

Hardwick Development Review Board
Conditional Use and Flood Hazard Review
Center for an Agricultural Economy
48 Granite Street, Hardwick
Application #2016-038
September 7, 2016

To consider a Conditional Use and Flood Hazard Review request by The Center for an Agricultural Economy (CAE) to create a parking area, install a water line, and replace/construct an accessory structure at an existing Outdoor Recreation site in the Village Neighborhood zoning district at 48 Granite Street, Hardwick.

The application requires a review under the following sections of the Hardwick Unified Development Bylaws: 2.2 Village Neighborhood Table; 3.10 Parking and Loading Requirements, 3.11 Performance Standards; 5.2 Conditional Use Review; and 5.2 G Village Neighborhood District Standards.

Warnings were posted on August 23, 2016 at the Hardwick Memorial Building, the Hardwick Post Office and the East Hardwick Post Office. The warning was sent to the following neighboring property owners: Margaret and Christopher Davis, Peter Geogiadis and Nicholas Vasiliadis; Osprey Holdings LLC; Mary and Stanley Ainsworth; Town of Hardwick; Steven Collier; Sherry and Gregory Lussier; Daniel and Roger Demar; Helen Willey; Beverly and Edward Phelps Life Estate; Margaret Laggis; Sundog Ag Ventures LLC; Todd and Bret Hodgdon; Lorette and Dennis Williams; Deborah and Michael Bellavance; Jocelyn and Jonathan Lussier; Winston Jennison LLC; and Kenneth Davis on August 23, 2016. It was also published in The Hardwick Gazette on Wednesday, August 24, 2016.

Development Review Board members present: Daniel Bandit; Ruth Gaillard; Edward Keene; John Mandeville; Cheryl Michaels, Chair; Helm Nottermann; and John Page.

Development Review Board members absent: None

Others present: Kristen Leahy, Zoning Administrator (acting clerk); Bethany Dunbar, applicant; David Gross; and Jon Lussier.

During the course of the hearing and prior to the hearing the following exhibits were submitted:

- Exhibit #1 - Revised site plan of Atkins Field proposal
- Exhibit #2 – Bolt Attachment explanation for the Accessory Structure
- Exhibit #3 – Spec Sheet for Back Flow Preventer
- Exhibit #4 – Revised Accessory Structure Diagram
- Exhibit #5 – Flood Hazard Review Letter from Sacha Pealer, Regional Floodplain Manager

Summary of Discussion

Chair Cheryl Michaels began the hearing at 7:05 pm. She noted the hearing was quasi-judicial, explained the procedure for the hearing, asked board members for any disclosures of conflict of interest, and swore in all those who wished to speak at the hearing. Chair Michaels asked if there were any other exhibits or letters for the DRB.

Bethany Dunbar, Director of the Center for An Agricultural Economy (CAE), described the proposed development. CAE is seeking approval for three changes to their Atkins Field location. First, CAE wishes to build an accessory structure (garden shed) – 10 feet by 20 feet with a total height of 15 feet. The shed will have two sides – half will be locked to safeguard special tools and equipment and half will be open for use of shared gardening supplies/tools.

Second, CAE seeks to install an underground water line extension to supply water to the raised beds and to the hoop house. They propose the addition of two frost-free hydrants which will be added to an older, existing fire hydrant.

Third, CAE proposes the removal of an existing foundation rubble pile and the creation of a new, at-grade parking lot. The parking lot would be 162 feet by 102 feet and will be constructed with ditches and/or swales in a manner to prevent run-off from reaching Cooper Brook. The design will be similar to those found in storm-water gardens. The current plan is to have gravel in the parking area. The final design is not complete as it will be a course project for a Hazen class. The goal is also to make the space safer by removing the existing debris and by using the stones located in the foundation pile for road delineation of the entire site. The larger granite pieces will be moved to the edge of Granite Street to prevent vehicles from parking on the road edge. The fill and residual rocks will be transported to a town site. The field will continue to be utilized for parking as there is not quite enough parking for the Farmers Market in the proposed parking area. No lighting is currently planned for the proposed parking. There may be lighting incorporated into future projects but the Atkins Field users have expressed an appreciation of the darkness. Any lights would be down shielded and motion-sensitive.

The CAE proposal was reviewed by Sacha Pealer, the Regional Floodplain Manager (See Exhibit #5). At her site visit, Sacha informed CAE that reducing the parking level to the existing grade would be beneficial for the flood hazard aspect of the proposal.

Sacha also stated that the shed must be anchored. The initial proposal suggested chaining the shed to large granite blocks. The builder suggested that attaching the building to the blocks and essentially creating a foundation with the blocks would be beneficial to the overall durability of the structure. (See Exhibit #2). The shed will be used for tools, compost and will not be used for any hazardous materials. No human habitation will be allowed in the structure and no electrical or heating facilities will be within the structure.

Chair Michaels read the Flood Hazard suggestions rendered by Sacha. It was noted that the shed is now proposed to be cedar (instead of hemlock – see Exhibit #4). It was also noted that the water line extension will have a 1” plastic pipe to 2 frost-free hydrants which will have back flow preventers (See Exhibit #3) on them to address Sacha’s concerns. The line will be at the same depth as the Town Water line. The parking area shall match the surrounding ground level as per Sacha’s suggestion.

Neighbor Jon Lussier stated that screening of the parking area is not necessary. He supports the removal of the foundation rubble and the creation of a parking area. He would prefer to have the entry to the parking area near the existing structure rather than further along Granite Street. He is concerned about the traffic entering at the southwestern corner of the property. He supports the placement of the granite blocks along the road to delineate the property. He is concerned about the parking area’s gravel being eroded by flooding of Cooper Brook. During heavy water occurrences, Cooper Brook will flow through the parking area location. Perhaps pavement will be a better choice for the parking area. Mr. Lussier also asked about snow removal from the parking area.

Bethany Dunbar stated that CAE has no intention of plowing the proposed parking area at this time.

Dave Gross presented an overview of the flood hazard aspect of the site. He testified that the drainage basin of Cooper Brook is very substantial. A large storm will deliver a tremendous amount of water into this area. He also identified a possible issue for the CAE proposal. A Class II wetland is located within 75 feet of the proposed development. CAE will need to verify with the State of Vermont that development will be allowed within the buffer of the wetland and that the wetlands will not be impacted by the development (See Condition #1).

The hearing ended at 7:45 pm. John Mandeville made the motion to enter into deliberative session and Ed

Keene seconded. All members were in favor.

Findings of Fact:

Based on the application and testimony, the Development Review Board makes the following findings:

2.2 Village Neighborhood District – all setbacks and dimensional standards are met for this district. Conditional use of Outdoor Recreation and permitted use of Agriculture previously existed.

3.10 Parking and Loading Requirements – Non-residential parking areas typically require screening from the adjoining residential properties. In this request, however, the DRB finds that testimony from neighbors did not indicate a need for screening and the flood hazard overlay review did not require screening of the parking.

3.11 Performance Standards – review was made of the performance standards by the DRB. No adverse aspects were identified. Hazardous material will not be stored in the accessory structure and the solid waste removed from the foundation rubble will be removed to a Town-owned site.

5.2 Conditional Use Review

E) General Review Standards

The proposed conditional use will/ will not result in an undue adverse effect on any of the following:

1. **The capacity of existing or planned community facilities and services.** The proposed use will not affect either capacity.
2. **Character of the area affected.** Proposed upgrades are to a pre-existing use. Character of area should be positively affected.
3. **Traffic on roads and highways in the vicinity.** Proposal of the parking area is an effort to improve the current traffic patterns by enlarging available parking.
4. **Bylaws in effect.** N/A
5. **The utilization of renewable energy resources.** N/A

F) Specific Review Standards shall include:

1. **Siting & Dimensional Standards.** All conditional uses shall meet minimum applicable dimensional and density standards as specified for the district in which the use is located (Article 2), the particular use (Article 4), and for the protection of surface waters (Section 3.12). **All standards are met by the proposal.**
2. **Performance Standards.** All conditional uses shall meet performance standards as specified in Section 3.11. **The performance standards were reviewed. See conditions.**
3. **Access & Circulation Standards.** All conditional uses shall meet applicable access management standards as specified in Section 6.6. **Standards will be met by the proposed changes.**
4. **Landscaping & Screening Standards.** The Board may require landscaping, fencing, screening or site

grading as necessary to maintain the character of the area, or to screen unsightly or incompatible uses from town highways, other public rights-of-way, or adjoining properties. **Landscaped was not indicated as needed by testimony of neighboring owners.**

5. Stormwater Management & Erosion Control Standards. All conditional uses shall incorporate accepted stormwater management and erosion control practices as appropriate for the setting, scale and intensity of the existing and planned development.

5.2G Village Neighborhood Standards

A) The use of front yards shall be limited to landscaping, pedestrian paths and associated pedestrian amenities (e.g. street furniture, pedestrian scale lighting and signs) and driveways. Outdoor storage, parking and loading areas shall not be located within front yards unless the Board finds that the property is a pre-existing building or that no other practical alternative exists. **Garden Shed is set back from the street and located within a garden location.**

B) Buildings should be oriented toward and relate to, both functionally and visually, public streets and/or common greens, parks or plazas, and not be oriented toward parking lots. The front façade should include a main entry-way and pedestrian access to the street. The Board may impose a maximum setback, relative to adjacent buildings to achieve a consistent streetscape. **Garden shed must be outside the Floodway but will be oriented toward the common garden areas.**

C) The scale and massing of new buildings, including height, width, street frontage, and roof type, shall be compatible and harmonious with surrounding residential structures. Consideration shall be given to buildings serving special civic, social or cultural functions, including place of worship, that may be designed to serve as prominent focal points within the district. **Garden shed is within the height limitation and in keeping with the focal point of Atkins Field.**

5.3 Flood Hazard Review

(C) General Standards.

(2) All development shall be designed to minimize flood damage to the proposed development and to public facilities and utilities; and to provide adequate drainage to reduce exposure to flood hazards. **Extensive review related to the minimization of the flood damage aspects. All suggestions from the Floodplain Manager were incorporated into the conditions of the decision.**

(3b) Structures shall be: constructed with materials resistant to flood damage. **Cedar and stone will be utilized.**

(4) New and replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate the infiltration of flood waters into the systems and discharges from the systems into flood waters. **Water lines will be at the same depth as town water lines and 2 frost-free hydrants will be equipped with back flow preventers.**

(5) The flood carrying capacity within any altered or relocated portion of a watercourse shall be maintained. **Parking area shall match surrounding ground level to maintain flood carrying capacity.**

(13) Accessory Structures: An accessory structure that represents a minimal investment may be built below BFE provided the structure:

a) Shall not be used for human habitation; **Testimony was received that the garden shed will not be used for humans.**

- b) Shall be designed to have low flood damage potential; **Testimony was received that the garden shed will be constructed with cedar and stone (foundation level).**
- c) Shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters; **Testimony was received that the garden shed will be outside the floodway and will have flood openings in relation to the size of the structure.**
- d) Shall be firmly anchored to prevent flotation which may result in damage to other structures; **Testimony was received that the garden shed would be anchored by steel rods and granite blocks.**
- e) Shall have service facilities such as electrical and heating equipment elevated or flood proofed. **Testimony was received that the garden shed will not have electrical or heating equipment.**


Decision and Conditions

Based upon these findings, the Development Review Board voted 7-0 to approve the Center for an Agricultural Economy application as presented with the following conditions:

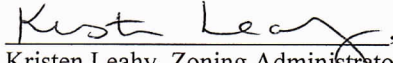
Conditions:

1. Any and all necessary state and federal permits must be in place before development can commence.
2. The water line and faucet will be protected to prevent contamination of the system from floodwater by the installation of 2 frost-free hydrants equipped with back flow preventers.
3. The new water line shall be adequately buried to protect it from breaking if flooding erodes away the surface soil.
4. The accessory structure shall be restricted to non-hazardous storage use only.
5. The accessory structure shall be located outside the floodway.
6. The flood openings on the accessory structure shall be kept free of obstruction and the bottom of all openings shall be located no more than 1 foot above the ground level;
7. All building materials in the accessory structure below BFE shall be flood damage resistant.
8. The finished parking lot level shall match the surrounding ground level.
9. All lighting shall be down-lit and shall be limited to security lighting.
10. The proposed parking area shall not have direct access from Granite Street nor Granite Street Extension.
11. All foundation stone and fill from the proposed parking area shall be removed and properly disposed at a separate location.

Signed:

 , Chair
Cheryl Michaels, DRB Chair

Date 9/12/2016

 , acting clerk
Kristen Leahy, Zoning Administrator

Date 9/12/2016

NOTICE:

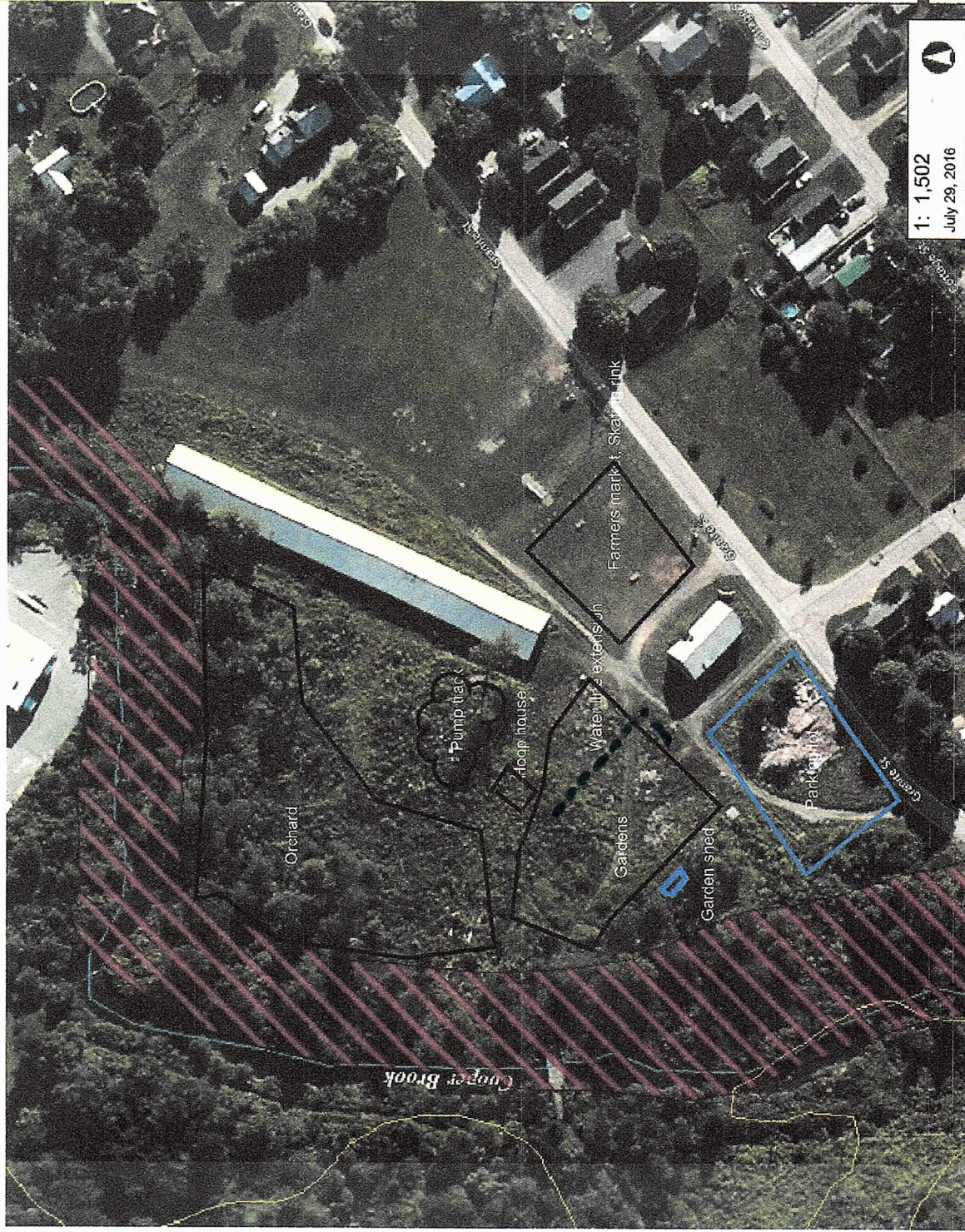
This decision may be appealed to the Vermont Environmental Court by an interested person who participated in the proceeding (in person or in writing) before the Development Review Board. Such appeal must be made within 30 days of the date of this decision, pursuant to 24 V.S.A. #4471 and Rule 5(b) of the Vermont Rules for Environmental Court Proceedings.

Exhibit # 1



Atkins Field
Vermont Agency of Natural Resources

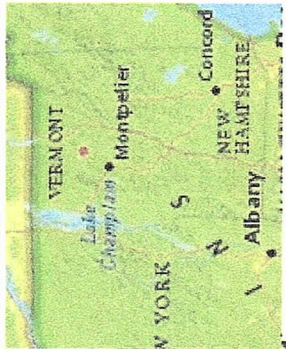
vermont.gov



1: 1,502
July 29, 2016

76.0 0 38.00 76.0 Meters
 1" = 125 Ft. 1cm = 15 Meters
 THIS MAP IS NOT TO BE USED FOR NAVIGATION
 WGS_1984_Web_Mercator_Auxiliary_Sphere
 © Vermont Agency of Natural Resources

DISCLAIMER: This map is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. ANR and the State of Vermont make no representations of any kind, including but not limited to, the warranties of merchantability, or fitness for a particular use, nor are any such warranties to be implied with respect to the data on this map.



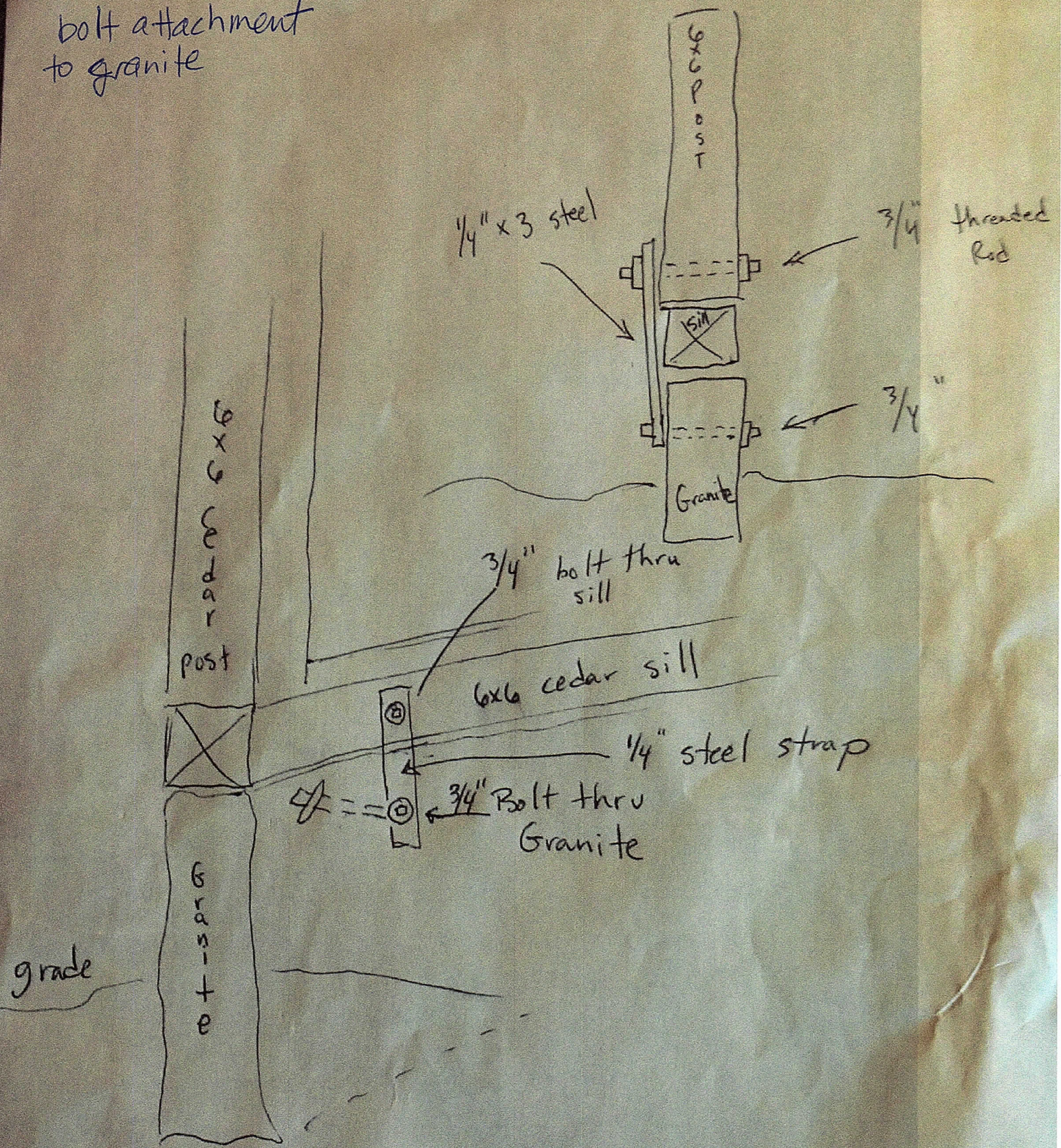
LEGEND

- River Corridor Easement
- DFIRM Floodways
- Stream
- Town Boundary
- Existing
- Proposed
- Proposed water line

Garden shed = 10'x20'
 Waterline = 22' NE, 132' NW
 Parking lot area = 160' x 102'

NOTES
 Map created using ANR's Natural Resources Atlas

CAE- Atkins shed - (garden shed)
bolt attachment
to granite



646ASLF Back Flow Preventer • Spec Sheet

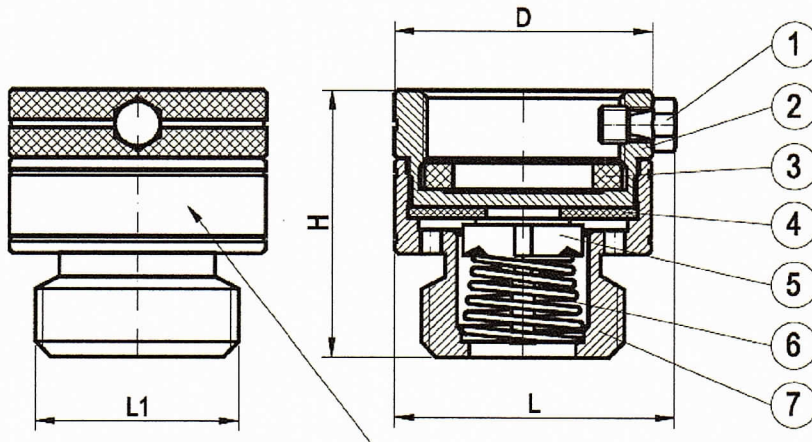


FEATURES & BENEFITS

- Lead Free Brass*
- ISO-9002
- ASSE Standard 1011 and UPC/ IAPMO
- Brass Finish (646AS4LF)
- Chrome-Plated (646ASCLF)
- Available Display Carded
- Break-away Set Screw
- 3/4" Garden Hose Threads

DIMENSIONS

Part #	H	L	L1	D
646AS4 (Brass)	1.38	1.44	1.04	1.33
646ASC (Chrome)	1.38	1.44	1.04	1.33



MATERIAL SPECIFICATIONS

No.	Part	Material
1	Bolt	Brass B124 C37700
2	Bonnet	Brass C89550 / C46400
3	Packing	BUNA SN-719F
4	Seat Packing	BUNA SN-719F
5	Spring House	POM-M90 Polyacetal
6	Spring	Stainless Steel 304
7	Body	Brass C89550 / C46400

MARKING ON PRODUCT :

ASSE 1011 UPC B 64.2 125 PSI 180° F INDONESIA LVB 3/4" LF



* These product complies with 0.25% weighted average lead content on wetted surfaces in accordance with Safe Water Drinking Act (SDWA) / Federal Public Law No. 111-380.

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 WEB: www.matco-norca.com EMAIL: mail@matco-norca.com

Atkins Field garden shed - ~~the~~ cedar

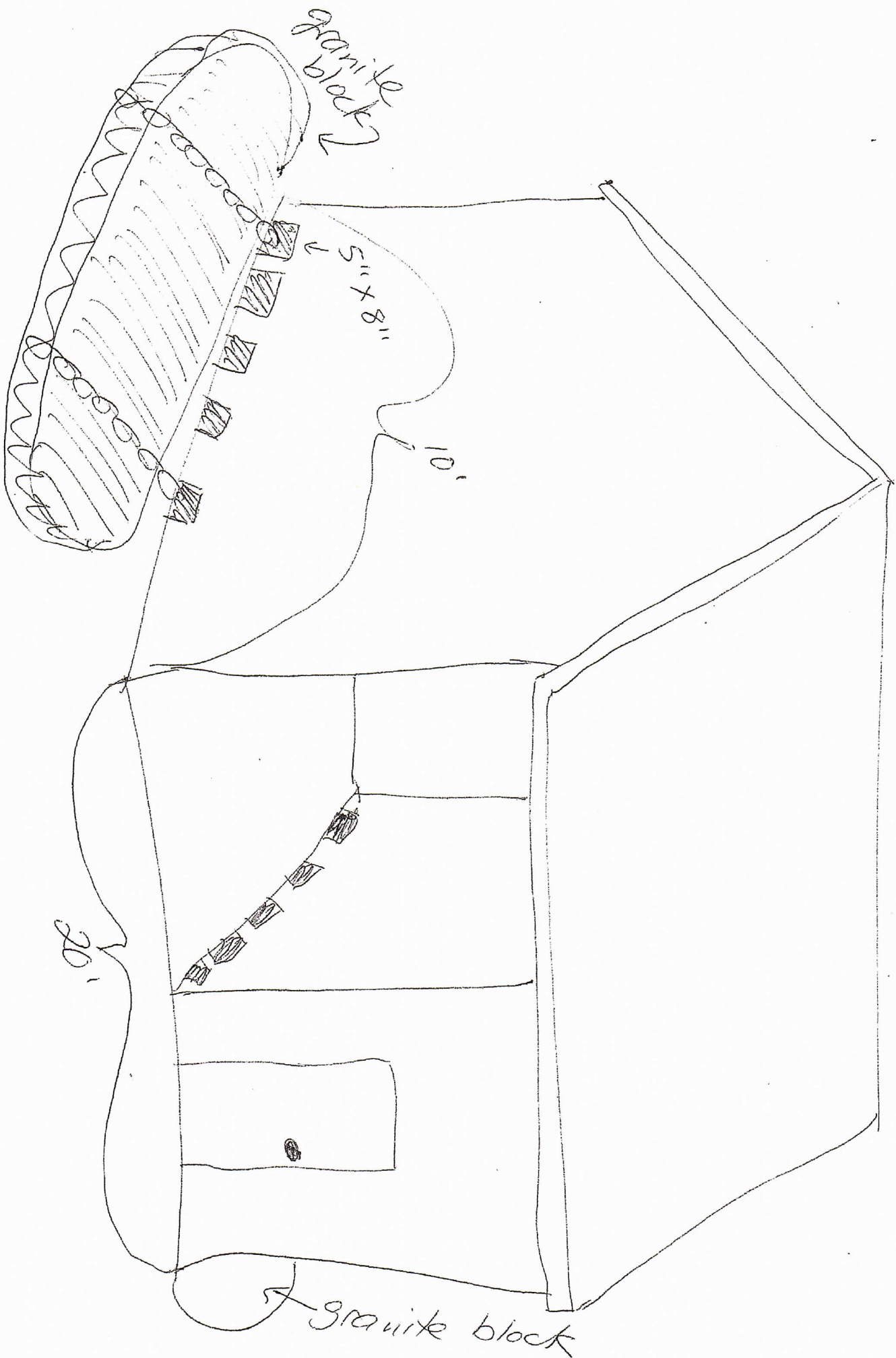
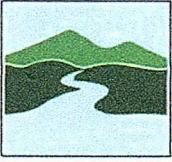


Exhibit 4



Vermont Department of Environmental Conservation
 Watershed Management Division
 1 National Life Drive, Main 2
 Montpelier, VT 05620-3522



August 26, 2016

Kristen Leahy, Zoning Administrator
 Town of Hardwick
 P.O. Box 523
 Hardwick, Vermont 05843
 [by E-Mail]

Subject: Flood Hazard Review—Zoning Application No. 2016-038
 Replacement garden shed, waterline extension, parking area
 Atkins Field on Granite Street

Dear Kristen:

I've reviewed the above-referenced application and offer the following comments. This letter is meant to assist the community in meeting its permitting obligations for development in the floodplain under the National Flood Insurance Program (NFIP) and to provide state review in accordance with 24 VSA §4424.

According to the most current FEMA Flood Insurance Rate Map (7/17/2002), the project is located in the Special Flood Hazard Area—Zone AE of Cooper Brook but outside of the floodway. Zone AE is the land area expected to be underwater during the Base Flood or the flood having at least a 1% chance of occurring each year. All development in the Special Flood Hazard Area must meet the requirements of NFIP and the Hardwick Flood Hazard Area Regulations (contained in Hardwick Unified Development Bylaws).

Before Hardwick approves the proposal, please be sure the following items are addressed:

Water line extension

Section 5.3 C.4 requires that water supply systems “shall be designed to minimize or eliminate the infiltration of floodwaters into the systems and discharges from the systems into flood waters.” I recommend the town require a little more detail on how this standard will be met. For this project, the primary concern would be ensuring the water line and faucet are protected to prevent contamination of the system from floodwater. For example, NFIP guidance (see attached) calls for elevating outdoor faucets above Base Flood Elevation (BFE) or equipping the line with a backflow prevention device in the connection to the public water supply (which may already be present, I don't know). Also, the line should be adequately buried to protect it from breaking if flooding erodes away the surface soil.

Garden shed

The proposed 10' x 20' shed appears to qualify as an accessory structure under Hardwick's bylaws section 5.3 C.13 and need not be elevated. However, to make sure all flood hazard standards are met, I suggest the permit be conditioned or otherwise specified to require:

- 1) The use be restricted to storage only;
- 2) The shed be located outside of the floodway as shown on the site plan;

- 3) The flood openings be kept free of obstruction and the bottom of all openings be located no more than 1 foot above the ground level;
- 4) All building materials below BFE be flood damage resistant as described in [NFIP Technical Bulletin 2](#). My understanding is hemlock is not generally as decay resistant as other woods (e.g. cedar), unless it has been treated. I recommend the town request confirmation the building materials will be decay resistant or otherwise acceptable by FEMA guidance.

Parking Lot

I wasn't sure from the application if the finished parking lot level would match the surrounding ground level. I recommend this be the case if any new materials such as gravel are brought on site. The idea of matching the surrounding ground level is to keep as much floodplain area available for water to spread out, slow down, and be less damaging overall.

Thank you for contacting the Vermont Rivers Program. Please feel free to contact me at (802) 490-6162 or sacha.pealer@vermont.gov if you have questions.

Sincerely,



Sacha Pealer
Regional Floodplain Manager
River Corridor & Floodplain Protection Program

Attachment: Excerpt from FEMA Publication 348: [Protecting Building Utilities from Flood Damage](#)