Pikes Peak Regional Building Department

2880 International Circle
Colorado Springs, Colorado 80910

TECHNICAL COMMITTEE MEETING MINUTES

November 6, 2024 – Wednesday - 9:00 a.m.

MEMBERS PRESENT: Chair Jason Leimkuhl, Mechanical Contractor
Vice Chair Andy Baturevich, Structural Engineer
Mike Finkbiner, Building Contractor C or D1 *(Joined late)*
Tom Lysne, Architect
Andy Sanchez, Building Contractor A or B
Mick Emmerson, Master Plumber

MEMBERS ABSENT: Brian Braaten, Electrical Contractor

RBD STAFF: Roger Lovell, Regional Building Official
Virjinia Koultchitzka, Regional Building Attorney
Jay Eenhuis, Deputy Regional Building Official – Plans
John Welton, Deputy Regional Building Official – Inspections
Gina LaCascia, Executive Administrative Assistant

PROCEEDINGS:

The Technical Committee meeting was conducted in a hybrid forum, allowing Committee members, Department staff, and the public to attend in person at the Pikes Peak Regional Development Center, 2880 International Circle, Colorado Springs, Colorado 80910, Hearing Room on the upper level, or virtually through Microsoft Town Hall. Sufficient and timely access to the public to observe the meeting was made available at: https://www.pprbd.org /Information/Boards.

The Colorado Springs Fire Department (CSFD) was not present. However, CSFD advised that it took no exception to the variance requests since they did not impact fire code requirements.

1. **CALL TO ORDER: DETERMINATION OF A QUORUM**

   Chair Jason Leimkuhl called the Technical Committee meeting to order at 9:00 a.m.

2. **CONSIDERATION OF THE OCTOBER 2, 2024 TECHNICAL COMMITTEE MEETING MINUTES**

   A motion was made by Andy Sanchez to **APPROVE** the October 2, 2024, Technical Committee Meeting Minutes, as written; seconded by Andy Baturevich; the motion carried unanimously.

3. CONSENT CALENDAR

Consent calendar items will be acted upon as a whole, unless a specific item is called for discussion by a Committee member or a citizen wishing to address the Committee.

There were no items on the Consent Calendar.

4. ITEMS CALLED OFF CONSENT CALENDAR

There were no items called off the Consent Calendar.

5. VARIANCE REQUESTS

a) 2542 Elvin Avenue, Colorado Springs, Permit P04967 – Brunilda Montijo, property owner, requests a variance to Section R908.3, 2021 International Residential Code, per Item 3 of Section RBC 111.2.3, Pikes Peak Regional Building Code, 2023 Edition, to allow for installation of new ice and water shield over an existing layer of underlayment, where prohibited.

As continued from the July 3, 2024 Technical Committee meeting in order to allow the property owner to compile documentation and photographs of the reroof.

This variance was heard out of order.

Brunilda Montijo appeared virtually and stated she is requesting the installation of new ice and water shield over existing underlayment. She has provided additional documents and photographs, as requested by the Committee during the July 3, 2024 Technical Committee meeting.

Mike Finkbiner stated since the applicant's property is at an elevation less than 7,000 feet, the ice and water shield is not a requirement. The layer of underlayment under the shingles may give the Committee a pathway forward for this variance. Currently, the only remaining requirement during an inspection is confirmation that the pitch of the roof is above 4/12. After review of the inspection notes, John Welton advised the roof pitch was not an issue, however, the ice and water shield was installed over existing underlayment in several areas of the roof. Ms. Montijo stated that the issue was only toward the front of the roof, near the eave. Chair Jason Leimkuhl asked if there have been any leaks in the attic or anywhere else. Ms. Montijo said she has not experienced any leaks whatsoever, or any other issues.

Ms. Montijo shared on record Reliable Roofing's findings specific to the roof. Virjinia Koultchitzka requested a copy of the findings by Reliable Roofing.

A motion was made by Mike Finkbiner to **CONTINUE** the variance for one month to allow the applicant time to work with Department staff to do a follow up inspection and detail the locations of the ice and water shield over existing felt more accurately; seconded by Andy Sanchez; the motion carried unanimously.

b) 10 Minden Circle, Colorado Springs, Permit P54644 – Matthew Swanson, All Square, LTD, requests a variance to Section R905.2.2, 2021 International Residential Code, based on Item 3 of Section RBC111.2.3, Pikes Peak Regional Building Code, 2023 Edition, to allow asphalt shingles to be installed on a roof pitch less than 2 units vertical in 12 units horizontal, where prohibited.

This variance was heard out of order.

Matthew Swanson appeared in person and stated this variance is to allow him to use ice and water shield under the new asphalt shingles, where asphalt shingles are prohibited from use on roof slopes less than a consistent roof pitch of 1.75:12. Mike Finkbiner asked the applicant if the property owner understands that the warranty by the manufacturer of the shingles will not cover such a roof pitch. Mr. Swanson indicated he has advised the property owner of this fact; as a result, he proposed using ice and water shield instead of double air because he believes it is a better system. He also plans on providing the property owner with his standard warranty, including workmanship.

A motion was made by Mike Finkbiner to recommend to the Board of Review **APPROVAL** of the variance to allow asphalt shingles to be installed on a roof pitch of less than 2:12 with complete ice and water shield as the underlayment, with a letter stating the property owner's understanding that the shingles manufacturer warranty will not be intact; seconded by Tom Lysne; the motion carried unanimously.

c) 320 Sandreed Place, Colorado Springs, Permit P53044 – Dana Smith, property owner, requests a variance to Section R310.2.3, 2021 International Residential Code, based on Item 3 of Section RBC111.2.3, Pikes Peak Regional Building Code, 2023 Edition, to allow a sill height of 55 inches in existing conditions, where a maximum sill height of 44 inches is allowed.

Dana Smith appeared virtually and stated she is adding a fourth bedroom in her basement, which has a window measuring 55 inches from the floor to the sill, facing the backyard. When looking out the window, there is a deck upstairs, but a person can stand under the deck with no issues. She is hoping to either have her variance approved to leave the window as is, or approve a permanent bench for egress purposes. The bench would measure 11 inches, making the space from the bench to the sill at least 44 inches.

Mike Finkbiner asked the applicant if she would consider a two-step instead of a one-step installation for egress purposes. The applicant was agreeable as long as she knows what the measurements should be.

After further discussion and review of the photographs the applicant submitted with the variance application, John Welton inquired whether the applicant plans on having the electrical outlet under the window relocated to allow the installation of permanent steps Ms. Smith indicated she does plan on hiring an electrician for this purpose. Mr. Welton advised that the steps would only need to be installed under the operable side of the window and do not require handrails. Since the building frame inspection has been completed, the steps would be part of the final inspection. Mr. Welton also advised the applicant that after she calls in her follow up electrical rough and the electrical/mechanical finals, she will need to call once more for her follow up final building inspection and at that point, the inspector will look at the steps and made sure they are code compliant. Mike Finkbiner recommended that the electrical work be completed before the installation of the steps for egress purposes.

A motion was made by Mike Finkbiner to recommend to the Board of Review **APPROVAL** of the variance to allow a permanent two-step for egress purposes, not more than 7 ¾ inches on the rise and 10 inches minimum depth for the actual steps; seconded by Andy Sanchez; the motion carried unanimously.

d) 9327 Baltusrol Court, Peyton, Permit P57851 – John Charles Bergeron, property owner, requests a variance to Section R310.2.3, 2021 International Residential Code, based on Item 3 of Section RBC111.2.3, Pikes Peak Regional Building Code, 2023 Edition, to allow a sill height of 46 inches in existing conditions, where a maximum sill height of 44 inches is allowed.

The applicant did not appear; therefore, a motion was made by Mike Finkbiner to **CONTINUE** the variance for one month; seconded by Tom Lysne; the motion carried unanimously.

e) 4810 Hidden Rock Road, Colorado Springs, Permit P10665 – Terry Witmer, Air Pros One Source, LLC, requests a variance to Section R402.2.9, 2021 International Energy Conservation Code, based on Item 3 of Section RBC111.2.3, Pikes Peak Regional Building Code, 2023 Edition, to allow for reduced slab insulation within conditioned, non-habitable space, by increasing insulation R-values provided elsewhere.

Terry Witmer appeared in person and stated that they have installed a hotdog heater in a garage that was unconditioned; once the furnace was installed, it became a conditioned area. The project passed inspection by Pinnacle.

Chair Jason Leimkuhl asked the applicant if any type of load calculation was completed to make sure the heating unit installed was the correct size for the garage. Mr. Witmer stated that he was advised by co-workers that the size of the heating unit was adequate for the garage. Jay Eenhuis stated that a heat loss calculation would not be required for

a standard installation where there is non-habitable space. A heat loss comparison, however, is typically what the Committee asks for when using an R-value trade-off as an equal or better alternative.

Further, since the applicant's variance is based on Item 3 of Section RBC111.2.3 of the Code, which is an equal or better form of construction, not having slab insulation within the condition space, the Committee would request this information to substantiate the equal or less than heat loss with the insulation that has been installed in the walls and ceiling, than the heat loss that would occur if there was standard prescriptive insulation in the walls, ceiling, and slab.

A motion was made by Mike Finkbiner to **CONTINUE** the variance for one month to allow the applicant to provide the required heat loss calculations or comparison; seconded by Andy Sanchez; the motion carried unanimously.

f) 10975 Evening Creek Drive, Peyton, Permit P58449 – Dale and Brenda Rice, property owners, request a variance to Section R402.2.9, 2021 International Energy Conservation Code, based on Item 3 of Section RBC111.2.3, Pikes Peak Regional Building Code, 2023 Edition, to allow for reduced slab insulation within conditioned, non-habitable space, by increasing insulation R-values provided elsewhere.

Dale Rice appeared in person and stated he has an oversized RV, which he stores in his garage. He stated that he has increased the insulation R-values in the garage by installing R-21 in the walls, R-49 in the attic and R-8 on the garage doors. The proposed heat loss would be 17,262 BTU/hr., which is less than the heat loss that would occur using prescriptive insulation values.

After the Committee reviewed all the documents submitted with the variance, a motion was made by Andy Sanchez to recommend to the Board of Review **APPROVAL** of the variance as requested; seconded by Mike Finkbiner; the motion carried unanimously.

g) 14620 Sterling Road, Colorado Springs, Permit P59280 – Toby Conquest, The Furnace Guy Heating and Cooling, requests a variance to Section R402.2.9, 2021 International Energy Conservation Code, based on Item 3 of Section RBC111.2.3, Pikes Peak Regional Building Code, 2023 Edition, to allow for reduced slab insulation within conditioned, non-habitable space, by increasing insulation R-values provided elsewhere.

Mark Penchofs, The Furnace Guy Heating and Cooling, appeared in person and stated that he installed a unit heater in a garage that meets required criteria, however, he did use zero insulation in the slab for the heat loss calculations, which is 21,000 BTU/hr. He provided a copy of a heat loss calculation table, which is attached hereto and marked as Exhibit 1.

Andy Sanchez stated since the variance application is under Item 3 of Section RBC111.2.3 of the Code, an equally good or better form of construction is proposed, the applicant would need to provide the heat loss calculations for prescriptive heat loss values.

A motion was made by Andy Sanchez to recommend to the Board of Review **APPROVAL** of the variance under the condition that the applicant provide a prescriptive heat loss calculation by November 8, 2024; seconded by Mick Emmerson; the motion carried unanimously.

h) 5785 Taxi Way, Unit 100, Colorado Springs, Permit P45547 – Thomas Hoag, Hoag Construction Company, requests a variance to Section 1110.2, 2021 International Building Code, based on Item 3 of Section RBC111.2.3, Pikes Peak Regional Building Code, 2023 Edition, to waive specific requirements for restrooms to be accessible, where required. Requirements to be omitted are: grab bars at water closet and shower, knee space protection at lavatory, and fold-down shower seats. Additional modifications are smaller frame for shower access and installation height of hand spray above accessible range.

Committee member, Mick Emmerson, recused himself from hearing this variance due to his relationship with the applicant. A quorum was maintained.

Thomas Hoag appeared in person and stated that he would like to amend his variance request to omit the grab bars around the toilet, the shower, and the folding shower seat in the shower, and delete everything else that he had originally requested in the variance with the condition that the backing is installed. He previously submitted the variance request to omit the knee space protection and allow for modifications for a smaller frame for the shower, and adjustable hand spray above accessible range. His project includes three hangars with one bathroom in each which are not accessible to the public, just the pilot. Over the years air plane hangars have been considered Type U occupancy which do not require accessibility; that changed to S-2 and now commercial air plane hangars are now considered S-1 occupancy, which requires accessibility and where Type U does not. He further amended the request under Item 2 instead of Item 3 of Section RBC111.2.3 of the Code, where the provisions of the applicable code do not fully apply. He is also asking that the bathroom be treated as a private office pursuant to ANSI Standards, Sections 608.2.1.3 and 608.3.1.

After further discussion with regard to previous and similar variance requests made in the past by the applicant, he restated his request for an amendment to the variance request to include Section 1110.2, 2021 International Building Code, based on Item 3 of Section RBC111.2.3, to waive specific requirements for restrooms to be accessible where required, the requirements to be omitted are grab bars at water closet and shower and fold-down shower seats, with the understanding that all of the backing has been installed and is in place, the bathroom could easily be adapted later should the need

arise. Jay Eenhuis stated in reviewing the approved plans, the bathroom was designed with a 67-inch diameter turning space, therefore, a 3-foot door swing will not impede a circular turning space.

Mike Finkbiner asked the applicant how his basis for a variance request is an equally or better form of construction proposed. Mr. Hoag stated that it is an exception 2 in 1110.2, that specifically addresses a private restroom; you could delete the grab bars and the shower seats and install it back later should the need arise provided the backing is in place. Jay Eenhuis stated for clarification that the private office exceptions come from the ICC, ANSI Standard, which is an equal or better alternative request, would be to allow access through a private office, when in fact it is a private air craft hangar. Mr. Hoag stated that there is no definition in the IBC or ANSI Standard for a private office; its not occupancy related, so he looked it up in an Oxford Dictionary which states: A set of rooms or a building used as a place for commercial, professional or bureaucratic work. He says he has not found in twenty years of building hangars in four or five different states, a definition of a private office; but that is what a hangar is, it is what a professional pilot uses as their offices; they prepare flight planning and get ready for their flights; no one else has access to that area. This would be the same as a private office for a doctor or a dentist.

Chair Jason Leimkuhl asked the applicant if they should basically view the hangar as the pilot's private office and Mr. Hoag answered in the affirmative. Tom Lysne advised the applicant with regard to ADA standards with regard to the restroom would fall under ANSI 117, and the ADA requirements would be handled by federal regulations.

Virjinia Koultchitzka offered an alternative basis for the variance request, which would be Item 2 of Section RBC111.2.3, which is the applicable code does not fully apply. Tom Hoag agreed that Item 2 would be the appropriate basis for the variance request, therefore, he asked that his amendment include Item 2 and delete Item 3. Ms. Koultchitzka asked the applicant to confirm that Item 2 would be because he claims that the restroom is a private office and the applicant confirmed the same. Chair Jason Leimkuhl then restated that the basis for the variance request is now that the provisions of the applicable code do not fully apply because the bathrooms are accessed in a private office and in this case, the office happens to be in an aircraft hangar.

A motion was made by Andy Sanchez to recommend to the Board of Review **APPROVAL** of the variance as amended, omitting the grab bars at the water closet and shower and the fold-down shower seats, with the understanding that all backing is currently installed as needed, including amending the variance request to be based on Item 2 of Section RBC111.2.3; seconded by Mike Finkbiner; the motion carried.

i) 5785 Taxi Way, Unit 105, Colorado Springs, Permit P45548 – Thomas Hoag, Hoag Construction Company, requests a variance to Section 1110.2, 2021 International Building Code, based on Item 3 of Section RBC111.2.3, Pikes Peak Regional Building

Code, 2023 Edition, to waive specific requirements for restrooms to be accessible, where required.
Requirements to be omitted are: grab bars at water closet and shower, knee space protection at lavatory, and fold-down shower seats. Additional modifications are smaller frame for shower access and installation height of hand spray above accessible range.

Committee member, Mick Emmerson, remained recused. A quorum was maintained.
Thomas Hoag advised the Committee that this variance is exactly like the previous variance pertaining to 5785 Taxi Way, Unit 100, and therefore, would request that he be able to amend this one as well; listing Item 2 of Section RBC111.2.3.

Based on previous discussions, a motion was made by Andy Sanchez to recommend to the Board of Review **APPROVAL** of the variance as amended, omitting the grab bars at the water closet and shower and the fold-down shower seats, with the understanding that all backing is currently installed as needed, including amending the variance request to be based on Item 2 of Section RBC111.2.3; seconded by Tom Lysne; the motion carried unanimously.

j) 5785 Taxi Way, Unit 110, Colorado Springs, Permit P45549 – Thomas Hoag, Hoag Construction Company, requests a variance to Section 1110.2, 2021 International Building Code, based on Item 3 of Section RBC111.2.3, Pikes Peak Regional Building Code, 2023 Edition, to waive specific requirements for restrooms to be accessible, where required. Requirements to be omitted are: grab bars at water closet and shower, knee space protection at lavatory, and fold-down shower seats. Additional modifications are smaller frame for shower access and installation height of hand spray above accessible range.

Committee member, Mick Emmerson, remained recused. A quorum was maintained.

Thomas Hoag advised the Committee that this variance is exactly like the previous variance pertaining to 5785 Taxi Way, Unit 105, and therefore, would request that he be able to amend this one as well; listing Item 2 of Section RBC111.2.3.

Based on previous discussions, a motion was made by Andy Sanchez to recommend to the Board of Review **APPROVAL** of the variance as amended, omitting the grab bars at the water closet and shower and the fold-down shower seats, with the understanding that all backing is currently installed as needed, including amending the variance request to be based on Item 2 of Section RBC111.2.3; seconded by Mike Finkbiner; the motion carried unanimously.

6. **UNFINISHED BUSINESS**

a) 2025 Committee/Board/Commission Meeting Dates (Non-action item until January of 2025, when a schedule will be adopted in accordance with the requirements of the Colorado Sunshine Act of 1972, as amended.)

The Committee members were provided with the 2025 Committee/Board/Commission Meeting Dates for review and consideration.

7. **NEW BUSINESS**

There was no New Business to discuss.

8. **ADJOURNMENT**

The Technical Committee meeting adjourned at 11:08 a.m.

Work Training Session (to start at the conclusion of the regular Licensing Committee meeting, and not earlier than 11:00 a.m.)

a) Harassment Prevention Training for Committee, Board, and Commission Volunteers, provided by Pikes Peak Regional Building Department Human Resources and Legal Department staff (approximate timing - one hour). Attached is the remaining available schedule for those volunteers who may have a conflict and need to attend at a different date/time.

The Department's Human Resource Manager, Kathy Shupp, conducted the Harassment Prevention Training which commenced at 11:30 a.m. The Training ended at 12:10 p.m. Certificates of completion will be provided to all Committee members who attended the training.

Respectfully submitted,

Roger N. Lovell
Regional Building Official

RNL/gml

Accommodations for the hearing impaired can be made upon request by providing notice within forty-eight (48) hours prior to the meeting. Please email ginal@pprbd.org or call (719) 327-2989.

Pikes Peak Regional Building Department (PPRBD) meeting agendas and minutes, as well as archived records, are available free of charge on PPRBD's website under Boards & Committees. Audio copies of the record may be purchased by emailing ginal@pprbd.org or by calling (719) 327-2989.

Released for Permit

NOV 0 7 2024

AJE
RBD Construction

Directions:

1 Enter or modify information in the **blue** cells only. All other cells are locked.
2 DO NOT enter both R and U values. The worksheet defaults to the R value. If you want to use the U value, leave the R value empty.
3 The values listed in the R and U columns are the most common but may be modified depending on building materials actually used.
4 For all Areas, enter the value in square feet. BTU/hr means British Thermal Unit per hour, a unit measure of heat loss over time.
5 The Areas in Row 5A and 5C are locked for your benefit. Please insure that these are a positive number or you will get an error message.
6 For further direction, cells with a red triangle offer additional comments when the cursor is placed over the cell.
7 When finished, print this form and attach it to your plans for review.

PROPOSED ≤ PRESCRIPTIVE

Pikes Peak Regional Building Department

Heat Loss Calculation Table (ver. 2.2)

Contractor/Builder:	The Furnace Guy						Address or Master#:	14260 Sterling Rd CS 80921					Date:	November 7, 2024	
1	Space under consideration						**Crawlspace**		**Basement**		**Main Floor**		**Upper Floor**		**Entire House**	
2	Running perimeter of exterior wall (feet)										100				100	
3	Floor area (square feet)										1333				1,333	
4	Wall height (feet)										10				10	
TYPE OF EXPOSURE			Material	R	U	T	Area	BTU/hr	Area	BTU/hr	Area	BTU/hr	Area	BTU/hr	Area	BTU/hr
5	Net exposed walls	A.	Concrete earth	10		25	0	0	0	0		0		0	0	0
		B.	Concrete air	10		72		0		0		0		0	0	0
		C.	2x4	23		72		0		0	676	2116	0	0	676	2116
		D.	2x6	20		72		0		0		0		0	0	0
6	Windows and Glass doors	E.	Window bsmt		0.32	72		0		0		0		0	0	0
		F.	Window other		0.32	72		0		0		0		0	0	0
		G.	Glass door		0.32	72		0		0		0		0	0	0
7	Solid doors	H.			0.32	72		0		0	324	7465		0	324	7465
8	Gross roof	I.	Flat ceiling	38		72				0	1333	2526		0	1333	2526
	Skylights	J.			0.55	72				0		0		0	0	0
8a	Gross roof	Ia.	Sloped ceiling	49		72				0		0		0	0	0
	Pitch in 12															
	Skylights	Ja.			0.55	72				0		0		0	0	0
9	Floors on grade	K.	Slab insulation	1		25		0		0	200	5000		0	200	5000
10	Floors / unheated	L.		30		72		0		0		0		0	0	0
11	Floors / exterior	M.		30		72		0		0		0		0	0	0
12	**Building Envelope Heat Loss**							**0 BTU/hr**		**0 BTU/hr**		**17,107 BTU/hr**		**0 BTU/hr**		**17,107 BTU/hr**
13	**Infiltration Heat Loss (based on average of 0.35 ACH)**							**0 BTU/hr**		**0 BTU/hr**		**4,666 BTU/hr**		**0 BTU/hr**		**4,666 BTU/hr**
14	**Total Heat Loss**							**0 BTU/hr**		**0 BTU/hr**		**21,772 BTU/hr**		**0 BTU/hr**		**21,772 BTU/hr**
15	Altitude deration	Caloric deration of natural gas						Output		Output		Output		Output		Total Output
		(constant)				80%		0 BTU/hr		0 BTU/hr		27,215 BTU/hr		0 BTU/hr		27,215 BTU/hr
16	Efficiency deration	Efficiency of heating equipment						Input		Input		Input		Input		Total Input
						80%		0 BTU/hr		0 BTU/hr		34,019 BTU/hr		0 BTU/hr		**34,019 BTU/hr**

form release: 12/09/2003
revised 10/25/2011

Directions:

1. Enter or modify information in the **blue** cells only. All other cells are locked.
2. DO NOT enter both R and U values. The worksheet defaults to the R value. If you want to use the U value, leave the R value empty.
3. The values listed in the R and U columns are the most common but may be modified depending on building materials actually used.
4. For all Areas, enter the value in square feet. BTU/hr means British Thermal Unit per hour, a unit measure of heat loss over time.
5. The Areas in Row 5A and 5C are locked for your benefit. Please insure that these are a positive number or you will get an error message.
6. For further direction, cells with a red triangle offer additional comments when the cursor is placed over the cell.
7. When finished, print this form and attach it to your plans for review.

Pikes Peak Regional Building Department

Heat Loss Calculation Table (ver. 2.2)

PRESCRIPTIVE ✓

Contractor/Builder:	The Furnace Guy					Address or Master#:	14260 Sterling Rd CS 80921						Date:	November 7, 2024	
1	Space under consideration					**Crawlspace**		**Basement**		**Main Floor**		**Upper Floor**		**Entire House**	
2	Running perimeter of exterior wall (feet)									100				100	
3	Floor area (square feet)									1333				1,333	
4	Wall height (feet)									10				10	
TYPE OF EXPOSURE		Material		R	U	T	Area	BTU/hr	Area	BTU/hr	Area	BTU/hr	Area	BTU/hr	Area	BTU/hr
5	Net exposed walls	A.	Concrete earth	10		25	0	0	0	0		0		0	0	0
		B.	Concrete air	10		72		0		0		0		0	0	0
		C.	2x4	13		72		0		0		0		0	0	0
		D.	2x6	20		72		0		0	676	3744	0	0	676	3744
6	Windows and Glass doors	E.	Window bsmt		0.32	72		0		0		0		0	0	0
		F.	Window other		0.32	72		0		0		0		0	0	0
		G.	Glass door		0.32	72		0		0		0		0	0	0
7	Solid doors	H.			0.45	72		0		0		0		0	0	0
8	Gross roof	I.	Flat ceiling	24		72				0	324	10498		0	324	10498
	Skylights	J.			0.55	72				0	1333	3999		0	1333	3999
8a	Gross roof	Ia.	Sloped ceiling	49		72				0		0		0	0	0
	Pitch in 12									0		0		0	0	0
	Skylights	Ja.			0.55	72										
9	Floors on grade	K.	Slab insulation	10		25		0		0		0		0	0	0
10	Floors / unheated	L.		30		72		0		0	200	500		0	200	500
11	Floors / exterior	M.		30		72		0		0		0		0	0	0
12	**Building Envelope Heat Loss**							**0 BTU/hr**		**0 BTU/hr**		**18,741 BTU/hr**		**0 BTU/hr**		**18,741 BTU/hr**
13	**Infiltration Heat Loss (based on average of 0.35 ACH)**							**0 BTU/hr**		**0 BTU/hr**		**4,666 BTU/hr**		**0 BTU/hr**		**4,666 BTU/hr**
14	**Total Heat Loss**							**0 BTU/hr**		**0 BTU/hr**		**23,406 BTU/hr**		**0 BTU/hr**		**23,406 BTU/hr** ✓
15	Altitude deration	Caloric deration of natural gas (constant)				80%	Output	0 BTU/hr	Output	0 BTU/hr	Output	29,258 BTU/hr	Output	0 BTU/hr	Total Output	29,258 BTU/hr
16	Efficiency deration	Efficiency of heating equipment				80%	Input	0 BTU/hr	Input	0 BTU/hr	Input	36,572 BTU/hr	Input	0 BTU/hr	Total Input	**36,572 BTU/hr**

form release: 12/09/2003
revised 10/25/2011