2025

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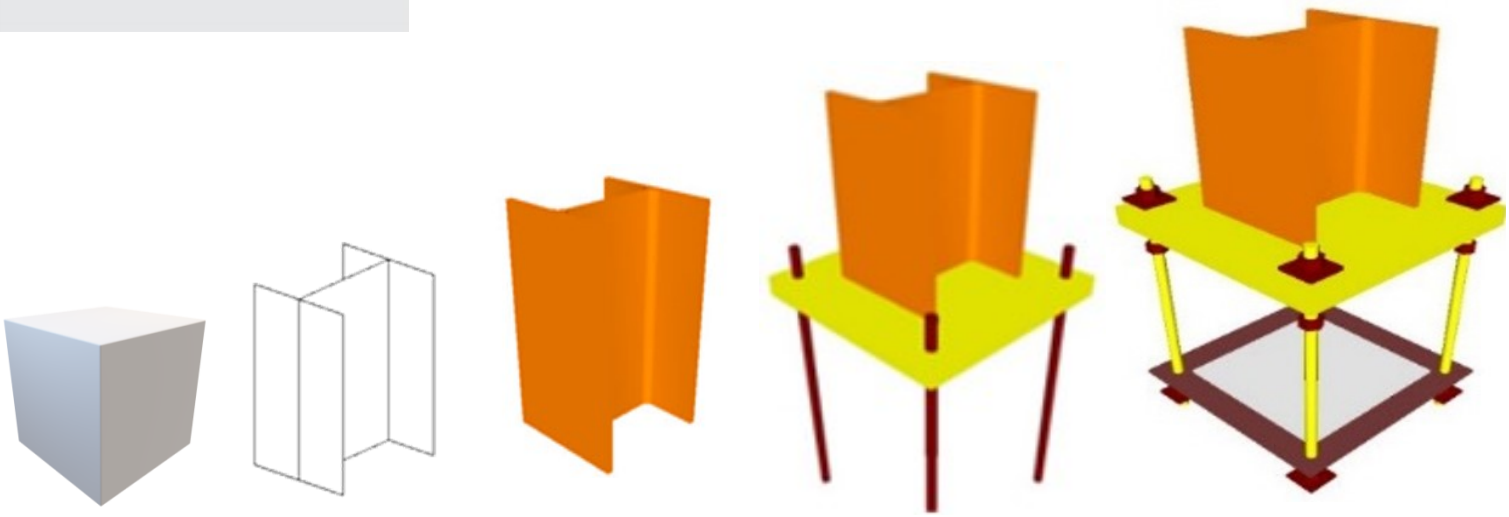
LOD SPECIFICATION

For Building Information Models and Data

2025 LOD Taskforce



100	200	250	300	350	400

		Project Milestons / Phases / Deliverables												
Building Systems	**Model Elements**		**SD**	**DD**		**50% CD**		**100% CD**	**Trade Cord.**			**Fab.**	**Operations**	
Structure														
Enclosures														
Interiors														
MEP Systems														
Civil / Site														

Schmantic Design (SD) | Design Development (DD) | Construction Documents (CD) | Trade Coordination (Trade Cord.) | Shop & Fabrication (Shop)

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2025

LOD Specification

For Building Information Models

December 2025

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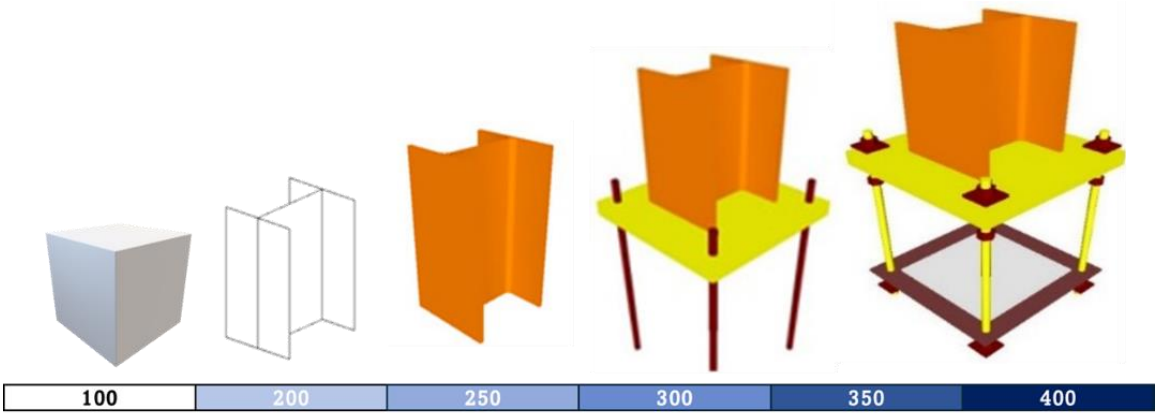

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1. EXECUTIVE SUMMARY

The BIMForum Global 2025 Level of Development (LOD) Specification (The Specification) is a reference standard intended to improve the clarity, consistency, and reliability of communication among Project Owners and their stakeholder teams who use Building Information Models (BIM) throughout the project lifecycle. It achieves this by defining the expected maturity of individual Model Elements (MEs), rather than entire models, and by clarifying the degree of reliance that may be placed on model geometry and associated information at various stages of development.

This specification defines LOD in terms of five distinguishing geometric characteristics of a Model Element: (1) Quantity, (2) Size, (3) Shape, (4) Location, and (5) Orientation. It recognizes that model geometry may appear precise without being accurate, and that effective BIM execution requires explicit communication of model reliability—not just visual detail. As such, the LOD framework is intended to support informed decision-making, coordinated workflows, and clearly defined model handoffs among project participants.

A significant addition in the 2025 edition is the introduction of **LOD 250**, an optional, intermediate level of development that formally addresses the long-standing gap between ***LOD 200 (Approximate Geometry)*** and ***LOD 300 (Accurate Geometry).*** LOD 250 establishes a predictable level of model reliability by introducing bounded approximation through explicitly defined tolerances. This allows teams to communicate when Mes are more reliable than conceptual placeholders, without implying full design resolution or fabrication intent. LOD 250 is particularly applicable to early coordination, model-informed decision-making, and reality-capture–based modeling where full validation of internal assemblies may not be possible.

In addition to the introduction of LOD 250, the 2025 edition expands and refines several technical content areas to reflect evolving industry practices and project delivery methods. Notable updates include a new ***Tilt-up Wall Concrete Construction*** section that clarifies model progression for panelized concrete systems, updated ***Cold Formed Metal Framing (CFMF) for critical elements only*** content at LOD 350 that better reflects coordination and constructability expectations, and a new ***Video Surveillance and Security Camera Systems*** section addressing the growing use of BIM for spatial planning, coverage validation, and coordination of technology infrastructure. The specification also introduces expanded ***modular and prefabricated design elements***, including applications such as but not limited to ***shipping containers***, recognizing their increasing use across building, industrial, and site-based projects. The LOD of ***Concrete Repair Applications*** have also been expanded. These additions reinforce the specification's goal of providing clear, element-specific definitions that align model reliability with contemporary construction methods.

The BIMForum Global LOD Specification is intended to be compatible with both Level of Development and Level of Detail frameworks commonly used in industry. Because multiple LOD definition sets remain in active use, Project Owners and their teams are responsible for clearly identifying the controlling LOD definitions in their contracts and in the BIM section of the Project Execution Plan (PEP). This specification is structured to allow project-specific amendments, provided such modifications are explicitly documented.

The LOD Specification does not prescribe when specific LODs must be achieved, nor does it define project phases, scopes of work, or Model Element Authors. Instead, it serves as a shared reference dictionary that project teams use to author their own BIM processes, contractual requirements, and model progression strategies within the PEP. When used appropriately, the specification reduces misinterpretation at model handoffs, improves predictability of effort, and supports clearer allocation of responsibility and risk.

This document builds upon more than a decade of industry research, practice, and graphical development contributed by multidisciplinary authors and organizations. It expands prior LOD specifications by providing consistent, element-based graphical examples organized to reflect how BIM is used in practice. The BIMForum Global 2025 LOD Specification is made available free of charge to encourage broad adoption, continual refinement, and international collaboration in advancing reliable, model-based workflows.

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3. BIMForum LOD Specification Section Table

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4. Introduction

4.1 Background on BIMForum Global's New LOD Specification

Ascend Building Knowledge Foundation (Ascend) was formed in 2017 and was recognized as a 501c3 non-profit organization the following year. The Associated General Contractors of America (AGC) published some of the earlier United States (US) based BIMForum LOD Specifications (AGC BIMForum) that the principal investigators of this document had collaborated with and chaired sections of its LOD specification from 2012 till AGC ended financial support and divested AGC from the original AGC BIMForum in 2019. In the fall of that same year, Ascend assisted with the formation of a newly incorporated Philadelphia, PA based BIMForum (BIMForum-PA) by providing graphics support and staffing of booths at conferences such as the Design Build Institute of America (DBIA) conferences in 2019 and online events following the Covid-19 pandemic. Ascend also assisted in some of the graphics in the BIMForum-PA LOD Specifications of 2020 and 2021. During this time frame, Ascend and its board members assisted other BIMForums and similarly aligned BIM groups in Latin America in Spanish as well as part of its global initiatives.

Furthermore, in 2022, the American Concrete Institute (ACI) published a ACI PRC-131.3-22, TechNote "***BIM Level of Development for CIP Concrete—TechNote***" (ACI BIM LOD 22). This document referenced the US Architectural LOD 2013 definitions, while also including LOD 350 from the AGC BIMForum 2013 definitions created by the PIs of this specification. The ACI 2022 LOD definitions also added some new language and interpretation of LOD for concrete that are not fully synchronized with any of the US Architectural, AGC BIMForum or BIMForum-PA LOD definitions. The new 2022 US Architectural LOD definitions came out within months of the ACI BIM LOD 22 TechNote being published, and while the ACI TechNote LOD Definitions differ, it does have some useful information for teams to consider, particularly the seven sub-categories of concrete discussed in a later section of this introduction.

The board of Ascend recognized from assisting these previous BIMForums, that there was a need for a unified approach to the LOD Specification that also considers and recognized development such as ACI's 2022 LOD Definitions. This approach would also simplify the use of the document. This led to the formation of BIMForum Global and VDCForum whose goal in LOD is to expand the work of the original creators of the various sections of the national 2013 LOD Specification while recognizing industry organization's work such as ACI's 2022 LOD contributions. Additionally, BIMForum Global's goals include engaging all who are willing to participate from other BIMForums in the US and globally, as well as other similarly aligned BIM organizations and committees. All contributors who participate in the BIMFourm Global LOD Specification with their own content creators and authors will be cited and recognized for their contributions.

The graphics creators and section authors of many of the sections of previous national LOD Specifications from 2013-2021 have granted permission of the work they owned to be used in the development of this new BIMForum Global LOD version.

Because neither BIMForum-PA nor AGC provided a platform in 2022 for the contributors, graphic creators and/or authors of the prior LOD Specification sections to publish and recognize their content, BIMForum Global published the Version 2023 with the commenting period extended into 2024. Since the Spring of 2023, Ascend Building Knowledge Foundation has been gathering content from LOD section authors who are developing and expanding LOD work in areas such as, but not limited to, fundamental geometric elements, civil, site, landscape, roofing, and the documentation of all these systems with reality capture. Content from these and other sections will be gathered for comments during the public review period for consideration of incorporation into the BIMForum Global LOD Specification. These updates have been incorporated in this 2025 LOD Specification.

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4.2 LOD Specification Is a "Dictionary", Not 'The Story'

When considering this specification, consider the analogy of the dichotomy between a ***'dictionary'*** and a ***'story'*** that authors write. For context, the ten core elements of a *"story"* are: (1) Who, (2) What, (3) When, (4) Why, (5) Where, (6) How, (7) With What, (8) To What Degree / How Much, (9) Under What Rules, (10) With What Consequences. None of these core elements or other fine points of a ***'story'*** structure are addressed in a ***'dictionary'***, how ever a dictionary is invaluable in defining terms, meaning, context and proper usage of the words the authors use to write the story.

The BIMForum Global LOD Specification functions as this **dictionary**. It does not prescribe when specific Levels of Development must be achieved, nor does it define project phases, workflows, scopes of work, or responsibilities. Those decisions are intentionally left to the Project Owner and their teams and must be documented in the BIM section of the Project Execution Plan (PEP). In this sense, the Specification does not define "the story" of a project—it defines the vocabulary used to write it.

At its core, this LOD Specification establishes consistent, element-level definitions of Model Element (ME) maturity and reliability. It does not plan model progression or dictate BIM processes; rather, it enables project teams to apply these definitions in the BIM PEP to determine **who** develops Model Elements, **when** and **how** they are developed, and **for what purposes** throughout the project lifecycle.

When applied correctly, this LOD Specification reduces miscommunication at model handoffs by clarifying the expected reliability of Model Elements. It supports alignment of expectations related to scope, effort, schedule, and reliance while maintaining flexibility for project-specific delivery strategies. The Specification does not assign Model Element Authors (MEAs); MEA roles and responsibilities must be established contractually and documented in the BIM PEP.

4.3 Classification Systems

The Specification is organized to reflect how BIM is used in practice, with Model Elements presented in discrete, system-based sections to support direct reference in scopes of work and contractual exhibits. Cross-references to CSI Uniformat, Omniclass, Uniclass, and MasterFormat are provided to align with commonly used classification systems.

4.4 LOD 000-400 vs 500

In practice, a Building Information Model normally does not contain all Model Elements at the same LOD at a given time, unless the projects contracts state that a "LOD XXX Model" will be provided. It is only when a project contractual requires LOD to be applied to a whole model that all elements are required to be at the same LOD at handoff. This Specification does not recommend this practice of contractual application of LOD to an entire model to create the requirement of all elements in the model being at the same LOD. In normal practice, BIMs are composed of a mix of Model Elements at varying levels of development; therefore, in this Specification LOD applies to **individual Model Elements**, not to an overall model. The individual ME pages address LOD 000 through 400 specifically. LOD 000 was introduced in the first version of this Specification and is important because there are many elements a given MEA do not have in their scope to model and the LOD 000 provided a clear, concise and specific definition to document that an element is excluded from an MEA's scope. Because LOD 500 typically represents an as-built condition without additional geometric development beyond LOD 400, this Specification does not provide separate graphical representations for LOD 500.

4.5 Project Owners and Their Stakeholders

All Project Owner stakeholder team members—including designers, manufacturers, fabricators, constructors, and facility operators—should be familiar with the LOD definitions governing their projects. Careful attention should be paid to how these definitions are referenced in contracts and the BIM PEP, as LOD definitions directly affect scope, responsibility, and risk.

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5. LOD 250, NEW to BIMForum Global 2025 LOD Specification

5.1 LOD 250, for Early Model-Based Estimating, Scan-to-BIM, Coordination, and Decision-Making

5.1.1 Summary

As Building Information Modeling (BIM) continues to mature as a primary delivery platform for the Architecture, Engineering, Construction, and Owner (AECO) industry, the need for **clear, shared expectations of model reliability** has become increasingly critical. While the AIA Level of Development (LOD) framework is widely adopted, a persistent gap remains between **LOD 200 (Approximate Geometry)** without any limits on tolerance and **LOD 300 (Accurate Geometry)** that requires geometry to be specific. The industry needs a way to communicate in a consistent manner that some elements geometry is ***predicable*** within an agreed tolerance; enter **LOD 250 *(predicable within a tolerance).***

This gap frequently results in misaligned expectations, inconsistent coordination outcomes, and underutilization of BIM during early project phases. LOD 250 is introduced in the BIMForum Global LOD Specification (2025) as a **formalized intermediate level of development** that addresses this issue directly.

LOD 250 establishes a predictable, disciplined middle ground that supports early coordination and informed decision-making **without prematurely forcing full design resolution or fabrication-level commitments**. It introduces **bounded approximation**, distinguishing it clearly from the unbounded conceptual nature of LOD 200 (*approximate*), while stopping short of the *accuracy* required at LOD 300 (*specific*).

> **LOD 250:** *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces are **predictable** with other elements by being modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*

5.1.2 Conceptual Characteristics of LOD 250

LOD 250 model elements are:

1. Graphically represented with generalized but *intentional* geometry
2. Sized and located within explicitly defined tolerances
3. Identifiable as systems rather than conceptual placeholders
4. Supported by sufficient metadata for classification and coordination

LOD 250 Does *NOT* address:

1. Fabrication intent
2. Final clearances
3. Detailed trade coordination
4. Trade-specific detailing

5.1.3 Relationship to Existing LODs

LOD 250 acts as an optional bridge LOD for teams who choose to use it in their BIM sections of their PEPs, not a replacement, for other LODs. The table below helps clarify this point:

Table 1: Relationship of the new LOD 250 definition to other LODs.

LOD	PRIMARY PURPOSE	RELIABILITY OF ELEMENT INFORMATION
200	Conceptual planning	Approximate (unbounded)
250	**Early coordination of conceptual design intent constructability analysis, early decision support, early model-based estimating, reality capture scan-to-BIM applications.**	**Predictable within a set tolerance.**
300	Design coordination	Accurate

5.2 Context and Industry Need

The LOD framework intentionally describes **reliability, not detail**, and allows model elements to progress independently of one another. However, most industry implementations assume a large and abrupt transition between LOD 200 and LOD 300. While manageable for late-stage coordination, this transition has proven problematic for early system planning, early estimating, design side 4D modeling, reality capture scan-to-BIM projects, interdisciplinary early design intent coordination for constructability analysis, and owner decision-making.

In practice, many project teams already attempt to work in an informal "in-between" state—often undocumented, inconsistently defined, and poorly understood levels of LOD at model handoff at the end of design. Many recipients who are promised a BIM with elements at "LOD 300" may wonder *"if all the elements in this model are truly accurate to the full LOD 300 definition?"*. While other recipients of BIM who are promised only LOD 200 content may ask *"is not any of this model content accurate or useful?"*. LOD 250 addresses this reality with a **shared, enforceable definition** that remains consistent with the cardinal LOD schema (100–500), particularly LOD 200 and 300.

5.2.1 What LOD 250 Enables

LOD 250 model elements are suitable for:

1. Early interdisciplinary coordination and clash avoidance of design intent to validate that such design is in fact possible for the owner to build, even though *'the ways and means of construction'* are normally left to the owner's builder later after design is issued for construction.
2. Validation of system routing, zones, and spatial feasibility
3. Constructability-informed design discussions
4. Transparent communication of design intent and model reliability
5. Owner and stakeholder understanding of what is known versus still conceptual
6. Reality capture projects with scan-to-BIM where it is not possible to know the internal formation of building elements beyond the surface information and thus not possible to define such model element to LOD 300 even though the perimeter surface geometry can be defined within an set tolerance.

7. Early model-based estimating to communicate which element are specific in terms of quantity as well as geometry within a *predicable* set tolerance.

LOD 250 is **not** intended for fabrication, shop drawing production, or final trade-level coordination.

5.2.2 Addressing Common Industry Challenges

LOD 200 Limitations

LOD 200 elements are approximate by definition without any defined tolerances. While appropriate for high-level planning, they frequently fall short when teams attempt to use models for meaningful coordination or system planning.

LOD 300 Commitment Risk

Conversely, LOD 300 requires accurate geometry and coordinated placement. Stating that this level is achieve too early before it actually has been achieved can increase design effort, constrain flexibility, and create false confidence in model element validity and certainty.

Observed Industry Behaviors Without LOD 250

1. Informal and undocumented "partial LOD" conditions between LOD 200 and 300
2. Mislabeling of elements as LOD 300 despite not meeting all criteria
3. Overuse of LOD 200 classifications by designers to avoid liability even though many of their model elements are developed to a predictable level within a reasonable tolerance.
4. Reality capture with scan-to-BIM applications where elements are labeled as LOD 300 event though it is possible to know the specifics of the building element beyond its surface geometry.
5. Misaligned expectations at model handoff

LOD 250 resolves these issues by providing a **clear, standardized intermediate state**.

5.3 Potential Use Cases

5.3.1 Estimating & Scheduling

Early work in formal estimating and scheduling constructs in BIM began emerging in 2019 with the work of Brent Pilgrim with Beck and others.[1,2,3,4] These early constructs were developed specifically to address the industry's difficulty in using models for estimating across all levels of development. The work introduced the concept of **Model Quantity Origin**, recognizing that quantities can be derived from models even when elements are not fully defined.

The formal estimating constructs identified three quantity strategies:

- Model-Inferred
- Model-Informed

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[1] Brent Pilgrim, *Leveraging Lessons Learned To Find Success with 5D, Presentation by Brent Pilgrim with Beck*, *in* LEVERAGING LESSONS LEARNED TO FIND SUCCESS WITH 5D (2019).

[2] Brent Pilgrim, *Moving Toward a Model-Based Preconstruction Standard, Presentation by Brent Pilgrim with Beck at DBIA National*, *in* MOVING TOWARD A MODEL-BASED PRECONSTRUCTION STANDARD (2020).

[3] Brent Pilgrim, *Deconstructing 5D for the Advancement of Scalable Model-Based Practices, Presentation by Brent Pilgrim with Beck*, *in* DECONSTRUCTING 5D FOR THE ADVANCEMENT OF SCALABLE MODEL-BASED PRACTICES (2021).

[4] Brent Pilgrim, *Integrated Estimating Key Concepts, by Brent Pilgrim*, (2023).

- Model-Based

This framework can be enhanced by collaborative integrated teams that utilize the LOD 250 definition defined in this LOD Specification. The approach of LOD 250 is useful where geometry is sufficiently reliable to support *model-informed* estimating without requiring *model-based* precision.

5.3.1.1. Alignment with Model Quantity Origin

The estimating and scheduling constructs for integrated estimating make clear that estimating does not require all elements to be model-based quantities. Instead, it depends on predictable relationships between geometry and scope.[5]

LOD 250 is optimized for **Model-Informed Quantities**, where:

1. Geometry is reliable enough to support reliably consistent approximations of measurement
2. Quantities may still require adjustment factors
3. Assumptions are explicit and repeatable

5.3.1.2. Improved Estimate Quality Without Over-Modeling

At LOD 250:

1. Structural systems can be benchmarked for early coordination for constructability of design intent.
2. MEP systems can be quantified by zones and routing bands
3. Envelope systems can be priced by area and typology
4. Roof Top Units (RTU) and other MEP equipment can be estimate reliable from the model even though their location is still evolving.

This enables early estimates that are more consistent than estimates based on LOD 200 elements.

5.3.2 Scan-to-BIM and Existing Conditions

LOD 250 is particularly valuable for Scan-to-BIM workflows. In many existing-conditions projects, full validation of internal assemblies is not possible, even when geometry is well-defined. LOD 250 allows teams to represent elements with **known geometry and bounded tolerances** without overstating reliability as LOD 300. Where tighter tolerances are required, projects may specify modified LOD 250 tolerances consistent with related standards such as the VDCForum Level of Accuracy (LOA).

In existing as-built documentation, some teams request models with element at LOD 300 from laser scanning data (LiDAR). However, in some cases only one face of walls, ceilings, and column wraps are visible and accessible. It is technically not possible to state that such elements are modeled to LOD 300 when only one face of one side is known. Even when walls, for example, are laser scanned in a connected path around both sides, and the overall thickness of the wall is known, the teams can still not know the specific details of the wall system to validate they have modeled to LOD 300. Also, stating the walls are at LOD 200 for scan-to-BIM projects falls short of the purpose of having as-built models for detailed coordination. LOD 250 addresses this challenge when it is not possible to model the wall to LOD 300 because the internal core is unknown but the overall geometry for coordination is defined to +/- 2”. If teams need tighter tolerance on the scan-to-BIM work, they can simply

[5] *Id.*

state LOD 250 at a tolerance of +/- ½" for example. Refer to the VDCForum Level of Acceptance (LOA) Specification for additional information on this topic.

5.4 Value Proposition

5.4.1 Value Proposition for Owners

Owners increasingly seek early cost certainty, a coordinated design intent that is validated to be reasonably constructable, and design transparency in the true state of Model Elements that design team deliver to owners. LOD 250 supports this by allowing for:

- Improved transparency in model reliability
- Earlier validation of constructability and system intent
- Reduced late-stage surprises and scope growth
- BIM as a decision-support tool, not just documentation

From an owner's perspective, use of LOD 250 alongside the other LOD definitions enhances BIM's value as a **decision-support platform**, not just a documentation tool.

5.4.2 Value Proposition for Designers

For architects and engineers, LOD 250 allows for:

- Clear expectations for intermediate model maturity
- Reduced pressure to prematurely finalize systems
- A defensible milestone between LOD 200 and LOD 300
- Support for delegated design elements where final selections occur later

LOD 250 allows designers to deliver **intentional systems design** without assuming fabrication liability and responsibility.

5.4.3 Value Proposition for Constructors

Contractors benefit from LOD 250 through:

- Clear differentiation between bounded and unbounded model elements
- Improved early constructability insight
- Reduced downstream rework caused by ambiguous model intent

By aligning LOD 250 with Uniformat and Model Quantity Origin concepts, constructors can integrate BIM more directly into preconstruction workflows.

5.5 Risk Management and Contractual Considerations

To avoid misinterpretation, LOD 250 should be:

1. Explicitly defined in the BIM Execution Plan
2. Mapped to permitted and prohibited uses
3. Supported by discipline-specific LOD matrices
4. Validated through QA/QC processes

5.6 Implementation Strategy

Successful adoption of LOD 250 can include:

1. Development of a discipline-specific LOD 250 matrix
2. Alignment with Uniformat classification
3. Providing clear estimating use cases
4. QA/QC validation criteria

Pilot projects are recommended to refine tolerances and workflows prior to broader adoption.

5.7 Conclusion

LOD 250 addresses a long-standing gap in BIM implementation by formalizing a **predictable, intermediate level of model reliability** between LOD 200 and LOD 300. It clarifies intent, improves communication, and enables earlier, better-informed decision-making without increasing liability or modeling burden.

LOD 250 is not an additional requirement—it is a **clarification of reality**. When applied consistently, it enhances BIM's value across the project lifecycle and aligns model development with how teams actually work in 2025.

6. LOD 300, Coordination & The Matter of Matter

6.1 LOD 300

LOD 300 is defined as:

LOD 300: *The Model Element is modeled specifically within the project's tolerances for its system in terms of **ALL** of the following characteristics: quantity, size, shape, location, **AND** orientation.*

6.2 Coordination

In its simplest form, coordination for geometry is the process of confirming that Model Elements (ME); ie objects can exist juxtaposed to each other without conflicting. Coordination is predicated on a commonly defined coordinate system, (reference section *11, VDCForum Guide #01 Coordinates for VDC with BIM*).

6.3 The Matter of Matter

A Model Element (ME) is a construct of a virtual reality the represents a real-world condition (reality). The ME in its pure form represents a distinct object, matter'. The following table shows historic understands of 'matter' and specifically how two objects cannot occupy the same space. For context, this concept that two objects ('mater') cannot occupy the same space is well established; Aristotle (384–322 BCE) Impenetrability of bodies, René Descartes (1596–1650) Res extensa (matter as extension, cannot occupy the same space), John Locke (1632–1704) Solidity / impenetrability, Isaac Newton (1643–1727) Impenetrability of matter in absolute space, Gottfried Wilhelm Leibniz (1646–1716) Identity of indiscernibles. This relates to LOD 300, because by definition, two Model Elements (ME, objects) CAN NOT occupy the same space in BIM and both be considered to be ***accurate*** (i.e., LOD 300) in their (1) size, (2) shape, (3) location, (4) orientation and (5) quantity.

For example, the following is a limited, non-exhaustive list of conditions where Model Element Authors may present Model Elements claiming they are at LOD 300, where in reality, it is not possible for them to be at LOD 300. In all of these examples, the Model Element Authors could have avoided risk and confusion in model handoff if they had appropriately represented in their contracts, construction documents and BIM section of their PEP that one or more of these categories of elements where delivered at LOD 200 or 250.

1. **Ceilings & MEP-F Content:** If a ceiling model element authored by an architect is presented as LOD 300 and the MEP model elements are presented by an engineer as LOD 300, AND they are shown to clash, conflict, ie occupy the same space, then one or more of them *cannot* be LOD 300.
2. **Mechanical, Electrical, Plumbing and Fire Protection:** If Mechanical, Electrical, Plumbing and or Fire Protection model elements are presented to be ostensibly at LOD 300, and yet pass through each other, one or more of such elements *cannot* be LOD 300.
3. **Roof Systems, MEP and Structure**: If designers claim that the roof systems, MEP and structure model elements are at LOD 300 and the geometry between sloping roofs, roof drain location, roof top units (RTU), and sloping structure are not placed without conflicts, then one or more of such elements *cannot* be LOD 300.
4. **Foundations & Subgrade Plumbing and Electrical:** If designers claim that Foundations & Subgrade Plumbing and Electrical model elements are at LOD 300, and some of these element conflict with each other in space, then one or more of such elements *cannot* be LOD 300.
5. **Civil Subgrade Utilities, Site Surfaces and Building Elements**: If designers claim that such content is at LOD 300 but it is conflict, then one or more of such elements *cannot* be LOD 300.
6. **Grid Systems and Any elements referenced to them**: If a grid system approximate, i.e. is not accurate, then any object referenced by it *cannot* be said to be LOD 300.

7. LOD 350, Development, The Steel Column 2009-2012

The Principal Investigators (PIs) of this Specification published several articles and national conference presentations on the topic of model progression where they defined the LOD 350 definition from 2009 through 2012. This work led to their submitting this LOD 350 concept in 2012 to the AGC to be adopted in the first US national graphical LOD Specification in 2013. Because the steel examples in the original LOD 350 proposal are some of the most frequently referenced in online searches for LOD graphic examples, they are provided for context and background to the formation of the LOD 350 definition. It is noted that this steel column graphic developed by the PIs of this LOD is the same column found in almost all US national graphical LOD Specification to date since 2013 that include LOD 350 as well as some LOD Specification used in other countries.

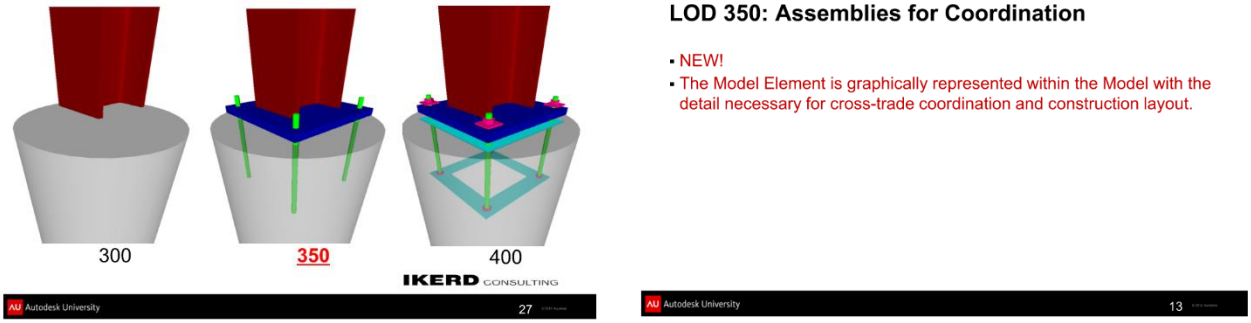

Figure 1: Published 2012 slides from national conference. This image was used to illustrate the author's concept of LOD 350 that was later presented to the AGC for adoption in the first US national graphical LOD specification.

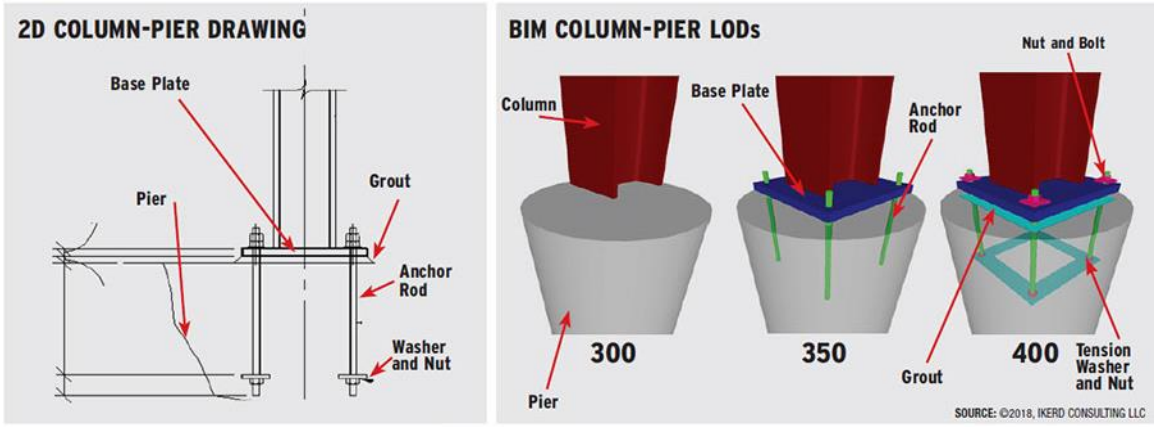

Figure 2: Image shown in ENR, Post, N, April 25, 2018 "At Structural Congress, a Call for Designers to Mitigate BIM-Project Risk." The image was used to delineate the distinction between LOD 300, 350, and 400 of a steel column, relative to the information shown in the example 2D typical detail that would be found in a project's Construction Documents (CD) issued for permit.

The LOD definitions (see section ***9, BIMForum Global LOD Definitions***) shown in section use the BIMForum Global (BFG) Ten (Recommended) 'Rules' for LOD (see section **8, BIMForum Global's Ten (Recommended) 'Rules' of LOD**) and The Steel Column example of this section to illustrate the BIMForum Global LOD Definition.

8. BIMForum Global's Ten (Recommended) 'Rules' of LOD

Regardless of the LOD definitions used in a project's BIM section of its Project Execution Plan (PEP), the BIMForum (BFG) Principal Investigators (PIs) of this LOD Specification have developed the following ten (recommended) 'rules' that LOD definitions 'should' follow. These are the 'ten commandments' that the PIs use to moderate and consider the discussion of proposed updates among contributors of this LOD Specification.

1) **LOD IS NOT FOR A WHOLE MODEL; IT ONLY APPLIES TO ELEMENTS IN A MODEL.**
There is no LOD of a whole model in this specification, and such application of LOD to a whole model would only occur if a team contractually committed to deliver a "model at a specified LOD". This Specification does not recommend teams create such contractual requirement by promising to deliver a "LOD XXX Model" in their contracts, construction documents or BIM sections of their PEP. If the intent is that Model Element Authors deliver a model with all elements for their scope at a given LOD, then team should state "The Model Element shall be at LOD XXX" and never refer to LOD to be applied incorrectly to a whole model itself. A model is a collection of Model Elements (MEs) at different LODs in a given phase of the project. The only exception to this rule could be considered with an LOD 100 mass model of a building, for example where distinct MEs for building components can only be referred to by inference. However, even in this example, there will typically be a mass model of the site (Civil), the overall building (architect), and perhaps general structural system (structural) at LOD 100 in a federated model. In such cases, LOD 100 would apply to each of the mass models consisting of a single Model Element (ME).

2) **LOD ≠ PROJECT PHASE**
LOD does not match any given project phase. There will often be MEs at higher and lower LODs than the majority of MEs at a given project phase. If all elements were ALWAYS at a specific LOD for a given project phase, there would be no reason for the term LOD, team would just us the 'project phase' and LOD would be a needless redundancy. The reason this is not the case and LOD exists is because MEs are typically at varying levels for a given phase of the project (see 'BFG RULE #1' above).

3) **LOD 000 = NO MODELING IS SCOPED FOR A GIVEN CLASS OF ELEMENT.**
In the BIMForum Global LOD Specification, LOD 000 signifies that there is no Model Element (ME) requirement for the given class of element. It also signifies that there is not any scope for the element to be referenced by inference for the class of element from an overall LOD 100 mass model. *This level is important in contractual scoping of elements that are excluded from the Model Element Authors (MEAs) scope.*

4) **LOD 250 (Optional) for Early Conceptual Coordination, Scan-to-BIM & Estimating**
LOD 250 considers the concepts of Model Based Estimating (MBE) and Integrated Estimating (IE) workflows. It is a construct with a user defined tolerance for the key parameters of LOD, with (1) Quantity being specific and surfaces of the element for coordination being +/- 2" Unless Noted Otherwise (UNO) of its specified surfaces that interface with other elements, and encompasses the parameters of (2) Size, (3) Shape, (4) Location, (5) Orientation. A few key points of this definition are that (1) it is optional, (2) it allows designers the ability to communicate when an ME's information is more ***predictable*** within a set tolerance than a generic placeholder with a completely unbounded approximate location, and (3) supports Model-Based and Model-Informed estimating.

5) **LOD 350 is for Detailed Coordination Between Model Element Systems**
After elements are developed to their specific LOD 300 geometry, detailed coordination typically

must take place before the elements can be developed to full LOD 400 fabrication level. The principal investigators of this LOD Specification recognized early in the use of some of the 2008 LOD definitions that there was a critical step in the BIM process that warranted an intermediate LOD between 300 and 400. This work is documented in their publications and presentation leading up to their 2012 proposal for the LOD 350 definition to be adopted for the first time in a national LOD specification. The original steel column example that was used to form the construct of LOD 350 is provided in this specification further explain this LOD's role. (See section 7 LOD 350, Development, The Steel Column 2009-2012)

6) **A HIGHER LOD # IS NOT ALWAYS BETTER**
The best LOD for an object is the LOD that meets the current project requirements and usage. There is no value in modeling elements to a higher LOD if this additional effort does not provide a clearly defined purpose at the given time. For example, if a project is conducting typical trade coordination with Cold Formed Metal Framing (CFMF, metal studs) in walls, then LOD 350 Model Elements (MEs) that show the studs, but do not include the screw fasteners, is acceptable. In such a case, it could be considered a waste of time and money to model the system to LOD 400 full fabrication with screws for simply checking coordination around the framing, which was modeled at LOD 350. However, if the CFMF is a part of a 4D sequenced virtual mockup in an isolated area that is being used as part of a Building Enclosure Review Meeting, then LOD 400 may be the appropriate level for the metal studs. In these cases, the sequencing of when screws are being installed in relation to the water proofing membrane, for instance, can be critical. See below.

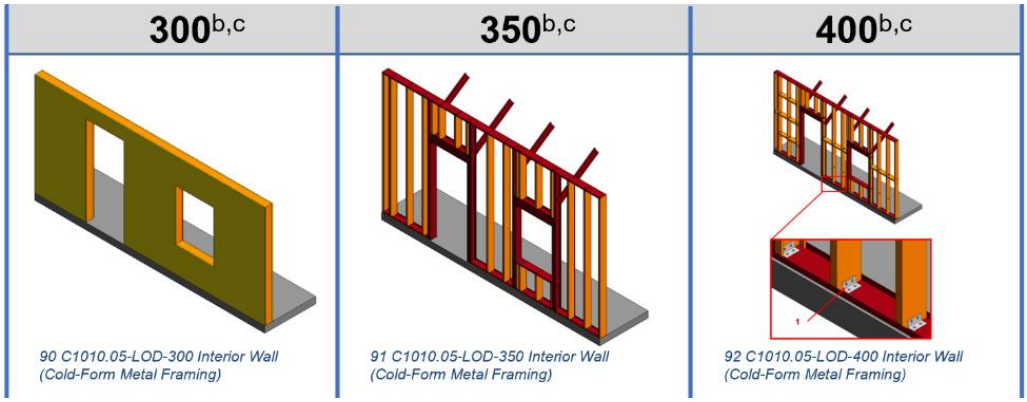

Figure 3:Sample images of Cold Formed Metal Framing (CFMF) from BIMForum Global specification. Note that at LOD 350 only studs are modeled, whereas connection fasteners are included at LOD 400.

6) **Model Element (ME) Information Requirements Must be Defined in the BIM PEP**
Associated Model Element Information is very specific for the given use case of a given BIM in a given project for a given Project Owner. Non-Graphic Information (NGI) may be associated with a Model Element (ME). If NGI has a different level of reliance than the ME LOD to which it is attached, then the Model Element Author (MEA) shall

7) **ME Must Meet 5 LOD-Distinguishing Geometric Characteristics for a Given LOD:**
Model Element Geometry is distinguished by 5 key characteristics, and if one of the 5 is less developed than the minimum requirement of a given LOD, the ME fails to meet that given LOD. For example, if a steel column is modeled 'specific' within the given tolerances for structural steel for size, shape, quantity, orientation, but is merely 'approximate' in its location, then that column does not meet the LOD 300 ('specific') criteria and is therefore considered to be at LOD 200 ('approximate'). For the steel column in

this example to meet the requirement of LOD 300, it must be modeled 'specifically' within the project specified tolerances for all 5 LOD Distinguishing Geometric Characteristics:

7.1. Quantity
7.2. Size
7.3. Shape
7.4. Location
7.5. Orientation

8) Tolerances of MEs are Defined by Reference of the Elements Material/Industry Standards
All tolerances in LOD definitions should defer to industry standards that are incorporated by reference in a given projects specifications except when LOD 250 is utilized. The nature of virtual 3D modeling is that all elements are precise even though they may not be accurate. buildings. Project Owners' teams should address such tolerance topics in the BIM section of the PEP.

9) Measurement of ME Accurately Within Tolerance is Only for LOD Beyond 200.
Because LOD 200 is approximate, only LOD higher than 200 can be measured directly from the model within the elements project specified tolerances. LOD 250 establishes a tolerance of +/- 2" Unless Noted Otherwise (UNO) for the perimeter surfaces of the element. For LOD 300 and higher, unless noted otherwise, the tolerances for a given element are defined by that industries fabrication, manufacturing, erection, and installation tolerances. All such tolerances should be clearly defined by reference in the project specification for each element material and incorporated by reference in the BIM section of the PEP. (See section **11**, ***VDCForum Guide #01 Coordinates for VDC with BIM***)

10) LOD 500 Model Elements Are Based on LOD 100~400 Geometry
The BIM section of the PEP should define if an LOD 500 element is documented with a reference by inference in LOD 100 overall mass model or defined with LOD 200, 250, 300, 350 or 400 Geometry. This is why the ability of measuring MEs directly from a model at LOD 500 will vary depending on the geometric basis of the LOD 500 object. For example, consider an existing basement wall inside a building that is modeled from as-built reality capture laser scan data on the interior side of the wall without any destructive testing to know the core of the wall or wall thickness. The models may have some historic drawings that indicate the design thickness of the wall, and the Model Element Author (MEA) may use this information to assume an 'approximate' thickness of the wall. As such, a wall's geometry could only be defined as LOD 200 (reference BFG LOD Rule #7). In this case, such a wall would be an LOD 500 wall with geometry to LOD 200, and only the inside face that was laser scanned could be measurable directly from the model. Alternately, the BIM Section of the PEP could also define the basement wall surface as an model element that is modeled with a surface mesh that is at LOD 250 where it would be modeled at +/- 2" from its measured point cloud data. Similarly, a reality capture of a slab on grade could be defined in the BIM section of the PEP as a surface mess at LOD 250 or LOD 300. The slab on grade itself could not be modeled to LOD 300 without destructive testing or some other means to know the complete system information that is not visible. The as-built nature of these examples after field varication would develop them to LOD 500 with geometry at LOD 200, 250, 300, etc.

In summary, a Model Element at LOD 500 does not have any higher level of geometry than an element at LOD 400. For this reason, the BIMForum LOD Specification does not show any additional graphics beyond LOD 400 for a given element.

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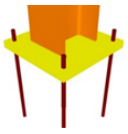
9. BIMForum Global LOD Definitions

The following are applications of the BIMForum Global Ten Fundamental LOD (Recommended) 'Rules' using the original steel column example. Non-Graphical Information is addressed in BFG LOD Rule #6 "**Model Element (ME) Information Requirements Must be Defined in the BIM PEP"**. Each project team should establish the LOD definitions used for a given project in the Contracts and BIM sections of its PEP. In the absence of such a definition, the following LOD definitions shall apply when this Specification is adopted by reference.

9.1 LOD 000-400 Definitions

LOD	Summary Concept	Element Accurately Measured from Model at given LOD & LOD 500	Sample Definition	Sample Image
000	**NO BIM**	**N/A**	No distinct Model Elements (MEs) exist, ***AND*** No inference can be made from an overall mass for these elements at this LOD in this system.	
100	**CONCEPTUAL / INFERRED**	**NO** (No Element Exists at this LOD)	No distinct model elements exist but inference about elements can be made from an overall mass at this LOD. The Model Element (ME) may be inferred or referenced in the model with a symbol or other generic representation, but the ME does not satisfy the requirements for LOD 200.	
200	**APPROXIMATE**	**NO** (ME only Approx.)	The Model Element (ME) is modeled **approximately** in terms of one or more of the following characteristics: quantity, size, shape, location, ***OR*** orientation.	
250	**PREDICTABLE within a set TOLERANCE**	**ONLY WITHIN A DEFINED TOLERANCE, +/- 2" (2.56 cm) UNO**	The Model Element (ME) is modeled approximately in terms of size, shape, location, ***and*** orientation. *The quantity of the ME is specific.* The ME perimeter surface and interfaces are ***predictable*** with other elements by being modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).	Same as LOD 200 within a set tollerance
300	**SPECIFIC**	**YES** within ME Project / System Tolerances	The Model Element is modeled **specifically** within the project's tolerances for its system in terms of ***ALL*** of the following characteristics: quantity, size, shape, location, ***AND*** orientation.	
350	**DETAILED COORDINATION**	**YES** within ME Project / System Tolerances	The Model Element (ME) is modeled specifically per LOD 300 ***AND*** **includes interfacing features** with adjacent and/or dependent model elements to facilitate detailed coordination between systems.	
400	**FABRICATE**	**YES** within ME Project / System Tolerances	The Model Element (ME) is modeled with details required for fabrication, manufacturing, assembly and installation.	

9.2 LOD 500 Notes

LOD 500 should be thought of as a special condition of LOD's 100, 200, 250, 300, 350 and 400. The AS-BUILT state of LOD 500 for a model element may be based on element geometry and detail any of the LOD's 100 through 400.

LOD	Summary Concept	Element Accurately Measured from Model at given LOD & LOD 500	Sample Definition	Sample Image
500	**AS-BUILT**	**VARIES** if geometry is LOD 100-250 vs 300~400	The Model Element (ME) is modeled in its as-built or existing state within the tolerances that are defined for the project. The ability to measure the object depends on which LOD its geometry is based on.	ME Geometry could be that of LOD 100, 200, 250, 300, 350 OR 400

10. VDCForum LOA: Level of Acceptance , Reality Capture, Scan-To-BIM & Digital Twins

The purpose of the VDCForum Level of Acceptance (LOA) Specification for Reality Capture and Simulation is to provide guidance for owners and their teams wishing to address reality capture of the built environment. Beginning in 2025, this LOA specification will be published under Ascend Building Knowledge Foundation's VDCForum which is collaboration with its other forum BIMForum Global, along with new guides that are developed after 2025. Topics and guides that go beyond BIM to address the Virtual Design and Construction (VDC) process will be published under VDCForum.

The VDCForum Reality Capture and Simulation Taskforce (ReCap/Sim Taskforce) was formed to address the emerging trend in the areas of reality capture and simulation. Reality capture includes laser scanning, among other forms of measurement, for as-built documentation. Common tools and equipment used for reality capture includes, but are not limited to laser scanners, robotic total station, and point layout tools. Additionally, simulation includes but is not limited to virtual reality, augmented reality, and other related forms of simulation. The related simulation of 4D and 5D are addressed by the ReCap/Sim Taskforce in collaboration with the VDCForum's Global Scheduling & Estimating Taskforce (4x5D Taskforce).

The ReCap/Sim Taskforce is dedicated to improving documentation of the built environment, which includes but is not limited to building, GIS, civil infrastructure, equipment, and industrial projects.

To learn more about the VDCForum's Reality Capture and Simulation Specification please visit our website at bimforum.global/reality/ or contact the Director of Research & Education at info@BIMForum.global.

11. VDCForum Guide #01 Coordinates for VDC with BIM

VDCForum Guide #01: Coordinates for VDC with BIM establishes a disciplined technical framework for defining, managing, and communicating coordinate systems in Virtual Design and Construction (VDC) using Building Information Modeling (BIM). Authored by the project's Principal Investigator, the guide introduces ***C.A.P.U.T.***—**C**oordinates, **A**ccuracy, **P**recision, **U**nits, and **T**olerances—as the foundational requirements for reliable spatial data and effective multidisciplinary coordination.

The guide's purpose is intentionally reinforced by the Latin word ***caput***, meaning *head, source, or principal point of reference*—the role a coordinate system plays in any BIM-enabled project. Coordinates govern all model element locations in VDC; without a unified and consistently applied CAPUT framework, spatial data becomes unstable. When CAPUT is ignored, BIM does not become caput—it becomes ***kaputt*** a word of German origin that means *broken, leading to misalignment, rework*, and loss of confidence in the model. In short: *C.A.P.U.T. so BIM does not go Kaputt*.

Drawing on over one hundred real-world case studies across complex project types—including airports, hospitals, data centers, infrastructure, industrial facilities, and campuses—the guide demonstrates that effective BIM coordination is impossible without clearly defined coordinate origins and shared spatial standards. Its core principle is succinctly stated as "Coordinates, then Coordination." Without a defined origin, modeled geometry remains approximate, undermining design intent, construction layout, and downstream fabrication.

The guide explains how multiple coordinate systems coexist on modern projects—object (model element), building, campus, surface (ground), state plane (grid), and GPS—and clarifies their purposes, relationships, and required transformations. Special emphasis is placed on managing internal model origins, floating-point precision limits, and best practices for modeling geometry near the origin to preserve accuracy and performance.

Key technical guidance includes:

1. Distinguishing accuracy versus precision and aligning both with construction tolerances
2. Managing units of measure, including U.S. Survey Feet versus International Feet
3. Coordinating grids, layout points, and curved geometry with sufficient linear and angular precision
4. Aligning coordinate definitions with LOD requirements so model elements can be considered reliable for location and orientation
5. Understanding tolerance variation across materials, systems, and interfaces

The guide also addresses the critical distinction between State Plane (grid) and Surface (ground) coordinates, including grid-to-ground correction factors, illustrating how small projection or elevation errors can accumulate into measurable construction discrepancies if not properly coordinated.

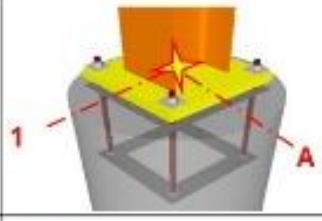
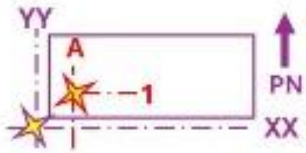
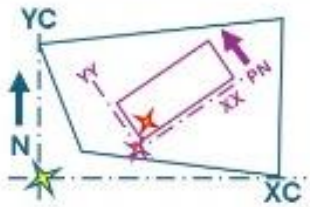
Overall, VDCForum Guide #01 serves as both a technical reference and governance framework for owners, designers, surveyors, builders, and VDC professionals. Its objective is to eliminate ambiguity, reduce

coordination risk, and establish a shared spatial language that connects BIM models to physical reality throughout the project lifecycle—from concept through construction and operations.

11.1 Coordinates Summary Table

VDCFORUM
VDCForum.org

COORDINATES 6 KEY SYSTEMS

SYSTEM	EXAMPLE	APPLICATION
ELEMENT (OBJECT)		Element Coordinates of Objects & Equipment Relative To Project (Local) Coordinates. Example Of Steel Column With Element Point At Grid A-1 Intersection.
PROJECT (LOCAL)		Project Coordinates (Local) of Building or Structure At Grid 'XX' And 'YY' Typically With A Plan North (PN) Aligned To YY-axis. YY-XX is typically at 0,0 with 10 FT Offset From The Southwest Corner of structure so that all Element coordinates are positive X & Y.
CAMPUS (LOCAL)		Campus Coordinates defined for entire site. Defines relationship of the Project Local System To The Campus System. The YC and XC grids are defined so that the entire property has all elements in the positive coordinate system with YC & XC @ 0,0.
CIVIL PLANE SYSTEM		Plane system (PS) absolute coordinates tied to legal/geodetic systems on a Plane projection (typically a legally defined State Plane) coordinate system to address earth's curvature. Legacy monuments often in us survey ft vs intl. Ft.
CIVIL GROUND /SURFACE		Ground/Surface Coordinates For Surface Measurements Projected Up From The State Plane System. These Are Critical For Indexing Reality Capture Taken At Surface.
GPS		Global Position Satellite Coordinates Which Are Absolutely Coordinates For Geospatial Positioning. These Can Be Directly Correlated With Surface/Ground Coordinates

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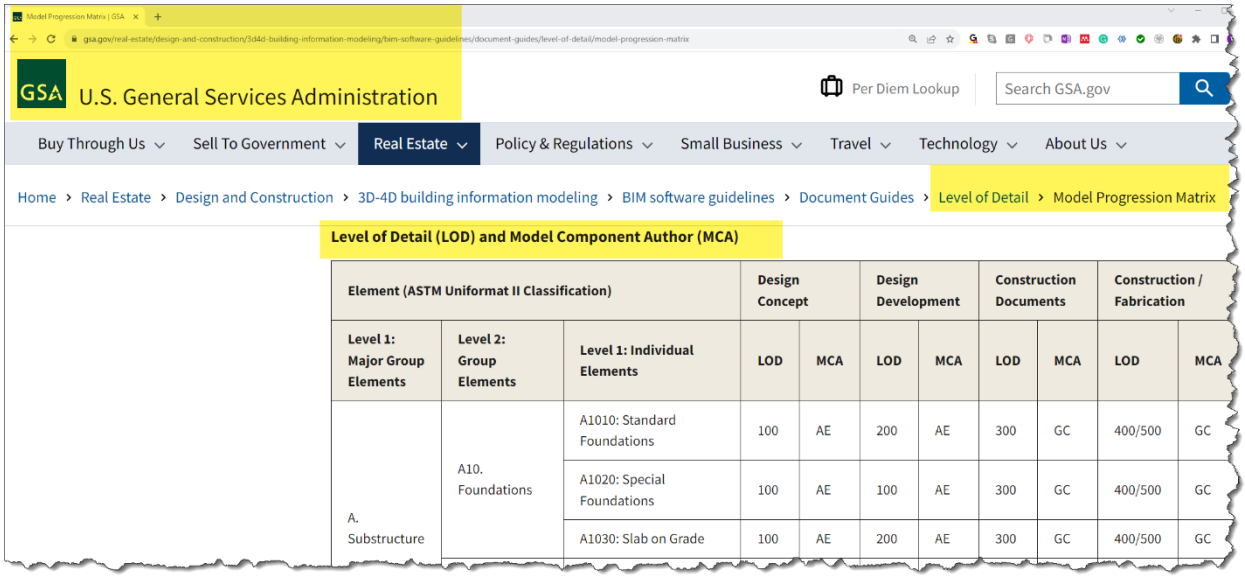
12. HISTORY OF LOD DEFINITIONS

There various sets of LOD definitions used in the industry over time, which is why it is critical that Project Owners and their teams define the controlling LOD definitions used in their contracts and BIM sections of their Project Execution Plans (PEP). While it is not possible to provide an exhaustive list of all LOD definitions in this introduction, some of the common ones are provided. The framework of this LOD Specification is designed to allow teams to tailor it to their particular Project Owner's needs in the BIM sections of the PEP.

12.1 Level of Detail (LOD) per US General Services Administration (GSA)

The US GSA uses the following definitions:

1. LOD: Level of Detail. These definitions use the LOD 100, 200, 300, 350, 400, 500 framework that this LOD Specification supports.
2. MPM: Model Progression
   MCA: Model Component Author (See Figure 4 below).
   Note that some LOD frameworks may refer to MPM as a Model Element Table (MET), and may refer to MCA as Model Element Authors (MEA). This LOD Specification will use MET and MEA in most cases. It is left to the Project Owners teams to author their BIM sections of their projects PEP to properly clarify which terms they are using.
3. AUM: Approved Use Matrix. (Note this may be defined as the Model Use sections of some contracts and BIM sections of PEP.



Element (ASTM Uniformat II Classification)			Design Concept		Design Development		Construction Documents		Construction / Fabrication	
Level 1: Major Group Elements	Level 2: Group Elements	Level 1: Individual Elements	LOD	MCA	LOD	MCA	LOD	MCA	LOD	MCA
A. Substructure	A10. Foundations	A1010: Standard Foundations	100	AE	200	AE	300	GC	400/500	GC
		A1020: Special Foundations	100	AE	100	AE	300	GC	400/500	GC
		A1030: Slab on Grade	100	AE	200	AE	300	GC	400/500	GC

Figure 4: Image from GSA website showing Level Of Detail (LOD) and Model Component Author (MCA) matrix. Image is from GSA website, https://www.gsa.gov/real-estate/design-and-construction/3d4d-building-information-modeling/bim-software-guidelines/document-guides/level-of-detail/model-progression-matrix. Highlights added to note section of website for Level Of Detail.

12.2 Level of Development (LOD), US Architectural Definitions

There are popular Architectural contract definitions in the United States (US) for Level of Development (LOD) from 2008, 2013 and most recently 2022. There are still many projects and Project Owners' requirements that use the previous two sets of LOD definitions. This LOD specification is designed to be compatible with all the LOD definitions with some important caveats that need to be included in each project's BIM section of its PEP. However, it is strongly recommended that all new work moving forward utilizes the most recent LOD definitions and consider the BIMForum Global's Ten (Recommended) 'Rules' of LOD (see section 8).

12.2.1 US Architectural 2008 LOD Definitions (For Historic Context)

The original 2008 architecture LOD definitions that were popular at the time did not have the LOD 350 definition that was presented to the AGC BIMForum in 2012 for inclusion in the AGC BIMForum 2013 LOD specification. Additionally, this set of definitions used the term 'accurate' in the LOD 300 definition. BIMForum Global does not recommend the use of these older 2008 definitions; they are only referenced here for context. However, this LOD Specification can be used with these older 2008 definitions, as long as LOD 350 is recognized and addressed in the BIM section of the PEP.

12.2.2 US Architectural 2013 LOD Definitions, (For Historic Context)

The subsequent 2013 US architectural LOD definitions that replaced the previous 2008 definitions were published around the same timeframe as the formation of the first US based national LOD Specifications. As such, the US architectural LOD 2013 definitions did not have the LOD 350 definition. LOD 350 was presented to the AGC BIMForum in 2012 for inclusion in the first national graphical 2013 LOD Specification. These definitions may be referenced in that document. BIMForum does not recommend the use of these older 2013 definitions; they are only referenced here for context. However, this LOD Specification can be used with these older 2013 definitions, as long as LOD 350 is recognized and addressed in the BIM section of the PEP.

12.2.3 US Architectural 2022 LOD Definitions

The most recent 2022 architectural Level of Development (LOD) definitions now include a LOD 350 definition that is similar to what the PIs of this LOD originally proposed for inclusion in the AGC BIMForum 2013 LOD Specification.

12.2.4 American Concrete Institute (ACI) 2022 LOD Definitions

In 2022, the American Concrete Institute (ACI) published a ACI PRC-131.3-22, TechNote "BIM Level of Development for CIP Concrete—TechNote" (ACI BIM LOD 22). This document referenced the US Architectural LOD 2013 definitions, while he ACI 2022 LOD definitions also added some new language and interpretation of LOD for concrete that are not fully synchronized with any of the US Architectural, AGC BIMForum or BIMForum-PA definitions. The new 2022 US Architectural LOD definitions came out within months of the ACI BIM LOD 22 TechNote being published, and while the ACI TechNote LOD Definitions differ, it does have some useful information for teams to consider, particularly the seven sub-categories of concrete discussed below.

The ACI BIM LOD 22 Tecote 7 categories of concrete content that provide a framework to organize concrete BIM topic in your contracts, general notes and specifications are: (1) Concrete, (2) Reinforcing bar, (3) Specialty reinforcements, (4) Prestressing, (5) Specialty systems, (6) Embedments, and (7) Formwork. This BIMForum Specification supports key elements of the ACI 2022 LOD Definition in the Cast-In-Place section of this LOD Specification.

12.2.5 LOD Definition Summary

Authors of the BIM sections of PEP are encouraged to consider these more recent LOD definitions that include LOD 350 and are in line with the BIMForum Global's Ten (Recommended) 'Rules' of LOD (see section 8).

13. PAST LOD SPECIFICATION VERSIONS – HISTORIC BACKGROUND

The following LOD Specification editions are developed by other separate organizations where noted. Redistribution is provided by these other separate independent groups under the Creative Commons License they were developed under that allows redistribution of the material in any medium or format where noted. The original content creators in these documents below retained the copyrights to that content. Several of the content owners have licensed their content to Ascend Building Knowledge Foundation (Ascend), a 501c3 research and education nonprofit foundation and its subforum of BIMForum Global and VDCForum. The new BIMForum Global LOD Specification is a new format with a new structure and has notable new content added in this new version. Any similarities to BIMForum Global's LOD Specifications were not derived from any other organizations but come from the fact that some of the same content owners have licensed their content they own to Ascend and its forums of BIMForum Global and VDCForum for the development of its new documents. The LOD Documents of other organizations are provided for reference order of their publication starting with the most recent dates originally published with proper citation to their relative organizations.

13.1 BIMForum Global (BFG) and Ascend Building Knowledge Foundation (Ascend)

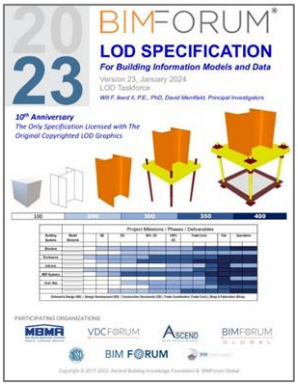
The original content creators of various LOD Specifications over the years retained the copyrights to their content. Several of the content owners have licensed their content to Ascend Building Knowledge Foundation (Ascend), a 501c3 research and education nonprofit foundation and its subforums of BIMForum Global and VDCForum. The new BIMForum Global LOD Specification is a new format with a new structure and has notable new content added in each new version. Any similarities to BIMForum Global's LOD Specifications and other LOD Specifications in industry were not derived from any other organizations but come from the fact that some of the same content owners have licensed their content they own to Ascend and its forums of BIMForum Global and VDCForum for the development of its new documents.

13.1.1 BFG 2024 LOD Specification (BIMForum.Global/LOD)

The BIMForum 2024 LOD Specification (LOD Specification) is a reference tool that aids in improving the quality of communication among Project Owners and their teams using Building Information Models (BIMs) on their projects. It achieves this by clarifying the 5 key characteristics of defining Model Elements MEs).

The specification is intended to be compatible for teams working with Level of Detail and Level of Development definitions. The confusion of these two terms with the same acronyms should be clarified in each Project BIM Execution Plan (PEP). The English version of this document is formed to be compatible with the most common US-based LOD definitions as well as those of other countries. The specification is also formed to allow project teams to adjust their use of the BIMForum Specification by stating any amendments to the LOD definitions that teams may have in the BIM section of their Project Execution Plan. This also permits those teams to utilize Level of Detail definitions if that is what is prescribed in their BIM PEP.

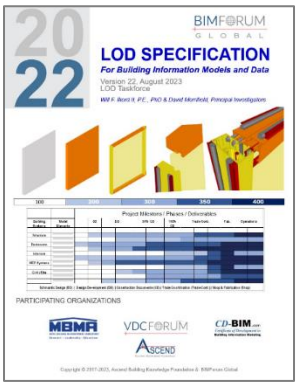
13.1.2 BFG 2023 LOD Specification (BIMForum.Global/LOD)



The BIMForum 2023 LOD Specification (LOD Specification) is a reference tool that aids in improving the quality of communication among Project Owners and their teams using Building Information Models (BIMs) on their projects. It achieves this by clarifying the 5 key characteristics of defining Model Elements MEs).

The specification is intended to be compatible for teams working with Level of Detail and Level of Development definitions. The confusion of these two terms with the same acronyms should be clarified in each Project BIM Execution Plan (PEP). The English version of this document is formed to be compatible with the most common US-based LOD definitions as well as those of other countries. The specification is also formed to allow project teams to adjust their use of the BIMForum Specification by stating any amendments to the LOD definitions that teams may have in the BIM section of their Project Execution Plan. This also permits those teams to utilize Level of Detail definitions if that is what is prescribed in their BIM PEP.

13.1.3 BFG 2022 LOD Specification (BIMForum.Global/LOD)



The BIMForum 2022 LOD Specification (LOD Specification) is a reference tool that aids in improving the quality of communication among Project Owners and their teams using Building Information Models (BIMs) on their projects. It achieves this by clarifying the 5 key characteristics of defining Model Elements MEs).

The specification is intended to be compatible for teams working with Level of Detail and Level of Development definitions. The confusion of these two terms with the same acronyms should be clarified in each Project BIM Execution Plan (PEP). The English version of this document is formed to be compatible with the most common US-based LOD definitions as well as those of other countries. The specification is also formed to allow project teams to adjust their use of the BIMForum Specification by stating any amendments to the LOD definitions that teams may have in the BIM section of their Project Execution Plan. This also permits those teams to utilize Level of Detail definitions if that is what is prescribed in their BIM PEP.

13.1.4 BFG 2022, '23, & '24 Especificación LOD [Español/Spanish] (BIMForum.Global/LOD)

La Especificación LOD del BIMForum 2022 (Especificación LOD) es una herramienta de referencia que ayuda a mejorar la calidad de la comunicación entre los Propietarios de Proyectos y sus equipos que utilizan Modelos de Información de Construcción (BIM) en sus proyectos. Lo consigue aclarando las 5 características clave de la definición de los Elementos del Modelo MEs).

La especificación pretende ser compatible para los equipos que trabajan con definiciones de Nivel de Detalle y Nivel de Desarrollo. La confusión de estos dos términos con las mismas siglas debe aclararse en cada Plan de Ejecución BIM del Proyecto (PEP). La versión inglesa de este documento se ha elaborado para que sea compatible con las definiciones de LOD más comunes en EE.UU. y en otros países. La especificación también está pensada para permitir a los equipos de proyecto ajustar su uso de la Especificación Global BIMForum indicando cualquier enmienda a las definiciones de LOD que los equipos puedan tener en la sección BIM de su Plan de Ejecución del Proyecto. Esto también permite a esos equipos utilizar definiciones de Nivel de Detalle si eso es lo que se prescribe en su PEP BIM.

Please Click here to provide feedback to this Version 2025:

13.2 BIMForum, based in Pennsylvania founded in 2019 (noted as BIMForum-PA)

2105 Parkview Drive, Haverford, Pennsylvania, 1904-2004 (BIMForum-PA)

13.2.1 2023 LOD Specification, Public Draft Comment (BIMForum-PA)

Published December 2023, by Pennsylvania-BIMForum.
New Graphics were developed that are different from the copyrighted original LOD graphics that only BIMForum.Global is licensed to use.
This publication added some landscape sections that are similar to the land scape content that was originally developed in the BIMForum 2022 LOD Specification.

13.2.2 2022 LOD Specification (BIMForum-PA)

Published December 2022, by Pennsylvania-BIMForum.
No graphics were provided in this supplement.

13.2.3 2021 LOD Specification (BIMForum-PA)

Published December 28, 2021, by Pennsylvania-BIMForum.
Pennsylvania-BIMForum_LOD-21_final_2021-12-28-1.pdf (Part 1 only)

Notes: Ascend Building Knowledge Foundation owned some content in this publication which was developed in early 2017 and Ascend's logos appears on the cover of the document. Other contributors also own content that appears throughout the document. Ascend and its subforums of BIMForum Global and VDCForum are independent separate organizations of BIMForum-PA.

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13.2.4 2020 LOD Specification (BIMForum-PA)

Published December 31, 2020 (2020 LOD Spec.), by Pennsylvania-BIMForum.

Pennsylvania-BIMForum_LOD-20_final_2020-12-31-1.pdf (Part 1 only)

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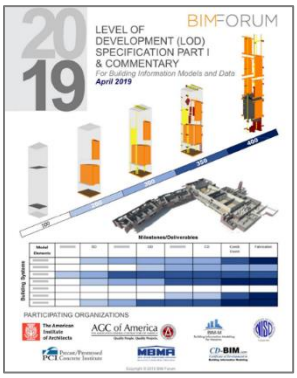
13.3 AGC BIMForum, (AGC-BIMForum) formed around 2005-2006 ~ 2019

Associated General Contractors of America (AGC)

13.3.1 2019 LOD Specification (AGC-BIMForum)



Published April 2019, by AGC-BIMForum.

AGC-BIMForum_LOD-19_final_2019-4.pdf (Part 1 only)

13.3.2 2018 LOD Specification (AGC-BIMForum)

Published September 2018 (2018 LOD Spec.), by AGC-BIMForum.

AGC-BIMForum_LOD-21_final_2017-12.pdf (Part 1 only)

13.3.3 2017 LOD Specification (AGC-BIMForum)

Published November 2017 (2017 LOD Spec.), by AGC-BIMForum.

AGC-BIMForum_LOD-17_final_2017-11.pdf (Part 1 only)

13.3.4 2016 LOD Specification (AGC-BIMForum)

Published October 2016 (2016 LOD Spec.), by AGC-BIMForum.

AGC-BIMForum_LOD-16_final_2016-10.pdf (Part 1 only)

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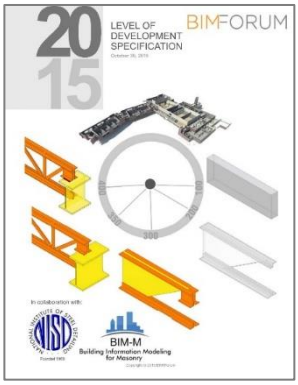
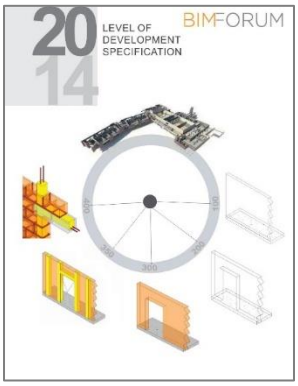
13.3.5 2015 LOD Specification (AGC-BIMForum)



Published October 2015 (2015 LOD Spec), by AGC-BIMForum.

AGC-BIMForum_LOD-15_final_2015-10.pdf (Part 1 only)

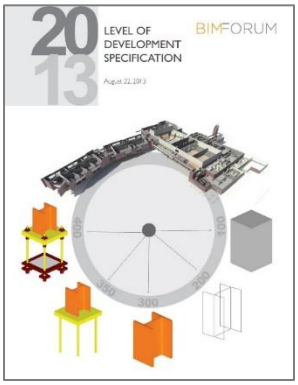
13.3.6 2014 LOD Specification (AGC-BIMForum)



Published December 2014 (2014 LOD Spec), by AGC-BIMForum.

AGC-BIMForum_LOD-14_final_2014-12.pdf

13.3.7 2013 LOD Specification



Published August 2013 (2013 LOD Spec), by AGC-BIMForum.

AGC-BIMForum_LOD-13_final_2013-10.pdf

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14. CHANGES FROM OTHER LOD BEFORE THE BIMFORUM GLOBAL 2022 VERSION.

There have been many LOD Specifications in prior years since 2008 for both Level of Detail and Level of Development. This BIMForum Specification provides a new framework from prior LOD Specification. This new approach typically has a single sheet for each Model Element organized in clear sections aligned with a given system, such as structural steel for example (see Figure 5 and below) Additionally, this is the first graphical LOD specification of its kind that is produced in multiple languages with input from international BIMForums outside the US and other similarly aligned BIM groups.

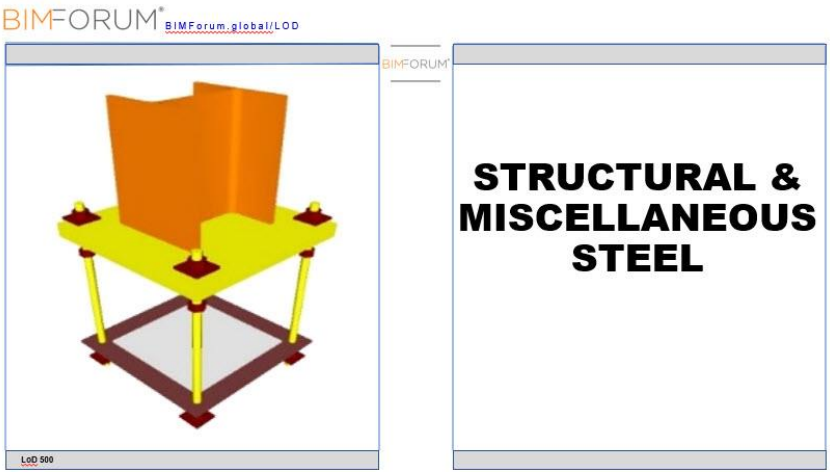

Figure 5: BIMForum LOD Specification's new approach for Model Elements to be organized in clear sections aligned with a given system, such as structural steel in the section heading above.

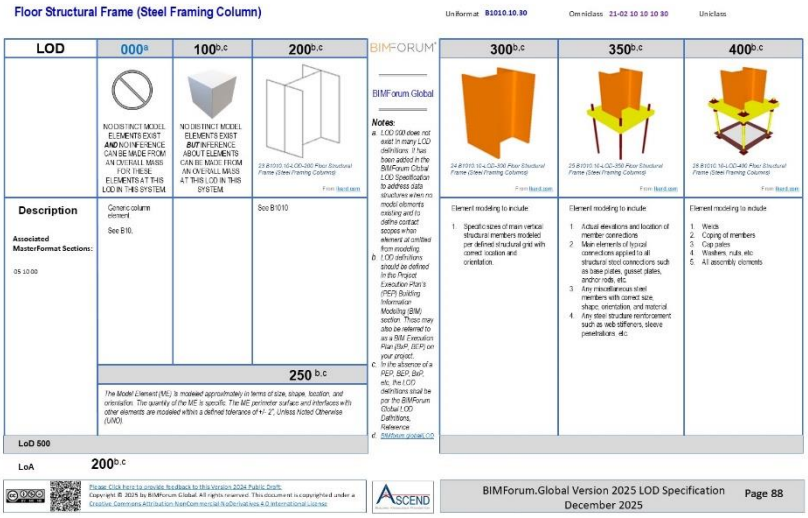

Figure 6: BIMForum LOD Specification's new approach for Model Elements to be defined on a Single Sheet Per Element Format.

Revision Process

Public Comment

Each new LOD Specification version is typically first released as a draft for contributor comment. Public comments are also collected from the links at the bottom of the pages of the specification. Feedback is evaluated prior to the publishing version.

14.1 2025 Edition Updates

The following are new additions to this version:

14.1.1 LOD 250 Definition

14.1.2 Concrete Tilt-Wall Element

14.1.3 Video Surveillance and Security Camera Systems

14.1.4 Cold Formed Metal Framing (CFMF) for critical elements only content at LOD 350 that better reflects coordination and constructability expectations.

14.1.5 Expanded modular and prefabricated design elements, including applications such as shipping containers.

14.1.6 Concrete Repair Applications

14.2 GRAPHICS CREATION

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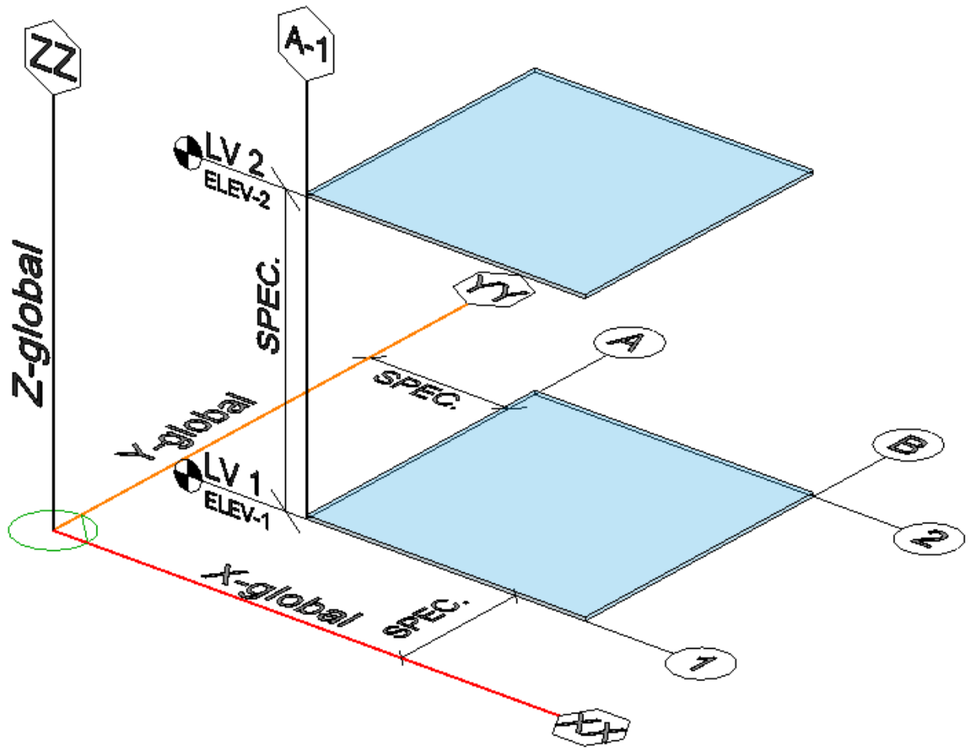
14.3 ACKNOWLEDGEMENTS

Mr. David Merrifield and Dr. Will Ikerd are the two Principal Investigators of the first edition of this specification and have worked in LOD research and application of LOD definitions since 2008 and authored sections of national LOD Specifications since 2013. They developed the proposal for the LOD 350 definition that they presented to the Associated General Contractors (AGC) BIMForum in 2012 from Ikerd's previous publications at other conferences that began in 2009. The LOD 350 definition was later ratified in the first national specification in the AGC BIMForum's 2013 LOD Specification. Additionally, Dr. Ikerd attended meetings with one of the United States leading institutes for architects, assisting with their contract documents committees work on their LOD definitions. In 2022, Dr. Ikerd presented justification for including the LOD 350 definition in their national LOD definitions which previously had not been included since their original 2008 and 2013 LOD Definitions. Following these meetings, this leading US architectural organization adopted LOD 350 in their national LOD definitions for its contract language. It is with this background that Mr. Merrifield and Dr. Ikerd have the honor of leading the team developing the 2025 version of the BIMForum Global LOD Specification.

Please Click here to provide feedback to this Version 2025:

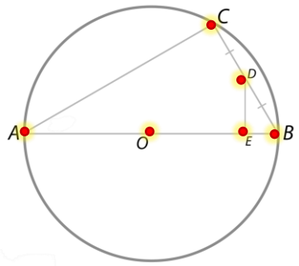
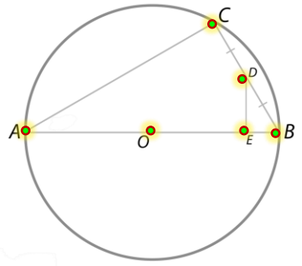


LoD 500

GENERAL & GENERIC ELEMENTS

Points

Uniformat **N/A** Omniclass **N/A** Uniclass **N/A**

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global		THIS CATEGORY OF OBJECT IS NOT DEFINED FOR THIS LOD	THIS CATEGORY OF OBJECT IS NOT DEFINED FOR THIS LOD
Description **Associated MasterFormat Sections:** **N/A**	NEW IN 2022 VERSION		Point object is at an approximate location relative to the Project Origin and the tolerance of the Model Elements it is used to define. Special classes of Point Model Elements would include but are not limited to Project Origins, Survey Points, Benchmarks and Property Boundary Points.		Point Model Element meets the requirements for LOD 200 and is further defined to a specific location relative to the Project Origin and the tolerances of the Model Elements it is used to define.	N/A	N/A
	250 [b,c]						
	The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).						
LoD 500							
LoA	**200**[b,c]						

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

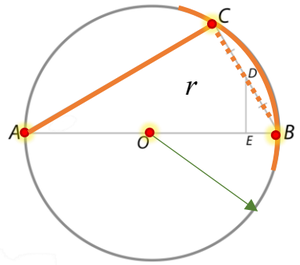
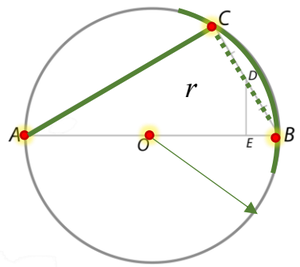
c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Lines (Linear & Curved)

NEW IN 2022 VERSION

Uniformat -- Omniclass 36-51 73 Uniclass 11 13 11 19

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.			THIS CATEGORY OF OBJECT IS NOT DEFINED FOR THIS LOD	THIS CATEGORY OF OBJECT IS NOT DEFINED FOR THIS LOD
Description **Associated MasterFormat Sections:** **N/A**	N/A	N/A	Line Model Element is at an approximate location relative to the Project Origin and the tolerance of the Model Elements it is used to define. Linear lines are defined by two points. Example Line AB is defined by points A & B in image above. Curves are constructed with two points and addition constraints such as cord length, radius of curvature, etc. Special classes of Line Model Elements would include but are not limited to Gridlines and Property Boundary.	Line Model Element meets the requirements for LOD 200 and is further defined to a specific location relative to the Project Origin and the tolerances of the Model Elements it is used to define.	Comply with the LOD 300 requirements. Volume of the space is accurately calculated to the nearest horizontal finish surface such as a ceiling or underside of slab above. Element modeling to include: 1. Vertical bounding elements to minimum LOD 300 2. Horizontal bounding elements such as ceilings or slabs 3. Space objects that automatically associate with vertical and horizontal bounding elements	
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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BIMForum.Global

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

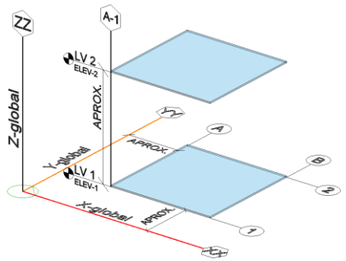
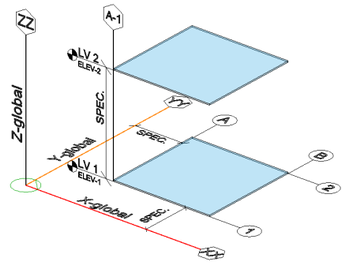
c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Grides & Level Model Elements
(Special Class of Lines & Planes)

Uniformat -- Omniclass 36-51 73 11 13 17 13 Uniclass --

N/A

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *LOD 200 Grids & Elevation* From AscendBKF.org	BIMForum.Global	 *LOD 300 Grids & Elevation* From AscendBKF.org	THIS CATEGORY OF OBJECT IS NOT DEFINED FOR THIS LOD	THIS CATEGORY OF OBJECT IS NOT DEFINED FOR THIS LOD
Description **Associated MasterFormat Sections:**			Grids & Elevations Equipment, Building, Campus, Civil, and GIS is approximate in its relation to the content in the given model.		1. Grids & Elevations 2. Equipment, Building, Campus, Civil, and GIS is specific in its relation to the content in the given model.		
			250 [b,c]				
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).				
LoD 500							
LoA	**200**[b,c]						

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

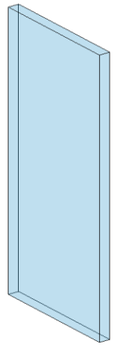
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Shell Superstructure

Uniformat **B10** Omniclass **21-02 10** Uniclass --

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		See Element Sections For Additional Information		
Description **Associated MasterFormat Sections:** 01 83 13	Assumptions for structural framing are included in other modeled elements such as an architectural floor element that contains a layer for assumed structural framing depth or schematic structural elements that are not distinguishable by type or material. Assembly depth/thickness or component size and locations still flexible.		Elements are approximate.			
	250 [b,c]					
	The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).					
LoD 500						
LoA	**200**[b,c]					

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Notes:

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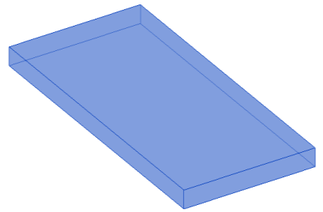
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Floor Construction

Uniformat **B1010** Omniclass **21-02 10 10** Uniclass **Ss 30 12**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		See Element Sections For Additional Information		
Description **Associated MasterFormat Sections:** 01 83 13	See B10		Model elements to include: 1. Floor with approximate dimensions 2. Approximate supporting framing members 3. Structural grids defined accurately			
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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Notes:

a. LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.

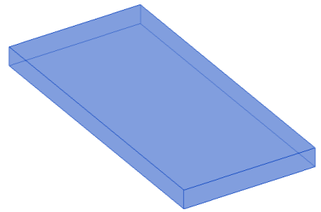
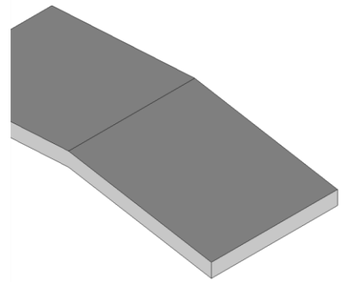
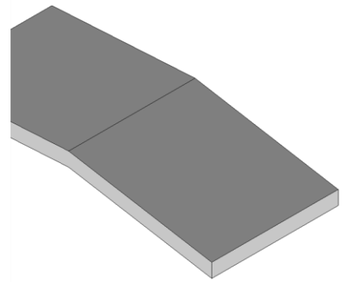
b. LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.

c. In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.

d. BIMforum.global/LOD

Ramps

Uniformat **B1010.50** Omniclass **21-02 10 10 50** Uniclass **Ss 35 10 85**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				See Element Sections For Fabrication Level Information
Description **Associated MasterFormat Sections:**	See fundamental definitions		Generic model element Nominal overall unit scope shall include: 1. Nominal plan dimensions (length, width) 2. Nominal vertical dimensions (levels, landings)	Major ramp support elements are modeled to disability access standards. Element is accurate as to: 1. Width 2. Grade 3. Landing geometry	Secondary ramp support elements are modeled (hangers, brackets, handrail, tactiles location, connection points etc.).	All ramp elements are modeled to support fabrication and installation.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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Notes:

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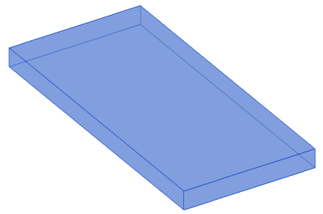
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Roof Deck, Slabs, and Sheathing

Uniformat **B1020.20** Omniclass **21-02 10 20 20** Uniclass **Ss 30 12 85**

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global	See Element Sections For Additional Information		
Description **Associated MasterFormat Sections:** 03 30 00 / 03 40 00 / 03 50 00 / 03 52 00 / 05 30 00 / 05 34 00 / 05 35 00 / 06 12 00 / 06 15 00 / 06 16 00 / 06 18 00 / 06 53 00 / 06 73 00	1. N/A		Generic roof objects separated by type of material. Approximate thickness of layer represented by a single assembly. Layouts and locations still flexible.		1. Penetrations are modeled to nominal dimensions for major roof openings such as skylights and large mechanical elements.	1. All penetrations are modeled at actual rough-opening dimensions. 2. Framing members at openings are modeled.	1. Element modeling to include: 2. Studs and tracks 3. Individual masonry units 4. Reinforcing 5. Sheathing 6. Insulation
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*				
LoD 500							
LoA	**200**[b,c]						

Notes:

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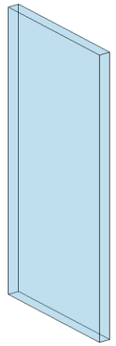
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Exterior Vertical Enclosures

Uniformat **B20** Omniclass **21-02 20** Uniclass **EF 25 10**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		See Element Sections For Additional Information		
Description **Associated MasterFormat Sections:** 01 83 16	Solid mass model representing overall building volume; or, schematic wall elements that are not distinguishable by type or material. Assembly depth/thickness and locations still flexible.					
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*					
LoD 500						
LoA	**200**[b,c]					

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Notes:

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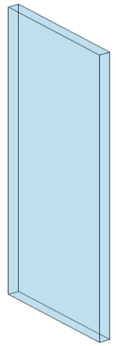
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Exterior Wall Construction

Uniformat **B2010.20** Omniclass **21-02 20 10 20** Uniclass **EF 25 10**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		See Element Sections For Additional Information		
Description **Associated MasterFormat Sections:** 03 30 00 / 03 40 00 / 04 20 00 / 05 41 00 / 06 11 00 / 06 12 00 / 06 16 00	N/A		Generic wall objects separated by type of material (e.g. brick wall vs. terracotta). Approximate thickness of layer represented by a single assembly. Layouts and locations still flexible.	Specific wall modeled to actual dimensions. Penetrations are modeled to nominal dimensions for major wall openings such as windows, doors, and large mechanical elements.	Exterior wall construction modeled as a separate element. All penetrations are modeled at actual rough-opening dimensions. Headers and jamb framing are modeled.	Element modeling to include: 1. Studs and tracks 2. Individual masonry units 3. Reinforcing 4. Sheathing 5. Insulation
			250 [b,c]			
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).			
LoD 500						
LoA	**200**[b,c]					

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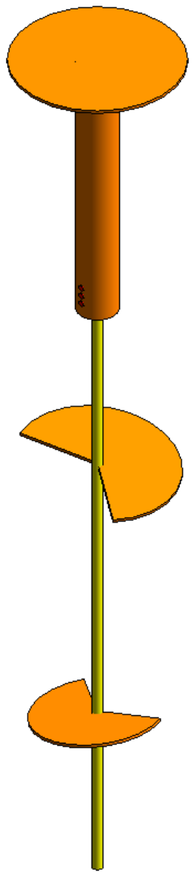
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

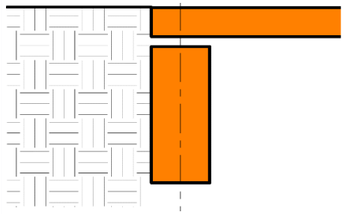
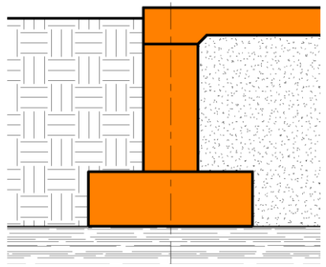


LoD 500

FOUNDATION, SPECIALTY (Other than CIP Concrete)

Substructure Foundations

Uniformat **A10** Omniclass **21-01 10** Uniclass **Ss 20 05 15**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 From Ikerd.com	 *1 A1010.10-LOD-300 Wall Foundation* From Ikerd.com	See Element Sections For Additional Information	
Description	N/A	Assumptions for foundations are included in other modeled elements such as an architectural floor element or volumetric mass that contains layer for assumed structural framing depth. Or, schematic elements that are not distinguishable by type or material. Assembly depth/thickness and locations still flexible.	Element modeling to include: 1. Approximate size and shape of foundation element. 2. Structural building grids for local project coordinate system are defined in model and approximately coordinated with civil coordinate.			
Associated MasterFormat Sections: **01 82 13**						

250 [b,c]

The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).

LoD 500

LoA **200**[b,c]

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Notes:

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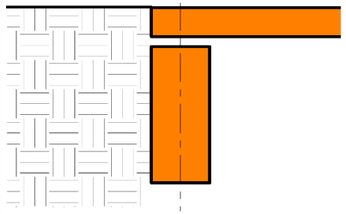
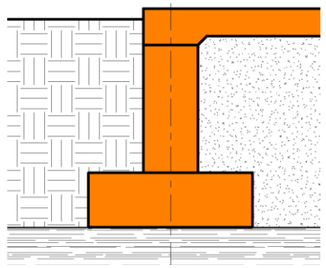
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*
c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*
d. *BIMforum.global/LOD*

Standard Foundations

Uniformat **A1010** Omniclass **21-01 10 10** Uniclass **Ss 20 05**

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 From Ikerd.com	BIMForum.Global	 *1 A1010.10-LOD-300 Wall Foundation* From Ikerd.com	See Element Sections For Additional Information	
Description	See A10		See A10		Elements are modeled to the design-specified size and shape of the foundation.		
Associated MasterFormat Sections:					Element modeling to include: 1. Overall size and geometry of the foundation element 2. Sloping surfaces or floor depressions 3. External dimensions of the members 4. Main openings such as elevators and other shafts		
01 82 13							
			250 b,c				
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).				
LoD 500							
LoA	**200**[b,c]						

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c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Special Foundations

Uniformat **A1020** Omniclass **21-01 10 20** Uniclass **Ss 20 05**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	From AscendBKF.org	See Element Sections For Additional Information		
Description **Associated MasterFormat Sections:** 31 60 00	See A10		See A10	See A1010 Elevator pit slabs are sloped correctly Sump pits are shown at correct locations and geometries	Element modeling to include: 1. Location and size of sleeve penetrations and MEP openings 2. Chamfer 3. Pour joints 4. Dowels 5. All elements needed for cross-trade collaboration are to be modeled 6. Actual location and shape of structural element 7. Exposed embeds or reinforcement such as lintels 8. Penetrations detailed and modeled 9. Expansion joints	Element modeling to include: 1. Rebar detailing including hooks and lap splices 2. Dowels 3. Moisture retarder 4. Coursing for unit masonry defined 5. Waterproofing
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*					
LoD 500						
LoA	**200**[b,c]					

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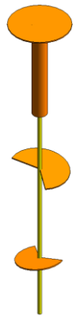
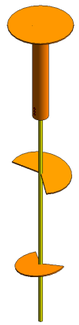
c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Helical Piles, Helical Piers

Uniformat **A1020.10.10** Omniclass **21-01 10 20 10 10** Uniclass

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	*A1020.10.10 LOD 200 Helical Pier* From AscendBKF.org	 *A1020.10.10 LOD 300 Helical Pier* From AscendBKF.org	 *A1020.10.10 LOD 350 Helical Pier*	 *A1020.10.10 LOD 400 Helical Pier* From AscendBKF.org
Description **Associated MasterFormat Sections:** N/A	See A10		See A10	Element modeling to include: 1. Pile system type 2. Pile material 3. Coating 4. Influence area modeled or accommodated by model checking software	Element modeling to include: 1. Spacing 2. Plate Size 3. Bearing Strata	Element modeling to include: 1. Full fabrication connections
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*					
LoD 500						
LoA	**200**[b,c]					

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BIMForum.Global

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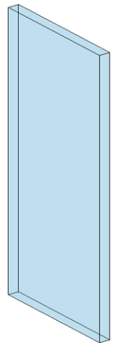
c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Subgrade Enclosures

Uniformat **A20** Omniclass **21-01 20** Uniclass **Ss 20 05 15**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		See Element Sections For Additional Information		
Description **Associated MasterFormat Sections:** 01 82 16	Solid mass model representing overall building volume; or, schematic wall elements that are not distinguishable by type or material. Assembly depth/thickness and locations still flexible.		Element modeling to include: 1. Approximate size and shape of the subgrade enclosure element. 2. Structural building grids for local project coordinate system are defined in model and coordinated with global civil coordinate system (State Plane Coordinate System, etc). 3. Suggested Baseline Attributes 4. Member Type			
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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Notes:

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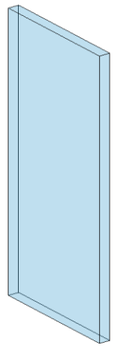
c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Walls for Subgrade Enclosures

Uniformat **A2010** Omniclass **21-01 20 10** Uniclass **Ss 20 60**

LOD	000[a]	100[b,c]	200[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	
Description **Associated MasterFormat Sections:** 01 82 16	See A20		See A20
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*
LoD 500			
LoA	**200**[b,c]		

BIMFORUM®

BIMForum.Global

Notes:

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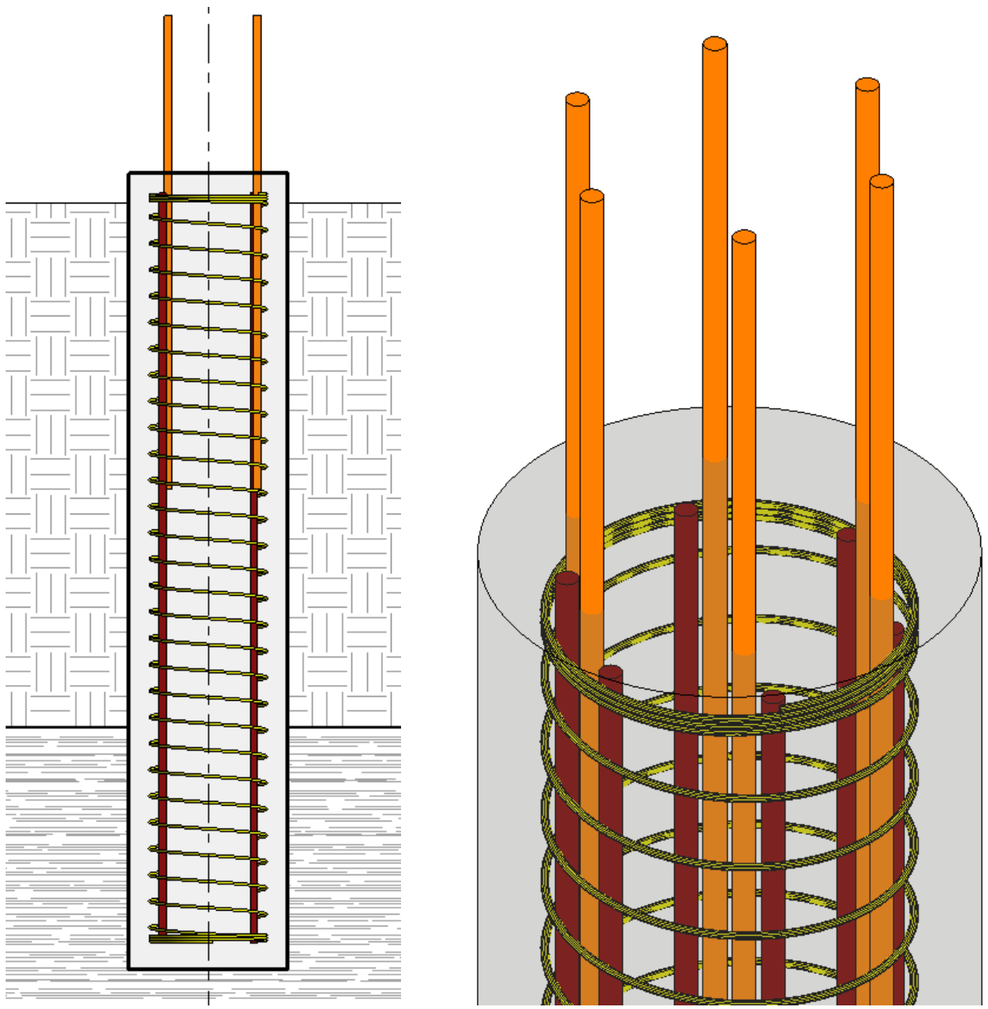
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

300[b,c]	350[b,c]	400[b,c]
See Element Sections For Additional Information		
Element modeling to include: 1. Overall size and geometry of the subgrade element 2. Sloping surfaces 3. External dimensions of the element 4. Major openings such as large mechanical elements modeled to nominal dimensions.	Element modeling to include: 1. Chamfers 2. All penetrations modeled to rough opening dimensions. 3. Pour joints 4. Rebar and any embedded elements modeled at congested areas where specified by project BXP which is typically with in a set distance from the area of congestion. 5. Any permanent shoring or forming structures such as void boxes 6. Insulation 7. Expansion joints 8. Moisture retarder 9. Exposed embeds or reinforcement such as lintels 10. Penetrations detailed and modeled 11. Expansion joints	Element modeling to include: 1. Rebar including hooks and lap splices 2. Dowels 3. Coursing for unit masonry defined 4. Waterproofing

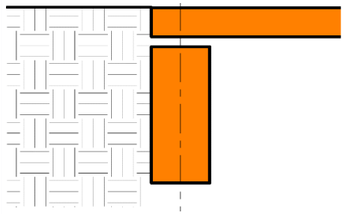
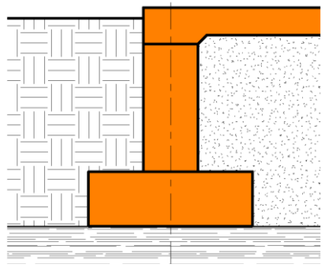
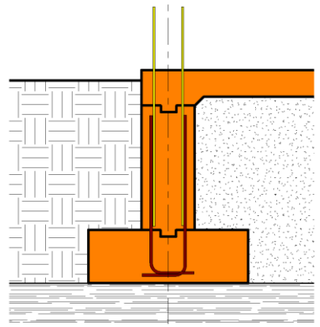
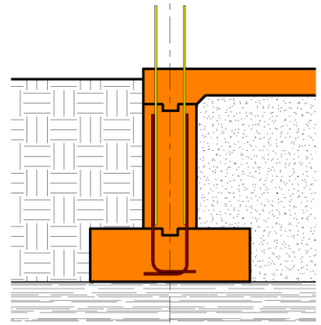


CONCRETE, CAST IN PLACE

LoD 500

Wall Foundations (Shallow Foundations)

Uniformat **A1010.10** Omniclass **21-01 10 10 10** Uniclass **Ss 20 05 15**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 From Ikerd.com	 *1 A1010.10-LOD-300 Wall Foundation* From Ikerd.com	 *2 A1010.10-LOD-350 Wall Foundations (Shallow Foundations* From Ikerd.com	 *2 A1010.10-LOD-350 Wall Foundations (Shallow Foundations* From Ikerd.com
Description **Associated MasterFormat Sections:** **03 30 00 / 03 40 00 / 04 20 00 / 06 14 00**	See A10		See A10 Image Notes: Generic wall foundation is modeled. Site is generically modeled from geotechnical information in geotechnical report.	Element modeling to include: 1. Overall size and geometry of the foundation element 2. Sloping surfaces. 3. External dimensions of the members 4. Geotechnical bearing strata elevation is modeled from geotechnical report. 5. Area of bearing influence – modeled or accommodated by model checking software Image Notes: 1. Wall foundation sizes are accurately modeled with footings where applicable. 2. Bearing elevation is modeled from the geotechnical report. 3. Geotechnical regions are shown for context and not required to be modeled as part of this element at this LOD. 4. See slab on grade for related conditions at this LOD.	Element modeling to include: Location of sleeve penetrations, Pour joints, Chamfer, Moisture retarder, Dowels 1. All exposed embeds or reinforcement such as lintels 2. Expansion joints 3. Geotechnical Bearing Strata is modeled from geotechnical report estimates. Image Notes: 1. Grade beam sizes are modeled with interfaces to other systems such as but not limited to slab turn downs, key-ways between concrete pours, construction joints and reinforcing dowels into adjacent pours. 2. Bearing elevation is modeled from the geotechnical report with the addition on interface elements such as void boxes where applicable. 3. Geotechnical regions are shown for context and not required to be modeled as part of this element at this LOD. 4. See slab on grade for related conditions at this LOD.	Element modeling to include: 1. Rebar including hooks and lap splices 2. Dowels 3. Coursing for unit masonry defined 4. Waterproofing
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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BIMForum.Global

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

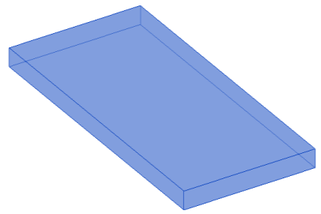
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Floor Structural Frame (Concrete)

Uniformat **B1010.10.10** Omniclass **21-02 10 10 10 10** Uniclass **Ss 30 12 85 18**

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global	See Element Sections For Additional Information		
Description **Associated MasterFormat Sections:** 03 30 00 / 03 40 00	See B10		Element modeling to include: 1. Type of structural concrete system 2. Approximate geometry (e.g. depth) of structural elements		Element modeling to include: 1. Composite model assembly by type with overall thickness of structural frame 2. Specific sizes and locations of main concrete structural members modeled per defined structural grid with correct orientation 3. Concrete defined per spec (strength, air entrainment, aggregate size, etc.) 4. All sloping surfaces included in model element with exception of elements affected by manufacturer selection	Element modeling to include: 1. Reinforcing Post-tension profiles and strand locations 2. Reinforcement called out, modeled if required by the BXP, typically only in congested areas 3. Pour joints and sequences to help identify reinforcing lap splice locations, scheduling, etc. 4. Expansion Joints 5. Embeds and anchor rods 6. Post-tension profile and strands modeled if required by the BXP 7. Penetrations for items such as MEP 8. Any permanent forming or shoring components 9. Shear reinforcing and stud rails 10. Critical structural zones for coordination, including but not limited to zones that cannot be penetrated, cut, or damaged. 11. Chamfer	Element modeling to include: 1. All reinforcement including post tension elements detailed and modeled camber, etc.
		250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*					
LoD 500							
LoA	**200**[b,c]						

Notes:

a. LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.

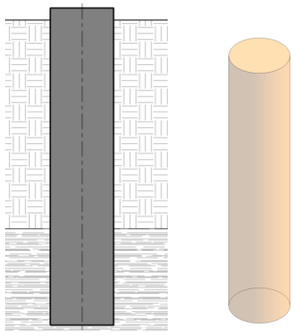
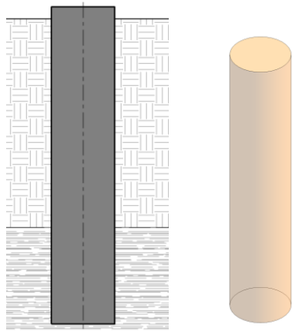
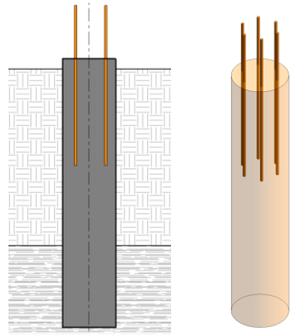
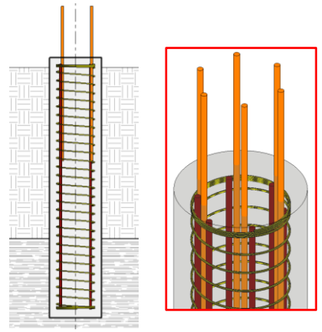
b. LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.

c. In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.

d. BIMforum.global/LOD

Pier Foundations (Deep Foundations / Column Foundations)

Uniformat **A1010.30** Omniclass **21-01 10 10 30** Uniclass **Ss 20 05 15**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		 *3 A1010.30-LOD-300 Column Foundations (Deep Foundations)* From Ikerd.com	 *4 A1010.30-LOD-350 Column Foundations* From Ikerd.com	 *5 A1010.30-LOD-400 Column Foundation* From Ikerd.com
Description **Associated MasterFormat Sections:** 03 30 00	See A10	See A10	Approximate geometry.	Element modeling to include: 1. Assumed bearing depth per geotechnical report with designed penetration geometry modeled. 2. Top of Pier 3. Size of Pier 4. Area of bearing influence - modeled or accommodated by model checking software Image Notes: 1. Pier sizes are accurately modeled with top of pier elevation, estimated depth to bearing and specified depth of penetration into bearing strata. 2. Geotechnical regions are shown for context and not required to be modeled as part of this element at this LOD.	Element modeling to include: 1. Actual Top of Pier (TOP) and expected Bottom of Pier (BOT) modeled per engineer's review of site conditions. 2. Foundation dowel locations and anchor rods if applicable. Image Notes: 1. Pier sizes are accurately modeled with interfaces to other systems such as but not limited to slab turn downs, key-ways between concrete pours, construction joints and reinforcing dowels into adjacent pours. 2. Geotechnical regions are shown for context and not required to be modeled as part of this element at this LOD.	Element modeling to include: 1. Depth to bearing stratum 2. Penetration into bearing stratum 3. Locations of lap splices 4. Rebar including hooks and lap splices 5. Dowels 6. Pier sled or Pier wheel for side clear cover 7. Pier bolster for bottom clear cover Image Notes: 1. Pier modeling is developed to include all fabrication content that is part of the element. 2. Geotechnical regions are shown for context and not required to be modeled as part of this element at this LOD. 3. Pier sled, pier wheel, pier bolsters and other related items are not shown in image for clarity.
	250 [b,c]					
	The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).					
LoD 500						
LoA	**200**[b,c]					

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BIMForum.Global

Notes:

a. LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.

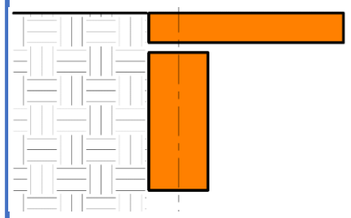
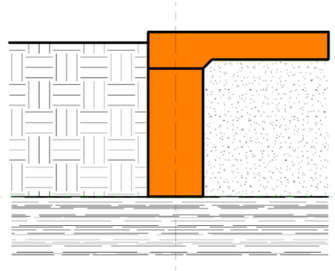
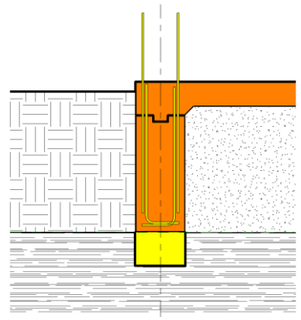
b. LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.

c. In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.

d. BIMforum.global/LOD

Grade Beams

Uniformat **A1020.80** Omniclass **21-01 10 20 80** Uniclass **Ss 20 05 15 71**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *6 A1020.80-LOD-200 Grade Beams* From Ikerd.com	 *7 A1020.80-LOD-300 Grade Beams* From Ikerd.com	 *8 A1020.80-LOD-350 Grade Beams* From Ikerd.com	
Description **Associated MasterFormat Sections:** 03 30 00	See A10		See A10 Image Notes: 1. Generic beam geometry is shown. 2. Geotechnical regions are shown for context and not required to be modeled as part of this element at this LOD.	See A1010 Image Notes: 1. Grade Beam 2. See slab on grade (A4010, A4020) for related conditions at this LOD. 3. Geotechnical regions are shown for context and not required to be modeled as part of this element at this LOD.	Element modeling to include: 1. Water stops 2. Pour joints and sequences required to identify reinforcing lap spice, scheduling, etc. 3. Chamfer Image Notes: 1. Grade beam sizes are modeled with interfaces to other systems such as but not limited to slab turn downs, key-ways between concrete pours, construction joints and reinforcing dowels into adjacent pours. 2. Interface elements such as void boxes or critical bearing zones are modeled where applicable. 3. See slab on grade ((A4010, A4020) for related conditions at this LOD. 4. Geotechnical regions are shown for context and not required to be modeled as part of this element at this LOD.	Element modeling to include: 1. Detailed post-tensioned components 2. Rebar including hooks and lap splices 3. Dowels 4. Waterproofing
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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Notes:

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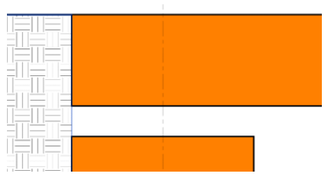
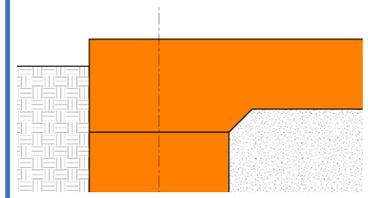
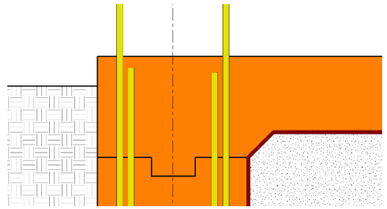
b. LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.

c. In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.

d. BIMforum.global/LOD

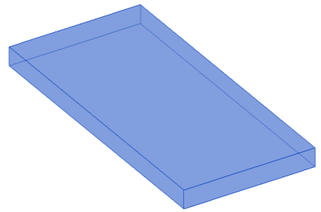
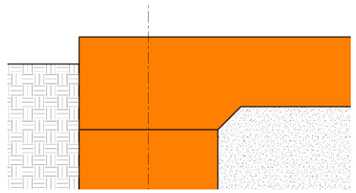
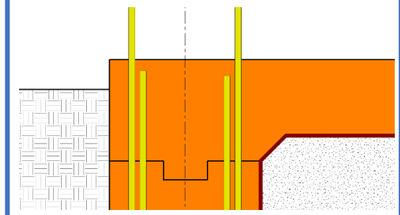
Standard Slabs-on-Grade

Uniformat **A4010** Omniclass **21-01 40 10** Uniclass **Pr 20 85 14 16**

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *9 A40-LOD-200 Slabs-on-Grad* From Ikerd.com	BIMForum.Global	 *10 A4010-LOD-300 Standard Slabs-on-Grad* From Ikerd.com	 *11 A4010-LOD-350 Standard Slabs-on-Grad* From Ikerd.com	
Description **Associated MasterFormat Sections:** 03 30 00	See A40	Assumptions for slabs are included in other modeled elements such as a volumetric mass or architectural floor element that contains a layer for assumed structural framing depth.	Element modeling to include: 1. Generic slab with approximate thickness. 2. Structural building grids for local project coordinate system are defined in model and coordinated with global civil coordinate system (State Plane Coordinate System, etc.)	***Notes:*** *a. LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.* *b. LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.* *c. In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.* *d. BIMforum.global/LOD*	Element modeling to include: 1. Overall size, thickness and geometry of the slab 2. Major openings such as large mechanical elements modeled to nominal dimensions. 3. Slab depressions 4. Edge turn downs 5. Material strength 6. Surfaces modeled to actual slopes	Element modeling to include: 1. All penetrations modeled to rough opening dimensions. 2. Pour joints 3. Control joints 4. Expansion joints 5. Water stops 6. Rebar and any embedded elements modeled at congested areas where specified by project BIMXP which is typically with in a set distance from the area of congestion. 7. Void boxes 8. Anchor rods 9. Dowels 10. Post-tension profile and strands if required by the BXP.	Element modeling to include: 1. Fully modeled rebar 2. Actual slab dimensions and profiles with fully modeled rebar 3. Post tensioning components 4. All joints 5. Water proofing 6. Finish
		250 [b,c]					
		The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).					
LoD 500							
LoA	**200**[b,c]						

Structural Slabs-on-Grade

Uniformat **A4020** Omniclass **21-01 40 20** Uniclass **Pr 20 85 14 16**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		 *12 A4020-LOD-300 Structural Slabs-on-Grad* From Ikerd.com	 *13 A4020-LOD-350 Structural Slabs-on-Grad* From Ikerd.com	
Description **Associated MasterFormat Sections:** 03 30 00	See A40		See A40	Element modeling to include: 1. Overall size, thickness and geometry of the slab-on-grade 2. Major openings such as large mechanical elements modeled to nominal dimensions. 3. Slab depressions 4. Edge turn downs 5. All sloping surfaces included in model element with exception of elements affected by manufacturer selection which are not known at this LOD. Such conditions could include floor geometry differences where different specified manufacturers will not be known until the actual system is selected.	Element modeling to include: 1. All penetrations modeled to rough opening dimensions. 2. Pour joints 3. Control joints 4. Expansion joints 5. Water Stops 6. Rebar and any embedded elements modeled at congested areas where specified by project BXP which is typically with in a set distance from the area of congestion. 7. Void boxes 8. Anchor rods 9. Moisture retarder 10. Dowels 11. Post-tension profile and strands modeled if required by the BXP	Element modeling to include: 1. Fully modeled rebar 2. Actual slab dimensions and profiles with fully modeled rebar 3. Post tensioning components 4. All joints 5. Water proofing 6. Finish
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Concrete Column

Uniformat **B1010.10.12** Omniclass **21-02 10 10 10 12** Uniclass **Ss 20 30 75 15**

LOD	000[a]	100[b,c]	200[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *18 B1010.10- LOD 200 Precast Structural Column (Concrete)* From Ikerd.com
Description **Associated MasterFormat Sections:** See note in left column. Master Class: 03 30 00 / 03 40 00 / 04 20 00 / 05 10 00 / 05 20 00 / 05 21 23 / 05 42 00 / 05 44 00 / 06 11 00 / 06 13 00 / 06 13 26 / 06 17 33 / 06 17 36 / 06 17 53 / 06 18 13 / 06 18 16 / 06 50 00	See B10		Element modeling to include: 1. Type of structural concrete system 2. Approximate geometry (e.g. depth) of structural elements
		250 [b,c]	
		The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).	
LoD 500			
LoA	**200**[b,c]		

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Notes:

a. LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.

b. LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.

c. In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.

d. BIMforum.global/LOD

300[b,c]	350[b,c]	400[b,c]
 *19 B1010.10- LOD 300 Precast Structural Column (Concrete)* From Ikerd.com	 *20 B1010.10- LOD 350 Precast Structural Column (Concrete)* From Ikerd.com	 *21 B1010.10- LOD 400 Precast Structural Column (Concrete)* From Ikerd.com
Element modeling to include: 1. Specific sizes and locations of main concrete structural members modeled per defined structural grid with correct orientation 2. All sloping surfaces included in model element with exception of elements affected by manufacturer selection	Element modeling to include: 1. Reinforcing Post-tension profiles and strand locations 2. Reinforcement called out, modeled if required by the BXP, typically only in congested areas 3. Chamfer 4. Pour joints and sequences to help identify reinforcing lap splice locations, scheduling, etc. 5. Expansion Joints 6. Lifting devices 7. Embeds and anchor rods 8. Post-tension profile and strands modeled if required by the BXP 9. Penetrations for items such as MEP 10. Any permanent forming or shoring components	Element modeling to include: 1. All reinforcement including post tension elements detailed and modeled 2. Finishes

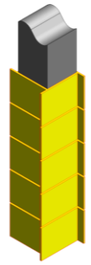
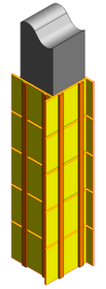
BIMFORUM®

CONCRETE FORMWORK

LoD 500

Formwork– Concrete Column

Uniformat -- Omniclass 23-13 31 17 Uniclass --

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *LOD 200 Concrete Column Formwork* From AscendBKF.org	 *LOD 300 Concrete Column Formwork* From AscendBKF.org	 *LOD 350 Concrete Column Formwork* From AscendBKF.org	 *LOD 400 Concrete Column Formwork* From AscendBKF.org
Description **Associated MasterFormat Sections:** 03-10-00			Element modeling to include: 1. Approximate geometry (e.g. panel dimensions or depth).	Element modeling to include: 1. Formwork materials are defined. These may include, but are not limited to plastic, wood or steel. 2. Material properties are defined. These may include, but are not limited to material finish, type, size, grade, strength, etc. 3. Products manufacturer is defined.	Element modeling to include: 1. Insulating faces are defined. 2. Insulating details are defined. These include, but are not limited, too, the type of insulation specified, the temperature change the insulation will cause and the thickness of the insulation within the formwork. 3. Hardware and fastener specification defined (may include Nails, Wood Screws, Bolts, Lag Screws, Ties, Anchors, Hangers, etc.) 4. Shoring connections are defined. 5. Scaffolding connections are defined 6. Liner details are defined.	Element modeling to include: 1. All connections. fasteners, and forms detailed and modeled. 2. Nails, Screws, Anchors, etc.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

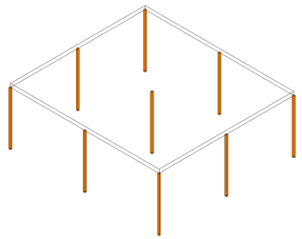
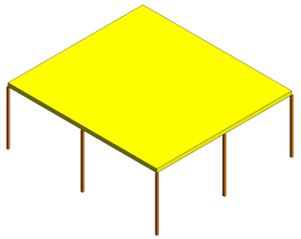
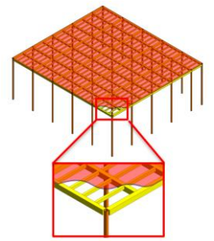
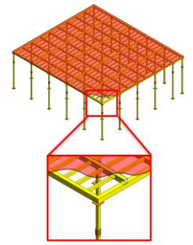
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Formwork– Concrete Slab

Uniformat -- Omniclass 23-13 31 17 Uniclass --

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 03-10-00			Element modeling to include: 1. Approximate geometry (e.g. formwork dimensions or depth).	Element modeling to include: 1. Formwork materials are defined. These may include, but are not limited to plastic, wood or steel. 2. Material properties are defined. These may include, but are not limited to material finish, type, size, grade, strength, etc. 3. Products manufacturer is defined.	Element modeling to include: 1. Insulating faces are defined. 2. Insulating details are defined. These include, but are not limited, too, the type of insulation specified, the temperature change the insulation will cause and the thickness of the insulation within the formwork. 3. Hardware and fastener specification defined (may include Nails, Wood Screws, Bolts, Lag Screws, Ties, Anchors, Hangers, etc.) 4. Shoring connections are defined. 5. Scaffolding connections are defined 6. Liner details are defined.	Element modeling to include: 1. All supports and formwork detailed and modeled. 2. Wood supports, metal supports, plates, etc.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

BIMFORUM®

BIMForum.Global

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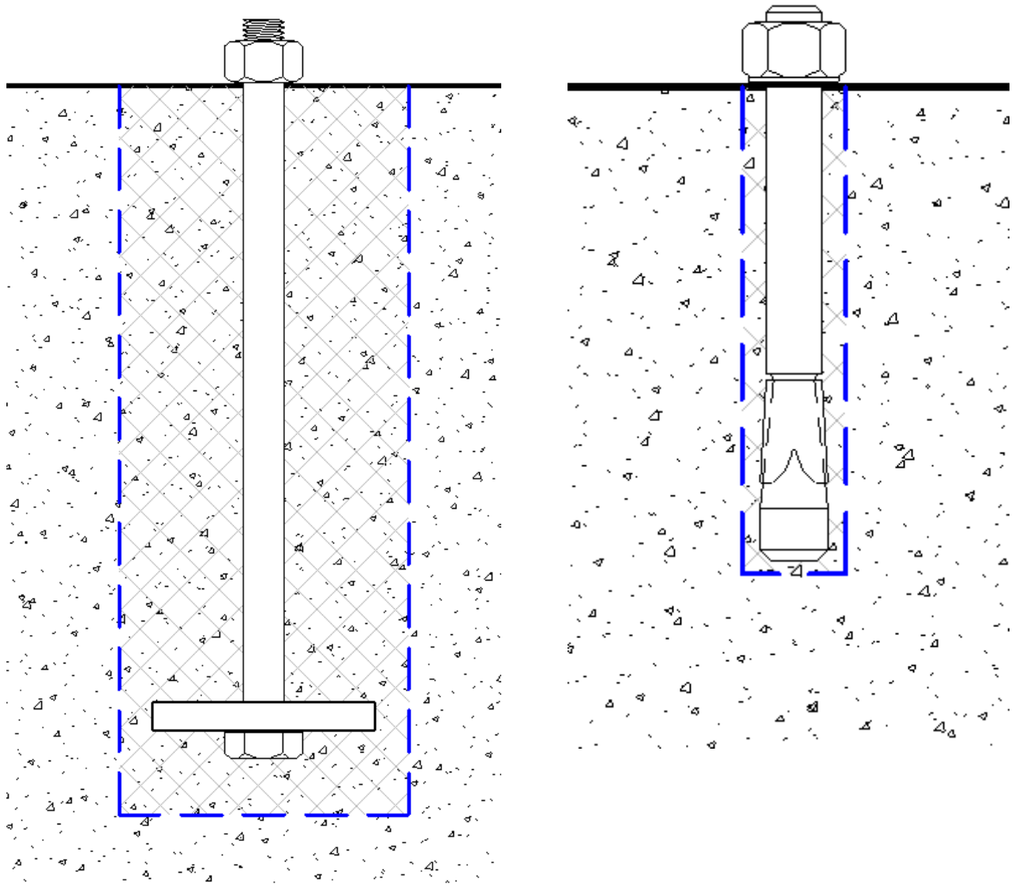
c. In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.

d. BIMforum.global/LOD



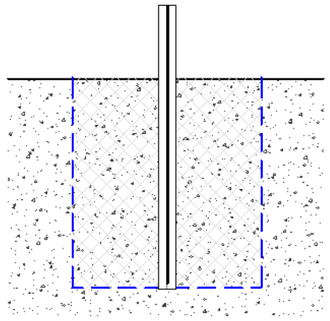
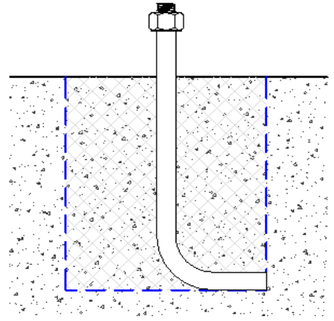
BIMFORUM®

CONCRETE ANCHOR SYSTEM

LoD 500

Mechanical Fasteners – L-Bolt

Uniformat -- Omniclass 23-13 23 11 Uniclass --

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.			 *LOD 350 L-Bolt Anchor* From AscendBKF.org	 *LOD 400 L-Bolt Anchor* From AscendBKF.org
Description **Associated MasterFormat Sections:** N/A			Refer to the model element of the main assembly being connected.	Refer to the model element of the main assembly being connected.	Element modeling to include: 1. Anchor Length 2. Embedment Length 3. Projection Length 4. Edge Distance Zone 5. Spacing Zone 6. Geometry, base size without threads 7. Required non-graphic information associated with model elements to include: • Anchor materials defined • Anchor type defined • Base material type (steel, concrete, masonry, etc) • Base material strength • Base material condition (New, existing, cracked, uncracked, saturated, etc.) • Finishes, i.e. primed, galvanized, etc.	Element modeling to include fabrication level information: 1. Anchor Threads 2. Anchor Washers 3. Anchor Nuts 4. Other non-graphic information may be included such as: • Mark identification that correlates with bill of material (i.e., piece mark) • Member finish (primer, galvanized, etc.) • Fastener finish (i.e., black, zinc electroplated, hot-dipped galvanized)
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

BIMFORUM®

BIMForum.Global

Notes:

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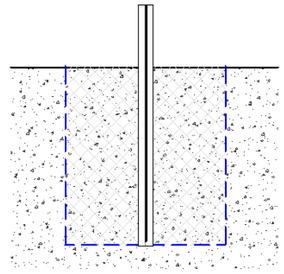
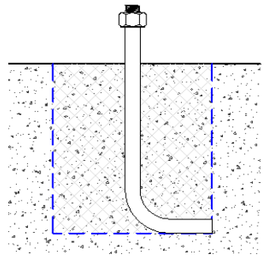
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Mechanical Fasteners – J-Bolt

Uniformat -- Omniclass 23-13 23 11 Uniclass --

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.			 *LOD 350 J-Bolt Anchor* From AscendBKF.org	 *LOD 400 J-Bolt Anchor* From AscendBKF.org
Description **Associated MasterFormat Sections:** N/A			Refer to the model element of the main assembly being connected.	Refer to the model element of the main assembly being connected.	Element modeling to include: 1. Anchor Length 2. Embedment Length 3. Projection Length 4. Edge Distance Zone 5. Spacing Zone 6. Geometry, base size without threads 7. Required non-graphic information associated with model elements to include: • Anchor materials defined • Anchor type defined • Base material type (steel, concrete, masonry, etc) • Base material strength • Base material condition (New, existing, cracked, uncracked, saturated, etc.) • Finishes, i.e. primed, galvanized, etc.	Element modeling to include fabrication level information: 1. Anchor Threads 2. Anchor Washers 3. Anchor Nuts 4. Other non-graphic information may be included such as: • Mark identification that correlates with bill of material (i.e., piece mark) • Member finish (primer, galvanized, etc.) • Fastener finish (i.e., black, zinc electroplated, hot-dipped galvanized)
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

BIMFORUM®

BIMForum.Global

Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

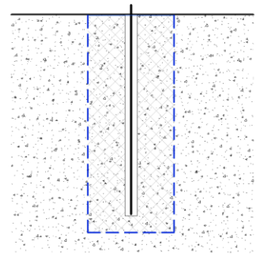
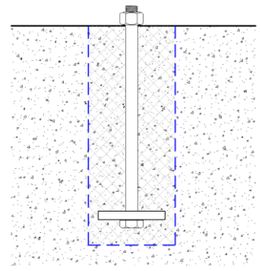
d. *BIMforum.global/LOD*

Mechanical Fasteners – Hex Head Bolt with Washer

Uniformat

Omniclass

Uniclass

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.			 *LOD 350 Hex Head Bolt with Washer* From AscendBKF.org	 *LOD 400 Hex Head Bolt with Washer* From AscendBKF.org
Description **Associated MasterFormat Sections:**			Refer to the model element of the main assembly being connected.		Element modeling to include: 1. Anchor Length 2. Embedment Length 3. Projection Length 4. Edge Distance Zone 5. Spacing Zone 6. Geometry, base size without threads Required non-graphic information associated with model elements to include: 1. Anchor materials defined 2. Anchor type defined 3. Base material type (steel, concrete, masonry, etc) 4. Base material strength 5. Base material condition (New, existing, cracked, uncracked, saturated, etc.) 6. Finishes, i.e. primed, galvanized, etc.	Element modeling to include fabrication level information: 1. Anchor Threads 2. Anchor Washers 3. Anchor Nuts Other non-graphic information may be included such as: 1. Mark identification that correlates with bill of material (i.e., piece mark) 2. Member finish (primer, galvanized, etc.) 3. Fastener finish (i.e., black, zinc electroplated, hot-dipped galvanized)
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

BIMFORUM®

BIMForum.Global

Notes:

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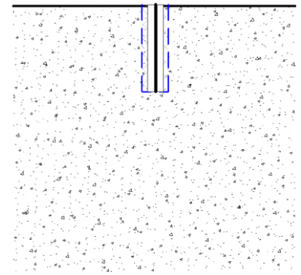
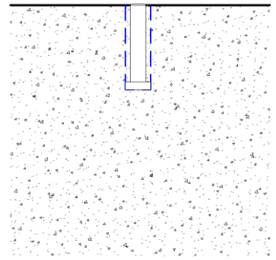
d. *BIMforum.global/LOD*

Mechanical Fasteners – Welded Headed Stud Bolt

Uniformat | Omniclass | Uniclass

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global		 *LOD 350 Welded Headed Stud Bolt* From AscendBKF.org	 *LOD 400 Welded Headed Stud Bolt* From AscendBKF.org
Description **Associated MasterFormat Sections:** --	23-13 23 11		Refer to the model element of the main assembly being connected.		Refer to the model element of the main assembly being connected.	Element modeling to include: 1. Anchor Length 2. Embedment Length 3. Projection Length 4. Edge Distance Zone 5. Spacing Zone 6. Geometry, base size without threads Required non-graphic information associated with model elements to include: 1. Anchor materials defined 2. Anchor type defined 3. Base material type (steel, concrete, masonry, etc) 4. Base material strength 5. Base material condition (New, existing, cracked, uncracked, saturated, etc.) 6. Finishes, i.e. primed, galvanized, etc.	Element modeling to include fabrication level information: 1. Anchor Threads 2. Anchor Washers 3. Anchor Nuts Other non-graphic information may be included such as: 1. Mark identification that correlates with bill of material (i.e., piece mark) 2. Member finish (primer, galvanized, etc.) 3. Fastener finish (i.e., black, zinc electroplated, hot-dipped galvanized)
		250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*					
LoD 500							
LoA	**200**[b,c]						

Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

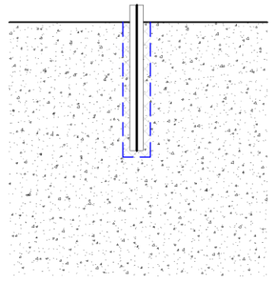
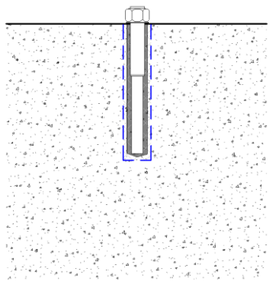
d. *BIMforum.global/LOD*

Mechanical Fasteners – Adhesive Anchor

Uniformat

Omniclass

Uniclass

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.			 *LOD 350 Adhesive Anchor* From AscendBKF.org	 *LOD 350 Adhesive Anchor* From AscendBKF.org
Description **Associated MasterFormat Sections:** --	23-13 23 11		Refer to the model element of the main assembly being connected.	Refer to the model element of the main assembly being connected.	Element modeling to include: 1. Anchor Length 2. Embedment Length 3. Projection Length 4. Edge Distance Zone 5. Spacing Zone 6. Geometry, base size without threads Required non-graphic information associated with model elements to include: 1. Anchor materials defined 2. Anchor type defined 3. Base material type (steel, concrete, masonry, etc) 4. Base material strength 5. Base material condition (New, existing, cracked, uncracked, saturated, etc.) 6. Finishes, i.e. primed, galvanized, etc.	Element modeling to include fabrication level information: 1. Anchor Threads 2. Anchor Washers 3. Anchor Nuts Other non-graphic information may be included such as: 1. Mark identification that correlates with bill of material (i.e., piece mark) 2. Member finish (primer, galvanized, etc.) 3. Fastener finish (i.e., black, zinc electroplated, hot-dipped galvanized)
			250 [b,c]			
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).			
LoD 500						
LoA	**200**[b,c]					

BIMFORUM®

BIMForum.Global

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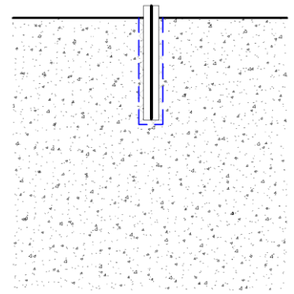
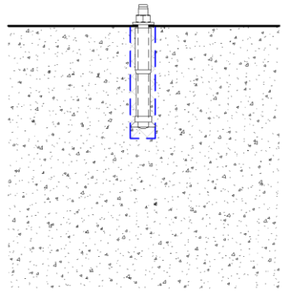
d. *BIMforum.global/LOD*

Mechanical Fasteners – Undercut Anchor

Uniformat | Omniclass | Uniclass

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.			 *LOD 350 Undercut Anchor* From AscendBKF.org	 *LOD 400 Undercut Anchor* From AscendBKF.org
Description **Associated MasterFormat Sections:** --	23-13 23 11		Refer to the model element of the main assembly being connected.	Refer to the model element of the main assembly being connected.	Element modeling to include: 1. Anchor Length 2. Embedment Length 3. Projection Length 4. Edge Distance Zone 5. Spacing Zone 6. Geometry, base size without threads Required non-graphic information associated with model elements to include: 1. Anchor materials defined 2. Anchor type defined 3. Base material type (steel, concrete, masonry, etc) 4. Base material strength 5. Base material condition (New, existing, cracked, uncracked, saturated, etc.) 6. Finishes, i.e. primed, galvanized, etc.	Element modeling to include fabrication level information: 1. Anchor Threads 2. Anchor Washers 3. Anchor Nuts Other non-graphic information may be included such as: 1. Mark identification that correlates with bill of material (i.e., piece mark) 2. Member finish (primer, galvanized, etc.) 3. Fastener finish (i.e., black, zinc electroplated, hot-dipped galvanized)
			250 [b,c]			
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).			
LoD 500						
LoA	**200**[b,c]					

BIMFORUM®

BIMForum.Global

Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

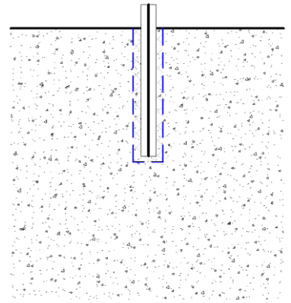
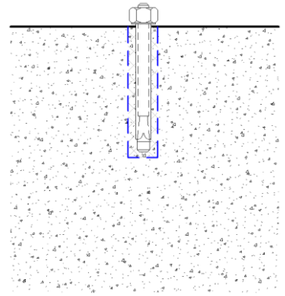
d. *BIMforum.global/LOD*

Mechanical Fasteners – Torque-controlled Expansion Anchor (Sleeve Type)

Uniformat

Omniclass

Uniclass

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.			 *LOD 350 Torque-Controlled Expansion Anchor (Sleeve Type)* From AscendBKF.org	 *LOD 400 Torque-Controlled Expansion Anchor (Sleeve Type)* From AscendBKF.org
Description **Associated MasterFormat Sections:** --	23-13 23 11		Refer to the model element of the main assembly being connected.	Refer to the model element of the main assembly being connected.	Element modeling to include: 1. Anchor Length 2. Embedment Length 3. Projection Length 4. Edge Distance Zone 5. Spacing Zone 6. Geometry, base size without threads Required non-graphic information associated with model elements to include: 1. Anchor materials defined 2. Anchor type defined 3. Base material type (steel, concrete, masonry, etc) 4. Base material strength 5. Base material condition (New, existing, cracked, uncracked, saturated, etc.) 6. Finishes, i.e. primed, galvanized, etc.	Element modeling to include fabrication level information: 1. Anchor Threads 2. Anchor Washers 3. Anchor Nuts Other non-graphic information may be included such as: 1. Mark identification that correlates with bill of material (i.e., piece mark) 2. Member finish (primer, galvanized, etc.) 3. Fastener finish (i.e., black, zinc electroplated, hot-dipped galvanized)
			250 [b,c]			
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).			
LoD 500						
LoA	**200**[b,c]					

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Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

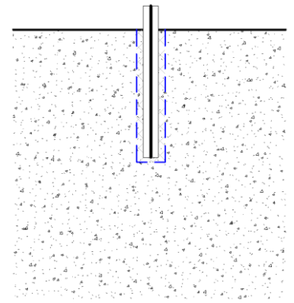
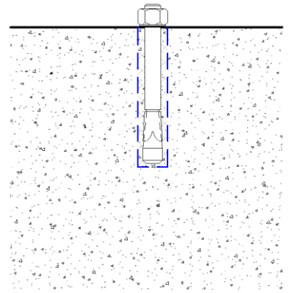
d. *BIMforum.global/LOD*

Mechanical Fasteners – Torque-controlled Expansion Anchor (Stud Type)

Uniformat

Omniclass

Uniclass

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.			 *LOD 350 Torque-Controlled Expansion Anchor (Stud Type)* From AscendBKF.org	 *LOD 400 Torque-Controlled Expansion Anchor (Stud Type)* From AscendBKF.org
Description **Associated MasterFormat Sections:** --	23-13 23 11		Refer to the model element of the main assembly being connected.	Refer to the model element of the main assembly being connected.	Element modeling to include: 1. Anchor Length 2. Embedment Length 3. Projection Length 4. Edge Distance Zone 5. Spacing Zone 6. Geometry, base size without threads Required non-graphic information associated with model elements to include: 1. Anchor materials defined 2. Anchor type defined 3. Base material type (steel, concrete, masonry, etc) 4. Base material strength 5. Base material condition (New, existing, cracked, uncracked, saturated, etc.) 6. Finishes, i.e. primed, galvanized, etc.	Element modeling to include fabrication level information: 1. Anchor Threads 2. Anchor Washers 3. Anchor Nuts Other non-graphic information may be included such as: 1. Mark identification that correlates with bill of material (i.e., piece mark) 2. Member finish (primer, galvanized, etc.) 3. Fastener finish (i.e., black, zinc electroplated, hot-dipped galvanized)
			250 [b,c]			
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).			
LoD 500						
LoA	**200**[b,c]					

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BIMForum.Global

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

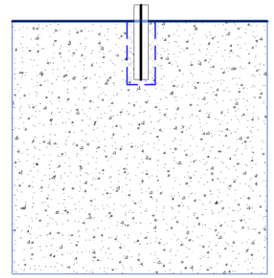
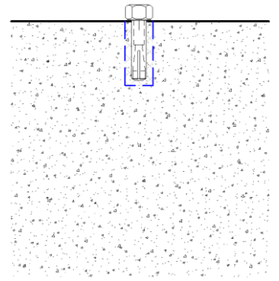
d. *BIMforum.global/LOD*

Mechanical Fasteners – Drop-in Type Displacement-Controlled Expansion Anchor

Uniformat

Omniclass

Uniclass

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.			 *LOD 350 Drop-In Type Displacement-Controlled Expansion Anchor* From AscendBKF.org	 *LOD 400 Drop-In Type Displacement-Controlled Expansion Anchor* From AscendBKF.org
Description **Associated MasterFormat Sections:** --	23-13 23 11		Refer to the model element of the main assembly being connected.	Refer to the model element of the main assembly being connected.	Element modeling to include: 1. Anchor Length 2. Embedment Length 3. Projection Length 4. Edge Distance Zone 5. Spacing Zone 6. Geometry, base size without threads Required non-graphic information associated with model elements to include: 1. Anchor materials defined 2. Anchor type defined 3. Base material type (steel, concrete, masonry, etc) 4. Base material strength 5. Base material condition (New, existing, cracked, uncracked, saturated, etc.) 6. Finishes, i.e. primed, galvanized, etc.	Element modeling to include fabrication level information: 1. Anchor Threads 2. Anchor Washers 3. Anchor Nuts Other non-graphic information may be included such as: 1. Mark identification that correlates with bill of material (i.e., piece mark) 2. Member finish (primer, galvanized, etc.) 3. Fastener finish (i.e., black, zinc electroplated, hot-dipped galvanized)
			250 [b,c]			
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).			
LoD 500						
LoA	**200**[b,c]					

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BIMForum.Global

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d. *BIMforum.global/LOD*

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CONCRETE REPAIR

LoD 500

Concrete Strengthening – FRP Fiber-Reinforced Polymer

Uniformat | Omniclass | Uniclass

LOD	000[a]	100[b,c]	200[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 From Ikerd.com
Description **Associated MasterFormat Sections:**			Approximate areas of repair are identified as 2D surface patterns (B) on the element being repaired (A). Repair instructions are referenced in specifications and general notes.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*
LoD 500			
LoA			**200**[b,c]

BIMFORUM

BIMForum.Global

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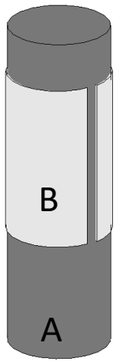
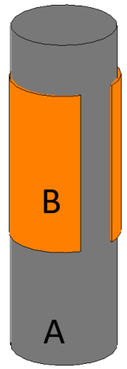
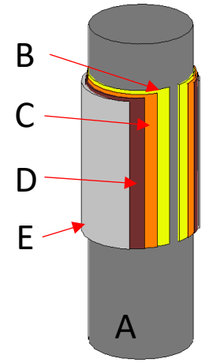
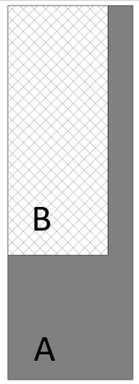
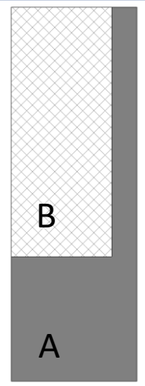
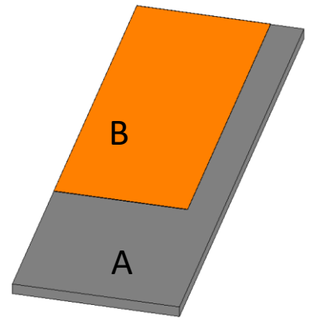
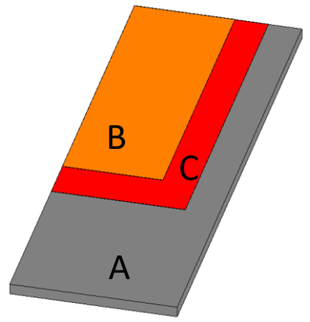
d. *BIMforum.global/LOD*

300[b,c]	350[b,c]	400[b,c]
 From Ikerd.com	 From Ikerd.com	 From Ikerd.com
Specific areas of repair are identified as 2D surface patterns (B) on the element being repaired (A). On existing structures, specific as-built geometry is defined in the model in the areas that repairs are applied.	Surface repair areas (B) are modeled in 3D with a thickness on the elements being repaired (A). Interface between main element and concrete strengthening are modeled.	Layers and sequences of repair system are modeled in 3D on the element being repaired (A), noted as such in the graphic above: A. Concrete Substrate B. Primer C. Paste and Filler D. Fabric Saturated E. Protective Coating

Concrete Repair
FRCM – Fabric-Reinforced Cementitious Matrix

Uniformat | Omniclass | Uniclass

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 From Ikerd.com	 From Ikerd.com	 From Ikerd.com	 From Ikerd.com
Description **Associated MasterFormat Sections:**			Approximate areas of repair is identified (B) on the repair substrate (A). Repair instructions are referenced in specifications and general notes.	Specific areas of repair (A) is modeled as a 2D surface on top of the specific geometry of the element being repaired (B). On existing structures, specific as-built geometry is defined in the model in the areas that repairs are applied	Surface repair (B) areas is modeled in 3D with a thickness on top of the element being repaired (B). Interface between main element and concrete strengthening are modeled.	Layers and sequences of repair surface preparation (C) and repair system (B) are modeled on top of the element being repaired (A).
			250 [b,c]			
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).			
LoD 500						
LoA	**200**[b,c]					

BIMFORUM

BIMForum.Global

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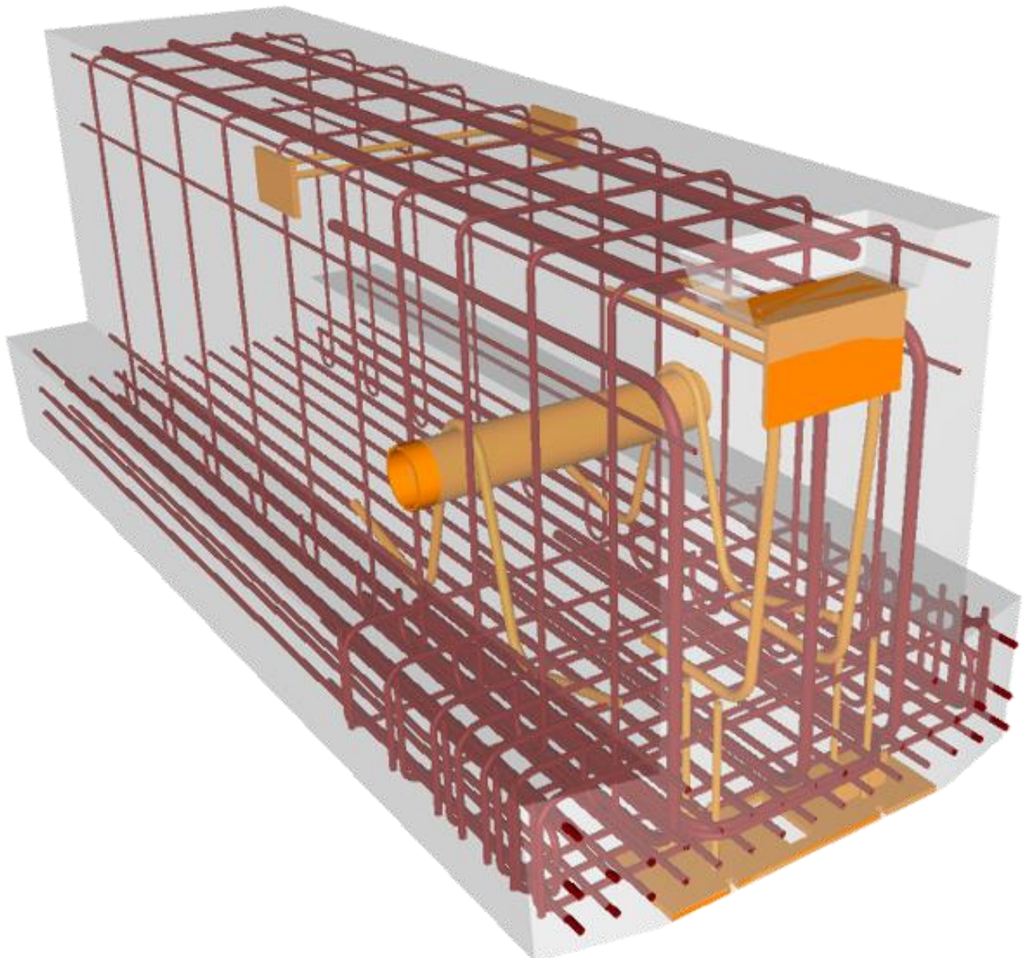
d. *BIMforum.global/LOD*

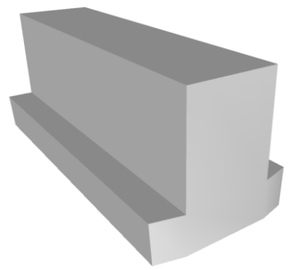
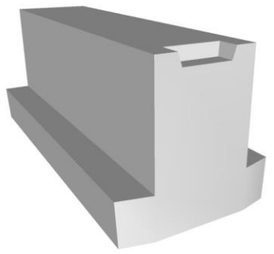
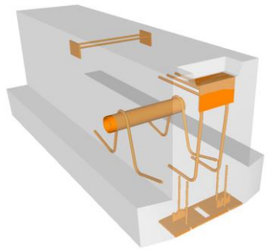
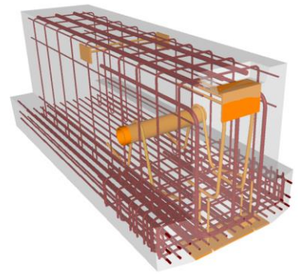


LoD 500

PRECAST CONCRETE

All reinforcement including post tensión elements detailed and modeled camber

Uniformat **B1010.10.11** Omniclass **21-02 10 10 10 11** Uniclass **Ss 20 20 75 15**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *LOD 200 Precast Structural Inverted T Beam (Concrete)* From Ikerd.com	 *LOD 300 Precast Structural Inverted T Beam (Concrete)* From Ikerd.com	 *LOD 350 Precast Structural Inverted T Beam (Concrete)* From Ikerd.com	 *LOD 400 Precast Structural Inverted T Beam (Concrete)* From Ikerd.com
Description **Associated MasterFormat Sections:** See note under descritpoin. Master Class: 03 30 00 / 03 40 00 / 04 20 00 / 05 10 00 / 05 20 00 / 05 21 23 / 05 42 00 / 05 44 00 / 06 11 00 / 06 13 00 / 06 13 26 / 06 17 33 / 06 17 36 / 06 17 53 / 06 18 13 / 06 18 16 / 06 50 00			Element modeling to include: 1. Type of structural concrete system 2. Approximate geometry (e.g. depth) of structural elements	Element modeling to include: 1. Specific sizes and locations of main concrete structural members modeled per defined structural grid with correct orientation 2. All sloping surfaces included in model element with exception of elements affected by manufacturer selection	Element modeling to include: 1. Reinforcing Post-tension profiles and strand locations 2. Reinforcement called out, modeled if required by the BXP, typically only in congested areas 3. Chamfer 4. Pour joints and sequences to help identify reinforcing lap splice locations, scheduling, etc. 5. Lifting devices 6. Expansion Joints 7. Embeds and anchor rods 8. Post-tension profile and strands modeled if required by the BXP 9. Penetrations for items such as MEP 10. Any permanent forming or shoring components	Element modeling to include: 1. All reinforcements including post tension elements detailed and modeled. 2. Finishes
			250 [b,c]			
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).			
LoD 500						
LoA			**200**[b,c]			

BIMFORUM

BIMForum.Global

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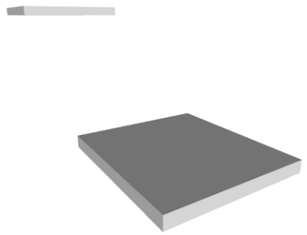
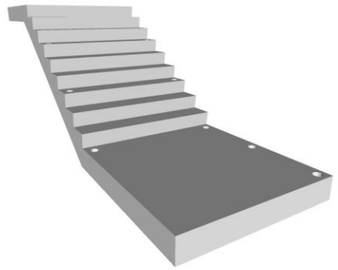
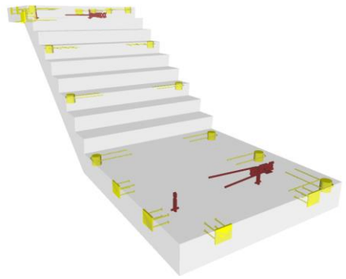
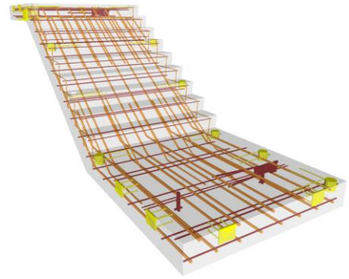
d. BIMforum.global/LOD

Precast Structural Stairs (Concrete)

Uniformat **B1080.20** Omniclass **21-02 10 80 10** Uniclass **Ss 35 10**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *53 B1080.10-LOD 200 Precast Structural Stairs (Concrete)* From Ikerd.com	 *54 B1080.10-LOD 300 Precast Structural Stairs (Concrete)* From Ikerd.com	 *55 B1080.10-LOD 350 Precast Structural Stairs (Concrete)* From Ikerd.com	 *56 B1080.10-LOD 400 Precast Structural Stairs (Concrete)* From Ikerd.com
Description **Associated MasterFormat Sections:** 03 11 23 / 03 30 00 / 03 41 23 / 03 48 19 / 05 51 00 05 55 00 / 05 71 00 / 06 43 00	See B1080		Element modeling to include: 1. Type of structural concrete system 2. Approximate geometry (e.g. depth) of structural elements	Element is accurate as to: 1. Riser count 2. Riser height 3. Tread width 4. Nosing conditions, including top and bottom 5. Landing geometry	Element modeling to include: 1. Reinforcing Post-tension profiles and strand locations 2. Reinforcement called out, modeled if required by the BXP, typically only in congested areas 3. Pour joints and sequences to help identify reinforcing lap splice locations, scheduling, etc. 4. Chamfer 5. Expansion Joints 6. Lifting devices 7. Embeds and anchor rods 8. Post-tension profile and strands modeled if required by the BXP 9. All penetrations modeled to rough opening dimensions. 10. Any permanent forming or shoring components	Element modeling to include: 1. All reinforcement including post tension elements detailed and modeled 2. Finishes, etc.
			250 [b,c]			
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).			
LoD 500						
LoA	**200**[b,c]					

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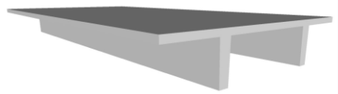
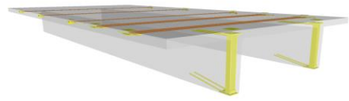
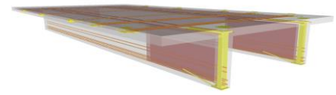
c. In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.

d. BIMforum.global/LOD

Precast Structural Double Tee (Concrete)

Uniformat **B1010.20.41** Omniclass **21-02 10 10 20 50** Uniclass **Pr 20 85 08 66**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *45 B1010.20 – LOD 200 Precast Structural Double Tee (Concrete)* From Ikerd.com	 *46 B1010.20 – LOD 300 Precast Structural Double Tee (Concrete)* From Ikerd.com	 *47 B1010.20 – LOD 350 Precast Structural Double Tee (Concrete)* From Ikerd.com	 *48 B1010.20 – LOD 200 Precast Structural Double Tee (Concrete)* From Ikerd.com
Description **Associated MasterFormat Sections:** 03 30 00 / 03 40 00 / 04 20 00 / 05 10 00 / 05 20 00 / 05 21 23 / 05 42 00 / 05 44 00 / 06 11 00 / 06 13 00 / 06 13 26 / 06 17 33 / 06 17 36 / 06 17 53 / 06 18 13 / 06 18 16 / 06 50 00	See B10B10		Element modeling to include: 1. Approximate geometry (e.g. depth) of structural elements.	Element modeling to include: 1. Specific sizes and locations of main concrete structural members modeled per defined structural grid with correct orientation. 2. Concrete defined per spec (strength, air entrainment, aggregate size, etc.) 3. All sloping surfaces included in model element with exception of elements affected by manufacturer selection.	Element modeling to include: 1. Reinforcing Post-tension profiles and strand locations. 2. Reinforcement called out, modeled if required by the BXP, typically only in congested areas. 3. Chamfer 4. Pour joints and sequences to help identify reinforcing lap splice locations, scheduling, etc. 5. Expansion Joints 6. Lifting devices 7. Embeds and anchor rods 8. Penetrations for items such as MEP 9. Any permanent forming or shoring components	Element modeling to include: 1. All reinforcement including post tension elements detailed and modeled 2. Finishes
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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Notes:

a. LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.

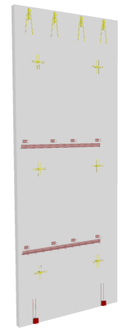
b. LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.

c. In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.

d. BIMforum.global/LOD

Precast Wall Construction (Concrete)

Uniformat **B2010.20.40** Omniclass **21-02 20 10 20 40** Uniclass **Ss 25 16 65**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.			 *79 B2010.20– LOD 350 Precast Wall (Concrete)* From Ikerd.com	 *80 B2010.20– LOD 350 Precast Wall (Concrete)* From Ikerd.com
Description **Associated MasterFormat Sections:** 03 30 00 / 03 40 00 / 04 20 00 / 05 41 00 / 06 11 00 / 06 12 00 / 06 16 00	N/A		Generic wall objects separated by type of material (e.g. brick wall vs. terracotta). Approximate thickness of layer represented by a single assembly. Layouts and locations still flexible.	Specific wall modeled to actual dimensions. Penetrations are modeled to nominal dimensions for major wall openings such as windows, doors, and large mechanical elements. Shear panels	Element modeling to include: 1. Reinforcing Post-tension profiles and strand locations 2. Reinforcement called out, modeled if required by the BXP, typically only in congested areas 3. Pour joints and sequences to help identify reinforcing lap splice locations, scheduling, etc. 4. Expansion Joints 5. Lifting devices 6. Embeds and anchor rods 7. Post-tension profile and strands modeled if required by the BXP 8. All penetrations are modeled at actual rough-opening dimensions. 9. Any permanent forming or shoring components 10. Chamfer, reveals, etc.	Element modeling to include: 1. All reinforcement including post tension elements detailed and modeled
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*					
LoD 500						
LoA	**200**[b,c]					

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BIMForum.Global

Notes:

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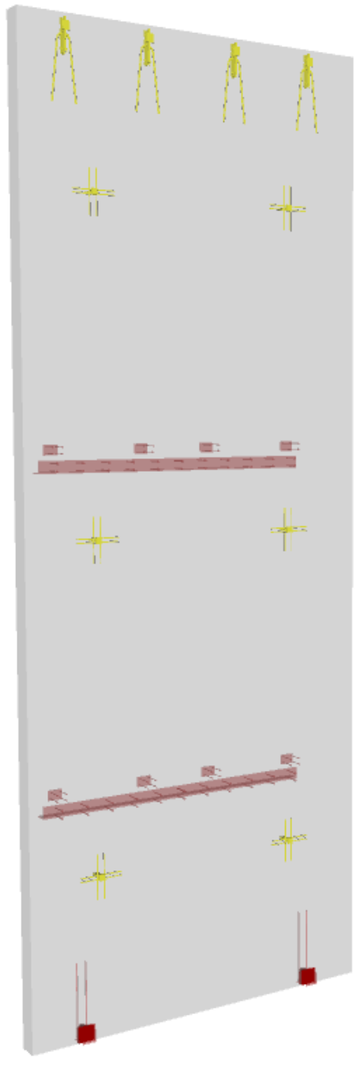
b. LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.

c. In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.

d. BIMforum.global/LOD

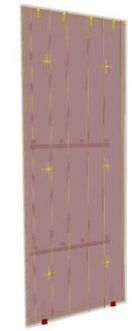


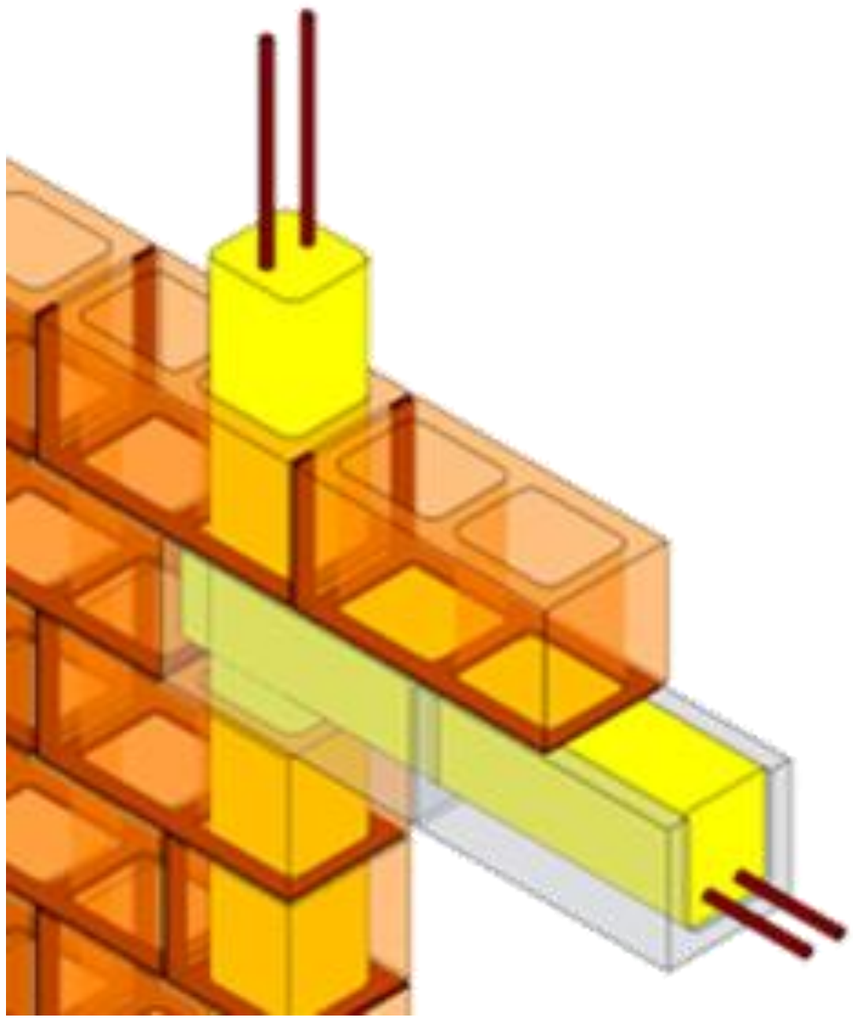
LoD 500

Tilt Wall Concrete

Precast Wall Construction (Concrete)

Uniformat **B2010.20.40** Omniclass **21-02 20 10 20 40** Uniclass **Ss 25 16 65**

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global		 *79 B2010.20– LOD 350 Tilt Wall (Concrete)* From lkerd.com	 *80 B2010.20– LOD 400 Tilt-Wall(Concrete)* From lkerd.com
Description **Associated MasterFormat Sections:** 03 30 00 / 03 40 00 / 04 20 00 / 05 41 00 / 06 11 00 / 06 12 00 / 06 16 00	N/A		Generic wall objects separated by type of material (e.g. brick wall vs. terracotta). Approximate thickness of layer represented by a single assembly. Layouts and locations still flexible.	***Notes:*** *a. LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.* *b. LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.* *c. In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.* *d. BIMforum.global/LOD*	Specific wall modeled to actual dimensions. Penetrations are modeled to nominal dimensions for major wall openings such as windows, doors, and large mechanical elements. Shear panels	Element modeling to include: 1. Reinforcing 2. Reinforcement called out, modeled if required by the BXP, typically only in congested areas 3. Pour joints and sequences to help identify reinforcing lap splice locations, scheduling, etc. 4. Expansion Joints 5. Lifting devices 6. Embeds and anchor rods 7. All penetrations are modeled at actual rough-opening dimensions. 8. Any permanent forming or shoring components 9. Chamfer, reveals, etc.	Element modeling to include: 1. All reinforcement elements detailed and modeled
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*				
LoD 500							
LoA	**200**[b,c]						



LoD 500

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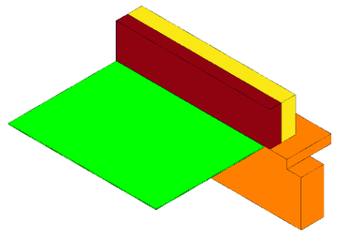
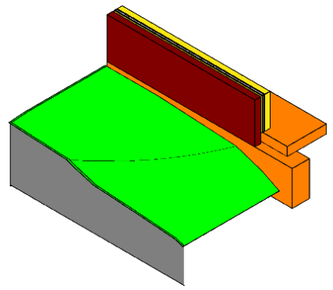
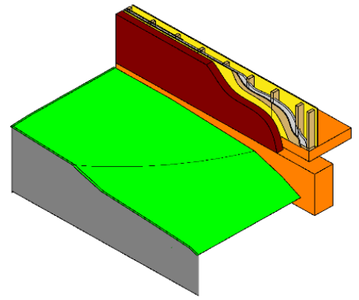
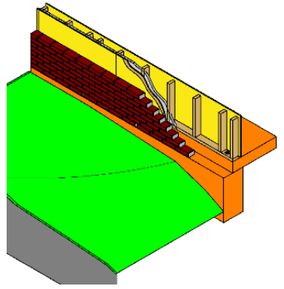
MASONRY

Exterior Wall Veneer

Uniformat **B2010.10** Omniclass **21-02 20 10 10** Uniclass **EF 25 10**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *63 B2010.10-LOD-200 Exterior Wall Veneer* From Ikerd.com	 *64 B2010.10-LOD-300 Exterior Wall Veneer* From Ikerd.com	 *65 B2010.10-LOD-350 Exterior Wall Veneer* From Ikerd.com	 *66 B2010.10-LOD-400 Exterior Wall Veneer* From Ikerd.com
Description **Associated MasterFormat Sections:** 03 40 00 / 04 20 00 / 04 26 13 / 04 42 00 / 04 43 13 / 04 70 00 / 05 19 13 / 06 20 13 / 06 61 00 / 07 19 00 / 07 24 00 / 07 42 00 / 07 44 00 / 07 46 00 / 09 24 00 / 09 24 23 / 09 90 00	N/A		Generic wall objects separated by type of material (e.g. brick wall vs. terracotta). Approximate thickness of layer represented by a single assembly. Layouts and locations still flexible.	Exterior wall veneer modeled as a separate element. Specific wall modeled to actual dimensions. Penetrations are modeled to nominal dimensions for major wall openings such as windows, doors, and large mechanical elements.	Exterior wall veneer modeled as a separate element. All penetrations are modeled at actual rough-opening dimensions. Precast concrete panels are individually modeled. Connection points are specified. Connection to interfacing systems Images notes: 1. Wall veneer element 2. Skin layers including but not limited to waterproofing membrane 3. Core framing 4. Concrete slab edge	Element modeling includes: 1. Individual masonry units 2. Skin layers including 3. Moisture barrier, sheathing, and insulation 4. Core framing 5. Bolt 6. Concrete slab edge 7. Weep holes
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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BIMForum.Global

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

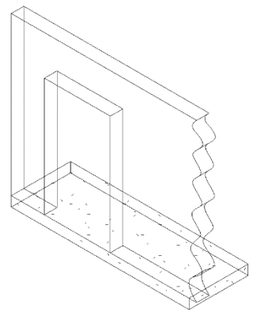
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Masonry Wall Construction – Unit Masonry (Exterior)

Uniformat **B2010.20.30** Omniclass **21-02 20 10 20 30** Uniclass **Ss 25 13 50**

LOD	000[a]	100[b,c]	200[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *75 B2010.04-LOD-200 Exterior Wall (Masonry)* From lkerd.com
Description **Associated MasterFormat Sections:** 01 83 16	N/A		Generic wall objects separated by type of material (e.g. brick wall vs. terracotta). Approximate thickness of layer represented by a single assembly. Layouts and locations still flexible.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*
LoD 500			
LoA	**200**[b,c]		

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Notes:

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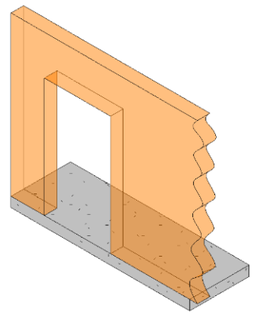
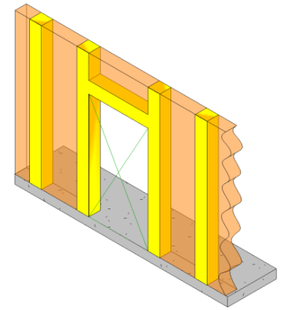
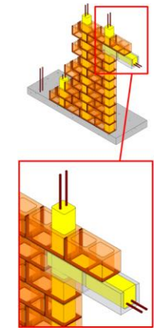
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

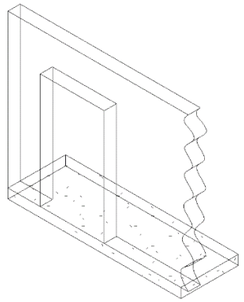
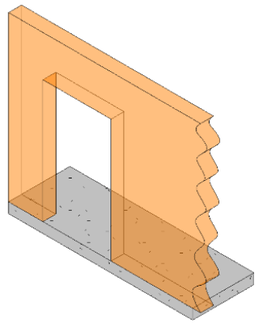
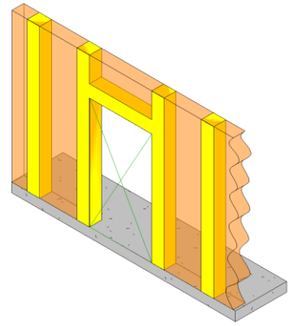
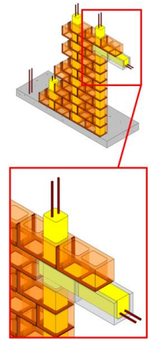
c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

300[b,c]	350[b,c]	400[b,c]
 *76 B2010.04-LOD-300 Exterior Wall (Masonry)* From lkerd.com	 *77 B2010.04-LOD-350 Exterior Wall (Masonry)* From lkerd.com	 *78 B2010.04-LOD-400 Exterior Wall (Masonry)* From lkerd.com
Specific wall modeled to actual dimensions. Penetrations are modeled to nominal dimensions for major wall openings such as windows, doors, and large mechanical elements. Shear panels	Element modeling to include: 1. Members modeled at any interface with wall edges (top, bottom, sides) or opening through wall 2. All penetrations are modeled at actual rough-opening dimensions. 3. Openings modeled with support framing around openings 4. Any regions that would impact coordination with other systems such as but not limited to: 5. Bond Beam & Lintel Regions 6. Reinforcing & Embed Regions 7. Jam Regions 8. Any other grouted regions	Element modeling to include: 1. Reinforcing 2. Connections 3. Grouting Material 4. Jams 5. Bond Beams 6. Lintels 7. Member fabrication part number 8. Any part required for complete installation

Floor Structural Frame (Masonry Framing)

Uniformat **B1010.10** Omniclass **21-02 10 10 10** Uniclass **Ss 30 12 33**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *37 B1010.10-LOD-200 Floor Structural Frame (Masonry Framing)* From Ikerd.com	 *38 B1010.10-LOD-300 Floor Structural Frame (Masonry Framing)* From Ikerd.com	 *39 B1010.10-LOD-350 Floor Structural Frame (Masonry Framing)* From Ikerd.com	 *40 B1010.10-LOD-400 Floor Structural Frame (Masonry Framing)* From Ikerd.com
Description **Associated MasterFormat Sections:** 04 20 00	See B10		See B10	Element modeling to include: 1. floor element with design-specified locations and geometries	Element modeling to include: 1. Members modeled at any interface with wall edges (top, bottom, sides) or opening through wall 2. Any regions that would impact coordination with other systems such as but not limited to: a. Bond Beam & Lintel Regions b. Reinforcing & Embed Regions c. Jam Regions d. Any other grouted regions	Element modeling to include: 1. Reinforcing 2. Connections 3. Grouting Material 4. Jams 5. Bond Beams 6. Lintels 7. Member fabrication part number 8. Any part required for complete installation
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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Notes:

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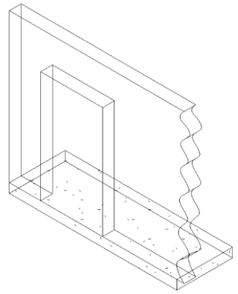
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*
c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*
d. *BIMforum.global/LOD*

Masonry Wall Construction – Unit Masonry (Interior)

Uniformat **C1010.10.10** Omniclass **21-03 10 10 10 10** Uniclass **Ss 25 13 50 56**

LOD	000[a]	100[b,c]	200[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *85 C1010.04-LOD-200 Interior Wall (Masonry)* From Ikerd.com
Description **Associated MasterFormat Sections:** 10 22 00 / 01 84 13	See C10	IN	See C1010

LOD	250[b,c]
	The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).

LoD 500

LoA **200**[b,c]

BIMFORUM

BIMForum.Global

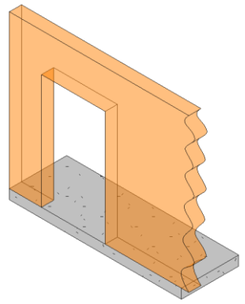
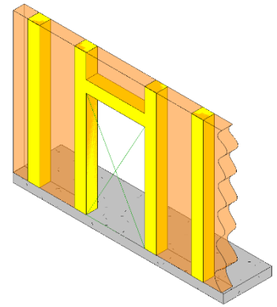
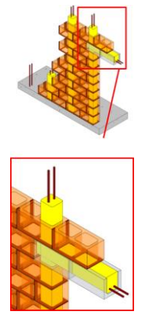
Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

LOD	300[b,c]	350[b,c]	400[b,c]
	 *86 C1010.04-LOD-300 Interior Wall (Masonry)* From Ikerd.com	 *87 C1010.04-LOD-350 Interior Wall (Masonry)* From Ikerd.com	 *88 C1010.04-LOD-400 Interior Wall (Masonry)* From Ikerd.com
Description	See C1010.10	Element modeling to include: 1. Members modeled at any interface with wall edges (top, bottom, sides) or opening through wall 2. All penetrations are modeled at actual rough-opening dimensions. 3. Any regions that would impact coordination with other systems such as but not limited to: a. Bond Beam & Lintel Regions b. Reinforcing & Embed Regions 4. Jam Regions	Element modeling to include: 1. Reinforcing 2. Connections 3. Grouting Material 4. Jams 5. Bond Beams 6. Lintels 7. Member fabrication part number 8. Any part required for complete installation

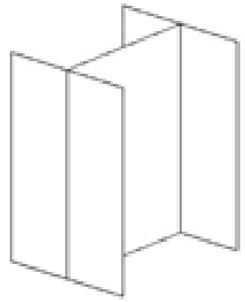
LoD 500

BIMFORUM®

STRUCTURAL & MISCELLANEOUS STEEL

Floor Structural Frame (Steel Framing Column)

Uniformat **B1010.10.30** Omniclass **21-02 10 10 10 30** Uniclass

LOD	000[a]	100[b,c]	200[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *23 B1010.10-LOD-200 Floor Structural Frame (Steel Framing Columns)* From Ikerd.com
Description **Associated MasterFormat Sections:** 05 10 00	Generic column element. See B10.		See B1010
			250 [b,c]
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).
LoD 500			
LoA	**200**[b,c]		

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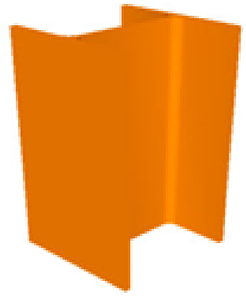
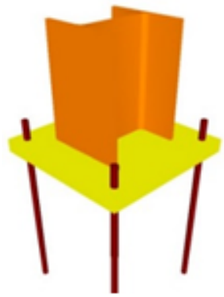
Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

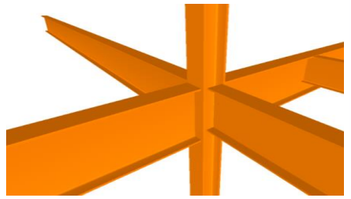
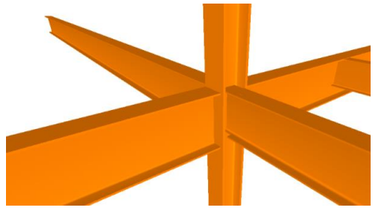
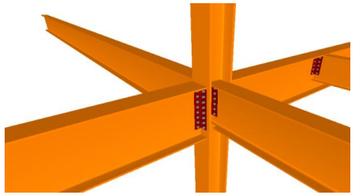
c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

300[b,c]	350[b,c]	400[b,c]
 *24 B1010.10-LOD-300 Floor Structural Frame (Steel Framing Columns)* From Ikerd.com	 *25 B1010.10-LOD-350 Floor Structural Frame (Steel Framing Columns)* From Ikerd.com	 *26 B1010.10-LOD-400 Floor Structural Frame (Steel Framing Columns)* From Ikerd.com
Element modeling to include: 1. Specific sizes of main vertical structural members modeled per defined structural grid with correct location and orientation.	Element modeling to include: 1. Actual elevations and location of member connections 2. Main elements of typical connections applied to all structural steel connections such as base plates, gusset plates, anchor rods, etc. 3. Any miscellaneous steel members with correct size, shape, orientation, and material. 4. Any steel structure reinforcement such as web stiffeners, sleeve penetrations, etc.	Element modeling to include: 1. Welds 2. Coping of members 3. Cap pates 4. Washers, nuts, etc. 5. All assembly elements

Floor Structural Frame (Steel Framing Beams)

Uniformat **B1010.10.40** Omniclass **21-02 10 10 10 40** Uniclass **Ss 20 20 75 80**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		 *27 B1010.10-LOD-300 Floor Structural Frame (Steel Framing Beams)* From Ikerd.com	 *28 B1010.10-LOD-350 Floor Structural Frame (Steel Framing Beams)* From Ikerd.com	 *29 B1010.10-LOD-400 Floor Structural Frame (Steel Framing Beams)* From Ikerd.com
Description **Associated MasterFormat Sections:** 05 10 00 / 05 20 00 / 05 21 23	See B10		See B1010	Element modeling to include: 1. Specific sizes of main horizontal structural members modeled per defined structural grid with correct orientation, slope and elevation	Element modeling to include: 1. Actual elevations and location of member connections 2. Main elements of typical connections applied to all structural steel connections such as base plates, gusset plates, anchor rods, etc. 3. Any miscellaneous steel members with correct size, shape, orientation and material 4. Any steel structure reinforcement such as web stiffeners, sleeve penetrations, etc.	Element modeling to include: 1. Welds 2. Coping of members 3. Bent plates, cap pates, etc. 4. Bolts, washers, nuts, etc. 5. All assembly elements
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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Notes:

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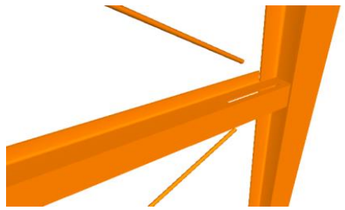
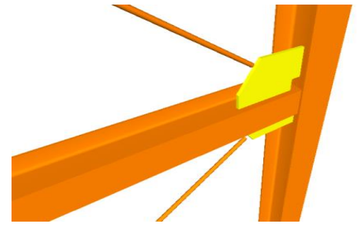
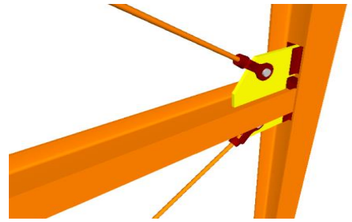
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Floor Structural Frame (Steel Framing Bracing Rods)

Uniformat **B1010.10.50** Omniclass **21-02 10 10 10 50** Uniclass **Pr 20 85 84 88**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		 *30 B1010.100-LOD-300 Floor Structural Frame (Steel Framing Bracing Rods)* From Ikerd.com	 *31 B1010.100-LOD-350 Floor Structural Frame (Steel Framing Bracing Rods)* From Ikerd.com	 *32 B1010.100-LOD-400 Floor Structural Frame (Steel Framing Bracing Rods)* From Ikerd.com
Description **Associated MasterFormat Sections:** 05 10 00	See B10		See B1010	Element modeling to include: 1. Specific sizes of main structural braces modeled per defined structural grid	Element modeling to include: 1. Connection details 2. Actual elevations and location of member connections 3. Main elements of typical connections applied to all structural steel connections such as base plates, gusset plates, anchor rods, etc. 4. Any miscellaneous steel members with correct size, shape, orientation and material	Element modeling to include: 1. Welds 2. Clevis 3. Bolts, washers, nuts, etc. 4. All assembly elements
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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BIMForum.Global

Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

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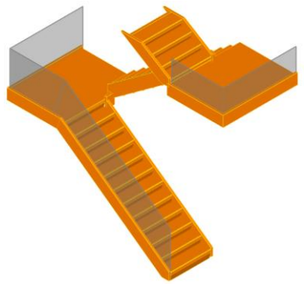
STEEL STAIRS & RAILING

LoD 500

Stair Construction

Uniformat **B1080.10** Omniclass **21-02 10 80 10** Uniclass **Ss 35 10**

LOD	000[a]	100[b,c]	200[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *49 B1080.10-LOD-200 Stair Construction* From Ikerd.com
Description **Associated MasterFormat Sections:** 03 11 23 / 03 30 00 / 03 41 23 / 03 48 19 / 05 51 00 / 05 55 00 / 05 71 00 / 06 43 00	See B1080		Generic model element with simplified treads and risers. Nominal overall unit scope shall include: Nominal plan dimensions (length, width) Nominal vertical dimensions (levels, landings)
		250 [b,c]	
		The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).	
LoD 500			
LoA	**200**[b,c]		

BIMFORUM

BIMForum.Global

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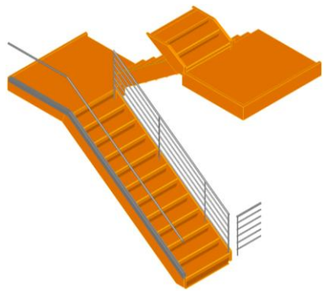
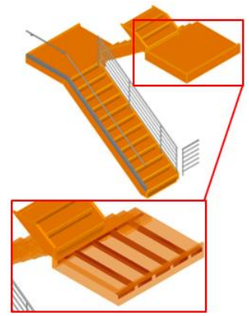
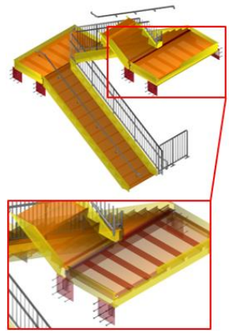
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

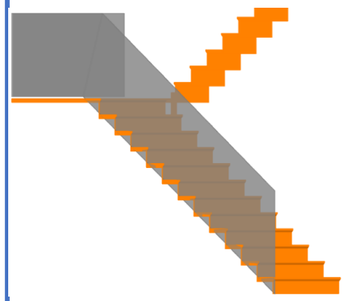
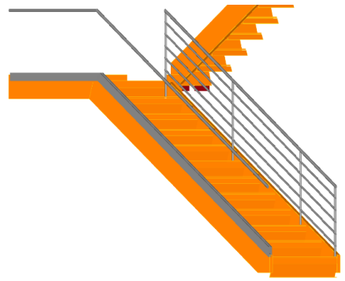
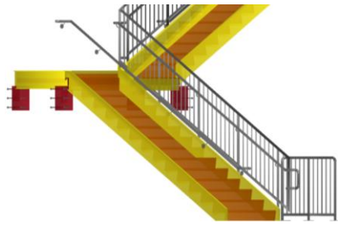
c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

300[b,c]	350[b,c]	400[b,c]
 *50 B1080.10-LOD-300 Stair Construction* From Ikerd.com	 *51 B1080.10-LOD-350 Stair Construction* From Ikerd.com	 *52 B1080.10-LOD-400 Stair Construction* From Ikerd.com
Major stair support elements are modeled (stringers). Element is accurate as to: 1. Riser count 2. Riser height 3. Tread width 4. Nosing conditions, including top and bottom 5. Landing geometry	Secondary stair support elements are modeled (hangers, brackets, handrail connection points etc.).	All stair elements are modeled to support fabrication and installation.

Stair Railings

Uniformat **B1080.50** Omniclass **21-02 10 80 50** Uniclass **Ss 25 15 60 35**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *57 B1080.50-LOD-200 Stair Railings* From Ikerd.com	 *58 B1080.50-LOD-300 Stair Railings* From Ikerd.com		 *59 B1080.50-LOD-400 Stair Railings* From Ikerd.com
Description **Associated MasterFormat Sections:** 05 15 00 / 05 52 00 / 05 73 00 / 06 43 16 / 06 63 00 / 06 81 00	See B1080		Generic model elements without articulation of material or railing structure such as balusters, posts, or supports.	Element is accurate as to: 1. Railing geometry 2. Railing element spacing 3. Supports for wall mounted railings		[See Fundamental LOD Definitions]
			250 [b,c]			
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).			
LoD 500						
LoA			**200**[b,c]			

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Notes:

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c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

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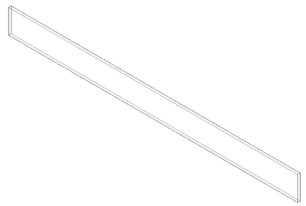
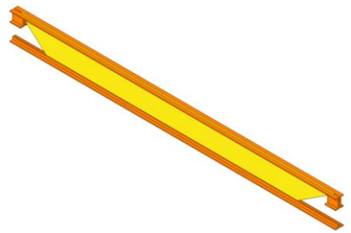
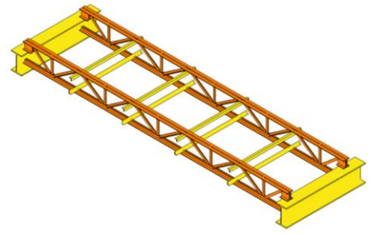
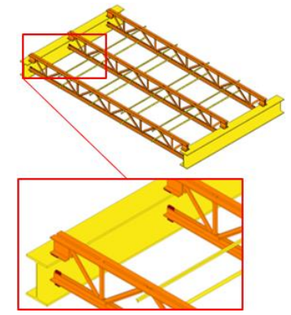
STEEL JOISTS

LoD 500

Floor Structural Frame (Steel Joist)

Uniformat **B1010.10.60** Omniclass **21-02 10 10 10 60** Uniclass **Pr 20 85 90 11**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *33 B1010.10-LOD-200 Floor Structural Frame (Steel Joists),* From lkerd.com	 *34 B1010.10-LOD-300 Floor Structural Frame (Steel Joists),* From lkerd.com	 *35 B1010.10-LOD-350 Floor Structural Frame (Steel Joists),* From lkerd.com	 *36 B1010.10-LOD-400 Floor Structural Frame (Steel Joists),* From lkerd.com
Description **Associated MasterFormat Sections:** 05 10 00 / 05 20 00 / 05 21 23	See B10		Element modeling to include: 1. Approximate depth	Element modeling to include: 1. Joist size, depth, slope, and material 2. Spacing and end elevations 3. Joist seat depth	Element modeling to include, information needed for cross trade collaboration such as: 1. Actual final joist profile locations with accurate panel points 2. Joist bridging and lateral braces. 3. Fire protection coating 4. Any miscellaneous steel pertaining to the joist 5. Joist seat width 6. Erection details for installation 7. Chord and web member section profiles are defined 8. Joist layout in coordination with metal deck fasteners would be confirmed 9. Non-standard joist seat depths and\or sloping joist seat	Element modeling to include: 1. Welds 2. Connection plates 3. Member fabrication part number 4. Quantity 5. Spacing 6. Anchorage 7. Material required for proper installation 8. Mark identification that correlates with bill of material 9. Type of shop paint if required
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

BIMFORUM

BIMForum.Global

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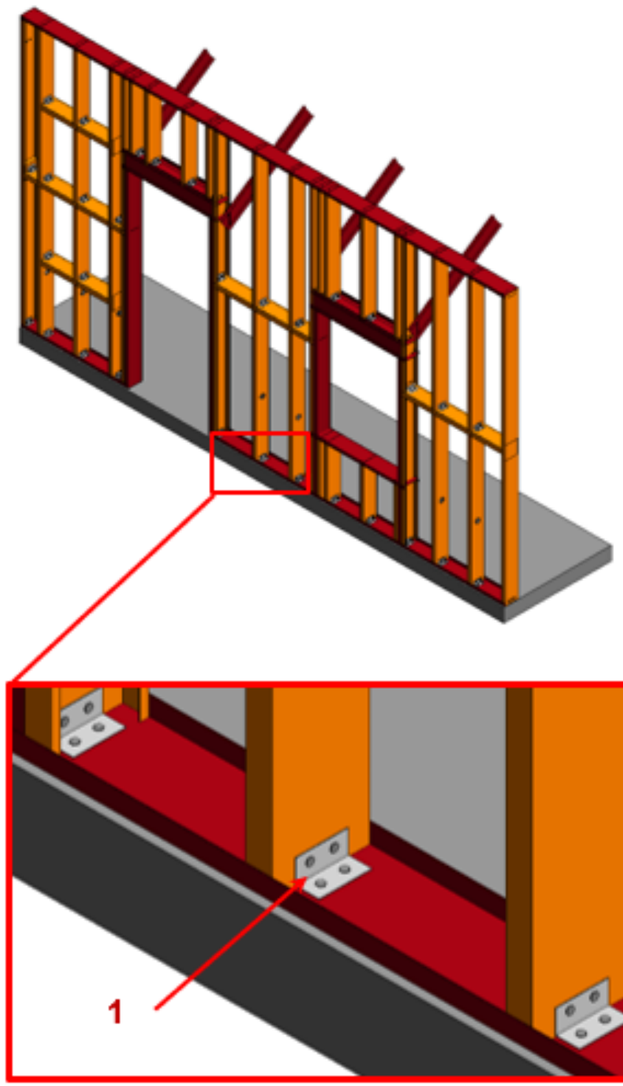
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

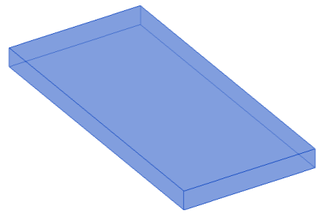


LoD 500

COLD FORMED METAL FRAMING, DRYWALL & SHEATHING

Floor Structural Framing (Cold Formed Metal Framing)

Uniformat **B1010.10.70** Omniclass **21-02 10 10 10 70** Uniclass **Ss 20 10 75 45**

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global	See Element Sections For Additional Information		
Description **Associated MasterFormat Sections:** 05 10 00 / 05 42 00 / 05 44 00	See B10		Element modeling to include: 1. Rough architectural masses 2. Approximate member depth 3. Desired member spacing		Element modeling to include: 1. Floor element with design-specified locations and geometries	Element modeling to include: 1. Members modeled at any interface with wall edges (top, bottom, sides) or opening through wall 2. Bridging or straps	Element modeling to include: 1. Welds 2. Connections 3. Member fabrication part number 4. Any part required for complete installation
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*						
LoD 500							
LoA	**200**[b,c]						

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

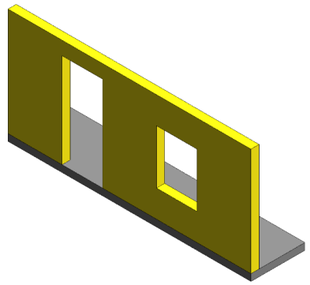
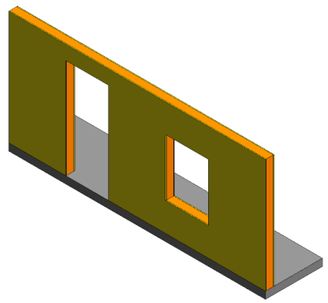
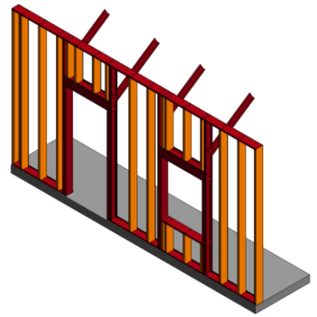
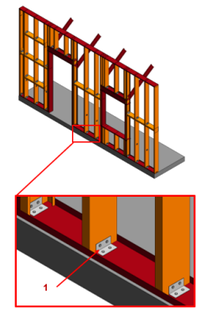
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Exterior Wall Construction (Cold-From Metal Framing)

Uniformat **B2010.20.20** Omniclass **21-02 20 10 20 20** Uniclass **Ss 25 10 32 45**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *71 B2010.05-LOD-200 Exterior Wall (Cold-Form Metal Framing)*	 *72 B2010.05-LOD-300 Exterior Wall (Cold-Form Metal Framing)*	 *73 B2010.05-LOD-350 Exterior Wall (Cold-Form Metal Framing), Cladding and sheathing are not shown for clarity in this image.*	 *74 B2010.05-LOD-400 Exterior Wall (Cold-Form Metal Framing)*
Description **Associated MasterFormat Sections:** 01 83 16	1. N/A		Generic wall objects separated by type of material (e.g. brick wall vs. terracotta). Approximate thickness of layer represented by a single assembly. Layouts and locations still flexible.	1. Specific wall modeled to actual dimensions. 2. Penetrations are modeled to nominal dimensions for major wall openings such as windows, doors, and large mechanical elements. 3. Shear panels	**1. LOD 350 (Full)** a. Cold formed metal framing (All) is developed with sufficient elements to support detailed interface coordination with other systems such as MEP. b. All penetrations are modeled at actual rough-opening dimensions. c. Openings modeled with support framing around openings. **2. LOD 350 Critical Only** (Critical Coordination Elements Only). Image notes: a. Elements in red are critical wall support elements that shall be modeled. b. Diagonal bracing (kickers) that may be in the above ceiling space are modeled. c. Infill cold formed metal framing modeling (Orange) may be omitted at LOD 350 Critical Only if stated in the PEP.	1. Cold formed metal framing is developed with sufficient elements that support the fabrication of the CFMF system. 2. Image notes: 3. Connection content is developed in the wall elements. This includes but is not limited to fasteners, clips, and other related hardware. 4. Cladding and sheathing are not shown for clarity in this image.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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Notes:

a. LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.

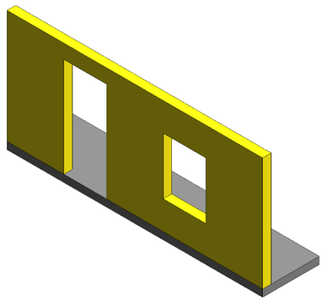
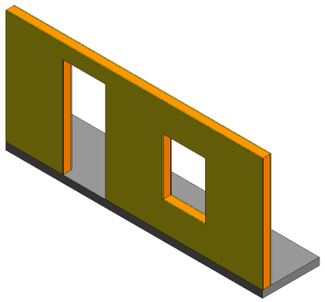
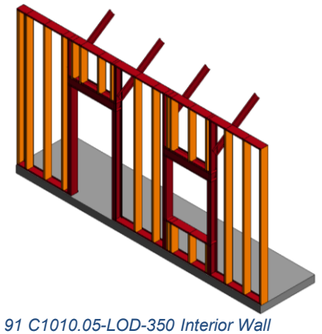
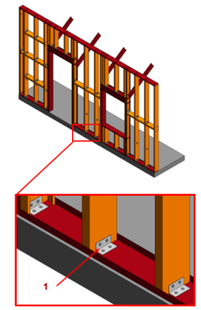
b. LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.

c. In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.

d. BIMforum.global/LOD

Interior Wall (Cold-Formed Metal Framing)

Uniformat **C1010.10.20** Omniclass **21-03 10 10 10 20** Uniclass **Ss 25 10 32 45**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *89 C1010.05-LOD-200 Interior Wall (Cold-Form Metal Framing)* From Ikerd.com	 *90 C1010.05-LOD-300 Interior Wall (Cold-Form Metal Framing)* From Ikerd.com	 *91 C1010.05-LOD-350 Interior Wall (Cold-Form Metal Framing)* From Ikerd.com	 *92 C1010.05-LOD-400 Interior Wall (Cold-Form Metal Framing)* From Ikerd.com
Description **Associated MasterFormat Sections:** 10 22 00 / 01 84 13	See C10		See C1010	See C1010.10	**1. LOD 350 (Full)** a. Cold formed metal framing (All) is developed with sufficient elements to support detailed interface coordination with other systems such as MEP. b. All penetrations are modeled at actual rough-opening dimensions. c. Openings modeled with support framing around openings. **2. LOD 350 Critical Only** (Critical Coordination Elements Only). Image notes: a. Elements in red are critical wall support elements that shall be modeled. b. Diagonal bracing (kickers) that may be in the above ceiling space are modeled. c. Infill cold formed metal framing modeling (Orange) may be omitted at LOD 350 Critical Only if stated in the PEP.	Cold formed metal framing is developed with sufficient elements that support the fabrication of the CFMF system. Image notes: 1. Connection content is development in the wall elements. This includes but is not limited to fasteners, clips, and other related hardware. 2. Cladding and sheathing are not shown for clarity in this image.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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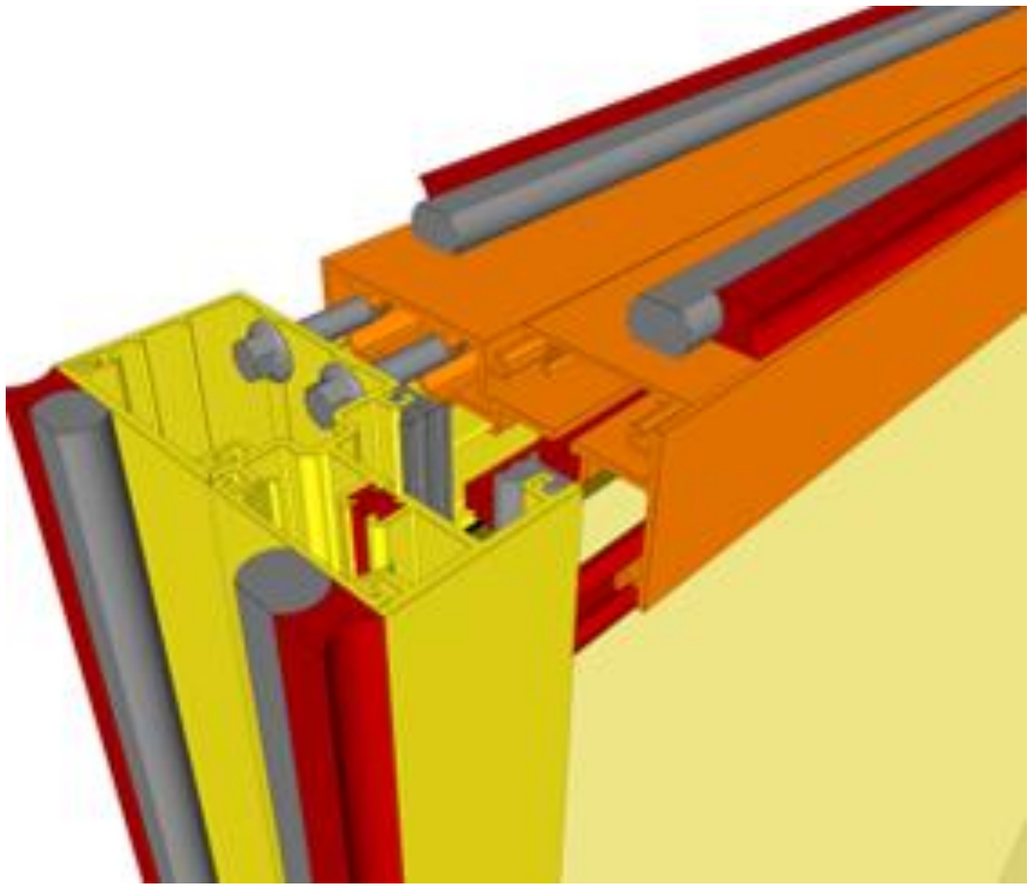
Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*
c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*
d. *BIMforum.global/LOD*

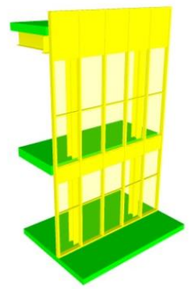


LoD 500

ENCLOSURES CLADDING & CURTAIN WALL

Exterior Walls

Uniformat **B2010** Omniclass **21-02 20 10** Uniclass **EF 25 10**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *60 B2010-LOD-200 Exterior Walls* From lkerd.com	 *61 B2010-LOD-300 Exterior Walls* From lkerd.com	 *62 B2010-LOD-350 Exterior Walls* From lkerd.com	
Description **Associated MasterFormat Sections:** 01 83 16	See B20		Generic wall objects separated by type of material (e.g. brick wall vs. terracotta). Approximate overall wall thickness represented by a single assembly. Layouts and locations still flexible.	Single model element with specific overall thickness that accounts for veneer, structure, insulation, air space, and interior skin specified for the wall system. (Refer to LOD350 and LOD400 for individually modeled elements) Penetrations are modeled to nominal dimensions for major wall openings such as windows, doors, and large mechanical elements.	May be modeled as a single model element. Main structural members such as headers and jambs at openings are modeled. All penetrations are modeled at actual rough-opening dimensions.	
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Exterior Window Wall

Uniformat **B2020.30** Omniclass **21-02 20 20 30** Uniclass **Ss 25 30 95 96**

LOD	000[a]	100[b,c]	200[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *81 B2020.30-LOD-200 Exterior Window Wall* From lkerd.com
Description **Associated MasterFormat Sections:** 08 43 00	See B20		Generic wall objects representing major types of proposed window wall assemblies. Overall window wall assembly depth represented by a single model object. Layouts and locations still flexible.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*
LoD 500			
LoA			**200**[b,c]

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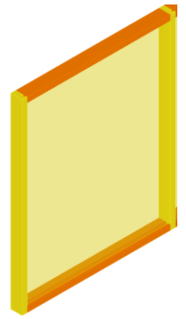
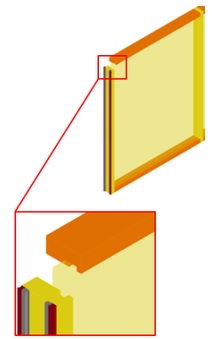
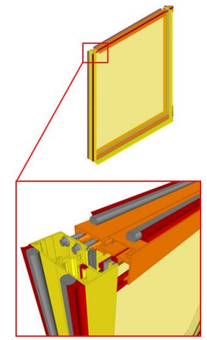
Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

300[b,c]	350[b,c]	400[b,c]
 *82 B2020.30-LOD-300 Exterior Window Wall* From lkerd.com	 *83 B2020.30-LOD-350 Exterior Window Wall* From lkerd.com	 *84 B2020.30-LOD-400 Exterior Window Wall* From lkerd.com
Specified location and orientation of face of glass. Nominal face dimensions and thickness of glazing. Spacing, location, size and orientation of mullions. Operable components defined (windows, louvers and doors) and included in model.	Mullion shapes and geometry defined. Actual anchorage layouts and types defined and modeled. Actual panel dimensions (including seating).	Complete mullion extrusion profiles. Interface details between wall systems (within) and wall and support systems including sealants, end dams, flashings and membranes.

Exterior Wall Interior Skin

Uniformat **B2010.30** Omniclass **21-02 20 10 30** Uniclass **Ss 25 45**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *81 B2020.30-LOD-200 Exterior Window Wall* From Ikerd.com	See Element Sections For Additional Information		
Description **Associated MasterFormat Sections:** 09 20 00	N/A		Generic wall objects separated by type of material (e.g. brick wall vs. terracotta). Approximate thickness of layer represented by a single assembly. Layouts and locations still flexible.	Specific wall modeled to actual dimensions. Penetrations are modeled to nominal dimensions for major wall openings such as windows, doors, and large mechanical elements.	Exterior wall interior skin modeled as a separate element. All openings modeled to rough opening dimensions.	Element modeling to include: 1. Studs and tracks 2. Individual masonry units 3. Reinforcing 4. Wall board 5. Insulation
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Exterior Windows

Uniformat **B2020** Omniclass **21-02 20 20** Uniclass **Ss 25 30 95 26**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *81 B2020.30-LOD-200 Exterior Window Wall* From Ikerd.com	See Element Sections For Additional Information		
Description **Associated MasterFormat Sections:** 01 83 16 / 08 50 00	See B20		Windows approximate in terms of location, size, count and type. Units are modeled as a simple, monolithic component; or represented with simple frame and glazing. Nominal unit size is provided.			
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Exterior Operating Windows

Uniformat **B2020.10** Omniclass **21-02 20 20 10** Uniclass **Ss 25 30 95 26**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *81 B2020.30-LOD-200 Exterior Window Wall* From Ikerd.com	See Element Sections For Additional Information		
Description **Associated MasterFormat Sections:** 08 50 00 / 08 51 66 / 08 52 66 / 08 53 66 / 08 54 66 08 51 69 / 08 52 69 / 08 53 69 / 08 54 69	See B20		See B2020	Units are modeled based on specified location and nominal size. Outer geometry (profile) of window frame elements and glazing modeled in correct location. Operation is indicated.	Attachment method of window to structure. Embed elements. Backer rod and sealant.	Detailed frame extrusion profiles. Glazing sub-components (gaskets) Attachment components. End dam. Fasteners.
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*					
LoD 500						
LoA	**200**[b,c]					

BIMFORUM

BIMForum.Global

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

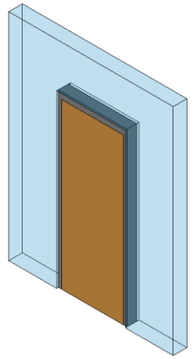
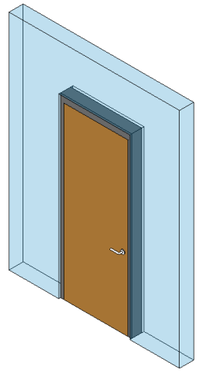
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Exterior Doors and Grilles

Uniformat **B2050** Omniclass **21-02 20 50** Uniclass **Ss 25 30 20**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 From Ikerd.com		See Element Sections For Additional Information	
Description **Associated MasterFormat Sections:** 01 83 16	Simple representation of a door unit. Size, count, and location are approximate.		Units are modeled as a simple, monolithic component; or represented with simple frame and panel. Nominal unit size is provided.			
			250 [b,c]			
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).			
LoD 500						

LoA **200**[b,c]

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BIMForum.Global

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

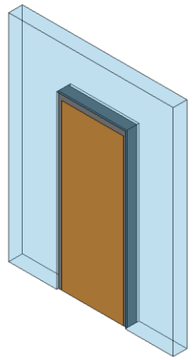
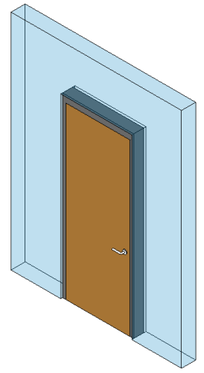
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Exterior Entrance Doors

Uniformat **B2050.10** Omniclass **21-02 20 50 10** Uniclass **Ss 25 30 20 25**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 From Ikerd.com		See Element Sections For Additional Information	
Description **Associated MasterFormat Sections:** 08 32 00 / 08 42 00 / 08 42 26 / 08 42 29 / 08 42 33 / 08 42 36 / 08 43 29	See B20		See B2050	Entrance door assemblies modeled by type to include the following: 1. Specific door panels and frames (if applicable). 2. Operation is specified. Spatial requirements for operation may be modeled if required by BXP.	Major framing elements are modeled at jambs and head. Thresholds. Operation or mechanism enclosures are modeled. All connections and interfaces modeled including brackets and supports.	Complete mullion extrusion profiles Actual panel size dimensions.
LoD 500						
LoA	**200**[b,c]					

250 [b,c]
The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).

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Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

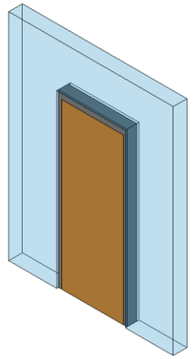
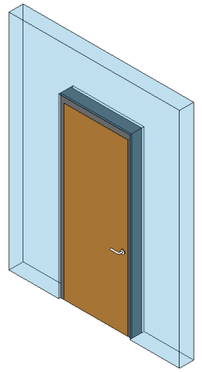
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Exterior Utility Doors

Uniformat **B2050.20** Omniclass **21-02 20 50 20** Uniclass **Ss 25 30 20 25**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 From Ikerd.com		See Element Sections For Additional Information	
Description **Associated MasterFormat Sections:** 08 10 00	See B20		See B2050	See B2050.10 Door hardware is modeled as specified.	See B2050.10	All connections and interfaces modeled including brackets, supports, sealants, and thresholds.
			250 [b,c]			
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).			
LoD 500						
LoA	**200**[b,c]					

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Notes:

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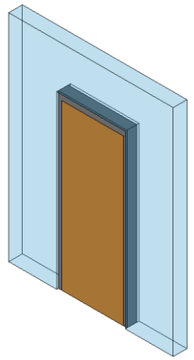
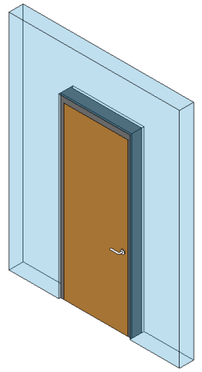
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Exterior Oversize Doors

Uniformat **B2050.30** Omniclass **21-02 20 50 30** Uniclass **Ss 25 30 20 25**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 From Ikerd.com			
Description **Associated MasterFormat Sections:** 08 33 00 / 08 36 00 / 08 36 13 / 08 36 16 / 08 36 19 / 08 36 23 / 08 34 16	See B20		See B2050	Oversize door assemblies modeled by type to include the following: 1. Door panels with nominal dimensions. 2. Frames with nominal dimensions. 3. Clearance zones are modeled or accommodated by model checking software for operation of overhead doors (other than coiling doors). 4. Enclosures and motor housings are modeled with overall nominal dimensions.	Major framing elements in wall are modeled at jambs and head. Attachment elements are modeled	All connections and interfaces modeled including brackets, supports, sealants, and thresholds.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

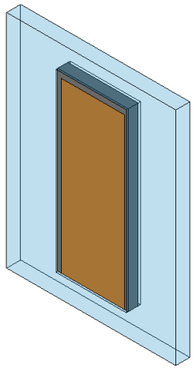
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Exterior Grilles

Uniformat **B2050.60** Omniclass **21-02 20 50 60** Uniclass **Ss 25 50 35**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 From Ikerd.com	See Element Sections For Additional Information		
Description **Associated MasterFormat Sections:** 08 33 00 / 08 35 16	See B20		See B2050	Grille assemblies modeled by type to include the following: 1. Nominal size of unit. 2. Operation is specified.	Major framing elements are modeled at jambs and head.	All connections and interfaces modeled including brackets, supports, sealants, and thresholds.
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*					
LoD 500						
LoA	**200**[b,c]					

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Notes:

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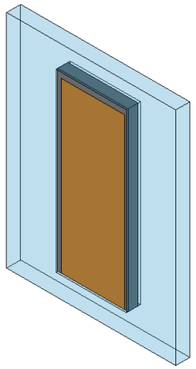
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Exterior Louvers and Vents

Uniformat **B2070** Omniclass **21-02 20 70** Uniclass **Ss 25 50 45 45**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		See Element Sections For Additional Information		
Description **Associated MasterFormat Sections:** 08 90 00	See B20		Generic model element that is indicative of approximate area and location of intended louver/vent.			
			250 [b,c]			
	The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).					
LoD 500						
LoA	**200**[b,c]					

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Notes:

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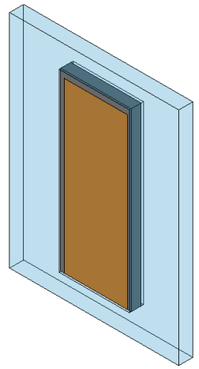
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Exterior Louvers

Uniformat **B2070.10** Omniclass **21-02 20 70 10** Uniclass **Ss 25 50 45 45**

LOD	000[a]	100[b,c]	200[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	
Description **Associated MasterFormat Sections:** 01 83 16 / 08 91 00	See B20		See B2070
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*
LoD 500			
LoA	**200**[b,c]		

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

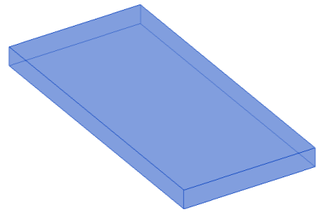
c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

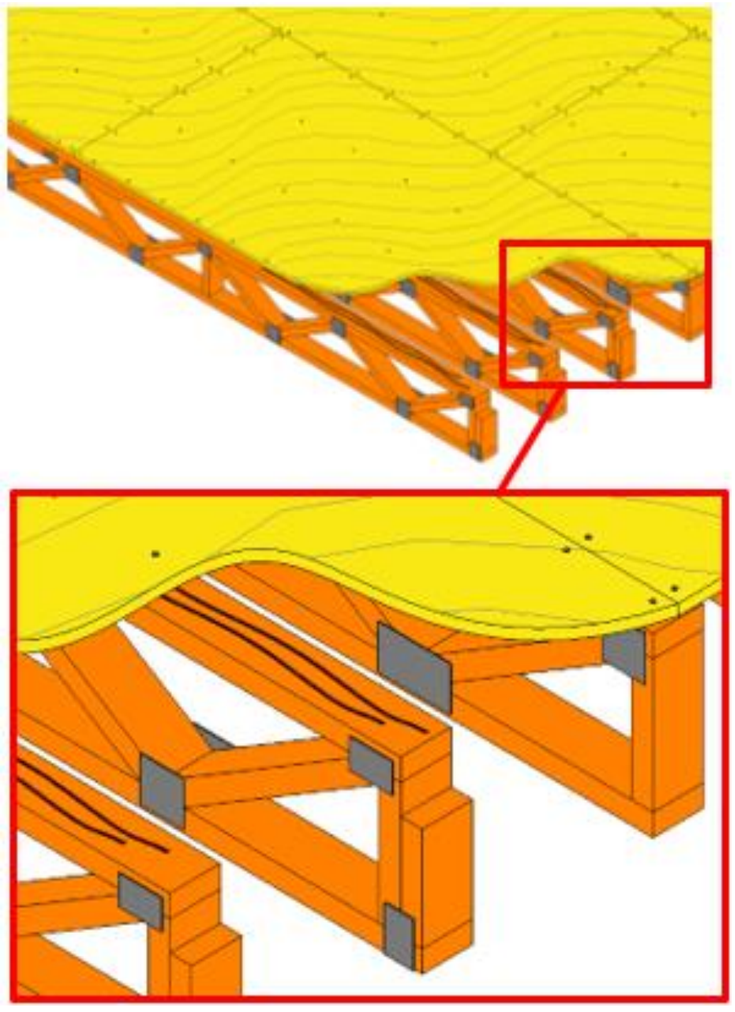
d. *BIMforum.global/LOD*

300[b,c]	350[b,c]	400[b,c]
See Element Sections For Additional Information		
Louver assembly modeled by type, indicative of area and location of intended louver/vent. Accurate frame and blade boundary areas. Opening for louver is cut from host wall.	Major framing elements are modeled at connection points. Connection points are modeled.	All connections and interfaces modeled including brackets, supports, and sealants.

Exterior Ceilings

Uniformat **B3080.10** Omniclass **21-02 30 80 10** Uniclass **Ss 30 25 10 26**

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global	See Element Sections For Additional Information		
Description **Associated MasterFormat Sections:** 07 42 00 / 07 44 00 / 09 20 00 / 09 54 00 / 09 56 00	See B30		See B3080	***Notes:*** *a. LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.* *b. LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.* *c. In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.* *d. BIMforum.global/LOD*	Overall assembly modeled to specific system thickness including structural backing. Location of expansion or control joints indicated, but not modeled.	Face material modeled to specific thickness. Structural backing members including bracing/lateral framing/kickers are modeled. Expansion or control joints are modeled to indicate specific width.	Individual elements of face material are modeled. Structural backing members and all support members (kickers) are modeled including all connections. Expansion or control joints are modeled.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*				
LoD 500							
LoA	**200**[b,c]						



LoD 500

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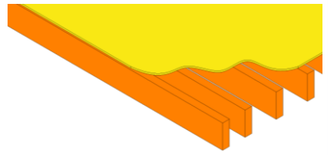
WOOD & TIMBER CONSTRUCTION

Floor Structural Frame (Wood Floor Trusses)

Uniformat **B1010.10.80** Omniclass **21-02 10 10 10 80** Uniclass **Pr 20 85 90 81**

LOD	000[a]	100[b,c]	200[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *41 B1010.10-LOD-200 Floor Structural Frame (Wood Floor Trusses)* From Ikerd.com
Description **Associated MasterFormat Sections:** 06 11 00 / 06 13 26 / 06 17 53	See B10		Element modeling to include: 1. Top chord or bottom chord bearing 2. Truss orientation 3. Approximate depth 4. Approximate width 5. Truss orientation 6. Approximate centerline location of individual trusses
			250 [b,c]
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).
LoD 500			
LoA			**200**[b,c]

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BIMForum.Global

Notes:

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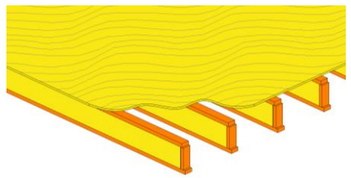
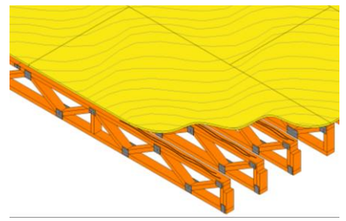
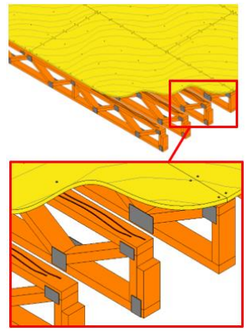
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

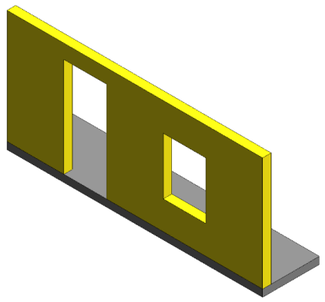
c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

300[b,c]	350[b,c]	400[b,c]
 *42 B1010.10-LOD-300 Floor Structural Frame (Wood Floor Trusses)* From Ikerd.com	 *43 B1010.10-LOD-350 Floor Structural Frame (Wood Floor Trusses)* From Ikerd.com	 *44 B1010.10-LOD-400 Floor Structural Frame (Wood Floor Trusses)* From Ikerd.com
Element modeling to include: 1. Truss size, depth, and material with sloping geometry 2. Spacing and end elevations 3. Support locations	Element modeling to include: 1. Actual final truss profile with accurate panel points 2. Bridging and lateral braces 3. Fire protection coating 4. Any miscellaneous framing pertaining the truss 5. Erection details for installation 6. Chord and web member section profiles are accurately defined 7. Truss layout in coordination with deck fasteners would be confirmed 8. Hold down locations for large bolts.	Element modeling to include: 1. Fasteners 2. Sealant 3. Truss plates and connection material 4. Nails and fasteners 5. Truss plates. 6. Deck patterns and joints

Interior Wall (Wood)

Uniformat **C1010.10.30** Omniclass **21-03 10 10 10 30** Uniclass **Ss 25 10 32 90**

LOD	000[a]	100[b,c]	200[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *93 C1010.06-LOD-200 Interior Wall (Wood* From Ikerd.com
Description **Associated MasterFormat Sections:** 10 22 00 / 01 84 13	See C10		See C1010
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*
LoD 500			
LoA			**200**[b,c]

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Notes:

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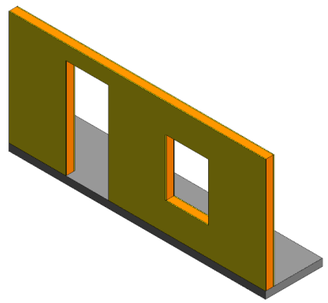
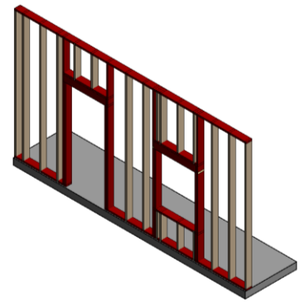
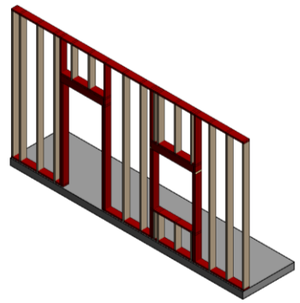
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

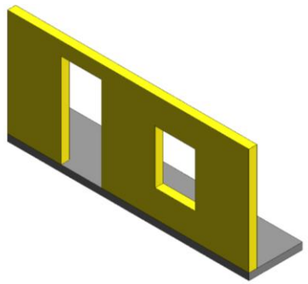
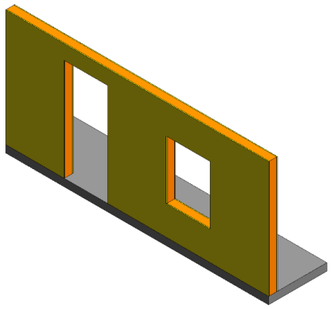
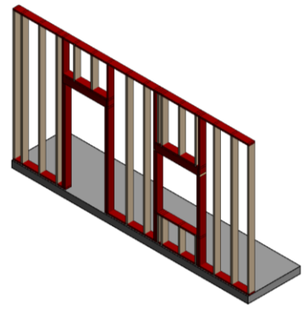
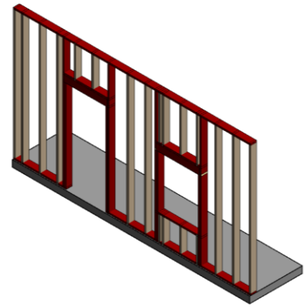
c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

300[b,c]	350[b,c]	400[b,c]
 *94 C1010.06-LOD-300 Interior Wall (Wood* From Ikerd.com	 *95 C1010.06-LOD-350 Interior Wall (Wood* From Ikerd.com	 *96 C1010.06-LOD-400 Interior Wall (Wood* From Ikerd.com
See C1010	Wood framing is developed with sufficient elements to support detailed interface coordination with other systems such as MEP. All penetrations are modeled at actual rough-opening dimensions. Image notes: 1. Elements in red are critical wall support elements that cannot be easily cut for coordination of MEP opening through the walls. 2. Infill wood framing modeling may be omitted at this LOD if stated in the BXP. 3. Cladding and sheathing are not shown for clarity in this image.	Wood framing is developed with sufficient elements that support the fabrication of the wood framing system. Openings and penetrations through studs are modeled. Image notes: 1. Connection content is development in the wall elements. This includes but is not limited to fasteners, anchor rods, and other related hardware. 2. Cladding and sheathing are not shown for clarity in this image

Exterior Wall Construction (Wood)

Uniformat **B2010.20.10** Omniclass **21-02 20 10 20 10** Uniclass **Ss 25 11 90**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *67 B2010.06-LOD-200 Exterior Wall (Wood)* From Ikerd.com	 *68 B2010.06-LOD-300 Exterior Wall (Wood)* From Ikerd.com	 *69 B2010.06-LOD-350 Exterior Wall (Wood)* From Ikerd.com	 *70 B2010.06-LOD-400 Exterior Wall (Wood)* From Ikerd.com
Description **Associated MasterFormat Sections:** 01 83 16	N/A		Generic wall objects separated by type of material (e.g. brick wall vs. terracotta). Approximate thickness of layer represented by a single assembly. Layouts and locations still flexible.	Specific wall modeled to actual dimensions. Penetrations are modeled to nominal dimensions for major wall openings such as windows, doors, and large mechanical elements. Shear panels	Wood framing is developed with sufficient elements to support detailed interface coordination with other systems such as MEP. All penetrations are modeled at actual rough-opening dimensions. Openings modeled with support framing around openings Image notes: 1. Elements in red are critical wall support elements that cannot be easily cut for coordination of MEP opening through the walls. 2. Infill wood framing modeling may be omitted at this LOD if stated in the BXP. 3. Cladding and sheathing are not shown for clarity in this image.	
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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BIMForum.Global

Notes:

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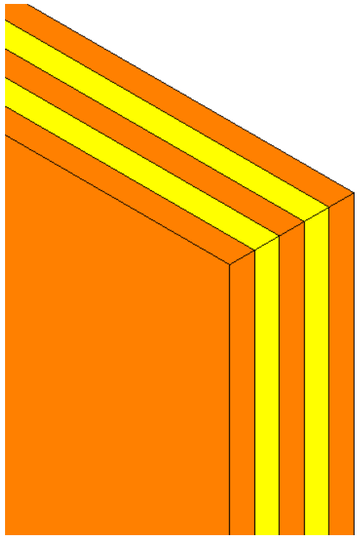
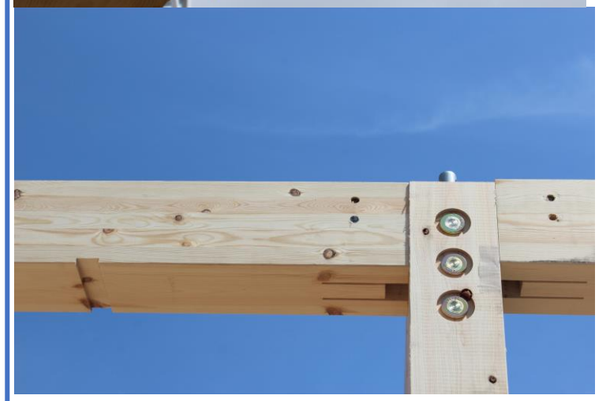
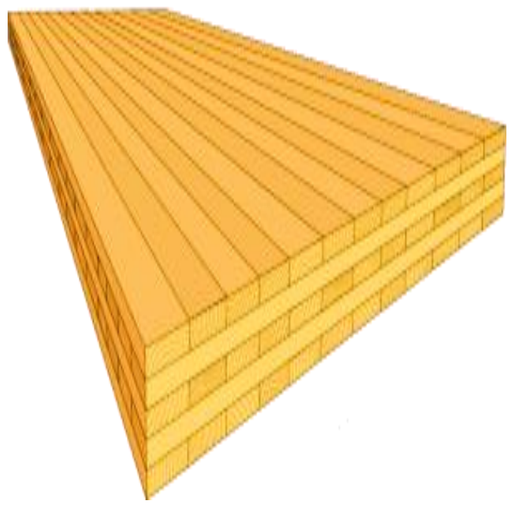
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*







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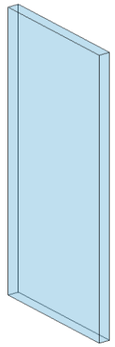
WOOD MASS TIMBER

LoD 500

Wood Mass Timber Framing

Uniformat **B2010.20.10** Omniclass **21-02 20 10 20 10** Uniclass **Ss 25 11 90**

LOD	000[a]	100[b,c]	200[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	
Description **Associated MasterFormat Sections:** 01 83 16	N/A		See basic framing members.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*
LoD 500			
LoA	**200**[b,c]		

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BIMForum.Global

Notes:

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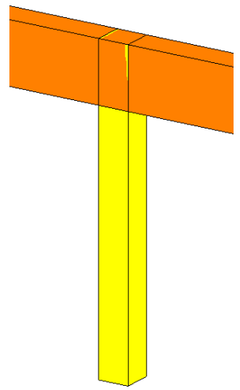
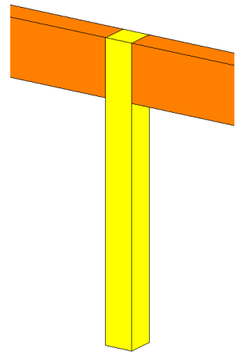
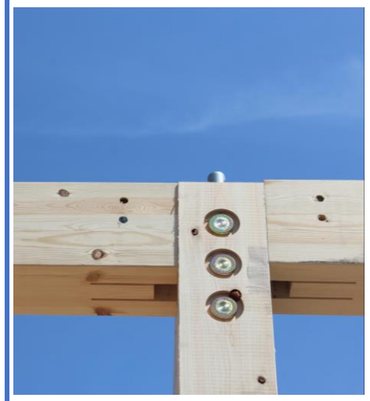
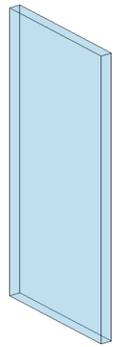
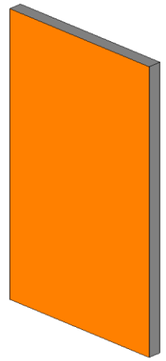
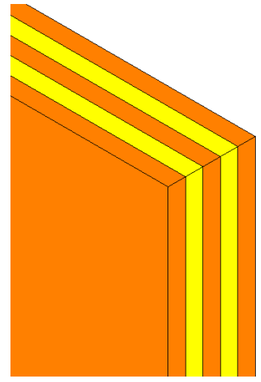
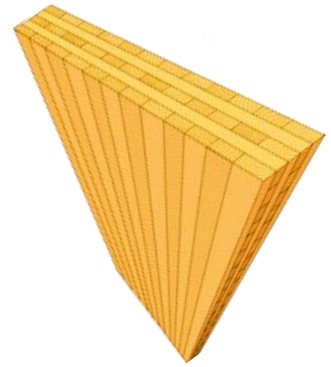
c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

300[b,c]	350[b,c]	400[b,c]
		
Wood specifications Size	Connection locations.	Plates Connections

Wood Mass Timber Walls

Uniformat **B2010.20.10** Omniclass **21-02 20 10 20 10** Uniclass **Ss 25 11 90**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 01 83 16	N/A			Panel geometry.	CLT Layers Embed locations	CLT Fabrication detail
			250 [b,c]			
	The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).					
LoD 500						
LoA	**200**[b,c]					

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Notes:

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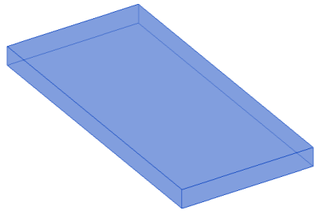
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Wood Mass Timber Floors

Uniformat **B2010.20.10** Omniclass **21-02 20 10 20 10** Uniclass **Ss 25 11 90**

LOD	000[a]	100[b,c]	200[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	
Description **Associated MasterFormat Sections:** 01 83 16	N/A		See basic / approximate floor systems.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*
LoD 500			
LoA	**200**[b,c]		

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BIMForum.Global

Notes:

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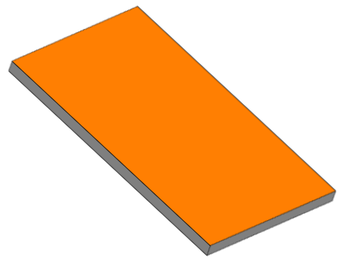
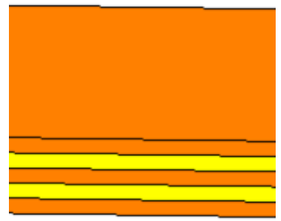
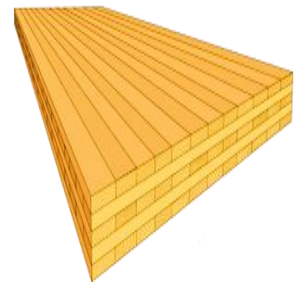
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

300[b,c]	350[b,c]	400[b,c]
		
Panel geometry	CLT Layers Embed locations	

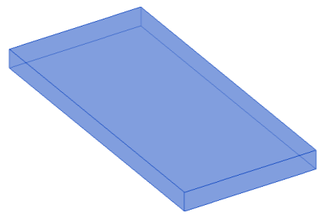
BIMFORUM®

ROOFING

LoD 500

Exterior Horizontal Enclosures

Uniformat **B30** Omniclass **21-02 30** Uniclass --

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		See Element Sections For Additional Information		
Description **Associated MasterFormat Sections:** 01 83 16	Solid mass model representing overall building volume; or schematic wall elements that are not distinguishable by type or material. Assembly depth/thickness and locations still flexible.					
			250 [b,c]			
	The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).					
LoD 500						
LoA	**200**[b,c]					

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BIMForum.Global

Notes:

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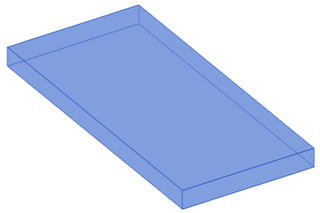
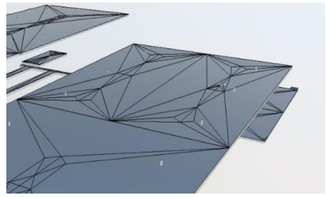
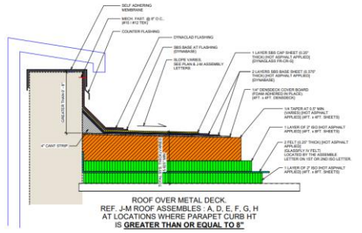
c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Roofing

Uniformat **B3010** Omniclass **21-02 30 10** Uniclass **Ss 30 10**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				Not Commonly Modeled to Fabrication Level For Constructed Roof Systems.
Description **Associated MasterFormat Sections:** 01 83 19	See B30		Generic element representing roof exterior skin	Specific element representing roof insulation and exterior skin modeled to actual dimensions. Surface slopes (e.g. tapered insulation) are modeled to actual dimensions. Penetrations are modeled to nominal dimensions for major wall openings such as skylights, and large mechanical elements.	All penetrations are modeled at actual rough-opening dimensions. Flashing	
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*					
LoD 500						
LoA	**200**[b,c]					

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BIMForum.Global

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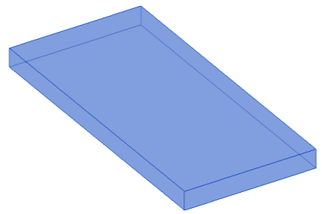
d. *BIMforum.global/LOD*

Roof Accessories

Uniformat **B3020.10** Omniclass **21-02 30 20 10** Uniclass --

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global	See Element Sections For Additional Information		
Description **Associated MasterFormat Sections:** 05 51 33 / 07 72 00 / 07 72 13 / 07 72 23 / 07 72 26 07 72 46 / 07 72 53	See B30		See Fundamental LOD Definitions		Ladders: Specific assemblies indicating length and width. Required access/clearance space is modeled or accommodated by model checking software. Walkways: Specific assemblies indicating length, width, and rail/guard height. Vents: Specific assemblies indicating roof opening size. Roof opening element is included. Required service access space is modeled or accommodated by model checking software.	Ladders: Specific assemblies indicating length, width, and attachment/anchoring members. Walkways: Specific assemblies indicating length, width, rail/guard height, and support/attachment/anchoring members. Vents: Specific assemblies indicating roof opening size and attachment/anchoring members if applicable.	See Fundamental LOD Definitions
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*				
LoD 500							
LoA	**200**[b,c]						

Notes:

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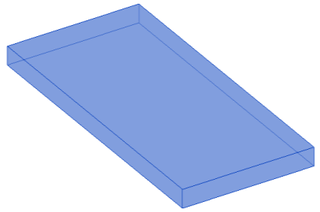
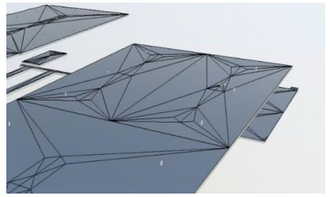
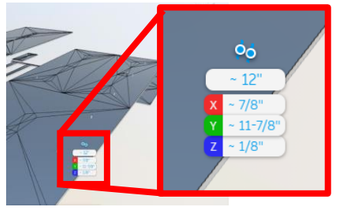
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Traffic Bearing Horizontal Enclosures

Uniformat **B3040** Omniclass **21-02 30 40** Uniclass **Ss 30 12 20**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				Not Commonly Modeled to Fabrication Level For Constructed Roof Systems.
Description **Associated MasterFormat Sections:** 01 83 16	See B30		See B3010			
			250 [b,c]			
	The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).					
LoD 500						
LoA	**200**[b,c]					

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Notes:

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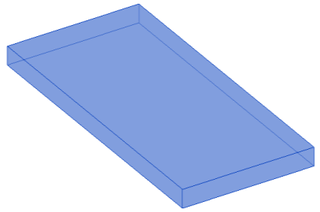
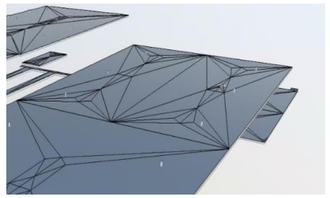
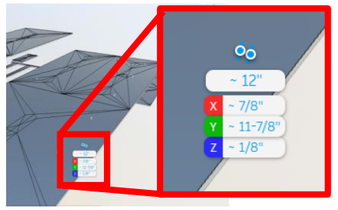
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Horizontal Waterproofing Membrane

Uniformat **B3040.30** Omniclass **21-02 30 40 30** Uniclass **Ss 32 80 79**

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			Not Commonly Modeled to Fabrication Level For Constructed Roof Systems.
Description **Associated MasterFormat Sections:** 07 10 00	See B30		See B3040		Membrane assembly modeled by type to specified thickness. Major openings such as shafts and hatches are modeled	Individual material layers of membrane assembly are modeled separately. All openings and penetrations are modeled. Expansion joints are modeled indicating specific width	
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*						
LoD 500							
LoA	**200**[b,c]						

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

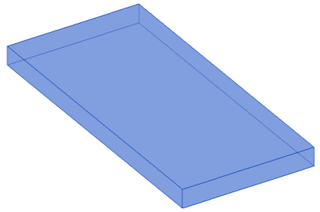
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

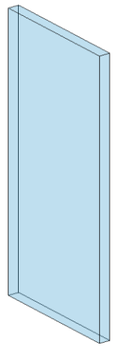
Wear Surface

Uniformat **B3040.50** Omniclass **21-02 30 40 50** Uniclass **Ss 30 14**

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global	See Element Sections For Additional Information		
Description **Associated MasterFormat Sections:** 07 76 00 / 32 13 00 / 32 14 00	See B30		See B3040	***Notes:*** *a. LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.* *b. LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.* *c. In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.* *d. BIMforum.global/LOD*	Wear surface system modeled by type to specified thickness/depth. Major openings such as shafts and hatches are modeled.	Individual system elements are modeled separately. Pedestals are modeled and located properly, if applicable. Expansion joints are modeled indicating specific width.	
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*				
LoD 500							
LoA	**200**[b,c]						

Interior Construction

Uniformat **C10** Omniclass **21-03 10** Uniclass --

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		See Element Sections For Additional Information		
Description **Associated MasterFormat Sections:** 01 83 13	A schematic model element or symbol that is not distinguishable by type or material. Types, layouts, and locations are still flexible.					
	250 b,c					
	The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).					
LoD 500						
LoA	**200**[b,c]					

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Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

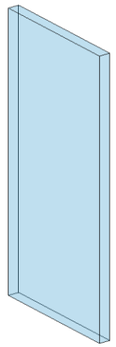
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Interior Partitions

Uniformat C1010 Omniclass 21-03 10 10 Uniclass Ss 25 10 30

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		See Element Sections For Additional Information		
Description **Associated MasterFormat Sections:** 10 22 00 / 01 84 13	See C10		Generic wall objects separated by type of material (e.g. gypsum board vs. masonry). Approximate overall wall thickness represented by a single assembly. Layouts, locations, heights, and elevation profiles are still flexible.			
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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Notes:

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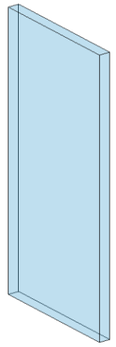
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Interior Fixed Partitions

Uniformat C1010.10 Omniclass 21-03 10 10 10 Uniclass Ss 25 10 30

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global	See Element Sections For Additional Information		
Description **Associated MasterFormat Sections:** 03 30 00 / 03 40 00 / 04 20 00 / 05 41 00 / 06 11 00 / 09 20 00 / 10 22 13	See C10		See C1010		Composite model assembly by type with overall thickness that accounts for framing and finish specified for the wall system. (Refer to LOD350 and LOD400 for individually modeled elements) Wall elements are modeled to specific layouts, locations, heights, and elevation profiles. Penetrations are modeled to nominal dimensions for major wall openings such as windows, doors, and large mechanical elements.	Structure and finish layers of partition assembly modeled as separate elements. All penetrations are modeled at actual rough-opening dimensions. Major framing elements such as king studs, kickers, diagonal bracing, and headers are modeled.	Element modeling to include: 1. Studs and tracks 2. Bracing 3. Insulation 4. Sheathing or wall boards 5. Openings/penetrations
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*						
LoD 500							
LoA	**200**[b,c]						

Notes:

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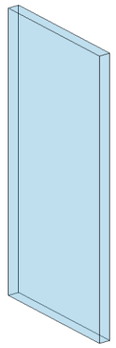
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Interior Glazed Partitions

Uniformat C1010.20 Omniclass 21-03 10 10 20 Uniclass Ss 25 10 30

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		See Element Sections For Additional Information		
Description **Associated MasterFormat Sections:** 08 43 00	See C10		See C1010	Specified location and orientation of face of glass. Nominal face dimensions and thickness of glazing. Structural support systems of wall to be modeled. Spacing, location, size and orientation of mullions. Operable components defined (doors) and included in model	Mullion shapes and geometry defined. Actual anchorage layouts and types defined. Actual panel dimensions (including seating).	Complete mullion extrusion profiles. Interface details between wall systems (within) and wall and support systems.
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*					
LoD 500						
LoA	**200**[b,c]					

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Notes:

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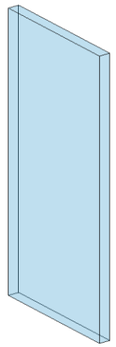
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Interior Operable Partitions

Uniformat C1010.50 Omniclass 21-03 10 10 50 Uniclass Ss 25 12 70

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		See Element Sections For Additional Information		
Description **Associated MasterFormat Sections:** 01 84 13 / 01 84 13 / 10 22 33 / 10 22 36 / 10 22 39 / 10 22 43	See C10		See C1010	Operable partition system modeled to include spatial requirements for open/storage position and closed position. Spatial requirements for structure (overhead or below) to be modeled.	Major support elements (overhead or below) Mechanical connections	All assembly components including tracks, panels, hardware and supports.
	250 [b,c]					
	The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).					
LoD 500						
LoA	**200**[b,c]					

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Notes:

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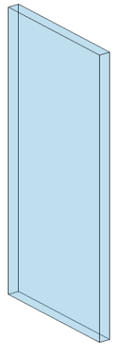
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Interior Windows

Uniformat C1020 Omniclass 21-03 10 20 Uniclass Ss 25 30 95 41

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		See Element Sections For Additional Information		
Description **Associated MasterFormat Sections:** 08 50 00 / 01 84 13	See C10		Windows approximate in terms of location, size, count and type. Units are modeled as a simple, monolithic component; or represented with simplified frame and glazing. Nominal unit size is provided.			
			250 [b,c]			
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).			
LoD 500						
LoA	**200**[b,c]					

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BIMForum.Global

Notes:

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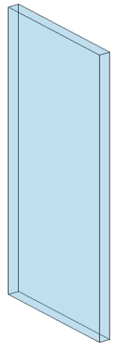
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Interior Operating Windows

Uniformat C1020.10 Omniclass 21-03 10 20 10 Uniclass Ss 25 30 95 41

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global	See Element Sections For Additional Information		
Description **Associated MasterFormat Sections:** 08 50 00	See C10		See C1020		Units are modeled based on specified location and nominal size. Outer geometry of window frame elements and glazing modeled. Operation is indicated. Non-graphic information associated with model element: 1. Aesthetic characteristics (finishes, glass types) 2. Performance characteristics (i.e. U-value, wind loading, blast resistance, structural, air, thermal, water, sound) 3. Functionality of the window (fixed, casement, double/single hung, awning/project out, pivot, sliding)	Attachment method of window to structure Embed geometry	Frame profiles Glazing sub-components (gaskets) Attachment components
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*						
LoD 500							
LoA	**200**[b,c]						

Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

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DOORS, GATES, ETC.

LoD 500

Interior Doors

Uniformat C1030 Omniclass 21-03 10 30 Uniclass Ss 25 30 20 25

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 08 10 00 / 01 84 13	See C10		Units are modeled as a simple, monolithic component; or represented with simple frame and panel. Nominal unit size is provided.			
			250 [b,c]			
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).			
LoD 500						
LoA			**200**[b,c]			

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BIMForum.Global

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Interior Swinging Doors

Uniformat C1030.10 Omniclass 21-03 10 30 10 Uniclass Ss 25 30 20 25

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 08 10 00	See C10		See C1030	Door assemblies modeled by type to include the following: 1. Specific door panels and frames (if applicable) 2. Operation is specified	Major framing elements are modeled at jambs and head in containing wall. Operation or mechanism enclosures are modeled, if applicable.	Actual frame/mullion extrusions. Actual panel size dimensions. All connections and interfaces modeled including brackets, supports, sealants, and thresholds.
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*					
LoD 500						
LoA	**200**[b,c]					

BIMFORUM

BIMForum.Global

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Interior Coiling Doors

Uniformat C1030.40 Omniclass 21-03 10 30 40 Uniclass Ss 25 30 20 74

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:** 08 33 00 / 08 33 13	See C10		See C1030		Coiling door assemblies modeled by type to include the following: 1. Door panels with nominal dimensions. 2. Frames with nominal dimensions. 3. Hardware set functionality and types included in non-graphic information. 4. Clearance zones for operation of overhead doors are modeled or accommodated by model checking software. 5. Enclosures and motor housings are modeled with overall nominal dimensions.	Major framing elements in wall are modeled at jambs and head. Other major structural support elements are modeled.	All connections and interfaces modeled including brackets, supports, sealants, and thresholds.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*				
LoD 500							
LoA	**200**[b,c]						

Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Interior Grilles and Gates

Uniformat C1040 Omniclass 21-03 10 40 Uniclass --

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:**	See C10		See C1030			

250 [b,c]

The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).

LoD 500

LoA **200**[b,c]

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Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Interior Grilles

Uniformat C1040.10 Omniclass 21-03 10 40 10 Uniclass Ss 25 50 35

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 08 11 74 / 08 33 00 / 08 35 16	See C10		See C1030	Grille assemblies modeled by type to include the following: 1. Nominal size of unit. 2. Required openness provided as non-graphic information. 3. Operation is specified graphically.	Major framing elements are modeled at jambs and head.	All connections and interfaces modeled including brackets, supports, sealants, and thresholds.
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*					
LoD 500						
LoA	**200**[b,c]					

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Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Raised Floor Construction

Uniformat C1060 Omniclass 21-03 10 60 Uniclass Ss 30 20 70

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 01 84 13 / 01 84 13 / 01 84 13 / 01 84 13 / 01 84 13 01 84 13 / 01 84 13 / 01 84 13 / 01 84 13	See C10		Generic assembly that contains spatial allowance for support system and flooring material.			
			250 [b,c]			
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).			
LoD 500						
LoA	**200**[b,c]					

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Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Access Flooring

Uniformat C1060.10 Omniclass 21-03 10 60 10 Uniclass Ss 30 20 70 70

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 09 69 00	See C10		See C1060	Overall flooring assembly modeled by type to specified thickness/depth. Major openings such as shafts are modeled.	Individual layers of assembly are modeled separately. All openings and penetrations are modeled. Expansion joints are modeled indicating specific width. Pedestals are modeled and located properly, if applicable.	All assembly components are modeled including frame, floor tiles, pedestals, and cross bracing.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Suspended Ceiling Construction

Uniformat C1070 Omniclass 21-03 10 70 Uniclass --

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 01 84 13 / 01 84 13	Ceiling construction is represented in other composite objects such as floors or rooms; or, schematic model elements that are not distinguishable by type or material. Assembly depth/thickness and locations still flexible.		Generic assemblies indicative of overall scope and approximate thickness/system depth of assembly's spended ceiling.			
			250 [b,c]			
	The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).					
LoD 500						
LoA	**200**[b,c]					

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Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Acoustical Suspended Ceilings

Uniformat C1070.10 Omniclass 21-03 10 70 10 Uniclass Ss 30 25 22 1

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:** 09 51 00 / 09 81 00	See C1070		See C1070		Overall assembly modeled to specific system thickness including structural backing. Location of expansion or control joints indicated, but not modeled. Ceiling grid is shown as linework.	Ceiling suspension grid is modeled. Structural backing members including bracing/lateral framing/kickers are modeled. Expansion or control joints are modeled to indicate specific width.	All assembly components are modeled including tees, hangers, support structure, and tiles.
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*						
LoD 500							
LoA	**200**[b,c]						

Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Suspended Plaster and Gypsum Board Ceilings

Uniformat C1070.20 Omniclass 21-03 10 70 20 Uniclass Ss 30 25 10 10

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 09 20 00 / 09 22 26 / 09 81 00	See C1070		See C1070	Overall assembly modeled to specific system thickness including framing. Bulkheads Major penetrations are modeled.	Major bracing elements such as kickers are modeled.	All assembly components including furring channels, hangers, lath, plaster coats, and gypsum boards.
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*					
LoD 500						
LoA	**200**[b,c]					

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Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Interior Specialties

Uniformat C1090 Omniclass 21-03 10 90 Uniclass --

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:**	See C10		Generic model elements with approximate nominal size. Placement and quantity remains flexible.			
			250 [b,c]			
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).			
LoD 500						
LoA			**200**[b,c]			

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Notes:

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c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Interior Railings and Handrails

Uniformat C1090.10 Omniclass 21-03 10 90 10 Uniclass Ss 25 15 60 35

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 01 84 00 / 01 84 00 / 01 84 00 / 01 84 00 / 05 52 00 05 73 00 / 06 43 16 / 06 63 00 / 06 81 00	See C10		Generic model element representing approximate overall height and location of railing/handrail.	Railing/handrail systems modeled by type to include: 1. All horizontal rails 2. All vertical posts/balusters	Mounting/attachment components	All assembly components including fasteners and supports.
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*					
LoD 500						
LoA	**200**[b,c]					

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Interior Louvers

Uniformat C1090.15 Omniclass 21-03 10 90 15 Uniclass Ss 25 50 45 45

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 08 91 00 / 01 84 00	See C10		Generic model element that is indicative of approximate area and location of louver.	Louver assembly modeled by type, indicative of area and location of intended louver/vent. Accurate frame and blade boundary areas. Opening for louver is cut from host wall.	Rough opening is modeled in containing wall. Major framing elements are modeled at jambs and head. Connection points are modeled.	All connections and interfaces modeled including brackets, supports, and sealants.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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BIMForum.Global

Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Interior Finishes

Uniformat C20 Omniclass 21-03 20 Uniclass Ss 25 45

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 01 84 19	Non-graphic information attached to model elements providing assumptions that are not distinguishable by type or material Types, layouts and locations are still flexible. See Part II					
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA			**200**[b,c]			

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Wall Finishes

Uniformat C2010 Omniclass 21-03 20 10 Uniclass Ss 25 45

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 09 70 00 / 01 84 19 / 01 84 19 / 01 84 19 / 01 84 19 / 01 84	Non-graphic information attached to model elements providing assumptions that are not distinguishable by type or material Types, layouts and locations are still flexible. See Part II See C20		Generic materials other than sheet goods and coatings by type (e.g. tile or paneling), approximate thickness represented by a single assembly.. Layouts, patterns and locations are still flexible	Single model element by type with overall thickness that accounts for finish materials based on specific types other than sheet goods and coatings (e.g. Tile type CT-1). Sheet goods and coatings may be specified in Part II related to interior partitions.	Individual materials are modeled as separate elements. Additional non-graphic information such as manufacturer and model number may be included.	Individual material pattern layouts, expansion/control joints, and finish edges to be modeled as separate elements.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Flooring

Uniformat C2030 Omniclass 21-03 20 30 Uniclass Ss 30 42

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:** 09 60 00 / 01 84 19	See C20		Generic materials by type (e.g. tile or coatings), approximate thickness represented by a single assembly. Layouts, patterns and locations are still flexible		Single model element by type with overall thickness that accounts for materials based on specific types (e.g. Tile type CT-1).	Individual materials are modeled as separate elements Additional non-graphic information such as manufacturer and model number may be included.	Individual material pattern layouts, expansion/control joints, and finish edges to be modeled as separate elements.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*				
LoD 500							
LoA	**200**[b,c]						

Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

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CONVEYING EQUIPMENT

LoD 500

Conveying

Uniformat D10 Omniclass 21-04 10 Uniclass Ss 80 20

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 01 85 00 / 14 00 00	Schematic model elements that are not distinguishable by type or material. Component sizes and locations still flexible.					
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA			**200**[b,c]			

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BIMForum.Global

Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Vertical Conveying Systems

Uniformat **D1010** Omniclass **21-04 10 10** Uniclass **Ss 80 50**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:**	See D10		Generic representation of the system envelope, including critical path of travel zones.			
			250 [b,c]			
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).			
LoD 500						
LoA	**200**[b,c]					

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Escalators

Uniformat **D1010.30** Omniclass **21-04 10 10 30** Uniclass **Ss 80 20 62 28**

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:** 01 85 00 / 14 31 00	See D10		See D1010		Specific system elements modeled by type, including all path of travel zones. Including: 1. Truss Shape 2. Risers 3. Balustrade Type		
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*				
LoD 500							

Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

LoA **200**[b,c]

Material Handling

Uniformat **D1050** Omniclass **21-04 10 50** Uniclass **Ss 80 20 10**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 01 85 00	See D10		Generic representation of the material handling system envelope, including critical path of travel zones.	See D10	See D1050	Specific system elements modeled by type, including all path of travel/boom swing zones. Lay-down/pick-up zones are modeled.
			250 [b,c]			
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).			
LoD 500						
LoA	**200**[b,c]					

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Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Cranes

Uniformat **D1050.10** Omniclass **21-04 10 50 10** Uniclass **Ss 80 30 15**

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:** 41 22 13	See D10		See D1050		Specific system elements modeled by type, including all path of travel/boom swing zones. Lay-down/pick-up zones are modeled. Major structural support elements modeled. Crane Swing Radius	Sizing adjusted to the actual manufacturer specifications. Guiding tracks/rails Service/access zones Connections to mechanical or electrical services	All connections, supports, framing, and other supplementary components.
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*						
LoD 500							
LoA	**200**[b,c]						

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Baggage Handling Equipment

Uniformat **D1050.50** Omniclass **21-04 10 50 50** Uniclass **Ss 80 20 06**

LOD	000[a]	100[b,c]	200[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	
Description **Associated MasterFormat Sections:** 34 77 16	See D10		See D1050
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*
LoD 500			
LoA	**200**[b,c]		

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Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

300[b,c]	350[b,c]	400[b,c]
See Fundamental LOD Definitions	See Fundamental LOD Definitions	See Fundamental LOD Definitions

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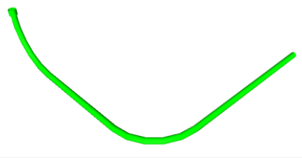
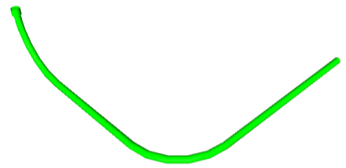
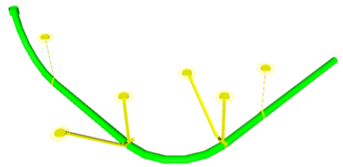
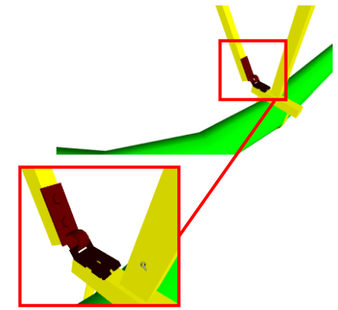
PNEUMATIC TUBING

LoD 500

Pneumatic Tube Systems

Uniformat **D1050.70** Omniclass **21-04 10 50 70** Uniclass **Ss 80 20 65**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *98 D1050.70-LOD-200 Pneumatic Tube Systems* From lkerd.com	 *99 D1050.70-LOD-300 Pneumatic Tube Systems* From lkerd.com	 *100 D1050.70-LOD-350 Pneumatic Tube Systems* From lkerd.com	 *101 D1050.70-LOD-400 Pneumatic Tube Systems* From lkerd.com
Description **Associated MasterFormat Sections:** 14 92 00	Diagrammatic elements or quantitative call outs; Conceptual and/or schematic flow diagrams;		Generic elements; schematic layout with approximate size, shape, and location of equipment and tubing;	Modeled as design-specified elements; specified size, shape, spacing, and location of equipment and tubing. Approximate allowances for spacing and clearances required for all specified hangers, supports, vibration and seismic control that are to be utilized in the layout of all equipment and tubing are modeled or accommodated by model checking software. Access/code clearance requirements modeled or accommodated by model checking software.	Modeled as actual construction elements. Actual size, shape, spacing, and location/connections of equipment and tubing. Actual size, shape, spacing, and clearances required for all hangers, supports, vibration and seismic control that are utilized in the layout of all equipment and tubing are or accommodated by model checking software. Floor and wall penetrations modeled. actual access/code clearance requirements modeled or accommodated by model checking software.	Supplementary components added to the model required for fabrication and field installation
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*					
LoD 500						
LoA	**200**[b,c]					

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Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

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PLUMBING

LoD 500

Plumbing

Uniformat **D20** Omniclass **21-04 20** Uniclass --

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:** 01 86 16 / 22 00 00	Diagrammatic or schematic model elements. Conceptual and/or schematic layout/flow diagram. Design performance parameters as defined in the BXP to be associated with model elements as non-graphic information.						
			250 [b,c]				
	The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).						
LoD 500							

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

LoA **200**[b,c]

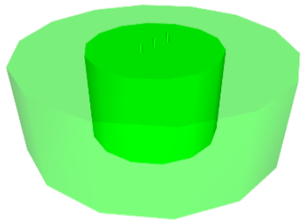
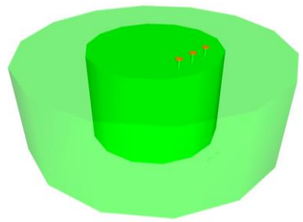
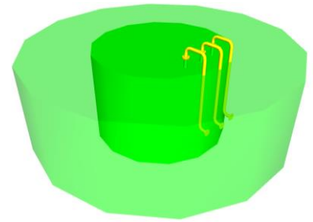
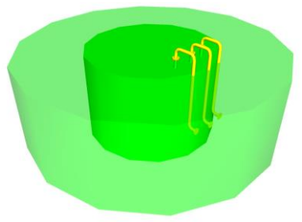
Domestic Water Distribution

Uniformat D2010 Omniclass 21-04 20 10 Uniclass Ss 55 70 38

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:** 01 86 16 / 22 11 00	See D20		Schematic layout of generic model elements with approximate size, shape, and location of elements. Shaft requirements modeled.	***Notes:*** *a. LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.* *b. LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.* *c. In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.* *d. BIMforum.global/LOD*			
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*				
LoD 500							
LoA	**200**[b,c]						

Facility Potable-Water Storage Tanks

Uniformat **D2010.10** Omniclass **21-04 20 10 10** Uniclass **Ss 55 15 65**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *102 D2010.10-LOD-200 Facility Potable-Water Storage Tanks* From lkerd.com	 *102 D2010.10-LOD-300 Facility Potable-Water Storage Tanks* From lkerd.com	 *102 D2010.10-LOD-350 Facility Potable-Water Storage Tanks* From lkerd.com	 *102 D2010.10-LOD-400 Facility Potable-Water Storage Tanks* From lkerd.com
Description **Associated MasterFormat Sections:** 22 12 00	See D20		Schematic layout with approximate size, shape, and location of tank(s);	Modeled as design-specified size, shape, spacing, and location of tank(s). Access/code clearance requirements and approximate allowances for spacing and clearances required for all specified anchors, supports, vibration and seismic control that are utilized in the layout of tanks(s) are modeled or accommodated by model checking software;	Modeled as actual construction elements size and shape, spacing, and location/connections of tank(s) Actual access/code clearance requirements and actual size and shape, spacing, and clearances required for all specified anchors, supports, vibration and seismic control that are utilized in the layout of tanks(s) are modeled or accommodated by model checking software.	Supplementary components added to the model required for fabrication and field installation.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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Notes:

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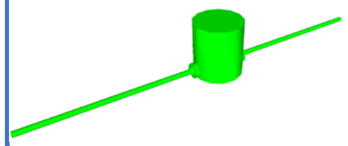
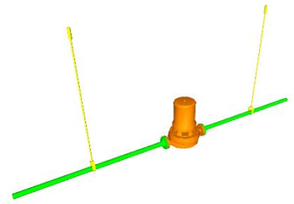
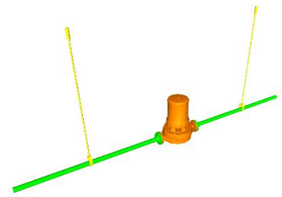
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Domestic Water Equipment

Uniformat **D2010.20** Omniclass **21-04 20 10 20** Uniclass **Ss 55 70 38**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *107 D2010.20-LOD-200 Domestic Water Equipment* From Ikerd.com	 *107 D2010.20-LOD-300 Domestic Water Equipment* From Ikerd.com	 *107 D2010.20-LOD-350 Domestic Water Equipment* From Ikerd.com	 *107 D2010.20-LOD-400 Domestic Water Equipment* From Ikerd.com
Description **Associated MasterFormat Sections:** 22 11 23 / 22 31 00 / 22 32 00 / 22 33 00 / 22 34 00 / 22 35 00	See D20		Schematic layout with approximate size, shape, and location of equipment; approximate access/code clearance requirements modeled;	Modeled as design-specified size, shape, spacing, and location of equipment. Approximate allowances for spacing and clearances required for all specified anchors, supports, vibration and seismic control that are utilized in the layout of equipment. Access/code clearance requirements modeled.	Modeled as actual construction elements size, shape, spacing, and location/connections of equipment. Actual size, shape, spacing, and clearances required for all specified anchors, supports, vibration and seismic control that are utilized in the layout of equipment. Actual access/code clearance requirements modeled.	See D2010.10
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA			**200**[b,c]			

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Notes:

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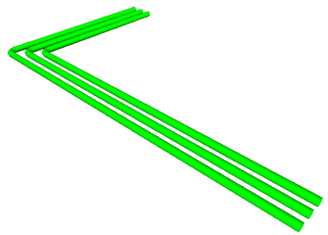
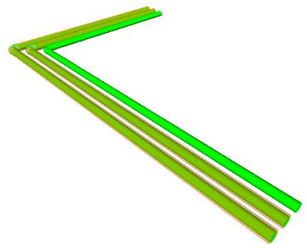
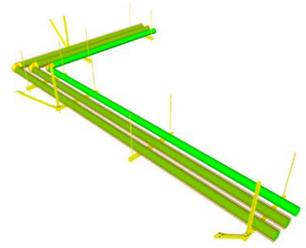
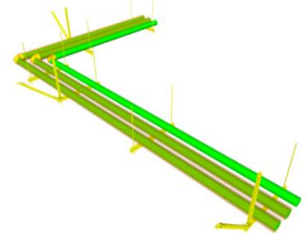
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Domestic Water Piping

Uniformat **D2010.40** Omniclass **21-04 20 10 40** Uniclass **Ss 55 70 38**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *111 D2010.40-LOD-200 Domestic Water Piping* From lkerd.com	 *111 D2010.40-LOD-300 Domestic Water Piping* From lkerd.com	 *111 D2010.40-LOD-350 Domestic Water Piping* From lkerd.com	 *111 D2010.40-LOD-400 Domestic Water Piping* From lkerd.com
Description **Associated MasterFormat Sections:** 22 11 16 / 22 11 19	Diagrammatic or schematic model elements. Conceptual and/or schematic flow diagrams. Design performance parameters as defined in the BXP to be associated with model elements as non-graphic information.		Schematic layout with approximate size, shape, and location of mains and risers. Shaft requirements modeled.	Modeled as design-specified size, shape, spacing, and location of pipe, valves, fittings, and insulation for risers, mains, and branches. Approximate allowances for spacing and clearances required for all specified hangers, supports, vibration and seismic control that are to be utilized in the layout of all risers, mains, and branches. Access/code clearance requirements modeled.	Modeled as actual construction elements. Actual size, shape, spacing, and location/connections of pipe, valves, fittings, and insulation for risers, mains, and branches. Actual size, shape, spacing, and clearances required for all hangers, supports, vibration and seismic control that are utilized in the layout of all risers, mains, and branches; actual floor and wall penetration elements modeled. Actual access/code clearance requirements modeled.	See D2010.10
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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Notes:

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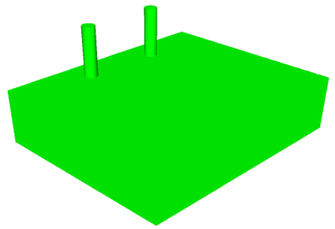
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Plumbing Fixtures

Uniformat **D2010.60** Omniclass **21-04 20 10 60** Uniclass **Ss 40 15 75**

LOD	000[a]	100[b,c]	200[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *115 D2010.60-LOD-200 Plumbing Fixtures* From lkerd.com
Description **Associated MasterFormat Sections:** 22 00 00 (See caption on sheet for full list of Master Format References)	See D20		Schematic layout with approximate size, shape, and location of fixtures; carrier and wall width requirements modeled;
		250 [b,c]	
		The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).	
LoD 500			
LoA	**200**[b,c]		

BIMFORUM

BIMForum.Global

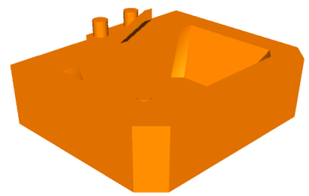
Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

300[b,c]	350[b,c]	400[b,c]
 *115 D2010.60-LOD-300 Plumbing Fixtures* From lkerd.com	 *115 D2010.60-LOD-350 Plumbing Fixtures* From lkerd.com	 *115 D2010.60-LOD-400 Plumbing Fixtures* From lkerd.com
Modeled as design-specified size, shape, spacing, and location of fixtures. Approximate allowances for spacing and clearances required for all specified supports that are to be utilized in the layout of all fixtures. Access/code clearance requirements modeled.	Modeled as actual construction elements size, shape, spacing, and location/connections of fixtures/carriers. Actual size, shape, spacing, and clearances required for all supports that are utilized in the layout of all fixtures. Actual access/code clearance requirements modeled.	See D2010.10

Sanitary Drainage

Uniformat **D2020** Omniclass **21-04 20 20** Uniclass **Ss 50 30 4**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 01 86 16 / 22 13 00	See D20		See D2010			
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						

LoA **200**[b,c]

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Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

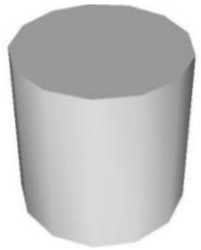
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Sanitary Sewerage Equipment

Uniformat **D2020.10** Omniclass **21-04 20 20 10** Uniclass **Ss 50 30 04**

LOD	000[a]	100[b,c]	200[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *119 D2020.10-LOD-200 Sanitary Sewerage Equipment* From Ikerd.com
Description	See D20		Schematic layout with approximate size, shape, and location of equipment;
Associated MasterFormat Sections: 22 13 23 / 22 13 26 / 22 13 29 / 22 13 33 / 22 13 36 22 13 43 / 22 13 53			

250[b,c]
The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).

LoD 500

LoA **200**[b,c]

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Notes:

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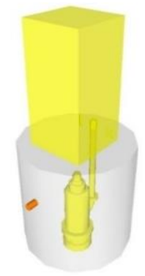
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

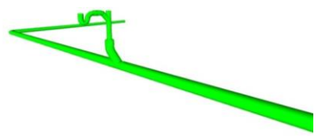
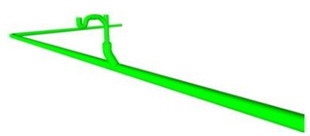
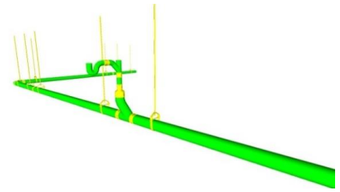
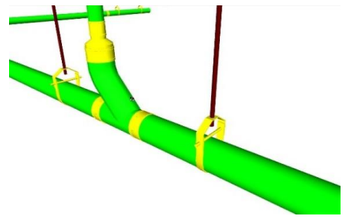
c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

300[b,c]	350[b,c]	400[b,c]
 *119 D2020.10-LOD-300 Sanitary Sewerage Equipment* From Ikerd.com	 *119 D2020.10-LOD-350 Sanitary Sewerage Equipment* From Ikerd.com	 *119 D2020.10-LOD-400 Sanitary Sewerage Equipment* From Ikerd.com
Modeled as design specified size, shape, spacing, and location of equipment. Approximate allowances for spacing and clearances required for all specified anchors, supports, vibration and seismic control that are utilized in the layout of equipment are modeled. Access/code clearance requirements modeled.	Actual size, shape, spacing, and clearances required for all specified anchors, supports, vibration and seismic control that are utilized in the layout of equipment. Actual access/code clearance requirements modeled.	Supplementary components added to the model required for fabrication and field installation

Sanitary Sewerage Piping

Uniformat **D2020.30** Omniclass **21-04 20 20 30** Uniclass **Ss 50 30 04**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *123 D2020.30-LOD-200 Sanitary Sewerage Piping* From lkerd.com	 *123 D2020.30-LOD-300 Sanitary Sewerage Piping* From lkerd.com	 *123 D2020.30-LOD-350 Sanitary Sewerage Piping* From lkerd.com	 *123 D2020.30-LOD-400 Sanitary Sewerage Piping* From lkerd.com
Description **Associated MasterFormat Sections:** 22 13 13 / 22 13 16 / 22 13 19 / 22 05 73 / 22 05 76	See D20		Schematic layout with approximate size, shape, and location of mains and risers; shaft requirements modeled;	Modeled as design-specified size, shape, spacing, location, and slope of pipe, valves, fittings, and insulation for risers, mains, and branches. Approximate allowances for spacing and clearances required for all specified hangers, supports, vibration and seismic control that are to be utilized in the layout of all risers, mains, and branches. Access/code clearance requirements modeled	Modeled as actual construction elements. Actual size, shape, spacing, location, connections, and slope of pipe, valves, fittings, and insulation for risers, mains, and branches. Actual size, shape, spacing, and clearances required for all hangers, supports, vibration and seismic control that are utilized in the layout of all risers, mains, and branches. Actual floor and wall penetration elements modeled. Actual access/code clearance requirements modeled	See D2020.10
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Building Support Plumbing Systems

Uniformat **D2030** Omniclass **21-04 20 30** Uniclass --

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:** 01 86 16 / 22 14 00	See D20		See D2010				
			250 [b,c]				
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).				
LoD 500							
LoA	**200**[b,c]						

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

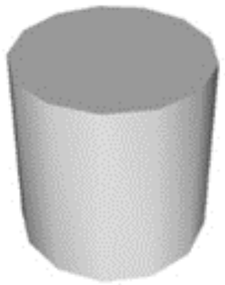
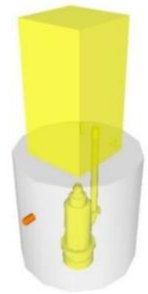
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Stormwater Drainage Equipment

Uniformat **D2030.10** Omniclass **21-04 20 30 10** Uniclass **Ss 50 35 80**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *127 D2030.10-LOD-200 Stormwater Drainage Equipment* From Ikerd.com	 *127 D2030.10-LOD-300 Stormwater Drainage Equipment* From Ikerd.com	 *127 D2030.10-LOD-350 Stormwater Drainage Equipment* From Ikerd.com	 *127 D2030.10-LOD-400 Stormwater Drainage Equipment* From Ikerd.com
Description **Associated MasterFormat Sections:** 22 14 29 / 22 14 33 / 22 14 36 / 22 14 53	Diagrammatic or schematic model elements. Conceptual and/or schematic layout;		Schematic layout with approximate size, shape, and location of equipment. Approximate access/code clearance requirements modeled;	Modeled as design-specified size, shape, spacing, and location of equipment. Approximate allowances for spacing and clearances required for all specified anchors, supports, vibration and seismic control that are utilized in the layout of equipment. Access/code clearance requirements modeled.	Modeled as actual construction elements size, shape, spacing, and location/connections of equipment. Actual size, shape, spacing, and clearances required for all specified anchors, supports, vibration and seismic control that are utilized in the layout of equipment. Actual access/code clearance requirements modeled.	Supplementary components added to the model required for fabrication and field installation.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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Notes:

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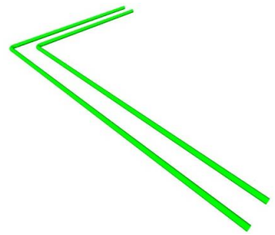
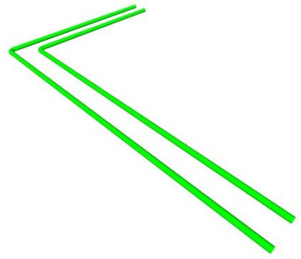
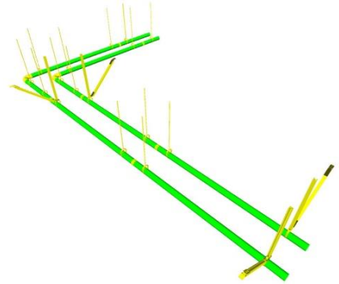
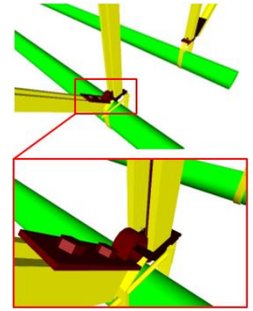
c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Stormwater Drainage Piping

Uniformat **D2030.20** Omniclass **21-04 20 30 20** Uniclass **Ss 50 35 80**

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *131 D2030.20-LOD-200 Stormwater Drainage Piping* From lkerd.com	BIMForum.Global	 *131 D2030.20-LOD-300 Stormwater Drainage Piping* From lkerd.com	 *131 D2030.20-LOD-350 Stormwater Drainage Piping* From lkerd.com	 *131 D2030.20-LOD-400 Stormwater Drainage Piping* From lkerd.com
Description **Associated MasterFormat Sections:** 22 05 73 / 22 05 76 / 22 14 13 / 22 14 16 / 22 14 23	See D20		Schematic layout with approximate size, shape, and location of mains and risers; shaft requirements modeled;		Modeled as design-specified size, shape, spacing, location, and slope of pipe, valves, fittings, and insulation for risers, mains, and branches. Approximate allowances for spacing and clearances required for all specified hangers, supports, vibration and seismic control that are to be utilized in the layout of all risers, mains, and branches. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, location, connections, and slope of pipe, valves, fittings, and insulation for risers, mains, and branches. Actual size and shape, spacing, and clearances required for all hangers, supports, vibration and seismic control that are utilized in the layout of all risers, mains, and branches. Actual access/code clearance requirements modeled. Actual floor and wall penetration elements modeled.	See D2030.10
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*				
LoD 500							
LoA	**200**[b,c]						

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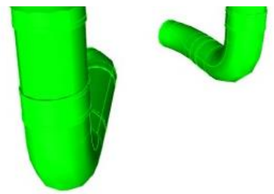
c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Facility Stormwater Drains

Uniformat **D2030.30** Omniclass **21-04 20 30 30** Uniclass **Ss 50 35 80**

LOD	000[a]	100[b,c]	200[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *135 D2030.30-LOD-200 Facility Stormwater Drains* From lkerd.com
Description	See D20		Schematic layout with approximate size, shape, and location of components.
Associated MasterFormat Sections: 22 14 26			
			250 [b,c]
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).
LoD 500			
LoA			**200**[b,c]

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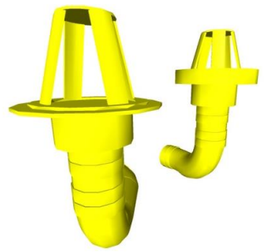
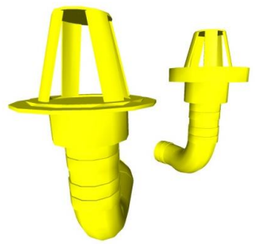
Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

300[b,c]	350[b,c]	400[b,c]
 *135 D2030.30-LOD-300 Facility Stormwater Drains* From lkerd.com	 *135 D2030.30-LOD-350 Facility Stormwater Drains* From lkerd.com	 *135 D2030.30-LOD-400 Facility Stormwater Drains* From lkerd.com
Modeled as design-specified size, shape, spacing, and location of components. Approximate allowances for spacing and clearances required for all specified hangers, supports, vibration and seismic control that are to be utilized in the layout of all components. Access/code clearance requirements modeled.	Modeled as actual construction elements size, shape, spacing, and location/connections of components. Actual size, shape, spacing, and clearances required for all hangers, supports, vibration and seismic control that are utilized in the layout of all components. Actual access/code clearance requirements modeled.	See D2030.10

Process Support Plumbing Systems

Uniformat D2060 Omniclass 21-04 20 60 Uniclass Ss 55 60

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:**	See D20		Schematic layout with approximate size, shape, and location of mains and risers; shaft requirements modeled;				
			250 [b,c]				
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).				
LoD 500							
LoA	**200**[b,c]						

Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Compressed-Air Systems

Uniformat D2060.10 Omniclass 21-04 20 60 10 Uniclass Ss 55 20 15

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 01 86 16 / 22 61 00 / 22 61 13 / 22 61 19	See D20		See D2060	Modeled as design-specified size, shape, spacing, location, and slope of equipment/pipe, valves, fittings, and insulation for risers, mains, and branches. Approximate allowances for spacing and clearances required for all specified hangers, supports, vibration and seismic control that are to be utilized in the layout of all risers, mains, and branches. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, location, connections, and slope of equipment/pipe, valves, fittings, and insulation for risers, mains, and branches. Actual size, shape, spacing, and clearances required for all hangers, supports, vibration and seismic control that are utilized in the layout of all risers, mains, and branches. Actual access/code clearance requirements modeled. Actual floor and wall penetration elements modeled.	Supplementary components added to the model required for fabrication and field installation.
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*					
LoD 500						
LoA	**200**[b,c]					

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Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

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MECHANICAL (HVAC)

LoD 500

Heating, Ventilation, and Air Conditioning (HVAC)

Uniformat D30 | Omniclass 21-04 30 | Uniclass Ss 60

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:** 01 86 19 / 23 00 00	Diagrammatic or schematic model elements. Conceptual and/or schematic layout/flow diagram;						
			250 [b,c]				
	The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).						
LoD 500							

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

LoA **200**[b,c]

Facility Fuel Systems

Uniformat D3010 Omniclass 21-04 30 10 Uniclass Ss 55 50

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:** 01 86 19 / 23 10 00	See D30		Schematic layout with approximate size, shape, and location of element(s). Approximate access/code clearance requirements modeled. Shaft requirements modeled;				
			250 b,c *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*				
LoD 500							

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

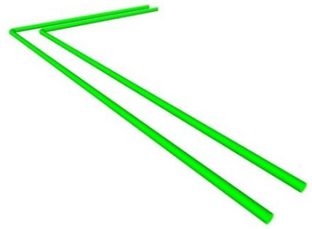
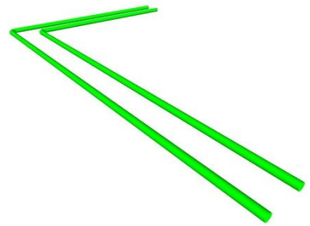
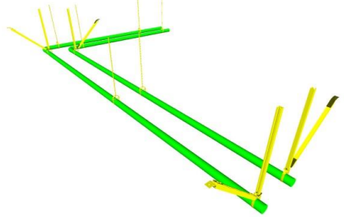
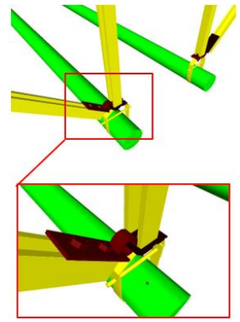
c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

LoA **200**[b,c]

Fuel Piping

Uniformat **D3010.10** Omniclass **21-04 30 10 10** Uniclass **Ss 55 50 46**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *143 D3010.10-200 Fuel Piping* From Ikerd.com	 *143 D3010.10-300 Fuel Piping* From Ikerd.com	 *143 D3010.10-350 Fuel Piping* From Ikerd.com	 *143 D3010.10-400 Fuel Piping* From Ikerd.com
Description **Associated MasterFormat Sections:** 23 11 00	See D30		See D3010	Modeled as design-specified size, shape, spacing, and location of pipe, valves, fittings, and insulation for risers, mains, and branches. Approximate allowances for spacing and clearances required for all specified hangers, supports, vibration and seismic control that are to be utilized in the layout of all risers, mains, and branches. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location/connections of pipe, valves, fittings, and insulation for risers, mains, and branches. Actual size, shape, spacing, and clearances required for all hangers, supports, vibration and seismic control that are utilized in the layout of all risers, mains, and branches. Actual access/code clearance requirements modeled. Actual floor and wall penetration elements modeled.	Supplementary components added to the model required for fabrication and field installation
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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Notes:

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c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Fuel Pumps

Uniformat **D3010.30** Omniclass **21-04 30 10 30** Uniclass **Ss 55 50**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 23 12 00 / 23 12 13 / 23 12 16	See D30		See D3010	Modeled as design-specified size, shape, spacing, and location of equipment. Approximate allowances for spacing and clearances required for all specified anchors, supports, vibration and seismic control that are utilized in the layout of equipment. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location/connections of equipment; actual size, shape, spacing, and clearances required for all specified anchors, supports, vibration and seismic control that are utilized in the layout of equipment. Actual access/code clearance requirements modeled.	See D3010.10
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA			**200**[b,c]			

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BIMForum.Global

Notes:

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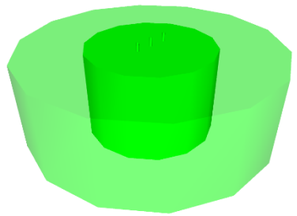
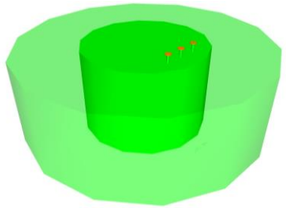
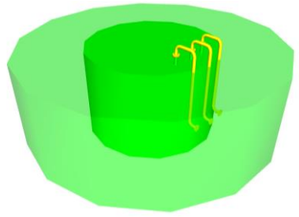
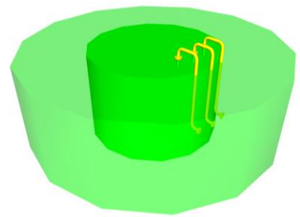
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Fuel Storage Tanks

Uniformat **D3010.50** Omniclass **21-04 30 10 50** Uniclass **Ss 55 10 75 0**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *147 D3010.50-LOD-200 Fuel Storage Tanks* From lkerd.com	 *147 D3010.50-LOD-300 Fuel Storage Tanks* From lkerd.com	 *147 D3010.50-LOD-350 Fuel Storage Tanks* From lkerd.com	 *147 D3010.50-LOD-400 Fuel Storage Tanks* From lkerd.com
Description **Associated MasterFormat Sections:** 23 13 00	See D30		See D3010	Modeled as design-specified size, shape, spacing, and location of tank(s). Approximate allowances for spacing and clearances required for all specified anchors, supports, vibration and seismic control that are utilized in the layout of tanks(s). Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location/connections of tank(s); actual size, shape, spacing, and clearances required for all specified anchors, supports, vibration and seismic control that are utilized in the layout of tanks(s). Actual access/code clearance requirements modeled.	See D3010.10
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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Notes:

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d. *BIMforum.global/LOD*

Heating Systems

Uniformat D3020 Omniclass 21-04 30 20 Uniclass Ss 60 40 37

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:** 01 86 19	See D30		Schematic layout with approximate size, shape, and location of element(s). Shaft requirements modeled;				
			250 [b,c]				
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).				
LoD 500							
LoA	**200**[b,c]						

Notes:

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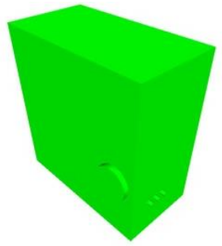
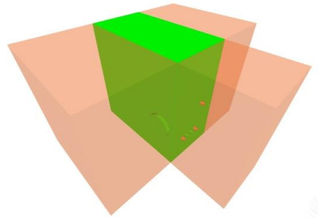
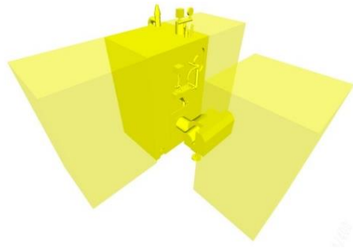
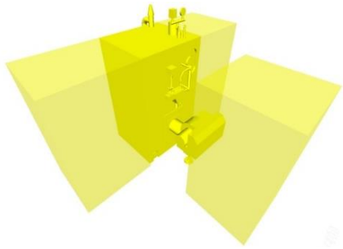
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Heat Generation

Uniformat **D3020.10** Omniclass **21-04 30 20 10** Uniclass **Ss 60 40 37**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *151 D3020.10-LOD-200 Heat Generation* From Ikerd.com	 *151 D3020.10-LOD-300 Heat Generation* From Ikerd.com	 *151 D3020.10-LOD-350 Heat Generation* From Ikerd.com	 *151 D3020.10-LOD-400 Heat Generation* From Ikerd.com
Description **Associated MasterFormat Sections:** 23 51 00 / 23 52 00 / 23 52 13 / 23 53 00 / 23 53 13 / 23 53 16 / 23 54 00 / 23 56 00 / 23 56 13 / 23 56 16 / 23 55 00 / 23 57 00	See D30		See D3020	Modeled as design-specified size, shape, spacing, and location of equipment. Approximate allowances for spacing and clearances required for all specified anchors, supports, vibration and seismic control that are utilized in the layout of equipment. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location/connections of equipment, actual size, shape, spacing, and clearances required for all specified anchors, supports, vibration and seismic control that are utilized in the layout of equipment. Actual access/code clearance requirements modeled.	Supplementary components added to the model required for fabrication and field installation.
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*					
LoD 500						
LoA	**200**[b,c]					

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c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Cooling Systems

Uniformat D3030 Omniclass 21-04 30 30 Uniclass Ss 60 40 17

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:** 01 86 19	See D30		Schematic layout with approximate size, shape, and location of element(s). Shaft requirements modeled;				
			250 [b,c]				
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).				
LoD 500							
LoA	**200**[b,c]						

Notes:

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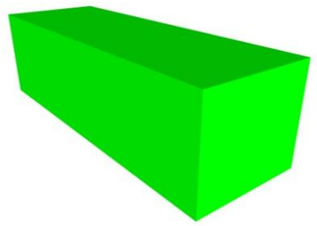
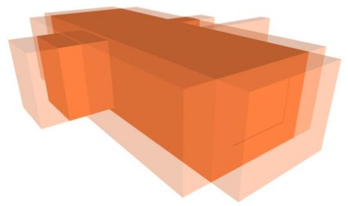
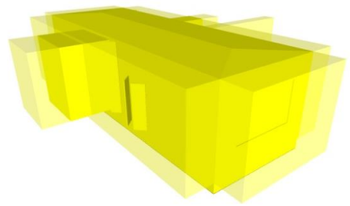
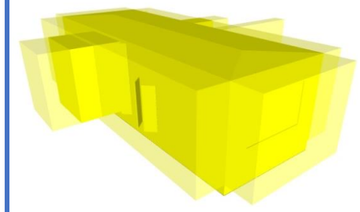
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Central Cooling

Uniformat **D3030.10** Omniclass **21-04 30 30 10** Uniclass **Ss 60 40 17 0**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *155 D3030.10-LOD-200 Central Cooling* From lkerd.com	 *155 D3030.10-LOD-300 Central Cooling* From lkerd.com	 *155 D3030.10-LOD-350 Central Cooling* From lkerd.com	 *155 D3030.10-LOD-400 Central Cooling* From lkerd.com
Description **Associated MasterFormat Sections:** 23 60 00 / 23 61 00 / 23 62 00 / 23 63 00 / 23 64 00 / 23 65 00	See D30		See D3030	Modeled as design-specified size, shape, spacing, and location of equipment. Approximate allowances for spacing and clearances required for all specified anchors, supports, vibration and seismic control that are utilized in the layout of equipment. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location/connections of equipment; actual size, shape, spacing, and clearances required for all specified anchors, supports, vibration and seismic control that are utilized in the layout of equipment. Actual access/code clearance requirements modeled.	Supplementary components added to the model required for fabrication and field installation.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA			**200**[b,c]			

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BIMForum.Global

Notes:

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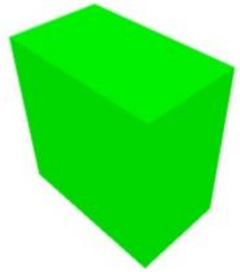
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Evaporative Air-Cooling

Uniformat **D3030.30** Omniclass **21-04 30 30 30** Uniclass **Ss 65 80 45 25**

LOD	000[a]	100[b,c]	200[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *159 D3030.30-LOD-200 Evaporative Air-Cooling* From lkerd.com
Description	See D3030.10		See D3030.10
Associated MasterFormat Sections: 23 76 00			
			250 [b,c]
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).
LoD 500			
LoA			**200**[b,c]

BIMFORUM®

BIMForum.Global

Notes:

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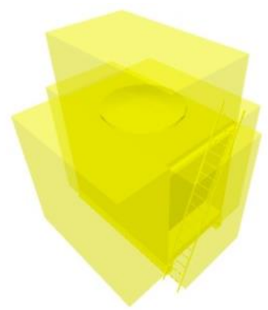
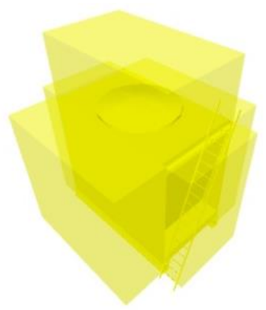
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

300[b,c]	350[b,c]	400[b,c]
 *159 D3030.30-LOD-300 Evaporative Air-Cooling* From lkerd.com	 *159 D3030.30-LOD-350 Evaporative Air-Cooling* From lkerd.com	 *159 D3030.30-LOD-400 Evaporative Air-Cooling* From lkerd.com
See D3030.10	See D3030.10	See D3030.10

Facility HVAC Distribution Systems

Uniformat **D3050** Omniclass **21-04 30 50** Uniclass **Ss 60 40 84**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:**	See D30		Schematic layout with approximate size, shape, and location of element(s).			
			250 [b,c]			
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).			
LoD 500						

LoA **200**[b,c]

BIMFORUM®

BIMForum.Global

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

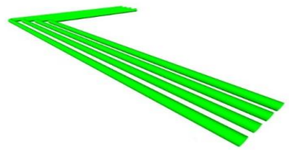
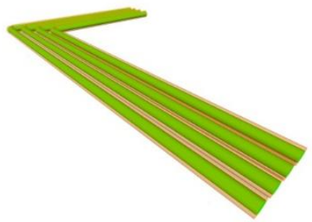
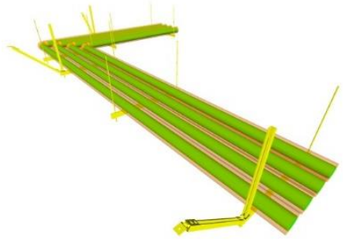
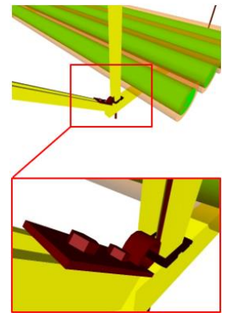
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Facility Hydronic Distribution

Uniformat **D3050.10** Omniclass **21-04 30 50 10** Uniclass **Ss 60 40 84 0**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *D3050.10-LOD-200 Facility Hydronic distribution* From Ikerd.com	 *D3050.10-LOD-300 Facility Hydronic distribution* From Ikerd.com	 *D3050.10-LOD-350 Facility Hydronic distribution* From Ikerd.com	 *D3050.10-LOD-400 Facility Hydronic distribution* From Ikerd.com
Description **Associated MasterFormat Sections:** 01 86 19 / 23 21 13 / 23 21 23 / 23 25 00	See D30		See D3050	Modeled as design-specified size, shape, spacing, location, and slope of pipe, valves, fittings, and insulation for risers, mains, and branches. Approximate allowances for spacing and clearances required for all specified hangers, supports, vibration and seismic control that are to be utilized in the layout of all risers, mains, and branches. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, location, connections, and slope of pipe, valves, fittings, and insulation for risers, mains, and branches. Actual size, shape, spacing, and clearances required for all hangers, supports, vibration and seismic control that are utilized in the layout of all risers, mains, and branches; actual floor and wall penetration elements modeled. Actual access/code clearance requirements modeled.	Supplementary components added to the model required for fabrication and field installation.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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BIMForum.Global

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

HVAC Air Distribution

Uniformat **D3050.50** Omniclass **21-04 30 50 50** Uniclass **Ss 65 80 0 0**

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:** 01 86 19 / 23 73 00 / 23 74 00 / 23 75 00 / 23 30 00 / 23 34 00 / 23 31 00 / 23 32 00 / 23 33 00 / 23 36 00 / 23 37 00 / 23 40 00 / 23 41 00 / 23 42 00 / 23 43 00 / 23 84 00	See D30		See D3050		Modeled as design-specified size, shape, spacing, and location of duct, dampers, fittings, and insulation for risers, mains, and branches. Approximate allowances for spacing and clearances required for all specified hangers, supports, vibration and seismic control that are to be utilized in the layout of all risers, mains, and branches. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location/connections of duct, dampers, fittings, and insulation for risers, mains, and branches. Actual size, shape, spacing, and clearances required for all hangers, supports, vibration and seismic control that are utilized in the layout of all risers, mains, and branches. Actual floor and wall penetration elements modeled. Actual access/code clearance requirements modeled.	See D3050.10
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*				
LoD 500							
LoA	**200**[b,c]						

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Ventilation

Uniformat D3060 Omniclass 21-04 30 60 Uniclass Ss 65 40 0 0

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 01 86 19	See D30		Schematic layout with approximate size, shape, and location of mains and risers.			
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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BIMForum.Global

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

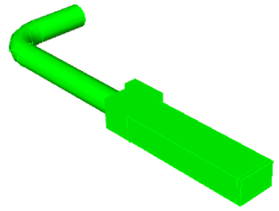
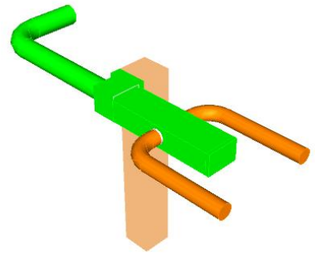
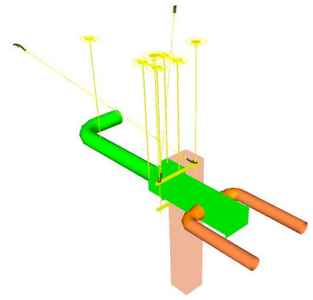
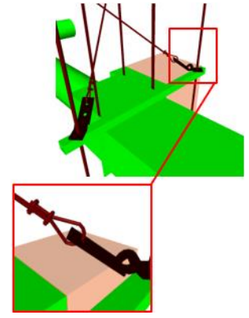
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Supply Air

Uniformat **D3060.10** Omniclass **21-04 30 60 10** Uniclass **Ss 65 40 33 51**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *167 D3060.10-LOD-200 Supply Air* From Ikerd.com	 *167 D3060.10-LOD-300 Supply Air* From Ikerd.com	 *167 D3060.10-LOD-350 Supply Air* From Ikerd.com	 *167 D3060.10-LOD-400 Supply Air* From Ikerd.com
Description **Associated MasterFormat Sections:** 23 34 00 / 23 31 00 / 23 32 00 / 23 33 00 / 23 36 00 / 23 37 00	See D30		See D3060	Modeled as design-specified size, shape, spacing, and location of duct, dampers, fittings, and insulation for risers, mains, and branches. Approximate specified allowances for spacing and clearances required for all hangers, supports, vibration and seismic control that are to be utilized in the layout of all risers, mains, and branches. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location/connections of duct, dampers, fittings, and insulation for risers, mains, and branches. Actual size, shape, spacing, and clearances required for all hangers, supports, vibration and seismic control that are utilized in the layout of all risers, mains, and branches; actual floor and wall penetration elements modeled. Actual access/code clearance requirements modeled.	Supplementary components added to the model required for fabrication and field installation.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

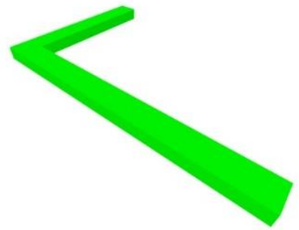
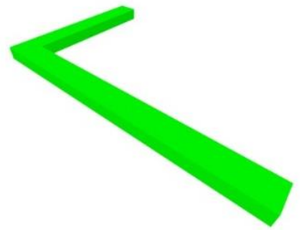
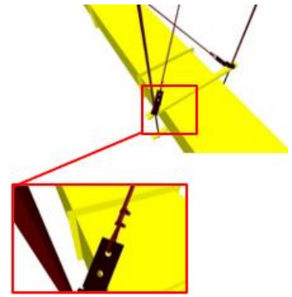
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Exhaust Air

Uniformat **D3060.30** Omniclass **21-04 30 60 30** Uniclass **Ss 65 40**

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *D3060.30-LOD-200 Exhaust Air* From Ikerd.com	BIMForum.Global	 *D3060.30-LOD-300 Exhaust Air* From Ikerd.com	 *D3060.30-LOD-350 Exhaust Air* From Ikerd.com	 *D3060.30-LOD-400 Exhaust Air* From Ikerd.com
Description **Associated MasterFormat Sections:** 23 35 00 / 23 35 13.13 / 23 35 16 / 23 38 00 / 23 38 13 / 23 38 16 / 23 34 00 / 23 31 00 / 23 32 00 / 23 33 00 / 23 37 00	See D30		See D3060		Modeled as design-specified size, shape, spacing, location, duct slope (if required), dampers, fittings, insulation for risers, mains, and branches. Approximate specified allowances for spacing and clearances required for all hangers, supports, vibration and seismic control that are to be utilized in the layout of all risers, mains, and branches. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, location, and slope (if required)/connections of duct, dampers, fittings, and insulation for risers, mains, and branches. Actual size, shape, spacing, and clearances required for all hangers, supports, vibration and seismic control that are utilized in the layout of all risers, mains, and branches; actual floor and wall penetration elements modeled. Actual access/code clearance requirements modeled.	See D3060.10
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*				
LoD 500							
LoA	**200**[b,c]						

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Special Purpose HVAC Systems

Uniformat D3070 Omniclass 21-04 30 70 Uniclass Ss 60

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:**	See D30		Schematic layout with approximate size, shape, and location of components.			
			250 [b,c]			
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).			
LoD 500						
LoA	**200**[b,c]					

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BIMForum.Global

Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Snow Melting

Uniformat D3070.10 Omniclass 21-04 30 70 10 Uniclass Ss 60 30 60

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 23 83 13 / 23 83 16	See D30		See D3070	Modeled as design-specified size, shape, spacing, and location of supplementary components. Approximate allowances for spacing and clearances required for all specified hangers, supports, vibration and seismic control that are to be utilized in the layout of all supplementary components. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location/connections of supplementary components. Actual size, shape, spacing, and clearances required for all hangers, supports, vibration and seismic control that are utilized in the layout of all supplementary components. Actual access/code clearance requirements modeled.	Supplementary components added to the model required for fabrication and field installation.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA			**200**[b,c]			

BIMFORUM®

BIMForum.Global

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

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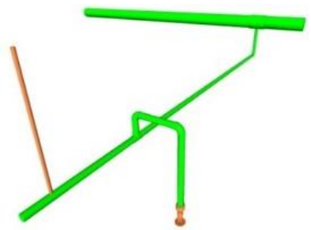
FIRE PROTECTION

LoD 500

Fire Protection

Uniformat **D40** Omniclass **21-04 40** Uniclass **Ss 55 30**

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:**	Diagrammatic or schematic model elements; Conceptual and/or schematic layout/flow diagram;		Approximate geometry.		Modeled as design-specified size, shape, spacing, and location of pipe/slope (if required)/valves/fittings/insulation for risers, mains, and branches/standpipes. Approximate allowances for spacing and clearances required for all specified hangers, supports, vibration and seismic control that are to be utilized in the layout of all risers, mains, and branches/standpipes. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location/ slope (if required)/connections of pipe, valves, fittings, and insulation for risers, mains, and branches/standpipes. Actual size, shape, spacing, and clearances required for all hangers, supports, vibration and seismic control that are utilized in the layout of all risers, mains, and branches/standpipes. Actual floor and wall penetration elements modeled. Actual access/code clearance requirements modeled.	Supplementary components added to the model required for fabrication and field installation.
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*						
LoD 500							
LoA	**200**[b,c]						

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

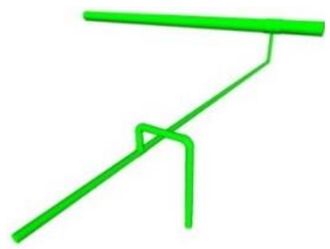
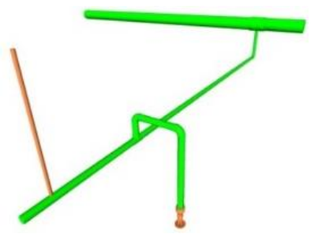
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Water-Based Fire-Suppression

Uniformat **D4010.10** Omniclass **21-04 40 10 10** Uniclass **Ss 55 30 98**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *175 D4010.10-LOD-200 Water-Based Fire-Suppression* From Ikerd.com	 *175 D4010.10-LOD-300 Water-Based Fire-Suppression* From Ikerd.com	 *175 D4010.10-LOD-350 Water-Based Fire-Suppression* From Ikerd.com	 *175 D4010.10-LOD-400 Water-Based Fire-Suppression* From Ikerd.com
Description **Associated MasterFormat Sections:** 01 86 13 / 21 10 00 / 21 11 00 / 21 12 00 / 21 13 00 / 21 13 13 / 21 13 16 / 21 13 19 / 21 13 23 / 21 13 26 / 21 13 29 / 21 13 36 / 21 13 39 / 21 30 00 / 21 40 00	See D40		See D4010	Modeled as design-specified size, shape, spacing, and location of pipe/slope (if required)/valves/fittings/insulation for risers, mains, and branches/standpipes. Approximate allowances for spacing and clearances required for all specified hangers, supports, vibration and seismic control that are to be utilized in the layout of all risers, mains, and branches/standpipes. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location/ slope (if required)/connections of pipe, valves, fittings, and insulation for risers, mains, and branches/standpipes. Actual size, shape, spacing, and clearances required for all hangers, supports, vibration and seismic control that are utilized in the layout of all risers, mains, and branches/standpipes. Actual floor and wall penetration elements modeled. Actual access/code clearance requirements modeled.	Supplementary components added to the model required for fabrication and field installation.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Fire Protection Cabinets

Uniformat **D4030.10** Omniclass **21-04 40 30 10** Uniclass **Pr 80 77 28 28**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 10 44 13	See D40		See D4030	Modeled as design-specified size, shape, spacing, and location of components. Approximate allowances for spacing and clearances required for all specified hangers, supports, vibration and seismic control that are to be utilized in the layout of all components. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location/connections of components. actual size, shape, spacing, and clearances required for all hangers, supports, vibration and seismic control that are utilized in the layout of all components. Actual access/code clearance requirements modeled.	Supplementary components added to the model required for fabrication and field installation.
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*					
LoD 500						
LoA	**200**[b,c]					

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Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

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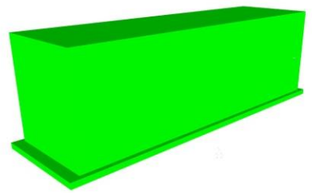
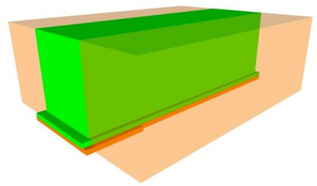
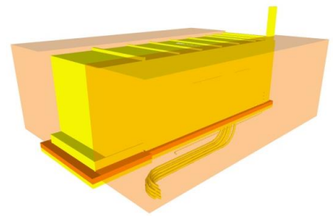
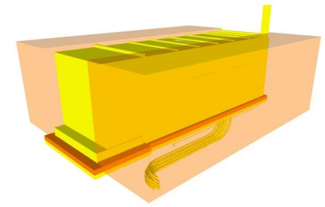
ELECTRICAL

LoD 500

Packaged Generator Assemblies

Uniformat **D5010.10** Omniclass **21-04 50 10 10** Uniclass **Ss 70 10 30**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *179 D5010.10-LOD-200 Packaged Generator Assemblies* From Ikerd.com	 *179 D5010.10-LOD-300 Packaged Generator Assemblies* From Ikerd.com	 *179 D5010.10-LOD-350 Packaged Generator Assemblies* From Ikerd.com	 *179 D5010.10-LOD-400 Packaged Generator Assemblies* From Ikerd.com
Description **Associated MasterFormat Sections:** 26 32 00 / 26 32 13 / 26 32 16 / 26 32 19 / 26 32 23 / 26 32 26 / 26 32 29 / 26 32 33	See D50		See D5010	Modeled as design-specified size, shape, spacing, and location of equipment and associated components. Approximate allowances for spacing and clearances required for all specified supports and seismic control. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location of equipment and associated components. Actual size, shape, spacing, and location for supports and seismic control. Actual size, shape, and location/connections of equipment and support structure/pads. Actual access/code clearance requirements modeled.	Supplementary components added to the model required for fabrication and field installation.
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*					
LoD 500						
LoA	**200**[b,c]					

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Notes:

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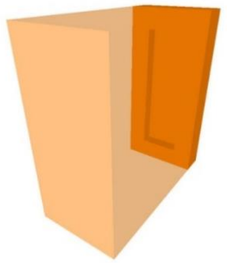
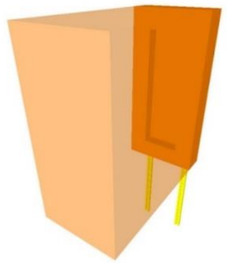
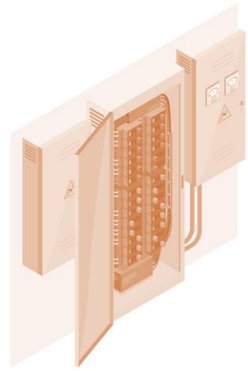
c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Electrical Service and Distribution

Uniformat **D5020** Omniclass **21-04 50 20** Uniclass **Ss 70 30**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 01 86 26	See D50		Schematic layout with approximate size, shape, and location of equipment.			
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA			**200**[b,c]			

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Notes:

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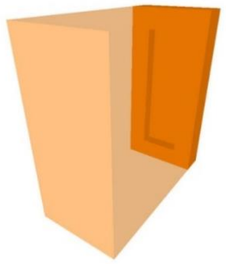
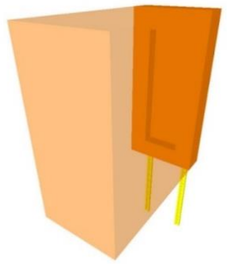
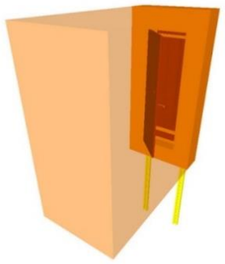
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Electrical Service Entrance

Uniformat **D5020.10** Omniclass **21-04 50 20 10** Uniclass **Ss 70 30 45 45**

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global	 *183 D5020.10-LOD-300 Electrical Service Entrance* From Ikerd.com	 *183 D5020.10-LOD-350 Electrical Service Entrance* From Ikerd.com	 *183 D5020.10-LOD-400 Electrical Service Entrance* From Ikerd.com
Description **Associated MasterFormat Sections:** 26 21 00 / 26 16 00 / 26 11 00 / 26 12 00 / 26 22 00 / 26 13 00 / 22 23 00 / 26 18 00 / 22 28 00	See D50		See D5020		Modeled as design-specified size, shape, spacing, and location of equipment and associated components. Approximate allowances for spacing and clearances required for all specified supports and seismic control. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location of equipment and associated components. Actual size, shape, spacing, and location for supports and seismic control. Actual size, shape, and location/connections of equipment and support structure/pads. Actual access/code clearance requirements modeled.	Supplementary components added to the model required for fabrication and field installation.
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*						
LoD 500							
LoA	**200**[b,c]						

Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Power Distribution

Uniformat **D5020.30** Omniclass **21-04 50 20 30** Uniclass **Ss 70 30 45 45**

LOD	000[a]	100[b,c]	200[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	
Description **Associated MasterFormat Sections:** 26 20 00 / 26 24 00 / 26 24 13 / 26 24 16 / 26 24 19 / 26 25 00 / 26 27 00 / 26 27 16 / 26 05 33 / 26 05 43 / 26 05 36 / 26 05 13	See D50		See D5020
	250 [b,c]		
	The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).		

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BIMForum.Global

Notes:

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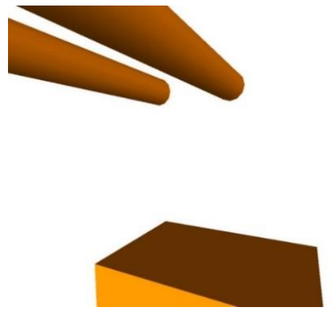
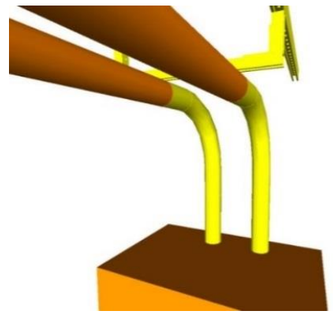
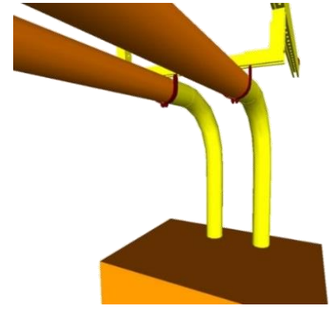
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

300[b,c]	350[b,c]	400[b,c]
 *186 D5020.30-LOD-300 Power Distribution* From Ikerd.com	 *186 D5020.30-LOD-350 Power Distribution* From Ikerd.com	 *186 D5020.30-LOD-400 Power Distribution* From Ikerd.com
Modeled as design-specified size, shape, spacing, and location of raceways, boxes, enclosures, and equipment. Approximate allowances for spacing and clearances required for all specified hangers, supports and seismic control. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location of raceways, boxes, and enclosures. Actual size, shape, spacing, and location for supports and seismic control. Actual size, shape, and location/connections of equipment and support structure/pads. Actual floor and wall penetration elements are modeled. Actual access/code clearance requirements modeled.	Supplementary components added to the model required for fabrication and field installation.

LoD 500

LoA **200**[b,c]

Facility Grounding

Uniformat D5020.70 Omniclass 21-04 50 20 70 Uniclass Ss 70 30 45 45

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 26 05 26 / 26 05 33 / 26 05 13	See D50		See D5020	Modeled as design-specified size, shape, spacing, and location of raceways, boxes, enclosures, and the electrical equipment and end-devices served. Approximate allowances for spacing and clearances required for all specified hangers, supports, and seismic control. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location of raceways, boxes, enclosures, and the electrical equipment and end-devices served. Actual size, shape, spacing, and location for supports and seismic control. Actual floor and wall penetration elements are modeled. Actual access/code clearance requirements modeled.	Supplementary components added to the model required for fabrication and field installation.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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Notes:

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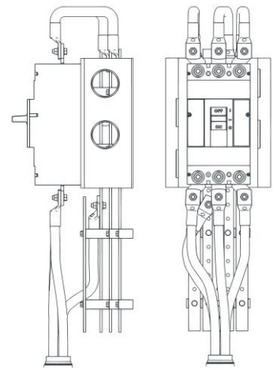
c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Electrical Service and Distribution Supplementary Components

Uniformat **D5020.90** Omniclass **21-04 50 20 90** Uniclass **Ss 70 30 45 45**

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:** 05 45 16 / 26 05 00 / 26 05 26 / 26 05 29 / 26 05 33 / 26 05 36 / 26 05 46 / 26 05 48 / 26 05 53 / 26 05 83 / 26 09 00	See D50		See D5020		1. Modeled as design-specified size, shape, spacing, and location of raceways, boxes, enclosures, and the electrical equipment and end-devices served. 2. Approximate allowances for spacing and clearances required for all specified hangers, supports, and seismic control. 3. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location of raceways, boxes, enclosures, and the electrical equipment and end-devices served. Actual size, shape, spacing, and location for supports and seismic control. Actual floor and wall penetration elements are modeled. Actual access/code clearance requirements modeled.	Supplementary components added to the model required for fabrication and field installation.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*				
LoD 500							
LoA	**200**[b,c]						

Notes:

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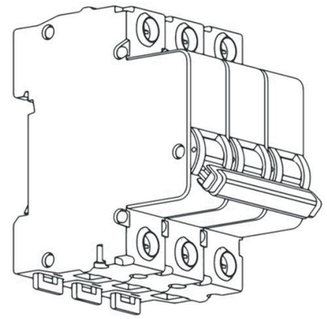
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

General Purpose Electrical Power

Uniformat **D5030** Omniclass **21-04 50 30** Uniclass **Ss 70 30 45 45**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 01 86 26	See D50		Schematic layout with approximate size, shape, and location of equipment.			
			250 [b,c]			
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).			
LoD 500						
LoA			**200**[b,c]			

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Notes:

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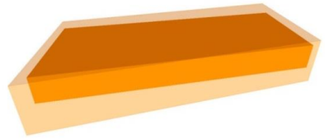
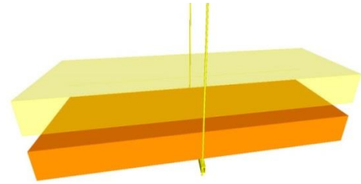
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Branch Wiring System

Uniformat **D5030.10** Omniclass **21-04 50 30 10** Uniclass **Ss 70 30 45 45**

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global	 *189 D5030.10-LOD-300 Branch Wiring System* From Ikerd.com	 *189 D5030.10-LOD-350 Branch Wiring System* From Ikerd.com	
Description **Associated MasterFormat Sections:** 26 05 33 / 26 05 43 / 26 05 36 / 26 05 19	See D50		See D5030		Modeled as design-specified size, shape, spacing, and location of raceways, boxes, and enclosures. Approximate allowances for spacing and clearances required for all specified hangers, supports and seismic control. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location of raceways, boxes, enclosures. Actual size, shape, spacing, and location for supports and seismic control. Actual floor and wall penetration elements are modeled. Actual access/code clearance requirements modeled.	Supplementary components added to the model required for fabrication and field installation.
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*						
LoD 500							
LoA	**200**[b,c]						

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Wiring Devices

Uniformat **D5030.50** Omniclass **21-04 50 30 50** Uniclass **Ss 70 30 45 45**

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:** 26 27 26	See D50		See D5030		Modeled as design-specified size, shape, spacing, and location of outlet boxes and devices. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location of outlet boxes and devices. Actual access/code clearance requirements modeled.	Supplementary components added to the model required for fabrication and field installation.
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*						
LoD 500							
LoA	**200**[b,c]						

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

General Purpose Electrical Power Supplementary Components

Uniformat D5030.90 Omniclass 21-04 50 30 90 Uniclass Ss 70 30 45 45

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:** 05 45 16 / 26 05 00 / 26 05 26 / 26 05 29 / 26 05 33 / 26 05 36 / 26 05 48 / 26 05 53 / 26 05 83 / 26 09 00	See D50		See D5030		Modeled as design-specified size, shape, spacing, and location of outlet boxes and devices. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location of outlet boxes and devices. Actual access/code clearance requirements modeled.	Supplementary components added to the model required for fabrication and field installation.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*				
LoD 500							
LoA	**200**[b,c]						

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Miscellaneous Electrical Systems

Uniformat D5080 Omniclass 21-04 50 80 Uniclass Ss 70

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:**	See D50		Schematic layout with approximate size, shape, and location of equipment.			
			250 [b,c]			
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).			
LoD 500						
LoA	**200**[b,c]					

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Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

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LIGHTING

LoD 500

Lighting

Uniformat **D5040** Omniclass **21-04 50 40** Uniclass **Ss 70 80**

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:** 26 50 00 / 01 86 26	See D50		Schematic layout with approximate size, shape, and location of equipment.				
			250 [b,c]				
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).				
LoD 500							
LoA	**200**[b,c]						

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Lighting Control

Uniformat **D5040.10** Omniclass **21-04 50 40 10** Uniclass **Pr 70 70 47**

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:** 6 09 23 / 26 09 26 / 26 09 33 / 26 09 36 / 26 09 43 / 26 09 61	See D50		See D5040		Modeled as design-specified size, shape, spacing, and location of enclosures, equipment, and devices. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location of enclosures, equipment, and control devices. Actual size, shape, and location/connections of equipment and control devices. Actual access/code clearance requirements modeled.	Supplementary components added to the model required for fabrication and field installation.
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*						
LoD 500							
LoA	**200**[b,c]						

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Branch Wiring for Lighting

Uniformat D5040.20 Omniclass 21-04 50 40 20 Uniclass Ss 70 80 33 35

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 26 05 33 / 26 05 43 / 26 05 36 / 26 05 19 / 26 27 26	See D50		See D5040	Modeled as design-specified size, shape, spacing, and location of raceways, boxes, and enclosures to fixture locations. Approximate allowances for spacing and clearances required for all specified hangers, supports, and seismic control. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location of raceways, boxes, and enclosures to fixture locations. Actual size, shape, spacing, and location for supports and seismic control. Actual floor and wall penetration elements are modeled. Actual access/code clearance requirements modeled.	Supplementary components added to the model required for fabrication and field installation.
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*					
LoD 500						
LoA	**200**[b,c]					

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Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

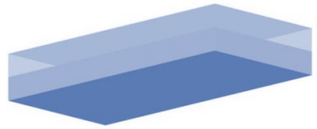
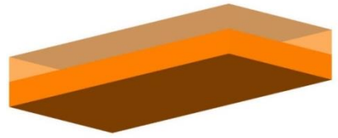
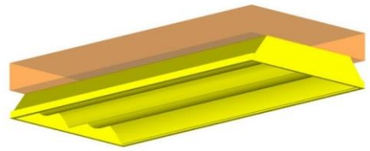
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Lighting Fixtures

Uniformat **D5040.50** Omniclass **21-04 50 40 50** Uniclass **Ss 70 80**

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global	 *191 D5040.50-LOD-300 Lighting Fixtures* From Ikerd.com	 *191 D5040.50-LOD-350 Lighting Fixtures* From Ikerd.com	
Description **Associated MasterFormat Sections:** 26 50 00 / 26 51 00 / 26 52 00 / 26 53 00 / 26 54 00 / 26 55 00 / 26 55 23 / 26 55 29 / 26 55 33 / 26 55 36 / 26 55 39 / 26 55 53 / 26 55 59 / 26 55 61 / 26 55 63 / 26 55 70	See D50		See D5040		Modeled as design-specified size, shape, spacing, and location of lighting fixtures. Approximate allowances for spacing and clearances required for all specified hangers, supports and seismic control. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location of lighting fixtures. Actual size, shape, spacing, and location for supports and seismic control. Actual access/code clearance requirements modeled.	Supplementary components added to the model required for fabrication and field installation.
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*						
LoD 500							
LoA	**200**[b,c]						

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Data Communications Network Equipment

Uniformat **D6010.10** Omniclass **21-04 60 10 10** Uniclass **Ss 75 10 21 21**

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:** 27 21 00 / 27 21 13 / 27 21 16 / 27 21 29 / 27 21 33	See D50		See D5010		Modeled as design-specified size, shape, spacing, and location of equipment and associated components. Approximate allowances for spacing and clearances required for all specified supports and seismic control. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location of equipment and associated components. Actual size, shape, spacing, and location for supports and seismic control. Actual size, shape, and location/connections of equipment and support structure/pads. Actual access/code clearance requirements modeled.	Supplementary components added to the model required for fabrication and field installation.
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*						
LoD 500							
LoA	**200**[b,c]						

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Data Communications Hardware

Uniformat **D6010.20** Omniclass **21-04 60 10 20** Uniclass **Pr 70 75 52**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 27 22 00 / 07 22 13 / 07 22 16 / 07 22 19 / 07 22 23 / 07 22 26 / 07 22 29	See D50		See D5010	Modeled as design-specified size, shape, spacing, and location of equipment and associated components. Approximate allowances for spacing and clearances required for all specified supports and seismic control. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location of equipment and associated components. Actual size, shape, spacing, and location for supports and seismic control. Actual size, shape, and location/connections of equipment and support structure/pads. Actual access/code clearance requirements modeled.	Supplementary components added to the model required for fabrication and field installation.
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*					
LoD 500						
LoA	**200**[b,c]					

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Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Data Communications Peripheral Data Equipment

Uniformat **D6010.30** Omniclass **21-04 60 10 30** Uniclass **Pr 70 75 15**

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:** 27 24 00 / 27 24 13 / 27 24 26 / 27 24 19 / 27 24 23 / 27 24 26 / 27 24 29	See D50		See D5010		Modeled as design-specified size, shape, spacing, and location of equipment and associated components. Approximate allowances for spacing and clearances required for all specified supports and seismic control. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location of equipment and associated components. Actual size, shape, spacing, and location for supports and seismic control. Actual size, shape, and location/connections of equipment and support structure/pads. Actual access/code clearance requirements modeled.	Supplementary components added to the model required for fabrication and field installation.
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*						
LoD 500							
LoA	**200**[b,c]						

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Equipment

Uniformat **E10** Omniclass **21-05 10 00** Uniclass --

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:** 11 00 00 / 01 87 13	Diagrammatic or schematic model elements: Conceptual and/or schematic layout; Design performance parameters as defined in the BXP to be associated with model elements as non-graphic information.			***Notes:*** *a. LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.* *b. LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.* *c. In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.* *d. BIMforum.global/LOD*			
			250 b,c				
	The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).						
LoD 500							
LoA	**200**[b,c]						

Vehicle and Pedestrian Equipment

Uniformat **E1010** Omniclass **21-05 10 10** Uniclass --

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 11 10 00	See E10		Schematic layout with approximate size, shape, and location of equipment; Design performance parameters as defined in the BXP to be associated with model elements as non-graphic information.			
			250 [b,c]			
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).			
LoD 500						
LoA	**200**[b,c]					

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Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*
c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*
d. *BIMforum.global/LOD*

Vehicle Servicing Equipment

Uniformat E1010.10 Omniclass 21-05 10 10 10 Uniclass Ss 40 85 72 33

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:** 11 11 00 / 11 11 19 / 11 11 23 / 11 11 26	See E10		See E1010		Modeled as design-specified size, shape, spacing, and location of equipment and associated components. Approximate allowances for spacing and clearances required for all specified supports and seismic control. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location of equipment and associated components. Actual size, shape, spacing, and location for supports and seismic control. Actual size, shape, and location of service connections and support structure/pads. Actual access/code clearance requirements modeled.	Supplementary components added to the model required for fabrication and field installation.
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*						
LoD 500							
LoA	**200**[b,c]						

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Furnishings

Uniformat **E20** Omniclass **21-05 20** Uniclass **Ss 40 45**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 12 00 00 / 01 87 16	A schematic model element or symbol that is not distinguishable by type or material. Types, layouts, and locations are still flexible.					
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*					
LoD 500						
LoA	**200**[b,c]					

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BIMForum.Global

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Fixed Furnishings

Uniformat E2010 Omniclass 21-05 20 10 Uniclass Ss 40 45

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:**	See E20		Generic model elements with approximate nominal size. Placement and quantity remains flexible.			
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

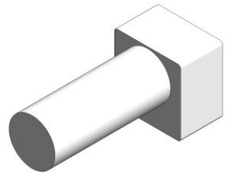
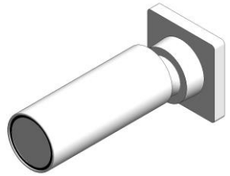
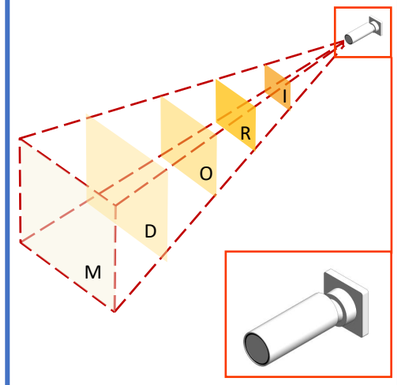
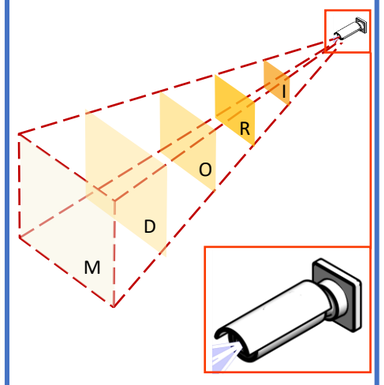
BIMFORUM®

VIDEO SURVEILLANCE

LoD 500

Closed Circuit TV Camera – Bullet

Uniformat Omniclass Uniclass

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:**			Element modeling to include: 1. Rough architectural masses 2. Approximate member depth 3. Desired member spacing	Element modeling to include: 1. Floor element with design-specified locations and geometries	Element modeling to include: 1. Field of view of the camera. 2. Camera resolution criteria: • Zone M: Monitoring 12PPM* • Zone D: Detection 25PPM* • Zone O: Observation 62PPM* • Zone R: Recognition 125PPM* • Zone I: Identification 250PPM*	Element modeling to include: 1. Power connections 2. Data connections
			250 [b,c]			
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).			
LoD 500						
LoA	**200**[b,c]					

BIMFORUM

BIMForum.Global

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

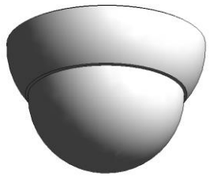
d. *BIMforum.global/LOD*

Closed Circuit TV Camera – 360 Degree Dome

Uniformat

Omniclass

Uniclass

LOD	000[a]	100[b,c]	200[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	
Description **Associated MasterFormat Sections:**			Element modeling to include: Approximate geometry defining overall form, relative size, and orientation.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*
LoD 500			
LoA			**200**[b,c]

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BIMForum.Global

Notes:

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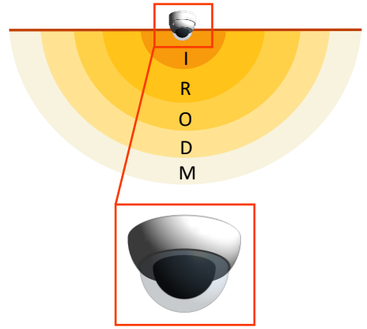
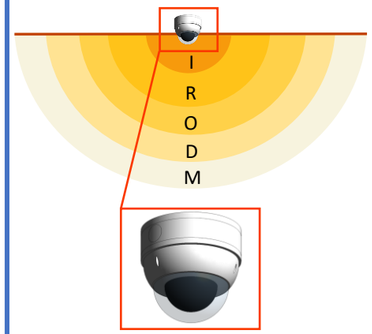
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

300[b,c]	350[b,c]	400[b,c]
		
Element modeling to include: Modeled to actual manufacturer dimensions. Defined representation of the housing, lens, and exterior enclosure.	Element modeling to include: 1. Field of view of the camera. 2. Camera resolution criteria: • Zone M: Monitoring 12PPM* • Zone D: Detection 25PPM* • Zone O: Observation 62PPM* • Zone R: Recognition 125PPM* • Zone I: Identification 250PPM*	Video camera modeled with sufficient detail for field installation. Includes: 1. Manufacturer-specific mounting hardware. 2. Anchoring plates and fasteners. 3. Final field of view orientation. 4. Information consistent with manufacturer technical data for installation and construction control. 5. Model suitable for construction documents and installation coordination.

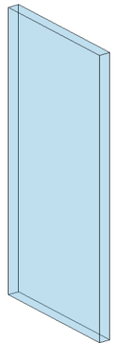
BIMFORUM®

FIXED ART

LoD 500

Fixed Art

Uniformat E2010.10 Omniclass 21-05 20 10 10 Uniclass Ss 40 25 20 4

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		Model Geometry Varies By Object Type		
Description **Associated MasterFormat Sections:** 12 10 00 / 12 11 00 / 12 12 00 / 12 12 23 / 12 12 26 / 12 14 00 / 12 17 00 / 12 19 00	See E20		See E2010	Modeled types with specific dimensions, locations, and quantities.	Include any applicable service or installation clearances. Include any applicable support and connection points.	Supplementary components added to the model required for fabrication and field installation.
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*					
LoD 500						
LoA	**200**[b,c]					

BIMFORUM®

BIMForum.Global

Notes:

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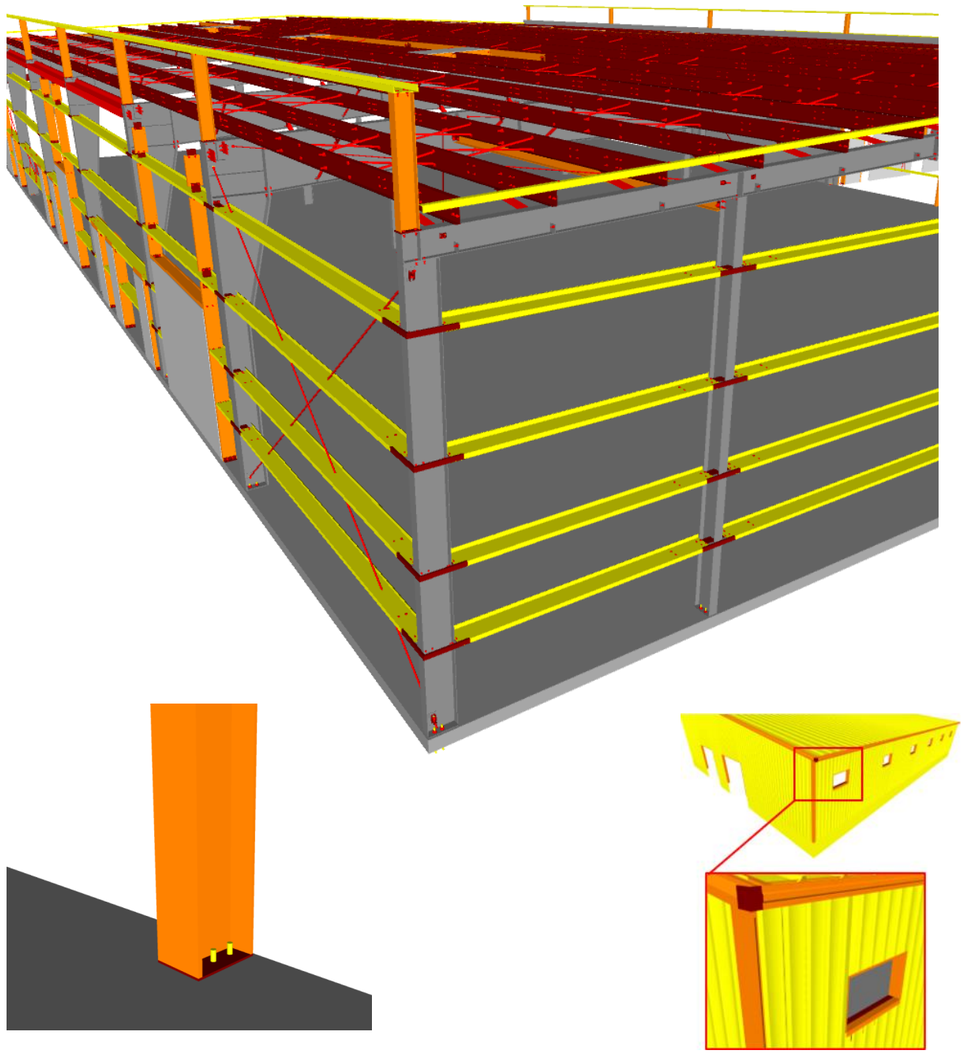
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*



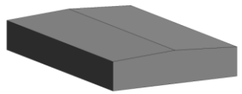
LoD 500

BIMFORUM®

METAL BUILDING SYSTEMS

Metal Building Systems

Uniformat **F1020.40** Omniclass **21-06 10 20 40** Uniclass **Ss 40 5**

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *193 F1020.40-LOD 100 Metal Building Systems* From Ikerd.com	BIMForum.Global			
Description **Associated MasterFormat Sections:** 13 34 00 / 01 88 13 / 13 34 13 / 13 34 16 / 13 34 19 / 13 34 56		Generic mass of special structure with system typically noted with a design narrative for conceptual pricing.					

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

250 b,c

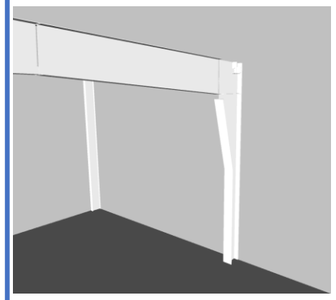
The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).

LoD 500

LoA **200**[b,c]

Metal Building Systems
Primary Framing and Bracing

Uniformat **F1020.40.10** Omniclass **21-06 10 20 40.10** Uniclass **Ss 40 5**

LOD	000[a]	100[b,c]	200[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *194 F1020.40-LOD 200 Metal Building Systems - Primary Framing* From Ikerd.com
Description **Associated MasterFormat Sections:** 13 34 00 / 01 88 13 / 13 34 13 / 13 34 16 / 13 34 19 / 13 34 56	See F1020.40	See F1020.40	Element modeling to include: 1. Primary frame, approximate member size and location per defined structural grids. 2. Bracing, approximate member size and location.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*
LoD 500			
LoA			**200**[b,c]

BIMFORUM

BIMForum.Global

Notes:

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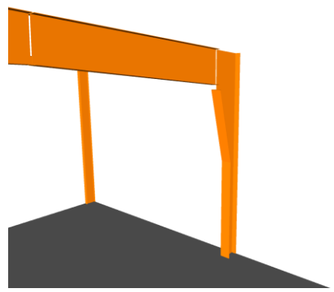
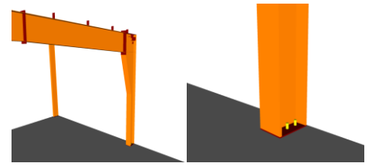
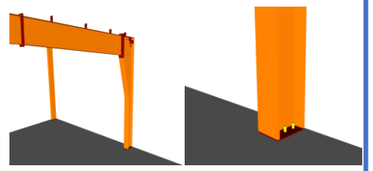
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

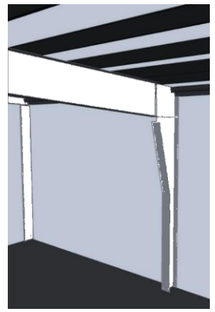
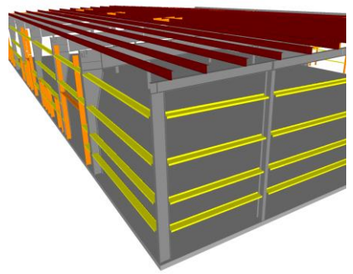
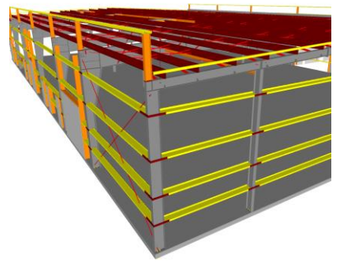
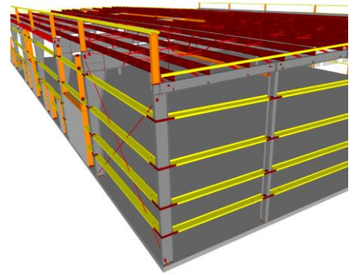
c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

300[b,c]	350[b,c]	400[b,c]
 *195 F1020.40-LOD 300 Metal Building Systems - Primary Framing* From Ikerd.com	 196 *F1020.40-LOD 350 Metal Building Systems - Primary Framing* From Ikerd.com	 197 *F1020.40-LOD 400 Metal Building Systems - Primary Framing* From Ikerd.com
Element modeling to include: 1. Primary frame, specific member size and location per defined structural grids. 2. Bracing, specific member size and location.	Element modeling to include: 1. Actual elevations and locations of connections. 2. Main elements of connections (bolts, places, stiffeners, etc.). 3. Any miscellaneous steel (mill secondary framing, equipment supports, etc.).	Element modeling to include: 1. Welds 2. Reinforcement plates 3. Coping of members 4. Bolts, nuts, washers, etc. 5. Holes, slots, etc., including holes for future element attachments 6. All assembly elements

Metal Building Systems
Secondary Framing

Uniformat **F1020.40.20** Omniclass **21-06 10 20 40.20** Uniclass **Ss 40 5**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *198 F1020.40-LOD 200 Metal Building Systems - Secondary Framing* From Ikerd.com	 *199 F1020.40-LOD 300 Metal Building Systems - Secondary Framing* From Ikerd.com	 *200 F1020.40-LOD 350 Metal Building Systems- Secondary Framing* From Ikerd.com	 *201 F1020.40-LOD 400 Metal Building Systems - Secondary Framing* From Ikerd.com
Description **Associated MasterFormat Sections:** 13 34 00 / 01 88 13 / 13 34 13 / 13 34 16 / 13 34 19 / 13 34 56	See F1020.40	See F1020.40	Generic mass of special structure with system typically noted with a design narrative for conceptual pricing. Generic open wall conditions identified (i.e., open for material by others, open for passage, etc.) Approximate overall depth and extent represented by secondary roof and wall framing members.	Element modeling to include: 1. Secondary roof and wall framing members, specific size and location (spacing and elevations). 2. Overall depth and end seat depth for open web members.	Element modeling to include: 1. Nested members 2. Connections for member bracing 3. Clips joining secondary framing members 4. Large elements of typical connections applied to all secondary steel connections such as girt to column, purlin to rafter, jamb to girt, header to jamb, etc. 5. Secondary angles, including sheeting angles and rake angles 6. Base attachment members 7. Any miscellaneous secondary steel members with correct orientation, i.e. canopies, parapets, door framing, etc. 8. For open web members, see B1010.10.60	Element modeling to include: 1. Welds 2. Bolts, nuts, washers, screws, and fasteners 3. Coping of members 4. Holes cut for bracing 5. Nested member attachments 6. All assembly elements 7. For open web members, see B1010.10.60
			250 [b,c]			
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).			
LoD 500						
LoA	**200**[b,c]					

BIMFORUM®

BIMForum.Global

Notes:

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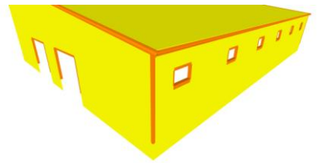
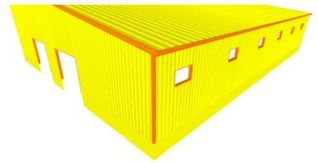
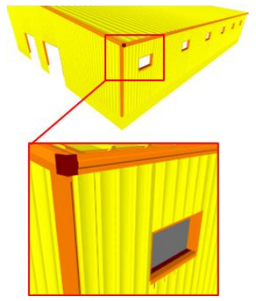
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Metal Building Systems
Cladding and Exterior Trim

Uniformat **F1020.40.30** Omniclass **21-06 10 20 40.20.30** Uniclass **Ss 40 5**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *202 F1020.40-LOD 200 Metal Building Systems –Cladding and Exterior Trim* From Ikerd.com	 *202 F1020.40-LOD 300 Metal Building Systems –Cladding and Exterior Trim* From Ikerd.com	 *202 F1020.40-LOD 350 Metal Building Systems –Cladding and Exterior Trim* From Ikerd.com	Element modeling to include fabrication level information: 1. Panel: Individual panel objects, with actual profile shown, positioned accurately within the building plane boundary and shown at installed length. 2. Fasteners at critical locations 3. Closures 4. Trim: Minor trims (end caps, transition pieces, etc.) are shown accurately. 5. Attachment or accessories (fasteners, etc.) shown at critical locations. Note: Other non-graphic information may be included such as: Additional material and its installation instructions required for proper installation. Mark identification that correlates with bill of material (i.e., piece mark). Fastener material.
Description **Associated MasterFormat Sections:** 13 34 00 / 01 88 13 / 13 34 13 / 13 34 16 / 13 34 19 / 13 34 56	See F1020.40	See F1020.40	Element modeling to include: 1. Secondary roof and wall framing members, approximate size and location.	Element modeling to include: 1. Panel: Panel with actual profile or graphical texture shown, filling the boundary set by the plane object. 2. Significant accessories provided by metal building manufacturer (i.e., light transmitting panels, ridge vents, curbs). 3. Shop-located openings/Voids are represented in true dimensions/locations. 4. Trim: Major trims (primary exterior pieces) are shown, represented by the assumed trim profile and thickness. • Gutters • Corner boxes • Corner trim • Open wall trim • Framed opening trim	Element modeling to include: 1. Panel: Actual profile modeled filling the boundary set by the plane object. 2. Closures 3. Downspouts 4. Trim: Minor trims (end caps, transition pieces, etc.) are shown, represented by the assumed trim profile and thickness. Note: Other non-graphic information may be included such as: Textual information on installation details	
			250 [b,c]			
LoD 500						
LoA	**200**[b,c]					

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BIMForum.Global

Notes:

a. LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.

b. LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.

c. In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.

d. BIMforum.global/LOD

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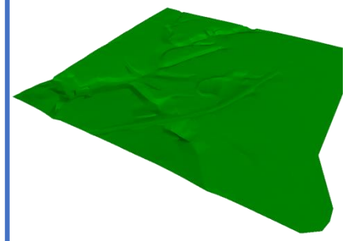
CIVIL & SITE

LoD 500

Site Preparation

Uniformat **G10** Omniclass **21-07 10 00** Uniclass **Ac 10**

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *205 G10-LOD-100 Site Preparation* From Ikerd.com			
Description **Associated MasterFormat Sections:** 01 89 13	A simple topographic surface is provided.		Element modeling to include: 1. Approximate size and shape of foundation element 2. Approximate size/location of utilities and structures 3. Approximate code and clearance requirements 4. Approximate pipe material 5. Rough modeling of site grading			
	250 [b,c]					
	The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).					
LoD 500						
LoA	**200**[b,c]					

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BIMForum.Global

Notes:

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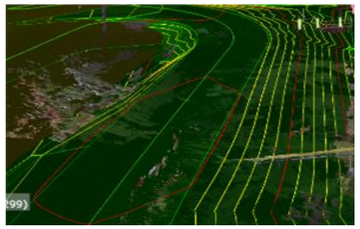
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Grading

Uniformat G1070.10 Omniclass 21-07 10 70 10 Uniclass --

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 From Ikerd.com			 From Ikerd.com
Description **Associated MasterFormat Sections:** 31 20 00 / 01 89 13	Proposed Surfaces shown as a plane.		Proposed Surface: Generic Surface Interpolation between the following elements: Building Envelope at Finish Floor, Finish Grade at Retaining Walls, Grading Limits. Curbs, hardscape, finish surface at building envelopes.	Proposed Surface: Complete and accurate surface definition based on defined fine grading, grade breaks, curbs, hardscape, buildings, swales, etc. Local Coordinate Control. Shared Coordinate from Building Grid base point to real-world project control	Include existing Surface: 3D surface generated from site topography, with grade breaks and lines as needed to define accurate surface. 3D site features included if provided by surveyor (i.e. walls, signage, stairs, etc., as defined in Survey LOC-Grade). Added definition from supplemental survey, revised limits of work	Surface modeled to facilitate robotic controlled grading and GPS grade-control systems.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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BIMForum.Global

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c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Site Improvements

Uniformat G20 Omniclass 21-07 20 Uniclass --

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 01 89 16	Diagrammatic or schematic model elements.		Element modeling to include: 1. Approximate size and shape of foundation element 2. Approximate size/location of utilities and structures 3. Approximate code and clearance requirements 4. Rough modeling of site grading			
			250 [b,c]			
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).			
LoD 500						
LoA	**200**[b,c]					

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Notes:

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c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Parking Lot Pavement

Uniformat G2020.10 Omniclass 21-07 20 20 10 Uniclass Ss 30 14 05 6

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:** 32 10 00 / 32 12 00 / 32 13 00 / 32 14 00 / 32 15 00	See G20		See G20		Specific thickness of pavement and substrate modeled. All drainage slopes modeled.	Openings for drains and other services modeled.	
			250 [b,c]				
	The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).						
LoD 500							
LoA	**200**[b,c]						

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Parking Lot Curbs and Gutters

Uniformat G2020.20 Omniclass 21-07 20 20 20 Uniclass Ss 30 75 45

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 32 16 13	See G20		See G20	Full extents of curbs and gutters (above and below grade) are modeled.	Element modeling to include: 1. Reinforcing 2. Pour stops 3. Expansion joints	
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*					
LoD 500						
LoA	**200**[b,c]					

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Notes:

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d. *BIMforum.global/LOD*

Liquid and Gas Site Utilities

Uniformat G30 Omniclass 21-07 30 Uniclass Ss 55 20

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:** 01 89 19	Narrative that references the grading model		Approximate sizes, vertical control, and apparatus.				
			250 [b,c]				
	The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).						
LoD 500							
LoA	**200**[b,c]						

Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Water Utilities

Uniformat G3010 Omniclass 21-07 30 10 Uniclass Ss 55 70

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 33 10 00	See G30		See G30			
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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BIMForum.Global

Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Site Domestic Water Distribution

Uniformat G3010.10 Omniclass 21-07 30 10 10 Uniclass Ss 55 70 38

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 01 89 19 / 33 21 00 / 33 11 00 / 33 12 00 / 33 12 13 / 33 12 16 / 33 12 19 / 33 12 23 / 33 12 33 / 33 13 00 / 33 16 00 / 33 47 19.13 / 33 47 13.13 / 33 47 16.13	See G30		See G30			
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*					
LoD 500						
LoA	**200**[b,c]					

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BIMForum.Global

Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Site Fire Protection Water Distribution

Uniformat G3010.30 Omniclass 21-07 30 10 30 Uniclass Ss 55 30 96

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:** : 01 89 19 / 33 21 00 / 33 11 19 / 33 12 00 / 33 12 13 / 33 12 16 / 33 12 19 / 33 12 23 / 33 12 33 / 33 16 00 / 33 47 19.33 / 33 47 13.13 / 33 47 16.13			See G30				
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*				
LoD 500							
LoA	**200**[b,c]						

Notes:

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c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Sanitary Sewerage Utilities

Uniformat G3020 Omniclass 21-07 30 20 Uniclass --

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	Manholes	BIMForum.Global			
Description **Associated MasterFormat Sections:** 33 30 00 / 01 89 19	See G30		See G30				
			250 [b,c]				
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).				
LoD 500							
LoA	**200**[b,c]						

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c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Sanitary Sewerage Piping

Uniformat G3020.20 Omniclass 21-07 30 20 20 Uniclass Ss 50 35 08 30

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:** 33 31 00 / 33 33 00 / 33 34 00	See G30		See G30		Specific elevations, sizes, materials		
			250 [b,c]				
	The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).						
LoD 500							
LoA	**200**[b,c]						

Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Sanitary Sewerage Structures

Uniformat G3020.50 Omniclass 21-07 30 20 50 Uniclass Ss 50 35 08

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 33 39 00 / 33 39 13 / 33 39 23	See G30		Approximate structure types, sizes and materials	Specific structure elements at all locations, specific sizes and materials		
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Storm Drainage Utilities

Uniformat G3030 Omniclass 21-07 30 30 Uniclass Ss 50 35 80

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 01 89 19	See G30		See G30			
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Site Energy Distribution

Uniformat G3050 Omniclass 21-07 30 50 Uniclass Ss 70 30

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:**	See G30		See G30				
			250 [b,c]				
	The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).						
LoD 500							
LoA	**200**[b,c]						

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Site Fuel Distribution

Uniformat G3060 Omniclass 21-07 30 60 Uniclass --

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:**	See G30		See G30			
			250 [b,c]			
	The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).					
LoD 500						
LoA	**200**[b,c]					

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Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Electrical Site Improvements

Uniformat G40 Omniclass 21-07 40 Uniclass --

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 01 89 26	Diagrammatic or schematic model elements: Conceptual and/or schematic layout; Design performance parameters as defined in the BXP to be associated with model elements as non-graphic information.					
			250 [b,c]			
	The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).					
LoD 500						
LoA	**200**[b,c]					

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BIMForum.Global

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

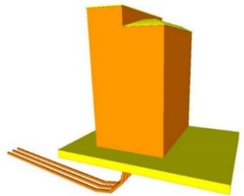
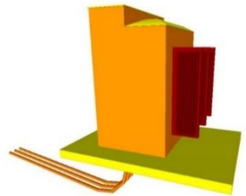
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Site Electric Distribution Systems

Uniformat **G4010** Omniclass **21-07 40 10** Uniclass --

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		 *206 G4010-LOD-300 Site Electric Distribution Systems* From lkerd.com	 207 G4010-LOD-350 Site Electric Distribution Systems From lkerd.com	 *208 G4010-LOD-400 Site Electric Distribution Systems* From lkerd.com
Description **Associated MasterFormat Sections:** 01 89 26	See G40		Generic model elements in schematic layout with: Approximate size, shape, and location of equipment; Approximate access/code clearance requirements modeled; Design performance parameters as defined in the BXP to be associated with model elements as non-graphic information.	Modeled as design-specified size, shape, spacing, and location of raceways/ boxes/enclosures/duct banks in the power distribution system. Specified size, shape, spacing, and location of equipment and associated components. Approximate allowances for spacing and clearances required for all specified hangers, supports and seismic control . Access/code clearance requirements modeled	Modeled as actual size, shape, spacing, and location of raceways/ boxes/enclosures/duct banks in the power distribution system. Actual size, shape, spacing, and location for supports and seismic control; actual size, shape, and location/connections of equipment and support structure/pads. Actual access/code clearance requirements modeled	Supplementary components added to the model required for fabrication and field installation.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA			**200**[b,c]			

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BIMForum.Global

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Site Lighting

Uniformat G4050 Omniclass 21-07 40 50 Uniclass Ss 70 80 25

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 26 56 29	See G40		Generic elements in schematic layout with: Approximate size, shape, and location of equipment; Approximate access/code clearance requirements modeled; Design performance parameters as defined in the BXP to be associated with model elements as non-graphic information.	Modeled as design-specified size, shape, spacing, and location of lighting fixtures. Approximate allowances for spacing and clearances required for all specified hangers, supports and seismic control. Required pole bases and footing elements. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location of raceways, boxes, and enclosures in the power distribution system. Size, shape, spacing, and location for supports and seismic control; Size, shape, location, and connections of equipment and support structure or pads. Floor and wall penetration elements are modeled. Actual access/code clearance requirements modeled.	Supplementary components added to the model required for fabrication and field installation.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA			**200**[b,c]			

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BIMForum.Global

Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Site Communications

Uniformat G50 Omniclass 21-07 50 Uniclass Ss 75 10

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:**	Diagrammatic or schematic model elements: Conceptual and/or schematic layout; Design performance parameters as defined in the BXP to be associated with model elements as non-graphic information.			***Notes:*** *a. LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.* *b. LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.* *c. In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.* *d. BIMforum.global/LOD*			
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*						
LoD 500							

LoA **200**[b,c]

Site Communications Systems

Uniformat G5010 Omniclass 21-07 50 10 Uniclass Ss 75 10

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 33 80 00	See G50		Generic elements in a schematic layout with: approximate size, shape, and location of equipment; approximate access/code clearance requirements modeled; design performance parameters as defined in the BXP to be associated with model elements as non-graphic information.	Modeled as design-specified size, shape, spacing, and location of raceways, boxes, and enclosures in the power distribution system. Size, shape, spacing, and location of equipment and associated components. Approximate allowances for spacing and clearances required for all specified hangers, supports and seismic control. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location of raceways, boxes, and enclosures in the power distribution system; size, shape, spacing, and location for supports and seismic control. Size, shape, location, and connections of equipment and support structure or pads. Floor and wall penetration elements are modeled. Actual access/code clearance requirements modeled.	Supplementary components added to the model required for fabrication and field installation.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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BIMForum.Global

Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Trenches

Uniformat -- Omniclass 22-31 23 16 13 Uniclass --

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:** 31 06 20.13 / 31 23 16.13 / 31 23 33 / 31 35 26.23 / 31 41 33 / 31 77 13 / 33 05 07.53	Assumptions for trenches are included in other modeled elements such as foundations, civil piping and duct banks, etc.		Assumptions for trenches are included in other modeled elements such as foundations, civil piping and duct banks, etc.		Elements are modeled to represent the required size and shape for temporary trenching to accommodate the installation of model elements. Element modeling to include: 1. Overall size and geometry of the trench 2. loping surfaces	Element modeling to include: 1. Thrust block or underground reinforcements.	
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*						
LoD 500							

Notes:

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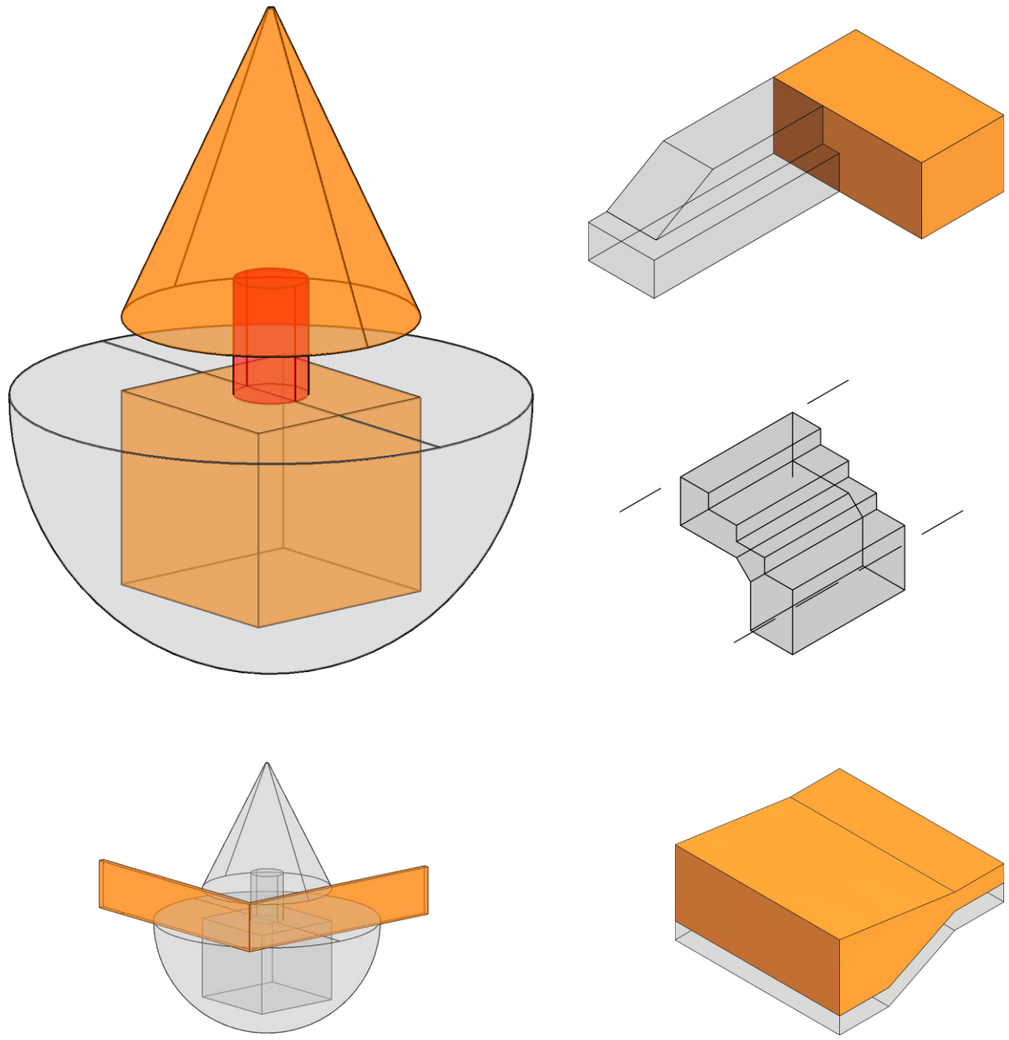
c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

LoA **200**[b,c]

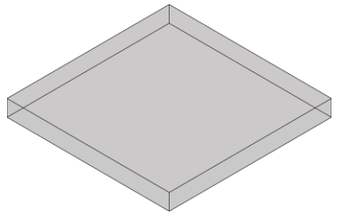
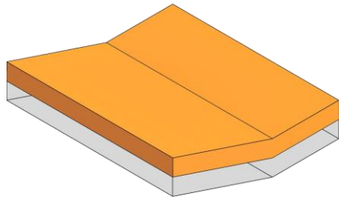
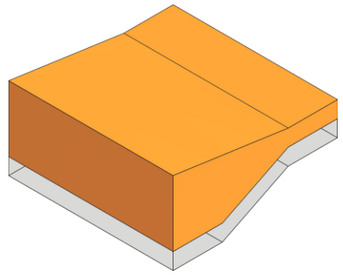


LoD 500

Site Landscape Elements

Site Landscape Paving

Uniformat G2030 | Omniclass | Uniclass

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:**			Full plan extent. Nominal thickness of buildup	Actual thickness of build up Grading information (points and edges) 2D pattern of joints	Slab or thickened edges Rough openings 3D expansion joints that interface with other elements	All joints
			250 [b,c]			
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).			
LoD 500						

LoA **200**[b,c]

BIMFORUM

BIMForum.Global

Notes:

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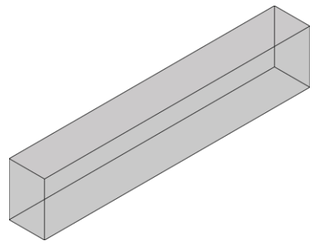
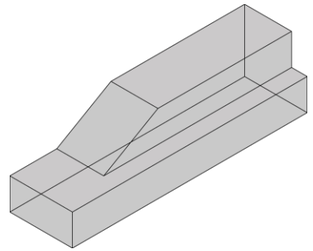
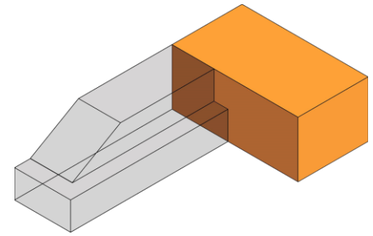
c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Site Landscape Curbs

Uniformat G2030 | Omniclass | Uniclass

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:**			Full plan extents		Full profile of curb Finish grade (top) Full depth Curb cuts and tapers	Rough openings for storm drains or inlets	Profile includes any chamfer or nosing Joints
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*				
LoD 500							

Notes:

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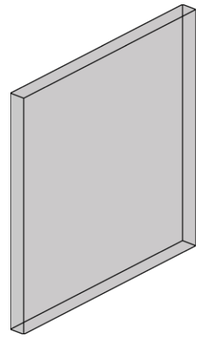
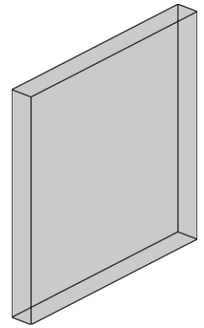
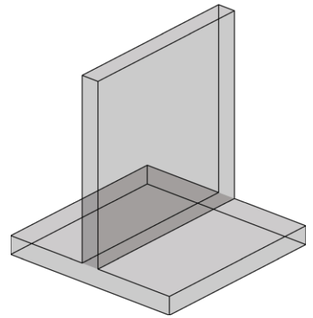
c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

LoA **200**[b,c]

Site Landscape Walls

Uniformat G2060 | Omniclass | Uniclass

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:**			Full plan extents	Full profile/thickness of wall. Finish grade (top) Full depth	All material layers/buildup Footing	Joints Reinforcing
			250 [b,c]			
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).			
LoD 500						
LoA	**200**[b,c]					

CIP = SEE CONCRETE WALLS
PC = SEE PRECAST
MASONRY = SEE UNIT MASONTRY

BIMFORUM®

BIMForum.Global

Notes:

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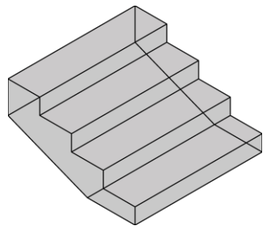
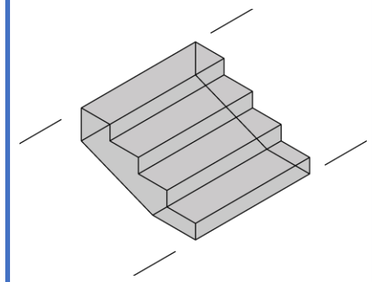
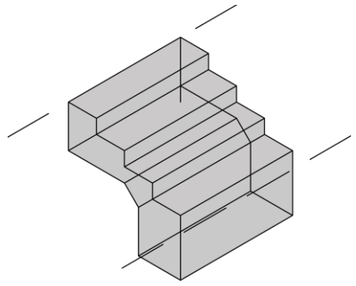
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*
c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*
d. *BIMforum.global/LOD*

Site Landscape Steps / Stairs

Uniformat G2060 | Omniclass | Uniclass

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:**			Full plan extents	Stair is accurately graded at top and bottom Nosing (taper) is included	Thickened edges and/or footings	Additional profile and nosing details Dowels and reinforcing
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*	RERER TO STAIRS FOR ADDITIONAL INFORMATION 300 base line for accessibility review.		
LoD 500						
LoA	**200**[b,c]					

BIMFORUM

BIMForum.Global

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

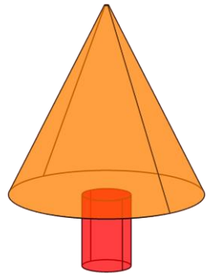
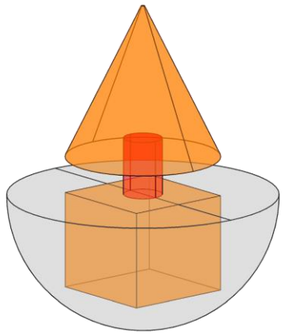
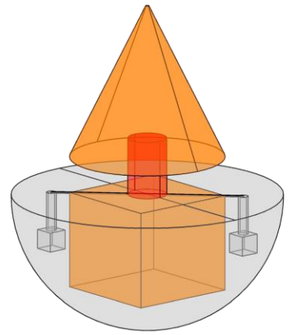
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Site Landscape Plants (Trees and Large Shrubs)

Uniformat G2080 | Omniclass | Uniclass

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:**			Tree location is shown	Location of tree is accurate 3D root ball and clear zone for hole (at installation) Canopy shape/ size at maturity (75-100% height) (for design and visualization BIM Use)	Staking and/or guying Canopy clearances at maturity (for clash detection)	
	Visualization:					
	Growth Planning:			Installed size (boxed size) Mature size	Installed size (boxed size) Mature size	
LoD 500						

LoA **200**[b,c]

BIMFORUM

BIMForum.Global

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

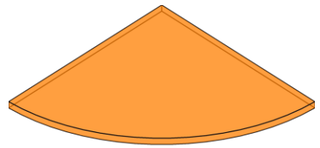
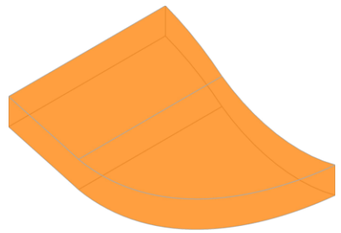
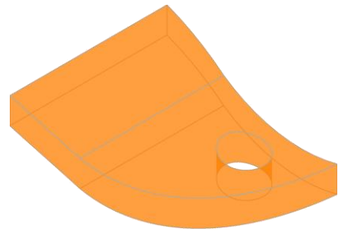
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM)*

Reference:.

d. *BIMforum.global/LOD*

Site Landscape Plants (Smaller Plants and Shrubs)

Uniformat G2080 | Omniclass | Uniclass

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:**			Larger mass, zones, or areas. May be flat or not 3D form.		All areas are separated by distinct species or mix 3D form that follow grade (mass or individual plants)	Clear zones around trees Individual plants may be shown, though exact location is approx. Root or container element shown for smaller plants or included in thickness for massed areas	All individual plants are shown Location is exact for install
Visualization:							
Growth Planning:					Installed size (boxed size) Mature size	Installed size (boxed size) Mature size	
LoD 500							
LoA	**200**[b,c]						

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) Reference:.*

d. *BIMforum.global/LOD*

Site Landscape Turf and Seeding

Uniformat G2080 | Omniclass | Uniclass

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:**			Turf and seeding areas are shown. Areas may be flat or not represented as 3D elements	All areas are separated by distinct species or mix Areas or masses follow the grading surface	Root system is accounted for within the depth of the massing element.	
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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BIMForum.Global

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

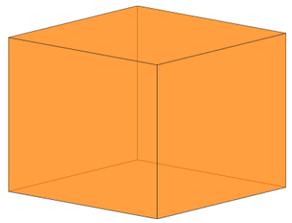
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Site Landscape Planting Soil

Uniformat G2080 Omniclass Uniclass

LOD	000[a]	100[b,c]	200[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	
Description **Associated MasterFormat Sections:**			Full plant extents Nominal thickness of build up
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*
LoD 500			
LoA			**200**[b,c]

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BIMForum.Global

Notes:

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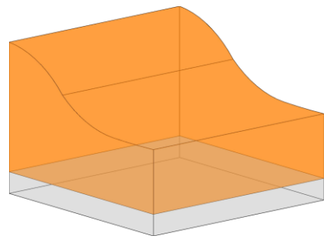
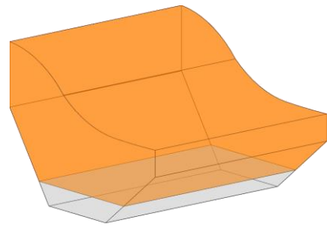
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

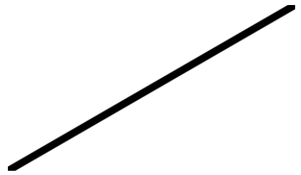
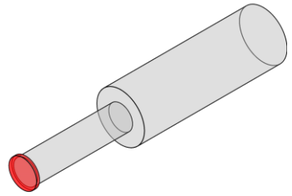
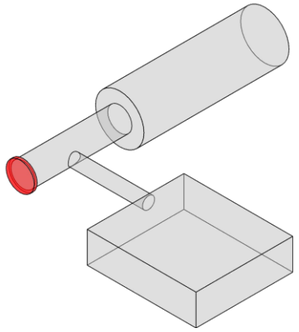
c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

300[b,c]	350[b,c]	400[b,c]
		
Accurate finish grade Actual thickness of buildup, including varying bottom slope(s)	Tapered edges	

Site Landscape Planting Irrigation

Uniformat G2080 | Omniclass | Uniclass

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:**			Schematic single line layout with approximate size, shape, and location of mainline.		Accurate mainline and point of connection (POC) All fittings (valves, sprinkler heads, etc) are shown, though may be schematic and not fully sized on laterals Drip areas designated in plan	Mainline sleeving Drip lines, may be delineated as massing/area element at specified elevation (in 3d model) Lateral lines and sleeving are modeled as design-specified size and location	Modeled as actual construction elements Actual size, shape, spacing, and location/connections of pipe, valves, fittings, and sleeves
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*				
LoD 500							
LoA	**200**[b,c]						

Notes:

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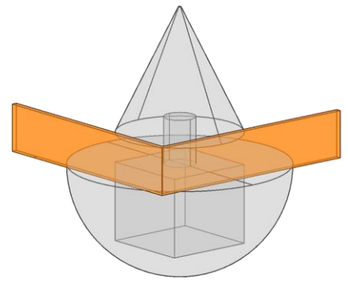
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Site Landscape Tree and Plant Protection

Uniformat Z1050 | Omniclass | Uniclass

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:**			Locations of existing trees are accurate, but model representation of planting size and extents may be approximate.. Existing trees, both to be removed and to retain Tree protection zone/massing for existing trees		3D location of existing root zone is delineated in the model.	Tree protection element/fencing for existing trees is modeled at correct height and shape	
			250 [b,c]				
			The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).				
LoD 500							
LoA	**200**[b,c]						

Notes:

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c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Athletic, Recreational, and Playfield Areas

Uniformat G2050 Omniclass 21-07 20 50 Uniclass Ss 30 14

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:** 01 89 16	See G20		See G20	Element modeling to include: 1. Overall size and geometry of all elements 2. Crossfalls & drainage slopes	Element modeling to include: 1. Fences detailed geometry 2. Including footings 3. Fall zones 4. Materials	Element modeling to include: 1. Subsurface structure including thickness, material,… 2. Line marking 3. Accurate materials and finishes (colored concrete,…)
	250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*					
LoD 500						
LoA	**200**[b,c]					

BIMFORUM

BIMForum.Global

Notes:

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

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SITE ELEMENTS

LoD 500

Site Trailers

Uniformat -- Omniclass 35-51-11 11 11 11 Uniclass --

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:**	Diagrammatic or schematic model elements: 1. Conceptual and/or schematic layout;		Generic elements in schematic layout with: 1. approximate size and location; 2. approximate access/code clearance requirements modeled.	Modeled as design-specified size, shape, spacing, and location of decking, stairs, ramps. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location of decking, stairs, ramps. Actual size, shape, spacing, and location for supports and seismic control. Actual access/code clearance requirements modeled.	Supplementary components added to the model required for field installation.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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BIMForum.Global

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Site Temporary Lighting

Uniformat -- Omniclass 35-51 11 11 11 27 Uniclass --

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:**	Diagrammatic or schematic model elements: 1. Conceptual and/or schematic layout;		Generic elements in schematic layout with: 1. Approximate size, shape, and location of equipment; 2. Approximate access/code clearance requirements modeled; 3. Design performance parameters as defined in the BXP to be associated with model elements as non-graphic information.		Modeled as design-specified size, shape, spacing, and location of temporary lighting fixtures. Allowances for spacing and clearances for service/maintenance and code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location of lighting fixtures. Actual access/code clearance requirements modeled.	
			250 [b,c]				
	The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).						
LoD 500							
LoA	**200**[b,c]						

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Temporary Fencing

Uniformat -- Omniclass 35-51 17 27 Uniclass --

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:**	Diagrammatic or schematic model elements: 1. Conceptual and/or schematic layout;		Generic elements in schematic layout with: approximate size and location of fencing; approximate access/code clearance requirements modeled;	Modeled as design-specified size, shape, spacing, and location of temporary fencing; allowances for spacing and clearances for service/maintenance and code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location of temporary fencing; actual access/code clearance requirements modeled.	
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

BIMFORUM®

BIMForum.Global

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c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Batch Plants

Uniformat -- Omniclass 35-61 31 31 21 51 26 Uniclass --

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:**	Diagrammatic or schematic model elements: 1. Conceptual and/or schematic layout;		Generic elements in schematic layout with: 1. Approximate size and location; 2. Approximate access/code clearance requirements modeled;	Modeled as design-specified size, shape, spacing, and location of equipment. Approximate allowances for spacing and clearances required for all specified supports and seismic control. Access/code clearance requirements modeled.	Modeled as actual size, shape, spacing, and location of equipment. Actual size, shape, spacing, and location for supports and seismic control. Actual access/code clearance requirements modeled.	Supplementary components added to the model required for field installation.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

BIMFORUM

BIMForum.Global

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

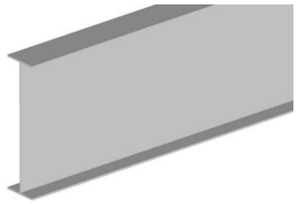
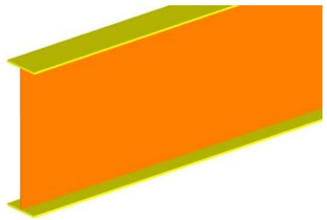
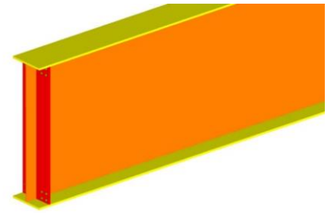
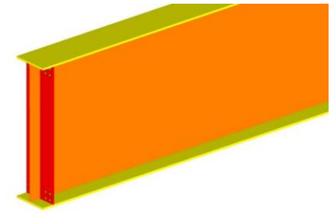
BIMFORUM®

HIGHWAY BRIDGE

LoD 500

Highway Bridge Girder Steel

Uniformat Omniclass Uniclass

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *LOD 200 Railroad Bridge Girder Steel* From AscendBKF.org	 *LOD 300 Railroad Bridge Girder Steel* From AscendBKF.org	 *LOD 350 Railroad Bridge Girder Steel* From AscendBKF.org	 *LOD 400 Railroad Bridge Girder Steel* From AscendBKF.org
Description **Associated MasterFormat Sections:**			Generic mass of Girder	Element modeling to include: 1. Girder Depth 2. Web Plate Length 3. Flange Plate Width	Element modeling to include: 1. Stiffeners 2. Exact sloping of members 3. Splits between Plate Girders	Element modeling to include fabrication level information: 1. Welds 2. Coping of members 3. Washers, nuts, etc. 4. Grating, holes in grating 5. All assembly elements
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

BIMFORUM

BIMForum.Global

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

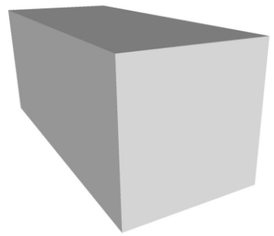
b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

Highway
Bridges Precast Structural I Girder (Concrete)

Uniformat Omniclass Uniclass

LOD	000[a]	100[b,c]	200[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *LOD 200 Railroad Bridges Precast Structural I Girder (Concrete)* From Ikerd.com
Description **Associated MasterFormat Sections:**			Element modeling to include: 1. Type of structural concrete system 2. Approximate geometry (e.g. depth) of structural elements
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*
LoD 500			
LoA			**200**[b,c]

BIMFORUM®

BIMForum.Global

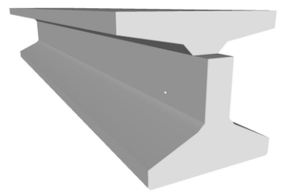
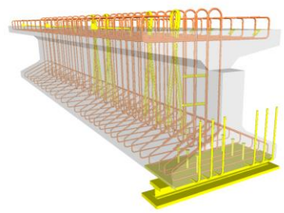
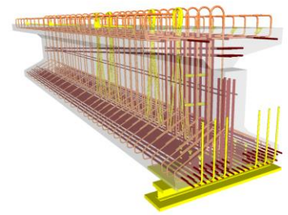
Notes:

a. LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.

b. LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.

c. In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.

d. BIMforum.global/LOD

300[b,c]	350[b,c]	400[b,c]
 *LOD 300 Railroad Bridges Precast Structural I Girder (Concrete)* From Ikerd.com	 *LOD 350 Railroad Bridges Precast Structural I Girder (Concrete)* From Ikerd.com	 *LOD 400 Railroad Bridges Precast Structural I Girder (Concrete)* From Ikerd.com
Element modeling to include: 1. Type of structural concrete system 2. Approximate geometry (e.g. depth) of structural elements	Element modeling to include: 1. Reinforcing Post-tension profiles and strand locations 2. Reinforcement called out, modeled if required by the BXP, typically only in congested areas 3. Pour joints and sequences to help identify reinforcing lap splice locations, scheduling, etc. 4. Chamfer 5. Expansion Joints 6. Lifting devices 7. Embeds and anchor rods 8. Post-tension profile and strands modeled if required by the BXP 9. Penetrations for items such as MEP 10. Any permanent forming or shoring components	Element modeling to include: 1. All reinforcement including post tension elements detailed and modeled 2. Finishes

BIMFORUM®

RAILROAD BRIDGE

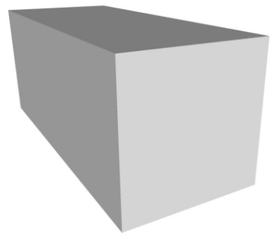
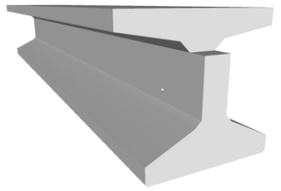
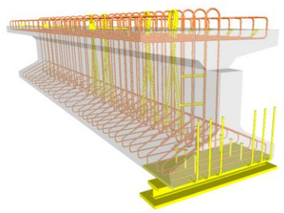
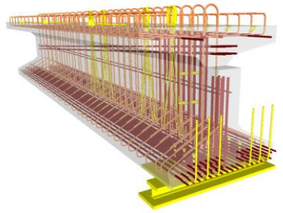
LoD 500

Railroad Bridges Precast Structural I Girder (Concrete)

Uniformat

Omniclass

Uniclass

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *LOD 200 Railroad Bridges Precast Structural I Girder (Concrete)* From Ikerd.com	BIMForum.Global	 *LOD 300 Railroad Bridges Precast Structural I Girder (Concrete)* From Ikerd.com	 *LOD 350 Railroad Bridges Precast Structural I Girder (Concrete)* From Ikerd.com	 *LOD 400 Railroad Bridges Precast Structural I Girder (Concrete)* From Ikerd.com
Description **Associated MasterFormat Sections:**			Element modeling to include: Type of structural concrete system Approximate geometry (e.g. depth) of structural elements		Element modeling to include: 1. Type of structural concrete system 2. Approximate geometry (e.g. depth) of structural elements	Element modeling to include: 1. Reinforcing Post-tension profiles and strand locations 2. Reinforcement called out, modeled if required by the BXP, typically only in congested areas 3. Pour joints and sequences to help identify reinforcing lap splice locations, scheduling, etc. 4. Chamfer 5. Expansion Joints 6. Lifting devices 7. Embeds and anchor rods 8. Post-tension profile and strands modeled if required by the BXP 9. Penetrations for items such as MEP 10. Any permanent forming or shoring components	Element modeling to include: 1. All reinforcement including post tension elements detailed and modeled 2. Finishes
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*				
LoD 500							
LoA	**200**[b,c]						

Notes:

a. LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.

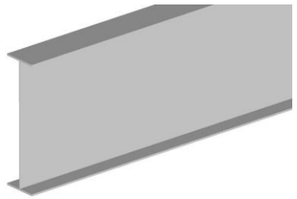
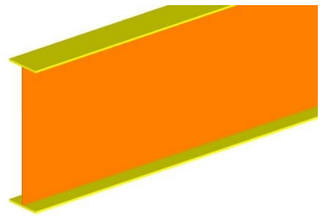
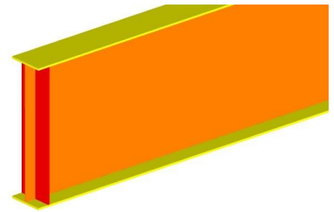
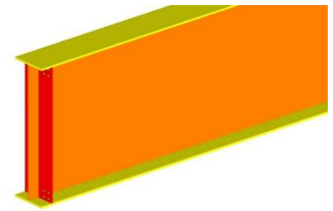
b. LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.

c. In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.

d. BIMforum.global/LOD

Railroad Bridge Girder Steel

Uniformat Omniclass Uniclass

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.	 *LOD 200 Railroad Bridge Girder Steel* From Ikerd.com	 *LOD 300 Railroad Bridge Girder Steel* From Ikerd.com	 *LOD 350 Railroad Bridge Girder Steel* From Ikerd.com	 *LOD 400 Railroad Bridge Girder Steel* From Ikerd.com
Description **Associated MasterFormat Sections:**			Generic mass of Girder	Element modeling to include: 1. Stiffeners 2. Exact sloping of members 3. Splits between Plate Girders	Element modeling to include: 1. Stiffeners 2. Exact sloping of members 3. Splits between Plate Girders	Element modeling to include fabrication level information: 1. Welds 2. Coping of members 3. Washers, nuts, etc. 4. Grating, holes in grating 5. All assembly elements
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

BIMFORUM

BIMForum.Global

Notes:

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c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

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APPENDIX

LoD 500

BIMFORUM®

CRANE SYSTEMS

LoD 500

Crane Rail

Uniformat Omniclass Uniclass

LOD	000[a]	100[b,c]	200[b,c]	BIMFORUM	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.		BIMForum.Global			
Description **Associated MasterFormat Sections:**							
			250 [b,c]				
	The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).						
LoD 500							
LoA	**200**[b,c]						

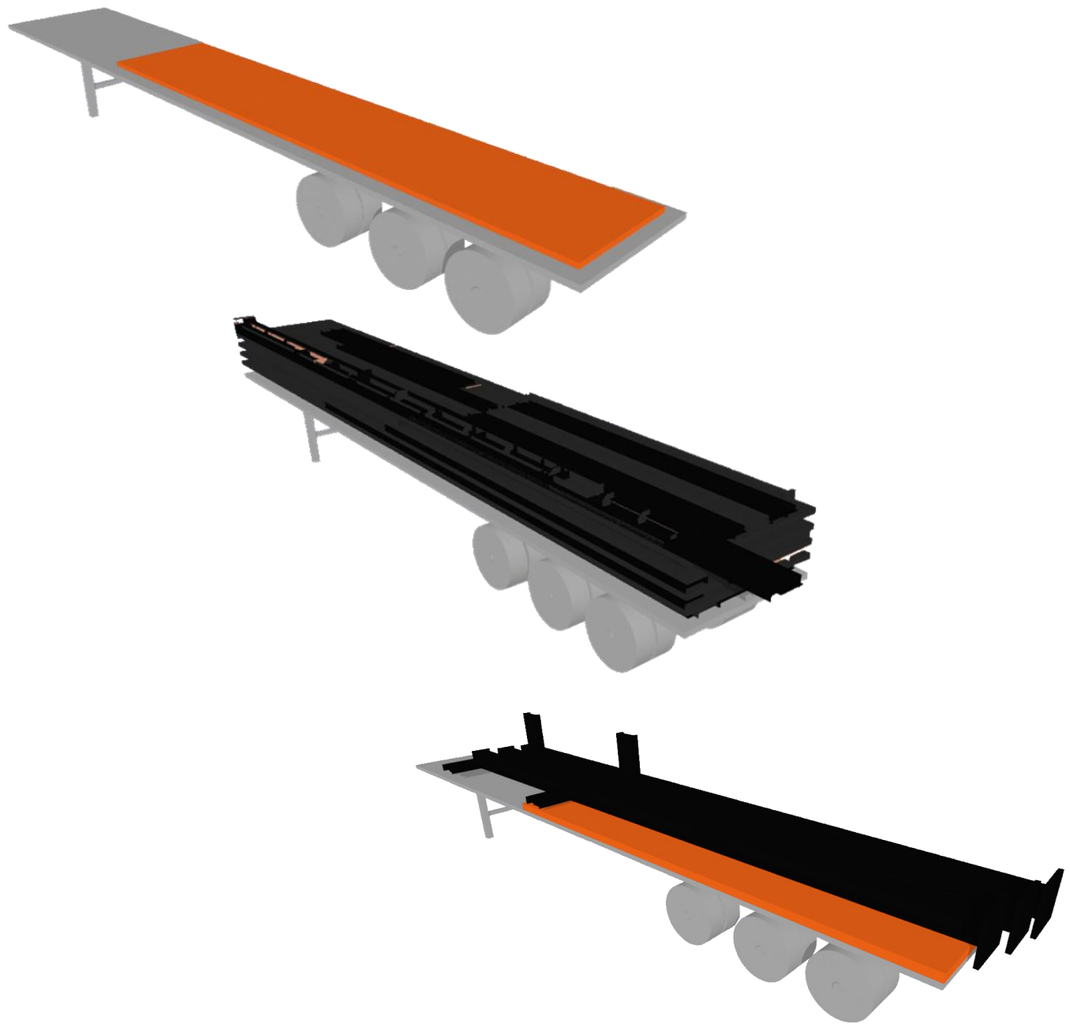
Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*



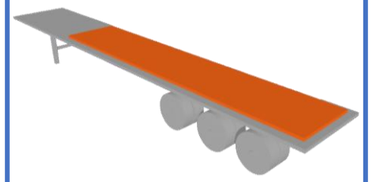
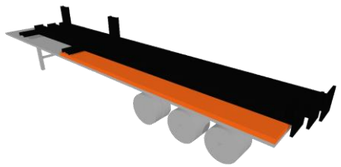
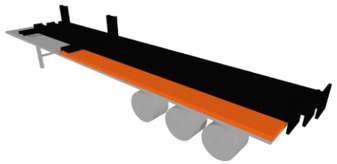
LoD 500

BIMFORUM®

TRAILERS – LOAD MODELING

Trailers – Load Modeling

Uniformat Omniclass Uniclass

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:**	Load list is generated without any modeling.	A block mass is generated the collectively defined a given load. Not trailer is modeled.	Approximate trailer is model. Load geometry is modeled with overall clearance envelope. Modeled load may reference a load list for the elements referenced in the load. The interface of the elements in the shipping load is not established.	Specific trailer is modeled with specific geometry and clearances. Load is modeled with specific elements for quantities. These elements may be raw materials with out connections The interface of the elements in the shipping load is not established.	Load elements are modeled with connection geometry that corresponds to LOD 350 for the given elements. Load elements are arranged as they are shipped in the sequence the elements will be placed and removed from the load.	Fabrication level modeling is included with the elements arranged as shipped in the load.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA			**200**[b,c]			

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BIMForum.Global

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b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

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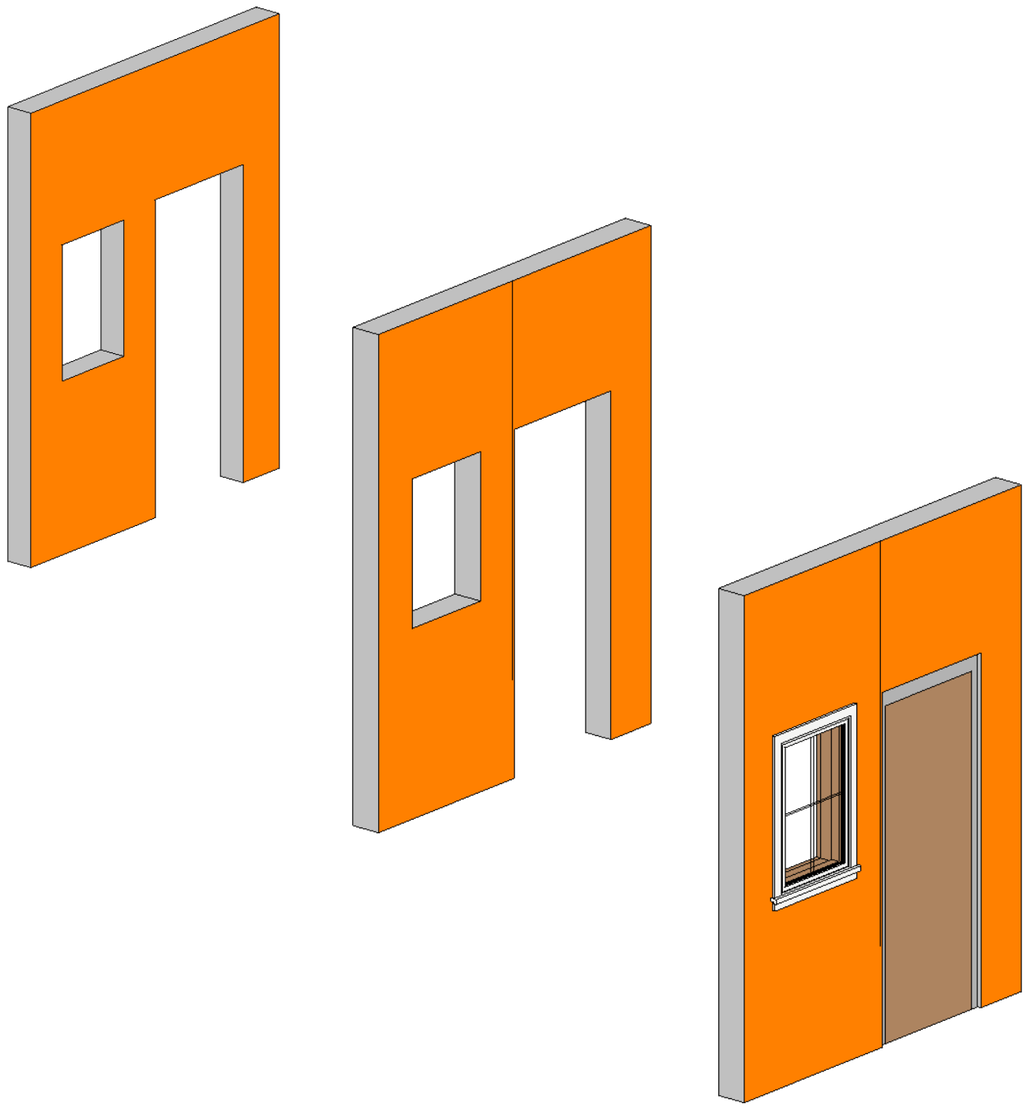
d. *BIMforum.global/LOD*



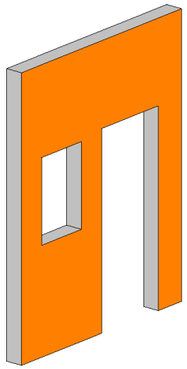
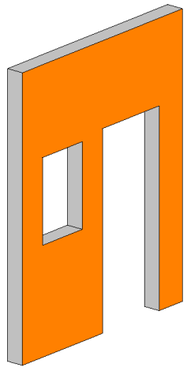
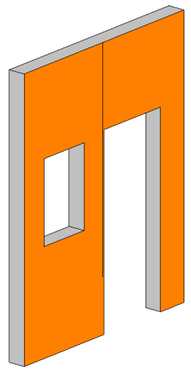
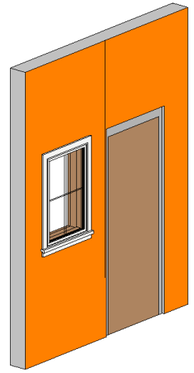
LoD 500

BIMFORUM®

STRUCTURAL INSULATED PANELS

Structural Insulated Panels

Uniformat | Omniclass | Uniclass

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:**			Approximate SIP system thickness and geometry are modeled. Approximate opening are modeled.	Specific openings are modeled with specific SIP wall thickness.	SIP panel joints are defined for penalization. Rough opening geometry supports CNC cutting of panels. SIP screw locations regions and fasteners types into adjacent members are defined without each fasten being modeled. Regions of air sealing tape per manufactures speciation are defined in the model without modeling the tape layer with exact thicknesses. .	SIP fasteners are modeled at the specified spacing. Fabrication level modeling of sealants and connections are included with the element.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

BIMFORUM®

BIMForum.Global

Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*

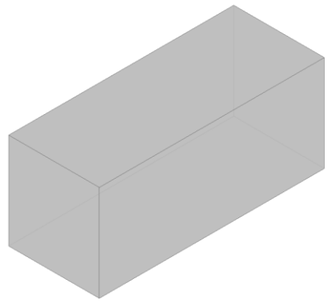
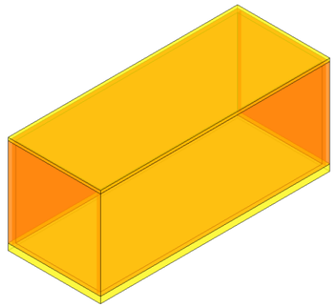
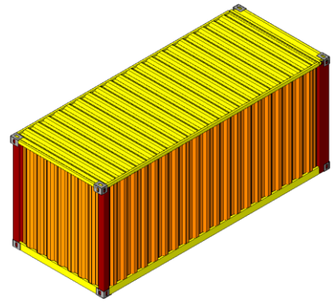
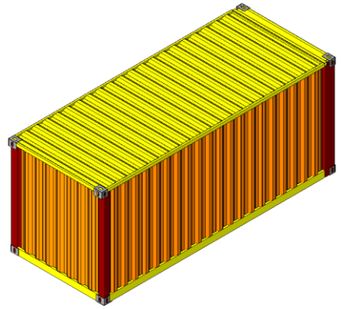
BIMFORUM®

STEEL SHIPPING CONTAINERS

LoD 500

STEEL SHIPPING CONTAINERS

Uniformat Omniclass Uniclass

LOD	000[a]	100[b,c]	200[b,c]	300[b,c]	350[b,c]	400[b,c]
	 NO DISTINCT MODEL ELEMENTS EXIST ***AND*** NO INFERENCE CAN BE MADE FROM AN OVERALL MASS FOR THESE ELEMENTS AT THIS LOD IN THIS SYSTEM.	 NO DISTINCT MODEL ELEMENTS EXIST ***BUT*** INFERENCE ABOUT ELEMENTS CAN BE MADE FROM AN OVERALL MASS AT THIS LOD IN THIS SYSTEM.				
Description **Associated MasterFormat Sections:**			Approximate overall dimensions, shape, and orientation are defined. Container type (e.g., standard, high-cube) may be differentiated generically.	Shipping container modeled to actual nominal dimensions. Accurate length, width, and height corresponding to standard container sizes. External form is clearly defined, including primary faces.	Shipping container developed with sufficient detail to support interface coordination. Exterior corrugation is modeled. Doors, corner posts, and major connections interfaces are represented. Geometry supports coordination with adjacent systems, foundations and attachments.	Shipping container modeled with detail sufficient for fabrication or construction use. Geometry aligns with manufacturer or ISO container specifications.
			250 [b,c] *The Model Element (ME) is modeled approximately in terms of size, shape, location, and orientation. The quantity of the ME is specific. The ME perimeter surface and interfaces with other elements are modeled within a defined tolerance of +/- 2", Unless Noted Otherwise (UNO).*			
LoD 500						
LoA	**200**[b,c]					

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Notes:

a. *LOD 000 does not exist in many LOD definitions. It has been added in the BIMForum Global LOD Specification to address data structures when no model elements existing and to define contact scopes when element at omitted from modeling.*

b. *LOD definitions should be defined in the Project Execution Plan's (PEP) Building Information Modeling (BIM) section. These may also be referred to as a BIM Execution Plan (BxP, BEP) on your project.*

c. *In the absence of a PEP, BEP, BxP, etc, the LOD definitions shall be per the BIMForum Global LOD Definitions, Reference:.*

d. *BIMforum.global/LOD*