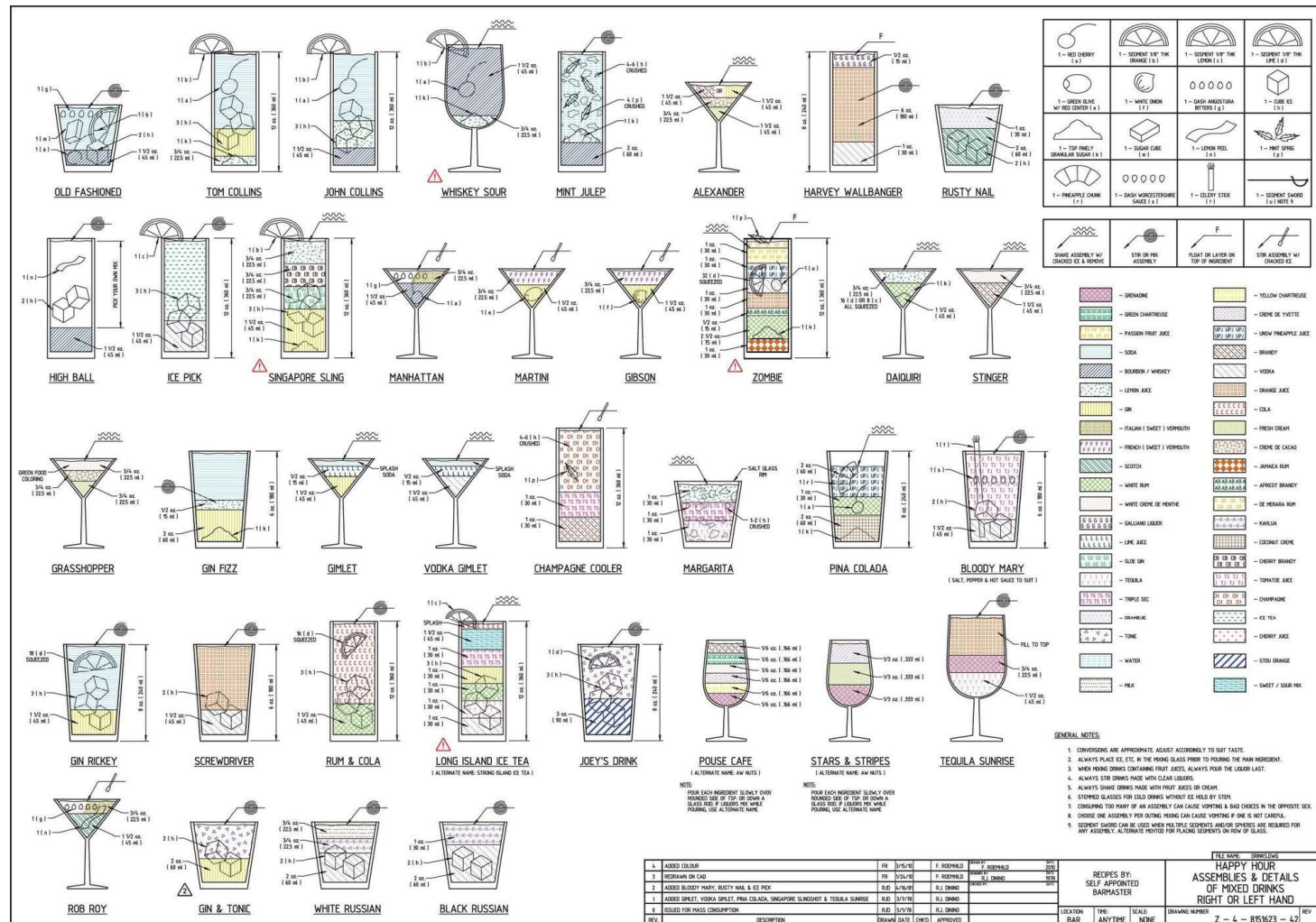


Digital Technologies CAD



Digital Technologies CAD

- 2D draughting using AutoCAD - Assessment



Assessment

Module Learning Outcomes (from module syllabus)

Learning Outcomes

- interpret data and produce 2D drawings using industry-standard CAD software applications;
- understand Building Information Modelling (BIM) naming conventions.

Assessment

**Submission
deadline:**

6th January 2026

Return date of provisional marks &
written feedback:

Within 20 days
excl hols

Technical Drawings, A1 Digital Submission: (weighting 100%)

Scenario:

A volume house builder has approached the university to create a housing development on adjoining land in in SA1 under ownership of UWTSD.

The University has been asked to review a series of proposed house types and you are charged with providing detailed CAD plans for review.

From the dimensions provided by the developer, you shall prepare the following drawings in AutoCAD to represent the building.

- General Arrangement Plans of the house (Suitably scaled)
- Principal (front) Elevation of the house. (Suitably scaled)
- Section through the house (Suitably scaled)
- 1:10 Detail of any part of the building. (in plan or section)
- Key Images of the Building.
- A brief description of the house building that includes: the type of construction method and specification of the finishes.
- All drawings should be annotated so that the client can make suitable comparisons.

CONTINUES NEXT PAGE....

Assessment

**Submission
deadline:**

6th January 2026

Return date of provisional marks &
written feedback:

Within 20 days
excl hols

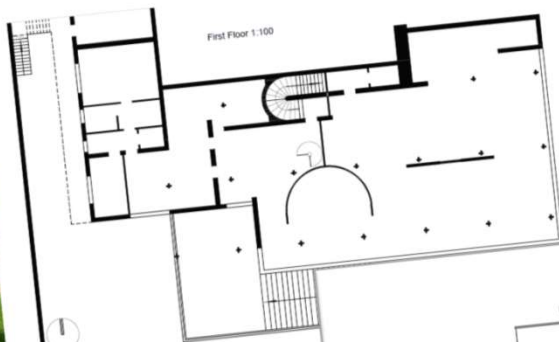
Technical Drawings, A1 Digital Submission: (weighting 100%)

Drawings must be appropriately scaled at A1 size and presented in the UWTSD BIM titleblock format, and should follow industry standard drawing conventions and layering techniques.

Pay attention to the formatting and scale requirements for all of the above information so that it is presented in a professional manner.

Vectorising of PDF survey drawings is not permitted, and any submissions will not be marked.

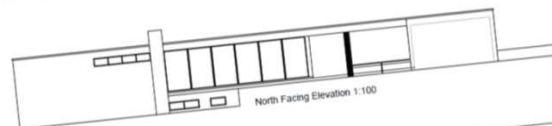
Digital Submission required in both 'DWG' and 'PDF' format.



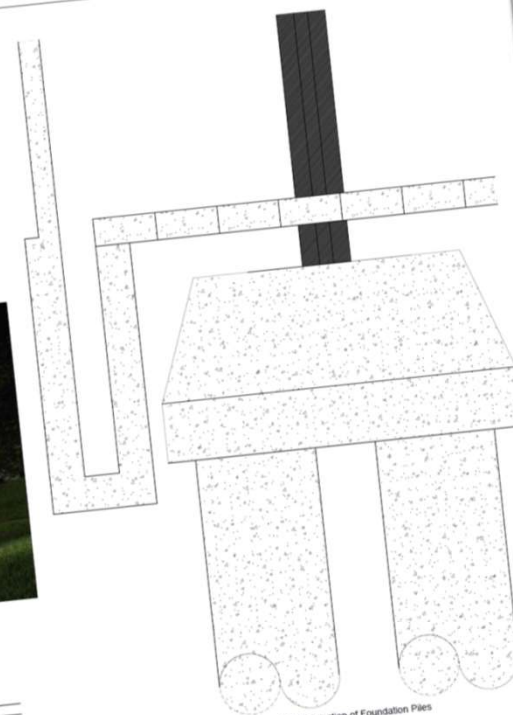
Second Floor 1:100

Villa Tugendhat

- ## Villa Tugendhat
- Located in the City of Brno, Czech Republic. Commissioned by the Jewish family Tugendhat.
 - Construction began in June 1929 and the building was completed in 1930.
 - Considered to be the best example of the prominent German Functionalism architecture in Europe.
 - Listed on the UNESCO World Heritage List which describes it as an international style in the modern movement in architecture.
 - The building is formed using a 490 x 550cm grid of iron columns.
 - The modern industrial materials and techniques used in its construction were not required. It is one of the first buildings to work to hide it in a wall. This gave a large amount of flexibility to the design and allowed for a large amount of floor opportunities to have large open interior spaces and floor to ceiling heights.
 - Mies designed state of the art technologies for the villa in order to create a living environment that was connected to the outside. It provided a feeling of being connected to the outside world, also providing a sense of humidity.
 - The villa has only been used as a family home for eight years as the family fled Czechoslovakia in 1938 shortly before the Nazis confiscated the building. The Tugendhats did not return to the villa until 1992.
 - In 1992, Villa Tugendhat was the location for the signing of the Dayton Accords.
 - Czech Republic and Slovakia.



North Facing Elevation 1:100



Detailed section of Foundation Piles
and Column 1:10

Assessment

**Submission
deadline:**

6th January 2026

Return date of provisional marks &
written feedback:

Within 20 days
excl hols

Marking Criteria for the Drawing Exercise (100%)

Use of UWTSD BIM template and BIM naming conventions

10

Use of BS layers in AutoCAD

10

Accuracy of drawings GA plan / section / elevations

40

Text describing the building

10

Additional 1:10 section included.

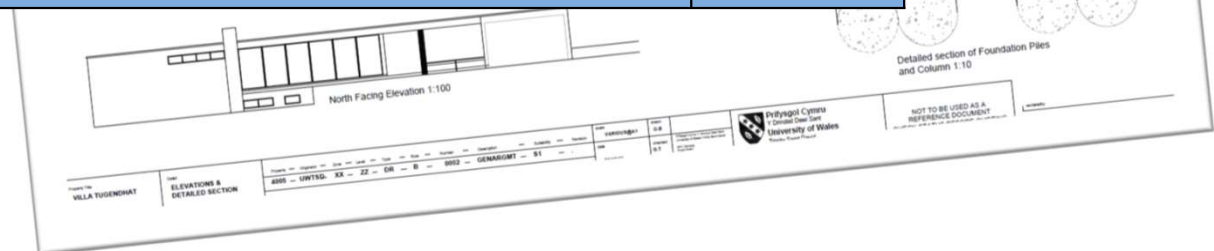
10

Image showing the building

10

Use of View Ports and layouts in AutoCAD

10



Assessment

**Submission
deadline:**

6th January 2026

Return date of provisional marks &
written feedback:

Within 20 days
excl hols



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Enter postcode, location or developme

Search

Development list by region

[Home](#) / [Three bedroom homes](#)

Three bedroom homes

Whether you're looking for your first home, your next step as a family or something more manageable, we have a three bedroom that will work for you. Below you'll find our new R21 range of three-bedroom house styles. Style and convenient living come together in an array of fantastic layouts, including practical features such as utility rooms and downstairs WCs. If you're looking for design inspiration, take a look at our virtual tours to see a selection of finishes and layout suggestions.

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Looking for more space? Browse our range
of four-bedroom house styles.

[Four bedroom homes](#)

Name	House Type
Chloe Watkins	Stanton RJ
Cory Westermarck	Stanton FJ
Emma Mackay	Sherwood Bay
Harkeerat Johal	Saunton
Jac Roberts	Rendlesham
Jetse Martin	Kingley
Keiran Rees	Galloway
Louis James	Dallington
Max Cobb	Barnwood Bay
Michael Nugent	Ashdown Corner
Mohamed Salim	Ashdown
Nia Alm	Glenmore
Patrick Furlong	Epping
Rhys Cosker	Braunton
Ross Montanari	Barnwood
Samuel Chen	Charnwood

Three Bedroom New Build Properties | Persimmon Homes

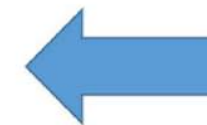
Before you start drawing
your Assignment,
Download the UWTSD Title
Block Drawing from TEAMS

UWTSD Title Block / Template File

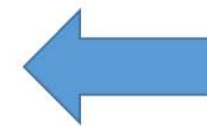
General	Architectural	Electrical	Interior Design	Landscape	Mechanical	Structural

UNIVERSITY OF WALES TRINITY SAINT DAVID	Project	Discipline	Zone	Level	Type	Role	Number	Description	Suitability	Revision
20200000	Project Name	Discipline	Zone	Level	Type	Role	Number	Description	Suitability	Revision
20200000	Project Name	Discipline	Zone	Level	Type	Role	Number	Description	Suitability	Revision
20200000	Project Name	Discipline	Zone	Level	Type	Role	Number	Description	Suitability	Revision
20200000	Project Name	Discipline	Zone	Level	Type	Role	Number	Description	Suitability	Revision
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20200000	Project Name	Discipline	Zone	Level	Type	Role	Number	Description	Suitability	Revision
20200000	Project Name	Discipline	Zone	Level	Type	Role	Number	Description	Suitability	Revision
20200000	Project Name	Discipline	Zone	Level	Type	Role	Number	Description	Suitability	Revision

Status code	Which information containers should the status code be used for?	Revision
WIP	Information containers being developed within a task team	P01.01 to P10.01
S0	Information containers that are suitable for geometrical and/or non-geometrical coordination by other task teams within the delivery team	P01 to P10
S1	Information containers that are suitable for information reference by other task teams within the delivery team	P01 to P10
S2	Information containers that are suitable for review and comment within the delivery team	P01 to P10
S3	Information containers that are suitable for review and comment by the Lead Appointed Party	P01 to P10
S4	Information containers that are suitable for review and comment by the Appointing Party (Client)	P01 to P10
S5	Information containers where there are no comments from the party being invited to either:	P01 to P10
A3, A4, A5, A6 etc. (number correlates with work stage)	authorise them if they are in response to a lead appointed party exchange information requirement; or, accept them (if they are in response to an appointed party exchange information requirement)	P01 to P10
B3, B4, B5, B6 etc. (Deprecated)	Information containers that are partially signed off where there are comments from the party being invited to authorise or accept them	P01 to P10



Layering conventions to British Standards.



Numbering to Building Information Modelling standards.

Property Name	Unnamed	UWTSD - UWTSD - 0001	Prifysgol Cymru University of Wales	(S0) UNCONTROLLED ISSUE NOT TO BE USED AS A REFERENCE DOCUMENT CHECK STATUS BEFORE QUOTING
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UNIVERSITY OF WALES TRINITY SAINT DAVID

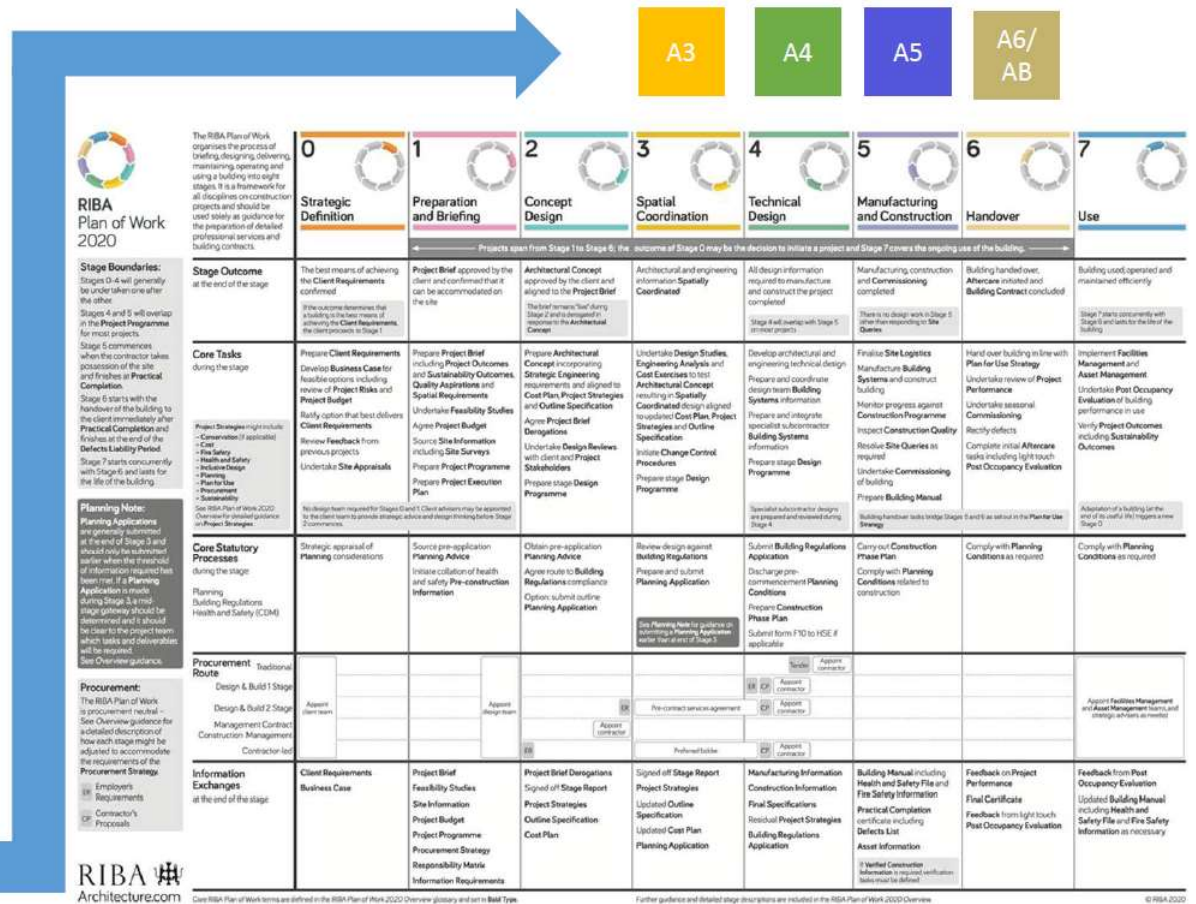
BIM NAMING CONVENTION GUIDE: All files: Models, Drawings & Documents

THE CODE	Project	Originator	Functional Breakdown	Spatial Breakdown	Form	Discipline	Number	Description*	Status*	Revision*
CODE LENGTH	2-6 Characters	3-6 Characters	1-2 Characters	2 Characters	2 Characters	1 Character Only	4 Characters	6-8 Characters	2 Characters	Single Character
DESCRIPTION	A single common project identifier that is recognizably distinct from any individual organization's internal job number.	The company that produced the data.	Use XX as the default. Only use Zones if project requires. This is then defined by the chosen Model segregation. There should be at least one 'zone' per role. EG. Arch Model, Mech Model, Struct Model, etc.	The level the data refers to: ZZ – Multi Level XX – No Level 00 – Ground Flr 01 – First Flr 02 – Second Flr Etc. Mezzanines M1 M2 Etc. All levels below ground floor prefix 'B' B1 B2 Etc.	This is simply the type or form of data eg: For Files: D - Drawing G Diagram I Image L List M Model T Textual V Video/Audio	A Architect / Architectural B Building Surveyor C Civil Engineer D Demolition/Dismantling E Electrical Engineer F Facilities Manager G Ground Engineering H Highways & Transport I Interior Designer K Client L Landscape Architect M Mechanical Engineer Other P Public Health Engineer Q Quantity Surveyor Project Mgmt S Structural Engineer T Planner W Water Engineering X non discipline specific Y Topographical Z Multi Discipline	This is a 4 digit code denoting drawing grouping and number. it consists of a 1 digit Drawing Group plus the 3 digit individual drawing no: Eg. 1001 Where 1 at the beginning is the drawing group and the 3 latter digits are sequential numbers.	Drawing / Model description ie. GAPLAN SITE GEO MOD SECTION SCHEMAT BREEAM FINISHES etc.	This is for the 2 digit suitability code that indicates and governs the development stages of information and documents throughout the BIM process.	The revision number of the drawing. eg: Preliminary revisions and Construction revisions as image opposite
NOTES	Use the 4 digit Company project numerics here - NB. NUMBER ONLY For Student Projects MODULE CODE ie 4005	NB. A specific unique identifier for each organisation should be defined upon them joining the project ie. Use company initials	NB. A more complex project may need to be divided into several diff zones. If so the Zone Strategy should be agreed at beginning of project	IE. Roof plan would be multi level.			Drawings Groups are as follows: 0 - General 1 - Substructure 2 - Superstructure 3 - Openings 4 - Finishes 5 - Piped & ducted services 6 - Electrical 7 - Fixtures & Fittings (Fixed) 8 - Loose Furniture 9 - External Works	There is no specific standard for description but avoid long, unwieldy descriptions as this will affect your ability to file in Windows		
EXAMPLE	4005	UWTSO	XX	ZZ	D	A	1001	GEO MOD	S1	

* = Optional add ons within schema that we as UWTSO have chosen to include

NB. There are other optional fields in the schema that we have opted to leave out ie: Classification (uniclass codes)

Status code	Which information containers should the status code be used for?	Revision
Work in Progress (WIP)		
S0	Information containers being developed within a task team	P01.01 to Pnn.nn
Shared (non-contractual)		
S1	Information containers that are suitable for geometrical and/or non-geometrical coordination by other task teams within the delivery team	P01 to Pnn
S2	Information containers that are suitable for information/reference by other task teams within the delivery team	
S3	Information containers that are suitable for review and comment within the delivery team	
S4	Information containers that are suitable for review and comment by the Lead Appointed Party	
S5	Information containers that are suitable for review and comment by the Appointing Party (Client)	
Published (contractual)		
A3, A4, A5, A6 etc. (number correlates with work stage)	Information containers where there are no comments from the party being invited to either: - authorise them (if they are in response to a lead appointed party exchange information requirement) or; - accept them (if they are in response to a client enquiry)	C01 to Cnn
B3, B4, B5, B6 etc. [Deprecated]	Information containers that are partially signed off where there are comments from the party being invited to authorise or accept them	P01 to Pnn



Conventions - Cracking the code

4005 _UWTSD _XX _00 _D _A _0001 _GAPlan _AB

An 'As Built' Ground Floor, General Arrangement plan drawing produced by the architect.

4005 _UWTSD _XX _XX _T _C _0001 _Spec _A5

An NBS Specification published suitable for construction, produced by the Civil Engineer