



# THE BOOK OF DEFINITIONS

Explaining  
spec writing terms  
for shared understanding

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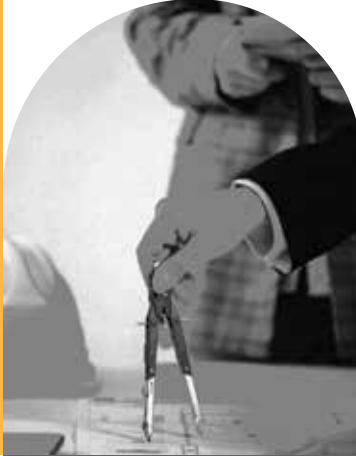
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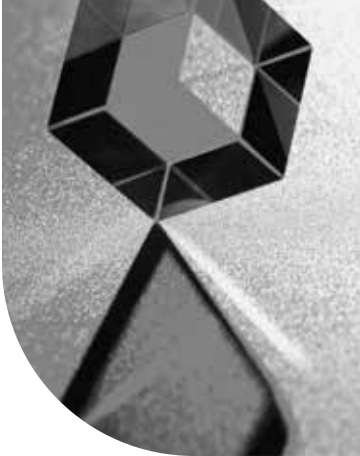


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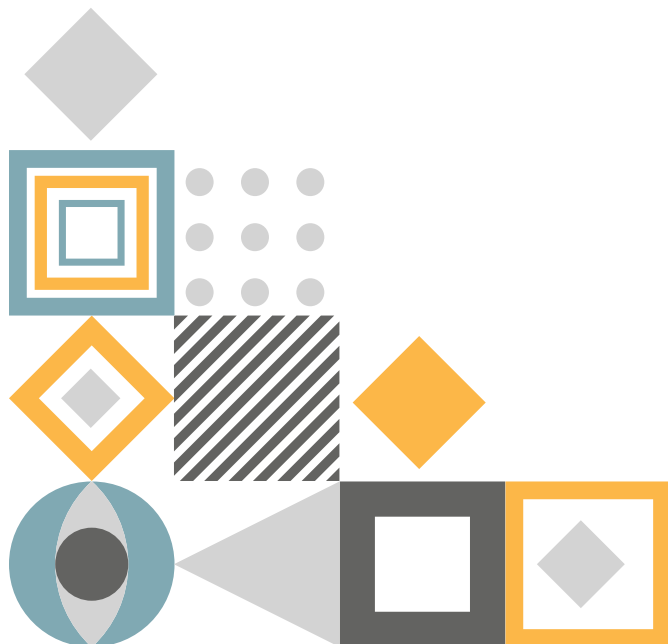
# SPECIFICATIONS TERMINOLOGY GUIDE

In construction, clear and consistent communication is key to keeping projects on track. Specifications act like a detailed roadmap, outlining everything from the materials you need to how they should be installed. If these specifications aren't crystal clear, you risk mistakes, unexpected costs, and delays.

This guide is here to help by standardizing the language used in construction documents. Whether you're an architect, engineer, contractor, or anyone who has to write a specification, it will help you grasp important terms and communicate more effectively. Here's what you can expect from this guide:

- **Clear Communication:** It offers a unified set of terms so that everyone involved—designers, builders, and others—understands exactly what's needed, avoiding confusion.
- **Avoid Mistakes:** With well-defined terms, you'll cut down on misunderstandings and errors, leading to a smoother, more efficient project.
- **Practical Help:** The guide includes straightforward explanations, making it easier to apply these terms in your own work.

**Guide's Purpose:** The main goal is to establish a common vocabulary for construction projects, ensuring



that specifications are clear and understood by all. This clarity helps in drafting, reviewing, and interpreting project documents with confidence.

**What It Covers:** The guide addresses various terms and concepts, including:

- Types of specifications (like Performance, Prescriptive, Proprietary)
- Installation methods and quality checks
- Testing methods and project milestones
- Safety standards and sustainability
- Miscellaneous Terms

**How to Use the Guide:**

- **Explore the Sections:** Browse through the organized sections to find definitions and explanations relevant to your interests, whether that's project scope, material quality, or safety standards.
- **Use the Terms:** Incorporate the standardized terms into your documents to ensure consistency and clarity.
- **Check the Examples:** Look at the sample scenarios to see how terms are used in context, helping you apply them in your own projects.
- **Stay Updated:** Construction standards evolve, so keep an eye out for updates to this guide to stay current.

By using this guide, you're taking a significant step toward enhancing the quality and efficiency of your construction projects. It will help you navigate the complexities of construction language and achieve better results.

# SPECIFICATIONS

## 1. Specifications:

Specifications are a detailed blueprint for a construction project. They outline everything from the materials and craftsmanship needed to the quality standards that must be met. They are a guidebook for contractors, suppliers, and anyone else involved in the project. By following these specifications, everyone can ensure the project turns out just right and meets all necessary codes and standards.

## 2. Performance Specification:

A Performance Specification describe what you want a part of a building to do, rather than telling exactly how it should be built. For example, instead of specifying a particular type of insulation, a Performance Specification might just state that the insulation needs to achieve a certain level of effectiveness, like a specific R-value (which measures how well it insulates).

## 3. Prescriptive Specification:

A Prescriptive Specification are detailed instructions for building a project. It tells builders exactly what materials and methods to use, such as a specific type of concrete mix or a certain brand of doors.

## 4. Proprietary Specification:

A Proprietary Specification is a type of instruction used in construction where the project specifies exactly which products or brands must be used. For example, instead of just saying you need "a good quality door," a Proprietary Specification would state that you must use "Brand X doors" for the project.

## 5. Open Specification:

An Open Specification specifies what you need a part of the building to do without naming any specific brands or products. For example, instead of saying you need a particular brand of paint, it just says the paint should have a certain quality or performance level.

## 6. Closed Specification:

A Closed Specification are usually used in government/institutional projects and they instructs to use certain brands or products for a project, and you can't choose anything else. For example, it might say you need

to use "Brand Y" door hardware and nothing else, even if other brands could do the job just as well. Closed Specifications are stricter and limit the choices you have to specific brands or manufacturers

## 7. Reference Specification:

A Reference Specification gives guidelines based on existing rules or standards rather than listing every detail about materials or methods. For example, instead of saying exactly which type of wood to use, a Reference Specification would refer to a standard document that says how strong and durable the wood needs to be. This means the contractor or builder should follow the rules and quality standards outlined in these external documents.

## 8. Basics of Design (BOD):

The Basis of Design is a key part of construction documents that explains the core ideas and decisions behind a project's design. It covers the main criteria and assumptions that shape the design, why certain solutions were chosen, and the performance standards that need to be met. It also details any specific products or systems that are part of the plan.

## 9. Commissioning Specifications:

Commissioning Specifications refer to the detailed requirements and procedures for the commissioning process, which ensures that systems and components are installed, tested, and operational according to the design intent and performance.

## 10. Design Criteria:

Design Criteria are the specific parameters, constraints, and performance requirements that the design must meet. These criteria are derived from the project's goals, applicable codes and standards, and client requirements.

## 11. Design Intent:

Design Intent is a statement or documentation that captures the underlying goals, objectives, and vision for a project's design. It conveys what the design aims to achieve in terms of functionality, aesthetics, and user experience.

### 12. Pre-Design Phase Commissioning:

Pre-Design Phase Commissioning involves early activities that focus on defining and documenting the project's requirements, objectives, and systems performance before the detailed design begins. It may include feasibility studies, needs assessments, and initial system evaluations.

### 13. Training Plan:

A Training Plan is a structured approach to educate and prepare end-users or facility operators on the operation, maintenance, and management of new systems or equipment installed in the project.

### 14. Owner's Project Requirements (OPR):

Owner's Project Requirements (OPR) are a set of detailed expectations and goals established by the project owner that guide the design, construction, and operation of a project. The OPR document articulates what the owner wants to achieve with the project, including performance criteria, functional requirements, and operational needs.

### 15. Product Data:

Product Data refers to the detailed information about the materials and products used in a construction project. Product Data ensures that all parties involved in the construction process—designers, contractors, and inspectors—are aware of the exact specifications and requirements for the materials and products being used. This helps in maintaining quality and consistency throughout the project.

### 16. General Conditions:

General Conditions are a set of standardized terms and clauses that provide a framework for the execution of the contract, ensuring that there is a clear understanding of the expectations and requirements for all parties involved. They help in managing the relationship between the owner and contractor and address common issues that arise during construction.

### 17. Supplementary Conditions:

Supplementary Conditions are additional provisions added to tailor the General Conditions to fit the unique aspects of a particular project, ensuring that all special considerations are addressed and that the contract is adapted to the specific needs and challenges of the project. They help in addressing issues that are not covered by the standard General Conditions.

### 18. SD Set:

A Schematic Design Set refers to a collection of preliminary drawings and documents that outline the basic design concepts and the general layout of a construction project. This set is a crucial part of the design process and provides a framework for further development.

### 19. IFC set:

An IFC Set (Issued for Construction) refers to the final, detailed drawings and documents prepared for use during the actual construction phase of a project. This set is the culmination of all design work and revisions and serves as the official reference for contractors to execute the construction.



# SCOPE

## 1. Scope of Work:

Scope of Work (SOW) is a detailed description of what needs to be done for a project. It lists all the specific tasks and responsibilities, and what exactly needs to be delivered. It acts as a detailed checklist for the project. It tells contractors and subcontractors exactly what is expected of them and what they need to do to complete the project.

## 2. Commissioning Plan:

A Commissioning Plan is a comprehensive document that outlines the strategies, procedures, and responsibilities for the commissioning process of a construction project. It details how systems and components will be tested, verified, and validated to ensure they meet the design intent and performance criteria.

## 3. Commissioning Process:

The Commissioning Process is the systematic sequence of activities designed to ensure that building systems and components are installed and functioning according to the design intent and performance requirements. This process involves several key stages, including planning, design review, installation verification, testing, and training.

## 4. Request for Proposals (RFP):

A Request for Proposals (RFP) is a formal document issued by a project owner or developer that invites contractors, consultants, or service providers to submit proposals for a construction project.

## 5. Invitation to Bid (ITB):

An Invitation to Bid (ITB) is a formal request issued to potential contractors to submit competitive bids for a construction project. It is often used when the project scope is well-defined and the owner is seeking the best value for the work.

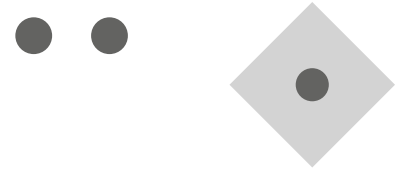
## 6. DD Set:

The Design Development Set is a stage in the architectural and construction design process where the initial concept designs are further detailed and refined. It provides a clearer picture of how the project will be executed, allowing for better planning, cost estimation, and coordination among various stakeholders.

**DID YOU KNOW?**

Ambiguity in construction requirements can lead to major misunderstandings and costly rework. Vague terms like "high-quality" or "durable" can mean different things to different stakeholders, highlighting the importance of clear, precise language for a unified understanding of project goals.

# INSTALLATION METHODS



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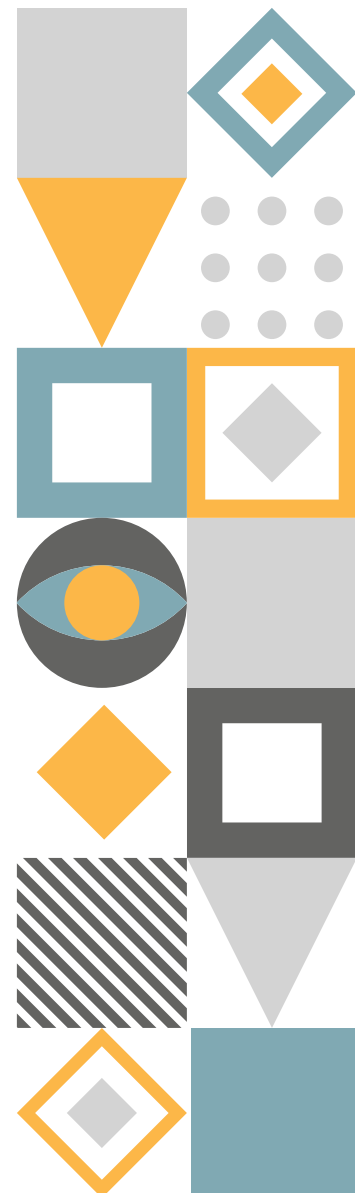
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# QUALITY OF MATERIALS

## **1. Concrete Mix Design:**

The concrete mix design is like creating a blend for concrete. It involves figuring out the right mix of cement, water, sand, and gravel to make sure the concrete has the strength and durability needed for the project.

## **2. Curing:**

Curing is the process of keeping concrete or mortar properly moist and at the right temperature so it can harden correctly. It's like giving the concrete time to "rest" and get strong, which helps prevent cracks and ensures it performs well.

## **3. Reinforcement:**

Reinforcement is like adding extra support to concrete with materials like steel bars or mesh. It strengthens the concrete and helps it handle stress better, making sure everything stays sturdy.

## **4. Masonry:**

Masonry is the art of building with bricks, stones, or blocks, held together with mortar. It's a method for constructing walls and other parts of a building, giving both strength and style.

## **5. Framing:**

Framing is the process of putting together the basic structure of a building using wood, steel, or metal. It's like building the skeleton of a building, providing support for walls, floors, and the rest of the construction.

## **6. Insulation:**

Insulation is like wrapping your building with a layer of material to keep heat in during winter and out during summer. It helps maintain a comfortable indoor temperature and saves on energy bills.

## **7. Vapor Barrier:**

A vapor barrier is a protective layer that keeps moisture from seeping through walls and floors. It helps prevent issues like mold by controlling condensation and keeping things dry.

## **8. Flashing:**

Flashing is a waterproof material used around joints and edges to direct water away and prevent leaks. It's like adding a shield to protect vulnerable areas from water damage.

## **9. Roofing Membrane:**

A roofing membrane is a continuous layer applied to your roof to keep it waterproof. Think of it as a protective coat for your roof, guarding it against rain and weather.

## **10. Glazing:**

Glazing involves putting glass or clear materials into openings and doors. It's all about choosing the right type of glass to let in light while keeping the building well-insulated and energy-efficient.

## **11. Drywall:**

Drywall is a common material for creating smooth walls and ceilings inside buildings. It's made of gypsum between two sheets of paper and is a quick way to get a nice finish without the mess of traditional plaster.

## **12. Partition:**

A partition is like a movable or fixed wall that divides a room into smaller sections. It helps create separate spaces within a building, like turning one big room into several smaller ones.

## **13. Subfloor:**

The subfloor is the layer of flooring that sits directly on top of the floor joists and underneath the final floor covering. It provides a strong base and helps support the finished floor.

## **14. Sheathing:**

Sheathing is the layer added to the exterior frame of a building. It provides structural support, insulation, and a surface for attaching exterior finishes, like siding or cladding.

**15. Cladding:**

Cladding is the outer layer of a building that protects it from the weather and adds to its appearance. It can be made from materials like wood, metal, or brick, giving the building its final look.

**16. Finish:**

The finish is the final layer or treatment applied to surfaces to achieve the desired look and performance. It includes things like paint, stain, or varnish, which give the surface its final appearance and protection.

**17. Material:**

A material is any substance used in building construction, such as concrete, steel, or wood. Each material has its own properties and is chosen based on what's best for the job.

**18. Aluminum:**

Aluminum is a lightweight, rust-resistant metal used in construction for things like window frames and cladding. It's durable and easy to work with, making it a popular choice for modern buildings.

**19. Steel:**

Steel is a strong metal alloy used for structural parts of a building, like beams and supports. It's known for its high strength and low weight, making it ideal for building frameworks.

**20. Wood:**

Wood is a natural building material used for framing, flooring, and other parts of a structure. It's valued for its strength, beauty, and versatility, though it needs treatment to resist moisture and pests.

**21. Commissioning Issue:**

A Commissioning Issue is a problem or discrepancy identified during the commissioning process that affects the performance, functionality, or compliance of systems or components with the design specifications. These issues can be related to installation, operation, or system integration.

**22. Commissioning Observation:**

A Commissioning Observation is a noted condition or performance of a system or component observed during the commissioning process that may or may not be an issue. Observations are documented to provide insights into system performance, compliance with design intent, and operational characteristics.

**23. Deficiency:**

A Deficiency refers to a specific shortfall or problem that prevents a system or component from meeting the design intent or performance standards. It is a type of Commissioning Issue that highlights a gap between the expected and actual performance or installation.

**24. Manual Test:**

A Manual Test is a type of test conducted without the aid of automated systems or tools, typically involving direct human intervention to verify the operation and performance of systems or components. These tests often involve physical checks, adjustments, and observations.



# QUALITY OF WORKMANSHIP

## 1. Workmanship:

Workmanship refers to the skill and quality with which construction tasks are performed. It's the techniques and practices that workers put into their tasks to make sure everything turns out right. Good workmanship means that the final product is not only functional (it works as it should) but also looks good and meets all the necessary standards and specifications.

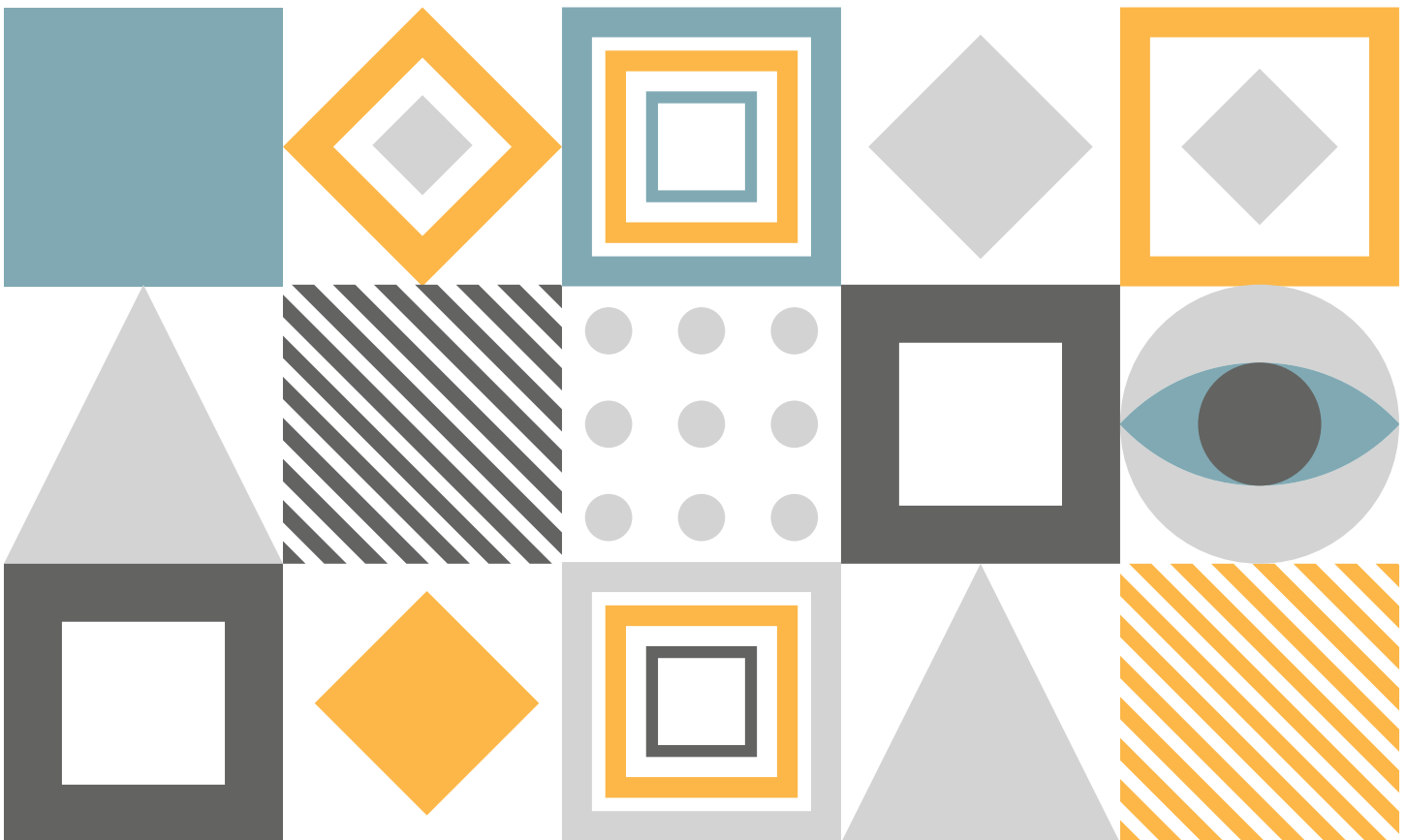
## 2. Quality Assurance:

Quality Assurance (QA) is a proactive process to make sure things are done right from the start. It involves creating and following procedures to prevent problems

before they happen. QA means planning ahead, checking processes, and making sure everything meets the set standards throughout the entire project. It's about setting up good practices so that the end result is high-quality.

## 3. Quality Control:

Quality Control (QC) is about checking and fixing things after they've been done. It's a process where you regularly test and inspect the work to ensure it meets the required standards. If something doesn't look right or isn't up to par, QC helps identify and correct those issues so that the final product is of good quality.



# TESTING REQUIREMENTS

## **1. Load Testing:**

Load Testing is the process of putting a structure or a component through a workout to see if it can handle the weight or pressure it's expected to bear. For example, if you're testing a bridge, you might simulate the weight of cars and trucks to make sure the bridge can hold up without breaking or bending too much. This testing is really important to make sure that everything is safe and strong enough to support what it needs to, preventing accidents and ensuring the structure will last as long as it's supposed to.

## **2. Visual Inspection:**

Visual Inspection is the method of giving a project a thorough glance to check for any obvious problems. Imagine looking at a building and checking if everything looks right—like if the walls are straight, there are no cracks, and the materials are properly used. You do this with just your eyes or some simple tools, not fancy equipment. This kind of inspection is done at different points during construction to make sure the work meets the expected quality and follows the design plans.

## **3. Performance Testing:**

Performance Testing is evaluating how well something works in real-life situations. For example, if you're testing a new type of window, you'd see how well it keeps heat in, blocks sound, or saves energy. This testing makes sure that the building or part of the building does what it's supposed to do and performs well under different conditions, just like it would when people start using it.

## **4. Functional Test Procedure (FTP):**

A Functional Test Procedure (FTP) is a detailed, step-by-step guide used to verify that systems and components perform their intended functions as specified in the design documents. It outlines the process for conducting tests to ensure that each part of a system operates correctly under normal operating conditions.

## **5. Static Tests:**

Static Tests involve testing systems or components under non-operational or static conditions, meaning that the systems are not in motion or subjected to normal operational loads. These tests typically check for proper installation, alignment, and static performance.

## **6. Integrated System Testing:**

Integrated System Testing is the process of testing the complete, integrated system as a whole to ensure that all components work together harmoniously and meet the overall design and performance requirements. This type of testing often involves checking interactions between different systems and subsystems.

## **7. Data Logging:**

Data Logging is the process of continuously recording data from systems or components over time to monitor performance and operational conditions. This is often done using specialized equipment or software that collects and stores data for analysis.

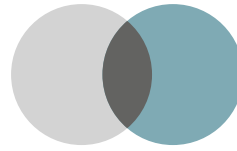
## **8. Testing:**

Testing is the process of evaluating systems, components, or assemblies to ensure they meet specified design criteria, performance standards, and operational requirements. This includes various types of tests, such as functional, performance, and safety tests.

## **9. Thermal Scans:**

Thermal Scans involve using infrared cameras or other thermal imaging devices to detect and visualize heat patterns and temperature variations in systems or components. These scans are used to identify areas of excess heat, potential insulation problems, or other thermal anomalies.

# TIMELINE AND IMPORTANT PROJECT MILESTONES



## 1. Change Order:

This is a formal document used to update the original construction agreement. It explains any new changes to the work, adjustments to the cost, and changes to the project timeline. Change orders are used when something unexpected comes up or when the client wants to change something in the original plan.

## 2. Addendum:

This is a document added to the contract before it's signed. It provides extra details or clarifications needed before or during construction. Addenda might include updated plans, new specifications, or other important information that affects the project.

## 3. Submittal:

These are documents or samples that the contractor gives to the architect or engineer for approval before starting construction. Submittals include things like detailed drawings, material information, and product samples to make sure everything meets the project's needs.

## 4. Contractor's Warranty:

This is a guarantee from the contractor that their work meets the agreed standards. It usually includes a guarantee to fix any problems that come up within a certain period after the project is finished.

## 5. Retainage:

This is a part of the payment that the client holds back from the contractor until the project is finished. It's a way to make sure the contractor completes the work properly and fixes any issues that come up.

## 6. Punch List:

This is a list made towards the end of a project that shows any unfinished or unsatisfactory work that needs to be fixed before the project can be considered done. It

usually includes small repairs or adjustments.

## 7. Liquidated Damages:

These are set amounts of money the contractor agrees to pay if they don't finish the project on time. It's meant to cover any financial losses or problems caused by the delay.

## 8. Force Majeure:

This is a contract clause that releases both parties from their obligations if an unexpected event, like a natural disaster or war, prevents them from completing the contract. It covers situations that are beyond their control.

## 9. Cut sheets:

Cut sheets (also known as data sheets) are detailed papers given by manufacturers or suppliers. They describe the technical details and performance of specific products or materials used in a building project.

## 10. Acceptance Phase Commissioning:

Acceptance Phase Commissioning is the process of verifying and validating that systems and components meet the design intent and performance criteria as the project approaches completion. This phase typically occurs towards the end of the construction process, just before the project is officially handed over to the owner.

## 11. Construction Phase Commissioning (CPC):

Construction Phase Commissioning (CPC) refers to the commissioning activities carried out during the construction phase of a project. This phase involves the ongoing verification and validation of systems and components as they are being installed and constructed.

## 12. Warranty Phase Commissioning:

Warranty Phase Commissioning occurs after the project has been completed and accepted, typically during the

warranty period. This phase involves checking systems and components to ensure they continue to perform as expected and to address any issues that arise during the warranty period.

### **13. Deferred System Test:**

A Deferred System Test is a test that was planned but postponed until a later time, usually due to the system not being ready or fully operational during the initial commissioning phase. These tests are typically rescheduled to ensure that all systems are functioning as intended before final acceptance.

### **14 Warranty Visit:**

A Warranty Visit is a scheduled visit by commissioning agents or contractors during the warranty period to inspect systems and components, address any issues, and ensure continued performance and compliance with the contract requirements.

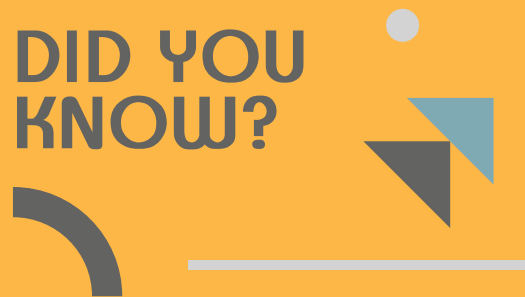
### **15. Project Schedule:**

A Project Schedule is a detailed plan that outlines the timeline and sequence of activities required to complete a construction project. It serves as a roadmap for managing and coordinating the various tasks involved, ensuring that the project is completed on time and within budget.

### **16. Percentage Doc:**

A percentage doc refers to a section or a specific document that details how percentages are applied or calculated in various aspects of the project. A percentage document is used to clearly define how percentages influence various aspects of the construction project, helping to ensure that all parties involved have a consistent understanding of how these percentages impact work, payments, materials, and other project-related factors.

## **DID YOU KNOW?**



A lack of templates or standardized formats in construction specifications can lead to inconsistent documentation, making it hard for stakeholders to understand requirements. This inconsistency can cause errors and misinterpretations, ultimately impacting project quality and efficiency. Using established templates ensures clarity and uniformity, improving communication among all parties involved.

# ACCURACY AND PRECISION

## 1. Tolerances:

Tolerances are the acceptable limits for how much things can vary from their exact specifications in the construction project. They define how much something can deviate from the exact measurements or positions specified in the plans. Since it's hard to get everything perfect, tolerances make sure that even with these small differences, the final result still works properly and matches the overall design.

## 2. Accuracy:

Accuracy refers to the degree to which a measured or calculated value conforms to the true or accepted value. In the context of construction specifications, it indicates how close the measured or specified dimensions, quantities, or performance levels are to the actual intended values or standards.

## 3. Precision:

Precision refers to the consistency or repeatability of measurements or specifications. It indicates how closely multiple measurements of the same quantity agree with each other. In construction specifications, precision reflects the level of detail and repeatability in measurements, dimensions, or performance criteria.

## 4. Calibration:

Calibration is the process of adjusting and verifying the accuracy of measurement instruments or systems to ensure they provide correct and reliable readings. This process involves comparing the instrument's measurements against a known standard and making necessary adjustments.

## 5. Resolution:

Resolution refers to the smallest detectable difference or the smallest unit of measurement that an instrument or system can accurately discern. In construction specifications, it describes the level of detail and the ability to measure or represent data with clarity and precision.



# DESIGN CRITERIA

## 1. Sustainability Requirements:

These are the green guidelines for a construction project. They focus on reducing the project's impact on the environment by encouraging the use of eco-friendly materials, cutting down on energy use, minimizing waste, and supporting overall environmental care. You might see specs for certifications like LEED or BREEAM, which are like gold stars for being environmentally responsible.

## 2. LEED:

LEED, which stands for Leadership in Energy and Environmental Design, is a system that recognizes buildings for being environmentally friendly and energy-efficient. It involves setting up ways to measure how well the project meets these green standards. This ensures that the building is designed to be as good for the environment as possible.

## 3. Life Cycle Costs:

Life cycle costs is the total cost of a building or construction project over its entire lifespan. It's not just about what you spend to build it, but also what it costs to maintain, operate, and eventually tear it down. Considering life cycle costs helps in understanding the long-term economic impact of different materials and systems, rather than just their initial price tag.

## 4. Energy Code Compliance:

These are the rules that ensure a building uses energy efficiently. They set limits on how much energy a building can consume and cover everything from insulation and openings to heating, ventilation, and lighting systems. Following these codes helps cut down on energy bills and reduces the building's environmental footprint.

## 5. Accessibility Standards:

Accessibility standards are guidelines make sure that buildings are easy for everyone to use, including people with disabilities. This means features like ramps, wide doors, and elevators are included to ensure everyone can access and navigate the building comfortably. In the U.S., this often means adhering to the Americans with Disabilities Act (ADA).

## 6. Performance Requirements:

These are like the "performance assessments" for building components. They describe how well a part or system should work under certain conditions. For example, window performance requirements might specify how well they should insulate against heat, resist water, and stand up to wear and tear.

## 7. Fire-Resistance Rating:

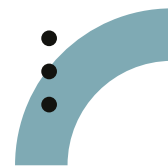
This rating tells us how long a building material can withstand fire before failing. It's usually measured in hours and helps ensure that buildings provide enough time for people to evacuate safely and for firefighters to respond. Specs will outline the fire-resistance needed for walls, floors, doors, and other parts of the building.

## 8. Acoustic Performance:

Acoustic Performance refers to the sound-related characteristics of building materials or systems. It covers how well materials block or absorb sound, which is important for making spaces like offices, theaters, and homes comfortable and quiet. Good acoustic performance helps manage noise and keeps different areas from being disturbed by sound.

## 9. Impact Resistance:

Impact Resistance measures how well a material can handle hits or shocks without getting damaged. In construction, impact resistance is important for materials like glass, walls, and flooring, especially in busy or high-risk areas. It ensures that the building can stand up to bumps and knocks without compromising safety or durability.





# DETAILED SPECIFICATIONS

## 1. MasterFormat:

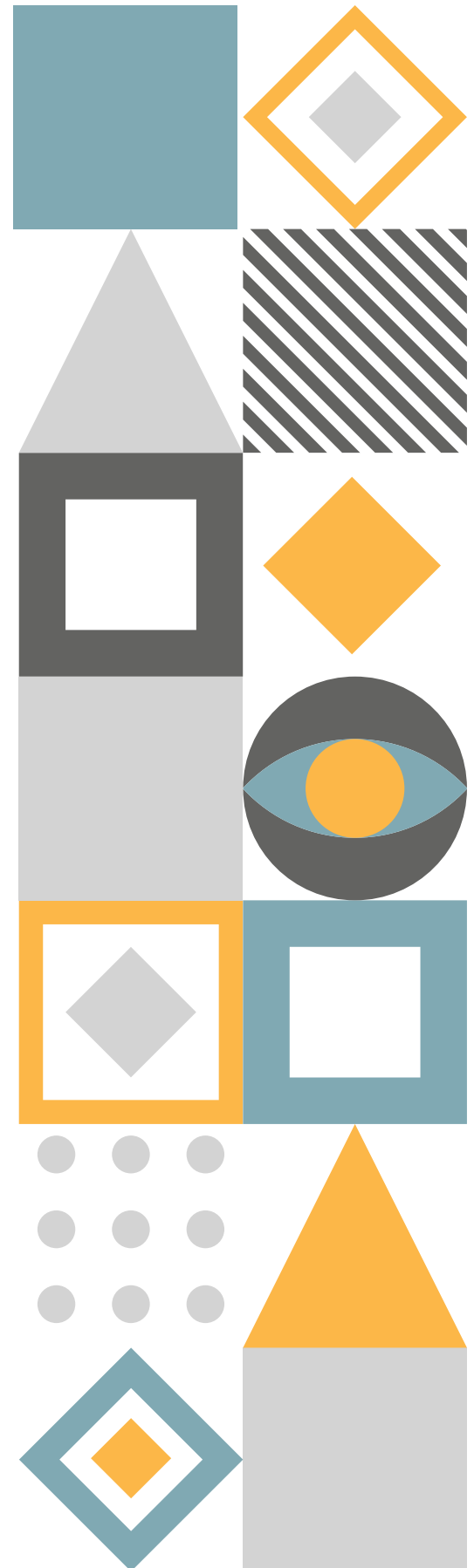
MasterFormat is a system created by the Construction Specifications Institute (CSI) to help organize construction specifications in a clear and consistent way. Think of it as a detailed blueprint for how to structure information about everything involved in a construction project—materials, products, systems, and workmanship. It's divided into different divisions and sections that cover all aspects of construction. This setup makes it easier to find and understand the details you need, keeping everything neatly organized and accessible.

## 2. Division:

A Division is a big category that groups together related parts of a construction project. Each Division contains several Sections that focus on specific aspects of the construction process or building systems. By sorting information into these Divisions, it becomes easier for professionals to find and use the details they need. For instance, Division 08 includes everything related to doors and their hardware, while Division 10 covers specialty products and materials

## 3. Section:

A Section is a more detailed subdivision within a Division. It provides specific information about particular products, materials, systems, or methods used in the construction project. Sections are where the detailed technical specifications, requirements, and installation instructions are outlined.



# GENERAL REQUIREMENT

General Requirements set out the overall expectations and guidelines for a construction project. These are the basic rules that govern how the project should be carried out, covering everything from administrative tasks to project management and site conditions. They help ensure that everyone involved understands how to proceed and maintain consistency throughout the project.

## 1. Contract Documents:

Contract Documents are the detailed paperwork that outlines the terms and conditions of the construction contract. They include:

- **Contract Agreement:** This formalizes the deal between the owner and contractor, specifying what work will be done, under what terms, and the conditions to be met.
- **Specifications:** These provide detailed descriptions of the materials and workmanship required for the project.
- **Drawings:** These are the architectural and engineering plans that show the design and layout.
- **Addenda:** Any changes or clarifications made before the contract is finalized.
- **Bonds and Insurance Certificates:** Proof of financial security and coverage.
- **Other Relevant Documents:** This might include project schedules or specific regulations.

## 2. Bid Documents:

Bid Documents are what potential contractors receive when they are invited to submit their bids for a project. They include:

- **Invitation to Bid:** An announcement that the project is open for bids.
- **Instructions to Bidders:** Guidelines on how to prepare and submit bids.
- **Bid Form:** A form for bidders to list their proposed prices and terms.
- **Specifications and Drawings:** Details about the work to be done.

- **Contract Terms and Conditions:** Requirements that the winning bidder will need to follow.

## 3. Contractor's Warranty:

A Contractor's Warranty is a promise from the contractor that their work will meet certain standards and be free from defects for a specified period after the project is completed. This warranty typically covers both the workmanship and the materials, and ensures the contractor will fix any issues that come up during the warranty period at no extra cost.

## 4. Liability:

Liability refers to the legal responsibility for any damage or injuries that result from work or negligence. In construction, this means ensuring that the work meets safety regulations, building codes, and contractual obligations. Contractors and subcontractors usually have insurance to cover potential liabilities.

## 5. Indemnification:

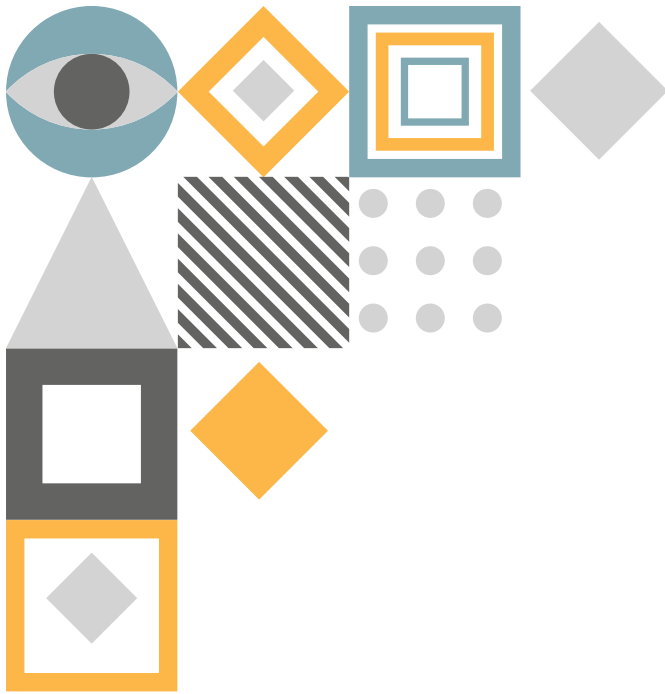
Indemnification is an agreement where one party agrees to cover the costs or damages that another party may incur. In construction contracts, this typically means a contractor agrees to protect the owner from financial losses related to claims arising from the contractor's work, including legal fees and damages.

## 6. Compliance:

Compliance involves following all relevant laws, regulations, codes, and standards that apply to the construction project. This includes building codes, safety regulations, environmental laws, and industry standards. Ensuring compliance is crucial to keeping the project legal and safe, and avoiding potential legal issues.

## 7. Documentation:

Documentation is about keeping and managing all records related to the construction project. This includes contracts, drawings, specifications, change orders, inspection reports, and correspondence. Proper documentation helps track the project's progress, decisions, and adherence to requirements, which is essential for resolving disputes and future reference.



### 8. Operation and Maintenance Manual (O&M Manual):

An Operation and Maintenance Manual (O&M Manual) provides detailed instructions on how to operate, maintain, and care for the systems and equipment in the building. It includes:

- **Operating Instructions:** How to use the equipment and systems.
- **Maintenance Procedures:** Regular tasks and schedules to keep everything in good condition.
- **Troubleshooting Guidelines:** Tips for diagnosing and fixing common problems.
- **Warranty Information:** Details about warranties for the equipment.
- **Contact Information:** For manufacturers or service providers.

### 9. Insurance:

Insurance means that contractors and subcontractors need to have specific types and amounts of insurance to cover different risks. Insurance in specifications are the detailed rules that explain what kind of insurance is needed to protect everyone involved in the project from potential problems or accidents.

### 10. Shop Drawings:

Shop drawings are detailed plans made by contractors or manufacturers that show exactly how parts of a project will be built and installed. They are based on the main

architectural and engineering plans but include more specific details needed for the actual construction.

### 11. Meet with GC:

“Meet with GC” means setting up a meeting with the General Contractor to go over project details, clear up any confusion, fix problems, and check on progress. This helps make sure everyone involved is on the same page and keeps the project running smoothly.

### 12. Review mockups:

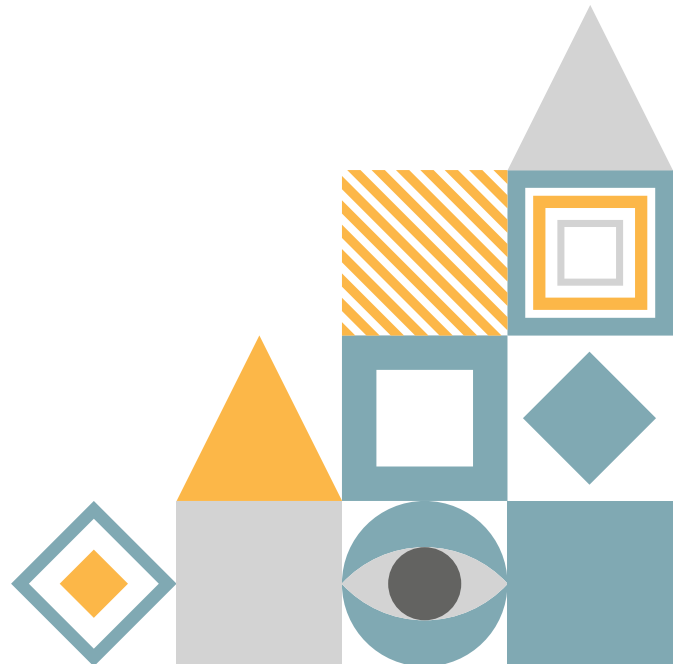
“Review mockups” means looking at samples of materials or parts, either physical models or digital images, before they are used in the real construction. This helps make sure everything looks and works the way it should.

### 13. Quality of materials:

This means checking if the materials used in a construction project are up to standard and good enough for their purpose. It’s about making sure the materials are strong and reliable for what they’re supposed to do.

### 14. Pre-Design Phase:

The Pre-Design Phase in the context of construction specifications refers to the initial stage of a construction project where foundational planning and preparatory work take place before detailed design work begins. This phase is crucial for setting the stage for a successful project by establishing clear objectives, requirements, and constraints.



# NATIONAL AND STATE SAFETY STANDARDS

## **1. National and State Safety Standards:**

These standards establish the safety regulations and guidelines at both the national and state levels to ensure the safety of construction sites and workers. National standards are set by organizations like OSHA, while state standards may provide additional requirements specific to local conditions.

## **2. Building Code Compliance:**

This involves adhering to the regulations and standards for the design, construction, and occupancy of buildings to ensure they are safe, functional, and legally compliant. Building codes cover aspects such as structural integrity, fire safety, and accessibility.

## **3. Energy Code Compliance:**

This refers to meeting the requirements set forth by energy codes, which are designed to improve the energy efficiency of buildings. Compliance includes implementing standards for insulation, lighting, and HVAC systems to reduce energy consumption and environmental impact.

## **4. Occupational Health and Safety (OHS):**

OHS encompasses the regulations and practices aimed at protecting workers' health and safety on a construction site. This includes procedures for hazard identification, risk management, and creating a safe working environment to prevent accidents and injuries.

## **5. Hazardous Material:**

Hazardous materials are substances that pose risks to health, safety, or the environment. In construction, this includes materials such as asbestos and lead. Proper handling, storage, and disposal procedures must be followed to manage these risks effectively.

## **6. Site Safety Plan:**

This document details the safety procedures and protocols specific to a construction site. It includes risk assessments, emergency response plans, and safety training requirements to ensure that all activities are conducted safely and in compliance with regulations.

## **7. Personal Protective Equipment (PPE):**

PPE includes gear worn by workers to protect them from potential hazards on a construction site. This equipment may include helmets, gloves, eye protection, and safety boots. Specifications should outline the appropriate use and maintenance of PPE.

## **8. Waste Management Plan:**

This plan outlines how construction waste will be managed, including strategies for sorting, recycling, and disposing of waste materials. It aims to reduce waste generation, promote environmentally responsible practices, and ensure compliance with local disposal regulations.

## **9. Storm Water Management:**

This involves managing runoff from precipitation to prevent flooding, erosion, and water contamination. Techniques may include the use of detention ponds, drainage systems, and other measures to control storm water effectively.

## **10. Erosion Control:**

Erosion control refers to methods used to prevent soil erosion on a construction site. This includes measures such as silt fences and erosion control blankets to maintain site stability, protect water quality, and prevent sediment from leaving the construction area.

# SETTING EXPECTATIONS

## 1. Performance Testing:

Performance testing involves evaluating how a building or its components perform under specific conditions. This can include testing the structural integrity, energy efficiency, acoustics, or other functional aspects of a construction project. Performance testing ensures that the building meets the required standards and operates as intended, addressing any issues before the project is completed.

## 2. Testing and Inspection:

This process includes the systematic evaluation and examination of materials, systems, and structures during construction to ensure they meet specified standards and codes. Testing might involve checking concrete strength, soil quality, or HVAC system functionality, while inspection typically involves visual and procedural assessments to confirm compliance with design and regulatory requirements.

## 3. Building Permit:

A Building Permit is an official approval issued by a local government or municipal authority that authorizes the commencement of construction work. It is a critical step in the construction process and ensures that the proposed construction complies with local building codes, zoning laws, and safety regulations.

## 4. Bidding and Negotiation Phase:

The Bidding and Negotiation Phase is the period during which project costs are determined and agreements are reached between the client (or owner) and the contractor. This phase is crucial for establishing the final contract terms and ensuring that the project is executed within budget.

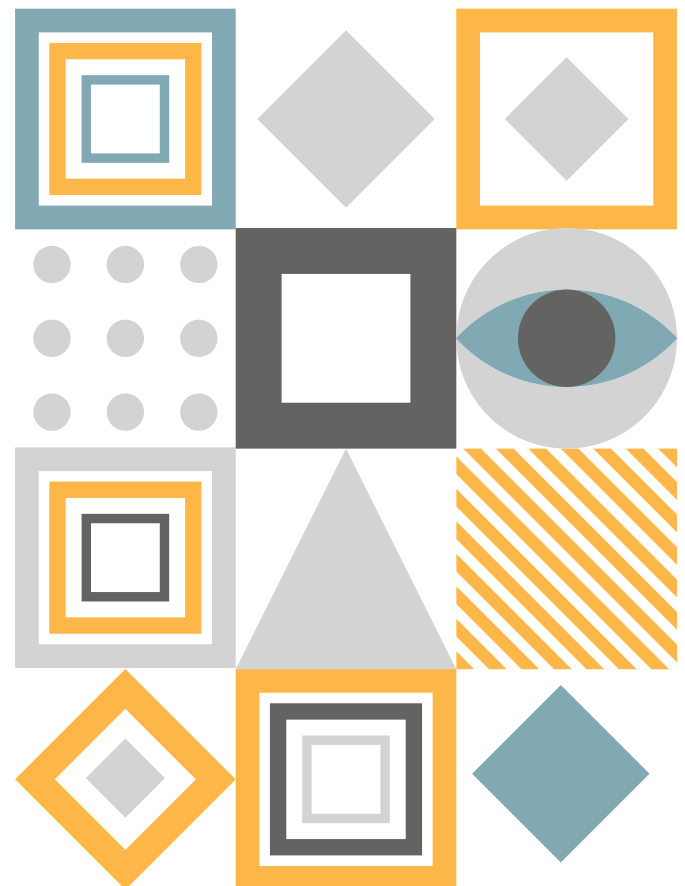
# TENDER

## 1. Tender:

A tender is a formal offer or bid submitted by a contractor or supplier in response to a request for proposals (RFP) or an invitation to tender. It details the cost, time frame, and scope of work for a project. The tender process helps project owners select the most suitable and cost-effective contractor or supplier for their needs.

## 2. Contract Documents:

Contract Documents (CD) are a comprehensive set of documents that collectively outline the terms, conditions, requirements, and obligations related to a construction project. These documents form the legal and technical basis for the contract between the owner and the contractor and guide the execution of the project from start to finish.



# STANDARDS

## **1. The National Environmental Balancing Bureau (NEBB):**

NEBB is a non-profit organization that sets standards and provides certification for professionals involved in the testing, adjusting, and balancing (TAB) of heating, ventilation, and air conditioning (HVAC) systems, as well as building systems and energy management.

## **2. The Associated Air Balance Council (AABC):**

AABC is a professional organization dedicated to advancing the field of air and hydronic balancing in HVAC systems. AABC provides certification for companies and individuals who perform air and water balancing services and establishes industry standards for these activities.

## **3. Testing, Adjusting, and Balancing (TAB):**

TAB is a process used to ensure that HVAC systems and other building systems operate as intended by verifying, adjusting, and optimizing their performance. TAB involves the measurement and adjustment of system parameters to meet design specifications and performance criteria.

## **4. ASTM (American Society for Testing and Materials):**

ASTM is an international standards organization that develops and publishes voluntary consensus standards for a wide range of materials, products, systems, and services. In construction, ASTM standards cover various aspects such as the quality of materials (e.g., concrete, steel) and testing methods to ensure safety and performance.

## **5. ANSI (American National Standards Institute):**

ANSI is a private non-profit organization that oversees the development of voluntary consensus standards for products, services, processes, systems, and personnel in the U.S. ANSI coordinates the standardization activities of organizations such as ASTM and provides a framework for the creation and implementation of standards.

## **6. UL (Underwriters Laboratories):**

UL is a global safety certification company that tests and certifies products for safety and performance. In construction, UL standards ensure that materials and systems (such as electrical components, fire-rated assemblies) meet safety requirements and perform as intended.

## **7. Building Code Compliance:**

This refers to adherence to local, state, or national building codes, which are regulations that set minimum standards for construction and safety. Building codes cover aspects such as structural integrity, fire safety, and accessibility. Compliance ensures that construction projects meet legal requirements and are safe for occupancy.

## **8. Energy Code Compliance:**

This involves following regulations designed to improve energy efficiency in buildings. Energy codes specify requirements for insulation, windows, HVAC systems, and other elements to reduce energy consumption and environmental impact. Compliance ensures that buildings are energy-efficient and cost-effective to operate.

## **9. Accessibility Standards:**

These are guidelines that ensure buildings and facilities are accessible to people with disabilities. They include requirements for ramps, door widths, signage, and other features that enable ease of access and usability for individuals with various physical impairments.



# SIGNAGE

## 1. Directional Signage:

Signs that guide people to specific locations within a building or site. They include arrows and text to help individuals navigate effectively.

## 2. Identification Signage:

Signs that provide identification of rooms, offices, or facilities. These might include names of rooms, departments, or individual offices.

## 3. Emergency Signage:

Signs that provide information about emergency exits, evacuation routes, and safety equipment. They are crucial for ensuring safety during emergencies and must be easily visible and understandable.

## 4. Wayfinding Signage:

A broad category of signs designed to help people find their way through a complex environment, such as hospitals, airports, or large office buildings. This includes maps, directional arrows, and other navigational aids.

## 5. Informational Signage:

Signs that provide general information, such as hours of operation, services offered, or historical information about a building or site.

## 6. Safety Signage:

Safety signs on construction sites are really important because they help keep everyone safe. They tell workers and visitors where to find first aid kits, emergency exits, and what safety gear they need to wear. For example, a sign might show you where to get medical help or how to safely exit the site in case of an emergency.

## 7. Caution Signage:

Signs that indicate compliance with laws or regulations, such as "No Smoking," "Keep Out," or "Authorized Personnel Only." These signs are often required by regulations to ensure safety and legal compliance.

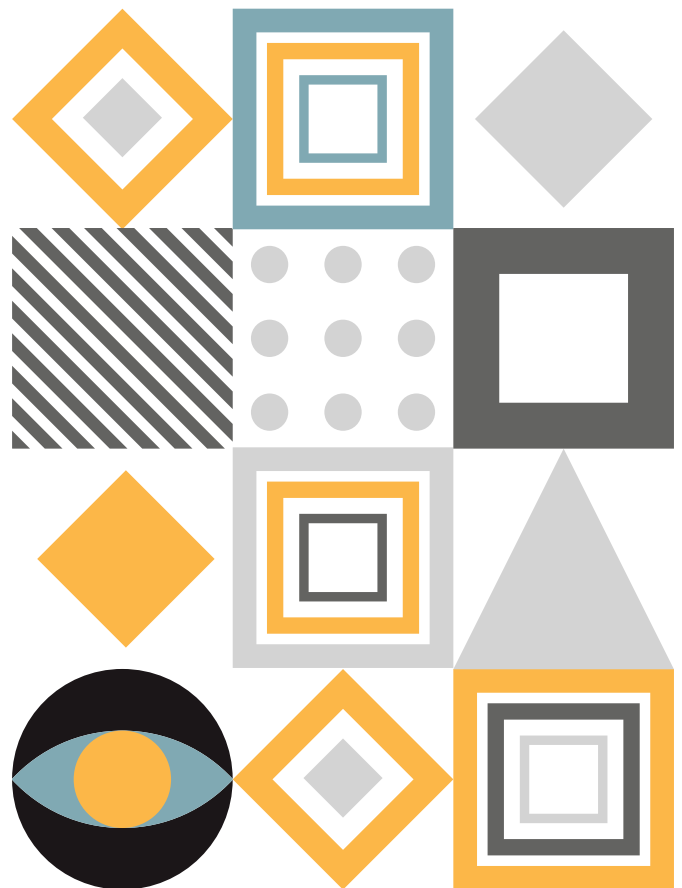
## 8. Warning signage:

Warning signs are signs that are used when there are more serious dangers compared to caution signs. They

let people know about bigger risks that could cause injuries or damage if not handled properly. For example, a warning sign might say "High Voltage," "Chemical Hazard," or "Heavy Machinery in Use" to alert you to these specific dangers.

## 9. Danger Signage:

These are signs that signal immediate and severe hazards that pose a high risk of serious injury or death. They require urgent attention and compliance, highlighting life-threatening conditions with examples like "High Radiation Area," "Explosive Materials," or "No Entry – Hazardous Area."



# PARTITIONS

## 1. Operable Wall:

A type of partition that can be moved or reconfigured to change the size and layout of a space. Often used in conference rooms or auditoriums to create flexible space arrangements.

## 2. Accordion Partition:

A type of operable partition that folds up like an accordion. It is used to divide large spaces into smaller areas and can be easily retracted or expanded.

## 3. Glass Partition:

A partition made of glass panels that allows for visibility between spaces while providing a physical separation. Common in offices and modern buildings to maintain an open feel while defining areas.

## 4. Movable Partitions:

Partitions that can be relocated or adjusted as needed. They include various types of panels that can be repositioned to change room layouts or functionalities.

## 5. Folding Partitions:

Partitions that fold to allow for flexible space management. These are similar to accordion partitions but may feature different mechanisms or design styles.

## 6. Masonry Walls:

Masonry walls are vertical structures constructed from individual units, such as bricks, concrete blocks, or stone, which are bonded together with mortar. These walls are known for their durability, load-bearing capacity, and aesthetic appeal.

## 7. Drywall partitions:

Drywall partitions are walls inside buildings made from large sheets of drywall (sometimes called gypsum board or plasterboard) that are attached to a frame of metal or wood. These walls are often used to separate rooms, divide spaces, or help block sound.



## DID YOU KNOW

Scope creep happens when project requirements expand uncontrollably, often due to vague specifications. This can lead to increased costs, extended timelines, and strained resources. Clear and detailed specifications are vital for defining project scope and preventing unapproved changes that could derail objectives.





# SPECIALTIES

## 1. Coat Hooks:

Fixtures used to hang coats, hats, and other garments. Commonly found in entryways, dressing rooms, and public spaces.

## 2. Mirrors:

Reflective surfaces used for personal grooming, decorative purposes, or functional needs in areas like bathrooms, dressing rooms, and lobbies.

## 3. Toilet Partitions:

Dividers used to create separate stalls in restrooms, providing privacy and functionality.

## 4. Mailboxes:

Units for receiving and sending mail. They can be installed in residential or commercial buildings to provide secure mail delivery.

## 5. Toilet and Bath Accessories:

Items such as soap dispensers, towel bars, and toilet paper holders that enhance the functionality and convenience of bathrooms.

## 6. Fire Extinguishers and Cabinets:

Equipment used to suppress small fires and storage cabinets designed to protect and store fire extinguishers. Fire extinguishers are critical for safety in any building.

## 7. Storage Shelving:

Systems or units designed for storing items, commonly used in closets, warehouses, or office spaces to organize and manage space.

## 8. Wardrobe and Closet Systems:

Customizable storage solutions for organizing clothing and personal items in wardrobes and closets.

## 9. Benches:

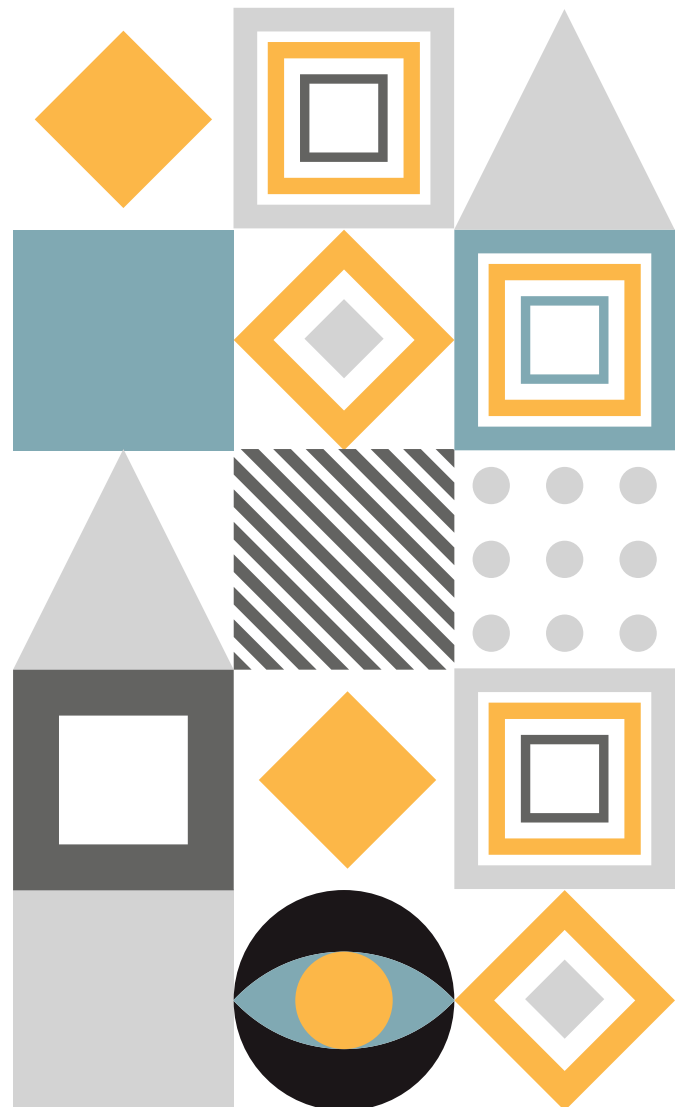
Seating units used in various settings such as lobbies, parks, or waiting areas. They can be standalone or integrated into furniture systems.

## 10. Dressing Compartments:

Enclosed areas with mirrors and other accessories for changing clothes, often found in locker rooms or retail spaces.

## 11. Display Units:

Furniture or structures used to showcase items, such as products in a store or artwork in a gallery.



# EQUIPMENT

## 1. Sanitary Dispensers:

Devices used to dispense hygiene products like soap, paper towels, or hand sanitizer in public or private restrooms.

## 2. Security Cabinets:

Lockable cabinets designed to store valuable items or sensitive documents securely.

## 3. Laundry Equipment:

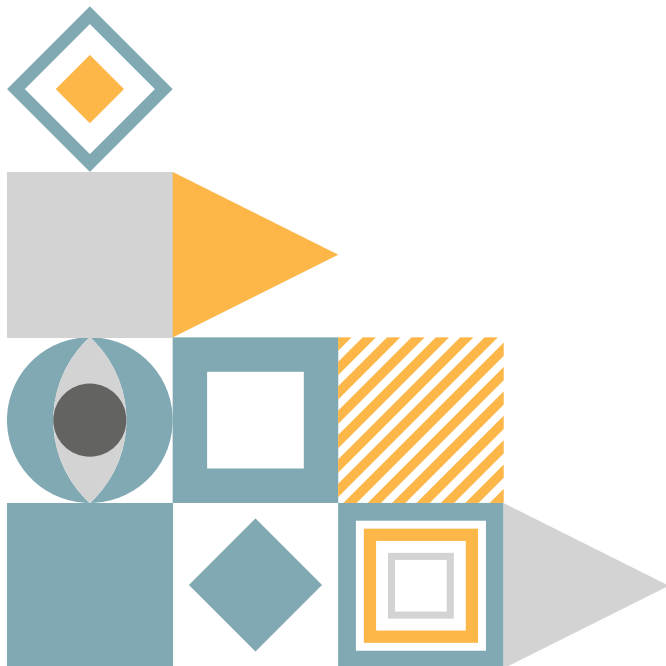
Machines and appliances used for washing and drying clothes, such as washers and dryers, often found in residential or commercial laundry rooms.

## 4. Fire Extinguishers:

Portable devices used to put out small fires. They are essential for fire safety in any building.

## 5. First Aid Kits:

Kits containing medical supplies and equipment for treating minor injuries and emergencies. They are crucial for maintaining safety in both residential and commercial settings.



# WINDOW TREATMENTS

## 1. Roman Shades:

Window coverings made from fabric that folds into pleats when raised and lies flat when lowered. They provide a clean, tailored look and control light and privacy.

## 2. Vertical Blinds:

Blinds with vertical slats that can be adjusted to control light and visibility. They are often used for large openings or sliding doors.

## 3. Sheer Curtains:

Lightweight, translucent curtains that allow natural light to filter through while providing some privacy.

## 4. Blinds:

Window coverings with horizontal or vertical slats that can be adjusted to control light and privacy. Blinds come in various materials and styles.

## 5. Shades:

Fabric or material-based window coverings that can be rolled or pulled up to control light and privacy. Shades come in different styles, such as roller shades and cellular shades.

## 6. Draperies:

Heavyweight, often decorative curtains that hang from a rod and cover openings to block light and provide privacy. They can add a decorative element to a room.

# OTHER MISCELLANEOUS TERMS

## 1. Back Check:

A Back Check is a review process conducted to ensure that all previously identified issues or deficiencies have been resolved. This involves re-evaluating corrected items to confirm they now meet the required standards and specifications, ensuring that no further problems remain.

## 2. COBie:

COBie (Construction Operations Building information exchange) is a standardized format for capturing and managing building information throughout the lifecycle of a project. It provides a structured method for recording data related to building assets, such as equipment and systems, to support facility management and operations.

## 3. Commissionability:

Commissionability refers to the design and construction features that allow a system or component to be effectively tested, adjusted, and balanced during the commissioning process. It ensures that systems are equipped with the necessary access, instrumentation, and controls for proper commissioning.

## 4. Commissioning Agent (CA):

The Commissioning Agent (CA) is a professional responsible for overseeing the commissioning process. This role includes coordinating and managing commissioning activities, ensuring that systems are tested, adjusted, and verified to meet design and performance standards.

## 5. Commissioning Manager (CM):

The Commissioning Manager (CM) oversees the overall commissioning process, focusing on planning, scheduling, and coordinating commissioning activities. This role ensures that resources are properly managed and that the commissioning tasks are completed efficiently and in accordance with project requirements.

## 6. Commissioning Representative (CR):

The Commissioning Representative (CR) is an individual or entity designated to represent a specific party (e.g., the owner or design team) during the commissioning process. The CR ensures that their party's interests and requirements are addressed throughout the commissioning activities.

## 7. Commissioning Team:

The Commissioning Team is a group of professionals involved in various aspects of the commissioning process. The team typically includes the Commissioning Agent (CA), Commissioning Manager (CM), and other specialists or stakeholders who contribute to ensuring that systems meet design and performance standards.

## 8. Verification:

Verification is the process of confirming that systems, components, or processes meet specified requirements and standards. It involves checking that the work has been completed according to the design documents and specifications, ensuring compliance and quality.

## 9. Validation:

Validation is the process of assessing whether a system or component meets its intended purpose and performs effectively under actual operating conditions. This includes:

- First Party Validation: Conducted by the entity that designed or built the system to ensure it meets design intent.
- Second Party Validation: Performed by the project owner or their representative to verify that the system meets the specified requirements.
- Third Party Validation: Conducted by an independent, external party to provide an unbiased assessment of the system's performance and compliance.

## 10. Benchmarking:

Benchmarking refers to comparing a project's

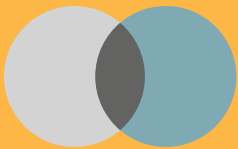
performance, costs, or other metrics against established standards, best practices, or similar projects. This process helps assess relative performance, identify areas for improvement, and apply successful practices to enhance overall project outcomes.

**11. Site Observation Reports (SO):**

Site Observation Reports (SO) are documents prepared during site visits that detail observations on work progress, compliance with specifications, and any issues encountered. These reports provide a record of site conditions and support quality control and communication among project stakeholders.

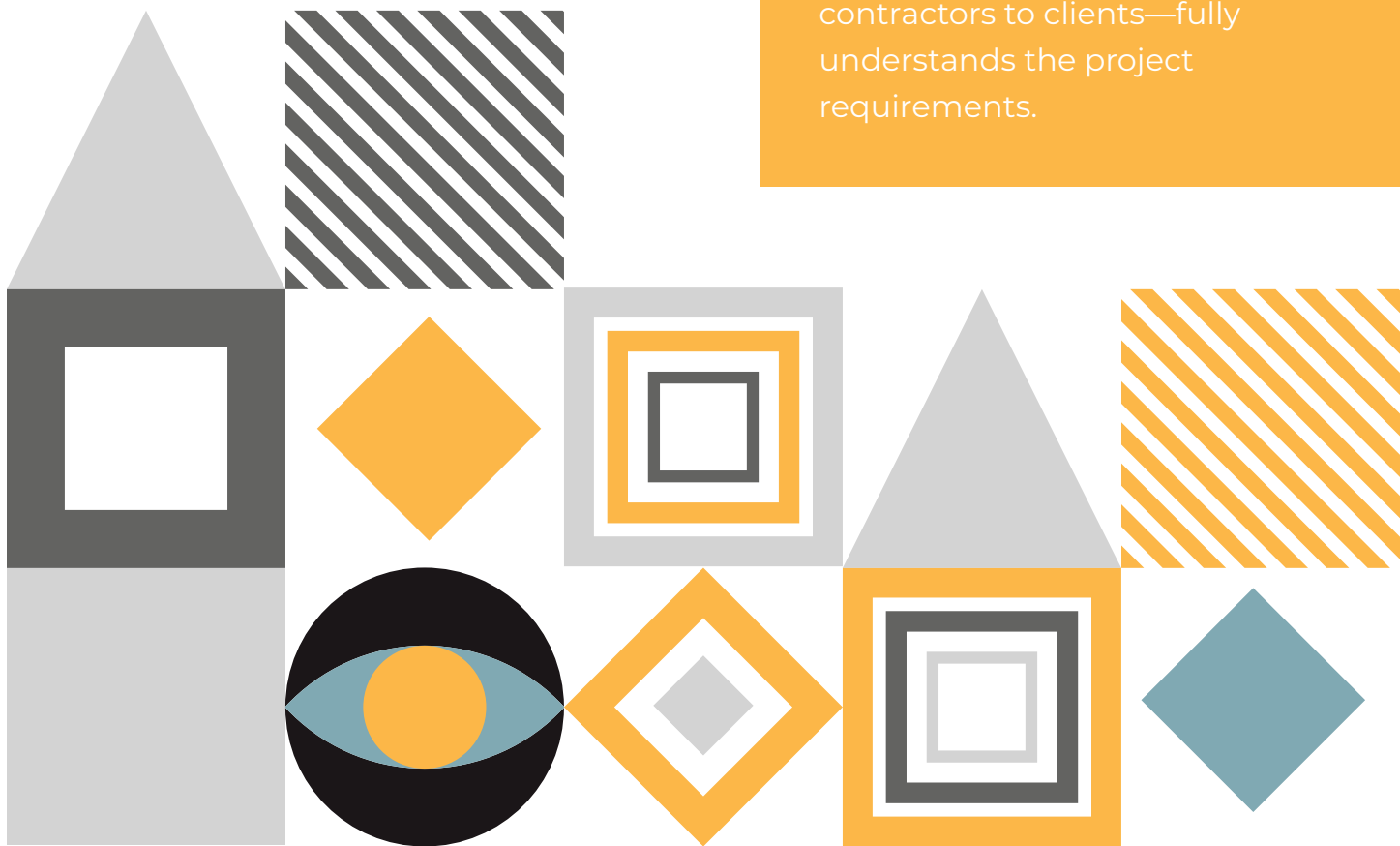
**12. Pre-Functional Checklist (PFC):**

A Pre-Functional Checklist (PFC) is a list of items and conditions that must be verified before a system or component can undergo functional testing. It includes tasks related to installation, setup, and initial inspections to ensure readiness for subsequent testing phases.



# DID YOU KNOW?

Using technical jargon in construction specifications can alienate stakeholders unfamiliar with industry terminology, leading to confusion and errors. Balancing technical language with clear explanations is crucial to ensure that everyone—from contractors to clients—fully understands the project requirements.



# A FINAL WORD

We know that even with all the comprehensive terminologies in this guide, writing specifications can still be tricky. If you're feeling stuck or just need a little extra help, please don't hesitate to contact AORBIS. Our expert and professional specification writers would love to help you create clear, accurate documents that meet your project's needs.

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