CHARLOTTE

CHARLOTTE HISTORIC DISTRICT COMMISSION

CERTIFICATE OF APPROPRIATENESS

CERTIFICATE NUMBER: HDC 2013-111 **DATE: June 17, 2013**

ADDRESS OF PROPERTY: **2132 Dilworth Rd E**

HISTORIC DISTRICT: Dilworth **TAX PARCEL NUMBER: 12112105**

OWNER(S): Troy King

DETAILS OF APPROVED PROJECT: Garage renovation/addition. New side facing gable will tie to roof beneath existing ridge. Siding will all be shingles. Small window in new addition is salvaged and will be appropriately trimmed out. A double wooden, panelized garage door will be trimmed out as two single doors. Approval of any substitute material is not implied (see attached plans).

- This Certificate of Appropriateness indicates that this project proposal has been determined to comply with the standards and policies of the Charlotte Historic District Commission.
- No other approvals are to be inferred.
- No demolition other than that specifically indicated on any attached plans is authorized under this approval.
- All work must be completed in accordance with all other applicable state and local codes.
- Any changes from or additions or deletions to the plans referenced herein will void this Certificate, and a new application must be filed with the Historic District Commission.

This Certificate is valid for a period of six months from the date of issuance. Failure to obtain a building permit in that time will be considered as a failure to comply with the Certificate and the Certificate will become invalid. If a building permit is not required, then the approved work must be completed within six months of the date of issuance of this Certificate. The Certificate can be renewed within twelve months of its issuance by Historic District Commission staff by written request and submission of a valid reason for failure to comply within the six-month deadline.

Mary Ellen George/LISB
Chairman

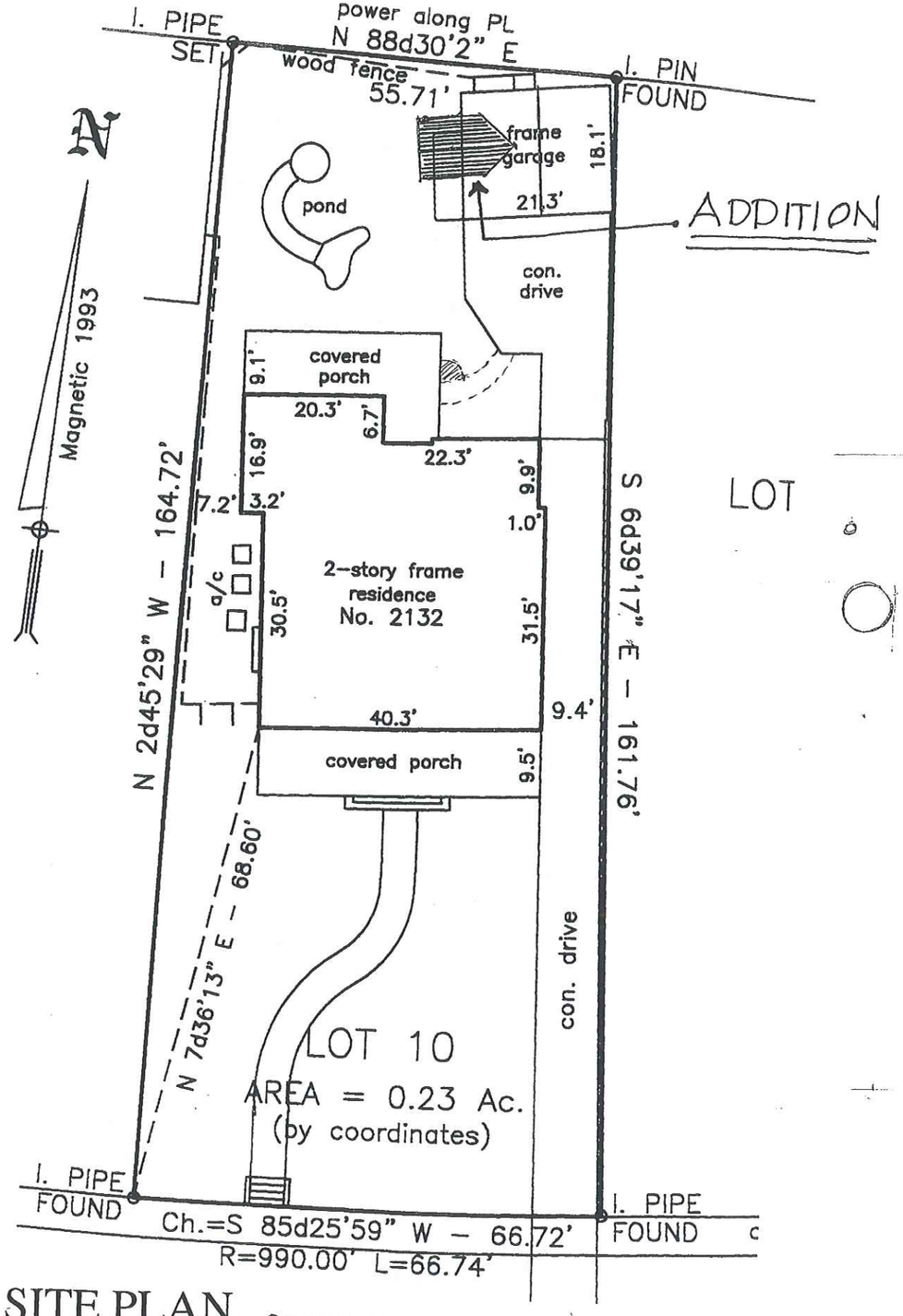
Linda Keich/LISB
Staff

CHARLOTTE-MECKLENBURG PLANNING DEPARTMENT
www.charlotteplanning.org
600 East Fourth Street
Charlotte, NC 28202-2853
PH: (704)-336-2205
FAX: (704)-336-5123

KING GARAGE ADDITION

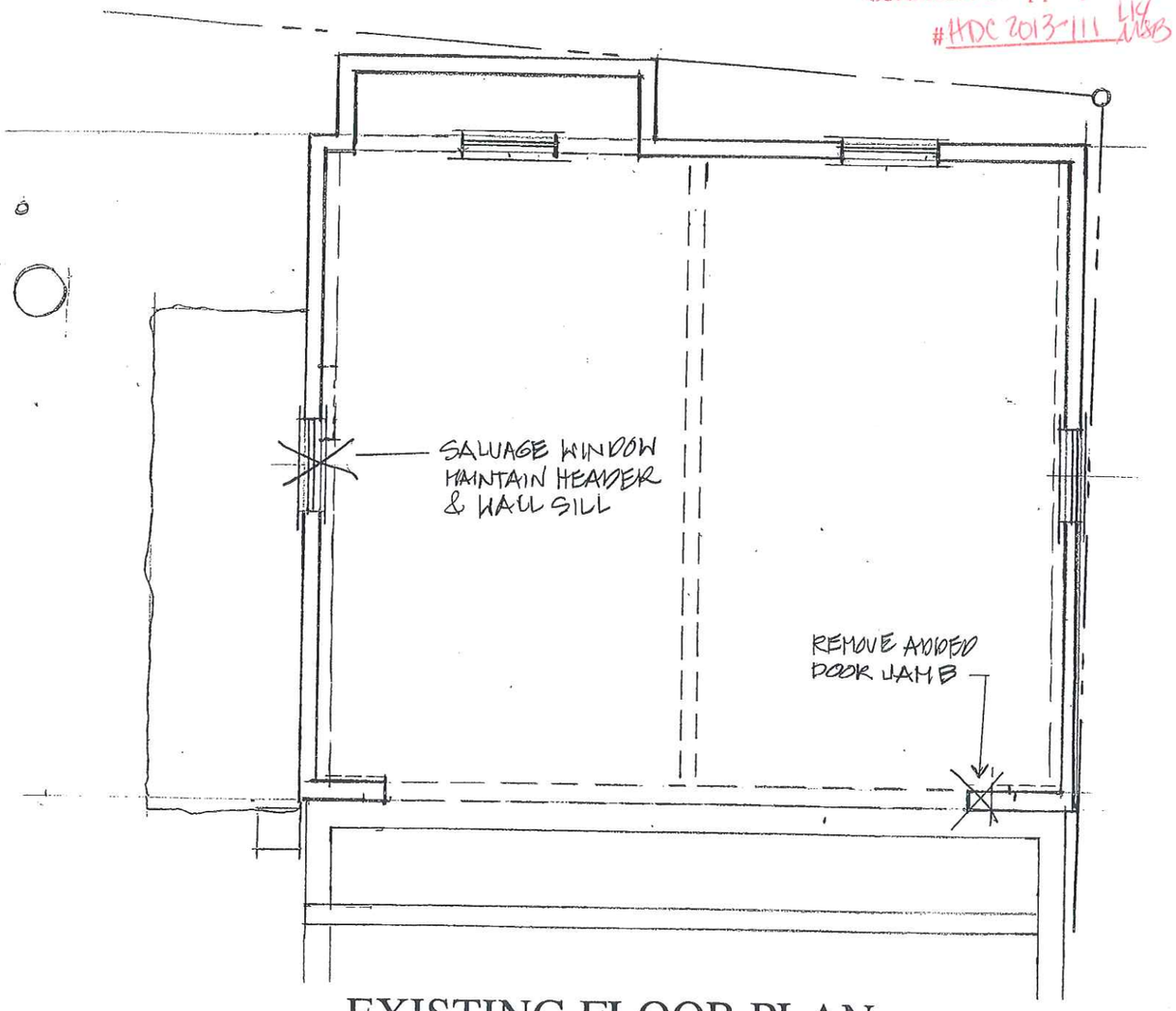
392 SF--- EXISTING-UNHEATED
45 SF----PROPOSED ADDITION-UNHEATED

APPROVED
Charlotte Historic District Commission
Certificate of Appropriateness
#HDC 2013-111



SITE PLAN

NTS



EXISTING FLOOR PLAN

¼" = 1'-0"

9200 Bob Beatty Road
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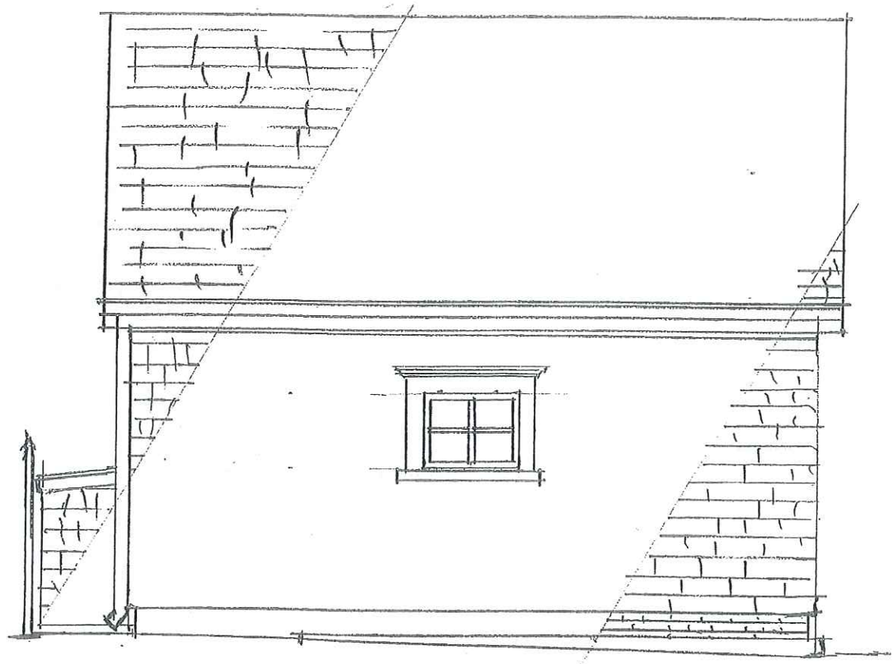
FAX • 494 • 4030
albarchitecture@aol.com
www.albarchitecture.com

Historic Addition & Renovation *for* the:
KING RESIDENCE
2132 Dilworth Road East, Charlotte, NC 28203

PROJ. NO. - 13029
ISSUED - 16 APRIL 2013
REVISIONS -

A.1

OF:



EXISTING LEFT ELEVATION

¼" = 1'-0" RIGHT MIRROR IMAGE

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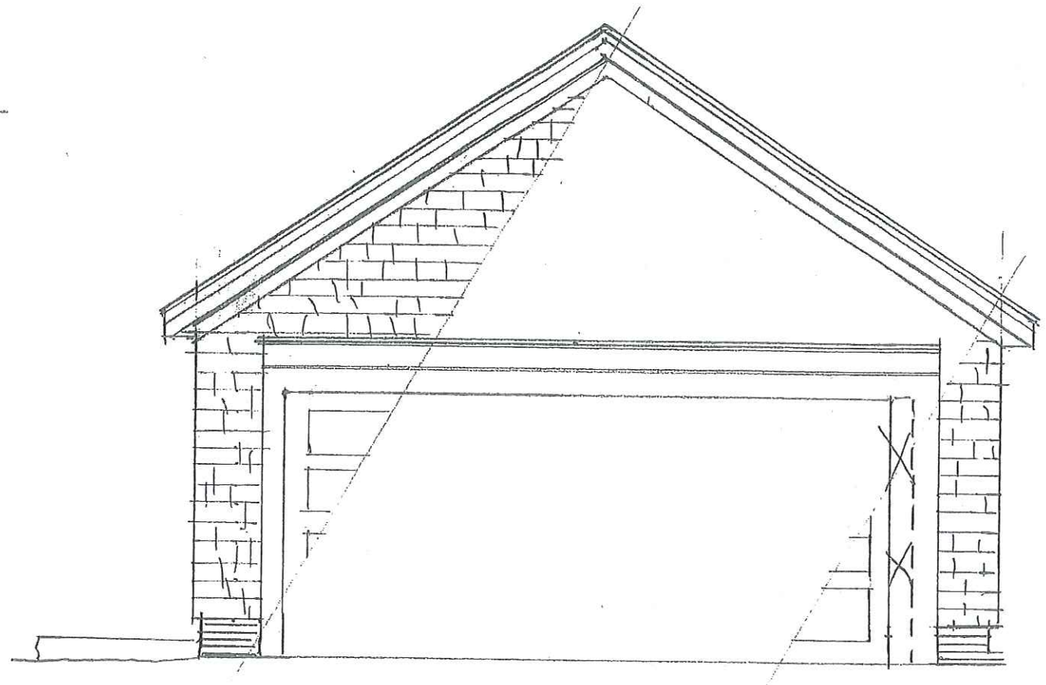

EXISTING FRONT ELEVATION

¼" = 1'-0" REAR SIMILAR

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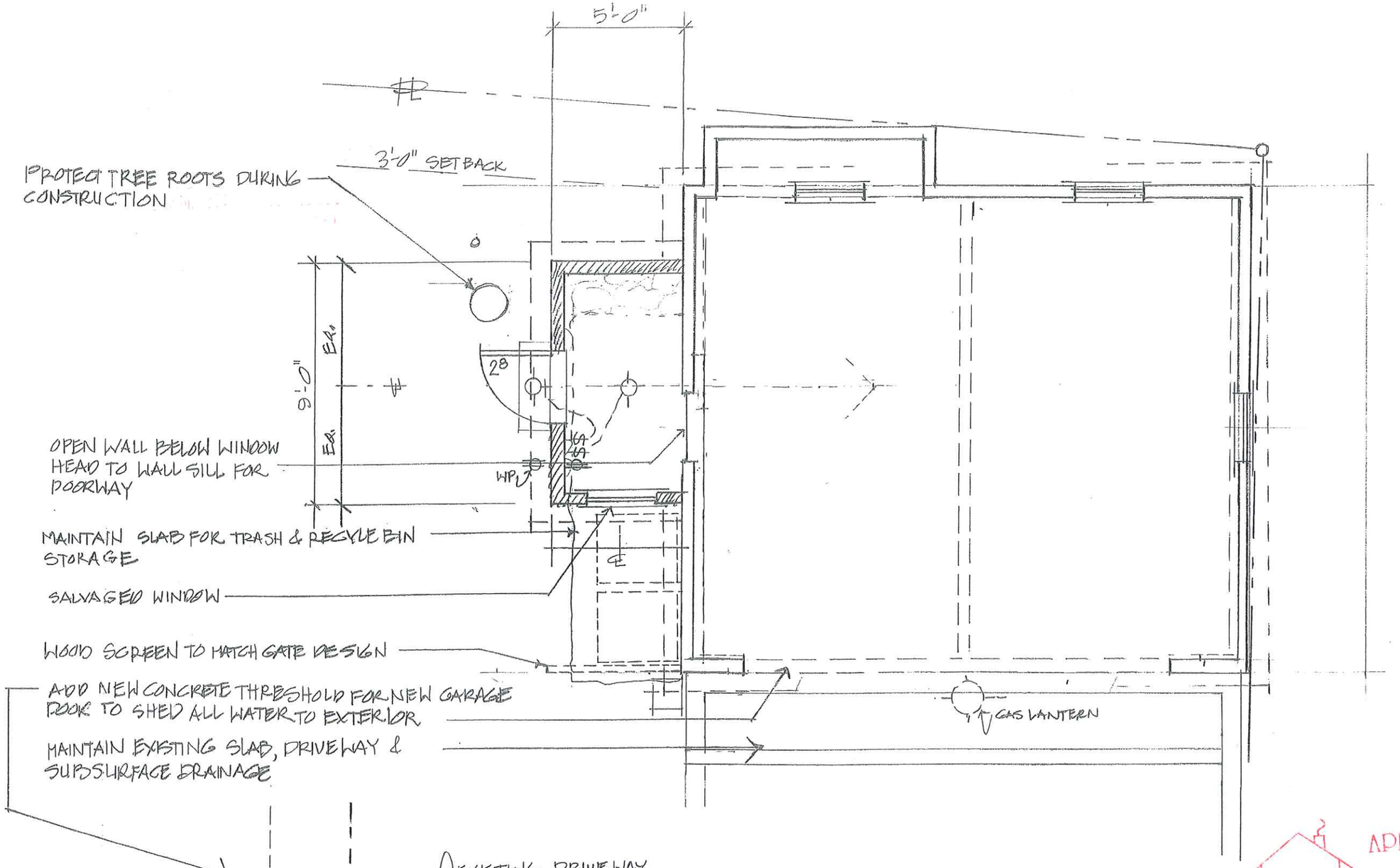
A.2

OF:



DETAIL @ THRESHOLD
NTS

PROPOSED FLOOR PLAN
¼" = 1'-0"

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ISSUED · 16 APRIL 2013
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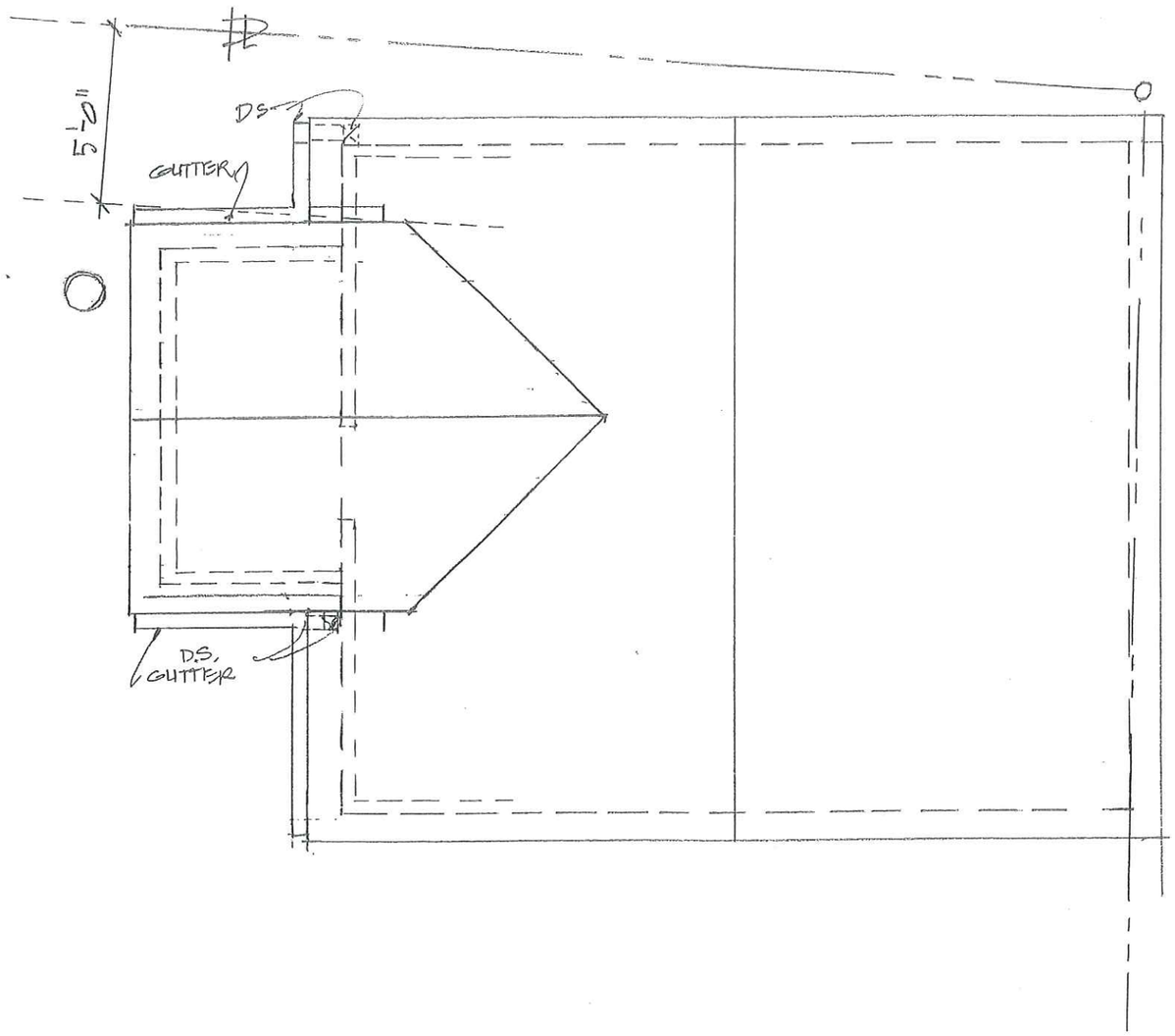
A.3

OF:



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PROPOSED ROOF PLAN

¼" = 1'-0"

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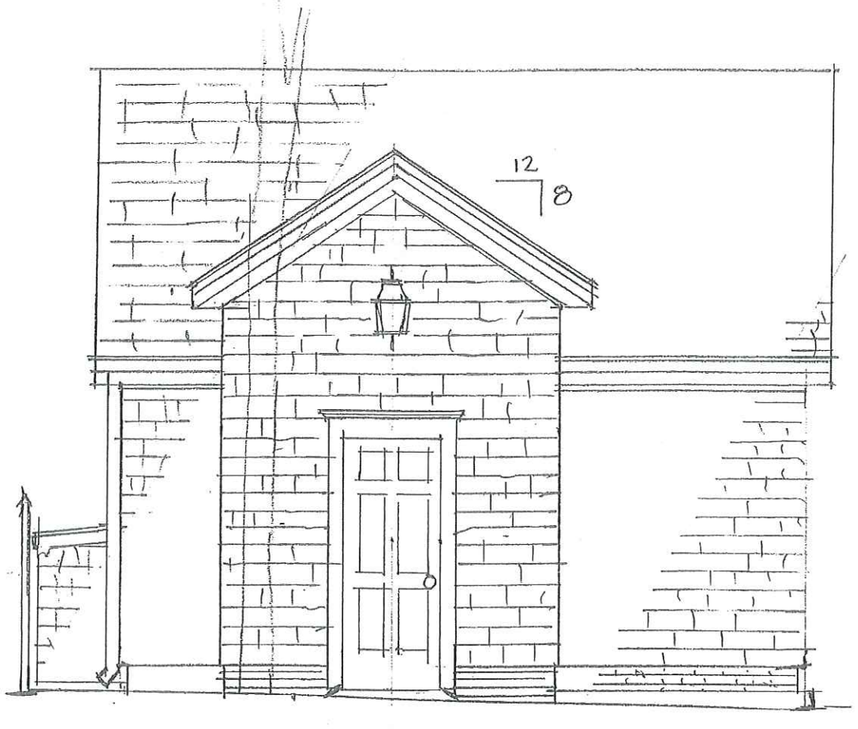
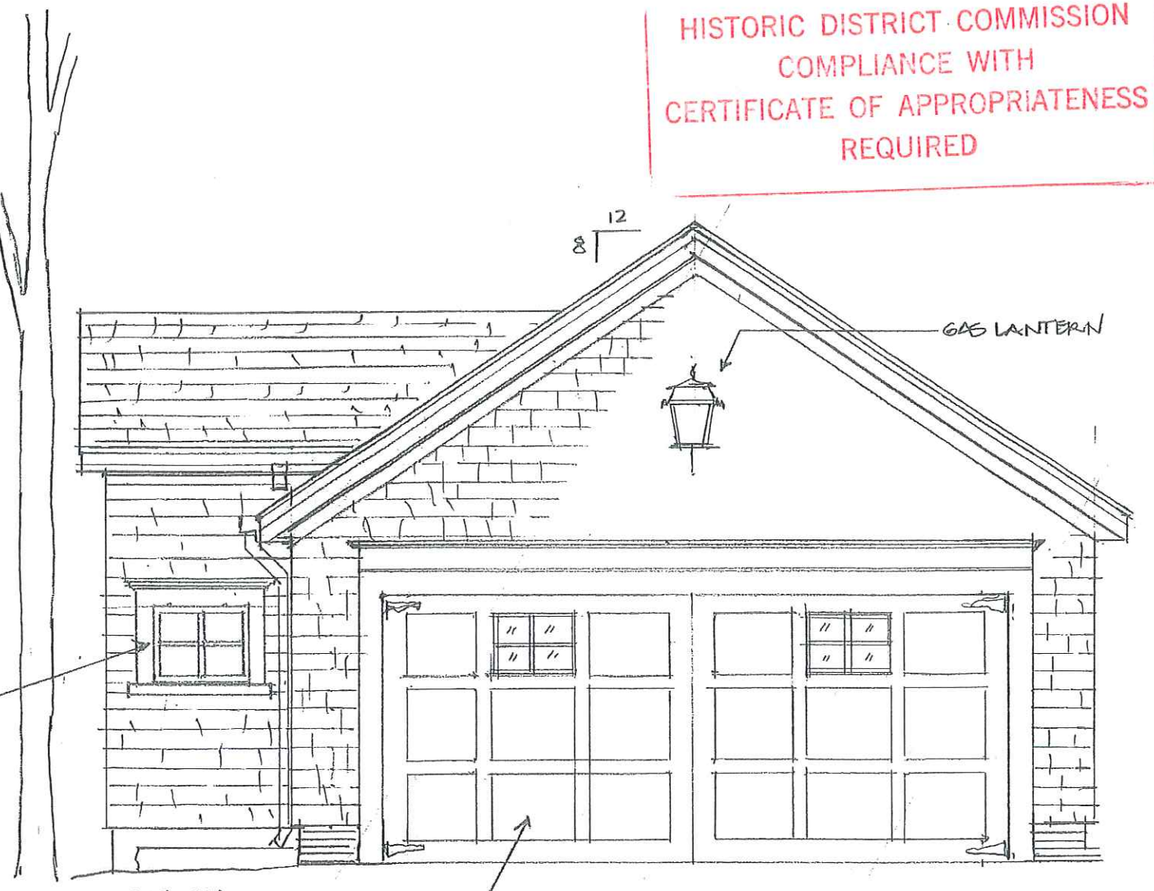
A.4

OF:



PROPOSED LEFT ELEVATION

¼" = 1'-0"



PROPOSED FRONT ELEVATION

¼" = 1'-0"

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Charlotte Historic District Commission

Certificate of Appropriateness

HDC 2013-111 VSB

HISTORIC DISTRICT COMMISSION
COMPLIANCE WITH
CERTIFICATE OF APPROPRIATENESS
REQUIRED

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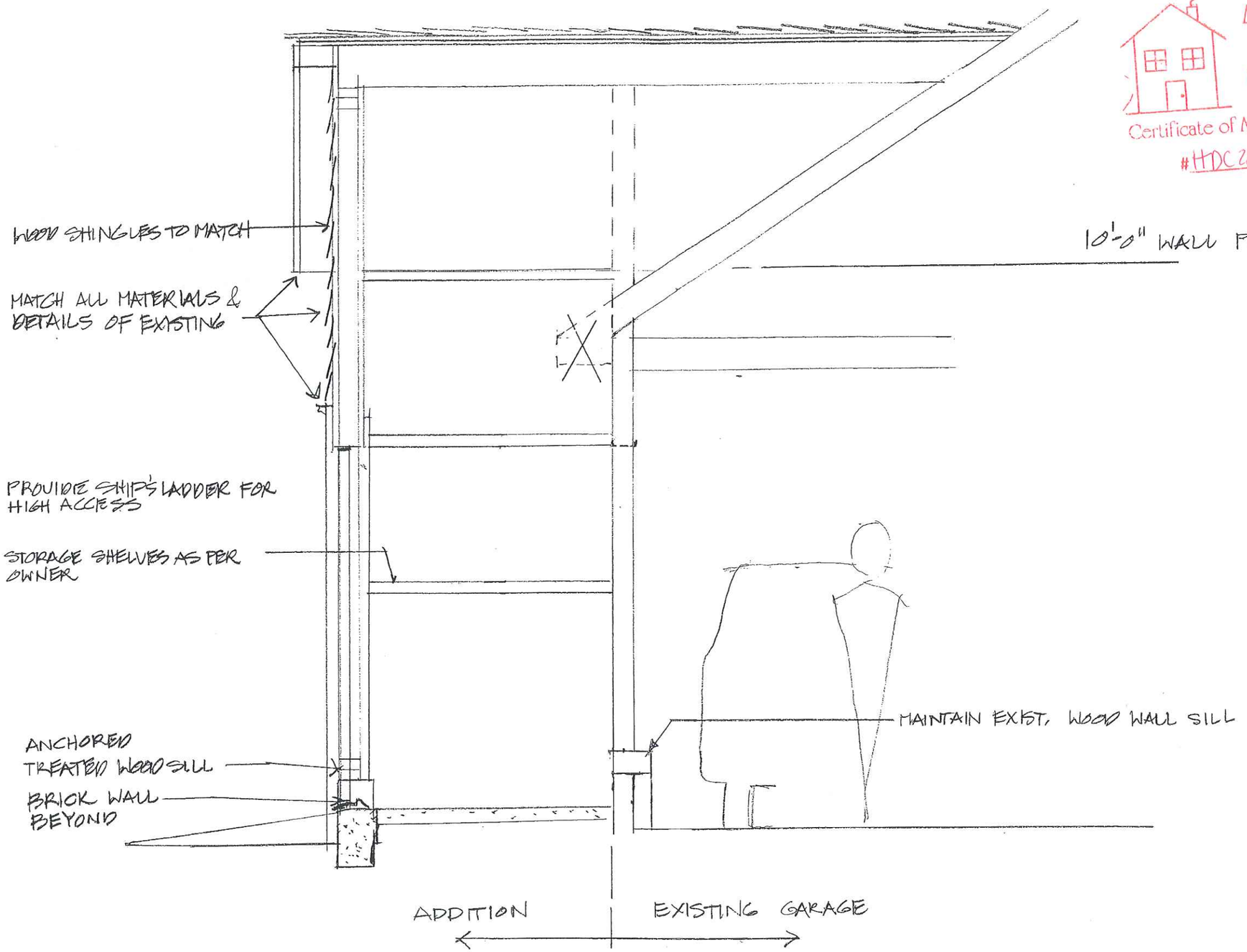
REVISIONS

A.5

OF:



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#HDC 2013111 4/4/13

PROPOSED ADDITION SECTION

1/2" = 1'-0"

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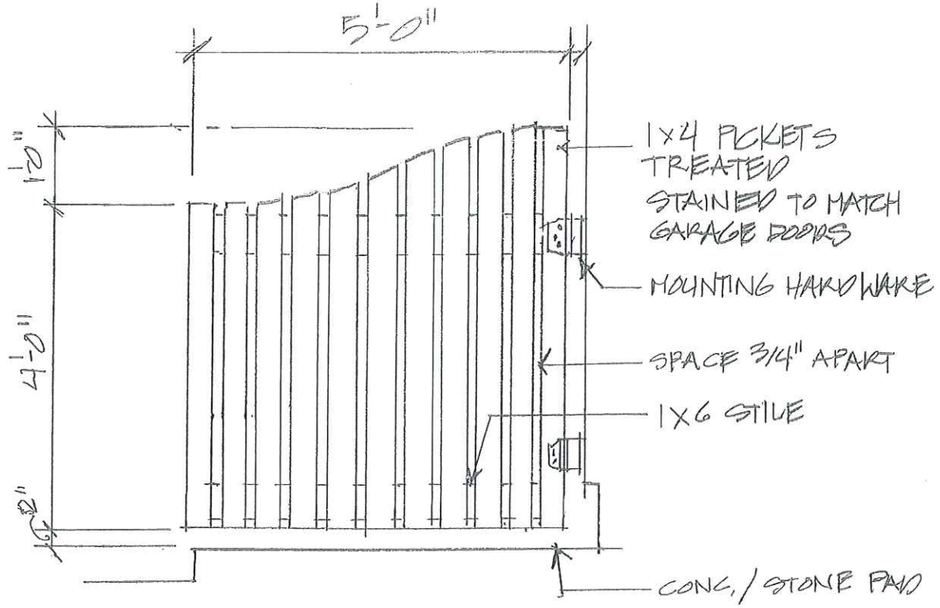
A.6

OF:



SCREEN DETAIL
1/2"=1'-0"

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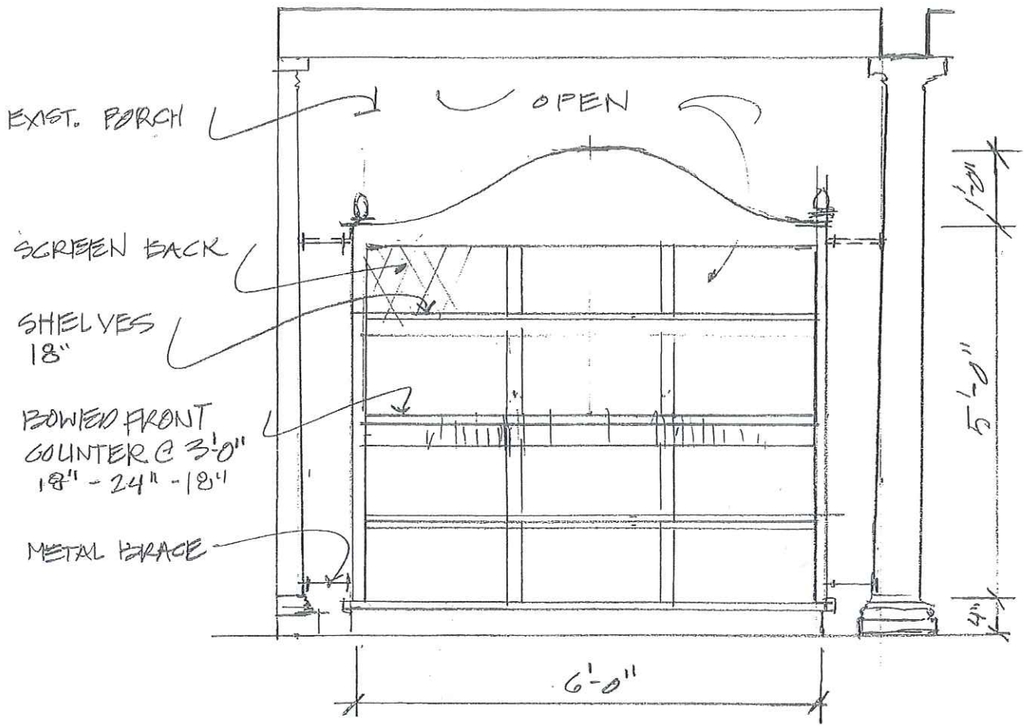

PROPOSED PORCH ETIGERE
1/2" = 1'-0"

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A.7
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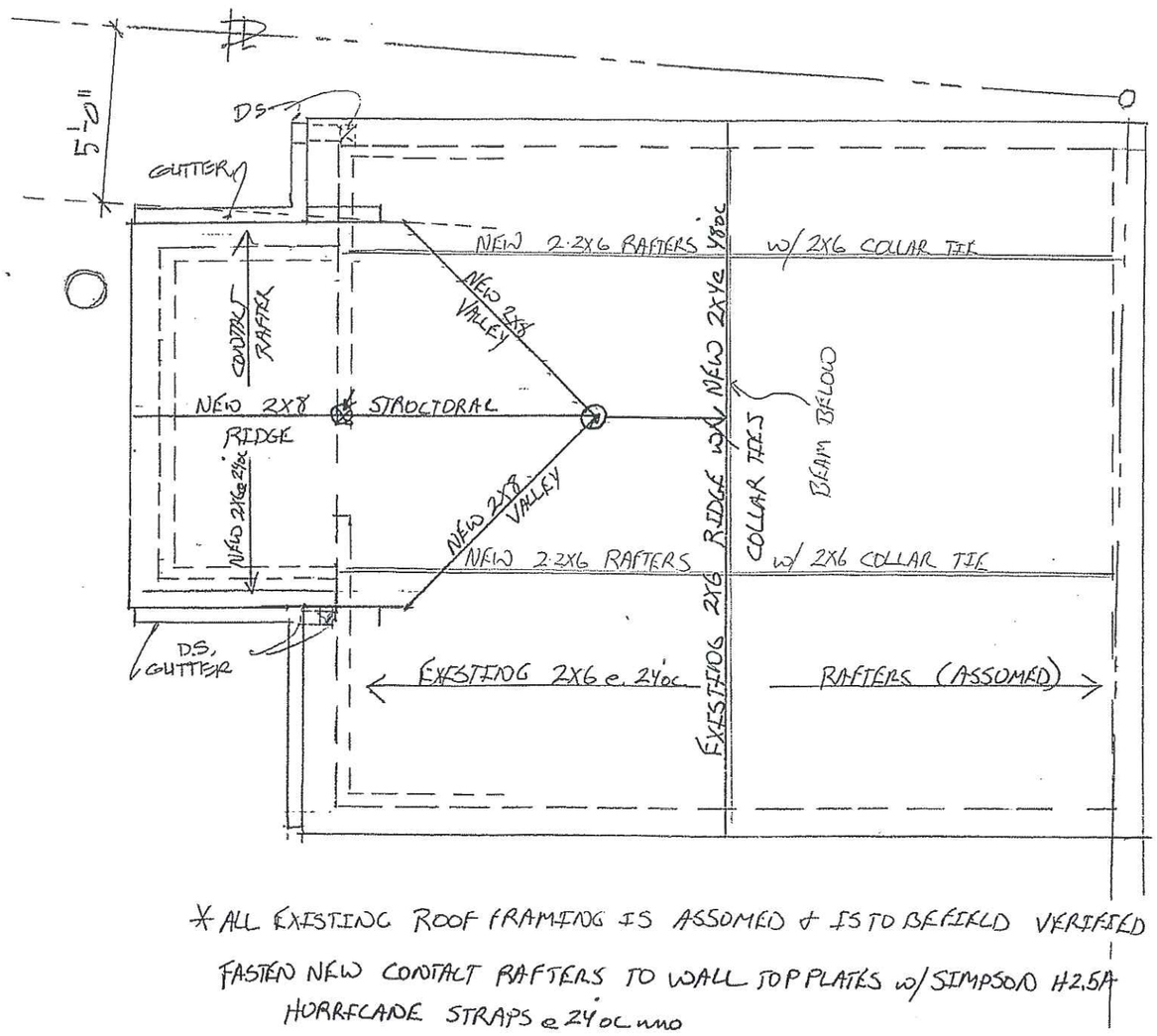

* ALL EXISTING ROOF FRAMING IS ASSUMED & IS TO BE FIELD VERIFIED

FASTEN NEW CONTACT RAFTERS TO WALL TOP PLATES w/ SIMPSON H2.5A HURRICANE STRAPS @ 24" OC MIN

PROPOSED ROOF PLAN

¼" = 1'-0"

NORTH CAROLINA PROFESSIONAL SEAL 32138 ENGINEER MATTHYS N. BARKER 4/24/13

SUSTAINABLE ENGINEERING & EFFICIENT DESIGNS, P.L.L.C.
PO BOX 691071
CHARLOTTE, NC 28227-7018
SEAL FOR STRUCTURAL ONLY

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#HDC 2013-111 LHC/MSB

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alharchitecture@aol.com
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Historic Addition & Renovation *for* the:
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HDC 2013-111 4/15/13

SOUTH CAROLINA PROFESSIONAL SEAL 32138 4/29/13 ENGINEER MATTHYS N. BARKER

SUSTAINABLE ENGINEERING & EFFICIENT DESIGNS, P.L.L.C.
PO BOX 691071
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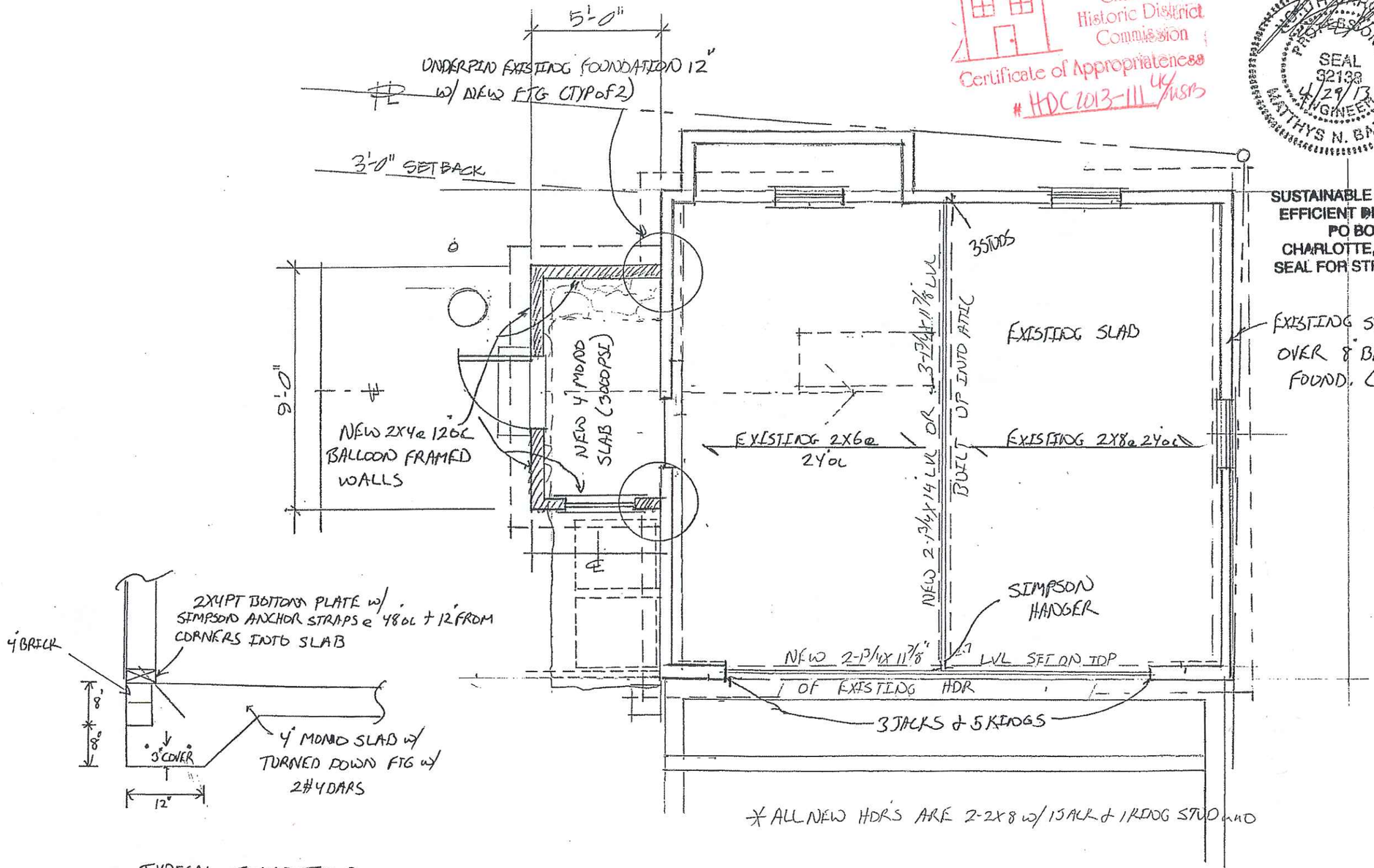

TYPICAL FOUNDATION SECTION NTS

PROPOSED FLOOR PLAN

¼" = 1'-0"

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KING RESIDENCE
2132 Dilworth Road East, Charlotte, NC 28203

PROJ. NO. - 13029
ISSUED - 16 APRIL 2013
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OF:

1. DESIGN LOADS:

1.1 Design loads are all dead loads plus:
- A. Main floor live loads (kitchen level) ..... 40 PSF
- B. All other floors ..... 40 PSF
- C. Balconies ..... 60 PSF
- D. Decks ..... 50 PSF
- E. Suspended Garages ..... 50 PSF
  and 2000 Pound Point Load at any Location
- F. Attic floor live loading with the following:
  - i. Areas accessible by permanent stairs ..... 30 PSF
  - ii. With Storage ..... 20 PSF
  - iii. Without Storage ..... 10 PSF
- G. Roof live load ..... 20 PSF
- H. Wind load ..... 90 MPH (3 Second Gust)
- I. Conforms with Seismic Design Criteria for Zone C.
- J. Snow load ..... 20 PSF

1.2 All designs are in accordance with the 2012 North Carolina Residential Code, designed using ASD 2301.2.1 for all wood and steel structural elements and LRFD 2301.2.2 for all concrete structural elements..

2. FOOTINGS AND FOUNDATIONS:

2.1 Soil bearing capacity assumed as 2000 PSF unless noted otherwise or as determined by standard penetrometer test.

2.2 All continuous wall footings for one or two-story houses are 10" thick x 20" wide. Reinforcing in footings should be two (2) #4 bars if not noted on the plans. Reinforcement not required by Code, unless footings are on disturbed soil or compacted fill.

2.3 All interior piers are 8"x16" CMU up to a maximum height of 32". All piers over 32" high must be filled with Type S mortar. Maximum height for 8"x16" filled pier is 6'-4". Piers larger than 8"x16" are noted on the plans or as required by height. Pier cap blocks should be 8" of solid masonry.

2.4 Footings for 8"x16" piers are 20"x30"x10" unless noted otherwise. Reinforcing to be as noted on plans.

2.5 Concrete shall have a compressive strength of 3000 PSI in 28 days unless noted otherwise. No concrete shall be poured in temperatures below 40° Fahrenheit unless heat to be provided during curing for two days. The bottom of all footings must be a minimum of 12" below grade.

2.6 All rebar splices shall be a minimum of 2'-0" unless otherwise noted.

2.7 Any special foundations for structures shall be designed by a Licensed Professional Engineer upon receiving soil capacity specifications for all soil considered to affect the structure.

2.8 Chimney footing sizes are shown on the structural design drawings. Masonry or Ieckern style chimney footings must be a minimum of 12" thick with 12" projection on all sides.

2.9 Foundation walls back-filled with soil and supporting structural framing shall be constructed as shown on detail sheet.

2.10 Special retaining wall designs to be shown on detail sheet.

NOTE: ALL POINT LOADS FROM ROOF BRACES, JACK STUDS, AND BEAM SUPPORTS - WHETHER WOOD OR STEEL - CANNOT BEAR ON SHEATHING ALONE. BLOCKING EQUAL TO OR BETTER THAN THE SPECIFIED STUDS OR COLUMN PROVIDED FOR POINT LOAD SUPPORT MUST BE CARRIED THROUGH ALL CONSTRUCTION TO THE FOUNDATION.

3. FRAMING CONSTRUCTION - OTHER THAN ROOF:

3.1 Crawlspace girders and beams as noted on plans. Maximum clear span to be 4'-8" (6'-0" o/c spacing of piers) unless noted otherwise.

To avoid most cracking in finished hardwood floors over any girders, use the following procedure:
- A. Nailing Patterns
  - i. All floor joists must be toe-nailed to their support girders with a minimum of 3-8d nails at each end from each side. Larger nails will split and render the toe-nail ineffective. No end-nailing through the girder or band is permitted except for temporary construction purposes.
  - ii. If dropped girders are used, end-lap all joists 12" minimum and side-nail each with a minimum of 3-16d nails at each end of each joist. Ledger strips should be nailed with 3-16d nails at each joist end, with nails spaced 3" apart.
  - iii. Nail multiple-member built-up girders with three rows of 16d nails staggered at 32" o/c, 2" down from the top, 2" up from the bottom, and at mid-depth. Use 3-16d nails at each end of each piece in the joints through the members making up the multiple-girder. This nailing pattern will insure a tight floor from outside of house to outside so that when the framing shrinks during the first heating season, the shrinkage will be uniformly distributed over the entire floor. If the girder nailing pattern is omitted, then the shrinkage will accumulate over the girders and an objectionable crack will develop in the finished hardwood floor over the girder line.
- B. At all girders where the joists change direction, install bridging at 6" o/c for a minimum of six joist spacings beyond any joist direction change. This will insure shrinkage distribution over the floor and not let it accumulate at the girder.
- C. There must be wood blocking through-bolted to the steel beam with joist toe-nailed and attached to the beam with metal hangers under any hardwood floors that pass over a steel beam supporting floor joists.

3. FRAMING CONSTRUCTION - OTHER THAN ROOF (CONTINUED):

3.2 All crawlspace framing lumber must be Southern Yellow Pine. All remaining floors may be Spruce Pine Fir #2 unless noted otherwise.

3.3 Steel beams must have 3-2x4 jack studs under each end support unless noted otherwise on the structural plans. All studs must be nailed together with two (2) vertical rows of 16d nails at 8" o/c, unless noted otherwise.

3.4 LVL beams must have 3-2x4 jack studs under each end support unless noted otherwise on the structural plans. All studs must be nailed together with two (2) vertical rows of 16d nails at 8" o/c, unless noted otherwise.

3.5 Masonry lintels:
- A. For spans up to 6 ft: Use 3½"x3½"x¼" steel angles.
- B. For spans from 6 ft to 10 ft: Use 5"x3½"x5/16" steel angles.
- C. For spans from 9 ft to 18 ft: Use a pair of 9 gauge wires in each of the first 3 courses of brick on a 5"x3½"x5/16" steel angle. Lap all 9 gauge wire splices 12" minimum and extend wires 12" minimum into jambs. Temporarily support steel angle before laying masonry. Shoring may be removed seven days following the installation of masonry.
- D. When structural steel beams with bottom plates are used to support masonry, the bottom plate must extend the full length of the steel beam. This provides support to the ends of the plate by bearing on the adjacent masonry jambs. The beam should be temporarily shored prior to laying the masonry. The shoring may be removed five days after laying the masonry.

3.6 All masonry or stone veneer over lower roofs must have a structural steel angle leg bolted to the adjacent wall studs to prevent sliding of the veneer. A minimum of a triple rafter must be installed below masonry climbs. Thin-set veneer attachments provided by the contractor may supercede this specification. Please verify the alternative attachment procedure with the Engineer of Record.

3.7 All rafter braces must have 2 studs from the wall top plate through all floors solid to the foundation or supporting beam below. No braces shall be attached to the top wall plate without studs directly under them.

3.8 Where non-bearing parallel partitions fall between floor joists, 2x4 ladders @ 16" o/c must be placed perpendicular to the joists to support the plywood decking or double joist installed directly below wall.

3.9 All wood I-joists must be braced in accordance with the manufacturer's directions plus any details shown on the plans. Load bearing partitions, jacks, beams and column supports must be solidly blocked through the floor as the joists and plywood may not be able to carry the concentrated point loads. All point loads must be carried to the foundations with blocking and/or beams. **(NOTE: All beams and double joists, etc., have been shown for a load bearing purpose. Placement of the load carrying members shown in the plans in locations other than under the structural element they are intended to carry is the responsibility of the contractor. Exact beam locations are not to be scaled from the framing plans.)**

3.10 All two-story open rooms with full height openings must be braced to resist pressure resulting from 90 MPH design fastest-mile wind speed or as prescribed for specified wind zones per ASCE 7-98. Any special wall reinforcing shall be shown on the plans provided. Two-story open rooms must be balloon-framed with 2x6 @ 16" o/c as a minimum (no exceptions.)

3.11 Stud walls to be listed below unless otherwise noted on the structural plans:
- A. Interior One & Two Story Walls (with intermediate floors)
  - i. Load bearing ..... 2x4 @ 16" o/c
  - ii. Non load bearing ..... 2x4 @ 16" o/c
- B. Interior Three Story Walls
  - i. Load bearing (2nd & 3rd Floor) ..... 2x4 @ 16" o/c
  - ii. Load bearing (1st Floor) ..... 2x4 @ 12" o/c or 2x6 @ 16" o/c
  - iii. Non-load bearing ..... 2x4 @ 16" o/c
- C. Basement Walls
  - i. Load bearing ..... 2x4 @ 12" o/c
  - ii. Non-load bearing ..... 2x4 @ 16" o/c
- D. Exterior Walls
  Exterior walls for three stories shall be 2x6 @ 16" o/c with ½"x4'x8' OSB sheathing or C-DX plywood over entire exterior.

3.12 Headers shall be as shown on the plans.

3.13 When ceiling joists are parallel to an exterior wall and rafters bear on the exterior stud wall's top plate, tie the rafters near the top plate to the ceiling joists with 6' long 2x6 runners at 4' o/c across the top of the ceiling joists.

3.14 At all bay windows, each panel shall be nailed to each adjacent panel with 5-16d nails tied together with metal strapping nailed at four locations between floors with a minimum of 2-16d nails in each panel at each strap. This will help prevent vertical cracking in the panel joints due to horizontal oscillation of the panels.

3.15 At all stairs, every stud at each stringer must be nailed to each stringer with a minimum of 2-16d nails. This will help prevent cracking between the wallboard and the top of the base molding due to vertical oscillation of the stair stringers.

3.16 Steel pipe columns must be in contact with the supported member and continue solid to the supporting masonry or concrete foundation. No intermediate wood blocking should be used as it will crush.

4. FOUNDATION WALLS

4.1 All full height foundation walls are shown on structural detail sheet.

4.2 All masonry or concrete basement wall construction must be inspected by the County Building Official, Architect, or Engineer for compliance with structural specifications.

4.3 Where full-height foundation or basement walls run parallel to floor framing, blocking must be provided between joists at 3'-0" o/c for not less than six joist spacings out from wall.

4.4 Details of any earth retaining structures not attached to the house structure will be shown on separate details. (These walls may be designed only after grade conditions are known.)

5. ROOF CONSTRUCTION

5.1 Rafters shall be 2x6 SPF @ 16" o/c for standard weight shingles except as noted. They are to be cut into hips, ridges, etc., unless noted as over-built.

5.2 Collar ties shall be 2x6 @ 48" o/c at all ridges unless noted otherwise and located a minimum 3' below the ridge. Collar ties may be closer to ridge if alternate bracing provided. Vaulted ceilings require special collar tie details or structural ridge beam. See plans as required.

5.3 A minimum of three collar ties shall be used at all ridges even if two ties must be put on one set of rafters.

5.4 All hips and ridges are a size larger than the rafters framing into them unless noted otherwise.

5.5 All hogs on ceiling joists or rafters are 8' long 2-2x6 hog troughs unless noted otherwise. Rafters may be spliced over hogs.

5.6 Gable end framing must be braced parallel to ridges with a minimum of 2x6 diagonal braces @ 6' o/c along the gable wall to the interior ceiling joists. Braces are to bear on 2-2x6 hogs and to gable wall at approximately mid-height of gable wall. Braces shall be at approximately a 45° angle. Other bracing may be used if it meets the Engineer's approval.

5.7 Carry braces to partitions or beams below. Never brace rafter hogs to 2-2x6 hogs on ceiling joists, unless shown on plans.

5.8 Ceiling joists when erected parallel to rafters must be sistered to rafters and nailed with 3-16d nails at each rafter. If a kneewall is used and ceiling joists cannot touch rafters, then rafters must be braced to the ceiling joists with 2x4 diagonal rafter ties spaced @ 48" o/c. Reverse collar ties may be used behind kneewalls.

5.9 Roof Plan Legend:
- A. ⊗ or ◯ Indicates location of roof brace at rafter level.
- B. ⊗ Arrow away from brace point indicates direction of roof brace to partition, beam or other brace point below.
- C. ⊗ Arrow into brace point indicates a vertical or almost vertical roof brace to partition, beam or other brace point below.
- D. All roof braces are 2-2x4 "T" nailed with 16d nails @ 9" o/c vertically from top to bottom. All braces longer than 10' must be braced horizontally in two directions at mid-height or be increased to 2-2x6.
- E. Maximum spacing of roof braces is to be as follows:
  - i. For 2-2x6 hog ..... 6'-0" o/c
  - ii. For 2-2x8 hog ..... 7'-6" o/c

6. WALL BRACING PER R 602.10.4

Wall braced panels:
- BWL- Braced Wall Line
- CS- Continuously Sheathed
- WSP- Wood Structural Panel
- GB- Gypsum Board (2 sided)
- PF- Portal Frame
- BMF- Engineered Moment Frame

Braced wall panel sheathing fastening and blocking per Code.

NORTH CAROLINA PROFESSIONAL SEAL 32135 ENGINEER MATTHYS N. BANKER

APPROVED
Charlotte Historic District Commission
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STRUCTURAL ENGINEER
SUSTAINABLE ENGINEERING & EFFICIENT DESIGNS, PLLC.
PO BOX 551471
CHARLOTTE, NC 28227-7813
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ARCHITECT:
ALD ARCHITECTURE, PA

PROJECT NAME & ADDRESS:
KING RESIDENCE
2132 DILWORTH RD E
CHARLOTTE, NC 28209

SEED
SUSTAINALBE ENGINEERING & EFFICIENT DESIGNS, PLLC.

DRAWING TITLE
GENERAL NOTES

DATE
APRIL 29, 2013

SHEET NO.
SGN