

ARTICLE 2



TOWN of BROOKLINE
Massachusetts

HUMAN RESOURCES OFFICE
333 Washington Street
Brookline, MA 02445
(617) 730-2120
www.BrooklineMA.gov

Sandra A. DeBow-Huang, Director
Human Resources Office

May 6, 2016

To: Board of Selectmen

From: Sandra DeBow, Director
Human Resources Office

Re: Approval of Collective Bargaining Agreements

1. Local 1358, American Federation of State, County, Municipal Employees, Council 93, AFL-CIO (AFSCME, Main contract)

Summary: The Town of Brookline and AFSCME, Local 1358 came to an Agreement on April 28, 2016 regarding the parties' collective bargaining agreement. The AFSCME membership was ratified by the members of Local 1358 on May 5, 2016 by a vote of 121 (in favor) 12 (against).

Description: The contract is a three-year agreement commencing on July 1, 2015 and expiring on June 30, 2018. Under the Agreement, AFSCME agreed to a wage package of:

<u>Wages:</u>	Effective July 1, 2015	2.0%
	Effective July 1, 2016	1.5%
	Effective January 1, 2017	1.0%
	Effective July 1, 2017	1.5%
	Effective March 1, 2018	1.5%

The Town also agree to increase the night shift differential from \$9/ shift to \$12/shift, effective 7/1/2016 and from \$12 to \$15 effective 7/1/2017, as well as an increase in longevity by \$50 for each step, effective 7/1/2016 and an additional \$50 for each longevity steps on 7/1/2017.

Under this Agreement, the parties have agreed to remove eight mid-manager positions from the bargaining unit, Including:

Area Manager/Aquatics
Area Manger/Programs

Administrative Business Manager
General foreman – Park

Administrator/Lead Teacher
 Superintendent of Golf

General Foreman – DPW Highway
 Division Foreman – DPW Water

The Parties also agreed to extend the probationary period from six months to one year, although the union will continue to have the ability to collect union dues after six months. Other provisions including removing the ineffective boot truck method of providing work boots and granting employees \$200 annually for the cost of new boots and making an adjustment to the vacation schedule as to which year an employee obtains the 4 week vacation benefit.

The cost of the three-year contract is approximately 7.0% on wages and 7.8% overall.

ITEM	FY16	FY17	FY18	FY19	TOTAL
7/1/15 - 2%	210,172	210,172	210,172		630,517
7/1/16 - 1.5%		160,782	160,782		321,564
1/1/17 - 1.0%		54,398	108,796		163,194
7/1/17 - 1.5%			164,010		164,010
3/1/2018 - 1.5%			55,762	111,524	167,286
Longevity		4,850	9,700		14,550
Night Differential		11,635	23,271		34,906
One time signing bonus	50,000				50,000
					0
TOTAL ROLL-OUT COSTS	260,172	441,837	732,492	111,524	1,546,026
Each 1% =	105,086	107,188	109,340	112,081	
New Wages - \$ =	260,172	181,665	290,655	111,524	
New Wages - % =	2.5%	1.7%	2.7%	1.0%	7.8%
Wages on Base - \$ =	210,172	165,180	274,169	111,524	
Wages on Base - % =	2.0%	1.5%	2.5%	1.0%	7.0%

1.5% for 4 months tail for 8 months
 Incr by \$50 FY17, \$50 FY18
 Incr. from \$9 to \$12 and then \$15
 \$200

MEMORANDUM OF AGREEMENT
 BETWEEN
 THE TOWN OF BROOKLINE
 AND
 LOCAL 1358, AFSCME, AFL-CIO

April 28, 2016

This Memorandum of Agreement (“Agreement”) is made between the Town of Brookline (“Town”) and Local 1358, AFSCME, Council 93, AFL-CIO. Except as specifically modified by this Agreement, the terms and provisions of the Parties’ July 1, 2012 through June 30, 2015 collective bargaining agreement shall continue in full force and effect.

1. Duration

July 1, 2015- June 30, 2018

2. Article XIX a) Compensation

	<u>Effective Date</u>	<u>Increase</u>
FY 2016	July 1, 2015	2.0%
FY 2017	July 1, 2016	1.5%
	January 1, 2017	1.0%

FY 2018	July 1, 2017	1.5%
	March 1, 2018	1.5%

3. \$200 One-Time Ratification Payment
Effective after Town Meeting funding of this Memorandum of Agreement (“MOA”), the Town shall make a two hundred dollar (\$200) one-time payment (not added to the base) to each full-time employee in this bargaining unit on the date of Town Meeting funding who has worked for the Town in this bargaining unit for the full year prior to the date of funding; such payment shall be prorated for employees in the bargaining unit who have not worked the full year prior to the date of funding of this MOA and for employees who have worked part-time in the bargaining unit for the full year prior to the date of funding.
4. Article XIX c) Longevity
Effective July 1, 2016, increase the longevity at each level by fifty dollars (\$50).
Effective July 1, 2017, increase the longevity at each level by fifty dollars (\$50).
5. Article XIX b) Night Differential
Insert the following new sentences between the first and second sentences in Article XIX b): “Effective July 1, 2016 the night differential shall be \$12 per night. Effective July 1, 2017, the night differential shall be \$15 per night.
6. Article IX (Boots)
Effective starting in fiscal year 2017, the Town will no longer purchase boots from the so-called “boot truck” for employees. The Town shall provide each employee in Unit A with a boot reimbursement and each such employee shall be responsible for purchasing boots that meet standards set by the Town.

Amend Article IX as follows:

- (i) Delete the 5th paragraph in Article IX.
 - (ii) Replace the first two sentences in the 6th paragraph in Article IX with the following: “All employees in Unit A shall receive a boot reimbursement, not to exceed \$200 per fiscal year, with the submission of a receipt for boots, and each such employee shall be responsible for purchasing safety boots that meet standards set by the Town. Wearing safety boots is mandatory.
7. Article XIV b) (ii)
In the table at the bottom of page 9, replace “less than 15 years” with “less than 10 years” and replace “15 full calendar years or more” with “10 full calendar years or more”.
 8. Article XXVIII Probationary Period
Amend Article XXVIII by:
 - A. Relabeling the article as “Probationary Period”
 - B. Label the current language as Section: “B. Probationary Periods – Supervisory Positions”
 - C. Insert a new Section “A” before Section B as follows:
 - A. Probationary Period
All employees hired on or after February 3, 2016, shall be subject to a 12-month probationary period upon hire or rehire and may be discharged at any time during such probationary period with or

without cause. Such discharge shall not be subject to grievance and arbitration. (Employees will be required to pay dues/agency service fee after six months of continuous service.)

The parties agree to make the following housekeeping changes to replace the 6-month probationary period with a 12-month probationary period in

- Article XV s) A (p. 14)
- Article XXXIII second paragraph (p. 29)

9. Article I: Recognition

A. Amend Article I by:

- (i) Amending the list of positions in Article I by removing the following positions:
 - Area Manager/Aquatics (when the incumbent as of February 3, 2016 is no longer in the position)
 - Area Manager/Programs (when the incumbent as of February 3, 2016 is no longer in the position)
 - Administrator/Lead Teacher (when the incumbent as of February 3, 2016 is no longer in the position)
 - Superintendent of Golf
 - General Foreman- Park, General Foreman-Highway, Division Foreman-Water; and
- (ii) Inserting the following titles at the end of the second paragraph after the list of titles and pay grades (CBA p. 3) after the title "Assistant Assessor/Field Appraiser": Area Manager/Aquatics, Area Manager/Programs, Administrator/Lead Teacher, Superintendent of Golf, General Foreman- Park, General Foreman-Highway, Division Foreman -Water.

- B. Insert the following new sentence at the end of the first paragraph after the list of titles and pay grades (CBA p. 3): "The parties recognize and agree that the Business Manager position in the Recreation Department has not been and is not a position represented by any AFSCME bargaining unit."

10. MUP-16-5111

The Union hereby withdraws with prejudice its charge at the Department of Labor Relations (DLR) docket number MUP-16-5111.

11. Ratification, Approval and Funding

This Agreement shall be subject to ratification by the Union membership, approval by the Board of Selectmen, and funding by Town Meeting at the next regularly scheduled Town Meeting.

Agreed to on this 28th day of April 2016 by the negotiating teams for the:

Town of Brookline

Local 1358, AFSCME Council 93



TOWN of BROOKLINE
Massachusetts

HUMAN RESOURCES OFFICE
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Brookline, MA 02445
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Sandra A. DeBow-Huang, Director
Human Resources Office

May 13, 2016

To: Neil Wishinsky, Chair
Board of Selectmen

Melvin Kleckner, Town Administrator

From: Sandra DeBow, Director
Human Resources Office

Re: Warrant 2, Collective Bargaining Agreement – BEDA (Engineers)

Memorandum of Agreement, Town of Brookline and the Brookline Engineering Division Associates (BEDA).

Summary: The Town of Brookline and the Brookline Engineering Division Associates (BEDA) came to a tentative Memorandum of Agreement on Monday, May 9, 2016. BEDA ratified the Agreement on Wednesday, May 11, 2016.

Description: The contract is a two-year agreement commencing on July 1, 2015 and expiring on June 30, 2017. Under the Agreement, BEDA agreed to a wage package of:

<u>Wages:</u>	Effective July 1, 2015	2%
	Effective July 1, 2016	2%

Under this contract, the parties are agreeing to create an annual Certification stipend for specific certs that, although not required of the Engineering job descriptions, do provide added value to the Town who can use in-house talent rather than hire contractors. The MOA provides a \$125 stipend for each certification but no more than \$375 in any one year.

- APWA Certified Public Infrastructure Inspector, CPII
- APWA Certified Stormwater Manger, CSM
- CPSC Certified Playground Safety Inspector, CPSI
- ECI Certified Municipal Separate Storm Sewer Specialist, CMS4S

- IMSA Roadway Lighting Level I
- IMSA Signs and Pavement Marking Level I, II, III
- IMSA Traffic Signals Level I, II, III
- NEIWPC Soil Evaluator Certification
- NETTCP Concrete Inspector Certification
- NETTCP HMA Paving Inspector Certification
- NETTCP Soils & Aggregate Inspector Certification
- OSHA 10 Hour Training Certificate
- OSHA Public Sector Safety and Health Fundamentals Training Certificate
- TPCB Professional Traffic Operations Engineer, PTOE
- UMass Bay State Roads Program Road Scholar and Master Roads Scholar

ITEM	FY16	FY17	TOTAL
7/1/2015 - 2%	17,874	17,874	35,748
7/1/2016 - 2%		18,231	18,231
Certification Stipend		500	500
			0
TOTAL ROLL-OUT COSTS	17,874	36,605	54,479

Each 1% =	8,937	9,118	
New Wages - \$ =	17,874	18,731	
New Wages - % =	2.0%	2.1%	4.1%
Wages on Base - \$ =	17,874	18,231	
Wages on Base - % =	2.0%	2.0%	4.0%

MEMORANDUM OF AGREEMENT
BETWEEN
THE TOWN OF BROOKLINE
AND
TO BROOKLINE ENGINEERING DIVISION ASSOCIATES (BEDA)
MAY 11, 2016

This Memorandum of Agreement (“Agreement”) is made between the Town of Brookline (“Town”) and Brookline Engineering Division Associates (“BEDA” or “Union”), collectively, the “Parties”. Except as specifically modified by this Agreement, the terms and provisions of the “Parties’ July 1, 2012-June 30, 2015 collective bargaining agreement shall continue in full force and effect.

1. Duration

July 1, 2015 to June 30, 2017

2. Article XVI Compensation

A. Replace the first sentence and the salary schedule (before the paragraph on Direct Deposit) with the following:

“Compensation for all classifications for the period July 1, 2015 through June 30, 2017 shall be in accordance with the following:

<u>Effective Date</u>	<u>Increase</u>
July 1, 2015	2.0%
July 1, 2016	2.0%”

B. Amend the salary schedules in Appendix A in accordance with Section 2A of this Agreement.

3. Article XVI Compensation – new section (f)

Effective July 1, 2016, add the following new section (f) to Article XVI:

“(f) Certifications. Each employee who has a certification(s) from the list of certifications below will receive a \$125 certification stipend per certification provided that the Director has authorized the employee to obtain or maintain such certification(s) for the fiscal year in which the employee is to receive the stipend. No employee shall receive certification stipends in excess of \$375 per fiscal year. Certification stipends will be paid on or about the first pay period in July. The Director shall have the authority to amend the Certification List as the Director deems necessary.

Certification List:

APWA Certified Public Infrastructure Inspector, CPII

APWA Certified Stormwater Manager, CSM

CPSC Certified Playground Safety Inspector, CPSI

ECI Certified Municipal Separate Storm Sewer Specialist, CMS4S

IMSA Roadway Lighting Level I

IMSA Signs and Pavement Marking Level I, II, III

IMSA Traffic Signals Level I, II, III
NEIWPC Soil Evaluator Certification
NETTCP Concrete Inspector Certification
NETTCP HMA Paving Inspector Certification
NETTCP Soils & Aggregate Inspector Certification
OSHA 10 Hour Training Certificate
OSHA Public Sector Safety and Health Fundamentals Training Certificate
TPCB Professional Traffic Operations Engineer, PTOE
UMass Bay State Roads Program Road Scholar and Master Roads Scholar

4. Article XVI Compensation

Add the following new paragraph to the end of Article XVI (a):

“Bi-weekly Pay: The Union agrees that the Town has satisfied its bargaining obligations with respect to paying employees on a bi-weekly basis, and the Town agrees to provide the union and employees with ninety (90) calendar days’ notice prior to implementation of bi-weekly pay. The Town will not implement bi-weekly pay for employees in this Union until it implements bi-weekly pay for all other unionized employees in the Town, excluding employees of the School Committee.”

5. Article XXVIII Safety Shoes

Effective July 1, 2016, replace the first sentence in Article XXVIII with the following: “Each employee shall be reimbursed up to a maximum of two hundred (\$200) per fiscal year for the purchase of one pair of safety shoes that meet the standards and specifications determined by the Town.”

6. Probationary Period

Employees shall serve a 12-month probationary period.

7. Housekeeping (Health Insurance)

Delete Appendix C; delete all paragraphs except the last two paragraphs (life insurance and workers compensation) in Section A of Article XIX.

Add the following new sentence: “Health Insurance benefits are no longer provided through this Agreement; they are provided through the Town’s Public Employee Committee (“PEC”). This provision is for informational purposes only and is not subject to the grievance and arbitration provisions in this Agreement.”

This Agreement is subject to ratification by the Union membership, approval by the Board of Selectmen, and funding by Town Meeting at the next regularly scheduled Town Meeting.

Town of Brookline

Brookline Engineering Div Assoc

BOARD OF SELECTMEN'S SUPPLEMENTAL RECOMMENDATION

Article 2 asks Town Meeting to approve funding for two union contracts, one with Local 1358 Council 93 AFSCME and one with the Brookline Engineers Division Association (BEDA).

AFSCME

The AFSCME contracts calls for a base wage increase of 7.5% over the course of the contract (2% in FY16, a 1.5% 1% split in FY17, and a 1.5% 1.5% split in FY18 with the latter amount adjusted in March of 2018) there are also adjustments to the Longevity Pay schedule and night differential. A key provision in the contract is the removal of eight positions from the bargaining unit which the Town views as advantageous as these employees act as supervisors and should not be in the same bargaining unit as the employees they are responsible for overseeing.

The Selectmen thank the Town's negotiating team and the unions for reaching an agreement

Therefore, the Board recommends FAVORABLE ACTION, by a vote of 5-0 taken on May 10, 2016, on the following:

VOTED: To approve and fund by an appropriation, provided for in the FY2016, (Item 21) FY2017 (Item #20) budgets, for the cost items in the following collective bargaining agreement that commences on July 1, 2015- and expires on June 30, 2018:

AFSCME Council 93, Local 1358 AFL-CIO (AFSCME, Main contract)

all as set forth in the report of Sandra DeBow, Director of Human Resources, dated May 6, 2016, which report is incorporated herein by reference.

BROOKLINE ENGINEERS DIVISION ASSOCIATION

This is a two-year agreement (FY16-FY17) calling for a base wage increase of 4% over the course of the contract (2% in each year). The other monetary change is a new stipend for certain certifications, which costs approx. \$500 in FY17.

Again, the Selectmen thank the Town's negotiating team and the union for reaching a fair and equitable settlement. Therefore, the Board recommends FAVORABLE ACTION, by a vote of 5-0 taken on May 17, 2016, on the following:

VOTED: To approve and fund by an appropriation, provided for in the FY2016, (Item #21) FY2017 (Item #20) budgets, for the cost items in the following collective bargaining agreement that commences on July 1, 2015- and expires on June 30, 2017:

Brookline Engineers Division Association (BEDA)

all as set forth in the reports of Sandra DeBow, Director of Human Resources, dated May 13, 2016, which reports are incorporated herein by reference.

ADVISORY COMMITTEE'S SUPPLEMENTAL RECOMMENDATION

SUMMARY:

The Town has negotiated new collective bargaining agreements with the American Federation of State, County, and Municipal Employees (AFSCME) and the Brookline Engineering Division Associates (BEDA). The AFSCME contract is for three years and the BEDA contract is for two years. The increased funding required by each contract is within fiscally prudent limits. The Advisory Committee voted unanimously to recommend Favorable Action for funding these two collective bargaining agreements.

AFSCME Agreement

BACKGROUND:

On April 28, 2016, the Town and Local 1358, AFSCME, Council 93, AFL-CIO, which consists mostly of Department of Public Works (DPW) employees and some clerical employees, reached agreement on a three-year extension and modification of the existing collective bargaining agreement between the parties. The agreement was ratified by the membership on May 5, 2016 by a vote of 121 in favor and 12 opposed, and approved by the Board of Selectmen on May 10, 2016.

DISCUSSION:

The AFSCME agreement runs from July 1, 2015 through June 30, 2018 and includes wage increases of approximately 7% to base wages according to the following schedule:

Effective July 1, 2015	2.0%
Effective July 1, 2016	1.5%
Effective January 1, 2017	1.0%
Effective July 1, 2017	1.5%
Effective March 1, 2018	1.5%

In addition, the night-shift differential will increase from \$9/shift to \$12/shift effective July 1, 2016 and from \$12/shift to \$15/shift effective July 1, 2017. Human Resources Director Sandra DeBow indicated the night differential has not increased for many years and applies to approximately 15 employees, such as library custodial staff.

Longevity pay will increase by \$50 each step effective July 1, 2016, and another \$50 each step on July 1, 2017. Bargaining unit employees will also receive a \$200 one-time ratification payment, prorated for employees who worked less than one full year prior to the effective date of the agreement or less than full-time during that year.

Under the agreement, eight Recreation and DPW mid-manager positions will be removed from the bargaining unit:

Area Manager/Aquatics
Area Manager/Programs
Administrator/Lead Teacher
Superintendent of Golf

Administrative Business Manager
General Foreman - Park
General Foreman – DPW Highway
Division Foreman – DPW Water

Reclassifying the mid-management positions gives the Town more flexibility in hiring, work assignments, professional development, and corrective action.

The probationary period for new employees has been extended from six months to one-year. Employees who are required to wear safety boots will receive reimbursement of up to \$200 per fiscal year for the cost of the boots; the so called “boot truck” will be eliminated. This change does not result in any additional costs to the Town.

Although the cost of the agreement exceeds the amount held in the collective bargaining reserve, Deputy Town Administrator Melissa Goff is confident the difference can be made up through close budget management. The full cost of the agreement is approximately 7.8% as detailed in the following table.

AFSCME, Main

ITEM	FY16	FY17	FY18	FY19	TOTAL
7/1/15 - 2%	210,172	210,172	210,172		630,517
7/1/16 - 1.5%		160,782	160,782		321,564
1/1/17 - 1.0%		54,398	108,796		163,194
7/1/17 - 1.5%			164,010		164,010
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Longevity		4,850	9,700		14,550
Night Differential		11,635	23,271		34,906
One time signing bonus	50,000				50,000
					0
TOTAL ROLL-OUT COSTS	260,172	441,837	732,492	111,524	1,546,026

Each 1% =	105,086	107,188	109,340	112,081	
New Wages - \$ =	260,172	181,665	290,655	111,524	
New Wages - % =	2.5%	1.7%	2.7%	1.0%	7.8%
Wages on Base - \$ =	210,172	165,180	274,169	111,524	
Wages on Base - % =	2.0%	1.5%	2.5%	1.0%	7.0%

BEDA Agreement

BACKGROUND:

The Town of Brookline and the Brookline Engineering Division Associates (ten or eleven members) reached agreement on a two-year contract on Monday, May 9, 2016. BEDA ratified the agreement on Wednesday, May 11, 2016 and the Board of Selectmen approved it on May 17, 2016.

DISCUSSION:

The contract is a two-year agreement commencing on July 1, 2015 and expiring on June 30, 2017. Under the Agreement, BEDA agreed to a wage package of:

Wages: Effective July 1, 2015 2%
 Effective July 1, 2016 2%

The full cost of the agreement is detailed below.

ITEM	FY16	FY17	TOTAL
7/1/2015 - 2%	17,874	17,874	35,748
7/1/2016 - 2%		18,231	18,231
Certification Stipend		500	500
			0
TOTAL ROLL-OUT COSTS	17,874	36,605	54,479

Each 1% = 8,937 9,118
New Wages - \$ = 17,874 18,731
New Wages - % = 2.0% 2.1% 4.1%
Wages on Base - \$ = 17,874 18,231
Wages on Base - % = 2.0% 2.0% 4.0%

Under this contract, the parties are agreeing to create an annual Certification stipend for specific certs that, although not required of the Engineering job descriptions, do provide added value to the Town who can use in-house talent rather than hire contractors. The Memorandum of Agreement provides a \$125 stipend for each certification but no more than \$375 in any one year.

- APWA Cert'd Public Infrastructure Inspector, CPII
- APWA Cert'd Stormwater Mgr, CSM
- CPSC Cert'd Playground Safety Inspector, CPSI
- ECI Cert'd Municipal Separate Storm Sewer Specialist, CMS4S
- IMSA Roadway Lighting Level I
- IMSA Signs and Pavement Marking Level I, II, III
- IMSA Traffic Signals Level I, II, III
- NEIWPC Soil Evaluator Cert
- NETTCP Concrete Inspector Cert
- NETTCP HMA Paving Inspector Cert
- NETTCP Soils & Aggregate Inspector Cert
- OSHA 10 Hour Training Certificate
- OSHA Public Sector Safety and Health Fundamentals Training Certificate
- TPCB Professional Traffic Operations Engineer, PTOE
- UMass Bay State Roads Program Road Scholar and Master Roads Scholar

These certifications take a year or more to obtain and therefore the Town expects to pay out for a total of 4 certifications in the first year. In exchange, the Town will receive the right to implement bi-weekly pay (less costly to process than weekly pay) and to extend the probationary period from 6 months to 1 year (an administrative cost saver).

The boot stipend also applies to BEDA, as it does to AFSCME.

RECOMMENDATION:

By a vote of 21–0–0, the Advisory Committee unanimously recommends FAVORABLE ACTION on the motions offered by the Selectmen.

ARTICLE 10

BOARD OF SELECTMEN'S SUPPLEMENTAL RECOMMENDATION

The recommendations of the Selectmen and the Advisory Committee as contained in the Combined Reports had slightly different referral language. In order to address the difference, the Board revised their language. By a vote of 5-0 taken on May 10, 2016 meeting, the Board recommends FAVORABLE ACTION on motion offered by the Advisory Committee.

ARTICLE 11

CLIMATE ACTION COMMITTEE REPORT AND RECOMMENDATION

Warrant Article 11 is a citizen petition that proposes a tree protection by-law to preserve public shade trees and trees on privately owned property meeting certain criteria with the objective of protecting Brookline's urban forest.

The Advisory Committee recommended referral of this article to a Selectmen's Committee for further consideration of a tree protection by-law or zoning by-law after some concern was expressed about unintended consequences of the proposal. The Selectmen's Climate Action Subcommittee (SCAC) held a public hearing on May 16 to hear from the citizen petitioner and members of the community, and to discuss the Advisory Committee's recommendation.

DISCUSSION

The protection of community trees is consistent with the goals of the SCAC's 2012 policy document, the Brookline Climate Action Plan (CAP). Protecting and increasing the number of trees in urban areas serves to buffer our environment from strong winds, heavy rains, drought, and excessive heat; to reduce the urban heat island effect due to climate change; and to offset greenhouse gas emissions. Because of the value trees provide in adapting to and mitigating the impacts of climate change, one of the action items in the CAP is adding 1,000 trees to Brookline's urban forest by 2021.

The SCAC recognizes that to be effective, tree protection regulations must balance the rights of private property owners with the overall goal of preserving, protecting, and enhancing the value of Brookline's urban forest. Therefore, the SCAC is in favoring of studying this proposal further to better achieve this balance and recommends that a member of the SCAC be appointed to serve on a Selectmen's Committee.

RECOMMENDATION

The Selectmen's Climate Action Committee by a vote of 8-0-0 recommends **FAVORABLE ACTION** on the Advisory Committee's recommendation that follows:

To refer the subject matter of Article 11 to the Selectmen for appointment of a committee, with members to be chosen from the public, and appropriate Town Committees and Boards, having the necessary skills and expertise to evaluate the best way to provide tree protection in the Town, including whether this should be a zoning and/or general by-law amendment and make a report back to the 2017 Annual Town Meeting.

ARTICLE 11

CONSERVATION COMMISSION REPORT AND RECOMMENDATION



Town of Brookline
Conservation Commission

Marcus Quigley, Chair
Matthew Garvey, Vice Chair
Gail Fenton
Werner Lohe
Pallavi Kalia Mande
Deborah Myers
Roberta Schnoor

Associates
Pamela Harvey
Marian Lazar

May 16, 2016

RE: Warrant Article 11 Tree Protection By-Law

Trees make Brookline Brookline. Check out an aerial view of the greater Boston area in summer and Brookline stands out like a verdant oasis. It's this rich green canopy that creates a wonderful sense of open space amongst the urban bustle, with cool clean air in summer, striking colors in fall, natural architectural gems in winter, invigorating buds and flowers in spring. Wildlife needs these trees to thrive--indeed, to survive. Brookline's rich diversity of birds, bees, butterflies and other creatures is utterly dependent on Brookline's bountiful assortment of trees. Moreover, this ecosystem depends on variety for survival--a diversity of native tree species, of various vintages and maturity levels, is crucial for it to support wildlife and withstand pressures from development, invasive species, overgrazing deer, climate change and a host of threats both natural and man-made.

Because much of this rich arboreal resource exists on private lands, and because the threats to it are only increasing, careful and creative regulation is needed to protect this unique and precious resource for future generations.

For this reason, after hearing from petitioner Richard Murphy at a duly noticed Public Hearing held April 15, 2016 and again at two continued Public Hearings on April 19th and May 9th, the Conservation Commission finds there is substantial merit to the goals proposed in Article 11, Tree Protection By-Law, and fully supports sending Article 11 to Selectmen's Committee. Moreover, Conservation Commission members look forward to

participating in the Selectmen's Committee to help craft an effective method of conserving this most valuable living resource.

Sincerely,

A handwritten signature in cursive script, appearing to read "Marcus Quigley". The signature is fluid and somewhat stylized, with a long horizontal stroke at the end.

Marcus Quigley
Chair

ARTICLE 11

TREE PLANTING COMMITTEE REPORT AND RECOMMENDATION



TOWN of BROOKLINE
Massachusetts

Tree Planting Committee
Hugh Mattison, Chair
Nadine Gerds
Elizabeth Erdman

May 16, 2016

RE: Warrant Article 11 Tree Protection By-Law

On April 19th, 2016 the Tree Planting Committee held a Public Hearing which was continued on May 9, 2016, to discuss Warrant Article 11, with the petitioner, Richard Murphy. The Committee heard from the petitioner about his goals for the protection of Brookline's trees and the great value him and many other Brookline citizens place on our exemplary urban forest, consisting of the public shade trees lining our streets, trees in our parks and other open spaces and trees on private residential and commercial property throughout the Town.

Brookline's trees, on both public and private property, contribute to the Town's distinct character, and provide significant health, environmental and social benefits to the community. The article currently before Town Meeting was first proposed 15 years ago and has been re-introduced by the petitioner, as development and increased density in the community have had a visible impact on the Town's tree canopy spanning land parcels both large and small. Brookline has the opportunity to develop a thoughtfully-constructed bylaw to create policy that will protect the existing tree canopy whenever possible and to mitigate the environmental impact of tree loss. Many cities and towns across the country and state, including neighboring Wellesley, Wayland and Newton, have implemented tree protection bylaws and policies. There are many models for such policies that vary according to the character and intentions of each Town.

The Tree Planting Committee finds:

- There is substantial merit to the goals proposed in Article 11, Tree Protection By-Law.
- Any new protective bylaw will likely require oversight by Town staff, therefore potential additional staffing and the source of funding for an added position or positions should be carefully studied before consideration of new regulations.
- As written, Article 11 might allow the possibility of clear-cutting a site prior to obtaining a building permit. Ideally, it would be a building permit that would trigger submittal of an existing conditions tree plan, leading to protecting tree resources. This and other potential loopholes in the warrant article may allow unintended consequences and should be considered before Town Meeting.

- Article 11 could be stronger and more effective if it developed more clarity in defining protected or desirable size and species of trees and if it distinguished the differences between protection of Town trees and those on private property.

The Tree Planting Committee supports sending Article 11 to Selectmen's Committee which includes broad representation including Conservation and Zoning advocates. Tree Planting Committee members look forward to participating in the Selectmen's Committee.



Hugh Mattison, Chairman
Tree Planting Committee

ARTICLE 12

BOARD OF SELECTMEN'S SUPPLEMENTAL RECOMMENDATION

The Board of Selectmen reconsidered Article 12 at their May 10, 2016 meeting after learning that the petitioner would like to withdraw this article. The Selectmen offer no motion under Article 12.

ARTICLE 14

MOTION TO BE OFFERED BY THE PETITIONERS

VOTED: That the Town accept the provisions of Section 148C of Chapter 149 of the Massachusetts General Laws, the Earned Sick Time Law, pursuant to Article CXV of the Amendments to the Constitution of the Commonwealth.

Explanation

Under the state Earned Sick Time Law, employees may use up to 40 hours of accrued sick time per year for preventative medical care (screening, check-ups, counseling) for themselves or immediate family members. Under the town and school sick time policies for part time, temporary and seasonal employees, this use is prohibited.

Under the state Earned Sick Time Law, employees may (with some exceptions) use sick time in hourly increments. Under the town and school sick time policies for part time, temporary and seasonal employees, workers may use sick time only in increments of no less than half of a regularly scheduled day unless otherwise allowed by individual departments.

Under the state Earned Sick Time Law, employers are required to post notices about employees' sick time rights. They are prohibited from retaliating against employees for using sick time or filing a complaint for alleged violations of the sick time law. The Attorney General has the authority to go to court to stop violations and to issue civil citations against employers. The town and school policies provide none of these employee protections. Further, per the Classification and Pay Plan, the town's grievance procedure is not available to temporary and seasonal employees.

In November 2015, Town Counsel represented to Town Meeting that a favorable vote on the Earned Sick Time Law Warrant Article would bind the schools. See <https://www.youtube.com/watch?v=AUZGUn2wXVA> about 1:30 (one hour and thirty minutes into the YouTube). Presently, Town Counsel is taking the position that a favorable vote by Town Meeting would not bind the schools. However, at the Advisory Committee (AC) review of this warrant article on April 28, 2016, the subcommittee chair informed the AC that the schools had been advised by labor counsel that favorable action by Town Meeting would bind the schools.

On April 19, 2016, at the Selectmen's public hearing re Warrant Article 14, the Town Administrator reported that a payroll systems "glitch" was responsible for part time, temporary and seasonal town employees' not receiving notice of the accrual of their sick time since October 1, 2015.

As of April 26, 2016, the date of the Advisory Committee subcommittee public hearing re Warrant Article 14, the Human Resources Office had yet to directly notify town employees of the town's sick time policy for part time, temporary and seasonal workers, which policy had been in effect since October 1, 2015.

AFSCME Local 1358, Brookline Firefighters Local 950 IAFF and the Brookline Educators Union support Warrant Article 14.

We believe that the state Earned Sick Time Law offers benefits superior to those of town and school policies and that our town and school employees merit the same earned sick time benefits which most of us approved on November 4, 2014 for other employees throughout the Commonwealth.

The Combined Reports were originally published with an incomplete report on Article 15. The entire report has been re-published as a supplement along with revised votes found on pages 10-14 which are intended to reference revised maps which provide a greater level of detail on the easements.

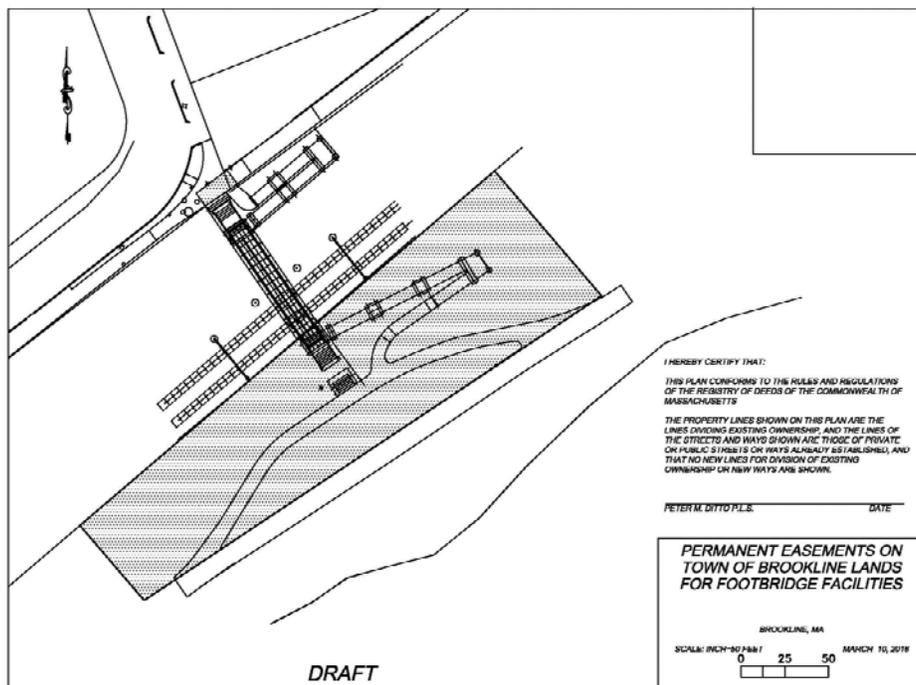
ARTICLE 15

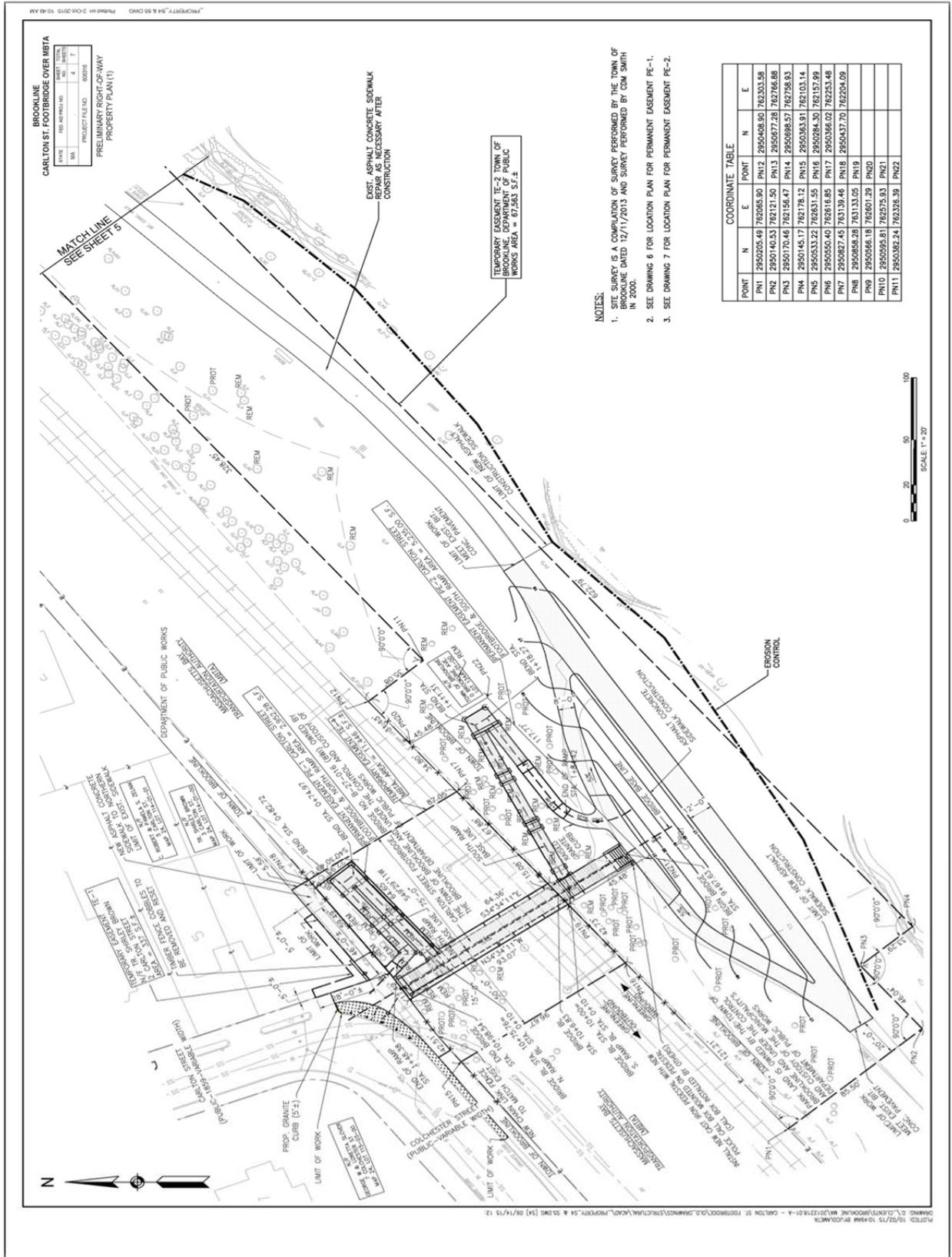
FIFTEENTH ARTICLE

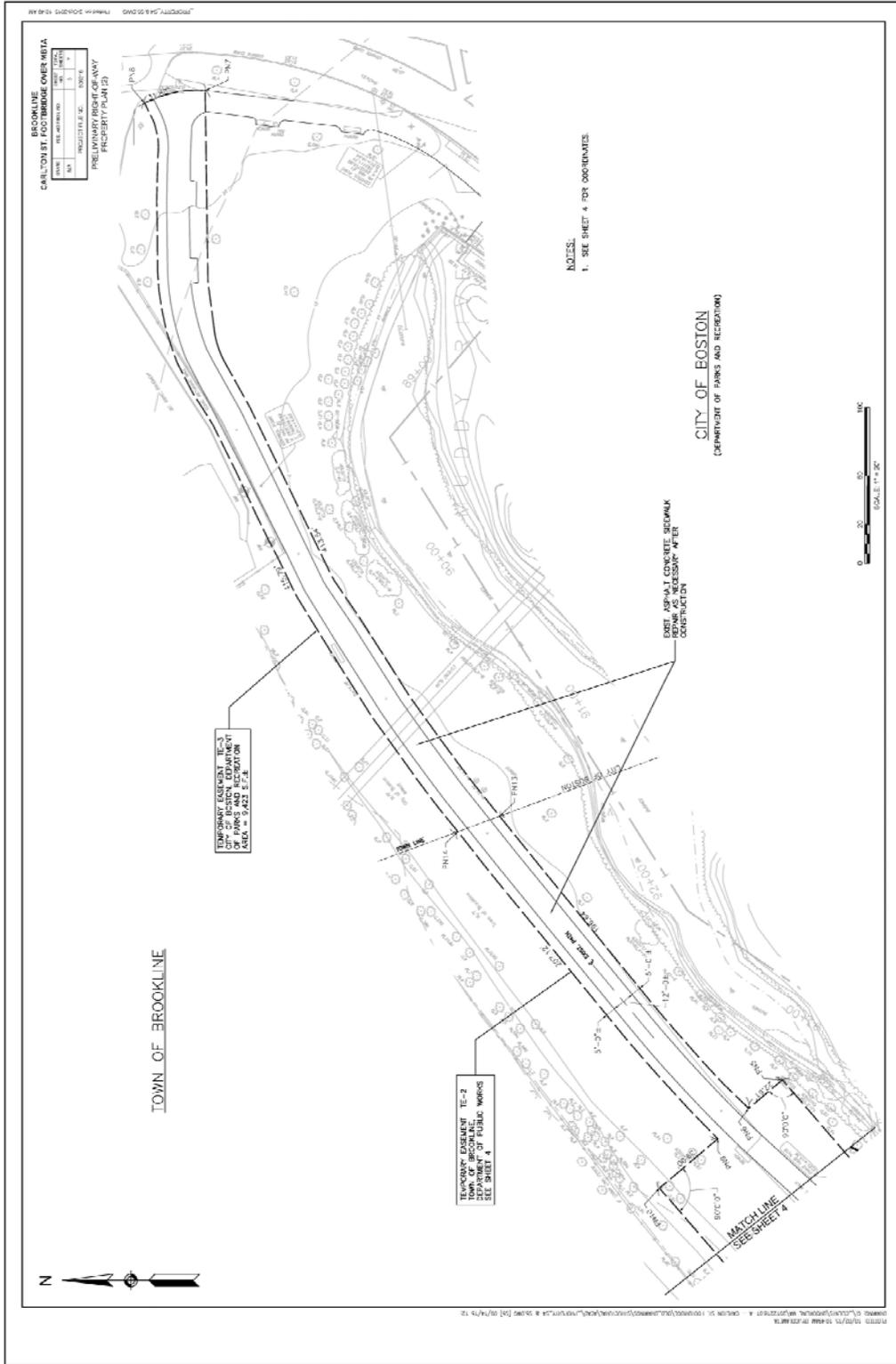
Submitted by: Department of Public Works

To see if the Town will vote to authorize the Board of Selectmen to grant and acquire, as necessary, permanent easements on Town of Brookline property for structural footings, stairs, accessible ramps, pedestrian walkways and other components of the Carlton Street Footbridge Rehabilitation Project, as substantially shown on the plan submitted herewith entitled “PERMANENT EASEMENTS ON TOWN OF BROOKLINE LANDS FOR FOOTBRIDGE FACILITIES.”

To see if the Town will vote to authorize the Board of Selectmen to grant and acquire, as necessary, temporary construction easements on Town of Brookline property for construction activities associated with the Carlton Street Footbridge Rehabilitation Project, as substantially shown on the plan submitted herewith entitled “TEMPORARY CONSTRUCTION EASEMENTS ON TOWN OF BROOKLINE LANDS FOR FOOTBRIDGE REHABILITATION.”







Or act on anything relative thereto.

PETITIONER’S ARTICLE DESCRIPTION

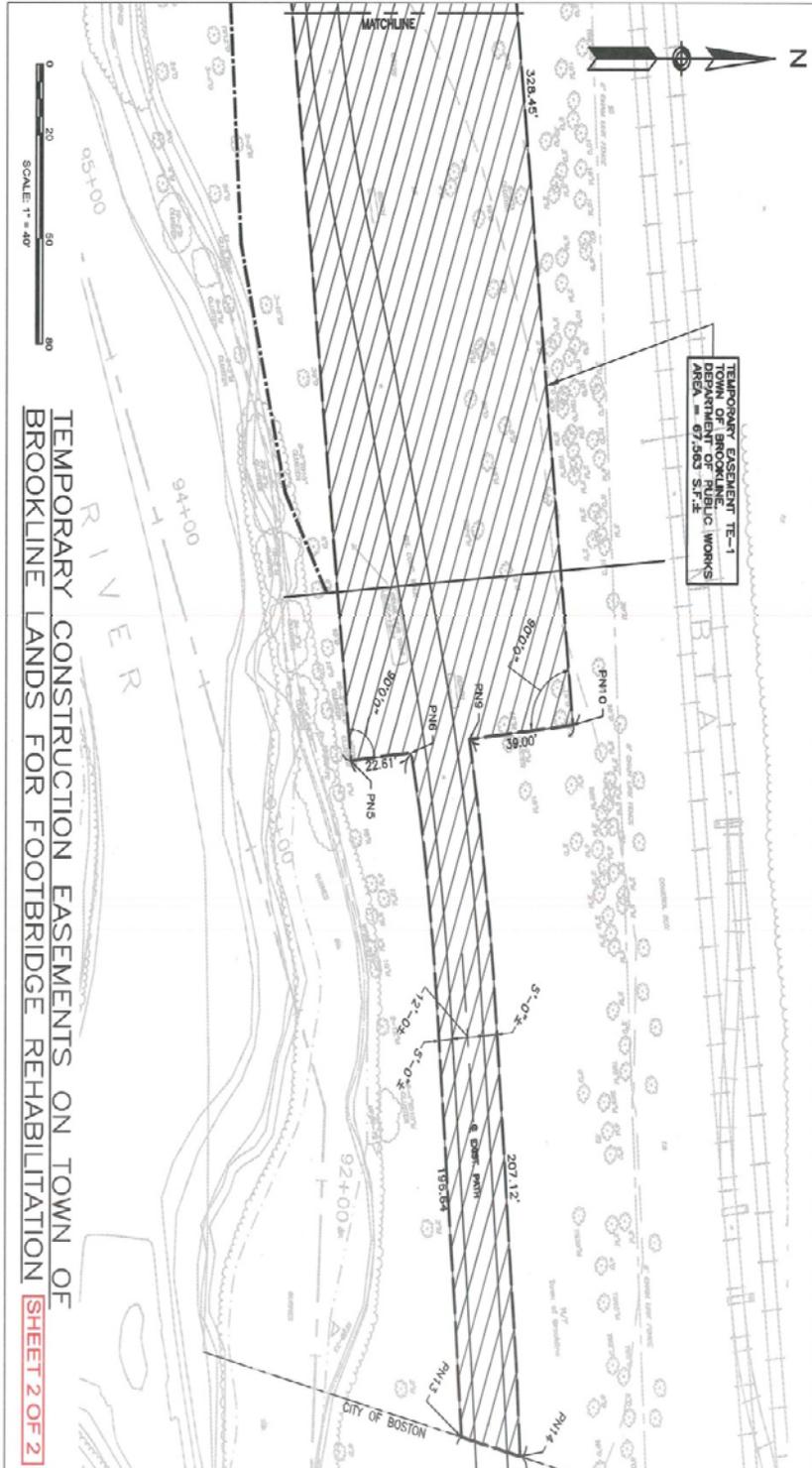
The Carlton Street Footbridge Rehabilitation project is scheduled in Federal Fiscal Year 2016, by the Boston Metropolitan Planning Organization (MPO), to receive largely Federal Transportation funding, with a smaller State Transportation match, dedicated to reconstruction costs. In order to secure these construction dollars, the Town of Brookline is obligated to follow the Design Development Process managed by the Massachusetts Department of Transportation (MassDOT), Highway Division, currently at the 75% submittal level. The Town must comply with the property dedication requirements of both MassDOT and the United States Department of Transportation. The permanent easements and temporary construction easements described in this Warrant Article and in the following Warrant Article have been recommended by MassDOT. The granting and acquisition of these easements requires the authorization of Town Meeting.

MassDOT, per Federal guidelines, is requiring the Town to place permanent easements on Brookline land that will accommodate the footbridge footings, stairs, accessible ramps and pathways to the footbridge. The reason for the easement on the pathways is to assure pedestrian access to the footbridge. These permanent easements are effectively a dedication of Town property for the purpose of accommodating and providing access to the footbridge. In addition, for Town land needed to perform the construction activities, MassDOT has recommended the use of temporary construction easements. While the Town typically allows access to its land using an access license and the Town may ultimately be able to grant a contractor this license rather than a temporary construction easement, because MassDOT has suggested using a temporary construction easement, authorization for these easements is being sought. A temporary construction easement would be granted for three years, after which it would automatically extinguish.

A Town Meeting vote to secure these easements will successfully clear the footbridge project of any outstanding right-of-way encumbrances as identified by MassDOT, and in turn accelerate the project’s ability to move efficiently through the remaining steps in the MassDOT Design Development Process while sustaining the project’s strong position for outside funding on the State’s Transportation Improvement Program (TIP).

SELECTMEN’S RECOMMENDATION

Article 15 asks Town Meeting to authorize the Board of Selectmen to grant and acquire permanent and temporary easements on Town of Brookline property. These easements are necessary to secure both Massachusetts Department of Transportation and United States Department of Transportation funding for the Rehabilitation of the Carlton Street Footbridge project which is scheduled to commence in Federal Fiscal Year 2016. The permanent easements will accommodate the footbridge footings, stairs, accessible ramps and pathways to the footbridge. The reason for the easements on the pathways is to assure



A Town Meeting vote to secure these easements will successfully clear the footbridge project of any outstanding right-of-way encumbrances as identified by MassDOT, and in turn accelerate the project's ability to move efficiently through the remaining steps in the MassDOT Design Development Process while sustaining the project's strong position for outside funding on the State's Transportation Improvement Program (TIP).

Therefore, on April 26, 2016 a unanimous Board of Selectmen voted FAVORABLE ACTION, on the following:

VOTED That the Town take the following actions: (1) authorize the Board of Selectmen to grant and acquire, as necessary, permanent easements on Town of Brookline property for structural footings, stairs, accessible ramps, pedestrian walkways and other components of the Carlton Street Footbridge Rehabilitation Project, as substantially shown on the plan submitted for inclusion in the 2016 Annual Town Meeting Warrant signed by the Board of Selectmen on March 15, 2016 and entitled "PERMANENT EASEMENTS ON TOWN OF BROOKLINE LANDS FOR FOOTBRIDGE FACILITIES."; and (2) authorize the Board of Selectmen to grant and acquire, as necessary, temporary construction easements on Town of Brookline property for construction activities associated with the Carlton Street Footbridge Rehabilitation Project, as substantially shown on the plan submitted for inclusion in the 2016 Annual Town Meeting Warrant signed by the Board of Selectmen on March 15, 2016 and entitled "TEMPORARY CONSTRUCTION EASEMENTS ON TOWN OF BROOKLINE LANDS FOR FOOTBRIDGE REHABILITATION."

***This vote was superseded by the vote set forth on page 10 of this supplement.**

ADVISORY COMMITTEE'S RECOMMENDATION

SUMMARY:

By a vote of 21-0-2, the Advisory Committee recommends FAVORABLE ACTION on Article 15. This Article seeks to have the Town authorize and/or acquire permanent easements on Town of Brookline property for structural footings, stairs, accessible ramps, pedestrian walkways and other components of the Carlton Street Footbridge Rehabilitation Project as well as temporary construction easements on Town of Brookline property for construction activities associated with the Carlton Street Footbridge Rehabilitation Project. The Committee understood that both types of easements are being required of the Town by the Massachusetts Department of Transportation in order to both comply with obligations the Town agreed to in 2009 and to ensure that Federal grants requirements are heeded.

BACKGROUND:

The Carlton Street Footbridge rehabilitation project has been anticipated since 2009. The project is in the Massachusetts Department of Transportation's 2016 Transportation

Improvement Program (“TIP”). Town Meeting voted in 2009 to authorize borrowing up to \$1.4 million for the cost of restoration and reconstruction of the Carlton Street Footbridge, but that entire sum would not necessarily be spent if Brookline received grants or gifts to pay for restoration and reconstruction of the bridge. The project in the TIP is expected to be funded 80% by the Federal Government and 20% by the Commonwealth. The Town is responsible for delivering, via license, grant or acquisition, temporary construction easements on Town of Brookline land and, to satisfy the requirements of the Federal grant, permanent easements on certain Brookline owned land. Both of these actions must be approved by Town Meeting.

DISCUSSION:

The acquisition and/or obtaining temporary construction easements is a normal requirement in situations such as this. The requirement by the Federal Government to provide a permanent easement is somewhat unusual but is viewed as representing an effort by the Federal government to “protect their investment” and to ensure that the money they grant is perpetually used for the purpose covered by the grant. This is similar to requirements seen when the Federal Government provides grants for, say, park rehabilitations.

Because the easement is given to ourselves (i.e. the Town of Brookline), there technically is nothing stopping a future Town Meeting from rescinding the easement. However, to do so would likely mean a violation of the grant agreement for which there may be consequences as the Federal Government is looking to the Town to provide, in good faith, a permanent easement for the use of property to provide access to the bridge. Any such decision by a future Town Meeting would need to be evaluated and should be discussed with the Federal Government.

There was unanimous support for this Article with no statements offered in opposition at either the subcommittee’s public hearing or the full Advisory Committee meeting.

RECOMMENDATION:

By a vote of 21–0–2 the Advisory Committee recommends FAVORABLE ACTION on the motion offered by the Board of Selectmen.

***This vote was superseded by the vote set forth on page 14 of this supplement.**

XXX

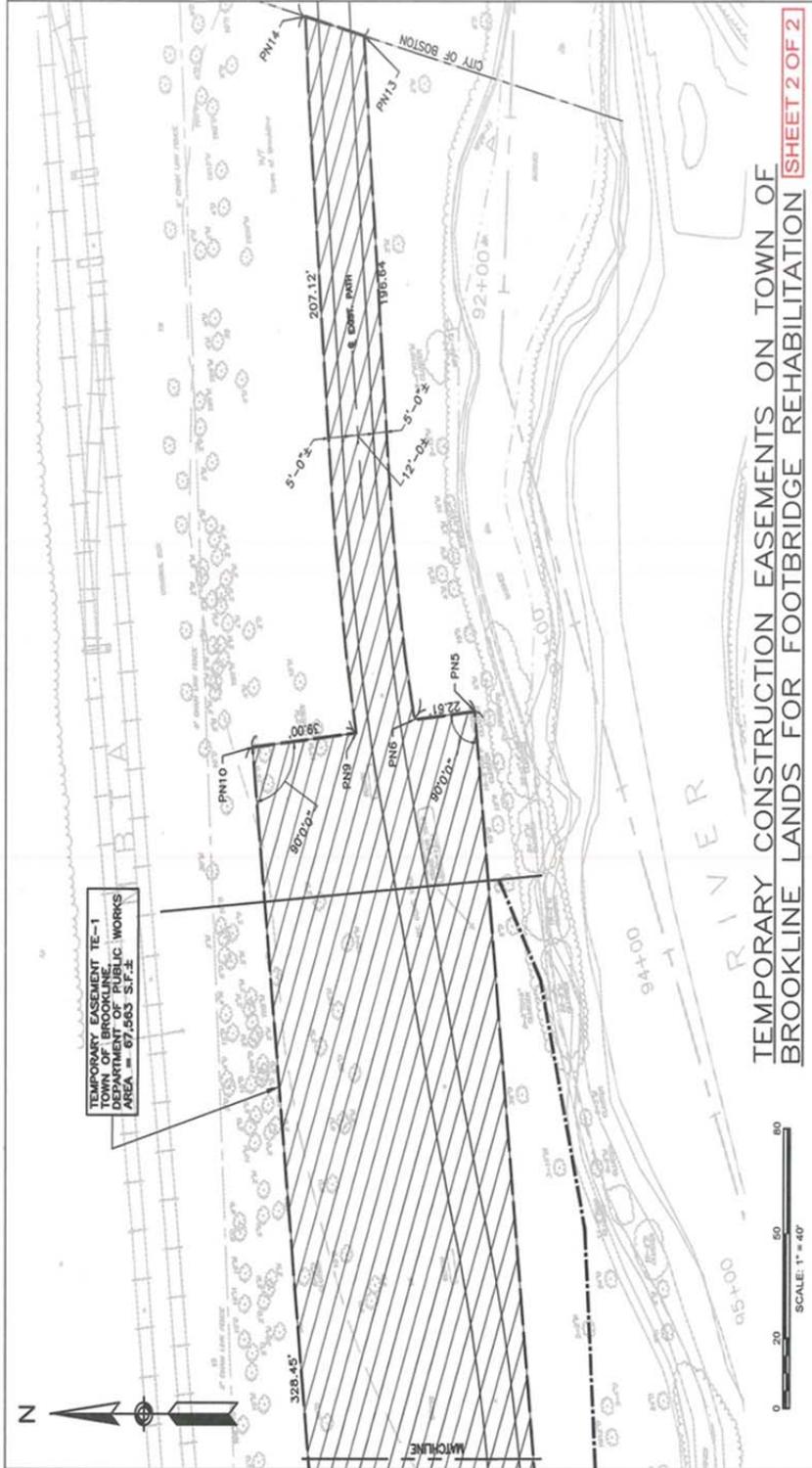
BOARD OF SELECTMEN’S SUPPLEMENTAL RECOMMENDATION

At the Board’s May 17, 2016 meeting Article 15 was reconsidered in order to incorporate revised, more detailed maps into the vote. The original recommendation related to this article remains the same.

Therefore a unanimous Board of Selectmen recommends FAVORABLE ACTION on the following revised motion:

Move that the Board of Selectmen amend its April 26, 2016 vote of FAVORABLE ACTION as follows:

VOTED That the Town: (1) authorize the Board of Selectmen to grant and acquire, as necessary, permanent easements on Town of Brookline property for structural footings, stairs, accessible ramps, pedestrian walkways and other components of the Carlton Street Footbridge Rehabilitation Project, as substantially shown on the plan set forth below, said plan to replace the plan submitted for inclusion in the 2016 Annual Town Meeting Warrant and said new plan entitled “PERMANENT EASEMENTS ON TOWN OF BROOKLINE LANDS FOR FOOTBRIDGE FACILITIES.”; and (2) authorize the Board of Selectmen to grant and acquire, as necessary, temporary construction easements on Town of Brookline property for construction activities associated with the Carlton Street Footbridge Rehabilitation Project, as substantially shown on the plan included in the Selectmen’s Recommendation and set forth below, said plan to replace the plan submitted for inclusion in the 2016 Annual Town Meeting Warrant and said new plan entitled “TEMPORARY CONSTRUCTION EASEMENTS ON TOWN OF BROOKLINE LANDS FOR FOOTBRIDGE REHABILITATION.”



ADVISORY COMMITTEE'S SUPPLEMENTAL RECOMMENDATION

The motion under Article 15 has been amended to include appropriate references to the plans that are now included in the motion and Selectmen's recommendation. These plans replace the plans included in the Warrant for this Town Meeting. The current plans are easier to read and are labeled appropriately. Including the plans in the motion and recommendation will make them more readily available for future reference. There is no substantive change to the authorized easements.

RECOMMENDATION:

By a vote of 17-0-0 the Advisory Committee unanimously recommends FAVORABLE ACTION on the amended motion offered by the Board of Selectmen.

ARTICLE 16

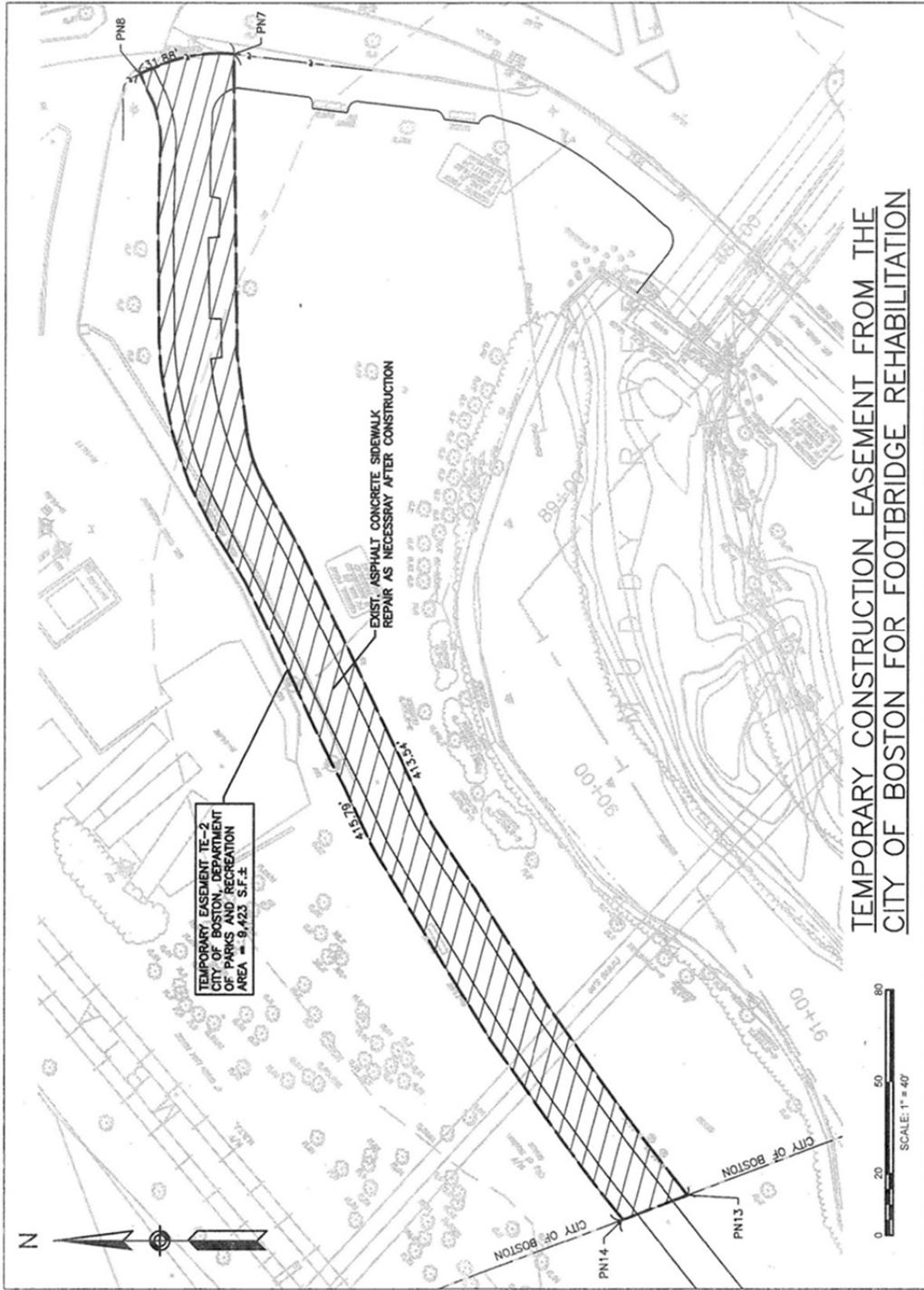
BOARD OF SELECTMEN’S SUPPLEMENTAL RECOMMENDATION

At the Board’s May 17, 2016 meeting Article 16 was reconsidered in order to incorporate revised, more detailed maps into the vote. The original recommendation related to this article remains the same.

Therefore a unanimous Board of Selectmen recommends FAVORABLE ACTION on the following revised motion:

Move that the Board of Selectmen amend its April 26, 2016 vote recommending FAVORABLE ACTION, as follows:

VOTED: that the Town: 1. authorize the Board of Selectmen to acquire, if necessary, temporary construction easements from the City of Boston and the Massachusetts Department of Transportation, Rail and Transit Division, under which the Massachusetts Bay Transportation Authority (MBTA) operates, to conduct construction activities associated with the Carlton Street Footbridge Rehabilitation Project, as substantially shown on the plans included in the Selectmen’s Recommendation and set forth below, said plans to replace the plans submitted for inclusion in the 2016 Annual Town Meeting Warrant and said new plans entitled “TEMPORARY CONSTRUCTION EASEMENT FROM THE MBTA FOR FOOTBRIDGE REHABILITATION” and “TEMPORARY CONSTRUCTION EASEMENT FROM THE CITY OF BOSTON FOR FOOTBRIDGE REHABILITATION.” and 2. authorize the Selectmen to raise and appropriate, if necessary, funds for the acquisition of all easements required for the project, said funding to be drawn from the Town’s bond funding previously authorized for the Carlton Street Footbridge project.



TEMPORARY CONSTRUCTION EASEMENT FROM THE
CITY OF BOSTON FOR FOOTBRIDGE REHABILITATION

ADVISORY COMMITTEE'S SUPPLEMENTAL RECOMMENDATION

The motion under Article 16 has been amended to include appropriate references to the plans that are now included in the motion and Selectmen's recommendation. These plans replace the plans included in the Warrant for this Town Meeting. The current plans are labeled appropriately and will be more readily available for future reference. There is no substantive change to the authorized easements.

RECOMMENDATION:

By a vote of 17-0-0 the Advisory Committee unanimously recommends FAVORABLE ACTION on the amended motion offered by the Board of Selectmen.

ARTICLE 17

ADVISORY COMMITTEE'S SUPPLEMENTAL RECOMMENDATION

On May 19, 2016, the Advisory Committee voted to reconsider its previous recommendation under Article 17 and by a large majority voted FAVORABLE ACTION on the resolution that appears below. The resolution has been revised significantly, and it would be confusing to try to use strikethroughs and bold type to show all the deletions and additions from the original language of the Warrant or the Advisory Committee's previous recommendation. Nevertheless, the resolution now recommended by the Advisory Committee is consistent with the general goals and principles of Article 17 and the Advisory Committee's previous recommendation.

The Advisory Committee decided to reconsider Article 17 because the issues related to the proposed new system for semi-automated trash collection have come into focus recently. More information is now available. On May 10, the Department of Public Works (DPW) released details of the proposal, including the fees for the various sizes of Toter Carts. On May 17, the Board of Selectmen held a public hearing at which Brookline residents raised questions and concerns.

At the hearing, it was announced that 18 gallon Toter Carts will be available to all residents who request them. Previously, it was unclear whether that size of Toter Cart would only be offered to residents who had requested an exemption from using one of the larger-sized Toter Carts—35, 65, or 96 gallons. The DPW proposal also provides for two solid waste "amnesty" days on which unlimited amounts of trash will be picked up. Free removal of bulky waste items would continue.

The May 17 public hearing highlighted concerns about whether accommodations or exceptions would only be offered to residents with a physical handicap that prevent them from moving Toter Carts. Some residents urged a more flexible approach. At the conclusion of the hearing, the Selectmen decided to defer a vote on Article 17.

The resolution offered by the Advisory Committee reflects input and comments from the petitioner and the Town Administrator. It does not specify all the details of accommodations and exceptions that may be offered to Brookline residents for whom the new solid waste Toter Carts may present a burden, but it endorses the principle that there should be accommodations and exceptions and that they will be determined after a public hearing. It also notes that Toter Carts may present various types of burdens and that residents should be allowed the option of using plastic garbage bags when Toters would present a burden.

The Advisory Committee continues to believe that accommodations or exceptions should be offered in all types of cases in which use of the new solid waste Toter Carts might impose a burden on Brookline residents, including:

- Limited or nonexistent storage areas for Toter Carts
- The need to store Toter Carts in unsightly and prominent locations
- Difficulty in maneuvering Toter Carts from storage areas to the curb
- Physical limitations that make it difficult or impossible for residents to move Toter Carts

The Advisory Committee recognizes that Brookline residents will need to be fully informed on the new solid waste collection system and that many residents remain unaware of the proposed changes. The final “Resolved” clause addresses this concern.

During the coming months, Brookline residents will be able to learn more about the new solid-waste collection system and offer their input. If there are further concerns about the implementation of the new system, including provisions for accommodations and exceptions, the November 2016 Town Meeting could consider one or more Warrant Articles on this topic, as necessary.

RECOMMENDATION:

By a vote of 17–2–0, the Advisory Committee recommends FAVORABLE ACTION on the following:

VOTED: That the Town of Brookline adopt the following resolution:

WHEREAS, the Town is seeking efficiencies in the way in which the DPW picks up curbside trash from Brookline residences; and

WHEREAS, the way in which it is anticipated to effect these efficiencies is by having residents deposit trash in variable-sized Toter Carts similar in design to those currently used for recycling in order to accommodate mechanized pick up; and

WHEREAS, these Toter Carts may present a burden for households with limited or unsightly storage areas, inaccessible areas or whose occupants are unable to transport them to the curb;

THEREFORE, BE IT RESOLVED, that Town Meeting urges the adoption of accommodations or exceptions for those households where the use of the Toter Carts presents a burden; and

BE IT FURTHER RESOLVED, that the Board of Selectmen will make a determination, after a public hearing, of the objective criteria to be used in determining which residences are entitled to be covered by an exception system, and;

BE IT FURTHER RESOLVED that the option of using official town plastic bags at curbside without a toter be available as an option for households or residences granted an exception, and;

BE IT FURTHER RESOLVED that at least three months in advance of the implementation of the automated system, mailings informing residents will be sent to all residences of the Town, and neighborhood meetings shall take place in each precinct to publicize and inform residents of the changes in trash pickup and the ways in which one might request exceptions.

ARTICLE 20

BOARD OF SELECTMEN’S SUPPLEMENTAL RECOMMENDATION

Article 20 is a resolution seeking the end to the United States’ economic, commercial and financial embargo against Cuba and respect for Cuba’s sovereignty. This article would put Town Meeting on record as being against the embargo and U.S. covert activities in Cuba. The embargo has been in place since 1960. The Board supports the notion of lifting of the embargo, but questions if it is appropriate to support specific bills and legislation at the national level without having more information on the content contained in the legislation. Since the bills can evolve and be amended, the Board did not think it was wise to blindly endorse them, but did amend the final whereas clause to encourage Representative Kennedy to support measures that are aligned with this resolution.

A unanimous Board of Selectmen recommends FAVORABLE ACTION on the following motion:

VOTED: That the Town adopt the following resolution:

WHEREAS, in 1960, the United States government imposed an economic, commercial and financial blockade against Cuba; and

WHEREAS, the U.S. embargo against Cuba — what the Cubans call *el bloqueo*, “the blockade” — continues to inflict hardship on the men, women and children of Cuba by creating shortages of food, medicines and financial and trade opportunities; and

WHEREAS the 1996 Helms-Burton Act extended the territorial application of the initial embargo to apply to foreign companies trading with Cuba; and

WHEREAS, on December 17, 2014, U.S. President Barack Obama and Cuban President Raul Castro announced a new era of relations and agreed to re-establish diplomatic relations; and

WHEREAS, Cuba and the United States re-opened their respective embassies in 2015; and

WHEREAS, despite the changes made by President Obama the embargo continues to be in place; and

WHEREAS, 191 countries voted at the United Nations General Assembly in October 2015 in favor of lifting the U.S. blockade against Cuba, with only two countries — the U.S. and Israel — opposed; and

WHEREAS the majority of the people of the United States believe this embargo is ineffective and

WHEREAS the blockade denies U.S. citizens access to Cuban medical technology such as the diabetes drug Heberpot-P, vaccines for meningitis B and hepatitis B, monoclonal antibodies for kidney transplants, as well as the only therapeutic vaccine in the world against advanced lung cancer, CIMAVAX-EGF;

THEREFORE, BE IT RESOLVED that the Brookline Town Meeting calls for an immediate end to the United States' economic, commercial and financial embargo against Cuba; and strongly encourages Representative Joseph P. Kennedy III to support measures that achieve these goals.

ADVISORY COMMITTEE'S SUPPLEMENTAL RECOMMENDATION

On May 19, 2016, the Advisory Committee reconsidered its recommendation regarding Article 20. After hearing the petitioner's arguments for his motion and also reviewing the recommendation of the Board of Selectmen, the Advisory Committee decided to recommend FAVORABLE ACTION on the Selectmen's motion. A motion for Favorable Action on the petitioner's motion failed by a vote of 5–10–1.

A key issue in the Advisory Committee's discussion was whether to include in the resolution a call for "an end to any and all funding of and support for covert USAID 'regime change' operations and programs" in Cuba. The petitioner supports including such language in the resolution. When the Advisory Committee initially considered Article 20, some members whether sufficient information was available about such "covert" programs.

As the petitioner pointed out, U.S. efforts to promote "regime change" in Cuba are hardly a secret. These efforts—and their numerous failures and setbacks—have been reported in the news media and it is something of a misnomer to call them "covert" operations.

Nevertheless, the Advisory Committee continued to oppose using the Article 20 resolution to call for an end to U.S. "regime change" operations intended to topple the Castro government in Cuba. Above all, most Advisory Committee members thought that the resolution should focus on ending the embargo, because that goal seemed to have the most support and is the subject of almost all the "Whereas" clauses in the petitioner's motion. In addition, these "covert" operations are primarily attempts to bring greater democracy to Cuba, even if many of them are misguided or unsuccessful. "Regime change" in this context is nothing like violent "regime change" as it was practiced by the

United States in Iraq. In Cuba, U.S. programs have attempted to promote democracy and human rights, however ineptly. Much assistance has been sent to families of Cuban political prisoners.

The Advisory Committee thus voted against the petitioner's motion and instead voted FAVORABLE ACTION on the motion offered by the Board of Selectmen. That motion does not include any clauses that call for an end to U.S. "regime change" operations in Cuba. The Selectmen's motion also does not offer Town Meeting's support for proposed federal legislation that most members of Town Meeting probably have not read. The Advisory Committee felt that if Town Meeting could unite to support one motion under Article 20 it should be the Selectmen's motion. An overwhelming vote for that motion would send a clear signal that it is time to end the embargo against Cuba.

RECOMMENDATION:

By a vote of 10–4–2, the Advisory Committee recommends FAVORABLE ACTION on the motion offered by the Selectmen.

ARTICLE 20

MOTION TO BE OFFERED BY THE PETITIONER

VOTED: That the Town adopt the following resolution:

Resolution Calling for an End to the United States’ Economic, Commercial and Financial Embargo against Cuba and Respect for Cuba’s Sovereignty

WHEREAS, in 1960, the United States government imposed an economic, commercial and financial blockade against Cuba; and

WHEREAS, the U.S. embargo against Cuba — what the Cubans call *el bloqueo*, “the blockade” — continues to inflict hardship on the men, women and children of Cuba by creating shortages of food, medicines and financial and trade opportunities; and

WHEREAS the 1996 Helms Burton Act extended the territorial application of the initial embargo to apply to foreign companies trading with Cuba; and

WHEREAS, on December 17, 2014, U.S. President Barack Obama and Cuban President Raul Castro announced a new era of relations and agreed to re-establish diplomatic relations; and

WHEREAS, Cuba and the United States re-opened their respective embassies in 2015; and

WHEREAS, despite the changes made by President Obama the embargo continues to be in place; and

WHEREAS, 191 countries voted at the United Nations General Assembly in October 2015 in favor of lifting the U.S. blockade against Cuba, with only two countries — the U.S. and Israel — opposed; and

WHEREAS the majority of the people of the United States believe this embargo is ineffective, ~~inhumane and in violation of international conventions~~; and

WHEREAS the blockade denies U.S. citizens access to Cuban medical technology such as the diabetes drug Heberpot-P, vaccines for meningitis B and hepatitis B, monoclonal antibodies for kidney transplants, as well as the only therapeutic vaccine in the world against advanced lung cancer, CIMAVAX-EGF; and

WHEREAS the U.S. through its Agency for International Development (USAID) has supported and has not disavowed continuing ~~embarrassing~~ covert “regime change” operations;

THEREFORE, BE IT RESOLVED that the Brookline Town Meeting calls for an immediate end to the United States’ economic, commercial and financial embargo against Cuba; and with respect for Cuba’s sovereignty, an end to any and all ~~illegal~~ **funding of**

and support for covert **USAID** “regime change” operations and programs and affirmation thereof; and

BE IT FURTHER RESOLVED that the Brookline Town Meeting supports the following Bills in Congress: 1) [the Freedom to Travel to Cuba Act of 2015 \(HR664\)](#), introduced by Rep. Mark Sanford (R-SC 1st) and Rep. James McGovern (D-MA 2nd), 2) [The Cuba Trade Act of 2015 \(HR3238\)](#), introduced by Rep. Tom Emmer (R-MN 6th) and Rep. Kathy Castor (D-FL 14th), and strongly encourages Representative Joseph P. Kennedy III to join the list of co-sponsors of both bills; and

BE IT FURTHER RESOLVED that the Brookline Town Meetings supports the following Bills in the Senate: 1) [The Freedom to Travel to Cuba Act of 2015 \(S299\)](#), introduced by Senator Jeff Flake (R-AZ) and Senator Patrick Leahy (D-VT), language of which is identical to HR664, 2) [The Freedom to Export to Cuba Act \(S491\)](#), introduced by Senator Amy Klobuchar (D-MN), both of which are supported by our Senators Edward Markey and Elizabeth Warren.

ARTICLE 21

BOARD OF SELECTMEN'S SUPPLEMENTAL RECOMMENDATION

Article 22 is a petitioned resolution that asks Town Meeting to encourage that photovoltaics (solar energy) be part of Brookline's energy mix and for the General Court to enact legislation to support a robust program of solar energy in Massachusetts. There is a need to revisit the net metering caps, because the new legislation that Governor Baker is not comprehensive.

The Board is quite receptive to the need for more photovoltaic systems in the Town. Selectmen have PV systems on their own houses and are very supportive of this resolution. The Town is already in the process of citing and installing PV systems on Town buildings and properties. The Board also notes that this warrant article, and supporting documentation, will educate the public concerning the potential impacts of PV systems, community shared solar, and net metering.

By a vote of 5-0 taken on May 17, 2016, the Board recommends FAVORABLE ACTION on the motion offered by the Advisory Committee.

ADVISORY COMMITTEE'S SUPPLEMENTAL RECOMMENDATION

SUMMARY:

By a vote of 13-2-2 the Advisory Committee voted to recommend FAVORABLE ACTION on Article 21, as amended. This resolution seeks to affirm Brookline's commitment to solar power as part of its effort to reduce greenhouse gases. It also asks the Town to press the Massachusetts State Legislature for more comprehensive solar legislation by sending the Warrant Article and its companion explanation to specific political and energy officials.

BACKGROUND:

The petitioner, John Harris, submitted Warrant Article 21 in an effort to raise awareness about what constitutes a comprehensive solar photovoltaic (PV) plan, and to encourage the Massachusetts State Legislature to create such a plan. Citing recent changes in related legislation that falls short, the Warrant Article proposes action on the following (abbreviated) ideas in order to construct a sustainable and fair solar PV program:

- Net metering;
- Elimination of net metering caps;
- Community Shared Solar and Virtual Net Metering;

- Fair value for solar PV supplied power;
- A solar PV renewable energy credit program;
- Increased access to tax credits and financial incentives;
- Investment in local transmission and distribution generation capacity; and
- Grid modernization technology enhancements.

The goal is to encourage regulations that preserve and create more credits and incentives for solar PV owners and investors, including long-term contracts, access, fair pricing, and grid infrastructure improvements.

Net metering: Recent changes and local action

Net metering enables homeowners, businesses and municipalities to sell excess power they generate back to utilities in exchange for credit. There are caps to net metering, which limits the amount of solar PV utilities are required to buy back. Some caps were met earlier this year.

This past February, the Selectmen's Climate Action Committee drafted a letter on behalf of the Board of Selectmen formally requesting increased net metering caps. The letter was sent to the Brookline delegation, members of the Conference Committee, and the Massachusetts House and Senate this past February. Other municipalities in Massachusetts followed suit appealing for an increase in net metering caps.

On April 11, 2016, Governor Baker signed Chapter 75 of the Acts of 2016, which raised the caps of the state's solar energy net metering program; however, there is general agreement that these caps will also soon be met, stalling or derailing future solar projects (with the exception of residential participants, for whom there is no cap.)

Utilities continue to push back on higher net metering caps. Their primary concerns are related to both the additional complexity of managing a growing and decentralized power-base compared to their previous, generally centralized base, and their bottom line.

Beyond net metering

Net metering is one practice that has helped Brookline and Massachusetts increase renewable energy use, but it is a first step. There needs to be lengthy discussion at the state level about what constitutes fair value for net metering credits in order to encourage continued solar PV growth that is balanced for all. Per the resolution, next steps should also include informed discussion to identify workable incentives, infrastructure investment, improvements and changes.

DISCUSSION:

There was concern among some Advisory Committee members that under the current net metering program, homeowners, businesses, and municipalities with solar PV that send power and receive credits for unused power they send to the grid may not pay a distribution charge if there is a net surplus of energy; however, those without solar PV pay a distribution charge. In effect that charge includes the cost of the distribution the

solar PV host did not pay, even though the host used the distribution channels to exchange energy.

The petitioners noted that this is indeed an issue, and that with comprehensive solar regulations the state ought to devise a fair rate system taking this current shortcoming into consideration. The resolution calls for such a fair system, although it does not specify exactly what it would be.

There was also the question about why this Article is timely, particularly in light of the legislation the Governor recently signed, and Brookline's many, continuing climate conscious efforts. Members again heard that the new caps the Governor approved are likely insufficient in the long term, and that net metering alone is insufficient and this article is intended to map out a path forward.

Members also noted that the Warrant Article as amended by the petitioner now contains whereas clauses that directly relate to the Town's own Climate Action Plan goals, where initially it did not. It also more clearly addresses the purpose of the majority of the many bulleted points: the need to address important infrastructure and policy issues beyond net metering.

Conclusion

The Town's own Climate Action Plan goal includes a 25% reduction in greenhouse gas emissions from 1990 levels by 2020 and an 80% reduction by 2050 based on the Massachusetts Global Warming Solutions Act of 2008.

Solar power is one means of reducing greenhouse gases as Brookline and Massachusetts slowly move away from dependence on fossil fuels. Working to build a regulatory system and infrastructure that supports a fair and accessible use of solar PV seems like a logical progression forward.

RECOMMENDATION:

By a vote of 13–2–2 the Advisory Committee voted to recommend FAVORABLE ACTION on the following:

VOTED: That the Town adopt the following resolution:

Whereas Brookline's Climate Action Plan goal is a 25% reduction in Green House Gas (GHG) emissions from 1990 levels by 2020 and 80% by 2050;

Whereas Solar photovoltaic (solar PV) is one of the ways the Town of Brookline and Town residents are employing to reduce GHG emissions;

Whereas, the need for solar PV legislation remains urgent because the legislation Governor Baker recently signed falls short of enacting a robust solar PV program;

Whereas a discussion of net metering that merely advocates for extension of existing net metering policy and removal of caps does not address the long term inadequacies of the traditional physical and institutional system of fossil fuel-based centralized electricity production and distribution;

Whereas failure to enact a robust solar PV program risks future projects;

Whereas a robust program of solar PV in Massachusetts requires:

- Net Metering (See Explanation, Item 1);
- Community Shared Solar and Virtual Net Metering (2);
- Elimination of Net Metering Caps (3);
- Fair Value for Solar PV Supplied Power taking into account Utility Avoided Cost, Time of Use, and Daily Load Cycles (4);
- New Solar PV Renewable Energy Credit Program (5);
- Increased access for Municipalities, non-profit institutions, and Low Income individuals to refundable Tax Credits and Financial Incentives (6);
- Local Transmission and Distribution Grid Capacity Investment (7);
- Grid Modernization Technology Enhancements such as Smart Meters, Enhanced Security, and Support for Distributed Generation and Micro-Grids Investment (8);

Now, therefore, be it hereby Resolved:

That Brookline Town Meeting, representing the Town of Brookline, urges the General Court to enact legislation supporting a robust solar PV program in Massachusetts; and

That the Brookline Town Meeting requests that the Brookline Town Clerk send copies of this Resolution with the Explanation of the article to Governor Charles Baker, Attorney General Maura Healey, Massachusetts Senate President Stanley Rosenberg, Speaker of the Massachusetts House Robert DeLeo, Secretary of Energy and Environmental Affairs Matthew Beaton, Commissioners of Public Utilities Angela O'Connor, Jolette Westbrook and Robert Hayden, Secretary of the Department of Public Utilities Mark D. Marini, Energy Facilities Siting Board

Director Andrew Greene, Senator Cynthia Creem, Representatives Edward Copping, Michael Moran, Jeffrey Sanchez and Frank Smizik.

ARTICLE 21

REVISED EXPLANATION PROVIDED BY THE PETITIONER

A robust, sustainable solar electricity (photovoltaics, or PV) legislative and regulatory strategy must include:

1. **Net Metering** to enable a photovoltaic array of rooftop or ground-mounted solar panels connected to the utility grid, using a meter that measures and records the flow of solar PV supplied power into the utility grid as well as utility supplied power flowing from the grid, thus measuring the cumulative net difference of power flowing to and from the utility grid.
2. **Community Shared Solar (CSS)** programs, to enable Massachusetts residents and businesses that cannot install solar on their own properties or live in rented property to invest in solar photovoltaic installations located elsewhere. CSS programs require **Virtual Net Metering**, where the value of electricity produced by a Community Shared Solar generating facility is credited to the accounts of individual Massachusetts residents or businesses situated at other locations. In addition, Community Shared Solar participants must qualify for solar incentives.
3. **Elimination of the Caps** on net metered solar PV, so that development can proceed without arbitrary hindrance.
4. Ascertaining a **Fair Value** for net metering credits that accommodates both small and large projects and takes into account each project's impact on local, site specific utility costs, the time of day of electricity generation and consumption, and daily and seasonal variations in load cycles.
5. A **Solar Production Credit Incentive Policy** that attracts investment to renewable industries such as photovoltaics, to counter the extensive subsidies and tax breaks given to the fossil fuel and nuclear power industries.
6. For reasons of social equity, increasing the access of municipalities, tax-exempt institutions, and **low-income** individuals to state and federal financial incentives, including refundable tax credits.
7. That appropriate investment be made to upgrade local **Distribution** Line Capacity in locations suitable for a high density of photovoltaic arrays. In some instances, this may obviate or reduce the need for long-distance **Transmission** line capacity to import electricity from distant plants.

8. **Grid Modernization** and technology enhancements that leverage technology, in particular the use of **Smart Meters** that enable all customers to take advantage of the significantly reduced rates possible during non-peak hours (irrespective of whether they are generating electricity themselves), and allow customers who generate electricity to receive fair credit for any excess generation.
9. Investment to address **Security Concerns** as the grid evolves from top-down centralized generation of electricity to a system of **Distributed Generation** and **Micro-Grids**, to build resiliency into the grid so local areas can operate independently should service from the long-distance transmission lines be interrupted, whether by accidents, terrorists, hackers, storms, or any other reason.

REQUIREMENTS FOR A STRONG PROGRAM OF SOLAR ELECTRICITY (PHOTOVOLTAICS) IN MASSACHUSETTS

By John Harris and David Lescohier (with special thanks to the ad hoc Net Metering Working Group of the Selectman's Climate Action Committee)

Since its inception late in the 19th century, electrical utilities have been structured as a system of **centralized production**. A small number of large generating plants, powered by coal, oil, natural gas, hydropower, or nuclear power, send enormous amounts of electricity into huge transmission lines and distribution facilities that collectively are known as ‘the grid’. The grid transmits the power to millions of users: households, office buildings, factories, etc., spread out over thousands of square miles.

Photovoltaic (PV) panels, invented in the mid-20th century, directly convert the sun's energy into electricity. They make it possible to generate electricity literally anywhere the sun shines. In the last decade, technological improvements and economies of scale have greatly reduced the cost of manufacturing PV panels.

With a favorable legislative and regulatory structure, we now have the potential to create a truly stable and sustainable system of **Distributed Generation**, where a substantial percentage of our electricity is generated by many widely-dispersed solar PV suppliers, producing small or medium quantities of electricity, close to where it is needed. We are now on the cusp of being able to offer everyone—all individuals, families, businesses and public entities—access to solar electricity, whether they can site solar on their own roof or not.

This is possible due to a system of **Net Metering**. You could connect your PV array to the grid. When you need electricity, the grid provides it. When the sun shines brightly and your PV panels produce more electricity than you need, you feed the surplus to the grid. **Virtual Net Metering** (described below by Werner Lohe) extends the net metering concept because it allows accounts linked to other meters to share a percentage of the net metering credit.

In Massachusetts, the **Green Communities Act of 2008** codified a very strong program of net metering. As a result, PV arrays have been constructed on residential, commercial and municipal property throughout the state. Massachusetts currently has over 900 megawatts of installed solar capacity--well on the way to the proclaimed goal of 1600 megawatts by 2020. Massachusetts solar PV installation companies employ some 12,000-15,000 people, as solar engineers, system installers, etc. Massachusetts has become a leader in solar development, even surpassing states with much more abundant sunshine.

Brookline has made a great deal of progress. The Town has issued permits for more than 600 kilowatts of privately-owned residential solar construction. In May 2015, Brookline Town Meeting voted unanimously to approve a 1.4-megawatt solar plant at the DPW transfer station. A citizen-led Community Shared Solar group [described below] is seeking sites where individuals who own roofs that may not be appropriate for solar can band together to purchase or lease off-site PV panel space. Clearly, the policy framework established by the Green Communities Act in 2008 has been good for Brookline.

However, some proposed changes in the net metering policy could risk future projects. Under utility company pressure, the legislature periodically imposes caps: limits on the amount of solar electricity the utility companies are required to accept from municipal, commercial, and community suppliers (projects on the rooftops of single-family homes remain exempt from the caps). But demand is so high that the caps are reached well before the intended timeline, forcing PV installers (many of whom are small mom-and-pop businesses) to frequently interrupt their very important work to lobby the state legislature for yet another temporary increase.

Photovoltaics, or solar electricity will continue to be financially viable only if future policy and regulations ensure adequate Net Metering revenue and provide sufficient incentives and credits.

A strong program of photovoltaics, or solar electricity is instrumental in allowing Brookline, and Massachusetts as a whole, to meet our ambitious fossil fuel-reduction goals.

John Harris is a Town Meeting Member from Precinct 8, a member of the Board of Climate Action Brookline, and an Event Coordinator for Climate Week 2016.

David Lescohier is a Town Meeting Member from Precinct 11, a member of the Selectmen's Climate Action Committee, and a Member of the Board of Climate Action Brookline

The contribution of Mr. Harris and Mr. Lescohier is adapted from the Brookline PAX 2016 Annual Newsletter.

NET METERING POLICY, FAIR VALUE, AND GRID MODERNIZATION

By David Pantalone

The transition from large scale centralized generation based on fossil fuel to distributed generation based on renewable sources is an important part of the movement to mitigate climate change. This transition requires an evolution in the physical design of the power grid and the business model of utility sector. It also requires that public policy create business incentives for use of renewable energy industries and disincentives for use of fossil fuel.

The policy of Net Metering, that was codified in Massachusetts in the Green Communities Act of 2008, was the first step in fostering the growth of renewable sources such as solar. This policy allows electricity customers to connect PV arrays on a continuous basis to their own electrical circuits on the customer side of the meter that demarks the interface between them and the local electric utility grid. (Connection of a source on this side of the customer meter is referred to as “**behind the meter.**”) Net metering requires that a **bidirectional meter** be installed. This kind of meter allows power to flow and be measured at any one instant in either one of two directions, i.e. from the grid to the customer or from the customer to the grid. Thus, at times when the sun is not shining strongly enough to supply all the energy that the customer is consuming, the grid supplies the needed balance. At other times when the sun is generating more energy than the customer is consuming, the meter allows the excess generation to flow in the opposite direction onto the grid where other customers instantaneously consume it.

The measurement of flow in both directions is accumulated over a billing time period (a month). At the end of the billing period, a single algebraic sum – or the “net” of these energy flows in both directions over time, is recorded and read from the meter. Because of bidirectionality in the meter and the nature of sunshine and energy consumption, the algebraic sum at the end of a billing period may be

positive or negative, and the customer will be either charged or credited for net energy flow. Net metering policy also allows, over the course of a year, energy credits accrued on a given account during given months to be applied against energy debits accrued on the same account during other months. Thus, a customer account receives a net annual gain from the solar generation that has been installed behind the meter.

The net metering policy that currently exists in Massachusetts was deliberately designed with simplicity and compromise in mind so as to stimulate a newborn renewable energy industry to fight climate change. Because net metering projects have the potential for decreasing utility operating revenues, the policy was originally established with caps on the total amount of solar generating capacity that utility companies would be required to accept. While the size of the solar market remained below these caps, it was not expected to significantly impair the traditional business model or operation of the utility grid. Furthermore, it was not expected that these caps would be reached in the near term. Nonetheless, the **rapid growth** in solar penetration has caused the caps to be reached very quickly and the issues that motivated them in the first place are being debated again. These issues involve the sustainability of both the renewable energy and utility industries, and the equity and fairness of rate structures set by regulators and charged to customers.

The dynamic nature of electricity use over time and the fact that different customers at different locations on the grid have different load profiles over time requires that capital expenditures on transmission and distribution facilities be distributed accordingly to accommodate this heterogeneity. Grid capacity then is distributed to match the **peak load** that is served locally, even though that magnitude of load only exists for a few hours over the course of each year. The time of peak load is driven by seasonal weather variations and can occur in different seasons in different parts of the grid.

In determining a fair value for customer energy flow either in or out of the grid, a relevant concept is **whether cost is incurred or avoided**. New solar installations shift the local pattern of flow within the distribution grid. This shift may in some situations require the utility to incur new capital expenditure for network capacity or other operational equipment not previously needed, while in other situations the shift may actually allow the utility to avoid upgrade costs that would have otherwise been needed in the future. Whether costs are incurred or avoided depends on the aggregated effect of multiple solar installations and their aggregate profile over time compared to other electricity consumption.

Simple net metering policy, which merely accumulates over a billing period the net bidirectional flow through a given meter, implicitly credits the amount of energy that a customer feeds at any time into the grid at the same dollar value (rate) as the amount of energy that that customer receives at any time from the grid. This

method of accounting ignores the specific impact of time of use of energy flow (in either direction) relative to the local grid over the course of the billing period. It also shifts the pattern by which the utility receives revenue from customers since the impact of net metering is to lower the net customer payment to the utility.

Ideal resolution of the issue of **fair value** requires the gathering of customer data at a more granulated level over time and determination of the true impact on the delivery network of shifts in delivery patterns. An **interval meter** is a more sophisticated “**smart meter**” that has the ability to measure and store separately in defined intervals (e.g. 15 minutes) the flow of energy in each direction. The data separation and accumulation allowed by interval metering would allow the energy that a customer feeds into the grid to be valued independently of the energy that is taken from the grid. This granulation would facilitate more accurate measuring of value, and consequently would give customers more control over their energy consumption. This would create more opportunity to maximize true value for customers.

The combination of flexibility on the part of the customer together with investment by utilities in other modernization features in the grid itself creates further opportunity for efficiencies, resiliency, and climate mitigation. A **microgrid**, for example, is a small subset of the distribution grid containing its own generation resources and customer loads that is designed to be able to operate either as part of the widespread connected grid or as an independent self-contained subgrid that is disconnected from the rest of the utility grid. The realization of such flexibility culminates the transition from a 20th century centralized energy system to a **21st century distributed energy system**.

Simple net metering policy has been successful in stimulating the solar energy industry. Because a robust and sustainable solar industry is essential to the transition from fossil fuels, it is not advisable to continue to periodically impose caps that jeopardize the continued health of the industry. However, the questions raised by current simplified net metering policy must nonetheless be addressed at the state level as soon as possible by development of new long-term policy. This restructured policy should provide sustainable incentives for all stakeholders – utilities, investors, customers, and renewable energy providers. This warrant article defines the level of scope that the Town of Brookline wishes this restructuring effort to include.

David Pantalone is a newly-elected Town Meeting Member from Precinct 7, Co-Chair of Climate Action Brookline (CAB), Chair of the Climate Week 2016 Planning Committee, and a recently-retired electric utility Senior Transmission and Distribution Planning Engineer.

COMMUNITY SHARED SOLAR: MAKING THE FINANCIAL AND ENVIRONMENTAL BENEFITS OF SOLAR ENERGY AVAILABLE TO EVERYONE

By Werner Lohe

Installing solar panels on the roof of a home or business is an excellent investment—one for which the annual rate of return is usually greater than 10%. And the cost of panels and installation continues to drop. During the Town’s recent Solarize Brookline campaign, over 100 households took advantage of the benefits of converting sunlight into 100% fossil-free electricity. But going solar isn’t always easy in Brookline. Many of us live either in single-family homes surrounded by trees, in apartments, or in condominiums where the board of trustees is resistant to the idea. Recently, however, an approach called “**Community Shared Solar**” (CSS) has made the financial and environmental benefits of solar energy available to anyone who pays an electric bill.

CSS, in its most basic form, enables electric utility customers to purchase subscriptions that entitle them to claim part of the electricity generated from a solar installation in a different location. The electricity generated by that installation is fed into the grid, and subscribers receive credits on their monthly electric bills just as they would if the solar panels were on their own roofs.

CSS is not an entirely new concept; the basic enabling structure was put into place by the **Green Communities Act in 2008**. But only recently has it begun to grow dramatically. Massachusetts is one of the leaders—along with California, Colorado, and Minnesota—among 24 states that have some community shared solar facilities in operation. A recent industry study predicts that in 2015 and 2016, 600% more community shared solar capacity will be installed than was installed from 2011 to 2014.

What makes CSS work is a combination of regulatory policy and government subsidies. Most critical is **Virtual Net Metering**. Massachusetts is one of over 40 states that permit net metering. This permits generators of electricity to feed the power generated by CSS back into the utility grid and receive fair compensation. But more important, Massachusetts allows Virtual Net Metering. That is, credit for the power fed into the grid may be transferred to an account for a meter at a distant location. So, for example, Brookline apartment dwellers or owners of tree- shaded homes who are CSS participants could receive credits on their utility bills for electricity generated on a large commercial roof. Subsidies that help in financing the project include **Solar Renewable Energy Certificates (SREC’s)** issued by the state Department of Energy Resources and a federal tax

credit—recently renewed through 2019 by the Obama administration and Congress—that equals 30% of the costs of building the solar facility.

There are dozens of variations in the mechanisms that can be used to finance a CSS installation and to structure financial participation by individuals in the community. As with all investments, financial benefits are proportional to risk. On one hand, the greatest financial rewards will be available to individual participants if we can locate a site and structure the financing. On the other hand, both risks and benefits will be lower if individuals simply take advantage of retail CSS products already on the market.

Ideally, we in **Brookline** would develop our own CSS project, because in doing so we would maximize the financial benefits and keep them within the community. But finding a site that is suitable and large enough is difficult. A town-owned site could be considered—for example, the new Devotion School’s roof will be capable of accepting solar panels—but it may well be to the Town’s advantage to capture all of the financial advantages for itself, as it is currently doing by installing solar panels at the DPW facility behind Skyline Park. A more likely scenario would be taking advantage of the provision in the state’s virtual net metering rules that permits us to develop a project on a site in any of about three dozen surrounding communities. Alternatively, individual Brookline residents could sign up for any of a number of retail offerings. These would result in smaller cost savings, but if chosen carefully could provide similar or identical environmental benefits.

A year ago, members of the selectmen’s Climate Action Committee and of Climate Action Brookline formed an ad hoc group that has been studying these various options available to Brookline residents. All residents of Brookline are invited to get involved.

It is essential to understand that once the net metering caps have been reached in an area, all pending photovoltaic projects cannot anticipate getting fair credit if they connect to the electric grid. The very existence of Community Shared Solar projects requires a robust program of solar electricity in Massachusetts.

Werner Lohe is a Town Meeting Member from Precinct 13, a co-founder of Climate Action Brookline (CAB), and a member of the Selectmen’s Climate Action Committee.

Mr. Lohe’s contribution is adapted from the Brookline PAX 2016 Annual Newsletter.

ARTICLE 21

SELECTMEN’S CLIMATE ACTION COMMITTEE RECOMMENDATION

Warrant Article 21, a resolution, seeks Brookline Town Meeting affirmation urging the Massachusetts General Court to enact legislation supporting a robust solar energy program in Massachusetts. The resolution enumerates eight items.

Six of the items concern preserving credits and incentives aimed at assuring an adequate return on investment for solar photovoltaic (PV) investors and owners, including municipalities, homeowners, non-profit organizations, persons with low income, and others. The objective is that future policy should provide smart, appropriate incentives such as long term contracts, fair, appropriate rates, production credits, and the like.

Two of the items address the need for utilities to make smart investments in the electrical grid infrastructure. Utilities must incorporate twenty-first century technology into the electrical distribution system to assure that in the future the grid will become increasingly more compatible for renewable energy suppliers.

The Selectmen’s Climate Action Committee (SCAC) supports this warrant article because it is consistent with the Town’s Climate Action Plan goal of a 25% reduction in GHG emissions from 1990 levels by 2020; 80% reduction by 2050 based on the Massachusetts Global Warming Solutions Act of 2008.

RECOMMENDATION

The SCAC, after holding a public hearing and subsequent vote of 10-0 on April 4, 2016, recommends FAVORABLE ACTION on Warrant Article 21.

BACKGROUND

Members of the Brookline Community Shared Solar Working group recommended that this topic be put on the agenda of the December 2015 SCAC. The SCAC felt it was important to act expediently while the Conference Committee was still deliberating. Subsequently, Selectman Nancy Heller appointed a subcommittee to draft a letter on behalf of the Brookline Board of Selectmen, which formally submitted their recommendation to increase net metering caps to the Brookline delegation, members of the Conference Committee, and the House and Senate leadership on February 16, 2016.

The Massachusetts Climate Action Network circulated the Selectmen’s February 16, 2016 letter, as a template, throughout its statewide advocacy network, recommending that other municipalities follow Brookline’s lead. The City of Newton followed suit, and Mayor Setti Warren urged other municipalities to appeal to the state.

At least 32 cities and an unknown number of towns responded and acted. As a result of this advocacy, Governor Charles Baker recently signed a compromise bill that accomplished many important objectives.

Although there is currently a state law that will allow solar PV growth to continue, like the prior legislation this law will also sunset. Because the law also leaves some concerning gaps, continued advocacy is crucial. To further this campaign, the petitioner offered to submit a warrant article for the 2016 Annual Town Meeting. Because the Massachusetts General Court is currently considering the Omnibus Energy Bill, which affects the state's energy future, Warrant Article 21 is both timely and relevant.

ARTICLE 22

MOTION TO BE OFFERED BY THE PETITIONER

VOTED: That the Town adopt the following resolution:

Resolution Urging Rejection of Free Trade Deals Containing ISDS

WHEREAS U.S. trade deals over the past 25 years have been corporate-driven, incorporating rules that skew the benefits of their results to **corporations and** individuals with great wealth and influence while requiring working families **and society at large** to bear the brunt of their costs, **such as job loss and spiraling income and wealth disparities;**

~~WHEREAS the North American Free Trade Agreement (NAFTA) has displaced approximately 680,000 U.S. jobs, the Chinese Trade Agreement 2.7 million jobs, and the U.S.-Korea Free Trade Agreement 75,000 jobs, devastating communities across the nation and depriving municipalities and states of sorely needed tax revenues;~~

~~WHEREAS the Trans-Pacific Partnership (TPP) would be the largest trade deal in history, including countries representing 792 million people and accounting for 40% of the world's economy, yet it was devised in a process involving lobbyists from the world's largest corporations and Wall Street's biggest banks, but not Congress or the American public;~~

WHEREAS the North American Free Trade Agreement (NAFTA) and all but two of the U.S. trade deals that followed it provide special legal rights to foreign investors, known as the “investor-to-state dispute settlement” (ISDS) system, which allows foreign firms to challenge our state and federal laws and regulations in international tribunals, completely bypassing state and federal courts;

WHEREAS an April 2015 letter signed by leading legal experts, including eminent Harvard constitutional law professor Laurence Tribe, strongly criticizes the proposed **inclusion of ISDS in the Trans-Pacific Partnership (TPP)**, warning: “ISDS weakens the rule of law by removing the procedural protections of the legal system and using a system of adjudication with limited accountability and review. It is antithetical to the fair, public, and effective legal system that all Americans expect and deserve.”

WHEREAS recent ISDS cases include Eli Lilly’s attack on Canada’s cost-saving medicine patent system, Lone Pine’s attack on a fracking moratorium in Canada, Chevron’s attack on an Ecuadorian court ruling ordering payment for mass toxic contamination in the Amazon, and Vattenfall’s attack on Germany’s phase-out of nuclear power;

WHEREAS the TPP would nevertheless not only continue to contain the current ISDS system, but further expand it, giving multinational corporations extraordinary new powers that would expose U.S. taxpayers to billions of dollars in new liability by empowering thousands of foreign firms operating in the United States to seek cash compensation from taxpayers by challenging U.S. government actions, laws and court rulings before foreign tribunals whose rulings cannot be appealed on the merits;

WHEREAS, although just 50 known ISDS cases were launched worldwide in the system's first three decades, from 2011 through 2013 foreign investors launched at least 50 claims *each year*;

WHEREAS under ISDS provisions of the TPP, foreign corporations could demand compensation for capital controls and other prudent financial regulations that promote financial stability, thus restricting the government's ability to make use of capitol controls or financial transaction taxes to ward off financial crises, and they could likewise initiate cases to undermine government policies to fight environmental degradation and climate change;

WHEREAS, although the Obama administration says the TPP would boost U.S. exports, it would also make it easier for American corporations to outsource still more jobs to low-wage countries abroad; and

WHEREAS, as a result of Congress's enactment of fast-track trade negotiating authority in 2015, states, municipalities and their citizens will have no opportunity to correct shortcomings in the TPP since its text was not made public until it was final and amendments will no longer be permitted; now, therefore, be it

RESOLVED: that the Town Meeting of Brookline, Massachusetts, calls upon our elected officials in the U.S. Senate and House of Representatives to oppose the Trans-Pacific Partnership and any similar trade deals that incorporate ISDS; and be it further

RESOLVED: Town Meeting requests that the Town Clerk forward copies of this resolution to the President of the United States; the Massachusetts delegation to the U.S. Senate and House of Representatives; and the Brookline delegation to the Massachusetts Legislature on behalf of the entire Town Meeting.

DIFFERENCES FROM THE ADVISORY COMMITTEE MOTION (*shown as if petitioners' position were an amendment of AC motion*)

Resolution Urging Rejection of Free Trade Deals Containing ISDS

[AC deletes entire 1st Whereas; petitioners, instead, add some wording]

WHEREAS U.S. trade deals over the past 25 years have been corporate-driven, incorporating rules that skew the benefits of their results to corporations and individuals with great wealth and influence while requiring working families and society at large to bear the brunt of their costs, such as job loss and spiraling income and wealth disparities;

~~WHEREAS the North American Free Trade Agreement (NAFTA) has displaced approximately 680,000 U.S. jobs, the Chinese Trade Agreement 2.7 million jobs, and the U.S. Korea Free Trade Agreement 75,000 jobs, devastating communities across the nation and depriving municipalities and states of sorely needed tax revenues;~~

~~WHEREAS the Trans Pacific Partnership (TPP) would be the largest trade deal in history, including countries representing 792 million people and accounting for 40% of the world's economy, yet it was devised in a process involving lobbyists from the world's largest corporations and Wall Street's biggest banks, but not Congress or the American public;~~

WHEREAS the North American Free Trade Act (NAFTA) and all but two of the U.S. trade deals that followed it provide special legal rights to foreign investors, known as the “investor-to-state dispute settlement” (ISDS) system, which allows foreign firms to challenge our state and federal laws and regulations in international tribunals, completely bypassing state and federal courts;

[the rest is the same]

ARTICLE 22

BOARD OF SELECTMEN’S SUPPLEMENTAL RECOMMENDATION

Article 22 is a resolution concerning the Trans-Pacific Partnership (TPP) trade agreement. It would put the Town Meeting on record as being opposed to the trade agreement, and would call on the Town’s elected officials in the U.S. Senate and House of Representatives to oppose the TPP.

The Board of Selectmen discussed the differing viewpoints on the topic. The major negative impact of the TPP would be the “investor-to-state dispute settlement” (ISDS) system, which is covered in the language of the warrant article. The shift from state and federal laws to a system that would utilize international tribunals would be dramatic, and it would not offer the same legal parameters. There is also the mindset that it would lack fairness and procedural protections. However, that system has been in place dating back to the North American Free Trade Agreement (NAFTA), and it has not always had a negative outcome for the United States. In addition, the TPP covers significantly more than the ISDS system; such as: intellectual property, worker protections, and human rights. The Board also noted that it would be difficult to define the local impacts of the TPP.

By a vote of 3-1-1, the Board of Selectmen recommends FAVORABLE ACTION on the following motion offered by the petitioner.

VOTED: That the Town adopt the following resolution:

Resolution Urging Rejection of Free Trade Deals Containing ISDS

WHEREAS U.S. trade deals over the past 25 years have been corporate-driven, incorporating rules that skew the benefits of their results to **corporations and** individuals with great wealth and influence while requiring working families **and society at large** to bear the brunt of their costs, **such as job loss and spiraling income and wealth disparities;**

~~WHEREAS the North American Free Trade Agreement (NAFTA) has displaced approximately 680,000 U.S. jobs, the Chinese Trade Agreement 2.7 million jobs, and the U.S. Korea Free Trade Agreement 75,000 jobs, devastating communities across the nation and depriving municipalities and states of sorely needed tax revenues;~~

~~WHEREAS the Trans-Pacific Partnership (TPP) would be the largest trade deal in history, including countries representing 792 million people and accounting for 40% of the world’s economy, yet it was devised in a process involving lobbyists from the world’s largest corporations and Wall Street’s biggest banks, but not Congress or the American public;~~

WHEREAS the North American Free Trade Act (NAFTA) and all but two of the U.S. trade deals that followed it provide special legal rights to foreign investors, known as the “investor-to-state dispute settlement” (ISDS) system, which allows foreign firms to challenge our state and federal laws and regulations in international tribunals, completely bypassing state and federal courts;

WHEREAS an April 2015 letter signed by leading legal experts, including eminent Harvard constitutional law professor Laurence Tribe, strongly criticizes the proposed **inclusion of ISDS in the Trans-Pacific Partnership (TPP)**, warning: “ISDS weakens the rule of law by removing the procedural protections of the legal system and using a system of adjudication with limited accountability and review. It is antithetical to the fair, public, and effective legal system that all Americans expect and deserve.”

WHEREAS recent ISDS cases include Eli Lilly’s attack on Canada’s cost-saving medicine patent system, Lone Pine’s attack on a fracking moratorium in Canada, Chevron’s attack on an Ecuadorian court ruling ordering payment for mass toxic contamination in the Amazon, and Vattenfall’s attack on Germany’s phase-out of nuclear power;

WHEREAS the TPP would nevertheless not only continue to contain the current ISDS system, but further expand it, giving multinational corporations extraordinary new powers that would expose U.S. taxpayers to billions of dollars in new liability by empowering thousands of foreign firms operating in the United States to seek cash compensation from taxpayers by challenging U.S. government actions, laws and court rulings before foreign tribunals whose rulings cannot be appealed on the merits;

WHEREAS, although just 50 known ISDS cases were launched worldwide in the system’s first three decades, from 2011 through 2013 foreign investors launched at least 50 claims *each year*;

WHEREAS under ISDS provisions of the TPP, foreign corporations could demand compensation for capital controls and other prudent financial regulations that promote financial stability, thus restricting the government’s ability to make use of capital controls or financial transaction taxes to ward off financial crises, and they could likewise initiate cases to undermine government policies to fight environmental degradation and climate change;

WHEREAS, although the Obama administration says the TPP would boost U.S. exports, it would also make it easier for American corporations to outsource still more jobs to low-wage countries abroad; and

WHEREAS, as a result of Congress’s enactment of fast-track trade negotiating authority in 2015, states, municipalities and their citizens will have no opportunity to correct

shortcomings in the TPP since its text was not made public until it was final and amendments will no longer be permitted; now, therefore, be it

RESOLVED: that the Town Meeting of Brookline, Massachusetts, calls upon our elected officials in the U.S. Senate and House of Representatives to oppose the Trans-Pacific Partnership and any similar trade deals that incorporate ISDS; and be it further

RESOLVED: Town Meeting requests that the Town Clerk forward copies of this resolution to the President of the United States; the Massachusetts delegation to the U.S. Senate and House of Representatives; and the Brookline delegation to the Massachusetts Legislature on behalf of the entire Town Meeting.

ROLL CALL VOTE:

Favorable Action

No Action

Abstention

Daly

Greene

Wishinsky

Franco

Heller

Selectman Greene offers the following comments to the vote (3-1-1) on Warrant Article 22 at the May 17 meeting of the Board of Selectmen.

Warrant Article 22 urges Town Meeting to ask elected officials to oppose the recently negotiated Trans Pacific Partnership (“TPP”) trade agreement. The proponents of the warrant article assert that trade agreements, in general, burden working families and society at large with job losses and income and wealth disparities. They focus on Investor State Dispute Settlement (“ISDS”) provisions in the TPP and other trade agreements. And to persuade Town Meeting to agree with their arguments, they cite the opposition to ISDS of progressive authorities, such as Law Professor Lawrence Tribe, who criticized ISDS in an April 2015 letter signed by Tribe and four other legal scholars. ISDS and trade agreements generally present very complex issues. Few people have a clue as to what is involved or even what the terminology used means. Therefore, people bringing such issues before Town Meeting have a responsibility to present their case in a clear and forthright manner and with current information. Especially since the final TPP agreement reached in October 2015 is now before Congress with a backdrop of the Presidential election and trade agreement demagoguery from both the right and the left and from both proponents and opponents. If we are going to go on record taking a position on the TPP and its ISDS provisions, we should do so judiciously and after more careful study than is afforded by Town Meeting’s usual schedule.

Warrant Article 22 claims that TPP and its ISDS provisions are tilted in favor of corporations and could result in a host of calamities, including invalidating prudent financial regulation and government policies to fight environmental degradation and climate change. The proponents of the warrant article also cite cases argued under ISDS

provisions that are alleged to undermine government regulation of the environment and health, among other things. Upon closer inspection, the cases are more complex than the “talking points” version suggests and the TPP, as finally negotiated in October 2015, specifically addressed and claimed to protect financial, environmental, and health and safety concerns. Town meeting members interested in how those issues have been addressed can read the agreement at the website of the US Trade Representative (USTR.gov), specifically Chapter 29 (Exceptions) and Annex 1 (Schedule of the United States of non-conforming measures not covered by the agreement) and make their own judgments as to whether they are sufficient. You can also perform an internet search for the cases cited to make your own judgment on them also.

I voted to oppose Warrant Article 22 because I support trade agreements that bring innumerable benefits to American workers (as well as the workers of foreign countries), while acknowledging that future agreements should be greatly improved. And the claims against ISDS and cases under ISDS provisions in many trade agreements do not hold up under closer scrutiny, in my opinion. Using as an analogy, the elimination of coal from our energy mix, such a positive development also includes very negative consequences for coal mine workers. Instead of fighting against trade agreements, or in my analogy, ceasing efforts to eliminate the use of coal in power plants in order to protect coal miners, progressives should spend time and energy fighting for robust government spending for income supports, retraining, relocation assistance, or outright grants to protect family home ownership to mitigate the impact on those workers who are left behind by the expansion of trade opportunities or, in my analogy, by the elimination of coal.

ADVISORY COMMITTEE’S SUPPLEMENTAL RECOMMENDATION

SUMMARY:

By a vote of 10–2–5, the Advisory Committee recommends FAVORABLE ACTION on Article 22 as amended. The key amendments were to remove the first two “Whereas” clauses, which raise issues that go beyond the Trans-Pacific Partnership trade agreement, and the second half of the third “Whereas” clause, which also raised issues that were tangential to the resolution’s main focus on the disadvantages of the investor-to-state-dispute settlement process—a key element of the Trans-Pacific Partnership and a major reason to oppose that agreement.

The Article as originally submitted was first amended by petitioners at the suggestion of the Advisory Committee’s School Subcommittee in order to clarify its intent; subsequently, the Advisory Committee amended it further and adopted the proposed changes, which have been incorporated into the version of Article 22 that is being recommended by the Advisory Committee.

The Advisory Committee's recommended resolution differs from the main motion under Article 22. The Advisory Committee reviewed the motion that will be offered by the petitioners and supported by the Selectmen, but decided not to reconsider its recommendation. No member of the Advisory Committee offered a motion to reconsider. The Advisory Committee felt that the first "Whereas" clause in the petitioners' motion includes too many general criticisms of trade agreements and does not take into account how freer trade can reduce the prices that American consumers pay. That "Whereas" clause detracts from the resolution's focus on the problems associated with investor-to-state-dispute settlement. The Advisory Committee agreed that those problems were serious and that that Brookline should thus oppose the Trans-Pacific Partnership.

BACKGROUND:

Article 22, which was placed on the Warrant by citizen petition, would put Brookline on record as being opposed to favorable Congressional action on the Trans-Pacific Partnership (TPP), a trade agreement between the United States and eleven Pacific Rim countries (but not including the People's Republic of China) that includes an "investor-to-state-dispute settlement" (ISDS) process.

The absence of China is notable. Supporters of the TPP point out that it is as much a diplomatic play as an economic one, signaling that the United States will support its partners in the western Pacific as a counterbalance to Chinese ambitions in the region. But the TPP will create a large free trade zone, and whatever the diplomatic effects, the primary near-term impact on Americans will be economic.

Background on Free Trade

Trade agreements and other free trade policies lower cross-border tariff barriers that tend to protect inefficient producers and raise prices for consumers. The United States itself and the European Union have been prime examples of the advantages of free trade across broad geographic regions. The US has supported free trade since the end of World War II, and free-trade advocates often point to the high tariffs imposed by the Smoot-Hawley Tariff Act of 1930 as being one of the factors that exacerbated the Great Depression.

Led by the presidential campaign, much of the current national political discussion has focused on the impact of trade agreements various presidential candidates try to channel the anger of voters who feel that the economic system is rigged against the middle class. Defenders of free trade say that the loss of manufacturing jobs in the United States has been a worldwide phenomenon that is a result of shifting technology, and that it would have occurred even without free trade deals like the North American Free Trade Agreement (NAFTA).

Background on ISDS

Investor-state dispute settlement (ISDS) is "an instrument of public international law that grants an investor the right to use dispute settlement proceedings against a foreign

government.”¹ On the one hand, ISDS could help U.S. companies in their disputes with foreign governments, but on the other hand it also gives foreign companies a way to challenge U.S. laws and regulatory rulings. The footnoted Wikipedia link also quotes a 2014 article² from the generally pro-business *Economist*:

If you wanted to convince the public that international trade agreements are a way to let multinational companies get rich at the expense of ordinary people, this is what you would do: give foreign firms a special right to apply to a secretive tribunal of highly paid corporate lawyers for compensation whenever a government passes a law to, say, discourage smoking, protect the environment or prevent a nuclear catastrophe. Yet that is precisely what thousands of trade and investment treaties over the past half century have done, through a process known as “investor-state dispute settlement”, or ISDS.

There is a stark contrast between the way that ISDS is portrayed by the petitioners and the position of the Office of the U.S. Trade Representative, which categorically states that no foreign company has ever successfully challenged U.S. laws or regulations under one of the many ISDS agreements to which the United States is a party.³ But the petitioners cite examples of successful arbitration, and warn that U.S. environmental, health and labor laws could similarly be challenged.

DISCUSSION:

There was general agreement that the case that the petitioners made against inclusion of ISDS in the TPP is considerable; there are genuine, significant concerns raised about the potential impact of ISDS tribunals to subvert the law—particularly those laws that maintain the integrity of our environment, our economy, and our health—in favor of corporate profit. Indeed, several governments, including Australia and South Africa, have backed away from the use of ISDS in free-trade agreements. Alternative mechanisms to ISDS are being pursued that, among other solutions, would require local legal actions before advancing to ISDS tribunals.

Discussion also focused on the scope and overall tone of the resolution. The initial resolution was written in a way that some Advisory Committee members felt was very opinionated and inflammatory, as well as being very broad. Free trade is not always bad for the United States. It may, for example, reduce the prices American consumers pay. The resolution need not cast aspersions on free trade in general in order to make its key argument that using ISDS is a bad idea and that the United States therefore should reject the TPP. In response to subcommittee points, the petitioner made some revisions, and the resolution was further amended in full Advisory Committee. With the full Committee’s

¹ Definition from Wikipedia article en.m.wikipedia.org/wiki/Investor-state_dispute_settlement which also includes a useful overview of ISDS.

² www.economist.com/news/finance-and-economics/21623756-governments-are-souring-treaties-protect-foreign-investors-arbitration

³ ustr.gov/about-us/policy-offices/press-office/fact-sheets/2015/march/investor-state-dispute-settlement-isds.

amendments, the resolution is still expressing a strong opinion, but the revisions shift the resolution toward a more concise focus on the unacceptability of the inclusion of ISDS in the TPP.

Last, the Advisory Committee discussed the appropriateness and relevance of this resolution for considerations at Brookline Town Meeting. Some Committee members agreed with the sentiment of the resolution but objected as a matter of principle to taking time in Town Meeting to debate matters of national or international interest rather than focusing on issues that come under the jurisdiction of local government. However, there is a long tradition of using Town Meeting resolutions to express local sentiment to our Congressional representatives and beyond, and the Article is intended to do just that.

Conclusion

Committee members approached the issue of free trade with very different experiences with, and opinions on, the merits of free-trade agreements; those differences were not reconciled during the discussion. However, given the common concern about the risks inherent in giving foreign corporations an opportunity to challenge U.S. environmental, health and labor laws using the ISDS procedure, the Advisory Committee voted Favorable Action on a motion that focuses on the problems associated with ISDS and the concomitant need to oppose the TPP.

RECOMMENDATION:

By a vote of 10–2–5 the Advisory Committee recommends FAVORABLE ACTION on the following motion under Article 22 (deletions from the petitioners’ motion are indicated by strikethrough; additions are in bold):

~~WHEREAS U.S. trade deals over the past 25 years have been corporate-driven, incorporating rules that skew the benefits of their results to corporations and individuals with great wealth and influence while requiring working families and society at large to bear the brunt of their costs, such as job loss and spiraling income and wealth disparities;~~

~~WHEREAS the North American Free Trade Agreement (NAFTA) has displaced approximately 680,000 U.S. jobs, the Chinese Trade Agreement 2.7 million jobs, and the U.S. Korea Free Trade Agreement 75,000 jobs, devastating communities across the nation and depriving municipalities and states of sorely needed tax revenues;~~

~~WHEREAS the Trans-Pacific Partnership (TPP) would be the largest trade deal in history, including countries representing 792 million people and accounting for 40% of the world’s economy; yet it was devised in a process involving lobbyists from the world’s largest corporations and Wall Street’s biggest banks, but not Congress or the American public;~~

~~WHEREAS the North American Free Trade Agreement (NAFTA) and all but two of the U.S. trade deals that followed it provide special legal rights to foreign investors, known~~

as the “investor-to-state dispute settlement” (ISDS) system, which allows foreign firms to challenge our state and federal laws and regulations in international tribunals, completely bypassing state and federal courts;

WHEREAS an April 2015 letter signed by leading legal experts, including eminent Harvard constitutional law professor Laurence Tribe, strongly criticizes the **TPP’s proposed inclusion of ISDS** ~~inclusion of ISDS in the Trans-Pacific Partnership (TPP)~~, warning: “ISDS weakens the rule of law by removing the procedural protections of the legal system and using a system of adjudication with limited accountability and review. It is antithetical to the fair, public, and effective legal system that all Americans expect and deserve.”

WHEREAS recent ISDS cases include Eli Lilly’s attack on Canada’s cost-saving medicine patent system, Lone Pine’s attack on a fracking moratorium in Canada, Chevron’s attack on an Ecuadorian court ruling ordering payment for mass toxic contamination in the Amazon, and Vattenfall’s attack on Germany’s phase-out of nuclear power;

WHEREAS the TPP would nevertheless not only continue to contain the current ISDS system, but further expand it, giving multinational corporations extraordinary new powers that would expose U.S. taxpayers to billions of dollars in new liability by empowering thousands of foreign firms operating in the United States to seek cash compensation from taxpayers by challenging U.S. government actions, laws and court rulings before foreign tribunals whose rulings cannot be appealed on the merits;

WHEREAS, although just 50 known ISDS cases were launched worldwide in the system’s first three decades, from 2011 through 2013 foreign investors launched at least 50 claims *each year*;

WHEREAS under ISDS provisions of the TPP, foreign corporations could demand compensation for capital controls and other prudent financial regulations that promote financial stability, thus restricting the government’s ability to make use of capital controls or financial transaction taxes to ward off financial crises, and they could likewise initiate cases to undermine government policies to fight environmental degradation and climate change;

WHEREAS, although the Obama administration says the TPP would boost U.S. exports, it would also make it easier for American corporations to outsource still more jobs to low-wage countries abroad; and

WHEREAS, as a result of Congress’s enactment of fast-track trade negotiating authority in 2015, states, municipalities and their citizens will have no opportunity to correct shortcomings in the TPP since its text was not made public until it was final and amendments will no longer be permitted; now, therefore, be it

RESOLVED: that the Town Meeting of Brookline, Massachusetts, calls upon our elected officials in the U.S. Senate and House of Representatives to oppose the Trans-Pacific Partnership and any similar trade deals that incorporate ISDS; and be it further

RESOLVED: Town Meeting requests that the Town Clerk forward copies of this resolution to the President of the United States; the Massachusetts delegation to the U.S. Senate and House of Representatives; and the Brookline delegation to the Massachusetts Legislature on behalf of the entire Town Meeting.



**SELECTMEN'S COMMITTEE TO STUDY
BOTTLED DRINKING WATER**

TABLE OF CONTENTS

Introduction	3
Preface	5
Review of the Literature and Background Data	6
Environmental	6
Health	7
Brookline Water Supply and Demand Data	15
Experiences of Other Governmental and Private Entities	18
Non Plastic Water Bottle Options	21
Community and Business Views	22
Action Steps	24

TABLE OF APPENDICES

NOTE – Appendices are not included in this document. Appendices including a Transcript from the Public Hearing on Bottled Drinking Water are available for review at <http://www.brooklinema.gov/1310/Bottled-Water-Study-Committee>.

Charge to the Committee	A
Quality Standards for Bottled Water	B
Sample Water Quality Data	C
Water Fountain Blog Entry	D
Map of Existing Water Fountains in Parks	E
Inventory of Bottle Filling Stations in Town Buildings	F
Photos of Drinking Fountain Replacements and Upgrades	G
Inventory of Bottle Filling Stations in Town Buildings	H
Public Events in Brookline	I
Web-site Survey	J
Business Survey	K
Food Service Permit Holders	L
IBWA Letter to Town Meeting	M
Transcript of Public Hearing on Bottled Drinking Water	N

I. INTRODUCTION

Warrant Article 14 of the May, 2015 Annual Town meeting (“WA14”) proposed adding a new Town bylaw, Article 8.35. This Article would impose a ban on the sale or distribution of bottled drinking water, as defined in the Warrant Article, at events of more than 100 people in Brookline (§8.35.2) or on any property receiving a lease or other license to operate on Town property (§8.35.3) and prohibit the use of Town funds to purchase bottled water for use in Town buildings (§8.35.4). Only proposed bylaw §8.35.4 was approved by Town Meeting. The remainder of WA14 was referred to a committee of the Board of Selectmen for study and to report back to Town Meeting in May, 2016.

To carry out the wishes of Town Meeting, the Board of Selectmen established the Selectmen’s Bottled Water Committee (the “Committee”) to study bottled drinking water, as defined in WA14 and to prepare this report (this “Report”) to the May Town Meeting. This report is organized to provide background data and information relative to Bottled Water, including (1) environmental concerns, (2) health related issues, (3) the experiences and views of other governmental and private bodies that have addressed bottled water, and (4) surveys of the views of the Brookline community, and (5) action steps that are ideas, recommendations, and suggestions of the Committee. The action steps are divided into (a) steps that can be implemented relatively easily, with minimal required approvals and at low or no cost, (b) steps that will require approval by the Selectmen or Town departments, but without Town Meeting legislation, and (c) those that will require action by Town Meeting. They are designed to provide ideas for reducing the use of Bottled Water by means of educational initiatives and steps that could make the use of alternatives to bottled water reasonable and practical for Town residents and visitors. At its first meeting on March 11, 2016, the Committee agreed to expand the scope of its work to include other plastic beverage containers in addition to bottled water.

For the complete Charge to the Committee of the Board of Selectmen, see Appendix A.

NOTE – Appendices are not included in this document. Appendices including a Transcript from the Public Hearing on Bottled Drinking Water are available for review at <http://www.brooklinema.gov/1310/Bottled-Water-Study-Committee>.

Members of the Committee

The Committee was comprised of Selectman Bernard Greene, who chaired the Committee and Dr. Alan Balsam, Director of Public Health and Human Services, who co-chaired the Committee.

The Board of Selectmen appointed seven public members to the Committee:

- 1) Lea Cohen, Advisory Committee member
- 2) Andrew Fischer, Town Meeting Member 13
- 3) Jane Gilman, Town Meeting Member 3
- 4) John Harris, Town Meeting Member 8
- 5) Crystal Johnson
- 6) Patrick Kessock
- 7) Nate Tucker

Town Commissions designated two members:

- 1) Dan Lyons, Parks and Recreation Commission
- 2) Clint Richmond, Solid Waste Advisory Commission; Town Meeting Member 6

The School Committee designated:

Ben Chang

The department/division directors who assisted the Committee, in addition to Dr. Balsam, included:

- 1) Robert Auffrey, Public Health Specialist
- 2) Michael Bartlett, Operations Manager - Parks & Open Space
- 3) Austin Faison, Assistant Town Administrator
- 4) Erin Gallentine, Director of Parks and Open Space
- 5) David Geanakakis, Chief Procurement Officer - Purchasing
- 6) Edward Gilbert, Environmental Health Supervisor - DPW
- 7) Wendy Machmuller, Special Projects Coordinator
- 8) Andy Martineau, Economic Development Planner
- 9) Frederick Russell, Director of Water & Sewers
- 10) Charlie Simmons, Director of Public Buildings

II. PREFACE

The process of Town Meeting decision-making is often as important as the decisions themselves. For a decision to adopt a Warrant Article to be defensible it must be based on good information. This Committee was charged by the Board of Selectmen, based on the vote of the May 2015 Town Meeting on WA14, to study the issues raised by WA14 and present to the spring 2016 Town Meeting good information for future decisions on bottled water in Brookline.

In response to Town Meeting discussion, this Committee set as its goals, to reduce the need for water packaged in single-use plastic bottles, to increase the availability of good drinkable public water, to reduce the use of plastic beverage containers generally, and to avoid the unintended consequence of people shifting their drinking habits from bottled water to sugary drinks in plastic bottles or other containers.

In preparing the data in Part III of this report, the Committee sought to gather and present information that was balanced, complete, and took into account the views and interests of all stake-holders. This allowed the Committee to identify potential unintended consequences of any decision. It also allowed the Committee to identify alternative actions to a ban on bottled water that would achieve the goals of Town Meeting in ways that were sustainable and defensible. A non-exclusive list of such alternatives is included in Part IV (Action Steps).

III. REVIEW OF THE LITERATURE AND BACKGROUND DATA

1. ENVIRONMENTAL

a. Solid Waste

In 2013, Americans produced about 254 million tons of trash. Of that, over 34 percent was recycled or composted equaling 87 million tons. That number breaks down to about 1.5 pounds per person per day. Approximately 13 percent of that is plastics (EPA, 2016). Recycling of present-day synthetic plastics is challenging, but not impossible as illustrated by the fact that many municipalities in the U.S. accept only plastics from the Society of the Plastics Industry (SPI) #1 and #2 categories. To address this problem, some commentators have suggested that the widely accepted concept of the 3 Rs – reduce, reuse, recycle (Bell, 1970) – will not suffice. Rather, building on previously proposed efforts, they propose a fourth R, to *rethink* at the systems level, and a fifth R, to *restrain*, with measures at the policy and governance level.

The enormous number of single use plastic water bottles creates other problems. Estimates range from 30 to 50 billion per year in the US, and that number is rising, as evidenced by a nearly 8% increase in bottled water sales in 2015 (Beverage marketing Corporation, 2016). Nearly all of these bottles are single-use containers of 1 liter or less. Brookline's share of this volume is on the order of 500 thousand per month.

Even if only a small percentage of the volume becomes litter, this causes a large amount of visual blight and animal harm (Derraik, 2002).

Plastic bottles are light, but compared to some other typical household solid waste occupy disproportionate space in recycling trucks and landfills.

These problems are compounded since plastic bottles do not biodegrade. Such plastics can persist for thousands of years. However, they are subject to fragmentation, and have entered our human food chain (Seltenrich, 2015, Wright, Thompson, & Galloway, 2013).

Plastic bottles suffer from low recycling rates compared to valuable natural materials like paper or aluminum. Plastic bottles are hard to process, which contributes to their low value. Plastic bottles are composed of three different materials bound together:

- PETE (polyester) bottle
- Polypropylene (or polyethylene) cap and ring
- Polyethylene film label

The Town actually loses money on plastic bottles. Contamination makes them unsuitable for food or medical applications. Contaminants include the synthetic non-degradable adhesive (also made from petrochemicals) used to attach the label; and additives and dyes. The polyester is down-cycled into non-recyclable products such as fleece. The other rigid plastics from the bottle have even lower value. The label is printed extensively with ink, reducing its already extremely low value.

Data for plastic bottles purchased Town-wide is not available, nor is the amount of plastic bottles in the garbage stream or otherwise discarded, calculable. Primary research on recycling of plastic bottles can be done via observation however, and statistics on recycling tonnage are available via

Casella, Brookline's contracted hauler. Thus plastic bottle recycling data is used here as a proxy for all plastic bottle consumption, in addition to its original intent; that of indicating what savings the Town may incur as a result of banning bottled water. It is important to note that these data represent only the percentage of plastic bottles that make their way into the recycling stream. The Container Recycling Institute (2013) estimates that 29% of PET plastic bottles are recycled, a rate that is lower than that for other materials such as aluminum and paper.

Casella, was able to provide data on plastic bottles only at the level of their Charlestown facility, which serves the entire Greater Boston area: Plastic bottles amount to 2.5% of the total recycling stream. This accounts for residential, municipal, and commercial recycling. It is based primarily on weight, as plastic bottles are light.

- Based on Casella's figures and the current cost of recycling, banning all types of plastic bottles would have an impact on savings:
 - 2.5% of 5,271 (FY 2015 recycling tonnage in Brookline) = 131.76
 - Recycling processing fee for 1 ton = \$230 (cost for Brookline)
 - $131.76 \times \$230 = \$30,305$
 - \$30,305 annual estimated savings if we completely eliminate the 2.5% from the recycling stream (this includes residential, commercial, and municipal)
- However, this number does not reflect what Brookline would actually save because it is based on the entire facility's tonnages.
 - Visual observations aboard Casella recycling trucks on Brookline's recycling routes found that the amount of plastic bottles in the Town's recycling stream is minimal (less than 1%). The majority of the recycling is either cardboard or paper.
 - "Door to door" inspection of multiple household recycling carts, on various routes within Brookline, certifies these findings. Many carts did not have plastic bottles and if they did, the amount was very low.
 - Based on the small amount of plastic water bottles in Brookline's recycling stream, the cost savings would be minimal, if any.

b. Sustainability

Single-use packaging is generally less sustainable than reusable containers. Sustainable materials are natural and rapidly renewable or recycled content. In particular, plastics such as PETE, polyethylene and polycarbonate are made from oil and natural gas. Fossil fuels need millions of years to create, so turning them into single-use packaging is not sustainable. The amount of fossil fuels is limited. The amount of easily available fossil fuels is even more limited. Today, we rely on hydro-fracked natural gas and oil, and oil from undersea sources, which are more damaging and riskier in terms of accidents and spills. All petrochemicals require pipelines, which add to the fire and spill risk of this class of materials (Hopewell, Dvorak & Kosior, 2009).

2. HEALTH

a. Health Risks of Plastic Bottles

Over 300 million tons of plastic are produced globally, on an annual basis; this includes millions of tons of plastic bottles (Halden, 2010) While some plastic products are a boon to public health (e.g. disposable syringes, intravenous bags), plastics also pose risks to human health (Rustagi, Pradhan, & Singh, 2011)

These threats vary based on the manufacturing methods and the constituents of various plastic products. In the following, we focus on the specific risks posed by plastic bottles.

(i) Bisphenyl (BPA). Bisphenyl (BPA) is a chemical widely used in the production of polycarbonate plastics, including plastic bottles (especially hard bottles). BPA can leach into food/beverages from plastic bottles, and this leaching is accelerated at higher temperatures (Thayer, Heindel, Bucher, & Gallo, 2012), such as when food is heated in a plastic container or when water bottles are left in an automobile.

BPA exhibits hormone-like properties. While the Food and Drug Administration (FDA) has stated that BPA is safe at current levels in foods, both the European Union and Canada have banned BPA use in baby bottles (Edge & Eyles, 2013). A Harvard School of Public Health study (Carwile et al. 2009) found that participants who drank for a week from hard plastic bottles (polycarbonate) showed a two-thirds increase of BPA in their urine. Human exposure to BPA and other endocrine disruptors may result in lowered fertility and increased incidence of endometriosis and some cancers, and may pose the greatest risk during pre-natal and early post-natal development when organ and neural systems are forming (NIEHS, 2016). Some manufacturers are replacing BPA in plastic products with an epoxy containing bisphenyl S (BPS) or other compounds. The risk of these alternatives is currently under review.

(ii) Phthalates. Phthalates are chemicals used in many plastic products, including bottles, to make them soft and flexible. A number of studies have shown that phthalates are hormone disruptors with estrogenic and/or anti-androgenic actions (Hauser & Calafat, 2005). Evidence linking obesity to plastics derived endocrine disruptors such as diethylhexyl phthalate (DEHP) and di-n-butyl phthalate (DBP) (Gray, et al., 2000) has also been found (Manikkam, Tracey, Guerrero-Bosagna, & Skinner, 2013, Heindel, Newbold, & Schug, 2015).

It should be noted that there are numerous other sources of these problematic chemicals in our foods and beverages, cosmetics, and a host of other consumer products. Conversely, although not produced in the US since 1976 – but possibly used in plastic bottles procured from outside the US - flame retardant poly-brominated diphenyl ethers (PBDEs) have been found to leach into liquids from PET plastic bottles at rates that increase over time and with exposure to heat (EPA, 2014). Studies have found that antimony, a regulated heavy metal similar to lead, can leach trace amounts in high heat environments (Fan et al., 2014; Andra, Makris, Shine & Lu, 2012).

(iii) Plastics in the Ocean Food Chain. Another public health concern with the proliferation of plastic, including plastic bottles and plastic bags in the environment, is the potential for broad accumulation up the food chain. Fish and other marine animals can become contaminated by chemicals from plastic, as well as minute plastic particles. Eventually, these contaminants end up in our food supply (Seltenrich, 2015, Andrews, 2015).

(iv) Manufacture of Plastic Bottles. Consumers are exposed to these as trace materials but workers are exposed to a wide range of chemicals at much higher levels (Fong, Lee, Lu, Uang, & Lee, 2014). All manufacturing processes involve exposure to dangerous chemicals and other risks, but focusing on the manufacture of plastic bottles, these risks include chemicals, including additives, solvents, lubricants, precursors (such as benzene),

and catalysts (such as antimony). Many of these are found in liquid or gaseous form, which increase exposure risk. Also, accidental releases of these chemicals can occur at fatal levels and petrochemical facilities are subject to higher fire and explosion risk than many other manufacturing processes. Finally, the range of chemicals from petrochemical packaging is much broader than for other forms of beverage containers such as glass or aluminum (ElMasry, Salem, El-Dermadash & Hassan, 2013).

b. Bottled Water Contamination

(i) Commercial Recalls. From 1990 to 2006 there were over 100 contamination recalls and “field corrections” (Gleik, 2010) of bottled water products. Bottled water bottlers who recalled product were located across the US; from California to Maine and from Washington to Florida. Bottlers from Canada, Puerto Rico, the Virgin Islands, Armenia, and Germany were included as well. Reasons for recall were high levels of arsenic, bromate, mold, undefined particulate matter, chlorine, fecal coliform bacteria, and other contaminants, as well as bad odors and tastes and for such mislabeling violations as municipal water being marketed as spring water (Pacific Institute, 2010).

c. Regulation of Bottled Water

(i) FDA Regulation. Bottled water sold in interstate commerce is regulated by the Food and Drug Administration under the Federal Food, Drug, and Cosmetic Act. FDA has established specific regulations for bottled water in Title 21 of the Code of Federal Regulations, including standards of quality regulations (21 CFR §165.110[b]) that establish allowable levels for contaminants (chemical, physical, microbial and radiological) in bottled water and safety regulations that require that bottled water be processed, bottled, held, and transported under sanitary conditions (21 CFR §129). Processing practices addressed in the regulations include protection of the water source from contamination, sanitation at the bottling facility, quality control to assure the bacteriological and chemical safety of the water, and sampling and testing of source water and the final product for microbiological, chemical, and radiological contaminants. Bottlers are required to maintain source approval and testing records to show to government inspectors.

(ii) Massachusetts Regulation. In addition, Massachusetts is one of many states that have developed regulations for bottled water manufactured within the state and bottled water imported from outside the state (105 CMR 570). Bottled water suppliers must apply for a permit to manufacture bottled water (G.L., Ch. 94 §10A) and submit both source water test results and test results from the water as bottled to the Department of Health. Those reports are public records and by statute are available to the public upon request (G.L., Ch. 94, §10D.5) to the Department of Public Health’s Food Protection Program. They are not, however, currently available on the Department’s website due to limited resources and infrequent use of the information when it was posted online. For discussion of the Massachusetts regulation of source water and finished product, see “Quality Standards for Bottled Water” (MA Dept. of Public Health, Food Protection Program) at Appendix B.

d. Health Issues in Public Water Supply Systems

(i) Brookline's Water Supply. Brookline is fortunate to have an outstanding public water supply from the Massachusetts Water Resources Authority (MWRA). The following details Federal and State testing requirements of the Town of Brookline Department of Public Works:

Under the Massachusetts Department of Environmental Protection's Drinking Water Regulations, each municipality must collect total coliform samples¹ at sites that are representative of water throughout the distribution system. The number of samples taken is relative to the municipality's population. In Brookline's case, a minimum of 60 samples per month, or approximately 17 per week, are taken and delivered to MWRA's lab in Chelsea for testing.

Public water is regulated and inspected under EPA guidelines, which also indirectly regulate bottled water through regulation of the source waters from which bottled water is obtained. Each year MWRA and every fully-supplied community must collect and test tap water in a sample of homes that are likely to have high lead levels. These are usually homes with lead service lines or lead solder. EPA requires that nine out of ten of the sampled homes must have lead levels at or below the Action Level of 15 ppb. Brookline has been below the Action level since 2010 in 24 out of 25 sampling rounds. Over the last five years, 90 out of 92 samples have been below Action Level (97.8%).

Finally, public water supply test results are made available. The MWRA sends each community a "WATER QUALITY UPDATE" each month, which provides information on water quality at four locations in the MWRA transmission system. A sample of the data from a Water Quality Update is attached as Appendix C. Previous Water Quality Updates can be viewed using the following link:

<http://www.mwra.com/monthly/wqupdate/qual3wq.htm>

In addition to quality, MWRA water is generally free of unpleasant tastes and odors. In June of 2014 MWRA tap water was awarded the title "Best Water in the Country" by the American Water Works Association (AWWA). At the AWWA's Annual Conference and Exhibition, the Boston Water and Sewer Commission (BWSC) won first place in the tenth annual Best of the Best Tap Water Taste Test. Second place in the competition went to MWRA water, which shares its source and treatment facility with BWSC water. Third place was awarded to the City of Kalama WA tap water. The winners edged out competitors from pristine places as far away as Alaska, Utah, and Puerto Rico (Convery, 2014).

¹ Coliforms are a group of related bacteria that are (with few exceptions) not harmful to humans. A variety of bacteria, parasites, and viruses, known as pathogens, can potentially cause health problems if humans ingest them. EPA considers total coliforms a useful indicator of other pathogens for drinking water. Total coliforms are used to determine the adequacy of water treatment and the integrity of the distribution system. See EPA, Revised Total Coliform Rule.

How water tastes, is largely due to the minerals it contains. MWRA's, and by extension Brookline's, water is soft - having low levels of minerals such as calcium. MWRA's water comes from the Quabbin Reservoir, about 65 miles west of Boston, and the Wachusett Reservoir, about 35 miles west of Boston. The two reservoirs combined supply an average of 200 million gallons per day to consumers. The Quabbin alone can hold a 4-year supply of water.

The reservoirs are filled naturally. Rain and snow fall onto watersheds (protected land around reservoirs) and eventually turn into streams that flow into reservoirs. This water comes into contact with soil, rock, plants and other material as it follows its path. This process helps to clean the water, and it can also dissolve and carry very small amounts of material into the reservoir.

The Quabbin and Wachusett Reservoirs are protected. Over 85% of the watershed lands that surround the reservoirs are covered in forest and wetlands. About 75% of the total watershed land cannot be built on. The natural undeveloped watersheds help to keep MWRA water clean and clear. Also, to ensure safety, the streams and the reservoirs are tested often and patrolled daily by the Massachusetts Department of Conservation and Recreation (DCR). Because they are well-protected, the water in the Quabbin and Wachusett Reservoirs is considered to be of very high quality. MWRA's licensed treatment operators treat drinking water according to strict state and federal regulations.

MWRA's Water Treatment Steps can be viewed at:

<http://www.mwra.state.ma.us/04water/html/watsys.htm>

(ii) Disruption due to facility failures. In 2010, water service to all MWRA customer communities east of Weston was interrupted by a major water break in Weston. Due to this break, a boil water order was issued for drinking water for all MWRA communities east of Weston. MWRA activated its emergency water supplies such as the Sudbury Aqueduct, Chestnut Hill Reservoir, and Spot Pond Reservoir. This water was not suitable for drinking, but could be used for bathing, flushing and fire protection. The leak was located at the site where the Metrowest Water Supply Tunnel meets the City Tunnel on Recreation Road. This 120-inch diameter pipe transports water to communities east of Weston – as far north as Wilmington and south to Stoughton. Water was leaking into the Charles River at rate of over 8 million gallons an hour.

When the MWRA experienced this major breach discussed above, the Town mobilized its Community Emergency Response Team and the Medical Reserve Corps to distribute thousands of bottles of water supplied by the Massachusetts Emergency Management Agency to Brookline residents.

(iii) Lead and Copper. MWRA reservoirs are lead free, but lead can get into tap water from lead pipes in a home. Lead can also enter tap water from lead solder or brass

fixtures in a home. Corrosion or wearing-away of lead-based materials can add lead to tap water, especially if water sits for a long time in the pipes before use. Lead can also leach into tap water if the service line that connects your home to the water mains in the street is made of lead. This is particularly a problem in older homes (usually built before 1940).

When the Town identified elevated lead levels at the Old Lincoln School (Upper Devotion School), all drinking fountains were removed, and bottled water was deployed for drinking and food preparation. This response continues to this day, until funding becomes available in July for a permanent solution.

(iv) Circumstances Requiring Use of Commercially Sourced Water. Commercially sourced water may be necessary under various circumstances. As indicated above, water disruption is an occasional problem due to many causes. There are also occasional non-emergency situations when commercially sourced water may be necessary.

School field trips and outside work by Town employees in the heat use commercially sourced water for convenience and when there are no other practical alternatives.

In some of these cases, there may be other possible options including water packaged in cans and/or cartons or large bulk water containers. Initial research indicates that these other options are typically impractical or more costly. The added cost would have to be factored into future budget estimates for these activities.

Bulk water containers are often made of plastic materials, but plastic that is thick and durable so they are stronger, longer lasting, and available for reuse multiple times. And there are many situations where bulk water is practical and would be the preferred option.

Other than large plastic containers, the most common means of providing bulk water in emergency situations is the use of water trucks. Commercial water trucks have recently been widely used to deliver water to drought afflicted areas of California (Daniels, 2015) (because this water must be taken from somewhere else, there are opportunities in such situations for unscrupulous private water trucks to load up from hydrants in municipalities with ample water and then resell the water after trucking it to drought afflicted areas).

e. Water Filters

(i) Water Filter Types. Water filters vary widely in quality. Most water filters available at discount retail stores, superstores, pharmacies, or grocery stores use lower quality filter technologies, such as carbon blocks and pour through pitchers that cannot remove many contaminants. When looking for filters, certification by NSF International can provide some quality assurance. Among the services of NSF International for water filters is certifying the

ability of water filters to achieve the results advertised.² Searches can be performed by brand or filter type, such as the most commonly used types for residential water filtering:

- Reverse osmosis
- Ceramic filtration
- Carbon filters
- Ultraviolet
- A combination of technologies

The main contaminants that may be found in older buildings in Brookline are lead and copper. Consumers concerned with those contaminants should make sure that their filters in fact filter them out.

(ii) Filter maintenance and concerns. All filters require regular cartridge replacement, cleaning, and/or other maintenance in order to remain effective. Filter contamination is a concern if not maintained properly. In addition, water filters that filter water into holding tanks can develop biofilm³ if the disinfecting agent used in the water supply is filtered out.

f. Sugary Beverages as Alternatives to Water in Plastic Bottles

(i) Unintended Consequences. Unintended consequences of bans on bottled water could include unnecessary increases in consumption of sugar-sweetened soft drinks, sports drinks,⁴ energy drinks and other high calorie beverages. These consequences can occur when consumers are not provided with practical alternatives to the banned bottled water or when such bans or restrictions are not accompanied with useful informational materials or educational programs. The experiences of certain college campuses and national parks are notable examples (Rocheleau, 2012, Berman, & Johnson, 2015, Schatz, 2015).

(ii) Health Impacts of Sugary Drinks. Obesity, adult onset type 2 diabetes, and heart disease have all been linked to high caloric intake (Lavie, McAuley, Church, Milani, & Blair, 2014, Fung et al., 2009; de Koning et al., 2012). In addition, consumption of sugary beverages has been linked to pediatric diabetes (Ludwig, Peterson & Gortmaker, 2001). In fact, people who drink 1-2 servings of soda per day have a 26% higher risk of developing type 2 diabetes than those who rarely consume soda (Malik et al., 2010). According to the National Center for Health Statistics, in 2010 every day at least half the US population consumed at least one sugary drink, 1 in 4 took in 200 calories or more from sugary drinks, and 5% consumed nearly 600 calories per day from soda (Ogden, Kit, Carroll & Park, 2011). This is one fifth to one quarter the USDA recommended daily caloric intake of many adults, and one third to half the calories recommended for children to consume in an entire day (USDA, n.d.). More

² The NSF International website has a page where consumers can list the impurities that they are concerned with in their water and be linked to a listing of NSF International certified products that will remove those impurities: <http://info.nsf.org/Certified/DWTU/>

³ Biofilm is a layer of bacteria and their secretions and waste products that accumulates on any surface that is exposed to water containing the appropriate nutrients to support bacterial life.

⁴ This is not to suggest that there are not situations where certain sports drinks that are inappropriate for casual drinking would have value. Such situations would include long distance running or intense periods of physical activity when one's body loses critical salts and minerals through perspiration.

recent studies have found that while sugar sweetened beverage (SSB) consumption decreased in adolescents significantly and young adults – from 22% to 16% and 29% to 20% respectively, it increased by a small margin of 1% in children aged 2-11. Among Adolescents soda consumption decreased while sports drink consumption tripled. Lower socioeconomic status correlated with higher SSB consumption, as did a lower education level of parents. Overall, prevalence of soda consumption is down, yet beverage companies are successful in replacing soda with nontraditional SSBs, consumption of which is up (Han & Powell, 2013).

Sugar consumption aside, there is also danger of ingesting carcinogens such as dyes (enduropacks, 2016), and benzyne (Ahmad & Bajahlan, 2007). As discussed above, developmental detriments in the form of endocrine disruptors such as BPA (Markey, Rubin, Soto & Sonnenschein, 2002) and phthalates have been found to leach into liquids (Sax, 2010) and have harmful effects on liver and kidneys and been linked to testicular cancer (Astorino, n.d.).

Energy drinks often contain high levels of sugar combined with caffeine and other chemicals (Smith, 2013). Unlike sports drinks these have the effect of dehydrating the user. Heart palpitations, seizures and cardiac arrest have been linked to overdoses of these chemical combinations (Seifert, 2011). Gunja and Brown (2012) found these symptoms in adolescent consumers of energy drinks as well as neurological toxicity, hallucinations, and gastrointestinal upset. The poorly regulated nature of energy drinks and ingredients therein, coupled with their attractiveness to adolescents has led to increased reports of poisoning (Babu, Church & Lewander, 2008).

(iii) Boston Public Schools. Because the consumption of sugary beverages has been strongly linked to obesity and diabetes, the Boston public schools undertook an effort to restrict availability of those products. In 2004 the district enacted a policy banning sugary drinks, which applies not only to school meals programs, but to vending machines, school stores, and a la carte services. The policy restricts beverage sales to only water in elementary schools, but middle and high schoolers have access to 100 percent fruit juice in certain sizes, and milk with fat content and flavoring constraints.

- As a result, only 4% of all Boston students and about 10% of high schoolers have access to sugar sweetened drinks, while nationally, the average is nearly 90%. A national survey in 2013 discovered that, compared to 27% of students nationwide, only 17% of Boston students had one or more servings of sugar sweetened drinks. These results follow a trend that began with the 2004 policy, as a 2006 study found that Boston high school students had reduced sugary beverage consumption, compared to no change nationally.
- To meet the restrictions some schools sell no beverages at all. Compliant schools sell only non-sweetened bottled water, 100% fruit juice and low fat, non-flavored milk. Boston has been able to sustain 90% adherence to the ban through a public health approach. The city provides an educational tool kit with posters and other materials, conducted training events, and mandates refresher training for non-compliant schools (Freyer, 2016).

f. Hydration Options Other than Water.

Good hydration can be obtained from other sources than water or sugary drinks. Fruits and vegetables with high water content can provide hydration on a warm day as well as providing other nutrients and electrolytes that are present in the fruit and get absorbed by the body, thus hydrating and maintaining water balance in cells of the body. Fruits and vegetables that can easily be made available during warm weather events in Town to supplement water for hydration purposes are:

- cucumbers (96% water)
- celery (95% water)
- red tomatoes (94% water)
- watermelon and strawberries (92% water)
- grapefruit (91% water)
- peaches (88% water)
- pineapples and oranges (87% water)
- Plums (85% water)
- pears and apples (84% water) (RRTC, 2011)

3. BROOKLINE WATER SUPPLY AND DEMAND DATA

Water professionals have observed that water fountains in our cities and towns have been disappearing rapidly (Stoner, 2012). Many cities and towns, however, are seeking to reverse that trend, including Brookline. This report is in-part designed to help the Town of Brookline increase the availability of public water, including drinking fountains, for its residents. The following discussion describes where Brookline is in that process and some of what needs to be done to move forward. A copy of the blog entry: *Bring Back the Water Fountain* by Assistant Administrator for the EPA’s Office of Water Nancy Stoner is included in Appendix D.

a. Parks and Open Spaces

(i) Capital Expenditures and Infrastructure. The Department maintains over 117 parks, open spaces, school and town grounds, and small green open spaces. Of those, 50 are multi-use parks, open spaces or schools grounds and only 28 have drinking water fountains available for public use. Five of those 28 locations with standard drinking water fountains will have a water bottle refill station installed in 2016-2017.

Reliable on-site drinking water fountains or hydration stations need to meet ADA requirements. The effort to meet those accommodations will vary from site to site due to terrain, funding, and water source. The cost of a standard accessible drinking water fountain installed under contract is approximately \$4300. The cost of a hydration station with water bottle refill and an accessible water bubbler costs approximately \$3200 for the unit and \$3800 for installation based upon recent contract bid prices for a total of \$7000. The cost for a new water bottle refill station with installation under contract includes the drain line, stone drainage, water line and concrete apron. The Department of Public Works would be able to complete the installation portion of the work at a location with an existing water fountain for approximately \$1200, reducing the overall cost to \$4400.

Replacement- Drinking Water Fountain Installed by Contractor	\$4300
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Replacement Water Bottle Refill Station Installed by Contractor	\$7000
Replacement Water Bottle Refill Station Installed by Town	\$4400
New Water Bottle Refill Station Installed by Town or Contractor	Varies

The cost to install a water bottle refill station as described above in a park with access to a water source within 50 feet completed by in-house staffing would be approximately \$3000 for Town labor and supplies plus the cost of the unit (\$3200) for a total of \$6200. A contractor's price would likely be closer to \$10,000 total. The cost to install the same in an area where there is a greater distance to a water source would vary significantly depending upon the distance, disturbance to public way/park and utility infrastructure needed to provide water service. Replacement of approximately 28 drinking water fountains with water bottle refill stations at an average of \$7000 will cost an estimated \$196,000. The addition of drinking water fountains at new locations would vary greatly depending upon conditions.

Active Recreation Parks and Open Spaces with Drinking Water Fountains

Amory Playground	Driscoll Playground	Reservoir Park
Baker School Grounds	Emerson Garden*	Robinson Playground
Boylston Playground	Fisher Hill Reservoir Park*	Schick Park
Billy Ward Playground	Griggs Park	Soule Recreation Center
Brookline Avenue Playground*	Harry Downes Field	Skyline Park
Clark Playground	Larz Anderson Park	Waldstein Playground
Coolidge Playground	Lawrence Playground	Eliot Playground
Corey Hill Playground*	Lawton Playground	Winthrop Square
Cypress Playground	Murphy Playground	
Devotion School Grounds	Pierce Playground*	

*Parks that will have a water bottle refill station in 2016-2017.

Active Recreation Parks and Open Spaces without Drinking Water Fountain

Olmsted Park	Lincoln School Playground	Monmouth Street Playground
Juniper Street Playground	Runkle School Playground	Riverway Park
Heath School Playground		Baldwin School Grounds

(ii) Impact to User Groups. It should be noted that the location of a drinking water fountain within a park may or may not be located close to where a permitted event is scheduled. Nor do all parks or playgrounds have access to water bottle refill units. The High School, Youth and Adult recreational leagues, school grounds, neighborhood groups, and community programs must be sure that participants and spectators are well-hydrated. Access to a sufficient and convenient water supply is critical. It is also important to note that during late fall and early spring (when athletic teams are using the outdoor facilities) the water supplies are shut off to prevent water breaks due to evening freezing temperatures/fluctuations.

(iii) Damage, Repair and Maintenance. Drinking water fountains are closed for service several times throughout each season due to clogged drains, malfunctioning hardware or tampering. The time required to complete repairs depends upon availability of repair parts and staff scheduling. There must be reasonable expectations that water may not always be available on site.

b. Public Works Employees

Remote Worksites. Employees often refill water bottles in the mornings and at lunch during their regular shift. However, during emergency events there are unusual shifts, extremely long hours, and designated rest or eating times with over a hundred employees trying to recharge at the same time. During these events it is important that we are able to provide water to many people at the facilities at the same time, as water is critical to their well-being. Water is not available off site during all hours of the evening and it is inefficient to expect crews to come across town to refill at odd hours of the evening during, for example, snow emergency events. There are no supplies available in the parks during these times and public buildings are often closed.

A GIS display of drinking water fountain locations at public parks and school grounds in Brookline is included in Appendix E.

c. Public Buildings

Requirements. All public buildings, pursuant to the Massachusetts State Plumbing Code are required to have a water fountain/bubbler for public use. The number of fountains varies on the size of the building's occupant load. As all public buildings in Brookline have water fountains already, there would be no need to add anymore at this time, incurring no costs.

Two years ago, Public Buildings began a pilot study to install water container fillers at each of its buildings that would be part of an existing water fountain installation already in place. A number of pilot modifications were done at selected sights. These automatic bottle fillers were part of a modification kit from the water fountain manufacturer. The cost to install these fillers ranged from \$800 to \$1200 depending on the type of pre-existing water fountain and if the labor was performed by outside contractors or Town staff. These costs were covered either through donations of materials by the Parent Teacher Organization at a few schools or as part of a larger renovation project. Four sites were completed.

Town employees have devised an effective option that would allow simple installation of bottle fillers at water fountain locations (approximately one hour of installation time) at a substantially reduced material costs (\$50-\$150).

The result of these specific pilots led to a program/policy to install container fillers at all public buildings at locations where their use would be warranted – auditoriums, cafeterias, gymnasiums, and in hallways near these locations. If the using agency requested an additional location(s) this was addressed as needed. Approximately 90% of these fillers have been installed to date. The remainder will be installed in the next 2-3 months, depending on existing workloads.

As these simple installations were included as part of the Town plumber’s work orders, costs were relatively low. Future installation cost estimates are not in excess of \$75/fountain, including labor and materials. Maintenance costs are generally low as the fillers require no preventative maintenance. In the event of failure, one would be replaced, not repaired.

A complete inventory of drinking fountains appears in Appendix F. Photos of drinking fountain replacements and upgrades in Brookline Town buildings appear in Appendix G. An inventory of bottle filling stations appears in Appendix H.

d. New Town Regulations for Restaurants

Drinking Water Access. On January 1, 2016 Bylaw Article 8.35, Drinking Water Access, took effect. This bylaw requires Common Victuallers (commonly defined as restaurants with seating) doing business in Brookline to provide access to water from the tap. On July 1, 2016, a Public Health Regulation will expand this requirement to Food Vendors, which are largely take-out providers lacking seating in their establishments. Neither regulation stipulates that purveyors provide cups free of charge, nor does either state what amount may be charged.

e. Public Events

Events Requiring Water Supply and/or Other Forms of Hydration. There are numerous public events on Town property where access to hydration is important. A partial list of these events appears in Appendix I. Any restriction on the availability of bottled water, especially at locations where there are no alternative sources of water, would have to be carefully considered and accompanied by measures that ensure the availability of water for participants.

f. Relative Costs

Bottled Water versus Tap Water. Although public water treatment plants, pipes and reservoir maintenance are not free, the consumer does not pay for the water at the point it is used. Rather, taxes, water and sewer payments, and other state and municipal monies pay for the services and product provided by the MWRA and Brookline’s delivery system. While public water is estimated to cost less than 1 cent per gallon, bottled water can cost many times more (Boesler, nd; Diffen, nd).

4. EXPERIENCES OF OTHER GOVERNMENTAL AND PRIVATE ENTITIES

The Committee researched the approaches that other North American municipalities and private entities have taken concerning the reduction in use of bottled water in plastic bottles. The following are the results of that research.

a. Governmental Bodies and Agencies

(i) Concord, Massachusetts. Concord passed a bylaw on April 25, 2012 concerning the “Sale of Drinking Water in Single-Serve PET Bottles.” This made it “unlawful to sell non-sparkling, unflavored drinking water in single-serving polyethylene terephthalate (PET) bottles of 1 liter (34 ounces) or less in the Town of Concord...” The bylaw was put into effect on January 1, 2013. The bylaw lists exemptions (emergency circumstances) and the enforcement process (Town Manager). The penalties are a warning, a \$25 fine, and a \$50 fine, in the order of offense. Lastly, there is a provision in the bylaw for a suspension of the bylaw if the costs become too high.

A conversation with Susan Rask, Concord’s Public Health Director clarified how the bylaw has affected the Town.

- The bylaw states that no business can sell one liter or smaller bottles of water. Due to this restriction, retailers have started selling 1.5 liter and larger bottles. Ms. Rask explained that when the shelves were emptied of 1 liter and smaller bottles, the retailers found other drinks in those sizes to substitute.
- Enforcement has been consistent and it is now primarily complaint driven. There have not been many issues and businesses know one liter or less goes against the language in the bylaw.
- According to Ms. Rask, one thing that Concord did that has been a success has been providing more hydration stations. However, this has not affected the average consumer and does not affect how local businesses stock their shelves.
- Rod Robison, Concord’s Recycling & Disposal Program Coordinator, reported that DPW did not see a significant change in recycling tonnage and there was no cost saving to the Town.

(ii) San Francisco, California. San Francisco passed an ordinance on March 3, 2014 to amend the City Environment Code to ban “the sale or distribution on City property of drinking water in plastic bottles of 21 ounces or less, set City policy to increase the availability of drinking water in public areas, and bar the use of City funds to purchase bottled water...” This ordinance was put into effect on October 1, 2014. There are multiple exceptions: any City officer, department, or agency having the ability to waive the requirements if the requirement would not be feasible; waiving restrictions when they conflict with a state or federal grant; when water is necessary to protect public health when no reasonable alternative is available. Penalties for violations are \$500, \$750, and \$1,000, in the order of offense. There is also a strong emphasis on increasing the City’s commitment to providing public water (Timm, 2014).

(iii) Montreal, Quebec. The Mayor of Montreal has announced that the City is looking into banning plastic water bottles (after passage of a plastic bag ban that will go into effect in 2018). They are looking at a total prohibition, similar to Concord (Banerjee, 2016).

(iv) Department of the Interior – National Park Service. The National Park Service issued Policy Memorandum 11-03 on December 14, 2011 regarding the reduction of disposable plastic water bottles in parks. This memo gave regional directors the ability to review and approve “a disposable plastic water bottle recycling and reduction policy, with an option to eliminate sales

on a park-by-park basis.” To date, there are at least 18 national parks that have already banned, or plan to ban, the sale of bottled water. Some of the parks that have already banned bottled water sales are Arches, Bryce Canyon, Grand Canyon, Mount Rushmore, and Zion. Soda, sports drinks, and fruit juices are still sold. To augment the lack of bottled water, parks have increased water filling stations (Grand Canyon installed ten for \$289,000 and Zion installed three for \$447,000) (US Department of the Interior, 2011; Schatz, 2015).

(v) Toronto, Ontario. Toronto banned the sale and distribution of bottled water in all Civic Centers, City facilities and parks. The 2008 Parks Waste Audit indicated that recyclables composed approximately 14% of the litter stream, making the disposal of waste difficult and potentially costly. Plastic materials comprised the largest amount of recyclables at roughly 7%. The Audit concluded that reduction of plastic bottles in Toronto’s parks would reduce contamination of the litter stream, and reduce the cost of dealing with contaminated loads that are not accepted at transfer stations (City of Toronto, n.d.).

(vi) University of Vermont. A report in the American Journal of Public Health (Berman & Johnson, 2015) described the effect of banning plastics water bottles at the University of Vermont:

- With shipment data as a proxy, the researchers “estimated bottle beverage consumption over three consecutive semesters: baseline (spring 2012), when a 30% healthy beverage ratio was enacted (fall 2012), and when bottled water was removed (spring 2013) at the University of Vermont. They assessed changes in the number and type of beverages and per capita calories, total sugars, and added sugars shipped” (Berman & Johnson, 2015).
- *The Results*: “Per capita shipments of bottles, calories, sugars, and added sugars increased significantly when bottled water was removed. Shipments of healthy beverages declined significantly, whereas shipments of less healthy beverages increased significantly. As bottled water sales dropped to zero, sales of sugar-free beverages and sugar-sweetened beverages increased” (Berman & Johnson, 2015).
- *Reverse Effect*: “The bottled water ban did not reduce the number of bottles entering the waste stream from the university campus, the ultimate goal of the ban. With the removal of bottled water, consumers increased their consumption of less healthy bottled beverages” (Berman & Johnson, 2015).

b. Private Businesses

(i) Trader Joes and Whole Foods, San Francisco, California. Although the San Francisco ban would not apply to the sale by private businesses, local food stores are adjusting to a civic mood that wants to reduce the use of plastic water bottles. In informal and unscientific surveys of Trader Joes and Whole Foods stores in San Francisco, a member of the Committee called the stores to ask about their experience with the single serving plastic water bottle ban. Store sales would not be impacted until October 2018 when the ban will fully take effect and will affect only bottles under 21 ounces. Trader Joe’s currently carries a 16.9 ounce size which was described as “a very popular item.” A manager at a Trader Joes store opined that even if they “take a hit” and lose sales, he expects they’ll sell the larger size with a net effect of “probably no impact.” A

Whole Foods store manager commented that at this time the store is still exploring the possible impacts of the ban. In the meantime, their vendors have started to use other, “sustainable packaging” in the form of boxes, which he said “are selling well” (J. Gilman, personal communication, April 2016).

5. NON PLASTIC WATER BOTTLE OPTIONS

a. Community Distribution of Reusable Bottles

Increasing the availability of reusable water bottles could decrease the demand for single-use bottled water. People could then bring water when leaving home or fill them at public fountains and water stations. Such bottles would include glass and metal bottles or sustainable non-toxic plastic containers

(i) Bottle Types. Plastic bottles are lightweight and the least expensive option. Glass is an option but can be heavier and can break. Stainless steel should literally last a lifetime, and is recyclable if damaged. These come standard with a polypropylene top, but bamboo is a more sustainable option, although more expensive. Many companies have bulk buying-programs that include a custom logo as part of the price.

(ii) Community Distribution. Reusable bottles are already available in Brookline at places such as Whole Foods (metal and glass) and Stop & Shop (plastic for \$7-9). Concord did not distribute free bottles as part of their ban. They did sell logo bottles at a local store. Originally steel and plastic were offered, now only plastic is.

<http://concordontap.org/take-action/purchase>

Sample retail prices for the plastic bottles were \$15.99 for smaller 0.6 liters and \$16.99 for 0.751 liters.

In addition to making bottles available at retail locations, they could be distributed to low-income populations. This has been done in other communities with reusable bags in the context of bag bans. Newburyport distributed 7 thousand plastic reusable bags that were donated by a retailer that were surplus from a promotion. The City also bought some bags with a logo from a public contest. These were distributed to a dozen sites such as schools, public housing, food pantries and other non-profits. Cambridge is distributing 10 thousand bags in similar fashion. (They are even collecting surplus reusable bags, cleaning them and re-distributing them).

b. Bulk Water and Water Carts

As previously mentioned, bulk water containers are often made of thick and durable plastic so they are strong, long lasting, and reusable. Bulk water may be the best solution for emergency preparedness storage and other situations where portability and volume are of equal importance. Other than large plastic containers, the most common means of providing bulk water in emergency situations is the use of water carts or trucks. Often these trucks are filled from hydrants or other access points to public water.

6. COMMUNITY AND BUSINESS VIEWS

a. Website Survey

The Plastic Bottle Ban in Brookline survey asked respondents nine questions about plastic bottled beverages and tap water. Questions inquired about how many and what type of drinks were consumed, where plastic bottled beverages were purchased and how they were disposed of, if respondents drank or would be willing to drink tap water, and if they would be in favor of a Town-wide ban on plastic bottles. This survey should not be considered scientific or comprehensive, as it represents a convenience sample.

Approximately 550 people responded to the survey. Ninety percent of respondents said that they drink tap water. If there were more filling stations, 52% replied that they would not buy a reusable bottle whereas 48% would. More than half replied “No” that they would not support a ban on plastic bottles in Brookline. Almost 40% would, and the remainder was indifferent.

Approximately 80% replied that they drank beverages out of plastic bottles. As to what type and how many, the largest category chosen was water, followed by juice/sports drinks and soda, both at around half that of water. Dairy products and iced coffee/tea were consumed at around one quarter the rate of bottled water. The “Other (please specify)” option generated 83 comments, many of which mentioned seltzer or sparkling water. Several other comments were to the effect of “none at all”. Most consumed one or zero plastic bottles per day. The majority of respondents who purchase plastic bottled beverages did so from grocery and smaller stores. A small minority (10%) obtained them from their employer, delivered from Poland Springs, or at events and while traveling. Nearly all respondents either recycle or reuse plastic bottles.

The final question solicited comments. A total of 260 were logged. The anecdotal message derived from them is that many Brookline residents support a ban for its public health benefits. More respondents however, feel that such a measure takes “Nanny State” actions too far, and that Brookline has bigger issues to tackle, such as obesity. Some supportive comments spoke to the relative success of the Concord MA ban. Many comments pointed out that there was no option to choose fewer than one plastic bottled beverage consumed per day in question 3 (E. Gilbert, personal communication. April 2016). The complete web-site survey results may be found in Appendix J.

b. Business Survey

Beginning on March 18, an online survey was distributed to non-food establishment businesses. To date, the survey has only yielded 15 responses, not a large enough sample size to support any conclusions that might be drawn from the data. In addition to asking businesses about their willingness to provide free or low cost tap water to customers and to estimate the percentage of customers that request a drink of water, the survey also included a comments section.

A majority of the respondents indicated that they would be willing to offer free or low cost tap water to customers and that less than 25% of customers ask for a drink of water while shopping. In the open comments section of the survey, several respondents suggested that providing access to tap water would be impractical and may present some public health and safety concerns with respect to

how the water would be accessed. For some businesses, customers would only be able to access tap water via the basement employee bathroom.

Related to the access issues mentioned above, Economic Development Staff is expressed their concerns that an effort to mandate offering free or low cost tap water by non-food businesses to customers in a clean and sanitary manner would result in infrastructure requirements and associated costs that would be overly burdensome. Costly new infrastructure would likely displace merchandise to make way for access to a resource that is already abundantly available via the town's 147 restaurants that are required to make tap water available to customers (Bylaw Article 8.35). Thus the Economic Development staff strongly recommended against imposing additional requirements on non-food businesses because of the financial impact on those businesses.

The complete business survey results may be found in Appendix K.

Maps showing food service permit holders by commercial area may be found in Appendix L. (residential food permit holders are not required to make tap water available to their residents).

(c) Bottled Water Industry

On May 24, 2015, the International Bottled Water Association (IBWA), a trade association for the bottled water industry, circulated a letter to Town Meeting in opposition to WA14. The IBWA argued that WA14 was not in the public interest because (1) efforts to restrict access to bottled water hinder individuals searching for a healthier beverage alternative, (2) bottled water has the lowest environmental footprint of any packaged beverage, and (3) bottled water is strictly regulated by the U.S. Food and Drug Administration as a food product, which makes bottled water a safe choice for consumers.

The letter made a number of specific statements that speak to some of the concerns of this Committee. They stated that since 1998, approximately 73% of the growth in bottled water consumption has come from people switching from carbonated soft drinks, juices, and milk to bottled water. They also stated that most of what people drink comes in convenient packaging and that if bottled water wasn't available 52% of people would choose soda or another sugared drink in convenient packaging – not tap water. Of course, the goal of this Committee is to reduce that percentage by providing greater access to public water. The letter also argued that bottled water has the lowest environmental footprint of any packaged drinks, citing a study by the environmental consulting firm Quantis⁵ and that bottled water is regulated strictly by the FDA. The letter is attached to this Report at Appendix M.

⁵ Quantis is an international environmental consulting firm. Their website says that they use a Life Cycle Assessment approach to understanding the environmental impact of their clients' operations, products, services, or technology.

IV. ACTION STEPS

Relatively Easy Steps - Requiring Minimal Approval; Low to No Cost

- 1) Appoint a task force to develop an education campaign to encourage people to decrease use of bottled water and increase use of public water; task force to partner with Department of Public Health, Department of Public Works, Planning and Community Development Department, Brookline Public Schools, and private agencies.
- 2) Design a promotion with Chamber of Commerce for a bottle give-away.
- 3) Communicate (from Dr. Balsam or other Town official) with the MA Department of Public Health on whether it would be feasible for laboratory results of testing of source water and bottled water of private bottlers to be posted on the department's website.
- 4) Organize a task force (possibly composed of high school students concerned with environmental issues) to plan fun promotional events at town events to distribute reusable water bottles partnering with radio stations or other entities.
- 5) Engage elementary, secondary, and college students to devise initiatives to reduce the use of bottled water among their peers and others.
- 6) Develop a "Youth Water Challenge" – in collaboration with schools and PTOs – to educate and engage youth and their parents.
- 7) Register all public drinking water sources on Blue W, a free website platform.
- 8) Develop map of local food establishments with drinking water availability.
- 9) Prohibit plastic bottles in Town beverage machines (cans and cartons are acceptable? AF), food trucks, restaurants or other businesses on Town property.
- 10) Continue with drinking fountain retrofits in all public buildings.
- 11) Borrow water station cart from MWRA for use at town events and consider purchasing a Town water station cart.
- 12) Research and consider endorsing select "bottle bills" currently pending in MA legislation (e.g. H.2875 "An Act to increase recycling in the Commonwealth" and S.1223 "An Act prohibiting the use of bisphenol-A in consumer products," etc.).
- 13) Urge schools and event sponsors to make available high water-content fruits and vegetables and promote their hydration benefits.

- 14) Discuss with food stores the possibility of making water available for people to fill their reusable bottles.
- 15) Discuss with food stores stocking water in cardboard containers and other sustainable materials
*Note: At least one Committee member disagrees with this suggestion.
- 16) Discuss with food stores whether they would be willing to sell reusable water bottles at cost as a civic gesture; figure out how to incentivize such a gesture.
- 17) Sponsor public showings of the movie “Tapped”.
- 18) Submit op-ed to Tab with overview of Report & guidance re: safety of Quabbin water; SSBs; bottled water, hydration stations, etc.
- 19) Reach out to elementary schools’ Green Teams to educate on the importance of avoiding plastic water bottles & to promote water fountain use.

Steps Requiring Approval or Other Action by Town departments

- 1) Impose reasonable restrictions on sale of plastic beverage containers at Town-sponsored events and large events on Town property.
- 2) Deploy public water hydration options at such Town-sponsored events.
- 3) Use CIP funds to purchase water station cart(s) or water truck(s) to have available at town events; allocate money and staff resources to maintain it.
- 4) Use CIP funds to put water fountain in parks where there are nearby water lines; dedicate money to maintain the fountains.
- 5) Use CIP funds or other appropriated money to install service lines from nearby water mains where needed.
- 6) Use CIP funds or other moneys to provide hydration options for Brookline portions of Muddy River paths used by runners and cyclists.
- 7) Use CIP funds to purchase water trucks or bulk water hydration facilities for use by Town workers at job sites where such facilities are practical and convenient.
- 8) Work with School Committee to enact a policy restricting sugary drinks at school meals and vending machines and investigate providing 100 percent fruit juice in certain sizes and healthy milk products. (See Boston Public School policy).

Steps Requiring Action by Town Meeting

- 1) Appropriate money to fund a task force and private consultants to perform detailed study of infrastructure needs and costs of improvements to make public water available widely.
- 2) Appoint a task force to submit warrant article for appropriation of funds to complete the infrastructure improvements.

NOTE – Appendices are not attached to this document. Appendices including a Transcript from the Public Hearing on Bottled Drinking Water are available for review at <http://www.brooklinema.gov/1310/Bottled-Water-Study-Committee>.

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ARTICLE 8

AMENDMENT OFFERED BY THE BOARD OF SELECTMEN

The Board of Selectmen voted on all items in the budget with the exception of item 41, a Special Appropriation for bike access improvements. The Board and Advisory Committee are in agreement on all funding recommendations in Article 8, but the Board has some concerns about the Advisory Committee's recommended language for item 41. While both bodies agree that there should be a trial period of at least six months before the buffered bicycle lane proposed for the westbound travel lane of Beacon Street between Marion Street and Westbourne Terrace can be made permanent, the Board of Selectmen has two specific concerns about the language proposed by the Advisory Committee:

- 1) The Board believes the language adopted by Town Meeting must make clear a trial of less than six months would be appropriate if it is clear after less than six months that the proposed bicycle lane will not work. This is not clear in the language the Advisory Committee recommends.
- 2) The Board believes, as the chief elected and executive officers of the Town, it is the appropriate body to oversee the operational details of street design and construction. The language proposed by the Advisory Committee empowers the Advisory Committee with operational authority and design powers, something beyond the scope of the Committee's responsibilities. The Board of Selectmen, with support from the Transportation Board, is the appropriate body to supervise the expenditure of road design funds; Town Meeting annually entrusts the Board with the duty of overseeing the expenditure of all appropriations passed by Town Meeting, and the Board takes this responsibility very seriously.

The Board appreciates the public interest and debate generated by this appropriation and will be mindful of this when considering the outcome of the trial and the recommendations of the Transportation Board and when conducting the public hearing it commits to in its proposed language.

Therefore a unanimous Board of Selectmen Recommends FAVORABLE ACTION on the motion listed below.

VOTED: Insert in the motion of the Advisory Committee under Article 8, special appropriation item 41 so that the item reads (additions in bold, deletions struck):

- 41.) Raise and appropriate \$36,000, to be expended under the direction of the Commissioner of Public Works, with any necessary contracts to be approved by the Board of Selectmen, for bicycle access improvements **Of the total amount 1) \$3,700 be expended for bicycle racks; 2) \$1,300 be expended for bicycle corral; and (3) \$20,512 be expended to cover the cost of a trial of up to six**

months, approved by the State Department of Transportation, during which one westbound travel lane of Beacon Street between Marion Street and Westbourne Terrace shall be reconfigured into a buffered bicycle lane per plans developed by the Transportation Division of the Department of Public Works, provided that if at any time during such six month trial the Transportation Board determines after a public hearing that the trial should be concluded, such buffered bicycle lane shall be removed, said travel lane shall be restored to its original condition, and any unexpended funds shall be transferred to the General Fund. The remaining \$10,488 shall be encumbered until such time as the Transportation Board has, after the conclusion of a six month trial, using pre-established criteria determined by it, and a public hearing, recommended in a report to the Board of Selectmen that the buffered bicycle lane should be made permanent. Such report must be accepted by the Board of Selectmen prior to the release of the encumbered funds. ~~provided that any expenditure for the reconfiguration of one westbound travel lane of Beacon Street between Marion Street and Westbourne Terrace into a buffered bicycle lane are subject to the conditions specified in the Advisory Committee's recommendation for Item 41 under Article 8 of the 2016 Annual Town Meeting Warrant.~~

ARTICLE 8

ADVISORY COMMITTEE'S SUPPLEMENTAL RECOMMENDATION

The Advisory Committee has voted to amend its motion under Article 8 to include amended conditions regarding special appropriation item 41, Bicycle Access Improvements. That item includes funding for a buffered bicycle lane on Beacon Street. The Advisory Committee had recommended that there be a six-month trial period during which one westbound travel lane of Beacon Street between Marion Street and Westbourne Terrace would be reconfigured into a buffered bicycle lane. The trial period would provide an opportunity for the collection of data on the impact of the bicycle lane. No funds for making the bicycle lane permanent would be released until the Transportation board issued a report on the bicycle lane and that report was accepted by the Board of Selectmen and the Advisory Committee.

The Selectmen have voted a similar set of conditions to item 41. Those conditions include a trial period that could last up to six months but also could be terminated earlier by the Transportation Board. Funds for making the bicycle lane permanent (\$10,488) would be encumbered until after the Transportation Board had reported on the trial period, a public hearing had been held, and the Board of Selectmen had accepted the report of the Transportation Board.

The Advisory Committee welcomes the concurrence of the Selectmen with the proposal for a trial period of up to six months and also endorses the requirement that there be a public hearing after the end of the trial period. Recognizing that the Transportation Board is appointed by and generally reports to the Selectmen, the Advisory Committee supports making release of the funds for a permanent bicycle lane conditional on the Board of Selectmen's acceptance of the report of the Transportation Board.

The Advisory Committee's conditions regarding special appropriation item 41 originally were included in its report on the Capital Improvement Program. The amended item 41 now includes the relevant conditions in the special appropriation itself. In addition to voting to amend item 41, the Advisory Committee therefore has updated its report on item 21. The explanation of the background of this item and the rationale for the Advisory Committee's recommendation have not changed, but the conditions stated in the report have been updated so that they are the same as the conditions stated in the amended item 41.

41. BICYCLE ACCESS IMPROVEMENTS
Recommendation: \$36,000 with conditions stipulated at the end of this description

A total of \$36,000 in FY 2017 CIP funds has been requested for the following

projects:

1. The creation of a protected bicycle lane on the westbound side of Beacon Street from Marion Street to Westbourne Terrace, including pavement markings, signage, and related traffic signal equipment upgrades. (\$30,804)
2. The purchase and installation of a bicycle corral including bicycle rack, delineator posts, and protective curbing to maximize and promote bicycle parking in the commercial district, to be used in non-winter months. (\$1300)
3. The purchase and installation of bicycle racks for commercial areas, parks, and playgrounds. (\$3700)

The buffered bicycle lane was approved by a vote of the Transportation Board on February 4, 2016, after a public hearing on January 7, 2016. Plans call for removing a motor vehicle travel lane starting near Short Street and extending roughly to Westbourne Terrace, and reconfiguring this portion of Beacon Street into a shoulder (one foot), travel lane (11 feet), painted buffer zone (three feet), bicycle lane (five feet), second painted buffer zone (three feet), parking lane (seven feet), tree lawn (five feet), and sidewalk (eight to ten feet). According to the Department of Public Work's report, "This section of Beacon Street is also identified in the Brookline Green Routes Bicycle Network Plan as a particularly dangerous section for cyclists. The steep uphill grade poses particular difficulty for slow moving bicycles to share a lane with cars."

The report's conclusion notes the following in its evaluation of the project:

The most significant impact is at the Beacon Street at Lancaster Terrace intersection, overall intersection level of service in the evening will degrade from an A to a B and vehicle queuing is anticipated to be substantial.

The Beacon Street westbound weekday evening 95th percentile queue at the Lancaster Terrace and Beacon Street intersection will go from 216' feet or approximately 8 cars to 824' or approximately 33 cars. This queue will at times end near Short Street. The anticipated queue is stored within an area without any major intersections mitigating potential conflicts.

During field observations conducted in June 2014 and November 2014 with the proposed travel lane removed 95th percentile queuing did exceed predictions from the Synchro 7 analysis. On a few occasions during the evening peak hour queuing from the Beacon Street at Lancaster Terrace intersection did impact departing vehicles from the Beacon Street at Marion Street signal. This may be attributed to occasional double parked cars on Beacon Street near Marion Street and a curiosity factor as drivers slowed down during the trial period to observe the lane drop and coned off bicycle lane.

To improve signal operations as an effort to mitigate the removal of a travel lane at the Beacon Street at Lancaster Terrace intersection a number of signal modifications are proposed. The signal will be coordinated with the Beacon Street corridor to promote better vehicle progression from Marion Street. Right turn

movements on red from Lancaster Terrace onto Beacon Street will be allowed and a delay of 10 seconds will be added for the Lancaster Terrace approach before a call is put into the signal. The pedestrian crossing for Lancaster Terrace will be changed from an exclusive pedestrian movement to a concurrent pedestrian movement with Beacon Street.

Because the proposed project has the potential to significantly impact traffic on Beacon Street between Coolidge Corner and Washington Square, it is prudent to conduct a trial period that will be longer than that of the Transportation Division of the Department of Public Works that consisted of peak hours on one day in June and peak hours on one day in November 2014. Therefore, the Advisory Committee recommends that the following conditions be attached to the \$36,000 appropriation:

Of the total amount 1) \$3,700 be expended for bicycle racks; 2) \$1,300 be expended for a bicycle corral; and (3) \$20,512 be expended to cover the cost of a trial of up to six months, approved by the State Department of Transportation, during which one westbound travel lane of Beacon Street between Marion Street and Westbourne Terrace shall be reconfigured into a buffered bicycle lane per plans developed by the Transportation Division of the Department of Public Works, provided that if at any time during such six month trial the Transportation Board determines after a public hearing that the trial should be concluded, such buffered bicycle lane shall be removed, said travel lane shall be restored to its original condition, and any unexpended funds shall be transferred to the General Fund. The remaining \$10,488 shall be encumbered until such time as the Transportation Board has, after the conclusion of a six month trial, using pre-established criteria determined by it, and a public hearing, recommended in a report to the Board of Selectmen that the buffered bicycle lane should be made permanent. Such report must be accepted by the Board of Selectmen prior to the release of the encumbered funds.

RECOMMENDATION:

By a vote of 21–1–0, the Advisory Committee amends its motion under Article 8 as follows.

VOTED: Insert in the motion of the Advisory Committee under Article 8, special appropriation item 41 so that the item reads (additions in bold, deletions struck):

- ~~41~~→ Raise and appropriate \$36,000, to be expended under the direction of the Commissioner of Public Works, with any necessary contracts to be approved by the Board of Selectmen, for bicycle access improvements **Of the total amount 1) \$3,700 be expended for bicycle racks; 2) \$1,300 be expended for a bicycle corral; and (3) \$20,512 be expended to cover the cost of a trial of up to six**

months, approved by the State Department of Transportation, during which one westbound travel lane of Beacon Street between Marion Street and Westbourne Terrace shall be reconfigured into a buffered bicycle lane per plans developed by the Transportation Division of the Department of Public Works, provided that if at any time during such six month trial the Transportation Board determines after a public hearing that the trial should be concluded, such buffered bicycle lane shall be removed, said travel lane shall be restored to its original condition, and any unexpended funds shall be transferred to the General Fund. The remaining \$10,488 shall be encumbered until such time as the Transportation Board has, after the conclusion of a six month trial, using pre-established criteria determined by it, and a public hearing, recommended in a report to the Board of Selectmen that the buffered bicycle lane should be made permanent. Such report must be accepted by the Board of Selectmen prior to the release of the encumbered funds. ~~provided that any expenditure for the reconfiguration of one westbound travel lane of Beacon Street between Marion Street and Westbourne Terrace into a buffered bicycle lane are subject to the conditions specified in the Advisory Committee's recommendation for Item 41 under Article 8 of the 2016 Annual Town Meeting Warrant.~~