Attachment A.1

Conditional Use Application
Development Review Application
Portland, Maine

Planning and Urban Development Department
Planning Division

Portland's Planning and Urban Development Department coordinates the development review process for site plan, subdivision and other applications under the City's Land Use Code. Attached is the application form for a Conditional Use Review. General information pertaining to the thresholds of review for site plans, public noticing procedures and the fee structure is contained in site plan applications and within the Developer's Packet.

(Please submit the Conditional Use Application in addition to an applicable site plan application.)

PROJECT NAME: Maine Medical Center – Bean 2 Roof Addition

CHART/BLOCK/LOT: CBL53-D-1,2,7;CBL53-E-1,2,10,13;Cbl54-H-1;CBL 64-c-1,2

RIGHT, TITLE OR INTEREST: (Please identify the status of the applicant's right, title, or interest in the subject property.)

Ownership All Parcels

(Please provide documentary evidence, attached to this application, of the applicant's right, title, or interest in the property. For Example – a deed, option or contract to purchase or least the subject property.)Deeds provided in Site Plan Application.

VICINITY MAP: (Please attach a map showing the subject parcel and abutting parcels, labeled as to ownership and/or current use.) See Attachment

EXISTING USE: Describe the existing use of the subject property.

Hospital

TYPE OF CONDITIONAL USE PROPOSED:

Upgrade existing operating rooms; add (4) additional surgical suites (see cover letter).

SITE PLAN: Provide a site plan of the property, showing existing and proposed improvements, which meets the submission requirements of the applicable level of site plan review. Plans provided in Site

A.2

Plan application.

CONDITIONAL USE AUTHORIZED BY: SECTION 14- ___137____
Address any specific conditional use standards for the specific use contained in the zoning code in the written submission. None of the criteria apply to the proposal.

STANDARDS – CRITERIA FOR CONDITIONAL USE APPEAL – Section 14-474

Address the following criteria in your written application and any applicable conditional use standards contained in the zoning code for the specific use.(see Attachment A)

Upon showing that a proposed use is a conditional use under this article, a conditional use permit shall be granted unless the Board determines that:

a. There are unique or distinctive characteristics or effects associated with the proposed conditional use;

b. There will be an adverse impact upon the health, safety, or welfare of the public or the surrounding areas;

c. Such impact differs substantially from the impact which would normally occur from such a use in that zone; and

d. Zone Related Criteria

CONTACT INFORMATION:

	Applicant's Contact for electronic plans Name:William Conway, Sebago Technics e-mail: wconway@sebagotechnics.com work #: 207.200.2055
Applicant – must be owner, Lessee or Buyer Name: Penelope St. Louis Business Name, if applicable: Maine Health Address: 110 Free Street City/State : Portland, ME 04101 Zip Code:	**Applicant Contact Information** Work # 207.661.7157 Home# n/a Cell # n/a Fax# e-mail: stlouis@mmc.org
Owner – (if different from Applicant) Name: Same as Applicant Address: City/State : Zip Code:	**Owner Contact Information** Work # Same as Applicant Home# Cell # Fax# e-mail:
Billing Information Name: Same as Applicant Address: City/State : Zip Code:	**Billing Information n/a** Work # Cell # Fax#

A. 3

APPLICATION FEES:

Check all reviews that apply. (Payment may be made by Cash or Check payable to the City of Portland.)

__x_ Conditional Use $100.00 The City invoices separately for the following: • Notices ($.75 each) • Legal Ad (% of total Ad) • Planning Review ($40.00 hour) • Legal Review ($75.00 hour) Third party review is assessed separately.
Site Plan Application Please submit a separate application for the applicable site plan review. Fees and charges are listed within the site plan application

APPLICATION SUBMISSION

All site plans and written application materials must be uploaded to a website for review. At the time of application, instructions for uploading the plans will be provided to the applicant. One paper set of the plans, written materials and application fee must be submitted to the Planning Division Office to start the review process.

The application for a conditional use review must contain the following items:

a. Conditional Use Application form that is completed and signed.
b. Cover letter stating the nature of the project.
c. Evidence of right, title and interest.
d. Written Submittals that address the conditional use standards of Section 14-474 and any applicable standards of review contained in the zoning code for the specific use.
e. One set of the paper plans and maps based upon the boundary survey at a scale not less than one (1) inch to fifty (50) feet and containing the information required for the applicable level of site plan review. The plan requirements and submission requirements are listed in the Site Plan Ordinance (Section 14 -527) of the Land Use Code. Refer to the application checklist for a detailed list of submittal requirements.
f. One set of the plans at 11X17.
g. The conditional use application fee and all other applicable fees as determined on the site plan application.

A.4

Portland's development review process and requirements are outlined in the Land Use Code (Chapter 14), which includes the Subdivision Ordinance (Section 14-491) and the Site Plan Ordinance (Section 14-521) and the Conditional Use Standards (Section 14-474). Portland's Land Use Code is on the City's web site: www.portlandmaine.gov Copies of the ordinances may be purchased through the Planning Division.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Planning Authority and Code Enforcement's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

This application is for a Conditional Use review. It is not a permit to begin construction. An approved site plan, a Performance Guarantee, Inspection Fee, Building Permit, and associated fees will be required prior to construction. Other Federal, State or local permits may be required prior to construction, which are the responsibility of the applicant to obtain.

Signature of Applicant:	Date:
Marshall Smith	6/4/13

The Portland Land Use Code (including Article V), the Technical Manual, and the Design Manual are available on the City's web site at http://www.portlandmaine.gov/planning/default.asp or copies may be purchased at the Planning Division Office.

Planning Division
Fourth Floor, City Hall
389 Congress Street
(207) 874-8721 or 874-8719

Office Hours
Monday thru Friday
8:00 a.m. – 4:30 p.m.

A.5

TAB 1

Maine Medical Center
MaineHealth

Office of the Executive Vice President and Chief Operating Officer

May 24, 2013

Ms. Carol Morrissette, Chair
Portland Planning Board
389 Congress Street
Portland, Maine 04101

Site Plan Application
22 Bramhall Street
CBL 53-D-1,2,7; CBL 53-E-1,2,10,13; CBL 53-G-1,13; CBL 54-H-1; CBL 64-C-1,2

Dear Chair Morrissette and Members of the Portland Planning Board:

Maine Medical Center (MMC) is requesting Major Site Plan approval for a +/- 40,000 s.f. addition to the Lower Bean Building (aka Bean 2) located at 22 Bramhall Street (in the vicinity of the MMC emergency department). The addition will modernize and upgrade MMC's existing surgical facilities by enlarging existing ORs to meet standard of care requirements and adding four additional surgical suites. The addition will be located on the roof of the Bean 2, and, as a result, will have no impact on building footprint or impervious surface.

Attached please find MMC's completed application for the required Site Plan Approval for Major Development. Along with the Application, please find payment of the $500.00 Application Fee. We very much look forward to the opportunity to meet with you and discuss the Hospital's plan for its surgical facilities.

Sincerely,

Jeffrey D. Sanders
Executive Vice President and Chief Operating Officer

Cc: Jean Fraser
Walter Pochebit

22 Bramhall Street, Portland, Maine 04102-3175 • (207) 662-2491
sandej4@mmc.org • www.mmc.org

A.6

Maine Medical Center – Bean 2 Roof Addition
22 Bramhall Street

Conditional Use Application – Attachment A – Standards/ Criteria Section 14-474

a. There are unique or distinctive characteristics or effects associated with the proposed conditional use.

   The proposed vertical building expansion avoids horizontal expansion of the Bramhall Campus and is permissable under the provisions of the current conditional zoning agreement.
   The architecture is compatible with existing buildings on the Portland penninsula, the project will not alter the current project site, and no adverse impacts will be created respective to vehicular/ pedestrian circulation nor adequate parking capacity.

b. There will be an adverse impact upon the health, safety, or welfare of the public or the surrounding areas.

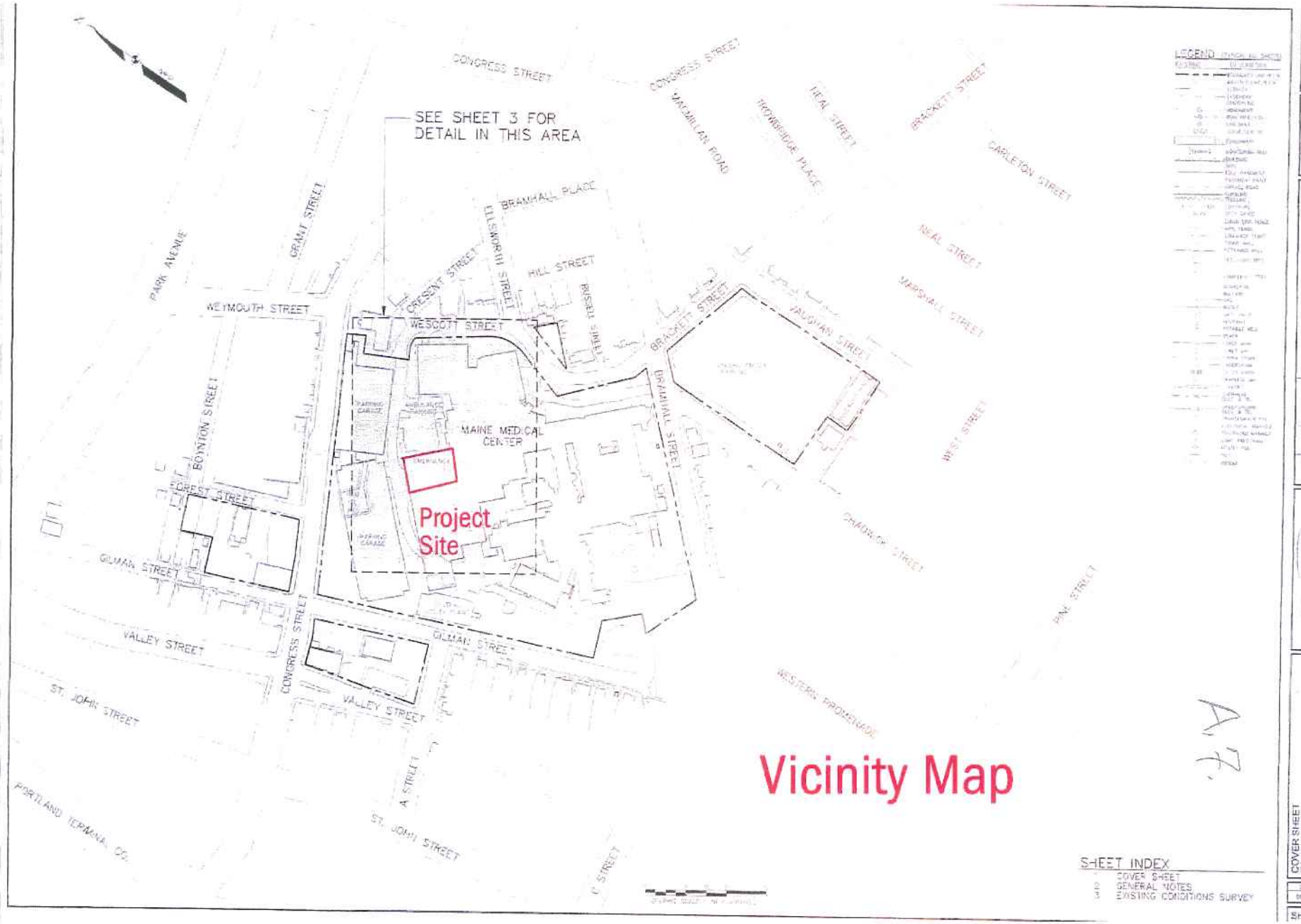
   Much to the contrary – this project will afford great benefit to public health and safety, as its primary objective is to bring the level of medical care up to current standards. The project will not create adverse impacts associated with noise, odors, air emissions or other objectionable effects.

c. Such impact differs substantially from the impact which would normally occur from such a use in that zone.

   The project is situated within the boundaries established by the current conditional zoning agreement, which envisioned and included this project in the course of the review and approval of the agreement.

d. Zone Related Criteria

   The project is in compliance will all provisions contained within the current conditional zoning agreement.


SEE SHEET 3 FOR
DETAIL IN THIS AREA
CONGRESS STREET
PARK AVENUE
GRANT STREET
BRAMHALL PLACE
ELLSWORTH STREET
CRESCENT STREET
HILL STREET
WESCOTT STREET
WEYMOUTH STREET
BOYNTON STREET
FOREST STREET
GILMAN STREET
VALLEY STREET
ST. JOHN STREET
MAINE MEDICAL CENTER
Project Site
BRAMHALL STREET
BRACKETT STREET
VAUGHAN STREET
NEAL STREET
MARSHALL STREET
WEST STREET
CARLETON STREET
HOYTBRIDGE PLACE
MACMILLAN ROAD
NEAL STREET
SHADLOW STREET
PINE STREET
WESTERN PROMENADE
A STREET
C STREET
PORTLAND TERMINAL CO.
LEGEND
SHEET INDEX
COVER SHEET
GENERAL NOTES
EXISTING CONDITIONS SURVEY
Vicinity Map
SEBAGO
COVER SHEET
MAINE MEDICAL CENTER CAMPUS
MAINE MEDICAL CENTER
SHEET 1 OF 3

Attachment B.1 # 2013-130

Maine Medical Center
Bean 2 Roof Addition
Level 111 Application
Bramhall Street
May 2013

Attachment B.2.

Table of Contents

Level 111 Application

Maine Medical Center
Bramhall Street
Bean 2 Roof Addition
May 2013

(reorganized slightly for PB applicants submittal)

B.3

TAB 1

Maine Medical Center
MaineHealth

Office of the Executive Vice President and Chief Operating Officer

May 24, 2013

Ms. Carol Morrissette, Chair
Portland Planning Board
389 Congress Street
Portland, Maine 04101

Site Plan Application
22 Bramhall Street
CBL 53-D-1,2,7; CBL 53-E-1,2,10,13; CBL 53-G-1,13; CBL 54-H-1;
CBL 64-C-1,2

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Sincerely,

Jeffrey D. Sanders
Executive Vice President and Chief Operating Officer

Cc: Jean Fraser
Walter Pochebit

22 Bramhall Street, Portland, Maine 04102-3175 • (207) 662-2491
sandej4@mmc.org • www.mmc.org

B.4

Effective August 18, 2010

TAB 2

Level III - Preliminary and Final Site Plans
Development Review Application
Portland, Maine

Planning and Urban Development Department
Planning Division

Portland's Planning and Urban Development Department coordinates the development review process for site plan, subdivision and other applications under the City's Land Use Code. Attached is the application form to be used for a Level III: Preliminary or Final Site Plan. Please note that Portland has delegated review from the State of Maine for reviews under the Site Location of Development Act, Chapter 500 Stormwater Permits, and Traffic Movement Permits. General information pertaining to the thresholds of review and fee structure is contained on page 3 of this application. The Land Use Code (including Article V), the Technical Manual, and the Design Manual are available on the City's web site at http://www.portlandmaine.gov/planning/default.asp

Level III: Site Plan Development includes:

- New structures with a total floor area of 10,000 sf or more except in Industrial Zones.
- New structures with a total floor area of 20,000 sf or more in Industrial Zones.
- New temporary or permanent parking area(s) or paving of existing unpaved parking areas for more than 75 vehicles.
- Building addition(s) with a total floor area of 10,000 sf or more (cumulatively within a 3 year period) except in Industrial Zones.
- Building addition(s) with a total floor area of 20,000 sf or more in Industrial Zones.
- A change in the use of a total floor area of 20,000 sf or more in any existing building (cumulatively within a 3 year period).
- Multiple family development (3 or more dwelling units) or the addition of any additional dwelling unit if subject to subdivision review.
- Any new major or minor auto business in the B-2 or B-5 Zone, or the construction of any new major or minor auto business greater than 10,000 sf of building area in any other permitted zone.
- Correctional prerelease facilities.
- Park improvements: New structures greater than 10,000 sf and/or facilities encompassing 20,000 sf or more (excludes rehabilitation or replacement of existing facilities); new nighttime outdoor lighting of sports, athletic or recreation facilities not previously illuminated.
- Land disturbance of 3 acres or more (includes stripping, grading, grubbing, filling or excavation).

The Land Use Code (including Article V), the Technical Manual, and the Design Manual are available on the City's web site at http://www.portlandmaine.gov/planning/default.asp or copies may be purchased at the Planning Division Office.

Planning Division
Fourth Floor, City Hall
389 Congress Street
(207) 874-8721 or 874-8719

Office Hours
Monday thru Friday
8:00 a.m. - 4:30 p.m.

B.5

PROJECT NAME: Maine Medical Center - Bean 2 Roof Addition

PROPOSED DEVELOPMENT ADDRESS:

Bramhall Street

PROJECT DESCRIPTION:

Vertical Expansion of LL Bean building for new operating rooms and mechanical systems.

CHART/BLOCK/LOT: CBL 53-D-1,2,7
CBL 53-E-1,2,10,13
CBL 53-G-1,13
CBL 54-H-1
CBL 64-C-1,2

PRELIMINARY PLAN 5/28/13 (date)
FINAL PLAN _____ (date)

CONTACT INFORMATION:

Applicant - must be owner, Lessee or Buyer Name: Penelope St. Louis Business Name, if applicable: Maine Health Address: 110 Free Street City/State : Portland ME Zip Code: 04101	**Applicant Contact Information** Work # 207-661-7157 Home# N/A Cell # N/A Fax# e-mail: stlouis@mmc.org
Owner - (if different from Applicant) Name: Same as Applicant Address: City/State : Zip Code:	**Owner Contact Information** Work # Home# Cell # Fax# e-mail:
Agent/ Representative Name: William Conway, Sebago Technics Inc. Address: 75 John Roberts Road, Suite 1A City/State : South Portland, ME Zip Code: 04106	**Agent/Representative Contact information** Work # 207-200-2055 Cell # 207- 205-5271 e-mail: wconway@sebagotechnics.com
Billing Information Name: Same as Applicant Address: City/State : Zip Code:	**Billing Information** Work # N/A Cell # Fax# e-mail:

B.6

Engineer Name: Same as Agent Address: City/State : Zip Code:	Engineer Contact Information Work # N/A Cell # Fax# e-mail:
Surveyor Name: Same as Agent Address: City/State : Zip Code:	Surveyor Contact Information Work # N/A Cell # Fax# e-mail:
Architect Name: Susanna Baker, Perkins&Will Address: 55 Court Street City/State : Boston, MA Zip Code: 02108	Architect Contact Information Work # 617-478-0321 Cell # N/A Fax# N/A e-mail: susanna.baker@perkinswill.com
Attorney Name: N/A Address: City/State : Zip Code:	Attorney Contact Information Work # N/A Cell # Fax# e-mail:

B.4

APPLICATION FEES:
Check all reviews that apply. (Payment may be made by Cash or Check payable to the City of Portland.)

Level III Development (check applicable reviews)

___ Less than 50,000 sq. ft. ($500.00)
___ 50,000 - 100,000 sq. ft. ($1,000)
___ 100,000 - 200,000 sq. ft. ($2,000)
___ 200,000 - 300,000 sq. ft. ($3,000)
___ over $300,00 sq. ft. ($5,000)
___ Parking lots over 11 spaces ($1,000)
___ After-the-fact Review ($1,000.00 plus applicable application fee)

The City invoices separately for the following:

- Notices ($.75 each)
- Legal Ad (% of total Ad)
- Planning Review ($40.00 hour)
- Legal Review ($75.00 hour)

Third party review is assessed separately.

Plan Amendments (check applicable reviews)

___ Planning Staff Review ($250) N/A
___ Planning Board Review ($500)

Other Reviews (check applicable reviews) N/A

___ Traffic Movement ($1,000)
___ Stormwater Quality ($250)
___ Subdivisions ($500 + $25/lot)
# of Lots ___ x $25/lot = _____
___ Site Location ($3,000, except for residential projects which shall be $200/lot)
# of Lots ___ x $200/lot = _____

___ Other _____
___ Change of Use
___ Flood Plain
___ Shoreland
___ Design Review
___ Housing Replacement
___ Historic Preservation

B.8

APPLICATION SUBMISSION

All site plans and written application materials must be uploaded to a website for review. At the time of application, instructions for uploading the plans will be provided to the applicant. One paper set of the plans, written materials and application fee must be submitted to the Planning Division Office to start the review process.

Submissions shall include one (1) paper packet with folded plans containing the following materials:

1. One (1) full size set of plans that must be folded.
2. One (1) copy of all written materials as follows, unless otherwise noted:
   a. Application form that is completed and signed.
   b. Cover letter stating the nature of the project.
   c. All Written Submittals (Sec. 14-525 2. (c), including evidence of right, title and interest.
3. A stamped standard boundary survey prepared by a registered land surveyor at a scale not less than one inch to 50 feet.
4. Plans and maps based upon the boundary survey and containing the information found in the attached sample plan checklist.
5. Copy of the checklist completed for the proposal listing the material contained in the submitted application.
6. One (1) set of plans reduced to 11 x 17.

Refer to the application checklist for a detailed list of submittal requirements.
Portland's development review process and requirements are outlined in the Land Use Code (Chapter 14), which includes the Subdivision Ordinance (Section 14-491) and the Site Plan Ordinance (Section 14-521). Portland's Land Use Code is on the City's web site: www.portlandmaine.gov Copies of the ordinances may be purchased through the Planning Division.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Planning Authority and Code Enforcement's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

This application is for a Level III Site Plan review. It is not a permit to begin construction. An approved site plan, a Performance Guarantee, Inspection Fee, Building Permit, and associated fees will be required prior to construction. Other Federal, State or local permits may be required prior to construction, which are the responsibility of the applicant to obtain.

Signature of Applicant:	Date:
Jeff Landry	May 28, 2013

B.9

PROJECT DATA

The following information is required where applicable, in order complete the application.

Total Area of Site	12.84 +/-
Proposed Total Disturbed Area of the Site	9.0 ac +/-
(If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with DEP and a Stormwater Management Permit, Chapter 500, with the City of Portland	
Impervious Surface Area	
Impervious Area (Existing)	9.0 ac +/-
Impervious Area (Proposed)	9.0 ac +/-
Building Ground Floor Area and Total Floor Area	
Building Footprint (Existing)	49,972 sq. ft.
Building Footprint (Proposed)	
Floor Area (Existing)	
Floor Area (Proposed)	40,000 sq. ft.
Zoning	
Existing	See Tab 8
Proposed, if applicable	
Land Use	
Existing	
Proposed	
Residential, If applicable	N/A
Residential Units (Existing)	
Residential Units (Proposed)	
# Number of Lots (Proposed)	
Affordable Housing Units (Proposed)	
Efficiency Units (Proposed)	
One-Bedroom Units (Proposed)	
Two-Bedroom Units (Proposed)	
Three-Bedroom Units (Proposed)	
Parking Spaces	See Tab 9
Parking Spaces (Existing)	
Parking Spaces (Proposed)	
Handicapped Spaces (Proposed)	
Bicycle Parking Spaces	See Tab 9
Bicycle Spaces (Existing)	
Bicycle Spaces (Proposed)	
Estimated Cost of Project	$40 M

B.10

General Submittal Requirements – Preliminary Plan (Optional)
Level III Site Plan
Preliminary Plan Phase Check list (if elected by applicant)

Applicant Checklist	Planner Checklist	Number of Copies	Written Submittal Requirements
X (tab 2)	☐	1	Completed application form
X	☐	1	Application fees
X(tab 5)	☐	1	Written description of project
X(tab 6)	☐	1	Evidence of right, title and interest.
X(tab 7)	☐	1	Copies of required State and/or Federal permits.
X(tab 8)	☐	1	Written assessment of proposed project's compliance with applicable zoning requirements.
n/a	☐	1	Written description of existing and proposed easements or other burdens.
n/a	☐	1	Written requests for waivers from individual site plan and/or technical standards, where applicable.
X(tab 9)	☐	1	Traffic analysis (may be preliminary, in nature, during the preliminary plan phase).
n/a	☐	1	Written summary of significant natural features located on the site.
X(tab 10)	☐	1	Written summary of project's consistency with related city master plans.
X(tab 9)	☐	1	Neighborhood Meeting Material (refer to page 13 of this application.)
Applicant Checklist	**Planner Checklist**	**Number of Copies**	**Site Plan Submittal Requirements**
X (Plans)	☐	1	Boundary Survey meeting the requirements of Section 13 of the City of Portland Technical Manual.
X (Plans)	☐	1	**Preliminary Site Plan including the following: (*information provided may be preliminary in nature during preliminary plan phase).**
X (Plans)	☐		▪ *Existing and proposed structures with distance from property line (including location of proposed piers, docks or wharves if in Shoreland Zone).*
X (Plans)	☐		▪ *Location of adjacent streets and intersections and approximate location of structures on abutting properties.*
n/a	☐		▪ *Proposed site access and circulation.*
n/a	☐		▪ *Proposed grading and contours.*
X (Plans)	☐		▪ *Location and dimension of existing and proposed paved areas including all parking areas and vehicle, bicycle and pedestrian access ways.*
n/a	☐		▪ *Preliminary landscape plan including existing vegetation to be preserved, proposed site landscaping and street trees.*
n/a	☐		▪ *Existing and proposed utilities (preliminary layout).*
n/a	☐		▪ *Preliminary infrastructure improvements (e.g. - curb and sidewalk improvements, roadway intersection modifications, utility connections, transit infrastructure, roadway improvements).*
n/a	☐		▪ *Preliminary stormwater management and erosion control plan.*
n/a	☐		▪ *Existing significant natural features located on the site (including wetlands, ponds, watercourses, floodplains, significant wildlife habitats and fisheries or other important natural features listed in Section 14-526 (b) 1. of the Land Use Code).*
n/a	☐		▪ *Proposed alterations to and protection measures for significant natural features located on the site (including wetlands, ponds, watercourses, floodplains, significant wildlife habitats and fisheries or other important natural features listed in Section 14-526 (b)1. of the Land Use Code).*
X (Plans)	☐		▪ *Existing and proposed easements or public or private rights of way.*

B.11

General Submittal Requirements – Final Plan (Required)
Level III Site Plan
Final Plan Phase Check list (including items listed above in General Requirements for Preliminary Plan, if applicant did not elect to submit for a preliminary plan review)

Applicant Checklist	Planner Checklist	Number of Copies	Written Submittal Requirement
X (tab 12)	☐	1	Evidence of financial and technical capacity.
X (tab 13)	☐	1	Evidence of utilities' capacity to serve the development.
X (tab 14)	☐	1	Written summary of fire safety (referencing NFPA fire code and Section 3 of the City of Portland Technical Manual).
X (tab 15)	☐	1	Construction management plan.
X (tab 9)	☐	1	Traffic Plan (if development will (1) generate 100 or more PCE or (2) generate 25 or more PCE and is located on an arterial, within 1/2 mile of a high crash location, and/or within ¼ mile of an intersection identified in a previous traffic study as a failing intersection).
n/a	☐	1	Stormwater management plan.
X (tab 16)	☐	1	Written summary of solid waste generation and proposed management of solid waste.
X (tab 17)	☐	1	Written assessment of conformity with applicable design standards.
X (tab 18)	☐	1	Manufacturer's verification that HVAC and manufacturing equipment meets applicable state and federal emissions requirements.

Final Plan Phase			
X (Plans)	☐	1	**Final Site Plan including the following:**
X (Plans)	☐		▪ *Existing and proposed structures on the site with distance from property line (including location of proposed piers, docks or wharves if in Shoreland Zone).*
X (Plans)	☐		▪ *Location of adjacent streets and intersections and approximate location of structures on abutting properties.*
n/a	☐		▪ *Proposed site access and circulation.*
n/a	☐		▪ *Proposed grading and contours.*
X (Plans)	☐		▪ *Location and dimension of existing and proposed paved areas including all parking areas and vehicle, bicycle and pedestrian access ways. Proposed curb lines must be shown.*
n/a	☐		▪ *Proposed loading and servicing areas, including applicable turning templates for delivery vehicles*
n/a	☐		▪ *Proposed snow storage areas or snow removal plan.*
n/a	☐		▪ *Proposed trash and recycling facilities.*
n/a	☐		▪ *Landscape plan including existing vegetation to be preserved, proposed site landscaping and street trees.*
n/a	☐		▪ *Existing and proposed utilities.*
n/a	☐		▪ *Location and details of proposed infrastructure improvements (e.g. - curb and sidewalk improvements, roadway intersection modifications, utility connections, public transit infrastructure, roadway improvements).*
n/a	☐		▪ *Proposed septic system, if not connecting to municipal sewer. (Portland Waste Water Application included in this application)*
X (Plans)	☐		▪ *Proposed finish floor elevation (FFE).*
X (Plans)	☐		▪ *Exterior building elevation(s) (showing all 4 sides).*
n/a	☐		▪ *Proposed stormwater management and erosion controls.*
n/a	☐		▪ *Exterior lighting plan, including street lighting improvements..*

B.12

n/a	☐	▪ *Proposed signage.*
n/a	☐	▪ *Identification of existing significant natural features located on the site (including wetlands, ponds, watercourses, floodplains, significant wildlife habitats and fisheries or other important natural features listed in Section 14-526 (b)1. of the Land Use Code). Wetlands must be delineated.*
n/a	☐	▪ *Proposed alterations to and protection measures for of existing significant natural features located on the site (including wetlands, ponds, watercourses, floodplains, significant wildlife habitats and fisheries or other important natural features listed in Section 14-526 (b)1. of the Land Use Code).*
n/a	☐	▪ *Total area and limits of proposed land disturbance.*
n/a	☐	▪ *Soil type and location of test pits and borings.*
n/a	☐	▪ *Details of proposed pier rehabilitation (Shoreland areas only).*
n/a	☐	▪ *Existing and proposed easements or public or private rights of way.*

B.13

TAB 3

SEBAGO TECHNICS

11107
May 28, 2013

Captain Chris Pirone
City of Portland
Fire Department
380 Congress Street
Portland, ME 04101

Maine Medical Center
Bean Building Roof Addition
Level III Site Plan Application

Dear Chris,

Maine Medical Center is filing an application with the City to construct a vertical expansion on the roof of the L.L. Bean Building at the Bramhall Campus. Enclosed are the submission materials required in the Fire Department Checklist. If you have any questions as you review the project, please let me know.

Sincerely,

SEBAGO TECHNICS, INC.

William T. Conway

William T. Conway, RLA, LEED AP
Vice President, Landscape Architecture

WTC:jsf

B. 14

PORTLAND FIRE DEPARTMENT
SITE REVIEW
FIRE DEPARTMENT CHECKLIST

A separate drawing[s] shall be provided to the Portland Fire Department for all site plan reviews.

1. Name, address, telephone number of applicant.
2. Name address, telephone number of architect
3. Proposed uses of any structures [NFPA and IBC classification]
4. Square footage of all structures [total and per story]
5. Elevation of all structures
6. Proposed fire protection of all structures
   - *As of September 16, 2010 all new construction of one and two family homes are required to be sprinkled in compliance with NFPA 13D. This is required by City Code. (NFPA 101 2009 ed.)*
7. Hydrant locations
8. Water main[s] size and location
9. Access to all structures [min. 2 sides]
10. A code summary shall be included referencing NFPA 1 and all fire department. Technical standards.

Some structures may require Fire flows using annex H of NFPA 1

B. 15

PERKINS
—WILL

Fire Safety Summary

Per the Code Report prepared for the Bean 2 Roof Addition on December 19, 2012 (and enclosed with this submission), the project complies with the requirements of NFPA.

B.16

RWS

HVAC

Electrical

Plumbing

Fire Protection

Code

Bean Addition
Maine Medical Center
Portland, Maine

Code Report

December 19, 2012

Prepared By: Andrew P. Schwalbenberg
Reviewed By: Don E. Contois, P.E.

The Schrafft Center
529 Main Street
Suite 203
Boston, MA 02129

617.523.8227
www.rwsullivan.com

B.17

Table of Contents

B.18

Introduction

The project includes renovations and an addition to the second floor of the Bean Building at Maine Medical Center in Portland, Maine. The following code summary report is based on the plans received December 10, 2012 and the Statement of Conditions plans received November 4, 2011. The following is a list of applicable codes:

Code Type	Applicable Code (Model Code Basis)
Building	2009 International Building Code
Fire Prevention	NFPA 101: Life Safety Code, 2009 Edition
Accessibility	Maine Human Rights Commission
Electrical	2011 National Electrical Code
Mechanical	ASHRAE 62.1 – 2007 ASHRAE 62.2 - 2007
Plumbing	2009 Uniform Plumbing Code (with State Amendments)
Energy Conservation	2009 International Energy Conservation Code

For the purpose of this report, the building is assumed to be fully sprinklered in accordance with the International Building Code (IBC) Section 903.

1. **Occupancy Classification:**

   IBC Occupancy Classifications (Section 302)
   - I-2 (Hospital)

   NFPA 101 Occupancy Classifications (Section 6.1)
   - Health Care

2. **Min. Construction Type:**

   - IBC – Type IB (noncombustible, 2 hour rated)
   - NFPA 101 – Type I (2,2,2) (noncombustible, 2 hour rated)

3. **Height and Area Limitations:**

   Since the existing construction type of Bean and Richard is IB, the allowable area for this building (Bean and Richard) is unlimited; therefore, the addition does not exceed the area limitation for this building (IBC Table 503).

   The addition will be separated from the adjacent existing building by two hour fire barriers; this separation permits the existing portions of the building to remain as-is without requiring full compliance with NFPA 101 (NFPA 101 Section 19.1.1.4.1).

4. **Fire Resistance Ratings:**

   The following fire resistance ratings are required in accordance with IBC Table 601 and various sections of the code.

New Building Elements	Fire Resistance Rating (Hrs)	Opening Protectives (Hrs)
Structural Frame	2[A]	-
Exterior Bearing Walls	2[A]	-
Interior Bearing Walls	2[A]	-
Exterior Non-Bearing Walls	Based on FSD	-
Interior Non-Bearing Walls	0	-
Floor Construction	2[A]	-
Roof Construction	1	-
Exit Access Corridors (IBC 407.2 & 407.3)	Smoke Resistant	Positive-latching
Stair Shafts (IBC 1022.1)	2	1½
Other Shafts (IBC 708.4)	2	1½
Trash Room Greater than 100 ft^2 in Area (IBC Table 508.2.5)	Smoke Resistant	Self Closing
Rooms With Equipment Greater than 400,000 Btuh Input Capacity (IBC Table 508.2.5)	Smoke Resistant	Self Closing

[A] Not less than the rating supported (IBC 707.5, 709.4. and 712.4).

Fire walls, fire barriers, fire partitions, smoke barriers, and smoke partitions, or any other wall required to have protected openings or penetrations must be identified with signs or stenciling within accessible concealed spaces (i.e. floor-ceiling, attic spaces) at 30 ft intervals with at least 0.5" letters stating: "FIRE AND/OR SMOKE BARRIER – PROTECT ALL OPENINGS" or similar wording (IBC 703.6).

5. **Exterior Wall Openings & Fire Resistance Rating:**

The exterior wall rating requirements and opening limitations are based on the fire separation distance for each wall. The fire separation distance is measured perpendicular to the exterior wall to the centerline of a public street, an interior lot line, or an imaginary lot line between two buildings on the same lot (IBC 702.0). Since the fire separation distance of the new exterior walls is more than 30 ft, the walls are not required to be rated and the allowable area of openings is not limited (IBC Table 602 and Section 705.8.1 Exc. 2).

6. **Vertical Floor Openings**

The current plans do not indicate any unenclosed floor openings on the second floor of the building.

B.20

7. **Finishes:**

New Interior Finish

The new interior finish of walls, ceilings and floors must comply with the code for new construction as shown in the table below.

Building Component	Walls & Ceilings (IBC 803.9)	Floors (IBC 804.4.1)
Exit Enclosures and Passageways	Class B	Class II
Corridors	Class B	Class II
Rooms & Enclosed Spaces	Class B	DOCFF-1

Exterior Finish

Exterior wall finishes must full comply with the requirements of 2009 IBC 14. Combustible materials are permitted to be used as an exterior wall finish for this building in accordance with 2009 IBC Section 1406.0; however, all exterior wall finishes and architectural trim located greater than 40 feet above grade plane must be constructed of approved noncombustible materials and must be secured to the wall with metal or other approved noncombustible brackets (2009 IBC Section 1406.2.2). Additionally, combustible exterior wall finish is limited to 10% of the exterior wall surface area where the fire separation distance is 5 ft or less.

The use of plastic materials as part of the exterior wall assembly (i.e. foam plastic insulation, exterior coatings and facings) must comply with 2009 IBC 26 (2009 IBC 1404.8). The wall assembly must be tested in accordance with NFPA 285 (2009 IBC 2603.5.5). Note that this test standard is a full scale assembly test. We recommend confirming with the manufacturer that the foam plastic insulation is part of an approved NFPA 285 assembly.

8. **Smoke Compartments:**

Smoke compartments are provided in the existing Bean building. The addition must also comply with the following smoke compartment requirements:

- Every story containing inpatients for sleeping or treatment, or an occupant load greater than 50 of any use, must be divided into not less than two smoke compartments (NFPA 101 Section 18.3.7.1(1) & (2)).

  The design is compliant.

- The size of each smoke compartment must not exceed 22,500 SF unless the area is an atrium separated in accordance with NFPA 101 Section 8.6.7 (NFPA 101 Section 18.3.7.1(3)).

  The addition to the Bean building will be considered a separate smoke compartment as shown on the attached plans.

B.21

- The travel distance from any point to reach a door in the required smoke barrier must be limited to 200 ft or less (NFPA 101 Section 18.3.7.1(4)).

  The design is compliant.

- The smoke barrier is required to be 1 hour rated except where an atrium is used and the smoke barrier terminates at an atrium wall and not less than two separate smoke compartments are provided on each floor. Smoke dampers are not required in duct penetrations of smoke barriers in fully ducted heating, ventilation, and air-conditioning systems where the systems serve a single smoke compartment (NFPA 101 Section 18.3.7.3 & 2009 IBC 716.5.5).

  The addition is being separated from the existing building by two hour fire barriers.

- Not less than 30 net SF per patient must be provided within the aggregate area of corridors, patient rooms, treatment rooms, lounge or dining areas, and other low hazard areas on each side of the smoke barrier (NFPA 101 Section 18.3.7.5.1).

If appears that a non-sleeping suite will be included within the addition to the Bean Building. The non-sleeping suite exceeds 2,500 SF as currently shown on the plans. The suite complies with the following provisions:

Non-sleeping Suites

- Since the suite is more than 2,500 SF a minimum of two exit access doors are required (NFPA 101 Section 18.2.5.7.3.2).
- One exit must be directly to an exit access corridor, the second exit is permitted to be through a suite if the suite is separated by the same construction as corridors (NFPA 101 Section 18.2.5.7.3.2).
- The maximum suite size is 10,000 SF (NFPA 101 Section 18.2.5.7.3.2).
- Travel distance between any point in the non-sleeping suite to an exit access door must not exceed 100 ft where the suite is arranged with one intervening room. Travel distance between any point in the non-sleeping suite to an exit must not exceed 50 ft where the suite is arranged with two intervening rooms. Travel distance between any point in the non-sleeping suite to an exit must not exceed 200 ft (NFPA 101 Section 18.2.5.7.3.4).

9. **Means of Egress:**

The calculated occupant load for the proposed floor plans, the corresponding required number of exits, the provided number of exits, and the provided egress capacity are summarized below (IBC Tables 1004.1.1, 1021.1 & 1005.1 and NFPA 101 Tables 7.3.1.2 & 7.3.3.1). See Appendix A of this report for detailed egress calculations.

B.22

Means of Egress

Floor	Occupant Load	Number of Exits		Exit Capacity (persons)
		Required	Provided	
2	459	2	4	660

General Egress Requirements:

- Maximum exit access travel distance must be less than 200 ft (IBC Table 1016.1, NFPA 101 Table A7.6.1). The travel distance from any point in a smoke compartment to a smoke barrier door must not exceed 200 ft (IBC 407.4).
- Maximum dead-end corridor length must be less than 20 ft (IBC 1018.4).
- All stair doors must swing in the direction of egress travel (NFPA 101 Section 7.2.1.4.3).
- Doors must swing in the direction of egress travel when serving an occupant load of 50 or more persons (IBC 1008.1.2).
- All means of egress lighting and exit signs throughout the building must be provided with an emergency power supply to assure continued illumination for not less than 1.5 hours in case of primary power loss (IBC 1006.1 & 1011.1).
- Remote means of egress must be separated by ⅓ of the diagonal dimension of the room or space they serve (IBC 1015.2.1). The distance between exits must be measured in a straight line between exit doors.
- At least 30 net SF per patient must be provided within the aggregate area of patient rooms, corridors, treatment rooms, lounge, dining, and other low-hazard areas on each side of the smoke barrier (IBC 407.4.1).
- A means of egress must be provided from every smoke compartment without requiring an occupant to return through the smoke compartment from which means of egress originated (IBC 407.4.2).
- Sleeping rooms more than 1,000 SF and non-sleeping rooms more than 2,500 SF must be provided with at least two remote means of egress (NFPA 101 Section 18.2.5.5.1 & 18.2.5.5.2).
- Every habitable room must have direct access to an exit access corridor unless the rooms are located in a suite (NFPA 101 Section 18.2.5.6.1).
- Corridor walls are not required to have a fire-resistance rating but must be smoke-resistant by forming a barrier to limit the transfer of smoke (NFPA 101 Section 18.3.6.2).

B.23

- Corridor doors must be constructed to resist the passage of smoke and be self-latching and provided with positive-latching hardware (NFPA 101 Section 18.3.6.3.1 & 18.3.6.3.5). Doors to toilet rooms, bathrooms, sink closets and similar auxiliary rooms that do not contain flammable or combustible materials are not required to comply with these requirements (NFPA 101 Section 18.3.6.3.1(3) & 18.3.6.3.6).

- Every corridor must provide access to not less than two approved exits without passing through intervening rooms or spaces other than corridors or lobbies (NFPA 101 Section 18.2.5.4).

- Travel distance from any point in a health care sleeping room and an exit access door in that room must not exceed 50 ft (NFPA 101 Section 18.2.6.2.3).

10. Required Fire Protection Systems:

- NFPA 13 sprinkler system (2009 IBC 407.5)
- Fire alarm system (2009 IBC 407.6)
- Standpipe system (2009 IBC 905.3.1)
- Fire extinguishers (2009 IBC 906.1)

11. Accessibility for Persons with Disabilities

This facility is open to and used by the general public. The new building must therefore comply in full with the provisions of the Maine Human Rights Commission (Americans with Disabilities Act Accessibility Guidelines).

B.24

APPENDIX: Egress Plans

TAB 4

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

B.25

Department of Public Services,
55 Portland Street,
Portland, Maine 04101-2991

Mr. Frank J. Brancely,
Senior Engineering Technician,
Phone #: (207) 874-8832,
Fax #: (207) 874-8852,
E-mail:fjb@portlandmaine.gov

Date: May 28 2013

1. Please, Submit Utility, Site, and Locus Plans.

Site Address: 22 Bramhall Street

(Regarding addressing, please contact Leslie Kaynor, either at 756-8346, or at LMK@portlandmaine.gov)

Chart Block Lot Number: Bramhall Campus

Proposed Use: Hospital

Previous Use: Hospital

Existing Sanitary Flows: Unknown GPD

Existing Process Flows: Unknown GPD

Description and location of City sewer, at proposed building sewer lateral connection:

Existing connection; no new connection proposed.

Site Category

Commercial	
Industrial *(complete part 4 below)*	
Governmental	
Residential	
Other *(specify)* Hospital	X

Clearly, indicate the proposed connection, on the submitted plans.

2. Please, Submit Domestic Wastewater Design Flow Calculations.

Estimated Domestic Wastewater Flow Generated: 3600 GPD

Peaking Factor/ Peak Times:

Specify the source of design guidelines: *(i.e.__"Handbook of Subsurface Wastewater Disposal in Maine," __ "Plumbers and Pipe Fitters Calculation Manual," __ Portland Water District Records, X_ Other (specify)* Engineer - See attached letter

Note: Please submit calculations showing the derivation of your design flows, either on the following page, in the space provided, or attached, as a separate sheet.

3. Please, Submit Contact Information.

Owner/Developer Name: Maine Medical Center

Owner/Developer Address: 22 Bramhall Street

Phone: 622-2988 Fax: n/a E-mail: bartlm@mmc.org

Engineering Consultant Name: AFK Group/ Peter Reilly

Engineering Consultant Address: 41 Farnsworth Street, Boston, MA 02210

Phone: 617-737-1111 Fax: n/a E-mail: preilly@afkgroup.com

City Planner's Name: Phone: tbd

Note: Consultants and Developers should allow +/- 15 days, for capacity status, prior to Planning Board Review.

4. Please, Submit Industrial Process Wastewater Flow Calculations

Estimated Industrial Process Wastewater Flows Generated: n/a GPD

Do you currently hold Federal or State discharge permits? Yes ____ No ____

Is the process wastewater termed categorical under CFR 40? Yes ____ No ____

OSHA Standard Industrial Code (SIC): *(http://www.osha.gov/oshstats/sicser.html)*

Peaking Factor/Peak Process Times:

Note: On the submitted plans, please show the locations, where the building's sanitary, and process water sewer laterals, exit the facility, where they enter the city's sewer, the location of any control manholes, wet wells, or other access points, and the locations of any filters, strainers, or grease traps.

(n/a - no new connections)

AKF

B.26

May 24, 2013

Susanna M. Baker, AIA, LEED AP BD+C
Associate
Senior Project Manager
Perkins+Will.
225 Franklin Street, Suite 1100
Boston, MA 02110

Re: Maine Medical Center – Bean Roof Addition
Estimated Daily Sewage Flows
AKF Project No. B120229-000

Dear Susanna,

As requested, we are providing the estimated daily sewage calculations for the Maine Medical Center – Bean 2 Roof Addition Project. The calculations represent the estimated increase in sewage flow anticipated from the addition and are based on industry standard flow rates. The project will have minimal impact on the utility requirements as all systems are being served by the existing infrastructure and no new site utility work is anticipated.

Average Daily Flow Rates for hospitals are calculated on the basis of 200 GPD/1,000 sq. ft. with an additional 35 GPD per employee. This incorporates in-patient loading and other daily functions of a full hospital. For our calculations, we used a lower flow rate similar to a medical office building because of the fact that the addition will see a more transient population and does not include in-patient services.

The anticipated flow rate estimated for the addition is 3,600 Gallons per day based on an average of 20 Gallons per day per 100 sq. ft.

(18,000 sq. ft /100 sq. ft. x 20 GPD = 3,600 GPD

If needed the estimated water demand for the addition can be calculated at 125% of the daily sewage flow rate or 4,500 GPD

Please feel free to call with any questions or comments regarding this matter or if you wish to discuss this further.

AKF

Peter J. Reilly, P.E.
Partner
JR/sv

Cc Dennis Kaiser – P+W
Dieter Gartner – P+W
BMM, RAC

TAB 5

8.27

Tab 5

Maine Medical Center (MMC) is requesting Site Plan approval for a +/- 40,000 s.f. addition to the Lower Bean Building (aka Bean2)) located at 22 Bramhall Street (in the vicinity of the MMC emergency department). The addition will begin modernizing interventional capacity, decompressing its main surgical suite, and adding four additional operating rooms, with accompanying prep and recovery rooms. The inclusion of additional storage space will reduce congestion within the surgical suite. Rooftop mechanicals will be enclosed.

The addition will be located on the roof of the Bean 2, and, as a result, will have no impact on building footprint or impervious surface. It is within the zoning requirements of the applicable Conditional Zoning Agreement and therefore will require only major site plan approval from the Portland Planning Board.

The architecture of the building is compatible with the existing structures within the campus. It is intended to promote healing while providing staff and visitors with a pleasant experience. The glass exterior provides a light and transparent feel both internally and externally.

The cost of the project is $40M.

B.28

TAB6

MaineHealth

May 24, 2013

Ms. Jean Fraser
Senior Planner
City of Portland
389 Congress Street
Portland, Maine 04104

Re: MMC/ 22 Bramhall Street
CBL 53-D-1,2,7; CBL 53-E-1,2,10,13; CBL 53-G-1,13;
CBL 54-H-1; CBL 64-C-1,2

Dear Ms. Fraser:

Attached please find deeds providing evidence of MMC's Right, Title and Interest to develop the property at 22 Bramhall Street, Portland, Maine. Please lte me know should you have any questions or need more information.

Sincerely,

Penelope St. Louis

Penelope St. Louis

(Approx 50 pages of deeds were submitted + will be available for reference at the PB meetings)

110 Free Street • Portland, ME 04101-3908 Phone: 207-661-7001 Fax: 207-661-7029 www.mainehealth.org

B.29

TAB 7

Maine Medical Center
22 Bramhall Street
Portland, Maine

Site Plan Application for Maine Medical Center
Bean Building Roof Addition
22 Bramhall Street, Portland

REQUIRED STATE AND FEDERAL PERMITS

The Bean Building Roof Addition consists entirely of a vertical expansion of an existing structure; no site work nor disturbance is associated with the project. The Bramhall Campus is subject to the conditions set forth by the currently held Maine DEP Site Location of Development permit . The City of Portland will process this modification to the campus under its delegated review authority to process this permit.

Maine Medical Center will also require notification of the Federal Aviation Administration prior to construction of the project.

B.30

TAB 12

Re financial capability

(Approx 40 pages of MMC accounts were submitted & will be available for reference at the PB meetings)

Maine Medical Center and Subsidiaries

Consolidated Financial Statements as of and for the Years Ended September 30, 2012 and 2011, Supplemental Consolidating Information as of and for the Year Ended September 30, 2012, and Independent Auditors' Report

B.31

MAINE MEDICAL CENTER AND SUBSIDIARIES

TABLE OF CONTENTS

Deloitte.

B.32

Deloitte & Touche LLP
200 Berkeley Street
Boston, MA 02116
USA

Tel: +1 617 437 2000
Fax: +1 617 437 2111
www.deloitte.com

INDEPENDENT AUDITORS' REPORT

To the Board of Trustees of
Maine Medical Center

We have audited the accompanying consolidated balance sheets of Maine Medical Center (a subsidiary of MaineHealth) and subsidiaries (the "Medical Center") as of September 30, 2012 and 2011, and the related consolidated statements of operations, changes in net assets, and cash flows for the years then ended. These consolidated financial statements are the responsibility of the Medical Center's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Medical Center's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, and assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall consolidated financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Medical Center at September 30, 2012 and 2011, and the consolidated results of its operations, consolidated changes in net assets, and consolidated cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Our audits were conducted for the purpose of forming an opinion on the consolidated financial statements as a whole. The supplemental consolidating information on pages 40–43 is presented for the purpose of additional analysis of the consolidated financial statements rather than to present the financial position, results of operations, and cash flows of the individual entities, and is not a required part of the consolidated financial statements. This supplemental consolidating information is the responsibility of the Medical Center's management and was derived from and relates directly to the underlying accounting and other records used to prepare the consolidated financial statements. Such supplemental consolidating information has been subjected to the auditing procedures applied in our audits of the consolidated financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the consolidated financial statements or to the consolidated financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, based on our audits and the reports of other auditors, such supplemental consolidating information is fairly stated in all material respects in relation to the consolidated financial statements as a whole.

Deloitte & Touche LLP

February 8, 2013

AKF B.34 TAB 13

May 28, 2013

Susanna M. Baker, AIA, LEED AP BD+C
Associate
Senior Project Manager
Perkins+Will.
225 Franklin Street, Suite 1100
Boston, MA 02110

Re: Maine Medical Center – Bean Roof Addition
Utility Capacity – Tab 13
AKF Project No. B120229-000

Dear Susanna,

The new Maine Medical Center – Bean Roof Addition project will have minimal impact on the utilities serving the existing campus. These existing utilities have sufficient capacity to support the addition.

There will be no additional utility infrastructure work required for the following systems:

- Domestic and Fire Water
- Sanitary Sewer
- Storm Drainage
- Natural Gas
- Electric Service

Please feel free to call with any questions or comments regarding this matter or if you wish to discuss this further.

AKF

Peter J. Reilly, P.E.
Partner
PJR/sv

Cc Dennis Kaiser – P+W
Dieter Gartner – P+W
BMM, RAC

B.35

PERKINS
– WILL

TAB 14

Fire Safety Summary

Per the Code Report prepared for the Bean 2 Roof Addition on December 19, 2012 (and enclosed with this submission), the project complies with the requirements of NFPA.

Attachment C.1

Maine Medical Center Surgical Suite Addition | 2013
Zoning Compliance
Comprehensive Plan Compliance

TAB 8

General Overview:
Maine Medical Center (MMC) is requesting Site Plan approval for a +/- 40,000 s.f. addition to the Lower Bean Building (aka Bean2)) located at 22 Bramhall Street (in the vicinity of the MMC emergency department). The addition will both modernize, upgrade and enhance MMC's existing surgical facilities by enlarging existing ORs to meet standard of care requirements and adding four additional surgical suites. The addition will be located on the roof of the Bean 2, and, as a result, will have no impact on building footprint or impervious surface.

Zoning:
MMC is governed by a 2005 Conditional Rezoning Agreement, Order 172-04/05, C-41 (attached hereto). It governs the use, setback and height of buildings, among other things. The addition being proposed conforms in all respects with the zoning requirements of the Conditional Rezoning Agreement.

	Allowed by Contract	Proposed
Use	Institutional/hospital	Institutional/hospital
Height	Bean Building max height 111 feet	69 feet
Setbacks	0	No change/existing footprint

City's Comprehensive Plan:

The Portland Comprehensive Plan's Vision for the Future characterizes Portland as the "center for many **regional service institutions**, which offer high quality medical care, an extensive range of social services for those in need, and numerous higher education opportunities". This characteristic is one of several that the vision places under the heading of "Distinctive Features of Portland to Value and Build Upon" and the subheading, "A city that provides for people".

Under the heading, "Future Directions for Portland" and the subheading, "Serve the people", the Vision says **"Provide compassionate services** for the City's vulnerable citizens, while leading regional approaches to share the responsibility of caring for citizens in need" and **"Foster expanded opportunities, innovative solutions**, and **exemplary services** from Portland's institutions of higher learning, health care, and community services." And under the subheading of "Build a Vibrant Small City" the Vision says, "Support a **dynamic downtown** that embraces an intertwining of uses, including residential, business, retail, institutional, service, and arts and cultural uses." Under the subheading, "Provide

High Quality Leadership", the Vision says, "Create a **sustainable community** with vital neighborhoods, high quality infrastructure, a strong economy, and a healthy environment, while keeping municipal taxes affordable" and "**Incorporate environmental, economic and neighborhood considerations** in municipal decision-making."

Stated Goal A: To encourage orderly growth and development in appropriate areas of each community, while protecting the State's rural character; making efficient use of public services and preventing development sprawl.

Comprehensive Plan Description of Maine Medical Center

Pages P-11 and P-12 of the Public Facilities and Services section of the Comprehensive Plan provides the following description of Maine Medical Center:

"Maine Medical Center is located at 22 Bramhall Street in Portland. It is the largest hospital in Maine with 598 beds. MMC is a fully accredited, community oriented teaching hospital serving Portland, and a referral center for the entire State and much of northern New England. MMC is widely known for its expanding cardiac diagnostic and open-heart surgery programs, renal dialysis and kidney transplant, oncology, nuclear medicine, physical medicine and rehabilitation. It maintains a graduate medical education program, has residency-training programs in major specialties and is a teaching affiliate of the University of Vermont College of Medicine. There are 35 separate outpatient clinics and a highly regarded research department, programs in community medicine, and a Community Mental Health Center. MMC has a substantial diagnostic facility, which provides space for the Pathology and Radiology departments. It is the home of the Barbara Bush Children's Hospital as well as the Southern Maine Radiation Therapy Institute, a cancer treating consortium of 17 Maine hospitals. MMC operates seven facilities throughout the region, including Spring Harbor Hospital (the former Jackson Brook Institute) in Scarborough, Maine's only private psychiatric hospital. MMC supports a staff of approximately 4,571 employees."

Compliance with City's Comprehensive Plan: The MMC addition presently before the Planning Board is consistent with a myriad of concepts contained within the City of Portland's Comprehensive Plan. First and foremost, it may be considered an in-fill development in that it is an expansion of a vertical nature. The addition creates no new footprint. But, rather attempts to achieve health care objectives by building within its existing campus, avoiding sprawl.

C.3

Additionally, the proposed addition will promotes economic development within the City. While the jobs to be created by the proposed addition is modest, at 49 employees, in today's economic environment all job creation is good job creation. MMC is proud to be an economic engine that fuels prosperity within the City of Portland and this current phase of development will continue to provide good jobs in a central location within the City.

The national reputation and respect for the medical providers at this teaching institution also lends itself to the promotion of the City as a great place to live, work and play. With this addition to the surgical suites within the Hospital, the abilities of renowned medical professions will be expanded and the education of the students and residents that are part of the MMC family will be enhanced. These attributes lend themselves to further recognition of Portland as a caring, creative and growing City.

MMC is a partner with the City in promoting it as a visionary community that cares for each and every member of it. The proposed addition of operating rooms at this health care agency complies with the overall objectives of the city's Comprehensive Plan.

Attachment D.1

SEBAGO TECHNICS

TAB 11

Updated Neighborhood Meeting Materials in Att. Q for hearing

May 28, 2013

Dear Neighbor :

Please join us for a neighborhood meeting to discuss Maine Medical Center's plans for a proposed two story addition on the roof of the LL Bean Building, located on the Bramhall Street Campus, 22 Bramhall Street.

Meeting Location : Dana Center Auditorium (Enter from Bramhall Street)

Meeting Date : June 17, 2013

Meeting Time : 7:00 PM

The City Code requires that property owners within 500 feet of the proposed development and residents on an "interested parties list", be invited to participate in a neighborhood meeting. A sign-in sheet will be circulated and minutes of the meeting will be taken. Both the sign-in sheet and minutes will be submitted to the Planning Board.

If you have any questions please feel free to call me at 200-2055.

Sincerely,

SEBAGO TECHNICS, INC.

William T. Conway

William T. Conway, RLA, LEED AP
Vice President, Landscape Architecture

WTC:jsf

Attachment E.1

Traffic Impact Study; Parking Study and Transportation Demand Management Plan
Proposed Bean 2 Roof Addition
Maine Medical Center - Bramhall Campus
Portland, Maine

Prepared for:

Maine Medical Center
22 Bramhall Street
Portland, Maine 04102

May 2013

Prepared by:

Gorrill-Palmer Consulting Engineers, Inc.

Engineering Excellence Since 1998

PO Box 1237
15 Shaker Road
Gray, ME 04039

(207) 657-6910
Fax: (207) 657-6912
E-mail: mailbox@gorrillpalmer.com

E. 2

Traffic Impact, Parking Study and Transportation Demand Management Plan
Bean 2 Roof Addition
Maine Medical Center Bramhall Campus
Portland, Maine

Index

Appendix

E.3

Executive Summary

The following Executive Summary is prepared for the reader's convenience, but is not intended to be a substitute for reading the full report.

Gorrill-Palmer Consulting Engineers, Inc. was retained by Maine Medical Center (MMC) to prepare this traffic and parking assessment as well as a Transportation Demand Management Plan Review for the proposed addition to the Bean 2 building at their Bramhall campus in Portland, Maine. Proposed for the site is a 18,758 square foot addition on top of the Bean 2 building. A total of 49 staff will be added as a result of the project. Based on MMC records, a total of 184 staff have been added since the previous expansion of the Bramhall campus. The additional parking demand for the 49 employees is forecast to be 41 spaces and MMC plans to accommodate them at their parking facilities at 887 Congress Street and at 995 Congress Street.

Based on this study, our office has determined the following:

1. The proposed development is forecast to generate 28 and 30 trip ends in the weekday AM and PM peak hours respectively. The increase since the previous project is estimated to be 77 and 84 trip ends in the weekday AM and PM peak hours respectively (Note: A trip end is either a trip in or out of the site. Thus a round trip would equal two trip ends). At this level of trip generation, this project does not require a traffic permit from the Maine Department of Transportation.

2. Gorrill-Palmer Consulting Engineers, Inc. referenced the Maine DOT collision records to determine that are five high crash locations in the vicinity of the project.

3. Gorrill-Palmer Consulting Engineers, Inc. estimates that the additional 49 employees will generate a demand for 41 parking spaces. It is our understanding from MMC that this additional demand can be accommodated at 887 Congress Street and at 995 Congress Street.

4. Maine Medical Center has a comprehensive Demand Management Plan for their Bramhall campus which supports the City's transportation and environmental sustainability goals by encouraging and promoting bicycling, walking, and use of transit. MMC is planning to add two additional bike racks which will accommodate up to 36 bikes as well as a parking space for a U-Share car on the Bramhall campus.

Based on these findings, it is the opinion of Gorrill-Palmer Consulting Engineers, Inc. that the proposed project can be accommodated by the City's transportation system.

E.4

I. *Existing and Proposed Site*

The proposed project consists of an addition to the top of the existing Bean 2 building at Maine Medical Center's (MMC) Bramhall campus in Portland, Maine.

Proposed for the site is a 18,758 sf addition which is forecast by MMC to add 49 employees. MMC estimates that they have added approximately 184 employees since the last major addition to the Bramhall Campus.

II. *Background Conditions*

Gorrill-Palmer Consulting Engineers, Inc. based the study on the following information:

- A site plan, Sheet A01-01 prepared by Perkins + Will dated April 3, 2013.
- Crash data for 2009-2011 provided by the Maine Department of Transportation.

III. *Trip Generation*

Gorrill-Palmer Consulting Engineers, Inc. used the Institute of Transportation Engineers (ITE) publication *Trip Generation*, 7th Edition, to estimate the potential trip generation for the proposed expansion. Based on MMC records, a total of 184 staff have been added since the previous expansion of the Bramhall campus. With the planned staff addition of 49 employees associated with this project, the total additional staff is 233 since the previous expansion resulting in a total staff level of 4,804 following the expansion. Based on Land Use Code (LUC) 610, Hospital, Gorrill-Palmer Consulting Engineers, Inc. has estimated the difference in trip ends using the prior employee level of 4,571 and the post development level of 4804 (Note a trip end is either a trip in or out of the site; thus one round trip is equal to two trip ends):

AM Peak Hour of MMC	77 trip ends
PM Peak Hour of MMC	84 trip ends

Maine Medical received a traffic movement permit for their previous expansion. The level of forecast traffic increase associated with the employee increase since that time does not require a traffic movement permit from the MaineDOT since the peak hour traffic increase is less than 100 trip ends.

IV. *Crash Data*

In order to evaluate whether a location has a crash problem, Maine DOT uses two criteria to define High Crash Locations (HCL). Both criteria must be met in order to be classified as an HCL.

E. 5

1. A critical rate factor of 1.00 or more for a three-year period. (A Critical Rate Factor (CRF) compares the actual accident rate to the rate for similar intersections in the State. A CRF of less than 1.00 indicates a rate less than average) and:

2. A minimum of 8 crashes over a three-year period.

Our office reviewed the 2009-2011 crash data in this area and has summarized the high crash locations or areas which are close to meeting that definition below:

Intersections with Significant Collision History

Location	No. of Collisions	Critical Rate Factor
Congress/Gilman	10	1.89
Bramhall/Congress/Deering	17	0.64
Congress/Valley	28	1.31
Congress/St. John	24	0.75

Roadway Segment with Significant Collision History

Location	No. of Collisions	Critical Rate Factor
Congress between Ellsworth and Weymouth	10	1.52
Congress between Weymouth and Forest St	10	1.50
St. John between C St and A St	11	2.68

This information shows that there are five high crash locations in the vicinity of the site. The MaineDOT furnished the collision reports for these locations and our office is preparing the collision diagrams which will be furnished to the City upon completion.

A copy of the collision history is included in the appendix.

V. *Parking Demand*

Gorrill-Palmer Consulting Engineers, Inc. used the Institute of Transportation Engineers (ITE) publication *Parking Generation*, 3rd Edition, to estimate the potential parking demand for the proposed expansion. Land Use Code 610, Hospital, estimates an average demand of 0.83 spaces per employee. Based on the estimated 49 employees to be added with the planned addition, the project will create a demand for 41 additional parking spaces. It is our understanding from MMC that this additional demand can be accommodated at 887 Congress Street and at 995 Congress Street.

It is our understanding from John Peverada of the City's parking department staff that, they have done periodic checking of MMC's parking garages at the corner of Gilman Road and Congress Street and has seen vacancies. He also observed that the parking meeting on the Eastern Promenade were underutilized.

E6

Appendix A

MaineDOT Crash Data

(approximately 20 pages of data was submitted and will be available for reference at the P.B. meeting)

E 7

Appendix B

Trip Generation Calculations

E.8

JN: 2776
Project Description: Bean 2 Addition
Project Location: Bramhall Campus-Portland
Date: 05/08/13

Scrill-Palmer Consulting Engineers, Inc.
P.O. Box 1237
15 Shaker Road
Gray, Maine 04039

Hospital
Land Use Code (LUC) 610

Employees 4,571

Fitted Curve:

Time Period	ITE Trip Rate	Trip Ends	Directional Split* IN	Directional Split* OUT	Directional Distribution IN	Directional Distribution OUT	Sample Size/R2
Weekday	T =4.40 (X) + 711.46	20824	50%	50%	10412	10412	19/.77
AM Peak Adjacent Street	T =0.32 (X) + 35.15	1498	80%	20%	1198	300	9/.77
PM Peak Adjacent Street	T =0.28 (X) + 75.75	1356	35%	65%	475	881	8/.69
AM Peak of Generator	T = 0.33 (X) +66.57	1575	65%	35%	1024	551	8/.83
PM Peak of Generator	T = 0..36 (X) + 97.41	1743	40%	60%	697	1046	15/.73
Saturday	T = 2.95 (X)+ 691.43	14176	50%	50%	7088	7088	15/.84
Saturday Peak of Generator	Not given	-	55%	45%	-	-	4

* Percentages rounded to nearest 5%

Average Rate:

Time Period	ITE Trip Rate	Trip Ends	Directional Split* IN	Directional Split* OUT	Directional Distribution IN	Directional Distribution OUT	Sample Size
Weekday	T = 5.2 (X)	23769	50%	50%	11885	11884	19
AM Peak Adjacent Street	T = 0.34 (X)	1554	80%	20%	1243	311	9
PM Peak Adjacent Street	T = 0.33 (X)	1508	35%	65%	528	980	8
AM Peak of Generator	T = 0.39 (X)	1783	65%	35%	1159	624	8
PM Peak of Generator	T = 0.47 (X)	2148	40%	60%	859	1289	15
Saturday	T = 3.78 (X)	17278	50%	50%	8639	8639	15
Saturday Peak of Generator	T = 0.53 (X)	2423	55%	45%	1333	1090	4

* Percentages rounded to nearest 5%

E 9

JN: 2776
Project Description: Been 2 Addition
Project Location: Bramhall Campus-Portland
Date: 05/28/13

Gorrill-Palmer Consulting Engineers, Inc.
P.O. Box 1237
16 Shaker Road
Gray, Maine 04039

Hospital
Land Use Code (LUC) 610

Employees 4,804

Fitted Curve:

Time Period	ITE Trip Rate	Trip Ends	Inc *	Directional Split* IN	Directional Split* OUT	Directional Distribution IN	Directional Distribution OUT	Sample Size/R2
Weekday	T =4.40 (X) + 711.46	21849		50%	50%	10925	10924	19/.77
AM Peak Adjacent Street	T =0.32 (X) + 35.15	1572	74	80%	20%	1258	314	9/.77
PM Peak Adjacent Street	T =0.28 (X) + 75.75	1421	65	35%	65%	497	924	8/.89
AM Peak of Generator	T = 0.33 (X) +56.57	1652	77	65%	35%	1074	578	8/.83
PM Peak of Generator	T = 0..36 (X) + 97.41	1827	84	40%	60%	731	1096	15/.73
Saturday	T = 2.95 (X)+691.43	14863		50%	50%	7432	7431	15/.84
Saturday Peak of Generator	Not given	-		55%	45%	-	-	4

* Percentages rounded to nearest 5%

Average Rate:

Time Period	ITE Trip Rate	Trip Ends		Directional Split* IN	Directional Split* OUT	Directional Distribution IN	Directional Distribution OUT	Sample Size
Weekday	T = 5.2 (X)	24981		50%	50%	12491	12490	19
AM Peak Adjacent Street	T = 0.34 (X)	1833	79	80%	20%	1306	327	9
PM Peak Adjacent Street	T = 0.33 (X)	1585	77	35%	65%	555	1030	8
AM Peak of Generator	T = 0.39 (X)	1874	91	65%	35%	1218	656	8
PM Peak of Generator	T = 0.47 (X)	2258	110	40%	60%	903	1355	15
Saturday	T = 3.78 (X)	18159		50%	50%	9080	9079	15
Saturday Peak of Generator	T = 0.53 (X)	2646		55%	45%	1400	1146	4

* Percentages rounded to nearest 5%

* Past Project level minus level of employees from previous application.

E 10

Gorrill-Palmer Consulting Engineers, Inc.
Engineering Excellence Since 1998

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Gray, ME 04039

207-657-6910
FAX: 207-657-6912
E-Mail:mailbox@gorrillpalmer.com

May 29, 2013

Mr. Marshall Bartlett
Maine Medical Center
22 Bramhall Street
Portland, Maine 04102

Subject: Collision Diagrams Management Program
Bramhall Campus

Dear Marshall:

Our office recently completed a traffic and parking assessment for planned Bean 2 expansion. That assessment determined that there were five high crash locations in the vicinity of the site between the years of 2009 and 2011. Our office has obtained the collision reports from the MaineDOT for the period from 2009 through 2011 for each of these locations which are included in this letter and summarized below:

St John Street between the intersection of A and C Streets

Eleven collisions occurred along this section of roadway. Two collisions involved pedestrians crossing St John Street and three involved parked cars with the remainder random in nature. The City of Portland is in the process of completing a project in this area which includes pedestrian improvements at the intersection of "A" Street and St John Street as well as islands to clarify lane use. These improvements may address some of these collisions.

Congress Street between Forest Street and Weymouth Street

Of the ten collisions which occurred along this section of road, three involved parked vehicles on the easterly side of Congress Street. Two collisions involved vehicles striking parked cars, one involved a vehicle whose operator was under the influence striking a tree, one involved a bicyclist being struck by a driver turning left into the parking garage and four were rear end collisions, with the remaining being random. There does not appear to be a correctable pattern to these collisions.

Congress Street between Weymouth and Ellsworth Street

Ten collisions occurred along this section of roadway. One collision occurred due to a vehicle traveling the wrong way, one due to intoxication, one due to a driver falling asleep, one involved a pedestrian attempting a mid block crossing, and three involved

E.11

parked cars long the northerly side of Congress Street along the curve with the remainder random in nature. The only possible pattern is the three collisions with vehicles parked on the outside of the curve. We recommend this segment be monitored and that the City consider eliminating this parking if this pattern continues.

Intersection of Congress Street with Gillman Street

Of the ten collisions which occurred at this intersection, five involved traffic exiting the north leg of Gilman Street opposite the approach serving the MMC garage. One collision involved a right turning vehicle exiting the southerly leg of Gilman. One collision involved a pedestrian and the remaining were rear end collisions on Congress Street. There does not appear to be a correctable pattern at this intersection. The traffic volume exiting Gilman is likely not high enough to warrant a traffic light and it would not be desirable given the existing traffic light in close proximity at Valley Street. The Manual on Uniform Traffic Control Devices requires a minimum of 5 crashes in a single year correctable by a traffic signal before consideration can be given to the installation of a traffic light if a volume warrant is not met.

Intersection of Congress Street and Valley Street

There were a total of twenty three collisions at this intersection over the three year period. Six of the collisions were rear end with the large majority of the remaining collisions angular between vehicles exiting Valley Street and westbound Congress Street. The traffic signals lack sunshields which can improve visibility particularly westbound on Congress Street when the sun is setting. We recommend that the City install sunshields on the traffic signals for at this intersection.

If you have any questions please contact our office.

Sincerely,

Gorrill-Palmer Consulting Engineers, Inc.

Thomas L. Gorrill, P.E., PTOE
President

(data submitted and will be available for reference at the PB meeting)

TLG/tlg/JN2776/ Marshall 5-28-13

Attachment F.1

VI. Transportation Demand Management Plan

Maine Medical Center has maintained a robust Transportation Demand Management Plan since their prior expansion which will supports the City's transportation and environmental sustainability goals by encouraging and promoting bicycling, walking, and use of transit. MMC is planning to add two additional bike racks which will accommodate up to 36 bikes as well as a parking space for a U-Share car on the Bramhall campus. Gorrill Palmer Consulting Engineers. Inc. does not recommend any additional measures beyond these.

F.5

Maine Medical Center

Get On Board!

Alternative Commute Program

May 24, 2013 Update

F. 3

Transportation Demand Management

As required by the city of Portland, Maine Medical Center developed a Transportation Demand Management plan that was implemented in June of 2008.

The objective of the plan was to reduce the number of single occupant vehicles coming to MMC and to reduce the impact of traffic to the peninsula.

To meet this challenge, Maine Medical Center formed a multidisciplinary team of employees who volunteered to develop this plan, and continue to support its components in an advisory capacity. The name of the plan is "Get On Board."

The director for Security, Parking and Outside Services, Steve Hobart, was the leader of this dedicated group and served as chair of MMC's TDM Advisory Council (Get On Board). Steve continues to direct the implementation of the TDM plan which has continued to thrive and grow, to change and evolve, into an integral part of the fabric and culture of MMC.

Statistics

The following is a break down of the year by year change in the running total number of employees that have signed up for "Get On Board" on our intranet site.

Commute Mode	2008	2009	2010	2011	2012	2013
Bike	119	121	123	142	153	153
Walk	83	83	91	95	99	99
Mass Transit	88	93	106	118	123	131
Ride Share	358	371	398	474	537	565
Totals	648	668	718	829	906	948

Analysis:

1. All methods of alternative commuting to MMC continue to attract more employees.
2. Biking, walking and mass transit, which primarily attracts those that live the closest to the hospital, are attracting a large percentage of these people. As an example, we have approximately 1500 employees that live in Portland and a total of 383 employees that have signed up on our web site for these three forms of commute.
3. Ride Share continues to attract the most employees and has shown the best rate of growth with mass transit running a strong second.

F 5

A History of Get On Board

MMC's TDM plan is the result of extensive planning by the team and the team's coordination with resources outside of our hospital environment. These resources included the Greater Portland Council of Governments and the "GOMAINE" commuter program.

In June of 2008 MMC rolled out our comprehensive TDM program with an extensive marketing and communications campaign including full management presentations, intranet news items, emails, flyers, hallway demos of our web site, sign boards and presentations to staff.

Our program is fully supported by MMC's management and features subsidized alternative commuting options for ride share, mass transit, bikers and walkers.

The "Get On Board" web site includes information and resources for alternative modes of commuting and ties directly to "GOMAINE" so employees can easily access the additional benefits of this program.

As a result of the strong marketing of TDM, the program was immediately embraced by our employees and within the first week we had several hundred staff enroll and we are proud of our steady growth each year since its implementation.

Not only have the initial elements of the plan continued to perform but MMC has added elements to strengthen the plan that will be outlined later in this report.

F 6

Update on the Elements of the TDM Plan

New Employee Information Package

All new employees receive "Get on Board" information at the first day of orientation with instructions on how to join the program. This has increased the number of people that join the program at the start of their employment and has made our "Get on Board" program a focus of institutional policy instead of a program on the side here at MMC.

Share Ride

Carpoolers get the best parking in our main Gilman Parking Garage… and for FREE!
This is a gated, card access only area that connects directly to the Main Lobby on the ground floor of the hospital.
Employees that participate in our Ride Share program have no stairs to climb or elevators to wait for when entering the hospital.
We currently have 122 active Share Ride groups enrolled… but there is more. The idea of Share Ride has caught on and we have many carpools entering the garage on a daily basis that have not yet signed up and these will be part of the force to drive future growth of the program.
Share Ride is kept fresh for our employees through regular signs and intranet communications.

Bikers and Bike Racks

MMC has worked diligently to make bikers feel welcome and safe. We started the program with five strategically located bike racks and ten bike lockers in 2008 and are now up to 13 bike racks and ten bike lockers with a total capacity of 148 bicycles. We are currently looking for additional space on campus for more bike racks.
Our biking population also has access to a group tools shed that has basic tools and supplies that may be needed in a pinch for a flat tire or a slipped chain.

F.7

We can not forget the motorcyclists. Soon after implementing our TDM plan we were confronted with a need to expand our parking area for these enthusiasts and we are now close to filling this additional space also.

Mass Transit Ticket Info

Employees are able to purchase discounted bus tickets conveniently in our cafeteria. MMC buys the tickets at the regular price and offers them to employees at the reduced prices listed below. This is a clear demonstration of MMC's commitment to making the TDM plan work for our employees and for the city of Portland.

Pricing

	Regular Price	MMC Sale Price
Metro	$13.50	$8.00
S. Portland	$13.50	$8.00
Zoom 10 ride	$39.00	$29.60
Zoom monthly	$100.00	$84.50
Zoom quarterly	$260.00	$197.50

Number combined units sold:

2010	771
2011	794
2012	830

An increase in the sales of tickets has been seen for both the Zoom and Metro buses. The 2012 Metro bus tickets accounted for 760 tickets sold, the Zoom Monthly ticket sales were 39 while the Zoom Quarterly ticket sales were 31. The continued increase in mass transit ticket sales seems to indicate a long term commitment and culture change by our employees to make these systems part of their lifestyle.

F. 8

New MMC Additions to our TDM Plan

Contractor Parking

To reduce traffic in the vicinity of MMC and to ease parking congestion we have instituted a shuttle service for contractors to the hospital from our off site Classic Parking Lot at 993 Congress Street. This has reduced the number of contractor vehicles and contractor commuter vehicles on campus. Only essential contractor vehicles are allowed to park on site at this time. This is controlled by the Engineering department who issues contractor parking passes since they have the best understanding of the essential needs of the projects. The result of this change is seen daily on our neighborhood streets that used to be crowded with contractor company vehicles and their employee's vehicles. Now the Western Promenade parking is more open, neighbors have less traffic in front of their homes and street side parking is more available.

Inter Campus Shuttles

Brighton Campus Shuttle

An employee shuttle service has been instituted between our 22 Bramhall campus and the 335 Brighton Ave campus to reduce vehicle traffic between the two campuses and to ease parking congestion at both campuses. The shuttle runs from 7am-5pm Monday through Friday on a fixed time schedule with three round trips per hour. The predictable, set schedule has increased rider use on the shuttle which has helped reduced inter campus traffic.

110 Free Street and Gateway Shuttle

The Gateway Shuttle service has been expanded to include the 110 Free Street office building to reduce vehicle traffic to and from these two office complexes. This shuttle runs from 6am-6pm Monday through Friday on a fixed time schedule with three round trips per hour. The predictable, set schedule has increased rider use on the shuttle which has helped reduced cross town traffic on the busy Congress Street corridor.

F. 9

Conclusion

Maine Medical Center's TDM plan is meeting its objective of reducing single occupant vehicle traffic in the vicinity of our Bramhall Campus, which was asked of us by the city of Portland. We continue to actively promote and grow the initial elements of our plan and proactively add additional ones as opportunities are presented. MMC has not only done the requirements of a TDM plan but has caught the spirit of what TDM is and how it can affect our community, our employees and our customers. We look forward to working hand in hand with the city of Portland to make our community prosper and grow in a way that benefits all.

F. 10

Maine Medical Center

Parking Space Inventory

Location	Cars	Ambulances	Handicap	Bicycles
Gilman Garage	1280	n/a	n/a	26 (2 Racks)
Patient/Visitor Garage	480	n/a	14	10 (Bike Lockers)
ED	n/a	16	n/a	10 (1 Rack)
Main Entrances	n/a	n/a	12	52 (6 Racks)
South Lot	300	n/a	13	14 (2 Racks)
100 Chadwick	23	n/a	n/a	n/a
7 Bramhall	27	n/a	3	n/a
Dana Circle	19	n/a	4	36 (2 Racks)
Small Loading Dock	5	n/a	n/a	n/a
Forest Street Employee	202	n/a	n/a	n/a
1st Atlantic Lot	282	n/a	n/a	n/a
Classic Lot	97	n/a	n/a	n/a
Totals	2715	16	46	148 10 Bike Lockers 13 Bike Racks

Attachment G.1

Suffolk Construction

Northeast:
95 Frontier Hill Drive
Danvers, MA 01923
978-774-1057
www.suffolkconstruction.com

TAB 15

build smart

SUFFOLK

Construction Management Plan
Maine Medical Center Bean 2 Roof Addition
22 Bramhall Street, Portland, ME

1. Hours of Construction

- Construction activities are restricted to the hours from 7:00 a.m. to 6:00 p.m on weekdays.

- Start-up and warm-up hours of equipment will not commence before 6:00 a.m.

- If construction activity is required outside these hours, Suffolk will coordinate with Maine Medical Center for approval.

2. Worker Access and Parking

- Suffolk will require that workers at the Maine Medical Center parking area on 995 Congress Street.

3. Pedestrian Access

- The project boundaries are within the Maine Medical Center campus. Suffolk will implement the necessary measures to ensure safe pedestrian flow around the site, including the use of temporary sidewalks and lighting, protective barriers, redirection of pedestrians and directional signage.

4. Snow Removal

- Suffolk will be responsible for the removal of snow within the project area.

- Maine Medical Center will service any on campus roads, including the service road.

5. Noise

• The Bean 2 Roof Addition project will work to minimize any excessive noise impacts. Suffolk will employ the following best management practices on site and make every effort to prevent nuisance noise conditions:

- The use of mufflers, including vehicle or equipment turn off whenever possible.
- Usage of existing power for temporary electricity to minimize use of on-site generators.
- Suffolk will pre-notify Maine Medical Center departments affected by unavoidable construction noise with the MMC Project Manager.
- Suffolk will identify in advance activities that may generate unavoidable excessive noise and use all reasonable efforts to minimize emission levels.

6. Construction Safety, Security and Access

• Construction safety is a top priority on the Bean 2 Roof Addition project site; full-time on-site supervision will be provided by Suffolk.

• All subcontractors, vendors, and visitors shall be required to adhere to Suffolk's Project Safety Program. All subcontractors and vendors will be required to attend Maine Medical Center Contractor Site & Safety Orientation.

• Access to the site is restricted to construction personnel.

• Visitors will not be allowed on site unescorted and must sign in at Suffolk's on-site field office.

• Signage shall be posted at site access points indicating that visitors must check in at the field office; that the area is a construction site and is a hard hat area; and that access to the site is limited to authorized personnel only.

• Security on the site is established by a separation fence.

- Gates will be provided at the locations where access will be required and shall be kept locked during nonworking hours.

- Construction area lighting shall be provided in accordance with OSHA requirements for safety and security.

- Emergency contact list shall be provided.

7. Waste Disposal and Recycling

- Suffolk shall utilize a licensed waste hauler will be used for disposal of all waste and implement recycling when appropriate.

- Suffolk shall maintain the site in a clean and orderly manner and free from accumulation of waste materials or rubbish.

8. Fire and Emergency Vehicle Access and Suppression

- Fire Department and emergency vehicles will access the site via the service road which will remain open at all times. Access gates will be provided at each end of the site.

- Suffolk will meet with the City of Portland Fire Department to review site access once

- Suffolk will extend the existing fire standpipes as building construction progresses. Locations and requirement will be reviewed with the Fire Department.

9. Construction Truck Routes

- Suffolk will manage deliveries and materials entering and leaving the site (reference Sheet SLP.05 for specifics).

10. Delivery Time and Routes

- Suffolk will manage deliveries to the site during morning and afternoon peak hours in a manner that minimizes disruption to traffic flow on adjacent streets.

- It is anticipated that project trucks will access that site via Gilman Street.

- Deliveries will be restricted between 6:00 a.m. and 6:00 p.m.

- It is Suffolk's intention to bring all major deliveries via Gilman through MMC Loading Dock area.

11. Truck Queuing/Lay-Down Areas

- Construction truck queuing will take place on the Maine Medical Center campus at the large turnaround at the Gilman Street entrance.

- Temporary construction fences will be installed to segregate construction areas from Maine Medical Center employees and visitors.

- All material lay down and deliveries will be within temporary fence area on the service road.

- All major deliveries shall be directed to a local rigger's yard until the site is ready to take the delivery.

- All deliveries shall be planned and scheduled with Suffolk to ensure an efficient process.

SUFFOLK

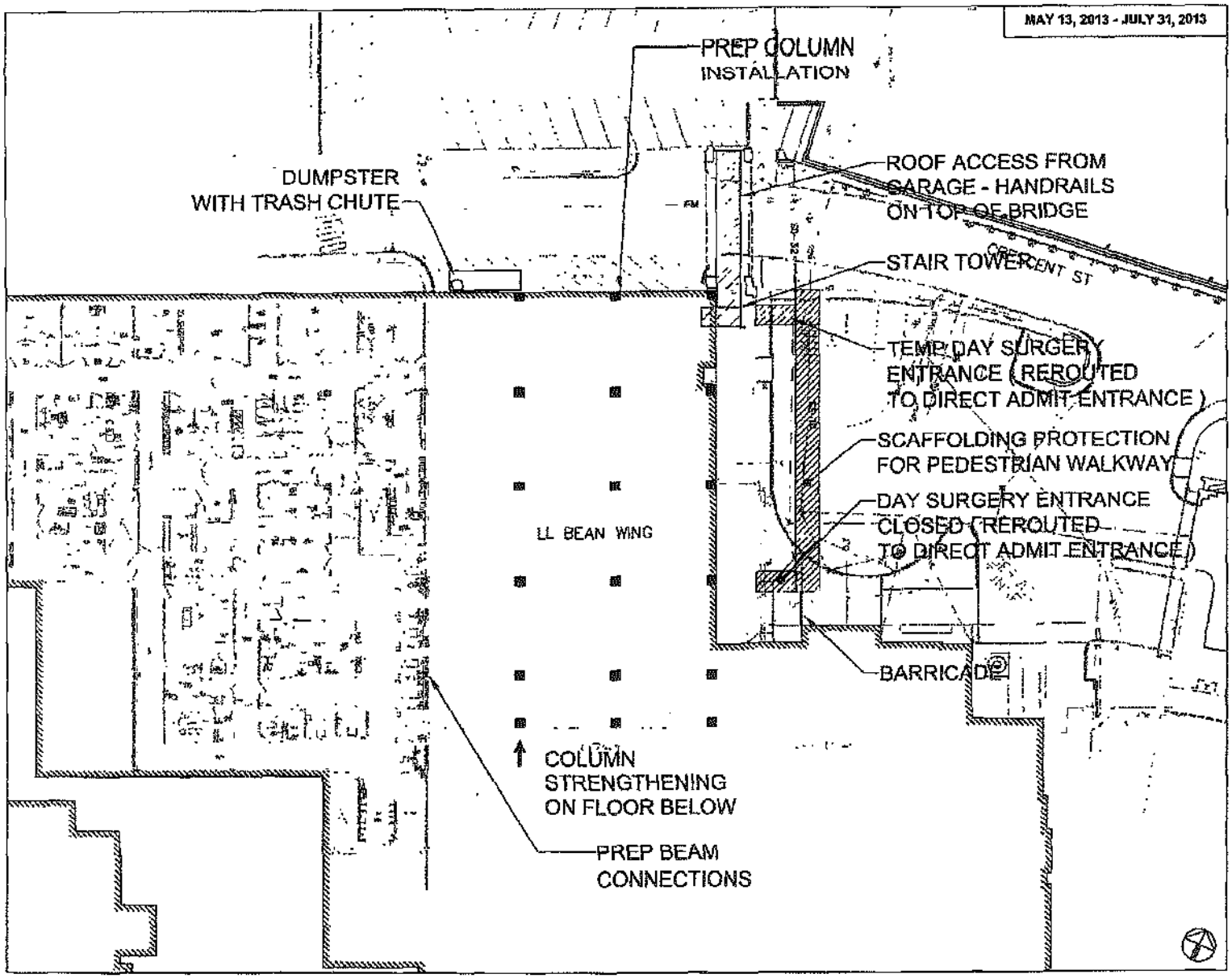
Emergency Contact Phone Numbers
Maine Medical Center – Bean 2 Roof Addition

Name	Title	Office Phone Number	Emergency Phone Number
David Sundelin	Senior Superintendent	-	**(617) 212-9491**
Joel Perry	Project Manager	(978) 774-1057	**(617) 963-9992**
Sharon Jozokos	Project Executive	(978) 774-1057	**(978) 273-1510**

SUFFOLK

Emergency Response Phone Numbers
Maine Medical Center – Bean 2 Roof Addition

Company	Name	Office Phone Number	Emergency Phone Number
Police Department	Portland		**911**
Fire Department	Portland		**911**
Emergency Medical Services	Portland		**911**
Nearest Medical Facility	Maine Med.	**207-662-2345**	
Maine State Police		800-228-0857	
Poison Control System	Maine Med.	800-222-1222	
Maine DEP		207-822-6300	
OSHA – Augusta		207-626-9160	
Dig Smart		207-749-7231	
Portland Water District		207-761-8300	
CMP – Electrical Emergency		800-696-1000	
Unitil – Gas Emergency		866-900-4460	
Maine Medical Center Security	Maine Med.	207-662-2124	
Chemical Spills – MMC Safety	Maine Med.	207-662-2513	
Portland Inspectional Services Dept.		207-874-8703	



Maine Medical Center

SCHEDULED ACTIVITIES

- MOBILIZE
- SELECTIVE DEMO
- CANOPY DEMO
- RELOCATE EXISTING RTUs AND EQUIPMENT
- PREP COLUMN INSTALLATION
- STEEL STRENGTHENING
- FOUNDATION WORK

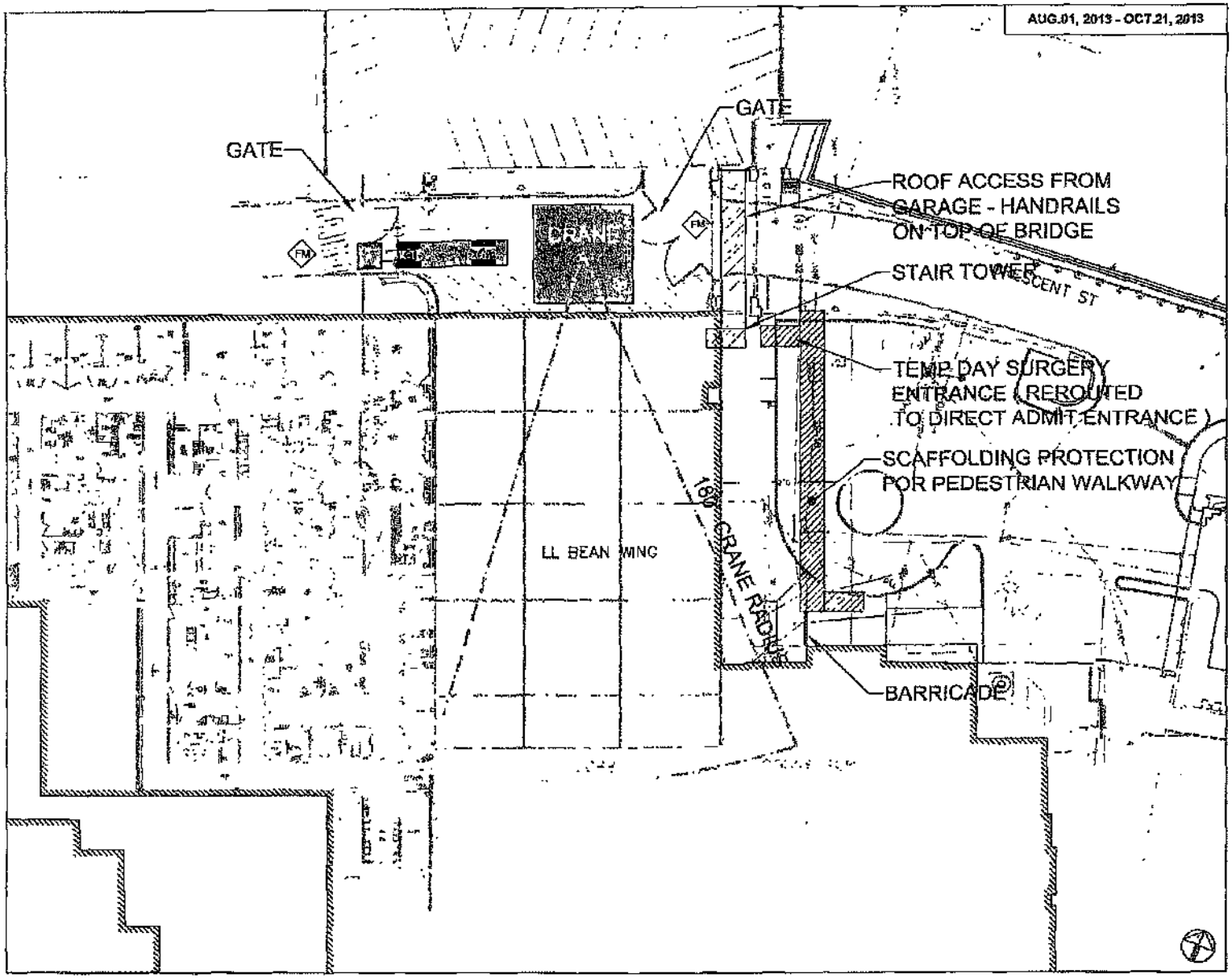
SUFFOLK
build smart
90 CENTER HILL DRIVE
DANVERS, MA 01923
TEL (978) 774-1007

DRAWN BY: J.W.S. CHECKED BY: K.H.
SCALE: 1" = 50' DATE: 04-09-13

PROJECT:
MAINE MEDICAL CENTER
BEAN ROOF UPGRADES

TITLE:
PROPOSED
SITE LOGISTIC PLAN

DRAWING NO.
SLP.01



Maine Medical Center

SCHEDULED ACTIVITIES

- SET-UP CRANE
- ERECT STEEL
- DECKING AND DETAILS
- CONCRETE SLABS
- FIRE PROOFING

SITE FENCE

SCAFFOLDING PROTECTION

FM FLAGMAN

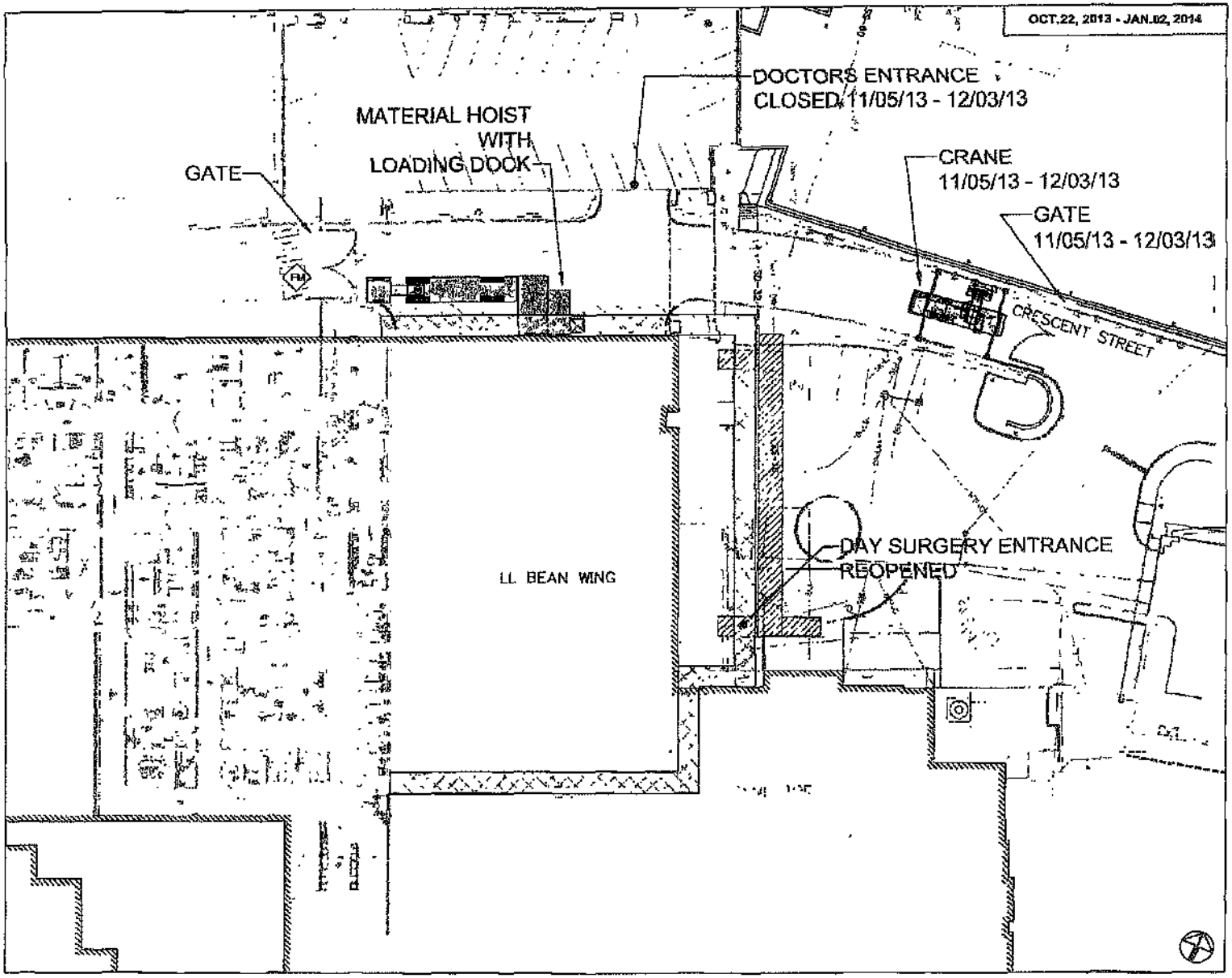
SUFFOLK
build smart
99 CONIFER HILL DRIVE
DANVERS, MA 01923
TEL (978) 774-1057

PROJECT
MAINE MEDICAL CENTER
BEAR ROOF UPGRADES

TITLE
PROPOSED
SITE LOGISTIC PLAN

DRAWING NO
SLP.02

8 of 9



Maine Medical Center

SCHEDULED ACTIVITIES

- EXTERIOR ENVELOPE
- ROOFING
- ROUGH MEPs
- O.R. EQUIPMENT

OVERHEAD PROTECTION

SITE FENCE

SCAFFOLDING PROTECTION

FM FLAGMAN

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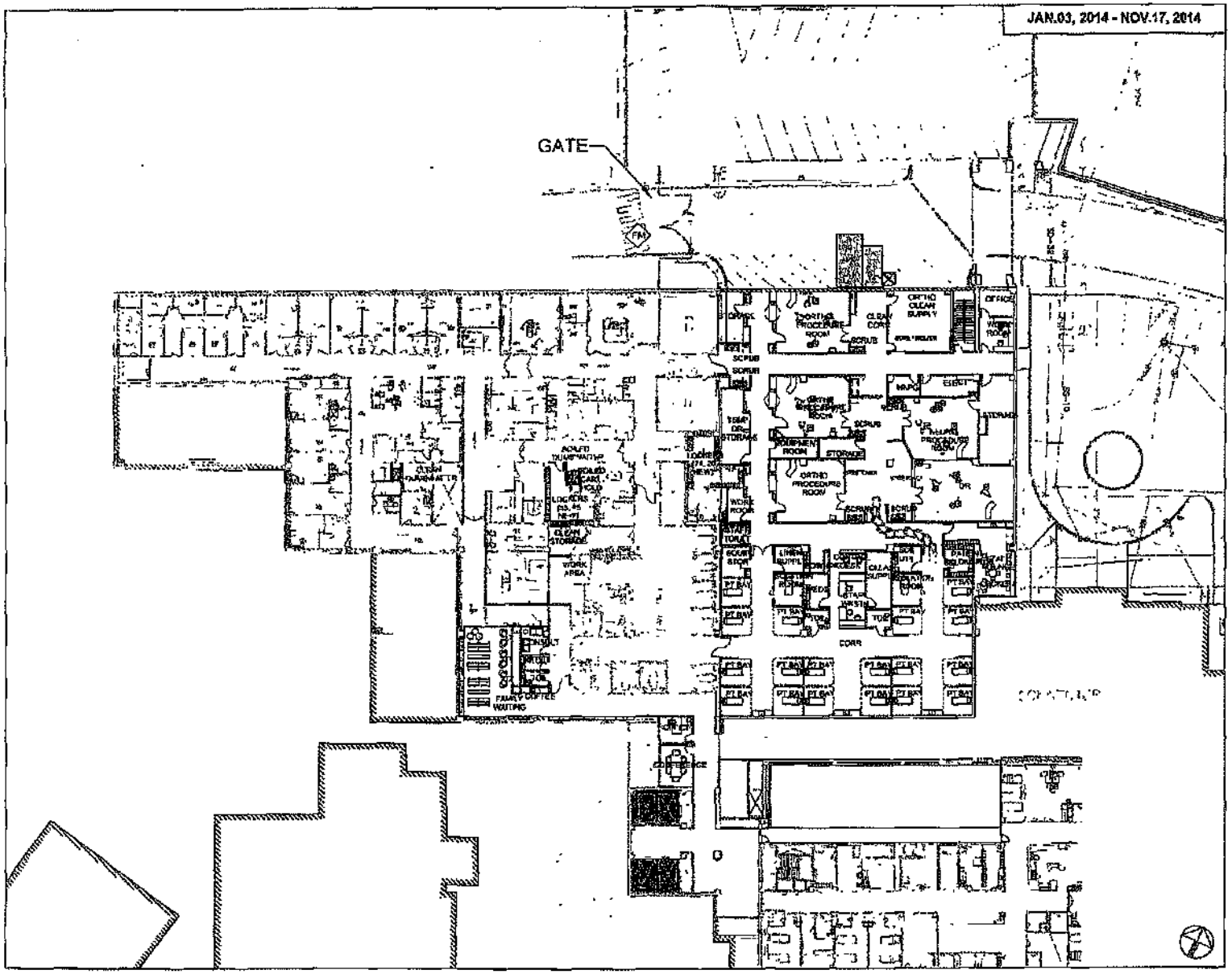
99 COMPTON HILL DRIVE
DANVERS, MA 01923
TEL: (978) 774-1057

PROJECT:
MAINE MEDICAL CENTER
BEAN ROOF UPGRADES

TITLE:
PROPOSED
SITE LOGISTIC PLAN

DRAWING NO:
SLP.03



Maine Medical Center

SCHEDULED ACTIVITIES

- FIT-OUT
- CASEWORK
- COMMISSIONING
- INSPECTIONS

RENOVATIONS

- MOVE OUT OF EXISTING AREAS
- RENOVATE EXIST. SPACE

SITE FENCE

FM FLAGMAN

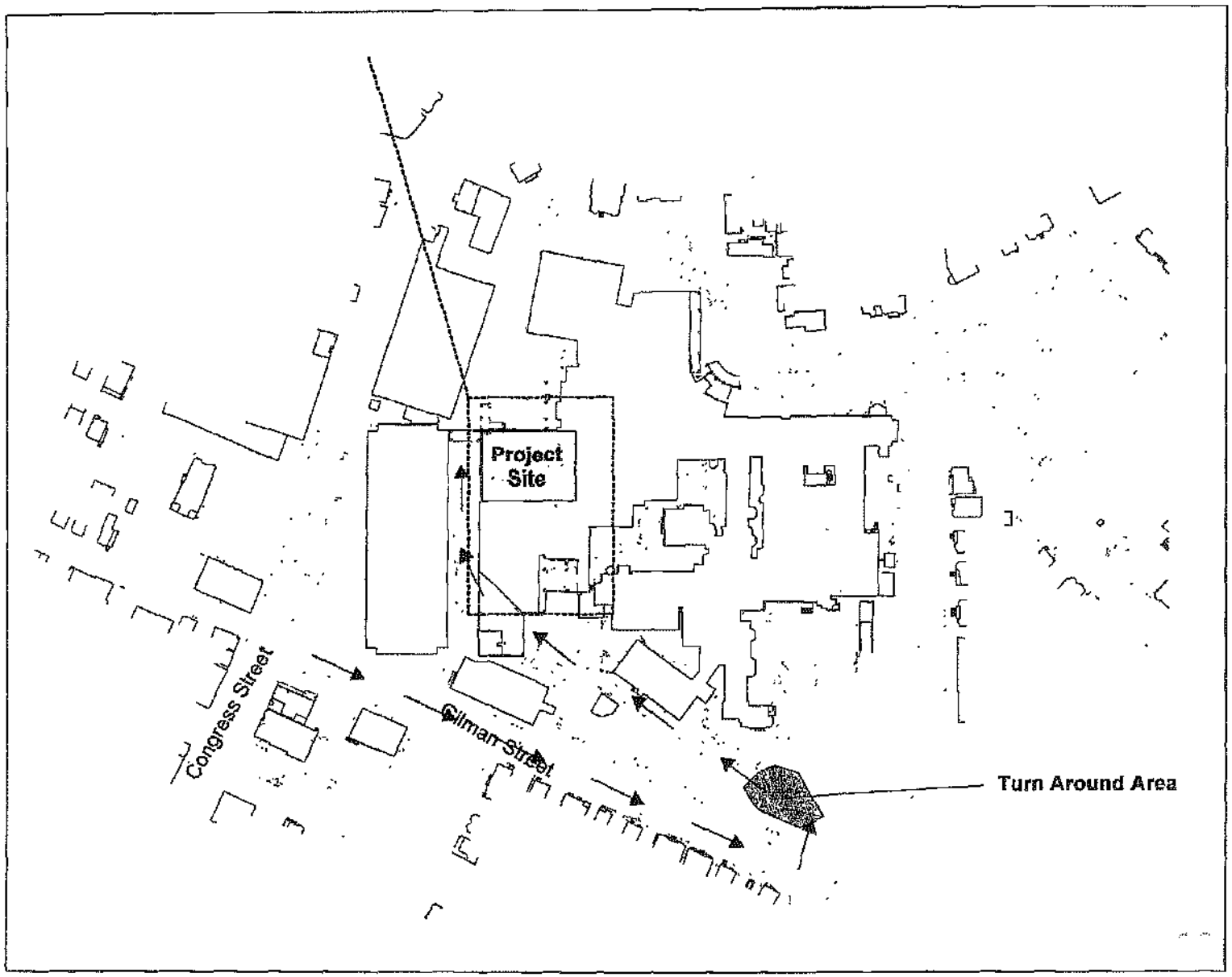
SUFFOLK
build smart
99 COMFFF HILL DRIVE
DANVERS, MA 01923
TEL: (978) 774-1057
E-MAIL CONSTRUCTION@CONSTRUCTION.COM

DRAWN BY: JRS CHECKED BY: KH
SCALE: 1" = 80'-0" DATE: 04.09.13

PROJECT:
MAINE MEDICAL CENTER
BEAM ROOF UPGRADES

TITLE:
PROPOSED
SITE LOGISTIC PLAN

DRAWING NO:
SLP.04



Maine Medical Center

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build smart
90 CONIFER HILL DRIVE
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TEL: (978) 774-1007

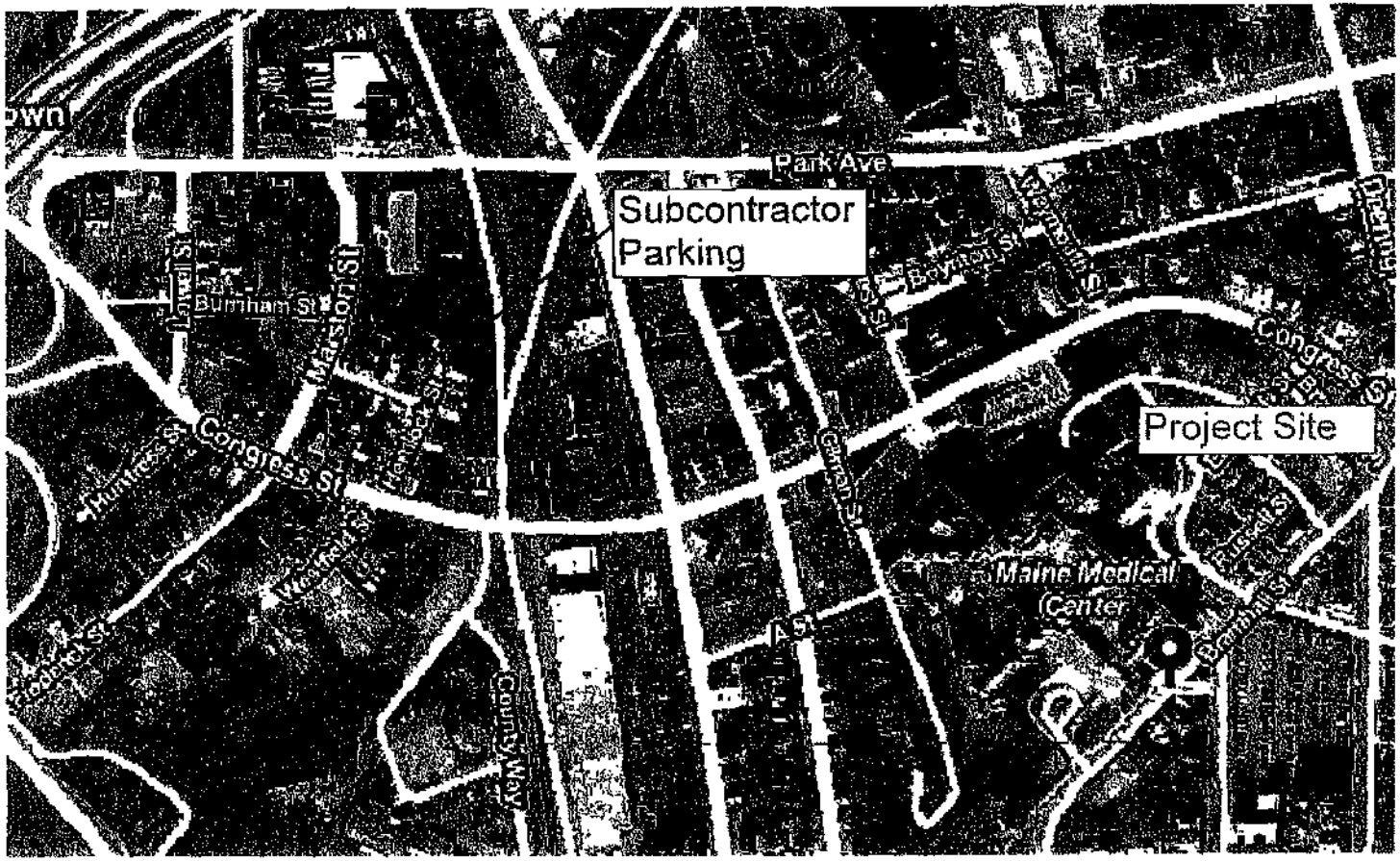
DRAWN BY: JWG CHECKED BY: JP
SCALE: 1" = NTS DATE: 12/19/08

PROJECT:
MAINE MEDICAL CENTER
BEAM ROOF UPGRADES

TITLE:
CONSTRUCTION DELIVERIES

DRAWING NO:
SLP.05

C1.0



Maine Medical Center

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E-MAIL CHRISTTELICENSKY@SUFFOLK.COM

DRAWN BY: J.M.S. CHECKED BY: J.K.
SCALE: NTS DATE: 04-08-13

PROJECT
MAINE MEDICAL CENTER
BEAM ROOF UPGRADES

TITLE
SUBCONTRACTOR PARKING

DRAWING NO.
SLP.06

SLP

Attachment H. 1

TAB 16

Maine Medical Center
22 Bramhall Street
Portland, Maine

Site Plan Application for Maine Medical Center
Bean Building
22 Bramhall Street, Portland

Provide written summary of solid waste, trash and recycling management, See Attached MMC Hazardous Materials and Waste Plan

All solid waste/trash, recyclables, medical waste and hazardous material waste will be incorporated into our existing procedures and services. Existing site locations will be used...no new site locations required.
Contracts with following Vendors in place for next two+ years.

1. **Solid Waste and Trash** - Troiano Waste Services
   PO Box 3541
   Portland, ME 04104
   Picked up daily, 7:00 and per "on call as needed"

2. **Recycling** - Casella Pine Tree Waste
   87 Pleasant Hill Road
   Scarborough, ME 04074-9306
   Picked up 7:00 Am every Tuesday and Thursday AM

3. **Medical Waste Management** – OXUS Environmental
   167 Sebasticook Street

   Picked up every other Thursday 7:30 AM

4. **Hazardous and Environmental Waste** EQ NorthEast Inc.
   185 Industrial Road
   Wrentham, Ma.

   Picked up Bi-Monthly as arranged by MMC Department of Safety and also per "On Call basis/as needed"

4.2

MAINE MEDICAL CENTER
HAZARDOUS MATERIALS AND WASTE PLAN

PURPOSE:

The purpose of Maine Medical Center's (MMC) Hazardous Materials and Waste Plan is to assure that the entire institution complies with all applicable rules and regulations defined by the United States Environmental Protection Agency (EPA) and the Maine Department of Environmental Protection (DEP). This management plan will also assure that all hazardous materials and waste that are used by MMC employees are handled in a manner that is safe to them and the environment

SCOPE:

The Hazardous Materials and Waste Management Plan applies to all employees and departments of Maine Medical Center including all offsite facilities. By following this plan MMC will minimize the risks to patients, visitors, personnel, and the environment to hazardous materials and waste. The plan also ensures that wastes are handled and disposed of in accordance with the EPA, Department of Transportation (DOT), and state and local regulations.

This plan has specific topic appendices which cover:

A. Chemical Hazards covered by a specific OSHA regulation
    1. Ethylene Oxide
    2. Glutaraldehyde
    3. Lead
B. Pharmaceuticals covered by EPA and or DEP regulations
    1. Chemotherapy and surveillance of the potentially exposed employee
    2. Anti neoplastics
    3. Narcotics
C. Radioactive Materials and Radioactive Wastes
D. Bio-hazardous Materials and Bio-hazardous Wastes
E. Recyclables
    1. Universal Wastes (electronics, batteries, fluorescent light bulbs)
    2. Paper & Cardboard
    3. Vegetable Oil

H.3.

RESPONSIBILITY:

Administration

Administration of Maine Medical Center is ultimately responsible for regulatory compliance of hazardous materials and waste management at MMC owned facilities or for any hazardous materials or wastes generated by MMC employees or processes while working at any facility leased by MMC.

Safety Director

The Safety Director of Maine Medical Center is responsible for the overall implementation of this plan. The Safety Director is also responsible for the overall compliance with the program relative to all local, state and federal regulations governing the use, storage and disposing of hazardous materials and wastes.

Department Directors

Department Directors are responsible for:

1. Assess the compliance risks represented by the use of chemicals in departmental operations.
2. Develop, maintain and implement department-wide and job specific chemical safety procedures.
3. Implement a department specific hazard communication program including an annual review of the department's chemical inventory.
4. Provide job specific safety training prior to initial exposure to a chemical hazard and annually thereafter.
5. Provide employee with appropriate personal protective safety equipment (PPE) at no cost to the employee as determined by a PPE Hazard Analysis. Assure that employees are instructed on the proper use and care of the safety equipment and that such equipment is utilized when the job activities require it.

Employees

Employees are responsible for:

1. Following safe practices as outlined in established operating procedures/policies.
2. Attending all mandated training programs.
3. Asking for clarification when unsure of proper procedure.
4. Using prescribed equipment for the job, using it in accordance with all safety instructions and training.
5. Wearing PPE when applicable.
6. Abiding by all safety rules and practices, and taking an an active part in fulfilling your role in the safety program.

PROGRAM COMPONENTS - GENERAL APPLICATION

1. **Selecting, ordering, receiving, labeling, handling, storing, using, and disposing of hazardous materials and waste from receipt or generation through use or final disposal.**

   The following processes will be utilized to carry out the above components of the Hazardous Materials and Waste Management Program:

   a. **Selecting:** Materials will be selected for inclusion in the Hazardous Materials and Waste Management Program based on need, the hazards of the material and departmental approval.

   b. **Ordering, Receiving, Labeling and Containers:**
   The Materials Management Department will be responsible for receiving, identifying, labeling, and delivering all hazardous materials used in the hospital, if ordered through the Materials Management Department.

   Hospital departments ordering hazardous materials directly and receiving shipment of these materials directly will be responsible for identifying and labeling their own hazardous materials and waste. This procedure is also outlined in MMC's Hazard Communication Program. Maine Medical Center has adopted the National Fire Protection Agency (NFPA) hazard warning label system. The labels must contain the identity of the hazardous chemical or material and an appropriate hazard warning that contains the nature of the hazard (i.e. poison, corrosive, flammable, etc.).

   c. **Handling, Storage, and Use:** Hazardous materials will be stored in specified labeled containers. Regular Hazardous Materials and Waste Management surveys will be conducted to see that hazardous materials and waste are labeled, handled, stored, used, and disposed properly.

   Examples:
   1. Flammable materials should be stored in a cool, dry, well-ventilated storage area, away from combustible materials and in approved flammable storage cabinets.
   2. The storage area for flammables will be supplied with fire extinguishers.
   3. Acids and alkalines will be stored separately in well-ventilated areas.
   4. Corrosive materials will be stored separately in well-ventilated areas and in approved cabinets.
   5. Staff using hazardous materials will be educated on the potential hazards of use and appropriate spill procedures.
   6. Staff will be educated on the location of Safety Data Sheets (SDS) sheets and the use of protective equipment available, as appropriate.

H.S

d. **Disposing:** The disposal of all hazardous materials will be by one of the following methods:

1. Unused materials are to be returned to provider (when applicable)
2. Hazardous waste/universal waste is to be removed by a licensed hazardous waste contractor.
3. Infectious/Biomedical Waste is to be labeled and removed by a licensed Bio-Waste hauler.

Environmental services will provide approved containers that contain Occupational Safety and Health Agency's (OSHA) biohazard symbol (see symbol below). All areas that store biohazards will also have biohazard symbol affixed in clear view at entrance. OSHA designates fluorescent orange or orange-red as the color to identify blood borne pathogens.

NOTE:
Nursing staff will be responsible for chemotherapy labeling, see Chemotherapy Safe Handling & Disposal policy.

e. **Chemical Inventory:** A chemical inventory will be kept current for each department as part of the hospitals **Hazard Communication Program** retained in the Safety Office. The chemical inventory will contain all hazardous chemicals found in the hospital. Safety Data Sheet's (SDS) will be acquired for all chemicals on the inventory. Copies of prior inventories will be maintained for 30 years.

f. **SDS**: SDS sheets are to be obtained for every identified hazardous material and chemical used in the hospital. All chemicals are too be ordered through MMC's Materials Management Department to assure that the facility will receive an SDS. All contractors conducting work on MMC property are to have a current copy of all SDS's for chemical products used onsite. A current copy of SDS's will be available on the intranet to employees.

2. **Identify, evaluate, and inventory hazardous materials and wastes used or generated.**

- Establish written criteria, consistent with applicable law and regulation
- The following criteria will be utilized in defining hazardous materials:
- NOTE: See separate plans for each waste listed below

H.6

a. **Hazardous Chemical Material:** Any material which may be explosive, flammable, poisonous, corrosive, oxidizing, irritating, or otherwise harmful and is likely to cause internal or external injury to humans or the environment.

b. **Hazardous Gaseous and Vaporous Material:** Any substance which may be dispersed through the air and act as a poison, irritant, or asphyxiate.

c. **Infectious Waste Material:** Regulated medical or infectious waste is defined as any human tissue, organ(s), or material that has become soaked or saturated with blood or an Other Potentially Infectious Material (OPIM) as defined by OSHA. Sharps are any instrument or object that could puncture the skin and potentially be contaminated with pathogens, see Institutional Exposure Plan.

d. **Radioactive Hazardous Material:** Any material capable of giving off radiant energy in the form of particles or rays, such as alpha, beta, or gamma rays.

3. **Managing chemical wastes, chemotherapeutic wastes (chemotherapy), radioactive wastes, and regulated medical or infectious waste, including sharps.**

Implementation:

Chemical and infectious wastes will be managed in the following ways:

a. **Chemical Wastes:** Hazardous chemical waste is defined as any chemical that is explosive, flammable, poisonous, corrosive, oxidizing, irritating, or otherwise harmful and is likely to cause internal or external injury to humans or the environment.

Each department that generates or handles chemical waste will have written policies and procedures for handling and using that chemical.

b. **Chemotherapeutic Wastes:** Chemotherapeutic or antineoplastic waste is defined as a chemotherapy chemical that remains in containers, vials, tubes, or waste due to an accident or spillage.

Each department that generates chemotherapeutic waste will have written policies and procedures for safe handling, admixtures, transportation, administration, and disposal of the waste.

c. **Radioactive Wastes:** Radioactive waste is defined as waste from any material which is capable of giving off radiant energy in the form of particles or rays, such as alpha, beta, or gamma rays.

All federal, state, and local regulations governing the use of radiation will be met.

Each department that generates radioactive waste will have written policies and procedures for safe handling, admixtures, transportation, administration, and disposal of the waste.

d. **Regulated Medical or Infectious Wastes, Including Sharps:** Regulated medical or infectious waste is defined as any human tissue, organ(s), or material that has become soaked or saturated with blood or an Other Potentially Infectious Material (OPIM) as defined by OSHA. Sharps are any instrument or object that could puncture the skin and potentially be contaminated with pathogens.

Each department that generates or handles infectious waste will have written policies and procedures for identification, safe handling, packaging, storage, transportation, and disposal of the waste. The policies and procedures from these departments will be reviewed and approved by the Infection Control Department.

4. **Providing adequate and appropriate space and equipment for safe handling and storage of hazardous materials and waste.**

Appropriate space that eliminates or minimizes access to the public, especially small children, and equipment is provided for the safe handling and storage of all hazardous materials and waste based on all applicable federal, state, and local regulating agency requirements.

5. **Reporting and investigating all hazardous materials or waste spills, exposures or other incidents.**
All occurrences involving hazardous materials and waste that affect patients, visitors, personnel, or property will be reported first to the employee's immediate supervisor. After the situation is contained and emergency response, if applicable, is complete, an incident report is then to be completed and given to the Risk Manager and then the Safety Director. It is the joint responsibility of the Department Directors, the Safety Director and Risk Manager to ensure that adequate investigation and proper procedures are followed in the event of a spill, exposure, or incident.

6. **Monitoring and disposal of hazardous gases and vapors.**

Hazardous Gases and Vapors: Any substance which may be dispersed through the air and act as a poison, irritant, or asphyxiate (includes waste gas anesthesia, xylene, formaldehyde, ethylene oxide, and glutaraldehyde).

An environmental exposure monitoring plan has been developed according to applicable OSHA regulations and is implemented in the prescribed time period. Applicable periodic personal monitoring is done for Ethylene Oxide and Nitrous Oxide. Elevated levels will

be reported to Employee Health Services and Safety Office.

All other environmental results are reviewed by the hospitals Industrial Hygienist and action taken if the results are above the acceptable exposure limit.

7. **Emergency security procedures that describe the specific precautions, procedures, and protective equipment used during hazardous material and waste spills or exposures.**

Spill Procedures:
See Emergency Procedures on MMC's homepage or call emergency response number for your location announce Code Orange.

Occupational exposures: Post-exposure personal monitoring is done if medically indicated for any suspected or bona fide occupational exposure to a hazardous chemical. The Safety Office will consult with Employee Health Services regarding medical surveillance requirements post exposure to hazardous substances.

If an employee suspects occupational exposure to a hazardous substance, (s)he follows the Indoor Air Quality process. In addition, the employee is offered a copy of the applicable current SDS form for her/his personal files. In addition, a copy of the SDS is secured in the individual's Employee Health Medical Record in accordance with OSHA's recordkeeping standard.

8. **Orientation/education program for personnel who manage or have contact with hazardous materials and waste that addresses:** .

   a. Procedures and precautions for selecting, handling, storing, using, and disposing of hazardous materials and waste.
   b. Emergency procedures for hazardous material and waste spills or exposure.
   c. Health hazards of mishandling hazardous materials or waste.
   d. Procedures for reporting hazardous materials and waste incidents, spills or exposures.

All employees will be provided education regarding hazardous materials and waste management at the facility and departmental level. It will be accomplished in the following manner:

1. All new employees will be provided with facility hazardous materials and waste management education during New Employee Orientation. They will also be oriented to departmental hazardous materials and waste management responsibilities during their first thirty days of employment in the department.

2. All employees will receive at least annual hospital-wide hazardous materials and waste management education.

3. The departmental programs will be based on employee needs, either requested or assessed, and are coordinated by the respective department Directors. The Safety Director will assist in providing information for departmental programs.

9. **Ongoing monitoring of performance regarding actual or potential risks related to one or more of the following:**

Performance improvement standards for Hazardous Materials and Waste Management will be monitored on an ongoing basis and reported to the EOC Committee periodically and will include at least one of the following:

a. Staff knowledge and skills
b. Level of staff participation
c. Monitoring and inspection activities
d. Emergency and incident reporting
e. Inspection, preventive maintenance, and testing of equipment

ANNUAL EVALUATION

The EOC Hazardous Materials and Waste Committee will annually review the Hazardous Materials Management Plan objectives, scope, and effectiveness in meeting current established objectives. Recommended performance improvements in the plan based on the review will be submitted to the EOC Committee for approval.

Original Date: 2/2002
Revision Date: 8/2012

References:
1. State of Maine Hazardous Waste Rules Chapter 850, EPA Regulations 40 Code of Federal Regulations
2. Department of Transportation 49 CFR 173
3. Hazard Communication Standard 29 CFR 1910. 1200
4. MMC's Spill Contingency Plan
5. National Fire Protection Association Standards
6. Occupational Safety & Health Administration Regulations

P. 10

Plan Sponsor: _____
Signature Safety Manager Date

Administrative Approval: _____
Signature SVP Human Resources Date

14.11

AKF

TAB 18

May 28, 2013

Susanna M. Baker, AIA, LEED AP BD+C
Associate
Senior Project Manager
Perkins+Will.
225 Franklin Street, Suite 1100
Boston, MA 02110

Re: Maine Medical Center – Bean Roof Addition
HVAC Emissions-Tab 18
AKF Project No. B120229-000

Dear Susanna,

As requested, we are writing to confirm that the HVAC emissions for the Maine Medical Center – Bean 2 Roof Addition Project meet applicable state and federal emissions requirements. The existing central steam boiler plant will provide all the steam required for heating, humidification and sterilization for the project and there will be no new sources of emissions for the project.

Please feel free to call with any questions or comments regarding this matter or if you wish to discuss this further.

AKF

David P. Roberts, P.E.
Mechanical Project Engineer
DPR/sv

Cc Dennis Kaiser – P+W
Dieter Gartner – P+W
BMM, RAC

Attachment I

TAB 17

PERKINS
+ WILL

Conformity with Design Standards for the Bean 2 Roof Addition Project

The Bean 2 Roof Addition Project design intent is meant to be a light, modern addition on the Maine Medical Center Campus with a massing that maximizes the expansion of level two including an eight foot cantilever to the East. The exterior construction materials include white metal panel, a curtain wall system, clear and fritted glass and opaque white spandrel panels.

The glazed perimeter provides controlled natural light for staff, patients and families. Fritted glass at the east elevation mitigates morning sun in the summer and provides a veil of privacy for occupants inside as well as avoidance of the glass looking dark in the daytime as clear glass does. There is no lighting proposed for the exterior of the project.

The Mechanical Level massing angles back to minimize the building height above the Emergency Department Courtyard. Mechanical louvers integrate into the wall system to provide a simple and clean exterior. All mechanical and electrical building systems equipment is located within the building on the Mechanical Level. Equipment that must be on the exterior is recessed in a well or areaway to screen the view. As a result, there is no mechanical equipment visible on the exterior of the project.

Attachment J.1

TAB 19

SECTION 04 20 00 - UNIT MASONRY

PART 1 - GENERAL

Specifications re masonry, sheathing, waterproofing, insulation, air barriers, metal composite walls, roofing (total of 71 pages) were submitted and will be available for reference at the PB meeting. JJ.

1.1 SUMMARY

A. Section Includes:

1. Building (common) brick.
2. Steel reinforcing bars.
3. Masonry joint reinforcement.
4. Embedded flashing.
5. Miscellaneous masonry accessories.

B. Related Requirements:

1. Section 03 30 00 "Cast-in-Place Concrete" for installing dove-tail slots for masonry anchors.
2. Section 05 12 00 "Structural Steel Framing" for installing anchor sections of adjustable masonry anchors for connecting to structural steel frame.
3. Section 05 50 00 "Metal Fabrications" for furnishing steel lintels and shelf angles for unit masonry.
4. Section 07 62 00 "Sheet Metal Flashing and Trim" for exposed sheet metal flashing and for furnishing manufactured reglets installed in masonry joints.

1.2 DEFINITIONS

A. Reinforced Masonry: Masonry containing reinforcing steel in grouted cells.

1.3 PREINSTALLATION MEETINGS

A. Pre-installation Conference: Conduct conference at Project site to comply with requirements in Section 01 31 00 "Project Management and Coordination."

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

B. Shop Drawings: For the following:

1. Masonry Units: Show sizes, profiles, coursing, and locations of special shapes.
2. Stone Trim Units: Show sizes, profiles, and locations of each stone trim unit required.

J.2

SECTION 08 44 23 - STRUCTURAL-SEALANT-GLAZED CURTAIN WALLS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Factory-glazed, four-sided structural-sealant-glazed curtain-wall assemblies.

B. Related Requirements:

1. Section 08 44 13 "Glazed Aluminum Curtain Walls" for conventionally glazed curtain walls.

2. Section 08 80 00 – "Glazing"

1.2 ALLOWANCES

A. Preconstruction laboratory mockup, Source quality-control and field quality-control testing is part of testing and inspecting allowance.

1.3 PREINSTALLATION MEETINGS

A. Pre-installation Conference: Conduct conference at Project site.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

B. Shop Drawings: For structural-sealant-glazed curtain walls. Include plans, elevations, sections, full-size details, and attachments to other work.

1. Include details of provisions for assembly expansion and contraction and for draining moisture occurring within the assembly to the exterior.

2. Include full-size isometric details of each vertical-to-horizontal intersection of structural-sealant-glazed curtain walls, showing the following:

a. Joinery, including concealed welds.

b. Anchorage.

J.3

c. Expansion provisions.

d. Glazing.

e. Flashing and drainage.

3. Show connection to and continuity with adjacent thermal, weather, air, and vapor barriers.

C. Samples for Initial Selection: For units with factory-applied color finishes.

D. Samples for Verification: For each type of exposed finish required, in manufacturer's standard sizes.

E. Fabrication Sample: Of each vertical-to-horizontal intersection of assemblies, made from 12-inch (300-mm) lengths of full-size components and showing details of the following:

1. Joinery, including concealed welds.

2. Anchorage.

3. Expansion provisions.

4. Glazing.

5. Flashing and drainage.

F. Delegated-Design Submittal: For structural-sealant-glazed curtain walls indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.5 INFORMATIONAL SUBMITTALS

A. LEED Submittals:

1. Product Data for Credit IEQ 4.1: For glazing sealants used inside the weatherproofing system, documentation including printed statement of VOC content.

2. Laboratory Test Reports for Credit IEQ 4.1: For glazing sealants used inside the weatherproofing system, documentation indicating that products comply with the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."

B. Preconstruction Laboratory Mockup Testing Submittals:

1. Testing Program: Developed specifically for Project.

J. 4

2. Test Reports: Prepared by a qualified preconstruction testing agency for each mockup test.

3. Record Drawings: As-built drawings of preconstruction laboratory mockups showing changes made during preconstruction laboratory mockup testing.

C. Qualification Data: For Installer and laboratory mockup testing agency and field testing agency.

D. Energy Performance Certificates: For structural-sealant-glazed curtain walls, accessories, and components from manufacturer.

1. Basis for Certification: NFRC-certified energy performance values for each structural-sealant-glazed curtain wall.

E. Product Test Reports: For structural-sealant-glazed curtain walls, for tests performed by a qualified testing agency.

F. Quality-Control Program: Developed specifically for Project, including fabrication and installation, according to recommendations in ASTM C 1401. Include periodic quality-control reports.

G. Source quality-control reports.

H. Field quality-control reports.

I. Sample Warranties: For special warranties.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For structural-sealant-glazed curtain walls to include in maintenance manuals.

B. Maintenance Data for Structural Sealant: For structural-sealant-glazed curtain walls to include in maintenance manuals. Include ASTM C 1401 recommendations for postinstallation-phase quality-control program.

1.7 QUALITY ASSURANCE

A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.

B. Laboratory Mockup Testing Agency Qualifications: Qualified according to ASTM E 699 for testing indicated and accredited by IAS or ILAC Mutual Recognition Arrangement as complying with ISO/IEC 17025.

C. Testing Agency Qualifications: Qualified according to ASTM E 699 for testing indicated and accredited by IAS or ILAC Mutual Recognition Arrangement as complying with ISO/IEC 17025.

D. Product Options: Information on Drawings and in Specifications establishes requirements for aesthetic effects and performance characteristics of assemblies. Aesthetic effects are indicated by dimensions, arrangements, alignment, and profiles of components and assemblies as they relate to sightlines, to one another, and to adjoining construction.

1. Do not change intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If changes are proposed, submit comprehensive explanatory data to Architect for review.

E. Structural-Sealant Glazing: Comply with ASTM C 1401 for design and installation of curtain-wall assemblies.

1.8 MOCKUPS

A. Mockups: Build mockups to verify selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for fabrication and installation.

1. Build mockup of typical wall area as shown on Drawings.

2. Testing shall be performed on mockups according to requirements in "Field Quality Control" Article.

3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.

4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.9 PRECONSTRUCTION LABORATORY MOCKUPS

A. Preconstruction Testing Service: Engage a qualified testing agency to perform testing on preconstruction laboratory mockups.

B. Build preconstruction laboratory mockups at testing agency facility; use personnel, products, and methods of construction that will be used at Project site.

1. Size and Configuration: As indicated within the MMC bean 2 Roof Interim Progress set dated March 15, 2013 and the final Construction documents dated May 3, 2013.

2. Notify Architect seven days in advance of the dates and times when preconstruction laboratory mockups will be constructed and tested.

C. Preconstruction Laboratory Mockup Testing Program: Test preconstruction laboratory mockups according to requirements in "Performance Requirements" Article. Perform the following tests in the following order:

1. Structural: ASTM E 330 at 50 percent of positive test load.
2. Air Infiltration: ASTM E 283.
3. Water Penetration under Static Pressure: ASTM E 331.
4. Water Penetration under Dynamic Pressure: AAMA 501.1.
5. Structural: ASTM E 330 at 100 percent of positive and negative test loads. Repeat the following:
   a. Air Infiltration: ASTM E 283.
   b. Water Penetration under Static Pressure: ASTM E 331.
6. Interstory Drift: AAMA 501.4 at 100 percent of design displacement. Repeat the following:
   a. Air Infiltration: ASTM E 283.
   b. Water Penetration under Static Pressure: ASTM E 331.
7. Vertical Interstory Movement: AAMA 501.7. Repeat the following:
   a. Air Infiltration: ASTM E 283.
   b. Water Penetration under Static Pressure: ASTM E 331.
8. Thermal Cycling: According to AAMA 501.5. Repeat the following:
   a. Air Infiltration: ASTM E 283.
   b. Water Penetration under Static Pressure: ASTM E 331.
9. Structural: ASTM E 330 at 100 and 150 percent of positive and negative test loads. Repeat the following:
   a. Air Infiltration: ASTM E 283.
   b. Water Penetration under Static Pressure: ASTM E 331.

1.10 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of glazed aluminum curtain wall that do not comply with requirements or that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:
   a. Structural failures including, but not limited to, excessive deflection.

b. Noise or vibration created by wind and thermal and structural movements.

c. Deterioration of metals, metal finishes, and other materials beyond normal weathering.

d. Water penetration through fixed glazing and framing areas.

e. Failure of operating components.

2. Warranty Period: 10 years from date of Substantial Completion.

B. Special Finish Warranty: Standard form in which manufacturer agrees to repair finishes or replace aluminum that shows evidence of deterioration of factory-applied finishes within specified warranty period.

1. Deterioration includes, but is not limited to, the following:

a. Color fading more than 5 Hunter units when tested according to ASTM D 2244.

b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.

c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.

2. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Delegated Design: Engage a qualified professional engineer, as defined in Section 01 40 00 "Quality Requirements," to design structural-sealant-glazed curtain walls.

B. General Performance: Comply with performance requirements specified, as determined by testing of structural-sealant-glazed curtain walls representing those indicated for this Project without failure due to defective manufacture, fabrication, installation, or other defects in construction.

1. Structural-sealant-glazed curtain walls shall withstand movements of supporting structure including, but not limited to, story drift, twist, column shortening, long-term creep, and deflection from uniformly distributed and concentrated live loads.

2. Failure also includes the following:

a. Thermal stresses transferring to building structure.

b. Glass breakage.

c. Noise or vibration created by wind and thermal and structural movements.

d. Loosening or weakening of fasteners, attachments, and other components.

e. Failure of operating units.

C. Structural Loads:

1. Wind Loads: As indicated on Drawings.

2. Other Design Loads: As indicated within MMC bean 2 roof project interim progress set dated March 15, 2013.

D. Deflection of Framing Members: At design wind pressure, as follows:

1. Deflection Normal to Wall Plane: Limited to 1/175 of clear span for spans up to 13 feet 6 inches (4.1 m) and to 1/240 of clear span plus 1/4 inch (6.35 mm) for spans greater than 13 feet 6 inches (4.1 m) or an amount that restricts edge deflection of individual glazing lites to 3/4 inch (19.1 mm), whichever is less.

2. Cantilever Deflection: Where framing members overhang an anchor point, as follows:

a. Perpendicular to Plane of Wall: No greater than 1/240 of clear span plus 1/4-inch (6.35-mm) for spans greater than 11 feet 8-1/4 inches (3.6 m) and/or 1/175 times span, for spans less than 11 feet 8-1/4 inches (3.6 m).

E. Structural: Test according to ASTM E 330 as follows:

1. When tested at positive and negative wind-load design pressures, assemblies do not evidence deflection exceeding specified limits.

2. When tested at 150 percent of positive and negative wind-load design pressures, assemblies, including anchorage, do not evidence material failures, structural distress, or permanent deformation of main framing members exceeding 0.2 percent of span.

3. Test Durations: As required by design wind velocity, but not less than 240 seconds.

F. Air Infiltration: Test according to ASTM E 283 for infiltration as follows:

1. Fixed Framing and Glass Area:

a. Maximum air leakage of 0.06 cfm/sq. ft. (0.30 L/s per sq. m) at a static-air-pressure differential of 6.24 lbf/sq. ft. (300 Pa) Water

Penetration under Static Pressure: Test according to ASTM E 331 as follows:

2. No evidence of water penetration through fixed glazing and framing areas when tested according to a minimum static-air-pressure differential of 20 percent of positive wind-load design pressure, but not less than 15 lbf/sq. ft. (720 Pa).

G. Water Penetration under Dynamic Pressure: Test according to AAMA 501.1 as follows:

1. No evidence of water penetration through fixed glazing and framing areas when tested at dynamic pressure equal to 20 percent of positive wind-load design pressure, but not less than 15 lbf/sq. ft. (720 Pa).

2. Maximum Water Leakage: No uncontrolled water penetrating assemblies or water appearing on assemblies' normally exposed interior surfaces from sources other than condensation. Water leakage does not include water controlled by flashing and gutters, or water that is drained to exterior.

H. Interstory Drift: Accommodate design displacement of adjacent stories indicated.

1. Design Displacement: As indicated on the MMC Bean 2 roof project interim progress set dated March 15, 2013.

2. Test Performance: Complying with criteria for passing based on building occupancy type when tested according to AAMA 501.4 at design displacement and 1.5 times the design displacement.

I. Seismic Performance: Structural-sealant-glazed curtain walls shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.

1. Seismic Drift Causing Glass Fallout: Complying with criteria for passing based on building occupancy type when tested according to AAMA 501.6 at design displacement and 1.5 times the design displacement.

2. Vertical Interstory Movement: Complying with criteria for passing based on building occupancy type when tested according to AAMA 501.7 at design displacement and 1.5 times the design displacement.

J. Energy Performance: Certify and label energy performance according to NFRC as follows:

1. Thermal Transmittance (U-factor): Fixed glazing and framing areas shall have U-factor of not more than 0.69 Btu/sq. ft. x h x deg F (3.92 W/sq. m x K) as determined according to NFRC 100.

2. Solar Heat Gain Coefficient: Fixed glazing and framing areas shall have a solar heat gain coefficient of no greater than 0.35 as determined according to NFRC 200.

3. Condensation Resistance: Fixed glazing and framing areas shall have an NFRC-certified condensation resistance rating of no less than 15 as determined according to NFRC 500.

K. Noise Reduction: Test according to ASTM E 90, with ratings determined by ASTM E 1332, as follows.

1. Outdoor-Indoor Transmission Class: Minimum 26.

L. Blast Resistance:

1. Hazard Rating: No Break per ASTM F 1642.

2. Performance Condition: 5 per GSA-TS01.

M. Thermal Movements: Allow for thermal movements resulting from ambient and surface temperature changes:

1. Temperature Change: 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

2. Thermal Cycling: No buckling; stress on glass; sealant failure; excess stress on framing, anchors, and fasteners; or reduction of performance when tested according to AAMA 501.5.

a. High Exterior Ambient-Air Temperature: That which produces an exterior metal-surface temperature of 180 deg F (82 deg C).

b. Low Exterior Ambient-Air Temperature: -10 deg F (minus 28 deg C).

N. Structural-Sealant Joints:

1. Designed to carry gravity loads of glazing.

2. Designed to produce tensile or shear stress of less than 20 psi (138 kPa).

O. Structural Sealant: Capable of withstanding tensile and shear stresses imposed by structural-sealant-glazed curtain walls without failing adhesively or cohesively. When tested for preconstruction adhesion and compatibility, cohesive failure of sealant shall occur before adhesive failure.

1. Adhesive failure occurs when sealant pulls away from substrate cleanly, leaving no sealant material behind.

2. Cohesive failure occurs when sealant breaks or tears within itself but does not separate from each substrate because sealant-to-substrate bond strength exceeds sealant's internal strength.

2.2 MANUFACTURERS

A. Basis-of-Design Product: Subject to compliance with requirements, provide Kawneer North America the 225 system 4 sided SSG system or comparable product by one of the following:

1. Oldcastle, Inc.

2. YKK AP America Inc.

2.3 FRAMING

A. Framing Members: Manufacturer's extruded- or formed-aluminum framing members of thickness required and reinforced as required to support imposed loads.

1. Glazing System: Retained with structural sealant on four sides.

2. Finish: High-performance organic finish.

3. Fabrication Method: Factory-fabricated system.

B. Brackets and Reinforcements: Manufacturer's standard high-strength aluminum with non-staining, nonferrous shims for aligning system components.

C. Materials:

1. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated.

a. Sheet and Plate: ASTM B 209 (ASTM B 209M).

b. Extruded Bars, Rods, Profiles, and Tubes: ASTM B 221 (ASTM B 221M).

c. Extruded Structural Pipe and Tubes: ASTM B 429/B 429M.

d. Structural Profiles: ASTM B 308/B 308M.

2. Steel Reinforcement: Manufacturer's standard zinc-rich, corrosion-resistant primer complying with SSPC-PS Guide No. 12.00; applied immediately after surface preparation and pretreatment. Select surface preparation methods according to recommendations in SSPC-SP COM, and prepare surfaces according to applicable SSPC standard.

a. Structural Shapes, Plates, and Bars: ASTM A 36/A 36M.

b. Cold-Rolled Sheet and Strip: ASTM A 1008/A 1008M.

c. Hot-Rolled Sheet and Strip: ASTM A 1011/A 1011M.

J.13

2.4 GLAZING

A. Glazing: Comply with Section 08 80 00 "Glazing."

B. Structural Glazing Sealants: ASTM C 1184, chemically curing silicone formulation that is compatible with system components with which it comes in contact, specifically formulated and tested for use as structural sealant and approved by structural-sealant manufacturer for use in curtain-wall assembly indicated.

1. Color: As selected by Architect from manufacturer's full range of colors.

C. Weather-seal Sealants: ASTM C 920 for Type S; Grade NS; Class 25; Uses NT, G, A, and O; chemically curing silicone formulation that is compatible with structural sealant and other system components with which it comes in contact; recommended by structural-sealant, weather-seal-sealant, and structural-sealant-glazed curtain-wall manufacturers for this use.

1. Color: Match structural sealant.

D. Glazing Gaskets: Comply with Section 08 80 00 "Glazing."

E. Glazing Sealants: Comply with Section 08 80 00 "Glazing."

F. Sealants used inside the weatherproofing system shall have a VOC content of 250 g/L or less.

G. Sealants used inside the weatherproofing system shall comply with the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."

2.5 ACCESSORIES

A. Fasteners and Accessories: Manufacturer's standard corrosion-resistant, non-staining, non-bleeding fasteners and accessories compatible with adjacent materials.

1. Use self-locking devices where fasteners are subject to loosening or turning out from thermal and structural movements, wind loads, or vibration.

2. Reinforce members as required to receive fastener threads.

3. Use exposed fasteners with countersunk Phillips screw heads, finished to match framing system.

B. Anchors: Three-way adjustable anchors with minimum adjustment of 1 inch (25.4 mm) that accommodate fabrication and installation tolerances in material and finish compatible with adjoining materials and recommended by manufacturer.

1. Concrete and Masonry Inserts: Hot-dip galvanized cast-iron, malleable-iron, or steel inserts complying with ASTM A 123/A 123M or ASTM A 153/A 153M requirements.

C. Concealed Flashing: Dead-soft, 0.018-inch- (0.457-mm-) thick stainless steel, ASTM A 240/A 240M of type recommended by manufacturer.

D. Bituminous Paint: Cold-applied asphalt-mastic paint complying with SSPC-Paint 12 requirements except containing no asbestos, formulated for 30-mil (0.762-mm) thickness per coat.

2.6 FABRICATION

A. Form or extrude aluminum shapes before finishing.

B. Weld in concealed locations to greatest extent possible to minimize distortion or discoloration of finish. Remove weld spatter and welding oxides from exposed surfaces by descaling or grinding.

C. Fabricate components that, when assembled, have the following characteristics:

1. Profiles that are sharp, straight, and free of defects or deformations.

2. Accurately fitted joints with ends coped or mitered.

3. Physical and thermal isolation of glazing from framing members.

4. Accommodations for thermal and mechanical movements of glazing and framing to maintain required glazing edge clearances.

5. Provisions for field replacement of glazing from exterior.

6. Fasteners, anchors, and connection devices that are concealed from view to greatest extent possible.

7. Components curved to indicated radii.

D. Factory-Assembled Frame Units:

1. Rigidly secure non-movement joints.

2. Prepare surfaces that are in contact with structural sealant according to sealant manufacturer's written instructions, to ensure compatibility and adhesion.

3. Preparation includes, but is not limited to, cleaning and priming surfaces.

4. Seal joints watertight unless otherwise indicated.

5. Install glazing to comply with requirements in Section 08 80 00 "Glazing."

E. After fabrication, clearly mark components to identify their locations in Project according to Shop Drawings.

2.7 ALUMINUM FINISHES

A. High-Performance Organic Finish: Four-coat fluoropolymer finish complying with AAMA 2605 and containing not less than 70 percent PVDF or FEVE resin by weight in both color coat and clear topcoat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

1. Color and Gloss: As selected by Architect from manufacturer's full range.

2.8 SOURCE QUALITY CONTROL

A. Structural Sealant: Perform quality-control procedures complying with ASTM C 1401 recommendations including, but not limited to, assembly material qualification procedures, sealant testing, and assembly fabrication reviews and checks.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Prepare surfaces that are in contact with structural sealant according to sealant manufacturer's written instructions to ensure compatibility and adhesion. Preparation includes, but is not limited to, cleaning and priming surfaces.

3.3 INSTALLATION

A. General:

1. Comply with manufacturer's written instructions.

2. Do not install damaged components.

3. Fit joints to produce hairline joints free of burrs and distortion.

4. Rigidly secure non-movement joints.

5. Install anchors with separators and isolators to prevent metal corrosion and electrolytic deterioration and to prevent impeding movement of moving joints.

6. Where welding is required, weld components in concealed locations to minimize distortion or discoloration of finish. Protect glazing surfaces from welding.

7. Seal joints watertight unless otherwise indicated.

B. Metal Protection:

1. Where aluminum is in contact with dissimilar metals, protect against galvanic action by painting contact surfaces with primer, applying sealant or tape, or installing nonconductive spacers as recommended by manufacturer for this purpose.

2. Where aluminum is in contact with concrete or masonry, protect against corrosion by painting contact surfaces with bituminous paint.

C. Install components plumb and true in alignment with established lines and grades.

D. Install operable units level and plumb, securely anchored, and without distortion. Adjust weather-stripping contact and hardware movement to produce proper operation.

E. Install glazing as specified in Section 08 80 00 "Glazing."

1. Prepare surfaces that are in contact with structural sealant according to sealant manufacturer's written instructions, to ensure compatibility and adhesion. Preparation includes, but is not limited to, cleaning and priming surfaces.

F. Install weather-seal sealant according to Section 07 92 00 "Joint Sealants" and according to sealant manufacturer's written instructions, to produce weatherproof joints. Install joint filler behind sealant as recommended by sealant manufacturer.

3.4 ERECTION TOLERANCES

A. Erection Tolerances: Install structural-sealant-glazed curtain walls to comply with the following maximum tolerances:

1. Plumb: 1/8 inch in 10 feet (3.2 mm in 3 m); 1/4 inch in 40 feet (6.35 mm in 12.2 m).

2. Level: 1/8 inch in 20 feet (3.2 mm in 6 m); 1/4 inch in 40 feet (6.35 mm in 12.2 m).

3. Alignment:

a. Where surfaces abut in line or are separated by reveal or protruding element up to 1/2 inch (12.7 mm) wide, limit offset from true alignment to 1/16 inch (1.6 mm).

b. Where surfaces are separated by reveal or protruding element from 1/2 to 1 inch (12.7 to 25.4 mm) wide, limit offset from true alignment to 1/8 inch (3.2 mm).

c. Where surfaces are separated by reveal or protruding element of 1 inch (25.4 mm) wide or more, limit offset from true alignment to 1/4 inch (6 mm).

4. Location: Limit variation from plane to 1/8 inch in 12 feet (3.2 mm in 3.6 m); 1/2 inch (12.7 mm) over total length.

3.5 FIELD QUALITY CONTROL

A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.

B. Test Area: Perform tests on one bay at least 30 feet (9.1 m), by one story representative areas of structural-sealant-glazed curtain walls.

C. Field Quality-Control Testing: Perform the following test on representative areas of structural-sealant-glazed curtain walls.

1. Water-Spray Test: Before installation of interior finishes has begun, areas designated by Architect shall be tested according to AAMA 501.2 and shall not evidence water penetration.

a. Perform a minimum of three tests in areas as directed by Architect.

b. Perform tests in each test area as directed by Architect. Perform at least three tests, prior to 10, 35 and 70 percent completion.

2. Air Infiltration: ASTM E 783 at 1.5 times the rate specified for laboratory testing in "Performance Requirements" Article but not more than 0.50 cfm/sq. ft. (2.25 L/s per sq. m).

a. Perform a minimum of three tests in areas as directed by Architect.

b. Perform tests in each test area as directed by Architect. Perform at least three tests, prior to 10, 35 and 70 percent completion.

3. Water Penetration: ASTM E 1105 at a minimum uniform and cyclic static-air-pressure differential of 0.67 times the static-air-pressure differential specified for laboratory testing in "Performance Requirements" Article, but not less than 6.24 lbf/sq. ft. (300 Pa), and shall not evidence water penetration.

D. Structural-Sealant Adhesion: Test structural sealant according to recommendations in ASTM C 1401, Destructive Test Method A, "Hand Pull Tab (Destructive)," Appendix X2.

1. Test a minimum of eight areas on each building facade.

2. Repair installation areas damaged by testing.

E. Structural-sealant-glazed curtain walls will be considered defective if they do not pass tests and inspections.

F. Prepare test and inspection reports.

END OF SECTION

J: 19

SECTION 08 80 00 - GLAZING

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes glazing for the following products and applications, including those specified in other Sections where glazing requirements are specified by reference to this Section:
   1. Windows.
   2. Doors.
   3. Glazed curtain walls.
   4. Interior borrowed lites.
   5. Clerestory lites

B. Related Sections:
   1. Section 08 42 29.33 "Swinging Automatic Entrances."
   2. Section 08 44 23 "Structural Sealant Glazed Curtain Walls".
   3. Section 08 83 00 "Mirrors."

1.2 DEFINITIONS

A. Glass Manufacturers: Firms that produce primary glass, fabricated glass, or both, as defined in referenced glazing publications.

B. Glass Thicknesses: Indicated by thickness designations in millimeters according to ASTM C 1036.

C. Interspace: Space between lites of an insulating-glass unit.

1.3 PERFORMANCE REQUIREMENTS

A. General: Installed glazing systems shall withstand normal thermal movement and wind and impact loads (where applicable) without failure, including loss or glass breakage attributable to the following: defective manufacture, fabrication, or installation; failure of sealants or gaskets to remain watertight and airtight; deterioration of glazing materials; or other defects in construction.

   1. Design Snow Loads: As indicated on the Structural Drawings.
   2. Vertical Glazing: For glass surfaces sloped 15 degrees or less from vertical, design glass to resist design wind pressure based on glass type factors for short-duration load.
   3. Sloped Glazing: For glass surfaces sloped more than 15 degrees from vertical, design glass to resist each of the following combinations of loads:

a. Outward design wind pressure minus the weight of the glass. Base design on glass type factors for short-duration load.
b. Inward design wind pressure plus the weight of the glass plus half of the design snow load. Base design on glass type factors for short-duration load.
c. Half of the inward design wind pressure plus the weight of the glass plus the design snow load. Base design on glass type factors for long-duration load.

B. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes acting on glass framing members and glazing components.
1. Temperature Change: 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

1.4 PRECONSTRUCTION TESTING

A. Preconstruction Adhesion and Compatibility Testing: Test each glazing material type, tape sealant, gasket, glazing accessory, and glass-framing member for adhesion to and compatibility with elastomeric glazing sealants.
1. Testing will not be required if data are submitted based on previous testing of current sealant products and glazing materials matching those submitted.
2. Use ASTM C 1087 to determine whether priming and other specific joint-preparation techniques are required to obtain rapid, optimum adhesion of glazing sealants to glass, tape sealants, gaskets, and glazing channel substrates.
3. Test no fewer than eight Samples of each type of material, including joint substrates, shims, sealant backings, secondary seals, and miscellaneous materials.
4. Schedule sufficient time for testing and analyzing results to prevent delaying the Work.
5. For materials failing tests, submit sealant manufacturer's written instructions for corrective measures including the use of specially formulated primers.

1.5 ACTION SUBMITTALS

A. Product Data: For each glass product and glazing material indicated.

B. Samples: For each type of the following products; 12 inches (300 mm) square.
1. Patterned glass.
2. Insulating glass.

C. Glazing Accessory Samples: For gaskets, sealants and colored spacers, in 12-inch (300-mm) lengths. Install sealant Samples between two strips of material representative in color of the adjoining framing system.

D. Glazing Schedule: List glass types and thicknesses for each size opening and location. Use same designations indicated on Drawings.

E. Delegated-Design Submittal: For glass indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.6 INFORMATIONAL SUBMITTALS

A. Qualification Data: For glass testing agency and sealant testing agency.

B. Product Certificates: For glass and glazing products, from manufacturer.

C. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for insulating glass, glazing sealants and glazing gaskets.
1. For glazing sealants, provide test reports based on testing current sealant formulations within previous 36-month period.

D. Preconstruction adhesion and compatibility test report.

E. Warranties: Sample of special warranties.

1.7 QUALITY ASSURANCE

A. Manufacturer Qualifications for Insulating-Glass Units with Sputter-Coated, Low-E Coatings: A qualified insulating-glass manufacturer who is approved and certified by coated-glass manufacturer.

B. Installer Qualifications: A qualified installer who employs glass installers for this Project who are certified under the National Glass Association's Certified Glass Installer Program.

C. Glass Testing Agency Qualifications: A qualified independent testing agency accredited according to the NFRC CAP 1 Certification Agency Program.

D. Sealant Testing Agency Qualifications: An independent testing agency qualified according to ASTM C 1021 to conduct the testing indicated.

E. Source Limitations for Glass: Obtain insulating glass from single source from single manufacturer for each glass type.

F. Basis-of-Design Product: Subject to compliance with requirements, provide Viracon 800 Park Drive Owatonna, MN 55060 company Source Limitations for Glazing and Glazing Accessories: Obtain from single source from single manufacturer for each product and installation method.

G. Glazing Publications: Comply with published recommendations of glass product manufacturers and organizations below, unless more stringent requirements are indicated. Refer to these publications for glazing terms not otherwise defined in this Section or in referenced standards.
1. IGMA Publication for Insulating Glass: SIGMA TM-3000, "North American Glazing Guidelines for Sealed Insulating Glass Units for Commercial and Residential Use."

H. Safety Glazing Labeling: Where safety glazing labeling is indicated, permanently mark glazing with certification label of the SGCC or another certification agency acceptable to authorities having jurisdiction. Label shall indicate manufacturer's name, type of glass, thickness, and safety glazing standard with which glass complies.

I. Insulating-Glass Certification Program: Permanently marked either on spacers or on at least one component lite of units with appropriate certification label of IGCC.

J. Mockups: Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
   1. Install glazing in mockups specified in Section 08 44 13 "Glazed Aluminum Curtain Walls" to match glazing systems required for Project, including glazing methods.
   2. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

K. Pre-installation Conference: Conduct conference at Project site.
   1. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
   2. Review temporary protection requirements for glazing during and after installation.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Protect glazing materials according to manufacturer's written instructions. Prevent damage to glass and glazing materials from condensation, temperature changes, direct exposure to sun, or other causes.

B. Comply with insulating-glass manufacturer's written recommendations for venting and sealing units to avoid hermetic seal ruptures due to altitude change.

1.9 PROJECT CONDITIONS

A. Environmental Limitations: Do not proceed with glazing when ambient and substrate temperature conditions are outside limits permitted by glazing material manufacturers and when glazing channel substrates are wet from rain, frost, condensation, or other causes.
   1. Do not install glazing sealants when ambient and substrate temperature conditions are outside limits permitted by sealant manufacturer or below 40 deg F (4.4 deg C).

1.10 WARRANTY

A. Manufacturer's Special Warranty on Insulating Glass: Manufacturer's standard form in which insulating-glass manufacturer agrees to replace insulating-glass units that deteriorate within specified warranty period. Deterioration of insulating glass is

defined as failure of hermetic seal under normal use that is not attributed to glass breakage or to maintaining and cleaning insulating glass contrary to manufacturer's written instructions. Evidence of failure is the obstruction of vision by dust, moisture, or film on interior surfaces of glass.

1. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 GLASS PRODUCTS, GENERAL

A. Thickness: Where glass thickness is indicated, it is a minimum. Provide glass lites in thicknesses as needed to comply with requirements indicated.
   1. Minimum Glass Thickness for Exterior Lites: Not less than 6.0 mm thick.
   2. Thickness of Tinted Glass: Provide same thickness for each tint color indicated throughout Project.

B. Strength: Where float glass is indicated, provide annealed float glass, Kind HS heat-treated float glass, or Kind FT heat-treated float glass as needed to comply with "Performance Requirements" Article. Where heat-strengthened glass is indicated, provide Kind HS heat-treated float glass or Kind FT heat-treated float glass as needed to comply with "Performance Requirements" Article. Where fully tempered glass is indicated, provide Kind FT heat-treated float glass.

C. Windborne-Debris-Impact Resistance: Provide exterior glazing that passes enhanced-protection testing requirements in ASTM E 1996 for Wind Zone 3 when tested according to ASTM E 1886. Test specimens shall be no smaller in width and length than glazing indicated for use on the Project and shall be installed in same manner as glazing indicated for use on the Project.
   1. Large-Missile Test: For all glazing, regardless of height above grade.

D. Thermal and Optical Performance Properties: Provide glass with performance properties specified, as indicated in manufacturer's published test data, based on procedures indicated below:
   1. For insulating-glass units, properties are based on units of thickness indicated for overall unit and for each lite.
   2. U-Factors: Center-of-glazing values, according to NFRC 100 and based on LBL's WINDOW 5.2 computer program, expressed as Btu/sq. ft. x h x deg F (W/sq. m x K).
   3. Solar Heat-Gain Coefficient and Visible Transmittance: Center-of-glazing values, according to NFRC 200 and based on LBL's WINDOW 5.2 computer program.
   4. Visible Reflectance: Center-of-glazing values, according to NFRC 300.

2.2 GLASS PRODUCTS

A. Float Glass: ASTM C 1036, Type I, Quality-Q3, Class I (clear) unless otherwise indicated.

2.3 INSULATING GLASS

A. Insulating-Glass Units: Factory-assembled units consisting of sealed lites of glass separated by a dehydrated interspace, qualified according to ASTM E 2190, and complying with other requirements specified.
   1. Sealing System: Dual seal, with polyisobutylene and polyurethane primary and secondary.
   2. Spacer: Polypropylene covered stainless steel in color selected by Architect .
   3. Desiccant: Molecular sieve or silica gel, or blend of both.

B. Glass: Comply with applicable requirements in "Glass Products" Article as indicated by designations in "Insulating-Glass Types" Article and in "Insulating-Laminated-Glass Types" Article.

2.4 GLAZING GASKETS

A. Dense Compression Gaskets: Molded or extruded gaskets of profile and hardness required to maintain watertight seal, made from one of the following:
   1. Thermoplastic polyolefin rubber complying with ASTM C 1115.

B. Soft Compression Gaskets: Extruded or molded, closed-cell, integral-skinned thermoplastic polyolefin rubber gaskets complying with ASTM C 509, Type II, black; of profile and hardness required to maintain watertight seal.
   1. Application: Use where soft compression gaskets will be compressed by inserting dense compression gaskets on opposite side of glazing or pressure applied by means of pressure-glazing stops on opposite side of glazing.

2.5 GLAZING SEALANTS

A. General:
   1. Compatibility: Provide glazing sealants that are compatible with one another and with other materials they will contact, including glass products, seals of insulating-glass units, and glazing channel substrates, under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experience.
   2. Suitability: Comply with sealant and glass manufacturers' written instructions for selecting glazing sealants suitable for applications indicated and for conditions existing at time of installation.
   3. Sealants used inside the weatherproofing system, shall have a VOC content of not more than 250 g/L when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
   4. Colors of Exposed Glazing Sealants: As selected by Architect from manufacturer's full range.

B. Glazing Sealant: Neutral-curing silicone glazing sealant complying with ASTM C 920, Type S, Grade NS, Class 50, Use NT.
   1. Products: Subject to compliance with requirements, provide one of the following:

      a. BASF Building Systems; Omniseal 50.

b. Dow Corning Corporation; 795
c. GE Advanced Materials - Silicones; UltraPruf II SCS2900.
d. May National Associates, Inc.; Bondaflex Sil 295.
e. Pecora Corporation; 895.
f. Polymeric Systems, Inc.; PSI-641.
g. Sika Corporation, Construction Products Division; SikaSil-C995.
h. Tremco Incorporated; Spectrem 2

2.6 MISCELLANEOUS GLAZING MATERIALS

A. General: Provide products of material, size, and shape complying with referenced glazing standard, requirements of manufacturers of glass and other glazing materials for application indicated, and with a proven record of compatibility with surfaces contacted in installation.

B. Cleaners, Primers, and Sealers: Types recommended by sealant or gasket manufacturer.

C. Setting Blocks: Elastomeric material with a Shore, Type A durometer hardness of 85, plus or minus 5.

D. Spacers: Elastomeric blocks or continuous extrusions of hardness required by glass manufacturer to maintain glass lites in place for installation indicated.

E. Edge Blocks: Elastomeric material of hardness needed to limit glass lateral movement (side walking).

F. Cylindrical Glazing Sealant Backing: ASTM C 1330, Type O (open-cell material), of size and density to control glazing sealant depth and otherwise produce optimum glazing sealant performance.

G. Perimeter Insulation for Fire-Resistive Glazing: Product that is approved by testing agency that listed and labeled fire-resistant glazing product with which it is used for application and fire-protection rating indicated.

2.7 FABRICATION OF GLAZING UNITS

A. Basis of Design for exterior glass is per VIRCON VE1-85

B. Fabricate glazing units in sizes required to fit openings indicated for Project, with edge and face clearances, edge and surface conditions, and bite complying with written instructions of product manufacturer and referenced glazing publications, to comply with system performance requirements.

C. Clean-cut or flat-grind vertical edges of butt-glazed monolithic lites to produce square edges with slight chamfers at junctions of edges and faces.

D. Grind smooth and polish exposed glass edges and corners.

2.8 INSULATING-GLASS TYPES

A. Glass Type GL-01: Ceramic-coated, insulating HS/HS Silkscreen vision glass.
1. Overall Unit Thickness: 1 inch (25 mm).
2. Thickness of Each Glass Lite: 6.0 mm.
3. Outdoor Lite: Fully tempered float glass.
4. Interspace Content: Argon.
5. V175 - High Opacity White Viraspan #2 VE-40 Screen #2030
6. Indoor Lite: Fully tempered float glass
7. Coating Location: Second surface.
8. VLT: 59%
9. R Out: 18%
10. SHGC: 0.44
11. LSG: 1.34
12. Winter Nighttime U-Factor: .31 maximum.
13. Summer Daytime U-Factor: .29 maximum.
14. Solar Heat Gain Coefficient: .44 maximum.
15. Provide safety glazing labeling.

B. Glass Type GL-02: Ceramic-coated,insulating spandrel glass.
1. Overall Unit Thickness: 1 inch (25 mm).
2. Thickness of Each Glass Lite: 6.0 mm.
3. Outdoor Lite: Fully tempered Clear Monolithic HS Spandrel glass. V175 - High Opacity white Viraspan
4. Interspace Content: Argon.
5. Interior Lite: Fully tempered float glass.
6. Low-E Coating: Pyrolytic or sputtered on third surface.
7. Opaque Coating Location: Second surface.
8. Winter Nighttime U-Factor: .31 maximum.
9. Summer Daytime U-Factor: .29 maximum.
10. Provide safety glazing labeling.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine framing, glazing channels, and stops, with Installer present, for compliance with the following:
1. Manufacturing and installation tolerances, including those for size, squareness, and offsets at corners.
2. Presence and functioning of weep systems.
3. Minimum required face and edge clearances.
4. Effective sealing between joints of glass-framing members.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Clean glazing channels and other framing members receiving glass immediately before glazing. Remove coatings not firmly bonded to substrates.

B. Examine glazing units to locate exterior and interior surfaces. Label or mark units as needed so that exterior and interior surfaces are readily identifiable. Do not use materials that will leave visible marks in the completed work.

3.3 GLAZING, GENERAL

A. Comply with combined written instructions of manufacturers of glass, sealants, gaskets, and other glazing materials, unless more stringent requirements are indicated, including those in referenced glazing publications.

B. Adjust glazing channel dimensions as required by Project conditions during installation to provide necessary bite on glass, minimum edge and face clearances, and adequate sealant thicknesses, with reasonable tolerances.

C. Protect glass edges from damage during handling and installation. Remove damaged glass from Project site and legally dispose of off Project site. Damaged glass is glass with edge damage or other imperfections that, when installed, could weaken glass and impair performance and appearance.

D. Apply primers to joint surfaces where required for adhesion of sealants, as determined by preconstruction testing.

E. Install setting blocks in sill rabbets, sized and located to comply with referenced glazing publications, unless otherwise required by glass manufacturer. Set blocks in thin course of compatible sealant suitable for heel bead.

F. Do not exceed edge pressures stipulated by glass manufacturers for installing glass lites.

G. Provide spacers for glass lites where length plus width is larger than 50 inches (1270 mm).
   1. Locate spacers directly opposite each other on both inside and outside faces of glass. Install correct size and spacing to preserve required face clearances, unless gaskets and glazing tapes are used that have demonstrated ability to maintain required face clearances and to comply with system performance requirements.
   2. Provide 1/8-inch (3-mm) minimum bite of spacers on glass and use thickness equal to sealant width. With glazing tape, use thickness slightly less than final compressed thickness of tape.

H. Provide edge blocking where indicated or needed to prevent glass lites from moving sideways in glazing channel, as recommended in writing by glass manufacturer and according to requirements in referenced glazing publications.

I. Set glass lites in each series with uniform pattern, draw, bow, and similar characteristics.

J. Set glass lites with proper orientation so that coatings face exterior or interior as specified.

K. Where wedge-shaped gaskets are driven into one side of channel to pressurize sealant or gasket on opposite side, provide adequate anchorage so gasket cannot walk out when installation is subjected to movement.

L. Square cut wedge-shaped gaskets at corners and install gaskets in a manner recommended by gasket manufacturer to prevent corners from pulling away; seal corner joints and butt joints with sealant recommended by gasket manufacturer.

3.4 SEALANT GLAZING (WET)

A. Install continuous spacers, or spacers combined with cylindrical sealant backing, between glass lites and glazing stops to maintain glass face clearances and to prevent sealant from extruding into glass channel and blocking weep systems until sealants cure. Secure spacers or spacers and backings in place and in position to control depth of installed sealant relative to edge clearance for optimum sealant performance.

B. Force sealants into glazing channels to eliminate voids and to ensure complete wetting or bond of sealant to glass and channel surfaces.

C. Tool exposed surfaces of sealants to provide a substantial wash away from glass.

3.5 LOCK-STRIP GASKET GLAZING

A. Comply with ASTM C 716 and gasket manufacturer's written instructions. Provide supplementary wet seal and weep system unless otherwise indicated.

3.6 CLEANING AND PROTECTION

A. Protect exterior glass from damage immediately after installation by attaching crossed streamers to framing held away from glass. Do not apply markers to glass surface. Remove nonpermanent labels and clean surfaces.

B. Protect glass from contact with contaminating substances resulting from construction operations. If, despite such protection, contaminating substances do come into contact with glass, remove substances immediately as recommended in writing by glass manufacturer.

C. Examine glass surfaces adjacent to or below exterior concrete and other masonry surfaces at frequent intervals during construction, but not less than once a month, for buildup of dirt, scum, alkaline deposits, or stains; remove as recommended in writing by glass manufacturer.

D. Remove and replace glass that is broken, chipped, cracked, or abraded or that is damaged from natural causes, accidents, and vandalism, during construction period.

E. Wash glass on both exposed surfaces in each area of Project not more than four days before date scheduled for Inspections that establish date of Substantial Completion. Wash glass as recommended in writing by glass manufacturer.

END OF SECTION

K. 1

Att. K.2
in application

K.2

Circ. at pre app mtg
by Penny St. L.
5.15.13

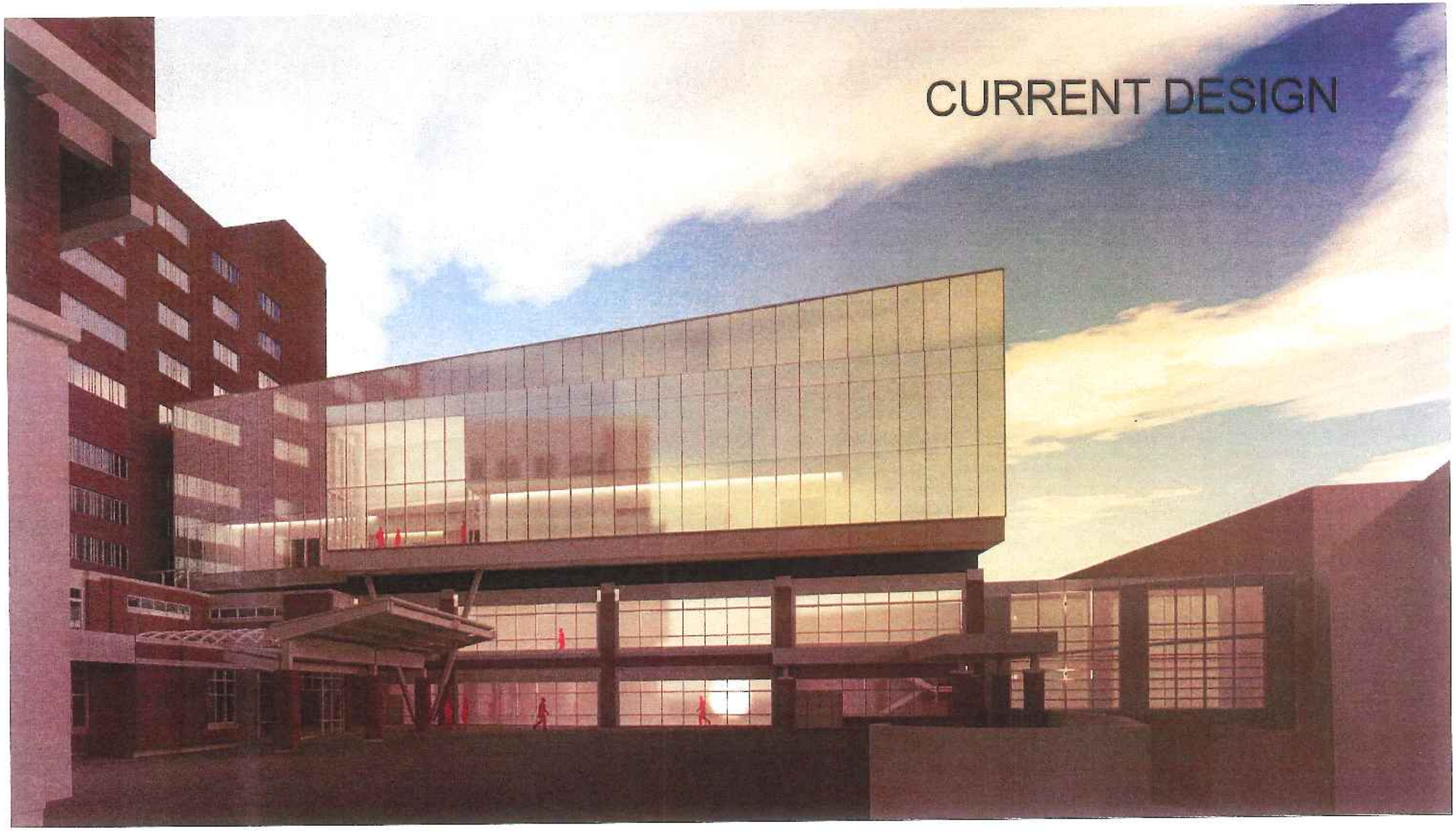
EXISTING

circ- by PSt. L at
preapp mtg 5.15.13

EXISTING

K.4

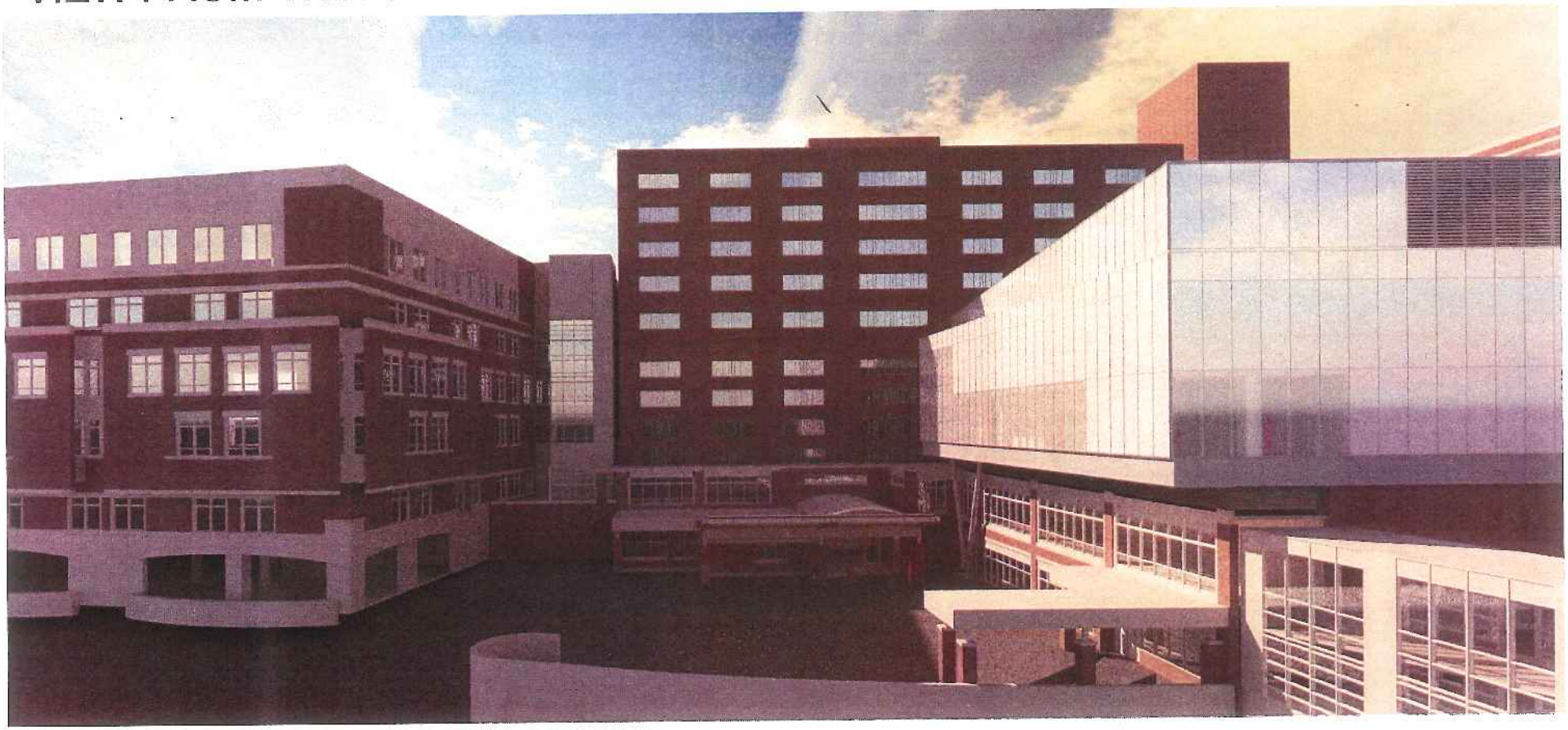
enc. by Berry St. L
at pre app mtg. 5.15.13



A.5

enc. by Penny St. re at
Preapp mtg 5.15.13

VIEW FROM VISITOR GARAGE

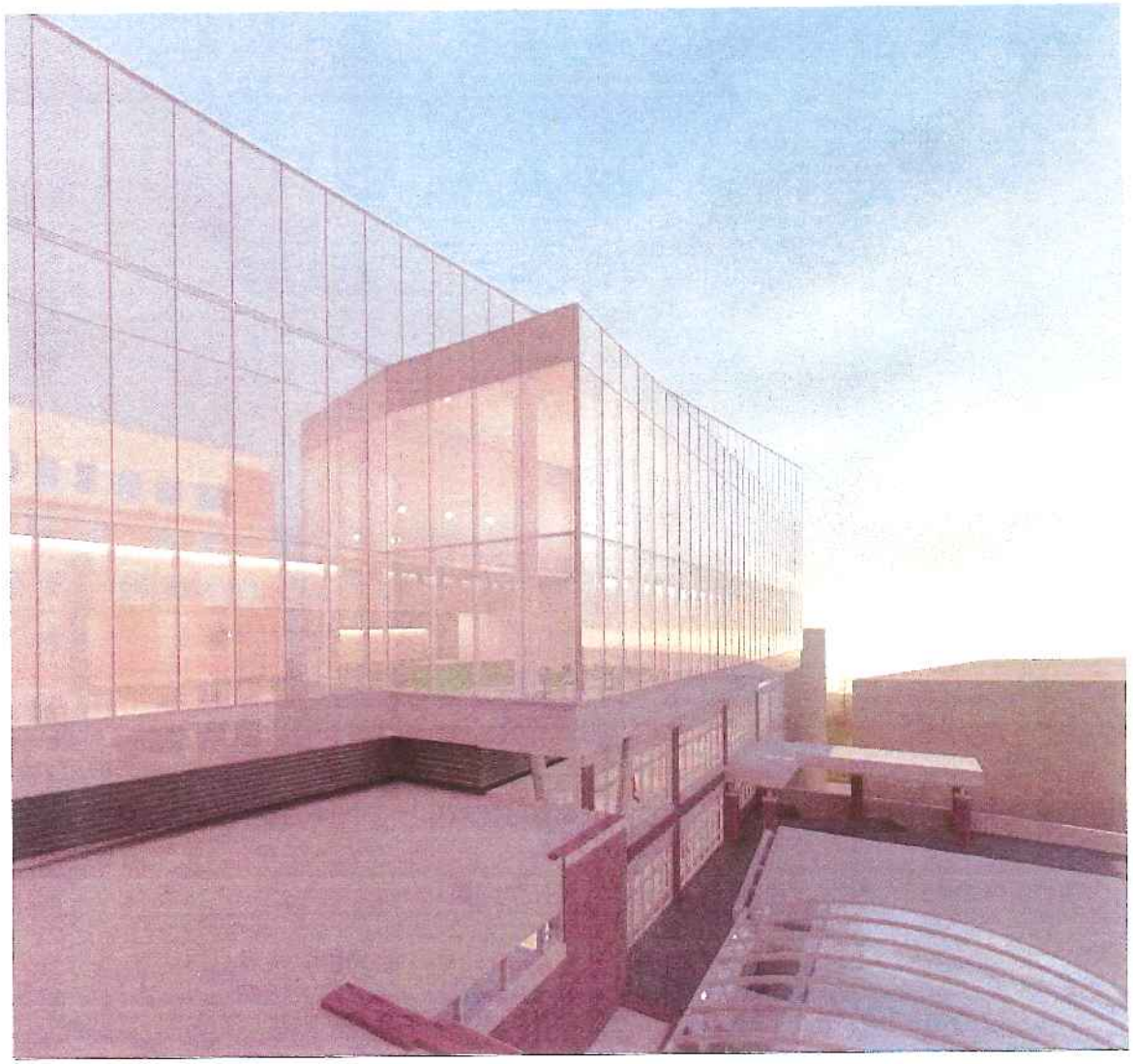


Maine Medical Center

PERKINS
+WILL

K.6

Circ. by Penny St 'L.
at preapp mtg 5.15.13



VIEW FROM PUBLIC CORRIDOR

Maine Medical Center

PERKINS + WILL

circ. by Penny St L.
at preapp mtg 6.15.13

K.8

PROPOSED

top of USM parking garage ?

K.8
6 of 8