



Agenda
Village of Glen Ellyn
Building Board of Appeals Meeting
Wednesday, March 16, 2022
7:00 PM
Glen Ellyn Civic Center, Galligan Board Room

- A. **Call to Order: 7:00 p.m.**
- B. **Roll Call**
- C. **Public Comments (Non-agenda Items)**
- D. **Approval of Draft Minutes**
 - 1) Minutes, Regular Meeting – 2/16/22
- E. **Old Business**
 - Update on the Building Community Listening Sessions
- F. **New Business**
 - Review of codes regulating construction for potential adoption
- G. **Trustee Report**
- H. **Chairman’s Report**
- I. **Staff Liaison’s Report**
- J. **Next Meeting Date: April 20, 2022**
- K. **Adjournment**

cc: Building Board of Appeals Members
Kelley Kalinich, Trustee Liaison
Staci Springer, Community Development Director
Emily Rodman, Assistant Village Manager
Penni Cannova, Executive Secretary
Grant Paplauskas, Communications Coordinator
Kelly Purvis, Planning Manager
Atrin Fard, Planner
BBA Recording Secretary
Lori Gloude, Administrative Assistant II
Brian Baltudis, Facilities Manager

Dear Interested Citizens:

This note provides you with information regarding the process of amending the Village Code. Once public comments, discussions and considerations have been completed, the Building Board of Appeals makes a recommendation to the Village Board. The recommendation, along with the meeting minutes, summary report and all related material, is then scheduled for consideration by the Village Board at one or two meetings. The recommendation may first be considered by the Village Board at a workshop meeting, which will be held on a Monday at 7:00 p.m. The recommendation may then be considered at a formal meeting of the Village Board at 7:00 p.m., for a formal decision. To confirm exact dates for these Village Board meetings, please call 630-547-5244. The Village Board meets in the Galligan Board Room on the third floor of the Civic Center, 535 Duane Street.

Individuals with disabilities who plan to attend the hearing and who require certain accommodations in order to allow them to observe and participate, or who have questions regarding the accessibility of the meeting or facilities, are requested to contact the Village at least 24 hours before the meeting.



Glen Ellyn Building Board of Appeals
535 Duane Street
Glen Ellyn, IL 60137

Meeting 3/16/2022 7:00 PM
Department: Community Development
Department Head: Staci Springer
Category: Minutes
Prepared By: Steve Witt

AGENDA ITEM (ID # 2022-2029)

DOC ID: 2022-2029

Minutes, Regular Meeting - 02/16/22

Statement of the Issue:

N/A

Analysis:

N/A

Budget Impact:

N/A

Action Requested:

Approve

Attachments:

1. Minutes and Chart Combined

DRAFT MINUTES
BUILDING BOARD OF APPEALS MEETING
February 16, 2022

Call to Order and Roll Call

The meeting was called to order at 7:03 p.m. by Building Board of Appeals (BBA) Chairperson Thomas Bredfeldt.

Roll was called. Present: Chairperson Tom Bredfeldt, BBA Members Brian Beck, Christopher Clark, Matthew Rooney, Thomas Tuscher, Robert Stahr and Barrington Pope.

Public Comment Non-Agenda Items

There was no public comment pertaining to non-agenda items.

Approval of Minutes

Following a motion by BBA Member Stahr, seconded by Member Clark, draft minutes of the January 19, 2022 meeting were approved as submitted, by voice vote, with all voting, “Yes,” except for Matthew Rooney, who abstained.

Old Business

Village Community Development Director Staci Springer gave a status update on action stemming from the recently held Building Community Listening Session. In doing so, she displayed and discussed elements of the accompanying chart (see attached):

Calling the suggestion to create a survey to gather feedback about the permit process “a great idea,” Director Springer related that Staff contacted other communities to gain survey tool ideas. She said that a Survey Monkey is anticipated with postcards being distributed with permits including a QR Code link to the survey, and inviting clients to participate in the on-line survey by email. A survey link will be added to the Village website, she added. To a query about the permit cost increase generated by employing a consulting engineer vs. having a senior civil engineer on-staff, she reviewed history of the Village’s arrangement, explaining that costs have historically been passed off to the applicant, a practice engaged to prevent tax revenue from subsidizing an individual developer or property owner. To a suggestion that the Village create a map showing “informal flood-prone” or “local depressional areas” where additional engineering requirements are necessary and make it available to the public, Ms. Springer indicated that Staff agrees this would be useful, saying Staff currently relies on an informal map that draws from a chart tracking records of complaints about low areas. She said Staff would like to make this information public, and could perhaps do so by adding a layer to the Village’s GIS (geographic information system). Director Springer said Staff would like to make all submittals electronic, as has been suggested. She said that while the Village wants to do this, the task isn’t easy, but that Staff has started to investigate how to go about it, and has visited Elmhurst and Lombard, municipalities from which Staff has “learned a lot.” She added that, toward this end, a software company has been interviewed regarding a solution. She said that the Village IT Department is short-staffed, but Staff expects to request a consultant to assist with the evaluation process. Regarding a query as to why the Village requires stamped engineered drawings for retaining walls over 3-ft. high, when other municipalities do not, Ms. Springer stated that Staff has asked

other communities about their approach, and will be formulating a recommendation on how to deal with this.

New Business

International Property Maintenance Code

Building & Zoning Official Steve Witt commenced discussion of the International Property Maintenance Code (IPMC), continuing examination from the previous BBA meeting, confirming that references to the Life Safety Code that are still reflected in the IPMC will be removed.

Mr. Witt said that a definition of what constitutes a dead tree has been added to address an ongoing concern among neighbors. The new section outlines premises owner responsibilities, which, he explained only apply to private property, as Public Works handles such issues that occur in the right-of-way.

Mr. Witt turned his attention to provisions concerning infestation of bed bugs (items 37-40), explaining that Staff seeks a stronger requirement for treatment of such. Patterning proposed language after Chicago, Cook County and Oak Park code, he added that Staff is looking for tenant responsibility to notify the owner about an issue, as well as obligating the owner to engage an exterminator in a timely manner, followed by a second treatment. Mr. Witt said provisions would cover not only the offending dwelling unit, but those above, below and on either side of it, requiring an investigation of these units, and if bugs are found, then the affected unit(s) must be treated, too. He explained that the Code would regulate multi-family dwelling units where there are adjacencies, and is not intended for single-family homes. BBA Member Stahr asked if the language differentiates between a condo and an apartment building, since the former doesn't necessarily have a landlord. Mr. Witt said the owner responsibility specified applies to each unit, and that any references to "landlord" will be changed to "owner."

Relative to outdoor storage of construction materials and equipment, Mr. Witt said Staff is not adding requirements to the pertinent, existing section. He explained that, as strictures for locating temporary storage are determined by zoning setbacks, no change is recommended.

Observing a section (#41, which he said looked new) about below-grade occupancy, BBA Member Clark asked what happens to multi-family housing that has below-grade units. Official Witt said the intent is to prohibit the below-grade habitable space in the C5 District, specifically mixed-use, and that it is not intended for single-family use. He said it is to regulate against a full story below grade, and is not to mean garden apartments or partial recesses, and that he will reword the text to correspond with the Fire Code.

Fire Code

Building & Zoning Official Steve Witt commenced review of 71 items for consideration for update of the Fire Code, saying that some changes noted are administrative (e.g., nomenclature, section renumbering, and capitalization). He further noted that, in light of the number of co-working spaces in the Village serving alcohol, the Village needs to make sure these facilities meet plumbing and fire code requirements. Mr. Witt touched on a system of hazard categories (drawn from the Life Safety Code), relative to occupancy, as a determinant for installing fire sprinklers.

Mr. Witt pointed to a change in the definition of "open burning." The term, he said, includes recreational fires and portable outdoor fireplaces. He also mentioned added definitions pertaining to roof and gross wall areas in the context of alteration remodeling or additions.

Item #21 has been a concern for a while, related Mr. Witt, who cited a fire in a restaurant dumpster that he believes lacked a metal lid. Without a metal lid, he said, dumpsters need to be placed a certain distance from buildings. Mr. Clark, fire chief, observed that totally plastic dumpsters are popular, and in some cases contain more fire load than the contents. Mr. Witt expressed concern about dumpsters being too close to building openings and utility poles. Mr. Stahr asked if dumpsters are in alleys where there is nowhere else to put dumpsters, to which Mr. Witt replied, "Yes." Mr. Stahr asked if it's permissible to place a dumpster up against a brick wall. Mr. Witt replied affirmatively, but cautioned that such a wall shouldn't have openings that could be compromised by a fire in the dumpster, and stressed that a building with a dumpster placed in proximity has to be of noncombustible construction. Mr. Stahr asked if Code would at some point restrict businesses from having a dumpster in an alley. Mr. Clark suggested steel dumpsters, but not plastic ones, would be permitted. Mr. Stahr observed steel dumpsters with a plastic lid. Mr. Clark said his biggest concern is a plastic dumpster, since the Village can't necessarily control whether the lids are closed, anyway, and said a steel dumpster would be better than a plastic one in such a situation. While Mr. Witt suggested a metal lid is preferable due to its weight, he said he's open to suggestions on it.

Citing rewritten Sec. 307 language, Official Witt said the Village is trying to get the Fire Code requirements better in sync with the Zoning ordinance, for example, specifying recreational fire locations. Bonfires and recreational fires, he continued, require approval by the Fire Code Official. He said that the Village is looking to have fire features that are not fixed to the ground located further from buildings. Mr. Clark asked if the term "fire pit" indicates no chimney, to which Mr. Witt replied, "Yes," adding that the structure's containment area is limited to no larger than 3 ft. in diameter and 2 ft. in height. Also specified in Sec. 307, he said, is what materials can and cannot be burned. Seasoned firewood and manufactured logs are acceptable, he said, adding that outdoor/stationary fireplaces and fire pits should have covers/screens/glass doors to contain disbursement of embers.

Mr. Witt proceeded to review item #31 (which refers to placards on damaged buildings). Moving on to item #32, he invited input from Chief Clark as to reasonable amounts of combustible materials to be permitted in retail displays. Mr. Clark asked if propane container could also be included; Mr. Witt said he'd add this. Regarding below-grade occupancies (item #33), Mr. Witt said the Village doesn't want residential dwelling units one story or more below the level of Fire Department access, but that the regulation is limited to C5 District multi-family/mixed use (where, generally, the exiting from spaces doesn't meet Code).

Mr. Witt moved on to items 34-38, which, he said, are intended to provide a quicker access for first responders. A building address should be displayed on the rear entry of multi-tenant commercial buildings, he said, adding that where there are multiple exterior doors these should be addressed to the same numbers as are on the front of the building. Key boxes should be installed on commercial building, continued Mr. Witt, who further outlined requirements for keys for tenant spaces. He said the Village is looking to make the tenancies provision retroactive to within one year of the date of adoption of the Code. He noted that multifamily buildings are required to have key boxes, but only for common spaces – hence the Fire Inspectors thought 10 keys might be enough. Chief Clark said that would be helpful for larger multi-family buildings to have multiple sets of keys. Mr. Witt noted that item #37 specifies two sets of keys to access the main entry door. Mr. Clark requested a set for each floor, to which Mr. Witt indicated that can be done. Mr. Witt said the Village wants to see keys are provided to override electronic keypads. Mr. Stahr suggested stamping keys to identify them as Mr. Clark had indicated that labels can prevent the

keys from fitting in a box. Mr. Witt said language addressing labeling will be added (which might necessitate a larger box).

Conveying that the first item under #40 is being stricken, Mr. Witt went on to discuss proposed provisions in this passage: Anytime there is a change in use group that ends up being an assembly or educational use and those areas are below level of fire department access, he said, those should be sprinklered; likewise, if a classification moves to one of a higher level reaching a greater fire risk, as well as if there's change of use but not in the occupancy but an area of hazardous contents is created. He said the Village is not looking at something that would take it from a use that's in the same hazard level to have it kick in, hence the deletion of item 1. Mr. Clark said this makes him sad, but he understands. Mr. Witt indicated it could be left in. Mr. Clark said it would be costly, and observed that investments in restaurants sometimes exclude sprinklers. Mr. Witt suggested looking to reduce the occupant load or applying fire protection on the openings of the kitchen area to prevent fires from spreading to patron area. Mr. Clark said he is good with the way it's been proposed. Items 42-44, explained Official Witt, are asking the designer to put a minimum cushion of 5 PSI on the design of the pressure in the piping. Exterior audible/visual devices should replace alarm bells within a year of the date of the adoption of the Code, said Mr. Witt, as birds nest in the latter. This will also give a better view to the Fire Department, he said. Mr. Clark advised making these distinct so to be clear as to whether beyond a fire alarm activation there's a water flow. Mr. Witt indicated that Staff will research available solutions to achieve this.

Official Witt explained that item #46 is intended to require individual dwelling units (in a multi-family building) that have direct access to the outside (as opposed to via a corridor) to install alarms in the units (similar to one- and two-family dwellings). Mr. Witt noted no real changes to items 47 & 48. Items #49-52, said Mr. Witt, are to get the locations of smoke alarms in compliance with State law. Item #53, he said, contains a retroactive provision, requiring an automatic fire alarm system to be installed in each existing building in the C5 zoning district (in which all new buildings and structures are required to have these) within one year of the date of Code adoption. Item #54, he explained, specifies that heat detectors be installed where ambient conditions prevent smoke detectors from being used. Mr. Witt said item #55 is deleted because it was picked up elsewhere. In item 56, which addresses "monitoring station," Chief Clark requested including the term "remote station" in referring to the connection to DU-COMM.

Mr. Witt proceeded to discuss sections concerned with additions, alterations and remodeling of existing buildings and structures, proposing looking at the situation holistically. To that end, he presented an interactive formula he devised for analyzing factors in attaining the threshold at which specified sprinkler installation is required. (The application, he said would exempt smaller homes.)

Regarding residential basement remodel (>\$15k in one- and two-family dwellings and townhouses), explained Mr. Witt, item #63 designates a sprinkler head be installed on the domestic water line within in 5 feet of a furnace and or a clothes dryer. Chief Clark remarked that this is a nice feature. Mr. Pope asked the types of dryers to which the requirement applies. Mr. Witt replied there is no distinction. Mr. Stahr asked if it applies to a gas-fired boiler. Mr. Witt said the way the text is written applies only to furnaces, but a boiler could be added. Chief Clark said referencing a dryer is more valuable. Mr. Witt noted that basements have more habitable use today, and that people sleep in them. Recalling having seen a greater number of dryer than furnace fires (which have been confined to the furnace), Chief Clark, said that what Mr. Witt proposed is fairly inexpensive, so probably not a bad idea. Mr. Tuscher asked if there's any concern with gas water heaters. Chief Clark said he hasn't seen too many issues with these, but such issues usually stem from improper storage around water heaters. Manufacturers, he indicated, have

“upped the safety features” on water heaters. Mr. Beck opined that he likes the language the way it is now, and Chairperson Bredfeldt advocated for leaving it the way it is.

Items #64 (which contains an altered standpipe reference) and #66 involve renumbering, and item 65 is being deleted, said Mr. Witt. Section 67 is a carryover from the Life Safety Code, explained Mr. Witt, pointing to provisions for multi-family building fire alarm installation. He said the Village is working on enforcing this provision, and that notices have been sent to approximately 135 buildings concerning conformance. He said the Village is looking for a heat detector to be installed in the main living room. Chief Clark said he doesn't want the wording to relieve [building owners] from having single-station smoke alarms in the dwelling units, as required by State law. Mr. Witt replied that this would be covered by previous sections of the Code. He noted a renumbering concerning item #68.

Official Witt explained that item #69, for tents, and had been written to reflect 400SF (in line with special event permitting), but that the Village Manager would like to revert to 700SF. Chief Clark asked if no permit is necessary for tents up to 400SF. Mr. Witt said this is correct, but if the sides are open, they can go up to 700SF without a permit. Chairperson Bredfeldt asked the rationale for changing from 700 to 400. Mr. Witt said it's because all of the special event hand-outs have utilized 400 as the number (though the Park District uses larger tents), and said that the Village was concerned with looking at placement of tents, floor plan, exit signs and so forth. Wind damage sustained by tents, he said, prompted the Department to establish ballast protocols and examine permitting to “up the level” of safety.

Mr. Clark asked if there's anything stopping a business from putting up a tent instead of a building. Mr. Witt replied that a temporary tent cannot be erected for more than 180 days in any 12-month period. Mr. Clark asked if a business could have a tent up for six months without being regulated. Mr. Witt said the 400SF limit provided an opportunity to review those cases, and that going up to 700 will eliminate control. Ms. Springer interjected that they couldn't do business outside because zoning controls require a variation to do so. She said the Village Manager didn't want to be more restrictive than other communities in relation to the Fire Code. Mr. Clark said that as long Zoning Code covers that, that probably helps. Mr. Witt said paragraph 69 is stricken.

Item #70, noted Mr. Witt, sets conditions for use of tents for outdoor dining events, which are not to be permitted between October 31 and March 31, due to potential snowfall, and heating needs – and walls added to contain heat, and which subsequently require an engineer's evaluation relative to wind load stipulations. Trustee Kelly Kalinich asked if a tent for a Christmas market would be prohibited, to which Ms. Springer replied that this application would require a special use approval, which could be waived by Village Staff. But, she continued, if Mr. Witt's proposed date restriction regulation is adopted, this use would be prohibited. Mr. Witt said that the Village could offer modifications to allow it for good reason, but in general, wants to see a date for removal of these structures from properties. Ms. Kalinich asked about churches or not-for-profit organizations wanting an event during that window outside for health reasons. Ms. Springer said language could be added to say that special events are permitted with Village Board approval. Mr. Witt stressed that the section in question only applies as written to outdoor dining use, but said language could be crafted to cover other uses. Ms. Springer and Mr. Witt indicated they'd take another look at the section. Mr. Pope suggested requiring approval for all other purposes than restaurant dining. Thinking that the wind gust, rain and snow text applies to all tents, Mr. Clark suggested dates might be regulated by the Zoning Code. Ms. Springer said that, with Covid, tents were erected over parking lots, which was allowed, but the “new normal” will require a zoning variation if parking is being

eliminated for a lengthy period of time. (She said the Village hasn't regulated tents on single-family residential property.)

Chairperson Bredfeldt and Mr. Beck suggested dropping the phrase "time to time." Mr. Witt said the wording is a path to tie in published guidelines outside of the Building or Fire Codes, but decided that the item in question isn't really even needed; so the item (#70) will be reviewed and brought back to the BBA. He indicated it makes sense to revisit item #71, too, because if the 700SF requirement is used, it doesn't make sense to review floor plans for a 400SF tent that doesn't need a permit. Hence, he said, he recommends leaving the paragraph the way it is in the Book, which recommends only looking at a tent with an occupant load of 50 or more. He said that even if a permit isn't required, maybe the Department should have a "look-see" to check exit signage, paths of egress, and Fire Department access – which is by and large done with special events applications, anyhow, so it makes sense to strike the 400SF reference here.) Chairperson Bredfeldt said he assumes the paragraph refers to a tent with walls. Mr. Witt replied that tent type isn't specified, as also examined are table distancing, access aisles and exit path. Mr. Pope agreed that if it's simply about exiting and occupant load (which Mr. Witt confirmed) it makes sense to drop the 400SF requirement. Mr. Witt said item 71 will be eliminated, and the section on tents will be brought back before the BBA. It was determined that the Property Maintenance Code dumpster lid question would be revisited at the next meeting to allow research as to dumpster lid options. Member Tuscher, seconded by Member Clark, moved to accept the Building Property Maintenance Code as written with the modifications as discussed. The motion passed unanimously by voice vote.

Trustee's Report

Trustee Kalinich said the Village closed on the purchase of the hotel properties on Roosevelt Road, and is using a consultant to assist in determining use. She added that there's no predetermined use for the property, despite misconception in the community pointing to the contrary, and that an input session will be held March 7th to elicit ideas. About five "best use" recommendations, she said, will move forward for consideration. She said reinstatement has been approved for the architectural review program – as the Architectural Appearance Commission – and that the next step is to identify commissioners to serve on it.

Chairperson's Report

Chairperson Bredfeldt had no report.

Staff Report

Mr. Witt discussed the Energy Code, specifically the concept of the "stretch" energy code, being assembled by the State's Capital Development Board for adoption by any municipality. Its requirements, he explained, seek to accelerate energy efficiency enforcement, which means that every three years the Village would have to rewrite the code to a higher level than the ICC base code. Recognizing the goal to reach "Net Zero," Mr. Witt, said its application to buildings would be like trying to squeeze blood from a turnip, he said Staff is not recommending adopting this code.

Adjournment

After noting that the next meeting is scheduled for March 16th, Chairperson Bredfeldt adjourned tonight's meeting at 9:44 p.m., following a unanimous voice vote on a motion to do so made by Member Tuscher and seconded by Member Stahr.

Respectfully submitted,

Barbara Dutton-Thomas
Recording Secretary

Village of Glen Ellyn

Building Community Listening Session

Building Board of Appeals - November 2021

SUMMARY OF BUILDING COMMUNITY LISTENING SESSION FEEDBACK

Positive Comments on Services Provided by Community Development Department

1	The Department is much more organized than 20 years ago.
2	The new Permit Clerks are great.
3	The in-house building inspectors are great to work with.
4	Have so many good people that are part of the team.
5	Compliments to Springer, Purvis, Daubert, Moritz, Beck, Czajkowski, Wallace, Tisinai, Atkinson.
6	Appreciate that the Administrative Variation process that was added.

No.	Individual Suggestions	Follow-up Action	Update/Status
Communication			
1	Often find that contractors don't get calls or email notifications on the outcome of the inspection. Sometimes the inspection result is left with the homeowner, but the contractor does not receive the information. If the inspection report is left outside, sometimes it blows away.	Community Development will meet to discuss this issue and provide an update at a future meeting.	
2	Should create a survey monkey for the permit process to get regular feedback.	Community Development will meet to discuss this issue and provide an update at a future meeting.	Community Development Staff have gathered survey tools from other communities and have prepared a survey tool that the Department can use. A Communications Coordinator just started and this project will be forwarded to him for execution.
Processing			

3	Concerned with engineering reviews and inspections being overly restrictive.	Additional information on specific engineering issues would be needed in order to allow further evaluation. Community Development staff will get together to discuss the topic in general and provide an update at a future meeting.	
4	With the Senior Civil Engineer leaving, there are now consulting engineer costs added to the permit which increases overall cost. The additional engineering consultant costs are disproportionate to the cost of the actual work.	Community Development will meet to discuss this issue and provide an update at a future meeting.	Prior to the full-time Civil Engineer, there was a part-time Development Engineer supplemented by a private consulting engineer. Before that, the Village only used consulting engineers. The Village has always passed on the actual costs of the engineers to the applicant as we are not able to spend Village taxpayer dollars to benefit individual property owners or developers.
5	Consider a day, or half day, where there is an open table with a plan reviewer to look at plans and get questions answered immediately.	Community Development will meet to discuss this issue and provide an update at a future meeting.	
6	Should create a map of the 'informal flood-prone areas' or 'local depressional areas' where additional engineering requirements are necessary and make it available to the public.	Community Development will meet to discuss this issue and provide an update at a future meeting.	The Village has an internal document showing the location of known depressional areas. Further discussion is taking place regarding where and how to make this available to the public.
7	A builder explained that the last two new homes took 9 weeks and 13 weeks to permit and that is too long.	Community Development will meet to discuss this issue and provide an update at a future meeting.	The Village pulled 5 single family home permits immediately prior to BBA meeting for evaluation. One of those included the builder who made this comment. 1. Approved in 29 days 2. Approved in 59 days, 15 of those in Vlg possession 3. Approved in 80 days, 20 of those in Vlg possession 4. Approved in 52 days, 19 of those in Vlg possession 5. Approved in 34 days, 15 of those in Vlg possession. These were all during our peak period.
8	Re-reviews should be handled in-house by staff Plans Examiner.	Community Development will meet to discuss this issue and provide an update at a future meeting.	
9	All the repeat standard comments should be added to a single place where the applicant can accept and sign off rather the Village sending review letters asking for minor details to be added to plans. Too much documentation is required. Why can't the	Community Development will meet to discuss this issue and provide an update at a future meeting.	

	Village rely on the expertise, certifications and insurance of the licensed design professionals and certified builders?		
10	New homes and remodeling projects should be treated differently. There should be more flexibility in rehabilitation projects where contractors don't know what they are dealing with until they open up the walls.	Community Development will meet to discuss this issue and provide an update at a future meeting.	
11	Four-hour inspection time windows are sometimes difficult for contractors; particularly with pre-pour inspections.	While the staff inspectors usually try to accommodate these inspections, Community Development staff will meet to review this issue and provide an update at a future meeting.	
12	There was concern raised over submittal documents getting lost.	Community Development will meet to discuss this issue and provide an update at a future meeting.	
13	Plan reviewers should stop adding items after the initial plan review.	Community Development will meet to discuss this issue and provide an update at a future meeting.	
14	Glen Ellyn's permit costs are higher than in other towns.	Community Development will meet to discuss this issue and provide an update at a future meeting.	
15	The building staff needs more leeway to make decisions on minor issues.	Community Development will meet to discuss this issue and provide an update at a future meeting.	
16	All submittals should be completely electronic.	Community Development will meet to discuss this issue and provide an update at a future meeting.	The Munis program is not conducive to Department needs. Village staff have visited Elmhurst and Lombard to view their electronic permit processes. We have interviewed a software company to see if their program might work better for our needs. This process will take some time, but we hope to implement some quick process enhancements this year that would standardize electronic submittals.
Personnel/Consultants			
17	Contractors are having difficulties with TPI inspectors. It can be a different inspector every time. TPI inspectors are not consistent in code application and are not as customer-oriented as staff inspectors. Would rather add staff inspectors than use TPI inspectors. Would prefer in-house inspectors do all residential inspections and TPI do all commercial inspections.	In-house inspectors wish to do commercial inspections and not be limited to residential inspections only. However, Community Development will meet to further discuss this issue.	
18	Some TPI inspectors can't/won't give a time when the inspector will arrive.	Community Development will discuss this with TPI and provide an update at a future meeting.	
19	TPI should have a time limitation of 10 days for plan reviews and stick to it.	Community Development will meet to discuss this issue and provide an update at a future meeting.	

20	The Village should hire a consultant to perform stormwater reviews in 10 days.	Community Development will meet to discuss this issue and provide an update at a future meeting.	
21	Building and Zoning Official takes a long time to return emails and calls.	Community Development will meet to discuss this issue and provide an update at a future meeting.	
22	The Building and Zoning Official and Stormwater Engineer overreach their authority by telling contractors how to design things.	Community Development will meet to discuss this issue and provide an update at a future meeting.	
23	The Village needs to review building inspector workload. The availability of construction inspections keeps getting pushed back further.	Community Development will meet to discuss this issue and provide an update at a future meeting.	
24	TPI uses a licensed plumber to review architectural drawings.	Community Development will meet to discuss this issue and provide an update at a future meeting.	
Rules & Regulations			
25	Why is inspection of the trench necessary prior to framing?	Community Development will meet to discuss this issue and provide an update at a future meeting.	
26	Why is an ice and water shield inspection necessary? Can we end this requirement? If it is necessary, why can't the contractor take and submit photos?	Community Development will meet to discuss this issue and provide an update at a future meeting.	
27	If detached garages can be 3 feet from the property line, why can't A/C units and pergolas? The new A/C units are so quiet now.	Community Development will evaluate the possibility of a code amendment to review setbacks for A/C units and provide an update on this item at a future meeting.	
28	Why can't downspouts be tied into the storm sewer?	Public Works has been allowing more connections to the storm sewer where this is enough capacity in the storm line. Community Development will meet to discuss this issue and provide an update at a future meeting.	
29	Why is a stamped, engineered drawing necessary for retaining walls over three-feet high? Is it really necessary? This is not required in all towns.	Community Development will meet to discuss this issue and provide an update at a future meeting.	Staff is currently surveying other communities on their requirements and will report back with a recommendation.
30	Plan reviewers should pick up the phone and call the builder if there are questions rather than immediately sending a letter out. So many issues could be resolved by a phone call and the plan reviewer adding some approval notes to the plan.	Community Development will meet to discuss this issue and provide an update at a future meeting.	
31			
32			
33			
34			



**Glen Ellyn Building Board
of Appeals**
535 Duane Street
Glen Ellyn, IL 60137

Meeting 3/16/2022 7:00 PM
Department: Community Development
Department Head: Staci Springer
Category: Report
Prepared By: Staci Springer

**AGENDA ITEM (ID
2022-2030)**

DOC ID: 2022-2030

Update on the Building Community Listening Sessions

Statement of the Issue:

N/A

Analysis:

N/A

Budget Impact:

N/a

Action Requested:

N/A

Attachments:

1. 3-11-22 Building Community Listening Session Suggestion Chart Update

Village of Glen Ellyn

Building Community Listening Session

Building Board of Appeals – Started November 2021

Update for 3-16-22 BBA Meeting

SUMMARY OF BUILDING COMMUNITY LISTENING SESSION FEEDBACK

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Communication			
1	Often find that contractors don't get calls or email notifications on the outcome of the inspection. Sometimes the inspection result is left with the homeowner, but the contractor does not receive the information. If the inspection report is left outside, sometimes it blows away.	Community Development will meet to discuss this issue and provide an update at a future meeting.	
2	Should create a survey monkey for the permit process to get regular feedback.	Community Development will meet to discuss this issue and provide an update at a future meeting.	Community Development Staff have gathered survey tools from other communities and have prepared a survey tool that the Department can use. A Communications Coordinator just started and this project will be forwarded to him for execution.

Processing			
3	Concerned with engineering reviews and inspections being overly restrictive.	Additional information on specific engineering issues would be needed in order to allow further evaluation. Community Development staff will get together to discuss the topic in general and provide an update at a future meeting.	The Village has always reviewed plans for conformance to the DuPage County Stormwater Ordinance and the Village Code. The stormwater checklist we use has been in place for many (15+) years. The Village of Glen Ellyn is a full-waiver community which is a benefit because it allows us to perform our own plan reviews. Our reviews are 10 business days, which are much quicker than the County. We contacted DuPage County and their reviews are 20 working days (4 weeks) for each review. We would need specific examples about this concern in order to respond further.
4	With the Senior Civil Engineer leaving, there are now consulting engineer costs added to the permit which increases overall cost. The additional engineering consultant costs are disproportionate to the cost of the actual work.	Community Development will meet to discuss this issue and provide an update at a future meeting.	Prior to the full-time Civil Engineer, there was a part-time Development Engineer supplemented by a private consulting engineer. Before that, the Village only used consulting engineers. The Village has always passed on the actual costs of the engineers to the applicant as we are not able to spend Village taxpayer dollars to benefit individual property owners or developers.
5	Consider a day, or half day, where there is an open table with a plan reviewer to look at plans and get questions answered immediately.	Community Development will meet to discuss this issue and provide an update at a future meeting.	
6	Should create a map of the 'informal flood-prone areas' or 'local depressional areas' where additional engineering requirements are necessary and make it available to the public.	Community Development will meet to discuss this issue and provide an update at a future meeting.	The Village has an internal document showing the location of known depressional areas. We will be asking a consultant to update this map and then will post it as a layer on the Village's interactive map on the Village website. Depending on the consultant's schedule, this could take a couple months.
7	A builder explained that the last two new homes took 9 weeks and 13 weeks to permit and that is too long.	Community Development will meet to discuss this issue and provide an update at a future meeting.	The Village pulled 5 single family home permits immediately prior to the BBA meeting for evaluation. One of those included the builder who made this comment. 1. Approved in 29 days, 2 reviews, 14 days in Village hands 2. Approved in 59 days, 2 reviews, 15 days in Village hands 3. Approved in 80 days, 3 reviews, 20 days in Village hands 4. Approved in 52 days, 3 reviews, 19 days in Village hands 5. Approved in 34 days, 2 reviews, 15 days in Village hands Our standard review times are 10 days for the 1st review

			and 5 days for subsequent reviews. These examples were all during our peak period.
8	Re-reviews should be handled in-house by staff Plans Examiner.	Community Development will meet to discuss this issue and provide an update at a future meeting.	
9	All the repeat standard comments should be added to a single place where the applicant can accept and sign off rather the Village sending review letters asking for minor details to be added to plans. Too much documentation is required. Why can't the Village rely on the expertise, certifications and insurance of the licensed design professionals and certified builders?	Community Development will meet to discuss this issue and provide an update at a future meeting.	
10	New homes and remodeling projects should be treated differently. There should be more flexibility in rehabilitation projects where contractors don't know what they are dealing with until they open up the walls.	Community Development will meet to discuss this issue and provide an update at a future meeting.	
11	Four-hour inspection time windows are sometimes difficult for contractors; particularly with pre-pour inspections.	While the staff inspectors usually try to accommodate these inspections, Community Development staff will meet to review this issue and provide an update at a future meeting.	
12	There was concern raised over submittal documents getting lost.	Community Development will meet to discuss this issue and provide an update at a future meeting.	
13	Plan reviewers should stop adding items after the initial plan review.	Community Development will meet to discuss this issue and provide an update at a future meeting.	
14	Glen Ellyn's permit costs are higher than in other towns.	Community Development will meet to discuss this issue and provide an update at a future meeting.	
15	The building staff needs more leeway to make decisions on minor issues.	Community Development will meet to discuss this issue and provide an update at a future meeting.	
16	All submittals should be completely electronic.	Community Development will meet to discuss this issue and provide an update at a future meeting.	The Munis software program we currently use is not conducive to Department needs. Village staff have visited Elmhurst and Lombard to view their electronic permit processes. We have interviewed a software company to see if their program might work better for our needs. This process will take some time, but we hope to implement some quick process enhancements this year that would standardize electronic submittals.

Personnel/Consultants

17	Contractors are having difficulties with TPI inspectors. It can be a different inspector every time. TPI inspectors are not consistent in code application and are not as customer-oriented as staff inspectors. Would rather add staff inspectors than use TPI inspectors. Would prefer in-house inspectors do all residential inspections and TPI do all commercial inspections.	In-house inspectors wish to do commercial inspections and not be limited to residential inspections only. However, Community Development will meet to further discuss this issue.	
18	Some TPI inspectors can't/won't give a time when the inspector will arrive.	Community Development will discuss this with TPI and provide an update at a future meeting.	
19	TPI should have a time limitation of 10 days for plan reviews and stick to it.	Community Development will meet to discuss this issue and provide an update at a future meeting.	
20	The Village should hire a consultant to perform stormwater reviews in 10 days.	Community Development will meet to discuss this issue and provide an update at a future meeting.	With one engineer on staff, the priority was to perform permit reviews to keep projects moving. Final grading reviews to close out building permits were secondary with the limited staff. The consulting engineer does complete all plan reviews within 10 business days. Also, now that we are using a consulting firm, we have been able to keep up with final grading reviews. Weather, especially in winter, limits our ability to perform final grading inspections. Final grading is approved once groundcover is established. The Village's worksheet does state that builders need to have final grading surveys in 5 days before the final inspection is scheduled. We only have 2 builders who regularly try to meet that requirement. The others wait until the Village reminds them. We remind 9 out of 10 builders about this, which delays the permit close out and refunds. We can respond to specific issues if we are provided more information.
21	Building and Zoning Official takes a long time to return emails and calls.	Community Development will meet to discuss this issue and provide an update at a future meeting.	
22	The Building and Zoning Official and Stormwater Engineer overreach their authority by telling contractors how to design things.	Community Development will meet to discuss this issue and provide an update at a future meeting.	There are unique challenges in the Village related to drainage and each property is unique. The Village attempts to assist customers in problem solving. Based on our experience, we know that some designs do not work. For some properties, neighbors or a prior property owner have complained about drainage issues and we want to make sure the problems are not exacerbated by a nearby construction project. In those

			cases the Village will offer suggestions. Staff is not asking for things that are not in the Village Code. Our team does not instruct or design. If there are specific issues, please bring them to the attention of Building and Zoning Official Witt or Director Springer.
23	The Village needs to review building inspector workload. The availability of construction inspections keeps getting pushed back further.	Community Development will meet to discuss this issue and provide an update at a future meeting.	
24	TPI uses a licensed plumber to review architectural drawings.	Community Development will meet to discuss this issue and provide an update at a future meeting.	
Rules & Regulations			
25	Why is inspection of the trench necessary prior to framing?	Community Development will meet to discuss this issue and provide an update at a future meeting.	
26	Why is an ice and water shield inspection necessary? Can we end this requirement? If it is necessary, why can't the contractor take and submit photos?	Community Development will meet to discuss this issue and provide an update at a future meeting.	
27	If detached garages can be 3 feet from the property line, why can't A/C units and pergolas? The new A/C units are so quiet now.	Community Development will evaluate the possibility of a code amendment to review setbacks for A/C units and provide an update on this item at a future meeting.	
28	Why can't downspouts be tied into the storm sewer?	Public Works has been allowing more connections to the storm sewer where this is enough capacity in the storm line. Community Development will meet to discuss this issue and provide an update at a future meeting.	Stormwater sewers are designed to drain only the Village streets. They cannot drain all the land in the Village due to this capacity limitation. Public Works does allow connections to the Village storm sewer system now on a case by case basis. Each project is evaluated to make sure the storm sewer capacity is not compromised.
29	Why is a stamped, engineered drawing necessary for retaining walls over three-feet high? Is it really necessary? This is not required in all towns.	Community Development will meet to discuss this issue and provide an update at a future meeting.	Staff surveyed other communities on their requirements. Most of those we surveyed do have similar requirements. Based on that research, staff is recommending that only walls greater than 48 inches tall be evaluated. Also, the review will not need to be performed by a structural engineer. Any licensed professional will be able to prepare the plan.
30	Plan reviewers should pick up the phone and call the builder if there are questions rather than immediately sending a letter out. So many issues could be resolved by a phone call and the plan reviewer adding some approval notes to the plan.	Community Development will meet to discuss this issue and provide an update at a future meeting.	
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**Glen Ellyn Building Board
of Appeals**
535 Duane Street
Glen Ellyn, IL 60137

Meeting 3/16/2022 7:00 PM
Department: Community Development
Department Head: Staci Springer
Category: Discussion Item
Prepared By: Steve Witt

**AGENDA ITEM (ID
2022-2031)**

DOC ID: 2022-2031

Review of codes regulating construction for potential adoption

Statement of the Issue:

N/A

Analysis:

N/A

Budget Impact:

N/A

Action Requested:

Approve codes with proposed amendments

Attachments:

1. Staff Report - Building Codes Upgrade Meeting 5 - 031622
2. Attachment IFC-1 - Existing Amendments
3. Attachment IFC-2 - Proposed Amendments (Redlined)
4. Attachment IFC-3 - Proposed Amendments (Clean)
5. Attachment IFC-4 - Major Changes
6. Attachment IFC-5 - Proposed Modification Factor Analysis
7. Attachment IBC-1 - Existing Amendments
8. Attachment IBC-2 - Proposed Amendments (Redlined)
9. Attachment IBC-3 - Proposed Amendments (Clean)
10. Attachment IBC-4 - Major Changes

MEMORANDUM

TO: Chairman Bredfeldt and Members of the Building Board of Appeals
Kelley Kalinich, Trustee Liaison

FROM: Steve Witt, Building & Zoning Official

CC: Staci Springer, Community Development Director

DATE: March 11, 2022

RE: Building Codes Upgrade
BBA Meeting 03/16/22



The next items for the Building Board of Appeals to consider at the meeting to be held on March 16, 2022, include the review of the following codes.

- International Fire Code, 2018 (IFC)
Continuation of review from the February 16, 2022 meeting of the BBA
- International Building Code, 2018 (IBC)
The 2009 edition of the IBC is currently enforced within the Village

A summary of the scope of each of the codes to be reviewed is below. We have prepared attachments related to each of these codes which will assist us in walking through all the proposed amendments.

Specifically, the attachments to this memorandum include the following:

1. A copy of the currently adopted amendments to the codes being reviewed that are already in effect.
2. A summary indicating the major revisions to each of the published code editions from our currently adopted edition to the proposed edition. The summary includes the major changes for each of the updates so we can understand the full scope of the changes since the 2009 editions. The highlights on the summaries indicate what changes are deemed to have the most impact on construction within the Village. We recommend concentrating on those changes during any discussions.
3. A “Redlined” version of the current amendments indicating the addition, deletions or modification to the existing amendments that are proposed by staff for discussion and consideration by the BBA.
4. A “Clean” version of the combined existing and proposed amendments which eliminates the struck-thorough verbiage contained in the Redlined version to make for easier reading and reference.
5. Other attachments as deemed necessary to provide information for consideration by the BBA in their deliberation on the proposed codes.

The International Code Council provides free online access for viewing of their codes. The International Codes can be viewed on the International Code Council's website through the following URLs:

International Fire Code:

<https://codes.iccsafe.org/content/IFC2018P6>

International Building Code:

<https://codes.iccsafe.org/content/IBC2018P6>

Fire Code Summary:

The Commission has previously reviewed proposed amendments to the IFC. Amendments to this code are brought back to the BBA for further consideration as discussed at the February 16, 2022 meeting. Although most of the Fire Code materials attached herein are a repeat of what has been previously presented, we ask BBA members to review the highlighted text in Attachment IFC-3 for discussion at the March 16, 2022 meeting. All changes to previously presented material have been included and highlighted within that attachment.

Building Code Summary:

At the March 16, 2022 meeting, we will begin discussion of the IBC. At the meeting, we will provide further background for the reasoning behind each of the proposed amendments as well as the proposed deletion or modification of existing amendments. If we are unable to finish reviewing any of the codes, we can continue review of them to a future meeting.

Scope of Codes:

International Fire Code, 2018

Note: The following information related to the International Fire Code is repeated from the packet that was distributed for the February 16, 2022. This information was gleaned from the IFC but is not necessarily repeated here verbatim.

The *International Fire Code* (IFC) is a model code that regulates minimum fire safety requirements for new and existing buildings, facilities, storage, and processes. The IFC addresses fire prevention, fire protection, life safety and safe storage and use of hazardous materials in new and existing buildings, facilities and processes. The IFC provides a total approach of controlling hazards in all buildings and sites, regardless of the hazard being indoors or outdoors.

The IFC is a design document. For example, before one constructs a building, the site must be provided with an adequate water supply for fire-fighting operations and a means of building access for emergency responders in the event of a medical emergency, fire or natural or technological disaster. Depending on the building's occupancy and uses, the IFC regulates the various hazards that may be housed within the building, including refrigeration systems, application of flammable finishes, fueling of motor vehicles, high-piled combustible storage and the storage and use of hazardous materials. The IFC sets forth minimum requirements for these and other hazards and contains requirements for maintaining the life safety of building occupants, the protection of emergency responders, and to limit the damage to a building and its contents as the result of a fire, explosion or unauthorized hazardous material discharge.

As described, the IFC has many types of requirements for buildings and facilities. The applicability of these requirements varies. An understanding of the applicability of requirements, as addressed in Sections 102.1 and 102.2, is necessary. Section 102.1 addresses when the construction and design provisions are applicable whereas Section 102.2 addresses when the administrative, operational and maintenance provisions are applicable. Generally, the construction and design provisions only apply to new buildings or existing buildings and occupancies as addressed by Chapter 11. The administrative, maintenance and operational requirements are applicable to all buildings and facilities whether new or existing.

The following is a chapter-by-chapter synopsis of the scope and intent of the provisions of the *International Fire Code* as repeated, though not verbatim, from the preface of the 2018 IFC.

PART I—ADMINISTRATIVE

Chapter 1 Scope and Administration. This chapter contains provisions for the application, enforcement and administration of subsequent requirements of the code. In addition to establishing the scope of the code, Chapter 1 identifies which buildings and structures come under its purview. Chapter 1 is largely concerned with maintaining “due process of law” in enforcing the regulations contained in the body of the code. Only through careful observation of the administrative provisions can the code official reasonably expect to demonstrate that “equal protection under the law” has been provided.

Chapter 2 Definitions. All terms that are defined in the code are listed alphabetically in Chapter

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2. While a defined term may be used in one chapter or another, the meaning provided in Chapter 2 is applicable throughout the code.

Where understanding of a term's definition is especially key to or necessary for understanding of a particular code provision, the term is shown in *italics* wherever it appears in the code. This is true only for those terms that have a meaning that is unique to the code. In other words, the generally understood meaning of a term or phrase might not be sufficient or consistent with the meaning prescribed by the code; therefore, it is essential that the code-defined meaning be known. Guidance regarding tense, gender, and plurality of defined terms as well as guidance regarding terms not defined in this code are also provided.

PART II—GENERAL SAFETY PROVISIONS

Chapter 3 General Requirements. The open burning, ignition source, vacant building, miscellaneous storage, roof gardens and landscaped roofs, outdoor pallet storage and hazards to fire fighters requirements and precautions, among other general regulations contained in this chapter, are intended to improve premises safety for everyone, including construction workers, tenants, operations and maintenance personnel, and emergency response personnel. As with other chapters of the *International Fire Code*, Section 302 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 4 Emergency Planning and Preparedness. This chapter addresses the human contribution to life safety in buildings when a fire or other emergency occurs. The requirements for continuous training and scheduled fire, evacuation and lockdown drills can be as important as the required periodic inspections and maintenance of built-in fire protection features. The level of preparation by the occupants also improves the emergency responders' abilities during an emergency. The *International Building Code* (IBC) focuses on built-in fire protection features, such as automatic sprinkler systems, fire-resistance-rated construction, and properly designed egress systems, whereas this chapter fully addresses the human element. As with other chapters of the *International Fire Code*, Section 402 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

PART III—BUILDING AND EQUIPMENT DESIGN FEATURES

Chapter 5 Fire Service Features. The requirements of this chapter apply to all buildings and occupancies and pertain to access roads; access to building openings and roofs; premises identification; key boxes; fire protection water supplies; fire command centers; fire department access to equipment and emergency responder radio coverage in buildings. As with other chapters of the *International Fire Code*, Section 502 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 6 Building Services and Systems. This chapter focuses on building systems and services as they relate to potential safety hazards and when and how they should be installed. This chapter brings together all building system- and service-related issues for convenience and provides a more systematic view of buildings. The following building services and systems are addressed: fuel-fired appliances (Section 603), electrical equipment, wiring and hazards (Section 604), mechanical refrigeration (Section 605), elevator recall and maintenance (Section 606), commercial kitchen hoods (Section 607), commercial kitchen cooking oil storage (608) and hyperbaric facilities (609). As

with other chapters of the *International Fire Code*, Section 602 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents. Note that building systems focused on energy systems and components are addressed by Chapter 12.

Chapter 7 Fire and Smoke Protection Features. The maintenance of assemblies required to be fire-resistance rated is a key component in a passive fire protection philosophy. Chapter 7 sets forth requirements to maintain required fire-resistance ratings of building elements and limit fire spread. Section 701 addresses the basics of what construction elements such as fire barriers and smoke barriers need to be maintained as well as defining the owner's responsibility. The rest of the chapter, Sections 703 through 706, deals with various fire and smoke protection features that must also be maintained. These features include penetrations, joint protection, door, and window openings and duct and air transfer opening protection. As with other chapters of the *International Fire Code*, Section 702 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 8 Interior Finish, Decorative Materials and Furnishings. The overall purpose of Chapter 8 is to regulate interior finishes, decorative materials, and furnishings in new and existing buildings so that they do not significantly add to or create fire hazards within buildings. The provisions tend to focus on occupancies with specific risk characteristics, such as vulnerability of occupants, density of occupants, lack of familiarity with the building and societal expectations of importance. This chapter is consistent with Chapter 8 of the *International Building Code (IBC)*, which regulates the interior finishes of new buildings. As with other chapters of the *International Fire Code*, Section 802 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 9 Fire Protection and Life Safety Systems. Chapter 9 prescribes the minimum requirements for active systems of fire protection equipment to perform the functions of detecting a fire, alerting the occupants or fire department of a fire emergency, controlling smoke, and controlling or extinguishing the fire. There are provisions relating to gas detection and associated alarms. Mass notification systems are also addressed. Generally, the requirements are based on the occupancy, the height, and the area of the building, because these are the factors that most affect fire-fighting capabilities and the relative hazard of a specific building or portion thereof. This chapter parallels and is substantially duplicated in Chapter 9 of the *International Building Code*; however, this chapter also contains periodic testing criteria that are not contained in the IBC. In addition, the special fire protection system requirements based on use and occupancy found in Chapter 4 of the IBC are duplicated in Chapter 9 of the IFC as a user convenience. As with other chapters of the *International Fire Code*, Section 902 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 10 Means of Egress. The general criteria set forth in Chapter 10 regulating the design of the means of egress are established as the primary method for protection of people in buildings by allowing timely relocation or evacuation of building occupants. Both prescriptive and performance language is utilized in this chapter to provide for a basic approach in the determination of a safe exiting system for all occupancies. It addresses all portions of the egress system (i.e., exit access, exits and exit discharge) and includes design requirements as well as provisions regulating individual components. The requirements detail the size, arrangement, number and protection of

means of egress components. Functional and operational characteristics also are specified for the components that will permit their safe use without special knowledge or effort. The means of egress protection requirements work in coordination with other sections of the code, such as protection of vertical openings (see Chapter 7), interior finish (see Chapter 8), fire suppression and detection systems (see Chapter 9) and numerous others, all having an impact on life safety. Sections 1002 through 1030 duplicate text from Chapter 10 of the IBC; however, the IFC contains an additional Section 1031 on maintenance of the means of egress system in existing buildings. Retroactive minimum means of egress requirements for existing buildings are found in Chapter 11.

Chapter 11 Construction Requirements for Existing Buildings. Chapter 11 applies to existing buildings constructed prior to the adoption of the code and intends to provide a minimum degree of fire and life safety to persons occupying existing buildings by providing for alterations to such buildings that do not comply with the minimum requirements of the *International Building Code*. Prior to the 2009 edition, its content existed in the IFC but in a random manner that was neither efficient nor user-friendly. In the 2007/2008 code development cycle, a code change (F294-07/08) was approved that consolidated the retroactive elements of IFC/2006 Sections 607, 701, 704, 903, 905, 907 and 3406 (then 2506) and all of then-Section 1027 (Means of Egress for Existing Buildings) into a single chapter for easier and more efficient reference and application to existing buildings. The provisions address general fire safety features such as requirements for fire alarm systems, CO detection and automatic sprinkler systems in some existing buildings, general means of egress, and finally, the chapter contains a section dedicated to existing Group I-2 occupancies. As with other chapters of the *International Fire Code*, Section 1102 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 12 Energy Systems. Chapter 12 was added to address the current energy systems found in the IFC. It introduces a wide range of systems that generate and store energy in, on and adjacent to buildings and facilities. The expansion of such energy systems is related to meeting today's energy, environmental and economic challenges. Ensuring appropriate criteria to address the safety of such systems in building and fire codes is an important part of protecting the public at large, building occupants and emergency responders. Previously, requirements for energy systems, such as standby power systems, PV systems and stationary battery systems, were scattered about in various locations in Chapter 6, which addresses building services and systems. However, with the addition of fuel cells and capacitor energy storage systems to the IFC, a chapter dedicated to such related issues needed to be created. This chapter provides an appropriate location for the addition of future energy systems.

Chapters 13 through 19. Reserved for future use.

PART IV—SPECIAL OCCUPANCIES AND OPERATIONS

Chapter 20 Aviation Facilities. Chapter 20 specifies minimum requirements for the fire-safe operation of airports, heliports, and helistops. The principal nonflight operational hazards associated with aviation involve fuel, facilities, and operations. Therefore, safe use of flammable and combustible liquids during fueling and maintenance operations is emphasized. Availability of portable Class B:C-rated fire extinguishers for prompt control or suppression of incipient fires is required. As with other chapters of the *International Fire Code*, Section 2002 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 21 Dry Cleaning. The provisions of Chapter 21 are intended to reduce hazards associated with use of flammable and combustible dry cleaning solvents. These materials, like all volatile organic chemicals, generate significant quantities of static electricity and are thus readily ignitable. Many flammable and nonflammable dry cleaning solvents also possess health hazards when involved in a fire. As with other chapters of the *International Fire Code*, Section 2102 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 22 Combustible Dust-producing Operations. The requirements of Chapter 22 seek to reduce the likelihood of dust explosions by managing the hazards of ignitable suspensions of combustible dusts associated with a variety of operations including woodworking, mining, food processing, agricultural commodity storage and handling and pharmaceutical manufacturing, among others. Ignition source control and good housekeeping practices in occupancies containing dust-producing operations are emphasized. As with other chapters of the *International Fire Code*, Section 2202 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 23 Motor Fuel-dispensing Facilities and Repair Garages. This chapter provides provisions that regulate the storage and dispensing of both liquid and gaseous motor fuels at public and private automotive, marine and aircraft motor fuel-dispensing facilities, fleet vehicle motor fuel-dispensing facilities and repair garages. As with other chapters of the *International Fire Code*, Section 2302 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 24 Flammable Finishes. Chapter 24 requirements govern operations where flammable or combustible finishes are applied by spraying, dipping, powder coating or flow-coating processes. As with all operations involving flammable or combustible liquids and combustible dusts or vapors, controlling ignition sources and methods of reducing or controlling flammable vapors or combustible dusts at or near these operations are emphasized. As with other chapters of the *International Fire Code*, Section 2402 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 25 Fruit and Crop Ripening. Chapter 25 provides guidance that is intended to reduce the likelihood of explosions resulting from improper use or handling of ethylene gas used for crop ripening and coloring processes. This is accomplished by regulating ethylene gas generation; storage and distribution systems and controlling ignition sources. Design and construction of facilities for this use are regulated by the *International Building Code* to reduce the impact of potential accidents on people and buildings.

Chapter 26 Fumigation and Insecticidal Fogging. This chapter regulates fumigation and insecticidal fogging operations which use toxic pesticide chemicals to kill insects, rodents and other vermin. Fumigants and insecticidal fogging agents pose little hazard if properly applied; however, the inherent toxicity of all these agents and the potential flammability of some makes special precautions necessary when they are used. Requirements of this chapter are intended to protect both the public and fire fighters from hazards associated with these products. As with other chapters of the *International Fire Code*, Section 2602 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 27 Semiconductor Fabrication Facilities. The requirements of this chapter are intended to control hazards associated with the manufacture of electrical circuit boards or microchips, commonly called semiconductors. Though the finished product possesses no unusual hazards, materials commonly associated with semiconductor manufacturing are often quite hazardous and include flammable liquids, pyrophoric and flammable gases, toxic substances and corrosives. The requirements of this chapter are concerned with both life safety and property protection. However, the fire code official should recognize that the risk of extraordinary property damages is far more common than the risk of personal injuries from fire. As with other chapters of the *International Fire Code*, Section 2702 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 28 Lumber Yards and Agro-industrial, Solid Biomass and Woodworking Facilities. Provisions of this chapter are intended to prevent fires and explosions, facilitate fire control and reduce exposures to and from facilities storing, selling, or processing wood and forest products, including sawdust, wood chips, shavings, bark mulch, shorts, finished planks, sheets, posts, poles, timber and raw logs and the hazard they represent once ignited. Also included are solid biomass feedstock and raw products associated with agro-industrial facilities, the outdoor storage of pallets and manufacturing and recycling facilities. This chapter requires active and passive fire protection features to reduce on- and off-site exposures, limit fire size and development and facilitate fire fighting by employees and the fire service. As with other chapters of the *International Fire Code*, Section 2802 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 29 Manufacture of Organic Coatings. This chapter regulates materials and processes associated with the manufacture of paints as well as bituminous, asphaltic, and other diverse compounds formulated to protect buildings, machines, and objects from the effects of weather, corrosion and hostile environmental exposures. Paint for decorative, architectural, and industrial uses comprises the bulk of organic coating production. Painting and processes related to the manufacture of nonflammable and noncombustible or water-based products are exempt from the provisions of this chapter. The application of organic coatings is covered by Chapter 24. Elimination of ignition sources, maintenance of fire protection equipment and isolation or segregation of hazardous operations are emphasized. As with other chapters of the *International Fire Code*, Section 2902 contains a term that is defined in Chapter 2 and is applicable to the chapter contents.

Chapter 30 Industrial Ovens. This chapter addresses the fuel supply, ventilation, emergency shutdown equipment, fire protection and the operation and maintenance of industrial ovens, which are sometimes referred to as industrial heat enclosures or industrial furnaces. Compliance with this chapter is intended to reduce the likelihood of fires involving industrial ovens which are usually the result of the fuel in use or volatile vapors given off by the materials being heated or to manage the impact if a fire should occur. As with other chapters of the *International Fire Code*, Section 3002 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 31 Tents, Temporary Structures and Other Membrane Structures. The requirements in this chapter are intended to protect temporary as well as permanent tents and air-supported and other membrane structures and temporary special event structures from fire and similar

hazards by regulating structure location and access, anchorage, egress, heat-producing equipment, hazardous materials and operations, combustible vegetation, ignition sources, waste accumulation and requiring regular inspections and certifying continued compliance with fire safety regulations. This chapter also addresses outdoor assembly events, which are not limited to those events where tents or other membrane structures are used but are regulated due to the number of people, density of those people and hazards associated with large outdoor events related to egress, fire hazards from cooking and other related concerns. As with other chapters of the *International Fire Code*, Section 3102 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 32 High-piled Combustible Storage. This chapter provides guidance for reasonable protection of life from hazards associated with the storage of combustible materials in closely packed piles or on pallets, in racks or on shelves where the top of storage is greater than 12 feet in height. It provides requirements for identifying various classes of commodities; general fire and life safety features including storage arrangements, smoke and heat venting, and fire department access; and housekeeping and maintenance requirements. The chapter attempts to define the potential fire severity and, in turn, determine fire and life safety protection measures needed to control, and in some cases suppress, a potential fire. This chapter does not cover miscellaneous combustible materials storage regulated in Section 315. As with other chapters of the *International Fire Code*, Section 3202 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 33 Fire Safety during Construction and Demolition. Chapter 33 outlines general fire safety precautions for all structures and all occupancies during construction and demolition operations. In general, these requirements seek to maintain required levels of fire protection, limit fire spread, establish the appropriate operation of equipment and promote prompt response to fire emergencies. Features regulated include fire protection systems, fire fighter access to the site and building, means of egress, hazardous materials storage and use and temporary heating equipment and other ignition sources. With the 2012 reorganization, this chapter now correlates with Chapter 33 of the IBC.

Chapter 34 Tire Rebuilding and Tire Storage. The requirements of Chapter 34 are intended to prevent or control fires and explosions associated with the remanufacture and storage of tires and tire byproducts. Additionally, the requirements are intended to minimize the impact of indoor and outdoor tire storage fires by regulating pile volume and location, segregating the various operations, providing for fire department access and a water supply and controlling ignition sources.

Chapter 35 Welding and Other Hot Work. This chapter covers requirements for safety in welding and other types of hot work by reducing the potential for fire ignitions that usually result in large losses. Several different types of hot work would fall under the requirements found in Chapter 35, including both gas and electric arc methods and any open-torch operations. Many of the activities of this chapter focus on the actions of the occupants. As with other chapters of the *International Fire Code*, Section 3502 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 36 Marinas. Chapter 36 addresses the fire protection and prevention requirements for

marinas. It was developed in response to the complications encountered by a number of fire departments responsible for the protection of marinas as well as fire loss history in marinas that lacked fire protection. Compliance with this chapter intends to establish safe practices in marina areas, provide an identification method for mooring spaces in the marina, and provide fire fighters with safe operational areas and fire protection methods to extend hose lines in a safe manner. As with other chapters of the *International Fire Code*, Section 3602 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 37 Combustible Fibers. Chapter 37 establishes the requirements for storage and handling of combustible fibers, including animal, vegetable and synthetic fibers, whether woven into textiles, baled, packaged or loose. Operations involving combustible fibers are typically associated with salvage, paper milling, recycling, cloth manufacturing, carpet and textile mills and agricultural operations, among others. The primary hazard associated with these operations is the abundance of materials and their ready ignitability. As with other chapters of the *International Fire Code*, Section 3702 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 38 Higher Education Laboratories. Chapter 38 is a new chapter addressing the unique needs of laboratories in higher education academic institutions. The advancement of technologies, science, medicine and our knowledge of the world often relies on having vibrant and successful academic institutions. These academic institutions often have chemistry, biology, medical, engineering and other laboratories where hazardous materials are used. The chapter addresses both new and existing buildings and new and existing laboratories. Applying the general hazardous material provisions has been difficult because of the ways these laboratories operate. Often there are many small laboratories that use very small quantities of hazardous materials that individually do not exceed the MAQs. However, in aggregate the quantities will exceed the MAQs and could result in the need for a Group H occupancy classification. It is believed that the lower density of hazardous materials often mitigates the overall risk. Therefore, this lower density along with a package of additional requirements (including the concept of laboratory suites with fire-resistance-rated separations) renders a Group H occupancy classification not necessary. This chapter also addresses the use of certain materials typically prohibited for existing buildings where located in buildings not protected throughout with a sprinkler system. These allowances come with certain safety measures such as the use of storage cabinets and fume hoods.

Chapter 39 Processing and Extraction Facilities. Chapter 39 is a new chapter focused on the processing and extraction of oils and fats from various plants. This process includes the extraction by use of solvent, desolventizing of the raw material and production of the miscella, and distillation of the solvent from the miscella and solvent recovery. The processes used are not necessarily typical hazardous material processes and often the systems and equipment associated with such processes are not listed. Due to the typical lack of listings, the systems and equipment need specific approvals for each installation. This chapter provides the tools to appropriately enforce the IFC to meet the unique needs of industry while providing the appropriate level of safety. This chapter has provisions for a technical report prepared by a registered design professional. This chapter also requires site inspections to make sure equipment and systems are installed as designed and approved.

Chapters 40 through 49. Reserved for future use.

PART V—HAZARDOUS MATERIALS

Chapter 50 Hazardous Materials—General Provisions. This chapter contains the general requirements for all hazardous chemicals in all occupancies. Hazardous chemicals are defined as those that pose an unreasonable risk to the health and safety of operating or emergency personnel, the public and the environment if not properly controlled during handling, storage, manufacture, processing, packaging, use, disposal, or transportation. The general provisions of this chapter are intended to be companion provisions with the specific requirements of Chapters 51 through 67 regarding a given hazardous material. As with other chapters of the *International Fire Code*, Section 5002 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 51 Aerosols. Chapter 51 addresses the prevention, control, and extinguishment of fires and explosions in facilities where retail aerosol products are displayed or stored. It is concerned with both life safety and property protection from a fire; however, historically, aerosol product fires have caused property loss more frequently than loss of life. Requirements for storing aerosol products are dependent on the level of aerosol product, level of sprinkler protection, type of storage condition and quantity of aerosol products. As with other chapters of the *International Fire Code*, Section 5102 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 52. Reserved for future use.

Chapter 53 Compressed Gases. This chapter regulates the storage, use and handling of all flammable and nonflammable compressed gases, such as those that are used in medical facilities, air separation plants, industrial plants, agricultural equipment facilities and similar occupancies. Standards for the design, construction and marking of compressed gas cylinders and pressure vessels are referenced. Compressed gases used in welding and cutting, cryogenic liquids and liquefied petroleum gases are also regulated under Chapters 35, 55 and 61, respectively. Compressed gases that are classified as hazardous materials are also regulated in Chapter 50, which includes general requirements. As with other chapters of the *International Fire Code*, Section 5302 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 54 Corrosive Materials. Chapter 54 addresses the hazards of corrosive materials that have a destructive effect on living tissues. Although corrosive gases exist, most corrosive materials are solid or liquid and classified as either acids or bases (alkalis). These materials may pose a wide range of hazards other than corrosivity, such as combustibility, reactivity or oxidizing hazards, and must conform to the requirements of this code with respect to all known hazards. The focus of this chapter is on materials whose primary hazard is corrosivity; that is, the ability to destroy or irreparably damage living tissue on contact. As with other chapters of the *International Fire Code*, Section 5402 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 55 Cryogenic Fluids. This chapter regulates the hazards associated with the storage, use and handling of cryogenic fluids through regulation of such things as pressure relief mechanisms and proper container storage. These hazards are in addition to the code requirements that address the other hazards of cryogenic fluids such as flammability and toxicity. These other characteristics are dealt with in Chapter 50 and other chapters, such as Chapter 58 dealing with flammable gases.

Cryogenics are hazardous because they are held at extremely low temperatures and high pressures. Many cryogenic fluids, however, are actually inert gases and would not be regulated elsewhere in this code. Cryogenics are used for many applications but specifically have had widespread use in the biomedical field and in space programs. As with other chapters of the *International Fire Code*, Section 5502 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 56 Explosives and Fireworks. This chapter prescribes minimum requirements for the safe manufacture, storage, handling and use of explosives, ammunition and blasting agents for commercial and industrial occupancies. These provisions are intended to protect the general public, emergency responders and individuals who handle explosives. Chapter 56 also regulates the manufacturing, retail sale, display and wholesale distribution of fireworks, establishing the requirements for obtaining approval to manufacture, store, sell, discharge or conduct a public display, and references national standards for regulations governing manufacture, storage and public displays. As with other chapters of the *International Fire Code*, Section 5602 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 57 Flammable and Combustible Liquids. The requirements of this chapter are intended to reduce the likelihood of fires involving the storage, handling, use or transportation of flammable and combustible liquids. Adherence to these practices may also limit damage in the event of an accidental fire involving these materials. These liquids are used for fuel, lubricants, cleaners, solvents, medicine and even drinking. The danger associated with flammable and combustible liquids is that the vapors from these liquids, when combined with air in their flammable range, will burn or explode at temperatures near normal living and working environment. The protection provided by this code is to prevent the flammable and combustible liquids from being ignited. As with other chapters of the *International Fire Code*, Section 5702 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 58 Flammable Gases and Flammable Cryogenic Fluids. Chapter 58 sets requirements for the storage and use of flammable gases. For safety purposes, there is a limit on the quantities of flammable gas allowed per control area. Exceeding these limitations increases the possibility of damage to both property and individuals. The principal hazard posed by flammable gas is its ready ignitability, or even explosivity, when mixed with air in the proper proportions. Consequently, occupancies storing or handling large quantities of flammable gas are classified as Group H-2 (high hazard) by the *International Building Code*. As with other chapters of the *International Fire Code*, Section 5802 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 59 Flammable Solids. This chapter addresses general requirements for storage and handling of flammable solids, especially magnesium; however, it is important to note that several other solid materials, primarily metals including, but not limited to, titanium, zirconium, hafnium, calcium, zinc, sodium, lithium, potassium, sodium/potassium alloys, uranium, thorium and plutonium, can be explosion hazards under the right conditions. Some of these metals are almost exclusively laboratory materials but because of where they are used, fire service personnel must be trained to handle emergency situations. Because uranium, thorium and plutonium are also radioactive materials, they present still more specialized problems for fire service personnel. As with other

chapters of the *International Fire Code*, Section 5902 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 60 Highly Toxic and Toxic Materials. The main purpose of this chapter is to protect occupants, emergency responders and those in the immediate area of the building and facility from short-term, acute hazards associated with a release or general exposure to toxic and highly toxic materials. This chapter deals with all three states of toxic and highly toxic materials: solids, liquids and gases. This code does not address long-term exposure effects of these materials, which are addressed by agencies such as the Environmental Protection Agency (EPA) and Occupational Safety and Health Administration (OSHA). As with other chapters of the *International Fire Code*, Section 6002 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 61 Liquefied Petroleum Gases. Chapter 61 establishes requirements for the safe handling, storing and use of LP-gas to reduce the possibility of damage to containers, accidental releases of LP-gas and exposure of flammable concentrations of LP-gas to ignition sources. LP-gas (notably propane) is well known as a camping fuel for cooking, lighting, heating and refrigerating and also remains a popular standby fuel supply for auxiliary generators as well as being widely used as an alternative motor vehicle fuel. Its characteristic as a clean-burning fuel has resulted in the addition of propane dispensers to service stations throughout the country. As with other chapters of the *International Fire Code*, Section 6102 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 62 Organic Peroxides. This chapter addresses the hazards associated with the storage, handling and use of organic peroxides and intends to manage the fire and oxidation hazards of organic peroxides by preventing their uncontrolled release. These chemicals possess the characteristics of flammable or combustible liquids and are also strong oxidizers. This unusual combination of properties requires special storage and handling precautions to prevent uncontrolled release, contamination, hazardous chemical reactions, fires or explosions. The requirements of this chapter pertain to industrial applications in which significant quantities of organic peroxides are stored or used; however, smaller quantities of organic peroxides still pose a significant hazard and, therefore, must be stored and used in accordance with the applicable provisions of this chapter and Chapter 50. As with other chapters of the *International Fire Code*, Section 6202 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 63 Oxidizers, Oxidizing Gases and Oxidizing Cryogenic Fluids. Chapter 63 addresses the hazards associated with solid, liquid, gaseous and cryogenic fluid oxidizing materials, including oxygen in home use, and establishes criteria for their safe storage and protection in indoor and outdoor storage facilities, minimizing the potential for uncontrolled releases and contact with fuel sources. Although oxidizers themselves do not burn, they pose unique fire hazards because of their ability to support combustion by breaking down and giving off oxygen. As with other chapters of the *International Fire Code*, Section 6302 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 64 Pyrophoric Materials. This chapter regulates the hazards associated with pyrophoric materials, which are capable of spontaneously igniting in the air at or below a temperature of 130°F (54°C). Many pyrophoric materials also pose severe flammability or reactivity hazards. This

chapter addresses only the hazards associated with pyrophoric materials. Materials that pose multiple hazards must conform to the requirements of the code with respect to all hazards. As with other chapters of the *International Fire Code*, Section 6402 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 65 Pyroxylin (Cellulose Nitrate) Plastics. This chapter addresses the significant hazards associated with pyroxylin (cellulose nitrate) plastics, which are the most dangerous and unstable of all plastic compounds. The chemically bound oxygen in their structure permits them to burn vigorously in the absence of atmospheric oxygen at a rate 15 times greater than comparable common combustibles. Strict compliance with the provisions of this chapter, along with proper housekeeping and storage arrangements, helps to reduce the hazards associated with pyroxylin (cellulose nitrate) plastics in a fire or other emergencies.

Chapter 66 Unstable (Reactive) Materials. This chapter addresses the hazards of unstable (reactive) liquid and solid materials as well as unstable (reactive) compressed gases. In addition to their unstable reactivity, these materials may pose other hazards, such as toxicity, corrosivity, explosivity, flammability or oxidizing potential. This chapter, however, intends to address those materials whose primary hazard is unstable reactivity. Materials that pose multiple hazards must conform to the requirements of the code with respect to all hazards. Strict compliance with the provisions of this chapter, along with proper housekeeping and storage arrangements, help reduce the exposure hazards associated with unstable (reactive) materials in a fire or other emergency. As with other chapters of the *International Fire Code*, Section 6602 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapter 67 Water-reactive Solids and Liquids. This chapter addresses the hazards associated with water-reactive materials that are solid or liquid at normal temperatures and pressures. In addition to their water reactivity, these materials may pose a wide range of other hazards, such as toxicity, flammability, corrosiveness, or oxidizing potential. This chapter addresses only those materials whose primary hazard is water reactivity. Materials that pose multiple hazards must conform to the requirements of the code with respect to all hazards. Strict compliance with the requirements of this chapter, along with proper housekeeping and storage arrangements, helps to reduce the exposure hazards associated with water-reactive materials in a fire or other emergency. As with other chapters of the *International Fire Code*, Section 6702 contains a list of terms that are defined in Chapter 2 and are applicable to the chapter contents.

Chapters 68 through 79. Reserved for future use.

International Building Code, 2018

Note: The following information was gleaned from the IBC but is not necessarily repeated here verbatim.

The *International Building Code* (IBC) is a model code that provides minimum requirements to safeguard the public health, safety and general welfare of the occupants of new and existing buildings and structures. The IBC is fully compatible with the ICC family of codes.

The IBC addresses structural strength, means of egress, sanitation, adequate lighting and ventilation, accessibility, energy conservation and life safety in regard to new and existing buildings, facilities and systems. The codes are promulgated on a 3-year cycle to allow for new construction methods and technologies to be incorporated into the codes. Alternative materials, designs and methods not specifically addressed in the code can be approved by the building official where the proposed materials, designs or methods comply with the intent of the provisions of the code (see Section 104.11).

The IBC applies to all occupancies, including one- and two-family dwellings and townhouses that are not within the scope of the IRC. The IRC is referenced for coverage of detached one- and two-family dwellings and townhouses as defined in the exception to Section 101.2 and the definition for “Townhouse” in Chapter 2. The IRC can also be used for the construction of live/work units (as defined in Section 419) and small bed and breakfast-style hotels where there are five or fewer guest rooms and the hotel is owner occupied. The IBC applies to all types of buildings and structures unless exempted. Work exempted from permits is listed in Section 105.2.

The following is a chapter-by-chapter synopsis of the scope and intent of the provisions of the *International Building Code* as repeated, though not verbatim, from the preface of the 2018 IPMC.

Chapter 1 Scope and Administration. Chapter 1 establishes the limits of applicability of the code and describes how the code is to be applied and enforced. Chapter 1 is in two parts, Part 1- Scope and Application (Sections 101-102) and Part 2-Administration and Enforcement (Sections 103-116). Section 101 identifies which buildings and structures come under its purview and references other I-Codes as applicable. Standards and codes are scoped to the extent referenced (see Section 102.4).

The building code is intended to be adopted as a legally enforceable document and it cannot be effective without adequate provisions for its administration and enforcement. The provisions of Chapter 1 establish the authority and duties of the building official appointed by the authority having jurisdiction and also establish the rights and privileges of the design professional, contractor and property owner.

Chapter 2 Definitions. An alphabetical listing of all defined terms is located in Chapter 2. Defined terms that are pertinent to a specific chapter or section are also found in that chapter or section with a reference back to Chapter 2 for the definition. While a defined term may be listed in one chapter or another, the meaning is applicable throughout the code.

Codes are technical documents and every word, term and punctuation mark can impact the meaning of the code text and the intended results. The code often uses terms that have a unique

meaning in the code and the code meaning can differ substantially from the ordinarily understood meaning of the term as used outside of the code. Where understanding of a term's definition is especially key to or necessary for understanding a particular code provision, the term is shown in italics wherever it appears in the code. The user of the code should be familiar with and consult this chapter because the definitions are essential to the correct interpretation of the code. Where a term is not defined, such terms shall have the ordinarily accepted meaning.

Chapter 3 Use and Occupancy Classification. Chapter 3 provides for the classification of buildings, structures and parts thereof based on the purpose or purposes for which they are used. Section 302 identifies the groups into which all buildings, structures and parts thereof must be classified. Sections 303 through 312 identify the occupancy characteristics of each group classification. In some sections, specific group classifications having requirements in common are collectively organized such that one term applies to all. For example, Groups A-1, A-2, A-3, A-4 and A-5 are individual groups for assembly-type buildings. The general term "Group A," however, includes each of these individual groups. Other groups include Business (B), Educational (E), Factory (F-1, F-2), High Hazard (H-1, H-2, H-3, H-4, H-5), Institutional (I-1, I-2, I-3, I-4), Mercantile (M), Residential (R-1, R-2, R-3, R-4), Storage (S-1, S-2) and Utility (U). In some occupancies, the smaller number means a higher hazard, but that is not always the case.

Defining the use of the buildings is very important as it sets the tone for the remaining chapters of the code. Occupancy works with the height, area and construction type requirements in Chapters 5 and 6, as well as the special provisions in Chapter 4, to determine "equivalent risk," or providing a reasonable level of protection or life safety for building occupants. The determination of equivalent risk involves three interdependent considerations: (1) the level of fire hazard associated with the specific occupancy of the facility; (2) the reduction of fire hazard by limiting the floor area and the height of the building based on the fuel load (combustible contents and burnable building components); and (3) the level of overall fire resistance provided by the type of construction used for the building. The greater the potential fire hazards indicated as a function of the group, the lesser the height and area allowances for a particular construction type.

Occupancy classification also plays a key part in organizing and prescribing the appropriate protection measures. As such, threshold requirements for fire protection and means of egress systems are based on occupancy classification (see Chapters 9 and 10). Other sections of the code also contain requirements respective to the classification of building groups. For example, Section 706 specifies requirements for fire wall fire-resistance ratings that are tied to the occupancy classification of a building and Section 803.11 contains interior finish requirements that are dependent upon the occupancy classification. The use of the space, rather than the occupancy of the building, is utilized for determining occupant loading (Section 1004) and live loading (Section 1607).

Over the useful life of a building, the activities in the building will evolve and change. Where the provisions of the code address uses differently, moving from one activity to another or from one level of activity to another is, by definition, a change of occupancy. The new occupancy must be in compliance with the applicable provisions.

Chapter 4 Special Detailed Requirements Based on Use and Occupancy. Chapter 4

contains the requirements for protecting special uses and occupancies, which are supplemental to the remainder of the code. Chapter 4 contains provisions that may alter requirements found elsewhere in the code; however, the general requirements of the code still apply unless modified within the chapter. For example, the height and area limitations established in Chapter 5 apply to all special occupancies unless Chapter 4 contains height and area limitations. In this case, the limitations in Chapter 4 supersede those in other sections. An example of this is the height and area limitations for open parking garages given in Section 406.5.4, which supersede the limitations given in Sections 504 and 506.

In some instances, it may not be necessary to apply the provisions of Chapter 4. For example, if a covered mall building complies with the provisions of the code for Group M, Section 402 does not apply; however, other sections that address a use, process or operation must be applied to that specific occupancy, such as stages and platforms, special amusement buildings and hazardous materials (Sections 410, 411 and 414).

The chapter includes requirements for buildings and conditions that apply to one or more groups, such as high-rise buildings, underground buildings or atriums. Special uses may also imply specific occupancies and operations, such as for Group H, hazardous materials, application of flammable finishes, drying rooms, organic coatings and combustible storage or hydrogen fuel gas rooms, all of which are coordinated with the IFC. Unique consideration is taken for special use areas, such as covered mall buildings, motor-vehicle-related occupancies, special amusement buildings and aircraft-related occupancies. Special facilities within other occupancies are considered, such as stages and platforms, motion picture projection rooms, children's play structures and storm shelters. Finally, in order that the overall package of protection features can be easily understood, unique considerations for specific occupancies are addressed: Groups I-1, I-2, I-3, R-1, R-2, R-3 and R-4; ambulatory care facilities and live/work units.

Chapter 5 General Building Heights and Areas. Chapter 5 contains the provisions that regulate the minimum type of construction for area limits and height limits based on the occupancy of the building. Height and area increases (including allowances for basements, mezzanines and equipment platforms) are permitted based on open frontage for fire department access, separation and the type of sprinkler protection provided (Sections 503-506, 510). These thresholds are reduced for buildings over three stories in height in accordance with Sections 506.2.3 and 506.2.4. Provisions include the protection and/or separation of incidental uses (Table 509), accessory occupancies (Section 508.2) and mixed uses in the same building (Sections 506.2.2, 506.2.4, 508.3, 508.4 and 510). Unlimited area buildings are permitted in certain occupancies when they meet special provisions (Section 507).

Tables 504.3, 504.4 and 506.2 are the keystones in setting thresholds for building size based on the building's use and the materials with which it is constructed. If one then looks at Tables 504.3, 504.4 and 506.2, the relationship among group classification, allowable heights and areas and types of construction becomes apparent. Respective to each group classification, the greater the fire-resistance rating of structural elements, as represented by the type of construction, the greater the floor area and height allowances. The greater the potential fire hazards indicated as a function of the group, the lesser the height and area allowances for a particular construction type. Starting in the 2015 edition, the table that once contained both height and area has been

separated and these three new tables address the topics individually. In addition, the tables list criteria for buildings with and without automatic sprinkler systems.

Chapter 6 Types of Construction. The interdependence of these fire safety considerations can be seen by first looking at Tables 601 and 602, which show the fire-resistance ratings of the principal structural elements comprising a building in relation to the five classifications for types of construction. Type I construction is the classification that generally requires the highest fire-resistance ratings for structural elements, whereas Type V construction, which is designated as a combustible type of construction, generally requires the least amount of fire-resistance-rated structural elements. The greater the potential fire hazards indicated as a function of the group, the lesser the height and area allowances for a particular construction type. Section 603 includes a list of combustible elements that can be part of a noncombustible building (Types I and II construction).

Chapter 7 Fire and Smoke Protection Features. The provisions of Chapter 7 present the fundamental concepts of fire performance that all buildings are expected to achieve in some form. This chapter identifies the acceptable materials, techniques and methods by which proposed construction can be designed and evaluated against to determine a building's ability to limit the impact of fire. The fire-resistance-rated construction requirements within Chapter 7 provide passive resistance to the spread and effects of fire. Types of separations addressed include fire walls, fire barriers, fire partitions, horizontal assemblies, smoke barriers and smoke partitions. A fire produces heat that can weaken structural components and smoke products that cause property damage and place occupants at risk. The requirements of Chapter 7 work in unison with height and area requirements (Chapter 5), active fire detection and suppression systems (Chapter 9) and occupant egress requirements (Chapter 10) to contain a fire should it occur while helping ensure occupants are able to safely exit.

Chapter 8 Interior Finishes. This chapter contains the performance requirements for controlling fire growth within buildings by restricting interior finish and decorative materials. Past fire experience has shown that interior finish and decorative materials are key elements in the development and spread of fire. The provisions of Chapter 8 require materials used as interior finishes and decorations to meet certain flame-spread index or flame-propagation criteria based on the relative fire hazard associated with the occupancy. As smoke is also a hazard associated with fire, this chapter contains limits on the smoke development characteristics of interior finishes. The performance of the material is evaluated based on test standards.

Chapter 9 Fire Protection Systems. Chapter 9 prescribes the minimum requirements for active systems of fire protection equipment to perform the following functions: detect a fire; alert the occupants or fire department of a fire emergency; and control smoke and control or extinguish the fire. Generally, the requirements are based on the occupancy, the height and the area of the building, because these are the factors that most affect fire-fighting capabilities and the relative hazard of a specific building or portion thereof. This chapter parallels and is substantially duplicated in Chapter 9 of the International Fire Code (IFC); however, the IFC Chapter 9 also contains periodic testing criteria that are not contained in the IBC. In addition, the special fire protection system requirements based on use and occupancy found in IBC Chapter 4 are duplicated in IFC Chapter 9 as a user convenience.

Chapter 10 Means of Egress. The general criteria set forth in Chapter 10 regulating the design of the means of egress are established as the primary method for protection of people in buildings by allowing timely relocation or evacuation of building occupants. Both prescriptive and performance language is utilized in this chapter to provide for a basic approach in the determination of a safe exiting system for all occupancies. It addresses all portions of the egress system (i.e., exit access, exits and exit discharge) and includes design requirements as well as provisions regulating individual components. The requirements detail the size, arrangement, number and protection of means of egress components. Functional and operational characteristics also are specified for the components that will permit their safe use without special knowledge or effort. The means of egress protection requirements work in coordination with other sections of the code, such as protection of vertical openings (see Chapter 7), interior finish (see Chapter 8), fire suppression and detection systems (see Chapter 9) and numerous others, all having an impact on life safety. Chapter 10 of the IBC is duplicated in Chapter 10 of the IFC; however, the IFC contains one additional section on the means of egress system in existing buildings.

Chapter 11 Accessibility. Chapter 11 contains provisions that set forth requirements for accessibility of buildings and their associated sites and facilities for people with physical disabilities. The fundamental philosophy of the code on the subject of accessibility is that everything is required to be accessible. This is reflected in the basic applicability requirement (see Section 1103.1). The code's scoping requirements then address the conditions under which accessibility is not required in terms of exceptions to this general mandate. While the IBC contains scoping provisions for accessibility (for example, what, where and how many), ICC A117.1, Accessible and Usable Buildings and Facilities, is the referenced standard for the technical provisions (in other words, how).

There are many accessibility issues that not only benefit people with disabilities, but also provide a tangible benefit to people without disabilities. This type of requirement can be set forth in the code as generally applicable without necessarily identifying it specifically as an accessibility-related issue. Such a requirement would then be considered as having been "mainstreamed." For example, visible alarms are located in Chapter 9 and accessible means of egress and ramp requirements are addressed in Chapter 10.

The International Residential Code (IRC) references Chapter 11 for accessibility provisions; therefore, this chapter may be applicable to housing covered under the IRC.

Chapter 12 Interior Environment. Chapter 12 provides minimum standards for the interior environment of a building. The standards address the minimum sizes of spaces, minimum temperature levels, and minimum light and ventilation levels. The collection of requirements addresses limiting sound transmission through walls, ventilation of attic spaces and under floor spaces (crawl spaces). Finally, the chapter provides minimum standards for toilet and bathroom construction, including privacy shielding and standards for walls, partitions and floors to resist water intrusion and damage.

Chapter 13 Energy Efficiency. The purpose of Chapter 13 is to provide minimum design

requirements that will promote efficient utilization of energy in buildings. The requirements are directed toward the design of building envelopes with adequate thermal resistance and low air

Chapter 14 Exterior Walls. This chapter addresses requirements for exterior walls of buildings. Minimum standards for wall covering materials, installation of wall coverings and the ability of the wall to provide weather protection are provided. This chapter also requires exterior walls that are close to lot lines, or that are bearing walls for certain types of construction, to comply with the minimum fire-resistance ratings specified in Chapters 6 and 7. The installation of each type of wall covering, be it wood, masonry, vinyl, metal composite material or an exterior insulation and finish system, is critical to its long-term performance in protecting the interior of the building from the elements and the spread of fire. Limitations on the use of combustible materials on exterior building elements such as balconies, eaves, decks and architectural trim are also addressed in this chapter.

Chapter 15 Roof Assemblies and Rooftop Structures. Chapter 15 provides standards for both roof assemblies and structures that sit on top of the roofs of buildings. The criteria address roof construction and covering, including the weather-protective barrier at the roof and, in most circumstances, a fire-resistant barrier. The chapter is prescriptive in nature and is based on decades of experience with various traditional materials, but it also addresses newer products such as photo-voltaic shingles. These prescriptive rules are very important for satisfying performance of one type of roof covering or another. Section 1510 addresses rooftop structures, including penthouses, tanks, towers and spires. Rooftop penthouses larger than prescribed in this chapter must be treated as a story under Chapter 5.

Chapter 16 Structural Design. Chapter 16 prescribes minimum structural loading requirements for use in the design and construction of buildings and structural components. It includes minimum design loads, assignment of risk categories and permitted design methodologies. Standards are provided for minimum design loads (live, dead, snow, wind, rain, flood, ice and earthquake as well as the required load combinations). The application of these loads and adherence to the serviceability criteria will enhance the protection of life and property. The chapter references and relies on many nationally recognized design standards. A key standard is the American Society of Civil Engineers' Minimum Design Loads for Buildings and Other Structures (ASCE 7). Structural design must address the conditions of the site and location. Therefore, maps are provided of rainfall, seismic, snow and wind criteria in different regions.

Chapter 17 Special Inspections and Tests. Chapter 17 provides a variety of procedures and criteria for testing materials and assemblies, labeling materials and assemblies and special inspection of structural assemblies. This chapter expands on the inspections of Chapter 1 by requiring special inspection where indicated and, in some cases, structural observation. It also spells out additional responsibilities for the owner, contractor, design professionals and special inspectors. Proper assembly of structural components, proper quality of materials used and proper application of materials are essential to ensuring that a building, once constructed, complies with the structural and fire-resistance minimums of the code and the approved design. To determine this compliance often requires continuous or frequent inspection and testing. Chapter 17 establishes standards for special inspection, testing and reporting of the work to the building official.

Chapter 18 Soils and Foundations. Chapter 18 provides criteria for geotechnical and structural considerations in the selection, design and installation of foundation systems to support the loads from the structure above. This chapter includes requirements for soils investigation and site preparation for receiving a foundation, including the allowed load-bearing values for soils and for protecting the foundation from water intrusion. Section 1808 addresses the basic requirements for all foundation types. Later sections address foundation requirements that are specific to shallow foundations and deep foundations. Due care must be exercised in the planning and design of foundation systems based on obtaining sufficient soils information, the use of accepted engineering procedures, experience and good technical judgment.

Chapter 19 Concrete. This chapter provides minimum accepted practices for the design and construction of buildings and structural components using concrete—both plain and reinforced. Chapter 19 relies primarily on the reference to American Concrete Institute (ACI) 318, Building Code Requirements for Structural Concrete. This chapter also includes references to additional standards. Structural concrete must be designed and constructed to comply with this code and all listed standards. There are specific sections of the chapter addressing concrete slabs, anchorage to concrete and shotcrete. Because of the variable properties of material and numerous design and construction options available in the uses of concrete, due care and control throughout the construction process is necessary.

Chapter 20 Aluminum. Chapter 20 contains standards for the use of aluminum in building construction. Only the structural applications of aluminum are addressed. This chapter does not address the use of aluminum in specialty products such as storefront or window framing or architectural hardware. The use of aluminum in heating, ventilating or air-conditioning systems is addressed in the International Mechanical Code (IMC). This chapter references national standards from the Aluminum Association for use of aluminum in building construction, AA ASM 35, Aluminum Sheet Metal Work in Building Construction, and AA ADM 1, Aluminum Design Manual. By utilizing the standards set forth, a proper application of this material can be obtained.

Chapter 21 Masonry. This chapter provides comprehensive and practical requirements for masonry construction. The provisions of Chapter 21 require minimum accepted practices and the use of standards for the design and construction of masonry structures. The provisions address: material specifications and test methods; types of wall construction; criteria for engineered and empirical designs; and required details of construction, including the execution of construction. Masonry design methodologies including allowable stress design, strength design and empirical design are covered by provisions of this chapter. Also addressed are masonry fireplaces and chimneys, masonry heaters and glass unit masonry. Fire-resistant construction using masonry is also required to comply with Chapter 7. Masonry foundations are also subject to the requirements of Chapter 18.

Chapter 22 Steel. Chapter 22 provides the requirements necessary for the design and construction of structural steel (including composite construction), cold-formed steel, steel joists, steel cable structures and steel storage racks. This chapter specifies appropriate design and construction standards for these types of structures. It also provides a road map of the applicable

technical requirements for steel structures. Because steel is a noncombustible building material, it is commonly associated with Types I and II construction; however, it is permitted to be used in all types of construction. Chapter 22 requires that the design and use of steel materials be in accordance with the specifications and standards of the American Institute of Steel Construction, the American Iron and Steel Institute, the Steel Joist Institute and the American Society of Civil Engineers.

Chapter 23 Wood. This chapter provides minimum requirements for the design of buildings and structures that use wood and wood-based products. The chapter is organized around three design methodologies: allowable stress design (ASD), load and resistance factor design (LRFD) and conventional light-frame construction. Included in this chapter are references to design and manufacturing standards for various wood and wood-based products; general construction requirements; design criteria for lateral force-resisting systems and specific requirements for the application of the three design methods. In general, only Type III, IV or V buildings may be constructed of wood.

Chapter 24 Glass and Glazing. This chapter establishes regulations for glass and glazing that, when installed in buildings and structures, are subjected to wind, snow and dead loads. Engineering and design requirements are included in the chapter. Additional structural requirements are found in Chapter 16. Another concern of this chapter is glass and glazing used in areas where it is likely to be impacted by the occupants. Section 2406 identifies hazardous locations where glazing installed must either be safety glazing or blocked to prevent human impact. Safety glazing must meet stringent standards and be appropriately marked or identified. Additional requirements are provided for glass and glazing in guards, handrails, elevator hoistways and elevator cars, as well as in athletic facilities.

Chapter 25 Gypsum Board, Gypsum Panel Products and Plaster. Chapter 25 contains the provisions and referenced standards that regulate the design, construction and quality of gypsum board, gypsum panel products and plaster. It also addresses reinforced gypsum concrete. These represent the most common interior and exterior finish materials in the building industry. This chapter primarily addresses quality-control-related issues with regard to material specifications and installation requirements. Most products are manufactured under the control of industry standards. The building official or inspector primarily needs to verify that the appropriate product is used and properly installed for the intended use and location. While often simply used as wall and ceiling coverings, proper design and application are necessary to provide weather resistance and required fire protection for both structural and nonstructural building components.

Chapter 26 Plastic. The use of plastics in building construction and components is addressed in Chapter 26. This chapter provides standards addressing foam plastic insulation, foam plastics used as interior finish and trim, and other plastic veneers used on the inside or outside of a building. Plastic siding is regulated by Chapter 14. Sections 2606 through 2611 address the use of light-transmitting plastics in various configurations such as walls, roof panels, skylights, signs and as glazing. Requirements for the use of fiber-reinforced polymers, fiberglass-reinforced polymers and reflective plastic core insulation are also contained in this chapter. Additionally, requirements specific to the use of wood-plastic composites and plastic lumber are contained in this chapter.

Some plastics exhibit rapid flame spread and heavy smoke density characteristics when exposed to fire. Exposure to the heat generated by a fire can cause some plastics to deform, which can affect their performance. The requirements and limitations of this chapter are necessary to control the use of plastic and foam plastic products such that they do not compromise the safety of building occupants.

Chapter 27 Electrical. Since electrical systems and components are an integral part of almost all structures, it is necessary for the code to address the installation of such systems. For this purpose, Chapter 27 references the National Electrical Code (NEC). In addition, Section 2702 addresses emergency and standby power requirements. Such systems must comply with the International Fire Code (IFC) and referenced standards. This section also provides references to the various code sections requiring emergency and standby power, such as high-rise buildings and buildings containing hazardous materials.

Chapter 28 Mechanical Systems. Nearly all buildings will include mechanical systems. This chapter provides references to the International Mechanical Code (IMC) and the International Fuel Gas Code (IFGC) for the design and installation of mechanical systems. In addition, Chapter 21 of this code is referenced for masonry chimneys, fireplaces and barbecues.

Chapter 29 Plumbing Systems. Chapter 29 regulates the minimum number of plumbing fixtures that must be provided for every type of building. This chapter also regulates the location of the required fixtures in various types of buildings. This section requires separate facilities for males and females except for certain types of small occupancies. The regulations in this chapter come directly from Chapters 3 and 4 of the International Plumbing Code (IPC).

Chapter 30 Elevators and Conveying Systems. Chapter 30 provides standards for the installation of elevators into buildings. Referenced standards provide the requirements for the elevator system and mechanisms. Detailed standards are provided in the chapter for hoistway enclosures, machine rooms and requirements for sizing of elevators. Beginning in the 2015 edition of this code, the elevator lobby requirements were moved from Chapter 7 to Chapter 30 to pull all the elevator related construction requirements together. New provisions were added in the 2009 edition for fire service access elevators required in high-rise buildings and for the optional choice of occupant evacuation elevators (see Section 403).

Chapter 31 Special Construction. Chapter 31 contains a collection of regulations for a variety of unique structures and architectural features. Pedestrian walkways and tunnels connecting two buildings are addressed in Section 3104. Membrane and air-supported structures are addressed by Section 3102. Safeguards for swimming pool safety are addressed by way of reference to the International Swimming Pool and Spa Code (ISPSC) in Section 3109. Standards for temporary structures, including permit requirements, are provided in Section 3103. Structures as varied as awnings, marquees, signs, telecommunication and broadcast towers and automatic vehicular gates are also addressed (see Sections 3105 through 3108 and 3110).

Chapter 32 Encroachments into the Public Right-of-way. Buildings and structures from time to time are designed to extend over a property line and into the public right-of-way. Local regulations outside of the building code usually set limits to such encroachments, and such

regulations take precedence over the provisions of this chapter. Standards are provided for encroachments below grade for structural support, vaults and areaways. Encroachments above grade are divided into below 8 feet, 8 feet to 15 feet, and above 15 feet, because of headroom and vehicular height issues. This includes steps, columns, awnings, canopies, marquees, signs, windows and balconies. Similar architectural features above grade are also addressed. Pedestrian walkways must also comply with Chapter 31.

Chapter 33 Safeguards During Construction. Chapter 33 provides safety requirements during construction and demolition of buildings and structures. These requirements are intended to protect the public from injury and adjoining property from damage. In addition the chapter provides for the progressive installation and operation of exit stairways and standpipe systems during construction.

Chapter 34 Reserved. During the 2015 code change cycle the membership voted to delete Chapter 34, Existing Structures, from this code and reference the International Existing Building Code (IEBC)®. The provisions that were in Chapter 34 will appear in the IEBC. Sections 3402 through 3411 appear as IEBC Chapter 4 and Section 3412 as Chapter 14.

Chapter 35 Referenced Standards. The code contains numerous references to standards that are used to regulate materials and methods of construction. Chapter 35 contains a comprehensive list of all standards that are referenced in the code, including the appendices. The standards are part of the code to the extent of the reference to the standard (see Section 102.4). Compliance with the referenced standard is necessary for compliance with this code. By providing specifically adopted standards, the construction and installation requirements necessary for compliance with the code can be readily determined. The basis for code compliance is, therefore, established and available on an equal basis to the building official, contractor, designer and owner.

Chapter 35 is organized in a manner that makes it easy to locate specific standards. It lists all of the referenced standards, alphabetically, by acronym of the promulgating agency of the standard. Each agency's standards are then listed in either alphabetical or numeric order based upon the standard identification. The list also contains the title of the standard; the edition (date) of the standard referenced; any addenda included as part of the ICC adoption; and the section or sections of this code that reference the standard.

Recommendation:

1. We recommend that the Building Board of Appeals approve a motion to adopt the following codes as may be amended through discussion at the March 16, 2022 meeting.
 - International Fire Code, 2018
 - International Building Code, 2018

Att: Attachment IFC-1: Fire Code - Existing Amendments
Attachment IFC-2: Fire Code - Proposed Amendments (Redlined)
Attachment IFC-3: Fire Code - Proposed Amendments (Clean)
Attachment IFC-4: Major Changes to the International Fire Code
Attachment IFC-5: Proposed Modification Factor Analysis
Attachment IBC-1: Building Code – Existing Amendments
Attachment IBC-2: Building Maintenance Code – Proposed Amendments (Redlined)
Attachment IBC-3: Building Maintenance Code – Proposed Amendments (Clean)
Attachment IBC-4: Major changes to the International Building Code

Attachment IFC-1

Fire Code - Existing Amendments

5-2-1. Adoption of the Fire Code.

- (A) The 2009 ICC International Fire Code is adopted by reference as the standards and regulations for governing the safeguarding of life and property from fire and explosion hazards arising from the storage, handling and use of hazardous substances, materials and devices, and from conditions hazardous to life and property in the occupancy of buildings and premises as this Code is intended, recommended, maintained and published by the International Code Council except such portions thereof that are deleted, modified, or amended in this chapter. At least one copy of the 2009 ICC International Fire Code shall be maintained on file in the office of the Village Clerk for inspection and copying as a public record.
- (B) The provisions of the 2009 ICC International Fire Code are hereby deleted, modified and amended as follows:
1. Delete section 101.1 in its entirety and substitute the following:
101.1 Title. These regulations shall be known as the fire code of the Village of Glen Ellyn hereinafter referred to as "this Code".
 2. Amend section 102.5 to add the following:
 3. Fire protection systems and equipment provisions: All such provisions shall apply where specifically prescribed in this Code for one- and two-family dwellings and townhouses.
 3. Amend section 102.7 to add the following at the end of the paragraph:
Exception: Wherever reference to the International Plumbing Code is made, substitute the Plumbing Code, Department of Public Health, State of Illinois.
 4. Amend section 103 heading to read as follows:
SECTION 103 FIRE DEPARTMENT
 5. Delete section 103.1 in its entirety and substitute the following:
103.1 General. The Fire Department is established within the jurisdiction under the direction of the fire code official. The function of the Fire Department shall be the implementation, administration and enforcement of the provisions of this Code in accordance with title 5 Fire Regulations, chapter 1 Fire Department, in the Glen Ellyn Village Code.
 6. Delete sections 104.10 and 104.10.1 in their entirety and substitute the following:
104.10 Fire Investigations. The Fire Official shall investigate, or cause to be investigated, every fire or explosion occurring within his jurisdiction that is of a suspicious nature or which involves the loss of life or serious injury or causes destruction or damage to property. Such investigation shall be initiated immediately upon the occurrence of such fire or explosion; and if it appears that such an occurrence is of a suspicious nature, the Fire Official shall immediately take charge of the physical evidence and, in order to preserve physical evidence relating to the cause or origin of such fire or explosion, the Fire Official shall take means to prevent access by any person to the structure or premises until such evidence has been properly processed. The Fire Official shall notify those persons designated by law to pursue investigations into such matters and shall further cooperate with the authorities in collection of evidence and prosecution of the case and shall pursue the investigation to its conclusion.
 7. Add a new section 104.12 to read as follows:
104.12 Fire Prevention Inspections. The Fire Official shall inspect all existing structures and premises, except single-family dwellings, two-family dwellings and individual dwelling units within multi-family buildings, for the purpose of ascertaining and causing to be corrected any conditions liable to cause fire, contribute to the spread of fire, interfere with fire-fighting operations or endanger life or any violation of the provisions or intent of this Code or any other ordinance affecting fire safety.

Attachment IFC-1

Fire Code - Existing Amendments

8. Delete section 108.1 in its entirety and substitute the following:

108.1 Board Of Appeals Established. The structure, responsibilities and procedures of the building board of appeals is established in title 2 Boards and Commissions, chapter 7 Building Board of Appeals, in the Glen Ellyn Village Code.

9. Delete section 108.3 in its entirety and substitute the following:

108.3 Qualifications. The board of appeals shall consist of members who are qualified by experience and training to pass on matters pertaining to hazards of fire, explosion, hazardous conditions or fire protection systems.

10. Delete section 109.3 in its entirety and substitute the following:

109.3 Violation Penalties. Any person who violates a provision of this Code shall, upon conviction thereof, be subject to a fine of not less than \$50.00 nor more than \$750.00 unless a fine for the violation of this Code is listed in the Village Code of Glen Ellyn, Illinois, then the more stringent shall apply. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

11. Delete section 111.4 in its entirety and substitute the following:

111.4 Failure to Comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable to a fine of not less than \$50.00 dollars or more than \$750.00 dollars. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

12. Amend section 202 to replace the definition of the fire code official with the following:

Fire Code Official. The fire Chief, the building and zoning official or other designated authority charged with the administration and enforcement of the Code, or a duly authorized representative, under the direction and with the approval of the director of planning & development or the Village manager.

13. Amend section 202 to add the definition of hard cost to read as follows:

HARD COST. The cost of all labor, materials, overhead and profit to complete remodeling of an existing building. Remodeling work includes, but is not limited to, improvements and alterations to foundations, walls, roofs, floors, ceilings, stairs, doors, windows, and electrical, mechanical, plumbing systems and fixtures and equipment.

For purpose of determining hard cost, remodeling work does not include the following:

1. Interior or exterior non-structural demolition work or removal of existing improvements, fixtures or equipment.
2. Work to install a fire sprinkler system or increase the size of the water service to a building as required to serve a fire sprinkler system.
3. Work to install a fire alarm and detection system.
4. Installation of interior floor, wall and ceiling finishes such as paint, wallcoverings, paneling or tile over wallboard, or carpet, wood or tile flooring over a subfloor.
5. Cabinets and casework, countertops, shelving units, or door, window, base and ceiling trim.
6. Furniture, appliances, decorative fixtures, window treatments or business sales, display or service fixtures and equipment.

14. Amend section 202 to add the definition of market value as follows:

Market Value. The dollar value of a building or structure, excluding land value, calculated to be three times the current assessed value established by the township assessor at 33.3% of the market value.

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Attachment IFC-1

Fire Code - Existing Amendments

15. Delete sections 307.1 and 307.1.1 in their entirety and substitute the following:

307.1 General. The regulations on open burning and fires are established in title 7 Health And Sanitation, chapter 7 Air Pollution, in the Glen Ellyn Village Code.
16. Delete sections 307.2 and 307.2.1 in their entirety.
17. Delete section 307.3 in its entirety.
18. Delete section 307.4 in its entirety and substitute the following:

307.4 Portable Outdoor Fireplaces. Portable outdoor fireplaces shall be used in accordance with the manufacturer's instructions and shall not be operated within 10 feet (3048 mm) of a structure or combustible material.
19. Delete sections 307.4.1, 307.4.2 and 307.4.3 in their entirety.
20. Delete section 307.5 in its entirety and substitute the following:

307.5 Attendance. The use of portable outdoor fireplaces shall be constantly attended until the fire is extinguished. A minimum of one portable fire extinguisher complying with section 906 with a minimum 4-A rating or other approved on-site fire-extinguishing equipment, such as dirt, sand, water barrel, garden hose or water truck, shall be available for immediate utilization.
21. Delete section 308.1.4 in its entirety and substitute the following:

308.1.4 Open-Flame Cooking Devices. Charcoal burners, LP-gas grills, and other open-flame cooking devices shall not be operated on combustible balconies or decks or within 5 feet horizontally or 5 feet vertically below combustible construction.

Exceptions:

 1. Where buildings, balconies and decks are protected by an automatic sprinkler system.
 2. LP gas cooking devices having LP-gas container with a water capacity not greater than 21/2 pounds [nominal 1 pound (0.454 kg) LP-gas capacity].
 3. Where combustible surfaces are protected and covered with a non combustible material approved by the building official.
22. Amend section 903.2 to read as follows:

903.2 Where Required. Approved automatic sprinkler systems in new buildings and structures in use group A, B, E, M, R, F, H, I and S and in one and two family dwellings and townhouses shall be provided throughout the building or structure and in the locations described in sections 903.2.11 and 903.2.12.
23. Add a new section 903.4.2.1 as follows:

903.4.2.1 Alarms in Dwelling Units. In one and two family dwellings and townhouses a six inch water flow bell shall be installed on the interior return air plenum of the forced air furnace, or other approved location, to serve every living space and a 10 inch water flow bell or horn/strobe notification device shall be installed on the exterior front of the building in an approved location visible from the street.
24. Amend section 905.3.1 to read as follows and retain all exceptions:

905.3.1 Height. Class III standpipe systems shall be installed throughout buildings where the floor level of the highest story is located more than 30 feet (9144 mm), or two stories, above the lowest level of Fire Department access, or where the floor level of the lowest story is located more than 30 feet (9144 mm), or two stories, below the highest level of Fire Department vehicle access or where any portion of the floor area is more than 200 feet (61 m) of travel distance from the nearest point of Fire Department vehicle access.

Attachment IFC-1

Fire Code - Existing Amendments

25. Delete section 907.2.7 exception 2 in its entirety and substitute the following:
 2. Manual fire alarm boxes are not required at the public entrance where the building is equipped throughout with an automatic sprinkler system installed in accordance with section 903.3.1.1 and the occupant notification appliances will automatically activate throughout the notification zones upon sprinkler water flow.
26. Delete section 907.5.3 in its entirety and substitute the following:

907.5.3 Automatic Smoke Detection. Where an automatic smoke detection system is required it shall utilize smoke detectors unless ambient conditions prohibit such an installation. In spaces where smoke detectors cannot be utilized due to ambient conditions and in common corridors and rooms exceeding 100 square feet, approved automatic heat detectors shall be required.
27. Add new section 907.7.5.2 to read as follows:

907.7.5.2 Village Of Glen Ellyn Municipal Fire Panel. All fire alarm systems in buildings serving occupancy group A or group E shall be directly connected to the Village of Glen Ellyn municipal fire panel.
28. Amend section 4603.4 to read as follows:

4603.4 Sprinkler Systems. An automatic sprinkler system shall be provided in existing buildings in accordance with sections 4603.4.1 through 4603.4.5.
29. Add new section 4603.4.3 to read as follows:

4603.4.3 Additions To Existing Buildings And Structures.

 1. In buildings of use group A, B, E, M, R, F, H, I, or S, an approved automatic sprinkler system shall be provided throughout the addition if the gross floor area of the addition exceeds 2,500 square feet, or throughout the addition and the existing building if the combined gross floor area of the addition and the existing building exceeds 5,000 square feet.
 2. In buildings of use group A, B, E, M, R, F, H, I, or S, and in one and two family dwellings and townhouses, an approved automatic sprinkler system shall be provided throughout the addition and throughout the existing building or if the gross floor area of the addition exceeds 150% of the gross floor area of the existing building.
30. Add new section 4603.4.4 to read as follows:

4603.4.4 Alterations To Existing Buildings And Structures.

 1. In buildings of use group A, B, E, M, R, F, H, I, or S, an approved automatic sprinkler system shall be provided throughout the existing building and any addition if the structurally altered existing exterior wall and roof gross square foot area exceeds 50% of the total existing exterior wall and roof gross square foot area.
 2. In one and two family dwellings and townhouses, an approved automatic sprinkler system shall be provided throughout the existing building and any addition if the structurally altered existing exterior wall and roof gross square foot area exceeds 75% of the total existing exterior wall and roof gross square foot area.
31. Amend section 4603.4.5 to read as follows:

4603.4.5 Remodeling In Existing Buildings and Structures.

 1. In buildings of all occupancy groups, except group U and one and two family dwellings and townhouses, an approved automatic sprinkler system shall be provided throughout the

Attachment IFC-1

Fire Code - Existing Amendments

remodeled interior area if the hard cost of all remodeling work exceeds \$1,000,000 or 25% of the market value of the building or structure.

2. In one and two family dwellings and townhouses, an approved automatic sprinkler system shall be provided throughout the remodeled interior area of the existing building if the hard cost of all remodeling work exceeds \$300,000.
32. Delete section 4603.5 in its entirety and substitute the following:
- 4603.5 Standpipes.* Standpipes shall be provided in all existing buildings and structures in use group A, B, E, M, R, F, H, I or S and installed in accordance with section 905 where any one of the following conditions exist:
1. The existing building is enlarged to exceed two stories or where any portion of the floor area exceeds two hundred feet (200') from the nearest Fire Department access.
 2. The existing building is enlarged and the gross floor area of the addition exceeds 150% of the gross floor area of the existing building or structure.
 3. The existing building is altered and the structurally altered exterior wall and roof gross area exceeds 75% of the existing total exterior wall and roof gross area.
 4. The existing building is remodeled and the hard cost of the remodeled area exceeds \$1,000,000 or 25% of the market value of the building or structure.
33. Delete section 4603.6 in its entirety and substitute the following:
- 4603.6 Fire Alarm Systems.* An approved fire alarm system shall be installed in existing buildings and structures in accordance with sections 4603.6.1 through 4603.6.8 and provide occupant notification in accordance with section 907.6 unless other requirements are provided by other sections of this Code.
- Exception: Occupancies with an existing, previously approved fire alarm system.
34. Add new section 4603.6.8 to read as follows:
- 603.6.8 Group A, B, E, M, R, F, H, I And S.* An approved fire alarm system installed in accordance with the provisions of this Code and NFPA 72 shall be provided under any one of the following conditions:
1. The existing building is enlarged or the gross floor area is increased and the hard cost of the construction work exceeds \$15,000.
 2. The existing building is altered and the hard cost of the construction work to structurally alter the exterior wall and roof exceeds \$15,000.
 3. The existing building is remodeled and the hard cost of the interior construction work exceeds \$15,000.

(Ord. 5893, 10-25-2010, eff. 12-1-2010; Ord. 5918, 1-24-2011; Ord. 6603, 5-29-2018)

Attachment IFC-2

Fire Code - Proposed Amendments (Redlined)

+5-2-1. Adoption of the Fire Code.

- (A) The ~~20182009~~ ICC International Fire Code is adopted by reference as the standards and regulations for governing the safeguarding of life and property from fire and explosion hazards arising from the storage, handling and use of hazardous substances, materials and devices, and from conditions hazardous to life and property in the occupancy of buildings and premises as this Code is intended, recommended, maintained and published by the International Code Council except such portions thereof that are deleted, modified, or amended in this chapter. At least one copy of the ~~20182009~~ ICC International Fire Code shall be maintained on file in the office of the Village Clerk for inspection and copying as a public record.
- (B) The provisions of the ~~20182009~~ ICC International Fire Code are hereby deleted, modified, and amended as follows:
1. Delete ~~s~~Section 101.1 in its entirety and substitute the following:
101.1 Title. These regulations shall be known as the fire code of the Village of Glen Ellyn hereinafter referred to as "this Code".
 2. Amend ~~s~~Section 102.5 to add the following:
 3. Fire protection systems and equipment provisions: All such provisions shall apply where specifically prescribed in this Code for one- and two-family dwellings and townhouses.
 3. Amend ~~s~~Section 102.7 to add the following at the end of the paragraph:
Exception: Wherever reference to the International Plumbing Code is made, substitute the Plumbing Code, Department of Public Health, State of Illinois.
 4. Amends ~~s~~Section 103 heading to read as follows:
SECTION 103 FIRE DEPARTMENT
 5. Delete ~~s~~Section 103.1 in its entirety and substitute the following:
103.1 General. The Fire Department is established within the jurisdiction under the direction of the ~~F~~fire ~~C~~ode ~~O~~fficial. The function of the Fire Department shall be the implementation, administration, and enforcement of the provisions of this Code in accordance with ~~T~~itle 5 Fire Regulations, ~~C~~hapter 1 Fire Department, in the Glen Ellyn Village Code.
 6. Delete ~~s~~Sections 104.10 and 104.10.1 in their entirety and substitute the following:
104.10 Fire Investigations. The Fire ~~C~~ode ~~O~~fficial shall investigate, or cause to be investigated, every fire or explosion occurring within his jurisdiction that is of a suspicious nature, or which involves the loss of life or serious injury or causes destruction or damage to property. Such investigation shall be initiated immediately upon the occurrence of such fire or explosion; and if it appears that such an occurrence is of a suspicious nature, the Fire ~~C~~ode ~~O~~fficial shall immediately take charge of the physical evidence and, in order to preserve physical evidence relating to the cause or origin of such fire or explosion, the Fire Official shall take means to prevent access by any person to the structure or premises until such evidence has been properly processed. The Fire ~~C~~ode ~~O~~fficial shall notify those persons designated by law to pursue investigations into such matters and shall further cooperate with the authorities in collection of evidence and prosecution of the case and shall pursue the investigation to its conclusion.

Attachment IFC-2

Fire Code - Proposed Amendments (Redlined)

7. Add a new ~~s~~Section 104.12 to read as follows:

104.12 Fire Prevention Inspections. The Fire Code Official shall inspect all existing structures and premises, except single-family dwellings, two-family dwellings, and individual dwelling units within multi-family buildings, for the purpose of ascertaining and causing to be corrected any conditions liable to cause fire, contribute to the spread of fire, interfere with fire-fighting operations, or endanger life or any violation of the provisions or intent of this Code or any other ordinance affecting fire safety.
8. ~~Renumber Delete~~ Section 108.1 to Section 109.1 as follows: in its entirety and substitute the following:

109.1 Board Of Appeals Established. The structure, responsibilities and procedures of the ~~B~~uilding ~~B~~oard of ~~A~~ppeals is established in ~~T~~itle 2 Boards and Commissions, ~~C~~hapter 7 Building Board of Appeals, in the Glen Ellyn Village Code.
9. ~~Renumber Delete s~~Section 108.3 to Section 109.3 as follows: in its entirety and substitute the following:

109.3 Qualifications. The board of appeals shall consist of members who are qualified by experience and training to pass on matters pertaining to hazards of fire, explosion, hazardous conditions, or fire protection systems.
10. ~~Renumber Delete s~~Section 109.3 to Section 110.4 as follows: in its entirety and substitute the following:

110.4109.3 Violation Penalties. Any person who violates a provision of this Code shall, upon conviction thereof, be subject to a fine of not less than \$50.00 nor more than \$750.00 unless a fine for the violation of this Code is listed in the Village Code of Glen Ellyn, Illinois, then the more stringent shall apply. Each day that a violation continues after due notice has been served shall be deemed a separate offense.
11. ~~Renumber Delete s~~Section 111.4 to Section 112.4 as follows: in its entirety and substitute the following:

112.4 Failure to Comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable to a fine of not less than \$50.00 dollars or more than \$750.00 dollars. Each day that a violation continues after due notice has been served shall be deemed a separate offense.
12. Amend Section 202 to add the following use under Business Group B:

Co-working Facility
13. Amend Section 202 to add the definition of Co-working Facility to read as follows:

CO-WORKING FACILITY. A facility having more than (10) persons on site at any time, and in which food and/or drink consumption occurs as part of the stated business plan before, during or after normal business hours shall be classified as a Group A-2 occupancy.
1412. Amend ~~s~~Section 202 to replace the definition of the ~~F~~ire ~~C~~ode ~~O~~fficial with the following:

Fire Code Official. The ~~F~~ire Chief, the ~~B~~uilding and ~~Z~~oning ~~O~~fficial or other designated authority charged with the administration and enforcement of the Code, or a duly authorized representative, under the direction and with the approval of the ~~D~~irector of ~~C~~ommunity ~~P~~lanning & ~~D~~evelopment or the Village ~~M~~anager.
1513. Amend ~~s~~Section 202 to add the definition of ~~H~~ard ~~C~~ost to read as follows:

HARD COST. The cost of all labor, materials, overhead and profit to complete remodeling of an existing building. Remodeling work includes, but is not limited to, improvements and alterations to foundations, walls, roofs, floors, ceilings, stairs, doors, windows, and electrical, mechanical, plumbing systems and fixtures and equipment.

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Attachment IFC-2

Fire Code - Proposed Amendments (Redlined)

For purpose of determining hard cost, remodeling work does not include the following:

1. Interior or exterior non-structural demolition work or removal of existing improvements, fixtures, or equipment.
2. Work to install a fire sprinkler system or increase the size of the water service to a building as required to serve a fire sprinkler system.
3. Work to install a fire alarm and detection system.
4. Installation of interior floor, wall, and ceiling finishes such as paint, wallcoverings, paneling or tile over wallboard, or carpet, wood, or tile flooring over a subfloor.
5. Cabinets and casework, countertops, shelving units, or door, window, base, and ceiling trim.
6. Furniture, appliances, decorative fixtures, window treatments or business sales, display or service fixtures and equipment.

16. Amend Section 202 to add the definition of Hazard Categories and Classifications to read as follows:

HAZARD CATEGORIES AND CLASSIFICATIONS. The relative degree of hazard from fire between different occupancy classifications. The Hazard Categories and Classifications shall be as set forth below.

Hazard Category Occupancy Classification

1 (highest hazard) Industrial or storage occupancies with high hazard contents

2 Health care, detention and correctional, residential board and care

3 Assembly, educational, day care, ambulatory health care, residential, mercantile, business, general and special-purpose industrial, ordinary hazard storage

4 (lowest hazard) Industrial or storage occupancies with low hazard contents

17. Amend Section 202 to add the definition of Market Value to read as follows:

MARKET VALUE. The dollar value of a building or structure, excluding land value, calculated to be three times the current assessed value established by the township assessor at 33.3% of the market value.

18. Amend Section 202 to delete the definition of Open Burning in its entirety and substitute the following:

OPEN BURNING. The burning of materials wherein products of combustion are emitted directly into the ambient air without passing through a stack or chimney from an enclosed chamber. Open burning does not include road flares, smudge pots and similar devices associated with safety or occupational uses typically considered open flames, recreational fires or use of stationary outdoor fireplaces or portable outdoor fireplaces. For the purpose of this definition, a chamber shall be regarded as enclosed when, during the time combustion occurs, only apertures, ducts, stacks, flues, or chimneys necessary to provide combustion air and permit the escape of exhaust gas are open.

19. Amend Section 202 to add the definition of Roof Area, Gross to read as follows:

ROOF AREA, GROSS. The square footage of the horizontal plane(s) formed at the outside top edge of the perimeter walls of a building or structure.

20. Amend Section 202 to add the definition of Wall Area, Gross to read as follows:

WALL AREA, GROSS. The square footage of all outside wall surfaces from a point eight inches above the adjacent grade to the soffit or eave of a building or structure.

Attachment IFC-2
Fire Code - Proposed Amendments (Redlined)

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Attachment IFC-2 Fire Code - Proposed Amendments (Redlined)

21. Delete Section 304.3.4 in its entirety and substitute the following and retain all exceptions:

304.3.4 Capacity of 1 cubic yard or more. Dumpsters with an individual capacity of 1.0 cubic yard or more shall not be stored in buildings or placed within 10 feet of combustible walls, building openings, exterior stairways, combustible roof eave lines, telecommunication towers, utility drops, or utility poles, unless the dumpsters are constructed of noncombustible materials and have a solid metal lid.

22. Revise the title of Section 307 to read as follows:

SECTION 307 OPEN BURNING, RECREATIONAL FIRES AND OUTDOOR FIREPLACES.

23. Delete Sections 307.1 and 307.1.1 in their entirety and substitute the following:

307.1 General. The regulations on open burning and fires are established in Title 7 Health And Sanitation, Chapter 7 Air Pollution, in the Glen Ellyn Village Code.

24. Delete Sections 307.2 and 307.2.1 in their entirety.

25. Delete Section 307.3 in its entirety.

26. Delete Section 307.4 and all subsections in their entirety and substitute the following:

307.4 Location. The location for outdoor burning shall be as indicated in Sections 307.4.1 through 307.4.6.

307.4.1 Bonfires. Bonfires shall not be permitted unless approved by the Fire Code Official.

307.4.2 Recreational fires. Recreational fires shall not be permitted unless approved by the Fire Code Official.

307.4.3 Portable outdoor fireplaces. Portable outdoor fireplaces, including fire pits, incinerators, chimineas and similar devices shall be used in accordance with the manufacturer's instructions and shall not be operated within 15 feet of a building, structure, or combustible material.

307.4.4 Stationary outdoor fireplaces. The fire box opening of a stationary outdoor fireplace shall not be located closer than 10 feet to a building, structure, or combustible material.

Exception: The fire box opening of a stationary outdoor fireplace used for cooking shall not be located closer than 15 feet to a building, structure, or combustible material.

307.4.5 Stationary fire features. Manufactured stationary fire features, including fire pits, fire bowls, fire columns, fire tables and similar devices shall be installed and used in accordance with the manufacturer's instructions and shall not be operated within 10 feet of a building, structure, or combustible material. Fuel lines servicing such devices shall be provided with a shut-off valve at the exterior face of the building and be subject to inspection, including a pressure test, prior to first use.

307.4.6 Stationary fire pits. Stationary fire pits shall be constructed of non-combustible material. The fire containment area of a stationary outdoor fire pit shall not be located closer than 15 feet to a building, structure, or combustible material. Stationary fire pits shall have a containment area for burning material with a total fuel area to exceed the equivalent of 3 feet in diameter and a total fuel height not to exceed 2 feet.

Attachment IFC-2

Fire Code - Proposed Amendments (Redlined)

27. Amend ~~§~~Section 307.5 to read as follows in its entirety and substitute the following:

307.5 Attendance. The use of portable outdoor fireplaces shall be constantly attended by an adult until the fire is extinguished. A minimum of one portable fire extinguisher complying with section 906 with a minimum 4-A rating or other approved on-site fire-extinguishing equipment, such as dirt, sand, water barrel, or garden hose ~~or water truck~~, shall be available for immediate utilization.

28. Add new Section 307.6 to read as follows:

307.6 Material to be burned. Portable outdoor fireplaces, stationary fireplaces not used for cooking, and stationary fire pits shall be limited to burning the following materials.

1. Seasoned firewood
2. Dimensional lumber (unpainted, unfinished, unlaminated or glued, and non-treated)
3. Manufactured logs
4. Manufactured non-wood logs specifically made for use in fireplaces.

No other material may be burned in outdoor fireplace. Burning of unseasoned wood, leaves, rubbish, garbage, and other waste materials is prohibited.

29. Add new Section 307.7 to read as follows:

307.7 Spark arrestors. All outdoor fireplaces, stationary fireplaces not used for cooking, and stationary fire pits shall have a cover, screen, or glass doors to prevent the distribution of hot embers or sparks outside the firebox or containment area.

30. Delete ~~§~~Section 308.1.4 in its entirety and substitute the following:

308.1.4 Open-Flame Cooking Devices. Charcoal burners, LP-gas grills, and other open-flame cooking devices shall not be operated on combustible balconies or decks or within 5 feet horizontally or 5 feet vertically below combustible construction.

Exceptions:

1. Where buildings, balconies and decks are protected by an automatic sprinkler system.
2. LP gas cooking devices having LP-gas container with a water capacity not greater than 21/2 pounds [nominal 1 pound (0.454 kg) LP-gas capacity].
3. Where combustible surfaces are protected and covered with a non-combustible material approved by the building official.

31. Delete Section 311.5.4 in its entirety and substitute the following:

311.5.4 Placard symbols. The design of the placards shall use the following symbols:

1. This symbol shall mean that the structure had normal structural conditions at the time of marking.
2. This symbol shall mean that structural or interior hazards exist, and interior firefighting or rescue operations should be conducted with extreme caution.
3. This symbol shall mean that structural or interior hazards exist to a degree that consideration should be given to limit firefighting to exterior operations only, with entry only occurring for known life hazards.

Attachment IFC-2 Fire Code - Proposed Amendments (Redlined)

4. Vacant marker hazard identification symbols: The following symbols shall be used to designate known hazards on the vacant building marker. They shall be placed directly above the symbol.

4.1. R/O—Roof open.

4.2. S/M—Stairs, steps and landing missing.

4.3. F/E—Avoid fire escapes.

4.4. H/F—Holes in floor.

32. Add a new Section 315.4.3 to read as follows:

315.4.3 Retail display. Retail display of combustibles or flammable materials such as firewood, landscape mulch, straw bales, propane tanks or similar products shall be limited to location and quantity as approved by the Fire Code Official.

33. Add a new Section 320 to read as follows:

320 PROHIBITED OCCUPANCIES

320.1 Below grade occupancies. Residential dwelling units one story or more below the level of Fire Department access in multi-family or mixed-use buildings within the C5 Zoning District shall be prohibited.

34. Add new Section 505.1.1 to read as follows:

505.1.1 Building address. The rear entrance of all multi-tenant commercial buildings shall have street address number in compliance with Section 505.1.

35. Add new Section 505.1.2 to read as follows:

505.1.2 Multiple doors. Doors located within the exterior perimeter walls of all commercial buildings that are in addition to the main entrance or main rear entrance doors shall be identified with address numbers or other designation approved by the Fire Code Official.

36. Delete Section 506.1 in its entirety and substitute the following:

506.1 Where required. All commercial and multi-family dwelling unit buildings shall have a key box installed near the main entrance in a location approved by the Fire Code Official. The key box shall be of an approved type listed in accordance with UL 1037.

1. The key box shall include keys to provide access to all tenant spaces in accordance with Section 506.1.3.
2. All tenant spaces with main doors within the exterior perimeter walls of all commercial buildings shall have a separate key box.
3. All commercial buildings with multiple tenancies and an exterior door that accesses the fire sprinkler room shall have a key box within 5 feet of the fire sprinkler room access door.
4. All existing tenancies shall provide a key box within one year of the date of adoption of this Code.

Exception: A key box to contain keys to access individual dwelling units shall be provided in the building's electrical room.

37. Add new Section 506.1.3 to read as follows:

506.1.3 Keys required. The key box shall contain the following types of keys. Keys shall be clearly and individually marked or tagged to indicate which door it operates. Keys or codes to access security systems shall not be provided.

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Attachment IFC-2 Fire Code - Proposed Amendments (Redlined)

1. Keys necessary to access exterior and interior doors and provide entry to all spaces.
2. Two sets of keys to access the main entry door.
3. In multi-family dwelling unit buildings, provide one set of building keys for each floor or rooftop level.
4. Keys for fire alarm pull stations, panels, and fire protection systems.
5. Keys for elevators and electrical equipment.
6. Keys to override any electronic pads that control access through any door.
7. Keys to provide access to individual dwelling units.
8. Other keys as determined required by the Fire Code Official based on building use or occupancy.

38. Add new Section 506.1.4 to read as follows:

506.1.4 Key box capacity. Key boxes shall be of sufficient size to accommodate the required keys. In buildings containing 1-3 occupancies, the key box shall have a minimum capacity of 10 keys. In buildings containing 4-10 occupancies, the key box shall have a minimum capacity of 25 keys. In buildings containing 11 or more occupancies, the key box shall have a minimum capacity of 50 keys.

3922. Amend ~~section~~Section 903.2 to read as follows and retain the Exception:

903.2 Where ~~Required~~. Approved automatic sprinkler systems in new buildings and structures in use group A, B, E, M, R, F, H, I and S and in one- and two-family dwellings and townhouses shall be provided throughout the building or structure and in the locations described in ~~s~~Sections 903.2.11 and 903.2.12.

40. Delete Section 903.2.1 in its entirety and substitute the following:

903.2.1 Change of use. An automatic sprinkler system shall be installed in existing buildings and structures, or portions thereof, as if the building or portions thereof subject to the change of use were of new construction, where any of the following occurs.

1. Where a change of use does not result in the change of occupancy classification but results in the creation of a hazardous contents area.
2. Where the change of use results in an occupancy classification of a higher hazard classification category (i.e., a lower hazard classification number), as defined in Section 202 HAZARD CATEGORIES AND CLASSIFICATIONS.
3. In use group A or E when the occupied space(s) are located below the level of Fire Department access.

41. Delete Sections 903.2.1.1 through 903.2.10.1 in their entirety.

42. Amend Section 903.3.1.1 to read as follows:

903.3.1.1 NFPA 13 sprinkler systems. Where the provisions of this code require that a building or portion thereof be equipped throughout with an automatic sprinkler system in accordance with this section, sprinklers shall be installed throughout in accordance with NFPA 13 except as provided in Sections 903.3.1.1.1 and 903.3.1.1.2. The sprinkler system shall be designed with a minimum 5 psi cushion at the furthest sprinkler head.

Attachment IFC-2

Fire Code - Proposed Amendments (Redlined)

43. Amend Section 903.3.1.2 to read as follows:

903.3.1.2 NFPA 13R sprinkler systems. Automatic sprinkler systems in Group R occupancies up to and including four stories in height in buildings not exceeding 60 feet (18 288 mm) in height above grade plane shall be permitted to be installed throughout in accordance with NFPA 13R.

The number of stories of Group R occupancies constructed in accordance with Sections 510.2 and 510.4 of the *International Building Code* shall be measured from the horizontal assembly creating separate buildings. The sprinkler system shall be designed with a minimum 5 psi cushion at the furthest sprinkler head.

44. Amend Section 903.3.1.3 to read as follows:

903.3.1.3 NFPA 13D sprinkler systems. Automatic sprinkler systems installed in one- and two-family dwellings; Group R-3; Group R-4, Condition 1; and townhouses shall be permitted to be installed throughout in accordance with NFPA 13D. The sprinkler system shall be designed with a minimum 5 psi cushion at the furthest sprinkler head.

45. Amend Section 903.4.2 to read as follows:

903.4.2 Alarms. An approved audible/visual device with a blue lens, located on the exterior of the building in an approved location on the closest exterior façade facing and parallel to the street, shall be connected to each automatic sprinkler system. Such sprinkler waterflow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Where a fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system. Existing exterior alarm bells shall be replaced with an approved audible/visible device within one year of the date of adoption of this Code.

4623. Amend ~~Add a new s~~Section 903.4.2.1 to read as follows:

903.4.2.1 Alarms in Dwelling Units. In one- and two-family dwellings, multi-family dwelling units in buildings without common interior paths of egress, and townhouses a six-inch water flow bell shall be installed on the interior return air plenum of the forced air furnace, or other approved location, to serve every living space and a ~~10-inch water flow bell or~~ horn/strobe notification device shall be installed on the exterior front of the building in an approved location visible from the street.

4724. Amend ~~s~~Section 905.3.1 to read as follows and retain all exceptions:

905.3.1 Height. Class III standpipe systems shall be installed throughout buildings where the floor level of the highest story is located more than 30 feet (9144 mm), or two stories, above the lowest level of Fire Department access, or where the floor level of the lowest story is located more than 30 feet (9144 mm), or two stories, below the highest level of Fire Department vehicle access or where any portion of the floor area is more than 200 feet (61 m) of travel distance from the nearest point of Fire Department vehicle access.

4825. Delete ~~s~~Section 907.2.7 exception 2 in its entirety and substitute the following:

2. Manual fire alarm boxes are not required at the public entrance where the building is equipped throughout with an automatic sprinkler system installed in accordance with ~~s~~Section 903.3.1.1 and the occupant notification appliances will automatically activate throughout the notification zones upon sprinkler water flow.

Attachment IFC-2
Fire Code - Proposed Amendments (Redlined)

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Attachment IFC-2

Fire Code - Proposed Amendments (Redlined)

49. Delete Section 907.2.10 in its entirety and substitute the following:

907.2.10 Single- and multiple-station smoke alarms. Listed single- and multiple-station smoke alarms complying with UL 217 shall be installed in accordance with Sections 907.2.10.1 through 907.2.10.8, NFPA 72, and (425 ILCS 60/) Smoke Detector Act.

50. Amend Section 907.2.10.1 to add the following:

4. Within 15 feet of every room used for sleeping purposes. The detector shall be installed on the ceiling and at least 6 inches from any wall, or on a wall located between 4 and 6 inches from the ceiling.

51. Delete condition number 1 under Section 907.2.10.2 in its entirety and replace with the following:

1. Within 15 feet of every room used for sleeping purposes. The detector shall be installed on the ceiling and at least 6 inches from any wall, or on a wall located between 4 and 6 inches from the ceiling.

52. Add a new Section 907.2.10.8 to read as follows:

907.2.10.8 Structures with more than one dwelling unit and mixed-use structures. Every structure which (1) contains more than one dwelling unit, or (2) contains at least one dwelling unit and is a mixed-use structure, shall contain at least one approved smoke detector at the uppermost ceiling of each interior stairwell. The detector shall be installed on the ceiling, at least 6 inches from the wall, or on a wall located between 4 and 6 inches from the ceiling.

53. Add a new Section 907.2.24 to read as follows:

907.2.24 C5 Zoning District: An automatic fire alarm and detection system shall be installed in all new buildings and structures in the C5 Zoning District. By the end of the first full calendar year after the date of adoption of this code, an automatic fire alarm and detection system shall be installed in all existing buildings within the C5 Zoning District in accordance with NFPA 72.

54. Delete Section 907.4.3 in its entirety and substitute the following:

907.4.3 Automatic Smoke Detection. Where an automatic smoke detection system is required, it shall utilize smoke detectors unless ambient conditions prohibit such an installation. In spaces where smoke detectors cannot be utilized due to ambient conditions and in common corridors and rooms exceeding 100 square feet, approved automatic heat detectors shall be required.

55. Add Section 907.5.2.3.3 to read as follows:

907.5.2.3.3 Exterior visible alarms. An approved audible/visual device with a clear lens (white light), located on the exterior of the building in an approved location on the closest exterior façade facing and parallel to the street, shall be connected to each fire alarm and detection system in new installations. An exterior audible/visible device shall be installed on existing buildings equipped with a fire alarm and detection system within one year of the date of adoption of this Code.

5626. Delete ~~section~~Section 907.5.3 in its entirety ~~and substitute the following:~~

~~907.5.3 Automatic Smoke Detection. Where an automatic smoke detection system is required it shall utilize smoke detectors unless ambient conditions prohibit such an installation. In spaces where smoke detectors cannot be utilized due to ambient conditions and in common corridors and rooms exceeding 100 square feet, approved automatic heat detectors shall be required. 5727. Renumber Add new s~~Section 907.7.5.2 to Section 907.6.6.3 and amend to read as follows:

907.6.6.3907.7.5.2 Monitoring station. Village Of Glen Ellyn Municipal Fire Panel. All fire alarm systems shall report to an approved third-party monitoring station.

Attachment IFC-2

Fire Code - Proposed Amendments (Redlined)

Exception: ~~In~~ buildings serving occupancy group A or group E the fire alarm system shall be directly connected to the DuPage Public Safety Communications (DU-COMM) facility (remote station) in accordance with NFPA 72. ~~Village of Glen Ellyn municipal fire panel.~~

58. Delete Section 1103.5 in its entirety and substitute the following:

1103.5 Sprinkler Systems. An automatic sprinkler system shall be provided in existing buildings in accordance with Sections 1103.5.1 through 1103.5.5.

59. Renumber ~~Add new s~~Section 4603.4.3 to Section 1103.5.5 and amend to read as follows:

1103.5.5~~4603.4.3~~ Additions To Existing Buildings And Structures.

1. In buildings of use group A, B, E, M, R, F, H, I, or S, an approved automatic sprinkler system shall be provided throughout the addition if the gross floor area of the addition exceeds 2,500 square feet, or throughout the addition and the existing building if the combined gross floor area of the addition and the existing building exceeds 5,000 square feet.
2. In buildings of use group A, B, E, M, R, F, H, I, or S, and in one- and two-family dwellings and townhouses, an approved automatic sprinkler system shall be provided throughout the addition and throughout the existing building or if the gross floor area of the addition exceeds 150% of the gross floor area of the existing building.

3. In existing buildings and structures where the modification factor as determined in Section 1103.5.9 exceeds 2.0.

60. Renumber ~~Add new s~~Section 4603.4.4 to Section 1103.5.6 and amend to read as follows:

1103.5.6~~4603.4.4~~ Alterations To Existing Buildings And Structures.

1. In buildings of use group A, B, E, M, R, F, H, I, or S, an approved automatic sprinkler system shall be provided throughout the existing building and any addition if the structurally altered existing exterior wall and roof gross square foot area exceeds 50% of the total existing exterior wall and roof gross square foot area.
2. In one- and two-family dwellings and townhouses, an approved automatic sprinkler system shall be provided throughout the existing building and any addition if the structurally altered existing exterior wall and roof gross square foot area exceeds 75% of the total existing exterior wall and roof gross square foot area.

3. In existing buildings and structures where the modification factor as determined in Section 1103.5.9 exceeds 2.0.

61. Renumber ~~Amend s~~Section 4603.4.5 to Section 1103.5.7 and amend to read as follows:

1103.5.7~~4603.4.5~~ Remodeling In Existing Buildings and Structures.

1. In buildings of all occupancy groups, except group U and one- and two-family dwellings and townhouses, an approved automatic sprinkler system shall be provided throughout the remodeled interior area if the hard cost of all remodeling work exceeds \$1,000,000 or 25% of the market value of the building or structure.
2. In one and two family dwellings and townhouses, an approved automatic sprinkler system shall be provided throughout the remodeled interior area of the existing building if the hard cost of all remodeling work exceeds \$300,000.

3. In existing buildings and structures where the modification factor as determined in Section 1103.5.9 exceeds 2.0.

62. Add a new Section 1103.5.8 to read as follows:

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Attachment IFC-2 Fire Code - Proposed Amendments (Redlined)

1103.5.8 Cumulative effect of modifications. When calculating the gross floor area, exterior wall areas, and gross roof area under Sections 1103.5.5 and 1103.5.6, and the hard cost under Section 1103.5.7, the calculated values shall include all work to be performed on the existing building or structure under consideration as part of the permit application, plus all work performed on the existing building or structure within the two-year period of time immediately prior to the date of the current permit application.

63. Add a new Section 1103.5.9 to read as follows:

1103.5.9 Building and structures modification factor. In addition to the requirements set forth in Sections, 1103.5.5, 1103.5.6 and 1103.5.7, an approved automatic sprinkler system shall be installed throughout existing buildings and structures where the modification factor M, determined in accordance with the following, is greater than 2.0.

M = modification factor where,

A_{addition} = gross square foot floor area of addition

A_{alteration} = gross square foot area of structurally altered exterior walls and roof

\$_{remodeling} = actual hard cost of interior remodeling work

E_{floor} = gross floor area of existing building or structure

E_{surface} = gross area of existing exterior walls and roof

\$_{threshold} = lesser of \$300,000 or 25% of the market value of the building or structure

$M = A_{addition} / E_{floor} + A_{alteration} / E_{surface} + \$_{remodeling} / \$_{threshold}$

Exception: Single-family dwellings less than 1,500 square feet in gross floor area shall not be subject to the modification factor.

64. Add a new Section 1103.5.10 to read as follows:

1103.5.10 Residential basement remodeling. When the hard cost of basement remodeling in one- and two-family dwellings and townhouses exceeds \$15,000, a sprinkler head shall be installed on the domestic water line within 5 feet of any boiler, furnace or clothes dryer.

65. Renumber ~~Section 4603.5~~ to Section 1103.6 and amend to read as follows: ~~in its entirety and substitute the following:~~

1103.6 ~~4603.5~~ Standpipes. Class I Standpipes shall be provided in all existing buildings and structures in use group A, B, E, M, R, F, H, I or S and installed in accordance with section 905 where any one of the following conditions exist:

1. The existing building is enlarged to exceed two stories or where any portion of the floor area exceeds two hundred feet (200') from the nearest Fire Department access.
2. The existing building is enlarged and the gross floor area of the addition exceeds 150% of the gross floor area of the existing building or structure.
3. The existing building is altered and the structurally altered exterior wall and roof gross area exceeds 75% of the existing total exterior wall and roof gross area.
4. The existing building is remodeled and the hard cost of the remodeled area exceeds \$1,000,000 or 25% of the market value of the building or structure.

Exception: Standpipes shall not be required in one- and two-family dwellings and townhouses.

66. Delete Sections 1103.6.1, and 1103.6.2 in their entirety.

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Attachment IFC-2 Fire Code - Proposed Amendments (Redlined)

67. Renumber ~~Section 4603.6~~ to Section 1103.7 and amend to read as follows:~~in its entirety and substitute the following:~~

1103.7.4603.6 ~~Fire Alarm Systems~~. An approved fire alarm system shall be installed in existing buildings and structures in accordance with ~~Sections 1103.7.14603.6.1 through 1103.7.64603.6.8~~ and provide occupant notification in accordance with section 907.6 unless other requirements are provided by other sections of this Code.

Exception: Occupancies with an existing, previously approved fire alarm system.

68. Amend Section 1103.7.6 to read as follows and maintain the Exceptions:

1103.7.6 Group R-2. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in existing R-2 occupancies more than three stories in height or with more than 12 dwelling or sleeping units. The detection device shall be a heat detector which shall be installed in the main living room. Smoke detectors or other alarm or detection devices installed within the dwelling or sleeping unit shall not be tied into the building's occupant notification system.

69. Add ~~Section 1103.7.7603.6.8~~ to read as follows:

1103.7.7603.6.8 Group A, B, E, M, R, F, H, I And S. An approved fire alarm system installed in accordance with the provisions of this Code and NFPA 72 shall be provided under any one of the following conditions:

1. The existing building is enlarged or the gross floor area is increased and the hard cost of the construction work exceeds \$15,000.
2. The existing building is altered and the hard cost of the construction work to structurally alter the exterior wall and roof exceeds \$15,000.
3. The existing building is remodeled and the hard cost of the interior construction work exceeds \$15,000.

Exception: Fire alarm systems shall not be required in one- and two-family dwellings and townhouses.

(Ord. 5893, 10-25-2010, eff. 12-1-2010; Ord. 5918, 1-24-2011; Ord. 6603, 5-29-2018)

Attachment IFC-3

Fire Code - Proposed Amendments (Clean)

+5-2-1. Adoption of the Fire Code.

- (A) The 2018 ICC International Fire Code is adopted by reference as the standards and regulations for governing the safeguarding of life and property from fire and explosion hazards arising from the storage, handling and use of hazardous substances, materials and devices, and from conditions hazardous to life and property in the occupancy of buildings and premises as this Code is intended, recommended, maintained and published by the International Code Council except such portions thereof that are deleted, modified, or amended in this chapter. At least one copy of the 2018 ICC International Fire Code shall be maintained on file in the office of the Village Clerk for inspection and copying as a public record.
- (B) The provisions of the 2018 ICC International Fire Code are hereby deleted, modified, and amended as follows:
1. Delete Section 101.1 in its entirety and substitute the following:
101.1 Title. These regulations shall be known as the fire code of the Village of Glen Ellyn hereinafter referred to as "this Code".
 2. Amend Section 102.5 to add the following:
 3. Fire protection systems and equipment provisions: All such provisions shall apply where specifically prescribed in this Code for one- and two-family dwellings and townhouses.
 3. Amend Section 102.7 to add the following at the end of the paragraph:
Exception: Wherever reference to the International Plumbing Code is made, substitute the Plumbing Code, Department of Public Health, State of Illinois.
 4. Amends Section 103 heading to read as follows:
SECTION 103 FIRE DEPARTMENT
 5. Delete Section 103.1 in its entirety and substitute the following:
103.1 General. The Fire Department is established within the jurisdiction under the direction of the Fire C-code Official. The function of the Fire Department shall be the implementation, administration, and enforcement of the provisions of this Code in accordance with Title 5 Fire Regulations, Chapter 1 Fire Department, in the Glen Ellyn Village Code.
 6. Delete Sections 104.10 and 104.10.1 in their entirety and substitute the following:
104.10 Fire Investigations. The Fire Code Official shall investigate, or cause to be investigated, every fire or explosion occurring within his jurisdiction that is of a suspicious nature, or which involves the loss of life or serious injury or causes destruction or damage to property. Such investigation shall be initiated immediately upon the occurrence of such fire or explosion; and if it appears that such an occurrence is of a suspicious nature, the Fire Code Official shall immediately take charge of the physical evidence and, in order to preserve physical evidence relating to the cause or origin of such fire or explosion, the Fire Official shall take means to prevent access by any person to the structure or premises until such evidence has been properly processed. The Fire Code Official shall notify those persons designated by law to pursue investigations into such matters and shall further cooperate with the authorities in collection of evidence and prosecution of the case and shall pursue the investigation to its conclusion.

Attachment IFC-3

Fire Code - Proposed Amendments (Clean)

7. Add a new Section 104.12 to read as follows:

104.12 Fire Prevention Inspections. The Fire Code Official shall inspect all existing structures and premises, except single-family dwellings, two-family dwellings, and individual dwelling units within multi-family buildings, for the purpose of ascertaining and causing to be corrected any conditions liable to cause fire, contribute to the spread of fire, interfere with fire-fighting operations, or endanger life or any violation of the provisions or intent of this Code or any other ordinance affecting fire safety.

8. Renumber Section 108.1 to Section 109.1 as follows:

109.1 Board Of Appeals Established. The structure, responsibilities and procedures of the Building Board of Appeals is established in Title 2 Boards and Commissions, Chapter 7 Building Board of Appeals, in the Glen Ellyn Village Code.

9. Renumber Section 108.3 to Section 109.3 as follows: in its entirety and substitute the following:

109.3 Qualifications. The board of appeals shall consist of members who are qualified by experience and training to pass on matters pertaining to hazards of fire, explosion, hazardous conditions, or fire protection systems.

10. Renumber Section 109.3 to Section 110.4 as follows:

110.4 Violation Penalties. Any person who violates a provision of this Code shall, upon conviction thereof, be subject to a fine of not less than \$50.00 nor more than \$750.00 unless a fine for the violation of this Code is listed in the Village Code of Glen Ellyn, Illinois, then the more stringent shall apply. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

11. Renumber Section 111.4 to Section 112.4 as follows:

112.4 Failure to Comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable to a fine of not less than \$50.00 dollars or more than \$750.00 dollars. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

12. Amend Section 202 to add the following use under Business Group B:

Co-working Facility

13. Amend Section 202 to add the definition of Co-working Facility to read as follows:

CO-WORKING FACILITY. A facility having more than (10) persons on site at any time, and in which food and/or drink consumption occurs as part of the stated business plan before, during or after normal business hours shall be classified as a Group A-2 occupancy.

14. Amend Section 202 to replace the definition of the Fire Code Official with the following:

Fire Code Official. The Fire Chief, the Building and Zoning Official or other designated authority charged with the administration and enforcement of the Code, or a duly authorized representative, under the direction and with the approval of the Director of Community Development or the Village Manager.

15. Amend Section 202 to add the definition of Hard Cost to read as follows:

HARD COST. The cost of all labor, materials, overhead and profit to complete remodeling of an existing building. Remodeling work includes, but is not limited to, improvements and alterations to foundations, walls, roofs, floors, ceilings, stairs, doors, windows, and electrical, mechanical, plumbing systems and fixtures and equipment.

For purpose of determining hard cost, remodeling work does not include the following:

Attachment IFC-3

Fire Code - Proposed Amendments (Clean)

1. Interior or exterior non-structural demolition work or removal of existing improvements, fixtures, or equipment.
 2. Work to install a fire sprinkler system or increase the size of the water service to a building as required to serve a fire sprinkler system.
 3. Work to install a fire alarm and detection system.
 4. Installation of interior floor, wall, and ceiling finishes such as paint, wallcoverings, paneling or tile over wallboard, or carpet, wood, or tile flooring over a subfloor.
 5. Cabinets and casework, countertops, shelving units, or door, window, base, and ceiling trim.
 6. Furniture, appliances, decorative fixtures, window treatments or business sales, display or service fixtures and equipment.
16. Amend Section 202 to add the definition of Hazard Categories and Classifications to read as follows:
- HAZARD CATEGORIES AND CLASSIFICATIONS. The relative degree of hazard from fire between different occupancy classifications. The Hazard Categories and Classifications shall be as set forth below.
- | Hazard Category | Occupancy Classification |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 (highest hazard) | Industrial or storage occupancies with high hazard contents |
| 2 | Health care, detention and correctional, residential board and care |
| 3 | Assembly, educational, day care, ambulatory health care, residential, mercantile, business, general and special-purpose industrial, ordinary hazard storage |
| 4 (lowest hazard) | Industrial or storage occupancies with low hazard contents |
17. Amend Section 202 to add the definition of Market Value to read as follows:
- MARKET VALUE. The dollar value of a building or structure, excluding land value, calculated to be three times the current assessed value established by the township assessor at 33.3% of the market value.
18. Amend Section 202 to delete the definition of Open Burning in its entirety and substitute the following:
- OPEN BURNING. The burning of materials wherein products of combustion are emitted directly into the ambient air without passing through a stack or chimney from an enclosed chamber. Open burning does not include road flares, smudge pots and similar devices associated with safety or occupational uses typically considered open flames, recreational fires or use of stationary outdoor fireplaces or portable outdoor fireplaces. For the purpose of this definition, a chamber shall be regarded as enclosed when, during the time combustion occurs, only apertures, ducts, stacks, flues, or chimneys necessary to provide combustion air and permit the escape of exhaust gas are open.
19. Amend Section 202 to add the definition of Roof Area, Gross to read as follows:
- ROOF AREA, GROSS. The square footage of the horizontal plane(s) formed at the outside top edge of the perimeter walls of a building or structure.
20. Amend Section 202 to add the definition of Wall Area, Gross to read as follows:
- WALL AREA, GROSS. The square footage of all outside wall surfaces from a point eight inches above the adjacent grade to the soffit or eave of a building or structure.

Attachment IFC-3

Fire Code - Proposed Amendments (Clean)

21. Delete Section 304.3.4 in its entirety and substitute the following and retain all exceptions:

304.3.4 Capacity of 1 cubic yard or more. Dumpsters with an individual capacity of 1.0 cubic yard or more shall not be stored in buildings or placed within 10 feet of combustible walls, building openings, exterior stairways, combustible roof eave lines, telecommunication towers, utility drops, or utility poles, unless the dumpsters are constructed of noncombustible materials and have a solid metal lid.

22. Revise the title of Section 307 to read as follows:

SECTION 307 OPEN BURNING, RECREATIONAL FIRES AND OUTDOOR FIREPLACES.

23. Delete Sections 307.1 and 307.1.1 in their entirety and substitute the following:

307.1 General. The regulations on open burning and fires are established in Title 7 Health And Sanitation, Chapter 7 Air Pollution, in the Glen Ellyn Village Code.

24. Delete Sections 307.2 and 307.2.1 in their entirety.

25. Delete Section 307.3 in its entirety.

26. Delete Section 307.4 and all subsections in their entirety and substitute the following:

307.4 Location. The location for outdoor burning shall be as indicated in Sections 307.4.1 through 307.4.6.

307.4.1 Bonfires. Bonfires shall not be permitted unless approved by the Fire Code Official.

307.4.2 Recreational fires. Recreational fires shall not be permitted unless approved by the Fire Code Official.

307.4.3 Portable outdoor fireplaces. Portable outdoor fireplaces, including fire pits, incinerators, chimineas and similar devices shall be used in accordance with the manufacturer's instructions and shall not be operated within 15 feet of a building, structure, or combustible material.

307.4.4 Stationary outdoor fireplaces. The fire box opening of a stationary outdoor fireplace shall not be located closer than 10 feet to a building, structure, or combustible material.

Exception: The fire box opening of a stationary outdoor fireplace used for cooking shall not be located closer than 15 feet to a building, structure, or combustible material.

307.4.5 Stationary fire features. Manufactured stationary fire features, including fire pits, fire bowls, fire columns, fire tables and similar devices shall be installed and used in accordance with the manufacturer's instructions and shall not be operated within 10 feet of a building, structure, or combustible material. Fuel lines servicing such devices shall be provided with a shut-off valve at the exterior face of the building and be subject to inspection, including a pressure test, prior to first use.

307.4.6 Stationary fire pits. Stationary fire pits shall be constructed of non-combustible material. The fire containment area of a stationary outdoor fire pit shall not be located closer than 15 feet to a building, structure, or combustible material. Stationary fire pits shall have a containment area for burning material with a total fuel area to exceed the equivalent of 3 feet in diameter and a total fuel height not to exceed 2 feet.

Attachment IFC-3

Fire Code - Proposed Amendments (Clean)

27. Amend Section 307.5 to read as follows:

307.5 Attendance. The use of portable outdoor fireplaces shall be constantly attended by an adult until the fire is extinguished. A minimum of one portable fire extinguisher complying with section 906 with a minimum 4-A rating or other approved on-site fire-extinguishing equipment, such as dirt, sand, water barrel, or garden hose, shall be available for immediate utilization.

28. Add new Section 307.6 to read as follows:

307.6 Material to be burned. Portable outdoor fireplaces, stationary fireplaces not used for cooking, and stationary fire pits shall be limited to burning the following materials.

1. Seasoned firewood
2. Dimensional lumber (unpainted, unfinished, unlaminated or glued, and non-treated)
3. Manufactured logs
4. Manufactured non-wood logs specifically made for use in fireplaces.

No other material may be burned in outdoor fireplace. Burning of unseasoned wood, leaves, rubbish, garbage, and other waste materials is prohibited.

29. Add new Section 307.7 to read as follows:

307.7 Spark arrestors. All outdoor fireplaces, stationary fireplaces not used for cooking, and stationary fire pits shall have a cover, screen, or glass doors to prevent the distribution of hot embers or sparks outside the firebox or containment area.

30. Delete Section 308.1.4 in its entirety and substitute the following:

308.1.4 Open-Flame Cooking Devices. Charcoal burners, LP-gas grills, and other open-flame cooking devices shall not be operated on combustible balconies or decks or within 5 feet horizontally or 5 feet vertically below combustible construction.

Exceptions:

1. Where buildings, balconies and decks are protected by an automatic sprinkler system.
2. LP gas cooking devices having LP-gas container with a water capacity not greater than 21/2 pounds [nominal 1 pound (0.454 kg) LP-gas capacity].
3. Where combustible surfaces are protected and covered with a non-combustible material approved by the building official.

31. Delete Section 311.5.4 in its entirety and substitute the following:

311.5.4 Placard symbols. The design of the placards shall use the following symbols:

1. This symbol shall mean that the structure had normal structural conditions at the time of marking.
2. This symbol shall mean that structural or interior hazards exist, and interior firefighting or rescue operations should be conducted with extreme caution.
3. This symbol shall mean that structural or interior hazards exist to a degree that consideration should be given to limit firefighting to exterior operations only, with entry only occurring for known life hazards.

Attachment IFC-3

Fire Code - Proposed Amendments (Clean)

4. Vacant marker hazard identification symbols: The following symbols shall be used to designate known hazards on the vacant building marker. They shall be placed directly above the symbol.
 - 4.1. R/O—Roof open.
 - 4.2. S/M—Stairs, steps and landing missing.
 - 4.3. F/E—Avoid fire escapes.
 - 4.4. H/F—Holes in floor.
32. Add a new Section 315.4.3 to read as follows:

315.4.3 Retail display. Retail display of combustible or flammable materials such as firewood, landscape mulch, straw bales, propane tanks or similar products shall be limited to location and quantity as approved by the Fire Code Official.
33. Add a new Section 320 to read as follows:

320 PROHIBITED OCCUPANCIES

320.1 Below grade occupancies. Residential dwelling units one story or more below the level of Fire Department access in multi-family or mixed-use buildings within the C5 Zoning District shall be prohibited.
34. Add new Section 505.1.1 to read as follows:

505.1.1 Building address. The rear entrance of all multi-tenant commercial buildings shall have street address number in compliance with Section 505.1.
35. Add new Section 505.1.2 to read as follows:

505.1.2 Multiple doors. Doors located within the exterior perimeter walls of all commercial buildings that are in addition to the main entrance or main rear entrance doors shall be identified with address numbers or other designation approved by the Fire Code Official.
36. Delete Section 506.1 in its entirety and substitute the following:

506.1 Where required. All commercial and multi-family dwelling unit buildings shall have a key box installed near the main entrance in a location approved by the Fire Code Official. The key box shall be of an approved type listed in accordance with UL 1037.

 1. The key box shall include keys to provide access to all tenant spaces in accordance with Section 506.1.3.
 2. All tenant spaces with main doors within the exterior perimeter walls of all commercial buildings shall have a separate key box.
 3. All commercial buildings with multiple tenancies and an exterior door that accesses the fire sprinkler room shall have a key box within 5 feet of the fire sprinkler room access door.
 4. All existing tenancies shall provide a key box within one year of the date of adoption of this Code.

Exception: A key box to contain keys to access individual dwelling units shall be provided in the building's electrical room.
37. Add new Section 506.1.3 to read as follows:

506.1.3 Keys required. The key box shall contain the following types of keys. Keys shall be clearly and individually marked or tagged to indicate which door it operates.

Attachment IFC-3

Fire Code - Proposed Amendments (Clean)

1. Keys necessary to access exterior and interior doors and provide entry to all spaces.
2. Two sets of keys to access the main entry door.
3. In multi-family dwelling unit buildings, provide one set of building keys for each floor level.
4. Keys for fire alarm pull stations, panels, and fire protection systems.
5. Keys for elevators and electrical equipment.
6. Keys to override any electronic pads that control access through any door.
7. Keys to provide access to individual dwelling units.
8. Other keys as determined required by the Fire Code Official based on building use or occupancy.

Keys or codes to access security systems shall not be provided. In buildings exceeding one story in height, one set of keys shall be provided for each floor or rooftop level.

38. Add new Section 506.1.4 to read as follows:

506.1.4 Key box capacity. Key boxes shall be of sufficient size to accommodate the required keys. In buildings containing 1-3 occupancies, the key box shall have a minimum capacity of 10 keys. In buildings containing 4-10 occupancies, the key box shall have a minimum capacity of 25 keys. In buildings containing 11 or more occupancies, the key box shall have a minimum capacity of 50 keys.

Exception: Key boxes for multi-family dwelling unit buildings shall have a minimum capacity of 10 keys.

39. Amend Section 903.2 to read as follows and retain the Exception:

903.2 Where Required. Approved automatic sprinkler systems in new buildings and structures in use group A, B, E, M, R, F, H, I and S and in one- and two-family dwellings and townhouses shall be provided throughout the building or structure and in the locations described in Sections 903.2.11 and 903.2.12.

40. Delete Section 903.2.1 in its entirety and substitute the following:

903.2.1 Change of use. An automatic sprinkler system shall be installed in existing buildings and structures, or portions thereof, as if the building or portions thereof subject to the change of use were of new construction, where any of the following occurs.

1. Where a change of use does not result in the change of occupancy classification but results in the creation of a hazardous contents area.
2. Where the change of use results in an occupancy classification of a higher hazard classification category (i.e., a lower hazard classification number), as defined in Section 202 HAZARD CATEGORIES AND CLASSIFICATIONS.
3. In use group A or E when the occupied space(s) are located below the level of Fire Department access.

41. Delete Sections 903.2.1.1 through 903.2.10.1 in their entirety.

42. Amend Section 903.3.1.1 to read as follows:

903.3.1.1 NFPA 13 sprinkler systems. Where the provisions of this code require that a building or portion thereof be equipped throughout with an *automatic sprinkler system* in accordance with this section, sprinklers shall be installed throughout in accordance with NFPA 13 except as provided in Sections 903.3.1.1.1 and 903.3.1.1.2. The sprinkler system shall be designed with a minimum 5 psi cushion at the furthest sprinkler head.

Attachment IFC-3

Fire Code - Proposed Amendments (Clean)

43. Amend Section 903.3.1.2 to read as follows:

903.3.1.2 NFPA 13R sprinkler systems. *Automatic sprinkler systems* in Group R occupancies up to and including four stories in height in buildings not exceeding 60 feet (18 288 mm) in height above grade plane shall be permitted to be installed throughout in accordance with NFPA 13R.

The number of stories of Group R occupancies constructed in accordance with Sections 510.2 and 510.4 of the *International Building Code* shall be measured from the horizontal assembly creating separate buildings. The sprinkler system shall be designed with a minimum 5 psi cushion at the furthest sprinkler head.

44. Amend Section 903.3.1.3 to read as follows:

903.3.1.3 NFPA 13R sprinkler903.3.1.3 NFPA 13D sprinkler systems. *Automatic sprinkler systems* installed in one- and two-family *dwelling*s; Group R-3; Group R-4, Condition 1; and *townhouses* shall be permitted to be installed throughout in accordance with NFPA 13D. The sprinkler system shall be designed with a minimum 5 psi cushion at the furthest sprinkler head.

45. Amend Section 903.4.2 to read as follows:

903.4.2 *Alarms*. An approved audible/visual device with a blue lens, located on the exterior of the building in an approved location on the closest exterior façade facing and parallel to the street, shall be connected to each automatic sprinkler system. Such sprinkler waterflow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Where a fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system. Existing exterior alarm bells shall be replaced with an approved audible/visible device within one year of the date of adoption of this Code.

46. Amend Section 903.4.2.1 to read as follows:

903.4.2.1 *Alarms in Dwelling Units*. In one- and two-family dwellings, multi-family dwelling units in buildings without common interior paths of egress, and townhouses a six-inch water flow bell shall be installed on the interior return air plenum of the forced air furnace, or other approved location, to serve every living space and a horn/strobe notification device shall be installed on the exterior front of the building in an approved location visible from the street.

47. Amend Section 905.3.1 to read as follows and retain all exceptions:

905.3.1 *Height*. Class I standpipe systems shall be installed throughout buildings where the floor level of the highest story is located more than 30 feet (9144 mm), or two stories, above the lowest level of Fire Department access, or where the floor level of the lowest story is located more than 30 feet (9144 mm), or two stories, below the highest level of Fire Department vehicle access or where any portion of the floor area is more than 200 feet (61 m) of travel distance from the nearest point of Fire Department vehicle access.

48. Delete Section 907.2.7 exception 2 in its entirety and substitute the following:

2. Manual fire alarm boxes are not required at the public entrance where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 and the occupant notification appliances will automatically activate throughout the notification zones upon sprinkler water flow.

Attachment IFC-3

Fire Code - Proposed Amendments (Clean)

49. Delete Section 907.2.10 in its entirety and substitute the following:

907.2.10 Single- and multiple-station smoke alarms. Listed single- and multiple-station smoke alarms complying with UL 217 shall be installed in accordance with Sections 907.2.10.1 through 907.2.10.8, NFPA 72, and (425 ILCS 60/) Smoke Detector Act.

50. Amend Section 907.2.10.1 to add the following:

4. Within 15 feet of every room used for sleeping purposes. The detector shall be installed on the ceiling and at least 6 inches from any wall, or on a wall located between 4 and 6 inches from the ceiling.

51. Delete condition number 1 under Section 907.2.10.2 in its entirety and replace with the following:

1. Within 15 feet of every room used for sleeping purposes. The detector shall be installed on the ceiling and at least 6 inches from any wall, or on a wall located between 4 and 6 inches from the ceiling.

52. Add a new Section 907.2.10.8 to read as follows:

907.2.10.8 Structures with more than one dwelling unit and mixed-use structures. Every structure which (1) contains more than one dwelling unit, or (2) contains at least one dwelling unit and is a mixed-use structure, shall contain at least one approved smoke detector at the uppermost ceiling of each interior stairwell. The detector shall be installed on the ceiling, at least 6 inches from the wall, or on a wall located between 4 and 6 inches from the ceiling.

53. Add a new Section 907.2.24 to read as follows:

907.2.24 C5 Zoning District: An automatic fire alarm and detection system shall be installed in all new buildings and structures in the C5 Zoning District. By the end of the first full calendar year after the date of adoption of this code, an automatic fire alarm and detection system shall be installed in all existing buildings within the C5 Zoning District in accordance with NFPA 72.

54. Delete Section 907.4.3 in its entirety and substitute the following:

907.4.3 Automatic Smoke Detection. Where an automatic smoke detection system is required, it shall utilize smoke detectors unless ambient conditions prohibit such an installation. In spaces where smoke detectors cannot be utilized due to ambient conditions and in common corridors and rooms exceeding 100 square feet, approved automatic heat detectors shall be required.

55. Add Section 907.5.2.3.3 to read as follows:

907.5.2.3.3 Exterior visible alarms. An approved audible/visual device with a clear lens (white light), located on the exterior of the building in an approved location on the closest exterior façade facing and parallel to the street, shall be connected to each fire alarm and detection system in new installations. An exterior audible/visible device shall be installed on existing buildings equipped with a fire alarm and detection system within one year of the date of adoption of this Code.

56. Delete Section 907.5.3 in its entirety.

57. Renumber Section 907.7.5.2 to Section 907.6.6.3 and amend to read as follows:

907.6.6.3 Monitoring station. All fire alarm systems shall report to an approved third-party monitoring station.

Exception: In buildings serving occupancy group A or group E the fire alarm system shall be directly connected to the DuPage Public Safety Communications (DU-COMM) facility (remote station) in accordance with NFPA 72.

58. Delete Section 1103.5 in its entirety and substitute the following:

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Attachment IFC-3

Fire Code - Proposed Amendments (Clean)

1103.5 Sprinkler Systems. An automatic sprinkler system shall be provided in existing buildings in accordance with Sections 1103.5.1 through 1103.5.5.

59. Renumber Section 4603.4.3 to Section 1103.5.5 and amend to read as follows:

1103.5.5 Additions To Existing Buildings And Structures.

1. In buildings of use group A, B, E, M, R, F, H, I, or S, an approved automatic sprinkler system shall be provided throughout the addition if the gross floor area of the addition exceeds 2,500 square feet, or throughout the addition and the existing building if the combined gross floor area of the addition and the existing building exceeds 5,000 square feet.
2. In buildings of use group A, B, E, M, R, F, H, I, or S, and in one- and two-family dwellings and townhouses, an approved automatic sprinkler system shall be provided throughout the addition and throughout the existing building or if the gross floor area of the addition exceeds 150% of the gross floor area of the existing building.
3. In existing buildings and structures where the modification factor as determined in Section 1103.5.9 exceeds 2.0.

60. Renumber Section 4603.4.4 to Section 1103.5.6 and amend to read as follows:

1103.5.6 Alterations To Existing Buildings And Structures.

1. In buildings of use group A, B, E, M, R, F, H, I, or S, an approved automatic sprinkler system shall be provided throughout the existing building and any addition if the structurally altered existing exterior wall and roof gross square foot area exceeds 50% of the total existing exterior wall and roof gross square foot area.
2. In one- and two-family dwellings and townhouses, an approved automatic sprinkler system shall be provided throughout the existing building and any addition if the structurally altered existing exterior wall and roof gross square foot area exceeds 75% of the total existing exterior wall and roof gross square foot area.
3. In existing buildings and structures where the modification factor as determined in Section 1103.5.9 exceeds 2.0.

61. Renumber Section 4603.4.5 to Section 1103.5.7 and amend to read as follows:

1103.5.7 Remodeling In Existing Buildings and Structures.

1. In buildings of all occupancy groups, except group U and one- and two-family dwellings and townhouses, an approved automatic sprinkler system shall be provided throughout the remodeled interior area if the hard cost of all remodeling work exceeds \$1,000,000 or 25% of the market value of the building or structure.
2. In one and two family dwellings and townhouses, an approved automatic sprinkler system shall be provided throughout the remodeled interior area of the existing building if the hard cost of all remodeling work exceeds \$300,000.
3. In existing buildings and structures where the modification factor as determined in Section 1103.5.9 exceeds 2.0.

62. Add a new Section 1103.5.8 to read as follows:

1103.5.8 Cumulative effect of modifications. When calculating the gross floor area, exterior wall areas, and gross roof area under Sections 1103.5.5 and 1103.5.6, and the hard cost under Section 1103.5.7, the calculated values shall include all work to be performed on the existing building or structure under consideration as part of the permit application, plus all work performed on the existing building or

Attachment IFC-3

Fire Code - Proposed Amendments (Clean)

structure within the two-year period of time immediately prior to the date of the current permit application.

63. Add a new Section 1103.5.9 to read as follows:

1103.5.9 Building and structures modification factor. In addition to the requirements set forth in Sections, 1103.5.5, 1103.5.6 and 1103.5.7. an approved automatic sprinkler system shall be installed throughout existing buildings and structures where the modification factor M, determined in accordance with the following, is greater than 2.0.

M = modification factor where,

A_{addition} = gross square foot floor area of addition

$A_{\text{alteration}}$ = gross square foot area of structurally altered exterior walls and roof

$\$_{\text{remodeling}}$ = actual hard cost of interior remodeling work

E_{floor} = gross floor area of existing building or structure

E_{surface} = gross area of existing exterior walls and roof

$\$_{\text{threshold}}$ = lesser of \$300,000 or 25% of the market value of the building or structure

$M = A_{\text{addition}} / E_{\text{floor}} + A_{\text{alteration}} / E_{\text{surface}} + \$_{\text{remodeling}} / \$_{\text{threshold}}$

Exception: Single-family dwellings less than 1,500 square feet in gross floor area shall not be subject to the modification factor.

64. Add a new Section 1103.5.10 to read as follows:

1103.5.10 Residential basement remodeling. When the hard cost of basement remodeling in one- and two-family dwellings and townhouses exceeds \$15,000, a sprinkler head shall be installed on the domestic water line within 5 feet of any boiler, furnace or clothes dryer.

65. Renumber Section 4603.5 to Section 1103.6 and amend to read as follows:

1103.6 Standpipes. Class I Standpipes shall be provided in all existing buildings and structures in use group A, B, E, M, R, F, H, I or S and installed in accordance with section 905 where any one of the following conditions exist:

1. The existing building is enlarged to exceed two stories or where any portion of the floor area exceeds two hundred feet (200') from the nearest Fire Department access.
2. The existing building is enlarged and the gross floor area of the addition exceeds 150% of the gross floor area of the existing building or structure.
3. The existing building is altered and the structurally altered exterior wall and roof gross area exceeds 75% of the existing total exterior wall and roof gross area.
4. The existing building is remodeled and the hard cost of the remodeled area exceeds \$1,000,000 or 25% of the market value of the building or structure.

Exception: Standpipes shall not be required in one- and two-family dwellings and townhouses.

66. Delete Sections 1103.6.1, and 1103.6.2 in their entirety.

67. Renumber Section 4603.6 to Section 1103.7 and amend to read as follows:

1103.7 Fire Alarm Systems. An approved fire alarm system shall be installed in existing buildings and structures in accordance with Sections 1103.7.1 through 1103.7.6 and provide occupant notification in accordance with section 907.6 unless other requirements are provided by other sections of this Code.

Attachment IFC-3

Fire Code - Proposed Amendments (Clean)

Exception: Occupancies with an existing, previously approved fire alarm system.

68. Amend Section 1103.7.6 to read as follows and maintain the Exceptions:

1103.7.6 Group R-2. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in existing R-2 occupancies more than three stories in height or with more than 16 dwelling or sleeping units. The detection device shall be a heat detector which shall be installed in the main living room. Smoke detectors or other alarm or detection devices installed within the dwelling or sleeping unit shall not be tied into the building's occupant notification system.

69. Add Section 1103.7.7 to read as follows:

1103.7.7 Group A, B, E, M, R, F, H, I And S. An approved fire alarm system installed in accordance with the provisions of this Code and NFPA 72 shall be provided under any one of the following conditions:

1. The existing building is enlarged or the gross floor area is increased and the hard cost of the construction work exceeds \$15,000.
2. The existing building is altered and the hard cost of the construction work to structurally alter the exterior wall and roof exceeds \$15,000.
3. The existing building is remodeled and the hard cost of the interior construction work exceeds \$15,000.

Exception: Fire alarm systems shall not be required in one- and two-family dwellings and townhouses.

(Ord. 5893, 10-25-2010, eff. 12-1-2010; Ord. 5918, 1-24-2011; Ord. 6603, 5-29-2018)

Attachment IFC-4

Major changes to the International Fuel Gas Code 2012, 2015 and 2018 Editions

The following is an overview of major changes that have occurred in the International Code Council's *International Fire Code* 2012, 2015 and 2018 editions. The information provided comes from a variety of sources, including:

- *International Fire Code* 2012, 2015 and 2018 editions. Additions and deletions of code sections within each publication are identified in the margin adjacent to or between code sections.
- International Code Council seminars on International Fire Code updates.
- Evaluations performed by other municipalities if available.

Items determined to have greater impact on the maintenance of existing buildings and properties within the Village are highlighted in yellow.

2012, 2015 and 2018 International Fire Code			
Code Year	Amendment New, Change or Addition.	Cost Impact Decrease Increase Unknown	Description
2012	Change	N/A	Several medical care definitions were created and revised in Chapter 2 of the 2012 IBC, as well as through the occupancy descriptions, and those have been repeated in the 2012 IFC. These terms were created to help users of the code know how to assign an occupancy and determine which code requirements are applicable based on how the patient is cared for.
2012	Change	N/A	Section 307.1.1 now prohibits open burning when circumstances make it hazardous, not just when someone finds it offensive.
2012	New	N/A	Section 317 introduces new requirements for roof gardens and landscaped roofs. This becomes important as the presence of roof gardens or landscaped roofs can affect fire fighter ability to move around the roof and conduct operations.
2012	Change	N/A	Section 503.4.1 now prohibits traffic calming devices on fire apparatus access roads unless approved by the fire code official. This will result in the need for greater communication between fire staff and planning staff.
2012	Change	N/A	Section 506.1 and 607 require elevator key boxes to be provided, and require standard elevator keys that can be used in multiple elevators regardless of manufacturer. All elevator key types in the jurisdiction will now be uniform. This speeds up Fire Dept access and creates consistency.
2012	Change	N/a	Section 508.1.5 now requires a building information card for any building with a fire command center. Any high-rise or building with smoke protected seating has a fire command center. As a result of the World Trade Center study, it was determined that a quick concise Building Information Card (BIC) was necessary to provide critical information about the systems and locations of the systems within large, complicated buildings

			in order to speed up fire personnel response.
2012	Change	Increase	Section 510.1 now houses the information on emergency responder radio coverage that was previously only in Appendix J. It is now in the body of the code and required for all new buildings. The appendix had it in both new and existing buildings which occasionally caused conflicts with other systems. A new exception in the new section provides for that inevitability.
2012	Change	Increase	Section 604.5 now requires building owners to conduct a test of the emergency lighting equipment at regular intervals, and submit the test results to the Fire Department upon request.
2012	Change	N/A	Section 605.11 introduces solar photovoltaic power systems into the IFC, and the 2015 edition clarifies and coordinates it with the IBC and the NEC and adds ground mounted array requirements. Among the many new requirements in the 2012 are access paths on roofs around solar arrays. Note that these new requirements do not apply to IRC structures like they do to R-3 occupancies. Solar arrays present many hazards to Fire Fighters due to the panels generating current during daylight and they can't be shut off.
2012	New	N/A	Section 610 is a new section regarding kitchen cooking oil storage. Many kitchens are now recapturing cooking oil to save costs. The inherent dangers of large quantities of oil near electricity and flame require safety provisions.
2012	New	N/A	Section 803.5.2 adds new requirements for new textile wall and ceiling coverings.
2012	New	N/A	Section 901.9 adds a new requirement that a fire code official must be notified when an alarm monitoring service is either terminated or changed. This will require staff to keep a record of such notifications, and determine if they have staff time to keep track of this information and subsequent follow-ups.
2012	Change	Decrease	Section 903.2.4, 903.2.7, 903.2.9 modifies and relaxes the furniture storage protection provisions that arrived in the 2009 code. Those were difficult to enforce and now allow small stores to provide upholstered furniture and mattresses without sprinklers.
2012	Change	Increase	Section 903.2.11.1.3 modifies the requirement for basements such that any basement that has interior obstructions must be sprinkled. This could be difficult to enforce since any partition under 5' 9" does not need a permit. Therefore, the placement of a bookshelf or a urinal partition could be interpreted that a sprinkler system is required.
2012	Change	Increase	Section 904.1.1 and 906.3 now require that personnel who perform maintenance on portable fire extinguishers or alternative fire-extinguishing systems (such as hoods and spray booths) must be certified by the jurisdiction or other approved organization. The jurisdiction may have to consider what certifications they will require, and if they will have staff to keep records of that.
2012	Change	Increase	Section 906.1 requires more portable fire extinguishers (PFE's) in some commercial occupancies, and allows fewer PFE's in common areas of apartment/condo buildings if one is placed in each of the units. (Consideration needs to be given to whether

			those PFE's in the units will stay there like they would in the common areas, but alternatively if those in the common areas are getting vandalized or are too big for elderly to operate.
2012	New	N/A	Section 907.2.1.2 adds new requirements for mass emergency notification to be captioned in assembly spaces seating 15,000 or more, in keeping with the wording of the IBC.
2012	Change	Increase	Section 907.2.3 modified requirements for a voice/alarm communication system from 50 students down to 30 (for lock-down purposes). Depending on interpretation, this may affect mobile classroom buildings at this new lower level.
2012	Change	N/A	Section 907.2.6.1.1 now allows fire alarm and detection systems and wireless smoke alarms to be installed in buildings regulated by the IFC and the IRC.
2012	Change	N/A	Section 908.7 now requires carbon monoxide alarms for Group R and I occupancies with fuel burning appliances or attached garages in new and existing buildings. 2015 edition now relocates these to section 915 since they are not an emergency alarm, and rewrites it, adding the requirement to classrooms in Group E. The retroactive aspect doesn't apply to the Group E.
2012	Change	Unknown	Section 1011.2 now requires low level exit signs again in Group R-1 buildings, similar to the requirements of years ago. This helps not only occupants, but also firemen who arrive when there is already smoke in the building.
2012	Change	N/A	Chapter 11 is the new location for the existing building chapter, and provides one location for all retroactive requirements.
2012	Change	Increase	Section 1103.8.1 adds I-1 to the retroactive requirement for smoke alarms in existing Group R occupancies.
2012	Change	Increase	Section 1104.16.5.1 adds a new requirement that fire escape stairs must be inspected by a registered design professional every 5 years and a report submitted to the Fire Department.
2012	Change	Decrease	Section 2108.2 allows dry cleaning plants using Class III-A or Class III-B combustible liquids in non-sprinklered buildings when certain safety precautions are made.
2012	Change	Unknown	Section 2305.1 revises several tank requirements regarding 100% bio- diesel motor vehicle fuel.
2012	Change	N/A	Section 3208.3.1 now requires racking of certain commodities to have devices that protect the flue spaces from being compromised by overloading the racks. This helps the coverage by the sprinkler system to be more effective.
2012	Change	Increase	2012 Table 5003.1.1(1) takes the guess work out of combustible dusts, and requires a professional evaluation of it to be given to the Fire Department. This has historically been a judgment call that can be outside of the specific background of the fire code official.
2012	Change	N/A	Section 5003.12 now allows outdoor control areas for hazardous storage to be built closer to lot lines streets and public ways with certain protections.
2012	Change	Increase	Section 6109.15 now provides regulations for design, operation and maintenance of LP cylinder exchange stations that are accessible to the public.
2012	Change	Increase	Section 6104.3.1 no longer allows LP gas containers on the roof of buildings like NFPA 58 allows.
2012	Change	N/A	Appendix J is an optional new chapter that offers a method of presenting building information to emergency responders using

			a standardized Maltese Cross format. Basic information regarding the building fire protection systems is available there for responders to review prior to commencing an attack.
2015	New	Unknown	Section 312.3 now provides performance criteria for vehicle barriers instead of prescriptive design that was missing an impact velocity.
2015	Change	Increase	Sections 315.6 and 605.12 now give Firefighters specific wording to require removal of old wiring in plenums and any storage there that might cause more fuel load or cause a ceiling to collapse due to weight.
2015	Change	N/A	Section 403 has moved all the emergency preparedness requirements from 404 and 408 into one place for easier access to all of it in one place. The change was not intended to be technical, only an editorial location change for ease of use.
2015	Change	N/A	Section 604.1 has added specific requirements on Emergency and Standby Power Systems that were previously located in the IBC. This criteria is now all in one spot, and is more readily available to Fire Staff here than it was in Chapter 27 of the IBC.
2015	Change	N/A	Section 604.2.6 now includes additional requirements for emergency and standby power systems in Group I-2 Occupancies.
2015	Change	Decrease	Section 609.2 modifies the requirement for when a Type 1 Kitchen hood is required, and makes it consistent with the IMC. When it is proven that grease emissions are low enough, a simple Type II hood would be allowed, and no fire extinguishing system would be required.
2015	Change	Increase	Section 609.3.3.2 now adds a cleaning standard for kitchen exhaust hoods, and requires a hood with any spot check showing over an 1/8" of grease to be cleaned and a record of cleaning kept on the hood.
2015	Change	Unknown	Section 611 adds new requirements on how to deal with Hyperbaric facilities (usually found in hospitals).
2015	Change	Increase	Section 903.2.1.6 adds a requirement for sprinklers on levels between the roof and the exit discharge where an occupied roof has high assembly loads.
2015	Change	Increase	Sections 903.3.1.2.2, 1027.6 and 1104.22 now clarify that open ended corridors (breezeways) must be protected when part of a 13R sprinkler system.
2015	Change	Increase	Section 903.3.8 adjusts requirements for limited area sprinkler systems from 20 heads to 6, and prevents multiple such systems.
2015	Change	Unknown	Section 904.13 now allows residential cooking facilities in Group I-2 nursing homes with certain precautions and requirements for their safety.
2015	Change	N/A	Section 907.2.11.3 and 907.2.11.4 now require placement of smoke alarms to be at least 3' from a bathroom door, and specific distances from cooking appliances based on the type of alarm.
2015	Change	Increase	Section 913.2.2 has added protection of the electrical circuit supplying power to Fire Pumps by including a UL standard that will add fire resistivity to the cables.
2015	Change	N/A	Chapter 10 has been completely rewritten in the IBC and the new IFC matches that, with many familiar sections now being contained in new and unfamiliar places. In general, previous

			sections 1015 and 1021 were removed near the front in order to provide a logical and sequential order of thought such as: 1004, determine the occupant load; 1005, establish the exit width; 1006, establish the number of exits; 1007, address how to arrange them. This pushes the other sections that they replaced back further.
2015	Change	N/A	Section 1010.1.9.8 clarifies the confusing language of delayed egress, electromagnetic locks and introduces “sensor release of electrically locked” egress doors and adds I-1 to the provisions. Several of these neighboring sections have undergone changes that hope to clarify application that for years has been confusing.
2015	Change	Unknown	Section 903.2.1.7 now clarifies that if multiple group A occupancies exist that don’t require sprinklers based on individual occupant loads, yet they use the same exit system, the occupant loads using the same exit system must be combined to determine if sprinklers are required.
2015	Change	Unknown	Section 903.3.1.1.1 introduces the concept of machine room-less elevator control areas and how those are to be protected. This newer technology has not been specified before but is seen in many buildings.
2015	Change	Unknown	Section 904.2 and 904.11 add in the increasingly common use of Automatic Water Mist Systems and how those are to be regulated.
2015	Change	Decrease	Section 907.2.3 changes the threshold for a manual fire alarm system from 30 to 50 to allow small schools and day-care facilities to be exempt since the risk is small and there is close visual/audible contact.
2015	Change	Unknown	Section 909.4.7 has added the requirement to have multiple smoke control system designs evaluated for how they will work together. This reduces the inevitability that the systems are discovered to be incompatible by the inspector at final inspection.
2015	Change	Unknown	Section 910 on smoke and heat vents has been extensively rewritten based on studies of roof venting. Details of where they are required and how to calculate the sizes are now included.
2015	Change	Unknown	Section 1103.4.1 requires existing I-2 and I-3’s with vertical openings through 2 or more stories between floors to meet certain retroactive protection requirements.
2015	New	Unknown	Section 1105 introduces a new requirement that existing I-2 occupancies must reach a minimum fire and life safety level described there.
2015	Change	N/A	Section 1011.16 adds the ability to use ladders as a means of egress in certain special needs and locations and explains how to construct them.
2015	Change	Unknown	Section 1017.2.2 increases travel distance in certain F-1 and S-1 occupancies to 400’ providing there are other safety factors involved.
2015	Change	N/A	Section 1018.3 and 1018.5 coordinates access aisles with corridor requirements rather than being based only on the occupant load of the room served.
2015	Change	Decrease	Section 1020.2 allows certain corridors in the I-2 to be exempt from the 96” width requirement if not being used for stretchers.

			This may involve some judgment as to how the corridors will be used in certain places, but now will agree with NFPA 101 section 18.2.3.4 as part of a desire to coordinate the codes.
2015	Change	Decrease	Section 1023.3.1 now allows a vertical exit enclosure to be connected to a passageway without the connecting door previously required. This door served no purpose anyway, and was another obstruction to fire-fighting efforts.
2015	New	Increase	Section 2307.4 introduces new requirements for LP gas dispensing by the public.
2015	Change	Increase	Section 3103.9.1 now requires tents and membrane structures over one story to meet the structural design requirements of the IBC.
2015	Change	Increase	Section 3105 adds requirements for temporary stage canopies that have suffered serious collapses in recent years in North America.
2015	Change	N/A	Section 3206.4.1 relocates the requirements and modifies the standards and rules regarding plastic pallets.
2015	New	Unknown	Section 3306.2 adds safety requirements for flammable gas piping and an NFPA standard to govern their cleaning and purging. There have been several deaths from improper cleaning and purging.
2015	New	Unknown	Section 3510 introduces how hot work on flammable and combustible liquid storage tanks shall be carried out.
2015	New	Unknown	Section 5307 adds regulations for large carbon dioxide systems used in beverage dispensing. Large refrigerated systems can create a lifesafety hazard resulting in oxygen being replaced in a room, thus the need for this regulation.
2015	New	Unknown	Section 5808 provides new requirements for the onset of hydrogen fuel gas rooms on the market. The requirements are related to the new definition in chapter 2 of a gaseous hydrogen system.
2015	New	Increase	Appendix K is an optional new chapter to handle existing Ambulatory Care Facilities. It contains retroactive requirements for those existing facilities in response to the many recent changes in the 2012 edition regarding health care occupancies.
2015	New	Unknown	Appendix L is an optional new chapter that considers criteria when providing fire fighter air replenishment systems for fire fighters in buildings as they fight fires. It does not say when it is required, only how to do it if it is required.
2015	New	Increase	Appendix M is an optional new chapter that if adopted, requires all existing high-rises to be retroactively outfitted with a fire sprinkler system within a 12-year time frame.

Attachment IFC-5

Proposed Modification Factor Analysis

2018 International Fire Code Amendments

Current amendments to the International Fire Code (Sections 4603.4.3, 4603.4.4 and 4603.4.5) provide thresholds for the requirements to install fire sprinklers in existing buildings based on the extent of the work area or project cost for additions, alterations and/or remodeling projects. These provisions provide a piece meal approach to requiring fire sprinklers in existing buildings. Most often, the value of hard cost becomes the determining threshold amount. In almost every case where the applicant is notified that the hard cost exceeds the threshold, the applicant submits a revised estimate of hard cost that is below the threshold. The department experienced a similar condition under the previous fee schedule where applicants would regularly report the hard cost at a lower than actual value to avoid a higher permit fee. That situation was resolved by revising permit fees to lump sums based on project scope.

The proposed amendment to add Section 1103.5.9 to the Fire Code takes a holistic approach in determining when fire sprinklers would be required and mitigates the undervaluing of project hard cost. By considering the actual work areas versus the threshold areas for additions, alterations, and remodeling projects, plus the hard cost versus the threshold cost, the overall effect of the work is considered in determining the need to install fire sprinklers. A Modification Factor is determined for each project. When the calculated factor is greater than 2.0, fire sprinklers would be required.

In the case of existing buildings with smaller footprints the Modification Factor, without adjustment, would cause smaller buildings to be sprinklered whereas much larger ones would not necessarily be required as the ratio of proposed addition square footage to the existing building square footage can easily be much higher than for buildings with larger initial footprints. Therefore, it is proposed that buildings with an existing footprint of 1,500 square feet or less be exempt from the application of the Modification Factor.

A sampling of projects that were permitted in 2021 was performed to determine the effect of the proposed amendment. Per the chart below, of the nine projects reported, two would have been required to install fire sprinklers; however, one of those two would be exempt due to the existing footprint being less than 1,500 square feet.

Proposed Buildings and Structures Modification Factor Analysis - see proposed amendment 1103.5.9												
A	B	Existing Areas			Altered Areas			I	J	K	M	Modification Factor ²
		C	D	E	F	G	H					
Case ¹	Address	Floor	Wall	Roof	Floor	Wall	Roof	Hard Cost	F/C	(G+H)/(D+E)	I/300,000	
1	See Note 3	4245	3260	3361	2302	510	3361	350,000	0.54	0.58	1.17	2.29
2		1928	0	0	240	0	0	114,000	0.12	0.00	0.38	0.50
3		3540	4220	1970	115	108	0	20,000	0.03	0.02	0.07	0.12
4		1276	1929	1474	1783	1219	850	127,500	1.40	0.61	0.43	2.43
5		2682	0	0	910	0	0	195,000	0.34	0.00	0.65	0.99
6		1983	NA	NA	65	NA	NA	27,450	0.03	0.00	0.09	0.12
7		1794	2257	3046	293	480	1542	156,000	0.16	0.38	0.52	1.06
8		2824	3648	1466	1072	160	1466	80,000	0.38	0.32	0.27	0.96
9		1465	1697	780	832	280	73	75,000	0.57	0.14	0.25	0.96

- Notes:
- 1 Random sampling of projects permitted in 2021
 - 2 Utilizing the proposed amendment, projects with a Modification Factor over 2.0 would have been required to add sprinklers.
 - 3 Modification factor would require fire sprinklers to be installed; however, the square foot threshold of the existing building footprint is < 1,500sf, therefore, sprinklers would not be required for this case. This justifies the intent to not penalize smaller existing homes where the proposed addition floor area may be less than larger homes not requiring fire sprinklers, yet the the ratio of proposed to existing floor area is higher.

Attachment IBC-1

Building Code - Existing Amendments

4-1-6. Adoption of Building Code.

- (A) The 2009 ICC International Building Code is adopted by reference as the standards and regulations for governing the demolition, construction, enlargement, alteration, restoration or repair of buildings and structures and their appurtenances, as this Code is intended, recommended, maintained and published by the international code council except such portions thereof as are deleted, modified, or amended in this chapter. At least one copy of the 2009 ICC International Building Code shall be maintained on file in the office of the Village Clerk for inspection and copying as a public record.
- (B) The provisions of the 2009 ICC International Building Code, are hereby deleted, modified, and amended as follows:
1. Amend section 101.1 to read as follows:
101.1 Title. These regulations shall be known as the Building Code of the Village of Glen Ellyn, hereinafter referred to as "this Code."
 2. Delete section 101.4.3 in its entirety and substitute the following:
101.4.3 Plumbing. Wherever reference to the international Plumbing Code is made, substitute the Plumbing Code, department of public health, State of Illinois.
 3. Delete section 105.1.1 in its entirety and substitute the following:
105.1.1 Site Development Permit. The Building Official is authorized to issue a site development permit for site clearing, rough grading, excavation, trenching, footings, foundation walls, underground utilities and temporary power and facilities after submittal and approval of applicable construction documents, approved site inspections, and payment of all applicable fees and deposits, subject to the provisions of section 107.3.3 of this Code.
 4. Delete section 105.1.2 in its entirety.
 5. Delete section 105.2 in its entirety and substitute the following:
105.2 Work Exempt from Permit. Exemptions from permit requirements of this Code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this Code or any other laws or ordinances of this jurisdiction. Permits shall not be required for the following:
 - (a) Property:
 - (1) Landscaping work to remove existing or plant new trees, shrubs, plants or grass provided tree removal is completed in accordance with the requirements in the tree preservation ordinance and the disturbed area does not exceed 300 square feet.
 - (2) Paving work to add new, or replace existing, impervious surface materials upon the ground provided the new paved area does not exceed 100 square feet and complies with all Zoning Code regulations.
 - (3) Grade changes, excavation or fill provided the disturbed site area does not exceed 300 square feet and the natural existing stormwater runoff from the property is not altered or cause a nuisance, hazard or damage to adjacent property and complies with the requirements of the countywide stormwater and flood plain ordinance of DuPage County, IL.
 - (4) Retaining walls that do not exceed eight inches in height provided the natural existing stormwater runoff from the property is not altered or cause a nuisance, hazard or damage

Attachment IBC-1

Building Code - Existing Amendments

to adjacent property and complies with the requirements of the countywide stormwater and flood plain ordinance of DuPage County, IL.

- (5) Installation of recreational and play equipment, prefabricated swimming pools that are less than 24 inches deep, and outdoor furnishings, that are portable or removed after occasional or seasonal use provided the location and use complies with all Zoning Code regulations.
- (b) Buildings and structures:
- (1) Installation or removal of interior wall, floor or ceiling finishes such as paint, tile, carpet, and wall coverings completed in accordance with the requirements in this Code for sanitation and fire resistance and with federal and state regulations governing the removal of lead, asbestos or other hazardous materials.
 - (2) Placement of free standing partitions, fixtures, cases, racks, counters, or furnishings not to exceed five feet nine inches in height.
 - (3) Minor electrical repairs including lamp, receptacle and breaker replacement or the removal of existing and installation of equivalent new electrical fixtures at existing electrical outlets.
 - (4) Electrical wiring, fixtures and equipment operating at less than 25 volts and not capable of supplying more than 50 watts of energy, except alarm systems.
 - (5) Minor mechanical repairs including the removal of existing and installation of equivalent new pumps and motors that do not alter approval of the equipment or make it unsafe.
 - (6) Installation of portable electrical or mechanical equipment with cord and plug electrical connections.
 - (7) Work to stop leaks or clear obstructions in the plumbing system or the removal of existing and installation of equivalent new plumbing fixtures, limited to toilets, sinks, tubs and showers without any alteration to existing water supply, drain, waste or vent outlets.
 - (8) Replacement or repair of exterior finish materials on wall and roof surfaces up to a maximum of 300 square feet or 20 percent of the total roof or wall area.
6. Amend section 105.3 item 6 to read as follows:
6. Be signed by the applicant and by the property owner(s), including the name and registered address of the owner, corporate officer, registered agent, partner, trustee or managing member, upon whom any legal notice, complaint or citation may be served.
7. Amend section 105.3 item 7 to read as follows:
7. Give such other data and information as required by the Building Official including the name(s) and address(s) of all persons with a beneficial interest in the property under a land trust and all shareholders owning in excess of 5% of the stock in a corporation.
8. Amend section 105.5 to read as follows:
- 105.5 Expiration.* A permit for commercial buildings, structures, and site improvements is valid for eighteen (18) months after its issuance. Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 180 days after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. The Building Official is authorized to grant, in writing, one or more extensions of time, for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

Attachment IBC-1

Building Code - Existing Amendments

9. Amend section 105.7 to reads as follows:

105.7 Placement of Permit. The building permit or copy shall be kept on the site of the work until completion of the project and shall be displayed in a prominent location visible from the public way.
10. Amend section 109.4 to read as follows:

109.4 Work Commencing Before Permit Issuance. Any person who commences any work on a site, building or structure, or on any electrical, gas, mechanical, fire protection or plumbing system before obtaining the necessary permits shall be subject to an additional fee of 200% of the building permit fee.
11. Delete section 111.2 in its entirety and substitute the following:

111.2 Certificate Issued. After the Building Official inspects the building or structure and finds no violations of the provisions of this Code or other laws, the Building Official shall issue a certificate of occupancy that contains the following:

 1. The address of the structure.
 2. The name and address of the owner.
 3. A description of the portion of the building for which the certificate is issued.
 4. The use and occupancy of the portion of the building for which the certificate is issued.
 5. Any special stipulation and conditions of the building permit.
 6. The name of the Building Official.
12. Amend section 113.1 to read as follows:

113.1 General. In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this Code, there shall be a Building Board of Appeals. The structure, responsibilities and procedures of the Building Board of Appeals is established in chapter 7 Building Board of Appeals, title 2 boards and commissions, in the Glen Ellyn Village Code.
13. Delete section 113.3 in its entirety.
14. Delete section 202 definition Historic Buildings in its entirety and substitute the following:

Historic Buildings: Buildings that are listed in the National Register of Historic Places, or designated as historic under appropriate state law, or buildings, structures, works of art, or other objects surveyed and identified as having historic or architectural significance by the Historic Preservation Commission in accordance with Glen Ellyn Village Code, chapter 13.
15. Amend section 406.1.4 item 1 to read as follows:
 1. The attached private garage that shares a common wall with a dwelling unit, or the detached private garage that is within 20 feet of a dwelling unit, shall be separated from a dwelling unit and its attic area by means of a minimum ½ inch gypsum board applied to all walls and ceilings in the garage. Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than ¾ inch type X gypsum board or equivalent. All joints shall be flat taped. Door openings between a private garage and the dwelling unit shall be equipped with either solid wood doors or solid or honeycomb core steel doors not less than 13/8 inches thick, or doors in compliance with section 715.4.3. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Doors shall be self-closing and self-latching.

Attachment IBC-1

Building Code - Existing Amendments

16. Delete section 706.6 exception 4 in its entirety.
17. Delete section 902 Definitions in its entirety.
18. Delete section 903 Automatic Sprinkler Systems in its entirety.
19. Delete section 904 Alternative Automatic Fire-Extinguishing Systems in its entirety.
20. Delete section 905 Standpipe Systems in its entirety.
21. Delete section 906 Portable Fire Extinguishers in its entirety.
22. Delete section 907 Fire Alarm and Detector Systems in its entirety.
23. Delete section 908 Emergency Alarm Systems in its entirety.
24. Delete section 910 Smoke and Heat Vents in its entirety.
25. Delete section 911 Fire Command Center in its entirety.
26. Delete section 912 Fire Department Connections in its entirety.
27. Delete section 913 Fire Pumps in its entirety.
28. Delete section 914 Emergency Responder Safety Features in its entirety.
29. Delete section 915 Emergency Responder Radio Coverage in its entirety.
30. Add new section 1204.2 to read as follows:

1204.2 Every owner and operator of any building who rents, leases or lets one or more dwelling units or sleeping units on terms, either express or implied, to furnish heat to the occupants thereof shall supply heat during the period from October 1 to May 15 to maintain a room temperature of not less than sixty five degrees Fahrenheit (65°F) (18°C), in all habitable spaces, bathrooms and toilet rooms.

Exception: When the exterior temperature falls below zero degrees Fahrenheit (0°F) (-18°C) and the heating system is operating at its full capacity, a minimum room temperature of sixty degrees Fahrenheit (60°F) (16°C) shall be maintained at all times.

31. Amend section 1408.4 to read as follows:

1408.4 Weather Resistance. EIFS shall comply with section 1403 and shall be designed and constructed to resist wind and rain in accordance with this section and the manufacturer's application instructions and include the installation of a drainage medium layer incorporated into the system as specified by the product manufacturer.

32. Amend section 1408.5 to read as follows:

1408.5 Installation. Installation of EIFS with drainage shall be in accordance with the EIFS manufacturer's instructions and completed by trained and qualified installers. A copy of the installer's current certification as an EIFS mechanic, issued by the Association of the Wall and Ceiling Industry, or other certification, must be submitted with the permit application for approval by the Building Official.

33. Amend table 1505.1 to reads as follows:

IA	IB	IIA	IIB	IIIA	IIIB	IV	VA	VB
B	B	B	B	B	B	B	B	B

34. Amend section 1612.3 to read as follows:

Attachment IBC-1

Building Code - Existing Amendments

To establish flood hazard areas, the applicable governing authority shall adopt a flood hazard map and supporting data. The flood hazard map shall include, at a minimum, areas of special flood hazard as defined by the Federal Emergency Management Agency in an engineering report entitled "The Flood Insurance Study For The Village Of Glen Ellyn", as amended or revised with the accompanying flood insurance rate map (FIRM) panels 502, 503, 505, 506, 508, 509 and 604 and related supporting data along with any revisions thereto. The adopted flood hazard map and supporting data are hereby adopted by reference and declared to be part of this section.

35. Add new section 1808.6.5 to read as follows:

1808.6.5 Slab on Grade Foundation. One-story frame detached accessory structures are permitted on trench wall and slab foundations monolithically poured, consisting of a minimum 4" concrete slab with minimum 40 pounds per 100 square foot welded wire fabric reinforcing on a compacted minimum 4" gravel base with a continuous thickened perimeter edge minimum 20" wide and extending down a minimum of 10" below grade or to undisturbed subsoil.

36. Amend section 1809.5 item 1 to read as follows:

1. Extending three (3) feet six (6) inches below the adjacent finished grade;

37. Delete section 1809.9 in its entirety.

38. Delete section 1809.12 in its entirety.

39. Delete section 2901.1 in its entirety and substitute the following:

2901.1 Scope. The design, construction, installation, alteration, repair and maintenance of plumbing systems and their components shall comply with the standards and regulations established in the Illinois department of public health Plumbing Code as currently adopted.

40. Add new section 2901.2 to read as follows:

2901.2 Structure Protection. In the process of installing or repairing any part of a plumbing and drainage installation, the structural framing members shall not be cut, bored or notched beyond the limitations in this Code unless restored to safe structural condition in accordance with the building requirements in this Code.

41. Add new section 2901.3 to read as follows:

2901.3 Piping Protection. In concealed locations, where piping, other than cast iron or galvanized steel, is installed through holes or notches in studs, joists, rafters or similar members less than 1 1/2 inches from the nearest edge of the member, the pipe shall be protected by steel shield plates. Such shield plates shall have a thickness of not less than .0575 inch (no. 16 gauge). Such plates shall cover the area of the pipe where the member is notched or bored, and shall extend a minimum of 2 inches above sole plates and below top plates.

42. Add new section 2901.4 to read as follows:

2901.4 Through Wall Protection. Any pipe that passes through a foundation wall shall pass through a pipe sleeve two pipe sizes greater than the pipe passing through. All annular spaces between sleeves and pipes shall be filled or tightly caulked in accordance with the building requirements in this Code or as approved by the Building Official.

43. Delete section 2902 in its entirety.

44. Delete section 2903 in its entirety.

45. Delete section 3001.2 in its entirety and substitute the following:

Attachment IBC-1

Building Code - Existing Amendments

3001.2 Reference Standards. The design, construction, installation, alteration, repair and maintenance of elevators and conveying systems and their components shall comply with the standards and regulations established by the Office of the Illinois Fire Marshall.

46. Delete chapter 32 Encroachments into the Public Right-Of-Way in its entirety.

47. Add new section 3302.3 to read as follows:

3302.3 Safety And Security Fencing. The demolition or construction of a principal building or structure, or part thereof, or an excavation over 30 inches deep, shall require the installation of a safety and security fence, with a latching gate, that encloses the work area. The safety and security fencing shall be a minimum of 4 feet high and constructed of chain link fabric and steel pipe posts and rails or equivalent materials approved by the Building and Zoning Official. The fence shall be maintained in an upright, stable and secure condition and the gate shall be latched closed at all times the demolition or construction site is unattended. A safety and security fence shall not reduce or eliminate any other safeguards required in this Code.

48. Add new section 3403.5 to read as follows:

3403.5 Fire Protection Improvements. All exposed combustible framing members, combustible voids or similar spaces throughout an existing building or structure shall be covered with five-eighths (5/8") inch type X gypsum board, or provided with equivalent protection, when any addition to the building or structure is constructed that exceeds \$15,000 in hard cost and the building or structure is not equipped throughout with an approved fire sprinkler system.

49. Add new section 3403.6 to read as follows:

3403.6 Building and Property Improvements. The following improvements within an existing building and on public or private property shall be required when a building addition increases the floor area of an existing building by more than 75%:

1. All improvements included in section 3403.5.
2. Abandon the existing water service line between the water main and the existing building or proposed addition and install a new water service line, water meter and copper horn in accordance with current standards, codes and ordinances.
3. Abandon the existing sanitary service line between the sanitary sewer main and the existing building or proposed addition and install a new sanitary service line if the structural integrity or water-tightness of the service line does not meet current standards, codes and ordinances.
4. Provide an overhead sanitary service line and sewage ejector pump in accordance with current standards, codes and ordinances.
5. Remove any existing gravel driveway and provide a hard surface driveway, approach and depressed curb and gutter and in accordance with current standards, codes and ordinances.
6. Provide a public sidewalk across the frontage of the property if no sidewalk presently exists, or repair any existing damaged sidewalk squares, in accordance with current standards, codes and ordinances.
7. Repair damaged or disturbed parkway grades and restore parkway groundcover or provide new groundcover where no groundcover exists.

Exception: The existing water and sanitary service lines may remain, upon approval of the Public Works Director, if existing conditions comply with, or are repaired and maintained to comply

Attachment IBC-1

Building Code - Existing Amendments

with current standards, codes and ordinances. Existing sanitary line conditions must be verified by a video and an audio or written report in the format required by the public works department.

50. Add new section 3403.7 to read as follows:

3403.7 Building and Property Improvements. The following improvements within an existing building and on public or private property shall be required when a building addition increases the floor area of an existing building by more than 150%:

1. All improvements included in section 3403.6.
2. The existing building or structure on the property shall comply, or be upgraded to comply, with all provisions of the Village Codes, regulations and ordinances for a new building or structure.

51. Add new section 3404.7 to read as follows:

3404.7 Fire Protection Improvements. All exposed combustible framing members, combustible voids or similar spaces within an existing building or structure without fire sprinklers shall be covered with five-eighths (5/8") inch type X gypsum board, or provided with equivalent protection, when the existing exterior wall and roof surface area is structurally altered, or when interior remodeling work is completed, that exceeds \$15,000 in hard cost.

52. Add new section 3404.8 to read as follows:

3404.8 Building and Property Improvements. The following improvements within an existing building and on public or private property shall be required when over 50% of the existing exterior wall and roof area is structurally altered or when interior remodeling work exceeds \$100,000 in hard cost:

1. All improvements included in section 3404.7.
2. Abandon the existing water service line between the water main and the existing building or proposed addition and install a new water service line, water meter and copper horn in accordance with current standards, codes and ordinances.
3. Abandon the existing sanitary service line between the sanitary sewer main and the existing building or proposed addition and install a new sanitary service line if the structural integrity or water-tightness of the service line does not meet current standards, codes and ordinances.
4. Provide an overhead sanitary service line and ejector pump in accordance with current standards, codes and ordinances.
5. Remove any existing gravel driveway and provide a hard surface driveway, approach and depressed curb and gutter and in accordance with current standards, codes and ordinances.
6. Provide a public sidewalk across the frontage of the property if no sidewalk presently exists, or repair any existing damaged sidewalk squares, in accordance with current standards, codes and ordinances.
7. Repair damaged or disturbed parkway grades and provide or restore parkway groundcover where no ground is established.

Exception: The existing water and sanitary service lines may remain, upon approval of the Public Works Director, if existing conditions comply with, or are repaired and maintained to comply with current standards, codes and ordinances. Existing sanitary line conditions must be verified by a video and an audio or written report in the format required by the public works department.

53. Add new section 3404.9 to read as follows:

Attachment IBC-1

Building Code - Existing Amendments

3404.9 Building and Property Improvements. The following improvements within an existing building and on public or private property shall be required when over 75% of the existing exterior wall and roof area is structurally altered:

1. All improvements included in section 3404.8.
 2. The existing building and structure on the property shall comply, or be upgraded to comply, with all provisions of the Village Codes, regulations and ordinances for a new building or structure.
54. Add new section 3404.10 to read as follows:

3404.10 Building and Property Improvements. The following improvements within an existing building and on public or private property shall be required when the hard cost of all remodeling work exceeds \$1,000,000 or 25% of the market value of the building or structure:

1. All improvements included in section 3404.8.
2. The remodeled area shall comply, or be upgraded to comply, with all provisions of the Village Codes, regulations and ordinances for a new building or structure.

(Ord. 5996, 1-30-2012; Ord. 6603, 5-29-2018)

Attachment IBC-2

Building Code - Proposed Amendments (Redlined)

4-1-6. Adoption of Building Code.

- (A) The ~~20182009~~ ICC International Building Code is adopted by reference as the standards and regulations for governing the demolition, construction, enlargement, alteration, restoration or repair of buildings and structures and their appurtenances, as this Code is intended, recommended, maintained and published by the ~~I~~nternational ~~C~~ode ~~C~~ouncil except such portions thereof as are deleted, modified, or amended in this chapter. At least one copy of the ~~20182009~~ ICC International Building Code shall be maintained on file in the office of the Village Clerk for inspection and copying as a public record.
- (B) The provisions of the ~~20182009~~ ICC International Building Code, are hereby deleted, modified, and amended as follows:
1. Amend ~~section~~ Section 101.1 to read as follows:
101.1 Title. These regulations shall be known as the Building Code of the Village of Glen Ellyn, hereinafter referred to as "this Code."
 2. Amend Section 101.4.7. to read as follows:
101.4 Existing Buildings. Within this Code, delete all references to the International Existing Building Code.
 32. AmendDelete section Section 101.4.3 to read as follows~~in its entirety and substitute the following:~~
101.4.3 Plumbing. With the exception of Section 1502, wherever reference to the ~~I~~nternational Plumbing Code is made, substitute the Plumbing Code, Department of Public Health, State of Illinois, and delete the reference to the International Private Sewage Disposal Code.
 43. Delete ~~section~~ Section 105.1.1 in its entirety and substitute the following:
105.1.1 Site Development Permit. The Building Official is authorized to issue a site development permit for site clearing, rough grading, excavation, trenching, footings, foundation walls, underground utilities and temporary power and facilities after submittal and approval of applicable construction documents, approved site inspections, and payment of all applicable fees and deposits, subject to the provisions of ~~section~~ Section 107.3.3 of this Code.
 54. Delete ~~section~~ Section 105.1.2 in its entirety.
 65. Delete ~~section~~ Section 105.2 in its entirety and substitute the following:
105.2 Work Exempt from Permit. Exemptions from permit requirements of this Code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this Code or any other laws or ordinances of this jurisdiction. Permits shall not be required for the following:
 - (a) Property:
 - (1) Landscaping work to remove existing or plant new trees, shrubs, plants or grass provided tree removal is completed in accordance with the requirements in the tree preservation ordinance and the disturbed area does not exceed 300 square feet.

Attachment IBC-2 Building Code - Proposed Amendments (Redlined)

- (2) Paving work to add new, or replace existing, impervious surface materials upon the ground provided the new paved area does not exceed 100 square feet and complies with all Zoning Code regulations.
 - (3) Grade changes, excavation or fill provided the disturbed site area does not exceed 300 square feet and the natural existing stormwater runoff from the property is not altered or cause a nuisance, hazard or damage to adjacent property and complies with the requirements of the ~~C~~ountywide ~~S~~tormwater ~~&and F~~flood ~~P~~lain ~~O~~rdinance of DuPage County, IL.
 - (4) Retaining walls that do not exceed eight inches in height provided the natural existing stormwater runoff from the property is not altered or cause a nuisance, hazard or damage to adjacent property and complies with the requirements of the countywide stormwater and flood plain ordinance of DuPage County, IL.
 - (5) Installation of recreational and play equipment, prefabricated swimming pools that are less than 24 inches deep, and outdoor furnishings, that are portable or removed after occasional or seasonal use provided the location and use complies with all Zoning Code regulations.
- (b) Buildings and structures:
- (1) Installation or removal of interior wall, floor or ceiling finishes such as paint, tile, carpet, and wall coverings completed in accordance with the requirements in this Code for sanitation and fire resistance and with federal and state regulations governing the removal of lead, asbestos or other hazardous materials.
 - (2) Placement of free-standing partitions, fixtures, cases, racks, counters, or furnishings not to exceed five feet nine inches in height.
 - (3) Minor electrical repairs including lamp, receptacle and breaker replacement or the removal of existing and installation of equivalent new electrical fixtures at existing electrical outlets.
 - (4) Electrical wiring, fixtures and equipment operating at less than 25 volts and not capable of supplying more than 50 watts of energy, except alarm systems.
 - (5) Minor mechanical repairs including the removal of existing and installation of equivalent new pumps and motors that do not alter approval of the equipment or make it unsafe.
 - (6) Installation of portable electrical or mechanical equipment with cord and plug electrical connections.
 - (7) Work to stop leaks or clear obstructions in the plumbing system or the removal of existing and installation of equivalent new plumbing fixtures, limited to toilets, sinks, tubs and showers without any alteration to existing water supply, drain, waste or vent outlets.
 - (8) Replacement or repair of exterior finish materials on wall and roof surfaces up to a maximum of 300 square feet or 20 percent of the total roof or wall area.

~~76.~~ Amend ~~section~~ Section 105.3 item 6 to read as follows:

6. Be signed by the applicant and by the property owner(s), including the name and registered address of the owner, corporate officer, registered agent, partner, trustee or managing member, upon whom any legal notice, complaint or citation may be served.

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Attachment IBC-2

Building Code - Proposed Amendments (Redlined)

87. Amend ~~section~~ Section 105.3 item 7 to read as follows:

7. Give such other data and information as required by the Building Official including:

 a. ~~the n~~Name(s) and address(s) of all persons with a beneficial interest in the property under a land trust and all shareholders owning in excess of 5% of the stock in a corporation.

 b. Signed copy of contract for construction indicating scope of work and overall project and/or hard cost of all work to be performed.

98. Amend ~~section~~ Section 105.5 to read as follows:

105.5 Expiration. A permit for commercial buildings, structures, and site improvements is valid for eighteen (18) months after its issuance. Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 180 days after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. The Building Official is authorized to grant, in writing, one or more extensions of time, for periods not more than 180 days each, subject to payment of administrative fees in accordance with Section 109.2. The extension shall be requested in writing and justifiable cause demonstrated.

109. Amend ~~section~~ Section 105.7 to reads as follows:

105.7 Placement of Permit. The building permit or copy shall be kept on the site of the work until completion of the project and shall be displayed in a prominent location visible from the public way.

11. Amend Section 107.1 to read as follows, the exception shall be retained:

107.1 General. Submittal documents consisting of construction documents, statement of special inspections, geotechnical report and other data shall be submitted in four or more sets with each permit application or revised submittal. The construction documents shall be prepared by an Illinois registered design professional. Where special conditions exist, the Building Official is authorized to require additional construction documents to be prepared by a licensed Illinois registered design professional.

1240. Delete Section 107.2.2 in its entirety and substitute the following:

[A] 107.2.2 Fire protection system submittal documents.

1. A building permit for a building that requires a fire suppression system shall not be issued without the submission and subsequent approval of a technical submission prepared and sealed by a licensed design professional. The technical submission shall consist of designs, drawings and specifications that establish the scope of the work and standards of quality for materials, workmanship and equipment and the construction systems, studies and other technical reports as determined necessary by the Building Official and prepared in the course of a design professional's practice.

2. After permit issuance, and prior to the rough framing inspection being performed, shop drawings for the fire protection system(s) shall be submitted to indicate conformance to this code and the construction documents and shall be approved prior to the start of system installation. Shop drawings shall be signed and sealed by a licensed professional engineer or by a technician who holds a valid NICET level 3 or 4 certification. Shop drawings shall contain all information as required by the referenced installation standards in Chapter 9.

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Attachment IBC-2 Building Code - Proposed Amendments (Redlined)

13. Delete Section 107.2.8 in its entirety.

14. Add new Section 107.2.9 to read as follows:

107.2.9 Site management plan. All permit applications for construction of new buildings, and additions or alterations to existing commercial buildings shall include a site management plan to indicate the following minimum information:

- a. The property drawn to a scale of not less than 1-inch equals 20 feet.
- b. Existing buildings and structures to be removed or retained.
- c. All easements, existing utility lines, well and septic systems on the subject property and all adjacent parkways and property within 20 feet.
- d. Trees on the subject property, adjacent parkway and within 15 feet on adjacent properties in accordance with the Village's Tree Preservation Ordinance.
- e. Protective tree fencing, and perimeter safety fencing with key box at points of entry, pedestrian walkways, barriers, and barricades.
- f. Erosion control measures to prevent erosion on site and maintain the public storm sewer free of dirt and debris from the site.
- g. Means of primary ingress/egress from the public ways to the site and points for emergency access, vehicle and pedestrian traffic control devices and measures, on-site and off-site parking areas, and construction traffic patterns through the Village.
- h. Temporary areas for the storage or staging of debris, soil, construction trailer, construction materials, construction equipment, portable toilets, and dumpsters.
- i. Portable toilets, dumpsters and refuse container locations.
- j. Source of construction water.
- k. Location of temporary construction signs.
- l. Location and type of fire protections measures including portable fire extinguishers, building standpipe and building fire department connection.
- m. Details and location of physical means of protection of adjacent properties.
- n. Other information deemed necessary by the Building Official to ensure protection of adjacent properties, the public right-of-way and the general public.
- o. Timelines for blockage or closure of public rights-of-way to accommodate equipment staging, deliveries, work within the rights-of-way, or other construction activities, if applicable.

15. Add new Section 107.2.10 to read as follows:

107.2.10 Fire Safety Plan. As required by the Building and Zoning Official, the construction documents shall include, at a minimum, the following information:

1. Dimensioned floor plan indicating the following minimum information:

- a. Exit access travel path and distance in accordance with Section 1017.3.
- b. Location of any fire-resistance-rated walls, shaft enclosures and smoke curtains and partitions, with the fire-rating indicated.

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Attachment IBC-2 Building Code - Proposed Amendments (Redlined)

- c. Fire rating of all opening protectives in accordance with Section 716.
- 2. UL Design numbers and details for all fire-resistance joint systems and penetrations of fire-rated assemblies.
- 3. UL Design numbers and details for all fire-rated wall and shaft enclosure assemblies.

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Attachment IBC-2

Building Code - Proposed Amendments (Redlined)

16. Amend ~~section~~ Section 109.4 to read as follows:

109.4 Work Commencing Before Permit Issuance. Any person who commences any work on a site, building or structure, or on any electrical, gas, mechanical, fire protection or plumbing system before obtaining the necessary permits shall be subject to an additional fee of 200% of the building permit fee.

17~~14~~. Add Section 109.7 to read as follows:

109.7 Work Exceeding Scope of Permit Issued. Any person who commences any work on a site, building or structure, or on any electrical, gas, mechanical, fire protection or plumbing system in excess of the scope of work for which a permit has been issued shall be subject to an additional fee of 300% of the building permit fee.

18. Amend Section 110.6 to read as follows:

110.6 Approval required. All projects will be afforded an initial and one re-inspection of the work in place for each required inspection. Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the Building and Zoning Official or his/her designee. The Building and Zoning Official, upon notification, shall make the requested inspections and shall either indicate the portion of the construction that is satisfactory as completed, or notify the permit holder or his or her agent wherein the same fails to comply with this code. Any portions that do not comply shall be corrected and such portion shall not be covered or concealed until authorized by the Building and Zoning Official. All work shall be re-inspected until code compliance is achieved. Re-inspections required beyond the first two, or a contractor's failure to attend a scheduled inspection, will be billed to the contractor in accordance with Section 109.2.

19. Delete ~~section~~ Section 111.2 in its entirety and substitute the following:

111.2 Certificate Issued. After the Building Official inspects the building or structure and finds no violations of the provisions of this Code or other laws, the Building Official shall issue a certificate of occupancy that contains the following:

1. The address of the structure.
2. The name and address of the owner.
3. A description of the portion of the building for which the certificate is issued.
4. The use and occupancy of the portion of the building for which the certificate is issued.
5. Any special stipulation and conditions of the building permit.
6. The name of the Building Official.

20~~17~~. Amend Section 111.3 to read as follows:

111.3 Temporary occupancy. The building official is authorized to issue a temporary certificate of occupancy before the completion of the entire work covered by the permit, provided that such portion or portions shall be occupied safely and subject to payment of administrative fees in accordance with Section 109.2. The Building Official shall set a time period during which the temporary certificate of occupancy is valid.

21. Amend ~~section~~ Section 113.1 to read as follows:

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Attachment IBC-2

Building Code - Proposed Amendments (Redlined)

113.1 General. In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this Code, there shall be a Building Board of Appeals. The structure, responsibilities and procedures of the Building Board of Appeals is established in ~~€~~Chapter 7 Building Board of Appeals, ~~€~~Title 2 ~~b~~Boards and ~~€~~Commissions, in the Glen Ellyn Village Code.

~~2213.~~ Delete ~~section~~ Section 113.3 in its entirety.

23. Amend Section 202 to add the definition of Co-working Facility to read as follows:

CO-WORKING FACILITY. A facility having more than (10) persons on site at any time, and in which food and/or drink consumption occurs as part of the stated business plan before, during or after normal business hours shall be classified as a Group A-2 occupancy.

2414. Delete ~~section~~ Section 202 definition Historic Buildings in its entirety and substitute the following:

Historic Buildings: Buildings that are listed in the National Register of Historic Places, or designated as historic under appropriate state law, or buildings, structures, works of art, or other objects surveyed and identified as having historic or architectural significance by the Historic Preservation Commission in accordance with Glen Ellyn Village Code, ~~€~~Chapter 13.

25. Amend Section 202 to delete the definition of Relocatable Building.

26. Amend Section 304.1 to add the following use under Business Group B:

Co-working Facility

2715. ~~_____~~ Amend ~~section~~ Section ~~406.3.2.1406-1.4 item 1~~ to read as follows:

1. ~~_____~~ 406.3.2.1 Dwelling unit separation. The attached private garage that shares a common wall with a dwelling unit, or the detached private garage that is within 20 feet of a dwelling unit, shall be separated from a dwelling unit and its attic area by means of a minimum ½-inch gypsum board applied to all walls and ceilings in the garage. Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than ⅝-inch ~~€~~Type X gypsum board or equivalent. All joints shall be flat taped. Door openings between a private garage and the dwelling unit shall be equipped with either solid wood doors or solid or honeycomb core steel doors not less than 1-3/8 inches thick, or doors in compliance with ~~section~~ Section ~~716.2.2.1715-4.3,~~ with a fire protection rating of not less than 20 minutes. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Doors shall be self-closing and self-latching.

28. Add Section 429 to read as follows:

429 Existing Buildings

2948. Add new ~~S~~-section ~~429.13403-5~~ to read as follows:

429.13403-5 Fire Protection Improvements. All exposed combustible framing members, combustible voids or similar spaces throughout an existing building or structure shall be covered with five-eighths (5/8") inch type X gypsum board, or provided with equivalent protection, when any addition to the building or structure is constructed that exceeds \$15,000 in hard cost and the building or structure is not equipped throughout with an approved fire sprinkler system.

3049. Add new ~~S~~section ~~429.23403-6~~ to read as follows:

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Attachment IBC-2 Building Code - Proposed Amendments (Redlined)

~~429.23403.6~~ *Building and Property Improvements.* The following improvements within an existing building and on public or private property shall be required when a building addition increases the floor area of an existing building by more than 75%:

1. All improvements included in ~~S~~ection ~~429.13403.5~~.
2. Abandon the existing water service line between the water main and the existing building or proposed addition and install a new water service line, water meter and copper horn in accordance with current standards, codes and ordinances.
3. Abandon the existing sanitary service line between the sanitary sewer main and the existing building or proposed addition and install a new sanitary service line if the structural integrity or water-tightness of the service line does not meet current standards, codes and ordinances.
4. Provide an overhead sanitary service line and sewage ejector pump in accordance with current standards, codes and ordinances.
5. Remove any existing gravel driveway and provide a hard surface driveway, approach and depressed curb and gutter and in accordance with current standards, codes and ordinances.
6. Provide a public sidewalk across the frontage of the property if no sidewalk presently exists, or repair any existing damaged sidewalk squares, in accordance with current standards, codes and ordinances.
7. Repair damaged or disturbed parkway grades and restore parkway groundcover or provide new groundcover where no groundcover exists.

Exception: The existing water and sanitary service lines may remain, upon approval of the Public Works Director, if existing conditions comply with, or are repaired and maintained to comply with current standards, codes and ordinances. Existing sanitary line conditions must be verified by a video and an audio or written report in the format required by the public works department.

~~3150.~~ Add new ~~S~~ection ~~429.33403.7~~ to read as follows:

~~429.33403.7~~ *Building and Property Improvements.* The following improvements within an existing building and on public or private property shall be required when a building addition increases the floor area of an existing building by more than 150%:

1. All improvements included in ~~S~~ection ~~429.23403.6~~.
2. The existing building or structure on the property shall comply, or be upgraded to comply, with all provisions of the Village Codes, regulations and ordinances for a new building or structure.

~~3251.~~ Add new ~~S~~ection ~~429.43404.7~~ to read as follows:

~~429.43404.7~~ *Fire Protection Improvements.* All exposed combustible framing members, combustible voids or similar spaces within an existing building or structure without fire sprinklers shall be covered with five-eighths (5/8") inch type X gypsum board, or provided with equivalent protection, when the existing exterior wall and roof surface area is structurally altered, or when interior remodeling work is completed, that exceeds \$15,000 in hard cost.

~~3352.~~ Add new ~~S~~ection ~~429.53404.8~~ to read as follows:

~~429.53404.8~~ *Building and Property Improvements.* The following improvements within an existing building and on public or private property shall be required when over 50% of the existing exterior wall and roof area is structurally altered or when interior remodeling work exceeds \$100,000 in hard cost:

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Attachment IBC-2

Building Code - Proposed Amendments (Redlined)

1. All improvements included in ~~S~~section ~~429.43404.7~~.
2. Abandon the existing water service line between the water main and the existing building or proposed addition and install a new water service line, water meter and copper horn in accordance with current standards, codes and ordinances.
3. Abandon the existing sanitary service line between the sanitary sewer main and the existing building or proposed addition and install a new sanitary service line if the structural integrity or water-tightness of the service line does not meet current standards, codes and ordinances.
4. Provide an overhead sanitary service line and ejector pump in accordance with current standards, codes and ordinances.
5. Remove any existing gravel driveway and provide a hard surface driveway, approach and depressed curb and gutter and in accordance with current standards, codes and ordinances.
6. Provide a public sidewalk across the frontage of the property if no sidewalk presently exists, or repair any existing damaged sidewalk squares, in accordance with current standards, codes and ordinances.
7. Repair damaged or disturbed parkway grades and provide or restore parkway groundcover where no ground is established.

Exception: The existing water and sanitary service lines may remain, upon approval of the Public Works Director, if existing conditions comply with, or are repaired and maintained to comply with current standards, codes and ordinances. Existing sanitary line conditions must be verified by a video and an audio or written report in the format required by the public works department.

~~3453~~. Add new ~~S~~section ~~429.63404.9~~ to read as follows:

~~429.63404.9~~ *Building and Property Improvements.* The following improvements within an existing building and on public or private property shall be required when over 75% of the existing exterior wall and roof area is structurally altered:

1. All improvements included in ~~S~~section ~~429.53404.8~~.
2. The existing building and structure on the property shall comply, or be upgraded to comply, with all provisions of the Village Codes, regulations and ordinances for a new building or structure.

~~3554~~. Add new ~~S~~section ~~429.73404.10~~ to read as follows:

~~429.73404.10~~ *Building and Property Improvements.* The following improvements within an existing building and on public or private property shall be required when the hard cost of all remodeling work exceeds \$1,000,000 or 25% of the market value of the building or structure:

1. All improvements included in ~~S~~section ~~429.53404.8~~.
2. The remodeled area shall comply, or be upgraded to comply, with all provisions of the Village Codes, regulations and ordinances for a new building or structure.

~~36~~. Amend Section 508.3.3 to add Exception 3 to read as follows:

3. Walls separating tenant spaces within Group B and M occupancies shall be constructed as fire partitions in accordance with Section 708.

~~37~~. Delete Table 508.4 in its entirety, replace with the following table and maintain all footnotes:

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Attachment IBC-2 Building Code - Proposed Amendments (Redlined)

OCCUPANCY	A, E		I-1 ^a , I-3, I-4		I-2		R ^a		F-2, S-2 ^b , U		B ^c , F-1, M, S-1		H-1		H-2		H-3, H-4		H-5		
	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	
	N	N	1	2	2	NP	1	2	N	1	2	1	2	NP	NP	3	4	2	3	2	NP
A, E																					
I-1 ^a , I-3, I-4			N	N	2	NP	1	NP	1	2	1	2	NP	NP	3	NP	2	NP	2	NP	
I-2					N	N	2	NP	2	np	2	NP	NP	NP	3	NP	2	NP	2	NP	
R ^a							N	N	1 ^c	2 ^c	1	2	NP	NP	3	NP	2	NP	2	NP	
F-2, S-2 ^b , U									N	N	1	2	NP	NP	3	4	2	3	2	NP	
B ^c , F-1, M, S-1											1	1	NP	NP	2	3	1	2	1	NP	
H-1													N	NP	NP	NP	NP	NP	NP	NP	
H-2															N	NP	1	NP	1	NP	
H-3, H-4																	1 ^d	NP	1	NP	
H-5																			N	NP	

~~3816.~~ Delete ~~section Section~~ 706.6 exception 4 in its entirety.

~~3917.~~ Delete ~~section Section~~ 902 Definitions in its entirety.

~~4018.~~ Delete ~~section Section~~ 903 Automatic Sprinkler Systems in its entirety.

~~4119.~~ Delete ~~section Section~~ 904 Alternative Automatic Fire-Extinguishing Systems in its entirety.

~~4220.~~ Delete ~~section Section~~ 905 Standpipe Systems in its entirety.

~~4321.~~ Delete ~~section Section~~ 906 Portable Fire Extinguishers in its entirety.

~~4422.~~ Delete ~~section Section~~ 907 Fire Alarm and Detector Systems in its entirety.

~~4523.~~ Delete ~~section Section~~ 908 Emergency Alarm Systems in its entirety.

~~4624.~~ Delete ~~section Section~~ 910 Smoke and Heat ~~Removal~~Vents in its entirety.

~~4725.~~ Delete ~~section Section~~ 911 Fire Command Center in its entirety.

~~4826.~~ Delete ~~section Section~~ 912 Fire Department Connections in its entirety.

~~4927.~~ Delete ~~section Section~~ 913 Fire Pumps in its entirety.

~~5028.~~ Delete ~~section Section~~ 914 Emergency Responder Safety Features in its entirety.

~~5129.~~ Delete ~~section 915 Emergency Responder Radio Coverage in its entirety.~~

. Add new Section 1015.4.1 to read as follows:

1015.4.1 Cable rails. The spacing between centerlines of adjacent cables serving as infill for guard and handrail systems shall be not more than 3 inches on center.

52. Add new Section 1016.3 to read as follows:

1016.3 Egress past commercial kitchens. The path of egress within restaurants, cafeterias and similar dining facilities shall not pass unprotected kitchen openings such as doors or food service counters in areas where cooking occurs.

53. Amend Section 1102.1 to read as follows:

1102.1 Design. Buildings and facilities shall be designed and constructed to be accessible in accordance with the stricter requirements of this code, ICC A117.1, and any applicable State or Federal Act or Code regulating construction for accessibility.

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Attachment IBC-2

Building Code - Proposed Amendments (Redlined)

54. Add Sections 1106.8, 1106.8.1, and 1106.8.2 to read as follows:

1106.8 Electric vehicle charging stations. At least one parking stall for every twenty-five (25), or fraction thereof designated for use for charging of electric vehicles shall be constructed as accessible parking spaces.

1106.8.1 Access aisles. Access aisles shall be provided at electric vehicle charging stations in accordance with requirements set forth in the Illinois Accessibility Code for access aisles at parking stalls.

55. Add Section 1208.1.1 to read as follows:

1208.1.1 Minimum clear height. The clear height within a crawl space shall be a minimum of 36 inches to the underside of framing members, ductwork, or pipes.

~~5630.~~ Add new ~~section~~ Section 1203.21204.2 to read as follows:

1203.21204.2 Every owner and operator of any building who rents, leases or lets one or more dwelling units or sleeping units on terms, either express or implied, to furnish heat to the occupants thereof shall supply heat during the period from October 1 to May 15 to maintain a room temperature of not less than sixty five degrees Fahrenheit (65°F) (18°C), in all habitable spaces, bathrooms and toilet rooms at a point 3 feet above the floor near the center of the room and 2 feet inward from the center of each exterior wall.

Exception: When the exterior temperature falls below zero degrees Fahrenheit (0°F) (-18°C) and the heating system is operating at its full capacity, a minimum room temperature of sixty degrees Fahrenheit (60°F) (16°C) shall be maintained at all times.

~~5731.~~ Amend ~~section~~ Section 1407.41408.4 to read as follows:

1407.41408.4 Weather Resistance. EIFS shall comply with ~~section~~ Section 1403 and shall be designed and constructed to resist wind and rain in accordance with this ~~section~~ Section and the manufacturer's application instructions and include the installation of a drainage medium layer incorporated into the system as specified by the product manufacturer.

~~5832.~~ Amend ~~section~~ Section 1407.51408.5 to read as follows:

1407.51408.5 Installation. Installation of EIFS with drainage shall be in accordance with the EIFS manufacturer's instructions and completed by trained and qualified installers. A copy of the installer's current certification as an EIFS mechanic, issued by the Association of the Wall and Ceiling Industry, or other certification, must be submitted with the permit application for approval by the Building Official.

59. Amend Section 1502.1 to read as follows:

1502.1 General. Design and installation of roof drainage systems shall comply with Sections 1502, 1513, 1514 and 1515 of this Code.

~~6033.~~ Amend ~~Table~~ 1505.1 to reads as follows and delete the footnotes:

IA	IB	IIA	IIB	IIIA	IIIB	IV	VA	VB
B	B	B	B	B	B	B	B	B

61. Add new Section 1511.3.1.2 to read as follows:

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Attachment IBC-2 Building Code - Proposed Amendments (Redlined)

1511.3.1.2 Core samples. All roof recovering projects shall be subject to inspection of a test core performed on the exiting roof to verify the number of existing roofing layers does not exceed one prior to the issuance of a permit for the work.

62. Amend Section 1604.8.3 to read as follows:

1604.8.3 Decks. Where supported by attachment to an exterior wall, decks shall be positively anchored to the primary structure and designed for both vertical and lateral loads as applicable. Such attachment shall not be accomplished by the use of toenails or nails subject to withdrawal nor shall such attachment be made to any masonry veneer. Where positive connection to the primary building structure cannot be verified during inspection, decks shall be self-supporting. Connections of decks with cantilevered framing members to exterior walls or other framing members shall be designed for both of the following:

1. The reactions resulting from the dead load and live load specified in Table 1607.1 and Section 1604.8.3.1, or the snow load specified in Section 1608, in accordance with Section 1605 and the lateral design load specified in Section 1604.8.3.1, acting on all portions of the deck.
2. The reactions resulting from the dead load and live load specified in Table 1607.1, or the snow load specified in Section 1608, in accordance with Section 1605, acting on the cantilevered portion of the deck, and no live load specified in Section 1608 or snow load on the remaining portion of the deck. The lateral design load specified in Section 1604.8.3.1 shall be applied to all portions of the deck.

63. Add Section 1604.8.3.1 to read as follows:

1604.8.3.1 Lateral load on decks. The lateral design live load for decks shall include the wind load determined in accordance with Section 1609 plus a simultaneously applied minimum horizontal live load of 10 pounds per square foot distributed over the walking surface of the deck and stair treads. The horizontal live load shall be assumed to act in the same direction as the wind. Framing member connections and connections to the principle structure shall be design to withstand lateral loads acting in any direction.

64. Add Section 1604.8.3.2 to read as follows:

1604.8.3.2 Lateral connection. Lateral loads shall be transferred to the ground or to a structure capable of transmitting them to the ground. Where the lateral load connection is provided in accordance with the *International Residential Code* Figure R507.9.2(1), hold down tension devices shall be installed in not less than two locations per deck, within 24 inches of each end of the deck. Each device shall have an allowable stress design capacity of not less than 1,500 pounds. Where the lateral load connections are provided in accordance with the *International Residential Code* Figure R507.9.2(2), the hold-down tension devices shall be installed in not less than four locations per deck, and each device shall have an allowable stress design capacity of not less than 750 pounds.

65. Amend Section 1607.8.1 to read as follows:

1607.8.1 Handrails and guards. Handrails and guards shall be designed to resist a linear load of 50 pounds per linear foot in accordance with Section 4.5.1.1 of ASCE 7. Glass handrail assemblies and guards shall comply with Section 2407.

Attachment IBC-2

Building Code - Proposed Amendments (Redlined)

Exception: In Group I-3, F, H and S occupancies, for areas that are not accessible to the general public and that have an occupant load less than 50, the minimum load shall be 20 pounds per foot.

66. Amend Section 1608.2 to read as follows:

1608.2 Ground snow load. The ground snow load to be used in determining the design load for roofs and other structures shall be 30 pounds per square foot.

67. Add Section 1610.1.1 to read as follows:

1610.1.1 Surcharge load. The design surcharge load for retaining walls shall be a minimum of 250 pounds per square foot.

68. Amend Section 1611.1 to read as follows, the equation shall remain as written:

1611.1 Design rain loads. Each portion of a roof shall be designed to sustain the load or rainwater that will accumulate on it if the primary drainage system for that portion is blocked plus the uniform load caused by water that rises above the inlet of the secondary drainage system at its design flow rate required to accommodate the design rainfall rate as determined in accordance with Section 1514.1.

6934. Amend ~~section~~ Section 1612.3 to read as follows:

1612.3 Establishment of flood hazard areas. To establish flood hazard areas, the applicable governing authority shall adopt a flood hazard map and supporting data. The flood hazard map shall include, at a minimum, areas of special flood hazard as defined by the Federal Emergency Management Agency in an engineering report entitled "The Flood Insurance Study For The Village Of Glen Ellyn", as amended or revised with the accompanying flood insurance rate map (FIRM) panels 502, 503, 505, 506, 508, 509 and 604 and related supporting data along with any revisions thereto. The adopted flood hazard map and supporting data are hereby adopted by reference and declared to be part of this ~~section~~ Section.

70. Add new Section 1804.3 to read as follows:

1804.3 Design. All underpinning work shall be designed by an Illinois licensed structural engineer.

71. Amend Section 1807.2 to read as follows:

1807.2 Retaining walls. Retaining walls shall be designed by an Illinois licensed design professional in accordance with Sections 1807.2.1 through 1807.2.3.

Exceptions:

1. Segmental retaining walls that retain less than 48-inches of unbalanced fill with no surcharge load and are designed in accordance with the segmental wall unit manufacturer's written recommendations for design.
2. Retaining walls, other than segmental retaining walls, that are not laterally braced at the top and that retain less than 48-inches of unbalanced fill with no surcharge load.
3. Retaining walls that are less than 24-inches in height that resist surcharge or lateral loads in addition to soil.

7235. Add new ~~section~~ Section 1808.6.5 to read as follows:

1808.6.5 Slab on Grade Foundation. One-story frame detached accessory structures are permitted on trench wall and slab foundations monolithically poured, consisting of a minimum 4" concrete slab with

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Attachment IBC-2

Building Code - Proposed Amendments (Redlined)

minimum 40 pounds per 100 square foot welded wire fabric reinforcing on a compacted minimum 4" gravel base with a continuous thickened perimeter edge minimum 20" wide and extending down a minimum of 10" below grade or to undisturbed subsoil.

7336. Amend ~~section~~ Section 1809.5 item 1 to read as follows:

1. Extending a minimum of three (3) feet six (6) inches below the adjacent finished grade;

7437. Delete ~~section~~ Section 1809.9 in its entirety.

7538. Delete ~~section~~ Section 1809.12 in its entirety.

76. Amend Section 2303.4.1.1 to include the following:

15. Elevation view of each truss designation.

16. Truss placement diagram.

77. Amend Section 2303.4.1.4.1 to read as follows:

2303.4.1.4.1 Truss design drawings. The truss design drawings shall be signed and sealed by an Illinois licensed structural engineer. Each sheet of the design drawings shall be signed and sealed by the design professional. In lieu of signing and sealing each individual sheet of the truss design drawings, the design drawings may include a cover sheet with a sheet index and a statement that the structural engineer's signature and seal applies to all sheets listed within the sheet index.

78. Amend Section 2303.4.2 to read as follows:

2303.4.2 Truss placement diagram. The truss manufacturer shall provide a truss placement diagram that identifies the proposed location for each individually designated truss. The truss placement diagram shall be provided as part of the truss submittal package and with the shipment of trusses delivered to the site.

79

39. Delete ~~section~~ Section 2901.1 in its entirety and substitute the following:

2901.1 Scope. The design, construction, installation, alteration, repair and maintenance of plumbing systems and their components shall comply with the standards and regulations established in the Illinois Department of Public Health Plumbing Code as currently adopted.

8040. Add new ~~section~~ Section 2901.2 to read as follows:

2901.2 Structure Protection. In the process of installing or repairing any part of a plumbing and drainage installation, the structural framing members shall not be cut, bored or notched beyond the limitations in this Code unless restored to safe structural condition in accordance with the building requirements in this Code.

8141. Add new ~~section~~ Section 2901.3 to read as follows:

2901.3 Piping Protection. In concealed locations, where piping, other than cast iron or galvanized steel, is installed through holes or notches in studs, joists, rafters or similar members less than 1-1/2 inches from the nearest edge of the member, the pipe shall be protected by steel shield plates. Such shield plates shall have a thickness of not less than .0575 inch (no. 16 gauge). Such plates shall cover the area of the pipe where the member is notched or bored, and shall extend a minimum of 2 inches above sole plates and below top plates.

8242. Add new ~~section~~ Section 2901.4 to read as follows:

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Attachment IBC-2 Building Code - Proposed Amendments (Redlined)

2901.4 Through Wall Protection. Any pipe that passes through a foundation wall shall pass through a pipe sleeve two pipe sizes greater than the pipe passing through. All annular spaces between sleeves and pipes shall be filled or tightly caulked in accordance with the building requirements in this Code or as approved by the Building Official.

~~8343.~~ Delete ~~section Section~~ 2902 in its entirety.

~~44.~~ Delete ~~section 84-2903~~ in its entirety.

45. Delete ~~section Section~~ ~~3001.33001.2~~ in its entirety and substitute the following:

~~3001.33001.2~~ *Reference Standards.* The design, construction, installation, alteration, repair and maintenance of elevators and conveying systems and their components shall comply with the standards and regulations established by the Office of the Illinois Fire Marshall.

~~85.~~ Delete ~~Section 3113 Relocatable Buildings~~ in its entirety.

~~8646.~~ Delete chapter 32 Encroachments into the Public Right-Of-Way in its entirety.

~~8747.~~ Add new ~~section Section~~ 3302.3 to read as follows:

3302.3 Safety And Security Fencing. The demolition or construction of a principal building or structure, or part thereof, or an excavation over 30 inches deep, shall require the installation of a safety and security fence, with a latching gate, that encloses the work area. The safety and security fencing shall be a minimum of ~~64~~ feet high, ~~and~~ constructed of chain link fabric and steel pipe posts and rails or equivalent materials ~~and a full-height opaque fabric to contain wind borne dust, dirt and debris~~ approved by the Building and Zoning Official. The fence shall be maintained in an upright, stable and secure condition and the gate shall be latched closed at all times the demolition or construction site is unattended. ~~Fence posts shall be driven into the ground or pavement. Sandbagging of fence posts shall not permitted unless approved by the Building Official.~~ A safety and security fence shall not reduce or eliminate any other safeguards required in this Code.

~~88.~~ Add ~~Section 3307.2~~ to read as follows:

~~3207.3 Earth retention systems.~~ All excavations that cannot be made in accordance with the United States Department of Labor Occupational Health and Safety Administration's (OSHA) requirements for sloping and benching shall utilize an earth retention system designed by an Illinois licensed structural engineer to protect adjoining property.

(Ord. 5996, 1-30-2012; Ord. 6603, 5-29-2018)

Attachment IBC-3

Building Code - Proposed Amendments (Clean)

4-1-6. Adoption of Building Code.

- (A) The 2018 ICC International Building Code is adopted by reference as the standards and regulations for governing the demolition, construction, enlargement, alteration, restoration or repair of buildings and structures and their appurtenances, as this Code is intended, recommended, maintained and published by the International Code Council except such portions thereof as are deleted, modified, or amended in this chapter. At least one copy of the 2018 ICC International Building Code shall be maintained on file in the office of the Village Clerk for inspection and copying as a public record.
- (B) The provisions of the 2018 ICC International Building Code, are hereby deleted, modified, and amended as follows:
1. Amend Section 101.1 to read as follows:
101.1 Title. These regulations shall be known as the Building Code of the Village of Glen Ellyn, hereinafter referred to as "this Code."
 2. Amend Section 101.4.7. to read as follows:
101.4 Existing Buildings. Within this Code, delete all references to the International Existing Building Code.
 3. Amend Section 101.4.3 to read as follows:
101.4.3 Plumbing. With the exception of Section 1502, wherever reference to the International Plumbing Code is made, substitute the Plumbing Code, Department of Public Health, State of Illinois, and delete the reference to the International Private Sewage Disposal Code.
 4. Delete Section 105.1.1 in its entirety and substitute the following:
105.1.1 Site Development Permit. The Building Official is authorized to issue a site development permit for site clearing, rough grading, excavation, trenching, footings, foundation walls, underground utilities and temporary power and facilities after submittal and approval of applicable construction documents, approved site inspections, and payment of all applicable fees and deposits, subject to the provisions of Section 107.3.3 of this Code.
 5. Delete Section 105.1.2 in its entirety.
 6. Delete Section 105.2 in its entirety and substitute the following:
105.2 Work Exempt from Permit. Exemptions from permit requirements of this Code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this Code or any other laws or ordinances of this jurisdiction. Permits shall not be required for the following:
 - (a) Property:
 - (1) Landscaping work to remove existing or plant new trees, shrubs, plants or grass provided tree removal is completed in accordance with the requirements in the tree preservation ordinance and the disturbed area does not exceed 300 square feet.
 - (2) Paving work to add new, or replace existing, impervious surface materials upon the ground provided the new paved area does not exceed 100 square feet and complies with all Zoning Code regulations.

Attachment IBC-3

Building Code - Proposed Amendments (Clean)

- (3) Grade changes, excavation or fill provided the disturbed site area does not exceed 300 square feet and the natural existing stormwater runoff from the property is not altered or cause a nuisance, hazard or damage to adjacent property and complies with the requirements of the Countywide Stormwater & Flood Plain Ordinance of DuPage County, IL.
 - (4) Retaining walls that do not exceed eight inches in height provided the natural existing stormwater runoff from the property is not altered or cause a nuisance, hazard or damage to adjacent property and complies with the requirements of the countywide stormwater and flood plain ordinance of DuPage County, IL.
 - (5) Installation of recreational and play equipment, prefabricated swimming pools that are less than 24 inches deep, and outdoor furnishings, that are portable or removed after occasional or seasonal use provided the location and use complies with all Zoning Code regulations.
- (b) Buildings and structures:
- (1) Installation or removal of interior wall, floor or ceiling finishes such as paint, tile, carpet, and wall coverings completed in accordance with the requirements in this Code for sanitation and fire resistance and with federal and state regulations governing the removal of lead, asbestos or other hazardous materials.
 - (2) Placement of free-standing partitions, fixtures, cases, racks, counters, or furnishings not to exceed five feet nine inches in height.
 - (3) Minor electrical repairs including lamp, receptacle and breaker replacement or the removal of existing and installation of equivalent new electrical fixtures at existing electrical outlets.
 - (4) Electrical wiring, fixtures and equipment operating at less than 25 volts and not capable of supplying more than 50 watts of energy, except alarm systems.
 - (5) Minor mechanical repairs including the removal of existing and installation of equivalent new pumps and motors that do not alter approval of the equipment or make it unsafe.
 - (6) Installation of portable electrical or mechanical equipment with cord and plug electrical connections.
 - (7) Work to stop leaks or clear obstructions in the plumbing system or the removal of existing and installation of equivalent new plumbing fixtures, limited to toilets, sinks, tubs and showers without any alteration to existing water supply, drain, waste or vent outlets.
 - (8) Replacement or repair of exterior finish materials on wall and roof surfaces up to a maximum of 300 square feet or 20 percent of the total roof or wall area.
7. Amend Section 105.3 item 6 to read as follows:
6. Be signed by the applicant and by the property owner(s), including the name and registered address of the owner, corporate officer, registered agent, partner, trustee or managing member, upon whom any legal notice, complaint or citation may be served.
8. Amend Section 105.3 item 7 to read as follows:
7. Give such other data and information as required by the Building Official including:
 - a. Name(s) and address(s) of all persons with a beneficial interest in the property under a land trust and all shareholders owning in excess of 5% of the stock in a corporation.

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Attachment IBC-3

Building Code - Proposed Amendments (Clean)

b. Signed copy of contract for construction indicating scope of work and overall project and/or hard cost of all work to be performed.

9. Amend Section 105.5 to read as follows:

105.5 Expiration. A permit for commercial buildings, structures, and site improvements is valid for eighteen (18) months after its issuance. Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 180 days after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. The Building Official is authorized to grant, in writing, one or more extensions of time, for periods not more than 180 days each, subject to payment of administrative fees in accordance with Section 109.2. The extension shall be requested in writing and justifiable cause demonstrated.

10. Amend Section 105.7 to reads as follows:

105.7 Placement of Permit. The building permit or copy shall be kept on the site of the work until completion of the project and shall be displayed in a prominent location visible from the public way.

11. Amend Section 107.1 to read as follows, the exception shall be retained:

107.1 General. Submittal documents consisting of construction documents, statement of special inspections, geotechnical report and other data shall be submitted in four or more sets with each permit application or revised submittal. The construction documents shall be prepared by an Illinois registered design professional. Where special conditions exist, the Building Official is authorized to require additional construction documents to be prepared by a licensed Illinois registered design professional.

12. Delete Section 107.2.2 in its entirety and substitute the following:

[A] 107.2.2 Fire protection system submittal documents.

1. A building permit for a building that requires a fire suppression system shall not be issued without the submission and subsequent approval of a technical submission prepared and sealed by a licensed design professional. The technical submission shall consist of designs, drawings and specifications that establish the scope of the work and standards of quality for materials, workmanship and equipment and the construction systems, studies and other technical reports as determined necessary by the Building Official and prepared in the course of a design professional's practice.
2. After permit issuance, and prior to the rough framing inspection being performed, shop drawings for the fire protection system(s) shall be submitted to indicate conformance to this code and the construction documents and shall be approved prior to the start of system installation. Shop drawings shall be signed and sealed by a licensed professional engineer or by a technician who holds a valid NICET level 3 or 4 certification. Shop drawings shall contain all information as required by the referenced installation standards in Chapter 9.

13. Delete Section 107.2.8 in its entirety.

14. Add new Section 107.2.9 to read as follows:

107.2.9 Site management plan. All permit applications for construction of new buildings, and additions or alterations to existing commercial buildings shall include a site management plan to indicate the following minimum information:

- a. The property drawn to a scale of not less than 1-inch equals 20 feet.

Attachment IBC-3

Building Code - Proposed Amendments (Clean)

- b. Existing buildings and structures to be removed or retained.
- c. All easements, existing utility lines, well and septic systems on the subject property and all adjacent parkways and property within 20 feet.
- d. Trees on the subject property, adjacent parkway and within 15 feet on adjacent properties in accordance with the Village's Tree Preservation Ordinance.
- e. Protective tree fencing, and perimeter safety fencing with key box at points of entry, pedestrian walkways, barriers, and barricades.
- f. Erosion control measures to prevent erosion on site and maintain the public storm sewer free of dirt and debris from the site.
- g. Means of primary ingress/egress from the public ways to the site and points for emergency access, vehicle and pedestrian traffic control devices and measures, on-site and off-site parking areas, and construction traffic patterns through the Village.
- h. Temporary areas for the storage or staging of debris, soil, construction trailer, construction materials, construction equipment, portable toilets, and dumpsters.
- i. Portable toilets, dumpsters and refuse container locations.
- j. Source of construction water.
- k. Location of temporary construction signs.
- l. Location and type of fire protections measures including portable fire extinguishers, building standpipe and building fire department connection.
- m. Details and location of physical means of protection of adjacent properties.
- n. Other information deemed necessary by the Building Official to ensure protection of adjacent properties, the public right-of-way and the general public.
- o. Timelines for blockage or closure of public rights-of-way to accommodate equipment staging, deliveries, work within the rights-of-way, or other construction activities, if applicable.

15. Add new Section 107.2.10 to read as follows:

107.2.10 Fire Safety Plan. As required by the Building and Zoning Official, the construction documents shall include, at a minimum, the following information:

- 1. Dimensioned floor plan indicating the following minimum information:
 - a. Exit access travel path and distance in accordance with Section 1017.3.
 - b. Location of any fire-resistance-rated walls, shaft enclosures and smoke curtains and partitions, with the fire-rating indicated.
 - c. Fire rating of all opening protectives in accordance with Section 716.
- 2. UL Design numbers and details for all fire-resistance joint systems and penetrations of fire-rated assemblies.
- 3. UL Design numbers and details for all fire-rated wall and shaft enclosure assemblies.

Attachment IBC-3

Building Code - Proposed Amendments (Clean)

16. Amend Section 109.4 to read as follows:

109.4 Work Commencing Before Permit Issuance. Any person who commences any work on a site, building or structure, or on any electrical, gas, mechanical, fire protection or plumbing system before obtaining the necessary permits shall be subject to an additional fee of 200% of the building permit fee.

17. Add Section 109.7 to read as follows:

109.7 Work Exceeding Scope of Permit Issued. Any person who commences any work on a site, building or structure, or on any electrical, gas, mechanical, fire protection or plumbing system in excess of the scope of work for which a permit has been issued shall be subject to an additional fee of 300% of the building permit fee.

18. Amend Section 110.6 to read as follows:

110.6 Approval required. All projects will be afforded an initial and one re-inspection of the work in place for each required inspection. Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the Building and Zoning Official or his/her designee. The Building and Zoning Official, upon notification, shall make the requested inspections and shall either indicate the portion of the construction that is satisfactory as completed, or notify the permit holder or his or her agent wherein the same fails to comply with this code. Any portions that do not comply shall be corrected and such portion shall not be covered or concealed until authorized by the Building and Zoning Official. All work shall be re-inspected until code compliance is achieved. Re-inspections required beyond the first two, or a contractor's failure to attend a scheduled inspection, will be billed to the contractor in accordance with Section 109.2.

19. Delete Section 111.2 in its entirety and substitute the following:

111.2 Certificate Issued. After the Building Official inspects the building or structure and finds no violations of the provisions of this Code or other laws, the Building Official shall issue a certificate of occupancy that contains the following:

1. The address of the structure.
2. The name and address of the owner.
3. A description of the portion of the building for which the certificate is issued.
4. The use and occupancy of the portion of the building for which the certificate is issued.
5. Any special stipulation and conditions of the building permit.
6. The name of the Building Official.

20. Amend Section 111.3 to read as follows:

111.3 Temporary occupancy. The building official is authorized to issue a temporary certificate of occupancy before the completion of the entire work covered by the permit, provided that such portion or portions shall be occupied safely and subject to payment of administrative fees in accordance with Section 109.2. The Building Official shall set a time period during which the temporary certificate of occupancy is valid.

21. Amend Section 113.1 to read as follows:

113.1 General. In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this Code, there shall be a Building

Attachment IBC-3

Building Code - Proposed Amendments (Clean)

Board of Appeals. The structure, responsibilities and procedures of the Building Board of Appeals is established in Chapter 7 Building Board of Appeals, Title 2 Boards and Commissions, in the Glen Ellyn Village Code.

22. Delete Section 113.3 in its entirety.

23. Amend Section 202 to add the definition of Co-working Facility to read as follows:

CO-WORKING FACILITY. A facility having more than (10) persons on site at any time, and in which food and/or drink consumption occurs as part of the stated business plan before, during or after normal business hours shall be classified as a Group A-2 occupancy.

24. Delete Section 202 definition Historic Buildings in its entirety and substitute the following:

Historic Buildings: Buildings that are listed in the National Register of Historic Places, or designated as historic under appropriate state law, or buildings, structures, works of art, or other objects surveyed and identified as having historic or architectural significance by the Historic Preservation Commission in accordance with Glen Ellyn Village Code, Chapter 13.

25. Amend Section 202 to delete the definition of Relocatable Building.

26. Amend Section 304.1 to add the following use under Business Group B:

Co-working Facility

27. Amend Section 406.3.2.1 to read as follows:

406.3.2.1 Dwelling unit separation. The attached private garage that shares a common wall with a dwelling unit, or the detached private garage that is within 20 feet of a dwelling unit, shall be separated from a dwelling unit and its attic area by means of a minimum ½-inch gypsum board applied to all walls and ceilings in the garage. Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than ¾-inch Type X gypsum board or equivalent. All joints shall be flat taped. Door openings between a private garage and the dwelling unit shall be equipped with either solid wood doors or solid or honeycomb core steel doors not less than 1-3/8 inches thick, or doors in compliance with Section 716.2.2.1 with a fire protection rating of not less than 20 minutes. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Doors shall be self-closing and self-latching.

28. Add Section 429 to read as follows:

429 Existing Buildings

29. Add new S-section 429.1 to read as follows:

429.1 Fire Protection Improvements. All exposed combustible framing members, combustible voids or similar spaces throughout an existing building or structure shall be covered with five-eighths (5/8") inch type X gypsum board, or provided with equivalent protection, when any addition to the building or structure is constructed that exceeds \$15,000 in hard cost and the building or structure is not equipped throughout with an approved fire sprinkler system.

30. Add new Section 429.2 to read as follows:

429.2 Building and Property Improvements. The following improvements within an existing building and on public or private property shall be required when a building addition increases the floor area of an existing building by more than 75%:

1. All improvements included in Section 429.13403.5.

Attachment IBC-3 Building Code - Proposed Amendments (Clean)

2. Abandon the existing water service line between the water main and the existing building or proposed addition and install a new water service line, water meter and copper horn in accordance with current standards, codes and ordinances.
 3. Abandon the existing sanitary service line between the sanitary sewer main and the existing building or proposed addition and install a new sanitary service line if the structural integrity or water-tightness of the service line does not meet current standards, codes and ordinances.
 4. Provide an overhead sanitary service line and sewage ejector pump in accordance with current standards, codes and ordinances.
 5. Remove any existing gravel driveway and provide a hard surface driveway, approach and depressed curb and gutter and in accordance with current standards, codes and ordinances.
 6. Provide a public sidewalk across the frontage of the property if no sidewalk presently exists, or repair any existing damaged sidewalk squares, in accordance with current standards, codes and ordinances.
 7. Repair damaged or disturbed parkway grades and restore parkway groundcover or provide new groundcover where no groundcover exists.

Exception: The existing water and sanitary service lines may remain, upon approval of the Public Works Director, if existing conditions comply with, or are repaired and maintained to comply with current standards, codes and ordinances. Existing sanitary line conditions must be verified by a video and an audio or written report in the format required by the public works department.
31. Add new Section 429.3 to read as follows:

429.3 Building and Property Improvements. The following improvements within an existing building and on public or private property shall be required when a building addition increases the floor area of an existing building by more than 150%:
1. All improvements included in Section 429.2.
 2. The existing building or structure on the property shall comply, or be upgraded to comply, with all provisions of the Village Codes, regulations and ordinances for a new building or structure.
32. Add new Section 429.4 to read as follows:

429.4 Fire Protection Improvements. All exposed combustible framing members, combustible voids or similar spaces within an existing building or structure without fire sprinklers shall be covered with five-eighths (5/8") inch type X gypsum board, or provided with equivalent protection, when the existing exterior wall and roof surface area is structurally altered, or when interior remodeling work is completed, that exceeds \$15,000 in hard cost.
33. Add new Section 429.5 to read as follows:

429.5 Building and Property Improvements. The following improvements within an existing building and on public or private property shall be required when over 50% of the existing exterior wall and roof area is structurally altered or when interior remodeling work exceeds \$100,000 in hard cost:
1. All improvements included in Section 429.4.
 2. Abandon the existing water service line between the water main and the existing building or proposed addition and install a new water service line, water meter and copper horn in accordance with current standards, codes and ordinances.

Attachment IBC-3

Building Code - Proposed Amendments (Clean)

3. Abandon the existing sanitary service line between the sanitary sewer main and the existing building or proposed addition and install a new sanitary service line if the structural integrity or water-tightness of the service line does not meet current standards, codes and ordinances.
 4. Provide an overhead sanitary service line and ejector pump in accordance with current standards, codes and ordinances.
 5. Remove any existing gravel driveway and provide a hard surface driveway, approach and depressed curb and gutter and in accordance with current standards, codes and ordinances.
 6. Provide a public sidewalk across the frontage of the property if no sidewalk presently exists, or repair any existing damaged sidewalk squares, in accordance with current standards, codes and ordinances.
 7. Repair damaged or disturbed parkway grades and provide or restore parkway groundcover where no ground is established.
Exception: The existing water and sanitary service lines may remain, upon approval of the Public Works Director, if existing conditions comply with, or are repaired and maintained to comply with current standards, codes and ordinances. Existing sanitary line conditions must be verified by a video and an audio or written report in the format required by the public works department.
34. Add new Section 429.6 to read as follows:
- 429.6 Building and Property Improvements.* The following improvements within an existing building and on public or private property shall be required when over 75% of the existing exterior wall and roof area is structurally altered:
1. All improvements included in Section 429.5.
 2. The existing building and structure on the property shall comply, or be upgraded to comply, with all provisions of the Village Codes, regulations and ordinances for a new building or structure.
35. Add new Section 429.7 to read as follows:
- 429.7 Building and Property Improvements.* The following improvements within an existing building and on public or private property shall be required when the hard cost of all remodeling work exceeds \$1,000,000 or 25% of the market value of the building or structure:
1. All improvements included in Section 429.5.
 2. The remodeled area shall comply, or be upgraded to comply, with all provisions of the Village Codes, regulations and ordinances for a new building or structure.
36. Amend Section 508.3.3 to add Exception 3 to read as follows:
3. Walls separating tenant spaces within Group B and M occupancies shall be constructed as fire partitions in accordance with Section 708.
37. Delete Table 508.4 in its entirety, replace with the following table and maintain all footnotes:

Attachment IBC-3

Building Code - Proposed Amendments (Clean)

TABLE 508.4 REQUIRED SEPARATION OF OCCUPANCIES (HOURS)																				
OCCUPANCY	A, E		I-1 ^a , I-3, I-4		I-2		R ^b		F-2, S-2 ^b , U		B ^c , F-1, M, S-1		H-1		H-2		H-3, H-4		H-5	
	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS
A, E	N	N	1	2	2	NP	1	2	N	1	2	NP	NP	3	4	2	3	2	NP	
I-1 ^a , I-3, I-4			N	N	2	NP	1	NP	1	2	1	2	NP	NP	3	NP	2	NP	2	NP
I-2					N	N	2	NP	2	np	2	NP	NP	NP	3	NP	2	NP	2	NP
R ^b							N	N	1 ^c	2 ^c	1	2	NP	NP	3	NP	2	NP	2	NP
F-2, S-2 ^b , U									N	N	1	2	NP	NP	3	4	2	3	2	NP
B ^c , F-1, M, S-1											1	1	NP	NP	2	3	1	2	1	NP
H-1													N	NP	NP	NP	NP	NP	NP	NP
H-2															N	NP	1	NP	1	NP
H-3, H-4																	1 ^d	NP	1	NP
H-5																			N	NP

38. Delete Section 706.6 exception 4 in its entirety.
39. Delete Section 902 Definitions in its entirety.
40. Delete Section 903 Automatic Sprinkler Systems in its entirety.
41. Delete Section 904 Alternative Automatic Fire-Extinguishing Systems in its entirety.
42. Delete Section 905 Standpipe Systems in its entirety.
43. Delete Section 906 Portable Fire Extinguishers in its entirety.
44. Delete Section 907 Fire Alarm and Detector Systems in its entirety.
45. Delete Section 908 Emergency Alarm Systems in its entirety.
46. Delete Section 910 Smoke and Heat Removal in its entirety.
47. Delete Section 911 Fire Command Center in its entirety.
48. Delete Section 912 Fire Department Connections in its entirety.
49. Delete Section 913 Fire Pumps in its entirety.
50. Delete Section 914 Emergency Responder Safety Features in its entirety.
51. Add new Section 1015.4.1 to read as follows:
1015.4.1 Cable rails. The spacing between centerlines of adjacent cables serving as infill for guard and handrail systems shall be not more than 3 inches on center.
52. Add new Section 1016.3 to read as follows:
1016.3 Egress past commercial kitchens. The path of egress within restaurants, cafeterias and similar dining facilities shall not pass unprotected kitchen openings such as doors or food service counters in areas where cooking occurs.
53. Amend Section 1102.1 to read as follows:
1102.1 Design. Buildings and facilities shall be designed and constructed to be accessible in accordance with the stricter requirements of this code, ICC A117.1, and any applicable State or Federal Act or Code regulating construction for accessibility.
54. Add Sections 1106.8, 1106.8.1, and 1106.8.2 to read as follows:

Attachment IBC-3

Building Code - Proposed Amendments (Clean)

1106.8 Electric vehicle charging stations. At least one parking stall for every twenty-five (25), or fraction thereof designated for use for charging of electric vehicles shall be constructed as accessible parking spaces.

1106.8.1 Access aisles. Access aisles shall be provided at electric vehicle charging stations in accordance with requirements set forth in the Illinois Accessibility Code for access aisles at parking stalls.

55. Add Section 1208.1.1 to read as follows:

1208.1.1 Minimum clear height. The clear height within a crawl space shall be a minimum of 36 inches to the underside of framing members, ductwork, or pipes.

56. Add new Section 1203.2 to read as follows:

1203.2 Every owner and operator of any building who rents, leases or lets one or more dwelling units or sleeping units on terms, either express or implied, to furnish heat to the occupants thereof shall supply heat during the period from October 1 to May 15 to maintain a room temperature of not less than sixty five degrees Fahrenheit (65°F) (18°C), in all habitable spaces, bathrooms and toilet rooms at a point 3 feet above the floor near the center of the room and 2 feet inward from the center of each exterior wall.

Exception: When the exterior temperature falls below zero degrees Fahrenheit (0°F) (-18°C) and the heating system is operating at its full capacity, a minimum room temperature of sixty degrees Fahrenheit (60°F) (16°C) shall be maintained at all times.

57. Amend Section 1407.4 to read as follows:

1407.4 Weather Resistance. EIFS shall comply with Section 1403 and shall be designed and constructed to resist wind and rain in accordance with this Section and the manufacturer's application instructions and include the installation of a drainage medium layer incorporated into the system as specified by the product manufacturer.

58. Amend Section 1407.5 to read as follows:

1407.5 Installation. Installation of EIFS with drainage shall be in accordance with the EIFS manufacturer's instructions and completed by trained and qualified installers. A copy of the installer's current certification as an EIFS mechanic, issued by the Association of the Wall and Ceiling Industry, or other certification, must be submitted with the permit application for approval by the Building Official.

59. Amend Section 1502.1 to read as follows:

1502.1 General. Design and installation of roof drainage systems shall comply with Sections 1502, 1513, 1514 and 1515 of this Code.

60. Amend Table 1505.1 to reads as follows and delete the footnotes:

IA	IB	IIA	IIB	IIIA	IIIB	IV	VA	VB
B	B	B	B	B	B	B	B	B

61. Add new Section 1511.3.1.2 to read as follows:

1511.3.1.2 Core samples. All roof recovering projects shall be subject to inspection of a test core performed on the exiting roof to verify the number of existing roofing layers does not exceed one prior to the issuance of a permit for the work,

Attachment IBC-3

Building Code - Proposed Amendments (Clean)

62. Amend Section 1604.8.3 to read as follows:

1604.8.3 Decks. Where supported by attachment to an exterior wall, decks shall be positively anchored to the primary structure and designed for both vertical and lateral loads as applicable. Such attachment shall not be accomplished by the use of toenails or nails subject to withdrawal nor shall such attachment be made to any masonry veneer. Where positive connection to the primary building structure cannot be verified during inspection, decks shall be self-supporting. Connections of decks with cantilevered framing members to exterior walls or other framing members shall be designed for both of the following:

1. The reactions resulting from the dead load and live load specified in Table 1607.1 and Section 1604.8.3.1, or the snow load specified in Section 1608, in accordance with Section 1605 and the lateral design load specified in Section 1604.8.3.1, acting on all portions of the deck.
2. The reactions resulting from the dead load and live load specified in Table 1607.1, or the snow load specified in Section 1608, in accordance with Section 1605, acting on the cantilevered portion of the deck, and no live load specified in Section 1608 or snow load on the remaining portion of the deck. The lateral design load specified in Section 1604.8.3.1 shall be applied to all portions of the deck.

63. Add Section 1604.8.3.1 to read as follows:

1604.8.3.1 Lateral load on decks. The lateral design live load for decks shall include the wind load determined in accordance with Section 1609 plus a simultaneously applied minimum horizontal live load of 10 pounds per square foot distributed over the walking surface of the deck and stair treads. The horizontal live load shall be assumed to act in the same direction as the wind. Framing member connections and connections to the principle structure shall be design to withstand lateral loads acting in any direction.

64. Add Section 1604.8.3.2 to read as follows:

1604.8.3.2 Lateral connection. Lateral loads shall be transferred to the ground or to a structure capable of transmitting them to the ground. Where the lateral load connection is provided in accordance with the *International Residential Code* Figure R507.9.2(1), hold down tension devices shall be installed in not less than two locations per deck, within 24 inches of each end of the deck. Each device shall have an allowable stress design capacity of not less than 1,500 pounds. Where the lateral load connections are provided in accordance with the *International Residential Code* Figure R507.9.2(2), the hold-down tension devices shall be installed in not less than four locations per deck, and each device shall have an allowable stress design capacity of not less than 750 pounds.

65. Amend Section 1607.8.1 to read as follows:

1607.8.1 Handrails and guards. Handrails and guards shall be designed to resist a linear load of 50 pounds per linear foot in accordance with Section 4.5.1.1 of ASCE 7. Glass handrail assemblies and guards shall comply with Section 2407.

Exception: In Group I-3, F, H and S occupancies, for areas that are not accessible to the general public and that have an occupant load less than 50, the minimum load shall be 20 pounds per foot.

66. Amend Section 1608.2 to read as follows:

1608.2 Ground snow load. The ground snow load to be used in determining the design load for roofs and other structures shall be 30 pounds per square foot.

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Attachment IBC-3

Building Code - Proposed Amendments (Clean)

67. Add Section 1610.1.1 to read as follows:

1610.1.1 Surcharge load. The design surcharge load for retaining walls shall be a minimum of 250 pounds per square foot.

68. Amend Section 1611.1 to read as follows, the equation shall remain as written:

1611.1 Design rain loads. Each portion of a roof shall be designed to sustain the load or rainwater that will accumulate on it if the primary drainage system for that portion is blocked plus the uniform load caused by water that rises above the inlet of the secondary drainage system at its design flow rate required to accommodate the design rainfall rate as determined in accordance with Section 1514.1.

69. Amend Section 1612.3 to read as follows:

1612.3 Establishment of flood hazard areas. To establish flood hazard areas, the applicable governing authority shall adopt a flood hazard map and supporting data. The flood hazard map shall include, at a minimum, areas of special flood hazard as defined by the Federal Emergency Management Agency in an engineering report entitled "The Flood Insurance Study For The Village Of Glen Ellyn", as amended or revised with the accompanying flood insurance rate map (FIRM) panels 502, 503, 505, 506, 508, 509 and 604 and related supporting data along with any revisions thereto. The adopted flood hazard map and supporting data are hereby adopted by reference and declared to be part of this Section.

70. Add new Section 1804.3 to read as follows:

1804.3 Design. All underpinning work shall be designed by an Illinois licensed structural engineer.

71. Amend Section 1807.2 to read as follows:

1807.2 Retaining walls. Retaining walls shall be designed by an Illinois licensed design professional in accordance with Sections 1807.2.1 through 1807.2.3.

Exceptions:

1. Segmental retaining walls that retain less than 48-inches of unbalanced fill with no surcharge load and are designed in accordance with the segmental wall unit manufacturer's written recommendations for design.
2. Retaining walls, other than segmental retaining walls, that are not laterally braced at the top and that retain less than 48-inches of unbalanced fill with no surcharge load.
3. Retaining walls that are less than 24-inches in height that resist surcharge or lateral loads in addition to soil.

72. Add new Section 1808.6.5 to read as follows:

1808.6.5 Slab on Grade Foundation. One-story frame detached accessory structures are permitted on trench wall and slab foundations monolithically poured, consisting of a minimum 4" concrete slab with minimum 40 pounds per 100 square foot welded wire fabric reinforcing on a compacted minimum 4" gravel base with a continuous thickened perimeter edge minimum 20" wide and extending down a minimum of 10" below grade or to undisturbed subsoil.

73. Amend Section 1809.5 item 1 to read as follows:

1. Extending a minimum of three (3) feet six (6) inches below the adjacent finished grade;

74. Delete Section 1809.9 in its entirety.

75. Delete Section 1809.12 in its entirety.

Attachment IBC-3

Building Code - Proposed Amendments (Clean)

76. Amend Section 2303.4.1.1 to include the following:
- 15. Elevation view of each truss designation.
 - 16. Truss placement diagram.
77. Amend Section 2303.4.1.4.1 to read as follows:
- 2303.4.1.4.1 Truss design drawings.* The truss design drawings shall be signed and sealed by an Illinois licensed structural engineer. Each sheet of the design drawings shall be signed and sealed by the design professional. In lieu of signing and sealing each individual sheet of the truss design drawings, the design drawings may include a cover sheet with a sheet index and a statement that the structural engineer's signature and seal applies to all sheets listed within the sheet index.
78. Amend Section 2303.4.2 to read as follows:
- 2303.4.2 Truss placement diagram.* The truss manufacturer shall provide a truss placement diagram that identifies the proposed location for each individually designated truss. The truss placement diagram shall be provided as part of the truss submittal package and with the shipment of trusses delivered to the site.
79. Delete Section 2901.1 in its entirety and substitute the following:
- 2901.1 Scope.* The design, construction, installation, alteration, repair and maintenance of plumbing systems and their components shall comply with the standards and regulations established in the Illinois Department of Public Health Plumbing Code as currently adopted.
80. Add new Section 2901.2 to read as follows:
- 2901.2 Structure Protection.* In the process of installing or repairing any part of a plumbing and drainage installation, the structural framing members shall not be cut, bored or notched beyond the limitations in this Code unless restored to safe structural condition in accordance with the building requirements in this Code.
81. Add new Section 2901.3 to read as follows:
- 2901.3 Piping Protection.* In concealed locations, where piping, other than cast iron or galvanized steel, is installed through holes or notches in studs, joists, rafters or similar members less than 1-1/2 inches from the nearest edge of the member, the pipe shall be protected by steel shield plates. Such shield plates shall have a thickness of not less than .0575 inch (no. 16 gauge). Such plates shall cover the area of the pipe where the member is notched or bored, and shall extend a minimum of 2 inches above sole plates and below top plates.
82. Add new Section 2901.4 to read as follows:
- 2901.4 Through Wall Protection.* Any pipe that passes through a foundation wall shall pass through a pipe sleeve two pipe sizes greater than the pipe passing through. All annular spaces between sleeves and pipes shall be filled or tightly caulked in accordance with the building requirements in this Code or as approved by the Building Official.
83. Delete Section 2902 in its entirety.
84. Delete Section 3001.3 in its entirety and substitute the following:
- 3001.3 Reference Standards.* The design, construction, installation, alteration, repair and maintenance of elevators and conveying systems and their components shall comply with the standards and regulations established by the Office of the Illinois Fire Marshall.

Attachment IBC-3

Building Code - Proposed Amendments (Clean)

85. Delete Section 3113 Relocatable Buildings in its entirety.
86. Delete chapter 32 Encroachments into the Public Right-Of-Way in its entirety.
87. Add new Section 3302.3 to read as follows:

3302.3 Safety And Security Fencing. The demolition or construction of a principal building or structure, or part thereof, or an excavation over 30 inches deep, shall require the installation of a safety and security fence, with a latching gate, that encloses the work area. The safety and security fencing shall be a minimum of 6 feet high, constructed of chain link fabric and steel pipe posts and rails or equivalent materials and a full-height opaque fabric to contain wind borne dust, dirt and debris approved by the Building and Zoning Official. The fence shall be maintained in an upright, stable and secure condition and the gate shall be latched closed at all times the demolition or construction site is unattended. Fence posts shall be driven into the ground or pavement. Sandbagging of fence posts shall not be permitted unless approved by the Building Official. A safety and security fence shall not reduce or eliminate any other safeguards required in this Code.

88. Add Section 3307.2 to read as follows:

3307.2 Earth retention systems. All excavations that cannot be made in accordance with the United States Department of Labor Occupational Health and Safety Administration's (OSHA) requirements for sloping and benching shall utilize an earth retention system designed by an Illinois licensed structural engineer to protect adjoining property.

(Ord. 5996, 1-30-2012; Ord. 6603, 5-29-2018)

Attachment IBC-4

Major changes to the International Building Code 2012, 2015 and 2018 Editions

The following is an overview of major changes that have occurred in the International Code Council's *International Building Code 2012, 2015 and 2018 editions*. The information provided comes from a variety of sources, including:

- *International Building Code 2012, 2015 and 2018 editions*. Additions and deletions of code sections within each publication are identified in the margin adjacent to or between code sections.
- *Significant Changes to the International Building Code 2012 and 2018 Edition*.
- International Code Council seminars on International Building Code updates.
- Evaluations performed by other municipalities if available.

Items determined to have greater impact on the maintenance of existing buildings and properties within the Village are highlighted in yellow.

2012, 2015 and 2018 International Building Code			
Code Year	Amendment New, Change or Addition	Cost Impact Decrease Increase Unknown	Description
2012			424 Children's Play structures. Children's play structures are now regulated by a new standalone section 424 instead of being limited to covered mall buildings in Section 402. ICC took a broader application of this section and was revised extensively, but NFPA 289 is now offered as an alternative testing standard to UL 1975 for foam plastics. An additional separation requirement from building walls, partitions and from elements of the means of egress of 5 feet was added.
2012			506.2 Building Heights and Areas. The method of calculating the appropriate allowable area increase for buildings which front public ways and other open space has Building Code.
2012			402 Open Malls. The trend to create large-scale projects resembling covered mall buildings without roofs over pedestrian circulation areas was addressed in this new section. Open malls have the benefit of openness, which reduces the hazards from smoke during a fire. The provisions for covered mall buildings

			were extended to open mall buildings throughout Section 402.
2012			509 incidental Uses. Accessory occupancies are now designated 'incidental uses' and are regulated separately under a new Section 509. The mixed occupancy requirements are no longer applicable.
2012			712 and 713 Vertical Openings. The shaft enclosure provisions were relocated to Section 712 and 713 and reorganized to place emphasis on the presence of vertical openings rather than on shaft enclosures. Change was made recognizing that the use of shaft enclosures is just one of many acceptable protective measures that can be utilized to address the hazards related to vertical openings.
2012			803.12 Interior finishes. Now specifically addresses polypropylene plastic and requires that this material be tested using the room corner test (NFPA 2864) versus the typical Steiner tunnel test for a more accurate evaluation of the flame spread hazards for this type of plastic.
2012		Increase	903 Automatic Sprinkler systems Group F-1. Sprinklers were required throughout buildings containing mercantile occupancies of any size that sell upholstered furniture in the 2009 code. In the 2012 IBC, the scope has been expanded to include mattresses, but is limited only to buildings where a Group M (903.2.7) occupancy of greater than 5000 square feet (700 m2) sells or displays upholstered furniture and mattresses. Sprinklers are also now required for Group S-1 (903.2.9) and F-1 (903.2.4) occupancies over 2500 square feet that store or manufacture upholstered furniture or mattresses.
2012		Decrease	906 Fire extinguishers. Fire extinguishers was removed from the code for new and existing Group A, B and E occupancies equipped throughout with quick-response sprinklers. A new exception was added specific to Group R-2 occupancies that instead provide a portable fire extinguisher having a minimum rating of 1-A:10-B:C in each dwelling unit.

2012		Increase	907 Fire Alarms. The requirement for an emergency voice communication system for Group E occupancies was added, this system replaces the traditional occupant notification system and activation is manual versus automatic. Manual fire alarm systems in Group E occupancies went from greater than 50 occupants to greater than 30 occupants.
2012			1108.2.7.3 Emergency voice communication system. Emergency voice communication system messages in stadiums, arenas and grandstands are required to be captioned, is only required when there are more than 15,000 seats now requires the captioning of audible public announcements.
2012		No Change - Mimics State Requirements	908 Carbon Monoxide. Requirements for carbon monoxide detectors in all residential (Group R) and institutional (Group I) occupancies was added to the IBC, applies to new construction (and a similar requirement was added into the International Fire Code, Section 1103.9, to deal with existing buildings. These provisions are consistent with requirements in the International Residential Code for carbon monoxide detectors in all new construction of one- and two-family dwellings.
2012		No Change	1001.4 Fire and evacuation plans. Plans shall be provided for all occupancies and buildings as required by the IFC.
2012			1005 Means of Egress capacity determination. The reduced egress width factors for sprinklered buildings that had been in the 2000 through 2006 IBC, but were removed in the 2009 edition, have been reintroduced. The exceptions allow for use of reduced exit width for sprinklered buildings, but only where an emergency voice/communications alarm system (EVCAS) is provided for the building.
2012			1007 Accessible means of egress. Areas for assisted rescue can now be provided on stories above level of discharge, open interior exit access stairs are now recognized as accessible means of egress components.
2012			1012.3.1 Handrail grasp ability. Minimum cross section dimension is 1 inch.
2012		Decrease	1013 Guardrail height. Minimum height of guardrail in R-2 dwelling units was decreased from 42 inches to 36 inches.
2012			1021.2.3 Table 1021.1 Exists from dwelling units. New section clarifies when a single exit is permitted within

			or from an individual dwelling unit with a second option for compliance.
2012			1403.5 Exteriors walls. Now regulates polypropylene siding for flame-spread, testing requirements and fire-separation distance. Fiber-reinforced polymers installed on exterior walls must now achieve a Class A flame-spread index of 25 or less when tested in accordance with ASTM E-845 and are limited to 10 percent of the exterior wall area for any individual element or group of non-separated elements.
2012		Decrease	1510.3 Roof covering replacement. Where the existing roof assembly requires and ice and water barrier membrane that is adhered to the roof deck the existing ice and water barrier membrane shall be permitted to remain in place and be covered with additional ice barrier.
2012		Increase	Table 1607.1 Minimum live loads. Live loads have been modified to reflect changes in the 2010 ASCE 7-10
2012		Decrease	2902.3 Toilet facilities in parking garages. Public toilet facilities are no longer required in open or closed parking garages and employee toilet facilities are not required in those garages that do not have parking attendants.
2015			101.4.7 "Existing Buildings," The requirements (Chapter 34) for existing structures have been removed from the 2015 IBC. All existing construction requirements are now in the 2015 International Existing Building Code (IEBC).
2015			111.1 "Use and Occupancy" A change in a building use, or portion thereof, with no change in its occupancy classification will now require a new Certificate of Occupancy.
2015			202 Definition of "Private Garage," 406.3.1 "Classification," 406.3.2 "Clear Height" Private Garages are no longer limited to a maximum of 3,000 sq. ft. in a building. Multiple private garages, each a maximum of 1,000 sq. ft., each separated by one-hour fire barriers or horizontal assemblies are now permitted based on their U occupancy classification. Also, a minimum of 7' clear height will be required in private garages.
2015			202 Definition of "Fire Retardant Treated Wood" Revised definition to permit other treatment methods by other than the pressure process. See also IBC

			Sections 2303.2.2 and 2303.2.3 for further explanation.
2015	Major Change	Decrease	510.2 "Horizontal Building Separation" (i.e., Podium/Pedestal Structures) IBC Section 510.2(2) that limited the Type IA portion of the podium/pedestal building below the horizontal separation to a maximum of one story above grade plane has been deleted in the allowing the podium portion of the building to be of any height without any restriction on the number of floors. Also, Section 510.2(5) permits any occupancy, except Group H, below the horizontal separation. (See also the table entry under IBC Section 903.3.1.2 for further information on podium design)
2015	New	Unknown	602.4 Cross-Laminated Timber Use in Construction Type IV. Revisions allow the use of fire-retardant-treated lumber, cross-laminated timber and glued-laminated plank in specific applications.
2015	New	Unknown	703.2.4 Fire-Resistance Ratings and Fire Tests: Supplemental Features. When a listed fire resistance assembly is modified, sufficient data shall be made available to the code official to show that the required fire resistance rating is not reduced.
2015	Major Change	Unknown	705.2 "Projections," 705.2.3 "Combustible Projections" Table 705.2, "Minimum Distance of Projections," was modified and simplified and now requires an increase in the separation required between the leading edge of a building's projection and the property line (or fire separation distance line). Section 705.2.3 was simplified and requires added protection where a combustible projection is within 5' of a property line (or FSD).
2015	New	Decrease	705.3 Exception #2 "Buildings on the Same Lot" Permits a parking garage of Construction Type I or IIA to abut a Group R-2 building with 1½- hour protected openings (fire doors) in the abutting exterior wall of the garage and no required opening protective(s) in the abutting wall of a sprinklered R-2 building. Previous editions of the Code did not permit any openings in these abutting exterior walls that are at a "0" fire separation distance apart and required a fire wall design between such buildings to be permitted to have openings between the abutting buildings.

2015	Major Change	Decrease	2015 ICC IBC 705.6 Exterior Wall Structural Stability. Exterior fire-rated walls that are braced by floor or roof assemblies that have a lesser fire resistance rating are now permitted. Previous editions of the IBC Code required Construction Type III buildings with two -hour fire-rated exterior walls to have floors that support the two-hour fire-rated exterior walls to be upgraded to the two-hour fire rating. This is a major cost since apartment buildings built of Construction Type III under the legacy codes only required one-hour floor and roof assemblies to support the two-hour fire-rated exterior walls.
2015	Clarification	Decrease	707.5 Exception 2 “Fire Barriers–Continuity” Clarifies that the walls of an interior exit stairway do not need to extend through the attic space to the underside of the roof deck if the ceiling of the stairway terminates with a fire-rated top enclosure complying with Section 713.12. I
2015	Revision	Decrease	2015 BC 714.4.2 Exception 7 “Membrane Penetration” This exception was new in the IBC (Section 714.4.1.2 Exception #7) and allowed for a practical application of the code in circumstances where wood-framed walls extend up to and attach directly to the underside of joist/trusses floor and roof fire rated assemblies. It was further modified to permit the wood framed walls to be sheathed solely with Type X gypsum wallboard in lieu of being a fire resistance rated wall assembly.
2015	New	Decrease	903.2.1.6 “Assembly Occupancies on Roof” Code now addresses how to deal with assembly occupancies on the roof of a building. When the occupant load > 100 for Group A-2 (i.e., restaurant), or > 300 for other Group A (i.e., meeting rooms, swimming pools) all floors to, and including, level of exit discharge are required to be sprinklered per NFPA 13 or NFPA 13R, as applicable. Since all new Group R occupancies are already required to be sprinklered, this new requirement is a good clarification of the Code for such common assembly occupancies that are to be located on the roofs of new apartment projects. Note that there is an exception to this sprinkler requirement for open parking garages of Construction Type I or Type II.

2015	Revision	Decrease	903.2.11.3 “Automatic Sprinkler Systems – Where Required- Buildings 55’ or More in Height” This revision clarified that the 55’ is measured from the lowest level of fire department vehicle access to the finished floor level of the highest floor with an occupant load of ≥ 30 . Exceptions are provided for open parking garages and F-2 occupancies.
2015	Clarification	Decrease	903.3.1.2 “Installation Requirements NFPA 13R Sprinkler Systems” Section was revised to correlate with the scope of the 2013 NFPA 13R Standard. This should help prevent any misapplication of the sprinkler standards that apply to “...Group R occupancies up to and including four stories in height in buildings not exceeding 60 feet in height above grade plane...”. The new second paragraph in this section clarifies that the number of stories of Group R occupancies above a podium or pedestal designed structure (see Section 510.4) is measured from the fire-rated horizontal separation that creates separate buildings. By default, this new second paragraph under the NFPA 13R requirements is also applicable to the number of stories of Group R occupancies above a podium structure when the entire structure is sprinklered per NFPA 13. For example, an R-2 occupancy of Construction Type IIIA, sprinklered per NFPA 13, can be five stories above the Type IA pedestal below as long as the overall building height from grade plane does not exceed 85 feet (IBC Table 504.3)
2015	New	Decrease	1011.12 Exception “Stairway to Roof” For stairways in buildings \geq four stories above grade plane that do not have an occupied roof or elevator equipment on the roof, access to the roof does not need to be by one of the stairways in the building. It can be provided by an alternating tread device, a ship’s ladder or a permanent ladder.
2015	New	Decrease	1011.16 “Ladders” New section with specific requirements for permanent ladders. Such ladders cannot serve as a part of the means of egress from occupied spaces within a building.
2015	New	Decrease	1016.2(1) “Egress through Intervening Spaces,” 3006.4 Means of Egress” Exit access is permitted through an enclosed elevator lobby that leads to at least one of the required exits. Exit access to not less than one of

			the other required exits shall be provided without travel through the enclosed elevator lobby.
2015	New	Decrease	1023.3.1 Exception 2 “Interior Exit Stairway Extension” An exit stairway does not require a door at the stairway opening into an exit passageway if the exit passageway has no other openings into it from the building.
2015	New	Decrease	1107.4 Exceptions 3 and 4 “Accessible Route” Exceptions added to exempt, in certain cases, accessible stories and mezzanines in buildings with Group R-2 units or dormitories if accessibility is provided to other facilities.
2015	Deletion	Decrease	Section 3004 “Hoistway Venting” Deleted Hoistway venting requirements have been deleted from the since they were antiquated and wasted building energy.
2015	New	None	2015 903.3.1.2.2 “Open-Ended Corridors” This new section was added to the sprinkler requirements just to clarify that when applying the open- ended corridor (i.e., open breezeway) sprinkler requirements of Section 1027.6 Exception 3.1 to a building sprinklered in accordance with NFPA 13R, it is the intent of the IBC Code to also require the open-ended corridors and its associated exterior stairs to be sprinklered when using Exception 3 of Section 1027.6.
2015	Revision	None	1006.2.1, Exception 1, Table 1006.3.2(1) and 1006.3.2 Single Exits in Buildings It is permitted for multiple dwelling units, in groups of four units or less per floor, to have access to a single means of egress. The change also reflects the revised travel distance for single exit design allowing a maximum common path of egress travel distance of 125 feet.
2015	Revision	None - Mimics State Requirements	915 908.7 Carbon Monoxide (CO) Detection. A CO alarm is to be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms in R-2 occupancies that have fuel-burning appliances/fireplaces and/or attached private garages. Buildings with open parking garages complying with Section 406.5 or enclosed parking garages complying with Section 406.6 are not considered private garages.

2015	Revision	Increase	2406.4.7 “Safety Glazing Adjacent to the Bottom Stairway Landing” Requires safety glazing if glazing is located < 60” above the bottom of a stair, or within a 60” horizontal arc if < 180 degrees from the bottom tread nosing.
2015	Major Change	Increase	2015 903.3.8 “Limited Area Sprinkler Systems” Existing, non-sprinklered apartment buildings, limited area sprinkler systems were mostly provided in basements where storage rooms, boiler rooms and similar spaces were located. Revisions reduced the number of sprinklers from 20 to six that can be used on a “limited area sprinkler system” in any single fire area. In addition, it now requires hydraulic calculations to be done to show that these sprinklers that are piped off the domestic water supply can control a fire.
2015	New	Increase	Chapter 17 “Special Inspections and Tests” New Provision and Revised Increase New requirements for special testing have been added detailing specific requirements that must be complied with when special inspection is required. Requirements for inspection of specific materials have been modified or added.
2018	Clarification	None	Definitions. All definitions are now italicized and located into a single location, Chapter 2.
2018	New	None	Definitions. New definitions include “Greenhouse” and “Repair garage”. The definition for “Sleeping unit” has been clarified while “Ambulatory care facility” and “Clinic, outpatient” have been deleted. GREENHOUSE. A structure or thermally isolated area of a building that maintains a specialized sunlit environment used for, and essential to, the cultivation, protection or maintenance of plants. REPAIR GARAGE. A building, structure or portion thereof used for servicing or repairing motor vehicles. SLEEPING UNIT. A room or space in which people sleep, which can also include single unit providing rooms or spaces for one or more persons that includes permanent provisions for sleeping, and can include provisions for living, eating, and either sanitation or kitchen facilities but not both. Such rooms and spaces that are also part of a dwelling unit are not sleeping units.
2018	Clarification	Unknown	302.1 302.1 Classification of Outdoor Areas. It has been clarified that occupied roofs are to be assigned one or more occupancy classifications in a manner consistent with the classification of uses inside the

			building, based upon the fire and life safety hazards posed by the rooftop activities.
2018	Clarification	Unknown	303.4 Classification of Assembly Use of Greenhouse. Where the use of the greenhouse is assembly in nature due to public access for the viewing of plants, classification as a Group A-3 occupancy is appropriate.
2018	Clarification	Unknown	309.1 Classification of Mercantile Use of Greenhouses Where a greenhouse is provided with public access for the purpose of the display and sale of plants, a Group M occupancy shall be assigned.
2018	Clarification	Unknown	310.3, 310.4 Classification of Congregate Living Facilities. Dormitories and similar nontransient uses now are to be considered as Group R-3 occupancies where the occupant load is 16 or less. In addition, transient lodging houses, such as bed-and-breakfast establishments, can only be considered as Group R-3 occupancies where their total occupant load is 10 or less.
2018	Modification	Unknown	310.4.2 Owner-Occupied Lodging Houses. The criteria permitting compliance with the IRC for the design and construction of owner-occupied lodging houses has been expanded by now also requiring that the total number of lodging house occupants be limited to 10.
2018	Modification	Unknown	311.1.1 Classification of Accessory Storage Spaces. Regardless of size, storage rooms and spaces that are accessory to other uses are to be classified as part of the occupancy to which they are accessory.
2018	Clarification	Unknown	312.1.1 Classification of Agricultural Greenhouses. Because a Group U occupancy includes those low-hazard structures that do not conform to any other specific occupancy classification, it has been clarified that greenhouses are only to be considered as Group U where they are not more appropriately classified as one of the other occupancies established in the IBC. 403.2.1.1 Type of Construction in High-Rise Buildings. Modification The reduction in the minimum required fire-resistance ratings for certain building elements of high-rise buildings is no longer applicable to Group H2, H-3 and H-5 occupancies due to the high physical hazard level such uses pose.
2018	Modification	Unknown	404.6 Enclosure of Atriums. The requirement that those spaces not separated from an atrium be accounted for in the design of the smoke control

			system now applies only in those cases where the atrium is provided with a smoke control system.
2018	Modification	None	406.1 Motor Vehicle Related Occupancies. Provisions specific to motor-vehicle-related uses have been reformatted in a manner such that those requirements that apply to all such uses have been relocated in a single Section 406.1.
2018	Modification	Unknown	407.5 Maximum Smoke Compartment Size. The allowance for larger smoke compartments in hospitals and other Group I-2, Condition 2 occupancies as now been modified to only include compartments containing single-patient sleeping rooms and suites, as well as those compartments without patient sleeping rooms.
2018	Modification	Unknown	407.5.4 Required Egress from Smoke Compartments. In Group I-2 occupancies, any smoke compartment that does not have an exit from the compartment must now provide direct access to a minimum of two adjacent smoke compartments.
2018	Clarification	Unknown	Elevator Lobby. 405.4.3, 708.1, 716.5.9.3, [F] 907.5.2.1 (IFC 907.5.2.1), 3006.4, 3007.6, 3007.6.1, 3007.6.3, 3007.9, 3007.9.1, 3008.6 Enclosed elevator lobby. No Change. Elevator Lobby When Required. This is a multi-sectional clarification throughout the IBC to clarify when an enclosed elevator lobby is required.
2018	Modification	Decrease	420.7 Corridor Protection in Assisted Living Units. Shared living spaces, group meeting spaces and multipurpose therapeutic spaces are now permitted to be open to fire-rated corridors in Group I-1 assisted living housing facilities provided specific conditions are met.
2018	Addition	Decrease	420.8 Group I-1 Cooking Facilities. A room or space containing a cooking facility with domestic cooking appliances is now permitted to be open to a corridor in Group I-1 occupancies provided nine specific conditions are met.
2018	Addition	Unknown	420.10 Dormitory Cooking Facilities. The installation and use of domestic cooking appliances are now regulated in both common areas and sleeping rooms of Group R-2 college dormitories.
2018	Addition	Unknown	427 Medical Gas Systems. In order to provide a more comprehensive and efficient compilation of construction regulations, those IFC medical gas system

			requirements related directly to building construction have now been replicated in the IBC.
2018	Addition	Unknown	428 Higher Education Laboratories. Higher education laboratories using hazardous materials can now be considered Group B occupancies provided such laboratories comply with new Section 428 which provides an alternative approach to the existing control area provisions.
2018	Modification	Unknown	503.1, 706.1 Scope of Fire Wall Use. The use of fire walls is now strictly limited to only the determination of permissible types of construction, based upon allowable building area and height.
2018	Addition	Unknown	503.1.4 Allowable Height and Area of Occupied Roofs. New criteria is now provided establishing the appropriate methodology in the regulation of building height in stories above grade plane where one or more occupancies is located on the roof.
2018	Modification	Unknown	Table 506.2, Note i Allowable Area of Type VB Greenhouses. The tabular allowable area for nonsprinklered single-story greenhouses classified as Group U occupancies has been substantially increased for Type VB buildings to be consistent with those greenhouses classified as Group B, M, F-2 and E.
2018	Clarification	Increase	507.4 Sprinklers in Unlimited Area Group A-4 Buildings. The sprinkler omission permitted for indoor participant sport areas of unlimited area Group A-4 buildings is now clearly not applicable to storage rooms, press boxes, concession areas and other ancillary spaces.
2018	Modification	Unknown	508.4.1, Table 508.4 Separated Occupancies vs. Fire Area Separations. New provisions in Section 508.4.1 and Table 508.4 clarify that the fire separations used for mixed occupancy purposes and those used for fire area purposes address different concerns, and as such the most restrictive fire-resistance-rated conditions shall apply.
2018	Clarification	Unknown	510.2 Horizontal Building Separation. Vertical offsets are permitted in the horizontal fire-resistance-rated separation mandated for "podium buildings" provided the minimum required fire-resistance rating is maintained for the offsets and their supporting elements.

2018	Modification	Decrease	Table 601, Note b Fire Protection of Structural Roof Members. All portions of the roof construction, including primary structural frame members such as girders and beams, are now selectively exempted from fire-resistance requirements based on Table 601 where every portion of the roof construction is at least 20 feet above any floor below.
2018	Clarification	Decrease	602.3, 602.4.1 FRT Wood Sheathing in Exterior Wall Assemblies. It has now been clarified that wood sheathing, as well wood framing, is permitted in exterior walls of Type III and IV buildings where fire-retardant treated wood is used.
2018	Modification	Decrease	704.2, 704.4.1 Column Protection in Light-Frame Construction. In walls of light-frame construction where primary structural frame members require fire-resistive protection, columns extending only between the bottom and top plates do not need to be provided with individual encasement protection.
2018	Modification	None	705.2.3, 705.2.3.1, 705.2.4 1406.3, 1406.4 Combustible Balconies, Projections, and Bay Windows. Construction requirements for balconies, porches, decks, bay windows and oriel windows have been relocated from Section 1406 (Combustible Materials on the Exterior Side of Exterior Walls) to Section 705.2.3 (Combustible Projections).
2018	Modification	Decrease	706.1.1 Party Walls Not Constructed as Fire Walls. Construction as a fire wall is no longer required for a party wall provided the aggregate height and area of the buildings on each side of the party wall are compliant with Chapter 5 and applicable easements and agreements are established addressing the maintenance of all fire and life safety systems of both buildings.
2018	Clarification	None	708.4 Continuity of Fire Partitions. The continuity requirements for fire partitions have been reformatted to provide for increased clarity of their construction requirements.
2018	Clarification	None	708.4.2 Fireblocking and Draftstopping at Fire Partitions. Fireblocking and draftstopping requirements for fire partitions of combustible construction have been consolidated and modified.
2018	Modification	Decrease	713.8.1 Membrane Penetrations of Shaft Enclosures. Membrane penetrations not related to the purpose of a shaft enclosure are no longer prohibited from penetrating the outside of the enclosure.

2018	Modification	Unknown	716.2.6.5 Delayed-Action Self-Closing Doors. Self-closing doors that are not also required to be automatic-closing are now permitted to be equipped with delayed-action closers.
2018	Modification	Unknown	803.3 Interior Finish Requirements for Heavy Timber Construction. Materials considered heavy timber construction must now comply with interior finish requirements where exposed in interior exit stairways and exit passageways.
2018	Addition	Unknown	803.11, 803.12 Flame Spread Testing of Laminates and Veneers. Specific flame-spread testing provisions have been added to the IBC to address the use of factory-produced laminated products with a wood substrate as well as facings and wood veneers applied over a wood substrate on site.
2018	Addition	Unknown	901.6.2 Integrated Fire Protection System Testing. Test criteria have been added to the code with a reference to new NFPA 4, Standard for Integrated Fire Protection and Life Safety System Testing, to ensure that where multiple fire protection systems or life safety systems are integrated, the acceptance process and subsequent testing must evaluate all of the integrated systems as a whole.
2018	Addition	Unknown	902.8 Fire Pump and Fire Sprinkler Riser Rooms. A number of prescriptive requirements have been added regulating the design and construction of automatic sprinkler system riser rooms and fire pump rooms.
2018	Clarification	Unknown	903.2.1 Sprinklers Required in Group A Occupancies. The extent to which automatic sprinkler systems are required in multi-story Group A occupancies has been clarified.
2018	Modification	Increase	903.2.3 Sprinklers in Group E occupancies. Criteria for occupant load threshold and location within the building have been added as conditions that could require sprinkler protection in an Group E educational occupancy.
2018	Modification	Increase	903.3.1.2.1 Sprinkler Protection at Balconies and Decks. Where nonrated balconies and similar combustible projections of dwelling and sleeping units are permitted in Type IIIA and VA buildings, it has been clarified that the sprinkler protection is to be extended to the area of the projections.
2018	Addition	Unknown	903.3.1.2.3 Protection of Attics in Group R Occupancies. Sprinkler protection or acceptable alternative methods for the protection of attics are

			now addressed for mid-rise buildings housing multi-family occupancies and equipped with an NFPA 13R sprinkler system.
2018	Addition	Unknown	904.14 Aerosol Fire Extinguishing Systems. The installation, inspection, testing and maintenance of aerosol fire extinguishing systems are now addressed through applicable references to Sections 901 and 904.4 of the IBC and NFPA 2010, as well as the system's listing and manufacturer's instructions.
2018	Modification	Increase	905.3.1 Class III Standpipes. Standpipe system protection is now required in those buildings having four or more stories above or below grade plane regardless of the vertical distance between the floor level of the highest story and the level of the fire department vehicle access.
2018	Modification	Increase	905.4 Class I Standpipe Connection Locations. Modifications have been made regarding the location of hose connections within interior exit stairway enclosures as well as the minimum number of connections required where open breezeways and open stairs are provided.
2018	Modification	Increase	907.2.1 Fire Alarms in Group A Occupancies. An additional criterion now mandates the installation of a manual fire alarm system where there is a Group A occupant load of more than 100 located above or below the level of exit discharge.
2018	Deletion	Decrease	907.2.10 Group R-4 Fire Alarm Systems. The installation of a manual fire alarm system and an automatic smoke detection system are no longer required in Group R-4 occupancies.
2018	Modification	Decrease	1004.8, Table 1004.5 Occupant Load Calculation in Business Use Areas. The method of calculating occupant load in business areas has been revised which will typically result in reduced design occupant loads. However, higher design occupant loads can be now be assigned to concentrated business areas such as telephone call centers and similar uses.
2018	Modification	Unknown	1006.2.1, Table 1006.2.1 Group R Spaces with One Exit or Exit Access Doorway. Allowances for single-exit Group R spaces have been reformatted and the approach to accumulating occupant loads from adjacent rooms discharging through foyers and lobbies has been clarified.

2018	Clarification	Unknown	1010.1.1 Size of Doors. Provisions addressing limits to the width and height of door openings have been selectively reformatted and revised as necessary to correlate with the technical accessibility requirements of ICC A117.1.
2018	Addition	Unknown	1010.1.4.4 Locking Arrangements in Educational Occupancies. Guidance has been provided to allow for enhanced security measures on educational classroom egress doors and yet still continue to comply with applicable means of egress requirements.
2018	Modification	Unknown	1010.1.9.8 Use of Delayed Egress Locking Systems in Group E Classrooms. The allowance for the use of delayed egress locking systems has been expanded to also include egress doors serving Group E classrooms with an occupant load of less than 50, as well as secondary exits or exit access doors serving courtrooms.
2018	Modification	None	1013.2 Floor Level Exit Sign Location. The permitted location for low-level exit signs selectively required in Group R-1 occupancies has been expanded to now allow the bottom of such sign to be mounted up to 18 inches above the floor.
2018	Modification	None	1023.3.1 Stairway Extensions. Fire-resistance-rated separation is not required between an interior exit stairway and its exit passageway extension where both the stair enclosure and exit passageway are pressurized.
2018	Modification	None	1026.4 Refuge Areas for Horizontal Exits. The method for determining the minimum required refuge area size where a horizontal exit has been provided has been modified to allow for a more appropriate determination of the occupant load assigned to the refuge area.
2018	Clarification	Increase	1030.1 Required Emergency Escape and Rescue Openings. Occupancies where emergency openings are required have been clarified and the minimum number of required openings in a residential basement has been revised.
2018	Modification	Unknown	1206.2, 1207.3 Engineering Analysis of Sound Transmission. A performance-based alternative approach for meeting the required sound transmission class ratings for unit separation walls and floor/ceiling assemblies in residential buildings has been introduced which allows for the use of an engineering

			analysis based upon a comparison to previously-tested assemblies.
2018	Addition	None	1504.3.3 Metal Roof Shingles. Metal roof shingles are now addressed separately from other metal panel roof systems with reference made to applicable standards for the labeling and testing of wind resistance for the shingles.
2018	Clarification	None	1507.1 Underlayment Reorganization. Underlayment and ice barrier requirements have been relocated from sections describing each type of roofing material and placed into one new section describing the type, attachment and application of underlayment.
2018	Modification	None	1603.1 Construction Documents. The construction document requirements for environmental and special loads have been updated for rain, snow and wind forces and their components.
2018	Addition	Unknown	1604.3.7 Deflection of Glass Framing. Limits to the deflection of framing which supports glazing has been added to Section 1604.3.
2018	Modification	Increase	Table 1607.1 Deck Live Load. Table 1607.1 is now consistent with the provisions in the 2010 and 2016 editions of ASCE 7 for minimum uniformly distributed live loads on decks and balconies by increasing the deck live load to one and one-half times the live load of the area served.
2018	Addition	Unknown	1607.14.2 Minimum Fire Load. The minimum lateral load that fire walls are required to resist has been established at five pounds per square foot.
2018	Modification	Increase	1705.2.2 Metal-plate-connected Wood Trusses. Five-foot tall wood trusses requiring permanent bracing now require a periodic special inspection to verify that the required bracing has been installed.
2018	Modification	None	1807.2 Retaining Walls. The requirement for consideration of a keyway in the sliding analysis of retaining walls has been deleted from Section 1807.2.1.
2018	Modification	None	1810.3.8.3 Precast Pre-stressed Piles. Equations addressing precast pre-stressed piles have been updated.
2018	Modification	None	2207.1, Chapter 35 SJI standard. The 2015 edition of the combined SJI-100, Standard Specification for K-Series, LH-Series, and DLH-Series Open Web Steel Joists

			and Joist Girders, is the new referenced standard for steel joists.
2018	Modification	None	2211 Cold-formed Steel Light-frame Construction. The 2015 editions of the AISI standards for cold-formed steel are adopted in the 2018 IBC. These new standards include AISI S240, AISI S400 and AISI S202
2018	Modification	None	2303.2.2 Fire-retardant treated wood. The types of chemical treatment allowed for fire-resistant-treated lumber are clarified.
2018	Modification	Unknown	2303.6 Nails and Staples. Nails and staples are required to conform to the standard ASTM F 1667 including Supplement 1. Minimum average bending moment values are added for staples.
2018	Addition	Unknown	Table 2304.9.3.2 Mechanically Laminated Decking. A new alternative fastener schedule for construction of mechanically laminated decking is added to the giving equivalent power-driven fasteners for the 20 penny nail.
2018	Modification	None	Table 2304.10.1 Ring Shank Nails The and IRC are now aligned by requiring an 8-penny common or ring shank nail when nailing 6:12 on center for roof sheathing.
2018	Modification	None	2304.12.2.5, 2304.12.2.6 Supporting members for permeable floors and roofs. The provisions for permeable floors and roofs are modified to require positive drainage of water and ventilation below the floor or roof to protect supporting wood construction.
2018	Modification	Unknown	Table 2308.4.1.1 (1) Header and Girder Spans – Exterior Walls
2018	Addition	Unknown	2603.13 Cladding attachment over foam sheathing to wood framing. Requirements for cladding over foam sheathing and wood framing are added to the International Building Code to match the International Residential Code and cold framed steel stud requirements.
2018	Addition	Increase	3001.2 Emergency Elevator Communication Systems. Additional communication capabilities are now required in accessible elevators to enhance the usability of the two-way communication system by individuals with varying degrees of hearing or speech impairments.

2018	Modification	None	3007.1 Extent of Fire Service Access Elevator Travel. Fire service access elevators, where required, now only need to provide access to those floor levels at and above the lowest level of fire department access. In addition, elevators that only connect a parking garage to a building's lobby need not serve as fire service access elevators.
2018	Modification	None	3008.1 Required Number of Occupant Evacuation Elevators. A reduction in the minimum number of elevators that must be considered as occupant evacuation elevators now reflects a more reasonable performance-based approach while still retaining the capacity to evacuate a high-rise building more quickly than stairs alone.
2018	Modification	None	3310.1 Stairways in Buildings under Construction At least one temporary or permanent stairway must now be provided in a building under construction once the building has reached a height of 40 feet as measured from the lowest level of fire department vehicle access.
2018	Addition	Increase	3314 Fire Watch during Construction. In order to protect adjacent properties from fire in a building of considerable height when under construction, new provisions have been established to give authority to the fire code official to require a fire watch during those hours where no construction work is being done.