APPENDIX 3a

Survey Methodology and Sampling

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GDA RETAIL STRATEGY UPDATE: HOUSEHOLD SHOPPING SURVEY

OCTOBER 2007

Presented to: Colliers CRE
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BACKGROUND & METHODOLOGY

The client, Colliers CRE, wished to conduct a telephone shopping survey of residents living within the GDA and its shopping hinterland. This was to establish the following:

- Where respondents go for their general Non-food shopping such as clothing, footwear and household goods.
- How frequently they visit their main and second centres.
- How consumer expenditure on the main goods is divided between main and second centres.
- Reasons for choice of main centre, mode of travel and the length of journey from home.

A total of 5000 interviews were targeted, in 28 different zones. Each zone was defined by a group of electoral districts. Interviews were conducted over a period of nine weeks, between October15th and December 22nd 2007. A further 'top up' sample of 750 young householders, were also interviewed at the same time. These young residents (aged between 16 and 34) were targeted by interviewing them whilst visiting Dublin City Centre, Dundrum Shopping Centre and Dundrum Town Centre

In order to provide meaningful and reliable data in each of the zones an equal number of interviews (200) were allocated to 22 of the zones and 100 in each of the remaining, more peripheral, 6 zones. The results were then weighted, at the analysis stage to take account of the different populations in each zone and their importance to the overall survey area. The results were also weighted by age within each zone.

GDA: OVERALL SAMPLE BREAKDOWN

ZONE	Popn	%	Achieved Sample	Weighted Sample	Weight
1	110,830	4.5%	289	258	0.89
2	111,472	4.5%	212	260	1.23
3	137,910	5.6%	215	322	1.49
4	69,008	2.8%	275	161	0.59
5	83,144	3.4%	233	194	0.83
6	48,717	2.0%	203	114	0.56
7	105,416	4.3%	215	246	1.14
8	92,828	3.8%	203	217	0.95
9	96,888	3.9%	212	226	1.07
10	96,245	3.9%	223	225	1.01
11	57,619	2.3%	214	135	0.63
12	88,110	3.6%	288	206	0.71
13	108,760	4.4%	236	254	1.08
14	23,504	1.0%	205	55	0.27
15	108,769	4.4%	206	254	1.23
16	33,651	1.4%	203	79	0.39
17	104,342	4.2%	206	244	1.18
18	55,181	2.2%	203	129	0.63
19	30,248	1.2%	206	71	0.34
20	17,540	0.7%	203	41	0.20
21	84,377	3.4%	214	197	0.92
22	28,388	1.2%	205	66	0.32
23	113,450	4.6%	103	265	2.57
24	122.354	5.0%	106	286	2.70
25	117,153	4.8%	106	274	2.58
26	140,857	5.7%	106	328	3.10
27	140,572	5.7%	106	328	3.10
28	135,148	5.5%	106	316	2.98
TOTAL	**2,462,469**	**100%**	**5750**	**5750**	-

The sample used for making telephone calls was obtained by Beacon Research from Demographics Ireland, who supplied names, addresses and telephone numbers by Electoral Districts.

Full details of the samples achieved in each zone and the weightings subsequently applied within the analysis, are shown in the above table.

The following table summaries the details of calls made and interview outcome.

Initial Sample of Telephone numbers	13500	
Completed interviews	5750	42.6
Refusals	715	5.3
Wrong numbers / Unobtainable / Answer phone*	3915	29.0
No reply (after 4 calls)	1958	14.5
Not used	1162	8.6

*In this household telephone survey there was a much higher than average level of wastage from the address lists, which were not of the same standard as for the UK.

STATEMENT OF RELIABILITY

Assessment of the standard error:

1. The GDA Household Survey has been undertaken by a series of individual sample surveys for a combination of zones.
2. The results are subject to the following sampling error, of which there follows an analysis.
3. The following analysis indicates the methodology used to calculate the standard error, with the standard 95% probability of being correct. The formulae for these calculations are as follows:

$$SE\% = \frac{p\%*q\%}{n}$$

Where: p% =% sample value recorded

q% = 100% - p%

n = sample size

And where:

± 1.96∗ (SE %) = 95% probability that the correct answer lies in the range calculated.

4. Using the above formulae, we can predict the variation between the sample results and the 'true' values from our knowledge of the size of sample on which the results are based and the number of times that a particular answer is given. The table below illustrates the predicted ranges for the total sample and percentage results at the 95% confidence level.

Approximate sampling tolerances applicable to percentages at or near these levels.

Size of sample on which survey result is based	10% or 90% ±	20% or 80% ±	30% or 70% ±	40% or 60% ±	50% ±
5000 interviews	0.83	1.11	1.27	1.36	1.39

For example, with a sample of 5000 where 30% give a particular answer, the chances are 19 in 20 that the 'true' value (which would have been obtained if the whole population had been interviewed) will fall within the range of ± 1.27 percentage points from the sample results.