UMass Chan Medical School

Office of Facilities

BIM Execution Plan

DBB

Design Technology Group

March 2026

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Project Name Here

Month, Year

PROJECT IMAGE HERE

NOTE TO THE DESIGN TEAM: This BEP template is a guide for you to update to your project BIM specific requirements. This document should be reviewed with your Attorney to ensure the language here and your firms Digital Data Agreements and\or contracts do not contradict each other. This document is meant to outline the details of the 3D modelled elements vs the 2D data needs delivered for the project. You may or may not need all sections, please update accordingly.

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OVERVIEW

By applying BIM technologies, the Owner seeks to support coordinated design documentation and improve the quality and consistency of contract documents. Under a Design–Bid–Build delivery method, BIM is utilized primarily as a design and documentation tool to support internal coordination among the Design Team and preparation of permit and bid deliverables.

This BIM Execution Plan defines minimum BIM requirements applicable to the Design Team. BIM models are not construction documents and shall not be relied upon for construction means, methods, sequencing, or safety.

OWNERSHIP OF MODELS

Ownership of models is governed by contracts between each party.

BIM models produced by the Design Team represent design intent only and are developed to support design coordination, documentation, and permitting. Models are not Contract Documents and shall not be relied upon for construction means, methods, sequencing, or safety unless explicitly stated in the Contract Documents. Review the Active EFTA or contract for further clarification of Ownership and responsibilities.

PROJECT INFORMATION

Owner\Client:

Project Name & Abbreviation:

Project Address:

Brief Project Description:

Discipline\Trade	Company	Contact(s)	Title	Email	Phone
Owner					
Architecture					
Structure					
MEPFP					
Civil					

CM	(NA)	(NA)	(NA)	(NA)	(NA)

BIM EXECUTION PLAN SCHEDULE

BIM Execution Plan Development			
	Date	**Description**	**Required Participants**
Development of Draft BIM Execution Plan			
Distribute Draft BIM Execution Plan			
BIM Execution Plan Review			
Finalize BIM Execution Plan			

THE BUILDING MODELS

MODEL MANAGERS

Under a Design–Bid–Build delivery method, the _____ (Architect/Engineer) shall serve as the primary BIM lead responsible for managing the design model and establishing modeling protocols for the Design Team. Each consultant is responsible for the accuracy and completeness of their respective discipline model.

The Construction Manager, if engaged, shall receive models for informational purposes only unless otherwise required by the Contract Documents.

NOTE FOR USER: *All model files issued should be considered read-only and should not be modified by any other person or persons, apart from the originator.

The model manager from each party has the follow, but not limited to, responsibilities:

- ➔ Transferring modelling content from one party to another at specified dates
- ➔ Validating the level of detail and controls as defined for each project phase
- ➔ Validating modelling content during each project phase
- ➔ Participating in design review and model coordination sessions
- ➔ Communicating any modelling issues to cross-company teams
- ➔ Assuring model naming conventions are being used accurately
- ➔ Managing version control
- ➔ Creating all important dated backups

Company Name	Model Manager Name	Contact Information

There will be regular BIM meetings with the model managers.

	Required Participants	Frequency
BIM Kick Off	All Parties	
BIM Execution Review		

Internal Meetings		
Model Manager Meetings	All Parties	

FILE FORMAT REQUIREMENTS

Electronic Files will be accepted in the following

Software	**File Extension**	**Version/Year**
Revit	RVT	2025
AutoCAD	Dwg	2025
Autodesk	Dwf	
Open	IFC	
Navisworks	Nwd	
PDF	PDF	
Excel\COBIE Data	xls	

FREQUENCY OF ISSUE

Model exchanges shall generally align with established design milestones unless otherwise required by the Owner.

Files are to be shared:

NA as hosted on BIM 360 or ACC or PMWeb:

METHOD OF TRANSFER

File Transfer Method:

Contact:

File Exchange Frequency: See BIM Schedule

MODEL/DATA EXCHANGE MATRIX

The following highlights the electronic file various formats which each consultant will need as part of the BIM interoperability process. This matrix indicates the files which each consultant will issue as well as the file formats they need to receive

(✓) required to supply to indicated party

Originator	File Type	Receiver								
		Arch	Struct	Mech	Elec	Plumb	FP	Civil	CM	Owner
Architect	RVT	N/A								
	2D dwg	N/A								
	3D dwg	N/A								
	NWD	N/A								
	IFC									
	XLS									
Structural	RVT		N/A							
	2D dwg		N/A							
	3D dwg		N/A							
	NWD		N/A							
	IFC		N/A							
	XLS		N/A							
Mech	RVT			N/A						
	2D dwg			N/A						
	3D dwg			N/A						
	IFC			N/A						
	NWD			N/A						
	XLS			N/A						
Elec	RVT				N/A					
	2D dwg				N/A					
	3D dwg				N/A					
	IFC				N/A					

Originator	File Type	Receiver								
		Arch	Struct	Mech	Elec	Plumb	FP	Civil	CM	Owner
	NWD				N/A					
	XLS				N/A					
Plumb	RVT					N/A				
	2D dwg					N/A				
	3D dwg					N/A				
	IFC					N/A				
	NWD					N/A				
	XLS					N/A				
FP	RVT						N/A			
	2D dwg						N/A			
	3D dwg						N/A			
	IFC						N/A			
	NWD						N/A			
	XLS						N/A			
Civil	RVT							N/A		
	2D dwg							N/A		
	3D dwg							N/A		
	IFC							N/A		
	NWD							N/A		
	XLS							N/A		
CM	RVT								N/A	
	2D dwg								N/A	
	3D dwg								N/A	
	IFC								N/A	
	NWD								N/A	
	XLS								N/A	
OTHER	PDF									

PREPARATION OF REVIT FILES BEFORE EXCHANGE

Prior to each file exchange each group must perform the following tasks.

Purge Unused Elements from each Model

Delete Unused (and unnecessary views)

Include in the transfer any AutoCAD backgrounds used.

NOTE FOR USER: Work shared files do not have to be detached before sending, however it is advised to detach for any archive needs at sharing dates.

FILE NAMING CONVENTIONS AND MODEL FILE LIST

Model file naming needs to be established between all parties participating within the BIM collaborative effort. All files used are noted below.

NOTE FOR USER: (Design Team to edit this if Owner Request /Project Team request is different.)

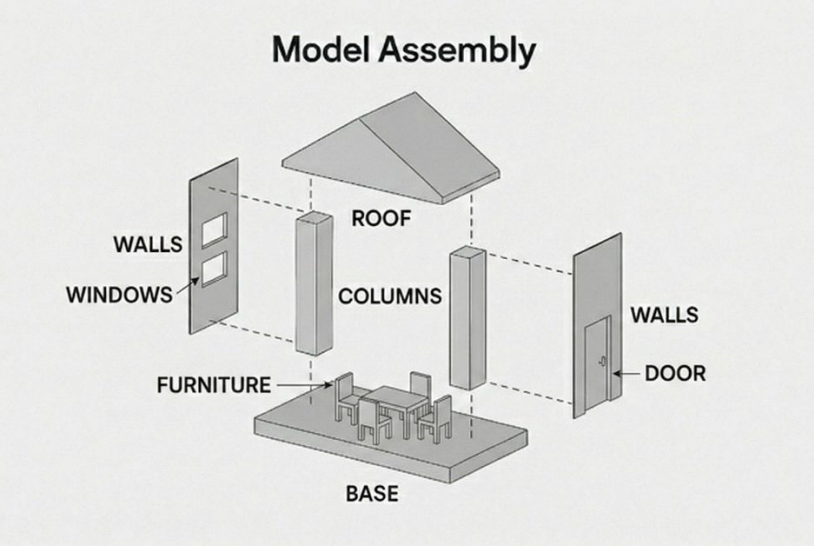
NOTE FOR USER: Project ID – Building ID – Discipline – File Types – Revit Build

NOTE FOR USER: Example: 00000-Building Tower-AR-FO-R23

Discipline\Trade & Abbreviation	**Model(s)**	**File Name(s)**	**Software**
Site\Landscape (Site)			
Architecture (Arch)			
Structure (Structure)			
MEPFP (MEPFP)			
CM or BIM Consultant			
Mechanical (HVAC)			
Electrical (Elec)			
Plumbing (Plumb)			
Fire Protection (FP)			
Others as required			

MODEL ASSEMBLY

The following diagram indicates the model assembly.



Note: Diagram will be updated if any changes are to be made.

UNITS AND PRECISION

Models should include all appropriate dimensions as needed for design intent, analysis and construction. Models shall use consistent units and measurements across the project.

Default Units: Imperial (Feet and fractional inches)

Scale: 1 unit = 1 foot

Model Precision: 1/256”

Dimensions: Feet and fractional inches rounded to 1/8”.

Angles: Decimal degrees rounded to 2 decimal points.

Area: Square feet rounded to 0 decimal points.

Volume: Cubic feet rounded 1 decimal point.

2D input/output File Accuracy:

- **Site Layout Drawings:** Coordinate system accuracy to 3 decimal places
- **Elements, Details, Sections, Elevations, Building Outlines:** Accuracy to 0 decimal places.

MODEL BACKUPS AND ARCHIVES

Each designer, consultant, trade or sub submitting models is required to make archives \ backups of each file at each milestone and maintain those archives for the duration of the project. Milestones, to clarify, are dates of delivery to client only. Consultants are free to archive at other times as they deem fit.

Model Backups are to be saved to this location: See BIM Standard for clarification.

If cloud-based application (BIM 360, ACC, etc) is being used, snapshots are taken automatically, the designated BIM Project Lead can coordinate rolling back to a previous version of files if needed.

LEVEL OF DEVELOPMENT DEFINITIONS

At each project milestone identified here, each participant is required to ensure that their model contains all the required building elements at the appropriate level of development as specified herein.

Level of Development (LOD) requirements are aligned with design-phase milestones and are intended to support design coordination and documentation.

Level of Development Explanations: (Next Page)

Level of Development Explanations:

LOD 100	LOD 200	LOD 300	LOD 350	LOD 400	LOD 500
					
The Model Element may be ***graphically represented*** in the Model with a ***symbol or other generic representation***, but does not satisfy the requirements for LOD 200. Information related to the Model Element (i.e. cost per square foot, tonnage of HVAC, etc.) can be derived from other Model Elements	The Model Element is graphically represented within the Model as a ***generic system, object, or assembly*** with approximate quantities, size, shape, location, and orientation. Non-graphic information may also be attached to the Model Element.	The Model Element is graphically represented within the Model as a **specific system, object or assembly** in terms of quantity, size, shape, location, and orientation. Non-graphic information may also be attached to the Model Element.	The Model Element is graphically represented within the Model as a specific system, object, or assembly in terms of quantity, size, shape, location, orientation, and ***interfaces*** with other building systems. Non-graphic information may also be attached to the Model Element.	The Model Element is graphically represented within the Model as a specific system, object or assembly in terms of size, shape, location, quantity, and orientation with ***detailing, fabrication, assembly, and installation information***. Non-graphic information may also be attached to the Model Element	The Model Element is a ***field verified representation*** in terms of size, shape, location, quantity, and orientation. Non-graphic information may also be attached to the Model Elements.
Interpretation: LOD 100 elements are ***not geometric*** representations. Examples are information attached to other model elements or symbols showing the existence of a component but not its shape, size, or precise location. Any information derived from LOD 100 elements must be considered approximate.	**Interpretation:** At this LOD elements are generic placeholders. They may be recognizable as the components they represent, or they may be volumes for space reservation. Any information derived from LOD 200 elements must be considered approximate.	**Interpretation:** The quantity, size, shape, location, and orientation of the element as designed can be measured directly from the model without referring to non-modeled information such as notes or dimension call-outs. The project origin is defined and the element is located accurately with respect to the project origin.	**Interpretation:** Parts necessary for coordination of the element with nearby or attached elements are modeled. These parts will include such items as ***supports and connections***. The quantity, size, shape, location, and orientation of the element as designed can be measured directly from the model without referring to non-modeled information such as notes or dimension call-outs.	**Interpretation:** An LOD 400 element is modeled at sufficient detail and accuracy for fabrication of the represented component. The quantity, size, shape, location, and orientation of the element as designed can be measured directly from the model without referring to non-modeled information such as notes or dimension call-outs.	**Interpretation:** Since LOD 500 relates to field verification and is not an indication of progression to a higher level of model element geometry or non-graphic information, this Specification does not define or illustrate it.
DESIGN ←				→ **CONSTRUCTION**	
Refer to BIM Forum Level of Development Specification for more detailed description of element specific LOD https://bimforum.org/resource/lod-level-of-development-lod-specification/					

Figure 1 - BIM Forum LOD Specification 2020

LOD CLARIFICATION FOR REVIT

Approximate (LOD 200) – Building elements are of approximate size and placement (e.g., furniture)

Simplified (LOD 250) – Building elements are of correct overall size, approximated shape, and correctly placed. (e.g., Rectangle in place of an I-Beam)

Accurate (LOD 300) - Building elements of correct overall size, shape and placement. Includes "primary" sub-components such as window sashes or interior mullions.

Detailed (LOD 325) – Building elements are of correct overall size, shape and placement along with detailing including inner layers of objects or external details (e.g., Wall with inner layers, window casings, muntins, and door casings.)

MODEL LEVEL OF DEVELOPMENT AND SCOPE MATRIX

NOTE FOR USER: Primary firm to provide LOD matrix. See appendix excel spreadsheet LOD.

DESIGN DOCUMENTATION MODEL REQUIREMENTS

Coordinating Common\Shared Design Elements

Below is a list of design elements which need to be coordinated across disciplines during design. This coordination typically results in elements being shown in more than one document set\Revit file. There are 3 approaches for handling this.

Users to modify to project specific needs.

Element Type	Originator	Disciplines
Levels	Architectural	Entire Team
Column Grid Lines	Architectural – Structural	Entire Team
Structural Steel	Structural	Architectural - Structural
Structural Floors	Structural	Architectural - Structural
Foundation Walls\Footings	Architectural – Structural	Architectural - Structural
Lights, Power, Tel-Data, Communications		Arch - Elec
Diffusers		Arch - Mech
Plumbing Fixtures		Arch - Plumb

The list below identifies “base plan and rcp” items which all disciplines typically display on their documentation. The list indicates who the responsible party is for including\locating the item in their model, such that other trades can link and display those items.

	End of DD		60% CD		90% CD	
Required Building Elements	**Responsible Party**	**LOD**	**Responsible Party**	**LOD**	**Responsible Party**	**LOD**
Foundation Walls & Footings	Structure		Structure		Structure	

Exterior Walls & Interior Partitions	Arch		Arch		Arch	
Doors, Windows, Openings	Arch		Arch		Arch	
Structural Floor	Structure		Structure		Structure	
Ceilings	Arch		Arch		Arch	
Roofs	Arch		Arch		Arch	
Room Names and Numbers	Arch		Arch		Arch	
Light Fixtures	Elec		Elec		Elec	
Diffusers	Mechanical		Mechanical		Mechanical	
Plumbing Fixtures	Arch		Arch		Arch	

COORDINATION

NOTE FOR USER: NOTE TO USER: Remove this section entirely if not doing clash detection.

Given that one of the goals identified here is to improve coordination of systems it is the responsibility of the MEPFP design team to ensure that the Revit model(s) is free of clashes between its own work. The architect and structural engineer recognize that in order for coordination to occur that they must provide updated designs to MEPFP in a timely fashion.

It is also noted that clash free coordination is only required at major milestones. This is not a requirement for regular progress updates between milestones.

SAMPLE FOR USER:

Approach	Pros	Cons
Separate elements reside in each file which must be "manually" coordinated.	Each discipline has full control over graphics at any time.	Must copy\recreate elements from other file. Must manually coordinate\check for changes.
One file is a master which consultant links in.	No redrawing required	Must rely on consultant for changes which often results in delay.
Separate element in each file coordinated with Copy\Monitor tool.	No redrawing and automatic updates.	New elements are not automatically copied\monitored.

It is suggested that the Architect sets a "master" file which shall contain the shared coordinates, levels and grids which is shared to all consultants to copy/monitor.

CLASH DETECTION MODEL REQUIREMENTS

Design Stage

NOTE FOR USER: Two stages provided under this heading; design stage, construction stage if the project needs defined separation of the two.

NOTE FOR USER: The purpose of performing Clash detection at the end of DD is to determine if "primary" routing of mechanical routing works with planned architectural and structural elements. Models used for testing are produced by architects and engineers. Major architectural, structural and mechanical elements need to be modeled to ensure planned routing is plausible. Clash tests will be performed at end of DD, 60% CD and 90% CD.

*It is the responsibility of the MEPFP design team to remove clashes between the Revit model(s) of its own work which would materially affect the constructability of the design. The architect and structural engineer recognize that for coordination to occur they must provide updated designs to MEPFP in a timely fashion. It is also noted that detailed clash removal coordination is only required at major milestones. This is not a requirement for regular progress updates between milestones.

Required Building Elements	**Responsible Party**	**LOD**
Column Grid Lines	Arch	
Floor Level Lines	Arch	
Foundation Walls & Footings	Arch or Structure	
Exterior Walls & Interior Partitions	Arch	
Structural Floors	Arch or Structure	
Structural Beams, Joists & Bracing	Structure	
Ceilings	Arch	
Large Mechanical Equipment	Mech	
Main Ductwork	Mech	
Large Electrical Equipment	Elec	
Large Conduit Runs	Elec	
Large FP Equipment	FP	
Large Plumbing Equipment and Piping	Plumb	

Clash Test Sequence

- ➔ Structure Vs. Architectural
- ➔ Structure Vs. HVAC
- ➔ Structure Vs. Gravity Piping
- ➔ Plumbing
- ➔ Fire Protection
- ➔ Electrical
- ➔ Ceiling Checks
- ➔ Small Diameter Piping (optional)
- ➔ Clearance\Access Zones (optional)

FM MODEL REQUIREMENTS

NOTE FOR USER: (IMPORTANT: Design Team to ensure client has\does not have BIM FM Model needs.

NOTE FOR USER: Only if needed and the financial/staffing impact of this effort is understood by the Principal-in-Charge, otherwise revise or remove this section as applicable)

RECORD MODELS

Refer to BIM STANDARD.

Required Building Elements	Abbreviation	Notes\Additional Requirements
Misc.		
Column Grid Lines		
Floor Level Lines		
Room Names & Numbers		
Structural		
Foundation Walls & Footings		
Exterior Walls & Interior Partitions		
Structural Floors		
Structural Beams, Joists & Bracing		
Architectural		
Exterior Walls		
Interior Partitions		
Doors	DOOR	
Windows	WIND	
Exterior Glazing Systems	GLAZ	
Flooring	FLOR	
Ceilings	CLG	
Roofs	ROOF	
Built In Casework	CASE	
Stairs	STAIR	
Railings	RAIL	
Elevators\Escalators	ELEV	
Toilet Room Accessories		
“Office” Equipment	OFFEQ	
Furniture	FURN	
Fire Protection		
Large Equipment		
Risers		

Required Building Elements	Abbreviation	Notes\Additional Requirements
Mains		
Branches & Sprinkler Heads		
Safety		
Fire Alarm System		
Fire Extinguisher Cabinets		
Food Service Equipment		
Appliances and Equipment		
Misc. Equipment		
Pallet Lift		
Item	**Abbreviation**	**Notes\Additional Requirements**
Electrical		
Outlets		
Telecom\Data		
Transformer		
Switchboard\Switchgear		
Panelboards		
Cable Tray		
Conduit		
Lights		
Lights - Emergency		
Lights - Exit		
Lighting – Sports Field		
Lighting Control System		
Disconnect Switches		
Generator		
Switches (Automatic or Manual)		
Inverters		
Timeclocks		
Fire Alarm System		
Public Safety Signal Booster System (BDA)		
Scoreboards		
Zero Sequence Harmonic Filters		
Surge Protection Devices		
Destratification Fans		
Item	**Abbreviation**	**Notes\Additional Requirements**
Mechanical		
Air Handling Units		
Boilers		
Cabinet Unit Heaters		
Ceiling Mounted Induction Units (Active Chilled Beam)		

Required Building Elements	Abbreviation	Notes\Additional Requirements
Chiller (Air Cooled)		
Chilled Beams		
Condensate Pump		
Condensing Units		
Condensing Unit – Walk in Freezer		
Convectors		
Ductless Split fancoil system		
Duct Heater		
Electric Unit Heater		
Energy Recovery Units		
Expansion Tank		
Fans (Centrifugal)		
Fans (Destratification)		
Fan (Fume Hood Exhaust)		
Fans (Roof)		
Fancoil Units		
Fin Tube Radiator		
Gravity Ventilators		
Hot Water Reheat coils		
Make Up Air Unit (Indirect Gas Fired) Pumps		
Pumps		
Rooftop Air Handling Units		
Strainers		
Terminal Boxes		
Unit Heaters		
Valves		
Variable Frequency Drives		
Water Flow Measuring Devices		

Item	Abbreviations	Notes\Additional Requirements
Plumbing		
Plumbing Fixtures (toilets, sinks, showers, fountains, etc.)		
Sanitary Piping		
Access Panel and Valve Locations		
Storm Drainage Piping		
Roof Drain Locations		
Acid Neutralization System		
Cleanouts		
Drinking Fountains		
Drinking Fountain Refrigerated		
Expansion Tank		
Traps		

Required Building Elements	Abbreviation	Notes\Additional Requirements
Shock Absorbers		
Vacuum Breakers		
Wall Hydrants, Roof Hydrants and hose bibbs		
Gas Solenoid Valves		
Interior Grease Interceptors		
Backflow Preventers		
Gas Fired Hot Water Heating System		
Emergency Shower Electric Hot Water System		
Gas Hot Water Heating System		
Domestic Water Tempering System		
Emergency Shower Water Tempering Valve		
Hot Water Circulators		
Recycled Water System		
Exterior Grease Interceptor		
Compressed Air Systems		
Emergency Shower System Solenoid Valve/Time Clock		
Industrial Waste Holding Tank		
Recycled Water System Back-up Pump		
Vacuum System Pump		
Sanitary Lift Station		
Water Heater - Booster		
Water Heater - Indirect		
Water Heater - Instantaneous		
Water Filter		

DATA REQUIREMENTS FOR ALL ELEMENTS

NOTE TO DESIGN TEAM: What does Owner require? Remove if N/A, as below is a suggested typical FM requirement.

The following information is required for each piece of equipment that needs to be maintained.

Item	Description	Required in Model
BIM Identifier	Unique Revit ID	Yes (auto generated)
Asset Tag	Unique Identifier in CAFM System - Assigned upon insert into CAFM	No
Classification\System Type	HVAC, Plumbing, Electrical, Safety, Food Service	Yes
Item Description	Air Compressor, Condenser, Backflow Preventer, CUH, etc.	Yes
RFID or Bar Code		No
Manufacturer		Yes
Model		Yes
Serial Number		Yes
Installation Year		NO
Install Location (Building-Level-Room)	(pulled from Arch room or MEP space?)	Yes
O&M Manual	PDF link or website URL to manual	NO
Warranty Information		NO
Sub-Contractor	Contact information for provider\installer	NO

ASSET TAG FORMAT

Item Abbreviation-Floor-Number

REVIT SPECIFIC REQUIREMENTS

LANGUAGE

If a different language is being used to develop the model, please notify Architect to keep record for Owner. If a different language is being used, it is highly recommended to use the Revit language pack; Spanish, French, etc. and not use the English version and type in Spanish/French. Determine the best method of translation and document standard language.

WORKSHARED VS. NON-WORKSHARED FILES

Files do not have to be set up as workshared. (i.e., Central files do not have to be created.) Each consultant is free to decide if they want to set up the project to allow more than one person to work on it at a time. If consultant decides to use work-shared files they should follow workset naming conventions outlined here.

WORKSETS

- ➔ LINK-CAD – All Linked or imported CAD files.
- ➔ LINK-REVIT – Can be separated by file type if needed; LINK-REVIT-ST

00-Shared Levels and Grids

00-Reference Planes & Scope Boxes - (Optional)

01-Civil

02-Structure – All building structure including structural walls, footings and foundations, columns, beams, braces, and structural floors

03-Architecture – All Architectural and Interiors – (combination of Core\Shell and Fit Out)

- ➔ 03.1 - Arch Existing
- ➔ 03.2 - Arch Structure – Structural walls, footings, foundations, columns, beams, braces and structural floors.
- ➔ 03.3 - Arch Core Shell – All building enclosure and building core elements. Includes exterior walls, doors and windows. Includes any multi-story walls around stairs, elevators or shafts. Includes doors\openings in core.
- ➔ 03.4 - Arch Fit Out (Interiors)– All non-structural, non-Core\Shell elements including walls (partitions), doors, windows, openings, ceilings, light fixtures, plumbing fixtures, power\tel data, furniture and equipment
- ➔ 03.5 – Additional as needed (i.e. finish floors)

04-Mechanical

- ➔ 04.1-Existing Mechanical
- ➔ 04.2-Ductwork & Equipment
- ➔ 04.3-Mechanical Piping

05-Electrical

- ➔ 05.1-Existing Electrical
- ➔ 05.2-Lighting

- 05.3-Power
- 05.4-Communications

06-Plumbing

- 06.1-Existing Plumbing
- 06.2-Sanitary & Vent
- 06.3-Piping
- 06.4-Gases

07-Fire Protection

- 08-Others as needed

ORIGIN POINT/SITE COORDINATION

NOTE FOR USER: (If site coordinates are not to be used, Revit shared project base point and survey point are to be located at a common building grid intersection)

A Revit project has an internal coordinate system for all the elements that make up the model in a project. Those coordinates are only known to this project. This is acceptable if you have a standalone model whose position is not relevant to other models or to a site. However, if you want the position of the model to be known to other linked models, you need to enable share coordinates.

Shared coordinates are used for remembering the mutual positions of multiple interlinked files. Those interlinked files can be all Revit files or a combination of Revit, DWG, and DXF files. Prior to delivery of architectural model to Engineers the Architect will establish both the Site and Project Origin points. Engineers should link the architectural model into their Revit project file using “Origin to Origin” placement option, and then acquire the shared coordinates from the architectural model.

The site survey DWG drawing has been linked into the Revit model and coordinates have been specified to align the model with the OS Grid of the linked survey DWG file. This results in the Revit internal coordinated aligning with the World Coordinate System (WCS) of the selected DWG file. The shared coordinate system of the host Revit project file can then be published to all the linked Revit models ensuring all the models maintain the same coordinate system.

It should be noted the Y axis (Easting of the OS) of the linked DWG becomes True North. The typical project views will be set to Project North. There is an angle difference between True North and Project North, so Project Views will have to be rotated from True North to Project North. This will allow all views to placed square onto any drawing sheets.

When exporting to the Site view to DWG ensure the following; make sure you are in a Site view to export to DWG, also set the coordinate system to “shared coordinates” for the view. This will export the DWG into the World Coordinate System (WCS).

1. The key Northing and Easting Setting out points are:

(image from the model to be inserted)

NOTE FOR USER: (to be filled out with actual project information)

NOTE FOR USER: Grid A/1 Intersection **XXXXXXXXXXm N, XXXXXXXXXXm E**

2. Revit Origin Point:

(image from the model to be inserted)

NOTE FOR USER: (to be filled out with actual project information)

NOTE FOR USER: Survey Point Location: **XXXXXXXXXX**

NOTE FOR USER: Project Base Point Location: **XXXXXXXXXX**

NOTE FOR USER: True North: **XXXXXXXXXX**

To facilitate a smooth coordinated transfer of model data, an icon will be established in all the disciplines various models at the building project location intersection Grid X/X. As the shared location will be common to all, it will ensure effective model coordination as it will be visible to all. It will also help when models are transferred in to Navisworks as this icon will help with the alignment of all the various models who may have different local coordinate systems.

PHASES

The project will contain the following phases:

- ➔ Existing Conditions
- ➔ New Construction

DESIGN OPTIONS

NOTE FOR USER: (Design Team to indicate all Design Options for ease of sharing information / views)

Design options allow teams to explore multiple options within the context of a single project. Design options are permitted but once a decision has been finalized the alternate options should be purged from the project and the primary option merged back into the main model. If design options are still active at time of file transfer only the primary option will be considered unless specified otherwise.

VIEW NAMING CONVENTIONS

Whenever possible, the view name should double as the Title on the Sheet. Initially the name of the floor level lines match the default floor and ceiling plan views, so if you rename a plan take care to not rename the level line.

CONSULTANT BACKGROUND VIEWS

Arch team will set up\maintain views for export to AutoCAD showing both plan and ceiling elements. When importing AutoCAD into Revit, all files are to be linked and not imported.

LIBRARY MANAGEMENT\REVIT FAMILY SHARING

Consultants will not be sharing Revit families.

NOTE FOR USER: Family Library Sharing – A central location will be maintained to share families….

PROJECT PARAMETERS

Each consultant will maintain a shared parameter file of their own for the project which will be shared with the team as required during the project.

GRAPHIC CONVENTIONS

Unless otherwise contracted, (firm name) is to use (firm name) graphic conventions for text/dimensions, tags, grids, levels, callouts, etc.

DRAWING\SHEET LIST

A schedule of sheets will be produced by the architectural team. In order to organize\sort the drawing list custom parameters are required. Each team will be responsible for ensuring each sheet uses the appropriate sorting parameters.

NOTE FOR USER: Sheet numbering system is to follow (standard naming convention, Avanti system…)

NOTE FOR USER: Numbering system as :

NOTE FOR USER: Discipline Identification as:

NOTE FOR USER: Drawing Categories as:

Sheet numbering example : XXXXXXXXXXX

Supplemental Drawings Numbers shall be built from the basic numbering system strategy.

Sketches issued to supplement milestone documents may be tracked separately and do not need to follow the above mentioned strategy. However, sketches are to be named by discipline of origin and follow sequential numbers such as SK A401.

Revisions to milestones are intended to be part of the original file, with the date saved indicating the new version of the file.

REVIT CATEGORIES

While it is possible to model building geometry with a tool which was designed for a different building category, it is not permitted without consensus from the BIM team. (For example, it's possible to model a railing with a curtain wall.) All objects are expected to be modeled in the

appropriate corresponding Revit category. If no appropriate category is appropriate for the geometry use the “generic models” category.

REVIT FAMILIES AND HOSTING

As a general rule of thumb, hosted families are to be avoided because deleting a host will delete hosted elements without notification, and non-hosted elements are easier to incorporate into groups. Whenever developing custom content consider developing them as either “unhosted” or as “face-based”. Hosted families are unavoidable when the item to be placed needs to cut an opening through another object (for example: doors, windows, recessed light fixtures).

USAGE OF IN-PLACE MODEL FAMILIES

In-place models are intended for “custom one-off” situations in a building. If a family occurs at more than one location in a building it should be developed as a loadable component family. The exception to that is for any “system” family.

LINKED FILE USAGE

Revit Links – to ensure that all files line up in 3D space each file will be linked in using “shared” coordinates. Each linked file should be placed on its own workset.

CAD Links – generally, all cad files should be inserted “into current view” only. CAD Links should be placed on their own workset.

REVIT WARNINGS

Revit is constantly monitoring warnings against model changes. Any model change which addresses a warning will automatically clear\resolve the warning. A long list of warning messages will slow down computer performance for everyone on the team. Each team is responsible for monitoring and minimizing the number of warnings in the project.

USAGE OF GROUPS

Revit groups allow you to collect multiple elements for easy moving and updating. Generally, it is preferred to collect multiple objects together in families.

When groups are no longer changing in the design, groups should be exploded.

Hosted families in a group will not be permitted.

END OF DOCUMENT