Final Report of Special Inspections

New Building for Phoenix Property Management

Portland, Maine

July 27, 2012

Prepared By:

M^2 Structural Engineering, P.C.
23 Thornbury Way
Windham, ME 04062

Project No. 11128

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: *New Building for Phoenix Property Management*
Location: *Hutchins Road, Portland, ME*
Owner: *Phoenix Property Management*
Owner's Address: *PO Box 759*
Saco, Maine 04072

Architect of Record: *N/A* (name) *N/A* (firm)

Structural Registered Design Professional in Responsible Charge: *Various* (name) (firm)

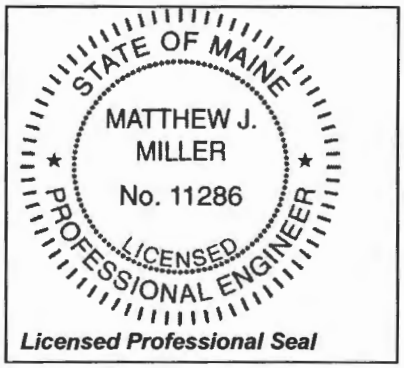
To the best of my information, knowledge and belief, the Special Inspections required for this project, and itemized in the *Statement of Special Inspections* submitted for permit, have been performed and all discovered discrepancies have been reported and resolved except as follows:

The SI team was not notified of a concrete placement for the foundation walls, and therefore cylinders for testing of the concrete were not cast. It was discussed that cores would be taken from the in place concrete for testing. M^2 SE was not notified of the results of the core samples.

Respectfully submitted,
Structural Special Inspection Coordinator

Matthew J. Miller, P.E.
(Type or print name)
M^2 Structural Engineering, P.C.
(Firm Name)

Signature 07/27/2012 Date



Licensed Professional Seal

Structural Statement of Special Inspections (Continued)

Special Inspector's/Agent's Final Report

Project: *New Building for Phoenix Property Management*

Special Inspector or Agent: Roger Domingo (*name*) S.W. COLE ENGINEERING, INC. (*firm*)

Designation:

To the best of my information, knowledge and belief, the Special Inspections or testing required for this project, and designated for this Inspector/Agent 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,
Special Inspector or Agent:

Roger Domingo

(Type or print name)

Signature

7/25/2012

Date

Licensed Professional Seal or
Certification Number

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: Phoenix Property Management – Maintenance Building

Fabricator's Name: Corle

Address: 114 Rosemont Lane, Imler PA 16655

Certification or Approval Agency:

Certification Number:

Date of Last Audit or Approval:

Description of structural members and assemblies that have been fabricated:

Pre-Manufactured Metal Building System

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

Signature

07-25-12
Date

ENGINEERING MANAGER
Title

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

International Accreditation Service

CERTIFICATE OF ACCREDITATION

This is to signify that

CORLE BUILDING SYSTEMS, INC.
404 SARAH FURNACE ROAD
IMLER, PENNSYLVANA 16655

Inspection Program for the Manufacture of Metal Building Systems MB-146

has demonstrated that its in-plant inspection program for Part A-Fabrication of Structural Weldments and Cold-formed Products Requiring Welding, Part B-Fabrication of Cold-formed Products Not Requiring Welding, and Part C-Design of Metal Building Systems is in compliance with the International Accreditation Service, Inc., Accreditation Criteria for Inspection Programs for Manufacturers of Metal Building Systems (AC472) and is recognized under Section 1704.2.5.2 of the 2012 *International Building Code®*, and Section 1704.2.2 of earlier code editions, commencing March 1, 2012; expiring February 28, 2013.

Fabrication inspection procedures covered by this certificate are conducted in accordance with the fabricator's approved quality control manual. Periodic plant inspections are conducted by Farabaugh Engineering and Testing Inc. (AA-715), at 404 Sarah Furnace Road, Imler, Pennsylvania, to monitor the fabricator's quality management system verifying continual compliance with the requirements as listed in the above scope of accreditation. Accreditation is limited to the specified inspections related to the fabrication processes and procedures only. Accreditation does not cover the product, or the design or performance characteristics of the fabricated product.

Patrick V. McCullen
Vice President

IAS
ACCREDITED

C. P. Ramani, P.E.
President

Print Date: 04/04/2012

This accreditation certificate supersedes any IAS accreditation certificate bearing an earlier date. The certificate becomes invalid upon suspension, cancellation or revocation of accreditation. See the IAS Accreditation Listings on the web at www.icsonline.org for current accreditation information, or contact IAS directly at (562) 364-8201.

11-04576

M² Structural Engineering P.C.
23 Thornbury Way, Windham, ME 04062
(207) 892-0983

SPECIAL INSPECTIONS
FIELD REPORT

Report No. 03-001

Date:	December 22, 2011
Project:	Phoenix Property Management – Hutchins Drive, Portland, ME
Project Number:	11128
Time at Site:	2:00 pm – 2:30 pm
Weather:	Sunny, High 40's °F
Present at Site:	Matthew J. Miller, P.E. (M2SE)

Area(s) of Observations:

- Foundation walls and piers along Line F from 1 - 6

Observations:

1. The reinforcing steel and formwork for the walls and piers had been installed at the above referenced locations. Due to the height of the forms observations along the entire length of the wall was not possible. Observations were made at each pier location. At these locations the size, spacings, and clear cover distances were found to be in general conformance with the contract documents.
2. It was noted and discussed with Randy of Randy Concrete that the anchor rods had not been installed. M2SE notified Randy that in accordance with General Note 7 on the foundation drawings that the anchor rods are to be set and leveled prior to concrete placement. The anchor rods were in the process of being set and leveled in the pier at 6/F while M2SE was on site. A concrete truck had arrived while M2SE was on site. M2SE did not verify the installation of the anchor rods at other pier locations.
3. The concrete for this placement was supplied through Auburn Concrete. The batch ticket indicated that the concrete was a 3000 psi, air entrained concrete mix with ¾" aggregate. Testing of the concrete was not performed since neither M2SE nor S.W. Cole Engineering was notified of the placement. **Required testing in accordance with the Statement of Special Inspections for this placement was not completed.**
4. Based on observations made by M2SE and our discussions with Roger Domingo of S.W. Cole, the soil material at the foundation bearing elevations appeared to be primarily clay. In accordance with chapter 18 of the 2009 International Building code, the presumptive bearing capacity for this material would be approximately

1500 psf. In accordance with General Note #3 on the Foundation Plan prepared by Theodore Greenlaw, the foundation was designed based on a soil bearing capacity of 2500 psf. **The suitability of the foundation design for the actual site conditions should be verified by the Engineer of Record (EOR).**

Non-Conformance Items:

1. Refer to item 3 above: Concrete testing for this placement was not completed. EOR shall provide direction on in-situ concrete testing or shall determine whether an exception to this concrete testing in accordance with Section 1704.4 of the 2009 International Building Code may be applied.

2. Refer to item 4 above: The presumptive bearing capacity in accordance with the 2009 International Building Code for bearing on clay is less than the bearing capacity used in the design of the foundation. The EOR shall verify the adequacy of the foundation design or provide alternate foundation details.

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SPECIAL INSPECTIONS
FIELD REPORT

Report No. 03-002

Date:	December 29, 2011
Project:	Phoenix Property Management – Hutchins Drive, Portland, ME
Project Number:	11128
Time at Site:	12:00 pm – 12:30 pm
Weather:	Sunny, Low 30's °F
Present at Site:	Matthew J. Miller, P.E. (M2SE)

Area(s) of Observations:

- Foundation walls along Line 1 and Line A from 1-2

Observations:

1. The reinforcing steel and formwork for the walls and piers had been installed at the above referenced locations. The size, spacing and location of the reinforcing steel for the walls were observed and were in conformance with the contract documents. The pier reinforcing could not be verified since the forms had been erected and the anchor rods had been set in templates which covered the entire pier therefore blocking access to these locations.

Non-Conformance Items:

No non-conformance items were noted during this visit.

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SPECIAL INSPECTIONS
FIELD REPORT

Report No. 03-003

Date:	February 7, 2012
Project:	Phoenix Property Management – Hutchins Drive, Portland, ME
Project Number:	11128
Time at Site:	1:45 pm – 2:15 pm
Weather:	Cloudy, Upper 30's °F
Present at Site:	Matthew J. Miller, P.E. (M2SE)

Area(s) of Observations:

- Salt Storage Shed foundations

Observations:

1. Installation of the reinforcing steel for the salt storage shed was in progress, with the majority of the footing reinforcing installed. The sizes and spacing of the reinforcing was observed and was in general conformance with the contract documents.
2. Several areas were noted where the clear cover at the bottom of the footing was not in conformance. M2SE notified Randy of Randy's Concrete. M2SE was informed that they were having some concrete bricks delivered to support the bars.
3. Installation of the wall dowels for the exterior mat had just started while we were on site. The spacing of the bars was observed to be in conformance with the contract documents.
4. Several isolated areas were noted where standing water was present at the bottom of the footing. M2SE was informed that the water would be pumped out prior to concrete placement.

Non-Conformance Items:

No non-conformance items were noted during this visit.

M² Structural Engineering P.C.
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(207) 892-0983

SPECIAL INSPECTIONS
FIELD REPORT

Report No. 05-001

Date:	December 29, 2011
Project:	Phoenix Property Management – Hutchins Drive, Portland, ME
Project Number:	11128
Time at Site:	10:15 am – 11:00 am
Weather:	Sunny, Low 30's °F
Present at Site:	Matthew J. Miller, P.E. (M2SE)

Area(s) of Observations:

- Metal Building Framing

Observations:

1. The erection of the primary framing for the metal building was substantially complete. Seacoast Crane and Building Co. was on site continuing to install the light gage eave and rake framing.
2. M2SE reviewed the sizes, spacings and details of the framing members. Physical measurements were limited to the members that were accessible from the ground level. The sizes of members at higher elevations were estimated. Based on our review, the building was in conformance with the contract documents.
3. Final installation of the lateral system, including tightening of the cable bracing and anchor rods had not been completed to date.

Non-Conformance Items:

No non-conformance items were noted during this visit.

M² Structural Engineering P.C.
23 Thornbury Way, Windham, ME 04062
(207) 892-0983

SPECIAL INSPECTIONS FIELD REPORT

Report No. 05-002

Date:	February 3, 2011
Project:	Phoenix Property Management – Hutchins Drive, Portland, ME
Project Number:	11128
Time at Site:	8:45 am – 9:15 am
Weather:	Sunny, mid 20's °F
Present at Site:	Matthew J. Miller, P.E. (M2SE)

Area(s) of Observations:

- Metal Building Framing

Observations:

1. The erection of the primary framing for the metal building was significantly complete. Seacoast Crane and Building Co. was on site installing the roof insulation and decking. Approximately ½ of the roof had been decked over.
2. The siding on three side of the building had been installed.
3. Tightening of the cable bracing and anchor rods appeared to have been completed, although temporary cable bracing was still in place.
4. The nuts on the anchor rods at Line A/4 did not fully engage the anchor rods. The top of the anchor rod was approximately 1/4" below the top of the nut. The Engineer of Record should review this condition and provide direction as necessary.

Non-Conformance Items:

Refer to Item #4 above: The nuts on the anchor rods at Line A/4 did not fully engage the anchor rods.

STRUCTURAL ENGINEER OF RECORD (S.E.R.) RESPONSE: (Provide attachment(s) as required)

S.E.R. Signature: _____ **Date:** _____

Is re-inspection by Special Inspector required?	**Yes** ☐	**No** ☐

CONTRACTOR VERIFICATION: (To be completed by either the General Contractor or sub-contractor responsible for portion of work in non-conformance and returned to the Special Inspector and Structural Engineer of Record)

I verify, that as of the date listed below, that the non-conforming item(s) noted above has (have) been corrected as required.

Date Completed: _____ By: _____
(Signed)

_____
(Print name)

_____
(Company)

S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: Portland ME - 144 Hutchins Drive - Materials Testing **Project Number:** 11-1295

Client Contract Number:

Client: Phoenix Management

General Contractor:

Concrete Supplier: AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast: 12/20/2011 **Time Cast:** 13:15 **Date Received:** 12/21/2011

Placement Location: SIDE C & D FOOTINGS

Placement Method: REAR DISCHARGE

Cylinders Made By: ERIK COHENOUR

Placement Vol. (yd³):

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: HOT WATER
MID RANGE
POZZUTEC 20 1%
AIR ENTRAINER

TEST RESULTS

Slump (in) (C-143): **Slump WR:** 6.5

Air Content (%) (C-231): **Air WR:** 7.0

Air Temp (°F): 35

Conc. Temp (°F) (C-1064): 65

Load Number: 2

Mixer Number: 78

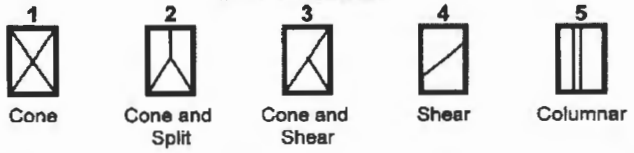
Ticket Number 197891

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)
346-1A		4.00	12.57	12/27/2011	Lab	7	4	43.5	3460
346-1B		4.00	12.57	1/17/2012	Lab	28	4	53.0	4220
346-1C		4.00	12.57	1/17/2012	Lab	28	4	49.4	3930
346-1D				Hold	Lab				

Fracture Types



Remarks:

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S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: Portland ME - 144 Hutchins Drive - Materials Testing **Project Number:** 11-1295

Client Contract Number:

Client: Phoenix Management

General Contractor:

Concrete Supplier: AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast: 12/28/2011 **Time Cast:** 3:11 **Date Received:** 12/29/2011

Placement Location: FRONT WALL - FOOTING

Placement Method: TAILGATE

Cylinders Made By: CHRISTOPHER HENES

Placement Vol. (yd³): 10

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: POZZUTEC

TEST RESULTS

Slump (in) (C-143): **Slump WR:** 5

Air Content (%) (C-231): **Air WR:** 7.8

Air Temp (°F): 47

Conc. Temp (°F) (C-1064): 71

Load Number: 1

Mixer Number: 86

Ticket Number 197997

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)
346-2A		4.00	12.57	1/4/2012	Lab	**7**	4	51.3	**4080**
346-2B		4.00	12.57	1/25/2012	Lab	**28**	4	59.4	**4730**
346-2C		4.00	12.57	1/25/2012	Lab	**28**	4	57.0	**4540**
346-2D				Hold	Lab				

Fracture Types

Remarks:

S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: Portland ME - 144 Hutchins Drive - Materials Testing

Project Number: 11-1295

Client: Phoenix Management

Client Contract Number:

General Contractor:

Concrete Supplier: AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast: 12/29/2011 **Time Cast:**

Date Received: 12/30/2011

Placement Location: NORTH & EAST WALLS

Placement Method: REAR DISCHARGE

Cylinders Made By: ERIK COHENOUR

Placement Vol. (yd³): 15

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: HOT WATER
GLENIUM 7500
MICRO AIR
POZZ 20 1%

TEST RESULTS

Slump (In) (C-143): 5

Air Content (%) (C-231): 6.5 **Air WR:** 60

Air Temp (°F): 13

Conc. Temp (°F) (C-1064): 32

Load Number: 1

Mixer Number: 99

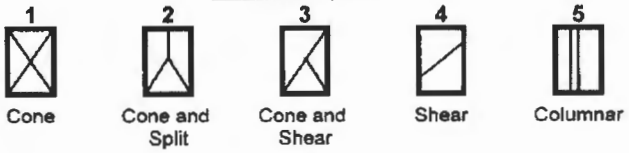
Ticket Number 198020

Cubic Yards: 7.55

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)
346-3A		4.00	12.57	1/5/2012	Lab	**7**	4	46.6	**3710**
346-3B		4.00	12.57	1/26/2012	Lab	**28**	4	66.8	**5320**
346-3C		4.00	12.57	1/26/2012	Lab	**28**	4	65.6	**5220**
346-3D				Hold	Lab				

Fracture Types



Remarks:

S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: Portland ME - 144 Hutchins Drive - Materials Testing **Project Number:** 11-1295

Client Contract Number:

Client: Phoenix Management

General Contractor:

Concrete Supplier: AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast: 2/8/2012 **Time Cast:** 9:30 **Date Received:** 2/9/2012

Placement Location: SALT SHED FOOTING

Placement Method: TELEBELT

Cylinders Made By: ERIK COHENOUR

Placement Vol. (yd³): 73.5

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: MICRO AIR
GLENIUM
POZZUTEC 20 1%

TEST RESULTS

Slump (in) (C-143): **Slump WR:** 2.5

Air Content (%) (C-231): **Air WR:** 5.3

Air Temp (°F): 20

Conc. Temp (°F) (C-1064): 55

Load Number: 3

Mixer Number: 84

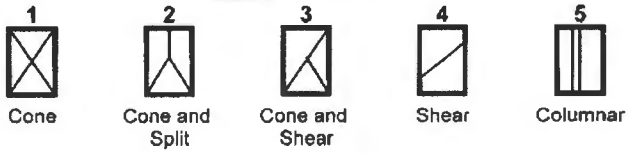
Ticket Number 191355

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)
346-4A		4.00	12.57	2/15/2012	Lab	**7**	4	59.4	**4730**
346-4B		4.00	12.57	3/7/2012	Lab	**28**	4	69.6	**5540**
346-4C		4.00	12.57	3/7/2012	Lab	**28**	4	67.8	**5400**
346-4D				Hold	Lab				

Fracture Types



Remarks:

S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: Portland ME - 144 Hutchins Drive - Materials Testing **Project Number:** 11-1295

Client Contract Number:

Client: Phoenix Management

General Contractor:

Concrete Supplier: AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast: 2/8/2012 **Time Cast:** 10:30 **Date Received:** 2/9/2012

Placement Location: SALT SHED FOOTING

Placement Method: TELEBELT

Cylinders Made By: ERIK COHENOUR

Placement Vol. (yd³): 73.5

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: MICRO AIR
GLENIUM
POZZUTEC 20 1%

TEST RESULTS

Slump (in) (C-143): **Slump WR:** 4.5

Air Content (%) (C-231): **Air WR:** 6.5

Air Temp (°F): 25

Conc. Temp (°F) (C-1064): 61

Load Number: 6

Mixer Number: 99

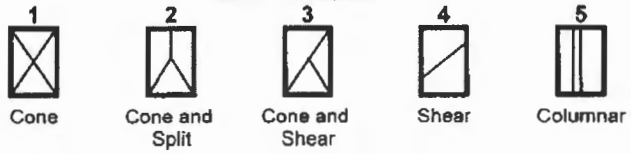
Ticket Number 191361

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)
346-5A		4.00	12.57	2/15/2012	Lab	7	4	55.2	4390
346-5B		4.00	12.57	3/7/2012	Lab	28	4	63.5	5050
346-5C		4.00	12.57	3/7/2012	Lab	28	4	65.4	5210
346-5D				Hold	Lab				

Fracture Types



Remarks:

S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: Portland ME - 144 Hutchins Drive - Materials Testing **Project Number:** 11-1295

Client Contract Number:

Client: Phoenix Management

General Contractor:

Concrete Supplier: AUBURN CONCRETE

PLACEMENT INFORMATION

Date Cast: 2/9/2012 **Time Cast:** 3:30 **Date Received:** 2/10/2012

Placement Location: SALT SHED WALLS

Placement Method: BELT

Cylinders Made By: CHRISTOPHER HENES

Placement Vol. (yd³): 42

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: MICRO AIR
POZZUTEC
GLEN

TEST RESULTS

Slump (in) (C-143): **Slump WR:** 3 3/4

Air Content (%) (C-231) **Air WR:** 62

Air Temp (°F): 43

Conc. Temp (°F) (C-1064): 69

Load Number: 4

Mixer Number: 86

Ticket Number 191405

Cubic Yards: 10.5

Design (psi): **3000**

Batch 2:49

Arrive 3:30

Depart 3:36

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)
346-6A		4.00	12.57	2/16/2012	Lab	**7**	4	53.2	**4230**
346-6B		4.00	12.57	3/8/2012	Lab	**28**	4	57.4	**4570**
346-6C		4.00	12.57	3/8/2012	Lab	**28**	4	60.4	**4810**
346-6D				Hold	Lab				

Fracture Types

1 Cone both ends; 2 Cone one end w/ split; 3 Columnar; 4 Diagonal; 5 Side at top or bottom; 6 Pointed End

Remarks:

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S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: Portland ME - 144 Hutchins Drive - Materials Testing **Project Number:** 11-1295

Client Contract Number:

Client: Phoenix Management

General Contractor:

Concrete Supplier: F. R. CARROLL

PLACEMENT INFORMATION

Date Cast: 4/6/2012 **Time Cast:** 8:00 **Date Received:** 4/7/2012

Placement Location: 1ST FLOOR SLAB

Placement Method: PUMP

Cylinders Made By: JUSTIN BROWN

Placement Vol. (yd³): 130

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: FIBER
POZZUTEC
SUPER

TEST RESULTS

Slump (in) (C-143): **Slump WR:** 6.5

Air Content (%) (C-231) **Air WR:** 2.7

Air Temp (°F): 42

Conc. Temp (°F) (C-1064): 60

Load Number: 15

Mixer Number: 15

Ticket Number 0026044

Cubic Yards: 10

Design (psi): 3000

Batch 7:00

Arrive 7:35

Depart 7:50

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)
346-7A		4.00	12.57	4/13/2012	Lab	7	4	53.4	4250
346-7B		4.00	12.57	5/4/2012	Lab	28	4	78.6	6260
346-7C		4.00	12.57	5/4/2012	Lab	28	4	78.8	6270
346-7D				Hold	Lab				

Fracture Types

1 Cone both ends; 2 Cone one end w/ split; 3 Columnar; 4 Diagonal; 5 Side at top or bottom; 6 Pointed End

Remarks:

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S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: Portland ME - 144 Hutchins Drive - Materials Testing

Project Number: 11-1295

Client: Phoenix Management

Client Contract Number:

General Contractor:

Concrete Supplier: F. R. CARROLL

PLACEMENT INFORMATION

Date Cast: 4/6/2012 **Time Cast:** 8:45

Date Received: 4/7/2012

Placement Location: 1ST FLOOR SLAB

Placement Method: PUMP

Cylinders Made By: JUSTIN BROWN

Placement Vol. (yd³): 130

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: FIBER
POZZUTEC
SUPER

TEST RESULTS

Slump (in) (C-143): **Slump WR:** 8

Air Content (%) (C-231) **Air WR:** 2.7

Air Temp (°F): 45

Conc. Temp (°F) (C-1064): 65

Load Number: 9

Mixer Number: 7

Ticket Number 0026048

Cubic Yards: 10

Design (psi): **3000**

Batch 7:45

Arrive 8:20

Depart

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)
346-8A		4.00	12.57	4/13/2012	Lab	**7**	4	63.4	**5050**
346-8B		4.00	12.57	5/4/2012	Lab	**28**	4	89.6	**7130**
346-8C		4.00	12.57	5/4/2012	Lab	**28**	4	87.4	**6960**
346-8D				Hold	Lab				

Fracture Types

1 Cone both ends; 2 Cone one end w/ split; 3 Columnar; 4 Diagonal; 5 Side at top or bottom; 6 Pointed End

Remarks:

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S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: Portland ME - 144 Hutchins Drive - Materials Testing **Project Number:** 11-1295

Client Contract Number:

Client: Phoenix Management

General Contractor:

Concrete Supplier: F. R. CARROLL

PLACEMENT INFORMATION

Date Cast: 4/6/2012 **Time Cast:** 9:30 **Date Received:** 4/7/2012

Placement Location: 1ST FLOOR SLAB

Placement Method: PUMP

Cylinders Made By: JUSTIN BROWN

Placement Vol. (yd³): 130

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: FIBER
POZZUTEC
SUPER

TEST RESULTS

Slump (in) (C-143): **Slump WR:** 7

Air Content (%) (C-231) **Air WR:** 3.0

Air Temp (°F): 48

Conc. Temp (°F) (C-1064): 64

Load Number: 12

Mixer Number: 17

Ticket Number 0026051

Cubic Yards: 10

Design (psi): **3000**

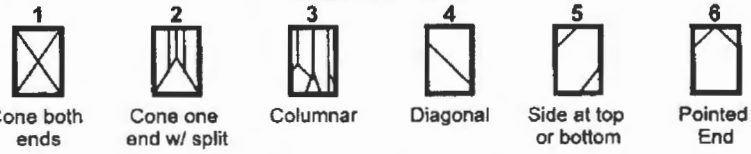
Batch 8:20

Arrive 8:55

Depart

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)
346-9A		4.00	12.57	4/13/2012	Lab	**7**	4	61.8	**4920**
346-9B		4.00	12.57	5/4/2012	Lab	**28**	4	92.4	**7350**
346-9C		4.00	12.57	5/4/2012	Lab	**28**	4	92.8	**7390**
346-9D				Hold	Lab				

Fracture Types



Remarks:

S.W.COLE ENGINEERING, INC.

Concrete Construction Observation Report

Project Name/Location:	144 Hutchins Drive – Portland	**Project No:**	11-1295
Client/Client's Rep.:	Phoenix Management	**Date:**	12-29-2011
Concrete Contractor:	Portland Builders	**Sheet:**	1 of 1
Placement Location:	North and East walls	**SWCE Rep.:**	EEC
Placement Type:	Footing ☐ Wall ☒ Column ☐ Slab ☐ Other ☐	**Arrived at Site:**	12:35
		Left Site:	14:15

PRE PLACEMENT OBSERVATIONS	**In Compliance**		**N/O**	**Comments**
Bar Size (diameter, length, bend and anchorage)	Yes ☒	No ☐	☐	Acceptable
Location (# of bars, spacing, and cover)	Yes ☒	No ☐	☐	
Splicing (weld joint, overlap)	Yes ☒	No ☐	☐	
Stability (wiring, chairs, and spacers)	Yes ☒	No ☐	☐	
Reinforcement free from mud, oil, rust, or other nonmetallic coatings	Yes ☒	No ☐	☐	
Reinforcement appears in conformance to specifications	Yes ☒	No ☐	☐	
Soil subgrade prepared in accordance with project specifications	Yes ☐	No ☐	☒	N/A

Referenced Drawings	**Date**	**Page**	**Rev.**	**ASTM**	**GRADE**
FOUNDATION REINF.	12-5-11	R01		A 615 ☒	40 ☐ 50 ☐ 60 ☒
				A 616 ☐	75 ☐
				A 617 ☐	
				A 706 ☐	A 775 Epoxy ☐

CONCRETE PLACEMENT OBSERVATIONS	**In Compliance**		**N/O**	**Comments**
Required mix used	Yes ☒	No. ☐	☐	3000psi
Placement and consolidation of concrete observed	Yes ☒	No. ☐	☐	
Concrete properly conveyed to all areas of placement	Yes ☒	No. ☐	☐	
Depth of layer maximum limits not exceeded	Yes ☒	No. ☐	☐	
Internal vibration (depth of insertion, spacing, time, vertical insertion, no conveyance of concrete by vibration)	Yes ☒	No. ☐	☐	
Even layering around openings and embedments	Yes ☐	No. ☐	☒	
Removal of temporary ties and spacers	Yes ☐	No. ☐	☒	

FIELD TESTING OF CONCRETE PERFORMED	Yes ☒	No ☐
***CYLINDER SET NO:** 346-3	←**refer to associated concrete test report*	

POST PLACEMENT OBSERVATIONS	**In Compliance**		**N/O**	**Comments**
Specified finish	Yes ☒	No. ☐	☐	Trowel
Protection of surfaces from cracking due to rapid drying	Yes ☐	No. ☐	☒	
Proper curing procedures implemented	Yes ☒	No. ☐	☐	Insulated blankets

NON-CONFORMANCE ITEMS OBSERVED	Yes ☐	No ☐
Non-Conformance Item Description:		
Action Taken by SWCE:		
Person(s) Notified:		

N/O = Not Observed

Notes:

Randy Concrete was placing concrete and rebar. Rebar appeared to be in general accordance with the Construction Drawings. Compression test specimens taken on first truck.

Attachments: None

Reviewed By: RED

S.W.COLE ENGINEERING, INC.

Report of Field Density
ASTM D6938

Project: **PORTLAND ME - 144 HUTCHINS DRIVE - MATERIALS TESTING** Project Number: **11-1295**

Client: **PHOENIX MANAGEMENT**

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
1	12/28/2011	CMH	2' W & 10' N OF SE CORNER	95	12	14992G	116.4	5.3	99.0	95
2	12/28/2011	CMH	2' W & 30' N OF SE CORNER	95	12	14992G	112.1	14.5	95.3	95

Laboratory Compaction Test Reference

Lab ID	Date Received	Material Source	Material Type	Method	Max Dry Density	Optimum Moisture Content (%)	Comments
14992G	12/28/2011	On-site stockpile	Sand	ASTM D-1557 Modified A	117.6	12.4	

Elevation Notes:

Comments:

Reviewed By

S.W.COLE ENGINEERING, INC.

Report of Field Density
ASTM D6938

Project: **PORTLAND ME - 144 HUTCHINS DRIVE - MATERIALS TESTING** Project Number: **11-1295**

Client: **PHOENIX MANAGEMENT**

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	1/4/2012	JSB	S WALL INTERIOR	58	12	14992G	112.8	2.8	95.9	95
4	1/4/2012	JSB	W WALL INTERIOR	58	12	14992G	112.2	2.3	95.4	95
5	1/4/2012	JSB	N WALL INTERIOR	58	12	14992G	112.9	3.3	96.0	95
6	1/4/2012	JSB	E WALL INTERIOR	58	12	14992G	111.8	2.5	95.1	95

Laboratory Compaction Test Reference

Lab ID	Date Received	Material Source	Material Type	Method	Max Dry Density	Optimum Moisture Content (%)	Comments
14992G	12/28/2011	On-site stockpile	Sand	ASTM D-1557 Modified A	117.6	12.4	

Elevation Notes:

Comments:

Reviewed By

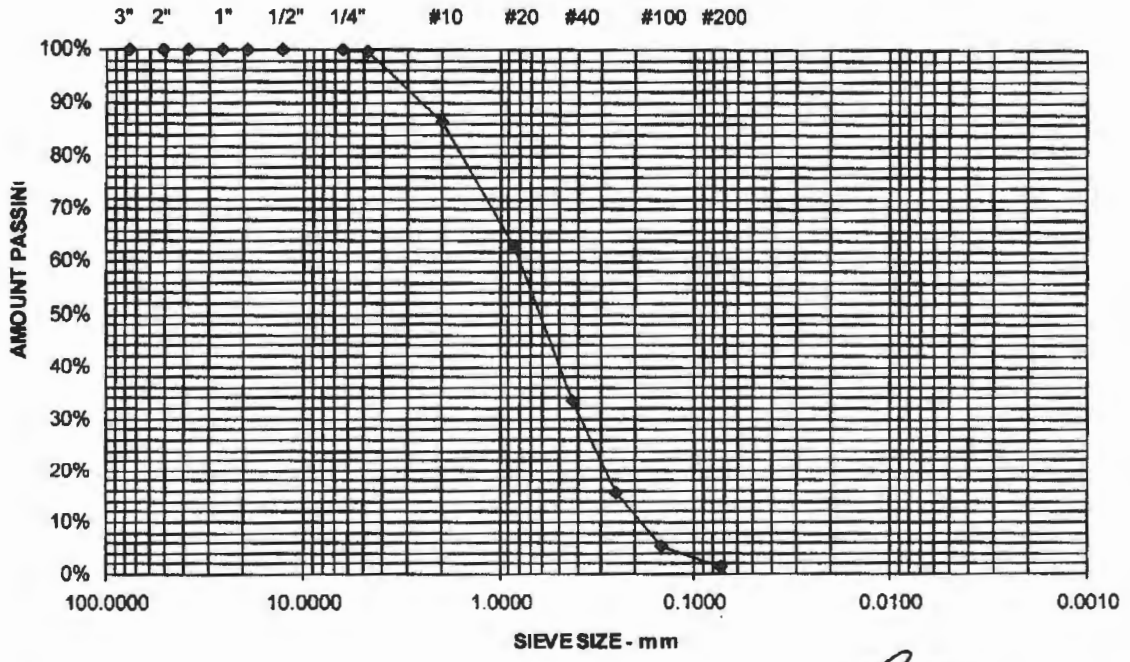
S.W.COLE ENGINEERING, INC.

Report of Gradation

ASTM C-117 & C-136

Project Name	PORTLAND ME - 144 HUTCHINS DRIVE - MATERIALS TESTING	Project Number	11-1295
		Lab ID	14992G
Client	PHOENIX MANAGEMENT	Date Received	12/28/2011
Material Type	SAND	Date Completed	1/3/2012
Material Source	ON-SITE STOCKPILE	Tested By	ERIK COHENOUR

STANDARD DESIGNATION (mm/µm)	SIEVE SIZE	AMOUNT PASSING (%)	SPECIFICATIONS (%)
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	
2.00 mm	No. 10	87	
850 um	No. 20	63	
425 um	No. 40	34	
250 um	No. 60	16	
150 um	No. 100	5	
75 um	No. 200	1.4	



Comments

Roger E. Domingo

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S.W.COLE ENGINEERING, INC.

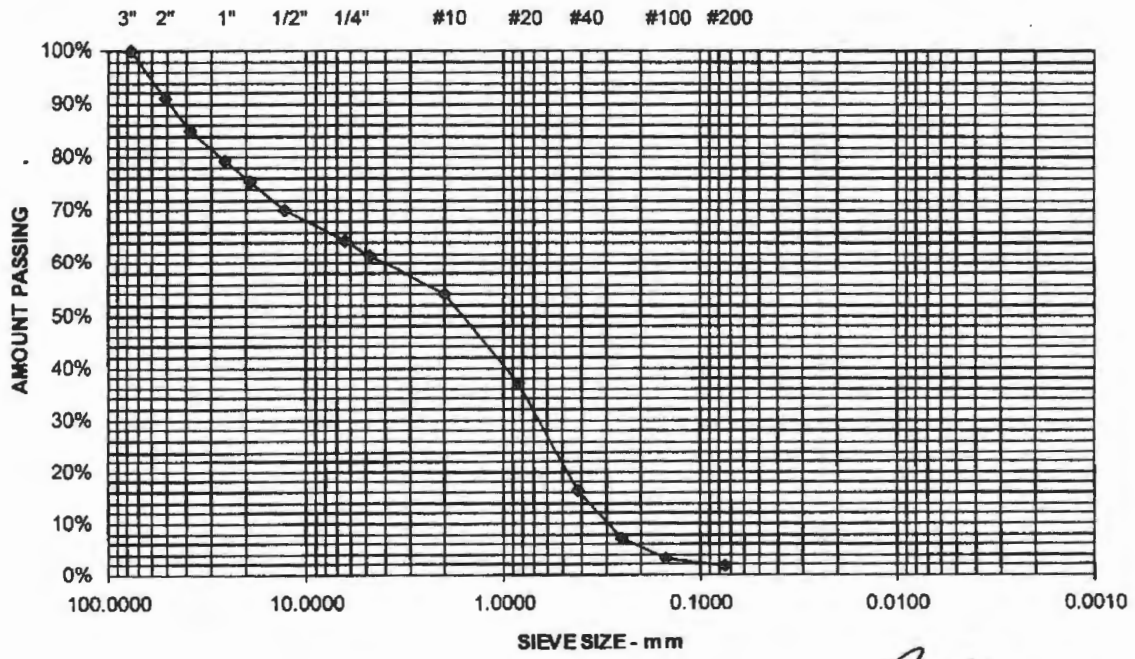
Report of Gradation

ASTM C-117 & C-136

Project Name	PORTLAND ME - 144 HUTCHINS DRIVE - MATERIALS TESTING	Project Number	11-1295
		Lab ID	14993G
Client	PHOENIX MANAGEMENT	Date Received	12/28/2011
Material Type	4" GRAVEL	Date Completed	1/4/2012
Material Source	ON-SITE STOCKPILE	Tested By	JUSTIN BISSON

STANDARD DESIGNATION (mm/um)	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"	91	
38.1 mm	1-1/2"	85	
25.0 mm	1"	79	
19.0 mm	3/4"	75	
12.5 mm	1/2"	70	
6.3 mm	1/4"	64	25 - 70
4.75 mm	No. 4	62	
2.00 mm	No. 10	54	
850 um	No. 20	37	
425 um	No. 40	17	0 - 30
250 um	No. 60	7	
150 um	No. 100	3	
75 um	No. 200	1.8	0.0 - 7.0

SAMPLE MEETS SPECIFICATION



Comments

Roger E. Domingo

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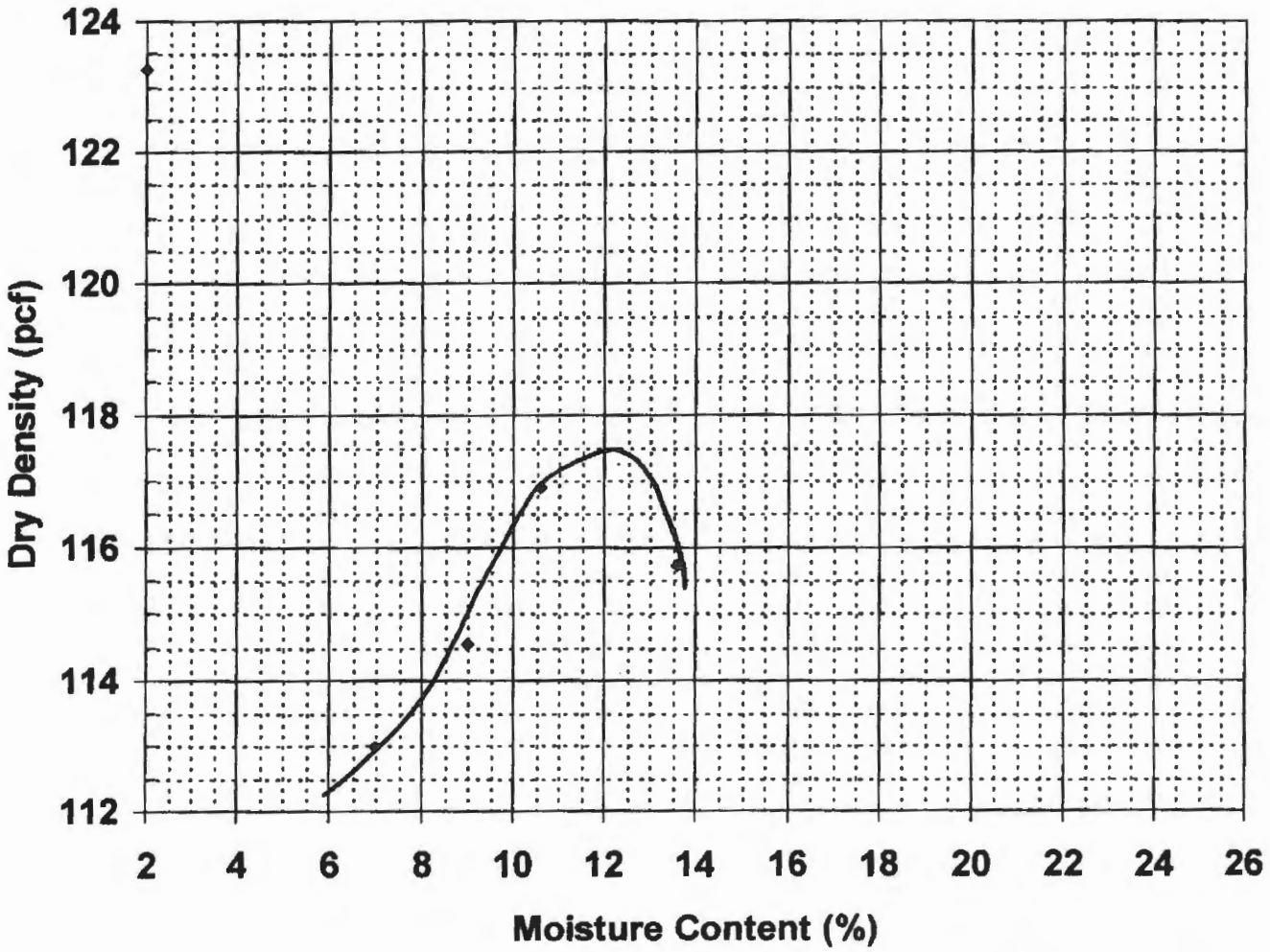
Report of Moisture-Density

Method ASTM D-1557 MODIFIED Procedure A

Project Name	PORTLAND ME - 144 HUTCHINS DRIVE - MATERIALS TESTING	Project Number	11-1295
		Lab ID	14992G
Client	PHOENIX MANAGEMENT	Date Received	12/28/2011
Material Type	SAND	Date Completed	1/3/2012
Material Source	ON-SITE STOCKPILE	Tested By	ERIK COHENOUR

Moisture-Density Relationship Curve



Maximum Dry Density (pcf)	117.5
Optimum Moisture Content (%)	12.4
Percent Oversized	0.2%

Corrected Dry Density (pcf)	**117.6**
Corrected Moisture Content (%)	**12.4**

Comments

Roger E. Domingo

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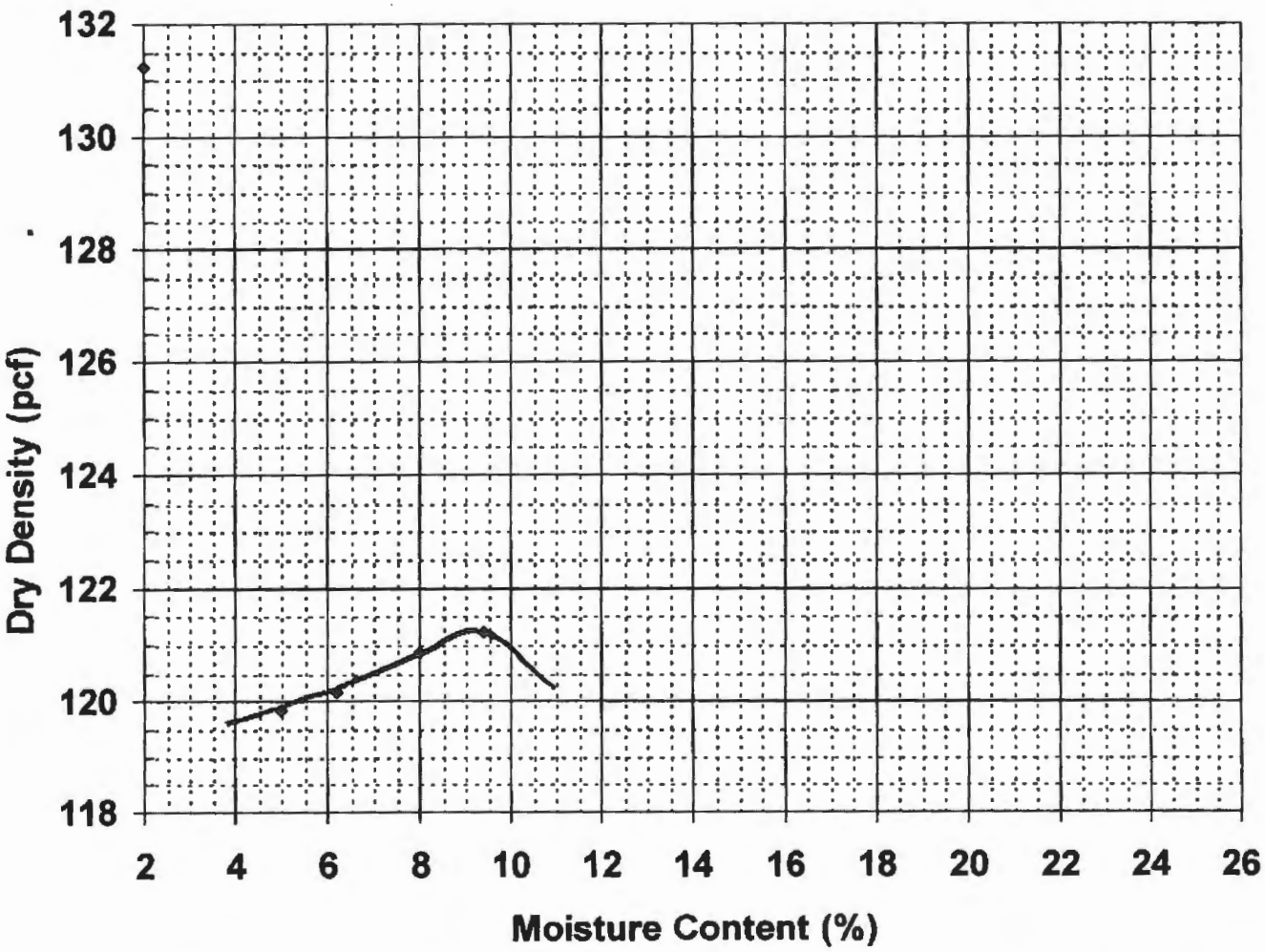
S.W.COLE ENGINEERING, INC.

Report of Moisture-Density

Method ASTM D-1557 MODIFIED Procedure C

Project Name	PORTLAND ME - 144 HUTCHINS DRIVE - MATERIALS TESTING	Project Number	11-1295
		Lab ID	14993G
Client	PHOENIX MANAGEMENT	Date Received	12/28/2011
Material Type	4" GRAVEL	Date Completed	1/4/2012
Material Source	ON-SITE STOCKPILE	Tested By	ERIK COHENOUR

Moisture-Density Relationship Curve



Maximum Dry Density (pcf)	121.3
Optimum Moisture Content (%)	9
Percent Oversized	24.5%

Corrected Dry Density (pcf)	128.5
Corrected Moisture Content (%)	7.3

Comments

Roger E. Domingo

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COM*check* Software Version 3.9.0
Envelope Compliance Certificate

2009 IECC

Section 1: Project Information

Project Type: **New Construction**
Project Title : Pheonix Management

Construction Site:
Hutchins Drive
Portland, ME 04101

Owner/Agent:
Pheonix Management, LLC
P.O. Box 759
Saco, ME 04072

Designer/Contractor:
William Belanger
Seacoast Crane & Building Co., Inc
98 Route 236
P.O. Box 540
Kittery, ME 03904
207-439-5899

Section 2: General Information

Building Location (for weather data):	**Portland, Maine**
Climate Zone:	**6a**
Building Type for Envelope Requirements:	**Non-Residential**
Vertical Glazing / Wall Area Pct.:	**0%**

Activity Type(s)	Floor Area
Warehouse	7000

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City of Portland Maine

Section 3: Requirements Checklist

Envelope PASSES: Design 15% better than code.

Climate-Specific Requirements:

Component Name/Description	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor(a)
Roof 1: Metal Building, Screw Down	7726	25.0	10.0	0.057	0.049
Exterior Wall 1: Metal Building Wall	4325	19.0	0.0	0.070	0.069
Window 1: Metal Frame with Thermal Break:Double Pane, Clear, SHGC 0.67	20	---	---	0.480	0.550
Entry Doors: Insulated Metal, Swinging	63	---	---	0.140	0.700
Overhead Doors: Insulated Metal, Swinging	868	---	---	0.070	0.700

(a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.

Air Leakage, Component Certification, and Vapor Retarder Requirements:

- ☐ 1. All joints and penetrations are caulked, gasketed or covered with a moisture vapor-permeable wrapping material installed in accordance with the manufacturer's installation instructions.
- ☐ 2. Windows, doors, and skylights certified as meeting leakage requirements.
- ☐ 3. Component R-values & U-factors labeled as certified.
- ☐ 4. No roof insulation is installed on a suspended ceiling with removable ceiling panels.
- ☐ 5. 'Other' components have supporting documentation for proposed U-Factors.
- ☐ 6. Insulation installed according to manufacturer's instructions, in substantial contact with the surface being insulated, and in a manner that achieves the rated R-value without compressing the insulation.
- ☐ 7. Stair, elevator shaft vents, and other outdoor air intake and exhaust openings in the building envelope are equipped with motorized dampers.
- ☐ 8. Cargo doors and loading dock doors are weather sealed.

☐ 9. Recessed lighting fixtures installed in the building envelope are Type IC rated as meeting ASTM E283, are sealed with gasket or caulk.

☐ 10. Building entrance doors have a vestibule equipped with self-closing devices.
Exceptions:

- ☐ Building entrances with revolving doors.
- ☐ Doors not intended to be used as a building entrance.
- ☐ Doors that open directly from a space less than 3000 sq. ft. in area.
- ☐ Doors used primarily to facilitate vehicular movement or materials handling and adjacent personnel doors.
- ☐ Doors opening directly from a sleeping/dwelling unit.

Section 4: Compliance Statement

Compliance Statement: The proposed envelope design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed envelope system has been designed to meet the 2009 IECC requirements in COM*check* Version 3.9.0 and to comply with the mandatory requirements in the Requirements Checklist.

William J. Belanger III, PM — Name - Title

Signature

8-17-2012 — Date