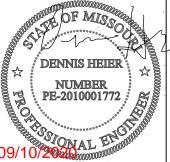


Drawing title: The **CATALINA**

Site Description: Lot 708, Eagle Creek

Street Address: 2366 SW River Trail Rd., Lee's Summit, Missouri

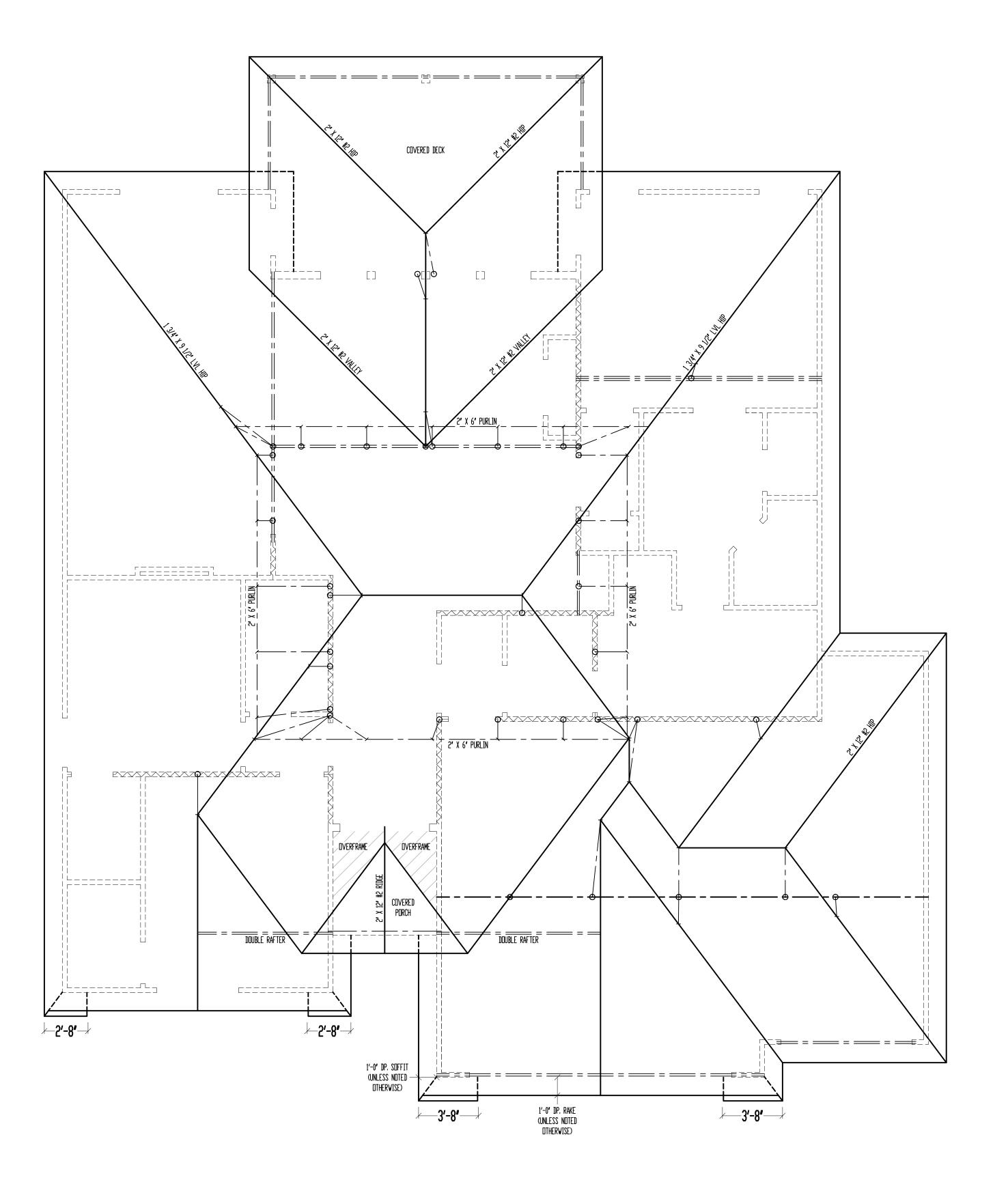
General Contractor: IQ Construction



Date: 9 - 1 - AD 2020 Rev 1 Rev. 2: Rev. 3:

Sheet Title: **ELEVATIONS**

Sheet No.:



ROOF

Flashing note:

	CODE MINI	MUM			
	RAFTERS	SPACING	MAX HORIZONTAL CLEARSPAN		
	#2-2x6	@24 ′ □.C.	11'-7 '		
$\rangle \rangle \rangle$	#2-2x6	€16 ° □.C.	14'-2 '	((
	#2-2x8	@24 ″ □.C.	14'-8 "		
	#2-2x8	0 16 ′ □.C.	17'-11 '		
	#2-2x10	@24 ′ □.C.	17′-10 ′		
	#2-2x10	€16 ° □.C.	21′-11 ′		
	NOTE: COD	E MINIMUM ALL	OWS FOR A RAFTER DEFLECTION		
	TE 1 /100 TETAL LEAD				

HIGHER PERFORMANCE (RECOMMENDED)					
RAFTERS	SPACING	MAX HORIZONTAL CLEARSPAN			
#2-2x6	024 ″ □.C.	8'-6 '			
#2-2x6	€16 ′ □.C.	9'-9 '			
#2-2x8	024″ □.C.	11'-3 '			
#2-2x8	€16 ′ □.C.	12'-9 '			
#2-2x10	024 ″ □.C.	14'-3 '			
#2-2x10	€16 ′ □.C.	16'-3 '			
DEFLECTION = L/360 LIVE LOAD, L/240 TOTAL LOAD					

- #2- 2X8 UP TO 10/12 PITCH

* ALL HIPS & VALLEYS ARE: (UNLESS OTHERWISE NOTED)

- ALL PURLINS STRUTS SHALL HAVE A MAXIMUM UNBRACED LENGTH OF 8'-0'

'T' CONFIGURATION AND PER THE FOLLOWING CHART:

MAX PURLIN STRUT LENGT
8′-0 ′
12'-0 '
20'-0 '
30′-0 ″
30'-0 '

(SEE PURLIN BRACE NOTES ABOVE)

DOT IS BOTTOM OF BRACE (o). * ~ DENOTES BEARING WALL *---- DENOTES ROOF BRACE * — DENOTES PURLIN

* — DENOTES BEARING STRUCTURE

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

ALL RAFTERS SHALL BE 2' X 6' #2 @ 16' D.C., UNLESS NOTED OTHERWISE.

DRIP EDGE, VALLEYS AND FLASHINGS TO BE METAL CLAD.

ROOF NOTES: ROOF DESIGNED FOR LIGHT ROOF COVERING 30psf TOTAL LOAD [10psf DL, 20psf LL (SL)]

* RAFTERS (HEM-FIR, DDUG-FIR, DR EQUAL): SEE SPAN CHARTS BELDW

	CODE MINI	MUM				
	RAFTERS	SPACING	MAX HORIZONTAL CLEARSPAN			
	#2-2x6	@24 * □.C.	11'-7 '			
$\rangle\rangle\rangle$	#2-2x6	0 16 ′ □.C.	14'-2 '	<		
	#2-2x8	@24 " □.C.	14'-8 '			
	#2-2x8	0 16 ′ □.C.	17'-11 '			
	#2-2x10	@24 * □.C.	17′-10 ′			
	#2-2x10	0 16 ′ □.C.	21'-11 '			
	NOTE: CODI	E MINIMUM ALL	OWS FOR A RAFTER DEFLECTION			
	DE 1 MON TOTAL LEAD					

OF L/180 TOTAL LOAD

HIGHER PE	RFORMANCE (R	ECOMMENDED)
RAFTERS	SPACING	MAX HORIZONTAL CLEARSPAN
#2-2x6	@24 ″ □.C.	8'-6 '
#2-2x6	€16 * □.C.	9'-9 '
#2-2x8	@24 ″ □.C.	11'-3 '
#2-2x8	€16 ° □.C.	12'-9 '
#2-2x10	@24 ′ □.C.	14'-3 '
#2-2x10	€16 * □.C.	16'-3 '

* VAULTS TO BE 2x10 DEPTH
* RIDGE BOARDS ARE: (UNLESS OTHERWISE NOTED)

- #2- 2X10 OVER 10/12 PITCH

- #2- 2X8 UP TO 10/12 PITCH - #2- 2X10 OVER 10/12 PITCH

* PURLINS ARE 2X6 MIN. - PURLIN STRUTS ARE AT 4'-0" D.C.

- PURLIN STRUTS SHALL BE INSTALLED AT NOT LESS THAN A 45 DEGREE ANGLE WITH THE HORIZONTAL

- PURLINS STRUTS SHALL BE CONSTRUCTED IN A

PURLIN STRUT	MAX PURLIN STRUT LENGTI
(2) 2x4	8′-0 ′
(1) 2x4 & (1) 2x6	12'-0 '
(1) 2x6 & (1) 2x8	20'-0 '
(2) 2x6 & (1) 2x8	30'-0 '
CONSULT ARCH./ENGR. >	30'-0 '

* RIDGE BRACES ARE SAME AS PURLIN BRACES-SPACING, SIZE, CONFIGURATION, & INSTALLATION (SEE PURLIN BRACE NOTES ABOVE) * HIP & VALLEY BRACES ARE SAME AS PURLIN SIZE, CONFIGURATION, & INSTALLATION

* VERTICAL BRACE IF DOT IS UNDER HIP OR VALLEY * SLASH IS TOP END OF BRACE (/),

Rev. 3: Sheet Title: **ROOF PLAN**

Drawing title: The

CATALINA

Site Description:

Lot 708, Eagle

Creek

Street Address:

2366 SW River Trail

Rd., Lee's Summit,

Missouri

General Contractor: IQ Construction

DENNIS HEIER

NUMBER PE-2010001772

OVAL ENDOUGH

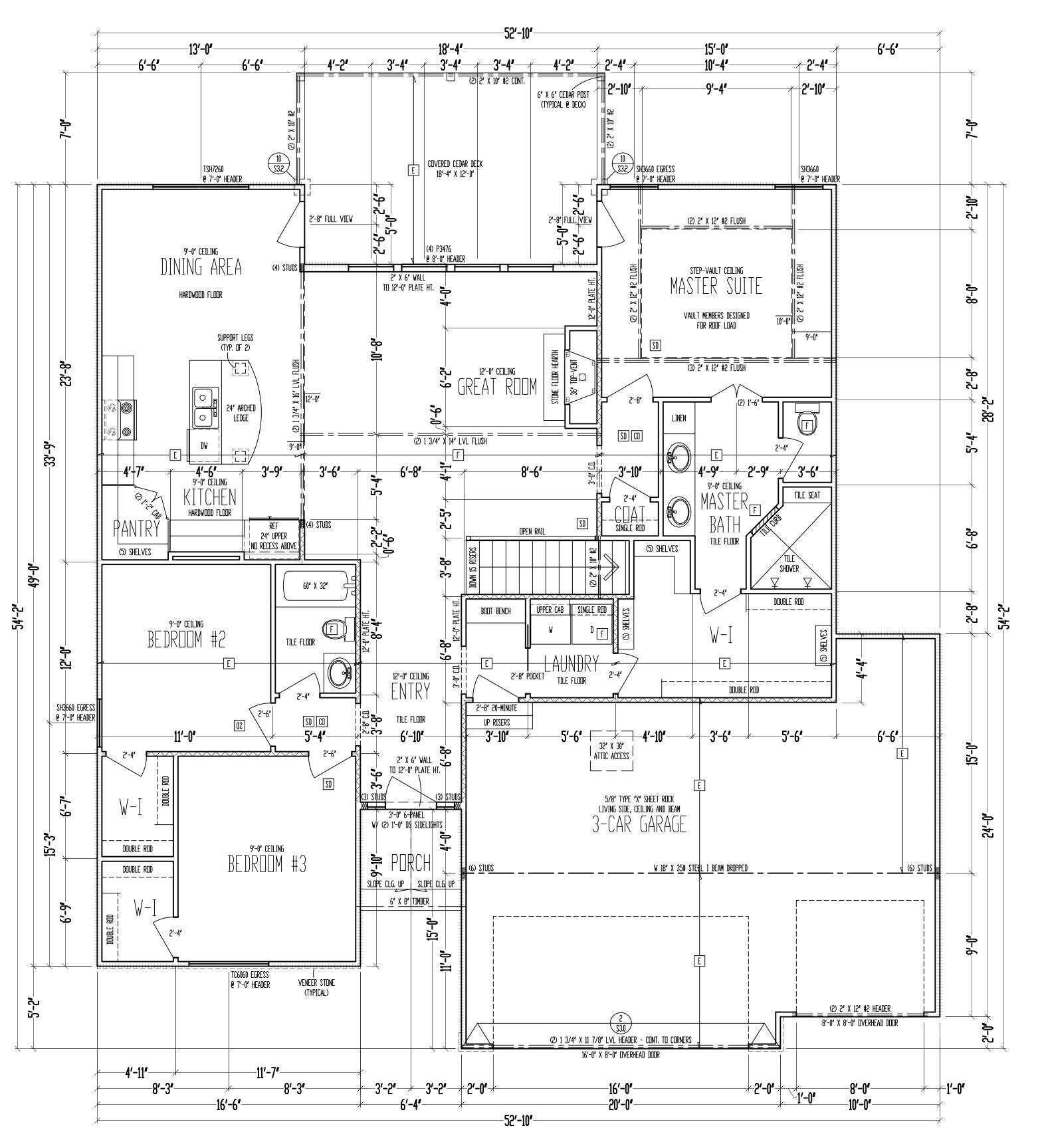
Date: 9 - 1 - AD 2020

Rev 1

Rev 2

RELEASE FOR CONSTRUCTION

Sheet No.:



9'-0" CEILING MAIN LEVEL

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

MAIN LEVEL: 1750 SQ. FT.

GARAGE: 658 SQ. FT.
UNFIN. BASEMENT: 1569 SQ. FT.
COV. OUT/LIV: 227 SQ. FT.

	JOIST SCHEDULE
ш	2" X 6" #2 CEILING JOIST @ 16" D.C.
F	2" X 8" #2 CEILING JOIST @ 16" D.C.

RAMING NOTES

1. MAIN LEVEL EXTERIOR WALLS SHALL BE SHEATHED W/ 7/16' D.S.B.
A.P.A. PANELS W/ 8d COMMON NAILS @ 6' D.C. AT EDGES & @ 12' D.C. IN
THE FIELD. SMART PANEL, DR EQUAL, INSTALLED PER MANUFACTURER'S
SPECIETALITIES

7. BLOCK JOISTS ABOVE BEAMS, CANTILEVERS AND LOAD BEARING WALLS WITH JOIST MATERIAL (NOT REQUIRED WITH I-JOISTS).
8. PROVIDE MULTIPLE STUDS FOR SOLID BEARING BELOW ALL BEAMS.
9. ALL DESIGNATED 2' X 6' WALLS SHALL HAVE DOUBLE KING STUDS AT DOOR AND WINDOW OPENINGS.

10. ALL UNSQUARE WALLS SHALL BE 45°, UNLESS NOTED OTHERWISE.
11. ALL WALLS TO BE FRAMED W/ MIN. STUD GRADE 2′ X 4′S € 16′ D.C., UNLESS NOTED OTHERWISE.

12. EXTERIOR WALL BOTTOM PLATES SHALL BE NAILED TO FRAMING BELOW WITH 16d COMMON NAILS @ 8' D.C. MAX. (WHERE APPLICABLE.)

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RELEASE FOR CONSTRUCTION

begotten Son, that whosoever believeth in him thould not perish, but have everlasting life"

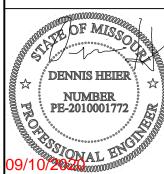
VIEWPOINT RESIDENTIAL DESIGN LLC

Drawing title:
The
CATALINA

Site Description: Lot 708, Eagle

Creek
Street Address:
2366 SW River Trail
Rd., Lee's Summit,

Missouri
General Contractor:
IQ Construction



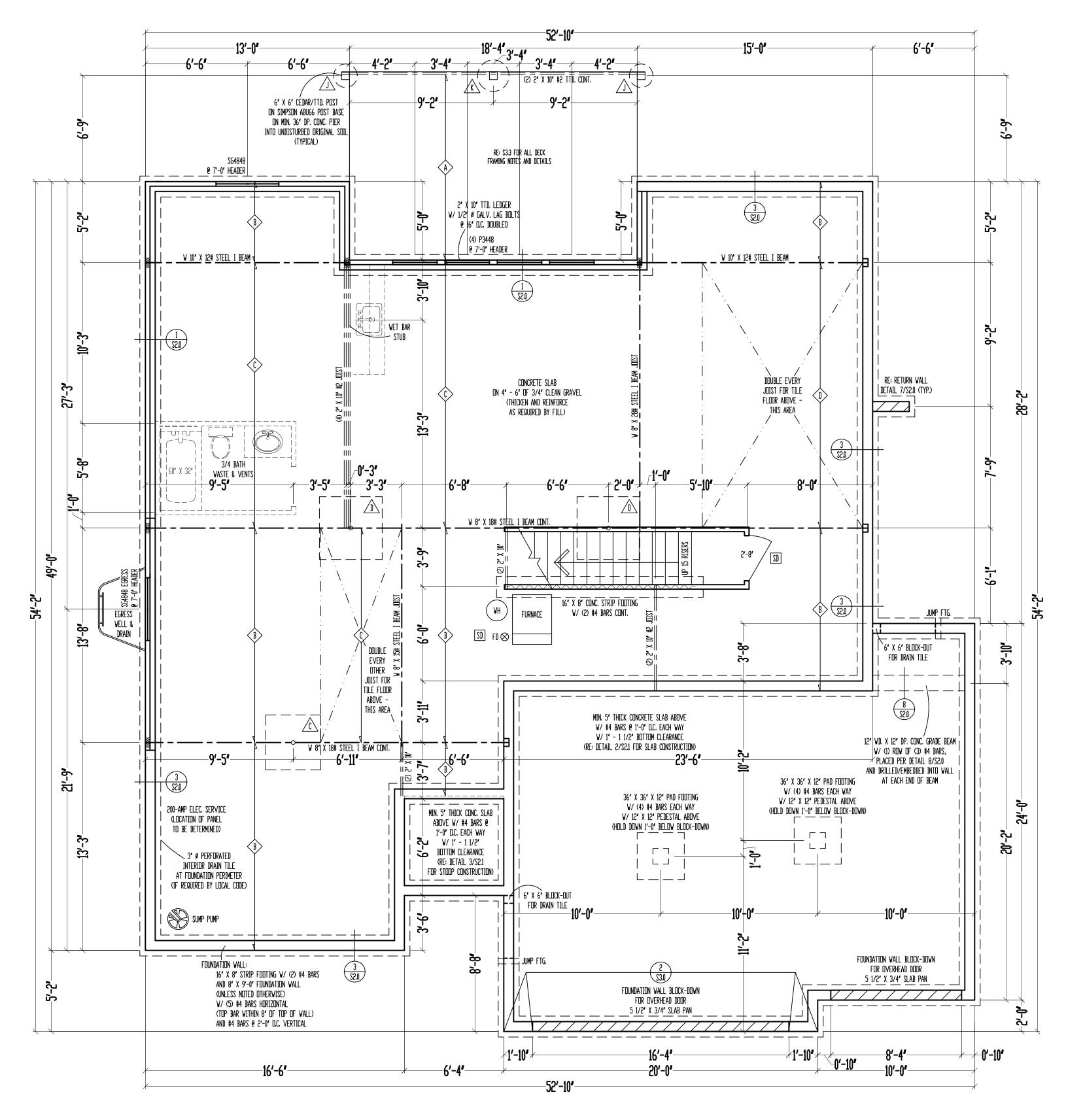
Date: 9 - 1 - AD 2020 Rev. 1: ______ Rev. 2: _____ Rev. 3: _____

Sheet Title:

MAIN LEVEL PLAN

Sheet No.:

A-3
of 4



9'-0" FOUNDATION WALLS (UNLESS NOTED OTHERWISE) ON 16" X 8" STRIP FOOTINGS (STEP WHERE GRADE REQUIRES

2" X 10" FLOOR SYSTEM FOUNDATION

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

	STEEL COLUMN &					
	1	AD FOOTING SCHEDULE				
	Â	3' X 11 GA. STEEL COLUMN ON 30' X 30' X 10' PAD FOOTING W/ (4) #4 BARS EACH WAY (12.5k.				
	B	3 1/2" X 11 GA. STEEL COLUMN ON 36" X 36" X 12" PAD FOOTING V/ (4) #4 BARS EACH WAY (18.0K)				
	<u>Ĉ</u>	3' SCH. 40 STEEL COLUMN ON 42' X 42' X 12' PAD FOOTING W/ (5) #4 BARS EACH WAY (24.5k				
		3 1/2" SCH. 40 STEEL COLUMN ON 48" X 48" X 12" PAD FOOTING W/ (6) #4 BARS EACH WAY (32.0k				
	Æ	3 1/2" SCH. 40 STEEL COLUMN DN 54" X 54" X 14" PAD FOOTING W/ (7) #4 BARS EACH WAY (40.5k				
	F	3 1/2' SCH. 40 STEEL COLUMN DN 60' X 60' X 14' PAD FOOTING W/ (8) #4 BARS EACH WAY (50.0k				

PIER	PIER FOOTING SCHEDULE			JOIST SCHEDULE		
	12" Ø PIER FTG.		⟨ ♣ ⟩	2' X 10' #2 TREATED FLOOR JOIST @ 16' O.C.		
<u>₩</u>	16' Ø PIER FTG.		(B)	2" X 10" #2 FLOOR JOIST @ 16" O.C.		
\triangle	18' Ø PIER FTG.		⟨¢⟩	2' X 10' #2 FLOOR JOIST @ 16' O.C DOUBLE EVERY OTHER		
K	24' Ø PIER FTG.		(I)>	2" X 10" #2 FLOOR JOIST @ 16" O.C DOUBLE EVERY ONE		

ON SHEET S1.1.

FRAMING NOTES

1. BASEMENT LEVEL EXTERIOR WOOD-FRAMED WALLS SHALL BE SHEATHED W/ 7/16' D.S.B. A.P.A. PANELS W/ 8d COMMON NAILS @ 6' D.C. AT EDGES & @ 12' D.C. IN THE FIELD. SMART PANEL, OR EQUAL, INSTALLED PER MANUFACTURER'S SPECIFICATIONS.

2. \ \ \ \ \ \ \ \ = G.B; 1/2" MIN. GYPSUM BDARD DVER STUDS SPACED 24" MAX FASTENED W/ ND. 6 - 1 1/4" TYPE W DR S DRYWALL SCREWS @ 7" D.C. EDGES & FIELD. (MIN. 8'-0' SECTIONS ONE SIDE OF WALL (OR) MIN. 4'-0' SECTION FOR BOTH SIDES) 3. / / / / / / / / / / / = LOAD BEARING INTERIOR WALL.

4. (2) 2' X 10' #2 HEADER AT ALL EXTERIOR AND LOAD BEARING WALLS, UNLESS NOTED

OTHERWISE.

5. LOW TIES @ 4'-0" D.C. (TYPICAL) 6. RUN STUDS THE FULL HEIGHT OF RAISED PLATE WALLS.

7. BLOCK JOISTS ABOVE BEAMS, CANTILEVERS AND LOAD BEARING WALLS WITH JOIST MATERIAL (NOT REQUIRED WITH I-JOISTS).

8. PROVIDE MULTIPLE STUDS FOR SOLID BEARING BELOW ALL BEAMS. 9. ALL DESIGNATED 2" X 6" WALLS SHALL HAVE DOUBLE KING STUDS AT DOOR AND WINDOW

10. ALL UNSQUARE WALLS SHALL BE 45°, UNLESS NOTED OTHERWISE. 11. ALL WALLS TO BE FRAMED W/ MIN. STUD GRADE 2' X 4'S @ 16' D.C., UNLESS NOTED

12. 1/2' Ø ANCHOR BOLTS W/ MIN. 7' EMBEDMENT @ 48' O.C. MAX. & WITHIN 6' - 12' OF END

OF EACH PLATE LENGTH. 13. NEW FOUNDATION SHALL BEAR ON ORIGINAL SOIL WITH MINIMUM BEARING CAPACITY OF 1500 PSF. A GEOTECHNICAL ENGINEER IS RECOMMENDED FOR VERIFICATION OF THESE CONDITIONS DURING THE EXCAVATION PHASE. ENGINEER OF RECORD ASSUMES NO RESPONSIBILITY FOR CONSTRUCTION NOT VERIFIED TO BE FOUNDED ON ANYTHING SHORT OF THE AFOREMENTIONED REQUIREMENTS.

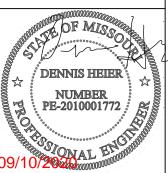
RELEASE FOR CONSTRUCTION

Drawing title: The **CATALINA**

Site Description: Lot 708, Eagle Creek

Street Address: 2366 SW River Trail Rd., Lee's Summit, Missouri General Contractor:

IQ Construction



Date: 9 - 1 - AD 2020 Rev 1 Rev. 2: Rev 3

Sheet Title:

FOUNDATION PLAN

Sheet No.:

DESCRIPTION OF BUILDING ELEMENTS NUMBER AND TYPE OF FASTENER SPACING AND LOCATION	R TRUSS
### BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOE NAIL CEILING JOISTS TO PLATE, TOE NAIL CEILING JOISTS TO PLATE, TOE NAIL CEILING JOISTS NOT ATTACHED TO PARALLEL RAFTER (HEEL JOINT) FACE NAIL CEILING JOIST SOT PATACHED TO PARALLEL RAFTER (HEEL JOINT) THE R802.5.2 FACE NAIL CEILING JOIST TO PARALLEL RAFTER (HEEL JOINT) THE R802.5.2 FACE NAIL COLLAR TIE TO RAFTER FACE NAIL OR 1½" × 20 GA. RIDGE STRAP TO RAFTER RAFTER OR ROOF TRUSS TO PLATE RAFTER OR ROOF TRUSS TO PLATE ROOF RAFTERS TO RIDGE, VALLEY, OR HIP PARETERS OR ROOF RAFTER TO MINIMUM 2" RIDGE BEAM ***BEAM** ***BUILT OR STUD NOT AT BRACED WALL PANELS) STUD TO STUD (NOT AT BRACED WALL PANELS) STUD TO STUD AND ABUTTING STUDS AT NTERSECTING WALL CORNERS (AT BRACED WALL PANELS) BUILT-UP HEADER, TWO PIECES WITH ½" SPACER CONTINUOUS HEADER TO STUD ***BUILT-UP HEADER, TWO PIECES WITH ½" SPACER CONTINUOUS HEADER TO STUD ***BUILT-UP HEADER, TWO PIECES WITH ½" SPACER CONTINUOUS HEADER TO STUD ***BUILT-UP HEADER, TWO PIECES WITH ½" SPACER CONTINUOUS HEADER TO STUD ***BUILT-UP HEADER, TWO PIECES WITH ½" SPACER CONTINUOUS HEADER TO STUD ***BUILT-UP HEADER, TWO PIECES WITH ½" SPACER CONTINUOUS HEADER TO STUD ***BUILT-UP HEADER, TWO PIECES WITH ½" SPACER CONTINUOUS HEADER TO STUD ***BUILT-UP HEADER, TWO PIECES WITH ½" SPACER ***BUILT-UP HEADER, TWO PIECES WITH ½" SPACER CONTINUOUS HEADER TO STUD ***BUILT-UP HEADER, TWO PIECES WITH ½" SPACER ***BUILT-UP HEADER, TWO PIECES WIT	R TRUSS
PLATE, TOE NAIL CELING JOISTS TO PLATE, TOE NAIL 4-8d (2½ * 0.113") PER JOIST, TOENAIL CELING JOISTS NOT ATTACHED TO PARALLEL RAFTER, LAPS OVER PARTITIONS, FACE NAIL CELING JOIST TO PARALLEL RAFTER (HEEL JOINT) TBLE R802.5.2 FACE NAIL COLLAR TIE TO RAFTER, FACE NAIL OR 1½ * 20 GA. RAFTER OR ROOF TRUSS TO PLATE RAFTER OR ROOF TRUSS TO PLATE RAFTER OR ROOF TRUSS TO PLATE ROOF RAFTERS TO RIDGE, VALLEY, OR HIP PAFFERS OR ROOF RAFTER TO MINIMUM 2" RIDGE BEAM TOENAIL, STUD TO STUD (NOT AT BRACED WALL PANELS) STUD TO STUD (NOT AT BRACED WALL PANELS) BUILT-UP HEADER, TWO PIECES WITH ½" SPACER CONTINUOUS HEADER TO STUD 4-8d (2½* * 0.135") TOENAIL TOP PLATE TO TOP PLATE DOUBLE TOP PLATE SPLICE BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (AT BRACED WALL PANELS) TOP PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (AT BRACED WALL PANELS) TOP PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (AT BRACED WALL PANELS) TOP PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (AT BRACED WALL PANELS) TOP PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (AT BRACED WALL PANELS) TOP PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (AT BRACED WALL PANELS) TOP PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (AT BRACED WALL PANELS) TOP PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (AT BRACED WALL PANELS) TOP OR SOLE PLATE TO STUD, RIM JOIST, BAND JOIST, OR BLOCKING (AT BRACED WALL PANELS) TOP OR SOLE PLATE TO STUD, RIM JOIST, BAND JOIST, OR BLOCKING (AT BRACED WALL PANELS) TOP PLATES, LAPS AT CORNERS AND 3-104 BOX (3** v.0.128") FACE NAIL TOP PLATES, LAPS AT CORNERS AND 3-104 BOX (3** v.0.128") FACE NAIL TOP PLATES, LAPS AT CORNERS AND 3-104 BOX (3** v.0.128") FACE NAIL TOP PLATES, LAPS AT CORNERS AND 3-104 BOX (3** v.0.128") FACE NAIL TOP PLATES, LAPS AT CORNERS AND TOENAIL, END NAIL FACE NAIL TOP PLATES, LAPS AT CORNERS AND TOENAIL SELECTIONS TOP PLATES, LAPS AT CORNERS AND	R TRUSS
CEILING JOISTS NOT ATTACHED TO PARALLEL RAFTER (LAPS OVER PARTITIONS, FACE NAIL 4-10d (3" x 0.128") FACE NAIL	R TRUSS
RAFTER, LAPS OVER PARTITIONS, FACE NAIL CEILING JOIST TO PARALLEL RAFTER (HEEL JOINT) TBLE R802.5.2 FACE NAIL COLLAR TIE TO RAFTER, FACE NAIL OR 1 ½ × 20 GA. RIDGE STRAP TO RAFTER RAFTER OR ROOF TRUSS TO PLATE RAFTER OR ROOF TRUSS TO PLATE ROOF RAFTERS TO RIDGE, VALLEY, OR HIP RAFTER TO MINIMUM 2" RIDGE BAM **A-16d (3 ½ × 0.135") OR 3-10d COMMON OPPOSITE SIDE OF EACH RAFTER OI NAIL. (3 ½ × 0.148") **TOENAIL. 3-16d BOX (3 ½ × 0.148") **TOENAIL. 3-16d BOX (3 ½ × 0.148") TOENAIL, END NAIL STUD TO STUD (NOT AT BRACED WALL PANELS) STUD TO STUD AND ABUTTING STUDS AT NTERSECTING WALL CORNERS (AT BRACED WALL PANELS) BUILT-UP HEADER, TWO PIECES WITH ½" SPACER CONTINUOUS HEADER TO STUD **TOENAIL** TOP PLATE TO TOP PLATE DOUBLE TOP PLATE SPLICE **B-16d COMMON (3 ½ × 0.138") **TOENAIL** **TOENAIL** **TOENAIL** **TOENAIL** TOP PLATE SPLICE **B-16d COMMON (3 ½ × 0.128") **TOENAIL** **TOENAIL** **TOENAIL** TOP BLOCKING (NOT AT BRACED WALL PANELS) BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (NOT AT BRACED WALL PANELS) BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (NOT AT BRACED WALL PANELS) BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (NOT AT BRACED WALL PANELS) **TOENAIL** **T	R TRUSS
COLLAR TIE TO RAFTER, FACE NAIL OR 1 ½" x 20 GA. RIDGE STRAP TO RAFTER RAFTER OR ROOF TRUSS TO PLATE ROOF RAFTER TO RIDGE, VALLEY, OR HIP RAFTER STO RIDGE, VALLEY, OR HIP RAFTER TO MINIMUM 2" RIDGE BEAM WALL STUD TO STUD (NOT AT BRACED WALL PANELS) STUD TO STUD AND ABUTTING STUDS AT NTERSECTING WALL CRAFTER (AT BRACED WALL PANELS) BUILT-UP HEADER, TWO PIECES WITH ½" SPACER CONTINUOUS HEADER TO STUD TOP PLATE TO TOP PLATE BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (NOT AT BRACED WALL PANELS) BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (AT BRACED WALL PANELS) TOP OR SOLE PLATE TO STUD, END NAIL 4-8d BOX (2½" x 0.135") FACE NAIL, EACH RAFTER A-10d (33½" x 0.128") FACE NAIL, EACH RAFTER TOENAIL, EACH RAFTER A-10d (33½" x 0.128") FACE NAIL, EACH RAFTER TOENAIL, EACH RAFTER A-10d (33½" x 0.128") FACE NAIL ON EACH SIDE OF END JOIN LAP SPLICE LENGTH EACH	R TRUSS
RIDGE STRAP TO RAFTER RAFTER OR ROOF TRUSS TO PLATE ROOF RAFTERS TO RIDGE, VALLEY, OR HIP RAFTERS OR ROOF RAFTER TO MINIMUM 2" RIDGE BEAM 1" TOENAIL, S0" x 0.135") - TOENAIL; 3-16d BOX (3½" x 0.135") - TOENAIL; 3-16d BOX (3½" x 0.135") - TOENAIL, END NAIL STUD TO STUD (NOT AT BRACED WALL PANELS) STUD TO STUD AND ABUTTING STUDS AT NTERSECTING WALL CONNERS (AT BRACED WALL PANELS) BUILT-UP HEADER, TWO PIECES WITH ½" SPACER CONTINUOUS HEADER TO STUD TOP PLATE TO TOP PLATE BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (NOT AT BRACED WALL PANELS) BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (AT BRACED WALL PANELS) TOP OR SOLE PLATE TO STUD, END NAIL TOP PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (AT BRACED WALL PANELS) TOP OR SOLE PLATE TO STUD, END NAIL TOP PLATE TO JOIST, RACED WALL PANELS) TOP OR SOLE PLATE TO STUD, END NAIL TOP PLATE TO STUD, END NAIL TOP PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (AT BRACED WALL PANELS) TOP OR SOLE PLATE TO STUD, END NAIL TOP PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (AT BRACED WALL PANELS) TOP OR SOLE PLATE TO STUD, END NAIL TOP PLATE TO JOIST, BAND JOIST, BAND JOIST, OR BLOCKING (AT BRACED WALL PANELS) TOP PLATE TO JOIST, BAND JOIST, BAND JOIST, OR BLOCKING (AT BRACED WALL PANELS) TOP OR SOLE PLATE TO STUD, END NAIL TOP PLATE TO STUD, END NAIL TOP PLATES, LAPS AT CORNERS AND 3-10d BOX (3*" x 0.128") FACE NAIL TOP PLATES, LAPS AT CORNERS AND	R TRUSS
NAILS (3" x 0.148") OPPOSITE SIDE OF EACH RAFTER OI ROOF RAFTERS TO RIDGE, VALLEY, OR HIP RAFTERS OR ROOF RAFTER TO MINIMUM 2" RIDGE BEAM WALL STUD TO STUD (NOT AT BRACED WALL PANELS) STUD TO STUD (NOT AT BRACED WALL PANELS) STUD TO STUD AND ABUTTING STUDS AT NTERSECTING WALL CORNERS (AT BRACED WALL PANELS) BUILT-UP HEADER, TWO PIECES WITH ½" SPACER CONTINUOUS HEADER TO STUD 4-8d (½" x 0.135") 10d (3" x 0.128") 12" O.C. EACH EDGE FACE NAIL TOP PLATE TO TOP PLATE 10d (3" x 0.128") 12" O.C. FACE NAIL TOP PLATE SPLICE 8-16d COMMON (3½" x 0.162") FACE NAIL ON EACH SIDE OF END JOIN LAP SPLICE LENGTH EACH SIDE OF END JOIN LAP SPLICE LENGTH EACH SIDE OF END JOIN LAP SPLICE LENGTH EACH SIDE OF END JOIN CARD BLOCKING (NOT AT BRACED WALL PANELS) TOP OR SOLE PLATE TO STUD, END NAIL 4-8d BOX (2½" x 0.113") TOENAIL, S-16d BOX (3½" x 0.162") 10 3 EACH 16" O.C. FACE NAIL TOP PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (AT BRACED WALL PANELS) TOP OR SOLE PLATE TO STUD, END NAIL 4-8d BOX (2½" x 0.113") - TOENAIL; 3-16d BOX (3½" x 10 END TOWN NAIL TOP PLATES, LAPS AT CORNERS AND 3-10d BOX (3" x 0.128") FACE NAIL TOP PLATES, LAPS AT CORNERS AND	R TRUSS
#4-16d (3 ½" x 0.135") - I DENAIL; 3-16d BOX (3 ½" x DAIL ## WALL STUD TO STUD (NOT AT BRACED WALL PANELS) STUD TO STUD AND ABUTTING STUDS AT NTERSECTING WALL CORNERS (AT BRACED WALL PANELS) BUILT-UP HEADER, TWO PIECES WITH ½" SPACER CONTINUOUS HEADER TO STUD TOP PLATE TO TOP PLATE BOUTO PLATE SPLICE BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (NOT AT BRACED WALL PANELS) BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (NOT AT BRACED WALL PANELS) BOTTOM PLATE TO STUD, END NAIL TOP OR SOLE PLATE TO STUD, END NAIL 4-8d BOX (2 ½" x 0.135") 4-8d BOX (3 ½" x 0.135") TOENAIL; 3-16d BOX (3 ½" x 0.162") TOENAIL, END NAIL (SEE LEFT OF NAIL) TOP OR SOLE PLATE TO STUD, END NAIL 4-8d BOX (2 ½" x 0.113") - TOENAIL; 3-16d BOX (3 ½" x 0.128") TOENAIL, END NAIL (SEE LEFT OP NAIL) TOP PLATES, LAPS AT CORNERS AND 3-10d BOX (3" x 0.128") FACE NAIL TOENAIL, END NAIL (SEE LEFT OP NAIL) TOENAIL, END NAIL (SEE LEFT OP NAIL) TOP PLATES, LAPS AT CORNERS AND	IL
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DOUBLE TOP PLATE SPLICE 8-16d COMMON (3 ½" x 0.162") FACE NAIL ON EACH SIDE OF END JOIN LAP SPLICE LENGTH EACH SIDE OF END J	
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TOP OR SOLE PLATE TO STUD, END NAIL 0.135") - END NAIL TOP PLATES, LAPS AT CORNERS AND 3-10d BOX (3" x 0.128") FACE NAIL	
	Γ)
1" BRACE TO EACH STUD AND PLATE 3-8d BOX (2 ½" x 0.113") FACE NAIL	
1"x6" SHEATHING TO EACH BEARING 3-8d BOX (2 ½" x 0.113") FACE NAIL	
1"x8" SHEATHING TO EACH BEARING 3-8d BOX (2 ½" x 0.113") - FACE NAIL; WIDER THAN 1"x8" - 4-8d BOX (2 ½" x 0.113")	
FLOOR	
JOIST TO SILL, TOP PLATE, OR GIRDER 4-8d BOX $(2\frac{1}{2}" \times 0.113")$ TOE NAIL	
RIM JOIST, BAND JOIST, OR BLOCKING TO SILL OR TOP PLATE (ROOF APPLICATIONS ALSO) 8d BOX (2 ½" x 0.113") 4" O.C. TOE NAIL	
1" x 6" SUBFLOOR OR LESS TO EACH JOIST 3-8d BOX (2 ½" x 0.113") FACE NAIL	
2" SUBFLOOR TO JOIST OR GIRDER 3-16d BOX (3 ½" x 0.135") BLIND AND FACE NAIL	
2" PLANKS (PLAN & BEAM - FLOOR AND ROOF) 3-16d BOX (3 ½" x 0.135") AT EACH BEARING, FACE NAI	L
BAND OR RIM JOIST TO JOIST 3-16d COMMON (3 ½" x 0.162") END NAIL	
BUILT-UP GIRDERS AND BEAMS, 2-INCH LUMBER LAYERS 10d BOX (3" x 0.128") 24" O.C. FACE NAIL AT TOP AND BO STAGGERED ON OPPOSITE SID	
LEDGER STRIP SUPPORTING JOISTS OR RAFTERS 4-16d BOX (3 ½" x 0.135") AT EACH JOIST OR RAFTER, FACE	
BRIDGING OR BLOCKING TO JOIST 2-10d BOX (3" x 0.128") EACH END, TOENAIL)ES

SCRIPTION OF BUILDING MATERIAL	FASTNER SCHEDULE FOR S DESCRIPTION OF FASTENER	EDGE SPACING (INCHES)	INTERMEDIATE SUPPORTS (INCHES
WOOD STRUCTURAL PANELS, SU	BFLOOR, ROOF AND INTERIOR WALL SHEA	ATHING TO FRAMING AND PARTICLEBO	ARD WALL SHEATHING TO FRAMING ¹
¾" - ½"	6d COMMON (2" x 0.113") NAIL (SUBFLOOR, WALL) 8d COMMON NAIL (ROOF)	6	12
¹⁹ / ₃₂ " - 1"	8d COMMON NAIL (2½" x 0.131")	6	12
1½" - 1½"	10d COMMON (3" x 0.148") NAIL OR 8d (2½" x 0.131") DEFORMED NAIL	6	12
	OTHER WALL	. SHEATHING 1	
½" STRUCTURAL CELLULOSIC FIBERBOARD SHEATHING	$1\frac{1}{2}$ " GALVANIZED ROOFING NAIL, $\frac{7}{16}$ " HEAD DIAMETER, OR $1\frac{1}{4}$ " LONG 16 GA. STAPLE WITH $\frac{7}{16}$ " OR 1" CROWN	3	6
25" STRUCTURAL CELLULOSIC FIBERBOARD SHEATHING	$1\frac{3}{4}$ " GALVANIZED ROOFING NAIL, $\frac{7}{16}$ " HEAD DIAMETER, OR $1\frac{1}{2}$ " LONG 16 GA. STAPLE WITH $\frac{7}{16}$ " OR 1" CROWN	3	6
½" GYPSUM SHEATHING	1½" GALVANIZED ROOFING NAIL; STAPLE GALVANIZED, 1½" LONG; 1¼" SCREWS, TYPE W OR S	7	7
%" GYPSUM SHEATHING	1¾" GALVANIZED ROOFING NAIL; STAPLE GALVANIZED, 1½" LONG; 1½" SCREWS, TYPE W OR S	7	7
W	OOD STRUCTURAL PANELS, COMBINATION	N SUBFLOOR UNDERLAYMENT TO FRAI	MING
¾" AND LESS	6d DEFORMED (2" x 0.120") NAIL OR 8d COMMON (2½" x 0.131") NAIL	6	12
½" - 1"	8d COMMON (2½" x 0.131") NAIL OR 8d DEFORMED (2½" x 0.120") NAIL	6	12
11/8" - 11/4"	10d COMMON (3" x 0.148") NAIL OR 8d DEFORMED (2½" x 0.120") NAIL	6	12

1. IF INFORMATION LISTED ON PLAN SHEETS CONTRADICTS INFORMATION IN THIS TABLE, INFORMATION ON PLANS TAKES PRECEDENCE OVER INFORMATION LISTED IN THIS TABLE

FOUNDATION NOTES

CONCRETE SHALL BE AIR-ENTRAINED BETWEEN 5%-7% WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 2500 PSI FOR BASEMENT AND INTERIOR FLOOR SLABS-ON-GRADE, 3000 PSI FOR FOUNDATION WALLS, AND 3500 PSI FOR PORCHES AND GARAGE FLOOR SLABS

THE FOUNDATION DESIGN SHALL COMPLY WITH THE ENFORCING JURISDICTION'S RESIDENTIAL FOUNDATION STANDARDS

PROVIDE A MINIMUM 4"-DIAMETER PERFORATED DRAIN PIPE ALONG PERIMETER OF USABLE SPACE AT FOOTING LEVEL OR OTHER EQUIVALENT MATERIALS PER IRC SECTION R405.1. THE PIPE SHALL BE COVERED WITH A MINIMUM OF 6" OF GRAVEL OR CRUSHED ROCK. THE DRAIN SHALL DAYLIGHT BELOW FOOTING LEVEL OR TERMINATE IN A

MINIMUM 20 GALLON SUMP PIT FOUNDATION SHALL BE DESIGNED FOR A BEARING CAPACITY OF 1500 PSF AND FOUNDED ON COMPETENT ORIGINAL SOIL AS DETERMINED AND CONFIRMED BY A LICENSED GEOTECHNICAL ENGINEER OR ENGINEERING GEOLOGIST. ENGINEER OF RECORD ASSUMES NO RESPONSIBILITY FOR CONSTRUCTION NOT VERIFIED TO BE FOUNDED ON ANY

SOIL WITH THE AFOREMENTIONED MINIMUM PROPERTIES. 5. FOOTINGS SHALL BE A MINIMUM OF 16" WIDE x 8" DEEP AND SHALL HAVE A MINIMUM OF (2) CONTINUOUS GRADE 40 #4 BARS WITH 3" BOTTOM CLERANCE. BOTTOM OF FOOTING SHALL BE LOCATED A MINIMUM OF 3'-0" BELOW GRADE

FOR FROST PROTECTION. CONCRETE PADS SUP0PORTING COLUMN LOADS SHALL BE NO SMALLER THAN 2'-0" x 2'-0" x 1'-0" DEEP WITH A

MINIMUM OF (4) GRADE 40 #4 BARS EACH WAY WITH 3" BOTTOM CLEARANCE FOUNDATION WALLS SHALL BE A MINIMUM OF 8" NOMINAL WIDTH AND SHALL HAVE HOIZONTAL GRADE 40 #4 BARS

AT 2'-0" O.C. MAX. WITH VERTICAL #4 BARS AS REQUIRED ON FOUNDATION CROSS SECTION ON SHEET S2.0 REINFORCEMENT SHALL LAP A MINIMUM OF 2'-0" (CLASS B SPLICE)

VAPOR RETARDER WITH MINIMUM OVERLAP OF 6" AT DISCONTINUITIES

INTERIOR BEARING WALLS AND COLUMNS SHALL BE ISOLATED FROM THE BASEMENT FLOOR SLAB BASEMENT FLOOR SLAB SHALL BE A MINIMUM OF 4" THICK ON A MINIMUM BASE COURSE OF 4" TO 6" OF SAND, GRAVEL OR CRUSHED ROCK. BETWEEN THE BASE COURSE AND FLOOR SLAB SHALL BE PLACED A 6-MIL POLY

11. IF A FLOOR IS TO BE SUPPORTED BY A MINIMUM OF 2'-0" OF GRANULAR FILL OR 8" OF EARTH, BASEMENT SLAB SHALL BE DESIGNED BY A LICENSED ENGINEER

SILL PLATES SHALL BE ANCHORED TO THE FOUNDATION WALL WITH 1/2" Ø ANCHOR BOLTS EMBEDDED A MINIMUM OF 7" INTO CENTER OF WALL STEM AND SHALL BE INSTALLED AT A MAXIMUM OF 6'-0" O.C. (OR AS NOTED ON PLANS) AND SHALL BE INSTALLED WITHIN 6" TO 12" OF EACH END OF EACH SILL PLATE LENGTH, PER IRC SECTION R403.1.6

13. FOUNDATION WINDOW WELLS SHALL BE PROVIDED WITH MINIMUM DIMENSIONS AS SHOWN IN DETAIL ON SHEET 14. THE GARAGE FLOOR SHALL SLOPE TOWARD THE VEHICLE DOORS OR TO A TRENCH OR UNTRAPPED DRAIN THAT

DISCHARGES TO THE EXTERIOR. ABOVE GRADE

MINIMUM OF 1/8

15. ALL DIMENSIONAL LUMBER SHALL BE DOUGLAS-FIR-LARCH GRADE #2, UNLESS NOTED OTHERWISE ON PLANS 16. ALL INTERIOR LOAD-BEARING AND EXTERIOR WALL HEADERS SHALL BE (2) #2 - 2x10's, UNLESS NOTED OTHERWISE

BLOCK OVER BEAMS AND AT CANTILEVERS AND DOOR JAMBS INTERIOR NON-BEARING WALLS RESTING ON BASEMENT SLAB SHALL BE ISOLATED FROM ABOVE FRAMING BY A

ALL HEADERS/BEAMS SHALL BEAR ON A MINIMUM OF (2) 2x4 POSTS (KING AND JACK STUDS), UNLESS NOTED OTHERWISE

WHERE JOISTS SPAN PARALLEL TO FOUNDATION, BLOCKING SHALL BE PROVIDED IN THE TWO SPACES MOST ADJACENT TO THE FOUNDATION WALL AT 4'-0" O.C. FOR THE PURPOSE OF TRANSFERRING LATERAL FOUNDATION WALL LOAD TO THE FLOOR DIAPHRAGM. FASTEN JOISTS AND BLOCKING TO SILL PLATE WITH (4) 10d NAILS. IF MECHANICAL DUCTWORK IS INSTALLED IN ONE OF THESE FIRST TWO BAYS, FASTEN 2x4's FLAT AT 4'-0" O.C. BETWEEN JOIST(S) AND/OR SILL AND PROVIDE BLOCKING AS PRESCRIBED ABOVE IN THE NEXT TWO JOIST BAYS. SECURE 2x4's TO JOIST(S)/SILL PLATE WITH (4) 10d NAILS

21. ALL WOOD MATERIAL SUPPORTED ON CONCRETE OR MASONRY SHALL BE TREATED OR OF DECAY-RESISTANT

22. JOISTS UNDER BEARING PARTITIONS ON PLANS HAVE BEEN SIZED TO SUPPORT THE DESIGN LOAD. JOISTS FRAMING INTO THE FACE OF A STEEL OR WOOD BEAM SHALL BE SUPPORTED WITH APPROPRIATE **COLD-FORMED STEEL JOIST HANGERS**

JOISTS FRAMED ON TOP OF STRUCTURAL MEMBER SHALL BE SUPPORTED AT EN DS BY FULL-DEPTH SOLID BLOCKING MIN. 1/4" IN THICKNESS OR BY FASTENING RIM TO JOISTS PER FASTENING TABLE TO LEFT

ALL WALL COVERINGS SHALL COMPLY WITH IRC SECTION R702.3

26. ALL RAFTERS AND COLLAR TIES SHALL COMPLY WITH IRC SECTION R802.3.

ALL RAFTERS SHALL HAVE 2x4 COLLAR TIES @ 4'-0" O.C. IN UPPER ⅓ OF VERTICAL DISTANCE BETWEEN CEILING AND

BLOCKING BETWEEN JOISTS UNDER A LOAD-BEARING WALL IS NOT REQUIRED

PER IRC SECTION 501.3, BOTTOM OF ALL FLOOR ASSEMBLIES ABOVE UNFINISHED AREAS SHALL BE PROVIDED WITH A 1/2" GYPSUM BOARD MEMBRANE OR RESIDENTIAL FIRE SPRINKLER SYSTEM WHEN FLOOR SYSTEM IS CONSTRUCTED OF OTHER THAN DIMENSION LUMBER OR STRUCTURAL COMPOSITE LUMBER EQUAL TO OR GREATER THAN 2x10 NOMINAL DIMENSION(WHERE REQUIRED BY ENFORCING JURISDICTION)

ENGINEERED LVL's SHALL HAVE MINIMUM PROPERTIES OF Fb = 2600 psi, E=1900 ksi, AND Fv=285 psi

ENGINEERED PARALLAMS SHALL HAVE MINIMUM PROPERTIES OF Fb = 2600 psi, E = 2000 ksi, AND Fv = 290 psi COLUMN CONNECTION TO STEEL BEAMS SHALL BE WITH A CLIP POST CAP WITH ALL FOUR TAB EARS BENT AROUND THE BOTTOM FLANGE OF THE BEAM. FOR A BEARING PLATE, FOUR HOLES SHALL BE DRILLED IN THE BOTTOM FLANGE OF THE STEEL BEAM TO MATCH THE HOLE PATTERN OF THE PLATE. ½" x 2" BOLTS SHALL THEN BE INSTALLED WITH A FLAT WASHER, LOCK WASHER, AND A NUT IN EACH OF THE HOLES. THE POST CAP MAY BE WELDED TO THE STEEL BEAM IN ACCORDANCE WITH AWS D1.1-92 AS AN ALTERNATIVE, AND WOULD NEED TO BE

INSPECTED BY AN AWS-CERTIFIED INSPECTOR. 33. WHEN MECHANICAL EQUIPMENT IS LOCATED IN AN ENCLOSED ROOM, THERE SHALL BE (2) 14"x12" VENTS LOCATED IN A WALL COMMON WITH ADDITIONAL LIVING AREA. ONE VENT SHALL BE LOCATED SUCH THAT THE BOTTOM OF THE VENT BEGINS 12" FROM THE FLOOR AND THE OTHER VENT SHALL BE LOCATED SUCH THAT THE TOP OF THE VENT BEGINS 12" FROM THE CEILING.

34. ALL ROOF SHEATHING SHALL BE 78 OSB WITH 8d COMMON NAILS @ 6" O.C. AT PANEL EDGES AND @ 12" O.C. IN FIELD

35. GLAZING IN HAZARDOUS LOCATIONS AS IDENTIFIED IN IRC SECTION R308.4 SHALL BE OF APPROVED SAFETY GLAZING MATERIALS. GLASS IN STORM DOORS, INDIVIDUAL FIXED OR OPENABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE IS WITHIN A 2'-0" ARC OF THE DOOR IN A CLOSED POSITION AND FOR WHICH THE BOTTOM EDGE IS WITHIN 5'-0" OF THE FLOOR, WALLS ENCLOSING STAIRWAYS AND LANDINGS WHERE THE GLAZING IS WITHIN 5'-0" OF THE TOP OR BOTTOM OF THE STAIR, ENCLOSURES FOR SPAS, TUBS, SHOWERS, AND WHIRLPOOLS, GLAZING IN FIXED OR OPENABLE PANELS EXCEEDING NINE SQUARE FEET AND FOR WHICH THE

BOTTOM EDGE IS LESS THAN 1'-6" ABOVE THE FLOOR OR WALKING SURFACE WITHIN 3'-0" 36. ALL OPERABLE WINDOWS SHALL HAVE FALL PROTECTION PER IRC SECTION R612.2

37. ENCLOSED ATTICS SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE BY VENTILATING OPENINGS PROTECTED AGAINST THE ENTRANCE OF RAIN OR SNOW. VENTILATING OPENINGS SHALL BE PROVIDED WITH CORROSION-RESISTANT WIRE MESH, WITH 1/2" TO 1/2" OPENINGS. THE TOTAL FREE VENTILATING AREA SHALL NOT BE LESS THAN χ_{50} OF THE AREA OF SPACE VENTILATED, EXCEPT WHERE THE VENTILATORS ARE LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED - THE REQUIRED AREA MAY BE REDUCED TO 1/300.

EMERGENCY EGRESS

38. PROVIDE A MINIMUM OF ONE WINDOW FOR EACH BEDROOM THAT HAS A MINIMUM OPENABLE AREA OF 5.7 SQUARE FEET WITH A MINIMUM OPENABLE HEIGHT OF 2'-0" AND A MINIMUM WIDTH OF 1'-9". IN ADDITION, THE OPENABLE PORTION OF EGRESS WINDOWS SHALL NOT EXCEED 3'-8" ABOVE THE ADJOINING FLOOR OR PERMANENT STEP.

39. PROVIDE SMOKE ALARMS IN EACH SLEEPING ROOM, OUTSIDE OF EACH SLEEPING AREA AND ON EACH FLOOR, INCLUDING BASEMENT (IF APPLICABLE). ALARMS SHALL BE HARDWIRED TOGETHER SO THAT THE ACTIVATION OF ONE SMOKE ALARM WILL ACTIVATE ALL SMOKE ALARMS IN THE DWELLING. PROVIDE CARBON MONOXIDE DETECTORS OUTSIDE EACH SLEEPING AREA.

MASONRY VENEER

40. MASONRY VENEER SHALL BE ANCHORED TO THE SUPPORTING WALL STUDS WITH CORROSION-RESISTANT METAL TIES EMBEDDED IN MORTAR OR GROUT AND EXTENDING INTO THE VENEER A MINIMUM OF 1½", WITH NOT LESS THAN 5/8" MORTAR OR GROUT COVER TO OUTSIDE FACE

41. VENEER TIES, IF STRAND WIRE, SHALL NOT BE LESS IN THICKNESS THAN NO. 9 U.S. GAGE WIRE AND SHALL HAVE A HOOK EMBEDDED IN THE MORTAR JOINT, OR IF SHEET METAL, SHALL BE NOT LESS THAN NO. 22 U.S. GAGE BY 1/8"

42. EACH TIE SHALL SUPPORT NOT MORE THAN 2.67 SQUARE FEET OF WALL AREA AND SHALL BE SPACED NOT MORE THAN 32 INCHES ON CENTER HORIZONTALLY AND 24 INCHES ON CENTER VERTICALLY.

VENEER TIES AROUND WALL OPENINGS: ADDITIONAL METAL TIES SHALL BE PROVIDED AROUND ALL WALL OPENINGS GREATER THAN 16 INCHES IN EITHER DIMENSION. METAL TIES AROUND THE PERIMETER OF OPENINGS SHALL BE SPACED NOT MORE THAN 3 FEET ON CENTER AND PLACED WITHIN 12 INCHES OF THE WALL OPENING.

44. DOOR(S) BETWEEN THE GARAGE AND DWELLING SHALL BE MINIMUM 1%" SOLID CORE OR HONEY-COMBED STEEL

DOOR WITH 20-MINUTE FIRE RATING EQUIPPED WITH A SELF-CLOSING DEVICE

45. VEHICLE DOORS AND FRAMES SHALL BE DESIGNED AND INSTALLED TO MEET THE 115-MPH 3-SECOND GUST LOADING PER DASMA 108 AND ASTM E 330-96 PER IRC 2018

GARAGE NOTES (CONTINUED)

THE GARAGE SHALL BE SEPARATED FROM THE DWELLING AND ITS ATTIC AREAS BY MINIMUM 5/4" GYP. BOARD APPLIED TO THE GARAGE SIDE OF FRAMING. WHERE HABITABLE SPACE OCCURS ABOVE THE GARAGE, THE GARAGE CEILING ASSEMBLY SHALL BE PROTECTED WITH A MINIMUM 5/8" TYPE X GYP. BOARD. WHERE A FLOOR/CEILING SPACE IS PROVIDED ABOVE THE GARAGE COLUMNS AND BEAMS

SUPPORTING THE SEPARATION SHALL ALSO BE PROTECTED WITH %" GYP. BOARD. GARAGE DOOR H-FRAME FOR THE ATTACHMENT OF THE TRACK AND COUNTER BALANCE SHALL CONSIST OF THE FOLLOWING: 2x6 VERTICAL JAMBS RUNNING FROM FLOOR TO CEILING AND SHALL BE FASTENED WITH 21/2"" x 0.120" NAILS AT 7" O.C. STAGGERED WITH (7) 31/4" x 0.120" NAILS THROUGH THE JAMB INTO THE HEADER. MINIMUM 2x8 HEADER FOR ATTACHMENT OF COUNTER BALANCE SYSTEM.

DESIGN LOADING (PER TABLE R301.5)

MINIMUM UNIFORMLY DISTRIB USE	UTED LIVE LO LIVE LOAD	DADS (PSF) DEAD LOAD
UNINHABITABLE ATTICS WITHOUT STORAGE	10	10
UNINHABITABLE ATTICS WITH LIMITED STORAGE	20	10
HABITABLE ATTICS AND ATTICS SERVED WITH FIXED STAIRS	30	10
BALCONIES (EXTERIOR) AND DECKS	40	10 ^d
FIRE ESCAPES	40	10
GUARDRAILS AND HANDRAILS ^a	200 ^c	-
GUARDRAIL IN-FILL COMPONENTS ^b	50 ^c	-
PASSENGER VEHICLE GARAGES	50	DEPENDENT UPON SLAB CONSTRUCTION
ROOMS OTHER THAN SLEEPING ROOM	40	10 ^d
SLEEPING ROOM	30	10 ^d
STAIRS	40	10 ^d

a. A single concentrated load applied in any direction at any point along the top.

b. Guard in-fill components (all those except the handrail), ballusters and panel fillers shall be designed to withstand a horizontally applied normal load of 50 pounds on an area equal to one square foot. This load need not be assumed to act concurrently with any other live load requirement.

c. Glazing used in handrail assemblies and guards shall be designed with a safety factor of 4. The safety factor shall be applied to each of the concentrated loads applied to the top of the rail, and to the load on the infill components. These loads shall be determined independently of one another, and loads are assumed not to occur with any other live load.

d. An additional dead loading of 10 psf shall be applied where thinset tile floor is to be installed. An additional dead loading of 50 psf shall be applied where mudset tile floor is to be installed

INSULATION/EFFICIENCY

BUILDING ENVELOPE INSULATION SHALL COMPLY WITH IRC TABLE N1102.1.1 OR THE 2012 IECC (SEE SHEET S3.1 FOR FRAMING DETAILS AND TABLES ON THIS SHEET FOR MORE INFORMATION)

CATHEDRAL -VAULTED CEILING FRAMING SHALL BE FRAMED WITH A MINIMUM INSULATION VALUE OF R-38. IF VAULTED RAFTERS DO NOT PROVIDE REQUIRED DEPTH TO ACHIEVE R-38 INSULATION BUILDER SHALL FUR DOWN RAFTERS PER DETAILS PROVIDED ON

INSULATION AND FENESTRATION REQUIRE CLIMATE ZONE	MENTS BY COMPONENT (TABLE N1102.1.1) 4-A		
FENESTRATION U-FACTOR	0.35		
SKYLIGHT U-FACTOR	0.55		
GLAZED FENSTRATION SHGC	0.40		
CEILING R-VALUE	49		
WOOD FRAME WALL R-VALUE	15		
MASS WALL R-VALUE	8 / 13		
FLOOR R-VALUE	19		
BASEMENT WALL R-VALUE	10-CONTINUOUS OR 13-CAVITY		
SLAB R-VALUE AND DEPTH	10 AT 2'-0"		
CRAWL SPACE WALL R-VALUE	10-CONTINUOUS OR 13-CAVITY		
DUCTWORK EXPOSED TO OUTSIDE AIR R-VALUE	8		
DUCTWORK NOT EXPOSED TO OUTSIDE AIR R-VALUE	6		
CATHEDRAL VAULTED CEILING R-VALUE	38		

N1103 2 2 (R403 2 2) SEALING (MANDATORY) DUCTS AIR HANDLERS AND FILTER BOXES SHALL BE SEALED. JOINTS AND SEAMS SHALL COMPLY WITH SECTION M1601.4.1 OF 2018 IRC **EXCEPTIONS:**

AIR-IMPERMEABLE SPRAY FOAM PRODUCTS SHALL BE PERMITTED TO BE APPLIED WITHOUT ADDITIONAL JOINT SEALS

WHERE A DUCT CONNECTION IS MADE THAT IS PARTIALLY INACCESSIBLE, THREE SCREWS OR RIVETS SHALL BE EQUALLY SPACED ON THE EXPOSED PORTION OF THE JOINT SO AS TO PREVENT A HINGE EFFECT.

CONTINUOUSLY WELDED AND LOCKING-TYPE LONGITUDINAL JOINTS AND SEAMS IN DUCTS OPERATING AT STATIC PRESSURES LESS THAN 2 INCHES OF WATER COLUMN PRESSURE CLASSIFICATION SHALL NOT REQUIRE ADDITIONAL CLOSURE SYSTEMS.

DUCT TIGHTNESS SHALL BE VERIFIED BY EITHER OF THE FOLLOWING:

POST-CONSTRUCTION TEST: TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 4 CFM PER 100 SQUARE FEET OF CONDITIONED FLOOR AREA WHEN TESTED AT A PRESSURE DIFFERENTIAL OF 0.1 INCHES W.G. ACROSS THE ENTIRE SYSTEM, INCLUDING THE MANUFACTURER'S AIR HANDLER ENCLOSURE. ALL REGISTER BOOTS SHALL BE TAPED OR OTHERWISE SEALED DURING THE TEST.

ROUGH-IN TEST: TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 4 CFM PER 100 SQUARE FEET OF CONDITIONED FLOOR AREA WHEN TESTED AT A PRESSURE DIFFERENTIAL OF 0.1 INCHES W.G. ACROSS THE SYSTEM, INCLUDING THE MANUFACTURER'S AIR HANDLER ENCLOSURE. ALL REGISTERS SHALL BE TAPED OR OTHERWISE SEALED DURING THE TEST. IF THE AIR HANDLER IS NOT INSTALLED AT THE TIME OF THE TEST, TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 3 CFM PER 100 SQUARE FEET OF CONDITIONED FLOOR AREA

EXCEPTION: THE TOTAL LEAKAGE TEST IS NOT REQUIRED FOR DUCTS AND AIR HANDLERS LOCATED ENTIRELY WITHIN THE BUILDING THERMAL ENVELOPE.

MECHANICAL VENTILATION SYSTEM FAN EFFICACY									
FAN LOCATION	AIR FLOW RATE MINIMUM (CFM)	MINIMUM EFFICACY (CFM/WATT)	AIR FLOW RATE MAXIMUM (CFM)						
RANGE HOODS	ANY	2.8	ANY						
IN-LINE FAN	ANY	2.8	ANY						
BATHROOM, UTILITY ROOM	10	1.4	90						
BATHROOM, UTILITY ROOM	90	2.8	ANY						



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RESIDENTIAL SEISMIC & WIND ANALYSIS

				INPUT
DETERMINE WEIGHT OF HOUSE:				CALCULATED VALUE
LOCATION		DEAD LOAD (psf)	AREA (ft ²)	WEIGHT (lbs.)
ROOF		10	2635	26350
CEILING		10	2635	26350
FIRST FLOOR		10	2635	26350
	WALL LENGTH (ft)	WALL HEIGHT (ft)	WALL UNIT WT. (psf)	WEIGHT (lbs)
FIRST FLOOR EXT. WALL DL	214	10	10	21400
		DEAD LOAD (psf)	AREA (ft2)	WEIGHT (lbs)
FIRST FLOOR INT. PARTITION WALL DL		6	2635	15810

	PROJECTED AREAS (WIND DESIGN PER 115 MPH 3-SECOND GUST, EXPOSURE C AND MEAN ROOF HEIGHT <= 30 FT ASSUMED)								
	FRONT	-TO-BACK			SIDE-TO-SIDE				
	AREA	LOAD			AREA	LOAD			
SLOPED ROOF	248	2110		SLOPED ROOF	500	4245			
VERT. ROOF	174	2163	CUMULATIVE	VERT. ROOF	0	0	CUMULATIVE		
1ST	581.13	7225	11570	1ST	595.87	7391	11708		
BSMT ^a	0	0	0	BSMT ^a	124	1756	7610		
			PRESSURE (PSF) - PER ASCE CH. 6						
	SLOPED ROOF	ZONE B	9.7		ZONE C	11.3	2a (FIG. 28.6-1, ASCE7)		
	WALL/VERT. ROOF	ZONE A		14.2	ZONE D	7.7	10.566		
	MEAN DOOF UT 6		20						

a) If there is a walkout wall to be sheathed, determine tributary wind area and enter here. If no walkout, enter 0 for area

 q_{z10} =0.00256K_zK_{zt}K_dV² (ASCE7-10 Velocity Pressure) q_{z10_ASD} =0.6q_{z10} (Design Velocity Pressure for ASD analysis under ASCE7-10 and IRC/IBC 2012)

1ST FLOOR TRIBUTARY WEIGHT
BASEMENT TRIBUTARY WEIGHT S_S (SITE GROUND MOTION - %g - FROM ASCE7 SEISMIC MAP) F_a (from ASCE7 Table 11.4-1) $S_{DS} (= 2/3 * S_8 * F_a)$ R (from ASCE7 Table 12.2-1)

	SEISMIC SHEAR	
LOCATION	From ASCE7	(Eq. 12.8-1): V (= 1.2 * S _{DS} * W / R) (lbs.)
1ST FLOOR		1498
BASEMENT		1498

Sheathing Location	Min. Sheathing Schedule	Fastening Schedule	Allowable Shear (#/LF)	Code Reference
Extarior (Option #1)	7/16" APA Rated Ptywood/OSB	1-1/2" 19ga. Staples w/ 1" penetration@ 6" OC Edges, 6" OC Field For 24" stud spacing, 12" OC Field For 16" stud spacing	155	per IBC, Table 2305.3(1)
Exterior (Optition #2)	7/16" APA Rated Plywood/OSB	1-1/2" 15ga. Staples w/ 1" penetration@ 4" OC Edges, 6" OC Field For 24" stud spacing, 12" OC Field For 16" stud spacing	230	per IBC, Table 2305.3(1)
Exterior (Option #3)	7/16" APA Rated Plywood/OSB	1-1/2" 15gs. Staples w/ 1" psnetration@ 3" OC Edges, 6" OC Field For 24" stud spacing, 12" OC Field For 16" stud spacing	310	per IBC, Table 2305.3(1)
Exterior (Option #4)	7/16" APA Rated Plywood/OSB or shiplap panel sheathing, or 3/8" shiplap panel sheathing with tighter nail spacing	8d Common Nails w/ 1-3/8" penetration @ 6" O.C. Edges, 12" O.C. Field for 7/16" APA-rated plywood/OSB or shiplap panel sheathing OR @ 4" O.C. Edges, 12" O.C. Field for 3/8" shiplap panel sheathing	220	AF&PA SDPWS Table 4.3A
Exterior (<i>Option #5</i>)	7/16" APA Rated Plywood/OSB or shiplap panel sheathing, or 3/8" shiplap panel sheathing with tighter nail spacing	8d Common Nails w/ 1-3/8" penetration @ 4" O.C. Edges, 12" O.C. Field for 7/16" APA-rated plywood/OSB or shiplap panel sheathing OR @ 3" O.C. Edges, 12" O.C. Field for 3/8" shiplap panel sheathing	320	AF&PA SDPWS Table 4.3A
Exterior (Option #6)	7/16" APA Rated Plywood/OSB or shiplap panel sheathing, or 3/8" shiplap panel sheathing with tighter nail spacing and double studs at each pane edge	8d Common Nails w/ 1-3/8" penetration @ 3" O.C. Edges, 12" O.C.	410	AF&PA SDPWS Table 4.3A
Interior	1/2" Gypsum Board	No. 6- 1 ¹ / ₄ " Type W or S Screws @ 8" O.C. Edges, 12" O.C. Field	60	per IBC, Table 2306.4.4
Interior	16 Ga. Simpson/USP Type WB Steel X-Brace (or equal)	(3) 16d @ end studs & (1) 8d @ intermediate studs (per manufacture specifications - see detail on sheet S3)	325	

EXTERIOR SHEATHING OPTION FOR FIRST FLOOR	4
EXTERIOR SHEATHING OPTION FOR BASEMENT WALLS	4

WIDTH OF 1ST STORY (FT.)	52.83	
DEPTH OF 1ST STORY (FT.)	54.17	
BACK WALL OF GARAGE (FT.)	0	
GAR WALL 1=F-B 2=S-S	2	

WIDTH OF 2ND STORY (FT.)
DEPTH OF 2ND STORY (FT.)

EXTERIOR STRUCTURAL WALL LENGTHS (ft.) & RESISTANCES									
		SE	ISMIC		WIND				
	FRONT-TO-BACK	RESISTANCE (lbs.)	SIDE-TO-SIDE	RESISTANCE (lbs.)	FRONT-TO-BACK	RESISTANCE (lbs.)	SIDE-TO-SIDE	RESISTANCE (lbs.)	
1ST FLOOR	77	21560	36	10080	77	30184	36	14112	
BASEMENT	0	0	25	7000	0	0	25	9800	
				_					
		ADDITIONAL RESISTANCE REQUIRED			Anchor Bolt Spacing (in.)		16d Nail Spacing req'd at bottom plate (in.)		
		SEISMIC	WIND		diameter (in.)	0.5	1st Floor F-B	25	
1ST FLOOR FRONT-TO-BACK		0	0		Shear value (per NDS)	944	1st Floor S-S	24	
1ST FLOOR SIDE-TO-SIDE		0	0		Spacing F-B (inches)	169.7			
BASEMENT FRONT-TO-BACK		0	0		spacing S-S (inches)	163.6			

RESISTANCE REQUIRED IN ADDITION TO RESISTANCE PROVIDED BY EXTERIOR WALLS**								
	ADDITIONAL RESISTANCE REQUIRED (POUNDS)	PORTAL FRAMES OR PERF. SHEAR WALL		INTERIOR WALL LENGTH W/ 1/2" GYPSUM BOARD PER TABLE (FT.)	INT. WALL LENGTH SHEATHED W/ OSB	RESISTANCE PROVIDED BY ADDITIONAL METHODS (POUNDS)	OK?	
1ST FLOOR FRONT-TO-BACK	0					0	YES	
1ST FLOOR SIDE-TO-SIDE	0					0	YES	
BASEMENT FRONT-TO-BACK	0					0	YES	
BASEMENT SIDE-TO-SIDE	0					0	YES	

**NOTES: 1) SEE ATTACHED CALCULATIONS FOR PORTAL FRAME OR PERFORATED SHEAR WALL RESISTANCE CAPACITIES (IF APPLICABLE),

2) SEE SHEET S1 FOR INTERIOR STEEL X-BRACE INSTALLATION, 3) INTERIOR WALLS SHEATHED WITH OSB SHALL BE ATTACHED WITH SAME STAPLE/NAILING PATTERN AS EXTERIOR OSB ON SAME FLOOR (SEE TABLE ABOVE) AND ARE ONLY APPLICABLE FOR FULL-HEIGHT SECTIONS OF 2'-8" OR LONGER

ALL LATERAL BRACING ACHIEVED AT EXTERIOR WALLS AND WALLS DIRECTLY ON FOUNDATIONS; THEREFORE, NO INTERIOR BRACING PER 2012 IRC SECTION R502.2.1 IS REQUIRED.

ALL LATERAL BRACE	ALL LATERAL BRACING ACHIEVED AT EXTERIOR WALLS AND WALLS DIRECTLY ON FOUNDATIONS; THEREFORE, NO INTERIOR BRACING PER 2012 IRC SECTION R502.2.1 IS REQUIRED								
	WIND UPLIFT ANALYSIS								
	X/12	DEGREES							
ROOF PITCH (MAX)	8	33.7	PITCH OF 6 OR LESS: I	EOH -13.3, E -7.2, G -5.2					
	ASCE 7								
	LENGTH (FT.)	PRESSURE (PSF)	LINEAL FT. OF OH	UPLIFT PER FT* (LBS)					
OVERHANG	1	-1.08	216	-1.08					
	TOTAL AREA (FT ²)	ZONE E AREA (FT ²)	ZONE G AREA (FT ²)	PRESSURE ZN. E (PSF)	PRESSURE ZN. G (PSF)	TOTAL FORCE (LBS)	FORCE PER LINEAL FT @ PERIMETER (LBS)		
MAIN ROOF**	2861.8011	-404.297424	3266.098524	-1.08	-0.36	-739	-3.5		
*ALONG PERIMETER	*ALONG PERIMETER TOTAL UPLIFT PER LINEAL FOOT ALONG EXTERIOR (POUNDS)			-4.5	UPLIFT OK				
**INSIDE EXTERIOR V	INSIDE EXTERIOR WALLS RESISTANCE DUE TO DEAD WEIGHT & (3) 10d TOENAUS								

OTE FOR CONSTRUCTION

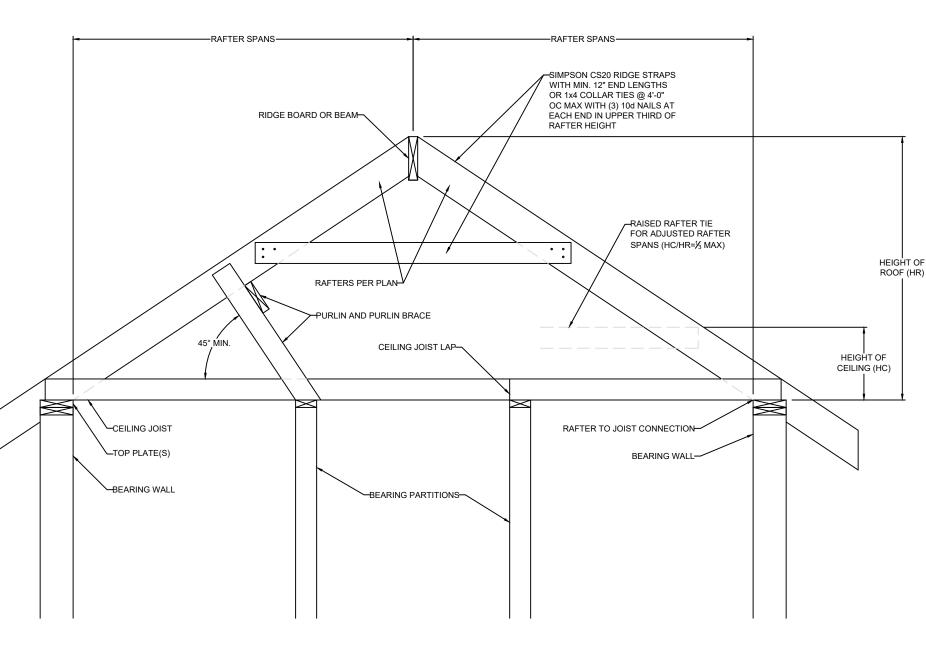
BASEMENT SIDE-TO-SIDE

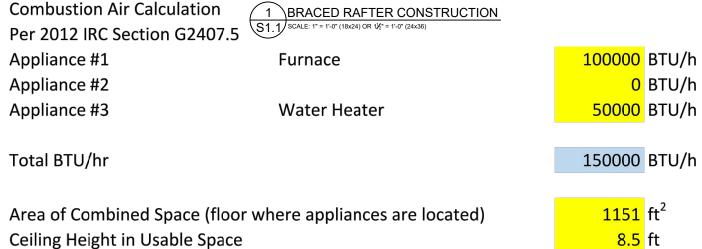
THE CONTINUOUS STRUCTURAL PANEL SHEATHING BRACING METHOD REQUIRES USE OF THE ABOVE TABLE FOR SHEATHING OF THE ENTIRE STRUCTURE. IN ADDITION, FRAMING MEMBERS SHALL BE @ 16" O.C. MAX., UNBLOCKED, AND W/ SHEATHING APPLIED DIRECTLY TO FRAMING MEMBERS

NOTE FOR DESIG

ALL WALLS USED IN THE CALCULATION OF THE RESISTANCE FOR THIS STRUCTURE SHALL HAVE A MINIMUM UNINTERRUPTED HEIGHT OF 8'-0" AND LENGTH OF 2'-8". ALLOWABLE RESISTANCES HAVE BEEN #/FT AND INCREASED BY 40% FOR WIND LOADS, PER VALUES IN 2012 IBC SECTION 2306 AND AF&PA SDPWS TABLE 4.3A. FOR EXAMPLE, 7/16" APA-RATED SHEATHING WITH 8d @ 6" & 12" HAS A SEISMIC SHEAR VALUE OF 240 A WIND SHEAR VALUE OF 335#/FT - 40% GREATER THAN THAT OF SEISMIC)

NOTE: SOIL SITE CLASS ASSUMED TO BE CLASS D. IF SITE CONDITIONS ARE DETERMINED TO BE CLASS E OR F, CONSULT ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION





Note: Per 2012 IRC Section G2407.5.3.2, The volumes of spaces in different stories shall be considered as communicating spaces where such spaces are connected by one or more openings in doors or floors having a total minimum free area of 2 square inches per 1,000 BTU/h of total input rating of all appliances

Is floor where appliances are located open to adjacent level?

If Yes, what is the area of open space adjacent to appliance area?

Yes 0

Per 2012 IRC Section G2407.5.1 (Standard Method), the minimum required volume shall be 50 cubic feet per 1,000 BTU/hr (Total BTU/hr / 1,000 BTU/hr x 50 ft³)

Required air space in combined areas:

7500 ft³

Required combined area:

882 ft²

Area of Combined Space > Required combined area?

OK

Per Section G2407.5.3.1, each opening shall have a minimum free area of 1 square inch per 1,000 BTU/hr of the total input rating of all appliances in the space, but not less than 100 square inches. One opening shall commence within 12 inches of the top and one opening shall commence within 12 inches of the bottom of the enclosure. The minimum dimension of air openings shall be not less than 3 inches.

Minmum required opening area:

150 in²

(inches)

Minimum grill size:

14 x 11

DA

Note: two grills required - one within 12" of floor, one within 12" of clg.



REVISION

DATE

Spec - THE CATALINA EAGLE CREEK

EGC708 S LOT 708,

JOB

CLIENT: IQ CONSTRUCTION

MISSOURI

SUMMIT,

RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW

DRAWING TITLE

STRUCTURAL

CALCULATIONS

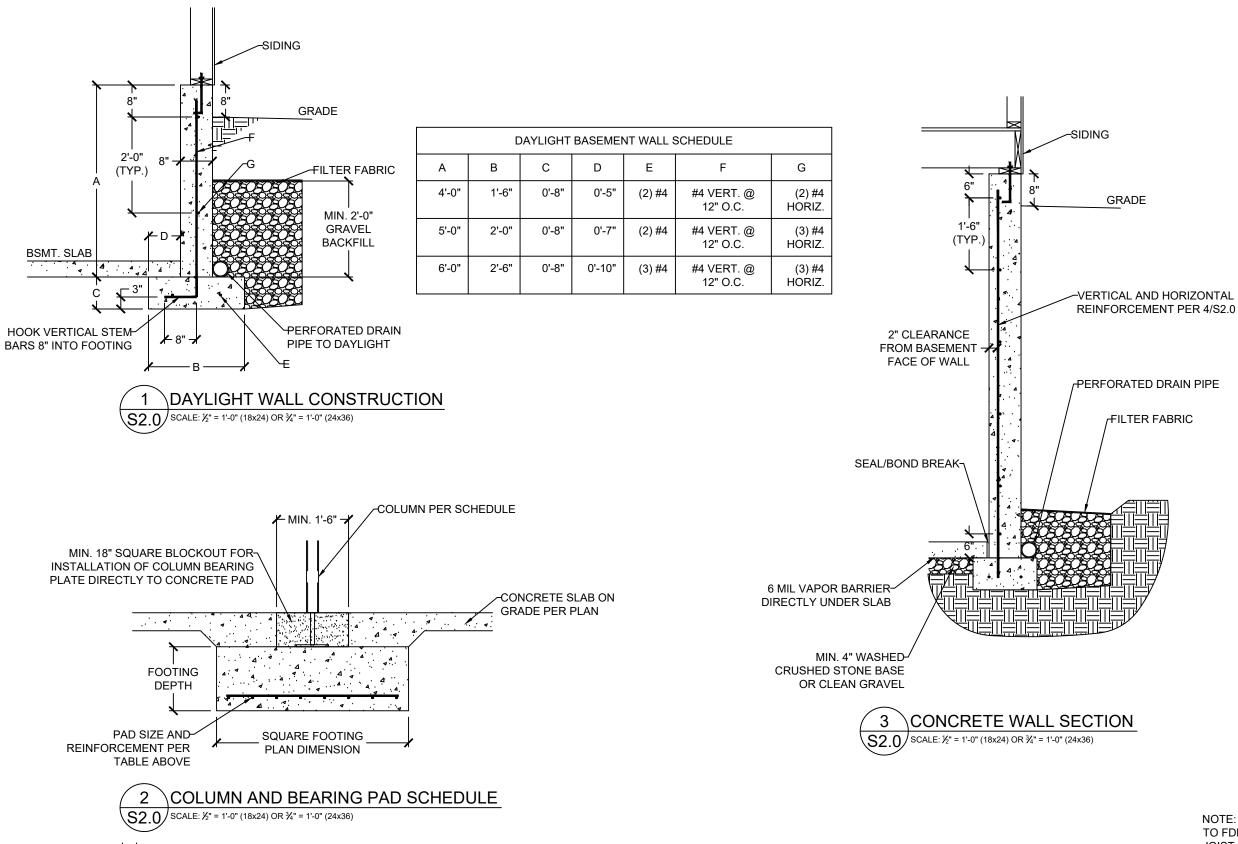
ENGINEER: DMH

JOB NO. 2754

DATE: 9-10-2020

SHEET NUMBER

S1.1



VERTICAL REINFORCEMENT SPACING 10" THICK WALL CONCRETE STRENGTH/GRADE 8" THICK WALL REINFORCEMENT (#4 BARS) 9' 9' 10' 8' 10' 8' 3.000 PSI/ GRADE 40 24 24 16 24 24 18 3,500 PSI/ GRADE 40 24 24 18 16 24 24 3,000 PSI/ GRADE 60 24 24 24 18 16 24 3,500 PSI/ GRADE 60 24 24 24 18 24 16 HORIZONTAL REINFORCEMENT - MINIMUM GRADE 40 STEEL ONE BAR 12" FROM TOP OF WALL; 6-#4 7-#4 7-#4 6-#4 7-#4 7-#4 MAX. SPACING 24" OC

FOOTNOTES:

1) WALL HEIGHT IS MEASURED FROM THE TOP OF THE WALL TO THE TOP OF THE FLOOR SLAB 2) VERTICAL REINFORCEMENT FOR CONCRETE WALLS THAT ARE NOT FULL HEIGHT, AND FOR REINFORCEMENT SPACING 24" OC, REINFORCEMENT MAY BE PLACED IN THE MIDDLE OF THE WALL. OTHER WALLS SHALL HAVE VERTICAL REINFORCEMENT AS FOLLOWS:

A) 8" WALL - MINIMUM 5" FROM THE OUTSIDE FACE

B) 10" WALL - MINIMUM 6%" FROM THE OUTSIDE FACE C) EXTEND BARS TO WITHIN 8" OF THE TOP OF THE WALL

3) REINFORCEMENT CLEARANCES:

A) CONCRETE EXPOSED TO EARTH - MINIMUM 11/2"

B) NOT EXPOSED TO WEATHER (INTERIOR SIDE OF WALLS) -3/4"

C) CONCRETE EXPOSED TO WEATHER (TOP CLEARANCE IN GARAGE AND DRIVEWAY SLABS) - 1½"

4) HORIZONTAL RÉINFORCEMENT:

A) ONE BAR SHALL BE PLACED WITHIN 12" OF THE TOP OF THE WALL

B) OTHER BARS SHALL BE EQUALLY SPACED WITH SPACING NOT TO EXCEED 24" OC C) HORIZONTAL BARS SHOULD BE AS CLOSE TO THE TENSION FACE AS POSSIBLE (INTERIOR) AND BEHIND THE VERTICAL REINFORCEMENT (I.E. 2" TOWARD THE

D) SUPPLEMENTAL REINFORCEMENT AT CORNERS - PLACE (1) #4 BAR 48" LONG AT 45 DEGREE ANGLE AT CORNERS OF OPENINGS. PLACE REINFORCEMENT WITHIN 6" OF THE EDGE OF INSIDE CORNERS.

5) REINFORCEMENT SHALL BE LAPPED A MINIMUM 24" AT ENDS, SPLICES, AND AROUND CORNERS.

6) AT MASONRY LEDGES THE MINIMUM WALL THICKNESS SHALL BE 3½". LEDGES SHALL NOT EXCEED A DEPTH OF MORE THAN 24" BELOW THE TOP OF THE WALL. FOR WALL THICKNESSES LESS THAN 4" PROVIDE #4 BARS AT MAX. 24" OC TO WITHIN 8" OF THE TOP

7) STRAIGHT WALLS MORE THAN 5' TALL AND MORE THAN 16 FEET LONG SHALL BE PROVIDED WITH EXTERIOR BRACED RETURN WALLS. WALL LENGTH SHALL BE MEASURED USING INSIDE THE SHORTEST DIMENSION BETWEEN INTERSECTING WALLS

8) WALL SHALL NOT BE BACKFILLED UNTIL FLOOR SYSTEM AND DIAPHRAGM ARE IN PLACE

4 FOUNDATION WALL REINFORCEMENT TABLE

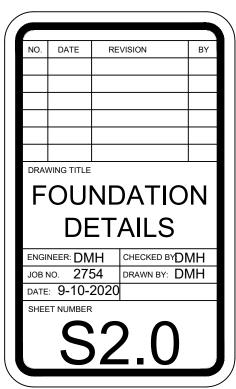


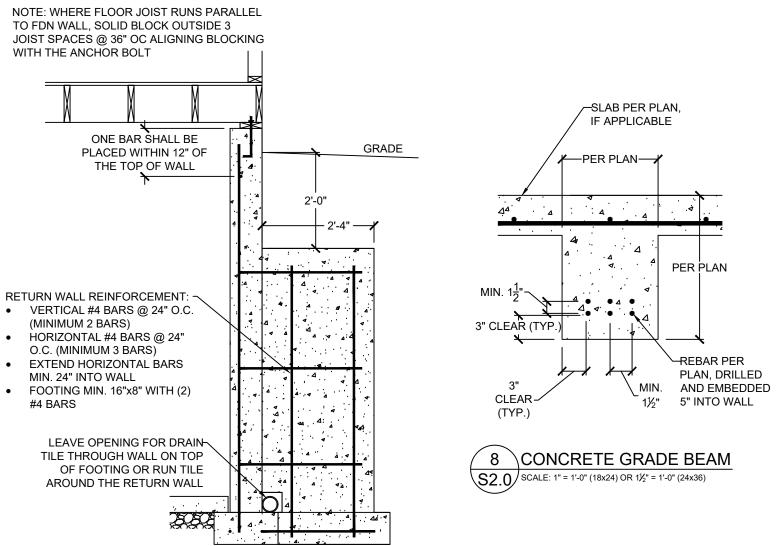
ENGINEERING
14718 NW PELIA STREET * PORTLAND, OREGON
OFFICE; 971,645,0901 * MOBILE; 971,645,0
EMAIL; PENNIS©VISTASTRUCTURAL,COM

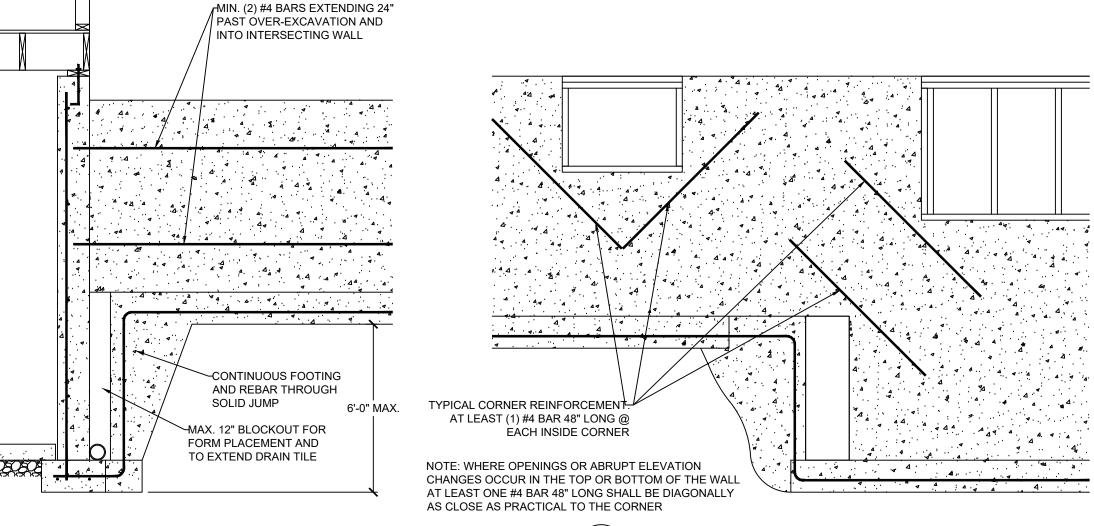
RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW

CLIENT: IQ CONSTRUCTION
JOB TITLE: EGC708 Spec - THE CATALINA
LOT 708, EAGLE CREEK
LOCATION: LEE'S SUMMIT, MISSOURI









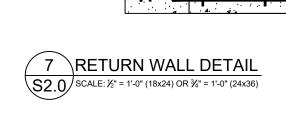
5 \SOLID JUMP

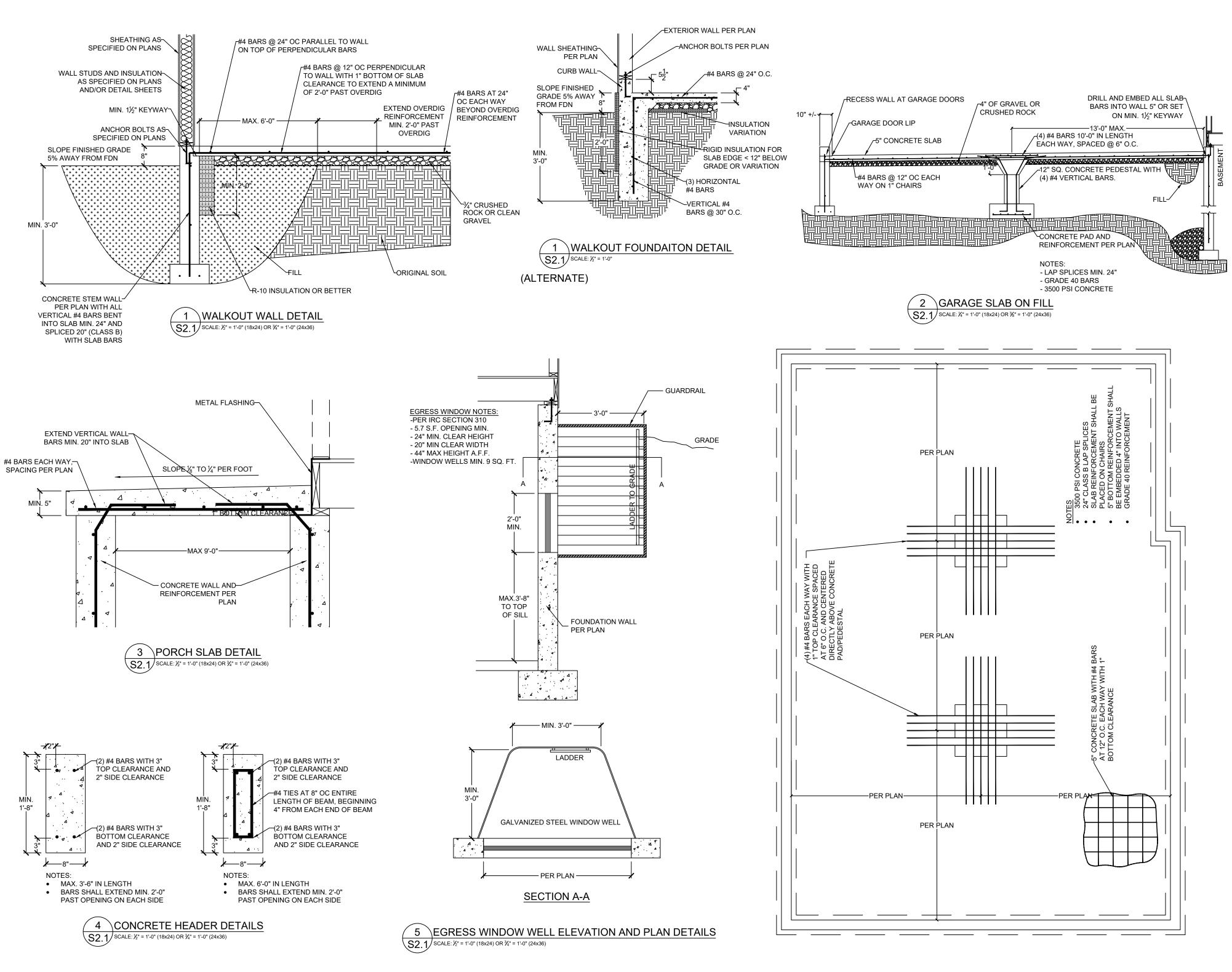
S2.0/SCALE: $\frac{1}{2}$ " = 1'-0" (18x24) OR $\frac{3}{4}$ " = 1'-0" (24x36)

6 \REINFORCEMENT AT OPENING CORNERS

\S2.0/AND STEP CORNERS @ INSIDE CORNERS

SCALE: ½" = 1'-0" (18x24) OR ¾" = 1'-0" (24x36)







CLIENT: IQ CONSTRUCTION
JOB TITLE: EGC708 Spec - THE CATALINA
LOT 708, EAGLE CREEK
LOCATION: LEE'S SUMMIT, MISSOURI



NO. DATE REVISION BY

DRAWING TITLE

FOUNDATION

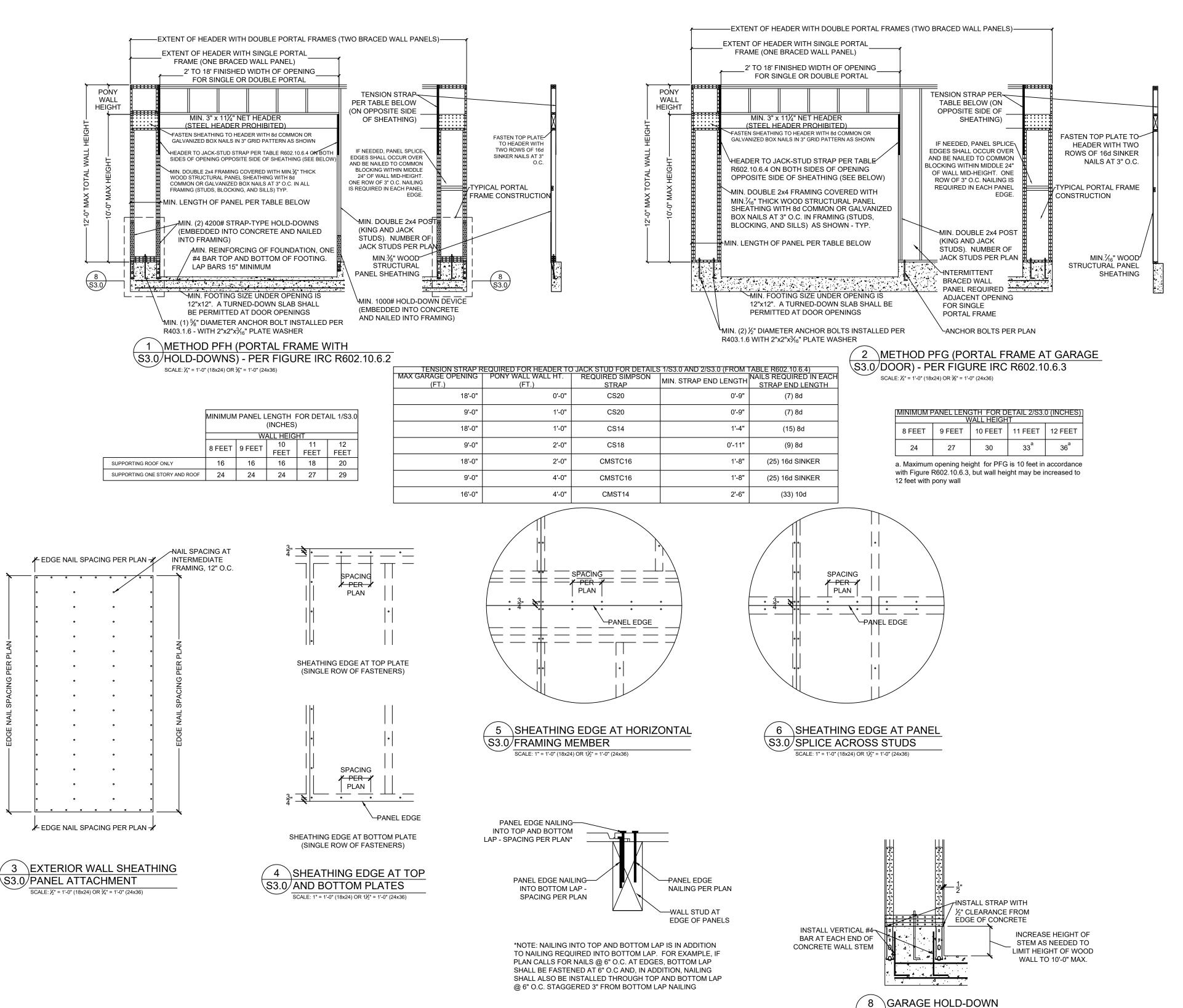
DETAILS

ENGINEER: DMH CHECKED BYDMH

JOB NO. 2754 DRAWN BY: DMH

DATE: 9-10-2020

SHEET NUMBER



\FASTENING INSTRUCTIONS FOR

S3.0 SHIPLAP PANEL SHEATHING

SCALE: 4" = 1'-0" (18x24) OR 6" = 1'-0" (24x36)

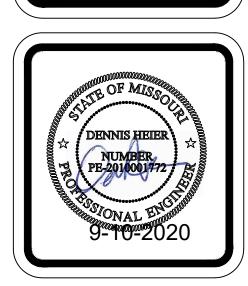
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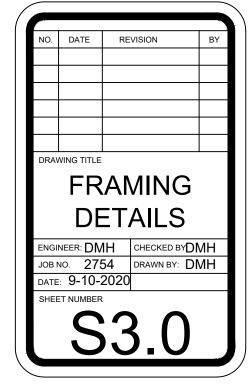
JOB TITLE: EGC708 Spec - THE CATALINA LOT 708, EAGLE CREEK LOCATION: LEE'S SUMMIT, MISSOURI

CONSTRUCTION

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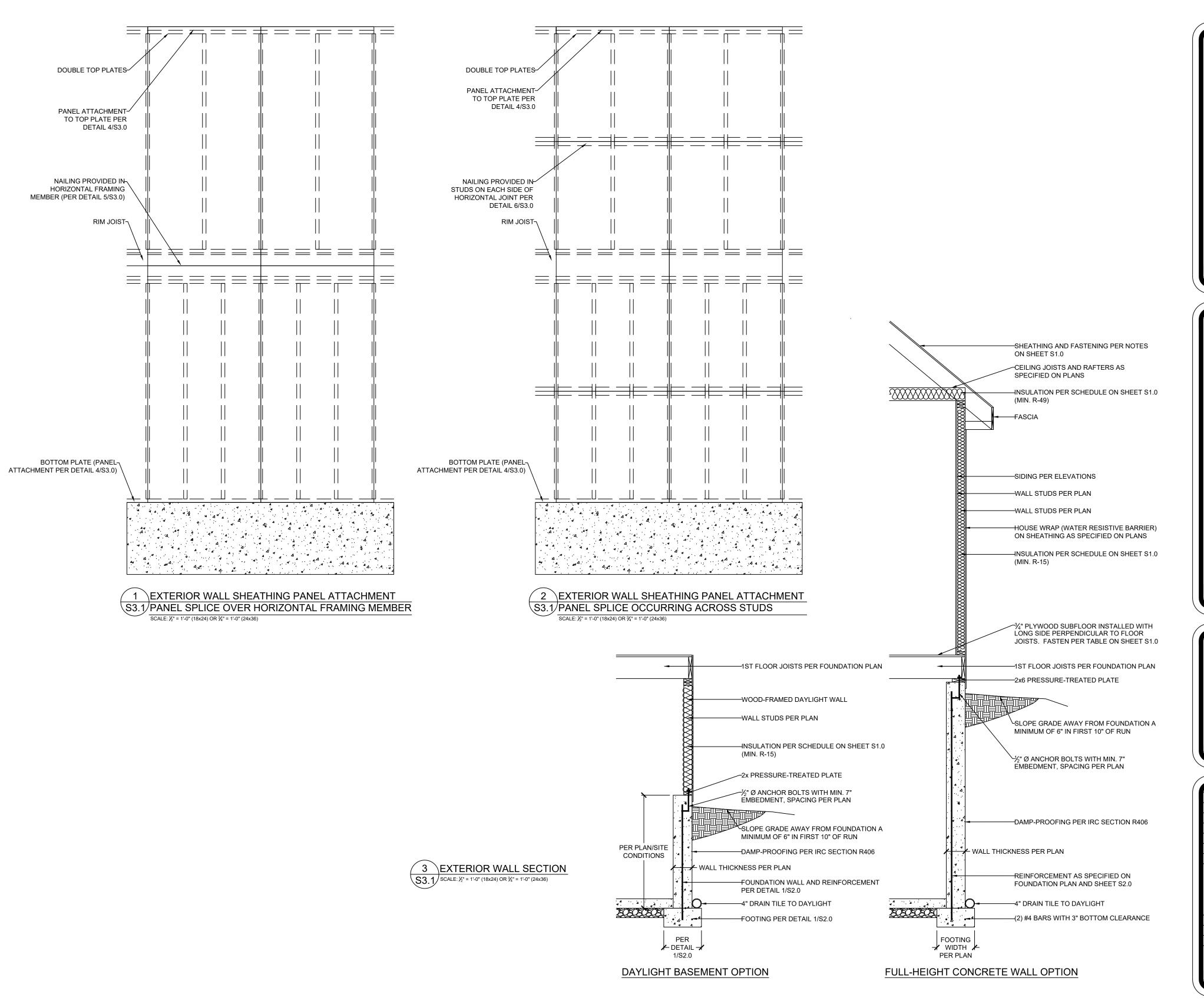
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\S3.0/STRAP INSTALLATION

SCALE: ½" = 1'-0" (18x24) OR ¾" = 1'-0" (24x36)

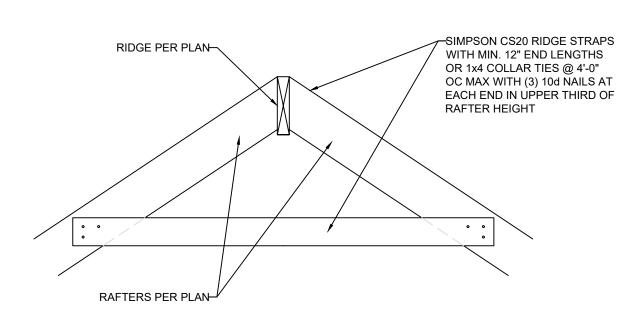


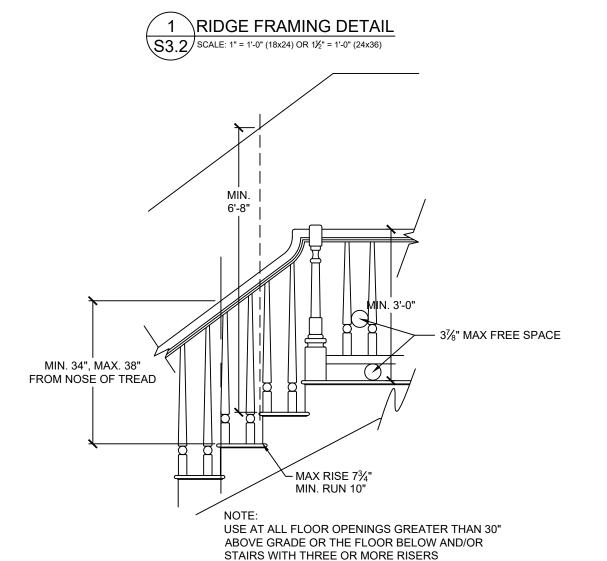


CLIENT: IQ CONSTRUCTION
JOB TITLE: EGC708 Spec - THE CATALINA
LOT 708, EAGLE CREEK
LOCATION: LEE'S SUMMIT, MISSOURI



NO.	DATE	RE	VISION	BY		
DRAV	WING TITLE					
FRAMING DETAILS						
ENGI	NEER: DN	1H	CHECKED BYD	ИΗ		
JOB 1			DRAWN BY: DI	ИΗ		
		2020				
DATE	: 9-10-2	2020				
	:: 9-10-2 ET NUMBER					





4 \STAIR AND HANDRAIL/GUARDRAIL DETAIL

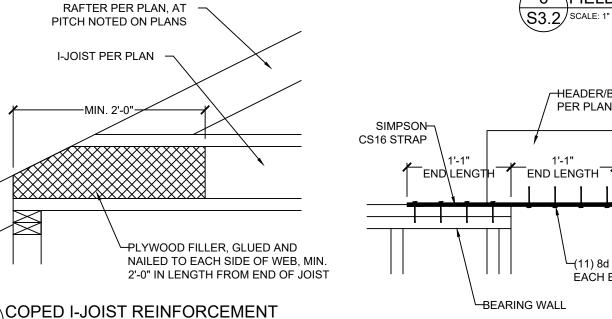
S3.2/SCALE: $\frac{1}{2}$ " = 1'-0" (18x24) OR $\frac{3}{4}$ " = 1'-0" (24x36)

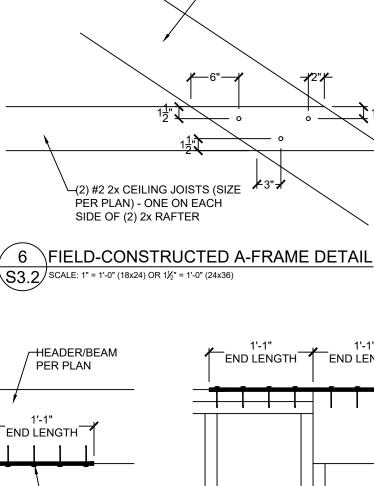
RAFTER PER PLAN, AT

PITCH NOTED ON PLANS

I-JOIST PER PLAN

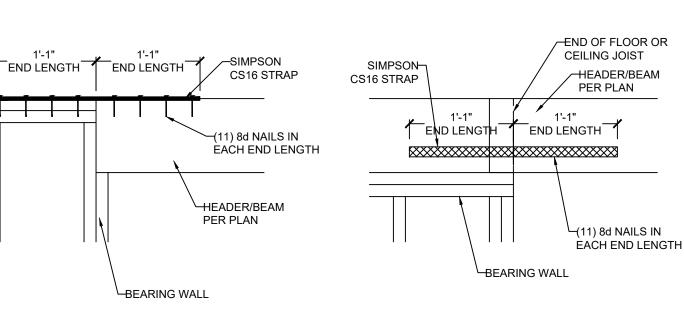
\$3.2\scale: 1" = 1'-0" (18x24) OR 1\(\frac{1}{2}\)" = 1'-0" (24x36)





-(11) 8d NAILS IN

EACH END LENGTH



10 \HEADER/BEAM CONNECTION OPTIONS AT OUTDOOR/OPEN SPACE \$3.2 SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)

PRE-MANUFACTURED-

-WALL STUDS PER PLAN

RAFTERS PER PLAN-

FLUSH 2x10-

STEEL BEAM PER PLAN-

2x4 RAFTER TIES @ 16" OC-

(3) 10d NAILS

5 \RAFTER TIES AT CEILING JOISTS PERP. TO RAFTERS

–(2) 2x RAFTERS PER PLAN

ABOVE CEILING JOISTS

(3) 8d TOENAILS AT EACH RAFTER TIE-

TRUSS CONNECTION TO EXT. WALL BEARING

ROOF TRUSSES @ 24" OC

ROOF SHEATHING PER PLAN-

SIMPSON H2.5A AT EACH-

EXTERIOR WALL TRUSS

BEARING

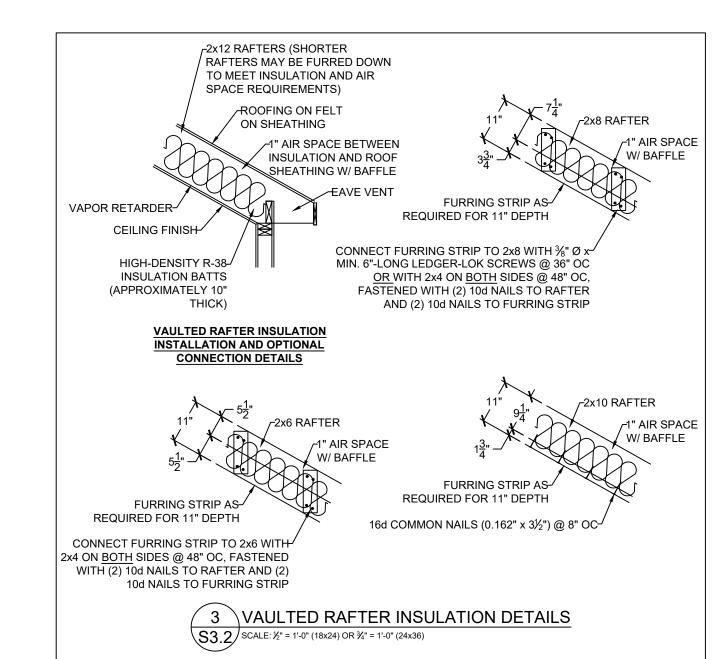
\$3.2 SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)

-2x4 RAFTER TIES @ 16" O.C.

CEILING, DIRECT

ABOVE CEILING JOISTS

53.2 SCALE: $\frac{1}{4}$ " = 1'-0" (18x24) OR $\frac{3}{6}$ " = 1'-0" (24x36)



HEIGHT (FT.)

←2x TOP PLATE PLYWOOD AND 2x FILLER TO EDGE OF FLANGE -½" Ø THRU BOLTS @ 2'-0" O.C. -TOP-FLANGE HANGER BY SIMPSON:

• I-JOISTS: SIMPSON ITS SERIES • 2x JOISTS: SIMPSON JB SERIES NOTE: EQUIVALENT USP CONNECTORS MAY BE USED IN PLACE OF SIMPSON CONNECTORS

FLOOR JOIST TO FLUSH STEEL BEAM DETAIL \$3.2\scale: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)

HEIGHT (FT.)	24	16	12	8	
SUPPORTING A ROOF ONLY					
10 OR LESS	2x4	2x4	2x4	2x4	
12	2x6	2x4	2x4	2x4	
14	2x6	2x6	2x6	2x4	
16	2x6	2x6	2x6	2x4	
18	DR	2x6	2x6	2x6	
20	DR	DR	2x6	2x6	
SUP	SUPPORTING ONE FLOOR AND A ROOF				
10 OR LESS	2x6	2x4	2x4	2x4	
12	2x6	2x6	2x6	2x4	
14	2x6	2x6	2x6	2x6	
16	DR	2x6	2x6	2x6	
18	DR	2x6	2x6	2x6	
20	DR	DR	2x6	2x6	
20 DR DR 2x6 2x6 2x6 SUPPORTING TWO FLOORS AND A ROOF					
10 OR LESS	2x6	2x6	2x4	2x4	
12	2x6	2x6	2x6	2x6	
14	2x6	2x6	2x6	2x6	
16	DR	2x6	2x6	2x6	
18	DR	DR	2x6	2x6	
20	DR	DR	DR	2x6	

SPACING (INCHES O.C.)

NOTES: 1) DR = DESIGN REQUIRED 2) UTILITY, STANDARD, STUD AND #3 GRADE LUMBER OF ANY SPECIES ARE NOT PERMITTED 3) THIS TABLE DOES NOT APPLY FOR STUDS SUPPORTING MEMBERS WITH A TRIB. LENGTH GREATER THAN 6'-0"

8 \MAXIMUM ALLOWABLE LENGTH OF S3.2/WOOD WALL STUDS (IRC TABLE 602.3.1)



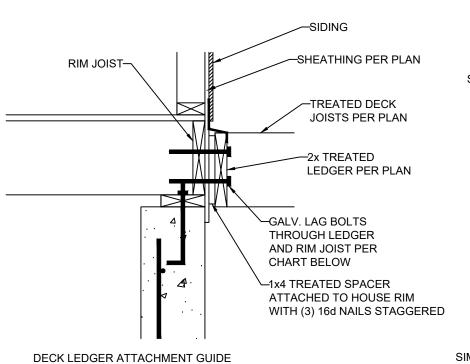
Spec - THE CATALINA , EAGLE CREEK SUMMIT, MISSOURI EGC708 S LOT 708, LEE' JOB

CONSTRUCTION

 $\underline{\circ}$



NO.	DATE	RE	VISION	BY
DRAV	VING TITLE			
FRAMING				
DETAILS				
ENGI	NEER: DN	1H	CHECKED BYD	МН
JOB N	NO. 27	54	DRAWN BY: D	МН
DATE	: 9-10-2	2020		
SHEE	T NUMBER			

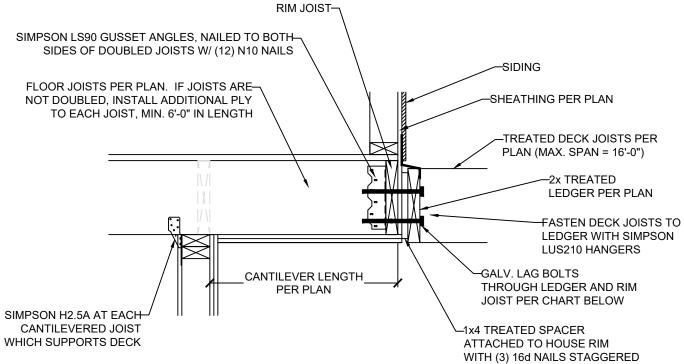


½" Ø GALV. LAG OR ¾" Ø LEDGER-LOK SPACING

16" OC

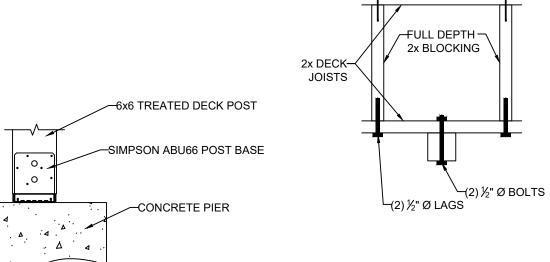
12" OC OR @ 16" OC DOUBLED EVERY OTHER

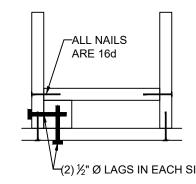
8" OC OR @ 16" OC DOUBLED

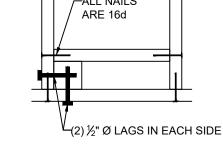


CANTILEVER WITH DECK ATTACHMENT

S3.3/SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)







\DECK POST BASE

\$\S3.3\ SCALE: 1" = 1'-0" (18x24) OR $1\frac{1}{2}$ " = 1'-0" (24x36)

REINF. POST CONNECTIONS \$3.3 SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)



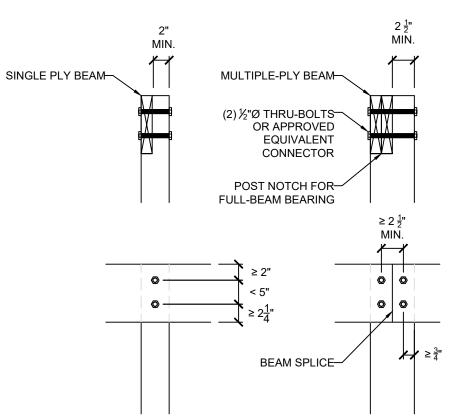
DECK JOIST

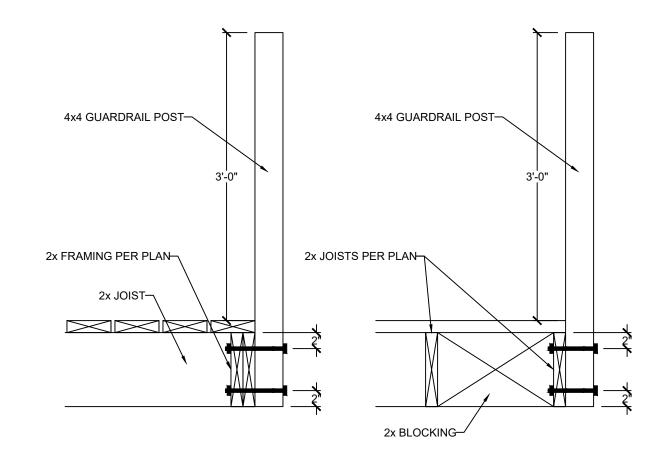
SPAN

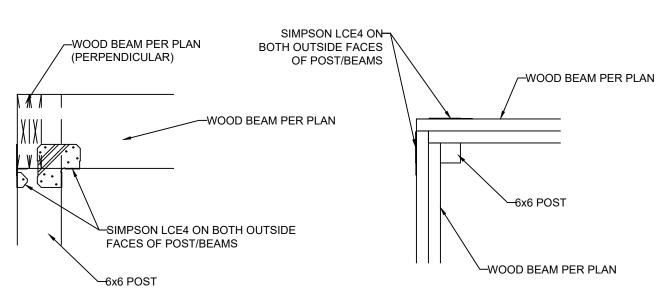
10'-0" OR LESS

10'-0" - 13'-11"

14'-0" - 18'-0"



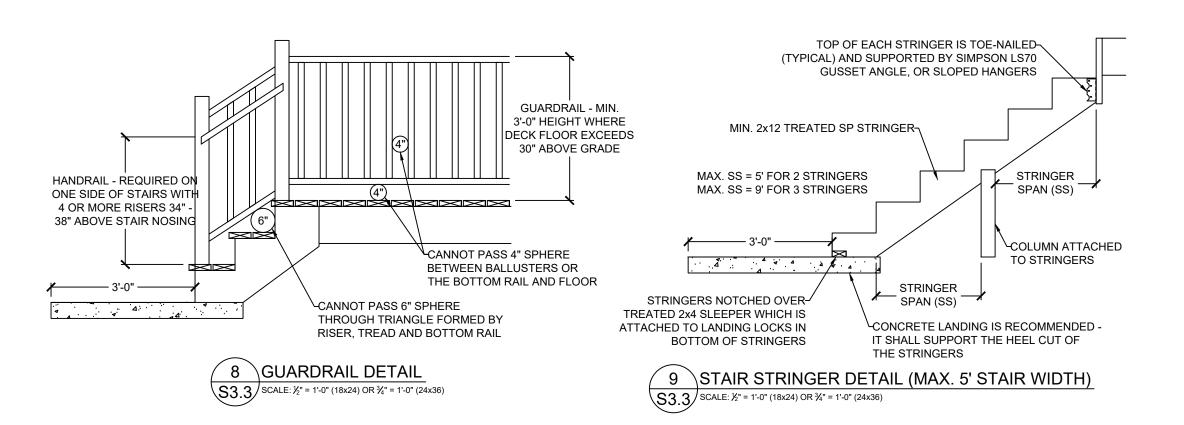


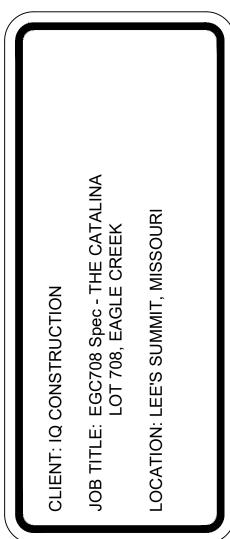


GUARDRAIL CONNECTION \$\S3.3\ SCALE: 1" = 1'-0" (18x24) OR $1\frac{1}{2}$ " = 1'-0" (24x36)

ALTERNATE COVERED DECK/PORCH INTERSECTION S3.3/CORNER BEAM CONNECTION SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)

\LET-IN (COVERED) DECK BEAM CONNECTION S3.3 SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)



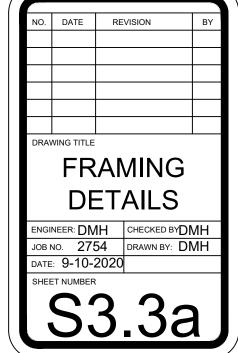


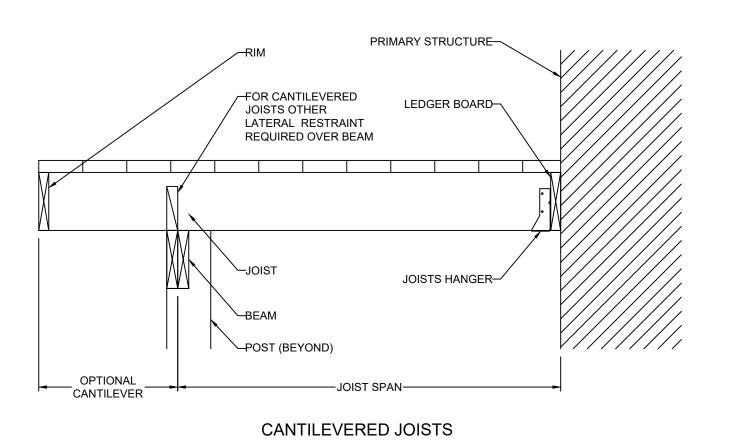
RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW

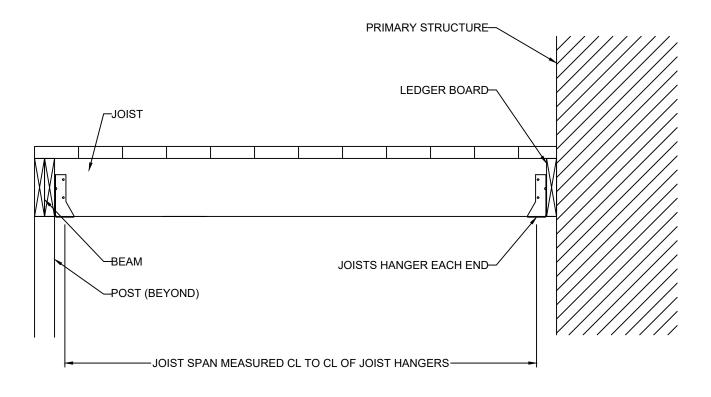
09/17/2020

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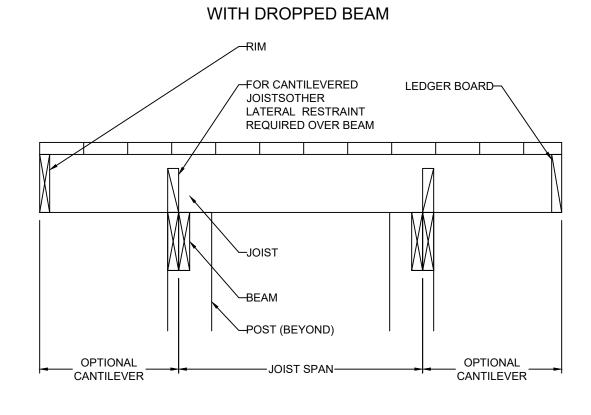


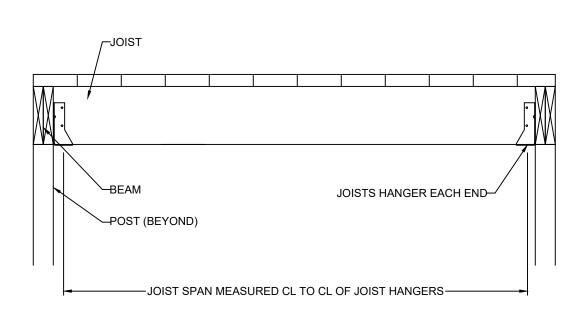






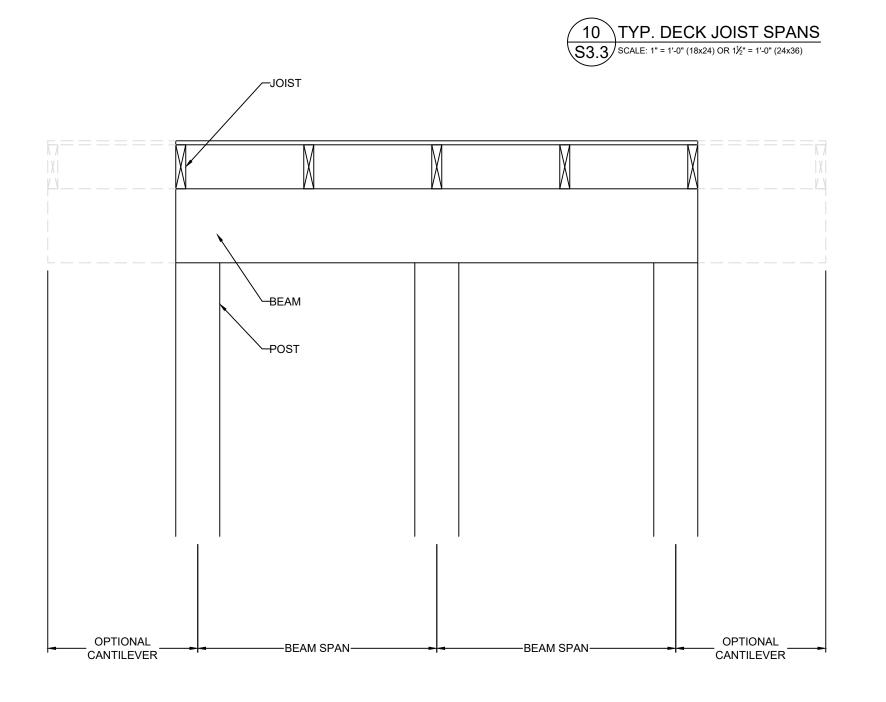
JOISTS WITH FLUSH BEAM

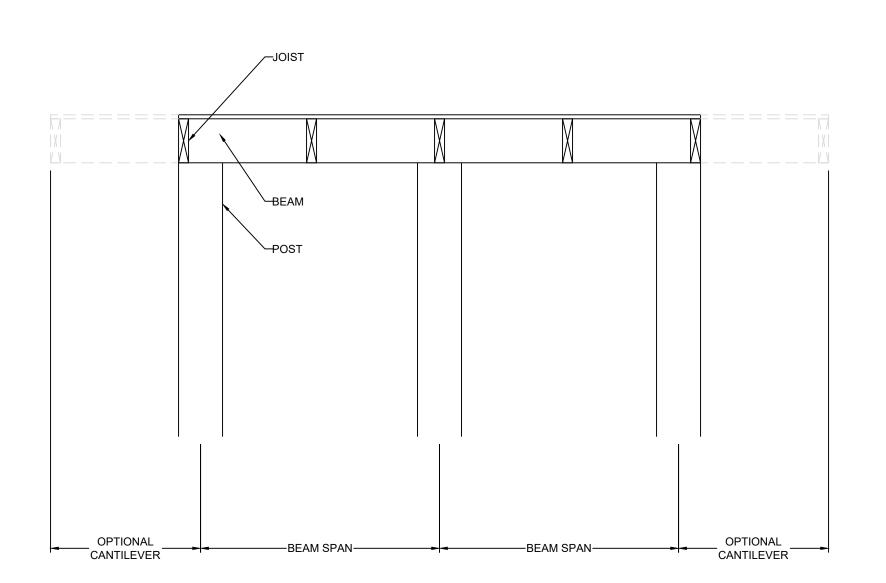




JOISTS ON FREE-STANDING DECK WITH DROPPED BEAM

JOISTS WITH FLUSH BEAM





DROPPED BEAM FLUSH BEAM



CLIENT: IQ CONSTRUCTION
JOB TITLE: EGC708 Spec - THE CATALINA
LOT 708, EAGLE CREEK
LOCATION: LEE'S SUMMIT, MISSOURI



					3
NO.	DATE	RE	VISION		BY
DRAV	WING TITLE				
FRAMING					
DETAILS					
ENGI	NEER: DN	1H	CHECK	ED BY D	ИΗ
JOB 1	vo. 27	54	DRAWN	BY: DI	ИΗ
DATE	: 9-10-2	2020			
SHEET NUMBER					
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