



GVA GRIMLEY & BESPOKE PROPERTY GROUP

**HOUSING CORPORATION ECONOMIC APPRAISAL
TOOL**

USER MANUAL

Version 1.3 (October 2007)

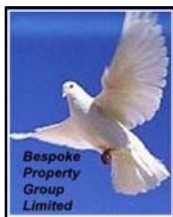


TABLE OF CONTENTS

1. HOUSING CORPORATION GRANT POLICY
2. INTRODUCTION TO THE MODEL
3. KEY DATA SOURCES
4. USING THE MODEL - GUIDE TO THE RESIDENTIAL AND COMMERCIAL INPUTS
5. UNDERSTANDING THE RESULTS AND THE LIMITATIONS OF THE MODEL
6. SAVING AND PRINTING THE RESULTS
7. SENSITIVITY ANALYSIS
8. ADVANCED USE OF THE MODEL (phased developments etc)

Appendices

APPENDIX 1: THE MODEL (ALL PAGES), INCLUDING AN EXAMPLE

1. HOUSING CORPORATION GRANT POLICY

Since publication of the Housing Corporation's Economic Assessment Tool (EAT) in October 2006, the Government has published - *Planning Policy Statement 3 (PPS3) Housing* together with its companion guidance *Delivering Affordable Housing*. The latter sets out the Corporation's approach to grant on sites subject to planning obligations¹

The Housing Corporation welcomes PPS3's policy of achieving better value through the planning system, and has for this purpose promoted use of the EAT to inform prediction, assessment and negotiation of affordable housing planning obligations.

Planning policy now expects Local Planning Authorities (LPAs) to define their approach to seeking developer contributions and make the best possible use of planning obligations to improve affordable housing delivery, through mixed tenure developments. This requires effective but realistic affordable housing targets and thresholds given site economic viability. Use of this Economic Assessment Tool at an early stage in the planning process will assist LPAs and housing developers predict and agree the viability of proposed levels of affordable housing planning obligations.

The Corporation's National Affordable Housing Programme 2008-2011 Prospectus asks grant seekers to demonstrate the additionality that grant investment will deliver over and above on-site developer contributions, by use of an economic assessment of the site, which ensures grant does not inflate residual land value. The Corporation's preference is for bids for grant on S106 sites to be supported by a validated financial assessment of the site as a whole, and grant seekers are encouraged to use the EAT model for this purpose.

¹ Delivering Affordable Housing, paragraphs 89-92

2. INTRODUCTION TO THE MODEL

Introduction

On behalf of the Housing Corporation, GVA Grimley and the Bespoke Property Group have developed a housing model to appraise development projects seeking both Social Housing Grant (SHG) and planning gain contributions. The model works using the cash-flow based residual site development value appraisal model.

The model enables the Housing Corporation to understand the economics of any particular development site in order to measure more precisely the amount of SHG that is required to produce the desired amount of affordable housing alongside the planning gain contributions.

The model will assist the Housing Corporation to:

- negotiate with local planning and housing authorities, SHG grant recipients, landowners and developers on the amount of SHG needed to produce affordable housing on a given site (Section 106 site) and/or off site;

¹ Delivering Affordable Housing, paragraphs 89-92

- analyse the results of the Corporation's bidding round to demonstrate the added value that housing associations and other developers are giving or can give and the impact on grant levels.

The development appraisal model allows the Corporation to carry out sophisticated analysis to ensure that planning gain is used to best effect and that SHG is targeted appropriately to ensure the maximum provision of affordable housing. The model allows developers / RSLs / Local Authorities to have a common platform for negotiating s106 provisions and, in particular, cascade mechanisms.

Development Appraisal Models – The Concept

The method most frequently used for appraising the financial viability of development schemes, whether new developments or refurbishment of existing buildings, is generally known as the residual valuation. The residual valuation can be expressed as a simple equation:

Value of Development - Cost of Development – Profit = Residual Land Value

The residual land value is the amount the developer will bid/pay for the land. The basic concept is straightforward, difficulties arise not in the method itself but in estimating the values of the many variables that go into the appraisal, and the high sensitivity of the residual answer to small changes in some variables. For example, the costs of development may encompass a variety of different elements, such as demolition costs, site clearance, decontamination, building costs, costs of drainage and external services, professional consultants' fees, finance costs (which will vary as interest rates alter and as construction and/or letting delays occur) legal, letting and sale fees, etc. These items are all variables and accurately estimating their values over an undetermined and possibly lengthy development period is not an easy task. Furthermore, with so many variables in the equation, slight changes in a few of them will almost certainly result in a wide range of answers (and could easily eliminate the residual land value), owing to the sensitivity of the residual valuation.

In a market economy where the supply of new buildings is a small percentage of the stock of existing buildings, the value of land is determined by what can be developed on that land and the value and cost of that development. Furthermore, the value of that development is not directly related to its cost of production, but is created by the interplay of market forces, namely the supply and demand for similar properties, which determines market price. There will be a user market which will determine rental levels and an owner/investment market which will determine capital values for commercial parts of mixed-use schemes. Even where the occupier and owner are the same, the capital value will still relate to potential rental value which the owner-occupier would otherwise pay if an alternative property was to be occupied.

The Model

The Housing Corporation Economic Appraisal Tool is broadly divided into two sections. The first section, using two input sheets, considers the residential element of a scheme (affordable and open market housing) whilst the second section, using one input sheet, takes into account any mixed-use / commercial elements.

The model has been designed to allow the inputting of:

- market rents of affordable housing and commercial uses;
- market yields where appropriate;
- indicative market prices for all size type and tenure mix;
- costs – build costs (an indication of quality), infrastructure costs, professional fees (planning application costs, marketing costs, sale fees), contingencies, and return for risk / profit for the developer;
- effective development time periods (pre-build time, build time, sale time etc);
- Section 106 contributions – non housing;
- cost of site abnormalities – remediation / site clearance costs;
- housing association / developer contributions;
- other grants;
- cost of finance over the development period;
- market land prices;
- cross-subsidy from non-housing development;
- revenue – rent and equity share, low cost sale and capitalised rental for sub-market rent;

The development appraisal model operates on a detailed monthly cash-flow basis. All of the calculations take place in hidden, background pages that the user cannot access.

The model is available to all those involved in affordable housing development, and is being promoted by the Corporation as a tool suitable for use by housebuilders and Local Planning Authorities in the negotiation of affordable housing planning obligations. External users requiring help or advice should contact GVA Grimley and the Bespoke Property Group from the link on the Housing Corporation website www.housingcorp.co.uk from which further copies of the model and this manual can be downloaded.

Using the model to demonstrate additionality from grant

In order to demonstrate the additionality that grant will bring to developer contributions for affordable housing, the Housing Corporation expects grant seekers when supporting bids for grant with an EAT assessment to run two versions of the model:

1. An assessment of viable levels of affordable housing without grant at a viable residual land value.
2. A “with grant” model showing the added value that grant will deliver in the form of an additional proportion of affordable housing, an improved affordable mix or both. The “with grant” model should demonstrate a neutral impact on the residual land value when compared to the without grant scenario.

Version 1.1, Version 1.2 and Version 1.3 of the Model

In October 2006, the Housing Corporation released Version 1.1 of the Economic Appraisal Tool. This model was then superseded by Version 1.2 in September 2007. Although the models are very similar, the key changes were:

- Two user-defined affordable housing sizes and two user-defined affordable housing tenures were added.
- The reporting of the number persons was adjusted to take into account persons per unit rather than total number of persons for a given unit size and tenure.
- The shared ownership affordable housing value calculations were altered to take into account the unsold equity rent per annum, the capital value psm of the unit and the owner-occupier share.
- A cost for code for sustainable homes was added.
- The affordable housing marketing costs section was expanded to include Developer cost of sale to RSL, RSL on-costs and intermediate housing sales and marketing costs.
- The Executive Summary was removed and the Summary pages were expanded to include a greater breakdown of information such as % affordable per unit, % affordable per area, % affordable per habitable rooms, SHG per person etc.

Version 1.2 of the model was then superseded by Version 1.3 of the model in October 2007 although there were no significant differences between the two editions.

3. KEY DATA SOURCES

There is a range of external data sources that may prove useful when entering the development appraisal inputs. The key data sources include:

Building Cost Information Service (BCIS)

The BCIS provides highly detailed building cost information for a wide range of commercial, industrial, residential and public sector buildings. These are extremely useful for estimating and checking build cost information for a given scheme. The BCIS TPS Location Factors will allow the user to convert the UK average build cost figures to more localised information. BCIS data is available at:

<http://www.bcis.co.uk> or <http://service.bcis.co.uk>

Land Registry

The Land Registry web site provides national, regional and local house price information (1995 to present). This data is available at:

<http://www.landreg.gov.uk/propertyprice/interactive/>

Valuation Office Agency (VOA)

The VOA produces, every six months, a *Property Market Report* that provides a range of residential and commercial property information on a national, regional and local level. The data includes residential building land values, industrial and warehouse land values, office rents, retail rents, industrial rents, and retail yields. These reports are available for free at:

<http://www.voa.gov.uk/publications>

Hometrack

House price information can be obtained from the Hometrack website:

<http://www.hometrack.co.uk/>

4. USING THE MODEL - GUIDE TO THE RESIDENTIAL AND COMMERCIAL INPUTS

Getting Started

The model can be downloaded from the links on the Housing Corporation website and Housing Corporation Intranet.

<http://www.housingcorp.gov.uk/eat>

Once downloaded, it is recommended that each user sets up a personal development appraisal directory on their computer or network, comprising a series of sub-directories for each individual scheme to be appraised. This will allow the various permutations of a given scheme to be stored in the same folder.

Opening the model

When opening the model, the user will be asked whether to Disable or Enable Macros. The user should select the 'Enable Macros' option. Once done, the model will open and the user will be taken to the introductory cover page.

When the model is opened, it is important to check that the file is **not** 'read-only'. If the document is marked as read-only (at the top of the screen in brackets) then the document should be resaved in the users personal directory (under a different file name) to ensure that the model is not read-only.

The development appraisal model comprises the following six sheets.

- Introductory cover page
- Input sheet 1 – Residential Mix Assumptions
- Input sheet 2 – Residential Value and Cost Assumptions
- Input sheet 3 – Commercial and Non-residential Assumptions
- Executive Summary
- Summary

The calculation pages, including the cash-flow model, are hidden from the user.

Navigating between Sheets

In order to navigate between the various input and summary sheets, the user can:

- click on the forward or back arrows at the end of each page (input pages and summary pages only); or
- follow the various blue hyperlink options at the end of each page; or
- select the given sheet tab (towards the bottom of the screen).

Cell colours and inputting data

In the development appraisal model, the residential and commercial inputs should be entered into the:

yellow cells with blue text

All of the inputs need to be carefully defined by the user and the data will either come from the developer/landowner, the Housing Corporation internal systems or external data sources such as the BCIS.

All other cells in the model are protected and cannot be altered.

Once a value has been entered into a cell, the cursor can be moved to the next input cell by:

- using the tab key;
- selecting the new cell using the mouse (left select button); or
- using the cursor keys.

Timings

Throughout the model, the timings (by month number, not date) relate to the number of months elapsed since planning permission was obtained. For instance, month 18 is a year and a half after the developer/landowner obtained planning permission.

At present, the model has a maximum period of 60 months (5 years). Consequently, none of the timings should exceed month 60 as otherwise the cash flow model will not function correctly.

If the scheme is phased and exceeds 60 months, please refer to Section 7: Advanced use of the model.

Split-screen input pages

In the three input sheets, there is a split screen at the bottom of each page in order to show the residual site value. This has been included to make it easier to see what is happening to the residual site value when the input variables are adjusted. During the inputting of data, the ever-changing residual site value should be ignored as the residual site value will only be meaningful once **all** of the appropriate inputs have been entered into the model.

From the introductory cover sheet, the user should navigate to the first of the three input sheets. Below is a list of definitions for the possible inputs to the model plus, in some cases, a guideline to the typical value of the inputs.

BASIC SITE DETAILS (INPUT SHEET 1)

Site Address

The address of the site.

Site Reference

The reference number, if any, of the site. If a sensitivity analysis is being carried out, then it is recommended that the details of the analysis be recorded in this section.

Scheme Description

The site details. For instance “15 hectare, 250-unit residential scheme with 1,000 sq ft ground floor retail”.

Date

The present date.

Site Area

The total area of the site in hectares.

Author & Organisation

The name of the person & organisation providing input data.

Housing Corporation Officer

The name of the Housing Corporation officer who is receiving the model.

RESIDENTIAL MIX ASSUMPTIONS (INPUT SHEET 1)

This section of the development appraisal model, also on Sheet 1, is for entering the mix inputs for both the affordable and open market housing.

For each relevant section, every cell that requires a value should be populated with data. If no value is entered, a default value of 0 is assumed.

Affordable Housing

The affordable housing mix is separated into five tenures:

- Social Rented;
- Intermediate - Shared Ownership;
- Intermediate - Discounted Market Sale;
- Intermediate - Other Type of Shared Ownership / Shared Equity; and
- Intermediate - Discounted Market Rent.

The first three tenures of affordable housing are fixed and cannot be changed. The Intermediate Other Type of Shared Ownership / Shared Equity (Tenure 4) and the Intermediate - Discounted Market Rent (Tenure 5) can be redefined by the user although the former has to be some kind of shared ownership and the latter has to be some kind of rented.

Furthermore, each type of affordable housing is divided into seven different unit sizes – Studio, 1 bed, 2 bed, 3 bed, 4 bed, and two user-defined types.

Open Market Housing

The open market housing is also separated into five different housing types. Each type is user-defined and can be changed according to the composition of the open market housing in a given scheme. Examples of type may include High Rise (13 storeys+), Medium Rise (5 - 12 storeys), Low Rise (2 - 4 storeys), Detached house etc. Furthermore, each type of open market housing is divided into six different unit sizes – Studio, 1 bed, 2 bed, 3 bed, 4 bed and user-defined.

Unit Size (sq m) - NIA

The net internal area of each unit in square metres. This may differ depending upon the number of rooms and the housing type. In some cases there may be different floor areas for units of both the same type of housing (for example social rented) and the same size of housing (for example 2 bed unit). If this is the case, then the *average* size of the units should be entered.

Habitable Rooms per Unit

The number of habitable rooms in each unit. A habitable room is defined as a room or space for living, sleeping, eating or cooking. Bathrooms, toilet compartments, closets, halls, storage or utility space, and similar areas are not considered habitable space. If the number of habitable rooms differ within the same housing type and size, then the *average* number of habitable rooms should be used. The habitable rooms input is for recording purposes only and doesn't form part of the residual land

value calculations. It may however be an indicator of affordable housing provision in local authority policy terms.

Persons per Unit

The average number of persons in a given type and size of residential unit. This is for recording purposes only and doesn't form part of the residual land value calculations. However, the amount of grant per person is an indicator used by the Housing Corporation in judging grant applications.

Total Number of Units

The total number of residential units of a given type and size.

Number of residential car parking spaces

The total number of residential car parking spaces in the scheme for both open market and affordable units

Value of each residential car parking space

The average capital value (£) of each residential car parking space to be entered if the spaces are sold separately from the flats/houses and are not, therefore, included in the sales price. If the parking space forms part of the sale price of flats / houses enter 0.

This completes the housing mix section. By clicking on the forward button, the user will be taken to the next input page of the model – the residential value assumptions (Input sheet 2). The back button will take the user back to the introductory cover page.

RESIDENTIAL VALUE ASSUMPTIONS (INPUT SHEET 2)

This section of the development appraisal model is for entering the value inputs for the affordable housing. For each relevant section, every cell should be populated with data. If no value is entered, a default value of 0 is assumed. For instance, if a given scheme composed of just one type of affordable housing (such as Tenure 1 - social rented housing), every cell in the social housing section should be completed whilst all cells for affordable housing Tenures 2-4 should be left blank.

AFFORDABLE HOUSING TENURE 1: SOCIAL RENTED

Rent per Unit per Week

The amount of rent payable (£) per unit per week - usually the Housing Corporation Target rent for the year in which the unit will be completed and let. Once a figure has been entered, the rent per unit per annum will be displayed to the right of the original input cell.

Management Costs

The management costs payable on the social rented affordable housing as a percentage of the gross unit rent.

Voids / bad debts

The voids / bad debts on the social rented affordable housing as a percentage of the unit rent.

Repairs Fund

The repairs fund payable on the social rented affordable housing as a percentage of the gross unit rent and not included in any service charge (which is recharged to the tenant).

Yield

The expected yield (to capitalise the net rent) of the social rented affordable housing.

Timing of Affordable Housing Tenure 1 Purchase Payment

The start and end month in which the social rented affordable housing (Tenure 1) is purchased by the Housing Association. If the affordable housing is all sold at one time, both the start and end months should be the same. The timings must be a whole number and range from month 0 and month 60 inclusive.

AFFORDABLE HOUSING TENURE 2: INTERMEDIATE - SHARED OWNERSHIP

Capital Value

The capital value (£ per net internal square metre) of the purchased share of each unit. NB. This is the value per square metre of the whole unit and is not affected by the fact that only part of the house/flat is sold.

Rent per Unit per week of rented share (£)

The rent (£) payable per week on the rented share of the unit. This is calculated automatically by reference to a percentage of the capital value payable per annum on the unsold share. The rent per week is an indicator of affordability.

Owner-occupied / rented % share

The percentage of each unit owner-occupied / rented. For instance a value of 60% means that 60% of the unit is owned by the resident and 40% is owned by the Housing Association / RSL.

Unsold Equity Rent Per Annum

This is the rent per annum on the rented share of the unit. This is calculated by entering the percentage of the capital value payable per annum on the unsold share. Currently the Housing Corporation limits this rent to 2.75% of the value of the unsold share.

Management Costs

The management costs payable on the rented part of the affordable housing as a percentage of the gross unit rent.

Voids / bad debts

The voids / bad debts on the rented part of the affordable housing as a percentage of the gross unit rent.

Repairs Fund

The repairs fund payable on the social rented affordable housing as a percentage of the gross unit rent and not included in any service charge (which is recharged to the tenant).

Yield

The expected yield (to capitalise the rents) of the shared ownership affordable housing.

Timing of Affordable Housing Tenure 2 Purchase Payment

The start and end month in which the intermediate shared ownership affordable housing (Tenure 2) is purchased by the Housing Association. If the affordable housing is all sold at one time, both the start and end months should be the same. The timings must be a whole number and range from month 0 and month 60 inclusive.

AFFORDABLE HOUSING TENURE 3: INTERMEDIATE - DISCOUNTED MARKET SALE***Capital Value pre-discount***

The open market capital value (£ per square metre) of the unit prior to any discount being applied.

% of Open Market Value

The percentage of open market value at which the unit is sold. For instance, 75% of open market value equates to a 25% discount on the open market value for each unit.

Timing of Affordable Housing Tenure 3 Purchase Payment

The start and end month in which the discounted market value affordable housing (Tenure 3) is purchased by the Housing Association. If the affordable housing is all sold at one time, both the start and end months should be the same. The timings must be a whole number and range from month 0 and month 60 inclusive.

AFFORDABLE HOUSING TENURE 4: OTHER TYPE OF SHARED OWNERSHIP / SHARED EQUITY***Capital Value***

The capital value (£ per square metre) of the purchased share of each unit. NB. This is the value per square metre of the whole unit and is not affected by the fact that only part of the house/flat is sold.

Rent per Unit per week of rented share (£)

The rent (£) payable per week on the rented share of the unit and is calculated by reference to a percentage of the capital value payable per annum on the unsold share. The rent per week is an indicator of affordability.

Owner-occupied / rented % share

The percentage of each unit owner-occupied / rented. For instance a value of 70% means that 70% of the unit is owned by the resident and 30% is owned by the Housing Association / RSL.

Unsold Equity Rent Per Annum

This is the rent per annum on the rented share of the unit. This is calculated by entering the percentage of the capital value payable per annum on the unsold share. Currently the Housing Corporation limits this rent to 2.75% of the value of the unsold share.

Management Costs

The management costs payable on the rented part of the affordable housing as a percentage of the gross unit rent.

Voids / bad debts

The voids / bad debts on the rented part of the affordable housing as a percentage of the gross unit rent.

Repairs Fund

The repairs fund payable on the social rented affordable housing as a percentage of the gross unit rent and not included in any service charge (which is recharged to the tenant).

Yield

The expected yield (to capitalise the rents) of the other type of shared ownership affordable housing.

Timing of Affordable Housing Tenure 4 Purchase Payment

The start and end month in which the shared ownership affordable housing (Tenure 4) is purchased by the Housing Association. If the affordable housing is all sold at one time, both the start and end months should be the same. The timings must be a whole number and range from month 0 and month 60 inclusive.

AFFORDABLE HOUSING TENURE 5: INTERMEDIATE – DISCOUNTED MARKET RENT***Rent per Unit per Week***

The amount of rent payable (£) per unit per week.

Management Costs

The management costs payable on the intermediate rented affordable housing as a percentage of the gross unit rent.

Voids / bad debts

The voids / bad debts on the intermediate rented affordable housing as a percentage of the gross rent.

Repairs Fund

The repairs fund payable on the social rented affordable housing as a percentage of the gross unit rent and not included in any service charge (which is recharged to the tenant).

Yield (%)

The expected yield (to capitalise the rents) of the intermediate rented affordable housing.

Timing of Affordable Housing Tenure 5 Purchase Payment

The start and end month in which the intermediate rented affordable housing (Tenure 5) is purchased by the Housing Association. If the affordable housing is all sold at one time, both the start and end months should be the same. The timings must be a whole number and range from month 0 and month 60 inclusive.

OPEN MARKET VALUES

This section of the development appraisal model is for entering the value inputs for the open market housing. Values should be inputted into every relevant cell in this part of the model.

Capital Value

The capital value (£ per square metre) of the open market unit for a given housing type.

Timing of First Open Market Housing Sale

The month of the first open market housing sale. The timing must be a whole number and range from month 0 to month 60.

Timing of Last Open Market Housing Sale

The month of the last open market housing sale. The model assumes an equal monthly phasing of sales between start and end dates. The timing must be a whole number and range from month 0 to month 60.

Scheme End Date

The final completion date of the scheme when the scheme is built and fully let/sold. The timing is usually the month of the last open market sale or the month of the letting/sale of the commercial element (whichever later) and must not exceed month 60. **This is a key input and a figure should always be entered as it gives instructions as to when the cash flows finish. No data after this date will be taken into account in the development appraisal.**

Service Charges

For both the affordable and open market housing, service charges have been ignored in this development appraisal model as these charges are payable by the individual occupiers of the units and therefore do not have any impact on the workings of this model.

SOCIAL HOUSING GRANT & OTHER FUNDING

Grant per unit

The amount of Social Housing Grant payable per unit for each of the five tenures of affordable housing.

If the user is working on a Social Housing Grant payable per Affordable Housing resident basis, the user should populate the number of residents information in Input Sheet 1 and estimate the SHG/unit in Input Sheet 2. The resultant "Social Housing Grant per Affordable Housing Resident" is shown in an output box in the SHG section of the 'Summary' sheet. The user can then adjust the SHG per unit (on Input Sheet

2) until the required SHG/Affordable Housing Resident (in the 'Summary' sheet) is achieved.

Timing of Social Housing Grant Paid

The timing (month) that the Social Housing Grant is paid. It is assumed that the SHG will be paid in two equal payments of 50% each. If the SHG is paid in one lump sum, the timing of both the first and second payments should be set at the same month. The timings must be whole numbers and between month 0 and month 60.

Other Sources of Funding for A/H

This input takes into account other sources of funding for affordable housing. This could include RSL cross-subsidy from reserves. An appropriate monthly timing (between 0 & 60) must also be entered into the next cell. Generally this will match the start date of 'Purchase Payments' noted above for each tenure type.

RESIDENTIAL ASSUMPTIONS – BUILDING COST, MARKETING COST AND SECTION 106 ASSUMPTIONS (INPUT SHEET 2)

Building Costs - Gross

The building cost (£ per square metre of gross internal floorspace) of building each type of housing. It is essential that if there is the presence of a given type of housing, a corresponding building cost must be entered for that type of housing. Usually current building costs are used.

Net to Gross Ratio for Building Costs

The ratio (%) used to convert net internal floor area into gross internal floor areas as building costs are normally quoted on a cost per square metre gross basis. A separate ratio should be inputted for every type of housing listed. If a building cost per net sq m figure has been used in the building costs above then a 100% figure can be inputted into the cell (i.e. no change). Usually building costs per sq m are quoted on the gross, not the net, internal floor area so in a development of a block of flats a gross to net ratio of 85% may be typical to allow for common parts etc. which are not included in the net floor areas for each flat type on the first input sheet.

Residential Car Parking Building Costs

The building cost (£) of constructing each residential car parking space.

Building Cost Fees

The building cost fees, such as architect and quantity surveyors fees, as a percentage of building costs. A typical figure may be in the region of 8%.

Building Contingencies

The percentage of building costs that are set-aside to counter unanticipated building events/problems (typically about 5% for new build and around 10% for refurbishments).

Section 106 Costs

The amount of money payable (£) for Section 106 contributions. These payments can be divided into five user-defined types and must **exclude** any payments towards affordable housing. Typical types of Section 106 payments may include contributions towards infrastructure, public transport, community facilities (schools, doctor's surgery, community centres etc), and public realm and environment (trees, landscaping etc).

Section 106 Timing

The month in which each type of Section 106 contributions are payable. The timing must be between month 0 and month 60.

Site Abnormals

Infrastructure Costs and Timing

The total value (£) of infrastructure costs (access roads, landscaping etc) if any on the scheme and the timing of the payment. The timing must be between month 0 and month 60.

Contamination Costs and Timing

The total value (£) of contamination costs, if any, on the scheme and the timing of the payment. The timing must be between month 0 and month 60.

Demolition Costs and Timing

The total value (£) of demolition costs, if any, on the scheme and the timing of the payment. The timing must be between month 0 and month 60.

Other Costs and Timing

The total value (£) of any other costs on the scheme and the timing of the payment. The timing must be between month 0 and month 60.

Site Specific Sustainability Initiatives

The total value (£) of sustainability initiatives, if any, on the scheme and the timing of the payment. This entry covers defined lump sum costs such as provision of a CHP plant not overall improvements to units which should be entered as a cost multiplier below. The timing must be between month 0 and month 60.

Building Cost Multipliers (if any)

Site Specific Sustainability Initiatives

The percentage added to the building costs for sustainability initiatives to all units on the site. Please do not include items already covered by the sustainability initiatives lump sum under site abnormals above.

Wheelchair provision

The percentage added to the building costs for wheelchair provision.

Code for Sustainable Homes

The percentage added to the building costs for sustainable homes to the relevant code. Please seek professional advice on tender prices for these upgrades in build cost.

Other

The percentage added to the building costs for other initiatives.

Subsidies

This input takes into account subsidies, possibly EP Gap Funding, for infrastructure, remediation costs etc. An appropriate monthly timing (between 0 & 60) must also be entered into the next cell.

Site acquisition costs

Agents Fees

The agents fees for site acquisition payable as a percentage of site value. This figure is often in the region of 1%. It is assumed that this payment is made at month 0 of the development.

Legal Fees

The legal fees for site acquisition payable as a percentage of site value. This figure is often in the region of 0.75% including all disbursements. It is assumed that this payment is made at month 0 of the development.

Stamp Duty

The stamp duty payable as a percentage of site value. The present stamp duty rates (September 2005) are:

£0 - £150,000	0%
£150,001 - £250,000	1%
£250,001 - £500,000	3%
Over £500,000	4%

It is assumed that this payment is made at month 0 of the development.

Other Acquisition Costs

Other acquisition costs (£), if any, incurred during the site acquisition and the timing of the payments (between month 0 and month 60).

Finance costs

Arrangement Fee

The finance fee (£) payable to the 'bank' for arranging the finance for the scheme (ie borrowing money to pay for costs incurred).

Interest Rate

The interest rate (%) payable on the loan. A typical figure may be around 1.5% - 3% above the bank base rate, depending on the type of scheme, the perceived risk and the experience/reliability of the housebuilder / developer.

Misc Fees

Miscellaneous fees (£) such as surveying costs connected with arranging the loan and any 'exit fee' that the bank may charge.

Marketing costs (Affordable Housing)

Developer cost of sale to RSL

The cost to the developer for the transfer/sale of the affordable housing element(s) of the scheme to the RSL (£). This may include agency sales fees, marketing fees and legal fees (£). A timing also needs to be added for when this fee is incurred (month 0 to 60).

RSL on-costs

The agency purchase fees, overheads and legal fees (£) incurred by the RSL for the purchase of the affordable housing element(s) of the scheme. A timing also needs to be added for when this fee is incurred (month 0 to 60).

Intermediate Housing Sales and Marketing

This is a lump sum to cover the sales and marketing costs incurred by the RSL in 'selling' the intermediate tenure units to occupiers. The mix of tenures will dictate if this is a high or low figure. The figure should include in-house marketing overheads.

Marketing costs (Open Market Housing)

Sales Fees

The sales fees (both agent fees and marketing costs), as a percentage of open market housing value, incurred during the sale period of the open market units. Typically, the sales fees might be around 6% (2% for estates agents commission and 4% for marketing costs). The timing of this fee occurs automatically inline with when the sales timing of the open market housing.

Legal Fees

The legal fees (£) incurred per sale of each open market unit. Typically this may be around £600 per open market unit. The timing of this fee occurs automatically inline with when the sales timing of the open market housing.

Building period

Construction Start / End

The timing of when construction begins / ends. The completion date must not exceed month 60 or the scheme end date as previously entered. Usually some months will elapse before a builder is ready to start on site (probably 6 months minimum).

Developer's profit

Open Market Housing

The developer 'profit' (before taxation) on the open market housing as a percentage of the value of the open market housing. A typical figure may be in the region of 15%, but this is only a guide.

Affordable Housing

The developer 'profit' (before taxation) on the affordable housing as a percentage of the value of the affordable housing. A typical figure may be in the region of 6% (the profit is less than that for the open market element of the scheme, as risks are reduced), but this is only a guide.

By clicking on the forward button, the user will be taken to the next input page of the model – the Non-residential Assumptions. The back button will take the user back to the Mix page of the Residential Assumptions.

NON-RESIDENTIAL MODEL (INPUT SHEET 3)

NB. If the scheme being appraised is purely residential, then this section should be left completely blank and the user should proceed to the summary pages.

The non-residential model allows for five of types of commercial and community uses:

- Office;
- Retail;
- Industrial;
- Leisure; and
- Community-use.

Each use type is listed one-by-one with each use having the same inputs as each other. Listed below is a list of definitions for the possible inputs to the non-residential elements of the scheme plus, in some cases, a guideline to the typical value of the inputs. If there is a given type of non-residential space, all cells within that category should be populated. If no values are entered, a default value of 0 is assumed.

Size of scheme (gross sq m)

The gross internal size (in square metres) of the given non-residential element of the scheme.

Size of scheme (net lettable sq m)

The net lettable size (in square metres) of the given non-residential element of the scheme. This figure will always be equal to or lower than the gross size of the scheme. In the case of offices, the net lettable size may be approximately 15-20% lower than the gross size of the scheme to allow for common parts such as lifts, stairs and toilets. In the case of industrial, only the gross size of the scheme requires to be inputted as the net lettable size and gross size figures are unlikely to vary by much.

Values

Rent

The annual rent payable by the occupier (£ per square metre) on the given non-residential element of the scheme. Retail property rents are often quoted on a Zone A basis (the first 6 metres of the shop unit), which will be much higher than the overall average rent per square metre.

Yield

The investment yield (%) expected to be achieved on the sale of the given non-residential element of the scheme. The investment yield is the annual percentage return which is considered to be for a specific valuation in an investment being expressed as the ratio of annual net income (actual or estimated) to the capital value. It is therefore a measure of an investor's opinion about the prospects and risks

attached to that investment. The better the prospects and lower the risks, the lower the expected yield and thus the greater the capital value.

Purchaser's costs

The purchaser's cost (as a percentage of the capital value of the scheme) expected to be incurred by the purchaser on the sale of the given non-residential element of the scheme. These costs are taken into account to ensure that the purchaser actually achieves the yield selected. Typically this figure would be about 5.75% (assuming a 4% stamp duty, 1% surveyors fees and 0.75% legal costs) as at September 2005.

Building Costs

Building Costs (Gross, £ psm)

The gross buildings costs expected to be incurred on the given non-residential element of the scheme. These are measured in £s per square metre of gross internal floor area.

Building Professional Fees

The professional fees expected to be incurred on the given non-residential element of the scheme. These are measured in percentages and are a proportion of the building costs and are typically 10-15% of building costs.

Building Contingencies

The building contingencies (as a percentage of the building costs) expected to be added onto the costs of the given non-residential element of the scheme. A figure of around 5% is typically used.

Timing

Start of Building Period (month)

The month (between 0 and 60) in which the given non-residential element of the scheme is expected to commence building.

End of Building Period (month)

The month (which must not exceed 60) in which the given non-residential element of the scheme is expected to complete building.

Timing of Letting / Sale (month)

The month (between 0 and 60) in which the given non-residential element of the scheme is expected to be let or sold. It is assumed that the letting and sale of the given element occurs at the same time. This will be after the completion of building – usually at least 6 months later.

Letting / sale fees

Letting fees

The letting fees incurred as a percentage of the annual rental income for a given element of the scheme. Typically, the fees for one letting agent would be 10% and 15% in total for two agents (larger schemes).

Advertising fees

The advertising fees incurred as a percentage of the annual rental income for a given element of the scheme – typically around 1%.

Sale fees

The sales fees incurred, as a percentage of the sale price, for a given element of the scheme – typically around 1.75%.

Return for risk / profit

The return for risk / profit for the given element of the scheme. This is measured as a percentage of the capital value of the scheme. An allowance is always made for the risk involved in development and to provide a return for the time and effort involved in creating an asset. The amount depends on many factors such as the size of scheme, the length of the development period, the degree of competition (and hence optimism of the future), whether costs and rents have been projected or costs controlled by a fixed price building contract, and whether the scheme has been pre-let or forward sold/funded. The longer the development period the greater the uncertainty and, therefore in theory, the greater the allowance. A typical allowance would be 17.5%, but could be higher for a large complicated scheme.

By clicking on the forward button, the user will be taken to the Executive Summary. The back button will take the user back to the Values and Costs page of the Residential Assumptions.

5. UNDERSTANDING THE RESULTS AND THE LIMITATIONS OF THE MODEL

Once all of the various inputs have been entered into the input sheets, a summary of the results are displayed in the 'Summary' section of the model. The Summary provides a comprehensive examination of the mix and values of each housing type, a detailed SHG breakdown as well as the key values and costs.

The Summary sheet reviews the key output figures in the model. These include:

- Site details
- Residential values (affordable and open market housing values, Social Housing Grant and car parking values)
- Non-residential values (office, retail, industrial, leisure, community-use)
- Building Costs (residential and non-residential)
- Professional fees (legal and sales fees, building fees,
- Section 106 costs
- Site Abnormals
- Finance Costs (arrangement fees, agent and legal fees, stamp duty, interest etc)
- Developer 'Profit' (residential and non-residential)

Residual Site Value

The key figure on the summary page is the residual site value (listed at the bottom of each page and highlighted in yellow). The residual valuation is the value of the site once the cost of the development and the developers profit have been subtracted from the value of the development. In other words, the residual land value is the amount the developer should bid/pay for the land. It is the land value of the scheme on the day consent is granted and does not take into account what the developer has paid for the land as that may be affected by other circumstances.

If the site is allocated in the LDF this residual site value should then be compared with the market value of development land in the local area. If the residual land value is below the market value then the developer may well consider that the scheme is unviable as it is negative, the scheme is clearly not considered viable. If this is the case, no data will be displayed in the Total Finance Costs section of the summary.

It must be noted that problems may arise if the residual land value of a site is low due to planning gain and affordable housing requirements. In this case the landowner may withdraw the land and wait for more profitable times or change in policy/legislation etc.

For brownfield sites, it is also critical to compare the residual land value to the existing use value of the site, particularly if there are physically sound and occupiable buildings. If the residual land value is lower than the existing use value then the development would not be considered to be viable and may not proceed.

The viability of the development may also be damaged if the residual land value falls below that of an alternative use value. For brownfield sites and for some Greenfield sites there may be a potentially high alternative use value of the site (for commercial or industrial use). This alternative value is hard to generalise within a local authority area and will often vary from site to site depending on location and the density and

type of development that could be permitted. You should only compare against an alternative use value that a) has planning consent or b) doesn't require planning consent.

Checks and understanding the draw-backs

When running development appraisal models, it is extremely important that the pitfalls of the model are understood. Property development is inherently risky and great care must be taken in using the residual method of valuation due to the very sensitive nature of the valuation. Small errors or inaccurate estimates of any of the key variables can have a disproportionate effect on the residual answer. Great care needs to be taken when deciding the level each input needs to be set at that will be entered into the development appraisal model. While a model may be mathematically correct there is a wide range of dangers associated with using this approach. Where the residual site value is a small percentage of total value, the site value calculation will be the most sensitive to changes in the key variables. Some form of sensitivity analysis should, therefore, always be undertaken.

However, before undertaking a full sensitivity analysis, developers usually undertake a few quick check calculations before finalising a value for the site such as:

- (i) site value as a percentage of the scheme's capital value;
- (ii) site value per hectare (greenfield sites);
- (iii) site value per net sq m of building;
- (iv) capital value per net sq m of building.

These check calculations are important as they can highlight, quickly, an error in the calculation or excessive optimism or pessimism. Developers, from their experience and knowledge of the market, will have a reasonable idea as to what these benchmark figures should be. At the end of the summary, the model has checks for both the site value as a percentage of the scheme's capital value and the site value per hectare. Wherever possible, comparable market land price evidence is used by developers, at least as a check. As discussed in the Data Sources section, a key source of land price information is available on the Valuation Office Agency web site. For urban schemes an accurate comparison is much more difficult as projects vary per sq metre or per hectare of the site area, due to differences in content, cost and value, whereas in suburban and greenfield developments an accurate comparison method of valuation per hectare of site area is more feasible.

In addition to these checks, by carefully examining the summary sheets it should be apparent whether any mistakes have been made with the inputs. The inputs sheets should be checked so that:

- there are corresponding figures for both capital values and building costs for the different elements of the scheme e.g. there is both a build cost and capital value for the affordable and open market housing and the same for office elements etc.
- the total capital value of the scheme exceeds the total building cost of the scheme.

6. SAVING AND PRINTING THE RESULTS

Saving

It is recommended that each Housing Corporation staff member uses a specific directory on the network for storing their various development appraisal models. Within each directory there should be further subdirectories for all of the individual schemes. Each subdirectory should store all of the various scenarios for a given scheme. It is hoped that the file location will be in a location accessible to other members of staff at the Housing Corporation. As per usual with Excel, the model can be saved at any time using the 'Save As' option in the 'File' menu. It is recommended that the file is saved in the appropriate directory and that the filename clearly states the particulars of the scheme in question.

Printing

It is recommended that the user prints out a hard copy of the input and summary sheets in the development appraisal model. If need be, these can be distributed amongst Housing Corporation staff, developers, local authorities etc. From the 'File' menu, select 'Print Preview' in order to see whether the page is of a satisfactory layout - all of these sheets have been formatted to print out neatly on A4 paper (portrait). If the page format is in an acceptable format, select the print icon (top left) and the sheet(s) will print. If the page is not in the correct format, use the page set-up options to adjust accordingly.

Over time, the Housing Corporation will build up a useful database of schemes so variables for a given scheme and schemes in general can be cross-checked and compared.

7 SENSITIVITY ANALYSIS AND UPDATED SCENARIOS

Sensitivity analysis

Once the model has been completed, the model should be saved prior to any sensitivity analysis being carried out. It is recommended that the file be clearly labelled as the master document. For each stage of the sensitivity testing, the master document should be copied and clearly renamed to describe what variables are to be modified. It is important that each time a new sensitivity analysis is to run, the analysis should be done on a copy of the master document and not on the sensitivity analysis that has just been done.

Sensitivity analysis could include increasing / decreasing build costs and capital values by small amounts (say 5%, 10%, 15%, 20%) or adjusting the affordable housing mix, the amount of Section 106 or Social Housing Grant payment etc.

The Housing Corporation will require a model 'without Grant' to establish a base line of affordable housing provision against which the 'additionality' that grant makes will be judged.

Updated scenarios

In addition to sensitivity analysis, scheme information can easily be changed at a later date once it is clearer what the various costs, values and timings etc will be. It is recommended that once a scheme has been modified, the file is re-saved under a different name (possibly using the date of change in the filename). These stored scenarios will allow Housing Corporation staff to monitor a development through its various stages thus allowing the comparison of assumptions at the inception stage with the latest reality. The model therefore allows Housing Corporation staff to review the evolving changes of the development over time.

8 ADVANCED USE OF THE MODEL

Phased Developments

For a scheme where the development period exceeds 60 months (5 years), the scheme should be divided into phases of 60 months or less each and treated separately. For instance, for a scheme with a development period of 108 months (9 years) the first phase would be 60 months (5 years) and the second phase would 48 months (4 years). For each phase, a different copy of the model should be used. Each phase should start from month 0. After each phase has been completed, the model should be saved, each time using a different file name. In all cases, the phases should use current values and costs. After all of the phases have been completed, the residual land values for each phase should be combined. This calculation will give the overall residual land value for the scheme.

Off-site Provision of Affordable Housing

For the off-site provision of affordable housing, different development appraisals should be undertaken for each component of the overall development. For instance, if the proposed development involved two sites, there should be two different development appraisals – the first for the original site and the second for the affordable housing site. It is likely that the original site will have a large, positive residual land value and the second site will have a low (and possibly even negative) residual land value. Once the two or more development appraisals have been carried out then the residual land values should be combined to give an overall residual land value for the proposed development as a whole. As the various sites may be some distance apart, average land values may differ widely between the site locations. Consequently, to help gauge whether the combined residual land value is reasonable, comparable land values for each site location should be identified. These figures should then be adjusted to take into account the size of the various sites and then combined and compared with the overall residual land value that has already been calculated.

APPENDIX 1:
**THE MODEL (ALL PAGES), INCLUDING A HYPOTHETICAL
EXAMPLE**

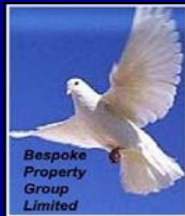


**GVA GRIMLEY &
BESPOKE PROPERTY GROUP**

**THE HOUSING CORPORATION ECONOMIC
APPRAISAL TOOL**

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Version 1.3 (October 2007)



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THE HOUSING CORPORATION ECONOMIC APPRAISAL TOOL**

INPUT SHEET 1 - RESIDENTIAL MIX ASSUMPTIONS

Basic Site Details

Site Address	South East Example
Site Reference	GVA 01 / JXRH
Scheme Description	Mixed use scheme comprising 242 residential units + office and retail space
Date	01/09/2007
Site Area (hectares)	1.711
Author & Organisation	Jon Hall, GVA Grimley
Housing Corporation Officer	-

Residential Mix Assumptions

Affordable Housing Tenure 1: Social Rented

	Studio	1 Bed	2 Bed	3 Bed	4 Bed	Other	Other
Unit Size (sq m) - NIA			61	86			
Habitable Rooms per Unit			3	4			
Persons per Unit			2	3			
Total Number of Units			51	2			

Affordable Housing Tenure 2: Intermediate - Shared Ownership

	Studio	1 Bed	2 Bed	3 Bed	4 Bed	Other	Other
Unit Size (sq m) - NIA			60				
Habitable Rooms per Unit			3				
Persons per Unit			2				
Total Number of Units			9				

Affordable Housing Tenure 3: Intermediate - Discounted Market Sale

	Studio	1 Bed	2 Bed	3 Bed	4 Bed	Other	Other
Unit Size (sq m) - NIA							
Habitable Rooms per Unit							
Persons per Unit							
Total Number of Units							

Affordable Housing Tenure 4: Intermediate - Other Type of Shared Ownership / Shared Equity

	Studio	1 Bed	2 Bed	3 Bed	4 Bed	Other	Other
Unit Size (sq m) - NIA							
Habitable Rooms per Unit							
Persons per Unit							
Total Number of Units							

Affordable Housing Tenure 5:

Intermediate - Discounted Market Rented

	Studio	1 Bed	2 Bed	3 Bed	4 Bed	Other	Other
Unit Size (sq m) - NIA							
Habitable Rooms per Unit							
Persons per Unit							
Total Number of Units							

* Other = User-defined

Open Market Housing Type 1:

Low Rise, 2-4 Storeys

	Studio	1 Bed	2 Bed	3 Bed	4 Bed	Other
Unit Size (sq m) - NIA	33	42	56			
Habitable Rooms per Unit	1	2	3			
Persons per Unit	1	1	2			
Total Number of Units	31	50	99			

Open Market Housing Type 2:

	Studio	1 Bed	2 Bed	3 Bed	4 Bed	Other
Unit Size (sq m) - NIA						
Habitable Rooms per Unit						
Persons per Unit						
Total Number of Units						

Open Market Housing Type 3:

	Studio	1 Bed	2 Bed	3 Bed	4 Bed	Other
Unit Size (sq m) - NIA						
Habitable Rooms per Unit						
Persons per Unit						
Total Number of Units						

Open Market Housing Type 4:

	Studio	1 Bed	2 Bed	3 Bed	4 Bed	Other
Unit Size (sq m) - NIA						
Habitable Rooms per Unit						
Persons per Unit						
Total Number of Units						

Open Market Housing Type 5:

	Studio	1 Bed	2 Bed	3 Bed	4 Bed	Other
Unit Size (sq m) - NIA						
Habitable Rooms per Unit						
Persons per Unit						
Total Number of Units						

Total number of residential car parking spaces

50

(Open Market and Affordable)

Value of each residential car parking space

£5,000

(Average value of all parking spaces)

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INPUT SHEET 2 - RESIDENTIAL VALUE & COST ASSUMPTIONS

RESIDENTIAL VALUE ASSUMPTIONS

Base Value

Affordable Housing Tenure 1:

Social Rented

Type of Unit	Rent per Unit per Week (£)	Rent per Unit per Annum (£)	
Studio			
1 Bed			
2 Bed	£99.00	£5,148	
3 Bed	£105.00	£5,460	
4 Bed			
Other			
Other			
Management Costs (% of rent)	6.00%		<i>(% of gross rent per annum)</i>
Voids / bad debts (% of rent)	3.43%		<i>(% of gross rent per annum)</i>
Repairs Fund (% of rent)	0.00%		<i>(% of gross rent per annum)</i>
Yield (%)	5.75%		<i>(to capitalise the net rent)</i>
	Start Month	End Month	
Timing of Affordable Housing Tenure 1 Purchase Payment	24	24	<i>(whole number, minimum c</i>

Affordable Housing Tenure 2:

Intermediate - Shared Ownership

Type of Unit	Total Unit Capital Value (£ psm, NIA)	Rent per Unit per week of rented share (£)	
Studio		£0	
1 Bed		£0	
2 Bed	£3,500	£50	
3 Bed		£0	
4 Bed		£0	
Other		£0	
Other		£0	
Owner-occupied share (%)	50.0%		
Unsold Equity Rent Per Annum (%)	2.50%		<i>(Housing Corporation Limit of 2.75%)</i>
Management Costs (% of rent)		6.00%	<i>(% of gross rent per annum)</i>
Voids / bad debts (% of rent)		3.43%	<i>(% of gross rent per annum)</i>
Repairs Fund (% of rent)		0.00%	<i>(% of gross rent per annum)</i>
Yield (%)		5.75%	<i>(to capitalise the net rent)</i>
	Start Month	End Month	
Timing of Affordable Housing Tenure 2 Purchase Payment	0	24	<i>(whole number, minimum c</i>

Affordable Housing Tenure 3:

Intermediate - Discounted Market Sale

Type of Unit	Capital Value pre-discount (£ psm, NIA)	
Studio		
1 Bed		
2 Bed		
3 Bed		
4 Bed		
Other		
Other		
% of Open Market Value		
	Start Month	End Month
Timing of Affordable Housing Tenure 3 Purchase Payment		

Affordable Housing Tenure 4:

Intermediate - Other Type of Shared Ownership / Shared Equity

Type of Unit	Total Unit Capital Value (£ psm, NIA)	Rent per Unit per week of rented share (£)
Studio		£0
1 Bed		£0
2 Bed		£0
3 Bed		£0
4 Bed		£0
Other		£0
Other		£0
Owner-occupied share (%)		
Unsold Equity Rent Per Annum (%)		
Management Costs (% of rent)		(% of gross rent per annum)
Voids / bad debts (% of rent)		(% of gross rent per annum)
Repairs Fund (% of rent)		(% of gross rent per annum)
Yield (%)		(to capitalise the net rent)
Timing of Affordable Housing Tenure 4 Purchase Payment	Start Month	End Month
		(whole number, minimum c

Affordable Housing Tenure 5:

Intermediate - Discounted Market Rented

Type of Unit	Rent per Unit per Week (£)	Rent per Unit per Annum (£)
Studio		
1 Bed		
2 Bed		
3 Bed		
4 Bed		
Other		
Other		
Management Costs (% of rent)		(% of gross rent per annum)
Voids / bad debts (% of rent)		(% of gross rent per annum)
Repairs Fund (% of rent)		(% of gross rent per annum)
Yield (%)		(to capitalise the net rent)
Timing of Affordable Housing Tenure 5 Purchase Payment	Start Month	End Month
		(whole number, minimum c

Open Market Values

Open Market Housing Type	Low Rise, 2-4 Storeys	Capital Value (£ psm)
Open Market Housing Type 1:	-	£3,750
Open Market Housing Type 2:	-	
Open Market Housing Type 3:	-	
Open Market Housing Type 4:	-	
Open Market Housing Type 5:	-	
Timing of First Open Market Housing Sale		Month
		24 (whole number, minimum c
Timing of Last Open Market Housing Sale		Month
		48 (whole number, minimum c

Overall Scheme End Date (this must be completed)

Final End Date of Scheme - scheme built and fully let/sold	Month
	48 (whole number, minimum c

Social Housing Grant & Other Funding

Affordable Housing Tenure	Social Rented	Grant per unit (£)
Affordable Housing Tenure 1:	Social Rented	
Affordable Housing Tenure 2:	Intermediate - Shared Ownership	
Affordable Housing Tenure 3:	Intermediate - Discounted Market Sale	

Affordable Housing Tenure 4: Intermediate - Other Type of Shared Ownership / Shared Equity
 Affordable Housing Tenure 5: Intermediate - Discounted Market Rented

Timing Social Housing Grant Paid

Timing of 1st Payment	Timing of 2nd Payment

Value (£)	Timing of Payment
Other Sources of Funding for A/H (£) (could include RSL cross-subsidy from reserves)	(whole number, minimum of 0, maximum of 60)

BUILDING COST, MARKETING COST & SECTION 106 ASSUMPTIONS

		Building Costs - Gross (£ / sq m)	Net to Gross Ratio for Building Costs (%)*
Affordable Housing Tenure 1:	Social Rented	£1,372	80%
Affordable Housing Tenure 2:	Intermediate - Shared Ownership	£1,372	80%
Affordable Housing Tenure 3:	Intermediate - Discounted Market Sale		
Affordable Housing Tenure 4:	Intermediate - Other Type of Shared Ownership / Shared Equity		
Affordable Housing Tenure 5:	Intermediate - Discounted Market Rented		
Open Market Housing Type 1:	Low Rise, 2-4 Storeys	£1,372	80%
Open Market Housing Type 2:	-		
Open Market Housing Type 3:	-		
Open Market Housing Type 4:	-		
Open Market Housing Type 5:	-		

* The ratio is typically 70% - 85% in blocks of flats to reflect the difference between GIA & NIA (ie common parts such as lifts, stairs, corridors etc) and 100% in houses which have no common parts

	Building Costs (£ / car parking space)	% of Building Costs
Residential Car Parking Building Costs (£ / car parking space)		
Building Cost Fees % (Architects, QS etc)	10.00%	(typically around 10%)
Building Contingencies (% of Building Costs)	5.00%	(typically around 5% for ne

Section 106 Payments (£) *

Infrastructure / Public Transport
 Community Facilities
 Public Realm / Environment
 Sustainability Issues
 Others

Cost (£)	Month of Payment

* This section excludes Affordable Housing section 106 payments

Site Abnormals (£)

Infrastructure Costs
 Contamination Costs
 Demolition Costs
 Other Costs

Site Specific Sustainability Initiatives**

EITHER

Cost (£)	Month of Payment

Building Cost Percentage Increase (if any)

Site Specific Sustainability Initiatives (%)**

OR

Wheelchair provision (%)
 Code for Sustainable Homes (%)
 Other (%)

%

** Only one sustainability initiatives box should have a value / percentage.

Subsidies (possibly EP Gap Funding)

Subsidies for infrastructure, remediation etc.

Amount (£)	Month of Payment
£1,000,000	20

OTHER COSTS

SITE ACQUISITION COSTS

Agents Fees (% of site value)
 Legal Fees (% of site value)
 Stamp Duty (% of site value)

%	
1.00%	(typically around 1%)
0.75%	(typically around 0.75%)
4.00%	

Other Acquisition Costs (£)

Cost (£)	Month of Payment

FINANCE COSTS

Arrangement Fee (£)	£0	
Interest Rate (%)	7.00%	(typically around 1.5% to 3%)
Misc Fees - Surveyors etc (£)	£100,000	

Marketing Costs

Affordable Housing Marketing Costs

	Cost (£)	Timing (month)
Developer cost of sale to RSL (£)	£50,000	24
RSL on-costs (£)	£10,000	12
Intermediate Housing Sales and Marketing (£)	£10,000	24

Open Market Housing Marketing Costs

Sales Fees (agents fees & marketing fees) - %	6.00%	(typically around 6%)
Legal Fees (per Open Market unit) - £	£660	(typically around £600 per unit)

BUILDING PERIOD

	Timing (month)	
Construction Start	6	(whole number, minimum of 0, maximum of 60)
Construction End	30	(whole number, minimum of 0, maximum of 60)

DEVELOPER'S 'PROFIT' (before taxation)

	% of Housing Capital Value	
Open Market Housing (%)	15.00%	(typically around 15%)
Affordable Housing (%)	6.00%	(typically around 6%)

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INPUT SHEET 3 - COMMERCIAL & NON-RESIDENTIAL

OFFICE ASSUMPTIONS

Size of office scheme (gross sq m)	3,000
Size of office scheme (net lettable sq m)	2,400
Values	
Rent (£ psm)	£150
Yield (%)	7.00%
Purchaser's costs (% of value)	5.75%
Building Costs	
Office Building Costs (Gross, £ psm)	£1,250
Office Building Professional Fees (% of building costs)	12.50%
Building Contingencies (% of building costs)	5.00%
Timing	
	Timing (month)
Start of Building Period (month)	6
End of Building Period (month)	24
Timing of Letting / Sale (month)	30
Letting, Advertising & Sale fees	
Letting fees (% of annual income)	15.00%
Advertising fees (% of annual income)	1.00%
Sale fees (% of sale price)	1.75%
Return for risk / profit (% of value)	17.50%

RETAIL ASSUMPTIONS

Size of retail scheme (gross sq m)	1,000
Size of retail scheme (net lettable sq m)	1,000
Values	
Rent (£ psm)	£250
Yield (%)	6.25%
Purchaser's costs (% of value)	5.75%
Building Costs	
Retail Building Costs (Gross, £ psm)	£700
Retail Building Professional Fees (% of building costs)	10.00%
Building Contingencies (% of building costs)	5.00%
Timing	
	Timing (month)
Start of Building Period (month)	6
End of Building Period (month)	24
Timing of Letting / Sale (month)	30
Letting / sale fees	
Letting (% of income)	15.00%
Advertising (% of annual income)	1.00%
Sale (% of sale price)	1.75%
Return for risk / profit (% of value)	17.50%

INDUSTRIAL ASSUMPTIONS

Size of industrial scheme (gross sq m)

Values

Rent (£ psm)

Yield (%)

Purchaser's costs (% of value)

Building Costs

Industrial Building Costs (Gross, £ psm)

Industrial Building Professional Fees (% of building costs)

Building Contingencies (% of building costs)

Timing**Timing
(month)**

Start of Building Period (month)

End of Building Period (month)

Timing of Letting / Sale (month)

Letting / sale fees

Letting (% of income)

Advertising (% of annual income)

Sale (% of sale price)

Return for risk / profit (% of value)**LEISURE ASSUMPTIONS**

Size of Leisure scheme (gross sq m)

Size of Leisure scheme (net lettable sq m)

Values

Rent (£ psm)

Yield (%)

Purchaser's costs (% of value)

Building Costs

Leisure Building Costs (Gross, £ psm)

Leisure Building Professional Fees (% of building costs)

Building Contingencies (% of building costs)

Timing**Timing
(month)**

Start of Building Period (month)

End of Building Period (month)

Timing of Letting / Sale (month)

Letting / sale fees

Letting (% of income)

Advertising (% of annual income)

Sale (% of sale price)

Return for risk / profit (% of value)

COMMUNITY USE ASSUMPTIONS

Size of Community-use scheme (gross sq m)
Size of Community-use scheme (net lettable sq m)

Values

Rent (£ psm)
Yield (%)
Purchaser's costs (% of value)

Building Costs

Community-use Building Costs (Gross, £ psm)
Community-use Building Professional Fees (% of building costs)
Building Contingencies (% of building costs)

Timing

Start of Building Period (month)
End of Building Period (month)
Timing of Letting / Sale (month)

**Timing
(month)**

Letting / sale fees

Letting (% of income)
Advertising (% of annual income)
Sale (% of sale price)

Return for risk / profit (% of value)

GVA GRIMLEY & BESPOKE PROPERTY GROUP THE HOUSING CORPORATION ECONOMIC APPRAISAL TOOL

SUMMARY

Site Address	South East Example
Site Reference	GVA 01 / JXRH
Scheme Description	Mixed use scheme comprising 242 residential units + office and retail space
Date	01/09/2007
Site Area (hectares)	1.711
Author & Organisation	Jon Hall, GVA Grimley
Housing Corporation Officer	-

Housing Mix (Affordable + Open Market)

Total Number of Units	242	units
Total Number of Open Market Units	180	units
Total Number of Affordable Units	62	units
Total Net Internal Area (sq m)	12,490	sq m
Total Habitable Rooms	616	habitable rooms
% Affordable by Unit	25.6%	
% Affordable by Area	30.6%	
% Affordable by Habitable Rooms	30.5%	
% Social Rented within the Affordable Housing	85.7%	by number of units
% Social Rented within the Affordable Housing	85.9%	by area
% Social Rented within the Affordable Housing	85.6%	by habitable rooms
Total Number of A/H Persons	126	Persons
Total Number of Social Rented Persons	108	Persons
Total Number of Intermediate Persons	18	Persons
Total Number of Open Market Persons	279	Persons
Total Number of Persons	405	Persons
Site Area	1.71	hectares
Net Internal Housing Area / Hectare	7,300	sq m / hectare

Residential Values

Affordable Housing Tenure 1:

Social Rented

Type of Unit	Total Rent pa (£)	Yield (%)	Capital Value (£)
Studio	-	-	-
1 Bed	-	-	-
2 Bed	£237,790	5.75%	£4,135,473
3 Bed	£9,890	5.75%	£172,004
4 Bed	-	-	-
Other	-	-	-
Other	-	-	-
Total	£247,680	-	£4,307,478

Total Capital Value of Affordable Housing Tenure 1 **£4,307,478**

Affordable Housing Tenure 2:

Intermediate - Shared Ownership

Type of Unit	Capital Value (£ psm)	Total Floorspace (sq m)	Total Capital Value (£)
Studio	-	-	-
1 Bed	-	-	-
2 Bed	£3,500	540	£1,890,000
3 Bed	-	-	-
4 Bed	-	-	-
Other	-	-	-
Other	-	-	-
Total	-	540	£1,890,000

Owner-occupied / rented % share 50%

Capital Value of owner-occupied part

£945,000

Type of Unit	Total Rent pa (£)	Yield (%)	Capital Value (£)
Studio	-	-	-
1 Bed	-	-	-
2 Bed	£21,397	5.75%	£372,125
3 Bed	-	-	-
4 Bed	-	-	-
Other	-	-	-
Other	-	-	-
Total	£21,397	-	£372,125

Total Capital Value of Affordable Housing Tenure 2

£1,317,125

Affordable Housing Tenure 3:

Intermediate - Discounted Market Sale

Type of Unit	Capital Value (£ psm)	Total Floorspace (sq m)	Total Capital Value (£)
Studio	-	-	-
1 Bed	-	-	-
2 Bed	-	-	-
3 Bed	-	-	-
4 Bed	-	-	-
Other	-	-	-
Other	-	-	-
Total	-	-	-

% of Open Market Value

-

Total Capital Value of Affordable Housing Tenure 3

£0

Affordable Housing Tenure 4:

Intermediate - Other Type of Shared Ownership / Shared Equity

Type of Unit	Capital Value (£ psm)	Total Floorspace (sq m)	Total Capital Value (£)
Studio	-	-	-
1 Bed	-	-	-
2 Bed	-	-	-
3 Bed	-	-	-
4 Bed	-	-	-
Other	-	-	-
Other	-	-	-
Total	-	-	-

Owner-occupied / rented % share

-

Capital Value of owner-occupied part

-

Type of Unit	Total Rent pa (£)	Yield (%)	Capital Value (£)
Studio	-	-	-
1 Bed	-	-	-
2 Bed	-	-	-
3 Bed	-	-	-
4 Bed	-	-	-
Other	-	-	-
Other	-	-	-
Total	-	-	-

Total Capital Value of Affordable Housing Tenure 4

£0

Affordable Housing Tenure 5: Intermediate - Discounted Market Rented

Type of Unit	Total Rent pa (£)	Yield (%)	Capital Value (£)
Studio	-	-	-
1 Bed	-	-	-
2 Bed	-	-	-
3 Bed	-	-	-
4 Bed	-	-	-
Other	-	-	-
Other	-	-	-
Total	-	-	-

Total Capital Value of Affordable Housing Tenure 5 £0

TOTAL CAPITAL VALUE OF ALL AFFORDABLE HOUSING (EXCLUDING SHG & OTHER FUNDING) £5,624,602

Social Housing Grant

	Grant per unit (£)	Number of Units	Grant (£)
Social Rented	£0	53	£0
Intermediate - Shared Ownership	£0	9	£0
Intermediate - Discounted Market Sale	£0	0	£0
Intermediate - Other Type of Shared Ownership	£0	0	£0
Intermediate - Discounted Market Rented	£0	0	£0
SHG Total	-	62	£0

Social Housing Grant per Affordable Housing Person £0
 Social Housing Grant per Social Rented Person £0
 Social Housing Grant per Intermediate Person £0

TOTAL VALUE OF SOCIAL HOUSING GRANT £0

OTHER SOURCES OF AFFORDABLE HOUSING FUNDING £0

OTHER SUBSIDIES SUCH AS EP GAP FUNDING £1,000,000

TOTAL CAPITAL VALUE OF ALL AFFORDABLE HOUSING (INCLUDING SHG & OTHER FUNDING) £6,624,602

Open Market Housing

Type of Open Market Housing	Net Area (sq m)	Revenue (£ / sq m)	Total Revenue (£)
Low Rise, 2-4 Storeys	8,667	£3,750	£32,501,250
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
Total	8,667	-	£32,501,250

TOTAL CAPITAL VALUE OF OPEN MARKET HOUSING £32,501,250

Car Parking

No. of Spaces	Price per Space (£)	Value
50	£5,000	£250,000

TOTAL VALUE OF CAR PARKING £250,000

TOTAL CAPITAL VALUE OF RESIDENTIAL SCHEME £39,375,852

Non-Residential Values

Office	£4,863,222	
Retail	£3,782,506	
Industrial	£0	
Leisure	£0	
Community-use	£0	£8,645,728

TOTAL CAPITAL VALUE OF NON-RESIDENTIAL SCHEME	£8,645,728
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TOTAL VALUE OF SCHEME	£48,021,580
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Residential Building, Marketing & Section 106 Costs

Affordable Housing Build Costs	£6,556,445	
Open Market Housing Build Costs	£14,863,905	£21,420,350

Cost Multipliers

Site Specific Sustainability Initiatives (%)**	0.0%	£0
Wheelchair provision (%)	0.0%	£0
Code for Sustainable Homes (%)	0.0%	£0
Other (%)	0.0%	£0

Residential Car Parking Build Costs		£0
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Total Building Costs	£21,420,350
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OTHER SITE COSTS

Building Contingencies	5.0%	£1,071,018
Building Cost Fees (Architects, QS etc):	10.0%	£2,249,137
Other Acquisition Costs (£)		£0

Section 106 Costs (£)

Infrastructure / Public Transport	£0
Community Facilities	£0
Public Realm / Environment	£0
Sustainability Issues	£0
Others	£0

Site Abnormals

Infrastructure Costs	£0
Contamination Costs	£0
Demolition Costs	£0
Other Costs	£0
Sustainability Initiatives	£0

Total Other Site Costs	£3,320,154
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Marketing (Open Market Housing ONLY)

Sales Fees:	6.0%	£1,950,075
Legal Fees (per Open Market unit):	£660	£118,800

Marketing (Affordable Housing)

Developer cost of sale to RSL (£)	£50,000
RSL on-costs (£)	£10,000
Intermediate Housing Sales and Marketing (£)	£10,000

Total Marketing Costs	£2,138,875
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Non-Residential Building & Marketing Costs**Building Costs**

Office	£3,937,500	
Retail	£735,000	
Industrial	£0	
Leisure	£0	
Community-use	£0	£4,672,500

Professional Fees (Building, Letting & Sales)

Office	£634,894	
Retail	£179,694	
Industrial	£0	
Leisure	£0	
Community-use	£0	£814,588

Total Non-Residential Costs		£5,487,088
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TOTAL DIRECT COSTS:	£32,366,466.99
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Finance (finance costs are only displayed if there is a positive residual site value)

Arrangement Fee	£0
Misc Fees (Surveyors etc)	£100,000
Agents Fees	£50,699
Legal Fees	£38,024
Stamp Duty	£202,796
Total Interest Paid	£3,468,030

Total Finance Costs	£3,859,549
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Developer 'Profit'**Residential**

Open Market Housing Operating 'Profit'	£4,875,188
Affordable Housing 'Profit'	£337,476

Non-residential

Office	£851,064	
Retail	£661,939	
Industrial	£0	
Leisure	£0	
Community-use	£0	£1,513,002

Total Operating Profit	£6,725,666
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Residual Site Value

SITE VALUE TODAY	£5,069,898
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EXISTING USE VALUE	
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DIFFERENCE BETWEEN SITE VALUE AND EXISTING USE VALUE	£5,069,898
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Checks:

Site Value as a Percentage of Total Scheme Value	10.6%
Site Value per hectare	£2,963,120