placement Vol. (yd³); 11

Aggregate Size (in): 3/4

DELIVERY INFORMATION

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F)

Maximum (°F)

TEST RESULTS

Slump (in) (C-143):

4.0

Load Number:

Admixtures:

1

Air Content (%) (C-231):

7.2

Mixer Number:

14

3975

Air Temp (°F);

40

Ticket Number: Cubic Yards:

5.5

Conc. Temp (°F) (C-1064):

68

Design (psi):

3000

Cylinder Designation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In) ²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
438-2A		6.00	28.27	12/16/2004	Lab	7	4	72.5	2570
438-2B				1/6/2005	Lab	28	•	1 0	2010
438-2C				1/6/2005	Lab	28			
438-2D				Hold	Lab				

Cone and Split

Fracture Types Cone and Shear

Shear

