IRISH GREEN BUILDING COUNCIL





BASELINE ASSESTMENT OF EXISTING END OF TERRACE

500

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec



END OF TERRACE BER RESULTS AFTER RETROFIT MEASURES



Floors

Walls

Roofs

Openings

Junctions

0,1000

0,130 D 0,169;

3.099

UPGRADE MEASURES ON EXISTING

Internal gains

200

100

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

NEW EXTENSION DETAILS

						LINE	AR THE	RMAL	BRIDG	E CALCU	LATI	ONS								L (
			L2d	ti internet interne	1 5 50			Psi (Ψ)					Mid Terr	ace - Gable	Mid	Terrace	Endlo	f Terrace			
Code	Description	UFactor	Length =	L2d	L2D · (Lx ·	Ux) • (Ly '	Uy) =	Ψ	ΨFinal	Lenght	Ψ x Lengh	Lenght	Ψ x Lenght	Lenght	ΨxLengh	t	Tsi	fBri
LTB_01	Eaves	0,127	2,520 =	0,319	0,319 - (1,395	0,129) • (1,119	0,090) =	0,038	0,038	4,555	0,173	5,7	0,217	12,65	0,482		18,8	0,9
LTB_02	Eaves + Windows	0,117	1,852 =	0,217	0,217 - (0,456	0,129) - (1,119	0,090) =	0,057	0,057	1,62	0,092	3,4	0,194	3,4	0,194		19,3	1,0
LTB_03	Flat Roof Eaves	0,083	2,831 =	0,236	0,236 - (1,175 *	0,079) · (1,206	0,081) =	0,046	0,046	3,1	0,143	3,1	0,143	6,6	0,305		19,3	1,0
LTB_04	Flat Roof Eaves + Windows	0,092	1,783 =	0,164	0,164 - (0,410	0,079) - (1,206	0,081) =	0,034	0,034	3,5	0,119	3,5	0,119	3,5	0,119		19,2	1,0
LTB_05	Flat Roof and Upgraded Wall above	0,054	3,425 =	0,184	0,184 - (1,395	0,129) - (1,206 *	0,081) =	-0,094	-0,094	4,42	-0,416	4,42	-0,416	4,42	-0,416		19,4	1,0
LTB_06	Roof and Gables	0,113	2,580 =	0,292	0,292 - (1,395	0,129) - (1,119	0,090) =	0,011	0,011	3,9	0,041	10 - Can S	0,000	(a ¹⁹⁾	0,000		18,7	0,9
LTB_07	Roof Ridge	0,093	2,238 =	0,208	0,208 - (1,119	0,090) • (1,119	0,090) =	0,007	0,007	12,95	0,087	4,55	0,031	12,785	0,086		18,8	0,9
LTB_08	Ground Floor - Upgraded Wall (EoT)	0,257	5,226 =	1,341	1,341 - (1,395	0,129) • (3,831	0,294) =	0,034	0,034		0,000		0,000	9,915	0,342		17,6	0,9
LTB_09	Ground Floor - Upgraded Wall (MidT)	0,177	9,031 =	1,601	1,601 - (1,395	0,129) - (8,767	0,188) =	-0,227	-0,227		0,000	2,72	-0,618	- 200	0,000		17,6	0,9
LTB_10	Ground Floor - Upgraded Wall (MidTGab	0,176	9,300 =	1,640	1,640 - (1,395	0,129) - (8,767	0,188) =	-0,189	-0,189	2,72	-0,514		0,000		0,000		17,6	0,9
LTB_11	Ground Floor - New Wall (EoT)	0,114	3,069 =	0,350	0,350 - (1,175	0,079) - (1,894	0,067) =	0,131	0,131	S - 18	0,000	12	0,000	8,09	1,059		18,5	0,9
LTB_12	Ground Floor - New Wall (MidT)	0,105	4,633 =	0,487	0,487 - (1,175	0,079) - (3,540	0,064) =	0,170	0,170	J	0,000	3,41	0,578		0,000		18,5	0,9
LTB_13	Ground Floor - New Wall (MidTGable)	0,105	4,633 =	0,487	0,487 - (1,175	0,079) - (3,540	0,064) =	0,170	0,170	3,41	0,578	31- <i>3</i> 0-)	0,000		0,000		18,5	0,9
LTB_14	Separating Old Wall and Ground Floor											0,000	0,240	14,18	3,403	13,9	3,336	6,95	1,668	Table D2 G.05.1		
LTB_15	Separating New Wall and Ground Floor											0,000	0,149	8,5	1,267	8,5	1,267	5	0,745	Table D4 4.23.1		
LTB_16	Partition Wall and Ground Floor						.					0,000	0,150	14,07	2,111	14,07	2,111	14,07	2,111	Table D2 G.05.2		
LTB 17	New Wall Front Threshold (EoT)	0,423	0,492 =	0,208	0,208 - (0,492	0,070	1 • 1			1 -	0,174	0,174		0,000		0,000	0,9	0,156		15,2	0,8
LTB 18	New Wall Front Threshold (MidT)	0,314	0,743 =	0,233	0,233 - (0,731	0,069	1 - 1			1 =	0,182	0,182		0,000	0,9	0,164	43	0,000		15,2	0,8
LTB 19	New Wall Front Threshold (MidTGable)	0,302	0,843 =	0,255	0,255 - (0,843	0,069	j·î			j =	0,196	0,196	0,9	0,177		0,000		0,000	· · · · · · · · · · · · · · · · · · ·	15,2	0,8
LTB_20	New Wall Rear Threshold (EoT)	0,187	2,168 =	0,405	0,405 - (2,168	0,067	j · () =	0,261	0,261	1 m	0,000	1. h	0,000	2,6	0,678		15,3	0,8
LTB_21	New Wall Rear Threshold (MidT)	0,138	3,710 =	0,510	0,510 - (3,710	0,064	j - () =	0,274	0,274		0,000	2,6	0,712		0,000		15,3	0,8
LTB_22	New Wall Rear Threshold (MidTGable)	0,138	3,710 =	0,510	0,510 - (3,710	0,064) - () =	0,274	0,274	2,6	0,712	\$1 - 60 - f	0,000		0,000		15,3	0,8
LTB_23	Upgraded Wall Lintels											0,000	0,098	5,37	0,526	5,37	0,526	5,37	0,526	Table D2 2.20		
LTB_24	Upgraded Wall Jambs											0,000	0,091	9,3	0,846	9,3	0,846	9,3	0,846	Table D2 2.21		
LTB_25	Upgraded Wall Sills											0,000	0,109	5,37	0,585	5,37	0,585	5,37	0,585	Table D2 2.22		
LTB_26	New Wall Lintels											0,000	0,084	3,5	0,294	3,5	0,294	3,5	0,294	Table D4 4.20		
LTB_27	New Wall Jambs											0,000	0,043	6,3	0,271	6,3	0,271	6,3	0,271	Table D4 4.21		
LTB_28	New Wall Sills											0,000	0,034	0	0,000	0	0,000	0	0,000	Table D4 4.22		
LTB_29	New Corner and Door Jamb	0,090	1,412 =	0,127	0,127 - (1,175 *	0,079) • () =	0,035	0,035	2,1	0,073	2,1	0,073	2,1	0,073			
LTB_30	Upgraded Wall Corner											0,000	0,070	0	0,000	0	0,000	4,04	0,283	Table D2 2.23.1		
LTB_31	New Wall Corners											0,000	0,030	0,4	0,012	0,4	0,012	5,4	0,162	Table D4 4.04,1		<u> </u>
LTB_32	New Wall and Party Wall											0,000	0,040	3,75	0,148	3,75	0,148	2,5	0,099	Table D4 4.06		
LTB_33	Upgraded Wall and Party Wall											0,000	0,033	6,07	0,200	6,07	0,200	3,79	0,125	Table D2 2.05		<u> </u>
LTB_34	New Wall- and Ugraded Inv Corner						1					0,000	-0,015	2,5	-0,038	2,5	-0,038	2,5	-0,038	Table D4 4.04.2		
																					Aver Fsr	0,9
	W01Upgraded Concrete Wall	0,129	1,395									Total			10,892		10,755	i	10,754			
	W02 New Timber Wall	0,079	1,175									Area of ele	ements		147,06		145,79	1	196,13			
												Englas			0.074		0.074		0.055			
												r-hactor			0,074		0,074		0,055			

Roofs

Openings

Junctions

<u>____</u>









🔽 Horizontal component - Warm Roof 100 Wool + 215 Xtratherm Uv=0.09 Final

Vertical component - 215mm Concrete + 25 + 150 U=0,15





🔽 Vertical component - Timberframe 300 XT Uv=0.09

♦ ♦

1,0 0,5 0,0 [m]

← →

Vertical section

📩 Manufacturer

BS EN 12524

Air gaps BS EN 12524

BS EN 12524

Inhomogeneous material layer
Xtratherm Limited

Xtratherm Limited
Inhomogeneous material layer

Generic Building Materials

Unventilated Airspace BR 443

Horizontal section

Thermal transmittance Condensation Bisk Analysis Heat Capacity

OUTSIDE





Name

Oriented strand board (OSB)

consisting of: Thin-B ×171F Timber Frame

Level 1: dU" = 0.01 W/(m²K) 💌

Softwood Timber [500 kg/m²]

Oriented strand board (OSB)

Normal cavity - 25 mm, unventilated

Standard wallboard plasterboard

consisting of:

INSIDE

U: 0,09 W/(m²K)

Umax 0,30 W/(m²K)

RT 11,43 m²K/W

Thickness 0,3815 m

Thickn. lambda Q R [m] [W/(mK)] 1 [m²K/W]

0,0220 0,130 D 0,1692 0,1000 ø 0,038 2,6178 85,00% 0,022 L ·

0.022 🖸

0,1000 0,032 2 4,5455 0,022 0,038 2,6178 0,022 0,130 D 0,1692 0,0250 0,139 D 0,1799 0,0125 0,210 D 0,0595

15,00% 0,130 **D**





	±	Manufacturer	Name	Thickn. [m]	lambda Q [W/(mK)]	R [m²K/W]			
		Rsi				0,1700			
		BS EN 12524	Fibreboard, including MDF [600 kg/m²]	0,0070	0,140 D	0,0500			
		Generic Building Materials	Polyurethane - Variable thickness	0,0150	0,025 D	0,6000			
Ŭ.		BS EN 12524	Eitumen felt/sheet	0,0050	0,230 D	0,0217			
		BS EN 12524	Concrete, Medium density 1800	0,0750	1,150 D	0,0652			
		D				0.0000			







Dublin Institute of Technology - DT774 _ Arch1180 Crumlin House Project

Nicola Da Ponte _ D14125982

Final Design

Project Number Project number Issue Date A100 Nicola Da Ponte Drawn by Checker Scale As indicated Checked by