City of Dunwoody Georgia

4800 Ashford Dunwoody Road
Dunwoody, Georgia 30338
dunwoodyga.gov | 678.382.6700

To: Mayor and City Council

From: Rachel Waldron
Parks and Recreation Director

Re: Donaldson-Bannister Farm Blacksmith Shop Renovations

Date: May 27, 2025

Action

Approval of blacksmith shop renovations at the Donaldson-Bannister Farm. This is a joint venture between the City and Dunwoody Preservation Trust.

Summary

Dunwoody Preservation Trust (DPT) has had great program success throughout the years and is in need of additional space on the Donaldson-Bannister Farm property. Rehabilitating the blacksmith shop makes use of an existing under-utilized building. The blacksmith shop is a contributing building to the Donaldson-Bannister Historic District and Cemetery (listed on the National Register of Historic Places (NRHP) - 2009). As such, DPT would like to make improvements to the building that complies with the Secretary of the Interior's Standards for Rehabilitation.

Details

The 365sq ft blacksmith shop is approximately 100-110 years old. It is wood framed with a concrete floor, exterior weatherboard cladding, and a composite slate roof. Remnants of the historic stone foundation are evident.

Renovations would allow DPT to bring in additional revenue, better manage field trip groups, and allow for future history exhibits that meet Georgia Curriculum Standards. Dunwoody Preservation Trust takes the stewardship of this structure seriously with respect to the building's history.

Dunwoody Preservation Trust is contributing $34,600 and the City is contributing $18,500 to this project.

Recommendation

Staff respectfully requests that Council: (1) Award a contract to Litchy Commercial Construction Inc. for renovations to the blacksmith shop at the Donaldson-Bannister Farm, in the amount $53,094; (2) authorize Staff to provide funding for the contract; (3) Authorize the City Manager to execute the necessary documents.

Donaldson-Bannister Farm Blacksmith Shop Renovation

May 27, 2025

Summary

- Dunwoody Preservation Trust (DPT) has had great program success throughout the years and is in need of additional space on the Donaldson-Bannister Farm property. Rehabilitating the blacksmith shop makes use of an existing under-utilized building. The blacksmith shop is a contributing building to the Donaldson-Bannister Historic District and Cemetery (listed on the National Register of Historic Places (NRHP) - 2009). As such, DPT would like to make improvements to the building that complies with the Secretary of the Interior's Standards for Rehabilitation.

Background/Timeline

- The 365sq ft blacksmith shop is approximately 100-110 years old. It is wood framed with a concrete floor, exterior weatherboard cladding, and a composite slate roof. Remnants of the historic stone foundation are evident.
- Through this project, DPT would create more usable space for history exhibits that tell the story of Dunwoody.
- DPT hired J. Lloyd Engineering, LLC to perform a structural assessment and provide repair recommendations. This information was used in soliciting quotes for construction.

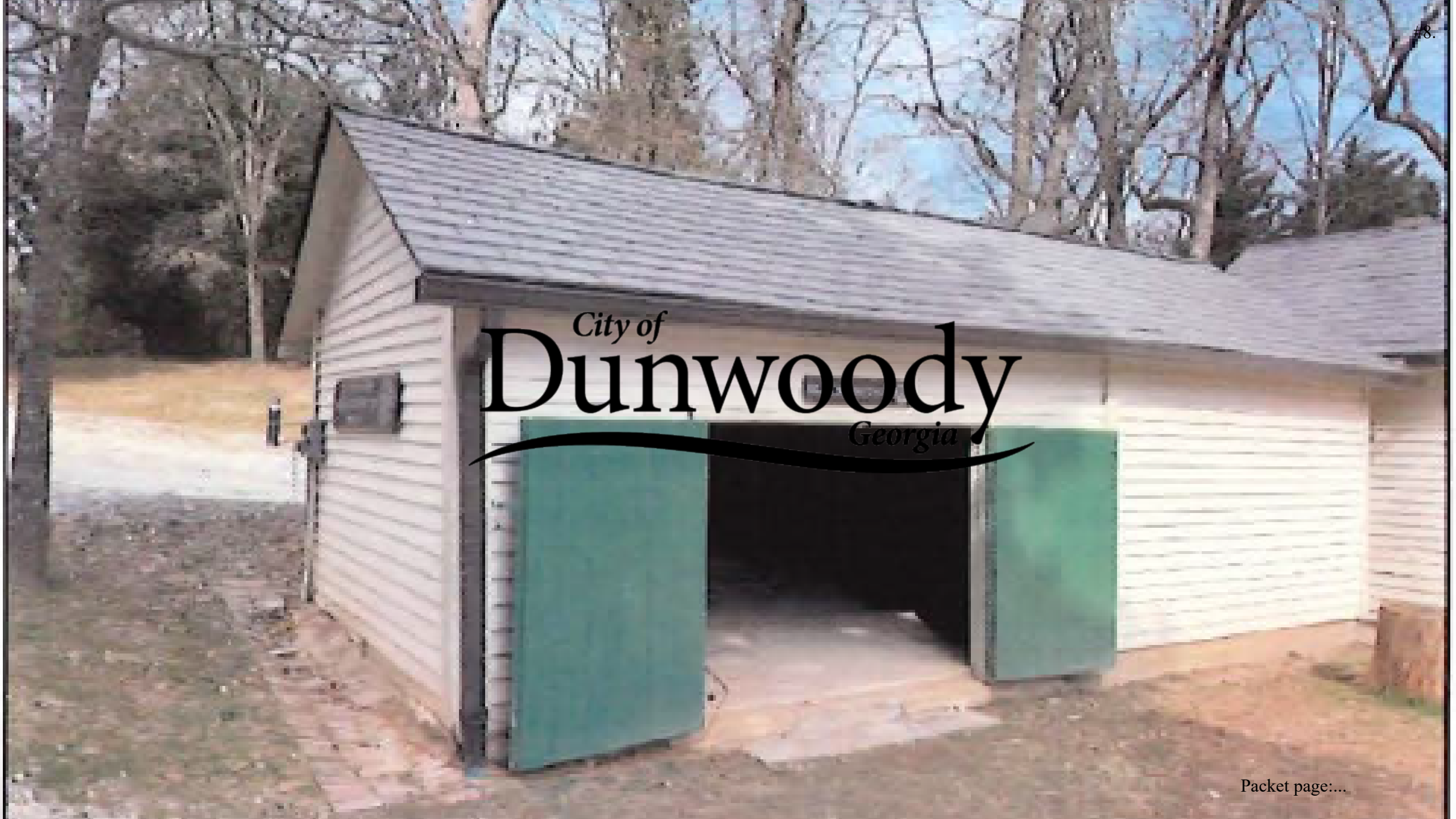
Financial Impact

- Dunwoody Preservation Trust is contributing $34,600 and the City is contributing $18,500 to this project. City funding will be sourced from Parks General CIP.
- Through these renovations, Dunwoody Preservation Trust could add another group of ten kids to Camp Flashback. At the 2025 summer camp rate of $380/child, this amounts to $22,800 in revenue over the course of one summer.

Staff Recommendation

Staff respectively requests that Council:

1. Award a contract to Litchy Commercial Construction Inc. for renovations to the blacksmith shop at the Donaldson-Bannister Farm, in the amount $53,094;
2. Authorize Staff to provide funding for the contract;
3. Authorize the City Manager to execute the necessary documents.


City of
Dunwoody
Georgia

LICHTY COMMERCIAL CONSTRUCTION INC.

Built On A Solid Foundation

Wednesday, March 26, 2025

Brandon Alverado
Facilities Coordinator - City of Dunwoody
4800 Ashford Dunwoody Road; Dunwoody, GA 30338
404-747-4560
Brandon.alvarado@dunwoodyga.gov

We propose to furnish the Supervision and labor to make improvements at Banister Farm Blacksmith Shop per the scope below:

1. Project Management and supervision.
2. Pull permit
    a. Owner to apply/secure permit and pay permit fees if applicable.
    b. Owner to procure structural engineers letter.
3. Repair concrete slab and curb per engineers reported date 3/14/25.
4. Repair roof and wall framing per engineers report dated 3/14/25.
5. Install update electrical system to include new wiring, twelve (12) GFCI duplex outlets, one (1) exit sign/emergency light combo, eight (8) flush mount interior LED lights, one (1) LED exterior light, two (2) smoke detectors, and one (1) mini split connection.
    a. Assumes use of existing panel.
6. Insulate walls with R-13 Fiberglas batts, insulate ceilings with R-30 fiberglass batts.
7. Install T1-11 sheathing on interior walls and ceilings.
8. Install one (1) new mini split.
9. Modify existing door with panic devises.
10. Paint walls and ceilings.
11. Clean and seal floors.
12. Install one (1) fire extinguisher.
13. Clean up.

*Assumptions: Work to be performed during normal business hours
*Proposal is valid for 30 days.
*Exclusions: Making doors taller, Moving furnishing in/out, Interior demolition, permit fees, egress work on outside of building, new electrical panel, fire sprinklers, fire alarm, voice/data, security, signage, grading/drainage work, new openings, Structural engineers letter.

Base Bid **$53,094**

I appreciate the opportunity to provide this proposal. Should you have any questions, please do not hesitate to contact me directly.

Sincerely,
Josh Cauthen
Director of Preconstruction
(706)331-9226 (mobile)

Original

J. LLOYD ENGINEERING

March 14, 2025

Cc: Sam McEntyre
City of Dunwoody
Dunwoody Preservation Trust
4831 Chamblee Dunwoody Rd,
Dunwoody, GA 30338

Phone: 404.771.2992
email: sammcentyre@bellsouth.net

Subject: Structural Assessment & Repair Recommendations
Donaldson-Bannister Shop Renovation
Project No. 25027

Issued By: Joshua R. Lloyd, PE
GA Registration No. PE045503
March 14, 2025

Mr. McEntyre:

J. Lloyd Engineering, LLC (JLE) is pleased to present this report for of our limited structural assessment and repair recommendations for the subject facility located in Dunwoody, GA. These services were performed in accordance with our current agreement with the City of Dunwoody. This report includes an Executive Summary, Background Information, Design Criteria, and Repair Recommendations.

EXECUTIVE SUMMARY

- Repair foundation/curb at base of all walls.
- Install interior wall sheathing to provide necessary lateral (wind) strength.
- Remove and replace, or "sister" distressed wall studs in like kind.
- Install a second top plate or install "blocking" with lag screws under existing top plate to strengthen top plate for rafter support.
- Remove and replace deteriorated bottom plate in like kind.
- Check the existing door header and replace it (if required).
    - Install new headers, jack studs, and cripple studs at windows (if required, by others).
- Install "sister" rafters where rafters are split, cracked, or shows signs of crushing.
- Ensure water runoff drains away from building.
- Have the City of Dunwoody review conditions to determine if fire-resistance requirements are necessary (if required, designed by others).

DESIGN CRITERIA

1. Based on our review of the code, we make the following recommendations that should be addressed by the City of Dunwoody. If necessary, modifications should be designed by a registered architect or professional engineer with relevant experience:
   1.1. Based on our interpretation of the code, and this being a historic facility, this structure is being converted from a residential structure to an assembly structure, however; the overall size of the space is approximately 360SF. This would mean the structure needs to be classified as Group B.
   1.2. The structure is primarily wood construction, and currently has no fire-resistance and is therefore classified as Type V-B.
   1.3. This building is very close to the building to the rear and therefore provides an exposure risk (a fire in this building would likely spread to the exposed building without an adequate fire wall or fire-resistance measuring being implemented.
   1.4. Other safety measures, such as egress, lighting, signage, etc. are not part of our scope of work and should be reviewed by the Authority Having Jurisdiction (the City of Dunwoody).
   1.5. Interior finishes should be a minimum of Class B, but can be upgraded to Class A. An example of Class B finishes would be wood paneling with fire-retardant treatment or painted gypsum board. An example of a Class A finishes would be Gypsum board with fire-rated paint.
   1.6. The electrical system will need to meet current building code requirements and should be designed/installed by others (not part of this scope of work).

BACKGROUND INFORMATION

1. The following people were spoken to regarding this project:
   1.1. Mr. Sam McEntyre of the Dunwoody Preservation Trust (DPT)
2. The following information is based on conversations with those listed above. Should any information provided be inaccurate, missing, or incomplete, please notify JLE so that a revision may be made and reissued.
3. The subject facility appears to have been a "blacksmith" room, however; there is little evidence to support this claim. The facility is approximately 30'-0" long by 12'-0" wide and has been used for storage since the DPT took over the facility. This facility will be referred to as the "Shop" from here on.
4. The shop appears to have been modified (or renovated) after its original construction. The time of the expansion is unknown.
5. No Documents have been provided for JLE to review to understand the framing geometry or additions/modifications.
6. The DPT would like to utilize this facility as an indoor training/camp/learning facility. The intention for the space would be to have a few tables, a new air conditioning system, and new electrical systems installed. The facility would host 10 to 15 "campers" for learning objectives.

REPAIR RECOMMENDATIONS

On Tuesday, March 4, 2025, Mr. Lloyd of JLE visited the subject facility to conduct a limited structural condition assessment of the existing farming for this out-building. The primary focus of our limited assessment was determining the necessary repairs needed to upgrade the existing facility from a one- two-family dwelling to an assembly center for community camps or other assembly means.

The existing framing consists of the following:

- Roof – Faux slate (plastic) tiles, supported by underlayment, wood sheathing, and 2x4 rafters. A ridge beam is present and is a 2x4 in the newly renovated area, and a 1x4 in the original area. A 2x6 ceiling joist is present.
- Walls – 2x4 studs at 24" O.C., with single top and bottom 2x4 plates.
- Foundation – Slab-on-ground, with concrete curb at perimeter for walls to bear on.

The following are select observations and repair recommendations.

1. Roof Framing:
   - 1.1. We recommend installing hurricane ties, Simpson Strong-tie H1A (or equal), at the ends of all rafters connected to the end walls.
   - 1.2. We recommend installing a "Sister" rafter to the side of all rafters that exhibit deterioration (likely due to water intrusion and crushing) at the end supports. The length of the new rafter shall match the existing and shall be fastened to the rafter with 16d nails at 8" OC, with (4) nails at each end. The new rafter shall bear directly on the top wall plate and be fastened with H1A ties.

2. Wall Framing:
   - 2.1. Approximately (8) wall studs show signs of deterioration in the form of wood rot or cracking. These studs can either be removed and replaced in like kind (2x4 SYP No. 2 min.), or a "sister" stud can be installed flush with one side of the existing stud.
   - 2.2. Several locations show signs of wood rot/deterioration of the bottom wall plate. This 2x4 bottom plate should be removed and replaced (this will likely be done in conjunction with stud repairs).
   - 2.3. There is only one 2x4 top wall plate for all walls. Contractor shall install new top plate, which can be a full length 2x4 section (this will require shoring the existing rafters, cutting the top of the wall studs to accommodate the new top plate), OR; the contractor can install a new 2x4 flush to the underside of the existing top plate and connect with (4) evenly spaced 2½" lag screws (from bottom of new 2x4 into existing top plate) and toe nailed to existing studs (section will likely need to be 22½" wide to fit between studs, contactor field verify all cuts).
   - 2.4. Installation of shear wall sheathing, 4'-0" long, each corner of the building, each direction (meaning on the 8'-0" total length at each short wall length, and 8'-0" total for each long wall length, a total of 32'-0" of sheathing):
     - 2.4.1. 15/32" thick rated plywood or OSB panels
     - 2.4.2. 3" nail spacing at all panel ends, nails shall be 8d and penetrate a min. 1-3/8" into studs

2.4.3. Interior sheathing connections at 6" O.C.
2.4.4. Install 2x4 blocking at mid-height of walls studs

2.5. Bottom plate shall be fastened to the existing foundation using ½" diameter Simpson Strong-tie Strong Bolt 2, 3 ½" embed into concrete, spaced at 48" O.C. with (1) at each end of each wall.

2.6. Installation of a new 2x4 stud at locations where the top plate is not supported (see figure 3 or 4).

2.7. Remove and replace 2x4 studs that are not continuous from bottom to top plates (see figure 3).

3. Headers over Windows or Doors:
   3.1. The header over the existing 7'-5" door should be (2) 2x10's, SYP No. 2.
   3.2. Headers for windows should be a 2x6, SYP No. 2 for spans up to 4'-0". For spans greater than 4'-0", contact engineer.

4. Foundation:
   4.1. There are two 2'-0" long walls, centered along the long dimension of the building. The walls are supported on a concrete "curb" foundation which needs to be repaired using a high strength cementitious mortar, such as Quikrete 5,000 or Rapid Set Concrete Mix. Repair to original dimensions.
   4.2. The perimeter foundation shall be repaired to provide uniform bearing for the bottom wall plate using a cementitious repair mortar (see note 4.1. for material reference).
   4.3. See note 2.3. for connection of bottom wall plate to foundation. Foundation repairs should be made prior to the installation of steel anchors.

5. Slab on Ground
   5.1. There are multiple cracks and elevation changes in the existing slab on ground. Where elevation change occurs (I.E. one side of the crack is higher than the other), the surface(s) shall be ground flush using a diamond plate wheel. The crack can be repaired by flushing the crack, saw cutting with a v-grove diamond blade, and injected the crack with a joint filler material.

6. Drainage:
   6.1. We recommend ensuring that no sitting or ponding water be allowed to rest at the base of the wall. All water runoff should be directed away from the building to prevent deterioration of the wood components at the base of the structure.

CLOSING

We appreciate the opportunity to provide engineering services on this important project. Please contact Joshua Lloyd at 404.518.6121 if you have any questions concerning this Report or any other concerns, we may help you with.

Sincerely,

jle

J. Lloyd Engineering, LLC

Joshua R. Lloyd, P.E.
Principal/President

ATTACHMENTS

1. Figures 1 – 6
2. Standard Simpson Strong-tie Detail for H1A hurricane tie.
3. IRC Standard Connection requirements

jle

Figure 1 *– Overall view of blacksmiths "Shop". Ensure proper drainage is present.*

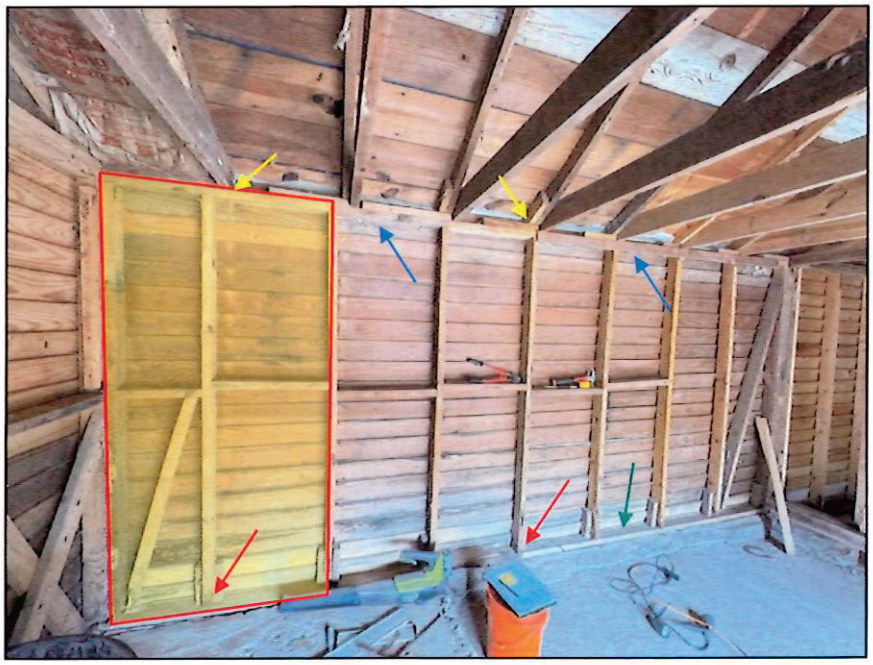


Figure 2 *– Typical view of west face (rear face) of the "Shop". Wood rot at the base of studs shall be replaced or repaired (red arrow); installation of new "blocking" second top plate (blue arrow); repair of damaged roof rafters at top plate (yellow arrow). The highlighted section shows shear wall sheathing; add bottom plate anchors to foundation (green arrow). The arrows show the general location, not each location that requires repair.*

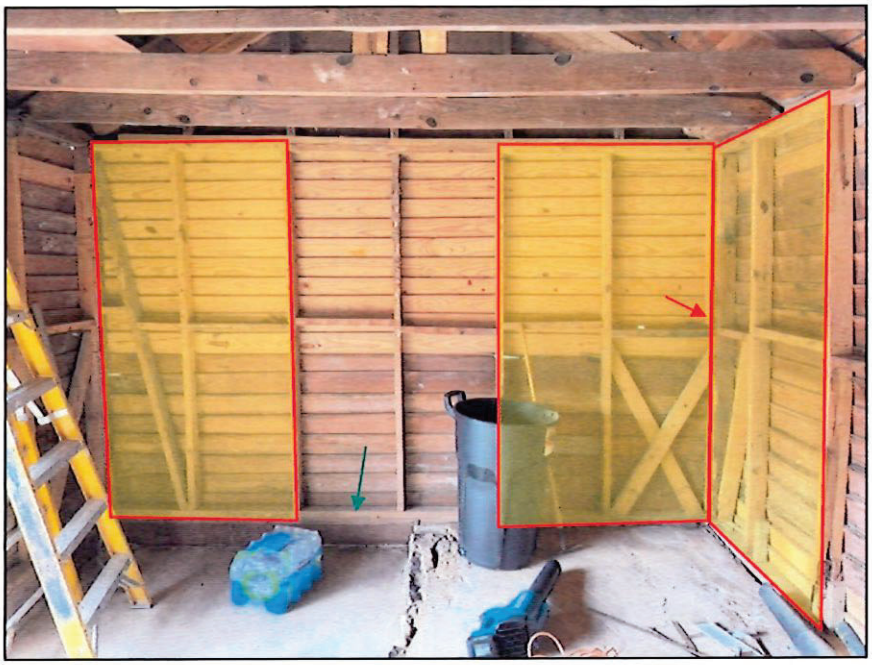


Figure 3 *– South wall face (left side of building). Remove and replace with full length stud (red arrow), install wall sheathing (highlighted section); green arrow shows location of anchorage for bottom plate.*

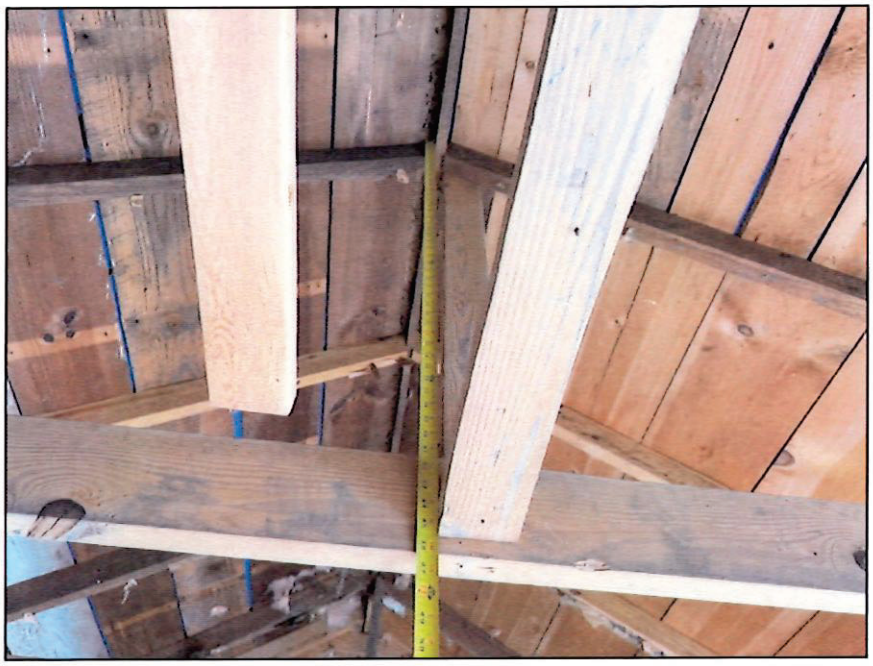


Figure 4 *– Typical view of roof framing.*

Figure 5 *– View, looking North, of interior framing. Installation of new 2x4 stud (red arrows); repair of concrete "curb" foundation (blue arrow); and repair of cracks in slab-on-ground (yellow arrow); green lines show location of new 2x4 blocking; anchorage for bottom plate (green arrow).*

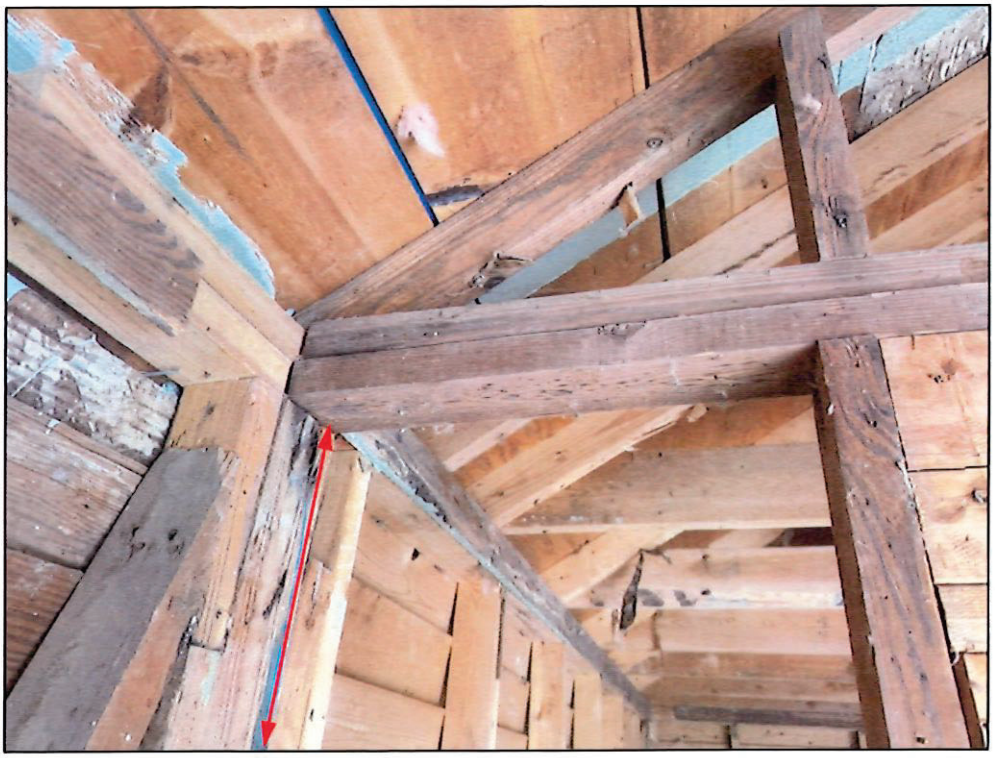
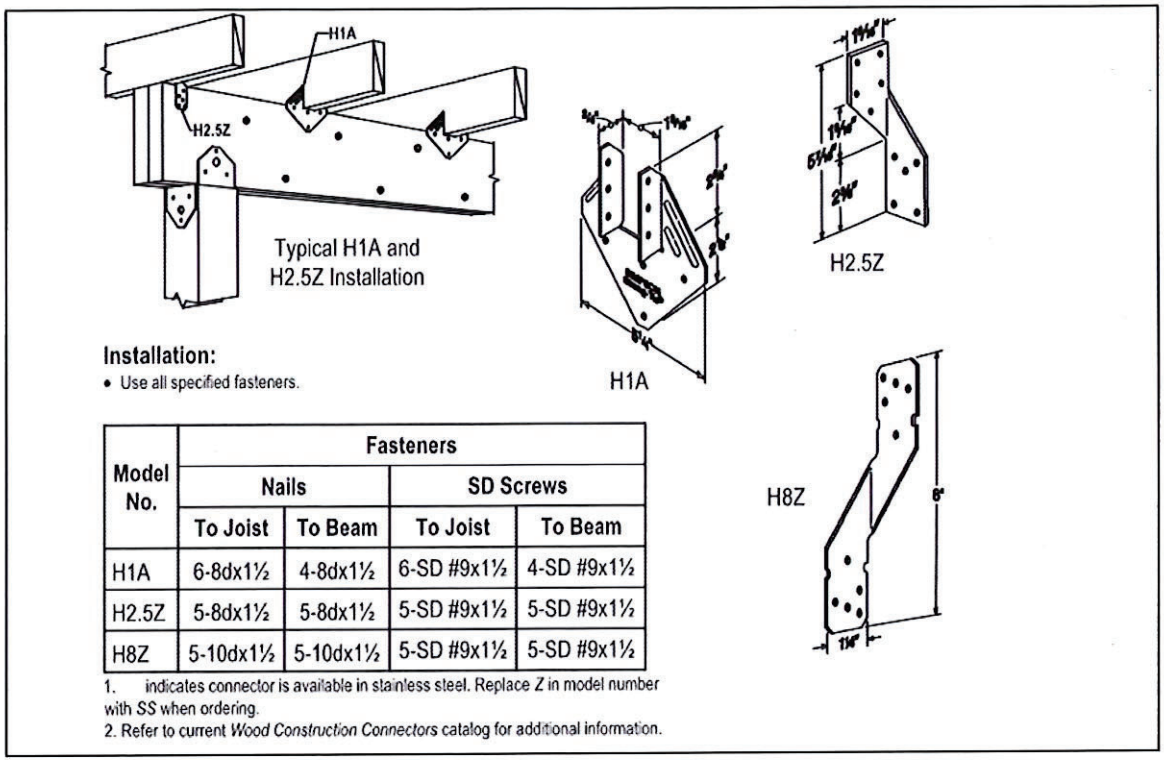


Figure 6 *– Close up of needed stud from Figure 5 (red arrow).*



Installation:

- Use all specified fasteners.

Model No.	Fasteners			
	Nails		SD Screws	
	To Joist	To Beam	To Joist	To Beam
H1A	6-8dx1½	4-8dx1½	6-SD #9x1½	4-SD #9x1½
H2.5Z	5-8dx1½	5-8dx1½	5-SD #9x1½	5-SD #9x1½
H8Z	5-10dx1½	5-10dx1½	5-SD #9x1½	5-SD #9x1½

1. indicates connector is available in stainless steel. Replace *Z* in model number with *SS* when ordering.
2. Refer to current *Wood Construction Connectors* catalog for additional information.

Figure 7 – Simpson Strong-tie Hurricane Tie connection detail.

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a, b, c]	SPACING AND LOCATION
		Roof	
1	Blocking between ceiling joists or rafters to top plate	4-8d box (2½" × 0.113") or 3-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Toe nail
2	Ceiling joists to top plate	4-8d box (2½" × 0.113"); or 3-8d common (2½" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Per joist, toe nail
3	Ceiling joist not attached to parallel rafter, laps over partitions (see Section R802.5.2 and Table R802.5.2)	4-10d box (3" × 0.128"); or 3-16d common (3½" × 0.162"); or4-3" × 0.131" nails	Face nail
4	Ceiling joist attached to parallel rafter (heel joint) (see Section R802.5.2 and Table R802.5.2)	Table R802.5.2	Face nail
5	Collar tie to rafter, face nail or 1¼" × 20 ga. ridge strap to rafter	4-10d box (3" × 0.128"); or 3-10d common (3" × 0.148"); or4-3" × 0.131" nails	Face nail each rafter
6	Rafter or roof truss to plate	3-16d box nails (3½" × 0.135"); or 3-10d common nails (3" × 0.148"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	2 toe nails on one side and 1 toe nail on opposite side of each rafter or truss[i]
7	Roof rafters to ridge, valley or hip rafters or roof rafter to minimum 2" ridge beam	4-16d (3½" × 0.135"); or 3-10d common (3" × 0.148"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	Toe nail
		3-16d box 3½" × 0.135"); or 2-16d common (3½" × 0.162"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	End nail

Figure 8 – Roof connection requirements as described by IRC 2018.

Wall			
8	Stud to stud (not at braced wall panels)	16d common ($3^1/_2$" × 0.162")	24" o.c. face nail
		10d box (3" × 0.128"), or 3" × 0.131" nails	16" o.c. face nail
9	Stud to stud and abutting studs at intersecting wall corners (at braced wall panels)	16d box ($3^1/_2$" × 0.135"); or 3" × 0.131" nails	12" o.c. face nail
		16d common ($3^1/_2$" × 0.162")	16" o.c. face nail
10	Built-up header (2" to 2" header with $^1/_2$" spacer)	16d common ($3^1/_2$" × 0.162")	16" o.c. each edge face nail
		16d box ($3^1/_2$" × 0.135")	12" o.c. each edge face nail
11	Continuous header to stud	5-8d box ($2^1/_2$" × 0.113"); or 4-8d common ($2^1/_2$" × 0.131"); or 4-10d box (3" × 0.128")	Toe nail
12	Top plate to top plate	16d common ($3^1/_2$" × 0.162")	16" o.c. face nail
		10d box (3" × 0.128"); or 3" × 0.131" nails	12" o.c. face nail
13	Double top plate splice	8-16d common ($3^1/_2$" × 0.162"); or 12-16d box ($3^1/_2$" × 0.135"); or 12-10d box (3" × 0.128"); or 12-3" × 0.131" nails	Face nail on each side of end joint (minimum 24" lap splice length each side of end joint)
14	Bottom plate to joist, rim joist, band joist or blocking (not at braced wall panels)	16d common ($3^1/_2$" × 0.162")	16" o.c. face nail
		16d box ($3^1/_2$" × 0.135"); or 3" × 0.131" nails	12" o.c. face nail
15	Bottom plate to joist, rim joist, band joist or blocking (at braced wall panel)	3-16d box ($3^1/_2$" × 0.135"); or 2-16d common ($3^1/_2$" × 0.162"); or 4-3" × 0.131" nails	3 each 16" o.c. face nail 2 each 16" o.c. face nail 4 each 16" o.c. face nail
16	Top or bottom plate to stud	4-8d box ($2^1/_2$" × 0.113"), or 3-16d box ($3^1/_2$" × 0.135"); or 4-8d common ($2^1/_2$" × 0.131"); or 4-10d box(3" × 0.128"); or 4-3" × 0.131" nails	Toe nail
		3-16d box ($3^1/_2$" × 0.135"); or 2-16d common ($3^1/_2$" × 0.162"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	End nail
17	Top plates, laps at corners and intersections	3-10d box (3" × 0.128"); or 2-16d common ($3^1/_2$" × 0.162"); or 3-3" × 0.131" nails	Face nail
18	1" brace to each stud and plate	3-8d box ($2^1/_2$" × 0.113"); or 2-8d common ($2^1/_2$" × 0.131"); or 2-10d box (3" × 0.128"); or 2 staples $1^3/_4$"	Face nail
19	1" × 6" sheathing to each bearing	3-8d box ($2^1/_2$" × 0.113"); or 2-8d common ($2^1/_2$" × 0.131"); or 2-10d box (3" × 0.128"); or 2 staples, 1" crown, 16 ga., $1^3/_4$" long	Face nail
20	1" × 8" and wider sheathing to each bearing	3-8d box ($2^1/_2$" × 0.113"); or 3-8d common ($2^1/_2$" × 0.131"); or 3-10d box (3" × 0.128"); or 3 staples, 1" crown, 16 ga., $1^3/_4$"long	Face nail
		Wider than 1" × 8" 4-8d box ($2^1/_2$" × 0.113"); or 3-8d common ($2^1/_2$" × 0.131"); or 3-10d box (3" × 0.128"); or 4 staples, 1" crown, 16 ga., $1^3/_4$" long	

Figure 9 – Wall connection requirements as described by IRC 2018.