



BOARD OF ADJUSTMENT MEETING
1 GOVERNMENT CTR, BALLWIN, MO 63011
WEDNESDAY, JULY 17, 2024 at 7:00 PM

AGENDA

- 1. Call to Order**
- 2. Agenda Items**
 - a. 107 Birchwood Drive Petition 1BA24**
- 3. Adjourn**

***NOTE:** Due to ongoing City business, all meeting agendas should be considered tentative. Additional issues may be introduced during the course of the meeting.*

***ADA NOTICE:** Residents of Ballwin are afforded an equal opportunity to participate in the programs and services of the City of Ballwin regardless of race, color, religion, sex, age, disability, familial status, national origin or political affiliation. If one requires an accommodation, please call (636) 227-8580 V or (636) 527-9200 TDD or 1-800-735-2466 (Relay Missouri) no later than 5:00 p.m. on the third business day preceding the hearing. Offices are open between 8:00 a.m. and 5:00 p.m. Monday through Friday.*

BOARD OF ADJUSTMENT REVIEW REPORT

PETITION NUMBER: 1BA24

PETITIONER: Dwight E. Blain Jr.

LOCATION: 107 Birchwood Drive

TYPE OF PETITION: Building a carport

REVIEWED BY/DATE: Seth Pecoraro, Building Commissioner reviewed 6/28/24



The residence on this property was constructed in 1954. A new garage was built without permit in violation of City Ordinance 7-81. Dwight Blain Jr. is attempting to correct this by obtaining a building permit.

The garage was constructed between the building line and the right of way in the secondary front yard along Applegate Lane which also violates two City zoning ordinances. (Art. IV sec. 9, and Art. XVI sec. 13) Mr. Blain Jr. cannot be issued a building permit unless the board approves a variance for this non-compliant element of the petition.

Seth Pecoraro
Building Commissioner

ARTICLE IV. - R-1 SINGLE-FAMILY DWELLING DISTRICT REGULATIONS

Section 4. - Area regulations.

- (1) *Front yard.* There shall be a front yard having a depth of not less than 40 feet, except for land lying along and adjacent to Manchester Road, which shall have a yard having a depth of not less than 60 feet. **This residence is a corner lot with two front yards**

Section 9. - Fences and structures in dwelling districts.

No fence or structure shall be erected, constructed or maintained between the right-of-way line and the building line in one or two front yards of a corner lot or a lot which has a double frontage in a dwelling district, except by permit granted by the city. No fence or structure shall be erected, constructed or maintained within a front yard in a dwelling district except in the situation just described. **The garage was erected between the right of way line and the secondary front yard building line, and a building permit cannot currently be issued because of this.**

ARTICLE XVI. – ADDITIONAL HEIGHT AND AREA REGULATIONS

Section 13. - [Corner lots.]

On a corner lot the width of the yard along the side street shall not be less than any required front yard on such street; provided, however, that the buildable width of such lot shall not be reduced to less than 30 feet in the R-1, R-2, and R-3 single-family dwelling districts nor to less than 25 feet in any other district. No accessory building shall project beyond the front yard line on either street. **The garage projects approximately 15' beyond the secondary front yard building line facing Applegate Lane, and a building permit cannot currently be issued because of this.**

The board of adjustment shall have the following powers and it shall be its duty:

- (1) To hear and decide appeals where it is alleged there is error of law in any order, requirement, decision or determination made by the building commissioner or city engineer in the enforcement of this article.

(2) To permit the extension of a district where the boundary line of a district divides a lot held in a single ownership at the time of the passage of the ordinance from which this subsection is derived [July 11, 1966].

(3) To interpret the provisions of this article in such a way as to carry out the intent and purpose of the plan, as shown upon the map fixing the several districts accompanying and made a part of this article where the street layout actually on the ground varies from the street layout as shown on the map aforesaid.

(4) To permit the reconstruction of a nonconforming building which has been damaged by explosion, fire, act of God, or public such enemy, to the extent of less than 60 percent of its fair market value, where the board finds some compelling necessity requiring a continuance of the nonconforming use and the primary purpose of continuing the nonconforming use is not to continue a monopoly.

(5) To permit a variation in the yard requirements of any district where there are unusual practical difficulties or unnecessary hardships in the carrying out of these provisions due to irregular shape of the lot, topographical or other conditions, provided such variation will not seriously affect any adjoining property or the general welfare. **The edge of the garage measured 35' from the street. The driveway orientation and access from Applegate Lane in place since 1954 is unique to this property. The staff does not believe a variation would seriously affect any adjoining property or the general welfare.**

(6) To authorize upon appeal, whenever a property owner can show that a strict application of the terms of this article relating to the use, construction or alteration of buildings or structures or the use of the land will impose upon him unusual practical difficulties or particular hardship, such variations of the strict application of the terms of this article as are in harmony with its general purpose and intent but only when the board is satisfied that a granting of such variation will not merely serve as a convenience to the applicant but will alleviate some demonstrable and unusual hardship or difficulty so great as to warrant a variation from the comprehensive plan as established by the city, and at the same time the surrounding property will be properly protected.

(7) To vary the parking regulations of the zoning ordinance whenever the character or use of a building is such as to make unnecessary the full provision for parking facilities or where such regulations would impose an unreasonable hardship upon the use of the lot, as contrasted with merely granting an advantage or a convenience.

Sec. 6-95. - Reversal of decisions.

(a) In exercising the above powers, the board may reverse or affirm wholly or partly; or may modify the order, requirement, decision or determination appealed from and may make such order, requirement, decision or determination as ought to be made, and to that end shall have all the powers of the officer from whom the appeal is taken.

(b) Every variation granted or denied by the board shall be accompanied by a written finding of fact, based on sworn testimony and evidence and specifying the reason for granting or denying the variation.



NOTICE OF APPEAL TO THE BOARD OF ADJUSTMENT

CITY OF BALLWIN	}	DATE:	_____
COUNTY OF ST. LOUIS	}	NUMBER:	_____
STATE OF MISSOURI	}	FEE:	_____ \$500.00

NOTE: Documentation of legal interest, a legal description of the property and a sealed plot plan or site plan must accompany this application.

- Property owner's name: Dwight E. Blain Jr.
- Property address: 107 Birchwood Dr. Ballwin
- Zoning classification of the property: RESIDENTIAL R-1
- Present use of the property: Residence
- Intended use of the property: Build A garage
- Type of petition or application which was submitted to the City and subsequently denied: Building carport
- Reason for denial of the petition or application (to be completed by the City): THE HOME IS ON A CORNER LOT. THE NEW STRUCTURE PROJECTS APPROXIMATELY 5' BEYOND THE APPEGATE LANE FRONT YARD BUILDING LINE IN VIOLATION OF CITY ORDINANCE
- Reason petitioner or applicant has been aggrieved by the denial of the application/petition: Driveways been there since new in 1954 when Grandmother-in-law bought. Was a carport for years when I moved up. Now no legal way! getting old Just want Carport.

PETITIONER: Dwight E. Blain Jr.
 AUTHORIZED SIGNATURE: Dwight E Blain Jr.
 ADDRESS: 107 Birchwood Dr Ballwin 63011
 PHONE NO: 314-282-1895

I hereby certify that I am the duly appointed agent of the petitioner and all information given herein is true and a statement of fact.

Signature: Dwight E Blain Jr. Date: 5-6-24

Subscribed and sworn before me this 6 day of May, 2024.

April D. Minton
 Notary Public



PAYMENT DATE
05/06/2024
COLLECTION STATION
CH
RECEIVED FROM
DWIGHT E. BLAIN JR.

City of Ballwin
#1 Government Center
Ballwin, MO 63011

BATCH NO.
202
REC Section 2, Item a.
2024-00002858
CASHIER
Stephanie Gavin

PAYMENT CODE	RECEIPT DESCRIPTION	TRANSACTION AMOUNT																											
PRMTS0080	Petition Fees BOARD OF ADJUSTMENT FEES	\$500.00																											
Payments:	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr style="border-bottom: 1px solid black;"> <th style="width: 15%;">Type</th> <th style="width: 60%;">Detail</th> <th style="width: 25%; text-align: right;">Amount</th> </tr> </thead> <tbody> <tr> <td>Cash</td> <td></td> <td style="text-align: right;">\$500.00</td> </tr> <tr> <td></td> <td style="text-align: right;">Total Cash</td> <td style="text-align: right;">\$500.00</td> </tr> <tr> <td></td> <td style="text-align: right;">Total Check</td> <td style="text-align: right;">\$0.00</td> </tr> <tr> <td></td> <td style="text-align: right;">Total Charge</td> <td style="text-align: right;">\$0.00</td> </tr> <tr> <td></td> <td style="text-align: right;">Total Other</td> <td style="text-align: right;">\$0.00</td> </tr> <tr> <td></td> <td style="text-align: right;">Total Remitted</td> <td style="text-align: right;">\$500.00</td> </tr> <tr> <td></td> <td style="text-align: right;">Change</td> <td style="text-align: right;">\$0.00</td> </tr> <tr> <td></td> <td style="text-align: right;">Total Received</td> <td style="text-align: right;">\$500.00</td> </tr> </tbody> </table>	Type	Detail	Amount	Cash		\$500.00		Total Cash	\$500.00		Total Check	\$0.00		Total Charge	\$0.00		Total Other	\$0.00		Total Remitted	\$500.00		Change	\$0.00		Total Received	\$500.00	
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Cash		\$500.00																											
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Total Amount:		\$500.00																											



PROJECTS BEYOND FRONT YARD LINE
LEFT MESSAGE 3/16/24

BUILDING

Section 2, Item a.

CODE ENFORCEMENT DEPT • 1 GOVERNMENT CENTER • BALLWIN MO 63011

TALKED TO DWIGHT
BLAIN, SAID HE MIGHT
HAVE A CASE TO PRESENT
TO BOARD OF ADJUSTMENT
3/13/24

Two sets of plans and specifications showing the scope of work must accompany this permit application. Plans showing free-standing structures or attached additions, indicating dimensions and existing structures on property.

must accompany plans and existing structures on property.

LACK OF REQUESTED INFORMATION ON THIS FORM MAY CAUSE YOUR PERMIT TO BE DENIED.

HIS PERMIT.

PLEASE PRINT CLEARLY.

DATE: 2/29/2024	OFFICE USE ONLY	
PROJECT: Carport	<input type="checkbox"/> FEE: \$	BAL DUE: \$
ESTIMATED COST: 3,008#	DEPOSIT (Separate Check Required): \$ ()	

ADDRESS OF REQUESTED PERMIT WORK: 107 Birchwood Dr.		CONTACT NAME: Dwight Blain
SUBDIVISION / SHOPPING CENTER: Birchwood Acres	PHONE: 314-282-1895	
HOMEOWNER / BUSINESS NAME: Dwight Blain	EMAIL: paparogene38@icloud.com	
ADDRESS: 107 Birchwood Dr. ZIP CODE: 63011		

CONTRACTOR: They're installers	CONTACT NAME:
ADDRESS:	PHONE:
CITY/STATE/ZIP:	EMAIL:
Are you a transient employer? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If yes, please provide a valid tax clearance from the Missouri Department of Revenue)	

ARCHITECT:	CONTACT NAME:
ADDRESS:	PHONE:
CITY/STATE/ZIP:	EMAIL:

NEW CONSTRUCTION – SINGLE FAMILY RESIDENCE

MASTER PLAN #	LOT #	NO. OF ROOMS:
DIMENSIONS:	SQ FOOTAGE:	NO. OF BEDROOMS:
STORIES:	HEIGHT:	NO. OF BATHS:
GARAGE: <input type="checkbox"/> 1 CAR <input checked="" type="checkbox"/> 2 CAR <input type="checkbox"/> 3 CAR <input type="checkbox"/> NOT APPLICABLE	BASEMENT TO BE FINISHED? Y <input type="checkbox"/> N <input type="checkbox"/>	

RETAINING WALL

NUMBER OF GRID LAYERS:
DISTANCE FROM WALKING SURFACE:

SEPARATE PERMITS REQUIRED (IF CHECKED)

<input type="checkbox"/> PLUMBING PERMIT
<input type="checkbox"/> ELECTRICAL PERMIT
<input type="checkbox"/> MECHANICAL PERMIT

I hereby certify that the information contained in this application and accompanying drawings or plats is correct, and that I will comply with all applicable laws of the City of Ballwin.

The undersigned warrants either (i) the plans have been approved by any applicable Board of Trustees, or other subdivision governing body; or (ii) that there is no relevant subdivision Board or Trustee group for which approval is required.

OWNER/AGENT/CONTRACTOR: _____ DATE: _____

DO NOT WRITE IN THIS SPACE OFFICE USE ONLY RECEIVED FEB 29 2024 CITY OF BALLWIN	SEE ATTACHED HANDOUT: <input type="checkbox"/> DECK <input type="checkbox"/> BASEMENT FINISH <input type="checkbox"/> ROOM ADDITION <input type="checkbox"/> RETAINING WALL <input type="checkbox"/> POOL/HOT TUB BARRIER REQ	▶ REVIEWED ◀ _____ PLANS EXAMINER Date: _____
--	--	---

DENIED SP
VIOLATES ZONING ORDINANCES

PERMIT # 24-010-081

ESCROW MAILED:

3/13/24

Dwight Blain
107 Birchwood Drive
Ballwin, MO 63011

Re: carport building application at 107 Birchwood

Mr. Dwight Blain,

Your building permit application has been rejected due to noncompliance with the following City of Ballwin building and zoning codes:

Article XVI section 17 -Accessory structure within 10' of the main structure.

Article XVI section 13 (corner lots) -Accessory structure projects beyond the building front yard line on Applegate

Your structure is enclosed on two sides, and anywhere from inches to within 2' of the house on a third side. At this point the structure would be considered a garage without a 1 hour rated separation from the main building. Per our phone conversation if a variance was given through the board of adjustment, in order to comply with the building code you would be required to provide an additional set of plans from a registered design professional showing the construction detail for a 1 hour separation between the house and the new garage. You may want to contact the manufacturer as they may already have something for this on file.

If the board did not grant a variance the structure would have to move or be removed to be in compliance with Ballwin ordinances. Please feel free to contact me at (636)227-2129 if you have any further questions regarding this application.

Thank you,

Seth Pecoraro

STANDARD CARPORT DETAILS 12 ft to 24 ft SPAN

TABLE 1
BOW/RAFTER FRAME, END POST, GROUND ANCHOR AND PANEL FASTENER SPACING SPECIFICATIONS

WIND EXPOSURE CATEGORY	ULTIMATE WIND SPEED (MPH)	NOMINAL WIND SPEED (MPH)	MAXIMUM GROUND SNOW LOAD (PSF)	MAXIMUM POST/RAFTER SPACING (FEET)	AVERAGE FASTENER SPACING ON-CENTERS ALONG RAFTERS OR PURLINS, AND POSTS OR GIRTS (INCHES)	
					METAL PANELS	SPACING
B or C	105 TO 150	82 TO 117	35	5.0	29 Gauge	8
			40	4.0		
			50	4.0 (12 Gg.)		

NOTES: 1. Specifications applicable to 29 gauge metal panels fastened directly to 12 or 14 gauge steel tube bow frames.
2. Fasteners consist of #12 x 3" self-drilling screws without control seal washers.
3. Specifications applicable only for mean roof height of 24 feet or less and roof slopes of 7 to 27 degrees (1.5:12 to 6:12 pitch). Spacing requirements for other roof heights and/or slopes may vary.



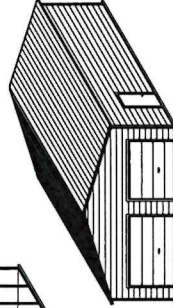
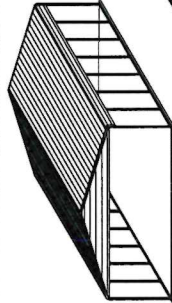
CAROLINA CARPORTS INC.
P.O. BOX 1263
DOBSON, NC 27017
TOLL FREE 1-800-670-4262
LOCAL 336-367-6400
FAX 336-367-6410

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METAL CARPORT INSTALLATION PLANS AND DETAILS AND FRAMING AND FASTENER SPECIFICATIONS

NOTE: THESE PLANS INCLUDE STANDARD DETAILS THAT CAN BE USED FOR A WIDE RANGE OF APPLICATIONS. IF SITE SPECIFIC PLANS ARE REQUIRED, A SEPARATE SET OF PLANS WILL NEED TO BE PREPARED.

CAROLINA CARPORTS, INC.
187 Cardinal Ridge Trail
DOBSON, NORTH CAROLINA 27017



THE OWNER IS RESPONSIBLE FOR OBTAINING A BUILDING PERMIT, IF NEEDED, AND FOR COMPLYING WITH ALL LOCAL BUILDING CODE REQUIREMENTS.

THIS IS TO CERTIFY THAT THE CALCULATIONS AND SPECIFICATIONS HEREIN HAVE BEEN PREPARED BY THE UNDERSIGNED PROFESSIONAL ENGINEER, AND ARE IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2018 INTERNATIONAL BUILDING CODE AND THE BUILDING CODE 2018 OF MISSOURI.

BUILDING CODE INFORMATION	
OCCUPANCY CATEGORY	I II
USE GROUP	U or S
CONSTRUCTION TYPE	2B
IMPORTANCE FACTORS	
WIND Iw	1.0
SNOW Is	0.8 1.0
EARTHQUAKE Ie	1.0

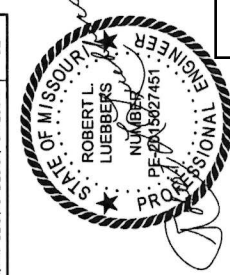
DESIGN LOADS	
MIN. DEAD LOAD	5 PSF
MIN. FLOOR LIVE LOAD	125 PSF
MIN. ROOF LIVE LOAD	20 PSF
MIN. GROUND SNOW LOAD	
MAX. GROUND SNOW LOAD	
MIN. ULTIMATE WIND SPEED	SEE TABLE 1
MAX. ULTIMATE WIND SPEED	
EXPOSURE CATEGORY	
MAX. SEISMIC DESIGN CATEGORY	D2

CONCRETE FOUNDATION DESIGN RECOMMENDATIONS:
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CONCRETE SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF 4000 PSI. THE USE OF HIGHER STRENGTH CONCRETE IS ACCEPTABLE.
COVER OVER REINFORCING STEEL:
CONCRETE SHALL BE CAST AGAINST AND PERMANENTLY IN CONTACT WITH THE EARTH OR EXPOSED TO THE EARTH OR WEATHER AND 1" ELSEWHERE.
REINFORCING STEEL SHALL BE MINIMUM GRADE 40. THE USE OF FIBER REINFORCED CONCRETE (FRC) OR WELDED WIRE FABRIC (WFF) IS ACCEPTABLE.

These plans have been provided for the purpose of obtaining a building permit for the construction of the building for:

Name: Dwight Blain
Address: 107 Birchwood Dr.
City: Ballwin
State: MO
Zip: 63011

Use of these plans by anyone else or for any other purpose is prohibited.



Section 2, Item a.

06/13/2023
SHEET

STANDARD CARPORT DETAILS 12 ft to 24 ft SPAN

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METAL CARPORT INSTALLATION PLANS AND DETAILS AND FRAMING AND FASTENER SPECIFICATIONS

CAROLINA CARPORTS, INC.
187 Cardinal Ridge Trail
DOBSON, NORTH CAROLINA 27017

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BUILDING CODE INFORMATION		DESIGN LOADS	
OCCUPANCY CATEGORY	I II	MIN. DEAD LOAD	5 PSF
USE GROUP	U or S	MIN. FLOOR LIVE LOAD	125 PSF
CONSTRUCTION TYPE	2B	MIN. ROOF LIVE LOAD	20 PSF
IMPORTANCE FACTORS			
WIND W	1.0	MIN. GROUND SNOW LOAD	
SNOW IS	0.8 1.0	MAX. GROUND SNOW LOAD	SEE TABLE 1
EARTHQUAKE W	1.0	MIN. ULTIMATE WIND SPEED	
		EXPOSURE CATEGORY	
		MAX. SEISMIC DESIGN CATEGORY	D2



Section 2, Item a.
06/13/2023
SHEET

These plans have been provided for the purpose of obtaining a building permit for the construction of the building for:

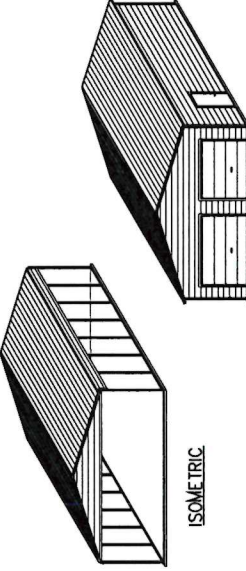
Name: **Dwight Blain** State: **MO**
Address: **107 Birchwood Dr.**
City: **Ballwin** Zip: **63011**

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LIGHT FRAME CONSTRUCTION
NOTE: THESE PLANS MAY BE USED FOR SPANS LESS THAN 12 FEET.

NOTE: USE $\odot 2\frac{1}{2}" \times 2\frac{1}{2}" \times 14$ Gg.
 $\odot 2\frac{1}{2}" \times 2\frac{1}{2}" \times 12$ Gg.
STEEL TUBE FOR ALL FRAME AND BASE RAIL MEMBERS UNLESS OTHERWISE SHOWN.

NOTE: THESE PLANS INCLUDE STANDARD DETAILS THAT CAN BE USED FOR A WIDE RANGE OF APPLICATIONS. IF SITE SPECIFIC PLANS ARE REQUIRED, A SEPARATE SET OF PLANS WILL NEED TO BE PREPARED.



ISOMETRIC

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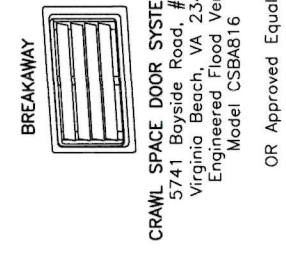
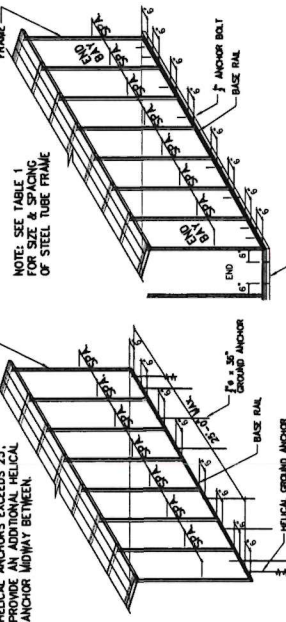
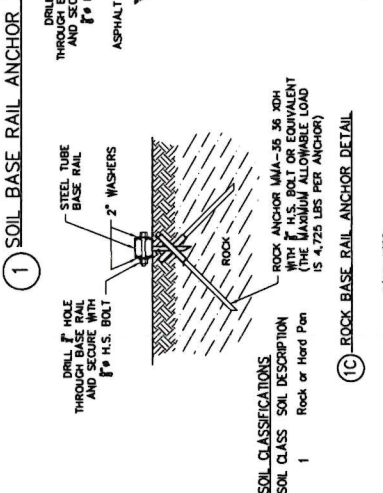
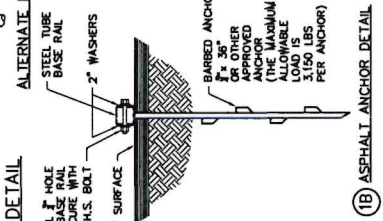
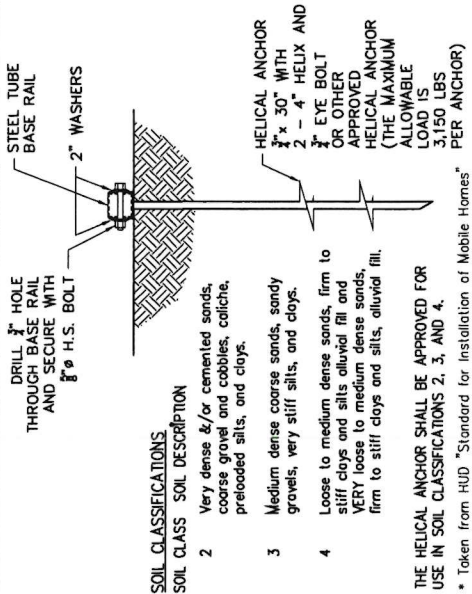
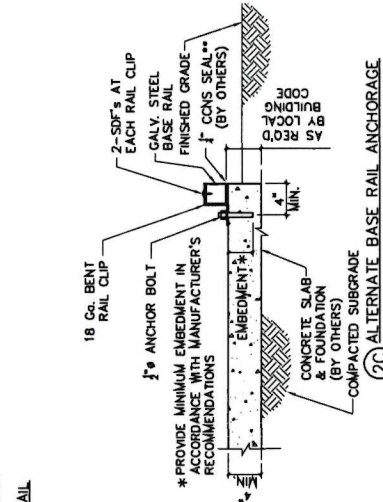
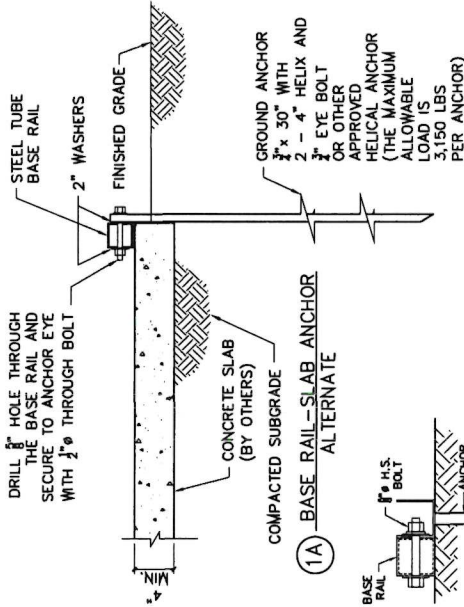
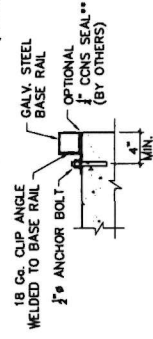
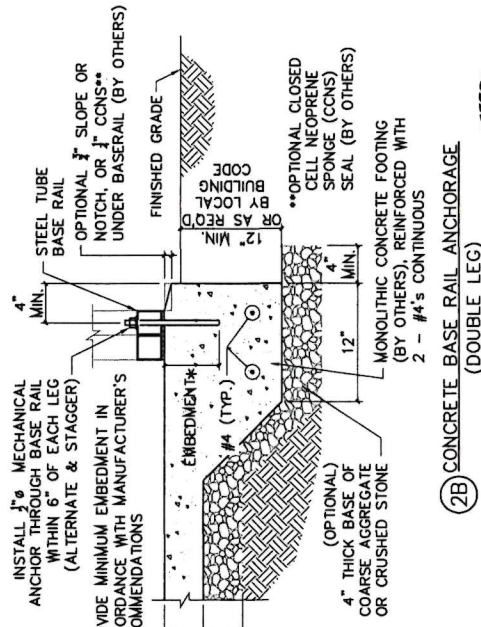
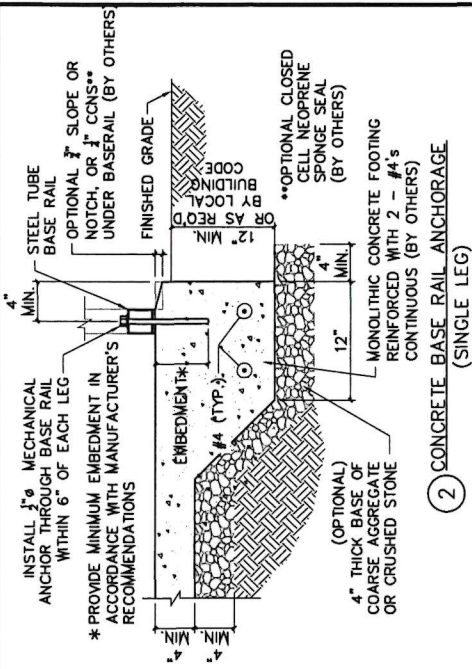
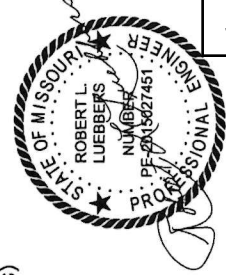
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CONCRETE SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF 4000 PSI. REINFORCING STEEL SHALL BE #4 OR LARGER. THE USE OF HIGHER STRENGTH CONCRETE IS ACCEPTABLE.
COVER OVER REINFORCING STEEL SHALL BE 3 INCHES WHERE CONCRETE IS CAST AGAINST AND PERMANENTLY IN CONTACT WITH THE EARTH OR EXPOSED TO THE EARTH OR WEATHER AND 1" ELSEWHERE.
REINFORCING STEEL SHALL BE MINIMUM GRADE 40. THE USE OF FIBER REINFORCED CONCRETE (FRC) OR WELDED WIRE FABRIC (WFF) IS ACCEPTABLE.

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			40	4.0		
			50	4.0 (12 Gg.)		

NOTES:
1. Specifications applicable to 29 gauge metal panels fastened directly to 12 or 14 gauge steel tube bow frames.
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3. Specifications applicable only for mean roof height of 24 feet or less and roof slopes of 7 to 27 degrees (1.5:12 to 6:12 pitch). Spacing requirements for other roof heights and/or slopes may vary.

GENERAL NOTES:
THESE PLANS PERTAIN ONLY TO THE STRUCTURE, INCLUDING MAIN WIND FORCE RESISTING SYSTEM (MFRS), COMPONENTS AND CLADDING, AND BASE RAIL ANCHORAGE, OTHER DESIGN ISSUES, INCLUDING, BUT NOT LIMITED TO, PLUMBING, ELECTRICAL, DRAINAGE/EGRESS, PROPERTY SET-BACKS, OR OTHER LOCAL ZONING REQUIREMENTS ARE THE RESPONSIBILITY OF OTHERS.
THESE STRUCTURES ARE DESIGNED AS UTILITY/STORAGE BUILDINGS CAPABLE OF SUPPORTING THE DEAD LOAD OF THE STRUCTURE AND APPLICABLE LIVE AND WIND LOADS. IMPROVEMENTS NOT SPECIFICALLY ADDRESSED HEREIN, WHICH EXERT ADDITIONAL LOADS ON THE STRUCTURE SHALL BE AT THE OWNER'S RISK. CAROLINA CARPORTS SHALL NOT BE RESPONSIBLE FOR STRUCTURAL DAMAGE OR FAILURE DUE TO THE APPLICATION OF ADDITIONAL LOADS.
THE SPACING INDICATED IN THE ABOVE TABLE IS THE MAXIMUM SPACING FOR THE MAIN WIND FORCE RESISTING SYSTEM. A CLOSER SPACING MAY BE NEEDED TO MEET LOCAL BUILDING CODE AND/OR SITE SPECIFIC REQUIREMENTS.
ALL STEEL TUBING SHALL BE 55 KSI STEEL OR BETTER. ALL METAL PANELS SHALL BE 80 KSI STEEL OR BETTER.
FASTEN METAL ROOF AND WALL PANELS TO FRAMING WITH #12" x 3" SELF DRILLING FASTENERS WITH CONTROL SEAL WASHERS AT AN AVERAGE SPACING OF 8" FOR 29 GAUGE PANELS AND 6" FOR 26 GAUGE PANELS.
ALL FIELD CONNECTIONS SHALL BE #12 x 3" SELF DRILLING FASTENERS (SDP) UNLESS NOTED OTHERWISE.
ALL WELDED CONNECTIONS SHALL BE SHOP WELDED UNLESS NOTED OTHERWISE.
GROUND ANCHOR REQUIREMENTS: INSTALL HELICAL ANCHORS ALONG SIDE BASE RAIL WITHIN 6" OF EACH CORNER POST AND AT A MAXIMUM SPACING OF 26" ALONG THE BASE RAIL. INSTALL GROUND ANCHORS (#4 THREADED REBAR) BETWEEN THE HELICAL ANCHORS WITHIN 6" OF EACH POST ALONG THE BASE RAIL. HELICAL ANCHORS AND GROUND ANCHORS ARE NOT REQUIRED FOR CONCRETE FOOTING AND/OR CONCRETE SLAB CONSTRUCTION.
INSTALL CONCRETE ANCHORS WITHIN 6" OF EACH VERTICAL POST ALONG SIDE AND END BASE RAILS. USE ITW RAMSET/ REDHEAD TRUBOLT OR SIMPSON STRONG-TIE STRONG BOLT-2 WEDGE ANCHORS, OR ITW RED-HEAD TAPCON+ OR TITEN HD SCREW ANCHORS OR AN APPROVED EQUAL.
POST/RAFTER BRACING: BRACE ON EVERY POST/RAFTER CONNECTION, EXCEPT FOR END WALLS AND HEADERS.
GALVANIZATION: METAL ACCESSORIES FOR USE IN EXTERIOR WALL CONSTRUCTION AND NOT DIRECTLY EXPOSED TO THE WEATHER SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153, CLASS B-2, METAL PLATE CONNECTORS, SCREWS, BOLTS AND NAILS EXPOSED DIRECTLY TO THE WEATHER SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED.

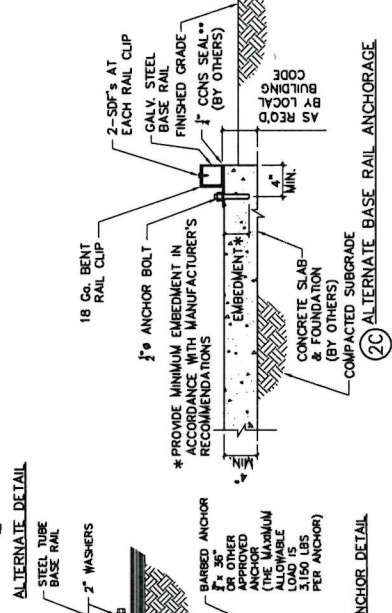
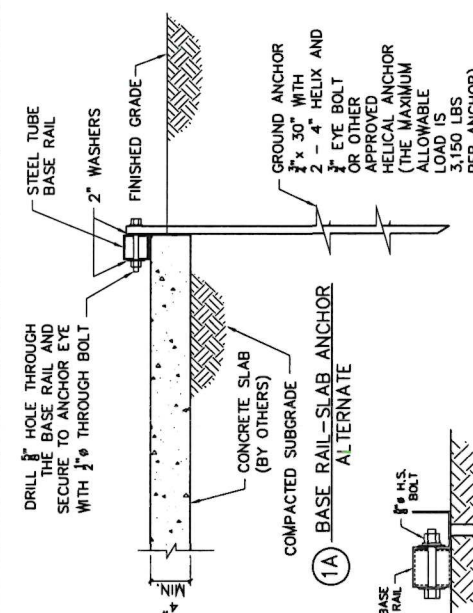
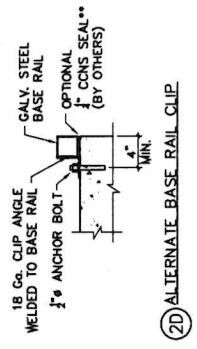
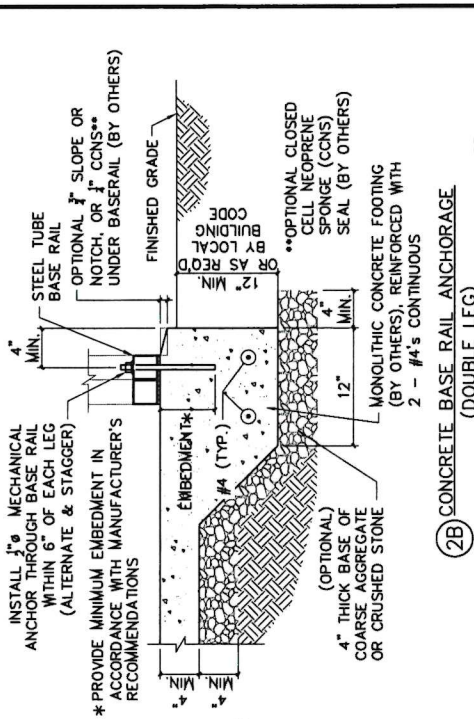
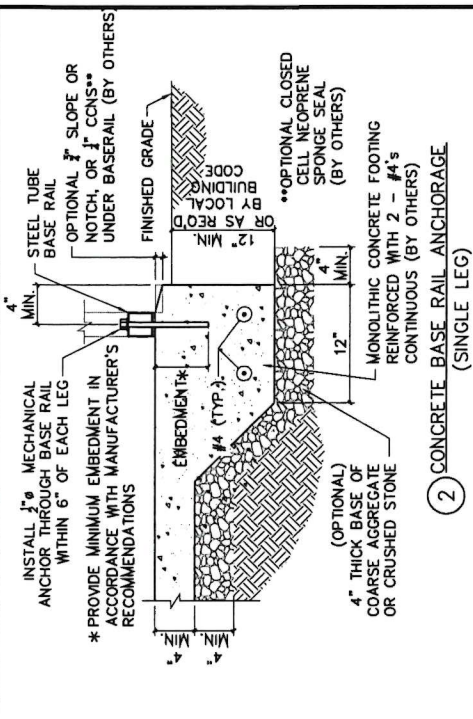
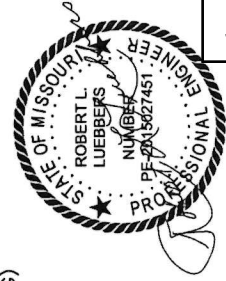


CRAWL SPACE DOOR SYSTEMS, INC.
5741 Boyside Road, #105
Virginia Beach, VA 23455
Engineered Flood Vent
Model CSBA816

- SOIL CLASSIFICATIONS**
- SOIL CLASS SOIL DESCRIPTION**
- 2 Very dense &/or cemented sands, coarse gravel and cobbles, caliche, preloaded silts, and clays.
 - 3 Medium dense coarse sands, sandy gravels, very stiff silts, and clays.
 - 4 Loose to medium dense sands, firm to stiff clays and silts alluvial fill and VERY loose to medium dense sands, firm to stiff clays and silts, alluvial fill.
- THE HELICAL ANCHOR SHALL BE APPROVED FOR USE IN SOIL CLASSIFICATIONS 2, 3, AND 4.
- * Taken from HUD "Standard for Installation of Mobile Homes"

NOTE: SEE TABLE 1 FOR SIZE & SPACING OF STEEL TUBE FRAME

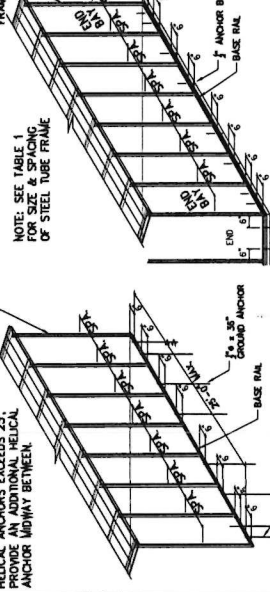
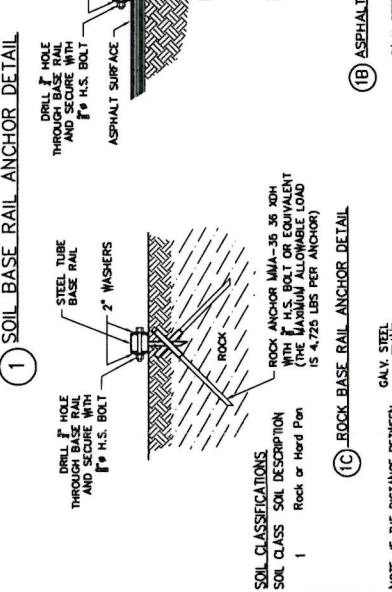
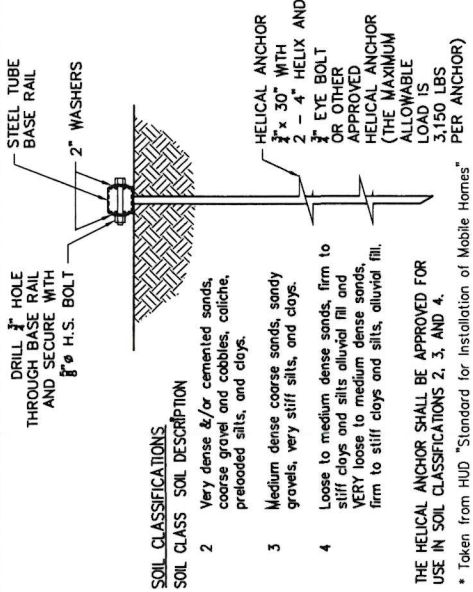
NOTE: IF THE DISTANCE BETWEEN HELICAL ANCHORS EXCEEDS 25', PROVIDE AN ADDITIONAL HELICAL ANCHOR MIDWAY BETWEEN.



BREAKAWAY

CRAWL SPACE DOOR SYSTEMS, INC.
5741 Boyds Road, #105
Virginia Beach, VA 23455
Engineered Flood Vent
Model CSB816

OR Approved Equal
FLOOD VENTS



SOIL CLASSIFICATIONS

SOIL CLASS SOIL DESCRIPTION

2 Very dense &/or cemented sands, coarse gravel and cobbles, caliche, preloaded silts, and clays.

3 Medium dense coarse sands, sandy gravels, very stiff silts, and clays.

4 Loose to medium dense sands, firm to stiff clays and silts, alluvial fill and VERY loose to medium dense sands, firm to stiff clays and silts, alluvial fill.

THE HELICAL ANCHOR SHALL BE APPROVED FOR USE IN SOIL CLASSIFICATIONS 2, 3, AND 4.

* Taken from HUD "Standard for Installation of Mobile Homes"

SOIL CLASSIFICATIONS

SOIL CLASS SOIL DESCRIPTION

1 Rock or Hard Pan
Rock ANCHOR MHA-35 30X WITH 1/2\"/>

NOTE: IF THE DISTANCE BETWEEN HELICAL ANCHORS EXCEEDS 25\"/>

