PROJECT: Portland Yacht
SUBJ: New Yard
ITEM: Legacy Bldg
Special Inspections

GAGNON ENGINEERING, INC.
Structural Consultants

DATE: 2/1/14
BY: CG
SHT: ____ of ____
PROJ: ____

Concrete Testing
Rebar Pre-Concrete

S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: Portland ME - Portland Yacht Services - Construction Materials Testing
Project Number: 13-0912.1

Client: New Yard, LLC
Client Contract Number:

General Contractor:
Concrete Supplier: HISSONG CONCRETE

PLACEMENT INFORMATION

Date Cast: 10/31/2013 **Time Cast:** 11:00 **Date Received:** 11/1/2013

Placement Location: A LINE 8, 7,6,5,4,3,2,1 1 LINE A,B,D,F FOOTINGS 10X15

Placement Method: TAILGATE

Cylinders Made By: CHARLES CROMWELL

Placement Vol. (yd^3): 90

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) 51 **Maximum (°F)** 64

DELIVERY INFORMATION

Admixtures: MICRO AIR
MIDRANGE

TEST RESULTS

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

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

Air Temp (°F): 40

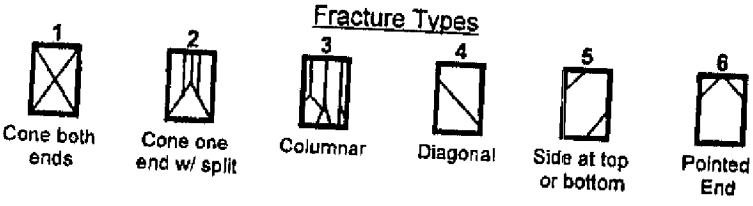
Conc. Temp (°F) (C-1064): 57

Load Number: 2
Mixer Number: 322
Ticket Number 10484
Cubic Yards: 10
Design (psi): 3000

Batch 10:16
Arrive 10:37
Depart 11:10

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)
524-1A	8.20	4.01	12.60	11/7/2013	Lab	7	4	38.6	3070
524-1B	8.25	4.02	12.69	11/28/2013	Lab	28	4	60.0	4730
524-1C	8.20	4.02	12.72	11/28/2013	Lab	28	4	57.0	4480
524-1D	8.25			Hold	Lab				

Fracture Types



Remarks:

S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: Portland ME - Portland Yacht Services - Construction Materials Testing

Project Number: 13-0912.1

Client: New Yard, LLC

Client Contract Number:

General Contractor:

Concrete Supplier: HISSONG CONCRETE

PLACEMENT INFORMATION

Date Cast: 10/31/2013 **Time Cast:** 12:30 **Date Received:** 11/1/2013

Placement Location: A LINE 8, 7,6,5,4,3,2,1 1 LINE A,B,D,F FOOTINGS 10X15

Placement Method: TAILGATE

Cylinders Made By: CHARLES CROMWELL

Placement Vol. (yd³): 90

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) 51 **Maximum (°F)** 64

DELIVERY INFORMATION

Admixtures: MICRO AIR
MIDRANGE

TEST RESULTS

Slump (in) (C-143): **Slump WR:** 5.0

Air Content (%) (C-231) **Air WR:** 5.5

Air Temp (°F): 40

Conc. Temp (°F) (C-1064): 57

Load Number: 5

Mixer Number: 322

Ticket Number 10488

Cubic Yards: 10

Design (psi): 3000

Batch 11:57

Arrive 12:13

Depart 12:30

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)
524-2A	8.30	3.99	12.47	11/7/2013	Lab	**7**	4	41.8	**3350**
524-2B	8.30	4.02	12.67	11/28/2013	Lab	**28**	4	60.1	**4750**
524-2C	8.30	4.01	12.63	11/28/2013	Lab	**28**	4	65.2	**5160**
524-2D	8.35			Hold	Lab				

Fracture Types

Remarks:

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

S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: Portland ME - Portland Yacht Services - Construction Materials Testing
Project Number: 13-0912.1

Client: New Yard, LLC
Client Contract Number:

General Contractor:
Concrete Supplier: HISSONG CONCRETE

PLACEMENT INFORMATION

Date Cast: 10/31/2013 **Time Cast:** 2:20 **Date Received:** 11/1/2013

Placement Location: A LINE 8, 7,6,5,4,3,2,1 1 LINE A,B,D,F FOOTINGS 10X15

Placement Method: TAILGATE

Cylinders Made By: CHARLES CROMWELL

Placement Vol. (yd³): 90

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) 51 **Maximum (°F)** 64

DELIVERY INFORMATION

Admixtures: MICRO AIR
MIDRANGE

TEST RESULTS

Slump (in) (C-143): **Slump WR:** 5.5

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

Air Temp (°F): 40

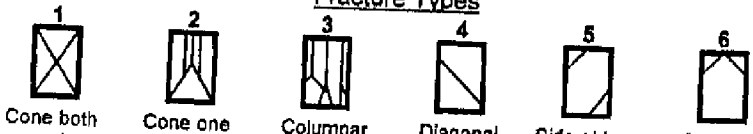
Conc. Temp (°F) (C-1064): 65

Load Number: 8
Mixer Number: 322
Ticket Number 10491
Cubic Yards: 10
Design (psi): 3000

Batch 1:41
Arrive 2:05
Depart 2:20

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)
524-3A	8.30	3.99	12.50	11/7/2013	Lab	7	4	41.2	3300
524-3B	8.35	4.00	12.57	11/28/2013	Lab	28	4	69.4	5520
524-3C	8.30	4.00	12.57	11/28/2013	Lab	28	4	65.3	5200
524-3D	8.35			Hold	Lab				

Fracture Types



Remarks:

S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: Portland ME - Portland Yacht Services - Construction Materials Testing

Project Number: 13-0912.1

Client: New Yard, LLC

Client Contract Number:

General Contractor:

Concrete Supplier: HISSONG CONCRETE

PLACEMENT INFORMATION

Date Cast: 11/5/2013 **Time Cast:** 2:00 **Date Received:** 11/6/2013

Placement Location: WESTSIDE FOOTINGS LENGTH OF BUILDING

Placement Method: TAILGATE

Cylinders Made By: CHARLES CROMWELL

Placement Vol. (yd^3): 46

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) 61 **Maximum (°F)** 72

DELIVERY INFORMATION

Admixtures: MICRO AIR
GLENIUM 7500

TEST RESULTS

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

Air Content (%) (C-231) **Air WR:** 5.2

Air Temp (°F): 40

Conc. Temp (°F) (C-1064): 56

Load Number: 2

Mixer Number: 322

Ticket Number 10513

Cubic Yards: 10.5

Design (psi): 3000

Batch 1:23

Arrive 1:42

Depart 2:15

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)
524-4A	8.30	4.00	12.57	11/12/2013	Lab	**7**	4	47.8	**3800**
524-4B	8.30	4.02	12.67	12/3/2013	Lab	**28**	4	65.0	**5130**
524-4C	8.35	4.01	12.62	12/3/2013	Lab	**28**	4	66.2	**5250**
524-4D	8.35			Hold	Lab				

Fracture Types

Remarks:

S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: Portland ME - Portland Yacht Services - Construction Materials Testing

Project Number: 13-0912.1

Client: New Yard, LLC

Client Contract Number:

General Contractor:

Concrete Supplier: HISSONG CONCRETE

PLACEMENT INFORMATION

Date Cast: 11/6/2013 **Time Cast:** 1:38 **Date Received:** 11/7/2013

Placement Location: ALL (8) SPREAD FOOTINGS ON N LINE

Placement Method: TELEBELT

Cylinders Made By: JUSTIN BROWN

Placement Vol. (yd³): 74

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: MICRO AIR
GLENIUM 7500

TEST RESULTS

Slump (in) (C-143): **Slump WR:** 2 1/4

Air Content (%) (C-231) **Air WR:** 4.6

Air Temp (°F): 48

Conc. Temp (°F) (C-1064): 59

Load Number: 3

Mixer Number: 314

Ticket Number 22810

Cubic Yards: 10.5

Design (psi): 3000

Batch 12:58

Arrive 1:20

Depart 1:42

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)
524-5A	8.35	4.02	12.70	11/13/2013	Lab	7	4	52.2	4110
524-5B	8.35	4.02	12.69	12/4/2013	Lab	28	4	63.7	5020
524-5C	8.35	4.01	12.64	12/4/2013	Lab	28	4	64.0	5070
524-5D	8.35			Hold	Lab				

Fracture Types

Remarks:

S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: Portland ME - Portland Yacht Services - Construction Materials Testing

Project Number: 13-0912.1

Client: New Yard, LLC

Client Contract Number:

General Contractor:

Concrete Supplier: HISSONG CONCRETE

PLACEMENT INFORMATION

Date Cast: 11/6/2013 **Time Cast:** 2:52

Date Received: 11/7/2013

Placement Location: ALL (8) SPREAD FOOTINGS ON N LINE

Placement Method: TELEBELT

Cylinders Made By: JUSTIN BROWN

Placement Vol. (yd^3): 74

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) **Maximum (°F)**

DELIVERY INFORMATION

Admixtures: MICRO AIR
GLENIUM 7500

TEST RESULTS

Slump (in) (C-143): **Slump WR:** 3.5

Air Content (%) (C-231) **Air WR:** 5.7

Air Temp (°F): 48

Conc. Temp (°F) (C-1064): 59

Load Number: 6

Mixer Number: 302

Ticket Number 22815

Cubic Yards: 10.5

Design (psi): **3000**

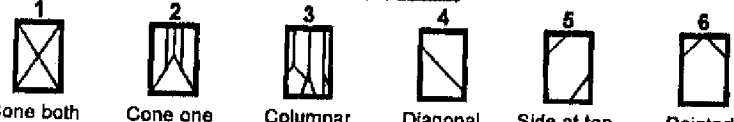
Batch 2:12

Arrive 2:40

Depart 2:50

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)
524-6A	8.25	4.02	12.67	11/13/2013	Lab	**7**	4	51.0	**4030**
524-6B	8.15	4.01	12.63	12/4/2013	Lab	**28**	4	64.5	**5110**
524-6C	8.25	4.01	12.61	12/4/2013	Lab	**28**	4	65.5	**5200**
524-6D	8.30			Hold	Lab				

Fracture Types



Remarks:

S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: Portland ME - Portland Yacht Services - Construction Materials Testing

Project Number: 13-0912.1

Client: New Yard, LLC

Client Contract Number:

General Contractor:

Concrete Supplier: HISSONG CONCRETE

PLACEMENT INFORMATION

Date Cast: 11/12/2013 **Time Cast:** 1:15 **Date Received:** 11/13/2013

Placement Location: ALL OF THE BUILDINGS FOUNDAITON WALLS EXCEPT @ OVERHEAD DOOR ENTRANCE

Placement Method: TELEBELT

Cylinders Made By: JUSTIN BROWN

Placement Vol. (yd³): 50

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) 63 **Maximum (°F)** 84

DELIVERY INFORMATION

Admixtures: MICRO AIR
GLENIUM 7500
POZZUTEC 20+ (2%)

TEST RESULTS

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

Air Content (%) (C-231) **Air WR:** 3.7

Air Temp (°F): 40

Conc. Temp (°F) (C-1064): 64

Load Number: 4

Mixer Number: 301

Ticket Number 22843

Cubic Yards: 10.5

Design (psi): 4000

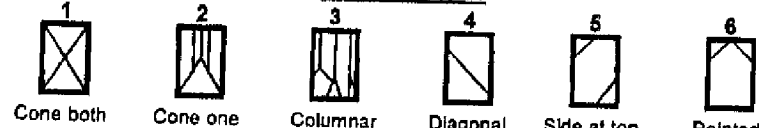
Batch 12:09

Arrive 12:34

Depart 1:35

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)
524-7A	8.55	4.02	12.68	11/14/2013	Lab	2	4	55.8	4400
524-7B	8.50	4.03	12.77	11/15/2013	Lab	3	4	64.0	5010
524-7C	8.50	4.01	12.64	11/18/2013	Lab	6	4	67.6	5350
524-7D	8.50	4.03	12.74	11/19/2013	Lab	7	4	77.8	6110
524-7E	8.55	4.00	12.53	11/21/2013	Lab	9	4	80.4	6420
524-7F	8.55	4.03	12.72	12/10/2013	Lab	28	5	92.5	7270
524-7G	8.50	4.03	12.72	12/10/2013	Lab	28	4	89.6	7040

Fracture Types



Remarks:

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

S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: Portland ME - Portland Yacht Services - Construction Materials Testing

Project Number: 13-0912.1

Client: New Yard, LLC

Client Contract Number:

General Contractor:

Concrete Supplier: HISSONG CONCRETE

PLACEMENT INFORMATION

Date Cast: 11/12/2013 **Time Cast:** 1:15 **Date Received:** 11/13/2013

Placement Location: ALL OF THE BUILDINGS FOUNDAITON WALLS EXCEPT @ OVERHEAD DOOR ENTRANCE

Placement Method: TELEBELT

Cylinders Made By: JUSTIN BROWN

Placement Vol. (yd^3): 50

Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures

Minimum (°F) 63 **Maximum (°F)** 84

DELIVERY INFORMATION

Admixtures: MICRO AIR
GLENIUM 7500
POZZUTEC 20+ (2%)

TEST RESULTS

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

Air Content (%) (C-231) **Air WR:** 3.7

Air Temp (°F): 40

Conc. Temp (°F) (C-1064): 64

Load Number: 4

Mixer Number: 301

Ticket Number 22843

Cubic Yards: 10.5

Design (psi): 4000

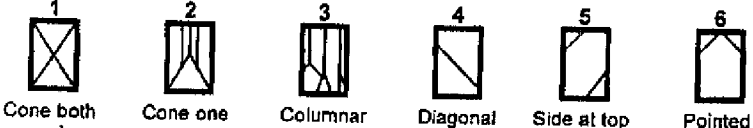
Batch 12:09

Arrive 12:34

Depart 1:35

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)
524-7H	8.45			Hold	Lab				

Fracture Types



Remarks:

S.W.COLE ENGINEERING, INC.

Report of Concrete Compressive Strength

ASTM C-31 & C-39

Project Name: Portland ME - Portland Yacht Services - Construction Materials Testing
Project Number: 13-0912.1
Client: New Yard, LLC
Client Contract Number:
General Contractor:
Concrete Supplier: HISSONG CONCRETE

PLACEMENT INFORMATION

Date Cast: 11/13/2013 **Time Cast:** 1:25 **Date Received:** 11/15/2013
Placement Location: OVERHEAD DOOR FOUNDATION WALLS
Placement Method: CHUTE
Cylinders Made By: JUSTIN BROWN
Placement Vol. (yd³): 6.5
Aggregate Size (in): 3/4

INITIAL CURING CONDITIONS

Temperatures
Minimum (°F) 61 **Maximum (°F)** 72

DELIVERY INFORMATION

Admixtures: MICRO AIR
GLENIUM 7500
POZZUTEC 20+ (2%)

TEST RESULTS

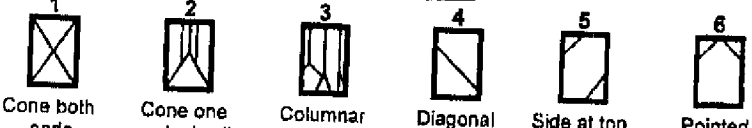
Slump (in) (C-143): **Slump WR:** 6.5
Air Content (%) (C-231) **Air WR:** 6.8
Air Temp (°F): 40
Conc. Temp (°F) (C-1064): 61

Load Number: 1
Mixer Number: 322
Ticket Number 22856
Cubic Yards: 6.5
Design (psi): 4000

Batch 12:50
Arrive 1:12
Depart 1:42

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)
524-8A	8.05	4.03	12.72	11/20/2013	Lab	7	4	56.2	4420
524-8B	8.20	4.02	12.71	12/11/2013	Lab	28	4	67.6	5320
524-8C	8.20	4.03	12.73	12/11/2013	Lab	28	4	67.4	5300
524-8D	8.15			Hold	Lab				

Fracture Types



Remarks:

Subject: Re: Portland Yacht Concrete Placements
From: Roger Gagnon <roger@gagnonengineering.com>
Date: 11/4/2013 1:37 PM
To: Andy Lathe <ALathe@newmanconcrete.com>

Thanks Andy

I'll go to the site at 10:30 AM
tomorrow. I'll inspect rebar
pre-concrete, and go over
east wall footing rebar w/ Stefen

You're making good progress

Thanks, Roger

GEI Tel: 839-8085

PS Did you see my second email
regarding mandoor openings?

On 11/4/2013 11:08 AM, Andy Lathe wrote:

> Roger –
>
> Stefan will be placing footings for 9 line tomorrow at 1pm. He will have another footing placement on Wednesday at 1pm.
>
> He asked if you could review the rebar for the placements a couple of hours before start of concrete so that they can make any remedial changes necessary.
>
> Thanks,
>
> Andrew Lathe
>
> Project Manager - LEED® AP
>
> Newman Concrete Services, Inc.
>
> alathe@newmanconcrete.com

Subject: Re: Portland Yacht Rebar Shop Drawings
From: Roger Gagnon <roger@gagnonengineering.com>
Date: 10/30/2013 6:01 AM
To: Andy Lathe <ALathe@newmanconcrete.com>
CC: "Phineas Sprague, Jr." <phin@portlandyacht.com>

Hi Andy

A couple of discrepancies in shop drawings:

a) The 24" wide 'beam' on 1-line (betw. F & I)
has a smooth (unbonded) 1" dia. bar,
not #7 (bonded) bar. top/both ends.

b) Bottoms of footings on A and N lines
"step up from El 9.0' at 1-line to El 10.5'
at 9-line. Shops show only two (9")
steps. There is not enough frost cover
at footings 6 & 7; needs to be corrected

I have suggestions to correct discrepancies
(practically); please call me to discuss

Note: Outside faces of concrete (walls & piers)
on 1 & 9 lines are typically 3" outside of
column (proper) lines, and corner piers
extend several inches beyond that, and tops
of corner piers are notched (2"x6").

Note also that I do not check detailed accuracy
of foundation layout (footings, piers, walls...)
Newman should have a second person check
and verify layout.

Please call me to discuss.

Thanks, Roger

GEI Tel: 839-8085

On 10/28/2013 2:53 PM, Andy Lathe wrote:

> Roger –
>
> Please see attached rebar shop drawings for the foundation structure at Portland Yacht.

Thanks,

Andrew Lathe
Project Manager - LEED® AP
Newman Concrete Services, Inc.
alathe@newmanconcrete.com
(207) 737-2260 – phone
(207) 737-2261 - fax

Subject: Re: FW: Portland Yacht Services - Hissong Submittal
From: Roger Gagnon <roger@gagnonengineering.com>
Date: 10/30/2013 6:16 AM
To: Andy Lathe <ALathe@newmanconcrete.com>, Tim Boyce <TBoyce@SWCole.com>
CC: "Phineas Sprague, Jr." <phin@portlandyacht.com>

Hi Andy

Hissong proposed concrete mix designs are nominally acceptable with a couple of comments:

1. Maximum slump should not exceed 4" (see notes/specs, plan sheet 6)

2. Past performance of mix designs is considered an indicator of quality; project-specific performance will be determined from results of required sampling and testing.

Review notes & specifications itemized on plan sheet 6, particularly regarding which truck-loads need to be sampled and tested (e.g. first, last + every third intermediate truck...) no exceptions

Please give me 48 hours advance notice of proposed concrete placements.

Call or email with questions or other

Thanks, Roger

GEI Tel: 839-8085

On 10/28/2013 8:16 AM, Andy Lathe wrote:

> Roger –
>
> Attached is Hissong Ready-Mix's concrete mix design for the structure foundation and the ramp.
>
> Thanks,
>
> Andrew Lathe
> Project Manager - LEED® AP
> Newman Concrete Services, Inc.

Subject: Grade Beam Inspection and
From: Roger Gagnon <roger@gagnonengineering.com>
Date: 11/14/2013 5:03 AM
To: Andy Lathe <ALathe@newmanconcrete.com>
CC: mchallrepairs@yahoo.com, "Phineas Sprague, Jr." <phin@portlandyacht.com>

Hi Andy

I inspected the rebar in the grade beam yesterday (about 10:15 AM) and met briefly with Stefen.

All was according to plans, correct & acceptable.

Stefen (& Mark) both told me that the previously placed (walls) concrete was insulated against the cold the night before (Tuesday night)

They also told me that concrete temperatures were in the mid seventies, in the early morning, which is good.

Note: please apply membrane curing immediately after stripping forms from the walls (and grade beam later)

Caution whoever backfills: Do not fill against walls for 5 days from placement (minimum)

Please call or email with questions or other

Thanks, Roger

GEI Tel: 839-8085

PS: Send me concrete sampling & cylinder break results when you get them

Subject: Backfill, Insulation, and Saw-cuts
From: Roger Gagnon <roger@gagnonengineering.com>
Date: 11/15/2013 2:56 AM
To: Andy Lathe <ALathe@newmanconcrete.com>, mchallrepairs@yahoo.com
CC: "Phineas Sprague, Jr." <phin@portlandyacht.com>

Andy, Mark

I visited the site at lunchtime (November 14th)

Because the walls were prematurely backfilled, I could not see under-wall isulation, nor did I see any wall saw-cuts. (Wall saw-cuts were agreed-to as an alternate to details shown on GEI foundation plans)

As-built details need to be documented. also, If other than detailed, specified, or as-agreed-to; changes need to be certified by the 'designer'

Documentation is part of IBC (Building Code) 'Statement of Special Inspections' Either

a) someone needs to certify that as-built details were as as detailed, specified, or agreed to (this needs to be written/not verbal)

OR

b) We will need to uncover (randomly) hidden details I was not given prior notice to inspect.

I will call Phin later this AM to discuss.

Thanks, Roger

RG Tel: 839-8085

Subject: Portland Yacht
From: Roger Gagnon <roger@gagnonengineering.com>
Date: 11/12/2013 10:26 AM
To: Andy Lathe <ALathe@newmanconcrete.com>

Hey Andy

I heard from Stefen (& Mark H) that
you plan to place wall concrete
today.

For the file and Portland Code enforcement
I need 24 hour advanced email notice from
Newman (preferaby you).

Sound like a redundancy, but it's
important we follow that procedure.

Thanks, Roger

RG Tel: 839-8085