AGENDA
Zoning Board of Appeals
Tuesday, February 9, 2021 – 7:00 p.m.
Remote Electronic Meeting

According to the Attorney General, interrupting a public meeting in Michigan with hate speech or profanity could result in criminal charges under several State statutes relating to Fraudulent Access to a Computer or Network (MCL 752.797) and/or Malicious Use of Electronics Communication (MCL 750.540). According to the US Attorney for Eastern Michigan, Federal charges may include disrupting a public meeting, computer intrusion, using a computer to commit a crime, hate crimes, fraud, or transmitting threatening communications. Public meetings are monitored, and violations of statutes will be prosecuted.

Zoom Meeting: go to www.zoom.us/join
Meeting ID: 945 4754 0688  |  Passcode: 348470

I. Call to Order

II. Roll Call

III. Statement on Remote Meeting

IV. Approval of the December 15, 2020 ZBA Meeting Minutes

V. New Business
   A. ZBA Variance Application No. 21-02 – Coutre
   B. ZBA Variance Application No. 21-01 – Droste

VI. Old Business
   A. ZBA Variance Application No. 20-03 – Grand Rapids Filtration Plant – Solar Arrays
   B. Discussion – 2021 Meeting Dates

VII. Reports
   ➢ Virtual Training Opportunity: The Essentials of Being a Zoning Board of Appeals Member – Thursday, February 18th @ 6pm – 8:30pm

VIII. Extended Public Comments & Questions (Limited to 4 minutes)
To provide comments, please click “Raise Hand” at the bottom of your screen or by pressing Alt+Y. The Zoom Moderator will unmute you when it is your turn to speak.

IX. Adjournment
I. CALL TO ORDER
The regular meeting of the Grand Haven Charter Township Zoning Board of Appeals was called to order at 7:00 p.m. by Chair Voss.

II. ROLL CALL
Board of Appeals members present: Voss, Slater, Loftis, Behm, Hesselsweet, and Egedy-Bader (alternate)
Board of Appeals members absent: None

Also present: Community Development Director Fedewa and Associate Planner Hoisington

Without objection, Hoisington was instructed to record the minutes for the meeting.

III. STATEMENT ON REMOTE MEETINGS
It was noted the ZBA was meeting remotely on the Zoom platform because of health concerns associated with COVID-19 pandemic. Information on this remote meeting has been posted so the public may participate. All members present noted they are meeting remotely and are located within Grand Haven Charter Township.

IV. APPROVAL OF MINUTES
Without objection, the minutes of the August 25, 2020 ZBA Meeting were approved.

V. NEW BUSINESS
A. ZBA Variance Application No. 20-03 – Grand Rapids Filtration Plant – Solar Arrays

Party Requesting Variance: Wayne Jernberg, City of Grand Rapids
Applicant Representative: Krishnan Kandasamy, CMS Energy
Address: One Energy Plaza, Jackson 49201
Parcel Number: 70-07-28-100-011
Location: 11177 Lakeshore Drive

The City of Grand Rapids is requesting to place a 3.5-acre ground-mounted solar array in the front yard. Section 3.03.A.2.a prohibits solar arrays in the front yard. The applicant indicated other locations for the solar array will not provide equivalent benefits.

Fedewa provided an overview through a memorandum dated December 11th.
Representatives from the City of Grand Rapids, Alison Sutter – Sustainability and Performance Management Officer and Wayne Jernberg – Water System Manager were present as were staff from CMS Energy, Krishnan Kandasamy – Director of Strategic Projects and Julio Morales – Executive Director. A presentation provided the following information:

- The City of Grand Rapids is committed to programs increasing efficiency.

- Proposed solar installation would reduce operating costs which would result in savings for customers.
  - An estimated $1.2 million net savings is projected.

- Water treatment plant site has enough open space to make a solar array feasible.
  - Clarified the City needs to own the property where the solar panels are located in order to make financial sense, which limits the available site options.
  - Another City-owned site being considered for a large-scale array is the “Butterworth Landfill” in Grand Rapids.

- Multiple locations on site were reviewed for viability.
  - Desire to preserve existing forested areas on site.
  - Site options are limited by floodplain, wetlands and critical dune areas.
  - Sloping land elevations can impact the efficiency of the arrays.
  - The roof elevations vary on the buildings. Some roof areas in need of repair/replacement. The schedule to repair/replace the roof does not align with the timing of solar panel project. Do not believe it is suitable as an alternate location.

- Believe the proposed location is the best option but can review other possibilities and bring more detailed information to the Board.

- Noted the concern about the arrays impacting the view but were unsure of what views would be blocked as the property is not on the lakeshore.

The Board discussed the application and noted the following:

- Inquired about alternate locations on site to place the array.
  - Questioned if the internal gravel roads could be relocated to allow for placement in the southeast corner of the operations area.
  - A roof-mounted option appears to be a viable alternative. Will need evidence, preferably by a third party, to explain why the roof cannot be utilized.
  - Noted that the variance standards cannot be met if a compliant location exists on site.

- Clarified that financial gain cannot be a consideration in approving a variance request. Whether it be the projected cost savings of the renewal energy or the costs involved with repair/replacing the roof.

- Noted concern in correspondence received by surrounding property owners.
• Questioned the impact of the solar arrays on the view.

Following the initial discussions, the Chair opened the public comment period:

• William Goodman – 17447 Lake Michigan Drive, Grand Haven, MI 49417
  o Owns property close to the water filtration plant.
  o Would prefer to see an alternate placement for the solar array, possibly behind the main building.

• Jan O’Connell – 201 Ivanhoe Avenue NE, Grand Rapids, MI 49456
  o Supports renewable energy and the proposed solar array.
  o Suggested alternate solutions to allow for placement of arrays in the NW corner – including berms or redesigning the shape of the array placement to lessen the visual impact.

• Randall Price – 11025 Lakeshore Drive, Grand Haven, MI 49417
  o Owns property close to the water filtration plant.
  o Believes priority should be given to the residential nature of that area and not add to the industrial features of the site.
  o Suggested the proposed area of the site be planted with trees.
  o Advocated the City place solar arrays off site in rural or industrialized areas.

• Mark VerBerkmoes – 1020 Marion Avenue, Grand Haven, MI 49417
  o Director of Public Services for Grand Haven Township.
  o Asked if a solar array could be installed on the roof structure.
    ▪ Suggested the weight be supported by the wall structure rather than the roof itself.
  o Identified another alternate location to consider near the settlement ponds.

• Mary Ellen Mika – 12905 Wilderness Trail, Grand Haven, MI 49417
  o Part of the Grand Rapids Energy Council.
  o Supports solar panels as part of a long-term goal towards efficiency.

• Sharon Wolters – 11139 Lakeshore Drive, Grand Haven, MI 49417
  o Requested the ZBA consider the impact on property owners in the area.

• John Job – 12905 Wilderness Trail, Grand Haven, MI 49417
Questioned if another industrial building could be placed in a similar area.

- Staff confirmed the site could have additional buildings constructed as long as the minimum setbacks are met.

Following the discussion and public comments the Board felt additional information was needed before a decision could be made. The applicant’s team will have the opportunity to provide further information on the case for the Board to review.

**Motion** by Voss, supported by Hesselsweet, to table the Grand Rapids application due to the amount of information received and to provide an opportunity to consider this information prior to making a decision. This matter will be taken up at the next regularly scheduled meeting. **Which motion carried unanimously**, as indicated by the following roll call vote:

Ayes: Voss, Slater, Loftis, Behm, Hesselsweet
Nays: None
Absent: None

### B. Housekeeping – Reappointment of Officers and Meeting Date Schedule

i. **Appointment of Officers**

**Without objection**, existing officers are reappointed to their current positions:

- Chair: Voss
- Vice: Slater
- Secretary: Loftis

ii. **2021 Meeting Date Schedule**

The Board discussed alternate meeting dates to avoid future scheduling conflicts for staff because they are now the contractual planners for the Village of Spring Lake and meetings are held on the same day and time.

**Motion** by Slater, supported by Hesselsweet, to approve the 2021 Meeting Date Schedule to hold meetings on the 2nd Tuesday and direct staff to revise the Bylaws accordingly, and authorize the Chair and Secretary to execute the revised Bylaws. **Which motion carried unanimously**, as indicated by the following roll call vote:

Ayes: Voss, Slater, Loftis, Behm, Hesselsweet
Nays: None
Absent: None

### VI. REPORTS

- The ZBA welcomes newest member Karen Egedy-Bader.

### VII. EXTENDED PUBLIC COMMENTS – None
VIII. ADJOURNMENT

Without objection, the meeting was adjourned at 8:53pm.

Respectfully submitted,

Cassandra Hoisington
Acting Recording Secretary
# Community Development Memo

**DATE:** February 4, 2021  
**TO:** Zoning Board of Appeals  
**FROM:** Stacey Fedewa, AICP – Community Development Director  
**RE:** 15133 Steves Drive – 603 Exemption Request – Application No. 21-02

## Parcel Information

<table>
<thead>
<tr>
<th>Owner/Applicant</th>
<th>Steve &amp; Rita Coutré</th>
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</thead>
<tbody>
<tr>
<td>Property Address</td>
<td>15133 Steves Drive</td>
</tr>
<tr>
<td>Parcel Number</td>
<td>70-07-12-151-005</td>
</tr>
<tr>
<td>Lot Size</td>
<td>0.3 Acres (14,387 sqft)</td>
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<tr>
<td>Lot Type</td>
<td>Typical Lot</td>
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<tr>
<td>Zoning</td>
<td>R-2 Single Family Residential</td>
</tr>
<tr>
<td>Required Setbacks for R-2 Zoning</td>
<td>Rear – 50 feet</td>
</tr>
<tr>
<td>Requested Setbacks for R-2 Zoning</td>
<td>Rear – 36 feet</td>
</tr>
</tbody>
</table>

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Location Map

![Location Map Image](image-url)
As you may recall, the new zoning ordinance provides for a specific process to allow homeowners to build an addition on their home that violates setbacks in exchange for relinquishing their remaining accessory building allowance. See the last page of this memo for a copy of the provisions.

**Details of Request**

The owners are requesting to remove the existing 12x12 deck and replace it with an attached 14x20 sunroom. Side yard setbacks would be maintained. The rear yard setback would be reduced to 36-feet.

Because the sunroom is attached to the home and has a roof and walls it is considered part of the main building and subject to the same setbacks as the house.

3 letters of support have been received from neighbors, and 0 letters of objection.

Staff are pleased with this application as it meets the spirit, intent, and all provisions of the ordinance. It is a great first case for this new tool.

**Accessory Building Options**

There is an existing 144 sqft shed that would remain on the property.

Per Section 19.06.B.3 the ZBA has two choices on accessory buildings. First, prohibit all future accessory buildings. Second, allow a specific number and size allowance for the future.

The math works like this:

720 sf allowed – 144 sf existing – 280 sf sunroom = 296 sqft remaining

Does the ZBA want to allow 1 additional accessory building with up to 296 sqft in size? If so, staff would recommend a smaller size such as 100 sqft or less in case an additional garden shed is wanted in the future.
Section 19.06.B.6 also enables the ZBA to require landscaping when deemed appropriate, based on the nature of the area.

The area appears wooded and adjacent neighbors have submitted letters of support.

**SAMPLE MOTIONS**

Section 19.06.B states—"the criteria for approving a variance shall NOT apply to these requests and any approval by the ZBA shall not be considered a variance from this Ordinance.” Therefore, there are no standards to consider, just motions.

If the ZBA finds the application meets the standards, the following motion can be offered:

**Motion to conditionally approve** the addition of a 14-foot x 20-foot attached sunroom at 15133 Steves Drive. Pursuant to Section 19.06 of the Zoning Ordinance allowing for Exemptions to Rear Yard Setbacks. This motion shall be subject to the following condition:

1. An agreement shall be drafted by the Township Attorney restricting the property to # additional accessory structure at a maximum of # square feet in size. This agreement shall be recorded with the Register of Deeds prior to obtaining a building permit.

If the ZBA determines that more information is needed to make an affirmative finding, the following motion can be offered:

**Motion to table** the Exemption to Rear Yard Setback application for 15133 Steves Drive, and direct the applicant and/or staff to provide the following information:

1. *List items here...*

Please contact me prior to the meeting with questions.
Section 19.06
EXEMPTIONS TO REAR YARD SETBACKS IN CERTAIN CIRCUMSTANCES.

(A) Authority of Zoning Board of Appeals. In some circumstances, Main Buildings extending into the required rear setback may be authorized by the Zoning Board of Appeals pursuant to Section 603 of the Michigan Zoning Enabling Act.

(B) Approval Criteria. In order to qualify for an authorization under this Section, the application must meet the following criteria. The criteria for approving a variance shall NOT apply to these requests, and any approval by the ZBA shall not be considered a variance from this Ordinance.

1. The lot in question must be in the R-2 zoning district.
2. The lot in question must be fifteen thousand (15,000) square feet or less in area.
3. The square footage of the footprint of the portion of the Main Building extending into the required rear yard, plus the total square footage of the footprints of all Accessory Structures on a Lot shall not be more than the amount of square footage of Accessory Structures allowed by right. Once constructed, the square footage of the Main Building extending into the required rear yard shall be included in the calculation of total square footage of Accessory Structures, when determining whether a new Accessory Structure may be constructed on the lot.

(a) See Section 10.01.C.7 for the maximum square footage of Accessory Structures permitted on a given lot.

(b) The ZBA will require a restrictive covenant, such as a deed restriction, recorded with the Ottawa County Register of Deeds, indicating the restriction on the size (and potentially, the number of) accessory structures on the lot, based on the requirements of this Section.

4. The portion of the Main Building within the required rear setback shall meet the required side setback for a Main Building, and no less than forty percent (40%) of the required rear yard setback. Further, the requirements of Section 10.04.C shall still apply to any deck extending from the projection into the required yard, so no deck may extend closer to the rear lot line than forty percent (40%) of the required rear setback.

5. The footprint of the portion of the Main Building within the required rear yard shall not exceed twenty-five percent (25%) of the footprint of the Main Building that is not within the required rear yard.

6. The Board of Appeals shall have the authority to require landscaping when deemed appropriate when considering the nature of the area.

7. All of the Buildings and Structures on the Lot shall not exceed the Lot Coverage standards of the underlying Zoning District.

8. The portion of the Main Building within the required rear yard shall generally be compatible with the architecture style and Building form of the Main Building, as well as generally compatible with the architecture style of the surrounding buildings on adjacent lots.

9. The area, height, and massing of the proposed Accessory Building or Structure shall be proportional to the overall area of the Lot upon which it is placed and consistent with other residential Buildings or Structures in the surrounding neighborhood. The building height shall not exceed the maximum height in the R-2 district for Main Buildings.

10. The Accessory Building or Structure shall be located in such a manner as to not cause a storm water runoff nuisance on adjacent property.
Good Morning Stacey

We received the Public Notice regarding the request by Rita and Steve Coutre to have an exemption regarding Rear Yard Setback requirements for the construction of a new sunroom.

We have no objection to the approval of the exemption.

We do appreciate the notification and the opportunity to have a voice. That you for your time.

Have a Wonderful Day

Rhonda Gibson 13436 152nd Ave.
Zoning Board GHCT,

We are Rita & Steve Coutre’ neighbors to the west and see no reason why this exemption should not be granted. As it would only help raise the property value in our neighborhood.

Sincerely,
Bill & Karen Hitsman
Stacey,

We are unable to attend the Zoom meeting but wanted to make sure you knew that we live next door to Steve and Rita Coutre and have no objection to the Rear Yard Setback Exemption for the construction of a new sunroom.

Thank you!
James & Abbie Kooima
15147 Steves Dr.
ZONING BOARD OF APPEALS APPLICATION

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<tr>
<th>Application Type</th>
<th>Fee</th>
<th>Escrow*</th>
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<td>Variance or Appeal</td>
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<td>$300</td>
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<td>603 Exemption</td>
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<th>Application Type</th>
<th>Fee</th>
<th>Escrow*</th>
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<tbody>
<tr>
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<tr>
<td>Interpretation</td>
<td>$125</td>
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* To cover cost of legal and consulting fees, may be increased as necessary

Applicant/Appellant Information

Name: RITA COURTRÉ  STEVE COURTRÉ
Phone: 616-437-1328
Address: 15133 STEVES DRIVE, GRAND HAVEN, MI
Email Address: rcoutre@rbcdesigns.com

Owner Information (If different from applicant/appellant)

Name: SAME
Phone: 
Address: 
Email Address: 

Property Information (Include a survey or scaled drawing)

Address: 15133 STEVES DR, GRAND HAVEN, MI
Parcel No.: 70-07-12-100-034
Lot Width: 94' (South), 113' (North)
Lot Depth: 133'
Parcel Size: 13800 SF

Current Zoning: R-2

General Information (Check one)

☑ Application for Variance
( ) Request for Interpretation
( ) Notice of Appeal

NOTE: Please provide a scaled drawing with details of your proposed work including the dimensions of any structures (i.e. height, width & length), building materials, the setbacks to ALL property lines, and other existing structures on the parcel, and any other relevant information, as needed.

VARIANCE REQUESTED (If applicable)

1. Attach a Narrative: Description of Request; Why it is needed; and Addresses each of the 4 Standards
2. Variance Requested From the Requirements of Section Number(s) 2.08 & 10.01
3. Relating to Construction of 14 x 20 Sunroom within rear yard setback
4. Structure/Land Use (After Variance) Main House w/attached 14 x 20 Sunroom
5. Overall Building Size (After Variance) 1600 SF
6. Setbacks from lot lines (After Variance):
   a. Front Yard 53 feet
   b. Rear Yard 36 feet
   c. Side Yard #1 22 feet
   d. Side Yard #2 27 feet
RELEASE FORM

The undersigned has applied to the Grand Haven Charter Township Zoning Board of Appeals for a variance. The undersigned hereby authorizes the members of the Zoning Board of Appeals and appropriate Township staff members to inspect the property (address stated below) at reasonable times, in regards to the consideration of my request for a variance.

I hereby attest the information on this application is, to the best of my knowledge, true and accurate.

Applicant’s Signature

Owner’s Signature (if different from applicant)

Property Address

15133 STEVES DRIVE, GRAND HAVEN, MI

Date

01/19/2021

For Office Use Only

Date Received

Fee Paid?

ACTION TAKEN BY TOWNSHIP BOARD OF APPEALS

( ) Application Approved

( ) Application Denied

Description of variance granted or other action taken including conditions imposed, if any:

Grounds for Board action including findings as to standards and requirements prerequisite to imposition of conditions under ordinance:

Signature of ZBA Chairperson

Date
Request for Dimensional Variance – 15133 Steve Drive – Parcel No. 70-07-12-100-134

This dimensional variance for rear yard setback is being requested due to exceptional shallowness of existing lot.

- Existing rear setback from house to rear lot line is 50’
- Existing 12x12 deck is within the rear setback
- We wish to remove deck and construct a 14x20 sunroom, which will reduce rear setback to 36’. Side yard setbacks will be greater than the required 10’ setback

Approval Criteria:

1. This lot is in R-2 zoning district
2. Lot size is 13,800 SF
3. The sunroom addition will be 280 sf. There is an existing shed that is 144 sf. With the sunroom being considered an accessory structure, the total square footage will be less than the required (per Section 10.01) maximum of 720 sf for accessory structures. The sunroom addition plus the shed will also be within requirement (per Section 10.01) of no more than 2 accessory structures for lot size less than 1 acre
4. The portion of the Main Building within the required setback does meet required side yard setbacks. The new rear setback of 36 feet is well above the minimum requirement of 40% of the required rear setback
5. The footprint of the added 14x20 Sunroom does not exceed 25% of the footprint of the Main Building, which is 1380 sf
6. I understand that there MAY be requirement for added landscaping
7. The Lot Coverage Standards have not been exceeded
8. The added sunroom will complement architecture of existing structure
9. The area, height and mass of added sunroom will be proportional to existing structures – see attached drawings
10. The added Sunroom will have gutters and will not cause stormwater nuisance on adjacent properties

ATTACHMENTS:

1. Existing survey with setbacks
2. Proposed survey with setbacks
3. Overall Porch plan
4. South Elevation (with new siding and proposed Sunroom)
5. East Elevation (with new siding and proposed Sunroom)
6. North Elevation (with new siding and proposed Sunroom)
7. West Elevation (with new siding and proposed Sunroom)
8. 3D view looking Southeast
9. 3D view looking Northwest
EASEMENT FOR INGRESS AND EGRESS TO PROPOSED LOT 6 OF STEVE'S SUBDIVISION NO. 2

A 66 foot wide easement for ingress and egress in the Northwest 1/4 of Section 12, Town 7 North, Range 16 West, Grand Haven Township, Ottawa County, Michigan being 33 feet on either side of the following described centerline:

Beginning at a Point on The West line of Section 12 distant North 00 degrees 22 minutes 07 seconds East 1119.48 feet from the West 1/4 corner of Section 12 and proceeding thence South 88 degrees 46 minutes 03 seconds East 241.50 feet; thence on a curve to the left on an arc distant of 70.51 feet, radius 111.81 feet, central angle of 36 degrees 07 minutes 54 seconds and chord bears North 73 degrees 10 minutes 00 seconds East 69.35 feet; thence on a curve to the right on an arc distance of 70.51 feet, radius of 111.81 feet, central angle of 36 degrees 07 minutes 54 seconds and chord bears North 73 degrees 10 minutes 00 seconds East 69.35 feet; thence South 88 degrees 46 minutes 03 seconds East 145.50 feet to the point of ending, to be known as Steve's Drive upon the recording of Steve's Subdivision No. 2.

15133 STEVE'S (R.O.W. 66') DRIVE

I HEREBY DECLARE TO GRAND BANK THAT THE PROPERTY AS DESCRIBED AND SHOWN HEREBIN HAS BEEN INSPECTED AND CERTIFIED TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND BELIEF. THE BUILDINGS AND IMPROVEMENTS ARE LOCATED AS SHOWN AND THERE EXISTS NO VISIBLE ENCROACHMENTS UPON SAID PROPERTY UNLESS NOTED AND SHOWN. THIS INSPECTION WAS PREPARED FOR THE EXCLUSIVE USE OF GRAND BANK AND DOES NOT EXTEND TO ANY UNNAMED PERSON WITHOUT AN EXPRESS REDUCTION BY THE SURVEYOR NAMING SAID PERSON. THIS INSPECTION IS NOT A LAND OR BOUNDARY SURVEY AND THE SETBACK DIMENSIONS AS SHOWN BETWEEN STRUCTURES AND LOT LINES SHOULD NOT BE USED TO REESTABLISH PROPERTY LINES OR FOR THE ESTABLISHMENT OF ANY IMPROVEMENTS. FURTHER THAT NO MONUMENTS WERE SET AND THIS REPORT IS NOT INTENDED OR REPRESENTED TO BE A BOUNDARY SURVEY.

PROFESSIONAL SURVEYOR
2534 BLACK CREEK ROAD
MUSKEGON, MI 49444
PHONE: (616) 777-3447
FAX: (616) 777-3453

LEGEND

CHIMNEY
CONCRETE
R
RECORD
D
DEED
U
UTILITY LINE

FILE NO: WR-95-0181A
DATE: 5-6-96
CK'D. BY:
AM

1 of 9
EASEMENT FOR INGRESS AND EGRESS TO PROPOSED LOT 6 OF STEVE'S SUBDIVISION NO. 2

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STAIRS TO PATIO -
6' RISE, 12' DEEP

EDGE OF ROOF

18' HIGH KNEE WALL
(24' FROM FLOOR TO GRADE DUE TO RAISED ELEVATION OF PATIO)

36' HIGH KNEE WALL
(36' FROM FLOOR TO GRADE)

36' HIGH KNEE WALLS

EXISTING STRUCTURE

OVERALL PORCH PLAN
Scale: \( \frac{1}{4}'' = 1' - 0'' \)
15133 STEVES DRIVE

3 of 9
SOUTH ELEVATION

15133 STEVES DRIVE, GHT 1/8" = 1'-0"
EAST ELEVATION
15133 STEVES DRIVE, GHT 1/8" = 1'-0"
WEST ELEVATION

15133 STEVES DRIVE, GHT $\frac{1}{8}'' = 1''-0''$
**Community Development Memo**

**DATE:** February 5, 2021  
**TO:** Zoning Board of Appeals  
**FROM:** Cassandra Hoisington, Assistant Zoning Administrator  
Stacey Fedewa, AICP – Community Development Director  
**RE:** 17996 Brucker Street – Dimensional Variance Application No. 21-01

### PARCEL INFORMATION

<table>
<thead>
<tr>
<th><strong>Owner</strong></th>
<th>Anne Droste</th>
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<tbody>
<tr>
<td><strong>Property Address</strong></td>
<td>17996 Brucker Street</td>
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<tr>
<td><strong>Parcel Number</strong></td>
<td>70-03-32-390-048</td>
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<tr>
<td><strong>Lot Size</strong></td>
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<td>Exceptionally Shallow</td>
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<td>Critical Dunes</td>
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<td><strong>Zoning</strong></td>
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<td><strong>Required Setbacks</strong></td>
<td>Front – 50 feet</td>
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<tr>
<td></td>
<td>Rear – 50 feet</td>
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<tr>
<td></td>
<td>Side – 15 feet min</td>
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<tr>
<td><strong>Requested Setbacks</strong></td>
<td>Rear – 6 feet, 2.5 inches</td>
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**Site Plan with Topography**

**Critical Dunes Map**

**Site Location**
The applicant is requesting to build a new home on property that has been her family for many years. An existing cottage that held fallen into disrepair was demolished at the end of 2020 in preparation for the proposed new construction.

The new build would be a two-story home over a basement garage. A deck on the west side is proposed to enhance the view of Lake Michigan.

It is possible to have the altered the house to lessen the variance needed for the rear yard. However, the unbuildable steep slope area nearly splits the lot in half, limiting what areas on the lot are actually buildable.

The lot is undersized, very shallow, and has significant topography changes in the critical dune area. The lot is only 100’ deep and encumbered by a 33’ right-of-way for Brucker Street. The property is eligible for a reduced front yard setback determined by the average setback for properties within 300 feet, which has been calculated to 24’,9.5”.

The variance request pertains to the rear yard setback. The right-of-way (33’) plus the required setback (~25’) already takes up 52’ of the 100 ft lot depth. There isn’t enough depth to meet the required rear yard setback of other 50’, meaning any building would require a variance. The proposed building location would result in a setback of 6 feet, 2.5 inches.

VARIANCE STANDARDS

To authorize a dimensional variance from the strict applications of the provisions of this Ordinance, the ZBA shall apply the following standards and make an affirmative finding as to each of the matters set forth in the standards.

STANDARD 1

There are exceptional or extraordinary circumstances or conditions applying to the property that do not apply generally to other properties in the same zoning classification.

The subject property is within the Critical Dune Area, has significant topography changes, and has an exceptionally small lot area (14,374 sqft where 15,000 sqft is
required; or 4% smaller in area). The ZBA will need to determine whether this standard is met.

STANDARD 2

The variance is necessary for the preservation and enjoyment of a substantial property right similar to that possessed by other properties in the same zoning district and in the vicinity, provided that possible increased financial return shall not of itself, be deemed sufficient to warrant a variance.

Property owners of residentially zoned properties are entitled to build a single-family dwelling on the property. The ZBA will need to make a determination whether this standard is met given the circumstances of this case.

STANDARD 3

Authorization of such variance will not be of substantial detriment to adjacent property, and will not materially impair the intent and purpose of this Ordinance or the public health, safety, and general welfare of the community.

No correspondence was received for this application (as of February 5th). The ZBA will need to make the determination whether this standard is met given the circumstances of this case and the findings on standards 1 and 2.

STANDARD 4

The condition or situation of the specific piece of property or the intended use of said property for which the variance is sought, is not of so general or recurrent a nature as to make reasonably practical the formulation of a general regulation for such condition or situation, a part of this Ordinance.

The combination of the shallow lot depth and Critical Dune Area limit the buildable area. There is no possible building footprint that would result in a compliant rear yard setback. The ZBA will need to make the determination whether this standard is met.

SAMPLE MOTIONS

If the ZBA determines each standard has been affirmative met, the following motion can be offered:

**Motion to approve** a dimensional variance from Section 2.08 for a dimensional to build a new single-family dwelling at 17996 Brucker Street that will result in a rear yard setback of 6-feet-2½-inches. Approval of this variance is based upon this Board’s findings that all four standards have been affirmatively met.

However, if the ZBA determines each standard has not been affirmatively met, the following motion can be offered:
Motion to **deny** the dimensional variance from Section 2.08 to build a new single-family dwelling at 17996 Brucker Street. Denial of this variance is based upon this Board’s findings that all four standards **have not been affirmatively met**.

If the ZBA determines that more information is needed to make an affirmative finding, the following motion can be offered:

**Motion to table** the dimensional variance application for 17996 Brucker Street, and direct the applicant and/or staff to provide the following information:

1. *List items.*

Please contact me if this raises questions.
ZONING BOARD OF APPEALS APPLICATION

<table>
<thead>
<tr>
<th>Application Type</th>
<th>Fee</th>
<th>Escrow*</th>
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<td>Interpretation</td>
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</table>

* To cover cost of legal and consulting fees, may be increased as necessary

Applicant/Appellant Information

Name: Anne Droste
Phone: 310-779-7404
Address: 6034 West 76th Street, Los Angeles, CA 90045
Email Address: annedrost09@gmail.com

Owner Information (If different from applicant/appellant)

Name: 
Phone: Email: 
Address: Email Address: 

Property Information (Include a survey or scaled drawing)

Address: 17996 Brucker Street, Grand Haven, MI 49417
Parcel No.: 70 - 03 - 32 - 390 - 048
Lot Width: 156'
Lot Depth: 100'
Parcel Size: 0.3312 Acres

Current Zoning: R-1

General Information (Check one)

✔ Application for Variance
( ) Request for Interpretation
( ) Notice of Appeal

NOTE: Please provide a scaled drawing with details of your proposed work including the dimensions of any structures (i.e. height, width & length), building materials, the setbacks to ALL property lines, and other existing structures on the parcel, and any other relevant information, as needed.

VARIANCE REQUESTED (If applicable)

1. Attach a Narrative: Description of Request; Why it is needed; and Addresses each of the 4 Standards
2. Variance Requested From the Requirements of Section Number(s) 2.13-14
3. Relating to Front & Rear set backs
4. Structure/Land Use (After Variance) 1108 Building / 15603 Land (7.1% Land use)
5. Overall Building Size (After Variance) 1108 Sq. Ft.
6. Setbacks from lot lines (After Variance):
   a. Front Yard 23'-3 1/2" feet
   b. Rear Yard 6'-2 1/2" feet
   c. Side Yard #1 15' feet
   d. Side Yard #2 20' feet
RELEASE FORM

The undersigned has applied to the Grand Haven Charter Township Zoning Board of Appeals for a variance. The undersigned hereby authorizes the members of the Zoning Board of Appeals and appropriate Township staff members to inspect the property (address stated below) at reasonable times, in regards to the consideration of my request for a variance.

I hereby attest the information on this application is, to the best of my knowledge, true and accurate.

Applicant’s Signature: ___________________________ Date: January 15, 2021

Owner’s Signature (if different from applicant): ___________________________ Date: January 15, 2021

Property Address: 17996 Brucker Street, Grand Haven, MI 49417

For Office Use Only

Date Received: ___________________________ Fee Paid?: ___________________________

ACTION TAKEN BY TOWNSHIP BOARD OF APPEALS

( ) Application Approved

( ) Application Denied

Description of variance granted or other action taken including conditions imposed, if any:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Grounds for Board action including findings as to standards and requirements prerequisite to imposition of conditions under ordinance:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Signature of ZBA Chairperson: ___________________________ Date: ___________________________
This permit is being issued by the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Water Resources Division, under the provisions of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA); specifically:

- Part 353, Sand Dunes Protection and Management

Permission is hereby granted, based on permittee assurance of adherence to State of Michigan requirements and permit conditions, to:

**Authorized Activity:**

Demolish the existing house and construct a new 1,186 square foot house further South of the original design. Construct a 21 foot wide driveway. Install a 210 square foot septic system. Remove 7 trees and replant 9 trees. Install stairs and a concrete sidewalk. Construct a deck. Install temporary slope protection for basement wall construction. Install 104 linear feet of landscape block retaining walls. All work shall be completed in accordance with the EGLE approved plans and specifications attached to this permit.

**Waterbody Affected:** Lake Michigan

**Property Location:** Ottawa County, Grand Haven Township, Town/Range/Section 08N/16W/32, Property Tax No. 70-03-32-390-048
Authority granted by this permit is subject to the following limitations:

A. Initiation of any work on the permitted project confirms the permittee's acceptance and agreement to comply with all terms and conditions of this permit.

B. The permittee, in exercising the authority granted by this permit, shall not cause unlawful pollution as defined by Part 31 of the NREPA.

C. This permit shall be kept at the site of the work and available for inspection at all times during the duration of the project or until its date of expiration.

D. All work shall be completed in accordance with the approved plans and specifications submitted with the application and/or plans and specifications attached to this permit.

E. No attempt shall be made by the permittee to forbid the full and free use by the public of public waters at or adjacent to the structure or work approved.

F. It is made a requirement of this permit that the permittee give notice to public utilities in accordance with 2013 PA 174 (Act 174) and comply with each of the requirements of Act 174.

G. This permit does not convey property rights in either real estate or material, nor does it authorize any injury to private property or invasion of public or private rights, nor does it waive the necessity of seeking federal assent, all local permits, or complying with other state statutes.

H. This permit does not prejudice or limit the right of a riparian owner or other person to institute proceedings in any circuit court of this state when necessary to protect his rights.

I. Permittee shall notify EGLE within one week after the completion of the activity authorized by this permit.

J. This permit shall not be assigned or transferred without the written approval of EGLE.

K. Failure to comply with conditions of this permit may subject the permittee to revocation of permit and criminal and/or civil action as cited by the specific state act, federal act, and/or rule under which this permit is granted.

L. All dredged or excavated materials shall be disposed of in an upland site (outside of floodplains, unless exempt under Part 31 of the NREPA, and wetlands).

M. In issuing this permit, EGLE has relied on the information and data that the permittee has provided in connection with the submitted application for permit. If, subsequent to the issuance of a permit, such information and data prove to be false, incomplete, or inaccurate, EGLE may modify, revoke, or suspend the permit, in whole or in part, in accordance with the new information.

N. The permittee shall indemnify and hold harmless the State of Michigan and its departments, agencies, officials, employees, agents, and representatives for any and all claims or causes of action arising from acts or omissions of the permittee, or employees, agents, or representative of the permittee, undertaken in connection with this permit. The permittee's obligation to indemnify the State of Michigan applies only if the state: (1) provides the permittee or its designated representative written notice of the claim or cause of action within 30 days after it is received by the state, and (2) consents to the permittee's participation in the proceeding on the claim or cause of action. It does not apply to contested case proceedings under the Administrative Procedures Act, 1969 PA 306, as amended, challenging the permit. This permit shall not be construed as an indemnity by the State of Michigan for the benefit of the permittee or any other person.

O. Noncompliance with these terms and conditions and/or the initiation of other regulated activities not specifically authorized shall be cause for the modification, suspension, or revocation of this permit, in whole or in part. Further, EGLE may initiate criminal and/or civil proceedings as may be deemed necessary to correct project deficiencies, protect natural resource values, and secure compliance with statutes.
P. If any change or deviation from the permitted activity becomes necessary, the permittee shall request, in writing, a revision of the permitted activity from EGLE. Such revision request shall include complete documentation supporting the modification and revised plans detailing the proposed modification. Proposed modifications must be approved, in writing, by EGLE prior to being implemented.

Q. This permit may be transferred to another person upon written approval of EGLE. The permittee must submit a written request to EGLE to transfer the permit to the new owner. The new owner must also submit a written request to EGLE to accept transfer. The new owner must agree, in writing, to accept all conditions of the permit. A single letter signed by both parties that includes all the above information may be provided to EGLE. EGLE will review the request and, if approved, will provide written notification to the new owner.

R. Prior to initiating permitted construction, the permittee is required to provide a copy of the permit to the contractor(s) for review. The property owner, contractor(s), and any agent involved in exercising the permit are held responsible to ensure that the project is constructed in accordance with all drawings and specifications. The contractor is required to provide a copy of the permit to all subcontractors doing work authorized by the permit.

S. Construction must be undertaken and completed during the dry period of the wetland. If the area does not dry out, construction shall be done on equipment mats to prevent compaction of the soil.

T. Authority granted by this permit does not waive permit requirements under Part 91, Soil Erosion and Sedimentation Control, of the NREPA, or the need to acquire applicable permits from the County Enforcing Agent (CEA).

U. Authority granted by this permit does not waive permit requirements under the authority of Part 305, Natural Rivers, of the NREPA. A Natural Rivers Zoning Permit may be required for construction, land alteration, streambank stabilization, or vegetation removal along or near a natural river.

V. The permittee is cautioned that grade changes resulting in increased runoff onto adjacent property is subject to civil damage litigation.

W. Unless specifically stated in this permit, construction pads, haul roads, temporary structures, or other structural appurtenances to be placed in a wetland or on bottomland of the water body are not authorized and shall not be constructed unless authorized by a separate permit or permit revision granted in accordance with the applicable law.

X. For projects with potential impacts to fish spawning or migration, no work shall occur within fish spawning or migration timelines (i.e., windows) unless otherwise approved in writing by the Michigan Department of Natural Resources, Fisheries Division.

Y. Work to be done under authority of this permit is further subject to the following special instructions and specifications:

1. Authority granted by this permit does not waive permit or program requirements under Part 91 of the NREPA or the need to acquire applicable permits from the CEA. To locate the Soil Erosion Program Administrator for your county, visit www.mi.gov/eglestormwater and select "Soil Erosion and Sedimentation Control Program" under "Related Links."

2. The authority to conduct the activity as authorized by this permit is granted solely under the provisions of the governing act as identified above. This permit does not convey, provide, or otherwise imply approval of any other governing act, ordinance, or regulation, nor does it waive the permittee’s obligation to acquire any local, county, state, or federal approval or authorization necessary to conduct the activity.

3. No fill, excess soil, or other material shall be placed in any wetland, floodplain, or surface water area not specifically authorized by this permit, its plans, and specifications.
4. This permit does not authorize or sanction work that has been completed in violation of applicable federal, state, or local statutes.

5. The permit placard shall be kept posted at the work site in a prominent location at all times for the duration of the project or until permit expiration.

6. This permit is being issued for the maximum time allowed and no extensions of this permit will be granted. Initiation of the construction work authorized by this permit indicates the permittee's acceptance of this condition. The permit, when signed by EGLE, will be for a five-year period beginning on the date of issuance. If the project is not completed by the expiration date, a new permit must be sought.

7. The tree pest, hemlock woolly adelgid (HWA), is known to infest hemlock and tiger-tail spruce trees in this county. The Michigan Department of Agriculture and Rural Development (MDARD) has issued a quarantine on the movement of all branches, boughs, any tree part bearing twigs and needles and uncomposted, chipped/shredded/ground parts that include twigs and needles. Issuance of this permit does not obviate the need to obtain approval to move hemlock and tiger-tail spruce parts off the project site prior to commencement of construction activity as stated in the quarantine effective on July 5, 2017 by authority of Public Act 72 of 1945, as amended. In Allegan and Ottawa counties contact MDARD Region 2 Supervisor Mike Hansen, hansenmg@michigan.gov or 269-429-0669.

8. Please also be aware of the quick spreading disease called Oak Wilt which kills mature oak trees in a matter of days. It is not required, but highly recommended, that you do not prune oak trees during the growing season. If you must prune oak trees, please do not prune them between April 15 and August 15. It is also very important to avoid moving firewood, as oak wilt and other disease is spread by the movement of infected wood.

9. All slopes steeper than one on three (33%) must not be disturbed.

10. All earth moving and contour changes must occur within 5 feet of the project footprint.

11. Vegetation changes are not permitted more than ten feet outside of the project footprint. All disturbed areas shall be re-vegetated with native dune vegetation and stabilized with temporary measures before or upon commencement of the permitted activity and maintained until permanent measures are in place. The removal and re-establishment of vegetation must be in accordance with the submitted vegetation assurance.

12. The transport of building materials/excavated sand and access to and from the site shall be via the newly permitted driveway.

13. A separate temporary driveway or access road is not permitted for construction activities.

14. Impacting the dunes is not permitted outside of the approved disturbance area including activities such as driving machinery on any slopes steeper than one-on-three (33%), or storing (permanently or temporarily) machinery, soil, materials, equipment, or removed vegetation, on any slopes steeper than one-on-four (25%).

15. The construction of porches, decks, landscaping (with the exception of planting native dune vegetation), on-grade walkways, on-grade stairways, and retaining walls which also includes the placement of boulders, are considered uses, and not permitted unless specified in the permit conditions.

16. The underground utility lines must be placed in areas with slopes less than one on four or the lines must be installed using the directional bore method or by hand digging. If the directional bore method is used, the bore pits must be located in areas with slopes less than one on four. The disturbed areas must be stabilized and repaired with temporary measures before or upon commencement of the permitted activity and shall be maintained until permanent measures are in place. Trenching areas with slopes steeper than one on four is not permitted.
17. Only clean sand shall be placed in areas depicted on the site plan. Where mature trees are present, sand shall not be placed greater than 2 inches deep. Where shrubs are present, sand shall not be placed greater than 3 inches deep. In areas of open sand or dune grass, sand shall not be placed greater than 18 inches deep.

18. All excess woody debris, concrete, building materials, or other types of soil must be deposited off site, outside of the Critical Dunes Area.

19. Excess excavated clean sand must be deposited on-site in areas with slopes less than 33% which do not contain woody vegetation. The sand shall be leveled out immediately and spread to a maximum thickness of 1 foot and planted with native dune vegetation.

20. If it is not feasible to dispose of excess excavated sand or soil on-site, then it must be deposited offsite, outside of a regulated critical dune area, floodplain, lake, river, stream, or wetland, and stabilized with temporary measures until permanent measures are in place. Permanent measures shall be in place within five (5) days of achieving final grade.

21. Stairway(s)/walkway(s) must be constructed elevated above grade, on a hand dug post foundation, a maximum of five (5) feet in width and shall not have a roof or walls.

Issued By:  
Jacob Patin  
Grand Rapids District Office  
Water Resources Division  
616-204-7176

cc: Grand Haven Township Clerk  
Ottawa CEA  
Adrienne Peterson, Peterson Environmental, LLC
EXISTING WELL TO BE ABANDONED IN ACCORDANCE WITH O.C.H.D. REGULATIONS

REMOVE EXISTING GRAVEL DRIVE & RESTORE ROW

EXISTING HOUSE TO BE DEMOLISHED

EXISTING FENCE TO BE REMOVED


EXISTING CONDITIONS

HORZ. DATUM

VERTICAL DATUM

PROJECT MANAGER:

HEI PROJECT NUMBER

SHEET TITLE

TOWNSHIP:

WATERWAY:

COUNTY:

SHEET NUMBER

PROJECT:

1 OF 7

SCALE: 1"=30'

220 Hoover Boulevard
Holland, Michigan 49423-3766
www.hollandengineering.com
T 616-392-5938   F 616-392-2116

12/15/20 REV. BLDG FOOTPRINT

RYAN T. YSSELDYKE, P.E.
GRAND HAVEN TWP
OTTAWA

19-08-033

17996 BRUCKER STREET
GRAND HAVEN, MICHIGAN 49417

ANNE E. DROSTE

DROSTE RESIDENCE

EGLE-WRD
WRP021327 v1.1
Approved

Issued On:03/12/2020
Expires On:03/12/2025
DESCRIPTION: SITUATED IN GRAND HAVEN TOWNSHIP, OTTAWA COUNTY, MICHIGAN

LAND SITUATED IN SECTION 32, TOWNH 8 NORTH, RANGE 16 WEST, GRAND HAVEN TOWNSHIP, OTTAWA COUNTY, MICHIGAN AND DESCRIBED AS FOLLOWS: PART OF THE SOUTHWEST 1/4 COMMENCING 74 FEET WEST AND 10 FEET SOUTH OF THE NORTHEAST CORNER OF THE SOUTH 1/2, OF THE SOUTHWEST 1/4, THENCE SOUTH 100 FEET; THENCE WEST 156 FEET; THENCE NORTH 100 FEET; THENCE EAST 156 FEET TO THE POINT OF BEGINNING.

PROP. CLEAN OUT

PROP. 4" X 8" BLOCK TRENCH UNITS

PROP. UTILITIES

COORDINATE W/ UTILITY COMPANIES

PROP. COVERED ELEVATED DECK

PROP. OPEN ELEVATED DECK

PROP. CONC. SIDEWALK

PROP. STAIRS (UP)

PROP. STAIRS (DOWN)

PROP. CLEAN OUT

PROP. COVERED ELEVATED DECK

PROP. CLEAN OUT

PROP. 20 LF OF 4" PVC SAN LATERAL @ 2.0% MIN.

CONNECT 4" SAN LAT TO SEPTIC TANK
INV = 626.00

PROP. 1,250 GAL SEPTIC TANK
(1) 1,000 GAL SEPTIC TANK

PROP. (5) 4'X8' BLOCK TRENCH UNITS

PROP. UTILITIES

COORDINATE W/ UTILITY COMPANIES

PROP. 35 LF OF 4" PVC SAN LAT@ 2.0% MIN.

PROP. COVERED ELEVATED DECK

PROP. OPEN ELEVATED DECK

PROP. CONC. SIDEWALK

PROP. STAIRS (UP)

PROP. STAIRS (DOWN)

PROP. CLEAN OUT

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PROP. (5) 4'X8' BLOCK TRENCH UNITS

PROP. UTILITIES

COORDINATE W/ UTILITY COMPANIES

PROP. 35 LF OF 4" PVC SAN LAT@ 2.0% MIN.
SEPTIC SYSTEM NOTES:

1. BASIS OF DESIGN:
   A) 3 BEDROOM HOME WITH GARBAGE DISPOSAL AND BASEMENT LIFT PUMP.
   B) SOILS INFORMATION BASED ON SITE OBSERVATIONS AND SITE EVALUATION:
      MEDIUM TO COURSE, WELL DRAINED, SANDS, WATER >6'.
   C) REQUIRED TANK SIZE IS 2 – 1000 GALLONS FOR 3 BEDROOM PLUS
      DISPOSAL, AND BASEMENT LIFT PUMP.
      PROPOSED 1 – 1250 GALLON TANK AND 1 – 1000 GALLON TANK.
   D) REQUIRED BLOCK TRENCH INFILTRATION AREA IS 400 SQUARE FEET. PROPOSED
      40' X 8' BLOCK TRENCH AREA (400 SQUARE FEET) WITH EQUAL SIZED
      RESERVE AREA (WILL NOT BE INSTALLED AT THIS TIME)

2. AN EFFLUENT FILTER SHALL BE INSTALLED ON THE OUTLET OF THE SEPTIC TANK.
3. RESERVE SYSTEM IS NOT REQUIRED TO BE INSTALLED AT THIS TIME.
4. SITE SHALL BE GRADED TO DIVERT RUNOFF AWAY FROM TANKS AND DRAINFIELD.
SESC NOTES:

1. PROPOSED SILT FENCE SHALL BE INSTALLED AS SHOWN IN ACCORDANCE WITH THE MANUFACTURES RECOMMENDATIONS.
2. HOME SHALL HAVE GUTTERS AND DOWNSPOUTS INSTALLED AT THE TIME OF CONSTRUCTION. ALL DOWNSPOUTS SHALL BE DIRECTED TO LANDSCAPE STONE BEDS OR PERFORATED DRAIN TILES TO PREVENT EROSION FROM ROOF RUNOFF.
3. THE SITE PLAN HAS BEEN DESIGNED TO DISPOSE OF STORMWATER RUNOFF WITHOUT SERIOUS SOIL EROSION AND WITHOUT SEDIMENTATION OF ANY STREAM OR OTHER BODY OF WATER.
NOTICE OF AUTHORIZATION

Permit Number: WRP021327 v1.1
Site Name: 70-17996 Brucker St-Grand Haven
Date Issued: March 12, 2020
Expiration Date: March 12, 2025
Revised Date: January 7, 2021

The Michigan Department of Environment, Great Lakes, and Energy (EGLE), Water Resources Division, P.O. Box 30458, Lansing, Michigan 48909-7958, under provisions of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; specifically:

- ☑ Part 31, Floodplain Regulatory Authority of the Water Resources Protection.
- ☑ Part 303, Wetlands Protection.
- ☑ Part 315, Dam Safety.
- ☑ Part 323, Shorelands Protection and Management.
- ☑ Part 353, Sand Dunes Protection and Management.

Authorized activity:

Demolish the existing house and construct a new 1,186 square foot house further South of the original design. Construct a 21-foot wide driveway. Install a 210 square foot septic system. Remove 7 trees and replant 9 trees. Install stairs and a concrete sidewalk. Construct a deck. Install temporary slope protection for basement wall construction. Install 104 linear feet of landscape block retaining walls. All work shall be completed in accordance with the EGLE approved plans and specifications attached to this permit.

To be conducted at property located in: Ottawa County, Waterbody: Lake Michigan
Section 32, Town 08N, Range 16W, Grand Haven Township

Permittee:
Anne Droste, Droste Trust
6034 W 76th Street
Los Angeles, CA 90045

Jacob Patin
Grand Rapids District Office
Water Resources Division
616-204-7176

This notice must be displayed at the site of work.
Laminating this notice or utilizing sheet protectors is recommended.
Please refer to the above permit number with any questions or concerns.
Reason/Why:

Dimensional Variance:

(4) This parcel has unusual preexisting circumstances with the topography in general as well as being within the Critical Dune Zone. This parcel also exists within the Critical Dune zone and has topography that is considered steep slope and additionally, difficult to build on.

(3) This variance poses no detriment to any neighboring properties.

(2) This parcel, although smaller than normal lot dimensions, has the right to be built on, similar to neighboring parcels that has a significant valley to it, leaving it unsuitable for building.

(1) This variance request addresses a front yard setback calculated by the average of existing houses to both sides (East and West) of 17996 Brucker Street, by 300' per section 2.13.

4 Standards:

- This parcel is 100' in depth, which is too shallow to allow for proper Front and Rear setbacks to be applied.
- This parcel has a significant valley to it, leaving it unsuitable for building.
- This parcel, 17996 Brucker Street, is less than typical lot dimensions in which Front and Rear setbacks are to be applied.
- This variance also establishes a rear set back based on the steep slope extents and the adjacent south parcel with existing buildings on it and where there is no future build out at the rear of the property.
Project: Proposed Cottage for Anne Droste

Drawing Title:

Job No: --

Scale: 1" = 1'-0"

Date: August 2018

Copyright by Heritage Design Workshop LLC. These Architectural Drawings were prepared by, and are the sole property of, Heritage Design Workshop LLC. Unauthorized use or duplication of these drawings is prohibited by law and will subject the violator to damages under Title 17, United States Code and other applicable Law.

**Note:** All construction means and methods are the responsibility of the contractor and are subject to current Michigan State Building Codes and local building codes as may be required by the local jurisdiction(s). This drawing is intended for design intent and budget estimating purposes only. All work, including but not limited to structural, mechanical, electrical, framing, etc., are to be designed and engineered by a qualified engineer as may be required prior to the start of construction. Any permits that may be necessary are the responsibility of the contractor unless otherwise determined by the agreement between the owner & contractor.

**Revisions:**

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<td>01 2019.04.29</td>
<td>Issued for Schematic Plan Review</td>
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<td>02 2019.05.24</td>
<td>Issued to GH TWP for Set Back Review/Variance</td>
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<td>04 2019.08.21</td>
<td>Issued for Pricing</td>
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<tr>
<td>06 2020.11.16</td>
<td>Issued to Client for Exterior design updates</td>
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<tr>
<td>07 2020.11.22</td>
<td>Issued to Client for Plan and Exterior design updates</td>
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<tr>
<td>08 2021.01.15</td>
<td>Issued to Grand Haven Twp. for Zoning Variance</td>
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**Construction Notes:**

- Roofing, Typ: Asphalt dimensional shingles
- Porch materials, Typ: Painted wood columns, Vinyl infill railing, PVC Decking
- Chimney: Stone veneer, Metal chimney cap
- 1st & 2nd Floor siding: Vinyl shake siding w/corner boards
- Foundation siding: Vinyl board and batten

**Scale:** 1/4" = 1'-0"
These Architectural Drawings were prepared by, and are the sole property of, Heritage Design Workshop LLC. Unauthorized use or duplication of these drawings is prohibited by law and will subject the violator to damages under Title 17, United States Code and other applicable Law.

Copyright by Heritage Design Workshop LLC. * ALL CONSTRUCTION MEANS AND METHODS ARE THE RESPONSIBILITY OF THE CONTRACTOR AND ARE SUBJECT TO CURRENT MICHIGAN STATE BUILDING CODES AND LOCAL BUILDING CODES AS MAY REQUIRED BY THE LOCAL JURISDICTION(S). THIS DRAWING IS INTENDED FOR DESIGN INTENT AND BUDGET ESTIMATING PURPOSES ONLY. ALL WORK, INCLUDING BUT NOT LIMITED TO STRUCTURAL, MECHANICAL, ELECTRICAL, FRAMING, ETC. ARE TO BE DESIGNED AND ENGINEERED BY A QUALIFIED ENGINEER AS MAY BE REQUIRED PRIOR TO THE START OF CONSTRUCTION. ANY PERMITS THAT MAY BE NECESSARY ARE THE RESPONSIBILITY OF THE CONTRACTOR UNLESS OTHERWISE DETERMINED BY THE AGREEMENT BETWEEN THE OWNER & CONTRACTOR.

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Roofing, Typ.
- Asphalt dimensional shingles

Porch materials, Typ.
- Painted wood columns
- Vinyl infill railing
- PVC Decking

Deck materials
- Painted wood columns
- Vinyl infill railing with posts
- Trex Decking

Chimney
- Stone veneer
- Metal chimney cap

1st & 2nd Floor siding
- Vinyl shake siding w/corner boards

Foundation siding
- Vinyl board and batten
Community Development Memo

DATE: February 5, 2021
TO: Zoning Board of Appeals
FROM: Stacey Fedewa, AICP – Community Development Director
RE: 11177 Lakeshore – Dimensional Variance Application No. 20-03

Parcel Information

<table>
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<td>Required Ground-Mounted Solar Array Locations</td>
<td>Shall not be in front yard</td>
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<tr>
<td>Requested Ground-Mounted Solar Array Locations</td>
<td>Front Yard</td>
</tr>
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</table>

Motion to remove the City of Grand Rapids application from the table for further consideration.

BACKGROUND

For the last few years, the City of Grand Rapids has been reviewing all of their facilities and equipment to determine if renewal energy could assist in their consumption and reduce overall utility costs. The Lake Michigan Filtration Plant (LMFP) is the only site the City has found that will create a net savings. There is also a federal tax credit available to the City.
For these reasons, the City began working with CMS Energy on developing a plan for ground-mounted solar arrays. To reach the energy savings, CMS has indicated about 3.5-acres of solar arrays is needed.

The original hearing was held on December 15, 2020 and was tabled to allow the applicant to prepare additional information after receiving feedback from the ZBA Members.

### New Documentation

New documents included with the application are:

- Supplemental narrative
- Engineering analysis of the roof structures
- Due diligence site map of alternate locations
- As-built survey of drain field
- Street-view renderings of proposed landscaping

### Responses to ZBA Concerns

At the close of the December 15th hearing the ZBA had identified two alternative locations that appeared feasible—a roof-mounted system (denoted as #6 on the above map) and the SE corner (denoted as #5).

**Roof-mounted system.** The Fishbeck engineering firm was contracted to perform a preliminary analysis to determine the feasibility of placing solar panels on the roof. The conclusion was there are two suitable areas, but the total size only amounts to $\approx \frac{1}{2}$-acre when 3.5-acres is required. These findings were affirmed by the Township Building Official.

**SE corner / Area #5.** The applicant has supplied the Township with an as-built survey of the drain field and parts of the septic system. This precludes the area between the building and the wooded area from being used. If the entire wooded area was removed only 2.5-acres is available.

**Areas #2, #3, #4.** The remaining three areas identified on the Due Diligence Site Map are also located in the front yard just like the selected site shown as Area #1.

From staff’s perspective, **areas 2-4 are moot because they are also in the front yard**; a variance would be required for those locations; and acres of trees would be removed. If a variance is granted, then Area #1 should be selected.
It would appear ½-acre on the roof + 2.5-acres in area #5 + ½-acre somewhere else on the property = 3.5-acres of solar panels divided into three non-contiguous areas.

**Is that reasonable?**

**Landscaping Proposal**

In addition to the pollinator field previously proposed, the applicant has also offered to enclose the area with berms and native trees to screen the view along Lakeshore Drive and Lake Michigan Drive.

**ZBA Authority vs. Planning Commission**

The ZBA’s role is limited to determining if the request to place the solar panels in the front yard can meet the 4 standards. While making this determination you may ask whatever questions are necessary to help each member feel comfortable making a decision.

The ZBA may also impose conditions if it finds the variance will be approved. Examples include, planting pollinator fields, screening, and other mitigation factors that can address the impact the arrays may have on the area.

The Planning Commission’s role is to review the standards (see Section 3.03.B of the zoning ordinance) and determine if the use itself is suitable for the property and surrounding area.
To authorize a dimensional variance from the strict applications of the provisions of this Ordinance, the ZBA shall apply the following standards and make an affirmative finding as to each of the matters set forth in the standards.

**STANDARD 1**

There are exceptional or extraordinary circumstances or conditions applying to the property that do not apply generally to other properties in the same zoning classification.

The rooftop can only support ½-acre. Area #5 is mostly encumbered by a drain field. This area could support a maximum of 2.5-acres if the wooded area was removed. Areas 2-4 are also located in front yards.

The ZBA will need to determine whether this standard is met.

**STANDARD 2**

The variance is necessary for the preservation and enjoyment of a substantial property right similar to that possessed by other properties in the same zoning district and in the vicinity, provided that possible increased financial return shall not of itself, be deemed sufficient to warrant a variance.

Every property owner has the right to install solar panels. A location must be found by the Township to ensure this property right is maintained.

The ZBA will need to determine whether this standard is met.

**STANDARD 3**

Authorization of such variance will not be of substantial detriment to adjacent property and will not materially impair the intent and purpose of this Ordinance or the public health, safety, and general welfare of the community.

There have been strong objections from adjacent residential property owners. There has also been support from other community members and a group supporting the use of renewable energy. The applicant is proposing to screen Area #1 with berms and native trees along with planting a pollinator field to assist with viewsheds.

The ZBA will need to make the determination whether this standard is met given the circumstances of this case and the findings on standards 1 and 2.

**STANDARD 4**

The condition or situation of the specific piece of property or the intended use of said property for which the variance is sought, is not of so general or recurrent a nature as to make reasonably practical the formulation of a general regulation for such condition or situation, a part of this Ordinance.
This is the only water filtration plant within the Township and some aspects of the roof analysis were excluded because of drinking water protections.

The ZBA will need to make the determination whether this standard is met.

**SAMPLE MOTIONS**

If the ZBA determines each standard has been affirmative met, the following motion can be offered:

**Motion to conditionally approve** a dimensional variance from Section 3.03.A.2.a to allow a 3.5-acre ground-mounted solar array in the front yard of 11177 Lakeshore Drive. Approval of this variance is based upon this Board’s findings that all four standards have been affirmatively met, and are subject to the following condition(s):

1. Installing a 3-foot tall landscape berm with native tree species planted on top to provide a visual screen. Design standards shall comply with the zoning ordinance.
2. The pollinator field, as proposed, shall be installed.
3. Solar panels shall be designed to preserve all existing trees.
4. *List additional conditions here...*

However, if the ZBA determines each standard has not been affirmatively met, the following motion can be offered:

**Motion to deny** a dimensional variance from Section 3.03.A.2.a to allow a 3.5-acre ground-mounted solar array in the front yard of 11177 Lakeshore Drive. Denial of this variance is based upon this Board’s findings that all four standards have not been affirmatively met.

If the ZBA determines that more information is needed to make an affirmative finding, the following motion can be offered:

**Motion to table** the dimensional variance application for 11177 Lakeshore Drive, and direct the applicant and/or staff to provide the following information, which will be considered at the next regularly scheduled ZBA meeting:

1. *List items here...*

Please contact me with questions or concerns.
Stacey,

I hope this is the correct way to get my written opinion added to the public record concerning the variance requested by the City of Grand Rapids at their water treatment plant.

I truly feel for the residential neighbors of that facility because of the “eye sore” present in an otherwise residential neighborhood. The huge building and the tanks are definitely not aesthetically pleasing, but at least they are located much farther away from the roads than the minimum 75 ft. set back required by the township. The buildings on the west side of Lake Shore Drive are much less noticeable, much smaller and more beautiful then the main plant and tanks.

Having said that, it is unfortunate that the neighbors around the plant and the township don’t see this as an opportunity to make the existing view better. By allowing the City of Grand Rapids to place ground mounted solar panels near the northwest corner of their property (“in the front yard”) but also require a green screen of pines and/or arborvitae, the solar farm and the existing plant “behind” the solar farm will be much less visible from neighboring properties and the roads. In addition, by allowing the City of Grand Rapids to install the solar farm near this northwest corner of their property, this will prevent them from placing a structure within 75 ft. of this corner that would be much less pleasing to the eye than the “green screen”.

I hope Grand Haven Township and the neighbors will rethink their opposition to the solar farm and take it as an opportunity to embrace new sources of energy and actually make their neighborhood more beautiful.

Best Regards,
John T. Job

Sent from Mail for Windows 10
(A) Dimensional Variance. Except as otherwise provided, to authorize a non-use or dimensional variances from the strict applications of the provisions of this Ordinance, the Zoning Board of Appeals shall apply the following standards and shall make an affirmative finding as to each of the matters set forth in each of such standards:

(1) That there are exceptional or extraordinary circumstances or conditions applying to the property that do not apply generally to other properties in the same zoning classification: Exceptional or extraordinary circumstances or conditions include:

(a) Exceptional narrowness, shallowness or shape of a specific property on the effective date of this Ordinance, or amendment thereto;
(b) Exceptional topographic conditions;
(c) Any other physical situation on the land, building or structure deemed by the Zoning Board of Appeals to be extraordinary; or
(d) By reason of the use or development of the property immediately adjoining the property in question.

There are several exceptional and extraordinary circumstances and conditions that apply to this unique property that do not apply generally to other properties in the same zoning classification. The Lake Michigan Filtration Plant, which is an essential service facility under the Zoning Ordinance that provides drinking water to a population of 300,000 residents in Ottawa and Kent counties, including many Township residents, is located on this property. This essential water filtration plant is a unique feature that is not found on any other properties in the Township. Granting the variance is critical in this case because the proposed ground-mounted solar array will allow for more efficient, resilient, and effective water filtration services to the many thousands of West Michigan residents that receive this essential public service. Not permitting the variance for the ground-mounted solar array on this unique property will inhibit the Lake Michigan Filtration Plant from delivering more efficient, resilient, and effective water filtration services to the public, including many Township residents, and will also prevent the positive environmental impacts that would otherwise be achieved from this source of significant renewable energy.

Moreover, this property has an extraordinary shape unlike any others in the Township. The lot includes two areas of land that are separated by Lakeshore Drive. The larger portion of land has multiple portions of street frontage on both Lakeshore Drive and Lake Michigan Drive. The smaller portion of land that is separated from the remaining property has street frontage on Lakeshore Drive and fronts Lake Michigan. Thus, the property has features of both a corner lot and a waterfront lot under the Zoning Ordinance. Based on the Township’s current zoning map, this property is the only property in the Township zoned Rural Residential that has frontage on Lake Michigan. At least one Township resident has raised concerns that granting a variance here may possibly require the Township to grant “front yard” variances to allow other residents to build ground-mounted solar arrays that abut Lake Michigan. This, however, is not a concern because the variance analysis under the Zoning Ordinance applies only to “other properties in the same zoning classification.” Because this is the only property in the Township that fronts Lake Michigan that is zoned Rural Residential, the front yard variance here will not apply to any other lots in the Township that front Lake Michigan. Also, the variance for the ground-mounted solar array in this
case is strictly limited to an area of the property that does not abut Lake Michigan and so even if the property were in a zoning classification like other properties that front Lake Michigan, the variance would set no precedent for allowing ground-mounted solar arrays to abut Lake Michigan. In fact, the opposite is true because, although this property does have frontage along Lake Michigan, the variance is strictly limited to an area of the property that does not abut Lake Michigan.

Also, the complexity and critical nature of the aboveground and underground facilities required to deliver this essential water filtration service to the public distinguish this property from others and limit the location of the ground-mounted solar array to the proposed location. Regarding the ground-mounted solar array being limited only to the proposed location, the Township has specifically requested the reasons why the ground-mounted solar array cannot be built in the southeast area of the lot, which would be in the rear yard and would not require the requested variance. The rear yard location in the southeast area of the lot is not a viable location for the ground-mounted solar array for several reasons: (1) there is an existing drain field in this area over which the solar array cannot be built; (2) the topography of this location inhibits construction of the ground-mounted solar array because it would require significant earth movement to level and the removal of approximately 8 acres of mature hardwood trees; and (3) no permanent structures, including the ground-mounted solar array can be built over the 72-inch overflow pipe and the 108-inch filtered water pipe that connects to the facility’s clearwell tanks on the property, both of which are located in this southeast area. See the enclosed South Drain Field Site Plan As-Built.

The Township also has requested the reasons why the solar array cannot be located on the rooftop of the main building. As shown in previous submissions to the Township, the solar array requires approximately 150,000 square feet of area for its construction and operation. Based on an independent analysis by Professional Engineers at Fishbeck, only 28,241 square feet of the rooftop area has suitable structural capacity for the addition of photovoltaic panels. Thus, there is drastically insufficient suitable area on the rooftop of the Lake Michigan Filtration Plant for the construction and operation of this solar array. See the enclosed Independent Rooftop Report by Fishbeck. Moreover, even if there were enough suitable rooftop area for the solar array, due to the extremely sensitive nature of the facilities below the rooftop that supply safe drinking water to hundreds of thousands of West Michigan residents, including Township residents, a rooftop-mounted solar array would be infeasible because it would add unacceptable risks to these sensitive, essential public facilities. Indeed, the independent Professional Engineers at Fishbeck noted in their report that some of the area they determined to be structurally suitable for the addition of photovoltaic panels still “may not be suitable for roof mounted equipment as they are directly above open water surfaces of drinking water in various stages of the water treatment process.” See the enclosed Independent Rooftop Report by Fishbeck.

All the above exceptional and extraordinary circumstances and conditions that apply to this unique property within the Township do not apply generally to other properties in the same Rural Residential zoning classification.

(2) That such variance is necessary for the preservation and enjoyment of a substantial property right similar to that possessed by other properties in the same
zoning district and in the vicinity, provided that possible increased financial return shall not of itself, be deemed sufficient to warrant a variance.

As the Township’s Community Development Director explained in the Community Development Memo dated December 11, 2020, Section 3.03.B. of the Zoning Ordinance establishes that ground-mounted solar arrays are permitted by right if the solar arrays are smaller in footprint than the main building on the same lot. In other words, the right to install a ground-mounted solar array that is smaller in footprint than the main building on the same lot is a substantial property right possessed by other properties in the same zoning district and in the vicinity of the lot at issue. Also, the property right to install ground-mounted solar arrays under the Zoning Ordinance is independent from the additional property right under the Zoning Ordinance to install rooftop-mounted solar arrays. Under the Zoning Ordinance as written, the property owner has the right to install either ground-mounted solar arrays, rooftop-mounted solar arrays, or both ground-mounted and rooftop-mounted solar arrays, if the total footprint of those arrays does not exceed the footprint of the main building on the lot. Here, the Township has already determined that the proposed solar array is smaller in footprint than the main building on the lot, and thus, the Lake Michigan Filtration Plant has the substantial property right under the Zoning Ordinance to build a proposed solar array of this size. The proposed ground-mounted solar array requires a variance in this case because the only viable location for the array is in the front yard of the property as defined in the Zoning Ordinance, and the Zoning Ordinance prohibits ground-mounted solar arrays from being in the front yard of the lot. As explained in subsection (1) above in response to the Township’s request for information as to why other locations are not viable:

- The rear yard location in the southeast area of the lot is not a viable location for the ground-mounted solar array for several reasons: (1) there is an existing drain field in this area over which the solar array cannot be built; (2) the topography of this location inhibits construction of the ground-mounted solar array because it would require significant earth movement to level and the removal of approximately 8 acres of mature hardwood trees; and (3) no permanent structures, including the ground-mounted solar array can be built over the 72-inch overflow pipe and the 108-inch filtered water pipe that connects to the facility’s clearwell tanks on the property, both of which are located in this southeast area. See the enclosed South Drain Field Site Plan As-Built.

- The rooftop also is not a viable location for the solar array because: (1) there is drastically insufficient suitable area on the rooftop of the Lake Michigan Filtration Plant for the construction and operation of this solar array (only 28,241 square feet of the required 150,000 square feet for the array); and (2) even if there were enough suitable rooftop area for the solar array, due to the extremely sensitive nature of the facilities below the rooftop that supply safe drinking water to hundreds of thousands of West Michigan residents, including Township residents, a rooftop-mounted solar array would be infeasible because it would add unacceptable risks to these sensitive, essential public facilities. See the enclosed Independent Rooftop Report by Fishbeck.
In addition, while financial return shall not of itself, be deemed sufficient to warrant a variance, it can be included along with other factors. Locating the solar array in the requested area will result in $1.2 million in net savings for the Lake Michigan Filtration Plant. Those savings cannot be achieved in any other location on the site.

Thus, if the Township does not grant the variance here, the Lake Michigan Filtration Plant will be unable to enjoy the substantial property right to construct a solar array that is smaller in footprint than the main building, which is a right possessed by other properties in the same zoning district and in the vicinity. Failing to grant the variance in this case will also preclude many thousands of West Michigan residents, including Township residents, from benefitting from more efficient, resilient, and effective water filtration services, which are essential public services under the Zoning Ordinance.

(3) That authorization of such variance will not be of substantial detriment to adjacent property and will not materially impair the intent and purpose of this Ordinance or the public health, safety, and general welfare of the community.

The proposed facility will generate no noise, pollution, vibrations, or other harmful phenomena. In fact, as a result of granting the variance for the front yard location, the general public and the adjacent residential property owners will benefit from positive environmental impacts from this renewable energy project and from improved overall aesthetics of the property. Indeed, the Lake Michigan Filtration Plant has committed to taking necessary steps to improve natural screening and overall aesthetics as a condition of the Township granting the variance for the ground-mounted solar array in the proposed location. The enclosed before and after renderings demonstrate some of the possible improvements to screening and overall aesthetics as a result of the variance being granted. See the enclosed Renderings. The City of Grand Rapids will work with Grand Haven Township Director Fedewa on the final landscape screen design.

Other locations for the solar array on the property, even if they were viable alternatives which they are not, would require the removal of large amounts of mature hardwood trees and the levelling of hilly and rolling terrain, which would significantly, negatively impact the overall aesthetics of the property. As noted in the Township’s Community Development Memo dated December 11, 2020, “the front yard prohibition is predominately related to aesthetics.” Here, the granting of the variance will not impair the intent and purpose of the Zoning Ordinance. Nor will it impair the public health, safety, or general welfare of the community. In fact, granting the variance will result in improved public health, safety, and general welfare by providing: (1) positive aesthetic improvements through improved screening and landscaping; (2) more efficient, resilient, and effective water filtration services for West Michigan residents, including Township residents; (3) positive environmental impacts resulting from this significant source of clean energy; (4) the addition of the previously described pollinator field as a condition of the variance; and (5) the preservation of numerous mature trees that provide significant greenhouse gas absorption. See the enclosed Site Selection Due-diligence Report. Indeed, all these factors that weigh in favor of granting the variance are consistent with the Township’s relevant Goals and Objectives identified in its Master Plan:
Goal 1: The Township will preserve valuable natural resources, and the shorelines along Lake Michigan and the Grand River. These natural assets provide a cultural identity and add economic value to the community.

- Granting the variance here will result in positive environmental impacts and will not affect the shorelines along Lake Michigan or the Grand River.

Goal 2: The preservation and enhancement of natural features of the community will be a central consideration in all civic decisions in Grand Haven Township. Buildings and infrastructure will be planned, constructed and maintained to protect and improve the quality of the natural environment while serving the needs of the population and allowing residents and visitors appropriate access to enjoy natural features.

- Granting the variance here will preserve the property’s existing natural features and, in fact, will enhance the property’s natural features by the addition of natural screening and landscaping as depicted in the enclosed renderings.

Goal 5: Grand Haven’s public facilities, including its roads, utilities, parks, and public buildings will be carefully planned, constructed and maintained to efficiently serve the needs of current and future generations.

- Granting the variance here will provide more efficient, resilient, and effective, and environmentally sustainable water filtration services to many thousands of Kent and Ottawa County residents, including Township residents that receive this essential public service.

Goal 8: Grand Haven Township will be a leader in working with other units of government, state agencies, schools, and special authorities to manage growth and service delivery to the residents and businesses of the area in the most efficient and transparent manner possible.

- Granting the variance here achieves this goal of the Township being a leader in working with other units of government to manage service delivery to Township residents in the most efficient manner possible.

(4) That the condition or situation of the specific piece of property or the intended use of said property for which the variance is sought, is not of so general or recurrent a nature as to make reasonably practical the formulation of a general regulation for such condition or situation, a part of this Ordinance.

There is no evidence nor any precedent for the notion that granting the variance for the ground-mounted solar array in the identified location on this specific property is of so general or recurrent a nature as to make reasonably practical the formulation of a general regulation for such condition or situation, a part of the Zoning Ordinance. To the contrary, the condition and situation of this specific piece of property for which this variance is sought and the purpose for which this specific property is being used is unique in the Township for the reasons described above in the preceding sections:

- the Lake Michigan Filtration Plant, which is an essential service facility under the Zoning Ordinance that provides drinking water to a population of 300,000
residents in Ottawa and Kent counties, including many Township residents, is located on this property;

• this property has an extraordinary shape unlike any others in the Township;

• this property is the only property in the Township zoned Rural Residential that has frontage on Lake Michigan; and

• the complexity and critical nature of the aboveground and underground facilities required to deliver this essential water filtration service to the public distinguish this property from others and limit the location of the ground-mounted solar array to the proposed location.

This is not a general or recurrent situation that will result in a general regulation that would apply to any other property.
Site Selection Due-diligence | LMFP Solar Project

1. ✓ Flat area with very few trees to relocate
   ✓ GHG Reduced: 700 – 1,000 metric tons/year
   ✓ Aesthetic improvements
     ✓ Landscaping berms, Pollinator field

2. × Different parcel and a critical dune area (#2); steep gradient terrain with mature trees
   & × ~ 10 acres of trees that absorb 26 metric tons/year of GHG must be removed.

3. × Partially in a critical dune area (#3)
   × ~ 10 acres of trees that absorb 26 metric tons/year of GHG must be removed.

4. × Too close to plant operations; may not meet required setbacks.
   × ~ 10 acres of trees that absorb 26 metric tons/year of GHG must be removed.
   
5. × Reduced size of the solar array
   × Drain field and pipes present throughout
   × ~ 8 acres of trees that absorb 21 metric tons/year of GHG must be removed.

6. × Additional weight from panels prohibited by code, drastically insufficient available area, unacceptable risk

References for 1 & 2 on the next slide
1. Based on MISO carbon emission intensity [480 to 660 kg/MWh], that is offset with electric generation from the proposed solar array. **Source**: Tracking emissions in the US electricity system, Jacques A. de Calendar, John Taggart, Sally M. Benson, Proceedings of the National Academy of Sciences Dec 2019, 116 (51) 25497-25502; DOI: 10.1073/pnas.1912950116; https://www.pnas.org/content/116/51/25497#:~:text=Hourly%20carbon%20intensity%20can%20fluctuate,480%20to%20660%20kg%2FMWh

2. An acre of mature trees can capture 2.6 tonnes of CO2 per year. **Source**: http://www.treesintrust.com/environmental.shtm#:~:text=An%20acre%20of%20mature%20trees,tonnes%20of%20CO2%20per%20year.
February 2, 2021
Project No. 201318

Wayne Jernberg, PE
Water System Manager
City of Grand Rapids
1900 Oak Industrial Drive, NE
Grand Rapids, MI 49505

Re: Lake Michigan Filtration Plant – Preliminary Evaluation for Roof Mounted Photovoltaic Panels

Dear Wayne:

Per your recent request, Fishbeck performed a preliminary analysis to determine the feasibility of placing photovoltaic (PV) panels on the roof of the Lake Michigan Filtration Plant (LMFP). The PV panel system evaluated was a low-profile ballasted rack system that lays on the surface of the roof and would add an estimated 4 to 5 pounds per square foot (psf) dead load to the existing roof.

Based on a review of the physical and layout characteristics of the plant roof, we first prepared the attached figure, which shows the four areas where the installation of the proposed PV panel system might be feasible based on the area available and roof characteristics. Other areas of the plant are not considered feasible for one or more of the following reasons:

- Numerous penetrations for HVAC equipment and other functions.
- Only small discontinuous areas available for the PV panels.
- Areas that require frequent access for ongoing maintenance and repair activities.
- Roof areas that have shadowing due to nearby roofs of various heights.

Some of the areas included in the table below, based on the available roof area, may not be suitable for roof mounted equipment as they are directly above open water surfaces of drinking water in various stages of the water treatment process. This would include both filter buildings and the west half of the Accelerator Building.

The four areas on the figure show the approximate area that might be available for PV panel installation as indicated in the table below. It was assumed that the available area for the panels would be 85% of the total roof area. This accounts for necessary access to the panels for maintenance and wiring runs, and penetrations and roof area where the installation is not possible.

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<td>21,610</td>
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We then performed a preliminary structural evaluation of the four roof areas identified above. In so doing, we reviewed drawings of the original construction, and utilized a clause in the Michigan Building Code (Code) that states that existing structures may have up to a 5% increase in stress over the structure’s life due to added loadings, without further structural engineering qualification. The Code does this because all structures designed to the Code will have at least a 65% margin of safety, or excess structural capacity. This excess capacity is prevalent in structural engineering to provide life safety against collapse of structures under unusual or unexpected additional loadings or conditions. The 5% allowance in the Code reduces that excess capacity by a small amount, and while one could view that as a less safe condition, the 5% is allowed by Code, which carries the protection provided by law.

Our general approach to the structural evaluation was to determine the weight and superimposed load capacity of each of the four roof areas, and by multiplying that total by 5%, determine if the resulting number was greater than or equal to 5 psf. That evaluation determined the following by roof area:

1. Floc/Sed Basin Cross Collector Gallery
   The roof is constructed of 12-inch-thick precast concrete plank and has an appropriate capacity to carry snow by today’s standards. The addition of PV panels would be less than 5% of the structure’s total capacity, and therefore, we believe this area is suitable for the addition of the proposed PV panels.

2. Accelator Building
   The roof is constructed primarily of precast concrete double tees. The addition of PV panels would add less than 5% of the structure’s total capacity. However, the double tees were specified to be designed for a snow load of 30 psf. While this was a common standard at the time these structures were constructed and is therefore grandfathered into compliance with current Codes, today’s Code requires a higher snow load because of the plant’s proximity to Lake Michigan. Therefore, we believe the current roof structure already has a capacity deficit of approximately 12 psf, and we do not recommend the addition of more loads, such as PV panels, to the roof.

3. Filter Building (1964)
   The construction documents for the roof indicate that a choice could be made between 8-inch deep precast concrete double tees or precast concrete channels. Similar to the Accelator Building, the specified design snow load was 30 psf. Therefore, for reasons similar to the Accelator Building, we do not recommend the addition of more loads to the roof, such as the addition of PV panels.

   The roof is constructed of 8-inch thick precast concrete plank and an appropriate design snow load was specified for the design of the precast plank. The addition of PV panels would be less than 5% of the structure’s total capacity; therefore, we believe this area is suitable for the addition of the proposed PV panels. However, we believe that a small portion of this roof area would be subject to snow drifting by today’s Code standards that was not considered in the original design. Therefore, a small area of this portion of the roof may be off limits to the addition of the proposed PV panels.

Given the above conclusions, the areas of roof we believe have suitable structural capacity for the addition of PV panels are as follows:

<table>
<thead>
<tr>
<th>Location</th>
<th>Roof Area with Suitable Capacity (85% of Total Area)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Floc/Sed Basin Cross Collector Gallery</td>
<td>21,610</td>
</tr>
<tr>
<td>Accelator Building</td>
<td>0</td>
</tr>
<tr>
<td>Filter Building (1964)</td>
<td>0</td>
</tr>
<tr>
<td>Filter Building (1994)</td>
<td>6,631 *</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>28,241</td>
</tr>
</tbody>
</table>

*Area may need slight reduction due to areas of drifted snow loading.
If the City decides to pursue installation of solar arrays on the roof of the LMFP, the following work is recommended. However, it should be noted that we do not expect that the above total area with suitable capacity will increase significantly as the result of this additional work.

1. Review the roof areas in the field and more accurately assess the existing areas that may not be considered feasible for the reasons stated earlier in this letter.

2. Perform a more detailed review of the existing structures considering structure span direction, potential for snow drifting, actual roofing and hanging load weights, etc.

If you have any questions or require additional information, please contact me at 616.464.3818 or djvos@fishbeck.com.

Sincerely,

Daniel J. Vos, PE, SE, CCS
Vice President/Senior Structural Engineer

By email
Attachment
Copy: Dave Bratt, PE - Fishbeck
Mark Parsley, PE - Fishbeck
Hard copy is intended to be 8.5"x11" when plotted. Scale(s) indicated and graphic quality may not be accurate for any other size.
Grand Rapids Solar Array
Location Map
Community Development Memo

DATE: February 5, 2021
TO: Zoning Board of Appeals
FROM: Stacey Fedewa, AICP – Community Development Director
RE: 2021 Meeting Date Discussion

2021 MEETING DATE DISCUSSION

At the December 15th meeting a motion was adopted changing the meeting date schedule to the 2nd Tuesday of the month rather than the 4th. Afterwards, Trustee Behm reviewed his calendar and believes there may be conflicts. As such, he has requested the ZBA revisit this subject.

The reason staff requested a chance was due to the Village of Spring Lake contract for planning services. The Village Planning Commission meetings are on the same night as the Township Zoning Board of Appeals.

While convenient, the meeting date change is not necessary. Staff will adjust schedules as needed to ensure both meetings covered when there is a conflict.

Meeting date options that were discussed, included:

1. Fourth Tuesdays
2. Fourth Wednesdays
3. Fourth Thursdays
4. Second Tuesdays

Specific schedules of those dates are enclosed for your review.

SAMPLE MOTION

Following discussions, the ZBA will need to adopt a motion establishing the dates:

Motion to set the 2021 Meeting Date Schedule for insert date here (i.e., Fourth Tuesdays).
## ZONING BOARD OF APPEALS
### 2021 MEETING DATES

<table>
<thead>
<tr>
<th>Month</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>Tuesday, January 26, 2021</td>
</tr>
<tr>
<td>February</td>
<td>Tuesday, February 23, 2021</td>
</tr>
<tr>
<td>March</td>
<td>Tuesday, March 23, 2021</td>
</tr>
<tr>
<td>April</td>
<td>Tuesday, April 27, 2021</td>
</tr>
<tr>
<td>May</td>
<td>Tuesday, May 25, 2021</td>
</tr>
<tr>
<td>June</td>
<td>Tuesday, June 22, 2021</td>
</tr>
<tr>
<td>July</td>
<td>Tuesday, July 27, 2021</td>
</tr>
<tr>
<td>August</td>
<td>Tuesday, August 24, 2021</td>
</tr>
<tr>
<td>September</td>
<td>Tuesday, September 28, 2021</td>
</tr>
<tr>
<td>October</td>
<td>Tuesday, October 26, 2021</td>
</tr>
<tr>
<td>November</td>
<td>Tuesday, November 23, 2021</td>
</tr>
<tr>
<td>December</td>
<td>Tuesday, December 14, 2021</td>
</tr>
</tbody>
</table>

All meetings will be held at the Township Hall, 13300 168th Avenue, Grand Haven and will begin at 7:00 p.m.

The Charter Township of Grand Haven will provide necessary reasonable auxiliary aids and services, such as signers for the hearing impaired and audiotapes of printed materials being considered at the meeting, to individuals with disabilities at the meeting/hearing upon seven (7) business days’ notice to the Charter Township of Grand Haven. Individuals with disabilities requiring auxiliary aids or services should contact the Charter Township of Grand Haven by writing or calling the following:

Personnel Director  
13300 168th Avenue  
Grand Haven, MI 49417  
(616) 842-5988
**ZONING BOARD OF APPEALS**  
**2021 MEETING DATES**

<table>
<thead>
<tr>
<th>Fourth Wednesday</th>
<th>Fourth Wednesday</th>
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<tbody>
<tr>
<td>Wednesday, January 27, 2021</td>
<td>Wednesday, July 28, 2021</td>
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<tr>
<td>Wednesday, February 24, 2021</td>
<td>Wednesday, August 25, 2021</td>
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<tr>
<td>Wednesday, March 24, 2021</td>
<td>Wednesday, September 22, 2021</td>
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<tr>
<td>Wednesday, April 28, 2021</td>
<td>Wednesday, October 27, 2021</td>
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<tr>
<td>Wednesday, May 26, 2021</td>
<td>Wednesday, November 24, 2021</td>
</tr>
<tr>
<td>Wednesday, June 23, 2021</td>
<td>Wednesday, December 15, 2021</td>
</tr>
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2021 MEETING DATES

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</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>Thursday, January 28, 2021</td>
<td>September</td>
<td>Thursday, September 23, 2021</td>
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<tr>
<td>February</td>
<td>Thursday, February 25, 2021</td>
<td>August</td>
<td>Thursday, August 26, 2021</td>
</tr>
<tr>
<td>March</td>
<td>Thursday, March 25, 2021</td>
<td>October</td>
<td>Thursday, October 28, 2021</td>
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<td>April</td>
<td>Thursday, April 22, 2021</td>
<td>November</td>
<td>Thursday, November 18, 2021</td>
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<tr>
<td>May</td>
<td>Thursday, May 27, 2021</td>
<td>December</td>
<td>Thursday, December 16, 2021</td>
</tr>
<tr>
<td>June</td>
<td>Thursday, June 24, 2021</td>
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Personnel Director
13300 168th Avenue
Grand Haven, MI 49417
(616) 842-5988
ZONING BOARD OF APPEALS
2021 MEETING DATES

Tuesday, January 12, 2021
Tuesday, February 9, 2021
Tuesday, March 9, 2021
Tuesday, April 13, 2021
Tuesday, May 11, 2021
Tuesday, June 8, 2021
Tuesday, July 13, 2021
Tuesday, August 10, 2021
Tuesday, September 14, 2021
Tuesday, October 12, 2021
Tuesday, November 9, 2021
Tuesday, December 14, 2021

Second
Tuesday

All meetings will be held at the Township Hall, 13300 168th Avenue, Grand Haven and will begin at 7:00 p.m.

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HR Director
13300 168th Avenue
Grand Haven, MI  49417
(616) 842-5988