



TOWNSHIP OF WEST ORANGE DEPARTMENT OF ENGINEERING

25 LAKESIDE AVENUE, WEST ORANGE, N.J. 07052

ZAYIBETH CARBALLO
Director/ Municipal Engineer

Tel/Fax: (973) 325-4160

Email: engineering@westorange.org

MEMORANDUM

TO: CHAIRMAN AND MEMBERS OF THE PLANNING BOARD

**CC: GENIECE GARY-ADAMS, DIRECTOR/ZONING OFFICIAL
DIANA P. MCGOVERN, ESQ., BOARD ATTORNEY**

**FROM: ZAYIBETH CARBALLO, P.E., P.L.S., P.P, CME, CFM
DIRECTOR/MUNICIPAL ENGINEER**

DATE: APRIL 28, 2025

SUBJECT: CHAPTER 25 STORMWATER ORDINANCE 2918-25

This Municipal Stormwater Control Ordinance (SCO) 2918-25 was introduced by the Governing Body on first reading at the April 8, 2025 Council meeting which provides amendments to the stormwater requirements in Chapter 25, Section 29 of the Revised General Ordinances of the Township of West Orange. The SCO 2918-25 introduces additional definitions in Section 29.2, updates the definition of a Major Development and establishes a definition for Minor Development that consist of design standards for projects that qualify as a Minor Development.

The Township's current stormwater ordinance is applicable to projects which are classified as Major Development in accordance with the Model SCO for Municipalities provided by New Jersey Department of Environmental Protection (NJDEP) in Appendix D of the New Jersey Stormwater Best Management Practices Manual (BMP). The changes that have been made to this ordinance are more stringent for Major and Minor Developments than the NJDEP model ordinance.

The proposed revised definition of a Major Development describes an "individual development, including redevelopment, as well as multiple developments" that individually or collectively result in:

1. The disturbance of 0.5 Acres of land since February 2, 2004;
2. The creation of 5,000 square feet or more of "regulated impervious surface" since February 2, 2004;

3. The creation of 5,000 square feet 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 5,000 square feet or more. The same surface shall not be counted twice when determining if the combination area equals one-quarter acre or more.

The SCO 2918-25 Section 29.4A further stipulates that a Major Development shall use Low Impact Development Techniques to achieve the minimum of stormwater runoff that must be managed through green infrastructure and other stormwater management measures. Also, retention of natural landscape features shall be emphasized in the design. Section 29.4J requires that stormwater management measures shall be designed and demonstrated not to negatively impact wetlands or watercourses on site or adjacent to the property. Section 29.4Q for groundwater recharge standards added that the requirements for recharge does not apply to areas of the project that have been previously developed as defined in Section 29.2 or to groundwater subject to projects within the “urban redevelopment area.”

The SCO 2918-25 defines a Minor Development as “any development that results in a new dwelling and/or the construction of any site improvements that result in an increase in impervious cover by 400 square feet that results in an increase of stormwater runoff but does not meet the definition of a major development”.

The SCO 2918-25 Section 29.3C further stipulates that the stormwater measures for a Minor Development shall be designed to manage 6 inches of rainfall on all new impervious surfaces and meet the standards for runoff quantity and green infrastructure. In addition, soil testing must be performed in accordance with the current rules as N.J.A.C. 7:8, and the minimum standards for erosion control established under the Soil Erosion and Sediment Control Act, N.J.S.A. 4:24-39 et seq. and implementing rules at N.J.A.C. 2:90 shall be met. Lastly, regular, and effective maintenance shall be performed for all stormwater management facilities and shall be protected by the owner.

The SCO 2918-25 Section 29.9 was added for the stormwater management requirements for Minor Developments that is applicable as follows:

- 1) For each square foot of increased impervious surface, six inches per square foot of stormwater shall be managed using green infrastructure practices set out in **Table 7 for Minor Development BMP** as may be required by the municipal engineer of which the retention storm must be retained on site using green infrastructure.
- 2) All such development shall be subject to review by the municipal engineer to determine that all stormwater runoff created by the development is adequately controlled in accordance with the standards of this ordinance.
- 3) In such cases where it is determined that the outflow from the

stormwater management system will impact an adjacent property, the outflow shall be directed to a storm sewer, swale, or other suitable stormwater runoff conveyance measure.

- 4) If the municipal engineer determines that the outflow from the stormwater management system may potentially damage an adjoining property and the out flow cannot be safely directed to a storm sewer, swale, or other suitable stormwater runoff conveyance measure, the stormwater runoff from the development shall be retained on-site at a rate of four inches of storage for each square foot of new impervious surface using green infrastructure practices or such other measures as may be required by the municipal engineer.
- 5) If the applicant cannot comply with § 25-29.9A above, the proposal should be redesigned or reduced in scope so that the stormwater management measures do not damage an adjoining property.
- 6) **Table 8** Provides presumptive rain garden sizes that can be installed to manage New Jersey's Water Quality Design Storm on minor developments.

The SCO 2918-25 Section 29.11 was added for the requirements for a Site Development Stormwater Plan - Minor Development that provides guidelines for the submission items that are required as follows:

A. Submission of Site Development Stormwater Plan

1. Whenever an applicant seeks municipal approval of a minor development subject to this ordinance, the applicant shall submit all the required components of the checklist for the site development stormwater plan at **§25-29.11C** 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 a complete electronic copy, and three hard copies of the materials listed in the checklist for site development stormwater plans in accordance with **§25-29.11C** 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 Township Engineer to determine if all the checklist requirements have been satisfied and to determine if the project meets the standards set forth

in this article.

C. Submission of Minor Development Stormwater Plan

The following shall be required:

1. Boundary Survey of the property to scale within 5 years of the proposal;
2. Topographic base map. The design engineer shall provide sufficient topographic and location data that shows existing contours, at a scale of no greater than 1" = 30' to allow the Township Engineer to make an appropriate evaluation of the development proposal. The topography and existing conditions must be based on a plan prepared by a state of New Jersey licensed surveyor;
3. Project Development Plans. A map at the scale of the topographical base map indicating the location of existing and proposed buildings, proposed contours and other improvements shall be provided;
4. Location of floodplains, wetlands, and water bodies if application is directly within 300 feet of same;
5. Any State Agency Approvals as may be required NJDEP permits, HEPSCD permits;
6. Grading and Drainage/Stormwater Management facilities map illustrated on a map of the same scale as the topographic base map, shall include:
 - 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 discharge;
 - ii. Existing and proposed contours;
 - iii. Existing and proposed spot elevations at building corners, property corners, street gutter line, top of curb, top of depressed curb, top and bottom of wall and around structures;
 - iv. Existing and proposed utility connections to the existing and proposed structures;
 - v. Finished floor, basement/cellar and garage floor elevations;
 - vi. Location of roof leaders;
 - vii. Design and calculations of the proposed stormwater management facility;
 - viii. Details of all stormwater management facility design, during and after construction;
 - ix. Maintenance manual for stormwater facilities in accordance with NJDEP guidelines and BMP manual;

7. Plan required to be signed and sealed by a state of New Jersey Licensed Professional such as an architect, engineer and surveyor.

D. Calculations

Calculations to demonstrate compliance with **§ 25-29.3 and §25-29.9** of this Stormwater management control measures ordinance for all minor developments shall depend on the hydrologic properties of soils, or require certain separation from the seasonal high-water table, and a soils report shall be submitted. The soils report shall be generated by on-site 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 evaluate the suitability and distribution of soils present at the location of the control measure. On a case-by-case basis, the Township Engineer may require a soil evaluation to be a condition of any approved plan and be completed prior to or during construction and installation of any stormwater management BMP on the site.

E. Maintenance and Repair Plan

Minor development BMPs shall be operated and maintained in accordance with guidance published and provided by NJDEP Stormwater Best Management Practices.

F. Waiver from Submission Requirements

The municipal official or board reviewing an application under this article may, in consultation with the Township Engineer, waive submission of any of the requirements in **§ 25-29.11C(1)** through (3) 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.

The SCO 2918-25 Section 29.14 was added to establish fees for Major and Minor developments that are part of a Land Use Board application process. Applicants will be required to file a stormwater permit application with the associated application fee set by Resolution. Also, all professional reviews are set to be paid for through the escrow associated with the stormwater permit application. Last but not least, major and minor developments that are not part of a Land Use Board application, the same fees set by Resolution shall apply.

Based on the above, it is my professional opinion that Stormwater Control Ordinance (SCO) 2918-25 which is more stringent than the NJDEP model ordinance complies with the requirements set forth in N.J.A.C., 7:8 which was last amended and adopted by Council on November 25, 2024.