



**TOWN OF SUMMERVILLE
BOARD OF ARCHITECTURAL REVIEW – AGENDA
Zoom Meeting Webinar Link
<https://zoom.us/j/98717243495>
May 5th, 2020 at 6:00 P.M.**

(ALL APPLICANTS ARE REQUIRED TO PRESENT THEIR INDIVIDUAL REQUEST)

For additional information regarding this meeting please contact the Planning Department at 843.851.4214. All related documents for this meeting are available for review on the website

www.summervillesc.gov

Approval of Minutes:

1. April 23rd, 2020 Meeting Minutes

Old Business:

1. **315 Rutherford Street-** New construction of detached garage

Miscellaneous:

1. Update on future meetings

Adjourn:

Agenda Posted:

Board of Architectural Review Minutes
Tuesday April 23rd, 2020
Town Hall Annex Building– Training Room

Members Present:

Phil Dixon, Chairman
David Price, Vice Chairman
Jeff Bowers
Rachel Burton
Beth Huggins
Tim Kennedy

Staff Present:

Becca Zimmerman, Planner II

Members Absent:

Cecile Cothran

Items on the agenda:

Old Business:

1. 206 Central Avenue
2. 114 Pine Grove Avenue
3. 106 Congress Street

New Business:

1. 114 W. Richland Avenue
2. 210 S. Gum Street

Miscellaneous:

N/A

Chairman Dixon opened the meeting at 6:00 pm and made a statement explaining that the meeting was being held via the Zoom webinar and went over the process that was to be followed by presenters and board members. He then asked for consideration of the minutes from the March 3rd, 2020 regularly scheduled meeting. Dr. Price moved to approve the minutes; Mr. Bowers seconded the motion. The Board unanimously approved the minutes.

Old Business:

206 Central Avenue- Mr. Hill presented the final details for St. Luke's Lutheran Church fellowship building. He detailed the two revised elevation drawings with the revised window configurations with spandrel glass to replicate other elevations. Mr. Kennedy stated that he thought the elevations looked great and thanked Mr. Hill for his response to the Board's comments from the previous meeting. Dr. Price agreed with Mr. Kennedy's statement. Ms. Burton concurred with Mr. Kennedy and added that this solution was much better than the previous elevations. Ms. Zimmerman stated that if there were no other comments, she would move to the next issue at hand, which was the color of the spandrel glass to

be used. Mr. Hill went over the various examples of spandrel glass. Mr. Hill recommended that the project should utilize the grey spandrel glass. Ms. Burton agreed that grey spandrel glass would be the best fit. Mr. Bowers also agreed that grey would be the best color. Dr. Price echoed his sentiments. Ms. Huggins stated that she would tend to trust Mr. Hill's professional opinion, and agreed with the other board members. Ms. Burton motioned to approve the final details as presented, Dr. Price seconded the motion. The motion passed unanimously.

114 Pine Grove Avenue- Ms. Sands presented her proposal to build a detached garage on their property. She stated that the proposed colors of the garage would be white with a black metal roof. She continued that the siding would be Hardi plank, and the roof would be a standing seam roof. Ms. Burton asked if the applicant could confirm that the building would truly have a 12:12 pitch. Ms. Sands confirmed that the roof would have a 12:12 pitch per the drawing. Mr. Kennedy asked if the garage was a prefabricated kit or if there was a reason that the roof pitch was so high. Ms. Sands confirmed that it was a prefabricated kit. Mr. Kennedy asked if the product came with a roof of a lesser pitch. Ms. Sands stated that she did not know. Mr. Kennedy asked if there was a loft in this garage plans. Ms. Sands confirmed that there was a storage loft. Dr. Price stated that the profile of the metal roof is not what usually the Board approves. Ms. Sands asked for clarification. Dr. Price explained that the metal panel would need to be flat without any elevation in the panel with a 1-inch tall crimp. Ms. Sands confirmed that the crimp would be 1-inch. Mr. Kennedy explained that the Board does not approve metal roof panels with striations and that the panel would need to be flat and 16 inches wide. Mr. Sands confirmed that the panel was 16 inches wide, and the extra pencil crimps would not be visible from the ground and would strengthen the roof in the event of a hurricane. Mr. Kennedy stated that he did not believe the striations would add any strength to the roof in the event of a hurricane. Mr. Sands disagreed and went over the details of the roof panel sample. Mr. Kennedy stated that he was fine with the roofing panel other than the striations. Dr. Price agreed with Mr. Kennedy. Ms. Huggins asked what roofing was on the main house. Ms. Sands explained that the main house had black asphalt shingles and, in the future, when they replaced the roof on the house, they would match the metal roof on the garage. Ms. Sands asked what the rest of the Board's opinion was on the roof panel. Ms. Burton agreed with Mr. Kennedy that she would not approve striations in the roof panel. Mr. Bowers also agreed the striations were not acceptable. The Board and the applicants continued to discuss whether or not a flat panel should be used as the applicants disagreed with the board members. Ms. Zimmerman read from the Historic District guidelines 53. Roofing Material Letter F., which explains that striations in metal roof panels should be avoided. Dr. Price asked if the siding would be horizontal or vertical. Ms. Sands explained that it would be horizontal and would match the primary residence. Dr. Price asked for clarification about the trim, corner trim and fascia boards and what their design would be. Ms. Sands confirmed that they would be Hardi plank and built as shown in the drawings. Mr. Bowers moved to approve the garage as presented with the condition that the roofing panels were to be flat and have not striations. Ms. Burton seconded the motion; the motion passed unanimously.

106 Congress Street- Ms. Ross presented her revised house plan for a new single-family residence and detached accessory/workshop building. She explained that the footprint and where the building would sit on the lot are virtually the same. She detailed that she removed the garage she previously presented and would instead be using a workshop/accessory building in the rear of the property. Ms. Ross explained that the house footprint would be 40' wide. She asked the board members how they would feel about her removing the chimney shown on the plans if she could have a metal roof, white horizontal Hardi plank siding, and revising the transom window shown to a more simple transom window. Dr. Price stated that

he approved of a simpler transom window. Mr. Bowers stated that he liked the house design and did not see an issue with removing the chimney. Ms. Ross explained that she would also prefer to use two over two windows. Ms. Ross questioned if a raised slab plan would work rather than a slab on grade plan. Ms. Burton agreed that a raised slab finished with stucco would be acceptable. Ms. Ross explained that her front steps would be brick. Ms. Burton asked what color the roof would be. Ms. Ross explained that it would be grey. Ms. Burton asked what color would the windows and shutters be. Ms. Ross stated that the windows would be white, and the shutters would be black or Charleston green. Ms. Burton explained that she approved of the details discussed except for the grey galvalume roof. Ms. Ross asked if there was some other material she could use other than stucco on the foundation. Ms. Burton suggested brick, but that it was more expensive and that the stucco was easy to maintain. Mr. Kennedy stated that black is a prevalent color for the metal roofs in the historic district, and most of the roofs in the historic district are painted metal roofs, the most common colors being red, black, and green. Ms. Burton echoed Mr. Kennedy's sentiments. Mr. Kennedy asked that the raised slab is 3 feet above grade and that the front porch be constructed to appear as a more traditional, and not with a raised slab. Ms. Ross and the board members discussed removing the chimney and how she could balance out the fenestration on that elevation. Ms. Burton suggested that Ms. Ross add shutters to the windows on the side elevation. Ms. Ross explained that she would use all of the same materials for the house on the accessory structure. The board members agreed that the plan for the accessory structure was too simple and needed to have more architectural detail and character, and asked that when she comes back before the Board to present a more detailed design. Mr. Kennedy moved to grant preliminary approval with the conditions that the building be on a 3-foot raised slab (from final grade to finished floor), with a traditional front porch and a to provide a more detailed plan for the accessory structure. Dr. Price stated that a tabby finish could be added to the foundation rather than stucco, and wanted to include that the traditional porch should include the appearance of piers as a condition. Mr. Bowers asked to clarify that the front porch construction would not be concrete, but wood or brick. Ms. Burton seconded the motion; the motion passed unanimously.

New Business:

210 S. Gum Street- Mr. Hart presented the open carport proposal to be attached to his existing detached garage on his property. Ms. Burton asked what the colors would be. Mr. Hart stated that it would be white with a black shingle roof to match the existing garage. Dr. Price asked if there were slats on the side of the carport. Mr. Hart confirmed there would be slats, but they would be open to promote airflow. He also explained that he was working with his contractor to remove the middle column on the rear of the carport to utilize the carport better. Ms. Burton asked for the height of the bottom roofline of the carport. Mr. Hart confirmed that it was about 8 feet. Ms. Burton moved to approved the project as submitted and added the provision that if Mr. Hart wanted to remove the rear middle column as mentioned, he could do so. Mr. Kennedy seconded the motion; the motion passed unanimously.

114 W. Richland Avenue- Mr. Beauchene presented his proposal to build a detached two-car garage on his property. He explained that the garage would match the home that was not yet constructed but had been previously approved by the Board. Mr. Beauchene and the board members discussed the location of the garage and what elevations would be visible from the street. Mr. Beauchene clarified that he would be using architectural shingles on the roof of the house and the garage. Mr. Kennedy stated that many of the previously approved projects that were similar to this were asked by the Board to use

carriage style doors. Mr. Beauchene noted that he did not plan on using hardware on the doors. Mr. Kennedy asked Ms. Zimmerman if there was information in the guidelines about carriage style doors. Ms. Zimmerman stated that she could not find anything in the guidelines that specifically request carriage style garage doors. The board members discussed the elevation facing the street. Ms. Burton asked that the window and door elements on the elevation facing the street were centered and equally spaced to provide symmetry. Mr. Beauchene confirmed that he would do so. Mr. Kennedy brought up the issue of the carriage doors as they have asked previous applicants to provide these. Ms. Burton proposed that because of the colors used for the garage and how the garage will be situated on the property that the doors would not be visible. Therefore, the simple door design would be acceptable. The board members agreed that if the price difference wasn't too great that Mr. Beauchene uses carriage style doors. Ms. Burton motioned to approve the project as submitted with the condition that the applicant considers using carriage style garage doors if funds permit and the elevation of the street be revised to be symmetrical. Ms. Huggins seconded the motion; the motion passed unanimously.

Miscellaneous: N/A

Adjourn: Ms. Burton motioned to adjourn. Mr. Bowers seconded the motion; the motion passed unanimously. Chairman Dixon adjourned the meeting at 7:24pm.

Respectfully Submitted,

Becca Zimmerman, Planner II

Date: 4/28/20__

Approved: Philip G. Dixon PE, CFM, Chairman _____ Or,
Dr. David Price, Vice Chairman



STAFF REPORT
BAR Meeting
May 5th, 2020

To: Town of Summerville BAR
From: Becca Zimmerman, Planner II
Date: 4/28/20

GENERAL INFORMATION

Property Applicant: Kevin Morrissey

Owner: Kevin & Courtney Morrissey

Requested Action: Final Approval

Existing Zoning/Land Use: GR-2, Residential

Location: 315 Rutherford Street

Building Rating: N/A

Proposed Alterations: New construction of detached garage

Guideline Citation: **5. Design Guidelines** – 5.10 Universal Guidelines for New Standalone Construction -*Guideline 30. New Garage or Outbuilding Construction*

Evaluation: The applicant has updated their garage design to comply with Zoning requirements. The garage is simple in design and will have two bays. The garage will be just barely visible from one vantage point on a curved part of Rutherford Street. A final site plan will need to be submitted at the time of permitting in order to confirm impervious surfaces. The applicant will need to provide colors, finishes and material dimension details (specifically for the metal roofing) to board members before final approval is granted.



Ruth RUTHERFORD ST

305 RUTHERFORD ST

123 W RICHLAND ST

121 W RICHLAND ST

317 RUTHERFORD ST

315 RUTHERFORD ST

309 RUTHERFORD ST

313 RUTHERFORD ST

207 SUMMERVILLE

814 S MAIN ST

117 W RICHLAND ST

115 W RICHLAND ST

115 W RICHLAND ST

816 S MAIN ST

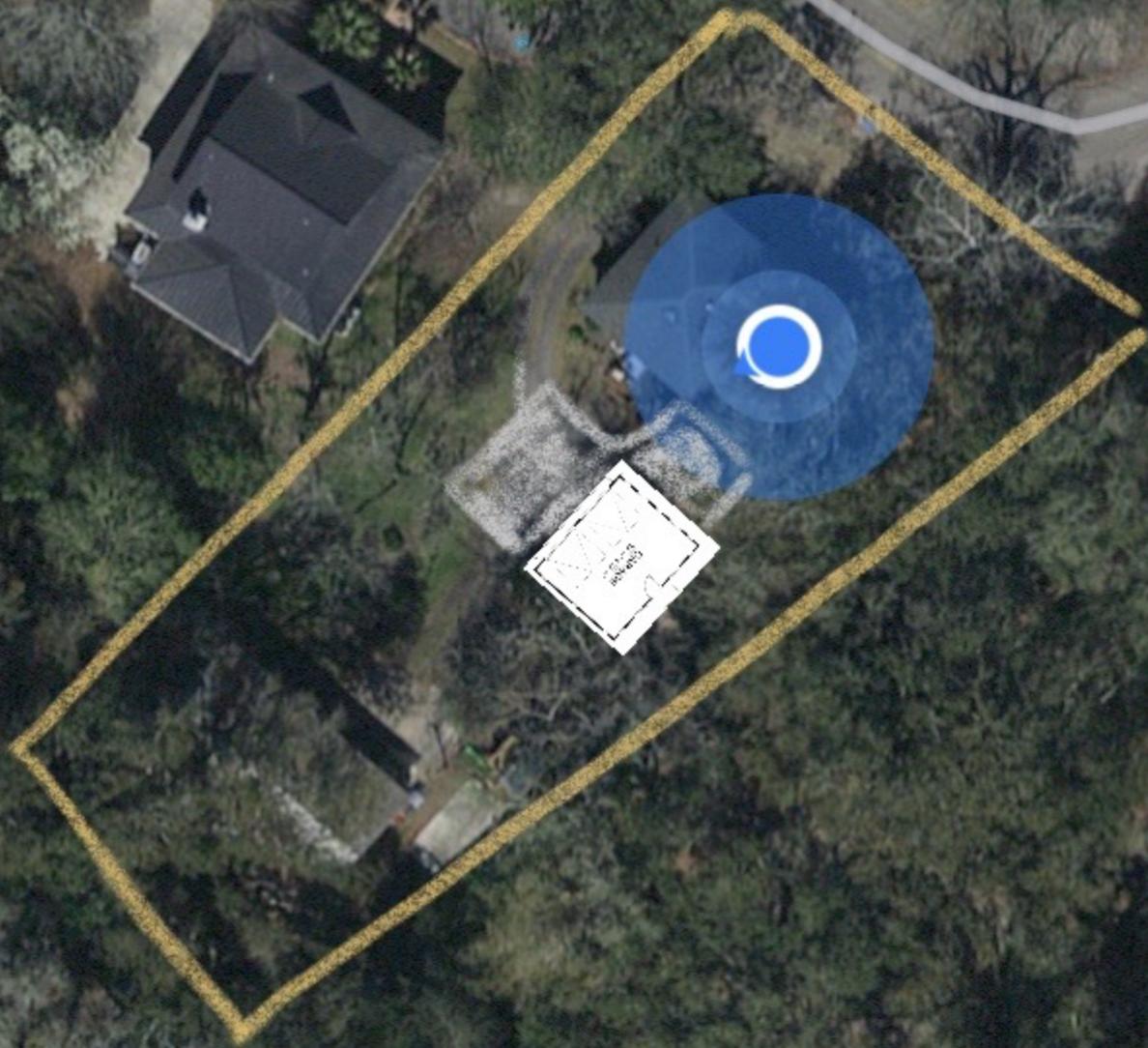
822 S MAIN ST



Rutherford St

Rutherford St

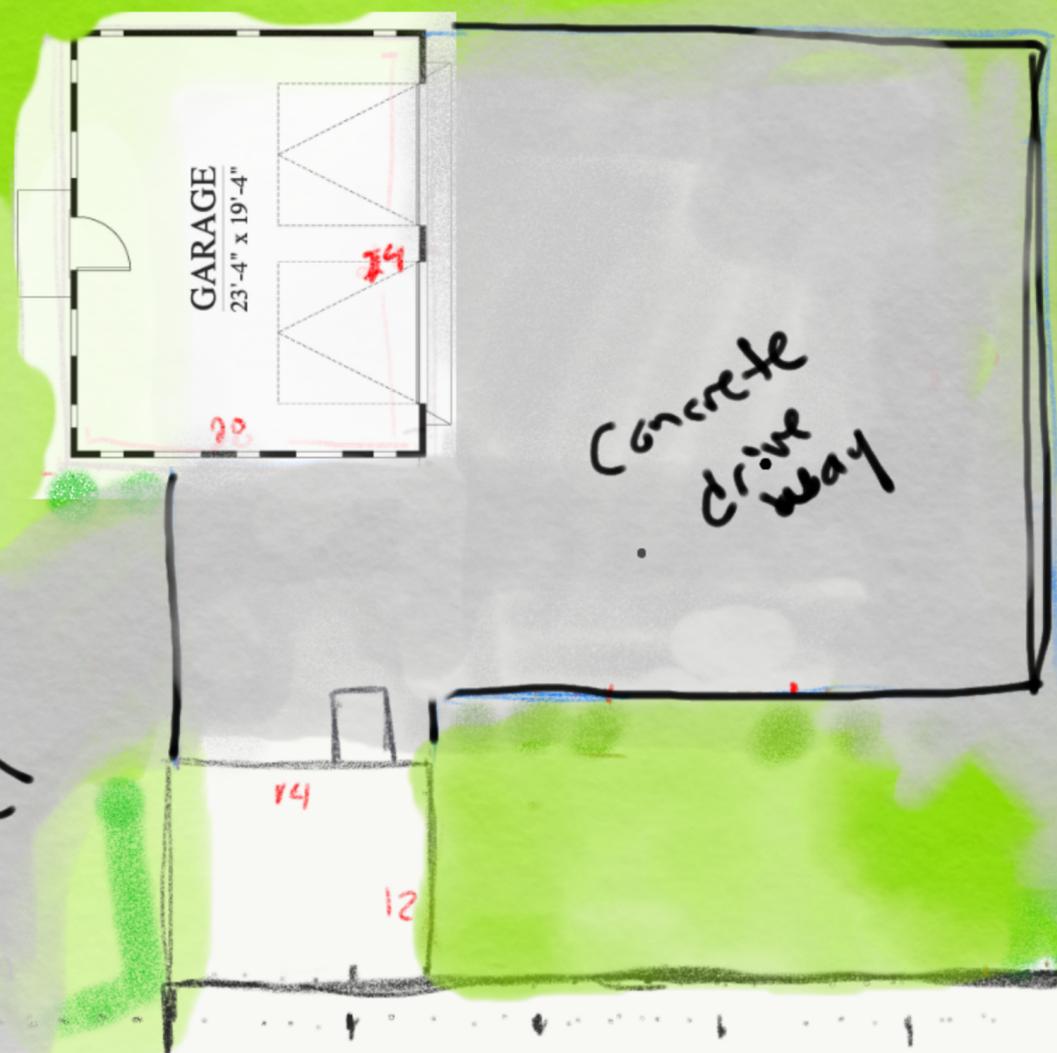
Chland St



PROPERTY
ADDRESS
CITY, STATE, ZIP

10 20 30 40 50 60 70 80 90

130
120
110
100
90
80
70
60
50
40
30
20
10



Gravel

Concrete driveway

Gravel

SYMBOLS + KEYS

DOOR AND WINDOW SIZE KEY
2860 = 2'-8" WIDE x 6'-0" HIGH

DRAWING #  = SECTION OF ELEVATION

SHEET #  ROOM TITLE
CEILING HEIGHT FLOOR FINISH

1 DRAWING TITLE

DETAIL OR ELEVATION NUMBER

 14.00' = ELEVATION ABOVE SEA LEVEL

 = REVISION NUMBER

 = REVISION CLOUD

 = PLAN REFERENCE NORTH

	SINGLE POLE SWITCH
	THREE WAY SWITCH
	FOUR WAY SWITCH
	DIMMER SWITCH
	DUPLEX OUTLET
	WATER PROOF OUTLET
	GROUND FAULT OUTLET
	SPECIALTY OUTLET
	FLOOR OUTLET
	TELEPHONE JACK
	TELEVISION JACK
	VENT
	VENT W/ LIGHT
	SURFACE MOUNTED FIXTURE
	RECESSED FIXTURE
	WALL MOUNTED FIXTURE
	FLOOD LIGHT
	FLOURESCENT FIXTURE
	CEILING FAN
	STRIP LIGHTING
	CEILING BOX
	DOOR CHIME
	ELECTRICAL PANEL
	SMOKE ALARM

CONCEPTUAL RENDERING



G0024

DRAWING INDEX

G0	COVER SHEET
G1	FOUNDATION PLAN/ ROOF PLAN/ DETAILS FLOOR PLANS/ ELECTRICAL PLANS
G2	ELEVATIONS
SP1	SPECIFICATIONS
SP2	SPECIFICATIONS
SP3	SPECIFICATIONS

GENERAL INFO.

AREA CALCULATIONS:
GARAGE = 480 sq. ft.

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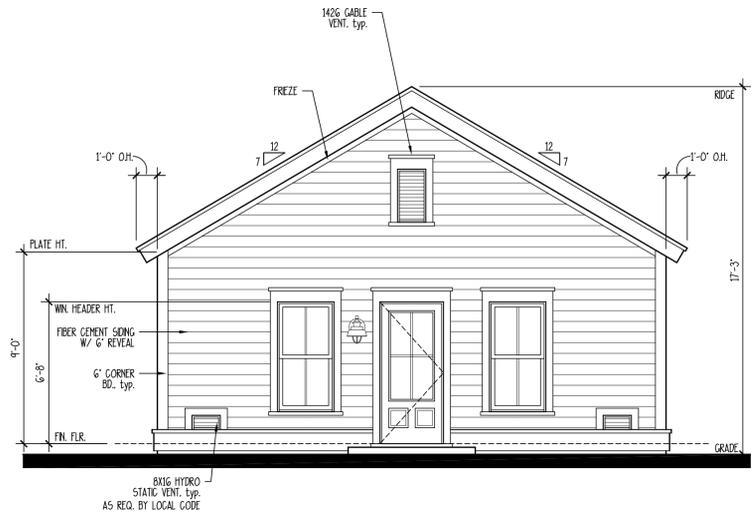
DATE:	04/29/2020
JOB NO.	G0024
DWN. BY:	MEC
DWG. NAME:	G0024.DWG

GO

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Architects, Inc. creating sustainable timeless design
1003 Charles St.
Beaufort, SC 29902
(843) 984-0559
www.allisonramseyarchitect.com

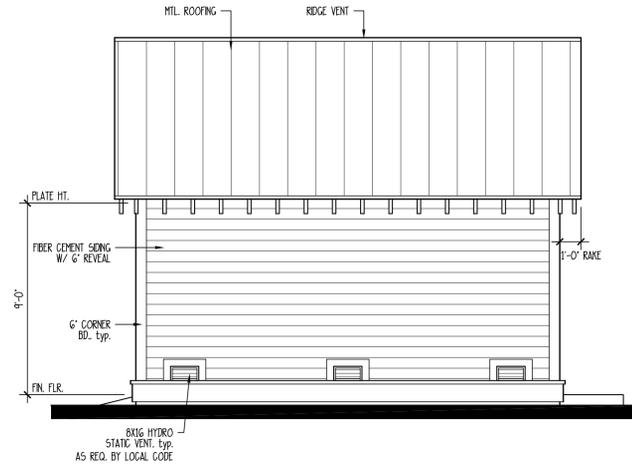
G0024

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-VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
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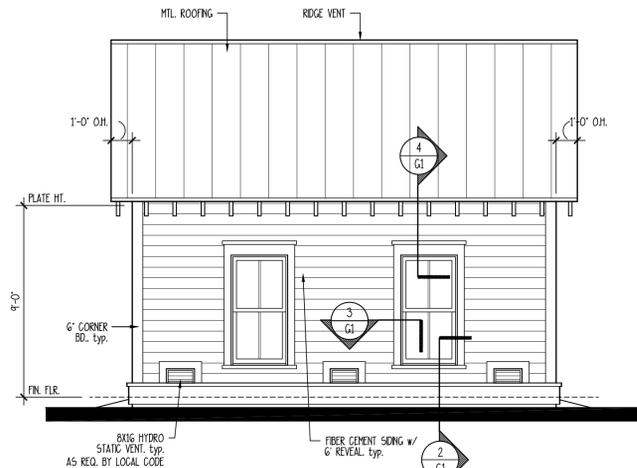
4 GARAGE REAR ELEVATION

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



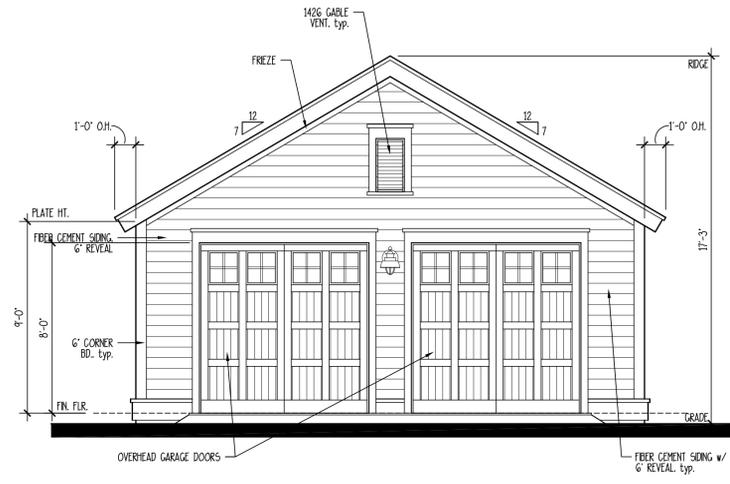
3 GARAGE RIGHT ELEVATION

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



2 GARAGE LEFT ELEVATION

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



1 GARAGE FRONT ELEVATION

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

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DATE: 04/29/2020

JOB NO. G0024

OWN. BY: NYC

DWG. NAME: G0024.DWG

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 -DOGS, UTILITY WORK, LOTS ARE NOT INCLUDED. THESE SHOULD BE OBTAINED FROM A LOCAL UTILITY COMPANY.
 -EQUIPMENT IS SIZED CORRECTLY FOR YOUR PARTICULAR REGION AND CONDITIONS.
 -VERIFY ALL STRUCTURAL ELEMENTS WITH LOCAL ENGINEER AND/OR ARCHITECT.

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 1003 Charles St.
 Beaufort, SC 29902
 (843) 964-6559
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G0024

G2

DIVISION 7 THERMAL AND MOISTURE PROTECTION

-Green Recommendation:

Utilize a closed crawlspace system as defined by the IRC when possible. If a conventional vented crawlspace is used, assure to seal all penetrations and gaps in building envelope that are not used for ventilation.

Environmentally Preferable Products:

Use local products when possible (extracted, processed and manufactured within 500 miles of project).

Use products with low emissions.

Use recycled or reclaimed products.

General: Provide thermal and moisture protection in accordance w/ applicable standards of the IRC.

Concrete and masonry foundation waterproofing. In areas where high water table or other severe soil-water conditions are known to exist.

Weather Protection: Roof decks shall be covered w/ approved roof coverings secured to the building or structure in accordance w/ the provisions of Chapter 9 of the IRC.

SECTION 07 10 00 - WATERPROOFING AND DAMPROOFING

Exterior foundation walls that retain earth and enclose habitable or useable spaces located below grade shall be waterproofed w/ membrane extending from the top of the footing to the finished grade in accordance w/ Sec. R406.2 of the IRC.

SECTION 07 11 03 - BITUMINOUS DAMPROOFING

Concrete and masonry foundation damproofing. Except where required to be waterproofed by Sec. R406.2, foundation walls that retain earth and enclose habitable or useable spaces located below grade shall be damproofed from the top of the footing to the finished grade in accordance w/ Sec. R406.1 of the IRC.

SECTION 07 21 00 THERMAL INSULATION

-Green Recommendation:

*Install insulation that meets or exceeds the R-value requirements in Chapter 4 of the International Energy Conservation Code.

*Install insulation to meet the Grade II specifications set by the National Home Energy Rating Standards.

Use low emission insulation and comply with California Practice for Testing of VOC's from Building Materials Using Small Chambers (www.dhs.ca.gov/etb/ha/IAQ/VOC5Practice.htm)

Use recycled content of 20% or more when possible.

Use soy-based spray foam insulation when possible.

-Green Recommended Manufacturers and Products:

BioBased Spray Foam Insulation

Thermal insulation shall be installed in accordance w/ provisions provided in Sec. R316 of the IRC.

Insulating materials, including facings, such as vapor retarders or vapor permeable membranes installed within floor-ceiling assemblies, roof-ceiling assemblies, wall assemblies, crawl space and attics shall have a flame-spread index not to exceed 25 w/ an accompanying smoke-developed index not to exceed 450 when tested in accordance w/ ASTM E 84.

Thermal performance requirements. The min. required insulation R-value or the area-weighted average maximum required fenestration U-factor for each element in the building thermal envelope shall be in accordance w/ Sec. N102 and the criteria in Table N102.1 of the IRC.

SECTION 07 24 00 - EXTERIOR INSULATION AND FINISH SYSTEMS -

General: All Exterior Insulation Finish Systems (EIFS) shall be installed in accordance w/ the manufacturer's installation instructions and the requirements of Sec. R103.9 of the IRC.

Decorative trim shall not be faced nailed through the EIFS.

The EIFS shall terminate not less than 8 inches above the finished ground level.

Installer qualifications: EIFS system installers shall be certified in writing by system manufacturer as qualified for installation of system indicated.

Manufacturers: Subject to compliance with requirements, provide CLASS PM system of one of the following:

Dryvit System Inc.
Serergy Inc.
Simplex Div., Anthony Industries, Inc.
STI Industries, Inc.

Comply with system manufacturer's current published instructions for installation of system as applicable to each type of substrate indicated. Offset joints of insulation from joints in sheathing.

Provide mock-up samples for the Owner's selection of colors and textures from Manufacturer's full line of offerings.

SECTION 07 31 03 - ASPHALT SHINGLES

The installation of asphalt shingles shall comply w/ the provisions of Sec. R905 of the IRC.

Sheathing Requirements: Asphalt shingles shall be fastened to solidly sheathed decks.

Slope: Asphalt shingles shall only be used on roof slopes of two units vert. in 12 units horiz. or greater. For roof slopes from two units vert. in 12 units horiz. up to four units vert. in 12 units horiz, double underlayment application is required in accordance w/ Sec. R905.2.1 of the IRC.

Underlayment: Unless noted otherwise, required underlayment shall comply w/ ASTM D226, Type I, or ASTM D 4864.

Type I, Self-adhering polymer modified bitumen sheet shall comply w/ ASTM D 1910.

Asphalt Shingles: Asphalt shingles shall have self-seal strips or be interlocking, and comply with ASTM D 225 or D 3462. Attachment: Asphalt shingles shall have the minimum number of fasteners as required by the manufacturer. For normal application, asphalt shingles shall be secured to the roof w/ not less than four fasteners per strip shingle or two fasteners per individual shingle.

Where the roof slope exceeds 20 units vert. in 12 units horiz, special methods of fastening are required.

For roofs located where the basic wind speed per Fig. R301.2(4) is 110 mph or greater, special methods of fastening are required.

Special fastening methods shall be tested in accordance w/ ASTM D 3161, modified to use a wind speed of 110 mph.

Shingles classified using ASTM D 3161 are acceptable for use in wind zones less than 110 mph. Shingles classified using ASTM D 3161 modified to use a wind speed of 110mph are acceptable for use in all cases where special fastening is required.

Flashing: Flashing for asphalt shingles shall comply w/ Sec. R905.2.B of the IRC.

Flashing shall be installed in such a manner so as to prevent moisture entering the wall and roof through joints in copings, through moisture permeable materials, and at intersections w/ parapet walls and other penetrations through the roof plane.

Flashings shall be installed at wall and roof intersections, wherever there is a change in roof slope or direction, and around roof openings.

Material shall be corrosion resistant w/ a thickness of not less than 0.019 (No. 26 galvanized sheet).

Valleys: Valley linings shall be installed in accordance w/ manufacturer's installation instructions before applying shingles.

Valley linings of the types allowed in Sec. R905.2.B.2 and in accordance w/ Table R905.2.B.2 of the IRC shall be permitted.

SECTION 07 31 24 - WOOD SHINGLES AND SHAKES

Wood Shingles: The installation of wood shingles shall comply w/ the provisions of Sec. R905.7 of the IRC.

Deck requirements: Wood shingles shall be installed on solid or spaced sheathing. Where spaced sheathing is used, sheathing boards shall not be less than 1-inch by 4-inch nominal dimensions and shall be spaced on centers equal to the weathering exposure to coincide with the placement of fasteners.

Deck slope: Wood shingles shall be installed on slopes of three units vert. in 12 units horiz. or greater.

Material Standards: Wood shingles shall be of naturally durable wood and comply w/ the requirements of Table R905.7.4 of the IRC and in accordance w/ grading rules as established by the Cedar Shake and Shingle Bureau.

Application: Wood shingles shall be installed according to Chapter 9, Sec. 905.7, and the manufacturer's installation instructions.

Weather exposure for wood shingles shall not exceed those set in Table R905.7.5 of the IRC.

Fasteners for wood shingles shall be corrosion-resistant w/ a min. penetration of 1/2 inch into the sheathing.

Wood shingles shall be attached to the roof w/ two fasteners per shingle, positioned no more than 3/4 inch from each edge and no more than 1 inch above the exposure line.

Valley Flashing: Roof Flashing shall be not less than No. 26 gauge corrosion-resistant sheet metal and shall extend 10 inches from the centerline each way for roofs having slopes less than 12 units vert. in 12 units horiz, and 7 inches from the centerline each way for slopes of 12 units in 12 units horiz. and greater.

Manufacturers:

-Green Recommended Manufacturers:

EcoStar, Seneca Cedar Shake Tiles

SECTION 07 61 00 - SHEET METAL ROOFING

-Green Recommendation:

Use metal roofing with an SRI index rating of at least 29.

Metal roof panels shall comply with provisions of Chapter 9, Sec. R905.10 of the IRC.

Roof covering application: Roof coverings shall be applied in accordance w/ the applicable provisions of Chapter 9 of the IRC and the manufacturers installation instructions.

Deck Requirements: Metal roof panel roof coverings shall be applied to a solid or spaced sheathing except where the roof covering is specifically designed to be applied to spaced supports.

Slope: The minimum slope for lapped, nonisolated seam metal roofs without applied lap sealant shall be three units vertical in 12 units horiz.

The minimum slope for lapped, nonisolated seam metal roofs w/ applied lap sealant shall be one-half vert. unit in 12 units horiz.

The minimum slope for standing seam roof systems shall be one-fourth unit vert. in 12 units horiz.

Material Standards: Metal-sheet roof covering systems that incorporate supporting structural members shall be designed in accordance w/ the International Building Code. Metal-sheet roof coverings installed over structural decking shall comply w/ Table R905.10.3.

Attachment: Metal roofing fastened directly to steel framing shall be attached in accordance w/ Sec. R905.10.4 of the IRC.

Separate aluminum sheets from contact w/ wood masonry and steel (structure, panels or fasteners), by either a 15-mil coating of fibroid asphalt paint or by tapes or gaskets of type recommended by panel manufacturer. Except as otherwise recommended by manufacturer, fasten aluminum work w/ non-magnetic stainless steel fasteners, gasket where needed for waterproof performance.

Flashing: Flashing shall be installed in such a manner so as to prevent moisture entering the wall and roof through joints in copings, through moisture-permeable materials, and at intersections w/ parapet walls and other penetrations through the roof plane.

Flashings shall be installed at wall and roof intersections, wherever there is a change in roof slope or direction, and around roof openings.

Material shall be corrosion resistant w/ a thickness of not less than 0.019 (No. 26 galvanized sheet).

SECTION 07 92 00 - JOINT SEALANTS

-Green Recommendation:

*Use fire-rated caulk in all attic applications.

Use environmentally friendly adhesives and sealants- see Table 26 in Lead for Homes requirements.

Compatibility: Provide joint sealers, joint fillers and other related materials that are compatible with one another and with joint substrates under service and application conditions, as demonstrated by testing and field experience.

Colors: Provide color of exposed joint sealers as selected by Owner from manufacturer's standard colors.

Elastomeric Sealant Standard: Provide manufacturer's standard chemically curing, elastomeric sealant of base polymer indicated, complying with ASTM C 920 requirements.

One-Part Non-aqueous Curing Silicone Sealant: Type 5, Grade NS, Class 25.

One-Part Mildew-Resistant Silicone Sealant: Type 5, Grade NS, Class 25 Uses NT, G, A, and O, formulated with fungicide, intended for sealing interior joints with nonporous substrates exposed to high humidity and temperature extremes.

Plastic Foam Joint-Fillers, Preformed, open-cell polyurethane foam.

General: Comply with joint sealer manufacturer's instructions applicable to products and applications indicated.

DIVISION 8 OPENINGS

-Green Recommendation:

Environmentally Preferable Products:

Use local products when possible (extracted, processed and manufactured within 500 miles of project).

Use products with low emissions.

Use recycled or reclaimed products.

*Reduced Envelope Leakage-meet the air leakage requirements shown below as tested by an energy rater:

Air Leakage Requirements (source: Lead for Homes Requirements, Table 17)

Lead Criteria	Performance Requirements (in ACH50)	IECC Climate Zones 1-2	IECC Climate Zones 3-4	IECC Climate Zones 5-7	IECC Climate Zone 8
Reduced Envelope Leakage (Pressure)	7.0	6.0	5.0	4.0	
Greatly Reduced Envelope Leakage	5.0	4.25	3.5	2.75	
Minimal Envelope Leakage	3.0	2.5	2.0	1.5	

General: Provide and install doors and windows in accordance w/ manufacturer's installation instructions. Comply w/ provisions of AAMA/NWDA 1011.5.2, AAMA/NWMA 1011.5.2.1(A-F), ASTM E 330, and Sections R308, R310, R311, and R613 of the IRC.

Performance: Exterior windows and doors shall be designed to resist the design loads specified in Table R301.2(2) adjusted for height and exposure per Table R301.2(3).

Moms of Egress: Not less than one exit door conforming to Sec.R311, MEANS OF EGRESS, shall be provided for each dwelling unit.

Weather debris protection: Protection of exterior windows and glass doors in buildings located in hurricane-prone regions from windborne debris shall be in accordance w/ Sec.R301.2.1.2.

SECTION 08 14 00 - WOOD DOORS

-Green Recommendation:

Products with any sign of damage, mildew, and other contamination shall be rejected. Examine all door frames before installation to ensure they are installed plumb, true and level. Wall space around door frames shall be filled with insulation.

Materials:

Wood: Use FSC-certified sustainably harvested wood from well-managed forests and attain proper identification from vendor.

Wood Veneer: Use FSC-certified sustainably harvested wood from well-managed forests and attain proper identification from vendor.

Veneer shall be manufactured in a facility approved by an agency accredited by the Forest Stewardship Council (FSC).

Manufacturers: Subject to compliance with NWDA 15.6, requirements, provide panel wood doors by one of the following:

Korona, Inc.
Morgan Products, Ltd.
Nicolai Company
Sauder Industries Limited, Door Division.
F.E. Schumacher Co., Inc.
Sun-Door-Co.

-Green Recommended Manufacturers and Products: (per BuildingGreen.com)

Alamy Woodworks, Inc., Reclaimed-Wood Products

Algoma Hardwoods, Inc., Certified Wood Doors

Alternative Timber Structures, Inc., Interior and Exterior Doors

Crossroads Recycled Lumber, Reclaimed Wood Products

Eggers Industries, Certified Wood Doors

Executive Door Company, Recycled-Content Wood Doors

Marshallfield DoorSystems, Certified Stone Core Doors

Linden Door, GreenDoor Agility Doors

VT Industries, Inc., Agrifiber Core Architectural Doors

Exterior Doors: Assemble doors with "wet-use" adhesives, and comply with NWDA Premium or select Grade.

Wood Species: Fir, Plain sawn/sliced.

Panel Configuration: Raised.

NWDA Design Group: 1-3/4" Front Entrance Doors (Exterior)

Interior Doors: Premium or Select.

Wood Species: Idaho White, Lodgepole, Ponderosa or Sugar Pine, plain sawn/sliced.

Panel Configuration: Raised.

NWDA Design Group: 1-3/8" Interior Panel Doors.

Glazed Opening: Trim glazed openings with solid wood moldings of profile indicated, removable one side.

Transom and Side Panels: Fabricate panels to match adjoining doors in materials, finish and quality of construction.

Exterior doors: Factory-treat exterior doors after fabrication with water repellent to comply with NWDA 15.4. Finish top of out-swinging doors with manufacturer's standard metal flashing.

Install doors to comply with manufacturer's instructions, applicable requirements of referenced quality standard, and as indicated.

Align and fit doors in frames with uniform clearances and bevels. Machine doors for hardware. Seal out surfaces after fitting and machining.

SECTION 08 33 23 - OVERHEAD COILING DOORS

-Green Recommendation:

Materials:

Wood: Use FSC-certified sustainably harvested wood from well-managed forests and attain proper identification from vendor.

Performance: Overhead Doors shall be designed to resist the design wind loads specified in Table R301.2(2) and as adjusted for height and exposure in Table R301.2(3) of the IRC.

Sectional Overhead Doors: Provide complete automatic operating door assemblies including frames, sections, brackets, guides, tracks, counterbalance, hardware, operators, and installation accessories.

Wood Door Section for transparent Finish: Panel-type door sections, complete with wood jamb and head mold, glazing stops and glazing, as shown. Siles and rails of clear, straight, kiln dried Douglas Fir; West Coast hemlock of Sitka spruce, rot less than 1-3/4" thick. Use clear all heartwood, redwood or cedar for head and jamb molds. Panel inserts, 1/4" thick, smooth 2 sides, tempered hardwood with wood veneer, complying with ANSI 135.4 Class 1.

Fabricate doors of mortise and tenon or rabbeted construction with dowels, pins and waterproof glue. Treat doors with 2-minute immersion water-repellent and toxic treatment. Provide continuous galv. steel reinforcing horizontal and diagonal, as required for panel size.

Installation: Set door, track and operating equipment complete with necessary hardware, jamb and head mold stops, anchors, inserts, hanger and equipment supports in accordance with mfrs. installation instructions.

Electric Door Operators: Automatic garage door openers, if provided, shall be listed in accordance w/ UL 325.

Provide size and capacity as recommended by door manufacturer, complete with NEMA approved electric motor and factory pre-wired motor controls, remote control station and accessories.

Provide safety edge device extending full width of door bottom.

Manufacturers:

-Green Recommended Manufacturers: (per BuildingGreen.com)

Real Carriage Door Company, Reclaimed-Wood Carriage Doors

Ankmar, LLC, GladPanel Garage Door

SECTION 08 52 00 - WOOD WINDOWS

-Green Recommendation:

Products with any sign of damage, mildew, and other contamination shall be rejected. Examine all window frames before installation to ensure they are installed plumb, true and level. Wall space around window frames shall be filled with insulation.

Follow minimum Energy Star Standards for Energy Performance Requirements outlined in the following table, whichever is more stringent:

ENERGY STAR Requirements for Window and Glass Doors (source: Lead for Homes Requirements, Table 18)

	Metric	Northern	North Central	South Central	Southern
Good Windows	U-factor	≤0.35	≤ 0.40	≤ 0.40	≤ 0.55
	SHGC	Any	≤ 0.45	≤ 0.40	≤ 0.35
Enhanced Windows	U-factor	≤ 0.31	≤ 0.35	≤ 0.35	≤ 0.55
	SHGC	Any	≤ 0.40	≤ 0.35	≤ 0.33
Exceptional Windows	U-factor	≤ 0.28	≤ 0.32	≤ 0.32	≤ 0.55
	SHGC	Any	≤ 0.40	≤ 0.30	≤ 0.30

(Table from Lead for Homes Rating System, Table 18, p. 63)

Install windows with low air leakage rates

-Less than 25 cfm per LF of sash opening for double hung windows

-Less than 10 cfm per LF for casement, awning and fixed windows

-Limit skylights to less than 3% WFA (window to floor area is the ratio of window area to floor area.

Materials:

Wood: Use FSC-certified sustainably harvested wood from well-managed forests and attain proper identification from vendor.

Wood Veneer: Use FSC-certified sustainably harvested wood from well-managed forests and attain proper identification from vendor.

Veneer shall be manufactured in a facility approved by an agency accredited by the Forest Stewardship Council (FSC).

Provide and install window units in configurations shown on drawings and in accordance with Federal, State, Local, & neighborhood guidelines.

Performance: Windows shall be designed to resist the design wind loads specified in Table R301.2(2) and as adjusted for height and exposure in Table R301.2(3) of the IRC.

Provide units that comply w/ Sec. R308, Glazing and Sec. R613, Exterior Windows and Glass Doors, of the IRC.

Egress: Comply w/ requirements of Sec. R310 of the IRC regarding min. window openings required for emergency escape and rescue.

Comply with ANSI/NWMA "Industry Standard for Wood Window Units 1.5, 2-80" by National Woodwork Manufacturers Association (NWMA), except to extent more stringent requirements as indicated.

Manufacturers: Provide casement, awning or double hung true divided lite units as indicated on the plans; each operating sash equipped with pair of counter balancing mechanism, lift handle, latch at meeting rail, produced by one of the following:

Anderson Corp. Bayport.

Caradoc Corp/Bendix, Rantoul, IL

Hurd Millwork, Flagstaff, AZ

Marvin Windows, Harroard, MN

Pella Windows, Pella, IA

Weather Shield Mfg. Inc., Meador, WI

-Green Recommended Manufacturer and Products: (per BuildingGreen.com)

J.S. Benson Woodworking & Design, LLC - Certified Wood Windows

Jeld-Wen Windows & Doors, Milner Collection High Performance Windows

Loewen Windows, Heat Smart Window

Marvin Windows & Doors, High Performance Wood Windows

Milgard Manufacturing Inc., High Performance Windows

Paramount Windows, Inc., High Performance Wood Windows

Pella Corporation, Designer Series

Weather Shield Manufacturing Inc., High Performance Wood Windows

SECTION 08 71 00 - DOOR HARDWARE

Hardware Allowances: See Division 1 for amount and procedures for Allowance Items. The costs of handling and installation are not covered by the allowance and shall be included in the base bid.

General Hardware Requirements: Submit final hardware schedule organized by "hardware sets", to indicate specifically the product to be furnished for each item required on each door.

Furnish template to fabricator of doors and frames, as required for preparation to receive hardware.

Install each hardware item to comply with manufacturer's instructions and recommendations.

Set thresholds for exterior doors in full bed of butyl-rubber or polysbutylene mastic sealant. Remove excess sealant and clean adjacent surfaces.

SECTION 08 71 00.11 WEATHERSTRIPPING, THRESHOLDS, AND SEALS

-Green Recommendation:

Shop priming recommended. All paints and stains to be low VOC and meet the standard of the Green Seal Standard #16-03. All sealants and adhesives to meet the standards of the South Coast Air Quality Management District Rule #16.0.

Provide adequate weathershipping to reduce envelope leakage as shown in table 18 above.

All exterior doors and doors to unheated spaces shall be weather-stripped. Provided aluminum interlocking thresholds with 3" x 3" aluminum angle finish strips, weatherstrip head and jambs with vinyl bulb set in aluminum strip, or approved equal.

Provide concealed, non-ferrous spring-metal or vinyl-gasket type, applied to each edge of each operable sash. Provide glass window units with standard and 1/8" float or sheet glass or clear fused-glass-edged insulating glass if shown on drawings.

Insect Screens: Manufacturer's standard removable units for each operable sash, or extruded aluminum framing with 18 x 14 replaceable coated aluminum 0.031" wire mesh and vinyl retainer spline.

Shop Prime Coat Finish: Manufacturer's standard wood primer, F5 TT-P-2, applied to exterior-exposed surfaces only.

Installation: Install units true and plumb and in accordance w/ Sec. R613 of the IRC and the manufacturer's installation instructions.

DIVISION 9 FINISHES

-Green Recommendation:

Environmentally Preferable Products:





PODS
PODS.com 800-776-PODS
Moving & Storage





PODS
Professional Moving & Storage

315



