

**STAFF REPORT  
TO THE  
FLORENCE COUNTY BOARD OF ZONING APPEALS  
TUESDAY, OCTOBER 17, 2023  
BZA#2023-03**

**SUBJECT:** A variance requested by John L. Johnson from requirements of the Florence County Code of Ordinances, Chapter 30 - ZONING ORDINANCE ARTICLE III. – CONDITIONAL USE REGULATIONS, Sec. 30-111(7) – Development standards for unzoned areas, for property located at 3201 E Linda Drive, Florence, SC 29506, as shown on Florence County Tax Map No. 90159, Block 01, Parcel 001.

**LOCATION:** 3201 E Linda Drive, Florence, SC

**TAX MAP NUMBER:** 90159, Block 01, Parcel 001

**COUNCIL DISTRICT(S):** 7; County Council

**OWNER OF RECORD:** Beverly Robinson

**APPLICANT:** John L. Johnson

**LAND AREA:** Approximately 0.37 acres

**VARIANCE REQUESTED:** The variance requested would allow the property owner to exceed the minimum setback requirements established by the Florence County Code of Ordinances.

**STAFF ANALYSIS:**

Existing Land Use and Zoning:

The subject property is unzoned and with current use residential.

Surrounding Land Use and Zoning:

North: Residential/ Unzoned  
 South: Residential /Unzoned  
 West: Residential / Unzoned  
 East: Residential /Unzoned

Background:

***Sec. 30- 111(7) Setbacks***

Proposed Use	Front	Rear	Side
Commercial	25'	20'	10'
Industrial/warehousing/storage	25'	50'	50'
Office/institutional	25'	20'	20'
All other uses	25'	5'	5'

The request is for a variance that would allow the applicant to exceed the minimum setback requirements established by the Florence County Code of Ordinances. The applicant was initially issued a building permit based on plans that showed the addition positioned in a manner that met the required setback limits. Upon inspection from the Florence County Building Department, it was determined that the applicant built outside of the approved plans and exceeded the minimum setback requirements. Per the Florence County Code of Ordinances, setbacks of residential uses within an unzoned area must be no less than five feet from the rear property line. The property owner is requesting a variance that would allow them to exceed the minimum setback requirements by approximately three feet. If the variance is granted, it would allow the property owner to continue construction of the addition with approximately 1.8 feet separating the structure from the rear property line.

**Access and Circulation:**

The property is currently accessed by way of E. Linda Dr and N. Williamson Rd, Florence, SC.

**Sec. 30-293. – Board of zoning appeals (c)**

*Powers of board of appeals; variances; special exceptions; remand; stay; hearing; decisions and orders.* The board of appeals has the following powers:

- (1) To hear and decide appeals where it is alleged there is error in an order, requirement, decision, or determination made by an administrative official in the enforcement of the zoning ordinance;
- (2) To hear and decide appeals for variance from the requirements of the zoning ordinance when strict application of the provisions of the ordinance would result in unnecessary hardship. A variance may be granted in an individual case of unnecessary hardship if the board makes and explains in writing the following findings:
  - a. There are extraordinary and exceptional conditions pertaining to the particular piece of property;
  - b. These conditions do not generally apply to other property in the vicinity;
  - c. Because of these conditions, the application of the ordinance to the particular piece of property would effectively prohibit or unreasonably restrict the utilization of the property; and
  - d. The authorization of a variance will not be of substantial detriment to adjacent property or to the public good, and the character of the district will not be harmed by the granting of the variance.

**VARIANCE REQUEST:**

1. Applicant hereby appeals to the Board of Zoning Appeals for a variance from the strict application to the property described in the Notice of Appeal [Form 1] of the following provisions of the Zoning Ordinance:

- a. **Applicant's Response:**  
**Setback requirements 5'- minimum from property line**

so that a zoning permit may be issued to allow use of the property in a manner shown on the attached plot plan, described as follows:

- b. **Applicant's Response:**  
**Request variance for existing wall location. See plat – point A 3.2' variance requested**

for which a permit has been denied by a zoning official on the grounds that the proposal would be in violation of the cited section(s) of the Zoning Ordinance.

2. The application of the ordinance will result in unnecessary hardship, and the standards for a variance set by state law and the ordinance are met by the following facts.

- a. There are extraordinary and exceptional conditions pertaining to the particular piece of property as follows:

**Applicant's response:**

**The reason for the extension is to care for my aunt. She has dementia. She is need of daily care and somewhere to live. She has no kids to car for her.**

- b. These conditions do not generally apply to other property in the vicinity as shown by:

**Applicant's response:**

**N/A**

- c. Because of these conditions, the application of the ordinance to the particular piece of property would effectively prohibit or unreasonably restrict the utilization of the property as follows:

**Applicant's response:**

**Desired size of bedroom**

- d. The authorization of the variance will not be of substantial detriment to adjacent property or to the public good, and the character of the district will not be harmed by the granting of the variance for the following reasons:

**Applicant's response:**

**Adjacent property owners agrees with this addition**

3. The following documents are submitted in support of this application:

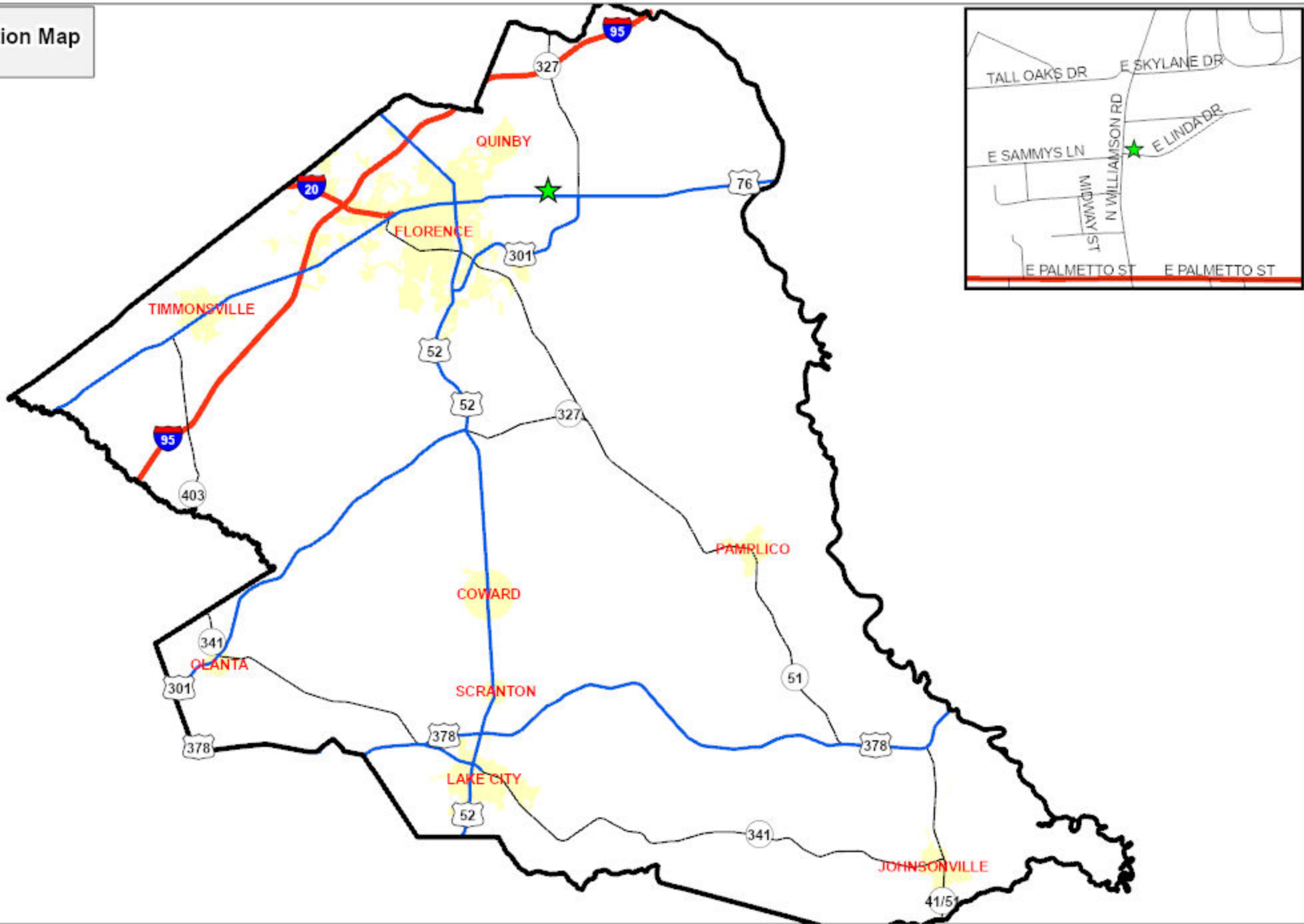
**Applicant's response:**

- 1) **Plat showing proposed structure location 2) narrative detailing chain of events, impacts and consequences & building permit application.**

**ATTACHMENTS:**

1. Location Map
2. Zoning Map
3. Aerial Map
4. Plat

Location Map

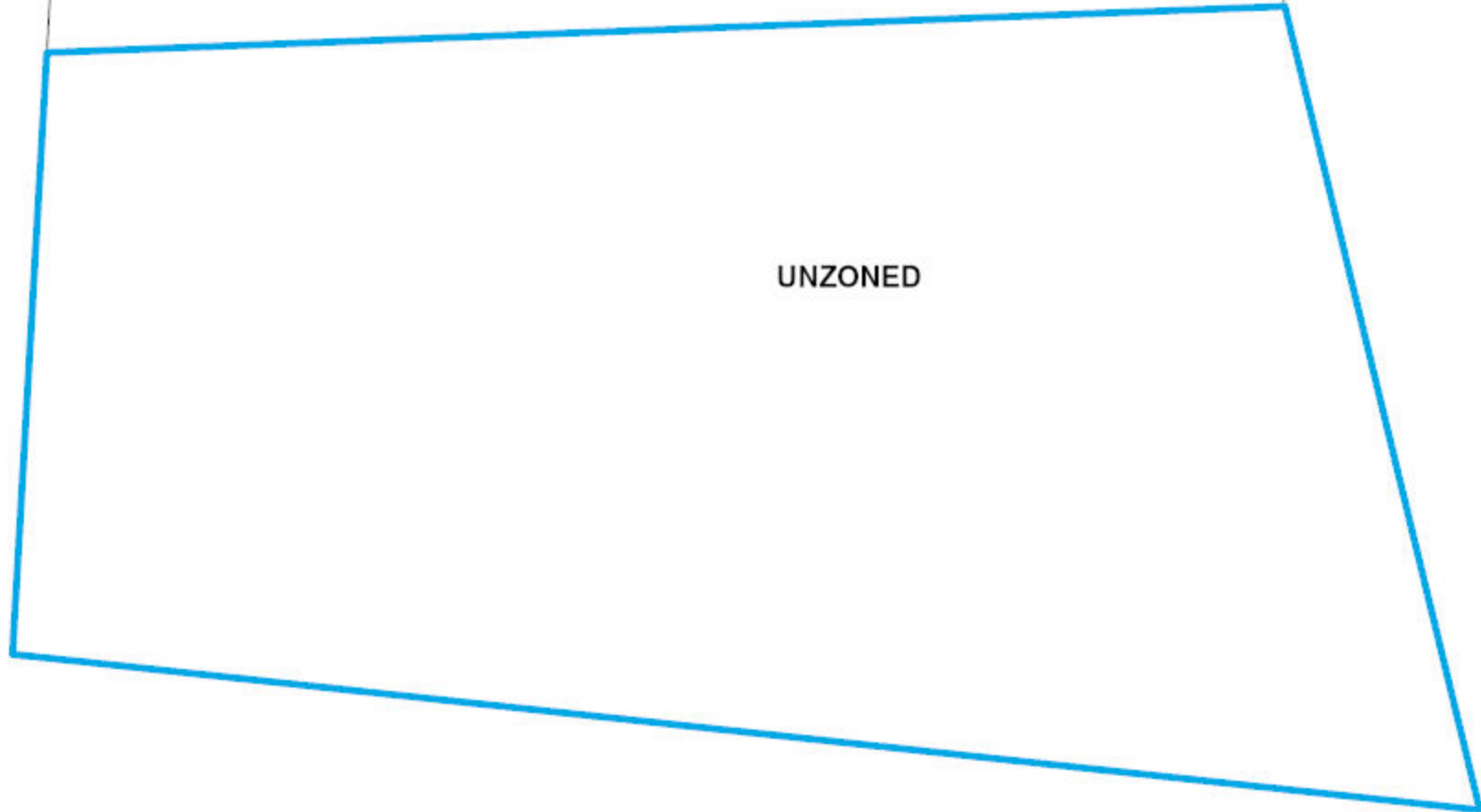


Florence County  
Planning Department  
Meeting Date:  
10/17/23



**Council District 7**  
**BZA#2023-03**

**Florence County  
Zoning Map**



**Legend**

- R-1
- R-2
- R-3
- R-4
- R-5
- PD
- S-1
- S-2
- S-3
- S-4
- S-5
- S-6
- RU-1
- RU-2
- UNZ

E LINDA DR



Florence County  
Planning Department  
Meeting Date:  
10/17/23



**Council District 7  
BZA#2023-03**

2021 Aerial

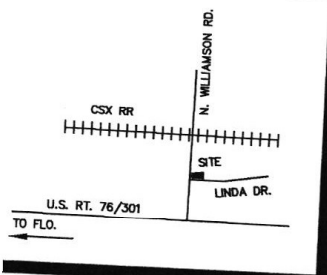


0 10 20 40 Feet

Florence County  
Planning Department  
Meeting Date:  
10/17/23



Council District 7  
BZA#2023-03



LOCATION MAP  
(NTS)

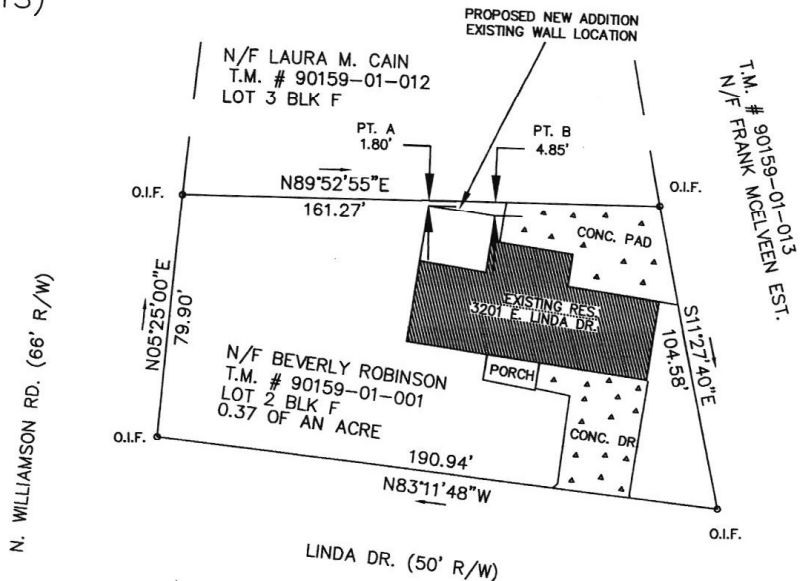
NOTES:

HOUSE AND LOT ARE LOCATED IN FLOOD ZONE X AS DESIGNATED ON F.E.M.A. COMMUNITY PANEL NUMBER 45041C0154 E. EFFECTIVE DATE: DECEMBER 16, 2014. NO TITLE RESEARCH, SUBSURFACE INVESTIGATION OR ENVIRONMENTAL EVALUATION PERFORMED WITH THIS SURVEY.

WALL LOCATION DISTANCE MEASURED PERPENDICULAR TO PROPERTY LINE

AT POINT A IS 1.8 FEET  
AT POINT B IS 4.85 FEET

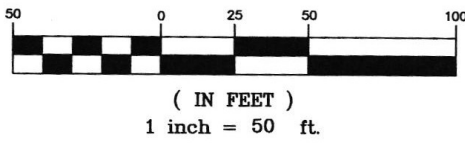
NO FENCE LOCATIONS SHOWN ON THIS PLAT  
O.I.F. ARE 1/2" OR 3/4" BARS



REFERENCE:

PLAT BOOK G	PAGE 96
PLAT BOOK 23	PAGE 620
PLAT BOOK 43	PAGE 475
DEED BOOK A510	PAGE 1182
DEED BOOK 999	PAGE 225

GRAPHIC SCALE



STATE OF SOUTH CAROLINA  
DATE: SEPTEMBER 12, 2023

COUNTY OF FLORENCE  
SCALE: 1" = 50'

PLAT

REQUESTING A VARIANCE FOR FLORENCE COUNTY SETBACK REQUIREMENTS FOR TAX MAP PARCEL NUMBER 90159-01-001 KNOWN AS LOT NUMBER 2 BLOCK F IN GLENDALE ACRES SUBDIVISION RECORDED IN PLAT BOOK G PAGE 96. THIS LOT IS LOCATED NORTH OF THE INTERSECTION OF NORTH WILLIAMSON ROAD AND LINDA DRIVE, IN FLORENCE COUNTY, S. C.

SURVEYED FOR  
**BEVERLY ROBINSON**

SURVEYED BY *John L. Johnson*  
JOHN L. JOHNSON R.L.S. AND P.E. NO. 7220  
3417 LAKE SHORE DRIVE FLORENCE, S.C. 29501

FILE NO. P-69-2023

I HEREBY STATE TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF THAT THE SURVEY SHOWN HEREON, WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF THE MINIMUM STANDARDS MANUAL FOR THE PRACTICE OF LAND SURVEYING IN SOUTH CAROLINA, AND MEETS THE REQUIREMENTS FOR A CLASS "B" SURVEY AS SPECIFIED THEREIN; ALSO THERE ARE NO VISIBLE ENCROACHMENTS OR PROJECTIONS OTHER THAN SHOWN.



**STAFF REPORT  
TO THE  
FLORENCE COUNTY BOARD OF ZONING APPEALS  
TUESDAY, OCTOBER 17, 2023  
BZA#2023-04**

**SUBJECT:** A variance requested by Henry Keith Henderson from requirements of the Florence County Code of Ordinances, Chapter 30 - ZONING ORDINANCE ARTICLE VII. – GENERAL AND ANCILLARY REGULATIONS, Sec. 30-246 – Accessory buildings and uses, for property located at 2812 Cypress Bend Road Florence, SC 29506, as shown on Florence County Tax Map No. 02371, Block 02, Parcel 009.

**LOCATION:** 2812 Cypress Bend Road, Florence, SC

**TAX MAP NUMBER:** 02371, Block 02, Parcel 009

**COUNCIL DISTRICT(S):** 6; County Council

**OWNER OF RECORD:** Henry & Kathryn Henderson

**APPLICANT:** Henry Keith Henderson

**LAND AREA:** Approximately .96 acres

**VARIANCE REQUESTED:** The variance requested would allow the owner to place an accessory structure in a prohibited location established by the Florence County Code of Ordinances.

**STAFF ANALYSIS:**

Existing Land Use and Zoning:

The subject property is unzoned with current use residential.

Surrounding Land Use and Zoning:

North: Residential/ Unzoned  
South: Residential/ Unzoned  
West: Residential/ Unzoned  
East: Recreational/ Unzoned

Background:

*Sec. 30- 246 Purpose. To establish the general rules for the placement of accessory structures and uses to a principal use on a parcel. As a general rule, all accessory structures and uses shall only be placed in side or rear yards...*

The request is for a variance that would allow the applicant to deviate from the standards for the location of accessory structures and uses as outlined in the Florence County Code of Ordinances. The applicant was originally issued a permit to place an accessory structure in the side yard. Upon inspection by the Florence County Building Division, it was noted that the structure had been placed

in a manner that extended past the front of the primary structure. Per the Florence County Code of Ordinances, the area in front of the primary structure is consider to be the front yard, in which accessory uses and structures are prohibited to be located. If the variance request is granted it would allow the applicant to continue construction of the structure in its current location.

**Access and Circulation:**

The property is currently accessed by way of Cypress Bend Road, Florence SC.

**Sec. 30-293. – Board of zoning appeals (c)**

*Powers of board of appeals; variances; special exceptions; remand; stay; hearing; decisions and orders.*

The board of appeals has the following powers:

- (1) To hear and decide appeals where it is alleged there is error in an order, requirement, decision, or determination made by an administrative official in the enforcement of the zoning ordinance;
- (2) To hear and decide appeals for variance from the requirements of the zoning ordinance when strict application of the provisions of the ordinance would result in unnecessary hardship. A variance may be granted in an individual case of unnecessary hardship if the board makes and explains in writing the following findings:
  - a. There are extraordinary and exceptional conditions pertaining to the particular piece of property;
  - b. These conditions do not generally apply to other property in the vicinity;
  - c. Because of these conditions, the application of the ordinance to the particular piece of property would effectively prohibit or unreasonably restrict the utilization of the property; and
  - d. The authorization of a variance will not be of substantial detriment to adjacent property or to the public good, and the character of the district will not be harmed by the granting of the variance.

**VARIANCE REQUEST:**

1. Applicant hereby appeals to the Board of Zoning Appeals for a variance from the strict application to the property described in the Notice of Appeal [Form 1] of the following provisions of the Zoning Ordinance:

a. **Applicant’s Response:**

+/- 10’

so that a zoning permit may be issued to allow use of the property in a manner shown on the attached plot plan, described as follows:

b. **Applicant’s Response:**

Shifted pad away from floodway 10’

for which a permit has been denied by a zoning official on the grounds that the proposal would be in violation of the cited section(s) of the Zoning Ordinance.

2. The application of the ordinance will result in unnecessary hardship, and the standards for a variance set by state law and the ordinance are met by the following facts.

a. There are extraordinary and exceptional conditions pertaining to the particular piece of property as follows:

**Applicant's response:**

**If picnic shelter were located in line with my residence, it would be undermined(eroded) and destroyed by future flood waters. I shifted it forward to keep it out of harm's way.**

b. These conditions do not generally apply to other property in the vicinity as shown by:

**Applicant's response:**

**Does not apply in this situation**

c. Because of these conditions, the application of the ordinance to the particular piece of property would effectively prohibit or unreasonably restrict the utilization of the property as follows:

**Applicant's response:**

**Future flood water avoidance.**

d. The authorization of the variance will not be of substantial detriment to adjacent property or to the public good, and the character of the district will not be harmed by the granting of the variance for the following reasons:

**Applicant's response:**

**You can't tell the difference in slab location from the street. My closet neighbors agree. Signatures page to follow**

3. The following documents are submitted in support of this application:

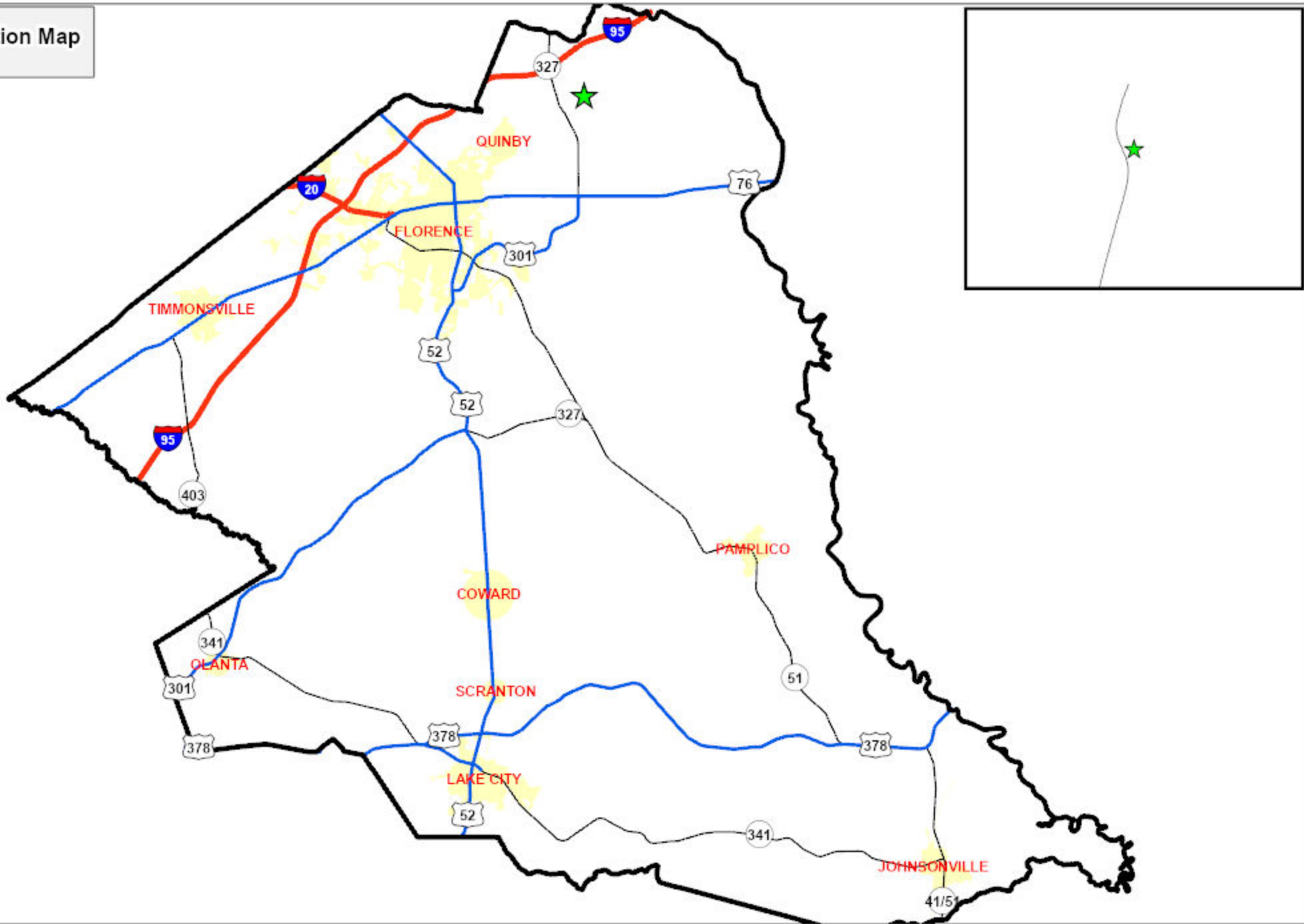
**Applicant's response:**

Pictures: Black Creek Flood Map, Surveyors High Water Stake, Stake Relationship to Pad, Etc. These pictures support my reasoning for shifting pad away from Black Creek.

**ATTACHMENTS:**

1. Location Map
2. Zoning Map
3. Aerial Map
4. Applicant Submitted Photos

Location Map

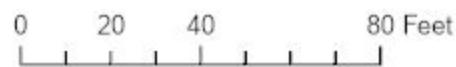


Florence County  
Planning Department  
Meeting Date:  
10/17/23



**Council District 6**  
**BZA#2023-04**

Florence County  
Zoning Map



Florence County  
Planning Department  
Meeting Date:  
10/17/23



Council District 6  
BZA#2023-04

2021 Aerial

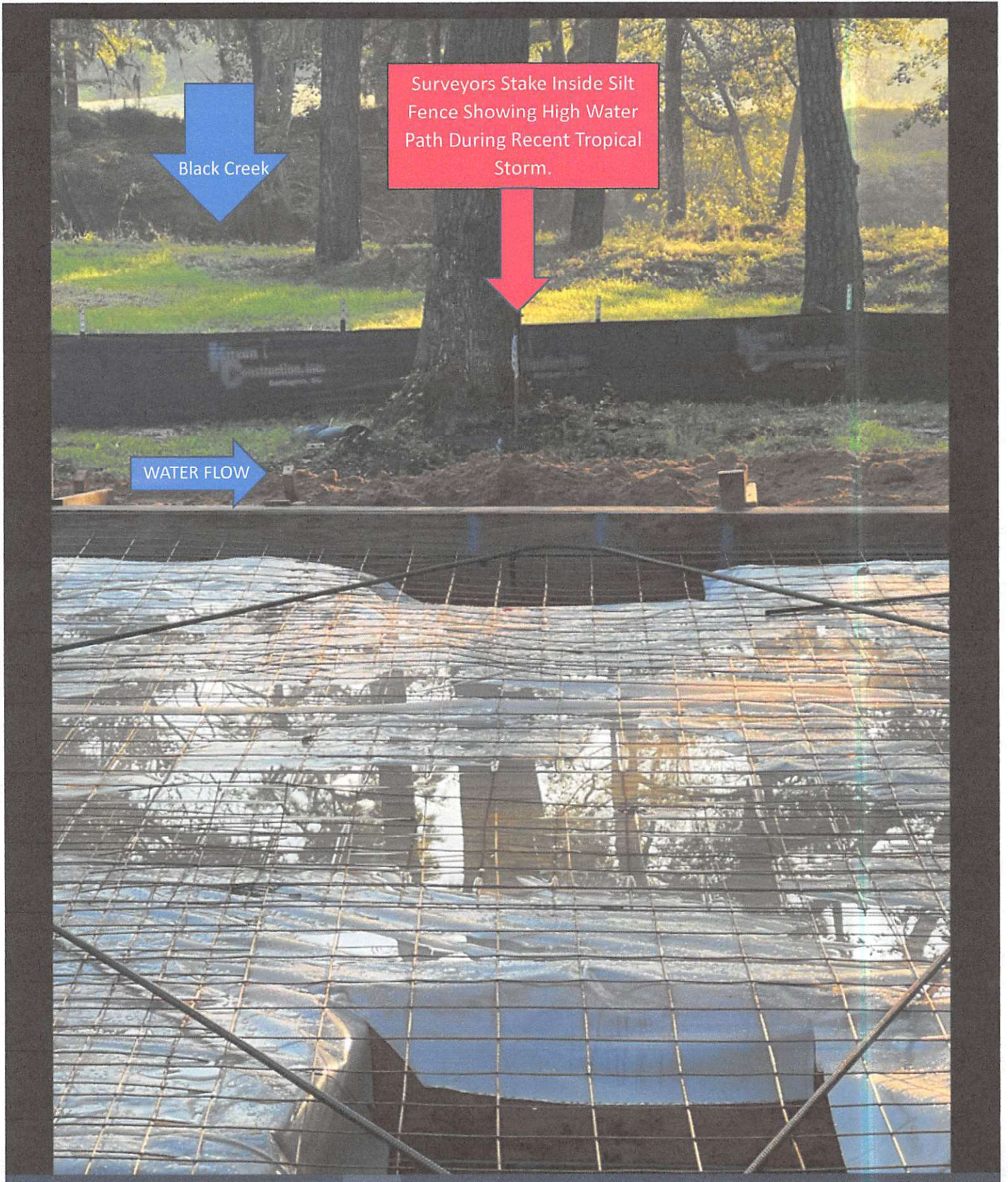


0 20 40 80 Feet

Florence County  
Planning Department  
Meeting Date:  
10/17/23



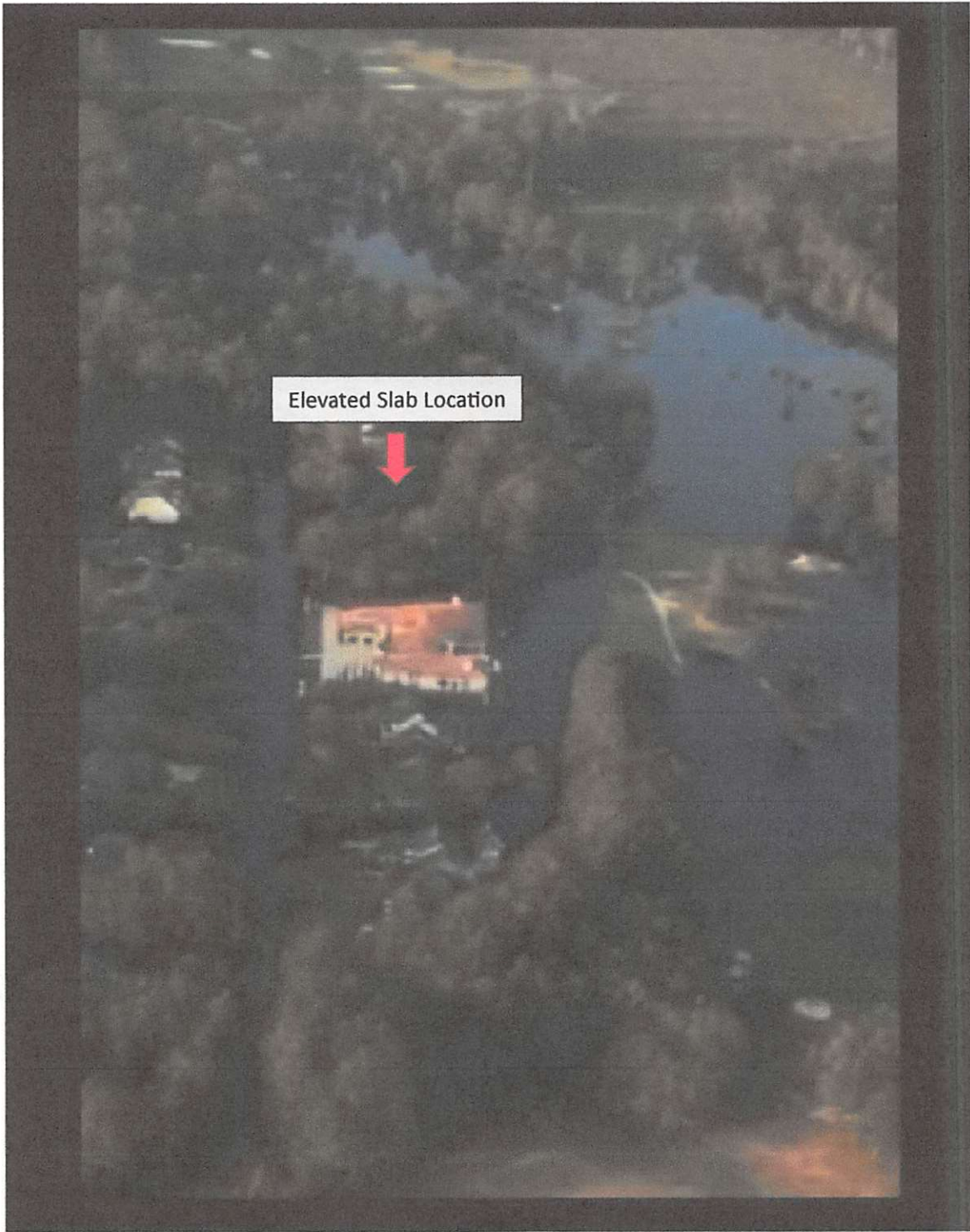
Council District 6  
BZA#2023-04





**Surveyors High Water Mark  
Is 4' 6" From Sand Clay Pad**





Hydrograph

River at a Glance

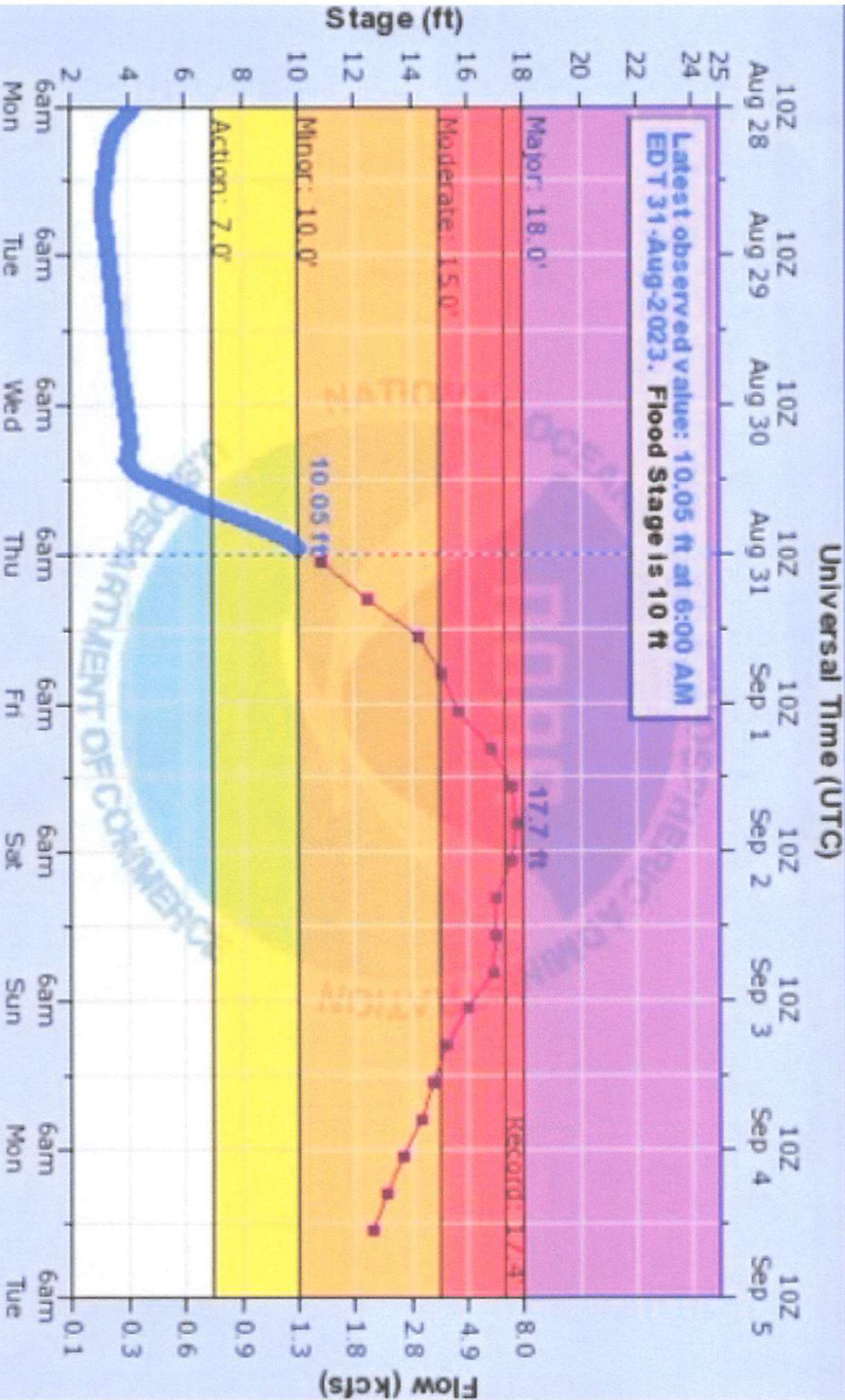
Download

Probability Information

Auto Refresh: OFF



## BLACK CREEK (SC) NEAR QUINBY



**STAFF REPORT  
TO THE  
FLORENCE COUNTY BOARD OF ZONING APPEALS  
TUESDAY, OCTOBER 17, 2023  
BZA#2023-05**

**SUBJECT:** A variance requested by Phillip Oakley Spears Beckham from requirements of the Florence County Code of Ordinances, Chapter 30 - ZONING ORDINANCE ARTICLE VII. - GENERAL AND ANCILLARY REGULATIONS, Sec. 30-246(1) – Accessory buildings and uses, for property located at 3444 Lakeshore Dr. Florence, SC 29501, as shown on Florence County Tax Map No. 00101, Block 01, Parcel 180.

**LOCATION:** 3444 Lakeshore Drive, Florence, SC

**TAX MAP NUMBER:** 00101, Block 01, Parcel 180

**COUNCIL DISTRICT(S):** 9; County Council

**OWNER OF RECORD:** Spears Beckham

**APPLICANT:** Phillip Oakley & Spears Beckham

**LAND AREA:** Approximately .69 acres

**VARIANCE REQUESTED:** The variance requested is to allow an existing accessory structure to remain in its current location, which extends into the rear setback area.

**STAFF ANALYSIS:**

Existing Land Use and Zoning:

The subject property is unzoned with current use residential.

Surrounding Land Use and Zoning:

North: Residential, /Unzoned  
South: Residential/Unzoned  
West: Residential/Unzoned  
East: Residential, Vacant/Unzoned

Background:

*Sec. 30- 246(1) Accessory structures and uses to observe required setbacks. Unless specifically provided herein, all accessory uses and structures shall observe all required setbacks, yard, and other requirements applicable to the principal building or use for the district within which they are located.*

The request is for a variance that would allow the applicant to exceed the minimum rear setback requirements for an accessory structure that was constructed without the required permits. Per the Florence County Code of Ordinances, accessory structures in an unzoned area must observe the same setback requirements established for the primary structure. In an unzoned area the required rear setback for primary

and accessory structures is five feet. Currently the building sits approximately two feet from the property line. If the variance is granted it would allow the structure to remain in its current location. All appropriate permits would still be required to be obtained if the variance is granted.

**Access and Circulation:**

The property is currently accessed by way of Lake Shore Drive, Florence, SC.

**Sec. 30-293. – Board of zoning appeals (c)**

*Powers of board of appeals; variances; special exceptions; remand; stay; hearing; decisions and orders.* The board of appeals has the following powers:

- (1) To hear and decide appeals where it is alleged there is error in an order, requirement, decision, or determination made by an administrative official in the enforcement of the zoning ordinance;
- (2) To hear and decide appeals for variance from the requirements of the zoning ordinance when strict application of the provisions of the ordinance would result in unnecessary hardship. A variance may be granted in an individual case of unnecessary hardship if the board makes and explains in writing the following findings:
  - a. There are extraordinary and exceptional conditions pertaining to the particular piece of property;
  - b. These conditions do not generally apply to other property in the vicinity;
  - c. Because of these conditions, the application of the ordinance to the particular piece of property would effectively prohibit or unreasonably restrict the utilization of the property; and
  - d. The authorization of a variance will not be of substantial detriment to adjacent property or to the public good, and the character of the district will not be harmed by the granting of the variance.

**VARIANCE REQUEST:**

- 1. Applicant hereby appeals to the Board of Zoning Appeals for a variance from the strict application to the property described in the Notice of Appeal [Form 1] of the following provisions of the Zoning Ordinance:

- a. **Applicant’s Response:**  
**5 feet from yard setback**

so that a zoning permit may be issued to allow use of the property in a manner shown on the attached plot plan, described as follows:

- b. **Applicant’s Response:**  
**Unattached garage built 5 feet from property line in one spot, but the concrete was laid closer (2 feet) in another spot, so the big part of the building is 2 feet from the line when they erected it in one day.**

for which a permit has been denied by a zoning official on the grounds that the proposal would be in violation of the cited section(s) of the Zoning Ordinance.

2. The application of the ordinance will result in unnecessary hardship, and the standards for a variance set by state law and the ordinance are met by the following facts.

a. There are extraordinary and exceptional conditions pertaining to the particular piece of property as follows:

**Applicant's response:**

**The cost to tear up the concrete and move the building and repour more concrete is excessive (over 6800 to move the building and 3000 to pour concrete and remove old concrete)**

b. These conditions do not generally apply to other property in the vicinity as shown by:

**Applicant's response:**

**N/A**

c. Because of these conditions, the application of the ordinance to the particular piece of property would effectively prohibit or unreasonably restrict the utilization of the property as follows:

**Applicant's response:**

**N/A**

d. The authorization of the variance will not be of substantial detriment to adjacent property or to the public good, and the character of the district will not be harmed by the granting of the variance for the following reasons:

**Applicant's response:**

**We have erected a privacy fence where before there was only chain link along that part of the property only, so that the neighboring properties can't be affected (or really see) the bottom of the building**

3. The following documents are submitted in support of this application:

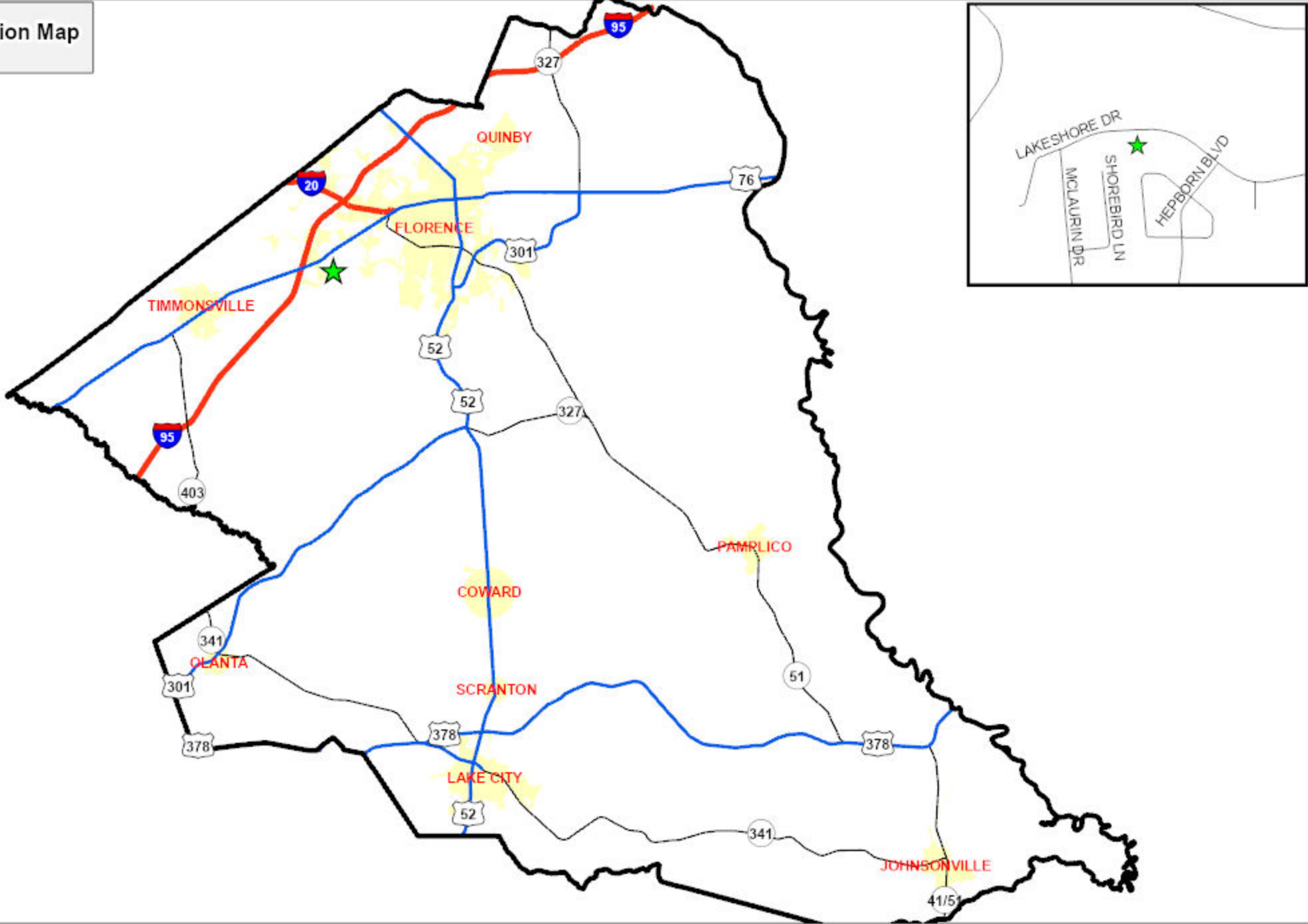
**Applicant's response:**

**Plot plan, engineer drawings, photo**

**ATTACHMENTS:**

1. Location Map
2. Zoning Map
3. Aerial Map
4. Plat
5. Engineer Drawings
6. Applicant Submitted Photo

Location Map



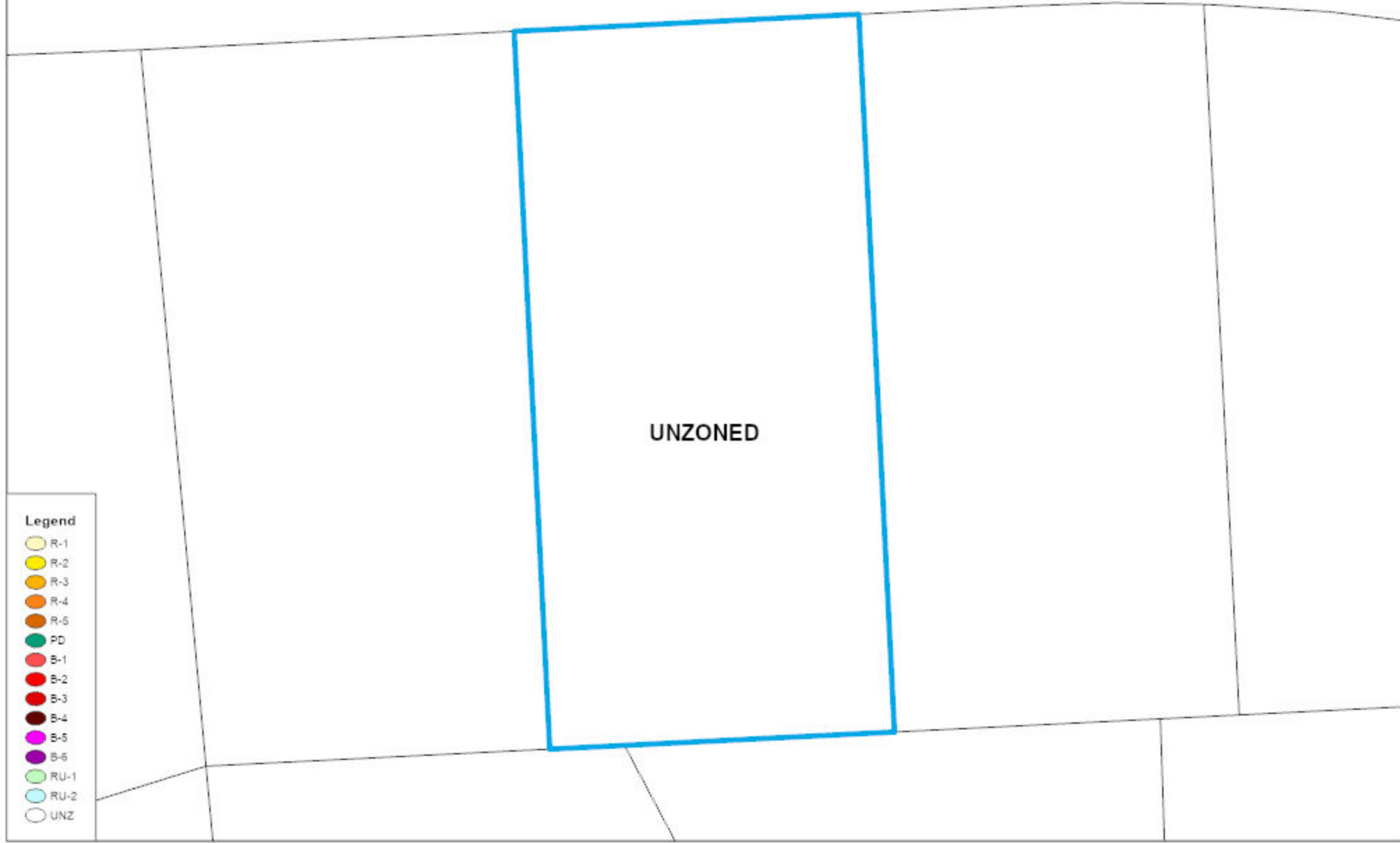
Florence County  
Planning Department  
Meeting Date:  
10/17/23



**Council District 9**  
**BZA#2023-05**

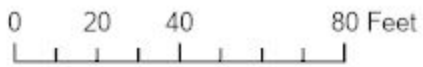
**Florence County  
Zoning Map**

LAKE SHORE DR



**Legend**

- R-1
- R-2
- R-3
- R-4
- R-5
- PD
- S-1
- S-2
- S-3
- S-4
- S-5
- S-6
- RU-1
- RU-2
- UNZ



Florence County  
Planning Department  
Meeting Date:  
10/17/23



**Council District 9  
BZA#2023-05**

28

2021 Aerial

LAKESHORE DR



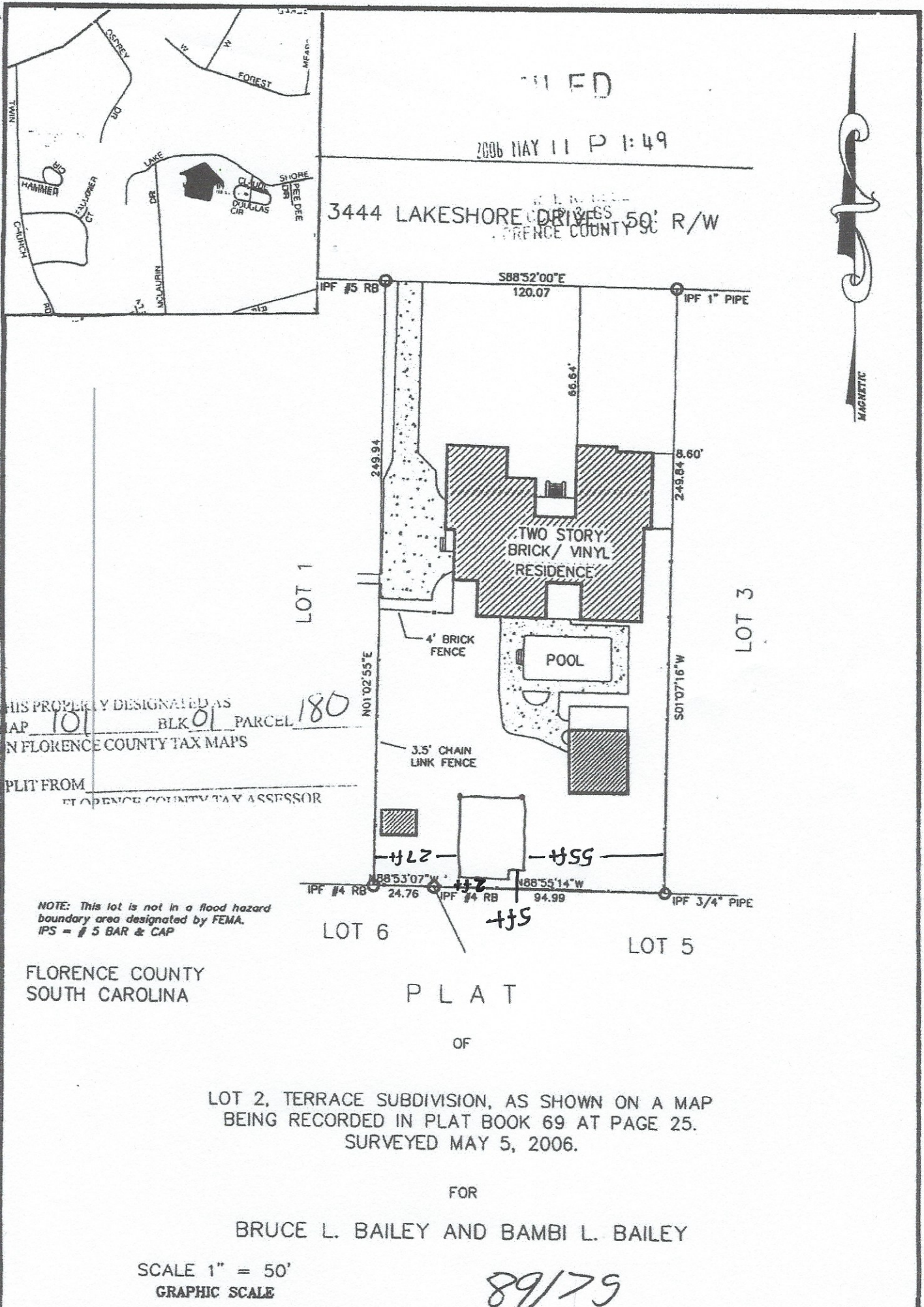
0 20 40 80 Feet

Florence County  
Planning Department  
Meeting Date:  
10/17/23



Council District 9  
BZA#2023-05





UNFILED  
 2006 MAY 11 P 1:49

3444 LAKESHORE DRIVES  
 FLORENCE COUNTY SC 50' R/W

THIS PROPERTY DESIGNATED AS  
 MAP 101 BLK 01 PARCEL 180  
 ON FLORENCE COUNTY TAX MAPS  
 SPLIT FROM  
 FLORENCE COUNTY TAX ASSESSOR

NOTE: This lot is not in a flood hazard  
 boundary area designated by FEMA.  
 IPS = # 5 BAR & CAP

FLORENCE COUNTY  
 SOUTH CAROLINA

PLAT

OF

LOT 2, TERRACE SUBDIVISION, AS SHOWN ON A MAP  
 BEING RECORDED IN PLAT BOOK 69 AT PAGE 25.  
 SURVEYED MAY 5, 2006.

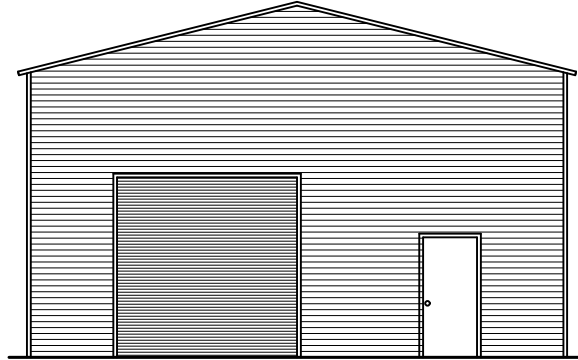
FOR

BRUCE L. BAILEY AND BAMBI L. BAILEY

SCALE 1" = 50'  
 GRAPHIC SCALE

89/79





**ENCLOSED GABLE END BUILDING**

**MAXIMUM 30'-0" WIDE X 16'-0" EAVE HEIGHT WITH BOX FRAME / (UP TO) 145 M.P.H. WIND ZONE - 30 P.S.F. SNOW LOAD**

**FOR:**

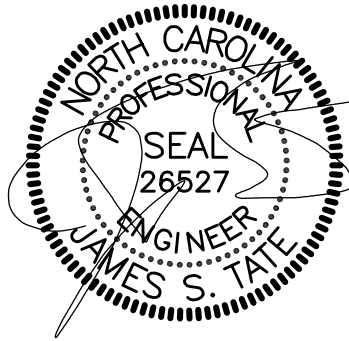
**N.C. CARPORTS & GARAGES  
116 EAST MARKET STREET / ELKIN, NC. 28621**

ISSUE DATE: FEBRUARY 01, 2023

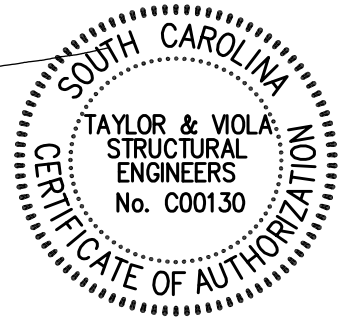
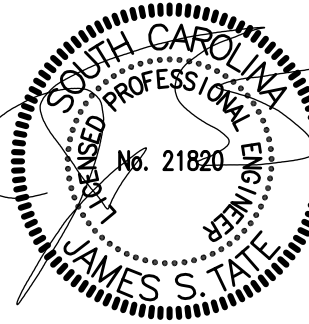


Spears Beckwith

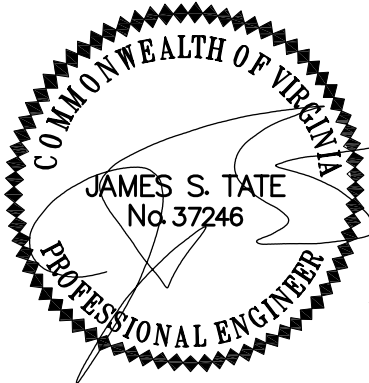
NOTE:  
THESE DRAWINGS ARE VALID FOR 1 (ONE)  
CALENDAR YEAR AFTER THE ISSUE DATE  
LISTED ON THIS SHEET



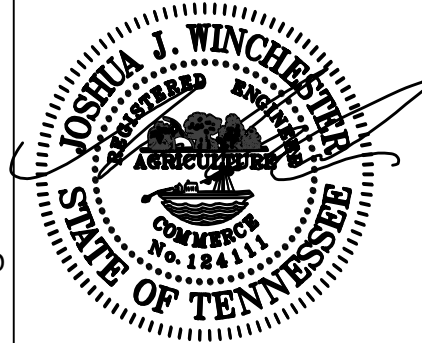
DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2018 NC BUILDING CODE (2015 IBC)



DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2021 SC BUILDING CODE (2021 IBC)



DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2018 VA CONSTRUCTION CODE (2018 IBC)



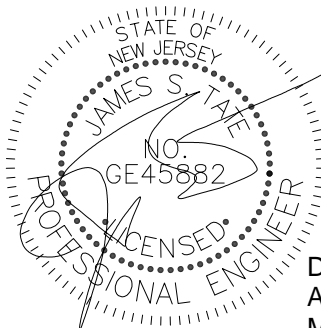
DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2012 IBC



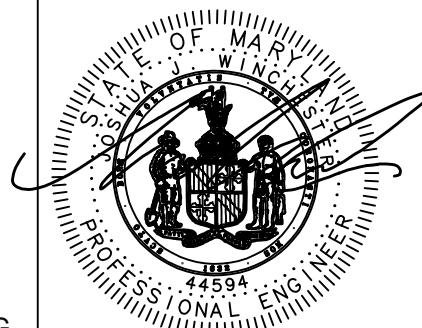
DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2018 IBC



DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2020 BUILDING CODE OF NEW YORK STATE (2018 IBC)



DOCUMENTS DESIGNED AND DRAWN TO MEET THE 20210 BUILDING CODENEW JERSEY EDITION (2021 IBC)



DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2018 IBC



N.C. CARPORT & GARAGES  
116 EAST MARKET STREET  
ELKIN, NORTH CAROLINA 28621

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BKS

PROJECT NO:  
MISC

DATE:  
2023.02.01

SHEET NO:  
S1



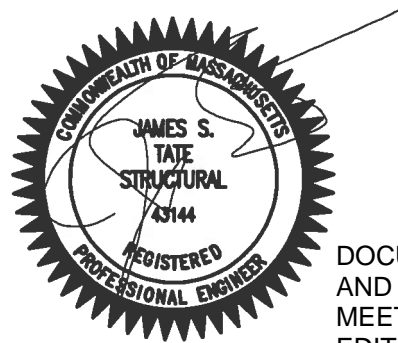
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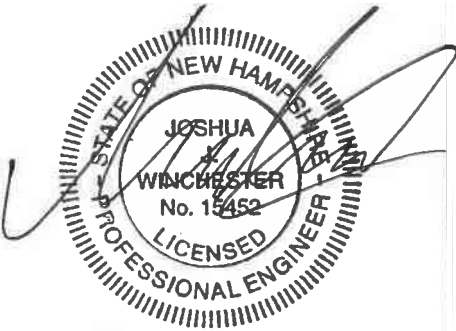
DOCUMENTS DESIGNED AND DRAWN TO MEET THE 2021 BUILDING CODE OF ALABAMA (2021 IBC)



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DOCUMENTS DESIGNED AND DRAWN TO MEET THE NINETH EDITION OF THE MA STATE BUILDING CODE



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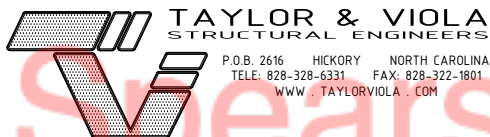
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S1

# SHEET INDEX

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S0	SEALED COVER SHEET
S1	P.E. SEALS SHEET
S1A	P.E. SEALS SHEET
S2	DRAWING INDEX
S3	GENERAL NOTES AND SPECIFICATIONS
S4	SIDE AND END ELEVATIONS
S5	TYPICAL RAFTER / COLUMN FRAME SECTIONS
S5A	TYPICAL RAFTER / COLUMN FRAME SECTIONS
S5B	TYPICAL RAFTER / COLUMN FRAME AND SIDE FRAMING SECTION
S6	COLUMN CONNECTION DETAILS (LACED COLUMN)
S6A	COLUMN CONNECTION DETAILS (DOUBLE AND SINGLE COLUMN)
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S6C	COLUMN CONNECTION DETAILS (DOUBLE AND SINGLE COLUMN)
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S15	LEAN-TO OPTIONS
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S17	SIDE WALL HEADER OPTIONS
S17A	END WALL HEADER OPTIONS



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DESIGN LOADS:

IMPORTANCE FACTORS	WIND	(1w)	1.00	
	SNOW	(1s)	1.00	
	SEISMIC	(1e)	1.00	
DEAD LOADS	ROOF		13	PSF
	ROOF COLLATERAL		0	PSF
LIVE LOADS	ROOF		20	PSF
GROUND SNOW LOAD:			30	PSF
GROUND LOAD:	BASIC WIND SPEED	V	145	mph (ASCE 7-10)
	EXPOSURE CATAGORY	B		

\* DRIFT LOAD HAS NOT BEEN CALCULATED

SEISMIC DESIGN CATAGORY A

COMPLIANCE WITH SECTION 1616.4?  NO  YES

PROVIDE THE FOLLOWING SEISMIC DESIGN PARAMETERS:

OCCUPANCY CATEGORY I

SPECTRAL RESPONSE ACCELERATION Ss 20.5 %g S1 8.8 %g

SITE CLASSIFICATION D  FIELD TEST  PRESUMPTIVE  HISTORICAL DATA

BASIC STRUCTURAL SYSTEM (CHECK ONE)

- |                                     |                |                          |   |
|-------------------------------------|----------------|--------------------------|---|
| <input type="checkbox"/>            | BEARING WALL   | <input type="checkbox"/> | DUAL W/ SPECTRAL MOMENT FRAME             |
| <input checked="" type="checkbox"/> | BUILDING FRAME | <input type="checkbox"/> | DUAL W/ INTERMEDIATE R/C OR SPECIAL STEEL |
| <input type="checkbox"/>            | MOMENT FRAME   | <input type="checkbox"/> | INVERTED PENDULUM                         |

ANALYSIS PROCEDURE  SIMPLIFIED  EQUIVALANT LATERAL FORCE  MODAL

LATERAL DESIGN CONTROL?  EARTHQUAKE  WIND

SOIL BEARING CAPACITIES:

PRESUMPTIVE BEARING CAPACITIES: 2,000 PSF

GENERAL NOTES:

- MAX FRAME SPACING SHALL BE 60"oc UNLESS NOTED OTHERWISE.
- MAX. END-WALL COLUMN SPACING SHALL BE 60"oc UNLESS NOTED OTHERWISE.
- TUBE MATERIAL SHALL BE 2-1/2" x 2-1/2" x 14 GA. 50 KSI MIN. UNLESS NOTED OTHERWISE.
- ALL FASTENERS SHALL BE #12 SELF TAPPING AT 9"o.c. UNLESS NOTED OTHERWISE.
- 2,000 PSF ASSUMED BEARING CAPACITY UNLESS NOTED OTHERWISE.



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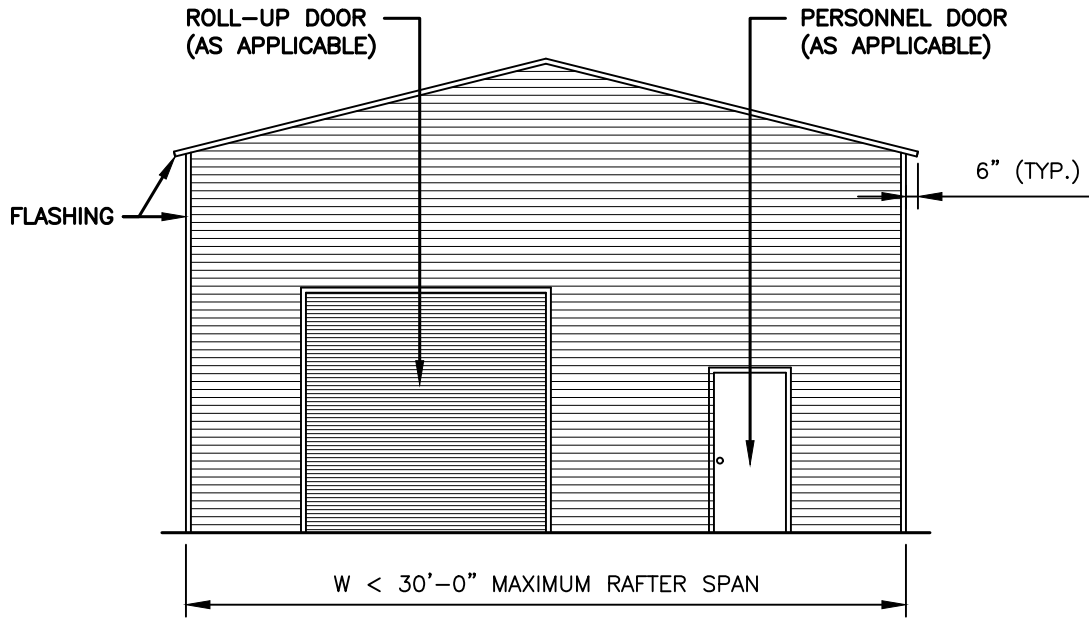
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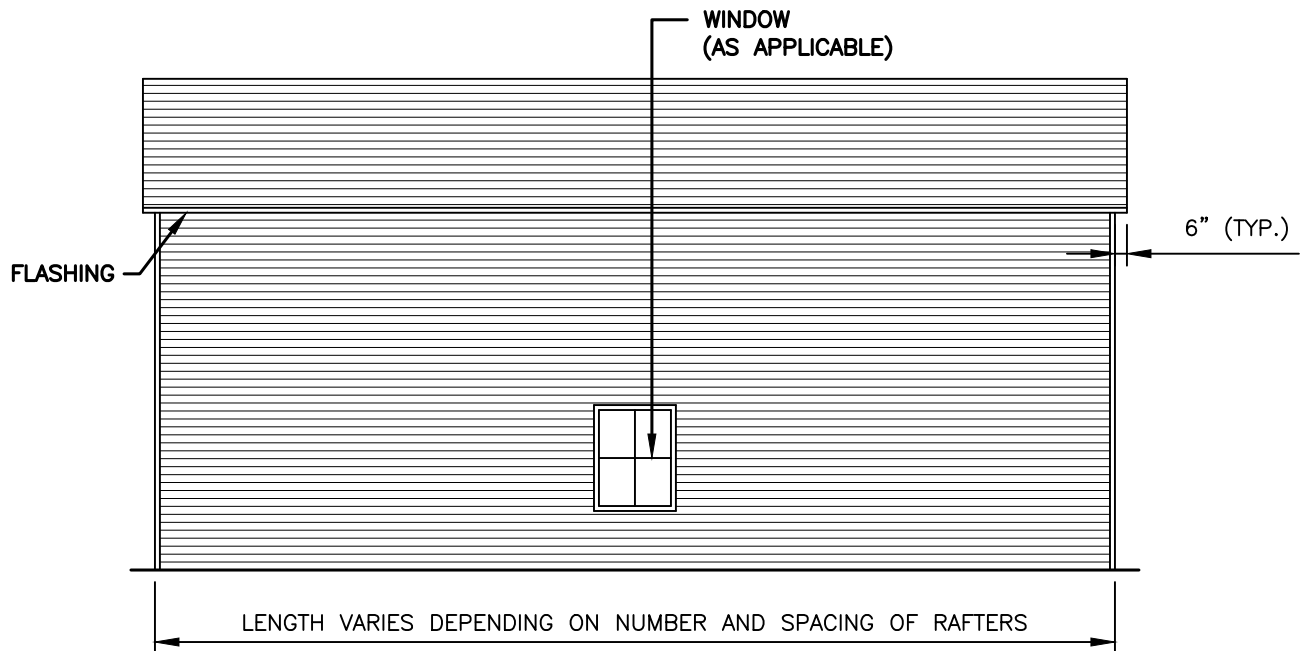
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**S3**


## BOX EVE FRAME RAFTER STURCTURE



TYPICAL END ELEVATION



TYPICAL SIDE ELEVATION


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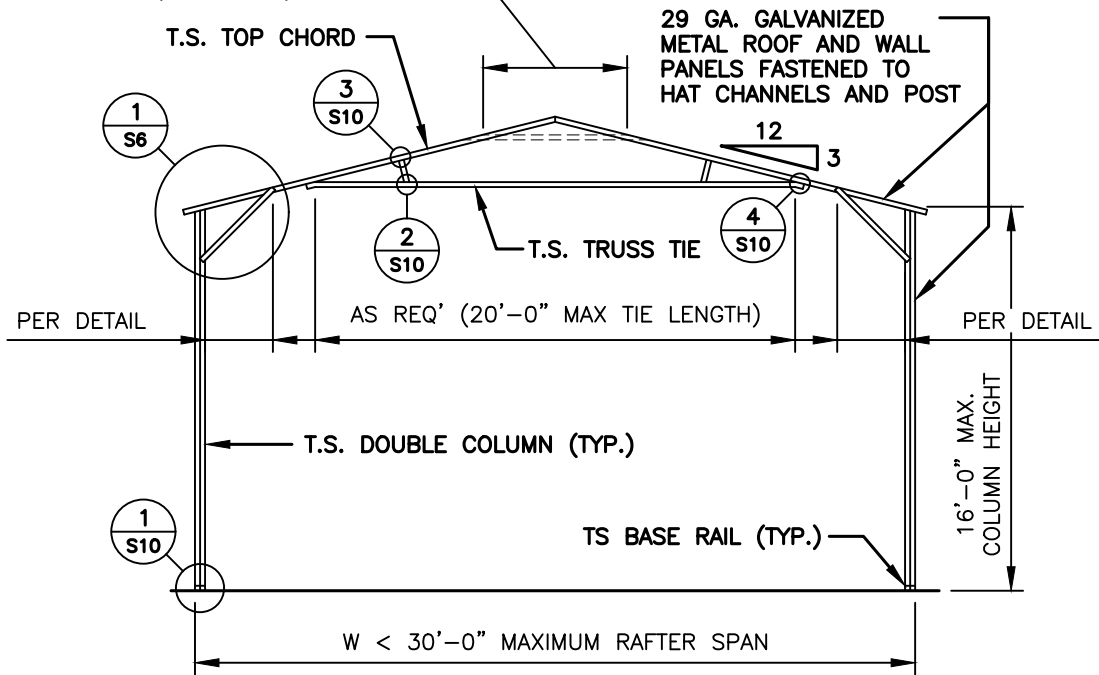
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**S4**

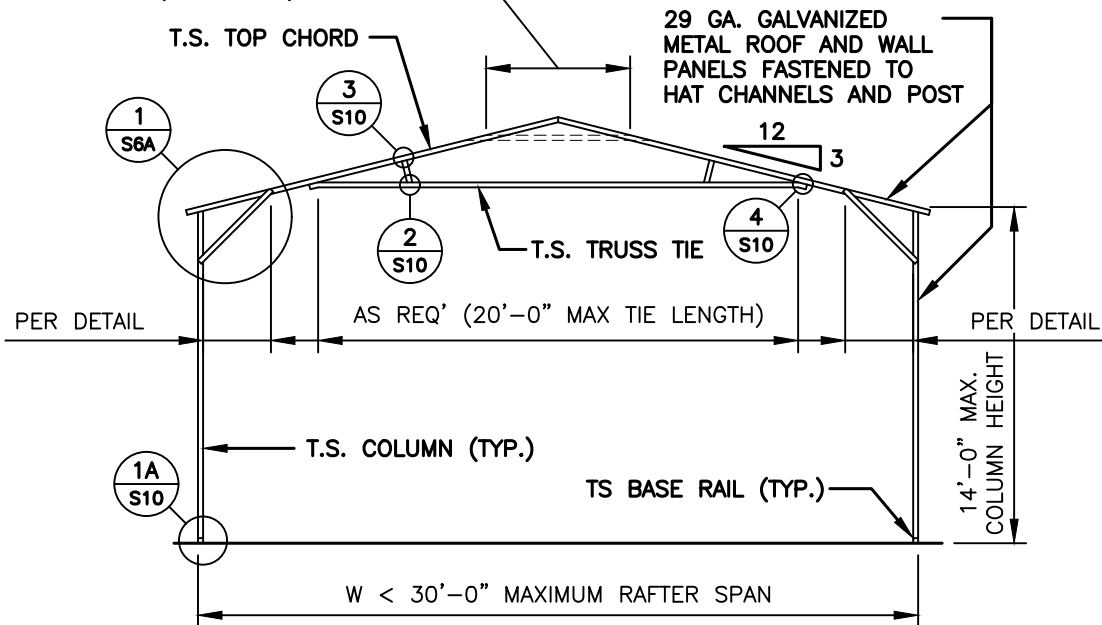
'U' BRACE TRUSS TIE - NOTE:  
 6'-0" BRACE FOR 21'-24' BUILDING WIDTH  
 20' TUBE TRUSS TIE (AS SHOWN) FOR 25'-30'



**TYPICAL RAFTER / COLUMN FRAME SECTION**

'U' BRACE TRUSS TIE - NOTE:  
 6'-0" BRACE FOR 21'-24' BUILDING WIDTH  
 20' TUBE TRUSS TIE (AS SHOWN) FOR 25'-30'

NOTE:  
 H.S.S. 2-1/2"x2-1/2"x14ga. OR 2-1/4"x2-1/4"x14ga.  
 MATERIAL MAY BE USED FOR TRUSS METAL.



**TYPICAL RAFTER / COLUMN FRAME SECTION**



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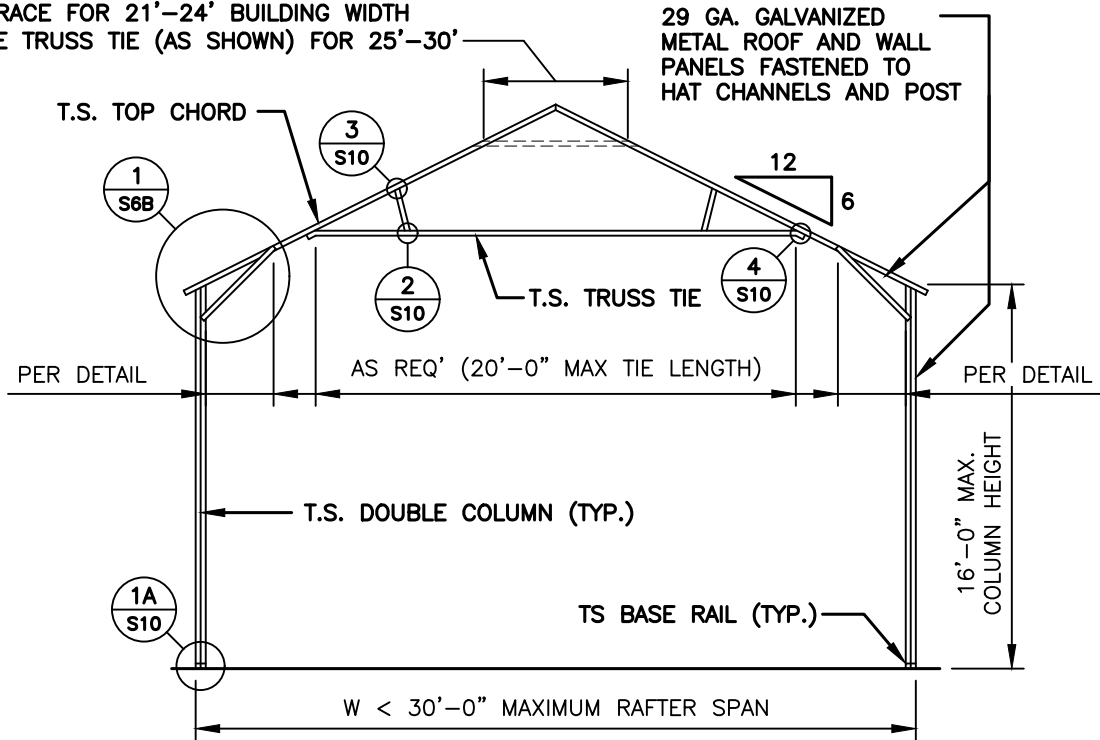
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**SHEET NO:**  
**S5**



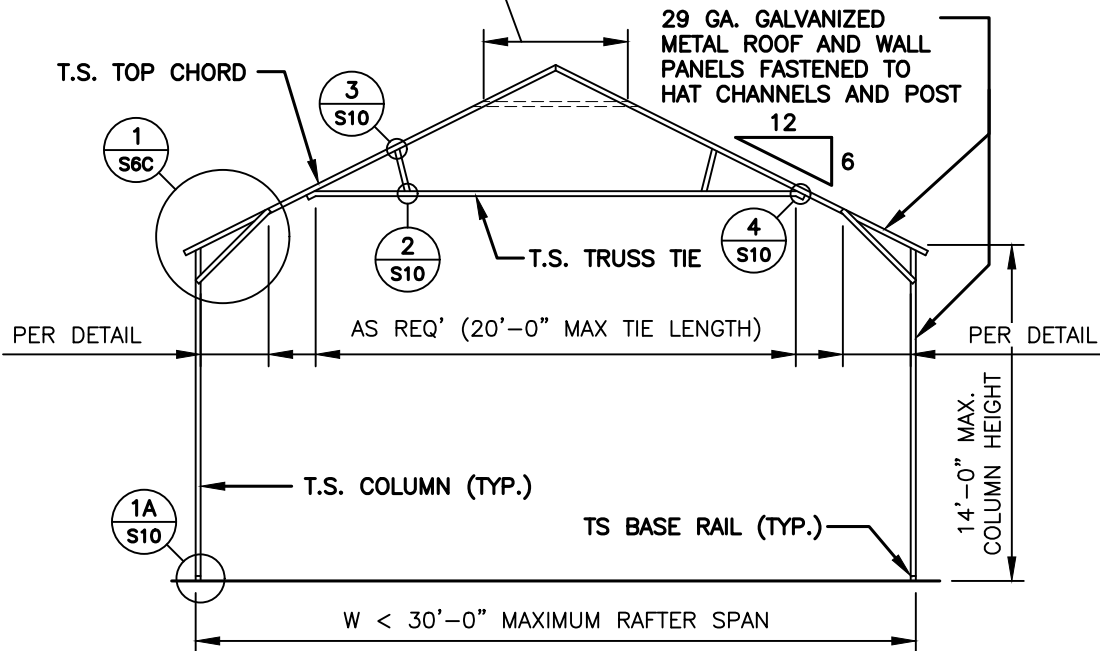
'U' BRACE TRUSS TIE - NOTE:  
 6'-0" BRACE FOR 21'-24' BUILDING WIDTH  
 20' TUBE TRUSS TIE (AS SHOWN) FOR 25'-30'



**TYPICAL RAFTER / COLUMN FRAME SECTION**

'U' BRACE TRUSS TIE - NOTE:  
 6'-0" BRACE FOR 21'-24' BUILDING WIDTH  
 20' TUBE TRUSS TIE (AS SHOWN) FOR 25'-30'

NOTE:  
 H.S.S. 2-1/2"x2-1/2"x14ga. OR 2-1/4"x2-1/4"x14ga.  
 MATERIAL MAY BE USED FOR TRUSS METAL.



**TYPICAL RAFTER / COLUMN FRAME SECTION**



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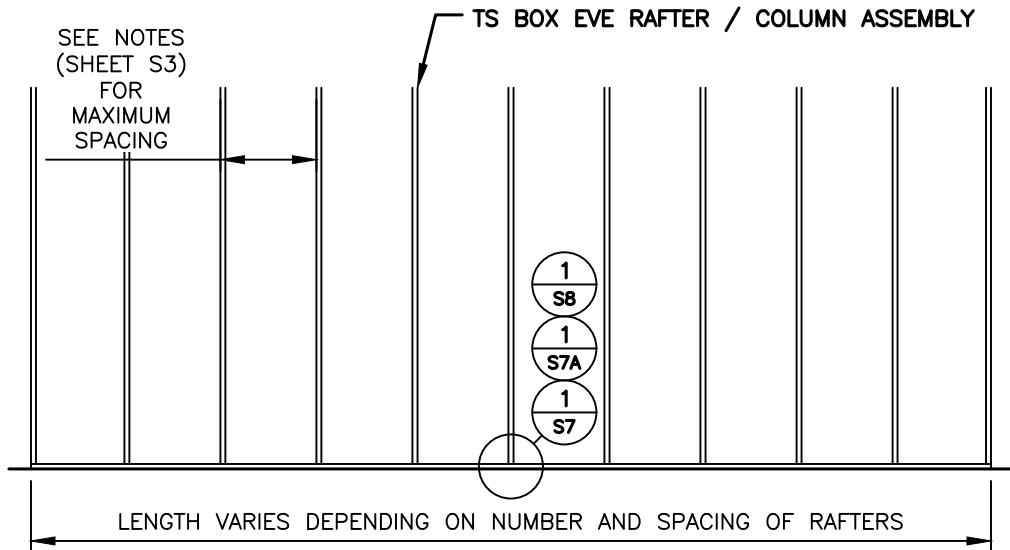
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**DATE:**  
 2023.02.01

**SHEET NO:**  
**SSA**

**NOTE:**  
 H.S.S. 2-1/2"x2-1/2"x14ga. OR  
 2-1/4"x2-1/4"x14ga. MATERIAL  
 MAY BE USED FOR TRUSS METAL.



**TYPICAL RAFTER / COLUMN SIDE FRAME SECTION**



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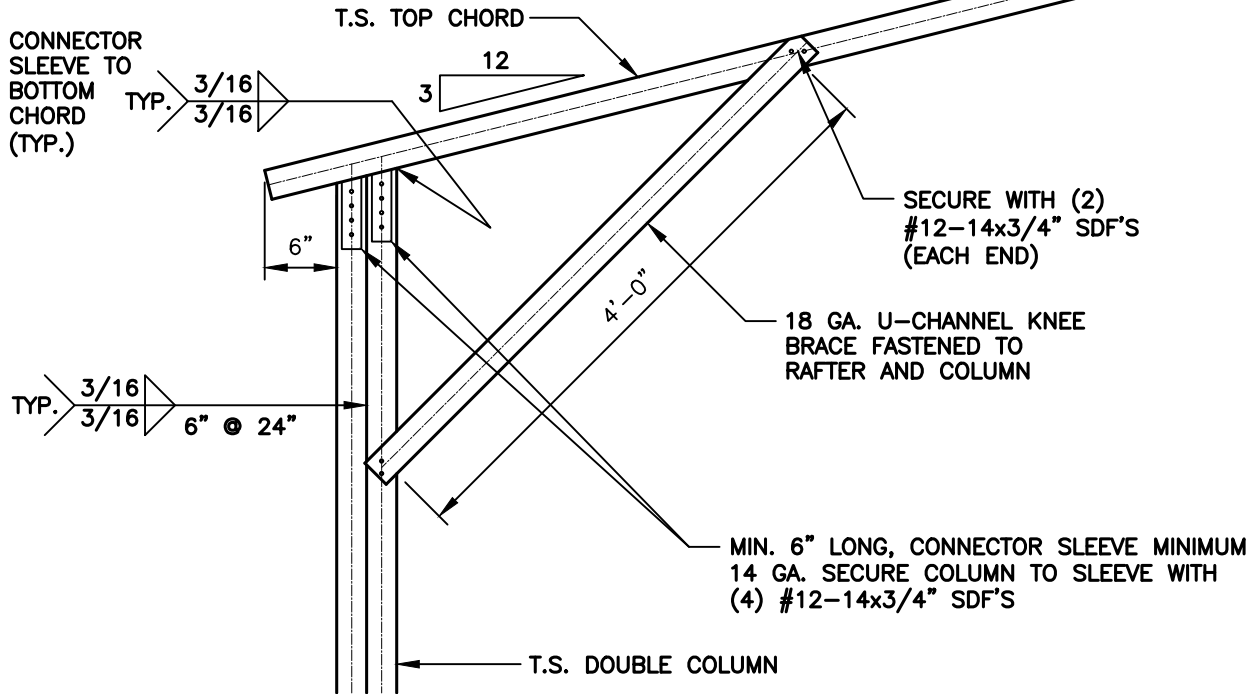
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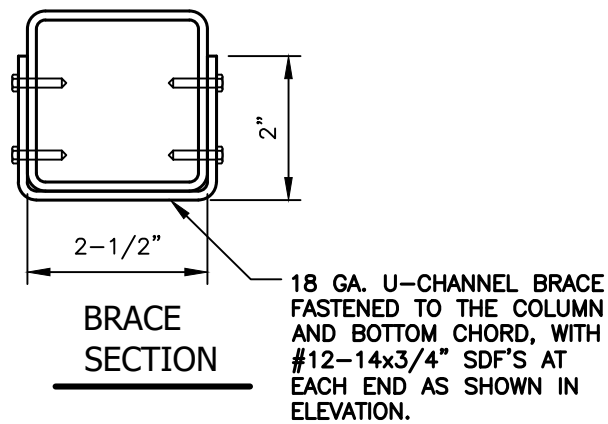
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**S5B**



1 BOX EAVE / CORNER POST CONNECTION DETAIL FOR HEIGHTS 14'-1" < TO <16'-0"

S6 SCALE: 3/4" = 1'-0"



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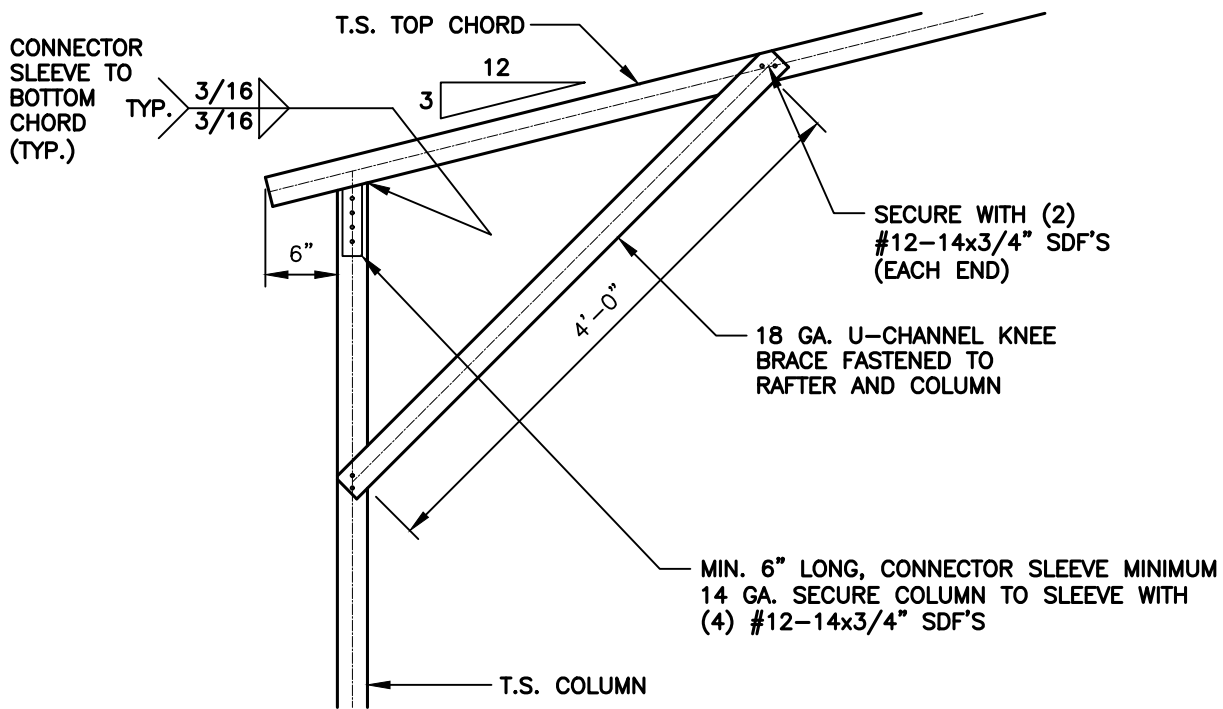
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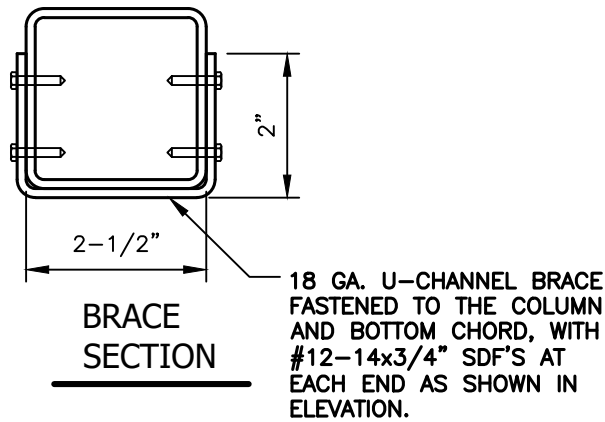
DATE:  
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S6



**1** BOX EAVE / CORNER POST CONNECTION DETAIL FOR HEIGHTS < 14'-0"

**S6A** SCALE: 3/4" = 1'-0"



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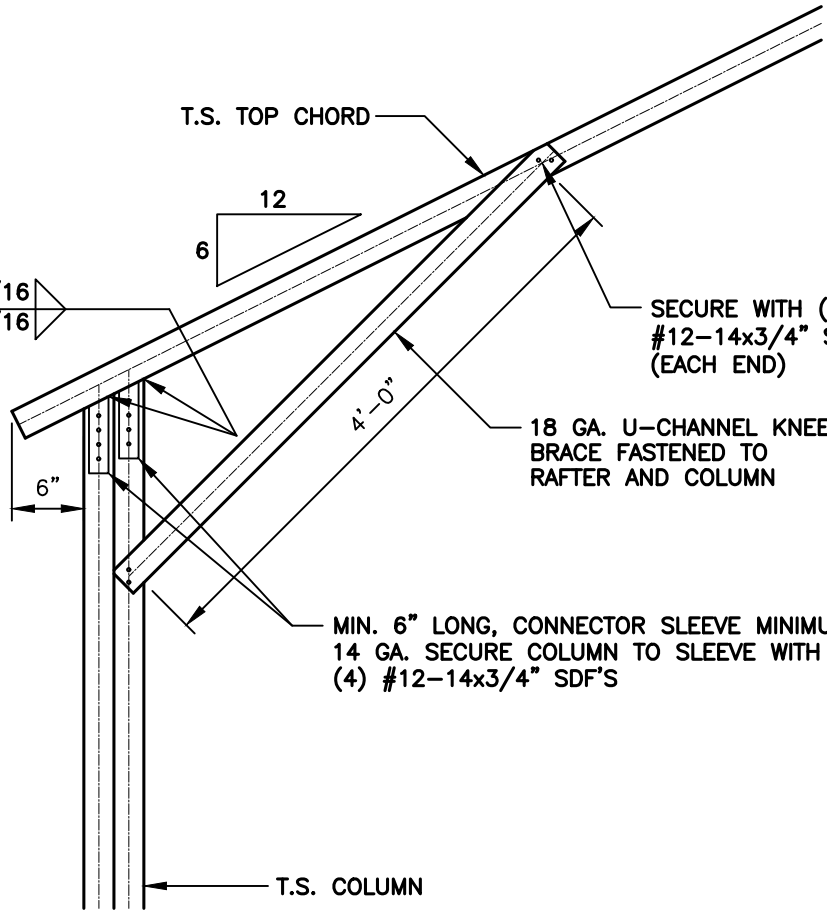
PROJECT NO:  
MISC

DATE:  
2023.02.01

SHEET NO:  
**S6A**

CONNECTOR SLEEVE TO BOTTOM CHORD (TYP.)

TYP.  $\frac{3}{16}$  /  $\frac{3}{16}$



SECURE WITH (2) #12-14x3/4" SDF'S (EACH END)

18 GA. U-CHANNEL KNEE BRACE FASTENED TO RAFTER AND COLUMN

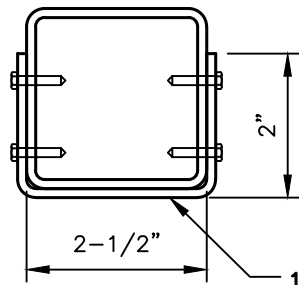
MIN. 6" LONG, CONNECTOR SLEEVE MINIMUM 14 GA. SECURE COLUMN TO SLEEVE WITH (4) #12-14x3/4" SDF'S

T.S. COLUMN

1  
S6C

**BOX EAVE / CORNER POST CONNECTION DETAIL FOR HEIGHTS 14'-1" < TO <16'-0"**

SCALE: 3/4" = 1'-0"



**BRACE SECTION**

18 GA. U-CHANNEL BRACE FASTENED TO THE COLUMN AND BOTTOM CHORD, WITH #12-14x3/4" SDF'S AT EACH END AS SHOWN IN ELEVATION.



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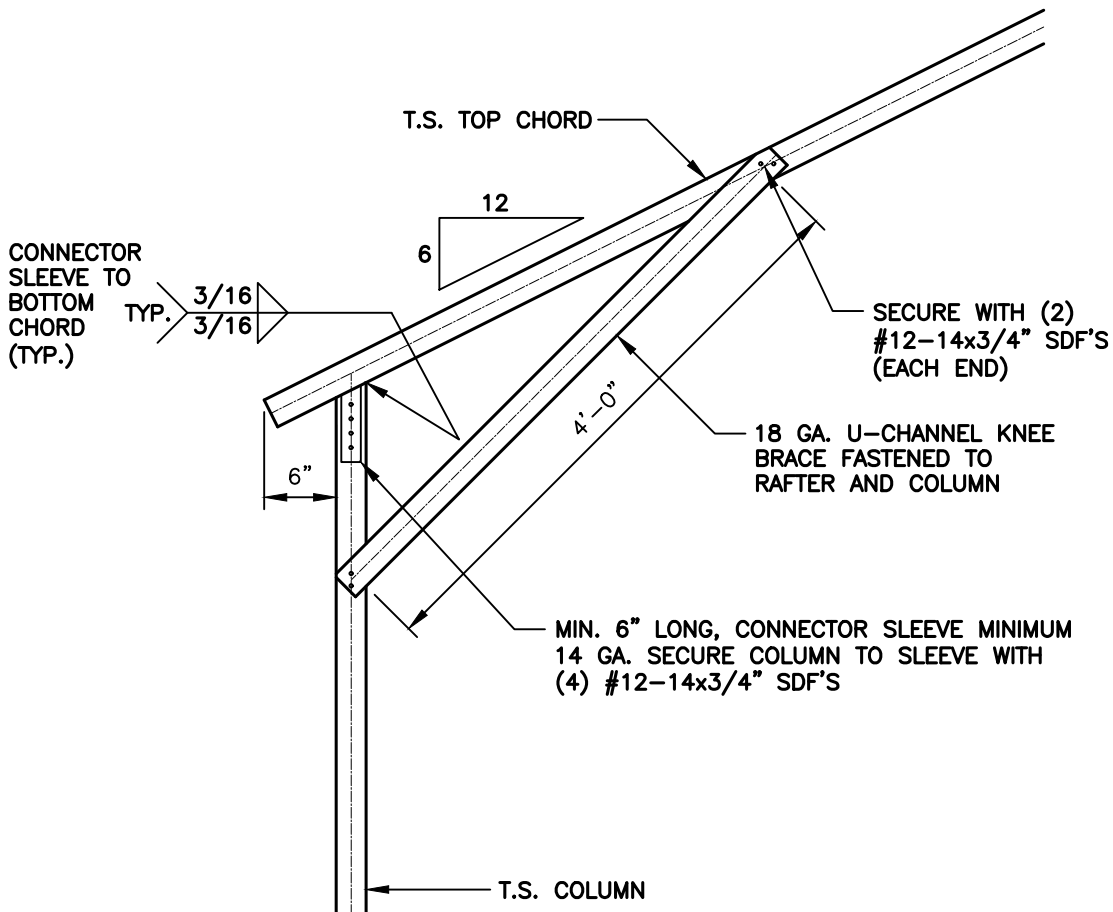
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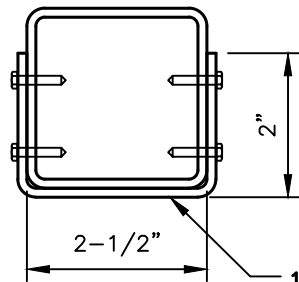
**SHEET NO:**  
**S6B**



**1** BOX EAVE / CORNER POST CONNECTION DETAIL FOR HEIGHTS < 14'-0"

S6C

SCALE: 3/4" = 1'-0"



BRACE SECTION

18 GA. U-CHANNEL BRACE FASTENED TO THE COLUMN AND BOTTOM CHORD, WITH #12-14x3/4" SDF'S AT EACH END AS SHOWN IN ELEVATION.

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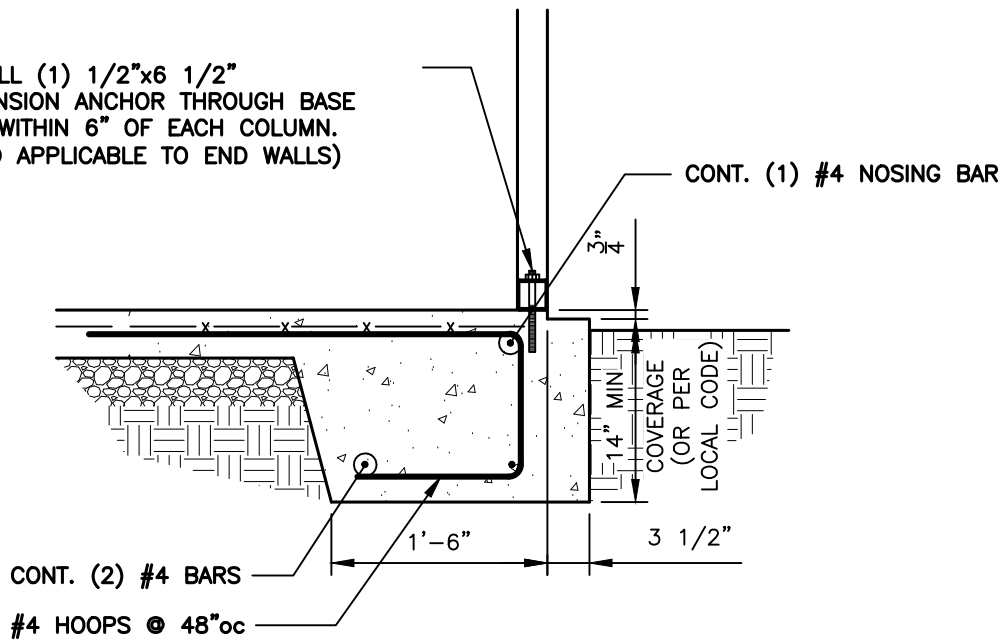
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SHEET NO:  
S6C

## CONCRETE BASE RAIL ANCHORAGE

INSTALL (1) 1/2"x6 1/2"  
EXPANSION ANCHOR THROUGH BASE  
RAIL WITHIN 6" OF EACH COLUMN.  
(ALSO APPLICABLE TO END WALLS)



1
BASE RAIL ANCHORAGE DETAIL  
S7
SCALE: 3/4" = 1'-0"

**GENERAL NOTES:**

ALL CONCRETE MONOLITHIC SLAB DESIGN BASED ON MINIMUM SOIL BEARING CAPACITY OF 2,000 PSF

**CONCRETE:**

CONCRETE SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS

**COVER OVER REINFORCING STEEL:**

FOR FOUNDATIONS, MINIMUM CONCRETE COVER OVER REINFORCING BARS SHALL BE PER ACI-318:

3" IN FOUNDATIONS WHERE THE CONCRETE IS CAST AGAINST AND PERMANENTLY IN CONTACT WITH THE EARTH OR EXPOSED TO THE EARTH AND WEATHER AND 1-1/2" ELSEWHERE.

**REINFORCING STEEL:**

THE TURNDOWN REINFORCING STEEL SHALL BE ASTM A615 GRADE 60. THE SLAB REINFORCEMENT SHALL BE WELDED WIRE FABRIC MEETING ASTM A185 OR FIBERGLASS FIBER REINFORCEMENT.

**REINFORCEMENT MAT BE BENT IN THE SHOP OF THE FIELD PROVIDED:**

1. REINFORCEMENT IS BENT COLD.
2. THE DIAMETER OF THE BEND, MEASURED ON THE INSIDE OF THE BAR, IS NOT LESS THAN SIX-BAR DIAMETERS.
3. REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT.



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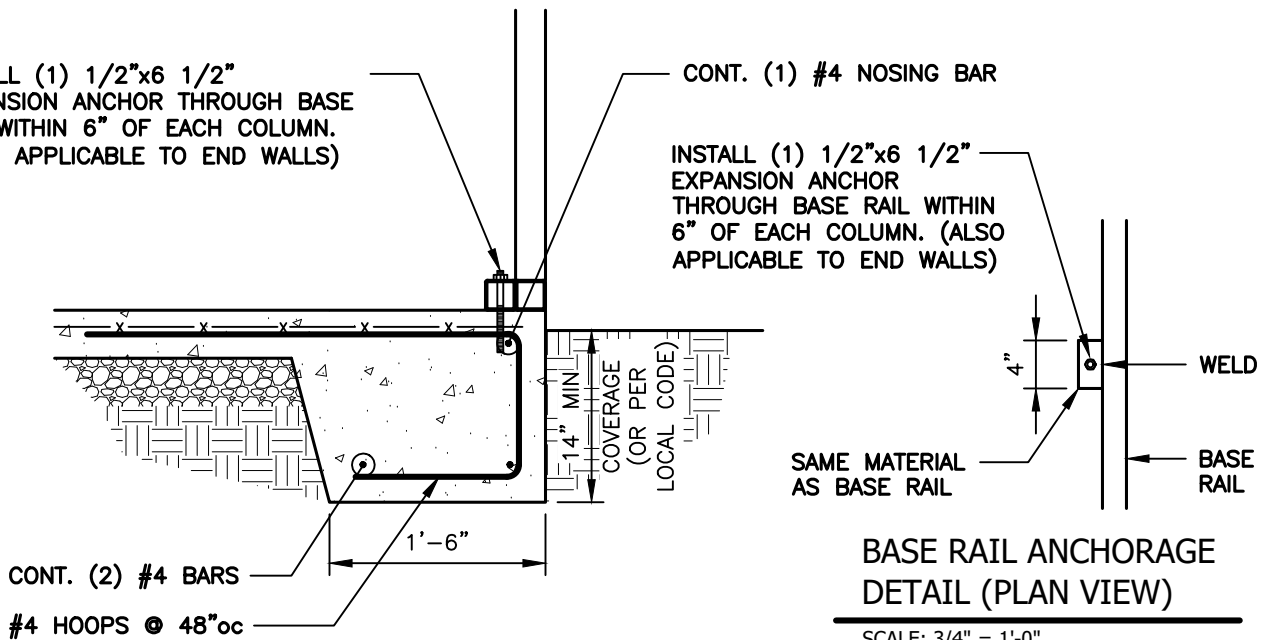
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**S7**

## CONCRETE BASE RAIL ANCHORAGE

INSTALL (1) 1/2"x6 1/2"  
EXPANSION ANCHOR THROUGH BASE  
RAIL WITHIN 6" OF EACH COLUMN.  
(ALSO APPLICABLE TO END WALLS)

CONT. (1) #4 NOSING BAR

INSTALL (1) 1/2"x6 1/2"  
EXPANSION ANCHOR  
THROUGH BASE RAIL WITHIN  
6" OF EACH COLUMN. (ALSO  
APPLICABLE TO END WALLS)



**BASE RAIL ANCHORAGE  
DETAIL (PLAN VIEW)**

SCALE: 3/4" = 1'-0"



**BASE RAIL ANCHORAGE DETAIL**

SCALE: 3/4" = 1'-0"

**GENERAL NOTES:**

ALL CONCRETE MONOLITHIC SLAB DESIGN BASED ON MINIMUM SOIL BEARING CAPACITY OF 2,000 PSF

**CONCRETE:**

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**REINFORCING STEEL:**

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**REINFORCEMENT MAT BE BENT IN THE SHOP OF THE FIELD PROVIDED:**

1. REINFORCEMENT IS BENT COLD.
2. THE DIAMETER OF THE BEND, MEASURED ON THE INSIDE OF THE BAR, IS NOT LESS THAN SIX-BAR DIAMETERS.
3. REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT.



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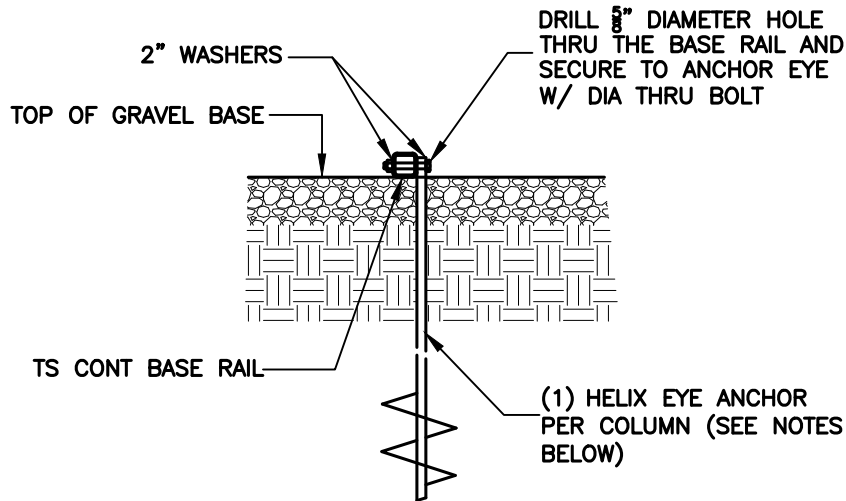
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**S7A**



## SOIL NAIL BASE RAIL ANCHORAGE



**1**  
**S8**
**BASE RAIL ANCHORAGE DETAIL**  
 SCALE: 3/4" = 1'-0"

**HELIX EMBEDMENT INFORMATION:**


FOR VERY DENSE OR CEMENTED SANDS, COARSE GRAVEL, COBBLES, CALICHE, PRELOADED SILTS AND CLAYS, USE MIN (2) 4" HELICES WITH MINIMUM 30" EMBEDMENT OR SINGLE 6" HELIX WITH 50" EMBEDMENT

FOR CORAL, USE MIN (2) 4" HELICES WITH MINIMUM 30" EMBEDMENT OR SINGLE 6" HELIX WITH 50" EMBEDMENT

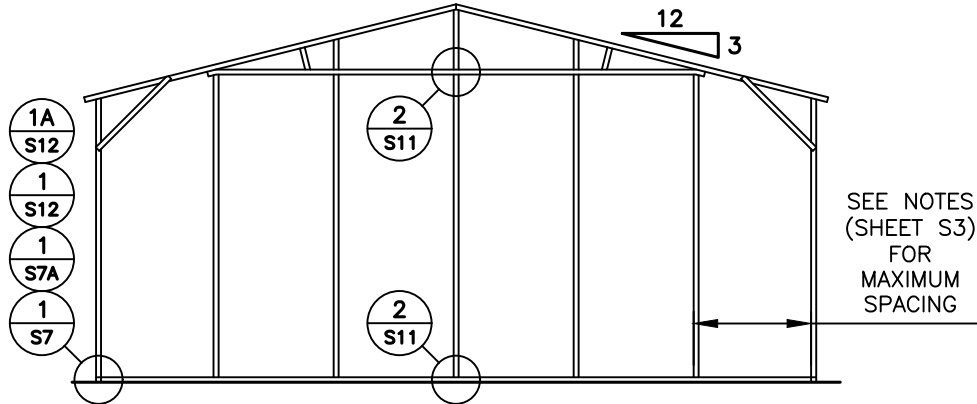
FOR MED DENSE COARSE SANDS, SANDY GRAVEL, VERY STIFF SILTS, AND CLAYS, USE MIN (2) 4" HELICES WITH MINIMUM 30" EMBEDMENT OR SINGLE 6" HELIX WITH 50" EMBEDMENT

FOR LOOSE TO MEDIUM DENSE SANDS, FIRM TO STIFF CLAYS AND SILTS, USE MIN (2) 6" HELICES WITH MINIMUM 50" EMBEDMENT

FOR VERY LOOSE TO MEDIUM DENSE SANDS, FIRM TO STIFFER CLAYS AND SILTS AND ALLUVIAL FILL, USE MIN (2) 8" HELICES WITH MINIMUM 60" EMBEDMENT

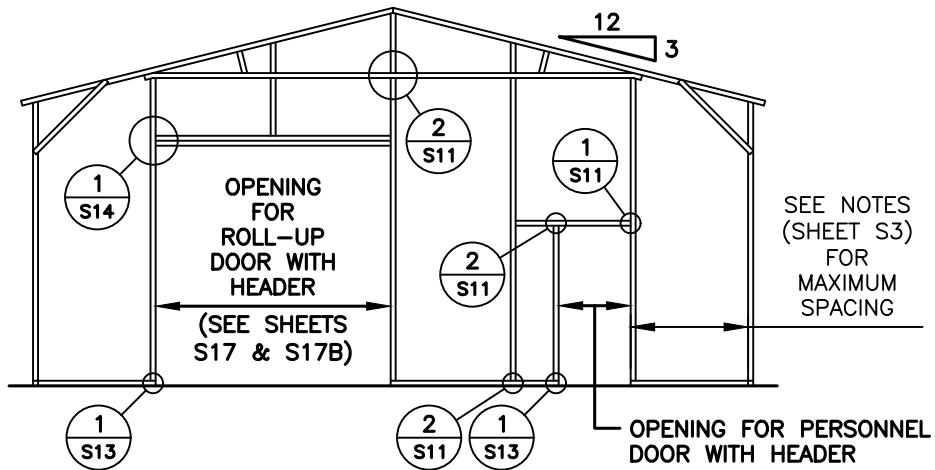
 <p><b>TAYLOR &amp; VIOLA</b> STRUCTURAL ENGINEERS</p> <p><small>P.O.B. 2616 HICKORY NORTH CAROLINA TELE: 828-328-6331 FAX: 828-322-1801 WWW.TAYLORVIOLA.COM</small></p>	<p>N.C. CARPORT &amp; GARAGES</p> <p>116 EAST MARKET STREET ELKIN, NORTH CAROLINA 28621</p>	<b>DRAWN BY:</b> BKS	<b>PROJECT NO:</b> MISC
		<b>DATE:</b> 2023.02.01	<b>SHEET NO:</b> <b>S8</b>

BOX EVE RAFTER END WALL OPENINGS



TYPICAL BOX EVE RAFTER / END WALL COLUMN FRAME SECTION

**NOTE:**  
 ROLL UP DOORS SHALL  
 HAVE ONE JAMB EACH  
 SIDE + ONE FRAME  
 COLUMN BETWEEN OR SITE  
 SPECIFIC SHALL BE REQ'D.



TYPICAL BOX EVE RAFTER END WALL OPENINGS FRAMING SECTION



**TAYLOR & VIOLA**  
 STRUCTURAL ENGINEERS

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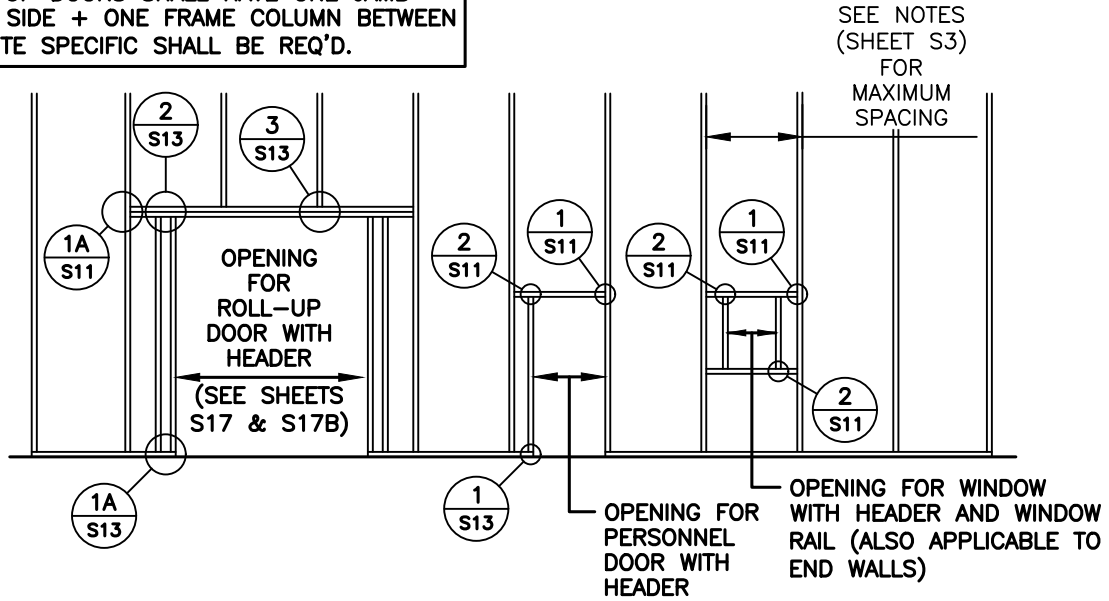
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**S9**

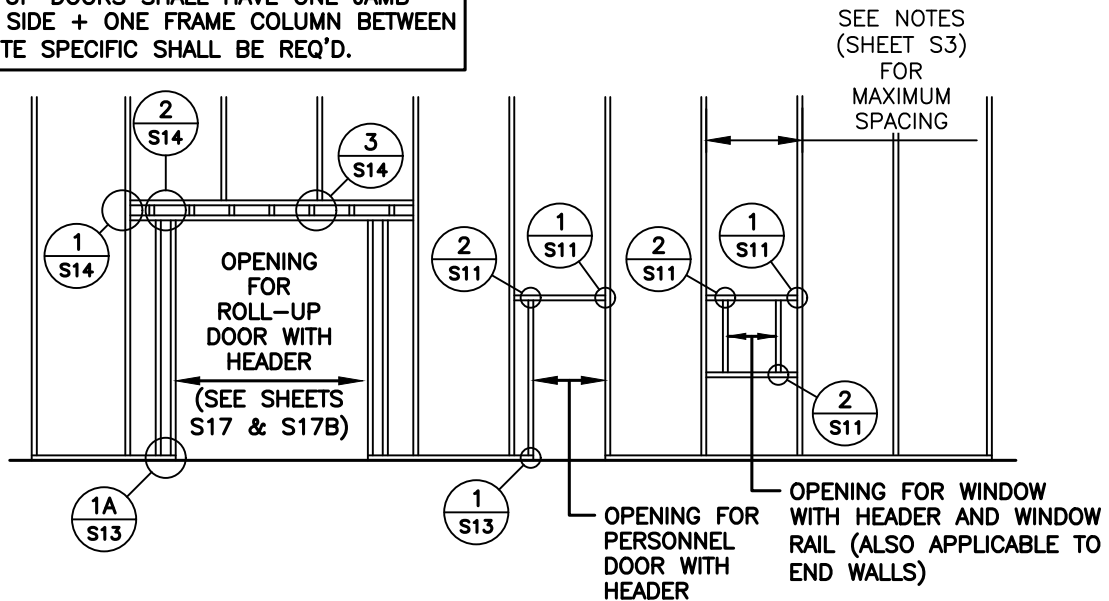
## BOX EVE RAFTER END WALL AND SIDE WALL OPENINGS

**NOTE:**  
 ROLL UP DOORS SHALL HAVE ONE JAMB  
 EACH SIDE + ONE FRAME COLUMN BETWEEN  
 OR SITE SPECIFIC SHALL BE REQ'D.

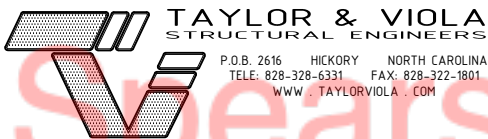


### TYPICAL END WALL OPENING FRAMING SECTION

**NOTE:**  
 ROLL UP DOORS SHALL HAVE ONE JAMB  
 EACH SIDE + ONE FRAME COLUMN BETWEEN  
 OR SITE SPECIFIC SHALL BE REQ'D.



### TYPICAL SIDE WALL OPENING FRAMING SECTION



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 & GARAGES

116 EAST MARKET STREET  
 ELKIN, NORTH CAROLINA 28621

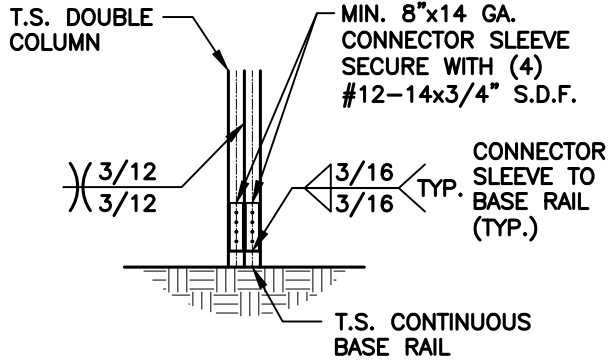
**DRAWN BY:**  
 BKS

**PROJECT NO:**  
 MISC

**DATE:**  
 2023.02.01

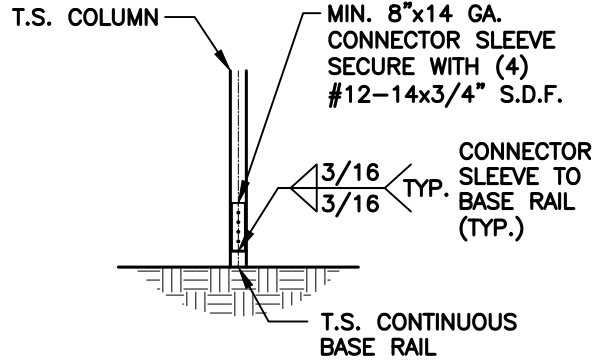
**SHEET NO:**  
**S9A**

## CONNECTION DETAILS



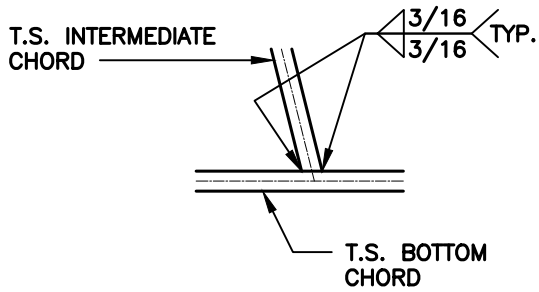
**1**  
POST / BASE RAIL CONNECTION DETAIL

**S10** SCALE: 1/2" = 1'-0"



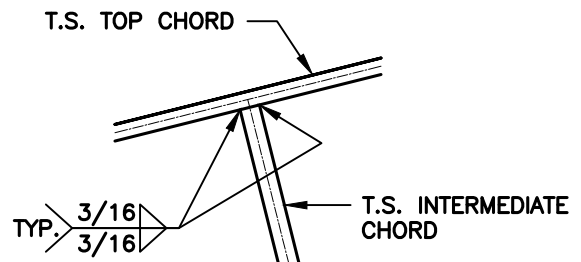
**1A**  
POST / BASE RAIL CONNECTION DETAIL

**S10** SCALE: 1/2" = 1'-0"



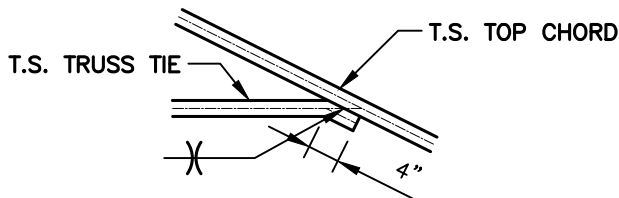
**2**  
INTERMEDIATE CHORD TO BOTTOM CHORD CONNECTION DETAIL

**S10** SCALE: 1/2" = 1'-0"



**3**  
INTERMEDIATE CHORD TO TOP CHORD CONNECTION DETAIL

**S10** SCALE: 1/2" = 1'-0"



**4**  
TRUSS TIE CONNECTION DETAIL

**S10** SCALE: 1/2" = 1'-0"

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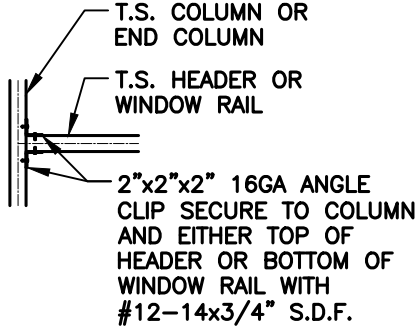
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**DATE:**  
2023.02.01

**SHEET NO:**  
**S10**

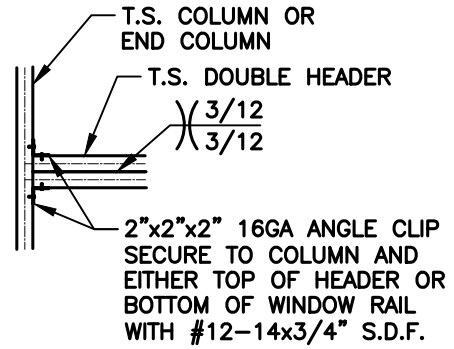
## CONNECTION DETAILS



COLUMN OR WINDOW  
RAIL / WALL GIRT TO POST  
CONNECTION DETAIL

1  
S11

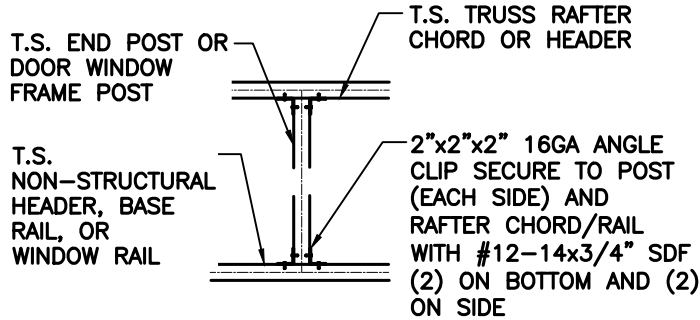
SCALE: 1/2" = 1'-0"



COLUMN / DOUBLE HEADER  
CONNECTION DETAIL

1A  
S11

SCALE: 1/2" = 1'-0"



DOOR OR WINDOW HEADER  
RAIL TO POST CONNECTION  
DETAIL

2  
S11

SCALE: 1/2" = 1'-0"



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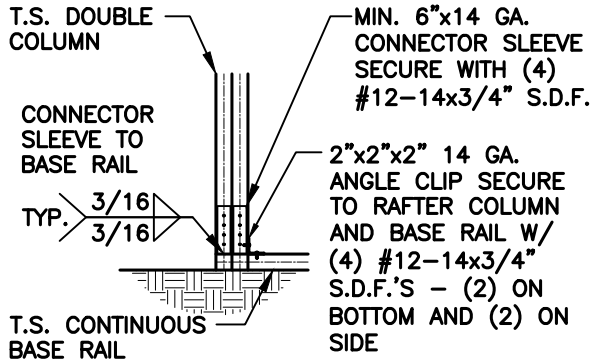
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PROJECT NO:  
MISC

DATE:  
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SHEET NO:  
**S11**

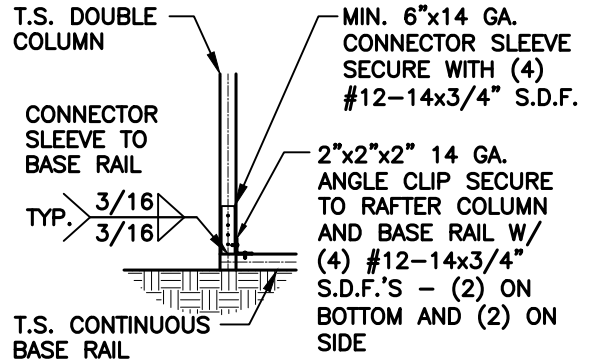
## CONNECTION DETAILS



END COLUMN / BASE RAIL  
CONNECTION DETAIL

1  
S12

SCALE: 1/2" = 1'-0"



END COLUMN / BASE RAIL  
CONNECTION DETAIL

1A  
S12

SCALE: 1/2" = 1'-0"



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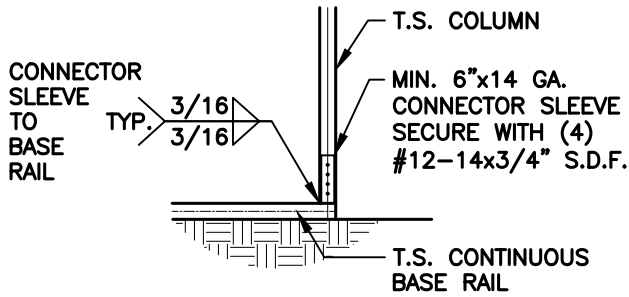
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**DATE:**  
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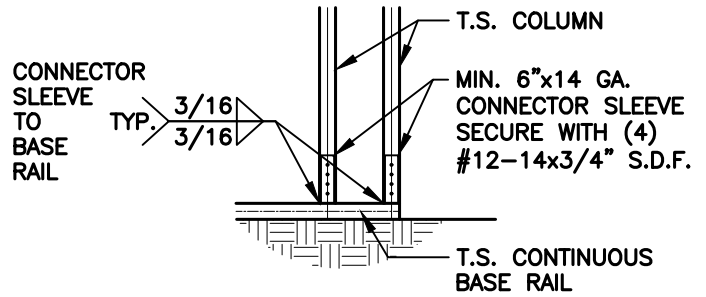
**SHEET NO:**  
**S12**

## CONNECTION DETAILS



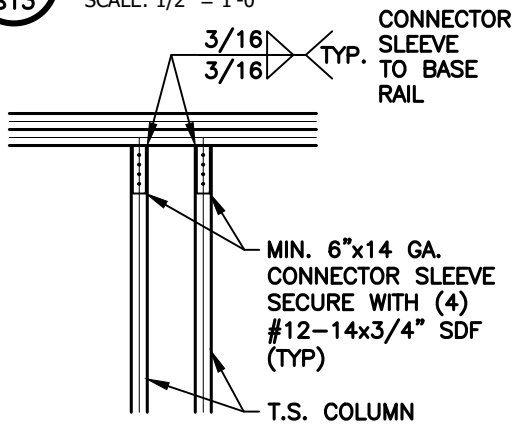
**1**  
**S13** COLUMN / BASE RAIL  
CONNECTION DETAIL

SCALE: 1/2" = 1'-0"



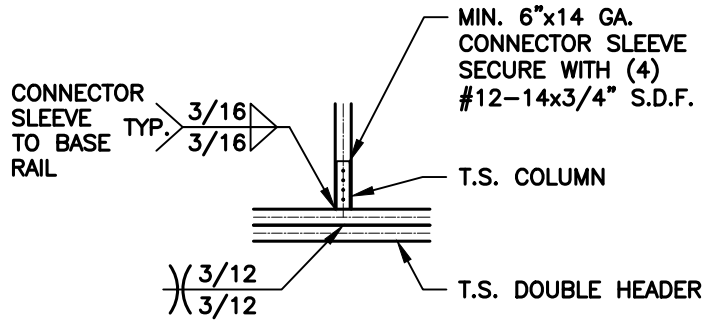
**1A**  
**S13** COLUMN / BASE RAIL  
CONNECTION DETAIL

SCALE: 1/2" = 1'-0"



**2**  
**S13** DOUBLE HEADER / COLUMN  
CONNECTION DETAIL

SCALE: 1/2" = 1'-0"



**3**  
**S13** COLUMN / DOUBLE HEADER  
CONNECTION DETAIL

SCALE: 1/2" = 1'-0"



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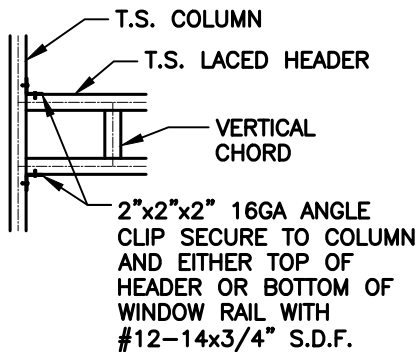
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**PROJECT NO:**  
MISC

**DATE:**  
2023.02.01

**SHEET NO:**  
**S13**

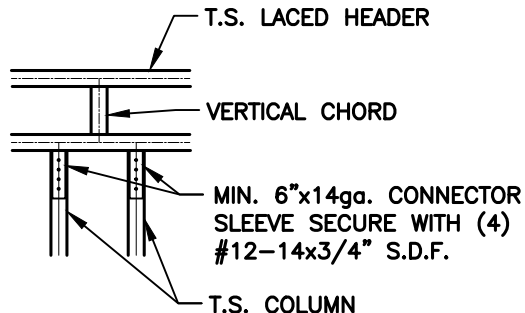
## CONNECTION DETAILS



COLUMN / LACED HEADER  
CONNECTION DETAIL

1  
S14

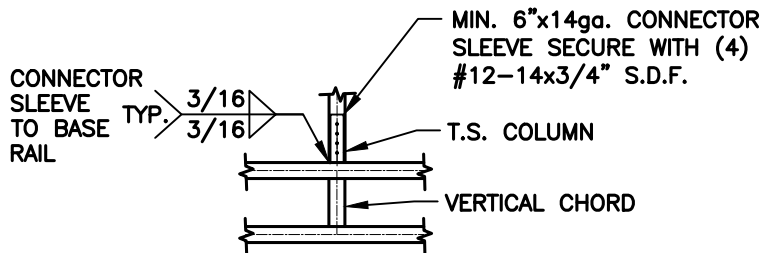
SCALE: 1/2" = 1'-0"



LACED HEADER / COLUMN  
CONNECTION DETAIL

2  
S14

SCALE: 1/2" = 1'-0"



COLUMN / LACED HEADER  
CONNECTION DETAIL

3  
S14

SCALE: 1/2" = 1'-0"



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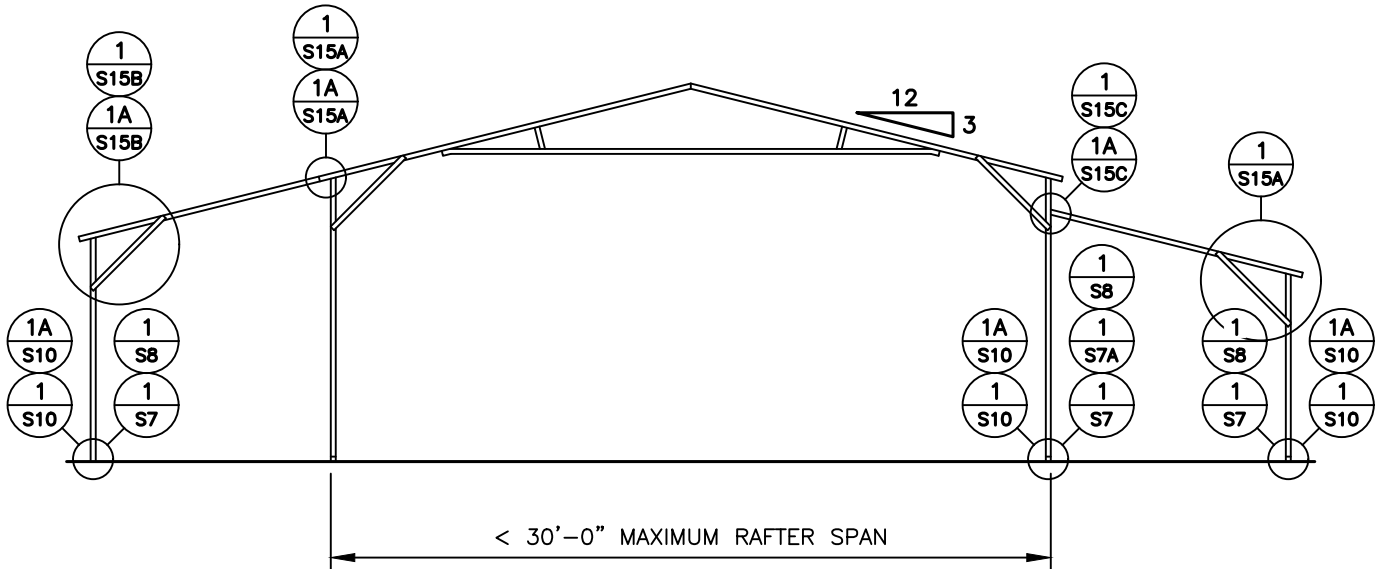
PROJECT NO:  
MISC

DATE:  
2023.02.01

SHEET NO:  
**S14**



BOX EVE RAFTER LEAN-TO OPTIONS

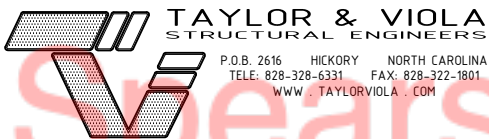


TYPICAL LEAN-TO OPTIONS FRAMING SECTION (BOTH OPTIONS SHOWN)

MAXIMUM WIDTH OF SINGLE MEMBER ROOF EXTENSION AND LEAN-TO OPTION IS 12'-0"

MAXIMUM WIDTH OF DOUBLE MEMBER ROOF EXTENSION AND LEAN-TO IS 15'-0"

12'-0" MAX. LEAN-TO HEIGHT WITH SINGLE COLUMN



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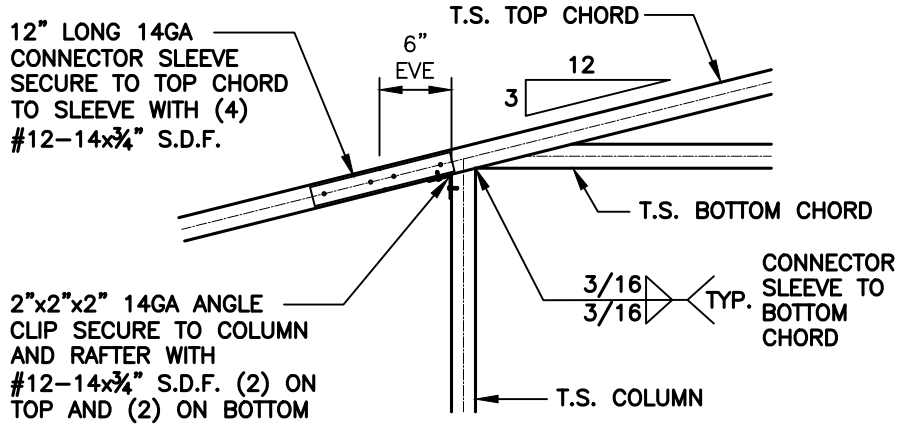
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SHEET NO:  
**S15**

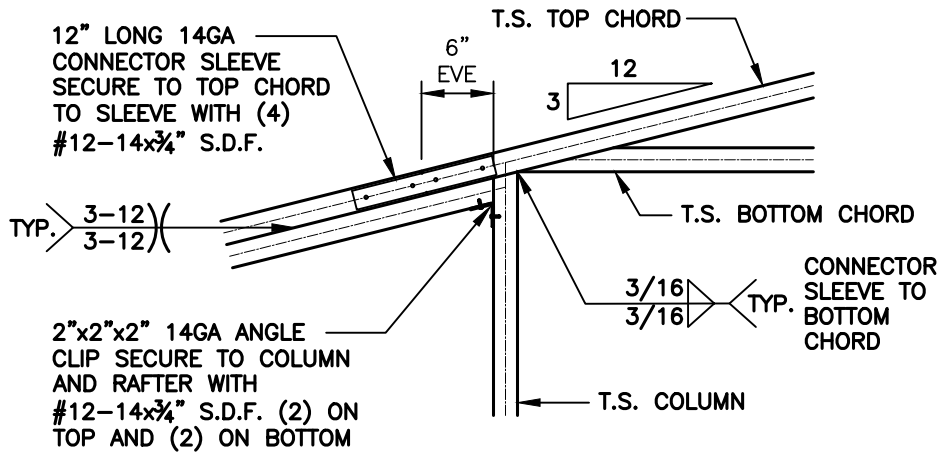
LEAN-TO CONNECTION DETAILS



ROOF EXTENSION RAFTER / CORNER POST  
DETAIL FOR WIDTHS < 12'-0"

1  
S15A

SCALE: 3/4" = 1'-0"



ROOF EXTENSION RAFTER / CORNER POST  
DETAIL FOR WIDTHS < 15'-0"

1A  
S15A

SCALE: 3/4" = 1'-0"



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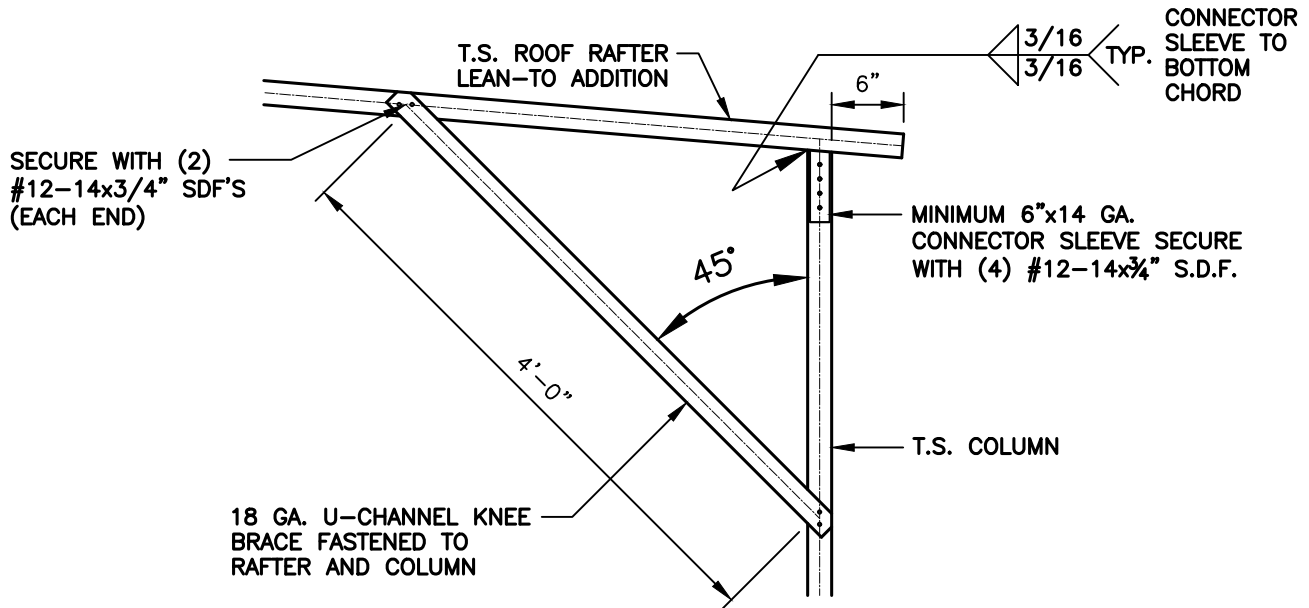
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SHEET NO:  
**S15A**

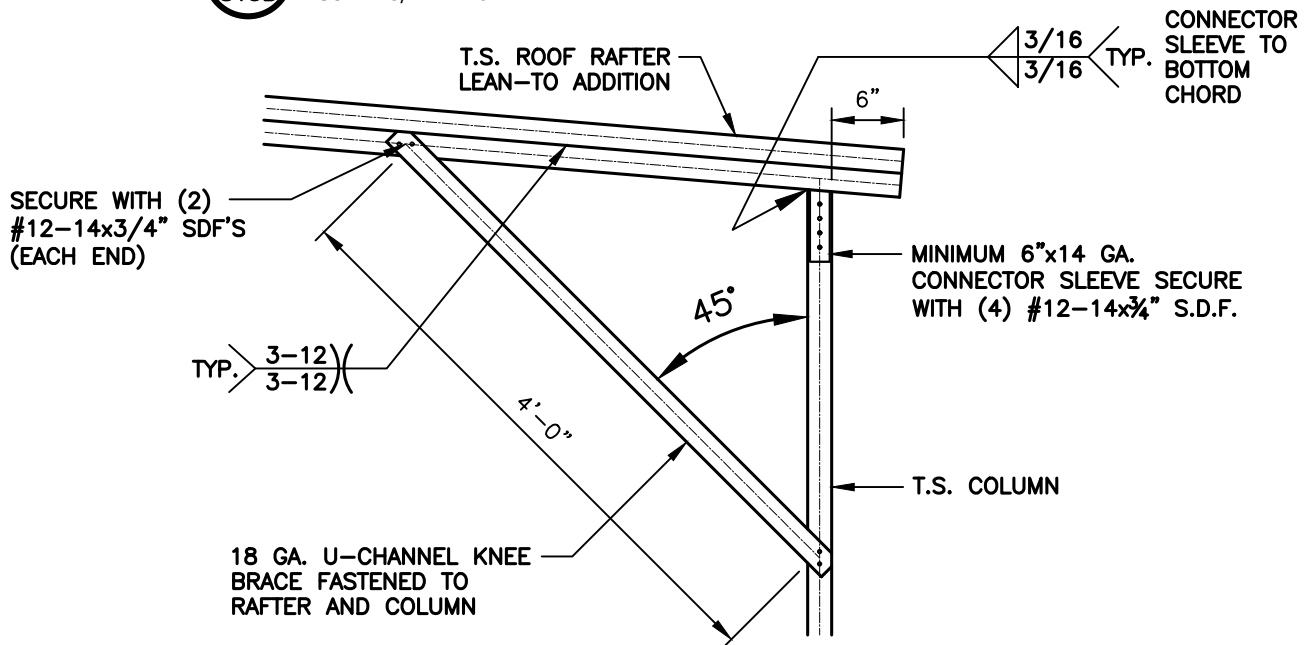
### LEAN-TO CONNECTION DETAILS



### BOX EAVE RAFTER COLUMN CONNECTION DETAIL FOR LEAN-TO RAFTER SPAN <12'-0"

1  
S15B

SCALE: 3/4" = 1'-0"



### BOX EAVE RAFTER COLUMN CONNECTION DETAIL FOR LEAN-TO RAFTER SPAN <15'-0"

1A  
S15B

SCALE: 3/4" = 1'-0"

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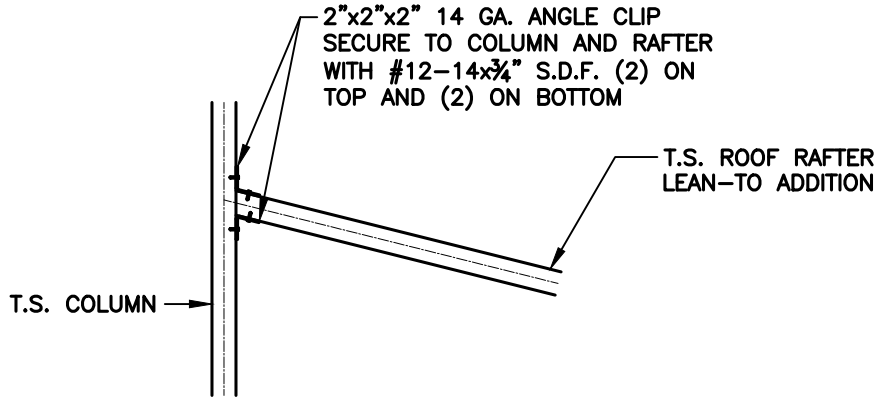
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DATE:  
2023.02.01

SHEET NO:  
**S15B**

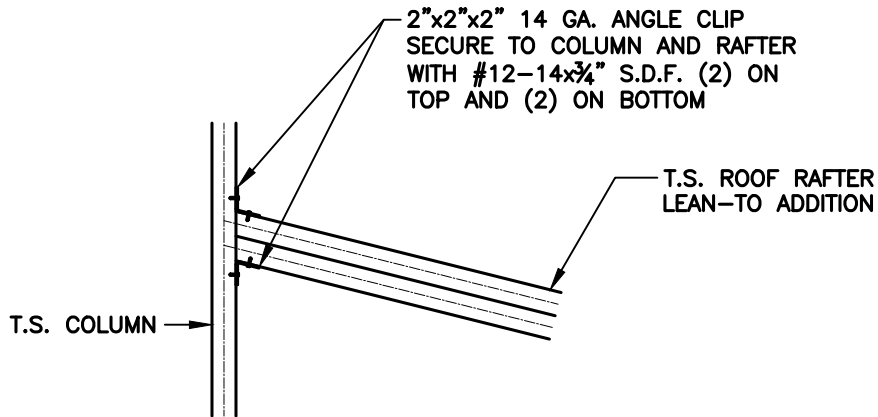
LEAN-TO CONNECTION DETAILS



LEAN-TO RAFTER TO RAFTER POST  
CONNECTION DETAIL FOR WIDTHS < 12'-0"

1  
S15C

SCALE: 3/4" = 1'-0"



LEAN-TO RAFTER TO RAFTER POST  
CONNECTION DETAIL FOR WIDTHS < 15'-0"

1A  
S15C

SCALE: 3/4" = 1'-0"

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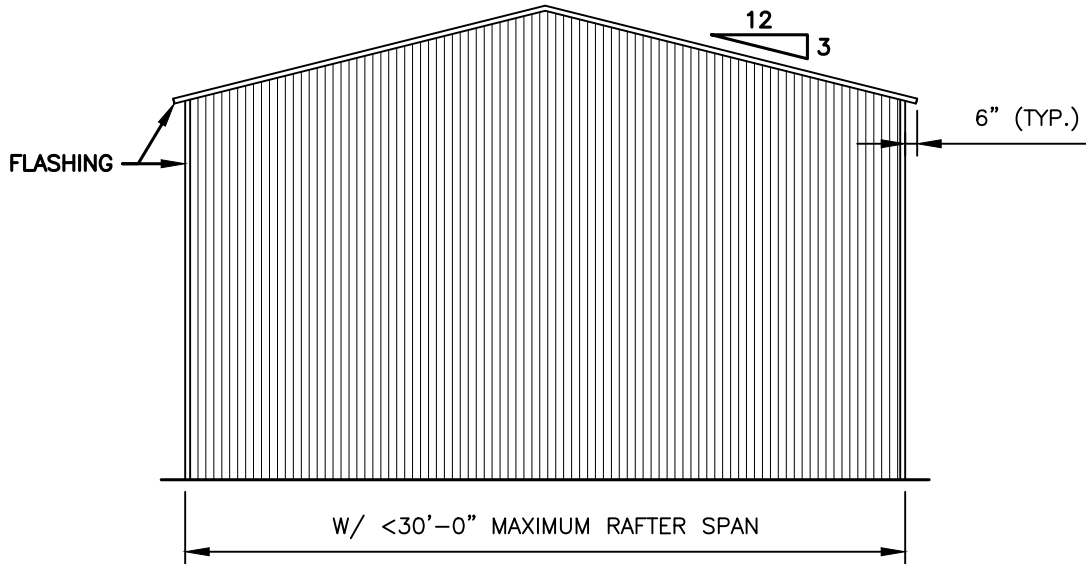
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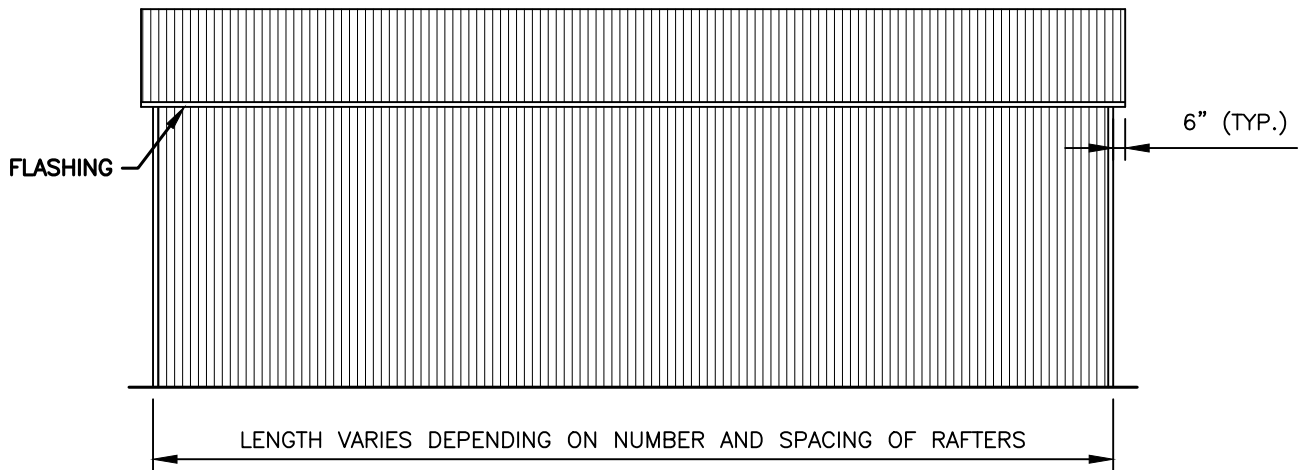
DATE:  
2023.02.01

SHEET NO:  
**S15C**

VERTICAL ROOF / SIDING OPTION



TYPICAL END ELEVATION - VERTICAL ROOF / SIDING



TYPICAL SIDE ELEVATION - VERTICAL ROOF / SIDING



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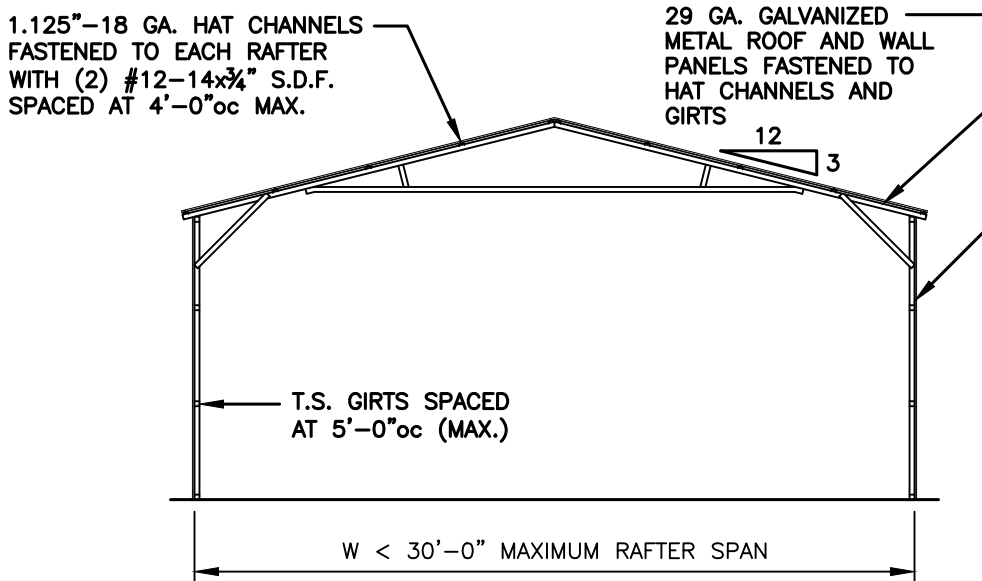
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MISC

DATE:  
2023.02.01

SHEET NO:  
**S16**

VERTICAL ROOF / SIDING OPTION



TYPICAL SECTION VERTICAL ROOF / SIDING OPTION

**NOTE:**  
 H.S.S. 2-1/2"x2-1/2"x14ga. OR  
 2-1/4"x2-1/4"x14ga. MATERIAL  
 MAY BE USED FOR TRUSS METAL.

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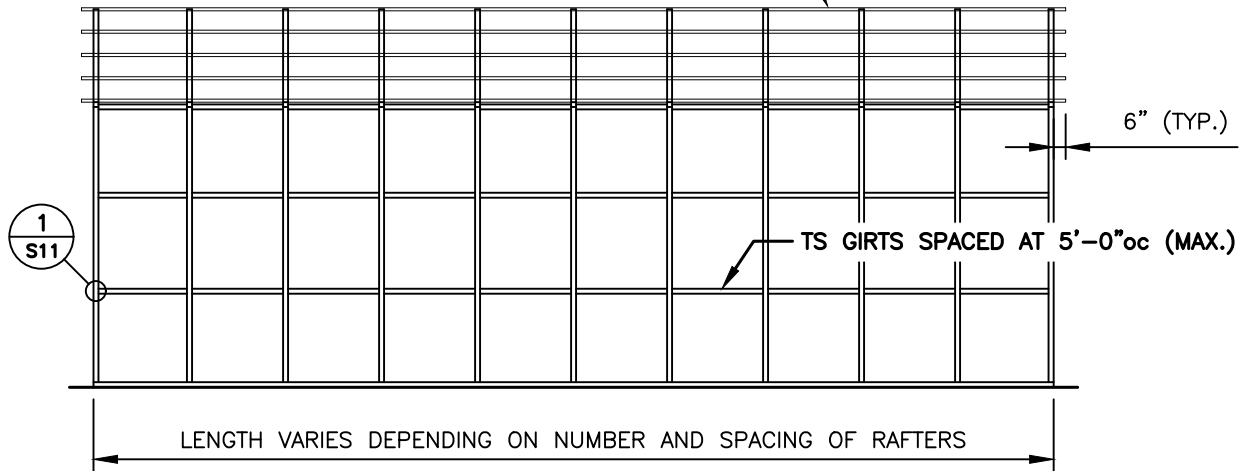
**DATE:**  
 2023.02.01

**SHEET NO:**  
**S16A**

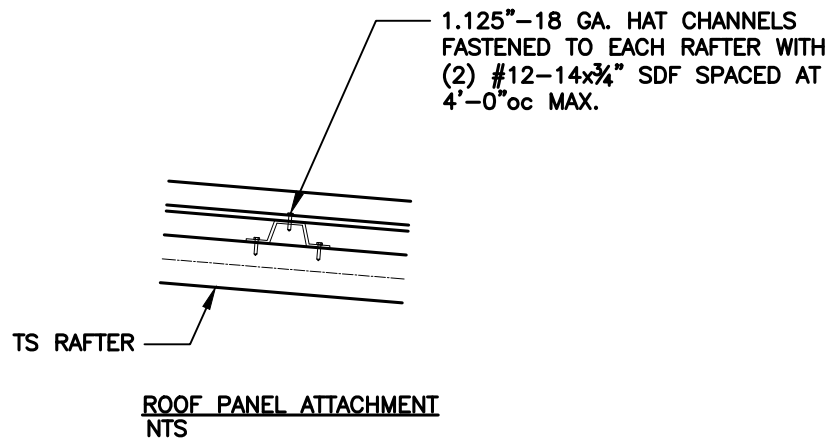
VERTICAL ROOF / SIDING OPTION

SEE NOTES  
(SHEET S3)  
FOR MAXIMUM  
SPACING

1.125"-18 GA. HAT CHANNELS  
FASTENED TO EACH RAFTER  
WITH (2) #12-14x3/4" S.D.F.  
SPACED AT 4'-0"oc MAX.



TYPICAL SIDE FRAMING SECTION VERTICAL ROOF / SIDING OPTION



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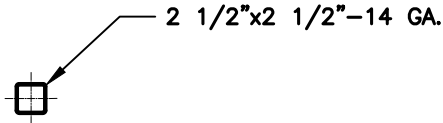
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PROJECT NO:  
MISC

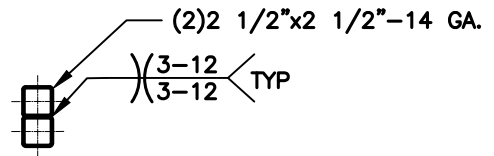
DATE:  
2023.02.01

SHEET NO:  
**S16B**

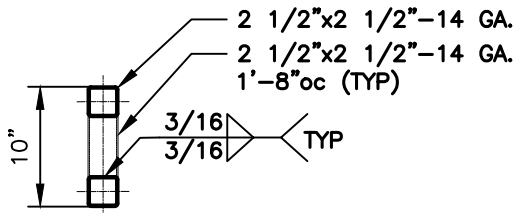
## SIDE WALL HEADER OPTIONS



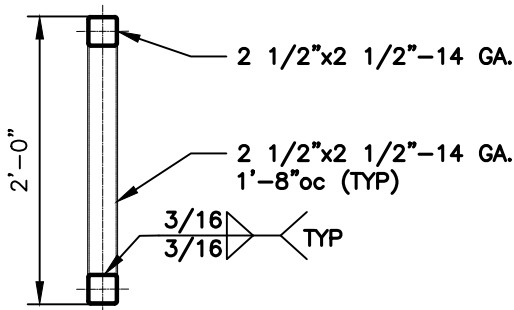
HEADER DETAIL FOR DOOR  
OPENINGS < 4'-0"  
 NTS



HEADER DETAIL FOR DOOR  
OPENINGS 4'-1" < TO < 12'-0"  
 NTS



LACED HEADER DETAIL FOR DOOR  
OPENINGS 12'-1" < TO < 15'-0"  
 NTS



LACED HEADER DETAIL FOR DOOR  
OPENINGS 15'-1" < TO < 20'-0"



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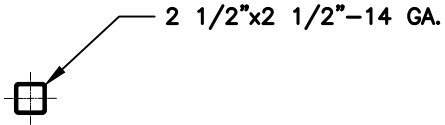
**PROJECT NO:**  
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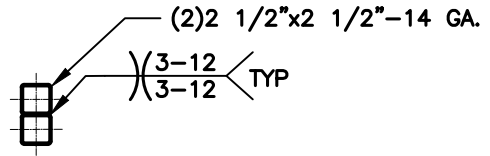
**SHEET NO:**  
**S17**



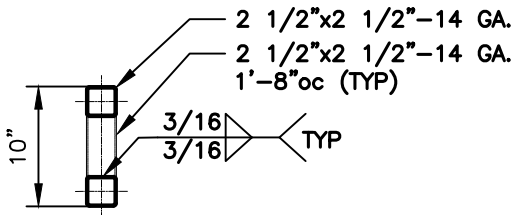
## END WALL HEADER OPTIONS



HEADER DETAIL FOR DOOR  
OPENINGS < 7'-0"  
 NTS



HEADER DETAIL FOR DOOR  
OPENINGS 7'-1" < TO < 16'-0"  
 NTS



LACED HEADER DETAIL FOR DOOR  
OPENINGS 16'-1" < TO < 20'-0"  
 NTS



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SHEET NO:  
**S17A**



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