

REPORT TITLE:

Brill Place - Residential Sound Insulation Test Report

CLIENT DETAILS:

Henry Construction Projects

DATE: 25th October 2022

REPORT REFERENCE: PC-20-0187-RP2

PREPARED BY:

Peter Young MSc AMIOA

CHECKED/AUTHORISED BY:

Joan-Carles Blanco BSc MIOA

Pace Consult Ltd, 652 The Crescent, Colchester Business Park, Colchester CO4 9YQ t: 0845 241 0142 | f: 0845 241 2212 | e: info@paceconsult.co.uk | www.paceconsult.co.uk

Contents

Contents	1
1 –Introduction	3
2 – General Information	4
3 – Project Criteria & Constructions	5
4 - Test Results	6
Appendix A – Compliance Statements:	9
Appendix B – Description of Test Procedure	. 10
Appendix C - Test Certificate Graphs:	. 13
Appendix D – ANC Advance Notice to Building Control Officer:	. 32

Document Status and Revision Schedule

Issue/Revision	Description/Comments	Date	Prepared by	Approved by
First Issue	Checked & Authorised	25/10/22	PY	JCB

1 –Introduction

This report is an ANC Registered Report with the unique registration number 75444

Pre-completion sound insulation testing has been completed at the Brill Place development.

The site is a mixed residential and commercial tower block consisting of 68 residential plots. As such 7 no. sets of sound insulation tests are required. This report covers 4 no. sets; a further report will be issued covering the remaining 3 sets.

The findings have been registered and are presented here within, and on the ANC Advance sound test verification server online. A notice to Building control officer is included at the end of this report.

The testing has established the performance of the separating structures and associated flanking structures. The test method and measured performance have been presented against the applicable performance standards, being Requirement E1 of the Building Regulations Approved Document E 2003 Edition incorporating, 2004, 2010, 2013 & 2015 amendments (Referred to as BR ADE 2003 as amended).

Report Author:	Report Checked & Authorised By:
Peter Young MSc AMIOA	Joan-Carles Blanco BSc MIOA
pyaung	A
Dated: 25/10/22	Dated: 25/10/22

2 – General Information

Site name & address:	
Plot / House name / Number:	Brill Place
Road name:	Brill Place
Town:	Somers Town, London
Post Code:	NW1
Type of property:	Purpose built dwelling house and flats
Historic or within a conservation area:	The site is not historic/within a conservation area
Test Date:	12/10/22 & 13/10/22
Carried Out By:	
Company Name:	Pace Consult Ltd, 652
Street name:	652 The Crescent
Town :	Colchester
Postcode:	CO4 9YQ
ANC Test Organisation No.:	0167
Persons in charge of testing:	
Name & Qualifications:	Peter Young MSc AMIOA
Registered ANC Test Engineer No.:	167/07
Carried Out For:	
Company Name:	Henry Construction Projects
Street name:	Parkway Farm, Church Road
Town :	Cranford, Middlesex
Postcode:	TW59RY

3 – Project Criteria & Constructions

Based on the information in section 2, the requirements BR ADE 2003 as amended are as follows:

Table 1: BR ADE (2003 as amended) Table 0.1a Dwelling houses and flats – performance standards for separating walls, separating floors, and stairs that have a separating function

Partition Type	Airborne sound insulation <i>D</i> n <i>т,</i> w + Ctr dB (Minimum values)	Impact sound insulation <i>L'</i> n <i>т,</i> w dB (Maximum values)
F		
Walls	45	-
Floors and Stairs	45	62

Table 2: Construction Details (Provided of the client)

Separating Partition	Construction Details
Wall	x2 layers of 15mm BG Soundbloc on twin 40 I 50 studs forming a 140mm cavity, with 50mm Isover partition roll in cavity
Floor	90 mm engineered timber flooring over an underfloor heating system, resilient layer, 200 mm RC slabs and 160 mm suspended ceiling with one layer of 12.5mm thick 'WallBoard' plasterboard

4 - Test Results

Test & Certificate Number	ANC Test Reference	Source Room	Source Room Volume (m ³)	Receiving Room	Receiving Room Volume (m ³)	BR ADE Requirement	BR ADE Result	Deficit re: BR ADE?
1	167754441	L5-03 Bedroom 1	26	L5-02 Bedroom 1	26	≥45 $D_n \tau_{,w}$ + C_{tr} dB	58	PASS
2	167754442	L4-03 Bedroom	26	L4-02 Bedroom	26	\geq 45 $D_{nT,w}$ + C_{tr} dB	57	PASS
3	167754443	L2-02 Bedroom	26	L2-03 Bedroom	26	\geq 45 $D_{nT,w}$ + C_{tr} dB	59	PASS
4	167754444	L1-02 Bedroom	26	L1-03 Bedroom	26	\geq 45 $D_{nT,w}$ + C_{tr} dB	57	PASS

Table 3 - Measured airborne sound insulation of separating party walls against BR ADE 2003 as amended.

Note. Dimensions and volumes have been estimated on site using an electronic disto

Cupboards were opened and unfilled to satisfy BR ADE Annex B point 2.17.

Report Template & Issue No. Report_Issue 13

Template Date: 02/05/ 2019

ANC Task Number and password: 75444 /YEYXEZ

Page 6 of 32

Test & Certificate Number	ANC Test Reference	Source Room	Source Room Volume (m³)	Source Room Volume (m ³) Receiving Room		BR ADE Requirement	BR ADE Result	Deficit re: BR ADE?
5	167754445	L5-04 KLD	66	L6-04 KLD	66	≥45 $D_{nT,w}$ + C_{tr} dB	60	PASS
6	167754446	L5-04 Bed	30	L6-04 Bedroom	30	\geq 45 $D_{nT,w}$ + C_{tr} dB	69	PASS
7	167754447	L5-04 KLD	66	L4-04 KLD	66	≥45 $D_{nT,w}$ + C_{tr} dB	55	PASS
8	167754448	L5-04 Bedroom	30	L4-04 Bedroom	30	\geq 45 $D_{nT,w}$ + C_{tr} dB	70	PASS
9	167754449	L2-02 KLD	61	L3-02 KLD	61	≥45 $D_{nT,w}$ + C_{tr} dB	53	PASS
10	1677544410	L2-02 Bedroom	26	L3-02 Bedroom	26	≥45 $D_{nT,w}$ + C_{tr} dB	63	PASS
11	1677544411	L2-02 KLD	61	L1-02 KLD	61	≥45 $D_{nT,w}$ + C_{tr} dB	55	PASS
12	1677544412	L2-02 Bedroom	26	L1-02 Bedroom	26	\geq 45 $D_{nT,w}$ + C_{tr} dB	63	PASS

Table 4 - Measured airborne sound insulation of separating party floors against BR ADE 2003 as amended.

Note. Dimensions and volumes have been estimated on site using an electronic disto

Cupboards were opened and unfilled to satisfy BR ADE Annex B point 2.17.

Report Template & Issue No. Report_Issue 13

Template Date: 02/05/ 2019

ANC Task Number and password: 75444 /YEYXEZ

Test & Certificate Number	ANC Test Reference	Source Room	Source Room Volume (m ³)	Receiving Room	Receiving Room Volume (m³)	BR ADE Requirement	BR ADE Result
13	1677544413	L6-04 KLD	66	L5-04 KLD	66	≤ 62 <i>L</i> 'n <i>T</i> ,w dB	49
14	1677544414	L5-04 KLD	66	L4-04 KLD	66	≤ 62 <i>L</i> 'n <i>T</i> ,w dB	49
15	1677544415	L3-01 Bedroom	29	L2-01 Bedroom	29	≤ 62 <i>L</i> 'n <i>T</i> ,w dB	36
16	1677544416	L2-01 Bedroom	29	L1-01 Bedroom	29	≤ 62 <i>L</i> 'n <i>T</i> ,w dB	37
17	1677544417	L3-02 KLD	61	L2-02 KLD	61	≤ 62 <i>L</i> ' _{n<i>T</i>,w} dB	46

61

Deficit re: BR ADE?

PASS

PASS

PASS

PASS

PASS

PASS

53

 $\leq 62 L'_{nTw} dB$

61

Table 5 - Measured impact sound insulation of separating floors against BR ADE 2003 as amended.

Note. Dimensions and volumes have been estimated on site using an electronic disto Cupboards were opened and unfilled to satisfy BR ADE Annex B point 2.17.

L2-02 KLD

Report Template & Issue No. Report_Issue 13

Template Date: 02/05/ 2019

L1-02 KLD

ANC Task Number and password: 75444 /YEYXEZ

1677544418

18

Page 8 of 32

Appendix A – Compliance Statements:

Testing and assessment was completed in full accordance with the following standards pertaining to sound insulation testing of residential buildings, and associated documents:

BS EN ISO 140-4:1998 Acoustics – Measurement of sound insulation in buildings and of building elements. Part 4. Field measurements of airborne sound insulation between rooms.
BS EN ISO 140-7:1998 Acoustics – Measurement of sound insulation in buildings and of building elements. Part 7. Field measurements of impact sound insulation of floors.
BS EN ISO 717-1:1997 Acoustics – Rating of sound insulation in buildings and of building elements, Part 1. Airborne sound insulation.
BS EN ISO 717-2:1997 Acoustics – Rating of sound insulation in buildings and of building elements.
Part 2. Impact sound insulation.
Building Regulations Approved Document E 2003 Edition incorporating, 2004, 2010, 2013 & 2015 amendments including Annex B
BS EN ISO 3382-2:2008 Acoustics - Measurement of room acoustic parameters. Reverberation time in ordinary rooms.

The testing and assessment was also completed with reference to the following documents:

ANC Practice Guidance for Sound Insulation Testing of Dwellings 2018

BS EN ISO 16283-1:2014 Incorporating corrigendum June 2014 Acoustics – Field measurement of sound insulation in buildings and of building elements. Part 1. Airborne sound insulation.

BS EN ISO 16283-2:2018 Acoustics – Field measurement of sound insulation in buildings and of building elements. Part 2: Impact sound insulation

BS EN ISO 140-14:2004 Acoustics. Measurement of sound insulation in buildings and of building elements. Guidelines for special situations in the field

BS EN ISO 17025:2005 'General Requirements for the competence of testing and calibration laboratories'

Appendix B – Description of Test Procedure

Building Regulations Approved Document E (as amended) is prescriptive in the approved manner and order of recording pre-completion testing results. Point 1.41 of BR ADE states the 'Approved manner of recording pre-completion testing results', while BR ADE Annex B states the 'Procedures for Sound Insulation Testing'.

Measurements were made using the following equipment

Equipment Description	Type Number	Manufacturer	Serial Number	Date of Last Calibration	Calibration Certification Number	
Sound Level Meter	NOR-118	Norsonic	31301	04/05/21	U37815	
Microphone	1225	Norsonic	48084 04/05/21		37814	
Preamplifier	1206	Norsonic	30486	04/05/21	37814	
Calibrator	NOR-1251	Norsonic	30998	24/11/2021	U39543	
Speaker	NOR-250	Norsonic	31434	-	-	
Amplifier	NOR-280	Norsonic	2803650	-	-	
Tapping Machine	NOR-277	Norsonic	2776140	26/08/2020	U35580	

Table 6: Sound Test Kit B

The sound level meter was calibrated before and after the measurements, to an accuracy of ± 0.1 dB unless otherwise noted. No significant drift was noted.

Rooms under test:

Suitable test conditions were found on site with access to all rooms. Rooms were unfurnished, but some materials and tools were in the rooms under test. Tests were undertaken during the working day, so some light road traffic noise was evident in the receiver rooms. Source and receiver room volumes are given with the statement of results.

For Airborne Tests:

5 fixed Microphone positions within both the source and receiver rooms were used for each of two source positions. The averaging time for each speaker position (source and receiver side) in each case was 30 seconds (6s each position) to give a total sampling time on each side of the structure under test of 60 seconds.

For Impact Tests:

4 tapping machine positions in the source room were used, with 2 microphone positions in the receiver room for each tapping machine position; for a total of 8 measurements. The total averaging time was 48 seconds (6s each position), this is 12s in excess of the minimum averaging time required by BS EN ISO 140-7: 1998 and is in accordance with the ANC practice guidance for sound insulation testing in dwellings (2018).

Reverberation times:

A total of 6 reverberation time measurements were taken in each receiver room, using three fixed microphone positions for each of two interrupted pink noise source locations; for a total of 6 no. decays.

Background noise:

Background noise measurements were taken within each receiver room. Background measurements were recorded at typically the same locations as those used for the fixed microphone receiver room (L2) measurements. For airborne tests, where the background noise in the receiving room was deemed to be sufficiently low and/or stable, 5 measurement positions (6 seconds each, for a total of 30 seconds) were used, and the global average value applied to both sets of receiver room measurements. This approach is discussed in the ANC Practice Guidance for Sound Insulation Testing of Dwellings 2018, paragraph 1.10. Where background noise was deemed not to be sufficiently low and stable, (5 No. fixed microphone positions for each of two source positions) provided a minimum total duration of 60 seconds. For impact tests (5 No fixed microphone positions) with a total of 30 seconds were taken.

Airborne Result Rating:

The Weighted Standardized Level Difference ($D_{nT, w}$ dB) and the Spectrum Adaption Terms (*C*:*C*_{tr}) were calculated in accordance with British Standard BS EN ISO 717-1:1997. A single value test result for airborne tests ($D_{nT, w}$ + C_{tr} dB) is calculated using the rating methods detailed for airborne testing (ISO 717-1:1997).

Impact Result Rating:

A single value test result for impact tests ($L'_{n, T, w}$ dB) is calculated using the rating methods detailed for impact testing (ISO 717-2:1997).

Graphical report sheets

Details on each individual test are presented on the following graphical report sheets (see appendix A) as per ISO 140-4:1998 for airborne tests and as per ISO 140-7:1998 for impact tests.

These include details of room volumes, a description of the partition under test, and test result data in table and graphical form. Where the graphical report sheet denotes a 'B' next to the third octave level, the level is corrected for the effect of background noise. A ' \leq ' or ' \geq ' may indicate that the results are to

Report Template & Issue No. Report_Issue 13

Template Date: 02/05/ 2019 ANC Task Number and password: 75444 /YEYXEZ be taken as the limits of measurement and the $D_{nT,w}$ is to be considered \geq the difference presented and the $L_{nT,w}$ is to be considered \leq the level presented.

Appendix C - Test Certificate Graphs:

Please note: the dimensions of the test certificate graphs are scaled to the correct dimensions (in line with section 8 of BS EN ISO 140-4 & section 7 BS EN ISO 140-7) when the PDF is printed at custom scale 100%.

	Standardised level difference according to ISO 140-4 Field measurement of airborne sound insulation between rooms														
Client Details:		Her	nry Const	ruction P	roject	8		Test Date:		12/10/2022		Test No.	1		
Construction information:		x2 layers	of 15mm	1 BG Soun	dbloc	on twin	40 I 50	studs fo	orming	a 140mm cavity	y, with 50)mm Isover pa	rtition roll in	cavity	
Source Room:			L5-	-03 Bedro	om 1				Rec	eive Room:		L5-0	2 Bedroom 1		
					_	 Eno			aaandin	a to the ourse	of				
Source Room Volume	26.0 m^3 — refe							values (I	SO 717	7-1)	. 01				
Receive Room Volume	26.0 r	n ³		90 1)					-	DnT	1/3rd octave dB	ISO 717-1		
				ц Ц											
Frequency [Hz]	D _{nT} (one-thin octave) d	rd H IB	≥6	erence, $D_{\mathrm{n}T}$)										
50				el diffe											
63				dleve											
80				rdise									~		
100	45.6			anda	, I							_ /	\sim		
125	44.5			Ø Ű	ĺ										
160	45.9														
200	51.0														
250	55.3														
315	57.4			60)					//					
400	60.6														
500	61.1						-								
630	62.7								//						
800	65.4	В													
1000	66.3	В		50)		1		/						
1250	70.5		\geq				1/	1 /							
1600	72.3		\geq				\succ								
2000	71.1		\geq												
2500	69.9		\geq	- 40	, I										
3150	72.2	в	\geq												
4000							-								
5000															
$\mathbf{B} = \mathbf{B}\mathbf{a}$	ackground Sample Le	Correct	ed	3(, L										
$\geq = Li$	mit of Mea	sureme	nt			8		125		8	500	1000	2000		4000
	$D_{nT} \ge va$	ue							Free	quency, f, Hz		•			
	Rating A	Accordi	ng to ISO	717-1											
$D_{\rm nT,w}(C;C_{\rm tr})$ Evaluation b	64 ased on fie en	(- eld meas gineerir	2; urement i g method	-6 results ob l) tained	dB; lby an	Add	itional s	pectrur	n adaptation te	erms for e	engalrged freq	uency range	e not app	licable
Test Report	No.:			PC-2	0-018	7-RP2	1			Name o test institu	of ute:	(pa	aceoonsul	t	
Report Da	te:			25	/10/20)22		Signature: Pyaung							

Template Date: 02/05/ 2019 ANC Task Number and password: 75444 /YEYXEZ Page 14 of 32

	Standardised level difference according to ISO 140-4 Field measurement of airborne sound insulation between rooms															
Client Details:		Henry	Constr	uction I	Projec	ets		Test Date:		12/10/2022		Test No.		2		
Construction information:	X	2 layers o	f 15mm l	BG Sou:	ndblo	oc on twin	40 I 50	studs fo	orming a	a 140mm cavity	y, with 50)mm Isov	ver partition	roll in ca	vity	
Source Room:			L4-0	03 Bedr	oom				Rec	eive Room:			L4-02 Bed	lroom		
					-	Fre	auency	range a	ccordir	a to the curve	of					
Source Room Volume	26.0 m	3 1			-	refe	erence	values (I	SO 717	7-1)						
Receive Room Volume	26.0 m	1 ³		⁹						-	DnT Refe	1/3rd octave rence Curve	edB acc.toISO 717	-1		
				ا #												
Frequency [Hz]	D _{nT} (one-thir octave) di	d B B	≥6	srence, $D_{ m ni}$	80		 									
50				el diffe												
63				dleve			Ì									
80				ardise									~			
100	41.8			tanda	70								$ \land $		4	
125	40.9			01								\sim			-	
160	49.0						Ì									
200	57.1						-									
250	54.4									/ /						
315	56.8			(50										-	
400	59.3								~							
500	63.7															
630	65.3			-			-		/						ł	
800	68.2	в			50 -											
1000	67.4	в						<i> </i>								
1250	70.5	В					/									
1600	72.3	В														
2000	69.8							J								
2300	70.6	_		- 4	40			Ī								
4000	70.0						-								ł	
5000																
B = Ba	ackground (Sample Le	Corrected														
≥=Li	mit of Meas	surement			30 -	8		125		0.07	500	000		0003		000
	$D_{nT} \ge vale$	ue							Freq	uency, f, Hz	—	•		(I		4
	Rating A	ccording	to ISO 7	17-1												
$D_{nT,w}(C;C_{tr})$	65	(-3	;	-8)	dB;		ition-1	noot	a adapt-ti (d fan ar		t or - "	aab !-
Evaluation b	ased on fiel eng	ld measure gineering 1	ement re nethod	sults ol	otaine	edby an	Add	nonais	pectrun	n adaptation te	erns for e	engairge	a frequency	range no	t appn	cable
Test Report	No.:			PC-	20-01	87-RP2	•			Name o test institu	of ute:		(pace)	onsult		
Report Da	te:			2	5/10/2	2022				Signatur	re:		pegau	ng		

			Fiel	Stan d me a	dard sure	lised leve ement of a	el diffe airbor	rence ne sou	accoro nd ins	ding to ISO ulation bety	140-4 veen ro	oms				
Client Details:		Her	ry Const	ruction	Proje	ects		Test Date:		12/10/2022		Test No.		3		
Construction information:		x2 layers	of 15mm	BG Sou	ındbl	loc on twin	40 I 50	studs fo	orming a	a 140mm cavity	y, with 50)mm Isove	er partition	roll in cav	ity	
Source Room:			L2-	-02 Bed	roon	ı			Rec	eive Room:			L2-03 Bed	room		
Source Room Volume	26.0 n	n ³				Free refe	quency erence v	range a values (I	ccordir SO 717	ng to the curve 7-1)	of					
Receive Room Volume	26.0 n	n ³		Ť	⁹⁰					-	DnT Refe	1/3rd octave rence Curve a	dB acc.toISO 717-	1		
Frequency [Hz]	D _{nT} (one-thin octave) d	rd B B	≥6	ference, $D_{\mathrm{n}T}$, dB	80 -											
50 63 80				rdised level dif									\frown			
100	44.1			tanda	70 -											
125	45.0			S								\square				
160	48.0			_							\square	/				
200	55.3															
250	57.7									\wedge						
315	60.5			-	60 -				/		\checkmark					
400 500	58.6						ł									
630	62.9								1							
800	68.9	В							/							
1000	70.8	В			50 -			/ /								
1250	75.7	в														
1600	76.7	В														
2000	76.9	в														
2500	74.3		≥	_	40 -											
3150	76.5	В														
4000																
5000 B = Ba	ackground Sample Le	Correcte	d													
>=1i	mit of Mea	suremer	t	-	30 -	83		125		0	200	00		8	Ę	
	$D_{nT} \ge val$	ue							Freq	uency, f, Hz		•		7		r
	Rating A	Accordin	g to ISO	717-1												
$D_{nT,w}(C;C_{tr})$ Evaluation b	66 ased on fie en	(-2 d measured the construction of the constru	2; urement re g method	-7 esults o	btair) dB; nedby an	Add	itional s	pectrun	n adaptation te	erms for e	engalrged	frequency	range not	applic	able
Test Report	No.:			PC	-20-0	187-RP2	•			Name o test institu	of ute:		(pace)	onsult		
Report Da	ite:			:	25/10	/2022				Signatur	re:	/	pyan	ng		

			Fiel	Stan d me a	dard s ure	lised leve ment of	l diffe airbor	rence ne sou	accoro nd ins	ding to ISO ulation bety	140-4 veen ro	oms				
Client Details:		Hen	ry Constr	ruction	Proje	ects		Test Date:		12/10/2022		Test No.		4		
Construction information:	2	v2 layers	of 15mm	BG Sou	ndbl	loc on twin	40 I 50	studs fo	orming a	a 140mm cavity	y, with 50)mm Iso	over partition	roll in cav	ity	
Source Room:			L1-	02 Bed	room	ı			Rec	eive Room:			L1-03 Bed	room		
Source Room	26.0 n	13				Free	quency rence	v range a values (I	ccordir SO 717	ng to the curve 7-1)	of					
Receive Room Volume	26.0 n	n ³		¢	⁹⁰ T					-	DnT	1/3rd octa	ive dB			
										-	Refer	rence Cur	ve acc.toISO 717-	1		
Frequency [Hz]	D _{nT} (one-thir octave) d	d B B	≥6	èrence, $D_{\mathrm{n}T}$, dB	80 -		 									
50				el diff												
63				edlev												
80				dardis												
100	40.3			Stanc	70 -										-	
125	43.9												-		-	
160	46.9			-								\sim				
200	53.1															
250	55.5				-					4						
315	60.5			-	60						/				1	
400 500	50.1								/							
500 630	59.1 62.8															
800	64.9			-					1							
1000	64.6				50				/						-	
1250	69.1							X /								
1600	70.8			-												
2000	69.8															
2500	69.4															
3150	69.8				40		i i									
4000																
5000																
$\mathbf{B} = \mathbf{B}$	ackground Sample Le	Corrected vel	1		30											
$\geq = Li$	mit of Mea	surement	t		50	63		125	8	0 2 2	500	0001	1000	2000	1000	4000
	$D_{nT} \ge val$	ue							Freq	uency, f, Hz		•				
	Rating A	ccording	g to ISO	717-1												
$D_{nT,w}(C;C_{tr})$ Evaluation b	64 ased on fie	(-2 ld measu gineering	; rement re method	-7 esults o) btain) dB; nedby an	Add	itional s	pectrun	n adaptation te	erms for e	engalrg	ed frequency	range not	appli	cable
Test Report	No.:		, include	PC	-20-0	187-RP2	<u> </u>			Name o test institu	of ute:		(pace)	onsult		
Report Da	ite:			2	25/10	/2022				Signatur	re:		pyan	ng		

			Field	Standa 1 me as 1	rdis 1re m	ed leve ent of :	el diffe airbor	rence ne sou	accoro nd ins	ding to ISO ulation bety	140-4 veen ro	oms				
Client Details:		Henry	Constr	uction Pr	ojects	5		Test Date:		12/10/2022		Test No.		5		
Construction information:	90 mm eng	gineered ti	mber flo	ooring ov	er an	underflo one lay	oor heat yer of 1	ting syst 2.5mm th	em, res lick 'W	ilient layer, 200 allBoard' plaste	0 mm RC erboard	slabs and 1	160 mm su	ispended o	ceiling	; with
Source Room:			L	.5-04 KLI)				Rec	eive Room:			L6-04 K	LD		
						F				1	c					
Source Room Volume	66.0 m	n ³			_	refe	erence	values (I	SO 717	7-1)	01					
Receive Room Volume	66.0 m	n ³		90						-	Dn T	1/3rd octave dB rence Curve acc	. to ISO 717-	1		
			1	l ⊕́												
Frequency [Hz]	D _{nT} (one-thir octave) d	d B B	≥6	erence, $D_{\mathrm{n}T}$			 									
50				el diff												
63				dleve												
80				ardise			ł									
100	44.0			grands									\square	\searrow	4	
125	48.6			01									/			
160	54.5															
200	56.7						ł									
250	57.5															
315	58.9			60	•	-					*				-	
400	61.7															
500	60.4								/							
630	62.3															
800	65.1			50	_											
1000	65.3															
1250	68.5															
2000	71.0						/									
2000	70.1															
3150	70.1			- 40											-	
4000	, 1.1															
5000							i									
B=Ba	ackground Sample Le	Corrected vel	1	20												
>=1	imit of Mea	surement		30		8		125		09	500	000		000		3
	$D_{nT} \ge val$	ue							Free	puency, f, Hz	,	•		0		r
	Rating A	ccording	to ISO 7	717-1												
$D_{nT,w}(C;C_{tr})$	66	(-2	;	-6)	dB;		ition-1		n adapt-ti (maaluee d. C			on all	oob-
Evaluation b	ased on fie en	ld measure gineering	ement re method	sults obt	ained	by an	Auu	itionai sj	pectrui	n adaptation te	ins for e	ingangeu n	lequency	range not	аррис	able
Test Report	No.:			PC-2)-0187	-RP2	-			Name o test institu	of ute:	ę	pace	onsult		
Report Da	ite:			25	/10/20	022				Signatur	re:	12	regau	ng		

Template Date: 02/05/ 2019 ANC Task Number and password: 75444 /YEYXEZ Page 18 of 32

			Field	Standa d me ası	ardis 1re m	ed leve ent of	el diffe airbor	rence ne sou	accoro nd ins	ding to ISO ulation bety	140-4 veen ro	oms			
Client Details:		Henr	y Constr	uction P	roject	5		Test Date:		12/10/2022		Test No.		6	
Construction information:	90 mm en	gineered t	imber flo	ooring ov	er an	underflo one lay	oor heat yer of 1	ting syst 2.5mm th	em, res lick 'Wa	ilient layer, 200 allBoard' plaste	0 mm RC erboard	slabs and 160) mm suspe	nded cei	ling with
Source Room:			I	L5-04 Bee	ł				Rec	eive Room:		L6-	04 Bedrooi	n	
						_				_	_				
Source Room Volume	30.0 n	n ³			_	refe	quency erence v	v range a values (I	ccordir SO 717	ng to the curve 7-1)	of				
Receive Room Volume	30.0 n	n ³		90 1	,					-	DnT Refe	1/3rd octave dB	JSO 717-1		
				י ש							100				
Frequency [Hz]	D _{nT} (one-thir octave) d	d B B	≥6	erence, $D_{\mathrm{n}T}$)		- 						\frown		
50				el diff											
63				dleve			i				7				
80				urdise						/					
100	51.3			tanda	,										
125	59.4			ø											
160	62.1														
200	67.1								/						
250	69.5														
315	67.9			60)			/							
400	68.5														
500	74.8						1								
630	78.9	В	\geq												
800	77.4		\geq				1								
1000	78.0	В	\geq	50)		-							-	
1250	80.3	В													
1600	82.3	в	\geq												
2000	81.5	В	\geq				Ì								
2500	80.3	В	\geq	40	,									İ	
3150	79.0	В	\geq												
4000															
5000															
B=Ba	ackground Sample Le	Corrected vel		30	, 🗋	<u> </u>		<u>к</u>			<u> </u>				
$\geq = Li$	mit of Mea $D_{\pi} \ge val$	surement				Q		12		<u> </u>	<u> </u>	100	200		400
	211								Freq	uency, f, Hz		•			
	Rating A	ccording	to ISO '	717-1											
$D_{nT.w}(C;C_{tr})$	76	(-2	:	-7)	dB;									
Evaluation b	ased on fie en	ld measur gineering	ement re method	sults ob	tained	lby an	Add	itional s _l	pectrun	n adaptation te	erms for e	engalrged free	luency rang	ge not ap	plicable
Test Report	No.:			PC-2	0-018	7-RP2	•			Name o test institu	of ute:	ſp	aceoons	ult	
Report Da	ite:			25	/10/20)22				Signatur	re:	Pe	gaung	7	

Template Date: 02/05/ 2019 ANC Task Number and password: 75444 /YEYXEZ Page 19 of 32

			Field	Stand 1 me as	ardis ure n	ed leve ent of :	el diffe airbor	rence ne sou	accoro nd ins	ding to ISO sulation bety	140-4 veen ro	oms				
Client Details:		Henry	Constr	uction P	roject	s		Test Date:		12/10/2022		Test No.		7		
Construction information:	90 mm eng	gineered ti	imber flo	oring ov	er an	underflo one lay	oor heat yer of 1	ting syst 2.5mm th	em, res nick 'W	ilient layer, 200 allBoard' plaste	0 mm RC : erboard	slabs a	and 160 mm su	spended o	ceiling	; with
Source Room:			I	5-04 KL	D				Rec	eive Room:			L4-04 KI	D		
											c					
Source Room Volume	66.0 m	n ³			-	refe	erence v	values (I	SO 717	7-1)	01					
Receive Room Volume	66.0 m	1 ³		⁹						-	DnT 1	∣/3rd octa ence Cur	ive dB ve acc. to ISO 717-1			
				l tế												
Frequency [Hz]	D _{nT} (one-thir octave) d	d B B	≥6	erence, D_{nT})		 									
50				el diffe												
63				dleve												
80				ardise			-									
100	44.4			tands)										-	
125	44.6			01			i									
160	42.3						ł									
200	47.8												I		1	
250	52.3												/			
315	56.1			6)											
400	55.5						-									
500	53.8															
630 800	50.9									/	Ĭ					
1000	50.4 60.2			5	,	_			\mathcal{A}							
1250	65.7								/							
1600	67.3								/							
2000	66.3							\land								
2500	64.3															
3150	65.5			- 4)		ļ								:	
4000																
5000																
$\mathbf{B} = \mathbf{B}\mathbf{a}$	ackground Sample Le	Corrected vel		3	, L				- 1							
≥=Li	mit of Mea	surement				63		125		50	500	0001	1000	0007	0001	4000
	$D_{nT} \leq val$	ue		J					Free	quency, f, Hz		•				
	Rating A	ccording	to ISO 7	717-1												
$D_{\rm nT,w}(C;C_{\rm tr})$ Evaluation b	60 ased on fie	(-2 ld measure	; ement re method	-5 sults ob) tainec	dB; lby an	Add	itional s	pectrur	n adaptation te	erms for e	ngalrg	ed frequency i	ange not	applio	cable
Test Report	No.:	Encomig	incurod	PC-2	0-018	7-RP2				Name o test institu	of ute:		(pace)	nsut		
Report Da	ite:			25	5/10/20	022				Signatur	re:		pyan	ng		

Template Date: 02/05/ 2019 ANC Task Number and password: 75444 /YEYXEZ Page 20 of 32

			Field	Standa d me as i	rdise ireme	d leve nt of a	l diffe airbor	rence : ne sou	accoro nd ins	ling to ISO ulation bety	140-4 veen ro	oms				
Client Details:		Henr	y Constr	uction Pr	ojects			Test Date:		12/10/2022		Test No.		8		
Construction information:	90 mm en	gineered	timber flo	ooring ov	er an u	nderflo one lay	or heat ver of 12	ing syst 2.5mm th	em, res lick 'Wa	ilient layer, 20 allBoard' plaste	0 mm RC erboard	slabs and 1	160 mm su	spended	ceiling	g with
Source Room:			L5-	04 Bedro	om				Rec	eive Room:		I	A-04 Bedi	room		
									1.	1	c					
Source Room Volume	30.0 n	n ³			—	refe	rence v	alues (I	SO 717	7-1)	: 01					
Receive Room Volume	30.0 n	n ³		90							DnT Refe	1/3rd octave dB rence Curve acc	c. to ISO 717-1		-	
Freemoney	D_{nT}			D _{nT} ,dB											-	
[Hz]	(one-thin octave) d	rd B B	≥6	ference, 1 8			 						\sim			
50				el dif												
63				edlev											-	
80				ardis												
100	56.4			yand					/	\times /						
125	55.8			01					//	\sim						
160	62.0								//							
200	69.6						-									
250	71.0														-	
315	67.6			60				//							-	
400	69.9							/								
500	72.5							y								
630	76.2	В	2	_											-	
800	75.7		\geq	50											-	
1000	75.2	В														
1250	78.9	В		-												
1600	78.3															
2000	79.9	В													-	
2500	79.5	В		- 40												
3150	78.3	В														
4000																
5000 B = Ba	ackground	Corrected	1													
	Sample Le	evel		30	لــــــــــــــــــــــــــــــــــــ			<u>5</u>		<u> </u>	2		<u> </u>	8] ?
≥=L	mit of Mea $D_{nT} \ge val$	surement ue							Freq	uency, f, Hz	х х	10		50	ç	5
	Rating	According	to ISO '	717_1												
$D = (C \cdot C)$	76	()		, 1 , - 1)	dB.										
Evaluation b	ased on fie en	ld measu gineering	, rement re g method	-o esults obt	ainedb	y an	Add	itional sj	pectrun	n adaptation te	erms for e	engalrged fr	requency	range not	t appli	cable
Test Report	No.:			PC-2	0-0187-1	RP2				Name o test institu	of ute:	Ŷ	pace	onsult		
Report Da	ite:			25	/10/202	2				Signatur	re:	12	Yau	ng		

Template Date: 02/05/ 2019 ANC Task Number and password: 75444 /YEYXEZ Page 21 of 32

			Field	Stand 1 me as	ardi: ure r	sed leve nent of :	el diffe airbor	rence : ne sou	accoro nd ins	ding to ISO ulation bety	140-4 veen ro	oms				
Client Details:		Henry	Constr	uction P	rojec	ts		Test Date:		12/10/2022		Test No.		9		
Construction information:	90 mm en	gineered t	imber flo	ooring o	ver ar	n underflo one lay	oor heat yer of 1	ting syst 2.5mm th	em, res lick 'Wa	ilient layer, 200 allBoard' plaste	0 mm RC : erboard	slabs a	nd 160 mm su	spended	ceiling	g with
Source Room:			Ι	.2-02 KL	D				Rec	eive Room:			L3-02 KI	D		
											c					
Source Room Volume	61.0 n	n ³			-	refe	erence v	values (I	SO 717	7-1)	01					
Receive Room Volume	61.0 n	1 ³		°						-	DnT 1	/3rd octav	ve dB ve acc. to ISO 717-1			
				, ₽												
Frequency [Hz]	D _{nT} (one-thir octave) d	d B B	≥6	erence, D_{n_T}	0		 									
50				el diffe												
63				dleve												
80				ardise			-									
100	44.6			tands	0										-	
125	43.9			01			i									
160	47.0						ł									
200	47.8												\sim			
250	49.5													\checkmark		
315	49.3			6	0								1—		-	
400	50.5															
500	52.7															
630	52.3										\sim					
800	53.9			5	0											
1000	57.8			5	Ŭ		-									
1250	60.4						-		/							
2000	03.7 64.2							//								
2000	61.5															
3150	63.1			4	0		\exists								1	
4000	05.1															
5000																
B = Ba	ackground Sample Le	Corrected vel														
>=Li	mit of Mea	surement		3	0	63		125		0	500	000		8		
	$D_{nT} \ge val$	ue							Freq	puency, f, Hz		-		.4		1
	Rating A	ccording	to ISO ?	717-1												
$D_{nT,w}(C;C_{tr})$	57	(-1	;	-4)	dB;		ition 1	a a c t .	n odor t-t	e c	n a - 1	ad fua		or . 1	ook 1
Evaluation b	ased on fie en	ld measur gineering	ement re method	sults ob	taine	dby an	Add	itional sj	pectrun	n adaptation te	erms for e	ngairge	ed frequency i	ange not	арри	cable
Test Report	No.:			PC-2	20-018	87-RP2	•			Name o test institu	of ute:		(pace)	nsult		
Report Da	ite:			25	5/10/2	2022				Signatur	re:		pyan	ng		

Template Date: 02/05/ 2019 ANC Task Number and password: 75444 /YEYXEZ Page 22 of 32

			Field	Standa 1 me as 1	rdised le rement o	vel diffe of airbor	rence ne sou	accoro nd ins	ling to ISO ulation betw	140-4 veen ro	oms				
Client Details:		Henry	Constr	uction Pr	ojects		Test Date:		12/10/2022		Test No.		10		
Construction information:	90 mm en g	gineered ti	mber flo	oring ov	er an under one	floor heat layer of 1	ting syst 2.5mm th	em, res tick 'Wa	ilient layer, 200 allBoard' plaste	0 mm RC erboard	slabs and 1	60 mm su	spended o	ceiling	with
Source Room:			L2-0	02 Bedro	om			Rec	eive Room:		L	3-02 Bedr	oom		
					T					c					
Source Room Volume	26.0 m	1 ³			r	eference	values (I	SO 717	7-1)	01					
Receive Room Volume	26.0 m	n ³		90					-	DnT Refe	1/3rd octave dB rence Curve acc.	to ISO 717-1			
			1	י ק ן											
Frequency [Hz]	D _{nT} (one-thir octave) d	d B B	≥6	erence, D_{nT}	,	 									
50				el diff											
63				dleve											
80				urdise								$\overline{\ }$			
100	52.1			tands										<u> </u>	
125	48.5			S										-	
160	55.6									1					
200	57.5														
250	56.5														
315	60.2			60				/	\frown						
400	60.8							\checkmark							
500	62.1														
630	67.0			-											
800	68.7			50		$ \ge $	/								
1000	73.0						Ý								
1250	74.9			-											
1600	72.8														
2000	/1.8														
2500	68.6			- 40		1									
4000	00.0														
5000															
B = Ba	ackground Sample Le	Corrected vel													
>=1	mit of Mea	surement		30	8		125		0	200			8		
	$D_{nT} \ge val$	ue						Freq	uency, f, Hz	— ,	•	•	2	4	
	Rating A	ccording	to ISO 7	717-1											
$D_{nT,w}(C;C_{tr})$	67	(-1	;	-4) dB;		litio - 1	nort:	n adapt-ti		maalees 1.C			on - 1'	
Evaluation b	ased on fie en	ld measure gineering 1	ement re method	sults obt	ainedby an	Add	litional s	pectrun	n adaptation te	erms for e	engairged fro	equency	range not	applic	able
Test Report	No.:			PC-2)-0187-RP2				Name o test institu	of ute:	Ŷ	paceod	nsut		
Report Da	ite:			25	/10/2022			_	Signatur	re:	[e	yau	ng		

Template Date: 02/05/ 2019 ANC Task Number and password: 75444 /YEYXEZ Page 23 of 32

			Field	Standa d me as	ardis ure m	ed leve ent of :	el diffe airbor	rence ne sou	accoro nd ins	ding to ISO ulation bety	140-4 veen roo	oms				
Client Details:		Hen	ry Constr	uction P	rojects	5		Test Date:		12/10/2022		Test No.		11		
Construction information:	90 mm en	gineered	timber flo	ooring ov	er an	underflo one lay	oor heat yer of 1	ting syst 2.5mm th	em, res tick 'W	ilient layer, 200 allBoard' plaste	0 mm RC s erboard	slabs ar	nd 160 mm su	spended	ceiling	g with
Source Room:			Ι	.2-02 KL	D				Rec	eive Room:			L1-02 KI	D		
						E					- 6					
Source Room Volume	61.0 r	n ³			_	- refe	erence	values (I	SO 717	7-1)	. 01					
Receive Room Volume	61.0 r	n ³		90 1)					-	DnT 1 Refere	/3rd octave	e dB e acc. to ISO 717-1			
				ן שָּׁר												
Frequency [Hz]	D _{nT} (one-thin octave) d	d B	≥6	erence, D_{nI}	,										-	
50				el diff												
63				dleve												
80				ardise												
100	46.3			tands	,											
125	44.4			01												
160	47.5													Ν		
200	50.3												$ \rightarrow $			
250	51.1											\square			:	
315	51.2			60)								/			
400	53.3															
500	55.1															
630	58.2								/							
800	56.6			50	,											
1000	59.3															
1250	62.5														!	
2000	04.8							1								
2000	62.6															
3150	64.4			- 40)										-	
4000	0														-	
5000																
B = Ba	ackground Sample Le	Correcte	d													
>=Li	mit of Mea	surement	t	16	,	83		125		0	500	000		200		
	$D_{nT} \ge val$	ue							Free	puency, f, Hz		. –	·	[4		4
	Rating A	Accordin	g to ISO	717-1												
$D_{nT,w}(C;C_{tr})$	60	(-2	;	-5)	dB;		ition-1		n adapt-ti (n a a 1	d fuo are		0.00-1	oob 1-
Evaluation b	ased on fie en	ld measu gineering	rement re g method	sults ob	tained	by an	Auu	itionai sj	pectrui	n adaptation te		ngange	a nequency	lange not	арри	cable
Test Report	No.:			PC-2	0-0187	7-RP2				Name o test institu	of ute:		(pace)	onsult		
Report Da	te:			25	/10/20)22				Signatur	re:		pyan	ng		

Template Date: 02/05/ 2019 ANC Task Number and password: 75444 /YEYXEZ Page 24 of 32

			Field	Stand d me as	ardis ure n	ed leve ent of a	el diffe airbor	rence ne sou	accoro nd ins	ding to ISO ulation bety	140-4 veen ro	oms				
Client Details:		Henr	y Constr	uction P	roject	s		Test Date:		12/10/2022		Test No.		12		
Construction information:	90 mm en	gineered t	imber flo	ooring ov	/er an	underflo one lay	oor heat yer of 1	ting syst 2.5mm th	em, res tick 'Wa	ilient layer, 200 allBoard' plaste	0 mm RC erboard	slabs ar	nd 160 mm s	uspended	ceiling	g with
Source Room:			L2-	02 Bedro	oom				Rec	eive Room:			L1-02 Bec	lroom		
											c					
Source Room Volume	26.0 n	n ³			_	refe	erence v	values (I	SO 717	7-1)	01					
Receive Room Volume	26.0 n	n ³		° •						-	Dn T	1/3rd octav	e dB e acc. to ISO 717	·-1		
				י שָּׁר												
Frequency [Hz]	D _{nT} (one-thin octave) d	d B B	≥6	erence, D_{n_I}	0											
50				el diff												
63				dleve									•			
80				urdise									Λ			
100	52.2			tanda 2	0										-	
125	48.6			S										\frown	1	
160	58.8															
200	58.7															
250	57.7									\wedge						
315	62.6			6	0	-		_	_ /	/						
400	61.3								\nearrow							
500	61.0							1/								
630	64.7			_				V								
800	66.0			5			\sim	1								
1000	69.5			5				Y								
1250	74.6	В		_												
1600	68.4															
2000	69.3						Ì									
2500	69.4			4	0		ļ				-				1	
4000	09.4															
5000																
B = Ba	ackground Sample Le	Corrected														
>=1	mit of Mea	surement		3		8		125		0	200	8		000		3
	$D_{nT} \ge val$	ue							Freq	puency, f, Hz		•		0	4	t
	Rating A	According	to ISO '	717-1												
$D_{nT,w}(C;C_{tr})$	67	(-1	;	-4)	dB;		141au 1		and and states in			J. f			h 1
Evaluation b	ased on fie en	ld measur gineering	rement re method	sults ob	tainec	lby an	Add	itional s	pectrun	n adaptation te	erms for e	engalrge	d frequency	/ range not	applic	cable
Test Report	No.:			PC-2	0-018	7-RP2				Name o test institu	of ute:		(pace)	xonsult		
Report Da	ite:			25	5/10/20	022				Signatur	re:		pigar	ing		

Template Date: 02/05/ 2019 ANC Task Number and password: 75444 /YEYXEZ Page 25 of 32

			Standa 1	ardised Field m	impac e as ure	et sound pr	essure	levels	according	to ISO	140-7				
Client Details:		Henry	Constru	uction P	rojects		Test Date:	Jound	12/10/2022	01 11001	Test No.		13		
Construction information:	90 mm eng	ineered tii	mber flo	oring ov	ver an ui	nderfloor hea one layer of	ating syst 12.5mm th	tem, resi nick 'Wa	lient layer, 20 IlBoard' plas	00 mm RC terboard	slabs a	nd 160 mm	suspende	d ceiling	with
Source Room:			L	.6-04 KLI	D			Rece	eive Room:			L5-04	KLD		
Receive Room Volume (Approx)	66.0 m	3		80		Frequency reference v	range ac values (IS	cording O 717-2	to the curve 2)	of					
				A						L	.nT 1/3rd oc	tave dB	717-2		
Frequency <i>f</i> [Hz]	L'nT (one-third octave) d	B	≤6	vel, <i>L</i> ′ _{nT} dB											
50 63 80				ound pressure le											
100	50.5			bact sc		1								 	
125	50.1	В		lmip				\checkmark							
160	58.0			ardise											
200	59.4			ìtand		İ	/								
250	57.8			03		1	/								
315	56.1			50		_7								i –	
400	52.3													!	
500	50.0										\checkmark				
630	48.5										N	\backslash		!	
800	47.0			40								$\langle \rangle$			
1000	43.5			40		i I						$\backslash \setminus$		1	
1250	38.0											$\langle \rangle$			
2000	33.7 20.5					İ								i	
2000	29.5														
3150	20.7			30		i							<u> </u>	i	
4000	22.0					ł							$\left \right\rangle$		
5000						i							$ \rangle$		
B = Ba	ackground (Sample Lev	Corrected vel		20											
$\leq = Li$	imit of Meas	urement		20	63	201	C71	250	200	0000	000		000	000	_
	$L'_{nT} \le valu$	e						1	Frequency, f, H	z →	•			7	
Rating Acc $L'_{nT,w}(C_I)$ Evaluation based	ording to 49 1 on field mea	ISO 717 (1 surement re	'-2) sults obt:	ained. in c	dB;	Ad octave bands b	lditional s	spectrur	n adaptation	terms for	enlarge	d frequency	y range no	ot applica	ıble
Test Report	No.:			PC-2	0-0187-I	RP2		-	Name test insti	of tute:	(p	acecons	sut		
Report Da	ite:			25	5/10/2022	2		Signatu	ire:	12	yau	29			

Template Date: 02/05/ 2019 ANC Task Number and password: 75444 /YEYXEZ Page 26 of 32

			Standa	ardised Field me	impact :	sound pr	essure mpact s	levels	according	to ISO	140-7				
Client Details:		Henry	Constr	uction Pro	ojects		Test Date:	o unu	12/10/2022		Test No.		14		
Construction information:	90 mm eng	ineered ti	mber flo	oring ove	er an und on	erfloor hea e layer of 1	ting syst 2.5mm th	em, resi ick 'Wa	lient layer, 20 llBoard' plast	00 mm RC terboard	slabs and 10	50 mm sus	pended	ceiling v	vith
Source Room:			L	5-04 KLD)			Rece	eive Room:			L4-04 KL	D		
Receive Room Volume (Approx)	66.0 m ²	:		80 -] 	Frequency reference v	range acc alues (IS	cording O 717-2	to the curve	of					_
				A						Lr	1/3nd octave di	B cc. to ISO 717	-2 I		
Frequency <i>f</i> [Hz]	L'nT (one-third octave) dd	в	≤6	vel, <i>L</i> ' _{nT} dB		1 1 1 1									-
50 63 80				und pressure le											
100	53.9			act sc											
125	52.3			d mip		1	/						i		1
160	56.5			rdise				X							
200	59.2			anda			/		\setminus				i		
250	56.6			ø			/								
315	54.5			50 -											
400	51.2					i			Ĩ				į		
500	49.3														
630	47.9	_				- i							i		
800	46.9			10											
1000	43.3			40 -		i							l		1
1250	37.9										$ \rangle$. X			
1600	33.5											\setminus	\setminus i		
2000	29.0														
2500	25.0			30 -								$-\mathbf{V}$	Ì		
4000	19.4											N			
5000													∖ ¦		
B = Ba	ackground C Sample Lev	Corrected el											$\left \right\rangle$		
≤=Li	mit of Meas	urement		20 -	63	12.5	ì	250	200	2	1000	2000		4000	
	$L'_{nT} \leq valu$	e]				1	Frequency, f, Hz	z →					
Rating Acc $L'_{nT,w}(C_I)$ Evaluation based	o rding to 1 49 1 on field meas	(0 0	7-2)	Ć ained. in or	lB; ne third oc	Ad	ditional s y an engin	pectrur eering m	n adaptation	terms for	enlarged fre	quency ra	nge not	applicab	ole
Test Report	No.:			PC-20	-0187-RP	2			Name o test instit	of tute:	Tpace	consult			
Report Da	ite:			25/	10/2022				Signatu	re:	Page	aung			

Template Date: 02/05/ 2019 ANC Task Number and password: 75444 /YEYXEZ Page 27 of 32

			Standa	ardised Field m	impact e as ure	t sound p ments of	oressure f impact	levels sound	according	to ISO	140-7 s	,			
Client Details:	etails: Henry Construction Projects Test Date: 12/10/2022 Test No. ction tion: 90 mm engineered timber flooring over an underfloor heating system, resilient layer, 200 mm RC slabs and 16 one layer of 12.5mm thick 'WallBoard' plasterboard												15		
Construction information:	90 mm eng	ineered ti	mber flo	oring ov	er an un o	derfloor he one layer of	eating sys f 12.5mm tl	tem, res hick 'Wa	ilient layer, 20 allBoard' plas	00 mm RC terboard	Cslabs a	and 160 mm	suspende	d ceiling v	vith
Source Room:			L3-	01 Bedro	om			Rec	eive Room:			L2-01 Be	edroom		
Receive Room Volume (Approx)	29.0 m ³			80		Frequenc reference	y range ac values (IS	cording O 717-	g to the curve 2)	of					_
				 ↑						<u> </u>	_nT 1/3rd o	octave dB	747.0		
Frequency <i>f</i> [Hz]	L'nT (one-third octave) dB	B	≤6	vel, <i>L</i> ' _{nT} dB						F	Reterence	Curve acc. to ISC	0/1/-2		
50 63 80				und pressure le											
100	52.9			act so		į									
125	47.0			id 60	-										1
160	40.3			rdise											
200	34.7			tanda										i	
250	32.2			S		N									
315	31.5			50		— i \									-
400	31.7						N								
500	29.7					i	Ν							i i	
630	30.4						$ \rangle$								
1000	30.0			40		i								i	
1250	26.0						+								
1600	25.4	_				i	\							1	
2000	23.3							\mathbf{N}							
2500	22.4								\sim	_		\backslash		1	
3150	21.3			30							\mathbf{n}				-
4000														!	
5000															
$\mathbf{B} = \mathbf{B}\mathbf{a}$	ackground C Sample Lev	orrected el		20											
$\leq = Li$	mit of Meas	urement		2	63		125	250	005	0000	1000		2000	4000	
	$L'_{nT} \le value$	e							Frequency, f, H	z →	•				
Rating Acc $L'_{nT,w}(C_I)$ Evaluation based	ording to 1 36 I on field meas	(3 3	'-2) sults obt	ained. in c	dB;	A octave bands	dditional	spectru	m adaptation nethod	terms for	enlarge	ed frequenc	y range ne	ot applicab	ole
Test Report	No.:			PC-2	0-0187-R	2P2			Name test insti	of itute:	(p	acecons	sult		
Report Da	ite:			25	/10/2022	2			Signatu	ire:	10	Igaus	29		

Template Date: 02/05/ 2019 ANC Task Number and password: 75444 /YEYXEZ Page 28 of 32

			Standa	ardised Field m	impact e as ure	t sound ments o	pressure of impact	levels	s according insulation	to ISO of floors	140-7				
Client Details:		Henry	Constr	uction P	rojects	<u></u>	Test Date:		12/10/2022	0111001	Test No.		16		
Construction information:	90 mm engi	neered ti	mber flo	oring ov	er an un o	derfloor h one layer o	neating sys of 12.5mm t	tem, res nick 'W	ilient layer, 20 allBoard' plas	00 mm RC terboard	slabs and	1 160 mm :	suspende	d ceiling wi	ith
Source Room:			L2-	01 Bedro	om			Rec	eive Room:			L1-01 Be	droom		
Receive Room Volume (Approx)	29.0 m ³			20		Frequence	cy range ac e values (IS	cording O 717-	g to the curve 2)	of					
				▲						<u> </u>	.nT 1/3rd octar	ve dB			
Frequency <i>f</i> [Hz]	L'nT (one-third octave) dB	В	≤6	vel, L' _{nT} dB						—— R	teference Cur	ve acc. to ISO	717-2		
50 63 80				ind pressure lev											
100	51.5			ict sou											
125	47.3			ed 60											
160	41.2			rdised		i									
200	35.7			anda											
250	31.9			ø		ĺ									
315	31.4			50	-	¦\								<u>;</u>	
400	31.0					ļ	N								
500	30.4					į									
800	30.0					ł									
1000	28.6			40										1 1	
1250	27.3													.	
1600	27.4			-				$\setminus \mid$							
2000	24.8					i					1				
2500	23.4			20						\sim					
3150	22.3					ļ								1	
4000												\neg		:	
5000				-		i									
$\mathbf{B} = \mathbf{B}\mathbf{a}$	ackground C Sample Leve	orrected el		20				1						4	
$\leq = Li$	mit of Measu	irement			63		125	250	005		1000		2000	4000	
	$L_{nT} \ge value$	2		J					Frequency, f, H	z →	•				
Rating Acce $L'_{nT,w}(C_I)$ Evaluation based	ording to I 37	SO 717 (1	2-2) sults obt	ained. in c	dB;	A octave band	Additional ds by an engin	spectru neering r	m adaptation	terms for	enlarged	frequency	y range no	ot applicabl	e
Test Report	No.:			PC-2	0-0187-R	2P2		-	Name test insti	of tute:	Гра	ce oons	ut		
Report Da	ite:			25	/10/2022	2			Signatu	ire:	Pe	gaur	19		

Template Date: 02/05/ 2019 ANC Task Number and password: 75444 /YEYXEZ Page 29 of 32

			Standa I	ardised Field m	impact easure	t sound pi ments of	ressure impact s	levels sound	according	to ISO	140-7				
Client Details:		Standardised impact sound pressure levels according to ISO 140-7 Field measurements of impact sound insulation of floors Henry Construction Projects Test Date: 12/10/2022 Test No. 17 nm engineered timber flooring over an underfloor heating system resilient layer, 200 mmRC slabs and 160 mm suspended ceiling with one layer of 12.5mmthick WallBoard plasterboard 12/02 KLD Receive Room: 12/02 KLD 0 m ² — — — Frequency range according to the curve of reference values (ISO 717-2) 0 m ² — — — — 10 m ² — — — — 44.5 — — — — — 44.5 — — — — — 95 — — — — — 96 — — — — — 97 — — — — —													
Construction information:	90 mm engi	neered ti	mber flo	oring ov	er an un o	derfloor hea ne layer of	ating syst 12.5mm th	em, res nick 'Wa	ilient layer, 2 allBoard' plas	00 mm RC terboard	Cslabs an	id 160 mm	suspende	d ceiling	g with
Source Room:			L	3-02 KLI)			Rec	eive Room:			L2-02	KLD		
Receive Room Volume (Approx)	61.0 m ³					Frequency reference v	range ac values (IS	cording O 717-2	g to the curve 2)	eof					
				\$0 ·						L	InT 1/3rd oct	ave dB	717-2		
Frequency <i>f</i> [Hz]	L'nT (one-third octave) dB	В	≤6	vel, <i>L</i> ′ _{nT} dB –		- 									
50 63 80				und pressure le											
100	44.5			act so											
125	46.8			d 60 -										1	
160	49.5			rdise		!									
200	48.7			tanda											
250	53.4			ø		!		Λ							
315	54.8			50 -				/+							
400	51.0					 !		-							
500	50.1														
630	47.4			-		!								-	
800	46.7			40 -								<u> </u>		i	
1000	44.7 27.9			40		!					`	\backslash			
1230	37.0			-		i						$\backslash \backslash$		1	
2000	30.9														
2500	29.5					i									
3150	27.2			30 -		I									
4000						i								Ň	
5000															
$\mathbf{B} = \mathbf{B}\mathbf{a}$	ackground Co Sample Leve	orrected el		20 -											
$\leq = Li$	mit of Measu	irement			63	ç	125	250	002	000	1000		2000	4000	
	$L'_{nT} \le value$	2							Frequency, f, H	iz 🔶	•				
Rating Acce $L'_{nT,w}(C_I)$ Evaluation based	o rding to I 46 I on field measu	SO 717 (0	'-2) sults obta	(ained. in o	d B; ne third o	Ac	dditional s	spectrum neering n	m adaptation	terms for	enlarged	l frequenc	y range no	ot applic	able
Test Report	No.:			PC-20)-0187-R	P2			Name test insti	of itute:	(pa	icecons	sult		
Report Da	te:			25	/10/2022				Signatu	ure:	Pa	gaur	rg		

Template Date: 02/05/ 2019 ANC Task Number and password: 75444 /YEYXEZ Page 30 of 32

			Standa 1	ardised : Field me	impact so	ound pre	essure mnact s	levels	according t	to ISO	140-7			
Client Details:	Standardised impact sound pressure levels according to ISO 140-7 Field measurements of impact sound insulation of floors ails: Test 12/10/2022 Test No. 18 ails: Henry Construction Projects Test Date: 12/10/2022 Test No. 18 90 mm engineered timber flooring over an underfloor heating system, resilient layer, 200 mm RC slabs and 160 mm suspended ceil one layer of 12.5mm thick WallBoard' plasterboard 100 mm C slabs and 160 mm suspended ceil one layer of 12.5mm thick WallBoard' plasterboard ommode the curve acc. to 12.5mm thick WallBoard' plasterboard Of the curve acc. to 12.5mm thick WallBoard' plasterboard ommode the curve acc. to 150 plasterboard Of the curve acc. to 150 plasterboard Of the curve acc. to 150 plasterboard Of the curve acc. to 150 plasterboard Of the curve acc. to 150 plasterboard Of the curve acc. to 150 plasterboard Of the curve acc. to 150 plasterboard Of the curve acc. to 150 plasterboard Of the curve acc. to 150 plasterboard Of the curve acc. to 150 plasterboard Of the curve acc. to 150 plasterboard Of the curve acc. to 150 plasterboard </td <td></td>													
Construction information:	90 mm eng	ineered ti	mber flo	oring ove	er an under one l	floor heat layer of 12	ing syst 2.5mm th	em, res ick 'Wa	ilient layer, 200 IlBoard' plaste	0 mm RC erboard	slabs and 10	50 mm susp	ended c	eiling witl
Source Room:			L	L2-02 KLD Red					eive Room: L1-02 KLD					
Receive Room Volume (Approx)	61.0 m	3		⁸⁰	Free ref	equency r erence va	ange aco alues (ISO	cording D 717-2	to the curve o	of	nT 1/3 d octave d			
				Ţ						R	eference Curve a	в cc.toISO 717-2		
Frequency <i>f</i> [Hz]	L'nT (one-third octave) d	B	≤6	vel, <i>L</i> ′ _{n<i>T</i>} dB –										
50				sure le										
63				dpres									į	
80				soun					\neg					
100	50.8			- 00 pact									!	
125	50.3			sedim			•						ł	
160	57.2			dardis			\square	/						
200	56.1			Stan			/						ł	
250	62.1						/							
400	57.8			50 -									I	
400 500	55.0												-	
630	54.3												ł	
800	52.2													
1000	49.6			40 -							······	\backslash	i	
1250	44.0													
1600	38.3												N	
2000	30.1													
2500	26.3			20 -									İ	
3150	22.8			50										
4000													V E	
5000													\mathbf{N}	
$\mathbf{B} = \mathbf{B}\mathbf{a}$	ckground C Sample Lev	Corrected vel		20								1		
≤=Li	mit of Meas L' _{nT} < valu	urement e			8	125		250	500		1000	2000		4000
				J					Frequency, f, Hz	-	•			
Rating Acc $L'_{nT,w}(C_I)$	ording to 53	ISO 717 (0	7-2)	d ained in or	lB;	Add	litional s	pectrui	n adaptation t	erms for	enlarged fre	quency ran	ge not a	pplicable
Test Report	No.:	a ement It		PC-20	-0187-RP2	. e oanus by	an cugili	coring fl	Name o test institu	of ute:	(pace	econsult		
Report Da	.te:			25/	10/2022				Signatur	re:	Page	aung		

Template Date: 02/05/ 2019 ANC Task Number and password: 75444 /YEYXEZ Page 31 of 32

Appendix D – ANC Advance Notice to Building Control Officer:





Notice to Building Control Officer

Certification of Test Results

ANC operates an online, secure, paperless certification system for sound insulation tests.

The online verification (certification) system means that Building Control Bodies will need to follow the steps below to verify the results quoted in the relevant test report:

- 1. Go to the ANC secure server at <u>www.theanc.co.uk</u>
- 2. Navigate to the <u>ADvANCE</u> page which links to the ANC site available for use by BCOs.
- 3. Enter the following in the spaces provided:

Task Number: 75444 Task Password: YEYXEZ

- 4. Select role "Building Control Officer" and press "Login"
- 5. You will then see a summary list of results of all the Tests undertaken to date for this project (Task) as held on the secure primary server and you can print this table for your records.

End of Report