

ISSUE & REVISION	
PROGRESS SET	11/28/19
QTY SUBMISSION	02/19/19
REVISED SET	02/28/19
QTY SUBMISSION	12/09/18
87% REVIEW	05/06/20
ISSUE FOR PERMIT	05/05/20

COMM #1809

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 HUGO, MN

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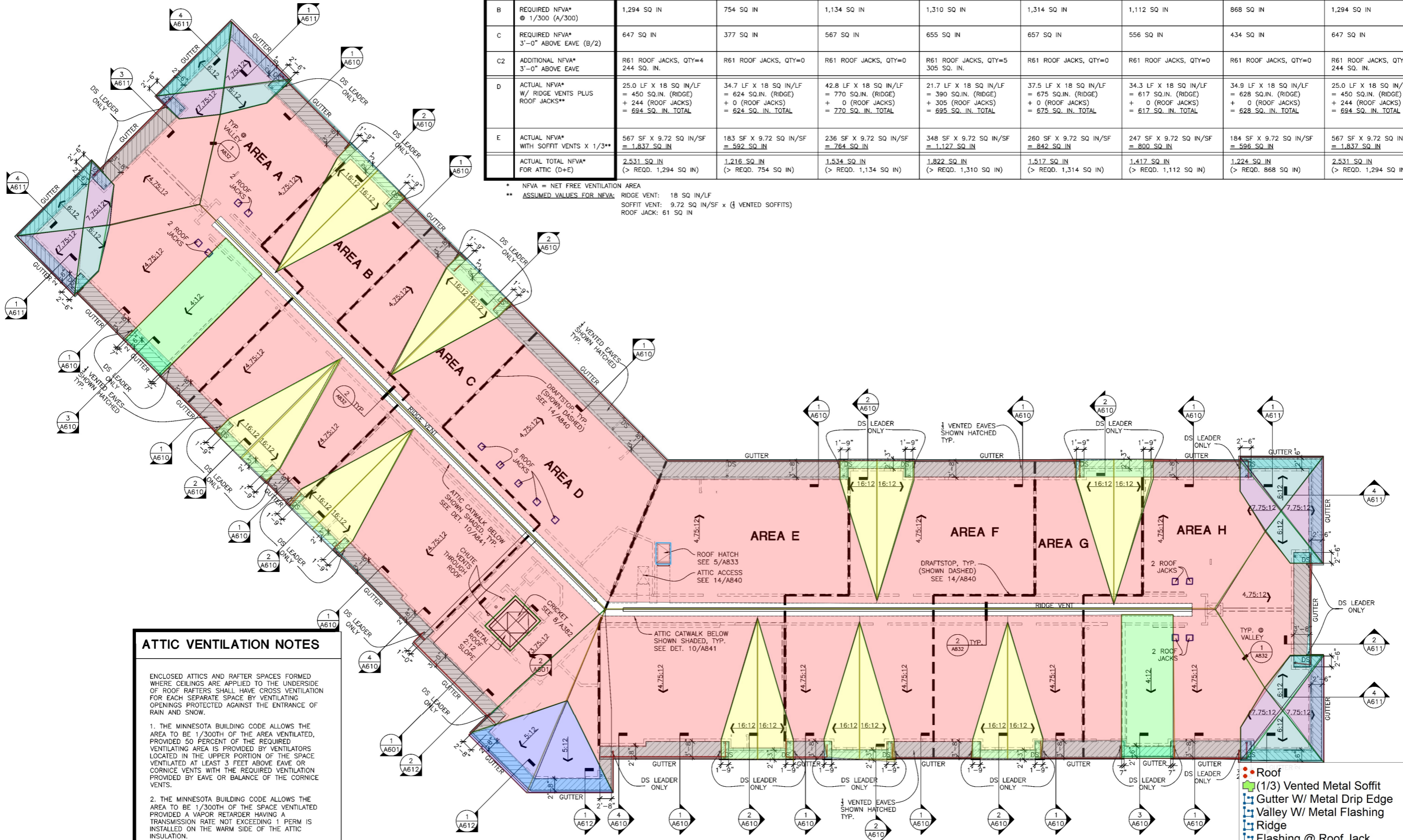
MILLER HANSON
 architects

NO. 16390
 DATE: May 20, 2020

ATTIC VENT CALCULATIONS

ITEM	CALCULATION DESCRIPTION	AREA A	AREA B	AREA C	AREA D	AREA E	AREA F	AREA G	AREA H
A	ATTIC AREA TO BE VENTED	388,002 SQ IN	226,265 SQ IN	340,194 SQ IN	393,061 SQ IN	394,320 SQ IN	333,706 SQ IN	260,570 SQ IN	388,002 SQ IN
B	REQUIRED NFVA* @ 1/300 (A/300)	1,294 SQ IN	754 SQ IN	1,134 SQ IN	1,310 SQ IN	1,314 SQ IN	1,112 SQ IN	868 SQ IN	1,294 SQ IN
C	REQUIRED NFVA* 3'-0" ABOVE EAVE (B/2)	647 SQ IN	377 SQ IN	567 SQ IN	655 SQ IN	657 SQ IN	556 SQ IN	434 SQ IN	647 SQ IN
C2	ADDITIONAL NFVA* R61 ROOF JACKS, QTY=4 244 SQ. IN.	R61 ROOF JACKS, QTY=4 244 SQ. IN.	R61 ROOF JACKS, QTY=0	R61 ROOF JACKS, QTY=0	R61 ROOF JACKS, QTY=5 305 SQ. IN.	R61 ROOF JACKS, QTY=0	R61 ROOF JACKS, QTY=0	R61 ROOF JACKS, QTY=0	R61 ROOF JACKS, QTY=4 244 SQ. IN.
D	ACTUAL NFVA* W/ RIDGE VENTS PLUS ROOF JACKS**	25.0 LF X 18 SQ IN/LF = 450 SQ. IN. (RIDGE) + 244 (ROOF JACKS) = 694 SQ. IN. TOTAL	34.7 LF X 18 SQ IN/LF = 624 SQ. IN. (RIDGE) + 0 (ROOF JACKS) = 624 SQ. IN. TOTAL	42.8 LF X 18 SQ IN/LF = 770 SQ. IN. (RIDGE) + 0 (ROOF JACKS) = 770 SQ. IN. TOTAL	21.7 LF X 18 SQ IN/LF = 390 SQ. IN. (RIDGE) + 305 (ROOF JACKS) = 695 SQ. IN. TOTAL	37.5 LF X 18 SQ IN/LF = 675 SQ. IN. (RIDGE) + 0 (ROOF JACKS) = 675 SQ. IN. TOTAL	34.3 LF X 18 SQ IN/LF = 617 SQ. IN. (RIDGE) + 0 (ROOF JACKS) = 617 SQ. IN. TOTAL	34.9 LF X 18 SQ IN/LF = 628 SQ. IN. (RIDGE) + 244 (ROOF JACKS) = 872 SQ. IN. TOTAL	25.0 LF X 18 SQ IN/LF = 450 SQ. IN. (RIDGE) + 244 (ROOF JACKS) = 694 SQ. IN. TOTAL
E	ACTUAL NFVA* WITH SOFFIT VENTS X 1/3**	567 SF X 9.72 SQ IN/SF = 1,837 SQ IN	183 SF X 9.72 SQ IN/SF = 592 SQ IN	236 SF X 9.72 SQ IN/SF = 784 SQ IN	348 SF X 9.72 SQ IN/SF = 1,127 SQ IN	260 SF X 9.72 SQ IN/SF = 842 SQ IN	247 SF X 9.72 SQ IN/SF = 800 SQ IN	184 SF X 9.72 SQ IN/SF = 596 SQ IN	567 SF X 9.72 SQ IN/SF = 1,837 SQ IN
	ACTUAL TOTAL NFVA* FOR ATTIC (D+E)	2,531 SQ IN (> REQ'D. 1,294 SQ IN)	1,216 SQ IN (> REQ'D. 754 SQ IN)	1,534 SQ IN (> REQ'D. 1,134 SQ IN)	1,822 SQ IN (> REQ'D. 1,310 SQ IN)	1,517 SQ IN (> REQ'D. 1,314 SQ IN)	1,417 SQ IN (> REQ'D. 1,112 SQ IN)	1,224 SQ IN (> REQ'D. 868 SQ IN)	2,531 SQ IN (> REQ'D. 1,294 SQ IN)

* NFVA = NET FREE VENTILATION AREA
 ** ASSUMED VALUES FOR NFVA: RIDGE VENT: 18 SQ IN/LF
 SOFFIT VENT: 9.72 SQ IN/SF x (1/3 VENTED SOFFITS)
 ROOF JACK: 61 SQ IN



ATTIC VENTILATION NOTES

ENCLOSED ATTICS AND RAFTER SPACES FORMED WHERE CEILINGS ARE APPLIED TO THE UNDERSIDE OF ROOF RAFTERS SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE BY VENTILATING OPENINGS PROTECTED AGAINST THE ENTRANCE OF RAIN AND SNOW.

1. THE MINNESOTA BUILDING CODE ALLOWS THE AREA TO BE 1/300TH OF THE AREA VENTILATED, PROVIDED 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE SPACE VENTILATED AT LEAST 3 FEET ABOVE EAVE OR CORNICE VENTS WITH THE REQUIRED VENTILATION PROVIDED BY EAVE OR BALANCE OF THE CORNICE VENTS.
2. THE MINNESOTA BUILDING CODE ALLOWS THE AREA TO BE 1/300TH OF THE SPACE VENTILATED PROVIDED A VAPOR RETARDER HAVING A TRANSMISSION RATE NOT EXCEEDING 1 PERM IS INSTALLED ON THE WARM SIDE OF THE ATTIC INSULATION.
3. THE OPENINGS SHALL BE COVERED WITH CORROSION-RESISTANT METAL MESH OPENINGS OF 1/4 INCH IN DIMENSION.
4. □ = R61 ROOF JACK. PROVIDE WHERE SHOWN ON ROOF PLAN.

1 ROOF PLAN
 3/32" = 1'-0"

- Roof
- (1/3) Vented Metal Soffit
- Gutter W/ Metal Drip Edge
- Valley W/ Metal Flashing
- Ridge
- Flashing @ Roof Jack
- Roof Area
- Roof Area
- Roof Area
- Roof Area
- Roof Area
- Roof Area
- Pref Metal Flash & Cap Flash @ Roof Hatch
- (1") Rigid Insulation Board @ Roof Hatch
- Flashing

2,990.7 SQ FT	1.0
807.2 FT	
1,038.4 FT	
845.5 FT	
69.3 FT	
902.1 SQ FT	
851.9 SQ FT	
17,556.8 SQ FT	
829.3 SQ FT	
4,648.8 SQ FT	
455.6 SQ FT	
16.7 FT	
16.7 FT	
36.1 FT	