

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK CITY OF PORTLAND

BUILDING INSPECTION

PERMIT

Please Read Application And Notes, If Any, Attached

Permit Number: 070072

PERMIT ISSUED
FEB 13 2007
CITY OF PORTLAND

This is to certify that MERCY HOSPITAL /Ledgeood Construction
has permission to FOUNDATION ONLY Connected w/ Permit #060002
AT 50 ST JOHN ST L 073 A001001

provided that the person or persons in firm or corporation accepting this permit shall comply with all of the provisions of the Statutes of this State and of the Ordinances of the City of Portland regulating the construction, maintenance and use of buildings and structures, and of the application on file in this department.

Apply to Public Works for street line and grade if nature of work requires such information.

Notification of inspection must be given and when permission procured before this building or part thereof is started or closed-in. 4 HOUR NOTICE IS REQUIRED.

A certificate of occupancy must be procured by owner before this building or part thereof is occupied.

OTHER REQUIRED APPROVALS

Fire Dept. _____
Health Dept. _____
Appeal Board _____
Other _____
Department Name

[Signature]
Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD

City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 07-0072	Issue Date:	CBL: 073 A001001
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Location of Construction: 50 ST JOHN ST	Owner Name: MERCY HOSPITAL	Owner Address: 144 STATE ST	Phone:
Business Name:	Contractor Name: Ledgewood Construction	Contractor Address: 27 Maine St. So. Portland	Phone 2077671866
Lessee/Buyer's Name	Phone:	Permit Type: Foundation Only/Commercial	Zone:

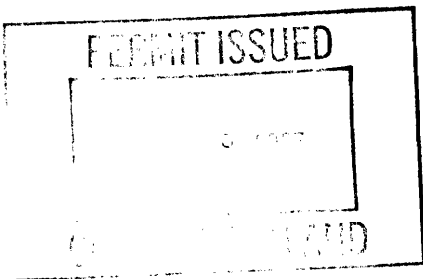
Past Use: Vacant Land	Proposed Use: New 4 Story Medical Office Building Vanilla Box FOUNDATION ONLY Connected w/ Permit #061802	Permit Fee:	Cost of Work: \$0.00	CEO District: 3
		FIRE DEPT: <input type="checkbox"/> Approved <input type="checkbox"/> Denied	INSPECTION: Use Group: Type: FOUNDATION ONLY 2/12/07 Signature: <i>[Signature]</i>	

Proposed Project Description: FOUNDATION ONLY Connected w/ Permit #061802	Signature:	Signature: <i>[Signature]</i>
PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)		
Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied		
Signature:		Date:

Permit Taken By: Idobson	Date Applied For: 01/23/2007	Zoning Approval	
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- This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.
- Building permits do not include plumbing, septic or electrical work.
- Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..

Special Zone or Reviews <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/> Date:	Zoning Appeal <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied Date:	Historic Preservation <input type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date:
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CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE

Transmittal

Francis Cauffman
Foley Hoffmann,
Architects Ltd.

2120 Arch Street
Philadelphia, PA 19103-1308
215 568-8250
215 568-2639 fax
www.fcfh-did.com

Project: Landmark Healthcare Facilities
Fore River Medical Pavilion

To: Code Enforcement / Building Inspection
City Hall Room 315
389 Congress Street
Portland, Maine 04101

Via: Mail
 Courier
 Express
 Telefax

Attn: Mike Nugent

Date: January 19, 2007

Enclosed

Quantity	Description	Status
1	Response Letter to Structural Steel review comments.	See Remarks
1	Special Inspection Program "Check List"	

- As Requested
- For Quotation
- For Review
- Approved for Payment
- Distribution
- For Approval
- For Record
- _____

- Shop Drawing Review Status**
 1. No exceptions noted. No further review submissions required.
 2. Note markings. No further review submissions required.
 3. Revise & resubmit for final review. Work may proceed subject to contract requirements.
 4. Revise and resubmit before proceeding with the work.
 5. Rejected.
 6. Resubmit for record only.
- See Status Stamp On Drawings**

Distribution

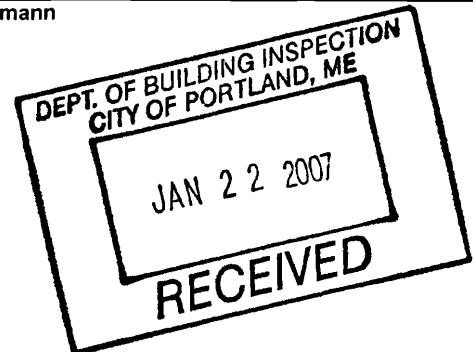
Anthony Lampasona, Landmark (1 copy)
Robert E. Chester (1 copy)
Tom Hyde – FCFH (1 copy)

Remarks

Requested "Hard Copy" of the previously emailed response to your plan review comments.

F06-5103
Project No.

William J. Gariano
Francis Cauffman Foley Hoffmann



RECA

Robert E. Chester Associates, Consulting Engineers

119 Coulter Avenue, Suite 175, Ardmore, PA 19003 - Phone: 610-645-9570 - Fax: 610-645-9572

January 17, 2007

Mr. J. Thomas Hyde, AIA
Francis, Cauffman, Foley, Hoffmann, Architects, Ltd.
The Can Company, Signature Building
2400 Boston Street, Suite 402
Baltimore, MD 21224

Re: Landmark Healthcare Facilities, LLC – Fore River Medical Pavilion, Portland, ME –
FCFH project no. F06-5103, RECA job no. 049-06

Dear Tom:

We have received several questions or comments via email or phone in the past several days, arising out of the Portland, Maine permit review process for the above-referenced project. We have reviewed the questions and comments, and offer the following response

Comment: Please provide a fully executed statement of Special Inspections and Seismic Quality assurance plan.

Responses: A certificate of special inspections was issued previously to FCFH Architects for the permit submission. A copy of the expanded form is enclosed (see below); Seismic quality assurance plan (Reference: IBC 2003 Section 1705) - This refers to specific seismic force resisting systems in seismic design categories C thru F. Systems of higher ductility ($R > 3$) require special detailing in accordance with AISC 341 ("Seismic provisions"). The quality assurance plan covers inspections and testing of this work during construction. However, the use of structural steel systems not specifically detailed for seismic resistance is permitted by IBC 2003, for buildings in design category C ($R=3$, Table 1617.6.2). This is the case for our project, and the appropriate design criteria is listed on drawing S4.2. Therefore, a seismic quality assurance plan is not applicable.

Comment: The Steel Standards referenced on Page SG0001 of the plans and in Section 5120 of the spec book are slightly different, and neither seem to match the referenced standards in Sections 2205 of the 2003 IBC. Can you provide a comparison that demonstrates that the referenced standard in the construction documents meets or exceeds the code.

Response: The structural specification notes are listed on drawing S4.2 (reference to page SG0001 is unknown). These steel notes refer only to the latest edition of the AISC specifications. The project specifications, Section 05120 makes specific reference to AISC "Specification for Structural Steel Buildings - Allowable Stress Design and Plastic

RECA

Page 2.

Design". AISC has adopted a new numbering system for their publications, and the number for the above mentioned specification is "AISC-335". AISC-335 is listed in Section 2205 of IBC 2003, so the reference in the project specs and IBC refer to the same AISC "Specification for Structural Steel Buildings - Allowable Stress Design and Plastic Design".

Comment: Please review Section 1808 and 1809 of the 2003 IBC. Please provide information that established compliance with all of the applicable sub sections.

Response: Drawings and specifications submitted comply with Section 1808 - Pier and Pile Foundations and Section 1809 - Driven Pile Foundations (1809.3 – Steel Piles applicable only). Driving criteria and testing required are specified in the specification and addendum under section 02365 – Driven Piles, and in the Geotechnical report (supplied by Owner).

Comment: The Statement of Special Inspections submitted does not comply with Section 1704, 1705, 1707, 1708, 1709 and 1710.

Response: An expanded statement, including accompanying checklist tables is included with this letter. The overall checklist and tables are in direct relation to applicable portions of Section 1704, and covers structural items only. Architectural and MEP sections shall be as designated by the those specific Design Professionals. Sections 1705, 07, and 09 relate to special seismic inspections and testing, which has been addressed in a previous response. The requirements of Section 1709 “Structural Observations” do not apply to this project. The conformance to standards, per section 1710 are covered in the Statement of Special Inspections.

If there are further questions or comments regarding the enclosed responses and attachments, please have the governing authority clarify specific areas of concern, so we may address them and offer a prompt response. Otherwise, we trust that these responses will comply.

Respectfully Submitted,

Robert E. Chester, PE
Robert E. Chester Associates

Special Inspections Program (2003 International Building Code)

In accordance with the provisions of Chapter 17 of the 2003 International Building Code, this form is to list the special inspections as required for the proposed construction located at:

PROPERTY ADDRESS (print): Fore River Medical Pavilion, Portland, Maine

OWNER'S NAME (print): Landmark Healthcare Facilities, LLC

The design professional(s) of record shall indicate by a checkmark which of the special inspections listed below are required for the above mentioned construction site:

VERIFICATION & INSPECTION ITEM	REQUIRED
Fabrication of structural load-bearing members and assemblies (1704.2) (Refer to Table 1704.3)	<input type="checkbox"/>
<u>Steel:</u> (1704.3) (Refer to Table 1704.3)	<input checked="" type="checkbox"/>
<u>Concrete:</u> (1704.4) (Refer to Table 1704.4)	<input checked="" type="checkbox"/>
<u>Masonry:</u> (1704.5) (Refer to Table 1704.5.1 & 1704.5.3)	<input type="checkbox"/>
Fabrication process of prefabricated wood structural elements and assemblies (1704.6)	<input type="checkbox"/>
Existing site soil conditions, Fill placement, load bearing requirements (1704.7)	<input checked="" type="checkbox"/>
Pile/ Caisson/ Pier Foundations (1704.8 & 1704.9)	<input checked="" type="checkbox"/>
Wall panels and Veneers (<i>Seismic design category "E" or "F" buildings only</i>) (1704.10)	<input type="checkbox"/>
Sprayed Fire-Resistant Materials (1704.11)	<input type="checkbox"/>
Exterior Insulation and Finish Systems (EIFS) (1704.12)	<input type="checkbox"/>
Special Cases (Attach separate sheet, if necessary) (1704.13)	<input type="checkbox"/>
Smoke control systems (1704.14)	<input type="checkbox"/>
Seismic resistance (1707)	<input type="checkbox"/>

As Structural Engineer of Record, we are identifying structural items to be inspected and to be administered by the Architect, Design Professional, Francis Cauffman Foley Hoffmann (Responsible for maintaining records of all inspections; furnishing reports to the Building Inspector; and verifying that the special inspector for each required item above is qualified to perform that inspection).

Structural Engineer of Record:
 Robert E. Chester Associates
 Consulting Engineers
 119 Coulter Avenue, Suite 175
 Ardmore, PA 19003
 (610) 645-9570

Special Inspections Administrator:
 Francis Cauffman Foley Hoffmann
 Architects, Ltd.
 2120 Arch Street
 Philadelphia, PA 19103
 (215) 568-8250

**Table 1704.3
Required Verification and
Inspection of Steel Construction**

Yes	No	Verification & Inspection	Continuous	Periodic
<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. Material verification of high-strength bolts, nuts and washers:		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	a. Identification markings to conform to ASTM standards specified in the approved construction documents	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	b. Manufacturer's certificate of compliance required	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2. Inspection of high-strength bolting:		
<input type="checkbox"/>	<input type="checkbox"/>	a. Bearing-type connections	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	b. Slip-critical connections	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. Material verification of structural steel:		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	a. Identification markings to conform to ASTM standards in the approved construction documents	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	b. Manufacturer's certified mill test reports	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. Material verification of weld filler materials:		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	a. Identification markings to conform to AWS specification in the approved construction documents	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	b. Manufacturer's certificate of compliance required	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	5. Inspection of welding:		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	a. Structural steel	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	1) Complete and partial penetration groove welds	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	2) Multipass fillet welds	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3) Single-pass fillet welds > 5/16"	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	4) Single-pass fillet welds ≤ 5/16"	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	5) Floor and deck welds	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	b. Reinforcing steel	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	1) Verification of weldability of reinforcing steel other than ASTM A 706.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	2) 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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	3) Shear reinforcement	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	4) Other reinforcing steel	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	6. Inspection of steel frame joint details for compliance with approved construction documents:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	a. Details such as bracing and stiffening	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	b. Member locations	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	c. Application of joint details at each connection	<input type="checkbox"/>	<input type="checkbox"/>

**Table 1704.4
Required Verification and
Inspection of Concrete Construction**

Yes	No	Verification & Inspection	Continuous	Periodic
<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. Inspection of reinforcing steel, including prestressing tendons, and placement	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2. Inspection of reinforcing steel, welding in accordance with Table 1704.3, Item 5B	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. Inspect bolts to be installed in concrete prior to and during placement of concrete where allowable loads have been increased	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. Verifying use of required design mix	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	5. At the time fresh concrete is sampled to fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	6. Inspection of concrete and shotcrete placement for proper application techniques	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	7. Inspection for maintenance of specified curing temperature and techniques	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	8. Inspection of prestressed concrete:		
<input type="checkbox"/>	<input type="checkbox"/>	a. Application of prestressing forces	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	b. Grouting of bonded prestressing tendons in the seismic-force-resisting system	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	9. Erection of precast concrete members	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	10. Verification of in-situ concrete strength, prior to stressing of tendons in posttensioned concrete and prior to removal of shores and forms from beams and structural slabs	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Francis

Cauffman

Foley

Hoffmann

06 18 02
73 A1

Transmittal

Francis Cauffman
Foley Hoffmann,
Architects Ltd.

2120 Arch Street
Philadelphia, PA 19103-1308
215 568-8250
215 568-2639 fax
www.fcjh-did.com

Project: Landmark Healthcare Facilities
Fore River Medical Pavilion

To: Code Enforcement / Building Inspection
City Hall Room 315
389 Congress Street
Portland, Maine 04101

Via: Mail
 Courier
 Express
 Telefax

Attn: Mike Nugent

Date: February 06, 2007

Enclosed

Quantity	Description	Status
1	Statement of Special Inspections (Revised)	See Remarks
1	Response Letter to Structural Steel Review Comments (02-05-07)	
1	Response Letter to Structural Steel Review Comments (01-26-07)	

- As Requested
- For Quotation
- For Review
- Approved for Payment

- Distribution
- For Approval
- For Record
- _____

- Shop Drawing Review Status**
 1. No exceptions noted. No further review submissions required.
 2. Note markings. No further review submissions required.
 3. Revise & resubmit for final review. Work may proceed subject to contract requirements.
 4. Revise and resubmit before proceeding with the work.
 5. Rejected.
 6. Resubmit for record only.
- See Status Stamp On Drawings

Distribution

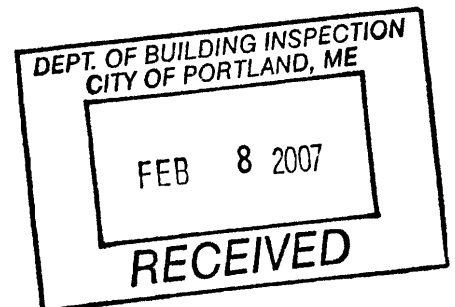
Anthony Lampasona, Landmark (1 copy)
Robert E. Chester (trans only)
Tom Hyde – FCFH (trans only)

Remarks

Requested "Hard Copy" of the previously emailed response to your plan review comments.

F06-5103
Project No.

William J. Gariano
Francis Cauffman Foley Hoffmann



Statement of Special Inspections

Project: **Fore River Medical Pavilion**
Location: **Portland, Maine**
Owner: **Landmark Healthcare Facilities, Inc.**

Design Professional in Responsible Charge: **Robert E. Chester, P.E. (Structural)**

This *Statement of Special Inspections* is submitted as a condition for permit issuance in accordance with the Special Inspection and Structural Testing requirements of the Building Code. It includes a schedule of Special Inspection services applicable to this project as well as the name of the Special Inspection Coordinator and the identity of other approved agencies to be retained for conducting these inspections and tests. This *Statement of Special Inspections* encompass the following disciplines:

- Structural Mechanical/Electrical/Plumbing
 Architectural Other: _____

The Special Inspection Coordinator shall keep records of all inspections and shall furnish inspection reports to the Building Official and the Registered Design Professional in Responsible Charge. Discovered discrepancies shall be brought to the immediate attention of the Contractor for correction. If such discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Official and the Registered Design Professional in Responsible Charge. The Special Inspection program does not relieve the Contractor of his or her responsibilities.

Interim reports shall be submitted to the Building Official and the Registered Design Professional in Responsible Charge.

A *Final Report of Special Inspections* documenting completion of all required Special Inspections, testing and correction of any discrepancies noted in the inspections shall be submitted prior to issuance of a Certificate of Use and Occupancy.

Job site safety and means and methods of construction are solely the responsibility of the Contractor.

Interim Report Frequency:

or per attached schedule.

Prepared by:

Robert E. Chester, P.E.

(type or print name)



Signature

Jan. 30, 2007

Date



Owner's Authorization:

Building Official's Acceptance:

Signature

Date

Signature

Date

Schedule of Inspection and Testing Agencies

This Statement of Special Inspections / Quality Assurance Plan includes the following building systems:

- | | |
|--|---|
| <input checked="" type="checkbox"/> Soils and Foundations | <input checked="" type="checkbox"/> Spray Fire Resistant Material |
| <input checked="" type="checkbox"/> Cast-in-Place Concrete | <input type="checkbox"/> Wood Construction |
| <input type="checkbox"/> Precast Concrete | <input type="checkbox"/> Exterior Insulation and Finish System |
| <input type="checkbox"/> Masonry | <input type="checkbox"/> Mechanical & Electrical Systems |
| <input checked="" type="checkbox"/> Structural Steel | <input type="checkbox"/> Architectural Systems |
| <input type="checkbox"/> Cold-Formed Steel Framing | <input checked="" type="checkbox"/> Special Cases (SLRS) |

Special Inspection Agencies	Firm	Address, Telephone, e-mail
1. Special Inspection Coordinator (Structural)	<i>Robert E Chester Associates</i>	<i>119 Coulter Avenue, Suite 175 Ardmore, PA 19003 Tel: 610-645-9570 Email: recaengineers@verizon.net</i>
2. Site Field Inspector (Piles/ Foundations)	<i>S.W. Cole Engineering, Inc.</i>	<i>296 Portland Road Gray, Maine 04039 Tel: 207-657-2866 Email: infogray@swcole.com</i>
3. Special Inspector (Structural Steel, Special Cases)	<i>S.W. Cole Engineering, Inc.</i>	<i>296 Portland Road Gray, Maine 04039 Tel: 207-657-2866 Email: infogray@swcole.com</i>
4. Testing Agency	<i>S.W. Cole Engineering, Inc.</i>	<i>296 Portland Road Gray, Maine 04039 Tel: 207-657-2866 Email: infogray@swcole.com</i>
5. Testing Agency		
6. Other		

Note: The inspectors and testing agencies shall be engaged by the Owner or the Owner's Agent, and not 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.

Quality Assurance Plan

Quality Assurance for Seismic Resistance

Seismic Design Category "C"
 Quality Assurance Plan Required (Y/N) (Y)

Description of seismic force resisting system and designated seismic systems:

- **SLRS: Structural steel braced frames with composite floor diaphragm (Steel systems not specifically detailed for seismic resistance, R = 3)**
- **Refer to Page 7 of 7, "Special Cases" for required inspections and testing of Seismic Load Resisting System (SLRS) (Refer to IBC Sections 1707.1 and 1707.2)**
- **Reference: IBC Sections 1705 and 1707, AISC 341-05, Section 18 and Appendix Q, Commentary and Appendix CQ.**
- **This QAP covers the SLRS, as detailed on Structural drawings S1.0 thru S4.2, prepared by Robert E. Chester Associates, Consulting Engineers. QAP and anchorage requirements for Architectural, HVAC, Electrical and Plumbing shall be established and prepared by the specific DPR for each discipline (Refer to IBC Section 1705.1).**

Quality Assurance for Wind Requirements

Basic Wind Speed (3 second gust) 100 mph
 Wind Exposure Category "C"
 Quality Assurance Plan Required (Y/N) (N)

Description of wind force resisting system and designated wind resisting components:
Structural steel braced frames with composite floor diaphragm

Statement of Responsibility

Each contractor responsible for the construction or fabrication of a system or component designated above must submit a Statement of Responsibility.

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 if requested.

Key for Minimum Qualifications of Inspection Agents:

When the Registered Design Professional in Responsible Charge deems it appropriate that the individual performing a stipulated test or inspection have a specific certification or license as indicated below, such designation shall appear below the *Agency Number* on the Schedule.

PE/SE	Structural Engineer – a licensed SE or PE specializing in the design of building structures
PE/GE	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

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.
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International Code Council (ICC) Certification

ICC-SMSI	Structural Masonry Special Inspector
ICC-SWSI	Structural Steel and Welding Special Inspector
ICC-SFSI	Spray-Applied Fireproofing Special Inspector
ICC-PCSI	Prestressed Concrete Special Inspector
ICC-RCSI	Reinforced 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

Exterior Design Institute (EDI) Certification

EDI-EIFS	EIFS Third Party Inspector
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Other

Soils and Foundations

Item	Agency # (Qualif.)	Scope
1. Shallow Foundations	PE/GE	<p><i>Inspect soils below footings for adequate bearing capacity and consistency with geotechnical report.</i></p> <p><i>Inspect removal of unsuitable material and preparation of subgrade prior to placement of controlled fill</i></p>
2. Controlled Structural Fill	PE/GE	<p><i>Perform sieve tests (ASTM D422 & D1140) and modified Proctor tests (ASTM D1557) of each source of fill material (ASTM C29 for crushed stone below tunnel and basement).</i></p> <p><i>Inspect placement, lift thickness and compaction of controlled fill.</i></p> <p><i>Test density of each lift of fill by nuclear methods (ASTM D2922) and/ or Sand Cone method (ASTM D1556) as approved by PE/GE</i></p> <p><i>Verify extent and slope of fill placement.</i></p>
3. Deep Foundations	PE/GE	<p><i>Inspect and log pile driving operations. Record pile driving resistance and verify compliance with driving criteria. Record sequence of placement.</i></p> <p><i>Inspect piles for damage from driving and plumbness.</i></p> <p><i>Verify pile size, length and accessories.</i></p>
4. Load Testing	PE/GE	<p><i>Coordinate and approve test pile locations</i></p> <p><i>Review Dynamic load testing method (ASTM D4945). Review Wave Equation Analysis and PDA results for acceptance or rejection of test piles</i></p> <p><i>(2) dynamic pile load tests are required, unless as directed by PE/GE for additional tests.</i></p>
4. Other: Sprayed-On Fireproofing	Certified/ Licensed Agency	<p><i>Thickness for Structural Framing Members per UL Design Assembly and ASTM E 84 & ASTM E 119</i></p>

Cast-in-Place Concrete

Item	Agency # (Qualif.)	Scope
1. Mix Design	ACI-CCI ICC-RCSI	Review concrete batch tickets and verify compliance with approved mix design. Verify that water added at the site does not exceed that allowed by the mix design.
2. Material Certification	ACI-CCI ICC-RCSI	Review material certifications and verify compliance with approved mix design. Review mill certifications for reinforcing steel.
3. Reinforcement Installation	ACI-CCI ICC-RCSI	Inspect size, spacing, cover, positioning and grade of reinforcing steel. Verify that reinforcing bars are free of form oil or other deleterious materials. Inspect bar laps and mechanical splices. Verify that bars are adequately tied and supported on chairs or bolsters
4. Post-Tensioning Operations		N/A
5. Welding of Reinforcing	AWS-CWI	Visually inspect all reinforcing steel welds. Verify weldability of reinforcing steel. Inspect preheating of steel when required.
6. Anchor Rods	ACI-CCI ICC-RCSI	Inspect size, positioning and embedment of anchor rods. Inspect concrete placement and consolidation around anchors.
7. Concrete Placement	ACI-CCI ICC-RCSI	Inspect placement of concrete. Verify that concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated.
8. Sampling and Testing of Concrete	ACI-CFTT ACI-STT	Test concrete compressive strength (ASTM C31 & C39), slump (ASTM C143), air-content (ASTM C231 or C173) and temperature (ASTM C1064).
9. Curing and Protection	ACI-CCI ICC-RCSI	Inspect curing, cold weather protection and hot weather protection procedures.
10. Other:		Refer to IBC Table 1704.4 for required frequency of Inspections (continuous vs. periodic) typical u.o.n.

Structural Steel

Item	Agency # (Qualif.)	Scope
1. Fabricator Certification/ Quality Control Procedures <input checked="" type="checkbox"/> Fabricator Exempt *	AWS/AISC- SSI ICC-SWSI	Review shop fabrication and quality control procedures. *(Valid only if Fabricator has current AISC Certification STD – Steel Building Structures)
2. Material Certification	AWS/AISC- SSI ICC-SWSI	Review certified mill test reports and identification markings on wide-flange shapes, high-strength bolts, nuts and welding electrodes
3. Open Web Steel Joists	AWS/AISC- SSI ICC-SWSI	Inspect installation, field welding and bridging of joists.
4. Bolting	AWS/AISC- SSI ICC-SWSI	Inspect installation and tightening of high-strength bolts. Verify that splines have separated from tension control bolts. Verify proper tightening sequence.
5. Welding	AWS-CWI ASNT	Visually inspect all welds. Test suspect welds using magnetic particle method. Inspect pre-heat, post-heat and surface preparation between passes. Verify size and length of fillet welds. Ultrasonic testing (ASTM E164) of all full-penetration welds, and partial penetration welds for column splices.
6. Shear Connectors	AWS/AISC- SSI ICC-SWSI	Inspect size, number, positioning and welding of shear connectors. Inspect studs for full 360 degree flash. Ring test all shear connectors with a 3 lb hammer. Bend test all questionable studs to 15 degrees.
7. Structural Details	AWS/AISC- SSI ICC-SWSI	Inspect steel frame for compliance with structural drawings, including bracing, member configuration and connection details.
8. Metal Deck	AWS-CWI	Inspect welding and side-lap fastening of metal roof and composite floor deck.
9. Other:		Refer to IBC Table 1704.3 for required frequency of Inspections (continuous vs. periodic) typical u.o.n.

Special Cases

Item	Agency # (Qualif.)	Scope
Seismic Load Resisting System (SLRS)	AWS/AISC-SSI ICC-SWSI	<p><i>Inspection of field fillet welds 5/16" or greater for HSS strut bracing connections, diaphragm angle to beam/ column connections, and column splices.</i></p> <p><i>Refer to AISC 341, Appendix Q5.1 for visual inspection tasks before, during and after welding (Duplication of QC inspection by QA not required, provided documentation is submitted as specified, and upon approval of the Building Official).</i></p> <p><i>Inspection of shop welding shall be made part of fabricator's QC system.</i></p> <p><i>Non-destructive testing of welds shall be performed as specified in Structural Steel - Item No. 5.</i></p> <p><i>Inspection of column base installation, sequence and tightening of bolts (Refer to Structural Steel – Item No. 7).</i></p> <p><i>Reports shall be prepared daily for completion of each day's inspections. Submission of reports to SI Coordinator, Owner and Building Official shall be on a weekly basis, unless otherwise directed and approved by SI Coordinator and Building Official).</i></p>

RECA

Robert E. Chester Associates, Consulting Engineers

119 Coulter Avenue, Suite 175, Ardmore, PA 19003 - Phone: 610-645-9570 - Fax: 610-645-9572

February 5, 2007

To: Bill Gariano, R.A.
Francis, Cauffman, Foley, Hoffmann, Architects, Ltd.

From: Robert E. Chester, P.E.
Robert E. Chester Associates, Consulting Engineers

Re: Landmark Healthcare Facilities, LLC – Fore River Medical Pavilion, Portland, ME
(Permit # 061802)

Bill,

We have reviewed the latest correspondence submitted Feb. 3, 2007 via email by Mr. Mike Nugent of the City of Portland Building Inspections, and offer the following responses/ additional information.

1. Inspection and testing firm for foundations is identified on updated SI/ QAP document (S.W. Cole Engineering).
2. QAP adopted for seismic resistance (SLRS), as required by IBC Section 1705.1. Refer to updated SI/ QAP document.
3. Special Inspector for pile foundations has been identified in item no. 1.
4. IBC Section 1808.2.23.1 - Adequate tie of piles/ pile caps has been provided (refer to foundation plan S1.0, and detail drawings S3.0 thru S3.2). IBC Section 1809.2.2.2.1 - This section refers to precast concrete piles, and is not applicable for this project. Requirements for structural steel piles is given in Section 1809.3, and was addressed in RECA's previous response letter dated January 26, 2007 (Item No. 6).
5. S.W. Cole to respond directly regarding piling installer's proposal.

Respectfully Submitted,



Robert E. Chester, PE
Robert E. Chester Associates

Cc: J. Thomas Hyde, AIA, FCFH Architects
Enclosure

RECA

Robert E. Chester Associates, Consulting Engineers

119 Coulter Avenue, Suite 175, Ardmore, PA 19003 - Phone: 610-645-9570 - Fax: 610-645-9572

January 26, 2007

To: Bill Gariano, R.A.
Francis, Cauffman, Foley, Hoffmann, Architects, Ltd.

From: Robert E. Chester, P.E.
Robert E. Chester Associates, Consulting Engineers

Re: Landmark Healthcare Facilities, LLC – Fore River Medical Pavilion, Portland, ME
(Permit # 061802)

Bill,

We have reviewed the correspondence submitted via email by Mr. Mike Nugent of the City of Portland Building Inspections, in reference to establishing code compliance of the foundation system for the above-referenced project. The correspondence submitted is a verbatim restatement of portions of or entire code sections 1802, 1808, and 1809 from IBC 2003. A majority of the required information has been supplied in the structural portions of the construction documents, which includes the structural drawings, book specifications, and complete geotechnical evaluation/ report provided by the project geotechnical engineer. Please confirm that all of these documents have been issued to the Building Department. Other portions of these code sections refer to field means and methods during construction. Specific responses as applicable are contained herein, along with attachment(s) of any updated portions of the construction documents. Any and all inquiries to criteria or recommendations contained in the geotechnical report should be addressed to the project geotechnical engineer (S.W. Cole Engineering Inc.).

1) 1808.2.2 - Foundation investigation and report performed in accordance with Section 1802. Expanded requirements, including pier types and capacities, driving criteria and installation procedures are detailed on drawings S1.0, S3.0 –3.2, S4.2, Specification Section 02365 (Driven piles), and the geotechnical report.

2) 1808.2.4 thru 1808.2.7 - Pile layouts and grouping, bracing and details shown on drawings S1.0, S3.0 –3.2, conforming to said sections.

- 1808.2.6 added to Driven pile specification part 3.2-I.
- 1808.2.7 splicing of piles is specified in part 3.2 of Driven pile specification.

3) Section 1808.2.8 - Determination of allowable loads, driving criteria, and load testing criteria is specified in part 1.4 of Driven pile specification.

- Part 1.4A,a is amended per IBC Section 1808.2.8.2.
- Part 1.4Cd,ii is amended per IBC Section 1808.2.8.3.
- ASTM D4945 is specified in part 1.4C,f.
- Part 1.4D,I is amended per IBC 1802.8.3.1.
- 1808.2.8.4 an 1808.2.8.5 - End bearing pile design for this project (vs. friction pile). Pile uplift forces considered and satisfied via applicable foundation dead loads.

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- 1808.2.8.6 - Load bearing capacities to be satisfied via test piles (load specified at 2.25 times the pile design capacity – Refer to Driven pile spec. part 1.4C,g).
 - 1808.2.8.7 and 1808.2.8.8 - Provisions for determining unacceptable piles is specified in part 3.4 of Driven pile specification.
- 4) Sections 1808.2.9 through 1808.2.22 (relevant portions)
- 1808.2.12 - Settlement criteria is provided in section 4.3.1 of the geotechnical report.
 - 1808.2.14 - Installation sequence note added to Driven pile specification, part 3.2I
 - 1808.2.16 - Pile type is specified in Driven pile specification, part 2.1 (part 3.2K is amended), and part 4.3.1 of the geotechnical report.
 - 1808.2.17 - Protective pile coating is not required for this installation per the project geotechnical engineer.
 - 1808.2.19 - Provisions for heaved piles is specified in driven pile specification part 3.2M.
 - 1808.2.20 and 1808.2.21 - Material identifications, locations and layout are indicated on the structural foundation plan, sections and details (S1.0, S3.0-S3.2), Project specifications, and geotechnical report.
 - 1808.2.22 - Statement of special inspections is currently being revised in accordance with CASE form 101.
- 5) Section 1808.2.23 (Seismic design of piers or piles) - The pile foundations, pile caps, piers and grade beams are designed for applicable seismic design criteria of this section, and in accordance with applicable criteria of ACI 318-05. Seismic Design Category C was utilized, based upon the interpolation of spectral response acceleration figures (Refer to drawing S4.2 for design acceleration parameters, and IBC Tables 1616.3(1) and (2) – Seismic design category). Compressive strength of all concrete used in foundations is specified at 3500 psi minimum. Seismic subsurface considerations are addressed in part 4.3.4 of the geotechnical report.
- 6) Section 1809.3 (Structural steel piles)
- 1809.3.1 - Materials specified in part 2.1 of Driven pile specification
 - Allowable axial stresses in conformance with requirements of 1809.3.2
 - Dimensions of specified HP 10 x 57 pile in conformance with requirements of 1809.3.3

Respectfully Submitted,



Robert E. Chester, PE
Robert E. Chester Associates

Cc: J. Thomas Hyde, AIA, FCFH Architects
Enclosure