

# Board of Education Regular Meeting

Monday, April 23, 2018 7:30 PM

Weston Middle School Library, 24 School Road, Weston, CT 06883-1623

## I. CALL TO ORDER, VERIFICATION OF QUORUM

## II. EXECUTIVE SESSION

### A. Matters Pertaining to Security

B. Discussion of Confidential Communications from the Board of Education's Counsel which are Subject to Attorney-Client Privilege

### C. Collective Bargaining

## III. RESUME PUBLIC SESSION

## IV. PLEDGE OF ALLEGIANCE

## V. RECOGNITION

A. Recognition and Presentation of Weston High School 2018 Girls Ski Team, Class S State Champions and Coaching Staff and Weston High School 2018 Boys Swim and Dive Team, Class M State Champions and Coaching Staff

## VI. APPROVAL OF MINUTES

## VII. PUBLIC COMMENT

## VIII. STUDENT BOARD OF EDUCATION REPRESENTATIVE COMMENTS

## IX. NEW BUSINESS

A. Discussion and Vote on Proposed Increase of Dedicated Police Presence for Weston Public Schools

B. Presentation of Weston High School New Course Proposal, Civil Engineering and Architecture-Honors

C. Presentation of Weston High School New Course Proposal, Principles of Engineering-Honors

D. Presentation of Updated K-12 Health and School Counseling Curriculum Renewal

E. Weston Board of Education Policies, Regulations, and Bylaws

1. First Reading of New Policy 1412, School Resource Officers

2. First Reading of Revised Policy and Administrative Regulation 5141.3, Health Assessments

3. First Reading of New Policy 5131.31, Vaccinations

F. Approval of Memorandum of Understanding with Local 1303-110 of Council 4 AFSCME, AFL-CIO

G. Non-Renewal of Long-Term Substitute Teachers

H. Non-Renewal Reduction in Force-Teachers

I. Non-Renewal of Others

J. Ninth FY 2018 Financial Update and Approval of Transfers

K. Discussion and Vote on Second Megawatt Option for Virtual Net Metering

L. Discussion and Vote on Contractor for Zenon Plant

M. Discussion and Vote on PTO Beautification Project for Weston Middle School

X. **OLD BUSINESS**

A. Discussion and Vote on Adds/Deletes/Changes to 2018-2019 Approved Calendar

B. Discussion and Vote on Proposed 2019-2020 Calendar

XI. **SUPERINTENDENT'S REPORT**

A. District Update

XII. **COMMITTEE REPORTS**

A. Communications Committee

B. Curriculum Committee

C. Facilities Committee

D. Finance Committee

E. Policy Committee

F. Negotiations Committee

G. CES

H. CABE

I. Weston Education Foundation

XIII. **WRITTEN REPORTS**

A. Principals' Reports

XIV. **NEXT SCHEDULED MEETINGS OF THE BOARD OF EDUCATION**

A. Regular Session on May 21, 2018 at 7:30 p.m.

B. Review of Pending Agenda Items for Next Meeting

XV. **ADJOURNMENT**

**Weston Board of Education Executive Session**

February 26, 2018 6:00 PM

Weston Middle School Conference Room

**Attendance Taken at 6:00 PM:**

Present Board Members:

Gina Albert

Ellen Uzenoff

Sara Spaulding

Jacqueline Blechinger (via phone)

Daniel McNeill

Samantha Nestor

Anthony Pesco

Discussion:

OTHERS:

Dr. William McKersie, Superintendent of Schools

Dr. Kenneth Craw, Assistant Superintendent of Curriculum and Instruction

Mr. Richard Rudl, Director of Finance and Operations

Mr. Joe Olenik, Director of Facilities

Chief Ed Henion, Weston Police Department

Captain Matt Brodacki, Weston Police Department

Motion to add item to Executive Session agenda item of Collective Bargaining was made by Samantha Nestor, second by Sara Spaulding.

**1. Matters Pertaining to Security**

**2. Collective Bargaining**

Upon a motion by Daniel McNeill, second by Anthony Pesco, the Board entered Executive Session at 6:09 p.m. to discuss matters pertaining to security and collective bargaining. At 6:26 p.m. The Board invited Dr. Craw, Mr. Rudl, Mr. Olenik, Chief Henion and Captain Brodacki to join the Board for the discussion.

Upon a motion by Samantha Nestor, second by Jacqueline Blechinger, Executive Session adjourned at 7:26 p.m.

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Chairperson

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Superintendent

**Board of Education Regular Meeting**

February 26, 2018 7:30 PM

Weston Middle School Library

**Attendance Taken at 7:30 PM:**

Present Board Members:

Gina Albert

Ellen Uzenoff

Sara Spaulding

Jacqueline Blechinger

Daniel McNeill

Samantha Nestor

Anthony Pesco

**I. CALL TO ORDER, VERIFICATION OF QUORUM**

**II. EXECUTIVE SESSION-6:00 p.m.**

**II.A. Matters Pertaining to Security**

**II.B. Collective Bargaining**

**III. RESUME PUBLIC SESSION**

**IV. PLEDGE OF ALLEGIANCE**

**V. Amend Agenda to Add New Agenda Item Under Special Update on Safety and security - Discussion and Vote Regarding the Weston Board of Education's Support of the CAPPS/CABE School Safety Statement Following the Parkland Tragedy**

**Motion Passed:** Move that the Weston Board of Education amend the agenda and add the discussion and vote regarding the Weston Board of Education's support of the CAPPS/CABE School Safety Statement following the Parkland tragedy; passed with a motion by Anthony Pesco and a second by Sara Spaulding.

**7 Yeas - 0 Nays.**

**VI. RECOGNITION**

**VI.A. Recognition of Donations from Hurlbutt Elementary School, Weston Intermediate School, and Weston Middle School Parent Teacher Organizations, Weston High School's Videography Department, and Weston High School's Booster Club**

**Motion Passed:** Move that the Weston Board of Education recognizes donations from Hurlbutt Elementary School, Weston Intermediate School and Weston Middle School Parent Teacher Organizations, Weston High School's Videography Department and Weston High School's Booster Club for the purpose of Pixellot Cameras and Installation; passed with a motion by Sara Spaulding and a second by Anthony Pesco.

**7 Yeas - 0 Nays.**



## **VII. APPROVAL OF MINUTES**

**Motion Passed:** Move that the Weston Board of Education approve the minutes of January 16, 2018 Special Meeting, January 16, 2018 FY 2019 Budget Presentation, January 18, 2018 Question and Answer Budget Meeting, and January 22, 2018 Additional Question and Answer Budget Meeting; passed with a motion by Ellen Uzenoff and a second by Sara Spaulding.

**7 Yeas - 0 Nays.**

## **VIII. SAFETY AND SECURITY**

### **VIII.A. Discussion and Vote Regarding the Weston Board of Education's Support of the CAPPS/CABE School Safety Statement Following the Parkland Tragedy**

#### **Discussion:**

Samantha Nestor read the following statement:

"We call upon our leaders in Washington, and across the country, to take action to end what has become an epidemic of senseless violence in our nation, and to support the principles set forth below.

First, we need sensible gun laws at the federal level and across the country that appropriately safeguard public safety. In the wake of Connecticut's own tragedy at Sandy Hook, we took action to ban automatic assault weapons and large-capacity magazines such as the ones used in Florida. However, state lines are porous, and statutes such as Connecticut's only go so far. We must also ensure that mandatory background checks for individuals seeking to purchase guns keep weapons out of the hands of those who pose a danger to our communities.

We must invest in the security of our schools. While we don't want to turn our education settings into imposing fortresses, we have a responsibility to our students and staff to ensure that they can feel safe and secure as they devote themselves to the studies that will prepare them for adulthood. Connecticut has led this effort and continues to make funding school security infrastructure a priority despite the state's fiscal situation.

Finally, we need to operate more effectively as a Connecticut community and as a nation to identify individuals at risk of committing acts of violence such as these and ensure they have access to and receive the services and interventions necessary to avert the outcomes that we mourn today. In many cases, these individuals have raised flags prior to acting. We need to fund the mental health and counseling services that allow individuals to address the traumas they may be experiencing and resolve them in a healthy manner and not through acts of unthinkable horror such as Sandy Hook and most recently, Parkland, Florida."

**Motion Passed:** Move that the Weston Board of Education, as members of the Connecticut Association of Boards of Education (CABE), supports and endorses the principals set forth in the following statement by CABE/CAPPS; passed with a motion by Samantha Nestor and a second by Sara Spaulding.

**7 Yeas - 0 Nays.**

**VIII.B. Update on Safety and Security**

Discussion:

Dr. McKersie reviewed his memorandum from February 19 regarding the structural, technological and personnel standpoint, along with our close partnership with the Weston Police Department and connecting with students in crisis. Both Chief Henion and Captain Brodacki of the Weston Police Department spoke regarding the unique partnership the District has with the police department. Discussion by the Board followed.

**IX. PUBLIC COMMENT**

Discussion:

Gayle Weinstein, Hill Ends Lane - Thanks the District for their vigilance in school safety;

David Muller - 221 Weston Road - Commends Dr. McKersie in allowing students to exercise their rights to speech;

Andrew Paladino, Goodhill Road - Thankful for all who made the March 14 Walkout possible;

Amy Gare, Bridge Road - Thankful to the administration for allowing children to participate in Walkout;

Sara Schlechter, Woods End Lane - Concerned regarding the safety and security of children;

Michael Munenzon, Steephill Road - Concerned regarding the safety and security of children;

Kirk Skodis, Christopher Hill Road - Concerned regarding safety and security of children;

Amanda Sheff, Lords Highway - Concerned regarding safety and security of children;

Melissa Gladstone - Concerned regarding safety and security of children;

Chris Spaulding, Old Hyde Road - Thankful for BOE, WPD and leadership in Weston.

**X. STUDENT BOARD OF EDUCATION REPRESENTATIVE COMMENTS**

Discussion:

James Joyce provided the Board with an update from Weston High School. Last week, students participated in Winter Spirit Week with the favorites such as badminton night, movie night, the pep rally and dodge ball, with all proceeds donated to Sandy Hook Promise. They will be hosting a blood drive on March 1. Students have been working with counselors on their schedules for next year, and the current eighth graders visited the high school for transition night. James thanked the Board of Education and Administration for allowing both WMS and WHS students to participate in the March 14 Walkout.

**XI. NEW BUSINESS**

#### **XI.A. Discussion and Vote on Virtual Net Metering Rate**

**Motion Passed:** Move that the Weston Board of Education approve the Virtual Net Metering rates as outline in the memo from Jonathan Luiz, Weston Town Administrator, dated February 22, 2018; passed with a motion by Ellen Uzenoff and a second by Anthony Pesco.

**7 Yeas - 0 Nays.**

#### **XI.B. Review and Approve New Course Proposal for Honors Physics C - Electricity and Magnetism for 2018-2019**

**Motion Passed:** Move that the Board of Education approve the New Course Proposal for Honors Physics C - Electricity and Magnetism for 2018-2019; passed with a motion by Sara Spaulding and a second by Samantha Nestor.

**6 Yeas - 0 Nays.**

#### **XI.C. Seventh FY 2018 Financial Update and Approval of Transfers**

Discussion:

Mr. Richard Rudl, Director of Finance and Operations, provided a monthly financial update. Transfers were presented for approval totaling \$279,579, five of which were in excess of \$5,000.

**Motion Passed:** Move that the Weston Board of Education approve the transfers as presented by Mr. Rudl in the seventh FY 2018 financial update; passed with a motion by Sara Spaulding and a second by Anthony Pesco.

**7 Yeas - 0 Nays.**

#### **XI.D. Weston Board of Education Policies, Regulations, and Bylaws**

##### **XI.D.1. First Reading of Policy and Administrative Regulation 3454, Individuals With Disabilities Education Act Fiscal Compliance**

Discussion:

Mr. Lewis Brey, Director of Human Resources and Internal Counsel provided a first reading of Policy and Administrative Regulation 3454, Individuals With Disabilities Education Act Fiscal Compliance.

##### **XI.D.2. First Reading of Policy and Administrative Regulation 4118.11/4218.11, Non-Discrimination, Personnel**

Discussion:

Mr. Lewis Brey, Director of Human Resources and Internal Counsel provided a first reading of Policy and Administrative Regulation 4118.11/4218.11, Non-Discrimination, Personnel.

#### **XII. OLD BUSINESS**

##### **XII.A. Weston Board of Education Policies, Regulations, and Bylaws**

###### **XII.A.1. Second Reading of Board of Education Policy and Administrative Regulation 4118.231/4218.231, Drugs, Alcohol, and Tobacco - Staff**

Discussion:

Mr. Brey, Director of Human Resources and Internal Counsel provided a second reading of Board of Education Policy and Administrative Regulation 4118.231/4218.231, Drugs, Alcohol, and Tobacco - Staff.

**Motion Passed:** Move that the Weston Board of Education approve Policy and Administrative Regulation 4118.231/4218.231, Drugs, Alcohol, and Tobacco - Staff; passed with a motion by Samantha Nestor and a second by Ellen Uzenoff.

**7 Yeas - 0 Nays.**

**XII.A.2. Second Reading of Board of Education Policy and Administrative Regulation 5145.12, Search and Seizure**

Discussion:

Mr. Brey, Director of Human Resources and Internal Counsel provided a second reading of Board of Education Policy and Administrative Regulation 5145.12, Search and Seizure.

**Motion Passed:** Move that the Board of Education approve Policy and Administrative Regulation 5145.12, Search and Seizure; passed with a motion by Ellen Uzenoff and a second by Jacqueline Blechinger.

**7 Yeas - 0 Nays.**

**XIII. SUPERINTENDENT'S REPORT**

**XIII.A. District Update**

Discussion:

Dr. Kenneth Crow, Assistant Superintendent of Curriculum and Instruction, presented information regarding the Next Generation Accountability System and reviewed the memorandum he sent to the Board. Dr. McKersie mentioned that the search for a new Director of PPS is well underway.

**XIV. COMMITTEE REPORTS**

**XIV.A. Communications Committee**

**XIV.B. Curriculum Committee**

**XIV.C. Facilities Committee**

Discussion:

The next Facilities Committee meeting will be held on March 12 at 1:30 p.m. in the Central Office Annex Conference Room.

**XIV.D. Finance Committee**

**XIV.E. Policy Committee**

**XIV.F. Negotiations Committee**

**XIV.G. CES**

**XIV.H. CABE**

**XIV.I. Weston Education Foundation**

**XV. WRITTEN REPORTS**

**XV.A. Principals' Reports**

**XVI. NEXT SCHEDULED MEETINGS OF THE BOARD OF EDUCATION**

**XVI.A. Board Workshop on March 5, 2018 at 7:30 p.m.**

**XVI.B. Regular Session on March 19, 2018 at 7:30 p.m.**

**XVI.C. Review of Pending Agenda Items for Next Meeting**

**XVII. ADJOURNMENT**

Discussion:

With a motion by Sara Spaulding, second by Samantha Nestor, the Weston Board of Education adjourned at 9:56 p.m.

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Chairperson

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Superintendent

**Weston Board of Education Executive Session**

March 2, 2018 8:30 a.m.

Weston Middle School Conference Room

**Attendance Taken at 8:30 a.m.:**

Present Board Members:

Gina Albert

Ellen Uzenoff

Sara Spaulding

Jacqueline Blechinger

Daniel McNeill

Samantha Nestor

Anthony Pesco

**1. Interviews with Candidates for Position of Director of Pupil Personnel Services**

Discussion:

OTHERS:

Dr. William McKersie, Superintendent of Schools

Mr. Lewis Brey, Director of Human Resources and Internal Counsel

Upon a motion by Gina Albert, second by Ellen Uzenoff, the Board entered Executive Session at 8:37 a.m. to conduct interviews with candidates for the position of Director of Pupil Personnel Services. The Board invited Mr. Brey to join the Board for the discussion.

Upon a motion by Dan McNeill, second by Gina Albert, Executive Session adjourned at 11:57 a.m.

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Chairperson

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Superintendent

**Weston Board of Education Special Meeting**

March 05, 2018 7:00 PM

Central Office Conference Room

**Attendance Taken at 7:00 PM:**

Present Board Members:

Gina Albert  
Ellen Uzenoff  
Sara Spaulding  
Jacqueline Blechinger (via phone)  
Daniel McNeill  
Samantha Nestor  
Anthony Pesco

Discussion:

OTHERS:

Dr. William McKersie, Superintendent of Schools  
Mr. Lewis Brey, Director of Human Resources and Internal Counsel

Upon a motion by Ellen Uzenoff, second by Samantha Nestor, the Board entered Executive Session at 7:03 p.m. to discuss matters pertaining to personnel-discussion of finalist for Director of Pupil Personnel Services.

Upon a motion by Ellen Uzenoff, second by Samantha Nestor, Executive Session adjourned to Public Session at 7:11 p.m.

*Move that the Weston Board of Education appoint Michael Rizzo as the Assistant Superintendent of Pupil Personnel Services, effective July 1, 2018, with an initial salary of \$198,141, and that the Board of Education authorize the Chairperson to enter into a three year contract with Mr. Rizzo on its behalf; passed with a motion by Ellen Uzenoff and a second by Daniel McNeill. All in favor 7-0.*

The Board of Education members took a few moments to thank Mr. Rizzo for joining Weston Public Schools and their appreciation of his approach to special education.

Upon a motion by Ellen Uzenoff, second by Daniel McNeill, the Board re-entered Executive Session at 7:18 p.m. The Board invited Dr. McKersie and Mr. Brey to join the Board for the discussion.

Upon a motion by Ellen Uzenoff, second by Jacqueline Blechinger, Executive Session adjourned at 8:21 p.m.

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Chairperson

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Superintendent

**Weston Board of Education Executive Session**

March 19, 2018 6:30 PM

Weston Middle School Conference Room

**Attendance Taken at 6:30 PM:**

Present Board Members:

Gina Albert

Ellen Uzenoff

Sara Spaulding

Jacqueline Blechinger

Daniel McNeill

Samantha Nestor

Anthony Pesco

Discussion:

OTHERS:

Dr. William McKersie, Superintendent of Schools

Mr. Richard Rudl, Director of Finance and Operations

Mr. Joseph Olenik, Director of Facilities and Security

Mr. Lewis Brey, Director of Human Resources and Internal Counsel

Ms. Lisa Deorio, Principal of Weston High School

**1. Matters Pertaining to Security**

**2. Discussion of Written Communications from the Board of Education's Counsel,  
Which are Subject to Attorney-Client Privilege**

**3. Collective Bargaining**

Upon a motion by Daniel McNeill, second by Samantha Nestor, the Board entered Executive Session at 6:36 p.m. to discuss matters pertaining to security, inviting Richard Rudl and Joseph Olenik to join the meeting. At 7:05 p.m., the Board moved to invite Lewis Brey and Lisa Deorio, motion by Sara Spaulding, second by Samantha Nestor, to discuss written communications from the Board's counsel and collective bargaining.

Upon a motion by Daniel McNeill, second by Samantha Nestor, Executive Session adjourned at 7:35 p.m.

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Chairperson

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Superintendent



**Board of Education Regular Meeting**

March 19, 2018 7:30 PM

Weston Middle School Library

**Attendance Taken at 7:38 PM:**

Present Board Members:

Gina Albert

Ellen Uzenoff

Sara Spaulding

Jacqueline Blechinger

Daniel McNeill

Samantha Nestor

Anthony Pesco

**I. CALL TO ORDER, VERIFICATION OF QUORUM**

**II. EXECUTIVE SESSION**

**II.A. Matters Regarding Security**

**II.B. Discussion of Written Correspondence from The Board of Education's Legal Counsel, Which is Subject to Attorney-Client Privilege**

**III. RESUME PUBLIC SESSION**

**IV. PLEDGE OF ALLEGIANCE**

**V. RECOGNITION**

**V.A. Recognition of 2018 National Merit Scholarship Program Finalists**

**Motion Passed:** Move that the Weston Board of Education recognize the following students for their outstanding achievement as Finalists in the 2018 Competition for National Merit Scholarships: Lindsay Kunhardt, Ellen Relac and Matthew Sydney; passed with a motion by Daniel McNeill and a second by Sara Spaulding.

**7 Yeas - 0 Nays.**

**V.B. Recognition of Donations for Science Research Program**

Discussion:

Dr. Craw recognized the donations from the Parent Teacher Organizations that will be used in conjunction with funds from the Weston Education Foundation, towards outfitting our science research laboratory at Weston High School, allowing students to conduct experiments on campus. The instructor for the new course has been identified as Stacey Greenberg, who has been an integral part of bringing the course to the high school.

**Motion Passed:** Move that the Board of Education recognizes the donations on behalf of the Weston Parent Teacher Organizations for the Science Research Program; passed with a motion by Ellen Uzenoff and a second by Anthony Pesco.

**7 Yeas - 0 Nays.**

## **VI. APPROVAL OF MINUTES**

**Motion Passed:** Move that the Weston Board of Education approve the minutes of the January 22 Regular Session and January 24 Executive Session; passed with a motion by Ellen Uzenoff and a second by Sara Spaulding.

**7 Yeas - 0 Nays.**

## **VII. PUBLIC COMMENT**

Discussion:  
No public comment.

## **VIII. STUDENT BOARD OF EDUCATION REPRESENTATIVE COMMENTS**

Discussion:  
Susannah Keith highlighted the accomplishments of Weston High School athletics, with girls ski team and boys swim and dive team being recognized as champions at the State level.

James Joyce mentioned that over 600 students participated in the Walkout on March 14, which included speakers, music and a unity lap around the track. He was proud of his classmates that participated. A safe driving simulation was sponsored by State Department of Transportation and this Wednesday, March 21 is the SAT day.

The winter "Shine the Light" initiative is Sandy Hook Promise and they were able to raise over \$300. Weston High School's COMPANY will be presenting the musical South Pacific from March 22-25.

## **IX. NEW BUSINESS**

### **IX.A. Resignations**

#### **IX.A.1. Resignation of Brittany Gilman and Michael Mezzo**

**Motion Passed:** Move that the Weston Board of Education recognize the resignations of Brittany Gilman and Michael Mezzo; passed with a motion by Sara Spaulding and a second by Anthony Pesco.

**7 Yeas - 0 Nays.**

### **IX.B. Discussion and Recommendations of School Calendars**

Discussion:  
Dr. McKersie provided a two-step process of what the Calendar Committee is advising for adjustments for the 2018-2019 calendar and then reviewed the recommendations for the 2019-2020 school calendar. Mr. McNeill spoke about the reasons for not having a full February and March break. Dr. McKersie spoke regarding the last day of school and graduation date for June 2018.

#### **IX.C. Discussion and Vote Regarding Weston Intermediate School Knee Wall**

Discussion:

Ellen Uzenoff reviewed the attached package regarding the Weston Intermediate School Knee Wall project and the progression the project has taken. No additional vote was needed as the Board approved the project in the fall.

#### **IX.D. Discussion and Vote Regarding Technology Lease**

Discussion:

Mr. Rudl reviewed the FY 2018 technology lease memorandum and reviewed our options. He is recommending moving away from leasing technology purchases.

**Motion Passed:** Move that the Weston Board of Education proceed under Option B as stated in the FY 2018 Technology Lease memorandum from Richard Rudl, dated March 19, 2018; passed with a motion by Jacqueline Blechinger and a second by Anthony Pesco.

**7 Yeas - 0 Nays.**

#### **IX.E. Discussion and Vote Regarding Special Appropriation for Special Education**

Discussion:

Mr. Rudl reviewed his memo regarding a FY 2018 special appropriations regarding the Special Education Out-of-District Tuition/Unilateral Placements within the District.

**Motion Passed:** Move that the Weston Board of Education approve the FY 2018 Special Appropriation (\$1,061,852) for Special Education Out of District Tuition/Unilateral Placements, utilizing option A as stated in the memorandum from Richard Rudl, dated March 5, 2018; passed with a motion by Jacqueline Blechinger and a second by Anthony Pesco.

**7 Yeas - 0 Nays.**

#### **IX.F. Eighth FY 2018 Financial Update and Approval of Transfers**

Discussion:

Mr. Rudl, Director of Finance and Operations, provided a monthly financial update. Transfers were presented for approval totaling \$56,432, four of which were in excess of \$5,000.

**Motion Passed:** Move that the Weston Board of Education approve the transfers as presented by Mr. Rudl for the eighth FY 2018 Financial Update; passed with a motion by Anthony Pesco and a second by Jacqueline Blechinger.

**7 Yeas - 0 Nays.**

#### **IX.G. Ratification of Memorandum of Understanding with Local 1303-110 of Council 4 AFSCME, AFL-CIO**

Discussion:

Mr. Brey reviewed the Memorandum of Understanding with AFSCME. This is a retirement incentive program for AFSCME members. The eligibility requirements are outlined in Exhibit A of the MOU.

**Motion Passed:** Move that the Weston Board of Education ratify the Memorandum of Understanding with Local 1303-110 of Council 4 AFSCME, AFL-CIO; passed with a motion by Ellen Uzenoff and a second by Sara Spaulding.

**7 Yeas - 0 Nays.**

## **X. OLD BUSINESS**

### **X.A. Weston Board of Education Policies, Regulations, and Bylaws**

#### **X.A.1. Second Reading of Board of Education Policy and Administrative Regulation 3454, Individuals with Disabilities Education Act Fiscal Compliance**

Discussion:

Mr. Brey provided a second reading of Board of Education Policy and Administrative Regulation 3454, Individuals with Disabilities Education Act Fiscal Compliance. There have been no changes since the first reading.

**Motion Passed:** Move that the Weston Board of Education approve the Policy and Administrative Regulation 3454, Individuals with Disabilities Education Act Fiscal Compliance; passed with a motion by Daniel McNeill and a second by Sara Spaulding.

**7 Yeas - 0 Nays.**

#### **X.B. Second Reading of Board of Education Policy and Administrative Regulation 4118.11/4218.11, Non-Discrimination, Personnel**

Discussion:

Mr. Brey provided a second reading of Board of Education Policy and Administrative Regulation 4118.11/4218.11, Non-Discrimination, Personnel. There have been no changes since the first reading.

**Motion Passed:** Move that the Weston Board of Education approve the Policy and Administrative Regulation 4118.11/4218.11, Non-Discrimination, Personnel; passed with a motion by Samantha Nestor and a second by Anthony Pesco.

**7 Yeas - 0 Nays.**

## **XI. SUPERINTENDENT'S REPORT**

### **XI.A. District Update**

Discussion:

Dr. McKersie updated the Board that our new Assistant Superintendent of Pupil Personnel Services, Mr. Michael Rizzo, has been working on his own time to informally meet with those on the Leadership Team prior to him starting July 1. Dr. McKersie also updated the Board on the work the District has been doing regarding Emotional Intelligence (EI) and collaborating with other districts that have also been trained in EI.

## **XII. COMMITTEE REPORTS**

### **XII.A. Communications Committee**

Discussion:

Ms. Spaulding turned over the Communications Committee update to Ms. Nestor to update the Board. Ms. Nestor spoke about the Communications Committee's desire to development of a District Communications Plan. The plan consists of four-parts, including research and discovery, analysis and recommendations, implementation, and evaluation. The plan is looking to improve what we do well and to strengthen how to best communicate with the parent community and beyond.

#### **XII.B. Curriculum Committee**

Discussion:

Ms. Spaulding reminded the Board that the Curriculum Committee meeting will be meeting tomorrow, March 20 at 9:00 a.m. at WIS 118.

#### **XII.C. Facilities Committee**

Discussion:

Mrs. Uzenoff updated the Board as to the continuation of the walkthroughs at each of the schools.

#### **XII.D. Finance Committee**

Discussion:

Ms. Albert updated the Board on the reallocation of the VNM meters in the District. Upon further reflection, it was determined that it would be best to separate the meters at WMS and WHS, so that each of the largest users sit within each of the megawatt sectors that we have.

#### **XII.E. Policy Committee**

Discussion:

Dan McNeill reminded the Board that the next Policy Committee Meeting will be held on March 29 at 8:30 a.m.

#### **XII.F. Negotiations Committee**

#### **XII.G. CES**

Discussion:

Dan McNeill stated that he will have an update as to the search for Executive Director of CES at the next Board meeting.

#### **XII.H. CAFE**

#### **XII.I. Weston Education Foundation**

Discussion:

Sara Spaulding noted that the next WEF meeting is scheduled for March 21 at 7:30.

### **XIII. WRITTEN REPORTS**

#### **XIII.A. Principals' Reports**

### **XIV. NEXT SCHEDULED MEETINGS OF THE BOARD OF EDUCATION**

#### **XIV.A. Regular Session on April 23, 2018 at 7:30 p.m.**

**XIV.B. Review of Pending Agenda Items for Next Meeting**

**XV. ADJOURNMENT**

Discussion:

Meeting adjourned at 9:06 p.m.

**Motion Passed:** passed with a motion by Ellen Uzenoff and a second by Sara Spaulding.

**7 Yeas - 0 Nays.**

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Chairperson

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Superintendent

**Weston Board of Education Special Meeting**

April 04, 2018 8:30 AM

Central Office Conference Room

**Attendance Taken at 8:30 AM:**

Present Board Members:

Gina Albert

Ellen Uzenoff

Sara Spaulding

Jacqueline Blechinger

Daniel McNeill

Absent Board Members:

Samantha Nestor

Anthony Pesco

**1. Discussion and Vote on 17-18 Graduation Date**

Discussion:

At 8:34 a.m. on Wednesday, April 4, 2018, Ms. Albert called the meeting to order. Dr. McKersie, Superintendent of Schools, spoke to the reasons needed to meet for a vote on the recommended 2017-2018 graduation date and reviewed details in a memorandum that would be sent to all families and staff outlining WHS graduation date, WMS moving up ceremony and the last day of school for students and staff. Ms. Herman will update the 2017-2018 calendar for the District website.

**Motion Passed:** Move that the Weston Board of Education approve the Superintendent's recommendation that Friday, June 22, 2018 be established as the graduation date for the 2017-2018 school year; passed with a motion by Jacqueline Blechinger and a second by Daniel McNeill.

**5 Yeas - 0 Nays.**

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Chairperson

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Superintendent

**Weston Board of Education Executive Session**

April 16, 2018 8:30 AM

Central Office Conference Room

**Attendance Taken at 8:30 AM:**

Present Board Members:

Gina Albert

Ellen Uzenoff

Sara Spaulding

Albert

Jacqueline Blechinger

Daniel McNeill, via telephone

Samantha Nestor

Anthony Pesco

**1. Matters Pertaining to Security**

Discussion:

OTHERS:

Dr. William McKersie, Superintendent of Schools

Mr. Lewis Brey, Director of Human Resources and Internal Counsel

Dr. Kenneth Craw, Assistant Superintendent of Curriculum and Instruction

Mr. Richard Rudl, Director of Finance and Operations

Mr. Joseph Olenik, Director of Facilities and Security

Chief Edwin Henion, Weston Police Department

Upon a motion by Anthony Pesco, second by Gina Albert, the Board entered Executive Session at 8:35 a.m. to discuss matters pertaining to security.

The Board invited Dr. McKersie, Mr. Brey, Dr. Craw, Mr. Rudl, Mr. Olenik and Chief Henion to join the discussion.

Upon a motion by Ellen Uzenoff, second by Samantha Nestor, Executive Session adjourned at 10:18 am.

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Chairperson

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Superintendent



**WESTON BOARD OF EDUCATION**

**Weston, CT**

**Meeting Date:** April 23, 2018

**Information Only**

**Action Requested**

**Agenda Item Subject: Discussion and Vote on Proposed Increase of Dedicated Police Presence for Weston Public Schools**

**Submitted by: William McKersie**

**Document Summary/Purpose and/or Recommended Action:**

**Attached is joint memorandum from Dr. McKersie and Chief Henion regarding proposed increase of dedicated police presence for Weston Public Schools.**



Incorporated 1787  
Police Department

April 17, 2018

To: Weston Public School Families and Staff  
From: William S. McKersie, Ph.D., Superintendent;  
Edwin S. Henion, Chief of Police, Weston Police Department  
Re: Proposed Increase of Dedicated Police Presence for Weston Public Schools

The leadership of the Weston Public Schools (WPS) and Weston Police Department (WPD) have been intensively analyzing safety and security for the full campus and each school in the wake of the Parkland, FL shooting. Our multipronged approach—*providing high quality security personnel, structures and technology and developing connections to assist students and families in crisis*—allows us to effectively identify and prevent security threats. We also have been listening carefully to the concerns and questions being raised by students, staff and families.

**We are recommending a major increase in policing so that starting in Fall 2018 we will have three full-time officers solely dedicated to the campus and schools.** The Weston Police Department will:

1. Maintain the current School Resource Officer position at Weston High School (WHS).
2. Add a second School Resource Officer position to the campus, with special attention to Weston Middle School (WMS).
3. Increase the current part-time “Mile of Safety” coverage so that we have a full-time “Campus Officer,” who will focus attention on Hurlbutt Elementary School (HES) and Weston Intermediate School (WIS).

Additional daily police presence will be provided by Chief Ed Henion, who will continue to be visible on campus; Captain Matt Brodacki, who will supervise the three officers dedicated to the WPS and continue working with administrators on security measures; and, police officers posted at the Regional Cyber Crime Lab (located in the Central Office Annex Building), who are required to respond to any crisis on campus.

We would have up to six officers covering the WPS. Moreover, the layout of the campus, with four schools closely aligned on a one-mile long road adjacent to police headquarters, allows the police to efficiently monitor activities, identify possible threats and respond rapidly in an emergency.

A prudent move in the wake of school shootings is to increase the level of police presence and coverage. Indeed, area districts are looking to expand police coverage, in particular by adding School Resource Officers (SRO). Following several years of review and planning, WHS is in the second year of an SRO Program. Officer Joseph Mogollon’s website (<https://sro.westonps.org/>) explains the role and functions of an SRO. Simply put, an SRO is a full-time police officer, who serves as a law enforcer, educator, informal counselor, and emergency manager. Immersed in the school, an SRO can identify risks and threats early and intervene. The interventions range from one-to-one consultation with students and families in need to full-on police confrontation of threats.

Under this recommendation, the Board of Education (BOE) would maintain its plan to have six security specialists in 2018-19. There would be two at WHS, two at WMS, and one apiece at WIS and HES. The security specialists would continue to monitor their respective buildings, especially entrances and the flow of visitors during the day. We would manage the deployment of the six security specialists to assist with coverage and support at WIS and HES.

The recommended plan will be reviewed by the BOE and Weston Police Commission. The Board of Education will fully consider the proposal at its April 23, 2018 meeting. The Police Commission will subsequently review the proposal. If the proposal is approved by these two governing bodies, we will work with the Board of Finance and Board of Selectmen on funding for what would be a major step to maximize the safety and security of the Weston Public Schools.

**WESTON BOARD OF EDUCATION**

**Weston, CT**

**Meeting Date:** April 23, 2018

**Information Only**

**Action Requested**

**Agenda Item Subject:** Honors Civil Engineering & Architecture New Course Proposal for 2018-19 school year

**Submitted by:** Kenneth Crow

**Document Summary/Purpose and/or Recommended Action:**

Review and approval of WHS new course: Civil Engineering & Architecture - Honors

For more Board of Education Meeting and Committee Meeting Information, visit:  
<https://meeting.cabe.org/public/Agency.aspx?PublicAgencyID=47&AgencyTypeID=1>

## New Course Proposal for 2018 - 2019

This proposal should be submitted to the Assistant Superintendent by the principal of the school on behalf of the department chair and/or staff involved. All proposals are due to the building principal *one week* prior to this date. *All proposals must be approved first by the building principal. Requests will be reviewed with the principal, Curriculum Instructional Leader and Assistant Superintendent prior to presentation to the Curriculum Committee.*

School: Weston High School

Proposal Submitted By: Mackenzie Robens, Jamie Charles  
Matt Filip

Department: Technology

1. **Name of Course or Program:** *Civil Engineering and Architecture – Honors*

2. **Population to be served:**

This course is designed for advanced students enrolled within the Project Lead the Way (PLTW) program who have met the entrance requirements for the course and elect to demonstrate mastery of the content in a way that is more aligned with the national examination.

3. **Identify and Discuss the Need**

PLTW is a nationally recognized program that offers college credit at the conclusion of each of the course offerings at Weston High School based on an individual student's overall GPA and performance on an end-of-course assessment. The assessment is written by members of the PLTW program and covers the entire year of content. The exam is administered during the regularly scheduled final exam block in June by the teacher of each course.

Weston High School has had the PLTW program for nine years. Although schools such as Rochester Institute of Technology and Duke University recognize these courses as those that can satisfy entry level collegiate credits, Weston High School has always designated all four PLTW courses at the standard level. Introduction to Engineering Design (IED) and Computer Integrated Manufacturing (CIM) are standard level classes that give students an opportunity to try engineering to see if they have an interest in the field, and are geared towards freshmen and sophomores. The upper level courses, Civil Engineering and Architecture (CEA) and Principles of Engineering (POE), contain a more in-depth curricula, and are populated by students that have a real interest in the field. Because standard course weighting can, at times, hurt a student's overall GPA even if they are performing at a high level, some students have chosen to not take these courses, which is hindering upper level enrollment.

Due to the recognition of these courses at the collegiate level and the increase in content requirements for the PLTW program's advanced courses, it is logical to provide all students

the choice to take POE and CEA at a standard or honors designation, to retain our current population while at the same time better meeting the needs of our higher level students.

4. **Impact on Other Courses / Schedules**

Since standard and honors designations would be offered in the same class period, there are no anticipated impacts on student schedules. If there is an increase in enrollment, it is possible that other electives in the building would have a decrease in their enrollments.

5. **Budget Related Items**

None, all required materials are currently available.

6. **Evaluation for Program Success or Continuation:**

- Student performance on the PLTW end of course exam
- Student enrollment in CEA
- Student feedback provided to instructor

7. **Other Information for Consideration** (optional):

The PLTW end-of-year exam is one of the deciding factors when determining student college credit eligibility; it also drives the distinguishing aspect of the course that separates honors from standard designation. Currently, this course is largely project-based with minimal summative assessments. Students who elect to take the honors designation of the course will be responsible for taking four tests, one at the conclusion of each quarter. These major tests will provide a platform for advanced students to demonstrate their knowledge in a traditional summative setting, holding them accountable for understanding course content in greater depth. Furthermore, the final weighting will be impacted to emphasize the importance of these major exams.

8. **Please attach a description of the course including the units of study.**

*Improving our world through thoughtful building design and development!*

*Students learn the fundamentals of building design, site design, and development. They apply math, science, and standard engineering practices to design both residential and commercial projects and document their work using 3D architectural design software.*

*You can change the world, one project at a time.*

Civil Engineering and Architecture (CEA) is a high school level specialization course in the PLTW Engineering Program. In CEA students are introduced to important aspects of building and site design and development. They apply math, science, and standard engineering practices to design both residential and commercial projects and document their work using 3D architectural design software. Utilizing the activity-project-problem-based (APB) teaching and learning pedagogy, students will progress from completing structured activities to solving open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills.

Through both individual and collaborative team activities, projects, and problems, students will solve problems as they practice common design and development protocols such as project management and peer review. Students will develop skill in engineering calculations, technical representation and documentation of design solutions according to accepted technical standards, and use of current 3D architectural design and modeling software to represent and communicate solutions.

The following is a summary of the units of study that are included in the course for the 2014-2015 academic year. Alignment with NGSS, Common Core, and other standards will be available through the PLTW Alignment web-based tool. Activities, projects, and problems are provided to the teacher through the PLTW Learning Management System in the form of student-ready handouts, teacher notes, lesson planning resources, and supplementary materials.

The course requires a rigorous pace, and it is likely to contain more material than a skilled teacher new to the course will be able to complete in the first iteration. Building enthusiasm for and a real understanding of role, impact, and practice of civil engineering and architecture as it relates to building design and development is a primary goal of the course.

### **CEA Unit Summary**

Unit 1	Overview of Civil Engineering and Architecture
Unit 2	Residential Design
Unit 3	Commercial Applications
Unit 4	Commercial Building Systems



## Unit 1: Overview of Civil Engineering and Architecture

Unit 1 provides an introduction and overview to the past accomplishments within the fields of civil engineering and architecture as well as a brief introduction to the wide variety of careers within the fields of civil engineering and architecture.

### Overview of Civil Engineering and Architecture

- Lesson 1.1 History of Civil Engineering and Architecture
- Lesson 1.2 Careers in Civil Engineering and Architecture

### Lesson 1.1 History of Civil Engineering and Architecture

The goal of this lesson is to introduce students to the vast history of accomplishments in civil engineering and architecture. The study and improvements on these accomplishments have paved the way for the structures that we use today. In this lesson students will begin to build a common vocabulary related to architectural styles and features, structural systems, and the elements and principles of design.

### Lesson 1.2 Careers in Civil Engineering and Architecture

This lesson will provide foundation and perspective for students regarding careers in civil engineering and architecture as they venture through the remainder of the course. The primary duties and responsibilities of civil engineers (and related specialty disciplines) and architects are presented as well as the traditional educational and accreditation requirements that must be met in order to become a professional engineer and architect. Career connections and relationships between these two types of professionals and other stakeholders involved in building design and development are also introduced.

## Unit 2: Residential Design

This unit of study introduces students to standard practice in the design of single family homes and provides an opportunity for students to develop a small single family home design that incorporates sustainable design practices as well as universal design features. Students will be introduced to building codes and their impact on design as well as common wood-framed residential construction techniques and practices. Students also will investigate the cost of construction and the significant impact of the choice of construction materials and practices on the ongoing cost of energy for heating and cooling. They will apply this knowledge to the design of a small, affordable home.

### Residential Design Lesson Summary

- Lesson 2.1 Building Design and Construction
- Lesson 2.2 Cost and Efficiency Analysis
- Lesson 2.3 Residential Design

### **Lesson 2.1 Building Design and Construction**

In this lesson students will learn typical wood-framed residential construction techniques and practices. They will build a common vocabulary related to building components and materials and become familiar with a variety of residential framing methods and roof styles. In addition, students will be introduced to technical documentation of residential structures and will use 3D architectural modeling software to model and document the design of a small outdoor storage structure.

### **Lesson 2.2 Cost and Efficiency Analysis**

In this lesson students investigate the cost of construction and the recurring energy costs associated with design decisions and construction techniques. Students will have the opportunity to perform quantity take-offs and cost estimates related to parts of small construction projects. In addition students will learn about and compare the energy efficiency of a variety of construction materials and calculate the rate of heat loss or gain through a building envelope which can be used to estimate energy demands for heating and cooling a building.

### **Lesson 2.3 Residential Design**

In this lesson students apply elements of good residential building and site design to design a small affordable home for a client based on information gathered during a client interview and meetings. Students will perform code research and develop a design that meets applicable building codes and requirements as well as universal design principles. Students will also learn about sustainable building practices which they will apply to their home design in an effort to reduce the environmental impact of the building. Basic site design and orientation considerations are presented to guide students in appropriately locating the home on the building site to improve usability and reduce environmental impact. During the design process, students will also be introduced to a variety of residential foundation systems, basic residential electrical system components, plumbing systems and water supply calculations, and wastewater disposal and treatment systems. They will include consideration of these systems in their design development.

## **Unit 3: Commercial Applications**

This unit will provide students with an opportunity to discover the diversity and complexity of commercial building design as they design a renovation to a commercial facility. The design of commercial facilities includes multiple building systems and involves a wide range of engineering and architectural considerations. In this unit students will learn about site considerations important to the function of the building. Students will learn about common built-up systems that provide the building envelope such as wall and roofs. They will learn about the utilities and services that supply power, water, and communication services to the building. In addition students will learn about common structural systems employed to support all of the building components. Applying the knowledge they gain from this unit of study, students will design a renovation to a commercial facility and document that design using 3D architectural software.

### **Commercial Applications Lesson Summary**

- Lesson 3.1 Commercial Building Systems
- Lesson 3.2 Structures
- Lesson 3.3 Services and Utilities



Lesson 3.4 Site Considerations

### **Lesson 3.1 Commercial Building Systems**

In this lesson students will be exposed to the design and development of commercial facilities and the building codes and land development regulations that impact commercial construction. Students are presented with a commercial renovation design project on which they will work throughout this unit. They will research building codes and land development regulations and learn about a variety of commercial wall, roof, and floor framing systems as they further develop a common vocabulary related to building design and development. Students continue to build expertise in the use of a 3D architectural design software package as they model and document their commercial design project ideas.

### **Lesson 3.2 Structures**

This lesson is designed to introduce students to the concepts and principles of structural engineering and structural efficiency. The activities related to this lesson are designed to aid students in learning about the variety of forces that impact the design and performance of a building and how to quantify those loads using building codes and the physical characteristics of the structure. Students are also introduced to the physical laws and mathematics involved in determining the internal resistive forces generated by the imposed loads as the loads are transferred through the structural elements of the building into the ground. A variety of structural systems and common commercial foundation systems are presented, and the lesson focuses on the analysis and design of beams and spread footings.

### **Lesson 3.3 Services and Utilities**

This lesson will introduce students to the multiple modern utilities and services required in order for a building to function effectively and lawfully in today's society. These utilities and services include a reliable supply of energy and water, a system to dispose of wastes, and capacity for communication via multiple modes. Students will identify typical utilities and services for commercial buildings and common methods for distribution and measuring of those services. They will interpret and apply building code requirements and consider other physical constraints in the design and location of new utility service connections for their commercial project. In addition students will interpret and apply energy code requirements in the design of their commercial project building envelope and internal utility distribution systems in an effort to conserve natural resources, reduce operating costs, and protect the environment from the negative impact of development.

### **Lesson 3.4 Site Considerations**

In this lesson students will learn about the important factors to be considered in commercial site design. They will perform a land survey, conduct a soil analysis, and conduct a physical investigation of the site in order to gather information relevant to their commercial project design. Students will use the information they have collected to design and document appropriate site improvements to provide adequate parking based on facility use and building code requirements and provide safe vehicular and pedestrian traffic access and flow. The site must also provide handicap access and provide access for emergency vehicles and the movement of goods and waste. Students will also become familiar with the requirements related to storm water runoff and management and learn the calculations necessary to comply with building codes. Based on the information they acquire during this lesson, students will design and document a site design for their commercial project. Their design will utilize low impact development techniques in order to incur minimal impact on people and the environment.

## Unit 4: Commercial Building Design Problem

This unit will allow students to collaborate on the design and documentation of a small commercial facility within a project design team. They will identify a need within their community, investigate a potential site, develop a preliminary design, and document the design of the facility as a team. They will also present their design concept to a panel that will critique their design and offer feedback to the team related to their design and presentation.

### Commercial Building Design Lesson Summary

Lesson 4.1 Commercial Building Design Problem

Lesson 4.2 Commercial Building Design Presentation

### Lesson 4.1 Commercial Design Problem

In this lesson students will work within design teams to develop a preliminary design for a small commercial facility. As part of the design process, they will investigate a potential site for development of their commercial project; research codes, zoning ordinance, and regulations that impact the site; and determine the legal description of the property. Students will develop an architectural program to describe the desired outcome of the project and help guide development. They will become familiar with legal, physical, and financial conditions that should be considered in order to determine the viability of project development and help determine whether a project solution should be undertaken. As the team project progresses, students will apply the skills and knowledge they have gained throughout the course to the team commercial project. They will learn new skills related to team design work, including creating a project organization chart, developing and using a Gantt chart to plan and monitor project progress, and holding regular team meetings. Students will document their design according to accepted practice using 3D architectural modeling software.

### Lesson 4.2 Commercial Design Presentation

In this lesson students will create and deliver a formal presentation (both oral and written) of their final team commercial design project to include a description of both the design process (and justifications of design decisions) as well as the resulting design. The project presentation will be reviewed and critiqued by a panel who will offer feedback to the team related to their design process, decision making, and the resulting design and documentation.

5



**WESTON BOARD OF EDUCATION**

**Weston, CT**

**Meeting Date:** April 23, 2018

**Information Only**

**Action Requested**

**Agenda Item Subject:** Honors Principle of Engineering New Course Proposal for 2018-19 school year

**Submitted by:** Kenneth Crow

**Document Summary/Purpose and/or Recommended Action:**

Review and approval of WHS new course: Principles of Engineering - Honors

For more Board of Education Meeting and Committee Meeting Information, visit:  
<https://meeting.cabe.org/public/Agency.aspx?PublicAgencyID=47&AgencyTypeID=1>

## New Course Proposal for 2018 - 2019

This proposal should be submitted to the Assistant Superintendent by the principal of the school on behalf of the department chair and/or staff involved. All proposals are due to the building principal *one week* prior to this date. *All proposals must be approved first by the building principal. Requests will be reviewed with the principal, Curriculum Instructional Leader and Assistant Superintendent prior to presentation to the Curriculum Committee.*

School: Weston High School

Proposal Submitted By: Mackenzie Robens, Jamie Charles  
Matt Filip

Department: Technology

1. **Name of Course or Program:** *Principles of Engineering – Honors*

2. **Population to be served:**

This course is designed for advanced students enrolled within the Project Lead the Way (PLTW) program who have met the entrance requirements for the course and elect to demonstrate mastery of the content in a way that is more aligned with the national examination.

3. **Identify and Discuss the Need**

PLTW is a nationally recognized program that offers college credit at the conclusion of each of the course offerings at Weston High School based on an individual student's overall GPA and performance on an end-of-course assessment. The assessment is written by members of the PLTW program and covers the entire year of content. The exam is administered during the regularly scheduled final exam block in June by the teacher of each course.

Weston High School has had the PLTW program for nine years. Although schools such as Rochester Institute of Technology and Duke University recognize these courses as those that can satisfy entry level collegiate credits, Weston High School has always designated all four PLTW courses at the standard level. Introduction to Engineering Design (IED) and Computer Integrated Manufacturing (CIM) are standard level classes that give students an opportunity to try engineering to see if they have an interest in the field, and are geared towards freshmen and sophomores. The upper level courses, Civil Engineering and Architecture (CEA) and Principles of Engineering (POE), contain a more in-depth curricula, and are populated by students that have a real interest in the field. Because standard course weighting can, at times, hurt a student's overall GPA even if they are performing at a high level, some students have chosen to not take these courses, which is hindering upper level enrollment.

Due to the recognition of these courses at the collegiate level and the increase in content requirements for the PLTW program's advanced courses, it is logical to provide all students the choice to take POE and CEA at a standard or honors designation, to retain our current population while at the same time better meeting the needs of our higher level students.

4. **Impact on Other Courses / Schedules**

Since standard and honors designations would be offered in the same class period, there are no anticipated impacts on student schedules. If there is an increase in enrollment, it is possible that other electives in the building would have a decrease in their enrollments.

5. **Budget Related Items**

None, all required materials are currently available.

6. **Evaluation for Program Success or Continuation:**

- Student performance on the PLTW End of Course Exam
- Student enrollment in POE
- Student feedback provided to instructor

7. **Other Information for Consideration** (optional):

The PLTW end-of-year exam is one of the deciding factors when determining student college credit eligibility; it also drives the distinguishing aspect of the course that separates honors from standard designation. Currently, this course is largely project-based with minimal summative assessments. Students who elect to take the honors designation of the course will be responsible for taking four tests, one at the conclusion of each quarter. These major tests will provide a platform for advanced students to demonstrate their knowledge in a traditional summative setting, holding them accountable for understanding course content in greater depth. Furthermore, the final weighting will be impacted to emphasize the importance of these major exams.

8. **Please attach a description of the course including the units of study.**

*Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of materials and structures, automation, and motion. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation.*

*What type of engineer or engineering technologist would you like to be?*

Principles of Engineering (POE) is a foundation course of the high school engineering pathway. This survey course exposes students to some of the major concepts that they will encounter in a postsecondary engineering course of study. Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of materials and structures, automation, and kinematics. The course applies and concurrently develops secondary level knowledge and skills in mathematics, science, and technology.

Students have the opportunity to develop skills and understanding of course concepts through activity-, project-, and problem-based (APB) learning. By solving rigorous and relevant design problems using engineering and science concepts within a collaborative learning environment, APB learning challenges students to continually hone their interpersonal skills, creative abilities, and problem solving skills. Students will also learn how to document their work and communicate their solutions to their peers and members of the professional community. It also allows students to develop strategies to enable and direct their own learning, which is the ultimate goal of education.

The following is a summary of the units of study that are included in the course for the 2014-2015 academic year. Alignment with NGSS, Common Core, and other standards is available through the PLTW Alignment web-based tool.

### **POE Unit Summary**

Unit 1	Energy and Power (30%)
Unit 2	Materials and Structures (24%)
Unit 3	Control Systems (28%)
Unit 4	Statistics and Kinematics (18%)

### **Unit 1: Energy and Power**

The goal of Unit 1 is to introduce students to mechanisms, energy sources, and alternative energy applications. Students will gain an understanding of mechanisms through the application of theory-based calculations accompanied by lab experimentation.

They will also learn that as energy and power are transferred and transformed, losses to friction in the system will occur. Students will understand that such losses affect the overall efficiency of the system. They will have an opportunity to investigate thermal energy and alternative energy applications. Students will explore and gain

experiences relating to solar hydrogen systems and thermal energy transfer through materials. The unit concludes with students working in teams to solve a design problem that focuses on energy and power. They will use the knowledge and understanding built through the previous learning events to create a solution to the problem. It is important for students to understand that an acceptable solution is one that fits the criteria and constraints of the design brief.

### **Energy and Power Lesson Summary**

- Lesson 1.1 Mechanisms
- Lesson 1.2 Energy Sources
- Lesson 1.3 Energy Applications
- Lesson 1.4 Design Problem – Energy and Power

#### **Lesson 1.1 Mechanisms**

Throughout this course students will have an opportunity to learn about some of the major engineering and engineering technology fields available to them. In this unit students will interview a professional to learn more about that individual's career path and roles in their current position. The interview will be the first portion of a course-long career report.

Mechanisms are the basic components of most machines and consist of gears, sprockets, pulley systems, and simple machines. Today mechanisms can be found in everyday life from the basic components of a bicycle to the high-tech equipment used in the medical industry. Engineers and scientists use mechanisms to manipulate speed, distance, force, and function to meet a wide range of design and application requirements. Due to the wide range of applications involving mechanisms, it is important that designers and end-users understand the characteristics, applications, and limitations of mechanisms.

In Lesson 1.1 Mechanisms, students will gain an understanding of mechanisms through the application of theory-based calculations accompanied by lab experimentation.

#### **Lesson 1.2 Energy Sources**

Technological systems would not be possible without energy, work, and power. Although it is common to hear these terms used interchangeably in conversation, each is different and crucial to creating, using, or maintaining a technological system.

Most power used today is stored or made available when needed. In the past power that was created was often used immediately. A windmill might have been used to pump water or irrigate a field. A water wheel's rotary motion might have been used to ground grains into flour. These systems did not consist of many steps or processes between the energy source and its end use. Today's society demands that energy be stored and transported reliably and predictably to the end user. When energy and power change form, some of it is lost along the way to friction. Engineers are being challenged to find creative ways to generate energy and make systems more efficient.

#### **Lesson 1.3 Energy Applications**

Today's consumer demands effective energy management. Consumers rely on efficient and accessible energy to



power automobiles, homes, appliances, and electronics. National trends regarding energy management include appliance and home energy star ratings and the development of alternative and renewable energy sources. The Law of Conservation of Energy states that energy cannot be gained or destroyed but instead transferred from one form to another.

Understanding how energy is transferred from one form to another allows engineers to design efficient applications utilizing energy. We know that many sources of energy won't last forever, and that many sources of energy have negative consequences on the environment. In the past individuals were forced to harness power that humans or animals created from the energy stored in food. Power could also be harnessed from surrounding resources like wind, flowing water, heat from the sun, or from combustible materials like wood.

This lesson is designed to provide students with an opportunity to investigate thermal energy and alternative energy applications. Students will explore and gain experiences relating to energy transformations in solar hydrogen systems and thermal energy transfer through materials.

#### **Lesson 1.4 Design Problem – Energy and Power**

Problems exist everywhere, and they vary in their degree of complexity and importance. Regardless of how problems are identified or from where they come, engineers use the design process to creatively and efficiently solve problems.

Solutions to problems are sometimes created by teams. These teams work together, constantly communicating with each other, to create the desired product. The team may receive a problem for which they are expected to create a solution with very few constraints. This allows the team to think creatively and use their ingenuity.

In this lesson students will work in teams to solve a design problem that focuses on energy and power. They will use the knowledge and understanding developed throughout unit one to create a solution to the problem. It is important for students to understand that an acceptable solution is one that fits the criteria and constraints of the design brief.

### **Unit 2: Materials and Structures**

The goal of Unit 2 is for students to have a more concrete understanding of engineering through materials properties and statics. Students begin by learning about beam deflection and then forces on truss structures. They learn to identify forces acting on those structures and then gain the ability to calculate internal and external forces acting on those structures.

The students learn about material properties, which lead students to the ability to properly select a material for a given task. Creating new products to meet a given need or want is not the only concern in this area of study. How to reuse/recycle materials for continued and unique uses is also learned.

The primary way of studying materials properties in this unit is through destructive and non-destructive material testing on various materials. Tensile testing is the major destructive test. Students are engaged in how machines perform these tests and use either a classroom machine or a simulation to further their understanding of these processes.

This unit concludes with a design problem whereby students, working in teams, follow the design process to solve a design problem.

### **Materials and Structures Lesson Summary**

- Lesson 2.1 Statics
- Lesson 2.2 Material Properties
- Lesson 2.3 Material Testing
- Lesson 2.4 Design Problem – Materials and Structures

#### **Lesson 2.1 Statics**

Statics is the basis for the study of engineering mechanics, specifically rigid-body mechanics. Statics is concerned with the equilibrium of bodies that are at rest or that move at a constant velocity. Using measurements of geometry and force, Archimedes studied statics concepts in ancient Greece. Most of his work centered on simple machines for construction of buildings.

In this lesson students will learn how to identify and calculate forces acting on a body when it is in static equilibrium. Students will calculate internal and external forces of a truss. They will use this knowledge to design, build, and test their own truss designs.

#### **Lesson 2.2 Material Properties**

Material properties are an important piece of information that engineers rely on when selecting the best material for a design solution. For instance in the 1988 Challenger space shuttle disaster, an o-ring seal failed, causing the death of seven astronauts. A misunderstanding about the limits of a material led to this accident.

Engineers often deal with the design of useful products that require materials with certain characteristics or properties. Complexity is increased when we consider that new materials are constantly being developed, and their application in new products drives economic growth. Engineers, therefore, must know how to make sense of the multitude of different materials available. When existing materials don't provide the desired properties, engineers create new materials called synthetics. Synthetic materials allow engineers to be extremely innovative when designing solutions to society's needs.

Sometimes the focus isn't on the creation of a new material, but on the creation of advanced recycling technology. Nike is one of several corporations assisting engineers with innovative recycling technology. For instance, Nike has worked with engineers to develop a method of recycling athletic shoes. The recycled shoes are ground up and used for the production of basketball courts, tracks, playgrounds, etc.

This lesson is designed to provide students with an opportunity to investigate the basic categories and properties of materials. Students will discover how products are made and how they are recycled once they are no longer useful.

#### **Lesson 2.3 Material Testing**

Material Testing is a critical process that determines whether a product is reliable, safe, and predictable in function. Material testing is basically divided into two major categories: destructive testing and nondestructive testing.

Destructive testing is defined as a process where a material is subjected to a load in a manner that will ultimately cause the material to fail. Machines have been developed specifically to conduct destructive testing. These machines exert force on the sample and record information such as resulting deformation, the amount of stress that builds up inside the sample, elastic behavior, strength, etc.

When non-destructive testing is performed on a material, the part is not permanently affected by the test. The part is usually still serviceable. The purpose of non-destructive testing is to determine whether the material contains imperfections.

Over many years, tests have been developed for measuring the common properties of engineering materials, including acoustical, electrical, magnetic, physical, optical, and thermal properties. But why is material testing so significant?

### **Lesson 2.4 Design Problem – Materials and Structures**

Students have been exposed to the different types and properties of materials in previous lessons. They have also tested and been made aware of the importance of choosing the right material in regards to safety and environmental impacts. Students will now apply what they have learned to a design problem using the design process as their guide.

Problems exist everywhere, and they vary in their degree of complexity and importance. Regardless of how problems are identified or from where they come, engineers use the design process to creatively and efficiently solve problems.

Problems are most often solved by engineering teams. These teams work together, constantly communicating with each other, to create the desired product. The team may receive a problem for which they are expected to create a solution with very few constraints, which allows them to be quite creative.

In this lesson students will work in teams to solve a materials design problem. They will use the knowledge and understandings developed throughout the unit to solve the problem. It is important for students to understand that an acceptable solution is one that fits the constraints and specifications of the design brief.

## **Unit 3: Control Systems**

The goal of Unit 3 is for students to recognize the abundance of and infinite variety of computer use in our daily lives.

Students learn to control mechanical systems by recognizing computer outputs and gaining an understanding of how to write code to control them. They additionally experiment with various input devices and learn how they can adapt computer code to control computer outputs.

Furthermore students gain an understanding of fluid power, both hydraulic and pneumatic. They begin to recognize the power and control advantages of fluid power.

The unit concludes with students working in teams to solve a design problem that focuses on using control

systems. They will integrate their prior knowledge, skills, and understandings from Unit 1: Simple Machines, Unit 2: Material Properties, and this unit. Students will decide what input devices to use, how to code their use, and the various output devices necessary to create a solution to the problem.

### **Commercial Applications Lesson Summary**

Lesson 3.1 Machine Control

Lesson 3.2 Fluid Power

Lesson 3.3 Design Problem – Control Systems

### **Lesson 3.1 Machine Control**

From iPods to automobiles, we use computers every day. Computers are sometimes so small and hidden that we don't even realize we're using a computer. Many of us never think about automobiles containing computers; however, today's vehicles are packed with tiny computers that regulate and monitor systems such as air bags and cruise control. How much more control will computers take from drivers in the future? What will drivers be willing to let their cars do for them? With GPS systems that provide routes and track speed, what are the barriers for autonomous cars?

In this lesson students will learn how to control mechanical processes using computer software and hardware. The software communicates through a hardware interface with different inputs and outputs.

### **Lesson 3.2 Fluid Power**

The primary components and principles of fluid power systems allow industry and machinery to achieve a multitude of tasks. Although fluid power has been used throughout history, it is far from obsolete. In fact fluid power provides exceptional power advantages. Fluid power technologies impact areas from commercial farm machinery to respirator equipment used to provide oxygen to medical patients. Fluid power possesses some very important characteristics. Fluid power has a large amount of power per unit volume or mass. This is generally referred to as power density. Systems are able to multiply force. Another advantage is that fluid can change direction quickly without damaging a system. This allows engineers and designers to utilize flexible piping and hoses to transfer fluid in a variety of directions.

In this lesson students will be introduced to both pneumatic and hydraulic power. They will learn the basic components of each system and how they are designed to manipulate components through work and power. Students will see a clear connection to the previous lesson's applications regarding manipulating mechanisms using work and power.

### **Lesson 3.3 Design Problem – Control Systems**

In previous lessons students were introduced to a variety of ways to transfer energy through mechanical systems. Some of those systems included simple machines, gear systems, pulley systems, sprocket systems, and fluid power. They also learned how to control different mechanisms by writing programs utilizing control software. Students will now apply what they have learned to a design problem using the design process as their guide. Problems exist everywhere, and they vary in their degree of complexity and importance. Regardless of how problems are identified or from where they come, engineers use the design process to creatively and efficiently solve problems.

Solutions to problems are oftentimes created by teams. These teams work together, constantly communicating with each other, to create the desired product. The team may receive a problem for which they are expected to create a solution with very few constraints. This allows the team to think creatively and use their ingenuity.

In this lesson students will work in teams to solve a design problem that focuses on control systems. They will use the knowledge and understanding gained throughout the course to create a solution to the problem. It is important for students to understand that an acceptable solution is one that fits the constraints and specifications of the design brief.

## **Unit 4: Statistics and Kinematics**

In Unit 4 students are engaged in learning to use statistics to evaluate an experiment. Later they begin a study of dynamics, specifically kinematics, and apply statistical skills to study freefall motion.

Students use theoretical and experimental data as a basis for learning statistical analysis. By collecting, organizing, and interpreting the data, students build the skills needed to understand data results.

They further use these new skills and knowledge to design a vehicle that will propel itself. Later, students will address the problem of designing a machine to accurately launch an object a specified distance. Examining projectile motion is at the core of this design problem.

### **Commercial Building Design Lesson Summary**

Lesson 4.1 Statistics

Lesson 4.2 Kinematics

### **Lesson 4.1 Statistics**

Statistics allow for informative decision-making formulated from theoretical and experimental data analysis. Data analysis has become so integrated into today's modern lifestyles that most individuals are unaware of its role in their daily lives. This can be seen in reality shows that base results upon contestants' national popularity and voting results. Box office movie rankings are based on weekend ticket sales. At an individual level, people use statistics for calculating gas mileage, green calculations such as average energy consumption, insurance rates, and calculating class rank and GPA.

In this lesson students will learn the processes of gathering, organizing, interpreting, and formulating an understanding of data through probability and statistics.

### **Lesson 4.2 Kinematics**

While statics is concerned with bodies at rest or moving at a constant acceleration, dynamics is concerned with the accelerated motion of bodies. The study of dynamics developed much later than statics because of the need for accurate measurement of time. Galileo Galilei was a major early contributor, performing experiments with pendulums and falling bodies. Newton's development of the three fundamental laws of motion was the springboard for increased understanding and work by other scientists. The two major branches of dynamics are kinematics, which is concerned with the geometric aspects of motion, and kinetics, which is concerned with the

forces causing the motion.

In this lesson students will create a vehicle to learn important aspects of motion and freefall. Students will solve a problem that will help them to understand the kinematics concepts involved in projectile motion.

**WESTON BOARD OF EDUCATION**

**Weston, CT**

**Meeting Date:** April 23, 2018

**Information Only**

**Action Requested**

**Agenda Item Subject:** Renewal of K-12 health and school counseling curricula

**Submitted by:** Kenneth Crow

**Document Summary/Purpose and/or Recommended Action:**

Review and approval of K-12 health and school counseling curricula renewal

For more Board of Education Meeting and Committee Meeting Information, visit:  
<https://meeting.cabe.org/public/Agency.aspx?PublicAgencyID=47&AgencyTypeID=1>

# Weston School Counseling & Health Programming

*Renewal Update*



**STRONGER  
TOGETHER**



March 20, 2018



# Weston Public Schools

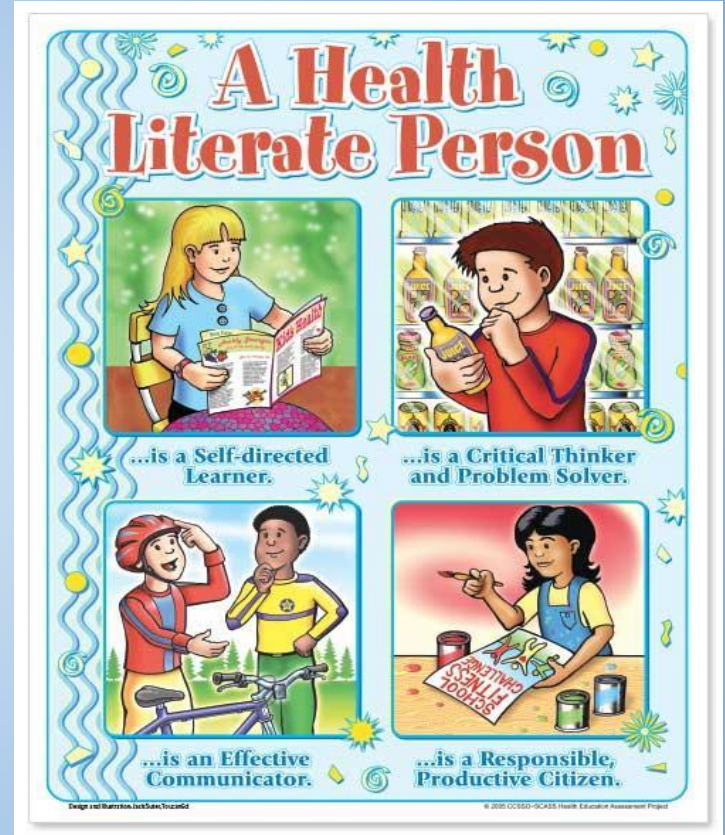


## Health Program Renewal

# What is Health Literacy?

*“Health literacy is the ability to access, understand, appraise, apply and advocate for health information and services in order to maintain or enhance ones own health and the health of others.”*

*Shape America*



# SHAPE America-National Standards



SHAPE  
America

SOCIETY  
OF HEALTH  
AND PHYSICAL  
EDUCATORS®

**Standard 1:** *Students will comprehend **concepts** related to health promotion and disease prevention to enhance health.*

**Standard 2:** *Students will **analyze the influence** of family, peers, culture, media, technology, and other factors on health behaviors.*

**Standard 3:** *Students will demonstrate the ability to **access valid information** and products and services to enhance health.*

**Standard 4:** *Students will demonstrate the ability to use interpersonal **communication skills** to enhance health and avoid or reduce health risks.*

**Standard 5:** *Students will demonstrate the ability to use **decision-making skills** to enhance health.*

**Standard 6:** *Students will demonstrate the ability to use **goal-setting skills** to enhance health.*

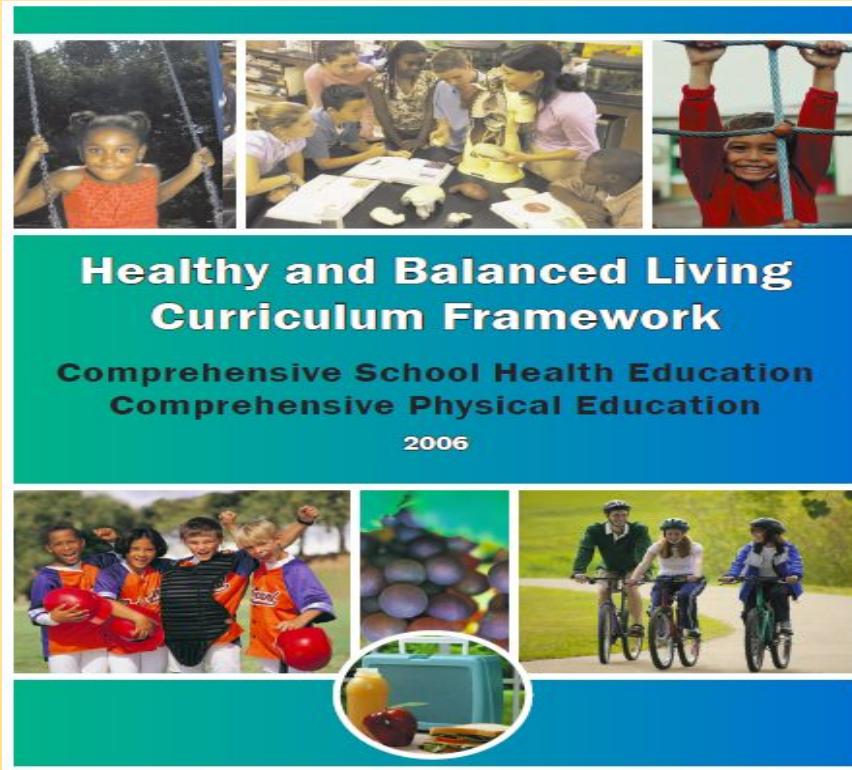
**Standard 7:** *Students will demonstrate the ability to practice health-enhancing behaviors and **avoid or reduce health risks**.*

**Standard 8:** *Students will demonstrate the ability to **advocate** for personal, family, and community health.*

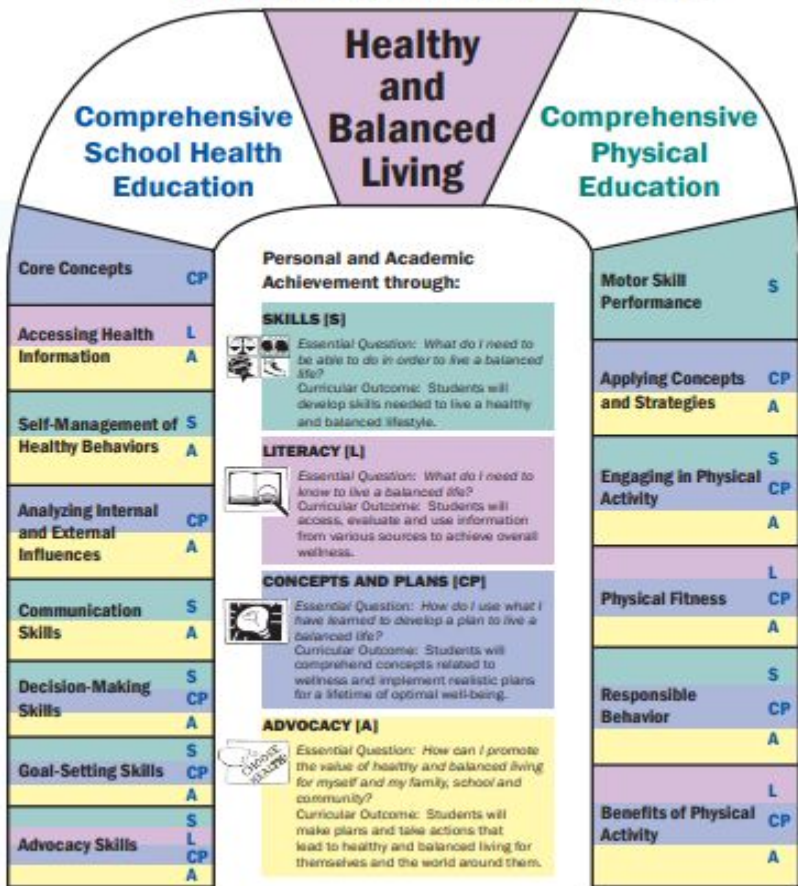


# *State of Connecticut*

## **Healthy and Balanced Living Frameworks**



**BIG IDEA: How do I live a healthy and balanced life?**



An Environment that is Safe – Physically, Socially, Emotionally and Intellectually

## Comprehensive School Health Education

### Standard 1: Core Concepts

Essential Question: What do I need to know to stay healthy?  
Curricular Outcome: Students will comprehend concepts related to health-promotion and disease prevention to enhance health. CP

### Standard 2: Accessing Health Information

Essential Question: How and where do I find information and resources?  
Curricular Outcome: Students will demonstrate the ability to access valid health information and products and services to enhance health. L  
A

### Standard 3: Self-Management of Healthy Behaviors

Essential Question: What can I do to avoid or reduce health risks?  
Curricular Outcome: Students will demonstrate the ability to practice health-enhancing behaviors to avoid and reduce health risks. S  
A

### Standard 4: Analyzing Internal and External Influences

Essential Question: What influences my healthy behaviors and decisions?  
Curricular Outcome: Students will analyze the influence of family, peers, culture, media, technology and other factors on health. CP  
A

### Standard 5: Communication Skills

Essential Question: How can communication enhance my personal health?  
Curricular Outcome: Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks. S  
A

### Standard 6: Decision-Making Skills

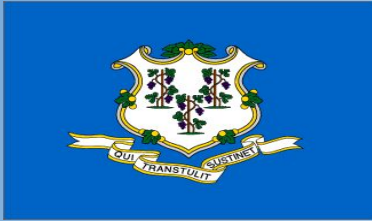
Essential Question: How do I make good decisions to keep myself healthy?  
Curricular Outcome: Students will demonstrate the ability to use decision-making skills to enhance health. S  
CP  
A

### Standard 7: Goal-Setting Skills

Essential Question: How do I use the goal-setting process to improve my health?  
Curricular Outcome: Students will use goal-setting skills to enhance health. S  
CP  
A

### Standard 8: Advocacy

Essential Question: What can I do to promote accurate health information and healthy behaviors?  
Curricular Outcome: Students will demonstrate the ability to advocate for personal, family and community health. S  
L  
CP  
A



# State of Connecticut Laws and Regulations



- [CT Gen Stat § 10-16b \(2012\)](#) (a) In the public schools the program of instruction offered shall include at least the following subject matter, as taught by legally qualified teachers, the arts; career education; consumer education; **health and safety, including, but not limited to, human growth and development, nutrition, first aid, disease prevention, community and consumer health, physical, mental and emotional health, including youth suicide prevention, substance abuse prevention, safety**, which may include the dangers of gang membership, and accident prevention
- [CT Gen Stat § 10-19 \(2012\)](#) (a) The knowledge, skills and attitudes required to understand and avoid the effects of **alcohol, of nicotine or tobacco and of drugs**, as defined in subdivision (17) of section 21a-240, on health, character, citizenship and personality development shall be taught every academic year to pupils in all grades in the public schools
- [CT Gen Stat § 10-19 \(2012\)](#) (b) Commencing July 1, 1989, each local and regional board of education shall offer during the regular school day planned, ongoing and systematic instruction on **acquired immune deficiency syndrome**, as taught by legally qualified teachers.

# Newer Statutes

- 12Public Act No. 16-188 Add **cancer awareness** to their health and safety program of instruction, including developmentally appropriate instruction in performing self-examinations to screen for breast and testicular cancer. (Effective July 1, 2017 )
- Public Act No. 14.196 Implementation of the **sexual abuse and assault awareness and prevention program**. (Effective October 1, 2015)
- Public Act No. 15-94 Inclusion of **cardiopulmonary resuscitation instruction** as part of the health and safety curriculum based on guidelines for emergency cardiovascular care issued by the American Heart Association, and include, but need not be limited to, hands-on training. In addition, the **safe use of social media**. (Effective July 1, 2017)
- Public Act No. 17-42 (c) Commencing with classes graduating in 2023, and for each graduating class thereafter, **one credit in health and safety education**



District:

Date:

Connecticut State Department of Education

Person(s) Completing Review:

Health Education Compliance Review Worksheet  
2015-16

School Health Education Requirements

# CSDE Health Education Compliance Review Worksheet

Evidence  
Sufficient  
(check &  
cite source)

Eviden  
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Insuffi  
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(check  
&  
provid  
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## A. State Mandates

There are three state mandates relating to health education instructional content:

1. Connecticut General Statutes (CGS) Section 10-16b Health and Safety Education.
2. CGS Section 10-19(a) teaching about alcohol, nicotine or tobacco and drugs
3. CGS Section 10-19(b) acquired immune deficiency syndrome

### 1. C.G.S. Section 10-16b Health and Safety Education

A program of study in health and safety education must be offered Grades K-12 in a planned, ongoing and systematic fashion and include, at a minimum:

# HECAT Assessment Tool

## What the HECAT Can Help You Do:

- Identify a curriculum that best meets the school district's health education course of study and is of the highest quality.
- Focus on the most relevant health outcomes and critical health behaviors of youth.
- Analyze any curriculum, locally or commercially developed, for elementary, middle, and high schools.
- Analyze acceptability, appropriateness, and affordability of curricula.
- Analyze teacher materials, instructional strategies, and assessment of student learning.
- Assess affordability and feasibility of implementing curricula.
- Accommodate local revision to address priorities, interests, and needs; allow for community review; and accommodate local school board review and approval.
- Identify strengths and weaknesses to inform decisions about curriculum selection and to guide revision.

## To obtain a copy of the HECAT, choose one of the following options:

Download the document and related materials from the CDC Web site:  
[www.cdc.gov/HealthyYouth/HECAT](http://www.cdc.gov/HealthyYouth/HECAT)

Request by e-mail: [cdc-info@cdc.gov](mailto:cdc-info@cdc.gov)

Request by phone: (800) CDC-INFO

Request by phone for hearing impaired: (888) 232-6348

## Go to the following CDC Web sites for information about:

- National Health Education Standards: [www.cdc.gov/HealthyYouth/SHER/standards/](http://www.cdc.gov/HealthyYouth/SHER/standards/)

- Characteristics of Effective Health Education Curriculum: [www.cdc.gov/HealthyYouth/SHER/characteristics/](http://www.cdc.gov/HealthyYouth/SHER/characteristics/)

- Adolescent and School Health: [www.cdc.gov/HealthyYouth](http://www.cdc.gov/HealthyYouth)

- Centers for Disease Control & Prevention: [www.cdc.gov](http://www.cdc.gov)

# HECAT

## Health Education Curriculum Analysis Tool





# *Health by Grade Level*

## Elementary (K-5)

**K-2** - 33 classes @ 30 minutes each

**3-5** - 22 classes @ 30 minutes each - reduced by  $\frac{1}{3}$  for new Digital Learning course

## Middle School (6-8)

28 classes @ 47 minutes each - 1 trimester

## High School (9-12)

22 classes @ 56 minutes each - 1 quarter



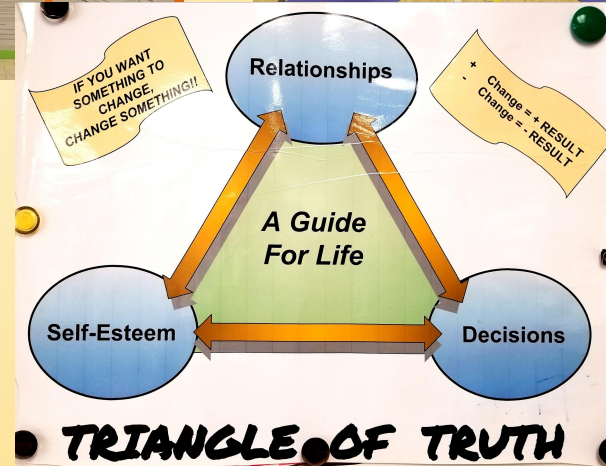
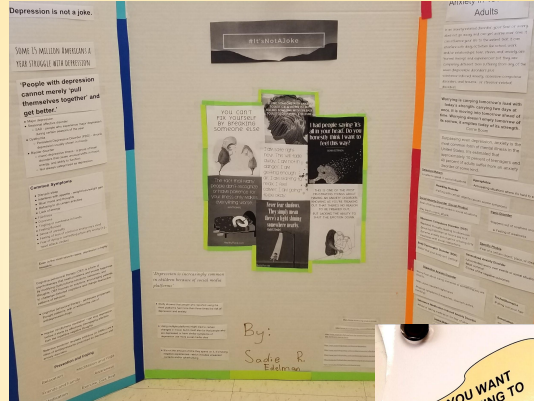
# Elementary Focus



- **Character Building**
- **Communication and Cooperation**
- **Personal Safety Including Substance Use**
- **Advocacy**
- **Body Systems**

# Middle School Focus

- Substance Abuse
- Stress
- Nutrition
- Body/Self Image
- Healthy Relationships
- Sexual Responsibility
- Mental/Emotional Health



# High School Focus



- Freshman - Intro to High School/ Substance Abuse
- Sophomore - Human Sexuality/ Baby Think it Over Project
- Junior - Independent Research Project
- Senior - Life After High School

# At-A-Glance Support

*Visuals to support what  
we do and when we do it*





9<sup>th</sup>

**\*How to Thrive in High School \*Substance Abuse**

- introduction to school services, goal setting, perceptions vs. reality, positive choices, substance use and abuse

10<sup>th</sup>

**\*Sexuality \*Relationships \*STI's/Contraception**

- sexuality education, sexual health, healthy and unhealthy relationships, STI's and contraception

11<sup>th</sup>

**\*Junior Independent Research Project**

- independent research project exploring a health related topic of personal interest

12<sup>th</sup>

**\*Mental Health \*Sexual Health \*Health and Safety**

- life after Weston High School, aiding in the transition to college life/independent living

**WESTON HIGH SCHOOL**

6<sup>th</sup>

**\*Stress Management \*Puberty \*Nutrition**

- managing stressors, body changes, balancing meals

7<sup>th</sup>

**\*Nutrition \*Marijuana, Alcohol, and Vaping  
\*Body Image**

- essential nutrients and fast food, how substances affect our futures, peer and media influence on self-image

8<sup>th</sup>

**\*Harder Drugs \*Mental Health \*Sexuality**

- self-advocacy, connecting relationships and self-esteem to decisions, anxiety and depression, sexuality and sexual responsibility

**WESTON MIDDLE SCHOOL**



*Weston Public School's*



# K-12 Health Education

*Developing "health literate" students*

"Health literacy is the ability to access, understand, appraise, apply, and advocate for health information and services in order to maintain or enhance one's own health and the health of others."

*Shape America*

**WESTON INTERMEDIATE SCHOOL**

3<sup>rd</sup>

**\*Responsibility \*Other Body Systems \*Bullying**

- responsible decisions, nervous, skeletal, endocrine systems, developing skills to combat bullying

4<sup>th</sup>

**\*Cooperation \*Nutrition \*Fitness \*Risky Behaviors**

- cooperative skills, meal creation, components of fitness, advocating in risky situations

5<sup>th</sup>

**\*Character \*Decision Making \*Goal Setting  
\*Social and Emotional Wellness \*Puberty**

- character traits, positive decisions, short and long term goals, emotional wellness, body changes

**HURLBUTT ELEMENTARY SCHOOL**

K

**\*Fire Safety \*Feelings \*Dental Health**

**\*Cardiovascular System**

- fire skills, emotional intelligence, oral hygiene, the heart

1<sup>st</sup>

**\*Personal Safety \*Allergies \*Nutrition \*  
Respiratory System**

- personal and social safety, common allergens, nutritious foods, lung health

2<sup>nd</sup>

**\*Communication \*Empathy \*Risky Behaviors**

- interpersonal skills, understanding empathy, empathy skills, examining and avoiding risky situations

**Safety**

Students will identify ways to keep themselves safe at home and at school. They will learn about safety hazards and how to avoid them. They will also discuss allergen, stranger, appropriate touch, and personal safety.

**Body Systems**

Focus will include personal hygiene that can help enhance through lessons on better handwashing, brushing teeth, and personal systems. Cardiovascular, respiratory, skeletal, muscular and the nervous system will be explored.

**Nutrition**

Students will identify the five food groups using the "Food Pyramid" and learn to develop an understanding of a balanced meal including all five food groups.

**Risky Behaviors**

Students will identify healthy and unhealthy risks for their age group. They will begin to understand how people can influence their choices. Substances will be discussed in an age appropriate manner.

**Communication**

Students will learn to identify different emotions and discover ways to express them. They will learn to identify and describe their own emotions and feelings. They will learn to identify and describe the emotions of others. They will learn to identify and describe the emotions of others. They will learn to identify and describe the emotions of others.

**3 - 5****Responsibility**

Students will demonstrate characteristics needed to be a responsible and responsible individual within a group. Students will examine and identify their own responsibilities. Students will identify and describe their own responsibilities. Students will identify and describe their own responsibilities.

**Body Systems**

Students will identify personal behaviors and choices that are health enhancing through lessons on body systems. Focus will be placed on understanding the overall body development.

**Character**

Focus will be placed upon empathy, respect, integrity, perseverance, self-control, and honesty through a variety of cooperative activities. Students will learn to identify and describe their own character traits and how they can be used to enhance their own character. Students will learn to identify and describe their own character traits and how they can be used to enhance their own character.

**Nutrition and Personal Fitness**

Students will explore the connection between the five components of physical fitness and how they relate to the overall health of the body. They will learn to identify and describe their own physical fitness and how they can be used to enhance their own physical fitness.

**Liberty**

Physical, social, and emotional changes that occur during puberty will be explored. Students will learn to identify and describe their own physical, social, and emotional changes and how they can be used to enhance their own physical, social, and emotional changes.

**Stress Management**

Students will define stress, anxiety, depression and stress and identify the signs and symptoms of each. They will learn to identify and describe their own stress and anxiety and how they can be used to enhance their own stress and anxiety.

**Nutrition**

Students explore USDA website researching the Food Pyramid. They will learn to identify and describe their own nutrition and how they can be used to enhance their own nutrition.

**Puberty**

Students learn a little deeper into the topic of human growth and development. They will learn to identify and describe their own puberty and how they can be used to enhance their own puberty.

**7****Nutrition**

Students will explore the essential nutrients and will create menus including diet, behavior and a goal. Students will also research and identify the signs and symptoms of each. They will learn to identify and describe their own nutrition and how they can be used to enhance their own nutrition.

**Self/Body Image**

Students will learn to identify and describe their own self/body image and how they can be used to enhance their own self/body image.

**Substance Abuse**

A major emphasis is placed upon alcohol, marijuana, and vaping. Students will learn to identify and describe their own substance abuse and how they can be used to enhance their own substance abuse.

**Substance Abuse****8****Substance Abuse**

Students will learn to identify and describe their own substance abuse and how they can be used to enhance their own substance abuse.

**Emotional Health**

Students will learn to identify and describe their own emotional health and how they can be used to enhance their own emotional health.

**Healthy and Unhealthy Relationships**

A focus will be placed on identifying and describing healthy and unhealthy relationships. Students will learn to identify and describe their own healthy and unhealthy relationships and how they can be used to enhance their own healthy and unhealthy relationships.

**Sexuality and Sexual Responsibility**

Students will learn to identify and describe their own sexuality and sexual responsibility and how they can be used to enhance their own sexuality and sexual responsibility.

**9**

Students will participate in an "Introduction to Services" unit where they will meet with guidance counselors, school nurses, and other professionals. They will learn to identify and describe their own services and how they can be used to enhance their own services.

**10**

Students review the male and female reproductive systems making connections to reproductive health. They will learn to identify and describe their own reproductive health and how they can be used to enhance their own reproductive health.

**11**

Students take part in the "Learn Independent Research Project." Students will research a health related topic of their choice independently. Ideally, students select a topic that they have an interest in or a personal connection to. Research continues throughout the quarter with some assistance from our library media specialist. The project culminates with high quality presentations directed toward their peers.

**12**

Students will focus on "Life After Weston High School." Support structures for a healthy transition into college/campus life and/or more independent living environments is explored. Key components of this transition include topics related to health and wellness, academic life, living environments, and personal safety. Students will also examine mental illness, medication and rehabilitation centers in our mental health unit. Students will learn to identify and describe their own transition and how they can be used to enhance their own transition.

\*Content and timing may change year to year based upon community and school concerns.

# WESTON PUBLIC SCHOOLS HEALTH EDUCATION



Ms. Anne Aquila  
9-12

Mrs. Christina Gallo  
6

Mrs. Lois Miller  
K-5

Mr. Chris Pace  
7

Mrs. Patty Powers  
7-8

Mr. Dennis Richetelli  
9-12

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## Developing health literate students.

SHAPE America has recently expanded its definition of health literacy to the "ability to access, understand, appraise, apply and advocate for health information and services in order to maintain or enhance one's own health and the health of others." Oct 2, 2017



# Need For Flexibility

*Our curriculum is a working document and is designed to be flexible. We change and adapt to respond to community and societal concerns and issues.*

- **The Opiate Crisis** - added new lessons, revised projects, and incorporated parent connection assignments in grades 8, 9, and 12.
- **Mental/Emotional Health** - enhanced units K-5, Revised grade 6 stress unit, added new unit, PBA, and parent connection in grade 8, embedded mental/emotional health into all high school units.
- **Vaping** - added to substance abuse lessons K-5, included in grade 7 substance abuse PBA, embedded into grade 8 substance abuse lessons and decision making discussions. SRO visits grade 7 and 8 Health classes to discuss.
- **Sexual Harassment/Assault** - Invited outside agency to speak with grade 8 students, held team community meeting. Considering moving to grade 7 to be proactive.

*Currently  
Working On.....*



# Parent Connections

*We are currently creating opportunities for students and parents to discuss together important topics covered in class. Our goal is to build a bridge between school and home making it easier for students to ultimately create conversation when difficult issues arise in their lives. This is a K-12 endeavor and we are at the beginning stages.*



## FUTURE COFFEES, PARENT NIGHTS, AND PARENT COMMUNICATIONS

### PARENT CONNECTION – OPIATE CRISIS

This is an added assignment created to start conversation regarding the current opiate crisis in our country, state, and community. In grade 8 students research and discuss a variety of substances, most of the “harder core” nature. Due to the current opiate crisis, I have decided to adapt our current unit to include a more in-depth look at prescription drug abuse, opiates, and heroin addiction.

As you can imagine, this topic is a scary one for many students. If we address this issue together, with influence from school and home, we will be more effective in helping students to develop skills to start conversations, advocate for themselves, and make positive choices that will steer them away from using substances.

#### TASK

- **Show** your parents or trusted adult the photo of the research we have done in class.
- **Lead** a conversation, explaining what you have learned as well as positive choices you plan to make that will steer you away from negative influences.
- **EXPLAIN** THE TRIANGLE OF TRUTH AND RELATE IT TO YOUR CURRENT LIFE AND FUTURE.



- Then, create 4 post-it notes together. These are going to go on large posters in our room that we will all be able to view, explore, and learn from. Essentially, A COMMUNITY EFFORT – it takes a village 🏡
- **POST-IT #1** – “How do you think this crisis could affect our society - short and long term?”
- **POST-IT #2** – “How can we, as COLLECTIVE members of our community, help curb this epidemic?”
- **POST-IT #3** – “What advice can you give me to stay away from gateway substances like vaping, alcohol, and marijuana?”
- **POST-IT #4** – Make a list together of your support system (no specific names needed – i.e. more, dad, brother, sister, counselor, teacher, friend, etc.)

Parents, please sign below to acknowledge assignment completion.

STUDENT NAME \_\_\_\_\_  
DA: 28 7A 7B \_\_\_\_\_  
PARENT/ADULT SIGNATURE \_\_\_\_\_

WANT SOMETHING TO CHANGE? CHANGE SOMETHING.™, and “CONTROL”

When you start to see things in a different way, you can start to change them. You can start to see things in a different way, you can start to change them. You can start to see things in a different way, you can start to change them.

COMMUNITY EFFORT

STUDENT NAME \_\_\_\_\_  
DA: 28 7A 7B \_\_\_\_\_  
PARENT/ADULT SIGNATURE \_\_\_\_\_

# EMOTIONAL INTELLIGENCE CONNECTIONS

- **Embedding Anchor Tools and EI language into Existing Lessons**

- *Mood Meter*
- *RULER*
- *Meta Moment*
- *Blueprint*



- **Revising Performance Based Assessments**

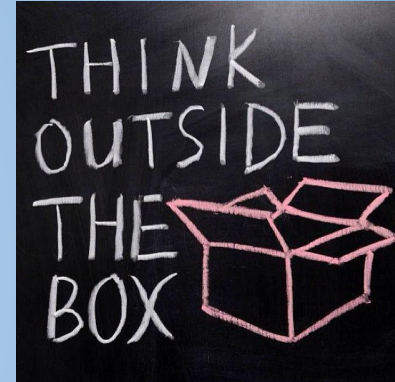
- *Students will need to use the anchor tools to be successful while completing authentic real world tasks*

- **Classroom Discussions**

- *Make connections between curricular content, decisions, emotions, feelings, and the EI anchor tools*

# Collaboration, Technology, Art, and Practical Skills

- Constant collaboration and group work
- The use of Google Classroom for management, organizing, and assessment
- Sharing Google docs, sheets, slides
- Exploring updated websites to access and analyze information
- Using Padlet, Poplet, Canva
- Using Kahoot as an assessment tool
- Using art supplies to demonstrate learning
- Creating graphic organizers
- Designing menus
- Coloring and doodling for stress relief
- Making posters, tri-folds, board games, dioramas, magnets
- Presenting timelines, PSA's, formal presentations
- ***ALWAYS – encouraged to problem solve and think outside the box!***



# challenge

- *Time*
- *Pull-outs*
- *Need for Flexibility*
- *Teacher Prep*

*arrghh*

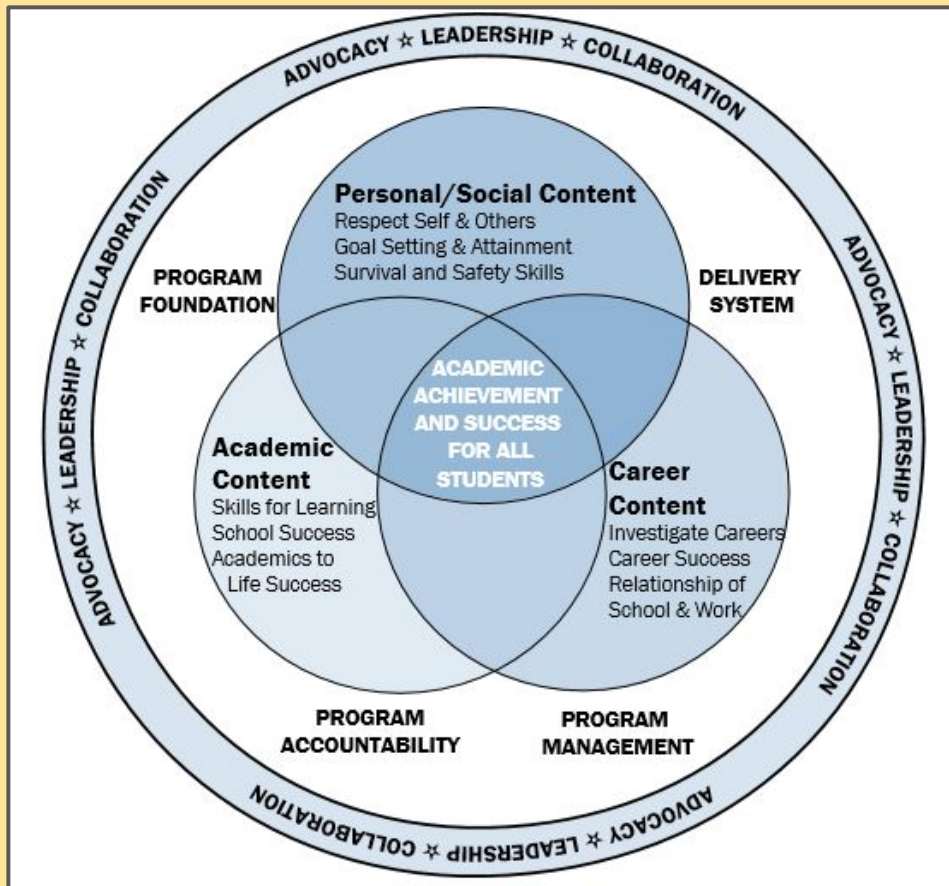


# ***A Collaborative Approach***



Advocate  
Collaborate  
College  
Academics  
Passion  
Love  
Strenghts  
Individual  
School  
Career  
Planning  
Personal  
Encourage  
Guidance  
Support  
Referrals  
Professional  
Social  
Ethics  
Classroom  
Groups  
Counseling

# CONNECTICUT MODEL COMPREHENSIVE SCHOOL COUNSELING PROGRAM



# **WPS SCHOOL COUNSELING CURRICULUM K-12**

## **STATEMENT of PHILOSOPHY**

Throughout the Weston Public Schools, Professional School Counseling services are predicated on the understanding that each student is a unique, developing, capable individual who will learn from experience and grow personally, socially, and academically throughout childhood and adolescence. Respectful of the dignity and worth of each individual, counselors assist and support students as they begin to understand themselves, develop decision making and problem solving skills, and plan for the future. Counseling services promote effective communication and life planning skills that help students grow into responsible, self-sufficient and contributing members of society.

## **MISSION**

The mission of the Weston K-12 Comprehensive School Counseling Program is to empower all students to become independent and productive citizens in a contemporary global society by promoting academic potential, fostering social-emotional well-being, and exploring future aspirations.

# School Counseling Services

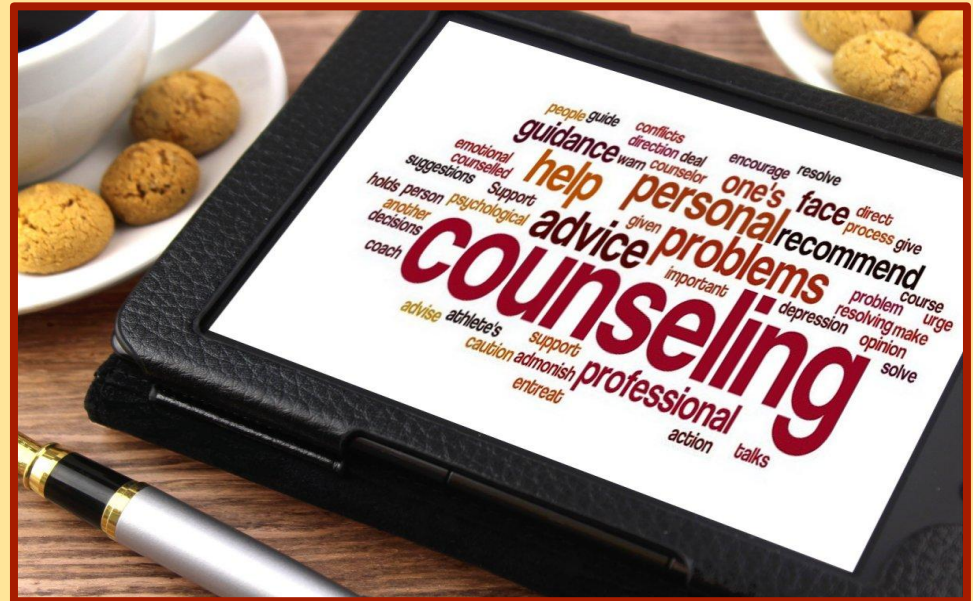
The procedures, activities and services of the school counseling program ensure appropriate and timely response to academic, career and personal/social concerns:

- \*Intervention services are delivered through individual and/or group counseling.
- \*For many services the focus is on preventative awareness and intervention. These services are delivered in collaboration with teachers, administrators, and student services staff through individual, group and classroom activities.
- \*A significant aspect of counseling services is focused on responsive services as personal, social/emotional issues come forward on a daily or weekly basis.
- \*Counselors provide input on the WHS crisis team for school wide emergency and crisis situations.
- \*The consultation process is used by school counselors to share and exchange information to help students succeed in their academic, career and personal/social development.
- \*Collaboration with other school-based specialists and/or community services assists school counselors in identifying services for students with a potential need for intervention.

# Individual Counseling

School Counselors are available to students on an as needed basis for individual counseling as well as for ongoing counseling support or counseling services. In addition, School Counselors manage 504 students with mandated weekly counseling services. Some of the main topics addressed in counseling sessions include:

- Stress and Anxiety Management
- Depression
- Substance Abuse
- Emotional & Behavioral Regulation
- Self-Advocacy
- Grief and Loss
- Social Media Responsibility
- Self-Esteem
- Healthy/Abusive Relationships
- Crisis Management
- Problem Solving & Resiliency
- Family Systems



# Group Counseling

- Students are identified by counseling staff, teachers or administrators, parents/guardians, or choose to participate in a group designed to enhance self-esteem, foster positive peer relationships and learn strategies for dealing with complicated social stressors that occur during childhood and adolescence.
- Specifically, these groups address the following;
  - School Attendance
  - Academic Performance/Balance
  - Emotional Intelligence
  - Establishing & Enhancing Healthy Relationships
  - Coping Skills (preventative and reactive strategies)
  - Transitions
  - Social Skills
  - Changing Families







# New Programs Since Last Renewal

- PBIS Positive Behavior Interventions and Supports
- Student Success Plans
- Emotional Intelligence
- Increase in student counseling groups
- Effective School Solutions: HS in district program to address students with emotional concerns. Licensed Social Workers provide individual, group and family therapy.

PBIS: Provide a positive school climate for all students. Reward Positive behavior. Help students understand the perspective of others and recognize when others need support. Also provides for 3 tiers of intervention for students with continued concerns.

Building based PBIS programs:

- HES: BEE
- WIS: PRIDE
- MS: SOAR
- HS: TROJAN

# WHS Student Success Plans

The **Student Success Plan** is a collection of programs and services that addresses academic, personal/social, and career topics for students in grades 6-12. It also incorporates essential **21<sup>st</sup> Century Skills**.

The purpose of the Student Success Plan is to:

- ❖ Set personal and academic goals
- ❖ Support rigorous high school expectations
- ❖ Explore postsecondary education and careers

The following slides describe the Student Success Plan components by grade level.



# SSP - Grade 9

<b>Freshman Orientation/ True TROJAN</b>	<b>A, P/S</b>
<b>Positive School Climate Presentation</b>	<b>P/S</b>
<b>Introduction to College &amp; Career Center</b>	<b>C</b>
<b>Individual Meetings with Counselors</b>	<b>A, P/S, C</b>
<b>Course Selection/ Credit Checks/ Create Academic Plan</b>	<b>A</b>
<b>Introduction to Naviance</b>	<b>A, C</b>
<b>Gameplan Survey</b>	<b>A,C</b>
<b>Trojan Time</b>	<b>A, P/S</b>

*Guaranteed experiences that incorporate 21st Century Skills into the academic (A), personal/  
social (P/S), and career (C) domains*

# SSP - Grade 10

<b>Resume Builder</b>	<b>P/S, C</b>
<b>“Do What You Are” Interest Inventory</b>	<b>P/S, C</b>
<b>Career Interest Profiler</b>	<b>C</b>
<b>Career Assembly</b>	<b>C</b>
<b>College and Career Center Resources</b>	<b>C</b>
<b>Testing Information &amp; Calendar</b>	<b>A</b>
<b>PSAT</b>	<b>A</b>
<b>Individual Meetings with Counselors</b>	<b>A, P/S, C</b>
<b>Course Selection/ Credit Checks/ Review Academic Plan</b>	<b>A</b>
<b>Trojan Time</b>	<b>A, P/S</b>

## **Optional Programs:**

- v College Admissions Panel**
- v Financial Aid Night Presentation**

*Guaranteed experiences that incorporate 21st Century Skills into the academic (A), personal/ social (P/S), and career (C) domains*

# SSP - Grade 11

<b>Junior Seminar</b>	<b>A, P/S, C</b>
<b>Junior Questionnaire</b>	<b>A, P/S, C</b>
<b>My Game Plan</b>	<b>A, P/S, C</b>
<b>Resume</b>	<b>A, C</b>
<b>Career Interest Profiler</b>	<b>C</b>
<b>College Visits in the College and Career Center</b>	<b>C</b>
<b>Individual Meetings with Counselor</b>	<b>A, P/S, C</b>
<b>Post-secondary meeting in the CCC</b>	<b>A, C</b>
<b>Alumni Presentation</b>	<b>A, P/S, C</b>
<b>Testing Information</b>	<b>A</b>
<b>PSAT</b>	<b>A</b>
<b>Course Selection/ Credit Checks/ Review Academic Plan</b>	<b>A</b>
<b>Trojan Time</b>	<b>A, P/S</b>

## **Optional Programs:**

- v Junior Parent Night Presentation**
- v College Admissions Panel**
- v Financial Aid Night Presentation**

*Guaranteed experiences that incorporate 21st Century Skills into the academic (A), personal/ social (P/S), and career (C) domains*

# SSP - Grade 12

<b>Senior Seminar/ Application Process</b>	<b>A, P/S, C</b>
<b>Individual Meetings with Counselor</b>	<b>A, P/S, C</b>
<b>Testing Information</b>	<b>A</b>
<b>College Visits in the College and Career Center</b>	<b>C</b>
<b>College and Career Center Resources/ Scholarships</b>	<b>A,C</b>
<b>Senior Survey</b>	<b>A, P/S, C</b>
<b>Trojan Time</b>	<b>A, P/S</b>

## **Optional Programs:**

- v College Admissions Panel**
- v Financial Aid Night Presentation**
- v Senior Internship**

*Guaranteed experiences that incorporate 21st Century Skills into the academic (A), personal/ social (P/S), and career (C) domains*

# WMS Student Success Plans at WMS

Academic Development	Personal/Social Development	Career Development
<p><b>Transition planning and Student Orientations</b></p> <p><b>Course selection process (1:1 in Gr. 8)</b></p> <p><b>Classroom Counseling Lessons</b></p> <p><b>Goal-setting &amp; Learning Skills Inventories in Naviance</b></p> <p><b>Academic data team reviews and timely interventions</b></p> <p><b>Learning experiences outside of the classroom</b></p>	<p><b>Weekly Advisory lessons</b></p> <p><b>Individual and group counseling</b></p> <p><b>Internet safety presentations</b></p> <p><b>Personality/interest inventories in Naviance</b></p> <p><b>Community meetings related to current needs and personal accountability</b></p> <p><b>Team building and social responsibility (Nature's Classroom and field trips)</b></p>	<p><b>Career key interest and ability inventories</b></p> <p><b>Career scavenger hunt</b></p> <p><b>Career Day with Keynote Speakers and Presenters &amp; Reflection (Grade 8 only)</b></p>



# ***Changes since the last curriculum renewal...***

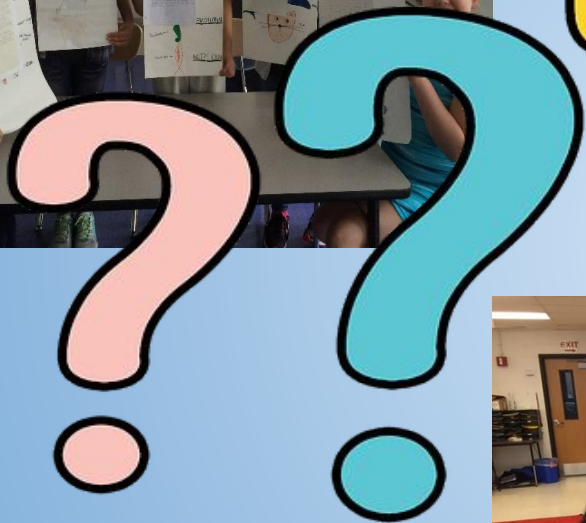
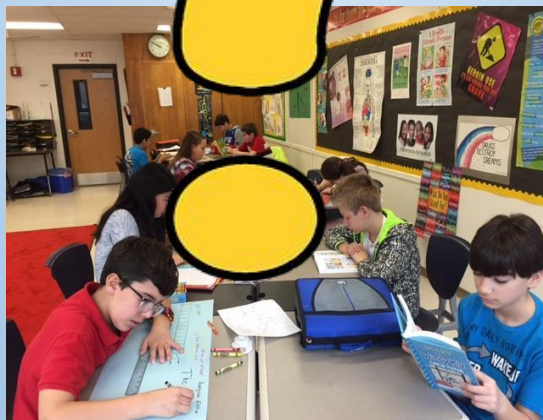
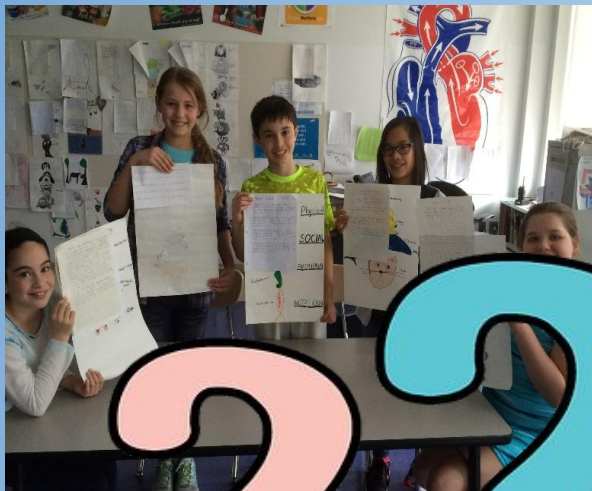
- ❖ Social Media: Speed and types of communication. Increased online bullying.
- ❖ Sexual Harassment and abuse
- ❖ Substance Abuse
- ❖ Behavior Regulation
- ❖ Anxiety and Depression
- ❖ Additional staff collaboration to address concerns:
  - Student Assistance teams, CORE teams, Crisis teams, teacher collaboration with counselors, Special Education staffings
- ❖ Students speaking up when they have concerns for other students
- ❖ Use of PowerSchool and Naviance for staff, students and parents

# School Counseling Curriculum

- K-5th: Provide lessons in the classrooms to address a variety of topics.
- MS/HS: Classroom lessons and the use of the advisory period to address topics.
- Each topic is addressed and reinforced throughout the grades and is designed at the appropriate developmental level with materials and content.

# Topics Include:

- ❖ Building Self-Awareness
- ❖ Understanding & Using Self-Control
- ❖ Problem Solving Strategies
- ❖ Positive Communication
- ❖ Kid-Sized vs. Adult Sized Problems
- ❖ Making Good Choices
- ❖ Building Resiliency
- ❖ Handling Teasing & Bullying
- ❖ Respecting Differences
- ❖ Taking Responsibility for self:
  - Attitude
  - Learning
  - Behavior
- ❖ Stress Reduction Strategies
- ❖ Exclusion Behavior
- ❖ Goal Setting
- ❖ Intent vs. Impact
- ❖ Impact of Words or Actions



**WESTON BOARD OF EDUCATION**

**Weston, CT**

**Meeting Date:** April 23, 2018

**Information Only**

**Action Requested**

**Agenda Item Subject:** PE and Health Curriculum Renewal

**Submitted by:** Kenneth Crow

**Document Summary/Purpose and/or Recommended Action:**

Abbreviated and detailed health education scope and sequence for Board review

For more Board of Education Meeting and Committee Meeting Information, visit:  
<https://meeting.cabe.org/public/Agency.aspx?PublicAgencyID=47&AgencyTypeID=1>

## WPS HEALTH EDUCATION - ABBREVIATED SCOPE AND SEQUENCE

Grade	Unit	Content
K	<i>Safety</i>	safety rules, allergies, acquisition and transmission, EpiPen, handwashing, allergy alert table, snacks, bus safety, playground safety, fire safety, personal safety, stranger safety
K	<i>Feelings</i>	feelings, emotions, Meta-Moment, Mood Meter, best self
K	<i>Dental Health</i>	purpose of teeth, baby tooth to adult tooth progression, types of teeth, oral hygiene
K	<i>Body Systems</i>	systems as parts of our whole body, taking care of our bodies to keep them healthy, consequences of taking care, and not taking care, or our bodies, heart, muscles, bones
K	<i>Nutrition</i>	My Plate, food groups
K	<i>Risky Behaviors</i>	medicine, poisons, chemicals, safe choices and dangers
1	<i>Safety</i>	safety rules, how allergies develop, hygiene, bus safety, playground safety, fire safety, stranger safety, personal safety
1	<i>Feelings</i>	nature of feelings, communication of feelings, empathy, emotional intelligence connection, bullying, harassment
1	<i>Dental Health</i>	flossing, fluoride, brushing technique, rinsing, frequency of dental care, what to expect at the dentist
1	<i>Body Systems</i>	basic circulatory system anatomy and functions, basic respiratory system anatomy and functions.
1	<i>Nutrition</i>	My Plate, five food groups, balance
1	<i>Risky Behaviors</i>	chemicals including medicine, alcohol, smoking, choices, consequences, summer safety
2	<i>Communication</i>	define communication, empathy, sympathy, respect, listening skills, bullying, harassment
2	<i>Dental Health</i>	anatomy of a tooth, orthodontics, cavities, gum disease, plaque, tartar
2	<i>Body Systems</i>	muscular, skeletal and nervous systems, muscles and bones working together, nerves and the brain, voluntary and involuntary muscles
2	<i>Nutrition</i>	value of each food group, choices, toxins and chemicals in foods
2	<i>Risky Behaviors</i>	healthy risk vs. unhealthy risk, alcohol, smoking, vaping, choices, consequences
3	<i>Allergies/Communicable Diseases/Infections</i>	immune system, white blood cells, histamine, allergens, EpiPen, anaphylaxis, hand washing, food and snacks
3	<i>Responsibility</i>	responsibility, teamwork, collaboration, communication, accountability, attitude, bullying, teasing, harassment
3	<i>Body Systems</i>	digestive system anatomy and functions, cardiovascular system anatomy and functions, respiratory and heart rate, red and white blood cells, platelets, plasma, cuts and bruises, related illnesses, how the systems work together
3	<i>Risky Behavior</i>	tobacco, pipes, cigars, cigarettes, electronic cigarettes, vaping devices, alcohol, wine, beer, the impact alcohol and tobacco have on the body systems, healthy habits to keep safe and away from unhealthy substances
4	<i>Safety</i>	review fire, playground, bus, stranger, and personal safety, connecting safety rules to themselves personally
4	<i>Cooperation</i>	communication, teamwork, tolerance, accountability, responsibility, pride, bullying, harassment
4	<i>Nutrition</i>	meal building, balance, complete nutrition
4	<i>Fitness</i>	the 5 components of fitness, flexibility, body composition, muscular endurance, muscular strength, cardiovascular endurance, Connecticut Physical Fitness Test.
4	<i>Body Systems</i>	skeletal system anatomy and functions, muscular systems anatomy and functions, types of bones, types of joints, types of muscles, purpose of muscles
4	<i>Risky Behaviors</i>	tobacco and smoking, alcohol, addiction, nicotine
5	<i>Character</i>	character traits, integrity, respect, tolerance, honesty, accountability, perseverance, responsibility, bullying, teasing

<b>Grade</b>	<b>Unit</b>	<b>Content</b>
5	<i>Nutrition and Fitness</i>	growth during pre-pubescence, body mass index, body types: mesomorph, ectomorph, endomorph, calories, social and emotional benefits of exercise and good nutrition
5	<i>Social/Emotional Wellness</i>	emotions, feelings, anxiety, depression, emotional intelligence language, bullying, harassment
5	<i>Substance Abuse</i>	tobacco and nicotine, cigarettes, cigars, pipes, electronic cigarettes, vaping devices, chewing tobacco, alcohol, inhalants, marijuana, caffeine, energy drinks, stimulants and depressants
5	<i>Puberty</i>	physical changes, emotional changes, hygiene, respecting peers and their differences, resources and support
5	<i>Goal Setting</i>	long term and short term goals, positive self-talk, problem solving
6	<i>Stress Management</i>	eustress, distress, self-esteem, bullying, harassment, coping, pro-active behaviors, depression, anxiety, substance use connection, support, resources, emotional intelligence connection, meditation
6	<i>Nutrition</i>	personal food choices, USDA food guidelines, food comparison, diet tracking, media and peer influence
6	<i>Puberty</i>	social, emotional, and physiological, responsibility, hygiene, maturity
7	<i>Nutrition</i>	fat, protein, carbohydrates, vitamins, and minerals, purpose of nutrients, fast food analysis, personal nutritional needs
7	<i>Self and Body Image</i>	body image, self-image, eating disorders, image distortion, depression, anxiety, media influences, peer influences, resources, support system, emotional intelligence connection, bullying, harassment
7	<i>Substance Abuse</i>	tobacco, vaping, inhalants, alcohol, and marijuana, physiological effects, relationships, social and emotional consequences
8	<i>Substance Abuse</i>	vaping, alcohol, marijuana, opiates, cocaine, synthetic drugs, predatory drugs, stimulants, depressants, Triangle of Truth (self-esteem, relationships, and decisions connection), consequences, pro-active behaviors, decision making, stress management, family, problem solving, analyzing, predicting, peer pressure and influence, communication
8	<i>Emotional and Mental Health</i>	anxiety, depression, self-esteem, self-destructive behaviors, pro-active behaviors, healthy responses to stress/anxiety/depression, suicide, Triangle of Truth connection, resources and places to go to for help, communication skills
8	<i>Healthy/Unhealthy Relationships</i>	dating violence, healthy and unhealthy relationships, relationship skills, resources, support systems, communication, emotional intelligence connection, Triangle of Truth connection
8	<i>Sexual Issues and Responsibility</i>	media, cultural, and societal influences, consequences of sexual decisions, substance use/sexual decisions connection, abstinence benefits, resources and places to go to for support, communication skills, Triangle of Truth connection
9	<i>How to Thrive in High School</i>	planning, goal setting, high school life, decision making, support systems, peer influence, media influence, social media influence, perceptions versus reality
9	<i>Substance Abuse</i>	health forums, vaping, alcohol, marijuana, opiates, cocaine, synthetic drugs, predatory drugs, stimulants, depressants, peer influence, media and social media influence, consequences, social pressure, connection to future, friendships, and family
10	<i>Sexual Issues and Responsibility</i>	sexual choices, consequences, decision making, taking care of a child, physical, familial, social, emotional, and financial impact, sexuality, orientation, gender issues, STI's, contraception, abstinence, reproductive systems, healthy and unhealthy relationships, personal safety, substance use connection to sexual choices
11	<i>Research Project</i>	research, inquiry, curiosity, communication, advocacy, presentation, reflection, defending, problem solving, goal setting
12	<i>Emotional Health</i>	stressors (eustress /distress), mental and emotional wellness, depression, anxiety, other emotional disorders, suicide
12	<i>Sexual Health</i>	sexual health, disease prevention, choices, social pressures in independent living environments
12	<i>Relationships</i>	relationship spectrum, consent, harassment, abuse
12	<i>Personal Safety</i>	alcohol culture at today's colleges and universities, current alcohol and drug trends, independent living safety, support structures
12	<i>Life After High School</i>	college life, independent living, responsibility, accountability, consequences, support



# WPS – Health Education Scope and Sequence

Grade	Unit	Content	Skills
K	Safety	safety rules, allergies, acquisition and transmission, EpiPen, handwashing, allergy alert table, snacks, bus safety, playground safety, fire safety, personal safety, stranger safety	Identify different types of allergies. Explain how to be safe in various environments and how also to interact to keep others around them safe. Demonstrate specific safety behaviors.
K	Feelings	feelings, emotions, Meta-Moment, Mood Meter, best self	Recognize different emotions and explain how their “best self” would respond. Explain the “Mood Meter” and identify different emotions. Use the “Meta-Moment” to practice responding to difficult situations.
K	Dental Health	purpose of teeth, baby tooth to adult tooth progression, types of teeth, oral hygiene	Identify the three types of teeth- incisors, canines, molars. Explain why we have teeth. Describe what happens when you lose a tooth? Define oral hygiene and explain how to take care of your teeth.
K	Body Systems	systems as parts of our whole body, taking care of our bodies to keep them healthy, consequences of taking care, and not taking care, or our bodies, heart, muscles, bones	Explain that our bodies have many systems to keep us healthy. Describe behaviors that keep our systems healthy. Describe what the heart’s main function is. Explain why we have bones. Explain what muscles do.
K	Nutrition	My Plate, food groups	Identify the five food groups. Categorize foods in their specific food group.
K	Risky Behaviors	medicine, poisons, chemicals, safe choices and dangers	Explain how to recognize when something is safe or dangerous. Identify items that may be dangerous. Explain what to do, and where to go for help, if they recognize something dangerous.
1	Safety	safety rules, how allergies develop, hygiene, bus safety, playground safety, fire safety, stranger safety, personal safety	Explain how allergies develop. Define who is a stranger is. Explain what to do if someone they know or a stranger is acting dangerous or making them feel uncomfortable. Demonstrate and practice how to get help if they feel uncomfortable or that they are in danger. Explain what a family fire evacuation plan is. Discuss how to behave and move safety on the playground.
1	Feelings	nature of feelings, communication of feelings, empathy, emotional intelligence connection, bullying, harassment	Identify feelings commonly found on the Mood Meter. Demonstrate a deepening understanding of the Meta-Moment. Analyze situations and explain positive ways to deal with the feelings involved.



1	Dental Health	flossing, fluoride, brushing technique, rinsing, frequency of dental care, what to expect at the dentist	Explain how to floss, rinse, and brush properly. Describe what commonly happens when they go to the dentist. Explain how often they should brush, floss, rinse, and visit the dentist.
1	Body Systems	basic circulatory system anatomy and functions, basic respiratory system anatomy and functions.	Identify the heart and lungs. Describe the function of the heart, lungs, circulation, and oxygen. Identify where the ribs and diaphragm are located and explain their function. Explain how exercise affects the heart and lungs.
1	Nutrition	My Plate, five food groups, balance	Explain what the five food groups are. Form simple meals from the five food groups. Discuss the importance of a balanced meal.
1	Risky Behaviors	chemicals including medicine, alcohol, smoking, choices, consequences, summer safety	Identify when something is safe or dangerous. Explain why smoking and alcohol are bad for you. Describe how to keep themselves safe in common summer situations. Demonstrate and practice what to do if they find themselves in a situation where someone is using something unsafe or behaving in an unsafe manner.
2	Communication	define communication, empathy, sympathy, respect, listening skills, bullying, harassment	Demonstrate and practice using communication skills in various situations including how to talk to an adult if they feel they, or someone they know, is being bullied or harassed. Explain the difference between hearing and listening. Describe what empathy and sympathy are and give examples. Explain how respect connects to the way we communicate with people.
2	Dental Health	anatomy of a tooth, orthodontics, cavities, gum disease, plaque, tartar	Label the different parts of a tooth. Explain cavity-causing and gum harming behaviors and how cavities form. Describe what an orthodontist does and what orthodontic devices do.
2	Body Systems	muscular, skeletal and nervous systems, muscles and bones working together, nerves and the brain, voluntary and involuntary muscles	Explain how muscles and bones work together. Describe how the brain uses nerves to send messages to different body parts. Label the nerve chain. Explain the difference between involuntary and voluntary muscles.
2	Nutrition	value of each food group, choices, toxins and chemicals in foods	Explain the benefit of each food group. Describe how what we eat connects to how we feel.

2	Risky Behaviors	healthy risk vs. unhealthy risk, alcohol, smoking, vaping, choices, consequences	Explain healthy and unhealthy risks and their relationship to consequences.
3	Allergies and Communicable Diseases/Infections	immune system, white blood cells, histamine, allergens, EpiPen, anaphylaxis, hand washing, food and snacks	<p>Create a list of allergens.</p> <p>Explain how to be safe around people that may have food allergies.</p> <p>Explain the immune systems response to allergens, germs, bacteria, and viruses.</p> <p>Describe how to prevent the transmission of germs, bacteria, viruses, and infections.</p>
3	Responsibility	responsibility, teamwork, collaboration, communication, accountability, attitude, bullying, teasing, harassment	<p>Identify things that they are responsible for in their lives.</p> <p>Demonstrate and practice responsibility in a variety of team building activities.</p> <p>Describe the value of making mistakes.</p> <p>Respond appropriately to different emotions and feelings from other group members.</p> <p>Empathize with others that have different feelings than their own.</p> <p>Demonstrate strategies to turn a negative thought into a productive thought.</p> <p>Explain the difference between bullying and teasing.</p> <p>Identify characteristics of a bully, bystander and victim.</p> <p>Demonstrate strategies to deal with a bullying, teasing, or harassing situation.</p>
3	Body Systems	digestive system anatomy and functions, cardiovascular system anatomy and functions, respiratory and heart rate, red and white blood cells, platelets, plasma, cuts and bruises, related illnesses, how the systems work together	<p>Identify the basic anatomy of the digestive, respiratory and cardiovascular systems.</p> <p>Explain the function of the digestive, respiratory and cardiovascular systems.</p> <p>Identify health issues associated with the digestive, respiratory and cardiovascular systems.</p> <p>Explain how healthy habits will keep the body systems healthy.</p> <p>Demonstrate how to measure breathing and heart rates at rest and after exercising.</p> <p>Identify white blood cells, red blood cells, platelets and plasma and what happens when a person gets a cut or a bruise.</p> <p>Explore how all the systems work together to keep one's body healthy.</p>
3	Risky Behavior	tobacco, pipes, cigars, cigarettes, electronic cigarettes, vaping devices, alcohol, wine, beer, the impact alcohol and tobacco have on the body systems, healthy habits to keep safe and away from unhealthy substances	<p>Explain the negative impact alcohol and smoking products have on the body.</p> <p>Identify ways to keep safe and away from alcohol and smoking.</p> <p>Describe the difference between a healthy risk and an unhealthy risk for a third grader.</p>

			Explain what to do if they find themselves in an uncomfortable situation where these substances are present.
4	Safety	review fire, playground, bus, stranger, and personal safety, connecting safety rules to themselves personally	Explain how the safety rules connect to their personal lives. Demonstrate understanding by creating a safety shield with 6 personal safety rules that are important to follow to keep them safe.
4	Cooperation	communication, teamwork, tolerance, accountability, responsibility, pride, bullying, harassment	Demonstrate accountability in cooperative activities. Demonstrate tolerance, empathy, and understanding when there are differences present. Explain the elements involved in a group working well together to achieve a common goal.
4	Nutrition	meal building, balance, complete nutrition	Create meals that include all of the essential nutrients. Explain why a meal is healthy or unhealthy.
4	Fitness	the 5 components of fitness, flexibility, body composition, muscular endurance, muscular strength, cardiovascular endurance, Connecticut Physical Fitness Test.	Explain the five components of fitness. Identify an activity that relates to each of the five components. Explain how each component relates to the Connecticut Physical Fitness Test.
4	Body Systems	skeletal system anatomy and functions, muscular systems anatomy and functions, types of bones, types of joints, types of muscles, purpose of muscles	Describe and identify different types of bones and joints. Explain how our skeletal system supports the other systems of the body. Take pulse and calculate their heart rate at rest and while exercising. Calculate their target heart rate. Explain the difference between skeletal, smooth and cardiac muscles. Describe how the bones and muscles work together.
4	Risky Behaviors	tobacco and smoking, alcohol, addiction, nicotine	Explain what nicotine is and how it impacts the human body. Describe addiction. Explain how alcohol impacts the human body. Identify ways to be safe around adults that have had too much alcohol to drink. Demonstrate how to communicate to someone, or advocate for themselves, if they are worried that person may have had too much to drink. Identify both safe risks and unsafe risks for a fourth grader.
5	Character	character traits, integrity, respect, tolerance, honesty, accountability, perseverance, responsibility, bullying, teasing	Connect character traits to themselves.

			<p>Define character words by what that look like and what they sound like.</p> <p>Demonstrate tolerance, empathy, and understanding while role playing in scenarios where differences are present.</p> <p>Reflect and respond to a series of situations describing character traits that they observe.</p> <p>Demonstrate learning by creating personal character stories.</p>
5	Nutrition and Fitness	<p>growth during pre-pubescence, body mass index, body types: mesomorph, ectomorph, endomorph, calories, social and emotional benefits of exercise and good nutrition</p>	<p>Explain how their bodies are changing and grow differently and at different times.</p> <p>Describe the benefits of physical activity and understand how it can have a positive effect on both mental and physical health.</p> <p>Create a wellness totem pole to show their emotional, social, physical and nutritional strengths.</p>
5	Social and Emotional Wellness	<p>emotions, feelings, anxiety, depression, emotional intelligence language, bullying, harassment</p>	<p>List feelings on the Mood Meter.</p> <p>Explain what anxiety and depression are.</p> <p>Describe how we treat each other affects our emotional health.</p> <p>Explain what to do and where to go for support if they feel sad, depressed, or anxious.</p>
5	Substance Abuse	<p>tobacco and nicotine, cigarettes, cigars, pipes, electronic cigarettes, vaping devices, chewing tobacco, alcohol, inhalants, marijuana, caffeine, energy drinks, stimulants and depressants</p>	<p>Explain what a drug is and describe that there are medical uses and illegal uses for different substances.</p> <p>Label the major areas of the brain and describe how substances can affect the way it works.</p> <p>Explain how caffeine impacts the brain.</p> <p>Explain addiction and relate to a person's life.</p> <p>Define peer pressure and discuss consequences of choices.</p> <p>Identify outside influences that can be healthy or unhealthy.</p> <p>Explain where they can go for help if they are worried about something or someone.</p>
5	Puberty	<p>physical changes, emotional changes, hygiene, respecting peers and their differences, resources and support</p>	<p>Identify physical ways their bodies will change during puberty.</p> <p>Identify emotional changes that occur during puberty.</p> <p>Describe the importance of good hygiene.</p> <p>Discuss the responsibility involved with taking care of themselves emotionally and physically.</p> <p>Identify reliable resources they could utilize for information and support.</p>
5	Goal Setting	<p>long term and short term goals, positive self-talk, problem solving</p>	<p>Identify the difference between long term and short term goals.</p> <p>Provide examples of long term and short term goals.</p> <p>Explain steps to take to reach a goal.</p> <p>Identify and demonstrate skills to resolve conflicts that may interrupt a goal or plan.</p>

			Explain how trusted adults can help support them in reaching their goals.
6	Stress Management	eustress, distress, self-esteem, bullying, harassment, coping, pro-active behaviors, depression, anxiety, substance use connection, support, resources, emotional intelligence connection, meditation	<p>Develop coping strategies to deal with stressful situations.</p> <p>Explain how being pro-active relates to stress.</p> <p>Recognize that all people face stress, but each individual copes with stress differently.</p> <p>Explain the benefits of eustress.</p> <p>Use mediation as a stress relieving strategy and be able to explain its benefits.</p> <p>Explain how stress connects to anxiety, depression, and how they feel physically.</p> <p>Explain how substance use connects to stress.</p> <p>Use emotional intelligence skills to demonstrate how to analyze stressful situations and explain how to best deal with them.</p> <p>Explain how and where to seek help if they feel overly stressed, anxious, or depressed.</p>
6	Nutrition	personal food choices, USDA food guidelines, food comparison, diet tracking, media and peer influence	<p>Apply an understanding of the USDA food guidelines to personal food choices.</p> <p>Compare like food items and explain why one is better than the other.</p> <p>Log daily intake and reflect appropriately upon their choices.</p>
6	Puberty	social, emotional, and physiological, responsibility, hygiene, maturity	<p>Develop a timeline depicting the physical, mental and emotional signs of puberty.</p> <p>Explain what maturity is and how responsibility plays a part in growing up.</p> <p>Describe what hygiene changes a person needs to make as they grow older.</p>
7	Nutrition	types of fat, protein, carbohydrates, vitamins, and minerals, purpose of nutrients, fast food analysis, personal nutritional needs	<p>Determine the nutritional value of food choices.</p> <p>Choose foods and plan meals that provide the necessary range of nutrients needed to maintain good health.</p> <p>Create a meaningful goal to enhance health.</p> <p>Explain what they need nutritionally based upon personal conditions and attributes.</p> <p>Analyze fast food choices make choices that are nutritionally sound.</p>
7	Self and Body Image	body image, self-image, eating disorders, image distortion, depression, anxiety, media influences, peer influences, resources, support system, emotional intelligence connection, bullying, harassment	<p>Explain what self and body image is and maturely discuss the factors that can distort this image.</p> <p>Describe the connection between eating disorders and emotional issues and concerns.</p>

			<p>Explain how peers and the media can influence self and body image.</p> <p>Use emotional intelligence skills and demonstrate positive self-talk as well as how to support a peer in role play situations.</p> <p>Explain how to access relevant resources and where they will seek help if ever needed.</p>
7	Substance Abuse	tobacco, vaping, inhalants, alcohol, and marijuana, physiological effects on the body, relationships, social and emotional consequences	<p>Discuss smoking behaviors, alcohol, inhalants, and marijuana use maturely with a trusted adult.</p> <p>Explain what these substances are and the physical, social, and emotional consequences of use.</p> <p>Access and analyze valid health information.</p> <p>Communicate appropriate ways to prevent and reduce unhealthy risks.</p>
8	Substance Abuse	vaping, alcohol, marijuana, opiates, cocaine, synthetic drugs, predatory drugs, stimulants, depressants, Triangle of Truth (self-esteem, relationships, and decisions connection), consequences, pro-active behaviors, decision making, stress management, family, problem solving, analyzing, predicting, peer pressure and influence, communication	<p>Advocate for themselves in situations involving drugs and alcohol.</p> <p>Identify red flags within themselves and others that need to be positively addressed to prevent poor choices.</p> <p>Make proactive decisions when their self-esteem and/or relationships are challenged.</p> <p>Explain the connection between self-esteem, relationships, and substance use.</p> <p>Explain what these substances are and the physical, social, and emotional consequences of use.</p> <p>Maturely discuss the opiate crisis with a trusted adult.</p> <p>Communicate in a confident and assertive manner.</p> <p>Explain what to do if they are feeling “off”, sad, or lonely.</p> <p>Describe both positive and negative consequences of choices that relate to substance use.</p> <p>Discuss drugs and alcohol maturely with a parent or trusted adult including how use could impact their future.</p> <p>Explain how to access relevant resources and where they will seek help if ever needed.</p>
8	Emotional and Mental Health	anxiety, depression, self-esteem, self-destructive behaviors, pro-active behaviors, healthy responses to stress/anxiety/depression, suicide, Triangle of Truth connection, resources and places to go to for help, communication skills	<p>Discuss anxiety and depression maturely with peers and adults.</p> <p>Respond to stress, anxiety, and/or depression in a healthy manner.</p> <p>Explain how anxiety and depression connect to the Triangle of Truth, self-esteem, and relationships.</p> <p>Explain how to access relevant resources and where to go for help if they, or someone they know, are feeling depressed, anxious, or just “off”.</p>

			Demonstrate proactive behaviors while role playing related scenarios.
8	Healthy and Unhealthy Relationships	dating violence, healthy and unhealthy relationships, relationship skills, resources, support systems, communication, emotional intelligence connection, Triangle of Truth connection	<p>Explain what dating violence is.</p> <p>Describe the characteristics of healthy and unhealthy relationships.</p> <p>Identify red flags that may signal the start of an unhealthy relationship.</p> <p>Be able to explain the connection between self-esteem, relationships, and sexual decisions.</p> <p>Be able to communicate in a confident and assertive manner.</p> <p>Be able to find relevant resources when needed.</p> <p>Advocate for themselves if they feel that their relationships are becoming unhealthy and be able to explain where to go for help.</p>
8	Sexual Issues and Responsibility	media, cultural, and societal influences, consequences of sexual decisions, substance use/sexual decisions connection, abstinence benefits, resources and places to go to for support, communication skills, Triangle of Truth connection	<p>Advocate for themselves in intimate relationships and sexual situations.</p> <p>Be able to explain the benefits of abstinence including consequences they will not have to worry about.</p> <p>Advocate for themselves in a proactive manner when their self-esteem is compromised.</p> <p>Be able to explain the connection between self-esteem, relationships, and sexual decisions.</p> <p>Be able to communicate in a confident and assertive manner.</p> <p>Be able to find relevant resources when needed</p> <p>Advocate for themselves if they feel that their relationships are becoming unhealthy and be able to explain where to go for help.</p>
9	How to Thrive in High School	planning, goal setting, high school life, decision making, support systems, peer influence, media influence, social media influence, perceptions versus reality	<p>Self-reflect on their lives now and set short and long term goals for the next 4 years.</p> <p>Locate information / resources related to Weston High School.</p> <p>Identify specific strategies to help achieve goals.</p> <p>Explain what the various services that Weston High School has available to them including guidance, counseling, and administrative support.</p> <p>Describe what being a "True T.R.O.J.A.N" means.</p> <p>Explain how media and social media trends can have short and long term impact on their lives.</p> <p>Collaborate, discuss, and analyze current trends affecting the youth of Weston, CT, as well as youth nationally.</p> <p>Discuss with peers and trusted adults strategies to resist peer pressure and risky behaviors.</p> <p>Explain why reality is often different than perceptions.</p>



9	Substance Abuse	health forums, vaping, alcohol, marijuana, opiates, cocaine, synthetic drugs, predatory drugs, stimulants, depressants, peer influence, media and social media influence, consequences, social pressure, connection to future, friendships, and family	<p>Analyze, research, and present information on topics that are affecting teenagers in today's society.</p> <p>Recognize implications related to substance abuse as well as resources to turn to for help.</p> <p>Explain how substance use will impact short and long term goals.</p> <p>Develop a proactive plan to resist peer and social pressure and demonstrate this through role play.</p> <p>Explain how substance use will impact future, friends, and family.</p>
10	Sexual Issues and Responsibility	sexual choices, consequences, decision making, taking care of a child, physical, familial, social, emotional, and financial impact, sexuality, orientation, gender issues, STI's, contraception, abstinence, reproductive systems, healthy and unhealthy relationships, personal safety, substance use connection to sexual choices	<p>Estimate the cost of raising a child in today's society.</p> <p>Explain how raising a child will impact them emotionally, physically, financially, and socially.</p> <p>Explain the commitment it takes to raise a child in today's world.</p> <p>Research and calculate actual costs of raising a baby in today's society.</p> <p>Analyze the broad term "sexuality" and explain how we are all unique sexual beings from the time of birth until death.</p> <p>Describe the many influences surrounding sexuality and explain the importance of empathy and tolerance</p> <p>Identify and label the structures that make up the male and female reproductive systems.</p> <p>Describe how understanding the reproductive system can affect their overall well-being.</p> <p>Identify warning signs of danger in an unhealthy relationship.</p> <p>List appropriate steps to advocate for personal safety and the safety of others.</p> <p>Categorize STI's and describe how to protect themselves from acquiring infections.</p> <p>Explain what HIV/AIDS is and identify the four bodily fluids that may transmit it.</p> <p>Discuss abstinence with peers and trusted adults and describe how it is the most effective way to prevent disease transmission and unwanted pregnancies.</p> <p>Explain the risk of premature sexual activity.</p> <p>Categorize health risk behaviors based upon level of risk of disease transmission (high risk, moderate risk, low risk, no risk).</p> <p>Explain the connection between substance use and sexual choices.</p>

11		research, inquiry, curiosity, communication, advocacy, presentation, reflection, defending, problem solving, goal setting	<p>Use the inquiry process to unveil a health related topic they are interested in researching.</p> <p>Research a health related topic they have a personal connection to.</p> <p>Synthesize information and present research project to their peers.</p> <p>Problem solve and/or formulate opinions. Defend position and work while presenting to an audience.</p> <p>Reflect upon their research project experience and be able to connect this work to their lives moving forward.</p>
12	Emotional/Mental Health	stressors (eustress / distress), components of mental and emotional wellness, depression, anxiety, other emotional disorders, suicide	<p>Discuss personal stressors and identify how this affects their lives.</p> <p>Practice various forms of stress relieving techniques such as mindfulness, guided imagery, progressive muscle relaxation.</p> <p>Research current stress management techniques.</p> <p>Explain support structures that are available to them now and in the future (life after WHS).</p> <p>Discuss suicide and suicide prevention with peers and trusted adults.</p> <p>Explain what to do and where to seek help if they, or a loved one, are feeling depressed, anxious, or experiencing any type of emotional challenges.</p> <p>Identify relevant resources.</p>
12	Sexual Health	sexual health, disease prevention, choices, social pressures in independent living environments	<p>Identify risk-factors related to sexually transmitted infections and risk of unwanted pregnancies.</p> <p>Promote concepts pertaining to their personal sexual health and the personal health of others.</p> <p>Identify relevant resources and explain where to go for sexual health care.</p> <p>Describe the sexual pressures that may be present on college campuses or other independent living environments.</p> <p>Explain how their choices will affect their success, or lack of success, with the goals they are pursuing.</p>
12	Relationships	relationship spectrum, consent, harassment, abuse	<p>Differentiate healthy, unhealthy, and abusive qualities in relationships.</p> <p>Explain what consent is and discuss words and phrases to affirmatively obtain consent in relationships.</p> <p>Discuss strategies to prepare for new relationships.</p> <p>Identify behaviors of harassment and abuse.</p> <p>Explain where to seek help and support if needed and be able to obtain relevant resources.</p>

12	Personal Safety	alcohol culture at today's colleges and universities, current alcohol and drug trends, independent living safety, support structures	<p>Identify risk factors and dangers associated with alcohol and other drug use in college and independent living environments. Explain different strategies to make sound health-related choices pertaining to alcohol use in college or independent living environment.</p> <p>Discuss proactive strategies to keep themselves safe and reduce the risk of being involved with negative and/or dangerous influences or harming themselves.</p> <p>Research structures, services, programs, that will be available to them next year in college or the independent living environment that they reside.</p>
12	Life After High School	college life, independent living, responsibility, accountability, consequences, support	<p>Research living conditions and services available to them at their future college or independent living area next year.</p> <p>Ask questions and seek help when needed.</p> <p>Advocate for themselves and others and practice health enhancing behaviors.</p>

**WESTON BOARD OF EDUCATION**

**Weston, CT**

**Meeting Date:** April 23, 2018

**Information Only**

**Action Requested**

**Agenda Item Subject:** First Reading – New Policy 1412 School Resource Officer

**Submitted by:** Lewis Brey

**Document Summary/Purpose and/or Recommended Action:**

**While the Board has an MOU, it did not have an existing policy.**

**This item is on for a first reading by the Board.**

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<https://meeting.cabe.org/public/Agency.aspx?PublicAgencyID=47&AgencyTypeID=1>

**Safety**

**School Resource Officer(s)**

In order to make schools more orderly, safe, and secure, the district will permit School Resource Officer(s) (“SRO”) employed by the Weston Police Department to be on duty in the district in accordance with the attached memorandum of understanding and any approved amendments thereto.

**The utilization of school resource officer(s) in district schools is to accomplish the following goals:**

- To provide a safe learning environment and to help reduce school violence.
- To improve school/law enforcement collaboration.
- To improve perceptions and relations among students, staff, and law enforcement officials.
- To collaborate with designated staff in the district and the individual schools, local law enforcement, fire service, public safety and emergency management agencies, and with parents/guardians on a wide variety of school safety issues.
- To provide training to students regarding drug use prevention, cybersecurity, and other important issues.

**Duties of the SRO(s) shall include, but are not limited to:**

- Assist the Superintendent, principals, other administrators, faculty, and staff in developing plans and strategies to prevent and/or minimize dangerous situations that may occur on school grounds.
- Present topics to students on various law enforcement/safety issues.
- Contact the principal of the school about any incidents, charges, and arrests at that school within a timely manner.
- Take law enforcement action when necessary.
- Conduct investigations of crimes that occur at any school and use other resources if needed for follow up investigations.
- Follow the guidelines of Board of Education policy, Weston Public Schools administrative regulations, the Weston Police Department general orders, and the law in regards to investigations, interviews and searches relating to juveniles and other students.
- Assist the Superintendent, principals, other administrators, faculty, and staff in enforcing the Board of Education policies, administrative regulations, and other school rules in order to maintain a safe learning environment. When it pertains to preventing a disruption that would, if ignored, place students, faculty and/or staff at risk of harm, the

SRO(s) will resolve the problem to preserve the school climate. IN ALL OTHER CASES, student discipline is the Weston Public Schools' responsibility, and the SRO (s) will intervene and take students who violate Board of Education policies, administrative regulations, and other school rules to the office of the principal where school discipline can be meted out by the principal or other appropriate administrators.

- Coordinate and communicate with Weston Public Schools security personnel.

The Board shall enter into a Memorandum of Understanding (MOU) with the Weston Police Department that defines the SRO's role and responsibilities, and such MOU shall be appended to this policy.

### Policy and Administrative Regulation References

1411 – Law Enforcement Agencies

5114 – Student Discipline

### Legal References

Conn. Gen. Stat. §4-176e through 4-180a. Contested Cases. Notice. Record

Conn. Gen. Stat. §10-220 Duties of Boards of Education

Conn. Gen. Stat. §10-233a through 10-233f. Suspension, Removal and Expulsion of Students, as amended by PA 95-304, PA 96-244, and PA 98-139.

Conn. Gen. Stat. §53a-3 Definitions.

Conn. Gen. Stat. §53a-217b Possession of Firearms and Deadly Weapons on School Grounds.

PA 94-221 An Act Concerning School Discipline and Safety.

GOALS 2000: Educate America Act, Pub. L. 103-227.

18 U.S.C. 921 Definitions.

Title III - Amendments to the Individuals with Disabilities Education Act.

Sec. 314 (Local Control Over Violence)

Elementary and Secondary Act of 1965 as amended by the Gun Free Schools Act of 1994.

P.L. 105-17 The Individuals with Disabilities Act, Amendment of 1997.

*Kyle P. Packer PPA Jane Packer v. Thomaston Board of Education.*

**Agreement Between  
the  
Weston Police Department  
and the  
Weston Public Schools  
for  
The School Resource Officer Program**

This agreement made and entered into this 13th day of October, 2015 by and between the Weston Police Department and the Weston Public Schools (“Agreement”).

It is the intention of the Weston Police Department and the Weston Public Schools to work together to provide a safe and healthy school environment for students, staff, faculty, and visitors.

**Goals and Objectives**

- Establish a positive working relationship between the police and the schools in a cooperative effort to maintain a safe, drug free and secure school environment that is conducive to learning and to student development;
- Promote positive attitudes regarding the role of police in our community.

**Term of Agreement**

The initial term of this Agreement shall be for three (3) years (“Initial Term”) commencing on the date upon which both parties have executed this Agreement (“Effective Date”). Prior to each anniversary of the Effective Date, the Board of Education and the Police Commission may vote to extend this Agreement for an additional one (1) year beyond the Initial Term and any extension thereof approved in accordance with this section. Such vote may occur prior to each anniversary of the Effective Date. Absent such action by the Board of Education and the Police Commission, this Agreement shall terminate at the conclusion of the Initial Term and any extension thereof approved in accordance with this section.

**Assignment of School Resource Officer**

The Weston Police Department agrees to provide a School Resource Officer (hereinafter, “the SRO”) to the Weston Public Schools.

The Chief of Police (hereinafter “the Chief”) shall assign and or hire a Weston Police officer to assume the roles and responsibilities of the SRO, subject to the approval of the Weston Police Commission (hereinafter “the Commission”) and the School Superintendent (hereinafter “the Superintendent”), which approval shall not unreasonably be withheld.



It is the responsibility of the SRO to notify the Superintendent and school principals of his or her work schedule each month. Such schedule shall be determined by and between the Chief and the assigned officer's union.

SRO(s) shall remain employees of the Weston Police Department and shall not be employees of the Weston Public Schools. The Weston Public Schools acknowledge that the SRO will remain responsive to the command of the Weston Police Department.

### **Duties of the School Resource Officer**

- Assist the Superintendent, principals, other administrators, faculty, and staff in developing plans and strategies to prevent and/or minimize dangerous situations that may occur on school grounds.
- Present topics to students on various law enforcement/safety issues.
- Contact the principal of the school about any juvenile delinquency, incidents, charges, and arrests at that school within a timely manner.
- Take law enforcement action when necessary.
- Conduct investigations of crimes that occur at any school and use other resources if needed for follow up investigations.
- Follow the guidelines of case law, Board of Education policy, Weston Public Schools administrative regulations, and the Weston Police Department general orders in regards to investigations, interviews and searches relating to juveniles and other students.
- Assist the Superintendent, principals, other administrators, faculty, and staff in enforcing the Board of Education policies, administrative regulations, and other school rules in order to maintain a safe learning environment. When it pertains to preventing a disruption that would, if ignored, place students, faculty and/or staff at risk of harm, the SRO will resolve the problem to preserve the school climate. IN ALL OTHER CASES, student discipline is the Weston Public Schools' responsibility, and the SRO will intervene and take students who violate Board of Education policies, administrative regulations, and other school rules to the office of the principal where school discipline can be meted out by the principal or other appropriate administrators.
- Coordinate and communicate with Weston Public Schools security personnel.

### **Facilities and Equipment**

The school board shall provide to the full time SRO the following materials and facilities, which are deemed necessary to the performance of the SRO:

- Access to an air-conditioned and properly lighted private office containing a telephone line to be used for general business purposes;
- A desk with drawers, a chair and filing drawers;
- Access to a computer terminal or computer hookup.

The Weston Police Department will supply the SRO with the usual and customary office supplies and forms required for the performance of his or her duty.

**Dismissal of a School Resource Officer**

Upon receipt of written documentation from the Superintendent of the Weston Public Schools to the Chief of Police of any concerns that the SRO is not effectively performing his or her duties and responsibilities, the Weston Police Department may dismiss or reassign the SRO based upon the Weston Police Department's rules, regulations, general orders, and the terms of the collective bargaining agreement with its officers, after consideration of the Superintendent's concerns and documentation.

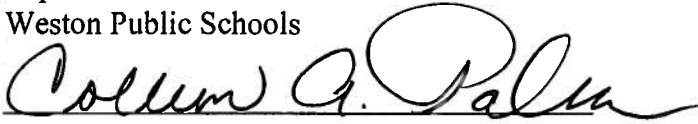
The Weston Police Department and the Weston Public Schools agree to provide their employees with training relative to this Agreement and its purpose. The parties also agree to maintain regular and open communication to evaluate the effect of this Agreement and suggest improvements and adjustments that may be necessary.

This Agreement constitutes a final written expression of all terms of this Agreement and is a complete and exclusive statement of those terms. It may be modified in writing by consent of the parties.


IN WITNESS WHEREOF, the parties have caused this Agreement to be signed by their duly authorized officers.

Signed, sealed, and delivered in the presence of:

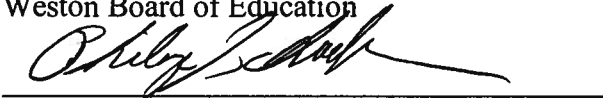
Superintendent  
Weston Public Schools

  
\_\_\_\_\_

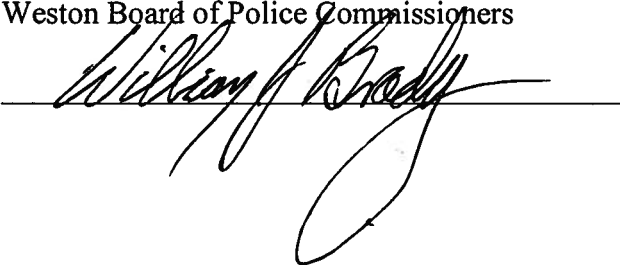
Police Chief  
Weston Police Department

  
\_\_\_\_\_

Chairman  
Weston Board of Education

  
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Chairman  
Weston Board of Police Commissioners

  
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**WESTON BOARD OF EDUCATION**

**Weston, CT**

**Meeting Date:** April 23, 2018

**Information Only**

**Action Requested**

**Agenda Item Subject:** First Reading – 5141.3 Health Assessments Policy

**Submitted by:** Lewis Brey

**Document Summary/Purpose and/or Recommended Action:**

**Extensive changes recommended by outside counsel, Shipman and Goodwin.**

**This item is on for a first reading by the Board.**

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<https://meeting.cabe.org/public/Agency.aspx?PublicAgencyID=47&AgencyTypeID=1>

Students

**ADMINISTRATIVE REGULATIONS REGARDING HEALTH  
ASSESSMENTS/SCREENINGS**

I. Assessments

The Weston Board of Education requires each student enrolled in the Weston Public Schools to **have** undergo health assessments as mandated by state law. The purpose of such health assessments shall be to ascertain whether a student has any physical disability tending to prevent him/her from receiving the full benefit of school work and to ascertain whether school work should be modified in order to prevent injury to the student or to secure a suitable program of education for him/her. Such health assessments must be conducted by a legally qualified practitioner of medicine, an advanced practice registered nurse or registered nurse, who is licensed under state statute, a physician assistant, who is licensed under state statute, or the school medical advisor. The Board of Education will provide written prior notice of the health assessments required under these administrative regulations to the parent or guardian of each student subject to assessment. The parent or guardian shall be provided a reasonable opportunity to be present during such assessment or he/she may provide for such assessment him/herself. No health assessment shall be made of any public school student unless it is made in the presence of the parent or guardian or in the presence of another school employee. Any student who fails to obtain the health assessments required by these administrative regulations may be denied continued attendance in the Weston Public Schools.

II. Assessments Required:

Prior to enrollment in the Weston Public Schools, each student must undergo a health assessment, which shall include:

- (a) a physical examination which includes hematocrit or hemoglobin tests, height, weight, blood pressure, and a chronic disease assessment which shall include; but not be limited to, asthma as defined by the Commissioner of Public Health pursuant to subsection (c) of section 19a-62a of the Connecticut General Statutes. The assessment form shall include (A) a check box for the provider conducting the assessment, to indicate an asthma diagnosis, (B) screening questions relating to appropriate public health concerns to be answered by the parent or guardian, and (C) screening questions to be answered by such provider;
- (b) an updating of immunizations as required by state law;
- (c) vision, hearing, speech and gross dental screenings;

(d) such other information, including health and developmental history, as the physician feels is necessary and appropriate.

The pre-~~enrolment~~enrollment assessment shall also include tests for tuberculosis, sickle cell anemia or Cooley's anemia, and tests for lead levels in the blood if, after consultation with the school medical advisor and the local health department, the Board determines that such tests are necessary. Such tests must be conducted by a registered nurse acting pursuant to the written order of a physician, or physician's assistant, licensed under state law, or of an advanced practice registered nurse, licensed under state law.

Each student enrolled in the Weston Public Schools must undergo a health assessment when entering ~~in~~ grade six and ~~in~~ grade nine ~~must undergo a health assessment~~, which shall include:

(a) a physical examination which includes hematocrit or hemoglobin tests, height, weight, blood pressure, and a chronic disease assessment which shall include; but not be limited to, asthma as defined by the Commissioner of Public Health pursuant to subsection (c) of section 19a-62a of the Connecticut General Statutes. The assessment form shall include (A) a check box for the provider conducting the assessment, to indicate an asthma diagnosis, (B) screening questions relating to appropriate public health concerns to be answered by the parent or guardian, and (C) screening questions to be answered by such provider;

(b) an updating of immunizations as required by state law;

(c) vision, hearing, postural and gross dental screenings;

(d) such other information, including health and developmental history, as the physician feels is necessary and appropriate.

The grade six and grade ~~ten~~ nine assessments shall also include tests for tuberculosis, and sickle cell anemia or Cooley's anemia, if, after consultation with the school medical advisor and the local health department, the Board determines that such tests are necessary. Such tests must be conducted by a registered nurse acting pursuant to the written order of a physician, or physician's assistant, licensed under state law, or of an advanced practice registered nurse, licensed under state law.

The Board of Education shall provide such assessments free of charge to students whose parents or guardians meet the eligibility requirements for free and reduced price meals under the National School Lunch Program or for free milk under the special milk program.

### III. Screenings Required:

The Board of Education will provide annually to each student enrolled in kindergarten, and grades one and three ~~to six~~ through five, inclusive, ~~and grade nine~~, a vision screening using

a Snellen chart or equivalent screening device, such as an automated vision screening device. The Superintendent shall give written notice to the parent or guardian of each student (1) who is found to have any defect of vision or disease of the eyes, with a brief statement describing the defect or disease and a recommendation that the student be examined by an optometrist or ophthalmologist licensed pursuant to state law and (2) who did not receive such vision screening, with a brief statement explaining why such pupil did not receive such vision screening.

~~The Board of Education will provide annually to each student enrolled in kindergarten to grade three, inclusive, grade five and grade eight, audiometric screening for hearing. The Superintendent shall give written notice to the parent or guardian of each student who is found to have any impairment or defect of hearing, with a brief statement describing the impairment or defect.~~

~~The Board of Education will provide annual postural screenings for each student in grades five to nine. The Superintendent shall give written notice to the parent or guardian of each student who evidences any postural problem, with a brief statement describing such evidence.~~

The Board of Education will provide annually to each student enrolled in kindergarten and grades one and three through five, inclusive, audiometric screening for hearing. The Superintendent shall give written notice to the parent or guardian of each student (1) who is found to have any impairment or defect of hearing, with a brief statement describing the impairment or defect, and (2) who did not receive an audiometric screening for hearing, with a brief statement explaining why such student did not receive an audiometric screening for hearing.

The Board of Education will provide postural screenings for (1) each female student in grades five and seven, and (2) each male student in grade eight or nine. The Superintendent shall give written notice to the parent or guardian of each student (A) who evidences any postural problem, with a brief statement describing such evidence, and (B) who did not receive a postural screening, with a brief statement explaining why such student did not receive such postural screening.

All of the screenings required under these administrative regulations will be performed in accordance with regulations applicable to such screenings as adopted by the State Board of Education.

#### IV. Assessment/Screening Results:

The results of each assessment and screening required by these administrative regulations shall be recorded on forms supplied by the State Board of Education. Each physician, advanced practice registered nurse, registered nurse, or physician assistant performing health assessments under these administrative regulations shall sign each form and any



recommendations concerning a student shall be in writing. Assessment/screening forms shall be included in the cumulative health record of each student and they shall be kept on file in the school attended by the student. If a student transfers to another school district in Connecticut, his/her original cumulative health record shall be sent to the chief administrative officer of the new school district and a true copy retained by the Weston Board of Education. For a student leaving Connecticut, a copy of the records, if requested, should be sent and the original maintained.

Appropriate school health personnel shall review the results of each assessment and screening. If the reviewing school health personnel judge that a student is in need of further testing or treatment, the Superintendent shall give written notice to the parent or guardian of such student and shall make reasonable efforts to ensure that such further testing or treatment is provided. Reasonable efforts shall include determination of whether the parent or guardian has obtained the necessary testing or treatment for the student, and, if not, advising the parent or guardian how such testing or treatment may be obtained. The results of such further testing or treatment shall be recorded, kept on file and reviewed by appropriate school health personnel in the same manner as the results of the health assessments and screenings required under these administrative regulations.

The district shall report to the local health department and the Department of Public Health, on a triennial basis, the total number of children per school and on a district-wide basis having a diagnosis of asthma (1) at the time of public school enrollment, (2) in grade six or seven, and (3) in grade ten or eleven. The report shall contain the asthma information collected as required under Section II of this Policy and shall include information regarding each diagnosed child's age, gender, race, ethnicity and school.

#### V. Exemption

Nothing in these administrative regulations shall be construed to require any student to undergo a physical or medical examination or treatment, or be compelled to receive medical instruction, if the parent or legal guardian of such student or the student, if he/she is an emancipated minor or is eighteen (18) years of age or older, notifies the teacher or principal or other person in charge of such student in writing that he/she objects on religious grounds to such physical or medical examination or treatment or medical instruction.

#### VI. Other Non-Emergency Invasive Physical Examinations and Screenings:

- (a) In addition to the screenings listed above, the district may, from time to time, require students to undergo additional non-emergency, invasive physical examination(s)/screening(s).
- (b) A non-emergency, invasive physical examination or screening is defined as:

1. any medical examination that involves the exposure of private body parts; or
  2. any act during such examination that includes incision, insertion, or injection into the body, but does not include a hearing, vision, or scoliosis screening; and
  3. is required as a condition of attendance, administered by the school and scheduled by the school in advance; and
  4. is not necessary to protect the immediate health and safety of the student, or of other students.
- (c) If the district elects to conduct any such examinations, then, at the beginning of the school year, the administration shall give direct notice to parents of affected students of the district's intent to conduct the non-emergency invasive physical examination(s) and/or screening(s) described in this subsection. Such notice shall include the specific or approximate dates during the school year of the administration of such non-emergency invasive physical examination(s)/screening(s).
- (c) Upon request, the administration shall permit parents or students over the age of eighteen (18) (or emancipated minors) to opt out of participation in the non-emergency invasive physical examination(s)/screening(s) described in this subparagraph.

VII. School Representative to Receive Information Concerning Health Assessments:

The Board of Education designates the principal of each school as the representative for receipt of reports from health care providers concerning student health assessments.

Policy References:

5141.35 Vaccinations

Legal References:

- Connecticut General Statutes
- § 10-206 Health assessments
  - § 10-206a Free health assessments
  - § 10-208 Exemption from examination or treatment
  - § 10-214 Vision, audiometric and postural screenings: When required; notification of parents re defects; record of results

[Public Act 17-146, “An Act Concerning the Department of Public Health’s Various Revisions to the Public Health Statutes,” Section 5, effective October 1, 2017](#)

[Public Act 17-173, “An Act Concerning Minor Revisions and Additions to the Education Statutes,” Section 5, effective July 1, 2017](#)

State of Connecticut Department of Education, ~~Bureau of School, Family, Community Partnerships~~, Bureau of Health/Nutrition, Family Services and Adult Education Cumulative Health Records Guidelines (~~2003~~ Revised 2012).

<http://www.sde.ct.gov/sde/lib/sde/PDF/deps/student/health/CHRguidelines.pdf>

Federal Law:

Elementary and Secondary Education Act of 1965, as amended by the Every Student Succeeds Act, Public Law 114-95, at 20 U.S.C. § 1232h(c)(2)(C)(iii). ~~as amended by the No Child Left Behind Act of 2001, Public Law 107-110, § 1061, codified at 20 U.S.C. § 1232h.~~

Regulation Adopted: October 1, 1990  
Regulation Revised: September 14, 1993  
Regulation Revised: October 20, 2003  
Regulation Revised: September 20, 2008  
Regulation Revised:

WESTON PUBLIC SCHOOLS  
Weston, Connecticut

Health Assessments and Immunizations

The Board recognizes the importance of periodic health assessments according to state health regulations.

**The Board shall annually designate a representative to receive reports of health assessments and immunizations from health care professions.**

To determine health status of students, facilitate the removal of handicaps to learning, and find out whether some special adaptation of the school program may be necessary, the Board of Education may request that students have health assessments.

The Board of Education adheres to those state laws that pertain to school immunizations and health assessments. The Board may deny continues attendance in school to any student who fails to obtain the health assessments required under C.G.S. 10-206.

Parents wishing their children exempted or excused from health assessments may request such exemption to the Superintendent of Schools in writing. This request must be signed by the parent or guardian and, if for medical reasons, by a physician.

**Student health records are covered by the Family Education Rights and Privacy Act (FERPA) and are exempt from the Health Insurance Portability Accountability Act (HIPAA) privacy rule. However, it is recognized that obtaining medical information from health care providers will require schools to have proper authorization and to inform parents that such information once released by health care providers is no longer protected under HIPAA but is covered under FERPA.**

No record of any student medical assessment may be open to the public.

School health personnel will screen the hearing of children in kindergarten through third grade and grades five and eight. Student failing screening will, in addition, be tested by a speech and hearing clinician.

Vision screening is conducted by pathologist/school health personnel, or other trained personnel, each fall of the new school year in grades pre-k through four, five, eight and nine.

Physical examinations are required of all sixth and tenth grade students.

Immunization Required

~~Before admission to Weston Public Schools, either in kindergarten or any other grades, entrants are required by state law to show proof of immunization against:~~

- ~~1. Series of polio inoculations (4 dates)~~
- ~~2. Whooping Cough (Pertussis) (4 dates)~~
- ~~3. Tetanus (4 Dates)~~
- ~~4. Diphtheria (4 dates)~~
- ~~5. Measles, Rubella, Mumps (after one year)~~
- ~~6. Measles (2<sup>nd</sup> vaccination of MMR booster before grade seven)~~
- ~~7. A tuberculosis skin test or chest x ray, **if recommended by personal physician**~~
- ~~8. Hemophilus Influenza Type B (prior to age five for entry into the Weston Public Schools)~~
- ~~9. Varicella demonstrate proof of immunity or varivan vaccine (students 13 years of age or older receiving the vaccine must have documentation by a physician of two doses at least four weeks apart)~~
- ~~10. Hepatitis B vaccine (series of three vaccines)~~

Policy References:    [5141.35, Vaccinations](#)

Legal References:    Connecticut General Statutes

~~10-204~~    ~~Vaccination~~

10-204a    Required immunizations

10-204c    Immunity from liability

10-206    Health assessments

10-206a    Free health assessment

10-208    Exemption from examination or treatment

10-208a    Physical activity of student restricted; boards to honor notice

10-205    Records not to be public

10-212    School nurses (as amended by P.A. 03-211)

10-213    Vision, audiometric and postural screenings

5141.3(e)

**Federal Family Educational Rights and Privacy Act of 1974 (section 438 of the General Education Provisions Act, as amended by section 513 of P.L. 93-568, codified at 20 U.S.C. 1232g).**

**42 U.S.C. 1320d-1320d-8, P.L. 104-191, Health Insurance Portability and Accountability Act of 1996 (HIPAA)**

**Public Act 05-272**

Policy adopted: October 1, 1990  
Policy revised: September 14, 1993  
Policy revised: January 21, 2003  
Policy revised: October 6, 2005  
Policy revised: November 21, 2005  
Policy revised:

WESTON PUBLIC SCHOOLS  
Weston, Connecticut

**WESTON BOARD OF EDUCATION**

**Weston, CT**

**Meeting Date:** April 23, 2018

**Information Only**

**Action Requested**

**Agenda Item Subject:** First Reading – 5131.31 Vaccination Policy

**Submitted by:** Lewis Brey

**Document Summary/Purpose and/or Recommended Action:**

**New Policy recommended by Shipman and Goodwin. Vaccinations are now covered in this separate policy.**

**This item is on for a first reading by the Board.**

For more Board of Education Meeting and Committee Meeting Information, visit:



**Students**

**VACCINATIONS**

In accordance with state law and accompanying regulations, the Weston Board of Education requires each child to be protected by adequate vaccination against diphtheria, pertussis, tetanus, poliomyelitis, measles, mumps, rubella, hemophilus influenzae type B, hepatitis A, hepatitis B, varicella, pneumococcal diseases, meningococcal disease and any other vaccine required by the schedule for active immunization as determined by the Commissioner of Public Health pursuant to Conn. Gen. Stat. § 19a-7f, prior to enrolling in any program or school under its jurisdiction.

Among other requirements, before being permitted to enter seventh grade, the Board requires each child to be vaccinated against meningococcal disease. The Board further requires each child to receive a second vaccination against measles and tetanus, diphtheria and pertussis (Tdap) before being permitted to enter seventh grade.

Further, each child must have received two doses of the vaccine against varicella before being permitted to enter kindergarten and seventh grade, and each child must have received two doses of the vaccine against rubella and mumps before being permitted to enter grades kindergarten through twelve.

By January 1 of each year, children aged 24-59 months enrolled in the Board's preschool program must show proof of receipt of at least one dose of influenza vaccine between August 1 and December 31 of the preceding year. All children aged 24-59 months who have not received vaccination against influenza previously must show proof of receipt of two doses of the vaccine the first influenza season that they are vaccinated. Children seeking to enroll in the Board's preschool program between January 1 and March 31 are required to receive the influenza vaccine prior to being permitted to enter the program. Children who enroll in the preschool program after March 31 of any given year are not required to meet the influenza vaccine requirement until the following January.

Exemption from the pertinent requirements of these administrative regulations shall be granted to any child who, prior to enrollment:

- (1) presents a certificate from a physician, physician assistant, advanced practice registered nurse or local health agency stating that initial vaccinations have been given to such child and additional vaccinations are in process under guidelines and schedules specified by the Commissioner of Health; or
- (2) presents a certificate from a physician, physician assistant, or advance practice registered nurse stating that in the opinion of a such physician, such vaccination is medically contraindicated because of the physical condition of such child; or

- (3) presents a statement from the parents or guardian of such child that such vaccination would be contrary to the religious beliefs of such child or the parents or guardian of such child, which statement shall be acknowledged by
- (A) a judge of a court of record or a family support magistrate,
  - (B) a clerk or deputy clerk of a court having a seal,
  - (C) a town clerk,
  - (D) a notary public,
  - (E) a justice of the peace,
  - (F) an attorney admitted to the bar of the State of Connecticut, or
  - (G) a school nurse; or
- (4) in the case of measles, mumps or rubella, presents a certificate from a physician, physician assistant or advanced practice registered nurse or from the Director of Health in such child's present or previous town of residence, stating that the child has had a confirmed case of such disease; or
- (5) in the case of hemophilus influenzae type B, has passed his/her fifth birthday; or
- (6) in the case of pertussis, has passed his/her sixth birthday.

Before being permitted to enter the seventh grade, the parents or guardian of any child who is exempt on religious grounds from the vaccination requirements, pursuant to subsection (3) above, shall present to the Board a statement that such vaccination requirements are contrary to the religious beliefs of such child or the parents or guardian of such child, which statement shall be acknowledged in the same manner as required by subsection (3) above.

In accordance with state law, the Weston Board of Education shall not be liable for civil damages resulting from an adverse reaction to a non-defective vaccine required to be administered by state law.

If the parents or guardians of any child are unable to pay for any required vaccination, the expense of such vaccination shall, upon the recommendation of the Board of Education, be paid by the town of the child's residence.

The Board of Education designates the principals of each school as the representatives for receipt of reports from health care providers concerning student vaccinations.

The regulations concerning required vaccination for elementary (including preschool), middle and high school students can be found at:  
<http://www.dir.ct.gov/dph/PHC/browse.asp>.

Policy References: 5141.3 and R5141.3, Health Assessments

Legal References: Connecticut General Statutes  
§ 10-204a Required immunizations  
§ 10-204c Immunity from liability

Connecticut Agencies Regulations  
§ 10-204a-2a Adequate Immunization

Letter to Superintendents of Schools et al. from Connecticut State Departments of Public Health and Education, *Reinstatement of Prekindergarten and Kindergarten School Immunization Entry Requirement for Haemophilus Influenza Type B (Hib) Vaccine*, June 25, 2010.

Letter to Superintendents of Schools et al. from Connecticut State Departments of Public Health and Education, *Changes in the Immunization Requirements for School Entry*, March 15, 2011.

ADOPTED \_\_\_\_\_

WESTON PUBLIC SCHOOLS  
Weston, Connecticut

<https://meeting.cabe.org/public/Agency.aspx?PublicAgencyID=47&AgencyTypeID=1>

## LIST OF NON-RENEWALS

### **April 23, 2018, Weston Board of Education Meeting**

#### **IX.G Non-Renewal of Long-Term Substitute Teachers**

##### Non-Renewal Long-Term Substitute Teacher

Jeffrey Brown (English WHS)  
Beth Davison (Science WHS)  
Caitlin Fernandez (3<sup>rd</sup> Grade WIS)  
Joseph Grand (Science WHS)  
Kelly Greenfield (4<sup>th</sup> Grade WIS)  
Martine King (Reading HES)  
Brianne Perez (Social Studies WHS)  
Molly Rosenthal (Kindergarten HES)  
Kelly Velez (Social Studies WMS)

#### **IX.H Non-Renewal, Reduction in Force, Teachers**

##### Non-Renewal Teacher

Alyssa Giammattei - 4th Grade WIS  
Christine Malone - 2<sup>nd</sup> Grade HES  
Megan Robinson - Kindergarten HES  
Eliza Tabacchi - Kindergarten HES

#### **IX.I Non-Renewal of Teachers, Other**

##### Non-Renewal Other

Christopher Pace – PE WMS

**WESTON BOARD OF EDUCATION**

**Weston, CT**

**Meeting Date:** April 23, 2018

**Information Only**

**Action Requested**

**Agenda Item Subject:** Discussion and Vote on the Second Megawatt Option for Virtual Net Metering

**Submitted by:** Richard Rudl

**Document Summary/Purpose and/or Recommended Action:**

**Attached is the Solar Virtual Net Metering Opportunity memo and backup documentation from Jonathan Luiz, dated February 22, 2018. There has been no changes since the February 2018 presentation.**

TO: Weston Board of Education

CC: Dr. William McKersie, Superintendent of Schools  
Chris Spaulding, First Selectman

FROM: Jonathan Luiz, Weston Town Administrator *jr*

DATE: February 22, 2018

**SUBJECT: Solar Virtual Net Metering Opportunity**

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Now that the solar virtual net metering agreement between the Town of Weston and Weston Board of Education with Windham Solar LLC has been signed, the next steps are for Weston to communicate to the solar developer its choice of pricing and to assign electricity accounts to the two megawatts of electricity that will be produced by the solar farm.

As previously discussed, Weston has the option of choosing a fixed price or floating price for each of the two megawatts of electricity that will be generated by the solar development. To that end, Solomon Energy has provided us with various savings scenarios. They are attached for your consideration. The savings scenarios cover conservative, moderate and aggressive projections of electricity price increases under all-fixed, all-floating, and hybrid pricing choices. The scenarios are based on twenty and twenty five year timeframes, since Weston has the option of extending the twenty year agreement by five years. Town residents Kirby Brendsel and Cela Sinay-Bernie have provided a memo (attached) delineating their considerations for each option.

In addition to settling the question of fixed versus floating, Weston must also assign electricity meters for each of the two megawatt of electricity. Weston can assign up to five meters per megawatt. The First Selectman and I recommend that the first megawatt, which is scheduled to come online at the end of this month, should be allocated to the School District. Should the Board of Education agree, then it is our recommendation that the credits be applied to the High School and Middle School meters. As for the second megawatt, which is scheduled to come online in June, the First Selectman and I propose that it cover the Town Hall (including Police and Fire Department), Library, and that the balance be assigned at the discretion of the Board of Education.

The First Selectman, Kirby Brendsel and I will be present at Monday night's Board of Education meeting to answer any questions that you may have. Prior to the meeting, please feel free to email your questions to [cspaulding@westonct.gov](mailto:cspaulding@westonct.gov), [jluiz@westonct.gov](mailto:jluiz@westonct.gov), and [brendsel@hotmail.com](mailto:brendsel@hotmail.com).

**Attachments:**

- Town of Weston Remote Net Metered Solar Opportunity Opinion;
- Solomon Energy's Weston Summary of Savings Projections



## **Town of Weston Remote Net Metered Solar Opportunity**

### **Opinion**

As part of the finalization of the Remote Net Metered agreement for the Town of Weston, it is our opinion and recommendation that the Town splits the 2 MW allotted to Weston into two separate agreements. For these agreements, our opinion centers on two possible options – Option 1 as a more optimistic approach and Option 2 as a more conservative approach.

Option 1 / The Optimistic Approach – could have both agreements following the Fixed rate, with the School Board taking the first MW to come online and initial returns, and the Town and School taking the second MW. This would allow for the greatest upside and gains for the Town of Weston and School Board. The primary basis for this opinion resides on the relative closeness between the floor presented for the Variable rate and offer for the Fixed rate.

Option 2 / Conservative Approach – could have one agreement for the first MW to come online aligned to the 20% discounted rate approach (mirroring the floor and ceiling decisions made by the Town of Westport), and the other following the Fixed rate for the follow on second MW. This option presents a middle of the road approach which both allows for the mitigation of potential risks, as well as some of the possible upsides that could accompany situations resulting from a pronounced rise or fall in the electrical rates applicable for the Town of Weston over the 20 to 25 term of the Remote Net Metered solar opportunity.

We have formed our opinion on these options based on the current situation, factors, proposal, and Town of Weston and its School Board's perceived risk tolerance.

These views conveyed in this memorandum are personal views and opinion, and do not reflect those of our employers. They are to be considered solely as independent opinions, and should be considered as such, and are based only on the current information furnished by the Town of Weston as such. The ultimate decision on the path chosen will be solely at the Town of Weston's and its School Board's discretion regardless of the opinions and recommendations provided herein.

Sincerely

Kirby Brendsel

Cela Sinay-Bernie

## WESTON - SUMMARY OF SAVINGS PROJECTIONS

The information below provides a summary of the potential savings opportunity with a Power Purchase Agreement (PPA) as part of the Virtual Net Metering (VNM) program.

1	20 Year – 1 MW – Fixed PPA – Conservative	\$1,309,212
2	20 Year – 1 MW – Fixed PPA – Moderate	\$1,599,953
3	20 Year – 1 MW – Fixed PPA – Aggressive	\$2,117,134
7	20 Year – 2 MW – Fixed PPA – Conservative	\$2,618,423
8	20 Year – 2 MW – Fixed PPA – Moderate	\$3,199,905
9	20 Year – 2 MW – Fixed PPA – Aggressive	\$4,234,268

13	25 Year – 1 MW – Fixed PPA – Conservative	\$1,722,364
14	25 Year – 1 MW – Fixed PPA – Moderate	\$2,193,192
15	25 Year – 1 MW – Fixed PPA – Aggressive	\$2,853,878
19	25 Year – 2 MW – Fixed PPA – Conservative	\$3,444,727
20	25 Year – 2 MW – Fixed PPA – Moderate	\$4,386,383
21	25 Year – 2 MW – Fixed PPA – Aggressive	\$5,707,755

4	20 Year – 1 MW – Floating PPA – Conservative	\$786,265
5	20 Year – 1 MW – Floating PPA – Moderate	\$844,414
6	20 Year – 1 MW – Floating PPA – Aggressive	\$729,589
10	20 Year – 2 MW – Floating PPA – Conservative	\$1,572,531
11	20 Year – 2 MW – Floating PPA – Moderate	\$1,688,827
12	20 Year – 2 MW – Floating PPA – Aggressive	\$1,459,179

16	25 Year – 1 MW – Floating PPA – Conservative	\$991,991
17	25 Year – 1 MW – Floating PPA – Moderate	\$1,084,648
18	25 Year – 1 MW – Floating PPA – Aggressive	\$671,449
22	25 Year – 2 MW – Floating PPA – Conservative	\$1,983,981
23	25 Year – 2 MW – Floating PPA – Moderate	\$2,169,296
24	25 Year – 2 MW – Floating PPA – Aggressive	\$1,342,898

# VIRTUAL NET METERING PPA SAVINGS PROJECTION

The information below provides details on the potential savings opportunity with a Power Purchase Agreement (PPA) as part of the Virtual Net Metering (VNM) program.

ASSUMPTIONS		PERCENTAGE OF SPEND OFFSET WITH VNM CREDITS (%)							
		YEAR	SOLAR OUTPUT (kWh)	SOLAR PPA ELECTRIC RATE (\$/kWh)	SOLAR PPA PAYMENTS (\$)	VNM CREDIT RATE (\$/kWh)	TOTAL VNM CREDITS (\$)	ANNUAL SAVINGS W/SOLAR (\$)	TOTAL SAVINGS W/SOLAR (\$)
<b>SCENARIO 1</b>		1	1,544,298	\$0.089	\$137,443	\$0.14606	\$225,560	\$88,118	\$88,118
		2	1,536,577	\$0.089	\$136,755	\$0.13411	\$206,067	\$69,312	\$157,429
		3	1,528,894	\$0.089	\$136,072	\$0.12190	\$186,375	\$50,304	\$207,733
		4	1,521,249	\$0.089	\$135,391	\$0.12312	\$187,298	\$51,906	\$259,639
		5	1,513,643	\$0.089	\$134,714	\$0.12435	\$188,225	\$53,511	\$313,150
<b>CURRENT USAGE</b>		6	1,506,075	\$0.089	\$134,041	\$0.12560	\$189,157	\$55,116	\$368,266
Current kWh Usage (kWh)		7	1,498,544	\$0.089	\$133,370	\$0.12685	\$190,093	\$56,722	\$424,988
Current Annual Spend (\$)		8	1,491,052	\$0.089	\$132,704	\$0.12812	\$191,034	\$58,330	\$483,318
<b>CURRENT USAGE</b>		9	1,483,596	\$0.089	\$132,040	\$0.12940	\$191,979	\$59,939	\$543,258
System Size (wAC)		10	1,476,178	\$0.089	\$131,380	\$0.13070	\$192,930	\$61,550	\$604,807
System Output Year 1 (kWh)		11	1,468,797	\$0.089	\$130,723	\$0.13200	\$193,885	\$63,162	\$667,969
Annual System Degradation (%)		12	1,461,453	\$0.089	\$130,069	\$0.13332	\$194,844	\$64,775	\$732,744
<b>SOLAR PPA TERMS</b>		13	1,454,146	\$0.089	\$129,419	\$0.13466	\$195,809	\$66,390	\$799,134
Allco VNM Solar PPA Price (\$/kWh)		14	1,446,875	\$0.089	\$128,772	\$0.13600	\$196,778	\$68,006	\$867,140
Allco VNM solar PPA Annual Escalator (%)		15	1,439,641	\$0.089	\$128,128	\$0.13736	\$197,752	\$69,624	\$936,765
Solar PPA Length (Years)		16	1,432,443	\$0.089	\$127,487	\$0.13874	\$198,731	\$71,244	\$1,008,008
<b>EVERSOURCE VNM RATES</b>		17	1,425,281	\$0.089	\$126,850	\$0.14012	\$199,715	\$72,865	\$1,080,873
Current T&D Rate (\$/kWh)		18	1,418,154	\$0.089	\$126,216	\$0.14152	\$200,703	\$74,488	\$1,155,361
Current T&D Rate at 80% (\$/kWh)		19	1,411,064	\$0.089	\$125,585	\$0.14294	\$201,697	\$76,112	\$1,231,473
Year 1 Offset % of T&D Rate (%)		20	1,404,008	\$0.089	\$124,957	\$0.14437	\$202,695	\$77,739	\$1,309,212
Year 2 Offset % of T&D Rate (%)		21	0	\$0.000	\$0	\$0.00000	\$0	\$0	\$0
Years 3 to 25 Offset % of T&D Rate (%)		22	0	\$0.000	\$0	\$0.00000	\$0	\$0	\$0
Annual T&D Rate Increase (%)		23	0	\$0.000	\$0	\$0.00000	\$0	\$0	\$0
Current Generation Charge Rate (\$/kWh)		24	0	\$0.000	\$0	\$0.00000	\$0	\$0	\$0
Annual Generation Rate Increase (%)		25	0	\$0.000	\$0	\$0.00000	\$0	\$0	\$0
Total VNM Credit Rate Year 1		<b>Totals</b>	<b>29,461,969</b>	<b>\$0.0890</b>	<b>\$2,622,115</b>	<b>\$0.13356</b>	<b>\$3,931,327</b>	<b>\$1,309,212</b>	<b>\$1,309,212</b>

\* Based on the applicable credit for Eversource territory from January 1, 2018 to June 30, 2018. VNM cap may come into play later years limiting the savings if the annual total VNM credits exceed the \$490,623 annual cap. Once the total annual VNM credit cap is reached, each kWh sent to the utility grid will receive a wholesale energy rate. For this projection we assumed a \$0.06 without any escalation.

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# VIRTUAL NET METERING PPA SAVINGS PROJECTION

The information below provides details on the potential savings opportunity with a Power Purchase Agreement (PPA) as part of the Virtual Net Metering (VNM) program.

ASSUMPTIONS		PERCENTAGE OF SPEND OFFSET WITH VNM CREDITS (%)								
		YEAR	SOLAR OUTPUT (kWh)	SOLAR PPA ELECTRIC RATE (\$/kWh)	SOLAR PPA PAYMENTS (\$)	VNM CREDIT RATE (\$/kWh)	TOTAL VNM CREDITS (\$)	ANNUAL SAVINGS W/SOLAR (\$)	TOTAL SAVINGS W/SOLAR (\$)	
<b>SCENARIO 2</b>		1	1,544,298	\$0.089	\$137,443	\$0.14606	\$225,560	30%	\$88,118	<b>\$88,118</b>
		2	1,536,577	\$0.089	\$136,755	\$0.13510	\$207,597	27%	\$70,842	<b>\$158,959</b>
		3	1,528,894	\$0.089	\$136,072	\$0.12372	\$189,153	24%	\$53,082	<b>\$212,041</b>
		4	1,521,249	\$0.089	\$135,391	\$0.12588	\$191,501	24%	\$56,110	<b>\$268,151</b>
		5	1,513,643	\$0.089	\$134,714	\$0.12809	\$193,878	24%	\$59,164	<b>\$327,315</b>
<b>CURRENTUSAGE</b>		6	1,506,075	\$0.089	\$134,041	\$0.13033	\$196,285	24%	\$62,244	<b>\$389,559</b>
Current kWh Usage (kWh)	4,488,149	7	1,498,544	\$0.089	\$133,370	\$0.13261	\$198,721	24%	\$65,351	<b>\$454,910</b>
Current Annual Spend (\$)	\$748,903	8	1,491,052	\$0.089	\$132,704	\$0.13493	\$201,188	24%	\$68,484	<b>\$523,394</b>
<b>CURRENTUSAGE</b>		9	1,483,596	\$0.089	\$132,040	\$0.13729	\$203,685	24%	\$71,645	<b>\$595,039</b>
System Size (wAC)	1,000,000	10	1,476,178	\$0.089	\$131,380	\$0.13969	\$206,213	24%	\$74,833	<b>\$669,872</b>
System Output Year 1 (kWh)	1,544,298	11	1,468,797	\$0.089	\$130,723	\$0.14214	\$208,773	23%	\$78,050	<b>\$747,922</b>
Annual System Degradation (%)	0.5%	12	1,461,453	\$0.089	\$130,069	\$0.14463	\$211,364	23%	\$81,295	<b>\$829,217</b>
<b>SOLAR PPA TERMS</b>		13	1,454,146	\$0.089	\$129,419	\$0.14716	\$213,988	23%	\$84,569	<b>\$913,786</b>
Allco VNM Solar PPA Price (\$/kWh)	\$0.089	14	1,446,875	\$0.089	\$128,772	\$0.14973	\$216,644	23%	\$87,872	<b>\$1,001,658</b>
Allco VNM solar PPA Annual Escalator (%)	0.0%	15	1,439,641	\$0.089	\$128,128	\$0.15235	\$219,333	23%	\$91,205	<b>\$1,092,863</b>
Solar PPA Length (Years)	20	16	1,432,443	\$0.089	\$127,487	\$0.15502	\$222,055	23%	\$94,568	<b>\$1,187,431</b>
<b>EVERSOURCE VNM RATES</b>		17	1,425,281	\$0.089	\$126,850	\$0.15773	\$224,812	23%	\$97,962	<b>\$1,285,393</b>
Current T&D Rate (\$/kWh)	\$0.06640	18	1,418,154	\$0.089	\$126,216	\$0.16049	\$227,602	23%	\$101,386	<b>\$1,386,779</b>
Current T&D Rate at 80% (\$/kWh)	\$0.05312	19	1,411,064	\$0.089	\$125,585	\$0.16330	\$230,427	23%	\$104,843	<b>\$1,491,622</b>
Year 1 Offset % of T&D Rate (%)	80%	20	1,404,008	\$0.089	\$124,957	\$0.16616	\$233,288	22%	\$108,331	<b>\$1,599,953</b>
Year 2 Offset % of T&D Rate (%)	60%	21	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Years 3 to 25 Offset % of T&D Rate (%)	40%	22	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Annual T&D Rate Increase (%)	1.75%	23	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Current Generation Charge Rate (\$/kWh)	\$0.09294	24	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Annual Generation Rate Increase (%)	1.75%	25	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Total VNM Credit Rate Year 1	\$0.14606	<b>Totals</b>	<b>29,461,969</b>	<b>\$0.0890</b>	<b>\$2,622,115</b>	<b>\$0.14362</b>	<b>\$4,222,068</b>	<b>24%</b>	<b>\$1,599,953</b>	<b>\$1,599,953</b>

\* Based on the applicable credit for Eversource territory from January 1, 2018 to June 30, 2018. VNM cap may come into play later years limiting the savings if the annual total VNM credits exceed the \$490,623 annual cap. Once the total annual VNM credit cap is reached, each kWh sent to the utility grid will receive a wholesale energy rate. For this projection we assumed a \$0.06 without any escalation.

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# VIRTUAL NET METERING PPA SAVINGS PROJECTION

The information below provides details on the potential savings opportunity with a Power Purchase Agreement (PPA) as part of the Virtual Net Metering (VNM) program.

ASSUMPTIONS		PERCENTAGE OF SPEND OFFSET WITH VNM CREDITS (%)							
		YEAR	SOLAR OUTPUT (kWh)	SOLAR PPA ELECTRIC RATE (\$/kWh)	SOLAR PPA PAYMENTS (\$)	VNM CREDIT RATE (\$/kWh)	TOTAL VNM CREDITS (\$)	ANNUAL SAVINGS W/SOLAR (\$)	TOTAL SAVINGS W/SOLAR (\$)
<b>SCENARIO 3</b>		1	1,544,298	\$0.089	\$137,443	\$0.14606	\$225,560	\$88,118	\$88,118
		2	1,536,577	\$0.089	\$136,755	\$0.13743	\$211,168	\$74,412	\$162,530
		3	1,528,894	\$0.089	\$136,072	\$0.12801	\$195,716	\$59,644	\$222,174
		4	1,521,249	\$0.089	\$135,391	\$0.13249	\$201,553	\$66,162	\$288,336
		5	1,513,643	\$0.089	\$134,714	\$0.13713	\$207,564	\$72,850	\$361,186
<b>CURRENTUSAGE</b>		6	1,506,075	\$0.089	\$134,041	\$0.14193	\$213,755	\$79,714	\$440,900
Current kWh Usage (kWh)	4,488,149	7	1,498,544	\$0.089	\$133,370	\$0.14690	\$220,130	\$86,760	\$527,660
Current Annual Spend (\$)	\$748,903	8	1,491,052	\$0.089	\$132,704	\$0.15204	\$226,696	\$93,992	\$621,652
<b>CURRENTUSAGE</b>		9	1,483,596	\$0.089	\$132,040	\$0.15736	\$233,457	\$101,417	\$723,069
System Size (wAC)	1,000,000	10	1,476,178	\$0.089	\$131,380	\$0.16287	\$240,420	\$109,040	\$832,109
System Output Year 1 (kWh)	1,544,298	11	1,468,797	\$0.089	\$130,723	\$0.16857	\$246,123	\$115,400	\$947,508
Annual System Degradation (%)	0.5%	12	1,461,453	\$0.089	\$130,069	\$0.17447	\$248,635	\$118,565	\$1,066,073
<b>SOLAR PPA TERMS</b>		13	1,454,146	\$0.089	\$129,419	\$0.18057	\$251,049	\$121,630	\$1,187,704
Allco VNM Solar PPA Price (\$/kWh)	\$0.089	14	1,446,875	\$0.089	\$128,772	\$0.18689	\$253,369	\$124,597	\$1,312,301
Allco VNM solar PPA Annual Escalator (%)	0.0%	15	1,439,641	\$0.089	\$128,128	\$0.19343	\$255,598	\$127,470	\$1,439,771
Solar PPA Length (Years)	20	16	1,432,443	\$0.089	\$127,487	\$0.20020	\$257,740	\$130,252	\$1,570,024
<b>EVERSOURCE VNM RATES</b>		17	1,425,281	\$0.089	\$126,850	\$0.20721	\$259,796	\$132,946	\$1,702,970
Current T&D Rate (\$/kWh)	\$0.06640	18	1,418,154	\$0.089	\$126,216	\$0.21446	\$261,771	\$135,555	\$1,838,524
Current T&D Rate at 80% (\$/kWh)	\$0.05312	19	1,411,064	\$0.089	\$125,585	\$0.22197	\$263,666	\$138,081	\$1,976,606
Year 1 Offset % of T&D Rate (%)	80%	20	1,404,008	\$0.089	\$124,957	\$0.22974	\$265,485	\$140,528	\$2,117,134
Year 2 Offset % of T&D Rate (%)	60%	21	0	\$0.000	\$0	\$0.00000	\$0	\$0	\$0
Years 3 to 25 Offset % of T&D Rate (%)	40%	22	0	\$0.000	\$0	\$0.00000	\$0	\$0	\$0
Annual T&D Rate Increase (%)	3.50%	23	0	\$0.000	\$0	\$0.00000	\$0	\$0	\$0
Current Generation Charge Rate (\$/kWh)	\$0.09294	24	0	\$0.000	\$0	\$0.00000	\$0	\$0	\$0
Annual Generation Rate Increase (%)	3.50%	25	0	\$0.000	\$0	\$0.00000	\$0	\$0	\$0
Total VNM Credit Rate Year 1	\$0.14606	<b>Totals</b>	<b>29,461,969</b>	<b>\$0.0890</b>	<b>\$2,622,115</b>	<b>\$0.17099</b>	<b>\$4,739,249</b>	<b>\$2,117,134</b>	<b>\$2,117,134</b>

\* Based on the applicable credit for Eversource territory from January 1, 2018 to June 30, 2018. VNM cap may come into play later years limiting the savings if the annual total VNM credits exceed the \$490,623 annual cap. Once the total annual VNM credit cap is reached, each kWh sent to the utility grid will receive a wholesale energy rate. For this projection we assumed a \$0.06 without any escalation.

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## VIRTUAL NET METERING PPA SAVINGS PROJECTION

The information below provides details on the potential savings opportunity with a Power Purchase Agreement (PPA) as part of the Virtual Net Metering (VNM) program.

ASSUMPTIONS		YEAR	SOLAR OUTPUT (kWh)	SOLAR PPA ELECTRIC RATE (\$/kWh)	SOLAR PPA PAYMENTS (\$)	VNM CREDIT RATE (\$/kWh)	TOTAL VNM CREDITS (\$)	PERCENTAGE OF SPEND OFFSET WITH VNM CREDITS (%)	ANNUAL SAVINGS W/SOLAR (\$)	TOTAL SAVINGS W/SOLAR (\$)
<b>CURRENT USAGE</b>		1	1,544,298	\$0.117	\$180,448	\$0.14606	\$225,560	30%	\$45,112	\$45,112
Current kWh Usage (kWh)	4,488,149	2	1,536,577	\$0.107	\$164,854	\$0.13411	\$206,067	27%	\$41,213	\$86,325
Current Annual Spend (\$)	\$748,903	3	1,528,894	\$0.098	\$149,100	\$0.12190	\$186,375	24%	\$37,275	\$123,600
<b>CURRENT USAGE</b>		4	1,521,249	\$0.098	\$149,838	\$0.12312	\$187,298	24%	\$37,460	\$161,060
System Size (wAC)	1,000,000	5	1,513,643	\$0.099	\$150,580	\$0.12435	\$188,225	24%	\$37,645	\$198,705
System Output Year 1 (kWh)	1,544,298	6	1,506,075	\$0.100	\$151,325	\$0.12560	\$189,157	24%	\$37,831	\$236,536
Annual System Degradation (%)	0.5%	7	1,498,544	\$0.101	\$152,074	\$0.12685	\$190,093	24%	\$38,019	\$274,555
<b>SOLAR PPA TERMS</b>		8	1,491,052	\$0.102	\$152,827	\$0.12812	\$191,034	24%	\$38,207	\$312,762
Allco VNM Solar PPA Price Floating Discount %	20%	9	1,483,596	\$0.104	\$153,584	\$0.12940	\$191,979	24%	\$38,396	\$351,157
Solar PPA Length (Years)	20	10	1,476,178	\$0.105	\$154,344	\$0.13070	\$192,930	24%	\$38,586	\$389,743
<b>EVERSOURCE VNM RATES</b>		11	1,468,797	\$0.106	\$155,108	\$0.13200	\$193,885	23%	\$38,777	\$428,520
Current T&D Rate (\$/kWh)	\$0.06640	12	1,461,453	\$0.107	\$155,876	\$0.13332	\$194,844	23%	\$38,969	\$467,489
Current T&D Rate at 80% (\$/kWh)	\$0.05312	13	1,454,146	\$0.108	\$156,647	\$0.13466	\$195,809	23%	\$39,162	\$506,651
Year 1 Offset % of T&D Rate (%)	80%	14	1,446,875	\$0.109	\$157,423	\$0.13600	\$196,778	23%	\$39,356	\$546,007
Year 2 Offset % of T&D Rate (%)	60%	15	1,439,641	\$0.110	\$158,202	\$0.13736	\$197,752	23%	\$39,550	\$585,557
Years 3 to 25 Offset % of T&D Rate (%)	40%	16	1,432,443	\$0.111	\$158,985	\$0.13874	\$198,731	23%	\$39,746	\$625,303
Annual T&D Rate Increase (%)	1.00%	17	1,425,281	\$0.112	\$159,772	\$0.14012	\$199,715	23%	\$39,943	\$665,246
Current Generation Charge Rate (\$/kWh)	\$0.09294	18	1,418,154	\$0.113	\$160,563	\$0.14152	\$200,703	23%	\$40,141	\$705,387
Annual Generation Rate Increase (%)	1.00%	19	1,411,064	\$0.114	\$161,358	\$0.14294	\$201,697	23%	\$40,339	\$745,726
Total VNM Credit Rate Year 1	\$0.14606	20	1,404,008	\$0.115	\$162,156	\$0.14437	\$202,695	22%	\$40,539	\$786,265
		21	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	\$0
		22	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	\$0
		23	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	\$0
		24	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	\$0
		25	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	\$0
<b>Totals</b>			<b>29,461,969</b>	<b>\$0.107</b>	<b>\$3,145,061</b>	<b>\$0.13356</b>	<b>\$3,931,327</b>	<b>24%</b>	<b>\$786,265</b>	<b>\$786,265</b>

\* Based on the applicable credit for Eversource territory from January 1, 2018 to June 30, 2018. VNM cap may come into play later years limiting the savings if the annual total VNM credits exceed the \$490,623 annual cap. Once the total annual VNM credit cap is reached, each kWh sent to the utility grid will receive a wholesale energy rate. For this projection we assumed a \$0.06 without any escalation.

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The information below provides details on the potential savings opportunity with a Power Purchase Agreement (PPA) as part of the Virtual Net Metering (VNM) program.

ASSUMPTIONS							PERCENTAGE OF SPEND OFFSET WITH VNM CREDITS (%)			
		YEAR	SOLAR OUTPUT (kWh)	SOLAR PPA ELECTRIC RATE (\$/kWh)	SOLAR PPA PAYMENTS (\$)	VNM CREDIT RATE (\$/kWh)	TOTAL VNM CREDITS (\$)	ANNUAL SAVINGS W/SOLAR (\$)	TOTAL SAVINGS W/SOLAR (\$)	
<b>SCENARIO 5</b>		1	1,544,298	\$0.117	\$180,448	\$0.14606	\$225,560	30%	\$45,112	<b>\$45,112</b>
		2	1,536,577	\$0.108	\$166,078	\$0.13510	\$207,597	27%	\$41,519	<b>\$86,631</b>
		3	1,528,894	\$0.099	\$151,323	\$0.12372	\$189,153	24%	\$37,831	<b>\$124,462</b>
		4	1,521,249	\$0.101	\$153,201	\$0.12588	\$191,501	24%	\$38,300	<b>\$162,762</b>
		5	1,513,643	\$0.102	\$155,103	\$0.12809	\$193,878	24%	\$38,776	<b>\$201,538</b>
<b>CURRENT USAGE</b>		6	1,506,075	\$0.104	\$157,028	\$0.13033	\$196,285	24%	\$39,257	<b>\$240,795</b>
Current kWh Usage (kWh)	4,488,149	7	1,498,544	\$0.106	\$158,977	\$0.13261	\$198,721	24%	\$39,744	<b>\$280,539</b>
Current Annual Spend (\$)	\$748,903	8	1,491,052	\$0.108	\$160,950	\$0.13493	\$201,188	24%	\$40,238	<b>\$320,777</b>
<b>CURRENT USAGE</b>		9	1,483,596	\$0.110	\$162,948	\$0.13729	\$203,685	24%	\$40,737	<b>\$361,514</b>
System Size (wAC)	1,000,000	10	1,476,178	\$0.112	\$164,971	\$0.13969	\$206,213	24%	\$41,243	<b>\$402,756</b>
System Output Year 1 (kWh)	1,544,298	11	1,468,797	\$0.114	\$167,018	\$0.14214	\$208,773	23%	\$41,755	<b>\$444,511</b>
Annual System Degradation (%)	0.5%	12	1,461,453	\$0.116	\$169,091	\$0.14463	\$211,364	23%	\$42,273	<b>\$486,784</b>
<b>SOLAR PPA TERMS</b>		13	1,454,146	\$0.118	\$171,190	\$0.14716	\$213,988	23%	\$42,798	<b>\$529,581</b>
Allco VNM Solar PPA Price Floating Discount %	20%	14	1,446,875	\$0.120	\$173,315	\$0.14973	\$216,644	23%	\$43,329	<b>\$572,910</b>
Solar PPA Length (Years)	20	15	1,439,641	\$0.122	\$175,466	\$0.15235	\$219,333	23%	\$43,867	<b>\$616,777</b>
<b>EVERSOURCE VNM RATES</b>		16	1,432,443	\$0.124	\$177,644	\$0.15502	\$222,055	23%	\$44,411	<b>\$661,188</b>
Current T&D Rate (\$/kWh)	\$0.06640	17	1,425,281	\$0.126	\$179,849	\$0.15773	\$224,812	23%	\$44,962	<b>\$706,150</b>
Current T&D Rate at 80% (\$/kWh)	\$0.05312	18	1,418,154	\$0.128	\$182,082	\$0.16049	\$227,602	23%	\$45,520	<b>\$751,671</b>
Year 1 Offset % of T&D Rate (%)	80%	19	1,411,064	\$0.131	\$184,342	\$0.16330	\$230,427	23%	\$46,085	<b>\$797,756</b>
Year 2 Offset % of T&D Rate (%)	60%	20	1,404,008	\$0.133	\$186,630	\$0.16616	\$233,288	22%	\$46,658	<b>\$844,414</b>
Years 3 to 25 Offset % of T&D Rate (%)	40%	21	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Annual T&D Rate Increase (%)	1.75%	22	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Current Generation Charge Rate (\$/kWh)	\$0.09294	23	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Annual Generation Rate Increase (%)	1.75%	24	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Total VNM Credit Rate Year 1	\$0.14606	25	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
		<b>Totals</b>	<b>29,461,969</b>	<b>\$0.115</b>	<b>\$3,377,654</b>	<b>\$0.14362</b>	<b>\$4,222,068</b>	<b>24%</b>	<b>\$844,414</b>	<b>\$844,414</b>

\* Based on the applicable credit for Eversource territory from January 1, 2018 to June 30, 2018. VNM cap may come into play later years limiting the savings if the annual total VNM credits exceed the \$490,623 annual cap. Once the total annual VNM credit cap is reached, each kWh sent to the utility grid will receive a wholesale energy rate. For this projection we assumed a \$0.06 without any escalation.

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ASSUMPTIONS							PERCENTAGE OF SPEND OFFSET WITH VNM CREDITS (%)			
		YEAR	SOLAR OUTPUT (kWh)	SOLAR PPA ELECTRIC RATE (\$/kWh)	SOLAR PPA PAYMENTS (\$)	VNM CREDIT RATE (\$/kWh)	TOTAL VNM CREDITS (\$)	ANNUAL SAVINGS W/SOLAR (\$)	TOTAL SAVINGS W/SOLAR (\$)	
<b>SCENARIO 6</b>		1	1,544,298	\$0.117	\$180,448	\$0.14606	\$225,560	30%	\$45,112	<b>\$45,112</b>
		2	1,536,577	\$0.110	\$168,934	\$0.13743	\$211,168	27%	\$42,234	<b>\$87,346</b>
		3	1,528,894	\$0.102	\$156,573	\$0.12801	\$195,716	24%	\$39,143	<b>\$126,489</b>
		4	1,521,249	\$0.106	\$161,242	\$0.13249	\$201,553	24%	\$40,311	<b>\$166,799</b>
		5	1,513,643	\$0.110	\$166,051	\$0.13713	\$207,564	24%	\$41,513	<b>\$208,312</b>
<b>CURRENTUSAGE</b>		6	1,506,075	\$0.114	\$171,004	\$0.14193	\$213,755	24%	\$42,751	<b>\$251,063</b>
Current kWh Usage (kWh)		7	1,498,544	\$0.118	\$176,104	\$0.14690	\$220,130	24%	\$44,026	<b>\$295,089</b>
Current Annual Spend (\$)		8	1,491,052	\$0.122	\$181,356	\$0.15204	\$226,696	24%	\$45,339	<b>\$340,428</b>
<b>CURRENTUSAGE</b>		9	1,483,596	\$0.126	\$186,765	\$0.15736	\$233,457	24%	\$46,691	<b>\$387,120</b>
System Size (wAC)		10	1,476,178	\$0.130	\$192,336	\$0.16287	\$240,420	24%	\$48,084	<b>\$435,204</b>
System Output Year 1 (kWh)		11	1,468,797	\$0.135	\$198,072	\$0.16857	\$246,123	23%	\$48,050	<b>\$483,254</b>
Annual System Degradation (%)		12	1,461,453	\$0.140	\$203,980	\$0.17447	\$248,635	23%	\$44,655	<b>\$527,909</b>
<b>SOLAR PPA TERMS</b>		13	1,454,146	\$0.144	\$210,063	\$0.18057	\$251,049	22%	\$40,986	<b>\$568,895</b>
Allco VNM Solar PPA Price Floating Discount %		14	1,446,875	\$0.150	\$216,328	\$0.18689	\$253,369	22%	\$37,041	<b>\$605,936</b>
Solar PPA Length (Years)		15	1,439,641	\$0.155	\$222,780	\$0.19343	\$255,598	21%	\$32,818	<b>\$638,754</b>
<b>EVERSOURCE VNM RATES</b>		16	1,432,443	\$0.160	\$229,425	\$0.20020	\$257,740	21%	\$28,315	<b>\$667,069</b>
Current T&D Rate (\$/kWh)		17	1,425,281	\$0.166	\$236,267	\$0.20721	\$259,796	20%	\$23,529	<b>\$690,597</b>
Current T&D Rate at 80% (\$/kWh)		18	1,418,154	\$0.172	\$243,314	\$0.21446	\$261,771	19%	\$18,456	<b>\$709,054</b>
Year 1 Offset % of T&D Rate (%)		19	1,411,064	\$0.178	\$250,571	\$0.22197	\$263,666	19%	\$13,095	<b>\$722,149</b>
Year 2 Offset % of T&D Rate (%)		20	1,404,008	\$0.184	\$258,044	\$0.22974	\$265,485	18%	\$7,441	<b>\$729,589</b>
Years 3 to 25 Offset % of T&D Rate (%)		21	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Annual T&D Rate Increase (%)		22	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Current Generation Charge Rate (\$/kWh)		23	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Annual Generation Rate Increase (%)		24	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Total VNM Credit Rate Year 1		25	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
		<b>Totals</b>	<b>29,461,969</b>	<b>\$0.137</b>	<b>\$4,009,660</b>	<b>\$0.17099</b>	<b>\$4,739,249</b>	<b>23%</b>	<b>\$729,589</b>	<b>\$729,589</b>

\* Based on the applicable credit for Eversource territory from January 1, 2018 to June 30, 2018. VNM cap may come into play later years limiting the savings if the annual total VNM credits exceed the \$490,623 annual cap. Once the total annual VNM credit cap is reached, each kWh sent to the utility grid will receive a wholesale energy rate. For this projection we assumed a \$0.06 without any escalation.

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# VIRTUAL NET METERING PPA SAVINGS PROJECTION

The information below provides details on the potential savings opportunity with a Power Purchase Agreement (PPA) as part of the Virtual Net Metering (VNM) program.

ASSUMPTIONS		PERCENTAGE OF SPEND OFFSET WITH VNM CREDITS (%)								
		YEAR	SOLAR OUTPUT (kWh)	SOLAR PPA ELECTRIC RATE (\$/kWh)	SOLAR PPA PAYMENTS (\$)	VNM CREDIT RATE (\$/kWh)	TOTAL VNM CREDITS (\$)	ANNUAL SAVINGS W/SOLAR (\$)	TOTAL SAVINGS W/SOLAR (\$)	
<b>SCENARIO 7</b>		1	3,088,596	\$0.089	\$274,885	\$0.14606	\$451,120	60%	\$176,235	<b>\$176,235</b>
		2	3,073,153	\$0.089	\$273,511	\$0.13411	\$412,134	54%	\$138,623	<b>\$314,858</b>
		3	3,057,787	\$0.089	\$272,143	\$0.12190	\$372,750	49%	\$100,607	<b>\$415,466</b>
		4	3,042,498	\$0.089	\$270,782	\$0.12312	\$374,595	49%	\$103,813	<b>\$519,279</b>
		5	3,027,286	\$0.089	\$269,428	\$0.12435	\$376,450	48%	\$107,021	<b>\$626,300</b>
<b>CURRENTUSAGE</b>		6	3,012,149	\$0.089	\$268,081	\$0.12560	\$378,313	48%	\$110,232	<b>\$736,531</b>
Current kWh Usage (kWh)	4,488,149	7	2,997,089	\$0.089	\$266,741	\$0.12685	\$380,186	48%	\$113,445	<b>\$849,976</b>
Current Annual Spend (\$)	\$748,903	8	2,982,103	\$0.089	\$265,407	\$0.12812	\$382,068	48%	\$116,660	<b>\$966,637</b>
<b>CURRENTUSAGE</b>		9	2,967,193	\$0.089	\$264,080	\$0.12940	\$383,959	47%	\$119,879	<b>\$1,086,515</b>
System Size (wAC)	2,000,000	10	2,952,357	\$0.089	\$262,760	\$0.13070	\$385,859	47%	\$123,100	<b>\$1,209,615</b>
System Output Year 1 (kWh)	3,088,596	11	2,937,595	\$0.089	\$261,446	\$0.13200	\$387,769	47%	\$126,323	<b>\$1,335,938</b>
Annual System Degradation (%)	0.5%	12	2,922,907	\$0.089	\$260,139	\$0.13332	\$389,689	47%	\$129,550	<b>\$1,465,489</b>
<b>SOLAR PPA TERMS</b>		13	2,908,292	\$0.089	\$258,838	\$0.13466	\$391,618	46%	\$132,780	<b>\$1,598,268</b>
Allco VNM Solar PPA Price (\$/kWh)	\$0.089	14	2,893,751	\$0.089	\$257,544	\$0.13600	\$393,556	46%	\$136,013	<b>\$1,734,281</b>
Allco VNM solar PPA Annual Escalator (%)	0.0%	15	2,879,282	\$0.089	\$256,256	\$0.13736	\$395,504	46%	\$139,248	<b>\$1,873,529</b>
Solar PPA Length (Years)	20	16	2,864,886	\$0.089	\$254,975	\$0.13874	\$397,462	46%	\$142,487	<b>\$2,016,017</b>
<b>EVERSOURCE VNM RATES</b>		17	2,850,561	\$0.089	\$253,700	\$0.14012	\$399,430	45%	\$145,730	<b>\$2,161,746</b>
Current T&D Rate (\$/kWh)	\$0.06640	18	2,836,309	\$0.089	\$252,431	\$0.14152	\$401,407	45%	\$148,975	<b>\$2,310,722</b>
Current T&D Rate at 80% (\$/kWh)	\$0.05312	19	2,822,127	\$0.089	\$251,169	\$0.14294	\$403,394	45%	\$152,224	<b>\$2,462,946</b>
Year 1 Offset % of T&D Rate (%)	80%	20	2,808,016	\$0.089	\$249,913	\$0.14437	\$405,391	45%	\$155,477	<b>\$2,618,423</b>
Year 2 Offset % of T&D Rate (%)	60%	21	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Years 3 to 25 Offset % of T&D Rate (%)	40%	22	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Annual T&D Rate Increase (%)	1.00%	23	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Current Generation Charge Rate (\$/kWh)	\$0.09294	24	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Annual Generation Rate Increase (%)	1.00%	25	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Total VNM Credit Rate Year 1	\$0.14606	<b>Totals</b>	<b>58,923,938</b>	<b>\$0.0890</b>	<b>\$5,244,230</b>	<b>\$0.13356</b>	<b>\$7,862,654</b>	<b>48%</b>	<b>\$2,618,423</b>	<b>\$2,618,423</b>

\* Based on the applicable credit for Eversource territory from January 1, 2018 to June 30, 2018. VNM cap may come into play later years limiting the savings if the annual total VNM credits exceed the \$490,623 annual cap. Once the total annual VNM credit cap is reached, each kWh sent to the utility grid will receive a wholesale energy rate. For this projection we assumed a \$0.06 without any escalation.

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# VIRTUAL NET METERING PPA SAVINGS PROJECTION

The information below provides details on the potential savings opportunity with a Power Purchase Agreement (PPA) as part of the Virtual Net Metering (VNM) program.

ASSUMPTIONS		PERCENTAGE OF SPEND OFFSET WITH VNM CREDITS (%)							ANNUAL SAVINGS W/SOLAR (\$)	TOTAL SAVINGS W/SOLAR (\$)
		YEAR	SOLAR OUTPUT (kWh)	SOLAR PPA ELECTRIC RATE (\$/kWh)	SOLAR PPA PAYMENTS (\$)	VNM CREDIT RATE (\$/kWh)	TOTAL VNM CREDITS (\$)	PERCENTAGE OF SPEND OFFSET WITH VNM CREDITS (%)		
<b>SCENARIO 8</b>		1	3,088,596	\$0.089	\$274,885	\$0.14606	\$451,120	60%	\$176,235	\$176,235
		2	3,073,153	\$0.089	\$273,511	\$0.13510	\$415,194	54%	\$141,684	\$317,919
		3	3,057,787	\$0.089	\$272,143	\$0.12372	\$378,307	49%	\$106,164	\$424,082
		4	3,042,498	\$0.089	\$270,782	\$0.12588	\$383,002	49%	\$112,220	\$536,303
		5	3,027,286	\$0.089	\$269,428	\$0.12809	\$387,756	48%	\$118,328	\$654,631
		6	3,012,149	\$0.089	\$268,081	\$0.13033	\$392,569	48%	\$124,488	\$779,119
		7	2,997,089	\$0.089	\$266,741	\$0.13261	\$397,442	48%	\$130,701	\$909,820
		8	2,982,103	\$0.089	\$265,407	\$0.13493	\$402,375	48%	\$136,968	\$1,046,788
		9	2,967,193	\$0.089	\$264,080	\$0.13729	\$407,370	47%	\$143,290	\$1,190,078
		10	2,952,357	\$0.089	\$262,760	\$0.13969	\$412,426	47%	\$149,667	\$1,339,745
		11	2,937,595	\$0.089	\$261,446	\$0.14214	\$417,546	47%	\$156,100	\$1,495,845
		12	2,922,907	\$0.089	\$260,139	\$0.14463	\$422,728	47%	\$162,590	\$1,658,434
		13	2,908,292	\$0.089	\$258,838	\$0.14716	\$427,976	46%	\$169,138	\$1,827,572
		14	2,893,751	\$0.089	\$257,544	\$0.14973	\$433,288	46%	\$175,744	\$2,003,316
		15	2,879,282	\$0.089	\$256,256	\$0.15235	\$438,666	46%	\$182,410	\$2,185,726
		16	2,864,886	\$0.089	\$254,975	\$0.15502	\$444,111	46%	\$189,136	\$2,374,862
		17	2,850,561	\$0.089	\$253,700	\$0.15773	\$449,623	45%	\$195,924	\$2,570,785
		18	2,836,309	\$0.089	\$252,431	\$0.16049	\$455,204	45%	\$202,773	\$2,773,558
		19	2,822,127	\$0.089	\$251,169	\$0.16330	\$460,855	45%	\$209,685	\$2,983,244
		20	2,808,016	\$0.089	\$249,913	\$0.16616	\$466,575	45%	\$216,662	\$3,199,905
		21	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	\$0
		22	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	\$0
		23	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	\$0
		24	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	\$0
		25	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	\$0
<b>Totals</b>			<b>58,923,938</b>	<b>\$0.0890</b>	<b>\$5,244,230</b>	<b>\$0.14362</b>	<b>\$8,444,136</b>	<b>48%</b>	<b>\$3,199,905</b>	<b>\$3,199,905</b>

\* Based on the applicable credit for Eversource territory from January 1, 2018 to June 30, 2018. VNM cap may come into play later years limiting the savings if the annual total VNM credits exceed the \$490,623 annual cap. Once the total annual VNM credit cap is reached, each kWh sent to the utility grid will receive a wholesale energy rate. For this projection we assumed a \$0.06 without any escalation.

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# VIRTUAL NET METERING PPA SAVINGS PROJECTION

The information below provides details on the potential savings opportunity with a Power Purchase Agreement (PPA) as part of the Virtual Net Metering (VNM) program.

ASSUMPTIONS		PERCENTAGE OF SPEND OFFSET WITH VNM CREDITS (%)							ANNUAL SAVINGS W/SOLAR (\$)	TOTAL SAVINGS W/SOLAR (\$)
		YEAR	SOLAR OUTPUT (kWh)	SOLAR PPA ELECTRIC RATE (\$/kWh)	SOLAR PPA PAYMENTS (\$)	VNM CREDIT RATE (\$/kWh)	TOTAL VNM CREDITS (\$)	PERCENTAGE OF SPEND OFFSET WITH VNM CREDITS (%)		
<b>SCENARIO 9</b>		1	3,088,596	\$0.089	\$274,885	\$0.14606	\$451,120	60%	\$176,235	\$176,235
		2	3,073,153	\$0.089	\$273,511	\$0.13743	\$422,335	54%	\$148,825	\$325,060
		3	3,057,787	\$0.089	\$272,143	\$0.12801	\$391,432	49%	\$119,289	\$444,348
		4	3,042,498	\$0.089	\$270,782	\$0.13249	\$403,106	49%	\$132,324	\$576,672
		5	3,027,286	\$0.089	\$269,428	\$0.13713	\$415,129	48%	\$145,700	\$722,372
<b>CURRENTUSAGE</b>		6	3,012,149	\$0.089	\$268,081	\$0.14193	\$427,510	48%	\$159,429	\$881,801
Current kWh Usage (kWh)		7	2,997,089	\$0.089	\$266,741	\$0.14690	\$440,260	48%	\$173,519	\$1,055,320
Current Annual Spend (\$)		8	2,982,103	\$0.089	\$265,407	\$0.15204	\$453,391	48%	\$187,984	\$1,243,304
<b>CURRENTUSAGE</b>		9	2,967,193	\$0.089	\$264,080	\$0.15736	\$466,914	47%	\$202,833	\$1,446,138
System Size (wAC)		10	2,952,357	\$0.089	\$262,760	\$0.16287	\$480,839	47%	\$218,079	\$1,664,217
System Output Year 1 (kWh)		11	2,937,595	\$0.089	\$261,446	\$0.16857	\$492,245	47%	\$230,799	\$1,895,016
Annual System Degradation (%)		12	2,922,907	\$0.089	\$260,139	\$0.17447	\$497,269	45%	\$237,131	\$2,132,147
<b>SOLAR PPA TERMS</b>		13	2,908,292	\$0.089	\$258,838	\$0.18057	\$502,098	44%	\$243,260	\$2,375,407
Allco VNM Solar PPA Price (\$/kWh)		14	2,893,751	\$0.089	\$257,544	\$0.18689	\$506,739	43%	\$249,195	\$2,624,602
Allco VNM solar PPA Annual Escalator (%)		15	2,879,282	\$0.089	\$256,256	\$0.19343	\$511,197	42%	\$254,941	\$2,879,543
Solar PPA Length (Years)		16	2,864,886	\$0.089	\$254,975	\$0.20020	\$515,479	41%	\$260,505	\$3,140,047
<b>EVERSOURCE VNM RATES</b>		17	2,850,561	\$0.089	\$253,700	\$0.20721	\$519,592	40%	\$265,892	\$3,405,939
Current T&D Rate (\$/kWh)		18	2,836,309	\$0.089	\$252,431	\$0.21446	\$523,541	39%	\$271,110	\$3,677,049
Current T&D Rate at 80% (\$/kWh)		19	2,822,127	\$0.089	\$251,169	\$0.22197	\$527,332	38%	\$276,163	\$3,953,211
Year 1 Offset % of T&D Rate (%)		20	2,808,016	\$0.089	\$249,913	\$0.22974	\$530,970	37%	\$281,056	\$4,234,268
Year 2 Offset % of T&D Rate (%)		21	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	\$0
Years 3 to 25 Offset % of T&D Rate (%)		22	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	\$0
Annual T&D Rate Increase (%)		23	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	\$0
Current Generation Charge Rate (\$/kWh)		24	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	\$0
Annual Generation Rate Increase (%)		25	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	\$0
Total VNM Credit Rate Year 1		<b>Totals</b>	<b>58,923,938</b>	<b>\$0.0890</b>	<b>\$5,244,230</b>	<b>\$0.17099</b>	<b>\$9,478,498</b>	<b>46%</b>	<b>\$4,234,268</b>	<b>\$4,234,268</b>

\* Based on the applicable credit for Eversource territory from January 1, 2018 to June 30, 2018. VNM cap may come into play later years limiting the savings if the annual total VNM credits exceed the \$490,623 annual cap. Once the total annual VNM credit cap is reached, each kWh sent to the utility grid will receive a wholesale energy rate. For this projection we assumed a \$0.06 without any escalation.

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# VIRTUAL NET METERING PPA SAVINGS PROJECTION

The information below provides details on the potential savings opportunity with a Power Purchase Agreement (PPA) as part of the Virtual Net Metering (VNM) program.

ASSUMPTIONS							PERCENTAGE OF SPEND OFFSET WITH VNM CREDITS (%)			
		YEAR	SOLAR OUTPUT (kWh)	SOLAR PPA ELECTRIC RATE (\$/kWh)	SOLAR PPA PAYMENTS (\$)	VNM CREDIT RATE (\$/kWh)	TOTAL VNM CREDITS (\$)	ANNUAL SAVINGS W/SOLAR (\$)	TOTAL SAVINGS W/SOLAR (\$)	
<b>SCENARIO 10</b>		1	3,088,596	\$0.117	\$360,896	\$0.14606	\$451,120	60%	\$90,224	<b>\$90,224</b>
		2	3,073,153	\$0.107	\$329,707	\$0.13411	\$412,134	54%	\$82,427	<b>\$172,651</b>
		3	3,057,787	\$0.098	\$298,200	\$0.12190	\$372,750	49%	\$74,550	<b>\$247,201</b>
		4	3,042,498	\$0.098	\$299,676	\$0.12312	\$374,595	49%	\$74,919	<b>\$322,120</b>
		5	3,027,286	\$0.099	\$301,160	\$0.12435	\$376,450	48%	\$75,290	<b>\$397,410</b>
<b>CURRENT USAGE</b>		6	3,012,149	\$0.100	\$302,650	\$0.12560	\$378,313	48%	\$75,663	<b>\$473,072</b>
Current kWh Usage (kWh)	4,488,149	7	2,997,089	\$0.101	\$304,149	\$0.12685	\$380,186	48%	\$76,037	<b>\$549,110</b>
Current Annual Spend (\$)	\$748,903	8	2,982,103	\$0.102	\$305,654	\$0.12812	\$382,068	48%	\$76,414	<b>\$625,523</b>
<b>CURRENT USAGE</b>		9	2,967,193	\$0.104	\$307,167	\$0.12940	\$383,959	47%	\$76,792	<b>\$702,315</b>
System Size (wAC)	2,000,000	10	2,952,357	\$0.105	\$308,688	\$0.13070	\$385,859	47%	\$77,172	<b>\$779,487</b>
System Output Year 1 (kWh)	3,088,596	11	2,937,595	\$0.106	\$310,216	\$0.13200	\$387,769	47%	\$77,554	<b>\$857,041</b>
Annual System Degradation (%)	0.5%	12	2,922,907	\$0.107	\$311,751	\$0.13332	\$389,689	47%	\$77,938	<b>\$934,978</b>
<b>SOLAR PPA TERMS</b>		13	2,908,292	\$0.108	\$313,294	\$0.13466	\$391,618	46%	\$78,324	<b>\$1,013,302</b>
Allco VNM Solar PPA Price Floating Discount %	20%	14	2,893,751	\$0.109	\$314,845	\$0.13600	\$393,556	46%	\$78,711	<b>\$1,092,013</b>
Solar PPA Length (Years)	20	15	2,879,282	\$0.110	\$316,404	\$0.13736	\$395,504	46%	\$79,101	<b>\$1,171,114</b>
<b>EVERSOURCE VNM RATES</b>		16	2,864,886	\$0.111	\$317,970	\$0.13874	\$397,462	46%	\$79,492	<b>\$1,250,607</b>
Current T&D Rate (\$/kWh)	\$0.06640	17	2,850,561	\$0.112	\$319,544	\$0.14012	\$399,430	45%	\$79,886	<b>\$1,330,493</b>
Current T&D Rate at 80% (\$/kWh)	\$0.05312	18	2,836,309	\$0.113	\$321,125	\$0.14152	\$401,407	45%	\$80,281	<b>\$1,410,774</b>
Year 1 Offset % of T&D Rate (%)	80%	19	2,822,127	\$0.114	\$322,715	\$0.14294	\$403,394	45%	\$80,679	<b>\$1,491,453</b>
Year 2 Offset % of T&D Rate (%)	60%	20	2,808,016	\$0.115	\$324,312	\$0.14437	\$405,391	45%	\$81,078	<b>\$1,572,531</b>
Years 3 to 25 Offset % of T&D Rate (%)	40%	21	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Annual T&D Rate Increase (%)	1.00%	22	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Current Generation Charge Rate (\$/kWh)	\$0.09294	23	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Annual Generation Rate Increase (%)	1.00%	24	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Total VNM Credit Rate Year 1	\$0.14606	25	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
		<b>Totals</b>	<b>58,923,938</b>	<b>\$0.107</b>	<b>\$6,290,123</b>	<b>\$0.13356</b>	<b>\$7,862,654</b>	<b>48%</b>	<b>\$1,572,531</b>	<b>\$1,572,531</b>

\* Based on the applicable credit for Eversource territory from January 1, 2018 to June 30, 2018. VNM cap may come into play later years limiting the savings if the annual total VNM credits exceed the \$490,623 annual cap. Once the total annual VNM credit cap is reached, each kWh sent to the utility grid will receive a wholesale energy rate. For this projection we assumed a \$0.06 without any escalation.

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# VIRTUAL NET METERING PPA SAVINGS PROJECTION

The information below provides details on the potential savings opportunity with a Power Purchase Agreement (PPA) as part of the Virtual Net Metering (VNM) program.

ASSUMPTIONS							PERCENTAGE OF SPEND OFFSET WITH VNM CREDITS (%)			
		YEAR	SOLAR OUTPUT (kWh)	SOLAR PPA ELECTRIC RATE (\$/kWh)	SOLAR PPA PAYMENTS (\$)	VNM CREDIT RATE (\$/kWh)	TOTAL VNM CREDITS (\$)	ANNUAL SAVINGS W/SOLAR (\$)	TOTAL SAVINGS W/SOLAR (\$)	
<b>SCENARIO 11</b>		1	3,088,596	\$0.117	\$360,896	\$0.14606	\$451,120	60%	\$90,224	<b>\$90,224</b>
		2	3,073,153	\$0.108	\$332,155	\$0.13510	\$415,194	54%	\$83,039	<b>\$173,263</b>
		3	3,057,787	\$0.099	\$302,645	\$0.12372	\$378,307	49%	\$75,661	<b>\$248,924</b>
		4	3,042,498	\$0.101	\$306,402	\$0.12588	\$383,002	49%	\$76,600	<b>\$325,525</b>
		5	3,027,286	\$0.102	\$310,205	\$0.12809	\$387,756	48%	\$77,551	<b>\$403,076</b>
<b>CURRENT USAGE</b>		6	3,012,149	\$0.104	\$314,056	\$0.13033	\$392,569	48%	\$78,514	<b>\$481,590</b>
Current kWh Usage (kWh)	4,488,149	7	2,997,089	\$0.106	\$317,954	\$0.13261	\$397,442	48%	\$79,488	<b>\$561,078</b>
Current Annual Spend (\$)	\$748,903	8	2,982,103	\$0.108	\$321,900	\$0.13493	\$402,375	48%	\$80,475	<b>\$641,553</b>
<b>CURRENT USAGE</b>		9	2,967,193	\$0.110	\$325,896	\$0.13729	\$407,370	47%	\$81,474	<b>\$723,027</b>
System Size (wAC)	2,000,000	10	2,952,357	\$0.112	\$329,941	\$0.13969	\$412,426	47%	\$82,485	<b>\$805,513</b>
System Output Year 1 (kWh)	3,088,596	11	2,937,595	\$0.114	\$334,037	\$0.14214	\$417,546	47%	\$83,509	<b>\$889,022</b>
Annual System Degradation (%)	0.5%	12	2,922,907	\$0.116	\$338,183	\$0.14463	\$422,728	47%	\$84,546	<b>\$973,568</b>
<b>SOLAR PPA TERMS</b>		13	2,908,292	\$0.118	\$342,380	\$0.14716	\$427,976	46%	\$85,595	<b>\$1,059,163</b>
Allco VNM Solar PPA Price Floating Discount %	20%	14	2,893,751	\$0.120	\$346,630	\$0.14973	\$433,288	46%	\$86,658	<b>\$1,145,820</b>
Solar PPA Length (Years)	20	15	2,879,282	\$0.122	\$350,933	\$0.15235	\$438,666	46%	\$87,733	<b>\$1,233,553</b>
<b>EVERSOURCE VNM RATES</b>		16	2,864,886	\$0.124	\$355,289	\$0.15502	\$444,111	46%	\$88,822	<b>\$1,322,376</b>
Current T&D Rate (\$/kWh)	\$0.06640	17	2,850,561	\$0.126	\$359,699	\$0.15773	\$449,623	45%	\$89,925	<b>\$1,412,300</b>
Current T&D Rate at 80% (\$/kWh)	\$0.05312	18	2,836,309	\$0.128	\$364,164	\$0.16049	\$455,204	45%	\$91,041	<b>\$1,503,341</b>
Year 1 Offset % of T&D Rate (%)	80%	19	2,822,127	\$0.131	\$368,684	\$0.16330	\$460,855	45%	\$92,171	<b>\$1,595,512</b>
Year 2 Offset % of T&D Rate (%)	60%	20	2,808,016	\$0.133	\$373,260	\$0.16616	\$466,575	45%	\$93,315	<b>\$1,688,827</b>
Years 3 to 25 Offset % of T&D Rate (%)	40%	21	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Annual T&D Rate Increase (%)	1.75%	22	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Current Generation Charge Rate (\$/kWh)	\$0.09294	23	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Annual Generation Rate Increase (%)	1.75%	24	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Total VNM Credit Rate Year 1	\$0.14606	25	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
		<b>Totals</b>	<b>58,923,938</b>	<b>\$0.115</b>	<b>\$6,755,309</b>	<b>\$0.14362</b>	<b>\$8,444,136</b>	<b>48%</b>	<b>\$1,688,827</b>	<b>\$1,688,827</b>

\* Based on the applicable credit for Eversource territory from January 1, 2018 to June 30, 2018. VNM cap may come into play later years limiting the savings if the annual total VNM credits exceed the \$490,623 annual cap. Once the total annual VNM credit cap is reached, each kWh sent to the utility grid will receive a wholesale energy rate. For this projection we assumed a \$0.06 without any escalation.

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# VIRTUAL NET METERING PPA SAVINGS PROJECTION

The information below provides details on the potential savings opportunity with a Power Purchase Agreement (PPA) as part of the Virtual Net Metering (VNM) program.

ASSUMPTIONS		YEAR	SOLAR OUTPUT (kWh)	SOLAR PPA ELECTRIC RATE (\$/kWh)	SOLAR PPA PAYMENTS (\$)	VNM CREDIT RATE (\$/kWh)	TOTAL VNM CREDITS (\$)	PERCENTAGE OF SPEND OFFSET WITH VNM CREDITS (%)	ANNUAL SAVINGS W/SOLAR (\$)	TOTAL SAVINGS W/SOLAR (\$)
<b>SCENARIO 12</b>		1	3,088,596	\$0.117	\$360,896	\$0.14606	\$451,120	60%	\$90,224	<b>\$90,224</b>
		2	3,073,153	\$0.110	\$337,868	\$0.13743	\$422,335	54%	\$84,467	<b>\$174,691</b>
		3	3,057,787	\$0.102	\$313,145	\$0.12801	\$391,432	49%	\$78,286	<b>\$252,977</b>
		4	3,042,498	\$0.106	\$322,485	\$0.13249	\$403,106	49%	\$80,621	<b>\$333,599</b>
		5	3,027,286	\$0.110	\$332,103	\$0.13713	\$415,129	48%	\$83,026	<b>\$416,624</b>
<b>CURRENT USAGE</b>		6	3,012,149	\$0.114	\$342,008	\$0.14193	\$427,510	48%	\$85,502	<b>\$502,126</b>
Current kWh Usage (kWh)	4,488,149	7	2,997,089	\$0.118	\$352,208	\$0.14690	\$440,260	48%	\$88,052	<b>\$590,178</b>
Current Annual Spend (\$)	\$748,903	8	2,982,103	\$0.122	\$362,713	\$0.15204	\$453,391	48%	\$90,678	<b>\$680,857</b>
<b>CURRENT USAGE</b>		9	2,967,193	\$0.126	\$373,531	\$0.15736	\$466,914	47%	\$93,383	<b>\$774,239</b>
System Size (wAC)	2,000,000	10	2,952,357	\$0.130	\$384,671	\$0.16287	\$480,839	47%	\$96,168	<b>\$870,407</b>
System Output Year 1 (kWh)	3,088,596	11	2,937,595	\$0.135	\$396,144	\$0.16857	\$492,245	47%	\$96,101	<b>\$966,508</b>
Annual System Degradation (%)	0.5%	12	2,922,907	\$0.140	\$407,959	\$0.17447	\$497,269	45%	\$89,310	<b>\$1,055,818</b>
<b>SOLAR PPA TERMS</b>		13	2,908,292	\$0.144	\$420,127	\$0.18057	\$502,098	44%	\$81,972	<b>\$1,137,790</b>
Allco VNM Solar PPA Price Floating Discount %	20%	14	2,893,751	\$0.150	\$432,657	\$0.18689	\$506,739	43%	\$74,082	<b>\$1,211,872</b>
Solar PPA Length (Years)	20	15	2,879,282	\$0.155	\$445,561	\$0.19343	\$511,197	42%	\$65,636	<b>\$1,277,508</b>
<b>EVERSOURCE VNM RATES</b>		16	2,864,886	\$0.160	\$458,850	\$0.20020	\$515,479	41%	\$56,630	<b>\$1,334,137</b>
Current T&D Rate (\$/kWh)	\$0.06640	17	2,850,561	\$0.166	\$472,535	\$0.20721	\$519,592	40%	\$47,057	<b>\$1,381,195</b>
Current T&D Rate at 80% (\$/kWh)	\$0.05312	18	2,836,309	\$0.172	\$486,628	\$0.21446	\$523,541	39%	\$36,913	<b>\$1,418,107</b>
Year 1 Offset % of T&D Rate (%)	80%	19	2,822,127	\$0.178	\$501,142	\$0.22197	\$527,332	38%	\$26,190	<b>\$1,444,297</b>
Year 2 Offset % of T&D Rate (%)	60%	20	2,808,016	\$0.184	\$516,088	\$0.22974	\$530,970	37%	\$14,881	<b>\$1,459,179</b>
Years 3 to 25 Offset % of T&D Rate (%)	40%	21	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Annual T&D Rate Increase (%)	3.50%	22	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Current Generation Charge Rate (\$/kWh)	\$0.09294	23	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Annual Generation Rate Increase (%)	3.50%	24	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
Total VNM Credit Rate Year 1	\$0.14606	25	0	\$0.000	\$0	\$0.00000	\$0	0%	\$0	<b>\$0</b>
		<b>Totals</b>	<b>58,923,938</b>	<b>\$0.137</b>	<b>\$8,019,320</b>	<b>\$0.17099</b>	<b>\$9,478,498</b>	<b>46%</b>	<b>\$1,459,179</b>	<b>\$1,459,179</b>

\* Based on the applicable credit for Eversource territory from January 1, 2018 to June 30, 2018. VNM cap may come into play later years limiting the savings if the annual total VNM credits exceed the \$490,623 annual cap. Once the total annual VNM credit cap is reached, each kWh sent to the utility grid will receive a wholesale energy rate. For this projection we assumed a \$0.06 without any escalation.

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## VIRTUAL NET METERING PPA SAVINGS PROJECTION

The information below provides details on the potential savings opportunity with a Power Purchase Agreement (PPA) as part of the Virtual Net Metering (VNM) program.

ASSUMPTIONS		PERCENTAGE OF SPEND OFFSET WITH VNM CREDITS (%)							
		YEAR	SOLAR OUTPUT (kWh)	SOLAR PPA ELECTRIC RATE (\$/kWh)	SOLAR PPA PAYMENTS (\$)	VNM CREDIT RATE (\$/kWh)	TOTAL VNM CREDITS (\$)	ANNUAL SAVINGS W/SOLAR (\$)	TOTAL SAVINGS W/SOLAR (\$)
<b>SCENARIO 13</b>		1	1,544,298	\$0.089	\$137,443	\$0.14606	\$225,560	\$88,118	\$88,118
		2	1,536,577	\$0.089	\$136,755	\$0.13411	\$206,067	\$69,312	\$157,429
		3	1,528,894	\$0.089	\$136,072	\$0.12190	\$186,375	\$50,304	\$207,733
		4	1,521,249	\$0.089	\$135,391	\$0.12312	\$187,298	\$51,906	\$259,639
		5	1,513,643	\$0.089	\$134,714	\$0.12435	\$188,225	\$53,511	\$313,150
<b>CURRENT USAGE</b>		6	1,506,075	\$0.089	\$134,041	\$0.12560	\$189,157	\$55,116	\$368,266
Current kWh Usage (kWh)	4,488,149	7	1,498,544	\$0.089	\$133,370	\$0.12685	\$190,093	\$56,722	\$424,988
Current Annual Spend (\$)	\$748,903	8	1,491,052	\$0.089	\$132,704	\$0.12812	\$191,034	\$58,330	\$483,318
<b>CURRENT USAGE</b>		9	1,483,596	\$0.089	\$132,040	\$0.12940	\$191,979	\$59,939	\$543,258
System Size (wAC)	1,000,000	10	1,476,178	\$0.089	\$131,380	\$0.13070	\$192,930	\$61,550	\$604,807
System Output Year 1 (kWh)	1,544,298	11	1,468,797	\$0.089	\$130,723	\$0.13200	\$193,885	\$63,162	\$667,969
Annual System Degradation (%)	0.5%	12	1,461,453	\$0.089	\$130,069	\$0.13332	\$194,844	\$64,775	\$732,744
<b>SOLAR PPA TERMS</b>		13	1,454,146	\$0.089	\$129,419	\$0.13466	\$195,809	\$66,390	\$799,134
Allco VNM Solar PPA Price (\$/kWh)	\$0.089	14	1,446,875	\$0.089	\$128,772	\$0.13600	\$196,778	\$68,006	\$867,140
Allco VNM solar PPA Annual Escalator (%)	0.0%	15	1,439,641	\$0.089	\$128,128	\$0.13736	\$197,752	\$69,624	\$936,765
Solar PPA Length (Years)	25	16	1,432,443	\$0.089	\$127,487	\$0.13874	\$198,731	\$71,244	\$1,008,008
<b>EVERSOURCE VNM RATES</b>		17	1,425,281	\$0.089	\$126,850	\$0.14012	\$199,715	\$72,865	\$1,080,873
Current T&D Rate (\$/kWh)	\$0.06640	18	1,418,154	\$0.089	\$126,216	\$0.14152	\$200,703	\$74,488	\$1,155,361
Current T&D Rate at 80% (\$/kWh)	\$0.05312	19	1,411,064	\$0.089	\$125,585	\$0.14294	\$201,697	\$76,112	\$1,231,473
Year 1 Offset % of T&D Rate (%)	80%	20	1,404,008	\$0.089	\$124,957	\$0.14437	\$202,695	\$77,739	\$1,309,212
Year 2 Offset % of T&D Rate (%)	60%	21	1,396,988	\$0.089	\$124,332	\$0.14581	\$203,699	\$79,367	\$1,388,578
Years 3 to 25 Offset % of T&D Rate (%)	40%	22	1,390,003	\$0.089	\$123,710	\$0.14727	\$204,707	\$80,997	\$1,469,575
Annual T&D Rate Increase (%)	1.00%	23	1,383,053	\$0.089	\$123,092	\$0.14874	\$205,720	\$82,629	\$1,552,203
Current Generation Charge Rate (\$/kWh)	\$0.09294	24	1,376,138	\$0.089	\$122,476	\$0.15023	\$206,739	\$84,262	\$1,636,466
Annual Generation Rate Increase (%)	1.00%	25	1,369,257	\$0.089	\$121,864	\$0.15173	\$207,762	\$85,898	\$1,722,364
Total VNM Credit Rate Year 1	\$0.14606	<b>Totals</b>	<b>36,377,409</b>	<b>\$0.0890</b>	<b>\$3,237,589</b>	<b>\$0.13660</b>	<b>\$4,959,953</b>	<b>\$1,722,364</b>	<b>\$1,722,364</b>

\* Based on the applicable credit for Eversource territory from January 1, 2018 to June 30, 2018. VNM cap may come into play later years limiting the savings if the annual total VNM credits exceed the \$490,623 annual cap. Once the total annual VNM credit cap is reached, each kWh sent to the utility grid will receive a wholesale energy rate. For this projection we assumed a \$0.06 without any escalation.

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# VIRTUAL NET METERING PPA SAVINGS PROJECTION

The information below provides details on the potential savings opportunity with a Power Purchase Agreement (PPA) as part of the Virtual Net Metering (VNM) program.

ASSUMPTIONS		PERCENTAGE OF SPEND OFFSET WITH VNM CREDITS (%)								
		YEAR	SOLAR OUTPUT (kWh)	SOLAR PPA ELECTRIC RATE (\$/kWh)	SOLAR PPA PAYMENTS (\$)	VNM CREDIT RATE (\$/kWh)	TOTAL VNM CREDITS (\$)	ANNUAL SAVINGS W/SOLAR (\$)	TOTAL SAVINGS W/SOLAR (\$)	
<b>SCENARIO 14</b>		1	1,544,298	\$0.089	\$137,443	\$0.14606	\$225,560	30%	\$88,118	<b>\$88,118</b>
		2	1,536,577	\$0.089	\$136,755	\$0.13510	\$207,597	27%	\$70,842	<b>\$158,959</b>
		3	1,528,894	\$0.089	\$136,072	\$0.12372	\$189,153	24%	\$53,082	<b>\$212,041</b>
		4	1,521,249	\$0.089	\$135,391	\$0.12588	\$191,501	24%	\$56,110	<b>\$268,151</b>
		5	1,513,643	\$0.089	\$134,714	\$0.12809	\$193,878	24%	\$59,164	<b>\$327,315</b>
<b>CURRENTUSAGE</b>		6	1,506,075	\$0.089	\$134,041	\$0.13033	\$196,285	24%	\$62,244	<b>\$389,559</b>
Current kWh Usage (kWh)	4,488,149	7	1,498,544	\$0.089	\$133,370	\$0.13261	\$198,721	24%	\$65,351	<b>\$454,910</b>
Current Annual Spend (\$)	\$748,903	8	1,491,052	\$0.089	\$132,704	\$0.13493	\$201,188	24%	\$68,484	<b>\$523,394</b>
<b>CURRENTUSAGE</b>		9	1,483,596	\$0.089	\$132,040	\$0.13729	\$203,685	24%	\$71,645	<b>\$595,039</b>
System Size (wAC)	1,000,000	10	1,476,178	\$0.089	\$131,380	\$0.13969	\$206,213	24%	\$74,833	<b>\$669,872</b>
System Output Year 1 (kWh)	1,544,298	11	1,468,797	\$0.089	\$130,723	\$0.14214	\$208,773	23%	\$78,050	<b>\$747,922</b>
Annual System Degradation (%)	0.5%	12	1,461,453	\$0.089	\$130,069	\$0.14463	\$211,364	23%	\$81,295	<b>\$829,217</b>
<b>SOLAR PPA TERMS</b>		13	1,454,146	\$0.089	\$129,419	\$0.14716	\$213,988	23%	\$84,569	<b>\$913,786</b>
Allco VNM Solar PPA Price (\$/kWh)	\$0.089	14	1,446,875	\$0.089	\$128,772	\$0.14973	\$216,644	23%	\$87,872	<b>\$1,001,658</b>
Allco VNM solar PPA Annual Escalator (%)	0.0%	15	1,439,641	\$0.089	\$128,128	\$0.15235	\$219,333	23%	\$91,205	<b>\$1,092,863</b>
Solar PPA Length (Years)	25	16	1,432,443	\$0.089	\$127,487	\$0.15502	\$222,055	23%	\$94,568	<b>\$1,187,431</b>
<b>EVERSOURCE VNM RATES</b>		17	1,425,281	\$0.089	\$126,850	\$0.15773	\$224,812	23%	\$97,962	<b>\$1,285,393</b>
Current T&D Rate (\$/kWh)	\$0.06640	18	1,418,154	\$0.089	\$126,216	\$0.16049	\$227,602	23%	\$101,386	<b>\$1,386,779</b>
Current T&D Rate at 80% (\$/kWh)	\$0.05312	19	1,411,064	\$0.089	\$125,585	\$0.16330	\$230,427	23%	\$104,843	<b>\$1,491,622</b>
Year 1 Offset % of T&D Rate (%)	80%	20	1,404,008	\$0.089	\$124,957	\$0.16616	\$233,288	22%	\$108,331	<b>\$1,599,953</b>
Year 2 Offset % of T&D Rate (%)	60%	21	1,396,988	\$0.089	\$124,332	\$0.16907	\$236,183	22%	\$111,851	<b>\$1,711,804</b>
Years 3 to 25 Offset % of T&D Rate (%)	40%	22	1,390,003	\$0.089	\$123,710	\$0.17202	\$239,115	22%	\$115,405	<b>\$1,827,208</b>
Annual T&D Rate Increase (%)	1.75%	23	1,383,053	\$0.089	\$123,092	\$0.17504	\$242,083	22%	\$118,991	<b>\$1,946,199</b>
Current Generation Charge Rate (\$/kWh)	\$0.09294	24	1,376,138	\$0.089	\$122,476	\$0.17810	\$245,088	22%	\$122,611	<b>\$2,068,811</b>
Annual Generation Rate Increase (%)	1.75%	25	1,369,257	\$0.089	\$121,864	\$0.18121	\$248,245	22%	\$126,381	<b>\$2,193,192</b>
Total VNM Credit Rate Year 1	\$0.14606	<b>Totals</b>	<b>36,377,409</b>	<b>\$0.0890</b>	<b>\$3,237,589</b>	<b>\$0.14991</b>	<b>\$5,430,781</b>	<b>24%</b>	<b>\$2,193,192</b>	<b>\$2,193,192</b>

\* Based on the applicable credit for Eversource territory from January 1, 2018 to June 30, 2018. VNM cap may come into play later years limiting the savings if the annual total VNM credits exceed the \$490,623 annual cap. Once the total annual VNM credit cap is reached, each kWh sent to the utility grid will receive a wholesale energy rate. For this projection we assumed a \$0.06 without any escalation.

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# VIRTUAL NET METERING PPA SAVINGS PROJECTION

The information below provides details on the potential savings opportunity with a Power Purchase Agreement (PPA) as part of the Virtual Net Metering (VNM) program.

ASSUMPTIONS		PERCENTAGE OF SPEND OFFSET WITH VNM CREDITS (%)							
		YEAR	SOLAR OUTPUT (kWh)	SOLAR PPA ELECTRIC RATE (\$/kWh)	SOLAR PPA PAYMENTS (\$)	VNM CREDIT RATE (\$/kWh)	TOTAL VNM CREDITS (\$)	ANNUAL SAVINGS W/SOLAR (\$)	TOTAL SAVINGS W/SOLAR (\$)
<b>SCENARIO 15</b>		1	1,544,298	\$0.089	\$137,443	\$0.14606	\$225,560	\$88,118	\$88,118
		2	1,536,577	\$0.089	\$136,755	\$0.13743	\$211,168	\$74,412	\$162,530
		3	1,528,894	\$0.089	\$136,072	\$0.12801	\$195,716	\$59,644	\$222,174
		4	1,521,249	\$0.089	\$135,391	\$0.13249	\$201,553	\$66,162	\$288,336
		5	1,513,643	\$0.089	\$134,714	\$0.13713	\$207,564	\$72,850	\$361,186
<b>CURRENTUSAGE</b>		6	1,506,075	\$0.089	\$134,041	\$0.14193	\$213,755	\$79,714	\$440,900
Current kWh Usage (kWh)	4,488,149	7	1,498,544	\$0.089	\$133,370	\$0.14690	\$220,130	\$86,760	\$527,660
Current Annual Spend (\$)	\$748,903	8	1,491,052	\$0.089	\$132,704	\$0.15204	\$226,696	\$93,992	\$621,652
<b>CURRENTUSAGE</b>		9	1,483,596	\$0.089	\$132,040	\$0.15736	\$233,457	\$101,417	\$723,069
System Size (wAC)	1,000,000	10	1,476,178	\$0.089	\$131,380	\$0.16287	\$240,420	\$109,040	\$832,109
System Output Year 1 (kWh)	1,544,298	11	1,468,797	\$0.089	\$130,723	\$0.16857	\$246,123	\$115,400	\$947,508
Annual System Degradation (%)	0.5%	12	1,461,453	\$0.089	\$130,069	\$0.17447	\$248,635	\$118,565	\$1,066,073
<b>SOLAR PPA TERMS</b>		13	1,454,146	\$0.089	\$129,419	\$0.18057	\$251,049	\$121,630	\$1,187,704
Allco VNM Solar PPA Price (\$/kWh)	\$0.089	14	1,446,875	\$0.089	\$128,772	\$0.18689	\$253,369	\$124,597	\$1,312,301
Allco VNM solar PPA Annual Escalator (%)	0.0%	15	1,439,641	\$0.089	\$128,128	\$0.19343	\$255,598	\$127,470	\$1,439,771
Solar PPA Length (Years)	25	16	1,432,443	\$0.089	\$127,487	\$0.20020	\$257,740	\$130,252	\$1,570,024
<b>EVERSOURCE VNM RATES</b>		17	1,425,281	\$0.089	\$126,850	\$0.20721	\$259,796	\$132,946	\$1,702,970
Current T&D Rate (\$/kWh)	\$0.06640	18	1,418,154	\$0.089	\$126,216	\$0.21446	\$261,771	\$135,555	\$1,838,524
Current T&D Rate at 80% (\$/kWh)	\$0.05312	19	1,411,064	\$0.089	\$125,585	\$0.22197	\$263,666	\$138,081	\$1,976,606
Year 1 Offset % of T&D Rate (%)	80%	20	1,404,008	\$0.089	\$124,957	\$0.22974	\$265,485	\$140,528	\$2,117,134
Year 2 Offset % of T&D Rate (%)	60%	21	1,396,988	\$0.089	\$124,332	\$0.23778	\$267,230	\$142,898	\$2,260,032
Years 3 to 25 Offset % of T&D Rate (%)	40%	22	1,390,003	\$0.089	\$123,710	\$0.24610	\$268,904	\$145,194	\$2,405,226
Annual T&D Rate Increase (%)	3.50%	23	1,383,053	\$0.089	\$123,092	\$0.25472	\$270,510	\$147,418	\$2,552,645
Current Generation Charge Rate (\$/kWh)	\$0.09294	24	1,376,138	\$0.089	\$122,476	\$0.26363	\$272,049	\$149,573	\$2,702,217
Annual Generation Rate Increase (%)	3.50%	25	1,369,257	\$0.089	\$121,864	\$0.27286	\$273,524	\$151,660	\$2,853,878
Total VNM Credit Rate Year 1	\$0.14606	<b>Totals</b>	<b>36,377,409</b>	<b>\$0.0890</b>	<b>\$3,237,589</b>	<b>\$0.18779</b>	<b>\$6,091,467</b>	<b>\$2,853,878</b>	<b>\$2,853,878</b>

\* Based on the applicable credit for Eversource territory from January 1, 2018 to June 30, 2018. VNM cap may come into play later years limiting the savings if the annual total VNM credits exceed the \$490,623 annual cap. Once the total annual VNM credit cap is reached, each kWh sent to the utility grid will receive a wholesale energy rate. For this projection we assumed a \$0.06 without any escalation.

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# VIRTUAL NET METERING PPA SAVINGS PROJECTION

The information below provides details on the potential savings opportunity with a Power Purchase Agreement (PPA) as part of the Virtual Net Metering (VNM) program.

ASSUMPTIONS							PERCENTAGE OF SPEND OFFSET WITH VNM CREDITS (%)			
		YEAR	SOLAR OUTPUT (kWh)	SOLAR PPA ELECTRIC RATE (\$/kWh)	SOLAR PPA PAYMENTS (\$)	VNM CREDIT RATE (\$/kWh)	TOTAL VNM CREDITS (\$)	ANNUAL SAVINGS W/SOLAR (\$)	TOTAL SAVINGS W/SOLAR (\$)	
<b>SCENARIO 16</b>		1	1,544,298	\$0.117	\$180,448	\$0.14606	\$225,560	30%	\$45,112	<b>\$45,112</b>
		2	1,536,577	\$0.107	\$164,854	\$0.13411	\$206,067	27%	\$41,213	<b>\$86,325</b>
		3	1,528,894	\$0.098	\$149,100	\$0.12190	\$186,375	24%	\$37,275	<b>\$123,600</b>
		4	1,521,249	\$0.098	\$149,838	\$0.12312	\$187,298	24%	\$37,460	<b>\$161,060</b>
		5	1,513,643	\$0.099	\$150,580	\$0.12435	\$188,225	24%	\$37,645	<b>\$198,705</b>
<b>CURRENT USAGE</b>		6	1,506,075	\$0.100	\$151,325	\$0.12560	\$189,157	24%	\$37,831	<b>\$236,536</b>
Current kWh Usage (kWh)	4,488,149	7	1,498,544	\$0.101	\$152,074	\$0.12685	\$190,093	24%	\$38,019	<b>\$274,555</b>
Current Annual Spend (\$)	\$748,903	8	1,491,052	\$0.102	\$152,827	\$0.12812	\$191,034	24%	\$38,207	<b>\$312,762</b>
<b>CURRENT USAGE</b>		9	1,483,596	\$0.104	\$153,584	\$0.12940	\$191,979	24%	\$38,396	<b>\$351,157</b>
System Size (wAC)	1,000,000	10	1,476,178	\$0.105	\$154,344	\$0.13070	\$192,930	24%	\$38,586	<b>\$389,743</b>
System Output Year 1 (kWh)	1,544,298	11	1,468,797	\$0.106	\$155,108	\$0.13200	\$193,885	23%	\$38,777	<b>\$428,520</b>
Annual System Degradation (%)	0.5%	12	1,461,453	\$0.107	\$155,876	\$0.13332	\$194,844	23%	\$38,969	<b>\$467,489</b>
<b>SOLAR PPA TERMS</b>		13	1,454,146	\$0.108	\$156,647	\$0.13466	\$195,809	23%	\$39,162	<b>\$506,651</b>
Allco VNM Solar PPA Price Floating Discount %	20%	14	1,446,875	\$0.109	\$157,423	\$0.13600	\$196,778	23%	\$39,356	<b>\$546,007</b>
Solar PPA Length (Years)	25	15	1,439,641	\$0.110	\$158,202	\$0.13736	\$197,752	23%	\$39,550	<b>\$585,557</b>
<b>EVERSOURCE VNM RATES</b>		16	1,432,443	\$0.111	\$158,985	\$0.13874	\$198,731	23%	\$39,746	<b>\$625,303</b>
Current T&D Rate (\$/kWh)	\$0.06640	17	1,425,281	\$0.112	\$159,772	\$0.14012	\$199,715	23%	\$39,943	<b>\$665,246</b>
Current T&D Rate at 80% (\$/kWh)	\$0.05312	18	1,418,154	\$0.113	\$160,563	\$0.14152	\$200,703	23%	\$40,141	<b>\$705,387</b>
Year 1 Offset % of T&D Rate (%)	80%	19	1,411,064	\$0.114	\$161,358	\$0.14294	\$201,697	23%	\$40,339	<b>\$745,726</b>
Year 2 Offset % of T&D Rate (%)	60%	20	1,404,008	\$0.115	\$162,156	\$0.14437	\$202,695	22%	\$40,539	<b>\$786,265</b>
Years 3 to 25 Offset % of T&D Rate (%)	40%	21	1,396,988	\$0.117	\$162,959	\$0.14581	\$203,699	22%	\$40,740	<b>\$827,005</b>
Annual T&D Rate Increase (%)	1.00%	22	1,390,003	\$0.118	\$163,766	\$0.14727	\$204,707	22%	\$40,941	<b>\$867,946</b>
Current Generation Charge Rate (\$/kWh)	\$0.09294	23	1,383,053	\$0.119	\$164,576	\$0.14874	\$205,720	22%	\$41,144	<b>\$909,091</b>
Annual Generation Rate Increase (%)	1.00%	24	1,376,138	\$0.120	\$165,391	\$0.15023	\$206,739	22%	\$41,348	<b>\$950,438</b>
Total VNM Credit Rate Year 1	\$0.14606	25	1,369,257	\$0.121	\$166,210	\$0.15173	\$207,762	22%	\$41,552	<b>\$991,991</b>
		<b>Totals</b>	<b>36,377,409</b>	<b>\$0.109</b>	<b>\$3,967,962</b>	<b>\$0.13660</b>	<b>\$4,959,953</b>	<b>24%</b>	<b>\$991,991</b>	<b>\$991,991</b>

\* Based on the applicable credit for Eversource territory from January 1, 2018 to June 30, 2018. VNM cap may come into play later years limiting the savings if the annual total VNM credits exceed the \$490,623 annual cap. Once the total annual VNM credit cap is reached, each kWh sent to the utility grid will receive a wholesale energy rate. For this projection we assumed a \$0.06 without any escalation.

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## VIRTUAL NET METERING PPA SAVINGS PROJECTION

The information below provides details on the potential savings opportunity with a Power Purchase Agreement (PPA) as part of the Virtual Net Metering (VNM) program.

ASSUMPTIONS		YEAR	SOLAR OUTPUT (kWh)	SOLAR PPA ELECTRIC RATE (\$/kWh)	SOLAR PPA PAYMENTS (\$)	VNM CREDIT RATE (\$/kWh)	TOTAL VNM CREDITS (\$)	PERCENTAGE OF SPEND OFFSET WITH VNM CREDITS (%)	ANNUAL SAVINGS W/SOLAR (\$)	TOTAL SAVINGS W/SOLAR (\$)
<b>SCENARIO 17</b>		1	1,544,298	\$0.117	\$180,448	\$0.14606	\$225,560	30%	\$45,112	\$45,112
		2	1,536,577	\$0.108	\$166,078	\$0.13510	\$207,597	27%	\$41,519	\$86,631
		3	1,528,894	\$0.099	\$151,323	\$0.12372	\$189,153	24%	\$37,831	\$124,462
		4	1,521,249	\$0.101	\$153,201	\$0.12588	\$191,501	24%	\$38,300	\$162,762
		5	1,513,643	\$0.102	\$155,103	\$0.12809	\$193,878	24%	\$38,776	\$201,538
<b>CURRENT USAGE</b>		6	1,506,075	\$0.104	\$157,028	\$0.13033	\$196,285	24%	\$39,257	\$240,795
Current kWh Usage (kWh)	4,488,149	7	1,498,544	\$0.106	\$158,977	\$0.13261	\$198,721	24%	\$39,744	\$280,539
Current Annual Spend (\$)	\$748,903	8	1,491,052	\$0.108	\$160,950	\$0.13493	\$201,188	24%	\$40,238	\$320,777
<b>CURRENT USAGE</b>		9	1,483,596	\$0.110	\$162,948	\$0.13729	\$203,685	24%	\$40,737	\$361,514
System Size (wAC)	1,000,000	10	1,476,178	\$0.112	\$164,971	\$0.13969	\$206,213	24%	\$41,243	\$402,756
System Output Year 1 (kWh)	1,544,298	11	1,468,797	\$0.114	\$167,018	\$0.14214	\$208,773	23%	\$41,755	\$444,511
Annual System Degradation (%)	0.5%	12	1,461,453	\$0.116	\$169,091	\$0.14463	\$211,364	23%	\$42,273	\$486,784
<b>SOLAR PPA TERMS</b>		13	1,454,146	\$0.118	\$171,190	\$0.14716	\$213,988	23%	\$42,798	\$529,581
Allco VNM Solar PPA Price Floating Discount %	20%	14	1,446,875	\$0.120	\$173,315	\$0.14973	\$216,644	23%	\$43,329	\$572,910
Solar PPA Length (Years)	25	15	1,439,641	\$0.122	\$175,466	\$0.15235	\$219,333	23%	\$43,867	\$616,777
<b>EVERSOURCE VNM RATES</b>		16	1,432,443	\$0.124	\$177,644	\$0.15502	\$222,055	23%	\$44,411	\$661,188
Current T&D Rate (\$/kWh)	\$0.06640	17	1,425,281	\$0.126	\$179,849	\$0.15773	\$224,812	23%	\$44,962	\$706,150
Current T&D Rate at 80% (\$/kWh)	\$0.05312	18	1,418,154	\$0.128	\$182,082	\$0.16049	\$227,602	23%	\$45,520	\$751,671
Year 1 Offset % of T&D Rate (%)	80%	19	1,411,064	\$0.131	\$184,342	\$0.16330	\$230,427	23%	\$46,085	\$797,756
Year 2 Offset % of T&D Rate (%)	60%	20	1,404,008	\$0.133	\$186,630	\$0.16616	\$233,288	22%	\$46,658	\$844,414
Years 3 to 25 Offset % of T&D Rate (%)	40%	21	1,396,988	\$0.135	\$188,947	\$0.16907	\$236,183	22%	\$47,237	\$891,650
Annual T&D Rate Increase (%)	1.75%	22	1,390,003	\$0.138	\$191,292	\$0.17202	\$239,115	22%	\$47,823	\$939,473
Current Generation Charge Rate (\$/kWh)	\$0.09294	23	1,383,053	\$0.140	\$193,666	\$0.17504	\$242,083	22%	\$48,417	\$987,890
Annual Generation Rate Increase (%)	1.75%	24	1,376,138	\$0.142	\$196,070	\$0.17810	\$245,088	22%	\$49,018	\$1,036,907
Total VNM Credit Rate Year 1	\$0.14606	25	1,369,257	\$0.145	\$198,504	\$0.18121	\$246,245	22%	\$47,741	\$1,084,648
		<b>Totals</b>	<b>36,377,409</b>	<b>\$0.120</b>	<b>\$4,346,133</b>	<b>\$0.14991</b>	<b>\$5,430,781</b>	<b>24%</b>	<b>\$1,084,648</b>	<b>\$1,084,648</b>

\* Based on the applicable credit for Eversource territory from January 1, 2018 to June 30, 2018. VNM cap may come into play later years limiting the savings if the annual total VNM credits exceed the \$490,623 annual cap. Once the total annual VNM credit cap is reached, each kWh sent to the utility grid will receive a wholesale energy rate. For this projection we assumed a \$0.06 without any escalation.

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# VIRTUAL NET METERING PPA SAVINGS PROJECTION

The information below provides details on the potential savings opportunity with a Power Purchase Agreement (PPA) as part of the Virtual Net Metering (VNM) program.

ASSUMPTIONS							PERCENTAGE OF SPEND OFFSET WITH VNM CREDITS (%)			
		YEAR	SOLAR OUTPUT (kWh)	SOLAR PPA ELECTRIC RATE (\$/kWh)	SOLAR PPA PAYMENTS (\$)	VNM CREDIT RATE (\$/kWh)	TOTAL VNM CREDITS (\$)	ANNUAL SAVINGS W/SOLAR (\$)	TOTAL SAVINGS W/SOLAR (\$)	
<b>SCENARIO 18</b>		1	1,544,298	\$0.117	\$180,448	\$0.14606	\$225,560	30%	\$45,112	<b>\$45,112</b>
		2	1,536,577	\$0.110	\$168,934	\$0.13743	\$211,168	27%	\$42,234	<b>\$87,346</b>
		3	1,528,894	\$0.102	\$156,573	\$0.12801	\$195,716	24%	\$39,143	<b>\$126,489</b>
		4	1,521,249	\$0.106	\$161,242	\$0.13249	\$201,553	24%	\$40,311	<b>\$166,799</b>
		5	1,513,643	\$0.110	\$166,051	\$0.13713	\$207,564	24%	\$41,513	<b>\$208,312</b>
<b>CURRENT USAGE</b>		6	1,506,075	\$0.114	\$171,004	\$0.14193	\$213,755	24%	\$42,751	<b>\$251,063</b>
Current kWh Usage (kWh)	4,488,149	7	1,498,544	\$0.118	\$176,104	\$0.14690	\$220,130	24%	\$44,026	<b>\$295,089</b>
Current Annual Spend (\$)	\$748,903	8	1,491,052	\$0.122	\$181,356	\$0.15204	\$226,696	24%	\$45,339	<b>\$340,428</b>
<b>CURRENT USAGE</b>		9	1,483,596	\$0.126	\$186,765	\$0.15736	\$233,457	24%	\$46,691	<b>\$387,120</b>
System Size (wAC)	1,000,000	10	1,476,178	\$0.130	\$192,336	\$0.16287	\$240,420	24%	\$48,084	<b>\$435,204</b>
System Output Year 1 (kWh)	1,544,298	11	1,468,797	\$0.135	\$198,072	\$0.16857	\$246,123	23%	\$48,050	<b>\$483,254</b>
Annual System Degradation (%)	0.5%	12	1,461,453	\$0.140	\$203,980	\$0.17447	\$248,635	23%	\$44,655	<b>\$527,909</b>
<b>SOLAR PPA TERMS</b>		13	1,454,146	\$0.144	\$210,063	\$0.18057	\$251,049	22%	\$40,986	<b>\$568,895</b>
Allco VNM Solar PPA Price Floating Discount %	20%	14	1,446,875	\$0.150	\$216,328	\$0.18689	\$253,369	22%	\$37,041	<b>\$605,936</b>
Solar PPA Length (Years)	25	15	1,439,641	\$0.155	\$222,780	\$0.19343	\$255,598	21%	\$32,818	<b>\$638,754</b>
<b>EVERSOURCE VNM RATES</b>		16	1,432,443	\$0.160	\$229,425	\$0.20020	\$257,740	21%	\$28,315	<b>\$667,069</b>
Current T&D Rate (\$/kWh)	\$0.06640	17	1,425,281	\$0.166	\$236,267	\$0.20721	\$259,796	20%	\$23,529	<b>\$690,597</b>
Current T&D Rate at 80% (\$/kWh)	\$0.05312	18	1,418,154	\$0.172	\$243,314	\$0.21446	\$261,771	19%	\$18,456	<b>\$709,054</b>
Year 1 Offset % of T&D Rate (%)	80%	19	1,411,064	\$0.178	\$250,571	\$0.22197	\$263,666	19%	\$13,095	<b>\$722,149</b>
Year 2 Offset % of T&D Rate (%)	60%	20	1,404,008	\$0.184	\$258,044	\$0.22974	\$265,485	18%	\$7,441	<b>\$729,589</b>
Years 3 to 25 Offset % of T&D Rate (%)	40%	21	1,396,988	\$0.190	\$265,740	\$0.23778	\$267,230	18%	\$1,490	<b>\$731,079</b>
Annual T&D Rate Increase (%)	3.50%	22	1,390,003	\$0.197	\$273,666	\$0.24610	\$268,904	17%	-\$4,762	<b>\$726,318</b>
Current Generation Charge Rate (\$/kWh)	\$0.09294	23	1,383,053	\$0.204	\$281,828	\$0.25472	\$270,510	17%	-\$11,318	<b>\$714,999</b>
Annual Generation Rate Increase (%)	3.50%	24	1,376,138	\$0.211	\$290,234	\$0.26363	\$272,049	16%	-\$18,185	<b>\$696,815</b>
Total VNM Credit Rate Year 1	\$0.14606	25	1,369,257	\$0.218	\$298,890	\$0.27286	\$273,524	16%	-\$25,366	<b>\$671,449</b>
		<b>Totals</b>	<b>36,377,409</b>	<b>\$0.150</b>	<b>\$5,420,018</b>	<b>\$0.18779</b>	<b>\$6,091,467</b>	<b>22%</b>	<b>\$671,449</b>	<b>\$671,449</b>

\* Based on the applicable credit for Eversource territory from January 1, 2018 to June 30, 2018. VNM cap may come into play later years limiting the savings if the annual total VNM credits exceed the \$490,623 annual cap. Once the total annual VNM credit cap is reached, each kWh sent to the utility grid will receive a wholesale energy rate. For this projection we assumed a \$0.06 without any escalation.

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# VIRTUAL NET METERING PPA SAVINGS PROJECTION

The information below provides details on the potential savings opportunity with a Power Purchase Agreement (PPA) as part of the Virtual Net Metering (VNM) program.

ASSUMPTIONS		PERCENTAGE OF SPEND OFFSET WITH VNM CREDITS (%)								
		YEAR	SOLAR OUTPUT (kWh)	SOLAR PPA ELECTRIC RATE (\$/kWh)	SOLAR PPA PAYMENTS (\$)	VNM CREDIT RATE (\$/kWh)	TOTAL VNM CREDITS (\$)	ANNUAL SAVINGS W/SOLAR (\$)	TOTAL SAVINGS W/SOLAR (\$)	
<b>SCENARIO 19</b>		1	3,088,596	\$0.089	\$274,885	\$0.14606	\$451,120	60%	\$176,235	<b>\$176,235</b>
		2	3,073,153	\$0.089	\$273,511	\$0.13411	\$412,134	54%	\$138,623	<b>\$314,858</b>
		3	3,057,787	\$0.089	\$272,143	\$0.12190	\$372,750	49%	\$100,607	<b>\$415,466</b>
		4	3,042,498	\$0.089	\$270,782	\$0.12312	\$374,595	49%	\$103,813	<b>\$519,279</b>
		5	3,027,286	\$0.089	\$269,428	\$0.12435	\$376,450	48%	\$107,021	<b>\$626,300</b>
<b>CURRENT USAGE</b>		6	3,012,149	\$0.089	\$268,081	\$0.12560	\$378,313	48%	\$110,232	<b>\$736,531</b>
Current kWh Usage (kWh)	4,488,149	7	2,997,089	\$0.089	\$266,741	\$0.12685	\$380,186	48%	\$113,445	<b>\$849,976</b>
Current Annual Spend (\$)	\$748,903	8	2,982,103	\$0.089	\$265,407	\$0.12812	\$382,068	48%	\$116,660	<b>\$966,637</b>
<b>CURRENT USAGE</b>		9	2,967,193	\$0.089	\$264,080	\$0.12940	\$383,959	47%	\$119,879	<b>\$1,086,515</b>
System Size (wAC)	2,000,000	10	2,952,357	\$0.089	\$262,760	\$0.13070	\$385,859	47%	\$123,100	<b>\$1,209,615</b>
System Output Year 1 (kWh)	3,088,596	11	2,937,595	\$0.089	\$261,446	\$0.13200	\$387,769	47%	\$126,323	<b>\$1,335,938</b>
Annual System Degradation (%)	0.5%	12	2,922,907	\$0.089	\$260,139	\$0.13332	\$389,689	47%	\$129,550	<b>\$1,465,489</b>
<b>SOLAR PPA TERMS</b>		13	2,908,292	\$0.089	\$258,838	\$0.13466	\$391,618	46%	\$132,780	<b>\$1,598,268</b>
Allco VNM Solar PPA Price (\$/kWh)	\$0.089	14	2,893,751	\$0.089	\$257,544	\$0.13600	\$393,556	46%	\$136,013	<b>\$1,734,281</b>
Allco VNM solar PPA Annual Escalator (%)	0.0%	15	2,879,282	\$0.089	\$256,256	\$0.13736	\$395,504	46%	\$139,248	<b>\$1,873,529</b>
Solar PPA Length (Years)	25	16	2,864,886	\$0.089	\$254,975	\$0.13874	\$397,462	46%	\$142,487	<b>\$2,016,017</b>
<b>EVERSOURCE VNM RATES</b>		17	2,850,561	\$0.089	\$253,700	\$0.14012	\$399,430	45%	\$145,730	<b>\$2,161,746</b>
Current T&D Rate (\$/kWh)	\$0.06640	18	2,836,309	\$0.089	\$252,431	\$0.14152	\$401,407	45%	\$148,975	<b>\$2,310,722</b>
Current T&D Rate at 80% (\$/kWh)	\$0.05312	19	2,822,127	\$0.089	\$251,169	\$0.14294	\$403,394	45%	\$152,224	<b>\$2,462,946</b>
Year 1 Offset % of T&D Rate (%)	80%	20	2,808,016	\$0.089	\$249,913	\$0.14437	\$405,391	45%	\$155,477	<b>\$2,618,423</b>
Year 2 Offset % of T&D Rate (%)	60%	21	2,793,976	\$0.089	\$248,664	\$0.14581	\$407,397	45%	\$158,733	<b>\$2,777,157</b>
Years 3 to 25 Offset % of T&D Rate (%)	40%	22	2,780,006	\$0.089	\$247,421	\$0.14727	\$409,414	44%	\$161,993	<b>\$2,939,150</b>
Annual T&D Rate Increase (%)	1.00%	23	2,766,106	\$0.089	\$246,183	\$0.14874	\$411,440	44%	\$165,257	<b>\$3,104,407</b>
Annual Generation Charge Rate (\$/kWh)	\$0.09294	24	2,752,276	\$0.089	\$244,953	\$0.15023	\$413,477	44%	\$168,525	<b>\$3,272,931</b>
Annual Generation Rate Increase (%)	1.00%	25	2,738,514	\$0.089	\$243,728	\$0.15173	\$415,524	44%	\$171,796	<b>\$3,444,727</b>
Total VNM Credit Rate Year 1	\$0.14606	<b>Totals</b>	<b>72,754,817</b>	<b>\$0.0890</b>	<b>\$6,475,179</b>	<b>\$0.13660</b>	<b>\$9,919,906</b>	<b>47%</b>	<b>\$3,444,727</b>	<b>\$3,444,727</b>

\* Based on the applicable credit for Eversource territory from January 1, 2018 to June 30, 2018. VNM cap may come into play later years limiting the savings if the annual total VNM credits exceed the \$490,623 annual cap. Once the total annual VNM credit cap is reached, each kWh sent to the utility grid will receive a wholesale energy rate. For this projection we assumed a \$0.06 without any escalation.

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# VIRTUAL NET METERING PPA SAVINGS PROJECTION

The information below provides details on the potential savings opportunity with a Power Purchase Agreement (PPA) as part of the Virtual Net Metering (VNM) program.

ASSUMPTIONS		PERCENTAGE OF SPEND OFFSET WITH VNM CREDITS (%)							ANNUAL SAVINGS W/SOLAR (\$)	TOTAL SAVINGS W/SOLAR (\$)
		YEAR	SOLAR OUTPUT (kWh)	SOLAR PPA ELECTRIC RATE (\$/kWh)	SOLAR PPA PAYMENTS (\$)	VNM CREDIT RATE (\$/kWh)	TOTAL VNM CREDITS (\$)	ANNUAL SAVINGS W/SOLAR (\$)		
<b>SCENARIO 20</b>		1	3,088,596	\$0.089	\$274,885	\$0.14606	\$451,120	60%	\$176,235	<b>\$176,235</b>
		2	3,073,153	\$0.089	\$273,511	\$0.13510	\$415,194	54%	\$141,684	<b>\$317,919</b>
		3	3,057,787	\$0.089	\$272,143	\$0.12372	\$378,307	49%	\$106,164	<b>\$424,082</b>
		4	3,042,498	\$0.089	\$270,782	\$0.12588	\$383,002	49%	\$112,220	<b>\$536,303</b>
		5	3,027,286	\$0.089	\$269,428	\$0.12809	\$387,756	48%	\$118,328	<b>\$654,631</b>
<b>CURRENT USAGE</b>		6	3,012,149	\$0.089	\$268,081	\$0.13033	\$392,569	48%	\$124,488	<b>\$779,119</b>
Current kWh Usage (kWh)	4,488,149	7	2,997,089	\$0.089	\$266,741	\$0.13261	\$397,442	48%	\$130,701	<b>\$909,820</b>
Current Annual Spend (\$)	\$748,903	8	2,982,103	\$0.089	\$265,407	\$0.13493	\$402,375	48%	\$136,968	<b>\$1,046,788</b>
<b>CURRENT USAGE</b>		9	2,967,193	\$0.089	\$264,080	\$0.13729	\$407,370	47%	\$143,290	<b>\$1,190,078</b>
System Size (wAC)	2,000,000	10	2,952,357	\$0.089	\$262,760	\$0.13969	\$412,426	47%	\$149,667	<b>\$1,339,745</b>
System Output Year 1 (kWh)	3,088,596	11	2,937,595	\$0.089	\$261,446	\$0.14214	\$417,546	47%	\$156,100	<b>\$1,495,845</b>
Annual System Degradation (%)	0.5%	12	2,922,907	\$0.089	\$260,139	\$0.14463	\$422,728	47%	\$162,590	<b>\$1,658,434</b>
<b>SOLAR PPA TERMS</b>		13	2,908,292	\$0.089	\$258,838	\$0.14716	\$427,976	46%	\$169,138	<b>\$1,827,572</b>
Allco VNM Solar PPA Price (\$/kWh)	\$0.089	14	2,893,751	\$0.089	\$257,544	\$0.14973	\$433,288	46%	\$175,744	<b>\$2,003,316</b>
Allco VNM solar PPA Annual Escalator (%)	0.0%	15	2,879,282	\$0.089	\$256,256	\$0.15235	\$438,666	46%	\$182,410	<b>\$2,185,726</b>
Solar PPA Length (Years)	25	16	2,864,886	\$0.089	\$254,975	\$0.15502	\$444,111	46%	\$189,136	<b>\$2,374,862</b>
<b>EVERSOURCE VNM RATES</b>		17	2,850,561	\$0.089	\$253,700	\$0.15773	\$449,623	45%	\$195,924	<b>\$2,570,785</b>
Current T&D Rate (\$/kWh)	\$0.06640	18	2,836,309	\$0.089	\$252,431	\$0.16049	\$455,204	45%	\$202,773	<b>\$2,773,558</b>
Current T&D Rate at 80% (\$/kWh)	\$0.05312	19	2,822,127	\$0.089	\$251,169	\$0.16330	\$460,855	45%	\$209,685	<b>\$2,983,244</b>
Year 1 Offset % of T&D Rate (%)	80%	20	2,808,016	\$0.089	\$249,913	\$0.16616	\$466,575	45%	\$216,662	<b>\$3,199,905</b>
Year 2 Offset % of T&D Rate (%)	60%	21	2,793,976	\$0.089	\$248,664	\$0.16907	\$472,366	45%	\$223,702	<b>\$3,423,608</b>
Years 3 to 25 Offset % of T&D Rate (%)	40%	22	2,780,006	\$0.089	\$247,421	\$0.17202	\$478,230	44%	\$230,809	<b>\$3,654,417</b>
Annual T&D Rate Increase (%)	1.75%	23	2,766,106	\$0.089	\$246,183	\$0.17504	\$484,166	44%	\$237,982	<b>\$3,892,399</b>
Current Generation Charge Rate (\$/kWh)	\$0.09294	24	2,752,276	\$0.089	\$244,953	\$0.17810	\$490,175	44%	\$245,223	<b>\$4,137,622</b>
Annual Generation Rate Increase (%)	1.75%	25	2,738,514	\$0.089	\$243,728	\$0.18121	\$492,489	43%	\$248,762	<b>\$4,386,383</b>
Total VNM Credit Rate Year 1	\$0.14606	<b>Totals</b>	<b>72,754,817</b>	<b>\$0.0890</b>	<b>\$6,475,179</b>	<b>\$0.14991</b>	<b>\$10,861,562</b>	<b>47%</b>	<b>\$4,386,383</b>	<b>\$4,386,383</b>

\* Based on the applicable credit for Eversource territory from January 1, 2018 to June 30, 2018. VNM cap may come into play later years limiting the savings if the annual total VNM credits exceed the \$490,623 annual cap. Once the total annual VNM credit cap is reached, each kWh sent to the utility grid will receive a wholesale energy rate. For this projection we assumed a \$0.06 without any escalation.

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# VIRTUAL NET METERING PPA SAVINGS PROJECTION

The information below provides details on the potential savings opportunity with a Power Purchase Agreement (PPA) as part of the Virtual Net Metering (VNM) program.

ASSUMPTIONS		PERCENTAGE OF SPEND OFFSET WITH VNM CREDITS (%)								
		YEAR	SOLAR OUTPUT (kWh)	SOLAR PPA ELECTRIC RATE (\$/kWh)	SOLAR PPA PAYMENTS (\$)	VNM CREDIT RATE (\$/kWh)	TOTAL VNM CREDITS (\$)	ANNUAL SAVINGS W/SOLAR (\$)	TOTAL SAVINGS W/SOLAR (\$)	
<b>SCENARIO 21</b>		1	3,088,596	\$0.089	\$274,885	\$0.14606	\$451,120	60%	\$176,235	<b>\$176,235</b>
		2	3,073,153	\$0.089	\$273,511	\$0.13743	\$422,335	54%	\$148,825	<b>\$325,060</b>
		3	3,057,787	\$0.089	\$272,143	\$0.12801	\$391,432	49%	\$119,289	<b>\$444,348</b>
		4	3,042,498	\$0.089	\$270,782	\$0.13249	\$403,106	49%	\$132,324	<b>\$576,672</b>
		5	3,027,286	\$0.089	\$269,428	\$0.13713	\$415,129	48%	\$145,700	<b>\$722,372</b>
<b>CURRENT USAGE</b>		6	3,012,149	\$0.089	\$268,081	\$0.14193	\$427,510	48%	\$159,429	<b>\$881,801</b>
Current kWh Usage (kWh)	4,488,149	7	2,997,089	\$0.089	\$266,741	\$0.14690	\$440,260	48%	\$173,519	<b>\$1,055,320</b>
Current Annual Spend (\$)	\$748,903	8	2,982,103	\$0.089	\$265,407	\$0.15204	\$453,391	48%	\$187,984	<b>\$1,243,304</b>
<b>CURRENT USAGE</b>		9	2,967,193	\$0.089	\$264,080	\$0.15736	\$466,914	47%	\$202,833	<b>\$1,446,138</b>
System Size (wAC)	2,000,000	10	2,952,357	\$0.089	\$262,760	\$0.16287	\$480,839	47%	\$218,079	<b>\$1,664,217</b>
System Output Year 1 (kWh)	3,088,596	11	2,937,595	\$0.089	\$261,446	\$0.16857	\$492,245	47%	\$230,799	<b>\$1,895,016</b>
Annual System Degradation (%)	0.5%	12	2,922,907	\$0.089	\$260,139	\$0.17447	\$497,269	45%	\$237,131	<b>\$2,132,147</b>
<b>SOLAR PPA TERMS</b>		13	2,908,292	\$0.089	\$258,838	\$0.18057	\$502,098	44%	\$243,260	<b>\$2,375,407</b>
Allco VNM Solar PPA Price (\$/kWh)	\$0.089	14	2,893,751	\$0.089	\$257,544	\$0.18689	\$506,739	43%	\$249,195	<b>\$2,624,602</b>
Allco VNM solar PPA Annual Escalator (%)	0.0%	15	2,879,282	\$0.089	\$256,256	\$0.19343	\$511,197	42%	\$254,941	<b>\$2,879,543</b>
Solar PPA Length (Years)	25	16	2,864,886	\$0.089	\$254,975	\$0.20020	\$515,479	41%	\$260,505	<b>\$3,140,047</b>
<b>EVERSOURCE VNM RATES</b>		17	2,850,561	\$0.089	\$253,700	\$0.20721	\$519,592	40%	\$265,892	<b>\$3,405,939</b>
Current T&D Rate (\$/kWh)	\$0.06640	18	2,836,309	\$0.089	\$252,431	\$0.21446	\$523,541	39%	\$271,110	<b>\$3,677,049</b>
Current T&D Rate at 80% (\$/kWh)	\$0.05312	19	2,822,127	\$0.089	\$251,169	\$0.22197	\$527,332	38%	\$276,163	<b>\$3,953,211</b>
Year 1 Offset % of T&D Rate (%)	80%	20	2,808,016	\$0.089	\$249,913	\$0.22974	\$530,970	37%	\$281,056	<b>\$4,234,268</b>
Year 2 Offset % of T&D Rate (%)	60%	21	2,793,976	\$0.089	\$248,664	\$0.23778	\$534,461	36%	\$285,797	<b>\$4,520,065</b>
Years 3 to 25 Offset % of T&D Rate (%)	40%	22	2,780,006	\$0.089	\$247,421	\$0.24610	\$537,809	35%	\$290,388	<b>\$4,810,453</b>
Annual T&D Rate Increase (%)	3.50%	23	2,766,106	\$0.089	\$246,183	\$0.25472	\$541,020	34%	\$294,836	<b>\$5,105,289</b>
Current Generation Charge Rate (\$/kWh)	\$0.09294	24	2,752,276	\$0.089	\$244,953	\$0.26363	\$544,098	33%	\$299,146	<b>\$5,404,435</b>
Annual Generation Rate Increase (%)	3.50%	25	2,738,514	\$0.089	\$243,728	\$0.27286	\$547,048	32%	\$303,321	<b>\$5,707,755</b>
Total VNM Credit Rate Year 1	\$0.14606	<b>Totals</b>	<b>72,754,817</b>	<b>\$0.0890</b>	<b>\$6,475,179</b>	<b>\$0.18779</b>	<b>\$12,182,934</b>	<b>43%</b>	<b>\$5,707,755</b>	<b>\$5,707,755</b>

\* Based on the applicable credit for Eversource territory from January 1, 2018 to June 30, 2018. VNM cap may come into play later years limiting the savings if the annual total VNM credits exceed the \$490,623 annual cap. Once the total annual VNM credit cap is reached, each kWh sent to the utility grid will receive a wholesale energy rate. For this projection we assumed a \$0.06 without any escalation.

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# VIRTUAL NET METERING PPA SAVINGS PROJECTION

The information below provides details on the potential savings opportunity with a Power Purchase Agreement (PPA) as part of the Virtual Net Metering (VNM) program.

ASSUMPTIONS		SOLAR PPA						PERCENTAGE OF SPEND OFFSET WITH VNM CREDITS (%)		ANNUAL SAVINGS W/SOLAR (\$)		TOTAL SAVINGS W/SOLAR (\$)	
		YEAR	SOLAR OUTPUT (kWh)	ELECTRIC RATE (\$/kWh)	SOLAR PPA PAYMENTS (\$)	VNM CREDIT RATE (\$/kWh)	TOTAL VNM CREDITS (\$)						
<b>SCENARIO 22</b>		1	3,088,596	\$0.117	\$360,896	\$0.14606	\$451,120	60%	\$90,224	<b>\$90,224</b>			
		2	3,073,153	\$0.107	\$329,707	\$0.13411	\$412,134	54%	\$82,427	<b>\$172,651</b>			
		3	3,057,787	\$0.098	\$298,200	\$0.12190	\$372,750	49%	\$74,550	<b>\$247,201</b>			
		4	3,042,498	\$0.098	\$299,676	\$0.12312	\$374,595	49%	\$74,919	<b>\$322,120</b>			
		5	3,027,286	\$0.099	\$301,160	\$0.12435	\$376,450	48%	\$75,290	<b>\$397,410</b>			
<b>CURRENT USAGE</b>		6	3,012,149	\$0.100	\$302,650	\$0.12560	\$378,313	48%	\$75,663	<b>\$473,072</b>			
Current kWh Usage (kWh)	4,488,149	7	2,997,089	\$0.101	\$304,149	\$0.12685	\$380,186	48%	\$76,037	<b>\$549,110</b>			
Current Annual Spend (\$)	\$748,903	8	2,982,103	\$0.102	\$305,654	\$0.12812	\$382,068	48%	\$76,414	<b>\$625,523</b>			
<b>CURRENT USAGE</b>		9	2,967,193	\$0.104	\$307,167	\$0.12940	\$383,959	47%	\$76,792	<b>\$702,315</b>			
System Size (wAC)	2,000,000	10	2,952,357	\$0.105	\$308,688	\$0.13070	\$385,859	47%	\$77,172	<b>\$779,487</b>			
System Output Year 1 (kWh)	3,088,596	11	2,937,595	\$0.106	\$310,216	\$0.13200	\$387,769	47%	\$77,554	<b>\$857,041</b>			
Annual System Degradation (%)	0.5%	12	2,922,907	\$0.107	\$311,751	\$0.13332	\$389,689	47%	\$77,938	<b>\$934,978</b>			
<b>SOLAR PPA TERMS</b>		13	2,908,292	\$0.108	\$313,294	\$0.13466	\$391,618	46%	\$78,324	<b>\$1,013,302</b>			
Allco VNM Solar PPA Price Floating Discount %	20%	14	2,893,751	\$0.109	\$314,845	\$0.13600	\$393,556	46%	\$78,711	<b>\$1,092,013</b>			
Solar PPA Length (Years)	25	15	2,879,282	\$0.110	\$316,404	\$0.13736	\$395,504	46%	\$79,101	<b>\$1,171,114</b>			
<b>EVERSOURCE VNM RATES</b>		16	2,864,886	\$0.111	\$317,970	\$0.13874	\$397,462	46%	\$79,492	<b>\$1,250,607</b>			
Current T&D Rate (\$/kWh)	\$0.06640	17	2,850,561	\$0.112	\$319,544	\$0.14012	\$399,430	45%	\$79,886	<b>\$1,330,493</b>			
Current T&D Rate at 80% (\$/kWh)	\$0.05312	18	2,836,309	\$0.113	\$321,125	\$0.14152	\$401,407	45%	\$80,281	<b>\$1,410,774</b>			
Year 1 Offset % of T&D Rate (%)	80%	19	2,822,127	\$0.114	\$322,715	\$0.14294	\$403,394	45%	\$80,679	<b>\$1,491,453</b>			
Year 2 Offset % of T&D Rate (%)	60%	20	2,808,016	\$0.115	\$324,312	\$0.14437	\$405,391	45%	\$81,078	<b>\$1,572,531</b>			
Years 3 to 25 Offset % of T&D Rate (%)	40%	21	2,793,976	\$0.117	\$325,918	\$0.14581	\$407,397	45%	\$81,479	<b>\$1,654,010</b>			
Annual T&D Rate Increase (%)	1.00%	22	2,780,006	\$0.118	\$327,531	\$0.14727	\$409,414	44%	\$81,883	<b>\$1,735,893</b>			
Current Generation Charge Rate (\$/kWh)	\$0.09294	23	2,766,106	\$0.119	\$329,152	\$0.14874	\$411,440	44%	\$82,288	<b>\$1,818,181</b>			
Annual Generation Rate Increase (%)	1.00%	24	2,752,276	\$0.120	\$330,782	\$0.15023	\$413,477	44%	\$82,695	<b>\$1,900,876</b>			
Total VNM Credit Rate Year 1	\$0.14606	25	2,738,514	\$0.121	\$332,419	\$0.15173	\$415,524	44%	\$83,105	<b>\$1,983,981</b>			
		<b>Totals</b>	<b>72,754,817</b>	<b>\$0.109</b>	<b>\$7,935,925</b>	<b>\$0.13660</b>	<b>\$9,919,906</b>	<b>47%</b>	<b>\$1,983,981</b>	<b>\$1,983,981</b>			

\* Based on the applicable credit for Eversource territory from January 1, 2018 to June 30, 2018. VNM cap may come into play later years limiting the savings if the annual total VNM credits exceed the \$490,623 annual cap. Once the total annual VNM credit cap is reached, each kWh sent to the utility grid will receive a wholesale energy rate. For this projection we assumed a \$0.06 without any escalation.

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## VIRTUAL NET METERING PPA SAVINGS PROJECTION

The information below provides details on the potential savings opportunity with a Power Purchase Agreement (PPA) as part of the Virtual Net Metering (VNM) program.

ASSUMPTIONS		YEAR	SOLAR OUTPUT (kWh)	SOLAR PPA ELECTRIC RATE (\$/kWh)	SOLAR PPA PAYMENTS (\$)	VNM CREDIT RATE (\$/kWh)	TOTAL VNM CREDITS (\$)	PERCENTAGE OF SPEND OFFSET WITH VNM CREDITS (%)	ANNUAL SAVINGS W/SOLAR (\$)	TOTAL SAVINGS W/SOLAR (\$)
<b>SCENARIO 23</b>		1	3,088,596	\$0.117	\$360,896	\$0.14606	\$451,120	60%	\$90,224	<b>\$90,224</b>
		2	3,073,153	\$0.108	\$332,155	\$0.13510	\$415,194	54%	\$83,039	<b>\$173,263</b>
		3	3,057,787	\$0.099	\$302,645	\$0.12372	\$378,307	49%	\$75,661	<b>\$248,924</b>
		4	3,042,498	\$0.101	\$306,402	\$0.12588	\$383,002	49%	\$76,600	<b>\$325,525</b>
		5	3,027,286	\$0.102	\$310,205	\$0.12809	\$387,756	48%	\$77,551	<b>\$403,076</b>
<b>CURRENT USAGE</b>		6	3,012,149	\$0.104	\$314,056	\$0.13033	\$392,569	48%	\$78,514	<b>\$481,590</b>
Current kWh Usage (kWh)	4,488,149	7	2,997,089	\$0.106	\$317,954	\$0.13261	\$397,442	48%	\$79,488	<b>\$561,078</b>
Current Annual Spend (\$)	\$748,903	8	2,982,103	\$0.108	\$321,900	\$0.13493	\$402,375	48%	\$80,475	<b>\$641,553</b>
<b>CURRENT USAGE</b>		9	2,967,193	\$0.110	\$325,896	\$0.13729	\$407,370	47%	\$81,474	<b>\$723,027</b>
System Size (wAC)	2,000,000	10	2,952,357	\$0.112	\$329,941	\$0.13969	\$412,426	47%	\$82,485	<b>\$805,513</b>
System Output Year 1 (kWh)	3,088,596	11	2,937,595	\$0.114	\$334,037	\$0.14214	\$417,546	47%	\$83,509	<b>\$889,022</b>
Annual System Degradation (%)	0.5%	12	2,922,907	\$0.116	\$338,183	\$0.14463	\$422,728	47%	\$84,546	<b>\$973,568</b>
<b>SOLAR PPA TERMS</b>		13	2,908,292	\$0.118	\$342,380	\$0.14716	\$427,976	46%	\$85,595	<b>\$1,059,163</b>
Allco VNM Solar PPA Price Floating Discount %	20%	14	2,893,751	\$0.120	\$346,630	\$0.14973	\$433,288	46%	\$86,658	<b>\$1,145,820</b>
Solar PPA Length (Years)	25	15	2,879,282	\$0.122	\$350,933	\$0.15235	\$438,666	46%	\$87,733	<b>\$1,233,553</b>
<b>EVERSOURCE VNM RATES</b>		16	2,864,886	\$0.124	\$355,289	\$0.15502	\$444,111	46%	\$88,822	<b>\$1,322,376</b>
Current T&D Rate (\$/kWh)	\$0.06640	17	2,850,561	\$0.126	\$359,699	\$0.15773	\$449,623	45%	\$89,925	<b>\$1,412,300</b>
Current T&D Rate at 80% (\$/kWh)	\$0.05312	18	2,836,309	\$0.128	\$364,164	\$0.16049	\$455,204	45%	\$91,041	<b>\$1,503,341</b>
Year 1 Offset % of T&D Rate (%)	80%	19	2,822,127	\$0.131	\$368,684	\$0.16330	\$460,855	45%	\$92,171	<b>\$1,595,512</b>
Year 2 Offset % of T&D Rate (%)	60%	20	2,808,016	\$0.133	\$373,260	\$0.16616	\$466,575	45%	\$93,315	<b>\$1,688,827</b>
Years 3 to 25 Offset % of T&D Rate (%)	40%	21	2,793,976	\$0.135	\$377,893	\$0.16907	\$472,366	45%	\$94,473	<b>\$1,783,300</b>
Annual T&D Rate Increase (%)	1.75%	22	2,780,006	\$0.138	\$382,584	\$0.17202	\$478,230	44%	\$95,646	<b>\$1,878,946</b>
Current Generation Charge Rate (\$/kWh)	\$0.09294	23	2,766,106	\$0.140	\$387,333	\$0.17504	\$484,166	44%	\$96,833	<b>\$1,975,779</b>
Annual Generation Rate Increase (%)	1.75%	24	2,752,276	\$0.142	\$392,140	\$0.17810	\$490,175	44%	\$98,035	<b>\$2,073,815</b>
Total VNM Credit Rate Year 1	\$0.14606	25	2,738,514	\$0.145	\$397,008	\$0.18121	\$492,489	43%	\$95,482	<b>\$2,169,296</b>
		<b>Totals</b>	<b>72,754,817</b>	<b>\$0.120</b>	<b>\$8,692,266</b>	<b>\$0.14991</b>	<b>\$10,861,562</b>	<b>47%</b>	<b>\$2,169,296</b>	<b>\$2,169,296</b>

\* Based on the applicable credit for Eversource territory from January 1, 2018 to June 30, 2018. VNM cap may come into play later years limiting the savings if the annual total VNM credits exceed the \$490,623 annual cap. Once the total annual VNM credit cap is reached, each kWh sent to the utility grid will receive a wholesale energy rate. For this projection we assumed a \$0.06 without any escalation.

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# VIRTUAL NET METERING PPA SAVINGS PROJECTION

The information below provides details on the potential savings opportunity with a Power Purchase Agreement (PPA) as part of the Virtual Net Metering (VNM) program.

ASSUMPTIONS							PERCENTAGE OF SPEND OFFSET WITH VNM CREDITS (%)			
		YEAR	SOLAR OUTPUT (kWh)	SOLAR PPA ELECTRIC RATE (\$/kWh)	SOLAR PPA PAYMENTS (\$)	VNM CREDIT RATE (\$/kWh)	TOTAL VNM CREDITS (\$)	ANNUAL SAVINGS W/SOLAR (\$)	TOTAL SAVINGS W/SOLAR (\$)	
<b>SCENARIO 24</b>		1	3,088,596	\$0.117	\$360,896	\$0.14606	\$451,120	60%	\$90,224	<b>\$90,224</b>
		2	3,073,153	\$0.110	\$337,868	\$0.13743	\$422,335	54%	\$84,467	<b>\$174,691</b>
		3	3,057,787	\$0.102	\$313,145	\$0.12801	\$391,432	49%	\$78,286	<b>\$252,977</b>
		4	3,042,498	\$0.106	\$322,485	\$0.13249	\$403,106	49%	\$80,621	<b>\$333,599</b>
		5	3,027,286	\$0.110	\$332,103	\$0.13713	\$415,129	48%	\$83,026	<b>\$416,624</b>
<b>CURRENT USAGE</b>		6	3,012,149	\$0.114	\$342,008	\$0.14193	\$427,510	48%	\$85,502	<b>\$502,126</b>
Current kWh Usage (kWh)	4,488,149	7	2,997,089	\$0.118	\$352,208	\$0.14690	\$440,260	48%	\$88,052	<b>\$590,178</b>
Current Annual Spend (\$)	\$748,903	8	2,982,103	\$0.122	\$362,713	\$0.15204	\$453,391	48%	\$90,678	<b>\$680,857</b>
<b>CURRENT USAGE</b>		9	2,967,193	\$0.126	\$373,531	\$0.15736	\$466,914	47%	\$93,383	<b>\$774,239</b>
System Size (wAC)	2,000,000	10	2,952,357	\$0.130	\$384,671	\$0.16287	\$480,839	47%	\$96,168	<b>\$870,407</b>
System Output Year 1 (kWh)	3,088,596	11	2,937,595	\$0.135	\$396,144	\$0.16857	\$492,245	47%	\$96,101	<b>\$966,508</b>
Annual System Degradation (%)	0.5%	12	2,922,907	\$0.140	\$407,959	\$0.17447	\$497,269	45%	\$89,310	<b>\$1,055,818</b>
<b>SOLAR PPA TERMS</b>		13	2,908,292	\$0.144	\$420,127	\$0.18057	\$502,098	44%	\$81,972	<b>\$1,137,790</b>
Allco VNM Solar PPA Price Floating Discount %	20%	14	2,893,751	\$0.150	\$432,657	\$0.18689	\$506,739	43%	\$74,082	<b>\$1,211,872</b>
Solar PPA Length (Years)	25	15	2,879,282	\$0.155	\$445,561	\$0.19343	\$511,197	42%	\$65,636	<b>\$1,277,508</b>
<b>EVERSOURCE VNM RATES</b>		16	2,864,886	\$0.160	\$458,850	\$0.20020	\$515,479	41%	\$56,630	<b>\$1,334,137</b>
Current T&D Rate (\$/kWh)	\$0.06640	17	2,850,561	\$0.166	\$472,535	\$0.20721	\$519,592	40%	\$47,057	<b>\$1,381,195</b>
Current T&D Rate at 80% (\$/kWh)	\$0.05312	18	2,836,309	\$0.172	\$486,628	\$0.21446	\$523,541	39%	\$36,913	<b>\$1,418,107</b>
Year 1 Offset % of T&D Rate (%)	80%	19	2,822,127	\$0.178	\$501,142	\$0.22197	\$527,332	38%	\$26,190	<b>\$1,444,297</b>
Year 2 Offset % of T&D Rate (%)	60%	20	2,808,016	\$0.184	\$516,088	\$0.22974	\$530,970	37%	\$14,881	<b>\$1,459,179</b>
Years 3 to 25 Offset % of T&D Rate (%)	40%	21	2,793,976	\$0.190	\$531,481	\$0.23778	\$534,461	36%	\$2,980	<b>\$1,462,158</b>
Annual T&D Rate Increase (%)	3.50%	22	2,780,006	\$0.197	\$547,332	\$0.24610	\$537,809	35%	-\$9,523	<b>\$1,452,635</b>
Current Generation Charge Rate (\$/kWh)	\$0.09294	23	2,766,106	\$0.204	\$563,656	\$0.25472	\$541,020	34%	-\$22,637	<b>\$1,429,998</b>
Annual Generation Rate Increase (%)	3.50%	24	2,752,276	\$0.211	\$580,467	\$0.26363	\$544,098	33%	-\$36,369	<b>\$1,393,629</b>
Total VNM Credit Rate Year 1	\$0.14606	25	2,738,514	\$0.218	\$597,780	\$0.27286	\$547,048	32%	-\$50,732	<b>\$1,342,898</b>
		<b>Totals</b>	<b>72,754,817</b>	<b>\$0.150</b>	<b>\$10,840,037</b>	<b>\$0.18779</b>	<b>\$12,182,934</b>	<b>43%</b>	<b>\$1,342,898</b>	<b>\$1,342,898</b>

\* Based on the applicable credit for Eversource territory from January 1, 2018 to June 30, 2018. VNM cap may come into play later years limiting the savings if the annual total VNM credits exceed the \$490,623 annual cap. Once the total annual VNM credit cap is reached, each kWh sent to the utility grid will receive a wholesale energy rate. For this projection we assumed a \$0.06 without any escalation.

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**Table 9.8 Average Retail Prices of Electricity**  
(Cents<sup>a</sup> per Kilowatthour, Including Taxes)

	Residential	Commercial <sup>b</sup>	Industrial <sup>c</sup>	Transportation <sup>d</sup>	Other <sup>e</sup>	Total
1960 Average .....	2.60	2.40	1.10	NA	1.90	1.80
1965 Average .....	2.40	2.20	1.00	NA	1.80	1.70
1970 Average .....	2.20	2.10	1.00	NA	1.80	1.70
1975 Average .....	3.50	3.50	2.10	NA	3.10	2.90
1980 Average .....	5.40	5.50	3.70	NA	4.80	4.70
1985 Average .....	7.39	7.27	4.97	NA	6.09	6.44
1990 Average .....	7.83	7.34	4.74	NA	6.40	6.57
1995 Average .....	8.40	7.69	4.66	NA	6.88	6.89
2000 Average .....	8.24	7.43	4.64	NA	6.56	6.81
2001 Average .....	8.58	7.92	5.05	NA	7.20	7.29
2002 Average .....	8.44	7.89	4.88	NA	6.75	7.20
2003 Average .....	8.72	8.03	5.11	7.54	--	7.44
2004 Average .....	8.95	8.17	5.25	7.18	--	7.61
2005 Average .....	9.45	8.67	5.73	8.57	--	8.14
2006 Average .....	10.40	9.46	6.16	9.54	--	8.90
2007 Average .....	10.65	9.65	6.39	9.70	--	9.13
2008 Average .....	11.26	10.26	6.96	10.71	--	9.74
2009 Average .....	11.51	10.16	6.83	10.66	--	9.82
2010 Average .....	11.54	10.19	6.77	10.56	--	9.83
2011 Average .....	11.72	10.24	6.82	10.46	--	9.90
2012 Average .....	11.88	10.09	6.67	10.21	--	9.84
2013 Average .....	12.13	10.26	6.89	10.55	--	10.07
2014 Average .....	12.52	10.74	7.10	10.45	--	10.44
2015 January .....	12.10	10.31	6.67	10.45	--	10.18
February .....	12.29	10.62	6.88	10.49	--	10.36
March .....	12.33	10.63	6.83	10.12	--	10.29
April .....	12.62	10.37	6.61	9.76	--	10.01
May .....	12.93	10.47	6.74	9.87	--	10.21
June .....	12.92	10.89	7.11	10.15	--	10.64
July .....	12.94	11.07	7.45	10.34	--	10.95
August .....	12.91	10.94	7.35	10.14	--	10.85
September .....	13.03	10.98	7.21	10.29	--	10.79
October .....	12.72	10.73	6.88	9.91	--	10.31
November .....	12.71	10.30	6.61	9.63	--	10.05
December .....	12.32	10.13	6.45	9.81	--	9.98
Average .....	12.65	10.64	6.91	10.09	--	10.41
2016 January .....	11.99	10.08	6.44	9.52	--	9.97
February .....	12.14	10.25	6.42	9.61	--	10.00
March .....	12.56	10.23	6.46	9.56	--	10.00
April .....	12.43	10.19	6.44	9.53	--	9.83
May .....	12.79	10.31	6.57	9.28	--	10.06
June .....	12.73	10.66	7.03	9.75	--	10.52
July .....	12.68	10.68	7.23	9.84	--	10.70
August .....	12.88	10.76	7.23	10.04	--	10.81
September .....	12.87	10.77	7.14	10.00	--	10.68
October .....	12.46	10.55	6.73	9.82	--	10.15
November .....	12.75	10.32	6.66	9.22	--	10.10
December .....	12.23	10.17	6.67	9.49	--	10.09
Average .....	12.55	10.43	6.76	9.63	--	10.27
2017 January .....	12.22	10.23	6.58	9.38	--	10.16
February .....	12.78	10.48	6.62	9.47	--	10.31
March .....	12.90	10.47	6.73	9.47	--	10.33
April .....	12.69	10.40	6.61	9.44	--	10.10
May .....	13.02	10.59	6.81	9.58	--	10.37
June .....	13.22	10.99	7.21	10.14	--	10.87
July .....	13.12	11.00	7.34	10.13	--	11.02
August .....	13.19	11.04	7.24	10.07	--	10.98
September .....	13.30	11.06	7.21	10.01	--	10.93
October .....	12.84	10.82	6.95	9.57	--	10.48
November .....	13.01	10.55	6.79	9.49	--	10.38
11-Month Average .....	12.95	10.71	6.93	9.71	--	10.57
2016 11-Month Average .....	12.58	10.46	6.77	9.64	--	10.29
2015 11-Month Average .....	12.68	10.68	6.95	10.11	--	10.45

<sup>a</sup> Prices are not adjusted for inflation. See "Nominal Price" in Glossary.  
<sup>b</sup> Commercial sector. For 1960–2002, prices exclude public street and highway lighting, interdepartmental sales, and other sales to public authorities.  
<sup>c</sup> Industrial sector. For 1960–2002, prices exclude agriculture and irrigation.  
<sup>d</sup> Transportation sector, including railroads and railways.  
<sup>e</sup> Public street and highway lighting, interdepartmental sales, other sales to public authorities, agriculture and irrigation, and transportation including railroads and railways.  
 NA=Not available. -- =Not applicable.  
 Notes: • Beginning in 2003, the category "Other" has been replaced by "Transportation," and the categories "Commercial" and "Industrial" have been redefined. • Prices are calculated by dividing revenue by sales. Revenue may not correspond to sales for a particular month because of energy service provider billing and accounting procedures. That lack of correspondence could result in uncharacteristic increases or decreases in the monthly prices. • Prices include state and local taxes, energy or demand charges, customer service charges, environmental surcharges, franchise fees, fuel adjustments, and other miscellaneous charges applied to end-use customers during normal billing operations. Prices do not include deferred charges, credits, or other adjustments, such as fuel or revenue from purchased power, from previous reporting periods.  
 • Through 1979, data are for Classes A and B privately owned electric utilities only.

(Class A utilities are those with operating revenues of \$2.5 million or more; Class B utilities are those with operating revenues between \$1 million and \$2.5 million.) For 1980–1982, data are for selected Class A utilities whose electric operating revenues were \$100 million or more during the previous year. For 1983, data are for a selected sample of electric utilities. Beginning in 1984, data are for a census of electric utilities. Beginning in 1996, data also include energy service providers selling to retail customers. • See Note 7, "Electricity Retail Prices," at end of section for plant coverage, and for information on preliminary and final values.  
 • Geographic coverage is the 50 states and the District of Columbia.  
 Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#prices> (Excel and CSV files) for all available annual data beginning in 1960 and monthly data beginning in 1976.  
 Sources: • 1960–September 1977: Federal Power Commission, Form FPC-5, "Monthly Statement of Electric Operating Revenues and Income." • October 1977–February 1980: Federal Energy Regulatory Commission (FERC), Form FPC-5, "Monthly Statement of Electric Operating Revenues and Income." • March 1980–1982: FERC, Form FERC-5, "Electric Utility Company Monthly Statement." • 1983: U.S. Energy Information Administration (EIA), Form EIA-826, "Electric Utility Company Monthly Statement." • 1984–2010: EIA, Form EIA-861, "Annual Electric Power Industry Report." • 2011 forward: EIA, *Electric Power Monthly*, January 2018, Table 5.3.

**WESTON BOARD OF EDUCATION**

**Weston, CT**

**Meeting Date:** April 23, 2018

**Information Only**

**Action Requested**

**Agenda Item Subject:** Discussion and Vote on Contractor for the Zenon Plant

**Submitted by:** Richard Rudl

**Document Summary/Purpose and/or Recommended Action:**

**Review and vote on the service provider for the Zenon Plant contract.**

For more Board of Education Meeting and Committee Meeting Information, visit:  
<https://meeting.cabe.org/public/Agency.aspx?PublicAgencyID=47&AgencyTypeID=1>



April 20, 2018

**TO:** BOE Finance Committee

**FROM:** Richard Rudl, Director of Finance and Operations

**CC:** Dr. William McKersie, Superintendent of Schools, Joseph Olenik, Director of Facilities and Security

**SUBJECT:** RFQ Results for Zenon Plant

As our March and April Facilities Committee meeting we discussed the topic of the Zenon Plant in the context of our RFQ for a service provider to manage the Zenon Plant as well as capital needs associated with the plant. This outreach and RFQ process began early in the fiscal year but was highlighted at the Board of Selectman meeting in which the Board of Education’s budget was being reviewed. As you recall at the Board of Selectman Budget hearings the Town had pursued without the knowledge of the Board of Education or administration a proposal from WhiteWater to replace the membranes in the Zenon plant at a cost of \$64,000. As we had mentioned during this meeting we were pursuing other options as it related to the management and investment within the Zenon Plant that we felt would address their concern of the membranes but in a much more prudent and fiscally responsible manner.

We have interviewed and reached out to a few companies including our current provider WhiteWater, Veolia, and SUEZ Water regarding the districts Zenon Plant. SUEZ Water elected not to pursue a relationship with the Weston Public Schools however Veolia submitted a proposal for a five year agreement to manage our Waste Water Treatment Facility. Currently Veolia provides services to Joel Barlow High School, City of New London, City of Danbury, and Naugatuck to name a few. Veolia walked our facility noted a few recommendations and submitted a proposal that would allow the Weston Public Schools to reduce its cost, invest capital within its facility, a five year capital outlook for the facility while still providing maintenance and operational services for the plant. The proposal from Veolia will include a replacement of the membranes in the Zenon Plant, which would be included in the cost of their proposal while WhiteWater would be an additional \$64,000 to provide this item. Below is a summary of the financial comparison of the two proposals, which is also shown separately:

	<u>White Water</u>					
	2019	2020	2021	2022	2023	Total
Maintenance Contract	\$ 132,882	\$ 138,874	\$ 145,107	\$ 150,911	\$ 156,947	\$ 724,721
Repair Account	\$ 7,511	\$ 8,262	\$ 9,088	\$ 9,997	\$ 10,997	\$ 45,855
Capital*	\$ -	\$ 64,000	\$ -	\$ -	\$ -	\$ 64,000
<b>Total</b>	<b>\$ 140,393</b>	<b>\$ 211,136</b>	<b>\$ 154,195</b>	<b>\$ 160,908</b>	<b>\$ 167,944</b>	<b>\$ 834,577</b>

*\*represents membrane replacement*

*\*\*5 Year capital study proposed for an additional \$8,615.51*

	<u>Veolia</u>					
	2019	2020	2021	2022	2023	Total
Maintenance Contract*	\$ 89,579	\$ 93,162	\$ 96,889	\$ 100,764	\$ 104,795	\$ 485,189
Repair Contract	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 200,000
Total	<b>\$ 129,579</b>	<b>\$ 133,162</b>	<b>\$ 136,889</b>	<b>\$ 140,764</b>	<b>\$ 144,795</b>	<b>\$ 685,189</b>
<b>Net Savings</b>	<b>\$ 10,814</b>	<b>\$ 77,974</b>	<b>\$ 17,306</b>	<b>\$ 20,144</b>	<b>\$ 23,149</b>	<b>\$ 149,388</b>

*\*Includes replacement of Membranes for Summer of 2018.*

*\*\*Will also provide a 5 year capital outlook evaluation within maintenance contract*

*\*SUEZ Water elected not to submitted a quote for services*

The savings in FY 19 by switching to Veolia would amount to \$10,814 and over the course of a five year agreement would amount to \$149,388. As with all our service agreements we would also have the right to terminate this agreement with written 90 days' notice should the district at any point be unsatisfied with Veolia.

Based on our experience with our current provider WhiteWater, our discussions with both WhiteWater and Veolia both Joe Olenik and myself are strongly recommending a switch to Veolia starting July 1, 2018.



**WESTON BOARD OF EDUCATION**

**Weston, CT**

**Meeting Date:** April 23, 2018

**Information Only**

**Action Requested**

**Agenda Item Subject:** Discussion and Vote on PTO Beautification Project for Weston Middle School

**Submitted by:** Richard Rudl

**Document Summary/Purpose and/or Recommended Action:**

**The Finance Committee reviewed this plan. Discussion and decision to be led by Ellen Uzenoff.**



## WESTON MIDDLE SCHOOL PTO

135 School Road

Weston, CT 06883

203-341-9245

Cell/Text: 917-670-4391

bherlitz@optonline.net

February 21, 2018

VIA EMAIL

**TO:**

*Joseph Olenik, Director of Facilities, Weston Public Schools*

*Ellen Uzenoff, Board of Education, Chair, Buildings and Grounds, Weston Public Schools*

*Claudia Hahn, Chair, Weston Beautification Committee; Cynthia Williams, Co-Chair WBC*

**FROM:**

Britta Lerner, President, WMS PTO

**RE:**

Beautification of the Front of Weston Middle School

**CC:**

Dan Doak, WMS Principal; Hillary Koyner, WMS Philanthropy Chair; Sandy Hart, WMS PTO VP;

Tammy Roberts, WMS PTO Treasurer; Karin Feingold Landscape Design

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Joe, Ellen and Claudia:

After several meetings—beginning with the WMS walk through with the Beautification Committee in August, through a December meeting with Joe Olenik, Dan Doak, Hillary Koyner, and Roco Popoli, to more recent meetings with Landscape Designer and Architect, Karin Feingold--we finally have a plan to beautify the front of the Weston Middle School.

Tomorrow (Thursday, 2/23) I will hand deliver to Ellen, Joe and Claudia a plan for planting/replanting/pruning and repairing the long overlooked WMS outdoor front entry. The

plan will include a to-scale rendering by Karin Feingold (who also did the design and maintenance work for the rejuvenated WIS Courtyard). It will also include a rough budget with request for funds/help from the Beautification Committee as well as proposed funds to be supplied by the WMS PTO (vote pending).

I hope to get a PTO vote at our March 6<sup>th</sup> meeting so that we may begin planting/making reparations in April. For this reason, your prompt review of the plans would be greatly appreciated.

I have included in this memo (see next page) a list of questions that were raised during early meetings. Please consider these in conjunction with the plan you receive tomorrow so that we may move forward as appropriate and with mutual understanding and respect.

Respectfully,



**Britta Lerner**  
**WMS PTO PRESIDENT**

**ISSUES TO CONSIDER: (n.b. This is a proposed PTO-funded project with help from the Beautification Committee if agreed).**

**BEAUTIFUCATION COMMITTEE:**

- 1.) As is outlined in the plan and budget you will receive tomorrow, plant cost will be \$1,350 (including bulbs to plant in fall). In addition, there will be approximately \$100 of mulch cost and \$3,000 for new planters\* (new whiskey barrels plus large rectangular planters). **Total: Approx. \$4,450 not including labor.** *Please let us know what you feel comfortable covering after you've reviewed Karin's plan. The PTO will work to pay for what you cannot. You have our sincere thanks for whatever you are able to do for us.*  
\*This cost will go down if we chose the stone option or if the school cannot allow us access to certain beds.

**BOE/FACILITIES:**

- 1.) SOIL DISTURBANCE: During the December meeting, it was made clear that due to soil contamination issues left over from window repair, planting beds on the wall directly behind the flag pole could not be disturbed. Currently, ragged plastic is waving from beneath the arid soil of these beds. There are also old bollards that sit on top of these beds. **Question:** *We propose to replace bollards with heavy weight, stationary rectangular planters that will not move or disturb soil but rather mask what is currently there. Alternatively, we could place river rocks on top of the bed. Again, there would be no digging or soil disturbance but just an on-top placement of landscape material to mask the dead bed. I have reviewed DEEP's Remediation Standard Regulations and I don't see any problem but ultimately the decision is up to you and we will respect your final word.*
- 1.) WATER ACCESS: The plan is to incorporate resilient plants that flower and grow at different times throughout the year so that there is always some life/color. However, all plants need water especially during the first six weeks. **QUESTION:** *Is there water access via hose? We have built money into the budget for regular watering (volunteers/paid help) during the most vulnerable months, but we need to ensure that we will have hose and water access from the front all the way down to the planted circle garden next to the road.*



- 2.) FLAG POLE: The base of the flagpole is degraded (you will see photos included with the plan you receive tomorrow). The new plans include a circular flower bed around the pole with a basic bluestone path leading to the lanyard. In addition, the PTO would like to pay for school buildings and grounds staff to scrape and re-paint the base of the pole. **QUESTION:** *Joe--We reviewed this in December—would you mind asking Rocco for a price and timing?*
  
- 3.) SIGNS: The “No Skateboarding” signs are an eyesore. The PTO would like to provide clean, new signs that are weather resistant and easier to read. *We will get school approval of signs before they are placed.*
  
- 4.) BOLLARDS: We understand that neither bollards nor planters can block stairways or entryways. They also can't be difficult to move in the case of snow shoveling. However, if we choose to replace some of the existing bollards, it would be very helpful if we could have a cost from the school. **QUESTION:** *Joe—could you/Rocco provide a price per bollard from a school-approved vendor?*
  
- 5.) FRONT CIRCLE: It is my understanding that we MAY disturb/move/replant soil in the front circle (next to road). **Please confirm this as we are committed to revitalizing this area.** **QUESTION:** *Once replanted, for the health of the growth in this circle, snow cannot be plowed on top of this garden during plowing season. Please confirm that this circle is not a snow dump area.*
  
- 6.) RAILINGS: All schools have approved/standard colors that are blue and gold. Would it be possible to have the steel gray railings leading up to the Middle School painted in the school blue? **QUESTION:** *If so, could staff do this? What would the cost/timing be? (PTO to reimburse if approved.)*



## Proposed Budget

### Weston Middle School Entry Beautification

*n.b. all items and deliveries will be tax free using our WMS PTO Tax exempt certificate.*

#### PLANTING:

##### **MATERIAL:**

*Two 18" x 36" Bluestone pavers and stone dust*

*Mulch 2 yards (includes delivery)*

*Plants and bulbs plus delivery*

##### **COST:**

\$120

\$160

\$1,350-\$1,850\*

\*bulbs will be purchased and planted in the fall. Range covers any unexpected needs as job progresses.

*Planters: Six troughs (for long wall behind flag pole)*

\$1,950-\$2,900\*\*

\*\*Range includes two different planter options and will depend on which one we choose. Includes cost of shipping. If we use river rocks in this space (not recommended), the cost will be \$2,500.

*Two top of wall planters (as you exit, left side knee walls)*

\$900

*Five new whiskey barrels (with feet and drainage)*

\$1,000

*Soil for planters:*

\$200

##### **LABOR:**

\$2,000\*\*\*

\*\*\*Includes pruning of Azaleas and other bushes, removing and replanting of two existing Rhododendrons, removal of top 3" of mulch in bed to reduce height/remove or cover plastic (IN CIRCLE GARDEN ONLY. NO SOIL DISTURBANCE IN ANY OTHER EXISTING BED), pruning of tree in circle garden, pruning of trees and bushes to the left as you exit the school, digging and planting of flag pole flower bed, placement of stone path to the flag pole lanyard and planting of all whiskey barrels and planters.

**TOTAL:**

**\$7,680-\$9,130**



**Beautification costs/2**

*PAINTING OF METAL HAND RAILS:* Cost/permission to come from school; PTO to pay if approved

*FLAG POLE BASE PAINTING:* Cost to come from school; PTO to pay if approved

*SIGNAGE (see sample in package):* Donated; PTO requests that school B&G staff mount gratis



Paint WPS  
blue?




Replace w/ tall rectangular planters or river stones.










Flag pole base.  
Scrape, repaint.  
surround w/ flower  
bed + stake path  
to lanyard.









Circular garden  
Cover / remove  
plastic. ~~Remove~~  
Remulch where  
needed.







← New Signage Pending Approval.



GeoTrough

← Planters - advantage over river rocks is height.



← old sign





RIVER JACK STONES

NEED 2 TONS

\$99/TON = \$200

(compared to \$1300 mex. beach pebbles) →



Spoke for path to flagpole ←





**WESTON BOARD OF EDUCATION**

**Weston, CT**

**Meeting Date:** April 23, 2018

**Information Only**

**Action Requested**

**Agenda Item Subject: Recommendations for Revised and New Calendars (2018-19 and 2019-20)**

**Submitted by: William McKersie**

**Document Summary/Purpose and/or Recommended Action:**

**Background information regarding calendar recommendations for 2018-19 and 2019-20 school year.**



Weston Public Schools  
Office of the Superintendent  
William S. McKersie, Ph.D.

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MEMORANDUM

March 15, 2018

TO: Weston Board of Education

FROM: William S. McKersie, Ph.D., Superintendent

RE: Recommendations for Revised and New Calendars (2018-19 and 2019-20)

**Background**

Following the template established last year (March 15, 2017), this memorandum presents two sets of recommendations for the Weston Board of Education (BOE) regarding Annual Calendars for the Weston Public Schools. The first set of recommendations pertains to revisions in the 2018-19 Calendar, already adopted by the BOE. The second set of recommendations is for the first and full proposal of the 2019-20 Calendar.

The recommendations are drawn from the work of the WPS Calendar Committee, a representative body of BOE members, administrators, teachers, staff and parents (committee members are listed in Appendix 1). The Calendar Committee met on February 12, 2018 and March 6, 2018. The Committee's charge is to analyze options for future year calendars and advise the Superintendent on recommendations to the BOE.

WPS Calendar Committee 2017-18 Members:

Gina Arena (WTA)

Jamie Brown (Parent)

Cheryl Churchill (AFSCME)

Kenneth Craw (WPS)

Dawn Egan (Parent)

Matt Filip (WAA)

Rosemary Gaffney (AFSCME)

William McKersie (WPS)

Dan McNeill (Board)

For the past several years, a key variable in the work of the Committee and the development of calendar recommendations had been CT State Law (PA 13-247), which mandated "uniform regional school calendars." The guidelines and parameters on developing an annual school calendar now rest solely with each school district. CT State Law (PA 13-247) has been

rescinded. Specifically, “CT Public Act 17-220 provides that, beginning with the 2017-2018 school year, Boards of Education may, but no longer must, adopt the uniform regional school calendar. This change returns calendar decisions to local control (Chris LaBelle, Associate Executive Director of CES, Email dated November 6, 2017).

Overall, the recommendations now presented to the BOE largely continue the design, sequencing and content of the current (2017-18) calendar, which mirrors calendars from recent years. The continuity is based on careful review each year by the Calendar Committee.

This memorandum will refer frequently to three calendars: 2018-19 Current, 2018-19 Modified, and 2019-20 Recommended. These calendars are at the end of the memorandum, just ahead of the appendixes.

### **Recommended Modifications to 2018-19 Calendar**

The 2018-19 Calendar was approved by the BOE at its April 24, 2017 meeting. Based on the advice of the WPS Calendar Committee, the Superintendent is recommending only modest adjustments to the 2018-19 Calendar. The five recommendations are presented in chronological order.

#### 1. Recommendation 1 (2018-19):

The Superintendent recommends that an Early Dismissal be added on Wednesday, December 12, 2018 for Professional Development. This change supports the District’s continuous improvement efforts with additional time built in to the calendar for adult professional learning. An early dismissal in December is an ideal time for an early release day.

#### 2. Recommendation 2 (2018-19):

The Superintendent recommends that a Delayed Opening be added on Wednesday, March 13 for K-5 Parent Conferences. It was determined that two days for Parent Conferences in the spring is not sufficient. There is much demand for parent/teacher conferences in the spring as there is in the fall. This modification aligns the number of conference days in the fall with the spring.

Regarding Parent Conferences, we reviewed the possibility of adding an evening option, but that would require reopening the contract with the Weston Teachers Association (WTA). The Calendar Committee advised this be a topic for the next negotiations with the WTA.

#### 3. Recommendation 3 (2018-19):

The Superintendent recommends that the notation in the left column of the calendar be updated so that start of Passover is correctly listed as April 19, 2019.

#### 4. Recommendation 4 (2018-19):

The Superintendent recommends that the Early Dismissal time for June 10, 2019 be corrected to align with bus schedules. This adjustment is to account for the WHS Exam Schedule on the Projected Last Day of School.



5. Recommendation 5 (2018-19):

The Superintendent recommends a change to the statement at the bottom of the calendar regarding how to account for lost school days due to inclement weather. The statement now reads, “For each lost school day due to inclement weather, we add an additional school day to the end of the year up until June 21, 2019.” This year’s calendar (2017-18) has a similar statement, with the apparent cutoff date of June 22, 2018.

The rationale for these statements is that the WPS, out of tradition, attempts to not have school in session during the last week of June. This is not a policy, legal or contractual matter—it is tradition. This year, now that we have used seven snow days, we face the possibility of either holding school in the last week of June, or making adjustments elsewhere in the calendar. For instance, we could reduce a Professional Development Day (March 29, 2018) or shorten Spring Vacation. The current wording on the calendar indicates that holding school in the last week of June is not an option. This is misleading, since it may well be better for all concerned to attend one extra day in the last week of June instead of shortening Spring Vacation or reducing Professional Development Days. The current language does not indicate that the Superintendent would work with the Board of Education on how to resolve the dilemma of lost school days impinging on the last week of June.

As a result, the Superintendent recommends that the inclement weather statement at the bottom of the 2018-19 Calendar be changed to the following (new language in bold): “For each lost school day due to inclement weather, we add an additional school day to the end of the year up until June 21, 2019. **If additional school days are required, the Superintendent will recommend a solution to the Board of Education that may entail holding school in the last week of June, but only after considering the merits of reducing Professional Development Days or Spring Vacation Days.**” A similar statement would be added to the end of the recommended 2019-20 Calendar.

**Recommended 2019-20 Calendar**

The recommended Calendar for 2019-20 is similar to the 2017-18 Calendar and the modified Calendar for 2018-19. For ease of review by the BOE, we list essential points for each month of the proposed calendar.

1. August 2019 –
  - a. Three days of teacher preparation (8.22, 23 & 26) precede the first day for students.
  - b. First Day for Students– Tuesday, August 27, 2019

Comment: The Calendar Committee noted that this sequence of teacher preparation days and first day for students allows teachers ample prep time and eases students into school with a four-day first week.

2. September 2019 —
  - a. Two School Closure Days
    - i. Labor Day – Monday, September 2

- ii. Rosh Hashanah – Monday, September 10
- 3. October 2019 –
  - a. One School Closure Day
    - i. Yom Kippur – Wednesday, October 9
  - b. District Teacher Day (No Students) -- October 14
  - c. K-5 Parent Conference – Delayed Opening – October 31
- 4. November 2019 —
  - a. K-5 Parent Conference – Delayed Opening – November 1
  - b. K-5 Parent Conference – Early Dismissal – November 4
  - c. Election Day/Professional Development – Tuesday, November 5
  - d. Extended Thanksgiving Vacation –
    - i. No Students or Teachers, BOE Offices Open -- Wednesday, November 27.
    - ii. Standard Thanksgiving Break – Thursday, November 28 and Friday, November 29.
- 5. December 2019 –
  - a. Early Dismissal/Professional Development – Wednesday, December 11  
 Comment: As stated earlier, this change supports the District’s continuous improvement efforts with additional time built in to the calendar for adult professional learning.
  - b. Winter Recess – Monday, December 23, 2019 – Thursday, January 2, 2020
- 6. January 2020 –
  - a. Dr. Martin Luther King Day – January 20
- 7. February 2020 —
  - a. February Break – Thursday, February 13 –Monday, February 17
    - i. February 13 & 14 would be full days off (No Students or Teachers, BOE Offices Open). This would provide for a five-day weekend in mid-February, approximating the February Break some districts still provide.
    - ii. Monday, February 17 is Presidents’ Day

Comment: Replicating the analysis and advice from last year, the Calendar Committee was unanimous in staying with an extended weekend and not taking another two-three days of school for a full week break. The Committee believes the vast majority of Weston staff and families prefer the chance to end the school year earlier in June. A longer February break would push the June end date later.

The Committee also reviewed the past practice of the equivalent day to February 13 being a half-day (as was the case in 2017) as it related to absences and other factors. Matt Filip provided the following summary, capturing the Calendar Committee’s conclusion:

*In 2016-17, school was in session on the Thursday before Presidents' Day, and for every school the absenteeism that day was 20% or greater. In 2017-18, the break was extended to add the Thursday before Presidents' Day as a non-school day. The concern with this change was that absenteeism on Wednesday would increase. However, the data shows that on Wednesday, February 14, 2018, each school had 15% or lower absenteeism. In addition, constituent groups (parents and unions) were surveyed as to whether they preferred a Thursday-Friday-Monday break or a Friday-Monday-Tuesday break; all groups preferred Thursday-Friday-Monday. Therefore, the decision was made to keep the February break as Thursday, Friday, and Monday (Presidents' Day) for the 2018-19 and 2019-20 calendars.*

8. March 2020 —

- a. K-5 Parent Conference – Delayed Opening -- March 11
- b. K-5 Parent Conference – Early Dismissal – March 12
- c. K-5 Parent Conference – Early Dismissal – March 13
- d. District Teacher Day (No Students) -- March 16

9. April 2020 —

- a. Spring Recess – Friday, April 10 – Friday, April 17

Comment: The Calendar Committee recognizes that for 2019-20 the Spring Recess would be one day longer than typical in order to account for Good Friday (April 10). The Committee advised against scheduling the Spring Recess in the week of April 6 (which would then include Good Friday, as typically is the case), since it would result in an unusually long period between Spring Recess and the end of the school year. The Committee also reviewed the Spring Recess schedules for area districts, and determined that more than half of those polled will have longer than usual spring breaks.

10. May 2020 –

- a. Memorial Day – Monday, May 25

11. June 2020 —

- a. Final Day for Students – Thursday, June 11

Comment: This schedule would provide up to six days for school closures due to inclement weather. Weston typically wants to have students finished before the final week of June, which means the last day of school should be no later than Friday, June 19.

Please note the statement at the bottom of the proposed calendar regarding loss of school days due to inclement weather: “For each lost school day due to inclement weather, we add an additional school day to the end of the year up until June 19, 2020. If additional school days are required, the Superintendent will recommend a solution to the Board of Education that may entail holding school in the last week of June, but only after considering the merits of reducing Professional

Development Days or Spring Vacation Days.” As discussed earlier, this statement will be added to the 2018-19 Calendar as a way to clarify the decision process if we have an inordinate number of lost school days.

b. District Teacher Day—Friday, June 12

Comment: A full final teacher day has been scheduled the past two years to allow ample time for year-end celebrations and wrap-up after students have departed.

## **ATTACHMENTS**

- 1) Current 2017-18
- 2) Modified 2018-19
- 3) Recommended 2019-20
- 4) Calendar Committee Minutes from February 12, 2018 and March 6, 2018

# Weston Public Schools

July 4	Independence Day
August 28-30	Professional Development
August 31	First Day of School
September 4	Labor Day
September 21	Rosh Hashanah
September 30	Yom Kippur
October 9	Columbus Day
November 1	K-5 Delayed Opening/Parent Conferences
November 2	K-5 Early Dismissal/Parent Conferences
November 3	K-5 Early Dismissal/Parent Conferences
November 7	Election Day/Professional Development
November 11	Veterans Day
November 22-24	Thanksgiving Recess
December 25-January 1	Winter Recess
January 1	New Year's Day
January 15	Martin Luther King Day
February 15-19	February Recess
February 19	Presidents' Day
March 15	K-5 Early Dismissal/Parent Conferences
March 16	K-5 Early Dismissal/Parent Conferences
March 30	Good Friday
March 31	Passover
April 9-13	Spring Recess
May 28	Memorial Day
June 21	Special Early Dismissal as Follows: WMS/WHS 11:55 a.m. Dismissal HES/WIS 12:45 p.m. Dismissal
June 22	District's Projected Last Day of School, Special Early Dismissal as Follows: WMS/WHS: 10:00 a.m. Dismissal HES/WIS: 10:45 a.m. Dismissal
June 25	District Teacher Day

**JULY**

Su	M	Tu	W	Th	F	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

**AUGUST (1)**

Su	M	Tu	W	Th	F	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

**SEPTEMBER (19)**

Su	M	Tu	W	Th	F	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

**OCTOBER (21)**

Su	M	Tu	W	Th	F	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

**NOVEMBER (18)**

Su	M	Tu	W	Th	F	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

**DECEMBER (16)**

Su	M	Tu	W	Th	F	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

**JANUARY (21)**

Su	M	Tu	W	Th	F	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

**FEBRUARY (17)**

Su	M	Tu	We	Th	F	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			

**MARCH (21)**

Su	M	Tu	W	Th	F	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

**APRIL (16)**

Su	M	Tu	W	Th	F	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

**MAY (22)**

Su	M	Tu	W	Th	F	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

**JUNE (9)**

Su	M	Tu	W	Th	F	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30









180 School Days    187 Teacher Days

Approved by the Board of Education on April 18, 2016 and update approved on April 24, 2017.

The Weston Board of Education reserves the right to modify the school calendar.

Scheduled Early Dismissals: WMS/WHS: 11:45 a.m., HES/WIS: 12:35 p.m.

Scheduled Late Arrivals: WMS/WHS: 9:45 a.m., HES/WIS: 10:30 a.m.

First Day of School		No Students or Teachers, BOE Offices Open	
Projected last Day of School		No Students or Teachers, BOE Offices Closed	
District Teacher Day — No Students		Early Dismissal — See Legend at Left	
Regional Teacher Day — No Students		Delayed Opening — See Legend at Left	

\*\*As of April 4, 2018, any additional school days required due to inclement weather, will be scheduled during the week of June 25 .



# 2018-2019 School Calendar

# Weston Public Schools

July 4	Independence Day
August 23-27	Professional Development
August 28	First Day of School
September 3	Labor Day
September 10	Rosh Hashanah
September 19	Yom Kippur
October 8	Columbus Day/Professional Development
November 6	Election Day/Professional Development
November 11	Veterans Day
November 1	K-5 Delayed Opening/Parent Conferences
November 2	K-5 Early Dismissal/Parent Conferences
November 5	K-5 Delayed Opening/Parent Conferences
November 21-23	Thanksgiving Recess
December 12	K-12 Early Dismissal/Professional Development
December 24-January 1	Winter Recess
January 1	New Year's Day
January 21	Martin Luther King Day
February 14-18	February Recess
February 18	Presidents' Day
March 13	K-5 Delayed Opening/Parent Conferences
March 14	K-5 Early Dismissal/Parent Conferences
March 15	K-5 Early Dismissal/Parent Conferences
March 18	Professional Development
April 15-19	Spring Recess
April 19	Good Friday & Passover
May 27	Memorial Day
June 10	Special Early Dismissal as Follows: WMS/WHS 11:55 a.m. Dismissal HES/WIS 12:45 p.m. Dismissal
June 11	District's Projected Last Day of School, Special Early Dismissal as Follows: WMS and WHS: 10:00 a.m. Dismissal

**JULY**

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180 School Days    187 Teacher Days

Approved by the Board of Education on April 24, 2017.


The Weston Board of Education reserves the right to modify the school calendar.


Scheduled Early Dismissals: WMS/WHS: 11:45 a.m., HES/WIS: 12:35 p.m.


Scheduled Delayed Openings: WMS/WHS: 9:45 a.m., HES/WIS: 10:30 a.m.


First Day of School 


Projected last Day of School 

District Teacher Day — No Students 

No Students or Teachers, BOE Offices Open 

No Students or Teachers, BOE Offices Closed 

Early Dismissal — See Legend at Left 

Delayed Opening — See Legend at Left 

\*\*For each lost school day due to inclement weather, we add an additional school day to the end of the year up until June 21, 2019. **If additional school days are required, the Superintendent will recommend a solution to the Board of Education that may entail holding school in the last week of June, but only after considering the merits of reducing Professional Development Days or Spring Vacation Days .**

**UPDATED 3-6-18, PENDING BOE APPROVAL**

# 2019-2020 School Calendar-**PROPOSED**

# Weston Public Schools

July 4	Independence Day
August 22-26	Professional Development
August 27	First Day of School
September 2	Labor Day
September 30	Rosh Hashanah
October 9	Yom Kippur
October 14	Columbus Day/Professional Development
October 31	K-5 Delayed Opening/Parent Conferences
November 1	K-5 Delayed Opening/Parent Conferences
November 4	K-5 Early Dismissal/Parent Conferences
November 5	Election Day/Professional Development
November 11	Veterans Day
November 27-29	Thanksgiving Recess
December 11	K-12 Early Dismissal/Professional Development
December 23-January 1	Winter Recess
January 1	New Year's Day
January 20	Martin Luther King Day
February 13-17	February Recess
February 17	Presidents' Day
March 11	K-5 Delayed Opening/Parent Conferences
March 12	K-5 Early Dismissal/Parent Conferences
March 13	K-5 Early Dismissal/Parent Conferences
March 16	Professional Development
April 8	Passover
April 10	Good Friday
April 10-17	Spring Recess
May 25	Memorial Day
June 10	Special Early Dismissal as Follows: WMS/WHS 11:55 a.m. Dismissal HES/WIS 12:45 p.m. Dismissal
June 11	District's Projected Last Day of School, Special Early Dismissal as Follows:

### JULY

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### OCTOBER (21)

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### JANUARY (21)

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### MARCH (21)

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### APRIL (17)

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
180 School Days    187 Teacher Days  
Approved by the Board of Education on XX.

The Weston Board of Education reserves the right to modify the school calendar.

Scheduled Early Dismissals: WMS/WHS: 11:45 a.m., HES/WIS: 12:35 p.m.

Scheduled Delayed Openings: WMS/WHS: 9:45 a.m., HES/WIS: 10:30 a.m.

\*\*For each lost school day due to inclement weather, we add an additional school day to the end of the year up until June 19, 2020. **If additional school days are required, the Superintendent will recommend a solution to the Board of Education that may entail holding school in the last week of June, but only after considering the merits of reducing Professional Development Days or Spring Vacation Days .**

First Day of School		No Students or Teachers, BOE Offices Open	
Projected last Day of School		No Students or Teachers, BOE Offices Closed	
District Teacher Day — No Students		Early Dismissal — See Legend at Left	
		Delayed Opening — See Legend at Left	

# Weston Public Schools Calendar Committee Meeting Minutes

Monday, February 12, 2018  
Central Office Conference Room

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Team Members in attendance: Gina Arena (WTA), Jamie Brown (Parent), Kenneth Crow (WPS), Cheryl Churchill (AFSCME), Dawn Egan (Parent), Matt Filip (WAA), Rosemary Gaffney (AFSCME), William McKersie (WPS), Dan McNeill (Board)

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## 1. Review Committee Charge and Product

Dr. McKersie reviewed the agenda and reminded the Committee that we are no longer required to follow a regional calendar. He reviewed what the Committee is charged to do along with when we need to meet and bring the calendar to the Board of Education for review and approval.

## 2. Crosscutting Calendar Issues

There were a number of items to consider while reviewing the calendar for the next two years.

- a. Afterschool Conferences-A discussion was had as to whether parent-teacher conferences could be held in the evening. Also would we have the ability to have two conference days instead of three? Gina Arena will bring these questions to WTA.
  - b. March Break, in Lieu of February and April Breaks-The Committee discussed the possibility of a March break. It was decided that it is too long a stretch in the Winter/Early Spring with only a March break. Matt Filip will look into the attendance record preceding and following the 3-day February break. Meredith Herman will survey DRG-A districts as to the date of their April break for 2019-2020.
  - c. School Start After Labor Day-A discussion was had as to the ability to start school after Labor Day. It was determined that it is too difficult to add the additional days to the school calendar when a school start day falls after Labor Day.
  - d. Holding to Priority of No School Last Week of June-When scheduling the last day of school, the District works to have the last day of school not fall within the last week of June.
  - e. Professional Development Days Schedule-Dr. Crow reviewed where the District typically schedules PD days for teachers.
- ## 3. Revisit 2018-2019 School Calendar-The following are changes recommended for the 2018-2019 Approved Calendar:
- a. Addition of early dismissal on December 12, 2018 for Professional Development
  - b. Update start of Passover to April 19, 2019
  - c. Update correct early dismissal times for June 10, 2019 ONLY (day before Projected Last Day of School due to WHS exam schedule)

4. Develop the 2019-2020 school calendar-The following are items have been incorporated to the Proposed 2019-2020 Calendar:
  - a. Change October 31, 2019 to delayed opening
  - b. Change November 4 to early dismissal
  - c. Change of early dismissal to December 11, 2019 for Professional Development
  - d. Change March 12 and 13, 2020 to early dismissals for K-5 Parent Conferences
  - e. Update correct early dismissal times for June 9, 2020 ONLY (day before Projected Last Day of School due to WHS exam schedule)

## **NEXT STEPS**

1. Meredith Herman to speak with Lewis Brey in Human Resources regarding “floating days” for the December Break in the 2019-2020 School Calendar.
2. Meredith Herman to poll the Southern Fairfield County school districts regarding dates for April Break in the 2019-2020 School Calendar.
3. Matt Filip will organize attendance data from the February Break 2016-2017 and 2017-2018-specifically the Wednesday before break and the Tuesday after break, for all schools.
4. Gina Arena, WTA Representative, will speak to the WTA Executive Committee after the February Break regarding the three K-5 teacher conferences in October/November and March, and the interest in only two conference days (one in morning, and one in afternoon/evening) or having one of the current three days a night conference option. Currently night conferences are not a provision in the WTA contract.
5. Dawn Egan and Jamie Brown to speak to PTO Executive Committees for each school regarding best days to have off for February Break (Thursday/Friday/Monday, Friday/Monday/Tuesday, or Monday/Tuesday/Wednesday) for the 2019-2020 School Calendar. Committee agreed to leave the dates for the February Break in the 2018-2019 School Calendar as is.

## **FUTURE MEETING ITEMS**

It was agreed that the next meeting of the Calendar Committee will meet on March 6, 2018 at 2:00 p.m.

The meeting adjourned at 4:00 p.m.

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Team Members: Gina Arena (WTA), Jamie Brown (Parent), Kenneth Crow (WPS), Cheryl Churchill (AFSCME), Dawn Egan (Parent), Matt Filip (WAA), Rosemary Gaffney (AFSCME), William McKersie (WPS), Dan McNeill (Board)

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1. Review Committee Charge and Product  
Dr. McKersie reviewed agenda items from our last meeting and the timeline for recommendations to be brought before the Board of Education for approval.
2. Approve Minutes from February 12, 2018 Calendar Committee Meeting  
The minutes of the February 12, 2018 Calendar Committee Meeting were approved. Motion by Dawn Egan, second by Gina Arena, all in favor. 10-0
3. Review Findings on Crosscutting Calendar Issues
  - a. Afterschool Conferences  
Gina Arena reported that of the elementary teachers polled, they needed the third day in spring for conferences and additionally, there was no support for evening conferences. It was mentioned that having the conferences in the beginning of November makes them more formative for parents, allowing for course correction if necessary. March 13, 2019 was added as an additional delayed opening. October 31, 2018 will be a delayed opening to allow for conferences before Halloween, and November 1, 2018 will be a delayed opening also.
  - b. DRG-A April Break Dates  
Based on the data provided by Meredith Herman regarding which week in April 2020 surrounding districts will take their break, it was decided that the Calendar Committee will recommend April 13-17, 2020, incorporating April 10 (Good Friday). This will result in a six day April break and an additional day added to the end of the year.
  - c. February Break Attendance Data  
Matt Filip reported that the addition of Thursday as a no students/teachers day incorporated into the February 2018 break resulted in increased overall attendance before and after the break over results from the 2017 February break.
  - d. February Break (3 Days)  
The two parent representatives indicated that of the parents polled, they were in agreement that having Thursday, Friday, and Monday off for the February break is preferred.
  - e. Floating Days in December (2019-2020)  
It was determined that floating days are not a Calendar Committee decision but rather a human resources and staffing question.

f. Professional Development & Conference Days

Dr. Craw suggested adding one early dismissal in December for professional development. We will revisit additional PD dates for the 2019-2020 school year, seeing if another half-day PD could be added in the January/February timeframe.

4. Review and Approve Recommended Changes to 2018-2019 School Calendar
  - a. Addition of December 12, 2018 early dismissal for professional development.
  - b. Addition of March 13, 2019 delayed opening for K-5 conferences.
  - c. Change start date of Passover to April 19, 2019.
  - d. Update to corrected early dismissals for June 10, 2019 only, due to WHS exam schedule.

Motion to approve and present the recommended changed to the BOE approved 2018-2019 School Calendar was made by Dawn Egan, seconded by Jamie Brown, all in favor.  
10-0

5. Review and Approve Recommended 2019-2020 School Calendar
  - a. Addition of March 1, 2020 delayed opening for K-5 conferences.
  - b. April break 2020 from April 10 (Good Friday) until April 17 (6 days off).
  - c. Additional day for April break 2020 resulted in extending last day of school for students to June 11, 2020.

6. Identify Highlight Points or Comments for BOE Consideration

A review of additional professional days will be reviewed by Dr. Craw for upcoming school calendars.

**NEXT STEPS**

All recommendations will be presented for discussion at the March 19, 2018 Board of Education meeting and for any additional discussions and approval at the April 23, 2018 Board of Education meeting.

Motion to approve and present the recommendations to the Board of Education for the 2019-2020 School Calendar was made by Dawn Egan, seconded by Rosemary Gaffney, all in favor.  
10-0

With no other business, the meeting was adjourned at 3:17 p.m.

Minutes prepared by Meredith Herman



**WESTON BOARD OF EDUCATION**

**Weston, CT**

**Meeting Date:** April 23, 2018

**Information Only**

**Action Requested**

**Agenda Item Subject:** February 2018 Curriculum Committee Minutes

**Submitted by:** Kenneth Crow

**Document Summary/Purpose and/or Recommended Action:**

February Curriculum Committee meeting minutes for Board review

For more Board of Education Meeting and Committee Meeting Information, visit:  
<https://meeting.cabe.org/public/Agency.aspx?PublicAgencyID=47&AgencyTypeID=1>

## **Curriculum Committee Meeting**

February 21, 2018 10:00 a.m.

Central Office Conference Room

### **1. Call to Order**

Meeting was called to order at 9:59 a.m.

#### Present Committee Members:

Sara Spaulding (Chairperson), Dan McNeill, Ellen Uzenoff (attended via phone conference)

#### Present Administration:

William McKersie, Ph.D., Superintendent; Kenneth Craw, Ed.D., Assistant Superintendent; Pattie Falber, WIS Principal; Lisa Deorio, WHS Principal; Meredith Starzyk, Director, WHS Counseling; Janine Russo, 6-12 Math CIL; Jamie Charles, 6-12 CIL Science and Technology; Ann Lindenmeyer, District Data Coordinator

#### Members of the Public:

Gina Albert, Rajan Sekaran

### **2. Discussion of WHS Honors Physics C-Electricity and Magnetism new course proposal for 2018-19 school year**

#### Discussion:

- For the past few years, students wishing to learn the content of Physics C-E & M did so as an independent study whereby they would enroll in a second year of AP Physics C-Mechanics. The AP Physics C-Mechanics teacher would give course materials, assignments and guidance, but the course was essentially an independent study.
- The new course would continue using this model whereby no formal lecture will be given and no lab experiments will be performed.
- The purpose of the proposal is to formally approve this course for the WHS Program of Studies.
- The course will be designated an honors course and not an AP course, due to strict College Board guidelines.
- Instead of independent study credit, students will receive credit and a grade as an honors course, which will show on their transcript. They will also be eligible to sit for the AP exam.
- Mrs. Charles provided a regional schools comparison of physics course sequences, which shows that Weston offers a comprehensive physics pathway (attached).

### **3. Update on first year of implementation of WHS Honors Multivariable Calculus course**

#### Discussion:

Mrs. Russo presented an update on the Honors Multivariable course.

- Last year, the District put in place a creative solution to extend the high school math pathway for eligible students to take Honors Multivariable Calculus.

- This year there is one student taking the course, which is scheduled three times per eight-day schedule to meet with a teacher during the CASE period; next year two students will be eligible.
- The instructor uses three of his six CASE periods to facilitate the course.
- Overall, the feedback from the instructor is good; the only negative is the lack of a whiteboard in the CASE classroom.
- Instructor Mr. Joyce prepared a curriculum for the course over the summer. He is using a combination of MIT open courseware and a calculus textbook.
- Committee members commended Mr. Joyce and Mrs. Russo for their efforts.

#### **4. Information and update on State Systemic Improvement Plan (SSIP) meeting with representatives from the Connecticut State Department of Education**

##### Discussion:

- Weston Public Schools was one of 12 districts identified for having an achievement gap between students with disabilities and their typical peers in grade three. The metric used to determine this gap was the third grade Smarter Balanced Assessment (SBA) for English Language Arts.
- Dr. Craw commented that Weston’s achievement gap is exacerbated by the overall high level of achievement from our non-high needs cohort.
- Earlier this month, members of a district committee met with the State to review the results. The committee was able to demonstrate growth with this cohort through the use of multiple measures.
- From their conversations with the State, the team identified the following things to work on:
  - Focus on greater inclusion in the regular classroom; and
  - The integration of assistive technology to support reading instruction.

#### **5. Information on the release of State accountability reports**

##### Discussion:

Dr. Craw outlined the results of the Next Generation Accountability Report for 2016-17.

- There are 12 indicators, as well as sub-indicators, that make up the accountability index score.
- Over 50% is dedicated to academics but the report also focuses on absenteeism, physical fitness, graduation rates, and arts access.
- All DRG A districts went down this year except for New Canaan.
- Some areas show room for improvement in Weston— There is an achievement gap between *non-high needs* students and the *high-needs* subgroup. For Weston, this gap appears to be larger than the State and our DRG A counterparts. The absenteeism rate is also an area to address.
- Participation rate is critical in the high needs subgroup. In particular, the high school and intermediate school did not meet the participation rate in science. Since the high needs subgroup is a small group, having just a few families choose to opt-out of standardized testing greatly affects the District’s participation rate.
- Committee members agreed to move this discussion to the February Board of Education meeting.

## **6. Approval of December 2017 minutes**

**Motion Passed:** passed with a motion by Dan McNeill and a second by Sara Spaulding.  
**3 Yeas - 0 Nays.**

## **7. Other curricular issues**

Discussion:

Mrs. Uzenoff requested there be a future follow up discussion on the Visual Arts Drawing course that will be divided into two one-semester courses.

No other items were put forth for discussion. Meeting was adjourned at 9:50 a.m.

Respectfully submitted,

June Curiano  
Administrative Assistant to the Assistant Superintendent

**Minutes  
Facilities Committee  
April 6, 2018**

Present:

Ellen Uzenoff, Committee Chair  
Gina Albert, Committee Member  
Sara Spaulding, Committee Member  
Richard Rudl, Director of Finance and Operations  
Joseph Olenik, Director of Facilities

Absent:

Dr. William McKersie, Superintendent of Schools

Guests:

Christopher Spaulding, First Selectman, Town of Weston  
Britta Lerner, President, Middle School PTO

The meeting was called to order by Ms. Uzenoff at 9:03 a.m.

The Committee discussed the following items regarding the WIS trail update:

- Due to the fact that Chief Henion was unable to attend, this agenda item will be discussed at the May Facilities Committee meeting.

The Committee discussed the following items regarding the virtual net metering second megawatt:

- Mr. Spaulding informed the Committee that the first megawatt of electricity produced by the solar farm has been electrified and is currently assigned to the high school and elementary school. The District now needs to decide if it would like to utilize a fixed or floating rate for the second megawatt, which will go to the middle and intermediate schools, as well as Town buildings. The Committee agreed to move forward with a fixed rate, and this will now be voted on by the full Board of Education.

The Committee discussed the following items regarding the WIS knee wall study update:

- Mr. Olenik reported that the Town conducted a bid walk thru of the area the previous day, and several vendors were there. Additionally, the Building Inspector did approve the architect's plan for the project.

The Committee discussed the following regarding the Zenon plant RFQ results:

- Mr. Rudl informed the Committee that as reported at the March meeting, for several months the District has been looking at alternative providers for the Zenon plant in an effort to improve the quality of service as well as exploring any financial savings that could be attained. The District has interviewed and reached out to several companies, including the current provider – Whitewater, as well as Veolia and Suez Water. Suez Water opted not to pursue a relationship with the District. Veolia submitted a proposal that would allow the District to reduce its cost, invest capital within the facility, and provide a five year capital outlook for the facility and all while still providing maintenance and operational services for the plant. Additionally, Veolia will include replacement of the membranes in the plant as part of the proposal's cost, rather than separately, as proposed by Whitewater. This will save the District \$64,000. Veolia also has very strong references, including Joel Barlow High School, which have been vetted by the District.
- Mr. Rudl recommended that Veolia assume responsibility for the plant beginning in July. Whitewater will need to be notified of this change by the end of April. The Committee agreed to award maintenance of the Zenon plant to Veolia, and to move this to the entire Board for approval.

The Committee discussed the following regarding the middle school PTO philanthropy landscaping request:

- Ms. Lerner reported that the middle school PTO would like to perform some landscaping work at the front of the middle school to beautify the area. The PTO is willing to pay for the plantings, and the Town Beautification Committee is willing to give the PTO a grant to help offset the costs. The only thing they require is the installation of a water spigot near the front of the building. The PTO is willing to pay for the spigot if the District can install it. Mr. Olenik added that the maintenance department will review the best location for the spigot and will install it. The Committee agreed to move forward with the project, and will now bring this to the full Board for their approval.

The Committee discussed the following regarding approval of the March minutes:

- The Committee approved the March minutes with minor changes.



The Committee discussed the following regarding other business:

- Ms. Uzenoff reported that she has been receiving some pushback regarding moving the new North House playground to the courtyard area in the center of the school rather than keeping it where it is, as the courtyard currently houses a garden. Mr. Olenik reported that he and Laura Kaddis, the elementary school principal, are still reviewing options, and according to Ms. Kaddis, the garden is not used by students. Mr. Olenik will report back on this at the May Facilities Committee meeting.
- Ms. Uzenoff reported that at the recent Company theater performances there have been a lot of people with food in the auditorium, even though food is not permitted. She added that Dr. McKersie has reached out to Lisa Deorio, the high school principal, to speak to Company to see how this can be remedied.
- Mr. Uzenoff inquired if the District has any funds to conduct tree work along School Rd., as the Tree Warden reported that there is cleaning and cutting that needs to be done along the road. Mr. Olenik informed the Committee that the District is not responsible for School Rd., rather, it is the Town's responsibility. Mr. Olenik also reported that the Tree Warden will have workers in over the weekend removing any free hanging branches over School Rd.
- Ms. Albert informed the Committee that the schools have reported brown water coming from faucets throughout the District. Mr. Olenik reported that this is due to the fact that the Town recently had their wells flushed, but the District was never notified of this so could not inform staff and students ahead of time. The Committee agreed that it may be a good idea for Dr. McKersie to speak to Mr. Spaulding about receiving advance notice when the wells are going to be flushed.

There being no further business to discuss, the Committee adjourned at 10:07 a.m.

The next meeting will be held on May 4, 2018.

Respectfully submitted,

Andrew Galli

Administrative Assistant to the Director of Finance and Operations

**Minutes  
Finance Committee  
March 19, 2018**

Present:

Jacqueline Blechinger, Committee Chair  
Gina Albert, Committee Member  
Tony Pesco, Committee Member  
Dr. William McKersie, Superintendent of Schools  
Richard Rudl, Director of Finance and Operations

Guests:

Lois Pernice, Director of Pupil Personnel Services

Public:

Ellen Uzenoff, Weston Resident

The meeting was called to order by Ms. Blechinger at 8:18 a.m.

The Committee discussed the following items regarding the FY 2018 financial update for the period of July 2017– February 2018:

- Mr. Rudl reported a projected deficit for the FY 2018 of (\$1,100,094) with encumbrances totaling \$16,570,186, against a budget of \$49,907,522.
- Mr. Rudl informed the Committee that the report reflects transfers totaling \$56,432. Of these transfers, four are in excess of \$5,000. These include \$10,000 for SPED evaluations, \$6,738 for an increase in heating costs due to the colder than expected winter, \$5,931 to cover an increase in substitute teachers at the middle school, and \$5,387 to cover an increase in substitute teachers at the high school.
- Regarding the Internal Services Fund, Mr. Rudl reported that the current fund balance is \$1,889,718 and the negative net change is now (\$415,613). This is a slight improvement from the previous month's report. Claims for February totaled \$567,460, which was right on par with expectations.
- Mr. Rudl reported that the SPED out-of-district tuition accounts for a total shortfall of (\$1,118,328). Mr. Rudl identified some surplus areas which could be used to offset a

portion of this deficit. Once these are applied, the total shortfall is reduced to (\$1,100,094).

The Committee discussed the following items regarding special education out-of-district tuition:

- Mr. Rudl reported that the current projected Special Education out-of-district tuition balance is nearly \$3.06 million, which has increased since the previous month due to a unilateral placement and encumbrance holds for two additional unilateral placements. Taking into account the transfers approved by the Board to date, the shortfall will be reduced to (\$1,047,619).
- Dr. McKersie added that the new Assistant Superintendent for PPS will update the Board in executive session several times per year regarding PPS/SPED matters.

The Committee discussed the following items regarding a request for a special appropriation for special education:

- Mr. Rudl informed the Committee that as has been discussed since September, there has been a significant increase in unilateral placements, which has resulted in financial pressure in the District's FY18 operating budget. Currently, the District has 39 outplacements/agreements, but only budgeted for 27. This has resulted in a deficit of \$1,675,788. Of this, the District has covered internally \$613,936, or 37% of the total deficit through transfers, leaving a deficit of \$1,061,852.
- Mr. Rudl presented three different options regarding the special appropriation, then informed the Committee his recommendation. He recommended requesting a special appropriation in the amount of \$1,061,852. Even with this request, he advised implementing a hard freeze for all non-personnel/non-contractual accounts between April 15<sup>th</sup> and May 14<sup>th</sup>.
- Mr. Rudl reported that he spoke with Rick Darling, the Finance Director for the Town of Weston, to review the timeline for requesting the appropriation from the Town. The Board will discuss the appropriation at the March 19<sup>th</sup> Board of Education meeting. Should the Board vote to approve a special appropriation, the request will then be brought forward to the Board of Selectmen at their April 5<sup>th</sup> meeting. If the Board of Selectmen approves the appropriation, then the request will go forward to the Board of Finance at their April 12<sup>th</sup> meeting, but given that April 12<sup>th</sup> falls during spring break, some Board members may not be able to attend, so the District will inquire as to whether this date can be changed.
- The Committee agreed to move this forward to the full Board of Education for approval.

The Committee discussed the following regarding the FY18 technology lease:

- Mr. Rudl reported that the District has been discussing phasing out the technology lease in order to reduce long-term liabilities, eliminate borrowing costs and legal fees, and establish a base budget for equipment purchases within technology to reduce the budgetary fluctuation within that department. The budget called for one remaining technology lease to be issued in FY18, which the District did bid out, and received one bid, from TD Bank, with an interest rate of 3.00%, which is the highest borrowing cost for all technology leases issued in the past five years.
- Mr. Rudl presented several different options moving forward, and recommended requesting a special appropriation from the Town. First the FY18 technology lease payment of \$54,750 would be transferred to the equipment line item, then e-rate reimbursable credits would be applied as well, and finally, \$2,000 in legal fees will be deducted as well, as legal review will no longer be required. These actions will reduce the lease amount to \$96,120. Then, the District will request a special appropriation from the Town for this amount. If the special appropriation is approved, the District can then reduce its FY19 budget request by \$54,750 as it would no longer need to pay TD Bank a loan payment. The special appropriation will allow the Town a return on its investment of less than two years as the Board of Education would not have to carry long-term liabilities for these purchases. The Committee agreed to move this to the full Board for approval.

The Committee discussed the following regarding approval of the February minutes:

- The Committee approved the February minutes.

The Committee discussed the following regarding other business:

- Ms. Blechinger inquired if there is any further information regarding the virtual net metering agreement. Ms. Albert reported that there is no further information at this time, other than the fact that it was decided to have the first megawatts of energy go to the high school and elementary school instead of the high school and middle school, as this way it will split the District's two biggest power users between the first two megawatts.

There being no further business to discuss, the meeting adjourned at 9:07 a.m.

The next meeting will be held on April 20<sup>th</sup>.

Respectfully submitted:

Andrew Galli  
Administrative Assistant to the Director of Finance and Operations

DRAFT

**Policy Committee Meeting**

February 23, 2018 8:30 AM

Central Office Conference Room

**Attendance Taken at 8:30 AM:**

Present Members:

Jacqueline Blechinger

Daniel McNeill

Samantha Nestor

**1. Call to Order**

Daniel McNeill call to order at 8:36. In attendance were William McKersie, Ph.D., Superintendent of Schools, Lewis Brey, Director of Human Resources and Internal Counsel, Gina Albert, member of the public.

**2. Approval of Minutes**

Approved

**3. Discussion of policies, regulations, and bylaws**

**3.A. Policy and Administrative Regulation 5141.3, Health Assessments and Immunizations**

Discussion:

Mr. Brey discussed the Shipman and Goodwin updates to this policy and regulation. The chair will speak directly with the Board's outside counsel prior to bringing this policy and regulation back to the committee. The committee would like to have more time to discuss the changes before forwarding it on to the full board.

**3.B. New Administrative Regulation 5141.31, Immunizations**

Discussion:

As above, the committee wanted for more time to discuss this new regulation. It will be presented back to the committee at a future meeting.

**3.C. Policy and Administrative Regulation 3454, Individuals With Disabilities Education Act Fiscal Compliance**

Discussion:

The only changes to the policy and regulation were technical. This policy and regulation will be presented to the full Board at the next meeting.

**3.D. Policy and Administrative Regulation 4118.11/4218.11, Non-Discrimination, Personnel**

Discussion:

The changes to this policy and regulation were recommended by Shipman and Goodwin, including adding a timeline to the complaint process and the inclusion of veterans as a protected group under the policy. The committee agreed to forward this to the full Board at the next meeting.



4. Discussion of policies, regulations, and bylaws in future meetings

5. Adjourn

9:26

## **Policy Committee Meeting**

March 29, 2018 8:30 AM

Central Office Conference Room

### **Attendance Taken at 8:30 AM:**

#### Present Members:

Jacqueline Blechinger

Daniel McNeill

Samantha Nestor

### **1. Call to Order**

Daniel McNeill called the meeting to order at 8:37. In attendance were William McKersie, Ph.D., Superintendent of Schools, Lewis Brey, Director of Human Resources and Internal Counsel, Lisa Deorio, Principal, Weston High School, and Gina Albert, member of the public.

### **2. Approval of Minutes**

The February and March minutes will be provided to the committee at the April meeting.

### **3. Discussion of policies, regulations, and bylaws**

#### **3.A. Policy 1412, School Resources Officer (SRO)**

##### Discussion:

Mr. Brey discussed new policy, stating that it lays out a broad outline for the SRO. The MOU for the position, which is attached to the policy, will need to be approved every year. This policy is just a guideline. After some minor changes, this policy will go to the Board for a first reading.

#### **3.B. New Administrative Regulation 5118, Non-resident, Tuition and Fees**

##### Discussion:

After a brief discussion, Dr. McKersie stated the current regulation was a good place to hold and to not pursue any changes at this time

#### **3.C. Policy and Administrative Regulation 5111, Admissions/Placement**

##### Discussion:

Mr. Brey introduced the changes to the policy and regulation, stating that they were needed to give the superintendent more flexibility when it came to exceptions in residency issues. The committee asked that we look to see what other school districts were doing in regards to the Kindergarten enrollment eligibility date of January 1<sup>st</sup> date. This policy and regulation will go to the full Board for a first reading after more discussion.

### **4. Discussion of policies, regulations, and bylaws in future meetings**

- Transportation Policy, discussion over the issue of student drop-offs. The Board's policy and administrative regulation that cover this issue will be discussed at the committee's April meeting.

### **5. Adjourn**

9:57

**WESTON BOARD OF EDUCATION**

**Weston, CT**

**Meeting Date:** April 23, 2018

**Information Only**

**Action Requested**

**Agenda Item Subject:** April 2018 Principals' Report

**Submitted by:** Kenneth Crow

**Document Summary/Purpose and/or Recommended Action:**

April 2018 Principals' Report for Board Review

For more Board of Education Meeting and Committee Meeting Information, visit:  
<https://meeting.cabe.org/public/Agency.aspx?PublicAgencyID=47&AgencyTypeID=1>

# WESTON PUBLIC SCHOOLS REPORT

April 23, 2018



Weston High School

Lisa Deorio, Principal

*In this issue... Principal's Update  
Academic Programs  
Athletics  
Co-Curricular Programs*

## PRINCIPAL'S UPDATE

Spring has finally arrived, and, as we enter the home stretch, the number of our events and programs accelerate during the next two months. Our big news is that the date for graduation has finally been set. Graduation will be held on Friday, June 22, at 6:00 p.m.

Pictured here is a representative from the University of Edinburgh with students during our first International College Fair that was held in late March. Representatives from countries including Ireland, England, Italy, France, Japan, and Australia had booths in the library during the lunch block. Many students took advantage of the opportunity to hear about different study abroad programs.



Our annual school-wide assembly sponsored by the Weston Alcohol and Drug Awareness Program (ADAP) will take place on April 20. This year's speaker is John Morello. To learn more about Mr. Morello's speaking style, bio, and one man show, click the following link:  
<https://www.johnmorello.com>.

April 24 is the make-up day for the administration of the SAT for all juniors. You may recall that we were closed due to snow on the March date. April 24 will be a half day for all students with dismissal at noon. A letter will be forthcoming regarding specific programs.

## ACADEMIC PROGRAMS

Animal Behavior students in Ms. Greenberg's class had the opportunity to learn about behavioral research in the field when Katherine Meier came to talk about her experiences studying wild orangutans in Borneo. She spent a year there under the auspices of Rutgers University and gave our students a fascinating glimpse into life as a field biologist, as well as the semi-social lives of the orangutans. Ms. Meier will be pursuing her Ph.D. in anthropology and forest ecology at Yale.



Health teachers Mr. Richetelli and Ms. Aquila hosted a representative from The Center of Sexual Assault Crisis Counseling and Education for our sophomore and senior health classes. Jessica Feighan gave sophomores a presentation on sexual assault, helping students understand the issue and debunking myths about perpetrators and victims. The senior presentation, “Know before You Go,” provided an in-depth look at the issue of college sexual assault and campus culture.



PTLW Tiny Homes are being modeled in Autodesk Revit, which is a building for information modeling (BIM) program. Students have to stay within a 250 square foot constraint, utilizing universal design considerations and passive energy systems in their designs. To add to the creativity of their models, students develop a “unique” feature for their home. Fireplaces, hot tubs on roofs, basketball hoops, floating stairs, and completely changing the structure of the home to resemble a yurt are all examples of these details.

Spanish 5H and Spanish 6AP students attended the play “The House of Bernarda Alba” by Spanish playwright Federico Garcia Lorca. The performance took place at Repertorio Español, a Spanish speaking theatre in New York City. Students read the play as part of their Spanish curriculum.

## ATHLETICS

Weston High School boys’ basketball programs have been awarded the Harold Swaffield Sportsmanship Award for the 2017-18 season. This award is presented annually to the programs that have demonstrated the most consistent level of good sportsmanship on the court throughout the basketball season. This includes players, coaches, and fans.



Spring sports are under way and competitions started earlier this month. We are looking forward to warmer weather and more success from our spring athletes. We are pleased to welcome Ms. Dana Parsons as the new head coach for girl's tennis. She is a Weston resident with two children in the intermediate school and, at one time, was ranked #3 in the United States as a paddle tennis player. Ms. Parsons played college tennis at University of Tennessee.

## CO-CURRICULAR PROGRAMS

Company’s performance of South Pacific was a resounding success with sold out crowds for all four performances. We are so proud of all of the students that contributed to this exemplary show. From the lighting, costumes and sets, to the beautiful music by our student pit, and the actors and actresses and student directors and producers, it was an incredible collaborative effort.





St. Baldrick's Club hosted a terrific fundraiser in late March with many of our students shaving their heads to support childhood cancer. At the time of this newsletter over \$42,000 had been raised. We are so proud of all of our students as well as the assistant to the athletic director, Mr. Frank, who also participated.

- In this issue... SGA "Chipotle" at Gillespie Center*  
*Music Students Excel at Western Regionals*  
*Creating Nature's Weather Station with Pine Cones*  
*Peace Corps Volunteer Speaks with Seventh Grade Students*  
*Eighth Grade Social on Ice*  
*Seventh Graders Investigate Whether Mars Was Once Habitable*  
*Mock Trial Team Finishes Season Strong*  
*Seventh and Eighth Graders Enjoy Brice Kapel "en concert"*  
*Students Participate in Connecticut Science and Engineering Fair*  
*Advisory Update*

### **SGA "CHIPOTLE" AT THE GILLESPIE CENTER**

A cold and snowy March evening was warmed up by Student Government Association students serving meals and smiles at the Gillespie Center food kitchen in Westport. A group of nine SGA students and their families prepared a delicious meal of burritos, mixed greens salad, and fruit salad. At the shelter, students served the burritos "Chipotle style," asking each person at the shelter what kind of toppings they would like. Folks at the shelter were very thankful for the SGA's hospitality, with many commenting on how kind and energized the students were. Even after washing piles of dishes and cleaning up the kitchen, the students simply asked with a smile, "When are we coming back?"

A special thanks to the Brennan, Diamond, Greeley, Greene, O'Neil, Pinals, Richardson, Smetak, and Rutsky families for preparing the meal ingredients.





## MUSIC STUDENTS EXCEL AT WESTERN REGIONALS

Congratulations to many of our own Weston students for an amazing performance on Saturday, March 17, for the Connecticut Music Educators Association Western Region Honor Band, Jazz Band, and Choir. These students include Karl Schulz for Jazz Band, Gabe Paknia and Matthew Schreder for Band, and Kennedy Boehme, Bert Burns-Min, Lola Connelly, Jonah Frimmer, Konstantina Gotouhidis, Isabel Kusek, Michael Lagana, Audrey Mbwa-Mboma, and William Stammer for Choir. A special congratulations to Karl Schulz for his piano solo, Kennedy Boehme, Bert Burns-Min, and Audrey Mbwa-Mboma for being in a small group solo, and Isabel Kusek for her vocal solo at the end of the concert. Bravo!



## CREATING NATURE'S WEATHER STATION WITH PINE CONES

Sixth grade students collected and observed pine cones as weather indicators as part of their weather and climate unit. Pine cones open and close depending on the humidity to help seed dispersal. Inside the pine cone there are lots of feather-light seeds. When the weather is dry, the pine cone opens up for wind to catch the seeds and allow them to be dispersed through the air far away from the original tree. When the humidity rises and rain is likely, the pine cone closes up to prevent the seeds from escaping, thus preventing the lightweight seeds from becoming water logged and traveling only a short distance from the original source, which would be shaded and cause the seedling to fight the “parent” tree for resources. The pine cones will be hung outside the classroom window and students can use them to inform their weather predictions!



## PEACE CORPS VOLUNTEER SPEAKS WITH SEVENTH GRADE STUDENTS

On Monday, March 19, seventh grade social studies classes met Kimberly Conner who served in Peace Corps in Madagascar from 2011 to 2013. Ms. Conner was a Community Health Educator, which means she lived in a rural town and performed public health education activities through the local clinic—anything from water sanitation demonstrations to informal talks with women about health issues. Students were able to see the UN Sustainable Development Goals in action. Ms. Conner’s work as a Peace Corp volunteer addressed the goal of Good Health and Well-Being, as well as Zero Hunger, Gender Equality, and Clean Water and Sanitation. Ms. Conner currently works as a video producer for Yale Medicine, where she makes videos about health topics and highlights patient stories.



## EIGHTH GRADE SOCIAL ON ICE

One hundred twenty eighth graders laced up their skates at the Danbury Ice Arena to celebrate the last stretch of their WMS experience. Students laughed as they taught each other how to skate. Friends held hands as they whirled around the rink. A spontaneous conga line even broke out! Students inspired Mr. Blozie, Ms. Donigian, Mr. MacDonald, Ms. Welsh, and Mr. Walters to lace up and join in on the fun. Off of the ice, students socialized over a pizza dinner. The night ended with an impromptu “awards ceremony,” where students were recognized for accolades such as “play hard, skate hard” and “fanciest footwork.”

The social would not have been possible without the support of the PTO. Meri Fidel and her family provided excellent guidance for the event and a playlist that students loved. Sam Leuzzi whipped up delicious vanilla and chocolate cupcakes celebrating the class of 2022. Finally, our parent chaperone volunteers snapped pictures, served dinner, and kept the students smiling. Thank you Ms. Brooks, Ms. Menke, the Miano family, Ms. Saussy, and Ms. Woodley!





The eighth grade skating social completes a new WMS social lineup built upon student input. Sixth graders now dance at WMS, seventh graders jump around at Skyzone, and eighth graders skate at the Danbury Ice Arena. The SGA is thrilled to offer such a fun lineup to WMS students.

### **SEVENTH GRADERS INVESTIGATE WHETHER MARS WAS ONCE HABITABLE**

Have you ever wondered if there is life beyond planet Earth? Seventh Graders are using a program designed by Amplify, a digital education company, to explore an authentic question about space while concomitantly learning principals of Earth Science. Students are thinking like planetary geologists to determine whether a channel photographed on Mars was formed by water or lava, and each student has made a claim as to water or lava. In the photographs, students use a model to help gather more information needed to support or refute their claim. The students are observing channels they watched form by running water in a stream table. A key concept is that landforms can provide evidence about the past because they remain after the geologic processes that formed them stopped happening. This doctrine is known by geologists as the Principle of Uniformitarianism, but the kids don't need to know that! They just want to know if life could be out there.



### **MOCK TRIAL TEAM FINISHES SEASON STRONG**

On Wednesday, March 28, members of the WMS Mock Trial Red Team travelled to Middlesex Superior Court in Middletown for the quarterfinals of the State Mock Trial Tournament. Arguing for the plaintiffs in the case of *Heeney-Potter v. Rendlow and Fielding*, the Red Team put forward strong legal arguments to demonstrate the undue influence that they believed led to the creation of a disputed will. Throughout their preparations, students worked together to identify the key legal arguments on both sides of the case, using evidence from affidavits and exhibits to support their claims for both the plaintiffs as well as the defendants. Our student attorneys and witnesses also worked diligently on their specific portrayal of their assigned characters as well as working on anticipating counterarguments and successfully navigating the complex rules of mock trial. While the Red Team did not advance past the quarterfinals, they were commended by the presiding judge and director of the competition for presenting a particularly strong case.



## SEVENTH AND EIGHTH GRADERS ENJOY BRICE KAPEL “EN CONCERT”



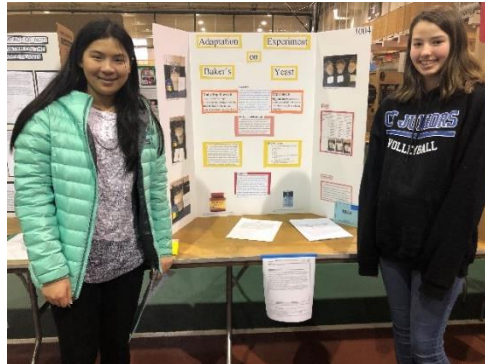
On Tuesday, March 27, Brice Kapel, a French-Togolese singer, visited and performed for seventh and eighth grade students at Weston Middle School. The Weston Middle School PTO approved a grant to make this visit possible, and the students and staff were lucky to spend the day with Mr. Kapel. He began the day by visiting eighth grade French classes in the morning. During these workshops, students learned how Mr. Kapel’s diverse background has impacted his life and music. His music touches on important themes such as

understanding and holding on to your heritage and the importance of education for all children. Students have been learning and practicing Brice Kapel’s music for the past few months, and they really enjoyed singing these songs with him.

In the afternoon, Mr. Kapel held a concert in the high school auditorium for all seventh and eighth grade staff and students. The concert was engaging and full of energy. Due to Brice Kapel’s talent for teaching through music, everyone was able to learn some new French vocabulary as well as French sign language! Thank you again to the WMS PTO for making this day possible.

## STUDENTS PARTICIPATE IN CONNECTICUT SCIENCE AND ENGINEERING FAIR

I am pleased to share that we had six eighth graders participate in this year's CT Science and Engineering Fair at Quinnipiac University. These students engaged in the inquiry process by modifying and refining their seventh grade Science Discovery Workshop projects in preparation for the fair. Lecia Sun and Brynne McGee made it to the finals for their project, looking at adaptation rates of baker’s yeast as climate changes. Konstantina Gotouhidis and Nicole Santanovsky received 3rd honors for their project on natural pesticides.



## ADVISORY UPDATE

In recent advisory sessions, students have watched inspirational videos and discussed how words can be powerful reminders of our “best selves.” Below are a few examples of products that students

created





in response to these discussions: intent word mosaic squares (soon to be a building-wide project), backpack décor made from the 3D printer from Mr. Webster and Mrs. Powers advisory groups, and a ‘Take What You Need’ board with inspiring words from Mr. Rosvally’s and Mrs. Welsh’s advisory groups. Great work everyone!

**Weston Intermediate School**

**Pattie Falber, Principal**

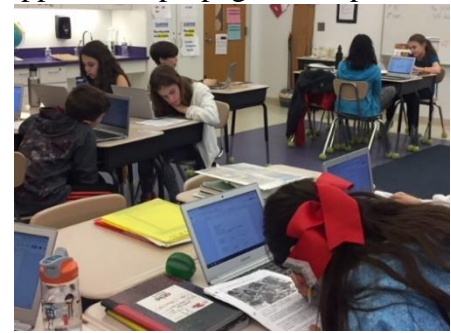
*In this issue... Grade 5 Researching Important Issues of Historical Importance  
Grade 3 Research Unit  
Grade 4 Culminating Research Project  
Grade 4 and 5 Instrument Debut Concert  
WIS Science Fair  
Odyssey of the Mind  
Professional Development*

### **GRADE 5 RESEARCHING IMPORTANT ISSUES OF HISTORICAL IMPORTANCE**



The fifth grade students are engaged in a multi-disciplinary unit aligning reading, writing, and social studies. While students are learning about the American Revolution in social studies, they are engaging in multiple levels of research. First, they are researching how events during colonization led up to the Revolutionary War and then the ways in which women, people of color, foreign support, and propaganda impacted the outcome of the war. Toward the end of the unit, they will

extend this learning to study other “fights for justice” in our country’s history—specifically researching the Civil Rights Movement, the fight for Women’s Suffrage, and the need for students of all backgrounds and abilities to have a free and equal public education. While students study these aspects of history, they will be writing research reports on their learning.

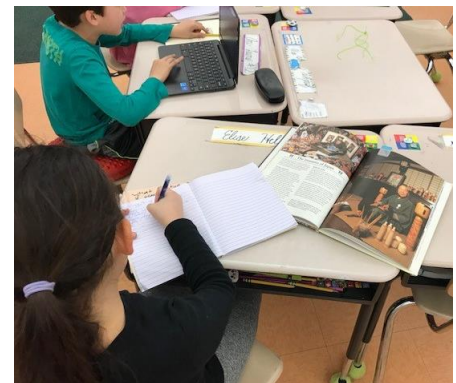


### **GRADE 3 RESEARCH UNIT** Third grade readers have embarked on a research study of countries



around the world. Students are working in collaborative teams to research, take notes, and teach one another about the culture, food, celebrations, people, and geography of either Japan, Brazil, Mexico, India, South Africa, or Greece. This engaging unit focuses on broadening cultural awareness

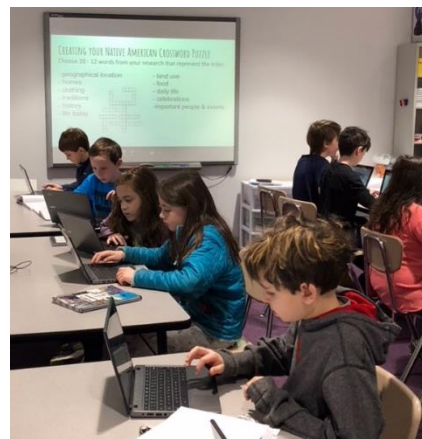
while also providing readers the opportunity to learn organized



note-taking skills and the importance of being more than “fact collectors”, but rather to grow ideas and make inferences about the information they learn. During the unit, students will research two countries and then compare and contrast the cultures they have learned to make connections between them, learning that just as we are all different, there are many ways we are all the same. The beautiful books students are reading were made possible by an extremely generous grant from the PTO Philanthropy Committee. Thank you!

### **GRADE 4 CULMINATING RESEARCH PROJECT**

After researching and reporting on Native Americans, fourth grade students created crossword puzzles related to the tribe they studied. Students were instructed on ways to write clues, then, pulling from their research, students identified the important concepts and words to be featured in their puzzle. Students used the online program *Crossword Labs* to create their puzzles. Crossword puzzles are an engagement component of the instructional framework referenced in the Common Core. The benefits to student learning was evident with our fourth graders! While participating in this project, students were practicing a variety of academic skills including: vocabulary building, spelling, reading, word comprehension, reasoning, identifying main ideas, summarizing, planning, and critical thinking—all while reinforcing content learning.



### **GRADE 4 AND 5 INSTRUMENT DEBUT CONCERT**



On Wednesday evening, March 28, the fourth grade orchestra and the fifth grade band presented their debut concert to a standing room only audience. The program was designed to showcase the emerging skill and technique these students are rapidly acquiring, and it did just that. Mr. Paul led the almost 100 student orchestra through a variety of short pieces that proudly demonstrated their ability to play for the first time as an ensemble, and ended their program with a spirited rendition of the Star Wars theme. The fifth grade band, led by Ms. Sobeleski, performed equally well with a variety of pieces that featured the individual instruments

as well as the full ensemble. In addition, the evening included a beautiful duet by two of the more advanced players of the band, and concluded with an upbeat tune called, “Hard Rock Blues.” It was a fun evening for everyone.

### **WIS SCIENCE FAIR**

On Wednesday evening, April 4, WIS held its annual Science Fair. Almost 200 fourth and fifth grade students participated this year, presenting a wide variety of creative and highly engaging inquiry projects that were designed and carried out solely by the students. The range of topics this year was impressive and varied, and the students were able to confidently explain their investigation and final results. Our students and faculty were able to view the projects throughout the following day, and they too commented on how impressive the projects were this year. Many thanks go out to Carolyn Vinton,



our Curriculum Instructional Leader for Math and Science, who supported and encouraged the students throughout the process, and thank you also to our PTO and parent volunteers whose support makes this event possible.



### THIRD GRADE CHORAL CONCERTS

This month our third grade students presented their annual spring choral concerts. The students sang a delightful mix of songs from Australia, South Africa, England, the West Indies, and the U.S. Students sang in English as well as in Spanish, and were accompanied by students on a variety of percussion and Orff instruments. Led by Lisa Moretti, the concert showcased the students in a pre-ensemble setting and highlighted the musical literacy and techniques of the third grade curriculum such singing in unison and two part rounds, phrasing, diction, dynamics, tempo, and intonation. This concert gave students their first opportunity to work together as an ensemble.



### ODYSSEY OF THE MIND

Last month, six teams from WIS competed in the Connecticut Odyssey of the Mind State Finals at Southern Connecticut State University. Odyssey of the Mind is a creative problem solving competition for students from first grade through college. Students spend more than six months working together as a team to engage in solving novel problems, within given restrictions, in one of five different categories. The team members applied their creativity to solve problems that ranged from theatrical performances, to building structures, to designing and building vehicles that needed to leave a multi-level parking garage and travel to a secret meeting spot without being stopped. The students learned the importance of working together and depending on each other to achieve a common goal. It was an inspiring and fun day. All of our teams did exceptionally well, and two of our teams placed 1<sup>st</sup> and 2<sup>nd</sup> in the Structures division, which qualifies them to attend the World Finals in May. We look forward to hearing about their experience next month. A big thank you goes out to all the parents who took on the role of coaches—we could not do this program without them!

## PROFESSIONAL DEVELOPMENT

Our Teachers College consultant, Simone Fraser, visited us this month for her final visit of the year. The focus of this visit was to provide individual feedback to our classroom and special education teachers in regards to their small group instruction. She went into every classroom during a reading workshop time and coached into small groups that were taking place. Teachers plan their small group instruction based on student data, reading level, and the learning progressions for each unit. The teachers plan small groups ahead of time based on the data they collect and also pull small groups of students based on observational data from the lesson in order to reinforce or scaffold the students' learning. Simone not only provided the teachers with in-the-moment coaching and tips, she also modeled instruction in some of our classrooms and left each teacher with written feedback. Our teachers use this feedback to plan future small groups and sometimes work with their colleagues to develop other strategies and effective lessons. Simone will be available to us via email for the rest of the year as we end the year with our final new reading units. This is helpful to our teachers as they embark on teaching new content as a valuable resource and coach.

**Hurlbutt Elementary School**

**Laura Kaddis, Principal**

*In this issue...Hurlbutt Celebrates a Positive School Climate  
Community Outreach  
Teaching and Learning  
Science*

## HURLBUTT CELEBRATES A POSITIVE SCHOOL CLIMATE

At our monthly assemblies we recognize students for being safe, kind and responsible. Different staff members are chosen to announce the names making this a collaborative effort. This month we also tied in our Earth Day activities kick off. Our students are learning how they can be safe, kind and responsible to the earth. Together we took the following pledge:

I promise to take care of the Earth.  
I will REDUCE the amount of trash I make.  
I will REUSE things instead of throwing them out.  
I will RECYCLE items that can be made into something new.  
I will work to make the world a better place for everyone.

Our students already know about recycling, as it is part of the cafeteria and classroom cleanup procedures. All areas have recycling bins, and it is a familiar and routine practice for them. At the assembly we gave examples of ways our students could reduce, reuse, and recycle at school. We also gave them a challenge that really got them excited and thinking creatively about ways to reduce trash in our school. We are all going to embark on a trash free snack day in the classrooms. Each class is brainstorming ways they can bring a snack to school without having ANY trash left after they eat! As with many of our activities and assemblies, we included a song to help our students learn the vocabulary and reason for our Earth Day focus. This catchy tune, which is sung to the tune of "The More We Get Together," was a big hit with our students.

Reduce Reuse Recycle  
Recycle.....recycle  
Reduce Reuse Recycle  
It's easy to do.  
'Cause your trash  
And my trash  
Make up way  
Too much trash  
Reduce, Reuse, Recycle  
It's easy to do!

We hope our students and families will be inspired to find other way to be kind and responsible with our earth.

## COMMUNITY OUTREACH



As part of their persuasive writing unit and social studies curriculum, our kindergarten teachers wrote a letter to their class about a problem they noticed in our community: some families in Weston do not have enough food to eat. The children then wrote a letter to their own families to persuade them to take on the 'Paper Bag Challenge.' The children challenged each other and their families to bring in non-perishable food items in a paper bag to donate to Weston Food Pantry. The food pantry helps more than 100 families right

here in Weston. Each day more and more paper bags filled with food were brought into school. The children were so excited to see how their persuasive letters inspired their audience to contribute to this worthwhile cause. The Caird kindergarten class collected 19 paper bags of food! They were so excited to be able to walk over to the food pantry as a class and see their hard work fill the shelves for families in need. Even our youngest learners are seeing firsthand how they can make a positive impact on their community.

## TEACHING AND LEARNING



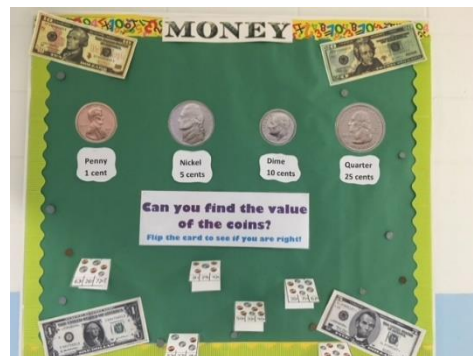
Second grade students are strengthening their math skills throughout the year through games. As part of the math workshop design, students have time during the math block to play math games with partners, or in a small group. These games help build and reinforce fact fluency in a fun and engaging way. While playing the games, the students are also communicating with each other, and of course are practicing good sportsmanship if their partner wins. Pictured here are second grade math students playing Race to Ten. This game uses three die. After rolling all three, the student has to look for friendly numbers to add. By doing so, they are looking

for combinations of 10 which makes the process of adding these numbers much easier. For example, if



a student rolls an 8, 6 and 4, we would expect them to notice that the 6 and 4 make 10 and then adding 8 to that number is very easy since they know that 10 and 8 is 18. This makes it much more efficient than trying to add the 8 and 6 or the 8 and 4. These mental math strategies are lifetime skills that our students use throughout their lives.

In a world where currency has become increasingly virtual, our students love our hands-on money unit of study. Beginning in kindergarten, our young mathematicians create and build their coin scheme throughout the year. They use pennies as counters and are beginning to identify the coins. During purposeful play you will find many students exploring money and talking about currency during pretend play.

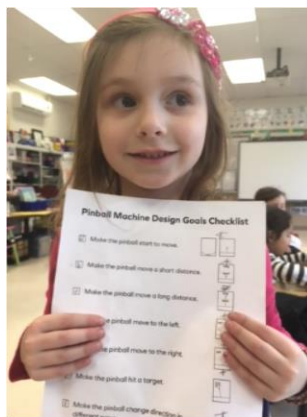


In first grade, our students continue to build and develop their number sense and experiences with money. At this grade level, our students are adding and subtracting numbers to 100. They begin to explore combinations of money and how to write amounts using the dollar and cents signs.

Having had two years of experience in school with money, our second graders have developed strong skills and problem solving abilities. Using money, they are now solving word problems involving dollar bills, quarters, dimes, nickels, and pennies and using \$ and ¢ symbols appropriately in many different combinations. The essential questions for our money unit include: How do we compare amounts of money? How do we write money amounts? As a result of the activities and experiences we provide, by the end of second grade our second graders should be able to show, write, and count money amounts using bills and coins up to \$20, compare amounts of money, and solve real-world problems involving addition and subtraction of money. This unit of study is the perfect opportunity for families to extend and continue the learning at home. Does your child earn allowance? Have your child keep a log of weekly allowance. They can keep a running total and practice their addition and subtraction skills. How many more dollars do they need to get to a certain amount? When they buy something they can subtract that amount to keep track of what they have remaining. They may want to exchange all of their one dollar bills for other denominations. Another fun activity is to add up all the spare change their find in the house. Who doesn't love to find hidden money in the couch!



Jackson and Riese in Ms. Grosso's class



Hudson Silver in Ms. Grosso's class

## SCIENCE

During a recent pilot unit of study for the Next Generation Science Standards, two of our kindergarten classes were pinball engineers! The excitement and enthusiasm was sky high as our young engineers discussed, built, and tested their designs. They learned that engineers find out about a problem, design a solution, and communicate their ideas. They used a checklist to make sure they had all the essential components of their pinball machine during the design phase. During the test phase, other teachers and staff members visited the class and our students demonstrated their pinball machines. We were able to ask the students questions about what forces were at work. Was it a pull or push force that made the ball move? How much force was used to make the ball go a short distance vs. a long distance?