# Lower Bartlett Water Precinct Administration Offices & Maintenance Garage

Woodland Pines Road - IRT16 Lot # 172L00 Bartlett, New Hampshire

Owner's Representative Project Administration Lead Consultant



P.O Box 24 I North Conway, New Hampshire (603) 356-0022

Building Design





CRP Designs

Gordon T. Burke \$ Sons

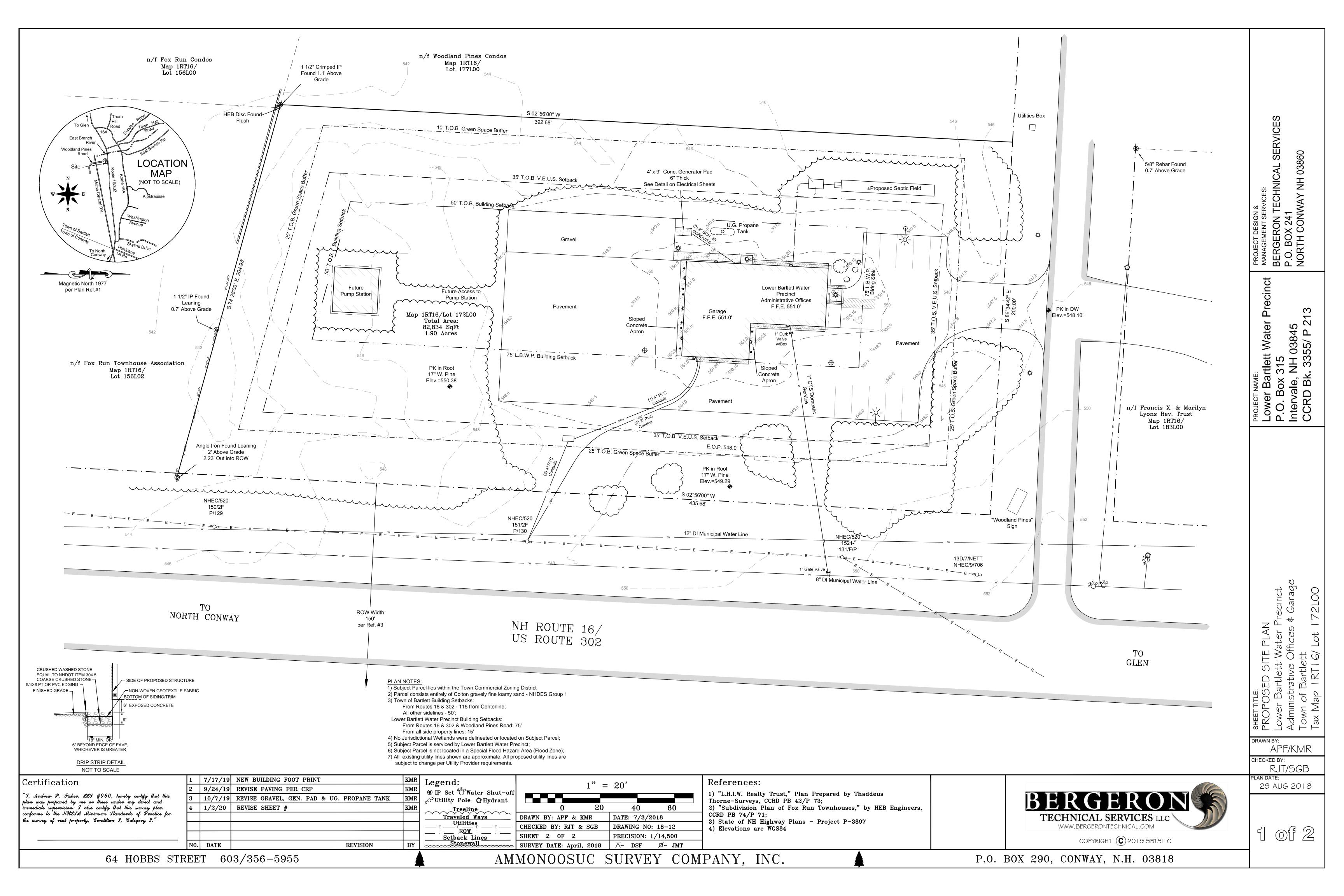
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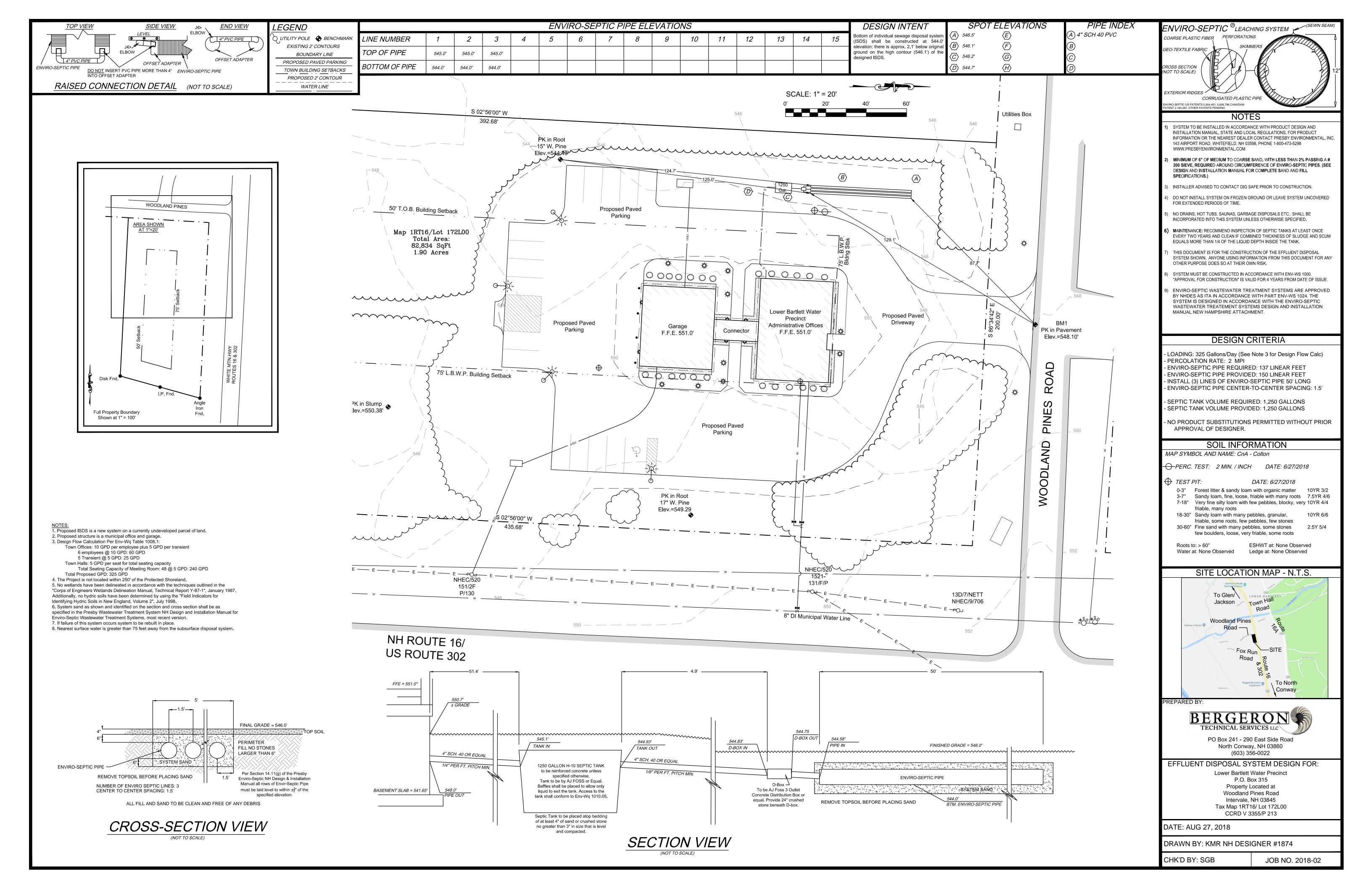
PLAN SET ISSUED 7 JANUARY 2020

# SHEETS INCLUDED

1 of 2	PROPOSED SITE CONDITIONS
IWDS	SEPTIC SYSTEM
CO.O	CODE SHEET
A1.1	MAIN FLOOR PLAN
A1.2	SECOND FLOOR PLAN
A2.1	EXTERIOR ELEVATIONS
A3.0	BUILDING SECTIONS
A3.1	WALL & ROOF SECTIONS
A4.0	SCHEDULES
E1.1	ELECTRICAL PLANS
M1.1	HVAC PLANS
FP1.1	FIRE PROTECTION PLANS

\SERVER\Storage\Lower Bartlett Water Precinct - December 2017\GTB Plan CAD Drawings\COVER SHEET AND CODE PAGES.dwg, 1/7/202





# LOWER BARTLETT WATER PRECINCT OFFICE ADMINISTRATION AND MAINTENANCE GARAGE **BUILDING & FIRE CODE REVIEW**

# **INTERNATIONAL BUILDING CODE 2015**

IBC Chapter 3: Use & Occupancy Classification

FIRST STORY USE GROUPS

OFFICE ADMIN (B) 1,209 ft<sup>2</sup> MAINTENANCE GARAGE (S1) 1,757 ft<sup>2</sup>

SECOND STORY USE GROUPS

865 ft<sup>2</sup> OFFICE ADMIN (B) 507 ft<sup>2</sup> **GARAGE MEZZANINE (S1)** 

IBC Chapter 5: Building Heights & Areas

Table 504.3 Construction Type: V-B, Non-sprinklered

> Group B Height Limitation: 40 feet 40 feet Group S1 Height Limitation:

Table 504.4

Group B Max. No. Stories: 2 Stories Group S1 Max No.Stories: 1 Story

505.2 Mezzanines shall be considered a portion of the story below.

The aggregate area of a mezzanine in a room shall not be more than one-third the floor area of the room in which the mezzanine is located.

507 / 1,757 = 28% floor area

Table 506.2

9,000 ft<sup>2</sup> Group B Area Limitation:

9,000 ft<sup>2</sup> Group S1 Area Limitation:

Required Separation between B & S1 Occupancies: Not Required

IBC Chapter 8: Interior Finishes Table 803.11

Interior Finishes Minimum: Interior Exits Exit Access Rooms Group B, Nonsprinklered: Class A Class B Class C Group S1, Nonsprinklered: Class B Class B Class C

IBC Chapter 9: Fire Protection Systems

Sprinkler protection not required in B Occupancies and S-1 Occupancies used for the storage of commercial vehicles with <5,000 ft<sup>2</sup> fire area and the fire area is < 3

> stories. Sprinkler system not required, not provided. Manual fire alarm system not required in Group B occupancies having an

occupant load on all floors <500 and <100 above or below the lowest level of exit discharge. Manual fire alarm systems not required in Group S-1 occupancies.

Manual fire alarm not required, to be provided. IBC Chapter 10: Means of Egress

Table 1004.1.2 Design Occupant Load

\* Note that non-occupiable areas, such as closets, stairs & mechanical areas have been removed

from areas used to calculate occupant loads

Grade Level Story **Total 30 Occupants** 

Office/Admin (Group B): Business area (732/100) 8 Occupants Conference Room (Group B): Assembly, Unconcentrated (292/15) 20 Occupants Maint. Garage (Group S-1): Warehouses (835/500) 2 Occupants **Total 7 Occupants** Second Story Office/Admin (Group B): Business area (541/100) 6 Occupants

Table 1006.2.1 Spaces with one Exit

Maint. Garage (Group S-1): Warehouses (431/500)

Group B Max. number of occupants: Group S Max. number of occupants: Group B Max. Common Path of Travel: Group S Max. Common Path of Travel:

Table 1006.3.1 Minimum number of exits per story: 2 exits per story required

Table 1006.3.2(2): Stories with one Exit Permitted, Group B: Max. 29 occupants and 75' Travel

distance to Exit

1008.2 Emergency illumination of egress required

1010.1.1 Means of egress doors shall provide a minimum clear width of 32"

1011.2, Exc. 1 Stairways serving an occupant load of less than 50 shall have a minimum clear

1011.5.2 Stair riser heights shall be 7" maximum and stair tread depths shall be 11"

1011.11 Stairways shall have handrails on each side.

1013.1 Exit signs required

Corridors in Group B occupancies requiring a single exit shall not be required to be

fire-resistance rated

Table 1020.2 Required corridor width: 36" Table 1017.2 Maximum Exit Access Travel Distance:

Group B, Nonsprinklered: 200'

Group S1, Nonsprinklered: 200'

Interior exits stairs shall be enclosed and constructed as fire barriers with a

fire-resistance rating of not less than 1 hour where connecting less than four

Interior exit stairs shall terminate at an exit discharge or public way.

Chapter 11: Accessibility

1023.3

1104.4 At least one accessible route shall connect each accessible level in multilevel

EXCEPTION: Accessible route is not required to stoies and mezzanines that have an aggregate area of note more that 3,000 sq. ft. and are located above and below accessible

1104.5 Accessible routes shall coincide with or be located in the same area as a general circulation

1105.1 At least 60% of all public entrances shall be accessible.

1109.2 Each toilet room shall be accessible.

1109.4 Where kitchenettes are provided in accessible spaces or rooms, they shall be accessible.

1109.12.3 Where service counters are provided at least one shall be accessible.

#### **INTERNATIONAL PLUMBING CODE 2015**

Chapter 4: Fixtures

Fixture Requirements per Use Group IPC Table 403.1

Provided:		1 (M) / 1 (F) / 1 (U)	1 (M) / 1 (F) / 1 (U)	
Total Required		0.7(M)/0.7(F)	0.45(M)/0.45(F)	
Group S1 // 3 Occupants		0.02(M)/0.02(F)	0.02(M)/0.02(F)	
Group B // 34 Occupants		0.68(M)/0.68(F)	0.43(M)/0.43(F)	
Required Fixtrures		# Water Closets	# Lavatories	
S1 Use	1 per 100	1 per 100	1 per 1,000	
B Use	1 per 25 for the first 50	1 per 40 for the	e first 40 1 per 100	
	Water Closets	<u>Lavatories</u>	Drinking Fou	<u>untain</u>

Required Drinking Fountains: 1

1 service sink required Number of Fixtures Provided complies with IPC 2015

403.2 Separate facilities shall be provided for each sex.

#### INTERNATIONAL ENERGY CONSERVATION CODE 2015

Chapter 3 General Requirements

C301.1 Carroll County, NH is located within Climate Zone 6A

C303.1.2 Insulating materials shall be installed such that the manufacturer's R- value mark is

readily observable upon inspection. Table C402.1.3 Thermal Envelope Minimum Requirements

Roofs, Metal Buildings: R-25 + R-11 Liner System

Roofs, Attic: Above Grade Walls, Metal Building: R-13 + R-13 continuous insulation

Above Grade Walls, Wood Framed: R-20 + R-3.8 continuous insulation Unheated Slabs-on-grade Floors R-10 for 24" below

A continuous air barrier shall be provided throughout the building thermal envelope and shall comply with Sections C402.5..1 through C402.5.8 or be tested in accordance with ASTM E 779.

C403.1 Mechanical systems shall comply with Section C403 of the IECC. C404.1 Water heating shall comply with Section C404 of the IECC.

C405.2.1 Occupant Sensor Controls to control lighting are required in conference/meeting rooms, employee break rooms, private offices, restrooms, storage rooms, janitorial

### NFPA 101 LIFE SAFETY CODE 2015

Chapter 6: Classification of Occupancy and Hazard of Contents

Admin: Garage: New Industrial - General Purpose 6.1.14.4 Building is a Multiple Separated Occupancy

Table 6.1.14.4.1(a) Required Separation of Occupancies

Business - Industrial Separation with out sprinkler protection: 2 hours

## Chapter 7: Means of Egress

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Changes in elevation shall be limited to  $\frac{1}{2}$ , changes may be vertical up to  $\frac{1}{4}$ , but 7.1.6.2 must be beveled at 1:2 slope between  $\frac{1}{4}$ " and  $\frac{1}{2}$ ". Changes greater than  $\frac{1}{2}$ " shall be considered a change in level and must have a compliant ramp or set of stairs. 7.1.6.3 Walking surfaces with a slope greater than 1:20 shall be considered a ramp. No

walking surface shall have a cross slope greater than 1:48 in a means of egress. 7.1.6.4 Walking surfaces shall be slip resistant.

7.2.1.2.3.2

Door openings in means of egress shall have a minimum clear width of 32". 7.2.1.4.2 Door openings serving 50 or more occupants shall swing in the direction of egress.

7.2.2.2.1.1(a) New stair minimum dimensions: Minimum width of stairs: 36 inches

Maximum riser height: 7 inches Minimum riser height: 4 inches Minimum tread depth: 11 inches

7.2.2.3.2.2 Stairs with landings shall have no decrease in width in the direction of egress.

7.2.2.3.4 Tread and landing slope shall not exceed  $\frac{1}{4}$  inch per foot.

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7.2.2.3.6.1	Variation in excess of $\frac{3}{16}$ inch in the depth of adjacer	nt treads or the height of	
	adjacent risers is prohibited.		
7.2.2.3.6.2	The tolerance between the largest and smallest rise	r or the largest and smallest	
	tread in a flight of stairs shall not exceed $\frac{3}{8}$ inch.		
7.2.2.4.1.1	Stairs and ramps shall have handrails on both sides.		
7.2.2.4.2	Guards and handrails shall be continuous for the ful Handrails shall be continuous between flights and la		
7.2.2.4.4.1	Handrails shall be mounted between 34 inches and 38 inches above the surface of the stair tread, measured to the top of the rail from the leading edge of the tread.		
7.2.2.4.4.9	Handrails shall be returned to the wall or a newel po	Handrails shall be returned to the wall or a newel post.	
7.2.2.4.4.10	Handrails that are not continuous between flights shall extend horizontally, at the required height, not less than 12" beyond the top riser and continue to slope for a depth of not less than one tread beyond the bottom riser.		
7.2.2.4.5.2	Guards shall not be less than 42 inches high, measured to the top of the guard from the surface adjacent thereto.		
7.2.2.5.1.1	Inside stairs serving as an exit shall be enclosed with 1-hour rated construction.		
Table 7.3.1.2 Occupant Load Factors			
Grade Level Sto	ory Total 37 Occupants		
Office/Admin:	Business Use (732/100)	8 Occupants	
Conference Roo	m: Assembly, Less Concentrated (292/15)	20 Occupants	
Maint. Garage:	General Industrial (835/100)	9 Occupants	
Second Story Total 6 Occupants			
Office/Admin :	Business Use (541/100)	6 Occupants	
Maint. Garage M	lezzanine: Storage not in Storage or Mercantile	0 Occupants	
•	•	·	
Chapter 38: New	<u>r Business</u>		
38.2.3.2	The clear width of any corridor serving an occupant load of less than 50 shall be not less than 36".		
38.2.4.1	Not less than two separate exits shall be required from than two exits shall be accessible from every part of	, ,	

38.2.3.2	The clear width of any corridor serving an occupant load of less than 50 shall be not less than 36".
38.2.4.1	Not less than two separate exits shall be required from every story and not less than two exits shall be accessible from every part of every story.
38.2.4.2	Exit access shall be permitted to include a single exit access path for the distances

permitted as common path of travel. (75') Admin Second Story exit access path distance = 44'-9"

38.2.5.2 Dead end corridors shall not exceed 20'. Max. dead end corridor (2nd story) = 18'-3"

38.2.5.3.1 Common path of travel shall not exceed 75' in buildings not protected throughout by an approved automatic sprinkler system in accordance with NFPA 13. Travel distance shall not exceed 200' in business occupancies not protected

throughout by an approved, supervised automatic sprinkler system in accordance with NFPA 13. Max. Travel Distance in Business Occupancy to Exit = 50' (First Story, Room 103

to Door 101A) 38.2.9.1 Emergency lighting not required for New Business

Emergency lighting provided. 38.2.10.1 Marking of means of egress required.

38.3.3.2.1 Interior wall and ceiling finishes shall be Class A or B in exits and exit access

Interior wall and ceiling finishes shall be Class A, B or C in all other areas. Fire alarm system not required. Fire alarm system provided.

38.3.5 Portable fire extinguishers required to be provided in accordance with NPFA 10.

# Chapter 40: Industrial Occupancies

Garage is a General Industrial Occupancy 40.1.2.1.1 40.2.4.1.1 Not less that two means of egress shall be required from every story and section. 40.2.4.1.2 Exit access shall be permitted to include a single exit access path for the distances

permitted as common path of travel. (50') Mezzanine exit access path distance = 38'

40.2.6.1 Travel distance shall not exceed 200' in general industrial occupancies not protected throughout by an approved, supervised automatic sprinkler system in

accordance with NFPA 13. 40.2.9.1 Emergency lighting required.

**Emergency lighting provided** 40.2.10 Marking of means of egress required.

Interior wall and ceiling finishes shall be Class A or B in exits enclosures and Class 40.3.3.2 a, Class B or Class C elsewhere.

40.3.4.1 Fire alarm system not required. Fire alarm system provided.



1 Occupant



