

Structural Special Inspections Report

Crescent Heights

Crescent Street Portland, Maine May 10, 2010

Report Prepared by:

Structural Engineer of Record
Becker Structural Engineers, Inc.
75 York Street
Portland, ME 04101
207. 879. 1838

Crescent Heights

Crescent Street Portland, Maine May 10, 2010

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Statement of Special Inspections
List of Agents
Final Report of Special Inspections
Special Inspector/Agent Report



Statement of Special Inspections

Crescent Heights Portland, Maine

Statement Prepared by
Structural Engineer of Record
Becker Structural Engineers, Inc.
75 York Street
Portland, ME 04101
207. 879. 1838

Owner Crescent Heights LLC 17 Chestnut Street, Suite 3 Portland, ME 04101 207, 772, 7673

Architect of Record Winton Scott Architects 5 Milk Street Portland, ME 04101 207. 774. 4811

Contractor
Portland Builders, Inc.
85 York Street
Portland, ME 04101
207. 879. 0118

Project: Crescent Heights Date Prepared: May 10, 2010

Structural Statement of Special Inspections

Project:	Crescent Heights		
Location:	Crescent Street, Portland, ME		
Owner:	Crescent Heights LLC		
This Statemen	nt of Special Inspections encompass the	e following discipline: Structural	
Inspection an services appli	nt of Special Inspections is submitted as d Structural Testing requirements of th cable to this project as well as the name er approved agencies to be retained for	ne Building Code. It includes a e of the Structural Special Inspec	schedule of Special Inspection tion Coordinator (SSIC) and the
inspection re Responsible (for correction Building Offic	al Special Inspection Coordinator shall ports to the Building Code Official (I Charge (SRDP). Discovered discrepance. If such discrepancies are not correctal and the Structural Registered Designot relieve the Contractor of his or her a	BCO) and the Structural Registies shall be brought to the immented, the discrepancies shall be n Professional in Responsible C	stered Design Professional in diate attention of the Contractor brought to the attention of the
Interim report Responsible (s shall be submitted to the Building Charge at an interval determined by the	Official and the Structural Reg SSIC and the BCO.	istered Design Professional in
correction of	ort of Special Inspections documenting any discrepancies noted in the inspe Jse and Occupancy.	g completion of all required Spections shall be submitted to the	pecial Inspections, testing and e BCO prior to issuance of a
Job site safety	and means and methods of construction	on are solely the responsibility of	the Contractor.
Interim Repor	t Frequency: $\square U$ pon request of Bu	ilding Official	or per attached schedule.
Prepared by:			
	P.E. name of the Structural Registered Design Responsible Charge)	5/24/2010	PAUL B. BECKER NO. 6554
% gnature		Date	Design Professional Seal
Owner's Auth	orization:	Building Code Official's	Acceptance:
Signature	Date	Signature	Data

Project: Crescent Heights Date Prepared: May 10, 2010

Wood Construction

Structural Statement of Special Inspections (Continued)

List of Agents Project: Crescent Heights Location: Crescent Street, Portland, ME Owner: Crescent Heights LLC This Statement of Special Inspections encompass the following discipline: Structural (Note: Statement of Special Inspections for other disciplines may be included under a separate cover) This Statement of Special Inspections / Quality Assurance Plan includes the following building systems: Soils and Foundations Cast-in-Place Concrete Precast Concrete System Masonry Systems Structural Steel

Special Cases

Special Inspection Agencies	Firm	Address, Telephone, e-mail
STRUCTURAL Special Inspections Coordinator (SSIC)	Becker Structural Engineers	75 York Street Portland, ME 04101 (207)879-1838 info@beckerstructural.com
2. Special Inspector (SI 1)	Becker Structural Engineers	75 York Street Portland, ME 04101 (207)879-1838 info@beckerstructural.com
3. Special Inspector (SI 2)	S.W. Cole Engineering	17 Chestnut Street Portland, ME 04101 (207)773-6800 infoportland@swcole.com
4. Testing Agency (TA 1)	S.W. Cole Engineering	266 Portland Road Gray, ME 04039 (207)657-2866 infogray@swcole.com
5. Testing Agency (TA 2)		
6. Other (O1)		

Note: The inspectors and testing agencies shall be engaged by the Owner or the Owner's Agent, and <u>not</u> by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official, prior to commencing work.

Project: Crescent Heights Date Prepared: May 10, 2010

Structural Statement of Special Inspections (Continued)

Final Report of Special Inspections (SSIC/SI 1)

[To be completed by the Structural Special Inspections Coordinator (SSIC/SI 1). Note that all Agent's Final Reports must be received prior to issuance.]

Project:

Crescent Heights

Location:

Crescent Street, Portland, ME

Owner:

Crescent Heights LLC

Owner's Address:

17 Chestnut Street

Portland, ME 04101

Architect of Record:

Winton Scott

Winton Scott Architects
(firm)

(name)

Structural Registered Design

Professional in Responsible Charge:

Paul B Becker, P.E.

(name)

Becker Structural Engineers, Inc.

(firm)

To the best of my information, knowledge and belief, the Special Inspections required for this project, and itemized in the *Statement of Special Inspections* submitted for permit, have been performed and all discovered discrepancies have been reported and resolved.

Interim reports submitted prior to this final report form a basis for and are to be considered an integral part of this final report.

Respectfully submitted,

Structural Special Inspection Coordinator

(Type or print name)

BECKER STRUCTURAL ENGINEERS, INC

(Firm Name)

5-24-2010

Date

Project: Crescent Heights Luxury Apartments Date Prepared: May 10, 2010

Structural Statement of Special Inspections (Continued)

Special Inspector	's/Age	nt's Final Re	port		
Project:	Crescent	Heights Luxury Ap	artments		
Special Inspector or Agent:	TIM	BOYCE		S.W. Cou	EENGINEERING
Designation: 57	(name) 2_			(firm)	
To the best of my inform	pector/Ag	ent in the State	ment of Special In	nspections su	ing required for this project, and abmitted for permit, have been
SWCE scope of work did scheduled by others. At t military oversees and is r	his time, ⁻	Tim Boyce who pe	erformed the subgra	de observatio	vided on an on call basis as ns, is serving the United States
Interim reports submitted report.	d prior to t	this final report for	rm a basis for and a	re to be consi	dered an integral part of this final
Respectfully submitted, Special Inspector or Age	ent:				
Roger E. Domingo					
(Type or print name)					
planting was the shirt			5/20/2010		
Signature		-	Date	***************************************	
oignature			Date	,	Licensed Professional Seal or
					Certification Number

Project: Crescent Heights Luxury Apartments Date Prepared: May 10, 2010

Structural Statement of Special Inspections (Continued)

Special Inspe					ions (Cc	muea)	
Project:		Crescent Hei	ghts Luxury A	lpartments				
Special Inspector of Agent:	ЭГ	ROGER	DOMINO	טל		SW. COLE	ENG-IN EERING	
Designation:	TA	(name) 1				(firm)		
	is Insp	ector/Agent	in the Stat	ement of	Special Ins	pections sub	ng required for this project, and be been been	
Interim reports su report.	bmitted	d prior to this	final report f	orm a basi	s for and are	e to be consid	dered an integral part of this final	
Respectfully subn		ent:						
Roger E. Doming	0							
(Type or print nan	ne)							
philipping the L	;							
		marklinamak			5/18/2010			
Signature					Date		Licensed Professional Seal or Certification Number	
•								

Special Inspections – Exhibit B

Qualifications of Inspectors and Test Agency List of Minimum Qualifications Schedule of Structural Inspections Project: Crescent Heights Date Prepared: May 10, 2010

Structural Schedule of Special Inspections

Qualifications of Inspectors and Testing Technicians

The qualifications of all personnel performing Special Inspection and testing activities are subject to the approval of the Building Official. The credentials of all Inspectors and testing technicians shall be provided to the Special Inspector for their records. NOTE VERIFICATION THAT QUALIFIED INDIVIDUALS ARE AVAILABLE TO PERFORM STIPULATED TESTING AND/OR INSPECTION SHOULD BE PROVIDED PRIOR TO SUBMITTING STATEMENT. AGENT QUALIFICATIONS IN SCHEDULE ARE SUGGESTIONS ONLY; FINAL QUALIFICATIONS ARE SUBJECT TO THE DISCRETION OF THE REGISTERED DESIGN PROFESSIONAL PREPARING THE SCHEDULE.

Key for Minimum Qualifications of Inspection Agents:

When the Registered Design Professional in Responsible Charge or Special Inspector of Record deems it appropriate that the individual performing a stipulated test or inspection have a specific certification, license or experience as indicated below, such requirement shall be listed below and shall be clearly identified within the schedule under the Agent Qualification Designation.

PE/SE PE/GE Structural Engineer – a licensed SE or PE specializing in the design of building structures Geotechnical Engineer – a licensed PE specializing in soil mechanics and foundations

EIT

Engineer-In-Training – a graduate engineer who has passed the Fundamentals of Engineering

examination

Experienced Testing Technician

ETT

Experienced Testing Technician – An Experienced Testing Technician with a minimum 5 years experience with the stipulated test or inspection

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American Concrete Institute (ACI) Certification

ACI-CFTT Concrete Field Testing Technician – Grade 1

ACI-CCI Concrete Construction Inspector

ACI-LTT Laboratory Testing Technician – Grade 1&2

ACI-STT Strength Testing Technician

American Welding Society (AWS) Certification

AWS-CWI Certified Welding Inspector

AWS/AISC-SSI Certified Structural Steel Inspector

American Society of Non-Destructive Testing (ASNT) Certification

ASNT Non-Destructive Testing Technician – Level II or III.

International Code Council (ICC) Certification

ICC-SMSIStructural Masonry Special InspectorICC-SWSIStructural Steel and Welding Special InspectorICC-SFSISpray-Applied Fireproofing Special InspectorICC-PCSIPrestressed Concrete Special InspectorICC-RCSIReinforced Concrete Special Inspector

National Institute for Certification in Engineering Technologies (NICET)

NICET-CT Concrete Technician – Levels I, II, III & IV
NICET-ST Soils Technician - Levels I, II, III & IV

NICET-GET Geotechnical Engineering Technician - Levels I, II, III & IV

Other

Exhibit B

023200 Soil and Foundation Construction

Project: Crescent Heights Date Prepared: May 10, 2010

Structural Schedule of Special Inspections SOILS & FOUNDATION CONSTRUCTION

VERIFICATION AND INSPECTION IBC Section 1704.7, 1704.8, 1704.9	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	TASK COMPLETED
Verify existing soil conditions, fill placement and load bearing requirements		The Control of the				
Prior to placement of prepared fill, determine that the site has been prepared in accordance with the approved soils report.	4	P	IBC 1704.7.1	512	PE/GE, EIT or ETT	
b. During placement and compaction of fill material, verify material being used and maximum lift thickness comply with the approved soils report.	7	P	IBC 1704.7.2	512	PE/GE, EIT or ETT	
 c. Test in-place dry density of compacted fill complies with the approved soils report. 	Y	р	IBC 1704.7.2	TAI	PE/GE, EIT or ETT	
2. Pile foundations:						
a. Observe and record procedures for static load testing of piles.	N	С	IBC 1704.8		PE/GE, EIT or ETT	National III in the control of the c
b. Observe and record procedures for dynamic load testing of piles.	N	С			PE/GE, EIT or ETT	
c. Record installation of each pile and results of load test. Include cutoff and tip elevations of each pile relative to permanent reference.	N	С			PE/GE, EIT or ETT	
d. Test welded splices of steel piles	N	С	AWS D1.1		AWS-CWI	
3. Pier foundations: Verify installation of pier foundations for buildings assigned to Seismic Design Category C, D, E or F.	N	С	IBC 1704.9		PE/GE, EIT or ETT	111111111111111111111111111111111111111
a. Verify pier diameter and length	N	С			PE/GE, EIT or ETT	
b. Verify pier embedment (socket) into bedrock	N	P			PE/GE, EIT or ETT	
c. Verify suitability of end bearing strata	N	P			PE/GE, EIT or ETT	



Report of Moisture-Density

Method ASTM D-1557 MODIFIED

Procedure C

Project Name

PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS -

MATERIALS TESTING

Client

CRESCENT HEIGHTS, LLC

Material Type

AGGREGATE SUBBASE

Material Source ON SITE STOCKPILE

Project Number

08-0744.1

Lab ID

11222G

Date Received

7/29/2009

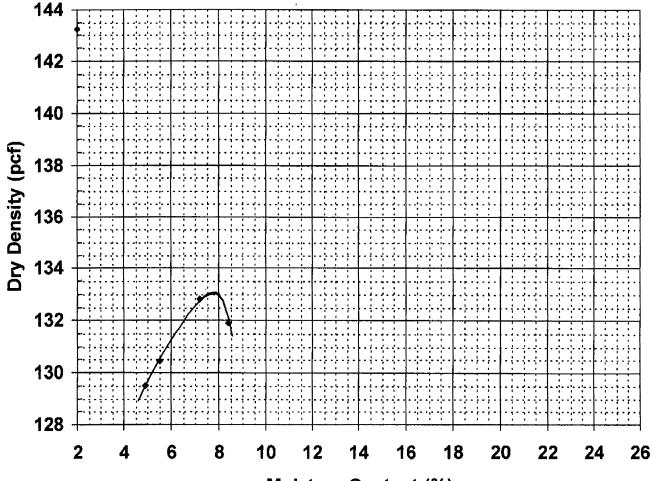
Date Completed

7/30/2009

Tested By

TIMOTHY POULIN

Moisture-Density Relationship Curve



Moisture Content (%)

Maximum Dry Density (pcf)

133.1

Corrected Dry Density (pcf)

139.5

Optimum Moisture Content (%) Percent Oversized

7.9 30.0%

Corrected Moisture Content (%)

<u>6.1</u>

Comments

E. Dómingo

286 Portland Road, Gray, ME 04039-9586 • Tel (207) 657-2866 • Fax (207) 657-2840 • www.g wcøle.com



Report of Gradation

ASTM C-117 & C-136

Project Name PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS - MATERIALS

TESTING

Client

CRESCENT HEIGHTS, LLC

Material Type AGGREGATE SUBBASE

Material Source ON SITE STOCKPILE

Project Number 08-0744,1

Lab ID

11222G

Date Received

7/29/2009

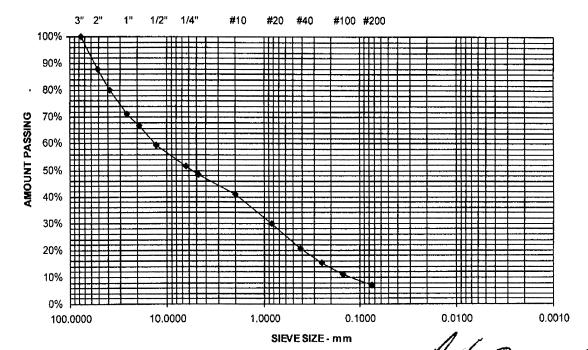
Date Complete 7/30/2009

Tested By

TIMOTHY POULIN

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	MDOT 703.06 TYPE D SPECIFICATIONS (%)
150 mm	6"	100	100
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	88	
38.1 mm	1-1/2"	80	
25.0 mm	1"	71	
19.0 mm	3/4"	67	
12.5 mm	1/2"	59	
6.3 mm	1/4"	52	25 - 70
4.75 mm	No. 4	49	
2.00 mm	No. 10	41	
850 um	No. 20	30	
425 um	No. 40	21	0 - 30
250 um	No. 60	15	
150 um	No. 100	11	
75 um	No. 200	7.0	0.0 - 7.0

SAMPLE MEETS SPECIFICATION



Comments

286 Portland Road, Gray, ME 04039-9586 • Tel (207) 657-2866 • Fax (207) 657-2840 • www.swcole/gom



Soils Observation Report

Project Nam	e/Location:	Crescent Heights				oject No:		08-0744.1
Client/Client		Crescen	t Heights LLC		Da	te:		July 29, 2009
Earthwork C	•	Leavitt E	Earthworks		Sh	eet:		1 of 1
					SW	/CE Rep.:		TJB
						rived at Si	te:	1300
						ft Site:		1345
	<u>Weather</u>	_	Site Conditions	<u> </u>			<u>Mate</u>	rials Used
⊠ Clear	☐ Snow	☐ Warm	☐ Wet ☐ Dusty			Site Fill		☐ Foundation Backfill
☐ Overcast	☐ Fog	☐ Hot	☐ Muddy ☐ Froze	า		Utility Bedd	ling	□ Subbase
Rain	☐ Cold	☐ Windy	Temperatures: 80s		1	Base		
Soils Work	Performed:		☐ Site Prep	☐ Earthwork				☐ Planting Soils
			(Sect. 2230)	(Se	ct. 23	300)		(Sect. 2310)
			□ Building Earthwork	□ (Jtiliti e	es Earthworl	k	
			(Sect. 2315)	(Se	ct. 23	316)		
0		lood.	Larga Ballar 🔲 Sma	ıll Rolle	r !	☐ Trench I	Poller	☐ Large Plate Tamp
Compaction	n Equipment l		Large Roller ☐ Small Tamp ☐ Jump				Collect	
		Observation	<u>IS</u>			erved		Comments
Site Preparation				Yes		No 🗌		
Fill Placement		lucad far can	otwotion)	Yes		No 🗌		
	(proper materia	used for con		Yes		No 🗆		
Lift Size				Yes		No 🗆		
Compaction In-place Dens	itios			Yes		No 🗆		
•	ity Frequency			Yes		No 🗆		
	Non-Conforma	ance Items	Oheanyad	Yes		No 🗆		
-	ance Item Desci		<u>Observeu</u>	103		110		
Action Taken		inpuon.						
Person(s) Not	-							
been excavat consisted of h subgrade soil geotechnical Notes: While	ed on-site to ob ed and covere nard gray claye is consisting of report and suit e on-site, contr	ed with geote by silt. Control dense gray able for allowactor inquire	extile fabric and crusher actor removed crushe silty sand with cobblewable bearing pressured as to feasibility to ra	d ston d ston s. Suk e of 2.	e. S e an ograd 0 kst	subgrade e d fabric at de soils app f as given i bearing ele	xpose B.5 ar peared n the a	nd grid 5 to expose
S.W.COLE E			e to observe this footir			e on July 3 red Bv:		99. RED



Soils Observation Report

Project Nam	ne/Location:	Crescent Heights			Pro	ject No:		08-0744.1	
Client/Clien	t's Rep.:	Crescer	nt Heights LLC		Dat	te:		July 30, 2009	
Earthwork C	Contractor:	Leavitt E	Earthworks		She	eet:		1 of 1	
					SW	CE Rep.:		TJB	
						ived at Si		0900 & 1400	
						t Site:		1000 & 1500	
	<u>Weather</u>		Site Conditio				<u>Mate</u>	<u>rials Used</u>	
⊠ Clear	☐ Snow	☐ Warm	☐ Wet ☐ Dus	ty		Site Fill		□ Foundation Backfill	
	☐ Fog	☐ Hot	☐ Muddy ☐ Froz	en		Utility Bedo	ding	□ Subbase	
Rain	☐ Cold	☐ Windy	Temperatures: 80s			Base	J		
Soils Work	Performed:		☐ Site Prep		Earth			☐ Planting Soils	
			(Sect. 2230)	•	ct. 23	-		(Sect. 2310)	
			☐ Building Earthwor			s Earthwor	k	Ш	
			(Sect. 2315)	(Se	ct. 23	16)			
Compaction	n Equipment l	Jsed:	Large Roller	nall Rolle	r [Trench	Roller	☐ Large Plate Tamp	
Compaction	- Equipment		-	nping Ja	-	7			
	Soils (Dbservation				rved		Comments	
Site Preparati		J DOOT VALIO	<u></u>	Yes		No 🗆			
Fill Placemen				Yes		No 🗆			
Material Type	(proper materia	l used for con	nstruction)	Yes		No 🗌			
Lift Size			V-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	Yes		No 🗌			
Compaction				Yes		No 🗌			
In-place Dens	sities			Yes		No 🗌			
In-place Dens	sity Frequency			Yes		No 🗆			
-	Non-Conforma		<u>Observed</u>	Yes		No 🗌			
	ance Item Descr	ription:							
Action Taken	-								
Person(s) No	tified:							· · · · · · · · · · · · · · · · · · ·	
Area(s) of O	bservation:								
` Arrive	ed on-site at 09							ctor excavated footing and	
								ich was 2 feet higher that	
			of 102.0 feet, but still I to raise footing elev		rost	зертп. ке	comm	ended to contractor to file	
			ve excavation of wal		alon	a C line fro	om ari	d 1 to 5 (area 1 of	
sequenced e	xcavation reco	mmended by	y SGH) continuing to	join pre	vious	excavation	on at E	3.5 and grid 5. Excavatio	
								ed to dense glacial till fron	
			ration completed prev					al report and suitable for	
			s given in the approve				5 0111110	ai report and sultable for	
۸ *	Na	20		D.	viou	nd Pur		RED	
Attachments:	Noi	10		ке	AIGM	ed By:		INLU	



Project: PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS - MATERIALS TESTING

Project Number: 08-0744.1

Client:

CRESCENT HEIGHTS, LLC

Field Density Test Results

					Moisture					
Test#	Test Date	Tech	Test Location	Elev Feet	Test Depth	Lab ID		Content Percent	Compaction Percent	Required Compaction
1	7/15/2009	SJC	A LINE, WEST SIDE	93	12	11034G	129. 1	4.2	95.7	95
2	7/15/2009	SJC	A LINE, EAST SIDE	93	12	11034G	130.4	4.2	96.7	95

Laboratory Compaction Test Reference

Date Lab ID Received Material Source	Material Type	Method	Max Dry Density PCF	Optimum Moisture Content (%)	Comments
11034G 6/23/2009 Boundry Rd. Pit	Aggregate Subbase (Type D)	ASTM D-1557 Modified C	134.9	6.4	

Elevation Notes:



Project: PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS - MATERIALS TESTING

Project Number: 08-0744.1

Client: CRESCENT HEIGHTS, LLC

Field Density Test Results

Test#	Test Date	Tech	Test Location	Elev Feet	Test Depth	Lab ID	Dry Density	Moisture Content Percent	Compaction Percent	Required Compaction
3	7/16/2009	TA	BETWEEN LINE 4 & 5 2' SOUTH OF A LINE	93'	10	11034G	131.6	4.5	97.6	95
4	7/16/2009	TA	BETWEEN 7 & 8 4' NORTH OF A LINE	93'	10	.11034G	133.2	4.6	98.7	95
5	7/16/2009	TA	2' WEST OF LINE 8 & 3' NORTH OF A LINE	93'	10	11034G	133.3	4.3	98.8	95
6	7/16/2009	TA	ALONG A LINE EAST OF 7 LINE	94' 6"	10	11034G	132.6	3.8	98.3	95
7	7/16/2009	TA	ALONG A LINE WEST OF 7 LINE	94' 6"	10	11034G	131.7	4.2	97.6	95
8	7/16/2009	TA	BETWEEN COLUMN LINES A & B & LINE 5 & 7	95' 6"	10	11034G	130.4	4.3	96.7	95
9	7/16/2009	TA	BETWEEN LINES 5 & 7 5' NORTH OF A LINE	95' 6"	10	11034G	130.4	4.9	96.7	95
10	7/16/2009	TA	BETWEEN LINES 7 & 8 3' NORTH OF A LINE	95' 6"	10	11034G	129.1	4.6	95.7	95
11	7/16/2009	TA	BETWEEN LINES A & 5 1' NORTH OF A LINE	96'	10	11034G	131.5	4.0	97.5	95
12	7/16/2009	TA	BETWEEN LINE 5 & 7 NORTH OF B LINE	96'	10	11034G	129.0	4.2	95.6	95
13	7/16/2009	TA	BETWEEN LINE 7 & 8 1' NORTH OF A LINE	96'	10	11034G	132.4	3.8	98.1	95
14	7/16/2009	TA	BETWEEN LINES 7 & 8 4' NORTH OF B LINE	96'	10	11034G	130.5	6.6	96.7	95

Laboratory Compaction Test Reference

Lab ID	Date Received	Material Source	Material Type	Method	Max Dry Density PCF	Moisture Content (%)	Comments
11034G	6/23/2009	Boundry Rd. Pit	Aggregate Subbase (Type D)	ASTM D-1557 Modified C	134.9	6.4	

Elevation Notes:

Comments:

ALL ELEVATIONS ARE ABOVE TOP OF FOOTING

Reviewed By

Ontimum



Project: PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS - MATERIALS TESTING

Project Number: 08-0744.1

Client: CRESCENT HEIGHTS, LLC

Field Density Test Results

				Moisture								
Test#	Test Date	Tech	Test Location	Elev Feet	Test Depth	Lab ID	Dry Density	Content Percent	Compaction Percent	Required Compaction		
15	7/27/2009	SJC	D - LINE PIERS	98	12	11034G	133.4	5.9	98.9	95		
16	7/27/2009	SJC	D - LINE PIERS	99	12	11034G	133.7	5.9	99.1	95		
17	7/27/2009	SJC	D - LINE PIERS	102	12	11034G	131.6	6.2	97.6	95		

Laboratory Compaction Test Reference

Date Lab ID Receive	ed Material Source	Material Type	Method	Max Dry Density PCF	Optimum Moisture Content (%)	Comments
11034G 6/23/200	9 Boundry Rd. Pit	Aggregate Subbase (Type D)	ASTM D-1557 Modified C	134.9	6.4	

Elevation Notes:

Comments:



Project: PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS - MATERIALS TESTING

Project Number: 08-0744.1

Client: CRESCENT HEIGHTS, LLC

Field Density Test Results

								Moisture		
Test#	Test Date	Tech	Test Location	Elev Feet	Test Depth	Lab ID	Dry Density	Content Percent	Compaction Percent	Required Compaction
18	8/28/2009	SJC	LINE C + 20' CORNER	-2' TOW	10	11222G	132.5	6.0	95.0	95
19	8/28/2009	SJC	LINE B.5 - 10' LINE 7	-7' TOW	12	11222G	133.2	4.9	95.5	95
20	8/28/2009	SJC	LINE C + 15' CORNER OUTSIDE	-1.5' TOW	12	11222G	132.5	4.8	95.0	95
21	8/28/2009	SJC	LINE B.5 + 15' LINE 7	-104'	12	11034G	129.2	5.8	95.8	95
22	8/28/2009	SJC	LINE C + 10' CORNER	113.6'	12	11034G	128.7	4.9	95.4	95
23	8/28/2009	SJC	LINE C + 10' LINE 7	106'	12	11330G	131.3	4.5	96.0	95
24	8/28/2009	SJC	LINE C - 13' LINE 7	109'	12	11330G	132.7	5.3	97.1	95
25	8/28/2009	SJC	LINE C + 6' LINE 7	108'	12	11330G	131.2	5.5	96.0	95
26	8/28/2009	SJC	LINE C - 6' LINE 7	110'	12	11330G	130.2	5.3	95.2	95
27	8/28/2009	SJC	LINE C + 9' LINE 7	109'	12	11330G	131.4	4.2	96.1	95

Laboratory Compaction Test Reference

Lab ID	Date Received	Material Source	Material Type	Method	Max Dry Density PCF	Optimum Moisture Content (%)	Comments
11034G	6/23/2009	Boundry Rd. Pit	Aggregate Subbase (Type D)	ASTM D-1557 Modified C	134.9	6.4	
11222G	7/29/2009	On Site Stockpile	Aggregate Subbase	ASTM D-1557 Modified C	139.5	6.1	
11330G	8/11/2009	Hurricane Rd Pit	Aggregate Subbase	ASTM D-1557 Modified C	136.7	5.5	

Elevation Notes:

TOW - TOP OF WALL

Comments:

reviewed by



Project: PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS - MATERIALS TESTING

Project Number: 08-0744.1

CRESCENT HEIGHTS, LLC Client:

Field Density Test Results

							Moisture		
Test Date	Tech	Test Location	Elev Feet	Test Depth	Lab ID	Dry Density	Content Percent	Compaction Percent	Required Compaction
8/31/2009	TA	10' NW OF ELEVATOR PIT	1' BTOS	10	11222G	133.6	3.8	95.8	95
8/31/2009	TA	6' NW OF ELEVATOR PIT	1' BTOS	10	11222G	132.6	3.6	95.1	95
8/31/2009	TA	50' N WEST OF ELEVATOR PIT	1' BTOS	8	11222G	133.2	5.1	95.5	95
8/31/2009	TA	25' N WEST OF ELEVATOR PIT	1' BTOS	10	11222G	133.0	4.4	95.3	95
8/31/2009	TA	15' N WEST OF ELEVATOR PIT	1' BTOS	10	11222G	135.9	4.1	97.4	95
8/31/2009	TA	25' N WEST OF ELEVATOR PIT	1' BTOS	6	11330G	133.4	4.7	97.6	95
8/31/2009	TA	30' N WEST OF ELEVATOR	1' BTOS	8	11330G	134.0	3.9	98.0	95
8/31/2009	TA	EXTERIOR F WALL NW	109.0	8	11330G	131.4	5.0	96.1	95
8/31/2009	TA	EXTERIOR F WALL NW	109.0	8	11330G	132.1	6.4	96.6	95
8/31/2009	TA	EXTERIOR F WALL WEST	109.0	10	11330G	130.8	5.6	95.7	95
8/31/2009	TA	EXTERIOR F WALL WEST	109.0	8	11330G	132.5	5.6	96.9	95
	8/31/2009 8/31/2009 8/31/2009 8/31/2009 8/31/2009 8/31/2009 8/31/2009 8/31/2009 8/31/2009	8/31/2009 TA 8/31/2009 TA	8/31/2009 TA 10' NW OF ELEVATOR PIT 8/31/2009 TA 6' NW OF ELEVATOR PIT 8/31/2009 TA 50' N WEST OF ELEVATOR PIT 8/31/2009 TA 25' N WEST OF ELEVATOR PIT 8/31/2009 TA 15' N WEST OF ELEVATOR PIT 8/31/2009 TA 25' N WEST OF ELEVATOR PIT 8/31/2009 TA 30' N WEST OF ELEVATOR 8/31/2009 TA EXTERIOR F WALL NW 8/31/2009 TA EXTERIOR F WALL NW 8/31/2009 TA EXTERIOR F WALL NW	Test Date Tech Test Location Feet 8/31/2009 TA 10' NW OF ELEVATOR PIT 1' BTOS 8/31/2009 TA 6' NW OF ELEVATOR PIT 1' BTOS 8/31/2009 TA 50' N WEST OF ELEVATOR PIT 1' BTOS 8/31/2009 TA 25' N WEST OF ELEVATOR PIT 1' BTOS 8/31/2009 TA 25' N WEST OF ELEVATOR PIT 1' BTOS 8/31/2009 TA 25' N WEST OF ELEVATOR PIT 1' BTOS 8/31/2009 TA 30' N WEST OF ELEVATOR PIT 1' BTOS 8/31/2009 TA 25' N WEST OF ELEVATOR PIT 1' BTOS 8/31/2009 TA EXTERIOR F WALL NW 109.0 8/31/2009 TA EXTERIOR F WALL NW 109.0 8/31/2009 TA EXTERIOR F WALL WEST 109.0	Test Date Tech Test Location Feet Depth 8/31/2009 TA 10' NW OF ELEVATOR PIT 1' 10 BTOS 8/31/2009 TA 6' NW OF ELEVATOR PIT 1' 8 BTOS 8/31/2009 TA 50' N WEST OF ELEVATOR PIT 1' 8 BTOS 8/31/2009 TA 25' N WEST OF ELEVATOR PIT 1' 10 BTOS 8/31/2009 TA 15' N WEST OF ELEVATOR PIT 1' 8 BTOS 8/31/2009 TA 25' N WEST OF ELEVATOR PIT 1' 8 BTOS 8/31/2009 TA 30' N WEST OF ELEVATOR PIT 1' 8 BTOS 8/31/2009 TA EXTERIOR F WALL NW 109.0 8 8/31/2009 TA EXTERIOR F WALL NW 109.0 8 8/31/2009 TA EXTERIOR F WALL WEST 109.0 10	Test Date Tech Test Location Feet Depth Lab ID 8/31/2009 TA 10' NW OF ELEVATOR PIT 1' 10 11222G BTOS 8/31/2009 TA 6' NW OF ELEVATOR PIT BTOS 1' 10 11222G BTOS 8/31/2009 TA 50' N WEST OF ELEVATOR PIT BTOS 1' 10 11222G BTOS 8/31/2009 TA 25' N WEST OF ELEVATOR PIT BTOS 1' 10 11222G BTOS 8/31/2009 TA 25' N WEST OF ELEVATOR PIT BTOS 1' 10 11222G BTOS 8/31/2009 TA 25' N WEST OF ELEVATOR PIT BTOS 1' 8 11330G BTOS 8/31/2009 TA 30' N WEST OF ELEVATOR PIT BTOS 1' 8 11330G BTOS 8/31/2009 TA EXTERIOR F WALL NW 109.0 8 11330G BTOS 8/31/2009 TA EXTERIOR F WALL NW 109.0 8 11330G BTOS 8/31/2009 TA EXTERIOR F WALL NW 109.0 8 11330G BTOS	Test Date Tech Test Location Feet Depth Lab ID Density 8/31/2009 TA 10' NW OF ELEVATOR PIT 1' 10 11222G 133.6 8/31/2009 TA 6' NW OF ELEVATOR PIT 1' 10 11222G 132.6 8/31/2009 TA 50' N WEST OF ELEVATOR PIT 1' 10 11222G 133.2 8/31/2009 TA 25' N WEST OF ELEVATOR PIT 1' 10 11222G 133.0 8/31/2009 TA 15' N WEST OF ELEVATOR PIT 1' 10 11222G 135.9 8/31/2009 TA 25' N WEST OF ELEVATOR PIT 1' 10 11330G 133.4 8/31/2009 TA 30' N WEST OF ELEVATOR PIT 1' 8 11330G 133.4 8/31/2009 TA 30' N WEST OF ELEVATOR PIT 1' 8 11330G 134.0 8/31/2009 TA EXTERIOR F WALL NW 109.0 8 11330G 134.0 8/31/2009 TA EXTERIOR F WALL NW 109.0 8 11330G 132.1 8/31/2009 TA EXTERIOR F WALL NW 109.0 10 11330G 130.8	Test Date Tech Test Location Elev Depth Percent Test Lab ID Dry Density Content Percent 8/31/2009 TA 10' NW OF ELEVATOR PIT 1' 10 11222G 133.6 3.8 8/31/2009 TA 6' NW OF ELEVATOR PIT 1' 8 11222G 132.6 3.6 8/31/2009 TA 50' N WEST OF ELEVATOR PIT BTOS 1' 10 11222G 133.2 5.1 8/31/2009 TA 25' N WEST OF ELEVATOR PIT BTOS 1' 10 11222G 133.0 4.4 8/31/2009 TA 25' N WEST OF ELEVATOR PIT BTOS 1' 10 11222G 135.9 4.1 8/31/2009 TA 25' N WEST OF ELEVATOR PIT BTOS 1' 8 11330G 133.4 4.7 8/31/2009 TA 30' N WEST OF ELEVATOR PIT BTOS 1' 8 11330G 134.0 3.9 8/31/2009 TA 30' N WEST OF ELEVATOR 1' 8 11330G 134.0 3.9 8/31/2009 TA EXTERIOR F WALL NW 109.0 8 11330G 131.4 5.0 8/31/2009 TA EXTERIOR F WALL NW 109.0 8 11330G	Test Date Tech Test Location Elev Depth Test Lab ID Dry Density Content Percent Compaction Percent 8/31/2009 TA 10' NW OF ELEVATOR PIT 1' BTOS 10' 11222G 133.6 3.8 95.8 8/31/2009 TA 6' NW OF ELEVATOR PIT 1' BTOS 10' 11222G 132.6 3.6 95.1 8/31/2009 TA 50' N WEST OF ELEVATOR PIT 1' BTOS 8 11222G 133.2 5.1 95.5 8/31/2009 TA 25' N WEST OF ELEVATOR PIT 1' BTOS 10' 11222G 133.0 4.4 95.3 8/31/2009 TA 25' N WEST OF ELEVATOR PIT 1' BTOS 11' BTOS 1133.0G 135.9 4.1 97.6 8/31/2009 TA 30' N WEST OF ELEVATOR 1' BTOS 8 11330G 134.0 3.9 98.0 8/31/2009 TA EXTERIOR F WALL NW 109.0 8 11330G 131.4 5.0 96.1 8/31/2009 TA EXTERIOR F WALL NW 109.0 8

Laboratory Compaction Test Reference

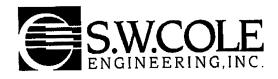
Lab ID	Date Received	Material Source	Material Type	Method	Max Dry Density PCF	Moisture Content (%)	Comments
11222G	7/29/2009	On Site Stockpile	Aggregate Subbase	ASTM D-1557 Modified C	139,5	6.1	
11330G	8/11/2009	Hurricane Rd Pit	Aggregate Subbase	ASTM D-1557 Modified C	136.7	5.5	

Elevation Notes:

BTOS-BELOW TOP OF SOIL

Comments:

NW- NORTH WEST



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

SWC Rep.: KBG

Rev. by: TJB

DAILY CONSTRUCTION REPORT

Project: Crescent Heights
Client: Crescent Heights LLC

Contractor: Portland Builders

SWCE Project No.: 08-0744.1

Date: 9-23-09

Weather: Sunny, 55 - 80.

General Observations, Discussions, Etc: We made a site visit as coordinated with Portland Builders superintendant (Jack Goulett) to observe subgrade soils at interior column footings 2, 3 and 4 on E-line. During our initial visit traces of brick and ash were visible intermixed with brown gravelly sand. At this time we understood that the bottom of excavation was at approximate elevation 112.3-feet with footing E-3 being approximately 12-inches lower because some ash was reportedly encountered during excavation. We hand dug several shallow test pits and determined that material exposed at all three location still consisted of mixed fill. At E-4, approximately 3 to 6-inches of fill remained overlying dense brown gravelly sand that appeared to be native material. E-3 also appeared to have 3 to 6-inches of fill overlying native dense brown sand and silt with some gravel. At E-2 it appeared that a minimum of 12-inches of granular fill intermixed with brick and stone rubble remained over gravelly sand with cobbles. We requested that fill soils be removed and that arrangements for follow up observations be made when the additional excavation was complete.

During our second site visit, it appeared that Leavitt Earthworks had performed the additional excavation as recommended. The excavation was made with a smooth edged bucket, but several inches of loose soils remained. We requested that subgrade soils be compacted with a large vibratory plate compactor prior to casting footings. In order to penetrate the fill soils the bottom of elevation at these three spread footings is slightly different; we understand that Portland Builders will likely thicken the footings as needed to achieve a common top of footing elevation.

On Site: 7:30 - 8:30 and 10:30 - 11:00

Attachments: Photos

Sheet: 1 of 1

P:\2008\08-0744.1 M - Crescent Heights, LLC - Portland, ME - Crescent Heights Apartments - RED\DFR's\DFR 9-23-09 - subgrade.doc

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

The SWCE field representative is on-site at the request of our client to provide construction materials testing and to observe and document construction activities. The contractor has sole responsibility for schedule, site safety, methods, completeness and quality of the work.

Exhibit B

033000 Concrete Construction

Project: Crescent Heights
Date Prepared: May 10, 2010

Structural Schedule of Special Inspections CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION IBC Section 1704.4	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGEN T	AGENT QUALIFICATION	TASK COMPLETED
Inspection of reinforcing steel, including prestressing tendons, and placement	4	Р	ACI 318: 3.5, 7.1-7.7	511	PE/SE or EIT	
Inspection of reinforcing steel welding in accordance with Table 1704.3, Item 5B	2		Welding of Reinf Not Allowed		AWS-CWI	
 Inspect bolts to be installed in concrete prior to and during placement of concrete where allowable loads have been increased 	2	С	IBC 1912.5	511	PE/SE or EIT	
4. Verifying use of required design mix	Y	Р	ACI 318: Ch 4, 5.2-5.4	511	PE/SE or EIT	
5. At time fresh concrete is sampled to fabricate specimens for strength test, perform slump and air content test and temperature	y	С	ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8	TAI	ACI-CFTT or ACI-STT	
6. Inspection of concrete and shotcrete placement for proper application techniques	4	С	ACI 318: 5.9, 5.10	511	PE/SE or EIT	
7. Inspection for maintenance of specified curing temperature and techniques	Y	P	ACI 318: 5.11- 5.13	51 1	PE/SE or EIT	
8. Inspection of Prestressed Concrete						
a. Application of prestressing force.	2	С	ACI 318: 18.20		PE/SE or EIT	
b. Grouting of bonded prestressing tendons in seismic force resisting system	N	С	ACI 318: 18.18.4		PE/SE or EIT	
9. Erection of precast concrete members	N	Р	ACI 318: Ch 16		PE/SE or EIT	
10. Verification of in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms beans and structural slabs	7	Р	ACI 318: 6.2		ACI-STT	

BECKE R structural engineers, inc.

Dyniant	0		
Project:	Crescent He		OBSERVATION REPORT
Location:	Portland, ME		Cast in Place Concrete
Becker Job No:	2129		
Date: 7-10-09 Time: 1:00 PM Temp: 80 F Weather: Sunny Observation Locat	i on: spread foc	otings: (3) F	(2) F510 along grid line A
Reinforcement Size Quantity Condition Placement Embed/Anchors Lap Splices Hot Weather Cold Weather Bond Beams Additional Items Additional Items		☐☐☐☐☐☐☐☐☐☐☐☐ Not Completed	Comments
Notes:			

Project	0	lainht O'	
Project:	Crescent F		OBSERVATION REPORT
Location:	Portland, N	ΛE	Cast in Place Concrete
Becker Job No:	2129		
Date: 7-14-09			
Time: 9:00 AM			
	ofelial to hollant had that to a warmer		
Temp : 70 F			
Weather: Sunny			
Observation Locat	i on: piers: (7) P3 piers a	A up to finish grade (shelf)
		> -	
	>	Un-Satisfactory Not Completed	
	actor	tisfa ompl	
	Satisfactory	n-Sa ot Cc	
		בֿ בֿ	Comments
Reinforcement Size			
Quantity Condition			
Placement			
Embed/Anchors			
Lap Splices			
Hot Weather			
Cold Weather Bond Beams		HH	
Additional Items		HH	
Additional Items	П	HH	
	: !	<u> </u>	
Notes:			

$\underbrace{B\ E\ C\ K\ E\ R}_{\text{structural engineers, inc.}}$

Project:	Crescent H	leights :	S.I.		OBSERVATION REPORT
Location:	Portland, M	<u>-</u>			Cast in Place Concrete
					Cast III Flace Conclete
Date: 7-21-09 Time: 10:00 AM Temp: 70 F Weather: Cloudy Observation Location Aup to bottom of	on: Spread I				along grid line B. Piers: (7)P3 piers along grid
Reinforcement Size Quantity Condition Placement Embed/Anchors Lap Splices Hot Weather Cold Weather Bond Beams Additional Items Additional Items	□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□	Un-Satisfactory	Not Completed	Not Applicable Not Applicable	Comments

75 York Street, Portland, ME 04101-4701 Tel 207-879-1838 Fax 207-879-1822

Project:		Crescent Heights S.I.	OBSERVATION REPORT
Location:		Portland, ME	Cast in Place Concrete
Becker Jo	b No:	2129	
Date:	7-22-09		
Time:	12:00 PM		
Temp:	70 F		

	Satisfactory	Un-Satisfactory	Not Completed	Not Applicable	Comments
Reinforcement Size	\boxtimes		П		
Quantity	\boxtimes				
Condition	\boxtimes				
Placement	\boxtimes				See note below
Embed/Anchors				\boxtimes	
Lap Splices	\boxtimes				
Hot Weather				\boxtimes	Santana and a santana and
Cold Weather				\boxtimes	
Bond Beams				\boxtimes	
Additional Items				\boxtimes	
Additional Items				\boxtimes	

G/c was made aware that P1 piers have less cover than surrounding piers due to lack of shelf at top and that care should be taken to ensure proper cover was achieved.

Project:	· 1964/8 - 1954/8 - 1954/4 - 1954/4 - 1954/4 - 1954/4 - 1954/4 - 1954/4 - 1954/4 - 1954/4 - 1954/4 - 1954/4 -	Crescent Heights S.I.	OBSERVATION REPORT			
Location:		Portland, ME	Cast in Place Concrete			
Becker Jo	b No:	2129				
Date:	8-3-09					
Time:	11:30 Al	M				
Temp:	75 F					
Weather:	Sunny					

Observation Location: Footings: "B.5", 5, & C lines. 2'x2' ftg at "B.5" line

	Satisfactory	Un-Satisfactory	Not Completed	Not Applicable	Comments
Reinforcement Size	\square	П	П	П	Outiliteillo
Quantity	$\overline{\square}$		П		
Condition	$\overline{\boxtimes}$		П		
Placement	\boxtimes		$\overline{\boxtimes}$		See note below
Embed/Anchors	\boxtimes				
Lap Splices	\boxtimes				
Hot Weather				\boxtimes	
Cold Weather				\boxtimes	The Manufacture of Control of the Control of
Bond Beams				\boxtimes	
Additional Items				\boxtimes	
Additional Items					

Notes:

G/C was notified of insufficient reinforcement cover at (3) step locations and notified to remove (1) clay brick bar support. All issues were being corrected while on site.

Signed: Dan S. Burne, P.E.



Project:		Crescent Heights S.I.	OBSERVATION REPORT		
Location:		Portland, ME	Cast in Place Concrete		
Becker Jo	b No:	2129			
Date:	8-6-09				
Time:	10:30 AM				
Temp:	80 F				
Weather:	Sunny				

Observation Location: Walls: "B.5", 5, & C lines. Piers: (1)P1 & (2)P3 on "B.5" line and P2 @ C-5

	Satisfactory	Un-Satisfactory	Not Completed	Not Applicable	Comments
Reinforcement Size	M		П	П	COMMITTERIES
Quantity	П	$\overline{\boxtimes}$	$\overline{\boxtimes}$		See note below
Condition	$\overline{\boxtimes}$		П	Ħ	m managemental (1) is the first transmission of the most of the management of the control of the
Placement		$\overline{\boxtimes}$	$\overline{\boxtimes}$		See note below
Embed/Anchors			\boxtimes		See note below
Lap Splices	\boxtimes				
Hot Weather				\boxtimes	
Cold Weather				\boxtimes	
Bond Beams				\boxtimes	
Additional Items				\boxtimes	
Additional Items				\boxtimes	The second of the second secon

Notes

G/C was notified of missing corner bars in wall reinforcing at (3) corners. G/C was notified of insufficient spacing between inside and outside faces of wall reinforcing along line C. I was made aware by the G/C that reinforcing was to be relocated prior to placement in order to obtain adequate spacing. Slab dowels along "B.5" line were not in place at time of inspection. Anchor bolts for sill plate were not in place at time of inspection. G/C was made aware that slab dowels and anchor bolts must be in place prior to placement. Follow-up inspection is scheduled for 8/10 to be performed prior to placement.



Project:		Crescent Heights S.I.		OBSERVATION REPORT Cast in Place Concrete		
Location:		Portland, ME	111111111111111111111111111111111111111			
Becker Job	No:	2129				
Date:	8-10-09					
Time:	11:30 AM					
Temp:	85 F					
Weather:	Sunny					
Observati	on Locati	on: Walls: "B 5" 5 & C lines	Piers: (1)P1 8	(2)P3 on "B 5" line and P2 @ C-5		

	Satisfactory	Un-Satisfactory	Not Completed	Not Applicable	Comments
Reinforcement Size	\boxtimes				
Quantity	\boxtimes				
Condition	\boxtimes				
Placement	\boxtimes				
Embed/Anchors	\boxtimes				
Lap Splices		\boxtimes			see notes below
Hot Weather				\boxtimes	
Cold Weather				\boxtimes	
Bond Beams		П		\boxtimes	
Additional Items				\boxtimes	
Additional Items				\boxtimes	

Previous comments made on 8-6-09 have been addressed. G/C was notified that rebar lap splice lengths appeared to be less than specified at two locations. G/C made it known that splice lengths would be verified and modifications made as necessary. Sill plate anchor bolts were not installed at time of visit. G/C was again reminded that all anchor bolts and embedded items shall be installed prior to placement of concrete and that "wet setting" of anchors was prohibited per the construction documents.



Project:		Crescent Heights S.I.	OBSERVATION REPORT						
Location:		Portland, ME	Cast in Place Concrete						
Becker Jol	o No:	2129							
Date:	8-19-09								
Time:	12:30 PM	12:30 PM							
Temp:	85 F								
Weather:	Sunny								
Observati	on Locati	on: Footings: 7 Line strip footing, elevate	or pit footing & 8 Line retaining wall footing						

	Satisfactory	Un-Satisfactory	Not Completed	Not Applicable	Comments
Reinforcement Size	\boxtimes		П	П	
Quantity	$\overline{\boxtimes}$				an annual properties and the second of the s
Condition	\boxtimes				
Placement		\boxtimes			see note below
Embed/Anchors	\boxtimes				
Lap Splices	\boxtimes				
Hot Weather				\boxtimes	
Cold Weather				\boxtimes	
Bond Beams				\boxtimes	
Additional Items			П	\boxtimes	
Additional Items				\boxtimes	

Notes:

Rebar with insufficient cover was observed at numerous locations. G/C was made aware and began addressing issue while inspection was ongoing. G/C expressed intent to continue to address areas of low cover prior to placement.



Project:		Crescent Heights S.I.	OBSERVATION REPORT Cast in Place Concrete		
Location:		Portland, ME			
Becker Jo	b No:	2129			
Date:	8-24-09				
Time:	10:30 AM				
Temp:	75 F				
Weather:	Sunny				
Ob = ====4	! 1 41	S W-ll 71'			

Observation Location: Walls: 7 Line, elevator pit wall & 8 Line retaining wall

	Satisfactory	n-Satisfactory	ot Completed	Not Applicable	
	SS	j	Not	ž	Comments
Reinforcement Size	\boxtimes				
Quantity	\boxtimes				
Condition	\boxtimes				
Placement	\boxtimes				
Embed/Anchors	\boxtimes		\boxtimes		see note below
Lap Splices	\boxtimes				
Hot Weather				\boxtimes	
Cold Weather				\boxtimes	
Bond Beams				\boxtimes	The balance of the second of t
Additional Items				\boxtimes	
Additional Items				\boxtimes	The state of the s

Notes:

Formed walls were observed without required shearwall hold downs and sill plate anchors. Inspector also observed previously cast wall with depressions visible at each anchor indicating anchors were installed after placement of concrete. It was made known that "wet setting" of anchors was prohibited and that every effort should be made to install prior to placement of concrete. Epoxy anchoring of dowels for elevator shaft reinforcement was discussed and deemed acceptable. Sketch will be provided depicting minimum embed and adhesive material prior to placement.

$\underbrace{B \ E \ C \ K \ E \ R}_{\text{structural engineers, inc.}}$

Project:	Crescent F	Heights S.I.	OBSERVATION REPORT		
Location:	Portland, N	ΛE	Cast in Place Concrete		
Becker Job No:	2129		Cast III Flace Concrete		
Date: 9-11-09					
Time: 11:45 AM					
Temp: 75 F					
Weather: Sunny					
Observation Locati	i on : Ftgs: So	outh Wall fro	East side of Stair 1		
Reinforcement Size Quantity Condition Placement Embed/Anchors Lap Splices Hot Weather Cold Weather Bond Beams Additional Items	☐☐☐──────────────────────────────────	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	Comments		
Additional Items Notes:					

Project:		Crescent Heights S.I.	OBSERVATION REPORT Cast in Place Concrete			
Location:		Portland, ME				
Becker Jo	b No:	2129	and the second s			
Date:	9-14-09					
Time:	10:30 AM		•			
Temp:	75 F					
Weather:	Sunny					

Observation Location: Walls: South Wall from Line 1 to East side of Stair 1

7		·		
Satisfactory	Un-Satisfactory	Not Completed	Not Applicable	Comments
\boxtimes				COMMON
\boxtimes				
	\boxtimes			see notes below
\boxtimes				The second secon
		\boxtimes		
\boxtimes				
			\boxtimes	
			\boxtimes	The second secon
			\boxtimes	
			\boxtimes	
			\boxtimes	

Notes:

Steel reinforcing bar was observed coated with form oil at one location. G/C notified inspector that bars would be cleaned with degreaser prior to placement schedule for following day.

$\underbrace{B\ E\ C\ K\ E\ R}_{\text{structural engineers, inc.}}$

Project:		Crescent Heights S.I.		OBSERVATION REPORT Cast in Place Concrete			
Location:		Portland, ME					
Becker Job No:		2129					
Date:	9-22-09						
Time:	11:00 AM	1					
Temp:	60 F						
Weather:	Partly Clo	oudy					

Observation Location: Wall footings, 1 line in the vicinity of "D" to the south of "F"

THE RESERVE THE PROPERTY OF THE WARRANCE AND THE PROPERTY OF T					
	Satisfactory	Un-Satisfactory	Not Completed	Not Applicable	Comments
Reinforcement Size	\square	П	П	П	
Quantity	$\overline{\boxtimes}$				
Condition	\boxtimes				see notes below
Placement	\boxtimes				
Embed/Anchors			\boxtimes		
Lap Splices	\boxtimes				
Hot Weather				\boxtimes	The companies of the co
Cold Weather				\boxtimes	Additional and the second seco
Bond Beams				\boxtimes	
Additional Items				\boxtimes	
Additional Items				\boxtimes	·

Notes:

The retaining wall footing top reinforcement was not located at the top of the footing at when we showed up to do our visit. The contractor elected to add additional mat at the top of the footing rather than relocating the reinf. from the bottom of the footing. This work was in progress as we left the site.

Signed: Ethan A. Rhile, P.E.

Comments

$\underbrace{B\ E\ C\ K\ E\ R}_{\text{structural engineers, inc.}}$

Project:		Crescen	t Heigh	ts S.I.	OBSERVATION REPORT					
Location:		Portland	, ME		Cast in Place Concrete					
Becker Jo	b No:	2129			, as a management of the second of the secon					
Date:	9-24-09	****								
Time:	9:00 AM									
Temp:	60 F									
Weather:	Partly Clo	udy								
Observat	Observation Location: Foundation wall: 1 line in the vicinity of "D" to the south of "F" Spread footings: Line E (4 total)									
	***			;···· · · · · · · · · · · · · · · · · ·						
		ofo.	Satisfactory	Completed	Applicable					

see notes below

see notes below

see notes below

Notes:

Reinforcement Size

Embed/Anchors

Quantity

Condition Placement

Lap Splices

Hot Weather Cold Weather Bond Beams Additional Items Additional Items

At time of visit top horizontal bar in exterior face was observed to be omitted and all exterior face verts were observed approximately 12"-18" short of top of wall north of Grid Line F. G/c made it known that horizontal bar and vertical splice bars would be installed prior to concrete placement. Spacing of bar off of form was observed to be insufficient south of Grid Line F at brick shelf. G/C expressed his intent to add rebar spacers at these locations. Beam pocket on E-1 was observed installed on the exterior face of wall, G/C said the pocket would be moved to inside face of wall.

Project:	Crescent I	OBSERVATION REPORT	•		
Location:	Portland, I	ИΕ		Cast in Place Concrete	
Becker Job No:	2129			ouse.iii iuse congrete	
Date: 9-28-09					
Time: 3:00 PM			***************************************		
Temp: 65 F					
Weather: Sunny	Personal Commence of Commence				
The second secon			*** *** **** ****		
Observation Locati	ion: Wall stri	p foot	ings: S	n approximately Line 6 to North side of Stair 2	
		ory	eq		
	tory	fact	plet		
	Satisfactory	Un-Satisfactory	Not Completed		
	Sati	- U	Not		
Reinforcement Size	\boxtimes	П	П	Comments	
Quantity	\boxtimes				
Condition					
Placement	×				
Embed/Anchors					
Lap Splices Hot Weather		Н	님		
Cold Weather		H			
Bond Beams	H	H			
Additional Items	H	H	H		
Additional Items	H	H			
Notes:					

Project:		Crescent Heights S.I.	OBSERVATION REPORT			
Location:		Portland, ME	Cast in Place Concrete			
Becker Jol	o No:	2129				
Date:	10-1-09					
Time:	2:00 PM					
Temp:	55 F					
Weather:	Sunny					
Observati	ion Locat	ion: Elevated structural slab and beams	@ ground floor			

	Satisfactory	Un-Satisfactory	Not Completed	Not Applicable	Comments
Reinforcement Size	M		П	П	
Quantity		\boxtimes			see notes below
Condition		\boxtimes			see notes below
Placement		\boxtimes			see notes below
Embed/Anchors		\boxtimes			see notes below
Lap Splices	\boxtimes				
Hot Weather				\boxtimes	
Cold Weather				\boxtimes	
Bond Beams					
Additional Items				\boxtimes	
Additional Items		П			

G/C was notified of several locations that reinforcing bar cover was observed to be insufficient in structural slab and reinforced concrete beams. G/C was also made aware of locations where reinforcing bar quantity was insufficient at slab and where stirrup reinforcing in beams was insufficient. Debris was observed in many of the reinforced beam forms. G/C was shown locations where debris must be removed prior to placement. G/C was made aware of locations where shearwall holddown anchors were observed to be omitted. Follow up visit was scheduled to occur prior to placement in order to confirm comments will be incorporated.

Project:		Crescent Heights S.I.		OBSERVATION REPORT							
Location:		Portland, ME		Cast in Place Concrete							
Becker Jol	o No:	2129		a man in lado controlo							
Date:	10-1-09										
Time:	5:30 PM										
Temp:	50 F	The second secon									
Weather:	Sunny										
Observati	Observation Location: Elevated structural slab and beams @ ground floor										

	Satisfactory	Not Completed	Not Applicable	Comments
Reinforcement Size			П	
Quantity				
Condition				
Placement				
Embed/Anchors	$\boxtimes \Box$			
Lap Splices	$\boxtimes \Box$			
Hot Weather		ıñ	$\overline{\boxtimes}$	
Cold Weather			X	Hilliand to the control of a fact to the control of
Bond Beams			Ħ	Bodies on the second contraction of the second distinction and the second of the secon
Additional Items			Ħ	
Additional Items			X	

Comments from previous visit were addressed and observed prior to placement. Concern was expressed to G/C that insufficient cover would be unacceptable and extra care should be given to accommodate such cover as shown on construction documents.

Project:	Crescent I	Heights S	.1.	OBSERVATION REPORT		
Location:	Portland, N	ИΕ		Cast in Place Concrete		
Becker Job No:	2129			c act in a lace controle		
Date: 10-5-09						
Time: 11:00 AM						
Temp: 65 F						
Weather: Sunny						
Observation Locat	ion: Foundat	lion Malla	04-			
Observation Local	ion. Poundat	lion walls.	South	wall from approximately Line 6 to North side of Stair 2		
		tory	ple			
	cton	isfac	. Sign			
	Satisfactory	Un-Satisfactory Not Completed	Not Applicable			
	Sal	S S	No	Comments		
Reinforcement Size						
Quantity Condition			H	see notes below		
Placement				see notes below		
Embed/Anchors						
Lap Splices Hot Weather						
Cold Weather						
Bond Beams						
Additional Items Additional Items				see notes below		

Project:

Horizontal bars at top of wall were observed missing at East side of Stair 2 wall. G/C was shown areas where cover and clear spacing was insufficient at many locations. Bondouts for shelfs were observed to be omitted at time of inspection. G/C made it known that all these concerns would be addressed prior to placement and photos would be provided as confirmation of completed work.

BECKER structural engineers, inc

Project:	Crescent I	Height	OBSERVATION REPORT		
Location:	Portland, N	ΛE	Cast in Place Concrete		
Becker Job No:	2129				Suct in Fluor Confider
Date: 10-19-09					
Time: 2:00 PM					
Temp: 58 F					
Weather: Sunny					
Observation Locati	on: Ground	امروا	Slah	n Cr	ndo.
Observation Locati	on. Ground	revei	Slab () G	aue
	• >				
		Un-Satisfactory	Not Completed	ble	
	ctor	isfac	mpk	plica	
	Satisfactory	-Sat	Ş	Not Applicable	
	Sa	5	Š	Š	Comments
Reinforcement Size	\boxtimes				Comments
Quantity Condition		Ц		<u> </u>	
Placement	M M	H	H	H	
Embed/Anchors		П			
Lap Splices			Ħ	Ħ	
Hot Weather				$\overline{\boxtimes}$	
Cold Weather				\boxtimes	
Bond Beams	Щ.			\boxtimes	
Additional Items			LJ	Ц	see notes below
Additional Items		Ш	Ш	\boxtimes	

Notes:

Project:

Insultarp under slab insulation/membrane was observed along cast edge of structural slab. G/C was made aware that Insultarp should be cut back so that slab on grade may butt up against cast edge of elevated structural slab to minimize joint width.

Project:	Crescent I	Heights \$	OBSERVATION REPORT	
Location:	Portland, I	ME	Cast in Place Concrete	
Becker Job No:	2129			Cust III I lace Concrete
Date: 10-30-0 Time: 11:30 A Temp: 55 F Weather: Overcase	M			
Observation Loca	ation: Elevated	d Slab/ R	einforce	d Concrete Beams between Entry and Stair #2
Reinforcement Size Quantity Condition Placement Embed/Anchors Lap Splices Hot Weather Cold Weather	© © O	□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□	Not Completed Not Applicable	Comments See notes below See notes below

Bond Beams Additional Items Additional Items

Project:

#4 closure bar was observed omitted at (2)locations. G/C was shown where closure bars were to be added. Where slab is supported at bottom of reinforced concrete beam slab reinforcement was observed to be below beam reinforcement. G/C was made aware that slab reinforcement must extend over top of beam reinforcement. At same location, beam reinforcement was observed to be too high due to piers being cast too tall. It was made known to the G/C that pier should be chipped down such that top of pier was at bottom of beam elevation. Follow-up visit was schedule for 11/2 to confirm comments are incorporate prior to placement.

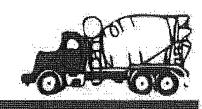
$\underbrace{B\ E\ C\ K\ E\ R}_{\text{structural engineers, inc.}}$

Project:	Crescent I	Heights S.I	•		OBSERVATION REPORT Cast in Place Concrete		
Location:	Portland, N	ΛE					
Becker Job No:	2129					Odst III i lace Colletete	
Date: 11-3-09			79.0				
Time: 11:30 AM							
Temp: 55 F							
Weather: Sunny							
Observation Locati	on: Flevated	l Slah/ Reir	nforced	l Concrete l	Boams hot	ween Entry and Stair #2	
	2.074.00	0100/11011	1101000	Concrete	beams ben	ween Entry and Stair #2	
		ه ح				The state of the s	
	<u></u>	Un-Satisfactory Not Completed	Not Applicable				
	Satisfactory	atisfa omp	pplic				
	atisl	In-S. lot C	ot A				
Reinforcement Size	<i>ω</i>		Z			Comments	
Quantity				See notes	s below		
Condition	\boxtimes			:			
Placement Embed/Anchors				See notes	below		
Lap Splices							
Hot Weather			\boxtimes				
Cold Weather	<u>Д</u>		\boxtimes				
Bond Beams Additional Items	Ц			······································			
Additional Items							
			L K Z				
Notes: All previous comp		4-6: 1.1					

Project:	Crescent H	leights S.I.		OBSERVATION REPORT
Location:	Portland, N	ΛE		Cast in Place Concrete
Becker Job No:	2129			Successive Land Complete
Date: 12-28-09 Time: 9:30 AM Temp: 35 F Weather: Sunny				
Observation Locat	ion: Elevated	d Slab @ Ei	ntry	
Reinforcement Size Quantity Condition Placement Embed/Anchors Lap Splices Hot Weather Cold Weather Bond Beams Additional Items Additional Items	□□□⊠□⊠⊠⊠⊠⊠⊠ Satisfactory	□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□	Not Applicable Not Applicable	Comments
Notes:				

75 York Street, Portland, ME 04101-4701 Tel 207-879-1838 Fax 207-879-1822





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Phone: (207) 780-0523 • Fax: (207) 780-1521
Phone: (207) 386-5100 • Fax: (207) 386-5151

PORTLAND BUILDERS, INC.

ATTN: DORIAN TARLING
P.O. BOX 4902
Portland, ME 04112
PH: (207) 879-0118

FX: (207) 772-8182

Mix Design Submittals for:

CRESCENT MERGINTS MOUSING

As prepared by:
AUBURN CONCRETE

Remi Delcourt, Sales & Quality Control P.O. Box 1747 - 82 Goldthwaite Road Auburn, Maine 04210 Office: (207) 777-7100 Facsimile: (207) 777-7171

E-Mail: remi@auburnconcrete.com



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Phone: (207) 780-0523 • Fax: (207) 780-1521
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PORTLAND BUILDERS

CRESCENT HEIGHTS HOUSING
25 CRESCENT STREET — PORTLAND, MAINE

3000PSI - Air Entrained, 3/4" Crushed Stone

FOOTINGS & FOUNDATION WALLS

6/31/2009				
		Weight-SSD (lbs)	Volume (Cu.Ft.)	Sources
CEMENT, T 1/II ASTM C-150 GGBIS (NEWCEM) ASTM C989, Grade 120		362 155	1.84 0.84	DRAGON PRODUCTS COMPANY LAFARGE
COARSEAGG FINE ACGREGATE	ASTM C-33: #57/#67 ASTM C-33	1700 1330	10.28 8.17	PIKE INDUSTRIES PORTLAND SAND & GRAVEL
WATER US. GAL/CY	32.4	270	4.35	CITY OF WESTBROOK
	AIR CONTENT (%):	6.0 +/- 1.5%	1.63	
Ŵ	ATER/CEMENT RATIO: SIJMP (Inches):	0.52 4.00		
	AIELD	135.2 PCF	27.1 Cu.Ft.	
GLENIUM 7500 MICROAIR	ASTM CA94, TYPE A.F ASTM C-260	9.00 oz/cwt 0.25 oz/cwt	10.9 US 02/CY 0.9 US 02/CY	
* GLENIUM 7500 dose i	s for MIDRANGE applica	tions.		
OPTIONAL: POLYMESH POZZOLITH 100XR POZZUTEC 20+	ASTM C-1116 TYPE III ASTM C-494, Type B.D ASTM C-494, Type C.E	1.5 lbs/cy 2.00 az/cwt 10.00 az/cwt	7.2 US 62/CY 36.2 US 62/CY	

F GLENIUM 7500 meets the requirements of ASTM C494 for Type A (water-reducing) and Type F (high-range water-reducing).
Flant or site addition of 2 - 3 fl.oz./cwt (10.3 - 15.5 fl.oz./cy) will be required to achieve end slump indicated.

MIX IDENTIFICATION #: DESIGN STRENGTH: 30345A 1 3000 PSI @ 28 DAYS



PROJECT: CONTRACTOR: VWC: 0.53 "ME: A.O. XAM 4/21/2007 0:30 AM

9/12/2007 9/12/2007 9/14/2007 9/14/2007 9/14/2007 9/16/2007 9/16/2007 9/16/2007 9/16/2007 9/20/2007 9/20/2007 9/21/2007 9/21/2007 9/26/2007 9/26/2007 9/26/2007 10/2/2007 10/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007	PROJECT CABELAS CABELAS	10# 48921 49922 48924 48925 49925 49927 49921 49922 4992 4992 49922 4992	3.50 3.50 4.50 4.50 4.25 3.78 6.00 5.50 4.50 4.50 4.50 4.50 4.50 4.50 6.00 6.00 6.00 6.00 6.00 6.00 6.00 6	% AAA	74 74 78 74 78 74 78 74 78 74 77 78 71 77 78	AR	7 DAY 3160 3340 2940 2870 3450 2980 2940 2730 2880 3133 2770 2840 3040 3050	28 UAY 4540 4455 3790 4630 4070 3775 3775 3975 4210 3415 3666 3815 4155	4255 4255 4285 4243 4387 4052 3873 3842 3987 3667 3662 3663 3818
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9/20/2007 9/20/2007 9/21/2007 9/21/2007 9/21/2007 9/28/2007 9/28/2007 9/28/2007 9/28/2007 10/2/2007 10/2/2007 10/5/2007 10/6/2007 10/6/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007	CABELAB	4992-10 4992-9 4992-11 4992-12 4992-13 4992-15 4992-15 4992-15 4992-15 4992-15 4992-15 4992-15	5.50 4.50 6.00 5.00 4.50 4.50 4.75 4.00 6.00	5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	74 74 75 71 77 78		2880 3130 2770 2840 3040 9050	3975 4210 3415 3660 3815 4195	3842 3987 3867 3762 3663 3923
9/20/2007 9/21/2007 9/21/2007 9/24/2007 9/26/2007 9/26/2007 9/28/2007 9/28/2007 9/28/2007 10/2/2007 10/2/2007 10/3/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007	CABELAS	4992-9 4992-11 4992-12 4992-13 4992-14 4992-15 4992-15 4992-18 4992-19 4992-20	4.50 6.00 6.00 4.50 4.50 4.75 4.00 6.00	5.4 5.5 6.0 6.8 5.5 6.4	74 76 71 77 78 79		3130 2770 2840 3040 9050	4210 3415 3660 3815 4195	3987 3867 3762 3663 3923
9/21/2007 9/21/2007 9/24/2007 9/26/2007 9/26/2007 9/26/2007 9/26/2007 9/28/2007 10/2/2007 10/2/2007 10/4/2007 11/2/2007 11/2/2007 11/20/2007 11/20/2007 11/20/2007 11/21/2007 11/21/2007	CABELAS	4992-11 4992-12 4992-13 4992-14 4992-15 4992-17 4992-19 4992-19 4992-20	6.00 4.50 4.00 4.76 4.00 6.00	6.1 5.5 6.0 6.8 6.5 8.4	78 71 77 78 79		2770 2840 3040 9050	3415 3660 3815 4195	3867 3762 3663 3923
9/21/2007 9/24/2007 9/28/2007 9/27/2007 9/28/2007 9/28/2007 9/28/2007 10/2/2007 10/2/2007 10/5/2007 10/5/2007 10/5/2007 11/2/2007 11/2/2007 11/20/2007 11/20/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007	CABELAS	4992-12 4992-14 4992-15 4992-15 4992-17 4992-19 4992-20	5.00 4.50 4.00 4.50 4.75 4.00 6.00	5.5 6.0 6.8 5.5 8.4	71 77 78 79		2840 3040 3050	3660 3915 4195	3762 3663 3923
9:24/2007 9:26/2007 9:26/2007 9:26/2007 9:26/2007 9:26/2007 10:2/2007 10:6/2007 10:6/2007 10:6/2007 10:6/2007 10:6/2007 10:6/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007	CABELAS	4992-14 4992-14 4992-15 4992-16 4992-17 4992-19 4992-20	4.50 4.00 4.50 4.76 4.00 6.00	6.0 6.8 5.5 6.4	77 78 79		3040 3050	3915 4195	3663 3923
9/28/2007 9/26/2007 9/26/2007 9/28/2007 9/28/2007 10/2/2007 10/6/2007 10/6/2007 10/8/2007 10/8/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007	Cabelas	4992-14 4992-15 4992-16 4992-17 4992-18 4992-19 4992-20	4.00 4.76 4.76 4.00	6.8 5.5 8.4	78 79		3050	4195	3923
9/26/2007 9/27/2007 9/28/2007 9/28/2007 10/2/2007 10/2/2007 10/6/2007 10/6/2007 10/6/2007 10/6/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007	Cabelas Cabelas Cabelas Cabelas Cabelas Cabelas Cabelas Cabelas Cabelas Cabelas	4992-15 4992-16 4992-17 4992-18 4992-19 4992-20	4.76 4.76 4.00 6.00	5.5 8.4	79				
9/27/2007 9/28/2007 9/28/2007 9/28/2007 10/2/2007 10/2/2007 10/2/2007 10/31/2007 11/2/2007 11/20/2007 11/20/2007 11/20/2007 11/21/2007 11/21/2007	Cabelas Cabelas Cabelas Cabelas Cabelas Cabelas Cabelas Cabelas Cabelas	4992-18 4992-17 4992-18 4992-19 4992-20	4.76 4.00 6.00	84			2690		
9/28/2007 9/28/2007 9/28/2007 10/2/2007 10/2/2007 10/5/2007 10/5/2007 10/5/2007 11/2/2007 11/20/2007 11/20/2007 11/20/2007 11/21/2007 11/21/2007 11/21/2007	Cabelas Cabelas Cabelas Cabelas Cabelas Cabelas Cabelas Cabelas	4992-17 4992-18 4992-19 4992-20	4,00 6.00				3180	4380	4043
9/28/2007 9/28/2007 10/2/2007 10/2/2007 10/5/2007 10/5/2007 10/5/2007 11/2/2007 11/20/2007 11/20/2007 11/21/2007 11/21/2007 11/21/2007	CABELAS CABELAS CABELAS CABELAS CABELAS CABELAS CABELAS CABELAS CABELAS	4992-18 4992-19 4992-20	6.00		79		2850	3820	3918
9/28/2007 10/2/2007 10/2/2007 10/5/2007 10/5/2007 10/5/2007 10/5/2007 11/2/2007 11/20/2007 11/20/2007 11/2/2007 11/2/2007	Cabelas Cabelas Cabelas Cabelas Cabelas Cabelas	4992-19 4992-20	100	5.6	70		3890	5485	4545
10/2/2007 10/2/2007 10/5/2007 10/5/2007 10/5/2007 10/5/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007	Cabelas Cabelas Cabelas Cabelas		14.44	6.8	70		3760	5140	4798
10/5/2007 10/5/2007 10/19/2007 10/31/2007 11/2/2007 11/2/2007 11/20/2007 11/21/2007 11/21/2007 11/21/2007	Cabelas Cabelas Cabelas	4992-21	5.50	5.4	74		3490	4870	5148
10/5/2007 10/19/2007 10/31/2007 11/2/2007 11/2/2007 11/20/2007 11/20/2007 11/21/2007 11/21/2007 11/21/2007	CABELAS CABELAS		6.00	6.2	74		3980	4070	4698
10/19/2007 10/31/2007 11/2/2007 11/2/2007 11/2/2007 11/2/2007 11/2/1/2007 11/2/1/2007 11/2/1/2007	CABELAS	4892-23	6,00	7.0	72		3100	3995	4317
10/31/2007 11/2/2007 11/2/2007 11/20/2007 11/20/2007 11/21/2007 11/21/2007 11/21/2007		4992-24	5.50	8.8	74		3360	4210	4092
11/2/2007 11/5/2007 11/20/2007 11/20/2007 11/21/2007 11/21/2007 11/27/2007		4902-29	5.50	4.5	63		4060	4445	4217
11/5/2007 11/20/2007 11/20/2007 11/21/2007 11/21/2007 11/27/2007	CABELAS	4992-31	5.50	5.0	68		3240	4250	4902
11/20/2007 11/20/2007 11/21/2007 11/21/2007 11/27/2007	CABELAS	4992-82	3.75	5.3	64		3760	5250	4648
11/20/2007 11/21/2007 11/21/2007 11/27/2007	CABELAS	4992-33	4.50	5.7	59	ari ès	3810	4945	4815
11/21/2007 11/21/2007 11/27/2007	WAL-WART SCAR	1788-1	5,00	5.3	64	38	4210 4200	5175	5123 5043
11/21/2007	WAL-MART SCAR.	1788-2	4.00 4.50	4.8	85 66	34 36	3190	503.0 4306	4830
11/27/2007	WAL-MART SCAR. WAL-MART SCAR.	1788-3 1788-4	5.00	5.4 6.0	60	190	3930	4970	4762
	WAL-MART SCAR	1788-5	5.00	8.5	65	55	3910	5008	4760
	WAL-MART SCAR.	1788-6	6.00	5.9	65	38	4200	5370	5115
11/28/2007	WALMART SCAR.	1788-7	5.00	6.5	55	34	3820	4688	5020
11/29/2007	WAL-MART SCAR.	1788-8	5.00	3.5	60	45	4010	4585	4880
11/30/2007	WAL-MART SCAR.	1788-10	8.00	8.0	55	38	3800	5420	4897
11/30/2007	WAL-MART SCAR.	1788-0	3,50	4.5	60	36	4780	5920	5308
12/5/2007	WAL-MART SCAR.	1788-11	6,00	5.0	58	34	3880	4335	5225
12/6/2007	WAL-MART SCAR.	1788-12	4.00	6.0	60	28	3980	4765	5003
- Transaction 1	Turner-leeds bridges	14039-1	1			11.1	3050	41.65	441B
12/7/2007	WAL-MART SCAR	1788-15	4.00	5.0	82	31	4010	4575	4498
12/10/2007	WAL-MART SCAR.	1788-16	5.00	5,0	80	28	3620	4090	4277
12/11/2007	WAL-MART SCAR.	1788-17	5.00	5.4	80	32	4110	4505	4390
12/12/2007	WAL-MART SCAR.	1788-18	5.00	5.0	88	43	3960 3660	4935 4555	4510 4665
12/12/2007	WAL-MART SCAR. WAL-MART SCAR.	1788-19 1788-20	5,00 5,00	5.0	67 59	43	3630	4835	4775
12/13/2007	TURNER LEEDS BRIDGES	14039-2	w.unu.	4,5	3,545	110	2180	3220	4203
12/14/2007	WALMART SCAR	1788-21	5.00	5.4	57	32	3730	4500	4185
12/18/2007	WAL-MART BOAR.	1788-22	5.00	5.6	61	28	3110	3735	3818
12/19/2007	WALAMART SCAR	1768-23	4.50	5.0	50	33	3150	3915	4050
12/21/2007	WALMART SCAR.	1788-24	6.50	6.1	60	23	3000	3990	3880
	TURNETILEEDS BRIDGES	14039-6	-,				2050	3120	3675
	TURNER LEEDS BRIDGES	14039-12	7.50	6.4	60		2785	3980	3697
	TURNER-LEEDS BRIDGES	14039-13	6.50	8.5	52		2595	3435	3512
	TURNER-LEEDS BRIDGES	14039-14	6.50	7.0	51		3010	3910	3775
	Turmer-Leeds Bridges	14039-17		4.5	62		3410	4055	3800
	Tunnen-Leeds erodges	14039-18	9,00	8.8	64		2130	2930	3632
	TURNER-LEEDS BRIDGES	14039-19		6.5	61		2620	3315	3433
	Turner-Leeds Bridges	14039-20		6.5	61.		9390	4420	3555
. 7.97	TURNER LEEDS BRIDGES	14039-21	·	7.1	63		3580	4070	3935
	RESIDENCE NOT ADELINE	14054-1	3,50	5.3	63		2830	4150	4218
	RESIDENCE INN AUDURN	14084-2	3.75	5.0	63		3380	4470	4250 4363
- A T 100 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	RESIDENCE INN AUDURN	140643	4.00	5.4	63		3010	4470	4275
	mesidence inn augurn	14064-4	5.25	5.2	61		3140	3885 4090	4148
*	RESIDENCE INNAUBURN	14084-5	5.00	5.8	65		3290	3515	3830
	RESIDENCE INVAUBURN RESIDENCE INVAUBURN	14064-6 14064-7	5.75 5.00	5.6 5.5	89		2710 2950	1211	OC OU

AUBURN CONCRETE REPORT AND ANALYSIS OF COMPRESSIVE STRENGTH

4/30/2008	RESIDENCE INN AUBURN	14064-8	3.00	6.0	58		\$350	4400	3895
5/5/2008	RESIDENCE WAY AUBURN	14064-9	6.50	4.5	64		3030	3540	3903
5/8/2008	RESIDENCE HALADBURN	14064-10	5.75	6.0	67		2960	3555	3832
5/13/2008	RESIDENCE INN-AUBURN	14064-11	3.50	5.8	64		3310	3970	3688
5/19/2008	RESIDENCE IMMAUBURN	14064-12	5.28	6.2	68		3230	3470	3665
5/29/2008	PRESIDENCE INN AUBURN	1406413	4.25	5.5	68		3900	4550	3997
7/2/2008	TURNER-LEEDS BRIDGES	14039-33	6.00	6.0	77		2650	3640	3887
7/2/2008	TURNER-LEEDS BRIDGES	14039-34	6.50	6,1	81		3100	3850	4013
7/2/2008	TURNER-LEEDS BRIDGES	14039-35	6.50	8.0	81		2940	3640	3710
7/2/2008	TURNER-LEEDS BRIDGES	14039-36	8.00	8.2	84		2670	3365	3615
7/15/2008	GORHAM BY-PASS	869-10	6.00	6.6	81	83	2920	3200	3398
7/25/2008	SI, MARYS ER ADDITION	14093-7	5.00	4.7	84	7.	3080	3935	3497
7/29/2008	St. MARYS ER ADDITION	14093-8	4.00	5.4	67		3140	4095	8743
7/30/2008	St. MARYS ER ADDITION	14093-9	4.25	4.9	83		3390	4285	4095
8/1/2008	SI MARYS ER ADDITION	14093-10	5.00	5.5	82		3030	3735	4028
8/4/2008	SL MARYS ER ADDITION	14093-11	5.00	6.9	84		2610	3200	3730
6/7/2008	SI MARYS ER ADDITION	14093-12	5.50	5.0	71		3040	4195	37:10
8/9/2008	SI. MARYS ER ADDITION	14093-13	5.00	6,8	79		3270	3795	3730
6/15/2008	SI, MARYS ER ADDITION	14083-14	4.00	6.9	86		2800	3190	3727
9/17/2008	ST. MARY'S MOB	14131-1	4.50	5.8	B1		4550	4915	3967
9/18/2008	ST. MARY'S MOB	14131-2	7.25	6.0	76		3290	4110	4072
9/23/2008	ST. MARYS MOB	14131-3	3.75	7.3	70		3310	4090	4372
9/23/2008	ST, MARY'S MOS	14131-4	5.00	6.9	78		3600	4115	4105
9/30/2008	ST. MARY'S MOB	14131-5	5.50	6.6	74		2990	4058	4087
10/2/2008	ST. MARY'S MOB	14131-6	5.50	7.2	70		2990	3935	4035
10/2/2008	BOWDOIN COL FITNESS CYR	14138-1	5.50	8.0	72		2840	3890	3960
10/8/2006	ST. MARY'S MOR	14181-7	5.50	6.8	63		3320	3825	3883
10/7/2008	ST. MARYS MOB	14131-6	4.50	7.3	61		3100	2920	3878
10/8/2008	ST. MARY'S MOB	14131-9	5.50	5.0	71		3680	4140	3962
10/13/2008	ST, MARY'S MOB	14131-10	5.25	5.9	73		3410	3910	3990
10/14/2008	BOWDOIN GOL FITNESS CTR	14136-2	5.50	5.6	70		3140	3905	3985
10/14/2008	BOWDOIN COL. FITNESS CTR	14138-3	5.50	6.5	68		3050	3775	3863
10/17/2008	ST. MARY'S MOB	14131-11	6.00	7.0	68		2740	3555	3745
10/21/2008	BOWDOIN COL FITNESS CTR	14139-4	6.00	5.8	62		3010	4005	3178
10/22/2008	SL MARYS ER ADDITION	14093-18	5.00	5.8	60		3290	4100	3887
10/24/2008	St. MARYS ER ADDITION	14093-19	6.25	8.0	57		1980	3270	3792
11/3/2008	BOWDOW COL FITNESS CTR	14138-5	8.00	7.8	51		2510	3155	3508
11/3/2008	BOWDOIN COL FITNESS CTR	14138-6	8,50	7.4	53		2830	3520	3348
11/14/2006	BOWDOIN COL. FITNESS CTR	14138-7	8.00	7.2	67		3120	3915	3563
11/14/2008	BOWDOIN COL FITNESS CTR	14138-8	8.00	5.6	67		2860	3485	3673
11/25/2006	BOWDOIN COL. FITNESS CTR	14138-9	7.00	6.8	63		3150	3790	3730
1/6/2009	HANNAFORD GRAY	845-1	4.50	4.8	65	36	4110	4935	4070
1/9/2009	HANNAFORD-GRAY	948-2	4.00	5.5	64	20	3120	3575	4100
1/9/2000	HANNAFORD-GRAY	948-3	6.50	6.0	56	25	3730	4130	4213
1/9/2009	HANNAFORD GRAY	946-4	4.75	5.5	58	26	3200	3940	3882
1/13/2009	HANNAFORD GRAY	946-5	4.00	5.2	72	29	3440	3820	3953
1/14/2009	HANNAFORD-GRAY	946-6	3.50	5.0	63	# 18	4390	5015	4258
1/19/2009	HANNAFORD GRAY	946-7	4.00	4.5	76	31	3760	4115	4817
1/21/2009	HANNAFORD-GRAY	945-8	5.00	5.0	54		4060		
to at the contract of	HANKAFORD-GRAY					31		4485	4538
1/22/2009		846-9	5,25	5.0	50	32	3880	4870	4490
1/23/2009	HANNAFORO-GRAY	946-10	6,00	5.0	50	22	3390	4060	4472
1/27/2009	HANNAFORD-GRAY	946-12	4.50	8.2	80	31	3570	4420	4450
1/30/2009	HANNAFORD-GRAY	946-13	5.00	4.5	58	31	3680	4470	4300
2/2/2009	HANNAFORD-GRAY	946-14	5.50	6.3	75	40	3220	3555	4132
1/26/009	HANNAFORD-GRAY	B49-11	6,00	5.4	58	26	4040	4925	4300
				,					
COUNT		122	115	110	119	37	122	1999	115
in alanha sir		- Mills	z (G	· jost spilot		1955	* W.B.	122	1 10
RANGE:		LOW	3.00	3.5	50	8	1980	2930	3398
A Septiment		HIGH	8.50	8.5	87	83	4780	5920	530B
		Y PARTIES	W. 1310	44,44	97	riest's	48.64	inage	D-STATES
AVERAGE O	F ALLE:		5.22	5.9	87	33	3305	4135	4135
STANDARD			1.1	0.9	8.8	11.8	513	564	443
	T OF VARIATION:		20.8	15.0	13.1	35.3	15.5	13.6	19.7
					"				.,

AC: 214 SUMMARY:

AVERAGE STRENGTH:
AVERAGE STRENGTH BASED ON:
STANDARD DEVIATION:
OVERALL COEFFICIENT OF VARIATION:
WITHIN-TEST STANDARD DEVIATION:
WITHIN-TEST COEFFICIENT OF VARIATION:
BATCH-TO-BATCH STANDARD DEVIATION:
RECOMMENDED STRENGTH:

4135 PSI 122 TESTS 564 PSI 13.6 % 145 PSI 3.5 % 545 PSI 3814 PSI

CONTROL IS GOOD

CONTROL IS VERY GOOD





82 Goldthwaite Road • P.O. Box 1747 • Auburn, Maine 04210 93 Scott Drive • Westbrook, Maine 04092 50 Arthur Rene Road • West Bath, Maine 04530 Phone: (207) 777-7100 • Fax: (207) 777-7171 Phone: (207) 780-0523 • Fax: (207) 780-1521 Phone: (207) 386-5100 • Fax: (207) 386-5151

PORTLAND BUILDERS

CRESCENT HEIGHTS HOUSING
25 CRESCENT STREET — PORTLAND, MAINE

3000PSI - Non-Air Entrained, ¾" Crushed Stone

INTERIOR SLABS ON GRADE & ELEVATED SLABS

6/11/2009

1 6/	11/2009				
emer &			Weight-SSD (lbs)	Volume (Cu.Ft.)	Sources
CEMENT GGBPS (N	, T 1/II IEWCEM)	ASTM C-150 ASTM C989, Grade 120	362 155	1.84 0.84	DRAGON PRODUCTS COMPANY LAFARGE
COARSE FINE AG	AGG GREGATE	ASTM C-33: #57/#67 ASTM C-33	1750 1440	10.58 8.84	PIKE INDUSTRIES PORTLAND SAND & GRAVEL
WATER	U.S. GAL/CY:	33.6	280	4.49	CITY OF WESTBROOK
, year		AIR CONTENT (%):	2.0 +/- 1.5%	0.54	
	WA	TER/CEMENT RATIO: SLUMP (Inches):	0.54 4.00	±1.00° 7.00° ±	1 00" (After Superplasticizer**)
		AIELD	141.2 PCF	27.1 Cu.Ft.	
GLENIU! GLENIU	arrant (Maga	ASTM C494, TYPE A.F for MIDRANGE application	3.50 oz/cwt	12.7 US 07/CY	BASE/MASTER BUILDERS
<u>OPTION</u> POLYME POZZOL POZZUT	SH ITH 100XR	ASTM C-1116 TYPE III ASTM C-494, Type B,D ASTM C-494, Type C,B	1.5 lbs/cy 2.00 oz/cwt 10.00 oz/cwt	0.0 USoz/CY 0.0 USoz/CY	

*GLENIUM 7500 meets the requirements of ASTM C494 for Type A (water-reducing) and Type F (high-range water-reducing).

Plant or site addition of 2 - 3 fl.oz./cwt (9.6 - 14.4 fl.oz./cy) will be required to achieve end slump indicated.

MIX IDENTIFICATION #: DESIGN STRENGTH:

3000 PSI @ 28 DAYS



PROJECT: CONTRACTOR: W/C: 0.54 MAX, C.A.: 3/4"

		Clair.	·			RATURE	7	28	MOVING
DATE	PROJECT	(D#	SLUMP	% AIR	CONC	AIR	DAY	DAY	AVG, OF 3
1/24/08	84 MARGINAL WAY	765-65	5.50	2.6	68	25	3380	3855	
1/24/08	84 MARGINAL WAY	765-66	6.50	Man Gr	63	25 25	2740	3980	
1/24/08	84 MARGINAL WAY	765-67	6.50	2.1	60	25 25	3400	4360	4065
1/24/08	84 MARGINAL WAY	765-68	5.00	2.5	60	28	3520	4105	4148
Alternative Control of State Co.	1 1 2 1 44 1 1	765-69	6.75	3.3	50	29	3480	4105	4190
1/24/08	84 MARGINAL WAY	P					3450		4283
1/24/08	84 MARGINAL WAY	765-70	6.75	2,9	50 77	28		4640	
1/31/08	84 MARGINAL WAY	765-71	6.25	2.0		20	3660	3810	4185
1/31/08	84 MARGINAL WAY	765-72	6.50	2.0	65	23	2830	3280	3903
1/31/08	84 MARGINAL WAY	765-73	6.75	2.6	61	25	3710	4000	3690
1/31/08	84 MARGINAL WAY	765-74	6.50	2.2	61	31	3290	3840	3700
1/31/08	84 MARGINAL WAY	765-75	8.75	2.2	55	33	3040	4000	3947
2/8/08	84 MARGINAL WAY	765-76	7.00	2.7	58	23	2920	3560	3800
2/8/08	84 MARGINAL WAY	765-77	7.00	2.5	52	20	2580	3495	3665
2/8/06	84 MARGINAL WAY	765-78	6.50	2.5	48	28	3360	3900	3652
2/8/08	84 MARGINAL WAY	765-79	7.00	2.5	47	22	2600	3505	3633
2/8/08	84 MARGINAL WAY	765-80	6.50	2.5	40	22	3470	4095	3833
2/29/08	84 MARGINAL WAY	765-84	6.00	2.5	72	4	3400	4095	3898
2/29/08	84 MARGINAL WAY	765-85	8.75	2.6	48	11	2900	3885	4025
2/29/08	84 MARGINAL WAY	765-86	5,00	2.4	52	25	3290	4165	4048
6/13/08	RESIDENCE INN-AUBURN	14064-17	6.50	3.8	72		2410	3395	3815
6/13/08	RESIDENCE INN-AUBURN	14064-18	8.00	3.9	71		2530	3035	3532
6/13/08	RESIDENCE INN-AUBURN	14064-19	5.75	4.1	73		2820	3385	3272
6/25/08	RESIDENCE INN-AUBURN	14084-23	5.00	4.5	78		3110	3980	3467
6/25/08	RESIDENCE INN-AUBURN	14064-24	5.00	4.8	78		2950	3425	3597
6/25/08	RESIDENCE INN-AUBURN	14084-25	6.00	4.5	75		2940	3830	3745
6/25/08	RESIDENCE INN-AUBURN	14084-28	5.50	4.9	75		3000	3635	3630
6/25/08	RESIDENCE INN-AUBURN	14064-27	5.75	3.9	77		2920	3700	3722
6/25/08	RESIDENCE INN-AUBURN	14064-28	5.50	4.0	75		2680	3495	3610
9/23/08	SL MARYS ER ADDITION	14093-15		1.9	5 8		3690	4160	3785
9/23/08	SL MARYS ER ADDITION	14093-16		1.8	67		3540	4180	3945
9/23/08	SL MARYS ER ADDITION	14093-17		1.8	69		3770	4445	4262
10/30/08	ST: MARY'S MOB	14131-13	47 1.00	2.2	61		2980	4065	4230
10/30/08	ST. MARYS MOB	14131-14		2.4	57		3290	3935	4148
10/30/08	ST. MARY'S MOB	14131-15	13 3 7 45 5	2.0	55		3190	4480	4160
12/3/08	BOWDOIN COL FITNESS CTR	14138-10		3.2	67		3940	4700	4372
12/30/08	ST. MARY'S MOB	14131-16		2.4	63		3320	* 1 - /a.m.	. (1.34.35.14.1
12/30/08	ST. MARY'S MOB	14131-17		2.0	59		3190		
1 Set of the block	And the state of t	i er k erm i r. er.	2:40	ж20-			30° 50° 60°		
COUNT:		39	39	38	39	19	39	35	33
RANGE:	•	LOW	5.00 7.00	1.8 4.9	47 78	4 33	2410 3940	3035 4700	3272 4372
Mark the best of the the Mark	en Abrila		5.04	2.9	63	23	3190	3900	3878
AVERAGE OF	to the transfer of the contract of the contrac		0.6	0.9	9.7	6.5	377	382	266
	FOR THE # 1, 5, 5, 5 P.		10.8	30.7	15.4	27.7	11.8	9.8	6.9
CUEFFILIEN	T OF VARIATION:		10.0	White	I Ailta mg	ACUT LE	11.0	. 42.43	· Mr.

ACI 214 SUMMARY:

AVERAGE STRENGTH:
AVERAGE STRENGTH BASED ON:
STANDARD DEVIATION:
OVERALL COEFFICIENT OF VARIATION:
WITHIN-TEST STANDARD DEVIATION:
WITHIN-TEST COEFFICIENT OF VARIATION:
BATCH-TO-BATCH STANDARD DEVIATION:
RECOMMENDED STRENGTH:

3900 PSI	
35 TESTS	
382 PSI	CONTROLIS EXCELLENT
9.8 %	the state of the s
121 PSI	:
3.1 %	CONTROL IS VERY GOOD
362 PSI	
3512 PSI	





82 Goldthwaite Road • P.O. Box 1747 • Auburn, Maine 04210 93 Scott Drive • Westbrook, Maine 04092 50 Arthur Reno Road • West Bath, Maine 04530 Phone: (207) 777-7100 • Fax: (207) 777-7171 Phone: (207) 780-0523 • Fax: (207) 780-1521 Phone: (207) 386-5100 • Fax: (207) 386-5151

PORTLAND BUILDERS

CRESCENT HEIGHTS HOUSING
25 CRESCENT STREET — PORTLAND, MAINE

4500PSI - Air Entrained, 3/4" Crushed Stone

EXTERIOR SLABS & ALL OTHER EXPOSED CONCRETE NOT SPECIFIED ELSEWHERE

6/11/2009						
product in the control of the contro		Weight-SSID (Ibs)	Volume (Cu.Pt.)	Sources		
CEMENT, T I/II GGBP3 (NEWCEM)	ASTM C-150 ASTM C989, Grade 120	460 200	2.34 1.08	DRAGON PRODUCTS COMPAN) LAFARGE		
COARSE AGG FINE AGGREGATE	ASTM C-33: #57/#67 ASTM C-33	1800 1100	10.89 6.75	PIKE INDUSTRIES PORTLAND SAND & GRAVEL		
WATER US GAL/C)	33.6	280	4.49	CITY OF WESTBROOK		
· · · · · · · · · · · · · · · · · · ·	AIR CONTENT (%):	6.0 +/- 1.5%	1.63			
W	ATER/CEMENT RATIO: SLUMP (Inches):	0.61 3.00				
	YIELD:	134.0 PCF	27.2 Cu.Ft.			
GLENIUM 7500 MICRO AIR	ASTM C494, TYPE A,F ASTM C-260	3.00 oz/cwt 0.25 oz/cwt	13.8 US 02/CY 1.2 US 02/CY	and the control of th		
OPTIONAL: POZZOLITH 100XR POZZUTEC 20+ RHEOCRETE CNI	ASTM C-494, Type B,D ASTM C-494, Type C,E ASTM C-494, Type C,E	2.00 oz/cwt 10.00 oz/cwt 3.00 gal/cy	0.0 US oz/CY	보는 사람들은 사람들이 어느리를 받아 있다. 수 생각을 보고 보는 것이다.		

GLENIUM 7500 meets the requirements of ASTM C494 for Type A (water-reducing) and Type F (high-range water-reducing).
Plant of site addition of 2 - 3 fl.oz./cwt (13.2 - 19.7 fl.oz./cy) will be required to achieve end slump indicated.

-----WWW.AUDOTACOTETETECOTA

MIX IDENTIFICATION #: DESIGN STRENGTH:

Bereinsteinschaft, is ein in Geriff -

4034SA 4000 PSI 9 28 DAYS



PROJECT: CONTRACTOR:

mark a mark

MUST MEET 4500 PSI MIX W/C: 0.45

MAX. C.A.: 3/4*

DESIGN STRENGTH

		:			TEMPER	ATURE	7	28	MOVING
DATE	PROJECT	ID#	SLUMP	% AIR	CONC	AIR	DAY	DAY	AVG OF 3
10/22/2007	SCARBOROUGH GATEWAY	810-1	6.50	5.0	64	52	4250	5760	
10/23/2007	SCARBOROUGH GATEWAY	810-2	6.50	4.2	69	68	4300	5730	
10/26/2007	SCARBOROUGH GATEWAY	8103	6.00	4.6	66	52	4210	5540	5710
10/29/2007	SCARBOROUGH GATEWAY	810-4	7.00	4.0	57	48	4250	5575	5648
10/31/2007	SCARBOROUGH GATEWAY	810-5	7.50	3.7	61	80	5010	6235	5817
11/5/2007	SCARBOROUGH GATEWAY	810-8	6.50	5.1	54	41	4100	5145	5652
11/7/2007	SCARBOROUGH GATEWAY	810-9	7.00	5.3	61	43	4230	4965	5448
11/9/2007	SCARBOROUGH GATEWAY	81040	7.80	5.7	61	40	4460	5440	5183
11/12/2007	SCARBOROUGH GATEWAY	810-11	7.00	5.3	68	29	3890	4545	4983
11/19/2007	SCARBOROUGH GATEWAY	810-15	6.00	5.8	59	34	4320	5190	5058
11/26/2007	SCARBOROUGH GATEWAY	81048	4.60	5.0	65	40	4490	4915	4883
11/26/2007	SCARBOROUGH GATEWAY	810-19	6.25	5.0	62	38	4580	5835	5313
12/5/2007	SCARBOROUGH GATEWAY	810-23	6.75	6.6	54	25	5060	6545	5432
12/8/2007	SCARBOROUGH CATEWAY	810-24	6.50	4.5	54	25	4660	5110	5497
12/10/2007	SCARBOROUGH GATEWAY	810-25	6.25	6.1	58	24	4100	5090	5236
12/11/2007	SCARBOROUGH GATEWAY	810-26	5.50	5.4	56	25	3480	4210	4790
12/12/2007	SCARBOROUGH GATEWAY	810-27	8.00	5.6	68	25	4700	5870	5043
12/13/2007	SCARBONOUGH GATEWAY	810-29	5.50	6.2	59	30	3570	5525	5202
12/14/2007	SCARBOROUGH GATEWAY	810-28	5.5G	6.3	58	25	2360	4595	5330
1/4/2008	SCARBOROUGH GATEWAY	810-84	4.00	5.2	60	35	3290	4935	4818
1/7/2008	SCARBOROUGH GATEWAY	810-35	5.50	5.9	60	38	2830	4280	4403
3/27/2008	CABELAS	4992-82	5.00	5.6	69	- water	3730	4530	4382
3/27/2008	CABELAS	4992-83	5.50	5.1	67		3950	4865	4558
4/2/2008	CABELAS	4992-86	5.00	5.4	67		4010	4355	4583
4/3/2008	CABELAS	499248	6.00	5.8	54		3510	4065	4428
4/8/2008	CABELAS	4992-90	5,50	5.6	56		3830	4455	4292
4/9/2008	CABELAS	4592-91	5.00	5.8	56		4200	4950	4490
4/10/2008	CABELAS	4092-92	6.00	5.8	69		3790	4560	4655
4/11/2008	CABELAS	4992-93	5.50	6.7	58		3280	4145	4552
6/6/2008	RESIDENCE INN-AUBURN	14064-14	4.25	6.0	67		4090	4655	4453
6/12/2008	RESIDENCE INN-AUBURN	14064-15	5.00	5.6	78		4370	5195	4665
7/22/2008	A/L AIRPORT HANGAR	14091-1	4.00	5.8	85		4000	4635	4828
8/4/2008	A/L AIRPORT HANGAR	14091-2	4.25	7.4	84		3830	4460	4763
8/5/2008	A/L AIRPORT HANGAR	14091-3	4.25	5.2	82		4230	5070	4722
8/6/2008	A/L AIRPORT HANGAR	14091-4	4.25	4.6	76		4470	5790	5207
8/11/2008	A/L AIRPORT HANGAR	14091.5	4.50	5.4	77		3770	4450	6103
8/11/2008 8/13/2008	A/L AIRPORT HANGAR A/L AIRPORT HANGAR	14091-6 14091-7	6.50 4.00	5.2 5.6	78 78		3570 4290	4445 4450	4895
8/15/2008	A/L AIRPORT HANGAR	14091-8	6.50	5.0	86		3950	4860	4448 4585
8/16/2008	A/L AIRPORT HANGAR	14091-9	4.00	5.1	87		4120	4710	4673
8/20/2008	A/L AIRPORT HANGAR	14091-10	4.50	6,5	80		4160	5035	4868
8/21/2008	A/L AIRPORT HANGAR	14091-11	4.00	6.3	86		4130	4750	4832
1/15/2009	HANNAFORD-WINTHROP	932-7	5.25	5.6	58	5	3635	4230	4672
1/15/2009	HANNAFORD-WINTHROP	932-8	5.00	5.2	56	8	3400	3845	4275
COUNT:		44	44.	44	44	24	44	44	42
RANGE:		LOW	4.00	3.7	54	5	2830	3845	4275
**		HIGH	7.50	7,4	87	68	5060	6235	5817
AVERAGE OF AL	ite.		5.51	5.4	66	36	4031	4909	4911
STANDARD DEV	·		1.0	0.7	10.3	14.0	456	569	412
COEFFICIENT O			18,7	12.7	15.6	40.4	11.3		8.4
· manager a sansania a pro-	्र पुत्र पर कार वेड्ड डाल्ड स्टब्स्ट ।		· sacta (E MAG. E.	- a alestan-				76F2. 12

ACI 214 SUMMARY:

31

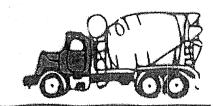
AVERAGE STRENGTH: AVERAGE STRENGTH BASED ON: STANDARD DEVIATION: OVERALL COEFFICIENT OF VARIATION: WITHIN-TEST STANDARD DEVIATION: WITHIN-TEST COEFFICIENT OF VARIATION: BATCH-TO-BATCH STANDARD DEVIATION: RECOMMENDED STRENGTH

4909 PSI 44 TESTS 569 PSI 11.6 % 137 PSI 2.8 % 552 PSI 4826 PSI

RESULTS NO GOOD FOR 4500 MIX PETZ ACI 5.3.2.1

CONTROL IS EXCELLENT





82 Goldthwaite Road * RO. Box 1747 * Auburn, Maine 04210 93 Scott Drive * Westbrook, Maine 04092 50 Arthur Reno Road * West Bath, Maine 04530 Phone: (207) 777-7100 • Fax: (207) 777-7171 Phone: (207) 780-0523 • Fax: (207) 780-1521 Phone: (207) 386-5100 • Fax: (207) 386-5151

PORTLAND BUILDERS

CRESCENT HEIGHTS HOUSING
25 CRESCENT STREET — PORTLAND, MAINE

4500PSI - Air Entrained, 3/4" Crushed Stone

EXTERIOR SLABS & ALL OTHER EXPOSED CONCRETE NOT SPECIFIED ELSEWHERE

7/3/2009	4534SA-LEED

		Weight-SSD (lbs)	Volume (Cu.Ft.)	<u>Sources</u>
CEMENT, T I/II GGBFS (NEWCEM)	ASTM C-150 ASTM C989, Grade 120	460 200	2.34 1.08	DRAGON PRODUCTS COMPANY LAFARGE
ICOARSE AGG FINE AGGREGATE	ASTM C-33: #57/#67 ASTM C-33	1800 1100	10.89 6.75	PIKE INDUSTRIES PORTLAND SAND & GRAVEL
WATER U.S. GAL/CY	33.0	275	4.41	CITY OF WESTBROOK
1	AIR CONTENT (%):	6.0 +/- 1.5%	1.63	
W	ATER/CEMENT RATIO: SLUMP (Inches):	0.42 4.00	±1.00° 7	7.00" ± 1.00" (After Superplasticizer*)
	YIELD:	141.6 PCF	27.1 Cu.Ft.	
GLENIUM 7500 MICRO AIR	ASTM C494, TYPE A,F ASTM C-260	3.00 oz/cwt 0.25 oz/cwt	19.8 US oz/C 1.7 US oz/C	·
OPTIONAL: POZZOLITH 100XR POZZUTEC 20+ RHEOCRETE CNI	ASTM C-494, Type B,D ASTM C-494, Type C,E ASTM C-494, Type C,E	2.00 oz/cwt 10.00 oz/cwt	13.2 US oz/C 66.0 US oz/C 3.0 US gal/c	BASF/MASTER BUILDERS

SILENIUM 7500 meets the requirements of ASTM C494 for Type A (water-reducing) and Type F (high-range water -reducing).
Plant of site addition of 2 - 3 fl.oz./cwt (13.2 - 19.8 fl.oz./cy) will be required to achieve end slump indicated.

MIX IDEN FICATION #: DESIGN STRENGTH:

45345A-LEED 4500 PSI @ 28 DAYS



PROJECT: CONTRACTOR:

W/C: 0.42 MAX, C.A.: 3/4" 7/3/2009 9:11

					TEMPER	ATURE	7	28	MOVING
DATE	PROJECT	ID#	SLUMP	% AIR	CONC	AIR	DAY	DAY	AVG, OF 3
5/3/2007	MTA-Congress St.	4901-2	7.75	4.9	65		5190	6080	
5/3/2007	MTA-Congress St.	4901-3	7.75	4.7	6 6 .		4840	6245	
5/11/2007	LLB Hunting & Fishing	749-1	6.50	6.3	69	75	4650		
5/11/2007	LLB Hunting & Fishing	749-2	5.25	5.9	64	55	4780		
5/16/2007	MTA-Congress St.	4901-4	6.00	5.6	69		5120	6560	6295
5/22/2007	LLB Hunling & Fishing	749-4	6.75	6.3	73	68	4000	4880	5895
5/22/2007	LLB Hunting & Fishing	749-5	5.00	5.3	60	60	4480		
5/22/2007	LLB Hunting & Fishing	749-6	6.50	6.2	69	70	4810		
5/23/2007	MTA-Congress St.	4901-5	7.50	8.1	61		3745	4885	5442
5/24/2007	MTA-Congress St.	4901-6	4.50	4.2	70		5070	6445	5403
5/24/2007	LLB Hunting & Fishing	749-7	6.50	5.0	69	70	3630		and the state of
5/25/2007	MTA-Congress St.	4901-7	8.00	5.6	72		3980	5675	5668
5/30/2007		749-8	7.75	4.0	75	73	5020		***
5/31/2007	MTA-Congress St.	4901-8	9.00	5.4	68		4560	5925	6015
6/5/2007	MTA-Congress St.	4901-9	4.50	5.2	70		4620	6400	6000
6/6/2007	MTA-Congress St	4901-10	7.50	5.1	70		4800	6205	6177
6/8/2007	MTA-Congress St.	4901-11	8.00	6.0	72		5280	5670	6092
6/8/2007	MTA-Congress St.	4901-12	7.00	4.1	69		5930	6655	6177
6/13/2007	MTA-Congress St.	4901-13	7.00	6.0	72		4480	5950	6092
6/20/2007	MTA-Congress St.	4901-14	5.50	5.3	80		4950	6190	6265
6/21/2007		4901-15	7.75	5.8	75		4890	6065	6068
6/27/2007		4901-16	7.50	5.4	80		4540	5545	5933
6/28/2007		4901-17	8,00	5.4	82		4500	5315	5642
7/2/2007	MTA-Congress St.	4901-18	6,00	5.2	82		5040	5710	5523
7/3/2007	MTA-Congress St.	4901-19	7.00	5,5	75		5050	6180	5735
7/10/2007	. "	4901-20	7.50	6.6	72		4450	5715	5866
7/17/2007		4901-21	4.50	4.8	83		5280	5645	5847
7/24/2007		4901-22	6.75	5.4	78		4280	5345	5568 5787
8/15/2007		4901-23	6.25	6.6	73		5010	6370	5767 5927
8/21/200		4901-24	5.50	5.0	78		5790	6065	6273
8/23/200	A.	4901-25	6.75	6.2	76		4940	6385	6150
8/24/200	7 MTA-Congress St.	4901-26	6.75	5.8	75		4730	6000	6140
9/4/2007		4901-27	6.00	6.0	74		5080	6035	0140
9/14/200		4901-28	7.50	4.5	. 77		5690		
9/18/200	7 MTA-Congress St.	4901-29	5.25	6.2	72		4680 4500		
9/19/200	7 MTA-Congress St.	4901-30	4.00	5.8	76		4500 5290		
9/21/200	7 MTA-Congress St.	4901-31	7.50	5.5	73		52.80		
COUNT:		37	37	37	37	8	37	27	25
		1011	4.00	4.0	60	55	3630	4880	5403
RANGE:		LOW HIGH	4.00 9.00	8.1	83	75	5930	6655	6295
				5.5	73	67	4802	5931	5919
	SE OF ALL:		6.61	0.8	5,4	6.7	498	454	260
	ARD DEVIATION: CIENT OF VARIATION:		1.2 18.0	14.1	7.5	9.9	10.4	7.7	4.4

ACI 214 SUMMARY:

AVERAGE STRENGTH:
AVERAGE STRENGTH BASED ON:
STANDARD DEVIATION:
OVERALL COEFFICIENT OF VARIATION:
WITHIN-TEST STANDARD DEVIATION:
WITHIN-TEST COEFFICIENT OF VARIATION:
BATCH-TO-BATCH STANDARD DEVIATION:
RECOMMENDED STRENGTH:

5931 PSI
27 TESTS
454 PSI CONTROL IS VERY GOOD
7.7 %
160 PSI
2.7 % CONTROL IS EXCELLENT
425 PSI
5108 PSI



P.O. Box 191, U.S. Floute 1 • Thomaston, Maine 04861 • 207-594-5555

MILL TEST RESULTS
Laboratory at Thomaston, Maine

Date: May, 2009 Cement Type: 1/II

CHEMICAL DATA	Percent	PHYSICAL DATA
Silicon Dioxíde	19.8	Specific Surface
Aluminum Dioxide	4.0	(Per ASTM C 204)
Ferric Oxide	3.1	Percent Passing 325 Mesh. 96.8 (Per ASTM C 430)
Calcium Oxide	61.7	Compressive Strength (psi) (Per ASTM C 109)
		1 day 2270
Magnesium Oxide	3.5	3 day 3910
Sulphur Trioxide	3.7	7 day 4980 28 day Vicat Setting Time
Loss on Ignition	1.4	(Per ASTM C 191)
Insoluble Residue	0.3	Initial (min.)
Tricalcium Silicate	59	Air Content (%) 6.9 (Per ASTM C 185)
Dicalcium Silicate	12	Autoclave Expansion (%) 0.09 (Per ASTM C 151)
Tricalcium Aluminate	5	Expansion in water (%) 0.013 (Per ASTM C 1038)
Sum of C3S + 4.75*C3A	85	Heat of Hydration (%) 80 (Per ASTM C186)
Sodium Oxide	0.7	Certified by:
Potassium Oxide	1.0	Innila K Colbura
Equivalent Alkalies(Chemical Analysis all per ASTM	1.4 C 114)	Jennifer K. Colburn

We hereby certify that this cement complies with current ASTM C 150, AASHTO M-85 and CSA A3001 Type GU specifications.



Newcem

Mill Test Certificate - Sparrows Point Plant

Chemical	Physical						
Sulfide Sulfur (S), %: 1.1 2.5 max.	Slag Activity Inde	• x. %: 112	Specification 95				
Sulfate ion (as SO ₃), %: 2.7 4.0 max.	28 Day	133	115				
G.I. TW. HIGA.	Compressive Str	ength, psi:	;· · .				
Equivalent Alkalies, %:	7 Day	5,120	n/a				
0.55 n/a	28 Day	7,083	n/a				
Certification: (NSF.)	<u>Fineness:</u> Blaine; cm²/g	5,315	n/a				
LEFÄREI 8:	45 Micron: % retained	2	20 max.				
Sample Identification NewCern shipping composite sample results for the month of :	Other: Air Content, %	3	12 max.				
April-09	Specific Gravity:	2.93	n/a				

This ground granulated blast furnace slag complies with the current specification of the chemical and physical requirements of ASTM C-989, AASHTO M-302; Grade 120. NewCem is guaranteed to meet all applicable MDOT, FDOT, GADOT, PennDOT, SCDOT, NJDOT, NY DOT and VADH specifications.

Date

Lafarge North America US East Region Sparrows Point Plant 2001 Wharf Rd, Baltimore, MD 21219 Telephone: (410) 388-1177 x202

Thomas R. Griffiths	
Quality Control Manager	,
5/8/2009	



--- 2008 - 2009 GRADATION SUMMARY ---

Concrete Sand

Source: Portland Sand & Gravel - Gray, Maine

	Spec	afic Gravity:	2.63	٠.	Absorption:	0.67%	Tested by: Summit Labs 4/24/08				
	•	FM	Color	3/8"	#4	#8	#16	#30	#50	#100	#200
7/1/2008	RD-PSG	2.49		100	98	92	79	56	22	5	1.1
7/10/2008	RD-W	2.71	<1	100	97	90	72	46	19	5	1.2
7/16/2008	RD-PSG	2.71		100	97	90	75	46	17	4 5	0.9
7/21/2008	RD-A	2.54	<1	100	98	92	77	53	21	5	1.1
7/30/2008	RD-A	2.45	11	100	98	93	80	56	23	5	1.1
7/31/2008	JC-W	2.70		100	97	91	76	48	15	4	0.8
8/13/2008	AD-A	2.57		100	-97	89	74	53	24	6	1.3
8/21/2008	RO-WB	2.79		100	97	89	72	44	15	4	0.9
9/3/2008	RD-W	2.64	~1	100	96	90	75	50	20	5	1.2
9/25/2008	HD-A	2.65	<1	100	98	92	76	48	18	4	0.9
9/29/2008	RD-A	2.65		100	98	93	77	49	15	3	0.8
10/9/2008	FID-WB	2.75		100	97	90	74.	46	15	3	0.7
11/7/2008	MD-WID	2.83	< \$	100	98	93	75	40	10	1	0.3
11/13/2008	RD-WB	2.72		100	97	91	75	47	15	3	0.5
12/8/2008	RD-WB	2.74		100	98	93	77	45	13	3 2 5	0.4
1/6/2009	RD-P5G	2.63	<1	100	99	90	73	49	21	5	0.8
2/17/2009	RD-W8	2.71	9.0	100	98	90	72	47	19	4	0.8
2/26/2009	RD-WB	2.71		100	98	90	72	47	19	4	0.9
2/27/2009	MOOT	2.70		100	98	90	74	46	19	5	1.4
3/2/2009	RD-WB	2.69	<1	100	98	90	73	47	19	4	0.9
3/6/2009	RD-WB	2.62	1 121	100	99	91	74	49	20	5	1.0
3/27/2009	RD-WB	2.72		100	99	89	71	45	19	5 5	0.8
4/3/2009	RD-WB	2.71		100	98	90	72	46	19	4	0.7
4/6/2009	RO WB	2.75		100	98	89	71	44	18	4	0.6
4/16/2009	RD-PSG	2.67		100	98	91	75	48	18	4	0.8
4/20/2009	RD-W	2.70	<1	100	98	91	75	46	16	3	0.7
5/4/2009	RD-WB	2.88		100	97	90	72	39	11	2	0.6
5/5/2009	RD-WB	2.58		100	97	91	77	51	20	4	0.8
5/9/2009	RD-A	2.82	<1	100	98	92	72	42	13.	:2	0.5
5/14/2009	RD-P8G	2.74		100	98	92	75	45	14	2	0.8
5/18/2009	RD-W	2.72		100	98	91	75	46	15	3	0.6
5/28/2009	RD-A	2.49		100	98	93	80	54	22	3	0.8
6/1/2009	RO-WB	2.66	<1	100	98	91	74	47	19	S	1.1
		8,18,03		weil or		1202 120	ر. الدافائية	eren er	at the con-	n:#	Januaria
AVERAGE		2.68		100.0	97.8	90.9	74.6	47.4	17.7	3.9	0.8
SPECIFICA	TION:	2.3 - 3.1		100	95-100	80-100	50-85	25-60	10-30	2-10	<3



--- 2008 - 2009 GRADATION SUMMARY ---

ganter and party to the second of the second

3/4" Quarry Stone

*** 3 **

Course the contract of the ext.

Source:	K & K Excavation	- Christian Hill	Quarry, Auburn, Maine
			that a constant with the

	Specific Gravity:	2.66	Á	bsorption:	0.70%		Tested by:	SWC 9/27/08		
8/12/2008	KBK	100	100	97	46	21	6	3	0.6	
8/13/2008	RD-A	100	100	94	42	21	8	3	0.7	
8/14/2008	KSK	100	100	98	60	28			0.6	
44,4	Kak	100	100	92	45	20	95588995	3 2 2	0.5	
8/18/2008		100	100	98	47	24	5	2	0.3	
8/19/2008	Kek	100	100	97	55	32	8	3	0.4	
8/20/2008	RD-W8	100	100	92	51	32	8	3	0.7	
8/22/2008	KAK	100	100	94	53	27	es :	3 3	0.7	
8/25/2008	KEK	100	100	94	54	31	õ	4	0.7	
9/3/2008	RD-W		100	96	53	32	Ğ	4	0.2	
9/25/2008	FED-A	100		94		22		2	0.6	
9/26/2008	KEK	100	100		44 44	23		4	0.6	
9/29/2008	RD-A	100	100	93		29	8	77. 72.	0.5	
10/1/2008	KBK	100	100	94	57		3	3 2 3 2	0.5	
10/2/2008	Kek	100	100	91	50	24	6	±€:	0.6	
10/9/2008	BW-QR	100	100	91	42	22	4	42 26	0.4	
10/15/2008	KEK	100	100	92	48	22	44	٤.	0.6	
11/6/2008	Kak	100	100	91	52	31	8	3		
11/7/2008	RD-WB	100	100	90	45	24	6	3 5 2 5	1.0	W
12/8/2008	RD-WB	100	100	90	49	30	10	D.	0.4	
1/8/2009	RD-A	100	100	91	46	22	4	4	0.3	A. a.c
2/17/2009	FID-WB	100	100	90	37	20	7	9	1.1	**
2/26/2009	RO-WE	100	100	90	40	20	6	3	0.5	
2/27/2009	MOOT	100	100	95	62	28	9	4		
2/27/2009	MOOT	100	100	92	47	28	7	4		
3/2/2009	RD-W8	100	100	90	43	21	7	- .	0.7	
3/12/2009	RD-WB	100	100	91	48	26	Ÿ	4	0.6	
3/27/2009	RO-WB	100	100	92	46	27	9	5	0.8	
4/3/2009	ECT-WE	100	100	90	45	25	10	4 4 5 5	0.9	,
4/8/2009	RD-WB	100	100	89	47	28	10	5	0.9	**
4/17/2009	RD-CHO	100	100	91	41	21	6	4	0.6	
4/20/2009	RO-A	100	100	90	37	21	7	5	1.0	
5/5/2009	RD-WB	100	100	95	52	28	7	5 2 4 5	0.6	
5/5/2009	Kek	100	100	95	58	31	7	2		
5/9/2009	ROA	100	100	98	59	34	9	4	0.7	
5/13/2009	KEK	100	100	98	51	29	9		0.9	
5/14/2009	RO-CHG	100	100	97	45	21	8	4	0.4	
5/19/2009	RDA	100	100	95	45	20	7	4	0.8	
5/28/2009	RD CHO	100	100	94	49	23	8	5	0.9	
6/1/2009	4.7 4 4.9	100	100	94	55	29	9	5	1.5	₩.
DUIYZUUS	RD-A	100	ı via.		i i i i i i i i i i i i i i i i i i i		-			
AVERAGE		100.0	100.0	93.5	48.2	25.6	7.4	3.7	0.7	
The first fact from a flower force, Mr.	TION: #57	100	95-100		25.40	مهرشوش فيسقد	0-10	4. 0	点	
SPECIFICA	On the San and an	6 %AAA		and and an armount	3.20 S. 12 13	20-55	0-10	0-5	<1.5	
ASTM C3	3 #67		100	90-100	artis poor	£0-00	U-1U	A.A.	~ 1.50°	



Concrete Construction Observation Report

Project Name/Location:	Crescent Heights Apart	ments	·		Project No:	08-0744.1
Client/Client's Rep.:	Crescent Heights, LLC.	/Kevin Bunk	ker		Date:	07/11/09
Concrete Contractor:	Portland Builders				Sheet:	1 of 1
Placement Location:	Line A Spread Footings				SWCE Rep.:	SJC
Placement Type:	Footing Mall Co	olumn 🔲 S	lab 🔲 Oth	er 🗌	Arrived at Site	7:30 AM
••					Left Site:	9:00 AM
PDE DI ACEM	ENT OBSERVATIONS		In Com	olianca	N/O	Comments
Bar Size (diameter, length, be	ENT OBSERVATIONS		iii Coiiii Yes □	No 🗌	<u>N/O</u> -	Inspected By Becker
Location (# of bars, spacing, a			Yes 🗀	No 🗆		
Splicing (weld joint, overlap)	and dovon)		Yes 🗆	No 🗆		
Stability (wiring, chairs, and s	nacere)		Yes 🔲	No 🗆		
Reinforcement free from mud		ic coatings	Yes 🗌	No 🗆		
Reinforcement appears in col		io oodanigo	Yes 🗆	No 🗆		
Soil subgrade prepared in acc		cations	Yes 🗌	No 🗆		Previously Inspected
Referenced Drawings		Date	Page	Rev.	ASTM	GRADE
					A 615 □	40 🔲 50 🔲 60 🗍
					A 616 🗆	75 🗌
	AAAAA				A 617 □	
					A 706 🗆	A 775 Epoxy 🗌
CONCRETE PLA	CEMENT OBSERVATION	<u>vs</u>	In Com	pliance	N/O	Comments
Required mix used			Yes 🗵			3000 psi, 3/4" agg.
Placement and consolidation	of concrete observed		Yes 🛚			
Concrete properly conveyed	to all areas of placement		Yes 🖾			
Depth of layer maximum limit			Yes 🛚			
Internal vibration (depth of in no conveyance of concrete b	sertion, spacing, time, vertic v vibration)	al insertion,	Yes 🖾			
Even layering around openin	=		Yes 🛛		<u> </u>	
Removal of temporary ties ar			Yes ⊠			None used
	F CONCRETE PERFORM	MED	Yes 🗵	No [
*CYLINDER SET NO:	982-1			to assoc	ciated concrete	test report
POST PLACE	MENT OBSERVATIONS		In Com	pliance	<u>N/O</u>	Comments
Specified finish			Yes 🖾			Trowel
Protection of surfaces from o			Yes 🔲			
Proper curing procedures im			Yes 🗌		×	
	IANCE ITEMS OBSERVE	D	Yes 🗌	No ⊠		
Non-Conformance Item Des	cription:					
Action Taken by SWCE:						
Person(s) Notified:					•	
N/O = Not Observed Notes:						
Slump – 6", Air – 7.0%, Tem	p – 71 F					
Attachments: None	,		R	eviewed	By: RED	

P:\2008\08-0744.1 M - Crescent Heights, LLC - Portland, ME - Crescent Heights Apartments - RED\DFR's\Concrete 7-11-09.doc

Attachments: None



ASTM C-31 & C-39

Project Name: PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS -

Project Number:

08-0744.1

MATERIALS TESTING

Client Contract Number:

Client:

CRESCENT HEIGHTS, LLC

Concrete

General Contractor:

Supplier: AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast:

7/11/2009 Placement Location: SPREAD FOOTINGS ON A LINE

Time Cast: 7:55

Date Received:

7/13/2009

Placement Method:

PUMP (NE)

Placement Vol. (yd3): 9

Cylinders Made By: SJC

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

DELIVERY INFORMATION

Admixtures:

GLENIUM

Minimum (°F)

Maximum (°F)

TEST RESULTS

Slump (in) (C-143):

Slump WR:

Load Number:

1

Air Content (%) (C-231):

Mixer Number:

99

Air WR:

7.0

6

Ticket Number:

152466

Air Temp (°F):

60

Cubic Yards:

9

Conc. Temp (°F) (C-1064):

71

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)
982-1A		4.00	12.57	7/18/2009	Lab	7	4	38.0	3020
982-1B		4.00	12.57	8/8/2009	Lab	28	4	50.4	4010
982-1C		4.00	12.57	8/8/2009	Lab	28	4	49.6	3950
982-1D				Hold	Lab				



Cone and Split

Fracture Types Cone and Shear

Remarks:



Concrete Construction Observation Report

Project Name/Location:	Crescent Heights Apartments		P	Project No: 08-0744.1			
Client/Client's Rep.:	Crescent Heights, LLC./Kevin	Bunker	D	ate:	07/14/09		
Concrete Contractor:	Portland Builders		S	heet:	1 of 1		
Placement Location:	Line A Piers, Elevations 92 - 9	9.6	S	WCE Rep.:	SJC		
Placement Type:	Footing Wall Column	⊠ Slab □ Ot	ner 🔲 🛚 A	rrived at Sit	e: 1:40 PM		
			L	eft Site:	3:00 PM		
PRE PLACEM	ENT OBSERVATIONS	<u>In Com</u>	pliance	N/O	Comments		
Bar Size (diameter, length, be	nd and anchorage)	Yes 🗌	No 🗌	\boxtimes	Inspected By Becker		
Location (# of bars, spacing, a	and cover)	Yes 🗌	No 🗌				
Splicing (weld joint, overlap)		Yes 🗌	No 🗌		<u> </u>		
Stability (wiring, chairs, and sp	pacers)	Yes 🗌	No 🗌				
Reinforcement free from mud	oil, rust, or other nonmetallic coati	ngs Yes 🗌	No 🔲				
Reinforcement appears in cor	formance to specifications	Yes 🗌	No 🗌				
Soil subgrade prepared in acc	ordance with project specifications	Yes 🗌	No 🗌				
Referenced Drawings	Da	te Page	Rev.	ASTM	GRADE		
				A 615 🗌	40 🔲 50 🗍 60 🗍		
				A 616 🔲	75 🗌		
				A 617			
		İ		A 706 🗆	А 775 Ероху 🗌		
	,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,,						
	CEMENT OBSERVATIONS		pliance	N/O	<u>Comments</u>		
Required mix used		Yes 🛛			Comments 3000 psi, ¾" agg.		
Required mix used Placement and consolidation	of concrete observed	Yes ⊠ Yes ⊠					
Required mix used Placement and consolidation Concrete properly conveyed t	of concrete observed o all areas of placement	Yes ⊠ Yes ⊠ Yes ⊠					
Required mix used Placement and consolidation Concrete properly conveyed t Depth of layer maximum limits	of concrete observed o all areas of placement s not exceeded	Yes 🖂 Yes 🖂 Yes 🖂 Yes 🖂					
Required mix used Placement and consolidation Concrete properly conveyed t Depth of layer maximum limits	of concrete observed o all areas of placement s not exceeded sertion, spacing, time, vertical inser	Yes 🖂 Yes 🖂 Yes 🖂 Yes 🖂					
Required mix used Placement and consolidation Concrete properly conveyed t Depth of layer maximum limits Internal vibration (depth of ins	of concrete observed o all areas of placement s not exceeded sertion, spacing, time, vertical inser v vibration)	Yes ⊠ Yes ⊠ Yes ⊠ Yes ⊠					
Required mix used Placement and consolidation Concrete properly conveyed t Depth of layer maximum limits Internal vibration (depth of ins no conveyance of concrete by	of concrete observed o all areas of placement s not exceeded sertion, spacing, time, vertical inser v vibration) gs and embedments	Yes 🖂 Yes 🖂 Yes 🖂 Yes 🖂 Yes 🖂 tion, Yes 🖂					
Required mix used Placement and consolidation Concrete properly conveyed t Depth of layer maximum limits Internal vibration (depth of ins no conveyance of concrete by Even layering around opening Removal of temporary ties an	of concrete observed o all areas of placement s not exceeded sertion, spacing, time, vertical inser v vibration) gs and embedments	Yes \(\text{Yes} \) Yes \(\text{Yes} \) Yes \(\text{Yes} \) tion, Yes \(\text{Yes} \) Yes \(\text{Yes} \)			3000 psi, 3/4" agg.		
Required mix used Placement and consolidation Concrete properly conveyed t Depth of layer maximum limits Internal vibration (depth of ins no conveyance of concrete by Even layering around opening Removal of temporary ties an	of concrete observed o all areas of placement s not exceeded sertion, spacing, time, vertical inser vibration) gs and embedments d spacers	Yes 🖂			3000 psi, ¾" agg. None used		
Required mix used Placement and consolidation Concrete properly conveyed t Depth of layer maximum limits Internal vibration (depth of ins no conveyance of concrete by Even layering around opening Removal of temporary ties an FIELD TESTING OF *CYLINDER SET NO:	of concrete observed o all areas of placement s not exceeded sertion, spacing, time, vertical inser y vibration) gs and embedments d spacers F CONCRETE PERFORMED	Yes ⊠			3000 psi, ¾" agg. None used		
Required mix used Placement and consolidation Concrete properly conveyed t Depth of layer maximum limits Internal vibration (depth of ins no conveyance of concrete by Even layering around opening Removal of temporary ties an FIELD TESTING OF *CYLINDER SET NO:	of concrete observed o all areas of placement s not exceeded sertion, spacing, time, vertical inser vibration) gs and embedments d spacers FCONCRETE PERFORMED 982-2	Yes ⊠	O O O O O O O O O O O O O O O O O O O	ated concrete	None used test report		
Required mix used Placement and consolidation Concrete properly conveyed to Depth of layer maximum limits Internal vibration (depth of insolidation conveyance of concrete by Even layering around opening Removal of temporary ties and FIELD TESTING OF *CYLINDER SET NO: POST PLACES	of concrete observed o all areas of placement s not exceeded sertion, spacing, time, vertical inser vibration) gs and embedments d spacers FCONCRETE PERFORMED 982-2 MENT OBSERVATIONS	Yes ⊠ Yes ⊠ Yes ⊠ Yes ⊠ tion, Yes ⊠ Yes ⊠ Yes ⊠ Yes ⊠ ←*refer In Con	O O O O O O O O O O O O O O O O O O O	ated concrete	None used test report Comments		
Required mix used Placement and consolidation Concrete properly conveyed to Depth of layer maximum limits Internal vibration (depth of insolidation conveyance of concrete by Even layering around opening Removal of temporary ties and FIELD TESTING OF *CYLINDER SET NO: POST PLACES Specified finish	of concrete observed o all areas of placement s not exceeded sertion, spacing, time, vertical inser vibration) gs and embedments d spacers F CONCRETE PERFORMED 982-2 MENT OBSERVATIONS	Yes ⊠ Yes ⊠ Yes ⊠ Yes ⊠ Yes ⊠	No to associa	ated concrete	None used test report Comments		
Required mix used Placement and consolidation Concrete properly conveyed to Depth of layer maximum limits Internal vibration (depth of insomo conveyance of concrete by Even layering around opening Removal of temporary ties and FIELD TESTING OF *CYLINDER SET NO: POST PLACES Specified finish Protection of surfaces from control of the proper curing procedures important to the proper curing procedure to the procedure to	of concrete observed o all areas of placement s not exceeded sertion, spacing, time, vertical inser vibration) gs and embedments d spacers FCONCRETE PERFORMED 982-2 MENT OBSERVATIONS racking due to rapid drying blemented ANCE ITEMS OBSERVED	Yes ⊠ Yes □ Yes ⊠ Yes □	No to associa	ated concrete	None used test report Comments		
Required mix used Placement and consolidation Concrete properly conveyed to Depth of layer maximum limits Internal vibration (depth of insomo conveyance of concrete by Even layering around opening Removal of temporary ties and FIELD TESTING OF *CYLINDER SET NO: POST PLACEM Specified finish Protection of surfaces from concrete proper curing procedures important important procedures in procedures in procedures in procedures in	of concrete observed o all areas of placement s not exceeded sertion, spacing, time, vertical inser vibration) gs and embedments d spacers FCONCRETE PERFORMED 982-2 MENT OBSERVATIONS racking due to rapid drying blemented ANCE ITEMS OBSERVED	Yes ⊠ ★*refer In Con Yes ⊠ Yes □ Yes □	No to associant	ated concrete	None used test report Comments		
Required mix used Placement and consolidation Concrete properly conveyed to Depth of layer maximum limits Internal vibration (depth of insomo conveyance of concrete by Even layering around opening Removal of temporary ties and FIELD TESTING OF *CYLINDER SET NO: POST PLACES Specified finish Protection of surfaces from concrete proper curing procedures important procedures in pr	of concrete observed o all areas of placement s not exceeded sertion, spacing, time, vertical inser vibration) gs and embedments d spacers FCONCRETE PERFORMED 982-2 MENT OBSERVATIONS racking due to rapid drying blemented ANCE ITEMS OBSERVED	Yes ⊠ ★*refer In Con Yes ⊠ Yes □ Yes □	No to associant	ated concrete	None used test report Comments		
Required mix used Placement and consolidation Concrete properly conveyed to Depth of layer maximum limits Internal vibration (depth of insomo conveyance of concrete by Even layering around opening Removal of temporary ties and FIELD TESTING OF *CYLINDER SET NO: POST PLACES Specified finish Protection of surfaces from concrete proper curing procedures important procedures in procedure	of concrete observed o all areas of placement s not exceeded sertion, spacing, time, vertical inser vibration) gs and embedments d spacers FCONCRETE PERFORMED 982-2 MENT OBSERVATIONS racking due to rapid drying blemented ANCE ITEMS OBSERVED	Yes ⊠ ★*refer In Con Yes ⊠ Yes □ Yes □	No to associant	ated concrete	None used test report Comments		
Required mix used Placement and consolidation Concrete properly conveyed to Depth of layer maximum limits Internal vibration (depth of insomo conveyance of concrete by Even layering around opening Removal of temporary ties and FIELD TESTING OF *CYLINDER SET NO: POST PLACES Specified finish Protection of surfaces from concept curing procedures important procedures in pro	of concrete observed o all areas of placement s not exceeded sertion, spacing, time, vertical inser vibration) gs and embedments d spacers FCONCRETE PERFORMED 982-2 MENT OBSERVATIONS racking due to rapid drying blemented ANCE ITEMS OBSERVED	Yes ⊠ ★*refer In Con Yes ⊠ Yes □ Yes □	No to associant	ated concrete	None used test report Comments		

Slump - 6", Air - 5.7%, Temp - 75° F

Reviewed By: RED Attachments: None P:\2008\08-0744.1 M - Crescent Heights, LLC - Portland, ME - Crescent Heights Apartments - RED\DFR's\Concrete 7-14-09.doc



ASTM C-31 & C-39

Project Name: PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS -

MATERIALS TESTING

Project Number:

08-0744.1

CRESCENT HEIGHTS, LLC

Client Contract Number:

General

Client:

Concrete

Supplier: AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast:

Contractor:

7/14/2009

Time Cast: 2:30

Date Received:

7/16/2009

Placement Location: PIERS A LINE ELEVATION (92 - 99.6)

Placement Method:

PUMP (NE)

Cylinders Made By: SJC Placement Vol. (yd3): 9.5

Aggregate Size (in): 3/4

DELIVERY INFORMATION

INITIAL CURING CONDITIONS

Temperatures

Admixtures:

GLENIUM

MICRO AIR

Minimum (°F)

Maximum (°F)

POZZOLITH 100XR

TEST RESULTS

Slump (in) (C-143):

Slump WR:

6

Load Number:

1

Air Content (%) (C-231):

Air WR:

5.7

Mixer Number:

84

Air Temp (°F):

73

Ticket Number:

152478

Conc. Temp (°F) (C-1064):

75

Cubic Yards:

9.5

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)
 982-2A		4.00	12.57	7/21/2009	Lab	7	4	40.2	3200
982-2B		4.00	12.57	8/11/2009	Lab	28	4	58.4	4650
982-2C		4.00	12.57	8/11/2009	Lab	28	4	55.2	4390
982-2D				Hold	Lab				











Shear



ASTM C-31 & C-39

Project Name: PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS -

MATERIALS TESTING

Project Number:

Client Contract Number:

08-0744.1

Client:

CRESCENT HEIGHTS, LLC

Concrete

General Contractor:

Supplier:

AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast:

7/21/2009

Time Cast: 1:15

Date Received:

7/22/2009

Placement Location: PIERS ALONG A LINE FOOTINGS ALONG B LINE

Placement Method:

PUMP TRUCK

Placement Vol. (yd3): 16

Cylinders Made By:

Aggregate Size (in):

DELIVERY INFORMATION

INITIAL CURING CONDITIONS

Temperatures

Admixtures:

GLENIUM 7500

Minimum (°F)

Maximum (°F)

MICRO AIR

POZZOLITH

TEST RESULTS

Slump (in) (C-143):

5

Air Content (%) (C-231):

Conc. Temp (°F) (C-1064):

5

Air Temp (°F):

71 76 Load Number:

2

Mixer Number:

107

Ticket Number:

152496

Cubic Yards:

7

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)
982-3A		4.00	12.57	7/28/2009	Lab	7	4	47.4	3770
982-3B		4.00	12.57	8/18/2009	Lab	28	4	64.8	5160
982-3C		4.00	12.57	8/18/2009	Lab	28	4	59.8	4760
982-3D				Hold	Lab				





Fracture Types Cone and Shear





Remarks:



ASTM C-31 & C-39

Project Name: PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS -

Project Number:

08-0744.1

MATERIALS TESTING

Client Contract Number:

Client:

CRESCENT HEIGHTS, LLC

Concrete

General Contractor:

Supplier:

AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast:

7/23/2009

Time Cast: 12:45

Date Received:

7/24/2009

Placement Location: PIERS D-LINE

Placement Method: Cylinders Made By:

PUMP*

VLT

Placement Vol. (yd3): 8.5

Aggregate Size (in):

DELIVERY INFORMATION

INITIAL CURING CONDITIONS

Temperatures

Admixtures:

GLENIUM 7500 (MRWR)

Minimum (°F)

Maximum (°F)

TEST RESULTS

Slump (in) (C-143):

Slump WR:

4 3/4

Load Number:

1

Air Content (%) (C-231):

Air WR:

6.0

Mixer Number:

116

Air Temp (°F):

70

Ticket Number:

152496

Conc. Temp (°F) (C-1064):

75

Cubic Yards:

10

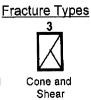
Design (psi):

3000

Cylinder Designation	Cylinder Weight (Ibs)	Cylinder Diameter (in)	Cross Sectional Area(In)²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
982-4A		4.00	12.57	7/30/2009	Lab	7	4	32.0	2550
982-4B		4.00	12.57	8/20/2009	Lab	28	4	46.4	3690
982-4C		4.00	12.57	8/20/2009	Lab	28	4	48.2	3840
982-4D				Hold	Lab				



Cone and Split







Remarks: *NORTHEAST CONCRETE



ASTM C-31 & C-39

Project Name: PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS -

MATERIALS TESTING

Project Number:

08-0744.1

Client:

CRESCENT HEIGHTS, LLC

Client Contract Number:

General

Concrete

Supplier: AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast:

Contractor:

8/3/2009

Time Cast: 1:50

Date Received:

8/4/2009

Placement Location: FOOTING: LINE B.5, LINE 5 + LINE C

Placement Method:

PUMP*

Cylinders Made By: VLT

Placement Vol. (yd³): 18

DELIVERY INFORMATION

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Admixtures:

GLENIUM 7500 (MRWR)

POZZOLITH 100 XR

Minimum (°F)

Maximum (°F)

TEST RESULTS

Slump (in) (C-143):

Slump WR:

Air WR:

6

Load Number:

Air Content (%) (C-231):

4.5

5.7

Mixer Number:

84

Air Temp (°F):

84

Ticket Number:

152961

Conc. Temp (°F) (C-1064):

83

Cubic Yards:

8.5

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)
982-5A		4.00	12.57	8/10/2009	Lab	7	4	37.8	3010
982-5B		4.00	12.57	8/31/2009	Lab	28	4	56.6	4510
982-5C	•	4.00	12.57	8/31/2009	Lab	28	4	58.6	4660
982-5D				9/28/2009	Lab	56			

Cone and Split

Fracture Types Cone and Shear

Columnar

Remarks: MAX AGG, WITH SLAG LEEDS



ASTM C-31 & C-39

Project Name: PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS -

MATERIALS TESTING

Project Number:

08-0744.1

Client Contract Number:

Client:

CRESCENT HEIGHTS, LLC

Concrete

General Contractor:

Supplier:

AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast:

8/10/2009

Time Cast: 2:30

Date Received:

8/11/2009

Placement Location: WALL: C LINE B.5 AND 5 LINE

Placement Method:

PUMP

Placement Vol. (yd³): 38

Cylinders Made By: TKM

Aggregate Size (in):

DELIVERY INFORMATION

3/4

INITIAL CURING CONDITIONS

Temperatures

Admixtures:

MIDRANGE

Minimum (°F)

Maximum (°F)

TEST RESULTS

Slump (in) (C-143):

Slump WR:

6

Load Number:

2

Air Content (%) (C-231):

Air WR:

Mixer Number:

98

Air Temp (°F):

6

Ticket Number:

152528

82

Cubic Yards:

10

Conc. Temp (°F) (C-1064):

78

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)
982-6A		4.00	12.57	8/17/2009	Lab	7	4	37.8	3010
982-6B		4.00	12.57	9/7/2009	Lab	28	4	53.2	4230
982-6C		4.00	12.57	9/7/2009	Lab	28	4	54.0	4300
982-6D				Hold	Lab				

Cone and Split

Fracture Types Cone and Shear

Shear

Remarks: STRENGHT: WITH AIR



ASTM C-31 & C-39

Project Name: PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS -

Project Number:

08-0744.1

MATERIALS TESTING

Client Contract Number:

Client:

CRESCENT HEIGHTS, LLC

Concrete

General Contractor:

Supplier: AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast:

8/19/2009

Time Cast: 2:05

Date Received:

8/20/2009

Placement Location: FOOTING: LINE 7, LINE 1, LINE 8

Placement Method:

PUMP

Cylinders Made By:

VLT

Placement Vol. (yd³): 27

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Maximum (°F)

DELIVERY INFORMATION

Admixtures:

MRWR

GLENIUM 7500

POZZOLITH 100XR

TEST RESULTS

Minimum (°F)

Slump (in) (C-143):

Slump WR:

4 3/4

Load Number:

1

Air Content (%) (C-231):

Air WR:

5.1

Mixer Number:

107

Air Temp (°F):

94

Ticket Number:

165491

Conc. Temp (°F) (C-1064):

86

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)
982-7A		4.00	12.57	8/26/2009	Lab	7	4	55.0	4380
982-7B		4.00	12.57	9/16/2009	Lab	28	4	71.2	5670
982-7C		4.00	12.57	9/16/2009	Lab	28	4	74.8	5950
982-7D				Hold	Lab				

Cone and Split

Fracture Types Cone and Shear

Shear

Columnar

Remarks:



ASTM C-31 & C-39

Project Name: PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS -

MATERIALS TESTING

Project Number:

08-0744.1

Client:

CRESCENT HEIGHTS, LLC

Client Contract Number:

General

Concrete

Supplier:

AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast:

Contractor:

8/25/2009

Time Cast: 2:45

Date Received:

8/27/2009

Placement Location: WALLS: LINE 8, 7 + ELEVATOR PIT WALL LINE 1

Placement Method:

PUMP*

Placement Vol. (yd³): 30

DELIVERY INFORMATION

Cylinders Made By: VLT

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Admixtures:

MRWR - GLENIUM

Minimum (°F)

Maximum (°F)

POZZOLITH 100XR

TEST RESULTS

Slump (in) (C-143):

Slump WR:

4 3/4

Load Number:

1

Air Content (%) (C-231):

Air WR:

Mixer Number:

98

Air Temp (°F):

77

5.3

Ticket Number:

165529

Conc. Temp (°F) (C-1064):

85

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)
982-8A		4.00	12.57	9/1/2009	Lab	7	4	53.8	4280
982-8B		4.00	12.57	9/22/2009	Lab	28	4	58.4	4650
982-8C		4.00	12.57	9/22/2009	Lab	28	4	64.5	5130
982-8D				Hold	Lab				

Split

Fracture Types Cone and Shear

Shear

Columnar

Remarks: *NORTHEAST CONCRETE PUMPING



ASTM C-31 & C-39

Project Name: PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS -

Project Number:

08-0744.1

MATERIALS TESTING

CRESCENT HEIGHTS, LLC

Client Contract Number:

Client: General

Concrete

Contractor:

Supplier: AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast:

9/11/2009

Time Cast: 3:30

Date Received:

9/16/2009

Placement Location: FOOTING SOUTHEAST OF ELEVATOR PITS

Placement Method: Cylinders Made By:

Placement Vol. (yd³): 12.5

Aggregate Size (in):

INITIAL CURING CONDITIONS

Temperatures

Maximum (°F)

DELIVERY INFORMATION

GLENIUM 7500

MICRO AIR

POZZOLITH 100 XR

TEST RESULTS

Minimum (°F)

Slump (in) (C-143):

7

Air Content (%) (C-231):

Conc. Temp (°F) (C-1064):

6

Air Temp (°F):

66 77 **Load Number:**

Admixtures:

1

Mixer Number: **Ticket Number:** 101 160149

Cubic Yards:

6.25

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)
982-10A		4.00	12.57	9/18/2009	Lab	7	4	49.6	3950
982-10B		4.00	12.57	10/9/2009	Lab	28	4	70.4	5600
982-10C		4.00	12.57	10/9/2009	Lab	28	4	70.0	5570
982-10D				Hold	Lab				

Cone and Split

Fracture Types Cone and Shear

Shear

Columnar

Remarks:



ASTM C-31 & C-39

Project Name: PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS -

Project Number:

08-0744.1

MATERIALS TESTING

Client Contract Number:

Client: General CRESCENT HEIGHTS, LLC

Concrete

Supplier: AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast:

Contractor:

9/15/2009

Time Cast: 3:30

Date Received:

9/16/2009

Placement Location: G-LINE WALLS

Placement Method:

PUMP

Cylinders Made By:

Placement Vol. (yd3): 31

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Maximum (°F)

DELIVERY INFORMATION Admixtures:

GLENIUM 7500,

POZZOLITH 100XR.

MICRO AIR

TEST RESULTS

Air Temp (°F):

Minimum (°F)

Slump (in) (C-143):

Air Content (%) (C-231):

Conc. Temp (°F) (C-1064):

6

5.2

77

Mixer Number:

Load Number:

2 99

160175

Ticket Number:

10.5

Cubic Yards: 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)
982-12A		4.00	12.57	9/22/2009	Lab	7	4	41.2	3280
982-12B		4.00	12.57	10/13/2009	Lab	28	4	68.0	5410
982-12C		4.00	12.57	10/13/2009	Lab	28	4	64.0	5090
982-12D				Hold	Lab				











Remarks:



ASTM C-31 & C-39

Project Name: PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS -

MATERIALS TESTING

Project Number:

Client Contract Number:

08-0744.1

Client:

CRESCENT HEIGHTS, LLC

Concrete

General

Contractor:

Supplier: AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast:

9/22/2009

Time Cast: 2:40

Date Received:

9/23/2009

Placement Location: NORTHERN MOST SPREAD FOOTING

Placement Method:

PUMP TRUCK

Cylinders Made By:

Placement Vol. (yd3): 11

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Maximum (°F)

DELIVERY INFORMATION

Admixtures:

GLENIUM 7500

MICRO AIR

TEST RESULTS

Minimum (°F)

Slump (in) (C-143):

4

Air Content (%) (C-231):

5

Air Temp (°F):

68

72

Conc. Temp (°F) (C-1064):

Load Number:

1

Mixer Number:

97 160219

Ticket Number:

11

Cubic Yards: 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)
982-13A		4.00	12.57	9/29/2009	Lab	7	4	50.2	4000
982-13B		4.00	12.57	10/20/2009	Lab	28	4	69.0	5490
982-13C		4.00	12.57	10/20/2009	Lab	28	4	65.6	5220
982-13D				Hold	Lab				











Remarks:



ASTM C-31 & C-39

Project Name: PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS -

MATERIALS TESTING

Project Number:

08-0744.1

Client:

CRESCENT HEIGHTS, LLC

Client Contract Number:

Concrete

General Contractor:

Supplier: AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast:

9/24/2009

Time Cast: 2:40

Date Received:

9/25/2009

Placement Location: SOUTH EAST FOUNDATION WALL

Placement Method:

PUMP TRUCK

Cylinders Made By: TA Placement Vol. (yd3): 21

Aggregate Size (in):

INITIAL CURING CONDITIONS

Temperatures

DELIVERY INFORMATION

GLENIUM - MIDRANGE,

MICRO AIR

TEST RESULTS

Minimum (°F)

Slump (in) (C-143):

6

Maximum (°F)

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

5.5 68

75

Conc. Temp (°F) (C-1064):

Load Number:

Admixtures:

2 116

Mixer Number: **Ticket Number:**

160250

Cubic Yards:

10.5

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)
982-15A		4.00	12.57	10/1/2009	Lab	7	4	47.0	3740
982-15B		4.00	12.57	10/22/2009	Lab	28	4	72.2	5750
982-15C		4.00	12.57	10/22/2009	Lab	28	4	73.8	5870
982-15D				Hold	Lab				





Fracture Types Cone and Shear





Columnar



ASTM C-31 & C-39

Project Name: PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS -

MATERIALS TESTING

08-0744.1

Project Number: Client Contract Number:

Client:

CRESCENT HEIGHTS, LLC

General

Contractor:

Concrete

Supplier: AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast:

9/20/2009

Time Cast: 4:35

Date Received:

9/29/2009

Placement Location: FOOTINGS: LINE 7 + LINE G

Placement Method: PUMP*

Cylinders Made By: VLT/TA

Placement Vol. (yd3): 16

Aggregate Size (in):

INITIAL CURING CONDITIONS

Temperatures

DELIVERY INFORMATION Admixtures:

MRWR

Minimum (°F)

Maximum (°F)

TEST RESULTS

Slump (in) (C-143):

Slump WR:

4.5

Load Number:

2

Air Content (%) (C-231):

Mixer Number:

85

Conc. Temp (°F) (C-1064):

Air WR:

4.8

Ticket Number:

160267

Air Temp (°F):

70 75

Cubic Yards:

8

Design (psi):

3000

Cylinder esignation	Cylinder Weight (lbs)	Cylinder Diameter (in)	Cross Sectional Area(In) ²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
982-17A		4.00	12.57	10/9/2009	Lab	19	4	52.4	4170
982-17B		4.00	12.57	10/19/2009	Lab	29	4	57.0	4540
982-17C		4.00	12.57	10/19/2009	Lab	29	4	60.8	4840
982-17D				Hold	Lab				

Fracture Types Cone and Shear

Shear

Columnar

Remarks: * NORTHEAST CONCRETE PUMPING



ASTM C-31 & C-39

Project Name: PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS -

MATERIALS TESTING

Project Number:

08-0744.1

Client Contract Number:

Client:

CRESCENT HEIGHTS, LLC

Concrete

General Contractor:

Supplier: AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast:

10/2/2009

Time Cast: 8:00

Date Received:

10/5/2009

Placement Location: ELEVATED SLAB ON DECK

PUMP*

Placement Vol. (yd³): 38

Cylinders Made By:

Placement Method:

VLT

Aggregate Size (in):

DELIVERY INFORMATION

INITIAL CURING CONDITIONS

Temperatures

Admixtures:

MRWR - GLENIUM,

Minimum (°F)

Maximum (°F)

WCNI, 1% POZZUTEC

20+

TEST RESULTS

Slump (in) (C-143):

Slump WR:

6

Load Number:

2

Air Content (%) (C-231):

Air WR:

6.7

Mixer Number:

84

Air Temp (°F):

45

Ticket Number:

163556

Conc. Temp (°F) (C-1064):

62

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)
982-18A		4.00	12.57	10/9/2009	Lab	7	4	45.4	3610
982-18B		4.00	12.57	10/30/2009	Lab	28	4	52.6	4190
982-18C		4.00	12.57	10/30/2009	Lab	28	4	52.8	4200
982-18D				Hold	Lab				



Cone and

Split

Fracture Types Cone and Shear



Columnar

Remarks: *NORTHEAST COCNRETE PUMPING



ASTM C-31 & C-39

Project Name: PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS -

MATERIALS TESTING

Project Number:

08-0744.1

Client Contract Number:

Client:

CRESCENT HEIGHTS, LLC

Concrete

General Contractor:

Supplier:

AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast:

10/2/2009

Time Cast: 8:45

Date Received:

10/5/2009

Placement Location: ELEVATED SLAB ON DECK

PUMP*

Placement Vol. (yd³): 38

Aggregate Size (in):

Placement Method: Cylinders Made By:

INITIAL CURING CONDITIONS

VLT

DELIVERY INFORMATION

Temperatures

Maximum (°F)

Admixtures:

MRWR - GLENIUM.

WCNI, 1% POZZUTEC

20+

TEST RESULTS

Minimum (°F)

Slump (in) (C-143):

Slump WR:

5

Load Number:

3

Air Content (%) (C-231):

Air WR:

5.7

Mixer Number:

97

Air Temp (°F):

45

Ticket Number:

163559

Conc. Temp (°F) (C-1064):

63

Cubic Yards:

8

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)	
982-19A		4.00	12.57	10/30/2009	Lab	28	4	53.6	4270	
982-19B		4.00	12.57	10/30/2009	Lab	28	4	51.4	4090	



Cone and Split

Fracture Types Cone and Shear

Columnar

Remarks: *NORTHEAST COCNRETE PUMPING



ASTM C-31 & C-39

Project Name: PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS -

MATERIALS TESTING

Project Number:

Client Contract Number:

08-0744.1

Client:

CRESCENT HEIGHTS, LLC

General

Concrete

Supplier: AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast:

Contractor:

10/5/2009

Time Cast: 3:20

Date Received:

10/6/2009

Placement Location: EXTERIOR WALL BEHIND ELEVATOR SHAFT (SOUTH EAST FACE)

Placement Method: Cylinders Made By: PUMP TRUCK

TA

Placement Vol. (yd³): 42

Aggregate Size (in): 3/4

DELIVERY INFORMATION

INITIAL CURING CONDITIONS

Temperatures

Admixtures:

GLENIUM 7500, MICRO

AIR

Minimum (°F)

Maximum (°F)

TEST RESULTS

Air Temp (°F):

6.5 Slump (in) (C-143): **Air Content (%) (C-231):**

6

65

66

Conc. Temp (°F) (C-1064):

Load Number:

Mixer Number:

2

Ticket Number:

97 153406

Cubic Yards:

10.5

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)
982-20A		4.00	12.57	10/12/2009	Lab	7	4	34.0	2710
982-20B		4.00	12.57	11/2/2009	Lab	28	4	55.6	4430
982-20C		4.00	12.57	11/2/2009	Lab	28	4	56.2	4470
982-20D				Hold	Lab				

Cone and Split

Fracture Types Cone and Shear

Columnar



ASTM C-31 & C-39

Project Number:

Project Name: PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS -

08-0744.1

MATERIALS TESTING

Client Contract Number:

Client:

CRESCENT HEIGHTS, LLC

Concrete

General Contractor:

Supplier:

AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast:

10/20/2009

Time Cast: 9:00

Date Received:

10/22/2009

Placement Location: SLAB ON GRADE

Placement Method:

PUMP

Cylinders Made By: CT Placement Vol. (yd3): 40

Aggregate Size (in):

INITIAL CURING CONDITIONS

Temperatures

Maximum (°F)

DELIVERY INFORMATION

GLENIUM 7500,

POZZUTEC 20, PRO

MESH

TEST RESULTS

Air Temp (°F):

Minimum (°F)

Slump (in) (C-143):

Air Content (%) (C-231):

Conc. Temp (°F) (C-1064):

982-21D

6.5

55

5.2

Load Number: Mixer Number:

Admixtures:

3

107

Ticket Number:

159429 10

Cubic Yards: 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)
982-21A		4.00	12.57	10/27/2009	Lab	7	4	47.8	3800
982-21B		4.00	12.57	11/17/2009	Lab	28	4	67.8	5400
982-21C		4.00	12.57	11/17/2009	Lab	28	4	65.6	5220

Hold

Cone and

Split

Fracture Types Cone and

Shear

Shear

Lab

Columnar



ASTM C-31 & C-39

Project Name: PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS -

MATERIALS TESTING

Project Number:

Client Contract Number:

08-0744.1

Client:

CRESCENT HEIGHTS, LLC

General

Concrete

Supplier: AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast:

Contractor:

11/3/2009

Time Cast: 3:00

Date Received:

11/4/2009

Placement Location: ELEVATED SLAB FIRST FLOOR - ELEVATION 125

Placement Method: TAILGATE

Cylinders Made By: CT

Placement Vol. (yd³): 9

Aggregate Size (in): 3/4

DELIVERY INFORMATION

INITIAL CURING CONDITIONS

Temperatures

Admixtures:

1% POZZUTEC 20.

GLENIUM 7500

Maximum (°F) Minimum (°F)

TEST RESULTS

Slump (in) (C-143):

7

Air Content (%) (C-231):

6.6

64

Air Temp (°F):

Conc. Temp (°F) (C-1064):

Load Number:

1

Mixer Number:

94 159516

Ticket Number:

9

Cubic Yards: 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)
982-22A		4.00	12.57	11/10/2009	Lab	7	4	30.4	2420
982-22B		4.00	12.57	12/1/2009	Lab	28	4	53.0	4220
982-22C		4.00	12.57	12/1/2009	Lab	28	4	49.2	3920
982-22D				Hold	Lab				

Cone and Split

Fracture Types Cone and Shear

Columnar



ASTM C-31 & C-39

Project Name: PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS -

Project Number:

08-0744.1

MATERIALS TESTING

Client Contract Number:

Client:

General

CRESCENT HEIGHTS, LLC

Concrete

Contractor:

Supplier: AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast:

12/28/2009

Time Cast: 11:30

Date Received:

12/29/2009

Placement Location: Entrance slab on grade near elevator pit

Placement Method:

TAILGATE

Placement Vol. (yd3): 2.5

Cylinders Made By:

TBA

Aggregate Size (in): 3/4

DELIVERY INFORMATION

INITIAL CURING CONDITIONS

Temperatures

Admixtures:

GLENIUM 7500, Micro Air

Minimum (°F)

Maximum (°F)

TEST RESULTS

Slump (in) (C-143):

4

Load Number:

1

Air Content (%) (C-231):

5

Mixer Number:

97

Air Temp (°F):

41

Ticket Number:

154366

Conc. Temp (°F) (C-1064):

68

Cubic Yards:

2.5

Design (psi):

3000

Cylinder Designation	Cylinder Weight (Ibs)	Cylinder Diameter (in)	Cross Sectional Area(In) ²	Date Of Test	Cure Type	Age (days)	Fracture Type	Load (kips)	Strength (psi)
982-23A		4.00	12.57	1/4/2010	Lab	7	4	48.0	3820
982-23B		4.00	12.57	1/25/2010	Lab	28	4	65.0	5170
982-23C		4.00	12.57	1/25/2010	Lab	28	4	68.6	5460
982-23D				Hold	Lab				

Cone and Split

Fracture Types Cone and Shear





Exhibit B

042000 Masonry Construction

Structural Schedule of Special Inspections MASONRY CONSTRUCTION – LEVEL 1 (NON-ESSENTIAL FACILITY)

VERIFICATION AND INSPECTION IBC Section 1704.5	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	TASK COMPLETED
As masonry construction begins, the following shall be verified to ensure compliance:						
a. Proportions of site-prepared mortar.	γ	P	ACI530.1, 2.6A	51 \$	PE/SE or EIT	
b. Construction of mortar joints.	У	P	ACI530.1, 3.3B	SI I	PE/SE or EIT	
c. Location of reinforcement and connectors.	γ	P	ACI530.1, 3.4, 3.6A	511	PE/SE or EIT	
d. Prestressing technique.	7	Р	ACI530.1, 3.6B		PE/SE or EIT	
e. Grade and size of prestressing tendons and anchorages.	N	Р	ACI530.1, 2.4B, 2.4H		PE/SE or EIT	
2. The inspection program shall verify:						
a. Size and location of structural elements.	4	P	ACI530.1, 3.3G	51 1	PE/SE or EIT	
 b. Type, size and location of anchors, including other details of anchorage of masonry to structural members, frames or other construction. 	4	Р	ACI530, 1.2.2(e), 2.1.4, 3.1.6	511	PE/SE or EIT	
c. Specified size, grade and type of reinforcement.	У	Р	ACI530, 1.12, ACI530.1, 2.4, 3.4	511	PE/SE or EIT	
d. Welding of reinforcing bars.	N	С	AC530, 2.1.10.6.2, 3.24 (b)		AWS-CWI	
e. Protection of masonry during cold weather (temperature below 40°F) or hot weather (temperature above 90°F).	N	Р	IBC 2104.3, 2104.4; ACI530.1, 1.8C, 1.8D		PE/SE or EIT	
f. Application and measurement of prestressing force.	N	P	ACI530.1, 3.6B		PE/SE or EIT	
3. Prior to grouting, the following shall be verified to ensure compliance:						
a. Grout space is clean.	Y	P	ACI530.1, 3.2D	511	PE/SE or EIT	
b. Placement of reinforcement and connectors and prestressing tendons and anchorages.	у	Р	ACI530, 1.12, ACI530.1, 3.4	511	PE/SE or EIT	
 c. Proportions of site-prepared grout and prestressing grout for bonded tendons. 	У	P	ACI530.1, 2.6B	511	PE/SE or EIT	
d. Construction of mortar joints.	Y	P	ACI530.1, 3.3B	511	PE/SE or EIT	
Grout placement shall be verified to ensure compliance with code and construction document provisions.	y	С	ACI530.1, 3.5	51 1	PE/SE or EIT	
a. Grouting of prestressing bonded tendons.	7	С	ACI530.1, 3.6C		PE/SE or EIT	
5. Preparation of any required grout specimens, mortar specimens and/or prisms shall be observed.	γ	С	IBC 2105.2.2, 2105.3; ACI530.1, 1.4	TA-I	PE/SE or EIT	
Compliance with required inspection provisions of the construction documents and the approved submittals shall be verified.	γ	Р	ACI530.1, 1.5	51 1	PE/SE or EIT	·

$\underbrace{B\ E\ C\ K\ E\ R}_{\text{structural engineers, inc.}}$

OBSERVATION R	EPORT				Date:	9-9-09
CMU					Time:	12:30 pm
					Temp:	70 F
					Weather:	Sunny
Project:	Crescent I	Heigh	ts			
₋ocation:	Portland, I	ΛE				
Becker Job No:	2035				1-11	
Observation Locatio	n: elevator	shaft	arour	nd floor to f	irst floor	
			groun		in ot moor	
	Satisfactory	Un-Satisfactory	Not Completed	Not Applicable		Comments
Reinforcement Size Quantity Condition Placement Embed/Anchors Lap Splices						

Signed: Nathan Merrill, E.I.



Report of Grout Compressive Strength

ASTM C109

Project Name: PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS -

MATERIALS TESTING

Project Number:

Client Contract Number:

08-0744.1

Client:

CRESCENT HEIGHTS, LLC

General

Contractor:

Supplier: AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast:

9/9/2009

Time Cast:

Date Received:

9/10/2009

Placement Location: ELEVATOR PIT

Placement Method: PUMP

Cylinders Made By:

Placement Vol. (yd³): 3

DELIVERY INFORMATION

Aggregate Size (in): SAND

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F)

Maximum (°F)

TEST RESULTS

Slump (in) (C-143):

Batch Number:

Admixtures:

1

Air Temp (°F):

Mixer Number:

97

Grout Temp (°F) (C-1064):

Ticket Number:

160422

Design (psi):

4000

Cube Designation	Area(In)²	Date Of Test	Age (days)	Load (kips)	Strength (psi)	
982-9A	4.00	9/16/2009	7	13.6	3400	
982-9B	4.00	9/16/2009	7	14.5	3620	
982-9C	4.00	9/16/2009	7	15.4	3850	
982-9D	4.00	10/7/2009	28	19.9	4980	
982-9E	4.00	10/7/2009	28	19.4	4850	
982-9F	4.00	10/7/2009	28	20.4	5100	



Report of Grout Compressive Strength

ASTM C109

Project Name: PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS -

MATERIALS TESTING

08-0744.1 **Project Number:**

Client:

CRESCENT HEIGHTS, LLC

Client Contract Number:

General

Contractor:

Supplier: AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast:

9/15/2009

Time Cast:

Date Received:

9/16/2009

Placement Location: ELEVATOR PIT - 4TH FLOOR SECTION

Placement Method: PUMP

Cylinders Made By: CT

Placement Vol. (yd3): 4

Aggregate Size (in): SAND

DELIVERY INFORMATION

INITIAL CURING CONDITIONS

Temperatures

Admixtures:

Minimum (°F)

Maximum (°F)

76

TEST RESULTS

Slump (in) (C-143):

Batch Number:

1

Air Temp (°F):

Mixer Number:

101

Grout Temp (°F) (C-1064):

Ticket Number:

160172

Design (psi):

4000

Cube Designation	Area(In)²	Date Of Test	Age (days)	Load (kips)	Strength (psi)	
982-11A	4.00	9/22/2009	7	6.8	1700	
982-11B	4.00	9/22/2009	7	6.5	1620	
982-11C	4.00	9/22/2009	7	7.4	1850	
982-11D	4.00	10/13/2009	28	12.7	3180	
982-11E	4.00	10/13/2009	28	10.9	2720	
982-11F	4.00	10/13/2009	28	11.2	2800	



Report of Grout Specimen Compressive Strength

ASTM C1019

Project Name: PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS -

Project Number:

08-0744.1

MATERIALS TESTING

Client Contract Number:

Client:

CRESCENT HEIGHTS, LLC

General

Contractor:

Supplier: AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast:

9/22/2009

Time Cast:

Date Received:

9/23/2009

Placement Location: STAIR TOWER 16 ABOVE FOUNDATION

Placement Method:

PUMP TRUCK

Placement Vol. (yd3): 5

DELIVERY INFORMATION

Cylinders Made By: TΑ

Aggregate Size (in): FINE GROUT

INITIAL CURING CONDITIONS

Temperatures

Admixtures:

Minimum (°F)

Maximum (°F)

TEST RESULTS

Slump (in) (C-143):

Batch Number:

1

Air Temp (°F):

63

Mixer Number:

76

Grout Temp (°F) (C-1064):

68

Ticket Number:

163752

Design (psi):

4000

Specimen Designation	Area(In)²	Date Of Test	Age (days)	Load (kips)	Strength (psi)	
982-14A	4.00	10/20/2009	28	16.3	4080	
982-14B	4.00	10/20/2009	28	14.7	3680	
982-14C	4.00	10/20/2009	28	17.6	4400	



Report of Grout Compressive Strength

ASTM C109

Project Number:

Project Name: PORTLAND, ME - CRESCENT HEIGHTS APARTMENTS -

MATERIALS TESTING

08-0744.1

Client:

CRESCENT HEIGHTS, LLC

Client Contract Number:

General

Contractor:

Supplier: AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast:

9/24/2009

Time Cast: 4:00

Date Received:

9/25/2009

Placement Location: STAIR TOWER 26 AFF

Placement Method:

Cylinders Made By: TA

Placement Vol. (yd³): 5

Aggregate Size (in): FINE

DELIVERY INFORMATION

INITIAL CURING CONDITIONS

Temperatures

Admixtures:

Minimum (°F)

Maximum (°F)

75

TEST RESULTS

Slump (in) (C-143):

Batch Number:

1

Air Temp (°F):

Mixer Number:

84

Grout Temp (°F) (C-1064):

Ticket Number:

163841

Design (psi):

4000

Cube Designation	Area(In)²	Date Of Test	Age (days)	Load (kips)	Strength (psi)	
982-16A	4.00	10/1/2009	7	8.3	2080	
982-16B	4.00	10/1/2009	- 7	7.9	1980	
982-16C	4.00	10/1/2009	7	8.9	2220	
982-16D	4.00	10/22/2009	28	14.1	3520	
982-16E	4.00	10/22/2009	28	15.5	3880	
982-16F	4.00	10/22/2009	28	13.1	3280	

Exhibit B

051200 Steel Construction

Project: Crescent Heights Date Prepared: May 10, 2010

Structural Schedule of Special Inspections - STEEL CONSTRUCTION

VERIFICATION AND INSPECTION IBC Section 1704.3	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	TASK COMPLETED
1. Material verification of high-strength bolts, nuts and washers:	1					
a. Identification markings to conform to ASTM standards specified in the approved construction documents. *** *** *** ** ** ** ** **	γ	S	Applicable ASTM material specifications; AISC 335, Section A3.4; AISC LRFD, Section A3.3	51 1	PE/SE or EIT	
b. Manufacturer's certificate of compliance required.	Y	S		51 1	PE/SE or EIT	
2. Inspection of high-strength bolting		19,456 A. 1				
a. Bearing-type connections.	Y	Р	AISC LRFD Section M2.5	TAI	AWS/AISC-SSI	
b. Slip-critical connections.	N	C or P (method dependent)	IBC Sect 1704.3.3		AWS/AISC-SSI	
3. Material verification of structural steel (IBC Sect 1708.4):		1, 10				
a. Identification markings to conform to ASTM standards specified in the approved construction documents.	У	S	ASTM A 6 or ASTM A 568 IBC Sect 1708.4	51 1	PE/SE or EIT	
b. Manufacturers' certified mill test reports.	У	S	ASTM A 6 or ASTM A 568 IBC Sect 1708.4	51 1	PE/SE or EIT	
4. Material verification of weld filler materials:						
a. Identification markings to conform to AWS specification in the approved construction documents.	У	S	AISC, ASD, Section A3.6; AISC LRFD, Section A3.5	<i>5</i> 1 1	PE/SE or EIT	
b. Manufacturer's certificate of compliance required.	Y	S		511	PE/SE or EIT	
5. Submit current AWS D1.1 welder certificate for all field welders who will be welding on this project.	У	S	AWS D1.1	511	PE/SE or EIT	
6. Inspection of welding (IBC 1704.3.1): a. Structural steel:			1000			Principle and
1) Complete and partial penetration groove welds.	Y	C		TAI	AWS-CWI	
2) Multipass fillet welds.	У	С	AWS D1.1	TAI	AWS-CWI	
3) Single-pass fillet welds> 5/16"	У	С	A WS DI.I	TAI	AWS-CWI	
4) Single-pass fillet welds< 5/16"	У	Р		TAI	AWS-CWI	
5) Floor and deck welds.	N	P	AWS D1.3		AWS-CWI	
b. Reinforcing steel (IBC Sect 1903.5.2):						
Verification of weldability of reinforcing steel other than ASTM A706.	2	С				
 Reinforcing steel-resisting flexural and axial forces in intermediate and special moment frames, and boundary elements of special reinforced concrete shear walls and shear reinforcement. 	N	С	AWS D1.4 - ACI 318: 3.5.2		AWS-CWI	
3) Shear reinforcement.	N	C	AC1318. 3.3.2		AWS-CWI	
4) Other reinforcing steel.	N	P			AWS-CWI	
7. Inspection of steel frame joint details for compliance (IBC Sect 1704.3.2) with approved construction documents:						
a. Details such as bracing and stiffening.	У	Р		511	PE/SE or EIT	
b. Member locations.	y	P	1	51 1	PE/SE or EIT	
c. Application of joint details at each connection.	V	Р		511	PE/SE or EIT	

Project: Crescent Heights

Date Prepared: May 10, 2010

Structural Schedule of Special Inspection Services FABRICATION AND IMPLEMENTATION PROCEDURES – STRUCTURAL STEEL

VERIFICATION AND INSPECTION IBC Section 1704.2	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS		AGENT QUALIFICATION	TASK COMPLETED
Fabrications Procedures: Review of fabricator's written procedural and quality control manuals and periodic auditing of fabrication practices by an approved special inspection agency. At the completion of fabrication, the approved fabricator shall submit a certificate of compliance to the building code official stating that the work was performed in accordance with the approved construction documents. OR- AISC Certification	У	S	Fabricator shall submit one of the two qualifications		PE/SE or EIT	
3. At completion of fabrication, the approved fabricator shall submit a certificate of compliance to the building code official stating that the work was performed in accordance with the approved construction documents.	λ	S	IBC 1704.2.2	SII	PE/SE or EIT	

Project: Crescent Heights Date Prepared: May 10, 2010

Fabricator's Certificate of Compliance

Each approved fabricator that is exempt from Special Inspection of shop fabrication and implementation procedures per section 1704.2 of the International Building Code must submit a Fabricator's Certificate of Compliance at the completion of fabrication.

Project:

Crescent Heights

Fabricator's Name: LMC Light Iron

Address: 151 E. Range Rd, Limerick ME 04048

Certification or Approval Agency: Quality Assurance Labs

Certification Number:

QAL-09-1629

Date of Last Audit or Approval: 9/11/09

Description of structural members and assemblies that have been fabricated:

column to base plates, shear tabs, top plates

I hereby certify that items described above were fabricated in strict accordance with the approved construction documents.

Attach copies of fabricator's certification or building code evaluation service report and fabricator's quality control manual

BECKER structural engineers, inc.

OBSERVATION	N REPO	RT				Date:	10-19-09
Structural Steel						Time:	2:00 PM
						Temp:	58 F
						Weather:	Sunny
Project:	Cres	cent l	Heigh	ts S.I.			
Location:	Portla		_				
Becker Job No:	2129						
Observation Loc First Floor Steel F							
		Satisfactory	Un-Satisfactory	Not Completed	Not Applicable		Comments
Bolt Condition Weld Condition Anchor Bolts, Nuts & Washers	S,						Comments
Grout/Leveling Pla Fit Up/Plumbness Metal Deck Welds	ates	\boxtimes		П			

Notes:

Beam on line E which bears on foundation wall at Line 1 was found to be coped due to incorrect bearing seat elevation. Web reinforcing must be installed per SKS-21.

Signed: Nathan Merrill, E.I.

$\underbrace{B\ E\ C\ K\ E\ R}_{\text{structural engineers, inc.}}$

OBSERVATION	REPORT				Date:	1-15-10	
Structural Steel					Time:	3:00 PM	
					Temp:	35 F	
					Weather:	overcast	
Project:	Crescent	Heigh	ts S.I.				
Location:	Portland,	ME					
Becker Job No:	2129						
Observation Loca Roof, Third and Se		el fran	mina				
	Satisfactory	Un-Satisfactory	Not Completed	Not Applicable			

Signed: Nathan Merrill, E.I.

Quality Assurance Labs Inc. NON-DESTRUCTIVE TESTING AND INSPECTION SERVICES OUTH PORTLAND, MAINE 04106 • TEL: (207) 799-8911 • FAX: (207) 799-7251

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			IN	SPECT	ION RE	PORT					
CUSTOMER:	LMC	, INC.							PAGE	l c	of 1
ADDRESS:	151 E.	RANGE RO	AD , P.O. BC	X 521 , LIM	IERICK, MI	E. 04048					
ATTENTION:	STEVE	HAMILTO	N								
COPIES:											
PROJECT:	FAB-SI	HOP - INSP	ECTION PE	R JOB SPE	CIFICATIO	<u> </u>					
OWNER:											
CONTRACTOR:	LMC,	INC.								···	
JOB No.:		REPORT No.: (QAL-09-1629	P. O. NUMB]1	DATES INSP	ECTED:	09-11-0	33-3120-201	
	Appendix Constitution of the Constitution of t	i kalandari da Maria Barina da Maria da Maria Maria		RI	MARKS			nakari Lakari	en de la color de		
PER JOB S > PROJECT A) REVIEV B) REVIEV WELD M C) COLUM	: PORTL V OF WI V OF SH METAL A IN TO B D AWS D	AND BUILD AND BUILD ELDER CUP OP WELD AND BASE ASE PLATE	FORM VISU 1 REQUIRE DERS FOR (RENT STAT PROCEDURI METAL CO ES, SHEAR T REMENTS FO	MENTS FO CRESANTS FUS COMP E SPECIFIC MBINATIO FABS, AND	HEIGHTS LIES WITH CATION CO NS. REF. A TOP PLA	ACCEPTA PROJECT . AWS D1.1 MPLIES W AWS D1.1 TES COMP	NCE. FOR (6 ITH AW TABLE 3 PLY WIT	6) MO 'S D1.1 i.1. H SHO	NTH CO FOR PI DP DRAV	NTIN REQU WING	UITY. ALIFIED S 1 THU
		METH	FAA REI HOD(S),PRO		ION NUMB PROCEDU			REE	OC OC	990	H. DREW 050211 P. 06/8V/11
ADDITIONAL INFO	DRMATION - S	SEE ATTACHED:	SKETCH	I(ES)	SUPPLEMENT	ARY SHEET(S)		NDT REPO	<u> </u>		DEO
			SIGN	ATURES				11.4	CERTIFICA	LEVEL	DATE N D Y
INSPECTOR	M. Drew	CWI # 99	050211 —	such	MA	hun]		ASNT	11	09 11 09
SUPERVISOR											

WELDER, WELDING OPERATOR OR TACK WELDER QUALIFICATION TEST RECORD

ne Richard	MANSON	Identificati	on No. 6296 Date 3-3-08
Icling Procedure Specif	cation No. Table 3.1	Rev AWS DI	Date 3-3-708
		Record Actual Values	Outliesten Bonn
		Used in Qualification	Qualification Range
Variables			
ocess/Type [Table 4.10,	Item (2)]	<u> </u>	SAME
cvode (single or multip	le) [Table 4.9, Item (9)]	SINGLE	SAME
ment/Polarity		DCEN	
	- 4		1=
sition [Table 4.10, Item	(5)]		FLAT
Weld Progression [Table	4.10, Item (7))	FLAT	- ELGI
-		. 1 69	ma/A
cking (YES or NO) (Tab	lo 4.10, liem (8))	A36 10 A36	
aterial/Spec. Flable 4.10	, Item (1)]	A36 to A36	·
se Metal			
Thickness: (Plate)		. 1.	1
Groove		N/A	1 N/A
Filiet		1500	125-INLIMITE
Thickness: (Pipe/lube)			
		NIA	I NA
Groove		NIA	NIA
Fillet		2774	NIA
Diameter: (Pipe)			AIIA
Groove			RI/A
Fillet		<u> </u>	131/3
ller Metal [Table 4.10, It	em (3)}	4 - 20	
Spec. No.		A5.20	
Class		ETIT-IM	- large
F-No.		FO	FL AND LOWER
as/Flux Type [Table 4.1), Item (4))	CO2	
ther	4.72		
IIIO1			
والمراجعة		A D AN IANTONIA	
	VISUAI	LINSPECTION (4.8.1)	
		ble YES or NO YES	
	Guided Bo	end Test Results (4.30.5)	
1		Туре	Result
Туре	Result	1790	namen og storetigtet det state for betydelige er efterfore i benedt verkriftet er en state for betydelige for en
I A		NA	The second secon
MA		1.1/1	
	CHA! Toet Da	sults (4.30.2.3 and 4.30.4.1)	
A = A	I . I .	Fillet Size	///c # MICH
Appearance ACCAP	AULE	MATERIAL P. A.	atable 0
Conduct That Hant Han			
(Describe the location.	nature, and size of any crac	K OI LEGITING OF MIC OPPOSITION	
AA 2-0	647	Test Number 990	50211
repected by M.DR	EVV	Date 3-3-08	
Inganization MDI	Control of the Contro	The second secon	ساز المحتركة كالموراقي في انتقاب مشكرة ثيب ويساد بيرونون بياريد بالمراز والمراز والمراز والمراز والمراز والمر من المراز والمراز والمراز والمراز والمراز والمدون والمراز والمراز والمراز والمراز والمراز والمراز والمراز والم
-	PADIOGRAPI	HIC TEST RESULTS (4:30.3.1)	
	nabiodina	- Identifontion	
Film Identification	Results Rema		Results Remarks
Number	пезина пени	Number	
14011001	a parting a florest i sur international surfacement for international surfacement and international surfacement is The surfacement in the surfacement is surfaced in the surfacement in the surfacement is surfaced in the surfacement in the surfacement is surfacement in the surfacement in the surfacement in the surfacement is surfacement in the surfacement in the surfacement is surfacement in the surfacement in the surfacement is surfacement in the surfacement in the surfacement in the surfacement is surfacement in the surfacement in the surfacement in the surfacement is surfacement in the surfacement is surfacement in the surfacement in the surfacement is surfacement in the surfacement in the surfacement is surfacem	A	المحالية المحالية المحالية المحالة الم
	merity pro-representative page (manuscript page) and Elife Angel	A CONTRACTOR OF THE PROPERTY O	
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-terminated by			
		Uale	The first of the state of the s
Organization		a de la	hehlaw harenenn eraw ahlaw i
No the undersioned, cel	tify that the statements in thi	s record are correct and that the test	Chartural Moldina CodaStar
This correlation of business	The requirements of Section	4 01 74 10 11 11 12 11 11 12	
Pater at developing at		IRON Authorized By STEV	e Manilla - Prec
I doublement ar Panisas	tor I MC LIGHT.	IKON Authorized By STEV	E MAMILTON - LLES
	NVI June 1	Date 2-3-03	and have been a supplied to the supplied of th
om E-4		ar are we have a second and a second	-

WELDER, WELDING OFERATOR, OR THUR WELDER WORLINGATION TEOT INCOORD

Name of Welder	JOHN McNi	CHOLAS					
Name	LMC Light Ir	on, Inc.	Identi	fication No	. 009-5	6-7142	
Welding Procedure Specification	No.		1 Rev.	N/A	Date:	2/03/05	
Comments to the second							
Variables		,	Actual Value		Quali	fication Range	, -
			Qualification	18			
Process/Type [Tale 4.10, Item (1)]		FCAW		——- j			
Electrode (single or multiple) [Table 4.1	0, Item (8)]	845 E74T-1		ALL		•	
Current Polarity		210 Amps	JC+				
							- ··· ·
Position [Table 4.10, Item (6)		1G		1G N/A			
Weld Progression (Table 4.10, Item (6)		N/A		N/A			
		VI-0.		YES	:		
Backing (YES or NO) [Table 4.10, Item	· · · -	YE8:	to Gro		,	4 4	
Material/Spec.	-	Group 1	lo Git	oup i			
Base Metal							
Thickness (Plate)	arrest to	-0.40		1/8-	3/4		
Groove	_	3/8"			H Unlimite	i	
Fillet	-	N/A			TI OTHER	-	
Thickness (Pipe/Tube)		21/4		1/8-	3/4		
Groove	_	N/A			H Unlimite	d	· -
Fillet	-	N/A			11 011111111111111111111111111111111111	T	'
Diameter: (Pipe)		NI/A		01	ER 24" DIA		
Groove		N/A N/A			ER 24" DIA		
Fillet	_	N/A				•	
Filler Metal [Table 4.10, Item (3)]	-	AE-00					•
Spec. No.	-	A5:20 E71T-1				- · · · ·	
Class	-	-F6		F6		•	•
F-No. [Table 4.10, Item (2)]	-		n/25% CO2				
Gas/Flux Type [Table 4.10 item (3)]		N/A	1/25/6 CO2	' N/A	<u>.</u>		
Other		-17.7. "					
والمراجع والمراجع المحاصص المراجع والمراجع والمحاجع والمحاجم والمحاجع والمحاجع والمحاجع والمحاجم والمحاجم والمحاجم والمحاجع والمحاجم والم	Vis	AL INSPE	CTION (4.	8.1)			
		eptable	YES or		S		
	Guide	d Bend Te	st Results (_	
Tyme		sult		Туре		Resu	
Type 1G FACE BEND		TABLE	1G RC	OT BEND		ACCEPT	ABLE
1G FACE BEND		Fillet	Test Repor	ts (4.30.2.3	and 4.30.4	.1)	į.
A	N∤A		Fillet Siz		N	/A	1
Appearance Fracture Test Root Penetration	*N/A		Macroet	ch	N	/A	
(Describe the location, nature	nd size of B	N éracien	r tearing of	the specim	en.)		
(Describe the location, nature	Stanhan	D. Hamilto	n	Test Nun			
inspected by		ht Iron, Inc		Date	2	03/05	2
Organization	FINC FIB	DADIC	GRAPHIC				
		KADIC	GRAFIIIG			,	
Film identification				1	ntification	Results	Remarks
Number	Resu	its	Remarks	t	nber		N/A
NA	NIA)	N/A		iA	N/A	:
In annual annual and a same took of the party of the part	N/A		N/A	. N	IA	N/A	N/A
N/A							
Interpreted	tby: N	IA .		Test Nu	mber	N/A	
Organizati		/A		Date		N/A	
_	×,**			• ••			
We, the undersigned, certify the welded, and tested in accordan Code —— Steel.	at the statem ice with the re	ents:In-this equiremen	record are: ts of section	correct and 14 of AWS	that the to d1.1 <u>(.200</u>	est welds wer	e prepared, al Welding
	1 240 1 1-4	d lann lar	•	Author	rized By	LAIB	and of
Manufacturer or Contractor	LMC Ligh	it iron, int	<u>.</u>		Date	7.2.04	
							

WELDER, WELDING OPERATOR OR TACK WELDER QUALIFICATION TEST RECORD

ype of Welder ESA'B = 250	Identification	No. 3649
Jume 120105 KRAGG	Rev AWS DLL	Date 3-3-08
Velcing Procedure Specification No. Table 3.1		
	Record Actual Values Used in Qualification	Qualification Range
Variables Process/Type [Table 4.10, Item (2)]	FCAW	
Electrode (single or multiple) [Table 4.9, Item (9)]	SINGLE	SAME
Curr ont/Polarity	DEEN	
Position (Table 4.10, Item (5))	IE	<u>LE</u>
Weld Progression (Table 4.10, Item (7))	FLAT	Clark
Bucking (YES or NO) (Table 4.10, Item (8))	NO:	N/A
Material/Spec. [Table 4.10, Item (1)]	A36 10 A36	T the second
Base Metal	•	
Thickness: (Plate)	N/A	NA
Groove	500	.125-UNLIMITED
Fillet	1	
Thickness: (Pipe/lube)	N/A	NA
Groove	NA	NIA
Fillet Diameter: (Pipe)	NIA	NA
Grove	NA	NA
Filel	NIA	N/A
Filler Melal [Table 4.10, Item (3)]		
Spec. No.	A5.20	
Class	ETIT-IM	FG AND LOWER
F-No.	<u> </u>	PG AND LOWERS
Gas/Flux Type [Table 4.10, Item (4)]	CO2	-
Other		
	BI CONTOCAL ALASTON TO A STATEMENT IN CONTROL OF STATEMENT AND A STATEMENT AND A STATEMENT OF STATEMENT AND ASSOCIATION AS	And the state of t
VISUA	AL INSPECTION (4.8.1) able YES or NO YES	
	Bend Test Results (4.30.5)	
	Type	Result
Type Result	1 y DO	
4.4.4	N/A	
N/A		0.7
Fillet Test F	tesults (4.30.2.3 and 4.30.4.1)	MICHAEL PLOSTA
Annual Accordant Alol 5	Fillol Size	4414034
Test Doot Physical At Carried Park	Macroetch ACC	STARLE
(Describe the location, nature, and size of any cra	ick or tearing of the specimen.)	cm
(Describe the location, fractic, days only	Test Number 990 S	0211
Inspected by M. DREW	Dale 3-3-08	Lie allege and property and the state of the
Omanization MALL	ACTO ATTENDED	
RADIOGRAF	PHIC TEST RESULTS (4:30.3.1)	
	Film Identification	esulis Remarks
Film Identification Results Rem	larks Number	COURT
PARTIE DAY COMMENCE OF THE PROPERTY OF THE PRO	NA	Control of the Contro
A		
	Test Number	والما والمسيد مينونها ومسامه أو يشتك المسيد والمساورة والمسيد والمساورة والمساورة والمساورة والمساورة والمساورة
Interpreted by	Dale	the second second was special party and party and party and party and the second secon
Organization	minimized	welde were prepared, welded, and
Organization We, the undersigned, certify that the statements in the statements of section	his record are correct and that the test	Structural Welding Code—Steel.
LAA LAUT	TOAN Authorized By CHEVE	HAMILTON-PLESIDEN
Manufacturer or Contractor LMC LIGHT	Date 3-3-08	
Fam E-4	URIC	Character Landschild (Applications and Water Landschild Company)
	•	

WELDER, WELDING OPERATOR OR TACK WELDER QUALIFICATION TEST RECORD

Type of Welder ESA'B -250	idanlilanla	n No. 1403
VAITA JERRY FARAIR	Rev AWS DI.	Date 3-3-08
Welcing Procedure Specification No. Table 3.1		
	Record Actual Values Used in Qualification	Qualification Range
Variables	FCAW	
Process/Type [Table 4.10, Item (2)]	SINGLE	CAME
Electrode (single or multiple) (Table 4.9, Item (9)) Current/Polarity	DCEN	
Contentropolity		
Position [Table 4.10, Item (5)]	IE	I C
Weld Progression [Table 4.10, Item (7)]	ELAT	
Backing (YES or NO) [Table 4.10, Item (8)]	NO	N/A_
Material/Spec. [Table 4.10, Itom (1)]	A36 10 A36	From (
BaseMatai		. 5224
Thickness: (Plate)		1.14
Groove	N/A	125 - INLIMITED
Fillet		- IZS - MACINITED
Thickness: (Pipe/lube)	1 &	N/A
Groove	N/A	+ W/A
Fillet		NIA
Diameter. (Pipe)		NII A
Groove	- 147	
Fillet	MIA	
Filler Metal [Table 4.10, Item (3)]	A5.20	
Spec. No.	FTIT-IM	1
Class	F 60	F6 AND LOWER
F-No. Gas/Flux Type [Table 4.10, item (4)]	CO2	
Other		
Odibi		A COMMITTEE OF THE PROPERTY OF
VISIA	L INSPECTION (4.8.1)	
ranna de la company de la comp	ble YES or NO MES	
	end Test Results (4.30.5)	[
	Type	Result
Type Result	Туре	
NIA	NIA	
TV/A		ANY
Fillet Test Re	esuits (4.30.2.3 and 4.30.4.1)	1"
Empotence Accountable	Fillet Size	WORKE W MEN
Emplure Tool Bool Penetration Acade Cate Date		STADLE MONEY
(Describe the location, nature, and size of any crac	IN DI LEWINING OF THE PERSON O	
(Describe the rocation, material)	Test Number 9905	0211
Inspected by M. DREW	Date 3-3-08	V
Organization M.D.T	The state of the s	and the same the same and his management of the same that
RADIOGRAPI	HIC TEST RESULTS (4:30.3.1)	
	Film Identification D	esults Remarks
Film Identification Results Rema	irks Number	cauto (Citizano
Number		
A	WA	
NIN		
Interpreted by		
	1)8(8	
		velds were prepared, welded, and
We, the undersigned, certify that the statements in thit tested in accordance with the requirements of section	4 of ANSVAWS D1.1. () \$	Structural Welding Code—Steel.
tested in accordance with the requirements of section	(year)	al all Bankson
Manufacturer or Contractor LMC LIGHT	TRON Authorized By STEVE	HAMILTON - ITESIDENT
	Date 3-3-08	and have been a suit of the su
Form E-4	410	•

P.6

WELDER WELDING _ ERATOR, OR TACK WELDER QUALIFIC... ION TEST RECORD

Name of Welder Name	-	ADEAU ht Iron, Inc.	ide 1 Re	ntification I	Vo. 007- Date	.70-5910 2/03/05	
Welding Procedure Speci	ncation No		1 1.00		VP 4. 4.	•	
Variables		Rec Used	ord Actual Val In Qualificat	ues lons	Qu	alification Ren	38
Process/Typu [Tale 4 10 Ite Electrode (single or multiple) [Current Polarity	m (1)] (able 4 10, Item (8	FCAW 045 E71 210 Am			LL .		
Position (Table 4-10, item (9 Weld Progression (Table 4-, 0) (tem (6))	1G N/A		1 N	G /Å		•
Backing (YES or NO) (Tablé 4 Meterial/Spec. Bose Motol	10, liem (7)]	YES Group 1	to G	roup 1	ES		
Thickness (Plato) Groove Fillat		3/8° N/A			/8-3/ <u>4</u> & H Unlimit	ed .	
Thickness (Pipe/Tube) Grosvo Fillet		N/A N/A			e H ruilliigi 16 314	ed	
Diametor: (Pipe) Groove Fillet		N/A N/A			VER 24" DI	A ^	g a sepaketerilina erat
Filler Metal (Tchto 4.10, item) Spec. No. Class		A5.20 E71T-1 F6	The second secon			,	
F-No. (Table 4.10, Item (2) Gas/Film Type (Table 4.10 ite Other	w (9)]	75% Ar N/A	gon/25% CO.		VA 		
	G	VISUAL IN: Acceptable ulded Bend	YES	or NO` (4.30.5)	(ES	Res	wit
Type 1G FACE BEND		Result CEPTABLE FIL	let Test Rep	Type ROOT BENI orts (4.30.2	.3 and 4.30.	ACCEP	''
Appearance Fracture Test Root Penetre (Describe the location, n	ature and SIZE	of any crack	Fillet S Macro or tearing o	etch of the spec	imen.)	NIA	
insper	sted by: Such	Ten D. Han		Date	J .	N/A 2/03/05 (3.1)	n e e e e e e e e e e e e e e e e e e e
Film Identific Number	ation F	tesults	Remarks	Film lo	lentificatior umber	Results N/A	Remarks N/A
N/A N/A		N/A N/A	NIA N/A		N/A N/A	NIA	NIA
Org	rpreted by: anization	N/A N/A		" Date	lumber	N/A N/A	
We, the undersigned, ce welded, and tested in ac Code Steel.	rtify that the sta cordance with t	tements in t he requirem	hie record ar ents of secti	e correct a on 4 of AW	nd that the S d1.1 (<u>2</u> 0	test wolds we <u>vv</u>) Structur	ore prepared, ral Welding
Menufacturer or Cont	ractor LMC	Light Iron, l	ne.	Auth	orized By Date	2-3-0	Yt-

WHITBY STEEL MILL HOPKINS STREET SOUTH WHITBY ON LIN STI CAN

Chemical and Physical Test Report

MADE IN CANADA

JUL 14 2009

856960-M

Page 4 of 5

(905) 668 8811		
SHIP TO MILL METALS CORPORATION		SHIP DATE 07/13/09
603-526-7351 62 MAPLE ST. MANCHESTER, NH 03103	MALL STEEL ING 62 MAPLE STREET MANCHESTER, NH 03103	CUST. ACCOUNT NO : 59076023
, -	GRADE	
0	P S SI CU NI Cr	N Sn Al 11 Zz Co CEry
W9015D8 16 Wechanical Test: Yield 523	16 /5 MH 444 45 46 16 16 16 23.608in, 23.6420MM Yigid 52357 PSI, 360.99 MPA Tensile: 74027 PSI, 510.4 MPA %EE 23.608in, 23.6420MM	KEL 23.688IN, 23.6420IMMM Dof HT: 0, 09844 Sun 0
PRODUCED IN: WHITEY	A 333/6	SALTS GROER CUST P.O. MUMBER
SHAPE & SIZE	GRADE SPECIFICATION ASTM. A36 . 05 ASTM A709-06: ASME: SA35-00A (A	91-146 Page 14-146
! !!	C Mn P 5 SI Cu NI Cr Mo V R B 10 N1 Cr Mo V R B 10 N1	00000 000 00000 00
at Test.	YER 56055 PSI, 388.49 MPA Tensile: 76767 PSI, 523.29 MPA SEE: 29.4561, 29.4200NNN DEFHT: 0, IMM	WAY DEPTH: 0, LAWARE SUFFOLE
PRODUCED IN: WHITBY	PRODUCED IN: WHITEY (3 3) (SPECIFICATION	SALES CHOER CUST P.O. NUMBER
	M: A36 - 05 ASTN	N Sp At TI Zr Ca CEqv
HEAT I.D. C. W901647 .14	C Mn P S SI CJ NI OT 034 < MB < 008 .00	24 .00000
Mechanical Test: Yield 51	Yeld 51191 PSI, 352.95 MPA Tensibe: 71837 PSI, 495.3 MPA %EI: 30,0/80n, 30,0/20MM Def HT: 0, 0 MA Yeld 51424 PSI, 354.56 MPA Tensile: 71541 PSI, 493.26 MPA %EI: 32,5/86M, 32,5/200MM Def HT: 0, 0 MA	NEI: 30.08km, 30.0280MM DAFHT: 0, DMAK SUN 0

This material, including the talets, was produced and manufactured in Canada

Bhaskar Yalamanchill

Geroau Ameristeet Quality Director

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

WHI THEY STEEL MIKIL Mgr. Metallurg. Sucs

Seller warrants that at material turnished shall comply with specifications subject to standard published manufacturing variations. NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY THE SELLER, AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHAN IABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

In no eward shall seller be highe for indirect, consequential or puritive damages arising out of or related to the malerial function by seller.

Any cleam for damages for materials that do not conform to specifications must be made from buyer to seller immediately after delivery of same in order to allow the seller the opportunity to inspect the material in

GERDAU AMERISTEEL

JACKSON TN 38305 USA JACKSON STEEL MILL 801 AMERISTEEL ROAD (731) 424-5600

Chemical and Physical Test Report

MADE IN UNITED STATES

AUG 25 500

V-560632

DT GIES		INVOICE TO	
603-626-7351	ORPORATION	MILL METALS	SHIP DATE 08/22/09
62 MAPLE ST		MICL STEEL NO	
MANCHESTER, NH 03103		62 MAPLE STREET MANCHESTER, NH 03103	CUST. ACCOUNT NO
PRODUCED IN: JACKSON TN	14174		SZM/WIN
SHAPE + SIZE			
77/4 X 2	A36 ASTM A38-08; ASME SA-36	36	SALES ORDEH CUST P.O. NUMBER
HEAT I.D.	C Mn P S S Cu N	Cr Mo V NF B	9180192-02 54562-02
RIZZYGA	+	.13 .024 .003 .000 .0006 .000 .00	-
Mechanical Test:	Tensika: 68770 PS	200. 210. 0600. caoo. 200.	.000 1.00000 .313
Mechanical Test:	336.05 MPA	WELL 31 Main 31 SYDDIMM Defett of OWN	
PRODUCED IN: JACKSON TN	JACKSON TN ALLY I	1	
AA X A Y AACC	SPECHICATION		
HEAT IN	A36	8	SALES ORDER CUST P.O. NUMBER
V902671	. 15 .61 .014 .026 .21 .42 .02	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Zr Ca CEqv 54562-08
Wechanical Test:	Tensile: 65440 PS	200, 110. Beach choos from Sever over	.000 .00000 .317
Mechanical fest:	323.16 MPA	55.81 MPA %EI; 35.0/8in, 35.0/200MM Def HT; 0, 0MM 94/h 01	
PARE COLOR IN: JACKSON TN	Þ		
37.5 + 3.05	Ë		
FATIO	ASS	6	THE STATE OF
101 10	C Ma P S SI CU N		9180192-05 54562-05
1962842	is	.026 .007 (M) Sn M Ti	Ca CEqv
Aechanical Tast	Yield 47090 PSt, 324,67 MPA Tensile: 68220 PSt 47	OUTER TOO. OTO. Source Const.	.000 ,000000 ,308
Recharical Tega:	Yind 45490 PSI, 320.54 MPA Tensile: 67150 PSI, 462.98 MPA	0.39 MPA %E1: 32.08 in, 32.0200MM Def HT: 0, 0 MM %Up 01 2.39 MPA %E1: 33.08 in, 33.0200MM Def HT: 0, 0 MM %Up 01	

his indisertal including the billets, was produced and manufactured in the United

Gerdau Ameristael Quality Director Bhaskar Yalamanchili

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY, THE PROPERTY OF THE PROPERTY O

JACKSON STEEL MILL Mgr. Metallurg, Svcs.

Eller, AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABILITY AND FINESS FOR A PARTICULAR PURPOSE TY claim for damages for main/ability and analysis for main/ability explicitly expecifications and conform to specifications must be made from buyer to select the materials furnished by seller, and analysis that do not conform to specifications must be made from buyer to select immediately after delivery of same a order to allow the seller the appointmity to inspect the material in the seller and the seller interests and the seller interests and the seller that appointmity to inspect the material in the seller interests and the seller interests and the seller interests and the seller that appointmit in the seller interests and the sell

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SERKEL EY

CERTIFIED MILL TEST REPORT

11:59:01

W10x19 040' 00.00' W250528.4 012.1920m Mt. Pleasant, S.C. 29464 Phone: (843) 336-6880 P.O. Dox 225 V12x19
045' 00.00'
V310X20.3
013.7168m W10x22.0 040 ° 60.00* W250X32.7 012.1920# SPECIFICATIONS: Tested in accordance with ASIM specification n6/A6M and A370, ARSEIG : M270-50-05 nSIM : R992-N66:R36-08/A529-05-50/A577-07-59/F169-D8 50/A709-345M W1 0 x 1 7 040' 00.00' \$250X25,3 912.1920s Description I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by the material monufactures are in compliance with material specifications, and when designated by the Purchaser, meet applicable specifications. Elongation based on 8' (20.32cm) gauge length. 'No Weld Repair' was peferred.
C[= 26.01Co+3.88Wi+1.2UCr+1.49Si+17.209-[7.29CuVWi]-(9.)UVINP]-13.39[CuVCu]
DCs = C+{Si/3U}+{Ms/20}+{Cu/2D}+{Wi/SU}+{Ci/29}+{Mo/1S}+{V/10}+18 Sold Ic: THIRM METHLS CORP - CI Dax 2219 WALLINGFORD, CI 2902968 n992-86a 3901042 9932-06a 2 902 132 8 932 -06 e 1997-08a Grada(5) Test 6) 3332 EQ.C Innsile RACLO Y iold/ 26490 . E 8 101255 57560 54500 (Atta) 219 65 Yield Tensile 0.000 59900 59300 72490 899 73998 583 12100 C1089 00400 (MPa) 1000 72200 (18d) 2101 28.09 Elcoq 78.53 26.05 24,39 24.19 25, 54 27. OB 25.44 Stip to: AKIKK . 05 103 90' 95 SPERO HEIRIS CORP 16 Piece(5) 16 Pieco(s) WALLINGTURD, CI R Piece(s) Piece(3) 医甲基苯酚 .0.4 .03 .01 .0.1 Hetallurgist ENTER .009 . 008 1008 .0006 .0038 .0038 33 06492 G 8g free and no contact with 8g during manufacture.
cEl = c+{Nn/6}+{([Cr+Mo+V)/5}+{([Si+Cu)/15})
CE2 = C+{(Nn+5i)/6}+{(Cr+Mo+V+Cb)/5}+{(Bi+Cu)/15} 100% MELTED AND MENUTACIONED IN THE CS9 and all bears produced by Mucar-Berkeley are cast and collection to a fully killed and fine grain practice. 3 E A E S E .036 .0303 ,0003 .0003 .835 .8003 1031 医多耳角子及管理 医多子医生异 多节医生 医皮肤 医艾耳氏病 医医皮质 医医性 计表示图片 电电子电话 化丁甲基 .20 .003 .006 . 1103 .21 .002 .0063 . 933 . 933 (County of (State of South Carolina Sworn and Customer N.: 502 -Customer TO: Claston-FE B.o.E. R...: 742181 HLEFEE . 25 . 825 .027 # 2 . 52.3 52.3 52.3 subscribed before Berkeley 1 5.28 ÷,59 21115 5.13 5 . E .03 3 2 HAG! # 00 # : 502 -88 . 1343 AC. .25 .2930 .1385 .2873 .1369 .2711 ä

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CERTIFIED MILL IEST RIPORT

yucor siri Berrily p.d. Box 2259 pt. pleasant, S.C. 19454 phoma: (843) 336-6000

Sold IC: INFRA METALS CORP - CT

6/27/09 29:36:17
190: MELTED AND MANUFACTURED IN THE USA
190: MELTED AND MANUFACTURED IN THE USA
rolled to 1 fully killed and fine grain practice.

Customer H.: 502 - 1

B.o.C. N...: 357177

Ship to: IBJRA METALS CORP - CT 8 PETI BICINAY 06492

WHILINGEDRO, CT 16492 WALLINGEORS, CI

SPECIFICATIONS: Tested in accordance with ASTM specification 96/86M and 9370. aASTC : H270_50-05 aSTM : A992_06a:A35_08/A529_05_50/A372_U1_50/A209_0950s/A269_349M

									_	11	
Elongation hos CI = 26.01Cu PCM = C+(S1/3)	035 00.00* W310838.7 010.6680#	018.2880m	060 00.00°	M11839.0	060 ° 00.00°	W10839.0	058' 00.00" S200834	58×23)escription	## ## ## ## ## ## ## ## ## ## ## ## ##	010
ed on 8; (sed on 8; (1,2881+1.2 0)+(Mb/20)+	A99Z-060	1069 # CFG K	A391-654	2902065	1994 - Dag	2813897	3446	2901861	Grade(s)	71 4 11 5 45 4 17 7 11 2 11 11 (1)	7
23,37cm) 90 0Cs+1,4951 (Cu/10)+{B	, 80	. 90	. 53	- හා පෞ	. 69 63	9.	.79	.79	_	riold/	W1039 (601)
17.28P	988 00635	26400	57200	10 FBS	985 00\$ 65	57368 395			(PSI)	Tield I	<i>_</i> □
ngth. 1 -(1.290)+ Cr/20)+	183 0050L	70210 884	71988 896	72700 1077	æ =	~ 0			(MPd)	ensile	leo.
(45)/02) 6)-(1830 67-67-08	24.65	24,74	21,39	24.65	17 17 14 14	21.90	22,44	24.21	· 	*) II	<u>ر</u>
Repair (10 miss)		, U.S.			,as-		53 Yes	. EJ.	# CE	7	
end pe£o: -13,39[C -13,39[C	Piece(s)		Place(3)	1.05	iece(s)	3 . 1.3	(slabel)		N N N N N N N N N N N N N N N N N N N	3	
	3.50	.011	ewo15h)	6.016	Customer	1007	Customer	.9062	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
(186 cu)	2 PO: C191	, 631 , 9993	, pa: £198	1023	101 C190	\$600.	po: c1903	10.00	ALKER .	es un 11	i i i
15] 1(9/(15+m 1(9/(15+m	BALL AND THE STREET OF THE STR	. 1022	\$KEFX	100 E	green green	,003	, _E	.0057	2	4 <u>5</u> .	
((CIHBO+	* * * * * * * * * * * * * * * * * * *	, 00.7 via	-					. B. 3	27 E E E E E E E E E E E E E E E E E E E	3 C	11 14 15 15 15 15 15 15 15 15 15 15 15 15 15
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manufactures are in compliance with material specifications, and uben designated by the marchaser, neet applicable specifications.

Hetalkurgist

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Heat Number

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Shipper No

Mill Metals

Customer Name

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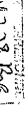
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-Intended uses construction and civil engineering. -Product suitable for galrectuing: 0.14<-85cm0.25 a Pcm0.438.

Action of the

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Customer PO#

Customer Name

Mill Metals

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PACKING LIST

ALTOS HORNOS DE MEXICO S.A. DE C.V.

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Heat Number

Shipper No

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STEEL 14006227105 From: NUCOR -HUGER Page 2 of 6 035 00 00° NEOR 15 NEOR 101, 501 NEOR 12.3 015.24005 W10x12 040 * 00.00* FW250x17.9 012.7920m I hereby cortify that the contests of this report are accurate and correct. All test results and operations performed by the material manufacturer are in compliance with material specifications, and when designed by the Purchaser, meet applicable specifications. Elongation based on 8' (30.12cm) gauge length. 'Bo Wold Repair' was pararred. C1 \approx 26-0(Cu+J-886i+1.20Cr+J-895i+J-.28p-[7.29Cv*Hi)-(9.10Hirp)-J3.39(Cv*Cu)-PCa \approx C+[51/30]+(Mn/20)+(Cu/20)+(B1/60)+(Cr/20)+(Mn/15)+(V/10)+S8 Description SPECIFICATIONS: rested to accordance with ASIM specification AASHIG: #270_10_0\$
ASIM: #992_06a:#572_07_50/#109_07_50/#709_145M Mc. plmasanc, S.C. 2 P.O. HOOM W23DXL7.3 010-6680p SOLD TO: ACIER LENGUM, A DIVISION OF AUSSEL METALS, INC.
1331 GRANAN SELL
BOUCHERVILLE, OC 198 6AJ Box 2259 AL JUNES R 1811437 1868181 2812348 9992-08d 1813485 1957-068 Test Crada(s) Heat ? Tensile ČÓ POT 22400 57100 24500 00255 101 58600 Tanatle 69500 \$ 7900 67500 70200 110669 901.9 67100 (MPa) flong 28.61 23 . 18 26.89 26.96 24,84 27.46 **74.48** 37.3K Ship To: 20 XCLECX MILL IESI REDORI ... 20. 86/86M and 8370, 24 Piecets RCIER LEROUX, P DIV BOUCHERVILLE, QC Jan 6A1 1331 GRAHAM BELL Plece(s) Piece[9] HANKER 套 CHECOPER Cu Sconer CHSCOMOL Custoner **医自己性性** .1083 30 NOFSTATE Eg fræ and no contact with Bg during manufacture CE1= C+ $\{Mn/6\}+\{\{Cc+Mo+V\}/3\}+(\{Bi+Cu\}/13\}$ CE2 = C+ $\{Mn+5i\}/6\}+\{\{Cc+Mo+V+Cb\}/5\}+(\{Bi+Cu\}/15\}$ 100% MILIED AWD MORDERCTURED 1% 701/08 6:38:44
FILL bees produced by Sucor-Berkeley ere cast and relief to a fully killed and tine grain practice. PO: M95005987 PD: M55005987 PO: H95005987 PO: M95005987 rerrr , 037 , 0902 . 027 . 0082 300£ 2000 B.O.L. M.... 719508 BEXXI \$ 10. 55 2 - 013

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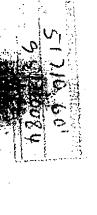
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Assigned to

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의 마크는 목속 선적하신을 내로 본모다면에서 원칙대통사 시출되는 20 교트 입니다.

#3.

Atlas Tube Canada ULC 200 Clark St. Harrow, Ontario, Canada NOR 1GO Tel: 519-738-3541 Fax: 519-738-3537

Ref.B/L: Date: Customer:

Þ Sold to

Leroux Steel-Div of Russel M 1331 Graham Bell BOUCHERVILLE QC J48 6A CANADA

MATERIAL TEST REPORT

Shipped to

Leroux Steel-Div of Russel M 1331 Graham Bell BOUCHERVILLE QC J4B 6A CANADA

Meterial: 4.0x3.0 Sales order: 478		O Otaxa).					03018848 M94 <mark>020</mark> 4		Made in:	GB11505			
Heat No	С	Mn	P	8	Si	Al	Cu	СÞ	Ma	NI	Cr	٧	Ti
M84049	0.170	0.780	0.014	0.010	0.011	0.049	0.020	0.001	0,003	0.010	0.030	0.001	0.00
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M100849649	064	450 Pai	074280		31.8 %		••	AS	TM A500	07 GRAD	E B&C		
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Material: 4.0x4.0 Sales order: 46		0*0(4×2).		***************************************			04037548 M940202		Wade in:	Canada			
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756420	0.060	0.540	0.011	0.007	0.012	0.036	0.030	0.036	0.003	0.009	0.030	0.000	0.00
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Bundle No	Yiak	,											
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Authorized by Quality Assurance: A Compliance with all applicable specification and contract requirements.

CE calculated using the AGS D1.1 method.









NOVAMERICAN STEEL PHILADELPHIA 500 Dean Sigvers Place Morrisville, PA, 19067 Tel: 215-295-8813 Fax: 215-295-8798

TEST CERTIFICATE

JUL 24 2009

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DOFASCO INC.

Heat # Manufactured in 209360 United States

United States

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COMPANY

BULL MOOSE TUBE ELKHART FACILITY

CERTIFICATION OF TESTS

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Page 512

1819 Clarkson Rd Chesterfield Missouri 63017

BILL TO Mill Metals Corp. 62 Maple Street Manchester NH 03103 JUL 22 2009

SHIP TO - w littletals Corp - stople Street 1, inchester

NH 03103

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Quality Manager - Richard Cary

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7

CEN GERDAU AMERISTEEL

(770) 387.3300 CARTERSVILLE GA 30121 USA CARTERSVILLE STEEL MILL 384 OLD GRASSDALE RO NE

Chemical and Physical Test Report

Made and Maked in USA

3-12370B

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THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

May: Metaling, Sucs.

CARTERSVILLE STEEL MILL

Seller warmins hall all material furnished shall comply with specifications subject to standard published manufacturing variations. NO OTHER WARRANTIES, EXPRESSED OR MAPLIED, ARE MADE BY THE JOSELLAR, AND SPECIFICALLY EXCLUDED ARE WARRANTIES OF MERCHANTABULTY AND FITNESS FOR A PARTNOLLAR PURPOSE.

In no event shall saller be liable for indirect, consequential or publishe damages artists gout of or related to the materials funds that do not conform to specifications must be made from buyer to specific funds after detivery of same in order to allow the celler the opportunity to impact at the current same in order to allow the celler the opportunity to impact at the current same in order to allow the celler the opportunity to impact at the current same in order to allow the celler the opportunity to impact at the current same in order to allow the celler the opportunity to impact at the current same in order to allow the celler the opportunity to impact at the current same in order to allow the celler the opportunity to impact at the current same in order to allow the celler the opportunity to impact at the current same in order to allow the celler the opportunity to impact at the current same in order to allow the celler the opportunity to impact at the current same in the current same in the content of the celler than the current same in the cur

NOVAMERICAN STERN, PHILADELPHIA 600 Dean Sievers Place Morriaville, PA, 19067 Tel: 215-295-8913 Fax: 215-395-8798

TEST CERTIFICATE

JUL 24 2009

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Authorized by Damian Onucha, Quality Ctrl Dept

JUL 23, 2009N

TOTAL O OC



Certificate of Compliance

Sold To:

Purchase Order:

2876

L,M.C. LIGHT IRON INC.

Job:

Invoice Date:

09/10/2009

THIS IS TO CERTIFY THAT WE HAVE SUPPLIED YOU WITH THE FOLLOWING PARTS.

THESE PARTS WERE PURCHASED TO THE FOLLOWING SPECIFICATIONS.

105 PCS 3/4"- 10×1 -3/4" w/ Nuts A325 Plain Structrl Bolt ASTM FQI SUPPLIED UNDER OUR TRACE NUMBER 160016821 AND UNDER PART NUMBER 42603

105 PCS 3/4"A325 Plain F436 Dom Structural Flat Washer SUPPLIED UNDER OUR TRACE NUMBER 120053423 AND UNDER PART NUMBER 0133546

8 PCS $3/4"-10 \times 7-1/2"$ NAP ASTM A325 Plain Structural Bolt w/Nut SUPPLIED UNDER OUR TRACE NUMBER 120060932 AND UNDER PART NUMBER 19248

8 PCS 3/4"A325 Plain F436 Dom Structural Flat Washer SUPPLIED UNDER OUR TRACE NUMBER 120053423 AND UNDER PART NUMBER 0133546

2 PCS 5/8"-11 x 6' Low Carbon Zinc Plated Continuous Threaded Rod SUPPLIED UNDER OUR TRACE NUMBER 160015308 AND UNDER PART NUMBER 47169

20 PCS 5/8" USS Yellow Zinc Plated Thru-Hard Washer SUPPLIED UNDER OUR TRACE NUMBER 160020818 AND UNDER PART NUMBER 1133863

 $50\,\mathrm{PCS}$ 1/2" x 6-1/8" Weld Stud Concrete Anchors SUPPLIED UNDER OUR TRACE NUMBER 160019424 AND UNDER PART NUMBER 35020

This is to certify that the above document is true and accurate to the best of my knowledge.

This document was printed on 10/01/2009 and was current at that time. Please check current revision to avoid using obsolete copies.

Fastenal Account Representative

Exhibit B

061000 Wood Construction

Project: Crescent Heights Date Prepared: May 10, 2010

Structural Schedule of Special Inspection Services FABRICATION AND IMPLEMENTATION PROCEDURES – WOOD TRUSSES

VERIFICATION AND INSPECTION IBC Section 1704.2	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	TASK COMPLETED
1. Fabrications Procedures: Review of fabricator's written procedural and quality control manuals and periodic auditing of fabrication practices by an approved special inspection agency. At the completion of fabrication, the approved fabricator shall submit a certificate of compliance to the building code official stating that the work was performed in accordance with the approved construction documents. OR- TPI Inspection Program: Fabricator shall participate in the TPI Quality Assurance Inspection Program, and maintain a copy of the Quality Assurance Procedures Manual, QAP-90. Submit copy of certificate. All trusses shall bear the TPI Registered Mark.	У	S	Fabricator shall submit one of the two qualifications	ه دسا	PE/SE or EIT	
3. At completion of fabrication, the approved fabricator shall submit a certificate of compliance to the building code official stating that the work was performed in accordance with the approved construction documents	Y	S	IBC 1704.2.2	S1 1	PE/SE or EIT	

Project: Crescent Heights
Date Prepared: May 10, 2010

Structural Schedule of Special Inspections WOOD CONSTRUCTION

VERIFICATION AND INSPECTION IBC Section 1704.6	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	TASK COMPLETED
1. Fabrication of high-load diaphragms						
Verify wood structural panel sheathing for grade and thickness	Y	P	IBC 1704.6	51 (PE/SE or EIT	
b. Verify the nominal size of framing members at adjoining panel edges	Y	Р	IBC 1704.6	511	PE/SE or EIT	
b. Verify the nail or staple diameter and length	Y	Р	IBC 1704.6	51 1	PE/SE or EIT	, , , , , , , , , , , , , , , , , , , ,
b. Verify the number of fastener lines	X	Р	IBC 1704.6	511	PE/SE or EIT	
b. Verify the spacing between fasteners in each line and at edge margins	Y	Р	IBC 1704.6	51 1	PE/SE or EIT	
2. Load Tests for Joist Hangers: Provide evidence of manufacturer's load test in accordance with ASTM D1761 including the vertical load bearing capacity, torsional moment capacity, and deflection characteristics when there is no calculated procedure recognized by the code.	7	S	IBC 1715 [submit ICBO reports]		PE/SE or EIT	

Project: Crescent Heights Luxury Apartments

Date Prepared: May 10, 2010

Fabricator's Certificate of Compliance

Each approved fabricator that is exempt from Special Inspection of shop fabrication and implementation procedures per section 1704.2 of the International Building Code must submit a *Fabricator's Certificate of Compliance* at the completion of fabrication.

Project: Crescent Heights Luxury Apartments
Fabricator's Name: Hancock Lumber Company Inc
Address: PO Box 299 Casco Maine 04015
Certification or Approval Agency:
Certification Number:
Date of Last Audit or Approval:
Description of structural members and assemblies that have been fabricated: To the best of my knowledge; Hancock Lumber Correany supplied pre-fabricated wall panels and pre-engineered floor + Roof trusses in compliance with construction drawings and contractor approved shop dravings.
I hereby certify that items described above were fabricated in strict accordance with the approved construction documents.
10 10 5/26/10 Date CFO Date Da
Title

Attach copies of fabricator's certification or building code evaluation service report and fabricator's quality control manual



		CRESCENT HEIGHTS APARTMENT SUITES – FRAMING	
1	Open 11/25/09	<u>First Floor Framing:</u> At column line E between column lines 1 & 2, W8x10 is coped due to beam pocket elevation being too high. Provide coping as detailed on SKS-21 REV. 1. 2/17/10 – reinforcing plates observed.	Closed 2/17/10
2	Open 11/25/09	<u>First Floor Framing:</u> (2)2x10 w/Simpson MSTC40 strap drag strut not installed on west side of Stair 1 as indicated on S1.2. Install as indicated on drawings. 2/5/10 – Strap observed.	Closed 2/5/10
3	Open 11/25/09	<u>First Floor Framing:</u> Bearing wall and LVL corridor framing per SKS-5 & SKS-11 not installed. Wall and floor framing must be revised per drawings. 2/5/10 – Framing observed	Closed 2/5/10
4	Open 11/25/09	First Floor Framing. Shearwall SW-3 on east side of building has many nails overdriven. G/C shall provide means for special inspector to observe entirety of shearwall elevation to evaluate extents of overdriven fasteners prior to recommendations being issued. 3/17/10 – Observed fastening for SW-3 on east side of building is acceptable. 3/22/10 – Observed fastening for shearwall on North side of building is acceptable. 4/1/10 – Observed fastening for shearwall on Line 5 is acceptable. G/C shall also provide means for special inspector to observe plywood fastening at SW-3 on grid line 5.	Revised 3/17/10 Revised 3/22/10 Closed 4/1/10
5	Open 11/25/09	First Floor Framing. Plywood overlap onto P.T. sill plate at Shearwall SW-3 on east side of building is damaged due to removing fasteners into bottom plate and "ripping" studs to height while still assembled as a panel. Damaged plywood overlap was also observed at SW-3 on grid line 5. G/C shall provide means for special inspector to observe damaged plywood at SW-3 on grid line 5 prior to recommendations being issued. 2/5/10 – G/C expressed desire to incorporate (2) layers of blocking screwed down into wall bottom plate w/ 5/16" dia x 5 1/8" long RSS screws @6" o.c. and provide new sheathing fastening into new blocking at all exterior shearwalls. This option is acceptable, G/C must provide special inspector access to view new shearwall fasteners. 3/9/10 - New fastening of exterior sheathing along wall bottom plate @SW-5 on Line C was observed to be overdriven. This is acceptable provided that when installing interior gypsum wallboard finish, screws of a minimum length of 1 5/8" shall be used to fasten wallboard to studs & blocking @12" o.c. 3/17/10 – Observed new fastening for SW-3 into new blocking on east side of building is acceptable. 3/22/10 – Observed new fastening into new blocking on North side of building is acceptable. 4/1/10 – Observed new fastening into new blocking on Line 5 is acceptable.	Revised 3/9/10 Revised 3/17/10 Revised 3/22/10 Closed 4/1/10
6	Open 11/25/09	First Floor Framing: Hot dipped galvanized nails were not present where plywood is to be fastened to P.T. sill plate. Provide per Shearwall Schedule or. IBC Table 2304.9.1 where not specified per general noted on S1.0. Revised 2/5/10 4/8/10 - Observed fastening.	Closed 4/8/10
7	Open 11/25/09	First Floor Framing: Posts must be provided each end of LVL alongside SW-3 on Column Line B. At noted SW-3, end post must be provided at exterior wall. 2/5/10 – Posts observed, strap at exterior wall not continuous from post above. G/C shall install Simpson HTS30 twist strap ea side of beam. 2/17/10 – strap observed	Closed 2/17/10
8	Open 11/25/09	First Floor Framing: Post must be provided at end of East exterior wall adjacent to existing shearwall end post to support top plate at truss bearing. 2/5/10 – Post observed	Closed 2/5/10
9	Open	. <u>First Floor Framing:</u> . Blocking at SW-3 locations is split due to lack of	Revised

BECKER structural engineers, inc.

11/25/09 3x (or (2)2x) blocking as specified. Install new blocking to bottom of existing blocking and re-nail into new blocking in shearwall schedule. 2/5/10 – New blocking observed, oprovide access to special inspector to view fastening into blocking. 3/9/10 – nailing into new blocking was observed omitted along column line 1 3/17/10 – Observed new fastening for SW-3 into new blocking is acceptable. 4/1/10 – Observed new fastening for SW-3 into new blocking is acceptable. 4/8/10 – Observed fastening for all SW-3. First Floor Framing: Shearwall Hold downs must be instated as specified at all shearwall locations. 2/5/10 – Hold downs all locations.	as specified
in shearwall schedule. 2/5/10 – New blocking observed, of provide access to special inspector to view fastening into blocking. 3/9/10 – nailing into new blocking was observed omitted along column line 1 3/17/10 – Observed new fastening for SW-3 into new blocking is acceptable. 4/1/10 – Observed new fastening for SW-3 into new blocking was observed omitted along column line 1 3/17/10 – Observed new fastening for SW-3 into new blocking is acceptable. 4/1/10 – Observed new fastening for SW-3 into new blocking is acceptable. 4/8/10 – Observed fastening for all SW-3. 10 Open First Floor Framing: Shearwall Hold downs must be instant specified at all shearwall locations. 2/5/10 – Hold downs in the provided in	G/C must 3/17/10 Revised 4/1/10 in SW-3 Closed 4/8/10 ocking on
provide access to special inspector to view fastening into blocking. 3/9/10 – nailing into new blocking was observed omitted along column line 1 3/17/10 – Observed new fastening for SW-3 into new blocking was observed omitted along column line 1 3/17/10 – Observed new fastening for SW-3 into new blocking is acceptable. 4/1/10 – Observed new fastening for SW-3 into new blocking is acceptable. 4/8/10 – Observed fastening for all SW-3. 10 Open First Floor Framing: Shearwall Hold downs must be instanced by the second specified at all shearwall locations. 2/5/10 – Hold downs in the second specified at all shearwall locations. 2/5/10 – Hold downs in the second specified at all shearwall locations. 2/5/10 – Hold downs in the second specified at all shearwall locations.	in SW-3 Revised 4/1/10 Closed 4/8/10 ecking on
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along column line 1 3/17/10 – Observed new fastening for SW-3 into new blo east side of building is acceptable. 4/1/10 – Observed new fastening for SW-3 into new b Line 5 is acceptable 4/8/10 – Observed fastening for all SW-3. 10 Open 11/25/09 First Floor Framing: Shearwall Hold downs must be instated at all shearwall locations. 2/5/10 – Hold downs of the state of t	ocking on 4/8/10
along column line 1 3/17/10 – Observed new fastening for SW-3 into new blo east side of building is acceptable. 4/1/10 – Observed new fastening for SW-3 into new b Line 5 is acceptable 4/8/10 – Observed fastening for all SW-3. Open First Floor Framing: Shearwall Hold downs must be insta specified at all shearwall locations. 2/5/10 – Hold downs	ocking on 4/8/10
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Line 5 is acceptable 4/8/10 – Observed fastening for all SW-3. 10 Open 11/25/09 First Floor Framing: Shearwall Hold downs must be instated at all shearwall locations. 2/5/10 – Hold downs of the shearwall locations.	
10 Open 11/25/09 Specified at all shearwall locations. 2/5/10 – Hold downs of the specified at all shearwall locations. 2/5/10 – Hold downs of the specified at all shearwall locations. 2/5/10 – Hold downs of the specified at all shearwall locations.	
10 Open <u>First Floor Framing:</u> Shearwall Hold downs must be insta specified at all shearwall locations. 2/5/10 – Hold downs	
11/25/09 specified at all shearwall locations. 2/5/10 – Hold downs	alled as Closed
i i i i i i i i i i i i i i i i i i i	2707.10
11 Open <u>First Floor Framing:</u> Bottom plates typically not fastened	to sill plate. Closed
11/25/09 Provide hot dipped galvanized fastening per IBC table 23	
2/17/10 – RSS screws observed fastening bottom plate to	
	Is SW-4 & Closed
12 Open First Floor Framing: Locations of double-sided shearwall SW-5 must receive 2 nd layer of sheathing per shearwall states.	schedule. 3/4/10
<u>2/5/10 – G/C made it known that interior layer of shea</u> be installed once "rough-ins" and insulating is comp	
- interior sheathing observed installed at all exterior local	tions.
Interior wall yet to be sheathed both sides	Classed Classed
13 Open <u>First Floor Framing:</u> Posts in corridor wall adjacent to ele	
11/25/09 on S1.2 as "from above" are missing. See S1.3 for posts	s sizes and 2/5/10
locations. 2/5/10 – Posts observed.	
14 Open <u>First Floor Framing:</u> Concrete pier below HSS 4x4 @ gri	
11/25/09 intersection A-8 is spawled. Please patch with approved	
compound per SKS-22. <u>5/5/10</u> – photo provided by G/C	snowing
patch installed	
15 Open <u>First Floor Framing:</u> Where 5 1/4x16 LVL is supported or	
11/25/09 at North side of building provide Simpson LCE4 post cap	o. 2/5/10 —
Post and cap observed.	
16 Open <u>First Floor Framing:</u> Many truss bearing locations do not	
11/25/09 with stud locations below in exterior wall along grid line C	
in bearing stud schematic on S1.2. G/C please verify if to	
material is MSR or ME lumber or provide (2)2x6 solid blo	
(vertically oriented) below top plate at each truss bearing	location.
2/5/10 – Lumber grade confirmed.	
2/5/10 – Lumber grade confirmed. 17 Open First Floor Framing: LVL Ledger @ elevator is not snugly	y fastened to Closed
2/5/10 – Lumber grade confirmed. 17 Open First Floor Framing: LVL Ledger @ elevator is not snugly CMU block. Please fasten ledger to CMU such that no g	y fastened to Closed gap between 2/5/10
2/5/10 – Lumber grade confirmed. 17 Open 11/25/09 First Floor Framing: LVL Ledger @ elevator is not snugly CMU block. Please fasten ledger to CMU such that no g the two is present. 2/5/10 – Ledger fastening to CMU is a	y fastened to Closed gap between 2/5/10 adequate.
2/5/10 – Lumber grade confirmed. 17 Open 11/25/09	y fastened to Closed gap between adequate.
2/5/10 – Lumber grade confirmed. 17 Open First Floor Framing: LVL Ledger @ elevator is not snugly CMU block. Please fasten ledger to CMU such that no g the two is present. 2/5/10 – Ledger fastening to CMU is a Open First Floor Framing: Exterior wall below W14 steel beam 11/25/09 8 must be fastened to bottom flange of beam per section	y fastened to gap between adequate. on grid line closed 3/22/10
2/5/10 – Lumber grade confirmed. 17 Open Interpretation of the two is present. 2/5/10 – Ledger @ elevator is not snugly CMU block. Please fasten ledger to CMU such that no generate the two is present. 2/5/10 – Ledger fastening to CMU is a Section of the two is present. 2/5/10 – Ledger fastening to CMU is a Section Shim top of wall with plywood strip such that no gap existing the confirmed. 11/25/09 First Floor Framing: Exterior wall below W14 steel beam 11/25/09 8 must be fastened to bottom flange of beam per section Shim top of wall with plywood strip such that no gap existing the confirmed.	y fastened to gap between adequate. on grid line closed 3/22/10
2/5/10 – Lumber grade confirmed. 17 Open First Floor Framing: LVL Ledger @ elevator is not snugly CMU block. Please fasten ledger to CMU such that no g the two is present. 2/5/10 – Ledger fastening to CMU is a Open First Floor Framing: Exterior wall below W14 steel beam 8 must be fastened to bottom flange of beam per section Shim top of wall with plywood strip such that no gap exist bottom flange and wall.	y fastened to gap between adequate. on grid line closed 3/22/10
2/5/10 – Lumber grade confirmed. 17 Open 11/25/09	y fastened to gap between adequate. on grid line 6/S3.1. ots between
2/5/10 – Lumber grade confirmed. 17 Open First Floor Framing: LVL Ledger @ elevator is not snugly CMU block. Please fasten ledger to CMU such that no g the two is present. 2/5/10 – Ledger fastening to CMU is a First Floor Framing: Exterior wall below W14 steel beam 8 must be fastened to bottom flange of beam per section Shim top of wall with plywood strip such that no gap exist bottom flange and wall. 3/22/10 – Observed bolting. 19 Open First Floor/Second Floor Framing: Floor to floor joints in the second floor floor joints in the second floor floor floor floor joints in the second floor floor floor joints in the second floor floor floor floor floor joints in the second floor fl	y fastened to gap between adequate. on grid line of 6/S3.1. ats between exterior wall closed
2/5/10 – Lumber grade confirmed. 17 Open First Floor Framing: LVL Ledger @ elevator is not snugly CMU block. Please fasten ledger to CMU such that no g the two is present. 2/5/10 – Ledger fastening to CMU is a First Floor Framing: Exterior wall below W14 steel beam 11/25/09 8 must be fastened to bottom flange of beam per section Shim top of wall with plywood strip such that no gap exist bottom flange and wall. 3/22/10 – Observed bolting. 19 Open First Floor/Second Floor Framing: Floor to floor joints in a sheathing are at a different location than what was specific	y fastened to gap between adequate. on grid line of 6/S3.1. ots between exterior wall fied in the
2/5/10 – Lumber grade confirmed. 17 Open First Floor Framing: LVL Ledger @ elevator is not snugly CMU block. Please fasten ledger to CMU such that no g the two is present. 2/5/10 – Ledger fastening to CMU is a First Floor Framing: Exterior wall below W14 steel beam 11/25/09 8 must be fastened to bottom flange of beam per section Shim top of wall with plywood strip such that no gap exist bottom flange and wall. 3/22/10 – Observed bolting. 19 Open First Floor/Second Floor Framing: Floor to floor joints in sheathing are at a different location than what was specific construction documents ("Typ Ext Wall Panel-Panel Con	y fastened to gap between adequate. n on grid line n 6/S3.1. ats between exterior wall fied in the n Detail" on Closed 4/8/10
2/5/10 – Lumber grade confirmed. 17 Open 11/25/09	y fastened to gap between adequate. non grid line 6/S3.1. sts between exterior wall fied in the in Detail" on e bottom of
2/5/10 – Lumber grade confirmed. 17 Open 11/25/09	y fastened to gap between adequate. non grid line 6/S3.1. ats between exterior wall fied in the in Detail" on be bottom of late. 2x6
2/5/10 – Lumber grade confirmed. 17 Open 11/25/09	y fastened to gap between adequate. non grid line 6/S3.1. ats between exterior wall fied in the n Detail" on be bottom of late. 2x6 of existing
2/5/10 – Lumber grade confirmed. 17 Open	y fastened to gap between adequate. non grid line of 6/S3.1. all states between all fied in the non Detail" on e bottom of late. 2x6 of existing ng. Top of
2/5/10 – Lumber grade confirmed. 17 Open 11/25/09	y fastened to gap between adequate. non grid line of 6/S3.1. all states between all fied in the non Detail" on e bottom of late. 2x6 of existing ng. Top of
2/5/10 – Lumber grade confirmed. 17 Open 11/25/09	y fastened to gap between adequate. n on grid line of 6/S3.1. tts between exterior wall fied in the n Detail" on be bottom of late. 2x6 of existing ng. Top of n plate of
2/5/10 – Lumber grade confirmed. 17 Open 11/25/09	y fastened to gap between adequate. n on grid line of 6/S3.1. ats between adequate. exterior wall fied in the n Detail" on be bottom of late. 2x6 of existing ng. Top of n plate of A as noted Closed 4/8/10 Closed 4/8/10 Closed 4/8/10 Closed 4/8/10 Closed 4/8/10



		has the option to install second strap either on exterior face of post or interior face of post. 1/22/10 – (2) straps found at each H.D. location.	
21	Open 1/15/10	Roof Framing: Ledger attachment to supporting studs in corridor was found to have only (2) RSS screws at each stud. Per detail 5 on S3.2, ledger shall be fastened to each stud with minimum of (4) RSS screws. 1/22/10 – (4) screws found at each stud.	Closed 1/22/10
22	Open 1/15/10	Roof Framing: Ledger attachment to supporting header at corridor bay window was found to lack any means of fastening. Gap between ledger and header shall be shimmed solid and ledger shall be fastened to header per detail 15 on S3.2. 1/22/10 – Shim and fastening observed.	Closed 1/22/10
23	Open 1/15/10	Roof Framing: Ledger attachment to supporting header at bay window in suite 301 was found to lack any means of fastening. Ledger shall be fastened to header per detail 14 on S3.2. 1/22/10 – Fastening observed.	Closed 1/22/10
24	Open 1/15/10	Roof Framing: Attachment of MSTC40 at Stair 1 was to be into CMU stair shaft by design. Strap is fastened to rimboard as observed in field. See attached SKS-26 for rimboard attachment to CMU wall. 1/22/10 – Plates installed as detailed in SKS-26 were observed.	Closed 1/22/10
25	Open 1/15/10	Roof Framing: Panelized wood infill wall between steel columns D-1 & F-1 was observed to have no means of attachment to surrounding steel columns/beam above. Due to lack of access, attaching beam to top plate per detail 5 on S3.1 is not possible. We recommend G/C attach wood panel to surrounding steel columns/beam with powder actuated fasteners @12" o.c. Provide pins long enough to fasten (2)2x6 jamb to steel columns. 1/22/10 – Self-drilling screws observed in lieu of P.A.F.'s, this substitution is acceptable.	Closed 1/22/10
26	Open 1/15/10	Roof Framing: Framing at roof penetration for RTU support was observed to differ from that shown on SKS-13 dated June 10, 2009. In lieu of removing and replacing dimensional roof joists with LVL's as specified, G/C may provide (2) additional 2x10's at each side of penetration. Simpson LUS210-3 hangers shall be provided at revised (3)2x10 framing. Framed opening adjacent to actually opening shall be infilled with 2x10 joists @24" o.c. 1/22/10 — Reinforcement of existing roof joists and infill was observed.	Closed 1/22/10
27	Open 1/15/10	Roof Framing: G/C shall provide special inspector access to view fastening of exterior wall sheathing at shearwall locations. 4/8/10 – Fastening observed.	Closed 4/8/10
28	Open 1/15/10	Roof Framing: G/C shall provide special inspector access to view Stair 1 & 2 roof framing. 3/22/10 – framing observed	Closed 3/22/10
29	Open 1/22/10	. <u>Third Floor Framing:</u> . At all window locations where identical window opening occurs on the floor above, we recommend cripple jack studs be provided above header to match quantity below header. 1/27/10 – Cripple stud observed in-place.	Closed 1/27/10
30	Open 1/22/10	.Third Floor Framing: End post at south end of shearwall SW-2 in exterior East wall was found to have only (1)2x6 stud continuous. Please provide continuous (2)2x6 end post this location. Post may be in addition and adjacent to existing window jamb. 2/5/10 – Post observed.	Closed 2/5/10
31	Open 1/22/10	Third Floor Framing: Window jamb between side-by-side rough openings was found with only (1) continuous king stud at (2) locations. Please see sketches of header reinforcement issued 1/26/10 for recommended retrofit. 2/17/10 – reinforcing observed.	Closed 2/17/10
32	Open 1/22/10	Third Floor Framing. At all shearwall holddown HD-B locations only (1) strap was observed. G/C made it known that the 2 nd strap will be installed on the exterior of the building once access is provided. 4/8/10 – Holddowns observed.	Closed 4/8/10
33	Open 1/22/10	Third Floor Framing: G/C shall provide special inspector access to view fastening of exterior wall sheathing at shearwall locations.	Closed 4/8/10



		4/8/10 – Fastening observed	
34	Open 1/27/10	Second Floor Framing: End post at south end of shearwall SW-3 in exterior East wall was found to have only (1)2x6 stud continuous. Please provide continuous (2)2x6 end post this location. Post may be in addition and adjacent to existing window jamb. Provide strap as specified in drawings at new post location. 2/5/10 – Post observed.	Closed 2/5/10
35	Open 1/27/10	Second Floor Framing: Window jamb between side-by-side rough openings was found with only (1) continuous king stud at (2) locations. Please see sketches of header reinforcement issued 1/26/10 for recommended retrofit. 2/17/10 – reinforcing observed.	Closed 2/17/10
36	Open 1/27/10	Second Floor Framing: End post at north end of shearwall SW-3 in exterior East wall was found to have no strap installed at time of visit. Please provide (2) HD-B as shown on S1.3. At all shearwall holddown HD-B locations only (1) strap was observed. G/C made it known that the 2 nd strap will be installed on the exterior of the building once access is provided. 4/8/10 – Holddowns observed.	Revised 2/17/10 Closed 4/8/10
37	Open 1/27/10	Second Floor Framing: Post continuing from floor above between bedrooms 4 & 5 in suite 103 was observed missing. Install continuous 3 1/2x7 PSL post from floor sheathing to floor sheathing. 2/17/10 – post observed.	Closed 2/17/10
38	Open 1/27/10	<u>Second Floor Framing</u> . Built-up 2x post continuing from floor above between bedrooms 1 in suite 102 & 5 in suite 103 was found to have wall plate running over top of post with a gap between plates and floor sheathing. Install solid blocking between top plate and sheathing at post location. 2/5/10 – Blocking observed	Closed 2/5/10
39	Open 1/27/10	<u>Second Floor Framing:</u> Solid blocking between cantilevered floor joists was observed missing at bay window in corridor. G/C made it known that blocking will be installed once cantilevered floor cavity has been insulated. 2/5/10 – Blocking observed	Closed 2/5/10
40	Open 1/27/10	<u>Second Floor Framing</u> : It should be noted that interior layer of sheathing must be added to SW-4 on column line C once insulation is completed. 3/4/10 – sheathing observed installed.	Closed 3/4/10
41	Open 1/27/10	<u>Second Floor Framing</u> G/C shall provide special inspector access to view fastening of exterior wall sheathing at shearwall locations <u>4/8/10</u> – Fastening observed.	Closed 4/8/10
42	Open 2/5/10	Second Floor Framing. Attachment of continuous rimboard at entry roof overhang was observed to be missing. Please provide Simpson framing angle per section 4/S3.1. Once connector is observed, sheathing shall be applied to underside of joists per detail. 4/12/10 – Connectors observed installed.	Closed 4/12/10

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OBSERVATION	<u> </u>	ואי				Date:	11-25-09	
Rough Carpentry						Time:	2:00 PM	
						Temp: Weather:	40 F overcast	
						vveamer.	· Overcast	
Project:	Cres	cent H	leight	s				
Location:	Portl	and, N	ΛE					
Becker Job No:	2035	·)						
Observation Loc	ation: Fi	rst floo	or fram	nina &	walls h	elow		
Observation Loc	ation. 11	130 1100	or man	iiiig G	wano b	.010 **		
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		, lo	actory	pleted	cable			
		actory	tisfactory	ompleted	plicable			
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	. 4.7	Satisfactory	Jn-Satisfactory	Not Completed	Not Applicable			
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Material Quality			□□□ Un-Satisfactory		□□□ Not Applicable		Comments	
Material Quality Bearing Condition		\boxtimes	□□□□ Un-Satisfactory		Not Applicable		Comments	
Material Quality Bearing Condition Connections			□□□□□ Un-Satisfactory		☐☐☐☐ Not Applicable		Comments	
Material Quality Bearing Condition Connections Nailing Pattern		\boxtimes	☐☐☐☐☐ Un-Satisfactory		Not Applicable		Comments	
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Material Quality Bearing Condition Connections Nailing Pattern Bridging/Bracing Other:			□ □ □ □ □ □ Un-Satisfactory			See attached fra	Comments ming comments from 11-25-0	9
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Material Quality Bearing Condition Connections Nailing Pattern Bridging/Bracing Other: Other:					☐☐☐☐☐☐ Not Applicable	See attached fra		9

BECKE R structural engineers, inc.

OBSERVATION	REPORT			Date:	12-23-09	
Rough Carpentry				Time:	9:30 AM	
r.ougcopo				Temp:	20 F	
				Weather:	sunny	
Project:	Crescent H	-leiahts				
Location:	Portland, N	_				
Becker Job No:	2035	VIL				
Becker Job No.	2035					
				M		
Observation Loca	ıtion: Roof sh	eathing				
	Satisfactory	Un-Satisfactory Not Completed	Not Applicable		Comments	
Member Sizes Material Quality Bearing Condition Connections Nailing Pattern Bridging/Bracing Other: Other:						
Notes:						

BECKER structural engineers, inc.

OBSERVATION	REPORT			Date:	1-15-10
Rough Carpentry				Time:	3:00 PM
				Temp: Weather:	35 F overcast
				vveamer.	UVEICASI
Project:	Crescent Hei	ights			
Location:	Portland, ME				
Becker Job No:	2035				
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Observation Locat	lion: Roof frami	ng & wan	s below		
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	Satisfactory	Un-Satisfactory Not Completed	Not Applicable		
		\supset Z			Comments
Member Sizes					
Material Quality	\boxtimes [
Bearing Condition	\boxtimes [
Connections					
Nailing Pattern	\square				
Bridging/Bracing					
Other:				See attached fra	ming comments from 1-15-10
Other:	·		П		
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DBSERVATION	REPORT			Date:	1-22-10
Rough Carpentry				Time:	8:00 AM
				Temp:	35 F
				Weather:	overcast
Project:	Crescent H	eiahts			
ocation:	Portland, M	-			
Becker Job No:	2035		***************************************		
Jecker Job No.	2000		2. 10.174.0.740.1740		
Observation Loca	tion: Roof fran	ning & wall	s below	/. 3 rd floor framing	& walls below.
	Satisfactory	Un-Satisfactory Not Completed	Not Applicable		
Member Sizes Material Quality					Comments
Bearing Condition Connections Nailing Pattern Bridging/Bracing Other: Other:				See attached fran	ming comments from 1-22-10
Outer.					
Notes:					

BECKER structural engineers, inc.

OBSERVATION	PEDORT			Date:	1-28-10
	KEPOIN	-		Time:	3:00 PM
Rough Carpentry				Temp:	35 F
				Weather:	overcast
Project:	Crescent Heig	ghts			
Location:	Portland, ME	A.Sand to make the winds		1000-100-100	
Becker Job No:	2035				
Observation Locat	rion: 3 rd floor fran	ming & w	valls be	elow. 2 nd floor fram	ing & walls below.
Observation Locat	ion. o noor na	Illing a w	/allo bc	auw. Z noornam	mig & wans below.
	COMMISSION OF THE PROPERTY OF				
	> **	etec	able		
	Satisfactory	OII-Sausiactory	Not Applicable		
	tisfa	t Cc	t Ap		
	Sa	5 8	2		Comments
Member Sizes		1	Д		
Material Quality Bearing Condition		<u> </u>	Н	:	
Connections				d same and a same a same a same a same a same	
Nailing Pattern Bridging/Bracing] <u> </u>	H	\$	
Other:			H	See attached fra	ming comments from 1-28-10
Other:					
Notes:					

BECKE R structural engineers, inc.

	REPORT			Date:	2-5-10
Rough Carpentry				Time:	1:00 PM
				Temp:	35 F
				Weather:	Sunny
Project:	Crescent F	leights			
Location:	Portland, N	_			
Becker Job No:	2035				
	et nd	- rd			
Observation Loc	ation: 1 st , 2 rd ;	and 3'" flo	or framii	ng & walls below.	
		2 2	g o		
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	story	sfact	ripiete		
	factory	atisfact	Jornpiere Applicabl		
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OBSERVATION	REPORT				Date:	2-17-10
Rough Carpentry					Time:	1:00 PM
					Temp:	35 F
					Weather:	Sunny
Project:	Crescent H	_	S			
Location:	Portland, N	ΛE	***************************************			
Becker Job No:	2035					
Observation Locat	ion: 1 st 2 nd	and 3 ^t	^d floor	framir	ng & walls below	
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Bridging/Bracing				H		
Other:	. 🔲	\boxtimes			See attached fran	ming comments from 2-5-10
Other:			Щ.	ш	·	
Notes:						

BECKE R structural engineers, inc.

OBSERVATION	REPORT			Date:	3-4-10
Rough Carpentry				Time:	8:00 AM
				Temp:	35 F
				Weather:	Cloudy
Project:	Crescent Hei	ahts			
Location:	Portland, ME				
Becker Job No:	2035				
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Observation Loca	tion: SW-4 and	SW-5 loca	ations.	•	
Member Sizes Material Quality Bearing Condition Connections Nailing Pattern Bridging/Bracing Other: Other: Notes:	□□⊠⊠⊠⊠⊠ Satisfactory	Un-Satisfactory	☐☐☐☐☐☐☐ Not Applicable	See attached fram	Comments ming comments from 3-4-10

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Rough Carpentry Time: 8:00 AM Temp: 35 F Weather: Overcast Project: Crescent Heights Location: Portland, ME Becker Job No: 2035 Observation Location: First floor SW-5 on Line C & Second Floor SW-3 on Line 1 Activates a second Floor SW-3 o	
Project: Crescent Heights Location: Portland, ME Becker Job No: 2035 Observation Location: First floor SW-5 on Line C & Second Floor SW-3 on Line 1 Action 1	
Project: Crescent Heights Location: Portland, ME Becker Job No: 2035 Observation Location: First floor SW-5 on Line C & Second Floor SW-3 on Line 1 Action 1	
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Portland, ME Secker Job No: 2035 Observation Location: First floor SW-5 on Line C & Second Floor SW-3 on Line 1 Cotype Street	
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OBSERVATION	REPORT				Date:	3-17-10
Rough Carpentry					Time:	8:00 AM
					Temp:	40 F
					Weather:	Sunny
	2	· :b1				
Project:	Crescent H	_	.S			
Location:	Portland, M	<u>IE</u>				
Becker Job No:	2035					
Observation Locat	t ion: First & S	econ	d Floo	r SW-	3 on Line 8 and Th	nird Floor & Roof SW-2 on Line 8
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Material Quality	\boxtimes					
Bearing Condition	X					
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Nailing Pattern	<u>X</u>	<u> </u>	Н	H		
Bridging/Bracing		\mathbb{H}	H	H	See attached fra	ming comments from 3-17-10
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BECKE R structural engineers, inc.

	REPORT				Date:	3-22-10
Rough Carpentry					Time:	11:00 AM
					Temp:	40 F
					Weather:	Overcast
Project:	Crescent F	-leight	s	***************************************		
Location:	Portland, N	_				
Becker Job No:	2035					
Observation Locat Building	t ion: Shearwa	all at F	irst Fl	oor, Se	econd Floor, Third	Floor and Roof on North side of
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Rough Carpentry							
					Time:	11:00 AM	and the same and the
					Temp:		
					Weather:	Sunny	
Project:	Crescent H	laiaht	łe		ечниковы и выполько на		
Location:	Portland, M		3				
Becker Job No:	2035	! 					
	2000				j		
Observation Loca	tion: Shearwa	all at F	First F	loor, S	econd Floor, Third	Floor and Roof on Column line	- 5
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Nailing Pattern		H	H	H			
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OBSERVATION I	REPORT			Date:	4-8-10
Rough Carpentry			10001.000	Time:	9:00 AM
	and a second	ı		Temp:	50 F
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D -14-					
Project:	Crescent Heig	jhts			
Location:	Portland, ME				•
Becker Job No:	2035		MATERIAL PROPERTY OF THE PROPE		
Observation Locat	ion: Shearwall a	at First Floo	or, Second Flo	oor, Third	Floor and Roof on Column line C
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BECKER structural engineers, inc.

OBSERVATION	IREPORT				Date:	4-12-10
Rough Carpentry				Time:	2:00 PM	
					Temp:	50 F
					Weather:	Sunny
Project:	Crescent I	Height	s		414414111111111111111111111111111111111	
ocation:	Portland, I					
Becker Job No:	2035					
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Material Quality Bearing Condition		□□□□ Un-Satisfactory	□□□□ Not Completed	□□□□ Not Applicable		Comments
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$Special\ Inspections-Exhibit\ C$

Quality Assurance for Seismic Resistance Seismic Checklist Quality Assurance for Seismic Resistance Wind Checklist Schedule of Inspections Project: Crescent Heights Date Prepared: May 10, 2010

Quality Assur	rance Plan –	Seismic an	ıd Wind	
QUALITY ASS Seismic Design		R SEISMIC C	RESISTANCE CHECK I	LIST [IBC 1705]
☐ Steel Moment F ☐ Shear walls: ☐ ☐ Other:	esisting systems ames and associated corames and associated CMU Wood C	onnections/anchorage connections oncrete	e Diaphragms: Floor Roof SISTANCE CHECK LIS	T [IBC 1706]
	hour (mph) (52.8	(A Quality Ass Categories A an <i>m/sec</i>) or greater Categories C and	ASSURANCE PLAN REQUII surance Plan is required where in ad B, where the 3-second-gust bas r. dd D, where the 3-second-gust bas	sic wind speed is 120 miles per
Prepared by: Signature	Much	5/24/2 Dayte	Building Code Official's O/O Signature	Acceptance:

Project: Crescent Heights Date Prepared: May 10, 2010

Structural Schedule of Special Inspections seismic resistance - structural

VERIFICATION AND INSPECTION	Y/N	EXTENT: CONTINUOU	COMMENTS	AGENT	AGENT QUALIFICATION	TASK COMPLETE
IBC Section 1707		S, PERIODIC, SUBMITTAL, OR NONE			GOALII IOATION	D
Special inspections for seismic resistance. Special inspection as specified in this section is required for the following:			Seismic Design Category: B			
a. The seismic-force-resisting systems in structures assigned to Seismic Design Category C, D, E or F	У	P	IBC 1707.1	51 I	PE/SE or EIT	
Structural steel: Continuous special inspection for structural welding in accordance with AISC 341.	N	Р	IBC 1702.2		AWS-CWI	
3. Structural wood:						
 a. Continuous special inspection during field gluing operations of elements of the seismic-force-resist- ing system. 	Y	С	IBC 1702.3	511	PE/SE or EIT	
b. Periodic special inspections for nailing, bolting, anchoring and other fastening of components within the seismic-force-resisting system, including drag struts, braces and hold-downs	Y	P	IBC 1702.3	51 1	PE/SE or EIT	
4. Cold-formed steel framing: Periodic special inspections during welding operations of elements of the seismic-force-resisting system. Periodic special inspections for screw attachment, bolting, anchoring and other fastening of components within the seismic-force-resisting system, including struts, braces, and hold-downs	7	N				
4. Seismic isolation system. Provide periodic special inspection during the fabrication and installation of isolator units and energy dissipation devices if used as part of the seismic isolation system	7	N	IBC 1707.8			

Special Inspections – Exhibit D

Statement of Responsibility

Project: Crescent Heights Date Prepared: May 10, 2010

Contractor's Statement of Responsibility

Each contractor responsible for the construction or fabrication of a system or component designated in the Quality Assurance Plan must submit a Statement of Responsibility. The Statement of Responsibility is required for Seismic Design Category C or higher. Make additional copies of this form as required.

Project: Crescent Heights

Contractor's Name: Portland Builders, Inc.

Address: 85 York Street, Portland ME 04101

License No.:

Description of designated building systems and components included in the Statement of Responsibility:

Contractor's Acknowledgment of Special Requirements

I hereby acknowledge that I have received, read, and understand the Quality Assurance Plan and Special Inspection program.

I hereby acknowledge that control will be exercised to obtain conformance with the construction documents approved by the Building Official.

Signature

5/25/10 Date

Contractor's Provisions for Quality Control

Procedures for exercising control within the contractor's organization, the method and frequency of reporting and the distribution of reports is attached to this Statement.

Identification and qualifications of the person(s) exercising such control and their position(s) in the organization are attached to this Statement.

End of Special Inspections Report