Staff Report to the Western Weber Planning Commission

Weber County Planning Division

Synopsis

Application Information

Application Request:	Consideration and action on a request for design review approval of an accessory storage building that is more than twice the size of the primary dwelling's footprint.
Agenda Date:	Tuesday, July 14, 2020
Applicant:	David McGinnis
File Number:	DR 2020-04

Property Information

Approximate Address:	4157 West 2200 South, Taylor
Project Area:	2.89 acres
Zoning:	Agricultural A-1
Existing Land Use:	Residential
Proposed Land Use:	Residential
Parcel ID:	15-199-0001
Township, Range, Section:	T6N, R2W, Sec 28

Staff Information

Report Presenter:	Scott Perkes sperkes@co.weber.ut.us 801-399-8772
Report Reviewer:	SB

Adjacent Land Use

North:	Residential	**South:**	Residential
East:	Residential	**West:**	Residential

Applicable Ordinances

- Weber County Land Use Code Title 104 (Zones) Chapter 5 Agricultural (A-1)
- Weber County Land Use Code Title 108 (Standards) Chapter 1 Design Review
- Weber County Land Use Code Title 108 (Standards) Chapter 7 (Supplementary and Qualifying Regulations) Section 4 (Area of Accessory Building)
- Weber County Land Use Code Title 108 (Standards) Chapter 7 (Supplementary and Qualifying Regulations) Section 16 (Large Accessory Buildings - 1,000 Square Feet or Larger)

Background and Analysis

The applicant is requesting design review approval of a large residential accessory storage building that is approximately 2,816 square feet at 4157 West 2200 South in Taylor (see **Exhibit A** for the formal application). The property is zoned Agricultural A-1 and the lot is 2.89 acres.

County records indicate that there is a two-story 2,686 square foot single family detached dwelling currently on the property. The footprint of this dwelling is half of the dwellings overall area, equaling 1,343 square feet. The proposed accessory structure is a 2,816 square foot (44 foot by 64 foot) building (see **Exhibit C**). The building will be used for the personal storage of vehicles and equipment. The proposed building will be 12 feet from the west property line, 256 feet from the front lot line, approximately 333 feet from the rear lot line, and 88 feet behind the home (see **Exhibit B**).

Section 108-7-16, Large accessory buildings (1,000 square feet or larger), number (c) states *" Accessory buildings that exceed the dwelling in area by more than double as measured by the footprint of the dwelling shall require approval by the planning commission as a **design review**".* When compared to the dwelling's footprint (1,343 sq. ft.), the proposed structure (2,816 sq. ft.) is 130 square feet larger than double the dwelling's footprint (2,686 sq. ft.).

LUC Sec. 108-1 (Design Review) - 1 (Purpose) - *"The purpose and intent of design review by the planning commission is to secure the general purposes of this chapter (LUC Sec. 108-1) and the master plan and to ensure that the general design, layout and appearance of buildings and structures and the development of property shall in no case be such as would impair the orderly and harmonious development of the neighborhood or impair investment in and occupation of the neighborhood".*

Beyond the required Design Review, the following two sections of code are also applicable to a large accessory structure, of which this proposed structure has been found to be in compliance:

> **LUC Sec. 108-7-4**, Area of Accessory Buildings, states *"No accessory building or group of accessory buildings in any residential estates zone, cluster subdivision, or PRUD shall cover more than 25 percent of the rear yard".* Since this property is zoned Agricultural (A-1), there are no lot coverage standards.
>
> **Section 108-7-16**, list the setbacks for large accessory buildings (1,000 square feet or larger) as follow:
>
> (a) Accessory buildings 1,000 square feet or larger in area that accommodates uses meeting zoning requirements shall:
> (1) Be located at least six feet from the rear of a dwelling in the residential estates zones and at least ten feet from the rear of a dwelling in the agricultural and forest zones.
> (2) Have a side yard setback of at least ten feet on an interior lot and 40 feet on a corner lot where the side property line is adjacent to a street.
> (3) Have a maximum height of 25 feet.
> Exceptions: The side yard may be reduced to three feet (except in a forest zone) and the height increased to 35 feet if the accessory building is located at least 100 feet from a property line adjacent to a street and at least 40 feet from a dwelling on an adjacent lot.

Conformance to the General Plan

This site plan conforms to the General Plan by meeting the outlined permitted land uses of the zone in which it is located, and all of the applicable requirements of the Weber County Land Use Code for the siting of a large accessory building.

Summary of Planning Commission Considerations

When reading through the requirements of LUC Sec. 108-1 (Design Review), it is evident that the chapter is primarily intended for more intensive uses such as multifamily developments, resorts, commercial and manufacturing buildings, etc. As such, the code lays out specific requirements for traffic, landscaping, buildings and site layout, easements and drainage, and any associated rezoning conditions. These considerations are not specifically geared towards residential uses. For this reason, staff has asked that the applicant provide higher level review materials such as architectural elevations, proposed materials and colors, and a site plan for the planning commission's review and consideration. Based on these submitted materials, the commission will need to determine if enough information has been provided to evaluate the following considerations:

- Are the project layout and setbacks consistent with applicable requirements of the Weber County Land Use Code?
- Would this project impair the orderly and harmonious development of the neighborhood or impair investment in and occupation of the neighborhood?
- Should any additional design elements be implemented as conditions of approval?

Conditions of Approval

Should the planning commission vote to approve this design review request, the following condition of approval would be necessary along with any other conditions that may be added by the commission:

- Satisfaction of all review agency requirements involved with the issuance of a Land Use Permit and Building Permit for the proposed structure.

Staff Recommendation

Staff recommends that the planning commission review the submitted review materials and determine if enough information has been provided in order for the above listed considerations can be adequately vetted. If so, the commission could approve the design review request with the above listed condition (along with any other conditions added by the commission) and the following findings:

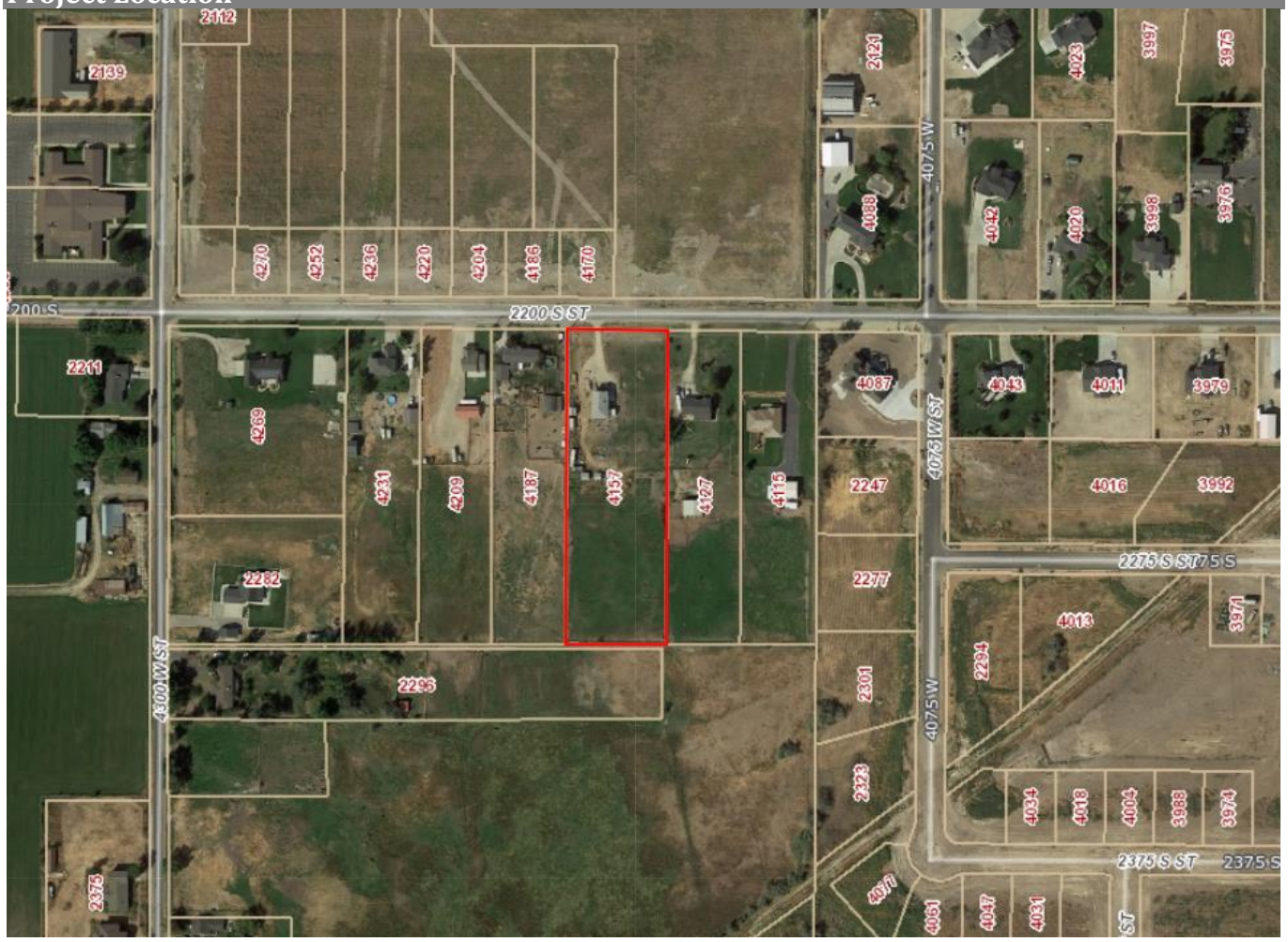
- The proposed use is allowed in the A-1 Zone
- All development standards have been met
- With any imposed conditions, the proposed building does not impair the orderly and harmonious development of the neighborhood or impair investment in and occupation of the neighborhood.

Alternatively, if the commission determines that additional review information is needed for adequate consideration, the commission could vote to table the application until such material is furnished for further review.

Exhibits

A. Design Review Application
B. Site Plans
C. Building Plans, Materials, & Colors

Project Location



Google Street View of the Subject Property

Exhibit A: Design Review Application

Weber County Design Review Application

Application submittals will be accepted by appointment only. (801) 399-8791. 2380 Washington Blvd. Suite 240, Ogden, UT 84401

Date Submitted / Completed	Fees (Office Use)	Receipt Number (Office Use)	File Number (Office Use)
11 June 2020			

Property Owner Contact Information

Name of Property Owner(s)	Mailing Address of Property Owner(s)
David & Shanon McGinnis	4157 W 2200 S Taylor UTAH 84401
Phone: 801 791 5228 / Fax:	
Email Address: Gmcginness@Konnections.net	Preferred Method of Written Correspondence: [X] Email [ ] Fax [ ] Mail

Authorized Representative Contact Information

Name of Person Authorized to Represent the Property Owner(s)	Mailing Address of Authorized Person
Phone / Fax:	Same as Owner
Email Address	Preferred Method of Written Correspondence: [ ] Email [ ] Fax [ ] Mail

Property Information

Project Name	Current Zoning	Total Acreage
Work Shop Garage	RW	2.89

Approximate Address	Land Serial Number(s)
4157 W 2200 S Taylor UT 84401	Parcel # 15-199-0001

Proposed Use: Tinkering & Fixing

Project Narrative:

44' x 64' Shop to fix cars build projects store stuff

Natural Earth tone Siding (metal) and Roof (metal).

Color pallet of Beige, Green, Red

Roof Beige or white

North face Green
West face Beige
East face Red
South face Green

Property Owner Affidavit

I (We) David & Sharon McGinnis, depose and say that I (we) am (are) the owner(s) of the property identified in this application and that the statements herein contained, the information provided in the attached plans and other exhibits are in all respects true and correct to the best of my (our) knowledge.

David L. McGinnis
(Property Owner)

Sharon McGinnis
(Property Owner)

Subscribed and sworn to me this 12 day of June, 20 20.

GARRETT MILLWARD
NOTARY PUBLIC • STATE OF UTAH
COMMISSION NO. 701386
COMM. EXP. 07/17/2022

(Notary)

Authorized Representative Affidavit

I (We), _____, the owner(s) of the real property described in the attached application, do authorized as my (our) representative(s), _____, to represent me (us) regarding the attached application and to appear on my (our) behalf before any administrative or legislative body in the County considering this application and to act in all respects as our agent in matters pertaining to the attached application.

_____
(Property Owner)

_____
(Property Owner)

Dated this _____ day of _____, 20 _____, personally appeared before me _____, the signer(s) of the Representative Authorization Affidavit who duly acknowledged to me that they executed the same.

_____
(Notary)

Exhibit B: Site Plans

This site plan has been drawn to-scale in order to more accurately show the proposed structure in relation to the property boundaries and the existing dwelling.

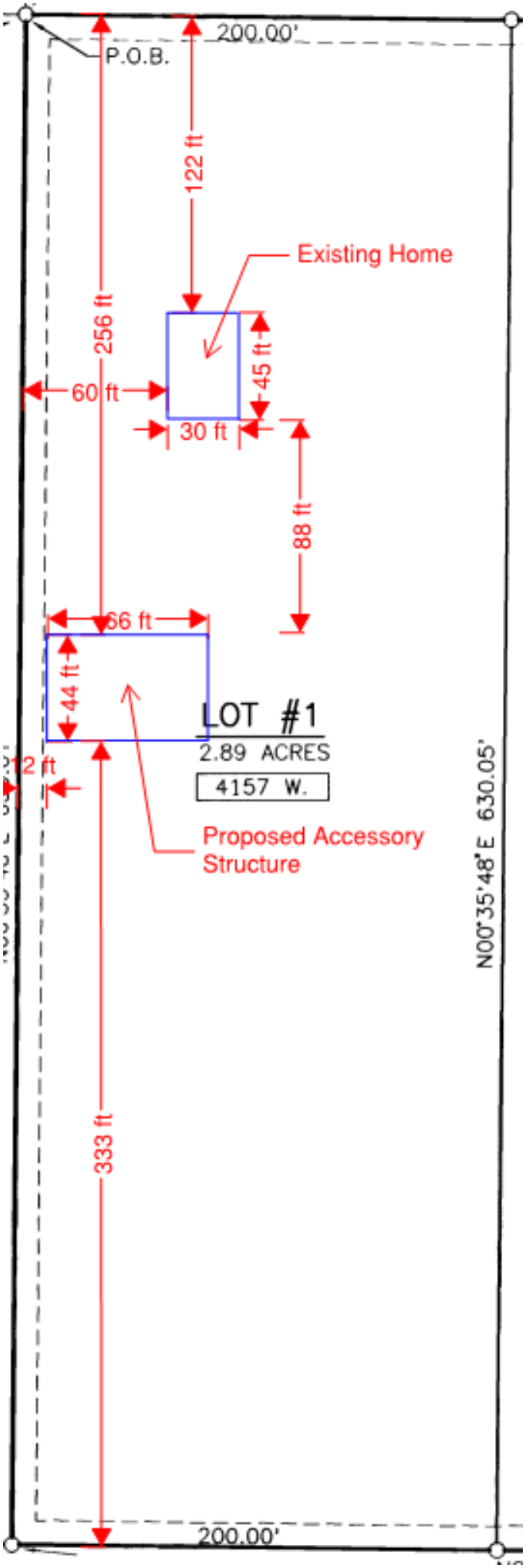


Exhibit C: Building Plans, Materials, & Colors

BRICK VENEER R1Ø3.7

CORROSION RESISTANT ACHOR TIES EMBEDDED IN MORTAR OR GROUT AND EXTENDING INTO THE VENEER A MINIMUM OF 1-½" INCH, WITH NOT LESS THAN ⅝" MORTAR OR GROUT COVER TO OUTSIDE FACE.

CORROSION RESISTANT 22 GAGE X 7/8" OR NO. 9 GAGE WIRE SPACED NO MORE THAN 24" O.C. HORIZ. AND VERTICALLY AND SHALL SUPPORT NOT MORE THAN 2.0 SQUARE FEET OF WALL AREA.

STEEL ANGLE - MIN. 6"x4"x⅝" WITH THE LONG LEG VERTICAL. COMPLY WITH SECTION R1Ø3.12.1

ALL STONE AND MASONRY VENEER SHALL COMPLY WITH SECTION R1Ø3.1

ATTIC VENTILATION R8Ø6

ATTIC VENTILATION SHALL COMPLY WITH SECTION R8Ø6.

THE NET FREE VENTILATION SHALL NOT BE LESS THAN 1/150th OF THE AREA OF THE SPACE VENTILATED, EXCEPT THAT THE AREA MAY BE 1/300th PROVIDED THAT AT LEAST 50% OF THE REQUIRED VENTILATING AREA IS LOCATED IN THE UPPER SPACE PORTION OF THE SPACE TO BE VENTILATED AND THE REMAINDER IS PROVIDED BY EAVES OR CORNICE VENTS. IRC R8Ø6.

EXTERIOR WALL COVERING R1Ø3

ALL EXTERIOR COVERINGS SHALL COMPLY WITH SECTION R1Ø3

STUCCO/(EIFS) - INSTALLATION SHALL COMPLY WITH ASTM E 2568

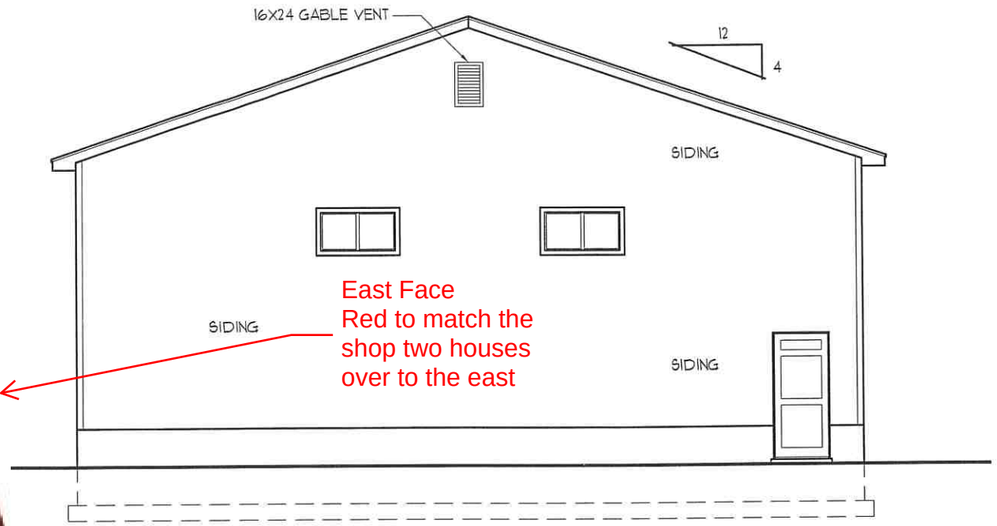
FIBER CEMENT SIDING - PANEL AND LAP SIDING INSTALLATION SHALL COMPLY WITH ASTM C1186.

VINYL SIDING - INSTALLATION SHALL COMPLY PER ASTM D 3679

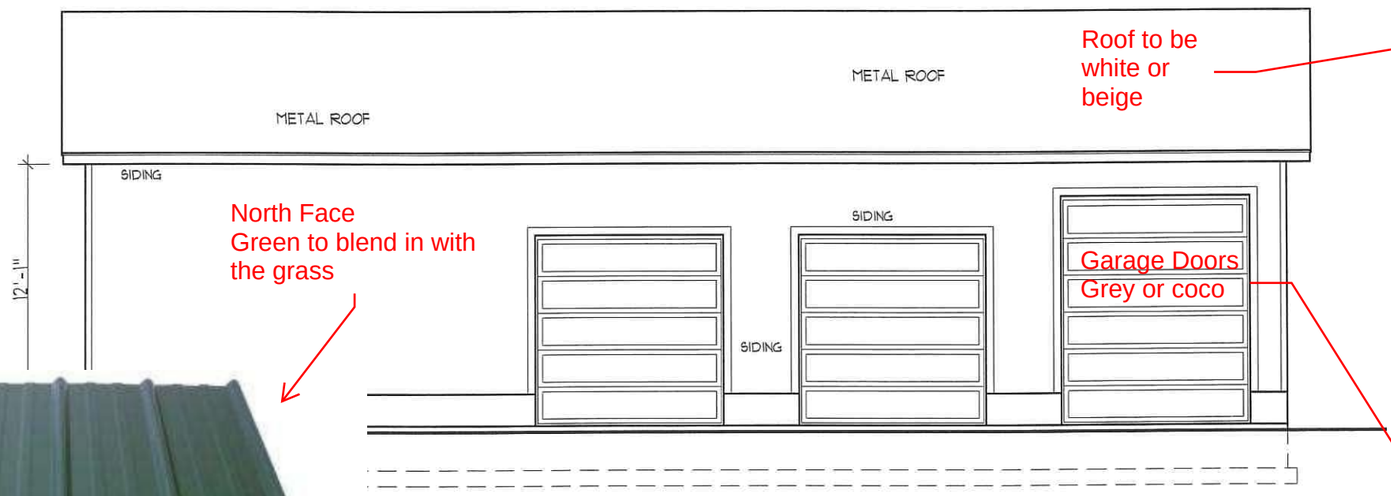
ASPHALT SHINGLES - INSTALLATION SHALL COMPLY WITH ASTM D 225 OR D 3462. CLASS "A"

BUILDING ADDRESS IRC R319.1

BUILDING NUMBERS SHALL BE A MIN. 4" HIGH WITH A MIMINUM STROKE WITH OF ½" INCH.



LEFT SIDE VIEW
SCALE 1/8" = 1'-Ø"



FRONT ELEV. VIEW
SCALE 1/8" = 1'-Ø"

The applicant has indicated that "landscaping will be simple, grade away from structure to prevent flooding, with grass in the areas of low travel. In high traveled area, I will have concrete or stone with weed preventative. Lighting will be minimal and motion activated.

4157 W. 2200 S. Taylor, Utah
McGINNIS RESIDENCE

Kustom House Plans
RESIDENTIAL / COMMERCIAL DESIGN & ENGINEERING
NATE KARRAS P.E. (801) 786-0849 email: KustomNK@gmail.com

SCALE
1/8" = 1'-0" 11x17
1/4" = 1'-0" 24x36

PLAN NUMBER
McGinnis A1

Exhibit C: Building Plans, Materials, & Colors

BRICK VENEER R103.7

CORROSION RESISTANT ACHOR TIES EMBEDDED IN MORTAR OR GROUT AND EXTENDING INTO THE VENEER A MINIMUM OF 1-½" INCH, WITH NOT LESS THAN ⅝" MORTAR OR GROUT COVER TO OUTSIDE FACE.

CORROSION RESISTANT 22 GAGE X 7/8" OR NO. 9 GAGE WIRE SPACED NO MORE THAN 24" O.C. HORIZ. AND VERTICALLY AND SHALL SUPPORT NOT MORE THAN 2.0 SQUARE FEET OF WALL AREA.

STEEL ANGLE - MIN. 6"x4"x⅝" WITH THE LONG LEG VERTICAL. COMPLY WITH SECTION R103.12.1

ALL STONE AND MASONRY VENEER SHALL COMPLY WITH SECTION R703.7

ATTIC VENTILATION R806

ATTIC VENTILATION SHALL COMPLY WITH SECTION R806.

THE NET FREE VENTILATION SHALL NOT BE LESS THAN 1/150th OF THE AREA OF THE SPACE VENTILATED, EXCEPT THAT THE AREA MAY BE 1/300th PROVIDED THAT AT LEAST 50% OF THE REQUIRED VENTILATING AREA IS LOCATED IN THE UPPER SPACE PORTION OF THE SPACE TO BE VENTILATED AND THE REMAINDER IS PROVIDED BY EAVES OR CORNICE VENTS. IRC R806.

EXTERIOR WALL COVERING R703

ALL EXTERIOR COVERINGS SHALL COMPLY WITH SECTION R703

STUCCO/(EIFS) - INSTALLATION SHALL COMPLY WITH ASTM E 2568

FIBER CEMENT SIDING - PANEL AND LAP SIDING INSTALLATION SHALL COMPLY WITH ASTM C1186.

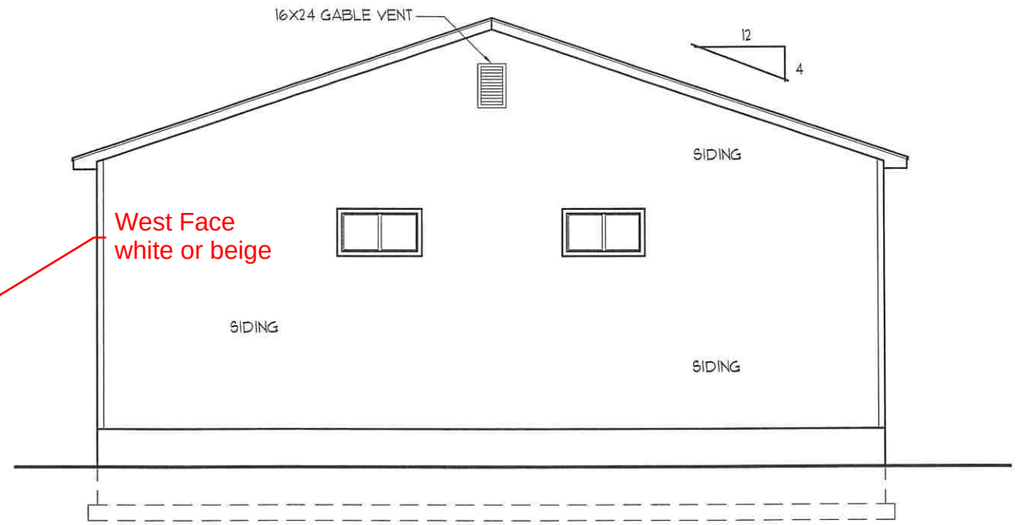
VINYL SIDING - INSTALLATION SHALL COMPLY PER ASTM D 3679

ASPHALT SHINGLES - INSTALLATION SHALL COMPLY WITH ASTM D 225 OR D 3462. CLASS "A"

BUILDING ADDRESS IRC R319.1

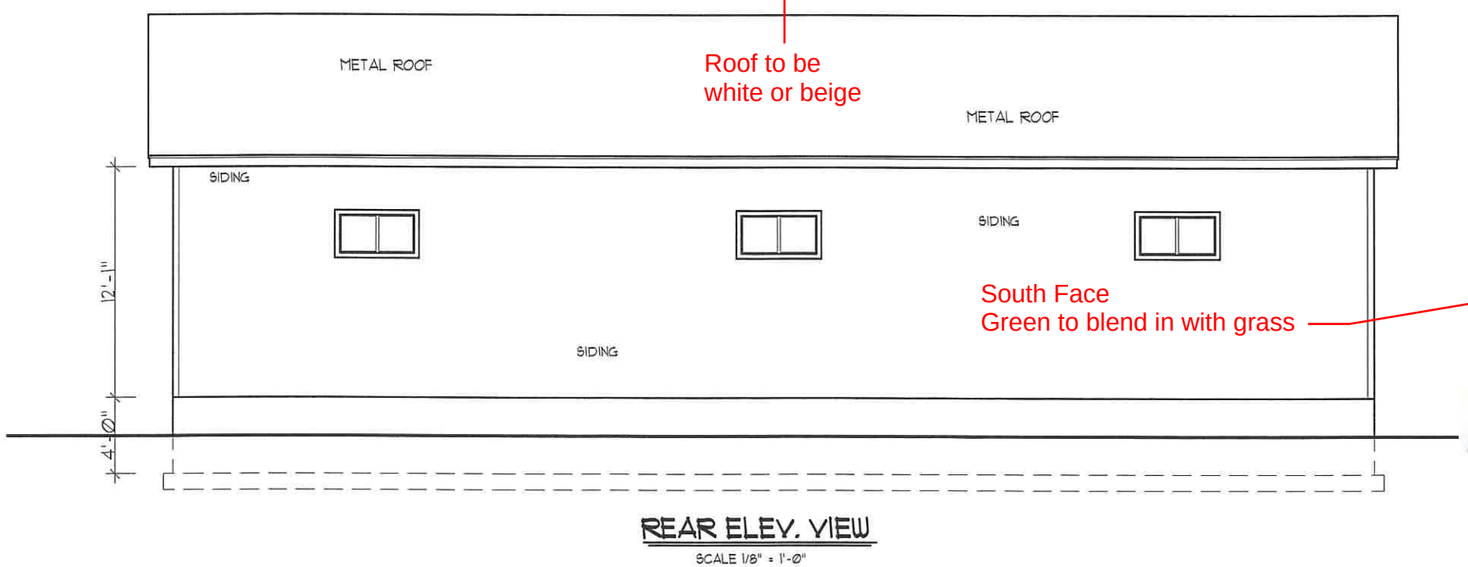
BUILDING NUMBERS SHALL BE A MIN. 4" HIGH WITH A MINIMUM STROKE WITH OF ½" INCH.

Roof to be
white or beige



West Face
white or beige

RIGHT SIDE VIEW
SCALE 1/8" = 1'-0"



South Face
Green to blend in with grass

REAR ELEV. VIEW
SCALE 1/8" = 1'-0"

3/24/2025

4157 W. 2200 S. Taylor, Utah
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SCALE	
1/8" = 1'-0"	11x17
1/4" = 1'-0"	24x36
DRAWN BY	SHEET NUMBER
McGinnis	A2

NOTES: GENERAL

1. CONTRACTOR IS TO VERIFY DESIGN, DIMENSIONS AND NOTES PRIOR TO BEGINNING OF CONSTRUCTION.

2. ALL WORK IS TO BE DONE UNDER THE SUPERVISION OF A LICENSED CONTRACTOR.

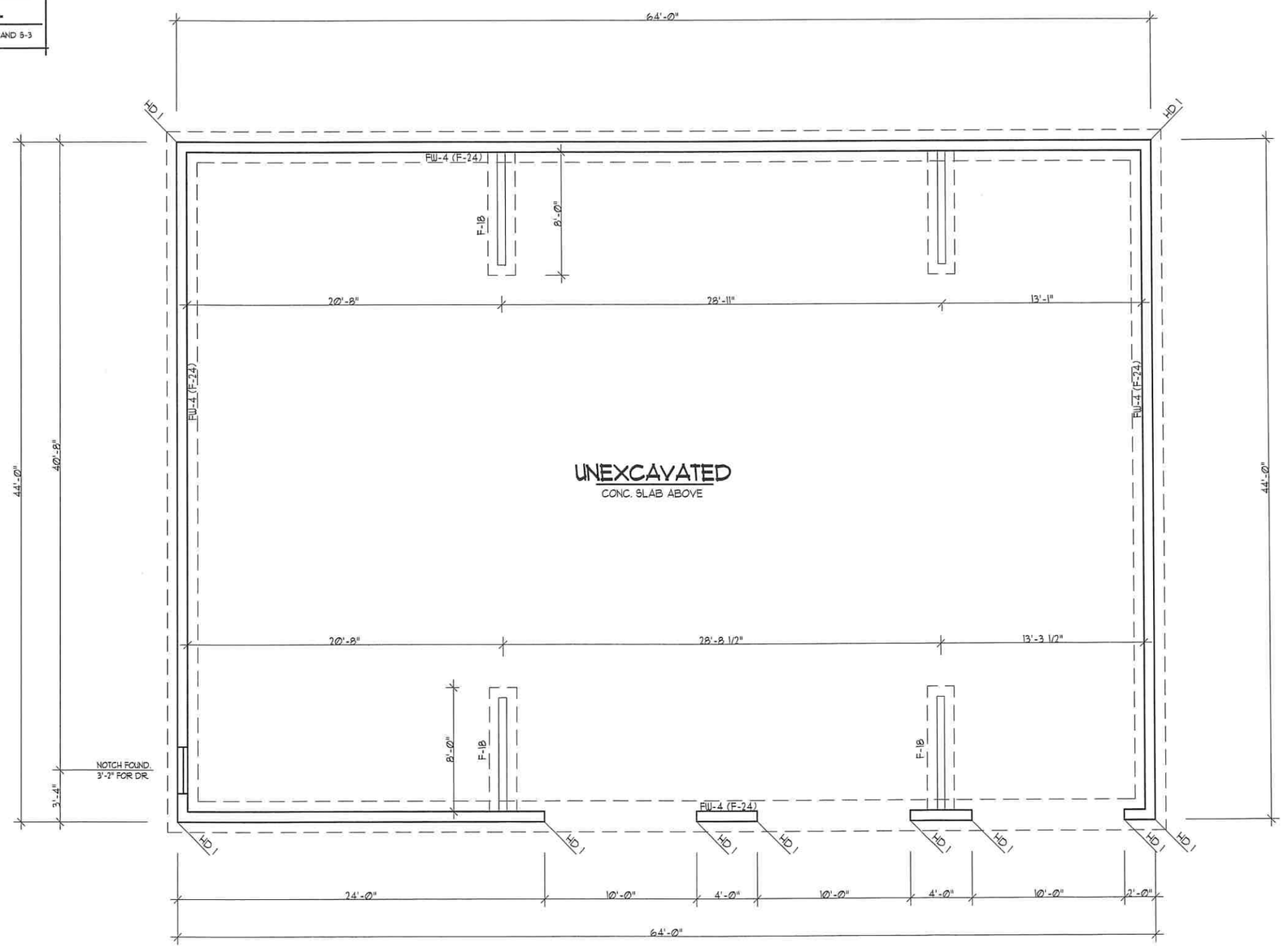
3. ALL WORK IS TO DONE UNDER LOCAL AND STATE BUILDING CODES.

4. ELECTRICAL SHALL BE PER NATIONAL ELECTRIC CODE, LATEST EDITIONS.

5. HEATING/MECHANICAL WORK SHALL BE PER APPLICABLE CODES, LATEST EDITIONS.

NOTES: STRUCTURAL

SEE STRUCTURAL DETAILS - SHEET S-1, S-2, AND S-3



FOUNDATION PLAN

SCALE 1/8" = 1'-0"

4157 W. 2200 S. Taylor, Utah

McGINNIS RESIDENCE

Kustom House Plans
RESIDENTIAL / COMMERCIAL DESIGN & ENGINEERING
NATE KARRAS P.E. (801) 786-0849 email: KustomNK@gmail.com

SCALE
1/8" = 1'-0" 11x17
1/4" = 1'-0" 24x36

PLAN NUMBER
McGinnis A3

Exhibit C: Building Plans, Materials, & Colors

NOTES: GENERAL

1. CONTRACTOR IS TO VERIFY DESIGN, DIMENSIONS AND NOTES PRIOR TO BEGINNING OF CONSTRUCTION.
2. ALL WORK IS TO BE DONE UNDER THE SUPERVISION OF A LICENSED CONTRACTOR.
3. ALL WORK IS TO DONE UNDER LOCAL AND STATE BUILDING CODES.
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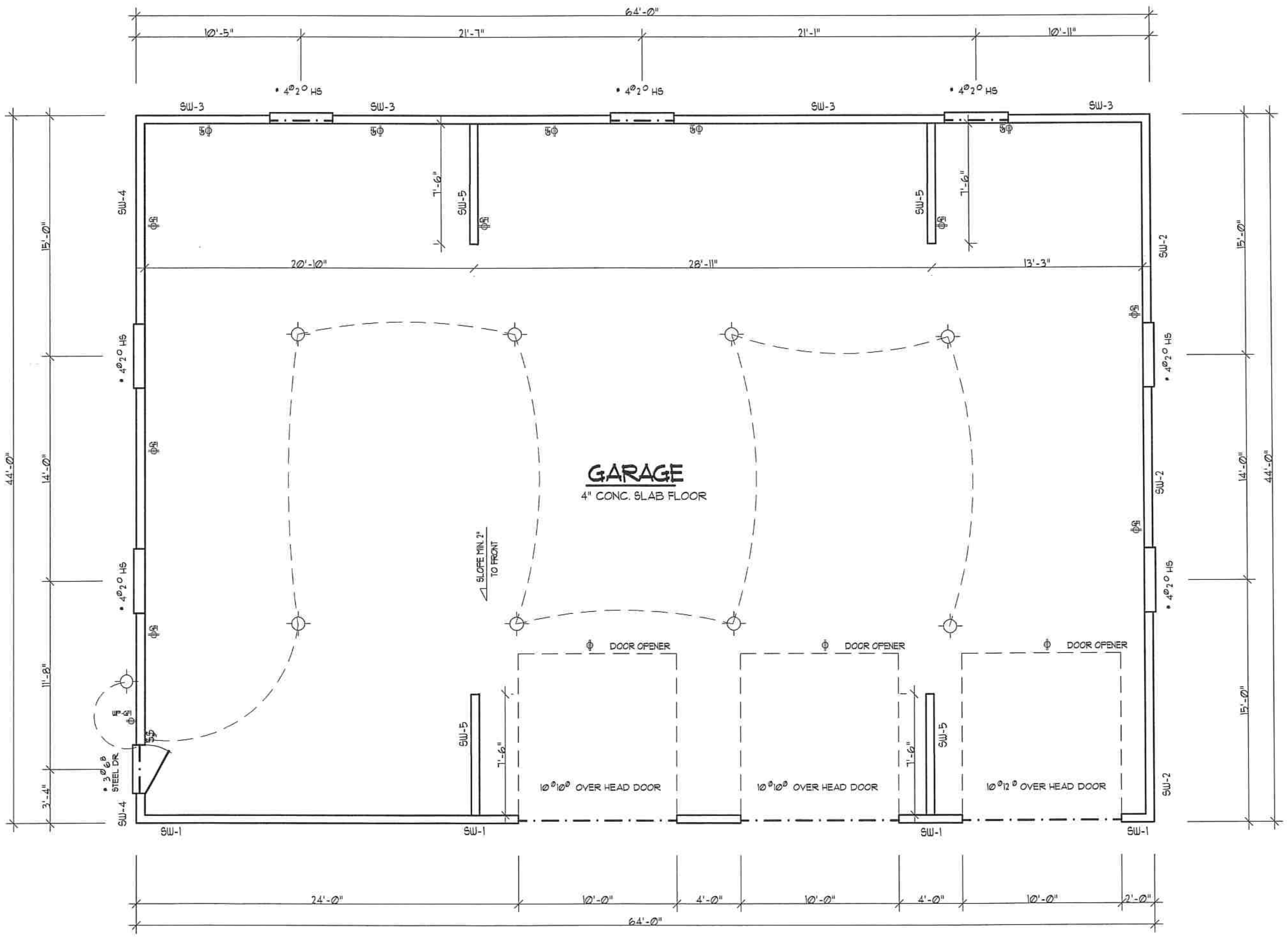
5. HEATING/MECHANICAL WORK SHALL BE PER APPLICABLE CODES, LATEST EDITIONS.

NOTES: STRUCTURAL

SEE STRUCTURAL DETAILS - SHEET S-1, S-2, AND S-3



MAIN FLOOR PLAN

SCALE 1/8" = 1'-0"

4157 W. 2200 S. Taylor, Utah
McGINNIS RESIDENCE

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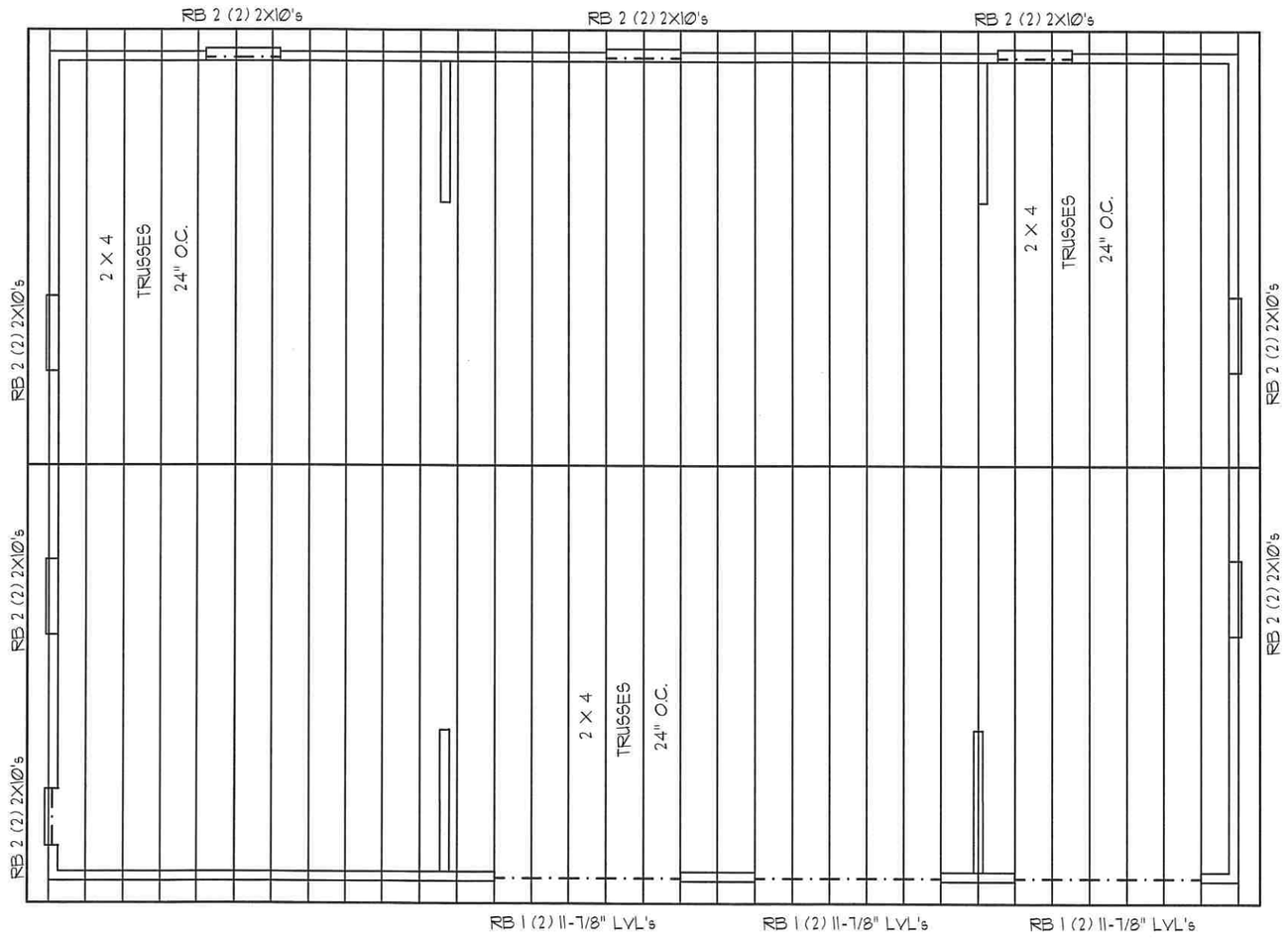
NOTE THIS PLAN IS THE PROPERTY OF KUSTOM HOUSE PLANS
DO NOT COPY WITHOUT WRITTEN PERMISSION

No. 355925
NATHAN JOHN KARRAS
3/24/2020

SCALE	
1/8" = 1'-0"	11x17
1/4" = 1'-0"	24x36

PLAN NUMBER
McGinnis
A4



ROOF FRAMING PLAN

SCALE 1/8" = 1'-0"

NOTES: PRE-MANUFACTOR TRUSSES

PRE-MANUFACTORED TRUSSES SHALL CONFORM WITH SECTION R802.10 AND R502.11.

TRUSS MANUFACTURE SHALL PROVIDE DETAILS AND INSTRUCTION FOR HANDLING, INSTALLING, RESTRAINING, AND BRACING OF TRUSSES BEFORE AND AFTER CONSTRUCTION.

TRUSS DESIGN DRAWINGS SHALL BE PREPARED BY A REGISTERED PROFESSIONAL WHERE REQUIRED BY THE STATUES OF THE JURISDICTION IN WHICH THE PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH SECTION R106.1

NO ALTERATIONS SHALL BE MADE TO THE TRUSSES OR THE TRUSS LAYOUT.

ANY CHANGES TO THE ROOF FRAMING PLAN SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER PRIOR TO MANUFACTURING AND OR CONSTRUCTION OF SAID TRUSSES.

TRUSS DESIGN DRAWINGS SHALL COMPLY WITH SECTION R502.11.4 & R802.10.1.

NOTES: GENERAL

1. CONTRACTOR IS TO VERIFY DESIGN, DIMENSIONS AND NOTES PRIOR TO BEGINNING OF CONSTRUCTION.

2. ALL WORK IS TO BE DONE UNDER THE SUPERVISION OF A LICENSED CONTRACTOR.

3. ALL WORK IS TO DONE UNDER LOCAL AND STATE BUILDING CODES.

4. ELECTRICAL SHALL BE PER NATIONAL ELECTRIC CODE, LATEST EDITIONS.

5. HEATING/MECHANICAL WORK SHALL BE PER APPLICABLE CODES, LATEST EDITIONS.

NOTES: STRUCTURAL

SEE STRUCTURAL DETAILS - SHEET S-1, S-2, AND S-3

3/24/2020

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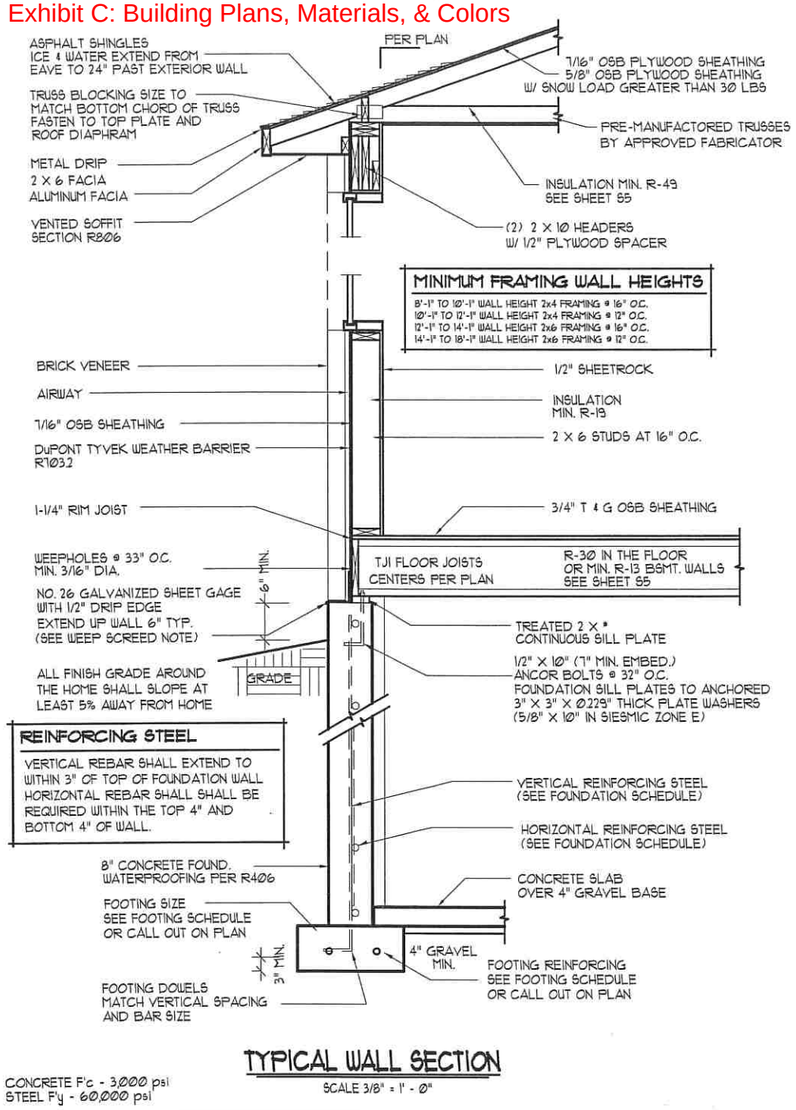
SCALE
1/8" = 1'-0" 11x17
1/4" = 1'-0" 24x36

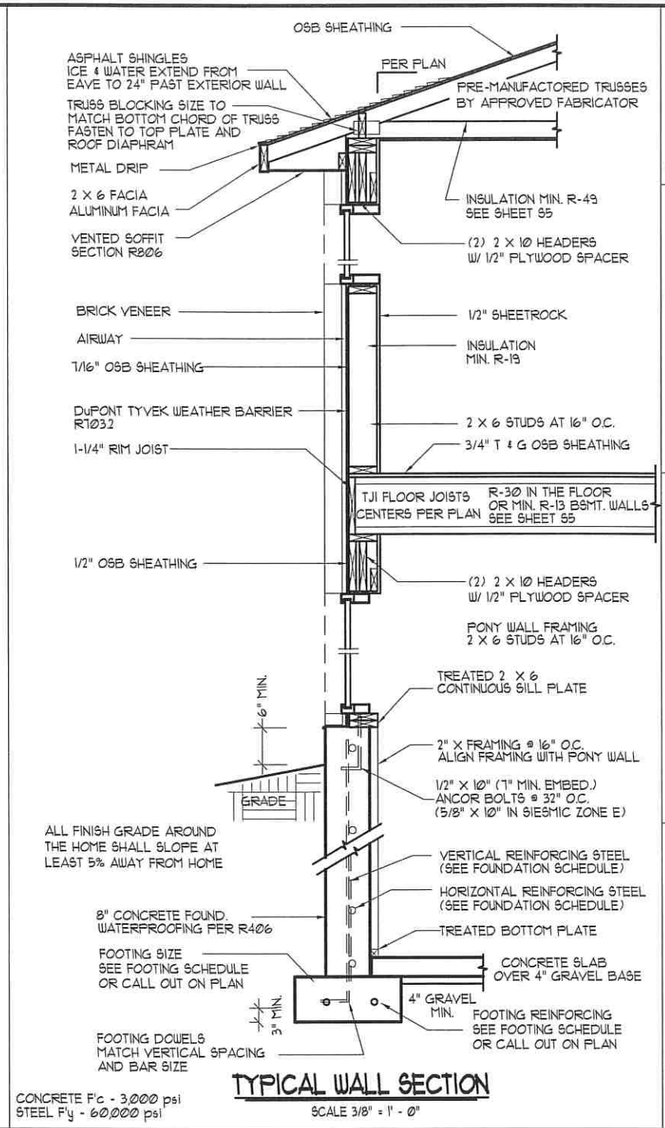
SHEET NUMBER
McGinnis A5



TYPICAL WALL SECTION

SCALE 3/8" = 1' - 0"

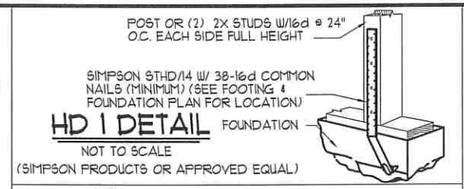
CONCRETE F'c - 3,000 psi
STEEL F'y - 60,000 psi



TYPICAL WALL SECTION

SCALE 3/8" = 1' - 0"

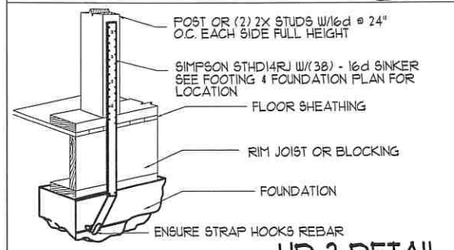
CONCRETE F'c - 3,000 psi
STEEL F'y - 60,000 psi



HD 1 DETAIL

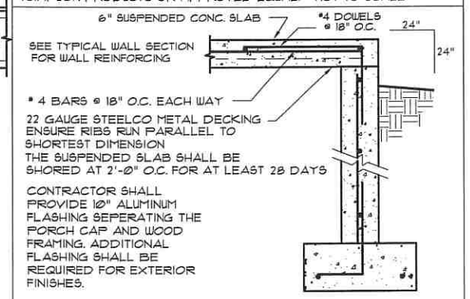
NOT TO SCALE

(SIMPSON PRODUCTS OR APPROVED EQUAL)



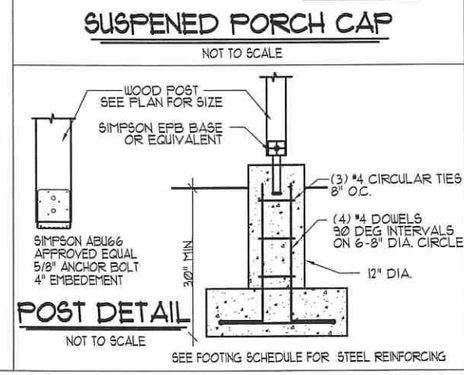
HD 2 DETAIL

(SIMPSON PRODUCTS OR APPROVED EQUAL) NOT TO SCALE



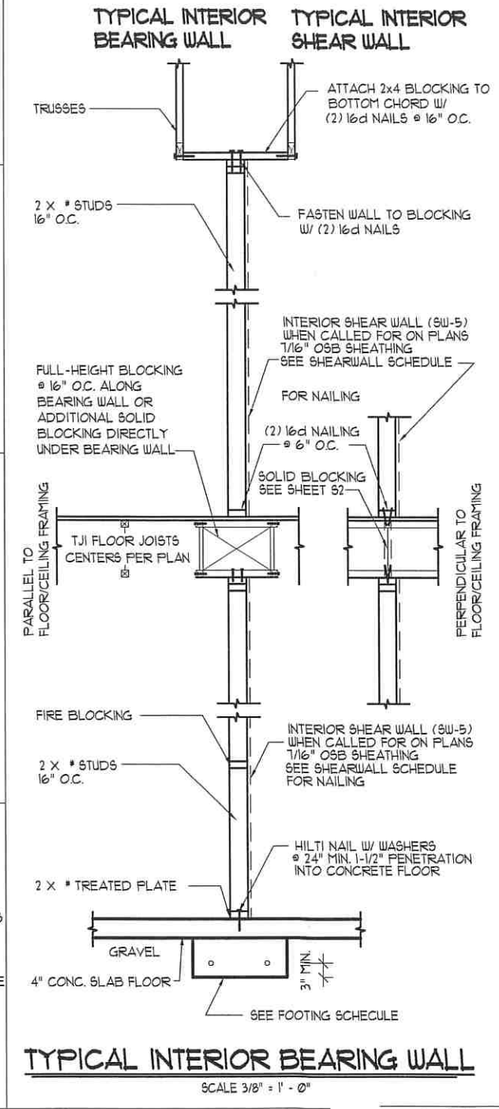
SUSPENED PORCH CAP

NOT TO SCALE



POST DETAIL

NOT TO SCALE



TYPICAL INTERIOR BEARING WALL

SCALE 3/8" = 1' - 0"

FOUNDATION WALL SCHEDULE

CONCRETE F'c - 3,000 psi
STEEL F'y - 60,000 psi

MARK	WALL HEIGHT	WIDTH	REINFORCING STEEL SPACING				NOTES
			HORIZONTAL BAR	# OF BARS	VERTICAL BAR		
FW-3	3'-0"	8"	# 4 BARS @ 9" O.C.	3	# 4 BARS @ 32" O.C.		PER STATE AMENDMENT (SEE WALL SECTION)
FW-4	3'-6"	8"	# 4 BARS @ 13" O.C.	4	# 4 BARS @ 24" O.C.		PER STATE AMENDMENT (SEE WALL SECTION)
FW-6	6'-0"	8"	# 4 BARS @ 18" O.C.	5	# 4 BARS @ 24" O.C.		(SEE WALL SECTION)
FW-8	8'-0"	8"	# 4 BARS @ 18" O.C.	6	# 4 BARS @ 24" O.C.		(SEE WALL SECTION)
FW-9	9'-0"	8"	# 4 BARS @ 18" O.C.	7	# 4 BARS @ 16" O.C.		(SEE WALL SECTION)

FOOTING SCHEDULE

CONCRETE F'c - 3,000 psi
STEEL F'y - 60,000 psi

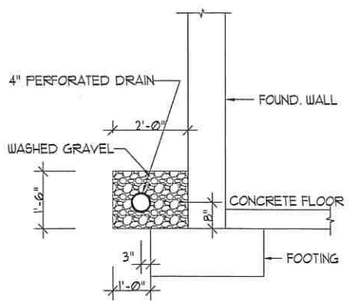
MARK	NOMINAL SIZES		LENGTH	REINFORCING STEEL				NOTES
	WIDTH	THICK-NESS		LENGTHWISE	# OF BARS	CROSSWISE	# OF BARS	
F-18	18"	9"	CONT.	# 4 BARS	2			(SEE WALL TYPICAL WALL SECTION)
F-20	20"	10"	CONT.	# 4 BARS	2			(SEE WALL TYPICAL WALL SECTION)
F-24	24"	10"	CONT.	# 4 BARS	3			(SEE WALL TYPICAL WALL SECTION)
F-30	30"	10"	CONT.	# 4 BARS	3			(SEE WALL TYPICAL WALL SECTION)
F-36	36"	12"	CONT.	# 4 BARS	4			(SEE WALL TYPICAL WALL SECTION)
P-24	24"	10"	24"	# 4 BARS	3	# 4 BARS	3	(SEE POST DETAIL)
P-30	30"	10"	30"	# 4 BARS	3	# 4 BARS	3	(SEE POST DETAIL)
P-36	36"	12"	36"	# 4 BARS	4	# 4 BARS	4	(SEE POST DETAIL)
P-48	48"	12"	48"	# 4 BARS	5	# 4 BARS	5	(SEE POST DETAIL)

GENERAL NOTES

1. CONTRACTOR IS TO VERIFY DESIGN, DIMENSIONS AND NOTES PRIOR TO BEGINNING OF CONSTRUCTION.
2. ALL WORK IS TO BE DONE UNDER THE SUPERVISION OF A LICENSED CONTRACTOR.
3. ALL WORK IS TO DONE UNDER LOCAL AND STATE BUILDING CODES.
4. ELECTRICAL SHALL BE PER NATIONAL ELECTRIC CODE, LATEST EDITIONS.
5. HEATING/MECHANICAL WORK SHALL BE PER APPLICABLE CODES, LATEST EDITIONS.

FOUNDATION WALL NOTES

1. WALLS GREATER THAN 10'-0" SEE ENGINEERING
2. REINFORCING STEEL SHALL BE PLACED IN CENTER OF WALL
3. FOOTING DOWELS SHALL MATCH VERTICAL STEEL AND EXTEND A MIN. OF 24" INTO FOUNDATION WALL.
4. MIN. SPLICE LENGTH
   # 4 BAR 24" INCHES - # 5 BAR 30" INCHES
5. CORNER REINFORCING - LAP 24" INCHES
6. OPENINGS - BARS SHALL BE PLACED WITHIN TWO INCHES OF OPENINGS AND EXTEND 24" BEYOND THE EDGE OPENING.



FOUNDATION DRAIN

SCALE - NOT TO SCALE

NOTES: FOUNDATION DRAINAGE - R405

LAND DRAIN - IF A LAND DRAIN IS AVAILABLE THE FOUNDATION DRAIN SYSTEM SHALL BE EXTENDED AND CONNECTED TO THE LAND DRAIN.

A SUMP SHALL BE PROVIDED TO DRAIN THE POROUS LAYER AND FOOTINGS. THE SUMP SHALL BE AT LEAST 24 INCHES IN DIAMETER OR 20 INCHES SQUARE, SHALL EXTEND AT LEAST 24 INCHES BELOW THE BOTTOM OF THE BASEMENT FLOOR AND SHALL BE CAPABLE OF POSITIVE GRAVITY OR MECHANICAL DRAINAGE TO REMOVE ANY ACCUMULATED WATER. THE DRAINAGE SYSTEM SHALL DISCHARGE INTO AN APPROVED SEWER SYSTEM OR TO DAYLIGHT.

EXCEPTION - A DRAINAGE SYSTEM IS NOT REQUIRED WHEN THE FOUNDATION IS INSTALLED ON WELL-DRAINED GROUND OR SAND GRAVEL MIXTURE SOILS ACCORDING TO THE UNITED SOIL CLASSIFICATION SYSTEM, GROUP I SOILS, AS DETAILED IN TABLE R405.1.

PORTIONS OF THE DWELLING THAT ARE BELOW GRADE SHALL BE AT A DEPTH SIMILAR TO THE SURROUNDING DWELLINGS. IF GROUND WATER IS OBSERVED AT TIME OF EXCAVATION, A GEOTECHNICAL ENGINEER SHALL EVALUATE THE SITE AND PROVIDE RECOMMENDATIONS. ALL RECOMMENDATIONS THAT ARE PROVIDED SHALL BE FOLLOWED.

GRAVEL OR CRUSHED STONE DRAINS SHALL EXTEND AT LEAST 1 FT BEYOND THE OUTSIDE EDGE OF THE FOOTING AND 6 INCHES ABOVE THE TOP OF THE FOOTING AND BE COVERED WITH AN APPROVED FILTER MEMBRANE MATERIAL. THE TOP OF OPEN JOINTS OF DRAIN TILES SHALL BE PROTECTED WITH STRIPS OF BUILDING PAPER. COVER THE WASHED GRAVEL OR CRUSHED ROCK COVERING THE DRAIN. DRAINAGE TILES OR PERFORATED PIPE SHALL BE PLACED ON A MINIMUM OF 2 IN. OF WASHED GRAVEL OR CRUSHED ROCK AT LEAST ONE SIEVE SIZE LARGER THAN THE TILE JOINT OPENING OR PERFORATION AND COVERED WITH NOT LESS THAN 6 INCHES OF THE SAME MATERIAL.

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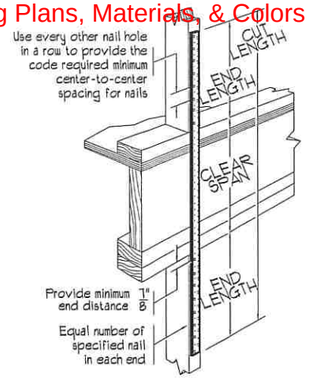
SCALE
1/8" = 1'-0" 11x17
1/4" = 1'-0" 24x36

DATE
JAN 2019

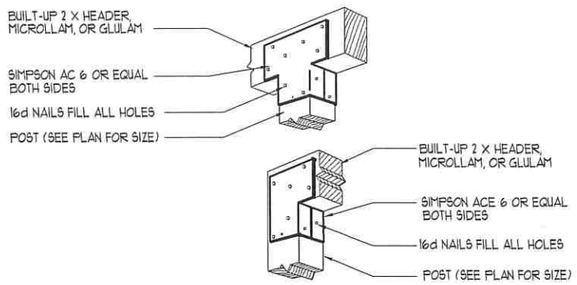
SHEET NUMBER
S1



HD 3 DETAIL

NOT TO SCALE

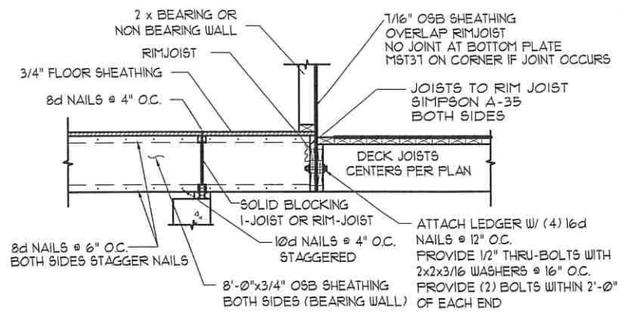
(SIMPSON PRODUCTS OR APPROVED EQUAL) SIMPSON MST48 STRAP TIE



POST CAP DETAIL

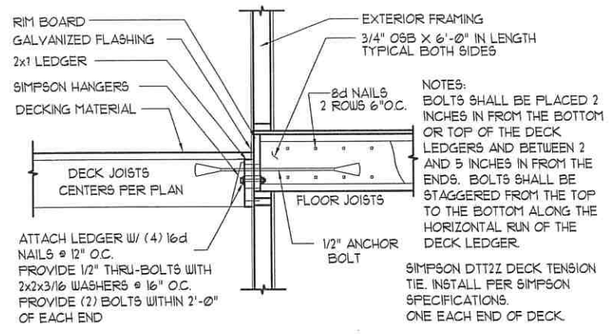
NOT TO SCALE

INSTALL SIMPSON HANGER PER SPECIFICATIONS.



CANTILEVER / DECK DETAIL

NOT TO SCALE

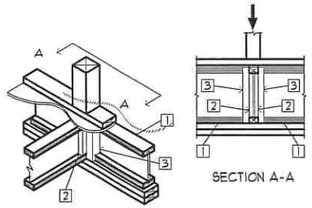


SIMPSON DTT2Z HOLDOWN - SPECIFICATIONS
INSTALLATION - USE ALL SPECIFIED FASTENERS. 1/2" ANCHOR BOLT, 8-SDS 1/4"x1-1/2" SIMPSON SCREWS, STANDARD CUT WASHER INSTALLED BETWEEN THE NUT AND THE SEAT.
SDS SCREWS INSTALL BEST WITH A LOW SPEED HIGH TORQUE DRILL WITH A 3/8" HEX. HEAD DRIVER. WHEN INSTALLING SCREWS PREVENT WOOD FROM SPLITTING.
HOLDOWNS-ANCHOR BOLT - DO NOT OVER-TORQUE, FINGER TIGHT PLUS 1/3 TO 1/2 TURN WITH A HAND WRENCH.
ATTACHMENT TO TJI FLOOR SYSTEM - INSTALL 3/8" OSB FLOOR SHEATHING BY 6'-0" WITH 8d COMMON NAILS TWO ROWS AT 6" O.C TO BOTH SIDES OF I-JOISTS.

DECK ATTACHMENT

NOT TO SCALE

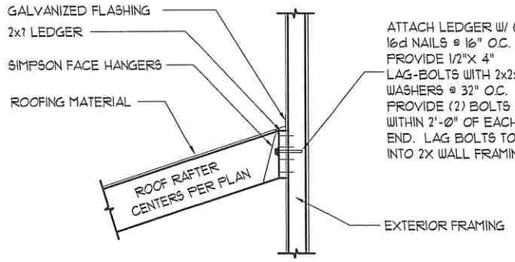
COLUMN LOADS CANNOT BE SUPPORTED BY WOOD I JOISTS



[1] BLOCKING PANEL BY JOIST MANUFACTURER
[2] WEB STIFFENER BY JOIST MANUFACTURER EACH SIDE OF JOIST
[3] 2 x 4 MIN BLOCKS BY CONTR. EA. SIDE OF JOIST TO SUPPORT COLUMN LOAD (LENGTH = JOIST DEPTH + 1)

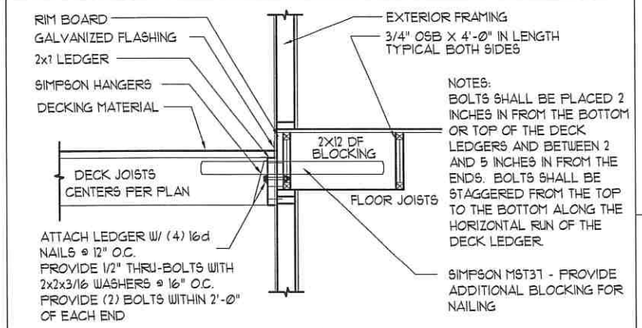
SOLID BLOCKING

NOT TO SCALE



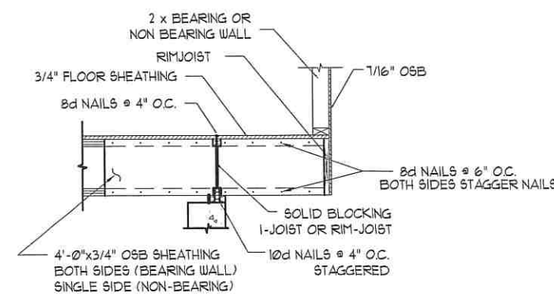
RAFTER ATTACHMENT

NOT TO SCALE



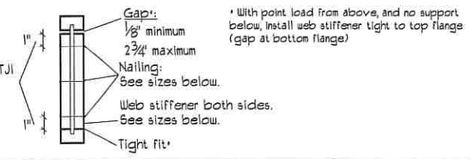
DECK ATTACHMENT

NOT TO SCALE



CANTILEVER DETAIL

NOT TO SCALE



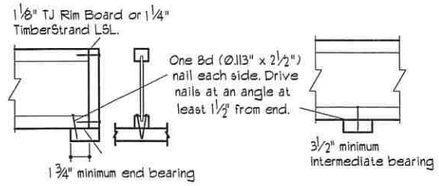
* With point load from above, and no support below, install web stiffener tight to top flange (gap at bottom flange)

TJI Joist Series	Depth (in.)	Minimum Web Stiffener Size	Nailing Requirements		
			Type	Number Nails End	Number Nails Intermediate
110 210 230 & 360	All All All	5/8" x 2 5/16" 3/4" x 2 5/16" 7/8" x 2 5/16"	8d (Ø.113" x 2 1/2")	3	3
560	All	2x4	16d (Ø.135" x 3 1/2")		

WEB STIFFNERS DETAIL

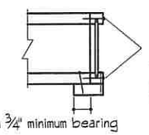
NOT TO SCALE

NAILING AT BEARING (FLOOR)
TJI Joist to Bearing Plate



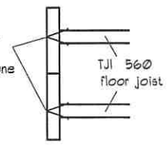
Squash Blocks to TJI Joist (Load bearing wall above) One 10d (Ø.128" x 3") nail into each flange

Rim to TJI Joist



1 1/8" TJ Rim Board, 1 1/4" TimberStrand LSL or TJI 110 rim joist: One 10d (Ø.131" x 3") nail into each flange
TJI 210, 230, 360 rim joist: One 16d (Ø.135" x 3 1/2") nail into each flange

Rim to TJI Joist



TJI 560 RIM JOIST Toe nail with 10d (Ø.128" x 3") nails, one each side of TJI joist flange

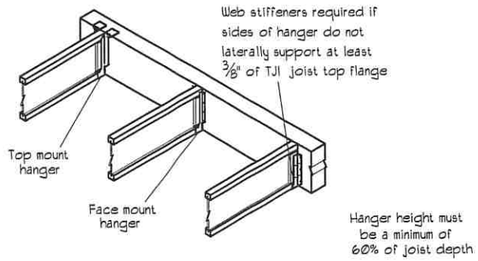
Top View

Locate rim board joint between joists.

FLOOR JOIST NAILING DETAILS

NOT TO SCALE

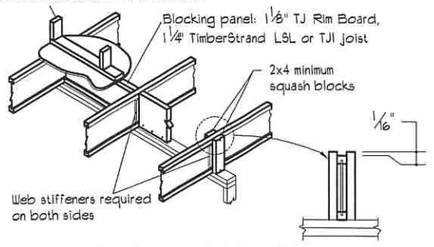
INSTALL SIMPSON HANGER PER SPECIFICATIONS.



FLOOR JOIST HANGERS

NOT TO SCALE

Load bearing or braced/shear wall above(must stack over wall below)



Blocking panels may be required with braced/shear walls above or below

FLOOR JOIST SOLID BLOCKING

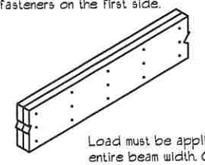
NOT TO SCALE

Multiple-Member Connections for Top-Loaded Beams

Fastener Installation Requirements

Piece Width	# of Plies	Fastener Type[1]	Min. Length	# Rows	O.C. Spacing	Location
1 3/4"	2	10d nails	3"	3[2]	12"	One side
		12d-16d nails	3 1/4"	2[2]		
		Screws	3 3/8" or 3 1/2"	2	24"	
	3	10d nails	3"	3[2]	12"	Both sides
		12d-16d nails	3 1/4"	2[2]		
		Screws	3 3/8" or 3 1/2"	2	24"	Both sides
			5"			One side
	4	10d nails[3]	3"	3[2]	12"	One side (per ply)
		12d-16d nails[3]	3 1/4"	2[2]		
		Screws	5" or 6"	2	24"	Both sides
			6 3/4"			One side

When fasteners are required on both sides, stagger fasteners on the second side so they fall halfway between fasteners on the first side.



Load must be applied evenly across entire beam width. Otherwise, use connections for side-loaded beams.

Multiple pieces can be nailed or bolted together to form a header or beam of the required size, up to a maximum width of 7"

(1) 10d nails are Ø.128" diameter; 12d-16d nails are Ø.148" - Ø.162" diameter; screws are SDS, SDW, WS, or Truss-LOK-EWP.
(2) An additional row of nails is required with depths of 14" or greater.
(3) When connecting 4-ply members, nail each ply to the other and offset nail rows by 2" from the rows in the ply below.

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SCALE
1/8" = 1'-0" 11x17
1/4" = 1'-0" 24x36

DRAWING NUMBER
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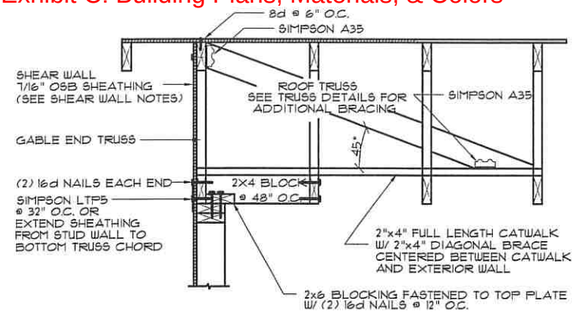
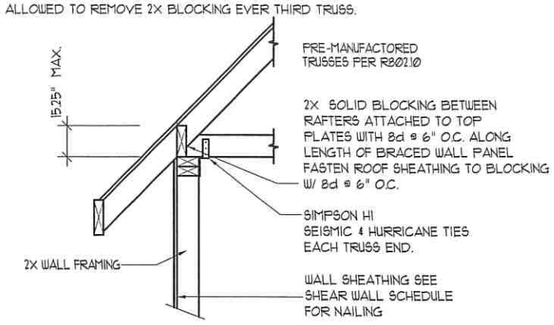
Exhibit C: Building Plans, Materials, & Colors



GABLE END DETAIL

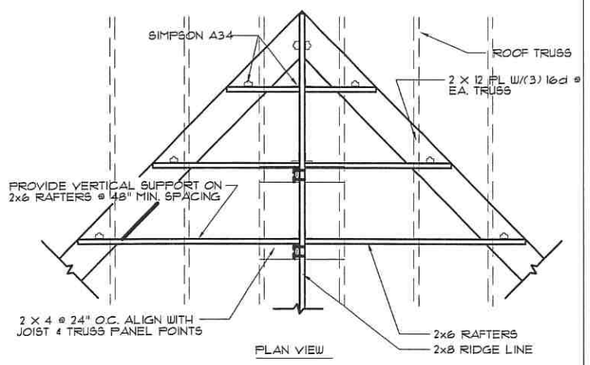
NOT TO SCALE

PROVIDE VENTING PER SECTION R806.
CONTRACTOR SHALL PROVIDE 1"x1" NOTCH IN BLOCKING OR SHALL BE ALLOWED TO REMOVE 2X BLOCKING EVERY THIRD TRUSS.

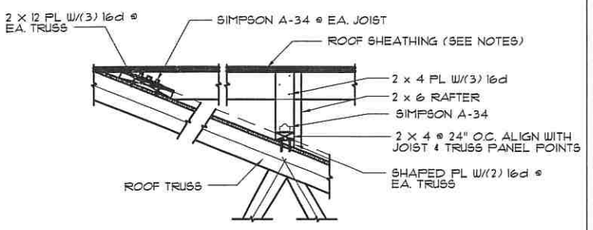


WALL TO ROOF TRUSS CONNECTION

NOT TO SCALE



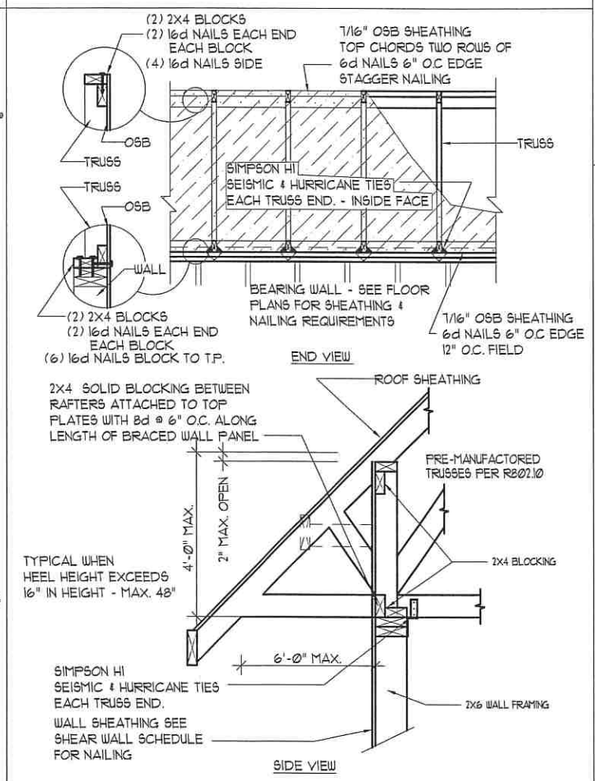
PLAN VIEW



SIDE ELEVATION VIEW

OVERBUILD DETAIL

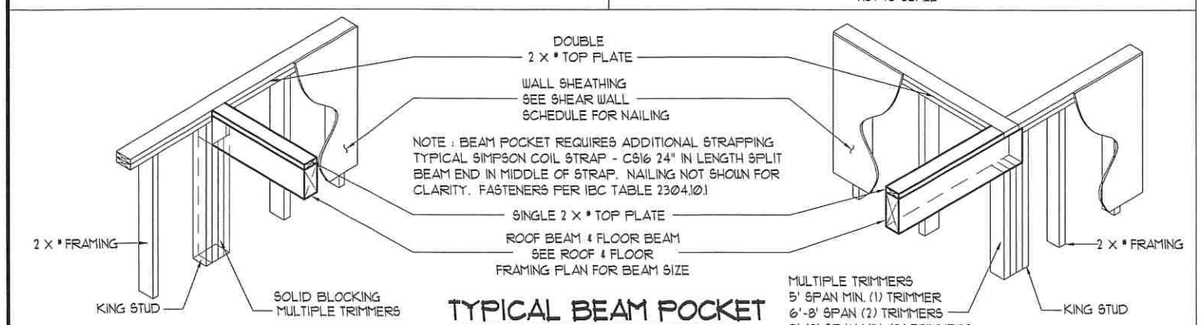
NOT TO SCALE



SIDE VIEW

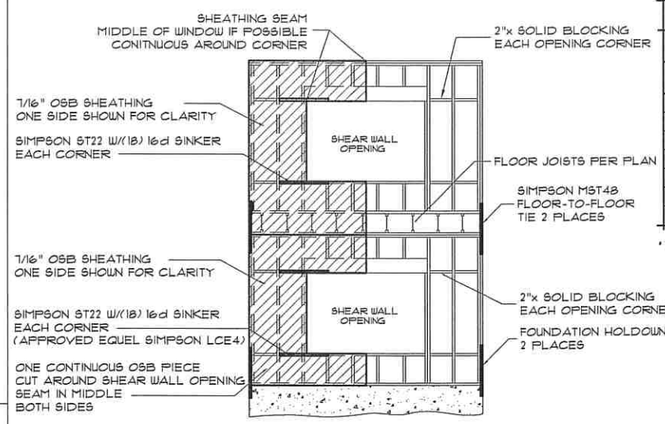
WALL TO RAISED HEEL ROOF TRUSS CONNECTION

NOT TO SCALE



TYPICAL BEAM POCKET

NOT TO SCALE



PERFORATED SHEAR WALL FRAMING DETAIL

NOT TO SCALE

SHEAR WALL SCHEDULE

WIND	115 MPH	EXPOSURE	C	SEISMIC			ZONE = D2, R = 6
MARK	OSB SHEATHING	NAILING			ANCHOR BOLTS			NOTES
		SIZE	EDGE	FIELD	DIA.	LENGTH	SPACING	
SW-1	7/16"	8d	4"	12"	1/2"	10"	32"	
SW-2	7/16"	8d	4"	12"	1/2"	10"	32"	
SW-3	7/16"	8d	4"	12"	1/2"	10"	32"	
SW-4	7/16"	8d	4"	12"	1/2"	10"	32"	
SW-5	7/16"	8d	6"	12"				INTERIOR SHEARWALL
BWP	7/16"	8d	3"	3"	5/8"	16"	TWO	NO STAPLES
PSW	7/16"	8d	3"	12"	1/2"	10"	32"	NO STAPLES

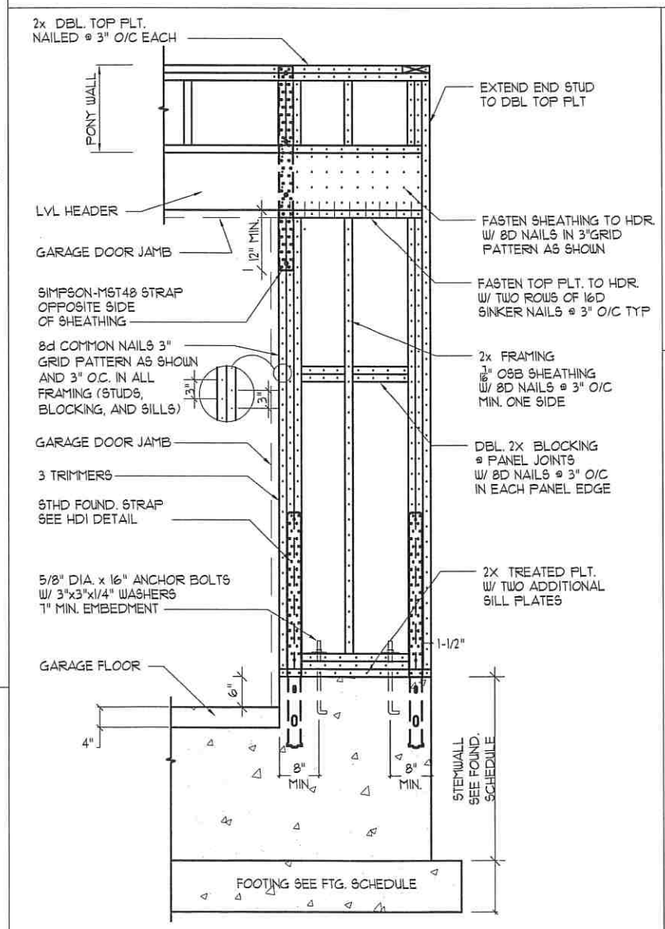
* FOUNDATION SILL PLATES TO ANCHORED WITH 3" X 3" X Ø.229" THICK PLATE WASHERS

TABLE OF EQUIVALENT FASTENERS

NAILS, STAPLES, & T-NAILS

* GAUGE
** PENETRATION
(VALID FOR LATERAL LOADS ONLY)

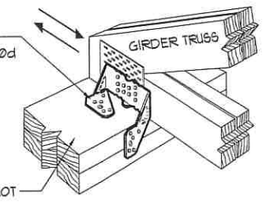
COMMON NAIL SPACING	STAPLE SPACING			T-NAIL SPACING	
	16* 1"**	15* 1"**	14* 1"**	113* 1 1/4"**	131* 1/2"**
*NO STABLES EQUIVALENT FOR BWP & PSW SEE DETAILS FOR NAILING FOR BWP & PSW					
6d @ 4"	3 1/2"	4"	5"	4"	5"
6"	5"	6"	7"	7"	7 1/2"
8"	6 1/2"	8"	9 1/2"	8"	10"
10"	8 1/2"	10"	12"	10"	12"
12"	10"	12"	14 1/2"	12"	14 1/2"
8d @ 4"	2 1/2"	3 1/2"	4"	3 1/2"	4"
6"	4"	5"	6"	5"	6"
8"	5 1/2"	6 1/2"	8"	6 1/2"	10"
10"	6 1/2"	8"	10"	8"	10"
12"	8"	10"	12"	9 1/2"	12"



BRACED WALL PANEL DETAIL (BWP)

NOT TO SCALE

INSTALL SIMPSON HANGER PER SPECIFICATIONS.



LATERAL BRACING - SIMPSON TBE4/6

NOT TO SCALE

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DRAWING NUMBER
JAN 2019 | S3

2015 INTERNATIONAL BUILDING/RESIDENTIAL CODE

CONTRACTOR/OWNER SHALL COMPLY WITH BOTH IBC AND IRC BUILDING CODE REQUIREMENTS.

CONTRACTOR/OWNER SHALL COMPLY WITH UTAH ADMINISTRATIVE CODE RULE R156-56.

DESIGN CRITERIA

GOVERNING CODE	2015 IRC
SEISMIC	ZONE DI Ss =116.1 Fa = 1.03
WIND LOADS	
ULTIMATE WIND SPEED	115 MPH
	EXPOSURE C
ROOF LOADS	
DEAD	15 PSF
ROOF SNOW	30 PSF
FLOOR LOADS	
DEAD	10 PSF
LIVE	40 PSF
DECK LOADS	
DEAD	20 PSF
LIVE	40 PSF
SOIL BEARING PRESSURE	1500 PSF

STRUCTURAL STEEL

1. FABRICATION AND CONSTRUCTION SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING CODES AND STANDARDS:

   A. AMERICAN INSTITUTE OF STEEL CONSTRUCTION . "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS, "WITH " COMMENTARY.
   B. AISC "CODE OF STANDARD PRACTICE" EXCLUDING THE FOLLOWING: SECTION 3.4 , SECTION 4.4, SECTION 4.4.1.
   C. AISC "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS"
   D. AMERICAN WELDING SOCIETY (AWS), STRUCTURAL WELDING CODE (SPECIFIC ITEMS DO NOT APPLY WHEN THEY CONFLICT WITH AISC REQUIREMENTS).
   E. AISC "SEISMIC PROVISION FOR STRUCTURAL STEEL BUILDINGS"

CONCRETE

CONCRETE
1. ALL CONCRETE SHALL BE MIN. OF 3,000 PSI CONCRETE
2. TYPE I/II CEMENT COMPLYING WITH ASTM C-150 SHALL BE USED FOR ALL CONCRETE.
3. THE WATER/CEMENT RATIOS AND AIR ENTRAINMENT SHALL MEET THE REQUIREMENTS OF ACI 318.
4. REINFORCEMENT SHALL HAVE THE FOLLOWING CONCRETE COVER:

   A. CAST IN PLACE CONCRETE. . . . . CLEAR COVER
   B. CAST AGAINST PERMANENTLY EXPOSED TO EARTH. 3"
   C. FORMED CONCRETE EXPOSED TO EARTH OR WEATHER:
      #6 THRU #18 BARS. . . . . 2"
      #5 AND SMALLER BARS. . . . . 1-1/2"
   D. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
      SLABS, WALLS, JOISTS: #11 BARS AND SMALLER. . . . . 3/4"
      BEAMS, COLUMNS: PRIMARY REINF., TIES, STIRRUPS, SPIRALS. . . . . 1 1/2'
5. REINFORCING MIN. LAP SPLICE - #4 BARS 24" - #5 BARS 30"

FOOTING & FOUNDATION R403 & R404

FOOTINGS AND FOUNDATION SHALL BE CONSTRUCTED IN ACCORDANCE TO SECTIONS R403 AND R404.

IT IS THE RESPONSIBILITY OF THE OWNER/CONTRACTOR TO VERIFY THE SITE AND GEOTECHNICAL CONDITIONS ARE IN COMPLIANCE WITH THE DESIGN CRITERIA LISTED ABOVE.

1. FOOTINGS HAVE BEEN DESIGNED TO THE SOIL BEARING PRESSURE SPECIFIED IN THE DESIGN CRITERIA.

2. ALL FOOTINGS ARE TO REST ON UNDISTURBED SOIL AND SHALL BE A MINIMUM OF 30", OR LOCAL FROST DEPTH, BELOW THE FINISH GRADE.

3. THE CONTRACTOR SHALL ENSURE THAT THE FOOTINGS ARE PROPERLY DRAINED AND THAT THE SOIL MOISTURE CONTENT MEETS THE IBC AND IRC REQUIREMENTS.

4. ANY ANOMALOUS SOIL CONDITION ENCOUNTERED DURING EXCAVATION, SUCH AS SLIPPAGE, HIGH MOISTURE CONTENT, IMPROPER DRAINAGE, ETC., SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING.

5. COMPACT BACKFILL AGAINST FOUNDATION WALL TO 85% OF MODIFIED PROCTOR DRY DENSITY TO REDUCE SETTING OF FILL.

6. FOUNDATION ANCHOR BOLTS SHALL BE EMBEDDED IN AT LEAST 7" OF CONCRETE AND PLACED WITHIN 12" OF SILL PLATE END. IF MULTIPLE PLATES ARE USED, THE ANCHOR BOLTS SHALL EXTEND THROUGH ALL PLATES. THERE SHALL BE A MINIMUM OF 2 ANCHOR BOLT PER WALL SECTION. 3"X3"X0.229" SQUARE WASHERS SHALL BE USED BETWEEN ANCHOR BOLT AND PLATE. SEE CROSS SECTION FOR SIZE AND SPACING.

7. GRADE 60 REBAR SHALL BE USED FOR BOTH VERTICAL AND HORIZONTAL INSTALLATIONS.

8. HOLDOWNS SHALL BE EMBEDDED IN THE FOUNDATION PER MANUFACTURERS REQUIREMENTS. THE CONTRACTOR SHALL ENSURE THAT THE FASTENERS HOOK THE REBAR AND MEETS THE MINIMUM EDGE DISTANCE.

CONCRETE-ENCASED ELECTRODE E3608.12

AN ELECTRODE ENCASED BY AT LEAST 2 INCHES OF CONCRETE, LOCATED WITHIN AND NEAR THE BOTTOM OF A CONCRETE FOUNDATION OR FOOTING THAT IS IN DIRECT CONTACT WITH THE EARTH, CONSISTING OF AT LEAST 20 FEET OF ONE OR MORE BARE OR ZINC-GALVANIZED OR OTHER ELECTRICALLY CONDUCTIVE COATED STEEL REINFORCING BARS OR RODS OF NOT LESS THAN 1/2 INCH DIAMETER, OR CONSISTING OF AT LEAST 20 FEET OF BARE COPPER CONDUCTOR NOT SMALLER THAN 4 AWG SHALL BE CONSIDERED AS A GROUNDING ELECTRODE. REINFORCING BARS SHALL BE PERMITTED TO BE BONDED TOGETHER BY THE USUAL STEEL TIE WIRE OR OTHER EFFECTIVE MEANS.

FOOTINGS ON OR ADJACENT TO SLOPES R403.1.7

THE PLACEMENT OF BUILDINGS AND STRUCTURES ON OR ADJACENT TO SLOPES STEEPER THAN ONE UNIT VERTICAL IN THREE UNITS HORIZONTAL (33.3-PERCENT SLOPE) SHALL CONFORM TO SECTIONS R403.1.7.1 THROUGH R403.1.7.4

BUILDING CLEARANCES FROM ASCENDING SLOPE SURFACES R403.1.7.1

IN GENERAL, BUILDINGS BELOW SLOPES SHALL BE SET A SUFFICIENT DISTANCE FROM THE SLOPE TO PROVIDE PROTECTION FROM SLOPE DRAINAGE, EROSION AND SHALLOW FAILURES.

FOOTING SETBACK FROM DESCENDING SLOPE SURFACES R403.1.7.2

FOOTINGS ON OR ADJACENT TO SLOPE SURFACES SHALL BE FOUNDED IN MATERIAL WITH AN EMBEDMENT AND SETBACK FROM THE SLOPE SURFACE SUFFICIENT TO PROVIDE VERTICAL AND LATERAL SUPPORT FOR THE FOOTING WITHOUT DETRIMENTAL SETTLEMENT.

FOUNDATION ELEVATION R403.1.7.3

ON GRADED SITES, THE TOP OF ANY EXTERIOR FOUNDATION SHALL EXTEND ABOVE THE ELEVATION OF THE STREET GUTTER AT POINT OF DISCHARGE OR THE INLET OF AN APPROVED DRAINAGE DEVICE A MINIMUM OF 12 INCHES (305 MM) PLUS 2 PERCENT.

STRUCTURAL FILL

STRUCTURAL FILL SHALL BE IMPORTED FILL MATERIAL.

IMPORTED FILL MATERIAL SHALL CONSISTS OF WELL-GRADED SANDY GRAVELS TO SILTY SANDS WITH A MAXIMUM SIZE OF 4" AND 5 TO 20 PERCENT FINES (MATERIALS PASSING NO. 200 SIEVE). THE LIQUID LIMIT OF THE FINES SHALL NOT EXCEED 35% AND THE PLASTICITY INDEX SHALL BE BELOW 15.

CLEAN GRAVEL RANGING FROM PEA GRAVEL TO 4" WITH LESS THAN 5 PERCENT FINES AND SAND COMBINED MAY ALSO BE USED AS STRUCTURAL FILL.

ALL FILL SOILS SHALL BE FREE FROM TOPSOIL, HIGHLY ORGANIC MATERIAL, FROZEN SOIL, AND OTHER DELETERIOUS MATERIALS.

THE THICKNESS OF EACH LIFT SHALL BE APPROPRIATE FOR THE COMPACTION EQUIPMENT BEING USED. MAX. 6" LIFT FOR HAND COMPACTION. MAX. 8" FOR TRENCH COMPACTORS.

THE FULL THICKNESS OF EACH LIFT OF STRUCTURAL FILL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557.

CLEAN GRAVEL FILL MAY BE PLACED IN MAX. 24" LIFTS. THE GRAVEL WILL NEED TO BE COMPACTED WITH AT LEAST 4 PASSES OF A VIBRATORY PLATE OR DRUM COMPACTOR.

WOOD - GENERAL FRAMING NOTES R502 & R602

WOOD FRAMING SHALL BE CONSTRUCTED IN ACCORDANCE TO SECTIONS R502 AND R602. FASTENERS SCHEDULE FOR STRUCTURAL MEMBERS PER TABLE R602.3(1).

1. FRAMING LUMBER SHALL BE #2 DOUGLAS FIR-LARCH OR BETTER UNLESS NOTED OTHER WISE.

2. ALL WOOD IN CONTACT WITH CONCRETE, MASONRY OR SOIL SHALL BE PRESSURE TREATED OR BE REDWOOD.

3. ALL FRAMING ANCHORS, POST CAPS, HOLD DOWNS, COLUMN BASES, ETC. SHALL BE PROVIDED BY SIMPSON STRONG-TIE OR APPROVED EQUAL.

4. ALL WALLS SHALL HAVE A MINIMUM OF TWO TOP PLATES , SPLICES IN TOP PLATES SHALL BE STAGGERED A MINIMUM OF FOUR FEET FROM THE NEAREST SPLICE IN ADJOINING TOP PLATE.

5. ALL EXTERIOR AND LOAD BEARING WINDOW AND DOOR HEADERS SHALL HAVE (2) 2x10 DF No. 2 W/FILLER UNLESS NOTED OTHERWISE ON DRAWING.

6. ALL HEADERS SUPPORTING A GIRDER TRUSS SHALL BE A MIN. OF (2) 1-3/4"x9-1/2" LVLs UNLESS NOTED OTHERWISE ON DRAWING.

7. MULTIPLE BEAMS AND HEADERS SHALL BE NAILED TOGETHER ACCORDING TO DETAIL ON SHEET S2.

8. ALL POINT LOADS SHALL BE SOLID BLOCKED TO THE FOUNDATION. SEE SHEETS S1-S3.

9. MULTIPLE TRIMMERS - SEE TYPICAL BEAM POCKET SHEET 3.

10. USE SIMPSON OR EQUIVALENT HARDWARE TO CONNECT BEAMS 6' AND LONGER TO STUDS OR POSTS.

11. TALL WALL FRAMING SHALL BE BALLOON FRAMING - WALL FRAMING SHALL BE FULL HEIGHT AND CONTINUOUS FROM FLOOR TO CEILING. SEE TYPICAL WALL SECTION OR FLOOR PLANS FOR FRAMING MATERIAL AND SIZES.

12. MULTI LEVEL FRAMING - MULTI LEVEL FRAMING SHALL BE STAKE AND VERTICALLY ALIGNED TO CREATE DIRECT LOAD PATH.

FLOOR SHEATHING NOTES R503

1. TYPICAL FLOOR SHEATHING SHALL BE 3/4" T4G WAFER BOARD NAILED W/ 8d NAILS @ 6" O.C. ON ALL EDGES, AND @ 12" O.C. ALONG INTERMEDIATE FRAMING MEMBERS.
2. SOLID JOIST BLOCKING REQUIRED AT ALL BEARING POINTS.
3. INSTALL FLOOR SHEATHING WITH FACE GRAIN AT RIGHT ANGLES TO FRAMING WITH END JOINTS STAGGERED.
4. USE DOUBLE FLOOR JOISTS UNDER ALL LOAD BEARING WALLS RUNNING PARALLEL WITH FLOOR JOISTS.
5. USE DOUBLE FLOOR JOISTS UNDER ALL SHEAR WALLS RUNNING PARALLEL WITH FLOOR JOISTS. NAIL BOTTOM PLATE TO JOISTS W/ 16d NAILS @ 3" O.C.
6. USE DOUBLE JOISTS TO SOLID BLOCK UNDER ALL SHEAR WALLS RUNNING PERPENDICULAR TO FLOOR JOISTS. NAIL BOTTOM PLATE TO BLOCKING W/ 16d NAILS @ 3" O.C.
7. FLOOR JOIST INTSTALLATION PER MANUFACTORS SPECIFICATIONS.

SHEAR WALL NOTES

1. AS A MINIMUM, ALL EXTERIOR WALL SHALL BE SHEATHED WITH 7/16" APA RATED C-D OR C-C SHEATHING AND NAILED WITH 8d's 4" O.C. EDGE AND 12" O.C. FIELD. IF NOT INDICATED ON PLANS. SEE SHEARWALL SCHEDULE.
2. SHEATHING SHALL EXTEND CONTINUOUS FROM MUD SILL TO TOP PLATE AND NAILED AT LEAST 1" O.C. ALONG SILL PLATE. SHEATHING SHALL EXTEND FROM FLOOR FRAMING TO HIGH ROOF FRAMING ON UPPER LEVEL EXTERIOR WALLS.
3. NAILS SHALL BE PLACED NOT LESS THAN 1/2" FROM EDGE OF PANEL AND DRIVEN FLUSH. NAIL SHALL NOT FRACTURE THE SURFACE OF THE SHEATHING.

WOOD TRUSS NOTES R802.10

PRE-MANUFACTORED TRUSSES SHALL CONFORM WITH SECTION R802.10 AND R502.11.

TRUSS MANUFACTURE SHALL PROVIDE DETAILS AND INSTRUCTION FOR HANDLING, INSTALLING, RESTRAINING, AND BRACING OF TRUSSES BEFORE AND AFTER CONSTRUCTION.

TRUSS DESIGN DRAWINGS SHALL BE PREPARED BY A REGISTERED PROFESSIONAL WHERE REQUIRED BY THE STATUES OF THE JURISDICTION IN WHICH THE PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH SECTION R106.1

NO ALTERATIONS SHALL BE MADE TO THE TRUSSES OR THE TRUSS LAYOUT.

ANY CHANGES TO THE ROOF FRAMING PLAN SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER PRIOR TO MANUFACTURING AND OR CONSTRUCTION OF SAID TRUSSES.

TRUSS DESIGN DRAWINGS SHALL COMPLY WITH SECTION R502.11.4 & R802.10.1.

DEFERRED TRUSS DESIGN SHALL BE SUBMITTED TO KARRAS ENGINEERING AND THE BUILDING OFFICIAL FOR REVIEW AND GENERAL CONFORMANCE PRIOR TO INSTALLATION IN ACCORDANCE WITH IBC 1703.4.1.

CONTRACTOR SHALL PROVIDE MINIMUM 22" X 30" ATTIC ACCESS. - FIELD LOCATE PROVIDE WEATHER STRIPPING AROUND OPENING. R807.1.

THE CONTRACTOR SHALL BLOCK BETWEEN TRUSSES AND CONNECT EACH TRUSS TO WALL TOP PLATE WITH SIMPSON H1 CONNECTORS.

GABLE ENDS SHALL HAVE SIMPSON STRONGTIE STRAPS @ 32" O.C. CONNECTING GABLE TRUSS TO WALL FRAMING.

TRUSSES TO BE INSTALLED PER MANUFACTURES SPECIFICATIONS.

BLOCKING BETWEEN TRUSSES SHALL MATCH BOTTOM CHORD OF TRUSS.

BRACING - TRUSSES SHALL BE BRACED TO PREVENT ROTATION AND PROVIDE LATERL STABILITY.

ROOF SHEATHING NOTES R803

1. SHEATHING SHALL BE 7/16", 24/16, APA RATED SHEATHING. NAIL W/ 8d's @ 6" O.C. 3/8" FROM EDGE OF PANEL AT ALL PANEL ENDS, SUPPORTED EDGES, SHEARWALL TOPS, AND ALL BLOCKING. NAIL @ 12" O.C. ALONG INTERMEDIATE FRAMING MEMBERS. (5/8" SHEATHING WITH SNOW LOADS GREATER THAN 30 LBS.)
2. LAY SHEATHING WITH FACE GRAIN AT RIGHT ANGLES TO FRAMING WITH STAGGERED END JOINTS.

BRICK VENEER SUPPORT / LINTELS R703.7.2.1

A MINIMUM 6 INCHES BY 4 INCHES BY 5/16 INCH STEEL ANGLE, WITH THE LONG LEG PLACED VERTICALLY, SHALL BE ANCHORED TO DOUBLE 2 INCHES BY 4 INCHES WOOD STUDS AT A MAXIMUM ON-CENTER SPACING OF 16 INCHES. ANCHORAGE OF THE STEEL ANGLE AT EVERY DOUBLE STUD SPACING SHALL BE A MINIMUM OF TWO 5/8" DIAMETER BY 4 INCH LAG SCREWS.

STEEL LINTELS SHALL BE SHOP COATED WITH RUST INHIBITIVE PAINT, EXCEPT FOR LINTELS MADE OF CORROSION-RESISTANT STEEL.

FASTENERS R317.3

FASTENERS AND CONNECTORS IN CONTACT WITH PRESERVATIVE - TREATED WOOD SHALL BE HOT DIPPEED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER. THE COATING WEIGHTS FOR ZINC-COATED FASTENERS SHALL BE IN ACCORDANCE WITH ASTM A 153. EXCEPTIONS 1/2" DIAMETER OR GREATER STEEL BOLTS.

DWELLING/GARAGE SEPERATION R302.6

STRUCTURAL MEMBERS SUPPORTING THE SEPARATION SHALL BE PROTECTED BY FIRE-RESISTIVE CONSTRUCTION. 1/2"-INCH GYPSUM BOARD TYPICAL. 5/8"-INCH TYPE X GYPSUM BOARD FOR HABITABLE ROOMS ABOVE THE GARAGE.

COMPLY WITH SECTION R302.6.

CEILING HEIGHT R305

HABITABLE SPACE, HALLWAYS, BATHROOMS, TOILET ROOMS, LAUNDRY ROOMS AND PORTIONS OF BASEMENTS CONTAINING THESE SPACES SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 7 FEET. BASEMENTS 6'-8" MIN. EXCEPTIONS UNDER BEAMS, GIRDERS, DUCTS OR OTHER OBSTRUCTIONS MAY PROJECT TO WITHIN 6'-4" OF THE FINISHED FLOOR.

WINDOW WELLS R310.2

WINDOW WELLS REQUIRED FOR EMERGENCY ESCAPE AND RESCUE SHALL HAVE HORZ. DIMENSIONS THAT ALLOW THE DOOR OR WINDOW OF THE EMERGENCY ESCAPE AND RESCUE OPENING TO BE FULLY OPENED. THE HORIZONTAL DIMENSIONS OF THE WINDOW WELL SHALL PROVIDE A MINIMUM NET CLEAR AREA OF 9 SQUARE FEET WITH A MINIMUM HORIZONTAL PROJECTION AND WIDTH OF 36". WINDOW WELLS WITH A VERTICAL DEPTH GREATER THAN 44 INCHES SHALL BE EQUIPPED WITH A PERMANENTLY AFFIXED LADDER. COMPLY WITH SECTION R310.2.1

BASEMENT - WINDOW SILL HEIGHT R310.2.2

BASEMENT WINDOWS SHALL HAVE A SILL HEIGHT OF NO MORE THAN 44-INCHES ABOVE THE FLOOR. WHERE THE SILL HEIGHT IS BELOW GRADE THE WINDOW SHALL BE PROVIDED WITH A WINDOW WELL IN ACCORDANCE WITH R310.2.3.

WINDOW SILL HEIGHTS R312.2.1

IN DWELLING UNITS, WHERE THE OPENING OF AN OPERABLE WINDOW IS LOCATED MORE THAN 72 INCHES ABOVE THE FINISH GRADE OR SURFACE BELOW, THE LOWEST PART OF THE OPENING OF THE WINDOW SHALL BE A MINIMUM OF 24" INCHES ABOVE THE FINISHED FLOOR OF THE ROOM IN WHICH THE WINDOW IS LOCATED. OPERABLE SECTIONS OF WINDOWS SHALL NOT PERMIT OPENINGS THAT ALLOW PASSAGE OF A 4 INCH DIA. SPHERE WHERE SUCH OPENINGS ARE LOCATED WITHIN 24 INCHES OF THE FINISHED FLOOR.

MEANS OF EGRESS R311

THERE SHALL BE A LANDING OR FLOOR ON EACH SIDE OF EACH EXTERIOR DOOR. THE WIDTH OF EACH LANDING SHALL NOT BE LESS THAN THE DOOR SERVED. EVERY LANDING SHALL HAVE A MINIMUM DIMENSION OF 36 INCHES MEASURED IN THE DIRECTION OF TRAVEL. EXTERIOR LANDINGS SHALL BE PERMITTED TO HAVE A SLOPE NOT TO EXCEED 0.25 UNIT VERTICAL IN 12 UNITS. (2%)

GUARDS AND WINDOW FALL PROTECTION R312

GUARDS SHALL BE LOCATED ALONG OPEN-SIDED WALKING SURFACES, INCLUDING STAIRS, RAMPS AND LANDINGS, THAT ARE LOCATED MORE THAN 30 INCHES MEASURED VERTICALLY TO THE FLOOR OR GRADE BELOW AT ANY POINT 36 INCHES HORIZONTALLY TO THE EDGE OF THE OPEN SIDE.

OPENING LIMITATIONS - REQUIRED GUARDS SHALL NOT HAVE OPENINGS FROM THE WALKING SURFACE TO THE REQUIRED GUARD HEIGHT THAT ALLOW PASSAGE OF A SPHERE 4 INCHES IN DIAMETER.

SMOKE ALARMS R314

SMOKE ALARMS SHALL BE IN ACCORDANCE WITH SECTION R314.

ALL SMOKE ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL 217 AND INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF THIS CODE AND THE HOUSEHOLD FIRE WARNING EQUIPMENT PROVISIONS OF NFPA 72.

SMOKE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS: IN EACH SLEEPING ROOM, OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS, ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS AND UNINHABITABLE ATTICS.

WHEN MORE THAN ONE SMOKE ALARM IS REQUIRED TO BE INSTALLED WITHIN AN INDIVIDUAL DWELLING UNIT THE ALARM DEVICES SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL UNIT.

CARBON MONOXIDE ALARMS R315

CARBON MONOXIDE ALARMS SHALL BE IN ACCORDANCE WITH SECTION R315.

AN APPROVED CARBON MONOXIDE ALARMS SHALL BE INSTALLED ON EACH HABITABLE LEVEL WITHIN WHICH FUEL-FIRED APPLIANCES ARE INSTALLED AND IN DWELLINGS UNITS THAT HAVE ATTACHED GARAGES.

SINGLE STATION CARBON MONOXIDE ALARMS SHALL BE LISTED AS COMPLYING WITH UL 2034 AND SHALL BE INSTALLED IN ACCORDANCE WITH THIS CODE AND NFPA 720.

GLAZING R308

1. GLAZING IN DOORS AND ENCLOSURES FOR HOT TUBS, WHIRLPOOLS, SAUNAS, STEAM ROOMS, BATHTUBS AND SHOWERS. GLAZING IN ANY PART OF A BUILDING WALL ENCLOSING THESE COMPARTMENTS WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES MEASURED VERTICALLY ABOVE ANY STANDING OR WALKING SURFACE.

2. GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE IS WITHIN A 24-INCH ARC OF THE DOOR IN A CLOSED POSITION AND WHOSE BOTTOM EDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR OR WALKING SURFACE.

3. GLAZING IN WALLS ENCLOSING STAIRWAY LANDING OR WITHIN 60 INCHES OF THE TOP AND BOTTOM OF STAIRWAYS WHERE THE BOTTOM EDGE OF THE GLASS IS LESS THAN 60 INCHES ABOVE THE WALKING SURFACE.

WEATHER-RESISTANT BARRIER R703.6.3

WEATHER-RESISTANT BARRIERS SHALL BE INSTALLED AS REQUIRED IN SECTION R703.2 AND, WHERE APPLIED OVER WOOD-BASED SHEATHING, SHALL INCLUDE A WEATHER-RESISTANT VAPOR PERMEABLE BARRIER WITH A PERFORMANCE AT LEAST EQUIVALENT TO TWO LAYERS OF GRADE D PAPER.

WEEP SCREEDS R703.6.2.1

A MINIMUM 0.019-INCH (NO. 26 GALVANIZED SHEET GAGE), CORROSION-RESISTANT WEEP SCREED OR PLASTIC WEEP SCREED, WITH A MINIMUM VERTICAL ATTACHMENT FLANGE OF 3-1/2" INCHES SHALL BE PROVIDED AT OR BELOW THE FOUNDATION PLATE LINE ON EXTERIOR STUD WALLS IN ACCORDANCE WITH ASTM C 926. THE WEEP SCREED SHALL BE PLACED A MINIMUM OF 4 INCHES ABOVE THE EARTH OR 2" ABOVE PAVED AREAS AND SHALL BE OF TYPE THAT WILL ALLOW TRAPPED WATER TO DRAIN TO THE EXTERIOR OF THE BUILDING. THE WEATHER-RESISTANT BARRIER SHALL LAP THE ATTACHMENT FLANGE. THE EXTERIOR LATH SHALL COVER AND TERMINATE ON THE ATTACHMENT FLANGE OF THE WEEP SCREED.

ARC-FAULT PROTECTION E3902.12

ALL BRANCH CIRCUITS THAT SUPPLY 120-VOLT, SINGLE PHASE, 15- AND 20-AMPERE OUTLETS IN FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUN-ROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A COMBINATION TYPE ARC-FAULT CIRCUIT INTERRUPTER INSTALLED TO PROVIDE PROTECTION OF THE ENTIRE BRANCH CIRCUIT.

TUB AND SHOWER R307

BATHTUB AND SHOWER SPACES - R307.2

BATHTUB ND SHOWER FLOORS AND WALLS ABOVE BATHTUBS WITH INSTALLED SHOWER HEADS AND IN SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NONABSORBANT SURFACE. SUCH WALL SURFACES SHALL EXTEND TO HEIGHT OF NOT LESS THAN 6 FEET ABOVE THE FLOOR.

LIMIT WATER TEMPERATURE TO A MAX. 120° F. PER SECTION P2708.3 AND P2713.3.

JETTED TUB ACCESS - 12"X12" ACCESS PER IRC P2720.

GENERAL NOTES

1. CONTRACTOR IS TO VERIFY DESIGN, DIMENSIONS AND NOTES PRIOR TO BEGINNING OF CONSTRUCTION.
2. ALL WORK IS TO BE DONE UNDER THE SUPERVISION OF A LICENSED CONTRACTOR.
3. ALL WORK IS TO DONE UNDER LOCAL AND STATE BUILDING CODES.
4. ELECTRICAL SHALL BE PER NATIONAL ELECTRIC CODE, LATEST EDITIONS.
5. HEATING/MECHANICAL WORK SHALL BE PER APPLICABLE CODES, LATEST EDITIONS.

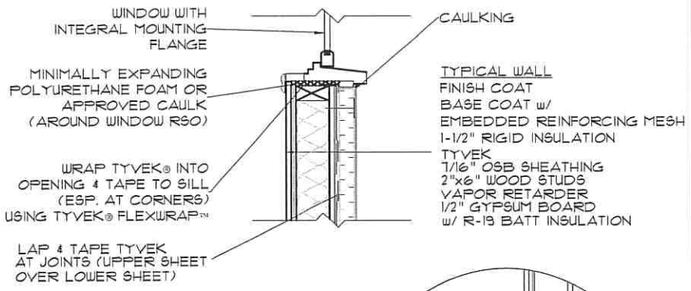
PROFESSIONAL STRUCTURAL ENGINEER
LIC. 353825
NATHAN JOHN KARRAS
3/24/2020
STATE OF UTAH

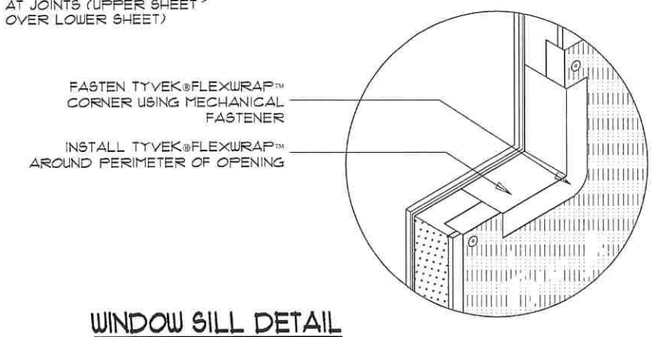
Karras Engineering
RESIDENTIAL / COMMERCIAL DESIGN & ENGINEERING
NATE KARRAS P.E. (801) 786-0849 email: KustomNK@gmail.com

SCALE
1/8" = 1'-0" 11x17
1/4" = 1'-0" 24x36

DATE JAN 2019 SHEET NUMBER S4

WEATHER RESISTIVE BARRIER (R703.2)



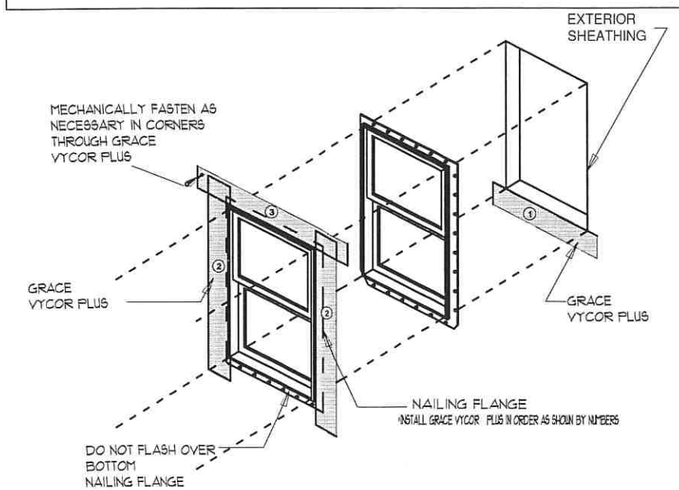


WINDOW SILL DETAIL

NOT TO SCALE

GENERAL NOTES

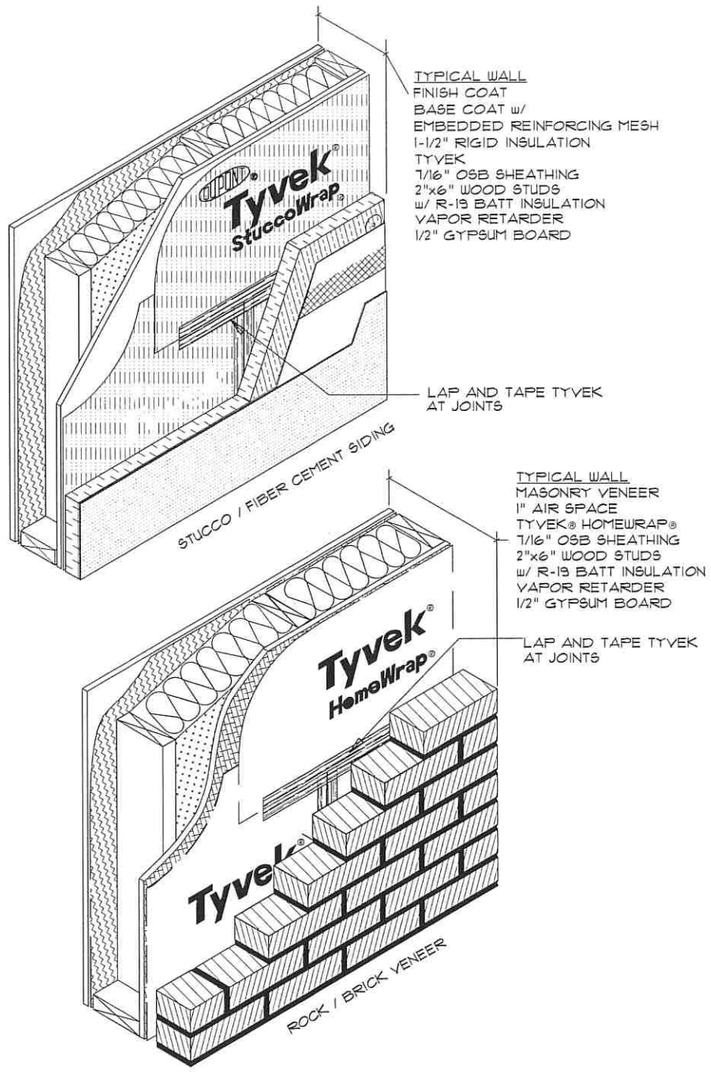
- SEAL ALL TYVEK JOINTS AND PENETRATIONS WITH APPROVED TAPE. (ex. DUPONT CONTRACTOR TAPE)
- FASTEN TYVEK TO SHEATHING WITH LARGE HEAD NAILS OR USE NAILS WITH LARGE PLASTIC WASHER HEADS (ex. DUPONT WRAPCAPS)
- LOCAL LAWS, ZONING, AND BUILDING CODES VARY AND THEREFORE GOVERNS OVER MATERIAL SELECTION AND DETAILING SHOWN BELOW.
- INSTALL EIFS ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS



** INSTALL FLASHING AND WEATHER RESISTIVE BARRIER TO FORM WATER SHEDDING LAPS. USE RipCord ON SILL PIECE TO EXPOSE 2" OF ADHESIVE. THE REMAINING RELEASE PAPER WILL BE REMOVED WHEN WEATHER RESISTIVE BARRIER IS INSTALLED.

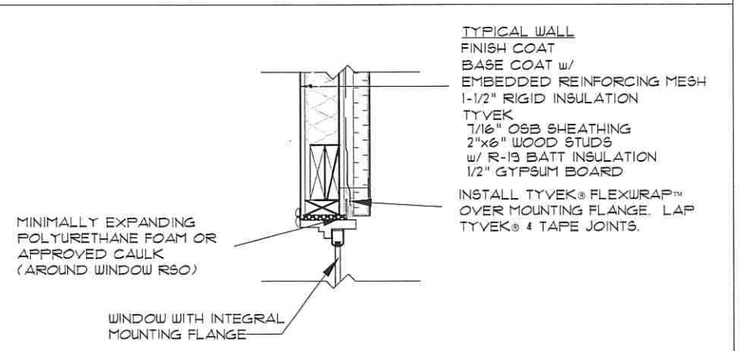
WINDOW / DOOR HEAD DETAIL

NOT TO SCALE



TYPICAL WALL ISOMETRIC

NOT TO SCALE



WINDOW / DOOR HEAD DETAIL

NOT TO SCALE

2015 IECC REQUIREMENTS FOR UTAH HOMES

	WINDOWS		INSULATION				FOUNDATION		
	FENESTRATION U-FACTOR	GLAZED FENESTRATION SHGC	CEILING R-VALUE	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUE	FLOOR R-VALUE	BASEMENT WALL R-VALUE	SLAB R-VALUE AND DEPTH	CRAWL SPACE WALL R-VALUE
ZONE 6	0.32	NR	49	20 + 5 OR 13 + 10	15/20	30	15/20	10, 4 FT	15/19
ZONE 5	0.32	NR	49	20 OR 13 + 5	13/17	30	13/17	10, 2 FT	15/19
ZONE 3	0.32	0.25	38	20 OR 13 + 5	8/13	19	8/13	0	5/13
ZONE 3	WASHINGTON		ZONE 5	BEAVER, DAVIS, EMERY, GARFIELD, GRAND, IRON, JUAB, KANE,					
ZONE 5	MILLARD, BIUTE, SALT LAKE, SAN JUAN, SANPETE, SEVIER, TOOELE UTAH, WAYNE, WEBER								
ZONE 6	BOX ELDER, CACHE, CARBON, DAGGETT, DUCHESNE, MORGAN, RICH, SUMMIT, UINTAH, WASATCH								

FENESTRATION (IECC SECTIONS R303.1.3, R402.3, R402.5)

FENESTRATION (INCLUDING ALL WINDOWS AND DOORS) AND SKYLIGHT U-FACTORS ARE MAXIMUM ACCEPTABLE LEVELS. THE GLAZED FENESTRATION SHGC MAXIMUMS APPLY TO ALL WINDOWS, SKYLIGHTS AND GLAZED DOORS. AN AREA-WEIGHTED AVERAGE OF FENESTRATION PRODUCTS IS PERMITTED TO SATISFY THESE REQUIREMENTS. (SEE IECC SECTION R402.3.)

WINDOW, DOOR AND SKYLIGHT U-FACTORS AND SHGC'S MUST BE DETERMINED BY AN ACCREDITED, INDEPENDENT LABORATORY, AND LABELED AND CERTIFIED BY THE MANUFACTURER , IN ACCORDANCE WITH A NATIONAL FENESTRATION RATING COUNCIL (NFRC) RATING. PRODUCTS WITHOUT AN NFRC LABEL MUST USE THE DEFAULT VALUES IN IECC SECTION R303.1.3

WINDOWS, SKYLIGHTS, AND SLIDING GLASS DOORS MUST BE LABELED TO SHOW THAT THEY MEET THE IECC'S AIR INFILTRATION REQUIREMENTS.

UP TO 15 SQUARE FEET OF GLAZED FENESTRATION IS PERMITTED TO BE EXEMPT FROM THE U-FACTOR AND SHGC REQUIREMENTS. ONE SIDE HINGED OPAQUE DOOR ASSEMBLY UP TO 24 SQUARE FEET IS EXEMPTED FROM THE FENESTRATION U-FACTOR REQUIREMENTS IN THERMALLY ISOLATED SUNROOMS. (IECC SECTION R402.3.5)

INSULATION (IECC SECTIONS R303.1.4 AND R402.2)

INSULATION R-VALUES ARE MINIMUM ACCEPTABLE LEVELS AND MUST BE DETERMINED ACCORDING TO FEDERAL TRADE COMMISSION RULE.

R-VALUES FOR WALLS REPRESENT THE SUM OF CAVITY INSULATION PLUS INSULATED SHEATHING, IF ANY. THE SECOND R-VALUE FOR MASS WALLS APPLIES WHEN MORE THAN HALF THE INSULATION IS ON THE INTERIOR OF THE MASS WALL.

THE INSULATION FOR BASEMENT WALLS MUST BE FROM THE TOP OF THE WALL DOWN 10 FEET BELOW GRADE OR TO THE BASEMENT FLOOR, WHICHEVER IS LESS. BASEMENT WALL INSULATION IS NOT REQUIRED IN WARM-HUMID LOCATIONS AS DEFINED IN IECC FIGURE R301.1. INSULATION REQUIREMENTS FOR CRAWL SPACE WALLS ARE FURTHER SPECIFIED IN IECC SECTION R402.2.11

FLOOR INSULATION MUST BE INSTALLED TO MAINTAIN CONTACT WITH THE UNDERSIDE OF THE SUBFLOOR DECKING. REFER TO THE CODE FOR DETAILS ALLOWING INSULATION TO BE INSTALLED ON THE LOWER SIDE OF THE CEILING CAVITY.

ACCESS DOORS FROM CONDITIONED SPACES (E.G. ATTICS AND CRAWL SPACES TO UNCONDITIONED SPACES SHALL BE WEATHER STRIPPED AND INSULATED TO A LEVEL EQUIVALENT TO THE INSULATION ON THE SURROUNDING SURFACES. VERTICAL ACCESS DOORS ARE PERMITTED TO MEET THE FENESTRATION REQUIREMENTS.

INSULATION REQUIREMENTS FOR SLAB ON GRADE FLOORS ARE FURTHER SPECIFIED IN IECC SECTION R402.2.10. R-5 SHALL BE ADDED TO THE REQUIRED SLAB EDGE R-VALUES FOR HEATED SLABS.

SPECIAL INSULATION EXCEPTIONS RELATED TO CEILINGS WITH OR WITHOUT ATTIC SPACES, MASONRY VENEER AND THERMALLY ISOLATED SUNROOMS ARE SET FORTH IN IECC SECTION R402.

DUCTS (IECC SECTION R403.3)

DUCTS MUST BE TESTED AND VERIFIED TO HAVE TOTAL LEAKAGE OF NO MORE THAN 4cfm/100 SQ. FT. (OR 3cfm IF AIR HANDLER IS NOT INSTALLED), EXCEPT WHERE AIR HANDLER AND ALL DUCTS ARE LOCATED INSIDE CONDITIONED SPACE. AIR HANDLERS AND FILTER BOXES MUST ALSO BE PROPERLY SEALED.

SUPPLY AND RETURN DUCTS SHALL BE SEALED AND INSULATED AS FOLLOWS

DUCT LOCATION	LESS THAN 3 INCHES IN DIAMETER	GREATER THAN 3 INCHES IN DIAMETER
ATTIC	R-6	R-8
OTHER PORTIONS OF THE BUILDING	R-4.2	R-6
COMPLETELY INSIDE CONDITIONED SPACE	EXEMPT	EXEMPT

AIR SEALING (IECC SECTION R402.4)

THE BUILDING ENVELOPE IS REQUIRED TO BE PROPERLY SEALED AND TESTED, AND VERIFIED AS HAVING AN AIR LEAKAGE RATE NO HIGHER THAN 3 ACH AT 0.2 INCH W.G. (50 PASCAL) IN CLIMATE ZONES 3, 5 AND 6. RECESSED LIGHTING MUST ALSO BE SEALED TO LIMIT AIR LEAKAGE.

DOCUMENTATION (IECC SECTIONS R103, R303.3, R401.3)

THE APPROPRIATE CONSTRUCTION DOCUMENTS AND PREVENTATIVE MAINTENANCE INFORMATION MUST BE PROVIDED, ALONG WITH A PERMANENT CERTIFICATE LISTING CERTAIN INSULATION, WINDOW AND HVAC PERFORMANCE INFORMATION..

SYSTEMS (IECC SECTION R403)

HVAC SYSTEM MUST BE PROPERLY SIZED IN ACCORDANCE WITH ACCA MANUAL S BASED ON BUILDING LOADS CALCULATED IN ACCORDANCE WITH ACCA MANUAL J OR OTHER APPROVED METHODOLOGIES. NEW OR REPLACEMENT HEATING AND COOLING EQUIPMENT MUST MEET OR EXCEED FEDERAL MINIMUM EFFICIENCY REQUIREMENTS FOR GEOGRAPHIC LOCATION IN WHICH IT IS INSTALLED.

TEMPERATURE CONTROLS MUST BE INSTALLED, INCLUDING A PROGRAMMABLE THERMOSTAT WHERE REQUIRED.

MECHANICAL SYSTEM PIPING MUST BE INSULATED TO A MINIMUM OF R-3. HOT WATER PIPING MUST BE INSULATED TO R-3, WITH CERTAIN EXCEPTIONS.

SPECIFIC REQUIREMENTS APPLY TO CIRCULATING HOT WATER SYSTEMS, MECHANICAL VENTILATION, SNOW MELT SYSTEMS, AND POOLS.

LIGHTING (IECC SECTIONS R202 AND R404.1)

A MINIMUM OF 75% OF LAMPS IN PERMANENTLY INSTALLED FIXTURES MUST BE HIGH-EFFICACY AS DEFINED IN THE IECC.

PROFESSIONAL STRUCTURAL ENGINEER
No 353825
NATHAN JOHN KARRAS
3/24/2020
STATE OF UTAH

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SCALE
1/8" = 1'-0" 11x17
1/4" = 1'-0" 24x36

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