Project Ruilding Information Modeling Protocol Form

PROJEC	T: (Name ar	nd address)	DISTRIBUTION	ON TO:	
PROTOC DATE: PREPAR		N NUMBER:			
TABLE OF	ARTICLES				This document is intended to be
1 (GENERAL PI	ROVISIONS			used in conjunction with a Project specific AIA Document E203™–
2 L	EVEL OF D	EVELOPMENT			2013, Building Information Modeling and Digital Data
3 N	NODEL ELEI	MENTS			Exhibit, which the Parties will incorporate into their agreement
ARTICLE '	1 GENERAI	L PROVISIONS			for the Project, and a Project specific AIA Document G201 [™] –
§ 1.1 For 6	each Project	Participant that has in	corporated the Project	specific AIA Document	2013, Project Digital Data
E203 TM -2			ing and Digital Data P		Protocol Form.
				he contact information	
			on of the Modeling pro		N 11
				ned to each individual.	Modeling protocols, list each
marvidua	separately	and describe the uniqu	ic Modeling Kole assig	ned to each murvidual.	
			Individual		
Modeling	Role	Project Participant	Responsible	Contact Information	

Modeling Role	Project Participant	Individual Responsible	Contact Information

§ 1.2 This document establishes the Modeling protocols for the Project. For purposes of these protocols, the Model is comprised of the following information and other data sets:

(Indicate disciplines, separate models, and other data that will be included within the Model and governed by the Modeling protocols.)

- § 1.3 Collaboration Protocols. The Project Participants' protocols for the collaborative utilization of the Model, if any, including communications protocols, a collaboration meeting schedule and colocation requirements, are as follows:
- § 1.4 Technical Requirements. The technical requirements relating to the utilization of Building Information Modeling, including specific software and hardware requirements are as follows:
- § 1.5 Training and Support. The parameters for any training or support program(s) that will be implemented with respect to any collaboration strategy or technical requirements are set forth below:

§ 1.6 Model Standard. The Model shall be developed in accordance with the following Model Standard, if any:

§ 1.7 Model Management Protocols and Processes.

		Applicability to Project (Applicable or	Location of Detailed Description (Section 1.8 below or in an attachment to this exhibit
Model Ma	nagement Protocols and Processes	Not Applicable)	identified below)
§ 1.7.1	Model origin point, coordinate system, precision, file formats and units		
§ 1.7.2	Model file storage location(s)		
§ 1.7.3	Processes for transferring and accessing Model files		
§ 1.7.4	Naming conventions		
§ 1.7.5	Processes for aggregating Model files from varying software platforms		
§ 1.7.6	Model access rights		
§ 1.7.7	Design coordination and clash detection procedures.		
§ 1.7.8	Model security requirements		

§ 1.8 Insert a description of each Model management protocol and process identified in Section 1.7, if not further described in an exhibit attached to this document:

§ 1.9 Terms in this document shall have the same meaning as those in AIA Document E203–2013.

ARTICLE 2 LEVEL OF DEVELOPMENT

§ 2.1 The Level of Development (LOD) descriptions, included in Section 2.2 through Section 2.6 below, identify the specific minimum content requirements and associated Authorized Uses for each Model Element at five progressively detailed levels of completeness. The Parties shall utilize the five LOD descriptions in completing the Model Element Table at Section 3.3.

§ 2.2 LOD 100

§ 2.2.1 Model Element Content Requirements. 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.

§ 2.2.2 Authorized Uses

- § 2.2.2.1 Analysis. The Model Element may be analyzed based on volume, area and orientation by application of generalized performance criteria assigned to other Model Elements.
- § 2.2.2.2 Cost Estimating. The Model Element may be used to develop a cost estimate based on current area, volume or similar conceptual estimating techniques (e.g., square feet of floor area, condominium unit, hospital bed, etc.).
- § 2.2.2.3 Schedule. The Model Element may be used for Project phasing and determination of overall Project duration.
- § 2.2.2.4 Other Authorized Uses. Additional Authorized Uses of the Model Element developed to LOD 100, if any, are as follows:

§ 2.3 LOD 200

§ 2.3.1 Model Element Content Requirements. 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.

§ 2.3.2 Authorized Uses

- § 2.3.2.1 Analysis. The Model Element may be analyzed for performance of selected systems by application of generalized performance criteria assigned to the representative Model Elements.
- § 2.3.2.2 Cost Estimating. The Model Element may be used to develop cost estimates based on the approximate data provided and quantitative estimating techniques (e.g., volume and quantity of elements or type of system selected).
- § 2.3.2.3 Schedule. The Model Element may be used to show ordered, time-scaled appearance of major elements and systems.
- § 2.3.2.4 Coordination. The Model Element may be used for general coordination with other Model Elements in terms of its size, location and clearance to other Model Elements.
- § 2.3.2.5 Other Authorized Uses. Additional Authorized Uses of the Model Element developed to LOD 200, if any, are as follows:

§ 2.4 LOD 300

§ 2.4.1 Model Element Content Requirements. 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.

§ 2.4.2 Authorized Uses

- § 2.4.2.1 Analysis. The Model Element may be analyzed for performance of selected systems by application of specific performance criteria assigned to the representative Model Element.
- § 2.4.2.2 Cost Estimating. The Model Element may be used to develop cost estimates suitable for procurement based on the specific data provided.
- § 2.4.2.3 Schedule. The Model Element may be used to show ordered, time-scaled appearance of detailed elements and systems.
- § 2.4.2.4 Coordination. The Model Element may be used for specific coordination with other Model Elements in terms of its size, location and clearance to other Model Elements including general operation issues.
- § 2.4.2.5 Other Authorized Uses. Additional Authorized Uses of the Model Element developed to LOD 300, if any, are as follows:

§ 2.5 LOD 400

§ 2.5.1 Model Element Content Requirements. 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.

§ 2.5.2 Authorized Uses

- § 2.5.2.1 Analysis. The Model Element may be analyzed for performance of systems by application of actual performance criteria assigned to the Model Element.
- § 2.5.2.2 Cost Estimating. Costs are based on the actual cost of the Model Element at buyout.
- § 2.5.2.3 Schedule. The Model may be used to show ordered, time-scaled appearance of detailed specific elements and systems including construction means and methods.
- § 2.5.2.4 Coordination. The Model Element may be used for coordination with other Model Elements in terms of its size, location and clearance to other Model Elements, including fabrication, installation and detailed operation issues.

§ 2.5.2.5 Other Authorized Uses. Additional Authorized Uses of the Model Element developed to LOD 400, if any, are as follows:

§ 2.6 LOD 500

§ 2.6.1 Model Element Content Requirements. 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.

§ 2.6.2 Authorized Uses. Specific Authorized Uses of the Model Element developed to LOD 500, if any, are as follows:

ARTICLE 3 MODEL ELEMENTS

§ 3.1 Reliance on Model Elements

§ 3.1.1 At any particular Project milestone, a Project Participant may rely on the accuracy and completeness of a Model Element only to the extent consistent with the minimum data required for the Model Element's LOD for that Project milestone as identified below in the Model Element Table, even if the content of a specific Model Element includes data that exceeds the minimum data required for the identified LOD.

§ 3.1.2 Coordination and Model Refinement

Where conflicts are found in the Model, regardless of the phase of the Project or LOD, the Project Participant that identifies the conflict shall promptly notify the Model Element Authors and the Project Participant identified in AIA Document E203–2013 Section 4.8 as being responsible for Model management. Upon such notification, the Model Element Author(s) shall act promptly to evaluate, mitigate and resolve the conflict in accordance with the processes established in Section 1.7.7, if applicable.



§ 3.2 Table Instructions

§ 3.2.1 The Model Element table in Section 3.3 indicates the LOD to which each Model Element shall be developed at each identified Project milestone and the Model Element Author.

§ 3.2.2 Abbreviations for each Model Element Author to be used in the Model Element Table are as follows: (*Provide abbreviations, such as "A—Architect," or "C—Contractor."*)

Abbreviation

Model Element Author (MEA)

§ 3.3 Model Element Table Identify (1) the LOD required for each Model Element at each Project milestone, (2) the Model Element Author (MEA), and (3) references to any applicable notes found in Section 3.4. Insert abbreviations for each MEA identified in the table below, such as "A—Architect," or "C—Contractor."						Project Milestone 1			Project Milestone 2			Project Milestone 3			Project Milestone 4			Project Milestone 5			Project Milestone 6		Notes
Model Elements utilizing Uniformat™					LOD	MEA	Notes																
A SUBSTRUCTURE A10 Foundations A1010 Standard Foundations											_												
				Special Foundations																			
			A1030	Slab on Grade																			
	A20	Basement Construction	A2010	Basement Excavation																			
		Construction	A2020	Basement Walls																			
B SHELL	B10	Superstructure	B1010	Floor Construction																			
	P20		B1020	Roof Construction																			
	B20	Exterior Enclosure	B2010	Exterior Walls																			
	4	Eliciosure	B2020	Exterior Windows																			
	_		B2030	Exterior Doors																			
	B30	Roofing	B3010	Roof Coverings																			
			B3020	Roof Openings																			
C INTERIORS	C10	Interior Construction	C1010	Partitions																			
		Construction	C1020	Interior Doors																		-	
			C1030	Fittings																			
	C20 Stairs		C2010	Stair Construction																			
			C2020	Stair Finishes																			
	C30	Interior Finishes	C3010	Wall Finishes																			
	Finishes	C3020	Floor Finishes																				
	C3030			Ceiling Finishes																		$oxed{oxed}$	

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Model Elements utili	zing Uniformat TM			LOD	MEA	Notes	LOD	MEA	Notes	LOD	MEA	Notes										
D SERVICES	D10 Conveying	D1010	Elevators & Lifts																			
		D1020	Escalators & Moving Walks										Ì									
		D1030	Other Conveying Systems																			
	D20 Plumbing	D2010	Plumbing Fixtures												$\overline{}$							
	D20 Trumonig		Domestic Water										7		_							
		D2020 D2030	Distribution Sanitary Waste						· ·													
		D2030	Rain Water Drainage							1												
			Other Plumbing																			
	D20 INVAC	D2090	Systems																			
	D30 HVAC	D3010	Energy Supply Heat Generating																			
		D3020	Systems Cooling Generating							-												
		D3030	Systems																			
		D3040	Distribution Systems Terminal & Package				·															
		D3050	Units																			
		D3060	Controls & Instrumentation																			
		D3070	Systems Testing & Balancing																			
		D3090	Other HVAC Systems & Equipment																			
	D40 Fire Protection		Sprinklers																			
		D4020	Standpipes																			
		D4030	Fire Protection Specialties																			
			Other Fire Protection																			
		D4090	Systems Electrical Service																			
	D50 Electrical	D5010	& Distribution Lighting and Branch																			
		D5020	Wiring																			
		D5030	Communications & Security																			
		D5090	Other Electrical Systems																			
E EQUIPMENT	E10 Equipment	E1010	Commercial Equipment																			

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Model Elements utilizing Uniformat TM					LOD	MEA	Notes																
& FURNISHINGS	& FURNISHINGS E1020 Institutional Equipmen			Institutional Equipment																			
			E1030	Vehicular Equipment																			
			E1090	Other Equipment																			
	E20	Furnishings	E2010	Fixed Furnishings																			
		_	E2020	Movable Furnishings																			
F SPECIAL CONSTRUCTION	F10	Special	F1010	Special Structures																			
& DEMO		Construction	F1020	Integrated Construction																			
			F1030	Special Construction Systems																			
			F1040	Special Facilities																			
	-	F1050	Special Controls & Instrumentation																				
	F20	Selective Bldg	F2010	Building Elements Demolition	<																		
		Demo	F2020	Hazardous Components Abatement																			
G BUILDING	G10	Site	G1010	Site Clearing																			
SITEWORK		Preparation	G1020	Site Demolition & Relocations																			
			G1030	Site Earthwork																			
			G1040	Hazardous Waste Remediation																			
	G20	Site	G2010	Roadways																			
		Improvements	G2020	Parking Lots																			
			G2030	Pedestrian Paving																			
			G2040	Site Development																			
			G2050	Landscaping																			
	G30	Site Civil/ Mech. Utilities	G3010	Water Supply & Distribution Systems																			
			G3020	Sanitary Sewer Systems																			
			G3030	Storm Sewer Systems																			
			G3040	Heating Distribution																			
			G3050	Cooling Distribution																			
	_	G3060	Fuel Distribution																				

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Model Elements utilizing	Uniformat™			LOD	MEA	Notes																
		G3090	Other Civil Mechanical Utilities																			
	G40 Site Electrical	G4010	Electrical Distribution																			
	Utilities	G4020	Site Lighting																			
		G4030	Site Communications & Security																			
		G4090	Other Electrical Utilities																			
	G50 Other Site	G5010	Service Tunnels																			
	Construction	G5090	Other Site Systems & Equipment																			

§ 3.4 Model Element Table Notes

Notes:

(List by number shown on table.)