8B: TECHNICAL APPENDIX LEEDS HOUSEHOLD SURVEY: BEACON RESEARCH AUGUST 2010

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LEEDS HOUSEHOLD SHOPPING SURVEY

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Presented to: Colliers International
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1. BACKGROUND AND METHODOLOGY

The client, Colliers International, wished to conduct a telephone shopping survey in Leeds District and the surrounding area. This was to establish the following: -

- Where respondents go for their non bulky comparison goods shopping, such as clothing and footwear
- How frequently they visit their main and second centres for this category of shopping
- How their expenditure on such goods is allocated between main and second centres
- Reasons for choosing their main centres, mode of travel and the length of ourney from home
- Similar information regarding bulky comparison goods shopping
- Similar information regarding convenience (food & grocery) shopping
- Information on linked trips connected to convenience (food & grocery) shopping
- Information on household leisure activity

A total of 1600 interviews were targeted, in sixteen different zones, each zone defined by electoral ward. Interviews were conducted over a period of three weeks, between July 23rd and August 15th, 2010.

In order to provide meaningful and reliable data in each of the 16 zones, 100 interviews were allocated to each zone. The results were then weighted, at the analysis stage, to take account of the differing populations in each zone and their importance to the overall survey area.

2. LEEDS SAMPLE BREAKDOWN

ZONE	Population	%	Achieved Sample	Weighted Sample	Weight
1	80,578	3.3%	100	52	0.527
2	70,909	2.9%	100	46	0.464
3	106,127	4.3%	100	69	0.694
4	74,683	3.1%	100	49	0.488
5	50,297	2.1%	100	33	0.329
6	85,392	3.5%	100	56	0.559
7	62,281	2.5%	100	41	0.407
8	87,305	3.6%	106	57	0.571
9	90,587	3.7%	94	59	0.631
10	89,931	3.7%	100	59	0.591
11	156,100	6.4%	100	103	1.025
12	81,600	3.3%	100	54	0.536
13	322,800	13.2%	100	212	2.120
14	403,600	16.5%	100	265	2.650
15	200,100	8.2%	100	131	1.314
16	501,400	20.6%	100	329	3.293
TOTAL	**2,444,856**	**100.0%**	**1,600**	**1,600**	**1.000**

The sample used for making telephone calls was obtained by Beacon Research Services Ltd from DBS Data, who supplied names, addresses and telephone numbers, as defined by electoral ward.

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 summarises the details of calls made and interview outcomes.

	Quantity	%
Initial Sample	3,300	100.0
Completed interviews	1,600	48.5
Refusals	205	6.2
Wrong numbers / Unobtainable / Answer phone	162	4.9
No reply (after 4 calls)	647	19.6
Not used	686	20.8

3. STATEMENT OF RELIABILITY

Assessment of the standard error:

1. The Leeds Household Shopping Survey has been undertaken as a series of individual sample surveys, over a number of defined 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 x (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%
1,600 interviews	1.47	1.96	2.25	2.40	2.45

For example, with a sample of 1600, 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 ± 2.25 percentage points from the sample results.