REV-1

ELEMENT	U (W/m2/K)	Area (m2)	% of area 'AT'	U x A (watts/K)	Notes
Wall with EWI	**U = 0.553**	**222.19**	40.03	22.13	
Wall with IWI	**U = 0.353**	**18.0**	3.24	1.14	
Original roof	**U = 0.307**	**79.33**	14.29	4.38	
Renovated roof	U = 0.1584	65.00	11.71	1.85	(was 1.13)
Sunroof	**Uw = 0.8**	**6.38**	1.14	0.91	
Velux	**Uw = 3**	**1.69**	0.30	0.90	
Suspended concrete slab	**Up=0.276**	**43.92**	7.91	2.18	
Crosswall + cold bridges	**U=2.59**	**21.22**	3.82	9.89	
Slab on grade	**Up =2.5**	**46.0**	8.28	20.70	
Floating floor	**Up = 0.38**	**16.0**	2.88	1.09	
Doors/Windows (renovated)	**Uw = 1.3**	**32.08**	5.78	7.51	
Doors/Windows (original)	**Uw = 3**	**3.15**	0.56	1.68	
	Total envelope ("AT")	**554.96 m2**	**= 99.94%**	Σ =74.36 ~~Σ=76.11~~	x 16 K = **1189 W/K** ~~x 16 K = 1217 W/K~~

ANNUAL HEAT LOSS = 1.189 x 2300 HDD = 2734.7 kW

IF RENOVATING THE ENTIRE ROOF :

ELEMENT	U (W/m2/K)	Area (m2)	% of area 'AT'	U x A (watts/K)	Notes
Wall with EWI	**U = 0.553**	**222.19**	40.03	22.13	
Wall with IWI	**U = 0.353**	**18.0**	3.24	1.14	
~~**Original roof**~~	~~**U = 0.307**~~	~~**79.33**~~	~~14.29~~	~~4.38~~	
Renovated roof	U = 0.1584	144.33	26.00	0.04	(Was 1.85)
Sunroof	**Uw = 0.8**	**6.38**	1.14	0.91	
Velux	**Uw = 3**	**1.69**	0.30	0.90	
Suspended concrete slab	**Up=0.276**	**43.92**	7.91	2.18	
Crosswall + cold bridges	**U=2.59**	**21.22**	3.82	9.89	
Slab on grade	**Up =2.5**	**46.0**	8.28	20.70	
Floating floor	**Up = 0.38**	**16.0**	2.88	1.09	
Doors/Windows (renovated)	**Uw = 1.3**	**32.08**	5.78	7.51	
Doors/Windows (original)	**Uw = 3**	**3.15**	0.56	1.68	
	Total envelope ("AT")	**554.96 m2**	**= 99.94%**	Σ =72.55 ~~Σ=76.11~~	x 16 K = **1160 W/K** **(vs 1189)**

Advantage = 29 W per kelvin