

**Town of Auburn
Town Storage Garage Project
October 5, 2017
Town Hall
7:00 p.m.**

- () Call to Order**
- () Review and Discussion of Plans for Building Layout**
- () General Discussion**
- () Approval of Minutes – August 23, 2017 Meeting**
- () Schedule Next Meeting**
- () Other Business**
- () Adjourn**

Note: "Any person with a disability who wishes to attend this public meeting and needs to be provided reasonable accommodations in order to participate, please contact the Board of Selectmen's Secretary at (603) 483-5052 x100, so that arrangements can be made."

MEMORANDUM

To: Members of Auburn Storage Building Review Committee

From: Carrie Rouleau-Cote,
Building Inspector/Code Enforcement

Date: July 20, 2017

RE: Preliminary Review for Building Code Comments

I have performed a preliminary review of the building layout plan distributed during our initial planning session for a storage building to be located at the Auburn Safety Complex and utilized for the Auburn Police Department and Parks & Recreation Dept.

The review of the 36' x 72', 2 story, wood frame structure, is to present a general overview of the code requirements that will need to be addressed for construction of a commercial building under the State Building Codes, with a focus on the 2009 International Building Code and the 2015 NFPA Life Safety Code.

General Comments:

Building would be considered VB construction (wood frame, combustible materials)

Square footage:

1st floor = 2592 sq. ft 2nd floor = 2016 sq ft +/- (est. kneewall)
(Meets allowable height and area requirements to avoid sprinkler)

Occupancy

First floor to be S1 in IBC Ordinary Hazard in NFPA 1 code
Second Floor – Business Use

Fire Separation Requirements (between uses)

IBC Business to S1 (none)
NFPA Life Safety Business to Ordinary Hazard – 2 hour separation required.
Exit Passage from Second Floor to Exit Door must also have 2 hour separation

Occupant Load Calculations (based on open square footage)

Second Floor – Police side
Concentrated 160 persons
Non-concentrated 75 persons
Second Floor – Parks & Rec
Concentrated 128 people
Non-concentrated 58 people

Required Exits

First Floor – 1 okay for up to 49 occupants
Second Floor – 1 exit limited to 29 occupants

Accessibility -

State Building Code NH RSA 155-A:5 "public building"

IBC 1104.4, Public Use, more than 5 people

Accommodations for LULA (Limited Access/Limited Application)

Building plans and final inspection by 3rd party to verify accessibility compliance

Building will need to be equipped with Fire Alarm system in accordance with NFPA 1.

During Construction anticipate "Special Inspection" under Chapter 17 of IBC for concrete, engineered lumber and/or truss roof installation.

September 22, 2017

Preliminary Code review for the Police and Park /Recreational Departments Storage Facility
Town of Auburn, NH-

Prepared by Gary Brown Architect, NH License #2244

Code review criteria is from the IBC 2009 and NFPA 101 2015.

Proposed building to be 36' x 72'- 2 Story wood frame construction with structural steel beams for open area on the first floor. Non- Sprinkler Building, building to have a fire alarm system with all egress devices per codes.

Proposed Classification- S- 2, Low- Hazard Storage- Civic Administration

Building used for vehicular storage and storage/ office space on the second floor

Allowable Building Area per table 503= 13,500 SF- 2 Story, Building Height 40'

Proposed Building= 2,592 SF Type V B construction, - 2 Story,

IBC 2009- Required Separation of Occupancy- Table 508.4

Use Groups: S-2 / B = 2 hour separation, Exception b. "The required separation from areas used for private or pleasure vehicles shall be reduced by 1 hour but not less than 1 hour".

IBC 2009- Type of Construction – Fire-Resistance Rating Requirements for Building Elements.

Table 601- Type V

Primary Structural Frame= 0 hours

Bearing Walls= 0 hours, Exterior walls rating to be evaluated once the site plan is more complete.

X= distance from adjacent buildings of property line,

$X < 5' = 1 \text{ hour}$, $5' < X < 10' = 1 \text{ hour}$, $10', X, 30' = 0 \text{ hours}$

Floor construction = 0 hours

Roof construction = 0 hours

NFPA 2015- Construction Type VB= NFPA 5000, V (000), Table 13.1.6 Construction Type Limitations

Construction Type V (000) – 2 Stories = X4- non sprinklered

X4= Permitted for assembly limited to an occupancy load of 300 or less.

NFPA 2015- Table 6.1.14.4.1 Required Separation of Occupancies (Hour)- Storage Low & Ordinary
Hazard / Business = **2 Hours separation**

IBC 2009 Section 707.3.1 Shaft Enclosure... Section 708.4, Shaft 3 stories or less to be 1hr rate enclosure,
But not less than the horizontal penetration, max 2 hour rating

IBC 2009- Section 1004-Occupancy Load; Table 1000.1.0 Max. Floor Area Allowable per Occupancy

Business= 100SF Gross per person, Second Floor Calculations

Police Department= 1068 SF/ 100sf = 10.68 people..... say 11 people

Park and Recreational = 643SF / 100 sf= 6.43 people say 7 people

Total 18 People

Section 1004.2 Increase Occupant Load- Determined by the local Code Enforcement Officer.

Concentrated for 7 sf per person

Police Department= 1068 SF/ 7 sf = 152.5 people..... say 153 people

Park and Recreational = 643SF / 7 sf= 91.8 people say 92 people

Total 245 People

Section 1007.5 Platform Lifts- Platform lifts shall not serve as part of the accessible means of egress, except when allowed as part of an accessible route in /section 1109.7,... Stand by power shall be provide..platform lifts shall be permitted to serve as part of a means of egress.

1007.5.1 Openness- Platform lifts on an accessible means of egress shall not be installed in a fully enclosed Hostway.

Section 1007.6 Area of Refuge- within the stair /lobby area with in a smokeproof enclosure. Size to be 30" x 48"- (1) per every 200 people. Required 2 designated spaces at the second floor

Section 1016 Exit Travel Distance; Table 1016.1 Exit Access Travel Distance

Occupancy S-2 without sprinkler system = 300 feet

Occupancy B without sprinkler system = 200 feet

Section 1020 Exits; Table 1021.1 Minimum Number of Exits for Occupant Loads

Occupant Load per Story 1-500 people = **2 exits required.**

Section 1020 Exits; Table 1021.2 Stories with One Exit

Second Story- Occupant Group B, S = 29 Occupants and 75' travel distance.

Section 1022 Exit Enclosure- 1022.1 Enclosure required.... Fire resistance rating not less than 2 hours where connecting 4 stories or more and not less **than 1 hour where connecting less than 3 stories.**



○ FRONT ELEVATION



○ LEFT SIDE ELEAVTION



Alternative
Designs Inc.

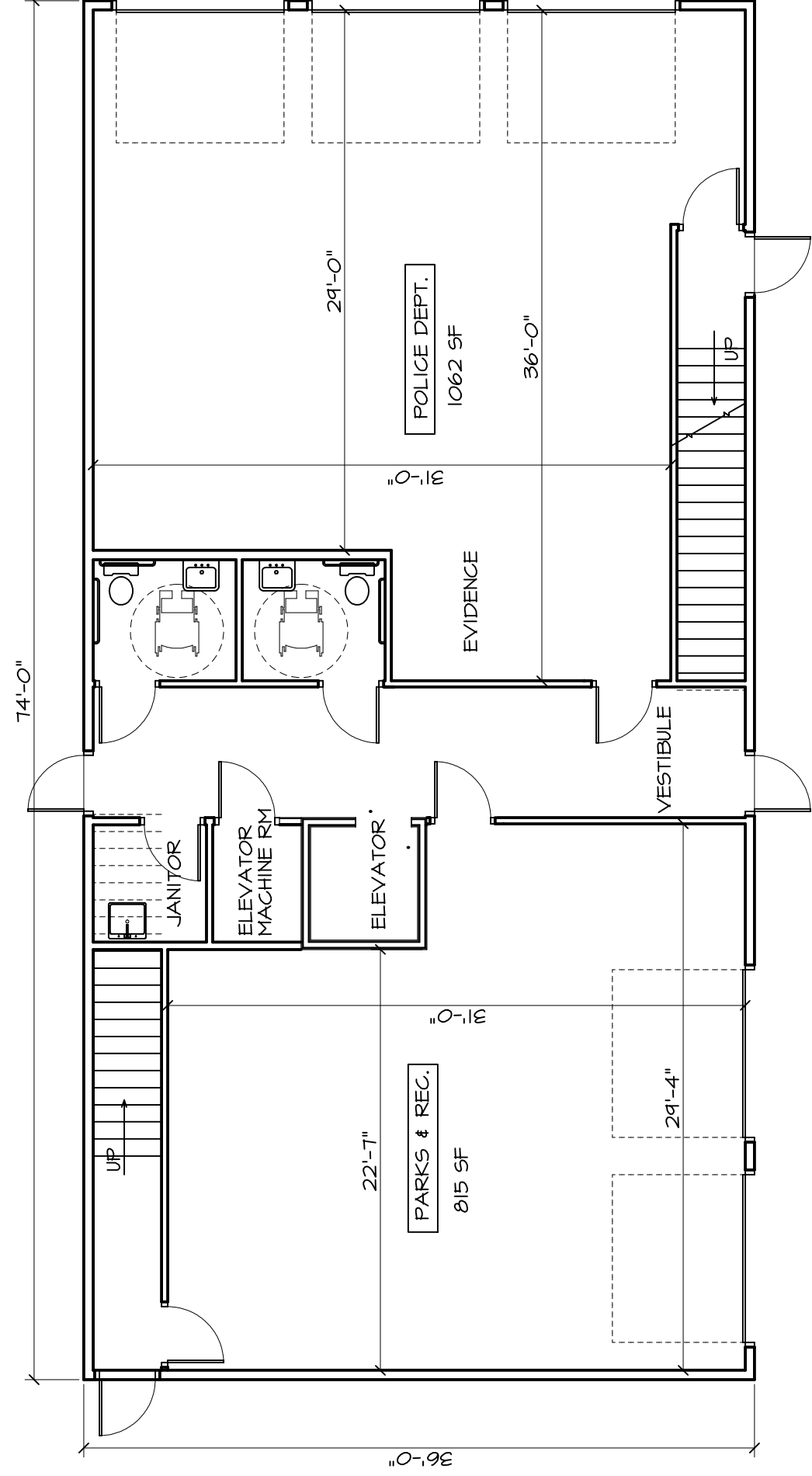
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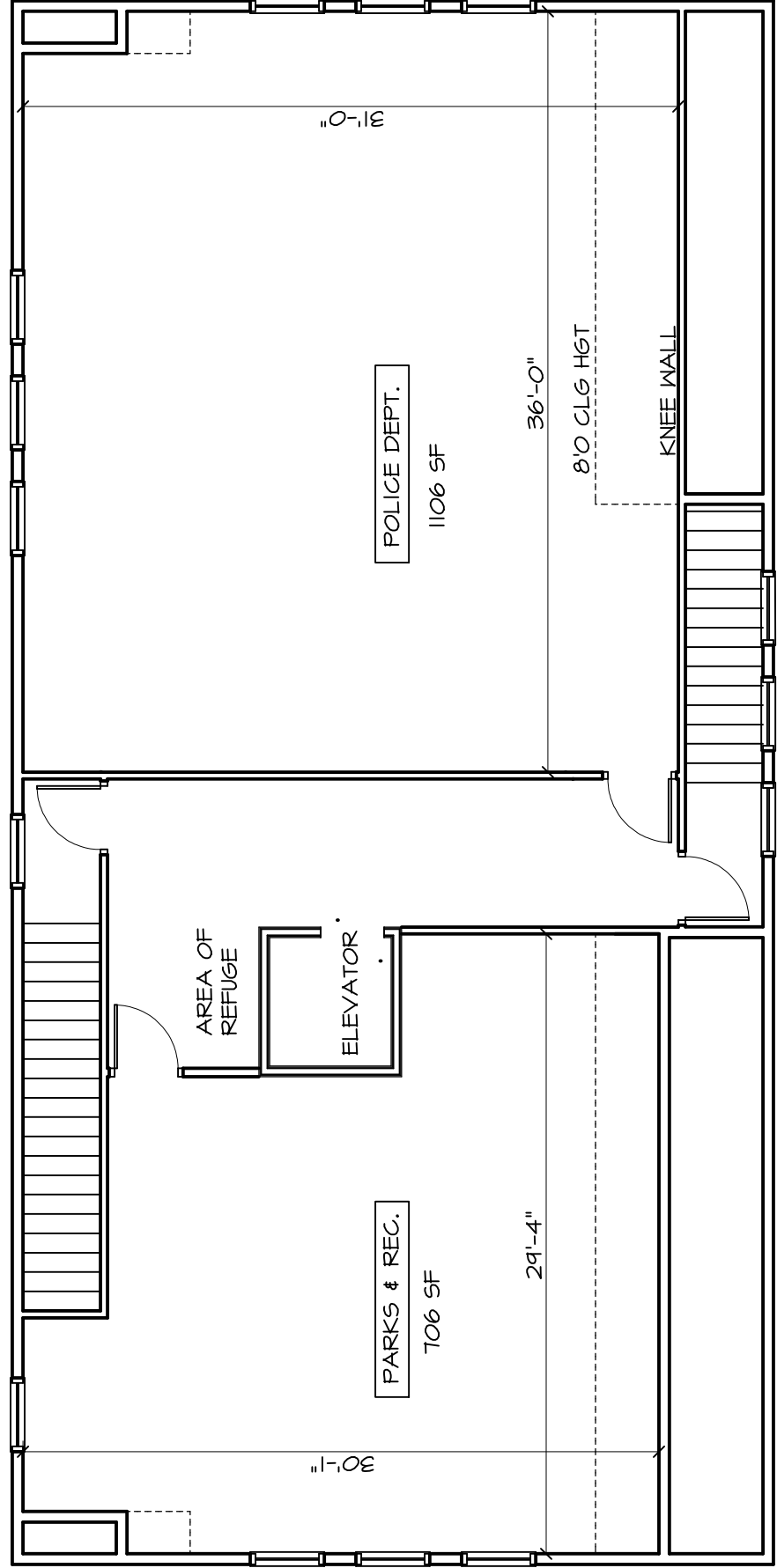
○ RIGHT SIDE ELEVATION



○ REAR ELEVATION



○ FIRST FLOOR PLAN



○ SECOND FLOOR PLAN