



**JSB CONSTRUCTION**  
Engineering Consultants

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***THE NORTHUMBRIA BUILDING CENTRE***  
**WORK BREAKDOWN STRUCTURE**  
**DICTIONARY**

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Version <1.0>  
<31/10/2011>

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## VERSION HISTORY

Version #	Implemented By	Revision Date	Approved By	Approval Date	Reason
1.0	<i>Bartek Korcz</i>	<i>31/10/2011</i>			

WBS Element Definitions

WBS Code	WBS Element
<a href="#">1</a>	<a href="#">Enabling works</a>
WBS Element Description	
<p>Preparing the site for construction activities includes clearing and grubbing to remove unwanted vegetation and the removal and stockpiling of topsoil from construction site for later use in landscaping.</p> <p>This element covers the cost of general grading to create suitable sites for individual facilities and to control drainage and the cost of landscaping to control erosion.</p> <p>Installation of fencing to control access or to provide security for selected areas is also part of this WBS element.</p>	

WBS Code	WBS Element
<a href="#">1.1</a>	<a href="#">Site set up</a>
WBS Element Description	
See WBS 1	

WBS Code	WBS Element
<a href="#">1.2</a>	<a href="#">Site access</a>
WBS Element Description	
See WBS 1	

WBS Code	WBS Element
<a href="#">2</a>	<a href="#">Foundation</a>
WBS Element Description	

WBS Code	WBS Element
<a href="#">2.1</a>	<a href="#">Excavation</a>
WBS Element Description	
Excavate, trench and for concrete framework.	

WBS Code	WBS Element
<a href="#">2.2</a>	<a href="#">Foundation</a>
WBS Element Description	
Element includes all structures below and up to grade; all concrete formwork and reinforcing steel; and placement, curing and weather protection of structural concrete and slab on grade	

WBS Code	WBS Element
2.3	<i>Steel erecting</i>
WBS Element Description	
Furnish and install the exterior concrete composite wall panels, insulated metal wall panels, doors and hardware, and pipe bollard at the overhead doors.	

WBS Code	WBS Element
3	<i>External works</i>
WBS Element Description	

WBS Code	WBS Element
3.1	<i>Masonry works</i>
WBS Element Description	
This element include furnishing and install of the the exterior concrete composite wall panels, doors and hardware.	

WBS Code	WBS Element
3.2	<i>Roofing</i>
WBS Element Description	
Furnish and install the entire roofing system, including the roof coverings, insulation and flashings and trim.	

WBS Code	WBS Element
3.3	<i>Building finishes</i>
WBS Element Description	
Provide external wall coverings, external doors and windows	

WBS Code	WBS Element
3.4	<i>Landscaping</i>
WBS Element Description	
Element include designing and creating the landscape around the building.	

WBS Code	WBS Element
3.5	<i>Car Park</i>
WBS Element Description	
Provide car park spaces for clients.	

WBS Code	WBS Element
3.6	<i>Paving</i>
WBS Element Description	
This element includes the costs of on-site paving for roads, sidewalks and parking areas	

WBS Code	WBS Element
4	<i>Internal works</i>
WBS Element Description	

WBS Code	WBS Element
4.1	<i>Electrical installation</i>
WBS Element Description	
Provide and install complete power distribution system including, lighting, outlets, branch wiring, fire alarm system, communication systems, fibre optic data transmission system, grounding, lightning protection system, UPS systems and access to the site monitoring and control system.	

WBS Code	WBS Element
4.1.1	<i>Lighting</i>
WBS Element Description	
Install low energy lighting for internally and externally in accordance with the latest Building regulations and codes. Operated automatically by the use of illuminance and occupancy sensors. Emergency lighting will also be provided with a 3 hour battery backup. Adequate external lighting will be provided at entrances to and from the building as well as the car park.	

WBS Code	WBS Element
4.1.2	<i>Small Power</i>
WBS Element Description	
This element includes the on-site primary and secondary electrical distribution system down to the connection points for individual facilities	

WBS Code	WBS Element
4.1.3	<i>Photovoltaic</i>
WBS Element Description	
Provide and install solar panel on the roof and ground source heat pump installation would be provided throughout the building. The necessary import/export meters will be provided but the utility company.	

WBS Code	WBS Element
4.1.4	<i>Security</i>
WBS Element Description	
Install security system to the building comprising fire alarms, CCTV and video surveillance.	

WBS Code	WBS Element
4.1.5	<i>Emergency Lighting</i>
WBS Element Description	
<i>Provide emergency lights above all emergency doors and in all selected places within the building.</i>	

WBS Code	WBS Element
4.1.6	<i>Telecommunications</i>
WBS Element Description	
<i>Installation of all telecommunication systems required like, BT, Broadband, LAN, Computers, Software.</i>	

WBS Code	WBS Element
4.2	<i>Mechanical Services</i>
WBS Element Description	

WBS Code	WBS Element
4.2.1	<i>Water Services</i>
WBS Element Description	
Install water supply equipment, insulation, water pipe and fittings.	

WBS Code	WBS Element
4.2.2	<i>Waste</i>
WBS Element Description	
Provide all sanitaryware and soil and waste pipework form kitchen and toilets and connect to existing external manhole.	

WBS Code	WBS Element
4.2.3	<i>Rainwater</i>
WBS Element Description	
Gutters and downpipes to be installed to keep rainwater away from the foundation of the building	

WBS Code	WBS Element
4.2.4	<i>Air Conditioning</i>
WBS Element Description	
The FCUs provided for the heating sized sufficiently to offset the solar gains from the large glazed facades and provide cooling and dehumidification during the summer.	

WBS Code	WBS Element
4.2.5	<i>Heating</i>
WBS Element Description	
Provide under-floor heating system throughout which will provide the main source of space heating, fed from a ground source heat pump (GSHP system). In addition, ceiling	

mounted fan coil units (FCU) provided for top-up heating to most areas.

WBS Code	WBS Element
4.2.6	<i>Ventilation</i>
WBS Element Description	
Natural stack effect with mechanical extract in kitchen and WC's	

WBS Code	WBS Element
4.3	<i>Partition Wall</i>
WBS Element Description	
Install of all internal plasterboard walls including plaster.	

WBS Code	WBS Element
4.4	<i>Flooring</i>
WBS Element Description	
Installation of raised floor system and floor finish like laminate flooring or tiles.	

WBS Code	WBS Element
4.5	<i>Ceiling</i>
WBS Element Description	
Suspended ceiling system, White Tiles 600 x 600mm	

WBS Code	WBS Element
4.6	<i>Building finishes</i>
WBS Element Description	
Interior finish applied to the rough inside walls, ceiling, and subfloors. Provide ceiling and wall coverings, doorframes and window frames, stairs, floor covering, and wood trims.	

WBS Code	WBS Element
5	<i>Site clear up</i>
WBS Element Description	