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## EXTERIOR COLOR PACKAGE

- Royal White
- Graphite
- Slate
- Greystone

ROLL CALL				
Plan & Zoning Commission				
Ankeny, IA				
Date	June 20, 2017			
Anderson	<input checked="" type="checkbox"/> Aye	<input type="checkbox"/> Nay	<input type="checkbox"/> Pass	<input type="checkbox"/> Absent
Ender	<input checked="" type="checkbox"/> Aye	<input type="checkbox"/> Nay	<input type="checkbox"/> Pass	<input type="checkbox"/> Absent
Flack	<input checked="" type="checkbox"/> Aye	<input type="checkbox"/> Nay	<input type="checkbox"/> Pass	<input type="checkbox"/> Absent
Houlihan	<input checked="" type="checkbox"/> Aye	<input type="checkbox"/> Nay	<input type="checkbox"/> Pass	<input type="checkbox"/> Absent
Hunter	<input checked="" type="checkbox"/> Aye	<input type="checkbox"/> Nay	<input type="checkbox"/> Pass	<input type="checkbox"/> Absent
Odson	<input checked="" type="checkbox"/> Aye	<input type="checkbox"/> Nay	<input type="checkbox"/> Pass	<input type="checkbox"/> Absent
Ripper	<input checked="" type="checkbox"/> Aye	<input type="checkbox"/> Nay	<input type="checkbox"/> Pass	<input type="checkbox"/> Absent
West	<input checked="" type="checkbox"/> Aye	<input type="checkbox"/> Nay	<input type="checkbox"/> Pass	<input type="checkbox"/> Absent
Whiting	<input checked="" type="checkbox"/> Aye	<input type="checkbox"/> Nay	<input type="checkbox"/> Pass	<input type="checkbox"/> Absent
Ayes	9	Nays 0	Pass	Absent
APPROVED				
			<i>T. Ripper</i>	Chairperson
			<i>B. Jungsang</i>	Secretary



# JACKSON

**ABBREVIATIONS**

ADJ	ADJUSTABLE
ANL	ANNING
BTM	BOTTOM
BSMT	BASEMENT
BTWL	BETWEEN
CA	CASHEM
CANT.	CANTILEVER
CBL	CABLE
CLG	CENTER LINE
CLG	CEILING
C.O.	CASED OPENING
COL	COLUMN
CONC.	CONCRETE
D	DRYER
DA	DIAMETER
DN	DOWN
DN	DOUBLE HANG
DN	DOWNHANGER
FD.	FLOOR DRAIN
FLR	FLOOR
FT	FEET
FLRNL	FURNACE
HLR	HEADER
HWD	HARDWOOD
INSUL.	INSULATION
JST.	JOIST
LVL	LAMINATED VENEER LUMBER
LNL	LINEN
MAX	MAXIMUM
MVL	MINIMUM
OC	ON CENTER
O.H.D.	OVERHEAD DOOR
OPNG.	OPENING
PEJ.	PENJAIL
N.T.S.	NOT TO SCALE
PEF	PEFFIGERATOR
REQ	REQUIRED
RO	ROUGH OPENING
ROOM	ROOM
SH	SINGLE HANG
S & R	SHELF AND ROOF
S.F.	SQUARE FEET
S.P.	SUMP PIT
STL	STEEL
TYP.	TYPICAL
TRANS.	TRANSOM
UNCL.	UNCLAMATED
VAN.	VANITY
W	WASHER
W	WITH
WHL	WATER HEATER

**ELECTRIC SYMBOLS**

	SINGLE POLE SWITCH
	THREE WAY SWITCH
	DIMMER SWITCH
	SINGLE RECEPTACLE OUTLET
	DUPLEX RECEPTACLE OUTLET
	240 VOLT RECEPTACLE
	PHONE OUTLET
	CABLE OUTLET
	EXHAUST FAN
	LIGHT WITH FAN
	SMOKE DETECTOR
	GARAGE DOOR OPENER
	ELECTRIC PANEL
	CEILING MOUNTED LIGHT
	PULL CHAIN LIGHT
	RECESSED LIGHT
	WALL MOUNTED LIGHT
	W.M. MOTION DETECTOR LIGHT
	FLUORESCENT LIGHT
	BALL LIGHT

**MISC. SYMBOLS**

	FROST PROOF HOSE BIB
	FLOOR LINE ABOVE
	STRUCTURAL BEAM/HEADER OR GORDER TRUSS

**DRAWING LIST**

A.0	Cover Page
A.1	Elevations
A.2	Elevations
A.3	Foundation Plan
A.4	Main Floor Plan
A.5	Building Sections
A.6	Detail
E.1	Electrical
F.1	Floor Covering



**PLUM DESIGN SERVICES**  
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TELEPHONE 515 978 6260 FAX 515 978 6261

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**GENERAL CONSTRUCTION NOTES**

- GENERAL
  - ALL CONSTRUCTION AND MATERIALS SHALL MEET OR EXCEED IRC 2009 LOCAL BUILDING CODES MAY HAVE DIFFERENT SPECIFICATIONS AND REQUIREMENTS THAN WHAT IS LISTED IN THE IRC. THESE LOCAL REQUIREMENTS WILL SUPERSEDE THE IRC 2009. SEE THE LOCAL BUILDING DEPARTMENT FOR CHANGES.
  - CONTRACTOR TO CONFIRM THE SIZES, SPACING AND SPECIES OF LUMBER OF ALL STRUCTURAL AND FRAMING MEMBERS. ANY STRUCTURAL AND FRAMING MEMBERS NOT INDICATED ARE TO BE SIZED BY OWNER/CONTRACTOR.
  - THE OWNER/CONTRACTOR IS RESPONSIBLE FOR PREVENTIVE MEASURE OF THE BUILD UP OF MOISTURE OR MOLD. ALL PRODUCTS ARE TO BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.
  - ALL MECHANICAL, PLUMBING, AND ELECTRICAL SYSTEMS ARE TO BE DESIGNED BY OTHERS.

- DESIGN CRITERIA
  - BUILDING AND STRUCTURES, AND ALL PARTS THEREOF, SHALL BE CONSTRUCTED TO SAFELY SUPPORT ALL LOADS, INCLUDING DEAD LOADS, LIVE LOADS, ROOF LOADS, FLOOD LOADS, SNOW LOADS, WIND LOADS, AND SEISMIC LOADS AS PRESCRIBED BY THIS CODE (IRC 2009).
  - TABLE M1.2(1) IRC 2009, VALUES BASED FROM THE CITY OF DES MOINES, IOWA.

LOAD	TYPE	SUBJECT TO DIMENSION		WIND SPEED (MPH)	WIND EXPOSURE	FLOOR HEIGHT (FT)	WIND DIRECTION	WIND PRESSURE (PSF)	WIND VELOCITY (MPH)
		HEIGHT	WIND DIRECTION						
RF	R	10	10	105	10	10	10	10	45

<b>MINIMUM LIVE LOADS (R301.5) IRC 2009</b>	<b>MINIMUM ROOF LIVE LOADS (R301.6) IRC 2009</b>
ATTIC WITH LIMITED STORAGE 20 PSF	ROOF TRUSS LIVE LOAD (L1) 20 PSF
ATTIC WITHOUT STORAGE 10 PSF	GROUND SNOW (S) 30 PSF
DECKS 40 PSF	FLAT ROOF SNOW (S) 24 PSF
EXTERIOR BALCONIES 60 PSF	
QUADRAL AND HANDRAILS 200 PSF	THERMAL CONDITION Cl = 1.0
ROOM OTHER THAN SLEEPING ROOMS 40 PSF	TEMPERATURE EXPOSURE B
SLEEPING ROOMS 30 PSF	DURATION OF LOAD-SNOW 1.15
STAIRS 40 PSF	
<b>DEFLECTION CRITERIA</b>	<b>UNBALANCED AND SNOW DRIFT LOADING</b>
FLOOR LIVE LOAD (L1) 1/160	ACCORDING TO ACSE 7-05
FLOOR TOTAL LOAD (L2) 1/500	
ROOF LIVE LOAD (L3) 1/1000	WIND DESIGN METHOD: MWFRS-C-H (B) OR ACSE 7-05
ROOF TOTAL LOAD (L4) 1/500	EXPOSURE CATEGORY B
	DURATION OF LOAD-WIND 1.60

ALL BEAMS SUPPORTING FLOOR OR ROOF LOADS ARE TO BE DESIGNED WITH THE ABOVE DEFLECTION CRITERIA.	
<b>D. DEAD LOADS: ANY ADDITIONAL OR CHANGES TO MATERIAL NEEDS TO BE ADJUSTED TO THE BELOW CALCULATIONS.</b>	
<b>FLOOR TOP CHORD</b>	
CARPET AND PAD 1.5 PSF	ROOFING-SHINGLES (20 LBS) 2 LAYER 4.00 PSF
3/4" CERAMIC TILE ON BACKER BD. 10 PSF	30 LBS. FELT 0.30 PSF
3/4" HARDWOOD FLOOR 4.0 PSF	1/2" OSB OR COM. PL. WOOD 1.65 PSF
SUBFLOOR OF OSB OR COM. PL. WOOD 2.0 PSF	12" ROOF TRUSS (24) 1.10 PSF
1/2" FLOOR TRUSS-KIST SYSTEM 1.5 PSF	CORRECTION FOR SLOPE (10%) 1.55 PSF
TOTAL WITH CARPET AND PAD 11.5 PSF	TOTAL 8.00 PSF
TOTAL WITH TILE BACKER BD. 11.5 PSF	
TOTAL WITH HARDWOOD FLOOR 7.5 PSF	
<b>FLOOR BOTTOM CHORD</b>	
12" FLOOR TRUSS-KIST SYSTEM 1.5 PSF	MINIMUM FOR MISC. MECHANICAL/ELEC. 1.5 PSF
5/8" GYPSUM BOARD 2.8 PSF	1/2" BATTLE WOVEN INSULATION 1.60 PSF
MINIMUM FOR MISC. MECHANICAL/ELEC. 0.7 PSF	
TOTAL 5.0 PSF	TOTAL 7.00 PSF

- ROOM REQUIREMENTS
  - CEILING HEIGHT (R301.1) HABITABLE ROOMS, HALLWAYS, CORRIDORS, BATHROOMS, TOILET ROOM, LAUNDRY ROOMS, AND BASEMENTS SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 7 FEET. THE REQUIRED HEIGHT IS MEASURED FROM FINISH FLOOR TO THE LOWEST PROJECTION FROM THE CEILING.
    - EXCEPTION 1: BEAMS AND GIRDERS SPACED LESS THAN 4 FEET ON CENTER MAY PROJECT NOT MORE THAN 6 INCHES BELOW THE REQUIRED CEILING HEIGHT.
    - EXCEPTION 2: CEILING IN BASEMENT WITHOUT HABITABLE SPACES MAY PROJECT WITHIN 4 FEET 1 INCHES OF FINISHED FLOOR.
    - EXCEPTION 3: FOR ROOMS WITH SLOPED CEILING, AT LEAST 50 PERCENT OF THE REQUIRED FLOOR AREA OF THE ROOM MUST HAVE A CEILING HEIGHT OF AT LEAST 7 FEET AND NO PORTION OF THE REQUIRED FLOOR AREA MAY HAVE A CEILING HEIGHT OF LESS THAN 5 FEET.
    - EXCEPTION 4: BATHROOMS SHALL HAVE A MINIMUM CEILING HEIGHT OF 8 FEET 1 INCHES OVER THE FRONT OF THE TUB OR SHOWER.
  - ROOM DIMENSIONS (R301.3) THE MINIMUM LENGTH OR WIDTH OF ANY HABITABLE ROOM SHALL NOT BE LESS THAN 7'-0" CLEAR IN ANY HORIZONTAL DIMENSION. THE MINIMUM AREA OF ANY HABITABLE ROOM SHALL NOT BE LESS THAN 70 SQ. FEET. EXCEPT KITCHEN (R301.2).
  - LIGHT AND VENTILATION (R301.3) IN HABITABLE ROOMS, PROVIDE NATURAL LIGHT AND VENTILATION WITH OPERABLE WINDOWS. WINDOWS SHALL NOT BE LESS THAN 1/8 IN OF THE FLOOR AREA OF EACH ROOM. 1/2 THE REQUIRED WINDOW AREA SHALL BE OPERABLE TO THE EXTERIOR FOR VENTILATION. BATHROOMS MAY HAVE AN OPERABLE WINDOW OF 3 S.F. IN AREA. NON-HABITABLE ROOMS, INCLUDING BATHROOMS, MAY BE VENTILATED WITH EXHAUST FANS AND ARTIFICIAL LIGHT. EMERGENCY ESCAPE WINDOWS (R310) BASEMENT AND EACH SLEEPING AREA SHALL HAVE AN EMERGENCY ESCAPE WINDOW THAT IS AT LEAST 20" IN WIDTH (NET) 20" IN HEIGHT (NET) WHEN OPEN AND HAVE AN OPERABLE AREA OF AT LEAST 5.7 SQUARE FEET IN AREA. ESCAPE WINDOWS SHALL BE INSTALLED WITH A SILL HEIGHT OF NO MORE THAN 44" ABOVE THE FLOOR. EGRESS WINDOW WALLS MUST PROJECT A MINIMUM OF 3" AND PROVIDED OVER 8 SQ. FT. OF NET CLEAR AREA. LADDERS ARE REQUIRED IF THE WELL IS OVER 4' DEEP. LADDERS SHALL BE A MIN. OF 12" WIDE.
- BUILDING REQUIREMENTS
  - ATTIC ACCESS (R301.7) PROVIDE ACCESS TO ATTIC SPACE WITH AN ACCESS DOOR AT LEAST 22" X 30" IN SIZE. LOCATE THE ACCESS DOOR WHERE THERE IS AT LEAST 30" OF CLEAR HEAD SPACE.
  - ATTIC MUST BE VENTILATED WITH TOTAL AREA OF ATTIC VENTS AT LEAST 1.0 S.F. (NET) FOR EACH 150 S.F. OF ATTIC AREA TO BE VENTILATED. ATTIC VENTS ARE NOT SHOWN ON THE PLAN (R301.2).
  - SMOKE ALARMS ARE REQUIRED IN ALL BEDROOMS, AT ALL HALLWAYS LEADING TO BEDROOMS, AND AT EACH LEVEL INCLUDING THE BASEMENT. ADDITIONAL ALARMS MAY BE REQUIRED IN SEPARATED SPACE OF THE BASEMENT. SEE BUILDING DEPARTMENT. SMOKE ALARMS SHALL BE HARD WIRED TOGETHER IN SERIES WITH BATTERY BACK UP (R311).
  - STAIRWAYS ARE TO BE A MINIMUM OF 36" WIDE (R311.5.1) WITH A MINIMUM HEADROOM OF 4 FEET 1 INCHES (R311.5.2). THE MAXIMUM RISER IS 7 1/4" (R311.5.3) WITH A MINIMUM RUN OF 10" (R311.5.1.2). HANDRAILS SHALL BE PROVIDED ON AT LEAST ONE SIDE OF EACH CONTINUOUS RUN OF TREADS OR FLIGHT WITH 4 OR MORE RISERS (R311.5.3). A RIGHT OF STAIRS SHALL NOT HAVE A VERTICAL RISE LARGER THAN 12 FEET BETWEEN FLOORS OR LANDINGS (R311.5.4).
  - PROTECT GL. OUTLETS, DOWN SPOUTS, AND SPLASH BLOCKS AS NECESSARY.
- FOUNDATION/CONCRETE
  - IN AREAS LIKELY TO HAVE EXPANSIVE, COMPRESSIBLE, SHIFTING OR OTHER UNKNOWN SOIL CHARACTERISTICS, THE BUILDING OFFICIAL SHALL DETERMINE WHETHER A SOIL TEST IS REQUIRED. (R401.4) A SOIL CAPACITY OF 2000 PSF IS ASSUMED.
  - CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 3000 psi AT 28 DAYS. GARAGE FLOOR SLABS SHALL BE 3:50 AT 28 DAYS. PORCHES, CASPORT SLABS AND STEPS EXPOSED TO THE WEATHER SHALL BE 3:50 psi AT 28 DAYS (R402). CONCRETE SHALL BE AIR ENTRAINMENT WITH 7% AIR CONTENT.
  - ALL FOOTING SHALL BE PLACED ON UNDISTURBED SOIL OR CONTROLLED COMPACTED FILL. MINIMUM FOOTING TO BE 18" WIDE X 4" DEEP FOR A 1 STORY BUILDING AND 12" WIDE X 4" DEEP FOR A 3 STORY BUILDING (TABLE 403.1) BOTH WITH 20% MINIMUM HORIZONTAL #4 REBAR.
  - ALL ANCHOR BOLTS SHALL BE 1/2" IN DIAMETER AND SHALL EXTEND A MINIMUM OF 7" INTO CONCRETE. USE TWO BOLTS PER SILL PLATE WITH BOLTS SPACED AT A MAXIMUM OF 4 FEET ON CENTER WITH A MINIMUM OF ONE BOLT NOT MORE THAN 12 INCHES FROM THE END BUT AT LEAST 3 1/2 INCHES FROM END OF SILL PLATE (R403.1.5). ALTERNATE FOUNDATION STRIPS MAY BE USED. SPECIFICATION TO PROVIDE EQUIVALENT ANCHOR TO A 1/2" DIAMETER ANCHOR BOLT.
  - CONCRETE FOUNDATION WALLS SHALL BE CONSTRUCTED AS SET FORTH IN TABLE R401.1(5). REFER TO TYPICAL WALL SECTION IN THIS PLAN FOR SPECIFICATION.

- WOOD FRAMING
  - ROOF, FLOOR, AND WALL SHEATHING APPLICATED SHEATHING
  - WALL STUDS MINIMUM 2x4 STUDS OR DOUGLAS FIR LARCH STD.
  - WALL PLATES MINIMUM 2x4 OR 2x6
  - DIMENSIONAL HEADERS #2 DOUGLAS FIR OR BETTER
  - LVL HEADERS 3P99 PLAZA MINIMUM
  - JOIST ORDER PARALLEL BEARING PARTITIONS SHALL BE OF ADEQUATE SIZE TO SUPPORT THE LOAD (R502.6)
  - THE ENDS OF EACH JOIST, BEAM, OR GORDER SHALL HAVE NOT LESS THAN 1.5 INCHES OF BEARING ON WOOD OR METAL AND NOT LESS THAN 3 INCHES ON CONCRETE (R502.6)
  - WOOD TRUSSES SHALL BE DESIGNED AND MANUFACTURED IN ACCORDANCE WITH ANSI/TPI-1. REFER TO THE TYPICAL TRUSS DESIGN DRAWINGS FOR MEMBER SIZING AND WALL CONNECTIONS OF GORDER (S001-1-03) SHOULD BE REFER TO FOR HANDLING INSTALLATION AND BRACING OF METAL PLATE TRUSSES.
  - NO CUTS, NOTCHES, AND HOLES BORED INTO TRUSSES, STRUCTURAL COMPOSITE LUMBER, GUE-LAMINATED MEMBERS, OR JOIST ARE PROHIBITED EXCEPT WHERE PERMITTED BY THE MANUFACTURER'S RECOMMENDATION OR DESIGN BY PROFESSIONAL (R502.2.2)
  - FREE ENDING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENING (BOTH VERTICAL AND HORIZONTAL) AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORES, AND BETWEEN A TOP STORY AND ROOF SPACE (R502.6)
  - ALL EXTERIOR WALLS SHALL BE BRACED IN ACCORDANCE WITH SECTION R502.10. MINIMUM 1/2" PANEL SHEATHING.
  - THE ALLOWABLE SPANS OF GORDER/HEADERS FABRICATED FROM DIMENSIONAL LUMBER ON EXTERIOR WALLS SHALL NOT EXCEED THE VALUES OF TABLE R502.2(1)

SUPPORT	SPACING (IN)				SUPPORT	SPACING (IN)			
	1	2	3	4		1	2	3	4
ROOF 4x4 CHORD	12	16	20	24	ROOF 4x4 CHORD	12	16	20	24
ROOF 4x6 CHORD	12	16	20	24	ROOF 4x6 CHORD	12	16	20	24
ROOF 4x8 CHORD	12	16	20	24	ROOF 4x8 CHORD	12	16	20	24
ROOF 4x10 CHORD	12	16	20	24	ROOF 4x10 CHORD	12	16	20	24
ROOF 4x12 CHORD	12	16	20	24	ROOF 4x12 CHORD	12	16	20	24
ROOF 4x14 CHORD	12	16	20	24	ROOF 4x14 CHORD	12	16	20	24
ROOF 4x16 CHORD	12	16	20	24	ROOF 4x16 CHORD	12	16	20	24
ROOF 4x18 CHORD	12	16	20	24	ROOF 4x18 CHORD	12	16	20	24
ROOF 4x20 CHORD	12	16	20	24	ROOF 4x20 CHORD	12	16	20	24
ROOF 4x22 CHORD	12	16	20	24	ROOF 4x22 CHORD	12	16	20	24
ROOF 4x24 CHORD	12	16	20	24	ROOF 4x24 CHORD	12	16	20	24
ROOF 4x26 CHORD	12	16	20	24	ROOF 4x26 CHORD	12	16	20	24
ROOF 4x28 CHORD	12	16	20	24	ROOF 4x28 CHORD	12	16	20	24
ROOF 4x30 CHORD	12	16	20	24	ROOF 4x30 CHORD	12	16	20	24
ROOF 4x32 CHORD	12	16	20	24	ROOF 4x32 CHORD	12	16	20	24
ROOF 4x34 CHORD	12	16	20	24	ROOF 4x34 CHORD	12	16	20	24
ROOF 4x36 CHORD	12	16	20	24	ROOF 4x36 CHORD	12	16	20	24
ROOF 4x38 CHORD	12	16	20	24	ROOF 4x38 CHORD	12	16	20	24
ROOF 4x40 CHORD	12	16	20	24	ROOF 4x40 CHORD	12	16	20	24
ROOF 4x42 CHORD	12	16	20	24	ROOF 4x42 CHORD	12	16	20	24
ROOF 4x44 CHORD	12	16	20	24	ROOF 4x44 CHORD	12	16	20	24
ROOF 4x46 CHORD	12	16	20	24	ROOF 4x46 CHORD	12	16	20	24
ROOF 4x48 CHORD	12	16	20	24	ROOF 4x48 CHORD	12	16	20	24
ROOF 4x50 CHORD	12	16	20	24	ROOF 4x50 CHORD	12	16	20	24
ROOF 4x52 CHORD	12	16	20	24	ROOF 4x52 CHORD	12	16	20	24
ROOF 4x54 CHORD	12	16	20	24	ROOF 4x54 CHORD	12	16	20	24
ROOF 4x56 CHORD	12	16	20	24	ROOF 4x56 CHORD	12	16	20	24
ROOF 4x58 CHORD	12	16	20	24	ROOF 4x58 CHORD	12	16	20	24
ROOF 4x60 CHORD	12	16	20	24	ROOF 4x60 CHORD	12	16	20	24

- M. TRUSSES SHALL BE CONNECTED TO WALL BY USE OF APPROVED CONNECTORS HAVING A RESISTANCE TO UPLIFT OF NOT LESS THAN 175 POUNDS AND PER THE MANUFACTURE SPECIFICATIONS.
- PROTECTION FROM DISIN SHALL BE PROVIDED IN THE FOLLOWING LOCATION BY THE USE OF NATURALLY DURABLE OR PRESERVATIVE TREATED LUMBER. (R516.1)
  - ALL WOOD FRAMING THAT REST ON CONCRETE EXTERIOR FOUNDATION WALLS AND ARE LESS THAN 8" FROM THE EXPOSED GROUND.
  - SILLS AND SLEEPERS ON A CONCRETE SLAB THAT IS IN DIRECT CONTACT WITH THE GROUND UNLESS SEPARATED FROM GROUND BY AN IMPERVIOUS MOISTURE BARRIER.
  - THE ENDS OF WOOD GORDER EXTENDING EXTERIOR CONCRETE WALLS HAVING CLEARANCE OF LESS THAN 5 INCH ON TOPS, SIDES AND ENDS.
  - WOOD SIDING SHEATHING AND WALL FRAMING ON THE EXTERIOR OF A BUILDING HAVING A CLEARANCE OF LESS THAN 6 INCHES FROM THE GROUND.
  - ALL LUMBER IN CONTACT WITH THE GROUND, EMBEDDED IN CONCRETE IN DIRECT CONTACT WITH THE GROUND OR EMBEDDED IN CONCRETE EXPOSED TO THE WEATHER THAT SUPPORTS PERMANENT STRUCTURES (R319.1.2)
- ALL FIN AND JOIST SPACES BETWEEN TOP OF THE FOUNDATION WALL AND FLOOR/ROOF LINE SHALL BE INSULATED WITH THE SAME MATERIAL USED FOR EXTERIOR WALLS. ALL EXTERIOR CORNERS AND INTERIOR PARTITIONS TO EXTERIOR WALLS THAT ARE CLOSED OFF TO FUTURE INSULATION MUST BE INSULATED DURING FRAMING OF WALL.
- ALL NAILING AND FASTENING SHOULD COMPLY WITH THE IRC TABLE R301.2(1) "FASTENER SCHEDULE FOR STRUCTURAL MEMBERS"
- STRUCTURAL STEEL
  - ALL STRUCTURAL STEEL SHALL CONFORM WITH ASTM SPECIFICATION A992 GRADE 50 OR EQUAL AND SHALL HAVE BRIDGE CLIPPING AT FEET ON CENTER TO RESIST LATERAL DER. SECTION.
  - ALL FRAMING TO BE ATTACHED TO STRUCTURAL STEEL IN ACCORDANCE WITH GOVERNING CODES.

**NOT FOR CONSTRUCTION**

THESE PLANS HAVE NOT BEEN APPROVED FOR FINAL CONSTRUCTION. PLEASE CALL OR SEE OWNER FOR UPDATED PLANS.

Classic Builders  
Jackson Base Plan-A  
Villas @ Stone Haven

PROJECT ID: PDS 3005

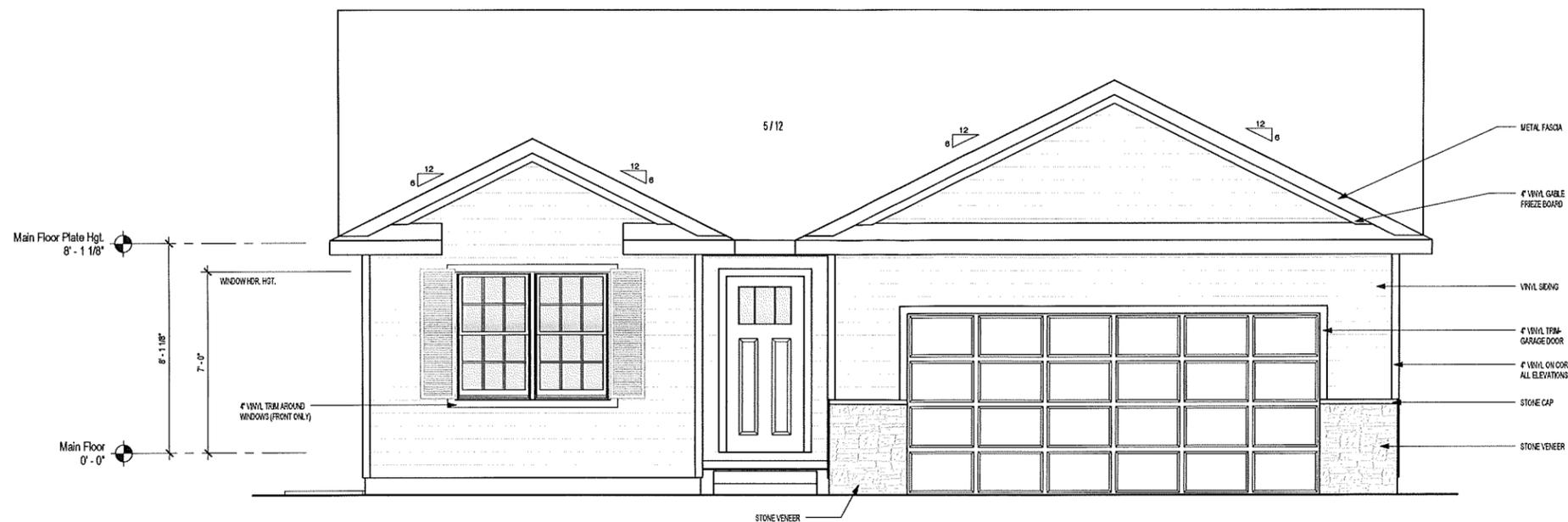
ISSUE DATE:  
DATE: 05-06-15  
DATE: 11-13-15  
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Cover Page  
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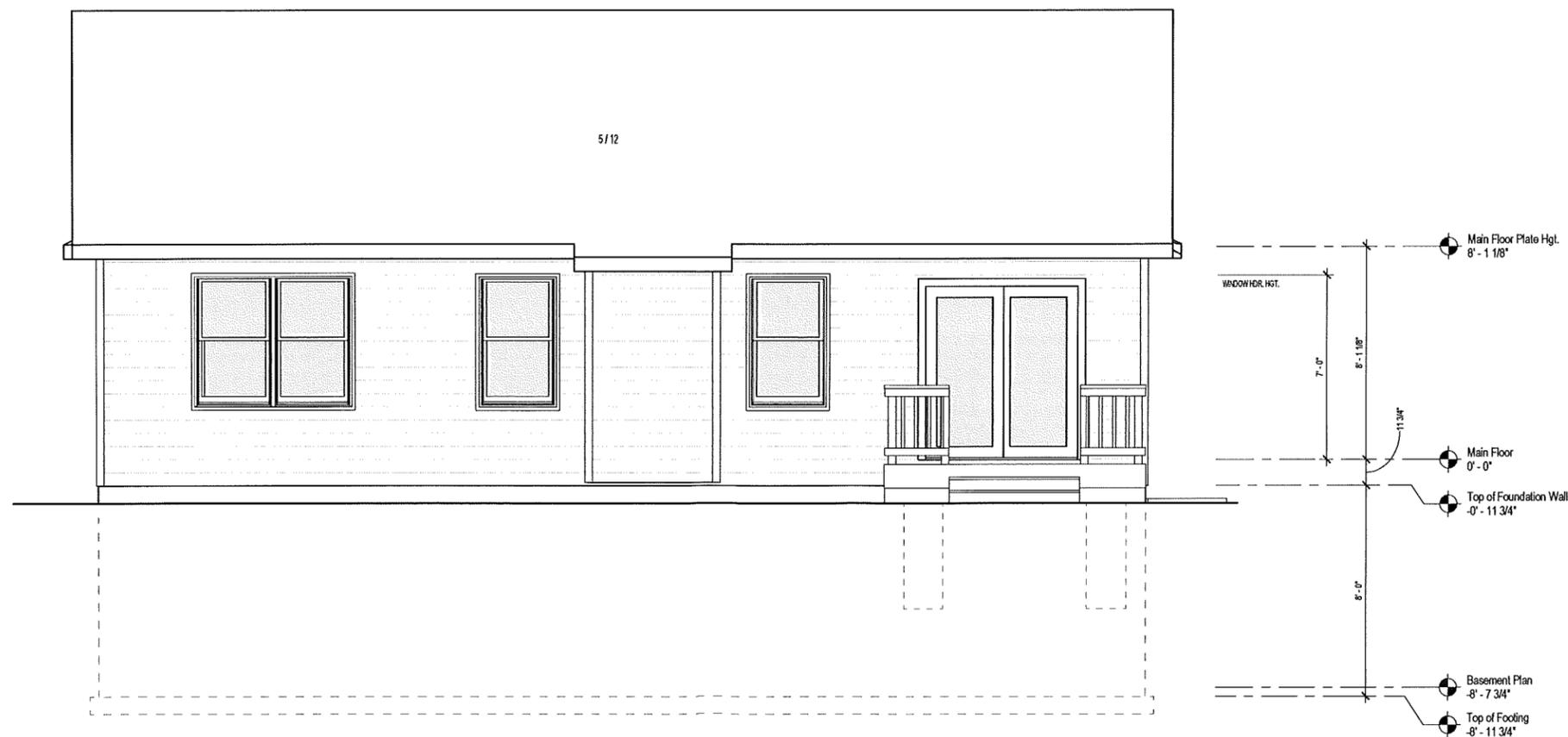
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**1 FRONT ELEVATION**  
 Scale: 3/8" = 1'-0"

ESTIMATED WALL...	
Lap Siding	1909 SF
Stone Veneer	23 SF

\* SQUARE FOOTAGE OF STONE VENEER IS BASED ON THE EXTERIOR FACE OF THE WALL.  
 1. THE AREA CALLED "TOP FACE" IS ON THE TOP SURFACE.  
 2. THE AREA CALLED "SIDE FACE" IS ON THE SIDE SURFACE.



**2 REAR ELEVATION**  
 Scale: 3/8" = 1'-0"

**Classic Builders**  
**Jackson Base Plan-A**  
**Villas @ Stone Haven**

PROJECT ID: PDS 3005

ISSUE DATE:

DATE: 05-06-15

DATE: 11-13-15

DATE: \_\_\_\_\_

DATE: \_\_\_\_\_

REVISIONS:

DATE: \_\_\_\_\_

DATE: \_\_\_\_\_

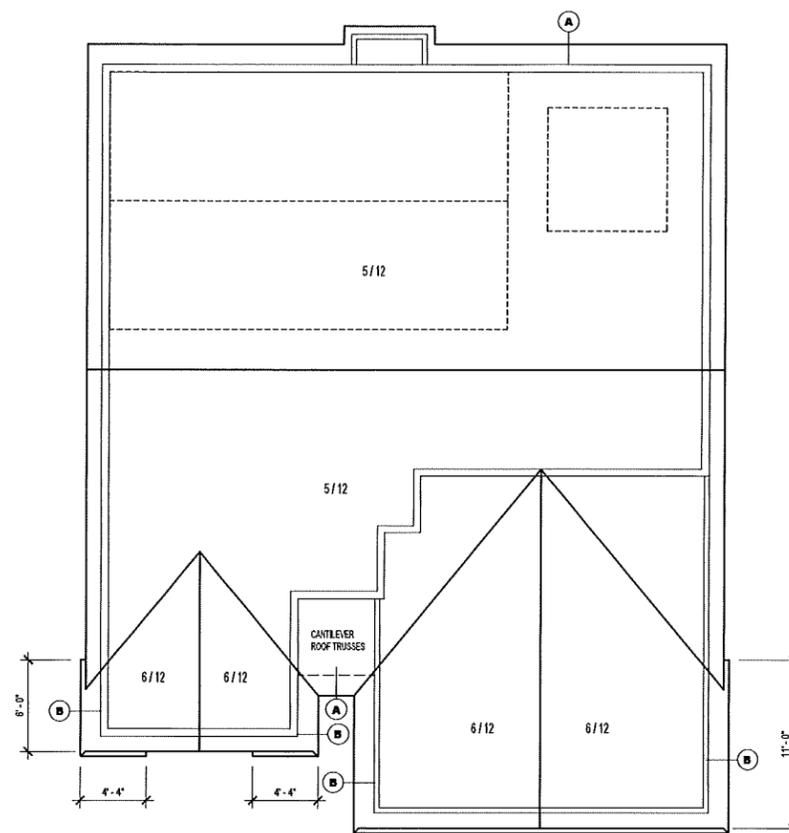
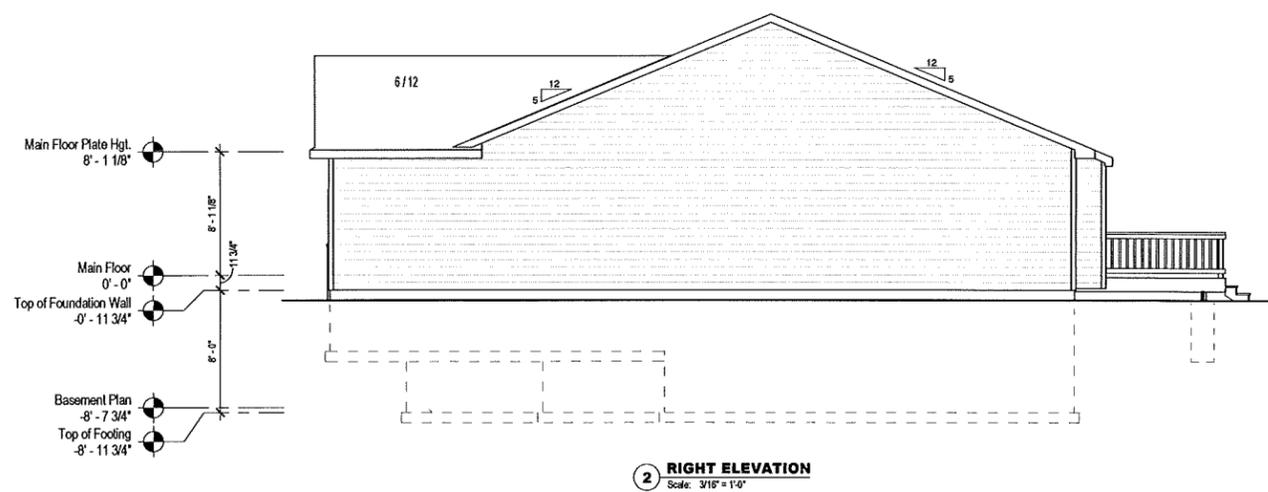
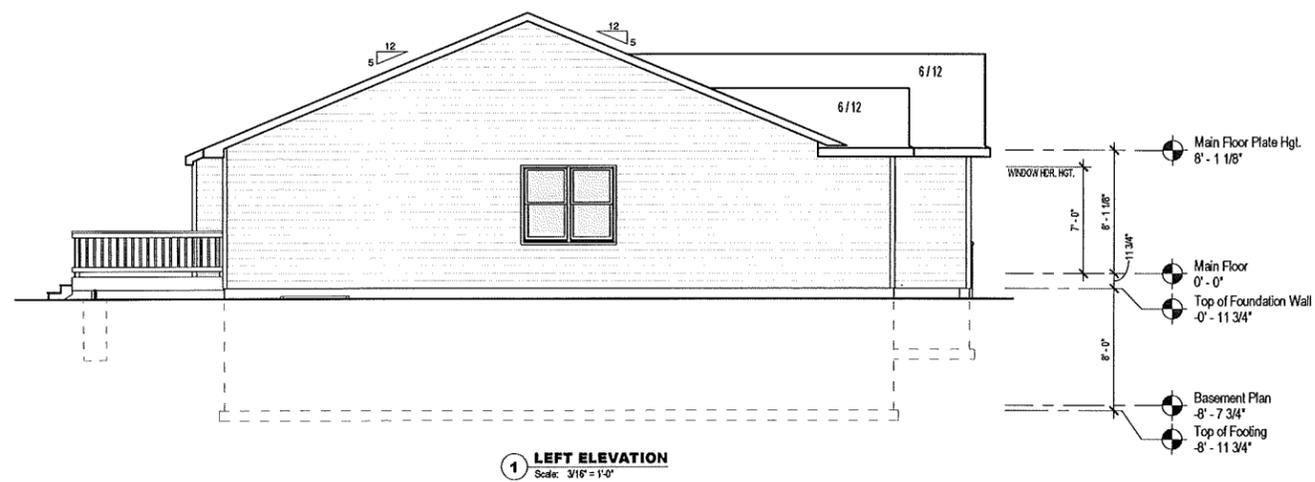
DATE: \_\_\_\_\_

DATE: \_\_\_\_\_

**Elevations**

3/8" = 1'-0"

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ESTIMATED ROOF SF	
2311 SF	

\* SQUARE FOOTAGE OF ROOF IS TAKEN FROM THE EXPOSED SURFACE OF THE ROOF. 1/4" OVERHANGS ARE INCLUDED UNLESS NOTED. 2 1/2" OVERHANGS ARE EXCLUDED UNLESS NOTED.

ROOF PLAN LEGEND				
SYMBOL	WALL HGT.	PITCH	OVERHANG	HEEL HGT.
A	8'-1 1/8"	5/12	1'-4"	7"
B	8'-1 1/8"	5/12	1'-4"	8 5/16"

ALL RAISE OVERHANGS ARE 12" UNLESS NOTED

Classic Builders  
Jackson Base Plan-A  
Villas @ Stone Haven

PROJECT ID: PDS 3005

ISSUE DATE:

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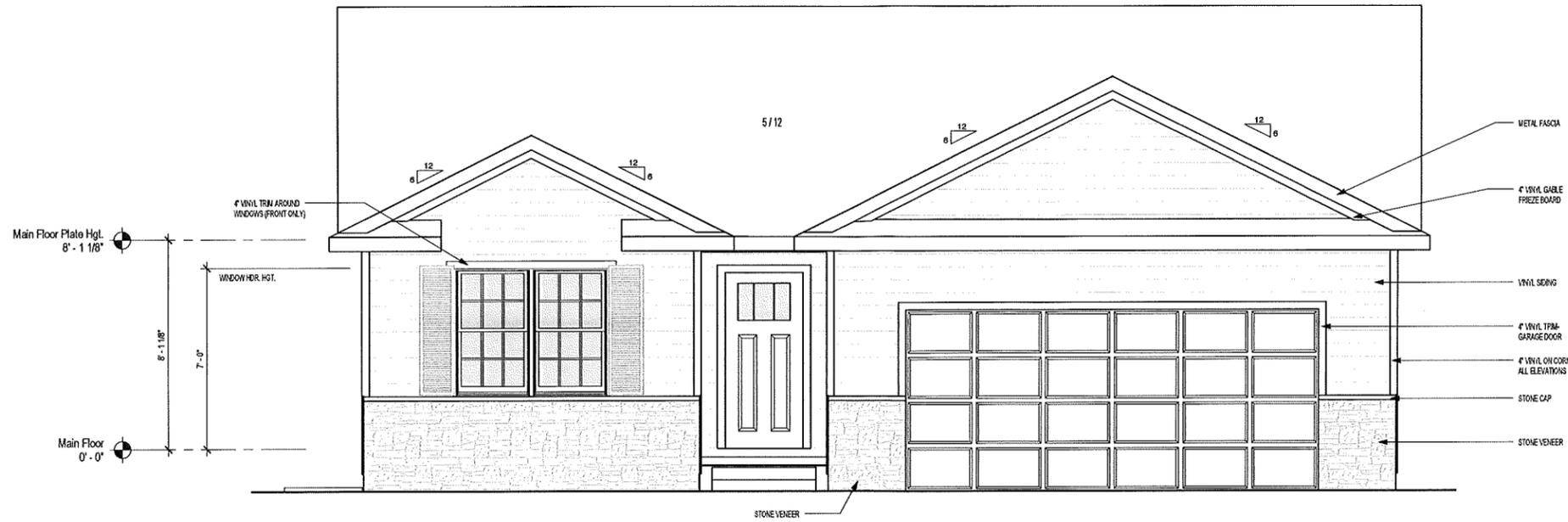
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Elevations  
As indicated



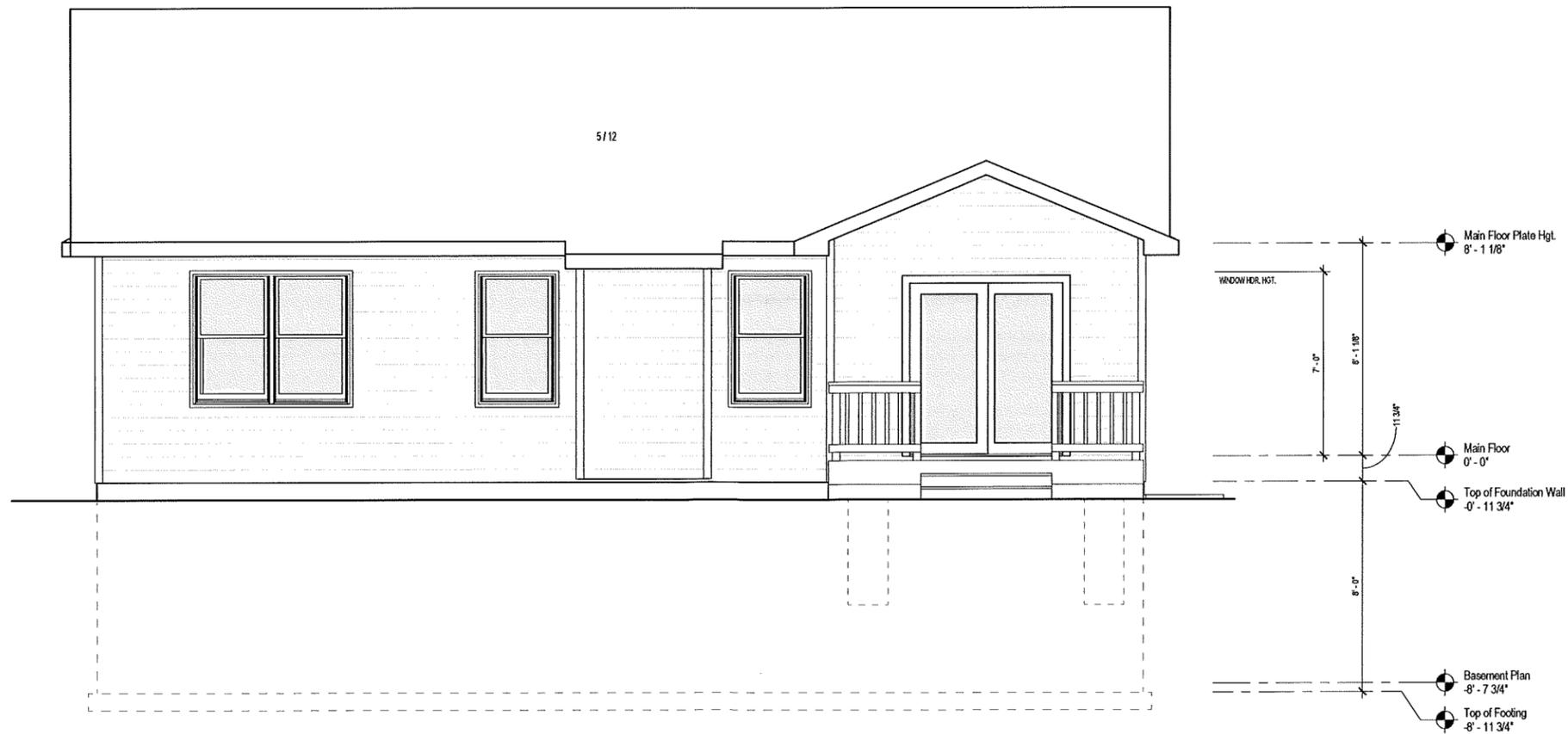
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**1 FRONT ELEVATION**  
 Scale: 3/8" = 1'-0"

ESTIMATED WALL...	
Lap Siding	1835 SF
Stone Veneer	75 SF

\* SQUARE FOOTAGE OF WALLS ASSUMED TO BE FROM THE EXPOSED SURFACE OF THE WALL.  
 1. THE FINISH FACED SURFACE BEING THE EXTERIOR SURFACE.  
 2. THE FINISH CLADDING IS 4" x 8" x 1/2" OSB SHEETING.



**2 REAR ELEVATION**  
 Scale: 3/8" = 1'-0"

**Classic Builders**  
**Jackson Base Plan-B**  
**Villas @ Stonehaven**

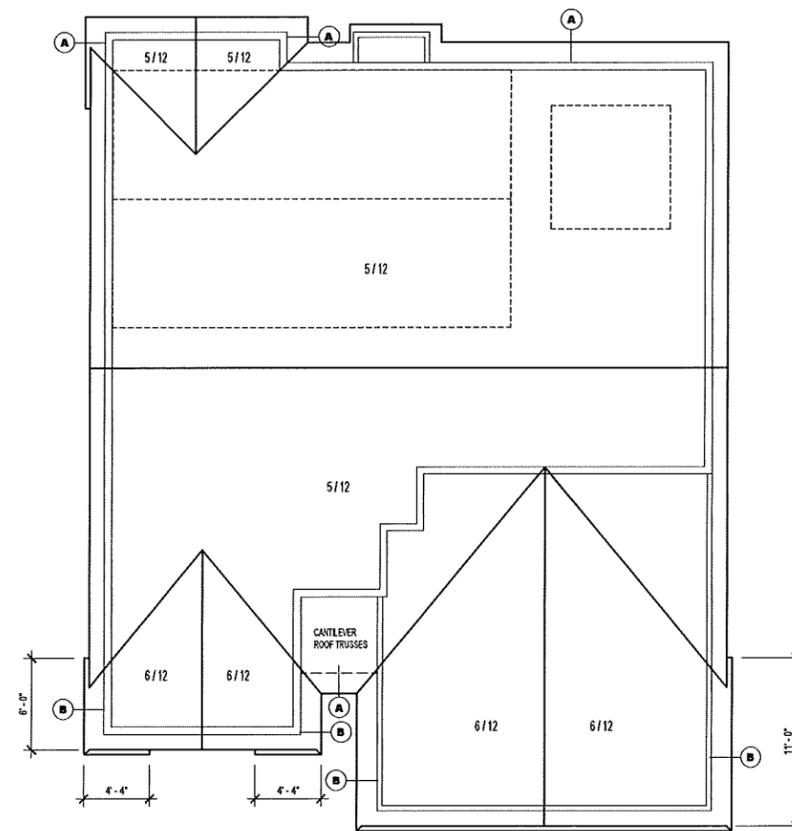
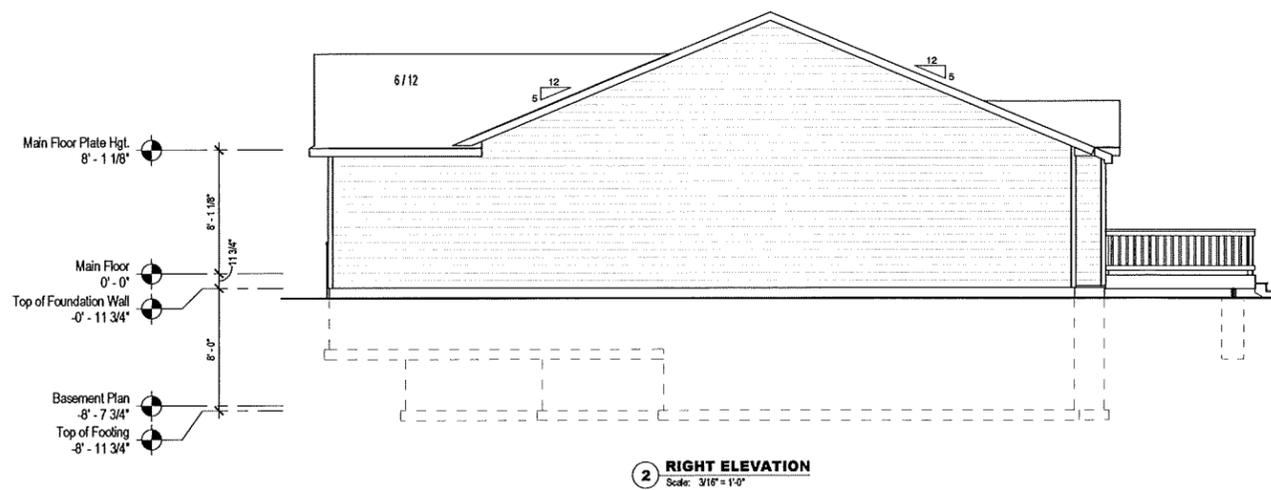
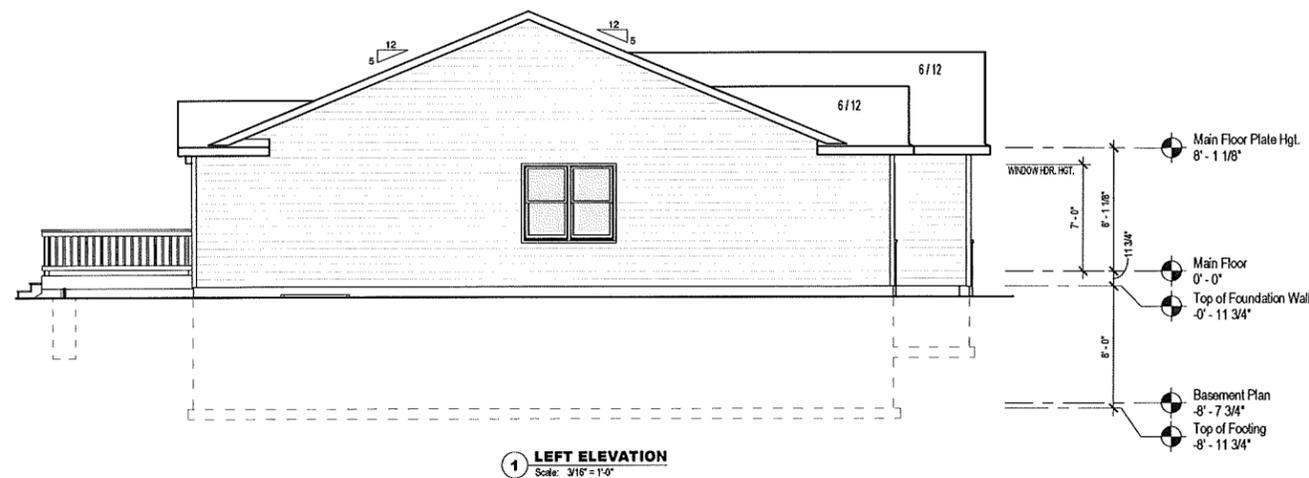
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**Elevations**  
 3/8" = 1'-0"

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ESTIMATED ROOF SF	
2400 SF	

\* SQUARE FOOTAGE OF ROOF IS IN SQUARE FEET SURFACE OF THE ROOF.  
 † THE MSB EXCLUDES 24" x 48" SURFACES BELOW KILN.  
 ‡ 1/4" WATERPROOFING IS INCLUDED.

ROOF PLAN LEGEND				
SYMBOL	WALL HGT.	PITCH	OVERHANG	HEEL HGT.
A	8'-1 1/8"	5/12	1'-4"	7"
B	8'-1 1/8"	5/12	1'-4"	4 1/2"

ALL RAVE OVERHANGS ARE 1" UNLESS NOTED

Classic Builders  
 Jackson Base Plan-B  
 Villas @ Stonehaven

PROJECT ID: PDS 3005

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### ABBREVIATIONS

ADJ	ADJUSTABLE
AVN	AVENUE
BTM	BOTTOM
BSMT.	BASEMENT
BTW.	BETWEEN
CA	CASEMENT
CANT.	CANTILEVER
CAB.	CABINET
C.L.	CENTER LINE
C.L.G.	CENTERS
C.O.	CASED OPENING
COL.	COLUMN
CONC.	CONCRETE
D	DIETER
DLA	DIAMETER
DN	DOWN
DM	DOUBLE HUNG
DW	DISHWASHER
FD.	FLOOR DRAIN
FLR.	FLOOR
FT.	FEET
FURN.	FURNACE
HDR.	HEADER
HWD	HARDWOOD
INSUL.	INSULATION
JST.	JOIST
LVL.	LAMINATED VENEER LUMBER
LVL	LINEN
MAX.	MAXIMUM
MIN.	MINIMUM
OC	ON CENTER
O.H.D.	OVERHEAD DOOR
OPNG.	OPENING
PEL.	PENETRAL
N.T.S.	NOT TO SCALE
REF.	REFRIGERATOR
REQ.	REQUIRED
RO	ROUGH OPENING
RM	ROOM
SH	SINGLE HUNG
S & R	SHELF AND ROD
S.F.	SQUARE FEET
S.P.	SUMP PIT
STL	STEEL
TYP.	TYPICAL
TRANS.	TRANSOM
UNEX.	UNEXCAVATED
VAN.	VANITY
W	WASHER
WH	WITH
WH	WATER HEATER

### ELECTRIC SYMBOLS

	SINGLE POLE SWITCH
	THREE WAY SWITCH
	DIMMER SWITCH
	SINGLE RECEPTACLE OUTLET
	DUPLEX RECEPTACLE OUTLET
	240 VOLT RECEPTACLE
	PHONE OUTLET
	CABLE OUTLET
	EXHAUST FAN
	LIGHT WITH FAN
	SMOKE DETECTOR
	GARAGE DOOR OPENER
	ELECTRIC PANEL
	CEILING MOUNTED LIGHT
	PULL CHAIN LIGHT
	RECESSED LIGHT
	WALL MOUNTED LIGHT
	WALL MOUNTED DETECTOR LIGHT
	FLUORESCENT LIGHT
	BAR LIGHT

### MISC. SYMBOLS

	FROST PROOF HOSE BIB
	FLOOR LINE ABOVE
	STRUCTURAL BEAM/HEADER OR GIRDER TRUSS

### DRAWING LIST

A.0	Cover Page
A.1	Elevations
A.2	Elevations
A.3	Foundation Plan
A.4	Main Floor Plan
A.5	Building Sections
A.6	Detail
E.1	Electrical
F.1	Floor Covering



### GENERAL CONSTRUCTION NOTES

- GENERAL
  - ALL CONSTRUCTION AND MATERIALS SHALL MEET OR EXCEED IRC 2009, LOCAL BUILDING CODES MAY HAVE DIFFERENT SPECIFICATIONS AND REQUIREMENTS THAN WHAT IS LISTED IN THE NOTES. THESE LOCAL REQUIREMENTS WILL SUPERSEDE THE IRC 2009. SEE THE LOCAL BUILDING DEPARTMENT FOR CHANGES.
  - CONTRACTOR TO CONFIRM THE SIZES, SPACING AND SPECIES OF LUMBER OF ALL STRUCTURAL AND FRAMING MEMBERS. ANY STRUCTURAL AND FRAMING MEMBERS NOT INDICATED ARE TO BE SIZED BY OWNER/CONTRACTOR.
  - THE OWNER/CONTRACTOR IS RESPONSIBLE FOR PREVENTIVE MEASURE OF THE BUILD UP OF MOISTURE OR MOLD.
  - ALL PRODUCTS ARE TO BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.
  - ALL MECHANICAL, PLUMBING, AND ELECTRICAL SYSTEMS ARE TO BE DESIGNED BY OTHERS.

- DESIGN CRITERIA
  - BUILDING AND STRUCTURES, AND ALL PARTS THEREOF, SHALL BE CONSTRUCTED TO SAFELY SUPPORT ALL LOADS, INCLUDING DEAD LOADS, LIVE LOADS, ROOF LOADS, FLOOD LOADS, SNOW LOADS, WIND LOADS, AND SEISMIC LOADS AS PRESCRIBED BY THIS CODE (IRC 2009).
  - TABLE 161.2(1) AND 161.2(2), VALUES BASED FROM THE CITY OF DES MOINES, IOWA.

GROUP	WIND	SEISMIC	DESIGN	WIND	SEISMIC	DESIGN	WIND	SEISMIC	DESIGN
LOAD	SPD	MS	TYPE	SPD	MS	TYPE	SPD	MS	TYPE
1-1	110	A	150/100	110	A	150/100	110	A	150/100

MINIMUM LIVE LOADS (R301.5) IRC 2009	MINIMUM ROOF LIVE LOADS (R301.6) IRC 2009
ATTIC WITH LIMITED STORAGE: 20 PSF	ROOF TRUSS LIVE LOAD (L): 20 PSF
ATTIC WITHOUT STORAGE: 10 PSF	GROUND SNOW (S): 30 PSF
DECKS: 40 PSF	FLAT ROOF SNOW (S): 24 PSF
EXTERIOR BALCONIES: 60 PSF	
GUARDRAIL AND HANDRAILS: 20 PSF	THEATRAL CONDITION: CL-1.0
ROOM OTHER THAN SLEEPING ROOMS: 40 PSF	TERRAIN EXPOSURE: B
SLEEPING ROOMS: 30 PSF	DURATION OF LOAD-WIND: 1.15
STAIRS: 40 PSF	

DEFLECTION CRITERIA	UNBALANCED AND SNOW DRAFT LOADS
FLOOR LIVE LOAD (L160)	ACCORDING TO ASCE 7-05
FLOOR TOTAL LOAD (L200)	
ROOF TOTAL LOAD (L200)	WIND DESIGN METHOD: MWFRS-C HYBRID ASCE 7-05
ROOF TOTAL LOAD (L240)	EXPOSURE CATEGORY: B
	DURATION OF LOAD-WIND: 1.50

ALL BEAMS SUPPORTING FLOOR OR ROOF LOADS ARE TO BE DESIGNED WITH THE ABOVE DEFLECTION CRITERIA.

D. DEAD LOADS, ANY ADDITIONAL OR CHANGES TO MATERIAL NEEDS TO BE ADJUSTED TO THE BELOW CALCULATIONS.

FLOOR-TOP CHORD	ROOF-TOP CHORD
CARPET AND PAD: 1.5 PSF	ROOFING-SHINGLES (20 LBS) 2 LAYER: 4.00 PSF
3/4" CERAMIC TILE/2" BACKER BD.: 19 PSF	30 LBS. FELT: 0.50 PSF
3/4" HARDWOOD FLOOR: 4.0 PSF	1/2" OSB OR COM. PLYWOOD: 1.50 PSF
SUBFLOOR-1/2" OSB OR COM. PLYWOOD: 2.0 PSF	1/2" ROOF TRUSS-2X4: 1.10 PSF
1/2" FLOOR TRUSS-2X11 SYSTEM: 1.5 PSF	CORRECTION FOR SLOPE (10/12): 1.55 PSF
TOTAL WITH CARPET/PAD: 5.5 PSF	TOTAL: 8.00 PSF
TOTAL WITH TILE/BACKER BD.: 11.5 PSF	
TOTAL WITH HARDWOOD FLOOR: 7.5 PSF	

ROOF-BOTTOM CHORD	ROOF-TOP CHORDS
1/2" FLOOR TRUSS-2X11 SYSTEM: 1.5 PSF	1/2" ROOF TRUSS-2X4: 1.10 PSF
5/8" GYPSUM BOARD: 2.8 PSF	MINIMUM FOR MISC MECHANICAL/ELEC.: 1.5 PSF
1" BATTLE BOARD INSULATION: 1.60 PSF	
TOTAL: 5.9 PSF	TOTAL: 7.00 PSF

- ROOM REQUIREMENTS
  - CEILING HEIGHT (R301.1) HABITABLE ROOMS, HALLWAYS, CORRIDORS, BATHROOMS, TOILET ROOM/LAUNDRY ROOMS, AND BASEMENTS SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 7 FEET. THE REQUIRED HEIGHT IS MEASURED FROM FINISH FLOOR TO THE LOWEST PROJECTION FROM THE CEILING.
    - EXCEPTION 1. BEAMS AND GIRDERS SPACED LESS THAN 4 FEET ON CENTER MAY PROJECT NOT MORE THAN 6 INCHES BELOW THE REQUIRED CEILING HEIGHT.
    - CEILING IN BASEMENT WITH NO HABITABLE SPACES MAY PROJECT WITHIN 4 FEET OF FINISHED FLOOR AREA OF THE ROOM. MUST HAVE A CEILING HEIGHT OF AT LEAST 7 FEET AND NO PORTION OF THE REQUIRED FLOOR AREA MAY HAVE A CEILING HEIGHT OF LESS THAN 6 FEET.
    - FOR ROOMS WITH SLOPED CEILING, AT LEAST 50 PERCENT OF THE REQUIRED FLOOR AREA OF THE ROOM MUST HAVE A CEILING HEIGHT OF AT LEAST 7 FEET AND NO PORTION OF THE REQUIRED FLOOR AREA MAY HAVE A CEILING HEIGHT OF LESS THAN 6 FEET.
    - BATHROOMS SHALL HAVE A MINIMUM CEILING HEIGHT OF 6 FEET 4 INCHES OVER THE FRONT OF THE FIXTURE.
  - ROOM DIMENSIONS (R301.3) THE MINIMUM LENGTH OR WIDTH OF ANY HABITABLE ROOM SHALL NOT BE LESS THAN 7'-0" CLEAR IN ANY HORIZONTAL DIMENSION. THE MINIMUM AREA OF ANY HABITABLE ROOM SHALL NOT BE LESS THAN 70 SQ. FEET, EXCEPT KITCHENS (R301.2).
  - LIGHT AND VENTILATION (R301.1) IN HABITABLE ROOMS, PROVIDE NATURAL LIGHT AND VENTILATION WITH OPERABLE WINDOWS. WINDOWS SHALL NOT BE LESS THAN 1/8 OF THE FLOOR AREA OF EACH ROOM. 1/2 THE REQUIRED WINDOW AREA SHALL BE OPERABLE TO THE EXTERIOR FOR VENTILATION. BATHROOMS MAY HAVE AN OPERABLE WINDOW OF 3 S.F. IN AREA. NON-HABITABLE ROOMS, INCLUDING BATHROOMS, MAY BE VENTILATED WITH EXHAUST FANS AND ARTIFICIAL LIGHT. EMERGENCY ESCAPE WINDOWS (R310). BASEMENT AND SLOPED SLEEPING AREA SHALL HAVE AN EMERGENCY ESCAPE WINDOW THAT IS AT LEAST 20" IN WIDTH (NET), 24" IN HEIGHT (NET) WHEN OPEN AND HAVE AN OPERABLE AREA OF AT LEAST 5.7 SQUARE FEET IN AREA. ESCAPE WINDOWS SHALL BE INSTALLED WITH A SILL HEIGHT OF NO MORE THAN 44" ABOVE THE FLOOR. EGRESS WINDOW WELLS MUST PROJECT A MINIMUM OF 3" AND PROVIDED OVER 4 SQ. FT. OF NET CLEAR AREA. LADDERS ARE REQUIRED IF THE WELL IS OVER 44" DEEP. LADDERS SHALL BE A MIN. OF 12" WIDE.
- BUILDING REQUIREMENTS
  - ATTIC ACCESS (R310) PROVIDE ACCESS TO ATTIC SPACE WITH AN ACCESS DOOR AT LEAST 22" X 30" IN SIZE. LOCATE THE ACCESS DOOR WHERE THERE IS AT LEAST 30" OF CLEAR HEAD SPACE.
  - ATTIC MUST BE VENTILATED WITH TOTAL AREA OF ATTIC VENTS AT LEAST 1.0 S.F. (NET) FOR EACH 150 S.F. OF ATTIC AREA TO BE VENTILATED. ATTIC VENTS ARE NOT SHOWN ON THE PLAN (R301.2).
  - SMOKE ALARMS ARE REQUIRED IN ALL BEDROOMS, AT ALL HALLWAYS LEADING TO BEDROOMS, AND AT EACH LEVEL INCLUDING THE BASEMENT. ADDITIONAL ALARMS MAY BE REQUIRED IN SEPARATED SPACE OF THE BASEMENT. SEE BUILDING DEPARTMENT. SMOKE ALARMS SHALL BE HARD WIRED TOGETHER IN SERIES WITH BATTERY BACK UP (R311).
  - STAIRWAY ARE TO BE A MINIMUM OF 36" WIDE (FINISHED) (R311.5.1) WITH A MINIMUM HEADROOM OF 8 FEET 0 INCHES (R311.5.2). THE MAXIMUM RISER IS 3 1/4" (R311.5.3) WITH A MINIMUM RUN OF 11" (R311.5.3.2). HANDRAILS SHALL BE PROVIDED ON AT LEAST ONE SIDE OF EACH CONTINUOUS RUN OF TREADS OR FLIGHT WITH 4 OR MORE RISERS (R311.5.5). A FLIGHT OF STAIRS SHALL NOT HAVE A VERTICAL RISE LARGER THAN 12 FEET BETWEEN FLOORS OR LANDINGS (R311.5.6). PROVIDE GL. CUTTERS, DOWN STOPPERS, AND SPLASH BLOCKS AS NECESSARY.
- FOUNDATION/CONCRETE
  - IN AREAS LIKELY TO HAVE EXPANSIVE, COMPRESSIBLE, SHIFTING OR OTHER UNKNOWN SOIL CHARACTERISTICS, THE BUILDING OFFICIAL SHALL DETERMINE WHETHER A SOIL TEST IS REQUIRED. (R301.4) A SOIL CAPACITY OF 2000 PSF IS ASSUMED.
  - CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 3000 PSI AT 28 DAYS. GARAGE FLOOR SLABS SHALL BE 3.500 AT COL. LINES. PORCHES, CARPET SLABS AND STEPS EXPOSED TO THE WEATHER SHALL BE 3.500 PSI AT 28 DAYS (R301.2). CONCRETE SHALL BE AIR ENTRAINED WITH 5%-%7% TOTAL AIR CONTENT.
  - ALL FOOTING SHALL BE PLACED ON UNDISTURBED SOIL OR CONTROLLED COMPACTED FILL. MINIMUM FOOTING TO BE 12" WIDE X 8" DEEP FOR A 2 STORY BUILDING AND 12" WIDE X 8" DEEP FOR A 3 STORY BUILDING (TABLE 403.1) BOTH WITH 2 CONTINUOUS HORIZONTAL #4 REBAR.
  - ALL ANCHOR BOLTS SHALL BE 1/2" IN DIAMETER AND SHALL EXTEND A MINIMUM OF 7" INTO CONCRETE. USE TWO BOLTS PER SILL PLATE WITH BOLTS SPACED AT A MAXIMUM OF 6 FEET ON CENTER WITH A MINIMUM OF ONE BOLT NOT MORE THAN 12 INCHES FROM THE END BUT AT LEAST 3 1/2 INCHES FROM END OF SILL PLATE (R301.1). ALTERNATE FOUNDATION STRIPS MAY BE USED. SPECIFY ANCHOR TO 1/2" DIA. ANCHOR BOLTS.
  - CONCRETE FOUNDATION WALLS SHALL BE CONSTRUCTED AS SET FORTH IN TABLE 404.1 (1), REFER TO TYPICAL WALL SECTION IN THIS PLAN FOR SPECIFICATION.

- WOOD FRAMING
  - ROOF FLOOR AND WALL SHEATHING: APA RATED SHEATHING.
  - WALL STUDS: MINIMUM SPF STUD OR DOUGLAS FIR/LARCH STD.
  - WALL PLATES: MINIMUM SPF #2 OR BETTER.
  - DIMENSIONAL HEADERS: #2 DOUGLAS FIR OR BETTER.
  - LVL HEADERS: 2X6 OR 2X8 MINIMUM.
  - JOIST UNDER PARALLEL BEARING PARTITIONS SHALL BE OF ADEQUATE SIZE TO SUPPORT THE LOAD (R502.4).
  - THE ENDS OF EACH JOIST, BEAM, OR GIRDER SHALL HAVE NOT LESS THAN 1.5 INCHES OF BEARING ON WOOD OR METAL AND NOT LESS THAN 3 INCHES ON CONCRETE (R502.6).
  - WOOD TRUSSES SHALL BE DESIGNED AND MANUFACTURED IN ACCORDANCE WITH ANSITM-1. REFER TO THE INDIVIDUAL TRUSS DESIGN DRAWINGS FOR WEB BRACING AND ALL CONNECTIONS OF GIRDERS (R503.1-4) SHOULD REFER TO FOR HANDLING INSTALLATION AND BRACING OF METAL PLATE TRUSSES.
  - NO CUTS, NOTCHES, AND HOLES BORED INTO TRUSSES, STRUCTURAL COMPOSITE LUMBER, GLUE LAMINATED MEMBERS, OR JOIST ARE PROHIBITED EXCEPT WHERE PERMITTED BY THE MANUFACTURER'S RECOMMENDATION OR DESIGN BY PROFESSIONAL (R502.2).
  - FIRE BLOCKING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENING (BOTH VERTICAL AND HORIZONTAL) AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORIES, AND BETWEEN A TOP STORY AND ROOF SPACE (R502.6).
  - ALL EXTERIOR WALLS SHALL BE BRACED IN ACCORDANCE WITH SECTION R602.10. MINIMUM 2X4 PANEL SHEATHING.
  - THE ALLOWABLE SPANS OF GIRDERS FABRICATED FROM DIMENSIONAL LUMBER OR EXTERIOR WALLS SHALL NOT EXCEED THE VALUES OF TABLE R602.4(1).

SUPPORTS	2015 IBC TABLE R602.4(1)				2015 IBC TABLE R602.4(2)			
	1	2	3	4	1	2	3	4
ROOF GIRDERS	12'	12'	12'	12'	12'	12'	12'	12'
ROOF GIRDERS ON EXTERIOR WALL	12'	12'	12'	12'	12'	12'	12'	12'
ROOF GIRDERS ON EXTERIOR WALL	12'	12'	12'	12'	12'	12'	12'	12'
ROOF GIRDERS ON EXTERIOR WALL	12'	12'	12'	12'	12'	12'	12'	12'

- TRUSSES SHALL BE CONNECTED TO WALL BY USE OF APPROVED CONNECTORS HAVING A RESISTANCE TO UPLIFT OF NOT LESS THAN 105 POUNDS AND PER THE MANUFACTURE SPECIFICATIONS.
- PROTECTION FROM BEACH SHALL BE PROVIDED IN THE FOLLOWING LOCATION BY THE USE OF NATURALLY DURABLE OR PRESERVATIVE TREATED LUMBER (R311.1)
  - ALL WOOD FRAMING THAT REST ON CONCRETE EXTERIOR FOUNDATION WALLS AND ARE LESS THAN 8" FROM THE EXPOSED GROUND.
  - SILLS AND SLEEPERS ON A CONCRETE SLAB THAT IS IN DIRECT CONTACT WITH THE GROUND UNLESS SEPARATED FROM SUCH SLAB BY AN IMPERVIOUS MOISTURE BARRIER.
  - THE ENDS OF WOOD GIRDERS EXTERIOR CONCRETE WALLS HAVING CLEARANCE OF LESS THAN 5 INCH ON TOP, SIDES AND ENDS.
  - WOOD BEAMS, SHEATHING AND WALL FRAMING ON THE EXTERIOR OF A BUILDING HAVING A CLEARANCE OF LESS THAN 8 INCHES FROM THE GROUND.
  - ALL LUMBER IN CONTACT WITH THE GROUND, EMBEDDED IN CONCRETE IN DIRECT CONTACT WITH THE GROUND OR EMBEDDED IN CONCRETE EXPOSED TO THE WEATHER THAT SUPPORTS PERMANENT STRUCTURES (R311.1.2).
- ALL 1/2" AND 5/8" JOIST SPACES BETWEEN TOP OF THE FOUNDATION WALL AND FLOOR JOIST LINE SHALL BE INSULATED WITH THE SAME MATERIAL USED FOR EXTERIOR WALLS. ALL EXTERIOR CORNERS AND INTERIOR PARTITIONS TO EXTERIOR WALLS THAT ARE CLOSED OFF TO FUTURE INSULATION MUST BE INSULATED DURING FRAMING OF WALL.
- ALL NAILING AND FASTENING SHOULD COMPLY WITH THE IRC TABLE R602.3(1) FASTENER SCHEDULE FOR STRUCTURAL MEMBERS STRUCTURAL STEEL.
- ALL STRUCTURAL STEEL SHALL CONFORM WITH ASTM SPECIFICATION A572 GRADE 50 OR EQUAL AND SHALL HAVE BRIDGE CLIPPING AT 4 FEET ON CENTER TO RESIST LATERAL DEFLECTION.
- ALL FRAMING TO BE ATTACHED TO STRUCTURAL STEEL IN ACCORDANCE WITH GOVERNING CODES.

### NOT FOR CONSTRUCTION

THESE PLANS HAVE NOT BEEN APPROVED FOR FINAL CONSTRUCTION. PLEASE CALL OR SEE OWNER FOR UPDATED PLANS.

Classic Builders  
Jackson Base Plan-C  
Villas @ Stonehaven

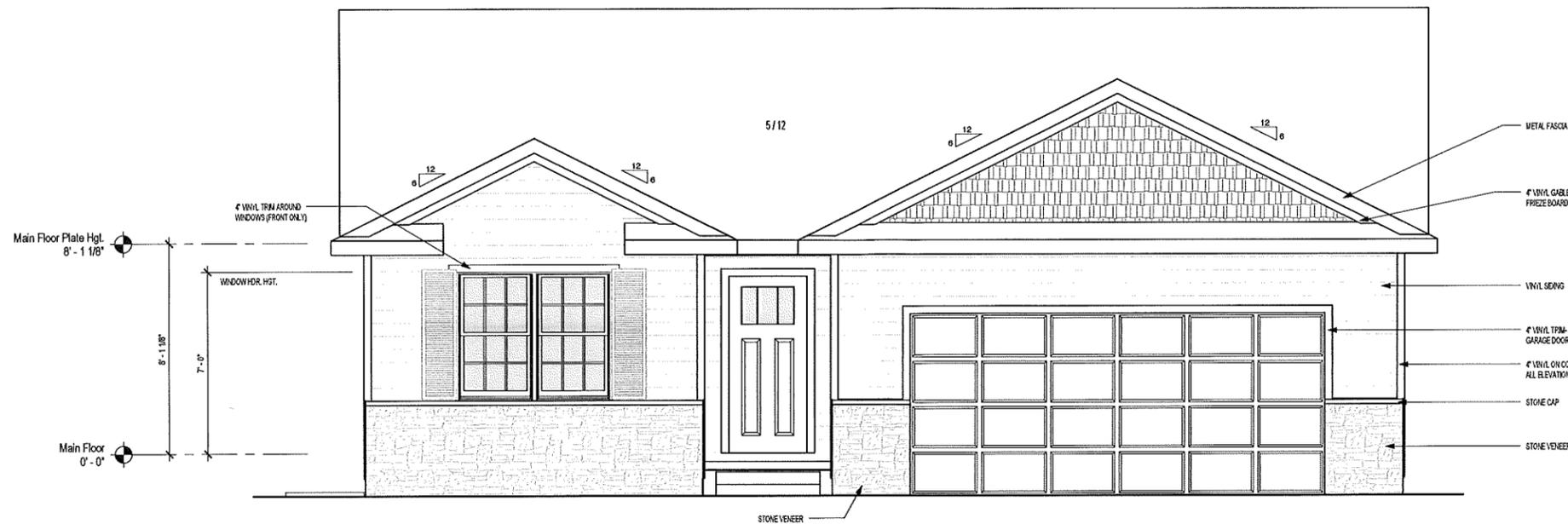
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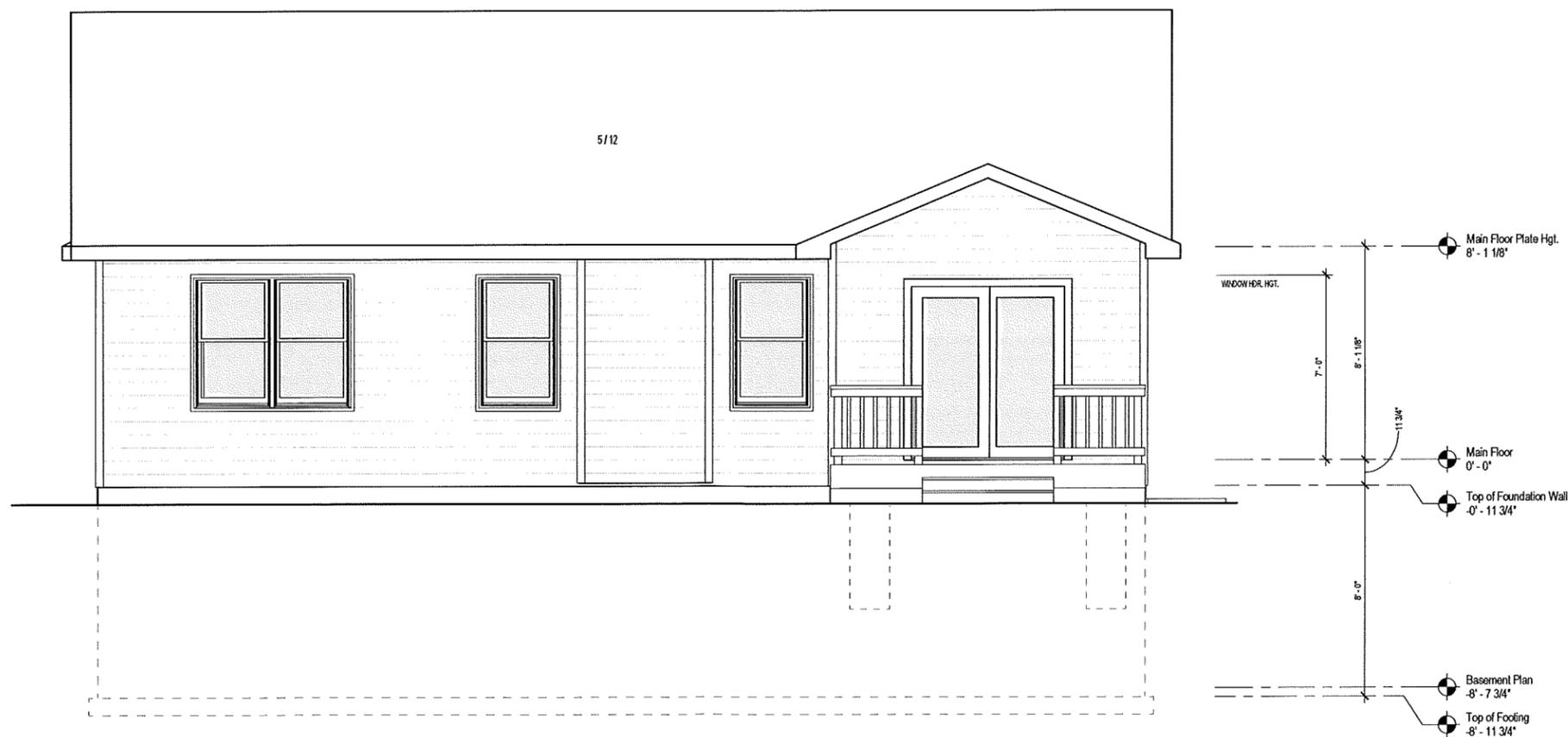
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**1 FRONT ELEVATION**  
 Scale: 3/8" = 1'-0"

ESTIMATED WALL...	
Lap Siding	1883 SF
Stone Veneer	75 SF
Stone Veneer -	59 SF

1. THE ABOVE ESTIMATED WALL AREA IS BASED ON THE EXTERIOR SURFACE OF THE WALL.  
 2. THE ABOVE ESTIMATED AREA DOES NOT INCLUDE DOOR OR WINDOW OPENINGS.



**2 REAR ELEVATION**  
 Scale: 3/8" = 1'-0"

Classic Builders  
 Jackson Base Plan-C  
 Villas @ Stonehaven

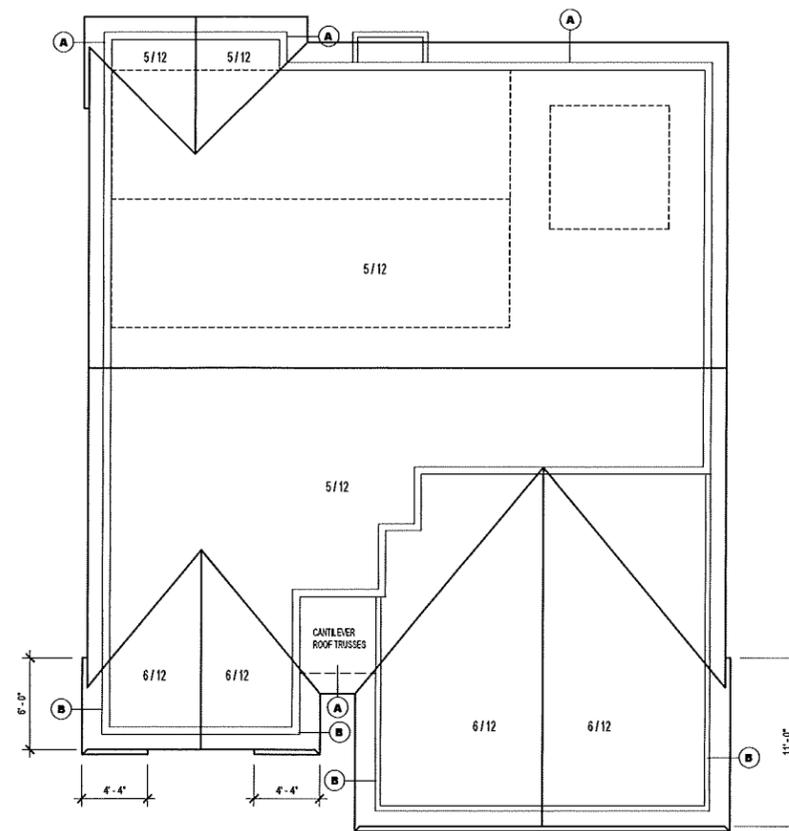
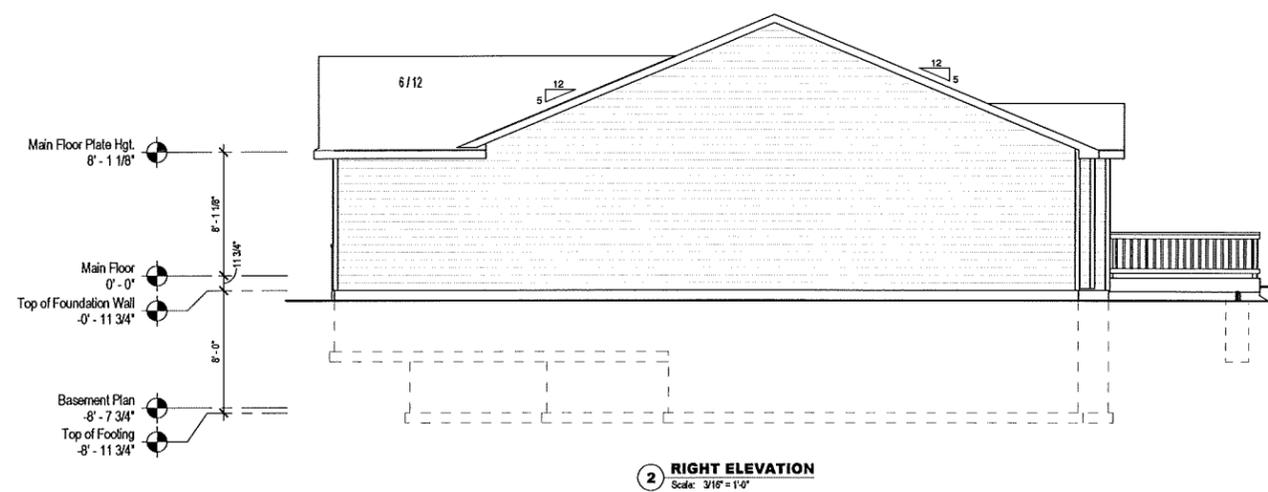
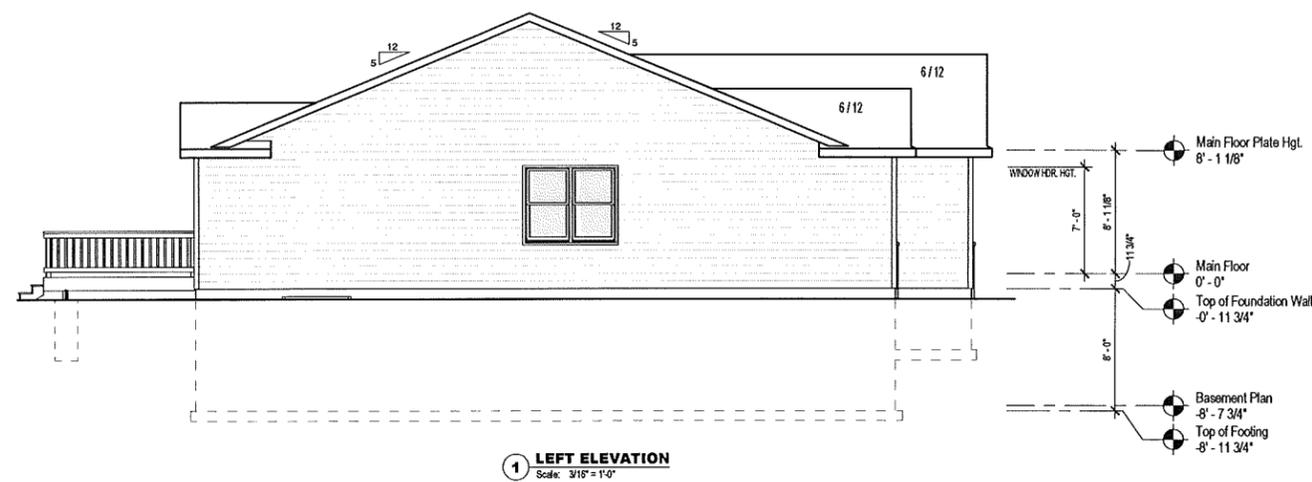
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Elevations  
 3/8" = 1'-0"

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**ESTIMATED ROOF SF**  
2401 SF

\* SQUARE FOOTAGE OF ROOF IS IN UNITS OF SQUARE FEET OF THE ROOF.  
1. THE ROOF INCLUDES PARALLEL EAVES OVERHANGS.  
2. EAVES OVERHANGS ARE 12" UNLESS NOTED.

ROOF PLAN LEGEND				
SYMBOL	WALL HGT.	PITCH	OVERHANG	HEEL HGT.
A	8'-1 1/8"	5/12	1'-6"	7"
B	8'-1 1/8"	6/12	1'-6"	8 5/16"

ALL RAISE OVERHANGS ARE 12" UNLESS NOTED

Classic Builders  
Jackson Base Plan-C  
Villas @ Stonehaven

PROJECT ID: PDS 3005

ISSUE DATE:  
DATE: 05-07-15  
DATE: 11-13-15  
DATE:  
DATE:

REVISIONS:  
DATE:  
DATE:  
DATE:  
DATE:

Elevations  
As indicated



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ROLL CALL				
Plan & Zoning Commission				
Ankeny, IA				
Date	June 20, 2017			
Anderson	Aye	Nay	Pass	Absent
Ender	Aye	Nay	Pass	Absent
Flack	Aye	Nay	Pass	Absent
Houlihan	Aye	Nay	Pass	Absent
Hunter	Aye	Nay	Pass	Absent
Odson	Aye	Nay	Pass	Absent
Ripper	Aye	Nay	Pass	Absent
West	Aye	Nay	Pass	Absent
Whiting	Aye	Nay	Pass	Absent
	Aye	Nay	Pass	Absent
Ayes	9	Nays	0	Pass Absent
APPROVED				
T. Ripper				Chairperson
B. Englsang				Secretary

## EXTERIOR COLOR PACKAGE

- Royal White
- Graphite
- Slate
- Greystone

# MADISON



**ABBREVIATIONS**

A0J	ADJUSTABLE
AWL	AWNING
BTM	BOTTOM
BSMT	BASEMENT
BTW	BETWEEN
CA	CASEMENT
CANT.	CANTILEVER
CHBT	CHIBLET
C	CENTERLINE
C.G.	CENTRAL
C.O.	CASED OPENING
COL.	COLUMN
CONC.	CONCRETE
D	DRYER
DA	DIAMETER
DN	DOWN
DI	DOUBLE HINGE
DW	DISHWASHER
FD.	FLOOR DRAIN
FLR	FLOOR
FT.	FEET
FLR/L	FLOOR LINE
HR.	HEADER
HRWD	HARDWOOD
INSUL.	INSULATION
JST.	JOIST
LVL	LAMINATED VENEER LUMBER
LIN	LINEN
LXK	LAMINATED VENEER LUMBER
M	MINIMUM
OC	ON CENTER
O.H.D.	OVERHEAD DOOR
OPNG	OPENING
FED.	FIBERGLASS
N.T.S.	NOT TO SCALE
REF	REFRIGERATOR
REQD.	REQUIRED
RO	ROUGH OPENING
RM	ROOM
SH	SINGLE HINGE
S.R.	SHIELD AND ROD
S.F.	SQUARE FEET
S.P.	SUMP PIT
STL	STEEL
TYP.	TYPICAL
TRANS.	TRANSOM
UNEX.	UNEXCAVATED
VAN	VANITY
W	WATER
W	WITH
W.H.	WATER HEATER

**ELECTRIC SYMBOLS**

⊞	SINGLE POLE SWITCH
⊞	THREE WAY SWITCH
⊞	DIMMER SWITCH
⊞	SINGLE RECEPTACLE OUTLET
⊞	240 VOLT RECEPTACLE
⊞	PHONE OUTLET
⊞	CABLE OUTLET
⊞	EXHAUST FAN
⊞	LIGHT WITH E. FAN
⊞	SMOKE/HEAT DETECTOR
⊞	GARAGE DOOR OPENER
⊞	ELECTRIC PANEL
⊞	CILING MOUNTED LIGHT
⊞	RECESSED LIGHT
⊞	WALL MOUNTED LIGHT
⊞	WALL MOUNTED DETECTOR LIGHT
⊞	FLORESCENT LIGHT
⊞	BAR LIGHT

**MISC. SYMBOLS**

— —	FROST PROOF HOSE BIB
---	FLOOR LINE ABOVE
---	STRUCTURAL BEAM/HEADER OR GROSS TRUSS

**DRAWING LIST**

A.0	Cover Page
A.1	Elevations
A.2	Elevations
A.3	Foundation Plan
A.4	Main Floor Plan
A.5	Building Sections
A.6	Detail
E.1	Electrical
F.1	Floor Covering



**PLUM DESIGN SERVICES**  
1100 ALICE'S ROAD, WARKEE, IOWA 50263-1100  
TELEPHONE 515 978 6260 FAX 515 978 6261

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**GENERAL CONSTRUCTION NOTES**

- GENERAL**
  - ALL CONSTRUCTION AND MATERIALS SHALL MEET OR EXCEED IRC 2006. LOCAL BUILDING CODES MAY HAVE DIFFERENT SPECIFICATIONS AND REQUIREMENTS THAN WHAT IS LISTED IN THE IRC 2006. THESE LOCAL REQUIREMENTS WILL SUPERSEDE THE IRC 2006. SEE THE LOCAL BUILDING DEPARTMENT FOR CHANGES.
  - CONTRACTOR TO CONFIRM THE SIZES, SPACING AND SPECIES OF LUMBER OF ALL STRUCTURAL AND FRAMING MEMBERS. ANY STRUCTURAL AND FRAMING MEMBERS NOT INDICATED ARE TO BE SIZED BY OWNER/CONTRACTOR.
  - THE OWNER/CONTRACTOR IS RESPONSIBLE FOR PREVENTIVE MEASURES OF THE BUILD UP OF MOISTURE OR MOLD.
  - ALL PRODUCTS ARE TO BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.
  - ALL MECHANICAL, PLUMBING, AND ELECTRICAL SYSTEMS ARE TO BE DESIGNED BY OTHERS.
- DESIGN CRITERIA**
  - BUILDINGS AND STRUCTURES, AND ALL PARTS THEREOF, SHALL BE CONSTRUCTED TO SAFELY SUPPORT ALL LOADS INCLUDING DEAD LOADS, LIVE LOADS, ROOF LOADS, FLOOD LOADS, SNOW LOADS, WIND LOADS, AND SEISMIC LOADS AS PRESCRIBED BY THIS CODE (IRC 2006).
  - TABLE 301.2(1) IRC 2006, VALUES BASED FROM THE CITY OF DES MOINES, IOWA.

UNIFORM	WIND	SEISMIC	DESIGN	WIND	SEISMIC	DESIGN	WIND	SEISMIC	DESIGN
LOAD	SPEED	ZONE	WIND	WIND	WIND	WIND	WIND	WIND	WIND
TYPE	MPH	NO.	PSF	PSF	PSF	PSF	PSF	PSF	PSF
RESIDENTIAL	70	2	15	15	15	15	15	15	15

  - MINIMUM LIVE LOADS (IRC 2006)**

ATTIC WITH LIMITED STORAGE	20 PSF	MINIMUM ROOF LIVE LOADS (IRC 2006)	20 PSF
ATTIC WITHOUT STORAGE	10 PSF	ROOF TRUSS (LIVE LOAD)	30 PSF
DECKS	40 PSF	GROUND SNOW (P)	24 PSF
EXTERIOR BALCONIES	60 PSF		
GUARDRAIL AND HANDRAILS	20 PSF	TERMINAL CONDITION	C1 - 0
ROOM OTHER THAN SLEEPING ROOMS	40 PSF	TERRAIN EXPOSURE	B
SLEEPING ROOMS	30 PSF	DURATION OF LOAD-SNOW	1.15
STAIRS	40 PSF		
  - DEFLECTION CRITERIA**

FLOOR LIVE LOAD	L/80	UNBALANCED AND SNOW DRIFT LOADS	ACCORDING TO ASCE 7-05
FLOOR TOTAL LOAD	L/50	WIND DESIGN METHOD	WINDS-C-HYBRID ASCE 7-05
ROOF LIVE LOAD	L/50	EXPOSURE CATEGORY	B
ROOF TOTAL LOAD	L/40	DURATION OF LOAD-WIND	1.69

ALL BEAMS SUPPORTING FLOOR OR ROOF LOADS ARE TO BE DESIGNED WITH THE ABOVE DEFLECTION CRITERIA.
- DEAD LOADS: ANY ADDITIONAL OR CHANGES TO MATERIAL NEEDS TO BE ADJUSTED TO THE BELOW CALCULATIONS.**

FLOOR TOP CHORD	ROOF TOP CHORD		
CARPET AND PAD	1.5 PSF	ROOFING SHEETING (20/20) 2 LAYER	4.40 PSF
3/4" CERAMIC TILE/1/2" BACKER ED.	10 PSF	5/16" FIBR	0.30 PSF
3/4" HARDWOOD FLOOR	4.0 PSF	1/2" OSB OR COM PLYWOOD	1.85 PSF
SUBFLOOR 3/4" OSB OR COM PLYWOOD	2.0 PSF	1/2" ROOF TRUSS-2X4	1.10 PSF
1/2" FLOOR TRUSS-JOIST SYSTEM	1.5 PSF	CORRECTION FOR SLOPE (10%)	1.55 PSF
TOTAL WITH CARPET/PAD	5.5 PSF	TOTAL	8.00 PSF
TOTAL WITH TILE/BACKER ED.	13.5 PSF		
TOTAL WITH HARDWOOD FLOOR	7.5 PSF		

FLOOR BOTTOM CHORD	ROOF BOTTOM CHORD		
1/2" FLOOR TRUSS-JOIST SYSTEM	1.5 PSF	1/2" ROOF TRUSS-2X4	1.10 PSF
5/8" GYPSUM BOARD	2.8 PSF	5/8" GYPSUM BOARD	2.8 PSF
MINIMUM FOR MISC MECHANICAL/ELEC.	1.5 PSF	MINIMUM FOR MISC MECHANICAL/ELEC.	1.5 PSF
MINIMUM FOR MISC MECHANICAL/ELEC.	0.75 PSF	1" BATT BLOWN INSULATION	1.50 PSF
TOTAL	5.0 PSF	TOTAL	7.00 PSF

**1. ROOM REQUIREMENTS**

- CEILING HEIGHT (R301.1) IN HABITABLE ROOMS, HALLWAYS, CORRIDORS, BATHROOMS, TOILET ROOM/LAUNDRY ROOMS, AND BASEMENTS SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 7 FEET. THE REQUIRED HEIGHT IS MEASURED FROM FINISH FLOOR TO THE LOWEST PROJECTION FROM THE CEILING.**  
EXCEPTION 1: BEAMS AND GIRDERS SPACED LESS THAN 4 FEET ON CENTER MAY PROJECT NOT MORE THAN 6 INCHES BELOW THE REQUIRED CEILING HEIGHT.
- CEILING IN BASEMENT WITHOUT HABITABLE SPACES MAY PROJECT WITHIN 6 FEET 8 INCHES OF FINISHED FLOOR.**
- FOR ROOMS WITH SLOPED CEILING, AT LEAST 50 PERCENT OF THE REQUIRED FLOOR AREA OF THE ROOM MUST HAVE A CEILING HEIGHT OF AT LEAST 7 FEET AND NO PORTION OF THE REQUIRED FLOOR AREA MAY HAVE A CEILING HEIGHT OF LESS THAN 5 FEET.**
- BATHROOMS SHALL HAVE A MINIMUM CEILING HEIGHT OF 6 FEET 8 INCHES OVER THE FRONT OF THE FIXTURE.**
- ROOM DIMENSIONS (R304.1) THE MINIMUM LENGTH OR WIDTH OF ANY HABITABLE ROOM SHALL NOT BE LESS THAN 7' 0" CLEAR IN ANY HORIZONTAL DIMENSION. THE MINIMUM AREA OF ANY HABITABLE ROOM SHALL NOT BE LESS THAN 70 SQ. FEET, EXCEPT BATHROOMS (R304.2).**
- LIGHT AND VENTILATION (R303) IN HABITABLE ROOMS, PROVIDE NATURAL LIGHT AND VENTILATION WITH OPERABLE WINDOWS. WINDOWS SHALL NOT BE LESS THAN 8% OF THE FLOOR AREA OF EACH ROOM. 1/2 THE REQUIRED WINDOW AREA SHALL BE OPERABLE TO THE EXTERIOR FOR VENTILATION. BATHROOMS MAY HAVE AN OPERABLE WINDOW OF 3 S.F. IN AREA. NON-HABITABLE ROOMS, INCLUDING BATHROOMS, MAY BE VENTILATED WITH EXHAUST FANS AND ARTIFICIAL LIGHT.**
- EMERGENCY ESCAPE WINDOWS (R310) BASEMENT AND EACH SLEEPING AREA SHALL HAVE AN EMERGENCY ESCAPE WINDOW THAT IS AT LEAST 20" IN WIDTH (NET), 24" IN HEIGHT (NET) WHEN OPEN AND HAVE AN OPERABLE AREA OF AT LEAST 5.7 SQUARE FEET IN AREA. ESCAPE WINDOWS SHALL BE INSTALLED WITH A SILL HEIGHT OF NO MORE THAN 44" ABOVE THE FLOOR. EGRESS WINDOW WELLS MUST PROJECT A MINIMUM OF 3" AND PROVIDED OVER 8 SQ. FT. OF NET CLEAR AREA. LADDERS ARE REQUIRED IF THE WELLS OVER 44" DEEP. LADDERS SHALL BE A MIN. OF 12" WIDE.**

**2. BUILDING REQUIREMENTS**

- ATTIC ACCESS (R307) PROVIDE ACCESS TO ATTIC SPACE WITH AN ACCESS DOOR AT LEAST 2' X 3' IN SIZE. LOCATE THE ACCESS DOOR WHERE THERE IS AT LEAST 36" OF CLEAR HEAD SPACE.**
- ATTIC MUST BE VENTILATED WITH TOTAL AREA OF ATTIC VENTS AT LEAST 1.0 S.F. (NET) FOR EACH 150 S.F. OF ATTIC AREA TO BE VENTILATED. ATTIC VENTS ARE NOT SHOWN ON THE PLAN (R307.2).**
- SMOKE ALARMS ARE REQUIRED IN ALL BEDROOMS. AT ALL HALLWAYS ENDING TO BEDROOMS, AND AT EACH LEVEL INCLUDING THE BASEMENT. ADDITIONAL ALARMS MAY BE REQUIRED IN SEPARATED SPACE OF THE BASEMENT. SEE BUILDING DEPARTMENT. SMOKE ALARMS SHALL BE HARD WIRED TOGETHER IN SERIES WITH BATTERY BACK UP (R310).**
- STAIRWAY ARE TO BE A MINIMUM OF 36" WIDE (FINISHED) (R311.1) WITH A MINIMUM HEADROOM OF 6 FEET 8 INCHES (R311.2). THE MAXIMUM RISE IS 7 1/2" (R311.3.1) WITH A MINIMUM RUN OF 10" (R311.3.2). HANDRAILS SHALL BE PROVIDED ON AT LEAST ONE SIDE OF EACH CONTINUOUS RUN OF TREADS OR FLIGHT WITH 4 OR MORE RISERS (R311.3.4). A FLIGHT OF STAIRS SHALL NOT HAVE A VERTICAL RISE LARGER THAN 12 FEET BETWEEN FLOORS OR LANDINGS (R311.3.6). PROVIDE GUTTERS, DOWN SPOUTS, AND SPLASH BLOCKS AS NECESSARY.**

**3. FOUNDATION/CONCRETE**

- IN AREAS LIKELY TO HAVE EXPANSIVE, COMPRESSIBLE, SHIFTING OR OTHER UNKNOWN SOIL CHARACTERISTICS, THE BUILDING OFFICIAL SHALL DETERMINE WHETHER A SOIL TEST IS REQUIRED. PRIOR TO A SOIL CAPACITY OF 2000 POUNDS ASSUMED. CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 3000 PSI AT 28 DAYS. CHANGE FLOOR SLABS SHALL BE 3.500 AT 28 DAYS. PORCHES, CARPORT SLABS AND STEPS EXPOSED TO THE WEATHER SHALL BE 3.500 psi AT 28 DAYS (R402.2). CONCRETE SHALL BE AIR ENTRAINED WITH 5%-% TOTAL AIR CONTENT.**
- ALL FOOTING SHALL BE PLACED ON UNDISTURBED SOIL OR CONTROLLED COMPACTED FILL. MINIMUM FOOTING TO BE 18" WIDE X DEEP FOR A 1.5 STORY BUILDING AND 18" WIDE X 4" DEEP FOR A 1.5 STORY BUILDING (TABLE 403.1) BOTH WITH 2 CONTINUOUS HORIZONTAL #4 REBAR.**
- ALL ANCHOR BOLTS SHALL BE 1/2" IN DIAMETER AND SHALL EXTEND A MINIMUM OF 7" INTO CONCRETE. USE TWO BOLTS PER SILL PLATE WITH BOLTS SPACED AT A MAXIMUM OF 4 FEET ON CENTER WITH A MINIMUM OF ONE BOLT NOT MORE THAN 12 INCHES FROM THE END BUT AT LEAST 1 1/2 INCHES FROM END OF SILL PLATE (R403.6). ALTERNATE FOUNDATION STRIPS MAY BE USED. SPECIFICATION TO PROVIDE EQUIVALENT ANCHOR TO A 1/2" DIAMETER ANCHOR BOLTS.**
- CONCRETE FOUNDATION WALLS SHALL BE CONSTRUCTED AS SET FORTH IN TABLE R401.1(1). REFER TO TYPICAL WALL SECTION IN THIS PLAN FOR SPECIFICATION.**

**4. WOOD FRAMING**

- ROOF, FLOOR, AND WALL SHEATHING** APPLICABLE SHEATHING.
- WALL STUDS** MINIMUM SPF STUD OR DOUGLAS FIR LARCH STUD.
- WALL PLATES** MINIMUM SPF #2 OR BETTER.
- DIMENSIONAL HEADERS** AS SHOWN OR AS NOTED.
- LVL HEADERS** 3/8" PLATE MINIMUM.
- JOIST UNDER PARALLEL BEARING PARTITIONS SHALL BE OF ADEQUATE SIZE TO SUPPORT THE LOAD (R502.4).**
- THE ENDS OF EACH JOIST BEAM OR GIRDER SHALL HAVE NOT LESS THAN 15 INCHES OF BEARING ON WOOD OR METAL AND NOT LESS THAN 3 INCHES ON CONCRETE (R502.4).**
- WOOD TRUSSES SHALL BE DESIGNED AND MANUFACTURED IN ACCORDANCE WITH ANSI/APA. REFER TO THE INDIVIDUAL TRUSS DESIGN DRAWINGS FOR WEB BRACING AND MULTICONNECTION OF GIRDERS. EACH 1-1/2" SHOULD BE REFER TO FOR HANDLING INSTALLATION AND BRACING OF METAL PLATE TRUSSES.**
- NO OUTS, NOTCHES, AND HOLES BORED INTO TRUSSES, STRUCTURAL COMPOSITE LUMBER, GLUE LAMINATED MEMBERS, OR FASTENERS ARE PERMITTED EXCEPT WHERE PERMITTED BY THE MANUFACTURER'S RECOMMENDATION OR DESIGN BY PROFESSIONAL (R502.2).**
- FIRE BLOCKING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENING (BOTH VERTICAL AND HORIZONTAL) AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORES, AND BETWEEN A TOP STORY AND ROOF SPACE (R502.4).**
- ALL EXTERIOR WALLS SHALL BE BRACED IN ACCORDANCE WITH SECTION R502.10. MINIMUM 3/4" PANEL SHEATHING.**
- THE ALLOWABLE SPANS OF GIRDERS/HEADERS FABRICATED FROM DIMENSIONAL LUMBER ON EXTERIOR WALLS SHALL NOT EXCEED THE VALUES OF TABLE R502.5(1).**

MEMBER SIZE	SPACING				SPACING			
	12"	16"	20"	24"	12"	16"	20"	24"
ROOF CEILING	12"	16"	20"	24"	12"	16"	20"	24"
ROOF CEILING OVER DECK OR PATIO	12"	16"	20"	24"	12"	16"	20"	24"
ROOF CEILING OVER GARAGE	12"	16"	20"	24"	12"	16"	20"	24"
ROOF CEILING OVER PORCH	12"	16"	20"	24"	12"	16"	20"	24"
ROOF CEILING OVER BALCONY	12"	16"	20"	24"	12"	16"	20"	24"
ROOF CEILING OVER TERRACE	12"	16"	20"	24"	12"	16"	20"	24"
ROOF CEILING OVER DECK	12"	16"	20"	24"	12"	16"	20"	24"
ROOF CEILING OVER PATIO	12"	16"	20"	24"	12"	16"	20"	24"
ROOF CEILING OVER PORCH	12"	16"	20"	24"	12"	16"	20"	24"
ROOF CEILING OVER BALCONY	12"	16"	20"	24"	12"	16"	20"	24"
ROOF CEILING OVER TERRACE	12"	16"	20"	24"	12"	16"	20"	24"
ROOF CEILING OVER DECK	12"	16"	20"	24"	12"	16"	20"	24"
ROOF CEILING OVER PATIO	12"	16"	20"	24"	12"	16"	20"	24"

**5. TRUSSES SHALL BE CONNECTED TO WALL BY USE OF APPROVED CONNECTORS HAVING A RESISTANCE TO UPLIFT OF NOT LESS THAN 175 POUNDS AND PER THE MANUFACTURE SPECIFICATIONS.**

- PROTECTION FROM DECAY SHALL BE PROVIDED IN THE FOLLOWING LOCATION BY THE USE OF NATURALLY DURABLE OR PRESERVATIVE TREATED LUMBER (R318.1)**
  - ALL WOOD FRAMING THAT REST ON CONCRETE EXTERIOR FOUNDATION WALLS AND ARE LESS THAN 4" FROM THE EXPOSED GROUND.
  - SILLS AND SLEEPERS ON A CONCRETE SLAB THAT IS IN DIRECT CONTACT WITH THE GROUND UNLESS SEPARATED FROM SUCH SLAB BY AN IMPERVIOUS MOISTURE BARRIER.
  - THE ENDS OF WOOD GIRDERS ENTERING EXTERIOR CONCRETE WALLS HAVING CLEARANCE OF LESS THAN 5 INCH ON TOP, SIDES AND ENDS.
  - WOOD SIDING, SHEATHING AND WALL FRAMING ON THE EXTERIOR OF A BUILDING HAVING A CLEARANCE OF LESS THAN 6 INCHES FROM THE GROUND.
  - ALL LUMBER IN CONTACT WITH THE GROUND, EMBEDDED IN CONCRETE IN DIRECT CONTACT WITH THE GROUND OR EMBEDDED IN CONCRETE EXPOSED TO THE WEATHER THAT SUPPORTS PERMANENT STRUCTURES (R318.1.2).
- ALL RIM AND BOX JOIST SPACES BETWEEN TOP OF THE FOUNDATION WALL AND FLOOR/ROOF LINE SHALL BE INSULATED WITH THE SAME MATERIAL USED FOR EXTERIOR WALLS. ALL EXTERIOR CORNERS AND INTERIOR PARTITIONS TO EXTERIOR WALLS THAT ARE CLOSED OFF TO FUTURE INSULATION MUST BE INSTALLED DURING FRAMING WALL.**
- ALL NAILING AND FASTENING SHOULD COMPLY WITH THE IRC TABLE R502.5(1) FASTENER SCHEDULE FOR STRUCTURAL MEMBERS.**
- STRUCTURAL STEEL**
  - ALL STRUCTURAL STEEL SHALL CONFORM WITH ASTM SPECIFICATION A992 GRADE 50 OR EQUAL AND SHALL HAVE BRIDGE CLIPPING AT 4 FEET ON CENTER TO RESIST LATERAL DEFLECTION.
  - ALL FRAMING TO BE ATTACHED TO STRUCTURAL STEEL IN ACCORDANCE WITH GOVERNING CODES.

**NOT FOR CONSTRUCTION**

THESE ARE PLANS ARE CONCEPTUAL PLANS AND HAVE NOT BEEN APPROVED AS A BID SET OR FOR CONSTRUCTION

Classic Builders  
Madison Base Plan  
Villas at Stonehaven

PROJECT ID: PDS 1904

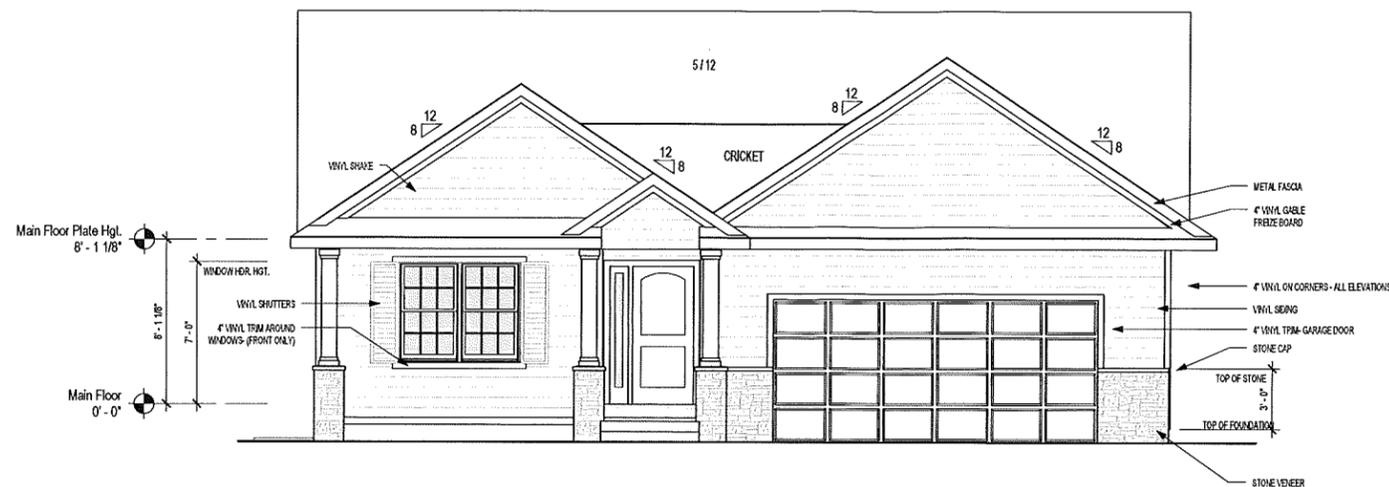
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Cover Page  
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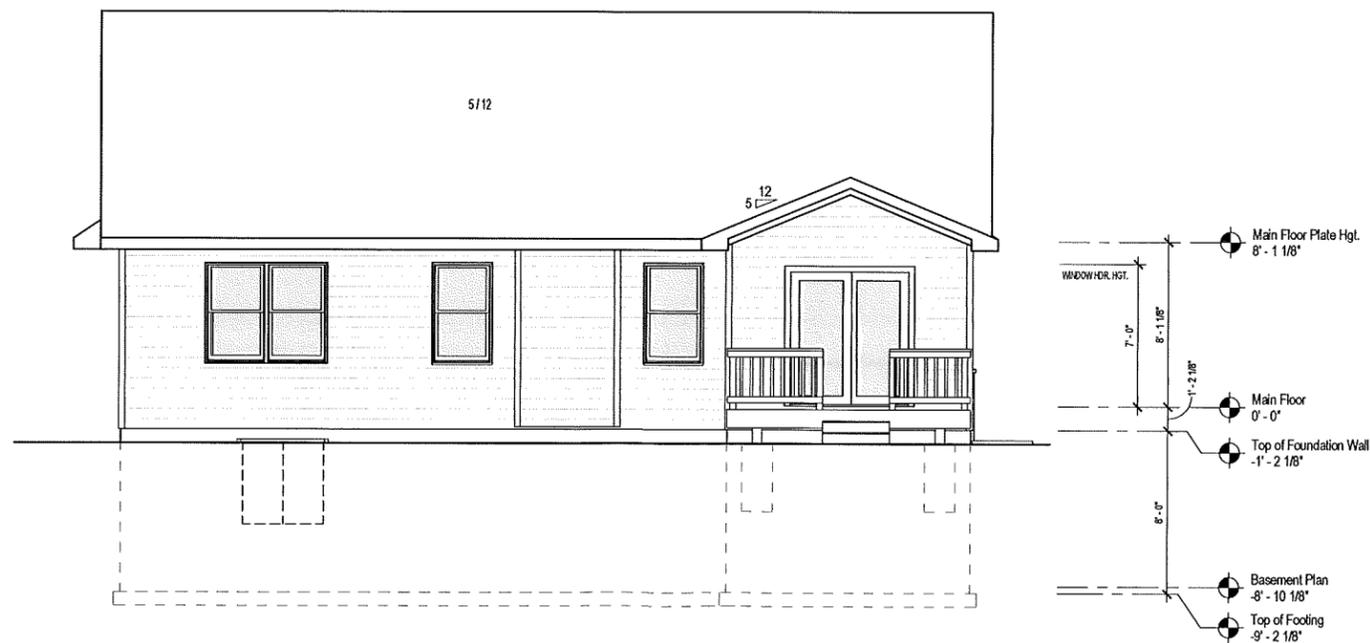
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**1 FRONT ELEVATION**  
Scale: 1/4" = 1'-0"

ESTIMATED WALL CLADDING SF	
Stone Veneer	70 SF
Vinyl Siding	2323 SF

\* SQUARE FOOTAGE OF GLASS GLAZING IS IN RELATION TO THE EXPOSED SURFACE OF THE WALL.  
1. THE AREA AND SURFACE BELOW OCCUPYABLE FLOOR SLAB.  
2. THE AREA EXCLUDED IS SHOWN IN DASHED LINES.



**2 REAR ELEVATION**  
Scale: 1/4" = 1'-0"

Classic Builders  
Madison Base Plan  
Villas at Stonehaven

PROJECT ID: PDS 1904

ISSUE DATE:

DATE: 05-12-15

DATE: \_\_\_\_\_

DATE: \_\_\_\_\_

DATE: \_\_\_\_\_

REVISIONS:

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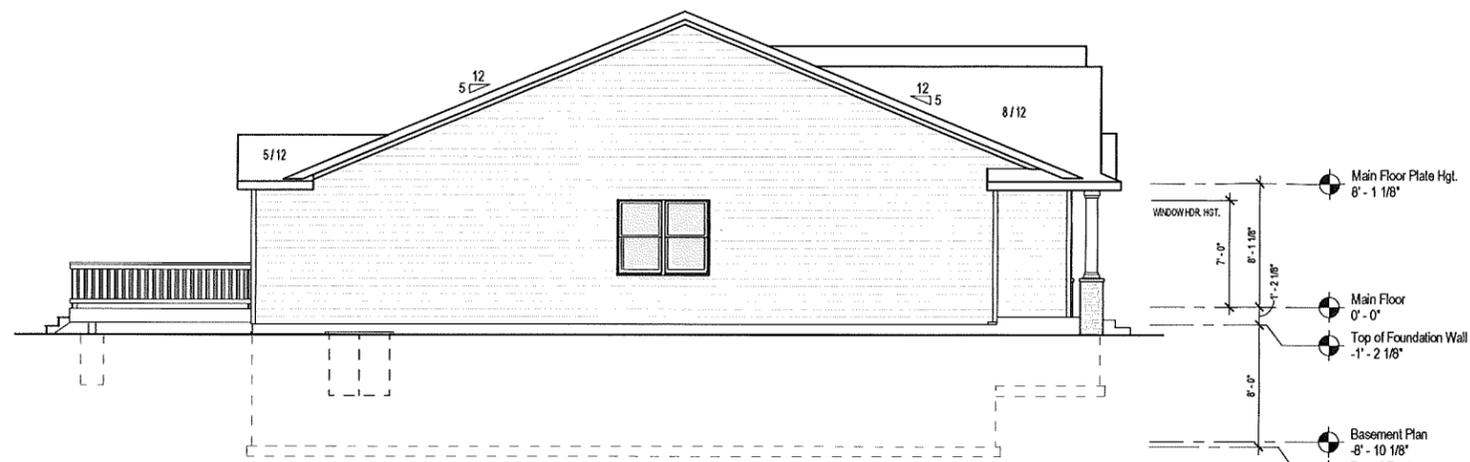
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Elevations

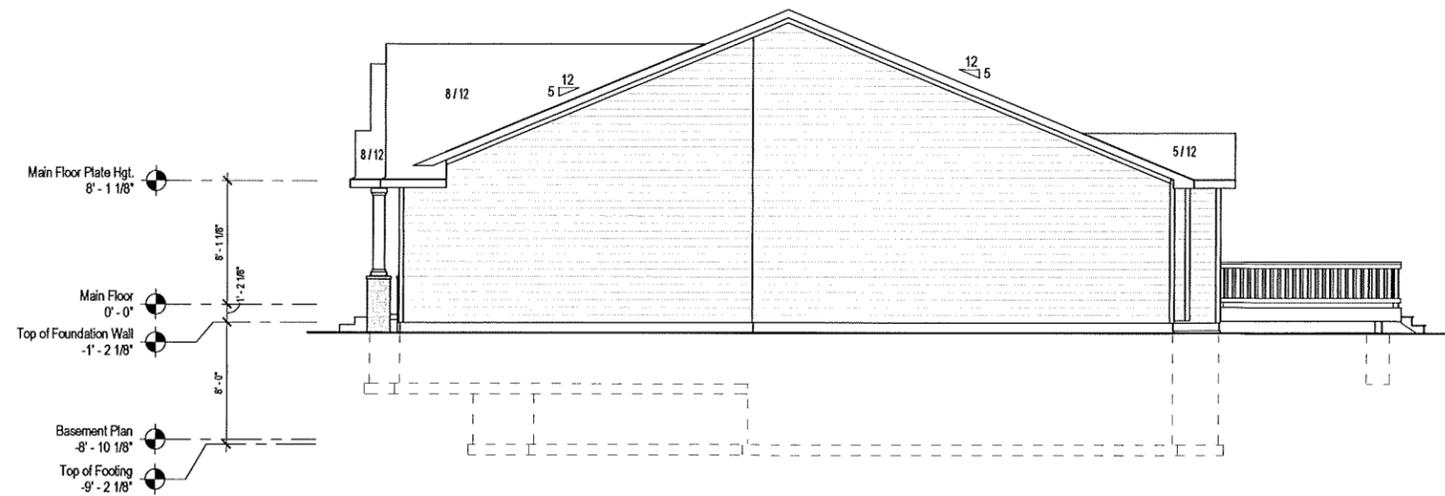
1/4" = 1'-0"

A.1

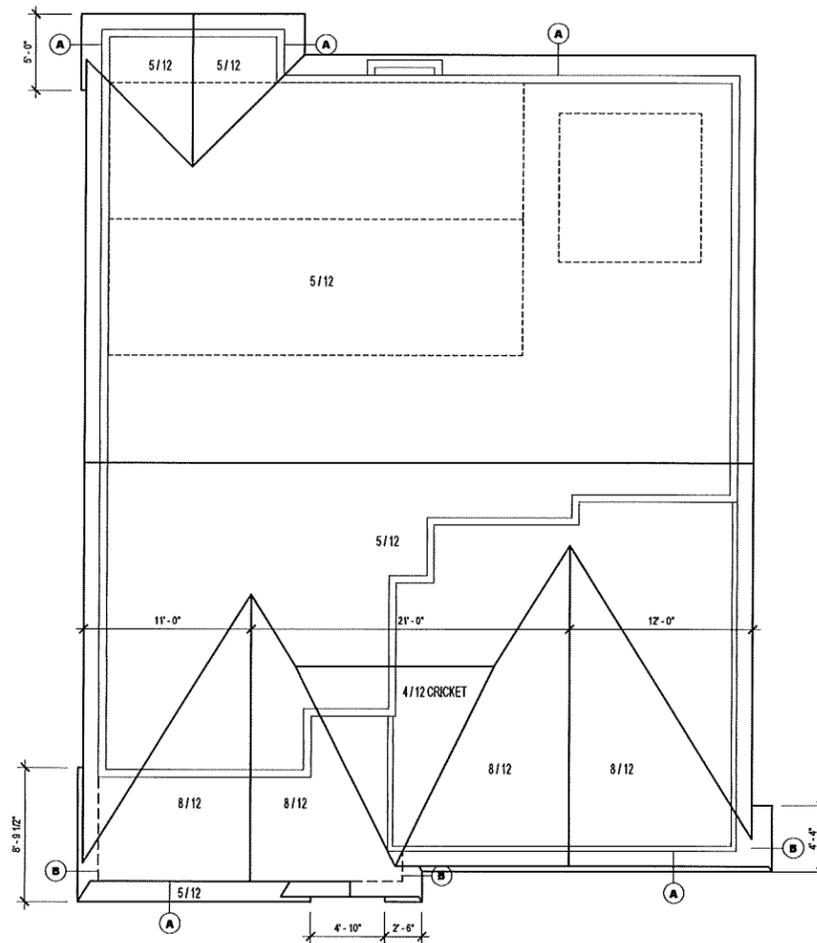
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**1 LEFT ELEVATION**  
 Scale: 3/16" = 1'-0"



**2 RIGHT ELEVATION**  
 Scale: 3/16" = 1'-0"



**3 ROOF PLAN**  
 Scale: 3/16" = 1'-0"

ROOF PLAN LEGEND				
SYMBOL	WALL HGT.	PITCH	OVERHANG	HEEL HGT.
A	8'-1 1/8"	5/12	1'-4"	7"
B	8'-1 1/8"	8/12	1'-4"	11"

ALL RAVE OVERHANGS ARE 12" UNLESS NOTED

ESTIMATED ROOF SF	
2820 SF	

1. SQUARE FOOTAGE OF ROOF IS TAKEN FROM THE EXPOSED SURFACE OF THE ROOF.  
 2. THE AREA OF ALL DECK OVERHANGS IS INCLUDED.  
 3. NO 8" x 12" RAFTERS OR 1" x 12" JOISTS INCLUDED.

Classic Builders  
 Madison Base Plan  
 Villas at Stonehaven

PROJECT ID: PDS 1904

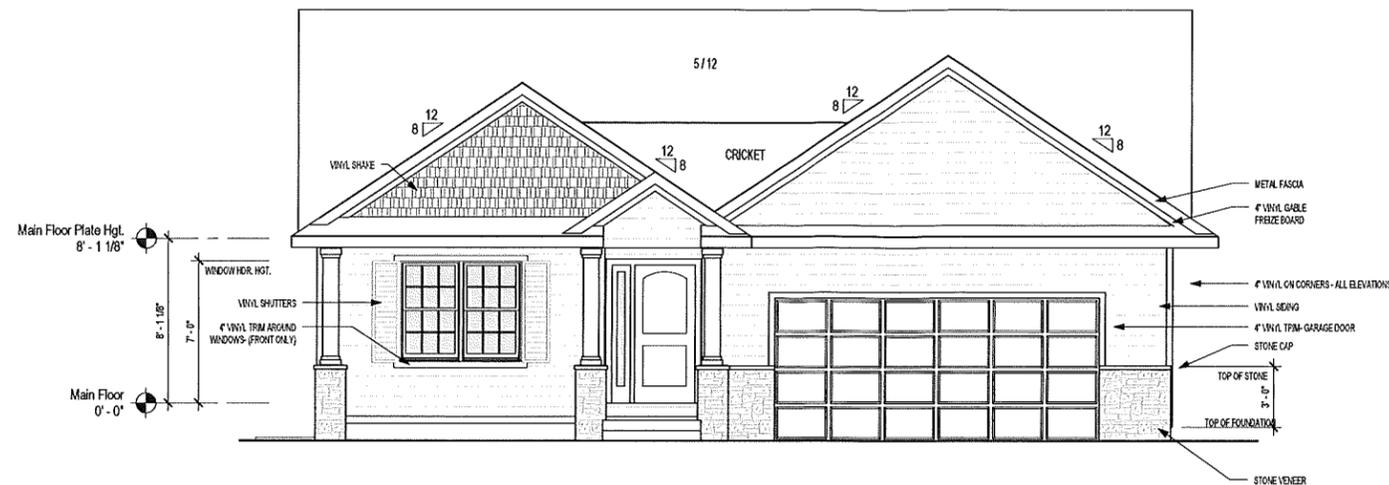
ISSUE DATE:  
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Elevations  
 As indicated



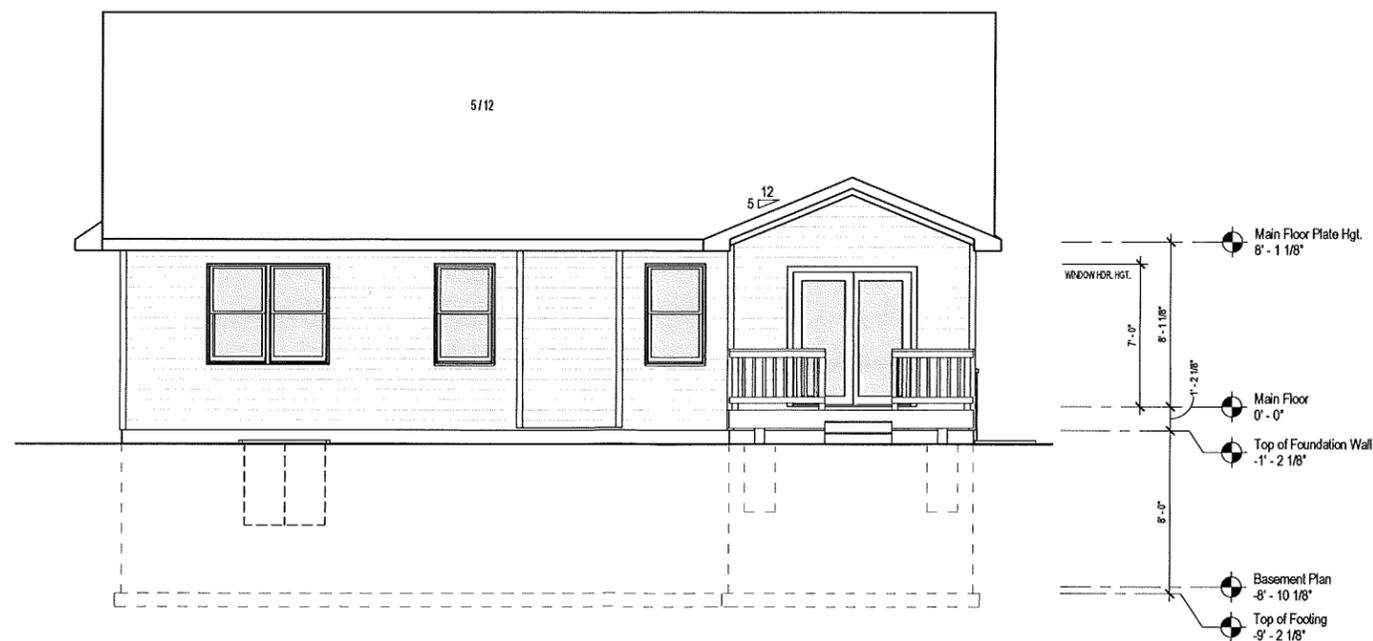
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**1 FRONT ELEVATION**  
 Scale: 1/4" = 1'-0"

ESTIMATED WALL CLADDING SF	
Stone Veneer	70 SF
Vinyl Shake Material	81 SF
Vinyl Siding	2282 SF

1. EXCLUDES AREA OF GLASS GLAZING UNLESS SPECIFIED OTHERWISE.  
 2. THE AREA INCLUDES AREA IN ROOMS ONLY.



**2 REAR ELEVATION**  
 Scale: 1/4" = 1'-0"

**Classic Builders  
 Madison Base Plan-B  
 Villas at Stonehaven**

PROJECT ID: PDS 3006

ISSUE DATE:

DATE: 05-12-15

DATE: 11-13-15

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DATE:

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DATE:

DATE:

Elevations

1/4" = 1'-0"

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**Classic Builders**  
**Madison Base Plan-B**  
**Villas at Stonehaven**

PROJECT ID: PDS 3006

ISSUE DATE:

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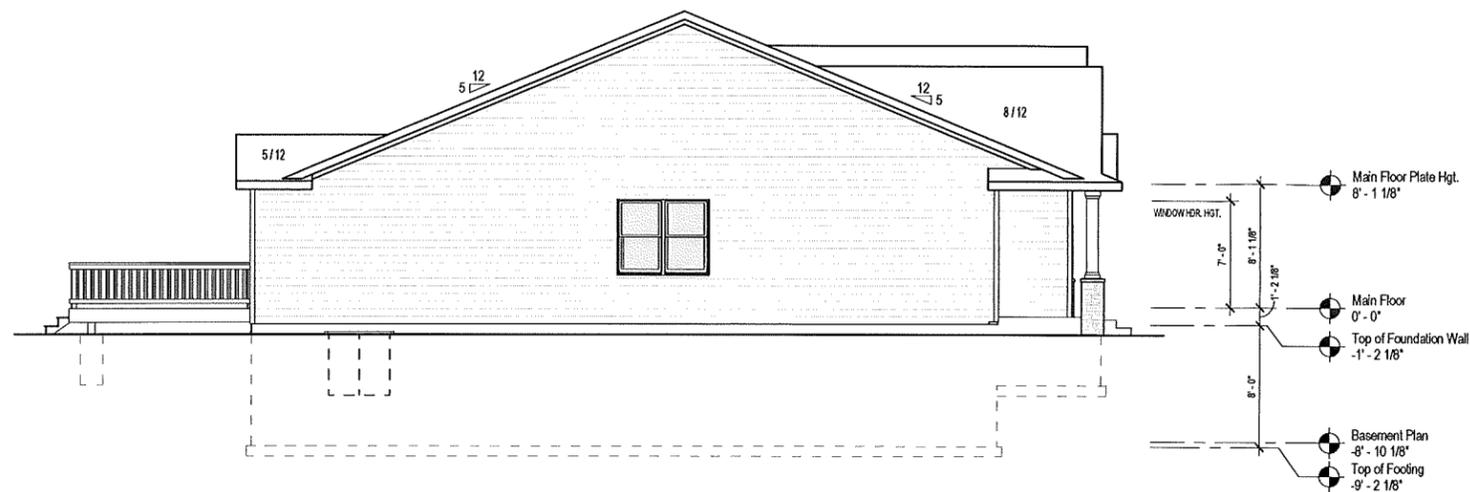
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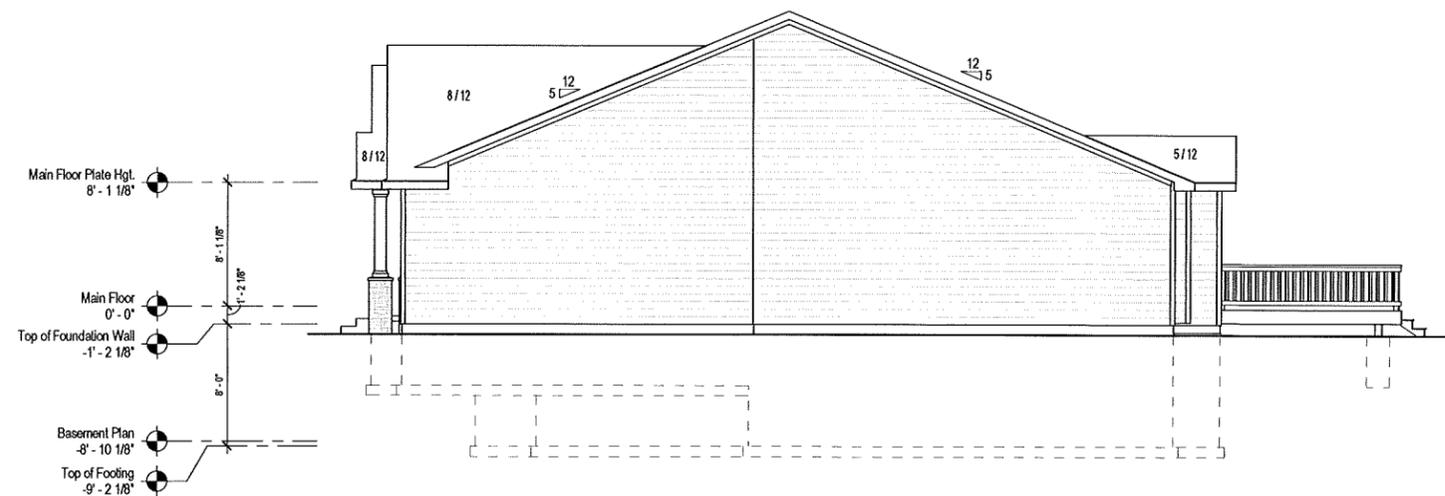
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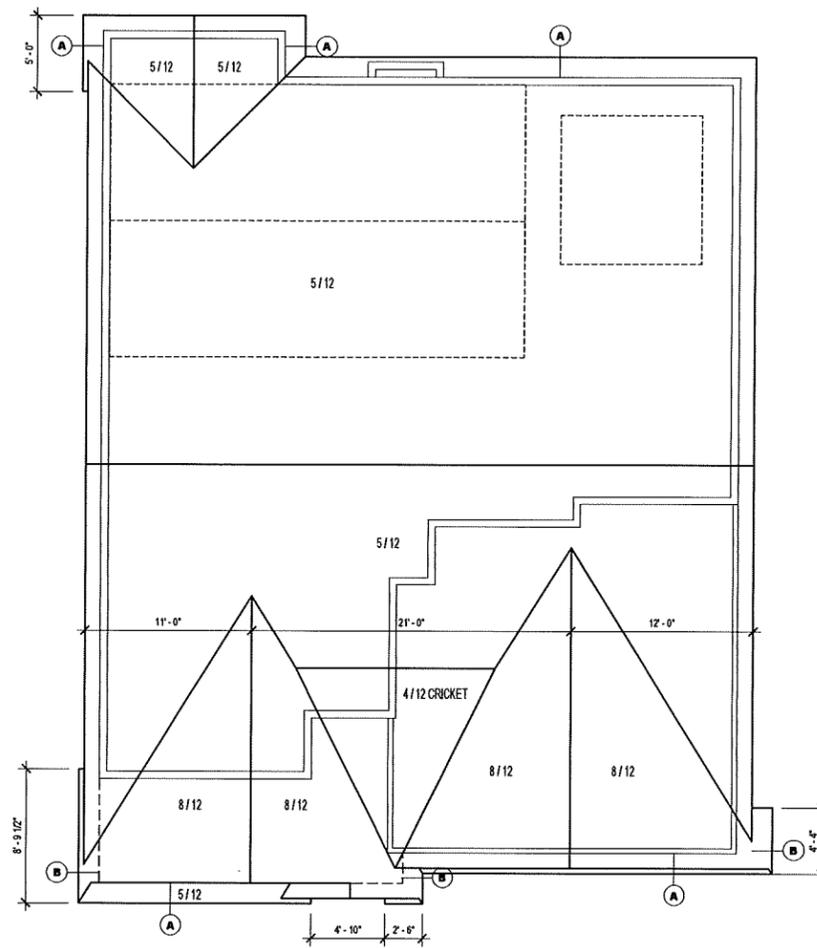
Elevations  
 As indicated



**1 LEFT ELEVATION**  
 Scale: 3/16" = 1'-0"



**2 RIGHT ELEVATION**  
 Scale: 3/16" = 1'-0"



**3 ROOF PLAN**  
 Scale: 3/16" = 1'-0"

ROOF PLAN LEGEND			
SYMBOL	WALL HGT.	PITCH	OVERHANG
A	8'-1 1/8"	5/12	1'-4"
B	8'-1 1/8"	8/12	1'-4"
			11"

ALL RAVE OVERHANGS ARE 12" UNLESS NOTED.

ESTIMATED ROOF SF	
2820 SF	

1. AREA FOR USE OF ROOF IS TO BE DETERMINED BY THE ROOF.  
 2. THE AREA OF CLIMBING ROOF IS NOT TO BE INCLUDED.  
 3. NO AREA OF ROOF IS TO BE INCLUDED.



PLUM DESIGN SERVICES
1100 ALICE'S ROAD, WALKER, IOWA 50263-1100
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ABBREVIATIONS

- ADJ ADJUSTABLE
AAN ANNING
BTM BOTTOM
BSMT BASEMENT
BTW BETWEEN
CA CASSEMENT
CANT. CANTILEVER
CAB. CABINET
CL CENTERLINE
C.G. CEILING
C.O. CASSED OPENING
COL. COLUMN
CONC. CONCRETE
D DRIVER
DIA. DIAMETER
DN DOWN
DWH DOUBLE HUNG
DWS DISHWASHER
FD. FLOOR DRAIN
FLR. FLOOR
FT. FEET
FRAN. FRAMING
HDR. HEADER
HDWD HARDWOOD
INSUL. INSULATION
JST. JOIST
LV. LAMINATED VENEER LUMBER
LN. LINEN
MJC. MANGRAM
MNL. MINIMUM
OC. ON CENTER
OHD. OVERHEAD DOOR
OPNG. OPENING
PED. PEDIestal
N.T.S. NOT TO SCALE
REF. REFRIGERATOR
REQ. REQUIRED
RO. ROUGH OPENING
RM. ROOM
SH SINGLE HUNG
S&R SHEET AND ROD
S.F. SQUARE FEET
S.P. SUMP PIT
STL. STEEL
TYP. TYPICAL
TRANS. TRANSOM
UNEX. UNEXCAVATED
VAN. VANITY
W. WASHER
WH. WITH
WH. WATER HEATER

ELECTRIC SYMBOLS

- S SINGLE POLE SWITCH
T THREE WAY SWITCH
DSW. DIMMER SWITCH
RO. SINGLE RECEPTACLE OUTLET
DRO. DUPLEX RECEPTACLE OUTLET
V.O. VOLTAGE OUTLET
C.O. CABLE OUTLET
E.F. EXHAUST FAN
L.W.F. LIGHT WITH FAN
S.D. SMOKEHEAT DETECTOR
G.D.O. GARAGE DOOR OPERATOR
E.P. ELECTRIC PANEL
C.M.L. CEILING MOUNTED LIGHT
P.C.L. PULL CHAIN LIGHT
R.L. RECESSED LIGHT
W.M.L. WALL MOUNTED LIGHT
M.M.D. M.M. MOTION DETECTOR LIGHT
F.L. FLUORESCENT LIGHT
B.L. BAR LIGHT

MISC. SYMBOLS

- F.F. FROST PROOF HOSE BIB
F.L.A. FLOOR LINE ABOVE
S.B.H. STRUCTURAL BEAM/HEADER OR GIRDER TRUSS

DRAWING LIST

- A0 Cover Page
A1 Elevations
A2 Elevations
A3 Foundation Plan
A4 Main Floor Plan
A5 Building Sections
A6 Detail
E1 Electrical
F1 Floor Covering



GENERAL CONSTRUCTION NOTES

- 1. GENERAL
A. ALL CONSTRUCTION AND MATERIALS SHALL MEET OR EXCEED IRC 2018 LOCAL BUILDING CODES...
B. CONTRACTOR TO CONFIRM THE SIZE, SPACING AND SPECIES OF LUMBER OF ALL STRUCTURAL AND FRAMING MEMBERS...
C. THE OWNER/CONTRACTOR IS RESPONSIBLE FOR PREVENTIVE MEASURES OF THE BUILD UP OF MOISTURE OR MOLD...
E. ALL MECHANICAL, PLUMBING, AND ELECTRICAL SYSTEMS ARE TO BE DESIGNED BY OTHERS.
2. DESIGN CRITERIA
A. BUILDING AND STRUCTURES, AND ALL PARTS THEREOF, SHALL BE CONSTRUCTED TO SAFELY SUPPORT ALL LOADS...
B. TABLE 301.2(1) IRC 2018 VALUES BASED FROM THE CITY OF DES MOINES, IOWA.
C. MINIMUM LEE LOADS (R301.5) IRC 2018
D. DEAD LOADS, ANY ADDITIONAL OR CHANGES TO MATERIAL, NEEDS TO BE ADJUSTED TO THE BELOW CALCULATIONS.
ELECTRICAL SYMBOLS
DRAWING LIST

3. ROOM REQUIREMENTS

- A. CEILING HEIGHT (R305.1) HABITABLE ROOMS, HALLWAYS, CORRIDORS, BATHROOMS, TOILET ROOM/LAUNDRY ROOMS...
B. ROOM DIMENSIONS (R304.1) THE MINIMUM LENGTH OR WIDTH OF ANY HABITABLE ROOM SHALL NOT BE LESS THAN 7'-0" CLEAR IN ANY HORIZONTAL DIMENSION...
C. LIGHT AND VENTILATION (R303) IN HABITABLE ROOMS, PROVIDE NATURAL LIGHT AND VENTILATION WITH OPERABLE WINDOWS...
D. EMERGENCY ESCAPE WINDOWS (R310) BASEMENT AND EACH SLEEPING AREA SHALL HAVE AN EMERGENCY ESCAPE WINDOW THAT IS AT LEAST 20" IN WIDTH (NET), 24" IN HEIGHT (NET) WHEN OPEN AND HAVE AN OPERABLE AREA OF AT LEAST 5.7 SQUARE FEET IN AREA...
E. BUILDING REQUIREMENTS
A. ATTIC ACCESS (R317) PROVIDE ACCESS TO ATTIC SPACE WITH AN ACCESS DOOR AT LEAST 22" X 30" IN SIZE...
B. ATTIC VENTS (R318) PROVIDE ACCESS TO ATTIC VENTS AT LEAST 1.0 S.F. (NET) FOR EACH 150 S.F. OF ATTIC AREA...
C. SMOKE ALARMS ARE REQUIRED IN ALL BEDROOMS, AT ALL HALLWAYS LEADING TO BEDROOMS, AND AT EACH LEVEL INCLUDING THE BASEMENT...
D. ALL ANCHOR BOLTS SHALL BE 1/2" IN DIAMETER AND SHALL EXTEND A MINIMUM OF 7" INTO CONCRETE...
E. FOUNDATION/CONCRETE
A. IN AREAS LIKELY TO HAVE EXPANSIVE, COMPRESSIBLE, SHIFTING OR OTHER UNUSUAL SOIL CHARACTERISTICS...
B. CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 3000 PSI AT 28 DAYS...
C. ALL FOOTING SHALL BE PLACED ON UNDISTURBED SOIL OR CONTROLLED COMPACTED FILL MATERIAL FOOTING TO BE 16" WIDE X 18" DEEP FOR A 2 STORY BUILDING...
D. ALL ANCHOR BOLTS SHALL BE 1/2" IN DIAMETER AND SHALL EXTEND A MINIMUM OF 7" INTO CONCRETE...
E. CONCRETE FOUNDATION WALLS SHALL BE CONSTRUCTED AS SET FORTH IN TABLE R401.1(1), REFER TO TYPICAL WALL SECTION IN THIS PLAN FOR SPECIFICATION.

4. WOOD FRAMING

- A. ROOF FLOOR, AND WALL SHEATHING APA RATED SHEATHING
B. WALL STUDS MINIMUM SFF STUD OR DOUGLAS FIR LARCH STUD
C. WALL PLATES MINIMUM SFF #2 OR BETTER
D. DIMENSIONAL HEADERS #2 DOUGLAS FIR OR BETTER
E. LVL HEADERS 3000 PLUKE MINIMUM
F. JOIST UNDER PARALLEL BEARING PARTITIONS SHALL BE OF ADEQUATE SIZE TO SUPPORT THE LOAD (R502.4)
G. THE ENDS OF EACH JOIST, BEAM OR GIRDER SHALL HAVE NOT LESS THAN 15 INCHES OF BEARING ON WOOD OR METAL AND NOT LESS THAN 3 INCHES ON CONCRETE (R502.5)
H. WOOD TRUSSES SHALL BE DESIGNED AND MANUFACTURED IN ACCORDANCE WITH AISI/SFRA REFER TO THE INDIVIDUAL TRUSS DESIGN DRAWINGS FOR WEB BRACING AND MULTICONNECTION OF GIRDERS (S301.4-3) SHOULD BE REFER TO FOR HANDLING INSTALLATION AND BRACING OF METAL PLATE TRUSSES.
I. NO CUTS, NOTCHES, AND HOLES BORED INTO TRUSSES, STRUCTURAL COMPOSITE LUMBER, GLUE LAMINATED MEMBERS, OR JOISTS ARE PERMITTED EXCEPT WHERE PERMITTED BY THE MANUFACTURER'S RECOMMENDATION OR DESIGN BY PROFESSIONAL (R502.2)
J. FIRE BLOCKING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENING (BOTH VERTICAL AND HORIZONTAL) AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORES, AND BETWEEN A TOP STORY AND ROOF SPACE (R502.2)
K. ALL EXTERIOR WALLS SHALL BE BRACED IN ACCORDANCE WITH SECTION R502.12, MINIMUM 3X4 PLYWOOD SHEATHING.
L. THE ALLOWABLE SPANS OF GIRDERS/HEADERS FABRICATED FROM DIMENSIONAL LUMBER ON EXTERIOR WALLS SHALL NOT EXCEED THE VALUES OF TABLE R502.4(1)

Tables for R502.4(1) and R502.4(2) showing allowable spans for various framing members under different load conditions.

- M. TRUSSES SHALL BE CONNECTED TO WALL BY USE OF APPROVED CONNECTIONS HAVING A RESISTANCE TO UPLIFT OF NOT LESS THAN 115 POUNDS AND PER THE MANUFACTURE SPECIFICATIONS
N. PROTECTION FROM DECAY SHALL BE PROVIDED IN THE FOLLOWING LOCATIONS BY THE USE OF NATURALLY DURABLE OR PRESERVATIVE TREATED LUMBER (R318.1)
1. ALL WOOD FRAMING THAT REST ON CONCRETE EXTERIOR FOUNDATION WALLS AND ARE LESS THAN 8" FROM THE EXPOSED GROUND.
2. GILLS AND SLEEPERS ON A CONCRETE SLAB THAT IS IN DIRECT CONTACT WITH THE GROUND UNLESS SEPARATED FROM SUCH SLAB BY AN IMPERVIOUS MOISTURE BARRIER.
3. THE ENDS OF WOOD GIRDER EXTERIOR CONCRETE WALLS HAVING CLEARANCE OF LESS THAN 5 INCH ON TOP, SIDES AND ENDS.
4. WOOD SIDING SHEATHING AND WALL FRAMING ON THE EXTERIOR OF A BUILDING HAVING A CLEARANCE OF LESS THAN 8 INCHES FROM THE GROUND.
5. ALL LUMBER IN CONTACT WITH THE GROUND, EMBEDDED IN CONCRETE IN DIRECT CONTACT WITH THE GROUND OR EMBEDDED IN CONCRETE EXPOSED TO THE WEATHER THAT SUPPORTS PERMANENT STRUCTURES (R318.2)
O. ALL SOIL AND ROCK JOIST SPACES BETWEEN TOP OF THE FOUNDATION WALL AND FLOOR/ROOF LINE SHALL BE INSULATED WITH THE SAME MATERIAL USED FOR EXTERIOR WALLS. ALL EXTERIOR CORNERS AND INTERIOR PARTITIONS TO EXTERIOR WALLS THAT ARE CLOSED OFF TO FUTURE INSULATION MUST BE INSULATED DURING FRAMING OF WALL.
P. ALL NAILING AND FASTENING SHOULD COMPLY WITH THE IRC TABLE R502.4(1) FASTENER SCHEDULE FOR STRUCTURAL MEMBERS
7. STRUCTURAL STEEL
A. ALL STRUCTURAL STEEL SHALL CONFORM WITH ASTM SPECIFICATION A992 GRADE 50 OR EQUAL AND SHALL HAVE BRIDGE CLIPPING AT 4 FEET ON CENTER TO RESIST LATERAL DEFLECTION.
B. ALL FRAMING TO BE ATTACHED TO STRUCTURAL STEEL IN ACCORDANCE WITH GOVERNING CODES.

NOT FOR CONSTRUCTION

THESE ARE PLANS ARE CONCEPTUAL PLANS AND HAVE NOT BEEN APPROVED AS A BID SET OR FOR CONSTRUCTION

Classic Builders
Madison Base Plan
Villas at Stonehaven

PROJECT ID: PDS 1904

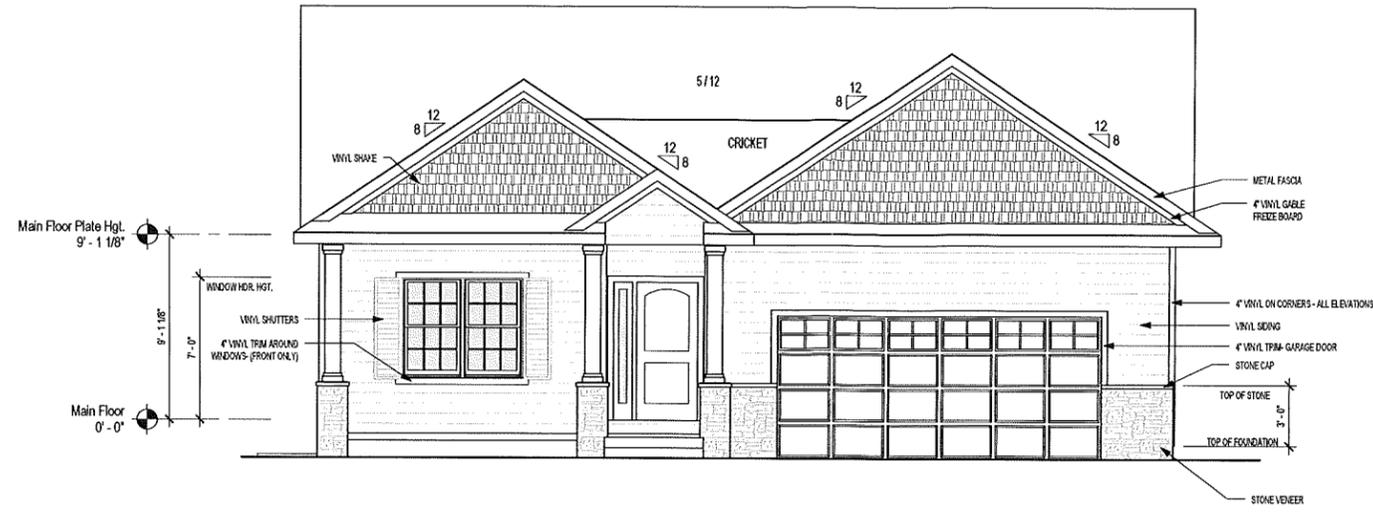
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Cover Page
As indicated

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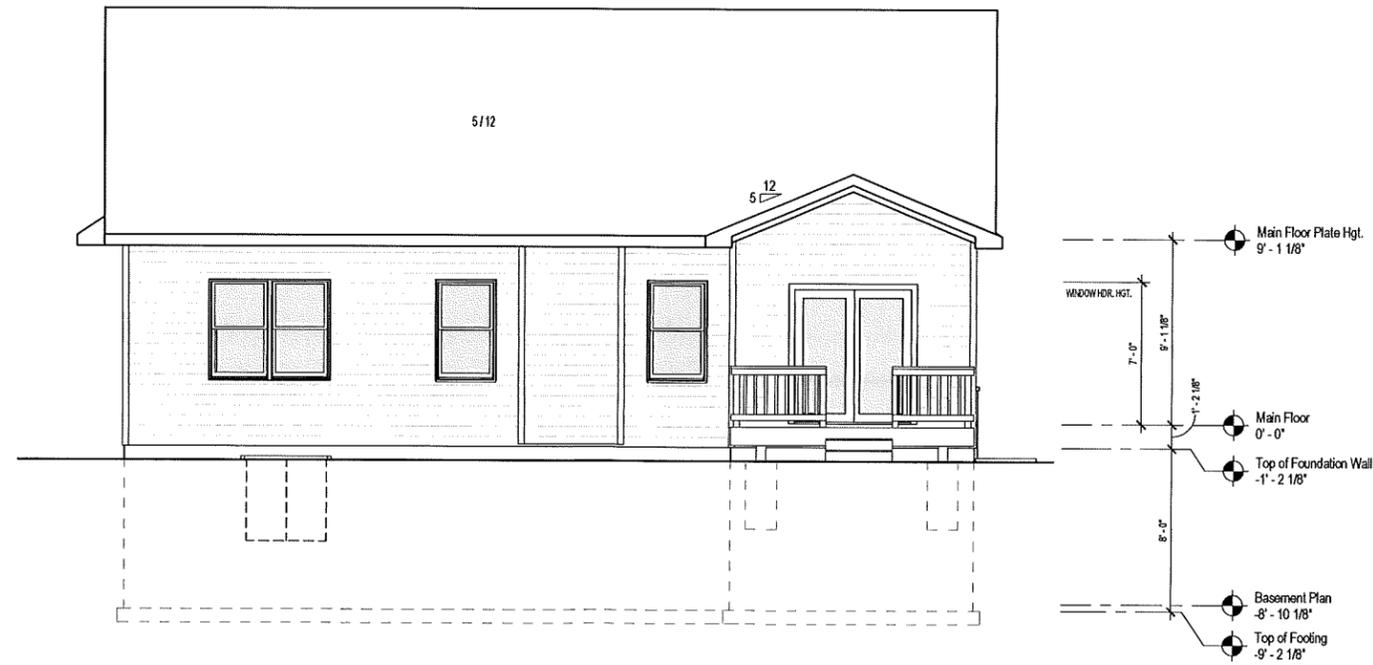
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**1 FRONT ELEVATION**  
 Scale: 1/4" = 1'-0"

ESTIMATED WALL CLADDING SF	
Stone Veneer	70 SF
Vinyl Shake Material	188 SF
Vinyl Siding	2352 SF

\* TO APPLICABLE OF CLADDING MATERIALS TO THE EXTERIOR SURFACE OF THE WALL.  
 1. THE AREA INCLUDES SURFACES BELOW DECK LEVELS PER PLAN.  
 2. THE AREA EXCLUDES ALL OTHER EXTERIOR SURFACES.



**2 REAR ELEVATION**  
 Scale: 1/4" = 1'-0"

**Classic Builders**  
**Madison Base Plan**  
**Villas at Stonehaven**

PROJECT ID: PDS 1904

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Elevations  
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 Madison Base Plan  
 Villas at Stonehaven**

PROJECT ID: PDS 1904

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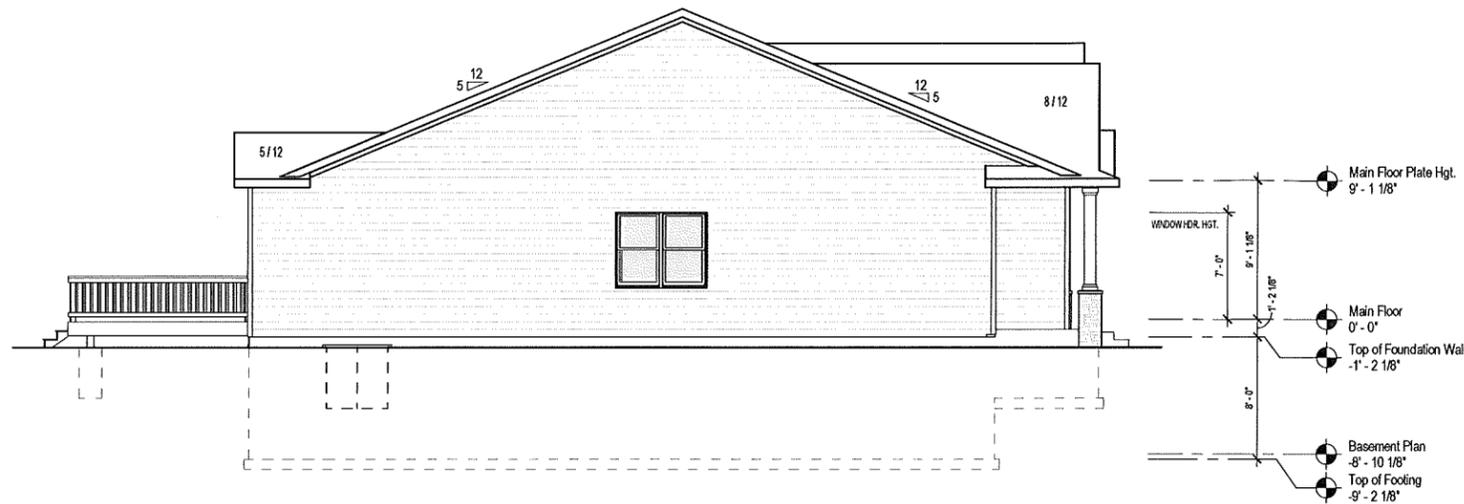
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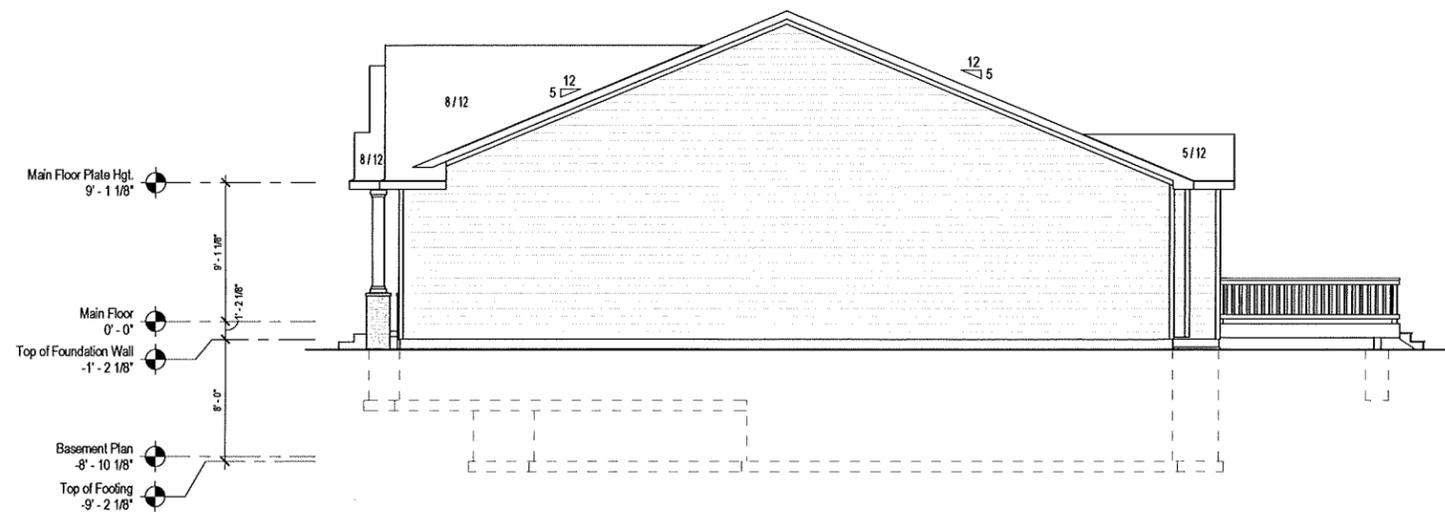
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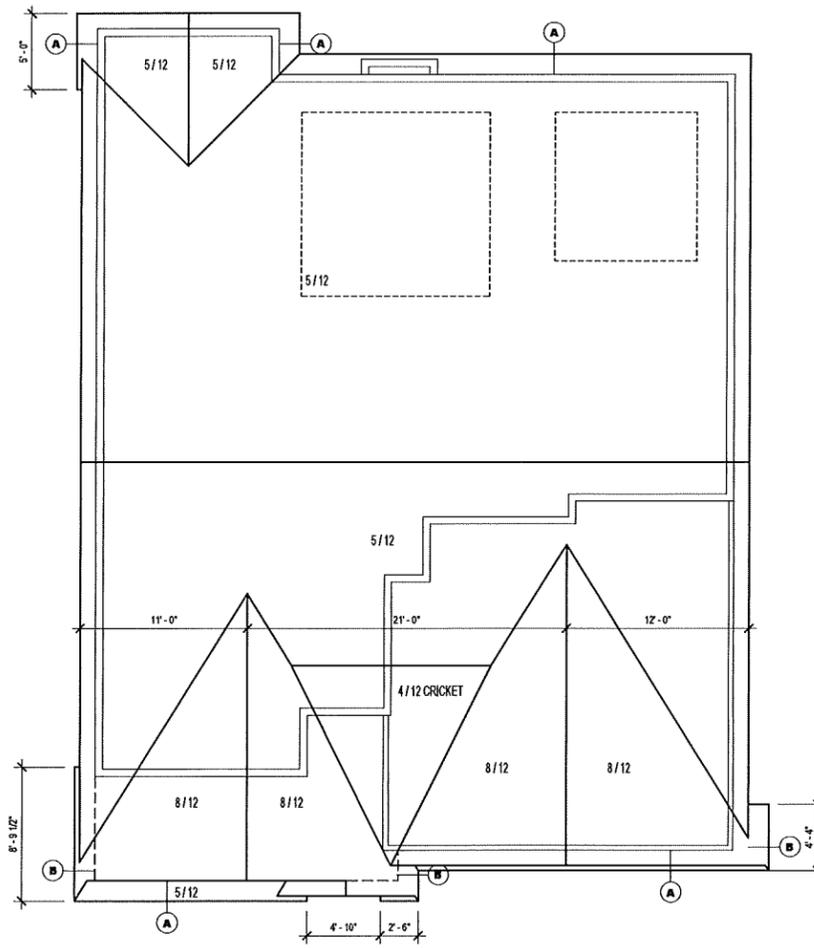
Elevations  
 As indicated



**1 LEFT ELEVATION**  
 Scale: 3/16" = 1'-0"



**2 RIGHT ELEVATION**  
 Scale: 3/16" = 1'-0"



**3 ROOF PLAN**  
 Scale: 3/16" = 1'-0"

ROOF PLAN LEGEND				
SYMBOL	WALL HGT	FITCH	OVERHANG	HEEL HGT.
A	8'-1 1/8"	5/2"	1'-4"	7"
B	8'-1 1/8"	6/2"	1'-4"	11"

ALL RAVE OVERHANGS ARE 12" UNLESS NOTED.

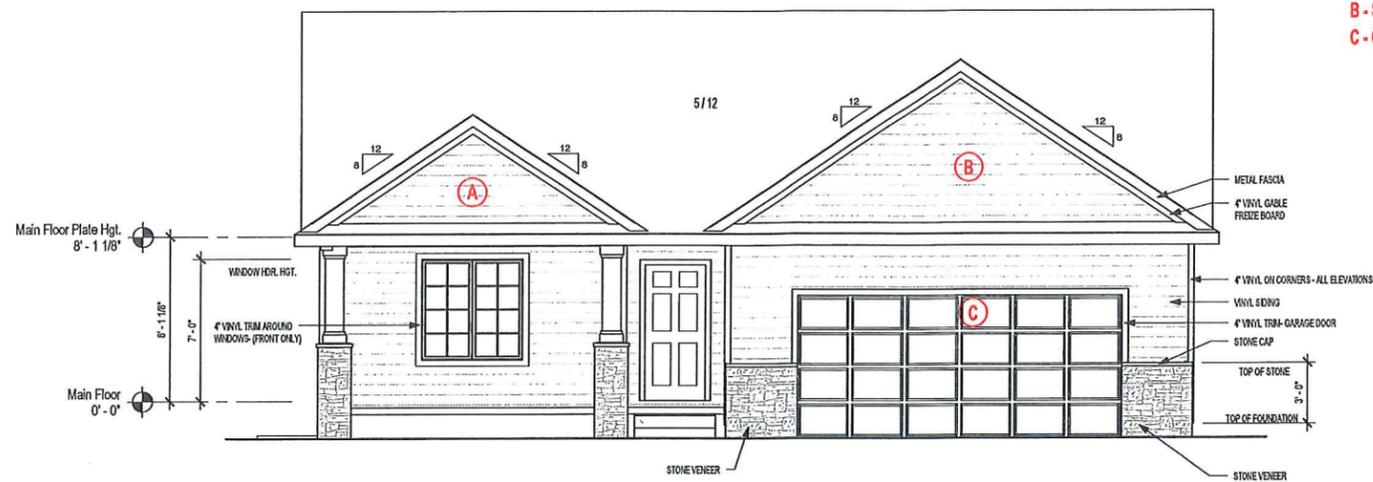
ESTIMATED ROOF SF	
2820 SF	

1. TO AVOID FOOTING OF ROOF IS TAKEN FROM THE OPPOSITE SURFACE OF THE ROOF.  
 2. THE NUMBER OF CLIMBERS SHOULD NOT BE LISTED BELOW VALLEY.  
 3. NO 45° FITTINGS ARE CALLED.



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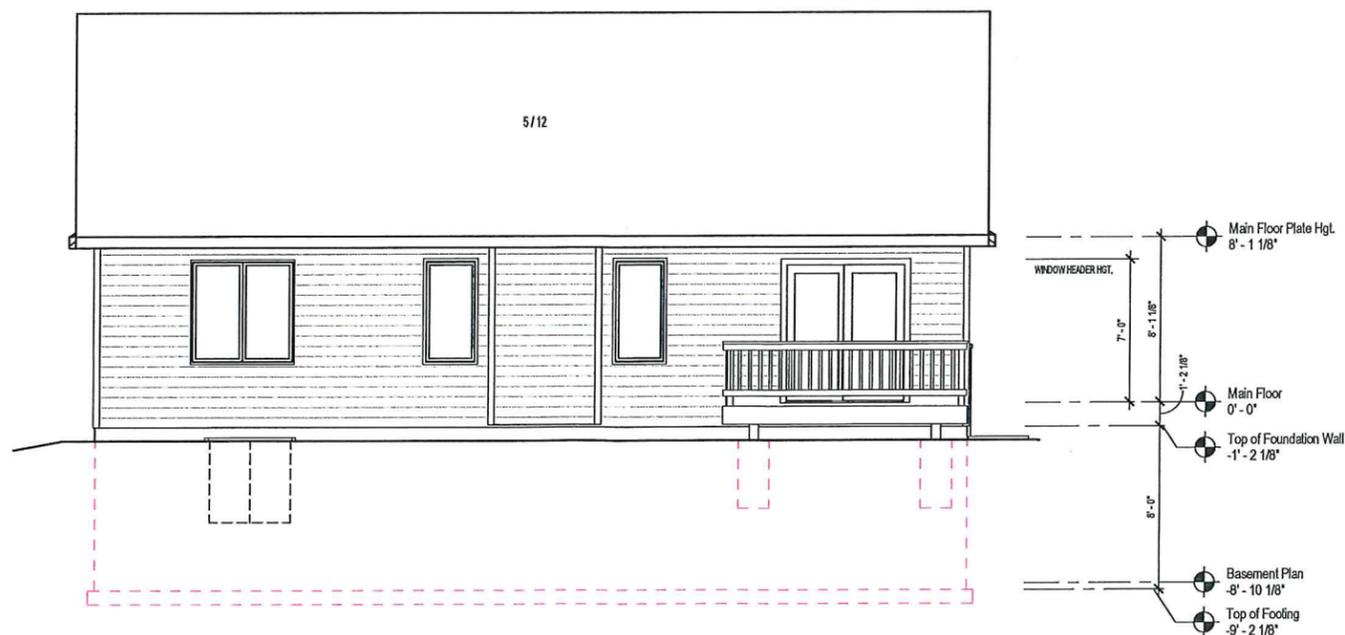
**FRONT ELEVATION OPTIONS**  
**A - SHAKE ABOVE PORCH**  
**B - SHAKE ABOVE GARAGE**  
**C - GARAGE DOOR WINDOWS**



**1 FRONT ELEVATION**  
 Scale: 1/4" = 1'-0"

ESTIMATED WALL...	
Lap Siding	2202 SF
Stone Veneer	66 SF

\* SQUARE FOOTAGE OF QUANTITIES IS FROM THE EXTERIOR SURFACE OF THE WALL.  
 1. THE AREA ENCLOSED BY DIMENSIONS IS SUBJECT TO THE FINISHES.  
 2. THE AREA ENCLOSED INCLUDES ROOF OVERHANGS.



**2 REAR ELEVATION**  
 Scale: 1/4" = 1'-0"

Classic Builders  
 Stonehaven Hamilton II -  
 Porch

PROJECT ID: PDS 3301

ISSUE DATE:

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DATE: 08-25-16

DATE: 11-17-16

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Elevations  
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**Classic Builders**  
**Stonehaven Hamilton II -**  
**Porch**

PROJECT ID: PDS 3301

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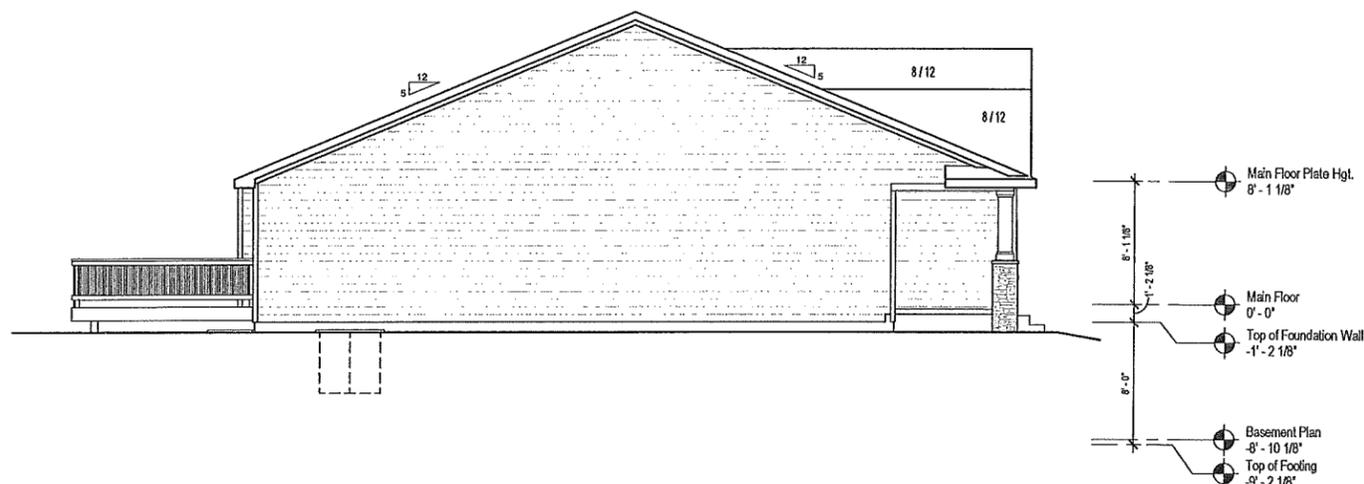
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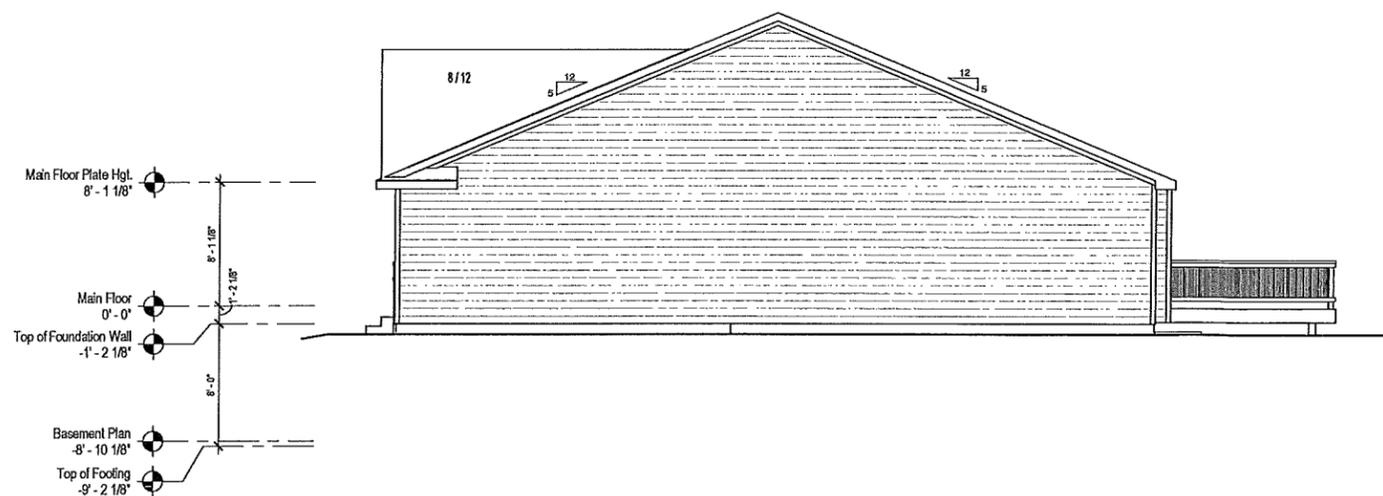
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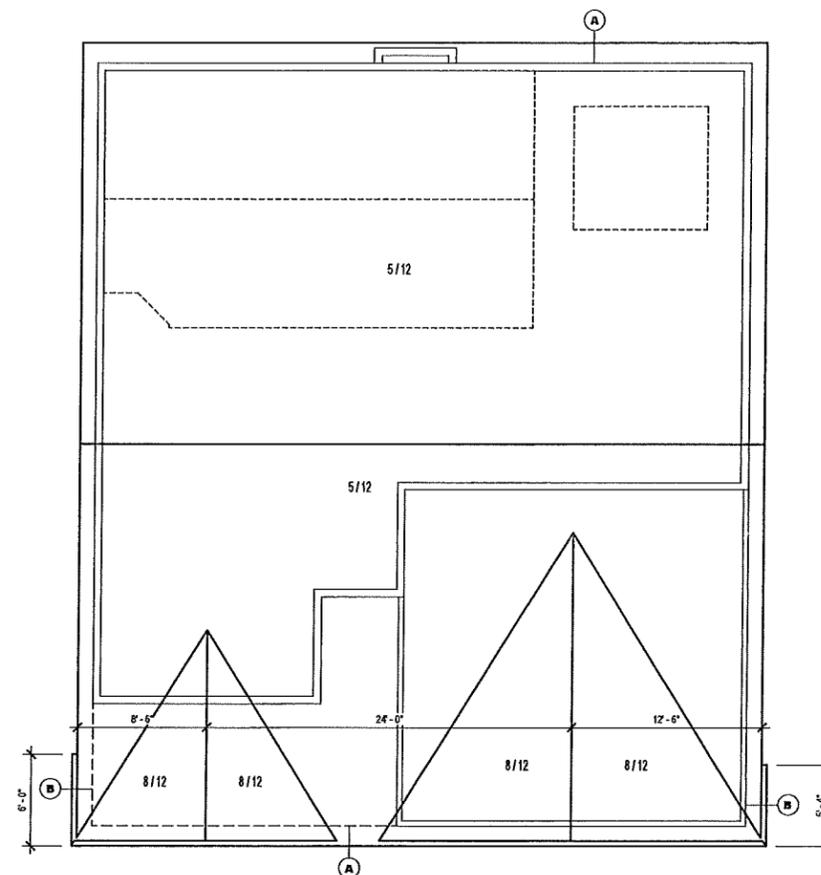
Elevations  
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**1 LEFT ELEVATION**  
 Scale: 3/16" = 1'-0"



**2 RIGHT ELEVATION**  
 Scale: 3/16" = 1'-0"



**3 ROOF PLAN**  
 Scale: 3/16" = 1'-0"

ESTIMATED ROOF SF	
2075 SF	

INCLUDES INCLUDES OF PITCH IN THE REVERSE SLOPE OF THE ROOF. THE AREA EXCLUDED OVERHANGS APPROXIMATELY 1/2" INCH. ALL OVERHANGS ARE 12" UNLESS NOTED.

ROOF PLAN LEGEND				
SYMBOL	WALL HGT.	PITCH	OVERHANG	HEEL HGT.
A	8'-1 1/8"	12/5	1'-4"	7"
B	8'-1 1/8"	12/5	1'-4"	7"

ALL ROOF OVERHANGS ARE 12" UNLESS NOTED

**GENERAL NOTES:**

- ALL CONSTRUCTION AND MATERIALS SHALL MEET OR EXCEED IRC 2015. LOCAL BUILDING CODES MAY HAVE DIFFERENT SPECIFICATIONS AND REQUIREMENTS THAN WHAT IS LISTED IN THE IRC 2015. THESE LOCAL REQUIREMENTS WILL SUPERSEDE THE IRC 2015. SEE THE LOCAL BUILDING DEPARTMENT FOR CHANGES.
- CONTRACTOR TO COMPLY WITH THE SIZES, SPACING AND SPECIES OF LAMBS OF ALL STRUCTURAL AND FRAMING MEMBERS. ANY STRUCTURAL AND FRAMING MEMBERS NOT LISTED ARE TO BE SIZED BY OWNER/CONTRACTOR.
- THE OWNER/CONTRACTOR IS RESPONSIBLE FOR PREVENTIVE MEASURE OF THE BUILD UP OF MOISTURE OR MOLD.
- ALL PROJECTS ARE TO BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.
- ALL MECHANICAL, PLUMBING, AND ELECTRICAL SYSTEMS ARE TO BE DESIGNED BY OTHERS.
- ALL EXTERIOR STAIRS SHALL BE CONSTRUCTED PER THE DESIGN/DETAILS ON THE PERMITS FOR FINAL GRADE.
- THE FOLLOWING CODE INFORMATION IS INTENDED TO ASSIST AND INFORM YOU THROUGH CONSTRUCTION. THIS PROJECT HAS BEEN DRAINED TO PRESCOE TO INDUSTRY STANDARDS.

**CHAPTER 3 (BUILDING PLANNING)**

- BUILDING AND STRUCTURES, AND ALL PARTS THEREOF, SHALL BE CONSTRUCTED TO SAFELY SUPPORT ALL LOADS, INCLUDING DEAD LOADS, LIVE LOADS, ROOF LOADS, FLOOD LOADS, SNOW LOADS, WIND LOADS, AND SEISMIC LOADS AS PRESCRIBED BY THIS CODE (R301.1).
- TABLE R301.1(1) IRC 2015, VALUES BASED FROM THE CITY OF DES MOINES, IOWA.

SPAC	TRUSS	LOAD	TYPE	SPACING	HEIGHT	DEPTH	WIDTH	LENGTH	THICKNESS	WEIGHT	STRENGTH	OTHER
1	1	1	1	1	1	1	1	1	1	1	1	1

MINIMUM ROOF LOADS (R301.5) IRC 2015	MINIMUM ROOF LIVE LOADS (R301.5) IRC 2015
UNHABITABLE ATTIC WITH LIMITED STORAGE	20 PSF
HABITABLE ATTIC WITH LIMITED STORAGE	10 PSF
DECKS AND EXTERIOR BALCONIES	40 PSF
GENERAL AND WALKWAYS	20 PSF
ROOM OTHER THAN SLEEPING ROOMS	40 PSF
SLEEPING ROOMS	30 PSF
STAIRS	40 PSF

DEFLECTION CRITERIA	LOAD	EXPOSURE CATEGORY
FLOOR LIVE LOAD	L160	B
FLOOR TOTAL LOAD	L240	B
ROOF LIVE LOAD	L30	B
ROOF TOTAL LOAD	L120	B
WALL	H150	B

ALL BEAMS SUPPORTING FLOOR OR ROOF LOADS ARE TO BE DESIGNED WITH THE ABOVE DEFLECTION CRITERIA.

D. DEAD LOADS ADDITIONAL OR CHANGES TO MATERIALS NEEDS TO BE ADJUSTED TO THE BELOW CALCULATIONS.

FLOOR TOP CHORD	ROOF TOP CHORD	ROOF BOTTOM CHORD
CARPET AND PAD	ROOFING SHINGLES (221 LBS) 2 LAYER	1.10 PSF
3/4" CERAMIC TILE 1/2" BACKER BD.	21 LBS. FELT	1.10 PSF
3/4" HARDWOOD FLOOR	1/2" OSB OR COM. PLYWOOD	2.8 PSF
9/16" OR 5/8" OSB OR COM. PLYWOOD	1/2" ROOF TRUSS 2X4	1.10 PSF
12 FLOOR TRUSS 2X12 SYSTEM	CORRECTION FOR SLOPE (10%)	1.50 PSF
TOTAL WITH CARPET/PAD	TOTAL	8.00 PSF
TOTAL WITH TILE/BACKER BD.	ROOF BOTTOM CHORD	1.10 PSF
TOTAL WITH HARDWOOD FLOOR	12 ROOF TRUSS 2X4	1.10 PSF
	5" GYPSUM	2.8 PSF
	1/2" FLOOR TRUSS 2X12 SYSTEM	1.50 PSF
	5" GYPSUM	2.8 PSF
	MINIMUM FOR MISC. MECHANICAL/ELEC.	0.7 PSF
TOTAL	TOTAL	7.00 PSF

SECTION R303. LIGHT AND VENTILATION IN HABITABLE ROOMS. PROVIDE NATURAL LIGHT AND VENTILATION WITH OPERABLE WINDOWS. WINDOW GLAZING SHALL NOT BE LESS THAN 8% OF THE FLOOR AREA OF EACH ROOM. 10 THE REQUIRED WINDOW AREA SHALL BE OPERABLE TO THE EXTERIOR FOR NATURAL VENTILATION.

R303.3 BATHROOMS MAY HAVE AN OPERABLE WINDOW OF 3 SF. IN AREA.

EXCEPTION 1. BATHROOM AND WATER CLOSET MAY BE VENTILATED WITH EXHAUST FANS AND ARTIFICIAL LIGHT.

SECTION R304. THE MINIMUM AREA OF ANY HABITABLE ROOM SHALL NOT BE LESS THAN 70 SQ. FEET, EXCEPT KITCHEN.

R304.2 THE MINIMUM LENGTH OR WIDTH OF ANY HABITABLE ROOM SHALL NOT BE LESS THAN 7'-0".

SECTION R305. CEILING HEIGHT. HABITABLE SPACE, HALLWAYS, AND PORTION OF THE BASEMENT CONTAINING THESE SPACES SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 7 FEET. BATHROOM, TOLER ROOM AND LAUNDRY ROOMS SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 8'-0".

EXCEPTION 1. FOR ROOMS WITH SLOPED CEILING, THE REQUIRED FLOOR AREA OF THE ROOM SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 7'-0" AND NOT LESS THAN 50% OF THE REQUIRED FLOOR AREA SHALL HAVE A CEILING OF LESS THAN 7'-0".

R305.1.1 BASEMENT. BEAMS, GIRDERS, DUCTS, OR OTHER OBSTRUCTIONS IN BASEMENT CONTAINING HABITABLE SPACE SHALL BE PERMITTED TO PROJECT TO WITHIN 4" OF THE FINISH FLOOR.

EXCEPTION 1. BEAMS, GIRDERS, DUCTS, OR OTHER OBSTRUCTIONS IN BASEMENT CONTAINING HABITABLE SPACE SHALL BE PERMITTED TO PROJECT TO WITHIN 4" OF THE FINISH FLOOR.

SECTION R307. TOILET, BATH AND SHOWER SPACES, FIXTURES SHALL BE SPACED IN ACCORDANCE WITH FIGURE R307.1.

EXCEPTION 1. TOILET: MIN 15" FROM WALL OR TUB OR VANITY.

SECTION R308. GLAZING. EXCEPT AS INDICATED IN SECTION R308.1.1 EACH PANEL OF GLAZING INSTALLED IN HAZARDOUS LOCATION DEFINED IN SECTION R308.1.1 SHALL BE PROVIDED WITH A MANUFACTURER'S DESIGNATION SPECIFYING WHO APPLIED DESIGNATION, DESIGNATING THE TYPE OF GLASS AND THE SAFETY GLAZING STANDARD.

R308.1.2 GLAZING ADJACENT TO DOORS. GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL ADJACENT TO A DOOR SHALL BE CONSIDERED TO BE A HAZARDOUS LOCATION WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 6'-0" ABOVE THE FLOOR OR WALKING SURFACE AND MEETS EITHER OF THE FOLLOWING CONDITIONS:

1. WHERE THE GLAZING IS WITHIN 24 INCHES EITHER SIDE OF THE DOOR OR THE PLANE OF THE DOOR IN A CLOSED POSITION.

2. WHERE THE GLAZING IS ON THE WALL PERPENDICULAR TO THE PLANE OF THE DOOR IN A CLOSED POSITION AND WITHIN 24" OF THE HINGE SIDE OF AN SWINGING DOOR.

EXCEPTION 1. DECORATIVE GLASS.

R308.1.3 GLAZING IN WINDOWS. GLAZING IN WINDOWS, SHOWERS AND INDOOR OR OUTSIDE POOLS WHERE THE TOP EXPOSED EDGE OF GLAZING IS LESS THAN 6'-0" MEASURED VERTICALLY ABOVE THE STANDING OR WALKING SURFACE.

R308.1.4 GLAZING ADJACENT TO STAIRS AND RAMPS. GLAZING WHERE THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 3'-0" ABOVE THE PLANE OF THE ADJACENT WALKING SURFACE OF THE STAIRWAY, LANDING BETWEEN FLIGHTS OF STAIRS AND RAMPS.

EXCEPTION 1. WHERE RAILING IS INSTALLED ON THE ACCESSIBLE SIDE OF THE GLAZING 3'-0" TO 3'-6" ABOVE WALKING SURFACE.

SECTION R310. EMERGENCY ESCAPE AND RESCUE OPENING. BASEMENT, HABITABLE ATTICS AND EVERY SLEEPING ROOM SHALL HAVE AN EMERGENCY ESCAPE AND RESCUE OPENING.

R310.2.1 MINIMUM OPENING AREA. EMERGENCY AND ESCAPE OPENING SHALL HAVE A NET CLEAR OPENING OF NOT LESS THAN 5.7 SQUARE FEET. THE NET CLEAR AREA DIMENSIONS REQUIRED BY THIS SECTION SHALL BE OBTAINED BY MANUAL OPERATION FROM THE INSIDE. THE NET CLEAR HEIGHT OPENING SHALL NOT BE LESS THAN 2'-0" AND THE NET CLEAR WIDTH SHALL NOT BE LESS THAN 2'-0".

R310.2.2 WINDOW SILL HEIGHT. WHERE THE WINDOW IS PROVIDED AS THE EMERGENCY ESCAPE AND RESCUE OPENING, IT SHALL HAVE A SILL HEIGHT OF NOT MORE THAN 4'-0" ABOVE THE FLOOR.

R310.2.3 WINDOW WELLS. THE HORIZONTAL AREA OF THE WINDOW WELL SHALL NOT BE LESS THAN 8 SQ. FT., WITH THE HORIZONTAL PROJECTION AND WIDTH OF NOT LESS THAN 3'-0" OF THE AREA OF THE WINDOW WELL SHALL ALLOW THE EMERGENCY ESCAPE AND RESCUE OPENING TO BE FULLY OPENED.

EXCEPTION 1. THE LADDER OR STEPS SHALL BE PERMITTED TO ENDOURCH NOT MORE THAN 6".

R310.2.3.1 WINDOW WELLS WITH A VERTICAL STEP GREATER THAN 4" SHALL BE EQUIPPED WITH A PERMANENT LADDER NOT LESS THAN 1'-0" WIDE.

SECTION 311. STAIRWAYS. STAIRWAY ARE TO BE NOT LESS THAN 3'-0" WIDE IN CLEAR WIDTH AT ALL POINTS ABOVE THE PERMITTED HANDRAIL HEIGHT. HANDRAILS SHOULD PROJECT MORE THAN 1'-0" ON EITHER SIDE OF THE STAIRWAY.

R311.2.1 HORIZONTAL. THE HEADROOM IN THE STAIRWAY SHALL BE NOT LESS THAN 6'-8" MEASURED VERTICALLY FROM THE SLOPED LINE ADJOINING THE TREAD TO THE FLOOR SURFACE OF THE LANDING.

R311.2.2 VERTICAL RISE. A FLIGHT OF STAIRS SHALL NOT HAVE A VERTICAL RISE LARGER THAN 12'-0".

R311.2.3 THE MAXIMUM RISE IS 7'-6" WITH A MINIMUM RUN OF 1'-0".

R311.2.4 HANDRAILS SHALL BE ON NOT LESS THAN ONE SIDE OF EACH CONTINUOUS RUN OF TREADS.

SECTION 314. SMOKE ALARMS. SMOKE ALARMS SHALL COMPLY WITH NFPA 72 AND UL 217.

R314.1 LOCATION. 1. IN EACH SLEEPING ROOM.

2. IN EACH SEPARATE SLEEPING AREA.

3. ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENT AND HABITABLE ATTICS.

4. SMOKE ALARMS SHALL BE INSTALLED NOT LESS THAN 7'-0" HORIZONTALLY FROM THE DOOR OR OPENING OF A BATHROOM THAT CONTAINS A BATHTUB OR SHOWER UNLESS THIS WOULD PREVENT PLACEMENT OF A SMOKE ALARM IN THAT LOCATION.

R314.1.1 SMOKE ALARMS SHALL NOT BE INSTALLED IN THE FOLLOWING AREAS:

1. KITCHEN. SMOKE ALARMS SHALL NOT BE INSTALLED LESS THAN 2'-0" HORIZONTALLY FROM A PERMANENTLY INSTALLED COOKING APPLIANCE.

2. KITCHEN SMOKE ALARMS WITH AN ALARM-SELECTING SWITCH SHALL NOT BE INSTALLED LESS THAN 1'-0" HORIZONTALLY FROM A PERMANENTLY INSTALLED SWITCH.

3. PHOTO-ELECTRIC SMOKE ALARMS SHALL NOT BE INSTALLED LESS THAN 6'-0" HORIZONTALLY FROM A PERMANENTLY INSTALLED COOKING APPLIANCE.

SECTION R315. CARBON MONOXIDE ALARMS. CARBON MONOXIDE ALARMS SHALL COMPLY WITH UL 2034. COMBINATION CARBON MONOXIDE AND SMOKE ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL 2034 AND UL 217.

R315.2.1 CARBON MONOXIDE SHALL BE PROVIDED IN DWELLING UNITS WHERE EITHER OR BOTH OF THE FOLLOWING CONDITION EXIST:

1. CONTAINS A FUEL-BURNING APPLIANCE.

2. ATTACHED GARAGE WITH AN OPENING THAT COMMUNICATES WITH THE DWELLING.

SECTION 317. PROTECTION OF WOOD AND WOOD-BASED PRODUCTS FROM DECAY. SHALL BE PROVIDED IN THE FOLLOWING LOCATIONS BY USE OF NATURALLY DURABLE WOOD OR WOOD THAT IS PRESERVATIVE-TREATED IN ACCORDANCE WITH ANFPA 11 FOR THE SPECIES, PRODUCT, PRESERVATIVE AND END USE.

R317.1.1 WOOD JOIST OR BOTTOM OF WOOD STRUCTURAL FLOOR WHEN CLOSER THAN 1'-0" OR WOOD GIRDERS WHEN CLOSER THAN 1'-0" TO THE EXPOSED GROUND OR SHALL SPACES OR UNEXCAVATED AREAS LOCATED WITHIN THE PERIPHERY OF THE BUILDING FOUNDATION.

R317.1.2 WOOD FRAMING MEMBERS THAT REST ON CONCRETE OR MASONRY EXTERIOR FOUNDATION WALLS AND ARE LESS THAN 1'-0" FROM EXPOSED GROUND.

R317.1.3 SILL AND SLEEPERS ON A CONCRETE OR MASONRY SLAB THAT IS IN DIRECT CONTACT WITH THE GROUND UNLESS SEPARATED FROM SUCH SLAB BY AN IMPERVIOUS MOISTURE BARRIER.

R317.1.4 THE ENDS OF A WOOD GIRDER ENTERING CONCRETE SHALL HAVE CLEARANCE OF LESS THAN 1'-0" ON TOP, SIDES AND ENDS. WOOD BEAMS, SHEATHING AND WALL FRAMING ON THE EXTERIOR OF A BUILDING HAVING A CLEARANCE OF LESS THAN 1'-0" FROM THE GROUND OR LESS THAN 1'-0" BEHIND VERTICALLY FROM CONCRETE STEPS, PORCH SLABS, AND SIMILAR HORIZONTAL SURFACES EXPOSED TO THE WEATHER.

R317.1.5 WOOD STRUCTURAL MEMBERS SUPPORTING MOISTURE-PERMEABLE FLOORS OR ROOFS THAT ARE EXPOSED TO THE WEATHER, SUCH AS CONCRETE SLABS.

R317.1.6 WOOD FRAMING MEMBERS ATTACHED DIRECTLY TO THE INTERIOR OF EXTERIOR MASONRY OR CONCRETE WALLS BELOW GRADE EXCEPT WHERE AN APPROVED VAPOR RETARDER IS APPLIED BETWEEN WALL AND THE FRAMING STRIP.

R317.1.7 FASTENERS FOR PRESERVATIVE-TREATED WOOD, FASTENERS INCLUDING NUTS AND WASHERS, FOR PRESERVATIVE-TREATED WOOD SHALL BE HOT-DIPPED, ZINC-COATED GALVANNEZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER COATING TYPES AND WEIGHTS FOR CONNECTORS IN CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL BE ACCORDANCE WITH THE CONNECTOR MANUFACTURER'S RECOMMENDATIONS.

**CHAPTER 4 (FOUNDATIONS)**

SECTION 401.4. SOIL TEST: WHERE QUANTIFIABLE DATA CREATED BY ACCEPTABLE SOIL SCIENCE METHODOLOGIES INDICATE EXPANSIVE, COMPRESSIBLE, SHIFTING OR OTHER UNKNOWN SOIL CHARACTERISTICS, THE BUILDING OFFICIAL SHALL DETERMINE WHETHER A SOIL TEST IS REQUIRED.

TABLE 401.4.1	CLASS OF MATERIAL	LOAD BEARING PRESSURE
	SAND, SILTY SAND, CLAYEY SAND, SILTY GRAVEL AND CLAYEY GRAVEL	2,000 POUNDS PER SQ FT
	CLAYEY SAND, SLIGHTLY CLAY, CLAYEY SILT, SILT, AND SANDY SILT CLAY	1,500 POUNDS PER SQ FT

THIS DESIGN IS BASED ON 2,000 POUNDS PER SQ FT, UNLESS NOTED OTHERWISE. IT IS THE BUILDER OR HOMEOWNER RESPONSIBLE TO LET PLUM DESIGN SERVICE KNOW IF THE CONDITION IN THE FIELD ARE DIFFERENT.

R401.2 CONCRETE. FROM TABLE R401.2.1. FOUNDATION CONCRETE WALLS SHALL HAVE A MIN. STRENGTH OF 3000 PSI.

R401.2.1 GARAGE FLOOR SLABS SHALL BE 3.500 PSI.

R401.2.2 WALKWAYS, CARPORT SLABS AND STEPS EXPOSED TO THE WEATHER SHALL BE 3,500 PSI AT 28 DAYS.

R401.2.3 BASEMENT SLABS 2,500 PSI.

(CONCRETE SHALL BE AIR ENTRAINMENT WITH 5%-7% TOTAL AIR CONTENT).

R401.3 ALL FOOTING SHALL BE PLACED ON UNDISTURBED SOIL OR CONTROLLED COMPACTED FILL. MINIMUM FOOTING TO BE 1'-0" WIDE X 1'-0" DEEP FOR A 2 STORY BUILDING AND 2'-0" WIDE X 1'-0" DEEP FOR A 3 STORY BUILDING (TABLE 401.4.1) BOTH WITH 2 CONTINUOUS HORIZONTAL #4 REBAR.

R401.3.1 ALL ANCHOR BOLTS SHALL BE APPROVED 1/2" IN DIAMETER AND SHALL EXTEND A MINIMUM OF 7" INTO CONCRETE. USE TWO BOLTS PER SILL PLATE AND ANCHORED AT A MINIMUM OF 4 FEET OR CENTER WITH A MINIMUM OF ONE SILL NOT MORE THAN 12 INCHES FROM THE END BUT AT LEAST 3 1/2 INCHES FROM END OF SILL PLATE. THE BOLTS SHALL BE LOCATED IN THE MIDDLE THIRD OF THE WIDTH OF THE PLATE.

R401.3.2 ALTERNATE FOUNDATION STRIPS MAY BE USED, SPECIFICATION TO PROVIDE EQUIVALENT ANCHOR TO A 1/2" DIAMETER ANCHOR BOLTS.

R401.3.3 SPACES AND FLOORS ABOVE GRADE SHALL BE DAMPROOFED FROM THE INSIDE OF THE TOP OF THE FOOTING, TO THE FINISHED GRADE.

R401.3.4 UNDER FLOOR SPACE. THE UNDER-FLOOR SPACE BETWEEN THE BOTTOM OF THE JOIST AND THE EARTH UNDER ANY BUILDING SHALL HAVE VENTILATION OPENING THROUGH THE FOUNDATION WALLS OR EXTERIOR WALLS. MIN. NET AREA OF VENTILATION SHALL BE NOT LESS THAN 1 SQ FT FOR EACH 150 SQ FT OF AREA UNDER THE FLOOR.

R401.3.5 ACCESS THROUGH THE FLOOR IS REQUIRED TO BE 1'-0" X 2'-0".

**CHAPTER 5 (FLOORS)**

SECTION 501.4.1. FRAMING MATERIALS GRADES.

A. ROOF, FLOOR, AND WALL SHEATHING. APA RATED SHEATHING, LEAVE 1/8" SPACING AT PANEL ENDS AND EDGES.

B. WALL STUDS. MINIMUM SPP #1 OR BETTER.

C. WALL PLATES. MINIMUM SPP #1 OR BETTER.

D. DIMENSIONAL HEADERS. DOUGLAS FIR #2 OR EQUAL.

E. LVL HEADERS. 2599 POUND MINIMUM.

**CHAPTER 8 (ROOF-CEILING)**

SECTION R802.1.2 DESIGN WOOD TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICE. THE DESIGN AND MANUFACTURE OF METAL-PLATED WOOD TRUSS SHALL COMPLY WITH ANSI/P1.

R802.1.3 BRACING. TRUSSES SHALL BE BRACED TO PREVENT ROTATION AND PROVIDE LATERAL STABILITY. REFER TO THE INDIVIDUAL TRUSS DESIGN DRAWINGS AND SPEC 802B GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING AND BRACING OF METAL PLATE CONNECTED WOOD TRUSSES.

R802.1.4 TRUSS UPLIFT. TRUSSES SHALL BE ATTACHED TO SUPPORTING WALL ASSEMBLIES BY CONNECTION CAPABLE OF RESISTING FORCES SPECIFIED ON THE TRUSS DESIGN DRAWINGS.

SECTION R804. ROOF VENTILATION. ENCLOSED ATTIC AND ENCLOSED RAFTER SPACES FORMED WHERE CEILING ARE APPLIED DIRECTLY TO THE UNDERSIDE OF THE ROOF MEMBERS SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE BY VENTILATING OPENINGS PROTECTED AGAINST THE ENTRANCE OF RAIN OR SNOW. REQUIRED VENTILATION OPENINGS SHALL BE DIRECTLY TO THE OUTSIDE AIR.

R804.2 MINIMUM VENT AREA. THE MINIMUM NET FREE VENTILATION SHALL BE 1/100 (EXCEPTION 1) 1/120.

SECTION R807. ATTIC ACCESS. BUILDING WITH COMBUSTIBLE CEILING OR ROOF CONSTRUCTION SHALL HAVE AN ATTIC ACCESS OPENING TO ATTIC AREA THAT HAVE A VERTICAL HEIGHT OF 3'-0" OR GREATER.

1. THE ROUGH-FRAMED OPENING SHALL NOT BE LESS THAN 22"x30".

2. SHALL BE LOCATED IN A HALLWAY OR OTHER EASILY ACCESSIBLE LOCATION.

3. MINIMUM UNOBSTRUCTED HEAD ROOM IN THE ATTIC SPACE SHALL BE 3'-0" MEASURED VERTICALLY FROM BOTTOM OF CEILING MEMBER.

**CHAPTER 9 (ROOF ASSEMBLIES)**

SECTION 903. GENERAL. ROOF DECKS SHALL BE COVERED WITH THE APPROVED ROOF COVERING SECURED TO THE BUILDING OR STRUCTURE IN ACCORDANCE WITH THE PROVISIONS OF THIS CHAPTER. ROOF ASSEMBLIES SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH THIS CODE AND THE APPROVED MANUFACTURER'S INSTRUCTIONS.

R903.1 FLASHING. FLASHING SHALL BE INSTALLED IN MANNER THAT PREVENTS MOISTURE FROM ENTERING THE WALL AND ROOF THROUGH JOINTS CORNER, THROUGH MOISTURE PERMEABLE MATERIALS AND AT INTERSECTION WITH PARAPET WALLS AND OTHER PENETRATIONS THROUGH THE ROOF PLANE.

R903.2.1 LOCATION. FLASHING SHALL BE INSTALLED AT WALL AND ROOF INTERSECTIONS, WHEREVER THERE IS A CHANGE IN ROOF OR DIRECTION AND AROUND ROOF OPENINGS.

SECTION 905. ROOF COVERING APPLICATION. ROOF COVERING SHALL BE APPLIED IN ACCORDANCE WITH THE WITH THE APPLICABLE PROVISIONS OF THIS SECTION AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

R905.1.1 UNDERLAMENT. UNDERLAMENT FOR ASPHALT SHINGLES, CLAY AND CONCRETE TILE, METAL, ROOF SHINGLES, MINERAL SURFACED ROLL ROOFING, SLATE AND SLATE-TYPE SHINGLES, WOOD SHINGLES AND METAL ROOF PANELS SHALL CONFORM TO THE APPLICABLE STANDARDS LISTED IN THIS CHAPTER. UNDERLAMENT MATERIALS REQUIRED TO COMPLY WITH ASTM D 226, D 1910, D 489 AND D 4197 SHALL BEAR A LABEL INDICATING COMPLIANCE. UNDERLAMENT SHALL BE ATTACHED IN ACCORDANCE WITH TABLE R905.1.1(1) ICE BARRIERS. IF AREAS WHERE THERE HAS BEEN A HISTORY OF ICE FORMING ALONG EDGES CAUSING BACKUP OF WATER AS DESIGNATED BY TABLE R901.2(1), AN ICE BARRIER SHALL BE INSTALLED. THE ICE BARRIER SHALL CONSIST OF TWO LAYERS OF UNDERLAMENT OR SELF-ADHERING POLYMER ACCURATED BITUMEN SHEET SHALL BE USED IN PLACE OF NORMAL UNDERLAMENT AND EXTEND NOT LESS THAN 24" INSIDE THE EXTERIOR WALL ON ROOFS OVER 1/12. THE ICE BARRIER SHALL BE APPLIED NOT LESS THAN 36" FROM THE EAVES. THE INSTALLATION OF ASPHALT SHINGLES SHALL COMPLY WITH THIS SECTION AND MANUFACTURER'S INSTALLATION.

R905.2.2 SLOPE. ASPHALT SHINGLES SHALL BE USED ON ROOF SLOPES OF 2/12 OR GREATER. FOR SLOPES FROM 2/12 UP TO 4/12, DOUBLE UNDERLAMENT APPLICATION IS REQUIRED IN ACCORDANCE WITH SECTION R905.1.1.

R905.2.3 FLASHING. FLASHING FOR ASPHALT SHINGLES SHALL COMPLY WITH THIS SECTION.

**CHAPTER 10-43**

REFER TO THE CHAPTERS IN THE IRC 2015 FOR THE DESIGN AND REQUIREMENTS OF THESE ITEMS.

CHAPTER 10. CHIMNEY AND FIREPLACE.

CHAPTER 11. ENERGY EFFICIENCY.

CHAPTER 12(11). MECHANICAL & GENERAL MECHANICAL SYSTEMS REQUIREMENTS.

CHAPTER 14. HEATING AND COOLING EQUIPMENT AND APPLIANCES.

CHAPTER 15. EXHAUST SYSTEMS.

CHAPTER 16. DUCT SYSTEMS.

CHAPTER 17. COMBUSTION AIR.

CHAPTER 18. CHIMNEYS AND VENTS.

CHAPTER 19(2). SPECIAL APPLIANCE, WATER HEATERS, HYDROVIC PIPING AND SPECIAL PIPING.

CHAPTER 23. SOLAR THERMAL ENERGY SYSTEMS.

CHAPTER 24. FUEL GAS.

CHAPTER 25(3). PLUMBING RELATED ITEMS.

CHAPTER 35(4). ELECTRICAL RELATED ITEMS.

**ABBREVIATIONS**

ADJ	ADJUSTABLE
ANW	ANNING
BTM	BOTTOM
BASMT	BASEMENT
BETW	BETWEEN
CA	CASEMENT
CANT	CANTILEVER
CAB	CABINET
CL	CENTERLINE
CEILING	CEILING
CAED	CASED OPENING
COL	COLUMN
CONC	CONCRETE
DR	DRIVER
DM	DIAMETER
DN	DOWN
DW	DOUBLE HUNG
FL	FLOOR
FLR	FLOOR
FT	FEET
FLN	FURNACE
HR	HEADER
HW	HARDWOOD
INSUL	INSULATION
JST	JOIST
LVL	LAMINATED VENEER LUMBER
LIN	LINEN
LX	LUMBER
MAX	MAXIMUM
MIN	MINIMUM
OC	ON CENTER
OVD	OVERHEAD DOOR
OPN	OPENING
PEDEST	PEDESTAL
NOT TO SCALE	NOT TO SCALE
REF	REFER TO
REQD	REQUIRED
RO	ROUGH OPENING
RM	ROOM
SH	SINGLE HUNG
S 1 R	SHELL AND RAKE
S 1 R	SINGLE HUNG
S.P.	STUMP PIT
STL	STEEL
TYP	TYPICAL
TRNS	TRANSOM
UNEX	UNEXCAVATED
VANT	VANTH
W	WASHER
W	WITH
WHL	WATER HEATER

**ELECTRIC SYMBOLS**

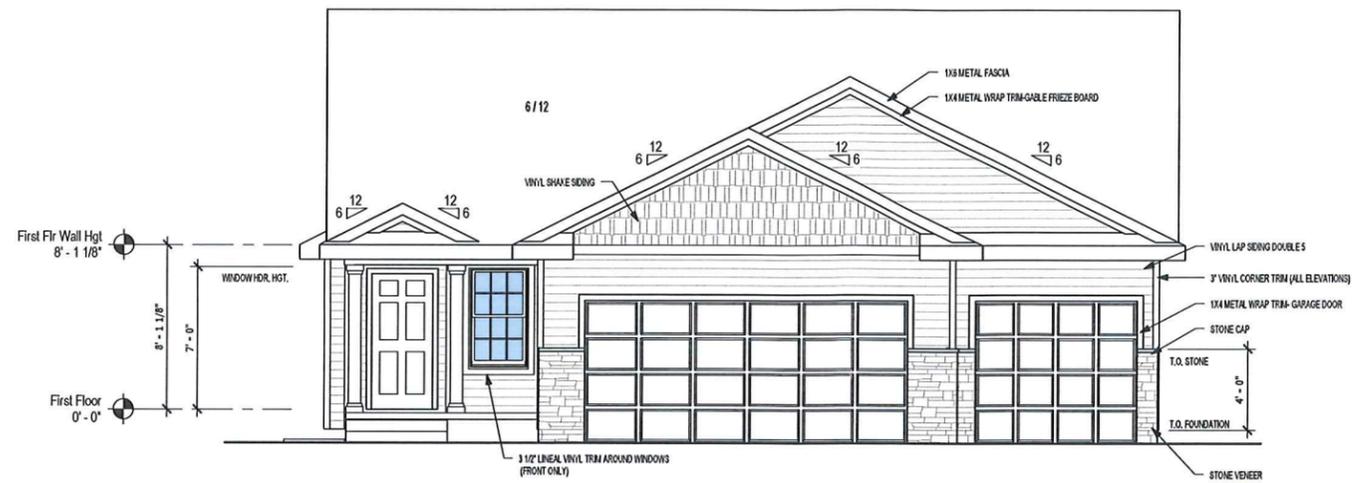
○	SINGLE POLE SWITCH
○	THREEWAY SWITCH
○	DIMMER SWITCH
○	SINGLE RECEPTACLE OUTLET
○	240 VOLT RECEPTACLE
○	PHONE OUTLET
○	EXHAUST FAN
○	SMOKE/HEAT DETECTOR
○	GARAGE DOOR OPERATOR
○	ELECTRIC PANEL
○	CEILING MOUNTED LIGHT
○	

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MEMBER



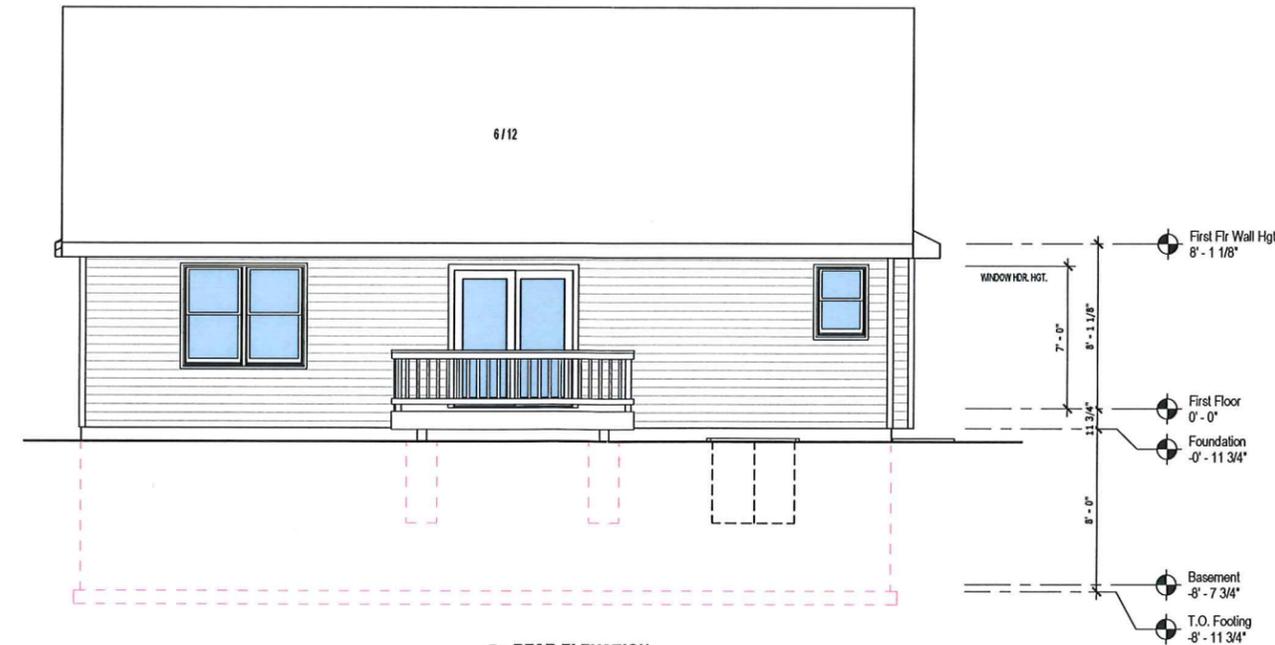
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**1 FRONT ELEVATION**  
 Scale: 1/4" = 1'-0"

ESTIMATED AREA - WALL CLADDING			
MATERIAL TYPE	MATERIAL SF	MATERIAL %	MATERIAL ELEVATION
Lap Siding - 0"	1966 SF	100.0%	
Lap Siding - 0"	109 SF	65.6%	Front
Shake Material - Staggered	57 SF	34.4%	Front

\* SQUARE FOOTAGE OF GROUNDWORK IS NOT SHOWN IN THE EXPOSED SURFACE OF THE WALL.  
 1. THE AREA INCLUDES SURFACES BELOW SECONDARY FINISHANCE.  
 2. THE AREA INCLUDES INTERIOR ROOM SURFACES.



**2 REAR ELEVATION**  
 Scale: 1/4" = 1'-0"

Classic Builders  
 U.S. Grant Plan

PROJECT ID:  
 PDS 3523

ISSUE DATE:  
 DATE: 10-10-16  
 DATE: 10-21-16  
 DATE: 10-25-16  
 DATE:  
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Elevations

1/4" = 1'-0"

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Classic Builders  
 U.S. Grant Plan

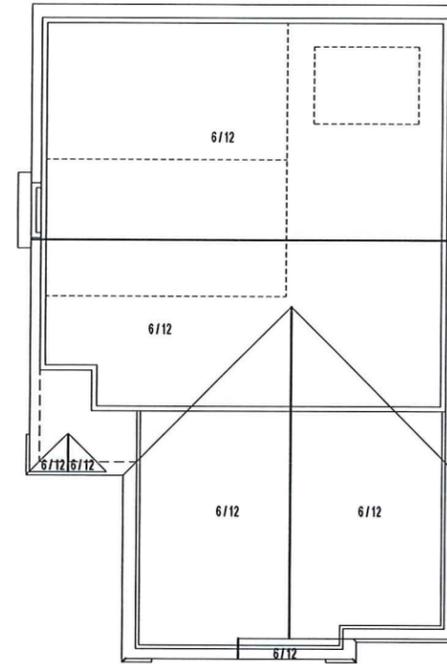
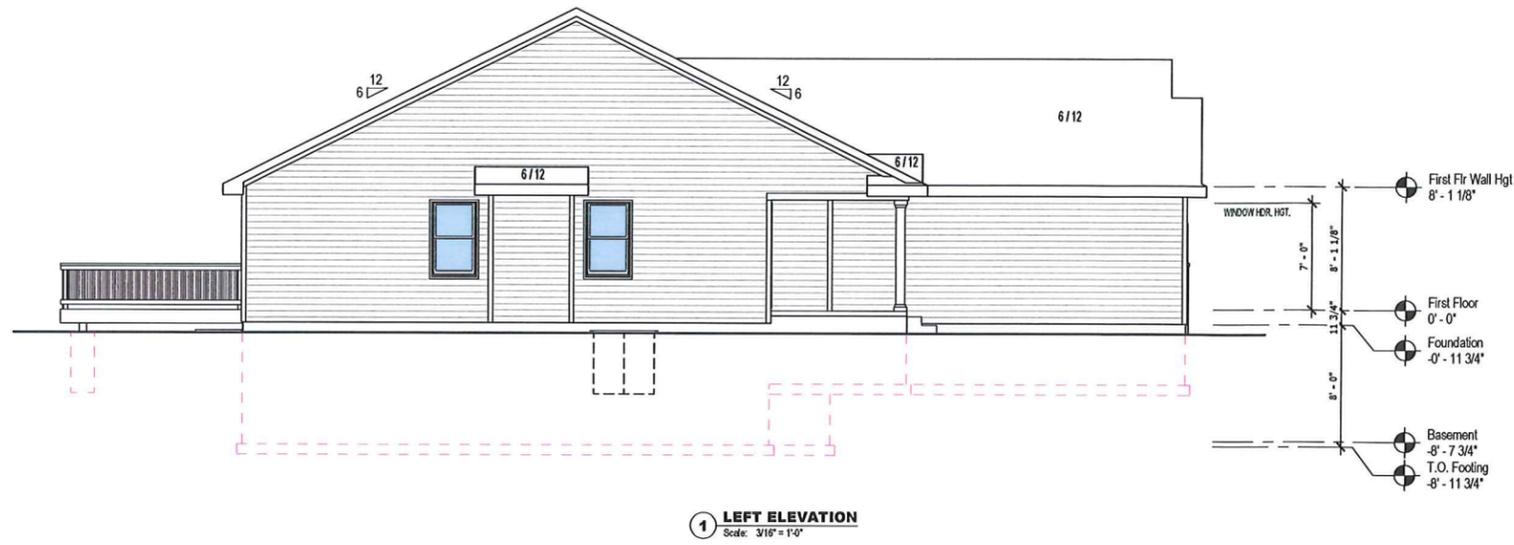
PROJECT ID:  
 PDS 3523

ISSUE DATE:  
 DATE: 10-10-16  
 DATE: 10-21-16  
 DATE: 10-25-16  
 DATE:  
 DATE:  
 DATE:  
 DATE:

Elevations

As indicated

THIS PAGE IS INTENDED TO BE PRINTED ON 24"x36" PAPER TO BE TO SCALE



**ROOF PLAN LEGEND**

SYMBOL	PLATE HGT.	PITCH	OVERHANG	HEEL HGT.
ALL	1 1/8"	6/12	1'-0"	7"
ALL RAKE OVERHANGS ARE 12" UNLESS NOTED				

**ESTIMATED AREA - ROOF**

2021 SF

- SQUARE FOOTAGE OF ROOF IS TAKEN FROM THE EXPOSED SURFACE OF THE ROOF.  
 1. THE AREA INCLUDES THE HIPS, RAFTERS, BIRD'S MOUTH.  
 2. 1/2" RAKE PITCH IS NOT INCLUDED.

