

Tuesday, October 11, 2022
Medway Planning and Economic Development Board
155 Village Street
Medway, MA 02053

ZOOM MEETING

Member	Matt Hayes Chair	Bob Tucker	Jessica Chabot	Sarah Raposa	Rich Di Iulio	Tom Gay Assoc. Member
Attendance	X	X	Absent with Notice	X (Joined meeting at 7:44 p.m.)	X	X

PRESENT:

Barbara J. Saint Andre, Director of Community and Economic Development
Susan E. Affleck-Childs, Community and Economic Development Coordinator

The meeting was called to order by Chair Hayes at 7:00 pm

There were no Citizen Comments.

**Public Hearing Continuation 2 Marc Road – CommCan – Modification to
Previously Approved Site Plan**

The Board is in receipt of the following: **(See Attached)**

- Notice dated September 15, 2022, to continue the public hearing on the proposed modification to the previously approved 2 Marc Road Site Plan, etc., to October 11, 2022.
- Email from project engineer Dan Merrikin dated October 6, 2022, requesting a continuation of the hearing to October 25, 2022.

The applicant is seeking a continuation of the hearing to the Board's next meeting (October 25, 2022).

On a motion made by Rich Di Iulio, seconded by Bob Tucker, the Board voted by roll call to continue the public hearing for 2 Marc Road to October 25, 2022, at 8:30 pm.

Roll Call Vote:

Rich Di Iulio aye

Matt Hayes aye

Bob Tucker aye

The motion passed unanimously.

Construction Services Estimates

The Board is in receipt of the following: **(See Attached)**

- Tetra Tech Construction Services Estimate for Milford Hospital Medical Facility (86 Holliston Street) dated 10/4/2022
- Tetra Tech Construction Services Estimate for Phytopia (6 Industrial Park Road) dated 10/4/2022
- Tetra Tech Construction Services Estimate for Wingate Farm Subdivision (168 Holliston Street and Wingate Farm Road) dated 10/4/2022

Phytopia:

The Board is in receipt of a construction services estimate in the amount of \$13,728.00 for Phytopia.

On a motion made by Bob Tucker, seconded by Rich Di Iulio, the Board voted by roll call to approve the construction estimate in the amount of \$13,728.00 for Phytopia.

Roll Call Vote:

Rich Di Iulio aye

Matt Hayes aye

Bob Tucker aye

The motion passed unanimously.

Milford Hospital Medical Facility:

The Board is in receipt of a construction services estimate in the amount of \$14,851.00 for 86 Holliston Street.

On a motion made by Bob Tucker, seconded by Rich Di Iulio, the Board voted by roll call to approve the construction estimate in the amount of \$14,851.00 for 86 Holliston Street.

Roll Call Vote:

Rich Di Iulio aye

Matt Hayes aye

Bob Tucker aye

The motion passed unanimously.

Wingate Farm Subdivision

The Board is in receipt of a construction services estimate in the amount of \$ 8,064 for Wingate Farm. The Board is also in receipt of an email from Gene & Karyl Walsh regarding the Tetra Tech Construction Observation Estimate. **(See Attached)** The applicant has asked that Item #2 be reduced from 12 hours to 6 hours thus reducing the estimate from \$1284 to \$642 and also that Item #5 be reduced from 12 hours to 6 hours, thus reducing the estimate from \$1284 to \$642. There are currently remaining funds in the previous construction account for this project and in the current plan review account which the applicant would like to roll over into the new construction account.

After discussion, the Board is comfortable reducing the estimate by \$449.40 from the \$8064.00 for a total of \$7,614.00.

On a motion made by Bob Tucker, seconded by Rich Di Iulio, the Board voted by roll call to approve the reduction of the construction estimate to \$7,614.00.

Roll Call Vote:

Rich Di Iulio **aye**

Matt Hayes **aye**

Bob Tucker **aye**

The motion passed unanimously.

Land Use Code Review

The Board is in receipt of the following: **(See Attached)**

- Memo to PEDB from Stephanie Carlisle, DPW Compliance Coordinator, dated October 5, 2022
- Code Assessment Report for Medway, by Woodard & Curran, dated May 2022

Stephanie Carlisle, DPW Compliance Coordinator was present via Zoom. Ms. Carlisle explained some of the important things pertaining to stormwater management and energy conservation that are being done in town. As part of the Town's MS4 permit requirements this year, a review of the land use regulations was conducted by Woodard and Curran to address stormwater and impervious cover. The review has identified ways to improve the design standards to support low impact design and stormwater solutions. A multi-phased approach to implement changes has been proposed to support the Town's compliance with the MS4 permit. One recommendation is for applicants to provide phosphorus removal calculations within the site plan submittals so that those numbers can be provided to the Compliance Coordinator for submittal to the EPA's Best Management Practices Accounting and Tracking Tool. It was also suggested that there be an updating of the *Subdivision Rules and Regulations* which were last updated in 2005. It was suggested that some needed zoning changes be presented at the May 2023 town meeting.

The phosphorous removal requirements were explained. The town needs to remove 882 pounds of phosphorus by 2038. Currently, we the town claims credit for removing approximately 9 lbs. of phosphorus. This comes from the following: High School, Burke- Memorial Elementary, Candlewood Dr. etc. The town is working with Woodard and Curran to develop a plan to assist the town in meeting the phosphorous removal requirements. There were questions about what happen with the phosphorous

Ms. Carlisle also noted that the EPA has decided to implement its residual designation authority on private commercial, industrial, and institutional properties that are one acre or greater in size in the Mystic, Neponset, and Charles River Watersheds. The result of this would be that such properties will need to have a NPDES permit. The permit has not been created yet. The draft will be provided when she receives it. The EPA will inform property owners about the new requirements. There is an upcoming meeting about this which will take place on 11-1-22.
NOTE - Member Raposa joined the meeting at 7:44 pm.

The Town will also need to look to update the EV and Charging Station Infrastructure provisions in the zoning bylaw and adopt the new Stretch Code Update. The DOER has been working to update the Stretch Code and is adding a special opt-in for an even higher level of stretch code. This is currently in front of the Joint Committee on Telecommunications, Utilities, and Energy. Once this is completed, the TUE Committee Review will be filed with the Secretary of State in December 2022 for final review. The town is not pursuing the special opt in stretch code at this time. This is something that the Building Department would be responsible to enforce. The Town is also participating in the multi-town Charles River Flood Model. The town has completed the Phase II in June 2022. The town was selected as a site to develop preliminary concept designs for incorporating additional stormwater BMPs for flood mitigation. Oakland Park was the selected site. The Phase III of this is currently happening. The goal of this is to develop more concept designs, refine the flood model, and develop training programs for municipal employees to be able to conduct their own culvert assessments.

Newton Lane Street Acceptance

The Board is in receipt of the following: **(See Attached)**

- Memo to PEDB from Susy Affleck-Childs dated 10/5/2022
- Street Acceptance Plan by Dan O'Driscoll Land Surveying dated 10/7/2022
- 7 Newton Lane Easement Deed
- 8 Newton Lane Easement Deed

The Board was informed that the PEDB, Conservation Commission, Community and Economic Development Department and Town Counsel are working with the representative of the developer of the Hartney Acres subdivision toward street acceptance for Newton Lane to be considered at the November 14 , 2022 town meeting. The Board was informed that there was an inspection on site today. The applicant is working on the sidewalk easement for Lot 5 and Lot 4. There was consent from the owners. There are documents drafted regarding the easement which are currently being reviewed by town counsel. Once the documents are approved, they will need to be notarized and recorded. The Board was informed that it needs to respond to the Select Board's request for a recommendation on the layout of Newton Lane in preparation for its hearing on October 17th.

On a motion made by Sarah Raposa, seconded by Rich Di Iulio, the PEDB recommend to the Select Board lay out the following roadway as a public way known as Newton Lane in its entirety from Station 0+00 at its intersection with Nobscot Road to its terminus at station 9+91.18 as shown on Street Acceptance & As-Built Plan, Hartney Acres II, Newton Lane, Medway, MA dated October 7, 2022, prepared by CMG Engineering of Sturbridge, MA and O'Driscoll Land Surveying, Inc. of Medway, MA

Roll Call Vote:

Rich Di Iulio aye

Matt Hayes aye

Bob Tucker aye

Sarah Raposa aye

The motion passed unanimously.

PEDB MEETING MINUTES

September 27, 2022:

On a motion made by Sarah Raposa, seconded by Rich Di Iulio, the Board voted by roll call to approve the regular minutes from September 27, 2022.

Roll Call Vote:

Rich Di Iulio aye

Matt Hayes aye

Bob Tucker aye

Sarah Raposa aye

The motion passed unanimously.

Executive Session Minutes September 27, 2022:

- The executive session minutes from September 27, 2022, will be held over until the October 25, 2022, meeting.

2023 Planning Board Meeting Schedule

The Board is in receipt of the draft schedule for 2023 PEDB meetings for the second and fourth Tuesday nights of each month. (See Attached)

The Board decided to not meet on December 26, 2023.

On a motion made by Sarah Raposa, seconded by Rich Di Iulio, the Board voted by roll call to approve the 2023 Planning Board Meeting Schedule as amended.

Roll Call Vote:

Rich Di Iulio aye

Matt Hayes aye

Bob Tucker aye

Sarah Raposa aye

The motion passed unanimously.

Construction Reports

The Board is in receipt of the following: (See Attached)

- Cutler Place progress report from Ron Tiberi, dated September 29, 2022
- 22 Evergreen Road progress report from Ron Tiberi, dated September 29, 2022

Public Hearing – Proposed Zoning Bylaw Amendments for November 14, 2022 Town Meeting:

The Board is in receipt of the following: (See Attached)

Proposed Amendments

- Battery Energy Storage Systems

- Solar Electric Installations
- Table 1 Schedule of Uses Section 5.4E, Industrial Uses
- Mitigation
- Multifamily Housing
- Housekeeping
- Table 1 Schedule of Uses
- Oak Grove and Central Business
- Contractor's Quarters

Additional Documents:

- DEP Wetlands Program Policy 17-1: Photovoltaic System Solar Array Review
- Mass Audubon, Losing Ground.

The Board is in receipt of a memo from Eamon McGilligan of Eversource, dated September 27, 2022 regarding the draft of the proposed Medway bylaw for Battery Energy Storage Systems. **(See Attached)**. Several representatives of Eversource were present via Zoom including Jared Blandino, Eamon McGilligan and Ken Collette. They explained that the inclusion of the Eversource interconnection equipment in the definition of BESS would require the company have to meet additional zoning requirements not already applicable to the existing inter-connection equipment. They do not think this is fair. These are allowed under the existing bylaw by special permit or as of right as a “public utility” use. If there is additional equipment needed within the substation property, it should not be subject to a different standard. Eversource would like the definition to be amended to exclude public utility interconnection.

The representatives also are concerned that the proposed bylaw limits the placement of a BESS over 600 MWh to the Town's Energy Resources District without consideration for whether there are other appropriate locations for such facilities. Eversource would like to work with local officials to discuss how the safety standards incorporated into the proposed bylaw amendment coupled with proper design, operational plans, and training will make these facilities safe and can be sited elsewhere in the town rather than only limited to the Energy Resource District. They would like to identify appropriate siting strategies to address local public safety and aesthetic concerns. They would like to request reconsideration of such a restriction. Eversource also suggested raising the top size for a Tier 1 BESS to 1000 kWh and the bottom size for a Tier 2 BESS to 1000 kWh.

Their last concern is that the proposed bylaw places restrictive setback requirements particular to BESS that could be challenging for a relatively small battery project to meet. Eversource explained that they are not aware of a fire safety basis for a minimum 50 ft setback for BESS equipment, or a 100 feet setback from a residential property line or residential district that is included in the current draft. It is recommended that the setbacks be tailored to particular zoning districts. They are concerned about the setback language when a BESS is co-located with small solar project be developed in response to Section 77 of Chapter 8 which is an act creating a next generation roadmap for MA climate policy. The BESS associated with such projects would be over the Tier 1 threshold in size and now would be subject to very restrictive setback requirements for rooftop solar projects or solar parking canopies that could be part of a distributed generation network that could power critical infrastructure and businesses within a town during outages.

Resident Charlie Myers provided an email dated October 7, 2022. **(See Attached)** Mr. Myers was also present by Zoom. He communicated the following:

- Restrict the placement of Tier 2 BESS to the Energy Resource District
- Safety setbacks do not take into account the associated issues.
- The town needs to determine what setbacks are needed.
- Design the zoning bylaw to cover multiple BESS technologies
- Concern about the environmental issues (groundwater contamination from fire suppression in response to thermal events, the creation of possible “heat islands” from the collective heat removal systems associated with BESS

The next item discussed was the definition of BESS. This was taken from the model New York Bylaw. The Board would like to review the setbacks further.

Resident Paul Yorkis was present and is concerned about a fire at these sites. The proposals submitted need to look at the proximity of other residents. The approach is to look at each application and site based on the proximity of the BESS to the environmental resources in the area. Mr. Yorkis also wants reference that there be language that the project needs to comply with all state codes.

Resident Steve Broady referenced the Section #3 regarding the lighting. He wanted to know what whether safety supersedes lighting. The Board explained that there is an option for the applicant to go to the Zoning Board of Appeals if an applicant’s safety lighting needs exceed the allowed lighting. He also wanted to know if there is anything planned within 50 ft of a residential neighborhood.

There was a recommendation to further review the language regarding setbacks and to draft some text to allow the Board to reduce the 100’ setbacks under certain circumstances and to meet again to discuss.

On a motion made by Rich Di Iulio, seconded by Sarah Raposa, the Board voted by roll call to recommend all the warrant articles with the exception of the BESS Article.

Roll Call Vote:

Rich Di Iulio	aye
Matt Hayes	aye
Bob Tucker	aye
Sarah Raposa	aye

The motion passed unanimously.

On a motion made by Rich Di Iulio, seconded by Sarah Raposa, the Board voted by roll call to continue the public hearing to October 17, 2022, at 6:00pm.

Roll Call Vote:

Rich Di Iulio	aye
Matt Hayes	aye
Bob Tucker	aye
Sarah Raposa	aye

The motion passed unanimously.

Member Di Iulio informed the Board that due to various circumstances he will be resigning from the Board.

ADJOURN:

On a motion made by Rich Di Iulio, seconded by Sarah Raposa, the Board voted by roll call vote to adjourn the meeting.

Roll Call Vote:

Rich Di Iulio aye

Matt Hayes aye

Bob Tucker aye

Sarah Raposa aye

The motion passed unanimously.

The meeting was adjourned at 9:30 p.m.

Prepared by,
Amy Sutherland
Recording Secretary

Reviewed and edited by,
Susan E. Affleck-Childs
Planning and Economic Development Coordinator



October 11, 2022

**Medway Planning & Economic Development Board
Meeting**

**2 Marc Road – CommCan - Modification
to Previously Approved Site plan,
Marijuana Special Permits, and
Groundwater Protection Permit**

- Notice dated September 15, 2022, to continue the 2 Marc Road Modification to Previously Approved Site Plan, etc., public hearing to October 11, 2022.
- Email from Dan Merrikin dated October 6, 2022, requesting a continuation to October 25, 2022.

Board Members

Matthew J. Hayes, P.E., Chair
Robert Tucker, Vice Chair
Richard Di Iulio, Clerk
Jessica Chabot, Member
Sarah Raposa, A.I.C.P., Member
Thomas Gay, Associate Member



Medway Town Hall
155 Village Street
Medway, MA 02053
Phone (508) 533-3291
Fax (508) 321-4987
Email: planningboard@townofmedway.org
www.townofmedway.org

TOWN OF MEDWAY

COMMONWEALTH OF MASSACHUSETTS

PLANNING AND ECONOMIC DEVELOPMENT BOARD

MEMORANDUM

September 15, 2022

TO: Stefany Ohannesian, Town Clerk
Town of Medway Departments, Boards and Committees

FROM: Susy Affleck-Childs, Planning and Economic Development Coordinator

RE: ***Public Hearing Continuation for CommCan – Modification to Previously
Approved Site Plan, Marijuana Special Permits, and Groundwater Protection
Special Permit for 2 Marc Road
Continuation Date – Tuesday, October 11, 2022 at 7:00 p.m.***

At its September 13, 2022 meeting, the Planning and Economic Development Board voted to continue the public hearing on the application of 2 Marc Road LLC of Millis, MA for approval of modifications to the previously approved major site plan, marijuana special permits, and groundwater protection district special permit for its existing marijuana cultivation and processing establishment (CommCan) at 2 Marc Road to the Board's meeting on Tuesday, October 11, 2022 at 7:00 p.m. at Medway Town Hall, 155 Village Street. The meeting will also be available via Zoom.

The proposal is to construct a two-story, 20,000 sq. ft. addition (10,000 sq. ft. footprint) and loading dock at the rear of the existing building to be used for the processing of products, a beverage canning operation, and storage. The proposal also includes constructing a 56 vehicle parking area in the previously disturbed easterly portion of the site with a connecting driveway to the existing access driveway from Marc Road. The existing parking area in front of the building will be modified to include additional handicap spaces and parking spaces for charging electric vehicles. The existing driveway around the building will also be modified to accommodate the building addition and loading dock. The site work includes expanded stormwater management facilities and other site amenities. The property includes wetland resources which are under the jurisdiction of the Medway Conservation Commission for an Order of Conditions and a Land Disturbance permit.

The planned work is shown on a plan titled *2 Marc Road Site Plan of Land in Medway, MA* dated February 28, 2022, last revision August 26, 2022, prepared by Legacy Engineering of Millis, MA. The architectural drawings and renderings dated February 24, 2022 were prepared by UDA Architects of Walpole, MA. Project information is posted at: <https://www.townofmedway.org/planning-economic-development-board/pages/2-marc-road-commcan-special-permit-and-site-plan>

We invite you to review the revised plan and provide comments to Anna Rice and me.

Anna Rice

From: Susan Affleck-Childs
Sent: Thursday, October 6, 2022 4:53 PM
To: Anna Rice
Cc: Barbara Saint Andre; Matthew Hayes
Subject: FW: [External] 2 Marc Road

Hi,

2 Marc Road wants a PH continuation to the October 25th meeting. See email below from Dan Merrikin. Please save this email as a pdf and file it in the project file under PH continuations.

So, for the 2 Marc Road info for the board packet for the 10-11 pedb mtg, all you need to include is the PH cont notice to 10-11 and this email from Dan. We don't need to include all the other items I have sent you. Please start a board packet folder for the 10-25 pedb mtg and a sub-folder for 2 Marc Road and move everything there.

Thanks.

Susy

From: Daniel Merrikin <dan@legacy-ce.com>
Sent: Thursday, October 6, 2022 3:39 PM
To: Susan Affleck-Childs <sachilds@townofmedway.org>
Subject: [External] 2 Marc Road

Hi Susy,

Per our discussion, we request a continuance without discussion at next week's Planning Board meeting. We would like to continue the meeting until October 25th. Ellen has a 7:00 meeting that night, so if possible she would appreciate a meeting time around 8:30 so she can be present.

Thanks and feel free to call my cell if you have any questions (508-868-8353).

Dan

Daniel J. Merrikin, P.E.
President



Legacy Engineering LLC
730 Main Street
Suite 2C
Millis, MA 02054



October 11, 2022

**Medway Planning & Economic Development Board
Meeting**

Construction Services Estimates

- Tetra Tech Construction Services Estimate for 86 Holliston Street, dated 10/4/2022
- Tetra Tech Construction Services Estimate for 6 Industrial Park Road, dated 10/4/2022
- Tetra Tech Construction Services Estimate for Wingate Farm, dated 10/4/2022

**TETRA TECH**

86 Holliston Street
 PEDB/CC Construction Administration Budget
 October 4, 2022

Item No. ¹	Inspection	Visits	Hrs/Inspection ²	Rate	Total
1	Pre-Construction Meeting	1	4	\$172	\$688
2	Erosion Control/SWPPP Inspections/Review Reports	12	2	\$107	\$2,568
3	Subgrade/Staking/Rough Grading	1	4	\$107	\$428
4	Stormwater: Subsurface Infiltration Systems (3)	6	4	\$107	\$2,568
5	Stormwater: Rain Garden + Rip-Rap Trench	3	4	\$107	\$1,284
6	Stormwater: Piped Infrastructure	2	4	\$107	\$856
7	Site Subbase Gravel/Fine Grading	1	4	\$107	\$428
8	Curbing	1	4	\$107	\$428
9	Binder Course Paving	1	6	\$107	\$642
10	Top Course Paving	1	6	\$107	\$642
11	Landscaping	1	6	\$107	\$642
12	Punch List/Bond Estimate ³	2	4	\$107	\$856
13	As-Built Review ⁴	1	4	\$172	\$688
14	Field Changes/Change Orders	1	4	\$172	\$688
15	Meetings	6	0.5	\$172	\$516
16	Admin	1	3	\$74	\$222
	Subtotal				\$14,144
	Expenses			5.0%	\$707
	TOTAL				\$14,851

Notes:

¹ Each item includes site visit, inspection and written report and is based on current TT/Medway negotiated rates through June 2023.

² If installation schedule is longer than that assumed by engineer for any item above, or if additional inspections are required due to issues with the contract work, additional compensation will be required.

³ This item includes a substantial completion inspection, punch list memo and bond estimate provided to the town. It also includes one final inspection to verify that comments from the list have been addressed and one revision to the list/estimate if required.

⁴ This item includes review of as-built plans and review letter.

Date Approved by Medway PEDB _____

Certified by: _____

Susan E. Affleck-Childs
Medway PEDB Coordinator

_____ **Date**



6 Industrial Park Rd (Phytopia)
PEDB/CC Construction Administration Budget
October 4, 2022

Item No. ¹	Inspection	Visits	Hrs/Inspection ²	Rate	Total
1	Pre-Construction Meeting	1	4	\$172	\$688
2	Erosion Control/SWPPP Inspections/Review Reports	12	2	\$107	\$2,568
3	Subgrade/Staking/Rough Grading	1	4	\$107	\$428
4	Stormwater: Subsurface Detention System	2	4	\$107	\$856
5	Stormwater: Subsurface Infiltration Systems (2)	4	4	\$107	\$1,712
6	Stormwater: Rain Garden	2	4	\$107	\$856
7	Stormwater: Piped Infrastructure	1	4	\$107	\$428
8	Site Subbase Gravel/Fine Grading	1	4	\$107	\$428
9	Curbing	1	4	\$107	\$428
10	Binder Course Paving	1	6	\$107	\$642
11	Top Course Paving	1	6	\$107	\$642
12	Landscaping	1	4	\$107	\$428
13	Punch List/Bond Estimate ³	2	4	\$107	\$856
14	As-Built Review ⁴	1	4	\$172	\$688
15	Field Changes/Change Orders	1	4	\$172	\$688
16	Meetings	6	0.5	\$172	\$516
17	Admin	1	3	\$74	\$222
	Subtotal				\$13,074
	Expenses			5.0%	\$654
	TOTAL				\$13,728

Notes:

¹ Each item includes site visit, inspection and written report and is based on current TT/Medway negotiated rates through June 2023.

² If installation schedule is longer than that assumed by engineer for any item above, or if additional inspections are required due to issues with the contract work, additional compensation will be required.

³ This item includes a substantial completion inspection, punch list memo and bond estimate provided to the town. It also includes one final inspection to verify that comments from the list have been addressed and one revision to the list/estimate if required.

⁴ This item includes review of as-built plans and review letter.

Date Approved by Medway PEDB _____

Certified by: _____

Susan E. Affleck-Childs
Medway PEDB Coordinator

_____ Date



Wingate Farm
PEDB/CC Construction Administration Budget
October 4, 2022

Item No. ¹	Inspection	Visits	Hrs/Inspection ²	Rate	Total
1	Pre-Construction Meeting	1	4	\$172	\$688
2	Erosion Control/SWPPP Inspections/Review Reports	6	2	\$107	\$1,284
3	Subgrade/Staking/Rough Grading	1	4	\$107	\$428
4	Stormwater: Swales/Infiltration Depressions (2)	1	4	\$107	\$428
5	Stormwater: Roof Infiltration (3)	3	4	\$107	\$1,284
6	Stormwater: Piped Infrastructure	1	4	\$107	\$428
7	Gravel Roadway	1	4	\$107	\$428
8	Punch List/Bond Estimate ³	2	4	\$107	\$856
9	As-Built Review ⁴	1	4	\$172	\$688
10	Field Changes/Change Orders	1	4	\$172	\$688
11	Meetings	3	0.5	\$172	\$258
12	Admin	1	3	\$74	\$222
	Subtotal				\$7,680
	Expenses			5.0%	\$384
	TOTAL				\$8,064

Notes:

¹ Each item includes site visit, inspection and written report and is based on current TT/Medway negotiated rates through June 2023.

² If installation schedule is longer than that assumed by engineer for any item above, or if additional inspections are required due to issues with the contract work, additional compensation will be required.

³ This item includes a substantial completion inspection, punch list memo and bond estimate provided to the town. It also includes one final inspection to verify that comments from the list have been addressed and one revision to the list/estimate if required.

⁴ This item includes review of as-built plans and review letter.

Date Approved by Medway PEDB _____

Certified by: _____

Susan E. Affleck-Childs
Medway PEDB Coordinator

Date



October 11, 2022

**Medway Planning & Economic Development Board
Meeting**

Land Use Code Review

- Memo to PEDB from Stephanie Carlisle, DPW Compliance Coordinator, dated October 5, 2022
- Code Assessment Report for Medway, by Woodard & Curran, dated May 2022



TOWN OF MEDWAY
COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC WORKS

Medway DPW Office
45B Holliston Street
Medway, MA 02053
Phone (508) 533-3275
Fax (508) 321-4985
dps@townofmedway.org

DPW Director

Peter Pelletier

Deputy Director

Sean Harrington

Memorandum

October 5, 2022

TO: Medway Planning and Economic Development Board
FROM: Stephanie Carlisle, DPW Compliance Coordinator
RE: Stormwater management and energy conservation updates

The purpose of this memo is to bring the PEDB up to date on some important matters related to stormwater management and energy conservation.

1) Rules and Regulations Review for Year 4 MS4 Permit Requirements

- a) Reviewed our land use regulations that affect the creation of impervious cover. Contracted with Woodard & Curran to facilitate the review. The report identified ways to improve the Town's various design standards to support low impact design and nature-based stormwater solutions as well as ways we can reduce impervious cover. The *Zoning Bylaw*, *Subdivision and Site Plan Rules and Regulations*, and the *Stormwater and Land Disturbance Bylaw* were some of the priority documents reviewed as part of this project. Report is attached. This was a team effort which included PEDB and Conservation staff.
- b) For the next steps, we are proposing a multi-phased approach to implement these needed changes to stay in compliance with the Town's MS4 Permit requirements and build Medway's resilience to climate change.

i) First Phase – Proposed amendments to the *Site Plan Rules and Regulations*

(1) Application sections of the *Site Plan Rules and Regulations*

- (a)** Require applicants to provide phosphorus removal calculations within site plan submittals so DPW Compliance Coordinator can enter that data into the EPA's BMP Accounting and Tracking Tool (BATT) as part of our ongoing compliance reporting. (BMP = Best Management Practices).

Example table:

For each BMP include:	
BMP Type	
Drainage Area land use type - Pervious (acres)	
Drainage Area land use type - Impervious (acres)	
Soil type	
Storage volume	
infiltration rate (if applicable)	

- (b)** Require the Stormwater Operations and Maintenance Plan as a sheet in the site plan set to ensure ongoing stormwater maintenance protocols are adhered to and are not lost as Town personnel changes.

- (2) Development Standards section of the *Site Plan Rules and Regulations*
 - (a) Require use of the NOAA Atlas + precipitation projections in stormwater design calculations to increase the Town's resilience to more frequent and intense storms.
 - (b) Prioritize nature-based solutions as opposed to sub-surface proprietary structures for stormwater water quality management.
- (3) Amendments to the *Site Plan Rules and Regulations* require a public hearing and approval by the PEDB.

ii) Second Phase

- (1) Comprehensive update to the *Subdivision Rules and Regulations*
 - (a) More involved undertaking than *Site Plan Rules and Regulations* since the last update was in 2005.
- (2) Zoning Bylaw updates
 - (a) Need time to prepare for Town Meeting Approval (tentative May 2023).
Amendment discussion item example: discuss possibly of changing the off-street parking space requirements from default minimums to default maximums to reduce unnecessary impervious cover.
- (3) Stormwater Management and Land Disturbance Bylaw updates (tentative May 2023)
 - (a) Land Disturbance permit review – steered by Conservation and PEDB
 - (b) MS4 Connection & Discharge Permit review – steered by DPW

2) Phosphorus Removal Requirements

- a) Building the Town's Phosphorous Control Plan (PCP) over the next year with assistance from Woodard & Curran. The Town needs to remove 882 pounds of phosphorus by 2038. As of now, we can claim credit for removing approximately 9 pounds of phosphorus, which is based on the stormwater BMPs at the High School, Burke-Memorial Elementary School, Oakland Park, Choate Park/Thayer House, and Candlewood Drive. The DPW restored the Candlewood Drive basin in the spring of 2022. We are working closely with Woodard & Curran to develop the PCP to and determine how the Town can meet these requirements.

3) EPA decision to implement its Residual Designation Authority on private commercial, industrial, and institutional properties one acre or greater in the Mystic, Neponset, and Charles River Watershed.

- a) These properties will need have their own NPDES permit similar to the town's MS4 Permit requirements. We do not know: what the permit is yet, when a draft will be available, how the EPA plans to inform property owners about the new requirements, what the requirements actually are, how will this affect the Town's MS4 phosphorus removal requirements, how will the EPA implement and enforce this permit and is there a role for the municipality?
- b) Visit this link for more details: <https://www.epa.gov/newsreleases/epa-implements-advanced-effort-protect-water-quality-three-boston-area-river>

4) EV and Charging Station Infrastructure/ Stretch Code update

- a) Department of Energy Resources (DOER) has been working on an updated Stretch Code and a Special Opt-In Stretch Code. Their proposed Final Regulations in front-end amendment format have been submitted to the Joint Committee on Telecommunications, Utilities, and Energy in accordance with MGL Ch 25a Section 12. Following the completion of the TUE Committee review, these regulations will be filed with the Secretary of State in December 2022 for final promulgation.
- b) Use this link to read the Stretch Code: <https://www.mass.gov/info-details/stretch-energy-code-development-2022#new!-release-of-final-code-language-for-stretch-code-update-and-new-specialized-stretch-code->
- c) What does this mean for Medway?
 - i) We are a Green Community and therefore are required to adopt the Stretch Code. We are not pursuing the Special Opt-In Stretch Code at this time.

- ii) Stretch Code enforcement is a responsibility of the Building Department, but it may come into play for PEDB in site plan review or in *Zoning Bylaw* updates because of the electric vehicle (EV) infrastructure requirements.
 - iii) Currently, Zoning Bylaw requires certain numbers of EVs based on parking lot sizes. This will need to be reviewed and revised for consistency with the Stretch Code.
- 5) New municipal building construction
- a) Stormwater management, climate resilience strategies, and energy efficiency strategies should be considered at any new or renovated municipal building.
 - b) The Energy and Sustainability Committee has discussed their interest in these upcoming projects and would make a good partner and collaborator.
- 6) Charles River Flood Model update – TEXT needed here.
- a) Completed Phase II in June 2022. Medway was selected as one of the sites to develop preliminary concept designs for incorporating additional stormwater BMPs for flood mitigation. Oakland Park was the selected site. The model was also refined with more accurate infrastructure data from municipalities GIS layers, updated with more accurate precipitation projections, and we added new scenarios to test against the model. Incorporating green stormwater infrastructure (GSI), reducing impervious cover, and managing ponds for additional storage were the strategies that made the biggest impact in flood reduction at the watershed scale.
 - b) Phase III is beginning now. We are focusing on developing more concept designs, refining the flood model, and developing a training program for municipal employees to conduct our own culvert assessments.

Thank you for your time and I look forward to working with the PEDB as we implement these changes.

Sincerely,



Stephanie Carlisle
DPW Compliance Coordinator
Energy and Sustainability Committee Staff Contact



**CODE
ASSESSMENT
REPORT
TOWN OF
MEDWAY, MA**

250 Royall Street | Suite 200E
Canton, MA 02021
800.426.4262

woodardcurran.com

0234166.04
Medway, MA
May 2022

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Appendix A:	Code and Ordinance Worksheet
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1. PURPOSE AND OBJECTIVES

The U.S. Environmental Protection Agency (EPA) established the National Pollutant Discharge Elimination System (NPDES) program as part of the Clean Water Act (CWA) to regulate discharges to surface water. In Massachusetts, EPA and the Massachusetts Department of Environmental Protection (MassDEP) are the co-permitting authorities that regulate stormwater runoff that enters local water bodies from Municipal Separate Storm Sewer Systems (MS4s) in "Urbanized Areas."

The Town of Medway, Massachusetts (Town) is required to obtain a permit for stormwater discharges from the EPA and MassDEP and is currently covered under a NPDES General Permit for Stormwater Discharges from Small MS4's in Massachusetts (the MS4 General Permit). The MS4 General Permit authorizes the Town to discharge stormwater into waters of the U.S. if the Town maintains and implements a Stormwater Management Plan (SWMP). The MS4 General Permit includes six components called minimum control measures which, when implemented, will result in a reduction in pollutants discharging into receiving waters.

The minimum control measures are:

1. Public Education and Outreach;
2. Public Participation and Involvement;
3. Illicit Discharge Detection and Elimination;
4. Construction Site Stormwater Runoff Control;
5. Post-Construction Stormwater Management in New Development and Redevelopment; and
6. Good Housekeeping and Pollution Prevention.

The Town is committed to working with residents and state and federal environmental agencies to achieve water quality goals and protect public health.

1.1 Purpose

Part 2.3.6. of the MS4 Permit requires this *Code Assessment Report*. Pursuant to parts b. and c. the assessments must include the review of the following:

- Current street design and parking lot guidelines and other local requirements that affect the creation of impervious cover, and if changes to design standards for streets and parking lots can be made to support low impact design options (Part 2.3.6.b.)
- Review local regulations to determine the feasibility of making certain green infrastructure practices allowable when the appropriate site conditions exist (Part 2.3.6.c.). These practices consist of the following:
 - i. Green roofs;

- ii. Infiltration practices such as rain gardens, curb extensions, planter gardens, porous and pervious pavements, and other designs to manage stormwater using landscaping and structured or augmented soils; and
- iii. Water harvesting devices such as rain barrels and cisterns and the use of stormwater for non-potable uses.

The MS4 Permit requires that this evaluation and progress on local code and policy modifications shall be included in the MS4 Permit Annual Report (part 4.4.b.iv.).

1.2 Objectives

This report summarizes the Town of Medway's review of local code and policy that may influence the creation of impervious cover or inadvertently create barriers to green infrastructure installations during property development and redevelopment. To accomplish this task, Town staff from multiple departments reviewed the *Code & Ordinance Worksheet* (COW) developed by the Center for Watershed Protection. The COW is intended to help communities evaluate their local development regulations to identify revisions that allow (or require) property developers to minimize impervious cover, conserve natural areas and use runoff reduction practices to manage stormwater runoff. Section 2.2 of this *Code Assessment Report* further discusses the Worksheet and Appendix A contains a copy of the completed worksheet.

2. METHODOLOGY

2.1 Meetings Summary

Town staff responsible for management of local code and policy relevant to this MS4 Permit requirement met in the late winter of 2022 and early spring of 2022 to discuss the MS4 Permit's Code Assessment requirements and approaches to address these requirements and advanced the review and completion of the COW. Table 2-1 below summarizes these meetings.

When the Town finalized the process of filling out the COW scoring sheet, a copy was emailed to Woodard & Curran for review. Chapters 3, 4, and 5 of this report summarizes Woodard & Curran's review of the COW scoring sheet and identifies a summary of key findings.

Table 2-1: Meetings Summary

Meeting Date	Meeting Goals	Meeting Attendees
3/4/2022	1. Overview of MS4 PY4 Requirements	Stephanie Carlisle, Compliance Coordinator
	2. Identify Key Policy Documents for Review	Peter Pelletier, Department of Public Works (DPW) Director
	3. Identify Team Roles and Next Steps	Sean Harrington, DPW Deputy Director Bridget Graziano, Conservation Agent
4/4/2022	1. Discuss the results entered in the <i>Code and Ordinance Worksheet</i> (COW)	Susan Affleck-Childs, Planning and Economic Development Coordinator Jack Mee, Building Commissioner
	2. Identify Next Steps	

2.2 Code & Ordinance Worksheet Overview

The steps to completing the COW are to:

- Gather codes, ordinances/bylaws, and other relevant policy documents
- Identify authorities who administer the rules
- Select the appropriate COW questions for your community
- Review the regulations to find answers to the COW questions
- Use the COW Scoring Spreadsheet to record answers, points, and notes
- Identify priority actions for the short and long term

The COW is subdivided into four categories and contains 22 principles:

1. Residential Streets and Parking Lots (Principles 1 - 10)
2. Lot Development (Principles 11 - 16)
3. Conservation of Natural Areas (Principles 17 - 22)
4. Runoff Reduction

The first three sections consist of a series of questions that correspond to each of the model development principles. Section four contains questions addressing stormwater management standards, particularly the inclusion of runoff reduction practices. Points are assigned based on how well the current development policies agree with the site planning practices identified in the questions.

For the purposes of this report, the final scoring is less significant than the collaborative process of identifying key policy and identifying where opportunities may exist to improve policies to be more stormwater conscious.

3. MEDWAY CODE REVIEW

The Town reviewed the following code to complete the COW:

- Medway Subdivision Rules and Regulations
- Medway Zoning Bylaw
- Medway Site Plan Rules and Regulations
- Medway General Bylaws
- Medway Stormwater Management and Land Disturbance Bylaw
- Medway Separate Storm Sewer System Connection and Discharge Permit Rules and Regulations
- Massachusetts Wetland Protection Act and Medway's Wetlands Protection Bylaw
- Massachusetts Stormwater Handbook Standards
- Massachusetts Plumbing Code

A table summarizing these policy documents, links to each document, and an overview of the policy is included in Attachment B.

3.1 Policies Affecting Creation of Impervious Cover

The MS4 Permit provides a definition for impervious surface as, "Any surface that prevents or significantly impedes the infiltration of water into the underlying soil. This can include but is not limited to roads, driveways, parking areas, and other areas created using non porous material; buildings; rooftops; structures; artificial turf; and compacted gravel or soil."

Pursuant to Part 2.3.6 b. of the MS4 Permit, this *Code Assessment Report* must assess current street design, parking lot guidelines, and other local requirements that affect creation of impervious cover. The assessment should also be used to determine if changes are necessary for streets and parking lots to incorporate low impact design options. The term low impact development (LID) refers to systems and practices that use or mimic natural processes that result in the infiltration, evapotranspiration, or use of stormwater in order to protect water quality and associated aquatic habitat.

The Medway policies most likely to influence the development of impervious cover are summarized in Table 3-1 below:

Table 3-1: Primary Policies Related to Impervious Cover Creation

Policy	Applicability
Zoning Bylaw	• Parking ratios and off-street design requirements for parking and parking lots. • Open space design requirements and open space residential developments. • Building footprints, size and layout.
Planning Board Rules and Regulations (Subdivisions)	• Sidewalk, parking and street design requirements.

3.2 Policies Affecting Green Infrastructure

Green Infrastructure refers to ecological systems, both natural and engineered, that act as living infrastructure. Green Infrastructure elements are planned and managed primarily for stormwater control, but also exhibit social, economic, and environmental benefits. As stated in Chapter 1.1, the EPA requires that this *Code Assessment Report* contains an assessment on the feasibility for requiring specific green infrastructure practices that includes green roofs, infiltration practices, and water harvesting devices.

Medway's Wetlands Protection Bylaw and the Stormwater Management and Land Disturbance Bylaw both reference indirectly or directly to the Massachusetts Stormwater Handbook (Vol 1 and Volume 2). By extension, this handbook contains guidance for the design and installation for Green Roofs, Infiltration Practices, Pervious Pavements, and Water Harvesting Systems. The State Plumbing Code regulates water reuse.

4. SUMMARY OF KEY FINDINGS

The Town of Medway, Massachusetts performed a thorough review of applicable bylaws, rules, regulations, and policies that influence the creation of impervious cover and green infrastructure and LID installations. Overall, Town policies provide enough flexibility to developers to ensure that open space is protected, and that excessive impervious cover is not inadvertently required. Additionally, given the strong association of local stormwater management requirements that reference the Massachusetts Stormwater Handbook, there are no limitations for developer/applicants against utilizing GI and LID approaches. Infiltration strategies continue to be a primary requirement of local stormwater control performance standards, through Handbook requirements.

There are several findings from the completion of the COW that are worth noting, associated with both progressive policies, and may provide opportunities for further improvement to local policy that will further enhance water resource protection.

Roadways, Sidewalks, and Driveways

- The Zoning Bylaw encourages applicants to “minimize the total amount of disturbance on the site; encourage more efficient development that consumes less open land; encourage flexibility and creativity in the design of residential developments.”
- Local street widths appear to be consistent with recommendations within the COW guidance manual, but continued conversation with the Fire Chief regarding roadway, cul-de-sac, fire lanes, and access aisles will be important.
- Cul-de-sac design requirements may need to be revisited.
- Sidewalk widths can be reduced to 5’ with waiver provisions but other alternative sidewalk designs, including pervious material construction and subsurface soil volume standards for street trees may need to be revisited.
- Shared driveways are allowable, but driveway minimum widths and pervious material construction may need to be revisited.

Parking Lots

- Off-street parking ratios may need to be revisited and compared to the Institute of Transportation Engineers latest Parking and Trip Generation Standards.
- Shared parking is allowed through special permit process and independent parking analysis.
- Off-street parking can be reduced for mass transit or other multi-modal options and with available on-street options.
- Parking Lot dimensional requirements, landscape requirements, structured parking options, and compact car parking options seems consistent with the COW design guidance manual.
- Curb-cuts and flush curbing opportunities may be limited by language within Site Plan Rules and Regulations and may need to be revisited.

- Pervious or semi-pervious surfaces in low traffic areas, “such as reserve parking and may be used to meet all or any part of the required parking, subject to environmental limitations.”

Stormwater Management – Green Infrastructure, Low Impact Development, and Water Harvesting

- GI, LID, and Water Harvesting are all allowable in Medway. Adherence to the design standards of the Massachusetts Stormwater Handbook (Volume 1 and 2) obligates applicant/developers to meet recharge standards and design for infiltration. The Handbook encourages applicants to pursue LID and green infrastructure design such as rain gardens/bioretenention areas under standard three of Volume 1 Chapter 1: “Loss of annual recharge to groundwater shall be eliminated or minimized through the use of infiltration measures including environmentally sensitive site design, low impact development techniques, stormwater best management practices, and good operation and maintenance.”
- Local policies encourage the use of LID planning and design within the Stormwater Management and Land Disturbance Bylaw. The Site Plan Rules and Regulations also requires applicants to incorporate LID Management practices pursuant to Section 207-14 B and provides a LID Resource listing in Appendix A of said rules and regulations.
- Some refinements and updates to wetlands and stormwater management bylaw and/or regulations may be needed to advance innovative nutrient and other specific pollutant control.

5. RECOMMENDATIONS

The EPA is not currently requiring an implementation of green infrastructure within municipal codes. However, Part 2.3.6. b. of the MS4 Permit requires that “if the assessment indicates that changes can be made, the assessment shall include recommendations and proposed schedules to incorporate policies and standards into relevant documents and procedures to minimize impervious cover attributable to parking areas and street designs. The permittee shall implement all recommendations, in accordance with the schedules, contained in the assessment.” Table 5.1 below outlines recommendations based on Part 2.3.6 b. of the MS4 permit and proposes a schedule for action and implementation.

Woodard & Curran reviewed this scoring sheet and observed that in general, the highest scores were found in the principles of parking codes, parking lots, open space management, stormwater outfalls, and installation practices. Meanwhile, the lowest scores were observed within the principles of right-of-way width, parking ratios, sidewalks, driveways, tree conservation, and stormwater codes. Finally, the codes were silent in several principles. Of these silent principles, Woodard & Curran confirmed that the following principles were the most applicable for the MS4 Permit Part 2.3.6:

1. Rooftop runoff, principles 56 and 57
2. Curb extensions, principles 2 and 13
3. Alternative sidewalk construction, principle 43

While the Town reviewed existing policies and codes, the Town is currently pursuing a local tree bylaw which will protect the root structure of certain trees and require planting native trees on sites.

5.1 Final Recommendations

Table 5-1: Policy Recommendations and Implementation

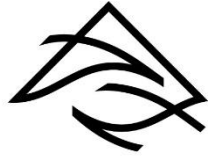
Policy	Approach	Recommendation	Schedule
Zoning Bylaw	Amend the Bylaw with Planning and Economic Development Board	Discuss changing the parking design requirements from “minimum required parking spaces” to “maximum allowed parking spaces” or revisit the parking ratio standards.	Discussions with PEDB to be held during FY23. Action/implementation depends on Town Meeting approval.
		Increase # of electric vehicles spots and bicycle parking spots.	Discussions with PEDB to be held during FY23. Action/implementation depends on Town Meeting approval.
		Revisit sidewalk width requirements: change minimums to maximums and/or allow alternative sidewalk designs. Consider ADA and AAB requirements.	Discussions with PEDB to be held during FY23. Action/implementation depends on Town Meeting approval.
		Review maximum impervious areas requirements in each zoning category to see if it can be reduced (Table 2 Dimensions and Density)	Discussions with PEDB to be held during FY23. Action/implementation depends on Town Meeting approval.
		Review minimum open space requirements to see if it can be increased.	Discussions with PEDB to be held during FY23. Action/implementation depends on Town Meeting approval.
		Revisit planting requirements and street trees in the Central Business District section of the Bylaw.	Discussions with PEDB to be held during FY23. Action/implementation depends on Town Meeting approval.
		Strengthen shared parking language.	Discussions with PEDB to be held during FY23. Action/implementation depends on Town Meeting approval.
		Discuss having Open Space Residential Districts as by-right.	Thoughts on Open Space Residential Districts will come out during the Master Plan update – no action required at this time.

Policy	Approach	Recommendation	Schedule
Subdivision Rules and Regulations	Amend Rules and Regulations	Add summary table to the Stormwater Management Analysis and on the Definitive Plan requiring the relevant data needed to complete the EPA's BATT tool for phosphorus and TSS removal calculations.	Implement Fall 2022.
		Increase storm size calculations to NOAA Atlas 14++	Implement Fall 2022.
		Revise cul-de-sac and landscaping design standards to allow curb cuts and depressed landscape islands to capture runoff.	Discussions with PEDB to be held during FY23.
		Require Operations and Maintenance Plans to be filed with the Registry of Deeds as a part of the plan documents.	Discussions with PEDB to be held during FY23. Action/implementation during Spring 2023.
		Revisit Construction and Design Standards.	Discussions with PEDB to be held during FY23.
Site Plan Rules and Regulations	Amend Rules and Regulations	Add summary table in the stormwater reports and plans requiring the relevant data needed to complete the EPA's BATT tool for phosphorus and TSS removal calculations.	Implement Fall 2022.
		Increase number of electric vehicle and bicycle parking spots.	Discussions with PEDB to be held during FY23.
		Increase storm size calculations to NOAA Atlas 14++	Implement Fall 2022.
		Strengthen Shared Parking language	Discussions with PEDB to be held during FY23.
Stormwater Management and Land Disturbance Bylaw	Amend the Bylaw	Streamline the Bylaw	Discussions with PEDB and Conservation Commission to be held during FY23. Action/implementation depends on Town Meeting approval.
		Create Land Disturbance Permit Rules and Regulations	Discussions with PEDB and Conservation Commission to be held during FY23.

Policy	Approach	Recommendation	Schedule
			Action/implementation depends on Town Meeting approval.
Medway Separate Storm Sewer System Connection and Discharge Permit (MS4CD Permit) Rules and Regulations	Amend the Rules and Regulations	Revisit MS4CD Permit Rules and Regulations to increase required storage volumes and decrease allowable peak discharge rates.	Discussion with DPW to be held during FY23. Action/implementation depends on approval by the town.
Tree Bylaw	Adopt at Town Meeting	A draft tree bylaw is currently in review by the Conservation Commission.	Action/implementation depends on Town Meeting approval.

APPENDIX A: CODE AND ORDINANCE WORKSHEET

APPENDIX B: POLICY REVIEW SUMMARY TABLE



**Woodard
& Curran**

woodardcurran.com



October 11, 2022

**Medway Planning & Economic Development Board
Meeting**

Newton Lane Roadway Layout

- Memo to PEDB from Susy Affleck-Childs dated 10/5/2022
- Street Acceptance Plan by O'Driscoll Land Surveying dated 10/7/2022
- 7 Newton Lane Easement Deed
- 8 Newton Lane Easement Deed

Susan E. Affleck-Childs

Planning and Economic
Development Coordinator



Medway Town Hall
155 Village Street
Medway, MA 02053
Phone (508) 533-3291
Fax (508) 321-4987
Email: sachilds@
townofmedway.org
www.townofmedway.org

TOWN OF MEDWAY
COMMONWEALTH OF MASSACHUSETTS
PLANNING AND ECONOMIC
DEVELOPMENT OFFICE

MEMORANDUM

October 5, 2022

TO: Medway Planning and Economic Development Board
FROM: Susy Affleck-Childs, Planning and Economic Development Coordinator
RE: Roadway Layout for Newton Lane (Hartney Acres Subdivision)

The Planning and Economic Development Board, Conservation Commission, the Community and Economic Development Department, and Town Counsel Lee Smith are working with the representative of the developer of the Hartney Acres subdivision toward street acceptance for Newton Lane, to be considered at the November 14th Town Meeting. See attached almost final Street Acceptance Plan.

As part of the street acceptance process, the roadway needs to be formally “laid out” by the Select Board. The Select Board has initiated that process and has requested the Planning and Economic Development Board’s recommendation on the roadway layout. The PEDB will address this at its October 11th meeting. The Select Board will hold the required public hearing on the roadway layout at its October 17th meeting.

Recommended Motion: *I move that the Planning and Economic Development Board recommend the Select Board lay out the following roadway as a public street:*

- *Newton Lane in its entirety from Station 0+00 at its intersection with Nobscot Road to its terminus at Station 9+91.18 as shown on Street Acceptance & As-Built Plan, Hartney Acres II, Newton Lane, Medway, MA dated October 7, 2022, prepared by CMG Engineering of Sturbridge, MA and O’Driscoll Land Surveying, Inc. of Medway, MA.*

NOTE – Work continues to finish up the subdivision infrastructure. This recommended vote is only a vote re: the roadway layout. It is not a vote to recommend street acceptance. That can wait until the October 25th or November 8th PEDB meetings.

LEGEND

PROPERTY LINE

ABUTTING PROPERTY LINE

IRON PIPE

MONUMENT

UTILITY POLE

FIRE HYDRANT

WATER GATE

GAS VALVE

CATCH BASIN (CB)

DRAINAGE MAINHOLE (DMH)

SEWER MANHOLE (SMH)

EDGE OF WETLANDS

WETLAND SYMBOL

WETLAND BUFFER

RESERVED FOR REGISTRY USE

EX. EASEMENT "FOR ROADWAY USE" R=30'

EX. H.C. RAMP

NOBSCOT ROAD

EX. V.G.C. 2+00

EX. 5.5' WIDTH BIT. WALK

EX. SUBDRAIN

EX. EASEMENT "FOR ROADWAY USE" R=30'

EX. H.C. RAMP

EX. V.G.C. 2+00

EX. 5.5' WIDTH BIT. WALK

EX. SUBDRAIN

EX. EASEMENT "FOR ROADWAY USE" R=30'

TOWN OF MEDWAY PLANNING & ECONOMIC DEVELOPMENT BOARD

DATE - AS-BUILT PLAN APPROVAL

DATE - ROAD LAYOUT ACCEPTANCE APPROVAL

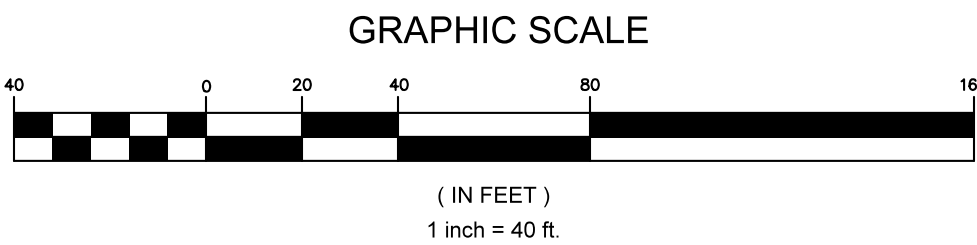
TOWN OF MEDWAY SELECTMAN

DATE - ROAD LAYOUT ACCEPTANCE APPROVED

- "I HEREBY CERTIFY THAT THIS PLAN SHOWS THE ACTUAL AS-BUILT LOCATIONS, PROFILES AND ELEVATIONS OF THE ROADWAYS, DRAINAGE FACILITIES AND UTILITIES, BASED UPON A FIELD SURVEY PERFORMED BETWEEN SEPTEMBER 26, 2005 & OCTOBER 06, 2022."
- "THE STREET (OR WAY THEREOF) AS LAID OUT AND THE BOUNDS HAVE BEEN SET AS SHOWN ON THE PLAN."
- "I CERTIFY THAT THIS PLAN IS PREPARED IN CONFORMANCE WITH THE "RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS."

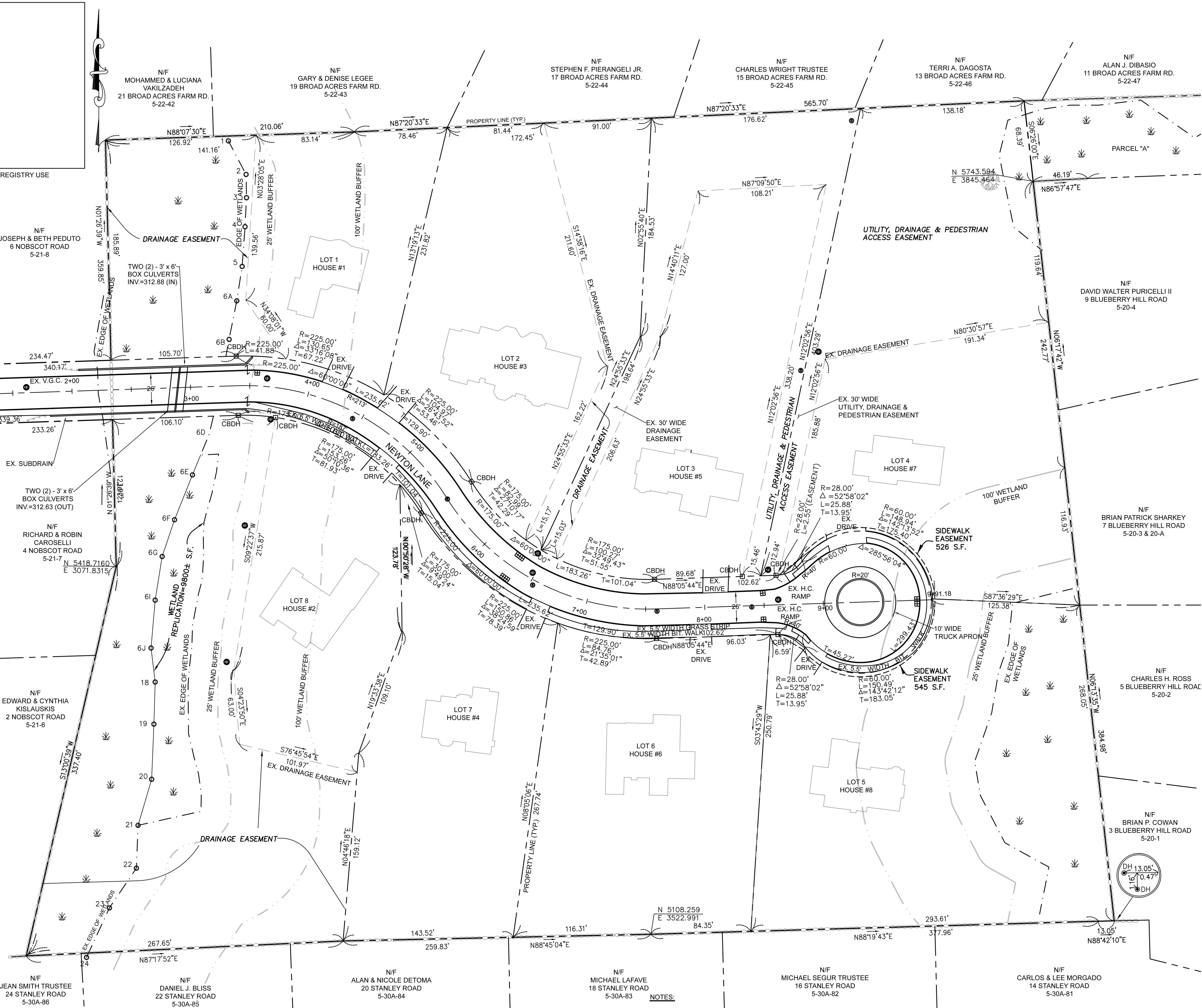
DANIEL A. O'DRISCOLL, PLS

DATE



DIG SAFE NOTE (1-888-344-7233):

CONTRACTOR REQUIRED TO NOTIFY "DIG SAFE" 72 HOURS PRIOR TO ANY ON-SITE EXCAVATION OR CONSTRUCTION AT 1-888-344-7233. CONTRACTOR SHALL ALSO NOTIFY LOCAL WATER AND SEWER DEPARTMENTS TO MARK OUT THEIR UTILITIES.



NOTES:

- ORIGINAL PLANS ENTITLED, "HARTNEY ACRES II - DEFINITIVE SUBDIVISION PLAN IN MEDWAY MASSACHUSETTS", DATED NOVEMBER 29, 2004, REVISE DATE JANUARY 7, 2005, PREPARED BY O'DRISCOLL LAND SURVEYING CO. & FAIST ENGINEERING.
- ORIGINAL PLAN APPROVAL DATE: DECEMBER 17, 2004
ORIGINAL COVENANT DATE: FEBRUARY 8, 2005
RECORDING INFORMATION: JANUARY 4, 2005
PLAN BOOK 533, PLAN No. 67 OF 2005
- ELEVATIONS REFER TO THE DATUM SHOWN ON PLAN No. 67 OF 2005.
- UNDERGROUND ELECTRIC/ CABLE/ TELEPHONE UTILITY LINES/ CONDUIT LOCATIONS ARE APPROXIMATE AND BASED ON AS-BUILT UTILITY BOX LOCATIONS AND LIMITED PAVEMENT MARKINGS AT THE TIME OF THE SURVEY. (SEE DIG-SAFE NOTE)

OWNER:
HARTNEY REALTY TRUST

NO.	DATE	DESCRIPTION	BY	CWD

STREET ACCEPTANCE & AS-BUILT PLAN
HARTNEY ACRES II
NEWTON LANE
MEDWAY, MA 02053

PAUL YORKIS
159 MAIN STREET
MEDWAY, MA 02053

ENGINEERING SERVICES
ENVIRONMENTAL SERVICES
67 Hall Road
Sturbridge, MA 01566
Phone: 774-241-0901
fax: 774-241-0906



O'DRISCOLL
LAND SURVEYING INC.
LAND SURVEYING GPS MAPPING LAND CONSULTING
46 COTTAGE STREET MEDWAY, MASSACHUSETTS 02053 (508) 533-3314

ISSUE DATE: 10/07/2022
DRAWN BY: RL CHECKED BY: DTF
SCALE: 1" = 40'
PROJECT NO.: 2020-102

STREET ACCEPTANCE
PLAN

C-2.0

EASEMENT DEED

Rohith K. Ashok & Trista S. Ashok, husband and wife, of 7 Newton Lane, Medway, Massachusetts

for consideration of less than One Hundred and 00/100 (\$100.00) Dollars

grant to **THE TOWN OF MEDWAY, ACTING BY AND THROUGH ITS SELECT BOARD**, Town Hall, 155 Village Street, Medway, Norfolk County, Massachusetts for general municipal purposes

with QUITCLAIM COVENANTS

A perpetual Easement for sidewalk access and maintenance by the Town of Medway on and over the area on Newton Lane shown as “Sidewalk Easement” on Lot 4 on a plan of land entitled, “Easement Plan in Medway, Massachusetts Date: September 26, 2022 Scale: 1” = 40’ O’Driscoll Land Surveying, Inc.”, recorded with the Norfolk County Registry of Deeds in Plan Book _____, Page ___, for all purposes for which sidewalks may be used in the Town of Medway, in common with others entitled thereto.

For title of Grantor, see Deed recorded with the Norfolk County Registry of Deeds in Book 31574, Page 193.

SIGNATURES AND NOTARY ON THE FOLLOWING PAGE

EXECUTED THIS ____ DAY OF OCTOBER, 2022.

Rohith K. Ashok

Trista S. Ashok

COMMONWEALTH OF MASSACHUSETTS

Norfolk, ss.

October ____, 2022

On this _____ day of October, 2022, before me, the undersigned notary public, personally appeared Rohith K. Ashok & Trista S. Ashok, proved to me through satisfactory evidence of identification, which were Driver's Licenses, to be the persons whose names are signed on the preceding or attached document, and acknowledged to me that they signed it voluntarily for its stated purpose.

, Notary Public
My Commission Expires:

EASEMENT DEED

Kay Imgenberg & Loren Brooks, husband and wife, of 8 Newton Lane, Medway, Massachusetts

for consideration of less than One Hundred and 00/100 (\$100.00) Dollars

grant to **THE TOWN OF MEDWAY, ACTING BY AND THROUGH ITS SELECT BOARD**, Town Hall, 155 Village Street, Medway, Norfolk County, Massachusetts for general municipal purposes

with QUITCLAIM COVENANTS

A perpetual Easement for sidewalk access and maintenance by the Town of Medway on and over the area on Newton Lane shown as “Sidewalk Easement” on Lot 5 on a plan of land entitled, “Easement Plan in Medway, Massachusetts Date: September 26, 2022 Scale: 1” = 40’ O’Driscoll Land Surveying, Inc.”, recorded with the Norfolk County Registry of Deeds in Plan Book _____, Page ___, for all purposes for which sidewalks may be used in the Town of Medway, in common with others entitled thereto.

For title of Grantor, see Deed recorded with the Norfolk County Registry of Deeds in Book 28380, Page 46.

SIGNATURES AND NOTARY ON THE FOLLOWING PAGE

EXECUTED THIS ____ DAY OF OCTOBER, 2022.

Kay Imgenberg

Loren Brooks

COMMONWEALTH OF MASSACHUSETTS

Norfolk, ss.

October ____, 2022

On this _____ day of October, 2022, before me, the undersigned notary public, personally appeared Kay Imgenberg & Loren Brooks, proved to me through satisfactory evidence of identification, which were Driver's Licenses, to be the persons whose names are signed on the preceding or attached document, and acknowledged to me that they signed it voluntarily for its stated purpose.

, Notary Public
My Commission Expires:



October 11, 2022

**Medway Planning & Economic Development Board
Meeting**

2023 PEDB Meeting Schedule

- Draft 2023 meeting schedule

Board Members

Matthew Hayes, P.E., Chair

Robert Tucker, Vice Chair

Richard Di Iulio, Clerk

Jessica Chabot., Member

Sarah Raposa, A.I.C.P.,
Member

Tom Gay, Associate Member



Medway Town Hall
155 Village Street
Medway, MA 02053
Phone (508) 533-3291
Fax (508) 321-4987
Email: planningboard@townofmedway.org
www.townofmedway.org

TOWN OF MEDWAY

COMMONWEALTH OF MASSACHUSETTS

PLANNING AND ECONOMIC DEVELOPMENT BOARD

2023 MEETING SCHEDULE

The Medway Planning & Economic Development Board (PEDB) generally meets on the second & fourth Tuesday evening of each month at 7:00 p.m. The Board holds its meetings live in Sanford Hall at Medway Town Hall, 155 Village Street. As a courtesy to the public, the meetings are also available remotely via the Zoom online meeting platform. Zoom access instructions will be included on the agenda for each individual meeting.

The dates for the regular meetings of the PEDB for 2023 are as follows:

Tuesdays, January 10 and 24, 2023
Tuesdays, February 14 and 28, 2023
Tuesdays, March 14 and 28, 2023
Tuesdays, April 11 and 25, 2023
Tuesdays, May 9 and 23, 2023
Tuesdays, June 13 and 27, 2023
Tuesdays, July 11 and 25, 2023
Tuesdays, August 8 and 22, 2023
Tuesdays, September 12 and 26, 2023
Tuesdays, October 10 and 24, 2023
Tuesdays, November 14 and 28, 2023
Tuesdays, December 12 and 26, 2023

Special meetings and site visits will be scheduled as needed.

Some meetings may be rescheduled due to summer vacations and holidays.

Meeting agendas are posted outside the office of the Town Clerk by the Friday morning before the following Tuesday night's meeting.

The agendas are also posted online at

<https://www.townofmedway.org/calendar/month>.

Most meetings are televised live and rebroadcast on Medway Cable Access.



October 11, 2022

**Medway Planning & Economic Development Board
Meeting**

Construction Reports

- Cutler Place progress report from Ron Tiberi, dated September 29, 2022
- 22 Evergreen Road progress report from Ron Tiberi, dated September 29, 2022

Progress Report

Project Details

Project name	Cutler Place	
Location	6 Cutler Street	Medway MA
Owner	Cutler Place LLC	Medway MA
Reporting period	8-31-2022 thru 9-29-2022	
Report compiled by	Ron Tiberi P.E. 	9 Mass Ave Natick MA
Date inspected/ submitted	9/29/22	

Summary

Erosion controls partially installed & maintained. Limited Site Activity. Utilities from street completed. Addition enclosed, decks under construction.

Activities

Activity 1 Construction Controls

Status	Achieved
Objective	Addition Enclosed- decks under construction
Activity dates	
Progress	
Comments	Sanitary Facilities on-site, No construction trailers

Activity 2 Erosion Controls

Status	Achieved
Objective	Erosion controls implemented & maintained
Activity dates	
Progress	Completed & maintained
Comments	

Activity 3 Water & Sewer Utilities

Status	Completed
Objective	
Activity dates	
Progress	Piping installed to Cutler Street, and domestic H2O and fire suppression lines have also been stubbed into basement from street.
Comments	

Activity 4 Parking Area

Status	
Objective	Rain Garden rough graded
Activity dates	
Progress	
Comments	

Activity 5 Building

Status	IN Progress
Objective	Addition Enclosed decks constructed
Activity dates	Thru Month
Progress	
Comments	

Activity 6 Site Features

Status	
Objective	
Activity dates	
Progress	
Comments	

Photographs

#1



Building addition enclosed & sided, decks framed & Rain garden

#2



Rear of addition sided decks framed

Progress Report

Project Details

Project name	Evergreen	
Location	22 Evergreen Road	Medway MA
Owner	Broken Tree LLC	Medway MA
Reporting period	8-31-2022 thru 9-29-2022	
Report compiled by	Ron Tiberi P.E. 	9 Mass Ave Natick MA
Date inspected/ submitted	9/29/22	

Summary

Erosion controls installed & maintained. Road set to binder level & site rough graded to subgrade. Phase 2 Structure framed & enclosed. Drainage system 100% installed. Limited Site Activity. Some landscaping and patio items installed

Activities

Activity 1 Construction Controls

Status	Achieved
Objective	Layout & Construction controls set and provided by Cheney Engineering
Activity dates	
Progress	Asbuilt information surveyed Phase 2
Comments	Sanitary Facilities on-site, No construction trailers

Activity 2 Erosion Controls

Status	Achieved
Objective	Erosion controls implemented and approved on site Temporary sedimentation basins installed & maintained
Activity dates	During Month
Progress	Completed & maintained
Comments	

Activity 3 Access Road

Status	In progress
Objective	Paved to binder coarse
Activity dates	
Progress	Completed
Comments	3 Infiltration system installed

Activity 4 Water & Sewer Utilities

Status	Achieved
Objective	Sewer line and water lines connected to units, Water lines charged. GAS Services Installed; Underground installed
Activity dates	
Progress	Completed
Comments	

Activity 5 Building

Status	Achieved
Objective	Building 2 enclosed, water & sewer connections completed
Activity dates	Current
Progress	Exterior & interior finishes under way
Comments	

Activity 6 Site Features

Status	Achieved
Objective	Privacy fence installed along wall behind phase one, Patios installed behind Phase 2 units Street sign installed
Activity dates	
Progress	100%
Comments	

Photographs

#1



Fine grading over drainage system

#2



Rear Building 1 – Patios installed & Fencing being installed



October 11, 2022
Medway Planning & Economic Development Board
Meeting

Public Hearing Continuation – Proposed
Zoning Bylaw Amendments for
November 14, 2022, Town Meeting

● **Proposed Amendments:**

- Battery Energy Storage Systems - *Updated*
- Solar Electric Installations
- Table 1, Schedule of Uses, Section 5.4E,
Industrial Uses
- Mitigation
- Multifamily Housing
- Housekeeping
- Table 1, Schedule of Uses, Sections 5.4
- Oak Grove and Central Business - *Updated*
- Contractor's Quarters

● **Additional Documents:**

- DEP Wetlands Program Policy 17-1: Photovoltaic
System Solar Array Review
- Mass Audubon, Losing Ground

Article ____ To see if the Town will vote to amend the Zoning Bylaw by:

(1) Amending Section 2 Definitions deleting the definition of Battery Energy Storage Facility and adding the following new definition in Section 2:

Battery Energy Storage System (BESS): One or more containers or cabinets containing batteries and related equipment, assembled together, capable of storing electrical energy in order to supply electrical energy at a future time. This includes all accessory equipment necessary for energy storage including but not limited to inverters, transformers, cooling equipment, switching gear, metering equipment, transmission tie-lines, and other power interconnection facilities and/or a project substation, but does not include a stand-alone 12-volt vehicle battery or an electric motor vehicle.

Battery Energy Storage System (BESS): One or more containers or cabinets on a lot containing batteries and related equipment, assembled together, capable of storing electrical energy in order to supply electrical energy to the power grid at a future time. This includes all accessory equipment on said lot necessary for energy storage including but not limited to inverters, transformers, cooling equipment, switching gear, metering equipment, transmission tie-lines, and other power interconnection facilities and/or a project substation, but does not include public utility owned and operated interconnection equipment, regardless of location, or other interconnection equipment to be located on the real property of the public utility or within its right of way, determined to be necessary by the public utility to facilitate the BESS interconnection with the power grid whether for bringing power to the BESS or for returning it to the power grid, a stand-alone 12-volt vehicle battery, or an electric motor vehicle.

Commented [BSA1]: This is the amended definition requested by Eversource.

(2) Amending Table 3, Schedule of Off-Street Parking Requirements, by adding a new line:

Battery energy storage systems (as principal use)	2 spaces for Tier 1 3 spaces for Tier 2
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(3) Amending Section 3.5 Site Plan Review as follows:

Amend Section 3.5.3.A.1 Major Site Plan Review by adding:
“f. Tier 2 Battery Energy Storage Systems”

And amend Section 3.5.3.A.2 Minor Site Plan Review by adding:
“h. Tier 1 Battery Energy Storage Systems”

(4) And adding a new Section 8.12 Battery Energy Storage Systems:

Section 8.12 Battery Energy Storage Systems

A. Purpose. The purpose of this Section is to advance and protect the public health, safety, welfare, and quality of life by creating regulations for the installation and use of battery energy storage systems, with the following objectives:

1. To provide a regulatory scheme for the location, construction and operation of battery energy storage systems consistent with best practices and safety protocols;

2. To ensure compatible land uses in the vicinity of the areas affected by battery energy storage systems and to mitigate any potential impacts on abutting and nearby properties; and
3. To mitigate the impacts of battery energy storage systems on environmental resources such as ~~important~~ agricultural lands, forests, wildlife, wetlands and other ~~protected natural~~ resources.

Commented [BSA2]: Change suggested by Mr. Yorkis

This Section shall be construed to be consistent with state law, including but not limited to the provisions of General Laws chapter 40A, section 3, and state regulations, including but not limited to the provisions of the State Building Code, State Fire Code, and State Electrical Code. In the event of any conflict between the provisions of this section and the provisions of state law or regulations, the state law and regulations shall prevail.

B. Definitions

As used in this bylaw, the following terms shall have the meanings indicated. Terms that are not defined herein or elsewhere in this Zoning Bylaw shall be as defined in NFPA 855 if applicable.

ANSI: American National Standards Institute

Battery or batteries: A single cell or a group of cells connected together electrically in series, in parallel, or a combination of both, which can charge, discharge, and store energy electrochemically. For the purposes of this bylaw, batteries utilized in consumer products are excluded from these requirements.

Battery Energy Storage Management System: An electronic system that protects energy storage systems from operating outside their safe operating parameters and disconnects electrical power to the energy storage system or places it in a safe condition if potentially hazardous temperatures or other conditions are detected.

Cell: The basic electrochemical unit, characterized by an anode and a cathode, used to receive, store, and deliver electrical energy.

Commissioning: A systematic process that provides documented confirmation that a battery energy storage system functions according to the intended design criteria and complies with applicable code requirements.

Dedicated-Use Building: A building that is built for the primary intention of housing battery energy storage system equipment, and complies with the following:

- 1) The building's only use is battery energy storage, energy generation, and other electrical grid-related operations.
- 2) No other occupancy types are permitted in the building.
- 3) Occupants in the rooms and areas containing battery energy storage systems are limited to personnel that operate, maintain, service, test, and repair the battery energy storage system and other energy systems.
- 4) Administrative and support personnel are permitted in areas within the buildings that do not contain battery energy storage system, provided the following:
 - a. The areas do not occupy more than 10 percent of the building area of the story in which they are located.
 - b. A means of egress is provided from the administrative and support use areas to the public way that does not require occupants to traverse through areas containing battery energy storage systems or other energy system equipment.

Nationally Recognized Testing Laboratory (NRTL): A U.S. Department of Labor designation recognizing a private sector organization to perform certification for certain products to ensure that they meet the requirements of both the construction and general industry OSHA electrical standards.

NFPA: National Fire Protection Association.

Non-Dedicated-Use Building: All buildings that contain a battery energy storage system and do not comply with the dedicated-use building requirements.

Non-Participating Property: Any property that is not a participating property.

Non-Participating Residence: Any residence located on non-participating property.

Participating Property: A battery energy storage system host property or any real property that is the subject of an agreement that provides for the payment of monetary compensation to the landowner from the battery energy storage system owner (or affiliate) regardless of whether any part of a battery energy storage system is constructed on the property.

This bylaw: Section 8.12 of the Zoning Bylaw
add

UL: Underwriters Laboratory

C. Applicability

1. The requirements of this bylaw shall apply to battery energy storage systems permitted, installed, decommissioned or modified after the effective date of this bylaw, excluding general maintenance and repair. BESS subject to this bylaw are only those that exceed the following capacities:

- Lead-acid with a capacity of greater than 70 kWh
- Nickel with a capacity of greater than 70 kWh
- Lithium-ion with a capacity of greater than 20 kWh
- Sodium nickel chloride with a capacity of greater than 20 kWh
- Flow with a capacity of greater than 20 kWh
- Other battery technologies with a capacity of greater than 10 kWh

~~—BESS in one and two family dwellings with a capacity of greater than 1 kWh~~

BESS that do not meet the threshold capacities above are not subject to this bylaw and are allowed by right in all zoning districts.

2. A battery energy storage system that is subject to this bylaw is classified as a Tier 1 or Tier 2 Battery Energy Storage System as follows:

a). Tier 1 Battery Energy Storage Systems have an aggregate energy capacity less than or equal to ~~600~~1000kWh and, if in a room or enclosed area, consist of only a single energy storage system technology.

b). Tier 2 Battery Energy Storage Systems have an aggregate energy capacity greater than ~~600~~1000kWh or are comprised of more than one storage battery technology in a room or enclosed area.

Commented [BSA3]: This change was agreed to at last meeting

Commented [BSA4]: Change requested by Eversource

D. General Requirements

1. All permits required by state codes, including but not limited to building permit, an electrical permit, and a fire department permit ~~per state codes~~ shall be required for installation of all battery energy storage systems.
2. All battery energy storage systems, all Dedicated Use Buildings, and all other buildings or structures that (a) contain or are otherwise associated with a battery energy storage system and (b) subject to the requirements of the State Building Code, shall be designed, erected, and installed in accordance with all applicable provisions of the State Building Code 780 CMR, State Fire Code 527 CMR 1.00, and State Electrical Code 527 CMR 12.00. All battery energy storage systems shall comply with NFPA 855, Standard for the Installation of Stationary Energy Storage Systems.
3. Energy storage system capacities, including array capacity and separation, are limited to the thresholds contained in NFPA 855.

Commented [BSA5]: This change was agreed to at last meeting

E. Permitting Requirements for Tier 1 Battery Energy Storage Systems

Tier 1 Battery Energy Storage Systems are allowed by right in all zoning districts, subject to applicable provisions of the State Building Code, Electrical Code, Fire Code, and other applicable codes, and are subject to minor site plan review and such provisions of this bylaw as are applicable.

F. Permitting Requirements for Tier 2 Battery Energy Storage Systems

Tier 2 Battery Energy Storage Systems are subject to this bylaw and require the issuance of a special permit in those zoning districts identified in Table 1, Schedule of Uses, and are subject to Major Site Plan Review pursuant to Section 3.5. Tier 1 and Tier 2 BESS shall comply with the applicable requirements set forth in this bylaw, as well as this Zoning Bylaw, and the Medway General Bylaws. The following requirements apply to all Tier 1 and Tier 2 BESS subject to this bylaw, except where it is specifically noted to apply only to Tier 2 BESS:

1. Utility Lines and Electrical Circuitry. All on-site utility lines shall be placed underground to the extent feasible and as permitted by the serving utility, with the exception of the main service connection at the utility company right-of-way and any new interconnection equipment, including without limitation any poles.
2. Signage. Signage shall comply with the requirements of Section 7.2 of this Zoning Bylaw and the following additional requirements; in the event of a conflict between the provisions of Section 7.2 and this section, the requirements of this section shall prevail.
 - a) The signage shall be in compliance with ANSI Z535 and shall include the type of technology associated with the battery energy storage systems, any special hazards associated, the type of suppression system installed in the area of battery energy storage systems, and 24-hour emergency contact information, including reach-back phone number.
 - b) As required by the state electrical code, disconnect and other emergency shutoff information shall be clearly displayed on a light reflective surface. A clearly visible warning sign concerning voltage shall be placed at the base of all pad-mounted transformers and substations.

c) Signage compliant with ANSI Z535 shall be provided on doors to rooms, entrances to BESS facilities, and on BESS outdoor containers.

3. Lighting. Lighting of the battery energy storage systems shall be limited to that minimally required for safety, security and operational purposes and shall comply with Section 7.1.2 of this Zoning Bylaw.

Commented [BSA6]: Change requested by Mr. Yorkis

4. Vegetation and tree-cutting. Areas within ten feet on each side of Tier 2 Battery Energy Storage Systems shall be cleared of combustible vegetation and other combustible growth. Single specimens of trees, shrubbery, or cultivated ground cover such as green grass, ivy, succulents, or similar plants used as ground covers shall be permitted provided that they do not form a means of readily transmitting fire. Removal of trees should be minimized to the extent possible.

6. Setbacks. Tier 2 Battery Energy Storage Systems shall be set back a minimum of 2550 feet from all side, rear, and front lot lines; ~~except that Tier 2 BESS shall be set back a minimum of 100 feet from side, rear, and front lot lines that abut or are across a street from residential zoning districts or existing single, two-family, or multi-family structures.~~ The minimum setback areas shall include a Buffer Area at least fifteen feet wide along all property lines. Access drives and parking are allowed in the setback areas, but shall not intrude into the required Buffer Areas except where necessary to provide access or egress to the property. In addition, a minimum of 10 feet must be maintained between BESS components and all buildings, stored combustible materials, hazardous materials, high-piled storage, personnel means of egress, and other exposure hazards not associated with electrical grid infrastructure.

Commented [BSA7]: Changes requested by Eversource; if the Board is not in favor of the reduced setback, Eversource suggested perhaps having a reduced setback for BESS that are enclosed in a building.

7. Dimensional. Tier 2 Battery Energy Storage Systems shall comply with the dimensional limitations for principal structures of the underlying zoning district as provided in Section 6 of this Zoning Bylaw, unless otherwise provided in this bylaw.

8. Fencing Requirements. Tier 2 Battery Energy Storage Systems, including all mechanical equipment, shall be enclosed by a minimum eight foot high fence with a self-locking gate to prevent unauthorized access unless housed in a dedicated-use building. Security barriers, fences, landscaping, and other enclosures must not inhibit required air flow to or exhaust from the BESS and components. Electrical equipment greater than 1,000V require a separate and additional means to restrict access. NFPA 855 requires specialty safety systems to be provided based on the BESS chemistry and installed location.

9. Screening and Visibility. Tier 2 Battery Energy Storage Systems shall have views minimized from adjacent properties to the extent reasonably practicable using architectural features, earth berms, landscaping, or other screening methods that will harmonize with the character of the property and surrounding area. Such features may not inhibit required air flow to or exhaust from the BESS and components and must comply with the setbacks established in paragraph 6 above.

10. Mitigation for Loss of Carbon Sequestration and Forest Habitat. If land that is Forestland or has been Forestland within one year immediately preceding the filing an application to install a Tier 2 BESS, the plans shall designate thereon an area of unprotected (meaning, not subject to G.L. c. 184, sections 31-33 at time of application) land on the same lot and of a size equal to two times the total area of Forestland that will be eliminated, cut, destroyed, or otherwise disturbed by such installation. Such designated land shall remain in substantially its natural condition without

alteration, including prohibition of commercial forestry or tree cutting not related to the maintenance of the installation, until such time as the installation is decommissioned; except in response to a natural occurrence, invasive species or disease that impacts the trees and requires cutting to preserve the health of the forest.

11. Mitigation for Disruption of Trail Networks. If existing trail networks, old roads, or woods or cart roads are disrupted by the location of a Tier 2 BESS, the plans shall show alternative trail alignments to be constructed by the applicant, although no rights of public access may be established hereunder.

12. Mitigation for Disruption of Historic Resources and Properties. Historic resources, structures and properties, such as cellar holes, farmsteads, stone corrals, marked graves, water wells, or pre-Columbian features, including those listed on the Massachusetts Register of Historic Places or as defined by the National Historic Preservation Act, shall be excluded from the areas proposed to be developed for a Tier 2 BESS. A written assessment of the project's effects on each identified historic resource or property and ways to avoid, minimize or mitigate any adverse effects shall be submitted as part of the application. A suitable buffer area as determined by the PEDB shall be established on all sides of each historic resource.

13. Batteries. Failed battery cells and modules shall not be stored on the site and shall be removed no later than 30 days after deemed failed by the BESS operator or cell/module manufacturer. The operator shall notify the Medway Fire Chief in advance if the type of battery or batteries used onsite is to be changed.

14. Decommissioning Plan. The applicant shall submit with its application a decommissioning plan for Tier 2 BESS to be implemented upon abandonment and/or in conjunction with removal of the facility. The owner or operator of the BESS shall notify the Building Commissioner in writing at least twenty days prior to when a Tier 2 BESS will be decommissioned. Decommissioning of an abandoned or discontinued Tier 2 BESS shall be completed within six months after the facility ceases operation. The decommissioning plan shall include:

- a. A narrative description of the activities to be accomplished, including who will perform that activity and at what point in time, for complete physical removal of all battery energy storage system components, structures, equipment, security barriers, and transmission lines from the site;
- b. Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations;
- c. The anticipated life of the battery energy storage system;
- d. The estimated decommissioning costs and how said estimate was determined;
- e. The method of ensuring that funds will be available for decommissioning and restoration;
- f. The method by which the decommissioning cost will be kept current;
- g. The manner in which the site will be restored, including a description of how any changes to the surrounding areas and other systems adjacent to the battery energy storage system, such as, but not limited to, structural elements, building penetrations, means of egress, and required fire detection suppression systems, will be protected during decommissioning and confirmed as being acceptable after the system is removed; and

h. A listing of any contingencies for removing an intact operational energy storage system from service, and for removing an energy storage system from service that has been damaged by a fire or other event.

15. Decommissioning Fund. The owner and/or operator of the energy storage system, shall continuously maintain a fund or other surety acceptable to the Town, in a form approved by the Planning and Economic Development Board and Town Counsel, for the removal of the battery energy storage system, in an amount to be determined by the Town, for the period of the life of the facility. All costs of the financial security shall be borne by the applicant.

16. Proof of Liability Insurance. The applicant or property owner shall provide evidence of commercially liability insurance in an amount and type generally acceptable in the industry and approved by the PEDB prior to the issuance of a building permit, and shall continue such insurance in effect until such facility has been decommissioned, removed, and the site restored in accordance with this bylaw.

G. Site plan application. For a Tier 2 Battery Energy Storage System the site plan application shall include the following information, in addition to that required by Section 3.5 of this Zoning Bylaw and the Planning and Economic Development Board Rules and Regulations Governing Site Plan Applications:

1. A one- or three-line electrical diagram detailing the battery energy storage system layout, associated components, and electrical interconnection methods, with all State Electrical Code compliant disconnects and over current devices.

2. A preliminary equipment specification sheet that documents the proposed battery energy storage system components, inverters and associated electrical equipment that are to be installed. A final equipment specification sheet shall be submitted prior to the issuance of building permit.

3. Name, address, and contact information of proposed or potential system installer and the owner and/or operator of the battery energy storage system. Such information of the final system installer shall be submitted prior to the issuance of building permit.

4. Large-scale fire test data, evaluation information, and calculations, and modeling data. For any of the following, UL 9540A fire test data must be made available to the Planning and Economic Development Board for review:

- BESS systems with a capacity of greater than 50kWh
- BESS systems with spacing between arrays of less than 3 feet

5. Commissioning Plan. The system installer or commissioning agent shall prepare a commissioning plan prior to the start of commissioning. Such plan shall be compliant with NFPA 855 and document and verify that the system and its associated controls and safety systems are in proper working condition per requirements set forth in applicable state codes. Where commissioning is required by the Building Code, battery energy storage system commissioning shall be conducted by a Massachusetts Licensed Professional Engineer after the installation is complete but prior to final inspection and approval. A corrective action plan shall be developed for any open or continuing issues that are allowed to be continued after commissioning. A report describing the results of the system commissioning and including the results of the initial acceptance testing required by applicable state codes shall be provided to Zoning Enforcement Officer prior to final inspection and approval and maintained at an approved on-site location.

6. Fire Safety Compliance Plan. Such plan shall document and verify that the system and its associated controls and safety systems are in compliance with state codes, including documentation that BESS components comply with the safety standards set forth in subsection 8.12.I.

7. Operation and Maintenance Manual. Such plan shall describe continuing battery energy storage system maintenance and property upkeep, as well as design, construction, installation, testing and commissioning information and shall meet all requirements set forth state codes and NFPA 855. Maintenance provisions will be driven by manufacturer requirements for the specific listed system.

8. Depending on the location of the BESS in relation to and its interaction with the electrical grid, interconnection will be completed per 527 CMR 12.00. System interconnections into utility grids shall be in accordance with NFPA 855. An accessible disconnect is required per 527 CMR 12.00.

9. Prior to the issuance of the building permit, engineering documents must be signed and sealed by a Massachusetts Licensed Professional Engineer.

10. Emergency Operations Plan. An Emergency Operations Plan compliant with NFPA 855 is required. A copy of the approved Emergency Operations Plan shall be given to the system owner, the local fire department, and local fire code official. For so long as the BESS is operational, the operator shall provide the Fire Department, Police Department, Building Commissioner, and Town Manager's office with contact information for personnel that can be reached 24 hours per day every day, and this contact information shall be updated by the operator whenever there is a change in the information. The operator shall also be required to have an official representative be present onsite not later than two hours after notification by the Fire Chief, Police Chief, or their designee. A permanent copy shall also be placed in an approved location to be accessible to facility personnel, fire code officials, and emergency responders. The emergency operations plan shall include the following information:

- a. Procedures for safe shutdown, de-energizing, or isolation of equipment and systems under emergency conditions to reduce the risk of fire, electric shock, and personal injuries, and for safe start-up following cessation of emergency conditions.
- b. Procedures for inspection and testing of associated alarms, interlocks, and controls, including time intervals for inspection and testing.
- c. Procedures to be followed in response to notifications from the Battery Energy Storage Management System, when provided, that could signify potentially dangerous conditions, including shutting down equipment, summoning service and repair personnel, and providing agreed upon notification to fire department personnel for potentially hazardous conditions in the event of a system failure.
- d. Emergency procedures to be followed in case of fire, explosion, release of liquids or vapors, damage to critical moving parts, or other potentially dangerous conditions. Procedures can include sounding the alarm, notifying the fire department, evacuating personnel, de-energizing equipment, and controlling and extinguishing the fire.
- e. Response considerations similar to a safety data sheet (SDS) that will address response safety concerns and extinguishment when an SDS is not required.
- f. Procedures for safe disposal of battery energy storage system equipment damaged in a fire or other emergency event, including maintaining contact information for personnel

qualified to safely remove damaged battery energy storage system equipment from the facility.

- g. Other procedures as determined necessary by the Town to provide for the safety of occupants, neighboring properties, and emergency responders.
- h. Procedures and schedules for conducting drills of these procedures and for training local first responders on the contents of the plan and appropriate response procedures.

H. Ownership Changes. If the owner of the battery energy storage system changes or the owner of the property changes, the special permit shall remain in effect, provided that the successor owner or operator assumes in writing all of the obligations of the special permit, site plan approval, and decommissioning plan. A new owner or operator of the battery energy storage system shall notify the Building Commissioner of such change in ownership or operator within 14 days of the ownership change. A new owner or operator must provide such notification to the Building Commissioner in writing.

I. Safety

1. System Certification. Battery energy storage systems and equipment shall be listed by a Nationally Recognized Testing Laboratory to UL 9540 (Standard for battery energy storage systems and Equipment) or approved equivalent, with subcomponents meeting each of the following standards as applicable:

- a) UL 1973 (Standard for Batteries for Use in Stationary, Vehicle Auxiliary Power and Light Electric Rail Applications),
- b) UL 1642 (Standard for Lithium Batteries),
- c) UL 1741 or UL 62109 (Inverters and Power Converters),
- d) Certified under the applicable electrical, building, and fire prevention codes as required.
- e) Alternatively, field evaluation by an approved testing laboratory for compliance with UL 9540 (or approved equivalent) and applicable codes, regulations and safety standards may be used to meet system certification requirements.

2. Site Access. Battery energy storage systems shall be maintained in good working order and in accordance with industry standards. Site access shall be maintained, including snow removal at a level acceptable to the local fire department.

3. Battery energy storage systems, components, and associated ancillary equipment shall have required working space clearances, and electrical circuitry shall be within weatherproof enclosures marked with the environmental rating suitable for the type of exposure in compliance with NFPA 70.

K. Abandonment

The battery energy storage system shall be considered abandoned when it ceases to operate consistently for more than one year. If the owner and/or operator fails to comply with decommissioning upon any abandonment, the Town may, after compliance with any applicable state and federal constitutional requirements, enter the property and utilize the available bond and/or security for the removal of a Tier 2 BESS and restoration of the site in accordance with the decommissioning plan.

Or act in any manner relating thereto.

SOLAR ELECTRIC INSTALLATIONS

Article B: To see if the Town will vote to amend the Zoning Bylaw by amending Section 2 Definitions, by adding the words in **bold**:

Electric Power Generation: The process of generating electric power from other sources of primary energy such as electromechanical generators, chemical combustion, and Renewable Energy, **but excluding Solar Electric Installations and Solar Photovoltaic Arrays.**

And by amending Section 8.11, Solar Electric Installations, as follows, with wording to be deleted shown in strikethrough, and added wording shown in **bold**:

SECTION 8.11 SOLAR ELECTRIC INSTALLATIONS

A. Purpose

The purpose of this bylaw is to facilitate and appropriately regulate the creation of Ground-Mounted Solar Electric Installations: (a) by providing standards for the approval, placement, design, construction, operation, monitoring, modification and removal of such installations to protect the public health, safety and welfare, including protection and preservation of Town infrastructure (including roads); providing for public safety; and mitigating any impacts upon environmental, scenic, and historic resources; (b) by providing adequate financial assurance for the eventual decommissioning of such installations; and (c) by protecting large, contiguous blocks of forest land, based on the understanding that large, contiguous tracts provide many ecological benefits, including improved water and air quality, sequestration of carbon, reduced movement of invasive species, provision of wildlife habitat and the support for greater biodiversity; and providing many recreational opportunities for town residents. **The Town through this bylaw also seeks to incentivize solar installations within already developed sites and lands with lower resource values (e.g., parking lots, roofs) in accordance with state policies such as the Department of Environmental Protection Wetlands Program Policy 17-1.**

B. Definitions

Where the following terms appear in this ~~section 8.11~~ **Zoning Bylaw**, they shall have the following meanings.

Forestland: A dense growth of trees and shrubs covering an area of one acre or more.

Ground-Mounted Solar Electric Installation: A Solar Electric System that is affixed to the ground (not roof-mounted) and all appurtenant fencing, access driveways, drainage infrastructure, electronics, and any surrounding shade management areas.

Large-Scale Ground-Mounted Solar Electric Installation: A Ground-Mounted Solar Electric Installation which occupies more than one acre of land and no greater than fifteen acres of land; **also including a Ground-Mounted Solar Electric Installation with a rated name plate capacity of 250 kW (DC).**

Small-Scale Ground-Mounted Solar Electric Installation: A Ground-Mounted Solar

Electric Installation which occupies one acre or less of land.

Solar Electric System: A group of Solar Photovoltaic Arrays used for electrical power generation.

Solar Energy: Radiant energy received from the sun that can be collected in the form of heat or light by a solar collector.

Solar Parking Canopy: An elevated structure that hosts solar panels installed over parking lots or other hardscape areas.

Solar Photovoltaic Array: An active Solar Energy collection device that converts solar energy directly into electricity whose primary purpose is to harvest energy by transforming solar energy into another form of energy or transferring heat from a collector to another medium using mechanical, electrical, or chemical means.

C. Applicability

1. Roof-mounted Solar Energy Facilities. Solar energy panels mounted on the roof of a building as an accessory portion of the structure, and related equipment which is necessary for and incidental to those solar energy panels, are allowed by right in all zoning districts, and do not need to comply with the other provisions of this Section 8.11.
2. Small-Scale Ground-Mounted Solar Electric Installations which are accessory to a residential or non-residential use, and which generate electricity principally used by such residential or non-residential use, may be allowed by special permit **in all zoning districts**, do not need to comply with the other provisions of this Section 8.11, but require Site Plan Review under Section 3.5 from the Planning and Economic Development Board.
3. Solar Parking Canopies which are accessory to a residential or non-residential use may be allowed by special permit in all zones except AR-I, AR-II, **OGN** and VR, or which are otherwise allowed under the provisions of this Zoning Bylaw, and are subject to the requirements of this Section 8.11.
4. All other Small-Scale and Large-Scale Ground-Mounted Solar Electric Installations are subject to the requirements of this Section 8.11, and are allowed in zoning districts only as specified in Table 1: Schedule of Uses, ~~under Section E Industrial and Related Uses, as "Electric power generation, which includes large-scale ground-mounted solar photovoltaic installations with a rated name plate capacity of 250 kw (DC) or more and other Renewable Energy sources."~~
5. The Planning and Economic Development Board (the Board) shall be the special permit granting authority for all special permit applications under Section 8.11.

D. General Requirements

1. Compliance with Laws, Bylaws, and Regulations - The construction and operation of all Ground-Mounted Solar Electric Installations shall be consistent with all applicable local, state and federal requirements, including but not limited to all applicable safety, construction, electrical, and communications requirements, and require Site Plan Review per Section

3.5.3.A.1.d of this Zoning Bylaw.

2. Mitigation for Loss of Carbon Sequestration and Forest Habitat - If land that is Forestland or has been Forestland within the **one year immediately preceding the filing of an application to install** ~~past year is proposed to be converted to~~ a Ground-Mounted Solar Electric Installation, the plans shall designate thereon an area of unprotected (meaning, not subject to G.L. c. 184, sections 31-33 at time of application) land on the same lot and of a size equal to **two** ~~four~~ times the total area of **Forestland that will be eliminated, cut, destroyed, or otherwise disturbed by** such installation. Such designated land shall remain in substantially its natural condition without alteration, including prohibition of commercial forestry or tree cutting not related to the maintenance of the installation, until such time as the installation is decommissioned; except in response to a natural occurrence, invasive species or disease that impacts the trees and requires cutting to preserve the health of the forest.
3. Mitigation for Loss of Forest Habitat within the Installation - If Forestland is proposed to be converted to a Ground-Mounted Solar Electric Installation, the plans shall show mitigation measures that create a wildflower meadow habitat within and immediately around the Solar Electric System, and a successional forest habitat in the surrounding areas managed to prevent shading until such time as the installation is decommissioned. The wildflower meadow shall contain a wide variety of plants that bloom from early spring into late fall, that are planted in clumps rather than single plants to help pollinators find them, and that are native plants adapted to local climate, soil and native pollinators. At least 50% of the array footprint and perimeter shall be planned to have these flowering plants. Mowing shall be limited to no more than once annually. Plans for pollinator-friendly vegetation establishment and maintenance shall be compiled and written by a professional biologist or ecologist with relevant experience and expertise in pollinator habitat creation, grassland habitat restoration, and/or knowledge of native New England plant communities.
4. Mitigation for Disruption of Trail Networks - If existing trail networks, old roads, or woods or cart roads are disrupted by the location of the Ground-Mounted Solar Electric Installation, the plans shall show alternative trail alignments to be constructed by the applicant, although no rights of public access may be established hereunder.
5. Mitigation for Disruption of Historic Resources and Properties - Historic resources and properties, such as cellar holes, farmsteads, stone corrals, marked graves, water wells, or pre-Columbian features, including those listed on the Massachusetts Register of Historic Places or as defined by the National Historic Preservation Act, shall be excluded from the areas proposed to be developed, including clearing for shade management. A written assessment of the project's effects on each identified historic resource or property and ways to avoid, minimize or mitigate any adverse effects shall be submitted as part of the application. A suitable buffer area **as determined by the Planning and Economic Development Board** shall be established on all sides of each historic resource.
6. All plans and maps shall be prepared, stamped and signed by a Professional Civil Engineer licensed to practice in the Commonwealth of Massachusetts.
7. Vehicular access for the purpose of construction shall be from paved streets.

8. Lots for Ground-Mounted Solar Electric Installations shall have the required frontage on a street.
9. The special permit may be conditioned to effectuate and make enforceable these requirements.

E. Required Documents

The project applicant shall provide the following documents.

1. Site Plan. A Site Plan additionally showing:
 - a. Locations of wetlands and Priority Habitat Areas as defined by the Natural Heritage & Endangered Species Program (NHESP).
 - b. Locations of local or National Historic Districts.
 - c. Locations of all known, mapped or suspected Native American archaeological sites or sites of Native American ceremonial activity. Identification of such sites shall be based on responses, if any, to written inquiries with a requirement to respond within 35 days, to the following parties: all federally or state recognized Tribal Historic Preservation Officers with any cultural or land affiliation to the Medway area; the Massachusetts State Historical Preservation Officer; tribes or associations of tribes not recognized by the federal or state government with any cultural or land affiliation to the Medway area; and the Medway Historical Commission. Such inquiries shall serve as a notice to the aforesaid parties and shall contain a plan of the project, specific identification of the location of the project, and a statement that permitting for the project is forthcoming. Accompanying the site plan shall be a report documenting such inquiries, the responses from the parties, a description of the location and characteristics, including photographs, of any Native American sites and the outcomes of any additional inquiries made based on information obtained from or recommendations made by the aforesaid parties. A failure of parties to respond within 35 days shall allow the applicant to submit the site plans.
 - d. The project proponent must submit a full report of all materials to be used, including but not limited to the use of cleaning products, paints or coatings, hydro-seeding, fertilizers, and soil additives. When available, Material Safety Data Sheets will be provided.
2. Blueprints. Blueprints or drawings of the installation signed by a Professional Engineer licensed to practice in the Commonwealth of Massachusetts, showing:
 - a. The proposed layout of the system and any potential shading from nearby structures.
 - b. One- or three-line electrical diagram detailing the Ground-Mounted Solar Electric Installation, associated components, and electrical interconnection methods, with all Massachusetts and National Electrical Code compliant disconnects and overcurrent devices.
3. General Documentation. The following information shall also be provided:
 - a. A list of any listed hazardous or known carcinogenic materials proposed to be located on the site in excess of household quantities and a plan to prevent their release to the environment as appropriate.
 - b. Name, address, and contact information for proposed system installer.
 - c. The name, contact information and signature of any agents representing the project applicant.

4. Site Control - The project applicant shall submit documentation of actual or prospective access and control of the project site sufficient to allow for construction and operation of the proposed Ground-Mounted Solar Electric Installation.
5. Operation and Maintenance Plan - The project applicant shall submit a plan for the operation and maintenance of the Ground-Mounted Solar Electric Installation, which shall include measures for maintaining safe access to the installation, stormwater management (consistent with DEP's and, where appropriate, Medway's stormwater regulations), as well as general procedures for operational maintenance of the installation.
6. Financial Surety - Applicants for Ground-Mounted Solar Electric Installations shall provide a form of surety, either through a deposit of money, bond, triparty agreement, or other means acceptable to the Board, to cover the cost of removal in the event the Town must remove the installation and remediate the site to its natural preexisting condition, in an amount and form determined to be reasonable by the Board, but in no event to exceed more than 125% of the cost of removal and compliance with the additional requirements set forth herein. The project applicant shall submit a fully inclusive estimate of the costs associated with removal, prepared by a qualified engineer. The amount shall include a mechanism for calculating increased removal costs due to inflation.
7. Utility Notification - No Ground-Mounted Solar Electric Installation shall be constructed, nor building permit issued until evidence has been provided to the Building Commissioner that the utility company that operates the electrical grid where the installation is to be located has approved the solar electric installation owner or operator's intent to install an interconnected customer-owned generator and that the utility has approved connection of the proposed generator into their power grid. Off-grid systems shall be exempt from this requirement.
8. Proof of Liability Insurance. The applicant or property owner shall provide evidence of liability insurance prior to the issuance of a building permit, **and shall continue such insurance in effect until such facility has been decommissioned, removed, and the site restored in accordance with subsection K of this bylaw.**

F. Dimensional Requirements

1. Minimum setbacks for all Large-Scale Ground-Mounted Solar Electric Installations shall be:
 - Front setback: 500 feet
 - Side and rear setback: 100 feet
2. Minimum setbacks for all Small-Scale Ground-Mounted Solar Electric Installations shall be:
 - Front setback: 100 feet
 - Side and rear setback: 50 feet
3. Minimum setbacks for all Ground-Mounted Solar Electric Installations that are installed on or above existing paved parking areas (Solar Parking Canopies):
 - Front setback: 50 feet
 - Side and rear setback: 50 feet
4. Required setback areas shall not be counted toward a facility's total acreage.

G. Design and Performance Standards

1. Lighting - ~~Large and Small Scale Solar Electric Installations, except Solar Parking Canopies, shall have no permanently affixed exterior lighting.~~ **Lighting shall be limited to that minimally required for safety and operational purposes and shall comply with Section 7.1.2 of this Zoning Bylaw.**
2. Signage
 - a. Sufficient signage shall be provided to identify the owner of the facility and provide a 24-hour emergency contact phone number.
 - b. Signage at the perimeter warning pedestrians is allowable.
 - c. Ground-Mounted Solar Electric Installations shall not be used for displaying any advertising except for reasonable identification of the manufacturer or operator of such installation.
3. Control of Vegetation - Herbicides or pesticides may not be used to control vegetation or animals at a Ground-Mounted Solar Electric Installation.
4. Visual Impacts
 - a. Ground-Mounted Solar Electric Installation shall be designed to minimize visual impacts including preserving natural vegetation to the maximum extent possible, blending in equipment with the surroundings, and adding vegetative buffers to provide an effective visual barrier from adjacent roads and driveways, and to screen abutting residential dwellings.
 - b. When possible, a diversity of plant species shall be used, with a preference for species native to New England.
 - c. Use of invasive or exotic plants, as identified by the most recent copy of the "Massachusetts Prohibited Plant List" maintained by the Massachusetts Department of Agricultural Resources, is prohibited.
 - d. The Board may require vegetative screening, up to 30 feet in depth in locations it deems necessary. Such screening shall be composed of native trees, staggered for height and density, and shall be properly maintained.
 - ~~e. The owner and operator shall not remove any naturally occurring vegetation such as trees and shrubs unless it adversely affects the performance and operation of the solar installation.~~
 - f e. Landscaping shall be maintained and replaced as necessary by the owner and operator of the Ground-Mounted Solar Electric Installation.
5. Utility Connections - Electrical transformers, wires, or other utility interconnections shall be constructed as required by the utility provider and may be above ground if necessary; provided, however, that every reasonable effort shall be made to place all utility connections underground, depending on appropriate soil conditions and topography of the site and any requirements of the utility provider.
6. All electric power generated at a Ground-Mounted Solar Electric Installation shall be from Solar Energy.
7. Access Driveways shall be constructed to minimize finished width, grading, removal of stone walls or roadside trees, incompatible appearance from the roadway, and impacts to

environmental or historic resources.

H. Safety and Environmental Standards

1. Emergency Services
 - a. Ground-Mounted Solar Electric Installations owner or operator shall provide a copy of the project summary, electrical schematic, and site plan to the Fire Chief.
 - b. The owner or operator shall cooperate with local emergency services to develop a written emergency response plan that is provided to police and fire departments
 - c. All means of shutting down the solar electric installation shall be clearly marked on the equipment.
 - d. The owner or operator shall identify a responsible person for public inquiries throughout the life of the installation. Contact information shall be provided annually to the Town Manager including name, email and telephone number for the designated person and a back-up person.
2. Land Clearing, Soil Erosion and Land Impacts
 - a. The facility shall be designed to minimize impacts to open agricultural land and fields, even if not in production. Clearing of natural vegetation shall be limited to what is necessary for the construction, operation and maintenance of the Ground-Mounted Solar Electric Installation. Grading that substantially disturbs the existing soil profile and structure is prohibited; sites shall be selected where construction may be accomplished without such earth work.
 - b. Prior to any site disturbance and construction, the limits of the work shown on the approved site plan shall be surveyed and clearly marked by a Professional Land Surveyor. Upon completion of the survey, the Professional Land Surveyor shall verify to the Building Commissioner, in writing, that the limit of work, as shown on the approved site plans, has been established on site.
 - c. The design shall minimize the use of concrete and other impervious materials to the maximum extent possible. **Except where necessary for structural or other reasons established by the applicant to the reasonable satisfaction of the PEDB,** Ground-Mounted Solar Electric Installations, except Solar Parking Canopies, shall be installed on water permeable surfaces **in order to promote groundwater recharge, minimize groundwater run-off, preserve wildlife habitat and biodiversity, and reduce heat island effects and climate change impacts.**
 - d. Locating Ground-Mounted Solar Electric Installations, including access driveways and any associated drainage infrastructure on original, pre-development grades in excess of 15% is prohibited.
3. Habitat Impacts - Large-Scale Ground-Mounted Solar Electric Installations shall not be located on permanently protected land subject to G.L. c. 184, sections 31-33, Priority Habitat and Bio Map 2 Critical Natural Landscape Core Habitat mapped by the Natural Heritage and Endangered Species Program (NHESP) and "Important Wildlife Habitat" mapped by the DEP.
4. Wetlands
 - a. In order to provide an adequate intervening land area for the infiltration of stormwater runoff from a Solar Electric Installation, ground alterations, such as stump removal,

excavation, filling, and grading, or the installation of drainage facilities or solar panels, are prohibited within 100 feet of any wetlands or hydrologic features subject to the jurisdiction of the Conservation Commission.

- b. The Board may impose conditions to contain and control stormwater runoff that might negatively impact identified wetlands or other hydrologic features even if the proposed work area is outside the jurisdiction of the Conservation Commission.

I. Monitoring, Maintenance and Reporting

1. Solar Electric Installation Conditions

- a. The Ground-Mounted Solar Electric Installation owner or operator shall maintain the facility in good condition.
- b. Maintenance shall include, but not be limited to, painting, structural repairs, and integrity of security measures.
- c. Site access shall be maintained to a level acceptable to the Fire Chief.
- d. The owner or operator shall be responsible for the cost of maintaining the Solar Electric Installation and any access driveways.

2. Annual Reporting

- a. The owner or operator of a Ground-Mounted Solar Electric Installation shall submit an annual report demonstrating and certifying compliance with the Operation and Maintenance Plan, the requirements of this Section 8.11 and the approved special permit, including but not limited to continued management and maintenance of vegetation, compliance with the approved plans and any special permit conditions, continuation of liability insurance, and adequacy of road access.
- b. The annual report shall also provide information on the maintenance completed during the course of the year and the amount of electricity generated by the facility.
- c. The report shall be submitted to the Department of Community and Economic Development and Building Commissioner, no later than 45 days after the end of the calendar year.

K. Abandonment or Decommissioning

1. Removal Requirements

- a. Any Ground-Mounted Solar Electric Installation which has reached the end of its useful life, has been abandoned, or taken off line shall be removed.
- b. The owner or operator shall physically remove the installation no later than 150 days after the date of discontinued operations.
- c. The owner or operator shall notify the Building Commissioner in writing at least sixty days in advance of the proposed date of discontinued operations and plans for removal.

2. Decommissioning shall consist of:

- a. Physical removal of all components of the Ground-Mounted Solar Electric Installation, including but not limited to structures, foundations, equipment, security barriers, and on-site above-ground transmission lines. Associated off-site utility interconnections shall also be removed if no longer needed.
- b. Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations.

- c. Restoration of the site, including stabilization or re-vegetation of the site as necessary to minimize erosion. The Board may allow the owner or operator to leave landscaping or designated below-grade foundations and electric lines in order to minimize erosion and disruption to vegetation.
3. Decommissioning by the Town - If the owner or operator of a Ground-Mounted Solar Electric Installation fails to remove such installation in accordance with the requirements of this Section 8.11 within 150 days of discontinued operations or abandonment, the Town may, **after compliance with any applicable state and federal constitutional requirements**, enter the property and physically remove the installation and stabilize the site, at the owner's expense, drawing upon the financial surety provided by the applicant.

or act in any manner relating thereto.

Article C: To see if the Town will vote to amend the Zoning Bylaw by amending Table 1, Schedule of Uses in Section 5.4.E, Industrial Uses, as shown in the Table below, (deleted words shown in strikethrough, added words shown in **bold**):

TABLE 1: SCHEDULE OF USES													
	AR-I	AR-II	VR	CB	VC	NC	BI	EI	ER	WI	Form-Based Districts		
											OGV C	OGB P	OGN
E. INDUSTRIAL AND RELATED USES													
Warehouse/distribution facility	N	N	N	N	N	Y	N	Y	Y	Y	N	PB	N
Wholesale bakery <i>(Added 11-16-15; amended 11-15-21)</i>	N	N	N	N	N	N	N	Y	N	Y	N	Y	N
Wholesale showroom or office, including warehouse <i>(Amended 11-15-21)</i>	N	N	N	N	N	N	Y	Y	N	Y	N	Y	N
Manufacturing <i>(Amended 5-8-17; amended 11-15-21)</i>	N	N	N	N	N	N	Y	Y	N	Y	N	Y	N
Light Manufacturing <i>(Added 5-8-17; amended 11-15-21)</i>	N	N	N	N	N	Y	Y	Y	N	Y	N	Y	N
Contractor's yard	N	N	N	N	N	N	Y	Y	N	N	N	PB	N
Construction Equipment/Machinery Sales, Leasing or Rentals <i>(Added 11-15-21)</i>	N	N	N	N	N	N	N	N	N	PB	N	N	N
Research and development <i>(Amended 11-15-21)</i>	N	N	N	N	N	N	Y	Y	N	Y	N	Y	N
Brewery <i>(Amended 11-15-21)</i>	N	N	N	N	N	N	Y	Y	N	Y	N	Y	N
Research and development and/or manufacturing of renewable energy products <i>(Amended 11-16-20)</i>	N	N	N	N	N	N	Y	Y	Y	Y	N	Y	N
Bulk Storage <i>(Added 11-18-19)</i>	N	N	N	N	N	N	N	N	N	N	N	N	N
Electric power generation which includes large-scale ground-mounted solar photovoltaic installations with a rated name plate capacity of 250 kW (DC) or more and other Renewable Energy sources but excluding battery energy storage systems. See footnote 5 <i>(Amended 11-16-20)</i>	N	N	N	N	N	N	N	N	Y	N	N	N	N
Large-scale ground-mounted solar electric installations, including those with a rated name plate capacity of 250 kW (DC) or more; but excluding battery energy storage systems as a principal use.	N	N	N	N	N	N	Y	Y	Y	Y	N	Y	N
Small-scale ground-mounted solar electric installations (as principal use)	N	N	N	N	N	SP	Y	Y	Y	Y	N	Y	N
Tier 1 Battery Energy Storage System	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Tier 2 Battery Energy Storage System	N	N	N	N	N	N	N	N	PB	N	N	N	N
Gravel/loam/sand or stone removal, commercial	N	N	N	N	N	N	N	N	N	N	N	N	N
Accessory Uses													
Outdoor storage of materials and parking of vehicles and equipment associated with a business operated in a building on	N	N	N	N	N	N	Y	Y	Y	Y	N	PB	N

TABLE 1: SCHEDULE OF USES

	AR-I	AR-II	VR	CB	VC	NC	BI	EI	ER	WI	Form-Based Districts		
											OGV C	OGB P	OGN
the premises, subject to Section 7.1.3 of the Zoning Bylaw <i>(Amended 11-18-19)</i>													
Small-scale ground-mounted solar electric installations	PB	PB	PB	PB	PB	PB	PB	PB	PB	PB	PB	PB	PB
Solar Parking Canopies	N	N	N	PB	PB	PB	PB	PB	PB	PB	PB	PB	N
Tier 1 Battery Energy Storage System	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Footnotes:

1. In the OGN District, detached single family homes are permitted if they meet the designs standards for cottages under Section 9.4
2. In the OGVC and CB District, multi-family dwellings and developments include rowhouses (attached single family units) which are subject to the design standards under Section 9.4 *(Amended 5-10-21)*
3. Allowed by special permit from the Planning and Economic Development Board in the Multi-Family Overlay District (See Section 5.6.4) and the Medway Mill Conversion Subdistrict (See Section 5.6.2 E). *(Added 5-10-21)*
4. Vehicle fuel station with convenience store in the Central Business District (CB) is only allowed on the site of an existing vehicle fuel station with convenience store or an existing vehicle fuel station with repair services. Any substantial improvement to the existing building(s) or fueling station(s) shall require the site to comply with the design standards of Gas Station and Convenience Store in Section 9. Table 9.4.C.1.B *(Added 5-10-21)*
5. **Certain small- scale ground-mounted solar electric installations and Solar Parking Canopies are allowed in certain zoning districts under Section 8.11.C. Roof-mounted Solar Energy Facilities are allowed per Section 8.11.C.**

MITIGATION

Article D: To see if the Town will vote to amend the Zoning Bylaws, by adding a new Section 7.4 Development Mitigation as follows:

Section 7.4 Development Mitigation

- A. **Purposes.** The purposes of this bylaw include the encouragement of development design that protects the Town's environmental, scenic, and historic resources, by: a) providing mitigation of the impacts of significant development projects in order to protect the public health, safety and welfare, including mitigating any impacts upon environmental, scenic, and historic resources; and (b) protecting large, contiguous tracts of forest land, based on the understanding that large, contiguous tracts provide many ecological benefits, including improved water and air quality, sequestration of carbon, reduced movement of invasive species, provision of wildlife habitat and the support for greater biodiversity.
- B. **Applicability.** The requirements of this Bylaw (Section 7.4) apply to all developments under the following sections of this Zoning Bylaw: 8.4 Open Space Residential Development (OSRD); 8.5 Adult Retirement Community Planned Unit Development; 8.7 Wireless Communication Facilities; 8.8 Small Wind Generation; 8.9 Registered Medical Marijuana Facilities; 8.10 Recreational Marijuana; 8.11 Solar Installations, and 8.12 Battery Energy Storage Systems.
- C. **Standards.** For all developments that are subject to this Bylaw, mitigation for the impacts of the development shall be required for the following impacts.
1. Mitigation for Loss of Carbon Sequestration and Forest Habitat. If land that is Forestland or has been Forestland within the one year immediately preceding the filing an application for a development, the plans shall designate thereon an area of unprotected (meaning, not subject to G.L. c. 184, sections 31-33 at time of application) land on the same lot and of a size equal to two times the total area of Forestland that will be eliminated, cut, destroyed, or otherwise disturbed by such development. Such designated land shall remain in substantially its natural condition without alteration, including prohibition of commercial forestry or tree cutting not related to the maintenance of the development, except in response to a natural occurrence, invasive species or disease that impacts the trees and requires cutting to preserve the health of the forest. In the case of a development such as a solar array that is decommissioned, upon completion of decommissioning, these requirements will no longer apply.
 2. Mitigation for Disruption of Trail Networks. If existing trail networks, old roads, or woods or cart roads are disrupted by the location of the development, the plans shall show alternative trail alignments to be constructed by the applicant, although no rights of public access may be established hereunder.
 3. Mitigation for Disruption of Historic Resources and Properties. Historic resources, structures and properties, such as cellar holes, farmsteads, stone corrals,

marked graves, water wells, or pre-Columbian features, including those listed on the Massachusetts Register of Historic Places or as defined by the National Historic Preservation Act, shall be excluded from the areas proposed to be developed, including clearing for shade management. A written assessment of the project's effects on each identified historic resource or property and ways to avoid, minimize or mitigate any adverse effects shall be submitted as part of the application. A suitable buffer area as determined by the Planning and Economic Development Board shall be established on all sides of each historic resource.

Or act in any manner relating thereto.

MULTIFAMILY HOUSING

ARTICLE E: To amend the Medway Zoning Bylaw, Section 5.6.4 Multi-Family Housing, as follows. Proposed language is noted in **bold**.

By revising item 1. in C. Dimensional Regulations.

1. The minimum dimensional regulations as specified in Table 2 shall be the same **for a proposed multi-family building, apartment building, or multi-family development** as for the underlying zoning district in which the parcel is located. However, the Planning and Economic Development Board may adjust these dimensional requirements by a four-fifths vote if, in its opinion, such adjustment will result in a more desirable design of the development or provide enhanced buffering for adjacent residential properties. **Such adjustment may include increasing the underlying setback requirements.**

And by adding a new item 5. in C. Dimensional Regulations

5. The minimum lot size for a Multi-Family Building shall be 30,000 sq. ft.

And by amending D. Density Regulations by revising items 1 and 2 as follows, inserting a new item 3, and changing the numbering of item 3 to item 4.

1. For lots of one acre or more:
 - a. The density of a Multi-Family Building or a Multi-Family Development without an Apartment Building shall not exceed 8 dwelling units per whole acre **of Land Available for Development**. For example, the maximum density of a **lot with 1.8 Acres of Land Available for Development** shall not exceed 8 dwelling units.
 - b. The density of an Apartment Building or a Multi-Family Development which includes an Apartment Building shall not exceed 12 dwelling units per whole acre **of Land Available for Development**.
2. For lots under one acre, the density of a Multi-Family Building or a Multi-Family development shall not exceed its relative portion of an acre **of Land Available for Development**.
3. **Land Available for Development = Total area of the site minus the area subject to upland utility easements and minus 50% of all areas subject to protection under the Wetlands Protection Act, G.L. c. 131, §40, and the Town's General Wetlands Protection Bylaw, Article XXI of the General Bylaws.**
- ~~3.~~**4.** An Applicant is not entitled to the maximum possible number of dwelling units described herein. The number of dwelling units for a Multi-Family Development and/or Multi-Family Building shall be determined by the Planning and Economic Development Board in accordance with the criteria specified in Paragraph I. Decision herein.

And by revising item 3. Parking in E. Special Regulations

3. Parking: At least ~~one and one-half~~ **two** off-street parking spaces shall be provided for each dwelling unit plus one additional visitor parking space for every two dwelling units. **The Planning and Economic Development Board may adjust this requirement by a four-fifths vote, in consideration of the size of the proposed dwelling units.**

And by adding a new item 8 in E. Special Regulations

8. Architectural Character – In designing new construction of a Multi-Family Building, Apartment Building, or Multi-Family development, Applicants should consider the existing character, scale, and architecture of the surrounding neighborhood and nearby buildings.

Or to act in any manner related thereto.

PLANNING AND ECONOMIC DEVELOPMENT BOARD

SCHEDULE OF USES

Article G: To see if the Town will vote to amend the Zoning Bylaws, Section 5.4, Table 1 Schedule of Uses, by:

- (1) changing the special permit granting authority for “Infill Dwelling Unit, Subject to Section 8.1”; and “Assisted living residence facility”, and “Electric vehicle charging station with digital advertising signage, subject to Section 5.4.2 of the Zoning Bylaw” from the Planning and Economic Development Board to the Zoning Board of Appeals in each zoning district in which said uses are currently allowed by special permit; and
- (2) changing the special permit granting authority for “Retail store larger than 20,000 sq. ft.” from the Zoning Board of Appeals to the Planning and Economic Development Board in the Business Industrial Zone; and
- (3) changing the special permit granting authority for “Shopping center/multi-tenant development” from the Zoning Board of Appeals to the Planning and Economic Development Board in the Neighborhood Commercial and Business Industrial Zones; and
- (4) changing the special permit granting authority for “Veterinary Hospital” and “Lodge or Club” from the Planning and Economic Development Board to the Zoning Board of Appeals in the Central Business District.

Or act in any manner related thereto.

HOUSEKEEPING

Article F: Zoning Amendments – Housekeeping

To see if the Town will vote to amend the Zoning Bylaw, as provided below

1. Amend Open Space Residential Development, Section 8.4.F.1 by changing the reference “Paragraph I” to “Paragraph J”

2. Add a new definition:

Forestland: A dense growth of trees and shrubs covering an area of one acre or more.

3. Change all references in the Zoning Bylaw that now read “Board of Selectmen” to “Select Board” and all references that now read “Department of Public Services” to “Department of Public Works”. Delete “the Water and Sewer Commission” in Section 5.6.3.F.1.

or act in any manner related thereto.

Oak Grove and Central Business amendments v. 5 bjs

Article ____ To see if the Town will amend the Zoning Bylaw, Section 9 Oak Grove Park Districts, and Section 10 Central Business District Development Standards as follows (deleted wording shown in strikethrough, added wording shown in bold):

(1) Amend Oak Grove Park Districts, Section 9.4.B as follows:

B. Determination of Building Type

1. **At the time any application is filed with the PEDB under this Section 9, the applicant shall file a written request with the Building Commissioner to classify any new principal structures that are proposed as part of the application, or any existing structures that are to be expanded or converted to new uses.** The Building Commissioner shall classify new principal structures as a specific building type based on the definition of each type and upon finding that the structure is substantially similar in placement, height, massing, use, and features to one of the permitted building types for the zoning district where the structure is located. The Building Commissioner shall also classify existing structures that are being expanded or converted to new uses under this section. If the Building Commissioner is unable to classify an existing principal structure as one of the building types of this section, the structure is considered nonconforming. **The Building Commissioner shall respond to such requests, in writing, within twenty days of receipt of the request.**
2. If a new building is proposed that cannot be classified as one of the allowed building types of this section by the Building Commissioner, the building type is subject to special permit review by the PEDB under Section 9.9. **The PEDB shall determine if the building type is appropriate for the Zoning District, and, if so, determine the building type under Tables 9.4.C.1.A through 9.4.C.1.C that most closely resembles the proposed new building, and apply the standards for that building type to the new building.**
3. When granting a special permit for a building type that cannot be classified under Tables 9.4.C.1.A through 9.4.C.1.C., any such building shall not be used except for a use allowed by right or by special permit in Table 1 in Section 5.4 Schedule of Uses.

(2) And amend Tables 9.4.C.1.B and 9.4.C.1.C as follows: by deleting the text for Maximum Building Footprint (SF) in the columns for “Mixed-Use Building”, “General Commercial Building”, “Hotel” and “Fabrication or Flex Building”, and inserting in its place in each column the words “Not Required”.

(3) And amend Central Business District, Section 10.2.C.1; Section 10.3.C.1, and Section 10.4.C as follows:

10.2.C Building Placement and Orientation.

1. Building Lot and Type. The minimum lot size in the Central Business District is identified on Table 2 - Dimensional and Density Regulations in Section 6.1 of the Zoning Bylaws. For specific building types, ~~other there are alternative~~ dimensional standards for ~~building lot and for building design that~~ apply under Section 10.4 below.

10.3 MIXED-USE DEVELOPMENT STANDARDS

C. Dimensional Requirements.

1. Mixed-Use and Residential Development. ~~The dimensional requirements for the Central Business District are provided in Section 6.1. Schedule of Dimensional and Density Regulations.~~ For residential and mixed-use development, ~~however,~~ the following standards apply.
 - a. Front-yard Setback Encroachments. Principal buildings shall be set back a minimum of 10 feet from the front lot line. Architectural features such as bay windows, porches, balconies, porticos, canopies, etc. shall not be subject to the ten-foot minimum setback.
 - b. Side-Yard and Rear-Yard Setbacks. Notwithstanding the provisions of Section 10.2.E.3, there shall be a minimum setback of 25 feet from all side and rear lot lines abutting a residential zoning district, of which the first ten feet nearest each lot line shall not be used for the parking or storage of vehicles and shall be suitably landscaped. There is no side-yard or rear-yard setback for properties abutting other properties within the Central Business district.
 - c. Maximum Building Height: Residential and mixed-use buildings shall not exceed sixty feet in height, and are subject to the building height step back requirements in Section 10.2.C.3.

10.4 BUILDING TYPES AND DESIGN STANDARDS

C. Commercial, Residential and Mixed-Use Building Types.

1. Building Design Standards. The building types and associated design standards permitted in the Central Business District are identified below:
 - a. Rowhouse (RH) on Separate Lot as set forth in TABLE 9.4.C.1.A.
 - b. Rowhouse (RH) on Common Lot as set forth in TABLE 9.4.C.1.A.
 - c. Multi-Family Building as set forth in TABLE 9.4.C.1.A.
 - d. Mixed-Use Building as set forth in TABLE 9.4.C.1.B.
 - e. General Commercial Building as set forth in TABLE 9.4.C.1.B.
 - f. Hotel as set forth in TABLE 9.4.C.1.B.
 - g. Gas Station and Convenience Store as set forth in TABLE 9.4.C.1.B, applicable only to substantial redevelopment or renovation of existing vehicle fuel stations with repair or vehicle fuel stations with convenience store pursuant to Section 10.2.A.
 - h. Civic or Community Building as set forth in TABLE 9.4.C.1.C.

CONTRACTOR'S QUARTERS

ARTICLE I: To see if the Town will vote to amend the Zoning Bylaw by adding the following definition in Section 2:

Contractor's Quarters: The premises of a building, construction, plumbing, wiring, landscaping, or other similar contracting or sub-contracting business, occupied and used by a contractor or subcontractor with offices for its administrative operations and any one or more of the following purposes to be conducted wholly indoors: storage of equipment, supplies and materials, and finished products; product assembly; servicing of equipment; wholesale or retail sales; or showroom for finished and unfinished products or materials.

And by amending Table 1, Schedule of Uses in Section 5 Use Regulations to allow Contractor's Quarters by right in the following zoning districts: Village Commercial, Business Industrial, West Industrial, East Industrial, Central Business District, Neighborhood Commercial and Oak Grove Business Park.

And to act in any manner related thereto.

PLANNING AND ECONOMIC DEVELOPMENT BOARD

2. At the time any application is filed with the PEDB under this Section 10, the applicant shall file a written request with the Building Commissioner to classify any new principal structures that are proposed as part of the application, or any existing structures that are to be expanded or converted to new uses. The Building Commissioner shall classify new principal structures as a specific building type based on the definition of each type and upon finding that the structure is substantially similar in placement, height, massing, use, and features to one of the permitted building types for the zoning district where the structure is located. The Building Commissioner shall also classify existing structures that are being expanded or converted to new uses under this section. If the Building Commissioner is unable to classify an existing principal structure as one of the building types of this section, the structure is considered nonconforming. The Building Commissioner shall respond to such requests, in writing, within twenty days of receipt of the request.

23. Alternative Building Types. If the Building Commissioner cannot classify a proposed new building as one of the building types specifically allowed by this section, the building type is subject to issuance of a special permit by the PEDB. **The PEDB shall determine if the building type is appropriate for the Zoning District, and, if so, determine the building type under Tables 9.4.C.1.A through 9.4.C.1.C that most closely resembles the proposed new building, and apply either the standards for that building type or the dimensional standards in Section 6.1 to the new building.**

(4) And amend Table 2, Dimensional and Density Regulations to add a footnote for the “CB” column: “Dimensional requirements set forth in Section 10 of this Zoning Bylaw shall take precedence over the provisions of this Table 2 for the CB zone.”

Or take any action relative thereto.



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

One Winter Street Boston, MA 02108 • 617-292-5500

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Matthew A. Beaton
Secretary

Martin Suuberg
Commissioner

Wetlands Program Policy 17-1: Photovoltaic System Solar Array Review

Effective Date: 9-23-2017

DWW Policy 08-1 (BWR/WWP 17-1)

Program Applicability: All Boston and Regional BWR Programs,
Municipal Conservation Commissions, and
developers of solar photovoltaic systems.

Supersedes Policy: None

Approved by: Lealdon Langley, Director - Wetlands and Waterways Program

PURPOSE: This policy sets forth the Department's approach for reviewing ground-mounted solar photovoltaic systems relative to wetland jurisdiction.

STATUTORY AND REGULATORY BACKGROUND:

MGL c. 131, s. 40: Wetlands Protection Act ("Act") and 310 CMR 10.00.

MGL c. 21, s. 27: Massachusetts Water Quality Certification regulations, 314 CMR 9.00.

MGL c. 40A, s. 3: Massachusetts Zoning law states that no zoning ordinance or by-law shall prohibit or unreasonably regulate solar energy systems except where necessary to protect public health, safety, or welfare.

Green Communities Act ("GCA"): Acts of 2008 Chapter 169 promotes adoption of new policies to encourage investment in renewable energy and boost energy efficiency; provides grants to municipalities; works with the Clean Energy Center and others to site projects; develops policy on emerging renewable energy issues; and encourages solar projects development on closed landfills and other brownfields. The GCA is designed to expand the ability of municipalities, residential customers, and businesses to produce

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electricity on their own premises; and to facilitate commercialization of and growth in large-scale energy sources that produce little or no greenhouse gas emissions.

SITING PHOTOVOLTAIC SYSTEMS:

The Massachusetts Department of Environmental Protection (MassDEP) strongly encourages the use of upland properties for locating ground-mounted photovoltaic systems (PVS). Placement of PVSs within jurisdictional wetlands is highly discouraged. Placement of PVSs within wetland buffer zones may be permissible with proper oversight of the issues discussed in this policy and proper authorization through the permitting process of the Wetland Protection Act. Wetlands impacted by PVS projects may also be subject to Sections 401 and 404 of the federal Clean Water Act. Large wooded parcels of land, historically, which have been difficult to develop in the past due to steep topography, shallow bedrock, or poor percolation rates, are often targeted for conversion to solar, development of such sites present unique challenges. Clearing, stumping, and grading of large sloped areas require special measures and attention to control changes in site hydrology and associated erosion impacts during construction. In addition, conversion of forests to PVS arrays is less beneficial for greenhouse gas reduction than converting disturbed areas to PVSs.

STANDARDS OF REVIEW:

PVSs contemplated for locations in resource areas are subject to all regulatory performance standards. Alterations to resource areas include direct impacts associated with constructing PVS arrays as well as indirect wetland alterations resulting from either decreased sunlight from panel shading or increased solar exposure from the selective cutting of tree canopies. For purposes of this policy, use of the term “panels” includes “integrated panels (or tables)” which consist of a number of individual panels joined and manufactured as a single unit. The regulatory standard for all wetland resource areas requires the avoidance and minimization of project impacts, 310 CMR 10.55(4)(b). The regulatory standard for Bordering Vegetated Wetlands (BVW) is “shall not destroy or otherwise impair ...” MassDEP has determined that placing solar arrays over BVW will result in an impairment that is prohibited or requires mitigation in accordance with 310 CMR 10.55(4). Despite the discretionary allowance for BVW impacts afforded by 10.55(4)(b), direct and indirect BVW alterations require mitigation in the same general area of the water body or reach of the waterway as the lost area. Where the proposed BVW replacement is located in upland on the project locus, suitable upland locations need to be considered as a primary alternative for locating PVSs, which would avoid wetland resources impacts all together. As part of an alternatives analysis, the guiding presumption is that any on-site potential upland available for mitigation should be considered for use in constructing PVSs. As such, the Applicant must demonstrate why that the placement of solar arrays within BVW is not avoidable. The amount of alteration proposed must be based upon the areal extent of resource areas proposed to be altered, based on the canopy area of trees projected to reach shading height throughout the life of the project, not the basal area of trees and shrubs to be removed or pruned within resource areas. See [Appendix A](#).

Proposals to locate panels within other resource areas, for example Riverfront Area or Bordering Land Subject to Flooding should be evaluated as to whether the placement is avoidable and whether the placement would meet the performance standards for the resource area. In resource areas, consideration should also be given to impacts to wetland resource areas adjacent to, and within, PVSs anticipated from long-term vegetation controls for site maintenance. Project proponents should evaluate the extent of anticipated future vegetation management impacts that may require the filing of a subsequent Notice of Intent.

Certain components of PVS projects may qualify as a Limited Project per 310 CMR 10.53(3). PVS components include: new access roadways 10.53(3)(e); construction, operation, or maintenance of public utility electric distribution or transmission lines 10.53(3)(d); or the improvement, repair and/or replacement of an existing access roadway needed to transport equipment to a renewable energy project site 10.53(3)(t).

The following information is required as part of the Notice of Intent (NOI) to demonstrate avoidance, minimization and mitigation:

1. **Avoid:** An analysis of alternatives which avoids resource area alterations must be conducted which includes, but is not limited to:
 - An alternatives analysis that considers available upland locations for PVS arrays and other project components on the subject parcel.
 - A review of alternative interconnection locations and types available to the solar facility for connecting the solar PV system to the electric grid (e.g. overhead vs. underground connections and various routes).
 - A discussion as to how the size of the PVS array can be reduced through elimination of some panels, the use of fewer, more efficient, panels that generate a greater amount of electricity, or reducing the spacing between panels/tables, for example, while maintaining project viability.
2. **Minimize:** If it remains necessary to remove vegetation to reduce or eliminate shading and achieve the preferred PVS project, the amount of alteration proposed must be minimized. To demonstrate that project impacts are minimized, the applicant must:
 - Provide an analysis that evaluates the use of high efficiency panels (e.g. panels that track the sun) and locating panels in a manner that reduces the need for future vegetation management and wetland alteration;
 - Evaluate the extent to which selective canopy alteration (e.g. pollarding) is feasible to prevent shading of the PVS versus clear-cutting;
 - Evaluate the use of specialized tree clearing equipment from upland locations to reduce wetland alteration for selective tree removal;
 - Describe how access roads, wetland crossings, and work in the buffer zone will minimize erosion or sedimentation.

- Demonstrate that ancillary structures related to construction of a solar installation or transmission of power in wetland resource areas are using best design and management practices; if fencing is proposed, the fence shall be at least 6-inches off the ground to provide for wildlife passage for the length of the fence.
 - Apply the principles of Environmentally Sensitive Site Design and Low Impact Development (LID) Techniques (310 CMR 10.04) in the design and monitoring of stormwater controls (during both construction and post-construction).
3. Mitigate: Following all efforts to minimize impacts, the applicant must demonstrate that mitigation measures are provided that:
- assure alterations proposed to wetland resource area BVW will be mitigated pursuant to the requirements of 310 CMR 10.00 and 314 CMR 9.00 (i.e. the mitigation area corresponds to the areal extent of resource areas altered, including the canopy area of trees and shrubs to be removed or pruned within resource areas);
 - monitoring plans are designed to evaluate mitigation success;
 - to the extent practicable, native soils are undisturbed, or in the cases where topsoil is removed, a minimum of six inches of native topsoil, or a comparable compost-mulch mix, is replaced to facilitate plant growth and adequate vegetation coverage to control stormwater runoff.
 - post-construction tree and shrub maintenance plans related to avoiding future shading of panels are developed; and
 - use of seed mixes and plantings are comprised of species native or naturalized to Massachusetts. (Note that any future vegetation management, beyond that authorized or conditioned in the project Order of Conditions will require the filing of a separate Notice of Intent or Request for Determination of Applicability).

4. Stormwater Management

The Stormwater Management Standards contained at 310 CMR 10.05(6)(k) apply to PVS projects. The stormwater standards include: attenuation of peak rates of runoff caused by land development (310 CMR 10.05(6)(k)2), provision of recharge (310 CMR 10.05(6)(k)3), control of Total Suspended Solids (TSS) from impervious surfaces (excluding solar panels) (310 CMR 10.05(6)(k)4), and the provision of adequate erosion and sedimentation controls (310 CMR 10.05(6)(k)8).

Solar projects within the Buffer Zone or other jurisdictional area should endeavor to utilize Low Impact Development techniques and will receive credit for Environmentally Sensitive Site Design when LID is incorporated pursuant to the “Minimum Criteria for Credit” from Volume 3, Chapter 1 of the Massachusetts Stormwater Handbook.

DEP recommends the measures below to control the peak runoff rate, provide recharge, and treat TSS, provided the following are also met (note: the Applicant may provide documentation

for consideration demonstrating that the peak rate of runoff, recharge, and TSS treatment requirements are still met in cases where the factors below are not met):

- slopes on which the PVS arrays are placed are not greater than 3:1 (18° or 33.5% slope), naturally or as graded;
- an erosion control plan is developed and implemented which prevents direct discharges to wetlands and which grade the project site to avoid or minimize channelized stormwater flow from the Buffer Zone directly into wetland resource areas;
- land disturbance and grading is conducted in a phased and selective manner (i.e. avoid, if possible, or minimize clearing the entire site at one time in order to minimize soil mobilization and the amount of soil exposure at any one time to reduce construction period runoff), or other appropriate construction best management practices are incorporated to preclude construction period runoff/erosion. Provide temporary land stabilization measures for all disturbed surfaces such as mulching until permanent native vegetative cover is established, and utilize temporary sedimentation basins as appropriate;
- construction and post-construction phase stormwater management plans include sub-catchments under the PVS arrays which include stormwater BMPs such as infiltration trenches, water bar/log bars, and natural vegetative cover consisting solely of native grass and plant species (note: the extent of stormwater BMPs required will depend largely on the existing cover type as compared to the proposed cover type. In some instances, BMPs may not be necessary, where the proposed cover type represents an improvement over existing conditions);
- top soil is preserved or supplemented sufficient to maintain vegetation cover;
- solar panel rows are spaced in a manner to allow sunlight penetration sufficient to support vegetation between the solar panel rows;
- where panel rows follow the slope (i.e. the panel arrays are constructed down, rather than across, a slope) provide intermittent gaps between adjacent panels sufficient to accommodate anticipated runoff so that runoff occurs from individual panels rather than from the length of the entire array;
- panel drip edges (or leading edge of panels) are no greater than 10-feet above the ground surface;
- no conveyances or outfalls are constructed; and.
- no work is proposed in a buffer zone of Resource Areas that borders a Critical Area, as defined at 314 CMR 9.02, or in the estimated habitat identified on the most recent Estimated Habitat Map of State Listed Rare Species prepared by the Natural Heritage and Endangered Species Program.

PVS array designs which do not qualify for LID credits shall demonstrate compliance with the Stormwater Management Standards specified at 310 CMR 10.05(6)(k)1-10, except that no stormwater recharge or TSS treatment shall be required when the ground surface under, and adjacent to, the PVS arrays consists of gravel/crushed stone or is planted and maintained with

native vegetative cover sufficient to provide adequate infiltration and eliminate surface water runoff. For peak rate attenuation, the runoff curve number computations shall be reflective of the final land cover type being proposed below the panels and between the rows of panels. Further, the land cover type must accurately reflect the existing condition in the stormwater calculations; Applicants are cautioned to appropriately evaluate the existing land cover type to avoid post-construction issues arising from stormwater runoff. An erosion and sedimentation control plan is required to be submitted as part of the NOI review pursuant to 310 CMR 10.05(6)(b) and 10.05(6)(k)8. Provision of perimeter controls alone is not sufficient to meet 310 CMR 10.05(6)(b) and 10.05(6)(k)8. In addition to perimeter controls, the plan must demonstrate land disturbance will be minimized at any one time, or that other appropriate measures are implemented, to prevent erosion to resource areas.

When calculations show an increase in peak flow, MassDEP recommends that re-engineering be conducted to include construction of retention basins or grading modifications (such as terracing or berms), infiltration trenches, bioengineering techniques, non-structural practices (e.g. establishment of a suitably sized and graded buffer area between the panels and vegetated wetlands or land under water) to mitigate the peak flows.

5. Accessory Structures

Access roads, parking areas, and rooftops of buildings or structures associated with a PVS arrays are fully subject to the Stormwater Management Standards specified at 310 CMR 10.05(6)(k). The selected Runoff Curve Number must be from the U. S. Natural Resources Conservation Service WinTR55 Land Use Details list for roads, parking, or rooftops depending on proposed surface and Hydrologic Soil Group.

September 22, 2017

Lealdon Langley
Director
Wetlands and Waterways Program

Appendix A

Sample Template for Estimating Tree Clearing Impacts

Diameter of Tree at Breast Height (DBH) (inches)	Number of Trees of this DBH	Estimated Tree Basal Area Alteration (square feet) ⁽¹⁾	Estimated Tree Canopy Alteration (square feet) ⁽²⁾	Total Wetland Alteration (square feet) ⁽³⁾
4	1	0.09	133.3	133.3
5	1	0.14	133.3	133.4
6	1	0.20	133.3	133.4
7	1	0.27	133.3	133.5
8	2	0.70	266.5	267.2
9	2	0.88	266.5	267.4
10	2	1.09	266.5	267.6
11	2	1.32	266.5	267.8
12	2	1.57	266.5	268.1
13	2	1.84	266.5	268.3
14	2	2.14	266.5	268.6
15	2	2.45	266.5	269.0
16	2	2.79	266.5	269.3
17	2	3.15	266.5	269.7
18	2	3.53	266.5	270.0
19	2	3.94	266.5	270.4
20	2	4.36	266.5	270.9
22	1	2.64	133.3	135.9
23	1	2.88	133.3	136.1
24	1	3.14	133.3	136.4
25	2	6.81	266.5	273.3
30	1	4.91	133.3	138.2
Totals	36	50.83	4797.00	4847.83

Table Notes:

(1) Spreadsheet Formula: $=((3.14/4)*((A2/12)^2))*B2$

(2) Spreadsheet formula $=205*B2*0.65$. Tree canopy estimates should be determined in the field based on an assessment of the average drip line radius associated with the trees proposed to be selectively cut. In this example, if the average tree line drip radius of the trees proposed to be selectively removed is approximately 10 feet per tree (diameter 20 feet per tree), this translates to an approximate total canopy area of approximately 315 square feet per tree ($A = \pi r^2$). Then, based on visual observations made in the field, estimate the total percent cover of the tree layer to be altered by the selective tree removal using the methodology prescribed in MassDEP's BVW Delineation Handbook. For example, if the total estimated percent cover is 65% this would result in a refined canopy area impact estimate of approximately 205 s.f per tree (0.65×315 s.f.). Percent cover is the percent of the ground surface that would be covered if the foliage from a particular species or layer were projected onto the ground, ignoring small gaps between the leaves and branches. This methodology assumes the understory and shrub/sapling layers remain substantially intact and undisturbed as a result of selective tree removal, with mechanized equipment operating in the adjoining uplands and reaching into the wetlands or work is otherwise conducted by hand operated equipment (chainsaws, etc). This methodology does not apply to clear cuts or equipment operating in wetlands on construction mats that would disturb the surface of the wetland and understory vegetation.

(3) Total wetland alteration estimate includes the estimated basal area and percentage of tree canopy to be removed. This impact estimate is limited to the selective tree removal and does not take into account other wetland impacts that might be associated with a particular project.

A rapid transition to clean, renewable energy including solar photovoltaic (PV) systems is a crucial part of climate mitigation. But the choices we make in where to install these systems have a significant impact on other critical goals such as conservation of forests and farmlands. The Massachusetts Department of Energy Resources (DOER) offers financial incentives for solar PV development projects—a program that Mass Audubon wholeheartedly supports. However, the program has generated unanticipated, and quite unfortunate, land use outcomes thus far. Since 2012, an estimated 6,000 acres or more of previously undeveloped land have been converted to largescale, ground-mounted solar arrays. If this trend continues, as much as 150,000 acres of land may be lost to meet the targets for renewable energy development—land that is needed to provide other important functions in responding to climate change. This loss can be avoided by incentivizing solar installations within already developed sites and lands with lower resource values (e.g., parking lots, roofs, highway right-of-ways, and large turfgrass landscaped areas). Added benefits of this approach include distributed generation of power at locations where there is demand, avoiding expensive and environmentally damaging expansion of the electric grid, and support for decarbonization of the transportation and building sectors. It also avoids losses of functions provided by natural lands—including carbon sequestration, flood attenuation, clean air and water, cooling and wind breaks, and interconnected wildlife habitat—that are becoming more important due to climate change impacts. According to the National Renewable Energy Laboratory, existing rooftops in Massachusetts have the potential to support up to 22.5 gigawatts of solar capacity, meeting up to 47% of the total electrical demand. There are also vast expanses of parking lots where solar canopies could potentially be installed. The state's incentive program should be adjusted to ensure that the higher cost of these within-development installations are offset in order to make them cost-effective.