Application for Special Permit Under Environmental Design Review

2024 SEP - 9 P 3: 24

PLANNING & COMMUNITY DEVELOPMENT

Docket 3819

REQUIRED SUBMITTALS CHECKLIST

One electronic copy of your application is required; print materials may be requested, Review the ARB's Rules and Regulations, which can be found at <u>www.arlingtonma.gov/arb</u>, for the full list of required submittals.



Application Cover Sheet (project and property information, applicant information)

Dimensional and Parking Information Form (see attached)

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Impact statement

Statement should respond to Environmental Design Review (Section 3.4) and Special Permit (Section 3.3) criteria on pages 6-8 of this packet); include:

- LEED checklist and sustainable building narrative as described in criteria 12.
- Summary of neighborhood outreach, if held or planned.

Drawing and photographs of existing conditions

- Identify boundaries of the development parcel and illustrate the existing conditions on that parcel, adjacent streets, and lots abutting or directly facing the development parcel across streets.
- Photographs showing conditions on the development parcel at the time of application and showing structures on abutting lots.

Site plan of proposal. Must include:

- Zoning boundaries, if any, and parcel boundaries;
- Setbacks from property lines;
- Site access/egress points;
- Circulation routes for pedestrians, bicyclists, passenger vehicles, and service/delivery vehicles;
- New buildings and existing buildings to remain on the development parcel, clearly showing points of entry/exit;
- Other major site features within the parcel or along its perimeter, including but not limited to trees, fences, retaining walls, landscaped screens, utility boxes, and light fixtures;
- Spot grades or site topography and finish floor level;
- Open space provided on the site;
- Any existing or proposed easements or rights of way.

Drawings of proposed structure

- Schematic drawings of each interior floor of each proposed building, including basements.
- Schematic drawings of the roof surface(s), identifying roof materials, mechanical equipment, screening devices, green roofs, solar arrays, usable outdoor terraces, and parapets.
- Elevations of each exterior façade of each building, identifying floor levels, materials, colors, and appurtenances such as mechanical vents and light fixtures.
- Drawings from one or more prominent public vantage point illustrating how the proposed project will appear within the context of its surroundings.
- Graphic information showing façade materials and color samples.
- Include lighting plan and fixtures if not provided on site or landscaping plan.

Vehicle, Bicycle, and Service Vehicle Plans

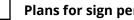
- Parking and loading plans, including all vehicle and bicycle parking facilities located on the parcel or • within a structure, showing dimensions of spaces, driveways, access aisles, and access/egress points. Include line-of-sight and turning radius along with length and type of delivery truck.
- If you are requesting a reduction in the amount of required parking, include a Transportation Demand Management Plan per Section 6.1.5.
- Plans of all bicycle parking facilities located on the lot and within any structure, including dimensions of spaces and access routes and types of bicycle racks.

Sustainable Building and Site Design Elements

- A solar energy systems assessment per Section 6.4, which must include:
 - An analysis for solar energy system(s) for the site detailing layout and annual production;
 - The maximum feasible solar zone area of all structures; and,
 - Drawings showing the solar energy system you propose, with a narrative describing the system, the reasons the system was chosen, and how the system meets the requirements of Section 6.4; or
 - A detailed explanation of why the project meets an exemption of Section 6.4.2.
- LEED checklist and narrative per EDR criterion 13. •

Proposed landscaping (may be incorporated into site plan)

Schematic drawing(s) illustrating and clearly labels all landscape features, including hardscape materials, permeable areas, plant species, and light fixtures.



Plans for sign permits, if signage is an element of development proposal



Stormwater management plan

(for stormwater management during construction for projects with new construction)



SketchUp Compatible Model, if required

Application fee

(See Rule 12 of the ARB Rules and Regulations for how to calculate the fee)

FOR OFFICE USE ONLY	Docket #: <u>3819</u>
Special Permit Granted	Date:
Received evidence of filing with Registry of Deeds	Date:
Notified Building Inspector of Special Permit filing	Date:

Application for Special Permit Under Environmental Design Review

2024 SEP - 9 P 3: 05

PLANNING & COMMUNITY

DEVELOPMENT

2

COVER SHEET

Docket 3819

Application for	Special	Permit in	Accordance	with	Environmental	Design	Review
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PROPERTY AND PROJECT INFORMATION

- 1.
 Property Address <u>2 Reservoir Road, Arlington, Mass. 02474</u>

 Assessors Block Plan, Block, Lot No. Lot No 12A
 Zoning District R1
- Deed recorded in the Registry of deeds, Book <u>19911</u>, Page <u>572</u>
 or- registered in Land Registration Office, Cert. No. _______ in Book _______, Page ______.
- 3. Present Use of Property (include # of dwelling units, if any) One Single Family Dwelling and one detached garage
- Proposed Use of Property (include # of dwelling units, if any)
 <u>One Single Family Dwelling with new attached addition & detached</u> garage remaining

APPLICANT INFORMATION

1.	Applicant: Identify the person or organization requesting the Special Permit:
	Name of Applicant(s) David & Linnea Berggren
	Organization Homeowners
	Address <u>2 Reservoir Road</u> Arlington, Mass. 02474
	Street City, State, Zip
	Phone 781 475-7099 Email lberggit@gmail.com
2.	Applicant Interest: the applicant must have a legal interest in the subject property:
	I Purchaser by land contract
	Purchaser by option or purchase agreement
3.	Property Owner X Check here if applicant is also property owner
	Identify the person or organization that owns the subject property:
	Name David & Linnea Berggren Title Yes
	Organization Homers Phone 781 475-7099
	Address 2 Reservoir Road Arlington, Mass. 02474
	Street City, State, Zip
	781 475-7099 Phone Email Iberggit@gmail.com

Application for Special Permit Under Environmental Design Review

Name David				hitect
Organization	vid M.Mullen AIA	Phone	/81	354-3013
Address 39 B	ow Street			Lexington, Mass. 02420
Street				City, State, Zip
Phone781	354-3013	Email _	da	vidmullenaia@gmail.com
3.4.2 A	Construction or to the Minutema			ction on a site adjacent
section(s)				title(s)
List any waivers b	eing requested and the Zon n which you are seeking reli	ing Bylaw : ief.	section	
List any waivers b	n which you are seeking reli Seeking waiver dimensional & d	ief. from.c ensity	ode req	n(s) which refer to the minimum or maximur section 5.4.2 page 5-16 uirement of usable open
List any waivers b requirements fror	n which you are seeking reli Seeking waiver dimensional & d space of 30%, bas	from consity	ode req exis	n(s) which refer to the minimum or maximum section 5.4.2 page 5-16 uirement of usable open sting lot being 5129 s.t.
List any waivers b requirements fror	n which you are seeking reli Seeking waiver dimensional & d space of 30%, bas in an R1 distric	from from ensity sed on ct whice	ode req exis	n(s) which refer to the minimum or maximur section 5.4.2 page 5-16 uirement of usable open
List any waivers b requirements fror	n which you are seeking reli Seeking waiver dimensional & d space of 30%, bas in an R1 distric	from from ensity sed on ct whice	ode req exis	n(s) which refer to the minimum or maximum section 5.4.2 page 5-16 ulrement of usable open sting lot being 5129 s.f. equires lot area to be min.

(In the statement below, check the options that apply)

The applicant states that David & Linnea Berggreenewwner [X] or occupant or purchaser under agreement of the property in Arlington located at 2 Reservoir Road Arlington, Mass.

which is the subject of this application; and that unfavorable action 🔲 or no unfavorable action 🕅 has been taken by the Zoning Board of Appeals on a similar application regarding this property within the last two years. The applicant expressly agrees to comply with any and all conditions and qualifications imposed upon this permission, either by the Zoning Bylaw or by the Redevelopment Board, should the permit be granted.

Signature of Applicant(s):

5.

6.

7.

Dave Bergo

2 Reservoir Rd	Arlineton.	MA 02474	781-475-7099
Address			Phone

Updated May 23, 2023

Application for Special Permit Under Environmental Design Review

DIMENSIONAL AND PARKING INFORMATION

Property Location: 2 Reservoir Road Applicant: David & Linnea Berggren Present Use/Occupancy: No. of Dwelling Units:

Single Family Dwelling

Proposed Use/Occupancy: No. of Dwelling Units: Single Family Dwelling Zoning District: R1

Address: 2 Reservoir Road

Uses and their gross square feet: living space 1279 s.f.

Uses and their gross square feet:

living space 1710 s.f.

		Present Conditions	Proposed Conditions		or Max. Req'd by for Proposed Use
Lot Size		5129 s.f.	5129 s.f.	min.	5000 s.f.
Frontage		50 s.f.	50 s.f.	min.	50 s.f.
Floor Area Ratio ¹		.37	.45	max.	no minimum or maximum
Lot Coverage (%), where app	licable	20%	28 %	max.	35%
Lot Area per Dwelling Unit (s	if)	5129 s.f.	5129 s.f.	min.	5000 s.f.
Front Yard Depth (feet)		7.8 ft	7.8 ft	min.	25 ft
Side Yard Width (feet)	right side	6.6 ft	6.6 ft	min.	10 ft
-	left side	14.9 ft	14.9 ft	min.	25 ft
Rear Yard Depth (feet)		64 ft average	48 ft average	min.	20 ft
Height	stories	1 1/2 Story	1 1/2 Story	stories ²	2 1/2 Story
-	feet	26.5 ft	26.5 ft	Feet	35 ft
Open Space (% of G.F.A.) ³		182%/118%	133%/55%	min.	10%/30%
	Landscaped (sf)	3446	3097	(sf)	23
	Usable (sf)	2244	1275	(sf)	988
Parking Spaces (#) ⁴		2	2	min.	1
Parking Area Setbacks (feet)	(where applicable)	n/a	n/a	min.	n/a
Loading Spaces (#)		n/a	n/a	81* min.	n/a
Bicycle Parking ⁵	short term	n/a	n/a	min.	n/a
	long term	n/a	n/a	min.	n/a

¹ FAR is based on Gross Floor Area. See Section 5.3.22 for how to calculate Gross Floor Area. On a separate page, provide the calculations you used to determine FAR, including the calculations for Gross Floor Area.

² Where two heights are noted in the dimensional tables, refer to Section 5.3.19, Reduced Height Buffer Area to determine the applicable height or the conditions under which the Board may provide relief.

³ Per Section 5.3.22(C), district dimensional requirements are calculated based on GFA. On a separate page, show how you determined the open space area amounts. ⁴ See Section 6.1, Off-Street Parking. If requesting a parking reduction, refer to Section 6.1.5.

⁵ See Section 6.1.12, Bicycle Parking, or refer to the <u>Bicycle Parking Guidelines</u>.

Impact Statement

Subsequent to receiving approval from the Arlington Conservation Commission due to the proposed projects proximity to Mill Brook and the No Name Brook, the homeowners are now required to apply for approval from the Arlington Redevelopment Board due to the projects site being adjacent to the Minuteman Bikeway as per zoning code section 3.4.2A, and in addition secure special permits required by zoning sections 8.1.1 & 8.1.2C nonconforming uses and structures as well as 9.02d extensions & alterations.

Also, aside from these zoning requirements, the homeowners wish to improve the property as well as the existing structures due to the age of the structures combined with delayed maintenance through the years, as the existing structure has become somewhat of a visual detriment to the neighborhood to the point of potentially reducing the value of the adjacent properties, as well as becoming somewhat unlivable to the owners. To alleviate these conditions the homeowners wish to renovate the existing structure and add an addition on the rear of the existing structure as well as a second floor dormer so as to allow the homeowners to age in place.

Special Permit Criteria

 The main use requested as it pertains to approval from the Arlington Redevelopment Board is as follows: Code section 3.4 Environmental Design Review & specifically sect. 3.4.2A applicability of construction or reconstruction on a site abutting the Minuteman Bikeway.
 In that the requested use will remain the same as the present use (i.e. single family residential), it will not adversely affect the public convenience of welfare and therefore is desirable.

The requested use will not create undue traffic congestion nor will it impede pedestrian use or safety, as the existing driveway will remain in its existing location with two cars emptying on to Reservoir Road, and the existing walkways on both streets will remain untouched allowing unimpeded access to Reservoir Rd. and the Minuteman Bikeway along Nourse Street.
 The requested use essentially remains the same as the existing use (i.e. single family residential). The occupant usage will also remain the same at two occupants, therefore, the water & sewer requirements will not change. Further, the new rear addition to the existing house will not in any way have a detrimental effect on the natural site or drainage, nor will any activities occur on the site that would cause any danger affecting health, safety or the general welfare.
 Even though at this point in the process, the homeowners are unaware of any special regulations, they will nonetheless fulfill any that the Arlington Redevelopment Board directs them to do.

6. The requested use will not impair the integrity or character of the district or adjoining districts nor be detrimental to the health, morals or welfare, as the proposed use will remain essentially the same R1 residential use.

7. The requested use will not by its addition to the neighborhood cause an excess of that particular use that could be detrimental to the character of said neighborhood as the design will remain essentially R1 residential adhering to the requirements of code section 9.02 c & d extensions & alterations and code section 8.1.1 and 8.1.2 c extensions & alterations.

Environmental Design Review Criteria

1. Preservation of Landscape: A landscape plan has been developed for the existing site by Holly Garden Design and approved by the Arlington Conservation Commission. This plan preserves the site wherever possible & improves on it with native trees & plantings in keeping with the general appearances of neighboring developed areas.

2. Relation of Buildings to Environment: The renovated existing structure & new addition will remain residential in scale, architectural style & appearance in keeping with the original neighborhood.

3. Open Space: The landscape plan previously mentioned in criteria item one and approved by the Arlington Conservation Commission dealt in detail with the configuration of both landscaped & usable open space thereby adding to the visible amenities as well as to the neighborhood in general.

4. Circulation: This criteria does not apply to this project as it is a small single family lot.

5. Surface Water Drainage: The surface water drainage issue has already been addressed and approved by the Arlington Conservation Commission & shown on the engineers lot site plan as viewed by the commission.

6. The site will remain available to any town official required to overview the storm water system.7. Utilities: All utilities such as electric, telephone & t.v. are delivered to the neighborhood by overhead means. Clean water is delivered underground and sewage is exited underground to

town sewage pipes.

8. Advertising Features: This criteria does not apply to this site as there will be no signage.

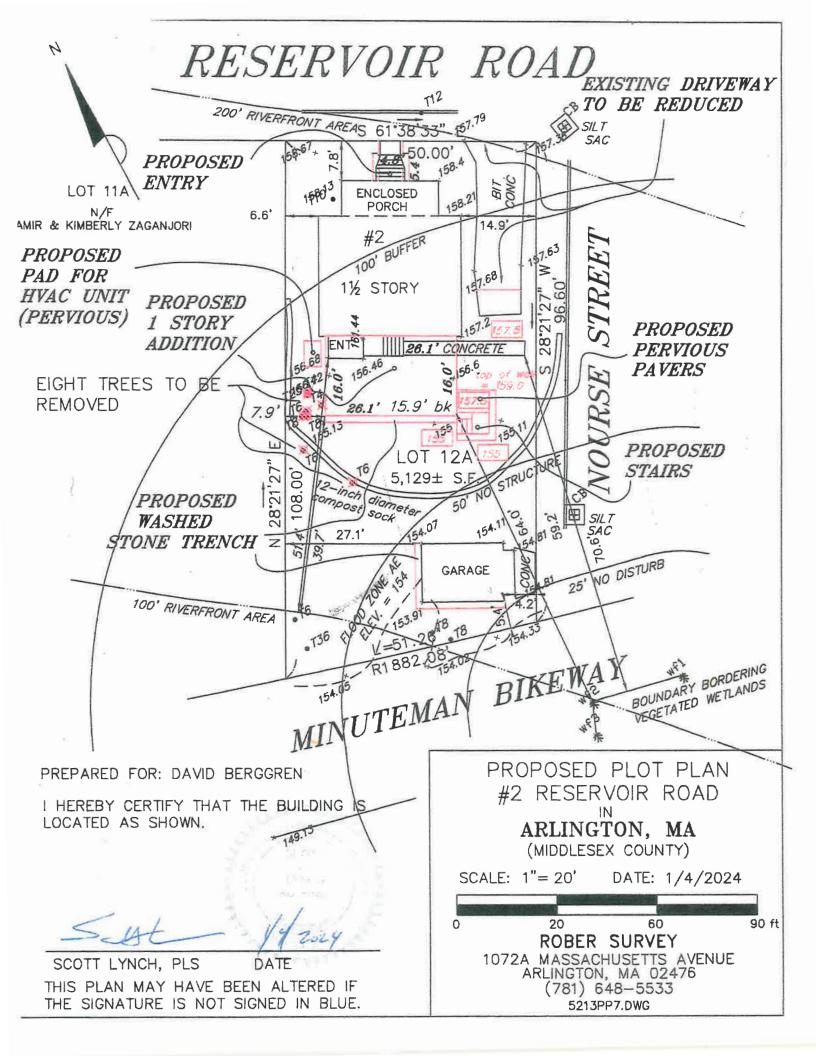
9. Special Features: There are no special features on this single family lot.

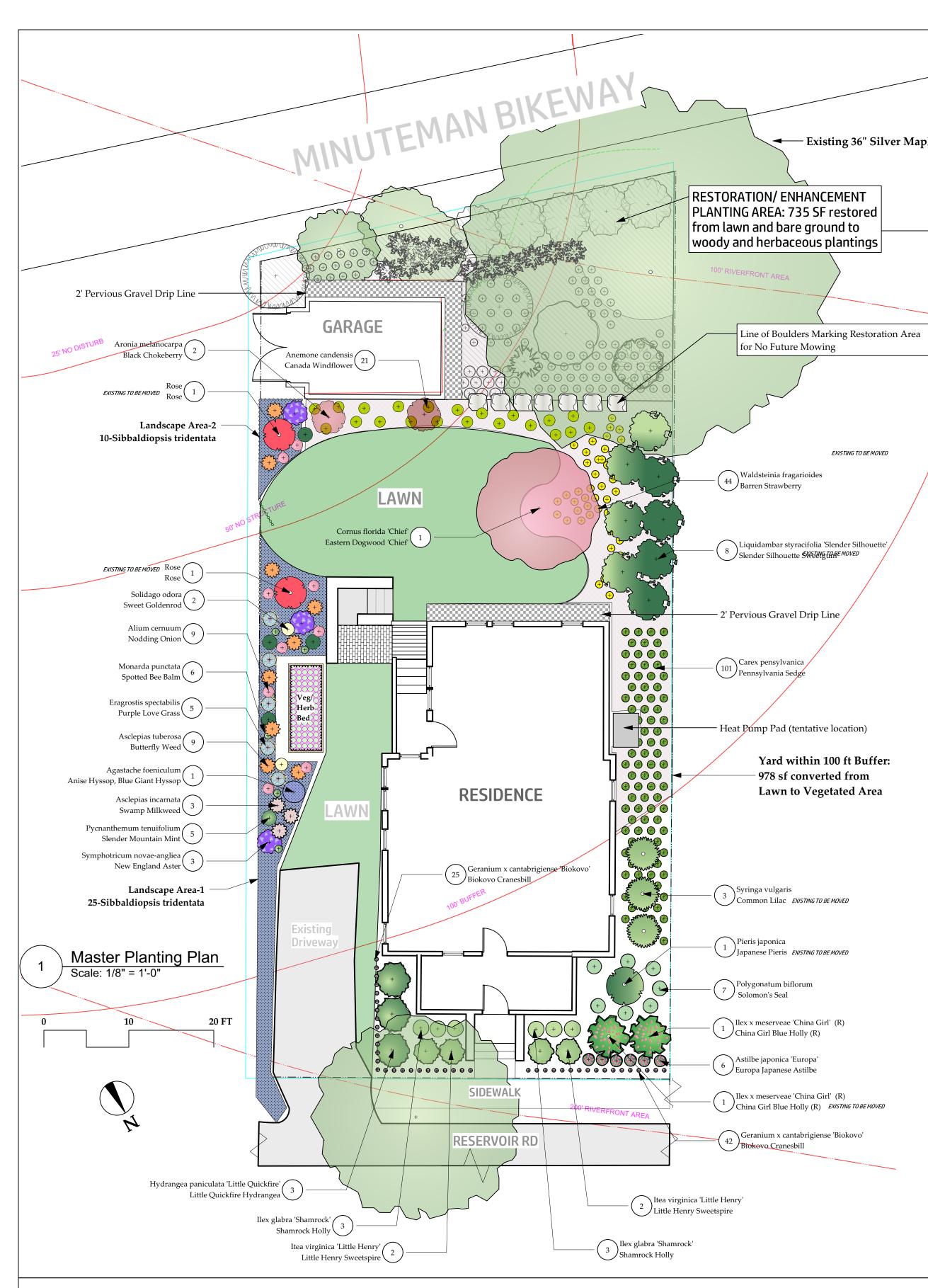
10. Safety: This criteria does not apply to this lot as it is a single family lot with no public or semi public spaces.

11. Heritage: This criteria does not apply to this lot as there are no structures or elements of historical value present.

12. Microclimate: This criteria does not apply to this lot as there are no elements on the site that would adversely affect the immediate environment.

13. Sustainable Building and Site Design: The homeowners intent is to continue the best practices started in the Arlington Conservation Commission phase of the project and will continue into this Arlington Redevelopment Board phase as well as on through the Building Permit & Construction stages.





NOTES

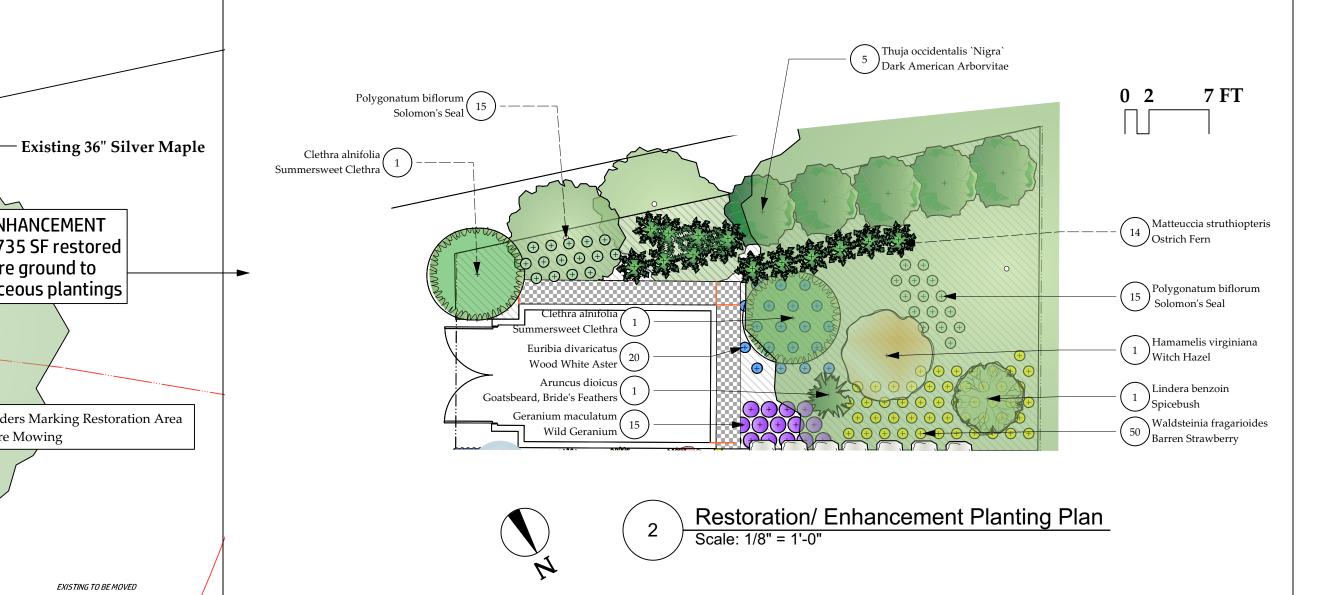
olly Garden Design

tomized Sustainable Landscapes

- 1) No plant substitutions without permission of Landscape Designer.
- 2) Landscape Designer to place plants on site.
- 3) Existing plants to be moved to be stored under layer of soil or bark mulch in the shade and kept moist until replanting.
- 4) LP50 Landscape Plugs to be purchased from New Moon Nursery www.newmoonnursery.com
- If LP50 size unavailable, size substitutions to be approved by Landscape Designer.
- 5) Two inches of clean compost to be mixed with topsoil before planting.
- 6) All plantings to be covered with 3 inches of leaf mulch .
- 7) Future leaf fall to be kept in place in Restoration Area.
- 8) Planting outside the restoration, not including replacement trees, may be partially implemented based on budget and plant availability.

Berggren Residence

2 Reservoir Rd. Arlington, MA 02474

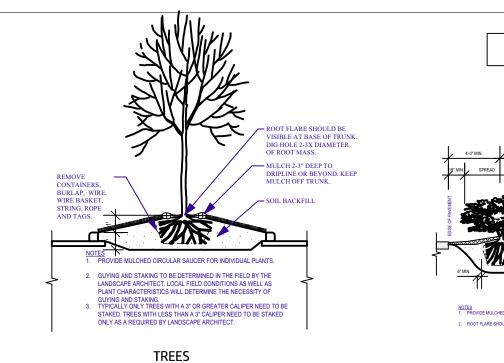


Tree Replacement Schedule TO BE REMOVED* TO BE ADDED Common Name Botanical Name Common Name **Botanical Name** Qty Qty 7 Norway Maple Acer platanoides Slender Silhouette Sweetgum Liquidambar styracifolia 'Slender Sihouette' 8 Cherokee Chief Native Dogwood Cornus florida 'Cherokee Chief' 1 Black Walnut Juglans nigra 1 Dark American Arborvitae Thuja ocidentalis 'Nigra' 5 *All trees to be removed are 8" or less DBH

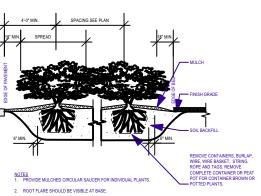
Use of Native Cultivars

In cases of small residential settings, the use of some cultivated, naturally-occuring varieties of native plants (cultivars) offers an opportunity for the ecological benefits of these native plants to be benefical in the landscape where the straight species would get too large and unwieldy. This growth pattern would requiring constant pruning and shaping that would result in diminished ecological value by removing flowering and fruiting parts. The following chart shows the cultivars selected in the planting plan and the reasons for their selection.

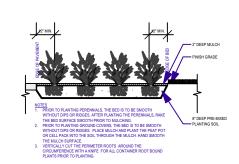
Cultivar	Reason for Selection
Cherokee Chief Dogwood	The bright red fruits of this pink flowering cultivar of the native Dogwood are an important food for wildlife in the late summer and early fall. Many songbirds eat the fruits Woodpeckers, crows, and grackles also eat the fruits as do wild turkey and bobwhite quail. Mammals such as mice, squirrels, skunks, and others also feed on the fruits.Small bees, flies, and butterflies are attracted to the flowers and will feed on the nectar and collect pollen.
Slender Silhouette Sweetgum	This tall, narrow cultivar of the native Sweetgum is a larval host to the Luna Moth, Promethea Silkmoth, and dozens of other species. It attracts native bees, wasps, flies and beetles; birds feast on the seeds and insects enjoy the foliage. It is ideal for smaller settings because of its narrow upright habitat while providing all of the same ecological functions as the straight species.
Dark American Arborvitae	This smaller cultivar of Easter White Cedar provides nesting sites for songbirds, as well as winter protection.



PLANTING DETAILS







PERENNIALS AND LANDSCAPE PLUGS

Issue Date: 1.20.2024

Planting Plan

Berggren Restoration Plant List				
PLANT TYPE	QTY			SIZE
TREES				
	5	Thuja occidentalis `Nigra`	Dark American Arborvitae	10 Gal
SHRUBS				
	2	Clethra alnifolia	Summersweet Clethra	5 Gal
	1	Hamamelis virginiana	Witch Hazel	10 Gal
	1	Lindera benzoin	Spicebush	10 Gal
PERENNIALS				
	1	Aruncus dioicus	Goatsbeard, Bride's Feathers	1 Gal
	20	Eurybia divaricatus	Wood White Aster	1 Gal
	15	Geranium maculatum	Wild Geranium	1 Gal
	14	Matteuccia struthiopteris	Ostrich Fern	1 Gal
	37	Polygonatum biflorum	Solomon's Seal	1 Gal
	50	Waldsteinia fragarioides	Barren Strawberry	LP50

		Berggren Full Plant List		
				0175
PLANT TYPE	QTY			SIZE
TREES				
	1	Cornus florida 'Cherokee Chief'	Cherokee Chief Pink Dogwood	1-1.5" B&B
	8	Liquidambar styracifolia 'Slender Silhouette'	Slender Silhouette Sweetgum	10 Gal
	5	Thuja occidentalis `Nigra`	Dark American Arborvitae	10 Gal
SHRUBS				
	2	Aronia melanocarpa	Black Chokeberry	5 Gal
	2	Clethra alnifolia	Summersweet Clethra	5 Gal
	1	Hamamelis virginiana	Witch Hazel	10 Gal
	3	Hydrangea paniculata 'Little Quickfire'	Little Quickfire Hydrangea	5 Gal
	6	Ilex glabra 'Shamrock'	Shamrock Inkberry Holly	3 Gal
	4	Itea virginica 'Little Henry'	Little Henry Sweetspire	3 Gal
	1	Lindera benzoin	Spicebush	10 Gal
PERENNIALS				
	1	Agastache foeniculum	Anise Hyssop	1 Gal
	9	Alium cernuum	Nodding Onion	1 Qt
	1	Aruncus dioicus	Goatsbeard, Bride's Feathers	1 Gal
	9	Ascepias tuberosa	Butterfly Weed	1 Qt
	3	Asclepias incarnata	Rose Milkweed	1 Gal
	6	Astilbe japonica 'Europa'	Europa Japanese Astilbe	1 Gal
	100	Carex pensylvanica	Pennsylvania Sedge	LP 50
	5	Eragrostis spectabilis	Purple Lovegrass	1 Qt
	20	Eurybia divaricatus	Wood White Aster	1 Gal
	15	Geranium maculatum	Wild Geranium	1 Gal
	42	Geranium x cantabrigiense 'Biokovo'	Biokovo Cranesbill	LP50
	14	Matteuccia struthiopteris	Ostrich Fern	1 Gal
	6	Monarda punctata	Spotted Beebalm	1 Qt
	37	Polygonatum biflorum	Solomon's Seal	1 Gal
	2	Solidago odora	Sweet Goldenrod	1 Qt
	3	Symphotricum novae-angliae	New England Aster	1 Qt
	100	Waldsteinia fragarioides	Barren Strawberry	LP50

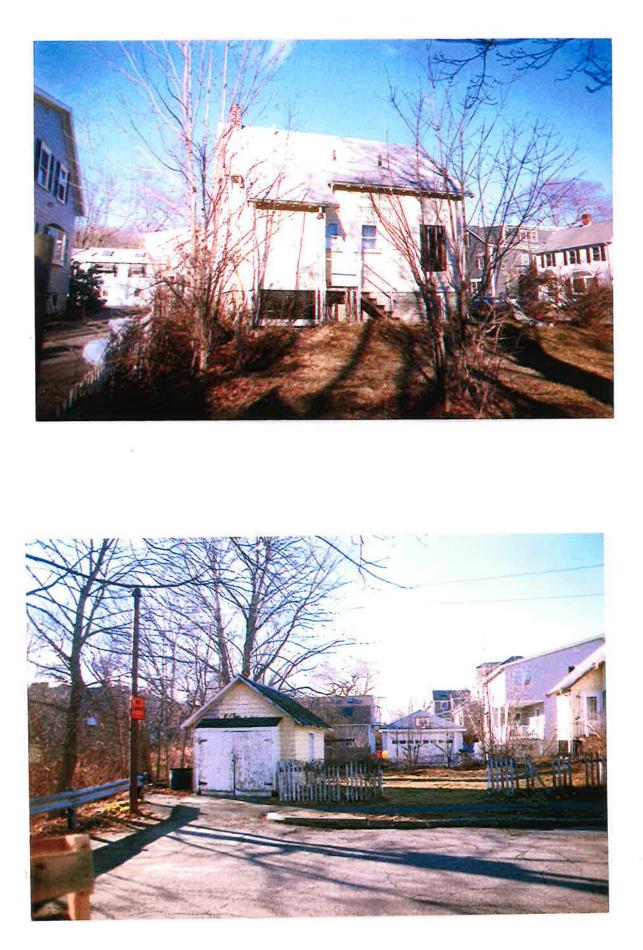
Invasive Plant Management Plan

Plants considered invasive or potentially invasive to Massachusetts, as listed on the webpage of the Massachusetts Invasive Plant Advisory Group (MIPAG), shall be identified and removed by hand-pulling or other mechanical means and disposed of properly for the particular material.

L-1

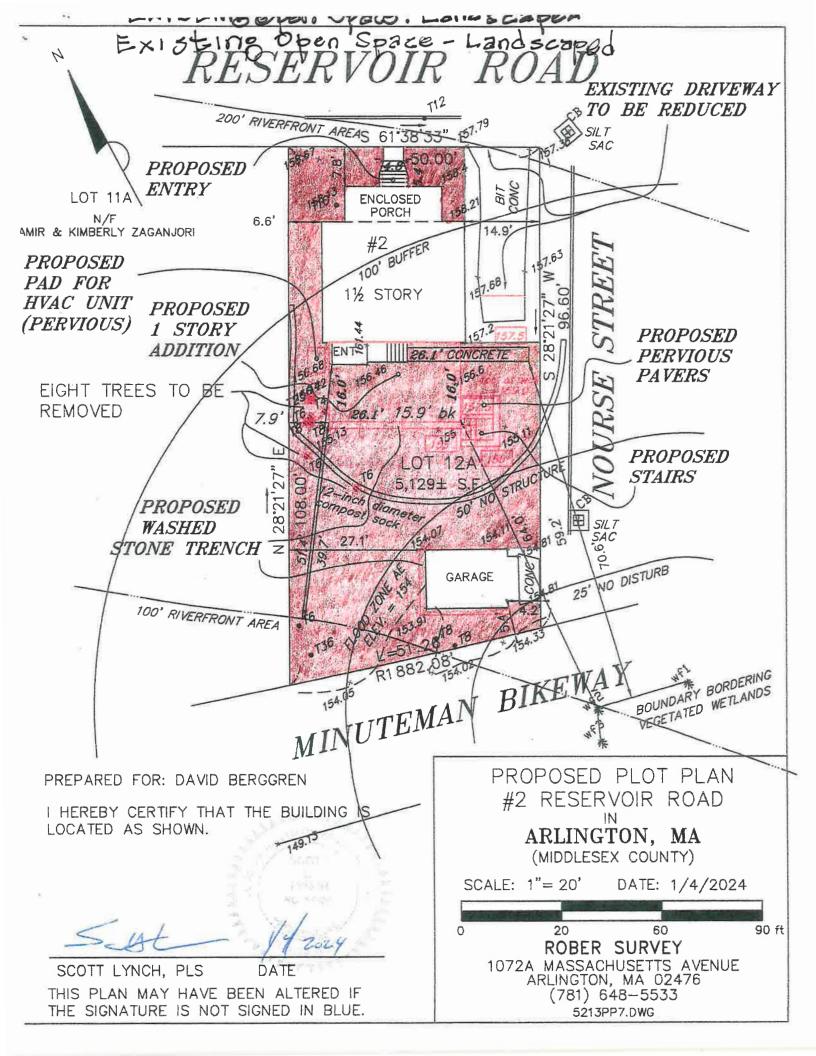


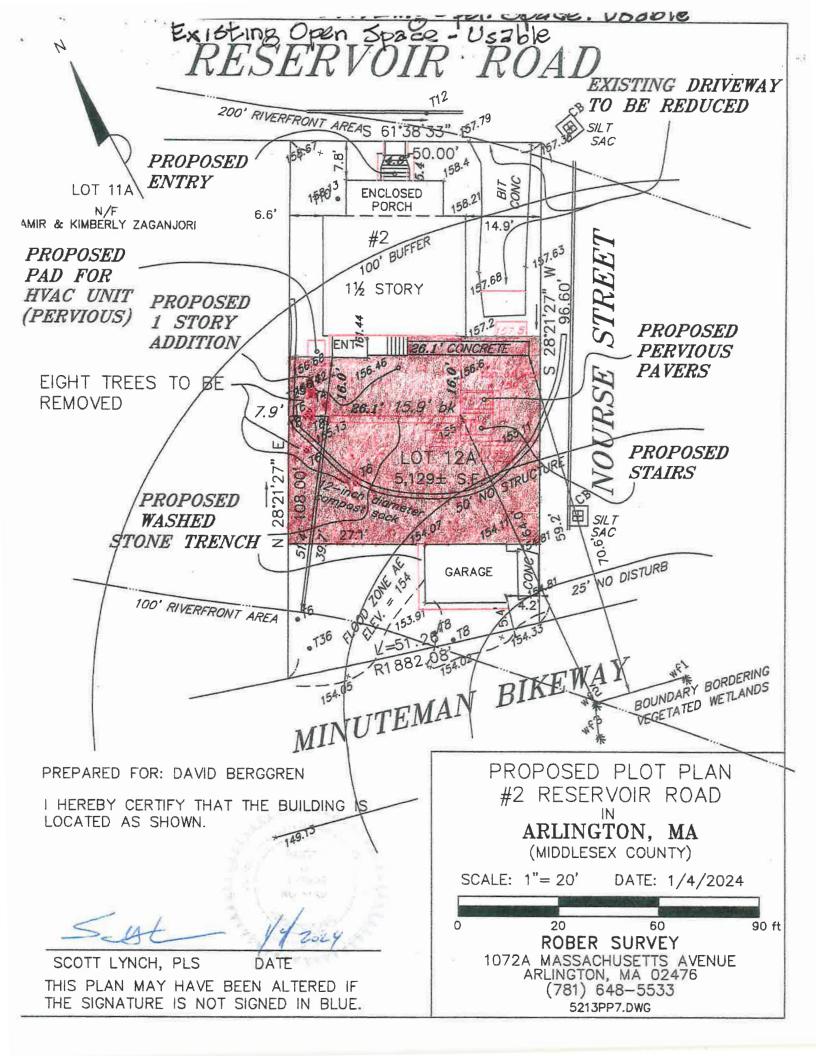


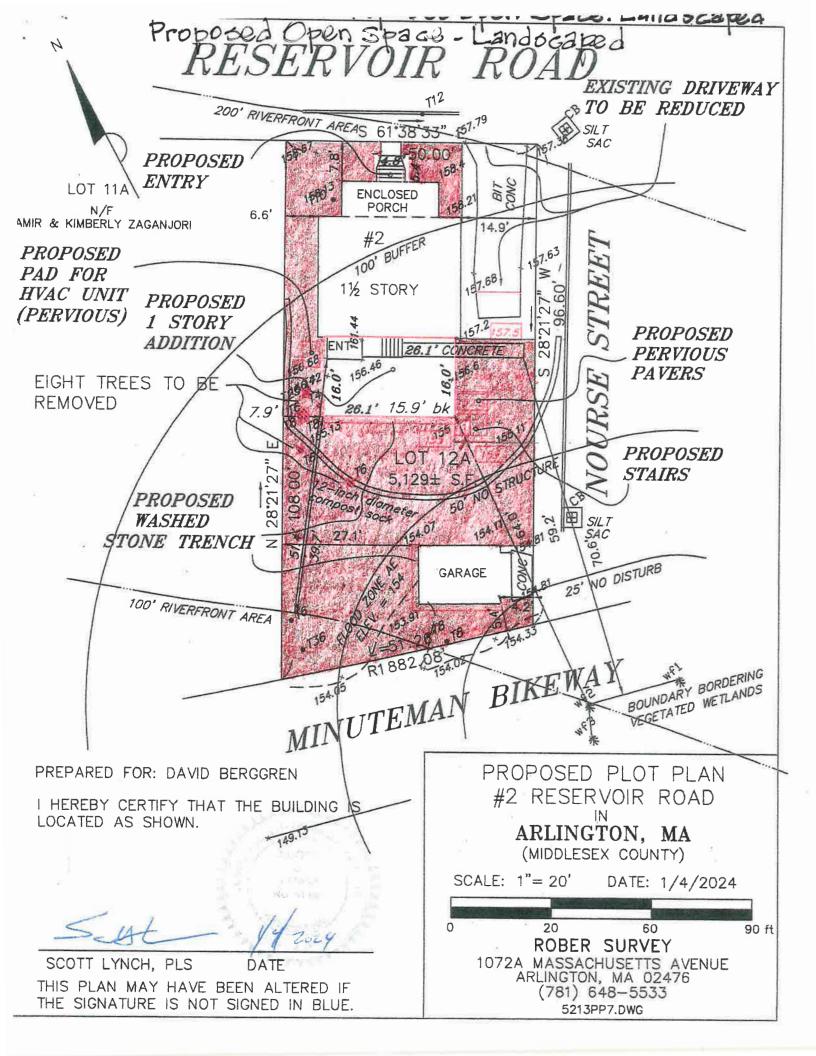


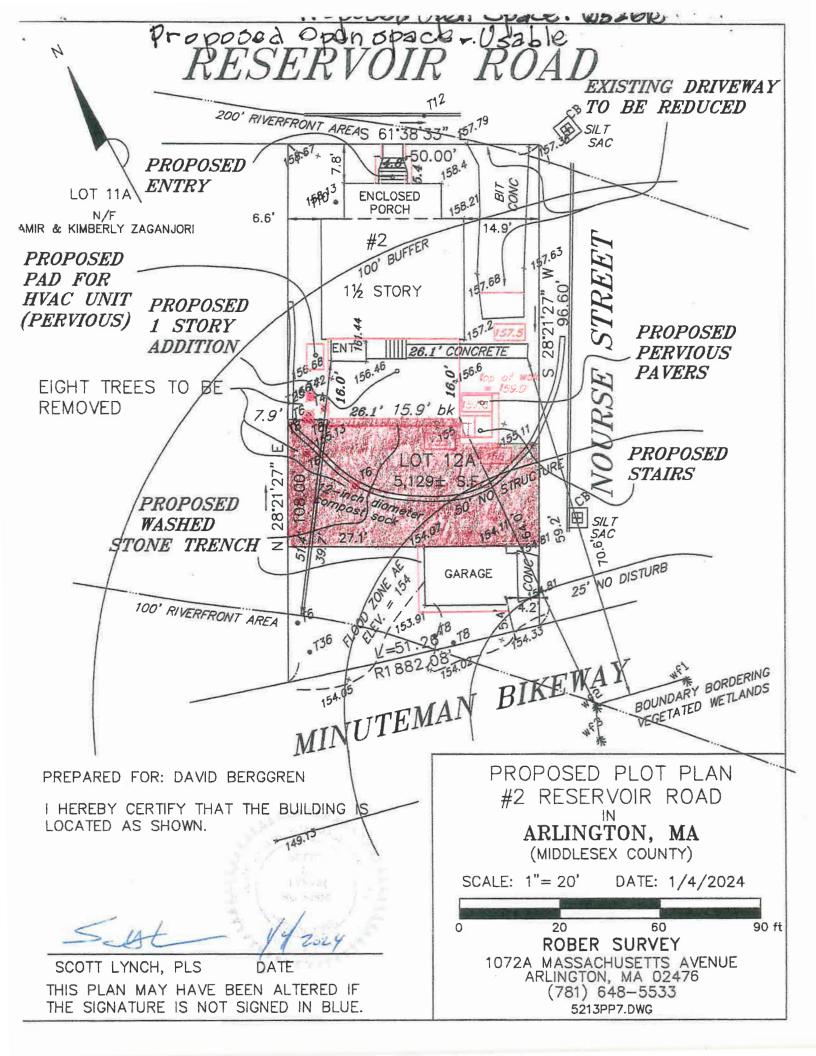
GCI	1	FA	
		proposed GFA	
cella	- = 617	cellar e 617	
15t	= 813	15= 1152	
	= 466	2nd = 558	
tot existe	= 1896 sf	tot, proposed = 2327	st
C	2		
	,37	.45	
		star Arez	

	Existing	%		
Area	SF	GFA	Proposed SF	% GFA
Landscape	3446	182	3097	133
Usable	2244	118	1275	55
GFA	1896		2327	`









Smail

pen Space Arlington

nessage

vid B <spindoton@gmail.com> David Mullen <davidmullenaia@gmail.com> : Linnea Mobile <lberggit@gmail.com>

li David,

Does the driveway count as 'open space'?

Not sure if this is what you are looking for: Dpen Space in definitions: (page 19 of the bylaw):

Definitions Associated with Open Space

Open Space: A yard including sidewalks, swimming pools, terraced areas, decks, patios, play courts, and playground facilities; and not devoted to streets, driveways, off-street parking or loading spaces, or other paved areas.

- Open Space, Landscaped: Open space designed and developed for pleasant appearance in trees, shrubs, ground covers and grass, including other landscaped elements such as natural features of the site, walks and terraces, and also including open areas accessible to and 'developed for the use of the occupants of the building located upon a roof not more than 10 feet above the level of the lowest story used for dwelling purposes. Refer to Section 5,3:22.C. for how to calculate landscaped open space.
- Open Space. Usable: The part or parts of a lot designed and developed for outdoor use by the occupants of the lot for recreation, including swimming pools, tennis courts, or similar facilities, or for garden or for household service activities such as clothes drying; which space is at least 75% open to the sky, free of automotive traffic and parking, and readily accessible by all those for whom it is required. Such space may include open area accessible to and developed for the use of the occupants of the building and located upon a roof not more than 10 feet above the level of the lowest story used for dwelling purposes. Open space shall be deemed usable only if at least 75% of the area has a grade of less than 8%, and no horizontal dimension is less than 25 feet. For newly constructed single-, two-family, and duplex dwellings with surface parking, no horizontal dimension shall be less than 20 feet. Refer to Section 5.3,22,C, for how to calculate usable open space.

This is the line from 5.3.22(C)

- (5) Unenclosed porches, balconies, and decks.
- C. For the purposes of this bylaw, the district dimensional requirements for Usable Open Space and Landscaped Open Space are calculated based on Gross Floor Area.

Dimensional Requirements:

)age 60:

District Use	Front Yard (ft.)	Side Yard (ft.)	Rear Yard (ft.)
R0, R1	25	10	1. S.
Rear (lot depth 100 ft, or more)			20
Rear (lot depth <100 ft.)			20% lot depth
Accessory buildings and garage structures	25	6	6
R2	20	10	
Rear (lot depth 100 it, or more)	*****	······	20
Rear (lot deoth < 100 ft.)			20% lot cepth
Accessory buildings and garage structures	2C	6	<i>6</i>

Town of Arlungton Zoning Bylaw

David Mullen <davidmullenaia@gmail.cor

Thomas cales area

Mon, May 20, 2024 at 1:32 F

Home Energy Rating Certificate

Projected Report Based on Plans Rating Date: 2024-07-11 Registry ID: Ekotrope ID: LZgy5wyd



HERS® Index Score:

Your home's HERS score is a relative performance score. The lower the number, the more energy efficient the home. To learn more, visit www.hersindex.com Annual Savings \$4,197 *Relative to an average U.S. home

Home: 2 Reservoir Rd Arlington, MA 02474 Builder: David Mullen

This home meets or exceeds the criteria of the following:

*);		Use [MBtu]	Annual Cost
	Heating	14.1	\$1,151
	Cooling	1.2	\$98
	Hot Water	3.1	\$252
	Lights/Appliances	17.1	\$1,401
	Service Charges		\$84
	Generation (e.g. Solar)	0.0	\$0
	Total:	35.5	\$2,986

HERS Index More Energy 150 Existing 140 Homes :30 120 110 Reference 100 Home 90 80 20 52 40 This Home 30 10 Zero Energy Home Less Energy 2033 815-17

Home Feature Summary:

Singi	Home Type:
N/A	Model:
N/A	Community:
1,746	Conditioned Floor Area:
2	Number of Bedrooms:
Air S	Primary Heating System:
Air Si	Primary Cooling System:
Resid	Primary Water Heating:
1.5 A	House Tightness:
40 CI	Ventilation:
50 CF	Duct Leakage to Outside:
R-21	Above Grade Walls:
Vault	Ceiling:
U-Va	Window Type:
N/A	Foundation Walls:
R-30	Framed Floor:

Single family detached N/A N/A 1.746 ft² 2 Air Source Heat Pump • Electric • 10.8 HSPF Air Source Heat Pump • Electric • 17.5 SEER Residential Water Heater • Electric • 3.7 UEP 1.5 ACH50 40 CFM • 40 Watts • ERV 50 CFM @ 25Pa (2.86 / 100 ft²) R-21 Vaulted Roof, R-49 U-Value: 0.25, SHGC: 0.29

Rating Completed by:

Energy Rater: Bijan Khosraviani RESNET ID: 9257410

Rating Company: A9 Green/Total Green Energy Solution located in Lexington, Massachusetts 781-778-7054

Rating Provider: Energy Raters of Massachusetts 2 Woodiawn Street Amesbury, MA 01913 978-270-3911

4 Mix 1999-112

Bijan Khosraviani, Certified Energy Rater Digitally signed: 7/30/24 at 4:52 PM



Ekotrope RATER - Version:4.2.2.3447 The Energy Rating Disclosure for this home is available from the Approved Rating Provider. This report does not constitute any warranty or guarantee.

Fuel Summary

Property

2 Reservoir Rd Arlington, MA 02474

2 Reservoir Rd, Arlington, MA 02474_PM_07-1 Final

Oil

Organization A9 Green/Total Green Energy Sc Bijan Khosraviani 781-778-7054 Inspection Status Results are projected



2010 Oil, 3.36/G

9 3 E

Builder David Mullen

Annual Energy Cost

Electric	\$2,941		
Annual End-Use Cost			
Heating	\$1,133		
Cooling	\$98		
Water Heating	\$252		
Lights & Appliances	\$1,373		
Onsite Generation	-50		
Service Charges	\$84		
Total	\$2,941		
Annual End-Use Consumption			
Heating [Electric kWh]	4,059.4		
Cooling [Electric kWh]	353.0		
Hot Water [Electric kWh]	904.2		
Lights & Appliances [Electric kWh]	4,922.0		
Total [Electric kWh]	10,238.6		
Total Onsite Generation [Electric kWh]	0.0		
Peak Electric Consumption			
Peak Winter kW	2.77		
Peak Summer kW	1.14		
Utility Rates			
Electricity	MA2023-\$0.279/kWh		
Natural Gas	MA2023 \$2.19/thm		
Propane	2023LPG \$3.55/Gallon		

Ekotrope RATER - Version 4.2.2.3447 All results are based on data entered by Ekotrope users. Ekotrope disclaims all liability for the information shown on this report.

? N Y

LEED v4.1 Residential: Single Family

Project Checklist

Project Name: Date: 2 Reservoir Road 9/6/2024

Integrative Process Credit

2	

3 0 0			2	0	0 Mater	ials and Resources	12
			Y		Prereq	Certified Tropical Wood	Required
	PERFORMANCE PATH		Y		Prereq	Durability Management	Required
Credit	LEED for Neighborhood Development Location	10			Credit	Durability Management Verification	3
	PRESCRIPTIVE PATH				Credit	Environmentally Preferable Products	5
Credit	Site Selection	6			Credit	Construction Waste Management	2
1 Credit	Compact Development	1	2		Credit	Material Efficient Framing	2
Credit	Community Resources	1					
2 Credit	Access to Transit	2	8	0	0 Indoo	or Environmental Quality	16
			Y		Prereq	Ventilation	Required
4 0 0 Susta	ainable Sites	5	Y		Prereq	Combustion Venting	Required
Y Prereq	Construction Activity Pollution Prevention	Required	Y		Prereq	Garage Pollutant Protection	Required
Credit	Heat Island Reduction	1	Y		Prereq	Radon-Resistant Construction	Required
2 Credit	Rainwater Management	2	Y		Prereq	Air Filtering	Required
2 Credit	Non-Toxic Pest Control	2	Y		Prereq	Compartmentalization	Required
					Credit	Enhanced Ventilation	3
11 0 0 Wate	r Efficiency	15			Credit	Contaminant Control	3
Y Prereq	Water Use	Required	6		Credit	Balancing of Heating and Cooling Distribution Systems	6
Y Prereq	Water Metering	Required	2		Credit	Low Emitting Products	4
	PERFORMANCE PATH						
Credit	Total Water Use	15	0	0	0 Innov	ration	6
	PRESCRIPTIVE PATH		Y		Prereq	Preliminary Rating	Required
11 Credit	Indoor Water Use	11			Credit	Innovation	5
Credit	Outdoor Water Use	4			Credit	LEED AP Homes	1
36 0 0 Energ	gy and Atmosphere	40	0	0	0 Regio	onal Priority	4
Y Prereq	Minimum Energy Performance	Required			Credit	Regional Priority: Specific Credit	1
Y Prereq	Energy Metering	Required			Credit	Regional Priority: Specific Credit	1
Y Prereq	Education of the Homeowner, Tenant, or Building Manager	Required			Credit	Regional Priority: Specific Credit	1
36 Credit	Annual Energy Use	36			Credit	Regional Priority: Specific Credit	1
Credit	Efficient Hot Water Distribution System	2					
Credit	HVAC Start-Up Credentialing	1	64	0	0 TOTA	LS Possible F	Points: 110
Credit	Refrigerant Management	1			Certified: 40	to 49 points, Silver: 50 to 59 points, Gold: 60 to 79 points, Plat	inum: 80 to 110

2 Reservoir Road

LEED Notes:

Location and Transportation

- Access to Transit Easy access to Minuteman Bikeway and Bus Lines
- Compact Development This is an existing single-family house with a modest single floor addition.

Sustainable Sites

- Project has been approved by the Arlington Conservation Commission, and includes storm trenches around the addition, and the existing garage. Additionally, an area of 735 square feet has been designated as restoration land. From the Conservation commission application: "The Applicants propose 735± square feet of Riverfront Area restoration/enhancement within the southern portion of the site, resulting in a 2:1 ratio of restoration/enhancement to the increase of Degraded Riverfront Area on the site. This restoration/enhancement effort, combined with the stormwater management efforts proposed herein, provide an 'equivalent level of environmental protection' relative to the proposed activities"
- Non- Toxic Pest Control No pest control chemicals of any kind are used on property.

Water Efficiency

- Indoor Water Use – All indoor fixtures inclusive of toilets will meet the 'water sense label'.

Energy and Atmosphere

- Annual Energy Use – The project will have a HERS 52 rating.

Materials and Resources

- Material Efficient Framing – The new addition will use zip wall for framing.