Inspections Division
Date: 02/06/14

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September 9, 2013

CODE COMPLIANCE REPORT

Zap Auto Repair Facility
1 Industrial Street, Unit #2
Portland, Maine

1.0 Codes Review:

Description of Building's Function and Program:

The project consists of the code driven improvements to Unit #2 within an existing 20,000 square foot building at 1 Industrial Street in Portland. The project is a motor vehicle repair garage, occupying Unit #2 of 1,463 square feet. The immediately adjacent tenants are the Maine Beer Company Brewery and warehouse space for Papi & Ramano Builders. The intent of this project is to maintain a 2 hour fire separation between the immediately adjacent units per the Building Owner's request.

1.0.A Occupant Classification(s):

IBC 2009:
Use and Occupancy Classification: Section 508.3, "Separated Occupancies"
Use and Occupancy Classification: Section 306, "Factory Industrial, Group F-2, Low Hazard"
Use and Occupancy Classification: Section 311, "Storage Group S-1, Moderate Hazard"
Special Detailed Requirements Based on Use and Occupancy: Section 406.6, "Repair garages"

NFPA 101 - 2009:
Classification of Occupancy: Chapter 6, "Separated Occupancies"
Classification of Occupancy: Chapter 40, "General Industrial Occupancies"
Classification of Occupancy: Chapter 42, "Storage Occupancies"

1.0.B Specific Occupancy Areas / Incidental Use Areas relative to the Scope of this Project:

IBC 2009: Table 508.2.5:
There are no incidental use areas within the scope of the project.

1.0.C Building Height and Area Limitations:

IBC 2009 – Chapter 5, Section 503
The building is a single story building of 20,000 square feet. The height and area of this building will not be altered as part of this project.

1.0.D Required Separation of Occupancies:

IBC 2009: Table 508.4:
The required separation of Moderate Hazard Storage Use (S-1) and Factory Industrial Low-hazard Use (F-2) Occupancies is a 1 hour fire barrier.

NFPA 101 – 2009: Table 6.1.14.4.1 (b):
The required separation of Storage Use and General Industrial Occupancies is a 1 hour fire barrier.

1.0.E Type of Construction:

IBC 2009: Type II
NFPA 220: Type II (000)

Structural System:
Internal steel columns, beams and joist assemblies.

Exterior Walls:
Metal panel cladding, metal stud framing, batt insulation and gypsum wall board assemblies.

Interior Walls:
Metal stud framing, batt insulation and gypsum wall board assemblies.

1.0.F Required Fire Resistance Ratings of applicable Building Elements:

IBC 2009 - Table 601
NFPA 220 – Table 4.1.1

Element		
Structural Frame – Incl. columns, girders, trusses		0 hrs
Bearing walls		
	Exterior	0 hrs
	Interior	0 hrs
Nonbearing walls and Partitions		
	Exterior (Ref. Table 602: > 30')	0 hrs
Nonbearing Walls and Partitions		
	Interior	0 hrs
Floor Construction – Incl. supporting beams and joists		0 hrs
Roof Construction – Incl. supporting beams and joists		0 hrs

1.0.G Means of Egress:

NFPA 101 – Chapter 7: Table 7.3.1.2
Occupant Load NFPA: Storage Use: NA

1.0.H Minimum Number of Exits:

IBC 2009 – Chapter 10, Section 1021
Due to the occupant load size and the travel distance requirements of Table 1021.2 – one means of egress shall be provided.

1.0.I Capacity of Egress Components:

Element	Minimum Allowable
Exit Access Corridors:	
Width	44 inches clear
Doors:	
Width	32 inches clear

The occupant load for the space is 1,463sf/300sf = 5 occupants
Egress Width Calculation: 5/2=2.5 2.5 x0.2 = 0.5" wide opening

Egress Arrangement:

IBC 2009 - Chapter 10

Common path of egress travel (Section 1014.3. exc. 1)	100' with a sprinkler system
Exit Access Travel Distance (Table 1016.1)	250' with a sprinkler system
Dead-end corridor (Section 1018.4, exc. 2)	50' with a sprinkler system

NFPA 101 – Existing Storage Occupancy

Dead-end corridor (Table 42.2.5)	100' with sprinkler system
Common Path of Travel (Table 42.2.5)	100' with sprinkler system
Travel Distance to an Exit (Table 42.2.6)	400' with sprinkler system

1.0.J Illumination of the Means of Egress: NFPA 101

Means of egress shall be illuminated in accordance with Section 7.8.

1.0.K Emergency Lighting: NFPA 101

Emergency lighting shall be provided in accordance with Section 7.9.

1.0.L Interior Finish System:

IBC 2009 - Chapter 8, Table 803.9 (Sprinklered) and Section 804
NFPA 101 – Chapter 42, Section 42.3.3.3

Wall and Ceiling Finishes:

Exit Enclosures and Passageways	Class C
Corridors	Class C
Rooms and Enclosed Spaces	Class C

Interior Floor Finishes:

Vertical Exits / Exit Corridors	No less than Class II

1.0.M Detection, Alarm, and Communications:

NFPA 101 – Chapter 42, Section 42.3.4.1
A manual fire alarm system is not required due to the exceptions of Section 42.3.4.1.

1.0.N Extinguishing Requirements:

IBC 2009 – Chapter 9, Section 903.2.9.1
This building has an automatic sprinkler system that covers above and below the equipment platform. One sprinkler head needs to be extended to the ceiling level within the Alcove.

IBC 2009 - Chapter 9, Section 906
Portable Fire Extinguishers shall be provided at locations required by the *International Fire Code - Section 2211.6.*

1.0.O Oil Spill Containment Requirements:

International Fire Code 2009 – Section 2211.2
Waste oil, motor oil and other Class IIIB liquids shall be stored in approved tanks or containers, which are allowed to be stored and dispensed from inside repair garages.

2.0 GENERAL BUILDING COMPONENTS

2.0.A Stair Assemblies

IBC 2009 – Chapter 10

Maximum Riser Height (1009.3)	7”
Minimum Riser Height (1009.3)	4”
Minimum Tread Depth (1009.3)	11”
Minimum Head Room (1009.2)	80” (6’-8”)
Maximum Vertical Rise to Landing (1009.6)	12’-0”
Hand Rail Height (1012.2)	not less than 34” / not greater than 38”
Guardrail Height (1013.2)	at least 42”
Opening Limitations	Business Use openings shall resist the passage of a 4” sphere through any opening up to 34”. Spacing shall resist the passage of an 8” sphere from 34” to 42”.

NFPA 101 – Chapter 7

Maximum Riser Height (7.2.2.2.1.1(a))	7”
Minimum Riser Height (7.2.2.2.1.1(a))	4”
Minimum Tread Depth (7.2.2.2.1.1(a))	11”
Minimum Head Room (7.2.2.2.1.1(a))	80” (6’-8”)
Maximum Vertical Rise to Landing (7.2.2.2.1(a))	12’-0”
Hand Rail Height (7.2.2.4.4.1)	not less than 34” / not greater than 38”
Guardrail Height (7.2.2.4.5.2)	not less than 42”
Opening Limitations	Business Use openings shall resist the passage of a 4” sphere through any opening up to 34”. Spacing shall resist the passage of an 8” sphere from 34” to 42”.