DESIGN REVIEW BOARD

Monday, April 19th, 2021
4:30 PM

DEPARTMENT OF PLANNING, PRESERVATION & SUSTAINABILITY

www.charleston-sc.gov/drb
MEETING PROTOCOL

• Staff will control the Powerpoint presentation that includes everything submitted by the applicant by the deadline, in accordance with the Submittal Requirements. Applicants simply need to ask staff to advance to the next slide during your presentation.

• Applicants, staff and Board members are required to give their name whenever speaking.

• Video and microphone has been disabled for all attendees. Attendees (not Board members or staff) will only be given the capabilities to speak when they are called on during the public comment period.

• Chat and the Q & A functions have been disabled for everyone.

• **Public Comment:**
  o The applicants (all team members) and the public have been required to register, indicate the project they wish to comment on, and submit any documents in advance of the meeting.

  o Just as in an in-person meeting, all applications heard today are part of a public meeting format. If you have registered and will speak during the public comment portion of the meeting you will need to state your name and address for the record.

  o Those members of the public that have registered will be called in order by project.

  o Members of the public that speak are encouraged to remain in the meeting for the completion of the item they have commented on.

  o Staff will call on the registered members of the public to speak for each project. Unregistered members of the public who raise their hand will not be called on.

• **Board:**
  o Board members should open the “Participants” panel so that each Board member can see the status of other Board members’ microphones and cameras.
MEETING PROTOCOL (continued)

- Board members will be polled by the chair for comments and for their vote on a motion. Each member, when voting, should respond “Yea, in favor” or “Nea, not in favor”. The Chairman shall re-read the motion verbatim and the Board member making the motion should correct the Chairman if he has not re-read the motion accurately.

- If a Board member needs to recuse, he will be temporarily removed from the meeting and placed back in the meeting at the start of the next agenda item.

- If the Board needs to go into Executive Session, they will call into a separate conference line and all video and audio on Zoom will be temporarily turned off until they are ready to return to the regular meeting.

- Staff will issue meeting results, including staff comments and Board Motion to the applicant following the meeting. Results will also be posted on the City website at www.charleston-sc.gov/drb.

- For additional information:
  - Contact DRB@charleston-sc.gov
  - Visit www.charleston-sc.gov/drb if you are experiencing technical difficulties during the meeting.

- These proceedings are being recorded.
Agenda Item #1

534 SAVANNAH HWY.
TMS # 421-03-00-167

Request approval for the demolition of a 2-story single family home older than 50 years of age.
DRB DEMOLITION REQUEST

REQUESTING DEMOLITION OF THE STRUCTURE AT 534 SAVANNAH HIGHWAY.

EXISTING STRUCTURE HISTORY:
• CONSTRUCTED IN 1951
• ADDITION COMPLETED - UNKNOWN
• 1ST FLOOR: 1,540 SF; SECOND FLOOR: 972 SF

SUBMISSION DATE: APRIL 7, 2021
MEETING DATE: APRIL 19, 2021

TABLE OF CONTENTS

D 00  COVER SHEET
D 01  AERIAL VIEW OF SITE
D 02  STREET SCENE
D 03  SITE PLAN
D 04 - 07  EXISTING SITE PHOTOS
D 08 - 13  EXISTING INTERIOR PHOTOS

*STRUCTURAL ENGINEER'S REPORTS ATTACHED
SOUTH STREET ELEVATION

SOUTH ELEVATION

EXISTING SITE PHOTOS
Interior photographs were taken on June 19, 2018. The Fire Marshal inspected the property on August 12, 2020 and found the building Unsafe. Re-entry to update photographs was not permitted.
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On Thursday, September 10, 2020 I revisited the above referenced site to review the state of the structure. The house is still vacant and in extremely poor health. Multiple areas of the roof framing, wall framing and floor framing are improperly constructed, out of plumb, not level, have excessive deflections and are not structurally stable. Most of the existing construction does not meet current building codes, including but not limited to earthquake and hurricane requirements. This house in its current condition is structurally unsound and is a hazard to life safety. Below is a summary of current conditions.

1. Roof decking; 1x6 board sheathing, multiple leaks throughout roof with areas of extreme rot. Roof framing; 2x6 rafters at 16"o.c. The rafters do not meet current codes; they exceed allowable spans and are overstressed by 66%. Additional bracing or rafters would need to be added.
2. Roof framing; 2x6 rafters at 16"o.c. The rafters do not meet current codes; they exceed allowable spans and are overstressed by 66%.
3. Roof framing; the house appears to have been originally framed with a single story gable roof and was later modified/renovated to a full two story at the rear of the house. The existing rafters at the rear of the house were simply raised in place. This resulted in a severe overcut of the rafters at the ridge bearing. This does not meet code.
4. Ceiling joist; 2x6 at 16"o.c. Multiple joists were cut short at rear of house and do not bear on the exterior wall. This does not meet code.
5. 2nd floor wall framing; 2x4 walls at 16"o.c. 8' tall. The rear addition only has a single top plate; This does not meet code.
6. No uplift connections. Hurricane ties and straps are required to provide a continuous load path from the roof to the foundation. This does not meet code.
7. Gable end framing; there is no top plate at the gable ends on the second floor and there is no ceiling diaphragm bracing. This does not meet code.
8. The valley framing at the front gable roof intersection with the main gable is not framed properly. This does not meet code.
9. There is visible termite damage to one of the valley beams and supporting structure. This does not meet code.
10. Second floor joist; 2x8 joists @ 16"o.c. With office live loads per the IBC of 50 lbs/sq.ft, the max allowable span would be approximately 10'-6". The current spans range from ±14'-1" to ±11'6". This does not meet code.
11. The second floor bathroom floor has visible rot and water damage.
12. Most windows are not framed properly, some are missing jack studs, some are missing king studs. This does not meet code.
13. Walls are framed with 2x4 studs @ 16"o.c. Wall sheathing is ½" Gold Bond cement board with nails at 6"o.c. and fiberpress board. Multiple locations are damaged. During an earthquake or high wind event such as a hurricane the structure will experience high lateral loading. These loads are typically transferred to the foundation through diaphragms (roof and floor systems) and shearwalls (braced walls; walls with sheathing to resist racking) and connectors systems. The existing cement board sheathing and fiberpress board sheathing have very little shear load resistance. This does not meet code.
14. The first floor joists are 2x10 joist @ 16"o.c. With office live loads per the IBC of 50 lbs/sq.ft, the max allowable span would be approximately 12'-2". The current spans range from 8' to 13'6". A large portion of the crawl space was not accessible. Spans exceeding 12'-2" would not meet code.
15. The first floor bathroom floor has visible rot and extreme water damage.
16. Several floors on the right side of the house (existing bedrooms) are severely out of level and sagging with visible water damage. The joist and or girder system may have failed at these areas. This area of the crawl space was not accessible.
17. The foundation of the house consists of approximately 8"x16" brick piers at ±6' o.c. with a 6x6 wood girder spanning between the piers. The floor joists sit on top of the girder. Historically brick piers do not perform well in seismic events. No existing mechanical connections for uplift or shear were visible. This does not meet code.
18. A small portion of the existing concrete footing was exposed. It appears the footing is approximately 6" thick by 16" wide. This does not meet code.
19. The exterior of the house is brick veneer. No existing mechanical connection between the brick and wall framing was observed. This does not meet code.

To renovate and bring the existing structure up to current codes and standards would likely require a complete rebuild. It is my professional recommendation to demolish.

Very truly yours,

MW Design, LLC.
Matthew G. Wilks, PE
15 February 2021

Dr. James B. Wisner
Peninsula Cosmetic & Family Dentistry
534 Savannah Highway
Charleston, SC 29407

Subject: 538 Savannah Highway; Charleston, SC
Structural Condition Letter Report
Atlantic Project No. 180670

Dear Dr. Wisner

On September 15, 2020 Atlantic Engineering re-visited the referenced Single Family Residence. The following includes our observations and opinions regarding the existing structure (Photograph No. 1).

**Roof Framing**

The existing roof framing consists of wood "stick" rafters and ceiling joists. Water deterioration that we previously noted has continued to progress (Photographs No. 2 & 5). Various roof framing members are undersized for IBC load requirements (Photograph No. 3). Previous roof framing repairs (Photograph No. 4) are inadequate for size and/or connection requirements. As we noted previously, uplift restraint clips are absent at all rafter bearing locations.

The existing roof structure is not serviceable. Most of the existing framing will require replacement and/or strengthening to correct the current deterioration and deficiencies.

**Floor Framing, Wall Framing**

The second and first floors are “stick” framed with wood members. Water damage to the floor and wall framing has progressed due to continuing water intrusion (Photograph No. 8, 9, & 10). As we noted previously, the first and second floor joists are not adequate for IBC live load requirements (Photograph No. 7).

Throughout the building, we observed no connection between the brick veneer and exterior walls. The veneer is not a structural element. Instead, it relies on the building for lateral (out of plane) support.

As noted, the building is not stable due to the absence of wall sheathing. Additionally, the lack of brick ties (mechanical fasteners between brick veneer and building) is a major deficiency. The lack of brick ties is a Life Safety issue due to falling. This condition must be addressed immediately.

To properly support the Brick Veneer, the following steps are required.

- Demolish existing brick veneer.
- Provide temporary shoring for building.
- Repair/replace deteriorated exterior stud walls.
- Provide OSB or Plywood sheathing for exterior walls.
- Provide brick ties in accordance with IBC requirements.
- Provide new brick veneer.

**Footings/Brick Piers**

The existing brick piers within the crawl space are likely non-reinforced. Footing sizes, and reinforcement are currently unknown. To meet IBC requirements for Seismic Design Requirements, the existing piers will require retrofit reinforcing and/or replacement. The existing footings are likely to require replacement and/or additions as well.
Footings/Brick Piers (cont.)

Note, anticipated repairs/retrofit requirements for the piers and footings are extensive. Due to Seismic Design Requirements, isolated footings are not satisfactory. We anticipate that all footings must be tied together with additional “Tie Beams” and/or new continuous footings. We also anticipate that all Brick Piers will require strengthening or replacement.

Opinion

The existing building is unstable and subject to collapse. Brick veneer has begun to fall away near the roof. The brick veneer should be demolished as soon as possible to remove the falling hazard. Additionally, the wall framing must be braced to prevent collapse.

The absence of Brick Ties requires the removal and replacement of all Brick Veneer. Related to this issue is the lack of sheathing for the exterior walls. To correct these conditions, the exterior walls (wood framing and brick veneer) must be demolished completely and rebuilt.

Floor framing throughout lacks the required live load capacity. To correct this deficiency, the entirety of the existing framing must be strengthened or replaced.

The brick piers and foundation must be entirely replaced or retrofitted to meet current Seismic Design Requirements.

The deterioration and deficiencies noted herein are widespread. These conditions affect the veneer, framing, and foundation. To correct these conditions systematic demolition and reconstruction is required. The cost for materials and labor associated with this approach will exceed the cost to fully demolish and replace the structure.

Please do not hesitate to contact me with questions or concerns.

Sincerely

Marc Caldwell, P.E.
Atlantic Engineering, LLC
Photograph No. 1 - 738 Savannah Highway

Photograph No. 2 - Water Damage to Roof Framing

Photograph No. 3 – Undersized Hip Framing Member

Photograph No. 4 – Previous Roof Framing Repairs
Photograph No. 5 - Hole in Roof

Photograph No. 6 - Exterior Wall; No Sheathing

Photograph No. 7 - Second Floor Framing; Undersized Joists

Photograph No. 8 - First Floor Framing; Water Damage
Photograph No. 9 - Second Floor Framing; Water Damage

Photograph No. 10 - First Floor Framing; Water Damage
Agenda Item #2

SW CORNER OF BEE’S FERRY RD. AND SANDERS RD.
TMS # 286-00-00-001

Request conceptual approval for a new multi-family development with 358 units in seven buildings:
(two, 3-story buildings and five, 4-story buildings)
CONCEPTUAL DRB SUBMITTAL
FOR
RHODES CROSSING MULTI-FAMILY
3197 SANDERS ROAD
CHARLESTON, SC 29414
TMS# 286-00-00-001

OWNER:
DAVIS DEVELOPMENT
403 CORPORATE CENTER DRIVE, SUITE 201
STOCKBRIDGE, GA 30281
LANCE CHERNOW
770-474-4345
LANCE.CHERNOW@DAVISDEVELOPMENT.COM

ENGINEER:
THOMAS & HUTTON
682 JOHNWIE DOUGLAS BLVD., STE. 100
MOUNT PLEASANT, SC 29464
BRIAN RILEY
843-849-0200
RILEY.B@TANDH.COM

ARCHITECT:
GEHBER LEWIS ASSOCIATES
649 11TH STREET
ATLANTA, GA 30318
BRIAN KEMPTON
470-355-4377
BKEMPTON@GLAATL.COM

DRAWING INDEX:
C.0
COVER SHEET
C1.0
SITE AERIAL
L1.0
OVERALL SITE ILLUSTRATIVE
V1.1 - 1.4
EXISTING CONDITIONS
C1.1
ZONING SITE PLAN
L1.1 - 1.2
CONCEPTUAL LANDSCAPE PLAN
A0-1.0
SITE PLAN & UNIT MATRIX
A0-1.1
EXISTING SITE & STREETSCAPE ELEVATIONS
A0-1.2
RENDERING
A3-1.0 - 7.1
BUILDING FLOOR PLANS
A5-1.0 - 7.2
BUILDING ELEVATIONS
AM-3.0
MAINTENANCE BUILDING - FLOOR PLANS & ELEVATIONS
AM-4.0 - 4.1
MAIL KIOSK - FLOOR PLANS & ELEVATIONS

DEVELOPMENT SUMMARY:

FLOOD ZONE
ZONE E, SHADOWED E & AE (EL 9)
F. I. R. M. MAP NO. 45019C, PANEL 047BK & 0479KE, EFFECTIVE 1/29/21

ACREAGE:
HIGHLAND - 35.60 AC.
CRITICAL AREA - 0.00 AC.
WETLANDS - 16.54 AC.
TOTAL  - 52.14 AC.

PROPOSED BUILDINGS:
BUILDING 1000 - 36 UNITS - 39,064 SF - 3 STORIES
BUILDING 2000 - 37 UNITS - 44,582 SF - 4 STORIES
BUILDING 3000 - 53 UNITS - 59,246 SF - 4 STORIES
BUILDING 4000 - 33 UNITS - 36,555 SF - 3 STORIES
BUILDING 5000 - 45 UNITS - 50,054 SF - 4 STORIES
BUILDING 6000 - 85 UNITS - 82,762 SF - 4 STORIES
BUILDING 7000 - 69 UNITS - 70,190 SF - 4 STORIES
TOTAL - 358 UNITS - 382,453 SF

PARKING:
SPACES REQUIRED: 537
ISLANDS REQUIRED: 119
SPACES PROVIDED: 646
ISLAND PROVIDED: 119

ZONING SUMMARY:

TMS:
286-00-00-001

ADDRESS:
3197 SANDERS ROAD
CHARLESTON, SC 29414

ZONING:
LB - LIMITED BUSINESS
DR-1F - DIVERSE RESIDENTIAL

BUILDING HEIGHTS:
LB - 4 STORIES
DR-1F - 3 STORIES

BUILDING SETBACKS:
LB
FRONT: NR
REAR: 25'
SIDE SOUTH/WEST: 9'
SIDE NORTH/EAST: 3'

DR-1F
FRONT: 25'
REAR: 25'
SIDE SOUTH/WEST: 9'
SIDE NORTH/EAST: 3'

LOCATION MAP
SCALE: 1” = 2000’
PLAT OF AN EXISTING CONDITIONS SURVEY OF A PORTION OF TMS#286-00-00-001 CONTAINING 52.140 ACRES

CITY OF CHARLESTON
CHARLESTON COUNTY, SOUTH CAROLINA

BEAR ISLAND, LLC 2
prepared for
Engineering | Surveying | Planning | GIS | Consulting

www.thomasandhutton.com
682 Johnnie Dodds Blvd., Suite 100
PO Box 1522
Mt. Pleasant, SC 29465-1522
p 843.849.0200 f 843.849.0203

1 INCH = 50 FEET

field 11/20/2020
plat 03/08/2021
drawn ppd reviewed br crew
drawn 03/08/2021

Z:\24873\24873.0002\Survey\DWG\24873.0002W01-2018 Wetlands.dwg - Oct 23, 2018 - 7:35:43 PM
job 24873.0004
PLAT OF AN EXISTING CONDITIONS SURVEY OF A PORTION OF TMS#286-00-00-001 CONTAINING 52.140 ACRES

CITY OF CHARLESTON
CHARLESTON COUNTY, SOUTH CAROLINA

BEES FERRY ROAD

50

100

0

1 INCH = 50 FEET

field

11/20/2020

drawn

ppg

reviewed

crew

tb

job

24873.0004
ARCHITECTURAL SITE PLAN

Building 1000
3-story

Building 2000
4-story

Building 3000
4-story

Building 4000
3-story

Building 5000
4-story

Building 6000
4-story

Building 7000
4-story

Building 4000
3-story

MAINTENANCE BUILDING

INDICATES LOCATION OF HC UNITS

BUILDING NUMBER

BUILDING NUMBER

BUILDING NUMBER

BUILDING NUMBER

BUILDING NUMBER

BUILDING NUMBER

BUILDING NUMBER
2049 - RHODES CROSSING - DAVIS - BUILDING MIX (02/11/2021)

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ARCHITECTURAL SITE PLAN
FOR CLARITY, ELEVATIONS DO NOT SHOW EXISTING OR PROPOSED VEGETATION. REFER TO CIVIL SHEETS FOR TREE SAVE AND PLANTING PLANS.

SANDERS RD.

EXISTING ELEVATION ALONG BEES FERRY RD

APPROX. SITE ENTRY

BUILDING 5000 NORTH ELEVATION

BUILDING 3000 NORTH ELEVATION

SITE ENTRY FROM BEES FERRY RD.

BUILDING 2000 NORTH ELEVATION

STREETSCAPE ELEVATION

APPROX. SITE ENTRY

BUILDING 5000 NORTH ELEVATION

BUILDING 3000 NORTH ELEVATION

SITE ENTRY FROM BEES FERRY RD.

BUILDING 2000 NORTH ELEVATION

STREETSCAPE ELEVATION

APPROX. SITE ENTRY

BUILDING 5000 NORTH ELEVATION

BUILDING 3000 NORTH ELEVATION

SITE ENTRY FROM BEES FERRY RD.

BUILDING 2000 NORTH ELEVATION

STREETSCAPE ELEVATION

APPROX. SITE ENTRY

BUILDING 5000 NORTH ELEVATION

BUILDING 3000 NORTH ELEVATION

SITE ENTRY FROM BEES FERRY RD.

BUILDING 2000 NORTH ELEVATION

STREETSCAPE ELEVATION

APPROX. SITE ENTRY

BUILDING 5000 NORTH ELEVATION

BUILDING 3000 NORTH ELEVATION

SITE ENTRY FROM BEES FERRY RD.

BUILDING 2000 NORTH ELEVATION

STREETSCAPE ELEVATION

APPROX. SITE ENTRY
BUILDING 3000 - THIRD FLOOR PLAN

BUILDING 3000 - FOURTH FLOOR PLAN
Agenda Item #3

Approval of meeting minutes from the 4.5.21 DRB meeting.