Public Facilities Committee Report

City of Newton
In City Council

Wednesday, January 19, 2022

Present: Councilors Leary (Chair), Norton, Kalis, Danberg, Laredo, Kelley, and Crossley

Absent: Councilor Gentile

City Staff: Commissioner of Public Works Jim McGonagle, City Engineer Lou Taverna, Deputy Director for DPW Shawna Sullivan, Environmental Engineer Maria Rose

#92-22 **Discussion on the Sustainable Materials Management Commission**
PUBLIC FACILITIES COMMIITTEE requesting an update from the Sustainable Materials Management Commission.
Action: **Public Facilities Held 6-0 (Councilor Laredo not voting)**

Note: The Sustainable Materials Management Commission, including their Chair Sunwoo Kahng joined the Public Facilities Committee to discuss their report, "Setting the Path to Zero Waste: Recommendations on the Future of Residential Curbside Waste Management in Newton".

Karen Slote, member of the Sustainable Materials Management Commission presented the attached PowerPoint. Ms. Slote explained that the purpose of their report is to lay the groundwork for Waneta Trabert's, Director of the Sustainable Materials Management Division report which will be submitted in June 2022.

Councilors asked the following questions:

Q: When is the City's hauling contract up?

A: Ms. Kahng explained that they have a five-year contract which began in 2020.

Q: Can Waste Management make the improvements that have been suggested?

A: Ms. Kahng explained that the smaller cart sizes should not be an issue for Waste Management to pick up. She further explained that there will need to be discussion with Waste Management regarding the other recommendations that have been made.

Q: How many bids does the City receive for hauling contracts?

A: The City does not receive multiple bids for hauling. Ms. Kahng explained that the City has a long history with Waste Management and Newton will renew these contracts with them.

Q: When is the City's contract with Wheelabrator ending?

A: Ms. Slote explained that this is a 20-year contract and is up in July 2028.

Q: How will the recommended fee impact renters?

A: Ms. Slote explained that this fee would work the same as a residential tax bill where it would be billed to the landlord and then they would decide if this would impact the renter. Additionally, Ms. Slote explained that the City could provide accommodations for those who have financial hardships like they do with other city programs.

Q: How would the City integrate larger buildings that have their own pick-up their trash and recycling?

A: Ms. Slote explained that Brookline has addressed this in a Zero Waste Plan. She also expressed the importance in Newton creating a Zero Waste Plan. This question will be addressed as these plans move forward. A consultant firm can also be apart of the process.

Q: Has there been a financial analysis done on what adding a full-time position would do?

A: Ms. Kahng explained that she will discuss this with Ms. Trabert.

<u>Councilors made the following comments:</u>

Concerns were raised with the number of containments that are currently in the trash and not being recycled properly.

Ms. Kahng noted that Ms. Trabert could use more staff in her department to help with educating residents.

The importance of moving forward on a number of these recommendations before Ms. Trabert presents her report to the committee was expressed. This could include investigating consulting firms to be able to create a Zero Waste Plan and creating job descriptions so that Ms. Trabert can have help to educate residents.

Additionally, it was noted that the additional staff would need to be addressed before budget.

Councilors thanked the Commission for their work on the attached report.

Councilor Crossley motioned to hold which passed 6-0 with Councilor Laredo not voting.

Referred to Public Facilities and Finance Committees

#111-22 **Request for Stormwater Management and Erosion Control Ordinance**
HER HONOR THE MAYOR requesting Chapter 29 to be amended by adding a new Article VIII and for Chapter 17, Sections 16 and 21 **Fees to be Paid to the Department of Public Works** and **General Fine** of the City of Newton Revised Ordinances to be amended to add defining language, provide for enforcement, establish permit fees and fines for violations of the stormwater management and erosion control ordinance established in Article VIII.

Action: **Public Facilities Held 7-0**

Note: The Chair noted that there will be a number of meetings on the attached draft ordinance and explained that a number city staff have been working on this.

Jim McGonagle, Commissioner of Public Works explained that they will be responding to any outstanding questions in writing and expressed the importance of this ordinance amendment.

Maria Rose, Environmental Engineer presented the attached PowerPoint regarding the draft Stormwater Management and Erosion Control Ordinance. She noted the purpose of this ordinance which includes complying with Newton's MS4 Permit. Ms. Rose also noted that the objectives include minimizing the discharge of pollutants in stormwater runoff from new and redeveloped sites. This will be through infiltration, retention and/or treatment. There is also the need to minimize or eliminate soil erosion. Ms. Rose also explained the three categories of stormwater permits which is shown in the attached presentation.

Councilors asked the following questions:

Q: How is it determined what is put in the ordinance and what is put in the regulations?

A: Ms. Rose explained that they have been working with Andrew Lee, Assistant City Solicitor on this ordinance and that the EPA does recommend that there are a set of regulations because there are many moving parts. She also explained that they would further answer this question in writing.

Q: How was it determined that there will be a 60% reduction in phosphorous for new development and 50% reduction for redevelopment? It was also questioned if EPA has seen these numbers?

A: Ms. Rose explained that they will be answering this in writing to the committee but also explained that the City will also be using numerous ways to reduce the amounts of phosphorous in Newton.

Q: What will be the process to answer the outstanding questions?

A: Commissioner McGonagle explained that they will answer all of the questions that have been submitted and the ones that have been asked tonight. These will be posted to the Friday Packet.

Outstanding questions:

Q: Will the City need any additional resources to enforce this ordinance?

Q: Would the City be measuring success by testing at the outfalls?

Councilors made the following comments:

It was noted that the City does need to be careful about this being a burden on smaller projects, which usually effect homeowners. For example, having a topographical survey should be required for new construction and large projects but this would not be necessary for a small home renovation project.

The impervious surface portion of the ordinance in regards to new development should be discussed before moving forward.

It was noted that this ordinance will encourage developers to keep existing trees during construction.

Councilors thanked the Department of Public Works for their work on this draft ordinance amendment.

Councilor Crossley motioned to hold which passed unanimously.

Referred to Public Facilities and Finance Committees

#110-22 **Rescind and Transfer $4,000,000 to fund Water Main Improvements**
HER HONOR THE MAYOR requesting that the sum of four million dollars ($4,000,000) of the ~~Board~~ Bond Authorization approved through Council Order #198-20 be rescinded and further requesting authorization to appropriate and expend four million dollars ($4,000,000) from Water Fund Undesignated Fund Balance Acct # 6000-3599 for the purpose of funding FY20~~20~~ 21 Water Main Improvements.

Action: **Public Facilities Approved 7-0**

Note: Commissioner McGonagle presented the request that the sum of $4,000,000 of the Bond Authorization approved through Council Order #198-20 be rescinded and further requesting authorization to appropriate and expend $4,000,000 from Water Fund Undesignated Fund Balance Acct # 6000-3599 for the purpose of funding FY21 Water Main Improvements. He

further explained that they have enough available funds to pay for a portion of the upcoming water work so they do not need to bond the full amount.

Q: What were the conditions that allowed the City to build up this reserve?

A: Commissioner McGonagle explained that they are seeing the non-revenue water decrease in the City which helps with revenues.

Councilor Danberg motioned to approve which passed unanimously.

#93-22 **Reappointment of Kenneth White to the Designer Selection Committee**
HER HONOR THE MAYOR reappointing Kenneth White, 30 Murray Road, Newton, to the Designer Selection Committee for a term of office to expire on December 31, 2025. (60 days: 03/19/22)
Action: **Public Facilities Approved 7-0**

Note: With no questions or comments from the committee, Councilor Danberg motioned to approve which passed unanimously.

#94-22 **Reappointment of John Synnott to the Designer Selection Committee**
HER HONOR THE MAYOR reappointing John Synnott, 22 Winona Street, Auburndale, to the Designer Selection Committee for a term of office to expire on December 31, 2025. (60 days: 03/19/22)
Action: **Public Facilities Approved 7-0**

Note: With no questions or comments from the committee, Councilor Danberg motioned to approve which passed unanimously.

#95-22 **Reappointment of Jonathan Kantar to the Design Review Committee**
HER HONOR THE MAYOR reappointing Jonathan Kantar, 672 Chestnut Street, Waban, to the Design Review Committee for a term of office to expire on December 31, 2025. (60 days: 03/19/22)
Action: **Public Facilities Approved 7-0**

Note: With no questions or comments from the committee, Councilor Danberg motioned to approve which passed unanimously.

#96-22 **Reappointment of Amy MacKrell to the Design Review Committee**
HER HONOR THE MAYOR reappointing Amy MacKrell, 12 Dexter Road, Newtonville, to the Design Review Committee for a term of office to expire on December 31, 2025. (60 days: 03/19/22)
Action: **Public Facilities Approved 7-0**

Note: With no questions or comments from the committee, Councilor Danberg motioned to approve which passed unanimously.

#97-22 **Reappointment of SingNing Kuo to the Design Review Committee**
HER HONOR THE MAYOR reappointing SingNing Kuo, 1395 Walnut Street, Newton, to the Design Review Committee for a term of office to expire on December 31, 2025. (60 days: 03/19/22)

Action: **Public Facilities Approved 7-0**

Note: With no questions or comments from the committee, Councilor Danberg motioned to approve which passed unanimously.

The Committee adjourned at 9:00 pm

Respectfully Submitted,

Alison Leary, Chair

Setting the Path to Zero Waste:

Recommendations on the Future of Residential Curbside Waste Management in Newton

Newton Sustainable Materials Management Commission
November 2, 2021

Setting the Path to Zero Waste

Purpose of This Report

To lay the groundwork for a more detailed June 2022 City assessment and detailed recommendations to advance curbside services.

Report Contents

- Current State of Newton Waste Management
- State & Regional Trends
- Examples from Other Communities
- Recommendations
- Pathway to A Zero Waste Future

"Waste" Defined

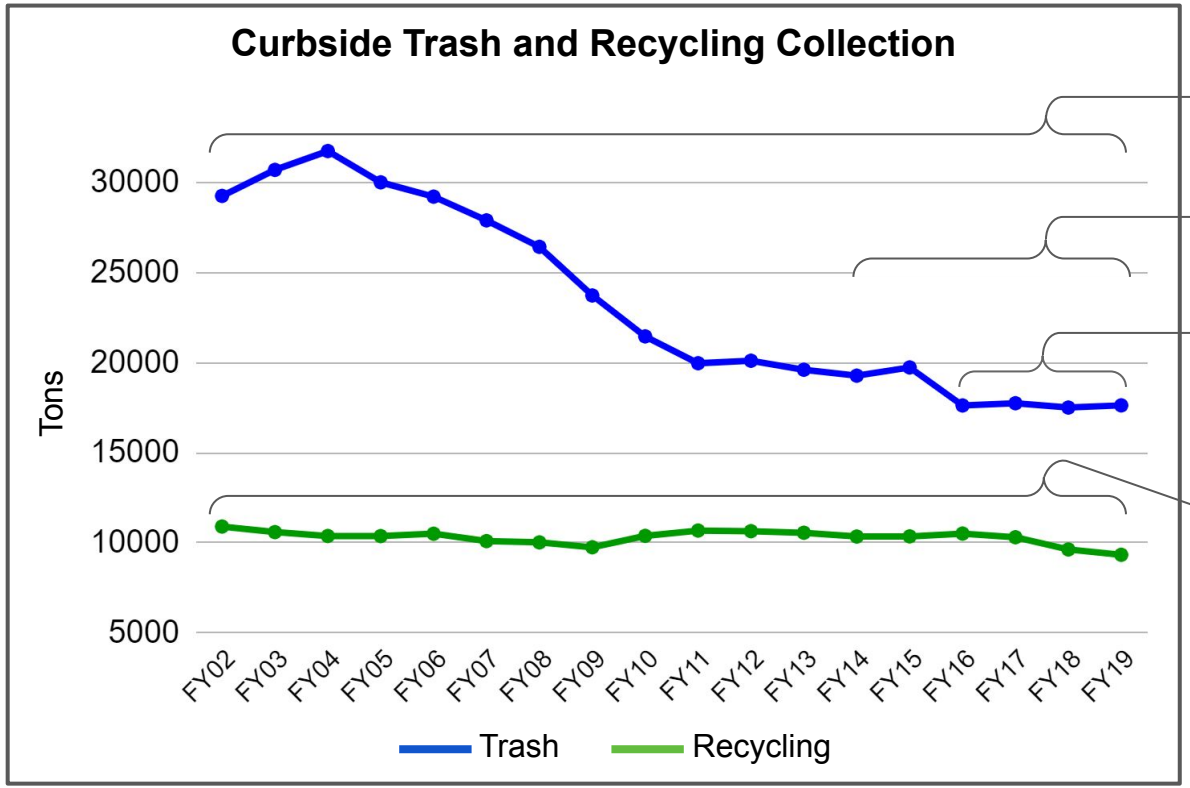
Includes trash, recyclables, yard waste, organics (food scraps), and bulky waste.

"Zero Waste" Defined

The best known definition is from the Zero Waste International Alliance, adopted by Boston, Cambridge, and Brookline: *"The conservation of all resources by responsible production, consumption, reuse, and recovery of products, packaging, and materials, without burning and with no discharges to land, water, or air that threaten the environment or human health."*

Newton Trash Tonnage Has Declined Over Time[92-22]

*But **Leveled Off** In Recent Years*



Trash Reduction Rates:

17 years, 2002-2019: **3.0%**

5 years, 2014-2019: **1.7%**

3 years, 2016-2019: **0.0%**

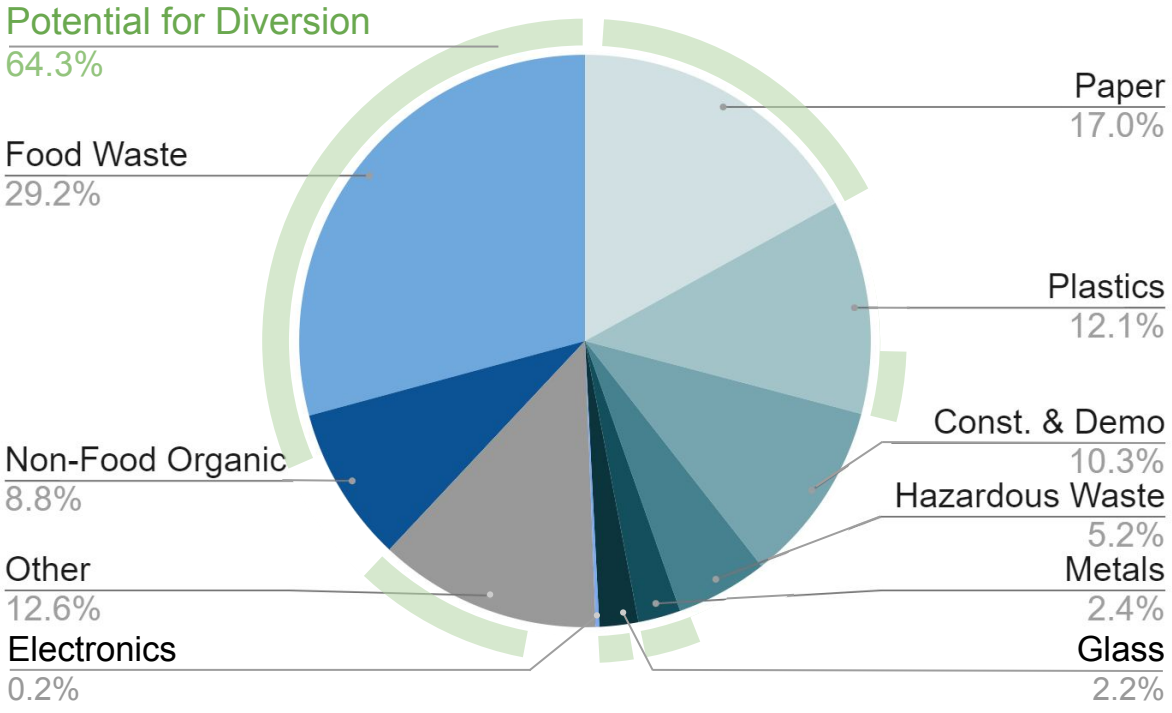
Recycling Reduction Rate:

17 years, 2002-2019: **0.9%**

Source:Newton, MA Department of Public Works

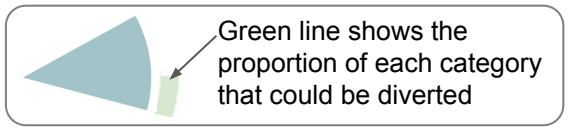
What's In Our Trash Carts?

*Almost **65%** of what's in our trash carts has the potential to be diverted*



Food waste is the biggest recycling opportunity.

Subscription-based, voluntary curbside food waste collection service began in 2019; currently **7.5%** of residents use it to compost.



Source: Residential Trash Composition at Wheelabrator-Millbury Waste To Energy Incinerator, MassDEP Wheelabrator Millbury, Inc. 2019 Waste Characterization Report, Table 3-1, pg 14-15

MA Waste Management Trends

92-22

Environmental and Economic Forces Create The Need For Aggressive Goals

Shrinking Disposal Capacity

Landfills:

"Disposal capacity has **continued to shrink** as more landfills close"

Incinerators:

"Combustion capacity is being fully utilized… and may experience **increased downtime**"

MA Materials Management Capacity Study, MaDEP, Feb. 2019

Environmental Justice

Six of Massachusetts' seven incinerators are in environmental justice communities.

Environmental Justice Communities

Massachusetts' New Solid Waste Master Plan

Trash Export Rates:

22%	Current rate, 2017
43%	2030 projected rate if tonnage at 2018 levels
19%	2030 projected rate if tonnage at 2030 goal

Waste Bans:

- Textile and mattresses
- Expanded commercial food waste

Massachusetts 2030 Solid Waste Master Plan & 2017 MaDEP Solid Waste Data Update

What Other Communities Have Done:

Separate *Trash Collection Bills,* ***Variable*** *Cart Pricing, And* ***Organics*** *Collection*

Renton, WA
Pop. 101,000

- **$495**/yr for 65-gal trash cart
- Biweekly trash/recycling collection, weekly organics
- Seniors and the disabled get a 50% discount

St. Louis Park, MN
Pop. 49,000

- **$344**/yr for 65-gal trash cart
- Organics collection voluntary for all, participation 38%
- Organics collection has reduced trash 8%.

Napa, CA
Pop. 77,000

- **$615**/yr for 65-gal trash cart
- 72% of households use 35-gal trash cart or smaller
- Cart fees expected to cover 100% of waste costs

Brookline, MA
Pop. 59,000

- **$310**/yr for 65-gal trash cart
- Recycling carts of any size are free
- Goal is for cart fees to cover ~75% of waste costs

What Other Communities Have Done To Reduce Trash

Three Prevalent Practices

1

Variable Rate Pricing

2

Separate Trash Collection Bills

3

Organics Collection

Newton Sustainable Materials Management Commission

Recommendations

1 Set residential zero waste goals for Newton

Trash Reduction Goals Across Massachusetts:

Newton:
(proposed)

25% by 2030

70% by 2050

Compared with 2018 levels

Massachusetts:
30% by 2030
and 90% by 2050 from 2018 levels (MassDEP 2030 Solid Waste Master Plan, Oct. 2021).

In 2008, the State set a 2020 goal of a 30% reduction from 2008 levels but only achieved 16%.

Cambridge:
30% by 2020
and 80% by 2050 from 2008 levels (Cambridge Final Zero Waste Master Plan (10/1/2019).

In 2019, Cambridge announced that the 2020 goal was achieved one year early, with a reduction of 32%.

Boston:
55% by 2035
from 2017 levels (Zero Waste Boston Report, June 2019).

Zero Waste Boston defines "recycling" as reused, recycled or composted materials.

Brookline:
50% by 2030
compared to 2015 *(proposed)* (Zero Waste Framework).

Includes any municipal solid waste disposed to landfill and incineration.

2 Implement a City-wide curbside organics collection program

Food Waste Is The Biggest Part Of The Trash Stream...

Source: Residential Trash Composition at Wheelabrator-Millbury Waste To Energy Incinerator, MassDEP 2020 Waste Characterization Study-Millbury

...And Brings Some Big Potential Advantages

IMPACT

Newton could **reach its 25% trash reduction goal** for 2030 if 66% of households with curbside service participated in a curbside organics program

ENVIRONMENT

Organics can be **composted** or anaerobically **digested**, both of which are environmentally preferable to landfill disposal or incineration

EQUITY

Expanding curbside collection to include organics would provide **convenient and equitable access** for all residents

3 Incentivize trash reduction with a fee-based variable rate system and/or bi-weekly collection

Variable Sized And Priced Cart Systems Are Growing… And Effective

Variable Cart Sizes and Annual Rates in 4 Municipalities	20 Gal.	30-35 Gal.	60-65 Gal.	90-95 Gal.	Price Differential Smallest to Largest
Brookline, MA		$230	$310	$392	$162
St. Louis Park, MN	$177	$241	$344	$527	$350
Renton, WA	$171	$282	$495	$731	$559
Napa, CA	$320	$401	$615	$947	$627

153 out of 352 Massachusetts communities have adopted a version of the variable rate system, also known as *Save Money And Reduce Trash* or SMART (*source: MassDEP*).

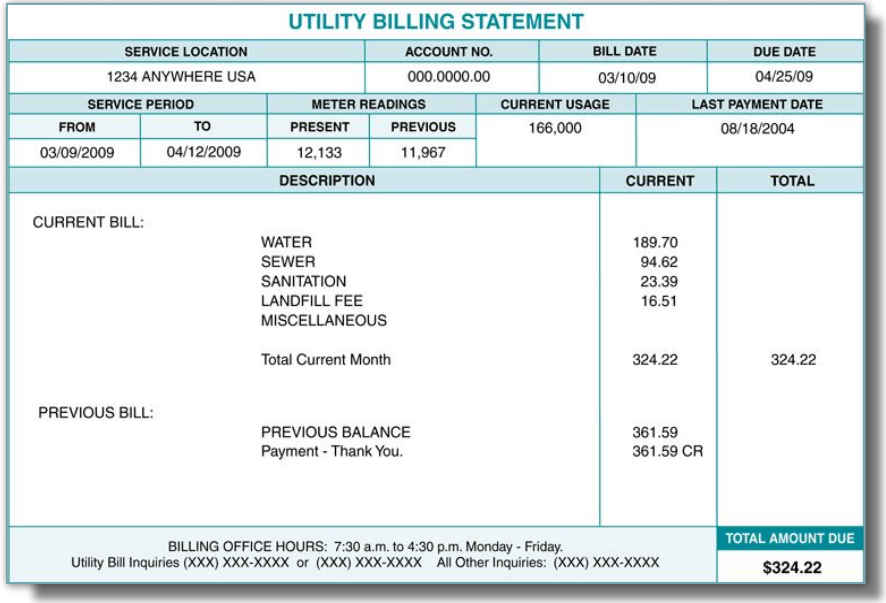
Average households in Massachusetts SMART municipalities generated **25-50% less** solid waste than in municipalities without SMART programs (source: MassDEP).

Larger price differentials between carts **drive greater adoption** of smaller carts, eg:

	Price Δ	Hlds with Larger Cart
Minneapolis	$36	**92%**
Portland	$239	**15%**

Source: Minneapolis Zero Waste Plan, November 2017

4 Adopt utility style billing for residential waste services



UTILITY BILLING STATEMENT

SERVICE LOCATION	ACCOUNT NO.	BILL DATE	DUE DATE
1234 ANYWHERE USA	000.0000.00	03/10/09	04/25/09

SERVICE PERIOD		METER READINGS		CURRENT USAGE	LAST PAYMENT DATE
FROM	TO	PRESENT	PREVIOUS	166,000	08/18/2004
03/09/2009	04/12/2009	12,133	11,967		

DESCRIPTION	CURRENT	TOTAL
CURRENT BILL:		
WATER	189.70	
SEWER	94.62	
SANITATION	23.39	
LANDFILL FEE	16.51	
MISCELLANEOUS		
Total Current Month	324.22	324.22
PREVIOUS BILL:		
PREVIOUS BALANCE	361.59	
Payment - Thank You.	361.59 CR	

BILLING OFFICE HOURS: 7:30 a.m. to 4:30 p.m. Monday - Friday.
Utility Bill Inquiries (XXX) XXX-XXXX or (XXX) XXX-XXXX All Other Inquiries: (XXX) XXX-XXXX

TOTAL AMOUNT DUE
$324.22

COST AWARENESS

Currently, residents are unaware of the City's waste management costs

REVENUE OPTIONS

The City could determine whether to set waste management fees to cover all or some of its costs

IMPACT

This strategy was implemented in Natick 18 years ago, reducing the amount of trash by **40%**, lowered disposal costs, and increased recycling by **20%**.

Source: MassDEP Pay-As-You-Throw: An Implementation Guide for Solid Waste Unit-Based Pricing Programs.

5 Strengthen support for Extended Producer Responsibility (EPR) legislation

Producer Responsibility


The Commonwealth of Massachusetts

PRESENTED BY:

Michael S. Day

ntatives of the Commonwealth of Massachusetts in General

zens respectfully petition for the adoption of the accompanying bill:

An Act to save recycling costs in the commonwealth.

Proposed state bills would make packaging and paper product producers responsible for costs incurred by municipalities to collect and process their products.

Mattress Recycling

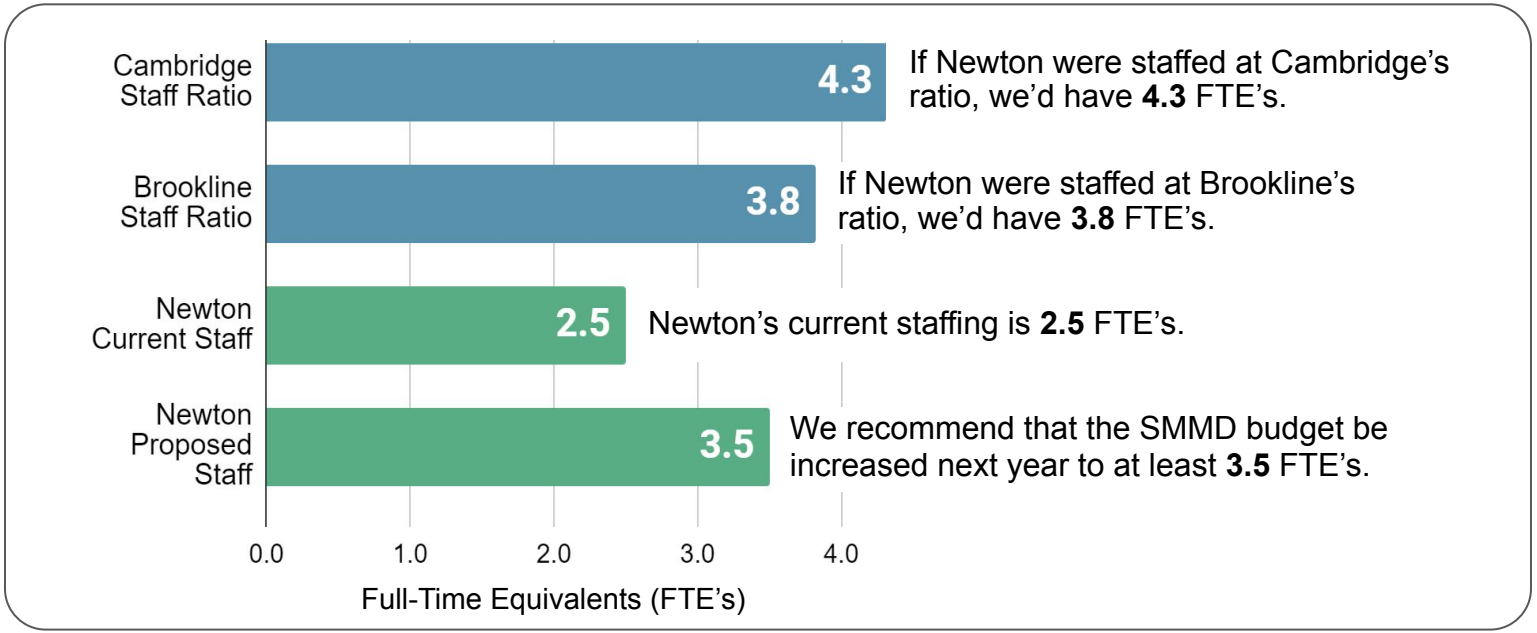
Effective Nov 1, 2022, the state will add mattresses and textiles to the MassDEP disposal bans.

Expanded Bottle Bill

The Bottle Bill has not changed since 1982. A pending bill would add non-carbonated beverages and increase the deposit to $0.10.

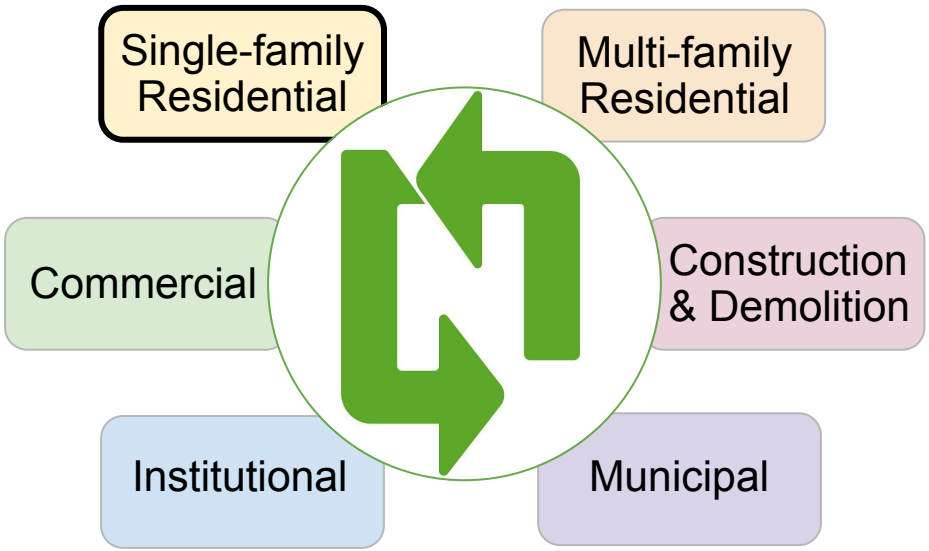
6 Increase Sustainable Materials Management Division staffing

How Big Would SMMD Be If Newton Were Staffed Like Other Communities?



Sources for staffing ratios: Cambridge has 6.5 staff serving 46,835 households; Brookline has 3 staff serving 24,436 households.
Newton household count of 31,139 is used since the SMMD staff serves all households and not just those 28,500 within the curbside waste collection program.

7 Fund the development of a comprehensive Zero Waste Plan for the City of Newton



A Road Map For All Sectors

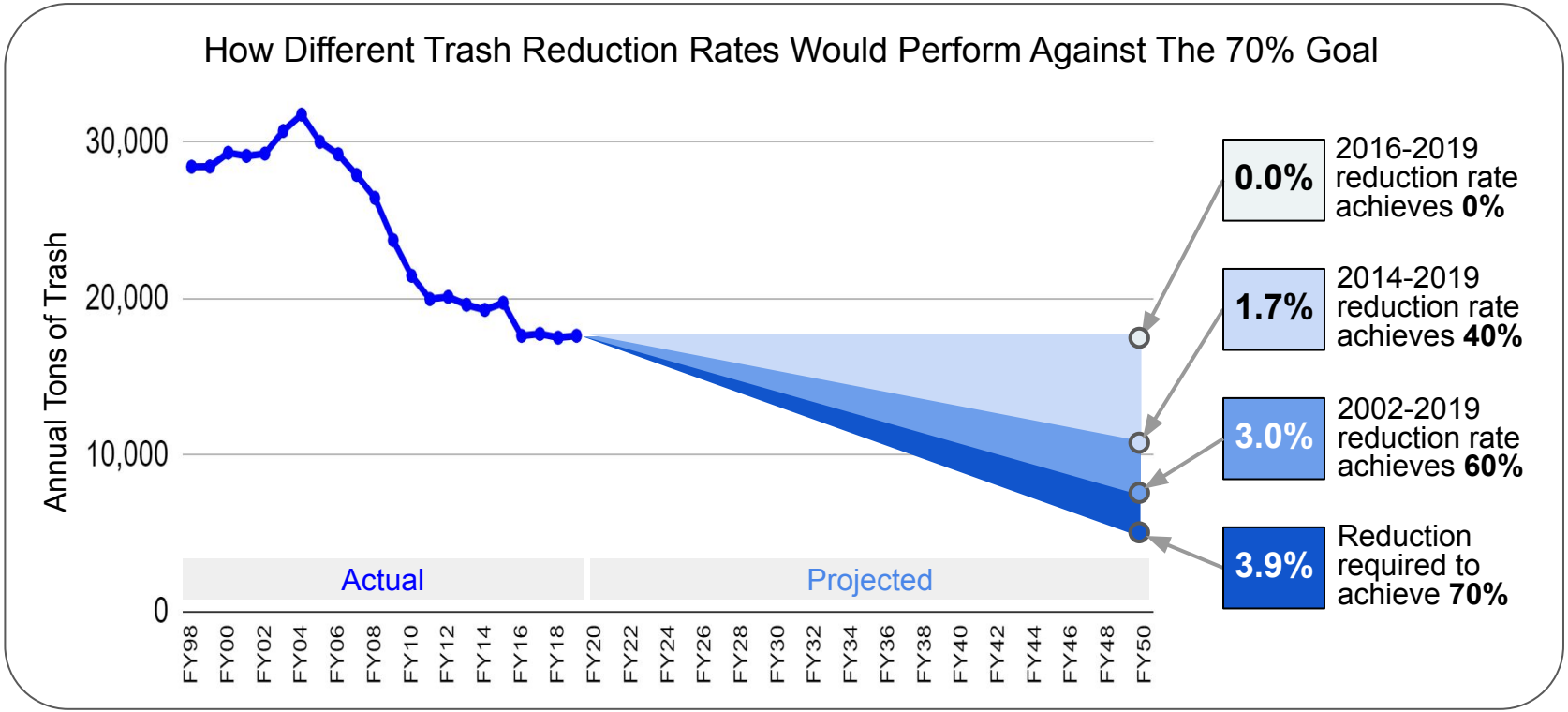
The single-family residential sector, though large, is **only one component**.

Boston, Cambridge, and Brookline have already put multi-sector plans in place, or are in the process of developing one.

We encourage the City to **engage a consulting firm** to draft an expedient, comprehensive plan.

We recommend a plan be in place prior to negotiating the next waste hauling contract in FY 2024.

The Status Quo Is Not Enough



Source for actuals: Newton, MA Department of Public Works

We Don't Have Time To Waste

92-22

*The City Needs About **Two Years** To Prepare Before Signing*

5-Year Hauling/Recycling Processing Contract:

WASTE MANAGEMENT

Hauling $8.14M *Annualized*

Recycling (Avon) $564K *Annualized*

7/1/20 Start	2021	2022	2023 Prep	2024 Negotiate	7/1/25 New Contract Start Date

20-Year Trash Incineration Contract:

Wheelabrator

Trash Incineration (Millbury) $1.23M *Annual*

7/1/08 Start		2025	2026 Prep	2027 Negotiate	7/1/28 New Contract Start Date

We are not certain whether the Millbury WTE plant will operate beyond 2028

Source: Newton, MA Department of Public Works

Where To Start Right Now

It's Time For:

A Clear Pathway, Bold Leadership, And Community Engagement

Ruthanne Fuller
Mayor

City of Newton, Massachusetts
Office of the Mayor

#111-22

Telephone
(617) 796-1100
Fax
(617) 796-1113
TDD/TTY
(617) 796-1089
Email
rfuller@newtonma.gov

January 10, 2021

Honorable City Council
Newton City Hall
1000 Commonwealth Avenue
Newton, MA 02459

Honorable City Councilors:

I respectfully submit this docket item to this Honorable Council requesting amendments to Chapter 29 by adding a new Article VIII and to Chapter 17, Sections 16 and 21 of the Revised Ordinances to add defining language, provide for enforcement, establish permit fees and fines for violations of the stormwater management and erosion control ordinance.

The purpose of this ordinance is to protect, maintain, and enhance public safety as well as environmental health and general public welfare. This ordinance focuses on controlling the volume and rate of stormwater runoff resulting from land disturbing activities (both during and after such activities), managing stormwater at its source, and directing stormwater into the ground rather than sending it into storm drain pipes and channels. Adopting this ordinance or other regulatory mechanism to manage increased stormwater runoff from (re)development and reduce pollutants in stormwater runoff discharged from construction activities (greater than or equal to 1 acre) into the City's drainage system is a requirement of the City's National Pollution Discharge Elimination System (NPDES) Stormwater permit.

The proposed Ordinance will be complemented by Stormwater Management Erosion Control Rules and Regulations, which are attached. The rules and regulations provide applicability and exemption language, definitions of terms, application requirements, and design standards. Administration of these rules and regulations will be by the City Engineer through the Engineering Division. The Engineering Division will also collect the fees for all stormwater management permits.

The proposed permit fees to be added to Chapter 17, Section 16 are as follows:

Stormwater Permit Fees:

(l) Land Disturbance (only) Permit: $50

(m) Minor Stormwater Permit: $100

(n) Major Stormwater Permit:

1-4 family dwellings $300
All other properties $1,000

Proposed fine to be added to Chapter 17, Section 21 is as follows:

The proposed fine for violation of the stormwater management and erosion control ordinance is $300 per offense as stated in Chapter 17, Section 21 of the Revised Ordinance and clarified in §29-153(b) of the proposed Ordinance. Each day the violation of the ordinance continues it is considered a separate offense.

Please see the attached memo from Commissioner of Public Works James McGonagle.

Thank you for your consideration of this matter.

Sincerely,

Ruthanne Fuller

Mayor Ruthanne Fuller

#111-22

City of Newton

DEPARTMENT OF PUBLIC WORKS

OFFICE OF THE COMMISSIONER

1000 Commonwealth Avenue
Newton Centre, MA 02459-1449

Ruthanne Fuller
Mayor

To: Mayor Ruthanne Fuller

From: James McGonagle – Commissioner DPW

Subject: Stormwater Ordinance

Date: January 10, 2022

I respectfully request amendments to Chapter 29 by adding a new Article VIII and to Chapter 17, Sections 16 and 21 of the Revised Ordinances to add defining language, provide for enforcement, establish permit fees and fines for violations of the stormwater management and erosion control ordinance.

The City's stormwater management system is strained by increased volumes of runoff from more frequent and higher intensity storms. Compounding the issue is a trend of increasing impervious areas and elevated grades around new structures limiting natural infiltration. Further, stormwater runoff from impervious surfaces is the greatest source of pollution to Newton's ponds, lake, and waterways.

The purpose of this ordinance is to protect, maintain, and enhance public safety, environmental, health, and general public welfare by controlling the volume and rate of stormwater runoff resulting from land disturbing activities (during and after such activities), managing stormwater at its source, and directing it into the ground rather than sending it into a system of storm drain pipes and channels. Adopting this ordinance or other regulatory mechanism to manage increased stormwater runoff from (re)development and reduce pollutants in stormwater runoff discharged from construction activities (greater than or equal to 1 acre) into the City's drainage system is a requirement of the City's NPDES Stormwater permit.

The proposed Ordinance will be complemented by the attached Stormwater Management Erosion Control Rules and Regulations. The rules and regulations provide applicability and exemption language, definitions of terms, application requirements, and design standards. Administration of these rules and regulations will be administered by the City Engineer through the Engineering Division. The Engineering Division will also collect the fees for all stormwater management permits.

James McGonagle
Commissioner
Telephone: (617) 796-1010 • Fax: (617) 796-1050 • jmcgonagle@newtonma.gov

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James McGonagle
Commissioner
Telephone: (617) 796-1010 • Fax: (617) 796-1050 • jmcgonagle@newtonma.gov

STORMWATER MANAGEMENT AND EROSION CONTROL ORDINANCE
DRAFT WINTER 2021-2022

Article VIII.
STORMWATER MANAGEMENT AND EROSION CONTROL

§29-148 General provisions (*Section 5.3 of Zoning will need to be deleted/updated concurrent with this ordinance adoption*)

(a) Purpose

The purpose of this ordinance is to protect, maintain, and enhance public safety, environmental health, and general public welfare by controlling the volume and rate of stormwater runoff resulting from land disturbing activities (during and after such activities), managing stormwater at its source and directing it into the ground rather than sending it into a system of storm drain pipes and channels.

This ordinance establishes a permit system to ensure that all applicable projects are reviewed and comply with established standards, the city's legal authority to ensure compliance with the provisions of this ordinance through inspection, monitoring and enforcement and a mechanism by which the City can meet the requirements of its National Pollutant Discharge Elimination System (NPDES) general permit.

(b) Definitions. Definitions. For the purposes of this ordinance the following words and phrases shall have the meanings respectively ascribed to them by this section:

Alter or alteration: Any activity on an area of land that changes the water quality, or the force, quantity, direction, timing, or location of runoff flowing from the area. Such changes include change from distributed runoff to confined, discrete discharge; change in the volume of runoff from the area; change in the peak rate of runoff from the area; and change in the recharge to groundwater on the area. Alter may also be referred to as "alteration of drainage characteristics," and "conducting land disturbance activities."

Best management practice (BMP): A structural or nonstructural activity, procedure, restraint, or structural improvement that helps to reduce the quantity of or improve the quality of stormwater runoff. A structural stormwater best management practice may include a basin, discharge outlet, swale, rain garden, filter, or other stormwater treatment practice or measure either alone or in combination, including without limitation any overflow pipe, conduit, weir control structure that: (a) is not naturally occurring; (b) is not designed as a wetland replication area; and (c) has been designed, constructed, and installed for the purpose of conveying, collecting, storing, discharging, recharging, or treating stormwater. Nonstructural stormwater best management practices may include source control and pollution prevention measures.

Conveyance: Any structure or device, including, but not limited to, pipes, drains, culverts, curb breaks, paved swales and man-made swales, natural and man-made channels, and ditches, designed or utilized to move or direct stormwater runoff or existing water flow; any impervious

surface/sheet flow utilized to remove rainfall (for example, a parking lot) which drains directly onto a vegetated surface or public road without any curbing or stormwater system to intercept the flow.

Erosion and sedimentation control plan: A document containing a narrative, drawings and details developed by a registered professional civil engineer (PE), which includes best management practices, or equivalent measures designed to control surface runoff, erosion and sedimentation during pre-construction and construction related land disturbance activities.

Impervious Surface or Area: Any material or structure in, on or above the ground that prevents water from infiltrating through the underlying soil. Impervious surface is defined to include, without limitation: paved surfaces (parking lots, sidewalks, driveways, etc.), roof tops, swimming pools, stone patios/pavers, gravel, and compacted dirt surfaces such as driveways and roads.

Land disturbance: Any activity that causes a change in the position or location of soil, sand, rock, gravel, or similar earth material. Examples include, but are not limited to, demolition, construction (of buildings or retaining walls), site preparation, grading, paving, tree cutting, and earth moving.

Low impact development (LID): A site design strategy for managing stormwater by maintaining or replicating the predevelopment hydrologic functions using design techniques to create a functionally equivalent hydrologic landscape.

Municipal Storm Drain System or Municipal Separate Storm Sewer System (MS4): The system of conveyances designed or used for collecting or conveying stormwater, including any road with a stormwater management system, street, gutter, curb, inlet, piped storm drain, pumping facility, retention or detention basin, natural or man-made or altered drainage channel, reservoir, or other drainage structure(s) that together comprise the storm drainage system owned or operated by the city.

Person Aggrieved: all record owners of the subject property or an owner of property directly abutting the subject property.

Stormwater Management and Erosion Control Permit: A permit issued by the Engineering Division of the Department of Public Works, after review of an application, plans, calculations, and other supporting documents, in accordance with the provisions of this ordinance.

Stormwater management plan: A plan submitted as part of an application for a stormwater management and erosion control permit, as required by Section 29-150(A) of this ordinance. A document containing narrative, drawings and details prepared by a registered professional civil engineer (PE), which includes structural and non-structural best management practices to manage and treat stormwater runoff generated from regulated development activity. A stormwater management plan also includes an operation and maintenance plan describing the maintenance requirements for structural best management practices.

Stormwater management system: the collective system for conveying, collecting, storing, discharging, recharging, or treating stormwater on-site, including stormwater best management practices, and any pipes and outlets intended to transport and discharge stormwater to the groundwater, a surface water, or a municipal separate storm sewer system.

(c) Applicability

This ordinance shall apply to all land-disturbing activities over the thresholds below, within the jurisdiction of the city. A stormwater management permit shall be required prior to undertaking any alteration or land disturbing activity as follows:

(1) Land disturbance

(a) Projects that will or could disturb over 5,000 square feet (SF) of land (i.e., the limit of work line encompasses >5,000 SF of land).

(2) Minor stormwater management

(a) Any residential development or redevelopment with four or fewer units, provided the land disturbance is less than 0.5-acre (or 21,780 SF) .

(b) Any residential, commercial, industrial, institutional, or municipal alteration, development or redevelopment creating 401 to 1,000 SF of new impervious area.

(c) The construction of any new retaining wall required due to proposed changes in grade, unless already approved by Special Permit (per Chapter 30 Sec. 5.4.2).

(d) Trench excavation requiring dewatering.

(3) Major stormwater management

(a) Any alteration, disturbance, development, or redevelopment exceeding the thresholds listed in § 29-148(C)(1) and (2) above.

(d) Exemptions

The commissioner of public works may establish exemptions from the requirements of this ordinance, which exemptions shall be set forth in the city of Newton stormwater management and erosion control rules and regulations.

§29-149 Administration

(a) Administration

The commissioner of public works or his or her designee shall administer, implement, and

enforce this ordinance.

(b) Rules and regulations

The commissioner of public works shall adopt, and periodically amend as deemed necessary, rules and regulations relating to the detailed requirements, procedures, and administration of this ordinance.

§29-150 Permit procedures

(a) Permit required

No land disturbing activity that meets the criteria specified in Section 29-148(c) may commence prior to the issuance of a stormwater management and erosion control permit as set forth in this ordinance.

(b) Procedures and Requirements

The commissioner of public works shall set forth the application procedures and requirements - including but not limited to content of applications, stormwater management plan and operations and maintenance plan contents, technical requirements, inspections, and project closeout process in the rules and regulations promulgated under section §29-149(b) of this ordinance.

(c) Deadline for Action

Failure of the commissioner of public works or his or her designee to take action within sixty (60) days of receipt of a complete stormwater management and erosion control permit shall be deemed approval of said application, unless extension of the sixty (60) days is agreed upon, in writing, by the applicant.

§29-151 Entry, inspections and close-out

To the extent permitted by law, the commissioner of public works or his or her designee may enter upon privately owned property for the purpose of performing their duties under this ordinance and may make or cause to be made such examinations, surveys or sampling as the commissioner of public works or his or her designee deems reasonably necessary to determine compliance with the permit

§29-152 Final report and certificate of compliance

Upon completion of the work done pursuant to a permit issued for a minor or major stormwater land disturbing activity, the permittee shall request a final inspection and submit the following: (Note: Land disturbance only permits do not require a certificate of compliance)

(1) Certified as-built construction plans from a Massachusetts Registered Professional Engineer (P.E.) and/or Registered Professional Land Surveyor (P.L.S) depicting all final grade changes, water, sewer and stormwater utilities and any BMPs installed.

(2.) A note on the As-built plan from the Engineer of Record indicating that the stormwater management system(s) have been constructed in accordance with, and meet the requirements of, the Stormwater Management Permit, including compliance with performance standards for Best Management Practices (BMPs) as noted in manufacturer's literature and/or Environmental Protection Agency's performance curves in the NPDES Small MS4 Permit. Any discrepancies between the approved plan and the as-built plan shall be noted.

(3.) Proof of recording the Operations and Maintenance Plan at the South Middlesex County Registry of Deeds.

The city engineer will issue a certificate of compliance upon receipt of these items and upon determination that all work of the permit has been satisfactorily completed and is in conformance with this ordinance. the commissioner of inspectional services shall not issue a certificate of occupancy for any property subject to this Sec. 29 prior to receipt of such certificate of compliance.

§29-153 Enforcement

The commissioner of public works shall have authority to enforce this ordinance and the associated rules and regulations; issue orders, violation notices, and enforcement orders as necessary; and may pursue all available civil and criminal remedies for such violations.

(a) Violation notices and enforcement orders

(1) The commissioner of public works may issue a written order to enforce the provisions of the stormwater management and erosion control ordinance or the rules and regulations, which may include demands to:

(a) Cease and desist from further alterations or land disturbance activity until there is compliance with the stormwater management and erosion control ordinance and/or the stormwater management and erosion control permit.

(b) Maintain, install or perform additional erosion and sedimentation control measures.

(c) Remediate erosion and sedimentation resulting directly or indirectly from land-disturbing activity.

(d) Remediate adverse impacts resulting directly or indirectly from malfunction of the stormwater management system.

(e) Eliminate discharges, directly or indirectly, into a watercourse or into the waters of the Commonwealth.

(2) If the commissioner of public works determines that abatement or remediation of adverse impacts is required, the order shall set forth a deadline by which such abatement or remediation must be completed.

(3) If a person violates the provisions of this ordinance, regulations, permit, notice, or order issued thereunder, the commissioner of public works 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) Penalties

Pursuant to Section 17-21 of the City Ordinances, any person who violates any provision of the Stormwater Management and Erosion Control Ordinance, or order or permit issued thereunder, may be ordered to correct the violation and/or shall be punished by a fine of not more than $300.00 per violation, excluding the cost of damages. Each day or part thereof that such violation occurs or continues shall constitute a separate violation.

(C) Non-Criminal Disposition

As an alternative to criminal prosecution, the commissioner of public works may elect to utilize the non-criminal disposition procedure set forth in M.G.L. c. 40, § 21D.

(D) Appeals

Judicial review. Any person aggrieved by the grant or denial of a permit may seek relief therefrom by a civil action in any court of competent jurisdiction as provided by the laws of the Commonwealth of Massachusetts.

§29-154 Severability

Any finding of the invalidity of any section, provision, paragraph, sentence, or clause of this ordinance shall not invalidate any other section, provision, sentence, or clause thereof, nor shall it invalidate any permit or determination that has been previously issued under this ordinance.

CITY OF NEWTON
Stormwater Management and Erosion Control Rules & Regulations
Draft WINTER 2021-2022 Adopted _____ xx, 2021

SECTION 1: AUTHORITY

A. These Rules and Regulations have been adopted by the Commissioner of the Department of Public Works in accordance with Chapter 29 of the Revised Ordinances of the City of Newton, Massachusetts, and will be administered by the City Engineer through the Engineering Division.

B. Nothing in these Rules and Regulations is intended to replace or be in derogation of the requirements of the City of Newton's Floodplain/Watershed Ordinance (Ch. 22, Article II Sec. 22), the City of Newton's Zoning Ordinance (Ch. 30), or any other ordinance adopted by the City of the Newton. Any project or activity subject to the provisions of the above-cited Ordinances or related Rules and Regulations must comply with the specifications of each.

C. These Rules and Regulations may be periodically amended by the Commissioner of the Department of Public Works in accordance with the procedures outlined in Ch. 29-149 of Newton's Stormwater Management and Erosion Control Ordinance, hereinafter referenced as the Stormwater Management Ordinance.

D. Waivers. The Commissioner of Public Works, as delegated to the City Engineer may waive strict compliance with any of the requirements of the City of Newton Stormwater Management and Erosion Control Rules and Regulations (hereinafter referenced as the Stormwater Management Rules and Regulations), if it finds that strict 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. Waivers may only be granted for projects disturbing less than 1 acre of land. Any Applicant requesting a waiver must submit a written request for such a waiver. Such a request shall be accompanied by an explanation and documentation supporting the waiver request.

SECTION 2: PURPOSE

A. The City's stormwater management system is strained by increased volumes of runoff from more frequent and higher intensity storms. Compounding the issue is a trend of increasing impervious areas and elevated grades around new structures limiting natural infiltration. Further, stormwater runoff from impervious surfaces is the greatest source of pollution to Newton's ponds, lake and waterways. Development proposals provide an inconsistent level of detail, making review and analysis challenging.

B. The purpose of these regulations is to clarify administration of Newton's Stormwater Management Ordinance, in order to achieve its objectives to:

1. Limit land clearing and alteration of natural topography prior to (re)development.
2. Prevent soil erosion and sedimentation resulting from construction.
3. Promote filtration, infiltration and the recharge of groundwater, and limit additional stormwater flow into the City's drainage system.
4. Minimize flooding.
5. Improve water quality.
6. Prevent alteration or destruction of aquatic resources and wildlife habitat.
7. Prevent clogging and pollution entering municipal catch basins and storm drainage systems.
8. Establish a mechanism by which the City can meet the requirements of its National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer (Drainage) System (MS4) permit.

SECTION 3: DEFINITIONS

A. All definitions are provided in Appendix A of these Rules and Regulations.

B. These definitions apply to the Stormwater Management Ordinance and these Rules and Regulations.

C. Terms not defined in the Stormwater Management Ordinance or Appendix A of these Rules and Regulations shall be construed according to their customary and usual meaning unless the context indicates a special or technical meaning.

SECTION 4: APPLICABILITY

These Rules and Regulations apply to all projects or activities subject to Ch. 29-148(c) the Applicability Section of the Stormwater Management Ordinance. All projects or activities referenced in Ch. 29-148 and not falling under an exception listed in Ch 29-148(d) shall require a Stormwater Management Permit in accordance with the Stormwater Management Ordinance.

Projects and/or activities within the jurisdiction of the Stormwater Management Ordinance must obtain a Stormwater Management Permit (SMP) from the City Engineer in accordance with the permit procedures and requirements defined in Sections 5 through 9 of these Rules and Regulations.

No work on a project within the jurisdiction of the City's Stormwater Management Ordinance may commence without a SMP or waiver from the City Engineer. Work commenced without an approved permit or waiver can result in an enforcement action and/or fines.

A. Exemptions. Notwithstanding Section 4.B, no SMP shall be required by the City Engineer for:

1) Normal maintenance and improvement of land for the primary purpose of agriculture, horticulture, floriculture, or viticulture, or the use, expansion, or reconstruction of existing structures for the primary purpose of agriculture, horticulture, floriculture, or viticulture, to the extent protected under the Zoning Act, M.G.L Chapter 40A, Section 3.

2) Normal maintenance of existing landscaping, gardens, or lawn areas.

3) Milling, excavating and replacement (but not enlargement) of lawfully located, existing pavement (bituminous concrete or concrete) provided the existing drainage patterns are not altered.

4) Overlaying of existing pavement, with no increase in impervious area.

5) Construction of a fence that does not alter the existing terrain or drainage patterns.

6) Drain connections declared necessary by the Commissioner to remove groundwater and stormwater inflow from the sanitary sewer.

7) Emergency activities necessary for the protection of the health and safety of the public, provided that: (a) the work is to be performed by or has been ordered by an agency of the Commonwealth of Massachusetts or a political subdivision thereof, (b) advance notice, oral or written, has been given to the Commissioner prior to commencement of work or within 24 hours after commencement, (c) the Commissioner certifies the work as an emergency activity, and (d) the work is performed only for the time and place certified by the Commissioner for the limited purposes necessary to abate the emergency.

8) Maintenance, repair or replacement of an existing and lawfully located structure or facility used in the service of the public to provide electric, gas, water, telephone, telegraph or other

telecommunication services, provided that applicable permits are obtained and there is no alteration in the terrain, ground cover or drainage patterns.

9) Maintenance, repair or replacement of existing stormwater infrastructure or stormwater Best Management Practices (BMPs) provided that: (a) there is no alteration of the existing terrain or drainage patterns; (b) there is no increase in the size or capacity of over 25%; (c) there is no change in the drainage area contributing to the system; and (d) best practical measures are utilized to avoid any negative impacts on stormwater quality or runoff rate or volume.

10) Normal maintenance of City-owned public land, rights-of-way, public utilities, and appurtenances, including roadway reconstruction.

11) Any work or projects for which all necessary approvals and permits, including building permits, have been issued before the effective date of the City of Newton's Stormwater Management Ordinance.

12) Activities that are temporary in nature, have negligible impacts, and are necessary for planning and design purposes (e.g., installation of monitoring wells, exploratory borings, sediment sampling, surveying and percolation tests).

B. A **Land Disturbance** Stormwater Management Permit is required for the following activity, as stated in Ch. 29-148(c).

1. Projects that will or could disturb over 5,000 square feet (SF) of land (i.e., the limit of work line encompasses over 5,000 SF of land).

C. A **Minor** Stormwater Management Permit is required for any one or more of the following activities, as stated in Ch.29-148(c):

1. Any residential development or redevelopment up to 4 units, provided the land disturbance is less than 0.5-acre.

2. Any residential, commercial, industrial, institutional, or municipal alteration, development or redevelopment creating 401 to 1,000 SF of new impervious area.

3. The construction of any new retaining wall required due to proposed changes in grade, unless already approved by Special Permit (per Zoning Sec. 5.4.2).

4. Trench excavation that requires dewatering.

D. A **Major** Stormwater Management Permit is required for any alteration, disturbance, development, or redevelopment exceeding the thresholds listed above for Land Disturbance or Minor Stormwater, as stated in Ch. 29-148(c).

SECTION 5: DESIGN STANDARDS

A. All SMP applications must clearly illustrate compliance with the following standards.

1. Calculate and depict prominently on the plans: the existing and proposed impervious surface areas. This information shall be included as a table with other zoning information.

2. Grading. Topographic contours shall be shown at 1-foot intervals on plans. Changes in grading of the land must demonstrate to the City Engineer's satisfaction that there will be no net increase in stormwater runoff to abutting properties or the City's stormwater drainage system. Changes to

landforms (i.e., ledge removal, blasting) shall be avoided and where necessary conducted to minimize land disturbance and avoid negative impacts to adjacent properties.

3. Retaining walls. In order to prevent potential flooding caused by the construction of a retaining wall, any proposed retaining wall shall be designed and constructed so as not to block or exacerbate any existing stormwater or groundwater flow patterns to or from abutting properties, as well as to or from the city's right of way.

4. Tree removal. Preserving healthy trees is encouraged due to the many benefits trees provide. Existing condition plans shall identify and note the sizes of all trees eight (8) inches dbh and larger on the subject property. Trees 8 inches dbh and larger that are proposed for cutting shall be clearly identified as such on a plan sheet. A clearly illustrated replacement planting plan shall be provided on a proposed condition plan sheet. Protected trees shall be replaced with an appropriate quantity of trees equaling the caliper inches lost due to development, in accordance with the City's Tree Preservation Ordinance[1], unless the project is exempt from compliance with the Tree Ordinance. If unable to meet this replacement policy the applicant may contribute to the City's tree fund.

5. Groundwater Intrusion: The bottom of the lowest foundation footing for habitable space must be 1-foot above the seasonal high groundwater elevation as determined by a Soil Evaluator licensed in Massachusetts or determine the seasonal high groundwater table using Frimpter Method[2].

6. Erosion and Sedimentation Control. Sediment that washes off construction sites and into the City's catch basins, ponds, lake, and wetlands has considerable cost and ecological implications for the City. Runoff, erosion and sediment control are important at every phase of the construction process. Implementing and maintaining the right control practice saves money, time and the environment. The application will be evaluated on the following criteria.

   a) Minimize disturbance of natural vegetation wherever possible. This is the best and most economical control measure.

   b) Control stormwater runoff and minimize soil erosion potential during construction. Divert flows around exposed soils, material stockpiles and slow down stormwater flows.

   c) Control soil movement and retain sediment within the 'limits of work' during and after construction. These measures may include but are not limited to perimeter controls such as straw wattles and silt fence, stabilized construction entrances/exits, sediment basins, catch basin silt sacks, proper dewatering practices (as needed).

   d) Stabilize disturbed soils, particularly unvegetated slopes, during any lapse in construction and immediately post-construction.

   e) Include a note (on the plans) for the contractor to regularly inspect and maintain the erosion and sediment controls measures. See additional note requirement in Section 6.B.

   f) Construction phasing or sequencing is encouraged for larger projects (e.g., ≥ 2 acres).

B. Minor Stormwater Management Permits. In addition to Section 5.A above, all projects subject to a Minor Stormwater Management Permit shall be designed to the following standards.

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[1] Newton's Tree Preservation Ordinance

[2] Frimpter Method: https://www.usgs.gov/centers/new-england-water/science/updating-a-method-estimate-probable-high-groundwater-levels?qt-science_center_objects=0#qt-science_center_objects

1. Stormwater management systems for new development and redevelopment sites shall be designed to retain the volume of runoff equivalent to, or greater than, two (2) inches multiplied by the *net increase* in impervious surface area on the site.

2. There must be a minimum two-foot separation between bottom of structure and seasonal high groundwater.

3. Stormwater infiltration systems shall be design with the following setbacks:

   a) A minimum of 10 feet from any building.
   b) A minimum of 50 feet from any slope greater than 15%. A variance may be allowed if an impermeable barrier is installed.

4. Proposals must analyze, propose, and implement Low Impact Development (LID) Best Management Practices (BMPs), unless PROVEN IN WRITING TO THE SATISFACTION OF THE City Engineer to be infeasible. See Appendix B for LID BMPs. If infeasible, Applicants shall demonstrate reasons why LID BMPs are infeasible and demonstrate compliance with design standards through generally accepted methods.

5. Soils tests must be conducted by a Soil Evaluator licensed in Massachusetts and must be performed within 25 feet of the location of every proposed infiltration BMPs and LID technique, to clearly identify soil descriptions, depth to estimated seasonal high groundwater, depth to bedrock, and soil texture. Any soil test conducted between the months of June and February must also be accompanied by a determination of the seasonal high groundwater table using Frimpter Method[3].

6. Drainage Design: Drainage calculations shall be performed for existing site conditions (pre-development) and proposed site conditions (post-development) based on proposed site plans. Storms of 2, 10, 25, and 100-year frequency events shall be analyzed to demonstrate no net increase in stormwater runoff volume or peak flow for any storm event. The rainfall amounts used shall be based on the 1998 Cornell University Study, NOAA Atlas 14 Volume 10 Point Precipitation Frequency Estimates for Newton.

   Note: the 100-year design storm is based on 8.78 inches of precipitation in 24 hours. For purposes of choosing a Runoff Curve Number, all pervious lands on the Site shall be assumed prior to development to be in "good" hydrologic condition regardless of conditions existing at the time of computation. All drainage calculations shall be stamped by a Registered Professional Civil Engineer.

7. Infiltration systems shall be designed to drain fully within 72 hours.

8. Plan submission requirements are detailed in Section 6 – Application Requirements and Procedures.

C. Major Stormwater Management Permits. **In addition to Section 5.A. and 5.B., above**, all projects subject to a Major Stormwater Management Permit shall be designed to meet the following additional standards.

1. All projects triggering the thresholds for a Major Stormwater Permit must meet the minimum pollutant removal requirements and on-site stormwater volume retention requirements identified

[3] Frimpter Method: https://www.usgs.gov/centers/new-england-water/science/updating-a-method-estimate-probable-high-groundwater-levels?qt-science_center_objects=0#qt-science_center_objects

in C.3 and C.4 below; if due to site conditions this is technically infeasible, then the Applicant may request a waiver (waivers are only applicable for projects less than 1 acre).

2. Projects shall comply with the Stormwater Standards of the most recent version of Massachusetts Stormwater Management Handbook (Handbook)[4], and the City of Newton General Construction Detail Book and Streets Design Guide except that our requirement for the volume of stormwater runoff to be stored (retained on-site) is higher than the Handbook.

3. Stormwater management systems on **new development** sites shall be designed to:

   a) Retain the volume of runoff equivalent to, or greater than, two (2) inches multiplied by the total post-construction impervious surface area on the site; and

   b) Remove 90% of the average annual load of Total Suspended Solids generated from the total post-construction impervious area on the site; and

   c) Remove 60% of the average annual load of Total Phosphorus (TP) generated from the total post-construction impervious surface area on the site; and

   d) Whenever feasible exceed the above minimum phosphorus removal[5] requirement. Infiltration BMPs, bioretention areas, constructed stormwater wetlands, and filter systems are recommended ways to reduce phosphorus in stormwater discharges.

4. Stormwater management systems on **redevelopment** sites shall be designed to improve existing conditions by:

   a) Retain the volume of runoff equivalent to, or greater than, two (2) inches multiplied by the total post-construction impervious surface area on the site; and

   b) Remove 80% of the average annual load of Total Suspended Solids generated from the total post-construction impervious area on the site; and

   c) Remove 50% of the average annual load of Total Phosphorus (TP) generated from the total post-construction impervious surface area on the site; and

   d) Whenever feasible exceed the minimum total phosphorus removal[2] requirement. Infiltration BMPs, bioretention areas, constructed stormwater wetlands, and filter systems are recommended ways to reduce phosphorus in stormwater discharges.

5. To support compliance with the City's MS4 Permit, all new stormwater management BMPs located on commercial and industrial property shall incorporate shutdown and containment in the design to isolate the drainage system in the event of an emergency spill or other unexpected event.

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[4] Massachusetts Stormwater Handbook, as most recently updated.
http://www.mass.gov/eea/agencies/massdep/water/regulations/massachusetts-stormwater-handbook.html

[5] The required removal percentages are not required for each storm, it is the average removal over a year that is required. Pollutant removal shall be calculated consistent with EPA Region 1's Opti-Tool found here; https://www.epa.gov/tmdl/opti-tool-epa-region-1s-stormwater-management-optimization-tool, Or use the performance curves in the MS4 Permit, Appendix F, Attachment 3, found here: https://www3.epa.gov/region1/npdes/stormwater/ma/2016fpd/appendix-f-attach-3-2016-ma-sms4-gp-mod.pdf.

SECTION 6: APPLICATION REQUIREMENTS AND PROCEDURES FOR STORMWATER MANAGEMENT PERMITS

A. All Stormwater Management Permits (SMP) Applications

1. One (1) completed 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 and parcel ID.

   c) Project description.

   d) Site plan reference(s).

   e) Signature of Applicant, property owner (if different), and representative, if applicable.

   f) Payment of the Application fee.

2. Supporting engineering plans for a SMP shall include the materials as specified in this section.

B. Land Disturbance Permit Submission Requirements

1. In addition to the signed, completed application, the Applicant shall provide a brief narrative explaining the purpose of the proposed land disturbance.

2. A Site Plan denoting property lines, existing buildings, existing and proposed trees (clearly noting any trees to be cut), existing and proposed edge of lawn and ground cover materials and existing and proposed topographic contours. This plan shall be stamped and signed by a Professional Civil Engineer (PE) licensed in the Commonwealth of Massachusetts and/or Professional Land Surveyor (PLS).

3. Methods to minimize the potential for soil erosion and control soil / sediment from leaving the property shall be depicted on the Site Plan.

C. Minor Permit Submission Requirements

1. In addition to the signed, completed permit application, the Applicant shall provide: one (1) set of full-size plans, stapled and rolled; plus, an electronic copy (pdf) provided on a flash drive. Additional copies may be requested by the City Engineer.

2. A Stormwater Management Site Plan that may be prepared by drafting or hand sketching. depending on project size and complexity, at the discretion of the City Engineer, to include:

   a) General Information:

      (1) Sheet size: Sheets shall have a maximum dimension of 24" x 36" and formatted for landscape layout. Large plans should be rolled rather than folded. If more than one sheet is needed to describe the proposed work, a key sheet is required showing a general composite of all work proposed.

      (2) Scale: Not more than 1" = 50' (the Engineering Division routinely accepts plans at 1" =20' or 1" =40'). 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.

(5) Existing contours at 1-foot minimum vertical increments.

(6) Existing landscaping and vegetation including all existing trees within 25 feet of the work area that are over 8 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) Location of existing septic systems, monitoring and private wells, if present.

(11) 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 table (SHGWT), depth to bedrock, and percolation rates. Soils and the SHGWT elevation shall be based on site test pits logged by a Soil Evaluator licensed in Massachusetts

(12) The existing vegetation (e.g., lawn area, mature trees, etc.) and ground surfaces with runoff coefficients for each.

(13) Stamp and signature of a Professional Civil Engineer (PE) licensed in the Commonwealth of Massachusetts and/or Professional Land Surveyor (PLS).

c) A Proposed Conditions Plan containing the following:

(1) Property lines, building envelope restrictions and/or easement areas, including areas affected by conservation restrictions, if applicable.

(2) 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, roof drainage and stormwater drainage structures, as applicable) and all areas of existing and proposed impervious areas: including tennis courts, patios, and driveways, etc.

(3) **Proposed total impervious surface areas in square feet,** shown as a table with comparison to existing impervious surface area conditions.

(4) FEMA Flood Hazard areas and Newton Floodplain Ordinance areas, if applicable.

(5) Limit of work.

(6) Proposed grading for work area. Proposed contours at 1-foot vertical increments.

(7) Locations for storage of materials, equipment, soil, snow and other potential pollutants.

(8) A note on the plan indicating the Contractor shall sequence construction activities to avoid stockpiling materials and soil compaction where proposed stormwater BMPs will be located.

(9) 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.

(10) 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.

(11) Proposed landscaping, vegetation, and ground surfaces. When trees 8-inches dbh and larger are proposed for cutting, a clearly illustrated planting plan shall be provided. The replacement planting plan shall comply with the City's Tree Preservation Ordinance (see footnote 1). If it is not feasible to plant the required number of trees, an applicant may propose a combination of trees and shrubs for approval.

(12) 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).

(13) A general construction note stating the Engineering Division Inspector shall be notified 48 hours prior to any site work in accordance with project permits.

(14) Stamp and signature of a Professional Civil 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.

4. The Erosion and Sediment Control Plan shall demonstrate that erosion will be minimized, and sediment contained. The plan shall include, at a minimum, the following:

c) Estimates of the total area expected to be disturbed by excavation, grading, or other construction activities, including dedicated off-site borrow and fill areas.

d) Location and design of all proposed soil erosion and sediment control measures.

e) Pollution control measures to be implemented during construction to mitigate pollutants from entering the public right of way and storm drains. Consider construction and waste materials expected to be stored on-site, describe source control and storage methods to minimize exposure of the materials to stormwater.

f) Location of anti-tracking area at each construction entrance or other means to minimize off-site tracking of soil and sediment onto paved surfaces

g) Means to protect all existing drainage infrastructure (i.e., catch basins) and proposed drainage infrastructure from clogging during construction. For projects anticipated to encounter or manage groundwater, show proposed dewatering operations, including proposed locations of discharge and related details.

h) Location of proposed construction stockpiling areas with appropriate erosion and sediment control measures.

i) The intended sequence and timing of activities that disturb soils at the site and the general sequence during the construction process in which the erosion and sediment control measures will be implemented. Or include this note on the plan: "The contractor shall sequence construction activities to minimize the potential for soil, stone or sediment to migrate off-site; divert flows around bare soils, to the maximum extent practicable; stabilize unvegetated areas as soon as practical, and prevent pollutants from entering the City's storm drainage system"

j) Measures to control wastes, including discarded building materials, concrete truck wash-out, chemicals, litter, and sanitary wastes during construction and prevent the discharge of these and any solid material to Newton's MS4 or waters of the United States, unless authorized by a permit issued under Section 404 of the Clean Water Act.

k) Where a site is located in whole or in part within the floodplain, a Floodplain Contingency Plan shall be included with the Erosion and Sediment Control Plan. This Plan shall describe the steps necessary to stabilize the site during construction in the event of a possible flood. A possible flood shall be defined as period when a flood watch is declared for the Charles River by the National Weather Service.

5. A Stormwater Management Report shall be prepared in conformance with the Design Standards contained in Section 5 and contain the following elements:

   a) The existing site hydrology.

   a) 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.

   b) 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:

      (i) Description of the design storm frequency, intensity and duration.

      (ii) Time of concentration.

      (iii) Soil Runoff Curve Number (CN) based on land use and soil hydrologic group.

      (iv) Peak runoff rates and total runoff volumes for each watershed area.

      (v) Infiltration rates, where applicable.

      (vi) Culvert capacities, where applicable.

      (vii) Flow velocities.

      (viii) Data on the rate and volume of runoff for the specified design storms.

      (ix) Documentation of sources for all computation methods and field test results.

   c) 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.

6. Post Construction Operation and Maintenance Plan (O&M)

   a) The Post-Construction O&M Plan shall be designed to ensure compliance with the SMP, the Stormwater Management Ordinance 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.

   b) The Post-Construction O&M Plan shall include, at a minimum:

      i. The name(s) of the owner(s) for all components of the system and emergency contact information.

      ii. The signature(s) of the owner(s).

      iii. The names and addresses of the person(s) currently responsible for O&M.

      iv. An Inspection and Maintenance Schedule for all stormwater management facilities including routine and non-routine maintenance tasks to be performed.

v. 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.

vi. 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 South Middlesex County Registry of Deeds prior to issuance of a Stormwater Management Certificate of Compliance by the Engineering Division.

vii. O&M inspection schedule and log form.

viii. Provisions for the, City Engineer or his/her designee to enter the property at reasonable times and in a reasonable manner for the purpose of inspection.

D. Major Permit Submission Requirements

In addition to all the requirements for a Minor Stormwater Permit, provide:

1. 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 how the proposed project:

   a) Meets the Design Standards enumerated in Section 5C.

   b) Meets the Stormwater Standards outlined in the Massachusetts Stormwater Handbook[6];

   c) Attempt to reproduce natural hydrologic conditions with respect to groundwater and surface water.[7]

   d) Include square footage summaries indicating square footage of work area as well as existing, proposed and net changes in impervious surface areas.

SECTION 7: ADMINISTRATION

A. Administration of Rules and Regulations. The City Engineer through its Engineering Division shall administer, implement, and enforce these Rules and Regulations.

B. Stormwater Management Permit Application Approval Process

Actions by the City Engineer / Engineering Division:

1. Determination of Completeness: The City Engineer shall review the Stormwater Management Permit Application for completeness with the requirements and standards of Sections 5 through 8 within fifteen (15) business days of receipt.

2. Incomplete Applications: If the City Engineer determines the Application is incomplete, including, but not limited to, insufficient information to describe the site, the work, or the effect

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[6] Massachusetts Stormwater Handbook, as most recently updated.
http://www.mass.gov/eea/agencies/massdep/water/regulations/massachusetts-stormwater-handbook.html

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

that work has on water quality and runoff volume, the Engineering Division may reject the application, require the submission of additional information, or deny the Permit.

3. Complete Applications. Each Application for a Stormwater Management Permit Application that is determined to be a complete Application shall be reviewed by the City Engineer. The Application shall be acted upon within fifteen (15) business days of the date that the Engineering Division determines that the Application is complete unless such Application has been withdrawn from consideration. The Engineering Division may:

   a) Approve the Permit Application upon finding that the proposed project will meet the objectives of the Stormwater Management Ordinance and the Design Standards.

   b) Approve the Permit Application with conditions, modifications and/or restrictions that are required to ensure that the project will protect water resources and meets the objectives of the Stormwater Management Ordinance and the Design Standards.

   c) Deny the Permit Application due to non-compliance with Design Standards (in Section 5) or insufficient information to make a determination.

C. Plan Changes

The Applicant must notify the City Engineer, in writing, of any proposed change to or alteration of the site plans and details authorized in any Stormwater Management Permit before any change or alteration is made. Proposed changes are only considered approved by the Engineering Division if the changes are *noted in writing by the Engineering Division and/or revised plans / documents are stamped approved by the Engineering Division.* If the Engineering Division determines that a proposed change or alteration is significant, based on the Design Standards in Section 5 of these Rules and Regulations and accepted construction practices, it may require an amended Application be filed.

D. Expiration of Permits and Permit Extensions

1. Should a land-disturbing project or activity associated with an approved plan in accordance with this City Ordinance not begin within one (1) year following permit issuance, the permit shall lapse and should the Applicant wish to continue with the previously approved plan, the Applicant must re-apply for a new permit.

2. If the project associated with an approved Stormwater Management Permit granted under the Ordinance has not been completed within three (3) years of permit issuance, a new permit or a permit extension will be required by the Engineering Division. The Engineering Division may require revisions to the project to comply with current regulations and standards as a condition of the permit extension.

3. Applicants may request permit extensions in one (1) year increments.

E. Project Completion. A Stormwater Management Certificate of Compliance (SMCC) is required for completion of all Minor and Major Stormwater Management Permits. Upon request by the permittee and following review and approval that all work of the permit has been satisfactorily completed in conformance with the Stormwater Management Ordinance and Permit, the Engineering Division will issue a Stormwater Management Certificate of Compliance. (See Section 10 for details.)

SECTION 8: PRE-CONSTRUCTION NOTICE and CONSTRUCTION INSPECTIONS

A. Pre-Construction Meetings and Site Inspections

1. Pre-Construction Meeting: Once a permit has been approved, the Engineering Division may require a pre-construction meeting prior to starting any 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 City Engineer two (2) business days prior to the commencement of any construction or land disturbance activities. In addition, the Applicant must notify the assigned Engineering Division inspector two business (2) days prior to construction of any stormwater management structural Best Management Practices (BMPs).

3. Initial Site Inspection: An inspection may be made of erosion and sedimentation controls prior to any land-disturbance to assess overall effectiveness and functioning to protect resources

B. Construction-Period Inspections

1. Upon issuance of any Stormwater Management Permit, and until issuance of a SMCC, representatives from the Engineering Division and their designees shall be granted the right to enter the property at reasonable times and in a reasonable manner for the purpose of inspection.

2. The Engineering Division may, at a minimum, inspect the project site at the following stages:

   a) Prior to any vegetation clearing and upon installation of all soil erosion and sediment control measures. Periodic inspections will be made thereafter to ensure the durability and function of these measures.

   b) Stormwater Management System Excavation Inspection: The Engineer of Record shall inspect the excavation of the stormwater management system(s) to ensure adequate separation of the stormwater system from ground water. This is required for Major Stormwater Permits and highly encouraged for Minor Stormwater Permits.

   c) Stormwater Management System Inspection: An inspection will be made prior to backfilling of any underground drainage or stormwater conveyance structures and management

   d) The City Engineer may require the submission of periodic inspections and reporting by the Applicant as dictated by site conditions. Inspections must be completed by qualified persons approved by the Engineering Division.

C. Post-Construction Inspection. The Engineering Division shall inspect the site and all stormwater infrastructure / BMPs to confirm its "as-built" features and full compliance with all approved plans and permit conditions, including final site stabilization.

SECTION 8: STANDARD CONDITIONS

A. A copy of the approved and signed plans and permits shall always be kept on the construction site.

B. Notes indicating the required inspections must appear on the final approved Site Plan(s).

C. Post-Construction Annual Reporting on O&M of Stormwater Management System for Major Stormwater Permits only. Annual stormwater management systems inspection reports shall be

submitted to the Engineering Division by January 15th of the following year. Inspection reports *including photographs or videos* (as appropriate) 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 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.
   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.

SECTION 9: STORMWATER MANAGEMENT CERTIFICATE OF COMPLIANCE (SMCC)

A. Upon completion of the work done under any minor or major stormwater management activity, the permittee shall request a final inspection and submit the following: Note: Land disturbance only permits do not require a certificate of compliance.

The permittee shall submit:

1. A written request for a Stormwater Management Certificate of Compliance from the Engineering Division.
2. As-built plans detailing all aspects of the construction project including the stormwater management systems, structures and devices, as installed. As-built plans shall be stamped by a Registered Professional Engineer.
3. A letter from the Engineer of Record indicating that the constructed facility(s) have been constructed in accordance with, and meet the requirements of, the Stormwater Management Permit, including compliance with performance standards for Best Management Practices (BMPs) as noted in manufacturer's literature and/or EPA's performance curves in the NPDES Small MS4 Permit.
4. Proof of recording the Operations and Maintenance Plan at the South Middlesex Registry of Deeds.

B. After receipt of a written request for a Stormwater Management Certificate of Compliance, as-built plans, and a letter from the Engineer of Record, the Engineering Division shall inspect the stormwater management system to confirm its "as-built" features, determine if the site has been stabilized and determine whether to issue a Stormwater Management Certificate of Compliance.

1. The Engineering Division shall issue a Stormwater Management Certificate of Compliance upon finding that the permit and all its conditions have been complied with.

2. The Engineering Division shall not issue a Stormwater Management Certificate of Compliance upon physical evidence of operational failure, even though it was built as called for the Engineering Plans. In such a case, the Engineering Division shall have the right to require corrections or improvements to the "as-built" system before issuing a Stormwater Management Certificate of Compliance.

SECTION 10: SECURITY

A. As part of any Minor or Major Stormwater Management Permit issued, in addition to any security required by another municipal or state board, agency or official, the Engineering Division may require that the performance and observance of the conditions imposed hereunder be secured wholly or in part by a proper bond or deposit of money or negotiable securities or the undertaking of financial responsibility sufficient in the opinion of the Engineering Division, to be released in whole or in part upon issuance of a SMCC for work performed pursuant to the Permit.

SECTION 12: 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 NEWTON'S STORMWATER MANAGEMENT ORDINANCE RULES AND REGULATIONS

APPENDICES FOLLOW

APPENDIX A: DEFINITIONS SUPPLEMENTING THOSE IN THE ORDINANCE

The following definitions supplement those included in the City of Newton Stormwater Management Ordinance (**Chapter 29**).

1. ABUTTER -Any property owner whose land directly abuts the land upon which work is being proposed.

2. APPLICANT -Any "person", as defined in the ordinance, who has filed an application for a Stormwater Management and Erosion Control Permit.

3. 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 remove rainfall.

4. ENGINEER OF RECORD – is the professional engineer who seals drawings, reports, or documents for a project. The seal shall acknowledge that the professional engineer prepared, coordinated, or had subordinates prepare under the direct supervision of the professional engineer, drawings, reports, or documents for a project.

5. ESTIMATED SEASONAL HIGH GROUNDWATER – the shallowest depth to free water that stands in an unlined borehole or test pit.

6. EROSION CONTROL - The prevention or reduction of the movement of soil particles or rock fragments.

7. EROSION CONTROL PLAN

   A document containing narrative, drawings and details developed by a registered professional engineer (PE) or a registered professional land surveyor (PLS), which includes best management practices, or equivalent measures designed to control surface runoff, erosion and sedimentation during pre-construction and construction related land disturbance activities.

8. EXISTING LAWN: Grass area which has been maintained and mowed in the previous two years.

9. FILL: The placement or deposit of any material that raises, either temporarily or permanently, the elevation of any area subject to the Ordinance.

10. 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.

11. GENERAL CONSTRUCTION DETAIL BOOK – The latest version of general construction details promulgated by the City of Newton's Department of Public Works, which is available from the Engineering Division.

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

13. 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.

14. IMPERVIOUS AREA or IMPERVIOUS SURFACES: Any material or structure in, on or above the ground that prevents water from infiltrating through the underlying soil. Impervious surface is defined to include, without limitation: paved surfaces (parking lots, sidewalks, driveways, etc.), roof tops, swimming pools, stone patios, gravel, and compacted dirt surfaces such as driveways and roads.

15. NEW DEVELOPMENT

    Any construction or disturbance of land that is currently in a natural vegetated state. New development also includes any disturbance beyond existing impervious and disturbed areas that is contiguous to redevelopment projects.

16. 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

17. 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.

18. REDEVELOPMENT

    Any construction, land alteration, demolition or improvement of impervious surfaces that does not meet the definition of new development. The following activity is excluded from this definition:

    a. Maintenance and improvement of existing roadways, including widening less than a single lane, adding shoulders, and correcting substandard intersections and drainage, and repaving.

19. RESOURCE AREA

    Any area protected under including without limitation: the Massachusetts Wetlands Protection Act, Massachusetts Rivers Act, or City of Newton General Wetlands Protection Ordinance.

20. SEDIMENTATION

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

21. 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).

22. STORMWATER MANAGEMENT CERTIFICATE OF COMPLIANCE (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.

23. TOTAL PHOSPHORUS (TP) – phosphorus is a nutrient commonly contaminating stormwater, derived from the natural decay of plant material and human activities. Total phosphorus is a measure of all forms of phosphorus, dissolved and suspended particulate found in a sample.

24. TOTAL SUSPENDED SOLIDS (TSS) -Total Suspended Solids. Material, including but not limited to trash, debris, and sand suspended in stormwater runoff.

APPENDIX B: LOW IMPACT DEVELOPMENT PRACTICES

Low Impact Development (LID) strategies use careful site design and decentralized stormwater management to reduce the environmental footprint of new growth and redevelopment. This approach improves water quality, minimizes the need for expensive pipe and pond stormwater systems, and creates more attractive developments. The following are LID strategies and various benefits of implementation.

1. Bioretention cells, commonly known as rain gardens, are relatively small-scale, landscaped depressions containing plants and a soil mixture that absorbs and filters runoff.

   Management Objectives:
   - Provide quality treatment.
   - Remove suspended solids, metals, nutrients.
   - Increase groundwater recharge through infiltration.
   - Reduce peak discharge rates and total runoff volume.

2. Permeable and porous pavements allow water to soak through the paved surface into the ground beneath. Permeable pavement encompasses a variety of mediums including porous concrete and asphalt, plastic grid systems and interlocking paving bricks.

   Management Objectives:
   - Reduce stormwater runoff volume from paved surfaces.
   - Reduce peak discharge through infiltration.
   - Reduce pollutant transport through direct infiltration.
   - Improve site landscaping benefits (grass pavers).

3. Grass swales are broad, open channels sown with erosion resistant and flood tolerant grasses.

   Management Objectives:
   - Provide water quality treatment; remove suspended solids; heavy metals, trash.
   - Reduce peak discharge rate and total runoff volume.
   - Infiltrate water into the ground.
   - Provide a location for snow storage.

4. Infiltration Trenches and Dry Wells These are standard stormwater management structures that store water in the void space between crushed stone or gravel; the water slowly percolates downward into the subsoil.

   Management Objectives:
   - Remove suspended solids, heavy metals trash, oil, and grease.
   - Reduce peak discharge rate and total runoff volume.
   - Provide modest infiltration and recharge.
   - Provide snow storage areas.

5. Grass Filter Strips are low-angle vegetated slopes designed to treat sheet flow runoff from adjacent impervious areas.

   Management Objectives:
   - Remove suspended solids, heavy metals, trash, oil and grease.

- Reduce peak discharge rate and total runoff volume.
- Provide modest infiltration and recharge.
- Provide snow storage areas.

6. Roadway and Parking Lot Design:

   Management Objectives:
   - Remove suspended solids, heavy metals trash, oil, and grease.
   - Reduce peak discharge rate and total runoff volume.
   - Provide modest infiltration and recharge.
   - Provide snow storage areas.

7. Cisterns and rain barrels harvest and store rainwater collected from roofs [Note: not to be used as part of measures to meet minimum recharge volumes]

   Management Objectives:
   - Storing and diverting runoff.
   - Reduce flooding and erosion caused by stormwater runoff.
   - They contain no salts or sediment which provides "soft" chemical-free water for garden or lawn irrigation, reducing water bills and conserving municipal water supplies.

8. Other LID Implementations

   - Shared Driveways
   - Green Roofs
   - Tree box filters
   - Eliminating curbs and gutters or minimizing in new construction.
   - Soil Amendments.
   - Creating long flow paths over landscaped areas.
   - Creating terraces and check dams.
   - Pervious pavers.
   - Infiltration, Filtration
     - Rain gardens.
     - Disconnected downspouts (not on hills).
     - Filter Mitts.

9. Low Impact Landscaping

   - Native, drought tolerant species.
   - Turf area conversion (shrubs, etc.).
   - Encouraging longer grass length.
   - Planting wildflower meadows rather than turf along medians.

Conservation Development

Like LID, Conservation Development tries to mitigate the effects of urbanization, but it places additional emphasis on protecting aquatic habitat and other natural resources. Conservation Development subdivisions are characterized by compact clustered lots surrounding a common open space. Conservation Development's goal is to disturb as little land area as possible while simultaneously allowing for the maximum number of residences permitted under zoning laws.

Prior to new construction, conservation developers evaluate natural topography, natural drainage patterns, soils and vegetation. They deploy stormwater Best Management Practices to help prevent flooding and protect natural hydrology. By maintaining natural hydrological processes, Conservation Development creates conditions that slow, absorb, and filter stormwater runoff onsite.

Because future development threatens valuable natural features, Conservation Development provides specific provisions for long-term and permanent resource protection. Conservation easements, transfer of development rights, and other "in perpetuity" mechanisms ensure that protective measures are more than just temporary.

Effective Site Design

The goals of Effective (or Better) Site Design are to reduce impervious cover, preserve natural lands, and capture stormwater onsite. To meet these goals, designers employ a variety of methods. To reduce impervious cover, they narrow streets and sidewalks, minimize cul-de-sacs, tighten parking spaces, and reduce the size of driveways and housing lots.

To reduce stormwater runoff, designers preserve natural lands, using them as buffer zones along streams, wetlands and steep slopes. They employ landscaping techniques that flatten slopes and preserve native vegetation and clusters of trees. They create bio-retention areas - open channels, filter strips and vegetated swales - to increase stormwater infiltration, helping to protect streams, lakes, and wetlands.

111-22

Draft Stormwater Management and Erosion Control Ordinance

Presentation to Public Facilities Committee: January 19, 2022

NEWTON CLEAN WATER IS EVERYBODY'S BUSINESS

Purpose

- To comply with Newton's MS4 Permit.
- Reduce the strain on the City's stormwater system resulting from increased volumes of runoff from more frequent and higher intensity storms.
- Minimize the impacts of the trend of increasing impervious areas that limit natural infiltration.
- Mitigate stormwater runoff from (new) impervious surfaces, which is the greatest source of pollution to Newton's ponds, lake and waterways.

Purpose (continued)

- Current Zoning §Ch. 30 Section 5.3 is limited
- Establish a permit process to:
  - Track projects for compliance, MS4 Annual reports & workflow
  - Formalize standards for plan reviews, construction period inspections and project close-out requirements
  - Establish enforcement procedures

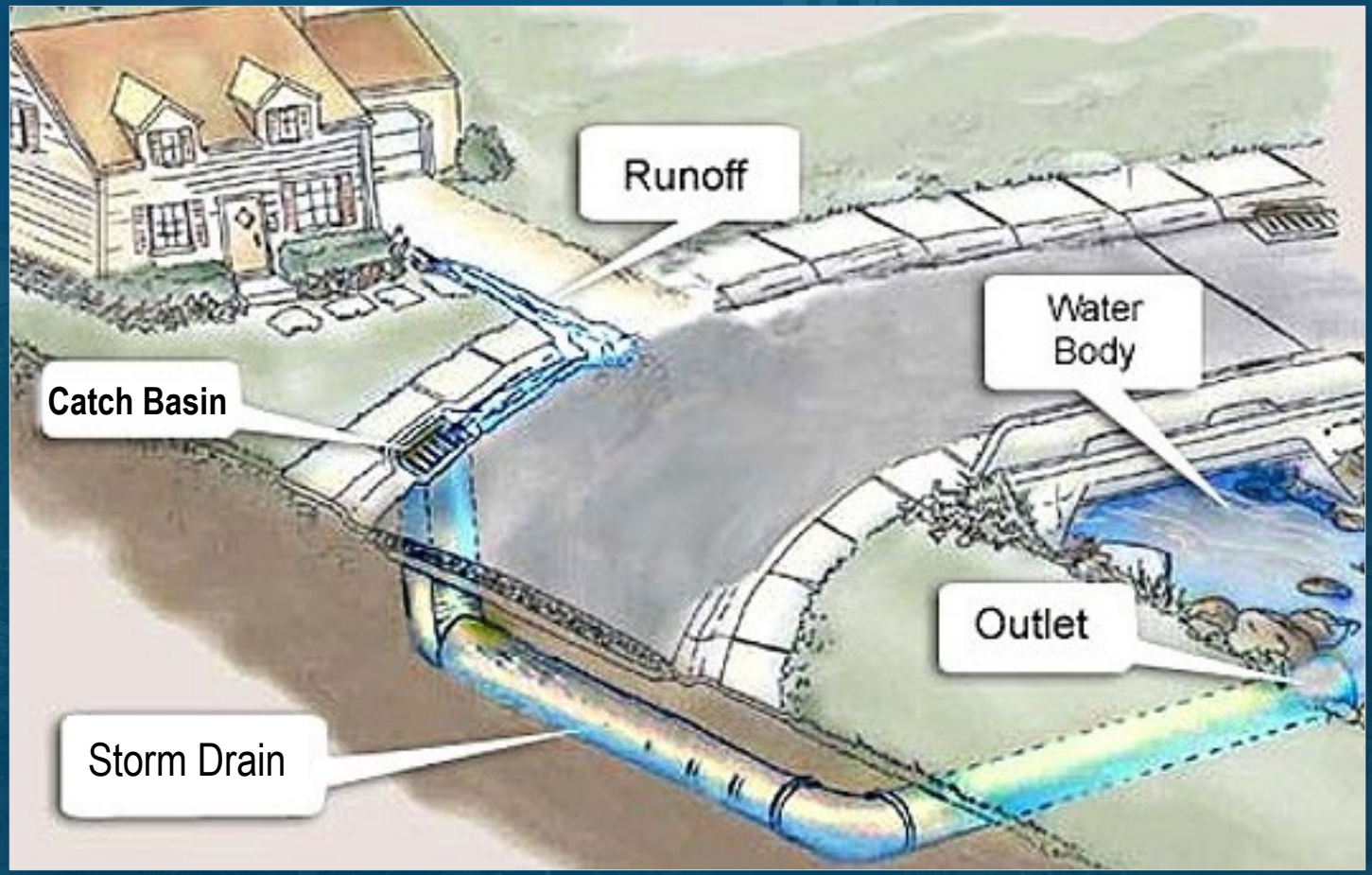
Sec. 5.3. Stormwater Management

See also Revised Ordinances Chapter 22, Article II, Section 22-22.

A. Whenever the existing contours of the land are altered, the land shall be left in a usable condition, graded in a manner to prevent the erosion of soil and the alteration of the runoff of surface water to or from abutting properties, and shall be substantially landscaped.

B. Projects increasing impervious surface area by more than the lesser of a) 4 percent of lot size or b) 400 square feet, or that involve altering the landscape in such a way that may result in alteration of the runoff of surface water to abutting properties or erosion of soil, shall be reviewed by the Commissioner of Inspectional Services and the City Engineer to ensure compliance with this Sec. 5.3. The Commissioner of Inspectional Services and the City Engineer may reject a project if they believe it will cause runoff of surface water to abutting properties or the erosion of soil.

Municipal Drainage System 101



Stormwater Ordinance Team

- Jim McGonagle, Public Works Commissioner
- Shawna Sullivan, Deputy Commissioner
- Andrew Lee, Associate City Solicitor
- Lou Taverna, City Engineer
- John Daghlian, Associate City Engineer
- Frank Nichols, Director of Engineering
- Maria Rose, Environmental Engineer
- Jennifer Steel, Chief Environmental Planner
- Alfredo Vargas, Design Project Manager

Objectives

- Minimize the discharge of pollutants in stormwater runoff from new and redeveloped sites through **infiltration**, retention and/or treatment using Best Management Practices per the MS4 Permit.
- Minimize or eliminate soil erosion & maintain sediment on site so that it is not transported via stormwater runoff into our drainage system, streams or the Charles River.
- Reduce / mitigate the volume of stormwater runoff associated with new impervious surfaces (i.e., buildings, parking lots, driveways, etc.)
- Implement Low Impact Development strategies.

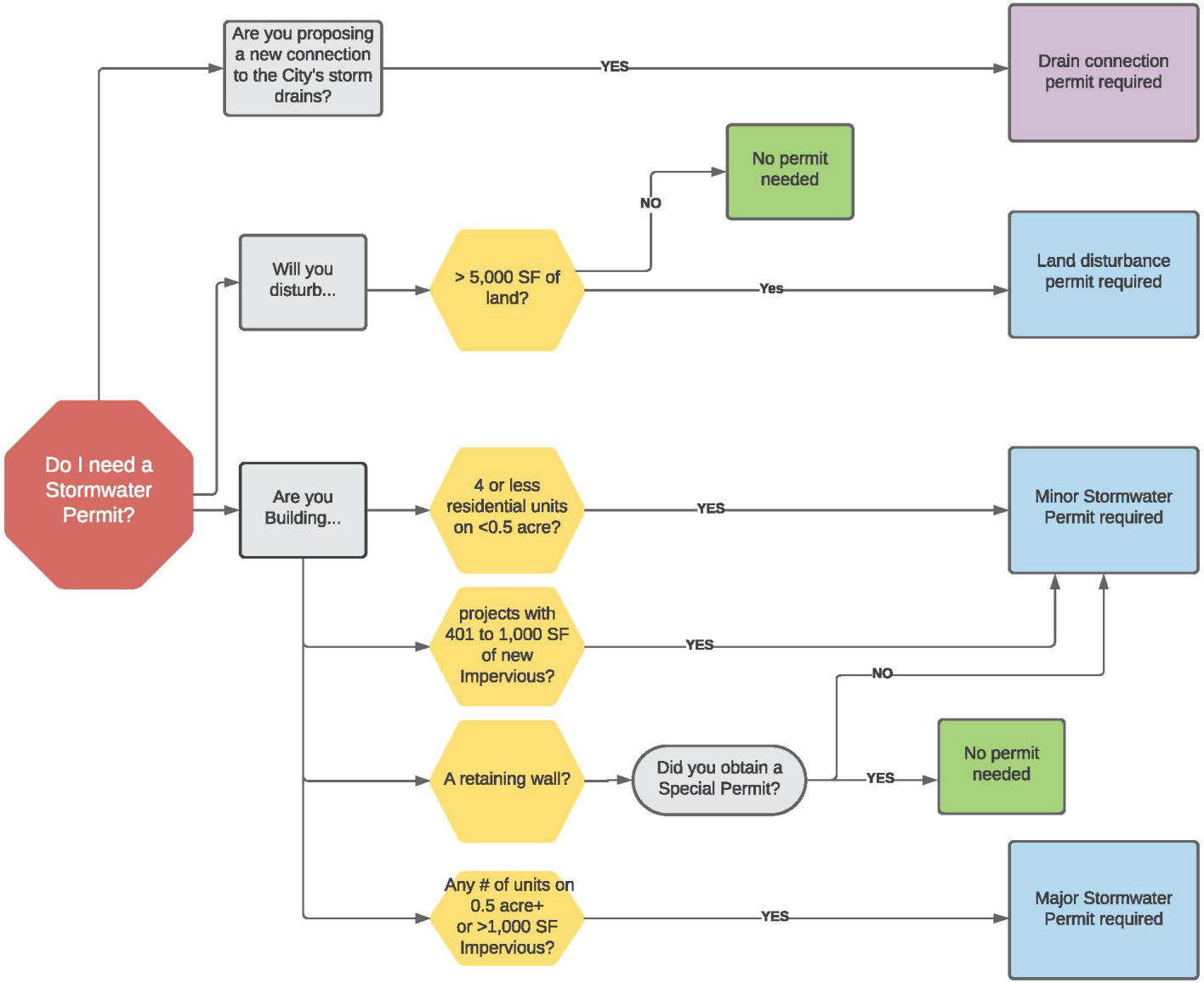
Objectives continued

- Establish stormwater permitting process
  - Codify existing Engineering Division policy
- Review retaining walls built outside of the zoning set-backs
- Establish procedures for construction dewatering activities
- Encourage retention of existing trees during (re)development
- Minimize construction (i.e., basements) in the groundwater zone

Better construction site management

On average DPW removes 850 tons of sediment and debris from our catch basins annually.

NEWTON CLEAN WATER IS EVERYBODY'S BUSINESS



Three categories of stormwater permits

CLEAN WATER IS EVERYBODY'S BUSINESS
NEWTON

Land Disturbance Only Projects

- Provide a Site Plan showing existing and proposed topography, trees to be cut / planted, all land features (buildings, pavement, extent of grass and trees)
  - Show proposed erosion control measures
- Permit fee = $50

Minor Stormwater Projects

- Existing and proposed site plans
- Erosion & Sediment Control Plan
- Stormwater Management Report
  - Document existing & proposed impervious surfaces
  - Calculations to demonstrate - 2” stormwater runoff from net increase is managed on-site
- Incorporate Low Impact Development, unless proven infeasible
- Develop an Operations & Maintenance Plan and record it at the Registry of Deeds
- Permit Fee = $100

Major Stormwater Projects

- Existing and proposed site plans
- Erosion & Sediment Control Plan
- Stormwater Management Report
  - Document existing & proposed impervious surfaces
  - Retain / infiltrate 2” stormwater runoff from **all impervious areas**
  - Remove Phosphorus: 50 to 60%
  - Capture sediment (TSS): 80 to 90%
  - Demonstrate compliance with the MA Stormwater Handbook
- Incorporate Low Impact Development, unless proven infeasible
- Attempt to reproduce natural hydrologic conditions
- Develop and Record at the Registry an Operations & Maintenance Plan
- Permit Fee = $300 (one to four family); $1,000 for all others

Stormwater Mgmt. Certificate of Compliance

Permittee submits:

- ❑ Request for Certificate of Compliance
- ❑ As-built plans, stamped by a Professional Engineer
- ❑ Letter from the Engineer of Record stating construction of Stormwater Managements systems meet the design
- ❑ Proof of Recording the O&M Plan

The City Engineer or his/her staff review above before issuing the SMCC.
Note: Land disturbance only projects do not require this.

Thank you!

Questions and Discussion

Photo credit: NEWEA / WEF Water for Life Campaign

NEWEA
WORKING FOR WATER QUALITY

NEWTON
CLEAN WATER
IS EVERYBODY'S BUSINESS

#110-22

City of Newton, Massachusetts
Office of the Mayor

RUTHANNE FULLER
MAYOR

Telephone
(617) 796-1100

Telefax
(617) 796-1113

TDD
(617) 796-1089

E-mail
rfuller@newtonma.gov

January 10, 2022

Honorable City Council
Newton City Hall
1000 Commonwealth Avenue
Newton Centre, MA 02459

Councilors:

I respectfully submit a docket item to your Honorable Council requesting that the sum of four million dollars ($4,000,000) of the Bond Authorization approved through Council Order # 198-20 be rescinded. Further, I request that your Honorable Council authorize the appropriation and expenditure of the sum of four million dollars ($4,000,000) from Water Fund Undesignated Fund Balance, Acct # 6000-3599 for the purpose of funding FY2020 Water Main Improvements.

Historically, the City has maintained an Undesignated Fund Balance of at least three months' actuals. Currently, the balance of the Water Fund Undesignated Fund Balance exceeds $15 million, or six months of reserve and, therefore, should be utilized to reduce the amount of debt that we are borrowing in this fund.

Thank you for your consideration of this matter.

Sincerely,

Ruthanne Fuller

Ruthanne Fuller
Mayor

Ruthanne Fuller
Mayor

City of Newton, Massachusetts
Office of the Mayor

#93-22

Telephone
(617) 796-1100
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TDD/TTY
(617) 796-1089
Email
rfuller@newtonma.gov

January 7, 2022

Honorable City Council
Newton City Hall
1000 Commonwealth Avenue
Newton, MA 02459

To the Honorable City Councilors:

I am pleased to reappoint Kenneth White of 30 Murray Road, Newton 02465 as a member of the Designer Selection Committee. His term of office shall expire on December 31, 2025 and his appointment is subject to your confirmation.

Thank you for your attention to this matter.

Warmly,

Ruthanne Fuller
Mayor

Newton, MA Boards & Commissions

Application Form

Profile

Kenneth
First Name

Middle Initial

White
Last Name

[redacted]
Email Address

30 Murray Road
Home Address

Suite or Apt

Newton
City

MA
State

02465
Postal Code

What Ward do you live in?

☑ Ward 3

[redacted]
Primary Phone

Alternate Phone

Walsh Brothers, Incorporated
Employer

Director of Business Development
Job Title

Which Boards would you like to apply for?

Designer Selection Committee: Submitted

Interests & Experiences

Please tell us about yourself and why you want to serve.

Why are you interested in serving on a board or commission?

I've served for the past 3-4 years, and have enjoyed my participation on the DCS. My father (Ed White) served on this same committee from (approximately) 1990 - 2010, and it has been a privilege to continue the tradition.

White_Ken.pdf
Upload a Resume

Kenneth White

Project Executive

PROJECT EXPERIENCE

Linea 5, inc.
$15 million

Boston College
Devlin Hall Restoration/Renovation
Exterior restoration included repair, repointing or replacement of all granite and limestone facades, ornamental copper roofing, and restoration and repair of the existing clay-tile roofing system. In addition, all windows were replaced with an insulated window system. The scope of the project also included the complete gut of the 90,000 square foot building interior and re-buildout of all new systems and finishes. Finished spaces included new science laboratories, photographic studios, art studios, faculty offices, admissions auditoriums, classrooms and the McMullen Museum of Art.

CBT Architects
$6 million

Wellesley College
Pomeroy & Cazenove Residence Halls Renovations
Historic Residence Halls originally constructed from 1904 to 1909. The renovation included selective gut, systems retrofit and finishes upgrades to the 85,000 square foot, 180-bed residence hall, completed over the 12 week summer break. As part of the project two elevator systems, mechanical systems upgrades including ventilation, plumbing, fire protection and electrical systems, and replacing all doors and hardware were completed. In addition, building code and ADA compliance issues were addressed and all bathrooms were gutted and rebuilt.

$3.8 million

Corporate Headquarters, BayBank Middlesex - 6th Floor East Tower Build-out, Burlington
The project included the complete gut of 20,000 square foot floor, retrofit with high end finishes. Extensive vibration and noise control measures were employed to ensure occupied areas adjacent to, above and below the work area were not impacted. The renovation provided elliptical coffered ceiling, lighting detail in the main conference rooms, as well as extensive prefinished mahogany millwork and running trim throughout the floor.

OTHER REPRESENTATIVE PROJECT EXPERIENCE

Regis College, Computer Lab / Classroom Build-out Weston, MA

Saint Sebastian's School, Library, Music and Art Wing Addition Needham, MA

JMB Properties, 265 Franklin St., 2 floors build-out for Day, Berry & Howard Boston, MA

Baybank Middlesex, Multiple Branch Bank Renovations (20+ locations) Eastern MA

EDUCATION

University of Massachusetts, Boston, BA, Economics

Northeastern University, Construction Management Certificate Program

Wentworth Institute of Technology - Continuing Education, Construction Technology Program

EXPERIENCE

34 years in Construction Management

5 years at Walsh Brothers

Ken is a Project Executive with extensive experience in the construction management industry. Ken's unique ability to relate to a client while enhancing their space and minimizing disruptions to their routine is what makes him an exceptional asset to any project team. Ken brings over 30 years of seasoned construction experience to this assignment.

WALSH BROTHERS
Since 1901

Ruthanne Fuller
Mayor

City of Newton, Massachusetts
Office of the Mayor

#94-22

Telephone
(617) 796-1100
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TDD/TTY
(617) 796-1089
Email
rfuller@newtonma.gov

January 7, 2022

Honorable City Council
Newton City Hall
1000 Commonwealth Avenue
Newton, MA 02459

To the Honorable City Councilors:

I am pleased to reappoint John Synnott of 22 Winona Street, Auburndale 02466 as a member of the Designer Selection Committee. His term of office shall expire on December 31, 2025 and his appointment is subject to your confirmation.

Thank you for your attention to this matter.

Warmly,

Ruthanne Fuller
Mayor

#94-22

Newton, MA Boards & Commissions

Submit Date: Jun 25, 2021

Application Form

Profile

John
First Name

D
Middle Initial

Synnott
Last Name

[redacted]
Email Address

22 Winona Street
Home Address

Suite or Apt

Auburndale
City

MA
State

02466
Postal Code

What Ward do you live in?

☑ Ward 4

[redacted]
Primary Phone

[redacted]
Alternate Phone

Retired
Employer

Architect
Job Title

Which Boards would you like to apply for?

Design Review Committee: Submitted

Interests & Experiences

Please tell us about yourself and why you want to serve.

Why are you interested in serving on a board or commission?

I am (mostly) retired after a 44-year career in architecture. And I am also a 41-year resident of Newton, all but one of those years in the same house in Auburndale. I've played golf at Newton Common wealth for 40 of those years. Our son was educated at Burr, Day and North. We have enjoyed all the benefits of living in this great community. And now is the time to start giving back. On my resume you will see that my career was spent solving difficult planning, design and budget issues on large health care projects at some of the most prestigious academic medical centers in the country. In addition, I have been a volunteer with MassGolf the last three years. This last year I became a rules official. Taken together my experiences will help me learn quickly. I am ready to contribute. Thanks for your consideration, Jack Synnott

John_D_resume.doc
Upload a Resume

John D. Synnott
22 Winona Street
Auburndale, Massachusetts 02166
[redacted]

PROFESSIONAL EXPERIENCE

TSOI / Kobus & Associates, Inc. *1999 to 2014*
Cambridge, Massachusetts

ASSOCIATE PRINCIPAL

Mount Sinai Medical Center, New York, NY
Cleveland Clinic Health System, Hillcrest Hospital, Cleveland, OH
Tsoi / Kobus & Associates Offices, Cambridge, MA
Boston Medical Center, Boston, MA

CANNON *1994 to 1999*
Boston, Massachusetts

VICE PRESIDENT / PRINCIPAL

Polaroid World Headquarters, Cambridge, MA
Mercy Hospital "Family Life Center", Springfield, MA
Boston University Medical Center/Boston City Hospital Facilities Study, Boston
Mid-Maine Medical Center, Waterville, ME
- **Facilities Master Plan.**

Boston Medical Center, New MRI Facility, Boston, MA
MetroWest Medical Center, Framingham, MA
New England Center for Children, Southborough, MA
Boston University, Boston, MA. Managing Principal for the following:
- **Executive Administration Center**
- **University Athletic and Recreational Sports Master Plan**
- **Men's Hockey Team Lockers**
- **Women's Varsity Soccer, Lacrosse and Basketball Lockers**

THE ARCHITECTS COLLABORATIVE, INC. *May 1979 to 1994*
Cambridge, Massachusetts

SENIOR ASSOCIATE / PROJECT MANAGER

The International Centre for Advanced Medical Care, Clydebank, Scotland
Lahey Clinic Medical Center, Burlington, MA
Complejo Medico de las Americas, Guatemala City, Guatemala
RAF Lakenheath Composite Medical Facility, Lakenheath, England
University of California, Davis, Medical Center, Davis, California
Fort Drum Troop Medical, Dental and Ambulatory Health Care Clinics, Watertown, NY
St. Joseph's Hospital - Master Site Plan Development, Tampa, FL

Loring Air Force Base Composite Medical Facility and Dental Clinic, Limestone, ME
Veteran's Administration Medical Center, West Roxbury, MA
Temple University Hospital, Philadelphia, PA
Melrose-Wakefield Hospital, Melrose, MA
Schneider Children's Hospital, New Hyde Park, NY

HOSPITAL INVESTORS, INC *May 1978 to May 1979*
Reston, Virginia

ARCHITECT / CONSULTANT

Westbrook Hospital Psychiatric Prototype, Richmond, VA
Chesterfield County Hospital, Chesterfield County, SC
Coastal Medical Center, Biloxi, MS
Desert Springs Hospital, Las Vegas, NV

MEDICUS PLANNING, INC. *May 1977 to May 1978*
Reston, Virginia

ARCHITECT / CONSULTANT

Hermann Hospital, Houston, TX
Mesquite Memorial Hospital, Mesquite, TX
Mercy Hospital, Baltimore, MD

EDUCATION AND REGISTRATIONS

Rensselaer Polytechnic Institute *1966 to 1970*
Troy, NY
BACHELOR OF SCIENCE, MANAGEMENT

Rensselaer Polytechnic Institute *1974 to 1976*
Troy, NY
BACHELOR OF ARCHITECTURE, CUM LAUDE

Massachusetts Reg. No. 5086 *1980*

NCARB *1997*

Ruthanne Fuller
Mayor

City of Newton, Massachusetts

Office of the Mayor

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TDD/TTY
(617) 796-1089
Email
rfuller@newtonma.gov

January 10, 2022

Honorable City Council
Newton City Hall
1000 Commonwealth Avenue
Newton, MA 02459

To the Honorable City Councilors:

I am pleased to reappoint Jonathan Kantar of 672 Chestnut Street, Waban 02468 as a member of the Design Review Committee. His term of office shall expire on December 31, 2025 and his appointment is subject to your confirmation.

Thank you for your attention to this matter.

Warmly,

Ruthanne Fuller
Mayor

#95-22

Newton, MA Boards & Commissions

Submit Date: Oct 02, 2021

Application Form

Profile

Jonathan
First Name

A
Middle Initial

Kantar
Last Name

[redacted]
Email Address

672 CHESTNUT ST
Home Address

Suite or Apt

WABAN
City

MA
State

02468
Postal Code

What Ward do you live in?

☑ Ward 5

[redacted]
Primary Phone

[redacted]
Alternate Phone

Sage Builders LLC
Employer

Principal
Job Title

Which Boards would you like to apply for?

Design Review Committee: Submitted

Interests & Experiences

Please tell us about yourself and why you want to serve.

Why are you interested in serving on a board or commission?

I want to help Newton build better buildings and community

JAK_Resume.pdf
Upload a Resume

#95-22

Jonathan A. Kantar

672 Chestnut Street
Newton, MA 02468
[redacted]

Professional Experience

Eplus Solutions LLC, Founder 2016 - present
Manage and direct energy positive homes development. Most recent project, in collaboration with the Boston Planning and Development Agency and the Department of Neighborhood Development, consists of 4 E+ housing units in Fort Hill, Boston.

Sage Builders LLC, Principal 2012 – present
Responsibilities include all aspects of sales, production, and management. Building on the foundation established by Sage Builders LLP, multi-award winning Sage Builders LLC is a recognized leader in sustainable design and construction. Projects include renovations, additions and new home construction.

Sage Builders LLP, Principal and Managing Partner 2000 - 2012
Responsibilities included general management, sales and marketing, estimating, employee management and development, business planning and financial management, and client relations. A multi-award winning residential design-build company, Sage Builders LLP specialized in sustainable renovations and additions.

KMC Construction, Inc., President 1992 - present
Founded and managed residential and light commercial construction company operating in the metropolitan Boston area. Responsible for and organized all aspects of the company, including execution of the work.

The Boston Company, Associate 1989 - 1992
As a member of the elite real estate investment group within The Boston Company, worked in small teams to identify, evaluate, and develop various real estate investment vehicles for major pension funds. Responsibilities included market and investment analysis and various types of financial analysis.

The Beacon Companies, Project Manager and Analyst 1986 - 1989
Provided financial analysis on investment opportunities; developed cash flow projection models and valuations for development projects. Provided development project management on the South Station, Boston inter-modal transportation center. Responsible for overseeing code compliance issues and development and construction of the retail program at South Station.

Community Leadership

Member (appointed), Governor's Zero Net Energy Buildings Advisory Council
Planner/Presenter, BuildingEnergy, the leading annual U.S. energy conference for design and construction, other industry forums, and public and private speaking engagements
Member (appointed), Newton Citizens' Commission on Energy
Member (appointed), Newton Design Review Committee
Board Member, Historic Newton
Chair, Newton High Performance Buildings Coalition
Former Chair, Remodeling Council, Builders Association of Greater Boston

Education

BA, History, Magna Cum Laude, The University of Michigan
MA Certificate, Sustainable Design and Construction, Boston Architectural Center

#96-22

Ruthanne Fuller
Mayor

City of Newton, Massachusetts
Office of the Mayor

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Email
rfuller@newtonma.gov

January 10, 2022

Honorable City Council
Newton City Hall
1000 Commonwealth Avenue
Newton, MA 02459

To the Honorable City Councilors:

I am pleased to reappoint Amy MacKrell of 12 Dexter Road, Newtonville 02460 as a member of the Design Review Committee. Her term of office shall expire on December 31, 2025 and her appointment is subject to your confirmation.

Thank you for your attention to this matter.

Warmly,

Ruthanne Fuller

Ruthanne Fuller
Mayor

#96-22

Newton, MA Boards & Commissions

Submit Date: Oct 13, 2021

Application Form

Profile

Amy (First Name) | L (Middle Initial) | MacKrell (Last Name)

[redacted] (Email Address)

12 Dexter Road (Home Address) | (Suite or Apt)

Newtonville (City) | MA (State) | 02460 (Postal Code)

What Ward do you live in?

☑ Ward 2

[redacted] (Primary Phone) | [redacted] (Alternate Phone)

Miller Dyer Spears (Employer) | Principal (Job Title)

Which Boards would you like to apply for?

Design Review Committee: Submitted

Interests & Experiences

Please tell us about yourself and why you want to serve.

Why are you interested in serving on a board or commission?

As a 30 year resident of Newton and practicing architect committed to the transformative power of good design, I would like to assist community leaders in making thoughtful and enlightened decisions about upcoming architectural projects.

Amy_MacKrell_2018-01-31.pdf

Upload a Resume

AMY MACKRELL AIA, LEED AP BD+C

PRINCIPAL

Amy MacKrell creates thriving campus environments, serving as Design Principal on many of the firm's student life, academic, workplace, and health care projects. Her balanced design approach and attention to detail draws on more than three decades of experience. She is particularly skilled at identifying design opportunities that elevate environmental quality, advance institutional goals, and fully realize the potential of each project.

Education:
Bachelor of Architecture
Illinois Institute of Technology

Registrations:
MA: 8641
LEED AP BD+C

Professional Associations:
Boston Society of Architects
SCUP (Society for College and University Planning)
IFMA (International Facility Management Association)

Professional Experience:
MDS: 1997–present
Arrowstreet: 1987–1997
Fujikawa Johnson Architects: 1985–1987
Murphy/Jahn Architects: 1983–1985

PROJECT EXPERIENCE:

Massachusetts College of Art and Design
- Kennedy Campus Center Renovation and Expansion, LEED-Gold certified;
- Kennedy Campus Center Servery Expansion, Boston, MA

University of New Hampshire
- Holloway Commons Renovation and Expansion, Durham, NH

Framingham State University
- McCarthy Dining Commons Renovation;
- Dwight Hall Renovation, Framingham, MA

Harvard Business School
- Spangler Project Rooms Renovation;
- Spangler Grille Study, Brighton, MA

Bentley University
- ACELAB (Accounting Center for Electronic Learning and Business Measurement) Renovation;
- Koumantzelis Auditorium Renovation, Waltham, MA

Eastern Connecticut State University
- Goddard Hall & Communications Building Renovation, Willimantic, CT

Three Rivers Community College
- Theatre and Classroom Building, Norwich, CT

Dana-Farber Cancer Institute
- Dana Building Transformation, LEED-Silver certified;
- Yawkey Center for Cancer Care – patient services, pharmacy, cafeteria, meeting rooms, and chapel, (MDS is associate architects with ZGF) LEED-Gold certified, Boston, MA

Town of Braintree
- East Braintree Middle School Phased Renovations, Braintree, MA

Malden Catholic High School
- Girls Catholic Expansion and Renovation, Malden, MA

Phillips Exeter Academy
- Lamont Health & Wellness Center Renovation and Expansion, Exeter, NH

Massachusetts Institute of Technology
- MIT Medical Homberg Infirmary Phased Renovation, Cambridge, MA

Harvard Medical School
- Jeffrey Modell Immunology Center, Boston, MA

Boston College
- 129 Lake Street Renovation/Adaptive Reuse, Brighton, MA

Cresset Development
- 60 Grove Street Adaptive Reuse, Watertown, MA

Worcester State University
- Shaughnessy Administration Building Renovation, LEED-Gold certified, Worcester, MA,

Wheaton College
- Admissions Building and Campus Center Renovations Feasibility Study, Norton, MA

Mount Holyoke College
- Blanchard Campus Center Renovation and Expansion, LEED-Certified;
- Pratt Hall Music Building Renovation and Expansion, South Hadley, MA

#97-22

Ruthanne Fuller
Mayor

City of Newton, Massachusetts
Office of the Mayor

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TDD/TTY
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Email
rfuller@newtonma.gov

January 10, 2022

Honorable City Council
Newton City Hall
1000 Commonwealth Avenue
Newton, MA 02459

To the Honorable City Councilors:

I am pleased to reappoint SingNing Kuo of 1395 Walnut Street, Newton 02461 as a member of the Design Review Committee. Her term of office shall expire on December 31, 2025 and her appointment is subject to your confirmation.

Thank you for your attention to this matter.

Warmly,

Ruthanne Fuller
Mayor

RECEIVED
2022 JAN 10 PM 5:09
CITY CLERK
NEWTON, MA. 02459

#97-22

Newton, MA Boards & Commissions

Submit Date: Dec 31, 2021

Application Form

Profile

SingNing
First Name

Middle Initial

Kuo
Last Name

[redacted]
Email Address

1395 Walnut Street
Home Address

Suite or Apt

Newton
City

MA
State

02461
Postal Code

What Ward do you live in?

☑ Ward 5

[redacted]
Primary Phone

Alternate Phone

BSC Group
Employer

Landscape Architect
Job Title

Which Boards would you like to apply for?

Design Review Committee: Submitted

Interests & Experiences

Please tell us about yourself and why you want to serve.

Why are you interested in serving on a board or commission?

My name is SingNing Kuo. I got my master degree of landscape architecture at RISD and had been practicing landscape design for over 15 years in Boston and Shanghai, China. In May 2019, I got a job offer from my previous firm and decided to move back to Boston. Since I moved back, I have noticed lots of exciting developments and would like to contribute my knowledge and experiences to support my community.

SingNing_Kuo_s_resume-2021.12.31.pdf
Upload a Resume

SingNing Kuo

[redacted]

Newton, MA

EDUCATION

Rhode Island School of Design — Providence, RI
Master of Landscape Architecture — 1997-2000

Fu-Jen Catholic University — Taipei, Taiwan
Bachelor of Fine Art — 1990-1994

EXPERIENCE

BSC Group — Boston, MA
Landscape Designer — 2021.09-Current

Halvorson Tighe & Bond Studio — Boston, MA
Landscape Designer — 2019.08-2021.08

Zhu-Xiang Architects — Shanghai, China
Associate — 2016.01-2019.07

Aecom — Shanghai, China
Associate — 2014.06-2015.09

Carol R Johnson Associates – IBI Group — Beijing, China
Associate / China Representative — 2012.07-2014.02

HuaHui Planning and Design — Tianjin, China
Associate — 2011.02-2012.06

Halvorson Design Partnership — Boston, MA
Associate — 2003.08-2010.12

Michael Van Valkenburgh Associates — Cambridge, MA
Landscape Architect — 2001.07-2003.08

Stephen Stimson Associates — Falmouth, MA
Landscape Architect — 2000.08-2001.07

Cosmos Planning and Design — Taipei, Taiwan
Intern — 1994.07-1996.05

AWARDS

IFLA Outstanding Award for Wildlife, Biodiversity & Enhancement — 2018
Nanjing Eco Island Riverfront Park

ASLA Design Honor Award — 2009
New York City Teardrop Park

ASLA Award of Excellence — 2006

Wellesley College Alumnae Valley

LA LICENSE New York State (#001997) 2005

VOLUNTEER

Design Review Committee, City of Newton 2020-Current

PROJECTS

Institutions:
MIT Sloan School of Management – Cambridge, MA, USA
Wellesley College Alumnae Valley – Wellesley, MA, USA
Emma Willard School – Troy, NY, USA
Franklin and Marshall College, Life Science & Philosophy - Lancaster, PA, USA
American-Sino Ningbo Women and Children Hospital – Ningbo, China

Parks/ Streetscape:
Generals Parks, Quincy, MA, USA
Teardrop Park – New York, NY, USA
New England Aquarium-East Wharf – Boston, MA, USA
Stanhope Park – Boston, MA, USA
Brighton Park – Brighton, MA, USA
Kendall Square – Cambridge, MA, USA
Nanjing Eco-Tech Island Park – Nanjing, China
Binghai Conch Bay Main Street – Tianjin, China
Linkou Technology Park – Linkou, Taiwan

Commercial:
Linden Square, Wellesley, MA, USA
Spark Hotel, Boston, MA, USA
Hilton Hotel at Logan Airport – Boston, MA, USA

Residential:
Levin Residence – Manchester-by-the-sea, MA, USA
Hoffman Residence – Dallas, TX, USA
Woodburn Residence – Martha's Vineyard, MA, USA
Winkelried Residence – Falmouth, MA, USA
Vanke Town Residential Development – Chongqing, China
China Merchants Beacon Hill Mixed-use Development – Tianjin, China
Shanghai Greenland Mixed-use Development – Shanghai, China
Prince Bay Welcoming Center – Shenzhen, China

Planning:
Brother Fortune Equestrian Ranch Master Plan – Baotou, China
Tianjin University New Campus Master Plan – Tianjin, China