

# ENGINEUITY TUTORIAL



## Choosing A Consultant Designer



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One of the key decisions when bidding for a design & build job is the choice of the consultant to produce the design.

### **But why is the decision so important ?**

The choice of consultant can have a significant impact on the build costs. Consultants with appropriate expertise and BIM experience produce designs that reduce the expected build cost when a job is progressed, which improves the profit margin on the job.

There are a number of consultants available, and there is **no restriction** on the number of design & build jobs a particular consultant can work on at any one time, but finding the most suitable consultant is not always easy.



# Choosing A Consultant Designer

Consider the following example.

A decision is made to bid for job 74, a Design & Build job.

**MAKING Procurement decisions for period 5 in the Early Years**  
 Change period Assessing performance Industry information Help

**PRO** Company Based

**NUMBER OF JOBS IN PROGRESS**

At the start of the period, the number of jobs in progress is: 6 (job progression screen)

The number of jobs in progress after bidding cannot exceed: 10 jobs

Hence, the maximum number of jobs that can be won is: 4 jobs

**VALUE OF WORK IN PROGRESS**

The initial forward workload is: 20,791,350 (job progression screen)

The current value of the capital base is: 4,493,317 (financial decision screen)

The current capital base can support forward workload of: 44,933,170 (10 x capital base)

Hence, the value of work that can be won cannot exceed: 24,141,820 during bidding

Job	Country	Type	BIM	Size	App Value	Duration	Description	Sector	Client	Job	Bid	Bid value
74	United Kingdom	DB	Yes	Medium	11,000,000	3	Social housing development	Building & Commercial	Lowry Homes	74	No	0
76	United Kingdom	DB	Yes	Medium	9,000,000	3	Construction of new bridge	Transport	North-West County Council	76	No	0
80	United Kingdom	DB	Yes	Small	2,000,000	3	Construction of library storeroom	Building & Commercial	Fenlands County Council	80	No	0
92	United Kingdom	BO	No	Small	2,000,000	3	Scheme to upgrade tidal defences	Water & Sewage	The Environment Department	92	No	0
93	United Kingdom	BO	Yes	Small	3,000,000	3	New state of art aviation museum	Building & Commercial	The Defence Agency	93	No	0
100	Qatar	BO	No	Small	2,000,000	3	Upgrade to a marina	Transport	Qatar 2022	100	No	0

Display details for job 74      Display client details      Yes



# Choosing A Consultant Designer

Setting the Bid for Job 74

Help

**ESTIMATED COSTS**

Design cost (% of build cost): 11 %

Build cost: 8,388,002

Site cost: 1,677,600

**Total estimated costs: 10,988,280**

**KNOWN RIVAL BIDDERS**

Chota Nagpur Group Based in India

East State Enterprises

Horizon Group

Rempstone Building

The Bommell Group

**DESIGN CONSULTANT** BIM experience required

Design consultant allocated:

**BIDDING HISTORY**

Job	Period	Country	Sector	Markup
		United Kingdom	Building & Commercial	4.3 %
			Commercial	4.4 %

A consultant needs to be allocated to produce the design who has **appropriate expertise** for the job.

In addition, if the job is using **BIM, or Building Information Modelling**, the client may impose a **bidding restriction that requires the consultant to have some BIM experience**, in addition to expertise in the job sector. This is indicated by the **“BIM experience required”** note.

In this case, for job 74, a BIM model is being used, and the **CLIENT RESTRICTIONS** indicate that a consultant with BIM experience needs to be chosen for the design.

The **Select** button can be used to choose from a list of all available consultants.

**MARKUP**

Markup:  %

**BID SUBMITTED**

Bid submitted: 10,988,280

59	4	Qatar	Building & Commercial	4.3 %
61	4	United Kingdom	Building & Commercial	4.3 %

Based in New Delhi, the Chota Nagpur Group have grown very quickly in the last 6 years, and are now operating worldwide in the commercial and real estate sector.

The strength of the Chota Nagpur Group is reflected in their recent flotation on the Indian Stock Exchange, and their turnover and profit have grown considerably in the last fiscal year.

Chota Nagpur Group have a de-risked business model that enables them to bid competitively on price for the work they tender for, helped enormously by their continuing investment in new technologies.

**USEFUL INFORMATION**

- The job is in the Building & Commercial sector
- The job is based in United Kingdom
- The planned duration of the job is 3 periods
- The annual salary for project managers ranges from 27,000 to 64,000



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### Available Consultants

Display consultants where the profile contains the phrase:

[RESET]

Name	Base country	BIM experience	Status	Used before
Ardvark Architects	United Kingdom	significant	Available	No
Beta Creative Designs	United Kingdom	slight	Available	No
Peak Designs	New Zealand	noticeable	Available	No
WDC Design Consultants	United States	None	Available	No
Wyvern Design Services	United Kingdom	slight	Available	No

#### ARDVARK ARCHITECTS

After meeting at a BIM conference 3 years ago a small group of design consultants established Ardvark Architects to take advantage of the emergence of Building Information Modelling in the construction process.

Since being established Ardvark Architects has undertaken a number of prestigious project designs within the building and commercial field, and their skills are becoming increasingly in demand as their reputation spreads.

The company have invested heavily in technology, and particularly in BIM training for their staff, to enable them to compete for new work against even their rivals.

An appropriate consultant for the job can be found by reviewing the profiles of each consultant, and matching the consultant's **expertise to the job sector**.

The choice of consultant **can have a significant impact on the build costs**. Consultants with appropriate expertise and BIM experience (if a BIM model is being used), produce designs that reduce the expected build cost.

For job 74, a building and commercial contract, **Ardvark Architects** have been chosen due to their expertise in the building and commercial sector, as indicated by their profile, and their significant BIM experience.



# Choosing A Consultant Designer

## Procurement performance

Management consultant report

PREVIOUS BIDS

RIVAL BIDS

### Procurement Restrictions

#### NUMBER OF JOBS IN PROGRESS

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 The number of jobs in progress after bidding cannot exceed: **10** jobs  
 Hence, the maximum number of jobs that can be won is: **4** jobs during bidding

#### VALUE OF WORK IN PROGRESS

The initial forward workload is: **20,791,350** (job progression screen)  
 The current value of the capital base is: **4,492,978** (financial decision screen)  
 The current capital base can support forward workload of: **44,929,780** (10 x capital base)  
 Hence, the value of work that can be won cannot exceed: **24,138,430** during bidding

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Full Tender Report

#### Job details

#### Bid details

Period	Job	Country	Type	BIM	Sector	Client	Bid submitted	Won	Comment	Cumulative forward workload
5	74	United Kingdom	DB	Yes	Building & Commercial	Lowry Homes	11,663,340	No	Consultant does not have enough expertise	20,791,350
5	76	United Kingdom	DB	Yes	Transport	North-West County Council	9,095,995	No	Bid too high	20,791,350
5	80	United Kingdom	DB	Yes	Building & Commercial	Fenlands County Council	2,648,398	No	Bid too high	20,791,350
5	93	United Kingdom	BO	Yes	Building & Commercial	The Defence Agency	3,634,361	Yes	Low price	24,425,710
5	100	Qatar	BO	No	Transport	Qatar 2022	2,401,531	No	Bid too high	24,425,710

Display details for job 74  
 Tender report for job 74

**A bid will be rejected by the client if the consultant allocated for a Design and Build (DB) job does not have suitable expertise for the job.**



# Choosing A Consultant Designer

## Consultant History

Navigate to "Main menu/Assessing performance/Consultant history"

Gradings

Name	Base	Job	Job details				Factors affecting build costs			
			Country	Status	Sector	BIM being used	Expertise in sector	BIM experience	Location	% change so far
Ardvark Architects	UK	74	United Kingdom	Completed	Building & Commercial	Yes	noticeably reduces	significantly reduces	has no affect on	-0.88 %
Queensland Associates	AUS	140	United Kingdom	1st period	Building & Commercial	Yes	noticeably reduces	significantly reduces	slightly increases	
The FW Partnership	UK	19	United Kingdom	Completed	Energy	Yes	noticeably reduces	noticeably reduces	has no affect	-0.7 %
		30	United Kingdom	Completed	Building & Commercial	Yes	noticeably reduces	noticeably reduces	has no aff	-0.69 %
		80	United Kingdom	Completed	Building & Commercial	Yes	noticeably reduces	noticeably reduces	has no	-0.7 %
		108	United Kingdom	2nd period	Building & Commercial	Yes	noticeably reduces	noticeably reduces	has	-0.69 %

### ARDVARK ARCHITECTS

Profile: After meeting at a BIM conference 3 years ago a small group of design consultants established Ardvark Architects to take advantage of the emergence of Building Information Modelling in the construction process.

BIM exper



Since being established Ardvark Architects has undertaken a number of prestigious project designs within the building and commercial field, and their skills are becoming increasingly in demand as their reputation spreads.

The company have invested heavily in technology, and particularly in BIM training for their staff, to enable them to compete for new work against even their rivals.

If job 74 is secured, and then progressed, we can use the **Consultant history** option to determine if our choice of Ardvark Architects is justified.

Clearly we made the right choice as Ardvark Architects expertise in the building & commercial sector, and BIM experience, has helped to reduce build costs by 0.88%, a significant saving.

### KEY POINTS

If the design consultant is not based in same country as the job, this can impact upon the quality of the design, and increase build costs. However, location is a small factor compared to the positive affects of sector expertise and BIM experience.