



TOWN OF ARLINGTON
DEPARTMENT OF PLANNING and
COMMUNITY DEVELOPMENT

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MEMORANDUM

To: Jennifer Raitt, Director, Department of Planning and Community Development

From: Emily Sullivan, Environmental Planner & Conservation Agent

CC: Erin Zwirko, Assistant Director, Department of Planning and Community Development
Michael Rademacher, Director, Department of Public Works
Wayne Chouinard, Town Engineer
Bill Copithorne, Assistant Town Engineer

Date: March 11, 2021

RE: Bylaw Amendment/Stormwater Management Warrant Article for 2021 Annual Town Meeting

A Warrant Article to amend Article 15 Stormwater Mitigation of Town Bylaw Title V Regulations Upon the Use of Private Property has been submitted by the Arlington Engineering Division of the Department of Public Works (DPW) and Department of Planning and Community Development (DPCD). The Warrant Article was originally submitted for 2020 Annual Town Meeting but was postponed due to the COVID-19 pandemic. The Warrant Article has been refiled for 2021 Annual Town Meeting.

The Engineering Division and DPCD are proposing amendments to the Stormwater Mitigation Bylaw for a number of reasons, but first and foremost in order to maintain compliance with the Environmental Protection Agency's (EPA) new Municipal Separate Storm Sewer System (MS4) permit. The MS4 permit regulates nonpoint source pollution into local bodies of water, particularly through the regulation of stormwater management. The MS4 permit was updated in 2016 to include stricter regulations and became effective on July 1, 2018. The Engineering Division and DPCD are working together to develop policies, procedures, and schedules to meet the requirements of the MS4 permit. One such requirement of the MS4 permit is to update local bylaws and regulations that support better Town-wide stormwater management on public and private property, based on prescribed criteria established by the EPA with guidance from the Massachusetts Department of Environmental Protection (MassDEP).

The Engineering Division and DPCD has provided staff support for the background of this Warrant Article, including research into the requirements of the MS4 permit; research into other municipalities' stormwater bylaws and regulations; and facilitating discussion with the Inspectional Services Department (ISD), the DPW, the Arlington Redevelopment Board (ARB), and the Arlington Conservation Commission (ACC). The Engineering Division and DPCD are

also working with the Mystic River Watershed Association (MyRWA) and Horsley Witten, a stormwater technical consultant hired by MyRWA, to ensure that all proposed amendments comply with the MS4 permit. Finally, the Engineering Division worked with Weston & Sampson, another stormwater technical consultant, to review the update.

Additional consideration relative to this Warrant Article includes:

- **Compliance with the MS4 permit is critical.**
Due to the stricter regulations of the MS4 permit, Arlington has been mandated to assess and amend its local stormwater bylaw, regulations, and policies to remain in compliance with the permit. Noncompliance could result in violation orders or decrees with associated fines.
- **The Town's current permitting processes can be improved and coordinated.**
The Engineering Division currently administers a Stormwater Review Permit promulgated by the Stormwater Mitigation Bylaw. The proposed amendments would formalize the current stormwater permitting process, as well as better establish and integrate into Arlington's current permitting processes, especially those permits issued by ISD, the Zoning Board of Appeals, the ARB, and the ACC. Please see the enclosed "Other Permitting Jurisdictions Certification Form".
- **Arlington is a stormwater role model and wants to continue to be a stormwater role model for other communities.**
In Fall 2018, Arlington was selected to be one of two municipalities to work with the EPA and MassDEP to enhance stormwater management through a community support collaborative. The goal of this collaborative was to work with the state and federal stormwater regulatory agencies to improve compliance with the recently updated MS4 permit and reduce the eutrophication and degradation of water quality in the Mystic River. Arlington has a great professional relationship with the EPA and MassDEP stormwater divisions and has been highlighted as a role model community. In Fall 2019, the Engineering Division was featured on an EPA webinar because of the professional relationship and stormwater insight shared with the EPA and MassDEP.

In addition to being a role model for stormwater, Arlington is also a role model community for implementing green infrastructure interventions that support improved stormwater management. Between 2019 and 2020, Arlington was awarded over \$300,000 by the Massachusetts Office of Coastal Zone Management (CZM) to install rain gardens and infiltration trenches in East Arlington. The CZM grants followed two other grants awarded to Arlington to improve stormwater management, an EPA 319 Nonpoint Source Pollution grant and a MassDEP Natural Resource Damages (NRD) grant. The 319 grant was used to construct two rain gardens, also located in East Arlington. The NRD grant was awarded to restore a derelict outfall along the Mystic River and replant the river habitat along river's bank.

- **An amended Stormwater Management bylaw supports Arlington's ongoing resilience efforts.**

Arlington is actively engaged in efforts to improve climate change preparedness and resiliency by reducing known vulnerabilities. In 2018, Arlington was awarded funding to create a Municipal Vulnerability Preparedness (MVP) Plan which included a Community Resilience Building Workshop. This workshop enabled Arlington to better understand its greatest opportunities to improve resilience, including reducing flooding along Mill Brook and addressing heat hazards along Arlington's major corridors. After completion of the plan, Arlington was awarded an MVP Action grant to improve the flood storage capacity at Wellington Park.

Arlington is not only invested in local resilience, but is also an active participant in strengthening regional resilience. Arlington is currently a member of three regional collaborative efforts established for the purpose of improving climate change and natural disaster resilience. These three collaborative efforts include the Metropolitan Area Planning Council Metropolitan Mayors Coalition Climate Preparedness Taskforce, MyRWA's Resilient Mystic Collaborative, and the Charles River Watershed Association's Climate Compact. All three of these collaborative efforts are opportunities for municipalities to share best resilience practices. These three collaborative efforts have prioritized stormwater management as a scalable and effective resilience building tactic because stormwater flooding has become a major vulnerability issue in urbanized areas.

ARTICLE 15

STORM WATER MITIGATION STORMWATER MANAGEMENT

(ART. 10, ATM – 04/25/07)

Section 1. Purpose

The purpose of this bylaw is to protect, maintain, and enhance the public health, safety, environment, and general welfare by establishing minimum requirements and procedures to control the adverse effects of soil erosion and sedimentation, construction and post-development stormwater runoff, decreased groundwater recharge, climate change impacts, and nonpoint source pollution associated with new development, redevelopment, and other land alterations. Stormwater runoff can be a major cause of:

- (1) Impairment of water quality and flow in lakes, ponds, streams, rivers, coastal waters, wetlands, groundwater, and drinking water supplies;
- (2) Contamination of drinking water supplies;
- (3) Contamination of downstream coastal areas;
- (4) Alteration or destruction of aquatic and wildlife habitat;
- (5) Overloading or clogging of municipal stormwater management systems; and
- (6) Flooding.

The objectives of this bylaw are to:

- (1) Protect wetland and water resources;
- (2) Mitigate climate change impacts;
- (2) Comply with state and federal statutes and regulations relating to stormwater discharges including total maximum daily load requirements;
- (3) Prevent and reduce pollutants from entering Arlington's municipal separate storm sewer system (MS4);
- (4) Prohibit illicit connections and unauthorized discharges to the MS4 and require their removal;
- (5) Establish minimum construction and post construction stormwater management standards and design criteria for the regulation and control of stormwater runoff quantity and quality and the control of sedimentation and erosion on disturbed sites;
- (6) Establish provisions for the long-term responsibility for, and maintenance of, structural stormwater control facilities and nonstructural stormwater best management practices to ensure that they continue to function as designed, and pose no threat to public safety; and

- (7) Establish Arlington's legal authority to ensure compliance with the provisions of this bylaw through inspection, monitoring, and enforcement.

Section 1. Section 2. Definitions

A. The following terms, when used whether or not capitalized in this Bylaw, shall have the meanings set forth below, unless the context otherwise requires. Additional definitions may be set forth in the Rules and Regulations promulgated by the Department of Public Works under Section 6.C of this bylaw.

"Building footprint" – The outline of the total area covered by a building's perimeter at the ground level.

"Development" – The modification of land to accommodate a new use or expansion of use, usually involving construction.

"Impervious surface" – A hard-surfaced, human-made area that does not readily absorb or retain water, preventing the infiltration of storm water runoff; including but not limited to building roofs, parking and driveway areas, sidewalks, paved recreation areas, structural additions, accessory structures, roads, pools, and play areas.

"Land Alteration" – Any activity that causes a change in the position or location of soil, sand, rock, gravel, or similar earth material; results in an increased amount of runoff or pollutants; measurably changes the ability of a ground surface to absorb waters; involves clearing and grading; or results in an alteration of drainage characteristics.

"Predevelopment" – The status of a property at the time prior to request for a permit for new construction or increase to the impervious surface area of a lot.

"Runoff" – Rainfall, snowmelt, or irrigation water flowing over the ground surface or directed through a pipe or culvert.

"Runoff Rate" – The speed and volume of stormwater which flows over the surface of the land.

~~"Stormwater" – storm water, snow melt; the flow of water which results from precipitation and which occurs following rainfall or snowmelt~~ Runoff from precipitation or snow melt and surface water runoff and drainage.

Section 3. Authority

This Bylaw is adopted under authority granted by the Home Rule Amendment of the Massachusetts Constitution and the Home Rule statutes, and pursuant to the regulations of the federal Clean Water Act found at 40 CFR 122.34.

Section 2. Section 4. Applicability

~~This bylaw is applicable to the following development or redevelopment:~~

A. ~~All development of a previously undeveloped vacant lot, resulting in a structure where building footprint and other impervious surfaces exceeds 500 square feet;~~

B. ~~Alteration of a developed property resulting in an increase to the impervious area of a lot by more than 350 square feet.~~

~~This bylaw shall not apply, however, to the paving of private ways that are owned in common with abutting lot owners, and that serve purposes similar to that of public ways, and that are not driveways entirely located on a single lot or on multiple lots under the same ownership.~~

This bylaw shall be applicable to all new development, development, redevelopment, or land alteration activities resulting in either an increase in impervious surface of 350 square feet or more, or land alteration of 1 acre or more, including such activities that may also require a permit issued by the Redevelopment Board, Conservation Commission, Zoning Board of Appeals, and/or the Inspectional Services Department. A development shall not be segmented or phased in a manner to avoid compliance with this bylaw. This bylaw shall also apply to land alterations or disturbances that are less than one acre but are part of a larger plan of development disturbing one acre or more.

Project Categories. The Permitting Authority may by regulation establish categories of projects ranging from "minor" to "major" based on project size, scope, nature, or location. Project Application requirements and submittals, fees, and criteria for permit issuance shall be scaled appropriately based on project category.

Section 3. Standard

~~No project subject to this bylaw may increase the surface water runoff rate relative to the predevelopment runoff rate.~~

Section 4. Section 5. Procedure

A. ~~Application: Prior to the issuance of a building permit for any activity subject to this bylaw, a grading and drainage plan shall be submitted to the Engineering Division, consistent with specifications to be developed by the Arlington Department of Public Works. A fee of \$25.00 shall be assessed to cover the costs of review of the plan.~~

B. ~~Review: The Engineering Division will review the application, and within 14 days approve, approve subject to conditions, or reject the plan.~~

C. ~~Relief: The applicant may request relief when strict adherence to this bylaw can be shown to constitute significant hardship due to unique topographical aspects of the site or due to serious financial hardship. Relief may be granted by the Director of Public Works, after consultation with the Engineering Division which decision shall be made within 14 days after the request for same is made. Further relief from the decision of the Director of Public Works may be sought from the Zoning Board of Appeals, which will make a de novo determination after a hearing on the merits. The Zoning Board will convene such hearing within 21 days of a request for relief from the applicant and make a decision within 14 days of the hearing.~~

~~D. Prior to project completion, the Town Engineer or the Engineer's representative shall determine if there has been compliance with the storm water plan; if found to be not in compliance, the applicant will be notified of remaining work to be done; if found in compliance, a certificate of completion will be issued.~~

~~E. Any attempt to occupy the premises by the applicant or anyone else without compliance with the provisions of this bylaw shall be punishable by a fine of \$200 each day of noncompliance to be considered a separate offense.~~

Permit procedures and requirements shall be defined in the Rules and Regulations promulgated pursuant to Section 6.C. of this bylaw.

~~Section 5.~~ Section 6. Administration

~~A. The Engineering Division, subject to approval by the Director of public Works and the Town Manager, shall establish administrative procedures for the review and approval of storm water management plans. Failure to promulgate rules and regulations will not have the effect of suspending or invalidating this bylaw.~~

~~B. The Engineering Division shall utilize the policy, criteria, and information, including specifications and standards, of the latest edition of the Massachusetts Department of Environmental Protection's revised Surface Water Discharge Permit Regulations at 314 CMR 3.06(11)(b)5 Storm Water Management Policy for execution of the provisions of this bylaw.~~

A. The Town Engineer or its Designee shall administer this bylaw.

B. The Engineering Division may designate additional authorized agents (Designees) of the Conservation Commission, Redevelopment Board, Zoning Board of Appeals, or Building Inspector to issue Stormwater Permits concurrent with other permitting processes for projects when the land alteration or change in impervious cover is wholly under their jurisdiction.

C. The Engineering Division, subject to approval by the Director of Public Works and the Town Manager, shall adopt, and may periodically amend, Stormwater Management Rules and Regulations including terms, conditions, definitions, enforcement, fees, delegation of authority, procedures and administration of this Bylaw. A public hearing must be held at least 2 weeks prior to the adoption or amendment of such Rules and Regulations, and a draft of the proposed Rules and Regulations must be made publicly available at least 2 weeks prior to the public hearing. Failure of the Engineering Division to issue such Rules and Regulations or legal declaration of their invalidity by a court, shall not act to suspend or invalidate the effect of this Bylaw.

D. Stormwater Management Standards. For execution of the provisions of this Bylaw, the Permitting Authority shall define stormwater management standards within the Rules and Regulations. These standards shall incorporate into the Rules and Regulations the minimum standards of the EPA National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4 Permit) and the specifications and standards of latest editions of the Massachusetts Stormwater Management Standards and Technical Handbooks, or approved local equivalents. The stormwater management standards may be updated

and expanded periodically, based on improvements in engineering, science, monitoring, and local maintenance experience.

- E. The Department of Public Works or its Designee has the authority to resolve illicit connections by the means necessary. This authority may be set forth by this Bylaw and is stated in the Rules and Regulations as stated in the Rules and Regulations Relating to Use of Public and Private Sewers.

Section 7. Enforcement

The Engineering Division or its Designee shall enforce this Bylaw, Regulations, orders, violation notices, and enforcement orders, and may pursue all civil and criminal remedies for such violations.

A. Civil relief. If a person violates the provisions of this Bylaw, or any associated Regulations, permit, notice, or order issued thereunder, the Engineering Division or its Designee may seek injunctive relief in a court of competent jurisdiction restraining the person from activities which would create further violations or compelling the person to perform abatement or remediation of the violation.

B. Orders. If the Engineering Division or its Designee determines that a person's failure to follow the requirements of this Bylaw, any regulatory provision issued hereunder, or any authorization issued pursuant to this Bylaw or Regulations is creating an adverse impact to a water resource, then the Engineering Division or its Designee may issue a written order to the person to remediate the adverse impact, which may include requirements to:

- (1) Cease and desist from land-disturbing activity until there is compliance with the Bylaw or provisions of an approved Stormwater Management Permit;
- (2) Maintain, install, or perform additional erosion and sediment control measures;
- (3) Perform monitoring, analyses, and reporting;
- (4) Remediate erosion and sedimentation resulting directly or indirectly from land-disturbing activity;
- (5) Comply with requirements in the Stormwater Management Permit for operation and maintenance of stormwater management systems;
- (6) Remediate adverse impacts resulting directly or indirectly from malfunction of the stormwater management systems; and/or
- (7) Eliminate discharges, directly or indirectly, into a watercourse or into the waters of the Commonwealth.

C. If the Engineering Division or its Designee determines that abatement or remediation of pollutants is required, the order shall set forth a deadline for completion of the abatement or remediation. Said order shall further advise that, should the violator or property owner fail to abate or perform remediation within the specified deadline, the Town may, at its option, undertake such work, and expenses thereof shall be charged to the violator or property owner. Within 30 days after completing all measures necessary to abate the violation or to perform remediation, the violator and the property owner will be notified of the costs incurred by the Town, including administrative costs. The violator or

property owner may file a written protest objecting to the amount or basis of costs with the Engineering Division or its Designee within 30 days of receipt of the notification of the costs incurred. If the amount due is not received by the expiration of the time in which to file a protest or within 30 days following a decision of the Engineering Division or its Designee affirming or reducing the costs, or from a final decision of a court of competent jurisdiction, the cost shall become a special assessment against the property owner of said costs. Interest shall begin to accrue on any unpaid costs at the statutory rate provided in G.L. c.59, § 57 after the 30th day at which the costs first become due.

Section 8. Fee Schedule

A. Permit fees are payable at the time of Application and are nonrefundable.

B. Permit fees shall be calculated by the Engineering Division and shall be approved by the Director of Public Works and Town Manager. Fees shall be outlined within the Rules and Regulations.

C. Town, County, State, and Federal projects are exempt from fees.

D. Consultant Fee. Upon receipt of a Stormwater Permit Application the Engineering Division is authorized to require an Applicant to pay a fee for the reasonable costs and expenses borne by the Engineering Division for specific expert engineering and other consultant services deemed necessary by the Engineering Division to come to a final decision on the Application. The fee is called the consultant fee. The consultant shall be chosen by, and report only to, the Engineering Division. The exercise of discretion by the Engineering Division in making its determination to require payment of a consultant fee shall be based upon its reasonable finding that additional information acquirable only through outside consultants would be necessary for the making of an objective decision. The Engineering Division shall return any unused portion of the consultant fee to the Applicant. Any Applicant aggrieved by the imposition of, or size of, the consultant fee, or any act related thereto, may appeal according to the provision of the Massachusetts General Laws.

Section 9. Severability

If any provision, paragraph, sentence, or clause of this bylaw shall be held invalid for any reason, all other provisions shall continue in full force and effect.

DRAFT
ARLINGTON STORMWATER MANAGEMENT RULES & REGULATIONS
Effective Date: xx/xx/xxx
Revised: N/A

SECTION 1: AUTHORITY

- A.** The Rules and Regulations contained herein are in effect in accordance with Article 15 of the Town of Arlington Stormwater Management Bylaw (hereinafter called Article 15).
- B.** Nothing in these Rules and Regulations is intended to replace or be in derogation of the requirements of the Town of Arlington Wetlands Protection Bylaw, the Town of Arlington Floodplain District Section 5.7 of the Zoning Bylaw, Arlington Inland Wetland District Section 5.8 of the Zoning Bylaw, or any other Bylaw adopted by the Town of Arlington or any Rules and Regulations adopted thereunder. Any project or activity subject to the provisions of the above-cited Bylaws or Rules and Regulations must comply with the specifications of each. In case of conflict, the more stringent provisions shall apply.
- C.** These Rules and Regulations may be periodically amended by the Engineering Division in accordance with the procedures outlined in Article 15.
- D.** The Engineering Division may make revisions to the fee schedule presented in Appendix B periodically upon the approval of the Director of Public Works and the Town Manager, and in accordance with Article 15.
- E.** Waivers. The Engineering Division may waive strict compliance with any of the requirements of Article 15 or the Rules and Regulations promulgated hereunder, if it finds that:
 - 1. Application of some of the requirements is unnecessary or impracticable because of the size or character of the development project or because of the natural conditions at the site;
 - 2. The project is consistent with the purposes and intent of Article 15, and;
 - 3. The project provides substantially the same level of protection to the public health, safety, environment, and general welfare of the Town as required by Article 15.

Any Applicant for a waiver must submit a written request for such a waiver to the Engineering Division. Such a request shall be accompanied by an explanation or documentation supporting the waiver request. The Engineering Division shall provide a written response to any such waiver request within ten (10) business days of receipt of the request. Should the Engineering Division require additional time or information to review a waiver request, a notice shall be provided to the Applicant in writing informing them of the delay and additional information, if any, required. In the event the Applicant fails to provide requested information, the waiver request shall be denied. Applicants may appeal a rejected waiver to the Director of Public Works, who shall provide a written response to any such waiver request within ten (10) business days of receipt of the request. Approval of a waiver from the requirements of Article 15 by the Engineering Division or the Director of Public Works does not constitute a release of the Applicant's responsibility to adhere to the rules and regulations of other permitting authorities.

SECTION 2: PURPOSE

- A.** The purpose of these regulations is to protect, maintain and enhance the public health, safety, environment, and general welfare by establishing minimum requirements and procedures to control the adverse effects of soil erosion and sedimentation, construction and post-development stormwater runoff, decreased groundwater recharge, climate change impacts, and nonpoint

source pollution associated with new development, redevelopment and other land alterations, as more specifically addressed in Article 15.

SECTION 3: DEFINITIONS

- A. All definitions are provided in Article 15 or Appendix A of the Town of Arlington Stormwater Management Rules and Regulations.

SECTION 4: APPLICABILITY

These Rules and Regulations apply to all projects or activities subject to the Applicability section of Article 15. Projects and/or activities subject to Article 15 must obtain a Stormwater Management Permit (SMP) from the Engineering Division or its Designee in accordance with the permit procedures and requirements defined in Sections 5 through 9 and Appendix B of these Rules and Regulations.

No work on a project meeting or exceeding threshold requirements under the jurisdiction of Article 15 may commence without written approval of the Engineering Division or its Designee confirming that the project or activity is in compliance with the Design Standards of these Regulations. If work commences without approval, enforcement action and/or fines may be pursued.

A. Exempt Projects - No Permit Required

Notwithstanding Section 4.B, no permit shall be required by the Engineering Division or its Designee for:

1. Normal maintenance and improvement of land in agricultural use as defined by the Wetlands Protection Act regulation 310 CMR 10.04 and G.L.C. 40A, § 3.
2. Any work or projects for which all necessary approvals and permits, including building permits, have been issued before the effective date of these Rules and Regulations.
3. Projects creating less than 350 square feet of new impervious cover and disturbing less than one acre of land.
4. Repairing, repaving, or replacing an existing driveway or parking area. See Section 4.C.2. of this section for expansion regulations.
5. Repair or replacement of an existing roof.
6. Normal maintenance of existing lawn, landscaping, or garden areas.
7. Construction of any fence that will not alter existing terrain or drainage patterns.
8. Construction of utilities (gas, water, sanitary sewer, electric, telephone, cable television, etc.) other than drainage that will not permanently alter the site.
9. The maintenance or surfacing of any unpaved public or private way.
10. Such other projects as the Engineering Division or its Designee may find, at its discretion, to meet the standards for a waiver, provided that erosion control measures such as those listed in the most recent versions of the Massachusetts Stormwater Management Standards and Technical Handbooks and the Massachusetts Erosion and Sediment Control Guidelines for Urban and Suburban Areas are used appropriately and the project or activity will not result in

an increased amount of stormwater runoff or pollutants flowing from a parcel of land and entering a traveled way or adjacent properties.

- B.** All projects or activities not falling under an exception listed in Section 4.A shall require a Stormwater Management Permit in accordance with Sections 4.C to 4.E. The installation of porous pavers shall not negate the need for a stormwater mitigation review
- C.** Projects or activities that require a Minor Stormwater Management Permit:
1. Any land alteration, disturbance, development, or redevelopment that results in an increase in impervious area of 350 square feet up to 1,000 square feet, except for work that requires a building permit (see Section 4.D. below).
 2. The expansion of a driveway or parking area with a resultant increase in impervious area between 350 and 1,000 square feet.
- D.** Projects or activities that require a Major Stormwater Management Permit:
1. Any project or activity effectuating an alteration, disturbance, development, or redevelopment of land that increases impervious area and is ineligible for a Minor Stormwater Management Permit requires a Major Stormwater Management Permit.
 2. Any land alteration, disturbance, development, or redevelopment that results in an increase in impervious area of 1,000 square feet or more and/or disturbs one acre of land or more.
 3. Any alteration, disturbance, development, or redevelopment that results in an increase in impervious area of 350 square feet or greater and requires a building permit from Inspectional Services.
- E.** An Emergency Stormwater Permit (ESP) may be issued in cases where a delay or failure to perform work poses an imminent danger to public health or safety. The Engineering Division or their Designee may, at their sole discretion, issue an ESP. Any person to whom an ESP is issued shall submit the materials described in Sections 5 through 9 and Appendix B of these Rules and Regulations as soon as practical thereafter for review and ratification.

SECTION 5: DESIGN STANDARDS

A. Minor Stormwater Management Permits (mSMPs)

At a minimum all projects subject to a Minor Stormwater Management Permit shall be designed to the following standards:

1. Stormwater management systems requiring minor stormwater permits shall be designed to meet the minimum storage requirements presented in the following table.

Increase in Impervious Area (s.f.)	Minimum Storage Required (gal.)
350 to 450	440
451 to 550	540
551 to 650	640

Increase in Impervious Area (s.f.)	Minimum Storage Required (gal.)
651 to 750	730
751 to 850	830
851 to 950	930
950 to 999	980

2. All projects must consider and, unless infeasible, propose and implement Low Impact Development (LID) BMPs listed in the Massachusetts Stormwater Handbook. Applicants shall demonstrate compliance with design standards for LID BMPs through generally accepted methods. LID BMPs should be considered for their impact on overall site climate change resilience, improvements to water quality, and ability to handle water quantity.
3. All projects must include sufficient sediment and erosion controls throughout the duration of the project. Sediment and erosion controls shall meet the requirements of the most recent versions of the Massachusetts Stormwater Management Standards and Technical Handbooks and the Massachusetts Runoff, Erosion and Sediment Control Field Guide.

B. Major Stormwater Management Permits (MSMPs)

At a minimum all projects subject to a Major Stormwater Management Permit shall comply with the performance standards of the most recent version of the Massachusetts Stormwater Management Standards and Technical Handbooks, and these Rules and Regulations, with the following differences from the Handbook noted:

1. Stormwater management systems requiring major stormwater permits shall be designed to:
 - a) Retain the volume of runoff equivalent to, or greater than, 1.0 inch multiplied by the total post-construction impervious surface area on the redeveloped site, including any directly connected impervious area draining onto the redeveloped site; and
 - b) Remove 90% of the average annual load of Total Suspended Solids generated from the impervious area on the site; and
 - c) Remove 60% of the average annual load of Total Phosphorus (TP) generated from the total area on the site;¹ and
 - d) Maintain or reduce peak flows from the project area for the 2-, 10-, 25-, and 100-year, 24-hour frequency events.
2. Stormwater management systems designed on commercial and industrial land use area draining to Alewife Brook or the Charles River shall incorporate designs that allow for shutdown and containment where appropriate to isolate the system in the event of an emergency spill.
3. Redevelopment activities that are exclusively limited to maintenance and improvement of existing roadways shall improve existing conditions unless infeasible and are exempt from Section 5.B.2. Such activities include the following:

- a. Roadway widening by less than a single lane width;
 - b. Adding shoulders to roadways;
 - c. Correcting substandard intersections;
 - d. Improving existing intersections; and
 - e. Repaving projects.
 - f. Roadway widening or improvements that increase the amount of impervious area by greater than or equal to a single lane width shall meet the requirements of Section 5.B.2.
- 4. The rainfall amounts used for design and analysis shall be based on the NOAA Atlas 14+ Volume 10 Point Precipitation Frequency Estimates for Arlington.
 - 5. All projects must consider and, unless infeasible, propose and implement Low Impact Development (LID) Best Management Practices listed in the Massachusetts Stormwater Handbook. Applicants shall demonstrate compliance with design standards for LID BMPs through generally accepted methods. LID BMPs should be considered for their impact on overall site climate change resilience, improvements to water quality, and ability to handle water quantity.
 - 6. All projects must include sufficient sediment and erosion controls throughout the duration of the project.

SECTION 6: ADMINISTRATION

A. Administration of Rules and Regulations

The Engineering Division shall administer, implement, and enforce these Rules and Regulations, except as otherwise noted. The Engineering Division may designate in writing any authorized Town employee, board, or agent for the purposes of reviewing stormwater submittals and issuing stormwater management permits.

The Applicant shall submit all Stormwater Management Permit Application submittals in compliance with these Rules and Regulations to the Engineering Division.

The Engineering Division will review the submittal for administrative completeness and compliance with the requirements and standards of these Rules and Regulations. If the proposed project is administratively complete and complies with these Rules and Regulations, the Engineering Division may grant a Stormwater Management Permit, in addition to any other approval or permit for which they are authorized. The Engineering Division or its Designee shall have authority to enforce Article 15 and these Rules and Regulations. The Engineering Division or its designee may reject an Application if it is not administratively complete.

B. Right of Entry

Filing an Application for a permit grants the Engineering Division or its Designee permission to enter a project site from the time of Application until a Stormwater Certificate of Compliance is issued as necessary to verify the information in the Application and to inspect the site for compliance with the resulting permit.

C. Minor Stormwater Management Permit Approval Process

1. The Engineering Division or its Designee shall review the permit Application within ten (10) business days of receipt.
2. The Engineering Division or its Designee shall provide a written response to the Applicant within the review period indicating one of the following:
 - (1) Disapprove the Application for being incomplete and require the submission of additional information and/or deny the Permit;
 - (2) Approve the Permit Application;
 - (3) Approve the Permit Application with conditions, modifications, and/or restrictions that are required to ensure that the project will protect water resources and meet the objectives and requirements of Article 15;
 - (4) Deny the Permit Application due to non-compliance with Design Standards or insufficient information to make a determination;
 - (5) Determine that a Minor Stormwater Management Permit is inappropriate and require the submission of a Major Stormwater Management Permit.
3. If a Minor Stormwater Management Permit Application is denied, the Applicant may choose to take one of the following actions:
 - (1) Make required changes to the Application and resubmit to the Engineering Division. The Application shall be treated as a new submittal upon receipt, and the Engineering Division shall complete the review in accordance with the requirements of Section 6.C.
 - (2) Appeal the determination to the Director of Public Works.
 - (3) Request a waiver from the Engineering Division as detailed in Section 1, provided the Design Standards cannot be met due to site conditions or the Applicant wishes to propose an alternative design not consistent with the Design Standards.

D. Major Stormwater Management Permit Approval Process

1. The Engineering Division or its Designee shall review the permit Application within fifteen (15) business days of receipt.
2. The Engineering Division or its Designee shall provide a written response to the Applicant within the review period indicating one of the following:
 - (1) Disapprove the Application for being incomplete and require the submission of additional information and/or deny the Permit.
 - (2) Approve the Permit Application;
 - (3) Approve the Permit Application with conditions (see Standard Conditions, Appendix C), modifications, and/or restrictions that are required to ensure that the project will protect water resources and meets the objectives and requirements of Article 15;
 - (4) Deny the Permit Application due to non-compliance with Design Standards or insufficient information to make a determination.

3. If a Major Stormwater Management Permit Application is denied, the Applicant may choose to take one of the following actions:

- (1) Make required changes to the Application and resubmit to the Engineering Division. The Application shall be treated as a new submittal upon receipt, and the Engineering Division shall complete the review in accordance with the requirements of Section 6.D.
- (2) Appeal the determination to the Director of Public Works.
- (3) Request a waiver from the Engineering Division as detailed in Section 1, provided the Design Standards cannot be met due to site conditions or the Applicant wishes to propose an alternative design not consistent with the Design Standards.

E. Coordinating with Other Permitting Authorities, Jurisdictions, and Regulations

Should a project require a Minor or Major Stormwater Management Permit and also be located within the jurisdiction of another permitting authority such as the Conservation Commission, the Redevelopment Board, the Inspectional Services Department, the Zoning Board of Appeals, or another authority, the Applicant shall obtain approval of the Minor or Major Stormwater Management Permit in addition to the issuance of a permit from the other required permitting authority. Should changes be required to stormwater management per the permit conditions issued by another permitting authority, the Engineering Division will not require additional Stormwater Management Permit review and approval, provided the changes to the design and conditions are at least as stringent, if not more so, than those contained in the original Stormwater Management Permit, unless so requested by the other permitting authority. Any such changes shall be reflected in an As-Built Plan to be provided to both the Engineering Division and the other permitting authority at the completion of the project.

F. Deadline for Action

Failure of the Engineering Division or its designee to take final action upon a Stormwater Management Permit within ten (10) business days of the receipt of a Minor Stormwater Management Application and within fifteen (15) business days of the determination of receipt of a Major Stormwater Management Application shall be deemed to be approval of said Application, unless extension of the deadline date is requested in writing by the Engineering Division prior to the applicable deadline date.

If desired, Applicants shall submit a written Appeal for a Stormwater Management Permit Application that has been denied to the Director of Public Works within thirty (30) business days of the original date of submission of the Stormwater Management Permit Application. The Director of Public Works shall issue a decision within fifteen (15) business days of receipt of the Appeal, unless an extension has been mutually agreed upon in writing by the Applicant and the Director of Public Works.

G. Plan Changes

The Applicant or their legal designee must notify the Engineering Division or its Designee, in writing, of any drainage change or alteration in the system authorized in a Stormwater Management Permit before any change or alteration is made. If the Engineering Division or its Designee determines that the change or alteration is significant, based on the Design Standards in Section 5 and accepted construction practices, the Engineering Division or its designee may require that an amended Application be filed.

H. Appeals of Actions of the Engineering Division

A final decision by the Engineering Division made under these Rules and Regulations shall be reviewable in a court of competent jurisdiction by an action filed within sixty (60) days thereof, in accordance with M.G.L. Ch. 249. § 4. An appeal of an action by a board, commission, or department that has concurrent regulatory authority for a project and/or activity shall be conducted under the applicable appeal provisions of said board, commission, and/or department of the Town of Arlington. An appeal shall result in suspension of any Permit so appealed as described in these Regulations, until such time as the appeal process of the applicable board, commission, and/or department has been resolved.

I. Project Delay

If the project associated with an approved Stormwater Management Permit granted under Article 15 has not been completed within three (3) years of permit issuance, the Permit shall expire. At the request of the Applicant, the Engineering Division may extend the Permit or require the Applicant to apply for a new permit. Any request for extension shall be submitted to the Engineering Division in writing no later than 30 days prior to the expiration of the Stormwater Management Permit. The Engineering Division may require updates to the project to comply with current regulations and standards as a condition of the permit extension.

J. Project Completion

A Stormwater Management Certificate of Completion (SMCC) is required for completion of Stormwater Management Permits as further detailed in Section 9. The Engineering Division will issue a SMCC upon review and approval of the required documents and/or upon otherwise determining that all work of the permit has been satisfactorily completed in conformance with Article 15.

SECTION 7: SITE MEETINGS

A. Construction Commencement

1. **Pre-Construction Meeting:** The Engineering Division or its Designee may require a pre-construction meeting prior to starting clearing, excavation, construction, or land-disturbing activity by the Applicant. The Applicant's technical representative, the general contractor, or any other person with authority to make changes to the project shall meet with the Engineering Division or its representative to review construction sequencing and the permitted plans and their implementation.
2. **Notice of Construction Commencement:** The Applicant must notify the Engineering Division two (2) days prior to the commencement of construction. In addition, the Applicant must notify the Engineering Division two (2) days prior to construction of critical components of any stormwater management structural Best Management Practices (BMPs).
3. The Engineering Division may require the submission of periodic inspections and reporting by the Applicant as dictated by site conditions.
4. A copy of the approved and signed plans and permits for a SMP shall be kept on the construction site at all times.

B. Construction Observations

1. Upon issuance of any Stormwater Management Permit, and until issuance of a SMCC, the Engineering Division shall be granted the right to enter the property per Section 6.B. at reasonable times and in a reasonable manner for the purpose of observation.
2. The Engineering Division shall require the Applicant or its Designee to schedule the following observations by the Engineering Division and its Designee, at a minimum:
 - a) Stormwater Management System Bottom Excavation Observation: An observation may be made of the bottom of excavation for the stormwater management system to ensure adequate separation of the stormwater system from groundwater and to confirm the presence of approved soil type.
 - b) Stormwater Management System Installation Observation: An observation may be made of the completed stormwater management system, prior to backfilling of any underground drainage or stormwater conveyance structures.
- C. The Engineering Division shall be provided with a minimum of 24-hours notice prior to the desired observation time. The Engineering Division shall not be responsible for any project delays related to the Applicant's failure to provide the Engineering Division with appropriate notice.
- D. Should the Applicant neglect to schedule the required observations, the Engineering Division may find the Applicant in violation of the Permit Conditions and require any work completed while in violation to be removed so that the appropriate observations can be completed.
- E. The Engineering Division may waive in-person construction observations in favor of the Applicant providing construction photos adequately showing the conditions that would be witnessed during an observation. The decision to waive an observation is at the sole discretion of the Engineering Division and such decision shall be requested by the Applicant prior to the start of excavation.
- F. Notes indicating the required observations are to be added to the Site Plan(s).

SECTION 8: RECORDKEEPING AND REPORTING REQUIREMENTS

- A. Annual inspection and maintenance reports shall be submitted to the Engineering Division by June 1st annually. Inspection reports for stormwater management systems shall include:
 1. The date of inspection.
 2. Name of inspector.
 3. The condition of each BMP, including components such as:
 - a) Pretreatment practices or devices.
 - b) Vegetation or filter media.
 - c) Spillways, valves, or other control structures.
 - d) Embankments and slopes.
 - e) Inlet and outlet channels and structures.
 - f) Underground drainage structures.

- g) Sediment and debris accumulation in storage and forebay areas (including catch basins).
 - h) Any nonstructural practices.
 - i) Any other item that could affect the proper function of the stormwater management system.
- 4. Description of the need for maintenance.
 - 5. Observations of any physical changes to system in comparison with the approved as-built plan.
- B. The owner(s) of the stormwater management systems shall notify the subsequent owner(s) of the system(s) location, maintenance requirements, and reporting requirements.

SECTION 9: STORMWATER MANAGEMENT CERTIFICATE OF COMPLETION (SMCC)

A. Stormwater Management Certificate of Completion for Minor Stormwater Management Permit

- 1. The Applicant or their designee shall submit the following in order to obtain a SMCC for a Minor Stormwater Management Permit:
 - a. As-Built Site Plan/Sketch, signed and dated by the Applicant, Contractor, or other Designee, showing at a minimum the location of, dimensions of, and swing-ties to the installed stormwater management system and associated observation ports, as well as all newly installed impervious areas and the corresponding as-built increase in impervious area;
 - b. Statement of Compliance, signed and dated by the Applicant, Contractor, or other Designee, stating that the stormwater management system and impervious areas were constructed in accordance with the approved design package and meet the requirements set forth in Article 15.
 - c. Written Request for a SMCC.
- 2. After receipt of the Request for a SMCC and prior to the issuance of a SMCC, the Engineering Division may inspect the stormwater management system to confirm its features. If the installed conditions are found to differ from the approved Minor Stormwater Management Permit and/or the As-Built Plan/Sketch, the Engineering Division shall have the right to require corrections or improvements to the as-built system before issuing a SMCC.
- 3. It is the responsibility of the Applicant to request, in writing, the issuance of a SMCC from the Engineering Division upon completion of the work approved under a Stormwater Management Permit. An Applicant who fails to request a SMCC prior to the expiration of the SMP may be found in noncompliance with Article 15, and face applicable fines for each day of noncompliance.

B. Stormwater Management Certificate of Completion for Major Stormwater Management Permit

- 1. The Applicant or their designee shall submit the following in order to obtain a SMCC for a Major Stormwater Management Permit:

- a. As-Built Site Plan, stamped, signed and dated by a Professional Engineer or Land Surveyor licensed in Massachusetts, produced to scale, showing at a minimum the location of, dimensions of, and swing-ties to the installed stormwater management system and associated observation ports, as well as all impervious areas (buildings, patios, walks, driveways, sheds, etc.) present on the site and the corresponding increase in impervious area;
 - b. Statement of Compliance, stamped, signed and dated by the Design Engineer, stating that the stormwater management system and impervious areas were constructed in accordance with the approved design package and meet the requirements set forth in Article 15.
 - c. Written request for a SMCC.
2. After receipt of the Request for a SMCC and prior to the issuance of a SMCC, the Engineering Division may inspect the stormwater management system to confirm its features. If the installed conditions are found to differ from the approved Major Stormwater Management Permit and/or the As-Built Plan, the Engineering Division shall have the right to require corrections or improvements to the as-built system before issuing a SMCC. Further, a system will be deemed inadequate if issues including, but not limited to, errors in the infiltrative capability, the maximum groundwater elevation, failure to properly define or construct flow paths, or erosive discharges are found. If the system is found to be inadequate by virtue of physical evidence of operational failure, even though it was built as called for in the Stormwater Management Permit, the Engineering Division shall also have the right to require corrections or improvements to the as-built system before issuing a SMCC.
3. It is the responsibility of the Applicant to request, in writing, the issuance of a SMCC from the Engineering Division upon completion of the work approved under a Stormwater Management Permit. An Applicant who fails to request a SMCC prior to the expiration of the SMP may be found in noncompliance with Article 15, and face applicable fines for everyday of noncompliance.

SECTION 10: ENFORCEMENT

The Engineering Division or its Designee may enforce Article 15, Rules and Regulations, orders, permits, violation notices, and enforcement orders, and may pursue all civil and criminal remedies for such violations.

- A. Civil relief: If a person violates the provisions of Article 15, these Rules and Regulations or any associated rules and regulations, permit, notice, or order issued there under, the Engineering Division or its Designee may seek injunctive relief in a court of competent jurisdiction restraining the person.
- B. Orders: If the Engineering Division or its Designee determines that a person has failed to follow the requirements of Article 15, these Rules or Regulations or any other regulatory provision issued hereunder, or any authorization issued pursuant to Article 15 or these Rules and Regulations then the Engineering Division may issue a written order to the person to remediate the adverse impact, which may include requirements to:
 1. Cease and desist from land-disturbing activity until there is compliance with the Article 15 or these Rules and Regulations or provisions of an approved Stormwater Management Permit;
 2. Maintain, install or perform additional erosion and sedimentation control measures;
 3. Perform monitoring, analyses, and reporting;

4. Remediate erosion and sedimentation resulting directly or indirectly from land-disturbing activity;
 5. Comply with requirements of the Stormwater Management Permit for operation and maintenance of stormwater management systems;
 6. Remediate adverse impacts resulting directly or indirectly from malfunction of the stormwater management systems; and/or
 7. Eliminate discharges, directly or indirectly, into a watercourse or into the waters of the Commonwealth.
- C. If the Engineering Division or its Designee determines that abatement or remediation of pollutants is required, it may issue an order setting forth a deadline for completion of the abatement or remediation. Said order shall further advise that, should the violator or property owner fail to abate or perform remediation within the specified deadline, the Town may, at its option, undertake such work, and expenses thereof shall be charged to the violator or property owner. Within thirty (30) days after completing all measures necessary to abate the violation or to perform remediation, the violator and the property owner will be notified of the costs incurred by the Town, including administrative costs. The violator or property owner may file a written protest objecting to the amount or basis of costs with the Engineering Division within thirty (30) days of receipt of the notification of the costs incurred. If the amount due is not received by the expiration of the time in which to file a protest or within thirty (30) days following a decision of the Engineering Division affirming or reducing the costs, or from a final decision of a court of competent jurisdiction, the cost shall become a special assessment against the property owner of said costs. Interest shall begin to accrue on any unpaid costs at the statutory rate provided in G.L. c.59, § 57 after the 30th day on which the costs first become due.
- D. Criminal and Civil Penalties: Any person who violates any provision of the Stormwater Management Bylaw, these Rules and Regulations, or the terms or conditions in any permit or order prescribed or issued there under, may be subject to a fine not to exceed \$200 for each day such violation occurs or continues or subject to a civil penalty, which may be assessed in an action brought on behalf of the Town in any court of competent jurisdiction.
- E. Noncriminal Disposition: As an alternative to criminal prosecution or civil action, the Town may elect to utilize the noncriminal disposition procedure set forth in M.G.L. c.40, § 21D and § 1-6B of the Town of Arlington General Bylaws, in which case any police officer of the Town of Arlington, the Town Engineer, and such other persons as are authorized by the Engineering Division shall be the enforcing person. The penalty for the first violation shall be a warning. The penalty for the second violation shall be \$100. The penalty for the third and subsequent violations shall be \$200. Each day or part thereof that such violation occurs or continues shall constitute a separate offense.
- F. Entry To Perform Duties Under This Bylaw: To the extent permitted by state law, or if authorized by the owner or other party in control of the property, the Engineering Division, its agents, officers, and employees may enter upon privately owned property for the purpose of performing their duties under Article 15 and these Rules and Regulations and may make or cause to be made such examinations, surveys, or sampling as the Engineering Division deems reasonably necessary.
- G. Appeals: The decisions or orders of the Engineering Division or its Designee shall be final unless appealed to the Director of Public Works successfully. Further relief shall be available only in a court of competent jurisdiction.

- H. Remedies Not Exclusive: The remedies listed in Article 15 and these Rules and Regulations are not exclusive of any other remedies available under any applicable federal, state, or local law.

SECTION 13: SEVERABILITY

The invalidity of any section, provision, paragraph, sentence, or clause of these Rules and Regulations shall not invalidate any other section, provision, paragraph, sentence, or clause thereof, nor shall it invalidate any permit or determination that previously has been issued.

END OF ARLINGTON STORMWATER MANAGEMENT BYLAW RULES AND REGULATIONS

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APPENDIX A: DEFINITIONS

The following definitions supplement those included in the Town of Arlington Stormwater Management Bylaw (Article 15)

1. ABUTTER

For the purpose of Arlington Article 15 and these Rules and Regulations, an abutter is any property owner whose property physically abuts the property upon which work is being proposed.

2. ALTER

To change the conditions of any area subject to protection by this Bylaw, and shall include but not be limited to one or more of the following actions:

- A. Fill, removal or excavation of soil, sand, gravel or aggregate of any kind;
- B. Changing of pre-existing drainage characteristics, sedimentation patterns, flow patterns, and flood storage retention areas;
- C. The dumping, discharging, or filling with any material which could degrade water quality;
- D. Driving of pilings, erection of buildings or structures of any kind;
- E. Removal, addition, or relocation of an impervious surface of any kind;
- F. Placing of any object or obstruction, whether or not it interferes with the flow of water;
- G. Destruction, extensive trimming, or removal of natural or planted plant life, vegetation, or trees.

3. APPLICANT

A property owner or agent of a property owner who has filed an Application for a Stormwater Management Permit.

4. BEST MANAGEMENT PRACTICE (BMP)

Schedules of activities, practices (and prohibitions of practices), structures, vegetation, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plan site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

5. BUILDING FOOTPRINT

The outline of the total area covered by a building's perimeter at the ground level.

6. CLIMATE CHANGE

Change in the state of the earth's climate that can be identified by statistical changes of its properties that persist for an extended period, typically decades or longer, whether due to natural variability or as a result of human activity. Climate change impacts can adversely impact stormwater runoff and stormwater management.

7. CONSTRUCTION WASTE

Waste that may come into contact with stormwater on construction sites, including but not limited to discarded building materials, concrete truck wash out, chemicals, litter, and sanitary wastes.

8. CONVEYANCE

- A. Any structure or device, including pipes, drains, culverts, curb breaks, paved swales or man-made swales of all types designed or utilized to move or direct stormwater runoff or existing water flow.
- B. Any impervious surface, including pavement, where surface/sheet flow is utilized to convey rainfall.

9. DEVELOPMENT

The modification of land to accommodate a new use or expansion of use, usually involving construction.

10. ARLINGTON DRAINAGE AND STORMWATER DESIGN STANDARDS

The Drainage and Stormwater Design Standards promulgated by the Department of Public Works of the Town of Arlington.

11. DISTURBANCE

See "ALTER".

12. EMERGENCY STORMWATER PERMIT (ESP)

An Emergency Stormwater Permit may be issued in cases where a delay or failure to perform work poses an imminent danger to public health or safety.

13. EROSION CONTROL

The prevention or reduction of the movement of soil particles or rock fragments.

14. EROSION CONTROL PLAN

A plan that shows the location and construction detail(s) of the erosion and sediment reduction controls to be utilized for a construction site.

15. EXISTING LAWN

Grass area which has been maintained and mowed in the previous two years.

16. FILL

The placement or deposit of any material that raises, either temporarily or permanently, the elevation of any area subject to Article 15.

17. FLOODING

A local and temporary inundation or a rise in the surface of a body of water, such that it covers land not usually under water.

18. GRADING

Changing the level or shape of the ground surface.

19. GROUNDWATER

All water beneath any land surface including water in the soil and bedrock beneath water bodies.

20. HOODED CATCH BASIN

A catch basin that is fitted with an inverted elbow over its outlet pipe or similar structure that is designed to retain oils and other floatables within the catch basin sump and prevent them from flowing into the drainage system.

21. INFEASIBLE

Not technologically possible, or not economically practicable and achievable in light of best industry practices.

22. IMPERVIOUS SURFACE

A hard-surfaced, human-made area that does not readily absorb or retain water, preventing the infiltration of storm water runoff; including but not limited to building roofs, parking and driveway areas, sidewalks, paved recreation areas, structural additions, accessory structures, roads, pools, and play areas.

23. LAND ALTERATION

Any activity that causes a change in the position or location of soil, sand, rock, gravel, or similar earth material; results in an increased amount of runoff or pollutants; measurably changes the ability of a ground surface to absorb waters; involves clearing and grading; or results in an alteration of drainage characteristics.

24. LOW-IMPACT DEVELOPMENT (LID)

Systems or practices that use or mimic natural processes that result in the infiltration, evapotranspiration, or use of stormwater in order to protect water quality and the associated aquatic habitat.

25. NEW DEVELOPMENT

Any construction or land disturbance of a parcel of land that is currently in a natural vegetated state and does not contain alteration by activities.

26. NORMAL MAINTENANCE OF LAWN/YARD

Maintenance of existing developed or landscaped yards or structures that do not result in any net loss of native vegetation or permanently alter the soil surface other than for planting of vegetation. Examples include but are not limited to: trimming of branches and shrubs, pruning (but not removing) trees (can prune up to 20% of canopy), and removal of invasive species.

27. OWNER

A person with a legal or equitable interest in a property.

28. PERSON

Any individual, group of individuals, association, partnership, corporation, company, business organization, trust, estate, the Commonwealth or political subdivision thereof to the extent subject to Town Bylaws, administrative agency, public or quasi-public corporation or body, the Town of Arlington, and any other legal entity, its legal representatives, agents, or assigns.

29. PERVIOUS MATERIAL

Soil Types that are listed as Class I, II and III soils as defined in 310 CMR 15.243 and 15.244 based upon the general soil classification used by the U.S. Department of Agriculture and depicted in the Soil Textural Triangle. Decking shall also be considered a pervious material provided one of the aforementioned soil types is located below the decking. "Pervious pavers", "pervious asphalt", and other similar materials will only be considered pervious if a suitable design for the system as a whole is submitted to and approved by the Engineering Division. Otherwise these materials will be considered impervious.

30. POINT SOURCE

Any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, or container from which pollutants are or may be discharged.

31. PREDEVELOPMENT

The status of a property at the time prior to request for a permit for new construction or increase to the impervious surface area of a lot.

32. REDEVELOPMENT

Any construction or land disturbance of a parcel of land that does not meet the definition of new development above.

33. RESOURCE AREA

Any area protected under including without limitation: the Massachusetts Wetlands Protection Act, Massachusetts Rivers Act, or Town of Arlington Wetlands Protection Bylaw.

34. RUNOFF

Rainfall, snowmelt, or irrigation water flowing over the ground surface or directed through a pipe or culvert.

35. RUNOFF RATE

The speed and volume of stormwater which flows over the surface of the land.

36. SEDIMENTATION

A process of depositing material that has been suspended and transported in water.

37. SLOPE

The incline of a ground surface expressed as a ratio of horizontal distance to vertical distance (e.g. a 4:1 slope). It can also be expressed as a percentage of the vertical rise divided by the horizontal distance (e.g. a twenty-five (25) percent slope).

38. STORMWATER

Runoff from precipitation or snow melt and surface water runoff and drainage.

39. STORMWATER MANAGEMENT CERTIFICATE OF COMPLETION (SMCC)

A document issued by the Engineering Division after all construction activities have been completed which states that all conditions of an issued Stormwater Management Permit (SMP) have been met and that a project has been completed in compliance with the conditions set forth in a SMP.

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APPENDIX B: APPLICATION PROCEDURES FOR STORMWATER MANAGEMENT PERMITS

Applications for a Stormwater Management Permit (SMP) shall include the materials as specified in this section.

- A. Fees:** The Engineering Division or its designee shall obtain with each submission an Application fee to be collected at the time of Application according to the Fee Schedule. After-the-fact Applications shall submit fees at triple the rate set in the Fee Schedule.

PERMIT TYPE	FEE
Minor Stormwater Management Permit	\$100
Major Stormwater Management Permit	\$200

- B. Signature:** The Applicant must sign the Application.

C. Minor Permit Submission Requirements

One (1) hard copy of the original Minor Stormwater Management Permit Application, including all applicable submittal items, shall be submitted to the Engineering Division. An electronic copy (pdf) of all Minor Stormwater Management Permits and applicable submittal items shall also be submitted to the Engineering Division by email to engineering@town.arlington.ma.us. The submitted applications shall adhere to the following requirements:

1. One (1) completed Minor Stormwater Management Permit Application Form with the following:
 - a) Name, contact information, and original signatures of owner(s), Applicant(s), and, if applicable, representative.
 - b) Address of property as well as assessor map and parcel ID.
 - c) Project description.
 - d) Site plan reference(s).
 - e) Operation and Maintenance (O&M) Plan.
2. Payment of the Application and review fees.
3. A Stormwater Management Site Plan that may be prepared by drafting or hand sketching. Required elements, depending on site-specific conditions, might at the discretion of the Engineering Division, include:
 - a) General Information
 - (1) Title.
 - (2) Date.
 - (3) Name and address of record owner and if applicable the name, address, and telephone number of the engineer or surveyor.

- (4) When prepared by a professional, plans shall be stamped by a Registered Professional Engineer, Professional Land Surveyor, or other recognized professional acceptable to the Engineering Division.

(b) Existing Conditions

- (1) The site's existing topography with approximate contours at 2 foot intervals for the work area.
- (2) Locations of existing buildings, driveways, walls, etc.
- (3) Locations of soil tests including test pits, borings, groundwater determinations, and percolation tests with the soil logs and percolation testing results, and/or other soil testing procedures, when available

(c) Proposed Conditions

- (1) Proposed grading plan for work area.
- (2) Proposed improvements including location of structures, impervious surfaces, utilities, and easements, if applicable.
- (3) Locations of all erosion and sedimentation control measures and BMPs.
- (4) Construction details for all erosion and sedimentation controls proposed to be utilized.
- (5) For engineered systems designed to provide drainage or stormwater management including, but not limited to, culverts, drainage outfalls, catch basins and pervious pavement provide an appropriate plan detail, along with an Operation and Maintenance plan required to maintain the design element.

4. Any other information requested by the Engineering Division.

D. Major Permit Submission Requirements

One (1) hard copy of the original Major Stormwater Management Permit Application, including all applicable submittal items, shall be submitted to the Engineering Division. An electronic copy (pdf) of all Major Stormwater Management Permits and applicable submittal items shall also be submitted to the Engineering Division by email to engineering@town.arlington.ma.us. The submitted applications shall adhere to the following requirements.

1. One (1) completed Major Stormwater Management Permit Application Form with the following:
 - a) Name and contact information, of owner(s), Applicant(s), and, if applicable, representative.
 - b) Address of property as well as assessor map and parcel ID.
 - c) A brief project description.
 - d) Site plan reference(s).
 - e) Operation and Maintenance (O&M) Plan.

2. Payment of the Application and review fees.
3. A Project Narrative that includes a description of the proposed project and a description of how and where stormwater will be controlled and erosion and sedimentation controls implemented, and an explanation of why the Applicant believes the plans:
 - a) Meet the Design Standards enumerated in Section 5;
 - b) Employ, to the maximum extent practicable, environmentally sensitive site design as outlined in the most recent edition of the Massachusetts Stormwater Handbook;
 - c) Attempt to reproduce natural hydrologic conditions with respect to groundwater and surface water²;
 - d) Include square footage summaries indicating square footage of limit of work as well as existing, proposed and net changes in impervious surface areas.
4. A Stormwater Management Site Plan prepared as follows:
 - a) General Information:
 - (1) Sheet size: Sheets shall have a maximum dimension of 24" x 36" and a minimum dimension of 11" x 17".
 - (2) Scale: Not more than 1" = 50'. If project sites are large, an overall site plan at 1" = 100' is acceptable, but detailed plans must be at or less than 1" = 50'. Include graphical scales on all plans. Coordinate system shall be 1983 North American Datum, Massachusetts State Plane, feet, and North American Vertical Datum (NAVD) of 1988.
 - (3) Title Block: A title block shall be included on all plans, located at the lower right hand corner, oriented to be read from the bottom when bound at the left margin. Include:
 - (a) Plan title.
 - (b) Original date plus additional space to reference the title and dates of all plan revisions.
 - (c) Name and address of record owner and engineer and/or surveyor.
 - (d) Address of property, Assessor Map and Parcel ID.
 - (4) Legend: Include legend identifying line types and symbols used in plan set
 - (5) Locus Map.
 - b) An Existing Conditions Plan containing the following:
 - 1) Property lines.
 - 2) The existing zoning, and land use at the site and abutting properties.
 - 3) The location(s) of existing easements.
 - 4) The location of existing utilities (water, sewer, natural gas, etc.).

² Guidance on these practices is provided in Appendix C of these Regulations and the MA Stormwater Management Handbook.

- 5) Existing contours at 2-foot minimum vertical increments. Spot grades for proposed conditions are required when 2-foot contour intervals do not provide sufficient detail to show stormwater flow path and /or more specific detail is needed to demonstrate stormwater flow path.
 - 6) Existing landscaping and vegetation including all existing trees within 25 feet of the work area that are over 6 inches in diameter breast height (dbh) and major vegetative cover types, including wooded areas defined by tree line drip line, shrub communities, limits of lawn, and edge of tree canopy.
 - 7) Locations of existing structures, pipes, swales and detention ponds.
 - 8) Locations of bodies of water, including wetlands.
 - 9) A delineation of FEMA Special Flood Hazard areas and calculation of FEMA flood elevation, if applicable. Floodplain elevation data shall be based on 1988 NAVD (North American Vertical Datum) and reference the appropriate National Flood Insurance Rate Map and/or Flood Study.
 - 10) Delineation of other relevant areas of concern, including but not limited to wetlands, Wetlands Buffers, Riverfront Areas, Endangered Species Habitat, and Natural Heritage and Endangered Species Program (NHESP) Vernal Pools.
 - 11) Location of existing septic systems and private wells, if present.
 - 12) The location(s) of soil tests and description of soil from test pits performed at the location of proposed stormwater management facilities, including but not limited to soil description, depth to seasonal high groundwater, depth to bedrock, and percolation rates. Soils information shall be based on site test pits logged by a Massachusetts Title 5 Soil Evaluator.
 - 13) The existing vegetation and ground surfaces with runoff coefficients for each.
 - 14) Stamp and signature of a Professional Engineer (PE) licensed in the Commonwealth of Massachusetts or Professional Land Surveyor (PLS).
4. A Proposed Conditions Plan containing the following:
- a) Property lines, building envelope restrictions and/or easement areas, including areas affected by conservation restrictions, if applicable.
 - b) Proposed improvements including location of buildings or other structures, utilities, easements, etc., if applicable, and impervious surfaces. For single family homes plans shall show, at a minimum, house footprint, decks, garages, sheds, sewage disposal systems, roof drainage and stormwater drainage structures, as applicable, and all areas of existing and proposed impervious areas including tennis courts, patios, driveways, etc.
 - c) FEMA Special Flood Hazard areas, if applicable.
 - d) Proposed erosion controls and materials to be used (i.e. straw bales, silt fence and straw wattles, compost filter mitts, etc.) must be indicated on the plan. In projects anticipated to encounter or manage groundwater, provide dewatering contingency plans, details and location(s). Hay bales may not be used as these have been found to introduce invasive species.

- e) Limit of work.
 - f) Proposed grading for work area. Proposed contours at 2-foot minimum vertical increments. Spot grades for proposed conditions are required when 2-foot contour intervals do not provide sufficient detail to show stormwater flow path and /or more specific detail is needed to demonstrate stormwater flow path.
 - g) Locations for storage of materials, equipment, soil, snow and other potential pollutants.
 - h) Location(s) and description of existing stormwater conveyances, impoundments, wetlands, drinking water resource areas, or other critical environmental resource areas on or adjacent to the site or into which stormwater flows.
 - i) Proposed drainage facilities (plan view and details) including drawings of all components of the proposed stormwater management system including:
 - (1) Locations, cross sections, and profiles of all brooks, streams, drainage swales and their method of stabilization.
 - (2) All measures for the detention, retention or infiltration of water.
 - (3) All measures for the protection of water quality.
 - (4) For engineered systems designed to provide drainage or stormwater management including, but not limited to, culverts, drainage outfalls, catch basins and pervious pavement 'systems'; provide an appropriate plan detail with notes on drawings specifying materials to be used, and construction specifications.
 - (5) Notes indicating the required inspections for the site and the stormwater drainage facilities during construction.
 - j) Proposed landscaping, vegetation and ground surfaces with runoff coefficients for each. Proposed tree removal/plantings and landscaping activities shall be completed in accordance with the requirements of the Department of Public Works and/ or the Conservation Commission as applicable.
 - k) Locations where stormwater discharges to surface water (include all roads, drains and other structures that could carry stormwater to a wetland or other water body, on or offsite).
 - l) A general construction note that states the Engineering Division shall be notified prior to work in accordance with construction permits.
 - m) Stamp and signature of a Professional Engineer (PE) licensed in the Commonwealth of Massachusetts to certify that the Stormwater Management Plan is in accordance with the criteria established in the Stormwater Regulations; a stamp and signature of a Professional Land Surveyor (PLS) is acceptable if no drainage facilities are proposed and they have the experience and capability to prepare the required Site Plan and to provide the required existing and proposed grading and erosion control provisions.
5. A Stormwater Management Plan Report shall be prepared in conformance with the Design Standards contained in Section 5 and contain the following elements:
- a) Description of the existing site hydrology.

- b) A drainage area map showing pre- and post-construction watershed boundaries, drainage area and stormwater time of concentration (Tc) flow paths, including drainage system flows.
 - c) Hydrologic and hydraulic design calculations for the pre-development and post-development conditions for the design storms specified in this Regulation. Such calculations shall include:
 - (1) Description of the design storm frequency, intensity and duration.
 - (2) Time of concentration.
 - (3) Soil Runoff Curve Number (CN) based on land use and soil hydrologic group.
 - (4) Peak runoff rates and total runoff volumes for each watershed area.
 - (5) Information on construction measures used to maintain the infiltration capacity of the soil where any kind of infiltration is proposed.
 - (6) Infiltration rates, where applicable.
 - (7) Culvert capacities.
 - (8) Flow velocities.
 - (9) Data on the increase in rate and volume of runoff for the specified design storms.
 - (10) Documentation of sources for all computation methods and field test results.
 - l) If a project requires a Stormwater Pollution Prevention Plan (SWPPP) per the NPDES General Permit for Storm Water Discharges from Construction Activities (applicable to construction sites that disturb one or more acres of land), then the Applicant is required to submit a complete copy of the SWPPP (including the signed Notice of Intent and approval letter) as part of its Application for a SMP.
7. Post Construction Operation and Maintenance Plan (O&M)
- a) The Post-Construction O&M Plan shall be included that shall be designed to ensure compliance with the Permit, Article 15 and these Rules and Regulations and that the Massachusetts Surface Water Quality Standards, 314, CMR 4.00 are met in all seasons and throughout the life of the system. The O&M Plan shall be a stand-alone document, and shall remain on file with the Engineering Division and shall be an ongoing requirement. The O&M Plan shall apply to the entire project site, not just the disturbance area.
 - b) The Post-Construction O&M Plan shall include, at a minimum:
 - (1) The name(s) of the owner(s) for all components of the system and emergency contact information.
 - (2) The signature(s) of the owner(s).
 - (3) The names and addresses of the person(s) currently responsible for O&M. If O&M responsibility is contracted to a third party; a copy of the maintenance agreement(s) must be provided. If the responsible party is not the owner of the property where the

BMP is located then a copy of the legal instrument that establishes the terms of and legal responsibility for the O&M of the project site BMPs as well as a plan and easement deed that allows site access for the legal entity to operate and maintain BMP functions must be included.

- (4) An Inspection and Maintenance Schedule for all stormwater management facilities including routine and non-routine maintenance tasks to be performed.
- (5) A reduced size plan or map clearly showing the location of the systems and facilities including easements, catch basins, manholes/access lids, main, and stormwater devices.
- (6) If applicable, a list of easements necessary for the construction and O&M of the stormwater system, with the purpose and location of each. Easements shall be recorded with the Middlesex South County Registry of Deeds prior to issuance of a Stormwater Management Certificate of Compliance by the Engineering Division.
- (7) Estimated annual O&M budget.
- (8) O&M inspection schedule and log form.
- (9) The final O&M Plan shall be signed by the property owner and shall be provided at the time of sale/property transfer to any subsequent property owners to ensure that the transfer of responsibilities is understood by future owners.
- (10) Provisions for the Engineering Division or its designee to enter the property at reasonable times and in a reasonable manner for the purpose of inspection.

APPENDIX C: STANDARD CONDITIONS FOR STORMWATER MANAGEMENT PERMITS

Failure to comply with all conditions stated herein, and with all related statutes and other regulatory measures, shall be deemed cause to revoke or modify this Permit.

1. This Permit does not grant any property rights or any exclusive privileges; it does not authorize any injury to private property or invasion of private rights.
2. This Permit does not relieve the Applicant or any other person of the necessity of complying with all other applicable federal, state or local statutes, ordinances, by-laws or regulations.
3. The work authorized hereunder shall be completed within three years from the date of this Permit unless the time for completion has been extended to a specified date more than three years, but less than five years, from the date of issuance and both that date and the special circumstances warranting the extended time period are set forth in this Permit.
4. This Permit may be extended by the issuing authority for one or more periods of up to three years each upon Application to the issuing authority at least 30 days prior to the expiration date of the Permit.
5. No work shall be undertaken until all appeal periods from this Permit have elapsed or, if such an appeal has been filed, until all proceedings before the Court have been completed.
6. A copy of the Approved Permit shall be kept on-site at all times during construction. All contractors and subcontractors engaged during construction shall be provided with a copy of this Permit and all supporting documents before commencing work.
7. The Applicant shall provide the Engineering Division a forty-eight (48) hour notice, in writing, before starting any work authorized or required by this Permit.
8. Prior to the start of work, the Applicant shall install erosion and sedimentation controls in accordance with approved design.
9. After installation of erosion and sedimentation controls, but prior to the conduct of any other site work authorized or required by this Permit, the Applicant shall contact the Engineering Division to determine if a pre-construction meeting will be required. Should a pre-construction meeting be required, the Applicant, and the person and/or contractor engaged to install the stormwater management system shall be present to insure that all aspects of the Permit are fully understood, particularly the necessity to install the system in accordance with the approved design details. The Applicant is required to schedule two observation visits (the bottom excavation observation and system installation observation). The Engineering Division or its Designee has the authority to schedule additional observations if needed (e.g. erosion control observation and final as-built observation).
10. Accepted engineering and construction industry standards of workmanship, materials, and procedures shall be followed to the completion of the project in a proper, substantial, and workman-like manner. Engineering and construction shall be provided in a manner consistent with the level of care and skill ordinarily exercised by those providing services under similar circumstances, and all work must abide by all current Federal, State, and Local regulations and codes regarding engineering and construction.
11. In the event of any spill of hazardous materials (including gasoline, fuel oils, lubricants and hydraulic fluids), the Arlington Fire Department (781-316-3800), the DEP's Spill Response Unit (617-556-1133), the Arlington Board of Health (781-316-3170), the Arlington Conservation Commission Office (781-316-3012), and the Arlington Engineering Division (781-316-3320) shall be contacted immediately.

12. The Contractor shall clean up at least daily, all refuse, rubbish, scrap and surplus materials, debris, and unneeded construction equipment resulting from the construction operations. The site of the work and the adjacent areas shall be kept in a neat and orderly condition. Sediments that might be deposited on streets adjacent to the site shall be swept up daily.
13. Any fill used in connection with this project shall be clean fill, containing no trash, refuse, rubbish or debris, including but not limited to lumber, bricks, plaster, wire, lath, paper, cardboard, pipe, tires, ashes, refrigerators, motor vehicles or parts of any of the foregoing.
14. All loam to be used in the landscaped areas of the site shall be from sources certified to be free from weed seeds, especially those of invasive species.
15. All excavated earth material not used during the course of this project and all construction waste and debris shall be removed from the site and disposed of in accordance with applicable regulations. No construction waste or debris may be discharged to the drainage system.
16. The Applicant shall immediately control any erosion problems that occur on-site, and shall notify the Engineering Division of said problems. If any erosion problems occur it may become necessary to install additional erosion and sedimentation controls in association with this project.
17. Following completion of work, the Applicant shall request, in writing, that a Stormwater Management Certificate of Completion be issued. The request shall state that stormwater management system has been satisfactorily installed and the site has been adequately stabilized.
18. After completion of construction, fertilizers utilized for landscaping and/or lawn care shall be organic in nature and of the low phosphorus content variety.
19. The owners of the project and their successors in title, in the event they proceed to alter areas subject to the Engineering Division's jurisdiction under this Permit, agree that the Town of Arlington shall have no responsibility to maintain the proposed drainage system and that said Town shall not be liable for any damages in the event of failure. By acceptance of this Permit, the owners indemnify and hold harmless the Town of Arlington and its residents for any damages attributable to alterations undertaken on this property pursuant to this Permit. Issuance of this Permit does not in any way imply or certify that the site or downstream areas will not be subject to flooding, storm damage, or any other form of water damage.



Engineering Division

TOWN OF ARLINGTON
Department of Public Works
51 Grove Street
Arlington, Massachusetts 02476
Office (781) 316-3320 Fax (781) 316-3281

Stormwater Management Permit Other Permitting Jurisdictions Certification Form

Projects or activities that require a Minor Stormwater Management Permit:

- 1) Any land alteration, disturbance, development, or redevelopment that results in an increase in impervious area of 350 square feet up to 1,000 square feet, except for work that requires a building permit.
- 2) The expansion of a driveway or parking area with a resultant increase in impervious area between 350 and 1,000 square feet.

Projects or activities that require a Major Stormwater Management Permit:

- 3) Any project or activity effectuating an alteration, disturbance, development, or redevelopment of land that increases impervious area and is ineligible for a Minor Stormwater Management Permit requires a Major Stormwater Management Permit.
- 4) Any land alteration, disturbance, development, or redevelopment that results in an increase in impervious area of 1,000 square feet or more and/or disturbs one acre of land or more.
- 5) Any alteration, disturbance, development, or redevelopment that results in an increase in impervious area of 350 square feet or greater and requires a building permit from Inspectional Services.

Please refer to Section 4.A of the Arlington Stormwater Management Rules and Regulations for a list of projects that are exempt from a stormwater management permit.

Name:	Email:	Phone:
Project Location:		
Project Summary:		

Select one of the following:

- ☐ Based on the project description and the thresholds above, this project does not require a stormwater permit.
- ☐ Based on the project description and the thresholds above, this project requires a Minor Stormwater Permit.
- ☐ Based on the project description and the thresholds above, this project requires a Major Stormwater Permit.

This project also requires the following permits:

- ☐ Environmental Design Review Special Permit (Arlington Redevelopment Board)
- ☐ Conservation Permit (Conservation Commission)
- ☐ Special Permit or Variance (Zoning Board of Appeals)
- ☐ Building Permit (Inspectional Services)
- ☐ Demolition Permit (Inspectional Services)

I certify that I have received the requisite Stormwater Permit, as applicable, and that I am pursuing all other Town of Arlington permits that are required for this project.

Signature

Date