

# ORDINANCE

O-23-2023

BOROUGH OF NORTH CALDWELL, ESSEX COUNTY, NEW JERSEY

## AN ORDINANCE AMENDING CHAPTER 53 ON-SITE STORMWATER DETENTION, STORMWATER CONTROLS TO REPLACE ARTICLE III STORMWATER CONTROL

**WHEREAS,** the Governing Body of the Borough of North Caldwell has determined that it is in the best interest of the Borough to establish minimum stormwater management requirements and controls for "major development".

**NOW, THEREFORE, MAY IT BE ORDAINED** by the Mayor and Council of the Borough of North Caldwell, County of Essex, State of New Jersey as follows:

### 1. Article III Stormwater Control

#### **53-28 Scope and Purpose.**

A. Policy Statement. Flood control, groundwater recharge, and pollutant reduction shall be achieved through the use of stormwater management measures, including green infrastructure Best Management Practices (GI BMPs) and nonstructural stormwater management strategies. GI BMPs should be utilized to meet the goal of maintaining natural hydrology to reduce stormwater runoff volume, reduce erosion, encourage infiltration and groundwater recharge, and reduce pollution. GI BMPs should be developed based upon physical site conditions and the origin, nature and the anticipated quantity, or amount, of potential pollutants. Multiple stormwater management BMPs may be necessary to achieve the established performance standards for green infrastructure, water quality, quantity, and groundwater recharge.

B. Purpose. The purpose of this ordinance is to establish minimum stormwater management requirements and controls for "major development," as defined below in Section 53-29.

#### C. Applicability

1. This article shall be applicable to all projects that meet the definition of "minor development" or "major development" as defined below.

2. This ordinance shall be applicable to the following major developments:

- i. Non-residential major developments and redevelopment projects; and
- ii. Aspects of residential major developments and redevelopment projects that are not pre-empted by the Residential Site Improvement Standards at N.J.A.C. 5:21 et seq.

3. This ordinance shall also be applicable to all major developments undertaken by Borough of North Caldwell.

4. Applicability of this ordinance to major developments shall comply with last amended N.J.A.C. 7:8-1.6, incorporated herein by reference and minor developments as defined herein.

D. Compatibility with Other Permit and Ordinance Requirements. Development approvals issued pursuant to this ordinance are to be considered an integral part of development approvals and do not relieve the applicant of the responsibility to secure required permits or approvals for activities regulated by any other applicable code, rule, act, or ordinance. In their interpretation and application, the provisions of this ordinance shall be held to be the minimum requirements for the promotion of the public health, safety, and general welfare. .

This ordinance is not intended to interfere with, abrogate, or annul any other ordinances, rule or regulation, statute, or other provision of law except that, where any provision of this ordinance imposes restrictions different from those imposed by any other ordinance, rule or regulation, or other provision of law, the more restrictive provisions or higher standards shall control.

### **53-29 Definitions:**

For the purpose of this ordinance, the following terms, phrases, words and their derivations shall have the meanings stated herein unless their use in the text of this ordinance clearly demonstrates a different meaning. When not inconsistent with the context, words used in the present tense include the future, words used in the plural number include the singular number, and words used in the singular number include the plural number. The word "shall" is always mandatory and not merely directory. The definitions used in this ordinance shall be the same as the last amended Stormwater Management Rules at N.J.A.C. 7:8-1.2, incorporated herein by reference. The following additional terms are defined for this chapter only.

a. EXEMPT DEVELOPMENT - Shall mean any development that creates less than 500 square feet of new impervious area and disturbs less than 2,500 square feet of land. Further, an exempt development shall not meet the definition of "minor development."

b. MINOR DEVELOPMENT - Shall mean any development that results in the creation of 500 square feet or more of new impervious area or one that disturbs more than 2,500 square feet of land area. Further, a minor development shall not meet the definition of "major development" in N.J.A.C. 7:8.

c. MAJOR DEVELOPMENT - (repeated from N.J.A.C. 7:8) Shall mean an individual "development," as well as multiple developments that individually or collectively result in:

1. The disturbance of one or more acres of land since February 2, 2004;
2. The creation of one-quarter acre or more of "regulated impervious surface" since February 2, 2004;
3. The creation of one-quarter acre or more of "regulated motor vehicle surface" since March 2, 2021; or
4. A combination of 2 and 3 above that totals an area of one-quarter acre or more. The same surface shall not be counted twice when

determining if the combination area equals one-quarter acre or more.

Major development includes all developments that are part of a common plan of development or sale (for example, phased residential development) that collectively or individually meet any one or more of paragraphs 1, 2, 3, or 4 above. Projects undertaken by any government agency that otherwise meet the definition of "major development" but which do not require approval under the Municipal Land Use Law, N.J.S.A. 40:55D-1 et seq., are also considered "major development."

### **53-30 Design and Performance Standards for Stormwater Management Measures:**

This section establishes design and performance standards for stormwater management measures for minor and major development intended to minimize the adverse impact of stormwater runoff on water quality and water quantity and loss of groundwater recharge in receiving water bodies.

- A. Exempt Developments. Any project meeting the definition of "exempt development" shall be exempt from the provisions of this section.
- B. Minor Developments. Minor developments shall be designed to include the following stormwater management measures:
  - 1. Water Quality. Soil erosion and sediment control measures shall be installed in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey.
  - 2. Rate/Volume Control. Seepage pits or other infiltration measures shall be provided with a capacity of three (3") inches of runoff for each square foot of new impervious area. Stone used in the infiltration devices shall be two and one-half (2 1/2") inches clean stone and design void ratio of 33% shall be used. The infiltration measures shall be designed with an overflow to the surface which shall be stabilized and directed to an existing stormwater conveyance system or in a manner to keep the overflow on the developed property to the greatest extent feasible. If the new impervious surface is not roof area, an equivalent area of existing roof may be directed to the infiltration system. This shall be permitted where the existing roof is not already directed to infiltration devices.
- C. Major Developments. Design and performance standards for stormwater management measures shall comply with last amended N.J.A.C. 7:8-5, incorporated herein by reference.

### **53-31 Waivers and exceptions.**

- A. Standards for relief (Minor Development). Waivers from strict compliance with the design standards for minor development shall only be granted upon showing that meeting the standards would result in an exceptional hardship on the applicant or that the benefits to the public good of

the deviation from the standards would outweigh any detriments of the deviation. A hardship will not be considered to exist if reasonable reductions in the scope of the project would eliminate the noncompliance.

B. Standards for relief (Major Development). Waivers from strict compliance with the design and performance standards for major development shall meet the requirements N.J.A.C. 7:8-4.6.

C. Reviewing agency. All applications subject to the review of the Land Use Board shall be reviewed by the Board concurrently with subdivision or site plan review. Applications not subject to Land Use Board review shall be reviewed by the Borough Engineer.

D. Appeals. The appeal of the determination of the Borough Engineer shall be made in accordance with N.J.S.A. 40:55D-70a.

### **53-32 Solids and Floatable Materials Control Standards (Major Development)**

A. Site design features identified under Section III above, or alternative designs in accordance with Section III above, to prevent discharge of trash and debris from drainage systems shall comply with the following standard to control passage of solid and floatable materials through storm drain inlets. For purposes of this paragraph, "solid and floatable materials" means sediment, debris, trash, and other floating, suspended, or settleable solids. For exemptions to this standard see 53-32.A.2 below.

1. Design engineers shall use one of the following grates whenever they use a grate in pavement or another ground surface to collect stormwater from that surface into a storm drain or surface water body under that grate:

- i. The New Jersey Department of Transportation (NJDOT) bicycle safe grate, which is described in Chapter 2.4 of the NJDOT Bicycle Compatible Roadways and Bikeways Planning and Design Guidelines; or
- ii. A different grate, if each individual clear space in that grate has an area of no more than seven (7.0) square inches, or is no greater than 0.5 inches across the smallest dimension. Note that the Residential Site Improvement Standards at N.J.A.C. 5:21 include requirements for bicycle safe grates.

Examples of grates subject to this standard include grates in grate inlets, the grate portion (non-curb-opening portion) of combination inlets, grates on storm sewer manholes, ditch grates, trench grates, and grates of spacer bars in slotted drains. Examples of ground surfaces include surfaces of roads (including bridges), driveways, parking areas, bikeways, plazas, sidewalks, lawns, fields, open channels, and stormwater system floors used to collect stormwater from the surface into a storm drain or surface water body.

- iii. For curb-opening inlets, including curb-opening inlets in combination inlets, the clear space in that curb opening, or each individual clear space if the curb opening has two or more clear spaces, shall have an area of no more than seven (7.0) square inches, or be no greater than two (2.0) inches across the smallest dimension.

2. The standard in 53-32.A.1. above does not apply:

- i. Where each individual clear space in the curb opening in existing curb-opening inlet does not have an area of more than nine (9.0) square inches;
- ii. Where the municipality agrees that the standards would cause inadequate hydraulic performance that could not practicably be overcome by using additional or larger storm drain inlets;
- iii. Where flows from the water quality design storm as specified in the last amended Stormwater Management rules at N.J.A.C. 7:8 et seq. are conveyed through any device (e.g., end of pipe netting facility, manufactured treatment device, or a catch basin hood) that is designed, at a minimum, to prevent delivery of all solid and floatable materials that could not pass through one of the following:
  - a. A rectangular space four and five-eighths (4.625) inches long and one and one-half (1.5) inches wide (this option does not apply for outfall netting facilities); or
  - b. A bar screen having a bar spacing of 0.5 inches.

Note that these exemptions do not authorize any infringement of requirements in the Residential Site Improvement Standards for bicycle safe grates in new residential development (N.J.A.C. 5:21-4.18(b)2 and 7.4(b)1).

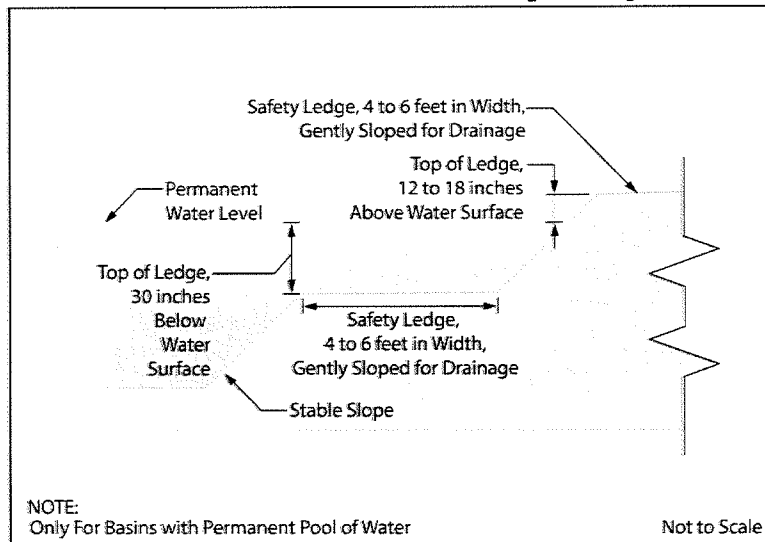
- iv. Where flows are conveyed through a trash rack that has parallel bars with one-inch (1 inch) spacing between the bars, to the elevation of the Water Quality Design Storm as specified in N.J.A.C. 7:8; or
- v. Where the New Jersey Department of Environmental Protection determines, pursuant to the New Jersey Register of Historic Places Rules at N.J.A.C. 7:4-7.2(c), that action to meet this standard is an undertaking that constitutes an encroachment or will damage or destroy the New Jersey Register listed historic property.

### **53-33. Safety Standards for Stormwater Management Basins:**

- A. This section sets forth requirements to protect public safety through the proper design and operation of stormwater management basins. This section applies to any new stormwater management basin. Safety standards for stormwater management measures shall comply with last amended N.J.A.C. 7:8-6, incorporated herein by reference.

## B. Safety Ledge Illustration

Elevation View -Basin Safety Ledge Configuration



## 53-34 Requirements for a Site Development Stormwater Plan (Major Development)

### A. Submission of Site Development Stormwater Plan

1. Whenever an applicant seeks municipal approval of a development subject to this ordinance, the applicant shall submit all of the required components of the Checklist for the Site Development Stormwater Plan at Section 53-34.C below as part of the submission of the application for approval.
2. The applicant shall demonstrate that the project meets the standards set forth in this ordinance.
3. The applicant shall submit six copies of the materials listed in the checklist for site development stormwater plans in accordance with Section 53-34.C of this ordinance.

### B. Site Development Stormwater Plan Approval

The applicant's Site Development project shall be reviewed as a part of the review process by the municipal board or official from which municipal approval is sought. That municipal board or official shall consult the municipality's review engineer to determine if all of the checklist requirements have been satisfied and to determine if the project meets the standards set forth in this ordinance.

### C. Submission of Site Development Stormwater Plan

The following information shall be required:

#### 1. Topographic Base Map

The reviewing engineer may require upstream tributary drainage system information as necessary. It is recommended that the topographic base map of the site be submitted which extends a minimum of 200 feet beyond the limits of the proposed development, at a scale of 1"=200' or greater, showing 2-foot contour intervals. The map as appropriate may indicate the following: existing surface water drainage, shorelines, steep slopes,

soils, erodible soils, perennial or intermittent streams that drain into or upstream of the Category One waters, wetlands and flood plains along with their appropriate buffer strips, marshlands and other wetlands, pervious or vegetative surfaces, existing man-made structures, roads, bearing and distances of property lines, and significant natural and manmade features not otherwise shown.

## 2. Environmental Site Analysis

A written and graphic description of the natural and man-made features of the site and its surroundings should be submitted. This description should include a discussion of soil conditions, slopes, wetlands, waterways and vegetation on the site. Particular attention should be given to unique, unusual, or environmentally sensitive features and to those that provide particular opportunities or constraints for development.

## 3. Project Description and Site Plans

A map (or maps) at the scale of the topographical base map indicating the location of existing and proposed buildings roads, parking areas, utilities, structural facilities for stormwater management and sediment control, and other permanent structures. The map(s) shall also clearly show areas where alterations will occur in the natural terrain and cover, including lawns and other landscaping, and seasonal high groundwater elevations. A written description of the site plan and justification for proposed changes in natural conditions shall also be provided.

## 4. Land Use Planning and Source Control Plan

This plan shall provide a demonstration of how the goals and standards of Section 53-30 are being met. The focus of this plan shall be to describe how the site is being developed to meet the objective of controlling groundwater recharge, stormwater quality and stormwater quantity problems at the source by land management and source controls whenever possible.

## 5. Stormwater Management Facilities Map

The following information, illustrated on a map of a scale of 1"=50' or smaller shall be included:

- i. Total area to be disturbed, paved or built upon, proposed surface contours, land area to be occupied by the stormwater management facilities and the type of vegetation thereon, and details of the proposed plan to control and dispose of stormwater.
- ii. Details of all stormwater management facility designs, during and after construction, including discharge provisions, discharge capacity for each outlet at different levels of detention and emergency spillway provisions with maximum discharge capacity of each spillway.

## 6. Calculations

- i. Comprehensive hydrologic and hydraulic design calculations for the pre-development and post-development conditions for the design storms specified in 53-30 of this ordinance.
- ii. When the proposed stormwater management control measures depend on the hydrologic properties of soils or require certain separation from the seasonal high water table, then a soils report shall be submitted. The soils report shall be based on onsite boring logs or soil pit profiles. The number and location of required soil borings or soil pits shall be determined based on what is needed to determine the suitability and distribution of soils present at the location of the control measure.

#### 7. Maintenance and Repair Plan

The design and planning of the stormwater management facility shall meet the maintenance requirements of Section 53-36.

#### 8. Waiver from Submission Requirements

The municipal official or board reviewing an application under this ordinance may, in consultation with the municipality's review engineer, waive submission of any of the requirements in Section 53-34.C.1 through 53-34.C.6 of this ordinance when it can be demonstrated that the information requested is impossible to obtain or it would create a hardship on the applicant to obtain and its absence will not materially affect the review process.

#### 9. Application and Review Fees

There shall be no additional fees for stormwater review for applications to the Land Use Board. Applications to the Borough Engineer shall be accompanied by an initial review escrow deposit of \$1,000 for major developments. If a project is approved, an inspection escrow deposit shall be made in an amount to be determined by the Borough Engineer.

### **53-35 Requirements for a Site Development Stormwater Plan (Minor Development)**

#### A. The following information shall be required:

1. Topographic Base Map. The reviewing engineer may require upstream tributary drainage system information as necessary. It is recommended that the topographic base map of the site be submitted which extends a minimum of 50 feet beyond the limits of the proposed development, at a scale of 1"=30' or larger, showing 2-foot contour intervals. The map as appropriate may indicate the following: existing surface water drainage, shorelines, steep slopes, soils, erodible soils, perennial or intermittent streams that drain into or upstream of the Category One waters, wetlands and flood plains along with their appropriate buffer strips, marshlands and other wetlands, pervious or vegetative surfaces, existing man-made structures,



roads, bearing and distances of property lines, and significant natural and manmade features not otherwise shown.

2. Project Description and Site Plans. A map (or maps) at the scale of the topographical base map indicating the location of existing and proposed buildings roads, parking areas, utilities, structural facilities for stormwater management and sediment control, and other permanent structures. The map(s) shall also clearly show areas where alterations will occur in the natural terrain and cover, including lawns and other landscaping.

3. Stormwater Management Facilities Map

The following information, illustrated on a map of the same scale as the topographic base map, shall be included:

- i. Total area to be disturbed, paved or built upon, proposed surface contours, land area to be occupied by the stormwater management facilities and the type of vegetation thereon, and details of the proposed plan to control and dispose of stormwater.
- ii. Details of all stormwater management facility designs.

4. Calculations demonstrating compliance with the minor development standards of 53-30.B must be submitted.

5. Waiver from Submission Requirements

The Borough Engineer may waive submission of any of the requirements in Section 53-35.A.1 through 53-35.A.4 of this ordinance when it can be demonstrated that the information requested is impossible to obtain or it would create a hardship on the applicant to obtain and its absence will not materially affect the review process.

6. Application and Review Fees

There shall be no additional fees for stormwater review for applications to the Land Use Board. Applications to the Borough Engineer shall be accompanied by a review fee in the amount of \$250 for minor developments. If a project is approved, an inspection escrow deposit shall be made in an amount to be determined by the Borough Engineer.

## **53-36 Maintenance and Repair:**

### **A. Applicability**

Projects subject to review as in Section 53-30.C of this ordinance shall comply with the requirements of Section 53-36.B and 53-36.C.

### **B. General Maintenance**

1. Maintenance for stormwater management measures shall comply with last amended N.J.A.C. 7:8-5.8, incorporated herein by reference.

2. The following requirements of N.J.A.C. 7:8-5.8 do not apply to stormwater management facilities that are dedicated to and accepted by the municipality or another governmental agency, subject to all applicable municipal stormwater general permit conditions, as issued by the Department:
    - i. If the maintenance plan identifies a person other than the property owner (for example, a developer, a public agency or homeowners' association) as having the responsibility for maintenance, the plan shall include documentation of such person's or entity's agreement to assume this responsibility, or of the owner's obligation to dedicate a stormwater management facility to such person under an applicable ordinance or regulation; and
    - ii. Responsibility for maintenance shall not be assigned or transferred to the owner or tenant of an individual property in a residential development or project, unless such owner or tenant owns or leases the entire residential development or project. The individual property owner may be assigned incidental tasks, such as weeding of a green infrastructure BMP, provided the individual agrees to assume these tasks; however, the individual cannot be legally responsible for all of the maintenance required.
  3. In the event that the stormwater management facility becomes a danger to public safety or public health, or if it is in need of maintenance or repair, the municipality shall so notify the responsible person in writing. Upon receipt of that notice, the responsible person shall have fourteen (14) days to effect maintenance and repair of the facility in a manner that is approved by the municipal engineer or his designee. The municipality, in its discretion, may extend the time allowed for effecting maintenance and repair for good cause. If the responsible person fails or refuses to perform such maintenance and repair, the municipality or County may immediately proceed to do so and shall bill the cost thereof to the responsible person. Nonpayment of such bill may result in a lien on the property.
- C. Nothing in this subsection shall preclude the municipality in which the major development is located from requiring the posting of a performance or maintenance guarantee in accordance with N.J.S.A. 40:55D-53.

#### **53-37 Penalties:**

Any person who erects, constructs, alters, repairs, converts, maintains, or uses any building, structure or land in violation of this article shall be subject to a penalty as stated in Chapter 1, Article II, General Penalty, § 1-5 et seq. Each and every day in which a person shall be in violation of this article shall constitute a separate offense.

53-38 Severability:

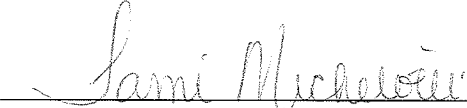
Each section, subsection, sentence, clause and phrase of this Ordinance is declared to be an independent section, subsection, sentence, clause and phrase, and the finding or holding of any such portion of this Ordinance to be unconstitutional, void, or ineffective for any cause, or reason, shall not affect any other portion of this Ordinance.

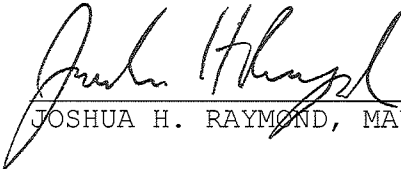
- 2. All ordinances and parts of ordinances inconsistent herewith are hereby repealed.
- 3. If any section, paragraph, subdivision, clause or provision of this ordinance shall be adjudged invalid, such adjudication shall apply only to that section, paragraph, subdivision, clause or provision so adjudged, and the remainder of this ordinance shall be deemed valid and effective.
- 4. This ordinance shall take effect immediately upon passage and publication in accordance with law.

INTRODUCED:       October 24, 2023  
APPROVED:       November 28,2023  
ADOPTED:       November 28, 2023

Moved By:       Councilman Rees  
Seconded By:    Councilman Weinstein

COUNCIL MEMBER	YES	NO	ABSTAIN	ABSENT	COUNCIL MEMBER	YES	NO	ABSTAIN	ABSENT
ATLAS	X				REES	X			
FLORIA-CALLORI	X				TILTON	X			
KESSLER	X				WEINSTEIN	X			

ATTEST:  
  
TAMI MICHELOTTI, BOROUGH CLERK

APPROVED:  
  
JOSHUA H. RAYMOND, MAYOR