

**Bloomington Historic Preservation Commission Showers City Hall
McCloskey Room, Thursday November 8, 2018, 5:00 P.M.
AMENDED AGENDA**

- I. CALL TO ORDER**
- II. ROLL CALL**
- III. APPROVAL OF MINUTES**
 - A. October 25, 2018 Minutes
- IV. CERTIFICATES OF APPROPRIATENESS**
 - Commission Review**
 - A. COA 18-80 (resubmission)**
923 E. University (Elm Heights)
Petitioner: Leonardo Olguin/ Sandra Castro
Demolish current detached garage and build a new one.
 - B. COA 18-81**
311 E. Glendora (Matlock Heights)
Petitioner: John Williams
Add solar panels to front roof of home and garage roof.
 - C. COA 18-82**
801 W. Kirkwood (Greater Prospect Hill)
Petitioner: Dan Niederman
Remove chimney above roof line
- V. DEMOLITION DELAY**
- VI. NEW BUSINESS**
 - A. Discuss problems with COA 30 Day no-action rule
- VII. OLD BUSINESS**
- VIII. COMMISSIONER COMMENTS**
- IX. PUBLIC COMMENTS**
- X. ANNOUNCEMENTS**
- XII. ADJOURNMENT**

*Auxiliary aids for people with disabilities are available upon request with adequate notice. Please call
812-349-3429 or email, human.rights@bloomington.in.gov.
Next meeting date is December 13, 2018 at 5:00 P.M. in the McCloskey Room. **Posted:** 11/01/2018*

**Bloomington Historic Preservation Commission
Showers City Hall McCloskey Room,
Thursday October 25, 2018, 5:00 P.M.
MINUTES**

I. CALL TO ORDER

Meeting was called to order by Chair, Jeff Goldin, at 5:00pm.

II. ROLL CALL

Commissioners

Leslie Abshier
Doug Bruce
Flavia Burrell
Sam DeSollar
Jeff Goldin
Deb Hutton
John Saunders
Chris Sturbaum

Absent: Lee Sandweiss

Advisory

Derek Richey

Absent: Duncan Campbell

Staff

Conor Herterich, HAND
Alison Kimmel, HAND
Eric Sader, HAND
Philippa Guthrie, Legal

Guests

Malcolm Dalglish
Doug Horn
Danielle Bachant-Bell
Shawn Eurton
Leonardo Olguin
Chris Smith
Dave Talsma

III. APPROVAL OF MINUTES

Sam DeSollar made a motion to approve the October 11, 2018 minutes. **Doug Bruce** seconded. **Motion carried 7/0/1, Leslie Abshier** abstained.

IV. CERTIFICATES OF APPROPRIATENESS

Staff Review

A. COA 18-67 (Amended)

402 S. Rogers (Greater Prospect Hill)
Petitioner: Chris Sturbaum

Change window configuration on rear of building. Replace two windows with four.

Conor Herterich gave presentation. See packet for details.

B. COA 18-77

1210 E. 2nd (Elm Heights) Petitioner: Chris Smith
Retroactive COA. Removal of two Silver Maples

Conor Herterich gave presentation. See packet for details.

C. COA 18-78

712 W. Wylie (McDoel)
Petitioner: Brent Hutchinson
Install roof-mounted solar panels

Conor Herterich gave presentation. See packet for details.

D. COA 18-79

1109 E. 1st (Elm Heights)
Petitioner: Sarah Van der Laan
Remove Silver Maple tree from front yard

Conor Herterich gave presentation. See packet for details.

Commission Review

A. COA 18-75

713 E. 7th (University Courts) Petitioner: Doug Bruce
Restoration work.

Doug Bruce left the room.

Dave Talsma commented on the details of the repair work on the building. He stated the brick above the gutter system is damaged due to the water draining off the roof. **Doug Horn** stated he is on the board for the episcopal campus community and that is why he is at the meeting.

Discussion ensued.

Doug Horn stated he would classify the work they are doing as restoring, not preserving. They will more than likely have to reset the brick and replace the brick that is in disrepair.

Chris Sturbaum stated he did not see any deteriorating brick, only brick that is falling away from the structure. **Dave Talsma** stated he has had trouble building a gutter system on brick and for this reason, they chose to put limestone on the building.

Discussion ensued.

Sam DeSollar asked if there were plans submitted for the proposed changed conditions. **Dave Talsma** stated he did not have them with him.

Chris Sturbaum stated he thinks they should figure out what they are going to do with the roof before they make decisions on the gutter system and limestone addition.

Discussion ensued.

Sam DeSollar made a motion to continue **COA 18-75**. The petitioner will provide information asked for by the commission. **Deb Hutton** seconded. **Motion carried 7/0/0**. **Doug Bruce** did not vote.

B. COA 18-76

803 E. 1st (Elm Heights)

Petitioner: Shawn Eurton

Paint brick exterior Stonington Grey.

Conor Herterich gave presentation. See packet for details.

Discussion ensued.

Deb Hutton made a motion to continue **COA 18-76**. The petitioner is to come back to the Commission showing attempts of removal. **Chris Sturbaum** seconded. **Motion carried 8/0/0**.

This property is not in the Elm Heights Historic District, only the Elm Heights Neighborhood Association, therefore a Certificate of Appropriateness is not needed and the petitioner will not be coming back to the Historic Preservation Commission.

C. COA 18-80

923 E. University (Elm Heights)

Petitioner: Leonardo Olguin

Demolish current detached garage and build a new one.

Conor Herterich gave presentation. See packet for details.

Leonardo Olguin stated the owner's mother is in a wheelchair and would like the garage to be more accessible for her mother.

Discussion ensued.

Sam DeSollar asked what kind of car the petitioner has. **Leonardo Olguin** stated it is some type of SUV, but the mother just moved from Florida and is storing her stuff in the garage. **Sam DeSollar** asked for clarification that the problem is a storage issue, not an accessibility issue. **Leonardo Olguin** stated that is correct.

Chris Sturbaum stated the guidelines would not support removal of the structure.

Leslie Abshier stated without knowing for sure if the building is original or not, they cannot make any decisions about demolishing the building. If the problem is about accessibility, the commission needs to know so they can possibly make a compromise.

John Saunders made a motion to deny **COA 18-80**. **Sam DeSollar** seconded. **Motion carried 6/0/2**. **Flavia Burrell** and **Doug Bruce** abstained.

V. DEMOLITION DELAY

Commission Review

A. Demo Delay 18-38

715 S. Fess

Petitioner: Sam de Sollar

Removal and replacement of existing porch. Remove solar panels. Replace upstairs windows and alter detached garage.

Conor Herterich gave presentation. See packet for details.

Discussion ensued. General feeling was that the changes either did not significantly alter the historic structure or returned it to something closer to its original state.

Sam DeSollar left the room during the commissioner comments.

John Saunders made a motion to release **Demo Delay 18-38**. **Chris Sturbaum** seconded. **Motion carried 7/0/0**. **Sam DeSollar** did not vote.

B. Demo Delay 18-39

314 N. Lincoln

Petitioner: John Langly

Replace front porch.

This petition was withdrawn by owner.

VI. New Business

Malcolm Dalglish came to the commission to receive feedback regarding future work he is wanting to do on his property. Discussion ensued.

Doug Bruce made a motion to adopt the updated rules and ethics as submitted. **Sam DeSollar** seconded. **Motion carried 8/0/0**.

Chris Smith stated he owns the property at 110 N Walnut (Opie Taylor's building). He came to the commission for feedback regarding the brick on the south side wall of the second floor. He stated they are having moisture issues on the inside of the building.

VII. OLD BUSINESS

Danielle Bachant-Bell gave a presentation on the proposed designation of portions the McDoel Gardens Historic District as a national historic landmark district. She provided the commission with the maps the commission previously asked for. **Chris Sturbaum** made a motion to approve and support the proposed National Register nomination for McDoel Gardens Historic District. **John Saunders** seconded. **Motion carried 8/0/0**.

VIII. COMMISSIONER COMMENTS

IX. PUBLIC COMMENTS

X. ANNOUNCEMENTS

Conor Herterich announced the Board and Commission event hosted by the City of Bloomington. The event will take place at 642 N. Morton Street on Friday, November 16, 2018, from 5:30-7:30pm.

XII. ADJOURNMENT

Meeting was adjourned at 7:35 pm.

END OF MINUTES.

COA: 18-80

Resubmission

Address: 923 E. University St

Petitioner: Leonardo Olguin

Parcel #: 53-08-04-100-045.000-009

Property is Outstanding

Circa. 1926



Background: Outstanding Tudor Revival located in the Elm Heights Historic District.

Request: Replace the original one car detached garage with a two car garage designed to accommodate wheelchair access.

Guidelines:

The Secretary of the Interior's Standards for Rehabilitation

1. The historic character of a property shall be retained and preserved. The removal of historic materials or alterations of features and spaces that characterize a property shall be avoided.

Elm Heights Design Guidelines, p. 31.

1. New structures should be sited with regard for the historic orientation of the house and with care for their impact on the site.
2. New garages and garage additions should be accessed by alleyways when available and appropriate and away from the primary facade whenever possible.

Recommendations: Staff recommends approval of COA 18-80. The design of the new garage will be sympathetic to the home in material and design. Brick salvaged from original garage will be reused on the primary façade of the new garage. New garage will enhance handicap accessibility and livability of the historic home.

APPLICATION FORM
CERTIFICATE OF APPROPRIATENESS

Case Number: 18-80

Date Filed: 10-17-18

Scheduled for Hearing: 10/25/18

Address of Historic Property: 923 E. University St.

Petitioner's Name: Leonardo Olguin

Petitioner's Address: 1123 S. Edgecombs Ave, Indianapolis, IN 46227

Phone Number/e-mail: 317-289-9659 rsanchez043@gmail.com

Owner's Name: Sandra C. Castro

Owner's Address: 923 E. University St., Bloomington, IN 47401

Phone Number/e-mail: 423-426-4763 sca2587722@aol.com

Instructions to Petitioners

The petitioner must attend a preliminary meeting with staff of the Department of Housing and Neighborhood Development during which the petitioner will be advised as to the appropriateness of the request and the process of obtaining a Certificate of Appropriateness. The petitioner must file a "complete application" with Housing and Neighborhood Department Staff no later than seven days before a scheduled regular meeting. The Historic Preservation Commission meets the second Thursday of each month at 5:00 P.M. in the McCloskey Room. The petitioner or his designee must attend the scheduled meeting in order to answer any questions or supply supporting material. You will be notified of the Commission's decision and a Certificate of Appropriateness will be issued to you. Copies of the Certificate must accompany any building permit application subsequently filed for the work described. If you feel uncertain of the merits of your petition, you also have the right to attend a preliminary hearing, which will allow you to discuss the proposal with the Commission before the hearing during which action is taken. Action on a filing must occur within thirty days of the filing date, unless a preliminary hearing is requested.

Please respond to the following questions and attach additional pages for photographs, drawings, surveys as requested.

A "Complete Application" consists of the following:

1. A legal description of the lot. _____

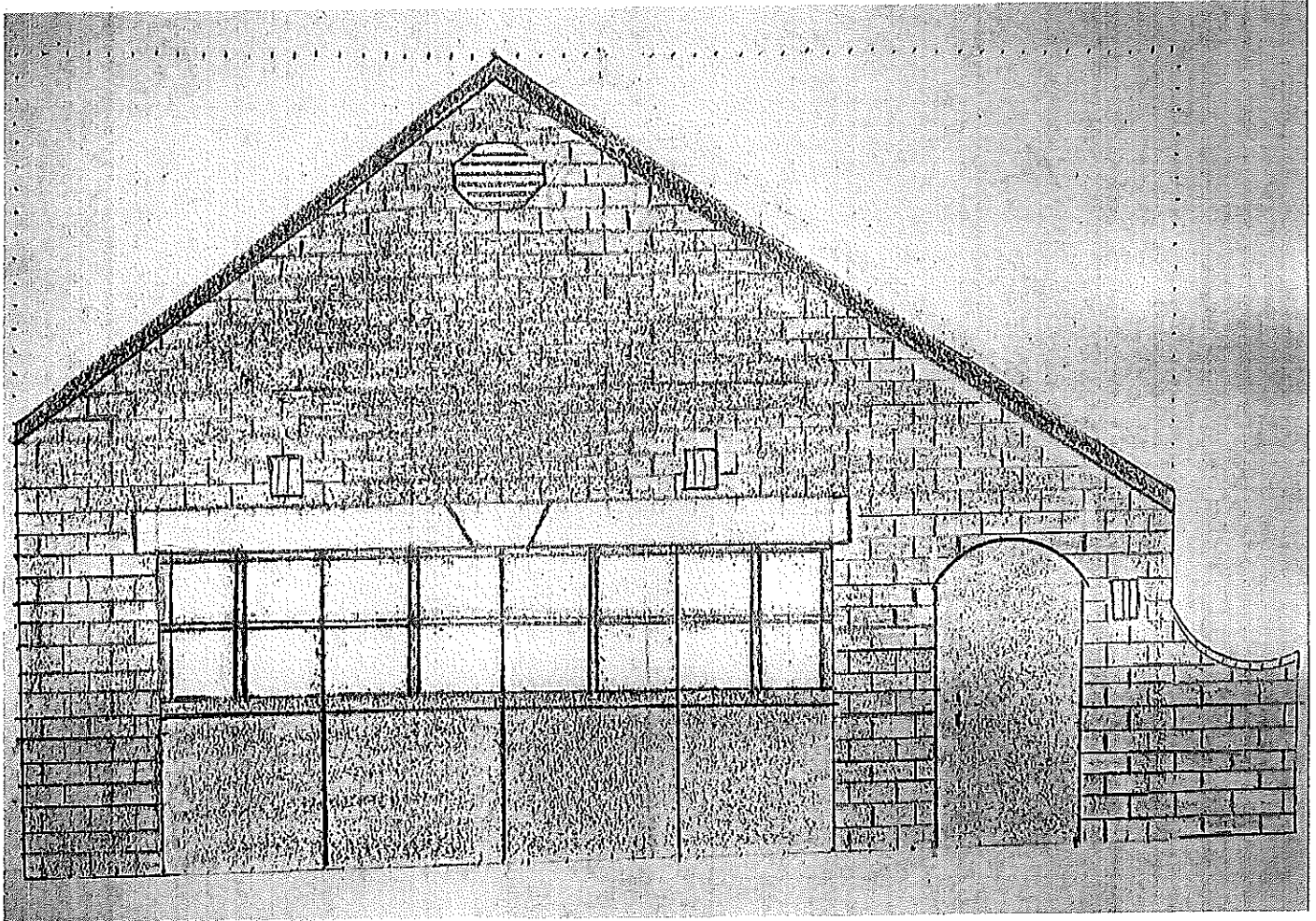
2. A description of the nature of the proposed modifications or new construction
TAKE DOWN THE EXISTING GARAGE AND BUILD SIMILAR GARAGE (colors , materials)
WITH BIGGER DIMENSIONS (26f x24f 18f high 2 car garage) THE GARAGE FINISHING WILL
BE EXACT SAME AS THE OLD GARAGE THE CHANGES IS THE SIZE,WE ADD TWO DOORS
(one on The front one on the left side) AND THREE WINDOWS (2 on the side 1 on the back)
THE FRONT FINISHING WILL BE BRICK WITH GREEN TRIM ON GABLES THE BACK AND
THE SIDES WILL BE FINISHING WITH SHED SIDING PAINTING DARK BROWN
THE GUTTER WILL BE SAME COLOR OF THE EXISTING GARAGE (brown)

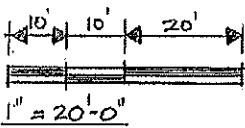
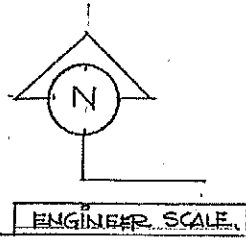
3. A description of the materials used.

EVERY MATERIAL USED IN THIS PROJECT WAS SELECTED ON BASE ON THE EXISTING
GARAGE BRICK (dark brown) LUMBER FOR FRAMING (1x4 2x4 1x6 2x6 plywood's osb)
CONCRETE FOR FUNDACIÓN AND FLOORING. SHINGLES (Owens Corning duración state
gray) SYNTHETIC FEEL PAPER. ALLUMINUM GATTERS 6" ONE PIECE BROWN. TWO
DOORS THREE WINDOWS AND ONE GARAGE DOOR SHED SIDING PAINTING ON B

4. Attach a drawing or provide a picture of the proposed modifications. You may use manufacturer's brochures if appropriate.
5. Include a scaled drawing, survey or geographic information system map showing the footprint of the existing structure and adjacent thoroughfares, Geographic Information System maps may be provided by staff if requested. Show this document to Planning Department Staff in order to ascertain whether variances or zoning actions are required.
6. Affix at least three photographs showing the existing full facade at each street frontage and the area of modification. If this petition is a proposal for construction of an entirely new structure or accessory building, include photographs of adjacent properties taken from the street exposure.

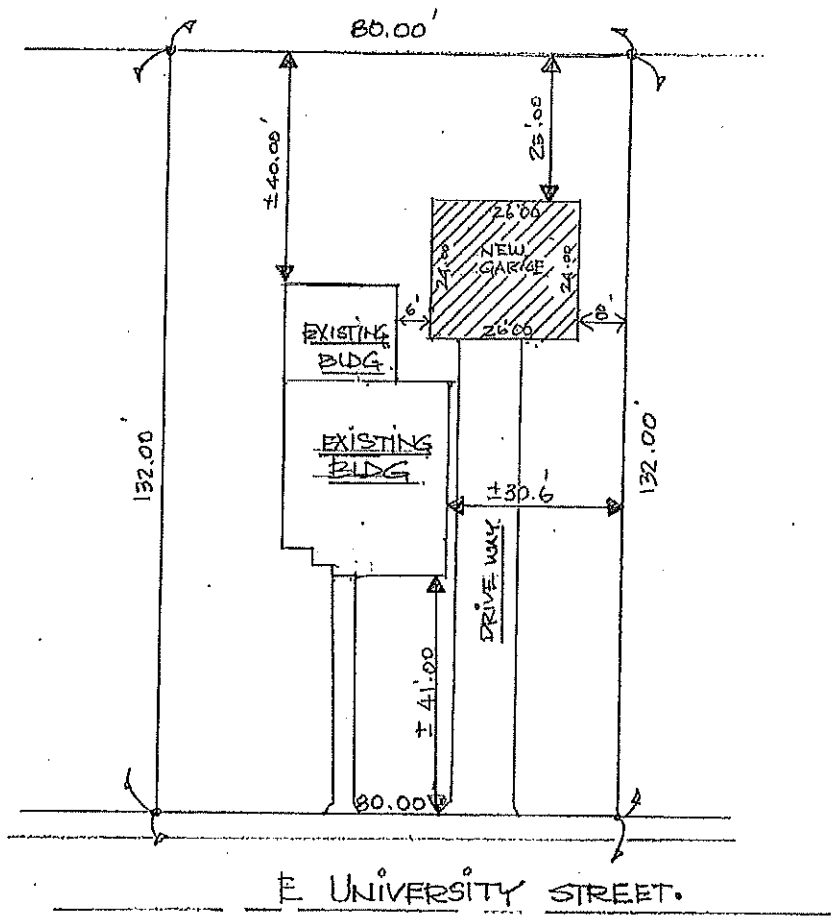
If this application is part of a further submittal to the Board of Zoning Appeals for a Conditional Use or development standard variance, please describe the use proposed and modification to the property which will result.





SITE PLAN LOCATION.
 923 E UNIVERSITY ST.
 BIRMINGHAM, IN.

Project - CASTRO GARAGE + GARAGE
 DEMO
 Address - 923 UNIVERSITY ST E
 Parcel - 51-08-07-100-015.000-009
 App # - 64618 Twp - PR-15

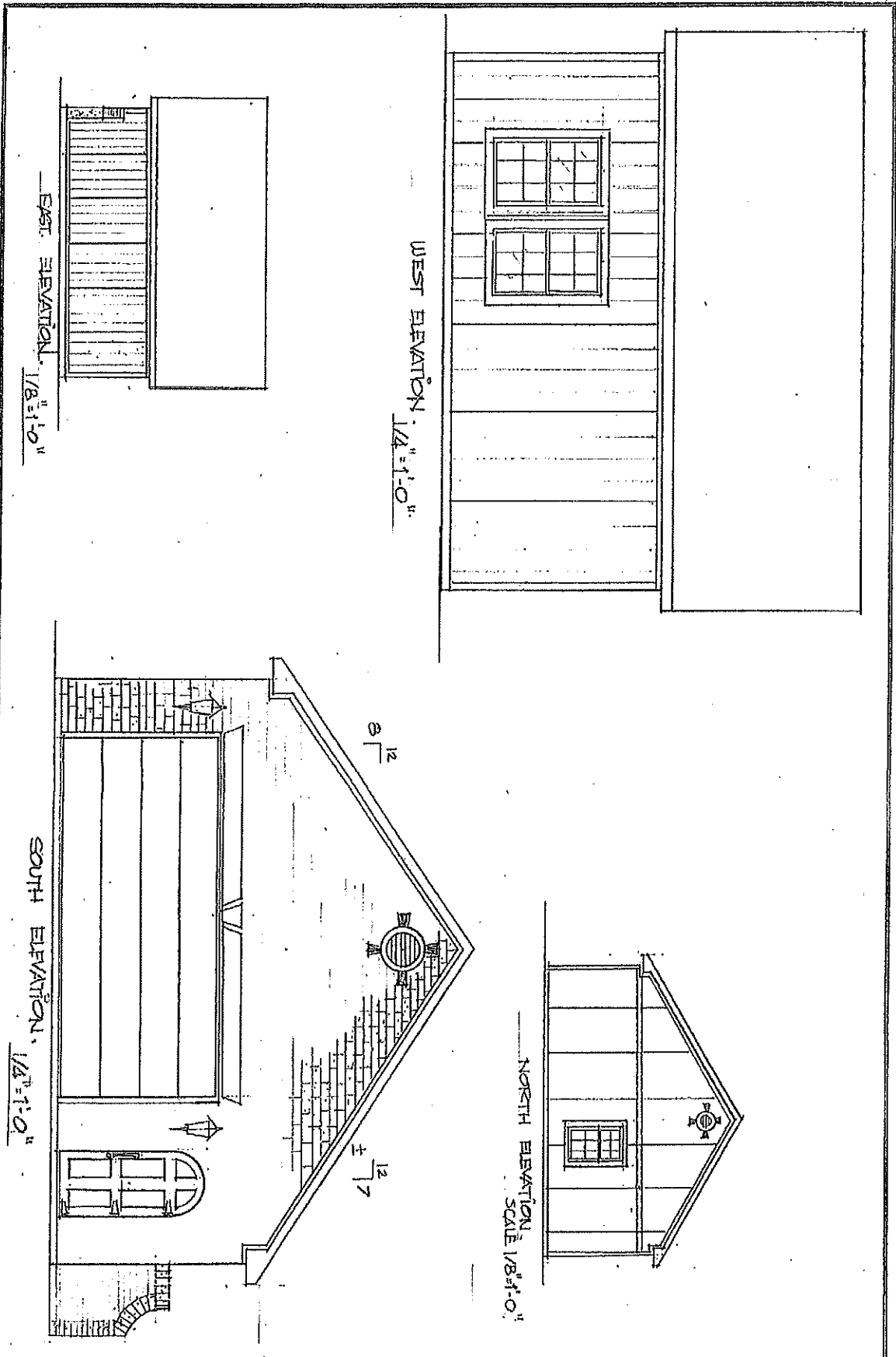


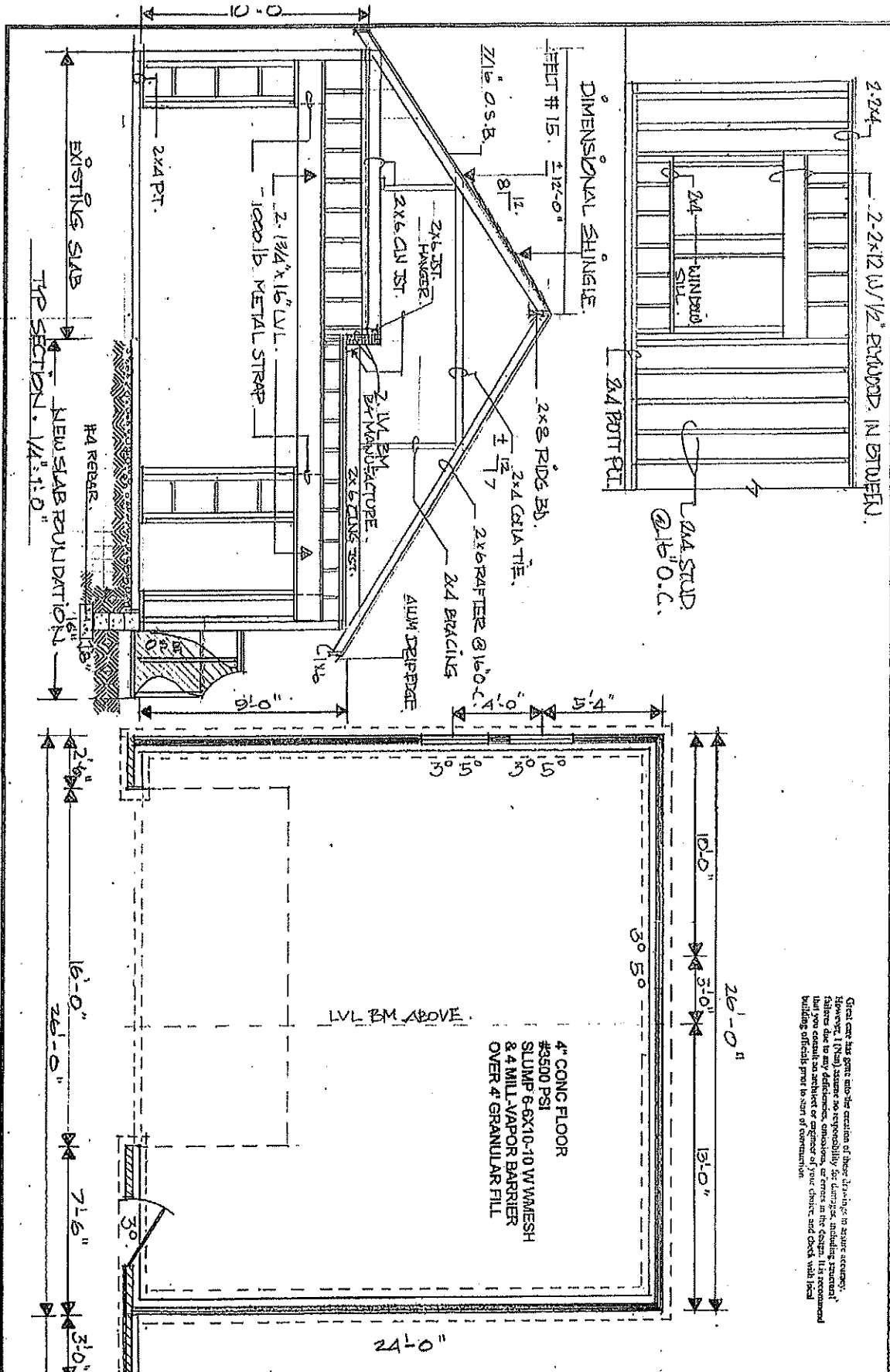
PAGE #:
A-11

SOFTPLAN
 ARCHITECTURAL DESIGN SOFTWARE

Drafting Design
 ARCHITECT
 Dan Koonce
 20750 E. Lincoln
 Suite 100
 Ellettsville, IN 47120

SITE PLAN
 SCALE: 1" = 20'-0" (ENGINEER)
 DATE: SEPT 29 - 2018





Great care has been taken in the execution of these drawings in every respect. The architect (or his) assumes no responsibility for damages, including structural, arising from the use of these drawings, or errors in the design. It is recommended that you consult an independent engineer of your choice and check with local building officials prior to start of construction.

4" CONG FLOOR
 #4500 PSI
 SLUMP 6-6X10-10 W/MESH
 & 4 MILL VAPOR BARRIER
 OVER 4" GRANULAR FILL

LVL. BM. ABOVE.

LOCATION 923 E UNIVERSITY ST.
 BLOOMINGTON, IN.
 HOOSIER G.C. RICARDO SANCHEZ
 217-289-9659

SCALE: 1/4"=1'-0"
 DATE: SEPT -29- 2018

SOFTPLAN
 ARCHITECTURAL DESIGN SOFTWARE

Drafting Design
 INC.
 1115 E. UNIVERSITY ST.
 BLOOMINGTON, IN 47403
 317-326-1234

PAGE #
A-1

COA: 18-81

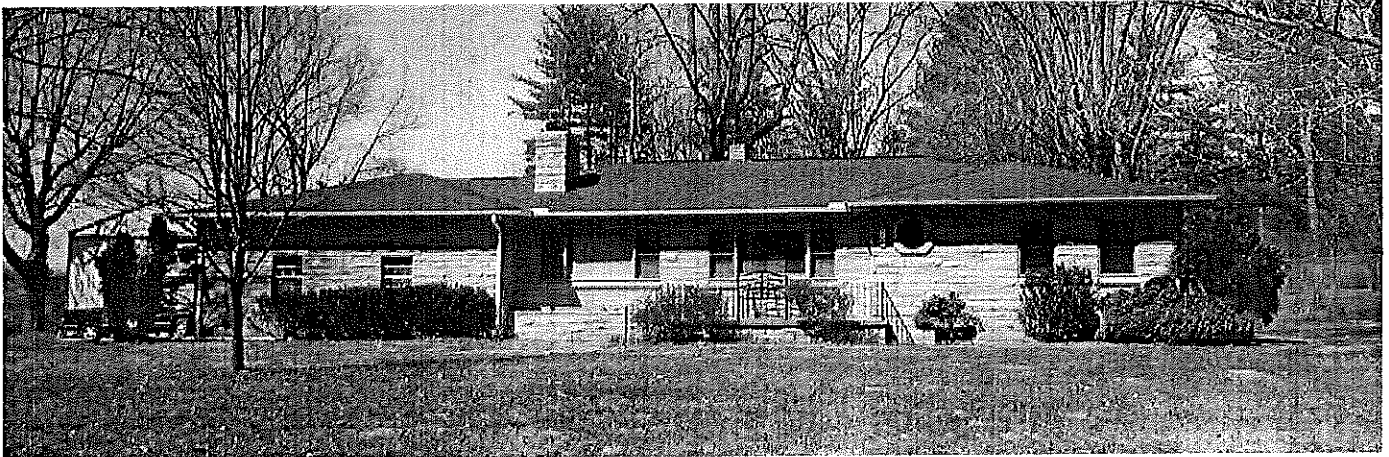
Address: 311 E. Glendora Drive

Petitioner: John Williams

Parcel #: 53-05-28-203-038.000-005

Property is Contributing

Circa. 1960



Background: Located in the Matlock Heights historic District, this unaltered limestone Ranch style home is listed as contributing structure in the SHAARD survey.

Request: Add two rows of seven solar panels measuring 60" x 40" per panel to the front portion of the house roof (north elevation). Add six solar panels of the same dimensions to the garage roof.

Guidelines:

The Secretary of the Interior's Standards for the Treatment of Historic Properties, p. 101

1. It is recommended installing... solar panels when required for a new use so that they are inconspicuous on the site and from the public right-of-way and do not damage or obscure character-defining historic features.

Matlock Heights Design Guidelines, p. 37

"Recommended"

1. Locate solar panels on the house roof at same pitch as the existing roof.
2. Position close to the roof surface and as inconspicuously as possible.
3. Alternatively place solar panels in the backyard or on the garage roof. Creative use and placement of alternative energy sources is encouraged.

Staff Decision: Staff recommends approval of COA 18-81. Although it would be preferable to place solar panels on rear-facing section of the roof, large trees in the backyard would block sunlight and reduce solar efficiency.

APPLICATION FORM
CERTIFICATE OF APPROPRIATENESS

Case Number: 18-81
Date Filed: 10/31/18
Scheduled for Hearing: 11/8/18

Address of Historic Property: 311 GLENDORA DR 47408
Petitioner's Name: JOHN M. WILLIAMS
Petitioner's Address: 311 GLENDORA DR
Phone Number/e-mail: 812-360-8249 merrivether311@gmail.com
Owner's Name: AS ABOVE
Owner's Address: AS ABOVE
Phone Number/e-mail: AS ABOVE

Instructions to Petitioners

The petitioner must attend a preliminary meeting with staff of the Department of Housing and Neighborhood Development during which the petitioner will be advised as to the appropriateness of the request and the process of obtaining a Certificate of Appropriateness. The petitioner must file a "complete application" with Housing and Neighborhood Department Staff no later than seven days before a scheduled regular meeting. The Historic Preservation Commission meets the second Thursday of each month at 5:00 P.M. in the McCloskey Room. The petitioner or his designee must attend the scheduled meeting in order to answer any questions or supply supporting material. You will be notified of the Commission's decision and a Certificate of Appropriateness will be issued to you. Copies of the Certificate must accompany any building permit application subsequently filed for the work described. If you feel uncertain of the merits of your petition, you also have the right to attend a preliminary hearing, which will allow you to discuss the proposal with the Commission before the hearing during which action is taken. Action on a filing must occur within thirty days of the filing date, unless a preliminary hearing is requested.

Please respond to the following questions and attach additional pages for photographs, drawings, surveys as requested.

A "Complete Application" consists of the following:

013-41450-00
NW QUARTER OF SECTION 28
TOWNSHIP 9 NORTH
RANGE 1 WEST

1. A legal description of the lot. # 59 in Matlock Heights
2. A description of the nature of the proposed modifications or new construction:

WISH TO ADD SOLAR PANELS TO ROOFTOP OF RESIDENCE
The 20 panels will be split between the main house
and garage roof.

3. A description of the materials used.

20 LG335N1C-A5, 335 WATT SOLAR MODULES
Panel size is 66" x 40". There will be 2 rows of
7 panels on the main house roof and 6 panels
on the garage roof.

4. Attach a drawing or provide a picture of the proposed modifications. You may use manufacturer's brochures if appropriate.

5. Include a scaled drawing, survey or geographic information system map showing the footprint of the existing structure and adjacent thoroughfares, Geographic Information System maps may be provided by staff if requested. Show this document to Planning Department Staff in order to ascertain whether variances or zoning actions are required.

6. Affix at least three photographs showing the existing full facade at each street frontage and the area of modification. If this petition is a proposal for construction of an entirely new structure or accessory building, include photographs of adjacent properties taken from the street exposure.

If this application is part of a further submittal to the Board of Zoning Appeals for a Conditional Use or development standard variance, please describe the use proposed and modification to the property which will result.

Mechanical Properties

Cells	6 x 10
Cell Vendor	LG
Cell Type	Monocrystalline / N-type
Cell Dimensions	161.7 x 161.7 mm / 6 inches
# of Busbar	12 (Multi Wire Busbar)
Dimensions (L x W x H)	1686 x 1016 x 40 mm 66.38 x 40 x 1.57 inch
Front Load	6000Pa
Rear Load	5400Pa
Weight	18 kg
Connector Type	MC4
Junction Box	IP68 with 3 Bypass Diodes
Cables	1000 mm x 2 ea
Glass	High Transmission Tempered Glass
Frame	Anodized Aluminium

Certifications and Warranty

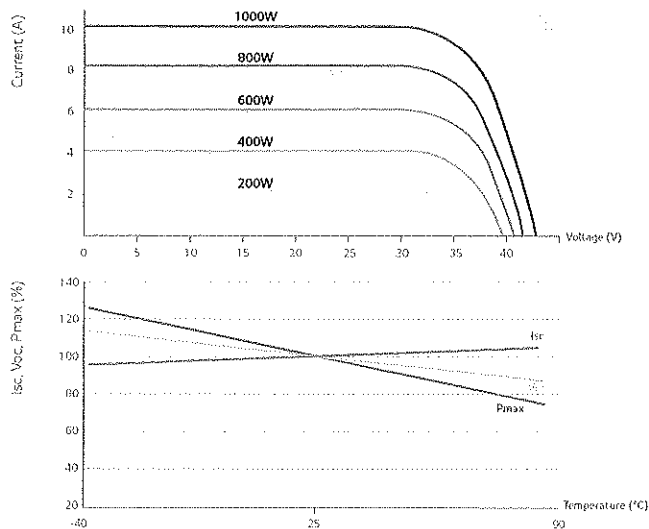
Certifications	IEC 61215, IEC 61730-1/-2 UL 1703 IEC 61701 (Salt mist corrosion test) IEC 62716 (Ammonia corrosion test) ISO 9001
Module Fire Performance (USA)	Type 1
Fire Rating (CANADA)	Class C (ULC / ORD C1703)
Product Warranty	12 years
Output Warranty of Pmax	Linear warranty**

** 1) 1st year: 98%, 2) After 1st year: 0.55% annual degradation, 3) 25 years: 84.8%

Temperature Characteristics

NOCT	45 ± 3 °C
Pmpp	-0.37%/°C
Voc	-0.27%/°C
Isc	0.03 %/°C

Characteristic Curves



Electrical Properties (STC *)

Module	LG335N1C-A5
Maximum Power (Pmax)	335
MPP Voltage (Vmpp)	34.1
MPP Current (Impp)	9.83
Open Circuit Voltage (Voc)	41.0
Short Circuit Current (Isc)	10.49
Module Efficiency	19.6
Operating Temperature	-40 ~ +90
Maximum System Voltage	1,000
Maximum Series Fuse Rating	20
Power Tolerance (%)	0 ~ +3

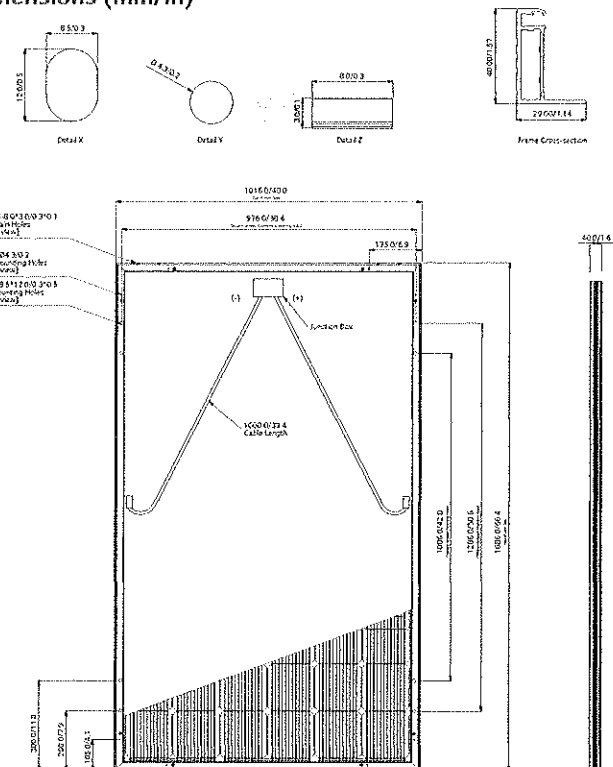
* STC (Standard Test Condition) Irradiance 1,000 W/m², Ambient Temperature 25 °C, AM 1.5
* The nameplate power output is measured and determined by LG Electronics at its sole and absolute discretion.
* The Typical change in module efficiency at 200W/m² in relation to 1000W/m² is -2.0%

Electrical Properties (NOCT*)

Module	LG335N1C-A5
Maximum Power (Pmax)	247
MPP Voltage (Vmpp)	31.5
MPP Current (Impp)	7.83
Open Circuit Voltage (Voc)	38.2
Short Circuit Current (Isc)	8.44

* NOCT (Nominal Operating Cell Temperature) Irradiance 800W/m², ambient temperature 20 °C, wind speed 1m/s

Dimensions (mm/in)



North America Solar Business Team
LG Electronics U.S.A. Inc
1000 Sylvan Ave, Englewood Cliffs, NJ 07632

Contact: lg.solar@lge.com
www.lgsolarusa.com

Product specifications are subject to change without notice.

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01/01/2017

Innovation for a Better Life





SolarEdge Single Phase Inverters for North America

SE3000H-US / SE3800H-US / SE5000H-US / SE6000H-US /
SE7600H-US



INVERTERS

Optimized installation with HD-Wave technology

- ▀ Specifically designed to work with power optimizers
- ▀ Record-breaking efficiency
- ▀ Integrated Arc Fault protection and Rapid Shutdown for NEC 2014 and 2017, per article 690.11 and 690.12
- ▀ Extremely small
- ▀ High reliability without any electrolytic capacitors
- ▀ Built-in module-level monitoring
- ▀ Outdoor and indoor installation
- ▀ Optional: Revenue grade data, ANSI C12.20 Class 0.5 (0.5% accuracy)





Single Phase Inverters for North America

SE3000H-US / SE3800H-US / SE5000H-US / SE6000H-US / SE7600H-US

	SE3000H-US	SE3800H-US	SE5000H-US	SE6000H-US	SE7600H-US	
OUTPUT						
Rated AC Power Output	3000	3800	5000	6000	7600	VA
Max. AC Power Output	3000	3800	5000	6000	7600	VA
AC Output Voltage Min.-Nom.-Max. (183 - 208 - 229)	-	-	✓	-	-	Vac
AC Output Voltage Min.-Nom.-Max. (211 - 240 - 264)	✓	✓	✓	✓	✓	Vac
AC Frequency (Nominal)	59.3 - 60 - 60.5 ⁽¹⁾			-	-	Hz
Maximum Continuous Output Current 208V	-	-	24	-	-	A
Maximum Continuous Output Current 240V	12.5	16	21	25	32	A
GFDI Threshold	1			-	-	A
Utility Monitoring, Islanding Protection, Country Configurable Thresholds	Yes			-	-	
INPUT						
Maximum DC Power	4650	5900	7750	9300	11800	W
Transformer-less, Ungrounded	Yes			-	-	
Maximum Input Voltage	480			-	-	Vdc
Nominal DC Input Voltage	380			400		Vdc
Maximum Input Current 208V	-	-	15.5	-	-	Adc
Maximum Input Current 240V	8.5	10.5	13.5	16.5	20	Adc
Max. Input Short Circuit Current	45			-	-	Adc
Reverse-Polarity Protection	Yes			-	-	
Ground-Fault Isolation Detection	600ka Sensitivity			-	-	
Maximum Inverter Efficiency	99	99.2		-	-	%
CEC Weighted Efficiency	99			-	-	%
Nighttime Power Consumption	< 2.5			-	-	W
ADDITIONAL FEATURES						
Supported Communication Interfaces	RS485, Ethernet, ZigBee (optional), Cellular (optional)					
Revenue Grade Data, ANSI C12.20	Optional ⁽²⁾					
Rapid Shutdown - NEC 2014 and 2017 690.12	Automatic Rapid Shutdown upon AC Grid Disconnect					
STANDARD COMPLIANCE						
Safety	UL1741, UL1699B, CSA C22.2, Canadian AFCI according to T.I.L. M-07					
Grid Connection Standards	IEEE1547, Rule 21 ⁽³⁾ , Rule 14 (HI)					
Emissions	FCC Part 15 Class B					
INSTALLATION SPECIFICATIONS						
AC Output Conduit Size / AWG Range	0.75-1" Conduit / 14-6 AWG					
DC Input Conduit Size / # of Strings / AWG Range	0.75-1" Conduit / 1-2 strings / 14-6 AWG					
Dimensions with Safety Switch (HxWxD)	17.7 x 14.6 x 6.8 / 450 x 370 x 174					In / mm
Weight with Safety Switch	25.3 / 11.5					lb / kg
Noise	< 25					dBA
Cooling	Natural Convection					
Operating Temperature Range	-13 to +140 / -25 to +60 ⁽⁴⁾ (-40°F / -40°C option) ⁽⁵⁾					°F / °C
Protection Rating	NEMA 3R (Inverter with Safety Switch)					

⁽¹⁾ For other regional settings please contact SolarEdge support

⁽²⁾ Revenue grade inverter P/N: SExxxxH-US000NNC2

⁽³⁾ Pending certification

⁽⁴⁾ Power de-rating from 50°C

⁽⁵⁾ -40 version P/N: SExxxxH-US000NNU4



RoHS

**Stumpners Building Services, Inc.
West Roof: Summary Results**

Solar Obstruction Data (Part 1 of 2)

Month	Unshaded % of Ideal Site Azimuth=180 Tilt=39.1	Ideal Unshaded Solar Radiation Azimuth=180(S) Tilt=39.1 kWh/m ² /day	Actual Unshaded Solar Radiation Azimuth=176.0 Tilt=15.0 kWh/m ² /day	Actual Shaded Solar Radiation Azimuth=176.0 Tilt=15.0 kWh/m ² /day	Ideal Unshaded AC Energy (kWh) Azimuth=180.0 Tilt=39.10	Deciduous Area(s) Solar Radiation kWh/m ² /day Transparency = 30%	Unshaded % of Actual Site Azimuth=176.0 Tilt=15.00	Total Solar Resource Fraction (TSRF) Azimuth=176.0 Tilt=15.00	Ideal Site Efficiency Azimuth=180(S) Tilt=39.1
January	61.7%	3.00	2.44	1.51	0.04	0.04	62.0%	50.3%	61.3%
February	85.5%	3.95	3.43	2.90	0.06	0.06	84.5%	73.4%	84.4%
March	88.7%	4.66	4.39	3.85	0.08	0.08	87.7%	82.5%	87.9%
April	84.9%	5.20	5.29	4.50	0.00	0.00	85.1%	86.5%	86.3%
May	88.8%	5.58	6.00	5.27	0.00	0.00	87.9%	94.5%	89.3%
June	89.3%	5.72	6.35	5.57	0.00	0.00	87.7%	97.3%	88.9%
July	88.8%	5.88	6.42	5.58	0.00	0.00	87.0%	95.0%	88.3%
August	85.6%	5.48	5.67	4.82	0.00	0.00	85.0%	87.8%	86.3%
September	84.0%	5.41	5.12	4.29	0.00	0.00	83.8%	79.3%	84.5%
October	84.3%	4.60	3.99	3.38	0.00	0.00	84.7%	73.4%	84.5%
November	71.0%	3.22	2.63	1.87	0.09	0.09	71.1%	58.1%	70.3%
December	53.3%	2.64	2.11	1.13	0.00	0.00	53.7%	43.0%	52.9%
Totals	80.5% Unweighted Yearly Avg	55.35 Effect: 100.0% Sun Hrs: 4.61	53.83 Effect: 97.3% Sun Hrs: 4.49	44.67 Effect: 80.7% Sun Hrs: 3.72	0.27 Effect: 0.5% Sun Hrs: 0.02	83.0% Unweighted Yearly Avg	80.7% Unweighted Yearly Avg	82.9% Unweighted Yearly Avg	

Solar Obstruction Data (Part 2 of 2)

Month	AC Energy Efficiency Azimuth=176.0 Tilt=15.0	Actual Shaded AC Energy (kWh) Azimuth=176.03 Tilt=15.00	Actual Unshaded AC Energy (kWh) Azimuth=176.0 Tilt=15.00	Ideal Unshaded AC Energy (kWh) Azimuth=180.0 Tilt=39.10	PV Solar Cost Savings 0.13 (\$/kWh)
January	52.4%	101.02	131.19	164.45	\$13.13
February	75.2%	154.31	168.73	195.69	\$20.06
March	85.0%	215.29	230.66	244.42	\$27.99
April	89.3%	240.32	262.47	256.98	\$31.24
May	96.9%	280.52	301.18	278.93	\$36.47
June	100.0%	283.07	304.97	272.32	\$36.80
July	97.4%	290.88	315.54	286.21	\$37.81
August	90.5%	255.19	279.63	268.69	\$33.17
September	81.1%	225.44	249.61	263.29	\$29.31
October	75.6%	187.39	204.43	236.82	\$24.36
November	59.7%	109.06	132.15	163.73	\$14.18
December	44.6%	79.53	111.37	143.14	\$10.34
Totals	82.5%	2,422.00	2,691.93	2,774.67	\$314.86

Stumpners Building Services, Inc.

West Roof: Summary Results

Array Type	Fixed Angle
Tilt Angle	15.00 deg
Ideal Tilt Angle	39.10 deg
Azimuth	176.03 deg
Ideal Azimuth	180.00 deg
Total Solar Resource Fraction (TSRF)	80.7%
AC Energy Efficiency	82.5%

Combined Inverter Efficiency	97.5%
System Loss Percentage	11.4%
DC to AC Derate Factor	0.864
Unshaded Percent	80.7%

Array DC Rating	1.62 kW
Array AC Rating	1.4 kW

Inverter 1	SolarEdge Technologies Inc, SE7600A-US (240V) (8,350 Watts, Efficiency = 97.5%)
Module Name	LG Electronics Inc., LG335N1C-A5 (335 Watts)
Module Type	Premium
PV Optimizer	SolarEdge
Equipment Count	1 inverter & 6 modules

Inverter/Module Configuration:

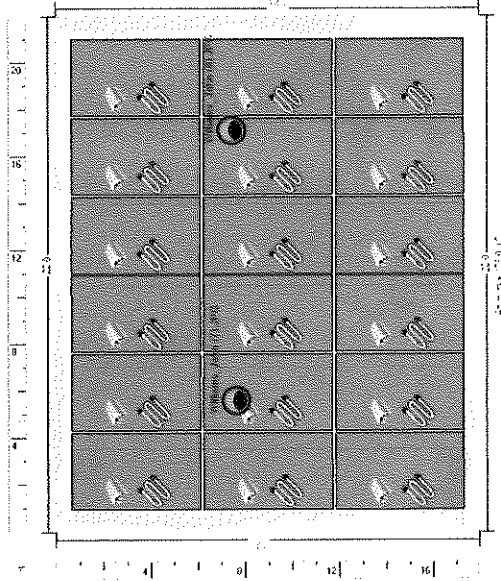
- Inverter 1
- 1 string - 6 modules
- 1 string - 0 modules

**Stumpners Building Services, Inc.
West Roof: Site Image**



West Roof: 2014, 12/16/16

**Stumpners Building Services, Inc.
Main Roof: Solar Target**



Percent of Total Annual Insolation

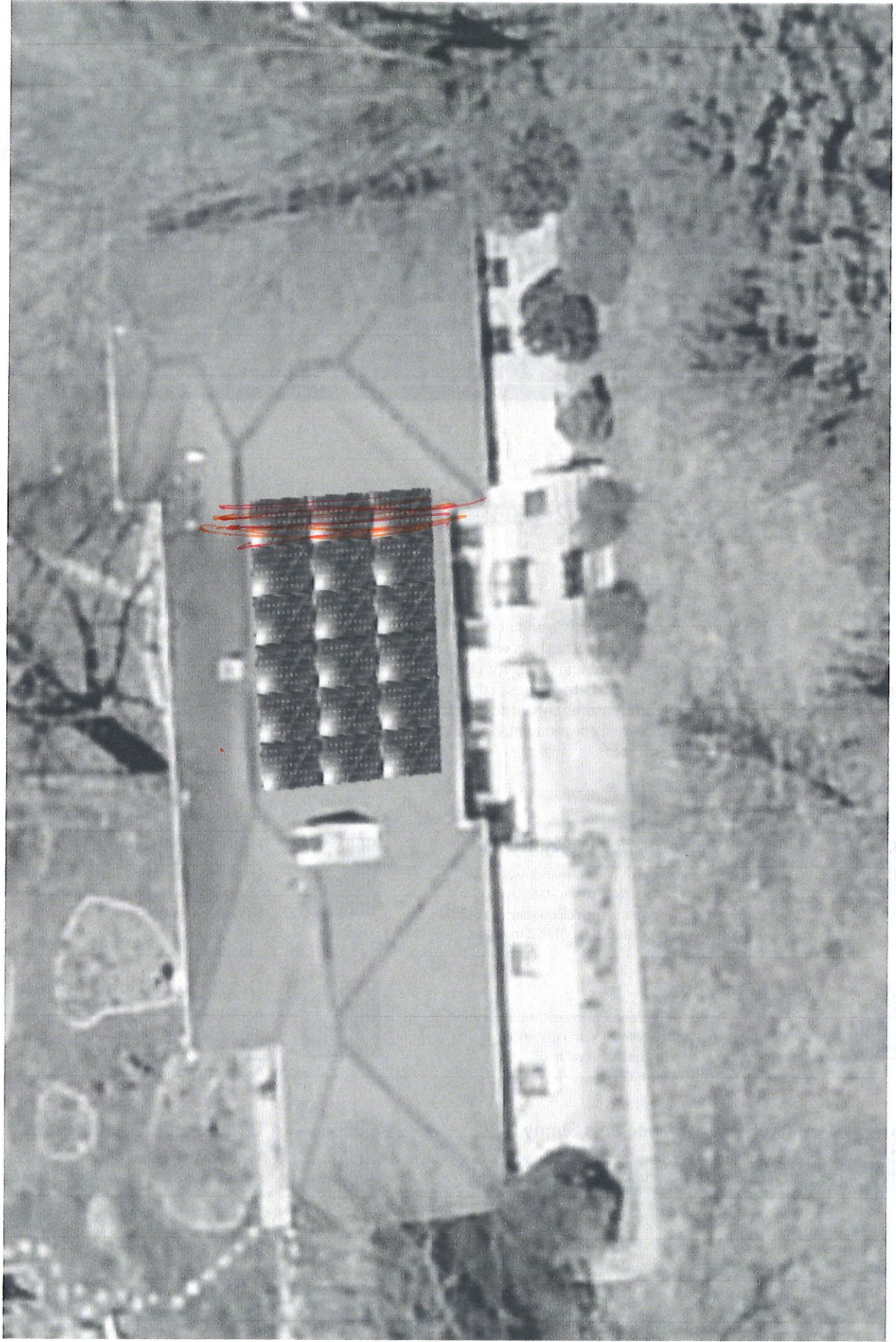


79-75%

**Roof Setbacks
Spacing Between Modules**

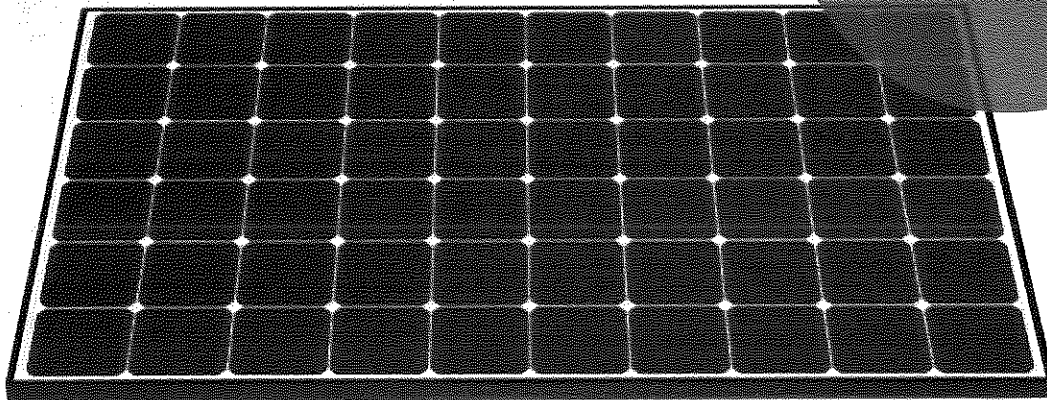
Top = 0 in, Right = 0 in, Bottom = 0 in, Left = 0 in
Vertical = 1 in, Horizontal = 0.25 in

**Stumpners Building Services, Inc.
Main Roof: Site Image**





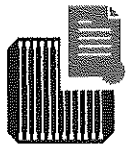
Innovation for a Better Life



LG NeON[®] 2 LG335N1C-A5

60 cell

LG's new module, LG NeON[®] 2, adopts Cello technology. Cello technology replaces 3 busbars with 12 thin wires to enhance power output and reliability. LG NeON[®] 2 demonstrates LG's efforts to increase customer's values beyond efficiency. It features enhanced warranty, durability, performance under real environment, and aesthetic design suitable for roofs.



Enhanced Performance Warranty

LG NeON[®] 2 has an enhanced performance warranty. The annual degradation has fallen from -0.6%/yr to -0.55%/yr. Even after 25 years, the cell guarantees 1.2% more output than the previous LG NeON[®] 2 modules.



High Power Output

Compared with previous models, the LG NeON[®] 2 has been designed to significantly enhance its output efficiency, thereby making it efficient even in limited space.



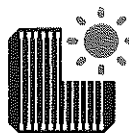
Aesthetic Roof

LG NeON[®] 2 has been designed with aesthetics in mind; thinner wires that appear all black at a distance. The product may help increase the value of a property with its modern design.



Outstanding Durability

With its newly reinforced frame design, LG has extended the warranty of the LG NeON[®] 2 for an additional 2 years. Additionally, LG NeON[®] 2 can endure a front load up to 6000 Pa, and a rear load up to 5400 Pa.



Better Performance on a Sunny Day

LG NeON[®] 2 now performs better on sunny days thanks to its improved temperature coefficient.



Double-Sided Cell Structure

The rear of the cell used in LG NeON[®] 2 will contribute to generation, just like the front; the light beam reflected from the rear of the module is reabsorbed to generate a great amount of additional power.

About LG Electronics

LG Electronics is a global player who has been committed to expanding its capacity, based on solar energy business as its future growth engine. We embarked on a solar energy source research program in 1985, supported by LG Group's rich experience in semi-conductor, LCD, chemistry, and materials industry. We successfully released the first Mono X[®] series to the market in 2010, which were exported to 32 countries in the following 2 years, thereafter. In 2013, LG NeON[®] (previously known as Mono X[®] NeON) won "Intersolar Award", which proved LG is the leader of innovation in the industry.

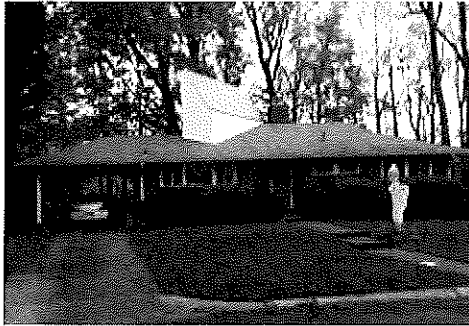




J. SOLAR PANELS AND GREEN ALTERNATIVES

“Recommended”

Locate solar panels on the house roof at same pitch as the existing roof. Position close to the roof surface and as inconspicuously as possible. Alternatively place solar panels in the backyard or on the garage roof. Creative use and placement of alternative energy sources is encouraged.



“Acceptable”

Install at elevations not significantly above the roof surface. Install as inconspicuous as possible while still functional.

K. ACCESSIBILITY

“Recommended”

The preferred location of ramps is away from front facade of the house and installed in an easily removal fashion without causing damage to the historic house.

“Acceptable”

Ramps are generally permitted, front or rear of lot.

COA: 18-82

Address: 801 W. Kirkwood

Petitioner: Dan Niederman

Parcel #: 53-05-32-411-013.000-005

Property is Contributing

Circa. 1900



Background: Located in the Greater Prospect Hill District, this California Bungalow style home is listed as contributing structure in the SHAARD survey.

Request: HAND staff is requesting removal of the brick chimney above the roofline as part of low-income Home Repair grant project.

Guidelines:

The Secretary of the Interior's Standards for the Treatment of Historic Properties, p. 45

1. Not Recommended: Replacing an entire roof feature, such as a chimney or dormer, when limited replacement of deteriorated or missing components is appropriate.

Greater prospect Hill Design Guidelines, p. 25

1. Prioritize the retention of the roof's original shape as viewed from the public way façade. Chimneys may be removed unless they are an outstanding characteristic of the property.

Staff Decision: Staff recommends approval of COA 18-82 due to the following:

1. The chimney is not a prominent nor character defining feature of the house.
2. Removing the chimney will be more effective long term solution to mitigate future water damage.
3. Removal will result in much lower project cost than repair. Funds saved will be used for future projects that help low-income home owners.

APPLICATION FORM
CERTIFICATE OF APPROPRIATENESS

Case Number: 18-82
Date Filed: 11/2/18
Scheduled for Hearing: 11/8/18

RECEIVED
NOV 02 2018
BY: [Signature]

Address of Historic Property: 801 W Kirkwood
Petitioner's Name: COB HAND - Dan Niederman
Petitioner's Address: COB
Phone Number/e-mail: 812-349-3401
Owner's Name: Ben Kovitz
Owner's Address: 801 W. Kirkwood
Phone Number/e-mail: bkovitz@indiana.edu

Instructions to Petitioners

The petitioner must attend a preliminary meeting with staff of the Department of Housing and Neighborhood Development during which the petitioner will be advised as to the appropriateness of the request and the process of obtaining a Certificate of Appropriateness. The petitioner must file a "complete application" with Housing and Neighborhood Department Staff no later than seven days before a scheduled regular meeting. The Historic Preservation Commission meets the second Thursday of each month at 5:00 P.M. in the McCloskey Room. The petitioner or his designee must attend the scheduled meeting in order to answer any questions or supply supporting material. You will be notified of the Commission's decision and a Certificate of Appropriateness will be issued to you. Copies of the Certificate must accompany any building permit application subsequently filed for the work described. If you feel uncertain of the merits of your petition, you also have the right to attend a preliminary hearing, which will allow you to discuss the proposal with the Commission before the hearing during which action is taken. Action on a filing must occur within thirty days of the filing date, unless a preliminary hearing is requested.

Please respond to the following questions and attach additional pages for photographs, drawings, surveys as requested.

A **“Complete Application”** consists of the following:

1. A legal description of the lot. 53-05-32-411-013.000-005

2. A description of the nature of the proposed modifications or new construction:
Removal of chimney above roof line. More affordable, and therefore a more appropriate use of limited Emergency
Home Repair grant funds to remove the chimney as opposed to repairing. Also better assurance that
future water leakage will not occur if chimney is removed in comparison to trying to flash. It is more
costly and difficult to repair/flash the aged chimney as opposed to having it removed. If new flashing is
added it likely will take away from any character contributions the chimney may have anyways.

3. A description of the materials used.
N/A

4. Attach a drawing or provide a picture of the proposed modifications. You may use manufacturer’s brochures if appropriate.

5. Include a scaled drawing, survey or geographic information system map showing the footprint of the existing structure and adjacent thoroughfares, Geographic Information System maps may be provided by staff if requested. Show this document to Planning Department Staff in order to ascertain whether variances or zoning actions are required.

6. Affix at least three photographs showing the existing full facade at each street frontage and the area of modification. If this petition is a proposal for construction of an entirely new structure or accessory building, include photographs of adjacent properties taken from the street exposure.

If this application is part of a further submittal to the Board of Zoning Appeals for a Conditional Use or development standard variance, please describe the use proposed and modification to the property which will result.





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Bloomington, Indiana
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