# Request for Amended Order of Conditions

## Ames Pond Trail Maintenance - MA DEP#286-0291

Wendell Rd., Shutesbury, MA

Proposal by Walker Korby (Terramor, LLC) for Kestrel Land Trust, PO Box 1016, Amherst, MA 01004

Submitted: 11/22/2022

SUMMARY: Kestrel Land Trust proposes the following changes for the Phase 1 trail maintenance work outlined in our Notice of Intent:

## A) Expansion of Unpaved Parking Area – for construction details see Section C

The parking area is located within the 100 foot buffer zone (see *Figure 5, Wetland Delineation* from original NOI, attached).

Proposed Changes – Parking Area (see Ames Pond Trail Maintenance plan, attached):

- By permission of Shutesbury Highway Superintendent, we will site the parking area 5 ft from Wendell Rd. rather than approximately 20 ft.
- The original plan used no stabilization material. The amended plan will place a layer of geotextile fabric beneath the gravel surface of the parking area.

Impacts to Resource Areas	100-foot Buffer Zone	BVW	Riverfront Area	Total
Parking Area	60 x 36 ft = 2,160 sq ft			60 x 36 ft = 2,160 sq ft

#### B) Trail Maintenance Activity – for construction details see Sections D & E

The Phase 1 section of trail passes through the BVW (the A-wetland) northwest of the pond shore and is consistently wet (see *Figure 5*, *Wetland Delineation* from original NOI, attached).

Proposed Changes – Meadow Accessible Trail (see Ames Pond Trail Maintenance plan, attached):

- Instead of being located along the southwestern edge of the meadow, the 405-ft long trail to the pond viewing platform will be routed across the northern upper part of the meadow and down to the pond along the meadow's northeastern edge. This plan keeps 295 ft of pathway out of the BVW, on drier, gravelly substrate.
- The two trail sections (60 ft and 235 ft) located outside the BVW on drier, gravelly substrate will be constructed of compacted stone dust. Compacted stone dust trail creates a more sustainable accessible surface, since puncheon decking can shift and become uneven due to frost heaving.
   Near the parking area, a stone dust path allows access for mowing maintenance, as stone trail can be driven over, while a puncheon cannot.
- A 3' x 6' bump-out (rest area and passing zone) will be installed at the approximate halfway point (approx. 200 ft) between the parking area and the viewing platform.

Impacts to	100-foot	BVW	Riverfront	Total
Resource Areas	<b>Buffer Zone</b>		Area	
Stone dust path	170 x 3.5 ft =		125 x 3.5 ft =	295 x 3.5 ft =
	595 sq ft		437.5 sq ft	1,032.5 sq ft
Stone dust	3x6 ft =			3 x 6 ft =
bump-out	18 sq ft			18 sq ft
Puncheon		65 x 4 ft =	45 x 4 ft =	110 x 4 ft =
walkway		260 sq ft	180 sq ft	440 sq ft
Puncheon-style			10 x 24 ft =	10 x 24 ft =
viewing platform			240 sq ft	240 sq ft

## C) Parking Area Construction Details

The parking area is proposed to be 60 ft wide by 36 ft deep and set back from the edge of the road by 5 ft, as permitted by the Shutesbury Highway Superintendent. An 18 ft wide apron will be installed between the road to the parking area using at least 3" of compacted Hardpak recycled 1-¼ minus aggregate. The placement of the lot will be situated in such a way to minimize tree removal. The current proposed layout will require removing the following 5 trees:

- Three 6" dbh bigtooth aspens
- Two 11" dbh bigtooth aspens

These trees are clustered and covered in bittersweet, are young and do not contain cavities. The stumps will be left in place to decay naturally, as they are on the outer edge of the parking area. An area of bittersweet and multiflora rose will also be removed and the mound of material beneath the bittersweet will be removed from site if there is not a feasible way to blend it into the site without creating a larger disturbance. We will push aside any of the top organic layer from the area to create a more stable substrate for the fabric and stone for parking, and preferably use that material to dress the edges of the parking area afterward as long as it seems to be not full of bittersweet or multiflora rose rootstock. 6-10" of compacted 1.5" minus crushed gravel will be installed on top of a layer of 6.0 oz geotextile fabric. This particular gravel product is a sandy rounded gravel that allows for water to pass through more easily. By reducing displacement, the fabric will compensate for the choice not to excavate and replace the soil with a more structural gravel.

We will grade the compacted gravel base to create a generally level surface, pitched no more than 3% in any direction to prevent water pooling on top of the parking area, which leads to potholes. The area closest to the connection to the trail will be the most level in order to accommodate accessibility guidelines. A 3" layer of Hardpak will be installed on top of the crushed gravel which will create a very stable surface. This material is a recycled mix of aggregate products that is more natural looking, less expensive, and more resilient than crushed stone, and it creates a very uniform surface.

HAROPAK (3")

GEOTEXTILE

1.5 CRUSHED

NATIVE SOIL

#### D) Trail Construction Details

The current proposed walking trail departs from the original proposal based on in-depth site observations. It will have fewer impacts on wetland resources and additional benefits: longer life as a stable accessible surface, less aesthetic disruption, easier maintenance, and less construction expense.

The proposed trail connects off the parking area as a **compacted stone dust trail** at a grade between 3-5%. This will likely require some additional material to be added to the surface, as the current grade is slightly over 5%. This material would be "bank run gravel," a clean stony/sandy mix that has no organic material in it, is structurally stable, and is well drained as the stone particles are rounded.

Once gravel is installed and compacted, a layer of geotextile will be installed to maintain stability, then 3-4" of compacted ½" Dense Graded Base (TRG, or Stonedust) will be installed on the top. The width of the trail will be approximately 42" wide (no less than 40" and no more than 44") to allow for wheelchair access, but to keep the footprint as small as is reasonable.

To prepare the surface for the fabric and stone to be placed, we will rototill the top 3" of any organic material and scrape it aside from the trailway by hand, to be used as the edging for the trail. The surface will then be compacted, geotextile added, and 3-4" of compacted stone dust will be installed on top of that, crowned slightly (no more than 2% in any direction) to prevent water pooling on the trail. Use of geotextile allows less stone to be added to the trail while still maintaining trail stability (keeping the trail bed from sinking through subsurface compaction over time, for example).

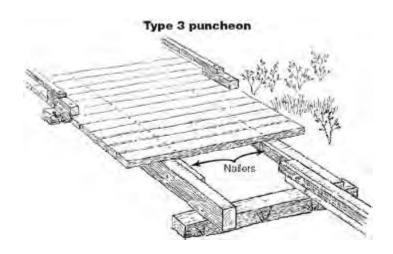
For the two trail sections located within BVW, we will use **Type 3 puncheon (wooden walkway)** as originally proposed. This type of construction is designed to "float" on the soil surface. It is not anchored to the ground and sits atop sills that extend beyond the edges of the walkable decking. Sills are set into the ground 4-6" with a small amount of well drained substrate (crushed stone) to reduce the effects of frost heaving, which would potentially make the puncheon uneven and less accessible. We will use a "cookie cutter" approach to remove the top layers of soil and organic material precisely where the mud sills will be placed, by hand.

The puncheon will be built with pressure treated wood and screwed rather than nailed for easier maintenance. It will be 48" wide with 40" of walking surface, as the "bull rails" (the edging) will take up some of the width. The puncheon will span a section approximately 140 ft at the beginning, then 50 ft at the end of the trail, where it will merge seamlessly into a 10x24 ft pond viewing platform, which will be made using the same puncheon construction techniques.

The interface between the puncheon and the stone trail will be accomplished using a combined approach of setting the last mud sill slightly deeper, to pitch the puncheon down no more than 3%, and building up the stone slightly to ramp up. The stone will butt up against a sill on the edge of the puncheon so there will be no gap or elevation difference. The end sections of puncheon will extend 10 ft out beyond the edge of the delineated BVW toward where the trail enters the woods.

Except for the footpath along the southeastern edge of the meadow that completes the Big Loop around the pond, existing footpaths outside the new route will be discontinued via selective mowing to retain vegetation as a visual and physical barrier, deterring use; signage added if needed.

## **E) Puncheon Construction Details**



#### 1. Excavation and Installation of Mud Sills

6x6 Pressure Treated (PT) timbers sills will be set at least 4" into the existing ground, on top of 4" of crushed stone as needed. Installed at 4ft and 6ft intervals in order for the stringers to be as low profile as possible. Sills will be 5ft wide and extend beyond the outside edge of the puncheon to create the flotation necessary for this type of construction.

## 2. Installation of Stringers

Two 4x4" PT stringers pinned to sills 24" apart. Each section tied together with 24" 4x4 stringer tie.

#### 3. Installation of Decking

2"x6" PT decking with 1/2" spacing 4ft wide.

## 4. Installation of Bull Rails

2x4" PT rails set on 1" spacers on the outside edge of decking.

## 5. Installation of 10'x24' Observation Platform

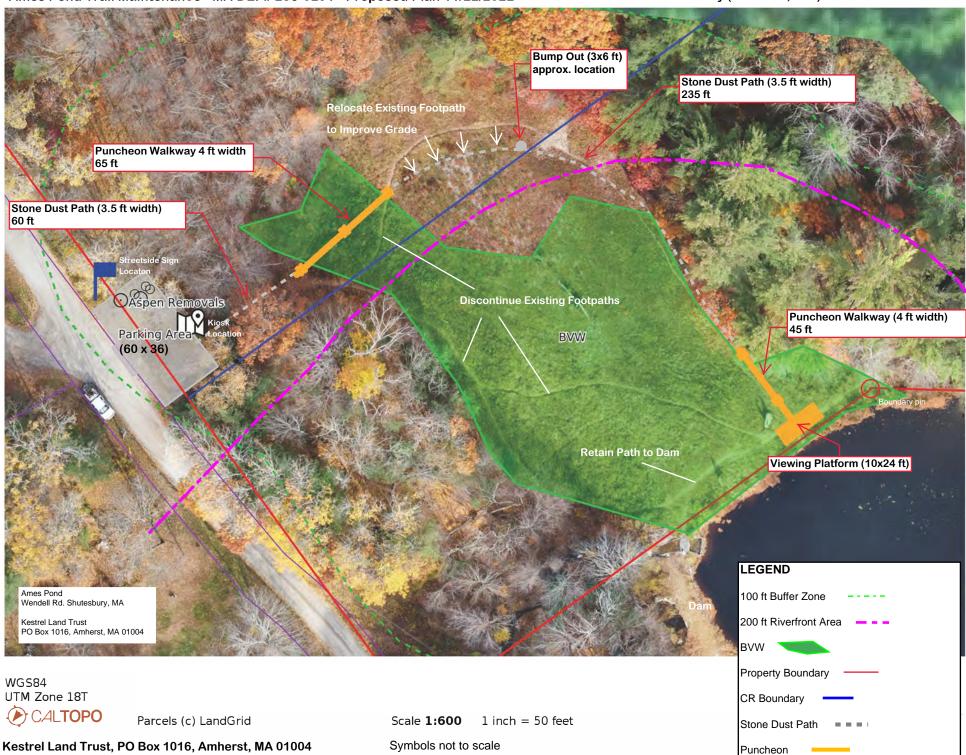
At the terminus of puncheon, built with the same techniques.

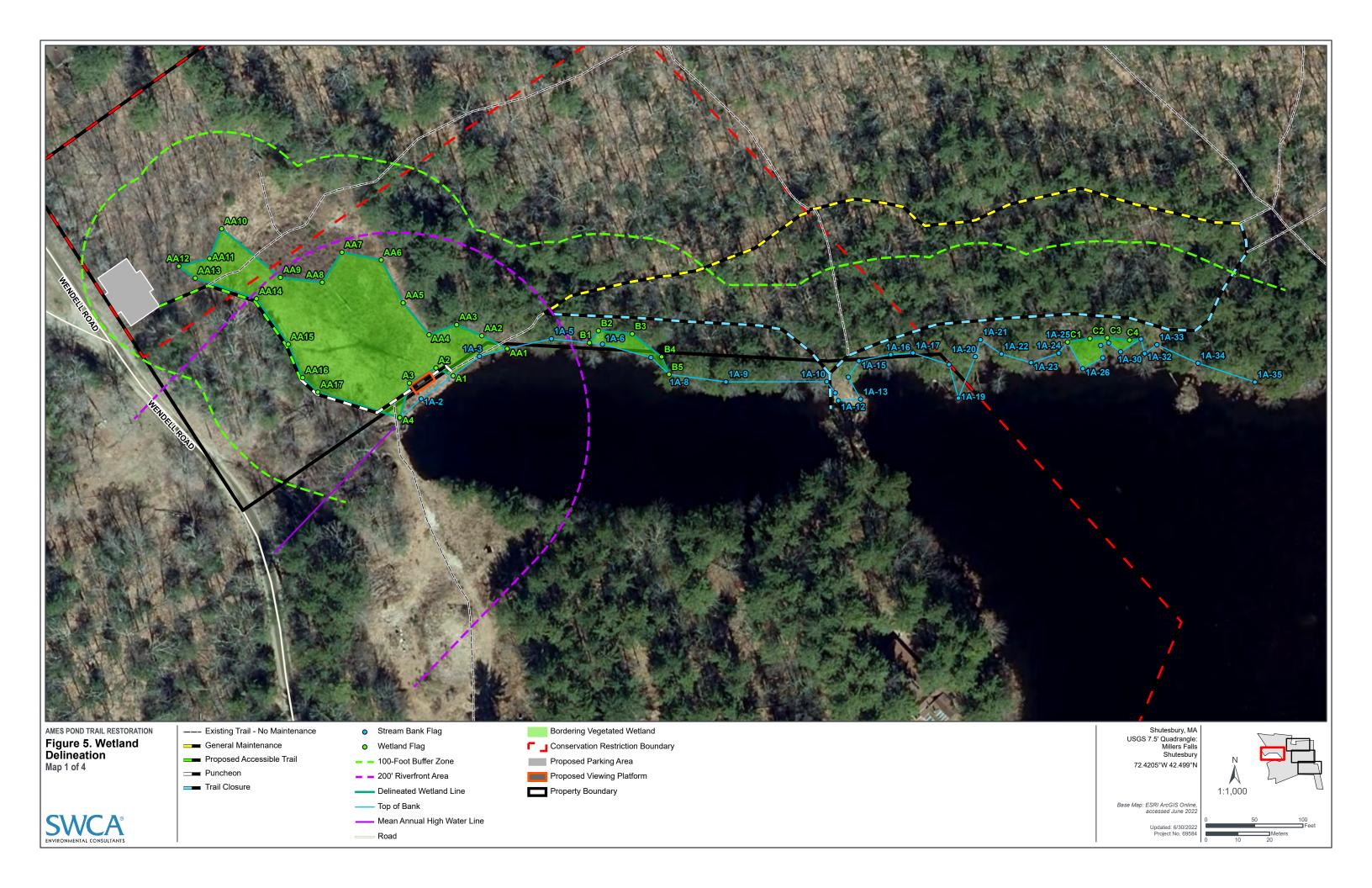
## F) Site Considerations

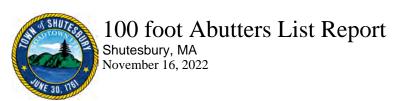
Any wood and woody debris will be chipped in the parking area and kept on site for dressing the edges of the parking area. Materials for the parking area construction will be delivered, spread and compacted on the same day. The only planned soil disturbance is to remove top layers of organic material, (approx 3-6") in order to get to a more stable mineral soil for gravel to sit on. The parking area will be installed first, so any further building materials will be staged there. Erosion control measures will be in place as dictated by the OOC, including straw wattle around the area to worked on, and around any stockpiles that are left more than a day.

Materials and tools will be carried along the trail corridor in a minimal ground pressure (less than 4psi) low impact wide tracked materials hauler (4ft wide 800lbs) with a wide tire trailer, and/or by hand using volunteers. Sod layer will be removed by hand underneath where mud sills will be installed, and crushed stone will be installed, using an electric wheeled dump cart, and tracked dumper. The trail corridor will first be mowed by hand with an electric brush saw in the BVW. Outside of BVW a lightweight 43" wide machine with turf tires will be used to power a 36" wide rototiller to loosen the top 3" (or less) of organic material along the trail corridor. A tracked 36" wide dumper will allow us to make fewer trips in and out of the trail corridor, lessening potential compaction and impact than even manual wheelbarrows would, as the PSI on the ground will be considerably less. It will be necessary to bring in stone before the puncheon is built, so we will use specialized ground mats to traverse the BVW areas that will reduce the ground compaction and impact even more. Because of the efficiency of the machine, the ground mats will only need to be down for approximately 8 hours.

No implements or machines will traverse outside of the 48" trail corridor, and no organic material (besides PT wood) will be brought from off site, greatly reducing the risk of introducing any unwanted species. Any exposed soil should be minimized, and if there is any, it will be seeded with a proper seed mix (wetland or upland) and covered with seed-free mulch straw.







## **Subject Property:**

Parcel Number: ZK-26 CAMA Number: ZK-26

Property Address: WENDELL RD

JANOWITZ JULIAN F, HONOR JUDD Mailing Address:

PERSONAL REPRESENTA

64 GOTHIC ST

NORTHAMPTON, MA 01060

Abutters:

Parcel Number: A-150 CAMA Number: A-150

Property Address: LAUREL DR

Parcel Number: A-19

CAMA Number: A-19

Property Address: NORTH LAUREL DR

Parcel Number: K-124 CAMA Number: K-124

Property Address: 711 WENDELL RD

Parcel Number: K-51

CAMA Number: K-51

Property Address: 785 WENDELL RD

Parcel Number: K-53 CAMA Number: K-53

Property Address: WENDELL RD

Parcel Number: K-54 K-54

CAMA Number:

Property Address: WENDELL RD

Parcel Number: K-55

CAMA Number: K-55

Property Address: WENDELL RD

Parcel Number: K-56

CAMA Number: K-56

Property Address: 749 WENDELL RD

Parcel Number: K-57

CAMA Number:

Property Address: 745 WENDELL RD

Parcel Number: ZA-130

11/16/2022

CAMA Number: ZA-130

Property Address: 708 WENDELL RD

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8 E. COLLINGS AVE

COLLINGSWOOD, NJ 08108

Mailing Address:

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**CLAY ROBERT SAMUEL** Mailing Address:

711 WENDELL ROAD

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785 WENDELL ROAD SHUTESBURY, MA 01072

TOWN OF SHUTESBURY Mailing Address:

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SHUTESBURY, MA 01072

TOWN OF SHUTESBURY Mailing Address:

1 COOLEYVILLE RD P O BOX 276

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STEENSTRUP SUSAN J Mailing Address:

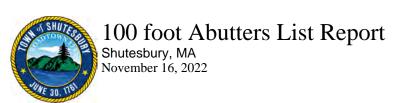
> 745 WENDELL ROAD SHUTESBURY, MA 01072

Mailing Address: WINDCALLER ALEXANDRIA A.

708 WENDELL RD

SHUTESBURY, MA 01072





Parcel Number: ZA-42 **CAMA Number:** 

ZA-42

Property Address: 27 SOUTH LAUREL DR

Mailing Address: SIEFERT THOMAS R

27 SOUTH LAUREL DR

SHUTESBURY, MA 01072

Parcel Number: ZA-48

CAMA Number:

**ZA-48** 

Property Address: 21 SOUTH LAUREL DR

Mailing Address: KOCOT HENRIETTA

130 WHATLEY RD

SOUTH DEERFIELD, MA 01373

Parcel Number: ZK-118

CAMA Number: ZK-118

Property Address: WENDELL RD

Mailing Address:

JANOWITZ JULIAN F, HONOR JUDD

PERSONAL REPRESENTA

64 GOTHIC ST

NORTHAMPTON, MA 01060

Parcel Number: ZK-23 CAMA Number:

ZK-23

Property Address: WENDELL RD

Mailing Address: JANOWITZ JULIAN F, HONOR JUDD

PERSONAL REPRESENTA

64 GOTHIC ST

NORTHAMPTON, MA 01060

Parcel Number: ZK-28 CAMA Number:

Property Address: WENDELL RD

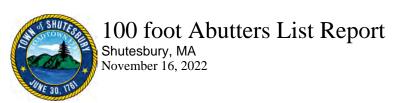
ZK-28

Mailing Address:

MAURI, MICHAEL J.

20 WEST STREET SOUTH DEERFIELD, MA 01373

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## **Subject Property:**

Parcel Number: ZK-23 CAMA Number: ZK-23

Property Address: WENDELL RD

JANOWITZ JULIAN F, HONOR JUDD Mailing Address:

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64 GOTHIC ST

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Abutters:

Parcel Number: A-121

CAMA Number: A-121

Property Address: 674 WENDELL RD

Mailing Address: MAY, HUCKLE A.

674 WENDELL RD

SHUTESBURY, MA 01072

Parcel Number: E-2

CAMA Number: E-2

Property Address: WENDELL RD

Mailing Address: FOOTIT, JEAN

**PO BOX 186** 

SHUTESBURY, MA 01072

Parcel Number: K-110 CAMA Number: K-110

Property Address: 665 WENDELL RD

Mailing Address:

FORTIER ANNETTE

665 WENDELL RD

SHUTESBURY, MA 01072

Parcel Number: K-111 CAMA Number: K-111

Property Address: WENDELL RD

Mailing Address: FORTIER ANNETTE

665 WENDELL RD

SHUTESBURY, MA 01072

Parcel Number: CAMA Number: K-113 K-113

Property Address: 22 AMES HAVEN RD

Property Address: WENDELL RD

Mailing Address:

REIKEN, FREDERICK J. 22 AMES HAVEN RD

SHUTESBURY, MA 01072

Parcel Number:

K-122

CAMA Number: K-122 Mailing Address:

JANOWITZ JULIAN, HONOR JUDD

PERSONAL REPRESENTATIV

64 GOTHIC ST

NORTHAMPTON, MA 01060

Parcel Number: CAMA Number: K-124

K-124

Property Address: 711 WENDELL RD

Mailing Address:

**CLAY ROBERT SAMUEL** 

711 WENDELL ROAD SHUTESBURY, MA 01072

Parcel Number: K-14 CAMA Number: K-14

Property Address: COOLEYVILLE RD

Mailing Address:

DCR - DIV. WSP 251 CAUSEWAY ST

BOSTON, MA 02114

Parcel Number:

K-18

Mailing Address:

**TEMENOS INC** 

CAMA Number:

Property Address: MOUNT MINERAL RD

65 MOUNT MINERAL ROAD SHUTESBURY, MA 01072

Parcel Number:

11/16/2022

K-19

Mailing Address: HAYES KEVIN

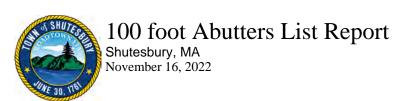
CAMA Number:

K-19

Property Address: WENDELL RD

P O BOX 154

SHUTESBURY, MA 01072



Parcel Number: K-20 Mailing Address: WHITNEY SCOTT B

CAMA Number: K-20 78 SOUTH MILL RIVER ROAD

SOUTH DEERFIELD, MA 01373 Property Address: WENDELL RD

Parcel Number: K-22 Mailing Address: SILVERMAN MARTIN B

CAMA Number: K-22 25 MONTGOMERY STREET 18E

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Parcel Number: K-24 Mailing Address: ESSIG RONALD J

CAMA Number: K-24 681 WENDELL ROAD

Property Address: 681 WENDELL RD SHUTESBURY, MA 01072

Parcel Number: K-25 Mailing Address: WELLS SUSAN LORING

CAMA Number: 12 AMES HAVEN RD K-25 Property Address: 12 AMES HAVEN RD SHUTESBURY, MA 01072

Parcel Number: ZA-127 Mailing Address: WINDCALLER ALEXANDRIA A.

CAMA Number: ZA-127 708 WENDELL RD

Property Address: 708 WENDELL RD SHUTESBURY, MA 01072

ZK-118 Parcel Number: JANOWITZ JULIAN F, HONOR JUDD Mailing Address:

CAMA Number: ZK-118 PERSONAL REPRESENTA

Property Address: WENDELL RD 64 GOTHIC ST

NORTHAMPTON, MA 01060

Parcel Number: ZK-121 Mailing Address: JANOWITZ JULIAN F, HONOR JUDD

PERSONAL REPRESENTA CAMA Number: ZK-121

Property Address: WENDELL RD 64 GOTHIC ST NORTHAMPTON, MA 01060

Parcel Number: ZK-26 Mailing Address: JANOWITZ JULIAN F, HONOR JUDD

CAMA Number: ZK-26 PERSONAL REPRESENTA

Property Address: WENDELL RD 64 GOTHIC ST

NORTHAMPTON, MA 01060

Parcel Number: ZK-27 Mailing Address: MAURI, MICHAEL J. CAMA Number: ZK-27 20 WEST STREET

Property Address: WENDELL RD SOUTH DEERFIELD, MA 01373

Parcel Number: ZK-28 Mailing Address: MAURI, MICHAEL J.

CAMA Number: ZK-28 20 WEST STREET

Property Address: WENDELL RD SOUTH DEERFIELD, MA 01373

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