

<Project Long Description>
<Project Short Description>
<Project #>

<Company Full Name>
<Address>

QUALITY ASSURANCE and QUALITY CONTROL PLAN

Logos

Quality Control Manger
<QAQC Mgr Name>
Phone:
Fax:
Cell:

Approval Log:

Client Project Director: _____ Date: _____
<Short Company Name> Senior Management: _____ Date: _____
Project Director: _____ Date: _____
Project Manager: _____ Date: _____
QAQC Manager: _____ Date: _____

NOTES FOR MODIFYING AND CUSTOMIZING THIS DOCUMENT TO FIT SPECIFIC REQUIREMENTS:

The first action should be to save copies of all the documents for future use and restoring actions required.

Keep in mind that this document's intent is to provide a general guideline for creating specific QA/QC plans based on each individual organization's QA/QC procedures and requirements.

- Get copies of the Project's Contract Documents including the Drawings and Specifications.
- Consider each Division of Work in the Specifications while at the same time reviewing the related drawings. Don't try to repeat what is in the Contract Documents.
- The Exhibits noted are sample of the types of reports and logs needed, such as;
 - Exhibit 1 - Schedule / Status of Project Special Inspections
 - Exhibit 2 – Quality Control Inspection Report
 - Exhibit 3 – Testing Logs
 - Exhibit 4 – Deficiency Logs
 - Exhibit 5 – Photo Documentation Logs, etc.If possible use Reports, Logs, and procedures that are already developed and in use. It is much better to incorporate than to create.
- Topics listed in this template under each division are general and not project specific. Detail as required to comply with the project requirements.
- Describe specific project requirements in related sections.
- Be sure to remove items that have no relevance to the project, i.e. Membrane Roofing when all roofs are Asphalt Shingles.

Competent parties should review all documents to ensure that all project regulatory and legal requirements are addressed.

Execute a "Search & Replace" (Ctrl-H) to replace terms in <example> with your company's specific names and titles as required.

If your organization has different titles for individuals approving or taking action, execute a "Search & Replace" (Ctrl-H) to replace the titles noted with the correct title in the entire document.

Some of the topics included in this plan template may not be applicable to the project or your organization's operations. READ EACH SECTION, MODIFY OR DELETE AS REQUIRED TO FIT YOUR ORGANIZATION'S REQUIREMENTS

One approach is to develop a plan for a typical large project, save it as a QA/QC Master Plan and develop project specific QA/QC plans for individual projects.

Lessons Learned sessions after project completion should be held to update and improve the QA/QC Master Plan.

After completion of editing and before publishing delete these notes.

Contents

QUALITY CONTROL PLAN SUMMARY	4
KEY PERSONNEL	4
QUALITY CONTROL TESTING	6
QUALITY PROCESSES	7
DIVISION 1 - GENERAL REQUIREMENTS	7
DIVISION 2 – SITE WORK	9
DIVISION 3 – CONCRETE	10
DIVISION 4 – MASONRY	10
DIVISION 5 – METALS	11
DIVISION 6 – WOOD & PLASTICS	11
DIVISION 7 – THERMAL AND MOISTURE PROTECTION	13
DIVISION 8 – DOORS AND WINDOWS	13
DIVISION 9 – FINISHES	14
DIVISION 10 – SPECIALTIES	16
DIVISION 11 – EQUIPMENT	16
DIVISION 12 – FURNISHINGS	17
DIVISION 13 – SPECIAL CONSTRUCTION	17
DIVISION 14 – CONVEYING SYSTEMS	17
DIVISION 15 – MECHANICAL	18
DIVISION 16 – ELECTRICAL	19

QUALITY CONTROL PLAN SUMMARY

The Quality Control Plan (QCP) for the <Project Long Description> <Project Short Description> Project has been developed to ensure that all work will be performed in accordance with the contract requirements. <Short Company Name> (Contractor) will maintain an inspection system which assures compliance with the contract requirements.

This QCP does not endeavor to repeat or summarize contract requirements. It describes the process which Contractor will use to assure compliance with those requirements. The QCP documents the categories of work and references the processes described in Contractor's Quality Assurance and Quality Control Manual (QAQC Manual), the Project Plans, Specifications and Contract Documents. Necessary details dealing with activities that may be overlooked in this plan will be addressed as the need arises and incorporated into the QCP.

Any indication of system deficiencies whether discovered as a result of the Owner's or Contractor's checks and tests, shall be brought to the immediate attention of the Quality Control Manager so the system can be modified to correct these deficiencies.

This Project Quality Plan shall be refined and modified as required to support Overall Project Requirements. Its intent is to implement and coordinate the testing programs by providing pertinent extracts of specifications, by facilitating tests, giving ample notice to testing agencies, and by coordinating quality control activities with all crafts and project management personnel.

KEY PERSONNEL

Contractor's Project Quality Control Manager (QCM) has the overall responsibility for Contractor's QCP program. The Quality Control Manager for this project is:

<QAQC Mgr Name>

Phone:

Email:

Radio:

Cell:

Fax:

Any questions, concerns, clarifications shall be directed to the Quality Control Manager.

A copy of this QCP including exhibits and any future revisions will be issued to the following personnel who shall ensure that all personnel and Subcontractors working under their supervision adhere to the QCP:

FIELD PERSONNEL

Project Superintendent

Phone:
Email:
Radio:
Cell:
Fax:

Craft Foreman
Phone:
Email:
Radio:
Cell:
Fax:

Craft Foreman
Phone:
Email:
Radio:
Cell:
Fax:

Craft Foreman
Phone:
Email:
Radio:
Cell:
Fax:

(Add all copies & contacts as required to support Project Requirements)

PROJECT MANAGEMENT PERSONNEL

Project Director
Phone:
Email:
Radio:
Cell:
Fax:

Senior Project Manager
Phone:
Email:
Radio:
Cell:
Fax:

Procurement / Subcontracts Manager

Phone:
Email:
Radio:
Cell:
Fax:

QUALITY CONTROL TESTING

All materials shall be inspected and tested to ensure conformance with the project requirements before it is released for use. Verification that all items conform to specified requirements and that all personnel performing work are properly qualified and certified as per the Project Specifications is the responsibility of the QCM and the Project Craft Foreman responsible for the specific portion of the project.

Contractor will coordinate with Owner's Testing Agencies to ensure that all tests and special inspections called out in **Section _____ - of the Project Specifications** are completed in a timely fashion.

OCM shall ensure that Contractor's personnel provide Testing Agency proper notice so all required tests can be performed.

Each Subcontractor and Vendor performing any design, shop fabrication or on-site activities shall submit a QAQC Plan that includes;

- Written Quality Control Procedures that can be reviewed for completeness and adequacy relative to Subcontractor's or Vendor's Scope of Work/Services
- A schedule for submitting proper shop drawings for approval prior to start of fabrication. Shop drawings shall indicate physical dimensions and details/profiles of all elements of work. Drawings shall also indicate dimensions, details and specific directions for all cutouts or easements required for equipment, accessories, utilities or service access.
- A detailed Approval Submittal, Fabrication and Delivery/Execution Schedule in sufficient detail to incorporate the Subcontractor's Work into the overall Project Schedule
- Defined Inspection Points, Witness and Hold Points
- Defined submittals for Approval, For Record & For Construction Use
- Actual Locations where Design and Shop Fabrication activities occur
- Listing of sub-suppliers/vendors that require Shop Inspections

The following fabricators and vendors have been identified for shop monitoring and inspection activities:

Examples:

Structural Steel Design / Fabrication

XYZ Steel Fabrication
Contact: _____
Address/Phone/Fax/Email

Concrete Supplier
Best Concrete Supply
Contact: _____
Address/Phone/Fax/Email

Carbon & Stainless Pipe Fabrication
Quality Pipe & Supply
Contact: _____
Address/Phone/Fax/Email

(Add all shops & vendor locations that apply)

QUALITY PROCESSES

Quality Control Processes are effective only if they are clearly defined and conveyed to the managers managing the work and craftsmen performing the work. The QAQC Plan is structured in the same manner as the Project Specifications, by Division.

DIVISION 1 - GENERAL REQUIREMENTS

General Site Conditions:

QCM shall verify that all BMP Reports are properly maintained and documented.

The QCM shall monitor the overall site conditions to ensure that existing stone bases, drainage systems, erosion controls, and other activities related to site maintenance are completed on a regular basis. Any deficiencies discovered shall be addressed immediately by Contractor's on-site personnel.

QCM shall verify that procedures & guidelines are in place and that all personnel are properly oriented with project requirements related to:

- Limiting dust, dirt and noise dispersal to the lowest practical level
- Complying with governing regulations regarding environmental hazards and general dust control
- Notifying their supervisors and safety personnel of any possible exposure to harmful dusts, vapors, flammable or explosive materials, and other potential hazards
- Patch to match existing adjacent materials. When identical patching materials are not available review alternatives Project Management
-
-
-

Any open or pending Quality Control issues will be presented to Senior Project Management at the Monthly Progress Meetings. The QCM shall maintain logs of open quality issues and present these logs to Senior Project Management prior to the monthly progress meeting.

The following logs and status registers of QAQC Activities are maintained and issued as required to support overall project requirements:

- Exhibit 1 – Schedule / Status of Project Special Inspections
- Exhibit 2 – Quality Control Inspection Report
- Exhibit 3 – Testing Logs
- Exhibit 4 – Deficiency Logs
- Exhibit 5 – Photo Documentation Logs
-
-
-

The QCM shall make daily surveys of the project site to ensure that construction aids, barriers, and enclosures are operational and functioning properly.

Commissioning & Project Closeout:

The QCM shall monitor the systematic process of verifying and documenting that all systems interact in accordance with the design documentation and intent, as well as with the owner's operational needs.

This includes but is not limited to:

- Ensuring that Owner's operational personnel are given proper training on all systems included in the project.
- Ensuring that all Construction Tests required within the contract documents are properly documented.
- Assembling documentation that the Owner's Commissioning Authority has reviewed all systems included in the project.
- Compiling and issuing a Commissioning Report at Substantial Completion that includes the following:
 - Systems Acceptance and Test Reports including corrective actions taken
 - Design Intent Certifications
 - Operational Personnel Training Logs and Certifications
 - Functional Performance Tests and Certifications
 - Submittal Schedule and Log of any remaining Closeout Data such as Operations and Maintenance manuals, As Built Drawings, Warranties, etc.
 - Listing and locations of operations and maintenance tools and spare components supplied.

DIVISION 2 – SITE WORK

QCM shall review planned Demolition Activities to ensure that the following items are addressed:

- Vermin Eradication
- Demolition Permits Issued
- Utility Disconnects completed for;
 - Fire Alarm - Coordinate with Owner.
 - Telephone, Communications and Electrical Service - Coordinate with Owner and Utility Provider
 - Steam - Coordinate with Owner and Utility Provider
 - Fire Protection, Chilled Water and Domestic Water service shall be capped at the service valve if possible, if not coordinate with Owner and Utility Provider
 - Well Abandonment: Coordinate with Owner and applicable Environmental Control Agency
 - Storm and Sanitary Sewer: The sanitary sewer shall be capped at a location as specified on the drawings and coordinated with Owner.
 - Natural Gas - Gas service shall be cut and capped at a location specified by the Gas Company.
 - All Meters shall be returned to the respective utility companies.
 - Owner retained items specified shall be removed and returned to the Owner.
- QCM shall review Pre-Demolition Processes such as:
 - Vibration monitoring to include a survey of adjacent buildings for equipment that is vibration-sensitive.
 - Condition surveys of adjacent buildings/tunnels
 - Explosives Handling and Blasting
 - Selective Clearing and Tree Removal Procedures
 - Protection of remaining Trees and Plants
 - Additional protection for adjacent fresh air intakes
 - Traffic routing and staging for dump trucks
 - Dust control/water hydrants/sufficient water pressure
 - Protection of adjacent building structures
 - Methods of detaching demolished building from remaining building
 - Possibility of Hazardous Materials and the procedure in place for identification, handling and removal of all hazardous materials found.
 - Demolition Record Drawings required.
 - Maintenance of Services and Access Plan
- Excavating, Backfilling and Compacting Processes shall be reviewed and testing shall be coordinated with the Owner's Testing Agency during the following activities:
 - Excavation of unsuitable soils
 - De-watering as required to dry excavations
 - Erosion controls

- Testing of Backfill Materials
- Proper lift placement and compaction of Backfilled Materials
- Special provisions for tunnels under roads and walkways
- Paving and Surfacing materials and application methods shall be reviewed and testing shall be coordinated with the Owner's Testing Agency during the following activities:
 - Concrete walks, drives and curbs
 - Unit Pavers
 - Bituminous Paving
 - Exterior Drainage Structures
 - Sub-drainage Systems
 - Landscaping & Irrigation Systems
 - Fencing & Gates

DIVISION 3 – CONCRETE

The QCM shall verify that:

- Mix Designs have been properly submitted and approved
- Specified Formwork and Concrete Mock-ups are completed and approved
- Reinforcing steel quantity, size, location, and support conforms with project requirements
- Processes are in place to ensure that all pours are properly scheduled and coordinated with all project disciplines and testing agencies
- Curing and Sealing Processes comply with specifications.
- All inspections and tests noted in the specifications and Special Inspections Schedule (Exhibit 1) are completed and approved as specified
- Waterproofing and Termite Treatment comply with specifications
- Finishers are aware of the finish tolerances specified
- Post-Tensioned Tendon test logs are maintained as specified
- Proper calibration and certification for all Stressing and Testing Equipment
- Hot & Cold Weather processes are followed when required.
- Written Welding Procedures and Welder Certifications are maintained for each type of welded joint specified.
- All bolted connections are tensioned and tested as per specifications.
- Ensure that all necessary control joints, expansion joints, embeds, block-outs and pipe sleeves noted on the plans and in the specifications for all crafts are installed prior to concrete placement.

DIVISION 4 – MASONRY

The QCM shall verify that:

- Mortar Designs and Ingredients have been properly submitted and approved

- Specified Masonry Mock-ups are completed and approved for use as a standard during installation.
- Processes are in place to ensure installation of masonry is properly scheduled and coordinated with all project disciplines and testing agencies
- All inspections and tests noted in the specifications and Special Inspections Schedule (Exhibit 1) are completed and approved as specified
- Construction Quality Control Testing processes are in place for testing and verifying compliance with the specifications and applicable Industry Standards
- Curing and Sealing Processes comply with specifications.
- Waterproofing and Termite Treatment comply with specifications
- Masons are aware of the finish profiles and tolerances specified
- Ensure that all necessary control joints, expansion joints, embeds, block-outs and pipe sleeves noted on the plans and in the specifications for all crafts are installed prior to concrete placement.

DIVISION 5 – METALS

The QCM shall verify that:

- The design, materials, fabrication, finishing, connections and erection of metal components shall comply with applicable requirements of specific governing bodies which include but are not limited to:
 - American Institute of Steel Construction
 - American Welding Society
 - Steel Joist Institute
 - Steel Structures Painting Council
 - Steel Deck Institute
 - American Iron and Steel Institute (AISI)
 - Stainless Steel Institute,
 - Other applicable referenced standards.
- Shop-Fabrication Inspections are scheduled for inspections and tests noted in the specifications and Special Inspections Schedule (Exhibit 1)
- All shop priming, galvanizing, and field painting of structural steel results in the coating thicknesses specified.
- Fabricators of Steel Joists, Metal Decking and Roof Decking are properly certified and provide an acceptable level of Shop Quality Control

DIVISION 6 – WOOD & PLASTICS

The QCM shall verify that:

- The type of wood or plastic to be used has been approved by the Architect and Owner.

- Ensure that proper shop drawings are submitted and approved prior to installing. Shop drawings shall indicate physical dimensions and details/profiles of all elements of work, including location of different grades, species and/or finishes.
- Any plywood within the roof system has the proper C-D Exposure level and has the proper APA-rating and meets the specified Performance Standards.
- Lumber used for curbs, cants or blocking in connection with roofs is pressure treated within the specified standard as established by the American Wood Preservers Association (AWPA).
- Ensure that adequate backing to properly support wall-hung items is installed.
- Glued laminated structural units are designed, fabricated and erected in compliance with the drawings and specifications.
- Ensure that adhesives specified are properly applied in accordance with the manufacturer's recommendations.
- Lumber for units exposed to the exterior or high humidity are properly treated with preservatives
- Metal connectors, including bolts and fasteners are hot-dip galvanized when specified.
- Finish Carpentry
 - Ensure that Industry Standards specified are conveyed to the craftsmen installing the carpentry systems.
 - Ensure that all exterior materials for wood siding, trim, fencing and other exterior wood items are manufactured from wood that is naturally resistant to decay or treated with a waterborne preservative. Nails and other hardware for fastening shall be hot-dip galvanized.
 - Ensure that all interior systems for standing and running trim, door frames, baseboards, handrails, paneling and other interior trim shall be hardwood.
 - Any remodeling or additions to existing interiors match existing wood species.
 - Architectural woodwork materials, fabrication and installation shall be detailed and specified in compliance with the most recent edition of the AWI "Quality Standards," Builders' Hardware Manufacturers Association guidelines or other standards specified.
 - Ensure that all Manufacturers and suppliers are properly certified.
 - Casework shall be hardwood. Match existing predominant wood species for remodeling and new work in existing facilities.
- Plastic Laminate Construction
 - Review prohibited materials and use of plastics to ensure compliance.
 - Plastic laminate construction shall be used for approved applications only.
 - All High Pressure Decorative Laminates (HPDL) work shall follow the AWI "Quality Standards,"
 - HPDL casework shall be of fully balanced construction with face grade laminate in the thicknesses specified.

DIVISION 7 – THERMAL AND MOISTURE PROTECTION

The QCM shall verify that:

- Waterproofing
 - The types of materials used for waterproofing are in accordance with the specifications.
 - The system selected has been in use for the minimum time specified at other locations and has successfully performed.
 - The system is compatible with any existing waterproofing systems that it ties in to.
 - Verification that the waterproofing manufacturer accepts the design and installation of its material so that the warranty will remain valid.
 - Verification that the installer is properly certified by the manufacturer to keep the warranty valid and enforceable.
 - Ensure that procedures are in place to protect existing structures during waterproofing activities.
 - Ensure that waterproofing systems are protected during subsequent placement of overburden materials or back-filling.
- Ensure that all Thermal Insulation and Sprayed Fireproofing are from an approved manufacturer and installed by properly certified craftsmen in accordance with the manufacturer's recommendations.
- Ensure that all concealed insulation and fireproofing is approved prior to covering.
- Ensure that all Firestopping is used where specified and complies with applicable codes and specifications.
- Review Asphalt Shingle Systems
 - Check to ensure that all systems are installed as designed with the proper slope.
 - Check all flashing, corners, edges, gutters, valleys, dormers, ridges and penetrations on roofs for proper installation.
 - Ensure that inspection points are held for inspections required to maintain roofer and manufacturer warranties.
 - Ensure that all Joint Sealers used for doors and windows are properly installed.

DIVISION 8 – DOORS AND WINDOWS

The QCM shall verify that:

- Steel Doors and Frames
 - Check all Steel Frame Construction for proper fire & storm ratings, types, profiles, gauge of construction, etc.
 - Check quality of miters at corners, rabbet, soffit, and stop joints.
 - Check welds, mortises, reinforcements and hinges.
 - Check that frames are installed and mortared properly in masonry walls

- Check Door Construction for proper types, profiles, gage of construction, etc.
- Check all glass or louver openings for proper stile and rail reinforcement.
- Check hinge welds, mortises, reinforcements.
- Check glass and louver installation for proper code compliance.
- Ensure that all metal materials are cleaned and properly primed prior to painting.
- Check to ensure that all doors and frames are thoroughly cleaned of rust, dirt, oil and grease.
- Wood and Plastic Doors
 - Check all doors for proper fire & storm ratings, types, profiles, materials of construction, etc.
 - Check wood doors for finish, proper edge banding, veneer quality and adhesion.
 - Check all glass or louver openings for proper stile and rail reinforcement.
 - Check hinge welds, mortises, reinforcements.
 - Check glass and louver installation for proper code compliance.
 - Ensure that all doors are properly labeled and that labels are not painted over.
- Access Doors, Aluminum Doors and Storefronts
 - Check all items for proper fire & storm ratings, types, profiles, materials of construction, etc.
 - Ensure that all doors are properly labeled and that locks operate properly.
- Windows
 - Check all window systems for proper fire & storm ratings, types, profiles, materials of construction, etc.
 - Check all glass or louver openings for proper stile and rail reinforcement.
 - Check window frame and glass installation for proper code compliance.
 - Check all windows, screens and storm sashes for proper operation after installation.
- Check to ensure that all hardware has been installed properly and operates as designed.
- Ensure that procedures are in place to properly track the distribution of keys and access codes

DIVISION 9 – FINISHES

The QCM shall verify that:

- Lath and Plaster
 - Check to ensure that all systems are installed using specified lath and plaster materials, mixes, application and finishing methods.
 - Check all control joint spacing, flashing, corners, and edges for proper installation.

- Ensure that all Joint Sealers used for doors, windows, and transitions to other finishes are properly installed.
- Gypsum Drywall Systems
 - Check the following aspects of each drywall system to be installed to assure compliance:
 - Types, spacing, erection and fire rating of metal drywall stud systems
 - Furring, suspension, insulation and sound attenuation systems
 - Types and application of gypsum board drywall materials and joint finishing systems
 - Types and application of drywall accessories such as casing bead, corner bead, control joints and reinforcement
 - Ensure that all Joint Sealers used for doors, windows, and transitions to other finishes are properly installed.
- Ceramic Tile
 - Check the following aspects of the ceramic tile to be installed to assure compliance:
 - Type, Color, Pattern, Non-Slip Finishes, and Layout
 - Setting bed materials, reinforcement, and application method
 - Waterproofing membranes, Control and Expansion Joints
 - Grouting methods, Curing time, Cleaning methods, etc.
 - Ensure that all Joint Sealers used for doors, windows, and transitions to other finishes are properly installed.
- Acoustical Tile Ceilings
 - Check the following aspects of acoustical tile ceiling systems to be installed to assure compliance:
 - Type, Color, Pattern, Finish, and Layout
 - Suspension Grid, HVAC and Lighting wire support requirements
 - Humidity control requirements for storage and post installation
 - Ensure that all transitions to other finishes are properly installed.
- Wood Flooring
 - Check the following aspects of wood flooring systems to be installed to assure compliance:
 - Type, Color, Pattern, Finish, and Layout
 - Subfloor requirements
 - Expansion joint layouts
 - Humidity control requirements for storage and post installation
 - Ensure that all transitions to other finishes are properly installed.
- Resilient Flooring and Base
 - Check the following aspects of resilient flooring systems to be installed to assure compliance:
 - Type, Base Color, Pattern, Finish, and Layout
 - Cove base profiles
 - Subfloor requirements
 - Expansion joint layouts

- Humidity control requirements for storage and post installation
- Ensure that all transitions to other finishes are properly installed.
- Carpet
 - Check the following aspects of carpet systems to be installed to assure compliance:
 - Type, Grade, Count, Pad Type, Pattern, and Layout
 - Stain Guard Requirements
 - Subfloor requirements
 - Ensure that all transitions to other finishes are properly installed.
- Painting
 - Check to make sure that the latest Finish Schedules and Revisions are transmitted to the painters. Finish Schedules should clearly convey the following:
 - Selections for all interior and exterior finishes, including all factory pre-finished equipment/surfaces
 - Manufacturer, Paint Grade, Paint Type and Custom Colors
 - Layouts of special designs and finishes
 - Verify that all surfaces to be painted are properly cleaned and primed.
 - Check all exterior ferrous metals, including piping, ducts, stacks, fans, and other exterior mechanical and electrical items that are not furnished with a complete factory finish are painted or properly treated to prevent rust.

DIVISION 10 – SPECIALTIES

The QCM shall verify that all specialty items required comply with the specifications and drawings, these include but are not limited to items such as:

- Markerboards and Chalkboards
- Tackboards and Tackboard Strips
- Compartments and Cubicles
- Bathroom Partitions and Doors
- Toilet and Bathroom Accessories
- Interior and Exterior Signage
- Mirrors

DIVISION 11 – EQUIPMENT

The QCM shall verify that all equipment required and not included in other sections of this QAQC Plan complies with the specifications and drawings, these include but are not limited to equipment such as:

- Chemical Storage Units

- Laboratory Equipment and Fume Hoods
- Commercial Kitchen Equipment
- Walk-in Environmental Chambers (warm and cold)
- Laundry Equipment
- Theater and Stage Equipment
- Athletic Equipment
- Darkroom Equipment
- Medical and Dental Equipment
- Library Equipment

DIVISION 12 – FURNISHINGS

The QCM shall verify that all furnishings required comply with the specifications and drawings, these include but are not limited to items such as:

- Window Treatments and Fabrics
- Furniture, Rugs, Seating and similar items
- Laboratory Casework
- Flammable Liquid and Corrosive Chemical Storage Cabinets

DIVISION 13 – SPECIAL CONSTRUCTION

The QCM shall verify that all special construction items required comply with the specifications and drawings, these include but are not limited to items such as:

- Audio-metric rooms
- Clean rooms
- Isolation rooms
- Biohazard areas, Observatories, Radioisotope areas
- Animal Facilities
- Environmental Structures
- Shielded rooms, Vaults
- Pools, Greenhouses
- Pre-engineered Buildings and similar specially designed facilities

DIVISION 14 – CONVEYING SYSTEMS

The QCM shall verify that all conveying systems required comply with the specifications and drawings, these include but are not limited to items such as:

- Elevators

- Check ratings for to ensure safe and convenient transport of passengers and material.
- Check for acceptability of proprietary control equipment that requires adjustment or troubleshooting with proprietary diagnostic instruments.
- Check for proper certifications of the installation contractor.
- Check Car Performance Testing to ensure proper operation.
- Check Noise Level Ratings

DIVISION 15 – MECHANICAL

The QCM shall verify that:

- Check to ensure that procedures and processes are in place to assure that the design intent of the drawings and specifications are met. Special attention shall be paid to the following:
 - Coordination with Owner, Engineers, Architects, and other Crafts to ensure that the end user’s needs are met.
 - All equipment and systems requiring service and maintenance are accessible
- Check all piping, ducts, radiation, grills, diffusers and other equipment that is exposed in finished spaces to ensure finishes comply with Division 9 - Finishes.
- Ensure that all Operating and Maintenance Manuals are published and proper training is provided to the end users.
- Verify that all systems required comply with the specifications and drawings, these include but are not limited to items such as:
 - Chillers and Chilled Water Systems
 - Heating Gas Supply
 - Steam Supply
 - Cooling Towers
 - Portable Water Systems
 - HVAC Systems including Testing, Adjusting & Balancing
 - Sanitary Sewer Systems
 - Storm Drainage Systems
 - Utility Heating & Piping Systems
 - Compressed Air Piping Systems
 - Laboratory and Medical Air Compressors
 - Medical Gas Piping
 - Laboratory Gas Piping
 - Chemical Waste Drainage Systems
 - Plumbing Equipment
 - Plumbing Fixtures
 - Chillers
 - Refrigeration
 - Water Treatment Systems

- Thermal Energy Distribution & Transfer Systems

DIVISION 16 – ELECTRICAL

The QCM shall verify that:

- Check to ensure that procedures and processes are in place to assure that the design intent of the drawings and specifications are met. Special attention shall be paid to the following:
 - Coordination with Owner, Engineers, Architects, and other Crafts to ensure that the end user's needs are met.
 - All equipment and systems requiring service and maintenance are accessible
- Ensure that all Operating and Maintenance Manuals are published and proper training is provided to the end users.
- Verify that all systems testing required comply with the specifications and drawings, these include but are not limited to items such as:
 - Primary cable and equipment
 - Engine-generators and emergency power system
 - Auditorium sound systems
 - Television antenna systems
 - Fire alarm systems
 - Lightning protection systems
 - Transformers
 - Ground fault protective systems
 - Secondary service conductors & bus duct
 - Security systems
 - Satellite systems
- Check to ensure that all switching, protective devices, and metering on main distribution switchboards are properly identified.
- Verify that all systems required comply with the specifications and drawings, these include but are not limited to items such as:
 - Electrical Utility Supply Systems
 - Grounding and Bonding
 - Wires and Cables
 - Raceways
 - Boxes
 - Wiring Devices
 - Motors
 - Generator Assemblies
 - Emergency Light and Power Systems
 - Variable Frequency Controllers (VFD)
 - Static Uninterruptible Power Supplies (UPS)
 - Transient Voltage Surge Suppression

- Metering Systems
- Transformers
- Controllers
- Safety Switches and Circuit Breakers
- Panelboards and Cabinets
- Distribution Switchboards
- Interior Lighting Systems
- Exterior Lighting Systems
- Fire Alarm Systems
- Telecommunications Systems
- Intercommunication Systems
- Public Address Systems
- Television / Radio Systems
- Controls and Instrumentation Systems

DO NOT COPY