MEMORANDUM
VILLAGE OF WINNETKA

ENGINEERING DEPARTMENT

TO: Robert M. Bahan, Village Manager
FROM: James Bernahl, Director of Engineering / Village Engineer
CC: Emily Grimm, Assistant Village Engineer
DATE: January 6, 2023
SUBJECT: Engineering Regulations for Lake Front Properties

Overview

The Village Council has requested information regarding current Engineering regulations and permitting requirements for properties along the lakeshore including proposed work within the bluff and along the coastal beach of Lake Michigan. Included within this memo is an overview of current Engineering design standards as well as required Federal, State, and County permitting requirements. There are 112 properties in the Village of Winnetka that abut the lakefront, two owned by the Village along with various right of ways, and eight owned by the Winnetka Park District. Based upon Engineering records along the lakeshore of Winnetka there are 25 groins and 16 breakwaters. Please see the attached lakefront property map and exhibit showing the locations and dates of installation of groins and breakwaters within our Village.

Winnetka Existing Engineering Regulations

The Village's has two major code provisions that the engineering staff use to conduct its engineering reviews. The first is the Stormwater Management Code, Title 15, Chapter 15.26. This code details the requirements for the discharge of stormwater and the grading of a residential, institutional, or commercial property. The second applicable section of code is the Flood Hazard Protection Ordinance, Title 15, Chapter 15.68. This section of code regulates the areas of the Village within the floodplain, and there are portions of floodplain along the coast of Lake Michigan. The Village also has an Engineering Design and Inspection Policy Manual that details standards for projects that are permitted within the Village. This manual also includes standards for new private utilities such as sanitary and storm sewer services, and potable water services. In addition, this manual includes requirements for proper grading of lots and ingress / egress requirements. This document is available on the Village's website and a link to the manual is provided below:

https://www.villageofwinnetka.org/DocumentCenter/View/199/Public-Works-and-Engineering-Design-Guidelines-PDF?bidId=

For new homes, the Engineering Department requires the applicant to obtain drainage and grading permits prior to construction. For new homes being proposed along the lakefront, structures must be elevated to the Flood Protection Elevation (FPE). The FPE is defined as the base flood elevation plus 2 feet. Along Lake Michigan, the base flood elevation varies from 587 to 594. This requirement for elevated structures is usually easily met as the buildable area along the lake is

typically much higher than the floodplain elevation, which is typically at lower elevations and below the slope or bluff area. The FPE requirement also applies for accessory structures such as pool houses, workshops, or guest houses. Our code does have a provision for detached garages, or other small non-habitable accessory structures that allow those structures to be built within the floodplain and not elevated as long as they are a "flow-through" structure that is made with flood resistant materials.

Currently, the Village does not require new homes constructed along the lakefront to provide stormwater detention if they can demonstrate that the entirety of the stormwater on the developed lot is captured by the on-site stormwater system and released in a controlled manner directly into the lake. Detention is not required in these cases because the runoff is being managed on the property and is not being sent to the Village's storm sewer system. By avoiding the developed property's stormwater discharge to the Village sewer system there is no adverse effect caused to downstream properties. This practice is also consistent with MWRD's stormwater detention policy, as they also do not require detention for properties that drain directly to the lake.

Throughout much of Winnetka, including east of Green Bay Road, the Village has separate sanitary and storm sewer systems. It should also be noted that all stormwater east of Green Bay Road is collected through the separate Village storm sewer system and is conveyed into Lake Michigan . The separate stormwater system has been in place for decades. Allowing properties to directly discharge to the lake reduces the additional volume of stormwater entering the Village storm sewer thus increasing the capacity of the stormwater system. The stormwater system east of Green Bay Road are currently undersized compared to the current design standards by the Village and MWRD, and there are problematic flooding areas on the east-side that need to be evaluated and addressed. An Engineering Department objective for 2023 is to begin the analysis of improving the east-side storm sewer system.

For lakefront properties, stormwater must be captured on-site and released via a storm sewer service line to the lake. The standard storm service line is a minimum of six inches in diameter. If a different sized pipe is proposed, the design engineer must provide calculations to verify the proposed pipe can control the property's stormwater entirely onsite. The proposed storm sewer service line must be taken to the bottom of the bluff to ensure that the outfall does not erode the bluff. There also must be erosion control measures installed at the outfall to dissipate energy and prevent beach erosion. The Village does not allow stormwater to sheet flow over the bluff towards the lake, as this can cause erosion. The practice of allowing residential storm water to be discharged to the Lake, if it is controlled and brought to the bottom of the bluff, is consistent with other surrounding communities along the lakefront.

For applications proposing to use a singular large pipe, or multiple smaller pipes in tandem, to discharge residential stormwater to the lake, these applications must meet the same requirements noted above. The Engineering Department requires that the design firm certify the proposed discharge pipe is properly sized to manage the release rate volume and velocity. In addition, the firm must also certify the required erosion protection placed at the outfall of the pipe is properly designed to dissipate the energy of the storm water. A drainage and grading permit is required this type of work.

For all work on or adjacent to the bluff, including retaining walls adjacent to the top of the slope, a geotechnical and structural engineering plan is required. The geotechnical engineer and structural engineer must professionally certify that the retaining walls and slope will be stable and will be reasonably safe from failure, during construction, as well as upon completion of the project. This certification is required as part of the original permit submittal and must be reconfirmed as part of the as-built submittal at the conclusion of the project. All certifications must be on the company's letterhead, and be signed, sealed, and dated by the professional engineers of record. The structural engineer must also certify that their design meets or exceeds the recommendations of the geotechnical engineer.

Throughout construction, silt fencing, inlet protection, tree protection, and other erosion prevention measures are required. The Village requires the permittee to submit a Stormwater Pollution Prevention Plan (SWPPP) that details the location and installation of all erosion control practices. The SWPPP must remain in place until the slope has been re-established and stabilized with vegetation.

With respect to groins, breakwaters, etc. the Village currently does not issue permits for these types of structures that extend out into the Lake Michigan. While the Village currently has three licensed profession engineers (PEs) on staff, they do not have the specific knowledge or experience to independently review detailed structural applications or certify shoreline improvement projects.

Coordination with Federal, State, and County Agencies

Construction adjacent to Lake Michigan requires permits from the Illinois Department of Natural Resources (IDNR), the Illinois Environmental Protection Agency (IEPA), and the U.S. Army Corps of Engineers (USACE). The IDNR, Office of Water Resource (OWR) issues permits for construction on Lake Michigan. A joint application form is used by these three regulating bodies, but must be submitted separately to each agency.

On Lake Michigan, the INDR/OWR's regulatory jurisdiction is the toe-of-bluff or the Ordinary High Water Mark (OHWM) of 581.5, whichever is more restrictive. The IDNR/OWR issues a joint permit with the IEPA. The IDNR uses Part 3704 Rules to review all applications for permit for construction in Lake Michigan; these rules can be found here: https:/www2.illinois.gov/dnr/WaterResources/Documents/3704.pdf

The USACE has established a Lake Michigan Regional General Permit (LMRGP) for activities located within Lake Michigan. These activities are reviewed under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. More information on this permit can be found here: https://www.lrc.usace.army.mil/Portals/36/docs/regulatory/pdf/LMRGP/2020_LMRGP.pdf

The owner must obtain all necessary regulatory permits from IDNR, IEPA, and the USACE. Permits for all work located within these jurisdictions must be obtained, or have a letter of determination that no permit is required, by the affected jurisdictions, and submitted to the Village, prior to the issuance of a Village permit.

MWRD Authority

The Base Flood Elevation (BFE) of Lake Michigan varies from 587-594 along the Village's eastern boundary, depending on the location. If a lot falls within multiple coastal BFE zones, the most restrictive elevation is used. Any work below the BFE will be determined to be inside the floodplain and requires a Watershed Management Ordinance (WMO) permit from the MWRD. Any proposed structures within the floodplain must be elevated to the Flood Protection Elevation (FPE), which is the BFE plus two feet. Since the area is classified as a VE zone, or a coastal zone, the structures cannot be elevated using fill, they must be built on piers or piles.

As a general rule, MWRD requires permits for projects along the Lake for the following development activities:

- Qualified storm sewer construction
- Potential or actual wetland impacts
- Potential or actual impacts to riparian areas
- Construction or reconstruction of outfalls to the Lake
- Construction of or modifications to habitable structures

New or modified storm sewer outfalls must comply with the standards outlined in the WMO. Single-family storm sewer services are allowed to discharge directly to the Lake if all of the requirements for storm sewer outfalls are met.

The WMO explicitly exempts projects solely in Lake Michigan, such as groins and breakwaters, that are approved by the USACE and IDNR that do not involve a qualified sewer.

Projects between the OHWM of the Lake and the BFE that do not include any of the permit triggers listed above are not subject to detention or compensatory storage, per MWRD policy. Given the proximity of these residential projects to the Lake, requiring volume control or detention serves no benefit to downstream properties and is thus not required by the MWRD.

Permits for work under the MWRD's jurisdiction must be obtained or have a letter of determination that no permit is required and submitted to the Village prior to the issuance of a Village permit. Although the Village is an Authorized Community and has the authority to internally review MWRD permits, as a practice, for proposed projects located within the bluff or coastal limits, the Village authorizes MWRD to review, and requires that the permit be approved and issued directly by the MWRD.

Northshore Lakefront Community Comparisons

Lake Bluff, Lake Forest, Highland Park, Glencoe, and Kenilworth have steep slope ordinances that limit the type of development that can be constructed on the bluff. For a more detailed breakdown of these ordinances, refer to the memo from Community Development. All of these communities allow storm sewer discharges into the Lake, if the storm water is taken to the bottom of the bluff, and appropriate erosion control at the outfall is provided. Two communities, Wilmette and Evanston, do not have steep slopes ordinances, and, like Winnetka, rely on their stormwater and floodplain ordinances to regulate these areas.

Only one community, Highland Park, has regulations that extend out past the toe of the bluff and defines a Lake Front Overlay Zone (LFOZ). The ordinance defines a "Lake Michigan Protection Zone" that extends 3 miles into the Lake. The Lake Michigan Protection Zone includes all lands within Lake Michigan and the private and other property located between Lake Michigan and the termination of the Steep Slope Zone. This section of code has specific zoning regulations, as well as Lake Michigan protection regulations. The purpose of the ordinance is intended to preserve the spacious character and existing density of the area. The Lake Front Overlay Zone is also intended to protect and preserve the ravines, lake bluffs, and beaches in the area, and to prevent erosion by increased development. This code section does not explicitly prohibit any specific structures in the Lake, but does require that all structures abide by the standards outlined in the ordinance, and all structures in the Lake are reviewed and approved by the City. If there is a particularly complex or large project to be permitted in the Lake, Highland Park has indicated that staff will contract with an engineering firm knowledgeable in coastal engineering to review if needed. Highland Park did emphasize that the need for an outside review is evaluated on a case-by-case basis.

All of these communities still rely on the knowledge and expertise of the USACE and IDNR to review and inspect groins, break walls, and other structures that extend out into the Lake as part of Federal and State review and approval process.

In Winnetka and surrounding communities if a permit is received directly, or the municipality is notified of a permit application by IDNR/USACE/IEPA, related to work in Lake Michigan, the municipality will review the application for completeness and offer comments as needed. Historically, municipalities do not deny applications for groins or breakwaters, that are approved by IDNR and USACE, that are proposed to be installed for erosion and shoreline protection. However, as noted above, depending on the complexity of the application, a municipality may seek consulting services.

A summary of existing groins and breakwaters in Lake Michigan for surrounding communities is included below. As can be seen in the table below, the Village of Winnetka is similar to other surrounding communities in the amount of in-water structures.

Municipality/ Permit Authority	Number of existing groins	Number of existing breakwaters
Lake Bluff	20	7
Lake Forest	36	8
Highland Park	72	10
Glencoe	19	3
Winnetka	25	16
Kenilworth	5	1
Wilmette	8	7
Evanston	5	8

Other Studies and Investigations

The Illinois Costal Management Program (CMP) is a non-regulatory division of IDNR that is dedicated to protecting and enhancing the environmental, economic, and social value of Illinois' Great Lakes Costal Region. Since its inception, the CMP has completed dozens of valuable projects in all areas of progressive costal management through its committed team of scientists, communicators, and other coastal professionals.

The CMP releases a section 309 Assessment and Strategy every five years. The purpose of the section 309 assessment is to determine problems and opportunities within nine enhancement area, which include wetlands coastal hazards, public access, marine debris, cumulative and secondary impacts, special area management plans, Great Lakes resources, energy and government facility siting, and aquaculture. The plan includes Phase I assessments for all 9 enhancement areas, and phase II assessments for high priority areas. Costal hazards, public access, and energy and government facility siting were all deemed high priority areas. The latest Section 309 Assessment covers 2016-2020 and can be found here: https://www2.illinois.gov/dnr/cmp/Documents/Section309/ICMPSection309PlanFINAL.pdf (note that former Village of Winnetka Public Works Director Steve Saunders was on the Costal Advisory Group for this report and provided input and participated in the information gathering for the report.)

The IDNR also has a Shoreline Management Working Group that includes a research and data team. The team draws from the expertise from the Illinois State Geological Survey (ISGS) that helps improve our understanding of coastal change through solution-focused monitoring and research. This work has included monitoring coastal topography and bathymetry to better understand how the shoreline responds to fluctuating lake levels, storms, and winter ice. This work has also specifically assessed the shoreline change between Winthrop Harbor and Waukegan, IL over the past 8 decades in the context of weather data.

Attachments:

Attachment A: Stormwater Management Code, Title 15, Chapter 15.26
Attachment B: Flood Hazard Protection Ordinance, Title 15, Chapter 15.68
Attachment C: Lakefront Property Map
Attachment D: Approved Historical Permits Map

Attachment A
Stormwater Management Code

Chapter 15.26

STORMWATER MANAGEMENT CODE

Sections:

15.26.010 Title.

15.26.020 Scope.

15.26.030 Rules of construction.

15.26.040 Definitions.

15.26.050 Enforcement and penalties.

15.26.060 Separate systems for sanitary and storm sewers.

15.26.070 Watershed management permits.

15.26.080 Responsibility of owner.

15.26.090 Inspection of stormwater sewer connection.

15.26.100 Construction requirements.

15.26.110 Storm and surface water connections.

15.26.120 Use of stormwater sewers.

Section 15.26.010 Title.

This chapter shall be known, cited and referred to as the Winnetka Stormwater Management Code.

(MC-5-2014 § 5, 04/17/2014)

Section 15.26.020 Scope.

This chapter establishes the minimum requirements for construction activities in the Village pertaining to storm sewers for buildings, including their design, construction, maintenance, operation and connection into the public stormwater sewer systems.

(MC-5-2014 § 5, 04/17/2014)

Section 15.26.030 Rules of construction.

A. In the event of a conflict between the provisions of this chapter and any other provision of this code or applicable statutes, the provision imposing the stricter regulation, as determined by the Director of Public Works, shall prevail unless such interpretation is otherwise prohibited by law.

B. Words in the singular shall include the plural and words used in the plural shall include the singular.

(MC-5-2014 § 5, 04/17/2014)

Section 15.26.040 Definitions.

A. Terms Defined in Other Ordinances and Codes. Terms used in this chapter, but not otherwise defined, shall have the meanings ascribed to them in the Building Code, the Zoning Ordinance, this code or the codes adopted by reference in Chapter 15.08 of this Code, including without limitation, the Watershed Management Ordinance adopted by reference in section 15.08.040(J) of this code, except that wherever the term "Director" is used in the Building Code, for purposes of this chapter it means the Director of Public Works, and wherever the term "Department" is used in the Building Code, for purposes of this chapter it means the Department of Public Works. The following terms shall have the meanings ascribed to them in the Illinois State Plumbing Code, 1993 Edition, as promulgated by the Department of Public Health in Title 77 of the Illinois Administrative Code, Chapter I, subchapter r, Part 890, as amended, which definitions are adopted by reference: building drain, building sewer, sewage, public sanitary sewer, storm sewer, combined building sewer.

B. Definitions. For purposes of this chapter, certain words are defined as follows:

"Natural outlet" means any outlet into a watercourse, pond, ditch, lake, or other body of surface or groundwater.

"WMO" or "Watershed Management Ordinance" means the Metropolitan Water Reclamation District of Greater Chicago Countywide Watershed Management Ordinance, October 2013, as amended, and as adopted by reference in Section 15.08.040(J) of this code.

(MC-5-2014 § 5, 04/17/2014)

Section 15.26.050 Enforcement and penalties.

Enforcement of this chapter, including penalties for violations, shall be pursuant to the provisions of Section 15.04.080 of this code.

(MC-5-2014 § 5, 04/17/2014)

Section 15.26.060 Separate systems for sanitary and storm sewers.

Each building shall be provided with a separate outlet for stormwater. The building stormwater service pipe shall be connected and fitted into the public stormwater sewer, if any, by the owner of the property being served. No sewer connections that will permit sanitary sewage to drain into any public stormwater sewer shall be made. No storm or surface water from any building or property shall be permitted to drain into any public sanitary sewer.

(MC-5-2014 § 5, 04/17/2014)

Section 15.26.070 Watershed management permits.

A. Permits Required. No building drain, private stormwater sewer for connection to any public sewer system shall be laid, nor shall any person lay, alter or disturb any part of any public sewer or drain connected into any public sewer system, nor shall any person perform land grading, stormwater management, or other development regulated by the Cook County Watershed Management Ordinance, without first having obtained a permit for such work from the Director of Public Works. In the event a permit from the Metropolitan Water Reclamation District of Greater Chicago is required for connection to the sewer system, such permit shall be obtained before the Village permit becomes effective and before any work begins.

B. Permit Applications. Applications for sewer permits shall be submitted by the owner on forms provided by the Director of Public Works. The application shall be accompanied by all required fees and deposits, which shall be set by resolution of the Village Council. The sewer contractor shall have a permit bond on file with the Director of Public Works prior to Village's acceptance of a sewer permit application. Any remaining permit or other fees owed to the Village shall be paid in full prior to any approved permit being released or in force.

(MC-5-2014 § 5, 04/17/2014)

Section 15.26.080 Responsibility of owner.

A. Except as provided in the following paragraph 2, the owner of the property to which storm sewer service is supplied shall be responsible for installing, repairing and maintaining, at the owner's expense, all drains, connections and fittings for the building sewer connections into the public sewer systems.

B. All repairs to that portion of the main public sewer line or pipe encompassed within its outer circumference shall be made by and at the expense of the Village. All repairs to the building sewer, including that portion of the connection, "Y," or "T" lying outside of the outer circumference of the main public sewer line or pipe, shall be made by and at the expense of the owner of the premises served. Where the depth of a portion of the building sewer requiring repair under a public right-of-way exceeds 12 feet below grade, repairs shall require the inspection and approval of the Village Engineer prior to the commencement of and at the completion of any repair work, and the Village shall reimburse the owner of the premises served 50% of the reasonable and customary cost of the below grade sewer repair work approved by the Village Engineer. Notwithstanding any of the foregoing, the owner of the premises served shall in all circumstances be responsible for the entire cost of surface restoration required as the result of any repair work.

C. In the event that a failure develops or occurs in that portion of the building sewer to be maintained by the owner of the premises, the Village may close the public water service valve and discontinue the service of water to the premises until the required repairs are made to the defective portion of the building sewer by the owner of the premises.

(MC-5-2014 § 5, 04/17/2014)

Section 15.26.090 Inspection of stormwater sewer connection.

A written notice of intention to make a connection with a public stormwater sewer shall be filed at the office of the Director of Public Works at least twenty-four (24) hours before such connection is made. Every connection shall be left uncovered until it has been inspected and approved by the Director of Public Works, or an inspector from his or her office.

(MC-5-2014 § 5, 04/17/2014)

Section 15.26.100 Construction requirements.

A. Public Works and Engineering Design Guidelines. All design and construction of storm sewers, detention facilities, stormwater management facilities, and land grading, and other stormwater management or runoff control activities shall be in conformance with the Public Works and Engineering Design Guidelines.

B. Drainage of Surface Water. To diminish or remove any adverse impact of surface water drainage and run-off on an adjacent property, no new building, other structure or addition shall be constructed which will result in the surface water run-off, during and following construction of any such improvement, at a rate greater than the water run-off immediately prior to such construction and no building permit shall be issued unless and until the Village Engineer determines that the construction complies with the applicable requirements of this chapter, the Public Works and Engineering Design Guidelines, and the Watershed Management Ordinance.

C. Land Grading. No permit shall be issued for any land grading that will permanently alter the existing land elevation or grade of a parcel of property so as to cause surface water runoff to be diverted onto or detained on abutting or nearby property, significantly alter existing drainage patterns, or increase or concentrate stormwater runoff onto abutting or nearby property.

D. Stormwater Detention Required. Developments required to provide storm water detention on site, include, but are not limited to multiple lot single family residential subdivisions, single family residential subdivisions of an individual lot, multi-family residential development and commercial developments.

E. Stormwater Detention Design Standards.

1. New home construction on a previously developed lot shall provide storm water detention for the volume difference between using the runoff coefficient based upon the maximum impermeable lot coverage, per the Village of Winnetka's Zoning Code, and the runoff coefficient based upon the existing condition, for a 100-year storm event. The allowable release rate for both conditions will be determined by using a runoff coefficient of 0.15 and the rainfall intensity for a 3-year storm event. New home construction on a previously undeveloped site, or the redevelopment of a site for a different use (i.e. single family to multi-family, or commercial redevelopment) shall provide storm water detention for the total required detention volume based upon a 100-year storm event, using a runoff coefficient based upon the maximum impermeable lot coverage, and the allowable release rate using a runoff coefficient of 0.15 and a rainfall intensity for a 3-year storm event.

2. Improvements to an existing home and/or lot, causing an increase in impermeable lot coverage greater or equal to 25%, shall provide storm water detention for the difference between the proposed and existing condition, for a 100-year storm event and an allowable release rate based upon a 3-year storm event and a runoff coefficient of 0.15. The actual proposed lot coverage may be used to calculate the proposed runoff coefficient.

3. The storm water detention facilities shall be designed in accordance with the requirements of the Metropolitan Water Reclamation District of Greater Chicago for storm water detention as modified by the rainfall frequencies set forth in Bulletin 70 "Frequency Distribution and Hydroclimatic Characteristics of Heavy Rainstorms in Illinois" prepared by the Illinois State Water Survey, 1989. Design high water level (HWL) will consist of the elevation of the storm water in a 100-year storm event.

4. Stormwater storage volume located within best management practices, such as a rain garden or the aggregate base of permeable pavement, that are not otherwise required for site development shall be credited toward the required detention volume.

5. For projects required to provide storm water detention by the WMO, the detention design shall meet the requirements of Article 5 of the Watershed Management Ordinance.

(MC-5-2014 § 5, 04/17/2014)

Section 15.26.110 Storm and surface water connections.

A. General Requirement. Except as provided in subsection B of this section, all storm or surface water connections, except downspouts for draining roofs, shall be connected to an approved building stormwater service pipe.

B. Roof Downspouts. All downspouts shall drain onto the ground unless doing so will result in an adverse effect on other private or public properties from such drainage. Downspouts drainage shall be diverted toward an on-site drainage system such as a yard inlet or swale, prior to entering the public storm sewer system. No roof downspout shall connect to the storm sewer service line unless the owner of the property first obtains a permit from the Director of Public Works.

(MC-5-2014 § 5, 04/17/2014)

Section 15.26.120 Use of stormwater sewers.

A. Prohibited Uses. It is unlawful to discharge or permit to be discharged to any public or private storm sewer any substances, materials, or waters if it appears likely in the opinion of the Director of

Public Works that such works can harm either the sewers or equipment; have an adverse effect on the receiving water body; violate limits established by regulatory agencies having jurisdiction over discharge to the receiving waters; or can otherwise endanger life or public property, or constitute a nuisance.

(MC-5-2014 § 5, 04/17/2014)

Attachment B
Flood Hazard Protection Regulations

Chapter 15.68

FLOOD HAZARD PROTECTION REGULATIONS

Sections:

15.68.010 Regulations of National Flood Insurance Program adopted.

15.68.020 Definitions.

15.68.025 Administration and Enforcement

15.68.030 Duties of the Director.

15.68.040 Base flood elevation.

15.68.050 Occupation and use of flood fringe areas.

15.68.060 Occupation and use of identified floodways.

15.68.070 Occupation and use of floodplain areas where floodways are not identified.

15.68.080 Permitting requirements applicable to all floodplain areas.

15.68.090 Other development requirements.

15.68.100 Variances.

15.68.110 Disclaimer of liability.

15.68.120 Penalties.

15.68.130 Construction and other code provisions.

15.68.140 Effect of regulations.

15.68.010 Regulations of National Flood Insurance Program adopted.

The rules and regulations of the National Flood Insurance Program as codified in the Code of Federal Regulations, Title 44, Chapter 1, subchapter B, Part 59, et seq., as amended, are adopted by reference and filed in the office of the Village Clerk. (Prior code § 28.01)

(MC-4-2021, § 2, Amended 8/3/2021)

15.68.020 Definitions.

Terms used in this chapter mean as follows:

"Accessory structure" means a non-habitable building, used only for parking of vehicles or storage, that is on the same parcel of property as the principal building and the use of which is incidental to the use of the principal building.

"Act" means "An Act in Relation to the Regulation of the Rivers, Lakes and Streams of the State of Illinois," Illinois Revised Statutes 1991, Chapter 19, Paragraph 52, et seq.

"Applicant" means any person, firm, corporation or agency which submits an application pursuant to this chapter.

"Appropriate use" means a use of the regulatory floodway that is listed in 17 Illinois Administrative Code 3708 and that will not cause a rise in the base flood elevation and will not create a damaging or potentially damaging increase in flood heights or velocity or be a threat to public health and safety. Approved appropriate uses are specified in Section 15.68.060(D) of this chapter.

"Average lot grade" means the mathematical average of the ground elevation as measured at all of the corners of the buildable area of a parcel of land. As used in this definition, the term "buildable area" shall have the same definition as provided in Section 17.04.020(B)(6) of this Code.

"Base flood" means the flood having a one percent probability of being equaled or exceeded in any given year. The base flood is also known as the one hundred (100) year frequency flood event. The base flood is often referred to as the 100-year flood.

"Base flood elevation (BFE)" means the height in relation to the North American Vertical Datum (NAVD) of 1988 (or other datum, where specified) of the crest of the base flood. Application of the BFE at any location is as defined in Section 15.68.040 of this Code.

"Basement" means any area of the building, including any sunken room or sunken portion of a room, having its floor below ground level (subgrade) on all sides.

"Building" means a structure that is principally above ground and is enclosed by walls and a roof. The term includes a gas or liquid storage tank, a manufactured home, mobile home or a prefabricated building.

"Channel" means any river, stream, creek, brook, branch, natural or artificial depression, ponded areas, flowage, slough, ditch, conduit, culvert, gully, ravine, wash, or natural or man-made drainageway, which has a definite bed and banks or shoreline, in or into which surface or groundwater flows, either perennially or intermittently.

"Channel modification" means alteration of a channel by changing the physical dimensions or materials of its bed or banks. Channel modification includes damming, rip-rapping or other armoring, as well as widening, deepening, straightening, relocating, lining and significant removal of native vegetation from the bottom or banks. "Channel modification" does not include the clearing of dead or dying vegetation, debris or trash from the channel. Channelization is a severe form of channel modification typically involving relocation of the existing channel (e.g., straightening).

"Coastal high hazard area" means an area of special flood hazard extending from offshore to the inland limit of a primary frontal dune along an open coast, and any other area subject to high velocity wave action from storms or seismic sources. A coastal high hazard area is identified on a community's FIRM by the designation of zone VE.

"Compensatory storage" means an artificially excavated, hydraulically equivalent volume of storage within the special flood hazard area used to balance the loss of natural flood storage capacity when artificial fill or structures are placed within the floodplain.

"Conditional approval of a designated floodway map change" means preconstruction approval by IDNR/OWR and FEMA of a proposed change to the floodway map. This preconstruction approval, pursuant to 17 Ill. Adm. Code Part 3708, gives assurances to the property owner that once an appropriate use is constructed according to permitted plans, the floodway map can be changed, as previously agreed, upon review and acceptance of as-built plans.

"Conditional Letter of Map Revision (CLOMR)" means a letter which indicates that the Federal Emergency Management Agency will revise base flood elevations, flood insurance rate zones, flood boundaries or floodway as shown on an effective Flood Hazard Boundary Map or Flood Insurance Rate Map, once the as-built plans are submitted and approved.

"Control structure" means a structure designed to control the rate of flow that passes through the structure, given a specific upstream and downstream water surface elevation.

"Critical facility" means any facility which is critical to the health and welfare of the population and, if flooded, would create an added dimension to the disaster. Damage to these critical facilities can impact the delivery of vital services, can cause greater damage to other sectors of the community, or can put special populations at risk.

"Dam" means all obstructions, wall embankments or barriers, together with their abutments and appurtenant works, if any, constructed for the purpose of storing or diverting water or creating a pool. Underground water storage tanks are not included.

"Detention facility" means a facility that provides for storage of stormwater runoff and controlled release of this runoff during and after a flood or storm.

"Development" means any engineered change to real estate, including:

1. Construction, reconstruction, repair or placement of a building or any addition to a building;

2. Installing a manufactured home on a site or preparing a site for a manufactured home;

3. Drilling, mining, installing utilities, construction of roads, bridges, or similar projects;

4. Demolition of a structure or redevelopment of a site;

5. Construction or erection of levees, walls, fences, dams or culverts; channel modification; filling, dredging, grading, excavating, paving, or other nonagricultural alterations of the ground surface; storage of materials; deposits of solid or liquid waste;

6. Any other human activity that might change the direction, height or velocity of flood or surface water, including extensive vegetation removal.

"Development" does not include maintenance of existing buildings and facilities such as re-roofing or re-surfacing of roads when there is no increase in elevation, or gardening, plowing, and similar agricultural practices that do not involve filling, grading or construction of levees.

"Director" or "Director of Engineering" means the Director of Engineering of the Village. The Director performs the duties of Village Engineer pursuant to Section 2.64.010(D) of this Winnetka Village Code.

"Elevation certificate" means a form published by the Federal Emergency Management Agency that is used to certify the elevation to which a building has been elevated.

"Erosion" means the general process where soils are moved by flowing water or wave action.

"Exempt organizations" means organizations which are exempt from the operation of this chapter pursuant to state law including state, federal or local units of government.

"FEMA" means Federal Emergency Management Agency and its regulations at 44 C.F.R. 59-79, effective as of October 1, 2000. This incorporation does not include any later editions or amendments.

"Flood" means a general and temporary condition of partial or complete inundation of normally dry land areas from overflow of inland or tidal waves, or the unusual and rapid accumulation or runoff of surface waters from any source. Flood also includes the collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in a general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland or tidal waters.

"Flood frequency" means a period of years, based on a statistical analysis, during which a flood of a stated magnitude may be expected to be equaled or exceeded.

"Flood fringe" means that portion of the floodplain outside of the regulatory floodway.

"Flood Insurance Rate Maps (FIRM)" means a map prepared by the Federal Emergency Management Agency that depicts the special flood hazard area within a community. This map includes insurance rate zones and floodplains and may or may not depict floodways.

"Flood insurance study" means an examination, evaluation, and determination of flood hazards and if appropriate, corresponding water surface elevations.

"Floodplain" means that land typically adjacent to a body of water with ground surface elevations at or below the base flood. Floodplains may also include detached special flood hazard areas, ponding areas, and the like. The floodplain is also known as the special flood hazard area (SFHA).

1. "Floodplains" are those lands within the jurisdiction of the Village of Winnetka that are subject to inundation by the base flood. The SFHAs of the Village are generally identified as such on Map Number 17031C, Panels 0232J, 0234J, and 0253J, dated August 19, 2008 and Map Number 17031C, Panels 0113K, 0251K, 0252K, and 0254K September 10, 2021, of the countywide FIRM for Cook County, Illinois prepared by the FEMA.

2. The SFHAs for those parts of unincorporated Cook County that are within the 1½ mile extraterritorial jurisdiction of the Village of Winnetka and that may be annexed into the Village are designated for the Skokie River on Map Number 17031C, Panels, 0232J, 0234J, and 0253J, dated August 19, 2008 and Map Number 17031C, Panels 0113K, 0251K, 0252K and 0254K, dated September 10, 2021, of the countywide FIRM for Cook County, Illinois, prepared by the FEMA.

"Floodproofing" means any combination of structural and nonstructural additions, changes or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

"Floodproofing certificate" means a form published by FEMA that is used to certify that a building has been designed and constructed to be structurally dry floodproofed to the flood protection elevation.

"Flood protection elevation" or "FPE" means the elevation of the base flood or 100-year frequency flood plus two feet of freeboard at any given location in the special flood hazard area.

"Freeboard" means an increment of elevation added to the based flood elevation to provide a factor of safety of uncertainties in calculations, unknown localized conditions, wave actions and unpredictable effects such as those caused by ice or debris jams.

"Historic structure" means any building that is:

1. Listed individually in the National Register of Historic Places or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

2. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historic district or a district preliminarily determined by the Secretary of the Interior to qualify as a registered historic district;

3. Individually listed on the State inventory of historic places by the Illinois Historic Preservation Agency;

4. Individually listed on a local inventory of historic places that has been certified by the Illinois Historic Preservation Agency.

"Hydrologic and hydraulic calculations" means engineering analysis which determine expected flood flows and flood elevations based on land characteristics and rainfall events.

"IDNR/OWR" means the Illinois Department of Natural Resources/Office of Water Resources.

"Letter of Map Amendment (LOMA)" means official determination by FEMA that a specific structure is not in a 100-year flood zone; amends the effective Flood Hazard Boundary Map or FIRM.

"Letter of Map Revisions (LOMR)" means letter from FEMA that revises base flood or one hundred year frequency flood elevations, flood insurance rate zones, flood boundaries or floodways as shown on an effective FBFM or FIRM.

"Lowest floor" means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure usable solely for parking of vehicles, building access or storage, in an area other than a basement area is not considered a building's lowest floor; provided that such enclosure is not built so as to render the building in violation of the applicable non-elevation design requirements of this Code.

"Manufactured home" means a building, transportable in one or more sections, which is built on a permanent chassis and is designated for use with or without a permanent foundation when attached to the required utilities. The term manufactured home does not include a recreational vehicle.

"Manufactured home park or subdivision" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

"Minimum average lot grade" is the number arrived at by applying the following formula: (FPE-2') - [(Total Required Side Yard-12') x 0.0833].

"Mitigation" means and includes those measures necessary to minimize the negative effects which floodplain development activities might have on the public health, safety and welfare. Examples of mitigation include compensatory storage, soil erosion and sedimentation control, and channel restoration.

"Moderate Wave Action Area (MoWA)" means a special flood hazard area subject to the potential for breaking wave heights of greater than or equal to 1.5 feet, but less than 3 feet, where the primary source of flooding is astronomical tides, storm surges, seiches, and/or tsunamis. A MoWA is an area within zone AE on a FIRM that is between the inland limit of zone VE and a LiMWA, where identified. (Also known as "Coastal A Zone")

"Natural" when used in reference to channels, means those channels formed by the existing surface topography of the Earth prior to engineered changes. A natural stream tends to follow a meandering path; its floodplain is not constrained by levees; the area near the bank has not been cleared, mowed or cultivated; the stream flows over soiled and geologic materials typical of the area with no substantial alteration of the course or cross-section of the stream caused by filling or excavating. A modified channel may regain some natural characteristics over time as the channel meanders and vegetation is re-established. Similarly, a modified channel may be restored to more natural conditions through regrading and revegetation.

"NAVD" means North American Vertical Datum of 1988; reference surface set by the National Geodetic Survey is the vertical control datum based upon the General Adjustment of the North American Datum of 1988, established in 1991 by the minimum-constraint adjustment of geodetic leveling observation in Canada, the United States, and Mexico.

"New construction" means structures for which the start of construction commenced on or after the effective date of a floodplain management regulation adopted by the Village and includes any subsequent improvements to such structures.

"Ordinary high water mark (OHWM)" means the point on the bank or shore up to which the presence and action of surface water is so continuous so as to leave a distinctive mark such as by erosion, destruction or prevention of terrestrial vegetation, predominance of aquatic vegetation or other easily recognized characteristics.

"Public flood control project" means a flood control project which will be operated and maintained by a public agency to reduce flood damages to existing buildings and structures which includes a hydrologic and hydraulic study of the existing and proposed conditions of the watershed. Nothing in this definition shall preclude the design, engineering, construction or financing, in whole or in part, of a flood control project by persons or parties who are not public agencies.

"Publicly navigable waters" means all streams and lakes capable of being navigated by watercraft.

"Regional permits" means regional permits are offered for pre-approved projects which are considered minor projects that are permissible per Ill. Adm. Code Part 3708 rules for Northeastern Illinois Designated Floodways. A complete listing of the terms and conditions for specific project types can be obtained from the IDNR/OWR website.

"Registered Land Surveyor" means a land surveyor registered in the state of Illinois, under the Illinois Professional Land Surveyors Act of 1989, 225 ILCS 330/1 through 330/49.

"Registered or Licensed Professional Engineer (P.E.)" means an engineer registered in the state of Illinois, under the Illinois Professional Engineering Practice Act of 1989, 225 ILCS 325/1 et seq.

"Regulatory floodway" means the channel, including on-stream lakes, and that portion of the floodplain adjacent to a stream or watercourse as designated by IDNR/OWR, which is needed to store and convey the existing 100-year frequency flood discharge with no more than a one-tenth (0.1) foot increase in stage due to the loss of flood conveyance or storage, and no more than a 10 percent increase in velocities.

1. The floodways are designated for the Skokie River on Map Number 17031C, Panels 0232J, 0234J, and 0253J, dated August 19, 2008, of the countywide FIRM for Cook County, Illinois, prepared by the FEMA.

2. The floodways for those parts of unincorporated Cook County that are within the 1½ mile extraterritorial jurisdiction of the Village of Winnetka and that may be annexed into the Village are designated for the Skokie River on Map Number 17031C, Panels, 0232J, 0234J, and 0253J, dated August 19, 2008 and Panels 0113K, 0251K, 0252K, and 0254K September 10, 2021, of the countywide FIRM for Cook County, Illinois, prepared by the FEMA.

3. To locate the designated floodway boundary on any site, the designated floodway boundary should be scaled off the designated floodway map and located on a site plan, using reference marks, to both maps. Where interpretation is needed to determine the exact location of the designated floodway boundary, IDNR/OWR should be contacted for interpretation.

"Repair, remodeling or maintenance" means development activities that do not result in any increases in the outside dimensions of a building or any changes to the dimensions of a structure.

"Repetitive loss" means flood-related damages sustained by a building on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25 percent of the market value of the building before the damaged occurred.

"Riverine floodplain" means any floodplain subject to flooding from a river, creek, intermittent stream, ditch, on-stream lake system or any other identified channel. This term does not include areas subject to flooding from lakes, ponding areas, areas of sheet flow, or other areas not subject to overbank flooding.

"Runoff" means the water derived from melting snow or rain falling on the land surface, flowing over the surface of the ground or collected in channels or conduits.

"Sedimentation" means the processes that deposit soils, debris, and other materials either on other ground surfaces or in bodies of water or watercourses.

"Special flood hazard area (SFHA)" means any base flood area subject to flooding from a river, creek, intermittent stream, ditch, or any other identified channel or ponding and shown on a Flood Boundary and Floodway Map, Flood Hazard Boundary Map or Flood Insurance Rate Map as Zone A, AO, A1-30, AE, A99, AH, VO, V30, VE, V, M, E or X.

"Start of construction" includes substantial improvement and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition placement or other improvement, was within 180 days of the permit date. The actual start means the first placement of permanent construction of a building on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns or any work beyond the stage of excavation, including the placement of a manufactured home on a foundation. For a substantial improvement, actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building whether or not that alteration affects the external dimensions of the building.

"Statewide permits" means permits that are offered for pre-approved projects that are considered minor projects which are permissible per the IDNR/OWR Part 3700 rules. A complete listing of the statewide permits and permit requirements can be obtained from the IDNR/OWR website.

"Structure" means the results of a human change to the land construction on or below the ground, including the construction, reconstruction or placement of a building or any addition to a building, the installation of a manufactured home on a site or the preparation of a site for a manufactured home, and construction or erection of levees, walls, fences, bridges or culverts; drilling, mining, filling, dredging, grading, excavating; and the storage of materials.

"Substantial damage" means damage of any origin sustained by a building whereby cost to repair the building to its before damaged condition equals or exceeds 50 percent of the market value of the building before the damage occurred, regardless of actual repair work performed. The term includes flood related damages sustained by a building on two separate occasions in a 10-year period, in which the cost of the repairs, on average, equals or exceeds 25 percent of the market value of the building at the time of each such flood event.

"Substantial improvement" means any reconstruction, rehabilitation, addition, or improvement of a building, taken over a 10-year period in which the cost, as substantiated by an executed contract that outlines the entire scope of work, in which the percentage of improvements, figured (cumulatively) by dividing the cost of each improvement by the market value of the building prior to the start of construction of each improvement, equals or exceeds 50 percent.

1. Substantial improvement is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the building. This term includes buildings which have incurred repetitive loss or substantial damage, regardless of the actual work done.

2. The term does not, however, include either:

a. Any project for improvement of a building to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are solely necessary to assure safe living conditions, or

b. Any alteration of a historic structure listed on the National Register of Historic Places or the Illinois Register of Historic Places, provided that the alteration will not preclude the building's continued designation as a historic structure.)

"Transition section" means reaches of the stream or floodway where water flows from a narrow cross-section to a wide cross-section, or vice versa.

"Village Engineer" means a registered professional engineer appointed by the Village Manager.

"Violation" means the failure of a structure or other development to be fully compliant with this Code.

"WMO" or "Watershed Management Ordinance" means the Metropolitan Water Reclamation District of Greater Chicago Countywide Watershed Management Ordinance, October 2013, as amended, and as adopted by reference in Section 15.08.040(J) of this code. (Prior code § 28.02) (MC-4-2021, § 2, Amended 8/3/2021; MC-5-2020, § 31, Amended 11/17/2020; MC-7-2019, Amended, 08/20/2019; MC-5-2018, Amended, 08/07/2018, reflects new FEMA maps and new formula for Minimum Average Lot Grade; MC-5-2014 §§ 13-15, 04/17/2014; MC-2-2008, Amended, 05/06/2008; MC-4-2006, Amended, 07/18/2006, Added definitions: Average Lot Grade and Minimum Average Lot Grade; MC-5-2001, Amended, 08/21/2001; MC-3-2000, Amended, 09/05/2000, IDNR/OWR replaces DWR, Regulatory Floodway redefined, reflects new FEMA maps)

Section 15.68.025 Administration and Enforcement.

The administration and enforcement of this Chapter shall be in accordance with this Section.

A. No person, firm, corporation, or governmental body shall commence any development activities, including new construction, substantial improvements, and alterations of a watercourse wholly within, partially within or in contact with the floodplains until a floodplain development permit is obtained from the Director. No permit shall be issued by the Director until the requirements of this Code have been met.

B. No person, firm, corporation, or governmental body shall commence any development of a critical facility on land below the 0.2% annual chance flood elevation without first obtaining a floodplain development permit from the Director.

C. A local floodplain development permit shall not be issued by the Director for Development in a Floodway without the applicant first obtaining a state floodway permit from IDNR/OWR, except as noted in Section 15.68.060.

D. The Director shall review all proposed Development by comparing field surveyed topography of the site to the FIRM and shall make interpretations, where needed, as to the location of the floodplain boundaries, floodway boundaries, and BFE.

1. Any development that is located on land below the BFE, located in the mapped floodway, or associated with a Zone AO or VE is subject to the requirements of this Code. A LOMA-Floodway (LOMR-FW) shall be required before issuing a floodplain development permit for land higher than the BFE if located within a mapped floodway.

2. Any development located on land below the BFE that was filled after the date of the site's first floodplain designation on a flood map is subject to the requirements of this Code.

3. Any development located on land below the BFE that is that is hydraulically connected to the Floodplain, but not shown on the current FIRM, is subject to the provisions of this Code.

4. The Director shall maintain documentation of the pre-existing ground elevation at the site and, if applicable, certification that this ground elevation existed prior to the date of the site's first FIRM identification in the floodplain.

E. If the development site is within a floodway or in a floodplain for which a detailed study has not been conducted, the Director shall require that the minimum requirements of Section 15.68.070 be met.

F. A floodplain development permit or approval shall become invalid unless the actual start of construction, for work authorized by such permit, is commenced within 180 days after its issuance, or if the work authorized is suspended or abandoned for a period of 180 days after the work commences. The Director shall ensure that all development activities happen in a timely manner. All permitted work shall be completed within 12 months after the date of issuance of the permit or the permit shall expire. Time extensions, of not more than 180 days each, may be granted, in writing, by the Director. Time

extensions shall be granted only if the original permit is compliant with this Code and the FIRM and FIS in effect at the time the extension is granted.

G. Letters of Map Revision. The Director shall require a CLOMR prior to issuance of a development permit for proposed floodway encroachments that will cause an increase in the BFE; and proposed development which will increase the BFE by more than 0.1 feet in riverine area where FEMA has provided a BFE but no floodway.

H. Once a CLOMR has been issued, the development permit may be issued for site grading and structures necessary in the area of the map change to achieve the final LOMR. Upon completion, the applicant shall submit as-built certifications, as required by FEMA, to achieve a final LOMR prior to the release of final development permits. Review Section 15.68.050, subsection G for the construction of buildings in any floodplain issued a LOMR based on fill.

I. Application. An application for a floodplain development permit shall be made on a form provided by the Director.

1. The application shall be accompanied by drawings of the site, drawn to scale, showing property line dimensions and legal description for the property and sealed by a Registered P.E, licensed architect or Registered Land Surveyor; existing grade elevations, using the NAVD 88, and all proposed changes in grade resulting from excavation or filling; the location and dimensions of all existing and proposed buildings, additions to buildings, sewage disposal and water supply facilities; floodplain limits based on elevation or depth, as applicable; floodway limits, as applicable; location and dimensions of all structures, including but not limited to fences, culverts, decks, gazebos, agricultural structures, and accessory structures.

2. For all proposed buildings, the elevation of the lowest floor (including basement) and lowest adjacent grade shall be shown on the submitted plans and the development will be subject to the requirements of Section 15.68.080 of this Code.

J. To assure that property owners obtain permits as required in this Code, the Director may take any and all actions as outlined in Section 15.68.120.

(MC-4-2021, § 2, Amended 8/3/2021)

Section 15.68.030 Duties of the Director.

The Director shall be responsible for the general administration and enforcement of this chapter, which shall include the following duties and responsibilities.

A. Check all new development sites to determine whether they are in a floodplain using criteria listed in Section 15.68.040 of this Code or for critical facilities, using the 0.2% annual chance flood elevation, if defined.

B. If the site is in a floodplain, determine whether the site in a coastal high hazard area, moderate wave action area, floodway, flood fringe or in a floodplain for which a detailed study has not been conducted.

C. If the site within a flood fringe, require that the minimum requirements of Sections 15.68.050 and 15.68.080 be met.

D. If the site within a floodway, require that the minimum requirements of Sections 15.68.060 and 15.68.080 be met.

E. If the site is located within a floodplain for which no detailed study has been completed and approved, require that the minimum requirements of Sections 15.68.070 and 15.68.080 be met.

F. If the site is within a coastal high hazard area (or moderate wave action area), require that the minimum requirements of Section 15.68.080 be met.

G. Inspect all projects before, during and after construction to assure proper elevation of the Building and to ensure compliance with the provisions of this Code.

H. Schedule, on an annual basis, an inspection of the floodplain and document the results of the inspection.

I. Review elevation certificates and floodproofing certificates for accuracy and require incomplete or deficient certificates be corrected and maintained in permit files including:

1. Elevation certificate certifying the elevation of the lowest floor (including basement) of a residential or non-residential building subject to Section 15.68.080 of this Code, or an elevation certificate certifying the elevation of the lowest horizontal structural member of the lowest floor, where required by Section 15.68.080 of this Code and/or;

2. Floodproofing certificate certifying the elevation to which a non-residential building has been dry floodproofed, using a floodproofing certificate, for all buildings required to be dry floodproofed pursuant to Section 15.68.080 of this Code.

3. Certification of structural design and methods of construction for VE zone construction as required by Section 15.68.080 of this Code.

4. Certification of breakaway wall design, when applicable, as provided in Section 15.68.080 of this Code.

J. Maintain for public inspection and furnish upon request all permit records, including but not limited to base flood data, floodplain and regulatory floodway maps, copies of federal or state permit documents, variance documentation, soil compaction records, conditional letter of map revision, letter of map revision, letter of map amendment, as-built elevation, floodproofing certificates and elevation certificates for all buildings constructed subject to this Code.

K. Floodway Permits. For all development projects in a floodway, ensure that construction authorization has been granted by IDNR/OWR or a delegated community, or written documentation is provided stating that a permit is not required from IDNR/OWR, issued pursuant to 615 ILCS 5/5 et seq. floodway permit requirements are specified in Sections 15.68.060 and 15.68.070 of this Code.

L. Permits for dams may be required from IDNR/OWR. The Floodplain Administrator shall contact IDNR/OWR to determine if a permit is required and for application details. Any work involving the construction, modification, or removal of a dam, per 17 Ill. Adm. Code Part 3702 (Rules for Construction of Dams), shall obtain an IDNR/OWR permit prior to the issuing a local permit.

M. Ensure any and all required federal, state, and local permits are received prior to the issuance of a floodplain development permit, including, but not limited to, permits pertaining to the Clean Water Act, Public Water Supply, Endangered Species Act, and Illinois Endangered Species Protection Act.

N. Establish procedures for administering and documenting determinations, as outlined below, of Substantial Improvement and substantial damage made pursuant to Section 15.68.080 of this Code.

1. Determine the market value or require the applicant to obtain an appraisal of the market value prepared by a qualified independent appraiser, of the building before the start of construction of the proposed work. In the case of repair, the market value of the building shall be the market value before the damage occurred and before any repairs are made.

2. Compare the cost to perform the improvement, the cost to repair a damaged building to its pre-damaged condition, or the combined costs of improvements and repairs, if applicable, to the market value of the building, including the cost of volunteer labor and donated materials must be included.

3. Compare the cost to perform the improvement, the cost to repair a damaged building to its pre-damaged condition, or the combined costs of improvements and repairs, if applicable, to the market value of the building, including the cost of volunteer labor and donated materials must be included.

4. Determine and document whether the proposed work constitutes substantial improvement or substantial damage.

5. Notify the applicant if it is determined that the work constitutes substantial improvement or repair of substantial damage and that compliance with the flood resistant construction requirements of the Village and this Code is required.

O. Cooperation with Other Agencies.

1. Cooperate with state and federal floodplain management agencies to improve base flood and floodway data and to improve the administration of this Code;

2. Submit data to IDNR/OWR and FEMA for proposed revisions of a regulatory map within 6 months whenever a modification of the floodplain may change the BFE or result in a change to the floodplain map;

3. Submit reports as required for the NFIP; and

4. Notify FEMA of any proposed amendments to Section 15.68 of this Code.

P. Promulgate rules and regulations as necessary to administer and enforce the provisions of Section 15.68, subject however to the review and approval of IDNR/OWR and FEMA for any ordinance changes.

Q. Notify IDNR/OWR and adjacent communities in writing 30 days prior to the issuance of a permit for the alteration or relocation of a watercourse.

R. If a variance is to be granted, the Director shall review the requirements of Section 15.68.100 of this Code to make sure they are met. In addition, the Director shall complete all notifications requirements, prepare a staff report and recommendations.

S. Enforce the provisions of Section 15.68 of this Code, investigate violations, issue notices of violation or stop work orders, and require corrective action, as outlined in Section 15.68.120 of this Code. (Prior code § 28.03)

(MC-4-2021, § 2, Amended 8/3/2021; MC-5-2014 §§ 16, 17, 04/17/2014)

15.68.040 Base flood elevation.

This chapter's protection standard is based on the Regulatory Flood Profiles for the Countywide Flood Insurance Study for Cook County dated September 10, 2021. If a BFE is unavailable for a particular site, then the protection standard shall be according to the best existing available data from federal, state or other sources. When a party disagrees with the best available data or should no other data source exist, that party may finance the detailed engineering study needed to replace existing data with better data and submit it to IDNR/OWR and FEMA for approval.

A. Base Flood for Skokie River SFHA. The BFE for the SFHAs of the Skokie River shall be as delineated on the 100 year flood profiles in the Countywide Flood Insurance Study for Cook County prepared by the FEMA and dated September 10, 2021, and such amendments to such study and maps as may be prepared from time to time.

B. Base Flood for SFHAs within the Village' s Extraterritorial Jurisdiction. The BFE for the SFHAs of those parts of unincorporated Cook County that are within the one and one-half mile extraterritorial jurisdiction or that may be annexed into the Village shall be as delineated on the base flood profiles in the Countywide Flood Insurance Study for Cook County prepared by the FEMA and dated September 10, 2021, and such amendments to such study and maps as may be prepared from time to time.

C. Base Flood for AH and AO Zones. The BFE for each SFHA delineated as an AH zone or AO zone shall be that elevation (or depth) delineated Countywide FIRM of Cook County and as described in § 601.4.B-C of the WMO.

D. Base Flood for A Zones. The BFE for each of the remaining SFHAs delineated as an A zone on the Countywide FIRM of Cook County shall be according to the best existing data available from federal, state, or other sources. When no BFE exists, the BFE shall be determined according to § 601.6 of the WMO. Flood flows should be based on anticipated future land use conditions in the watershed as determined from adopted local and regional land use plans. Along any watercourse draining more than one square mile, the above analyses shall be submitted to IDNR/OWR for approval. (Prior code § 28.04)

E. The BFE for any zone VE floodplain, and for a zone AE floodplain in an area subject to flooding effects from Lake Michigan, shall be the highest elevation specified on the FIRM among all flood zones affecting the proposed development. Where development is proposed to encroach upon a riverine Zone AE which is subject to flooding effects from Lake Michigan, the requirements of Section 15.68.070 of this Code shall apply to the entire floodplain. (Prior code § 28.04)

(MC-4-2021, § 2, Amended 8/3/2021; MC-5-2014 §§ 18, 19, 04/17/2014; MC-2-2008, Amended, 05/06/2008)

Section 15.68.050 Occupation and use of flood fringe areas.

Development in and/or filling of the flood fringe is subject to the provisions of this section and will only be permitted if protection is provided against the base flood and if other applicable requirements of this chapter are met. No use will be permitted if it adversely affects the capacity of drainage facilities or systems. Developments located within the flood fringe shall meet the requirements of this section, along with the requirements of Section 15.68.080 of this chapter.

A. Floodplain Development Permit Required. No person, firm, corporation or governmental body, other than exempt organizations, shall commence any development in the SFHA without first obtaining a floodplain development permit from the Director.

B. Application and Site Plan. Application for a floodplain development permit shall be made on a form provided by the Director. The application shall meet the requirements of Article 3 of the WMO and Section 15.68 of this Code. For all proposed buildings, the elevation of the lowest floor (including basement) and lowest adjacent grade shall be shown on the submitted plans and the development will be subject to the requirements of Section 15.68.080 of this chapter. The drawing shall be sealed by a registered professional engineer.

C. Review of Application. Upon receipt of a floodplain development permit application, the Director shall compare the elevation of the site to the BFE. If, upon review, the Director determines that the development is located on land that is higher than the base flood elevation of the current FIRM and that has not been filled since the date of the site's first FIRM identification, the property shall be considered outside of the SFHA and, therefore, not subject to the requirements of this chapter. The Director shall maintain documentation of the existing ground elevation at the development site and certification that this ground elevation existed prior to the date of the site's first FIRM identification.

D. Duties and Responsibilities of Director. The Director shall be responsible for obtaining from the applicant copies of all other local, state, and federal permits, approvals or permit-not-required letters that may be required for the proposed activity. The Director shall not issue a permit unless copies of all other local, state and federal permits have been submitted by the applicant.

E. Preventing Increased Damages. No development in the flood fringe shall create a threat to public health and safety.

F. Use of Fill to Elevate Site.

1. Fill shall not be used to elevate a site unless the average lot grade is equal to or greater than the minimum average lot grade.

2. If fill is being used to elevate the site above the BFE, the applicant shall submit sufficient data and obtain a Letter of Map Revision from FEMA for the purpose of removing the site from the

floodplain. Notwithstanding anything to the contrary in the Letter of Map Revision or in this chapter, no person who obtains a map revision removing a site from the floodplain shall be entitled to build the lowest floor of a residential building below the BFE, except as provided in Section 15.68.050(G) of this chapter.

G. Constructing Lowest Floor Below BFE. A person who has obtained a letter of map revision that removes a site in the flood fringe from the floodplain due to the use of fill to elevate the site above the BFE, may apply for a permit from the Village to construct the lowest floor of a residential building below the BFE in the flood fringe. The Director shall not issue such a permit unless the applicant has complied with all of the criteria set forth in the following paragraphs of this subsection.

1. Compensatory storage shall be provided in compliance with the requirements of this chapter.

2. The elevation of the lowest opening in the basement wall (i.e. window wells, access ways) shall be at or above the FPE.

3. The lowest grade adjacent to the foundation shall be at or above the FPE, for a minimum distance of 10 feet beyond the outside face of the structure.

4. The grade around the perimeter of the structures, measured at a distance of 20 feet from the structure, shall be above the BFE.

5. The ground around the building shall be compacted fill that meets all requirements of this subsection (G) and is at least five feet thick under the basement floor slab. Nothing in this subsection (G) shall be interpreted to require the removal or replacement of fill that was placed as part of a LOMR-F permit, if such fill consists of material, including soil of similar classification and degree of permeability, that meets the requirements of this subsection (G).

6. The fill material shall be compacted to at least 95% of Standard Laboratory Maximum Dry Density (Standard Proctor), according to ASTM Standard D-698. Fill soils shall be fine-grained soils of low permeability, such as those classified as CH, CL, SC, or ML according to ASTM Standard D-2487, Classification of Soils for Engineering Purposes.

7. The fill material must be homogeneous i.e., all of one material, and isotropic, i.e., having the engineering properties must be the same in all directions.

8. All fill material and compaction shall be designed, certified and inspected by an Illinois Registered Professional Engineer or Registered Soils Engineer, as warranted by the site conditions.

9. The basement floor shall be at an elevation that is no more than five feet below the BFE.

10. There shall be a granular drainage layer beneath the floor slab, and a minimum of ¼-horsepower sump pump with a backup power supply shall be provided to remove the seepage flow. The pump shall be rated at four times the estimated seepage rate and shall discharge above the BFE and away from the building in order to prevent flooding of the basement or uplift of the floor under the effect of the seepage pressure.

11. The drainage system shall be equipped with a positive means of preventing backflow.

12. All foundation elements shall be designed to withstand hydrostatic pressure in accordance with accepted engineering practices.

H. Compensatory Storage.

1. Whenever any portion of a floodplain is authorized for use, the volume of space which will be occupied by the authorized fill or structure below the BFE shall be compensated for and balanced by a hydraulically equivalent volume of excavation taken from below the BFE, provided all of the conditions § 602.7-9 of the WMO and of the following paragraphs 2 and 3 of this subsection shall be met.

2. In no case shall the depth of excavation for any compensatory storage in the front and side yards of the lot exceed 18 inches, as measured from the previously existing natural grade. The rear yard may be permitted to have a greater depth of excavation, if necessary.

3. The use of mechanical means to drain the compensatory storage area will not be permitted.

(MC-4-2021, § 2, Amended 8/3/2021; MC-5-2018, Amended, 08/07/2018: MC-5-2014 § 20, 04/17/2014; MC-2-2008, Amended, 05/06/2008; MC-4-2006, Amended, 07/18/2006; MC-5-2001, Amended, 08/21/2001)

15.68.060 Occupation and use of identified floodways.

Any development, redevelopment, site modification or building modification within a regulatory floodway is subject to the provisions of this section and shall be permitted only if the criteria of this section and applicable requirements of this chapter are met. All floodway modifications shall be the minimum necessary to accomplish the purpose of the project. The development shall also meet the requirements of Section 15.68.080 of this chapter.

A. Floodplain Development Permit. No person, firm, corporation or governmental body not exempted by state law shall commence any development in a floodway without first obtaining a floodplain development permit from the Director.

B. Application. Application for a floodplain development permit shall be made on a form provided by the Director, which shall include at least the information required by Article 3 of the WMO.

C. Review and Approval of Permit Applications. The Director shall be responsible for obtaining from the applicant copies of all other local, state, and federal permits and approvals that may be required for the proposed activity. The Director shall not issue the floodplain development permit unless copies of all required federal and state permits have been submitted by the applicant. A registered professional engineer under the employ or contract of the Village shall review and approve applications reviewed under this section.

D. Preventing Increased Damages; List of Appropriate Uses. No development shall be allowed in a floodway unless it is for appropriate uses that will not cause a rise in the base flood elevation, will not create a damaging or potentially damaging increase in flood heights or velocity and will not be a threat to public health and safety. Only those appropriate uses listed in 17 Ill. Adm. Code 3708 and § 602.27 of the WMO will be allowed. Appropriate uses do not include the construction or placement of any new buildings, structures, fill, building additions, buildings on stilts, fencing (including landscaping or planting designed to act as a fence) and storage of materials except as specifically defined above as an appropriate use.

E. Engineering Criteria for Appropriate Uses in the Regulatory Floodway. Within the regulated floodway as identified on the Countywide FIRMs for Cook County, the construction of an appropriate use will be considered permissible; provided that, the proposed project meets the requirements of § 602.7-9 and 25-28 of the WMO, along with the following engineering criteria, and is so stated in writing with supporting plans, calculations and data by a registered professional engineer; and provided that, any structure meets the protection requirements of Section 15.68.080 of this chapter:

1. Preservation of Flood Conveyance, so as Not to Increase Flood Stages Upstream. For appropriate uses, all effective regulatory floodway conveyance lost due to the project will be replaced for all flood events up to and including the 100-year frequency flood. In calculating effective regulatory floodway conveyance, the following factors shall be taken into consideration:

a. Regulatory floodway conveyance,

$$'K' = \frac{1.486}{n} AR^{2/3}$$

where "n" is Manning's roughness factor, "A" is the effective area of the cross-section, and "R" is the ratio of the area to the wetted perimeter (see Open Channel Hydraulics, Ven Te Chow, 1959, McGraw-Hill Book Company, New York);

b. The same Manning's "n" value shall be used for both existing and proposed conditions unless a recorded maintenance agreement with a federal, state or local unit of government can assure the proposed conditions will be maintained or the land cover is changing from a vegetative to a nonvegetative land cover;

c. Transition section shall be provided and used in calculations of effective regulatory floodway conveyance. The following expansion and contraction ratios shall be used unless an applicant's engineer can prove to IDNR/OWR through engineering calculations or model tests that more abrupt transitions may be used with the same efficiency;

i. When water is flowing from a narrow section to a wider section, the water should be assumed to expand no faster than at a rate of one foot horizontal for every four feet of the flooded stream's length.

ii. When water is flowing from a wide section to a narrow section, the water should be assumed to contract no faster than at a rate of one foot horizontal for every one foot of the flooded stream's length.

iii. When expanding or contracting flows in a vertical direction, a minimum of one foot vertical transition for every ten (10) feet of stream length shall be used.

iv. Transition sections shall be provided between cross-sections with rapid expansions and contractions and when meeting the regulatory floodway delineation on adjacent properties.

v. All cross-sections used in the calculations shall be located perpendicular to flood flows.

2. Preservation of Floodway Storage so as Not to Increase Downstream Flooding. Compensatory storage shall be provided for any regulatory floodway storage lost due to the proposed work from the volume of fill or structures placed and the impact of any related flood control projects. Compensatory storage for fill or structures shall meet the requirements of § 602.7-9 of the WMO.

3. Preservation of Floodway Velocities so as Not to Increase Stream Erosion or Flood Heights. For all appropriate uses the proposed work will not result in an increase in the average channel or regulatory floodway velocities, unless a water resource benefit is realized and unless scour, erosion and sedimentation will be avoided by the use of rip-rap or other design measures.

4. Construction of New Bridges or Culvert Crossings and Roadway Approaches. The proposed structures shall not result in an increase of upstream flood stages when compared to the existing conditions for all flood events up to and including the one hundred (100) year frequency event, unless the area of the increased flood stages is under the ownership or control of the applicant.

a. The engineering analysis of upstream flood stages shall be calculated using the flood study flows, and corresponding flood elevations for tailwater conditions for the flood study specified in Section 15.68.040 of this chapter.

b. Lost floodway storage shall be compensated for in accordance with subsection (E)(2) of Section 15.68.060.

c. Velocity increases shall be mitigated in accordance with subsection (E)(3) of Section 15.68.060.

d. If the crossing is proposed over a public water that is used for recreational or commercial navigation, an IDNR/OWR permit must be obtained by the applicant.

e. The hydraulic analysis for the backwater caused by the bridge showing the existing conditions and proposed regulatory profile shall be submitted to IDNR/OWR for concurrence that a CLOMR is not required by subsection E of Section 15.68.060.

f. All excavations for the construction of the crossing shall be designed per subsection (E)(8) of Section 15.68.060.

5. Reconstruction or Modification of Existing Bridges, Culverts and Approach Roads.

a. The bridge or culvert and roadway approach reconstruction or modification shall be constructed with no more than one-tenth foot increase in backwater over the existing flood profile for all flood frequencies up to and including the one hundred (100) year event, if the existing structure is not a source of flood damage.

b. If the existing bridge or culvert and roadway approach is a source of flood damage to buildings or structures in the upstream floodplain, the applicant's engineer shall evaluate the feasibility of redesigning the structure to reduce the existing backwater, taking into consideration the effects on flood states on upstream and downstream properties.

c. The determination as to whether or not the existing crossing is a source of flood damage and should be redesigned shall be prepared in accordance with IDNR/OWR Rules 17 Ill. Adm. Code 3708 (Floodway Construction in Northeastern Illinois) and submitted to IDNR/OWR for review and concurrence before a permit is issued.

d. Hydraulically equivalent compensatory storage shall be required to mitigate any potential increase in flow or flood elevations due to the removal or modification of an existing bridge or culvert.

6. On-Stream Structures Built for the Purpose of Backing Up Water. Any increase in upstream flood stages greater than zero feet when compared to the existing conditions, for all flood events up to and including the one hundred (100) year frequency event shall be contained within the area under the ownership or control of the applicant. A permit or letter indicating a permit is not required must be obtained from IDNR/OWR, dam safety section, for a dam safety permit or waiver for any structure built for the purpose of backing up water in the stream during normal or flood flow. All dams and impoundment structures as defined in Section 15.68.020 of this chapter shall meet the permitting requirements of 17 Ill. Adm. Code 3702 (Construction and Maintenance of Dams).

7. Floodproofing of Existing Habitable, Residential and Commercial Structures. If construction is required beyond the outside dimensions of the existing building, the outside perimeter of the floodproofing construction shall be placed no further than ten (10) feet from the outside of the building. Compensation of lost storage and conveyance will not be required for floodproofing activities.

8. Excavation in the Floodway. When excavation is proposed in the design of bridges and culvert openings, including the modifications to and replacement of existing bridge and culvert structures, or to compensate for lost conveyance for other appropriate uses, transition sections shall be provided for the excavation. The following expansion and contraction ratios shall be used unless an applicant's engineer can prove to IDNR/OWR through engineering calculations or model tests that more abrupt transitions may be used with the same efficiency.

a. When water is flowing from a narrow section to a wider section, the water should be assumed to expand no faster than at a rate of one foot horizontal for every four feet of the flood stream's length;

b. When water is flowing from a wide section to a narrow section, the water should be assumed to contract no faster than at a rate of one foot horizontal for every one foot of the flooded stream's length;

c. When expanding or contracting flows in a vertical direction, a minimum of one foot vertical transition for every ten (10) feet for stream length shall be used; and

d. Erosion/scour protection shall be provided inland upstream and downstream of the transition sections.

9. Seeding and Stabilization Plan. For all activities located in a floodway, a seeding and stabilization plan shall be submitted by the applicant.

10. General Criteria for Analysis of Flood Elevations.

a. The flood profiles, flows and floodway data in the regulatory floodway study, referenced in Section 15.68.040 of this chapter, shall be used for analysis of the base conditions. If the study data appears to be in error or conditions have changed, the IDNR/OWR shall be contacted for approval and concurrence on the appropriate base conditions data to use.

b. If the one hundred (100) year regulatory floodway elevation at the site of the proposed construction is affected by backwater from a downstream receiving stream with a large drainage area, the proposed construction shall be shown to meet the requirements of this section for the one hundred (100) year frequency flood elevations of the regulatory floodway conditions and conditions with the receiving stream at normal water elevations.

c. If the applicant learns from IDNR/OWR, local governments, or a private owner that a downstream restrictive bridge or culvert is scheduled to be removed, reconstructed, modified, or a regional flood control project is scheduled to be built, removed, constructed or modified within the next five years, the proposed construction shall be analyzed and shown to meet the requirements of this section for both the existing conditions and the expected flood profile conditions when the bridge, culvert or flood control project is built.

11. Conditional Letter of Map Revision. If the appropriate use would result in a change in the regulatory floodway location or the one hundred (100) year frequency flood elevation, the applicant shall submit to IDNR/OWR and to FEMA all the information, calculations and documents necessary to be issued a conditional regulatory floodway map revision and received from IDNR/OWR a conditional approval of the regulatory floodway change before a permit is issued. The final regulatory floodway map will not be changed by IDNR/OWR until as-built plans or record drawings are submitted and accepted by FEMA and IDNR/OWR. In the case of nongovernmental projects, the municipality in incorporated areas and the county in an unincorporated area shall concur with the proposed conditional regulatory floodway map revision before IDNR/OWR approval can be given. No filling, grading, dredging or excavating shall take place until a conditional approval is issued. Once a CLOMR has been issued, a permit may be issued for site grading and structures necessary in the area of the map change to achieve the final LOMR. Upon completion, the applicant shall submit as-built certifications, as required by FEMA, to achieve a final LOMR prior to the release of final development permits. The regulatory floodway map will be revised upon acceptance and concurrence by IDNR/OWR and FEMA of the as-built plans, and the effective date of the LOMR is reached.

12. Professional Engineer's Supervision. All engineering analyses shall be performed by or under the supervision of an Illinois registered professional engineer, retained by the applicant.

F. State Review in delegated communities. For those projects listed below located in a regulatory floodway, the following criteria shall be submitted to IDNR/OWR for their review and concurrence prior to the issuance of a permit:

1. IDNR/OWR will review an engineer's analysis of the flood profile due to a proposed bridge pursuant to subsection (E)(4) of Section 15.68.060.

2. IDNR/OWR will review an engineer's determination that an existing bridge or culvert crossing is not a source of flood damage and the analysis indicating the proposed flood profile, pursuant to subsection (E)(5) of Section 15.68.060.

3. The IDNR/OWR will review alternative transition sections and hydraulically equivalent storage pursuant to subsections (E)(1), (2) and (8) of Section 15.68.060.

4. The IDNR/OWR will review and approve, prior to the start of construction, any Department projects, dams (as defined in Section 15.68.120 of this chapter) and all other state, federal and local units of government projects, including projects of the Village.

G. Other Permits. In addition to the other requirements of this chapter, a Floodplain development permit for a site located in a floodway shall not be issued unless the applicant first obtains a permit or written documentation that a permit is not required from IDNR/OWR, issued pursuant to 615 ILCS 5/5, et seq.

H. Dam Safety Permits. Any person performing work involving the construction, modification or removal of a dam (as defined in Section 15.68.020 of this chapter) pursuant to 17 Ill. Adm. Code 3702 (Rules for Construction of Dams) shall obtain an IDNR/OWR Dam Safety Permit prior to the start of construction of a dam. If the Director finds a dam that does not have an IDNR/OWR permit, the Director shall immediately notify the Dam Safety Section of IDNR/OWR. If the Director finds a dam that is believed to be in an unsafe condition, the Director shall immediately notify the owner of the dam, IDNR/OWR, Dam Safety Section, and the Illinois Emergency Management Agency (IEMA).

I. Activities That Qualify for a Regional Permit from IDNR/OWR. The following activities may be permitted without a registered professional engineer's review, provided they meet the other requirements of this chapter.

1. Underground and overhead utilities that:

a. Do not result in any increase in existing ground elevations;

b. Do not require the placement of above ground structures in the floodway;

c. In the case of underground stream crossings, the top of the pipe or encasement is buried a minimum of three feet below the existing stream bed; and

d. In the case of overhead utilities, no supporting towers are placed in the watercourse and are designed in such a fashion as not to catch debris.

2. Storm and sanitary sewer outfalls that:

a. Do not extend riverward or lakeward of the existing adjacent natural bank slope;

b. Do not result in an increase in ground elevation; and

c. Are designed so as not to cause stream erosion at the outfall location.

3. Construction of sidewalks, athletic fields (excluding fences), properly anchored playground equipment and patios at grade.

4. Construction of shoreline and streambank protection:

a. When such construction does not exceed one thousand (1,000) feet in length;

b. When materials used in such construction are not placed higher than the existing top of bank; and

c. When materials used in such construction are placed so as not to reduce the cross-sectional area of the stream channel or bank of the lake. (Prior code § 28.06)

(MC-4-2021, § 2, Amended 8/3/2021; MC-5-2018, Amended, 08/07/2018: MC-5-2014 § 21, 04/17/2014; MC-2-2008, Amended, 05/06/2008)

15.68.070 Occupation and use of floodplain areas where floodways are not identified.

In SFHA or floodplains (including AO zones, AH zones and unnumbered A zones) where no floodways have been identified and no BFEs have been established and which drains more than one square mile, no development shall be permitted unless the cumulative effect of the proposals, when combined

with all other existing and anticipated uses and structures, shall not significantly impede or increase the flow and passage of the floodwaters and will not significantly increase the BFE. The development must meet all applicable requirements of this chapter and 17 Ill. Adm. Code Part 3700.The development shall also meet the requirements of Section 15.68.080 of this chapter.

A. Floodplain Development Permit. No person, firm, corporation or governmental body, not exempt by state law, shall commence any development in an SFHA or floodplain without first obtaining a floodplain development permit from the Director, as applicable. Application for a floodplain development permit shall be made on a form provided by the Director.

B. Duties of Director. The Director shall be responsible for obtaining from the applicant copies of all other local, state, and federal permits, approvals or permit-not-required letters that may be required for this type of activity. The Director shall not issue the floodplain development permit unless copies of all required local, state, and federal permits have been submitted to the Director by the applicant.

C. Preventing Increased Damages. No development in the SFHA, where a floodway has not been determined, shall create a damaging or potentially damaging increase in flood heights or velocity or threat to public health, safety, and welfare.

D. Standards within Riverine SFHAs. Within all riverine SFHA's where the floodway has not been determined, the following standards shall apply.

1. The developer shall have a registered professional engineer state in writing and show through supporting plans, calculation and data that the project meets the engineering requirements of the WMO and Section 15.68.

2. A floodplain development permit shall not be issued unless the applicant first obtains a permit from IDNR/OWR or written documentation that a permit is not required from IDNR/OWR.

3. Dam Safety Permits. Any person performing work involving the construction, modification or removal of a dam (as defined in Section 15.68.020 of this chapter) shall obtain an IDNR/OWR Dam Safety Permit or letter indicating a permit is not required prior to the start of construction of a dam. If the Director finds a dam that does not have an IDNR/OWR permit, the Director shall immediately notify the Dam Safety Section of IDNR/OWR. If the Director finds a dam which is believed to be in unsafe condition, the Director shall immediately notify the owner of the dam, IDNR/OWR, Dam Safety Section, and the Illinois Emergency Management Agency (IEMA).

4. Activities That Qualify for a Regional or Statewide Permit from IDNR/OWR. The following activities may be permitted without a registered professional engineer's review or calculations of a base flood elevation and regulatory floodway. Such activities shall meet the other requirements of this chapter:

a. Underground and overhead utilities that:

i. Do not result in any increase in existing ground elevations;

ii. Do not require the placement of above ground structures in the floodway;

iii. In the case of underground stream crossings, the top of the pipe or encasement is buried a minimum of three feet below the existing streambed;

iv. In the case of overhead utility lines, the lines shall be constructed above the estimated 100-year flood elevation or attached above the low chords of an existing bridge (with the permission of the bridge owner). No supporting towers shall be placed in the watercourse and shall be designed in such a fashion as not to catch debris.

v. Disturbance of streamside vegetation shall be kept to a minimum during construction to prevent erosion and sedimentation.

b. Storm and sanitary sewer outfalls that:

i. Do not extend riverward or lakeward of the existing adjacent natural bank slope;

ii. Do not result in an increase in ground elevation; and

iii. Are designed so as not to cause stream bank erosion at the outfall location.

c. Construction of shoreline and streambed protection:

i. When such construction does not exceed one thousand (1,000) feet in length;

ii. When materials used in such construction are not placed higher than the existing top of bank; and

iii. When materials used in such construction are placed so as not to reduce the cross-sectional area of the stream channel by more than ten (10) percent.

d. The construction of light poles, sign posts and similar structures.

e. The construction of sidewalks, driveways, athletic fields (excluding fences), patios and similar surfaces which are built at grade.

f. The construction of properly anchored, unwalled, open structures such as playground equipment, pavilions and carports built at or below existing grade that would not obstruct the flow of floodwaters.

g. The placement of properly anchored buildings not exceeding seventy (70) square feet in size, nor ten (10) feet in any one dimension (e.g., animal shelters and tool sheds).

h. The construction of additions to existing buildings which do not increase the first floor area by more than twenty (20) percent, which are located on the upstream or downstream side of the existing building, and which do not extend beyond the sides of the existing building that are parallel to the floodwaters.

i. Minor maintenance dredging of a stream channel where:

i. The affected length of stream is less than one thousand (1,000) feet;

ii The work is confined to reestablishing flows in natural stream channels; or

iii. The cross-sectional area of the dredged channel conforms to that of the natural channel upstream and downstream of that site.

5. The flood-carrying capacity within any altered or relocated watercourse shall be maintained.

E. Compensatory Storage. Whenever any portion of a floodplain, (including AO zones, AH zones and unnumbered A zones) where no floodways have been identified and no base flood or one hundred (100) year frequency flood elevations have been established and which drains more than one square mile, is authorized for use, the volume of space which will be occupied by the authorized fill or structure below the BFE shall be compensated for and balanced by a hydraulically equivalent volume of excavation taken from below the base flood or one hundred (100) year frequency flood elevation. The excavation volume shall meet the requirements of § 602.7-9 of the WMO. (Prior code § 28.07)

(MC-4-2021, § 2, Amended 8/3/2021; MC-5-2018, Amended, 08/07/2018: MC-5-2014 § 22, 04/17/2014; MC-2-2008, Amended, 05/06/2008)

Section 15.68.080 Permitting requirements applicable to all floodplain areas.

In addition to the requirements found in Sections 15.68.050, 15.68.060 and 15.68.070 of this chapter for development in flood fringes, regulatory floodways, and SFHA or floodplains where no

floodways have been identified (Zones AO, AH, AE, A1--A30, A99, VO, V1-V30, VE, V, M, E or X), § 601 and § 602 of the WMO and the following requirements shall be met:

A. Public Health Standards. No developments in the SFHA shall include locating or storing chemicals, explosives, buoyant materials, animals' wastes, fertilizers, flammable liquids, pollutants, or other hazardous or toxic materials below the FPE unless such materials are stored in a floodproofed and anchored storage tank and certified by a P.E. or floodproofed building constructed according to the requirements of Section 15.68.080 D.3 of this chapter.

B. Water and Sewer Lines. New and replacement water supply systems, wells, sanitary sewer lines and on-site disposal systems may be permitted providing all manholes or other above ground openings located below the FPE are watertight and shall meet the requirements of § 602.15-17 of the WMO. New and replacement on-site sanitary sewer lines or waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.

C. Carrying Capacity and Notification. For all projects involving channel modification, fill or stream maintenance (including levees), the flood carrying capacity of the watercourse shall be maintained and the project shall meet the requirements of § 606 and § 607 of the WMO. In addition, the Village shall notify adjacent communities in writing thirty (30) days prior to the issuance of a permit for the alteration or relocation of the watercourse.

D. Public utilities and facilities such as telecommunication, gas and electric shall be located and constructed to minimize or eliminate flood damage.

E. All other activities, defined as development, such as pools, fences, filling, paving, etc., shall be designed so as not to alter flood flows or increase potential flood damages.

F. Protecting Buildings. All buildings located within the SFHA, shall be protected from flood damage below the FPE. However, existing buildings located within a regulatory floodway shall also meet the more restrictive appropriate use standards included in Section 15.68.060 of this chapter. These building protection criteria apply to the following situations:

1. New construction or placement of a new building.

2. A substantial improvement to an existing building.

3. Installing a manufactured home on a new site or a new manufactured home on an existing site.

4. A substantially damaged building under repair, the entire building must meet the flood protection standards of this section. Substantial damage shall be figured cumulatively during a 10-year period by comparing the cost to repair the building to its pre-damage condition with the market value of the building immediately prior to the damage, for each event in which the building sustains damage, and adding the percentages of damage for each event.

5. Installing a travel trailer or recreational vehicle on a site for more than 180 consecutive days.

G. Building Protection Methods. Building protection requirements may be met by one of the following methods.

1. Residential Buildings: In zones A, AO, AH, and AE, the lowest floor, including basement, of new construction of residential buildings, and substantially improved residential buildings, must be elevated to the FPE, and are subject to the more specific additional requirements below:

a. If fill, including grading to redistribute onsite material to alter existing topography, is used as a means of elevation:

i. The fill shall be placed in layers no greater than one foot deep before compaction, must extend at least 20 feet beyond the foundation before sloping below the FPE in lieu of a geotechnical

report, and shall meet the requirements of § 602 of the WMO. The fill shall be protected against erosion and scour and shall be composed of clean rock or soil and not include debris or refuse material. The fill shall not adversely affect the flow or surface drainage from or onto neighboring properties.

ii. In order to construct a home with or without a basement, on a permanent landfill, the following equation must be satisfied:

Minimum Average Lot Grade = (FPE-2') - [(Total Required Side Yard-12') x 0.0833].

Therefore, if the average lot grade elevation on a site is above the elevation as defined by this equation, then a structure with its lowest floor below the BFE may be constructed. Otherwise, the structure must be protected in accordance with Section 15.68.080.E.2 of this Code.

b. If the building's lowest floor is elevated above ground level with an enclosed or unenclosed area below the lowest floor:

i. The building shall be elevated on piles, walls, columns, or other foundation that is permanently open to floodwaters.

ii. All enclosed areas below the FPE shall provide for equalization of hydrostatic pressures by allowing the automatic entry and exit of floodwaters. A minimum of two (2) permanent openings shall be provided on at least two walls located below the BFE and no more than one (1) foot above finished grade. The openings shall provide a total net area of not less than one (1) square inch for every one (1) square foot of enclosed area subject to flooding, or the design must be certified by a Registered P.E, as providing the equivalent performance in accordance with accepted standards of practice. Refer to FEMA TB1, Openings in Foundation Walls and Walls of Enclosures, for additional guidance.

iii. All electrical lines, switches, receptacles, and fixtures must be located above the FPE except to the minimum extent required by applicable building or life-safety codes. Any switches, receptacles, and/or fixtures required by applicable building or life-safety codes to extend below the FPE shall be rated, or located in enclosures rated, for prolonged submersion.

iv. The building, foundation, and supporting members shall be adequately anchored to prevent flotation, collapse, or lateral movement of the building resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy, and be designed so as to minimize exposure to current, waves, ice, and floating debris.

v. All building components below the FPE shall be constructed of materials resistant to flood damage.

vi. Water and sewer pipes, electrical and telephone lines, submersible pumps, and other service facilities may be located below the FPE provided they are waterproofed.

vii. The area below the FPE shall be used solely for parking, storage, or building access and not later modified or occupied as habitable space.

2. Nonresidential Buildings: In zones A, AO, AH, and AE, the lowest floor (including basement) of new construction of nonresidential buildings, and substantial improvement of nonresidential buildings, must either (1) be elevated to or above the FPE, subject to the more specific additional requirements of Sections 15.68.080.G.1.a through 15.68.080.G.1.b above; or (2) be structurally dry-floodproofed, provided a Registered P.E. or architect has developed and/or reviewed the structural design, specifications, and plans for construction, and the Registered P.E. or architect submits a FEMA Floodproofing Certificate, certifying that the design and methods of construction are in accordance with accepted standards of practice for meeting the requirements of ASCE 24-14, and the following conditions:

a. Below the FPE, the building and attendant utility and sanitary facilities shall be watertight with walls substantially impermeable to the passage of water and structural components capable of resisting hydrostatic and hydraulic loads and the effects of buoyancy.

b. The building design shall take into account flood velocities, duration, rate of rise, hydrostatic and hydrodynamic forces, the effects of buoyancy and impacts from debris or ice.

c. Floodproofing measures shall be incorporated into the building design and shall be operable without human intervention and without an outside source of electricity.

d. The building, utility, and sanitary facilities' design and construction will prevent the effect of sewer backup into the building.

e. For purposes of this subsection, levees, berms, floodwalls and similar works are not considered floodproofing.

3. In a coastal high hazard area (zone VE) and in any area of zone AE designated as a moderate wave action area, the building protection requirements of this Section 15.68.080E. must be met according to the following criteria:

a. All new construction and substantial improvements shall be elevated on pilings or columns so that the bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated to or above the FPE, and the pile or column foundation and structure attached thereto is anchored to resist flotation, collapse, and lateral movement due to the effects of wind and water loads acting simultaneously on all building components.

i. Water loading values used shall be those associated with the base flood.

ii. Wind loading values shall be those defined according to American Society of Civil Engineers 7-16 Minimum design loads and associated criteria for buildings and other structures, or other equivalent standard.

b. A registered professional engineer or architect shall develop or review the structural design, specifications and plans for the construction, and shall certify that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the provisions of Section 15.68.080.E.4.a.

c. All new construction and substantial improvements shall have the space below the lowest floor either free of obstruction or constructed with non-supporting breakaway walls, open wood lattice-work, or insect screening intended to collapse without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system.

i. A breakaway wall shall have a design safe loading resistance of not less than 10 and no more than 20 pounds per square foot.

ii. Use of breakaway walls which exceed a design safe loading resistance of 20 pounds per square foot (either by design or where so required by local or state codes) may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet all of the following conditions:

a) Breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and

b) The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (structural and non-structural). Water loading values shall be those associated with the base flood. Wind loading values shall be those defined according to American Society of Civil Engineers 7-16 Minimum design loads and associated criteria for buildings and other structures, or equivalent standard.

c) All space enclosed by breakaway walls, open wood lattice-work, or insect screening below the lowest floor shall be used solely for parking of vehicles, building access, or storage.

4. In Zones A, AO, AH and AE, detached accessory structures and detached garages may be constructed with the lowest floor below the FPE in accordance with the following:

a. The building shall not be used for human habitation, must not include areas intended or used for cooking, and must not include bathrooms, toilet rooms, or shower rooms.

b. All areas below the BFE shall be constructed with flood resistant materials.

c. The structure must have at least two permanent openings on at least two walls not more than one foot above grade and below the BFE, with one square inch of opening for every one square foot of floor area.

d. The building shall be located outside of the regulatory floodway unless the building can be constructed and placed on a building site so as not to block flood flows nor reduce floodway storage, can meet the appropriate use criteria of Section 15.68.060, and all other requirements of Sections 15.68.050, 15.68.060 and 15.68.070.

e. The structure shall be anchored to prevent flotation and overturning.

f. All electrical lines, switches, receptacles, and fixtures must be located above the FPE except to the minimum extent required by applicable building or life-safety codes. Any switches, receptacles, and/or fixtures required by applicable building or life-safety codes to extend below the FPE shall be rated, or located in enclosures rated, for prolonged submersion.

g. The building shall be valued at less than $25,000.00 as substantiated by a signed contract be no more than one-story in height, and shall have a roofed lot coverage of less than five hundred 500 square feet.

h. The building shall be used only for the storage of vehicles or tools and may not contain other rooms, greenhouses or similar uses. (Ord. MC-181-97 § 2, 1997; prior code § 28.08). All flammable or toxic materials (gasoline, paint, insecticides, fertilizers, etc.) shall be stored above the FPE.

i. The lowest floor elevation should be documented, and the owner advised of the flood insurance implications of building with the lowest floor below the BFE.

5. Nonconforming structures located in a regulatory floodway may remain in use, but may not be enlarged, replaced or structurally altered, except to the extent such enlargement, replacement or alteration is permitted by Section 15.68.060 of this chapter. A nonconforming structure damaged by flood, fire, wind or other natural or man-made disaster may be restored provided the value of the damage is less than fifty (50) percent of the structure's market value before it was damaged, and provided that the restoration conforms to all applicable provisions of this chapter.

H. Retaining Walls and Grading Requirements.

1. When retaining walls are used either to bridge the grade differential between the FPE of the clay building pad for a new structure and the existing average lot grade on the site, or to create a vertical surface for any portion of a side of a compensatory storage area, the cumulative height of the retaining walls in the front and side yards shall not exceed 24 inches.

2. When slopes are used to provide a transition between the existing grade and the proposed grade for the top of the permanent fill, or for the construction of a compensatory storage basin, those slopes will be limited to a maximum of 1:6, or 1 foot of vertical rise for every six feet of horizontal run.

3. If a proposed construction or development project cannot meet the requirements of this Subsection F, then the use of permanent fill to elevate the structure out of the SFHA shall be prohibited and the structure shall be protected in accordance with Section 15.68.080.E.2 of this Code.

4. In floodplain zones AO and AH, drainage paths shall be provided to guide water around and away from the buildings.

5. Within a coastal high hazard area or within a moderate wave action area, bulkheads, seawalls, revetments, and other erosion control structures shall not be connected to the foundation or superstructure of a building, and shall be designed and constructed so as not to direct floodwaters or increase flood forces or erosion impacts on the foundation or superstructure of any building.

6. Man-made alterations of sand dunes within a coastal high hazard area (zone V, V1-30, or VE) or within a moderate wave action area are prohibited unless an engineering report documents that the alterations will not increase potential flood damage by reducing the wave and flow dissipation characteristics of the sand dunes.

7. Non-structural fill within a coastal high hazard area (zone V, V1-30, or VE) or within a moderate wave action area shall be permitted only if an engineering report demonstrates that the fill will not cause wave runup, ramping, or deflection of floodwaters that cause damage to buildings.

8. The use of fill for structural support of buildings within a coastal high hazard area (zone V, V1-30, or VE) or within a moderate wave action area is prohibited. (Prior code § 28.08)

(MC-4-2021, § 2, Amended 8/3/2021; Ord MC-5-2018, Amended, 08/07/2018: MC-5-2014 § 23, 04/17/2014; Ord. MC-2-2008, Amends, 05/06/2008; MC-4-2006, Amended, 07/18/2006; MC-5-2001, Amended, 08/21/2001; MC-3-2000, Amended, 09/05/2000, Reflects new FEMA maps; Ord. MC-181-97 § 2, 1997)

15.68.090 Other development requirements.

The Village Council shall take into account flood hazards, to the extent that they are known, in all official actions by the Council related to land management, use and development.

A. New subdivisions and annexation agreements within the SFHA shall be reviewed to assure that the proposed developments are consistent with Sections 15.68.050, 15.68.060, 15.68.070 and 15.68.080 of this chapter and the need to minimize flood damage. Plats or plans for new subdivisions shall include a signed statement by and Illinois Registered Professional Engineer that the plat or plans account for changes in the drainage of surface waters in accordance with the Plat Act (765 ILCS 205).

B. Proposals for new subdivisions and additions to subdivisions shall include BFE data and floodway delineations. Where this information is not available from an existing study, the applicant's Registered Professional Engineer shall be responsible for calculating the BFE pursuant to Section 15.68.040(D) of this chapter and submitting it to the IDNR/OWR for review and approval as best available regulatory data.

C. New streets, blocks, lots, parks and other public grounds shall be located and laid out in such a manner as to preserve and utilize natural streams and channels. Wherever possible, the floodplains shall be included within parks or other public grounds.

D. The Village Council shall not approve any annexation agreement or any plat of subdivision located outside the corporate limits unless such agreement or plat is in accordance with the provisions of this chapter. (Prior code § 28.09)

(MC-4-2021, § 2, Amended 8/3/2021)

15.68.100 Variances.

No variances shall be granted to any development located in a regulatory floodway, as defined in Section 15.68.020 of this chapter. However, when a development proposal is located outside of a regulatory floodway, and whenever the standards of this chapter place undue hardship on a specific development proposal, the applicant may apply to the Director or to the Metropolitan Water Reclamation District of Greater Chicago for a variance. Only the Metropolitan Water Reclamation District of Greater Chicago may grant variances from the requirements of the WMO. The Director shall

review the applicant's request for a variance from Village standards that exceed the requirements of the WMO and shall submit his or her recommendation to the Village Council.

A. No variances shall be granted unless the applicant demonstrates that all of the following criteria have been met:

1. The development activity cannot be located outside the SFHA.

2. An exceptional hardship would result if the variance were not granted.

3. The relief requested is the minimum necessary.

4. There will be no additional threat to public health, safety or welfare.

5. There will be no additional threat to beneficial stream uses and functions, including aquatic habitat.

6. There will be no nuisance created.

7. There will be no additional public expense for flood protection, rescue or relief operations, policing, or repairs to roads, utilities, or other public facilities.

8. The activity is not in a regulatory floodway.

9. The applicant's circumstances are unique and do not represent a general problem.

10. The provisions of Sections 15.68.050(E) and 15.68.070(D) are met.

B. The Director shall notify an applicant in writing that a variance of the requirements of Section 15.68.080 of this chapter that would lessen the degree of protection to a building will do any of the following:

1. Result in increased premium rates for flood insurance up to amounts as high as $25.00 for one hundred dollars $100.00 of insurance coverage.

2. Increase the risks to life and property.

3. Require that the applicant proceed with knowledge of these risks and that he or she will acknowledge in writing that he or she assumes the risk and liability.

C. Variances requested in connection with restoration of a site or building listed on the National Register of Historical Places or documented as worthy of preservation by the Illinois Historic Preservation Agency may be granted using criteria more permissive than the requirements of subsections (A) and (B) of this section. (Prior code § 28.10)

(MC-4-2021, § 2, Amended 8/3/2021; MC-5-2014 § 24, 04/17/2014)

15.68.110 Disclaimer of liability.

The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on available information derived from engineering and scientific methods of study. Larger floods may occur or flood heights may be increased by man-made or natural causes. This chapter does not imply that development, whether inside or outside of the SFHA, will be free from flooding or damage. This chapter does not create liability on the part of the Village or any officer or employee of the Village for any flood damage that results from reliance on this chapter or any administrative decision made under this chapter. (Prior code § 28.11)

(MC-4-2021, § 2, Amended 8/3/2021)

Section 15.68.120 Penalties.

Failure to comply with the requirements of a permit or with the conditions of a variance resolution shall be deemed to be a violation of this chapter. In addition, upon due investigation, the Director may

determine that a violation of the minimum standards of this chapter exist.

A. The Director shall notify the owner in writing of such violation. The notice constitutes a suspension of any floodplain development permit. The notice shall include a statement informing the owner that any such violation may be considered a willful act to increase flood damages and may cause coverage by a Standard Flood Insurance Policy to be suspended. The notice shall contain a brief description of the violations, section of the chapter violated, the requirement to stop all work in violation of this chapter, and a statement informing the violator that they may contest the notice in writing within 10 days, correct the violation in ten days, or apply for a permit, as applicable.

B. If the owner fails to respond to the notice or to correct the violation within 10 days after the issuance of the notice, the Village may file an action in the Circuit Court of Cook County seeking issuance of an injunction requiring conformance with this chapter or entry of such other order as the Court deems necessary to secure compliance with this chapter.

C. Any person who violates a provision of this chapter shall, upon conviction, be fined not less than $50.00 nor more than $750.00 for each offense.

D. A separate offense shall be deemed committed upon each day during or on which a violation occurs or continues.

E. The Village may record a notice of violation on the title to the property.

F. Nothing in this chapter shall prevent the Village from taking such other lawful action to prevent or remedy any violations. All costs connected with such action shall accrue to the person or persons responsible.

(Prior code § 28.12) (MC-4-2021, § 2, Amended 8/3/2021; MC-5-2018, Amended, 08/07/2018)

15.68.130 Construction and other code provisions.

The provisions of this chapter shall be deemed additional requirements to minimum standards required by other provisions of this code. In case of conflicting requirements, the most restrictive shall apply. (Prior code § 28.13)

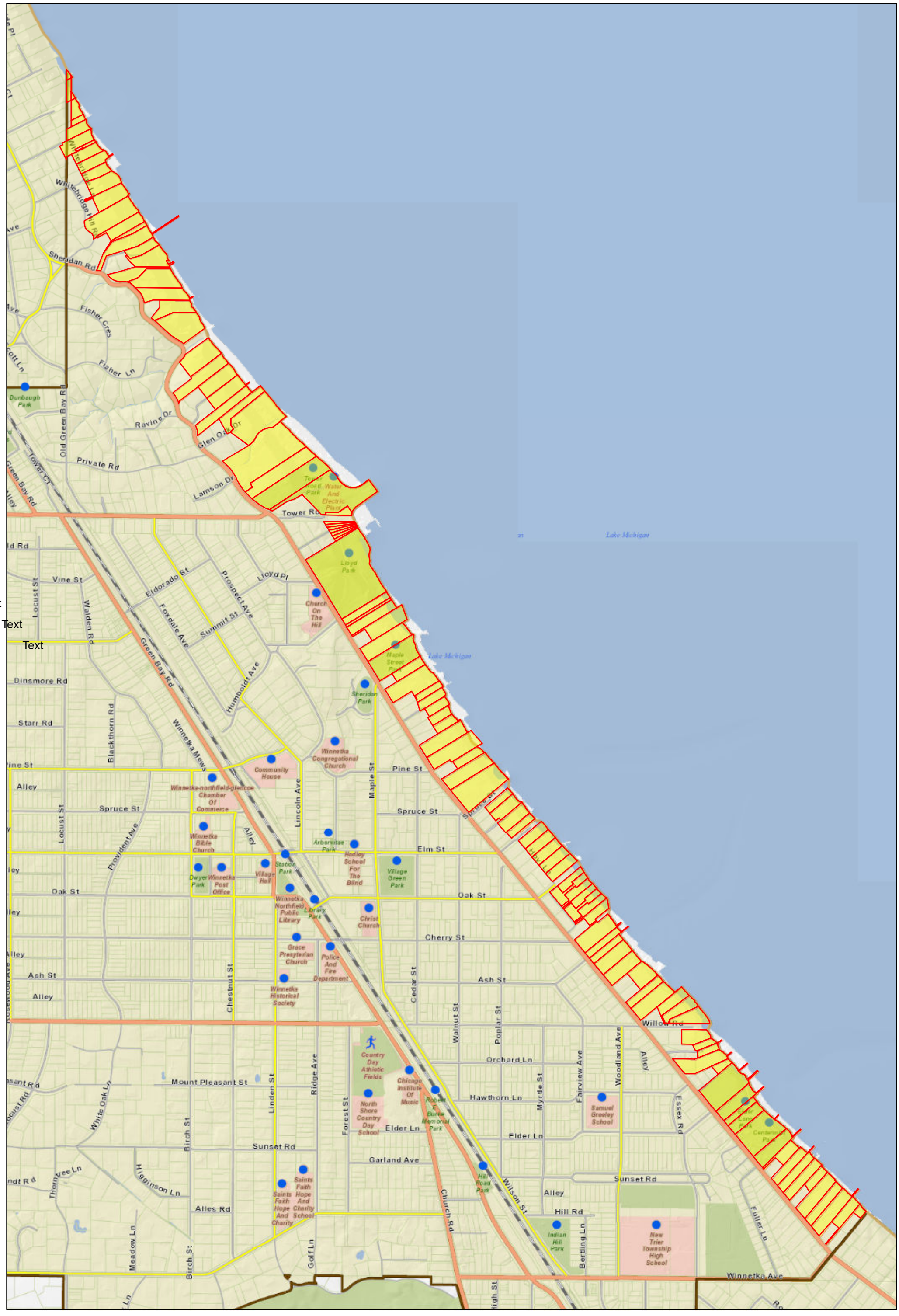
(MC-4-2021, § 2, Amended 8/3/2021)

15.68.140 Effect of regulations.

Nothing in this chapter is intended to repeal, abrogate or impair any existing easements, covenants or deed restrictions. Where the requirements of this chapter and other ordinances, easements, covenants or deed restrictions conflict or overlap, whichever imposes the more stringent restrictions shall prevail. (Prior code § 28.14)

(MC-4-2021, § 2, Amended 8/3/2021; Ch. 15.68 amended, Ord. MC-5-2001, 08/21/01)

Attachment C
Lakefront Property Map



Winnetka Lakeshore Properties

112 properties

Attachment D
Approved Historical Permits Map

Village of Winnetka Shoreline Protection Projects

Village of Winnetka Shoreline Protection Projects