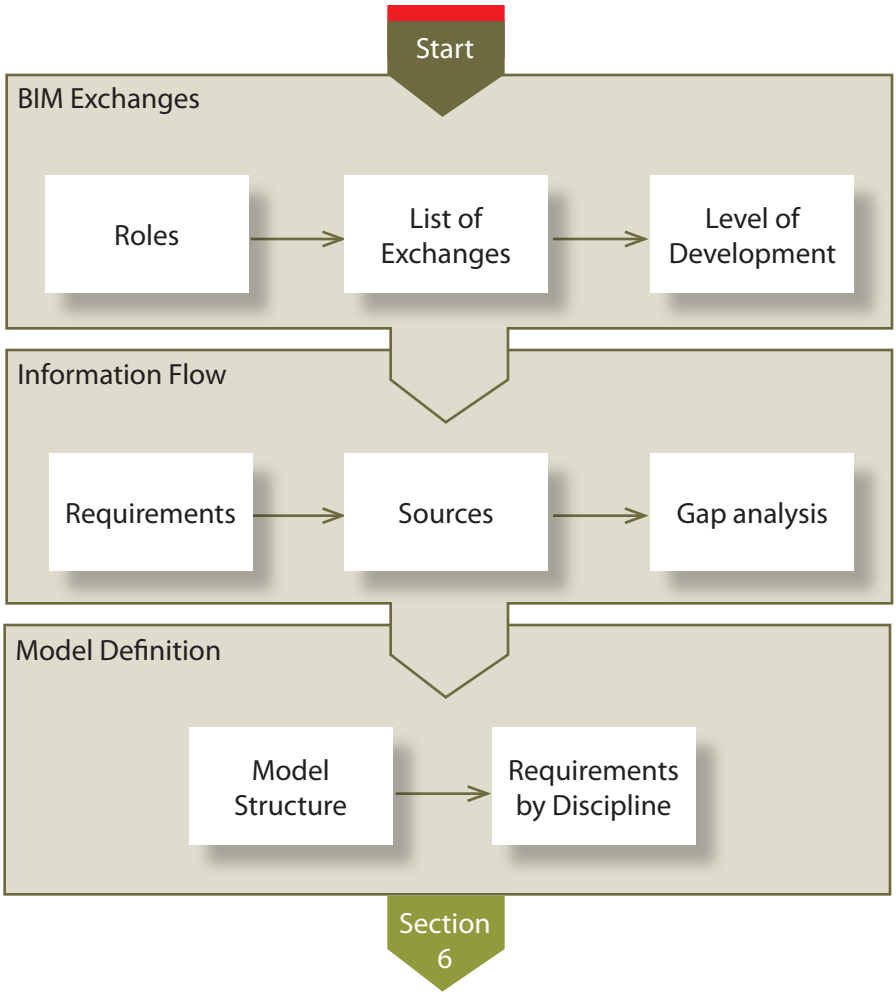
Processes and Exchanges

BIM Information Exchanges



5.1.1 Specifics of Information Exchanges

Five Information Exchanges (IEs) are defined in the attachment OUHC-AMB44_PxP Information Exchanges.xlsx.

They are Record Modeling (Construction), FM Handover, Record Modeling (Operation), Building Maintenance Scheduling, and Facilities Management. The first two, Record Modeling (Construction) and FM Handover, are included as they are required to document the origins of the BIM data as required in this project's selected BIM Uses Record Modeling (Operation), Building Maintenance Scheduling, and Facilities Management (see section 2.3). Their IEs are in worksheets "RM (IE)", "BMS (IE)" and "FM (IE)" respectively.

Each of the five BIM uses mentioned above will require its own information exchange. These are most easily done in spreadsheets based on a standard categorisation of construction elements like CSI UniFormat. The tables can be large so they are usually included in the PxP as an attachment referenced from the document.

IE sheets are built using the following steps:

1. Identify each exchange, its project phase, model user(s) and model creator(s) from Section 4 with support of Section 2.

BIM Use Title	Record Modeling Output	FM Handover Output	Record Modeling Input
Project Stage	**40 - Construction**	**40 - Execution**	**50 - Utilisation**
Time of Exchange (SD, DD, CD, Construction)	Construction	Handover	Operation
Responsible Party (Information Receiver)	All Contractors	GC	FM Specialists
Receiver File Format			
Application & Version			

2. Agree upon a model element breakdown for all users and creators in all exchanges.

Model Element Breakdown - CSI UniFormat		
A	**SUBSTRUCTURE**	
	10	**Foundations**
		10 Standard Foundations
		20 Special Foundations
		30 Slab on Grade
	20	**Basement Construction**
		10 Basement Excavation
		20 Basement Walls

Using the CSI UniFormat or other standard classification avoids missing modeling aspects which might lead to confusion later on. The same breakdown classification should be used for all IE sheets to support merging them in subsequent steps.

Modeling responsibilities should reflect traditional roles and responsibilities as found in standard project contracts, specifications and drawings. This helps address the concern that modeling can lead to unintended.

Terminology note: For each information exchange there are two Responsible Parties that are identified using the templates available from Penn State. The "Information Receiver" party is responsible for identifying their information model needs and the "Model Element Author" (MEA), "Resp Party" in the table below, is responsible for modeling the required data. MEA is commonly used by documents and contracts based on American Institute of Architects (AIA) terminology.