

**PERMIT ISSUED**

**AUG 05 2003**

**CITY OF PORTLAND**

Form # P 04

**DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK**  
**CITY OF PORTLAND**

Please Read  
Application And  
Notes, If Any,  
Attached

**BUILDING CONSTRUCTION**  
**PERMIT**

Permit Number: 030643

This is to certify that A G Car Co/Wright Ryan Construction,  
has permission to 27 housing units; Construction of 3.5 stories addition on top of existing parking structure.. Project consists of mi  
AT 41 State St 044 B023001

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

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

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

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

**OTHER REQUIRED APPROVALS**

Fire Dept. [Signature]  
Health Dept. \_\_\_\_\_  
Appeal Board \_\_\_\_\_  
Other \_\_\_\_\_

Department Name

[Signature] 8/1/03  
Director - Building & Inspection Services

**PENALTY FOR REMOVING THIS CARD**

**PERMIT ISSUED****City of Portland, Maine - Building or Use Permit Application**

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

|                       |                                   |                     |
|-----------------------|-----------------------------------|---------------------|
| Permit No:<br>03-0643 | Issue Date:<br><b>AUG 05 2003</b> | CBL:<br>044 B023001 |
|-----------------------|-----------------------------------|---------------------|

|  |   |   |                      |
|--|---|---|----------------------|
| Location of Construction:<br>41 State St | Owner Name:<br>A G Car Co                         | Owner Address:<br>120 Exchange St <b>CITY OF PORTLAND</b> | Phone:<br>7-871-9811 |
| Business Name:<br>n/a                    | Contractor Name:<br>Wright Ryan Construction, Inc | Contractor Address:<br>10 Danforth Street Portland        | Phone:<br>2077733625 |
| Lessee/Buyer's Name<br>n/a               | Phone:<br>n/a                                     | Permit Type:<br>Additions - Commercial                    | Zone:<br><b>R6</b>   |

|   |   |                            |                                 |                    |
|---|---|----------------------------|---------------------------------|--------------------|
| Past Use:<br>Commercial / One story parking structure | Proposed Use:<br>27 Units of Housing; Construction of 3.5 story addition on top of existing parking structure. Project will encompass 27 units of mixed market rate & subsidized housing. | Permit Fee:<br>\$19,548.00 | Cost of Work:<br>\$2,500,000.00 | CEO District:<br>2 |
|---|---|----------------------------|---------------------------------|--------------------|

|  |   |
|--|---|
| Proposed Project Description:<br>27 housing units; Construction of 3.5 story addition on top of existing parking structure.. Project consists of mixed market value rate & subsidized housing. | FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied<br>INSPECTION: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied<br>Use Group: <b>R2/52</b> Type: <b>5A</b><br>Signature: <i>[Signature]</i> Signature: <i>[Signature]</i><br>PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.):<br>Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied<br>Signature: _____ Date: _____ |
|--|---|

|                        |                                 |                        |
|------------------------|---------------------------------|------------------------|
| Permit Taken By:<br>gg | Date Applied For:<br>06/06/2003 | <b>Zoning Approval</b> |
|------------------------|---------------------------------|------------------------|

- This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.
- Building permits do not include plumbing, septic or electrical work.
- Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..

|   |  |   |
|---|--|---|
| Special Zone or Reviews<br><input type="checkbox"/> Shoreland <b>N/A</b><br><input type="checkbox"/> Wetland<br><input type="checkbox"/> Flood Zone <b>panel 13 zone C</b><br><input checked="" type="checkbox"/> Subdivision <b>Contract</b><br><input checked="" type="checkbox"/> Site Plan <b>See attached zone</b><br><b>\$2003-0045</b><br>Maj <input checked="" type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/><br><b>OK w/ conditions</b><br>Date: <b>8/4/03</b> | Zoning Appeal<br><input type="checkbox"/> Variance<br><input type="checkbox"/> Miscellaneous<br><input type="checkbox"/> Conditional Use<br><input type="checkbox"/> Interpretation<br><input type="checkbox"/> Approved<br><input type="checkbox"/> Denied<br>Date: _____ | Historic Preservation/<br><input checked="" type="checkbox"/> Not in District of Landmark<br><input type="checkbox"/> Does Not Require Review<br><input checked="" type="checkbox"/> Requires Review<br><input checked="" type="checkbox"/> Approved<br><input type="checkbox"/> Approved w/Conditions<br><input type="checkbox"/> Denied<br><b>as per HP. Canyon</b><br><b>to D.A. 8/4/03</b><br><b>[Signature]</b><br>Date: _____ |
|---|--|---|

**D. Andrus**  
**8/5/03**

**CERTIFICATION**

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

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

**City of Portland, Maine - Building or Use Permit**

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

|            |                   |             |
|------------|-------------------|-------------|
| Permit No: | Date Applied For: | CBL:        |
| 03-0643    | 06/06/2003        | 044 B023001 |

|  |   |  |                          |
|--|---|--|--------------------------|
| Location of Construction:<br>41 State St | Owner Name:<br>A G Car Co                         | Owner Address:<br>120 Exchange St                  | Phone:<br>207-871-9811   |
| Business Name:<br>n/a                    | Contractor Name:<br>Wright Ryan Construction, Inc | Contractor Address:<br>10 Danforth Street Portland | Phone:<br>(207) 773-3625 |
| Lessee/Buyer's Name<br>n/a               | Phone:<br>n/a                                     | Permit Type:<br>Additions - Commercial             |                          |

|   |   |
|---|---|
| Proposed Use:<br>27 Units of Housing: Construction of 3.5 story addition on top of existing parking structure. Project will encompass 27 units of mixed market rate & subsidized housing. | Proposed Project Description:<br>27 housing units: Construction of 3.5 story addition on top of existing parking structure. Project consists of 27 units, mixed market value rate & subsidized housing. |
|---|---|

**Dept:** Zoning      **Status:** Approved with Conditions      **Reviewer:** Marge Schmuckal      **Approval Date:** 08/04/2003**Note:** This is controlled by a zoning contract zone**Ok to Issue:** ☒

- 1) PRIOR to the issuance of a certificate of occupancy, the Developer is obligated to receive from the City any and all licenses it may need for overhangs or other intrusions into the public right-of-way.
- 2) The maximum height for the structure shall be fifty-four (54) feet. When the top structural beam is placed, it will be necessary to verify the maximum building height to the Code Enforcement Officer.
- 3) One (1) on-site parking space for each dwelling unit (27) is required and said parking spaces shall be allocated to each unit.
- 4) In the event the development described is not commenced within two (2) years from the date of this contract rezoning and completed within four (4) years from the date of the contract, the contract shall become null and void and the Property shall revert back to the underlying R-6 zone.
- 5) ANY exterior work requires a separate review and approval thru Historic Preservation
- 6) This property shall remain a twenty-seven (27) family dwelling. Any change of use shall require a separate permit application for review and approval.
- 7) This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work.

**Dept:** Building      **Status:** Approved with Conditions      **Reviewer:** Mike Nugent      **Approval Date:** 08/01/2003**Note:****Ok to Issue:** ☒

- 1) Garage Exhaust must be automaticall activated at 25ppm CO  
The engineer of record must provide an statement of assessment regarding the ability of the existing parking structure to carry all existing and additional loads imposed by the proposed structure.

**Dept:** Fire      **Status:** Approved with Conditions      **Reviewer:** Lt. MacDougal      **Approval Date:** 07/16/2003**Note:****Ok to Issue:** ☒

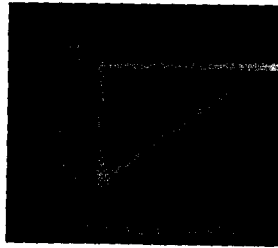
- 1) the fire alarm system shall be connected to the City of Portland masterbox system or an approved central station
- 2) the building shall comply with the city ordinance chapter 10 for special dwelling apartments
- 3) the fire alarm system shall be installed in accordance with NFPA 72 standards
- 4) the fire alarm system shall be approved by the Portland Fire Department
- 5) the smoke detectors shall be installed in accordance with NFPA 101 life safety code ( unit type D,E,F, were missing detectors, smoke detector in mech room )

**Comments:**

06/11/2003-tad: on hold pending signing of zoning contract.

07/30/2003-kwd: Approved site plan received 07/30/2003.

08/01/2003-gg: Received additional plans for second floor. /gg



Five Balsam Lane  
Falmouth ME 04105-2448

207.878.8038  
Fax 207.878.8293

August 6, 2003

David Lloyd  
Archetype, P.A.  
48 Union Wharf  
Portland, ME 04101

Subject: Casco Terrace  
41 State Street  
Portland, ME

Dear David,

The structural capacity of the existing parking garage was reviewed as part of the design effort for the new wood framed building to be constructed above it. Non-destructive concrete testing, physical measurements of existing member sizes, visual observations of the soil bearing condition and structural calculations were performed to verify the structural capacity of the existing parking garage.

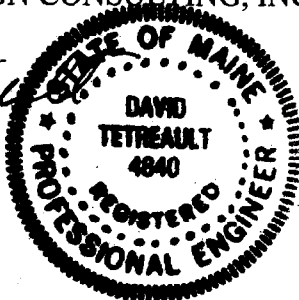
Based on the above, it was determined that the existing garage has sufficient structural capacity to support the live, dead and environmental loads (per BOCA/1999) imposed by the new wood framed structure on the existing garage in addition to the garage's self weight.

Please call me if there is any question.

Sincerely,

STRUCTURAL DESIGN CONSULTING, INC.

*David J. Tetreault*  
David J. Tetreault, P.E.



**A R C H E T Y P E**

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August 5, 2003

Bill Needelman  
Portland Planning Division  
Portland City Hall  
389 Congress Street  
Portland, Maine 04101

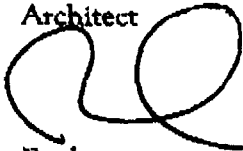
**RE: 41 State Street - Casco Terrace**

Dear Bill,

Attached is SK 6 showing that we have moved the oil gas separation tank into the building and off city property.

Sincerely,

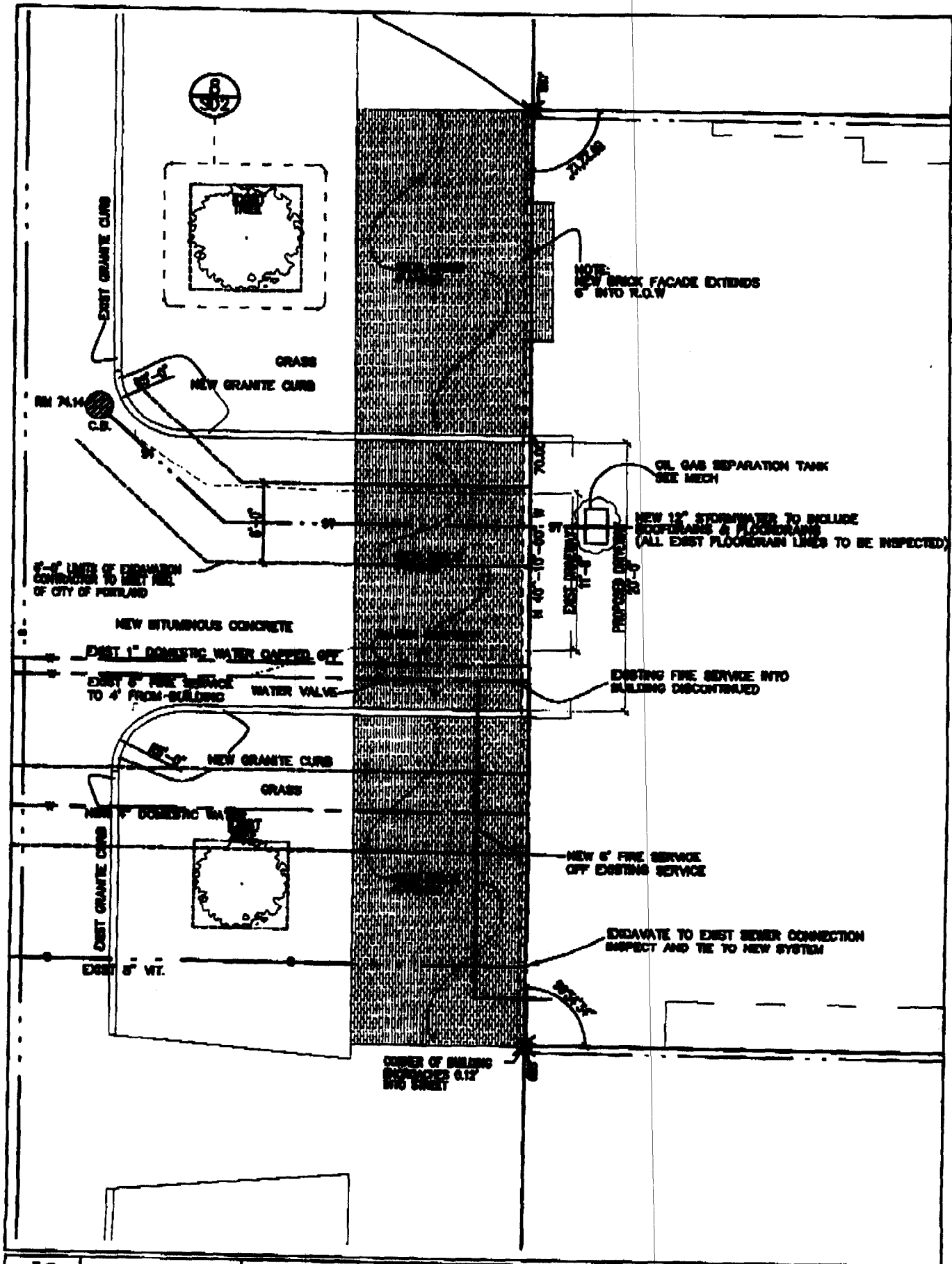
David Lloyd  
Architect



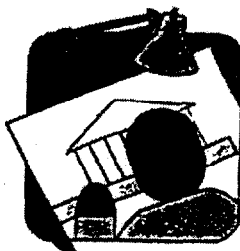
Enclosures

cc: Nathan Szanton

48 Union Wharf, Portland, Maine 04101 (207) 772-6022 • Fax (207) 772-4056



|     |                |               |                                     |   |                               |            |                                 |
|-----|----------------|---------------|-------------------------------------|---|-------------------------------|------------|---------------------------------|
| SK6 | PART SITE PLAN | Rev. 01. 2003 | Project:                            | CASCO TERRACE   | ARCHETYPE, P.A.<br>ARCHITECTS | Developer: | MAINE WORKFORCE<br>HOUSING, LLC |
|     |                | INTS          | 40 STATE STREET,<br>PORTLAND, MAINE | 40 State Street<br>Portland, Maine 04101<br>(207) 772-6661 Fax (207) 772-4661 |                               |            |                                 |



## CITY OF PORTLAND MAINE

389 Congress St., Rm 315

Portland, ME 04101

Tel. - 207-874-8704

Fax - 207-874-8716

TO: Inspector of Buildings City of Portland, Maine  
Planning & Urban Development  
Division of Housing & Community Services

FROM DESIGNER: Archetype, P.A.  
48 Union Wharf  
Portland, ME 04101

DATE: 6/4/03

Job Name: Casco Terrace

Address of Construction: 41 State Street, Portland, Maine

### THE BOCA NATIONAL BUILDING CODE/1999 Fourteenth EDITION

Construction project was designed according to the building code criteria listed below:

Building Code and Year BOCA 1999 Use Group Classification(s) R-2 & S-2

Type of Construction S-A Bldg. Height 53'-6" Bldg. Sq. Footage 37,350 all floors

Seismic Zone Av = 0.11 Group Class I

Roof Snow Load Per Sq. Ft. 42 Dead Load Per Sq. Ft. 12

Basic Wind Speed (mph) 85 Effective Velocity Pressure Per Sq. Ft. 18.5

Floor Live Load Per Sq. Ft. 40 Balconies = 60

Structure has full sprinkler system? Yes X No      Alarm System? Yes X No       
Sprinkler & Alarm systems must be installed according to BOCA and NFPA Standards with approval from the  
Portland Fire Department.

Is structure being considered unlimited area building: Yes      No X

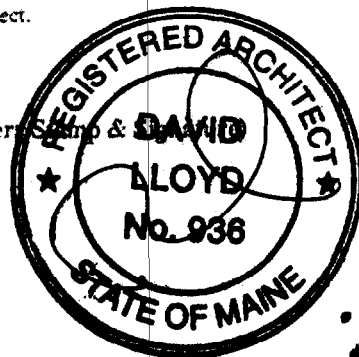
If mixed use, what subsection of 313 is being considered     

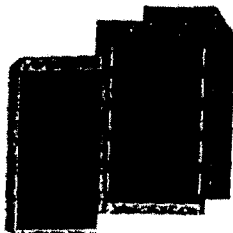
List Occupant loading for each room or space, designed into this Project.

Parking Garage 200 sq. ft./person  
Residential 200 sq. ft./person

PSH 6/07/2K

(Designer) Sam & David





**CITY OF PORTLAND  
BUILDING CODE CERTIFICATE**  
389 Congress St., Rm 315  
Portland, ME 04101

**TO:** Inspector of Buildings City of Portland, Maine  
Department of Planning & Urban Development  
Division of Housing & Community Service

**FROM:** Archetype, P.A.

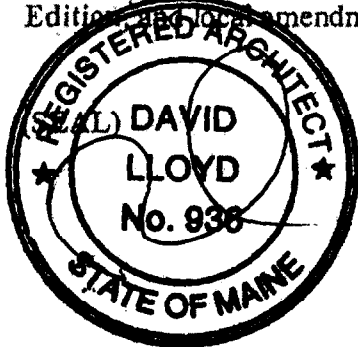
**RE:** Certificate of Design

**DATE:** 6/4/03

These plans and/or specifications covering construction work on:

Apartment Building

Have been designed and drawn up by the undersigned, a Maine registered architect/engineer according to the BOCA National Building Code/1999 Fourteenth Edition and its amendments.



Signature [Signature]

Title Architect

Firm Archetype, P.A.

Address 48 Union Wharf, Portland, ME 04101

As per Maine State Law:

\$50,000.00 or more in new construction, repair, expansion, addition, or modification for Building or Structures, shall be prepared by a registered design Professional.

PSH 6/20/2k





# Commercial Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

|  |   |   |
|--|---|---|
| Location/Address of Construction: <u>41 State Street Portland, Maine</u>   |   |   |
| Total Square Footage of Proposed Structure Existing<br><u>10,000s.f. garage &amp; 27,800s.f. new</u>   |   | Square Footage of Lot <u>10,010</u>   |
| Tax Assessor's Chart, Block & Lot<br>Chart# <u>044</u> Block# <u>8</u> Lot# <u>023</u>   | Owner: <u>AG Car Co., Inc.</u><br><u>120 Exchange Street</u><br><u>Portland, Maine 04101</u>  | Telephone: <u>871-9811</u>  |
| Lessee/Buyer's Name (If Applicable)<br><u>Maine Workforce Housing, LLC</u><br><u>1 Longfellow Square</u><br><u>Portland, Maine 04101</u><br><u>Nathan Szanton</u>  | Applicant name, address & telephone:<br><u>Wright-Ryan Construction, Inc.</u><br><u>10 Danforth Street</u><br><u>Portland, Maine 04101</u><br><u>John Ryan</u><br><u>773-3625</u> | Cost Of<br>Work: \$ <u>2,500,000.00</u><br>Fee: \$ <u>17,523.67</u><br><u>2,025.96</u><br><u>819,548.00</u> |
| Current Specific use: <u>One story parking structure</u>   |   |   |
| Proposed Specific use: <u>27 Units of Housing</u>  |   |   |
| Project description: <u>Construction of 3.5- story addition (wood- framed on steel crib)</u><br><u>on top of existing parking structure. Project will encompass</u><br><u>27 units of mixed market rate and subsidized housing.</u>  |   |   |
| Contractor's name, address & telephone:<br><u>Wright- Ryan Construction, Inc. (see below)</u><br>Who should we contact when the permit is ready: <u>John Ryan</u><br>Mailing address:<br><u>Wright- Ryan Construction, Inc.</u><br><u>10 Danforth Street</u><br><u>Portland, Maine 04101</u><br>Phone: <u>207-773-3625</u> |   |   |

**Please submit all of the information outlined in the Residential Application Checklist. Failure to do so will result in the automatic denial of your permit.**

At the discretion of the Planning and Development Department, additional information may be required prior to permit approval. For further information stop by the Building Inspections office, room 315 City Hall or call 874-8703.

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 Code Official'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.

|   |                           |
|---|---------------------------|
| Signature of applicant:  | Date: <u>June 3, 2003</u> |
|---|---------------------------|

Permit Fee: \$30.00 for the first \$1000.00 Construction Cost, \$7.00 per additional \$1000.00 cost

**This is not a Permit; you may not commence any work until the Permit is issued.**



03-0612

# Commercial Building Permit Application

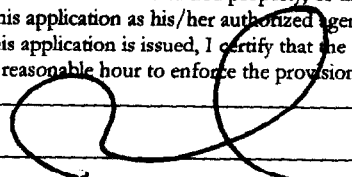
If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

|  |  |  |
|--|--|--|
| Location/Address of Construction: 41 State Street, Portland, Maine   |  |  |
| Total Square Footage of Proposed Structure<br>(27,300) 10,010 at this time.  |  | Square Footage of Lot 10,010               |
| Tax Assessor's Chart, Block & Lot<br>Chart# <del>344</del> Block# <del>8</del> Lot# <del>023</del><br>044 B 023  | Owner: AG Car Co. Inc.<br>120 Exchange Street<br>Portland, ME  | Telephone:<br>(207) 871-9811               |
| Lessee/Buyer's Name (If Applicable)<br>Nathan Szanton<br>The Szanton Co.<br>One Longfellow Square<br>Portland, ME  | Applicant name, address & telephone:<br>Maine Workforce Housing LLC<br>One Longfellow Square<br>Portland, ME | Cost Of<br>Work: \$25,000<br>Fee: \$198.00 |
| Current Specific use: <u>Garage</u>  |  |  |
| Proposed Specific use: <u>27 Units of Housing</u>  |  |  |
| Project description: Work included placing steel beams and minor limited demolition.   |  |  |
| Contractor's name, address & telephone:<br><br>Who should we contact when the permit is ready: <u>David Lloyd</u><br>Mailing address: 48 Union Wharf<br>Portland, ME 04101<br><br>Phone: (207) 772-6022 <i>xx call</i> |  |  |

Please submit all of the information outlined in the Residential Application Checklist. Failure to do so will result in the automatic denial of your permit.

At the discretion of the Planning and Development Department, additional information may be required prior to permit approval. For further information stop by the Building Inspections office, room 315 City Hall or call 874-8703.

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 Code Official'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.

|   |               |
|---|---------------|
| Signature of applicant:  | Date: 5/14/03 |
|---|---------------|

Permit Fee: \$30.00 for the first \$1000.00 Construction Cost, \$7.00 per additional \$1000.00 cost

**This is not a Permit; you may not commence any work until the Permit is issued.**

**From:** "Bill" <hopkins2@archetypepa.com>  
**To:** "Mike Nugent " <MJN@ci.portland.me.us>  
**Date:** Tue, Jul 29, 2003 11:01 AM  
**Subject:** Re: 41 State

Mike

Let me respond in order.

3. Will verify height compliance as required.

5. Fans turn on at 50 parts per million. We are trying to get max decibel from Marge and will then respond.

6. Trash room separated from 2nd floor by existing 2 hour waffle slab. Gyp board is for finish only and can be reduced to 1 layer rather than 2 layers as shown on finish schedule.

7. Roof ceiling assembly same as floor ceiling assembly (Type 201, 202 & 203 on drawing A14) with addition of roof insulation and roofing. 201 is above units and common space, 202 is over center corridor and 203 is over shafts.

9. Will revise specification from NFPA 13 R to NFPA 13 for building sprinkler.

----- Original Message -----

**From:** "Mike Nugent " <MJN@ci.portland.me.us>  
**To:** <hopkins2@archetypepa.com>  
**Cc:** <MBA@ci.portland.me.us>  
**Sent:** Monday, July 28, 2003 2:06 PM  
**Subject:** 41 State

Response to David's 7/18/03:

1/Thanks for the specs

2/Type 5A construction, thank you

3/We may need a surveyor to document the height compliance when the shell is assembled.

4/Mezzanines as show on the typical unit plans comply with the mezzanine 1/3 rule.

5/Garage Ventilation/What is the level of CO present when the system will activate? I'm having Marge weigh in on the noise level issue

6/Trash room-- 2 hr. block walls — how about the ceiling assembly?

7/Please forward a detail of the rated roof assembly and where it will be on the building.

8/thank you

9/Due to the proximity of the adjacent structures and the lot lines, in order to get the amount of unprotected glazing that you seek, a full blown NFPA 13 system will be required.

10/Thanks

11/Thanks

12/Thanks

13/Thanks

14/Thanks

**From:** "Bill" <hopkins2@archetypepa.com>  
**To:** "Mike Nugent " <MJN@ci.portland.me.us>  
**Date:** Tue, Jul 29, 2003 1:43 PM  
**Subject:** Re: 41 State

Mike

I'm responding in order.

1. What are the decibel limits?
  2. Attached is detail of guard rail at unit mezzanines.
  3. Attached is wall types 109 and 110.
  4. Interior finish is Class 3 in units and Class 2 in corridor, common areas and stairs.
  5. Firestopping is covered in Spec Sec 07860. It basically requires each trade to provide a UL or other testing agency number for all penetrations.
- I see you are starting to overlap me in E-mails. I'm on to the next one.  
Bill Hopkins

----- Original Message -----

**From:** "Mike Nugent " <MJN@ci.portland.me.us>  
**To:** <hopkins2@archetypepa.com>  
**Cc:** <MBA@ci.portland.me.us>  
**Sent:** Monday, July 28, 2003 4:12 PM  
**Subject:** 41 State

Today's review questions:

- 1) Spoke with Marge about the Vent noise levels, definitely a problem if it exceeds its zoning limits, (the proposal exceeds both day and Night noise)
- 2) Is there a better Guard detail for the Mezzanines? (other than page A9)
- 3) My plans do not have Wall details 109 or 110, I only go as high as 108
- 4) What are the fire classifications of the interior finishes (Chapter 8 BOCA)
- 5) Fire separation assembly penetrations, have no info about these.
- 6) Any response to today's earlier email?

I'm about 60% done at this point, lack of staffing is making it difficult to focus. Should wrap it up by Thursday 7/31/03

**From:** "Bill" <hopkins2@archetypepa.com>  
**To:** "Mike Nugent " <MJN@ci.portland.me.us>  
**Date:** Tue, Jul 29, 2003 1:56 PM  
**Subject:** Re: 41 State

Mike, I failed in trying to attach Sk's to last E-mail. We are sending them separately

Responding to your 12:31 E-mail

1. I think I've already responded to roof assembly question. Floor/ceiling and roof/ceiling are the same.
2. I have asked the mechanical engineer to issues instructions to the contractor to set the sensitivity of the gas meter to 25ppm at the appropriate time.

Bill Hopkins

----- Original Message -----

**From:** "Mike Nugent " <MJN@ci.portland.me.us>  
**To:** <hopkins2@archetypepa.com>  
**Cc:** <MBA@ci.portland.me.us>  
**Sent:** Tuesday, July 29, 2003 12:31 PM  
**Subject:** Re: 41 State

Thanks Bill,

Number 9 was for the new roof assembly that's not shown in the plans.

The garage ventilation system must operate automatically upon detection of a concentration of carbon monoxide of 25 PPM.

>>> "Bill" <hopkins2@archetypepa.com> 07/29 11:01 AM >>>  
Mike

Let me respond in order.

3. Will verify height compliance as required.
5. Fans turn on at 50 parts per million. We are trying to get max decibel from Marge and will then respond.
6. Trash room separated from 2nd floor by existing 2 hour waffle slab. Gyp board is for finish only and can be reduced to 1 layer rather than 2 layers as shown on finish schedule.
7. Roof ceiling assembly same as floor ceiling assembly (Type 201, 202 & 203 on drawing A14) with addition of roof insulation and roofing. 201 is above units and common space, 202 is over center corridor and 203 is over shafts.
9. Will revise specification from NFPA 13 R to NFPA 13 for building sprinkler.

----- Original Message -----

**From:** "Mike Nugent " <MJN@ci.portland.me.us>  
**To:** <hopkins2@archetypepa.com>  
**Cc:** <MBA@ci.portland.me.us>  
**Sent:** Monday, July 28, 2003 2:06 PM  
**Subject:** 41 State

Response to David's 7/18/03:

1/Thanks for the specs

2/Type 5A construction , thank you

3/We may need a surveyor to document the height compliance when the shell is assembled.

4/Mezzanines as show on the typical unit plans comply with the mezzanine 1/3 rule.

5/Garage Ventilation/What is the level of CO present when the system will activate> I'm having Marge weigh in on the noise level issue

6/ Trash room-- 2 hr. block walls — how about the ceiling assembly?

7/Please forward a detail of the rated roof assembly and where it will be on the building.

8/thank you

9/Due to the proximity of the adjacent structures and the lot lines, in order to get the amount of unprotected glazing that you seek, a full blown NFPA 13 system will be required.

10/Thanks

11/Thanks

12/Thanks

13/Thanks

14/Thanks

**From:** "Bill" <hopkins2@archetypepa.com>  
**To:** "Mike Nugent " <MJN@ci.portland.me.us>  
**Date:** Thu, Jul 31, 2003 11:25 AM  
**Subject:** Re: 41 State--Almost there

Mike

I am responding in order

1. We are not venting the rafter space as it is on the heated side of the insulation.
2. The EPDM is Class C. I am faxing the data from Firestone Roofing.
3. I spoke with David Tetreault, the structural engineer for this project, and he stated the roof snow load was calculated using the reduction factors allowable under Sec. 7.3 of ASCE 7.
4. I am sending a hard copy of the stairs with additional keying of walltypes and references to sections.
5. The basement is in the rear of the building directly under what appears as a building extension. Match up door 107 on the basement with the same door on the first floor on sheet A-1.

I am also faxing

1. The garage fan spec. This is rated around 50 db.
2. A revision to our roof type calling for fire retardant sheathing for 4' in from the roof edge.
3. Revision to cover sheet changing sprinkler from 13r to 13.

It is our intent at the start of construction to give you a complete new set of drawings and throw out the faxes.

Thanks, Bill Hopkins

----- Original Message -----

**From:** "Mike Nugent " <MJN@ci.portland.me.us>  
**To:** <hopkins2@archetypepa.com>  
**Sent:** Wednesday, July 30, 2003 4:37 PM  
**Subject:** 41 State--Almost there

And Finally

- 1) Section 1210.1 contemplates that the rafter space be vented (kind of like ridge and soffit type vents.) Please comment
- 2) What is the fire class on the roofing. & Does EDPM comply with Section 1705.5 of the Code.
- 3) Flat Roof snow load must comply with section 7.3 of ASCE 7
- 4) The exterior stairs on the North side, any details?
- 5) Where the heck is the basement?

Please review all previous transmissions and correspondence for outstanding issues!

N.A. — Not applicable

# 41 STAKE ST.

## ADMINISTRATION (Chapter 1)

✓ PLAN - 7/5/03  
Complete construction documents  
(107.5, 107.6, 107.7)

✓ Signed/sealed construction documents  
(107.7, 114.1)

NEED SPECS.

### BUILDING PLANNING (Chapters 3, 4, 5; 6)

#### USE OR OCCUPANCY CLASSIFICATION (302.0-313.0)

Single Use Group

Specific occupancy areas (302.1.1)

✓ Mixed Use Groups

Accessory areas (302.1.2)

TYPE 5/A CONSTRUCTION?  
GENERAL BUILDING LIMITATIONS (Chapters 5 & 6)

Apply Case 1 to determine the allowable height and area and permitted types of construction for a building containing a single use group or nonseparated mixed use groups. Apply Case 2 to determine the allowable height and area and permitted types of construction for a building containing separated mixed use groups.

#### AREA MODIFICATIONS TO TABLE 503

% of Allowable tabular area (Table 503) 100%

% Reduction for height (Table 506.4) - 80 %

% Increase for open perimeter (506.2) + 0 %

WAT 44 % Increase for automatic sprinklers (506.3) + 100 %

Total percentage factor = 180 %

Conversion factor  $\frac{180}{100} = 1.8$   
(Total percentage factor/100%)

|                                |   |               |                          |                |
|--------------------------------|---|---------------|--------------------------|----------------|
| Open perimeter (506.2)         | <u>0</u> North                              | <u>0</u> East | <u>0</u> South           | <u>70</u> West |
| Open perim.                    | <u>70</u> ft.                               |               | Perimeter <u>436</u> ft. |                |
| % Open perimeter =             | <u>16.28</u><br>(Open perim./perim.) × 100% |               |                          |                |
| % Tab. area increase = (506.2) | <u>0</u><br>2 × (% Open perim. - 25%)       |               |                          |                |

#### CASE 1 — SINGLE USE OR NONSEPARATED MIXED USE GROUPS (313.1.1, 503.0)

Using Table 503, identify the allowable height and area of the single use group or the most restrictive of the nonseparated mixed use groups. Construction types that provide an allowable tabular area equal to or greater than the adjusted floor area and allowable heights (as modified by Section 504.0) equal to or greater than the actual building height are permitted.

Actual floor area 52-24480 R-16320 ft.<sup>2</sup>

Adjusted floor area 52-24480 R-16320 ft.<sup>2</sup>

\*Adjusted floor area = actual floor area/conversion factor

Actual building height \_\_\_\_\_ feet \_\_\_\_\_ stories

Allowable building height \_\_\_\_\_ feet \_\_\_\_\_ stories

Permitted types of construction \_\_\_\_\_

Type of construction assumed for review (602.3) \_\_\_\_\_

COVER SHEET ERROR.  
52 - CAN BE 15,300. -5-

MEZZANINE  
155W & A5 UNIT 4  
402 TARD 412 - 501548  
409-378





## STANDPIPE SYSTEMS

\_\_\_\_\_ Building height (915.2.1)  
\_\_\_\_\_ Building area (915.2.2)  
\_\_\_\_\_ Malls (915.2.3)  
\_\_\_\_\_ Stages (915.2.4)  
\_\_\_\_\_ Approved system (915.3, 915.3.1)  
\_\_\_\_\_ Piping design (915.4)  
\_\_\_\_\_ Water supply (915.5)  
\_\_\_\_\_ Control valves (915.6)  
\_\_\_\_\_ Hose connection (915.7)

## FIRE DEPARTMENT CONNECTIONS

\_\_\_\_\_ Required (916.1)  
\_\_\_\_\_ Connections (916.2)

## YARD HYDRANTS

\_\_\_\_\_ Fire hydrants (917.1)

## FIRE ALARM SYSTEMS

\_\_\_\_\_ Approval (918.3)  
\_\_\_\_\_ Assembly (A-4), Educational (E) (918.4.1)  
\_\_\_\_\_ Business (B) (918.4.2)  
\_\_\_\_\_ High-hazard (H) (918.4.3)  
\_\_\_\_\_ Institutional (I) (918.4.4)  
\_\_\_\_\_ Residential (R-1) (918.4.5)  
\_\_\_\_\_ Residential (R-2) (918.4.6)  
\_\_\_\_\_ Location/details (918.5)  
\_\_\_\_\_ Power supply/wiring (918.6, 918.7)  
\_\_\_\_\_ Alarm-notification appliances (918.8)  
\_\_\_\_\_ Voice/alarm signaling system (918.9)

## AUTOMATIC FIRE DETECTION SYSTEMS

\_\_\_\_\_ Approval (919.3)  
\_\_\_\_\_ Institutional (I) (919.4.1, 919.4.2, 919.4.3)  
\_\_\_\_\_ Residential (R-1) (919.4.4)  
\_\_\_\_\_ Sprinklered buildings exception (919.5)  
\_\_\_\_\_ Zones (919.6)

## SINGLE- AND MULTIPLE-STATION SMOKE DETECTORS

\_\_\_\_\_ Residential (R-1) (920.3.1)  
\_\_\_\_\_ Residential (R-2, R-3) (920.3.2)  
\_\_\_\_\_ Institutional (I-1) (920.3.3)  
\_\_\_\_\_ Interconnection (920.4)  
\_\_\_\_\_ Battery backup (920.5)

## FIRE EXTINGUISHERS

\_\_\_\_\_ Approval (921.1)  
\_\_\_\_\_ Required (921.2)

## SMOKE CONTROL SYSTEMS

\_\_\_\_\_ Passive system (922.2.1)  
\_\_\_\_\_ Mechanical system (922.2.2)  
\_\_\_\_\_ Smoke removal (922.3)  
\_\_\_\_\_ Activation (922.4)  
\_\_\_\_\_ Standby power (922.5)

## SMOKE AND HEAT VENTS

\_\_\_\_\_ Size and spacing (923.2)

## SUPERVISION

\_\_\_\_\_ Fire suppression systems (924.1)  
\_\_\_\_\_ Fire alarm systems (924.2)

## MEANS OF EGRESS (continued)

|                   |   |  |   |                     |
|-------------------|---|--|---|---------------------|
| ✓                 | General limitations (1005.0)                          | 3'3" 7:12                                  | Ramp Guards                                 | REQUIRED            |
| ✓                 | Air movement in egress elements (1005.7)              |  | Ramps (1016.0)                              |                     |
| ?                 | Types and location of egress (1006.0)                 | OK - USED DETAIL TO 1 PERSON - 2 PER FLOOR | Means of egress doorways (1017.0)           |                     |
| OK                | Exit access travel distance (1006.5 and Table 1006.5) | 36' x 6' 8"                                | Number of doorways (1017.2)                 |                     |
| W/A               | Accessible means of egress (1007.0)                   | ?  | Size of doors (1017.3)                      | Not Shown (60")     |
| N/A - FIRE ESCAPE | Emergency escape (1010.4)                             | NONE                                       | Door hardware (1017.4)                      |                     |
| OK                | Exit access passageways and corridors (1011.0)        | NONE                                       | Revolving doors (1018.0)                    |                     |
|                   | WHICH DOORS   | OK - USED STAIRS ON NORTH                  | Horizontal exits (1019.0)                   |                     |
| N/A               | Aisles and accessways (1012.0)                        | FROM APT. TO HALLS                         | Level of exit discharge passageway (1020.0) |                     |
| OK                | Grandstands (1013.0)                                  | YES  | Guards (1021.0)                             | DETAIL R2 A7 LADDER |
| NONE              | Interior stairways (1014.1 - 1014.11)                 | YES  | Handrails (1022.0)                          |                     |
| N/R               | Exterior stairways (1014.1 - 1014.10, 1014.12)        | YES  | Exit signs and lights (1023.0)              |                     |
|                   | Smokeproof enclosures (1015.0)                        | NORTH WEST                                 | Means of egress lighting (1024.0)           | NO BALL USE         |
|                   |   |  | Access to roof (1027.0)                     | OK                  |

## ACCESSIBILITY (Chapter 11)

|                             |                                  |
|-----------------------------|----------------------------------|
| Required (1103.0)           | Accessible entrances (1106.0)    |
| Accessible route (1104.0)   | Special use groups (1107.0)      |
| Parking facilities (1105.0) | Features and facilities (1108.0) |

## INTERIOR ENVIRONMENT (Chapter 12)

|                               |                                      |
|-------------------------------|--------------------------------------|
| Room dimensions (1204.0)      | Air-borne noise (STC) (1214.2)       |
| Roof spaces (1210.1, 1211.2)  | Structure-borne sound (IIC) (1214.3) |
| crawl spaces (1210.2, 1211.1) | Ratproofing (1215.0)                 |

## BUILDING ENVELOPE (Chapters 14, 15)

### EXTERIOR WALL COVERINGS (Chapter 14)

|   |  |
|---|--|
| Performance requirements (1403.0)         | Combustible material restrictions (1406.0) |
| Wall sidings and veneers (1404.0, 1405.0) |  |

## STRUCTURAL DESIGN CALCULATIONS (continued)

Unbalanced snow loads considered  
(1608.6)

Drift snow loads considered (1608.7)

Sliding snow loads considered  
(1608.8)

Internal pressure effects considered  
(1609.7, 1609.8)

Components and cladding effects  
considered (1609.8)

Load combinations considered (1613.1)

## MATERIAL PERFORMANCE (Chapter 17)

Material performance technical data or  
BOCA Evaluation Services or  
National Evaluation Services report  
supplied (1703.0) Report No.

Owner's special inspection program  
specified (1705.0)

Prefabricated items (1705.2)

Steel construction (1705.3)

Concrete construction (1705.4)

Masonry construction (1705.5)

Wood construction (1705.6)

Prepared fill and foundations (1705.7,  
1705.8, 1705.9)

Fireresistive materials (1705.12)

EIFS, wall panels and veneers (1705.10,  
1705.13)

## FOUNDATIONS AND RETAINING WALLS (Chapter 18)

Soil type (1611.0, 1802.1, 1804.1)

Bearing value (1611.0, 1802.1, 1804.1)

Soil report (1802.1, 1804.1)

Prepared fill (1804.1.1)

Footings (1806.0 - 1811.0)

Foundations (1814.0 - 1824.0)

Foundation walls (1611.0, 1812.0)

Waterproofing/dampproofing (1813.0)

Retaining walls (1611.0, 1825.0)

## STRUCTURAL MATERIALS (Chapters 19, 21, 22, 23)

### CONCRETE (Chapter 19)

Plain, reinforced and prestressed concrete  
design/construction standard  
specified (1901.1, 1903.1.1)

Minimum slab requirements (1905.1)

Minimum concrete strength (Table  
1907.1.2[1])

Cold-weather and hot-weather curing speci-  
fied (1908.9, 1908.10)

### MASONRY (Chapter 21)

Engineered masonry design/construction  
standard specified (2101.1.1)

Empirical masonry design (2101.1.2)

Construction materials (2104.0)

Mortar type (2104.7)

Cold-weather and hot-weather  
construction specified (2111.3,  
2111.4)

Fireplaces and chimneys (2103.2, 2113.0 -  
2117.0)

Glass block (2118.0)

LIGHT-TRANSMITTING PLASTIC (2603.5, 2604.0)

Diffusing systems (2604.5)

Wall panels (2605.0)

Unprotected openings (2606.0)

Roof panels (2607.0)

Skylight glazing (2608.0)

## BUILDING SERVICES (Chapters 28, 30)

### MECHANICAL SYSTEMS (Chapter 28)

1 HR SEPARATION ROOM  
Waste- and linen-handling  
systems (2807.0)

NO GARAGE 1 HR SE  
Refuse vaults (2808.0)

### ELEVATORS AND CONVEYING SYSTEMS (Chapter 30)

Construction standard specified (3001.2)

Elevator emergency operation (3006.2)

Hoistway enclosure (3007.1)

Venting (3007.3 - 3007.6)

Opening protectives (3008.2)

Conveyors and escalators (3010.0, 3011.0)

## SPECIAL DEVICES AND CONDITIONS (Chapters 31, 34)

### SPECIAL CONSTRUCTION (Chapter 31)

Membrane structures (3103.0)

Flood-resistant construction (3107.0)

Towers (3108.0)

### PEDESTRIAN WALKWAYS (3106.0)

Construction and use (3106.1 - 3106.3)

Separation (3106.4)

Local approval (3106.5)

Egress and size (3106.6 - 3106.8)

### EXISTING STRUCTURES (Chapter 34)

### ADDITIONS, ALTERATIONS OR CHANGE OF OCCUPANCY

General requirements (3402.0)

Structural loads (1614.0, 3402.5)

Accessibility (1110.0, 3402.7)

Additions/alterations (3403.0, 3404.0)

Change of occupancy (1110.3, 3405.0)

Compliance alternative evaluation (3408.0)

### BUILDING EVALUATION SUMMARY (Table 3408.7)

|   |                                |                |
|---|--------------------------------|----------------|
| Existing use group                                    | Proposed use group             | Height in feet |
| Year building was constructed                         | Number of stories              |                |
| Type of construction                                  | Area per floor                 |                |
| Percentage of open perimeter                          | Percentage of height reduction | %              |
| Completely suppressed: Yes                            | Corridor wall rating           |                |
| Compartmentation: Yes                                 | Required door closers: Yes     | No             |
| Fire resistance rating of vertical opening enclosures |                                |                |
| Type of HVAC system                                   | serving number of floors       |                |

## STATEMENT OF SPECIAL INSPECTIONS

|                                       |   |
|---------------------------------------|---|
| <b>PROJECT:</b>                       | Casco Terrace   |
| <b>LOCATION:</b>                      | 41 State Street<br>Portland, Maine  |
| <b>OWNER:</b>                         | Maine Workforce Housing, LLC<br>One Longfellow Square<br>Portland, ME 04101 |
| <b>ARCHITECT OF RECORD:</b>           | Archetype, P.A.<br>48 Union Wharf<br>Portland, ME 04101                     |
| <b>STRUCTURAL ENGINEER OF RECORD:</b> | Structural Design Consulting, Inc.<br>5 Balsam Lane<br>Falmouth, ME 04105   |

This Statement of Special Inspections is submitted as a condition of permit issuance in accordance with Section 1705.0 of the 1999 BOCA National Building Code. It includes a Schedule of Special Inspection Services applicable to this project as well as the name of the Special Inspector, and the names of other agencies intended to be retained for conducting these inspections.

The Special Inspector shall keep records of all inspections listed herein, and shall periodically furnish Interim Special Inspection Reports to the Building Code Official and to the Architect of Record. All discrepancies shall be brought to the immediate attention of the Contractor for correction. If the discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Code Official and the Architect of Record. A Final Report of Special Inspections documenting completion of all special inspections and correction of all discrepancies noted in inspection records shall be submitted to the Building Code Official.

Job site safety is solely the responsibility of the Contractor. Materials and activities to be inspected are not to include the Contractor's equipment and methods used to erect or install the materials listed.

**Prepared by:**

*David J. [Signature]* *6/13/03*  
Signature Date

**Owner's Authorization:**

Nathan S. Szanton 6/27/03  
Signature Date  
Nathan S. Szanton  
Managing Member  
Maine Workforce Housing, LLC

### Building Code Official's Acceptance

Casco Terrace  
Portland, Maine  
Page 1 of 3

## ***SPECIAL INSPECTION AGENCIES***

**1. SPECIAL INSPECTOR:**

David Tetreault, P.E.  
Structural Design Consulting, Inc.  
5 Balsam Lane  
Falmouth, ME 04105

**2. TESTING AGENCY:**

Summit Labs  
197 U.S. Route One  
Scarborough, ME 04070

**3. TESTING AGENCY:**

*Note The inspection and testing agents shall be engaged by the Owner or the Owner's Agent and not by the Contractor or Subcontractor whose work is being inspected or tested. Any conflict of interest shall be disclosed to the Building Official prior to commencement of work.*

## **SCHEDULE OF SPECIAL INSPECTION SERVICES**

### **1. Structural Steel Construction**

| <b>Item</b> | <b>Agent No.</b> | <b>Scope</b>   |
|-------------|------------------|--|
| Materials   | 1                | Review material for conformance with Contract Documents.   |
| Welding     | 2                | Perform visual inspection of all welds. Welds deemed questionable by visual inspection, all partial and full penetration welds, and any other welds indicated on the Contract Documents shall be tested by Liquid penetrant inspection, magnetic particle inspection, radiographic inspection or Ultrasonic Inspection |
| Details     | 1                | Review framing details for conformance with Contract Documents.  |

### **2. Wood Construction**

| <b>Item</b> | <b>Agent No.</b> | <b>Scope</b>  |
|-------------|------------------|---|
| Materials   | 1                | Review materials for conformance with Contract Documents.       |
| Details     | 1                | Review framing details for conformance with Contract Documents. |



**From:** Marge Schmuckal  
**To:** PENNY LITTELL; Sarah Hopkins  
**Date:** Tue, Jun 10, 2003 2:58 PM  
**Subject:** 41 State Street - contract zone

I just received a permit application for 41 State St. I have never received a copy of the contract zone. Can I get a copy of it? Also, at what stage of planning review is this? Can we issue the permit? Are all guarantee fees pd yet? Any info would be helpful so that we don't inadvertently mess it up.

thanks for any help,  
Marge

**CC:** William Needleman



A R C H E T Y P E

## FAX COVER SHEET

TO: Mike Nugent

COMPANY: City of Portland

FROM: Bill Hopkins

DATE: 7-31-03 FAX NUMBER: 874-8716

PROJECT: Casa Terrace

NUMBER OF PAGES (Including Cover Page): 6

MESSAGE: As per Bill Hopkins email

See Attached

\*\*\*\*\*  
IF YOU HAVE ANY PROBLEMS RECEIVING THIS FAX,  
PLEASE CALL THE PERSON SENDING IT AS SOON AS POSSIBLE.  
THANK YOU.

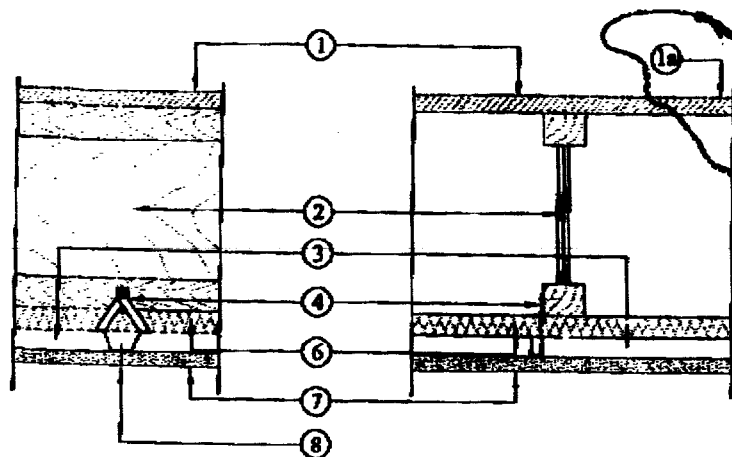
48 Union Wharf, Portland, Maine 04101 (207) 772-6022 • Fax (207) 772-4056

| FLOOR FINISHES |           |        |   |         |           |
|----------------|-----------|--------|---|---------|-----------|
| Deck           | Max Slope | Rating | Assembly  | Remarks | UL Item   |
| C / NC         | 2         | A      | Insulation:<br>1) Firestone ISO 95+ GL, any thickness<br>2) Firestone FiberTop B,C,E or S (min. 1/2")<br>3) No insulation requires Firestone Protection Mat under EPDM membrane |         | A, FA, 01 |

| FLOOR FINISHES |           |        |   |                  |           |
|----------------|-----------|--------|---|------------------|-----------|
| Deck           | Max Slope | Rating | Assembly  | Remarks          | UL Item   |
| NC             | 1/4       | A      | Insulation: Firestone FiberTop B,C,E or S (min. 1/2") over<br>Firestone ISO 95+ GL, any thickness   |                  | A, FA, 01 |
| C / NC         | 1-1/2     | A      | Insulation: min. 1/4" Georgia Pacific "Dens-Deck" over<br>Firestone ISO 95+ GL, any thickness   | see UL FA header | A, FA, 30 |
| NC             | 1/4       | C      | Insulation: Firestone ISO 95+ GL, any thickness   |                  | C, FA, 03 |
| C              | 1/4       | A      | Insulation: Firestone FiberTop B,C,E or S (min. 1/2") over<br>Firestone ISO 95+ GL, any thickness<br>over<br>Barrier Board: min. 1/4" Georgia Pacific "Dens-Deck" | see UL FA header | A, FA, 01 |
| C              | 1/4       | C      | Insulation: Firestone ISO 95+ GL, any thickness over<br>Barrier Board: min. 1/4" Georgia Pacific "Dens-Deck"  | see UL FA header | C, FA, 03 |

| FLOOR FINISHES |           |        |   |                  |           |
|----------------|-----------|--------|---|------------------|-----------|
| Deck           | Max Slope | Rating | Assembly  | Remarks          | UL Item   |
| C/N-C          | 3-1/2     | A      | Insulation: min. 1/4" Georgia Pacific "Dens-Deck" over<br>Firestone ISO 95+ GL, any thickness   | See UL FA header | A, FA, 29 |
| NC             | 1         | A      | Insulation: Firestone FiberTop B,C,E or S (min. 1/2") over<br>Firestone ISO 95+ GL, any thickness   |                  | A, FA, 03 |
| NC             | 1         | A      | Insulation: Firestone ISO 95+ GL, any thickness   |                  | A, FA, 19 |
| C              | 1         | A      | Insulation: Firestone FiberTop B,C,E or S (min. 1/2") over<br>Firestone ISO 95+ GL, any thickness<br>over<br>Barrier Board: min. 1/4" Georgia Pacific "Dens-Deck" | see UL FA header | A, FA, 03 |
| C              | 1         | A      | Insulation: Firestone ISO 95+ GL, any thickness over<br>Barrier Board: min. 1/4" Georgia Pacific "Dens-Deck"  | see UL FA header | A, FA, 19 |

## 201 1 HOUR FLOOR/CEILING AND 1 HOUR CEILING/ROOF ASSEMBLY



### 201 1 HOUR FLOOR/CEILING ASSEMBLY

Fire Test - UL 1590

Sound Test - STC-200 Assembly "B" STC-47

1. Finish Flooring - 48 x 96 x 1/4" thick wood structural panels, "Single-Floor". Panels installed perpendicular to joists with end joints staggered 4ft. Plywood secured to joists with construction adhesive and No.8d cement coated nails. Adhesive applied at 24" diam band to top flange of joists and grooved edges of plywood. Nails spaced 12" O.C. along each joist.

1A. Roof Sheathing - to be fire retardant per AWWA C 27, 4' from roof edge on North East and South walls.

2. Structural Wood Members - 2x8 9-1/2" deep 4'-staggered wood joists spaced a max 24" O.C. min joist bearing on bearing plates with two No.8d nails at each end. Circular holes may be cut in the web of the joists in accordance with the manufacturer's published installation instructions.

3. Furring Channels - 7/8" deep, formed of min 0.019" thick (26 gauge) galv steel installed perpendicular to joists. Furring channels spaced 1-1/2" from end on each side of wallboard end joints and 24" O.C. away from end joints. Channels secured to joists with support clips (Item 4) at each joist location. At channel splices, adjacent pieces overlapped 6" and tied with double strand of no.18 SWG galv steel wire at each end of overlap.

4. Support Clip - Steel Framing Members - One support clip to be used to support furring channels at the intersection with each joist. Support clips nailed to side of joist bottom flange with one 1-1/2" long no.11 gauge (0.125" diam shaft) nail.

SIMPSON STRONG-TIE CO INC - Type C8C

5. Stabilizer Strap (not shown) - 3/4 x 6 x min 0.023" thick (24 gauge) galv steel strap used to prevent rotation of the support clips at wallboard end joints and along walls. At wallboard end joints (3" O.C. spacing of furring channels), stabilizer straps span between the channels and are screw-attached to the furring channels adjacent to each support clip location using no.8 self-tapping steel screws. On furring channels nearest to and parallel with wall, one end of the stabilizer strap is screw-attached to the furring channel, adjacent to each support clip location, using no.8 self-tapping steel screws. The free end of the stabilizer strap is twisted 90 degrees, bent upward, and screw- or nail-attached to the side of the structural wood member bottom flange on the side of the support clip nearest the wall.

6. Batts and Blankets\* - 1" thick thermalfiber (at floor ceiling) 10-1/4" R38 faced batts (16" wide at roof assembly), 48" long with width of batt equal to on center spacing of structural wood members (max 24") Batts inserted between furring channels and bottom flange of joist with long dimension perpendicular to furring channels and with batted end joints centered over furring channels.

THERMAFIBER L.L.C. - Type FR

7. Wallboard, Gypsum\* - 1/2 or 5/8" thick, 4 ft wide. Sheets of wall-board installed with long dimension perpendicular to furring channels and fastened to channels with 1" long wallboard screws located 3/4" and 6" from wallboard side joints and 12" O.C. in the field. At butt end joints, two furring channels are used which extend to a min of 6" beyond each end of joint.

8. Screws, Wallboard - 1" long, Type 3, #64" diam, Hi-Lo thread, self-drilling and self-tapping, bugle head steel screws.

9. Flashing System (not shown) - Paper tape embedded in cementitious compound over joints with edges of compound feathered-out and exposed screw heads covered with compound.

\* Bearing the UL Classification Marking.

See drawings for roofing details

# **BOCA 1999**

## **Code Reference**

Use Group R-2 (Residential)

310

~~Use Group S-2 (Storage)~~

~~408.2~~

R-2 Sprinkled W/NFPA 13

906.2.1

S-2 Sprinkled W/NFPA 13

906.2.1

## **ConStruction Type 5-A**

### **For Use Group R-2**

10200 - 20% x2 =

T-503

T-503

16300 SqFT allowed w/Sprinkler

8395 SqFT Proposed

504.2

4 Stories Allowed w/Sprinkler

4 Stories Proposed

504.2

60' Height Allowed w/Sprinkler

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