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ELAINA L. HOEPPNER
WILLIAM K. WARREN

September 9, 2020

Via First Class Mail and Email to: mgasses@barrington.nh.gov
Zoning Board of Adjustment
Town of Barrington
P.O. Box 660
Barrington, New Hampshire 03825

RETIRED
MICHAEL J. DONAHUE
CHARLES F. TUCKER
ROBERT D. CIANDELLA
NICHOLAS R. AESCHLIMAN

RE: Matter 261-39-GR-20-ZBA

Dear Members of Zoning Board of Adjustment:

I am writing to you regarding the above referenced matter (Property: "South Island," Mendums Pond, Assessor Map 261, Lot 39, Barrington, New Hampshire).

Accordingly, enclosed please find one original, with four (4) complete copies:

1. Memorandum in Support of Administrative Appeals / Appeal of Administrative Decision of Richard Kelsey, with Exhibits.

Please distribute the enclosed to the Members of the Zoning Board of Adjustment, prior to the Hearing, scheduled for Wednesday, September 16, 2020.

If you have any questions, please do not hesitate to contact me. Thank you for your assistance.

Very Truly Yours,
DONAHUE, TUCKER & CIANDELLA, PLLC

Eric A. Maher, Esq.
emaher@dtclawyers.com

EAM/ cms
Enc.

Cc: Richard Kelsey (w. enc.)

S:\KA-KM\Kelsey, Richard & Otiato, Mary\Town of Barrington - Motion for Rehearing\2020 09 09 Ltr to Town re; forward Memo Sport Admin Appeal w. exhibits.docx

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DONAHUE, TUCKER & CIANDELLA, PLLC

16 Acadia Lane, P.O. Box 630, Exeter, NH 03833

111 Maplewood Avenue, Suite D, Portsmouth, NH 03801

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83 Clinton Street, Concord, NH 03301

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RETIREE
MICHAEL J. DONAHUE
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NICHOLAS R. AESCHLIMAN

Karyn Forbes, Chair
Zoning Board of Adjustment
Town of Barrington
P.O. Box 660
333 Calef Highway
Barrington, NH 03825

September 9, 2020

Re: **Memorandum in Support of Administrative Appeals**
Appeal of Administrative Decision of Richard Kelsey
“South Island,” Mendums Pond, Barrington, NH Assessor Map 261, Lot 39
Matter 261-39-GR-20-ZBA

Dear Chairperson Forbes and Members of Zoning Board of Adjustment:

This memorandum is being submitted in advance of the Barrington Zoning Board of Adjustment’s (“**the Board**” or “**the ZBA**”) hearing on the above-referenced matter scheduled for September 16, 2020 and is intended to act as an aide in Mr. Kelsey’s presentation during that hearing. The purpose of Mr. Kelsey’s Appeal of Administrative Decision is to allow for the issuance of a building permit under RSA 674:41 which would allow Mr. Kelsey to restore and repair a cabin located on his property, identified as Assessor Map 261, Lot 39 (the “**Property**”), which was vandalized in 2016.

This memorandum is divided into six sections. The first section provides a discussion of the Property. The second section discusses Mr. Kelsey’s intent with regard to the Property. The third section provides a brief overview of the legal framework surrounding this administrative appeal. The fourth section provides a brief overview of the procedural history in this case. The fifth section discusses why the Board should grant the relief requested by Mr. Kelsey without imposing conditions that would preclude the installation of solar panels or a seasonal shower/sink. The sixth section provides a brief conclusion.

DONAHUE, TUCKER & CIANDELLA, PLLC
16 Acadia Lane, P.O. Box 630, Exeter, NH 03833
111 Maplewood Avenue, Suite D, Portsmouth, NH 03801
Towle House, Unit 2, 164 NH Route 25, Meredith, NH 03253
83 Clinton Street, Concord, NH 03301

I. Background of the Property

The Property is an island located in Mendums Pond that is approximately 1.64 acres in size and on which sits a 348 square foot cabin. Attached as Exhibit A is an aerial photograph of the Property. The cabin largely faces to the West. The cabin's front (Westerly) façade is located approximately 50 feet from the shore of Mendums Pond and is screened from view by trees and other vegetation. The cabin's rear façade (Easterly) is located over 200 feet from the shore, and the cabin's side facades (facing Northerly and Southerly) are both approximately 50 feet from the shore.

The cabin on the Property was constructed in or around the 1940s and traditionally contained a bed, a couch, a range/oven, a sink, and a woodstove. The cabin was constructed and designed for three-season use, as it is not insulated to be comfortably habitable during the winter months. Although the Property can be safely accessed by boat in non-winter months, the Property is not safely accessible in the winter months and is, therefore, not used in the winter months. Mr. Kelsey intends to use the Property as a seasonal camp, as the Property has historically been used.

To give the Board a better understanding of the cabin and its historic amenities, attached please find photographs from before and after the 2016 vandalism. The photograph marked Exhibit B was taken before the vandalism in 2016. In the photograph you can see a fireplace with wood stove and a range/over. The photographs marked Exhibits C through F show the extent of the vandalism. Notably, you can see the cabin had a sink, which was traditionally used for washing dishes in Exhibit F.

II. Mr. Kelsey's Intended Use of the Property

At the outset, it is important to be clear that Mr. Kelsey fully intends that this Property will continued to be used only as a seasonal camp. Mr. Kelsey seeks a building permit to allow for him to restore and repair the cabin from the vandalism that took place in 2016. As part of these efforts, Mr. Kelsey wishes to install additional amenities to both improve the functionality and the safety of the Property, namely installing (a) a limited array of solar panels on the cabin's rear roof and dormer, (b) a composting toilet (which the Board previously authorized), and (c) a small exterior shower and sink to be co-located with the structure housing the composting toilet.

Mr. Kelsey anticipates installing 3 to 4 100W, 12V solar panels on the rear roof and dormer of the cabin. While Mr. Kelsey is still in the market for the exact product he anticipates purchasing, the Renogy 100W, 12V Solar Panel provides an illustrative example of the type of panels that Mr. Kelsey anticipates installing. The limited power output for the solar panels – 300 to 400 Watts total – would only allow for a limited number of items to be powered (such as a small refrigerator, lights, and/or a television). The panels and associated wiring would be installed by a qualified and licensed electrician to ensure compliance with all applicable provisions of the State Building Code and the State Fire Code.

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The panels themselves are each 40.1 inches long, 26.3 inches deep, and 1.4 inches wide. As such, the panels are anticipated to cover between 22 and 30 square feet of space. These panels would not be visible from the shore of Mendums Pond and would not detract from the aesthetic appearance of the cabin. A print-out of the Renogy Solar Panel product is attached as Exhibit G, and includes details as to the product's specifications.

The composting toilet/sink/shower are anticipated to be located in excess of 75 feet from the shore of Mendums Pond in accordance with Article 11.2(1) of the Town's Zoning Ordinance. The structure that would house the composting toilet/sink/shower is anticipated to be 6 feet 2 inches by 7 feet (43.2 square feet total) with a total height of 9 feet, six inches. Water for the sink/shower would come from a small pump that would pump water from Mendums Pond to the situs. The waste from the sink and the shower would be limited to grey water, and Mr. Kelsey would install a DES compliant wastewater disposal system as part of the installation of that property. Attached as Exhibit H are plans that reflect the anticipated approximate location of the composting toilet/shower/sink, as well as floor plans for the proposed structure.

III. Legal Background

RSA 674:41, I, generally prohibits the erection of buildings on lots that are not located on a class V or better road. Notwithstanding that restriction, the ZBA on an administrative appeal may authorize the issuance of a building permits to erect new buildings "if the issuance of the permit or erection of the building would not tend to distort the official map or increase the difficulty of carrying out the master plan upon which it is based, and if erection of the building or issuance of the permit will not cause hardship to future purchasers or undue financial impact on the municipality." See RSA 674:41, II. In granting that authorization, the ZBA may impose conditions. Id. Although RSA 674:41 allows the ZBA to grant a permit subject to conditions, those conditions must be reasonably related to the interests RSA 674:41 seeks to serve. See Robinson v. Town of Hudson, (conditions must be reasonable and necessary to preserve the spirit of the ordinance).

The purpose of RSA 674:41 is to strike a balance between the development of properties that are not located on highways that are Class V or better, while not subjecting a municipality for maintenance of Class VI or private roads or liability due to limited access to emergency services. RSA 674:41 further ensures that subsequent owners are put on notice that a municipality is not responsive for road maintenance and will not be liable for a property's limited access to emergency services.

IV. Prior Proceedings

Mr. Kelsey requested a building permit to repair the vandalism damage to the cabin. The Town's Building Inspector, relying on RSA 674:41, initially denied Mr. Kelsey a building permit because the Property was not located on a class V or better road. Mr. Kelsey submitted an administrative appeal to the ZBA in accordance with RSA 674:41.

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On May 20, 2020, the ZBA granted that building permit. The ZBA imposed three conditions associated with that approval: (1) the structure must remain a seasonal camp, no insulation shall be installed, nor shall electricity, sewer or water shall be provided to the structure without further approval of the Board (“**the Utility Conditions**”); (2) Mr. Kelsey must provide for sanitary sewage dispose at the Property, i.e. a composting toilet; and (3) the decision must be recorded at the Strafford County Registry of Deeds.

On June 11, 2020, Mr. Kelsey sought rehearing with regard to the ZBA’s Utility Conditions, namely as it related to the prohibition on the installation of electricity or water without further ZBA approval. The Board granted Mr. Kelsey’s request for a rehearing on July 15, 2020.

V. Request for Relief

The Board should grant Mr. Kelsey relief under RSA 674:41 without conditions that would prohibit the installation of the solar panels (and related wiring) or the installation of a small sink/pump shower, as Mr. Kelsey’s proposal meets all criteria under RSA 674:41 and such conditions are not necessary to effectuate the purposes of RSA 674:41, the Town’s Zoning Ordinance, or the Town’s Master Plan.

a. Mr. Kelsey’s Proposal Fully Complies with RSA 674:41.

As reflected above, the ZBA must authorize the issuance of a building permit under RSA 674:41 if the issuance of a building permit would (a) not tend to distort the official map, (b) increase the difficulty of carrying out the master plan upon which it is based, (c) if erection of the building or issuance of the permit will not cause hardship to future purchasers, and (d) if the erection of the building or issuance of the permit would not cause undue financial impact on the municipality.

As reflected above, Mr. Kelsey is not seeking to construct a new building on South Island, which raises the question as to whether RSA 674:41 even applies. Instead, Mr. Kelsey is seeking to merely repair a cabin that has existed and has been used without incident since the 1940s. As such, there is no indication that the issuance of a building permit would tend to distort the official map or cause undue hardship on future purchasers. Moreover, there is no indication that the issuance of a building permit would cause undue financial impact on the Town because the repair of the cabin is not going to require the extension or build-out of any municipal infrastructure or require the municipality to assume any financial burden.

Further, Mr. Kelsey’s proposed activities on the Property will not frustrate or otherwise be contrary to the Town’s Master Plan, particularly where Mr. Kelsey continues to agree that the cabin will not be used for permanent occupancy. With regard to the construction of homes on Class VI and private roads – which are analogous to the circumstances of constructing a home on an island – the Town’s Master Plan expresses concern associated with the conversion of “seasonal homes along the ponds and lakes of Barrington to year-round housing.” Mr. Kelsey has previously agreed to restrictions on the use of the Property as a year-round residence, and has agreed to have a notice recorded with the Registry of Deeds reflecting that limitation of use – which would put

future owners on notice of that restriction in use. These limitations, coupled with the limited physical dimensions of the Property (348 square feet) and the difficult access during winter months, creates a high degree of assurance that the Property will continue to be used for seasonal purposes only (i.e. during the spring-summer-fall months).

Therefore, for the reasons stated above, the Board should authorize the issuance of a building permit for the intended activities identified above with the following conditions:

1. The structure shall remain a seasonal camp and will not be occupied between December 1 and April 15;
 2. The Applicant must provide for sanitary sewage disposal at the property (for example a composting toilet);
 3. The Board's decision shall be recorded at the Strafford County Registry of Deeds;
 4. The Applicant must apply for an obtain all required permits and approvals from the Town of Barrington and/or the New Hampshire Department of Environmental Services ("NHDES"), including installing such waste disposal systems as may be required by NHDES for the lawful use of the Property.
- b. The Board's Prior Utility Conditions Precluding Utilities (Water and Electricity) is Not Necessary nor Lawful.**

While this matter is up for rehearing, Mr. Kelsey wishes to address the Board's prior Utility Conditions to the extent that the Board is still considering imposing those conditions.

The Utility Condition would prohibit Mr. Kelsey from installing any electric, sewer, or water utilities on the Property without the Board's prior approval. As explained below, these conditions are not necessary, nor does the Board does have the authority under the Zoning Ordinance or RSA 674:41 to prohibit electric, sewer, or water utilities on the Property.

The Board appears to have two reasons for previously imposing the Utility Conditions on its prior decision: (1) to ensure that the Property is used only seasonally and not as a permanent residence; and (2) to ensure that future purchasers of the Property are aware that the Property can only be used seasonally and not as a permanent residence. The Utility Conditions are not necessary to serve the above-referenced purposes.

The Board's desires and goals are already achieved through less restrictive and less onerous conditions. First and foremost, the Board's requirement that Mr. Kelsey record the restriction that the Property be used only for seasonal use and not for permanent occupancy fully ensures that the Property can only be used seasonally. Even if the Utility Conditions somehow related to that goal, the Utility Conditions are unnecessary and unreasonable in light of the recorded and enforceable seasonal use restriction. Secondly, the Property has historically been used for seasonal occupancy and, even with solar panels or an outdoor pump shower/sink (which would be inoperable in the winter months), cannot be comfortably occupied during the winter month. In fact, having working lights in the cabin would actually facilitate monitoring the seasonal use restriction, since it would make the use and occupancy of the cabin more readily apparent in the darker, winter months (i.e. visible house from the Property).

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The Board's Utility Conditions are unlawful because the Utility Conditions seek to regulate and restrict uses that are permissible under the Town's Zoning Ordinance. The Town's Zoning Ordinance does not prohibit any property from having electric, sewer, or water utilities. To the contrary, the Zoning Ordinance often requires such utilities. See Zoning Ordinance 6.3.4 (requiring subdivisions to have water and sewer systems that comply with DES standards). Nor does the Zoning Ordinance prohibit any property from having solar panels. Therefore, Mr. Kelsey is entitled as a matter of right under the ordinance to install electric, sewer, or water systems on the Property, so long as those systems comply with all applicable State standards and permitting requirements. Had the property not been vandalized in 2016, Mr. Kelsey would not need any relief from this Board to install solar panels, the shower, or the sink.

Also, the prior Utility Conditions are beyond the scope and purpose of RSA 674:41. As explained above, the purpose of RSA 674:41 is to strike a balance between development of properties not on Class V or better roads, while protecting a municipality from maintenance of Class VI or private roads and liability due to limited access to emergency services. Similarly, RSA 674:41 further ensures that subsequent owners are put on notice of the Town's limited responsibility. Prohibiting electric, water, and sewer utilities does not serve the purposes of RSA 674:41. The Utility Conditions do not protect the municipality from maintenance of Class VI or private roads, does not protect the municipality from liability due to limited emergency services access, and does not ensure that subsequent owners are on notice of the Town's limited responsibility. If anything the Utility Conditions make occupants reliant on less effective means of illuminating an area, such as candles or fire, which create safety concerns.

At prior hearings, the comments of some Board members indicated that the Utility Conditions were based on the desire that the Property remain aesthetically rustic. RSA 674:41 does not grant the Board authority to regulate aesthetic concerns related to a property. Conditions imposed based on aesthetic concerns is neither reasonable nor necessary to fulfill the purposes of RSA 674:41.¹ Moreover, given the location of the cabin, the vegetative screening, and the proposed location of the solar panels, there is no possibility that solar panels would detract from the cabin's rustic appearance. The same can be said of a condition that would preclude an exterior shower or sink, particularly where the Mr. Kelsey proposes to place the shower and the sink inside of a structure that would not be visible from Mendums Pond.

Lastly, and as explained in greater detail in the Motion for Rehearing, the imposition of the Utility Conditions would violate Mr. Kelsey's equal protection rights. Mr. Kelsey has an "important substantive right" to use and enjoy the Property. The Utility Condition imposes a heightened restriction on Mr. Kelsey's use of the Property that is not imposed on any other property located on Mendums Pond or nearby Swains Lake, many of which are located on Class VI or private roads. Despite those properties not being on a class V or better road, most if not all of the

¹ Even if aesthetic concerns were a proper consideration, Exhibit A demonstrates that the island is large and well-forested. The installation of solar panels on the rear facing roof of the cabin would not be visible from the water, and thus cannot implicate aesthetic concerns.

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properties have electric, sewer, and water systems, and several of the properties have installed solar panels.

VI. Conclusion

For the reasons set forth above, the Board should authorize the issuance of a building permit for the intended activities identified above with the following conditions:

1. The structure shall remain a seasonal camp and will not be occupied between December 1 and April 15;
2. The Applicant must provide for sanitary sewage disposal at the property (for example a composting toilet);
3. The Board's decision shall be recorded at the Strafford County Registry of Deeds;
4. The Applicant must apply for an obtain all required permits and approvals from the Town of Barrington and/or the New Hampshire Department of Environmental Services ("NHDES"), including installing such waste disposal systems as may be required by NHDES for the lawful use of the Property.

The Board should authorize the issuance of a building permit without limitations or restrictions as to the installation of solar panels, a shower/sink or other related utility, except to the extent that such utilities would be prohibited by the Town's Zoning Ordinance or an applicable provision of State law.

Mr. Kelsey appreciates this Board careful consideration of this matter, and appreciates the Board conducting this rehearing to consider his proposal. I look forward to discussing this matter with the Board.

Very Truly Yours,
DONAHUE, TUCKER & CIANDELLA, PLLC



Eric A. Maher, Esq.
emaher@dtclawyers.com

Enc.
Cc: Richard Kelsey (w. enc.)

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SCHEDULE OF EXHIBITS

Exhibit A	Aerial photograph of the Property
Exhibit B	Photograph of the Property which was taken before the vandalism in 2016
Exhibit C	Photographs show the extent of the vandalism
Exhibit D	Photographs show the extent of the vandalism
Exhibit E	Photographs show the extent of the vandalism
Exhibit F	Photograph showing the Property, cabin had a sink, which was traditionally used for washing dishes
Exhibit G	A print-out of the Renogy Solar Panel product, includes details as to the product's specifications
Exhibit H	Plans that reflect the anticipated approximate location of the composting toilet/shower/sink, as well as floor plans for the proposed structure

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EXHIBIT A

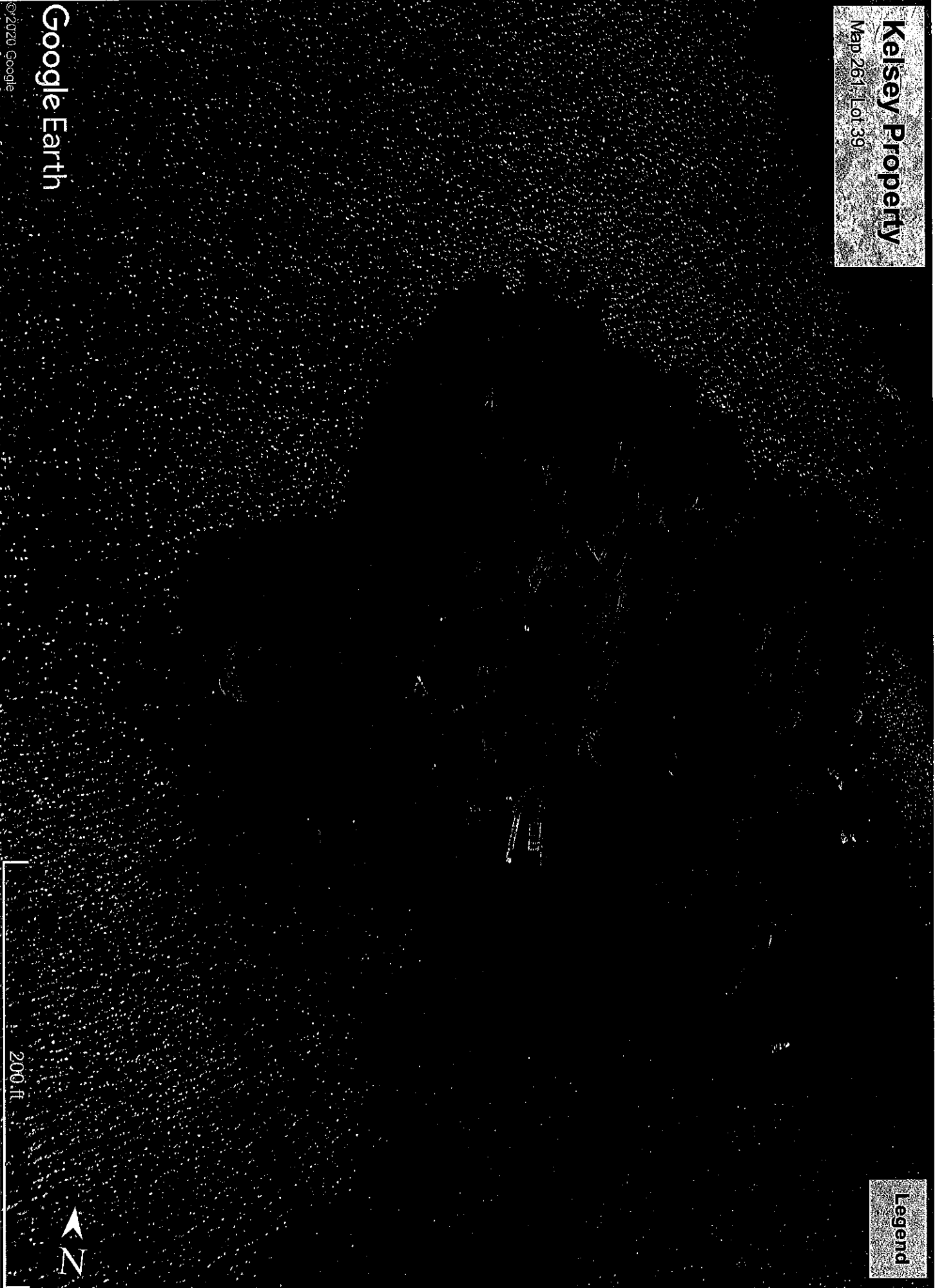
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Kelsey Property
Map: 261 Lot: 39

Legend



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200 ft



EXHIBIT B

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SEP 01 2013

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EXHIBIT C

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SEP 19 2013
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EXHIBIT D

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SEP 09 2010
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EXHIBIT E

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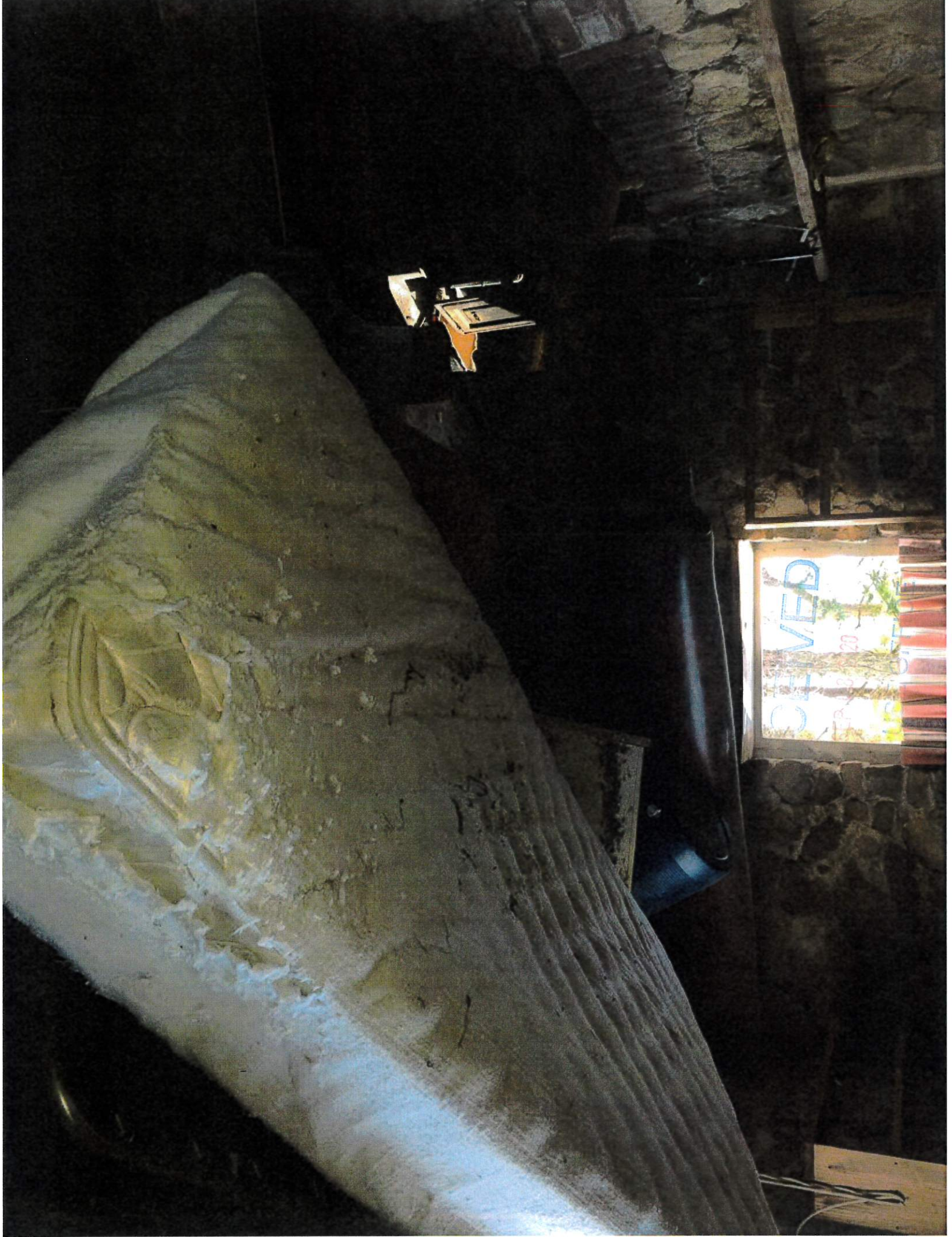


EXHIBIT F

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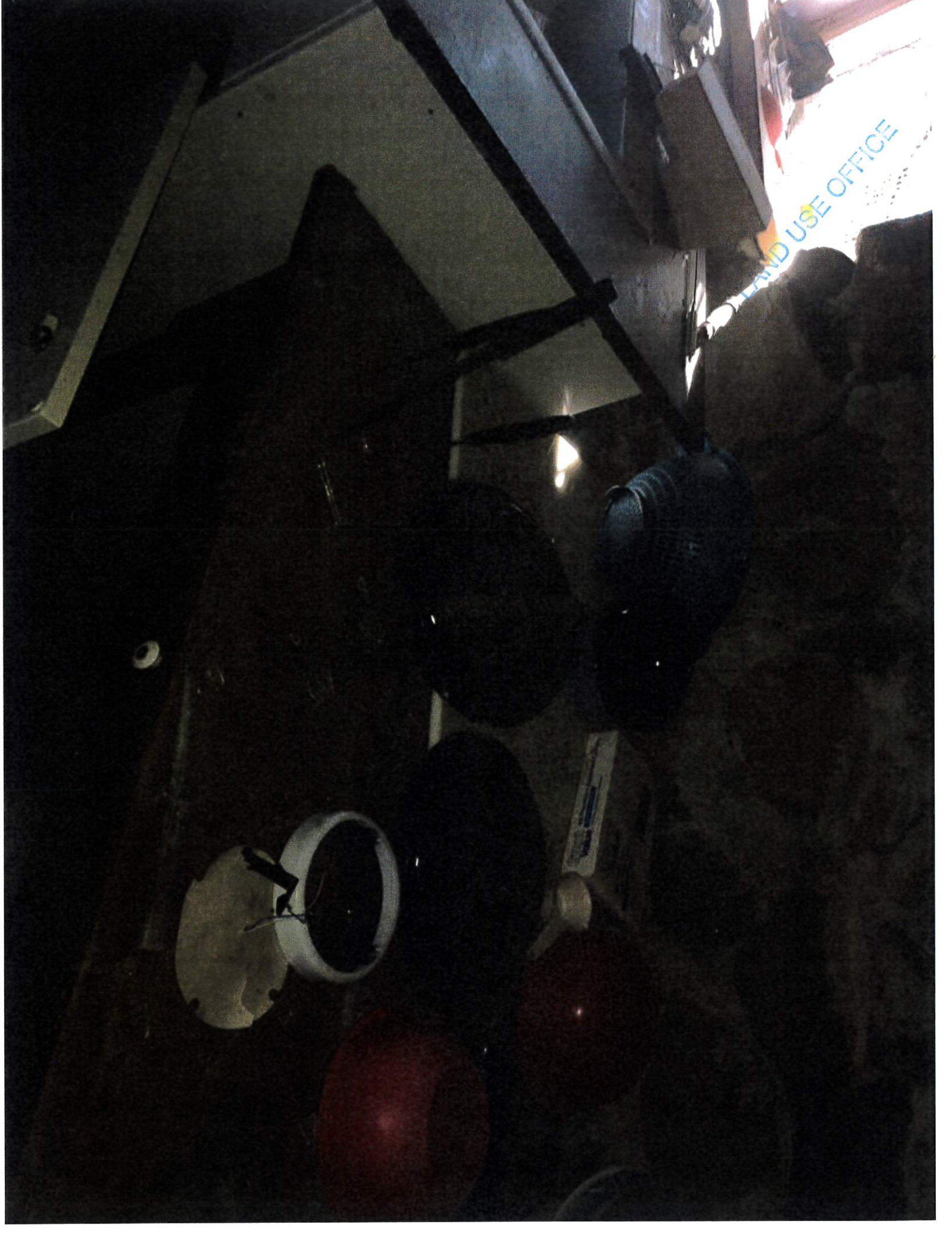


EXHIBIT G

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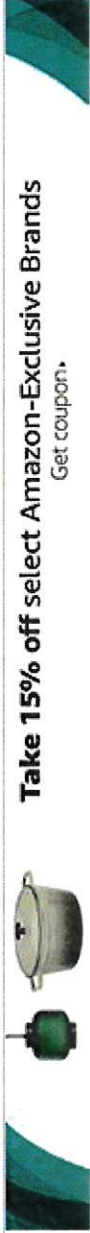
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\$103⁴⁴



Newpowa 100 Watt Monocrystalline 100W 12V Solar Panel High Efficiency Mono Module
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Newpowa 100 Watts 12 Volts Polycrystalline Solar Panel 100W 12V High Efficiency Module
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Renogy 100W 12V Solar Panel High Efficiency Module PV Power for Battery Charging Boat, Caravan, RV and Any Other Off Grid Applications, Single

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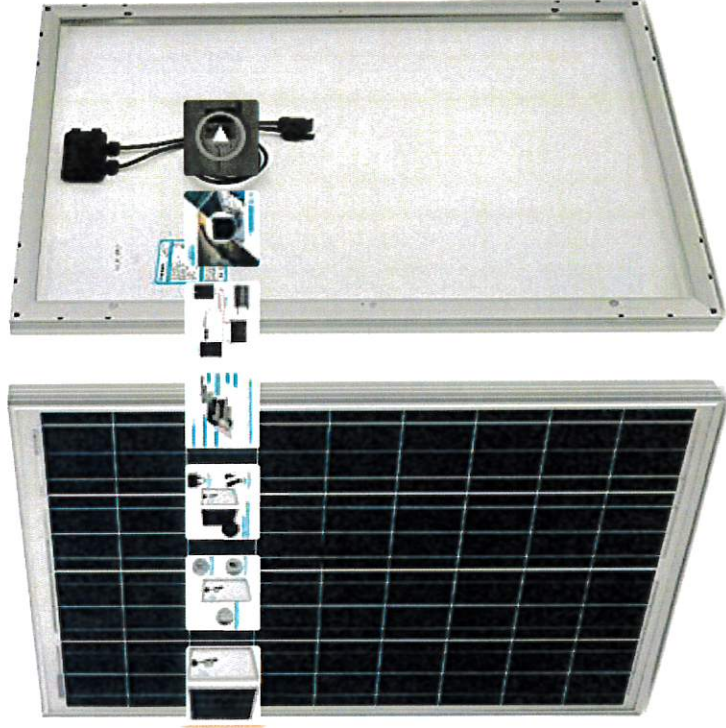
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 formance over a long period of time.
 urable] Guaranteed positive output tolerance (0-
); withstands high winds (2400Pa) and snow loads
 00Pa). Corrosion-resistant aluminum frame for
 anded outdoor use, allowing the panels to last for
 ades. Anti-reflective, high transparency, low iron-
 ipered glass with enhanced stiffness and impact
 stance. IP65 rated junction box provides complete
 tection against environmental particles and low
 ssure water jets.

ersatile] Can be used for many different
 lications. Ground mount compatible. Compatible
 on-grid and off-grid inverters.
 installation Ready] Pre-drilled holes on the back of
 panel allow for fast mounting and securing. Pre-
 rved holes included for grounding. Compatible with
 different Renogy mounting systems such as Z-Brackets,
 Pole Mounts and Tilt Mounts.

- **[Warranty Information]** 25-year power output warranty: 5 year/95% efficiency rate, 10 year/90% efficiency rate, 25-year/80% efficiency rate.

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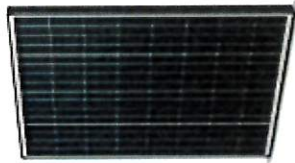
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\$549.99



HQST 20W 12V Monocrystalline Compact Design Solar Panel High Efficiency Module Off ...

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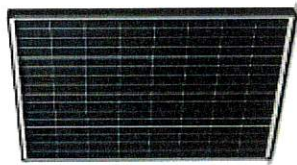
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Renogy 100 Watt 12 Volt Monocrystalline Solar Panel -- Black Frame Sleek New Design

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Renogy 200 Watt 12 Volt Eclipse Monocrystalline Off Grid Portable Foldable Solar Pa...

275

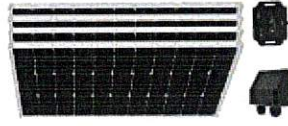
\$549.99



Renogy 400W Monocrystalline Solar RV Kit with 30A Charger Controller

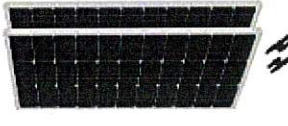
146

\$760.78



Renogy 200 Watt 12 Volt Monocrystalline Solar Starter Kit with Wanderer 469

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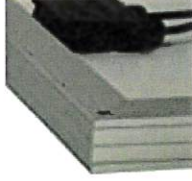
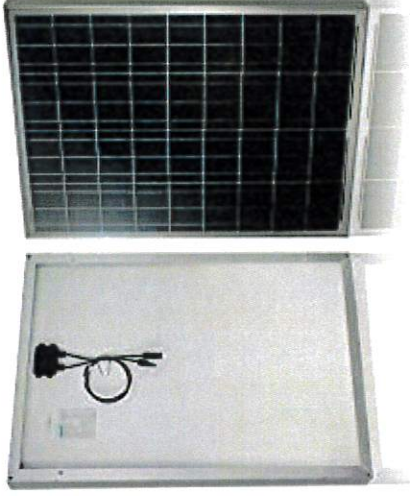
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From the manufacturer

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Pre-drilled holes on the back of the panel for fast mounting and securing.

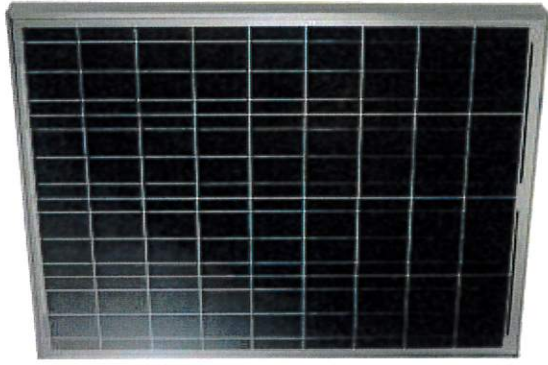
Renogy 100 Watt Polycrystalline Solar Panel

Renogy Polycrystalline Solar Panels can be used for several applications such as camping, traveling, boating, and at home. These reliable panels are capable of withstanding heavy snow and strong wind loads.

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9/23/20

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Specifications

- Weight: 16.5 lbs
- Dimensions: 39.7 x 26.7 x 1.4 inches
- Optimum Operating Current (Imp): 5.62A
- Operating Voltage (Vmp): 17.8V

Renogy 100 Watt Polycrystalline Solar Panel

Description

With a sleek design and durable frame, the Renogy 100 Watt 12 Volt Polycrystalline Solar Panel is a great place to start your off-grid system.

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Renogy 100 Watt Polycrystalline Solar Panel

Polycrystalline Solar Panels are ideal for many off-grid applications and its corrosion-resistant aluminum frame allows for extended outdoor use.

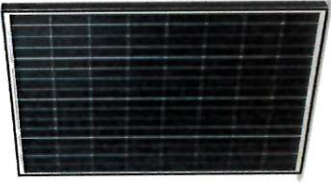
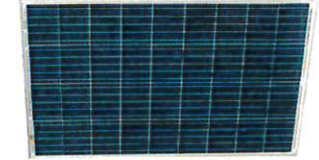
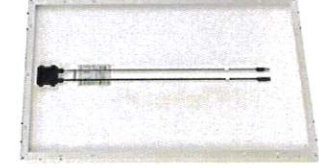
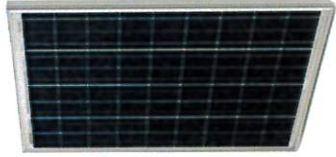
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<https://www.amazon.com/Renogy-100W-Solar-Panel-Efficiency/dp/B00DCCOSV0>



This item Renogy 100W 12V Solar Panel High Efficiency Module PV Power for Battery Charging Boat, Caravan, RV and Any Other Off Grid Applications, Single

Renogy 100 Watt 12 Volt Monocrystalline Solar Panel, Compact Design 42.2 X 19.6 X 1.38 in, High Efficiency Module PV Power for Battery Charging Boat, Caravan, RV and Any Other Off Grid Applications

RICH SOLAR 100 Watt 12 Volt Polycrystalline Solar Panel High Efficiency Solar Module Charge Battery for RV Trailer Camper Marine Off Grid

Renogy 100 Watt 12 Volt Monocrystalline Solar Panel -- Black Frame Sleek New Design

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Customer Rating (230)

(1668)

(353)

(235)

Price **Unavailable**

\$10344

\$8199

\$11111

Sold By —

Amazon.com

RICH SOLAR

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Product description

Size: Single Panel

Renogy 100W 12V Polycrystalline Solar Panel is a great place to start to your off-grid system. These sleek and durable panels are perfect for keeping your electronics functioning while traveling. For solar enthusiasts new and old the Renogy 100W 12V Polycrystalline Panel is the right choice for you! The Renogy 100W Polycrystalline Solar Panel has several uses including marine, dry camp, and other off-grid applications.

Specifications

Maximum Power: 100W

Optimum Operating Voltage (Vmp): 17.8V
 Optimum Operating Current (Imp): 5.62A
 Maximum System Voltage: 600V DC (UL)
 Open-Circuit Voltage (Voc): 22.4V
 Short-Circuit Current (Isc): 5.92A
 Dimensions: 39.7 x 26.7 x 1.4 inches
 Weight: 16.5 lbs

Product information

Size: **Single Panel**

	Technical Specification
Product Dimensions	40.1 x 26.3 x 1.4 inches
Item Weight	16.5 pounds
Manufacturer	Renogy
ASIN	B00DCCOSV0
Item model number	100W 12V Solar Panel High Efficiency
Customer Reviews	4.6 out of 5 stars 230 ratings
Best Sellers Rank	#212,659 in Patio, Lawn & Garden (See Top 100 in Patio, Lawn & Garden) #590 in Solar Panels
Is Discontinued By Manufacturer	No
Warranty & Support	
Product Warranty: For warranty information about this product, please click here . [PDF]	

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Videos

Videos for this product

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| \$224.99 | \$309.99 | \$149.99 | \$149.99 | \$189.99 | \$202.99 | \$202.99 |

Customer Questions & Answers

See questions and answers

Customer reviews

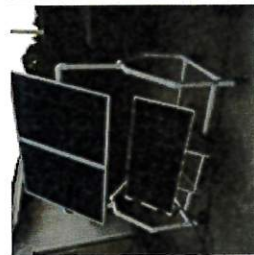
4.6 out of 5

230 global ratings



How are ratings calculated?

Customer images



See all customer images

Top reviews

Top reviews from the United States

Soundsailor

... 5 yrs of using Renogy Panels they are a good value.

Reviewed in the United States on January 15, 2018

Size: Single Panel **Verified Purchase**

I can tell you after 5 yrs of using Renogy Panels they are a good value...well made and put out good voltage per Solar Gain and proper Angle. They are totally Reliable. I have 2 of my 100 watt panels on my sailboat for almost 6 years and they are STILL charging great! I have bought 5 more for our Remote Wilderness Cabin and plan on buying 5 more...one needs about 10-12 panels to get ample charging CURRENT and Voltage to keep several (4-8) Grp 29 deep cycles charged to power a Energy Efficient off grid system. Remember you are using the Batteries 24/7 and there is only about 6 hours a day they can really charge up your system. The PRICE is what I use to pay when I bought a Pallet Load of 12 panels so this is a bargain!! Study up on how they work and battery storage system needs. I have faith you will find these to be great panels as I have over the last 5-6 yrs.....Cheers Tim Alaska

15 people found this helpful

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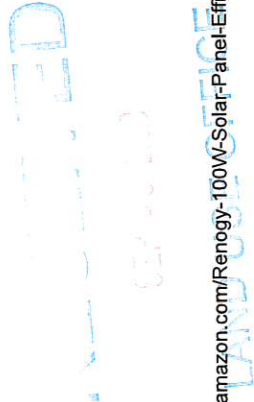
Wilbur

These panels are Awesome!

Reviewed in the United States on May 22, 2015

Size: Single Panel **Verified Purchase**

I purchased two of these panels, a controller, and the splitter and 50 foot extension cords. I mounted them on a 5/8" thick beautiful veneer plywood sheet, that first recieved 3 thick coats of polyurethane. They are mounted on a chain link fence out in my garden with at a 38 degree angle toward the sky, facing true south. The plywood is held up at that angle with redwood 2x2 struts. The whole set up looks absolutely gorgeous out in my gardens. People are impressed and amazed when they see it. The wiring runs from the splitter into 2 cables up an attractive fiberglass pole about 1`0 feet up, then shoots across the yard to the back of my garage and through the wall. The 30 amp controller is mounted on the wall, and has wires that feed into a Universal battery. I use the UB8D battery. Its the biggest AGM 12 volt battery I could find. It weighs over 160 lbs and is rated at 250 amp hours. I have the battery also wired to a 2300 watt/4600 watt peak power inverter. I tested the system with a TCM 800 watt stainless food dehydrator, and ran that puppy full power for over 2 hours. The battery voltage dropped from float level of 13.8 down to about 12.8 volts with



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20 people found this helpful

Helpful

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jc

Panel arrived intact and undamaged through USPS and build quality looks

excellent..

Reviewed in the United States on July 12, 2018

Size: Single Panel **Verified Purchase**

Panel producing considerably less power than advertised...around 10-15 watts in direct sun.. I contacted Renogy but got some runaround through email and a request for me to contact them via phone. Just more of my time down the drain finding time during my work hours to contact them when they are available. Panel arrived intact and undamaged through USPS and build quality looks excellent...just not doing what it is supposed to. I would probably order more panels and products from them (I also ordered the angled mount kit) based on their stellar reviews and what they might do about my issue. Another reviewer indicated possible problems with diodes behind the panel that need to be replaced. For the time I would need to invest with customer service I would be more interested in investing the time testing the diodes and replacing them myself if necessary.

8 people found this helpful

Helpful

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F. Templeton

Emergency power for after the BIG one hits.

Reviewed in the United States on August 25, 2019

Size: Single Panel **Verified Purchase**

The only problem I had was identifying which wires were positive and negative for attaching to the solar controller. Used a volt meter which was no big deal. Other panels I've purchased showed a "+" or "-" next to where the wires come out. It would also be nice if the positive wire was red to be consistent with most DC wiring.

Bought a second matching panel and built the frame shown in the picture. It has 5" casters for



rotating the panels into the sun and the panels pivot on the pipe so I can keep the panels facing the sun for maximum output. Just for some extra power I show a flexible panel that I had from before. For now I'm using an older controller and getting up to 16 Amps or 225 Watts with the three panels. Plenty of power to keep my four deep-cycle batteries charged.

I hope there is no BIG earthquake that knocks out the power for a long time, but I'm ready if it happens.

3 people found this helpful

3 people found this helpful

Helpful

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Russell E. Henning

Great product!

Reviewed in the United States on April 28, 2018

Size: Single Panel **Verified Purchase**

This product is awesome. I have 3 of these 100 watt solar panels. We like to camp off the grid and dislike the sound of generators. After tons of research on solar and related products I bought my 1st panel in 2016 for my 27ft Jayco. This panel performed as expected, but my needs aren't just during nice weather. During October in Wyoming my battery use was more than what we could replenish. In 2017 we upgrade to 2 true sealed deep cell batteries. With 1 100 watt panel we could run all night even in October though it was a strain on the batteries. This year we researched what every power draw in the camper was and calculated the ah we needed to run as well as what we would need to replenish our usage. Here we are today 300w with room to grow if needed. We build more power than we can use right now. I also added a monitoring system.

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6 people found this helpful

Helpful

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Easy's Cycles & More

Get off the grid and lower your bills! Solar is the way to go!

Reviewed in the United States on January 18, 2016

Verified Purchase

I still need 2 more to complete my solar set up and these are perfect! I bought the starter kit a few weeks before these and was able to start producing my own electrical power for our camper trailer. These, along with the starter kit, 4 deep cell batteries, and a large power inverter do the job fantastically. With 600 watts of charging power I can produce more power than I am currently using. All of the trailer lights are 12 volt, as well as most of the appliances so 110v is not very important. For our 110v Air conditioner, the converter will hold it for 3-4 hours until the batteries start running a little low, so I'll likely add a wind generator to the system to help it out once we are boondocked. For the moment, we still have access to the grid to run the AC/heater, still at a much lower power consumption rate with the now self sufficient 12V system.

7 people found this helpful

Helpful

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Top reviews from other countries

PG

Good panel for a good price/

Reviewed in the United Kingdom on May 11, 2018

Size: Single Panel **Verified Purchase**

Early days yet, but so far so good. I went for this size as it is a perfect fit for half of my shed roof (room to get another if the need arises, or I succumb to temptation!). Even with a basic PWM controller I was getting nearly 5 Amps on a clear sunny May day. And that isn't at the optimum angle for a panel.



AMAZON USE OFFICE

It seems solidly made, and it was delivered next day in a really solid cardboard box (something I was worried with mail ordered glass panels). The MC4 ended leads are quite short, but that works fine in my installation. I have had to drill extra mounting holes to fit the ubiquitous Z brackets to mount this panel as the holes are too far inboard, but carefully drilling with a sharp HSS drill bit (once I had verified the panel was fine) was quite simple in the aluminium frame.

Hopefully this will give me plenty of free power for many years. I will be back to update this review if not!

One person found this helpful

Helpful

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Gary williams

Heavy

Reviewed in the United Kingdom on July 3, 2018

Size: Single Panel **Verified Purchase**

Very big on a tad heavy but do the job I tie it to roof of van if drive of I leave it in arming

Helpful

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Matt

Seem like a good quality panel. Love it

Reviewed in the United Kingdom on February 18, 2020

Size: Single Panel **Verified Purchase**

Spot on. Bigger than I thought it would be.

Helpful

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Chivaltryx



Works as expected, leads could be longer

Reviewed in Canada on November 23, 2016

Size: Single Panel **Verified Purchase**

I have 2 of these panels now. They work great in sunlight, mediocre in cloud, and produce almost nothing under heavy cloud. As to be expected of Poly panels. My only complaint is the wires attached to the panel aren't very long. Not even to the length of the panel itself. Made it more

Edit: I now have 4 of these panels as the build quality of Renogy panels is excellent.

8 people found this helpful

Helpful Report abuse

Peter Harry

Dimensions not as advertised.

Reviewed in Canada on September 7, 2018

Size: Single Panel **Verified Purchase**

If they work per the specs great however I am only putting 3 stars because they are not what is in the description. I bought two more to match my previous order of 2 and they are not the same size as the product description. These panels also do not have the Renogy logo embedded under the glass like my other panels of the identical order which puts their authenticity in question. They look like knock offs, although they probably come from the same factory. Disappointing because I had to change my mounting plan.

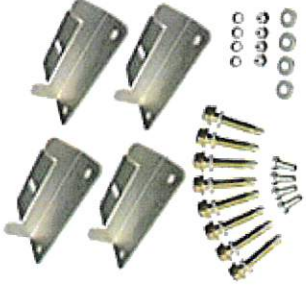
3 people found this helpful

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give it a second
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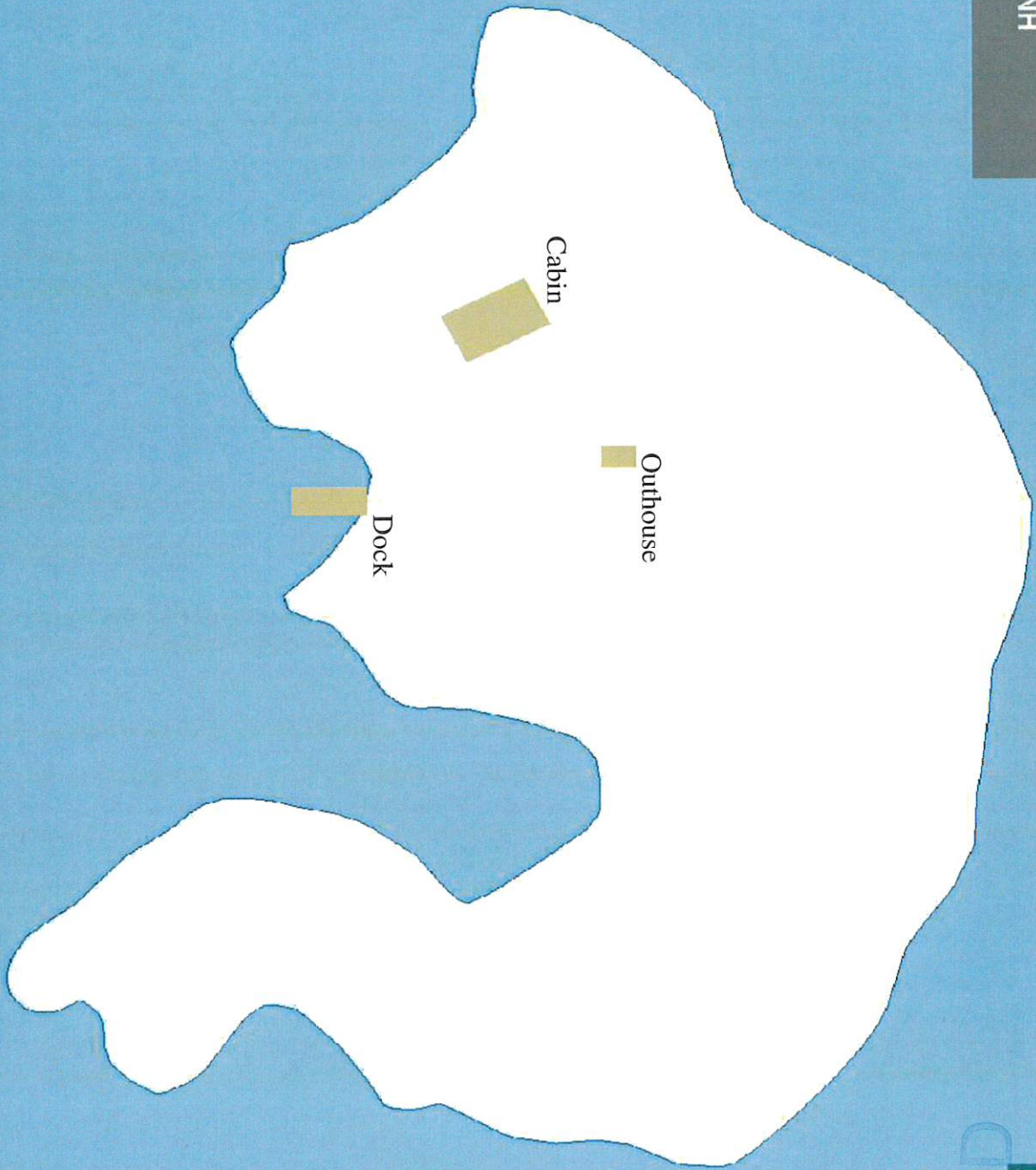
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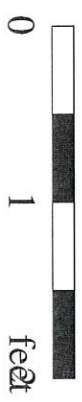
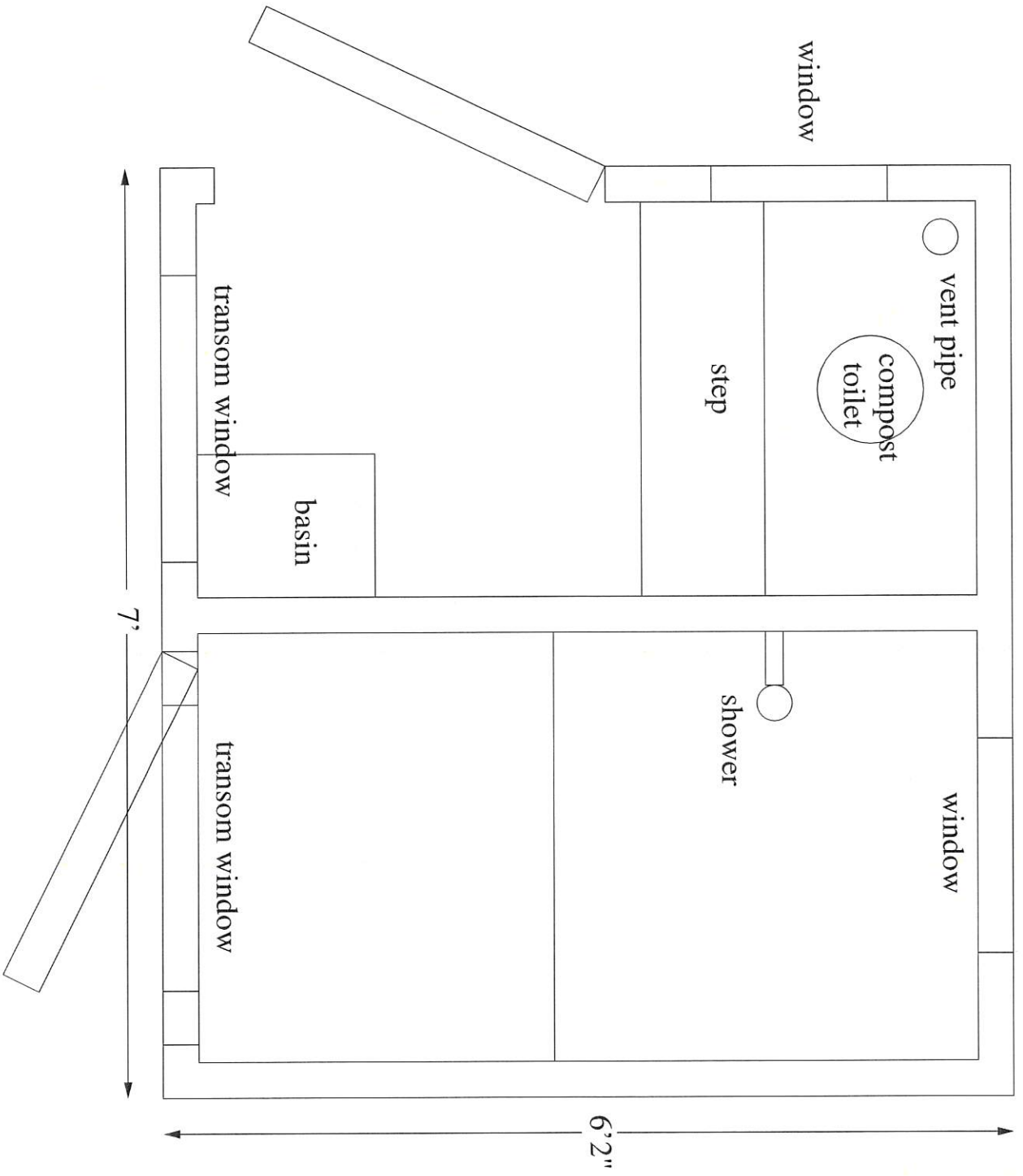
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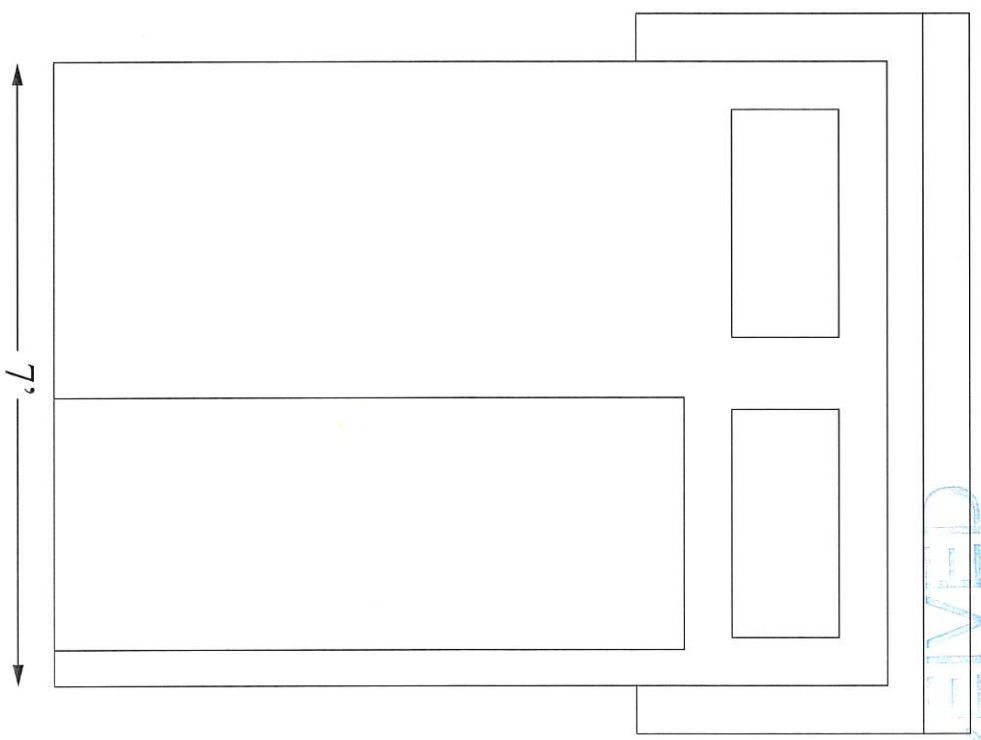
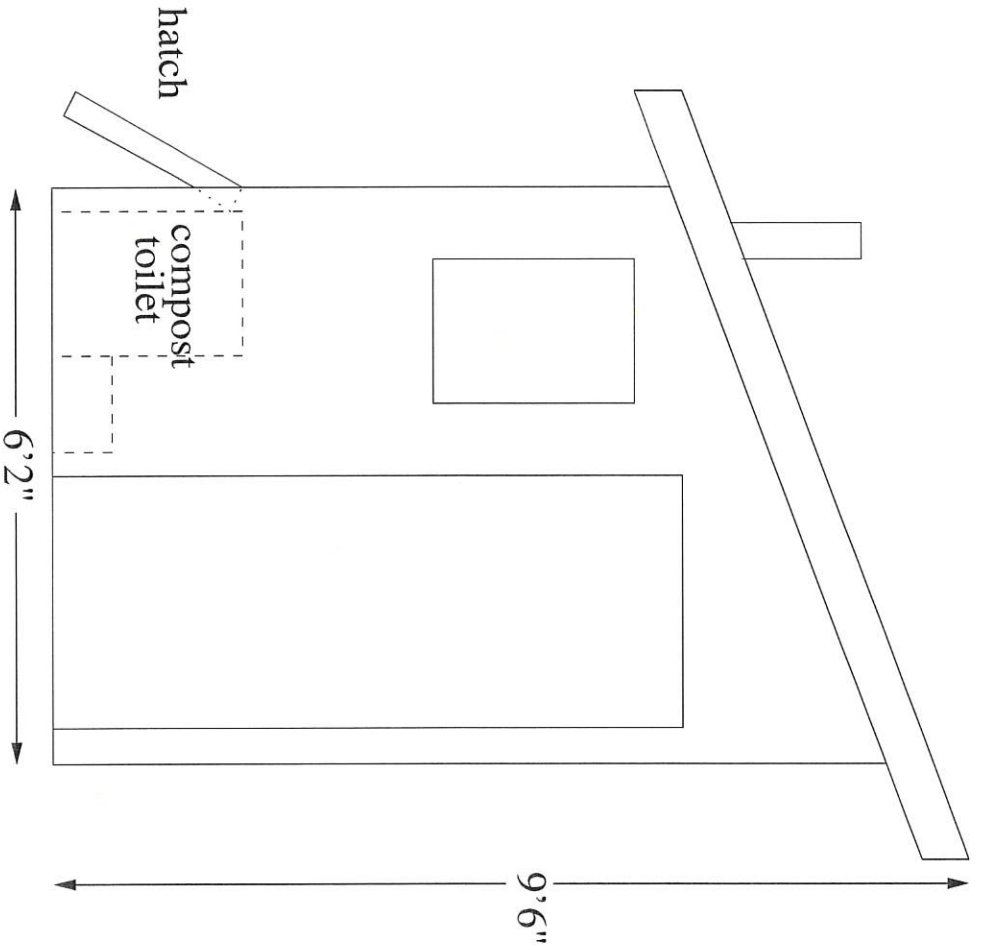
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- Doors are 32"
- Shower is 36"x36"
- Vent pipe is 4" PVC
- Rooms are 36"x66"





Step is 7.5" high and 12" deep.
Hatch is 2' wide

