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Temperature Measurements in Fire Resistance Tests on Small-Scale Gypsum Wallboard Assemblies With and Without Resilient Channels

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- Roxul Inc.
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- Forintek Canada Corporation
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TEMPERATURE MEASUREMENTS IN SMALL-SCALE GYPSUM WALLBOARD ASSEMBLIES WITH AND WITHOUT RESILIENT CHANNELS

ABSTRACT

This report presents the temperature measurements from fire resistance tests conducted at the National Fire Laboratory on small-scale, non-insulated, gypsum wallboard protected assemblies with and without resilient channels. Assemblies with resilient channels include the installation of channels between the wood studs and the gypsum wallboard on the exposed side, on the unexposed side and on both the exposed and unexposed sides. Gypsum wallboard arrangements studied were 1x1 (one layer of board on both the exposed and unexposed sides) and 2x2 (two layers of board on both the exposed sides). The average temperature distribution on the unexposed surface as well as on the inner-surfaces are presented.

TEMPERATURE MEASUREMENTS IN SMALL-SCALE GYPSUM WALLBOARD ASSEMBLIES WITH AND WITHOUT RESILIENT CHANNELS

1 INTRODUCTION

A number of recent changes to the 1990 edition of the National Building Code of Canada (NBCC) and to CAN/CSA-A82.27-M91 Standard "Gypsum Board-Building Materials and Products" may have an effect on the fire performance of insulated and noninsulated gypsum wallboard assemblies. One of the major issues is that the requirement for weight per unit area for gypsum board products has been removed. As well, there have been changes in the NBCC to increase the sound transmission ratings (STC) between dwelling units. These changes may have an impact on the fire resistance of both wall and floor assemblies referenced in Parts 3 and 9 of the NBCC, as well as the calculation methods in Chapter 2 of the Supplement to the NBCC.

As a result of these changes, a Joint Research Project between IRC/NRCC and 8 industry partners has been conducted with the primary objective of determining the impact that the various changes to the codes and standards may have had on the fire resistance ratings of insulated and non-insulated gypsum board wall assemblies. A number of full-and small-scale tests have been conducted to study the effect of different parameters, such as the installation of resilient channels, insulation in the wall cavity, gypsumboard types and symmetrical and asymmetrical gypsumboard installations.

This report presents the results of the fire tests conducted the National Fire Laboratory, National Research Council Canada as part of that Joint Research Project to determine the effect of the installation of resilient channels on the fire performance of noninsulated small-scale assemblies. Other reports will deal with other issues in this project.

2 DESCRIPTION OF TEST ASSEMBLIES

The small-scale test assembly furnace set-up is shown in Figure 1.

2.1 Dimensions

Eight assemblies were constructed 914 mm high by 914 mm wide with various depths depending on the number of layers of gypsumboard. The specific dimensions of each assembly are given in Figures 3 to 10.

2.2.2 Gypsum Board

Type X gypsum board conforming to the requirements of CAN/CSA-A82.27-M91 [1] was used. The 12.7 mm thick Type X gypsum board had a mass/unit area of 7.83 kg/m².

2.2.3 Framing Materials

The wood framing members were nominal 2x4's (38 mm thick by 89 mm deep) and conformed to CSA 0141-1970 [2].

2.2.4 Resilient Channels

The resilient channels used in the assemblies consisted of sections of 0.18 mm thick galvanized steel. These channels consisted of a 34 mm web and one flattened 18 mm flange lip (see Figure 11). The flange between the web and flattened lip was perforated with 36 mm oblong holes.

2.3 Fabrication

The small-scale assemblies were constructed using similar construction practices to those employed for full-scale fire test assemblies. All small-scale tests were non-load bearing.

2.3.1 Wood Stud Assemblies

The wood studs used were 38 mm by 89 mm (SPF No. 1 and No. 2, S-Dry, QLMA Mill Grade 149) and spaced at 400 mm O.C. To make up the required furnace width of 914 by 914 mm, an additional stud was added to each end (see Figures 3 to 10). The top and bottom plates were then added to complete the box assembly construction.

For single layer construction assemblies without resilient channels, (one layer of gypsumboard on each of the exposed and unexposed sides), the wallboard was attached to studs with Type S drywall screws 41 mm long and spaced at 400 mm. O.C. The screw heads were covered with joint compound. Screw locations and gypsumboard joints are shown in Figures 12 to 16 [3]. The board joint was finished with fibre tape and joint compound.

In the double gypsum layer construction without resilient channels, both the exposed and unexposed sides had two gypsum layers: base and face layers. The base layer was attached to wood studs with Type S drywall screws 41 mm long spaced at 400 mm O.C. along the edges and spaced at 600 mm O.C. in the field of the board. Screw locations and gypsumboard joints are shown in Figures 17 to 19 [3]. The face layer was attached to both the base layer and the studs with screws 51 mm long spaced at 400 mm O.C. Screw heads on both the exposed and unexposed faces were covered with joint compound.

2.3.2 Resilient Channel Installation

The resilient channels were attached to either the exposed or unexposed side of the wood studs, or both, with 25 mm long self drilling, self tapping steel screws spaced at

300 mm O.C. The wallboard was attached to the channels with 32 mm long steel screws spaced at 300 mm O.C. Three rows of channels were installed horizontally, perpendicular to the studs, at 400 mm O.C. using similar construction practices to those specified in ULC Assembly U-311 [4]. At both ends, the channels were cut 39 mm shorter than the width of the assembly in order to avoid heat and flame transmission to the unexposed surface. The gaps created at the ends of the channels were filled with strips of gypsumboard facing screwed to the outer edge studs (see Fig. 10).

2.4 Instrumentation

Type K (20 gauge) chromel-alumel thermocouples, with a thickness of 0.91 mm, were used for measuring temperatures at a number of locations throughout an assembly. Inside cavities, the thermocouples were attached to 2 wire hangers installed midway between the studs and at mid depth of the studs at distances of 1/4 and 3/4 of the height of the wall. By providing tension to the hanger wire, the thermocouples were positioned flush with the surface of the wallboard.

Thermocouples located on stud/wallboard faces and those located between wallboard layers were taped into position and then the wallboard was screwed to the stud or the face wallboard layer.

A number of small holes, 12.7 mm diameter, were drilled through the studs to allow the thermocouple wiring to exit the assembly.

The thermocouple locations are shown for each assembly in Figures 2 to 10.

3 TEST APPARATUS

The tests were carried out by exposing the assemblies to heat in a propane-fueled fire brick lined vertical furnace with an 810 by 810 mm opening. The assemblies were sealed at the edges against the furnace with ceramic fibre blanket. The furnace temperature was measured by two 20 gauge shielded thermocouples, located near the vertical centerline of the furnace and 300 mm from the exposed surface of the assembly. The average of these two temperatures was used to control the furnace temperature.

4 TEST CONDITIONS AND PROCEDURES

4.1 Fire Exposure

The ambient temperature at the start of each test was approximately 22°C. During the test, the wall assembly was exposed to heating on the exposed side, in such a way that the average temperature in the furnace followed as closely as possible the CAN/ULC-S101-M89 [5] standard temperature-time curve.

4.2 Failure Criteria

The failure criteria for the small-scale tests were drived from CAN/ULC-S101-M89 [5]. The assembly was considered to have failed if a single point thermocouple temperature reading on the unexposed face rose 180°C or the average temperature of the 5 thermocouples readings under the insulated pads on the unexposed face rose 140°C above the ambient temperature or there was passage of flame or gasses hot enough to ignite cotton waste. The tests were run beyond the failure temperature referred to above to provide additional performance data.

4.3 Recording of Results

The furnace and wall assembly temperatures were recorded at 1 minute intervals using LABTECH NOTEBOOK data acquisition software and a Fluke Helios-I data acquisition system.

Individual thermocouple and average furnace temperature values for the 8 assemblies are given in Tables 2.1.1, 2.1.2 (Test S-05); 3.1.1, 3.1.2 (Test S-06); 4.1.1, 4.1.2 (Test S-07); 5.1.1, 5.1.2 (Test S-08); 6.1.1, 6.1.2 (Test S-35); 7.1.1, 7.1.2, 7.1.3, 7.1.4, 7.1.5, 7.1.6 (Test S-36); 8.1.1, 8.1.2, 8.1.3, 8.1.4, 8.1.5, 8.1.6 (Test S-37); 9.1.1, 9.1.2, 9.1.3, 9.1.4, 9.1.5, 9.1.6 (Test S-38). The average surface temperature values are given in Tables 2.2.1 (Test S-05); 3.2.1 (Test S-06); 4.2.1 (Test S-07); 5.2.1 (Test S-08); 6.2.1 (Test S-35); 7.2.1, 7.2.2, 7.2.3 (Test S-36); 8.2.1, 8.2.2, 8.2.3 (Test S-37); 9.2.1, 9.2.2, 9.2.3 (Test S-38).

5 RESULTS AND DISCUSSION

The results of the 8 small-scale fire tests are summarized in Table 1 in which the single point and average failure times are given for each assembly.

The average surface and inner-surface temperature distributions recorded throughout the tests are presented in Subsection 2 of the Tables 2 to 9 and plotted in Figures 14 to 21. Detailed temperature distributions for all five thermocouples under the insulated pads on the unexposed surface are also presented in Tables 2 to 9 and plotted in Figures 14 to 21.

Behavior of Non-Insulated Small-Scale Assemblies With Resilient Channels

The baseline tests (without resilient channels) were Tests S-08 and S-35. In Test S-08, the gypsumboard had a horizontal joint at the mid height of the wall on the exposed side to represent horizontal gypsumboard applications (see Figure 15) and in Test S-35, the gypsumboard had a vertical joint at the mid width of the wall on the exposed side to represent vertical gypsumboard applications (see Figure 16). The temperature failure criterion was reached at 46 min for Test S-08 and at 49 min for Test S-35. The difference of 3 min is considered to be insignificant. For the purpose of comparison, however, Test

S-08 was used as the baseline for the resilient channel investigations with a single layer of Type X board.

Tests S-05, S-06 and S07 were used to investigate the effect of installation of resilient channels on the fire performance of non-insulated single layer protected assemblies. The temperature failure criterion was reached at 48 min for Test S-05, at 45 min for Test S-06 and at 48 min for Test S-07. Results showed that in small-scale wall furnace tests, the installation of resilient channels, on either the exposed or the unexposed or both sides, did not have significant impact on temperature failure compared to base Test S-08.

Tests S-36, S-37 and S-38 were used to investigate the effect of resilient channels on the fire performance based on temperature failure of small-scale non-insulated wood stud assemblies with two layers of Type X gypsum board on both sides. The temperature failure criterion, as shown in Table 1, was reached at 142 min for base Test S-36 (without resilient channels), at 141 min for Test S-37 (with resilient channels on the fire exposed side) and at 144 min for Test S-38 (with resilient channels on both, exposed and unexposed sides). Since there is no significant difference in the fire performance of assemblies in tests (S-36 to S-38), no attempt was made to conduct a test on a two layered assembly with resilient channels on the unexposed side. These results showed that, in small-scale wall furnace tests, the installation of resilient channels did not have a significant impact on the temperature failure compared to base Test S-36.

REFERENCES

- 1. CAN/CSA-A82.27-M91,Gypsum Board-Building Materials and Products. Canadian Standards Association, Rexdale, Ontario, 1991
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- 3. CAN/CSA-A82.31-M91, Gypsum Board Application. Canadian Standards Association, Rexdale, Ontario, 1991
- 4. List of Equipment and Materials, Vol. 3, Fire Resistance Ratings. Underwriters' Laboratories of Canada, 1991 (pp. 272)
- 5. CAN/ULC-S101-M89, Standard Methods of Fire Endurance Tests of Building Construction and Materials. Underwriters' Laboratories of Canada, Scarborough, Ontario, 1989

Assembly	Stud Type	Stud Depth	Stud Spacing	Gypsum Board	Gypsum Board	Gypsum Board	Insulation	Insulation	Resilient	Point	Average
Number		(mm)	(mm)	Layers	Thickness	Туре	Туре	Thickness	Channel	Failure	Fallure
				(Exp/Unexp.)	(mm)			(mm)		(min)	(min)
S-35	Wood	89	400	1x1 (Vt. Jt.)	12.7	Х	***	***	***	49	49
S-08	Wood	89	400	1x1 (Hz, Jt,)2	12.7	X	***	***	***	46	47
S-05	Wood	89	400	1x1	12.7	X	***	***	E	48	48
S-06	Wood	89	400	1x1	12.7	X	***	***	U	45	47
S-07	Wood	89	400	1x1	12.7	X	***	***	E/U	48	49
S-36	Wood	89	400	2x2	12.7	X	***	***	***	142	144
S-37	Wood	89	400	2x2	12.7	Х	***	***	E	141	141
S-38	Wood	89	400	2x2	12.7	Х	***	***	E/U	144	146

Table 1. Small-Scale Assembly Parameters and Fire Test Results

X - Type X Gypsum Wallboard (7.83 kg/m²)

E - Exposed Side U - Unexposed Side

*** - Null Value

1 - Single Layer Test With Vertical Joint

² - Double Layer Test With Horizontal Joint



Figure 1. Small-Scale Test Assembly Furnace



Thermocouple Under Std. ULC/S101 Insulated Pad
x Bare Thermocouple

Drawing not to scale

Figure 2. Thermocouple Locations on Unexposed Surface Small-Scale Tests



Figure 3. Thermocouple Locations in Small-Scale Test S-05



Figure 4.

Thermocouple Locations in Small-Scale Test S-06



Figure 5.

Thermocouple Locations in Small-Scale Test S-07



Drawing not to scale



Thermocouple Locations in Small-Scale Test S-08





Thermocouple Locations in Small-Scale Test S-35







Drawing not to scale



Thermocouple Locations in Small-Scale Test S-37



Drawing not to scale



Thermocouple Locations in Small-Scale Test S-38



Edge View: Resilient Channel

Drawing not to scale

Figure 11. Resilient Channel Installation Detail



Figure 12. Screw Locations For Wood Stud, 1x1 Gypsum Layers, Small-Scale Assembly S-05



Drawing not to scale

Figure 13. Screw Locations For Wood Stud, 1x1 Gypsum Layers, Small-Scale Assembly S-06



Figure 14. Screw Locations For Wood Stud, 1x1 Gypsum Layers, Small-Scale Assembly S-07



Figure 15. Screw Locations For Wood Stud, 1x1 Gypsum Layers, Small-Scale Assembly S-08





Figure 16. Screw Locations For Wood Stud, 1x1 Gypsum Layers, Small-Scale Assembly S-35



Figure 17. Screw Locations For Wood Stud, 2x2 Gypsum Layers, Small-Scale Assembly S-36





Figure 18. Screw Locations For Wood Stud, 2x2 Gypsum Layers, Small-Scale Assembly S-37



Figure 19. Screw Locations For Wood Stud, 2x2 Gypsum Layers, Small-Scale Assembly S-38



Figure 20. Temperature Distributions For Small Scale Test Assembly S-05



Figure 21. Temperature Distributions For Small Scale Test Assembly S-06



Figure 22. Temperature Distributions For Small Scale Test Assembly S-07



Figure 23. Temperature Distributions For Small Scale Test Assembly S-08



Figure 24. Temperature Distributions For Small Scale Test Assembly S-35



Figure 25. Temperature Distributions For Small Scale Test Assembly S-36


Figure 26. Temperature Distributions For Small Scale Test Assembly S-37



Figure 27. Temperature Distributions For Small Scale Test Assembly S-38

Time	T(Fav)				- 444/				Te	mperatu	re at The	rmocoui	ole Numi								••••••••••••••••••••••••••••••••••••••
(min)	(PC)		5		a		6	7	A	• 9	10	- 11	12	13	14	15	16	17	18	19	20
0	85.0	10.1	18.2	10 1	18 1	19.2	14.3	18.2	18 1	18.3	19.0	18.8	18.0	18.2	18.6	18.4	18.4	18.4	18.4	18.2	18.5
	170.1	18.1	18.2	18.1	18.1	18.1	18.4	18.3	18.2	18.4	22.3	20.8	21.5	18.5	19.2	19.4	18.5	18.5	18.4	18.2	18.9
2	280.8	18.1	18.3	18.1	18.1	18.2	18.4	18.3	18.2	18.4	34.2	27.1	30.5	19.8	22.3	25.7	20.0	20.0	18.4	18.3	22.1
3	369.2	18.2	18.6	18.3	18.3	18.5	18.5	18.5	18.3	18.6	55.1	43.0	48.1	24.3	34.9	46.9	27.2	25.9	18.7	18.4	33.3
	528.9	18.2	19,5	19.0	18.8	19,6	18.5	19.1	18.4	19.6	75.1	62.3	66.5	36.0	59.2	99.4	47.6	46.1	19.9	19.1	52.9
5	654.2	18.3	22.4	20.6	20.3	22.8	18.9	20.7	18.5	22.4	85.6	75.2	76.2	53.6	77.3	99.1	67.1	67.5	22.6	20.1	69.8
6	705.B	18.6	28.7	24.2	23.8	30.0	19.6	24.0	19.2	28.9	89.8	81.0	82.6	63.0	81.6	98.1	74.2	73.8	26.3	22.2	75.4
7	734.4	19.3	37.5	30.0	29.6	39.6	22.1	27.8	20.6	34.4	98.3	87.1	90.7	69.8	84.5	97.8	77,9	77.6	30.5	24.9	78.6
8	760.4	20.8	46.6	36.9	36.6	49.0	25.7	31.3	23.4	40.1	106.6	97.4	101.3	75.1	86.9	97.5	80.9	81.0	34.5	29.3	81.4
9	666.7	22.9	53.8	44.4	44.1	56.6	28.6	33.9	25.6	44.8	112.4	104.3	107.1	79.1	88.5	97.8	83.3	83.1	38.6	36.0	83.7
10	700.7	25.6	60.5	51.8	51.3	62.6	31.6	36.2	29.4	48.0	115.7	107.5	110.1	80.8	89.0	100.6	84.6	84.6	42.7	39.5	84.5
11	711.7	28.7	64.6	57.8	57.2	67.1	33.6	38.3	32.2	50.4	119.1	110.0	114.3	82.2	89.2	105.2	85.2	85.2	46.3	43.4	88.3
12	722.4	32.1	66.9	62.1	61.8	70.2	35.4	39.7	33.7	52.4	127.7	114.3	123.7	83.1	89.3	121.3	85.6	85.4	49.4	46.4	91.9
13	733.6	35.7	68.3	65.1	64.7	71,2	36.9	39.2	35.0	51.2	154.6	124.6	153.5	83.9	94.7	141.5	84.2	85.3	52.0	48.2	98.7
4	745.8	39.2	69.3	67.4	66.6	70.1	39,4	41,5	37.5	53.4	196.6	157.5	189.8	91.1	110.4	168.4	84.5	84.6	54.3	49.8	112.2
15	754.6	42.5	70.6	69.9	68.0	68.8	40.1	40.6	38.1	53.8	231.5	192.2	218.3	103.8	138.1	203.9	89.6	89.6	56.2	51.5	129.7
16	761.0	45.5	72.4	71.0	69.5	75.4	41,8	42.0	40.7	54.0	202.4	220.6	243.7	118.1	108.7	244.6	103.9	104.6	58.2	54.2	150.9
1/	/67.7	48.3	74.5	73.2	71,4	76.0	42,3	43,3	40.9	55.0	288.9	244.7	266.6	134.6	198.9	290.5	127.2	126.0	60.3	55.6	1/5.4
15	700.5	50.9	70.0	76.3	73.2	13.1	42,9	43.3	40.0	59.4	226.0	204.1	284.4	170.6	250.5	4121	147.5	147.9	65.0	59.5	206.0
20	700.0	55.0	70.0	73.9	74.0	75.0	45,7	44.5	4.5.2	58.5	338.6	200.0	312.2	184.2	270.6	477 A	180.1	180.3	87.5	60.6	219 4
21	705.6	58.2	83.0	81.0	76.8	82.2	45.5	45.5	419	60.5	348.1	304.8	322.8	192.4	289.1	519.0	192.3	189.8	70.2	63.2	233.4
22	799.8	60.8	87.7	85.6	80.7	83.9	47.8	47.0	45.5	62.2	356.4	313.9	331.0	201.2	301.5	546.8	203.8	201.4	73.4	65.8	243.2
23	806.4	63.4	91.4	89.5	85.1	89.8	49.7	48.0	47.5	61.7	363.1	323.5	338.9	212.8	317.6	559.7	215.1	214.5	76.9	68.4	251.7
24	811.5	66.1	94.8	93.2	89.2	92.0	49.9	47.8	47.5	61.4	370.8	331.8	346.6	223.0	334.4	558.2	228.1	227.3	80.3	71.0	261.2
25	816.5	68.0	97.3	96.4	92.4	97,7	52.0	49,9	48.8	65.5	379.5	338.5	354.8	231.0	351.8	582.2	242.9	241.6	83.0	73.5	272.9
26	823.2	70.3	99.6	99.0	95.6	101.5	52.1	50.6	50.4	67.5	386.3	345.8	361.3	238.4	366.6	580.2	256.8	255.5	85.7	75.8	282.7
27	823.9	72.9	101.6	101.2	98.6	103.3	55.0	54.3	53.0	72.7	393.6	353.8	368.5	247.2	380.2	594.0	269.2	269.6	88.0	78.3	292.4
28	830.1	75.1	103.2	103.2	100.9	104.8	52.5	52.6	50.1	71.5	400.4	360.4	374.8	256.4	395.3	594.7	282.0	280.5	90.3	80.8	303.9
29	834.5	76.9	104.5	104.6	102.5	106.2	55.9	55,7	55.0	72.4	407.2	366.3	381.6	264.5	409.1	601.0	294.5	294.2	93.0	83.3	313.3
30	838.9	78.4	105.2	105.6	103.3	107.0	35.3	71.1	54.0	75.1	413.5	373.6	388.4	273.9	419.8	604.9	306.7	304.1	96.0	85.9	325.0
31	842.7	80.8	106.0	106.6	104.3	108.0	48.6	72.9	48.8	76.6	420.8	380.8	395.6	283.6	431.8	602.5	318.9	314.5	98.8	88.4	333.4
32	846.6	83.0	106.8	107.4	105.2	108.8	49.3	65,6	55.6	77.1	428.2	387.1	402.7	292.5	442.3	593.5	329.3	324.2	101.6	90.9	344.2
33	850.4	84.6	107.7	108.2	106.1	109.8	39.5	80.7	56.3	79.9	435.0	395.1	411.4	302.9	453.5	595.7	339.6	335.3	104.6	93.6	351.7
- 34	854,3	85.8	108.4	108.9	106.8	110.4	57.0	81.5	58.8	80.3	440.5	402.4	420.0	313.3	462.6	592.9		348.2	107.1	96,6	363.1
35	858.5	86.9	109.3	109.6	107.5	111.2	56.8	82.5	58.2	81.2	447.4	409.4	425.9	322.1	471.0	593.2	352.8	359.6	110.1	100.3	374.6
	859.6	87.9	110,1	110.3	108.1	112.1	56.5	84.2	58.8	81.5	454.4	416.3	432.7	331.5	4/9.9	583.1	359.4	368.8	113.3	104.2	382.8
30	000.9	01.2	110.2	112.0	108.8	113.0	29.9	85.5	62.0	94.2	409.0	423.0	430.5	249.6	400.9	1 580.4	309.1	3/0.4	110.8	1107.6	403.0
30	967.0	91.3	112.0	1120	110.2	115 4	57.5	87.7	617	870	407.1	434 0	444.3	357.2	504.5	592.9	387.3	395.7	120.0	114.2	411.4
40	874 4	920	115.0	114.1	11113	116.0	58.5	89.2	63.5	87.2	480.5	441 5	458.1	366.9	5127	597.3	399.6	406.6	124.0	117.9	420.0
41	877.5	92.8	117.5	115.2	112.3	118.9	57.2	90.8	62.7	90.8	487.6	448.7	465.1	375.5	521.0	607.9	410.3	417.8	134.4	121.0	430.8
42	879.0	95.9	122.3	116.6	113.6	122.6	60.8	70.3	54.5	92.6	494.8	455.3	473.8	384.7	529.1	614.6	420.8	427.3	139.9	126 1	441.2
43	881.8	97.0	128.2	118.3	114.9	129.2	59.9	86.0	68.8	92.5	502.2	463.9	481.0	389.7	536.1	616.3	430.4	437.3	145.6	130.8	450.4
44	884.9	98.8	140.6	121.1	116.8	137.9	61.5	87,1	72.3	97.6	508.5	467.1	485.2	400.2	543.4	620.4	440.6	446.1	151.5	135.5	459.7
45	888.3	101.6	152.1	126.8	120.0	153.4	61.1	81,9	73.2	97.7	514.9	473.8	495.5	409.1	550.9	621.3	449.4	456.2	157.6	140.5	468.7
46	886.9	103.3	170.2	132.8	125.8	163.8	59.9	81.9	73.0	100.5	520.8	480.6	502.9	418.0	557.7	625.7	457.6	466.3	163.4	145.3	478.8
47	894.2	105.6	195.5	147.0	132.5	192.3	62.6	85.2	75.0	102.9	526.9	490.0	495.5	427.7	564.5	633.2	466.0	475.6	170.0	150.0	488.7
48	896.5	108.0	219.1	158.7	146.3	216.5	61.7	93.2	77.1	103.5	531.9	496.7	509.8	437.1	571.2	636.8	474.8	483.2	176.6	154.7	497.6
49	898.8	109.1	242.3	175.2	157.0	238.8	61.8	97.0	78.3	109.4	537.5	505.2	516.8	446.0	577.9	644.0	483.2	491.4	183.3	159.7	506.3
50	898.8	110.1	267.1	200.5	175.6	261.3	64.3	112.3	81.3	115.0	544.0	512.2	527.1	455.2	584.0	649.8	492.5	500.2	189.4	165.3	514.7
51	901.9	111.0	296.2	222.4	201.0	285.6	65.0	124.8	81.1	123.8	551.0	519.0	537.9	464.8	590.1	657.3	502.1	508.7	195.3	171.5	522.7
52	905.2	112.6	332.9	243.8	223.7	314.7	65.7	142.4	78.2	139.2	557.7	527.2	542.9	475.7	596.7	662.7	512.1	518.2	201,3	177.4	531.0
53	907.3	113.4	385.8	266.3	245.9	351.6	65.7	148.9	79.2	145.3	564.7	533.9	552.6	485.5	603.7	669.8	519.9	527.2	207.3	183.4	541.0
54	910.6	114.5	431.5	291.1	269.2	407.6	69.4	159.0	85.3	155.3	570.9	541.2	559.8	494.4	611.1	677.6	528.3	535.3	213.5	188.8	550.5
55	914.2	115.4	467.4	320.5	295.8	451.2	70.8	161.6	86.1	161.7	577.3	548.4	567.2	503.6	617.7	685.5	534.9	543.6	219.8	194.3	559.4

Table 2.1.1. Temperatures Measured in Assembly S-05, Wood Stud, 1x1 Gypsum Layers, Resilient Channel on Exposed Side

Time	T(Fav)			·				Tempe	rature at		couple N	lumber						
(nim)	PCI	21	92	23	24	- 25	26	97	22	29	90	31	32		34	95	26	37
	0F 0	10.0	10.2	10.2	·····	***	***	***	***	***	***	1 444	••••			***		
	03.8	10.2	19.0	10.0	***	***	100	***				444			***		***	
	170.1	01.0	40.0	16.5				***	***		***					***	***	
	200.6	21.3	40.0	19.9				101			***							
0.000 000 000 000	009.2	50.1	70.1	24.0			***		***	***	***	<u> </u>						
	020.9		/9.1	33.7		***		444			4.4.4							
3	004.2	70.2		31.0				***										
0	705.8	76.2	94.4	60.7				***										
	734.4	/9.3	104.7	67.9				***	***	<u> </u>		l						
6	760.4	81.7	113.2	73.6				444	***									
9	005.	83.9		77.5	***													
- HO	700.7	64.8	120.4	79.6														
	/11.7	85.8	126.7	81.1													****	
12	122.4	90.7	148.4	81.9														
13	733.6	95.5	196.0	85.3		***	***						***		***	•••		
14	745.8	106.2	237.5	94.8			***		***				***					***
	754.6	122.3	271.2	105.7					***					***			***	
16	761.0	142.7	298.6	118.7				***	***	<u> </u>		·····				***		
17	767.7	166.2	323.1	134.0	***	***	***	***	***		***	***	***	***	***	***		
18	776.6	187.9	343.2	152.1	***	***	***	***		***		***	***	***	***	***	***	***
	783.1	203.4	_358.2	169.0		***	***	***	***			***		••••			***	
20	790.9	215.2	368.4	180.7		***	***	***			***		***	•**	••••	***	***	***
21	795.6	228.3	376.0	189.0		***	***	***				····	***	***		***	***	***
	799.8	239.9	384.0	198.7	***	***	***		***			L	***	***	L		****	
23	806.4	249.2	392.3	209.1	+**		***	***	***	***		****	***	***		***	***	
24	811.5	258.2	400.0	219.5	+++	***	····	***	***		***	***	***	***	***	***		
25	816.5	268.2	406.3	228.8		***	***	P44	***		***		***	***		***		***
26	823.2	278.7	412.2	237.4	P41	***	***	***	***		***		•••	***	***	***	***	•••
27	823.9	287.8	419.5	246.7		***		***	***	<u> </u>	***		***	***	***	***	***	
28	830.1	298.2	425.7	255.7	***			***			***	·····	***	***			***	
29	834.5	309.3	432.3	264.6	***	***	***			***		***	***	***		***	***	
30	838.9	319.0	438.8	274.0								***	***	***	***	***	***	
31	642.7	329.4	444.9	283.3		***		***						***		***	***	•••
32	846.6	339.9	451.6	293.2		***	***	***			***		***	•••			***	***
33	860.4	349.9	456.9	304.5		***	***	***			***	***	***	***			***	•••
34	854.3	359.5	463.2	315.2			***		***		547		***	***	L	***		
- 35	858.5	369.7	471.0	323.9					***			***	***	***	***	***		***
	859.6	379.2	476.5	333.6										***		***		***
37	865.0	386.4	481.9	342.5		***	•••	***		<u> </u>	***			***	***	***	***	***
38	865.7	396.0	488.7	351.3		***	***	***			***		***	***			***	
39	867.9	405.9	494.8	359.9							***		***	***				***
403	874.4	416.5	500.8	369.3			***	114			***	***				***	***	***
	877.5	426.5	507.2	3/9.4										***		***	A++*	***
42	879.0	437.4	513.7	390.4							***		***	***		***	***	***
43	881.8	447.2	520.3	399.9			***	***			***	<u> </u>	***	**#		***	***	***
44	884.9	456.4	526.2	409.2			***				344		***	***		***	***	
45		465.6	532.7	419.8			***	***			***		***	***	***	***	***	•••
46	886.9	474.0	538.6	428.9			***	***			***	·····	***	***	***		***	***
47	894.2	483.5	544.1	437.2			***	***	***	<u> </u>	***	***	***	***	***	***	***	•••
48	896.5	492.4	550.0	446.2		***	***		***	····	***	***		***			***	***
49	898.8	501.1	555.8	455.9	***	***	***	***	***		***		***	L		4##	***	***
50	. 898.8	509.8	562.0	466.2	***	***	***	***			***		***	•••		***	***	•••
	901.9	518.4	567.7	477.0	***		***	***	***		***		***	***	***		***	***
52		527_2	573.9	487.5	***	***	***	***	***		***	***	***	***	***	***	***	***
53	907.3	535.3	581.4	498.6	***	***	***	***	***		***	***	***	***	***	***	***	•••
54	910.6	542.8	588.0	509.4	***	***		***	***	<u> </u>	***	***	***	***	***	***	***	***
55	914.2	550.7	593.6	519.2	***		***	***	***	i ***	***	A**	***	***	***	***	+++	***

Table 2.1.2. Temperatures Measured in Assembly S-05, Wood Stud, 1x1 Gypsum Layers, Resilient Channel on Exposed Side

Table 2.2.1. Average Temperatures Measured in Assembly S-05, Wood Stud, 1x1 Gypsum Layers, Resilient Channel on Exposed Side

			i cun cun, nota	Hood Oldd, AT Atera	Jei zapi - zaposed olde	, onexperies	
l ime	I (Fav)	BL/WStd. (Exp.)	BL/Cav. (Exp.)	Mid. WStd.	BL/WStd. (UnExp.)	BL/Cav. (UnExp.)	UnExp.
(min)	(°C)	Av(14,15)	Av(10,11,20,21)	Av(16,17)	Av(18,19)	Av(12,13,22,23)	Av(1,2,3,4,5)
0	65.9	18.5	18.6	18.4	18.3	18.7	18.1
20.004	170.1	19,3	20.2	18,5	18.3	20.7	18.1
2	280.8	24.0	26.2	20.0	18.4	27.7	18.2
3	369.2	40.9	40.6	26.6	18.6	39.6	18.4
4	528.9	79.3	60.6	46.9	19.5	53.8	19.0
6	654.2	88.2	75.2	67.3	21.3	67.2	20.9
6	705.8	89.8	80.6	74,0	24.3	75.2	25.1
7.00	734.4	91.2	85.8	77.8	27.7	83.3	31.2
8	760.4	92.2	91.8	81.0	31.9	90.8	38.0
9	666.7	93.2	96.1	83.2	37.3	95.4	44.4
10	700.7	94.8	98.1	84.6	41.1	97.7	50.3
<u> 20 1</u> 1 0 0	711.7	97.2	100.8	85.2	44.8	101.1	55.1
12	722.4	105.3	106.2	85.5	47.9	109.3	58.6
13	733.6	118.1	118.4	84.8	50.1	129.7	61.0
14	745.8	139.4	143.1	84.6	52.1	153.3	62.5
15	754.6	171.0	168.9	89.6	53,9	174.8	64.0
18	761.0	206.7	194,2	104.3	56.2	194.8	66.8
17	(67.7	244.7	218.8	126.6	57.9	214.6	68.7
18	//0.6	284.3	239.1	147.7	59.5	233.2	70.2
19	783.1	331.3	254.3	165.6	61.7	249,4	72.6
20	780.9	3/4.0	266.7	180.2	64.0	261.4	76.9
<u>21</u>	790.0	404.0	2/8.6	191.1	66.7	270.1	70.7
<u>64</u>	198.0	424.2	288.4	202.6	69.6	278.7	/9./
23	011.6	430.0	290.9	214.8	12.7	200.2	97 1
25	011.0 816 B	440.3	300.5	227.7	79.0	297.3	07.1
28	823.2	407.0	314.0	242.5	10.2	312.3	93.2
27	823.9	487.1	331.0	250.1	83.1	320.5	95.5
28	830.1	495.0	340.7	205,4	85.6	328.2	97.5
29	834.5	505.1	349.1	294.3	88.2	335.7	98.9
90	898.9	512.3	357.8	305.4	90.9	343.8	99.9
31	842.7	517.1	366.1	316.7	93.6	351.9	101.2
32	845.6	517.9	374.8	326.6	96.3	360.0	102.3
33	850.4	524.6	383.0	337.5	99.1	368.9	103.3
34	854.3	527.8	391.4	347.1	101.9	377.9	104.1
35	658.5	532.1	400.3	356.2	105.2	385.7	104.9
38	859.6	531.5	408.2	364.1	108.8	393.6	105.7
37	865.0	535.1	415.2	372.8	112.2	400.5	106.6
38	865.7	542.2	423.6	382.0	115.6	408.4	107.9
39	867.9	548.6	431.4	391.3	119.4	415.6	108.5
40	874.4	555.0	439.9	403.1	123.5	423.7	110.1
41	877.5	564.4	448.4	414.1	128.1	431.8	111.3
42	879.0	571.8	457.2	424.1	133.0	440.7	114.2
43	881.8	576.2	465.9	433.8	138.2	447.7	117.5
44	884.9	581.9	472.9	443.3	143.5	455.2	123.0
45	688.3	586.1	480.7	452.8	149.0	464.3	130.8
40	000.9	591.7	488.5	462.0	154.4	4/2.1	154.6
4/	004.2	598.9	497.3	470.8	160.0	4/0.1	104.0
46	090.0	004.0	504.6	4/9.0	174.5	403.0	184.5
49 EA	030.0	610.9	512.0	487.3	177.4	493.0 502.6	202.9
	001.0	610.8	220.2	490.3	109.4	511.8	223.3
50	005.0	620.7	525.0	515.0	180.3	520.0	245.6
52	007 2	636.7	000.6 E40.7	503 E	105.0	529.5	272 R
61	010.6	644.3	040./ E51.9	521 G	901.9	537.9	302.8
594 55	014 2	651 6	559.0	530 °	207.1	545 9	330.1
	- 7 + 4	001.0	000.0	008.0	6V7.)	010.0	

Legend: BL - Base Layer, FL - Face Layer, Cav. - Cavity, WStd. - Wood Stud, Av - Average, Exp. - Exposed Side, UnExp. - Unexposed Side

Time	T(Fav)								T	emperatu	ire at The	ermocou	ple Num	ber							
(min)	(°C)	1.	2	3.	4	5	6	7	8	9	10	11	12	13	14	15	16	17.	18	19	20
0	25.8	24.1	25.0	24.2	24.2	25.0	24.0	23.6	23.0	23.3	26.7	25.5	25.8	24.5	27.4	26.2	25.8	25.9	25.1	24.5	26.5
A	118.2	24.1	25.0	24.2	24.1	25.0	24.0	23.7	23.2	23.4	27.1	25.6	25.7	24.5	27.8	26.3	25.6	25.8	25.0	24.5	26.8
2	226.7	24.1	25.0	24.2	24.1	25.0	24.2	23.7	23.3	23.4	47.0	36.0	31.6	25.8	45.6	36.0	27.9	28.2	27.3	24.7	37.1
3	329.4	24.2	25.1	24.3	24,2	25.1	24.3	23.8	23.3	23.5	66.9	46.3	37.4	27.4	63.4	45.7	29.9	30.6	29.6	24.8	57.9
4	432.2	24.2	25.8	24.6	24.5	25.8	25.1	24.0	23.5	23.6	83.8	63.2	58.5	35.4	85.2	69.2	45.4	45.6	47.9	29.5	77.8
5	532.6	24.5	28.4	25.6	25.5	28.4	29.4	24.9	24.3	24.2	89.6	75.1	72.9	49.4	92.3	86.9	63.5	62.8	67.4	42.8	66.4
6	572.4	25.7	34.2	28.1	27.7	34.2	36.0	27.7	26.3	26.2	94.7	79.3	77.6	58.6	93.6	91.4	71.5	70.6	74.1	54.6	90.8
	596.6	28.4	42.0	32.2	31.7	42.0	44.3	32.4	29.5	29.7	103.4	86.0	80.0	65.2	95.0	94.0	75.4	74.7	77.5	61.3	99.8
0	03/.2 PCP 0	32.2	49.8	37.5	36.8	49.8	51.4	37.2	33.7	33.3	111.6	96.4	81.8	71.1	99.9	97.1	78.3	78.2	80.2	65.6	107.8
5	600.0	30.5	50.3	43.5	42.6	56.4	56.6	42.7	38.7	37.4	136.9	104.6	83.7	75.4	104.5	101.0	81.2	80.7	83.0	69.5	113.1
	711 7	40.7	65.1	49.7 55.4	48.7	61.2	60.4	45.7	43.6	40.8	120.1	109.5	87.1	79.2	107.4	104.8	83.5	83.1	84.7	72.6	116.3
12	720.4	49.7	67.7	60.4	59.5	69.6	64.9	40.9	40.0 52.0	43.0	109.0	112.7	91,5	81.7	110.8	108.8	85.2	84.8	86.2	74.3	119.2
13	733.0	54.3	69.6	64.2	63.6	70.6	65.8	54.4	55.0	40.0	148.1	110.7	94.0	83.7	114.7	112.6	80.0	80.4	87.4	70.0	124.2
14	742.9	58.6	70.3	67.2	66.6	71.2	66.0	56.7	57.9	50.1	196.8	120.1	103.9	84.R	139.5	10.0	86.5	973	95.2	77.6	191.6
15	753.8	60.2	71.3	69.7	68.4	71.0	65.5	57.2	58.7	50.8	247.6	167.4	119.9	86.2	184.6	145.7	86.3	92 1	84.5	78.4	231.7
16	762.5	60.8	73.3	70.7	69.4	73.5	65.1	57.3	59.1	51.1	286.1	213.4	141.3	104.6	228.0	190.4	96.4	102.8	85.8	79.7	271.1
17	769.8	63.8	75.0	73.8	71.2	73.9	65.2	58.9	60.3	52.3	317.4	246.1	166.2	120.1	265.7	231.0	120.7	122.0	102.1	80.8	302.9
	774.9	66.3	76.7	75.8	73.3	75.8	65.6	60.3	60.6	52.2	340.5	270.3	190.4	136.8	296.8	263.6	148.1	144.0	113.3	81.9	327.6
19	781.6	66.3	79.1	75.8	74.5	78.5	65.9	63.1	61.7	54,9	358.7	286.7	207.0	155.9	321.2	287.0	170.8	166.5	125.4	94.8	344.4
20	788.7	68.1	80.1	79.1	75.8	79.1	67.3	64.6	61.1	55.6	374.4	305.1	220.0	176.8	342.3	308.7	187.6	187.9	138.0	109.2	359.3
21	796.3	69.6	82.8	79.2	77.1	82.3	68.0	67.0	62.7	59.6	386.6	319.4	235.9	192.5	365.9	329.0	207.4	208.2	138.4	121.8	373.0
22	799.3	72.0	86.5	82.6	78.8	85.6	68.1	66.7	61.6	61.2	396.0	330.7	249.2	201.4	381.7	348.4	246.8	221.8	146.0	137.4	381.3
23	010 7	74.4	90.1	86.7	82.5	89.9	62.6	59.9	61.7	59.7	405.6	340.0	259.0	209.9	402.0	366.9	259.2	235.7	154.9	153.7	390.1
24	010.7	79.6	93.6	90.7	86.5	94.1	62.6	58.2	60.4	59.6	416.0	350.2	270.4	221.8	420.9	387.3	269.5	248.3	175.0	161.8	403.3
26	820.0	P1.0	00.5	94.1	90.2	90.2	01.0	09.7	61.7	08.8	424.3	361.1	282.0	234.3	441,4	409.6	266.0	201.2	186.9	168.1	414.5
27	824 A	85.6	101.8	100.4	06.0	101.6	66.9	65.0	64.0	64.3	429.0	300.0	292.5	243.9	459.3	428.1	304.0	299.9	192.8	1/0.8	424.3
28	828.6	87.0	103.7	102.6	99.3	103.2	69.2	65.9	65.5	67.4	439.3	384.7	309.6	265.4	493.6	458.6	324.2	305.6	210.4	196.2	430.5
29	833.5	92.1	105.6	104.7	101.4	105.0	74.1	69.2	68.0	68.6	446.0	391.5	322.6	276 1	508.6	470.6	343 1	324.6	233.0	204.4	457.0
30	837.6	93.8	107.0	106.0	103.1	105.9	75.4	68.7	69.5	70.0	450.0	396.5	332.0	285.2	520.5	484.9	360.9	341.3	249.3	213.2	467.2
31	842.5	97,1	108.3	107.5	104.5	107.0	77.6	70.7	72.3	71.6	456.5	403.2	342.0	293.4	532.6	494.9	375.8	346.6	253.9	221.0	475.0
32	845.4	99.8	109.4	108.7	105.6	107,9	79.3	72.2	74.2	73.5	460.5	408.7	349.9	301.1	543.7	505.2	390.1	347.8	263.3	230.4	483.7
33	850,0	100.9	110.2	109.4	106.4	108.6	77.9	72.5	75.3	72.5	465.2	414.6	359.4	308.4	552.1	514.8	402.5	362.2	278.9	240.4	489,9
34	854,2	103.3	111.2	110.3	107.1	109.4	79.1	73.9	76.5	73.6	468.6	421.8	365.6	317.6	559.6	522.9	412.5	370.8	291.9	248.4	496.9
. 35	858.4	104.0	112.1	111.0	107.8	110.3	79.6	75.9	78.5	73.8	473.B	428.7	374.6	327.1	566.2	529.9	422.5	380.2	310.3	258,7	501.2
36	858.4	104.7	113.2	111.6	108.4	111.1	80.8	77.3	79.4	76.3	477.0	433.6	379.9	335.3	570.6	533.4	431.3	390.6	323.7	268.2	510.5
37	002.7	108.3	114.3	112.5	109.2	112.2	80.1	78.1	79.8	76.4	485.3	440.4	387.8	343.7	576.0	535.9	445.7	404.6	343.3	280.2	521.6
30	000.8	105.5	115.9	113.2	109.9	113.1	85.9	81.3	80.6	77.5	491.0	446.6	402.8	353.0	581.3	540.9	455.1	410.6	348.2	291.1	529.4
40°	979 3	109.9	102.5	114.2	110.9	114.4	84,5	81.3	81.4	79.4	496.7	453.1	412.6	362.4	586.5	542.4	463.5	420.0	355.5	301.3	535.5
41	875 8	100.0	122.0	110.0	112.0	110.0	87.7	83.3	82.6	82.7	507.2	457.3	421.7	370.3	591.5	544.8	4/2.2	429.2	363.6	311.7	538.9
42	878 7	109.4	143.8	118.2	114.4	124 1	01.0	96.6	85.2	B4 4	514.0	463.3	428.4	2051	090.0 601.0	550 1	403.7	430.5	310.1	323.0	552.0
43	881.4	110.4	156.9	120.8	116.2	130.6	94.1	99.9	88.2	86.2	520.4	405.7	439.3	303.1	606.4	552.8	501.6	447.5	307.5	348.7	560.3
44	882.6	111.1	182.2	125.3	118.9	144.9	95.7	90.9	88.8	88.6	526.1	482.1	459.6	402.8	609.6	556.4	508.5	468.2	406.6	361.3	564.5
45	886.B	112.0	208.3	131.9	124.1	156.0	95.4	90.5	89.3	88.3	531.6	488.4	466.5	410.8	614.1	560.7	517.9	475.8	418.0	374.2	571.0
46	889.3	112.9	232.5	145.8	130.5	178.2	93.0	91.3	88.4	86.7	539.3	495.1	477.9	420.5	618.1	563.8	527.3	487.1	425.5	387.4	576.2
47	892.4	114.2	260.2	158.7	143.0	203.2	95.1	95.0	90.5	90.6	545.5	501.1	487.8	429.7	623.3	566.6	534.7	496.4	433.4	398.2	579.9
48	895.4	115.5	290.4	175.2	154.4	226.3	96.0	101.7	91.7	93.1	551.0	508.0	497.5	438.1	628.3	570.5	542.4	505.1	442.7	407.7	583.5
49	698.3	116.9	327.2	202.9	173.0	249.4	95.5	111.2	93.4	93.9	555.2	514.1	505.0	447.1	632.5	574.1	551.2	511.9	456.2	421.0	590.8
50	899.3	118.5	374.2	226.7	198.8	274.2	100.9	122.0	93.8	96.1	560.9	521.3	513.7	455.7	634.7	577.2	559.1	520.3	468.4	433.7	594.8

Table 3.1.1. Temperatures Measured in Assembly S-06, 1x1 Gypsum Layers, Wood Stud, Resilient Channel on Unexposed Side

Time	T(Fav)	[·				Temp	erature a	t Thermo	couple I	Number						
(min)	(°C)	21	22	23	24	25	26	27	28	29	30	- 31	32	39	34	35	36	37
0	25 A	24.7	25.6	25.5	***	***		 		····	***		 ***	***	<u></u>	T ***	***	***
	118.2	24.7	25.6	25.7			***	***	***	 		***	***	***	***	***	49.0	***
2	2257	25.2	27.0	33.2	***	***	***	***	***	***	***	***		***	***	***	***	***
3	329.4	27.4	34.5	51.2	***		***	***	***	***	***	***		*4*			***	***
4	432.2	36.4	55.1	69.8			***		***	***	***	***		***	124	***	***	***
5	532.6	51.7	70.4	80.6	***	***			***	***	***	•••	***	***	***	***	***	
6	572.4	60.7	75.6	84.5	***	***	110	***	***	***	474	***	***	***	34.2	4.9.5	***	141
7	596.6	67.2	77.7	93.7		***	***	***	1+1	***	89*	***	***	***	***		***	***
B	637.2	72.2	80.1	103.9	***	\$* #	***	***	***	262	***	***	***	***	***	***	***	***
9	666.6	76.5	81.6	111.4	***	***	***	***	***	***	***	***	***	***	***	***	***	***
10	698 1	79.9	83.6	115.5	***	•••	***	***	***	***	***	***	***	494	***	***	4+4	***
	711.7	82.0	85.1	118.6	***	***	***	***	***		***		***	***	***		***	
12	720.4	83.5	86.7	122.0	***	***		***	***	4++	7 24	***	***	***	***	***	2+1	•••
13	793.0	84.2	91.7	130.0	***	4#4	1 444	***	171	4**	***	***	***		***	***	***	
14	742.9	84.2	99.2	156.9	***	***	***	***	***	#4*	***	178	***	***	***	***	***	***
15	753.8	90.5	113.4	214.5	***	***	***	491	***	***	***	***	***	***	***	***	***	***
16	762.5	109.8	133.0	258.0	***	634	***	***	***	***	***	***	•••	484	***	***	***	***
17	769.0	128.9	159.3	292.2	***	194	***	***	***	***	***	***	4.04	***	***	***	***	4**
18	774.9	149.1	185.2	318.6	***	102	***	***	454	A74	***	***	***	***	***		***	***
19	781.6	167.6	196.6	335.1	***	444		***	***	***	***	***	444	***	***	***	***	***
20	788.7	182.9	209.2	348.5	***	***	***	***	***	***	***	***	4++	***	***	4++	***	24.4
21	796.3	192.4	228.4	362.2	948		***	484	***	1+1	***	***	***	***	***	***	***	***
22	799.1	202.9	240.3	373.5		***	***	***	***	L ***	***	***	***	***	***		***	
23	804.7	217.2	253.3	384.8	***	***	***	***	***	***	***	***	***	***	***	***	***	
24	810.7	229.4	269.2	394.9	***	***	***	***	***	••••	***	***	***	***	***		***	~~~
25	816.7	239.8	285.7	403.1	····	***			***	***		***	····	***				
26	820.9	249.5	298.7	407.9				***										
<u> </u>	824.8	258.2	318.8	415.2					***									
28	628.D	269.9	335.0	421.3	<u> </u>	***						h						***
28	033.0	203.9	350.4	428.4		477	***					***				***	***	200
	037.0	294.3	300./	430.4	110	4+4	444	***	***	444		***	***	***	***	***	***	***
39	GAE A	311 /	373.6	44 4	101		***	***			***		475	4.+4	***		***	***
33	950.0	323.1	308.5	440,7		***	***	***	***	*19	494	***				A=1	***	114
94	854.2	329.6	409.5	456 B		***	***	***	***		***	***		***	***		741	
35	858 4	339.2	420.5	462.3	48.8	***	***	***	928	4++	***	***	***	* 5 *	***	##4	***	***
36	A58.4	348.0	432.2	467.3	A4#	838 [.]		***	***	478	*10	***	**>	# = #	***	###	243	
37	862.7	358.9	448.1	474 7	A8.9	***	***	440	***	***	***	***	***		###	A14	***	
38	866.8	368.2	456.0	480.8	***	***	***	4.0.0	***	***	***	243	***	***	***	***	***	***
39	868.8	377.0	465.5	485.3	344	***	***	454	4+4	***	***	***	***	***	***	***	***	***
40	873.3	388.3	473.3	490.5		***	446	***	***	***	***	***	***	***	***	***	***	•••
41	875.8	397.5	485.6	498.5	2.64		444	***	***	***	***	***	1.9.0	972	***	***	177	•••
42	878.7	407.7	495.0	506.1	***	***	\$ # #	***	***	***	***	***	***	***	***	***	***	***
43	881.4	419.8	503.4	513.5	***	***	***	***	***	4#*	***	198	***	***	***	***	***	***
- 44	882.6	429.0	512.6	519.4	***	1++	÷÷•	444	***	444	***	***	***	***	***	***	***	***
45	886.B	438.5	522.5	526.3	144	***	***	***	***	***	454	***	***	424	***	•••	***	***
46	889.3	448.5	530.6	532.8	444	***	***	4 5 4	***	***	**3	8.4.4	***	***	***	***	***	***
47	892.4	458.9	538.3	538.5	***	***	***	***	404	***	450	400	***	#44	***	***	***	***
48	895.4	469.0	545.2	543.6	***	***	***	***	***	***	***	***	***	***	***	***	***	***
49	898.3	477.6	553.4	548.9	***	***	***	***	***	***	***		***	***	***	***	***	***
50	899.3	487.4	560.9	554.3	***	***	***	***	éar	110	***	***	***	***	***	***	***	***

Table 3.1.2. Temperatures Measured in Assembly S-06, 1x1 Gypsum Layers, Wood Stud, Resilient Channel on Unexposed Side

Table 3.2.1. Average Temperatures Measured in Assembly S-06, 1x1 Gypsum Layers, Wood Stud, Resilient Channel on Unexposed Side

Тіте	T(Favi	BL/WStd. (Evo.)	BL(Cav. (Evo.)	Mid WStd	RI /WStd. (UpEvo.)	BL/Cav. (UnExp.)	linEve
		1			en werer (energy)	Diagons (encops)	Sheap.
(min)	(°C)	AV(14,15)	Av(10,11,20,21)	Av(15,17)	Av(18,19)	Av(12,13,22,23)	Av(1,2,3,4,5)
0	25.8	26.8	25.9	25.9	24.8	25.4	24.5
1	118.2	27.0	26.1	25.8	24.8	25.4	24.5
2	226.7	40.B	36.3	28.1	26.0	29.4	24.5
3	329,4	54.6	49.6	30.3	27.2	37.6	24.6
4	432.2	77.2	65.3	45.5	38.7	54.7	25.0
5	532.6	89.6	75.7	63.1	55.1	68.3	26.5
6	572.4	92.5	81.4	71.0	64.3	74.1	30.0
	596.6	94.5	89.1	75.0	69.4	79.2	35.3
. 8	637.2	98.5	97.0	78.3	72.9	84.2	41.2
3	666.6	102.7	102.8	80.9	76.3	88.0	47.0
10	698.1	106.1	106.4	83.3	78.7	91.4	52.2
	211.7	109.8	109.2	85.0	80.3	94.2	57.2
12	720.4	113.7	112.9	86.5	81.5	96.6	61.2
13	733.0	118.4	122.0	87.0	81.8	100.8	64.5
4	742.9	130.6	148.4	86.9	81.4	111.2	66.8
	753.6	165.1	184.3	89.2	81.5	133.5	68.1
16	762.5	209.2	220.1	99.6	82.8	159.2	69.5
1	769.8	248.4	248.8	121.3	91.4	184.5	71.5
18	774,9	280.2	271.9	146.0	97.6	207.8	73.6
. 19	781.6	304.1	289.8	168.7	110.1	223.7	74.9
20	788.7	325.5	305.4	187.8	123.6	238.6	76.4
21	796.3	347.4	317.6	207.8	130.1	254.7	78.2
22	799.1	365.0	327.7	234.3		266.1	81.1
23	804.7	384.4	338.2	247.4	154.3	276.7	84.7
24	810.7	404.1	349.7	258.9	168.4	289.1	88.0
25	816.7	425.5	359.9	274.6	177.5	301.3	91.1
26	820.0	443.7	367.9	302.0	184.8	311.2	94.3
27	824.8	460.9	376.8	305.3	191.0	322.5	97.2
28	828.6	476.1	384.4	315.0	203.3	332.8	99.2
29	833.5	489.6	394.6	333.6	218.7	344.6	101.7
30	837.6	502.7	402.0	351.1	231.3	355.1	103.2
Gl	842.5	513.7	409.0	361.2	237.4	363.2	104.9
32	845.4	524.4	416.1	368.9	246.8	371.0	106.3
- 33	850.0	533.5	423.2	382.4	259.7	379.7	107.1
34	854.2	541.3	429.2	391.7	270.1	387.3	108.3
35	858,4	548.1	435.7	401.4	284.5	396.1	109.0
36	658.4	552.0	442.3	411.0	296.0	403.7	109.8
37	662.7	555.9	451.6	425.2	311.7	413.1	110.9
36	866.8	561.1	458.8	432.9	319.6	423.2	111.7
39		564.4	465.6	441.8	328.4	431.5	113.0
40	0/3.3	568.1	471.7	450.7	337.8	439.0	114.8
	875.8	571.9	478.6	460.1	351.0	447.2	117.3
- 4Z	678.7	576.0	486.3	470.1	361,8	456.4	122.0
43	681,4	579.6	493.8	479.2	373.2	464.9	127.0
- 44	682.6	583.1	500.4	488.3	383.9	473.6	136.5
45	886.B	587.4	507.4	496.9	396.1	481.5	146.4
46	889.3	591.0	514.8	507.2	406.5	490.5	160.0
47	892.4	594.9	521.4	515.5	415.8	498.6	175.9
48	895.4	599.4	527.9	523.8	425.2	506.1	192.4
49	898.3	603.3	534.4	531.5	438.6	513.6	213.9
6		606.0	6 1 1 4	630.7	//#11	6011	238.6

Legend: BL - Base Layer, FL - Face Layer, Cav. - Cavity, WStd. - Wood Stud, Av - Average, Exp. - Exposed Side, UnExp. - Unexposed Side

Time	T(Fav)						······		T	emperati	ire at The	ermocou	ple Num	ber							1
(min)	(°C)	1	2	3	4	5	6	7	8	9	10	11	12	19	14	15	16	17	18	19	20
0	40.3	25.0	27.6	25.7	25.6	27.1	23.2	22.6	22.1	22.6	32.5	29.5	29.6	27.0	32.3	33.3	28.9	28.9	28.4	26.4	33,2
	114.9	25.0	27.6	25.6	25.6	27.1	23.2	22.6	22.1	22.6	32.7	29.7	29.6	27.1	32.4	33.5	28.9	28.9	28.4	26.5	33.6
2	224.8	24.9	27.5	25.6	25.5	27.0	23.2	23.0	22.0	22.5	41.4	33.7	30.9	27.5	35.1	37.7	29.5	29.5	28.8	26.2	43.9
3	328.2	24.9	27.6	25.6	25.6	27.1	23.0	22.5	21.9	22.4	59.4	45.2	38.3	30.3	45.7	57.8	33.7	33.2	34.7	26.9	62.8
4	433.5	24.9	28.3	25.9	25.9	27.8	23.7	22.5	22.5	22.9	76.3	58.4	55.8	36.8	63.6	92.7	46.5	47.8	52.3	33.0	77.4
5	. 525.1	25.3	30.7	26.9	26.8	30.4	25.3	23.0	22.8	23.3	85.2	70.1	69.0	50.2	78.7	99.9	63.0	65.3	70.6	47.5	85.3
6	562,8	26.8	35.9	29.2	29.1	35.8	29.0	25.2	24.6	25.6	90.3	76.7	74.6	58.0	83.3	99.1	70.2	71.8	75.7	58,7	93.0
	602.7	29.9	42.7	33.1	33.0	42.8	34.4	27.4	27.0	28.2	98.2	83.7	77.5	64.7	85.6	98.9	74.2	75.3	78.0	64.2	101.8
0	03/2	33.9	49.5	38.1	38.0	49.7	37.4	29.9	28.5	30.5	105.0	92.6	79.5	70.0	90.5	99.3	77.4	78.2	80.6	67.2	108.5
10	004.2 607.0	38.2	55.0	43.3	43.3	54.6	40.5	31.8	32.1	34.0	109.6	99.2	81.9	74.4	94.0	102.0	79.8	80.6	82.6	70.4	112.8
14	711 4	42.0	63.0	40.1	48.7	58.6	43.1	34,5	34.3	36.3	112.5	103.6	85.1	//.0	96.0	1107.9	82.2	83.0	05.5	75.1	110.0
	701.6	40.0 60.6	66.1	20.7	50.9	02.4	44,5	30.4	37.1	38.4	110.4	1100.7	00.4	00.2	98.0	100.4	00.9	85.0	05.0	70.1	124.2
12	7314	53.6	87.0	61.6	617	66.4	45,0	30.0	39.3	39.0	119.2	110.0	90.4	92.4	106.5	140.8	00.2	0.00	00.4	77.3	124.0
12	743.0	56.7	69.1	64.4	64.5	68.3	47.3	41.6	41.0	42.1	156.9	127.1	09.4	84.7	125.8	181.0	85.7	86.5	85.3	78.0	186.2
15	753 1	58 B	69.9	66.1	66.2	68.7	A7 7	41.6	43.5	A2 0	108.5	164.9	109.9	89.9	158.2	217.3	85.2	87.3	83.5	78.4	230.2
16	762.1	60.4	71.2	67.6	67.5	70.2	46.5	41 1	43.7	43.0	234.5	199.3	127.3	100.5	191.9	258.6	91.3	96.7	85.7	79.2	265.1
17	768.8	61.4	72.7	69.5	68.9	70.8	48.6	42.2	44.4	43.8	267.8	226.9	149.8	114.5	223.2	302.6	108.2	113.8	95.1	80.5	294.5
18	774,2	62.4	74.6	71.7	70.7	72.4	48.4	42.4	45.1	44.2	293.6	250.6	174.0	131.1	251.0	347.0	132.6	137.5	105.7	81.6	320.4
19	782.0	63.3	76.0	73.2	72.3	74,1	49.2	43.7	45.0	45.1	314.5	268.0	193.4	148.6	274.2	392.1	154.3	160.5	120.2	84.4	339.8
20	789.3	64.8	78.8	75.0	73.9	74.7	50.2	44.4	46.2	46.1	330.3	282.5	205.5	166.1	295.3	440.3	170.7	175.3	132.0	101.7	355.4
21	794.B	66.3	82.9	75.4	74.9	78.1	51.8	47.9	47.3	48.7	341.3	294.5	218.5	180.1	310.1	494.5	185.4	188.7	142.8	113.7	366.0
22	600.1	67.8	87.2	78.6	76.7	81.9	53.5	48.2	48.3	51.5	350.4	305.6	232.0	189.1	321.9	578.5	200.9	201.9	150.6	124.1	372.7
23	804.2	69.1	91.2	82.9	81.3	85.8	52.3	48.9	47.8	53.4	358.1	315.1	242.7	196.7	332.2	597.6	214.6	214.6	154.8	133.5	380.0
24	810.8	71.3	94.7	67.1	85.8	89.5	54.7	51.3	50.8	57.0	365.3	322.0	251.3	208.2	345.1	596.8	224.7	227.4	160.0	141.8	387.3
25	815.7	73.8	97.8	<u>91.0</u>	89.8	92.8	55.1	55.4	51.2	57.6	373.1	329.1	260.5	218.4	358.8	618.1	237.7	241.4	169.9	150.0	393.8
26	821.3	76.0	100.3	94.2	93.4	95.4	55,5	55.5	52.2	59.6	379.9	335.5	270.4	226.8	371.6	630.8	250,1	254.4	179.7	158.3	400.0
21	823.6	78.1	102.3	96.8	96.2	97.3	55.4	55.8	50.3	57.2	387.2	341.9	279.9	235.2	386.3	646.1	262.9	266.9	191.2	165.8	406.6
28	628.3	80.4	103.8	98.5	98.4	98.9	57.7	58.6	53.0	62.3	394.4	347.9	290.1	244.0	399.9	650.7	276.6	279.2	198.8	173.9	412.5
29	633.1	84.2	105.1	100.4	100.3	100.4	58.2	58.5	51.5	62.0	401.3	354.7	300.2	252.6	413.7	658.2	290.9	295.1	202.2	181.9	418.5
54	041 0	67.8	106.1	102.0	101.9	101.3	60.8	59.4	52.7	61.9	408.3	361.4	310.5	252.5	425.5	004.4	305.0	308.0	210.7	169.2	425.4
20	045 E	91.0	100.9	103.3	103.1	104.3	61.0	58,0	52.2	61.6	416.8	076.7	320.8	2/3.4	435.9	004.3	3:7.8	321.0	221.7	105 7	430,4
38	840.9	93.0	108.2	105.1	104.1	100.7	02.9	20.9	54.4	64.0	424.4	3/5./	331.0	204.0	447.0	0.000	329.3	2426	234.1	200.1	440.4
24	852 A	97.6	109.0	105.8	105.6	107.2	65.7	62.4	66.3	68.6	439.6	399.6	3517	303.8	463.7	662.2	338.0	357.8	244.5	222.8	457.6
35	856.0	99.1	109.0	106.6	106.4	108.1	84.6	613	57.4	66.7	447 1	308.7	362.7	313.7	472.0	666.0	355.7	370.6	254.3	231.1	466.0
38	861.1	100.3	110.7	107.3	107.0	109.0	65.9	61.4	59.1	67.9	453.6	405.8	373.6	321.9	477.8	667.8	366.6	379.4	259.7	239.6	470.4
37	862.7	101.4	111.7	107.9	107.6	110.0	67.8	64.8	60.0	69.3	462.2	413.6	385.6	330.4	485.5	677.4	376,8	390.0	266.0	247.9	477.5
38	666.3	102.2	112.8	108.6	108.3	111.1	67.7	65.2	60.2	69.7	468.4	419.3	395.6	338.4	494.2	678.7	389.3	400.B	276.1	256.2	482.8
39	868.7	103.0	114.1	109.4	109.1	112.4	68.0	64.6	60.5	72.5	477.0	427.1	407.1	345.8	503.2	685.2	400.4	408.7	302.3	264.B	489.5
40	873.7	103.7	115,4	110.1	109.9	113.8	68.7	64,0	62.2	73.2	483.5	434.0	416.7	352.2	514.9	690.5	413.3	416.6	324.5	274.9	494.1
41	876.1	104.4	117.4	111.1	110.9	115.8	71.3	68.4	63.6	76.2	491.8	440.9	427.7	360.5	521.4	700.7	428.9	429.9	337.8	285.5	500.7
42	878.6	105.1	121.1	112.2	112.0	119.0	72.6	69.6	65.3	79.5	497.5	447.2	438.4	370.6	527.6	706.5	439.0	442.5	345.8	296.6	507.0
43	881.0	105.9	127.2	113.5	113.2	124,8	72.0	69.6	64.1	78.7	503.7	454.6	448.0	379.7	533.7	718.2	450.9	452.8	359.1	308.5	514.9
44 (Sec. 19	883.4	106.6	137.2	114.8	114.4	132.5	72.9	71.5	65.4	76.8	508.3	459.1	456.1	388.1	539.4	724.6	458.3	464.0	369.4	319.6	520.3
45	886.3	107.3	151.2	116.3	115.9	146.8	74.5	73.4	66.3	78.8	516.4	470.5	486.1	397.5	547.4	731.8	467.7	479.5	386.5	331.8	528.0
46	889.6	108.0	165.8	119.3	118.4	158.0	74.3	70.1	66.2	76.2	522.3	479.8	475.3	408.9	553.8	739.4	477.9	491.6	393.3	344.9	535.1
47	892.8	108.9	193.8	124.7	123.1	183.9	77.0	73.1	68.2	81,6	525.2	486.4	481.8	417.9	559.2	743.6	483.6	496.1	403.6	357.6	538.2
48	894.3	109.8	218.5	130.8	129.2	207.7	76.3	72.0	69.5	82.9	530.3	494.2	489.7	425.0	565.4	748.7	488.0	508.0	411.9	370.6	545.4
49	897.9	110.9	242.1	144.9	140.9	230.0	77.7	76.1	67.5	83.4	534.1	500.6	496.5	433.2	571.0	754.6	491.3	514.1	419.7	383.5	548.9
50	898.1	112.1	267.2	155.6	153.5	252.6	77.3	73.9	67.7	85.8	539.6	507.1	503.9	442.4	576,8	758.8	499.7	523.8	426.4	394.2	655.4

Table 4.1.1. Temperatures Measured in Assembly S-07, Wood Stud, 1x1 Gypsum Layers, No Resilient Channels

Time	T(Fav)							Tempo	erature a	t Thermo	couple M	lumber						
(min)	POL	21	92	23	24	25	26	97	28	29	30	31	32	- 33	34	35	38	37
0	40.3	20.5	20.6	1 07 0	***	****	4**	0000.0000 00000 0#4	***	1 444	***	***	***	4+4	**1	***	***	***
() ()	114.0	20.0	20.0	27.0	P24		***		49.0	***	***	***	***	***	***	***	***	***
	224.8	34.3	31.0	27.0		***		***		***	***	***	***	***	***	***	8+#	***
	328.2	46.4	37.6	200	484	***		***	***	***	4+4	***	8.4.4	***	***	***	1+1	
4	433.5	61.6	52.6	20.0	***	4++		***	382	***	545	***		***	***	***	444	***
5	505 1	73.0	69.2	49.9	610		***	***	***	49.8	***	444	***	***	***	***	1=1	***
R	562 B	77.5	73.8	58.2	111		***	241	***	894	***	***	***	***		***	***	***
0000	602.7	83.1	76.7	64.7	***	6 1 F		***		8.9.9	***	***	***	***	***	***	***	***
B	637.2	92.0	78.8	697	***		***	***	444	***	***	A15		***	***	***		***
<u> </u>	664.2	00.6	81.0	73.9	***	444	***	***	***	***	***		***	***	***	484	4++	
10	697.8	104.6	B4 2	77.1	494	***	***	***	***	4.8.4	***	894	***	***	***	***	***	***
44	711 4	107.7	86.6	799	191	***	111	***	***	a w in	***	***	***	***	***	***	448	224
12	721.5	110.8	89.4	81.8	***	***	***	***	***	***	***	***	***	R**	***	***	***	530
13	7314	115.0	91.1	82.9	***	114	***	*8#		***	***	***	***	***	***	***	***	***
14	743.0	122.7	96.5	83.7	***	***	***	***	***	***	***	***	***	***	***	***	***	***
15	753.1	145.0	108.3	91.7	***	***	***	***	***	***	***	***	***	***	***	***	***	***
16	762.1	187.7	125.6	104.0	444	***	***	***	***	***	***	•••	***	***	***	***	***	***
17	768.8	219.0	149.1	117.6	***	***	***	***	***	***	***	***	***	***	***	***	***	***
18	774.2	245.2	171.2	134.6	***	***	***	***	***	***	***		***	***	***	***	***	***
19	782.0	265.9	185.1	150.8	648	\$44	P#8	***	***	***	***	494	4++	***	428	**8	***	***
20	789.3	281.7	197.8	165.5	424	***	***	***	4.6.9		***	494	***	***	4=+	598	***	4+4
21	794.B	294.0	213.0	177.1	***	*10	***	= # #	***	***	***	***	4++	***	***	***	***	***
22	800.1	303.7	226.3	186.4	***	***	***	***	***	***	***	***	***	4##	***	***	***	***
23	804.2	312.7	236.2	196.6	***		***	***	***	***	474	***	***	***	***	***	***	***
24	810.8	321.4	246.9	207.2	***	4++	***	***	***	***	***	***	***	A * *	***	***	***	***
25	815.7	329.9	257.6	216.8	***	***	***	***	***	***	***	***	***	***	***	484	***	
26	821.3	336.1	267.4	225.4	*7*	***	***	***	***	***	***	134	***	***	***	***	444	***
27	823.6	343.6	276.9	232.1	***	894	444	949	***	***	1+8	412	***	***	***	***	***	***
28	828.3	351.4	286.9	239.9	#A#	***	***	***	1**	***	***	***	***	***	***	448	***	***
29	833,1	358.0	296.2	249.1	***	***	***	***	4.04	***	***	***	***	***	***	•••	***	***
30	836.6	365.6	307.2	257.9	***	***	***	***	***	***	***	***	***	***	***	***	•••	***
31	841.3	374.3	319.0	267.3	***	***	***	***	***	***	***	***	•••	***	***	***		***
32	845.5	382.1	331.0	277.6	***	***	***	***	***	***	448	***	***	***	***	***		•••
33	849.8	389.5	342.1	285.8	*1*	***	***	444	***	***	***	***	***	***	***	***		
34	852.8	396.5	352.9	296.3	***	***	***	***	***	***		***	***	***				
35	856.0	404.0	364.4	305.8	***	***	***	484	***	***	***	***						
36	861.1	410.1	374.0	315.2	•••	***		***	RAR	***	***	ARK .						
37	862.7	415.8	383.8	324.2	***		***	***	***	***	***							
38	866,3	420.0	393.3	332.7	F17	***	P4P				***					***	***	
39	868.7	426.5	403.4	342.7				R##	***	F T T						***	111	
40	873.7	430.9	413.1	352.0	***			***					***		***	***		***
41	876.1	438.0	422.3	362.2			***						444			***	121	247
42	878.6	444.6	432.9	370.8					***	443	***	***	***	201	***	***	484	844
43	881.0	452.6	444.4	380.7						***	***	***	***	***	***	***		***
44	683.4	458.2	453.7	389.0					***		877	***	***	***	***	***	***	
90	886.3	400.7	464.7	400.8			***	***		638		***	***	***	***	***	***	***
40	0000 0	4/4.0	4/4.6	411.0	171		***			***	474	491	***	***	***	***	***	
40	092.0	4/1.1	463.3	420.7		***					***	454	***	***	***	***	***	***
90	084.3	400.0	493.8	431.1	*1*		444	***	***	***	***	***	444	***	***	***	***	***
50	909 1	409.3	510.1	441.0	***	***	***	***	***	***	***	***	***	***	***	***	***	P34

Table 4.1.2. Temperatures Measured in Assembly S-07, Wood Stud, 1x1 Gypsum Layers, No Resilient Channels

Table 4.2.1. Average Temperatures Measured in Assembly S-07, Wood Stud, 1x1 Gypsum Layers, No Resilient Channels

Time	T(Eav)	BI (WStd /Evo.)	BI (Cau (Exc.)	Mid WSta	Bt (Wilting (Lindern)	BL/Cave (UnEvr.)	linEve
				mu. nota,	De Hold. (Cricap.)	Discar, (Citexp.)	Unexp)
(min)	(°C)	Av(14,15)	Av(10,11,20,21)	Av(16,17)	Av(18,19)	Av(12,13,22,23)	Av(1,2,3,4,5)
D	40.3	32.8	31.2	28.9	27.4	28.3	26.2
1	114.9	32.9	31.4	28.9	27.4	28.3	26.2
2	224.8	36.4	38.3	29.5	27.5	29.2	26.1
3	328.2	<u>51.7</u>	53.5	33.4	30.8	34.0	26.2
4	433.5		68.4	47.1	42.6	45.4	26.6
	525.1	89.3	78.4	64.2	59.1	59.0	28.0
6	562.8	91.2		71.0	67.2	66.2	31.4
7	602.7		91.7	74.7	71.1	70.9	36.3
B	637.2	94.9	99.5	77.8	73.9	74.5	41.8
9	684.2	98.0	105.3	80.2	76.5	77.8	46.9
10	697.8	102.0	109.0	82.6	78.6	81.0	51.6
	711.4	107.3	112.0	84.4	80.3	83.7	55.9
12	721.5	115.0	116.0	85.6	81,4	85.6	59.9
13	731.4	128.0	124.4	86.3	61.7	87.6	62.1
<u></u> 14	743.0	153.9	148.2	86.1	81.7	90.8	64.6
15	753.1	187.8	184.7	86.3	81.0	99.9	66.0
	762.1	225.2	221.6	94.0	82.5	114.3	67.4
17	768.8	262.9	252.0	111.0	87.8	132.7	68.7
18	774.2	299.0	277.5	135.1	93.6	152.7	70.4
19	782.0	333.2	297.1	157.4	102.3	169.5	71.8
20	789.3	367.8	312.5	173.0	116.9	183.7	73,4
21	794,8	402.3	323.9	187.1	128.2	197.2	75.5
22	800.1	450.2	333.1	201.4	137.3	208.4	78.5
23	804.2	464.9	341.5	214.6	144.2	218.1	82.0
24	810.8	471.0	349.0	226.0	150.9	228.4	85.7
25	815.7	488.5	356.5	239.6	160.0	238.3	89.0
26	821.3	501.2	362.9	252.3	169.0	247.5	91.8
27	823.6	516.2	369.8	264.9	178.5	256.0	94.1
28	828.3	525.3	376.6	277.9	186.3	265.2	96.0
29	835.1	536.0	383.1	293.0	192.0	274.5	98.1
SU	530.0	544.9	390.2	306.5	199.9	284.5	99.8
3) 20	541.3	550.1	399.0	319.4	209.5	298.1	101.7
32	645.5	558.9	406.4	330.8	219.9	306.1	103.1
33	649.8	559,0	413.1	340.8	230.9	316.3	104.1
04	004.0	560.0	420.6	347.9	233.0	320.2	105.0
	000.0	570.0	429.0	303.1	642.1	330.7	106.0
97	001.1	572.0	435.0	373.0	243.7	256.0	100.5
37	004.7	500.4	442.3	305.4	230.5	300.0	109.6
30	000.0	594.2	447.6		200.1	274.9	109.6
40	070 7	<u> </u>	455.0	404.6	203.0	393 5	110.6
	015.1	611.1	467.0	410.0	235.7 911 7	393.3	111.0
	070.1	011.1	407.9	429.4	401.0	403.1	1120
000 74 0000	010.0	825.0	4/4.1	451 D	<u></u>	413.9	116.9
anna an anna an an an an an an an an an	001.0	623.0	401.0 400 E	401.0	300.0	413.2	121.1
	205.4	630.6	400.0	473.6	350.2	432.3	127.5
40	000.0	646.6		473.0	369.1	442.6	133.9
44	003.0	851 4	506.0	404.7	380.6	450.9	146 9
/P	034.0	657.1	514.9	408.0	391.2	459.9	159.2
40	807 0	662.8	519.9	502 7	401.6	468.1	173.8
60	ROR 1	667.8	525.1	511.8	410.3	475.9	168.2

Legend: BL - Base Layer, FL - Face Layer, Cav. - Cavity, WStd. - Steel Stud, Av - Average, Exp. - Exposed Side, UnExp. - Unexposed Side

Time	T(Fav)	Γ.							T	emperatu	re at The	ermocou	ple Num	ber			<u></u>				
(min)	(PC)			3	4		6	7		9	10		12	49	14	15	16	17	18	19	20
0	37.2	29.3	31.6	29.0	T 28.6	313	25.5	26.4	24 4	1 266	1 97 A	1 99 9	335	30.6	30.9	227	20.0	1 979	 	20.2	25.7
	121.1	29.3	31.6	28.9	28.6	31.2	25.4	28.4	24.3	26.3	37.0	32.1	33.4	30.5	39.1	33.5	28.9	27.0	36.6	32.2	35.6
2	229.0	29.2	31.4	28.8	28.4	31.1	25.1	26.2	24.3	26.4	48.4	35.0	34.6	30.9	48.8	34.9	28.9	27.2	48.7	35.8	39.3
3	331.5	29.2	31.5	28.8	28.4	31.1	25.1	26.2	24.3	26.2	68.8	44.0	41.0	33.9	72.6	41.5	28.9	27.1	65.9	47.0	54.7
4	437.9	29.2	32.2	29.1	28.7	31.9	24.5	26.1	23.8	26.6	83.8	55.9	59.7	42.3	90.3	59.0	30.3	27.2	82.0	61.7	75.1
5	536.1	29.3	35.4	30.5	29.9	35.0	26.6	29.7	24.7	29.5	90.3	67.6	72.9	55.4	94.5	72.9	31.7	28.2	90.6	73.3	88.7
6	563.7	29.6	41.7	33.8	32.9	41.0	26.9	33.8	25.4	34.1	97.0	75.6	77.8	64.2	96.4	78.1	35.0	29.8	96.9	81.3	91,9
7	605.9	30.5	49.5	38.9	37.5	48.4	28.1	38.6	25.1	39.0	105.3	83.1	79.8	70.3	99.9	80.5	38.4	32.4	104.9	89.2	94.5
8	638.2	32.1	56.2	44.9	43.0	54.9	30.9	43.1	27.3	44.7	111.8	90.6	61.9	74.6	103.3	82.4	42.2	35.4	111.8	98.1	98.0
9	666.1	34.3	62.7	51.2	48.7	60.9	33.4	46.7	29.7	48.9	115.9	97.4	83.6	77.9	107.2	85.0	45.8	39.5	116.1	105.1	101.0
10	699.9	37.0	65.7	57.0	54.1	63.8	36.1	52.2	29.6	53.7	118.7	101.4	85.1	80.9	111.2	87.6	49.9	44.6	118.5	109.4	104.6
11	711.3	40.0	69.0	61.8	59.2	67.5	36.8	54.2	32.7	54.0	121.2	103.8	86.5	62.8	115.5	89.7	53.7	49.7	121.5	112.6	108.3
12	720.8	43.0	70.5	65.6	62.1	67.3	36.3	55.1	32.9	53.7	126.7	106.3	88.8	84.0	119.3	91.2	56.8	53.9	127.5	115.5	112.6
13	733.4	46.0	71.2	66.2	63,9	70.3	37.6	56.5	34.9	54.6	142.9	110.1	90.9	85.4	121.8	94.4	58.9	56.1	147.6	120.6	117.0
4	742,7	49.1	71.8	67.9	66.6	72.3	38.1	56.4	36.1	54.8	190.9	118.1	95.4	87.8	149.3	102.8	60.2	57.0	197.5	137.5	122.8
15	754.1	_51.7	72.2	68.3	66.5	71.5	39.2	54.9	36.6	56.1	239.7	140.3	105.3	94.2	198.2	118.5	61.7	58.6	_243.3	180.9	153.0
16	761.8	54.3	73.5	70.7	68.6	73.4	40.6	55.7	37.7	57.5	276.9	173.5	120.5	105.2	230.0	140.6	63.0	60.5	281.8	223.5	197.4
10	/68.1	56.5	75.2	74.0	69.5	71.6	40.7	58.0	38.1	56.3	308.7	201.4	143.9	119.3	259.4	167.1	64.4	62.3	314.2	259.0	233.1
10	7010	- 00.1	76.8	72.8	70.9	77.4	40.8	58.3	38.9	58.5	331.6	225.5	168.4	135.8	284.8	189.4	66.3	63.6	337.6	285.9	265.3
	701.2	60.1 60.1	/8.5	<u>(4.0</u>	71.7	70.0	41.5	60.3	38.6	58.9	349.2	245.7	183.2	155.1	308.5	203.5	68.2	64.7	355.6	305.4	287.8
01	708.0	SA 1	02.0	70.0	73.1	78.0	41.7	04.2	39.2	01.3	300.7	203.9	194.0	1/3.2	332.6	217.9	70.8	66.2	309.2	322.1	301.7
52	P00 1	66.3	01.0	43.1	74.0	04.0	43.0	64.0	40.9	65.0	370.0	280.5	209.4	104.0	974.9	233.3	77.9	20.0	207.2	357.2	324.4
23	804.6	68.8	95.2	89.0	817	00.0	46.9	67.5	42.0	69.1	302.4	205.9	2370	205.2	302.7	247.0	60.B	70.2	303.5	350.0	371 3
24	811.0	71.3	98.7	92.1	86.1	95.6	47.7	721	43.0	64.5	399.8	315.1	246.8	217.5	411.1	267.4	84.1	75.5	401.3	365.0	392.7
25	816.4	73.0	100.9	95.0	89.3	98.8	49.6	71.8	44.8	69.6	407.3	319.9	257.0	227.8	426.0	279.6	87.1	78.6	407.9	371.5	409.1
26	820.4	74.8	102.9	97.7	92.2	100.2	49.1	72.6	45.1	71.5	413.9	327.3	267.4	236.3	434.9	289.6	89.9	81.9	414.2	376.8	423.9
27	824.7	76.6	105.0	100.0	95.4	102.1	49.9	76.6	44.8	74.4	420.6	336.1	278.0	244.7	443.8	300.4	92.5	85.1	420.8	381.9	440.8
28	829.9	78.8	107.1	102.1	98.2	104.0	50.7	78.4	47.4	73.9	427.0	343.6	288.5	253.6	451.2	312.1	94.7	88.4	426.5	386.5	458.0
29	833.6	80.5	107.9	103.4	99.7	105.3	48.9	77.8	46.3	73.5	432.4	351.3	298.6	262.4	458.2	322.2	96.9	91.0	433.2	392.1	471.4
30	837.4	81.7	108.2	104.2	100.7	105.9	49.4	78.1	48.4	78,1	438.6	356.8	309.5	271.3	466.2	333.3	99.6	93.6	439.3	398.4	484.6
31	841.4	83.5	109.7	105.4	102.5	107.1	50.7	79.5	49.0	77.9	445.1	363.8	320.3	280.7	479.6	344.6	101.8	96.1	447.6	404.7	496.0
32	845.1	84.5	110.1	106.0	103.4	107.8	50.7	80.4	49.1	78.2	450.6	370.6	330.5	289.7	495.3	354.9	104.7	98.1	455.0	410.9	506.6
33	849.4	85.6	110.6	106.5	104.2	108.3	47.9	77.4	49.6	80.6	456.6	377.0	343.0	299.6	509.5	366.5	108.0	101.0	461.8	417.5	516.0
34	853.4	86.8	111.5	107.1	105.0	109.1	48.3	79,1	49.6	80.8	463.1	382.4	353.2	308.9	519.0	377.6	111.3	104.0	468.1	423.4	524.1
45	857.2	88.5	113.1	108.2	106.7	110.4	51.6	79.9	50.9	82.0	469.1	383.8	362.6	316.7	526.7	386.7		107.5	474.4	429.1	532.6
00	809.8	89.5	114.0	108.8	107.3	111.3	54.8	85.8	52.8	87.0	4/5./	389.4	373.6	324.2	531.4	398.9	118.4	110.7	482.1	435.8	539.9
37	DO4.0	90.9	110.2	109.7	107.8	112.4	54.3	89.1	51.6	86.3	481.1	396.6	383.8	335.4	536.7	410.1	122.4	114.1	488.1	442.1	548.3
90	007.9	92.0	110.7	110.7	109.0	113.0	53.6	89.0	51.5	87.8	465.8	399.4	394.0	343.7	042.0 650.7	420.8	127.0	101 5	494.0	445.1	507.2
40	000.2	07.0	100.5	112.0	1107	115.1	00.1 E0.0	00.7	02.0 67.5	04.0	491.0	407.3	403.0	303.0	550.7	432.7	196.0	121,3	510.7	403.4	575 4
43	874 0	00.3	128.0	114.6	111.7	100.0	56.0	00.7	57.0	05.0	5/4 7	410.4	414.1	303.9	562.0	440.0	140.0	120.0	519.5	401.4	503.4
49	878 8	102.0	120.5	116.5	113.2	126.7	54.0	03.0	53.5	02.1	512.5	421.7	420.0	304.3	571.4	400.0	145.8	120.7	524.9	409.5	500.4
43	881.6	104.7	154.6	119.6	114.4	132.8	61.6	93.4	56.0	99.1	519.2	439.6	448.2	303.5	576.1	479.4	150.8	139.0	532.4	486.7	694.3
- 44	885.4	108.4	171.3	125.4	116.3	147.4	60.6	98.6	57.1	96.9	525.4	449.3	459.6	404.9	580.1	489.6	155.8	144.1	538.8	496.1	601.2
45	886.5	110.1	200.7	131.2	119.1	158.4	60.6	95.9	55.2	98.8	531.3	453.8	469.6	414.6	584.3	499.7	161.4	148.7	544.5	504.1	606.2
46	889.2	111.9	227.0	146.4	123.0	181.6	56.9	101.7	54.9	100.2	538.0	464.0	480.7	424.5	590.0	510.8	167.2	153.6	552.2	512.1	610.5
47	892.4	114.3	253.0	157.8	128.2	205.9	64.4	112.4	60.3	107.6	543.9	470.7	490.8	435.0	593.5	520.8	173.5	159.5	558.7	520.8	616.6
48	895.5	115.4	281.1	182.6	141.4	228.7	64.2	120.3	58.2	111.7	550.0	479.6	501.0	444.9	598.4	530.5	160.4	165.8	565.6	528.8	623.1
	897.7	117.0	314.4	208.2	154.1	251.8	66.8	134.7	60.4	118.4	557.0	487.9	510.6	455.9	606.2	539.6	186.9	172.7	572.6	535.3	625.7
50	900.6	118.9	354,0	232.0	170.4	277.0	66.0	150.9	61.3	124.6	562.8	494.1	519.6	464.2	612.2	548.4	193.9	179.9	579.6	542.3	628.2

Table 5.1.1. Temperatures Measured in Assembly S-08, Wood Stud, 1x1 Gypsum Layers, No Resilient Channels

Time	T(Fav)							Tempe	erature a	t Thermo	couple	lumber						
(min)	[°C]	21	22	-23	24	25	28	27	28	29	30	31	32	33	34	35	36	37
6	37.2	30.1	***		***	•••	T	***	A#*	***	***		r	***	***	***	+4+	***
	121 1	30.0			***	4+4	***	***	***	***			444	***	***	***	+++	***
9	229.0	30.4		400		***		***	***		***	***	***	***	***	***	***	***
3	331.5	33.3		***	***	***	•••	***	***	4.1.7	***	***	+#3	***	***		***	***
0000 .	427.0	42.0	***	4.1.0	***	***	1		42.0	***	***	***	111	111	***	***	***	252
	536 1	55.0	**1		***	484	***	***	***	***		***	***	***	***	***	***	***
	563.7	65.4	444	***	444	***		444	***	***		***	44.0	***	***		***	A#4
·····	805.9	71.0	***	***				***	***	411	***	+++		***	***		***	***
A	638.2	76.5	***		***	***		***	***	***	***	***	***	***	***		***	***
	666 1	70.6	***	100	***	***		***		***	***	***	***	***	***	***	#24	***
10	600.0	82.0	***		***	***	***	***	404	***	***	***	***	***	***	***	848	***
14	711 9	83.6		344	***	*4*	245	***	***	***	***		***	***	***	***	8+8	***
12	720.8	84.5	***	***	***	***	***	***	***	498	***	***	***	***	***	***	***	***
13	733.4	85.7	***	***	***	***		444	+++	171	***	***	***	***	***		***	***
14	742 7	90.0	***		***			\$43	***	***	***	***	•••	4=A	***	***	***	474
15	754 1	99.1	***	***	***		***	***	***	***	•••	***	•••	***	***	***	***	444
16	761.8	113.3	*=*	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
17	768.1	131.2	***	***	***	***	•••	***	***	***	***	***	***	\$44	***	***		***
18	775.3	152.0	244	***	***	***		***	444	***	484	***	***	***	***	***	***	474
19	781.2	170.8		474	R+*	***	47.6	***	***	***	***	5.0.7	***	***	***	***	944	***
20	788.4	185.0		***	***	198	F.8.F	***	444	**4	***	***	***	***	***	***	***	***
21	795.0	195.3	***	***	***	114	***	***	417	***	***	***	***		***	***	***	***
22	800.1	206.2	***	***	***	***	***	***	244	***	***	***	***	***	***	***	74R	***
23	804,6	218.5	***	***	***	***	***	***	P+4	***	***	***	***	***	***	***	***	***
24	811.0	228.3	A24	***	***	***	***	***	494	***	***	***	***	***		***	410	***
25	816.4	237.0	***	***	444	***	448	189	***	***	***	***		***	4++	***	444	***
26	820.4	245.5	***	Pite	***	484	***	484	***	RPE	***	14R	***	***	499	-+-	***	***
27	824,7	254.4		***	***	848	***	***	***	***	***	***	***	***	***	***	***	***
28	829.9	263.3	***	***		***	***	195	4+#	***	***	***	***	***	***	***	***	***
29	833.6	271.7	***	***	***	***	444	498	444	***	***	***	***	***	***	***	***	***
30	837.4	281.4	***	***	***	***	***	484	***	***	***	***	***	***	***	***	***	***
91	841.4	290.9	***	***	445	***	***	***	***	***	***	***	***	***	***	***	***	***
32	845.1	299.7	***	***	***	***	240	***	***	***	***	***	***	***	***		P##	***
.33	849.4	309.2	***	***	***	***		***	444	***	***	***	***	***	***		***	
34	853.4	319.1	AA4	***	***	***		***	4#4	***	***	***	***					***
35	857.2	328.8	***	***	484	984		***	***	119	***	***	***					
36	859.9	<u>338.8</u>	***	···	***			***	***	195								
37	864.5	350.4	***	•••	***	197		***										
38	867.9	353.9	P#9					***	***									
39	869.2	368.4	***	***	***	•••		***	***						443		***	
40	873.6	381.3		***														
	874.9	393.7			117	***		181				***					444	
42	875.8	405,9	***			***						***	***		***			
43	881.6	417.2										***	444	***	***		***	***
44	885.4	429.1		***						***		494	***		***		***	***
45	886.5	440.9			***			***	***				100		***		***	***
48	689.2	451.5									***		***	48.9	***		***	***
4/	692.4	462.7			444	***		***	***	444	***	144	4++			+++	***	***
45	093.5	4/3.0		***	***	***		484		***	P ##	***	\$P9	***	***	***	***	***
49	007.6	401.7	***	***		140		444	\$45	***	***	\$44	***	***	***	***	***	***

Table 5.1.2. Temperatures Measured in Assembly S-08, Wood Stud, 1x1 Gypsum Layers, No Resilient Channels

Table 5.2.1. Average Temperatures Measured in Assembly S-08, Wood Stud, 1x1 Gypsum Layers, No Resilient Channels

Time	T(Fav)	BL/WStd. (Exp.)	BL/Cav. (Exp.)	BL/WStd. (UnExp.)	BL/Cav. (UnExp.)	UnExp.
(min)	(°C)	Av(14,15)	Av(10,11,18,19)	Av(16,17)	Av(12,13,20,21)	Av(1,2,3,4,5)
0	37.2	36.5	34.5	28.1	32.5	24.0
 1 	121.1	36.3	34.5	28.1	32.4	29.9
2	229.0	41.9	41.5	28.0	33.8	29.8
3	381.5	57.1	56.4	28.0	40.7	29.8
4	437.9	74.7	70.8	28.8	55.0	30.1
5	536.1	83.7	80.4	29.9	68.2	31.4
6	563.7	87.2	87.7	32.4	74.8	34.5
7	605.9	90.2	95.6	35.4	79.1	39.4
8	638.2	92.8	103.1	38.8	62.7	44.9
9	666.1	96.1	108.6	42.7	85.5	50.3
10	699.9	99.4	112.0	47.2	88.2	54.9
11	711.3	102.6	114.8	51.7	90.3	58.9
12	720.8	105.3	119.0	55.4	92.5	61.5
13	733.4	108.1	130.3	57.5	94.8	63.4
14	742.7	126.0	161.0	58.6	99.0	65.4
15	754.1	158.4	201.1	60.2	112.9	65.9
16	761.8	185.3	238.9	61.7	134.1	67.9
17	768.1	213.3	270.8	63.4	156.9	69.0
18	775.3	237.1	295.2	64.9	180.4	70.9
19	781.2	256.0	314.0	66.5	199.2	72.0
20	788.4	275.3	330.2	68.5	213.6	73.7
21	795.0	293.8	343 7	70.9	228.8	76.8
32	B00 1	311.0	354.4	73.8	243.3	80.3
23	804.6	325.1	362.7	76.8	258.0	84.5
24	811.0	339.2	370.3	79.8	271.3	88.1
25	816.4	352.8	376.6	82 B	282.7	91.0
26	820.4	362.3	383.1	85.9	293.3	93.2
27	824.7	372.1	389.9	88.8	304.5	95.4
28	829.9	381.6	395.9	91.5	315.9	97.6
29	833.6	390.2	402.2	94.0	326.0	99.2
90	837.4	399.7	408.3	96.6	336.7	100.1
33	841.4	412.1	415.3	98.9	347.0	101.4
32	845.1	425.1	421.8	101.4	356.6	102.3
33	849.4	438.0	428.2	104.5	366.9	102.9
34	853.4	448.3	434.2	107.7	376.3	103.7
35	857.2	456.7	439.1	111.1	385.2	105.1
36	859.9	465.1	445.8	114.6	394.1	106.0
37	864.5	473 4	452.5	118.3	404.5	107.0
38	867.9	481.6	456.2	122.3	412.2	108.2
39	869.2	491.7	463.7	126.4	423.0	109.8
40	873.6	501.3	471.7	130.8	433.7	111.3
41	874.9	510.2	478.7	135.3	444.2	113.7
42	878.8	519.9	486.6	140.0	454.3	117.3
43	681.A	527.7	494.5	144.9	463.4	122.2
44	885.4	534.8	502.4	150.0	473.7	130.4
45	886 5	542.0	508.4	155 1	482.8	138.0
46	889.2	550.4	516.6	160.4	491.8	152.7
47	892.4	657.1	523.5	166.5	501.3	166.6
48	895.5	564.4	531.0	173.1	510.5	184.2
49	897 7	572.9	538.2	179.9	518.5	202.4
50	OVIR	580.3	544.7	186.9	526.0	222.5

Legend: BL - Base Layer, FL - Face Layer, Cav. - Cavity, WStd. - Wood Stud, Av - Average, Exp. - Exposed Side, UnExp. - Unexposed Side

Time	T(Fav)								Te	mperatu	re at The	rmocou	ple Numi	ber							
(mlm)	(°C)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
0	28.4	23.3	23.4	23.4	23.3	23.3	23.7	23.6	23.4	23.5	23.2	23.2	23.4	23.3	23.3	23.3	23.6	23.5	23.6	23.5	23.5
1	115.3	23.3	23.4	23.4	23.3	23.3	23.7	23.6	23.4	23.5	23,3	23.3	23.8	23.7	23.4	23.3	23.6	23.5	24,2	23.9	23.6
2	224.8	23.3	23.4	23.4	23.3	23.3	23.7	23.6	23.4	23.5	25.1	24.2	33.4	31.9	24.9	23.9	23.6	23.5	34,4	29.7	26.0
3	328.5	23.3	23.6	23.5	23.4	23.5	23.8	23.7	23.5	23.7	36.6	29.5	71.1	64.4	35.8	27.9	23.7	23.7	56.0	44.6	36.9
100 100 4 100 100	431.1	23.3	24.5	23.8	23.8	24.4	23.9	24.2	23.5	24.2	56.3	42.9	96.9	93.0	57.9	41.5	24.0	24.0	73.4	63.2	56.3
6	535.3	23.4	27.7	25.0	25.0	27.4	24.3	25.5	23.7	25.7	79.9	57.1	98.2	97.7	72.0	57.5 69.0	24.7	24.8	82.1	74.0	69.8 76.4
6	509.2 200 1	23.8	42.1	27.8	27.9	<u>33.4</u>	20.0	32.6	25.1	32.6	70.0	71 1	97.0	97.5 95.8	82.6	74 1	28.0	28.5	94.2	82.6	70.4
	611.6	24.0	504	38.6	39.3	49.8	29.4	36.2	26.5	36.1	81.5	75.6	99.5	93.3	85.0	78.8	30.7	31.2	102.0	90.9	81.4
9	665.0	28.3	57.5	45.1	44.4	56.5	30.7	40.6	28.4	39.5	83.6	79.2	101.9	92.8	87.2	82.6	33.9	34.3	108.0	98.2	83.6
10	697.5	30.9	63.3	51.5	50.6	61.7	32.9	43.9	30.7	44.1	85.8	62.2	104.0	97.9	89.1	85.4	37.3	37.7	112.1	104.1	87.8
00011000	711.8	34.1	67.6	57,4	56.3	65.7	33.3	46.1	32.9	44.9	87.4	84.4	107.3	111.2	90.1	87.3	41.0	41.3	114.9	108.4	91.2
12	721.3	37.5	70.5	62.2	61.3	68.7	35.3	48.7	35.6	46.8	88.8	86.1	111.1	120.9	90.7	88.6	44.6	44.8	118.8	111.9	93.8
13	731,7	41.0	72.2	65.6	65.1	70.8	36.2	49.3	38.3	47.0	89.4	B7.0	126.1	138.0	91.3	89.1	48.0	48.3	125.3	116.1	96.6
14	743.3	44.5	73.2	67.9	67.8	72.1	36.5	49.5	40.4	48.0	90.0	87.7	156.0	166.2	91.1	89.0	51.0	51.7	148.0	124.9	101.8
15	753.9	47.7	73.9	69.3	69.8	73.1	38.6	51.2	42.7	49.6	95.9	88.6	195.5	200.7	102.5	88.3	53.7	54.6	189.1	155.0	115.D
16	761.5	50.6	74.9	70.5	71.4	74.2	37.8	49.0	44.3	47.2	142.0	108.7	230.0	230.7	147.0	81.0	50.1	57.3	220.7	194.0	152.8
	775.0	52.9	79.6	71.7	74.9	79.1	37.2	59.0	45.0 47 A	40.4	167.5	156.9	318.2	203.0	174.1	134.8	59.6	61 7	270.7	253.2	175.9
	781 7	57.2	80.7	75.3	76.6	79.9	39.7	55.4	48.9	52.6	184.7	178.8	355.3	346.5	191.0	156.5	61.4	63.7	297.8	274.9	192.2
20	798 B	59.2	81.8	76.8	78.1	61.4	39.9	55.2	49.9	49.9	197.8	191.4	391.5	389.2	205.4	170.6	63.4	65.7	313.4	290.3	205.9
21	795.1	61.2	83.4	78.0	79.2	82.4	41,1	55.2	51.0	52.1	209.8	202.6	427.8	435.6	217.7	185.4	65.4	67.6	325.9	304.8	215.2
22	800.3	63.3	88.3	79.2	80.2	86.8	42.2	57.6	52.3	53.8	220.7	211.1	467.3	480.8	230.0	198.2	67.5	69.6	336.7	319.9	226.9
23	805.3	65.4	93.0	81.7	82.8	91.7	41.9	56.8	53.6	53.5	231.5	220.7	512.9	570.2	239.0	211.2	69.8	71.8	348.0	337.2	241.2
24	811.0	67.5	96.8	85.9	87,4	95.7	44.0	59.1	54.2	55.4	241.2	233.3	548.2	618.0	247.1	223.5	72.1	74.2	356.4	352.9	247,9
25	815.2	69.4	100.1	90.1	92.0	99.1	43.0	58.7	55.3	58.7	251.9	243.1	569.4	649.0	256.7	233.0	74.5	76.7	364.9	363.5	256.5
26	819.9	71.2	102.9	93.7	95.8	102.1	44.6	63.0	50.0	60.0	261.0	251.5	578.5 508.1	672.1	204.0	242.3	70.0	/9.2	3/1.5	3/9.1	207.4
2/	825.1	72.8	100.1	90.7	101.5	104.0	44.0	63.4	58.1	58.4	278.8	268.7	602.2	683.9	280.1	262.8	81.1	84.5	385.3	397.6	289.8
20	893.0	75.5	108.4	101.4	103.8	108.2	46.3	68.2	59.7	65.0	290.7	278.3	620.0	701.3	289.1	272.0	B3.4	87.2	390.7	406.3	300.4
30	838.0	76.9	109.5	103.2	105.6	109.4	45.8	68.2	60.6	66.6	300,1	286.6	630.4	713.5	296.8	285.0	B5.6	90.1	397.4	412.1	310.1
31	842.3	78.0	110.3	104.5	106.9	110.3	45.5	67.8	60.4	61.2	310.4	294.7	638,5	725.0	306.4	288.9	67.7	92.6	403.3	417.5	320.9
32	845.6	79.1	111.1	105.6	108.0	111.1	44.3	63.5	60.1	57.3	321.7	303.5	650.3	730.7	313.9	296.5	90.0	95.3	410.5	424.3	328.9
33	849.9	80.3	111.8	106.4	108.8	111.7	47.4	68.5	61.6	62.9	333.1	310.5	653.0	733.1	324.2	297.3	92.4	98.1	415.0	432.8	340.8
	853.5	82.1	112.6	107.3	109.6	112.4	48.2	72.2	63.0	68.5	339.5	321,3	659.2	730.5	331.5	306.2	94.9	101.1	423.3	435.4	350.9
35	856.9	84.4	113.3	108.1	110.2	113.2	48.7	71.9	64.1	69.5	345.7	333.3	650.1	710.2	338.0	314.0	98.1	105.6	429.7	430.3	358.9
36	859.0	66.2	134.0	108.8	110.8	114.7	40.1 61.4	72.6	65.5	70.7	361.2	345.3	643.2	692.3	357.4	329.7	101.8	109.4	439.0	439.2	374.7
99	867.0	00.4 00.6	115.7	110.2	112.1	115.7	48.9	74.3	66.1	72.7	369.0	356.2	612.6	682.7	364.9	338.7	103.8	112.2	446.3	439.1	385.5
39	869.8	92.9	116.8	110.9	112.8	116.8	50.4	74.9	66.9	71.6	376.0	361.8	633.7	668.0	374.2	346.7	106.1	115.4	452.6	440.1	393.5
40	872.5	95.2	118.2	111.6	113.3	118.2	52.4	77.4	68.2	72.8	383.8	367.7	616.4	655.9	385.0	355.7	108.5	118.2	459.7	444.1	402.7
4	877.6	97.5	120.0	112.4	114.1	120.0	53.6	78.9	70.6	73.7	393.8	374.2	615.6	637.0	394.2	363.1	111.1	121.5	465.4	446.7	410.5
42	878.7	99.6	122.6	113.4	114.8	122.4	51.8	79.6	72.3	75.0	402.6	384.6	622.1	637.7	402.0	370.9	113.2	124.8	472.1	453.1	418.7
43	882.1	101.7	126.9	114.5	115.7	126.6	53.2	79.1	73.6	75.2	409.6	393.5	615.8	624.4	411.8	377,9	114.9	128.1	477.7	458.1	427.0
44	884.4	103.7	133.2	115.7	116.8	133.4	52.0	79.0	74.4	75.3	419.5	401.2	606.0	619.4	420.9	386.3	117.0	131.2	483.3	464.3	435.8
45	887.3	105.5	143.6	117.2	118.1	143.6	53.3	80.1	76.5	79.0	430.4	410.9	620.0	610.3	431.1	390.0	121.0	134.2	409.7	4/0.2	444.6 455.4
46	889.7	107.1	156.8	119.5	19.8	10/.0	55.3	83.0	78.5	78.5	445.1	425.0	633.2	620.8	448.5	418.8	123.4	139.7	502.4	482 1	463.6
	005.3	108.8	107.0	129.7	127.6	195.3	56.0	85.2	81.0	81.9	453.6	435.7	619.6	623.1	456.3	426.7	125.9	142.9	508.7	486.1	472.4
40 40	807 3	109.2	218.3	135.4	134.2	219.4	56.9	86.2	81.4	80.7	462.1	443.0	641.8	629.9	465.2	432.3	127.9	146.1	514.1	492.9	480.9
50	900.4	110.0	241.1	148.2	141.1	242.1	56.5	88.6	81.5	82.5	468.1	452.6	645.3	628.2	473.3	429.1	130.4	150.0	519.3	499.3	489.4
51	902.8	110.9	264.2	157.2	156.0	265.4	58.6	93.3	83.9	88.9	477.5	460.9	641.9	633.1	480.2	443.3	133.1	153.4	525.4	501.9	498.2
52	904.7	111.7	290.1	177.7	164.8	291.0	59.7	98.2	84.0	87.1	485.1	470.2	666.3	636.5	486.8	459.5	135.2	157.8	532.0	510.9	506.6
53	907.3	112.4	330.6	200.2	188.7	320.8	60.8	105.3	84.7	93.2	494.8	476.8	652.9	638.1	494.2	469.4	137.6	162.8	538.5	517.1	514.7

Table 6.1.1. Temperatures Measured in Assembly S-35, Wood Stud, 1x1 Gypsum Layers, No Resilient Channels

Time	T(Fav)							Tempe	erature a	t Thermo	couple I	Number			······································			
(min)	(°C)	21		23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
n	28.4	23.4	23.5	23.4	23.3	23.3	***	***	***	***	***		•••	***	***	A**	874	1
	115.3	23.5	23.9	23.9	23.4	23.3	***	***	•••		***	8.9.8	***	***	***			***
2	224.8	24.4	32.0	30.2	26.0	23.9	***	***	•••	•••		***	***	***	***		***	***
3	328.5	29.2	54.2	45.1	39.5	27.7	***	***	***	***	***	***	***	***	***	***	***	***
4	431.1	42.4	73.8	63.8	59.4	40.2	***	•••	***	***	***	***		***		***	***	+++
5	535.3	56.1	82.6	75.7	72.7	55.2	***	***	***	***	***	***			***	***	***	***
6	569.2	64.9	87.7	81.1	78.6	64.8	***	***	***	***	***	588	***	***	***	***	***	***
7	600.1	70.3	96.4	86.7	81.8	71.2	***	174	+++	***	***	\$47	343	433	***		474	***
. В.	631.6	74.2	103.7	95.7	84.8	75.5	***	***	4++	***	***	***	***	***	***	***	4.8.0	***
9	665.0	78.0	109.0	103.3	88.3	79.5	***	***	***	***	***	***	***	***	***	***	***	A+++
10	697.5	81.2	113.1	109.2	92.8	82.7	***	***	***	***	***	***	•••	***	***	***		***
41	711.8	84.0	116.1	112.9	95.8	84.8	49.0	***	***	***	***	***	***	***	***	***	***	•••
12	721,3	85.8	119.2	116.0	98.9	86.6	***	***	***	***		***	***	***	***	***	484	***
13	731.7	87.0	126.5	120.6	103.0	88.0	***	***	•••		***	4.5.0	***	***	***	***	***	***
14	743.3	91.8	149.0	131.2	112.7	90.5	***	***	***	***	***	***	***	***	***	***	***	***
15	753.9	99.1	189.6	168.8	127.5	96.4	848	***		***	***	***	***	***	•••	***	***	***
16	761.5	112.2	226.4	207.5	147.1	107.9	7 * * *	A**	***	144	476	***	4+4	***		***	***	***
17	768.3	129.2	259.0	242.7	173.4	123.5	***	***	***	***	***	***	444	***	***	***	***	***
18	775.2	147.4	284.2	272.2	198.6	141.1	• • •	***	***	***	***	***	***	***	***	***	***	***
19	781.7	166.1	308.7	292.4	219.3	159.3	***	***	***	***	***	***	***	***	***	***	***	***
20	788.8	181.4	324.7	307.0	233.5	176.5	***		***	***	***	***	***	***	***	84 %	***	•••
21	795,1	192.5	334.5	314.3	245.3	191.7	***	***	***	***	***	494		***	***	***	***	•••
22	800.3	201.1	344.0	319.8	254.6	201.7	***	***	494	***	***	484	***	***	***	***	***	***
23	805.3	211.4	351.7	328.7	261.8	210.1	472	***	***	***	***	***	494	***	***	***	***	***
24	811.0	221.5	358.0	340.1	269.2	220.0	***	4+4	***	*=+	***	***	***	***	***	#*4	***	***
25	816.2	232.9	364.8	348.3	277.5	229.1	***	***	***	***	***	***	***	***	***		***	443
26	819.9	239.6	371.1	355.4	284.6	238.1	***	***	***	***	***	***	***	***	***	***	***	***
27	825.1	247.6	378.3	362.8	293.7	246.9	***	***	***	***	***	•••	***	***	***	•••	***	***
28	829.2	258.5	385.8	369.6	303.3	255.0	***	***	***	***	***	•••	***	***	***	•••	***	***
29	833.9	269.2	391.8	375.7	312.8	264.2	***	***	143	***	***	***	***	***	***	***	***	***
30	838.0	278.4	398.6	381.5	321.6	273.0	***	4 # #	***	\$\$ \$	***	***	***	***	***	***	***	***
31	842.3	268.4	406.0	387.5	329.4	280.7	***	•••	***	***	***		***	•##		***	***	***
32	845.6	297.1	412.8	394.2	337.1	289.9	***		***	***	***	***	***	***	***	***	***	***
33	849.9	303.6	420.7	401.2	349.2	299.2	***		***	***	***		***			***	***	***
	853.5	312.6	427.2	402.9	356.5	309.2	***		***		***			***	***	***	***	
35	856.9	321.3	432.4	408.6	366.4	319.6	***				***		***	***		***		
36	859.0	330.1	440.9	415.0	377.9	329.0												
37	864.8	337.4	447.8	421.0	381.5	337.5												
38	867.0	343.9	454.1	427.3	390.6	347.1												
39	869.8	349.4	460.7	433.3	400.6	355.7									•**			
40	872.5	358.8	466.8	440.0	409.0	365.3												
41	877.6	365.6	472.7	445.7	416.7	3/3.4			***									
42	878.7	377.1	478.9	453.3	426.4	381.7	***		***									
43	.882.1	385.2	484.2	458.2	433.7	387.6												
44	684.4	391.6	491.8	465.1	444.4	396.3	484		44.8					***		***	***	
45	687.3	400.9	498.4	471.4	454.4	405.2	***		***	***		***	***			***	***	
46	889,7	411.2	505.0	477.6	462.9	414.1	***								***	***	***	
47	892.6	417.1	511.9	485.3	4/1.0	423.1	***			***		499	***			***	***	***
48	895.3	426.6	517.7	491.6	4/8.0	431.6				***	***					***	***	343
49	897.3	436.1	523.2	497.6	487.0	440.1	***	***	***	***	***	***		***		4**	414	
50	900,4	444.3	528.6	504.7	494.8	450.4			***	194	***	***	***		***	***	***	
51	902.8	451.2	534.7	513.0	503.1	459.1	***		*10	***	***	***	170	***	***	###		
52	904.7	460.1	542.3	519.3	511.3	407.9	424		***	***	***	243	***	***	***	***	***	

Table 6.1.2. Temperatures Measured in Assembly S-35, Wood Stud, 1x1 Gypsum Layers, No Resilient Channels

Table 6.2.1. Average Temperatures Measured in Assembly S-35, Wood Stud, 1x1 Gypsum Layers, No Resilient Channels

				· · · · ·			
t ittle	I(Fav)	BL/SIG. (EXP.)	BUCAV. (EXp.)	Mid. Std.	BUCav. (UnExp.)	BL/Std. (UnExp.)	UnExp.
(min)	(°C)	Av(12,13)	Av(18,19,22,23)	Av(10,11,14,15)	Av(20,21,24,25)	Av(16,17)	Av(1,2,3,4,5)
0	28.4	23.4	23.5	23.3	23.4	23.6	23.3
	115.3	23.8	24.0	23.3	23.5	23.6	23.3
2	224.8	32.7	31.5	24.5	25.1	23.6	23.4
3	328.5	67.7	50.0	32.4	33.3	23.7	23.5
	431.1	94.9	68.6	49.6	49.6	24.0	24.0
6	535.3	98.0	78.6	64.3	63.5	24.7	25.7
6	569.2	97.6	83.3	72.4	71.2	26.1	29.4
7	600.1	96.9	90.0	77.0	75.7	28.3	34.7
В	631.6	96.4	98.1	80.2	79.0	31.0	40.6
9	665.0	97.4	104.7	83.2	82.4	34.1	46.3
10	697.6	101.0	109.6	85.6	86.1	37.5	51.6
11	711.8	109.3	113.1	87.3	89.0	41.1	56.2
12	721.3	116.0	116.5	88.5	91.3	44.7	60.0
13	731.7	132.1	122.1	89.2	93.6	48.1	63.0
14	743.3	161.1	138.3	89.4	99.2	51.4	65.1
15	753.9	198.1	175.6	93.8	109.5	54.2	66.7
16	761.5	233.7	212.2	110.4	125.0	56.7	68.3
17	768.3	271.6	243.9	133.6	144.9	58.8	70.0
18	775.2	312.3	270.6	158.3	165.8	60.6	72.0
19	781.7	350.9	293.4	177.8	184.2	62.6	74.0
20	788.8	390.4	308.8	191.3	199.3	64.6	75.5
21	795.1	431.7	319.9	203.8	211.2	66.5	76.9
22	800.3	474.0	330.1	215.0	221.1	68.6	79.6
23	805.3	541.6	341.4	225.6	231.1	70.8	82.9
24	811.0	583.1	351.8	236.3	239.6	73.2	86.7
25	816.2	609.2	360.4	246.2	249.0	75.6	90.1
26	819.9	626.4	369.3	255.0	257.4	77.9	93.1
27	825.1	634.1	377.8	263.5	267.4	B0.4	95.6
28	829.2	643.0	384.6	272.6	276.6	82.8	97.7
29	\$33.9	660.6	391.1	282.5	286.6	85.3	99.5
	838.0	672.0	397.4	292.1	295.8	87.9	100.9
31	842.3	681.7	403.5	300.1	304.9	90.2	102.0
32	845.6	690.5	410.4	308.9	313,3	92.6	103.0
33	849.9	693.1	417.4	316.3	323,2	95.3	103.8
34	853.5	694.8	422.2	324.6	332.3	98.0	104.8
35	856.9	685.6	426.7	332.9	341.5	100.9	105.8
36	859.0	680,6	432.4	340.6	351.3	103.1	108.7
37	864.B	667.7	436.8	348.4	357.8	105.6	107.8
36	867.0	647.6	441./	357.2	366.8	108.0	108.9
	669.8	650.8	440./	304.7	3/4.0	112.0	110,1
40	8/2.5	636.2	492.7	373.0	383.9	110.0	111.3
41	877.8	626.3	497.6	301.4	391.5	110.0	112.8
42	6/8./	629.9	404.3	390.0	401.0	101.6	114.6
43	58Z.1	620.1	409.5		408.4	121.5	117.1
1000 A4 0000	664.4	632.7	4/0.1	407.0	417.0	124.)	120.0
90	60/3	022.4	402.4	417.2	425.0	120.0	120.0
45	000./	024.0	400.0	427.3	443 T	1215	196.4
40	092.0	601.4	490.4	434.4	440.7	194.4	151.1
48	093.3	021.4	502.0	440.1	40∠.1 ¢£1.0	104,4	162.2
98 84	007.0	030.8	500.9	450.0	401.0	140.2	176.5
00	000,4	000.0	513.U 619.0	400.0	403.7	142.0	100.7
21.000	504.5	007.0	510.0 626 1	475.4	486.5	146.5	207.0
50	304.7	845 5	532.6	483.8	494.9	150.2	230.5
53	907.3	645.5	532.5	483.8	494.9	150.2	230.5

Legend: BL - Base Layer, FL - Face Layer, Cav. - Cavity, Std. - Stud, Av - Average, Exp. - Exposed Side, UnExp. - Unexposed Side

Time	T(Fav)								Те	emperatu	re at The	ermocou	ple Num	ber				****			
(min)	(°C)	1	2	3	4	5	6	7	B	9	10	11	12	13	14	16	16	17	18	19	20
0	54.3	24.1	24.6	24.2	24.1	24.4	23.2	23.5	23.3	23.6	27.1	26.3	31.7	30.5	27.3	26.3	25.0	24.7	29.6	28.5	27.6
⊙. 1	107.9	24.1	24.6	24.2	24.1	24.5	23.2	23.4	23.2	23.5	27.2	26.4	32.0	30.7	27.5	26.4	25.1	24.7	29.8	28.6	27.7
2	224.8	24.1	24.7	24.3	24.2	24.5	23.3	23.6	23.6	23.6	27.3	26.5	32.3	31.5	27.6	26.6	25.2	24.8	30.0	28.9	27.8
3	326.7	24.2	24.7	24.3	24.2	24.5	23.3	23.5	23.2	23.7	27.5	25.5	33.4	33.4	27.8	26.7	25.2	24.8	30.5	29.2	28.0
4	424./	24.2	24.0	24.3	24.2	24.0	23.3	23.3	23.1	23.0	21.8	20.0	53.9	45.7	30.2	27.0	25.3	24.0	36.6	33.2	20.0
6	568.5	24.3	24.9	24.4	24.3	24.6	23.2	23.4	23.2	23.5	35.4	29.7	67.1	57.8	34.4	29.7	25.7	25.0	44.7	37.9	35.4
··· 7	600.5	24,3	25.0	24.4	24.3	24.7	23.3	23.5	23.3	23.6	42.9	33.7	75.0	67.7	40.0	32.8	26.2	25.0	53.4	44.5	42.4
B	630.4	24.3	25.0	24.5	24.4	24.8	23.3	23.6	23.3	23.7	48.9	38.8	79.9	74.9	44.9	36.7	27.0	25.1	60.0	51.2	48.8
9	665.1	24.4	25.2	24.5	24.4	24.9	23.2	23.5	23.2	23.8	53.5	43.0	B3.7	80.0	49.1	40.3	28.1	25.3	64.6	56.2	53.0
10	698.7	24.4	25.4	24.7	24.6	25.2	23.4	23.7	23.3	23.9	56.8	46.5	86.3	83.7	52.5	43.5	29.3	25.7	67.6	59.6	56.2
11	711.3	24.5	25.7	24.8	24.7	25.5	23.5	23.6	23.4	24.0	59.2 60.9	49.4 51.9	89.5	89.7	57.3	46.4	30.7	26.1	59.9 71.6	64.0	58.8
12	721./	24.7	26.8	25.4	25.3	26.1	23.6	24.1	23.5	24.0	62.4	53.9	90.7	90.5	59.1	50.9	33.7	27.4	72.9	65.6	62.9
14	743.3	25.2	27.5	25.7	25.7	27.4	24.1	24.9	23.8	25.4	63.7	55.8	92.0	92.3	60.6	52.6	35.3	28.2	73.9	67.1	64.3
15	753.8	25.5	28.3	26.2	26.2	28.3	24.2	25.2	23.9	25.9	64.7	57.4	93.1	94.2	62.1	54.1	36.9	29.1	75.1	68.2	65.6
16	762.0	25.9	29.2	26.8	26.8	29.3	24.4	25.5	24.1	26.3	66.1	59.1	94.2	96.6	64.0	55.6	38.6	30.1	76.5	69.8	67.1
17	767.5	26.3	30.1	27.3	27.4	30.3	24.6	26.0	24.2	26.8	68.2	60.9	95.1	99.3	66.7	57.5	40.3	31.2	78.6	72.0	68.8
18	776.0	26.9	31.2	28.0	28.1	31.4	24.9	26.2	24.3	26.7	71.0	63.6	96.4	102.5	69.3	60.0	42.2	32.4	81.1	75.3	71.6
19	782.4	27.5	32.3	28.8	28.9	32.5	25.4	27.1	24.6	27.5	75.0	69.6	97.4	100.4	73.4	64.7	44.2	33.7	83.1	70.0	74.0
20	704.7	28.1	34.7	28.0	30.6	35.0	25.5	28.3	25.5	29.8	77.4	70.4	99.3	112.2	75.1	67.0	48.3	36.4	90.3	82.7	78.4
22	799.6	29.7	36.1	31.2	31.6	36.5	26.5	28.3	25.6	29.6	78.6	72.7	100.7	114.7	76.4	69.2	50.3	37.9	94,4	86.3	80.3
23	805.3	30.6	37.5	32.1	32.6	38.0	27,2	29.7	26.2	31.6	79.8	74.9	102.7	117.3	78.0	71.4	52.6	39.6	98.2	89.9	82.5
24	810.3	31.7	38.9	33.2	33.8	39.6	27.6	30.1	26.4	31.5	81,2	76.8	104.9	119.6	79.7	73.6	54.7	41,4	101.5	93.5	84.6
25	816.3	32.9	40.4	34.3	35.0	41.2	28.5	30.3	27.0	32.9	82.8	78.7	107.4	121.9	81.7	75.5	56.8	43.4	104.1	96.7	86.6
26	820.8	34.3	41.9	35.4	36.4	42.9	29.1	31.8	27.5	34.0	84.4	80.5	109.8	124.1	83.2	77.3	58.9	45.6	106.1	99.2	88.4
27	827.0	35.9	43.4	36.7	37.8	44.0	29.0	32.4	27.9	35.4	87.1	83.5	114.2	120.3	86.2	70.9 80.3	62.9	50.3	109.1	103.1	90.0
20 99	832.9	39.5	46.5	39.4	40.9	48.0	30.1	33.0	29.0	35.5	87.7	84.8	116.2	130.6	87,3	81.6	64.8	52.7	110.1	104.4	92.5
80	837.6	41.5	48.1	40.7	42.6	49.6	30.1	33.0	29.3	36.0	88.7	85.8	118.0	133.0	88,1	82.6	66.6	55.0	111,1	105.8	93.4
31	841.7	43.7	49.6	42.2	44.3	51.2	31.4	33.9	29.5	36.7	89.3	86.6	119.8	135.7	88.7	83.6	68.2	57.3	111.9	106.7	94.3
32	845.9	45.9	51.0	43.8	46.0	52.8	31.8	35.0	30.6	38.6	89.8	87.3	121.7	138.8	89.5	84.5	69.9	59.6	112.8	107.5	95.2
33	850,1	48.3	52.5	45.3	47.8	54.3	33.0	35.9	31.4	39.3	90.2	87.9	123.7	142.5	90,1	85.2	71.3	61.7	113.7	108.5	95.8
34	852.0	50.7	53.8	46.8	49.5	57.1	33.9	381	33.0	40.5	91.2	88.9	129.4	152.5	91.8	86.5	72.0	65.5	116.1	109.5	97.2
45 98	859.2	55.1	56.4	49.7	52.6	58.3	34.4	37.9	33.6	41.1	92.2	89.4	132.9	159.7	92.7	87.1	75.1	67.2	117.9	111.5	98.0
97	B63.4	57.1	57.5	51.0	54.0	59.5	35.0	38.1	34.3	42.1	93.7	89.7	137.7	167.2	93.8	87.6	76.1	68.6	121.4	113.0	99.0
38	866.9	58.9	58.6	52.4	55.3	60.5	36.4	39.7	35.9	43.8	96.0	90.2	145.1	175.4	95.1	88.2	77.0	70.0	126.8	115.4	101.1
39	869.7	60.5	59.6	53.5	56.6	61.5	36.7	39.7	35.8	44.1	98.4	90.9	156.3	184.3	97.6	88.9	77,7	71,2	136.6	120.4	104.2
40	872.9	61.9	60.5	54.6	57.7	62.3	36.8	40.4	36.2	43.9	102.8	92.7	1/0.5	193.7	101.0	89.5	78.3	72.3	146.4	125.7	112.4
41	876.3	63.1	61.3	56.7	59.6	63.6	385	40.1	35.9	43.8	116.0	100.5	204.4	212.9	115.9	98.1	79.1	74.1	177.5	145 1	119.1
46 47	881 7	64 A	62.8	57.6	60.3	64.1	36.2	39.2	36.1	43.1	124.1	105.8	221.2	222.6	123.8	103.3	79.5	74.8	191.7	161.6	128.0
44	883.5	65.2	63.8	58.5	61.0	64.7	38.4	39.6	37.3	43.8	132.7	111.2	236.7	232,4	134.3	109.0	79.9	75.5	202.4	174.0	136.3
45	686,5	65.7	64.8	59.4	61.9	65.5	38.8	41.1	37.5	45.5	140.0	117.5	251.2	242.2	142.3	116.0	80.2	76.1	213.0	184.1	145.3
46	890.1	66.3	66.0	60.4	62.7	66.3	38.2	42.5	39.3	45.7	147.1	124,4	265.1	252.0	149,2	123.0	80.7	76.6	224.8	193.5	154.0
47	892.3	66.8	66.9	61.3	63.5	66.9	38.6	41.6	39.2	46.0	155.6	130.9	279.1	261.6	156.8	129.6	81,2	77.1	235.3	202.1	162.3
48	895.1	67.1	67.8	62.2	64.3	67.6	39.5	43.6	39.9	46.5	162.9	149.6	293.6	2/1.2	165.5	137.5	82.0	79.0	243.2	210.6	177.2
49	897.9	67.5	68.7 60 F	63.1	65.1 85.0	68.2	<u>39.4</u> 40.0	43.U 43.5	40.1	47.1 47.6	176.3	153.3	321.4	290.7	177.6	151.6	84.6	78.9	260.2	226.7	183.4
51	012.2	68.2	70.3	64.7	66.5	69.2	39.2	43.7	40.2	46.6	182.2	159.9	334.1	299.6	183.7	157.2	86.1	79.7	266.0	233.9	187.5
52	904.R	68.7	71.0	65.4	67.1	69.8	40.6	44.B	40.9	48.1	167.5	165.0	347.5	308.7	189.6	163.5	87.7	80.6	271.0	240.6	193.1
53	906,8	69.4	71.6	66.0	67.6	70.2	40.8	45.1	41.9	48.1	192.8	172.5	358.9	317.6	198.1	168.4	89.2	81.7	276.6	246.2	197.7
54	907.9	70.1	72.2	66.7	68.1	70.7	40.9	45.3	40.2	48.3	199.1	178.9	370.9	326.2	203.6	175.5	91,5	62.9	281.5	252.3	203.4
55	911.0	70.8	72.8	67.4	68.7	71.2	41.4	45.0	41.0	49.2	204.4	184.3	383.8	334.9	207.7	180.4	93.5	84.1	265.3	257.3	208.6
56	913.9	71.4	73.3	68.0	69.2	71.6	42.0	45.3 46.0	41.2	48.7 50.1	209.1	190,4	396.8	343.6	218.8	190.8	96.3	86.4	295.3	262.3	215.5

Table 7.1.1. Temperatures Measured in Assembly S-36, Wood Stud, 2x2 Gypsum Layers, No Resilient Channels

Time	T(Fav)								T	emperatu	ire at The	ermocou	ple Num	ber							• • •
(min)	(°C)	ſ	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
58	917.3	72.7	74.2	69.2	70.3	72.5	43.4	45.8	43.5	50.5	218.5	201.3	424.8	361.6	224.5	196.6	97.7	87.5	300.5	271.4	228.6
59	920.3	73.2	74.5	69.7	70.7	72.8	43.5	46.6	42.4	48.2	224.6	206.4	438.3	369.7	230.3	201.9	98.9	88.8	305,9	275.1	235.6
61	923.8	74.3	75.1	70.2	71.4	73.4	42.8	46.2	43.0	49.5	231.8	216.7	463.1	387.7	233.8	206.8	100.2	91.5	307.7	279.5	237.7
62	925.5	74.7	75.3	70.9	71.8	73.6	44.0	47.0	45.6	50.7	235.8	218.9	474.0	395.2	241.7	217.3	102.9	95.2	314.7	287.4	249.1
63	928.5	75.0	75.5	71.1	72.1	73.9	45.0	47.4	45.2	50.6	240.1	224.1	484.8	403.0	245.9	222.8	104.6	95.9	319.2	291.6	253.9
64	929.1	75.3	75.7	71.4	72.3	74.0	44.7	47.8	45.7	51.2	243.7	226.7	494.0	410.0	250.8	226,6	106.5	96.5	321.0	295.3	256.9
65 66	932.3	/5.6 75.0	75.9	71.7	72.5	74.2	45.5	47.8	46.0	50.8	248.6	232.0	503.0	415.2	254.8	231.3	108.2	96.9	323.8	300.0	262.2
67	936.1	75.9	76.4	72.2	72.7	74.4	44.6	46.4	43.6	50.4	257.1	240.9	519.7	420.0	263.5	241.5	110.4	97.3	328.8	303.7	267.1
68	937.6	75.9	76.7	72.3	72.7	74.5	45.4	47.8	44.3	49.9	261.7	243.9	527.6	435.1	268.3	246.5	114.7	97.7	333.5	311.0	275.2
69	938.8	75.9	77.1	72.5	72.8	74.7	46.9	48.5	47.4	52.2	264.4	249.0	535.9	446.0	271.5	251.6	116.9	97.8	336.6	315.2	282,4
70	940.9	76,1	77.7	72.8	72.9	74.8	46.3	48.2	47.2	51.6	266.1	251.3	544.2	458.3	274.7	256.6	119.1	97.9	340.5	318.6	285.8
72	942.7	76.0	78.3	73.1	72.9	76.9	46.0	47.9	44.1 47 0	49.6	271.7	259.1	548.7	4/1,4	281.1	258.6	121.7	98.2	342.6	323.2	285.9
73	946.3	76.7	79.8	73.6	73.2	75.6	46.5	49.0	47.2	51.9	283.9	267.1	562.6	494.1	287.6	264.5	126.9	90.7	346.5	326.3	292.6
74	947.3	77.0	80.6	74.0	73.3	76.0	45.7	47.7	45.4	51.1	280.1	270.9	568.3	501.8	293.6	266.7	129.6	100.3	356.8	334.1	301.1
75	949.3	77.3	81.4	74.4	73.3	76.5	46.9	48.9	47.5	52.4	286.1	274.8	571.8	510.4	298.5	267.4	132.2	101.5	361.7	338.0	307.1
76	950.7	77.8	82.2	74.8	73.5	77.2	46.6	48.3	49.0	52.4	294.0	276.7	574.1	520.7	304.0	274.6	134.9	102.8	363.1	341.0	308.3
79	921.5	78.3	63.0	75.8	73.7	79.7	47.6	49.3	48.0	52.5	294.4	283.1	576.9	528.7	302.8	282.2	137.3	104.3	367.0	345.1	313.0
79	955.0	78.7	84.6	76.3	74.4	79.5	47.9	49.6	49.9	53.1	301.9	289.8	582.6	541.0	312.6	292.4	141.0	108.0	373.8	349.6	318.2
80	956.8	79.1	85.3	76.8	74.8	80.3	48.6	49.7	50.3	52.6	306.7	297.0	583.8	545.5	316.7	296.4	143.0	110.1	377.8	356.5	325.5
81	959.3	79.4	85.9	77.4	75.3	B1.0	48.4	49.2	49.4	52.4	314.6	299.2	586.8	549.0	321.9	300.4	145.2	112.4	380.8	359.4	328.6
82	961.2	79.6	86.6	77.9	75.9	81.9	47.7	49.0	49.4	52.4	314.9	305.6	590.1	552.9	324.7	305.6	147.5	114.5	383.7	363.1	334.2
83 84	964.3	80.3	87.B	78.9	77.0	82.5	48.7	49.1	46.9	50.3	318.9	309.8	592.4	560.2	330.3	305.1	150.1	116.7	388.1	366.4	337.8
85	965.3	80.7	88.4	79.4	77.5	83.8	48.7	48.4	48.0	52.0	333.5	316.0	595.2	563.8	341.3	313.6	155.5	121.2	394.6	374.5	341.0
86	967.2	81.2	89.1	79.9	78.2	84.5	48.2	48.6	47.7	51.6	340.7	321.0	595.6	565.B	346.1	318.6	158.2	123.2	397.7	378.3	348.3
87	967.7	81.6	89.7	80.4	78.9	85.1	47.1	47.8	46.0	49.9	341.7	326.0	596.6	567.5	353.3	322.1	161.0	125.2	402.2	382.3	352.4
88	970.5	82.0	90.5	80.8	79.6	85.9	49.6	49.5	50.1	52.5	345.5	335.5	597.2	568.5	355.2	327.9	163.8	127,1	405.4	386.6	355.8
90	972.8	83.0	92.3	81.9	81.0	87.5	49.1	49.9	49.1 50.1	52.8	349.8	348.5	600.4	568.0	367.6	330.9	166.3	129.0	410.1	390.8	360.6
91	972.6	83.6	93.3	82.4	81.6	88.4	47.9	47.4	48.5	52.5	359.6	354.2	600.8	568.0	373.4	340.3	171.9	132.8	417.7	398.7	369.3
92	975.8	84.0	94.3	82.9	82.3	89.5	49.2	48.6	49.3	52.3	366.1	359.5	601.8	568.6	380.1	345.5	174.8	134.5	421.8	402.1	374.1
93	975.7	84.6	95.6	83.4	83.0	90.7	50.2	48.9	50.6	53.1	372.0	364.6	602.3	567,8	387.1	351.4	177.6	136.3	426.2	407.0	378.8
94 OF	977.6	85.2	97.1	84.0 94.6	83.7	92.0	49.3	49.1 49.6	51.2	54.0	377.5	372.5	604.1	567.5	395.0	359.7	180.5	138.1	430.4	409.5	384.4
96	979.6	86.4	100.2	85.2	85.1	95.2	49.7	48.9	50.1	52.9	369.0	379.6	601.2	566.0	404.4	369.7	186.8	140.0	434.4	413.1	390.5 395.6
97	981.0	87.0	101.5	85.8	85.9	96.8	48.8	49.3	49.3	53.8	393.4	387.8	597.8	566.1	408.6	376.9	190.2	144.3	444.1	422.3	401.3
98	982.1	87.6	102.6	66.5	86.9	98.5	50.3	51.3	50.1	52.8	399.2	394.6	597.4	564.0	417.4	382.3	193.5	146.8	448.3	426.1	406.7
99	984.5	88.3	103.3	67.5	88.0	100.3	50.2	51.2	49.9	54.4	403.3	400.4	596.9	564.8	422.6	386.6	196.9	149.3	453.9	430.5	412.9
100	095.0	80.8	103.7	88.3 99.3	89.1 90.3	101.8	49.8	51.3	49.2	53.0	415.2	405.5	595.2	561.2	428.3	393.8	200.4	152.3	459.2	433.8	417.6
102	989.6	89.9	103.9	90.5	91.8	102.0	48.5	53.1	47.6	52.4	430.0	420.3	596.9	560.1	438.6	403.6	205.8	155.2	404.4	437.7	424.7
103	988.8	90.5	104.0	91.9	93.4	103.7	49.6	55.6	49.3	54.3	439.4	427.6	594.8	561.4	449.7	414.0	207.9	160.6	478.2	449.7	437.7
104	990.0	91.4	104.2	93.5	95.1	103.9	49.6	56.4	49.3	57.5	445,4	433.2	597.6	564.2	454.6	420.1	210.7	163.B	483.4	456.5	443.5
105	992.2	92.3	104.5	95.1	96.9	103.9	49.2	56.3	48.1	58.5	453.8	438.4	594.4	563.6	458.6	426.8	213.5	165.8	487.1	462.9	448.1
105	094.0	93.3	105.0	90.8	100.6	104.1	<u>50.0</u> ∡9.7	57.5	40.7 4B 1	39.5 60.7	403.0	442.5	589.3	565.7	467.6	433.5	216.9	167.9	492.8	465.1	454.5
108	993.9	95.4	105.8	99.2	102.0	104.5	49.5	59.4	49.9	64.8	480.3	458.4	590.7	565.6	476.2	445.6	223.2	175.1	501.4	400.0	460.2
109	995.1	96.5	108.2	99.9	102.9	104.7	52.0	59.6	49.6	65.2	486.3	466.0	592.6	567.3	482.9	451.5	227.4	179.3	505.4	479.4	470.5
110	996.0	97.4	108.5	100.3	103.4	104.9	50.3	59.4	48.9	63.4	494,5	472.5	593.4	570.8	485.5	456.7	231.7	184.1	509.6	487.4	475.0
111	998.7	98.3	106.7	100.7	103.7	105.3	50.8	59.2	48.6	64.4	499,9	477.6	596.1	575.3	489.6	462.0	236.5	188.8	513.9	492.7	479.7
112	998.8	99.4	107.0	100.9	103.9	105.5	50.9	81.3 A1.4	51.4	68.3	508.2	487.0	604.3	586.1	497.5	470.0	246.6	108 5	502.2	501 A	490.0
114	999.9	102.0	107.6	101.2	104.3	106.2	52.7	61.1	51.6	69.3	512.8	492.0	608.3	590.7	502.0	475.9	252.1	200.3	526.0	505.1	494.3
115	1001.0	103.2	107.9	101.5	104.5	106.6	52.3	63.0	52.3	68.7	516.8	495.B	610.9	595.1	504.3	482.3	257.7	203.9	530.2	509.1	499.0

Table 7.1.2. Temperatures Measured in Assembly S-36, Wood Stud, 2x2 Gypsum Layers, No Resilient Channels

Time	T(Fav)								Te	mperatu	re at The	rmocou	ple Numi	ber					· · · · · · · · · · · · · · · · · · ·		
(nin)	(°C)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
116	1001.8	104.3	108,2	101.8	104.7	106.9	51.2	59.9	49.3	65.2	519.7	499.8	615.3	599.1	510.0	488.0	264.0	208.8	534.0	512.2	502.6
117	1001.7	105.2	108.5	102.1	104.9	107.2	53.7	62.5	51.1	66.3	525.9	503.4	619.5	597.7	513.6	492.2	270.5	213.6	538.7	516.1	508.1
118	1003.7	106.2	108.9	102.4	105.1	107.4	51.9	62.4	51.5	67.7	531.2	506.4	623.6	596.1	516.9	495.2	277.8	219.6	542.2	519.8	511.7
119	1003.7	107.4	109.2	102.8	105.3	107.7	53.6	62.7	52.5	68.2	533.6	510.9	627.9	593.6	522.5	499.3	285.3	225.9	546.8	523.8	517.1
120	1004.8	108.4	109.6	103.1	105.6	108.1	53.5	61.0	51.5	67.9	540.4	514.4	630.5	590.6	527.2	502.6	293.1	232.3	550.5	528.0	519.4
121	1007.6	108.9	110.0	103.3	105.9	108.4	53.2	61.0	51.8	66.5	544.4	519.1	634.2	591.5	533.7	507.1	301.4	238.7	555.7	532.4	525.3
122	1006.7	109.6	110.4	103.6	106.2	108.9	52.6	59.8	52.0	66.0	550.1	524.5	640.3	593.0	541.0	513.0	310.2	244.8	560.4	536.9	532.2
123	1006.8	110.3	110.8	103.8	106.5	109.2	52.9	61.0	51.8	65.6	551.7	528.6	647.0	596.1	550.6	520,0	319.6	250.9	565.3	540.8	537.5
124	1008.3	111.1	111.2	104.0	106.8	109.6	53.3	60.8	51.7	65.7	560.8	532.1	655.6	599.3	556.7	526.8	329.1	257.5	570.5	545.7	542.8
125	1008.3	112.2	111.6	104.2	107.0	110.0	54.8	61.4	52.9	67.4	567.0	537.6	665.9	604.0	565.7	533.6	339.5	263.6	576.0	550.3	548.9
126	1009,4	113.2	112.3	104.6	107.4	110.5	55.3	62.7	54.2	69.1	573.4	544.4	673.2	608.1	573.1	540.7	349.5	270.3	581.3	556.1	554,4
127	1009.4	114.3	113.1	105.1	107.8	111.2	59.4	65.8	57.1	71.5	580.6	549.7	684.0	612.8	580.8	547.5	359.7	277.9	586.9	562.4	560.8
128	1010.3	115.2	114.1	105.6	108.3	111.9	59.3	65.7	55.9	72.0	587.1	555.9	691.6	616.2	588.9	555.4	369.8	285.6	591.7	568.0	566.7
129	1010.4	116.3	115.3	106.1	108.7	112.7	58.0	64.0	56.2	70.8	592.7	561.8	699.7	621.5	596.3	563.0	379.1	293.6	596.0	573.3	572.7
130	1011.3	117.5	116.7	106.6	109.2	113.5	59.2	65.1	57.5	69.8	598.5	568.7	704.1	626.1	605.2	570.7	387.1	302.2	600.5	579.0	578.5
131	1012.9	118.4	118.5	107.2	109.7	114.5	58.4	66.6	60.7	71.7	603.8	574.1	707.9	627.9	614.6	578.8	397.2	312.1	605.4	584.5	583.5
132	1013.6	119.2	120.9	107.8	110.1	115.5	58.8	66.2	57.6	69.3	609.7	580.1	711.7	629.5	623.7	586.6	408.6	323.3	609.6	589.9	588.7
133	1013.2	121.7	124.7	108.6	110.7	117.0	62.2	68.5	61.8	73.7	616.0	586.3	714.0	627.5	633.7	594.6	420.5	335.0	614.2	594.9	594.1
134	1014.0	124.4	129.9	109.2	111.3	119.1	60.8	67.7	60.2	72.9	622.4	592.1	716.0	626.0	645.8	602.9	434.6	346.3	617.9	600.2	599.0
135	1016.0	127.1	133.4	109.9	111.9	122.1	61.2	70.1	61.1	73.5	628.0	598.9	722.4	627.2	659.2	612.0	446.2	357.4	622.3	605.7	604.5
135	1016.3	130.6	137.5	110.5	112.5	126.7	64.3	71.2	63.7	76.9	634.3	606.5	734.0	630.6	678.7	622.3	457.4	368.7	627.5	611.6	610.8
137	1016.4	133.9	147.3	111.3	113.2	130.6	64.2	74.0	62.9	74.3	643.1	613.7	749.8	635.2	702.5	634.2	468.2	383.8	633.0	618.3	617.7
138	1017.0	136.9	155.0	112.2	114.0	133.6	65.1	78.3	64.8	75.3	652.7	620.8	768.7	640.3	723.4	646.7	478.4	395.8	639.0	625.8	625.2
139	1018.6	139.5	160.3	113.3	114.8	141.4	64.6	79.5	64.7	75.6	664.4	629.6	790.6	648.3	747.8	659.1	489.7	405.7	646.3	633.3	633.7
140	1018.4	142.2	168.8	114.5	115.9	150.0	67.6	82.5	67.3	78.1	678.1	638.6	813.8	656.4	775.0	672.1	501.8	415.9	629.9	641.5	643.7
141	1019.3	144.8	188.9	116.2	117.2	155.9	66.7	82.1	64.5	78.5	692.6	648.7	832.0	665.6	786.3	686.6	514.6	425.3	639.2	650.7	653.9
142	1019.5	147.5	207.3	118.6	119.2	160.3	64.6	84.4	64.6	78.5	707.3	657.6	834.7	674.4	793.3	699.1	528.5	434.4	648.1	659.1	663.4
143	1020.3	151.3	225.0	122.1	122.0	167.8	64.6	84.7	63.0	74.8	723.7	665.8	840.4	684.8	793.8	711.5	544.3	444.1	657.B	667.2	674.0
144	1020.6	155.0	243.5	126.5	126.3	184.6	62.6	84.9	61.5	73.2	740.3	675.1	842.3	695.5	794.8	724.0	563.2	456.6	668.9	676.3	686.2
45	1022.2	158.4	263.8	130.4	130.2	199.1	59.8	85.1	59.6	69.5	756.1	685.2	857.6	705.3	798.1	737.5	606.0	471.3	682.7	687.6	701.6

Table 7.1.3. Temperatures Measured in Assembly S-36, Wood Stud, 2x2 Gypsum Layers, No Resilient Channels

Time	T(Fav)							Temp	erature a	t Thermo	couple l	Number						
(min)	(°C)	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
D	54.3	26.5	31.0	29.1	27.8	26.3	***	***	25.3	24.7	***	***	24.4	24.1	A#4	***	25.3	247
1	107.9	26.6	31.2	29.2	28.0	26.4	***	***	25.3	24.7	***	•••	24.4	24.1	***		25.3	24.7
2	224.8	26.7	31.5	29.4	28.1	26.6	4 * 4	***	25.4	24.8	***	***	24.4	24.1	***	***	25.4	24.8
3	326.7	26.8	32.1	29.8	28.3	26.7	***	***	25.5	24.8	***	***	24.5	24.1	***	***	25.5	24.8
4	424.7	27.2	35.0	31.4	29.2	27.0		***	25.6	24.9	***		24.5	24.2	***	***	25.5	24.9
6	532.5	28.0	41.1	35.2	31.3	27.8		***	25.7	24.9	***	<u> </u>	24.6	24.2	***	•••	25.7	25.0
6	568.5	30.3	48.7	40.9	35.5	29.6			25.9	25.1			24.6	24.3	***		25.9	25.1
6	600.5	34.5	20.8	40.9	40.9	32.4	***		20.3	25.2	***		24.7	24.3			26.3	25.3
0	865.1	49.7	65.9	57.0	40.0 60.1	30.7	***	***	28.6	20.0	***	***	24.9	24.4	***	***	27.0	25.7
411	698.7	47.0	68.6	60.7	53.4	42.6	***	***	30.4	20.1	***		25.2	24.3		***	28.0	20.2
	711.3	50.0	70.7	63.3	56.3	45.3		***	32.4	27.8	***		26.3	25.0	<u> </u>	***	30.0	28.0
12	721.7	52.1	72.2	65.2	5B.3	47.8	***	***	34.5	28.9	***		27.1	25.4	***	***	32.6	29.0
13	732.1	54.6	73.2	66.5	60.2	49.8	***	***	36.5	30.1	***		28.0	25.9	***	***	34.3	30.2
14	743.3	56.3	74.3	67.5	61.6	51.6	***	***	38.4	31.3	***	•••	29.0	26.5	***	•••	36.1	31.5
15	753.8	57.9	75.5	68.5	63.0	53.2	***	***	40.4	32.7	***	***	30.0	27.1	444	***	37.6	32.7
16	762.0	59.4	77.3	70.0	64.7	54.8	***	***	42.2	34.1	***	***	31.2	27,8	***	***	39.5	34.0
17	767.5	61.4	80.6	72.3	66.9	56.6	A**	***	43.9	35.5	494	A**	32.3	28.5	***	***	41.2	35.3
-18	776.0	63.9	82.6	75.1	69.1	59.1			45.7	36.9	***	***	33.5	29,4	•••	***	43.0	36.6
39	782.4	66.6	86.3	76.5	71.4	61.3			47.7	38.4			34.8	30.3			44.9	38.0
20	707.0	70.7	91.2	19.2	78.2	65.0	4**	***	50.0	40.0	414	47.8	35.2	31.3			47.0	39.6
52	700.6	72.8	90.9	88.5	78.6	67.9	***	942	54.5	41.0	***	***	37.0	33.6		***	49.0	41.2
23	805.3	75.0	103.2	92.4	80.8	70.0	***	***	56.5	45.6	***	***	40.9	34.6	***	***	52.0	42.9
24	810.3	76.9	105.8	95.7	82.8	72.0	***	***	58.5	47.7		***	42.6	36.1	***	***	54.9	46.7
25	816.3	79.0	107.8	98.4	84.4	73.9	***	***	60.4	49.8	***	***	44.2	37.6	4+4	598	56.8	48.7
26	820.8	81.4	109.4	100.8	85.9	75.7	***	***	62.2	52.0	***	***	46.0	39.2	4*4	***	58.7	50.B
27	827.0	83.5	110.7	102.7	87.2	77.5	***	***	64.1	54.3	*=*	***	47.7	40.9	***	***	60.5	52.9
28	828.9	85.1	111.7	104.3	88.4	79.0	***	***	65.8	56.4	***	***	49.5	42.8	***	***	62.3	55.0
29	832,9	86.5	112.8	105.7	89.5	80.5	44#		67.5	58.5	•••	***	51.2	44.7	***	***	64.0	57.1
30	837.6	87.9	113.8	105.9	90.3	81.6	747	989	59.1	60.7	***	***	52.9	46.6	***		65.6	59.1
90	945.0	00.0	114.0	107.9	91.0	93.7	***	***	70.5	64.0	8+8	4+4	56.0	48,4	***	***	67.0	61.0
33	850 1	90.7	116.7	110.1	93.0	84.6	***	***	72.9	65.8	898		57.8	52.5	***	***	69.6	64.4
34	852.5	91.4	118.2	111.3	93.8	85.3	***	***	74.0	67.3	***		59.4	54.4	***	***	70.7	65.9
35	856.8	92.2	120.3	112.5	94.7	86.2	***	***	74.9	68.6	4.7.0	***	60.7	56.2	***	***	71.7	67.3
36	859.2	92.8	124.6	114.5	96.0	86.9	***	***	75.7	69.8	***	***	62.1	57.9	***	***	72.7	68.6
37	863.4	93.5	132.2	118.0	98.4	87.8	***	***	76.5	70.9	***	***	63.3	59.4	***	***	73.5	69.8
38	856.9	94.5	145.1	124.1	102.8	88.9	***	***	77.1	71.9	***	***	64.4	60.9	***	***	74.3	70.9
39	869.7	95.8	156.8	132.8	107.1	90,4	***	***	77.6	72.7	***		65.4	62.3	***	***	75.1	71.9
40	872.9	98.4	178.1	143.7	113.0	92.3		4++	78.1	73.5			66.2	63.4	***	***	75.7	72.8
41	8/0.3	101.3	196.6	159.2	119.3	80.1	***	***	78.6	74.2	- 4 K	***	67.0	64.5			76.6	73.8
46	0/0.3	104.0	202.0	198.7	127.0	102.7	***	***	70.0	76.6	***	**1	07.0	0.00	***	*A#	79.0	75.0
40	001,1	115.9	223.2 094 A	107.2	144.3	107.8	***	***	78.9 RA 9	78.3	***		68.7	67.2	***	***	79.0 P0.2	78.0
45	896.5	122.0	244.6	206.6	153.4	113.9	1++	***	B1.9	77.1	***	***	69.2	67.9	***	***	81.4	78.0
46	890.1	129.8	254.7	215.2	162.2	120.9	***	***	82.9	78.1	4+4	***	69.8	68.5	***	***	82.5	79.2
47	892.3	138.6	264.0	223.6	169.3	128.7	***	***	83.6	79.2	449	***	70.3	69.1	181	***	83.4	80.1
48	895.1	148.4	270.9	231.5	175.5	136.7	184	***	84.1	80.2	484	***	71.1	69.8	889	283	84.3	81.0
49	897.9	157.7	277.4	238.7	179.5	143.9	***	***	84.6	81.1	*19	***	72.0	70.4	***	***	85.5	81.8
50	898.9	165.0	283.3	245.8	183.9	150.2	***	***	85.9	8 1.7	***	***	72.9	71.2	***	***	86.8	82.5
.51	902.2	171.1	288.1	252,0	189.6	155.7	*=*	***	87.4	82.2	***	***	73.9	72.0	***	***	87.9	83.1
52	904.6	177.0	293.8	257.4	197.2	159.3	***	***	88.6	82.9	***	***	75.0	72,9	***	***	88.8	84.1
53	906.8	181.9	299.0	262.3	203.1	162.6	***	***	89.7	84.1			76.2	73.9	***		89.7	85.5
54	907.9	165.9	304.4	267.1	210.3	165.6		***	90.8	85,4	***	***	70.1	/5.1	***		90.4	87.2
00	911.0	190.0	300./	2/1.5	213.2	173.5	***	***	91./ 02.5	97.9	***	AA.*	18.1	77.0	1++	4++	30.9 01.4	80.6
50	015 A	200.3	319.6	270.0	220.0	178.5	4++	***	93.2	88.5	***	***	82.1	78.9	44.8		Q1.4	90.3

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Table 7.1.4. Temperatures Measured in Assembly S-36, Wood Stud, 2x2 Gypsum Layers, No Resilient Channels

Time	T(Fav)							Tempe	erature a	t Thermo	ocouple l	Number				·		
(min)	PCI	21	92	23	94	95	26	27	28	29	30	31	32	33	34	35	26	37
58	017.3	206.0	324.2	283.8	229.4	183.4	 ***		93.6	89.2	***	T +++	83.4	80.1	T	***	022	
59	920.3	211.2	328.2	287.7	233.6	188.5	***	•••	94.0	89.8	***	***	84.5	81.4	***	***	92.5	91.4
60	921.3	216.7	332.0	291.7	238.9	193.8	***	***	94.4	90.3	***		85.3	82.6	***	***	92.8	91.9
61	923.8	221.3	335.8	296.1	243.2	198.0	44.6	***	94.7	90.7	***	***	85.9	84.1	***	***	93.1	92.3
62	925.5	225.8	339.9	300.1	248.0	203.2	***		95.4	91.0	***	1++	86.5	85.3	+++	***	93.5	92.6
63	928.5	231.0	343.2	303.5	252.8	207.8	***	***	95.8	91.2	***	+++	86.9	86.0	***	***	94.0	92.8
64	929 1	235.4	346.7	307.7	258.7	211.3	***	***	96.4	91.4	***	A**	87.3	86.4	***	***	94.5	93.2
65	932.3	240.1	350.5	311.8	261.8	215.4			96.9	91.6	***		87.7	86.9	1 ***	***	95.6	93.6
66	933.3	244.4	354.2	315.5	267.3	219.2	***	***	97.4	91.8	***		68.0	87.1		***	96.9	94.1
67	936.1	248.6	357.3	318.7	271.7	224.1	***	***	98.0	92.0	***	***	88.4	87.3	•••	***	97.9	94.6
68	937.6	253.6	360.6	322.5	275.3	228.7	***	***	98.6	92.3	***	***	88.8	87.4	***	***	99.0	95.2
69	938.8	256.0	364.3	325.9	279.4	233.1	***	***	99.4	92.8	***	***	89.2	87.7	***	***	100.0	96.0
70	940.9	262.1	367.3	329.2	285.6	237.2	***	***	100.9	93.3	***	***	89.6	88.0	***	***	101.3	96.9
	942.7	265.9	369.9	332.4	291.6	242.8	***	444	102.1	93.7	***	***	90.0	68.4	***	***	102.5	97.7
72	943.6	269.8	373.7	335.4	294.9	247.4	***	***	103.0	94.0	***	***	90.3	68.9	***	***	103.6	98.6
73	946.3	272.6	377.2	338.4	301.4	250.8	***	***	104.0	94.5	***		90.7	89.2	***	***	104.7	99.4
74	947.3	279.2	378.1	342.3	302.4	255.0	***	***	104.9	95.2	***		91.0	89.7	***	***	105.8	100.3
75	949.3	281.9	383.7	345.9	314.0	260.8	***	***	105.8	96.5	***	***	91.3	90.3	***	***	106.8	101.2
76	950.7	285.1	386.5	348.4	315.4	263.0	***	***	106.6	97.2	***	***	91.6	90.5	***	***	107.7	102.1
77	951.8	288.5	389.4	351.8	313.2	267.3	***	***	107.5	98.0	***	***	92.0	90.8	•••	***	108.7	103.0
78	954.5	295.1	392.8	355.0	318.5	271.4	444	***	108.4	98.8	***	***	92.6	91.3	***	***	109.6	103.9
79	955.0	296.7	395.5	357.9	320.6	275.4	***	***	109.2	99.7	***	***	93.2	91.6	•••	***	110.5	104.7
80	956.8	300.7	398.9	361.1	324.8	279.6	***	***	110.0	100.5	***	***	94.0	91.9	•••	***	111.5	105.5
81	959.3	304.8	402.2	364.5	328.9	282.5	***	***	110.8	101.2	***	***	94.9	92.4	***	***	112.6	106.3
82	961.2	308.3	405.2	367.5	333.8	286.6	***	***	111.6	102.0	***	***	95.7	92.8		***	113.9	107.2
63	961.7	312.5	409.7	373.7	337.6	291.4	4++	***	112.6	102.8	***	•**	96.3	93.3		***	115.3	107.9
84	964.3	318.3	412.8	375.6	343.3	295.0	44.5	***	113.7	103.6	***	***	96.9	93.8		***	117.0	108.7
85	965.3	321.5	416.9	379.0	348.1	298.7	***	***	115.1	104.3	***	***	97.7	94.5	***	•••	119.1	109.5
86	967.2	325.3	420.6	382.3	351.8	303.4	4++	***	116.8	105.1	***	· · · ·	98.5	95.4	•••	***	121.8	110.3
87	967.7	328.4	424.5	385.2	356.0	307.1	***	***	119.1	105.9	494	•••	99.1	96.1	•••	***	125.0	1111.1
88	970.5	332.7	428.5	388.8	362.1	312.0	***	***	121.8	106.7	***	***	99.6	97.2	***	***	128.1	112.0
89	971.1	338.4	432.6	393.2	367.0	315.9	***	***	124.1	107.6	***	***	100.1	98.1			130.1	112.9
90	972.8	343.5	436.7	397.3	371.8	320.5	***	***	125.5	108.6	49#		100.5	99.1		***	132.4	114.0
91	972.6	347.5	440.6	400.2	378.8	324.1	***	***	128.0	109.8			101.0	100.0		***	137.7	115.5
92	975.8	349.6	444.7	403.2	383.7	328.2			134.0	111.2			101.3	100.9		***	144.9	117.0
93	975.7	354.1	448.7	406.8	389.1	333.1	***		141.0	112.9			101.6	102.1	***		149.9	118.9
94	977.6	360.4	452.7	410.3	394.6	337.9	***		146.3	115.2		***	101.8	102.8			153.8	121.3
95	978.4	362.9	456.6	414.5	400.1	344.6		***	150.2	117.9	***	***	102.0	103.2	144		156.9	124.3
96	979.6	366.0	460.8	416.8	407.1	350.1	***		103.2	120.3		***	102.2	103.7	***		159.0	12/./
97	981.0	372.0	464.7	422.3	412.3	355.8		***	155.5	122.5	121	***	102.5	103.9	***		104.0	100.0
98	982.1	375.0	468.5	425.4	41/.4	360.4	***		167.2	120.0	44.0	***	102.8	104.2	+++	***	165.7	102.4
99	984.5	379.8	4/2.8	429.6	424.4	300.4	***		1717	100.2	***	***	102.0	104.4	***	***	100.0	141.0
100	965.8	384.4	4/6.7	433.5	429.5	372.0	***	+1+	175.4	130.0	141	***	102.4	104.6	***	***	160.0	147.2
101	965.9	369.2	401.1	438.3	435.0	3//.0	***	***	170.4	141.5	***	***	102.0	104.8		***	174.0	161.0
102	989.6	393.1	460.3	443.1	439.2	302.3	***	***	189.0	141.0		***	102.0	104.0	***	***	170.0	101.0
103	966.6	400.5	409.3	44/.0	444.0	904.1	***	***	180 1	147.9			102.0	104.0	***		146.1	150.7
104	000.0	400.7	492.1	402.0	440.9	300.1	4++	***	100.1	163.0		4**	103.3	107.2	***		100.1	163.0
105	992.2	415.2	490.4	400.0	403.0	408.1	***	*4*	109.7	168.6	44.4		103.0	107.2	***	***	108.0	171.4
106	992.4	410./	499.1	401.2	408.0	400.2	1**	***	202.0	161.6	***	494	104.0	107.0	***	***	204.0	176 1
107	1944.U	421.9	505.0	400.3	404.4	414,4 A10 E	199	***	203.0	162.6	*11	***	105.5	107.0		***	204.0	170.0
108	993.9	426.6	500.5	4/1.0	400.7	410.0	***	***	220 5	165.0		***	108.0	109.0			210.2	182.0
109	995.1	435.5	508.7	4/4.9	409.0	423.5	***	*1*	220.3	169.9		***	108.0	100.9	***	***	2176	186.0
110	996.0	443.5	512.1	4/9.6	4/3.4	429.1	***	+1+	220.4	170.0		***	107.9	111 4	A.8.8	***	2004	188.0
117	998.7	447.1	515.3	484.1	4/0.2	400.0	Att	***	£04.8	***		***	108.1	119.0		27.0	229.1	192.4
112 🔅	998.8	460.4	E01 E	400.1	495 9	145 0	***	***	245 2	101 4	***	***	109.0	114.4		***	232.6	196.4
113	999.1	400.6	504.7	493.1	400.0	451.0	ù##	*4*	240.8	198.0	***	***	109.8	115.0	***		239.7	202.3
- 001 14 -0081 - 00414≢	10010	402.0	520.0	497.4	409.7	458.0	17.0	+47	254.6	192.6		***	110.6	116.9		***	243.5	207.0
••••••••••••••••••••••••••••••••••••		407.0	1 JEO.E	002.1		- TUULE			LU T.U									

Table 7.1.5.	Temperatures Measured in Assembly	S-36, Wood Stud, 2x2 Gypsum	Layers, No Resilient Channels

1.885	492.0	***		526.8	319.8			£.285	405.1	***	***	744.0	7.687	763.2	5'98L	£ 299	1055 5	971
7.778	8'9/7	***	***	248.2	30S.5	444	***	7°296	395.1			726.5	7.087	7.087	7.187	656.2	1020.6	\$\$P\$
6.786	6.034	***	***	539.3	£.78S	***		348,8	9.685			6.117	9.187	1.647	19/182	0'249	1020.3	671
7.686	444.0	***	***	230.7	273.2	***	2.74	7.0 2 6	6.976	8.8.4	***	8'269	9.087	5'6EL	782.3	0.868	9'6101	242
1.786	427.5	***		8.652	7.062	***		333.0	9.476	***	***	8.688	6'SZZ	3.0£7	8,687	7,923	C 6101	171
348'S	9.414		***	219.2	520°3	***		324.2	370.2		484	9'0/9	Þ. 63.4	724.7	2'9 <u>77</u>	620.6	1.8101	071
3.965	£.404			215.8	545.0	***		316.2	6'998			656.2	9.446	712.2	11122	2.018	8.8r0r	6ê i
359.0	7 .395.4	444	***	1.512	532'0	***	***	308.7	362.2	484	***	642.5	720.2	2.7eð	7.98T	601.2	07101	138
320.3	1,785	***	494	7.802	1.755	***	***	9.10C	1.885	414		6.858	0'269	9,199	746.0	6.268	1016.4	201
312.4	7°676	***	444	504.3	7.812	***	***	595.2	353.5	484	***	615.2	0'229	£'299	7.81T	0.885	E.8101	961
3,605	372.3	***	***	2'961	0.115		***	289.4	3.846	***	***	604.6	9.658	654.1	0'289	£ 229	0.8101	132
564'4	0.885	***	***	† 781	203.6	***	***	8.682	344.2	***	447	£.462	6'779	8.148	6.178	9.078	0.4101	134
586.4	9'29£	***		8.871	1,761	***		578.4	7.956	***	***	6.283	1.568	1.068	4 .03 3	P693.4	1013.2	É E I
1.975	6.645		***	172.0	9.161	***	***	523.1	936.4	441	***	0.878	50 <u>.</u> 7	1 219	6'61'9	9.966	9.Eror	7CI.
\$15°6	345'4	*=>	+++	9.631	6.281	***	***	6"292	330.9	***	***	<u>9'699</u>	6 609	S 01 0	9.659	2.088	1015.9	134
266.4	7.46E	***	***	8.621	9.871	***	841	2.62.7	356.0	*1 *		5,138	600.2	\$.603.4	6'0£9	9.44.5	C.1101	130
260.2	326.6	***		1.481	173.4	***		9.785	321.0	848		P5254	E.168	1.965	622.3	9.768	10104	. 158
524'4	5.815			9 87 1	8.781	***	***	262.7	9.315.8	644	***	544.0	582.3	8.888	\$'\$I9	1,168	E.0101	821
548'3	310.4		***	144 5	9.031	***	868	2.74S	310.6			5.858	L 678	0,282,0	9.909	624.3	4.0001	221
243.7	1008/3 218/6 288/0 22/4'3 266/1 22/1 302/2 248/1 144'4 136/5 503/0 238/1 538/2															156		
238.5	1008/3 512/4 591,0 565,6 556,6 518,7 *** *** 300,6 238,1 *** *** 144,4 136,2 *** *** 202,9 238,5															E 8001	152	
533.9	589.0	***		135.6	9.761	***	444	533.6	7.862	444	444	5.018	1.742	9.928	5.682	5.708	E 8001	154
229.7	582.5	***		130.2	130.5	***	384	529.4	0.192	434	414	\$,102	6.768	6'27S	0.878	5 CO3 S	8.9001	153
225°.5	576,9	+++		128.0	154'8	¥#.F	***	525.2	586.3	444	***	465'2	258'4	C 752 3	8.432	7 867	2.8001	155
521.6	8.175	*1*	***	1.921	150.5		***	521'1	8.1.85	544	***	484.7	9.812	8,728	1,428	465'6	9.7001	121
512.9	0.782	***	***	154 9	9'211		***	516,9	277.2	++4	***	9'847	212.5	520.7	8.245	£'06‡	8.4001	150
2.4.7	262.3	***	444	153.2	112'6	848	***	213.0	572.6	***	***	9'7/7	\$08°4	9219	S.142	£.285	1.6001	611
211.3	557.4	***	•••	9,121	0.411	***		508.0	268.3	***	***	470.2	£04.4	1 719	0.852	† 087	7.E001	8(1
207.3	252,7	***	***	8.611	8.211		464	503.8	263.7	***	***	465.4	6.003	0.013	234'4	1.927	7.1001	<u></u>
S04.3	248.1	•••	***	8.BFT	2.111	***	**>	E.861	5263	***	***	460.7	4.764	506.2	\$31°¢	9127	8.100L	911
28	90	9C	9 ¢	68	35	31	90	58	82	13	58	52	74	62	52	េខ	(O*)	(պա)
						Jadmuber	v əlquop	: Thermo	is eruter:	ədməT							(vaT)T	emiT

Table 7.1.6. Temperatures Measured in Assembly S-36, Wood Stud, 2x2 Gypsum Layers, No Resilient Channels

Table 7.2.1. Average Temperatures Measured in Assembly S-36, Wood Stud, 2x2 Gypsum Layers, No Resilient Channels

Time	T(Fav)	BL/FL (Exp.)	BL/WStd. (Exp.)	BL/Cav. (Exp.)	Mid. WStd.	BL/Cav. (UnExp.)	BL/WStd. (UnExp.)	BL/FL (UnExp.)	UnExo.
lmin)	601	AU/26 27 30 31 34 35)	Au(12 13)	Au(18 19 22 29)	AV(10 11 14 15)	Av(20 21 24 25)	Av/16 17)	AU/28 29 32 33 36 371	AV(1 2 3 4 5)
1004 <i>1</i> 3		***	25.1	29.5	26.8	27 0	24.9	24.7	24.2
200001-00000	107.9		31.3	29.7	26.9	27.2	24.9	24.8	24.3
2	224.8		31.9	29.9	27.0	27.3	25.0	24.8	24.3
3	326.7	\$44	33.4	30.4	27.1	27.5	25.0	24.9	24,4
	424.7	***	37.9	32.3	27.5	28.0	25.1	24.9	24.4
5	532.5	***	49.8	36.5	28.8	29.4	25.1	25.0	24.5
6	568.5	424	62.5	43.0	32.3	32.7	25.3	25.1	24.5
1	600.5	***	71.3	50.2	37.4	37.6	25.6	25.3	24.6
8	630.4	***	77.4	56.3	42.3	42.5	26.1	25.8	24.6
9	665.1	***	81.8	60.9	46.5	46.5	26.7	26.5	24.7
10	698.7		85.0	64.2 66 E	49,8	49.8	27.5	27.4	24.9
2000- 1 9-000-0	711.3	***	67.4	60.0	52.5	54.7	28.4	28.4	20.1
12	721./	584	00.6	60.2	56.6	56.0	20.4	29.0	23,4
	743 3	***	92.1	70.7	58.2	58.4	31.7	32.1	26.3
CODECTA SOCIA	753.8	***	93.7	71.8	59.6	59.9	33.0	33.5	26.9
16	762.0	***	95.4	73.4	61.2	61.5	34.3	34.8	27.6
17	767.5	***	97.2	75.9	63.3	63.4	35.8	36.1	28.3
18	776.0	***	99.4	78.5	66.0	65.9	37.3	37.5	29,1
19	782.4	***	101.9	80.9	68.5	68.3	38.9	39.0	30.0
20	789.8	45÷	104.0	84.2	70.6	70.6	40.6	40.7	30.9
21	794.7	***	105.7	<u>88.2</u>	72.4	72.8	42.3	42.4	31.9
22	799.6	***	107.7	92.3	74.2	74.9	44.1	44.1	33.0
23	805.3	127	110.0	95.9	76,1	77.1	46.1	45.9	34.2
24	810.3		112.3	99.1	70.7	79.1	46.0	47.7	35.4
25	816.3	101	114.0	101.6	19.7	81.U 92.0	50.1	49.0	30.8
20 07	907.0		119.2	105.6	82.9	84.6	54.4	53.4	39.7
2/ 00	809 0	***	121.3	107.1	84.3	86.0	56.6	55.3	41.2
29	832.9	***	123.4	108.3	85.3	87.2	58.7	57.2	42.9
30	837.6	484	125.5	109.4	86.3	88.3	60.8	59.0	44.5
31	841.7	444	127.7	110.3	87.0	89.3	62.7	60.7	46.2
32	845.9	494	130.3	111.2	87.8	90.3	64.7	62.3	47.9
33	850,1	***	133.1	112.3	88.3	91.0	66.5	63.8	49.6
34	852.5	***	136.6	113.4	89.0	91,7	68.2	65.3	51.3
35	856.8	***	140.9	114.8	89.6	92.6	69.7	66.6	52.9
36	859.2	***	146.3	117.1	90.4	93.5	71.2	67.8	54.4
37	863.4		152.5	121.2	91,2	94.7	72.4	68.9	55.8
38	866.9	***	160.3	127.9	92.4	90.0 90.4	74.5	09.9 70 P	 59.2
100 NO	009./ 970.0	+10	189.1	130.0	98.5	103.6	74.0	71.6	59.4
40	976 3	44¢	195.1	163.5	101.6	107.3	76.0	72.5	60.4
87	878.5	***	208.6	177.1	107.6	112.5	76.6	73.3	61.2
42	881 7	***	221.9	190.8	114.3	119.1	77.2	74,2	61.9
44	883.5	***	234.6	202.0	121.8	126.1	77.7	75.0	62.6
45	886.5	440	246.7	212.1	128.9	133.6	78.1	75.9	63.5
48	890.1	***	258.6	222.1	135.9	141.7	78.6	76.8	64.3
47	892.3	***	270.4	231.3	143.2	149.7	79.1	77.6	65.1
48	895.1	***	282.4	239.1	151.4	157.8	79.8	78.4	65.8
49	897,9	<u> </u>	294.0	246.7	158.0	164.6	80.6	79.2	66.5
50	898.9	***	305.8	254.0	164.7	170.6	81.7	80.2	67.2
51	902.2	222	316.8	260.0	170.8	1/0,0	82.9	<u> </u>	67.8
52	904.6		328.1	265.7	1/0.4	191.0	96.4	02.V	00.4 60.0
53	906.8		336.3	2/1.0	100.0	191.9	87.9	B4 A	0.80 A DA
54	907.9	***	340.0	210.3	194.0	195.0	88.8	85.6	70.2
50	012.0	***	370.2	285.4	199.9	201.2	90.1	B6.6	70.7
50	915.8	***	382.2	290.4	205.4	206.7	91.3	87.5	71,3

Legend: BL - Base Laver, FL -	Face Laver. Cav	Cavity, WStd.	- Wood Stud, Av -	Average, Exp.	- Exposed Side, U	nExp Unexposed Side
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Table 7.2.2. Average Temperatures Measured in Assembly S-36, Wood Stud, 2x2 Gypsum Layers, No Resilient Channels

Time	T(Fav)	BL/FL (Exp.)	BL/WSId. (Exp.)	BL/Cav. (Exp.)	Mid. WStd.	BL/Cav. (UnExp.)	BL/WStd. (UnExp.)	BL/FL (UnExp.)	UnExp.
(ന്നി)	(°C)	Av(26,27,30,31,34,35)	Av(12,13)	Av(18,19,22,23)	Av(10,11,14,15)	Av(20.21.24.25)	Av(16,17)	Av(28 29 32 33 36 37)	Au(12345)
58	917.3	***	393.2	295.0	210.2	211.9	92.6	89.2	
59	920.3	120	404.0	299.2	215.8	217.2	93.9	88.9	72.0
60	921.3	***	415.0	302.7	219.9	221.8	95.8	89.5	72.6
61	923.8	***	425.4	307.3	224.7	227.1	97.7	90,1	72.9
62	925.5	***	434.6	310.5	228.4	231,5	99.1	90.7	73.2
63	928.5	*4*	443.9	314.4	233.2	236.4	100.2	91,1	73.5
64	929.1	***	452.0	317.7	237.0	240.6	101.5	91.5	73.8
65	932.3	***	459.1	321.5	241.7	244.9	102.6	92.0	74.0
66	933.3		466.1	325.5	246.3	249.5	103.8	92.5	74,2
67	936.1	*14	473.5	328.8	250.8	253.8	105.0	93.0	74.3
68	937.6	***	481.3	331.9	255.1	256.2	106.2	93.5	74.4
69	938.8		491.0	335.5	259.1	263.2	107.3	94.2	74.6
10	940.9		501.3	338.9	262.2	267.7	108.5	95.0	74.9
	#4 <i>2.1</i>	***	510.0	342.1	267.6	271.6	109.9	95.7	75.0
16	943.D	A+3	519.3	345.5	2/3.1	276.1	111.5	96.4	75.4
73	047.0	***	525.4	349,7	2/0.8	280.4	113.2	97.1	75.8
76	040 3	***	533.0	352.6	217.0	284.4	114.9	97.8	76.2
76	060.7	***	547.4	350.8	201.7	291.0	118.8	98.7	76.6
77	951.8	+++	552.8	363.3	207.3	295.0	120.8	99.3	//.1
78	954.5	***	557.8	367.0	295.2	300.8	122.5	100.0	77.0
79	955.0	***	561.8	370.1	299.2	303.3	124.5	101.5	70.1
80	956.6	434	564.7	373.6	304.2	307.7	126.5	102.2	70.7
81	959.3	\$\$\$	567.9	376.7	309.0	311.2	128.8	103.0	79.5
82	961.2	***	571.5	379.9	312.7	315.8	131.0	103.9	B0.4
83	961.7	***	574.6	384.4	316.0	319.8	133.4	104.7	80.9
84	964.3	***	577.3	387.4	321.1	324.5	135.8	105.6	81.4
85	965.3	***	579.5	391.3	326.1	327.5	138.3	106.7	82.0
86	967.2	***	580.7	394.7	331.6	332,2	140.7	108.0	82.6
87	967.7	***	582.0	398.6	335.8	336.0	143.1	109.4	83.1
88	970.5	***	582.9	402.3	341.0	340.6	145.4	110.9	83.8
89	971.1	141	583.8	406.7	346.2	345.5	147.7	112.1	84.4
90	972.8		584.2	410.9	351.7	350.3	150.0	113.4	85.1
91	9/2.6		584.4	414.4	356.9	354.9	152.4	115.3	85.8
92	8/5.8	***	585.2	417.9	362.8	358.9	154.6	118.2	86.6
33	077 6	184	565 P	422.2	308.8	363.8	156.9	121.1	87.4
89 06	070 /	484	595.0	425.7	321.2	309.3	109.3	123.5	88.4
06	070 R	** *	583.6	433.2	385.7	379.7	101.7	107.7	69.4
97	981.0	***	582.0	438.4	391.7	385.4	167.3	127.7	90.4
8 8	982.1	***	580.7	442.1	398.4	389.9	170.1	132.1	92.4
99	964.5	÷#\$	580.8	446.7	403.2	395,9	173.1	134.2	93.5
100	965.8	***	579.2	450.9	410.7	400.9	176.4	136.8	94,3
101	965.9	•••	580.5	455.4	417.5	406.6	179.2	139.6	95.1
102	989.6	***	578.5	460.5	424.5	411.5	181.8	142.4	95.9
103	988.8	***	578.1	466.3	432.7	418.0	184.3	145.2	96.7
104	990.0	***	580.9	471.1	438.3	423.1	187.2	148.2	97.6
105	992.2	41A	579.0	475.4	444.4	429.0	189.7	152.5	98.6
106	992.4	146	577.2	479.5	452.1	434.4	192.4	156.4	99.6
107	994.0	410	577.5	483.4	459.1	439.7	195.4	159.6	100.6
108	993.9	***	578.1	487.8	465.1	444.5	199.2	162,7	101.4
109	995.1	8**	580.0	492.1	471.7	449.8	203.3	166.1	102.0
110	996.0	101	582.1	497.2	477.3	455.2	207.9	169.6	102.5
a condutification	998.7		585.7	501.5	482.3	460.1	212.6	173.0	102.9
	998.8	728	505.0		400.0	400.0		160.5	103.3
113	9994.1		595.2	513.3	490.9	409.9	221.6	180.1	103.8
000011 14 00000	1001 0		399.0	5174	490.7	470.0	220.2	183.9	104.3
- IJ	1001.0		603.0	<u> </u>	493.0	4/8.0	230.8	187.5	104.7

Legend: BL - Base Layer, FL - Face Layer, Cav. - Cavity, WStd. - Wood Stud, Av - Average, Exp. - Exposed Side, UnExp. - Unexposed Side

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Table 7.2.3. Average Temperatures Measured in Assembly S-36, Wood Stud, 2x2 Gypsum Layers, No Resilient Channels

Time	T(Fav)	BL/FL (Exp.)	BL/WStd. (Exp.)	BL/Cav, (Exp.)	Mid. WStd,	BL/Cav. (UnExp.)	BL/WStd. (UnExp.)	BL/FL (UnExp.)	UnExp.
(min)	(°C)	Av(26,27,30,31,34,35)	Av(12,13)	Av(18,19,22,23)	Av(10,11,14,15)	Av(20,21,24,25)	Av(16,17)	Av(28,29,32,33,36,37)	Av(1,2,3,4,5)
116	1001.8	<u><u><u></u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u>	607.2	520.9	504.4	483.1	236.4	190.0	105.2
117	1001.7	***	608.6	524.8	508.8	487.5	242.1	193.3	105.6
118	1003.7	***	609,8	528.5	512.4	491.7	24 <u>8.7</u>	196.9	106.0
119	1003.7	***	610.7	532.4	516.6	496.3	25 <u>5.6</u>	200.2	106.5
120	1004.8	***	610.5	536.2	521,2	500.2	262.7	203.5	106.9
121	1007.6	+++	612.9	542.5	526.1	505.4	270.0	207.1	107.3
122	1006.7	***	616.6	549.9	532.1	512.9	277.5	211.1	107.7
123	1006.8	***	621.5	557.1	537.7	520.0	285.2	215.5	108.1
124	1008.3	+++	627.5	564.1	544.1	526.8	29 <u>3.3</u>	220.4	108.5
125	1008.3	***	634.9	570.7	551.0	534.2	301.8	225.6	109.0
120	1009.4	***	640.7	577.7	557.9	541.3	309.9	231.2	109.6
127	1009.4	***	648.4	584.4	564.7	548.6	318,8	237.0	110.3
128	1010.3	***	653.9	590.7	571.8	556.1	327.7	242.9	111.0
129	1010.4	***	660.6	596.9	578.4	563.5	336.4	248.8	111.8
130	1011.3	***	665.1	603.5	585.8	571.1	34 <u>4.7</u>	254.7	112.7
131	1012.9	***	667.9	610.0	592.8	578.4	354.7	260,9	113.7
132	1013.6	***	670.6	616.6	600.0	586.0	365.9	266.9	114.7
133	1013.2	***	870.8	624.9	607.7	593.9	377.7	273.0	116.5
134	1014.0	424	671.0	632.8	615.8	602.2	390.4	279.8	118.8
135	1016.0	***	674.8	642.3	624.5	611.5	401.8	286.9	120.9
136	1016.3	***	682.3	655.8	635.5	622.0	413.1	293.9	123.6
137	1016.4	444	692.5	669.7	648.4	634.0	426.0	300.5	127.2
138	1017.0		704.5	680.4	660.9	647.3	437.1	307.1	130.3
139	1018.6	***	719.4	_690.7	675.2	661.3	447.7	313.8	133.9
140	1018.4	*1*	735. <u>1</u>	692.8	690.9	674.6	458.8	321.1	138.3
141	1019.3	***	748.8	701.1	703.5	685.8	469.9	329.3	144.6
142	1019.5	***	754.6	707.2	714.3	695.0	481.5	338.6	150.6
143	1020.3	463	762.6	712.4	723.7	703.6	494.2	347.9	157.6
144	1020.6	***	768.9	719.3	733.5	712.4	509.9	359.1	167.2
145	1022.2	101	781.5	730.0	744.2	724.1	538.7	370.7	176,4

Legend: BL - Base Layer, FL - Face Layer, Cav. - Cavity, WStd. - Wood Stud, Av - Average, Exp. - Exposed Side, UnExp. - Unexposed Side

Time	T(Fav)								Te	emperatu	re at Th	ermocou	ple Num	ber							
(nin)	(°C)	. 1	2	3	4	5	6	7	8	. 9	10	11	12	13	14	15	16	17	18	19	20
0	41.6	28.3	29.1	27.9	28.0	28.8	26.6	26.6	26.3	26.4	32.5	30.7	34.6	32.3	32.6	30.8	30.3	29.0	35.1	33,1	32.3
	115.0	28.3	29.1	27.9	28.0	28.8	26.2	26.3	26.1	26.0	32.5	30.6	34.6	32.3	32.6	30.8	30.2	29.0	35.0	33.0	32.2
2	223.7	28.3	29.1	27.9	28.0	28.8	26.2	26.2	26.0	26.0	32.5	30.7	34.6	32.3	32.6	30.8	30.3	29.0	35.2	33.0	32.3
3	327,3	28.3	29.1	27.8	28.0	28.7	26.1	26.2	26.0	26.0	32.6	30.7	34.7	32.3	32.6	30.7	30.3	29.0	36.2	33.3	32.4
	431.9	28.3	29.1	27.8	27.9	28.7	26.2	26.2	26.0	26.1	32.9	30.8	35.5	32.6	33.0	30,9	30.3	29.0	47.9	35.3	33.0
ß	587.9	28.3	29.1	27.6	27.9	28.7	26.1	26.3	26.0	26.0	39.0	33.9	42.5	35.7	37.8	34.3	31.0	29.1	710	62.0	42.3
7	599.5	28.3	29.0	27.8	27.9	28.7	26.1	26.2	26.0	26.0	47.7	39,1	49.5	39.3	43.3	39.2	31.9	30.0	74.1	70.8	56.7
В	632.7	28.3	29.1	27.8	27.9	28.8	26.2	26.3	26.0	26.0	54.4	41.8	55.9	43.7	48.9	44.8	33,4	30.7	80.2	74.9	62.0
9	664.4	28.4	29.2	27.9	28.0	28.9	26.4	26.5	26.2	26.3	59.4	45.5	60.2	47.8	54.4	49.0	35.5	31.7	80.2	77.8	65.7
10	699.1	28.4	29.5	27.9	28.1	29.2	26.5	26.6	26.3	26.4	62.0	50.1	63.8	51.3	57.9	53.1	37.7	32.7	82.3	79.7	67.B
	710.9	28.5	29.9	28.1	28.2	29.7	26.5	26.8	26.5	26.5	64.0	53.4	66.3	54.2	60.9	55.8	40.1	34.0	84.6	80.7	69.4
12	7216	28.0	30.5	20.0	20.0	30.4	20.0	27.1	26.7	20.7	66.0	59.6	70.0	59.0	65.2	50.6	42.3	35.2	85.2	80.9	70.0
200000	7431	29.1	32.3	29.7	29.4	32.0	27.0	27.5	27.0	27.1	66.8	58.4	71.3	59.6	66.2	60.4	45.9	37.4	83.1	79.9	71.0
15	753.7	29.5	33.4	30.4	30.0	33.1	27.2	27.8	27,2	27.2	67.3	59.3	72.3	60.6	66.8	61.2	47,3	38.4	81.0	80.1	69.9
16	762.3	29.9	34.6	31.2	30.7	34.1	27.6	28.3	27.5	27.7	68.1	60.3	73.3	61,6	68.1	62.2	48.6	39.1	83.0	80.1	70.7
17	768.9	30.5	35.7	31.9	31.4	35.1	27.8	28.6	27.8	28.0	70.0	61.7	74.8	63.1	70.1	63.5	50.0	40.0	88.3	81.7	72.7
18	776.1	31.0	36.8	32.7	32.2	36.1	28.2	29.1	27.9	28.5	72.1	63.7	76.7	65.3	72.4	65.6	51.5	40.9	91.9	86.6	74,4
	782.7	31.7	37.8	33.4	33.0	37.0	28.5	29.3	28.1	28.7	74,7	65.6	78.6	67.2	74.4	67.5	53.1	41.8	100.0	86.6	77.2
20	709.0	33.1	40.1	35.0	34.9	39.0	28.9	29.7	28.8	29.3	77.7	69.5	81.2	70.4	77.4	71.5	56.4	42.7	106.2	88.0	18.7
22	800.6	33.8	41.2	35.9	35.7	40.0	29.4	30.5	28.9	29.6	78.8	71.4	83.0	72.4	78.5	73.3	58.0	44.9	113.2	91.1	81.6
23	805.9	34.7	42,4	36.7	36.7	41.0	29.6	30.8	29.3	30.4	79.7	73.2	84.5	74.4	79.6	75.5	59.7	46.1	115,9	96.5	82.9
24	811.2	35.5	43.6	37.7	37.7	42.1	29.8	31.7	29.6	30.8	81.0	75.2	86.0	76.3	80.7	76.9	61.3	47.5	118.6	103.1	84.3
25	816.3	36.5	44.9	38.7	38.9	43.2	30.4	31.9	29.8	30.9	82.4	77.0	87.4	78.1	82.0	78.7	62.8	48.8	120.9	106.7	85.7
26	821.5	37.4	46.1	39.7	40.0	44.3	30.9	32.2	30.1	31.1	83.6	78.5	88.9	79.9	83.3	80.2	64.4	50.3	123.4	109.1	86.7
27	826.9	38.4	47.3	40.8	41.2	45.4	31.6	32.8	30.4	31.7	84.8	80.0	90.1	81.6	84.6	81.5	66.Q	51.9	126.1	110.6	88.3
20	629.0 B32.1	40.6	49.9	43.1	43.8	47.5	31.5	34.1	31.2	32.3	86.6	82.5	92.2	84.1	86.6	83.8	68.7	55.1	132.2	113.6	90.3
30	897.6	41.7	51.1	44.3	45.1	48.5	32.2	34.4	32.0	32.8	87.3	83.2	93.0	85.1	87.7	84.7	70.0	56.7	134.9	114.9	91.2
31	841.3	42.9	52.4	45.6	46.5	49.6	32.5	34.7	32.1	32.7	87.8	84.0	93.9	86.0	88.7	85.5	71.3	58.4	138.0	116.2	92.4
32	845.2	44.1	53.5	46.9	47.8	50.6	33.1	35.5	32.6	33.9	88.4	85.2	94.8	86.9	89.4	86.0	72.5	60.0	141.8	117.6	92.6
33	850.1	45.4	54.5	48.0	49.1	51.5	33.5	35.8	32.9	34.6	89.0	85.4	95.7	87.7	90.1	86.7	73.6	61.6	146.7	118.9	93.1
34 25	853.3	46.6	55.6	49,2	50.4	52.4	33.3	36.2	33.6	34.7	69.5	85.9	95.7	88.4	90.8	87.1	74.7	63.1	153.0	120.4	94.6
40 98	850 4	47.0	57.3	51.6	52.7	54.0	35.0	37.2	34.0	35.2	90.4	86.7	99.2	90.0	92.0	88.0	76.3	65.9	166.0	122.3	95,4
37	664.2	50.2	58.1	52.6	53.9	54.8	34.8	37.6	35.6	36.5	91.0	87.0	101.6	90.8	93.0	88.2	77.1	67.2	174.4	128.9	97.6
38	866.8	51.4	58.9	53.6	54.9	55.6	35.3	38.6	35.5	34.8	92.5	87.4	105.0	91.9	94.6	88.6	77.7	68.5	183.8	134.6	100.1
39	871.1	52.5	59.5	54.4	55.9	56.2	35.0	37.8	35.6	35.5	94.2	87.9	111.1	93.9	95.8	89.2	78.3	69.6	194.1	141.7	102.5
40	873.0	53.6	60.1	55.2	56.8	56.6	35.9	38.3	36.2	35.8	95.5	88.2	118.7	97.1	100.3	91.4	78.8	70.6	205.3	153.6	106.9
41	876.4	54.6	60.7	56.1	57.5	5/.4	37.3	39.7	37.3	36.9	98.9 103.6	88.3	130.3	101.7	105.4	97.3	79.1	71.5	218.2	166.8	111.9
42	6/9.0 AA1 R	56.4	62.0	57.5	59.1	58.7	36.3	39.7	37.1	38.6	110.3	89.6	152.5	116.8	118.0	109.0	79.A	73.2	240.7	197.9	125.7
44	884.2	57.3	62.7	58.2	59.7	59.3	36.2	40.0	37.7	37.8	117.0	93.3	163.7	125.B	124.9	115.8	80.5	74.0	251.1	210.5	134.2
45	688.0	58.0	63.3	58.9	60.4	59.9	36.9	40.6	37.8	37.5	124.1	96.1	175.0	134.6	132.6	123.4	61.3	74.7	262.4	221.8	142.5
46	889.3	58.7	64.0	59.6	61.0	60.6	36.5	39.9	37.6	37.3	131.2	102.4	165.8	143.9	139.5	130.6	82.3	75.5	271.3	231.3	151.3
47	892.5	59.4	64.6	60,4	61.6	61.3	36.9	41.0	38.1	36.9	138.4	107.2	197.8	152.6	146.1	137.7	83.4	76.2	280.0	240.7	159.8
48	895.4	60.0	65.2	61.2	62.4	62.0	37.6	40.8	38.6	37.7	146.0	112.1	206.7	161.3	154.2	144.0	84.6	77.0	287.9	250.1	167.6
49	896.5	60.6	65.8	62.0	63.0	63.1	37.2	41.0	38.8	37.7	160.3	117.5	217.0	177.3	167.6	155.8	87.4	79.9	294.3	257.9	173.8
50	901.3	61.0	67.2	63.3	64.5	63.7	37.9	41.5	38.6	37.4	167.0	128.4	234.8	184.5	173.2	161.8	89.0	79.9	3064	203.0	181.7
52	905.8	62.6	67.7	63.9	65.1	64.3	38.4	42.4	39.2	38.3	173.5	133.6	242.2	191.5	179.7	167.2	90.3	81.1	311.3	278.2	187.2
53	906.7	63.3	68.3	64.5	65.5	65.0	39.8	42.9	40.0	39.2	180.6	138.5	250.0	198.4	185.0	171.8	91.9	82.5	317.5	284.1	194.1
54	909.2	64.1	68.9	65.2	66.0	65.7	38.9	42.7	39.9	38.7	185.9	143.1	258.2	205.4	190.3	176.4	93.3	84.1	321.0	289.1	198.9
55	911.0	64.9	69.5	65.8	66.5	66.2	39.2	42.5	40.3	39.4	193.4	147,2	266.2	212.2	195.3	180.2	94.6	85.9	326.0	293.5	204.3
56	913.4	65.7	70.0	68.5	67.1	66.8	40.0	43.2	40.8	39.3	203.3	151.2	273.3	219.7	201.3	184.6	95.8	87.7	331.5	298.2	210.3
57	917.2	66.6	70.5	67.2	67.7	67.4	39.4	43.3	40,7	39.1	207.8	156.0	2/9.4	226.1	206.1	189.2	97.2	89.1	337.3	302.0	214.0

Table 8.1.1. Temperatures Measured in Assembly S-37, Wood Stud, 2x2 Gypsum Layers, Resilient Channels on Exposed Side

Time	T(Fav)								Te	emperatu	ire at Th	ermocou	ple Num	ber							
(നിന)	(°C)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	- 16	17	18	19	20
58	918.0	67.4	70.9	67.8	68.3	67.9	40.2	44.4	41.1	40.2	215.5	160.3	285.2	231.1	211.4	193.4	98.5	90.2	341.1	305.8	219.7
59	919.1	68.3	71.3	68.2	68.9	68.3	40.0	44.7	40.9	41.2	220.7	164.9	291.6	237.1	216.6	197.0	100.2	91.3	345.3	309.9	223.4
61	924.6	<u>69.2</u> 70.1	721	69 n	69.5 70 t	69.2	40.9	44.4 45.4	41.3	40.8	226.0	169.5	296.7	242.8	221.6	201.1	101.9	92.2	349.0	313.1	228.5
62	926.5	70.9	72.4	69.3	70.6	69.6	41.5	44.9	41.4	40.9	235.5	180.9	307.5	253.3	231.8	203.8	105.7	93.1	356.0	320.2	232.5
63	927.0	71.7	72.8	69.4	71.1	69.9	41.9	45.7	41.3	41.3	241.6	183.4	314.4	260.0	236.5	212.5	108.0	94.9	360.1	324.2	241.6
64	930,1	72.6	73.3	69.5	71.7	70.3	42.1	45.3	42.1	41.0	246.3	186.5	323.6	265.6	240.5	218.0	110.2	95.7	362.9	328.0	245.9
65	932.1	73.5	73.7	69.5	72.0	70.7	41.6	45.4	41.6	41.3	253.7	190.5	331.3	268.9	245.1	221.5	112.4	96.3	365.7	331.4	250.3
67	936.0	74.3	74.1	69.6	72.4	71.2	41.8	46.0	41.9 ∡1.1	40.8	256.2	197.6 200.8	335.7	271.5	249.9	226.1	114.6	96.8	368.8	333.5	253.3
68	937.6	75.5	75.0	69.6	72.8	72.2	40.3	45.1	40.5	39.6	264.8	205.0	346.6	285.6	257.5	234.6	119.2	98.1	378.7	341.7	263.4
69	938.0	76.1	75.5	69.9	73.0	72.7	42.2	47,4	42.5	40.8	272.3	209.9	347.8	291.0	260.6	235.0	121.9	99.3	382.8	345.8	269.2
70	941.1	76.7	76.1	70.1	73.1	73.2	41.7	46.6	42.2	40.1	276.6	215.0	346.0	293.7	263.7	237.5	124.8	100.6	387.7	349.3	274.6
71	942.4	77.3	76.7	70.3	73.3	73.7	42.7	46.9	42.2	40.7	281.8	219.9	348.9	295.3	267.0	240.9	127.6	101.9	391.0	352.6	279.4
73	945.2	78.4	77.9	70.8	73.4	74.2	42.5	46.5	43.0	40.6	200.3	229.9	358.2	302.2	270.6	244.3	130.5	103.4	395,3	355.5	283.8
74	948.3	78.8	78.6	71.1	73.4	75.2	43.3	47.2	43.7	42.2	295.6	234.9	363.3	313.2	278.0	250.0	136.4	106.4	402.2	361.8	292.8
75	949,4	79.3	79.3	71.4	73.5	75.7	43.1	48.5	43.3	41.2	303.3	239.5	370.7	319.8	282.2	252.9	139.2	108.0	405.2	364.9	298.0
78	949.6	79.7	79.9	71.7	73.6	76.2	43.8	48.3	43.2	42,7	307.2	244.6	374.2	324.0	285.5	255.4	141.9	109.6	408.6	369.0	303.0
78 78	954 R	80.5	80.5	72.0	73.7	77.9	43.1	46.8	43.2	41.5 41.6	312.8	249.5	3/9.9	336.9	289.1	257.6	144.6	111.1	412.5	373.1	308.0
79	955.3	81.1	81.8	72.9	74.2	77.9	44.3	47.7	44.1	42.4	322.5	258.3	394.7	344.1	293.2	263.7	149.8	1:2.0	410.1	379.0	312.7
80	957.4	81.7	82.4	73.3	74.6	78.4	43.6	47.3	42.8	41.7	325.3	263.1	396.7	348.0	303.1	267.6	152.2	116.4	422.5	382.2	322.5
81	959.1	82.2	83.0	73.7	75.0	78.9	44.6	47.1	43.4	42.4	331.3	268.2	402.0	353.4	306.9	272.3	154.7	118,4	426.2	386.0	327.0
82	960.3	83.2	83.6	74.4	75.4	79.4	44.1	47.2	42.9	42.5	335.4	273.2	405.0	358.8	311.4	278.6	157.0	120.5	429.1	389.0	331.6
84	963.5	84.1	84.3 84.9	75.5	75.9	B0.0 B0.6	44, 1 44, 1	47.5	43.5	42.1	340.7	277.7	407.9	362.5	315.5	281.7	159.4	122.5	433.3	392.6	337.4
85	966.4	84.6	85.6	76.0	77.0	81.2	43.9	46.7	43.8	41.4	351.3	286.7	417.2	371.8	325.3	292.9	165.0	126.7	440.2	399.2	347.6
86	966.9	85.0	86.3	76.5	77.6	81.8	44.5	47.8	42.9	42.5	356.6	291.0	421.0	377.3	330.7	293.9	168.3	128.8	443.0	402.3	353.1
87	969.0	85.4	87.2	78.9	78.3	82.5	44.B	47.0	43.7	42.0	360.9	295.7	425.7	383.0	335.4	298.9	172,2	131.1	446.2	405.5	357.7
88	968.5	86.0	88.1	77.5	78.9	83.3	45.3	47.0	43.3	41.6	367.1	301.3	438.1	392.0	341.5	301.6	176.3	133.4	448.9	405.7	362.6
90	972.3	87.1	90.2	78.7	80.3	85.1	45.5	47.8	44.0	43.0	376.7	310.1	447.9	402.5	354.0	310.2	185.2	135.6	455.8	408.8	367.2
91	973.5	87.7	91.5	79.2	81.0	86.2	46.2	47.5	44.3	42.2	381.8	315.4	452.0	408.0	359.5	314.9	189.6	140.2	458.9	412.8	377.7
92	975.5	88.4	93.0	79.8	81.7	87.5	47.3	48.1	44.6	42.8	387.1	322.0	458.0	412.5	365.0	326.2	194.1	142.4	462.2	414.7	382.8
93	977.0	89.1	94.6	80.5	82.3	89.0	45.8	47.3	44.3	41.8	392.7	328.3	462.1	416.9	372.8	335.9	198.2	144.8	465.5	417.5	388.1
94	978.6	89.9 91.0	98.0	81.0	83.7	90.6	45.3	47.6	44.5	42.1	406.9	342.0	400.0	422.4	3/9.9	345.5	202.0	147.2	469.1	420.7	392.4
96	980.0	92.1	99.7	82.7	84.5	94.3	46.1	48.1	44.1	43.1	409.3	348.8	479.4	435.8	393.2	361.3	208.9	152.2	477.5	428.5	404.6
97	981.3	93.1	101.0	83.6	85.4	96.4	46.9	48.4	44.0	43.1	416.7	357.1	484,4	443.0	396.5	369.5	212.2	154.3	482.3	432.5	409.9
98	983.2	94.2	101.9	84.7	86.3	98.2	47.3	49.5	44.7	43.2	420.8	364.4	483.B	450.5	403.5	376.0	215.5	155.2	486.5	436.5	416.5
99	984.2	95.4	102.4	87.4	88.7	99.5	46.3	51.6	45.4	43.6	425.3	376.8	491.0	457.5	409.4	381.4	218.8	156.2	490.2	442.2	422.1
101	987.3	98.2	102.9	68.8	90.2	100.9	46.2	51.2	44.2	43.8	438.2	383.0	504.3	466.7	421.3	399.0	225.8	158.9	498.8	440.0	433.5
102	968.6	99.5	103.1	90.4	91.9	101.2	47.0	53.3	44.6	44.3	443.3	389.8	509.4	472.5	429.4	405.8	229.4	159.2	503.1	455.1	439.3
103	989,1	100.9	103.2	92.0	93.7	101.4	47.7	54.5	44,4	45.3	450.1	397.6	512.5	481.1	411.8	412.2	233.5	160.7	506.9	460.7	444.5
104	990.2	102.3	103.4	93.8	95.7	101.6	48.3	55.1	44.3	45.5	455.0	406.7	515.7	489.8	419.2	423.5	237.5	162.6	511.5	466.3	450.2
105	990.8	103.9	103.6	95.5	97.9	101.8	49.6	56.7	45.5	46.9	460.8	413.8	518.6	498.8 509.5	444.3	428.6	241.4	164.9	516.0	472.8	455.2
107	992.9	107.1	104.2	97.9	101.4	102.8	50.5	57.1	45.3	48.9	468.4	428.8	522.7	520.2	466.9	448.7	249.6	169.7	524.4	491.0	465.9
108	994.8	108.7	104.6	98.7	102.6	103.3	50.2	59.2	45.8	49.3	472.1	436.7	525.1	530.4	474.1	457.1	254.3	172.1	527.6	502.0	470.6
109	994.6	110.1	104.9	99.3	103.4	103.7	50.0	58.7	45.3	48.5	477.3	445.3	527.1	542.9	477.8	464.6	259.5	174.8	531.5	512.6	475.6
110	996.8	111.6	105.1	99.9	103.8	104.1	50.2	58.2	45.4	49.6	483.3	452.9	531.1	555.4	482.8	471.9	265.0	177.0	534.9	523.5	480.1
110	997,4 090 0	112.9	105.4	100.3	104.1	104.4 104.6	51.5	59.4 59.9	45.8	51.3	488.5	468.4	538.6	576.3	488.6 492.6	460.8	270.9	1/9.5	542 4	533.5	484.8
113	998.8	115.2	106.0	101.1	104.3	104.9	51.3	59.4	46.5	51.7	499.7	477.1	541.7	586.2	498.3	501.4	281.7	185.4	545.3	549.7	409.3
114	999.3	116.5	106.4	101.4	104.4	105.3	52.8	60.3	46.8	52.6	502.9	484.9	545,1	594.9	505.2	507.2	287.7	188.8	548.9	558.3	497.7
115	1000.7	117.9	106.7	102.0	104.4	105.6	52.9	61.0	48.3	54.3	508.2	492.8	549,1	602.9	511.9	517.3	295.7	192.2	552.1	566.2	502.6

Table 8.1.2.	Temperatures M	feasured in As	ssembly S-37,	Wood Stud,	, 2x2 Gypsum Laye	rs, Resilient	Channels on Exposed Side

Time	T(Fav)								Te	emperatu	ire at Th	ermocou	ple Num	ber							
(min)	(°C)		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
. 116	1002.4	119.4	107.2	102.5	104.5	106.0	53.1	59.7	48.0	54,0	514.6	499.4	554.2	610.1	518.1	524.1	305.0	195.8	556.4	572.3	507.3
<u></u>	1002.0	121.0	107.6	102.9	104.8	106.4	52.5	60.3	48.7	52.3	520.7	504.5	557.4	616.2	522.2	531.1	314.4	199.6	560.2	579.6	512.0
118	1002.5	122,7	108.2	103.2	105.3	106.9	52,9	61.1	49.4	51.6	523.8	509.8	562.3	620.9	529.7	536.9	324.2	203.7	564.2	586.4	517.0
119	1004.7	124.4	108.7	103.6	105.8	107.4	52.8	62.2	51.2	55.2	533.3	513,6	567.4	624.7	533.3	540.5	335.3	208.1	568.4	593.3	521.9
120	1003.9	126.3	109.2	103.9	106.1	107.9	52.9	62.8	51.1	53.3	535.6	518.8	571.6	627.9	538.7	545.8	350.0	212.5	573.3	600.4	527.5
121	1005.1	128.3	109.8	104.4	106.5	108.5	54.0	63.1	51.2	51.2	541.2	525.4	576.5	632.7	543.6	552.8	365.3	217.1	577.3	607.0	532.3
122	1006.1	130.1	110.4	104.6	106.9	109.0	53.9	62.5	50.8	52.0	546.6	530.4	585.3	637.8	554.1	558.7	381.2	222.5	581.2	613.9	537.5
.123	1005.7	132.3	111.0	104.9	107.2	109.6	53.6	63.4	51.8	52.7	556.4	536.7	593.1	642.6	562.0	562.7	396.9	228.7	585.7	619.9	543.1
124	1008.1	134.4	111.7	105.4	107.7	110.2	54.1	63.7	51.4	52.7	562.6	543.5	599.2	647.7	568.1	569.4	412.9	235.8	589.8	627,1	546.5
125	1009.1	137.0	112.2	105.8	108.0	110.9	56.0	64.6	52.9	52.4	571.9	551.1	605.3	652.7	575.6	576.2	429.7	243.4	594.2	634.5	552.3
126	1008.6	140.0	113.0	106.3	108.5	111.5	54.2	63.8	51.9	50.5	584.6	557.7	611.4	657.5	580.8	582.7	447.2	251.8	599.7	642.2	558.3
127	1009.7	143.3	113.8	106.8	108.9	112.2	56.3	64.4	52.5	53.6	596.2	563.7	618.1	661.7	587.3	588.5	466.0	261.2	605.0	647.2	564.0
128	1009.0	146.6	114.7	107.6	109.4	113.1	57.4	65.6	54.9	55.0	***	***	***	***	***	*7A	***	***	***	***	***
129	1010.5	149.0	115.9	108.3	110.0	114.1	56.8	65.2	52.7	53.9	617.7	572.5	633.2	669.2	603.4	600.8	506.2	283.5	616.0	661.5	578.3
130	1012.5	152.0	117.5	109.0	110.6	115.3	58.0	67.4	54.2	5 6 .1	628.8	577.5	640.3	673.2	609.7	607.0	525.0	296.7	620.8	669.4	584.2
131	1012.0	155.8	119.8	109.8	111.3	117.1	59.7	68.0	54.7	56.0	642.4	582.2	648.1	677.3	616.5	612.1	545.5	310.8	624.9	675.4	590.2
132	1013.1	159,8	123.1	110.6	112.0	119.5	58.7	67.6	55.9	55.5	653.0	587.4	655.6	681.9	623.6	617.7	563.9	325.4	629.6	683.0	595.5
133	1013.1	164.4	127.8	111.4	112.7	123.t	58.4	69.0	58.7	58.5	663.5	592.6	662.8	686.4	630.7	624.5	582.1	338.8	634.8	692.5	601.2
134	1015.8	169.1	131,6	112.3	113.4	127.3	61.9	69.4	57.4	59.7	672.4	597.4	670.1	690.6	637.4	629.9	597.6	350.9	640.2	701.3	605.6
135	1015,2	173.6	136.5	113.2	114.3	130.4	59.6	69.0	55.6	56.7	681.1	602.7	677.7	695.3	644,1	634.9	612.6	370.2	645.3	709.5	611.6
136	1015.4	178.7	147.1	114.5	115.4	136.9	63.8	71.2	59.8	58.9	689.3	607.5	683.6	698.3	649.5	642.0	627.7	363.0	650.9	715.6	619.1
137	1017.3	184.6	154.7	116.3	116.6	146.2	61.3	71.9	58.0	58.0	697.2	613.0	689.7	702.5	654.9	647.1	641.8	387.3	656.4	724.1	625.7
138	1017.4	190.7	159.8	118.7	118.0	152.4	62.0	71.7	59.1	58.6	703.8	618,2	696.1	708.1	661.8	652.6	653.9	389.7	661.6	732.2	632.3
139	1017.8	197.1	169.9	122.3	120.1	157.1	63.6	74.0	59.6	58.3	710.5	623.8	700.9	714.0	667.2	658.0	666.5	389,1	667.4	736.0	639.1
140	1018.3	203.4	187.9	126.3	123.3	166.4	63.4	72.9	58.6	58.8	716.6	628.3	707.5	722.6	677.3	667.7	675.2	394.5	671.7	750.4	645.5
141	1019.5	211.1	203.6	129.8	127.9	182.5	63.8	74.7	58.7	59.5	723.0	633.3	713.0	730.7	683.8	673.7	686.6	401.7	677.6	754.1	653.6
142	1020.5	222.0	218.3	137.3	132.2	196.7	67.1	77.1	59.7	61.8	730.2	639.5	718.9	739.5	690.5	678.8	697.4	411.1	683.7	765.6	662.9
143	1020.2	231.6	232.8	145.4	137.4	209.8	64.2	77.2	58.9	61.3	735.7	644.6	724.6	751.2	700.5	684.6	704.1	420.8	688.8	776.2	669.9
144	1021.1	242.2	247.7	151.3	148.4	222.6	64.7	80.9	60.3	61.5	740.5	650.5	728.6	761.7	707.7	690.7	711.8	434.1	694.3	784.1	677.4
145	1023.6	253.2	263.8	161.5	156.0	235.3	69.6	83.6	62.6	63.4	745.2	656.8	732.8	772.5	716.3	696.5	719.7	449.5	699.8	790.7	686.0

Table 8.1.3. Temperatures Measured in Assembly S-37, Wood Stud, 2x2 Gypsum Layers, Resilient Channels on Exposed Side

Time	T(Fav)	[<u> </u>			Tempo	erature a	t Thermo	couple l	Number						
(min)	(°C)	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
Ò	41.6	30.5	34.7	32.5	32.3	30.4	38.2	35.9	30.0	28.8	38.4	36.0	28.9	27.6	38.0	35.6	30.2	28.6
·····	115.0	30.5	34.7	32.5	32.3	30.4	38.3	35.9	30.0	28.7	38.5	36.1	29.0	27.7	38.3	35.8	30.2	28.7
2	223.7	30.5	34.7	32.5	32.3	30.4	47.2	41.5	30.0	28.7	48.5	41.2	29.0	27.7	48.5	42.3	30.3	26.7
3	327.3	30.5	35.4	32.9	32.4	30.4	66.6	57.1	29.9	28.7	67.5	56.1	29.0	27.7	69.0	58.4	30.3	28.7
. 4	431.9	30.8	38.3	35.1	33.0	30.5	83.6	74.8	29.9	28.7	82.6	72.7	29.0	27.7	85.0	76.4	30.3	28.7
5	529.0	31.7	49,7	53.0	35.0	31.3	87.1	87.1	30.0	28.8	85.4	86.0	29.0	27.7	89.4	86.0	30.3	28.7
6		34.2	64.5	68.5	41.0	33.5	91.7	91.3	30.6	28.8	89.5	90.7	29.0	27,7	92.5	92.3	30.5	28.7
7	599.5	38.4	71.6	76.0	50.2	37.4	97.7	94.3	31.7	29.1	95.4	96.6	29.1	27.9	94.9	99.6	31.2	28.9
8	632.7	42.9	70.1	/9.2	57.9	42.1	104.5	100.0	33.4	29.6	104.3	106.0	29.3	28.4	109.2	102.4	32.8	29.2
3	004,4 COD 1	47.0	78.9	01.1	64.4	40.0	1128	104.2	39.1	31.6	104.0	100.0	29.9	29.2	113.0	1110	30.3	29.9
10	710.0	53.7	83.5	83.2	66.0	52.8	114.8	107.0	40.6	33.0	111 A	1127	31.9	31.3	118.4	114.1	40.7	32.1
12	722.3	55.7	82.3	83.5	68.5	55.2	117.2	111.9	43.0	34.6	116.2	115.2	33.1	32.4	119.9	116.2	43.1	33.5
13	731.6	57.5	B2.5	82.8	68.8	57.1	124.8	115.3	45.2	36.2	128.4	119.3	34.4	33.6	129.3	121.6	45.3	34.9
14	743.1	58.6	80.2	80.7	68.2	58.9	151.3	123.6	47.1	37.6	153.1	130.2	35.8	34.6	162.6	136.0	47.4	36.4
15	753.7	59.7	79.6	80.1	67.9	59.9	207.4	147.5	48.6	39.3	204.0	162.9	37.0	35.4	211.7	174.9	48.8	38.0
16	762.3	60.7	82.8	79.5	68.8	60.9	249.8	188.2	49.5	40.8	245.2	205.1	38.2	36.0	248.0	217.8	49.9	39.3
17	768.9	62.2	86.8	80.4	70.6	62.2	280.1	218.6	50.3	42.2	279.7	239.4	39.5	36.6	273.6	253.2	50.9	40.7
18	776.1	64.3	92.2	84.9	72.9	64.2	307.4	246.9	51.4	43.5	305.2	270.6	40.6	37.1	298.6	278.5	52.2	41.9
··· 19 ···	782.7	66.2	102.3	87.5	74.7	66.0	326.6	276.3	52.7	44.9	325.9	296.6	41.9	37.7	316.7	300.1	53.7	43.2
20	789.0	68.0	108.9	92.2	76,1	67.6	347.1	299.2	54.3	46.4	346.1	318.5	43.1	38.4	334.5	316.1	55.5	44.7
21	793.1	69.8	113.1	95.9	77.3	69.5	363.6	317.7	55.8	48.0	363.0	338.2	44.5	39.2	350.5	335.9	57.2	46.1
22	800.6	71.8	116.0	103.6	79.0	71.5	378.7	336.3	57.3	49.6	376.2	355.8	45.9	40.0	364.0	355.0	58.7	47.7
23	805.9	73,7	119,2	109.0	61.8	75.0	364.0	335.3	<u> 36.7</u> 60.1	53.0	307.5	300.0	47,3	41.0	3/7.4	307.0	Et C	49.3
24	011.2	77.3	123.0	116.5	86.2	77.1	404.5	378.7	61.4	54.8	405.5	389.8	50.2	43.0	402.3	393.3	63.1	527
28	821.6	78.9	125.0	119.7	88.3	78.7	415.6	387.4	62.7	56.6	415.8	397.5	51.6	44.5	416.7	406.3	64.6	54.6
27	826.9	80.5	143.1	123.0	91.3	B0.3	426.6	396.7	64.0	58.3	426.4	407.9	53.2	45.8	429.6	419.0	66.0	56.4
28	829.6	82.0	147.8	126.9	91.7	81.5	436.7	406.7	65.2	60.1	434.9	419.0	54.7	47.3	441.6	430.2	67.4	58.2
29	832,1	83.3	151.9	131.2	92.7	82.6	447.6	416.7	66.4	61.7	443.9	429.5	56.3	48.7	454.6	441.2	.68.6	60.0
30	837,6	84.3	156.2	132.8	93.1	83.6	459.3	427.3	67.5	63.3	454.7	439.6	57. 9	50.2	466.2	453.9	69.7	61.6
31	841.3	85.3	160.8	135.2	94.3	84.7	470.6	439.0	68.4	64.8	465.1	450.8	59.4	51.8	477,4	466.0	70.6	63.1
32	845.2	86.0	167.6	140.1	95.5	85.8	481.5	450.3	69.3	66.0	475.4	461.4	60.9	53.2	488.9	477.3	71.4	64.5
33	850.1	86.8	172.9	145.4	95.7	B7.0	492.5	462.0	70.1	67.3	486.5	472.1	62.4	54.7	500.5	468.9	72.2	65.9
34	853.3	87.5	178.3	151.3	97.2	87.9	503.0	473.4	70.9	68.4	497.6	483.1	63.7	56.1	511.2	500.1	72.9	67.1
35	857.3	86.1	183.6	157.5	97.5	88.8	513.2	484.3	71.6	69.4	507.8	494.0 502.0	64.8	57,4	521.6	571.0	73.5	68.2
36	859.4	88.7	189.1	163.7	99.7	89.0	523.1	604.5	70.9	70.3	528.2	503.0	66.9	50.0	541.6	520.9	74.	70.0
37	004.2	00.9	190.7	109.0	108.0	01.0	542.0	514.5	73.4	71.8	635.5	522.0	67.7	60.8	552.0	540.4	75.1	70.8
90	000.0	91.5	2123	184.7	110.7	93.5	551.6	523.5	73.9	72.5	544.6	531.5	68.4	61.8	562.3	549.4	75.6	71.5
40	873.0	93.2	223.0	195.0	116.8	96.0	561.5	532.9	74.4	73.1	554.1	540.3	69.0	62.6	573.1	558.7	76.1	72.2
41	876.4	95.3	235.0	208.1	124.5	99.1	572,1	542.5	75.0	73.7	564.8	549.5	69.4	63.4	584.1	568.6	76.8	72.7
42	879.8	98.4	245.0	220.3	132.4	103.5	582.2	552.0	75.6	74.2	575.4	558.5	69.8	64.0	594.4	577.7	77.5	73.4
43	881.8	102.4	254.4	230.2	141.0	108.0	592.1	562.1	76.3	74,7	586.2	568.3	70.2	64.6	604.4	587.6	78.3	74.1
44	884.2	106.5	263.8	240.6	150.4	113.2	601.9	572.9	77.3	75.3	596.9	578.8	70.6	65.2	614.3	598.3	79.0	74.9
45	688.0	111.5	271.7	249.7	158.8	118.9	610.8	583.4	78.3	75.8	606.7	588.8	71.1	65.7	623.0	607.9	79.8	75.7
46	889.3	116.8	280.5	257.8	167.5	125.4	619.5	593.5	79.3	76.5	616.1	598.6	71.6	66.3	631.3	617.6	81.1	76.7
47	892.5	122.9	288.3	265.1	173.6	132.0	627.0	602.4	80.0	77.3	624.0	607.1	72.5	66.8	638.7	625.7	83.3	77.6
48	895.4	130.0	294.9	271.8	179.0	138.8	634.2	610.9	80.6	/8.2	631.3	615.0	74.5	67.0	645.7	633.3	85.9	70.4
49	896.5	136.5	302.4	279.3	184.6	145./	641.2	619.0	82.6	79.0	645 1	628.0	75.0	69.6	658 0	640.3	00.Z	<u>/9.4</u> 80.0
50	900.3	144.0	306.8	266.1	109.2	152.4	662.0	633.3	95.0	80.2	652.2	636.0	780	0.00	685.5	657 1	91.5	80.9
 	901.1	150.4	312.7	209.0	900 7	163.8	650 1	639.0	86.3	80.4	002.2 ***	642.0	78.1	69.8	670.9	662.5	92.6	81.7
53	0087	162.0	321.6	303.0	208.6	168 1	665.2	645.2	87.0	80.7	671.1	649.8	79.5	70.5	677.0	669.4	93.6	83.1
54	909.2	165.7	325.1	309.7	211.6	172.0	670.2	650.2	88.0	82.3	668.8	655.2	80.6	71.5	682.5	674.8	94.5	84.6
55	911.0	167.9	329.6	315.0	216.7	175.2	675.5	655.4	89.1	84.7	667.9	660.9	61.6	72.7	687.6	680.5	95.2	86.0
56	913.4	170.6	333.4	322.9	221.6	178.8	680.7	660.7	90.1	87.1	664.9	666.6	82.5	73.9	692.5	686.3	95.9	87.4
57	917.2	173.8	336.2	328.2	225.6	182.5	685.5	665.3	91.0	89.2	669.9	671.6	63.5	74.9	697.0	691.0	96.6	68.7

Table 8.1.4. Temperatures Measured in Assembly S-37, Wood Stud, 2x2 Gypsum Layers, Resilient Channels on Exposed Side

Time	T(Fav)							Tempo	erature a	t Thermo	couple l	Number						
(min)	(°C)	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
58	918.0	178.2	340.2	333.0	229.4	187.2	690.2	669.7	91.6	90.9	672.3	676.5	84.4	75.7	701.6	696.0	97.2	89.8
59	919.1	183.1	346.5	338.2	234.1	192.1	695.3	674.8	92.0	92.0	675.5	682.1	85.1	76.4	706.3	702.4	97.9	90.3
60	922.7	188.7	349.9	339.4	240.0	197.6	699.0	678.2	92.3	93.0	676.5	685.5	85.8	76.8	709.9	705.4	98.6	90.6
61	924.6	194.0	354.4	341.8	242.9	202.3	703.0	682.2	92.6	93.9	680.0	689.8	86.4	77.2	714,1	710.1	99.3	91.1
62	926,5	202.6	358.0	344.3	248.5	207.7	707.5	686.6	93.0	94.7	680.4	694.6	87.0	77.6	718.4	715.5	100.1	91.6
63	927.0	205.9	360.6	347.4	252.1	213.3	711.6	691.0	93.7	95.4	675.9	699.2	87.5	78.1	722.7	721.3	100.8	92.2
54 OF	930,1	210.5	305.1	349.7	257.6	220.2	710.0	694.6	94.5	96.0	650.8 620.5	703.3	87.8	78.8	726.4	725.6	101.5	93.0
200	034.0	213.6	370.0	353.0	267.3	220.2	719.0	702.0	95.3	97.0	626.1	7107.4	00.1	79.6	730.2	730.9	102.2	93.5
67	936.0	223.1	375.4	356.7	271.0	236.5	725.2	702.0	97.1	97.3	627.6	714.0	88.8	81.2	736.6	736.9	103.0	94.1
68	937.6	228.8	377.2	358.0	273.9	239.8	728.7	709.4	97.9	97.6	630.1	717.6	89.3	81.7	740.0	740.9	104.5	95.3
69	938.0	232.4	380.5	361.0	276.7	242.8	732.1	713.4	99.0	97.9	621.0	720.3	89.9	82.4	743.2	745.6	105.3	96.0
70	941.1	237.8	382.7	363.0	279.9	246.0	734.9	716.5	100.4	98.2	613.8	723.2	90.0	83.1	745.7	749.4	106.1	96.8
71	942.4	243.2	386.2	366.4	283.4	250.0	738.0	719.8	101.6	98.7	590.1	726.6	90.9	83.7	748.6	755.2	106.9	97.7
72	944.9	248.5	388.2	369.7	287.7	253.4	741.1	722.7	102.8	99.2	586.8	729.8	92.0	84.3	751.1	759.8	107.6	98.6
73	.945.2	251.7	392.3	374.0	294.9	257.3	744.1	725,5	103.7	99.7	577.2	733.2	93.1	84.8	754.0	765.8	108.4	99.5
74	948.3	255.4	394.2	376.6	296.7	262.4	746.6	727.8	104.5	100.3	586.4	735.8	94.1	85.3	756.6	771.0	109.2	100,4
75	949.4	261.1	397.4	380.7	299.9	266.1	749.5	730.5	105.2	100.9	596.5	738.6	95.0	85.6	759.1	776.9	109.9	101.2
76	949,6	264.8	399.9	384.0	303.6	269.9	752.4	733.2	105.9	101.6	645.2	741.5	95.9	85.9	761.8	780.7	110.6	102.1
- 11	902.1	269.5	403.5	368.3	307.6	2/4.2	755.5	736.4	106.5	102.3	661.9	745.1	96.7	86.2	764.6	779.0	111.4	102.9
70	055.0	273.7	409.7	392.0	3157	203 5	760.0	730.2	107.2	103.0	667.0	747.4	97.5	00.4 66 5	760.0	775.4	110.6	103.7
80	957.4	281.6	411.0	401.2	319.7	287.6	762.3	742.B	107.5	104.7	667.8	752.2	98.9	86.5	7710	775.4	113.4	105.2
81	959 1	286.4	414.3	404.8	323.9	291.3	764.7	745.2	109.4	105.6	666.5	754.7	99.6	86.4	773.0	778.0	114.2	105.2
82	960.3	291.5	417.2	408.3	328.1	295.7	767.1	747.5	110.6	106.5	664.5	757.6	100.5	86.3	774.7	778.6	115.4	106.8
63	963.5	295.6	420.3	411.3	332.4	299.7	769.3	749.5	111.9	107.4	660.8	759.5	101.0	86.4	775.6	779.8	116.B	107.5
84	964.5	300.3	424.2	416.7	337.3	304.6	772.3	752.3	113.6	108.5	662.4	762.6	101.6	86.9	776.8	781.7	118.8	108.3
85	966.4	303.9	427.3	418.2	341. 9	307.9	774.7	754.2	115.7	109.5	661.0	764.6	102.2	87.3	777.3	783.8	121.5	109.0
86	966.9	308.7	430.7	423.7	347.0	311.5	777.1	756.5	118.6	110.6	657.2	766.9	102.9	87.9	778.2	786.6	125.0	109.7
87	969.0	312.5	434.5	427.2	351.9	315.5	780.2	759.2	122.2	111.6	656.4	769.6	103.9	88.6	779.8	789.3	127.1	110.5
88	968.5	317.5	438.0	431.4	357.5	321.7	783.0	761.6	125.6	112.7	655.0	772.1	105.1	89.3	761.4	792.7	129.6	111.3
89	970.5	320.3	441,4	433.3	302.7	320.0	707.0	703.4	121.8	113.7	654.0 656.6	776.0	106.5	00.2	763.1	796.2	135.3	112.2
01	973.5	328.4	444.5	440 1	373.0	334.2	790.5	767.9	138.0	115.9	655.2	778.3	109.2	90.3	787.8	804.5	142.1	114.6
 	975.5	332.8	451.4	440.6	379.6	337.7	793.5	769.6	144.2	117.1	655.3	780.4	110.2	91.4	790.5	809.0	151.9	116.1
93	977.0	336.6	454.4	442.8	385.4	341.9	796.7	771.8	149.0	118.5	656.4	782.8	111.1	91.6	793.9	813.8	155.5	118.0
94	977.5	340.6	458.1	446.7	390.8	344.8	800.0	774.1	153.0	120.4	658.1	785.6	112.2	92.3	797.4	819.2	158.8	120.3
95	978.6	345.5	461.6	450.9	395.8	349.1	803.4	776.5	157.5	123.1	661.1	788.7	113.2	92.7	801.1	824.9	165.1	122.5
96	980.0	349.2	466.3	456.5	402.2	354.3	807.0	779.3	163.9	126.7	664.3	792.3	114.2	93.4	804.8	831.2	168.4	124.2
97	981.3	354.8	470.8	460.7	408.4	358.7	810.5	782.1	168.5	130.4	668.1	796.2	115.2	93.7	808.5	837.9	173.2	125.7
98	983.2	359.7	474.5	464.7	414.5	364.2	813.3	784.8	170.7	132,6	668.4	798.4	115.6	94.3	812.3	844.2	178.5	128.2
- 89	984.2	365.4	478.4	470.5	420.2	369.4	816.1	788.0	174.0	135.7	668.3	801.1	118.7	94.7	616.4	853.3	183.7	132.0
100	985.3	370.6	483.2	4/5.7	426.4	3/5.3	819.0	/91.4	1/8,3	141.7	670,9	805.9	122.9	95.2	620.4	852.5	187.5	137.3
101	907.3	3//./	466.0	402.0	432.3	367.0	825.2	797.0	189.0	14/.0	677.2	8237	120.0	95./	829.1	802.0	10/2 0	142.3
102	900.0	303.0	493.1	409.2 500.7	437.8	307.8	828.1	700.1	103.2	155.8	679.7	851.6	131.9	90.4	020.1 831 0	092.9	107.0	140.1
100	000.2	397.1	501.0	512.3	449.8	400.9	830.6	808.6	198.1	160.5	679.8	912.0	134.6	97.5	835.4	947.8	214.8	153.8
105	990.8	405.3	505.5	523.7	454.9	409.0	633.5	840.8	204.1	16B.8	680.2	947.2	137.3	98.1	838.6	957.8	227.9	158.5
106	992.3	412.3	509.8	533.6	460.4	417.0	B36.1	890.0	211.0	176.3	677.8	968.4	139.7	98.6	841.7	964.9	236.6	163.4
107	992.9	423.8	514.5	540.4	465.7	424.9	838.9	928.2	217.0	181.5	676.9	974.2	142.3	99.0	844.4	966.2	243.8	168.2
108	994.8	428.9	518.5	547.7	471.0	433.8	840.8	947.5	220.8	185.3	675.9	978.5	144.5	99.3	846.4	968.8	248.5	172.9
109	994.6	435.5	523.1	554.6	476.6	441.6	843.5	956.9	223.8	188.8	676.4	980.1	147.3	99.8	848.8	971.2	246.5	177.5
110	996.B	441.6	527.3	561.9	481.9	448.6	845.7	963.3	226.6	192.1	677.9	981.6	150.0	101.0	850.9	973.9	244.0	182.4
111	997.4	449.1	531.3	569.3	486.7	455.4	847.6	970.6	229.7	195.3	679.7	983.9	152.6	102.3	853.3	976.4	245.9	188.1
112	999,9	456.9	534.6	574.8	491.2	464.1	849.3	974.4	233.1	199.0	682.6	985.1	156.9	103.9	855.1	979.1	249.9	194.8
t13	998.8	461.7	539.2	580.6	496.7	471.1	851.6	978.0	237.1	203.4	665.6	986.6	161.3	105.7	857.2	980.0	255.0	202.1
114	999.3	468.1	543.5	586.3	502.6	4/7.7	855.6	900.1	242.0	208.1	601 7	099.0	172.0	110.2	860.7	901.4	209.9	209.5
113	1000,7	4/5.4	547.4	C.18C	200.0	404.1	500.4	1 207.A	247.4	Z 12.9	031.1	300.3	1/2.9	1 1 1 1 1 1	000.7	503.3	£04. <i>f</i>	213.0

Table 8.1.5. Temperatures Measured in Assembly S-37, Wood Stud, 2x2 Gypsum Layers, Resilient Channels on Exposed Side

Time	T(Fav)							Tempe	erature a	t Thermo	couple N	lumber]
(min)	(°C)	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
116	1002.4	481.9	551.8	596.0	512.1	490.5	857.0	984.4	256.2	218.1	695.3	988.7	177.8	113.1	862.0	984.6	269.7	221.3
117	1002.0	488.0	555.6	601.3	515.4	497.3	859.0	983.8	262.8	223.8	699.2	986.3	183.2	116.3	864.0	983.9	274.9	226.4
	1002.5	495.2	560.3	605.3	521.1	504.1	860.8	986.2	269.4	228.7	704.0	986.8	189.2	119.6	866.1	985.2	280.0	231.3
119	1004.7	501.5	565.0	609.0	527.3	511.7	862.9	989.7	275.9	233.6	710.4	988.0	195.5	122.8	868.1	987.0	285.3	236.0
120	1003.9	508.9	570.0	614.7	532.9	519.7	864.5	988.3	282.3	238.6	714.9	984.6	202.7	125.9	870.0	985.5	290.8	240.9
121	1005.1	516.2	574.5	620.2	538.1	526.4	866.5	989.0	288.8	244.1	717.2	984.2	209.4	129.2	872.0	986,3	296.8	246.0
122	1006.1	523.8	579.4	625.6	543.3	535.3	868.6	991.5	295.0	250.3	719.7	986.0	216.1	132.3	873.3	969.0	303.5	251.4
123	1005.7	530.5	584.3	631.3	549.3	543.4	870.0	991.6	301.2	256.6	720.1	984.2	221.8	135.3	874.3	994.5	310.8	257.0
124	1008.1	537.7	589.9	638.2	555.2	551.1	670.6	992.7	307.4	263.1	720.4	984.4	227.4	138.4	875.1	994.4	318.7	263.0
125	1009.1	544.4	596.0	644.2	560.5	557.7	871.3	995.6	313.4	269.5	721.4	986.4	233.4	141.8	875.1	997.0	327.6	269.1
126	1008,6	553.2	602.0	650.3	567.3	565.5	872.1	996.5	319.4	275.9	721.1	986.3	239.3	145.4	874.9	998.3	337.9	275.3
127	1009.7	562.4	608.9	656.0	573.9	573.1	872.2	997.0	325.6	282.4	720.7	985.3	245.6	149.3	873.5	997.8	348.6	291.4
128	1009.0	58%	***	***	***	402 -	***	***	***	***	720.B	984.9	252.8	153.2	871.9	30.3	357.2	287.0
129	1010.5	579.6	620.0	674.2	586.4	586.7	870.4	999.0	337.5	295.9	720.6	984.9	262.4	157.4	871.1	1002.0	363.1	292.9
130	1012.5	585.6	626.1	682.8	593.6	594.1	869.2	998.1	343.3	303.0	720.5	983.8	272.5	161.8	870.0	1002.2	368.0	298.7
131	1012.0	590.7	631.8	693.0	600.7	600.7	868.0	999.8	349.0	310.4	721.6	985.7	283.0	166.9	870.3	1006.6	371.7	304.9
132	1013.1	596.1	637.0	700.5	607. 9	606.9	865.4	1001.3	354.7	318.2	722.3	985.3	293.7	172.5	869.7	1008.1	374.3	311.5
133	1013.1	603.7	642.4	708.2	615.1	613.4	866.0	999.8	360.4	326.2	723.2	983.8	304.1	179.8	868.2	1008.0	377.0	317.9
134	1015.8	611.3	648.4	714.6	622.7	618.5	865.0	1001.3	365.9	334.1	723.4	984.7	314.0	187.6	866.3	1010,1	380.2	324.7
135	1015.2	617.3	653.0	720.2	629.7	6 24.8	862.1	1001.9	371.4	341.9	724.4	984.4	323.0	195.1	863.1	1010.7	381.5	331.5
136	1015.4	623.8	653.8	725.1	632.5	630.6	856.7	1000.0	377.1	349.4	726.4	981.4	333.1	204.0	858.8	1005.7	386.9	338.2
137	1017.3	630.5	657.5	730.1	637.6	635.6	851.5	998.6	383.2	356.5	728.1	980.2	343.4	213.1	852.8	1004.1	393.2	345.1
138	1017.4	634.8	662.4	734.9	644.2	640.9	845.1	998.9	389.7	363.3	729.9	978.6	353.8	221.6	845.4	1003.2	400.5	351.9
139	1017.8	641.3	667.2	738.8	650.6	645.8	838.3	996.7	396.1	369.9	731.0	977.3	363.1	227.7	837.1	1000.5	408.5	358.7
140	1018.3	645.8	673.1	741.8	657.4	651.6	829.2	994.1	402.6	376.2	732.9	973.8	372.2	235.0	826.7	996.0	417.6	366.0
141	1019.5	651.6	678.3	744.8	664.1	658.2	820.7	991.8	408.5	362.5	735.4	971.0	381.1	242.5	814.6	991.0	427.7	373.6
142	1020,5	658.1	685.0	749.2	672.4	664.6	611.5	989.8	415.5	388.5	739.1	966.9	390.3	250.1	805.1	986.7	438.6	381.2
143	1020.2	664.5	691.3	751.6	679.9	670.4	802.6	985.8	423.6	394.0	742.2	960.6	399.2	257.1	794.5	974.6	449.5	388.9
144	1021.1	671.6	696.3	753.4	685.8	677.1	793.1	983.6	433.3	400.0	743.8	955.4	408.0	264.8	783.1	965.9	459.4	396.6
145	1023.6	680.4	701.9	754.8	692.3	684.5	785.6	980.4	443.9	406.3	746.8	947.6	416.3	272.7	773.3	953.6	468.7	405.5

Table 8.1.6. Temperatures Measured in Assembly S-37, Wood Stud, 2x2 Gypsum Layers, Resilient Channels on Exposed Side

Table 8.2.1. Average Temperatures Measured in Assembly S-37, Wood Stud, 2x2 Gypsum Layers, Resilient Channels on Exposed Side

Time	T(Fav)	BL/FL (Exp.)	BL/WStd. (Exp.)	BL/Cav. (Exp.)	Mid. WStd.	BL/Cav. (UnExp.)	BL/WStd. (UnExp.)	BL/FL (UnExp.)	UnExp.
(min)	(°C)	Av(26,27,30,31,34,35)	Av(12.13)	Av(18 19 22 23)	Av(10 11 14 15)	Av(20 21 24 25)	Av(16 17)	Au/08 20 22 23 26 27)	AW/1 2 9 4 E)
0	41.6	37.0	33.5	33.8	31.7	01 A	00.0	00.0	AV(1;2;3;4;3)
	115.0	37.1	33.4	33.8	31.6	31.4	29.6	29.0	20.4
2	223.7	44.9	33.4	33.9	31.6	31.4	29.6	29.1	28.4
3	327.3	62.5	33.5	34.4	31.7	31.4	29.6	29.0	28.4
.4	431.9	79.2	34.0	39.1	31.9	31,8	29.7	29.0	28.4
5	529.0	86.8	35.6	53.4	33.0	35.1	29.8	29.1	28.4
6	567.9	91.3	39.1	67.2	36.2	39.6	30.2	29.2	28.4
	599.5	96.4	44.4	73.1	42.3	45.7	30.9	29.6	28.3
В	632.7	102.4	49.8	77.6	47.5	51.2	32.1	30.5	28.4
9	004.4	106.6	54.0	79.5	52.1	55.4	33.6	31.7	28.5
10	710.0	112.0	. 57.6	81.9	55.8	58.2	35.2	33.3	28.6
12	722 3	116.1	60.3	63.0	50.0 80.5	60.6	37.0	34.9	28.9
13	731.6	123.1	64.1	82.9	62.6	63.9	38.8	30.0	29.3
14	743.1	142.8	65.4	81.0	62.9	64.2	41.7	39.9	20.5
15	753.7	184.7	66.5	80,2	63.6	64.3	42.6	41.2	31.3
16	762.3	225.7	67.5	81.4	64.7	65.3	43.9	42.3	32.1
17	768.9	257.4	68.9	84.3	66.3	66.9	45.0	43.4	32.9
18	776.1	284.5	71.0	<u> 88.9</u>	68.5	68.9	46.2	44.5	33.8
19	782.7	307.4	72.9	94.1	70.5	71.0	47.5	45.7	34.6
20	789.0	326.9	74.2	98.8	72.3	72.6	48.7	47.1	35.5
21	793,1	344.8	75.8	102.9	74.0	74.2	50.1	48.4	36.4
22	800.5	360.7	77.7	106.0	75.5	76.0	51.4	49.9	37.3
23 04	000.9	373.4	/9.4	110.1	77.0	78.0	52.9	51.3	38.3
25	816.3	305.7	81.1	119.0	78.5	(9.8	54.4	52.7	39.3
26	821.6	406.5	84.4	121.9	80.0	01.0	57.4	55.0	40.4
27	826.9	417.7	85.8	125.7	82.7	A5 1	58.9	57.3	41.0
28	829.6	428.2	87.1	129.1	83.9	86.2	60.4	58.8	43.8
29.	.832.1	438.9	88.1	132.2	84.9	87.2	61,9	60.3	45.0
30	897.6	450.2	69.0	134.7	85.7	88.0	63.4	61.7	46.2
91	841.3	461.5	90.0	137.5	86.5	89.2	64.9	63.0	47.4
32	845.2	472.5	90.8	141.8	87.3	90.0	66.2	64.2	48.6
33	850.1	483.7	91.7	146.0	87.8	90.7	67.6	65.4	49.7
34	853.3	494.7	92.5	150.7	88,3	91.8	68.9	66.5	50.8
30	557.3	505.3	93.5	155.6	88.8	92.4	70.1	67.5	51.9
37	B84.2	510.1 524 B	94.0	167.1	00.0	93.0	71.1	68.4	52.9
38	BEE B	534.6	98.5	174.8	90.8	94.9 97 N	73.1	69.0	54.9
39	871.1	543.8	102.5	183.2	92.0	99.6	73.9	70.6	55.7
40	873.0	553.4	107.9	194.3	93.9	103.2	74.7	71.2	56.5
41	876.4	563.6	116.0	207.0	97.5	107.7	75.3	71.8	57.3
42	679.8	573.4	124.4	219.6	101.7	113,1	75.9	72.4	58.0
43	881.8	583.4	134.6	230.8	106.7	119.3	76.5	73.0	58.7
44	884.2	593.9	144.7	241.5	112.7	126.1	77.2	73.7	59.4
45	888.0	603.4	154.8	251.4	119.5	132.9	78.0	74.4	60.1
46	889.3	612.8	164.8	260.2	125.9	140.3	78.9	75.2	60.8
	892.5	620.8	175.2	268.5	132.3	147.1	79.8	76.3	61.5
46	090.4	020.4	184,0	2/6.2	139.1	153.5	80.8	77.3	62.1
47 60	000 0	642 A	201 7	203.0	140.0	160.1	B2.0	70.7	62.8 63 5
51	901 1	849.7	201.7	208.9	157.6	171 7	84.4	19.7	03.3 64 1
52	905 R	654.7	218.9	301.0	163.5	177 1	85 7	815	64.1 64.7
53	906.7	662.9	224.2	306.8	169.0	182.7	87.2	82.4	65.3
54	909.2	666.9	231.8	311.2	173.9	187.0	88.7	83.6	66.0
55	911.0	671.3	239.2	316.0	179.0	191.0	90.3	84.9	66.6
56	913.4	675.3	246.5	321.5	185.1	195.3	91.6	86.2	67.2
57	917.2	680.1	252.7	325.9	189.8	199.0	93.1	87.3	67.9

Legend: BL - Base Layer, FL - Face Layer, Cav. - Cavity, WStd. - Wood Stud, Av - Average, Exp. - Exposed Side, UnExp. - Unexposed Side

Table 8.2.2. Average Temperatures Measured in Assembly S-37, Wood Stud, 2x2 Gypsum Layers, Resilient Channels on Exposed Side

Time	T(Fav)	BL/FL (Exp.)	BL/WStd. (Exp.)	BL/Cav. (Exp.)	Mid, WStd	BL/Cav. (UnExp.)	BL/WStd. (UnExp.)	BL/FL (UnExp.)	UnExp.
(min)	(°C)	Av(26,27,30,31,34,35)	Av(12,13)	Av(18,19,22,23)	Av(10,11,14,15)	Av(20,21,24,25)	Av(16,17)	Av(28.29.32.33.38.37)	Av(1,2,3,4,5)
58	918.0	684.4	258.2	330.0	195.2	203.6	94.4	88.3	69.5
59	919.1	689.4	264.4	335.0	199.8	208.2	95.8	88.9	69.0
. 60	922.7	692.4	269.8	337.8	204.5	213.7	97.1	89.5	69.6
61	924.6	696.5	275.8	341.6	209.0	217.9	98.4	90.1	70,1
62	926.5	700.5	280.4	344.6	214.2	224.0	99.9	90.7	70.6
63	927.0	703.6	287.2	348.1	218.5	228.2	101.4	91.3	71.0
64	930.1	702.7	294.6	351.7	222.8	233.6	103.0	91.9	71.5
65	932.1	702.8	300.1	354.9	227.7	238.3	104.4	92.6	71.9
66	934.8	704.6	303.6	357.1	232.5	243.2	105.7	93.2	72.3
67	936.0	707.6		360.5	237.1	247.1	107.0	93.8	72.7
68	937.6	711.1	316.1	363.9	240.5	251.4	108.7	94.4	73.0
69	938.0	712.6	319.4	367.5	244.5	255.3	110.6	95.1	73.4
70	941.1	713.9	319.8	370.7	248.2	259.6	112.7	95.8	73.8
/1	542.4	713.1	322.1	374.0	252.4	264.0	114.7	96.6	74.3
4	944.9	715.2	328.5	377.1	256.5	268.3	116.9	97.4	74.7
73	945.2	716.6	332.7	380.7	261.2	273.1	119.2	98.2	75.0
[4 	948.d	720.7	338.2	383.7	264.6	276.8	121.4	98.9	75.4
70	040 C	725.0	345.2	387.0	269.5	281.3	123.6	99.6	75.8
77	057.1	735.6	349.1	390.4	273.2	285.3	125.7	100.3	76.2
79	054.8	740.4	300.1	394.4	2//.2	289.6	127.8	101.0	76.6
79	054.2	743.7	362.0	401.0	201.3	294,4	130.0	101.6	77.1
BO	957.4	745.2	379 4	401.1	200.0	290.7	132.2	102.2	70.1
81	959-1	747.0	377.7	407.8	205.0	307.9	134.3	102.9	70.1
82	960.3	748.3	381.9	410.9	299.7	311.7	138.7	104.3	70.3
83	963.5	749.1	385.3	414.4	303.9	316.3	141.0	105.2	79.8
84	964.5	751.4	389.4	418.3	308.5	321.2	143.3	106.3	80.4
85	966.4	752.6	394.5	421.2	314.1	325.4	145.8	107.5	80.9
88	966.9	753.7	399.2	424,9	318.1	330.1	148.6	109.1	81.5
87	969.0	755.8	404.3	428.4	322.7	334.4	151.6	110.7	82.1
88	968.5	757.6	415.0	431.0	327.9	339.8	154.8	112.3	82.7
B9	970.5	759.3	420.1	433.8	333.0	344.0	158.0	114.2	83.5
90	972.3	761.9	425.2	437.1	337.8	349.0	161.5	116.7	64.3
91	973.5	764.0	430.0	440.0	342.9	353.3	164.9	119.3	85.1
92	975.5	766.4	435.2	442.2	350.1	358.2	168.2	121.8	86.1
93	977.0	769.2	439.5	445.0	357.4	363.0	171.5	124.0	87.1
94	977.5	772.4	445.5	448.6	364.3	367.1	174.6	126.2	88.2
95	976.6	775.9	451.9	452.5	372.6	372.4	177.6	129.0	89.4
96	980.0	779.8	457.6	457.2	378.2	377.6	180.6	131.8	90.7
	981.3	783.9	463.7	461.6	385.0	383.0	183.3	134.5	91.9
88	983.2	786.9	467.2	465.6	391.2	368.7	185.4	136.7	93.1
100	004 2	790.5	4/4.5	474.9	397.1 402.e	394.3	187.5	139.8	94.1
100	007.9	795.0	4/5.1	4/4.8	403.6	400.1	189.8	143.8	95.2
102	000 B	907.2	485.5	4/9,8	409.9	400.3	192.3	147.9	96.2
102	090.0	919.7	490,9	485.1	417.	416.6	184.3	151.4	97.2
104	000.1	835.7	602.8	491.4	417.9	410.5	197.1 200.1	134.2	98.2
105	000 8	849 7	508.7	504.5	436.9	424.0	200.1	105.5	100.6
tD6	992.3	863.2	515.2	511.9	446.0	437.6	208.4	170.9	101.7
107	992.9	871.4	521.4	517.6	453.2	445.1	209.7	175.3	102.7
108	994.8	876.3	527.8	523.9	460.0	451.1	213.2	178.6	103.6
109	994.6	879.5	535.0	530.5	466.2	457.3	217.2	180.6	104.3
110	996.B	882.2	543.3	536.9	472.7	463.0	221.0	162.7	104.9
S. 111	997.4	885.3	550.1	543.2	479.7	469.0	225.2	185.7	105.4
112	999.9	887.6	557.4	548.0	486.5	475.4	229.3	189.6	105.8
113	998.8	889.8	563.9	553.7	494.1	480.7	233.6	194.1	106.3
114	999.3	891.8	570.0	559.3	500.1	486.3	238.2	198.9	106.8
115	1000.7	893.7	576.0	564.3	507.5	492.2	243.9	204.2	107.3

Legend: BL - Base Layer, FL - Face Layer, Cav. - Cavity, WStd. - Wood Stud, Av - Average, Exp. - Exposed Side, UnExp. - Unexposed Side

Table 8.2.3. Average Temperatures Measured in Assembly S-37, Wood Stud, 2x2 Gypsum Layers, Resilient Channels on Exposed Side

Time	T(Fav)	BL/FL (Exp.)	BL/WStd. (Exp.)	BL/Cav. (Exp.)	Mid. WStd.	BL/Cav. (UnExp.)	BL/WStd. (UnExp.)	BUFL (UnExp.)	UnExp.
(min)	(°C)	Av(26,27,30,31,34,35)	Av(12,13)	Av(18,19,22,23)	Av(10,11,14,15)	Av(20,21,24,25)	Av(16,17)	Av(28,29,32,33,36,37)	Av(1,2,3,4,5)
116	1002.4	895.3	582.2	569.1	514.0	498.0	250.4	209.4	107.9
117	1002.0	896.1	586.8	574.2	519.6	503.2	257.0	214.5	108.6
118	1002,5	898.2	591.6	579.1	525.1	509.3	263.9	219.7	109.3
119	1004.7	901.0	596.1	583.9	530.2	515.6	271.7	224.8	110.0
120	1003.9	901.3	599.8	589.6	534.7	522.2	281.3	230.2	110.7
121	1005.1	902.5	804.6	594.7	540.7	528.3	291.2	235.7	111.5
122	1006.1	904.7	611.5	600.0	547.4	535.0	301.9	241.4	112.2
123	1005.7	905.8	617.8	605.3	554.5	541.6	312.8	247.1	113.0
124	1008.1	906.3	623.5	611.3	560.9	547.6	324.4	253.0	113.9
125	1009.1	907.8	629.0	617.2	568.7	553.7	336.5	259.1	114.8
126	1008.6	908.2	634.4	623.6	576.5	561.1	349.5	265.6	115.9
127	1009,7	907.8	639.9	629.3	583.9	568.3	363.6	272.1	117.0
128	1009.0	652,0	***	***	***	***	***	262.6	118.3
129	1010.5	908.0	651.2	642.9	598.6	582.7	394.9	284.9	119.5
130	1012.5	907.3	656.7	649.8	605.7	589.4	410.8	291.2	120.9
131	1012.0	908.7	662.7	656.3	613.3	595.6	428.2	297.6	122.8
132	1013.1	908.9	668.7	662.5	620.4	601.6	444.7	304.1	125.0
133	1013.1	908.2	674.6	669.5	627.8	608.3	460.4	310.9	127.9
134	1015.8	908.5	680.4	676.1	634.3	614.5	474.3	317.7	130.7
135	1015.2	907.8	686.5	682.0	640.7	620.8	491,4	324,1	133.6
136	1015.4	904.8	691.0	686.3	647.1	626.5	505.4	331,4	138.5
137	1017.3	902.6	696.1	692.0	653.1	632.4	514.5	339.1	143.7
138	1017.4	900.2	702.1	697.8	659.1	638.1	521.8	346.8	147.9
139	1017.8	896.8	707.5	702.4	664.9	644.2	527.8	354.0	153.3
140	1018.3	692.1	715.1	709.3	672.5	650.1	534.8	361.6	161.5
141	1019.5	887.4	721.8	713.7	678.4	656.9	544.1	369.3	171.0
142	1020.5	883.2	729.2	720.9	684.8	664.5	554.2	377.4	181.3
143	1020.2	876.7	737.9	727.0	691.4	671.2	562.4	385.4	191.4
144	1021.1	870.8	745.1	732.0	697.4	678.0	572.9	393.7	202.4
145	1023.6	864.6	752.7	736.8	703.7	685.8	584.6	402.2	214.0

Legend: BL - Base Layer, FL - Face Layer, Cav. - Cavity, WStd. - Wood Stud, Av - Average, Exp. - Exposed Side, UnExp. - Unexposed Side

Time	T(Fav)								T	emperatu	ire at Th	ermocou	ple Num	ber							
(min)	(°C)	1	2	а	4	5	6	7	8	9	10	11	. 12	13	14	15	16	17	18	19	20
0	46.8	29.4	30.5	29.4	29.5	30.2	28.9	29.0	28.7	29.2	33.3	31.6	35.3	33.3	33.4	31.6	31.7	30.8	35.9	34.0	33.4
1	109.1	29.4	30.5	29.4	29.5	30.2	28.9	28.9	28.6	29.1	33.4	31.6	35.4	33.4	33.5	31.6	31.7	30.8	35.9	34.0	33.5
2	224.7	29.4	30.5	29.4	29.5	30.2	28.9	28.9	28.6	29.1	33.4	31.6	35.4	33.4	33.5	31.6	31.7	30.8	36.0	34.0	33.5
4	430.9	29.4	30.5	29.4	29.5	30.2	28.7	28.9	28.6	29.1	33.8	31.7	36.3	33.0	34.0	31.7	31.8	30.9	36.4	34.3	33.6
5	532.7	29.5	30.6	29.4	29.5	30.3	29.0	28.9	28.6	29.1	35.4	32.7	38.3	34.6	36.1	32.9	34.0	31.5	43.3	39.2	34.0
6	568,8	29.5	30.6	29.4	29.5	30.2	29.0	29.0	28.7	29.2	40.2	36.2	43.1	37.7	41.8	36.8	43.1	33.1	51.3	47.7	40.2
7	599.7	29.5	30.6	29.5	29.5	30.3	29.1	29.1	28.7	29.2	47.5	41.8	49.9	43.6	49.5	42.6	51.2	36.4	59.5	56.8	46.4
9	664 B	29.5	30.7	29.6	29.6	30.3	29.2	29,1	28.7	29.3	53.4	47.5	56.3	49.3	54.9	47.6	57.4	40.9	65.8	62.7	51.8
10	699.5	29.8	31.4	30.4	29.8	30.4	29.4	29.3	28.9	29.5	61.8	56.3	65.5	56.7	62.7	55.3	65.1	47.3	70.4	69.8	56.6
11	711.1	30.1	32.1	31.0	30.1	31.0	29.9	29.8	29.2	30.2	64.4	60.1	67.9	59.7	65.4	58.2	68.0	58.4	75.7	72.0	63.8
12	721.5	30.6	33.1	31.9	30.6	31.5	30.2	30.2	29,5	30.8	66.9	61.9	70.1	61.8	67.7	60.2	70.0	60.7	77.5	73.6	65.6
13	731.7	31.2	34.3	32.9	31.4	32.1	30.6	30.8	30.1	31.7	67.1	61.0	71.0	61.2	68.0	59.6	68.0	59.8	77.8	73.6	66.5
14	755.2	31.9	35.7	33.8	32.2	32.9	31.3	31.5	30.7	32.6	67.7	61.2	71.0	61.5	68.6	59.8	67.9	60.0	77.9	73.4	67.1
16	762.0	33.7	38.5	36.0	34.1	34.9	32.0	33.0	321	34.4	68.0	623	72.2	63.2	70.1	60.4	68.2	61.0	78.7	73.7	67.8
17	768.7	34.7	39.9	36.9	35.0	35.9	33.0	33.9	32.9	35.5	***	***	***	***		+++	***	***	10.0	***	70.1
18	776.3	35.7	41.1	37.8	35.8	37.0	33.1	34.7	33.6	36.3	72.0	64.9	74.8	66.2	73.2	64.4	72.2	62.8	84.1	77.6	71.5
19	783.5	36.8	42.4	38.6	36.7	38.1	33.7	35.6	34.3	37.2	74.0	66.8	76.4	68.2	75.3	66.5	74.2	64.4	86.8	79.0	73.5
20	704.1	37.9	43.6	39.3	37.5	39.2	33.8	35.9	34.9	38.0	75.5	68.2	78.1	69.5	77.3	68.1	75.4	66.2	90.2	80.9	75.5
22	799.6	40.2	46.0	40.9	39.1	41.5	35.2	37.3	36.2	39.9	70.7 77.8	71.6	81.6	72.9	70.0 80.0	71.5	77.4	70.0	94.0	90.5	78.9
23	805.B	41.5	47.2	41.7	39.9	42.6	35.9	38.3	37.0	40.8	79.0	73.6	83.3	75.2	81.3	73.3	78.4	71.9	100.3	94.4	80.5
24	810.8	42.7	48.4	42.5	40.8	43.9	35.5	38.5	37.4	41.6	80.4	75.3	85.2	77.4	82.8	74.7	79.6	73.9	102.6	97.3	82.0
25	816.6	44.0	49.5	43.3	41.6	45.1	35.7	39.3	38.3	42.6	81.4	76.8	86.6	79.6	84.1	76.4	80.8	75.7	104.7	100.0	83.6
20	820.9	45.3	51.0	43.8	42.5	46.3	36.0	40.3	39.2	43.7	82.6	78.2	88.5	81.5	85.4	78.0	81.9	77.6	105.7	102.0	84.8
28	829.6	47.9	53.0	45.7	44.6	48.8	37.2	41.6	40.8	45.5	85.0	80.9	92.0	84.9	88.1	80.8	84.1	80.5	108.2	103.7	87.4
29	831.9	49.1	54.2	46.6	45.7	50.0	38.2	42.5	42.2	46.8	86.3	82.1	93.7	86.4	89.3	82.0	84.8	81.7	109.5	105.9	86.4
30	837.6	50.4	55.4	47.2	46.9	51.3	37.8	43.2	43.0	47.5	87.2	83.3	95.0	87.7	90.7	82.8	85.3	82.8	110.4	107.1	89.1
31	842.2	51.5	56.4	48.8	48.0	52.5	38.9	43.5	43.5	48.4	88.4	84.1	96.3	88.8	91.5	83.7	85.8	83.7	111.5	108.1	90.0
33	850.1	53.9	58.5	50.6	48.3 50.5	54.8	39.5	44.7	45.1	49.3	89.9	85.7	98.9	91.0	92.5	84.2 84.8	00.∠ 86.6	84.3	113.0	110.3	90.7
34	852.B	54.9	59.5	50.B	51.7	55.8	37.7	45.7	46.6	50.7	90.9	86.3	100.1	92.0	94.1	85.2	87.0	85.5	115.3	111.5	92.2
35	856.7	55.8	60.4	52.1	52.9	56.8	40.1	46.1	47.5	51.8	91.9	86.8	101.5	93.1	95.2	85.8	87.4	85.3	117.3	113.1	93.0
36	0.038	<u>56.6</u>	61.1	53.1	54.0	57.6	41.0	46.6	48.5	52.2	92.3	87.3	103.2	94.2	96.9	86.2	87.7	85.5	121.4	115.6	94.4
38	866 1	58.2	62.5	54.8	56.0	58.4	40.6	47.1 47.6	46.6	52.7	93.4 94.7	87.6	106.0	95.4	98.8	85.7	87.9	85.8	126.8	119.2	95.8 97 B
39	870.0	58.9	63.1	55.6	56.9	59.9	41.5	48.0	50.1	53.7	96.6	88.5	116.4	98.5	105.8	88.1	87.8	86.2	145.6	130.8	100.8
40	873.4	59.4	63.7	55.8	57.8	60.5	40.1	48.3	50.4	54.1	99.1	89.6	123.5	100.8	110.8	88.7	88.0	86.7	160.1	140.7	104.5
41	875.7	60.0	64.2	57.1	58.6	61.1	43.0	49.2	51.5	54.6	104.6	93.1	135.1	104.2	119,1	89.7	88.9	86.6	173.8	151.3	109.9
42	8/8.4	60.5	64.7	57.7	59.4	61.6	41.8	49.3	51.6	54.7	111.7	96.2	146.6	109.5	125.9	92.1	91,2	86.5	186.8	163.4	116.3
44	883.1	61.2	65.8	58.7	60.6	62.5	40.8	49.7	52.4	55.3	126.4	105.3	170.6	126.3	143.8	99.5	94.5	87.0	209.2	185.0	123.8
45	887.7	61.5	66.4	59.0	61.2	63.1	41.0	49.7	52.6	55.6	133.6	110.9	181.1	135.8	150.2	104.4	101.8	87.9	220.1	193.3	140.7
46	888.6	61.9	67.0	59.3	61.8	63.6	41.8	50.1	52.8	55.9	140.9	116.5	192.5	145.2	157.9	109.6	104.9	69.4	229.0	200.9	148.3
47	893.0	62.2	67.7	60.2	62.5	64.2	41.6	50.2	53.1	56.2	147.4	123.1	203.3	154.7	165.5	114.9	108.3	92.5	237.9	208.2	155.9
48	635.2	62,4 62 B	68.3	60.3	63.1 82.7	64.6	40.7	50.6	52.9	56.4 57.3	154.7	128.7	213.9	163.9	172.2	120.2	111.5	95.6	246.8	214.7	163.8
50	899.3	63.2	69.6	62.1	64.3	65.6	44.0	53.0	54.3	58.0	167.8	140.5	230.9	181.3	184.5	130.4	118.5	101.4	258.9	227.3	172.6
51	901.4	63.6	70.2	62.6	64.9	66.2	43.5	53.0	54.4	58.5	173.7	145.3	239.4	189.2	189.9	135.3	121.9	105.2	265.2	233.4	176.7
52	904.8	64.2	70.8	63.4	65.4	66.8	44.7	54.0	55.1	59.5	178.8	150.7	247.4	196.7	195.3	139.8	125.7	108.8	271.8	238.1	182.5
53	908.9	64.8	71.3	63.9	65.7	67.4	44.3	54.2	55.7	60.3	185.6	155.2	254.6	203.9	200.3	144.5	129.8	112.6	276.5	243.8	186.8
D4 55	911.6	66.1	/1.8 72.9	64.7	66.0	69.5	45.4	55.2	56.5	61.2	191.1	164.6	261.0	211.0	205.4	148.6	133.0	115.9	281.1	248.9	193.2
56	913.1	66.8	72.6	65.6	66.8	69.0	43.0	55.6	57.1	62.5	201.9	167.9	272.7	224.0	214.3	156.6	139.6	121.2	289.7	256.2	204.1
57	915.8	67.5	73.0	66.2	67.2	69.4	43.9	56.1	57.3	62.8	207.4	172.7	279.0	229.9	219.3	160.3	143.5	124.2	295.3	259.6	209.1

Table 9.1.1. Temperatures Measured in Assembly S-38, Wood Stud, 2x2 Gypsum Layers, Resilient Channels on Exposed/UnExposed Sides
Time	T(Fav)							******	Te	emperatu	ire at The	ermocou	ple Num	ber							······
(min)	(°C)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
56	917.4	68.1	73.3	66.6	67.7	69.8	46.0	56.7	57.9	63.2	211.8	176.7	285.4	235.5	224.0	163.9	147.1	127.4	301.1	263.1	213.9
59	919.6	68.7	73.6	67.1	68.1	70.2	45.1	57.1	57.8	63.3	216.5	180.1	292.2	241.1	228.6	167.9	150.0	130.3	304.8	266.0	218.8
61	922 1	69.4	74.0	66.9	68.9	70,6	45.5	58.0	58.2	63.6	221.4	184.1	298.6	246.7	233.7	171.9	153.9	133.5	309.5	269.6	222.8
62	925.8	70.6	74.7	67.8	69.2	71.3	45.6	58.6	59.0	64.4	230.9	192.9	309.8	257.6	242.8	179.6	160.4	141.1	319.1	277.3	230.4
63	927,7	71.4	75.2	68.1	69.5	71.6	46.3	59.0	59.9	65.0	236.4	196.5	315.4	263.1	247,4	183.9	163.7	144.3	320.9	281.2	234.5
64	930.4	72.2	75.7	68.6	69.8	71.9	46.9	59.0	59.9	65.1	240.8	200.4	320.5	268.9	250.7	188.0	166.7	146.8	325.4	284.4	238.8
65	930.B	72.9	76.3	68.9	70.1	72.3	47.6	59.4	60.8	65.3	245.1	204.8	325.1	274.7	254.1	192.3	169.3	150.3	330.5	288.0	242.8
60 67	934,3	73.5	77.0	69.1	70.3	72.6	47.0	59.4	61.0	65.3	248.7	208.7	330.1	280.1	258.6	196.4	172.6	153.1	334.5	291.B	246.6
68	937.4	74.8	78.4	69.5	70.6	73.5	47.3	59.6	61.2	65.0	258.2	212.0	340.4	203.5	265.0	205.0	177.1	158.5	339.6	293.5	253.9
69	940.2	75.4	79,1	69.4	70.7	73.9	47.2	59.3	61.3	65.1	264.1	220.3	345.1	295.7	268.0	208.9	180.1	161.6	342.6	302.0	259.4
70	939.5	76.0	79.9	70.0	70.9	74.4	46.8	59.1	61.8	65.7	268.9	225.3	349.5	300.9	272.3	212.9	183.3	164.4	347.9	304.6	265.0
71	943,0	76.7	80.7	70.0	71.1	75.0	47.1	59.6	61.5	65.2	271.2	228.1	355.7	307.1	276.3	216.5	185.9	166.1	350.1	309.0	269.4
72	943.3	79.0	81.4	70.5	71.3	75.6	47.2	59.2	62.0	65.6	274,4	231.8	359.7	312.1	281.5	220.6	189.2	170.4	353.8	312.6	272.5
74	948.5	79.0	83.0	70.5 70.8	71.9	76.9	46.7	59.7	62.2	65.8	273.2	234.0	372.1	316.9	284.7	224.5	196.6	173.9	358.0	319.5	275.8
75	948.2	79.9	83.7	71.4	72.3	77.5	47.3	59,6	62.0	65.5	283.1	242.6	378.2	327.1	294.5	231.9	199.5	183.2	364.4	320.6	282.7
76	949 8	80.8	84.4	72.2	72.7	78.2	47.9	59. 9	62.5	65.8	266.7	244.4	383.4	331.6	299.9	236.5	203.5	186.9	367.3	324.4	289.1
71	952.6	81.7	85.0	72.7	73.2	78.8	48.9	60.5	62.9	65.7	294.1	247.4	384.9	335.4	304.9	241.2	208.2	191.1	371.2	_328.6	293.4
78 70	854.1 OFF 4	82.0	85.7	/3.1	74.3	79.4	47.2	50.4 50.6	62.8	65.8	299.3	250.4	387.0	338.8	309.3	245.5	212.5	196.1	373.6	332.7	297.3
80	957.7	84.5	87.0	73.7	75.0	80.7	46.0	60.3	62.8	66.0	310.4	256.6	395.2	348.2	318.2	254.5	220.9	200.5	381.0	340.4	306.3
81	958.9	85.5	87,5	74.5	75.6	81.2	47.8	60.0	62.7	66.1	319.7	260.6	392.0	354.3	322.2	259.1	224.8	209.0	384.2	343.8	310.0
82	959, 9	86.3	88.2	74.6	76.3	81.8	47.0	60.2	62.5	66.0	318.1	261.8	396.3	358.3	326.7	263.4	227.2	212.7	388.1	347.2	314.8
83	963.2	87.3	88.8	75.8	77.0	82.5	50.8	61.2	63.9	66.8	328.3	267.5	401.3	363.0	331.7	266.7	231.6	216.4	391.9	350.2	318.9
84	964.6	88.2	89.4	76.3	78.9	83.1	49.5	61.3	63.3	66.9	334.1	273.0	405.9	367.7	336.0	272.9	236.0	221.5	395.0	354.3	323.6
86	967.5	89.9	90.8	77.4	78.9	84.2	50.9	62.2	64.0	66.9	341.8	279.8	418.0	377.5	344.8	277.7	242.3	223.2	402.0	360.5	331.6
87	968.0	90.7	91.5	77.2	79.6	84.8	47.7	61.6	63.3	66.7	345.5	284.8	425.4	383.9	351.3	280.9	244.5	230.7	403.7	363.2	331.0
88	970.5	91,5	92.4	77.7	80.2	85.5	49.2	61.9	63.6	67.0	346.2	288.8	419.1	390.2	354.1	287.9	250.6	233.5	406.6	365.9	335.7
89	970.8	92.3	93.4	77.9	80.8	86.2	49,7	62.3	64.0	66.7	350.1	294.1	420.4	396.1	358.9	297.9	255.3	237.4	410.2	365.9	339.6
91	972 6	93.6	95.4	79.4	82.0	87.8	49.5	61.9	63.7	66.4	360.5	302.0	433.3	404.5	369.1	311.9	260.0	242.6	412.0	373.8	345.1
92	975	94.2	96.6	79.0	82.5	88.7	48.8	63.0	64.1	66.6	368.5	312.8	437.2	416.4	374.6	317.7	265.0	246.8	419.3	375.9	349.6
93	976.3	94.8	98.3	79.8	83.1	89.7	47.5	63.6	64.0	66.3	370.1	317.2	444.8	418.9	381.7	321.5	270.9	252.8	422.2	377.8	354.4
94	976.6	95.3	99.8	80.7	83.6	90.9	50.1	63.9	64.4	66.5	377.7	320.4	451.4	420.0	388.6	324.1	277.5	257.3	426.1	378.2	359.9
95	879.1	95.8	101.1	81.0	84.2	92.3	49.8	64.5	64.2	67.3	381.5	325.5	457.6	423.5	394.1	329.0	283.0	261.6	429.8	381.8	364.2
97	982.1	96.8	102.7	83.3	85.3	95.5	50.8	65.4	64.4	67.1	400.7	331.1	465.0	429.9	404.6	340.1	295.2	271.0	437.2	386.1	375.9
98	982.1	97.2	103.2	83.8	85.8	97.2	49.8	65.5	63.5	66.1	408.6	333.5	468.9	430.8	409.1	344.8	301.4	277.9	439.8	391.3	381.0
99	984.6	97.6	103.5	84.8	86.4	98,9	52.5	67.7	64.6	67.6	411.1	335.2	469.2	430.9	409.6	347.6	308.6	283.8	444.2	395.2	387.0
100	985.9	98.1	103.7	85.2	87.0	100.4	51.4	67.3	64.2	<u>68.8</u>	421.3	336.6	466.9	432.1	412.8	349.7	315.0	288.8	449.2	401.0	393.0
107	ORR A	98.6	103.0	86 B	87.7	102.4	53.7	69.4	64.7	69.0	427.8	340.4	472.0	430.1	419.5	360.0	320.0	295.1 208.4	451.6	403.7	399.1
103	988.1	99.1	104.1	87.4	89.4	102.9	54.9	71.5	64.7	71.1	433.3	347.4	478.2	443.0	432.3	367.7	337.4	304.0	458.2	410.9	408.3
104	991.5	99.5	104.4	88.4	90.5	103.2	53.2	71.5	64.1	71.9	436.5	353.7	481.1	449.5	436.5	375.2	343.6	310.8	462.1	409.3	412.4
105	992.1	99.9	104.9	89.5	91.6	103.4	55.4	73.5	64.5	73.4	441.2	360.9	487.0	457.3	442.4	380.9	347.3	313.5	465.3	411.5	416.3
106	993.9	100.3	105.4	91,0	92.9	103.6	65.7	74.2	64.6	74.8	445.8	365.8	493.7	459.4	450.4	398.0	352.7	319.7	467.9	414.5	421.5
107	993.6	101.0	106.2	92.1	94.4	103.7	58.6	75.7	65.0	76.6	449.6 452.0	389.0	495.4	405.0	454.1	403.1	366.7	331.8	472.3	414.2	424.9
109	994.9	101.2	106.4	94.1	97.3	104.3	57.6	74.9	64.0	76.7	452.7	391.0	506.5	474.4	464.B	412.8	375.2	335.7	478.1	425.1	432.1
110	997.B	101.5	106.6	95.1	98.7	104.7	59.3	76.1	63.7	77.6	457.7	400.2	510.2	480.8	469.9	417.6	382.8	338.2	482.1	433.6	435.7
111	997.0	101.7	106.8	95.6	100.0	105.1	58.1	75.9	63.8	77.7	463.7	408.9	512.8	484.4	473.9	421.2	389.1	341.6	484.7	435.2	439.6
112	997.6	102.0	107.0	96.0	101.1	105.5	60.5	76.7	<u>64.1</u>	78.5	468.4	410.2	515.0	486.8	477.2	420.6	397.4	344.9	488.4	439.9	444.3
113	200 F	102.3	107.2	2.09 10.0	101.8	105.6	63.3	77.7	64.4	79.0	4/1./	409.2	519.3	491.0	480.0	430.0	405.0	346.0	491.3	441.5 446.6	455.6
115	1000.3	102.9	107.7	96.8	102.7	106.2	61.8	77.6	64.6	79,6	479.3	419.1	522.5	495.5	487.1	441.6	421.6	357.0	496.2	448.7	457.9

Table 9.1.2. Temperatures Measured in Assembly S-38, Wood Stud, 2x2 Gypsum Layers, Resilient Channels on Exposed/UnExposed Sides

Time	T(Fav)	7 Temperature at Thermocouple Number																			
(min)	(°C)	1	2	3	4	5	6	7	8	9	10	- 11	.12	13	14	15	16	17	18	19	20
116	1001.3	103.2	108.0	96.6	102.8	106.4	61.0	77.5	64.0	80.3	483.2	426.8	525.2	500.9	489.0	447.4	425.2	367.9	498.6	457.6	461.2
117	1002.3	103.5	108.3	97.0	102.9	106.7	64.3	79.3	65.3	80.5	487.0	436.3	527.3	511.2	491.7	457,3	427.9	379.1	501.5	459.5	464.6
118	1002.2	103.8	108.6	97.2	102.8	106.9	63.2	78.6	65.2	82.2	489.4	442.9	530.2	523.0	494.9	468.7	430.6	368.0	504.5	466.3	468.7
119	1005.0	104.2	109.0	97.0	102.8	107.2	62.5	80.6	65.7	82.2	492.2	449.3	534.2	532.0	501.0	468.3	434.1	398.1	508.0	472.8	473.2
120	1003,4	104.6	109.3	98.1	102.9	107.4	64.4	80,7	66.1	83.2	496.1	454.7	537.6	532.3	505.4	468.9	437.5	411.9	511.3	479.5	476.5
121	1006.8	105.0	109.8	98.7	103.0	107.7	65.2	81.3	66.3	83.5	499.4	458.0	540.3	548.8	507.7	478.3	440.8	424.3	514.3	487.9	480.6
122	1006.3	105.5	110.2	98.6	103.1	108.1	63.6	81.7	66.8	84.2	502.2	465.2	542.5	556.8	510.7	485.3	444.3	430.9	516.7	493.8	483.9
123	1005.7	105.9	110.7	99.4	103.3	108.4	67.5	83.0	68.0	84.7	505.1	467.5	546.5	561.6	516.2	490.1	447.9	435.8	520.0	499.0	487.9
124	1007.3	106.3	111.3	98.6	103.5	108.8	64.8	82.7	67.7	84.7	509.3	471.7	550.1	567.0	519.2	493.5	451.4	439.9	522.5	505.5	491.4
125	1008.7	106.8	111.8	100.3	103.9	109.2	67.6	84.3	69.1	85.8	512.5	479.7	553.1	572.0	523.4	496.2	455.2	444.1	525.6	508.3	495.1
126	1008.8	107.3	112.5	100.7	104.4	109.7	65.4	84.7	70.5	85.7	516.1	483.6	556.7	575.6	526.5	502.3	459.0	447,9	528.6	515.6	498.6
127	1010.3	107.8	113.4	101.1	104.8	110.2	67.2	85.4	71.7	87.9	***	***	***	***	449	***	***	***	***	***	500.8
128	1010.8	108.3	114.4	101.6	105.2	110.7	68.2	87.3	73.2	88.6	522.4	487.6	564.2	576.5	538.1	511.D	466.7	456.0	535.6	526.2	505.5
129	1011.5	109.0	115.7	102.4	105.5	111.2	70.4	87.0	75.1	88.9	525.2	489.5	567.7	575.8	543.3	515.6	470.6	459.3	538.9	529.7	509.5
130	1010.2	109.8	117.4	103.0	105.9	111.8	69.4	87.6	76.4	89.5	528.1	492.7	571.0	576.8	546.6	518.2	474.7	461.3	542.1	533.6	512.9
131	1012.9	110.6	119.6	103.0	106.2	112.5	70.4	88.0	76.3	89.7	531.4	496.3	674.3	575.5	551.0	519.2	478.8	462.9	544.6	537.0	516.9
132	1013.6	111.6	122.7	103.8	106.6	113.2	69.7	88.3	77.6	91.6	534.9	499.3	677.4	574.5	554.8	520.8	482.8	464.7	548.2	540.7	520.2
133	1012.3	112.9	127.3	104.3	106.9	114.1	71.9	89.0	79.0	93.0	538.4	503.4	580.8	574.8	558.6	524.6	487.0	467.5	550.5	545.1	523.8
134	1013.8	114.4	131.3	104.9	107.3	115.2	72.0	91.6	79.6	93.2	541.3	507.6	584.2	571.3	562.7	527.5	491.7	470.7	555.2	549.9	527.6
135	1015.0	116.3	133.6	105.3	107.7	<u>116.6</u>	73.0	91.5	79.8	93,9	544.7	511.6	587.4	568.5	566,0	530.6	496.3	473.9	557.2	554.9	531.0
136	1017.6	118.9	139.5	105.4	108.0	118.3	75.3	92.8	80.8	95.2	548.5	516.6	590.7	566.4	570.1	534.7	501.6	477.4	561.2	558.0	535,1
137	1016.4	122.6	148.6	106.2	108.5	120.7	74.5	94.3	80.6	96.5	552.1	519.6	594.0	567.8	573.7	538.3	506.1	479.7	564.3	562.5	539.1
138	1016.8	126.3	155.0	106.7	108.9	124.1	73.8	94.9	BO.9	97.0	556.2	524.0	597.3	569.6	577,4	541.4	510.6	482.2	567.9	565.7	543.3
139	1019.1	130.0	159.6	107,1	109.3	128.5	75.4	96.5	B1.6	97.5	560.1	527.9	600.6	572.7	580.8	546.4	514.7	484.3	571.4	569.3	547.5
140	1018.5	136.3	163.1	107.8	109.9	131.5	74.4	97.1	81.2	98.7	563.8	531.6	604.1	576.3	584.5	549.9	519.0	485.7	575.1	572.8	551.4
141	1018.5	143.5	175.6	108.9	110.4	134.4	72.5	98.3	<u>81.2</u>	100.2	567.7	535.7	607.5	578.8	588.9	554.1	523.0	487,6	578.4	576.3	555.1
142	1021.3	149.7	189.7	110.1	111.0	141.6	75.0	100.2	82.5	102.3	***	***	***	***	***	***	***	***	***	***	559.0
143	1020.5	155.4	202.4	111.2	111.7	149.6	77.7	102.5	82.5	104.3	575.1	544.1	614.5	586.1	596.7	562.5	531,4	493.6	585.0	584.1	562.8
144	1020.5	165.7	214.3	112.2	112.4	155.1	77.8	103.0	82.6	105.0	578.5	547.B	617.9	589.5	600.6	566.9	535.8	498.5	568.0	587.6	566.6
145	1021.8	178.1	225.9	113.1	113.2	159.3	77.3	104.0	81.4	106.0	583.2	553.5	622.7	596.1	606.0	573.9	540.2	504.6	592.1	593.5	570.7

Table 9.1.3. Temperatures Measured in Assembly S-38, Wood Stud, 2x2 Gypsum Layers, Resilient Channels on Exposed/UnExposed Sides

Time	T(Fav)	Γ						Temp	erature a	t Therm	ocouple	Number						
(min)	(°C)	21	22	23	24		26	27	28	29	30	31	32	33	34	35	36	37
0	46.8	31.7	35.6	33.9	33.3	31.5	39.7	37.3	31.3	30.0	40.2	37.9	29.9	29.1	39.7	37.4	31.3	30.0
1	109.1	31.8	35.7	33.9	33.3	31.5	40.0	37.5	31.3	30.0	40.4	38.1	30.0	29.2	39.9	37.7	31.3	30.0
2	224.7	31.8	35.7	33.9	33.3	31.5	47.5	41.9	31.3	30.0	49.6	43.8	30.0	29.2	47.8	43.0	31.3	30.0
3	326.1	31.9	36.0	34.1	33.5	31.6	64.7	55.4	31.4	30.1	67.7	59.0	30.0	29.2	65.1	59.3	31.3	30.0
4	430.9	32.1	37.9	35.2	34.0	33.1	81.9	73.2	31.4	30.0	84.1	75.0	30.0	29.2	80.7	75.3	31.4	30.1
5	532.7	33.0	42.6	38.2	36.0	43.5	87.8	86.6	31.5	30.1	87.9	85.6	30.0	29.2	86.3	85.3	31.4	30.1
6	566.8	39.7	50.8	44.1	41.9	51.1	90.6	90.3	31.7	30.2	89.5	91.8	30.4	29.3	89.7	91.1	31.7	30.4
	533./	54.0	55.7	51.9	55.8	56.1	91,3	92.0	32.2	30.5	91.1	93.1	31.5	29.5	94.6	93.1	32.5	31.3
o G	664 P	50.9	60.6	0.80	62.7	60.1	93.5	90.4	33.3	31.1	94.5	93.2	33.5	29.9	100.0	93.1	34.6	32.8
10	600 5	63.0	72.6	67.3	70.0	65.1	06.0	05.3	97.0	32.5	90.4	95.7	33.9	30.0	105.1	92.9	31.4	34.8
11	711 1	65.2	75.0	69.5	72.0	66.6	969	90.0 QQ B	30 4	36.3	97.3	90.0	41.7	224	107.0	93.0	40.0	30.9
12	721.5	65.9	77.1	71.5	73.4	67.3	97.9	102.6	41.8	38.8	99.1	97.3	44.6	34.8	112.8	98.0	46.1	41.2
13	731.7	61.4	77.8	72.0	70.8	65.5	102.5	107.5	44.1	40.9	103.0	98.8	47.2	36.7	124.5	104.2	48.6	43.3
	743.0	61.4	78.2	72.0	70.2	65.5	114.6	114.2	46.2	42.4	118.5	103.1	48.9	38.2	157.1	112.1	50.4	44.7
15	755,3	61.7	78.8	72.5	70.1	65.3	150.5	128.8	48.0	43.6	156.0	119.1	50.2	39.5	215.4	138.1	51.9	45.8
16	762.0	62.1	79.8	73.7	70.7	65.6	195.6	171.5	49.5	44.6	197.9	157.2	51.2	40.6	254.6	183.4	52.9	46.7
17	768.7	62.9	81.9	75.1	72.5	67,4	226.8	217.7	51.0	45.6	224.2	196.9	52.1	41.7	282.8	226.8	54.1	47.6
18	776.3	64.3	83.8	78.3	74.8	70.5	276.1	249.4	52.3	46.5	241.8	228.2	53.2	42.7	307.0	256.0	55.5	48.4
19	783.5	66.0	87.5	80.5	77.9	71.3	302.9	269.4	53.8	47.4	265.2	240.9	54.6	43.8	326.9	273.8	57.0	49.5
	789.4	67.6	91.8	83.5	80.1	73.4	319.5	289.7	55.5	48.5	283.5	260.2	56.0	44.9	345.6	296.8	58.7	50.7
21	794.1	69.2	95.5	87.3	81.4	75.2	336.0	305.6	57.1	49.6	297.5	278.4	57.5	46.2	362.2	323.3	60.2	52.0
22	799,6	71.D	98.7	91.0	83.0	75.5	350.9	320.9	58.7	50.9	312.9	298.6	58.9	47.4	377.3	337.5	61.6	53.2
23	805.8	72.8	101.3	94.2	84.6	77.6	363.4	334.8	60.3	52.3	328.0	320.5	60.1	48.8	388.9	347.5	62.9	54,5
24	010.5 010.5	74.5	103.4	97.0	86.7	78.3	374.9	348.1	81.9	53.8	342.6	344.4	61.4	50.2	400.5	358.0	64.2	55.9
EU DR	810.0	70.0	103.5	101.1	00.4	80.9	300.1	300.7	03.3	67.0	0.000	309.7	62.6	51.8	411.6	359.6	65.5	57.3
27	825 B	80.8	109.7	102.7	90.4	94.1	400.0	396.0	66.2	59.6	3/0.7	309.3	65.0	55.4	422.4	351.0	67.0	58.8
28	829.6	82.7	109.9	104.1	94.0	86.2	424 1	306.0	87.6	60.3	302.5	301 A	66.3	56.0	431.8	404.9	60.0	62.0
29	831.9	84.6	111.1	105.5	94.9	89.5	435.7	408.2	69.1	61.9	406.4	409.2	67.6	58.5	453.0	415.8	70.3	63.6
30	837.6	85.3	112.5	106.8	95.0	91.0	448.5	420.2	70.4	63.5	420.4	420.4	68.7	60.2	463.5	427.6	71.3	65.2
31	842.2	87.2	113.4	107.9	95.9	91.8	460.3	433.4	71.7	65.0	433.8	431.7	69.7	61.8	474.0	440.3	72.2	66.6
32	845.9	87.7	114.6	108.8	95.9	92.7	472.0	445.5	72,7	66.4	445.8	443.7	70.5	63.2	484.9	452.2	73.0	67.9
33	850,1	88.3	115.6	109.8	96.8	93.6	484.0	457.9	73.6	67.6	456.2	454.5	71.4	64.7	495.6	464.2	73.8	69.1
34	852.8	88.9	117.2	111.1	97,1	94.7	495.0	470.4	74,4	68.9	469.4	465.5	72.1	66.0	506.0	476.4	74.5	70.3
35	856,7	89.5	119.7	112.5	98.0	95.9	505.3	483.0	75.1	70.0	481.3	476.9	72.8	67.2	516.0	488.5	75.1	71.3
36	860.0	90.2	124.8	114.7	98.8	97.0	515.7	494.2	75.7	71.1	492.8	486.9	73.3	68.1	526.3	500.4	75.7	72.3
37	864.3	90.8	130.1	117.3	100.3	98.1	525.4	504.8	76.3	72.0	503.1	496.6	73.8	69.0	535.7	510.4	76.1	73.1
38	866.1	91.6	142.0	121.5	102.9	99.7	535.0	515.4	76.7	72.9	513.1	505.3	74.2	69.7	545.5	519.7	76.6	73.9
	8/0.0	92.7	151.6	127.0	105.8	101.2	544.7	525.2	77.2	73.7	523.3	514.9	74.3	70.4	555.5	529.4	77.1	74.1
40	075 7	94.2	1/1.5	134.2	110.6	104.2	5054.5	534,4	78.0	76.4	533.3	524.8	74.4	/1.0	555.8	538.6	77.6	74.6
10	670 4	100.1	104.8	140.0	105.0	1100.1	576 5	044.2 654 1	70.0	75.1	044, j	534.7	74.4	71.0	500.0	540.5	70.2	75.1
43	HG1 0	104.1	208.6	175.6	120.0	112.5	587.0	564.0	70.0	76.2	567.4	545.7 555.8	74.4	72.2	509.2	671.1	70.9	75.4
44	PR3 1	109.6	219.8	186.5	144.1	125.0	597.3	574.5	79.8	76.0	578 B	567.2	74.0	72.4	607.9	582.2	19.0	76.6
45	887 7	114.4	230.9	196.6	152 1	131.5	606.8	584.7	80.5	77.6	589.6	578.7	75.2	72.7	616.5	592.8	81.2	77.8
46	888.6	119.8	240.3	205.3	160.9	136.7	615.9	594.7	61.2	78.4	599.9	590.0	75.8	72.9	625.1	603.1	82.5	79.0
47	893.0	125.9	249.8	213.4	167.3	143.2	623.9	603.9	81.7	79.3	609.2	600.6	76.4	73.2	632.5	612.2	84.1	80.2
48	895.2	132.5	254.7	221.2	173.1	150.5	631.5	612.6	82.6	80.2	618.2	611.2	77.2	73.6	640.2	621.0	86.1	81.3
49	897.1	139.0	262.6	227.8	177.8	155.8	638.6	620.5	84.7	81.1	626.4	621.0	78.1	73.9	647.3	629.1	87.8	82.2
50	899,3	145.0	269.4	234.2	183.0	159.1	645.2	627.6	87.3	81.7	634.3	629.9	78.9	74.4	654.4	636.8	89.1	83.1
- 51	901.4	150.9	271.7	240.2	187.4	163.1	651.6	634.2	89.5	82.1	641.5	638.5	79.8	74.9	660.8	644.0	90.2	82.7
52	904.8	156.8	278.6	245.4	193.2	165.0	657.7	640.5	91.2	82.3	648.6	647.1	80.6	75.5	667.1	651.2	91.1	83.7
53	906.9	161,4	283.2	250.9	197.8	169.1	663.5	646.6	92.5	83.0	655.2	655.4	81.3	76.2	672.9	658.5	91.9	85.0
54	908.5	164.8	286.7	255.7	204.3	172.2	669.2	652.5	93.6	84.7	661.5	663.4	81.9	76.8	678.4	665.6	92.6	86.3
55	911.5	167.6	294.9	260.2	208.4	175.1	674.1	657.6	94.5	85.6	667.5	670.7	82.5	77.5	683.2	672.2	93.2	87.3
	<u>813.101</u>	171.3	295.9	264.0	213.5	178.4	679.2	662.7	95.4	88.6	6/3.5	6/8.1	83.3	78.0	688.5	679.3	93.8	88.4
	915.B	1/4.1	300.9	1 263.8	218.4	182.6	664.2	667.7	96.1	80.2	6/9.3	665.9	84.1	/8.5	693.5	686.8	94.6	i 69.5

Table 9.1.4. Temperatures Measured in Assembly S-38, Wood Stud, 2x2 Gypsum Layers, Resilient Channels on Exposed/UnExposed Sides

Time	T(Fay)							Temp	erature a	t Thermo	ocouple	Number]
(៣ម៉ា)	(°C)	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
58	917.4	178.9	305.9	265.5	222.6	185.7	689.1	672.6	96.8	91.2	685.1	692.9	84.9	78.9	698.3	693.9	95.2	901
59	919.6	183.7	310.0	267.7	226.3	189.3	694.0	678.0	97.3	92.1	690.9	701.9	85.7	79.4	702.9	701.6	96.0	90.5
60	922.1	189.7	312.8	270.9	230.6	193.5	698.4	682.4	97.8	92.9	696.3	709.3	86.6	79.9	707.0	708.6	96.8	91.2
61	923.8	194.3	315.5	272.7	234.9	196.6	702.5	686.4	98.5	93.6	701.2	715.5	87.3	80.5	710.6	714.7	97.7	91.8
62	925.8	199.5	320.7	275.7	239.4	201.6	707.2	691.5	99.1	94.1	706.2	727.7	88.4	81.0	714.7	722.0	98.6	92.1
63	927.7	204.1	325.2	279.4	243.3	204.9	710.9	695.7	99.8	94.5	710.6	732.1	89.1	81.6	718.5	727.1	99.5	92.4
64	930,4	209,9	327.4	283.0	248.8	208.5	714,4	699.3	100.5	94.8	714.1	736.3	89.5	82.1	721.4	731.4	100.5	92.5
65	930.8	214.2	332.0	287.3	252.0	211.8	718.0	703.6	101.2	95.2	717.8	740.1	89.8	82.7	724.5	735.7	101.5	92.5
0D 07	934.3	219.2	336.8	296.7	256.9	215.2	720.9	706.9	101.9	95.5	721.2	743.8	90.2	83.3	726.9	738,4	102.5	92.6
69	904./ 027./	222.7	340.0	205.0	260.2	218.5	724.8	711.4	102.6	95.8	725.4	748.3	90.5	83.9	730.2	741.0	103.4	92.6
69	940.2	220.7	347.2	308.6	204.0	226.1	790.6	719.7	103.4	90.2	729,4	759.0	90.9	04.0	732.9	741,2	104.3	92.8
70	939.6	233.4	351.5	312.1	272.5	229.0	733.8	7217	104.1	97.1	736.8	755.1	01.9	86.1	719.0	741.7	105.1	92.9
71	943.0	236.7	355.2	316.2	276.5	232.8	736.4	723.8	105.6	97.6	739.5	755.4	97.0	86.8	740.6	743.1	106.4	94.0
72	943.3	240.5	357.9	319.1	279.8	236.3	739.2	727.0	106.4	98.2	742.8	757.2	93.4	87.4	743.5	745.8	107.1	97.1
73	946.3	244.5	361.8	322.1	284,0	239.1	742.2	730.0	107.1	98.9	746.2	759.7	93.9	87.9	746.2	748.4	107.7	98.9
74	948.5	246.8	364.1	325.1	267.2	242.6	744.9	732.5	107.8	99.6	748.8	760.4	94.4	88.4	748.5	750.0	108.3	100.3
75	948.2	252.4	367.6	328.8	292.3	245.1	748.3	735.7	108.5	100.4	752.8	762.9	94.9	88.8	751.4	752.7	108.9	101.6
76	949.8	254.3	370.7	331.3	296.1	247.6	751.0	738.0	109.1	101.2	756.0	764.2	95.4	89.3	753.8	753.9	109.5	102.7
77	952.6	256.2	373.7	333.6	299.5	251.0	753.3	739.8	109.8	102.0	758.2	764.9	95.8	89.6	755.4	754.4	110.1	103.8
78	954.1	259.3	377.6	336.3	303.4	253.3	756.5	742.5	110.4	102.8	761.5	767.5	96.4	90.0	757.9	757.0	110.8	104.7
79	955.4	263.7	380.9	338.5	307.7	255.7	759.3	744.4	111.1	103.6	763.9	769.1	97.1	90.3	759.6	758.6	111,4	105.5
80	957.7	267.0	385.2	341.1	311.2	259,1	761.9	746.1	111.8	104.3	766.3	770.7	97.7	90.6	760.8	760.0	112,1	106.3
81	958.9	270.6	387.7	344.0	315.2	262.1	764.2	747.9	112.6	105.0	768.8	772.4	98.3	91.1	761.5	761.9	112.9	107.0
82	959.9	273.6	391.6	346.6	320.7	264.5	766.8	749.8	113.4	105.7	771.3	773.6	98.9	91.6	761.4	763.4	113.9	107.7
63	903.2	2/7.2	392.5	349.8	324.4	269.2	768.9	/51.3	114.3	106.4	773.4	774.5	99.5	92.1	761.6	764.7	115.0	108.3
D# 85	064.0	200.0	401.0	355.0	329.2	209.9	774.0	755.2	115.3	107.1	770.0	776.0	100.0	92.5	762.3	765.7	116.6	108.9
86	067.6	200.0	401.8 407.4	360.0	333.0	272.0	778.0	758.0	110.7	107.7	7/9.3	777.0	100.6	92.9	763.4	767.0	118.8	109.5
87	068.0	290.1	412.2	364.3	346.3	282.3	778.7	758.5	120.8	109.0	794.7	770.1	101.6	03.6	766 3	700.0	121.7	110.0
88	970.5	293.6	414.1	366.0	348.2	284.6	780.8	759.9	124.0	109.6	788.9	779.5	102.0	93.9	768.1	772.3	126.0	1110
89	970.B	296.5	418.5	369.8	351.4	288.2	783.2	761.3	127.7	110.2	792.1	780.9	102.4	94.2	770.1	775.4	128.7	111.5
90	973.3	296.7	421.6	373.4	356.4	291.7	785.5	762.3	129.8	110.9	795.1	782.3	102.8	94.5	772.7	779.4	134.1	112.0
91	972.6	299.4	425.6	376.3	361.2	294.8	787.8	764.1	132.2	111.6	444	***	***	***	***	***	***	
92	975.1	301.9	429.8	379.1	366.4	298.5	789.6	765.3	137.6	112.3	800.0	788.5	103.5	95.0	778.4	787.3	143.3	113.2
93	976.3	305.1	433.5	382.1	370.8	302.8	791.5	766.7	143.6	113.1	802.5	791.1	103.8	95.3	781.8	791.7	146.5	113.9
94	976.6	309.1	438.0	384.2	376.6	306.9	793.3	768.4	148.3	113.8	805.4	793.4	104.2	95.7	785.3	797.0	149.1	114.8
95	979.1	312.3	443.7	387.2	382.3	310.3	795.2	770.3	152.2	114.8	806.6	794.9	104.7	96.1	789.2	801.9	151.6	115.9
96	978.7	316.8	446.4	390.5	388.6	314.8	797.8	772.4	156.0	115.8	809.0	797.9	105.2	96.5	793.5	807.7	154.4	117.1
97	982.1	319.2	449.8	396.3	392.8	320.0	800.3	774.8	159.6	117.1	B10.0	799.9	105.9	96.8	797.6	813.7	159.6	118.6
96	982.1	323.7	453.1	397.0	396.7	324.7	803.4	777.7	164.4	118.6	B12.0	803.1	106.8	97.2	801.5	820.4	164.3	120.2
99	984.6	327.8	456.0	399.7	402,2	327.2	806.6	780.8	1/2.2	120.5	815.3	806.4	107.9	97.6	805.2	827.4	168.6	121.8
100	303.8	340.3	403.0	403.1	411.2	226.6	010.1	707.1	102.2	122.9	817.8	809.1	109.3	98.1	808.9	834.2	1/2.9	123.2
105	OGR A	347.6	400.0	400.3	410.2	330.0	816 7	700.1	186 5	120.8	821.0	012.2 915 /	119.6	90.0	B12./	942.0	100.0	124.4
469	088 1	351.6	471.1	408.8	418.7	343.3	810.7	793.0	100.0	120.4	826.0	919.6	116.3	99.0	010,1	852 4	102.9	125.4
104	QG1 5	349.3	478.0	419.B	430.0	348.5	821.8	795.3	193.4	133.5	807 1	821.0	110.0	100.0	821.0	850.0	103.0	120.0
105	992.1	350.4	481.6	424.2	434.1	353.7	824.0	798.4	196.6	137.8	830.3	824.4	124.2	100.6	823.9	864.6	199.9	133.6
106	993.9	355.3	484.6	429.1	437.7	361.0	825.9	800.6	200.1	142.4	832.0	827.8	128.6	101.2	826.2	870.5	203.1	137.3
107	993.6	360.3	488.1	435.4	440.8	367.0	828.0	804.3	204.5	146.5	834.1	831.3	133.1	101.9	829.3	876.2	206.7	140.1
108	993.2	363.2	491.3	438.4	444.B	372.8	829.9	807.2	209.9	149.8	837.3	833.7	138.9	102.7	831.9	882.1	209.2	142.0
109	994.9	369.5	494.2	444.6	447.2	377.8	831.5	809.8	215.7	152.8	841.5	836.7	148.2	103.6	834.4	887.1	212.1	143.7
110	997.8	373.5	495.6	446.7	451.6	385.6	632.9	811.2	221.4	155.5	844.3	838.3	157.7	104.5	835.6	891.3	215.8	145.3
	997.0	375.B	498.8	452.5	456.1	392.4	834.9	813.9	226.0	158.3	848.6	842.4	166.0	105.4	838.2	895.2	219.7	147,2
112	997.6	382.0	502.5	458.2	459.3	397.2	836.2	817.2	229.2	162.1	853.1	844.4	174.6	106.3	840.0	899.4	223.8	149.6
113	999.1	387.7	505.5	459.7	463.0	402.6	834.2	821.9	231.B	166.7	858.7	846.9	184.1	107.1	841.9	901.7	228.0	152.7
114	999.5	392.4	508.7	462.9	467.4	410.2	836.5	825.9	234.8	171.0	864.3	850.8	192.0	108.3	843.7	906.0	232.2	157.4
115	1000.3	397.6	510.8	469.0	470.2	410.8	839.8	820.6	237.8	174.7	868.9	855.9	198.7	109.3	845.0	939.0	236.5	161.7

Table 9.1.5. Temperatures Measured in Assembly S-38, Wood Stud, 2x2 Gypsum Layers, Resilient Channels on Exposed/UnExposed Sides

Time	T(Fav)	Temperature at Thermocouple Number																
(min)	(°C)	21	22	23	. 24	25	26	27	28	29		31	32	33	34	35	36	37
116	1001.3	401.6	513.9	475.1	474.2	416.4	840.9	827.3	241.3	177.8	873.4	932.2	204.5	110.5	846.6	953.7	240.B	166.0
117	1002.3	407.4	517.8	480.2	479.2	423.7	842.3	840.7	244.6	180.8	876.7	922.0	210.6	111.9	848.5	961.7	245.3	170.9
118	1002.2	413.6	521.8	488.5	484.2	432,1	843.8	847.7	247.6	183.9	880.3	698.4	217.4	113.8	850.5	961.5	249.9	176.9
119	1005.0	421.1	525.0	495.0	488.6	438.7	844.7	854.8	250.9	187.1	684.2	871.8	222.9	116.1	852.4	964.6	254.6	183.7
120	1003.4	429.7	528.5	502.0	492.3	444.4	846,1	863.4	254.3	190.4	687.3	867.1	228.2	119.0	854.1	967.3	259.5	189.9
121	1006.8	433.7	532.5	506.8	497.3	449.3	847.4	870.0	257.9	193.7	890.2	845.7	232.8	125.6	855.3	967.1	264.8	196.3
122	1006.3	437.0	535.7	511.6	501.6	455.2	849.0	878.4	261.6	197.7	893.8	845.1	236.3	130.4	857.1	969.2	270.8	201.7
123	1005.7	442.8	539.5	518.7	505.8	460.9	850.5	885.9	265.4	202.4	896.3	839.2	239.5	135.1	859.0	965.6	276.7	206.1
124	1007.3	448.0	543.8	523.4	510.3	466.2	852.0	893.6	269.4	207.5	899.4	836.9	243.0	141,4	860.6	968.4	282.9	209.5
125	1008.7	454.4	546.9	529.8	514,3	471.8	853.4	899.8	273.5	212.6	902.2	832.7	246.6	147.8	862.2	964.5	289.2	212.6
126	1008.8	458.9	550.4	533.7	518.6	476.1	854.6	905.5	277.8	218.0	904.2	831.2	250.2	153.5	864.2	964.6	295.8	215.9
127	1010.3	460.6	552.3	535.8	521.3	32,8	854.5	910.6	280.8	221.2	906.5	827.9	253.7	159.5	865.6	963.9	302.8	219.4
128	1010.8	466.9	557.5	540.0	527.0	485.3	856.2	919.4	287.2	226.3	910.0	822.9	256.8	168.2	867.4	962.7	310.0	223.0
129	1011.5	471.5	560.7	542.3	530.7	489.5	860.0	924.9	292.7	230.0	913.5	820.3	259.6	176.1	869.2	961,1	316.6	226.5
130	1010.2	476.2	564.2	545.1	535.3	493.5	862.1	930.9	298.7	233.6	917.4	818.2	261.9	180.5	871.6	966.7	322.7	229.8
131	1012.9	481,4	566.9	548.8	539.5	499.4	864.0	935.9	305.1	237.1	919.9	816.3	263.9	183.2	873.4	965.4	328.1	233.4
132	1013.6	488.9	570.1	552.8	543.6	503.2	865.8	941.2	311.1	240.8	922.4	808.3	265.9	185.9	875.0	965.4	332.7	237.2
133	1012.3	492.6	573.9	556.5	548.1	507.2	867.7	942.9	316.3	244.5	926.3	806.6	268.3	188.7	876.9	967.4	336.6	241.7
134	1013.6	495.5	577.0	559.3	552.2	511.4	869.4	945.6	320.9	248.3	929.1	804.5	270.8	192.9	878.3	969.0	339.7	246.4
135	1015.0	501.3	561.8	563.5	557.4	515.3	871.7	947.8	325.1	252.3	932.3	803.3	273.5	198.5	879.8	972.4	342.4	251.1
136	1017.6	507.4	584.4	565.3	559.8	516.5	874.0	950.3	329.3	256.4	936.7	798.1	276.3	204.4	881.3	968.9	344.9	256.1
137	1016.4	512.2	567.0	568.9	563.6	522.7	876,1	952.0	333.5	260.8	938.6	786.7	279.8	210.4	882.7	973.6	348.9	261.2
138	1016.8	516.3	569.8	571.6	567.0	527.7	878.0	952.4	337.5	265.4	941.4	771.3	283.7	216.0	884.3	972.8	353.7	266.3
139	1019.1	521.2	593.0	575.3	570.9	531,7	879.5	955.0	341.4	270.2	945.3	763.9	287.7	220.6	884.9	969.9	359.0	271.5
140	1018.5	525.3	597.5	579.2	574.6	535.8	880.9	955.6	345.3	275.3	946.6	761.3	291.7	224.6	886.5	970.2	364.7	277.2
141	1018.5	529.5	600.5	582.4	578.0	539.4	882.1	957.6	349.4	280.7	947.6	754.7	295.7	228.5	887.4	973.4	370.9	283.3
142	1021.3	532.4	603.9	585.5	582.9	544.0	683.0	960.5	353.4	286.2	950.1	751.5	299.7	232.2	887.9	972.1	378.2	289.8
143	1020.5	536.7	607.6	590.0	586.5	549.8	884.4	961.3	357.4	292.0	951.5	755.2	304.2	236.2	889.8	973.4	386.4	296.7
144	1020.5	539.7	610.9	594.5	591.3	555.7	886.0	962.3	361.9	297.9	953.5	758.5	308.9	240.3	889.7	973.8	394.9	303.4
145	1021.6	546.8	615.5	602.1	595.5	565.1	886.7	963.6	366.9	304.1	955.4	758.7	314.2	244.5	690.3	975.0	403.4	309.8

Table 9.1.6. Temperatures Measured in Assembly S-38, Wood Stud, 2x2 Gypsum Layers, Resilient Channels on Exposed/UnExposed Sides

Table 9.2.1. Average Temperatures Measured in Assembly S-38, Wood Stud, 2x2 Gypsum Layers, Resilient Channels on Exposed/UnExposed Sides Legend: BL - Base Layer, FL - Face Layer, Cav. - Cavity, WStd. - Wood Stud, Av - Average, Exp. - Exposed Side, UnExp. - Unexposed Side

Time	T(Fav)	BL/FL (Exp.)	BL/WStd. (Exp.)	BL/Cev. (Exp.)	Mid. WStd.	BL/Cav. (UnExp.)	BL/WStd. (UnExp.)	BL/FL (UnExp.)	UnExp.
(min)	(°C)	Av(26,27,30,31,34,35)	Av(12,13)	Av(18,19,22,23)	Av(10,11,14,15)	Av(20,21,24,25)	Av(16,17)	Av(28,29,32,33,36,37)	Av(1,2,3,4,5)
0	46.8	38.7	34.3	34.8	32.5	32.5	31.2	30.3	29.8
	109.1	38.9	34.4	34.9	32.5	32.5	31.3	30.3	29.8
2	224.7	45.6	34.4	34.9	32.5	32.5	31.3	30.3	29.8
3	326.1	61.9	34.5	35.2	32.6	32.6	31.3	30.3	29.8
4	430.9	78.4	35.0	36.7	32.9	33.3	31.5	30.4	29.8
5	532.7	86.6	36.4	40.8	34.3	37.1	32,8	30.4	29.8
6	568.8	90.5	40.4	48.5	38.8	43.2	38.1	30.6	29.8
. 1	099./	92.5	46.8	56.7	45.3	52.2	43.8	31.2	29.9
<u>a</u>	BEA R	94.1	57.3	63.0	50.8	07.4 61.5	49.1	32.5	30.0
10	699.5	97.6	61 1	70.7	50.1	64.8	59.4	36.4	30.1
11	711.1	99.6	63.8	73.0	62.0	66.9	63.2	38.8	30.9
12	721.5	101.3	66.0	75.0	64.2	68.1	65.4	41.2	31.5
13	731.7	106.7	66.1	75.3	63.9	66.0	63.9	43.4	32.4
14	743.0	119.9	66.3	75.4	64.3	66.0	63.9	45.1	33.3
15	755.3	151.3	66.9	75.9	64.8	66.2	64.3	46.5	34.3
16	762.0	193.4	67.7	76.8	65.6	66.7	64.8	47.6	35.4
17	768.7	229.2	***	78.5	100	68.2	***	48.7	36.5
18	776.3	259.7	70.5	80.9	68.6	70,3	67.5	49.8	37.5
18	783.5	279.9	72.3	83.5	70.7	72.2	69.3	51.0	38.5
20	704.1	299.2	73.8	86.5	72.3	74,2	70.8	52.4	39.5
20	799 R	333.0	77.3	90.7	75.2	75.0	73.7	55.1	40.5
23	805 B	347.2	79.2	97.5	76.8	78.9	75.2	56.5	42.6
24	810.8	361.4	81.3	100.1	78.3	80.4	76.8	57.9	43.6
25	816.6	374.0	83.1	102.4	79.7	82.3	78.2	59.3	44.7
26	820.9	386.2	85.0	104.0	81.0	84.0	79,7	60.7	45.7
27	825.6	397.8	86.9	105.5	82.5	85.7	81.1	62.2	46.8
28	829.6	408.9	88.4	106.7	83.7	87.6	82.3	63.7	48.0
29	831.9	421.4	90.0	108.0	B4.9	89.4	83.2	65.2	49.1
30	837.6	433.4	91.3	109.2	86.0	90.1	84.1	68.5	50.2
d1 00	642.2	445.6	92.6	110.2	86.9	91.2	84.8	67.8	51.4
22	040.9	407.3	93,8	111.4	87.0 99.5	91.7	95.4	70.0	52.0
94	852 B	480.5	96.1	112.4	89.1	93.2	86.2	71.0	54.6
35	856.7	491.8	97.3	115.7	89.9	94.1	86.3	71.9	55.6
36	860.0	502.7	98.7	119.1	90.6	95.1	86.6	72.7	56.5
37	864.3	512.7	100.7	123.3	91,6	96.3	86.8	73.4	57.3
38	866.1	522.3	103.2	130.6	92,9	98.0	87.0	74.0	58.1
39	870.0	532.1	107.4	138.7	94,7	100.1	87.0	74.5	58.9
40	873.4	541.9	112.1	151.6	97.0	103.4	87.3	74.9	59.4
41	875.7	552.3	119.7	163.8	101.4	108.1	87.8	75.4	60.2
46	6/9.4	563.4	128.0	1/6.6	106.5	113.6	86.6	/5.8	61.0
4.5	003.0	594 6	137.3	169.4	110.0	107.6	02.0	76.9	61.2
45	987 7	594.9	140.4	210.2	124.8	134.7	94.8	77.5	62.2
46	888.6	604.8	168.B	216.8	131.2	141.4	97.1	78.3	62.7
47	893.0	613.7	179.0	227.3	137.7	148.1	100.4	79.2	63.3
48	895.2	622.5	188.9	234.3	143.9	155.0	103.8	80.2	63.7
49	897.1	630.5	197,8	241.1	149.8	160.3	106.9	81.3	64.4
50	699,3	638.0	206.1	247.4	155.8	164.9	110.0	82.4	65.0
51	901.4	645.1	214.3	252.8	161.1	169.5	113.5	83.2	65.5
52	904.8	652.0	222.1	258.5	166.1	174.4	117.2	84.1	66.1
53	906.9	658.7	229.3	263.6	171.4	178.8	121.2	85.0	66.6
54	908.5	665.1	236.0	268.1	176.3	183.6	106.9	86.0	67.2
00	917.5	676.0	242.1	2/3.5	160.4	101.4	120.0	87.0	6,10
57	915.R	682.9	254.4	279.9	190.0	196.0	133.8	88.8	68.6

Table 9.2.2. Average Temperatures Measured in Assembly S-38, Wood Stud, 2x2 Gypsum Layers, Resilient Channels on Exposed/UnExposed Sides

Time	T(Fav)	BL/FL (Exp.)	BL/WStd. (Exp.)	BL/Cav. (Exp.)	Mid. WStd.	BL/Cav. (UnExp.)	BL/WStd. (UnExp.)	BL/FL (UnExp.)	UnExp.
(min)	(°C)	Av(26,27,30,31,34,35)	Av(12,13)	Av(18,19,22,23)	Av(10,11,14,15)	Av(20,21,24,25)	Av(16,17)	Av(28,29,32,33,36,37)	Av(1.2.3.4.5)
5B	917.4	688.6	260.5	283.9	194.1	200.3	137.2	89.5	69.1
59	919.6	694.9	266.7	287.1	198.3	204.5	140.1	90.2	69.5
60	922.1	700.3	272.6	290.7	202.8	209.1	143.7	90.9	70.0
61	923.8	705.1	278.2	294.3	207.2	213.0	147.5	91.6	70.2
62	925.8	711.5	283.7	298.2	211.5	217,7	150.7	92.2	70.7
63	927.7	715.8	289.2	301.7	216.0	221.7	154.0	92.8	71.2
64	930.4	719.5	294.7	305.1	220.0	226.5	156.8	93.3	71,7
65	930.B	723.3	299.9	309.5	224,1	230.2	159.8	93.8	72.1
66	934,3	726.3	305.1	314.9	228.1	234.5	162.8	94.3	72.5
67	934.7	730.2	310.3	318.5	232.2	238.1	165.9	94.8	72.9
68	937.4	732.7	316.0	321.5	235.9	241.7	167.8	95.4	73.3
69	940.2	735.3	320.4	325.1	240.3	245.9	170.8	95.9	73.7
70	939,5	738.2	325.2	329.0	244.8	250.0	173.9	96.7	74.3
	943,0	739.8	331.4	332.6	248.0	253.8	176.0	97.5	74.7
12	943.3	742.6	335.9	335.9	252.1	257.3	179.8	98.3	75.3
13	946,3	745.4	341.7	339.6	254.7	260.9	183.0	99.1	75.8
14	940.0	747.5	347.0	342.5	258.6	264.5	187.9	99.8	76.3
70	040.0	750.0	302.7	345.3	263.0	268.1	191.3	100.5	77.0
70	052.8	754.0	307.0	346.4	200.9	2/1.8	195.2	101.2	71.7
79	06/ 1	754.3	360.2	357.8	076.1	2/3.0	199.0	101.8	78.3
70	055.4	750.2	362.5	355.0	2200.1	210.3	204.3	102.5	70.8
80	957.7	761.0	371 7	361 9	284.9	285.0	210.1	103.2	78.0 80.2
81	958 9	762.8	373.2	364.9	290.4	289.5	216.9	103.5	80.2
82	959.9	764.4	377.3	368.4	292.5	293.4	220.0	105.2	81.4
83	963.2	765.8	382.2	371.1	298.5	297.4	224.0	105.9	82.3
B4	964.6	767.3	386.8	374.9	304.0	300.9	228.8	108.7	82.9
B5	964.0	769.4	391.3	378.2	306.8	304.3	232.3	107.7	83.6
86	967.5	770.7	397.8	382.5	311.0	309.4	235.3	108.8	84.3
87	968.0	772.9	404.6	385.9	315.6	312.4	237.6	110.0	84.8
88	970.5	774.9	404.7	388.2	319.3	315.5	242.1	111,1	85.5
89	970.B	777.2	408.2	391.1	325.3	318.9	246.4	112.5	86.1
90	973.3	779.5	414.1	394.3	332.1	321.5	248.6	114.0	86.8
91	972.6	776.0	422.6	398.1	337.2	325.1	251.3	121.9	87.6
92	975.1	784.9	426.8	401.0	343.4	329.1	255.9	117.5	88.3
93	975.3	787.5	431.8	403.9	347.6	333.3	261.8	119.4	89.1
94	976.6	790.5	435.7	406.6	352.7	338.1	267.4	121.0	90.1
95	9/9.1	793.0	440.5	410.6	357.5	342.3	272.3	122.5	90.9
30	9/6./	796.4	443.1	413.6	362.8	347.6	277.8	124.2	91.9
87 00	002.1	799.4	447.3	417.3	309.1	002.U 050 5	283.1	120.3	92.7
7Q 00	DRA R	806.0	449.9 450.0	420.3	374.0	0.000	209./	120.0	93,4
100	085 0	810.7	440 5	420 1	380.1	367 9	301 0	134.1	94.6
101	987.2	814.9	454.3	432.1	385 A	372 R	307 A	136.7	95.6
102	986 4	818.5	456 7	438.5	390.5	377 7	314.2	139.3	96.1
103	988.1	821.5	460.6	439.5	395.2	382.2	320.7	141.9	96.6
104	991.5	824.2	465.3	442.5	400.5	385.1	327.2	145.0	97.2
105	992.1	827,6	472.1	445.6	406.3	388.6	330.4	148,6	97.9
106	993.9	830.5	476.6	449.0	412.5	393.9	336.2	152.1	98.6
107	993.6	633.9	480.5	452.5	418.6	398.3	345.4	155.5	99.3
108	993.2	837.0	485.3	457.1	424.0	402.3	350.1	158.8	100.1
109	994.9	840.2	490.5	460.5	430.3	406.6	355.4	162.7	100.7
110	997.8	842.3	495.5	464.5	436.3	411.6	360.5	166.7	101.3
111	997.0	845.5	498.6	467.8	441.9	416.0	365.4	170.4	101.9
112	997.6	848.4	500.9	472.2	444.1	420.7	371.1	174.3	102.3
113	999,1	850.9	504.5	474.5	447.9	426.3	375.5	178.4	102.7
114	999.5	854.9	506.1	478.1	449.9	431.4	382.7	182.6	103.0
115	1000.3	861.5	509.0	481.2	456.7	434.1	389.3	186.5	103.3

Legend: BL - Base Layer, FL - Face Layer, Cav. - Cavity, WStd. - Wood Stud, Av - Average, Exp. - Exposed Side, UnExp. - Unexposed Side

Table 9.2.3. Average Temperatures Measured in Assembly S-38, Wood Stud, 2x2 Gypsum Layers, Resilient Channels on Exposed/UnExposed Sides

Time	T(Fav)	BL/FL (Exp.)	BL/WStd. (Exp.)	BL/Cav. (Exp.)	Mid. WStd.	BL/Cav. (UnExp.)	BL/WStd. (UnExp.)	BL/FL (UnExp.)	UnExp.
(ጠŀЛ)	(°C)	Av(26,27,30,31,34,35)	Av(12,13)	Av(18,19,22,23)	Av(10,11,14,15)	Av(20,21,24,25)	Av(16,17)	Av(28,29,32,33,36,37)	Av(1,2,3,4,5)
116	1001.3	879.0	513.0	486.3	461,6	438.3	396.5	190.2	103.4
117	1002.3	882.0	519.2	489.7	468.1	443.7	403.5	194.0	103.7
118	1002.2	880.4	526.6	495.3	474.0	449.7	409.3	198.3	103.9
119	1005.0	878.8	533.1	500.2	477.7	455.4	416.1	202.5	104.0
120	1003.4	880.9	535.0	505.3	481.3	460.7	424.7	206.9	104.5
121	1006.8	879.3	544.6	510.4	485.6	465.2	432.5	211.8	104.8
122	1006.3	882.1	549.6	514.5	490.9	469.4	437,6	216.4	105.1
123	1005.7	682.8	554.1	519.3	494.7	474.3	441.8	220.9	105.6
124	1007.3	885.2	558.6	523.8	498.4	479.0	445.6	225.6	105.7
125	1008.7	885.8	562.6	527.6	502.9	483.9	449.7	230.4	106.4
126	1008.8	887.4	566.1	532.1	507.1	488.1	453.5	235.2	106.9
127	1010,3	888.2	444	544.0	***	378.9	***	239.6	107.4
128	1010.8	890.1	570.3	539.8	514.8	496.2	461.3	245.3	108.1
129	1011.5	891.5	571.8	542.9	518.4	500.3	465.0	250.2	108.8
130	01010.2	894.5	573.9	546.2	521.4	504.5	468.0	254.5	109.6
131	1012.9	895.8	574.9	549.3	524.5	509.3	470.8	258.5	110.4
132	1013.6	896.4	576.0	552.9	527.5	514.0	473.7	262.3	111.6
133	1012.3	898.0	577.8	556.5	531.3	517.9	477.3	266.0	113.1
184	1013.6	899.3	577.7	560.4	534.8	521.7	481.2	269.8	†1 <u>4.6</u>
135	1015.0	901.2	578.0	564.4	538.2	526.3	485.1	273.8	116.0
136	1017,6	901.5	578.5	567.2	542.5	529.7	489.5	277.9	118.0
137	1016.4	901.6	580.9	570.7	545.9	534.4	492.9	282.4	121.3
138	1016.B	900.0	583.5	573.7	549.8	538.6	496.4	287.1	124.2
139	1019.1	899.8	586.7	577.2	553.8	542.8	499.5	291.8	126.9
140	1018.5	900.2	590.2	581.1	557.5	546.8	502.4	296.5	129.7
141	1018.5	900.5	593.2	584.4	561.6	550.5	505.3	301.4	134.6
142	1021.3	900.8	164	594.7		554.6	***	306.6	140.4
143	1020.5	902.4	600.3	591.7	569.6	559.0	512.5	312.1	14 <u>6.0</u>
144	1020,5	904.0	603.7	595.3	573.4	563.4	517.1	317.9	<u>151.9</u>
145	1021.6	905.0	809.4	600.8	579.2	569.6	522.4	323.B	15 <u>7.9</u>

Legend: BL - Base Layer, FL - Face Layer, Cav. - Cavity, WStd. - Wood Stud, Av - Average, Exp. - Exposed Side, UnExp. - Unexposed Side