

Construction – Objective and Table of Contents

Objective

The Construction Process objective is to efficiently and safely mobilize the project, demonstrating the effect of early planning efficiencies benefiting the safe construction of the project and ending the project with complete systems turnovers with no exceptions.

Key Steps

- Closeout and demobilization
- Construction execution
- Safe construction
- Site mobilization

Key Deliverables

- Complete construction on schedule
- Complete construction within budget
- Construction activities plan and execution
- Ensure constructed facility meets design specifications
- Meet quality requirements
- Mobilization plan and execution
- Systematic and efficient system completion, startup, and commissioning effort

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Checklists

- Above Ground Piping Inspection Checklist
- Acoustical Ceiling Inspection Checklist Construction
- Acoustical Treatment Checklist Construction
- Apartment Punch Checklist
- Architectural Woodwork Checklist Construction
- Asphalt Paving Checklist Construction
- Asphalt Testing Laboratory Evaluation Record Checklist Construction
- Bituminous Concrete Paving Inspection Checklist Construction
- Blower Installation Checklist
- Blowers and Fans Installation Checklist
- Boiler Shop Inspection Checklist
- Boilers, Columns and Vessels Installation Checklist
- Building Masonry Checklist
- Building-Wide Lighting Control System Construction Checklist
- Cabinets and Fixtures Checklist
- Cable Pulling Inspection Checklist
- Cable Tray Installation Checklist
- Caissons Drilled Cast In Place Checklist
- Carpeting Checklist
- Cast In Place Concrete Checklist
- Civil Insulation Checklist
- Compressor Installation Checklist
- Concrete Batch Plant Evaluation Checklist
- Concrete Formwork Checklist
- Concrete Paving Checklist
- Concrete Reinforcement Checklist
- Conduit and Cable Tray Checklist
- Construction Equipment Monthly Checklist
- Control and Relay Panel Checklist
- Control Scheme Checklist
- Daylight Dimming System Construction Checklist
- Domestic Water Heater Construction Checklist
- Ducting Air Delivery Construction Checklist
- Earthwork Checklist
- Electrical Checklist
- Electrical Heat Tracing Inspection Checklist
- Electrical Manhole Inspection Checklist
- Epoxy Grout Checklist
- Equipment Installation Checklist
- Fan Coil Pre-Functional Checklist
- Fiber Optic Cable Installation Checklist
- Field Fabrication and Erection (Pressure Vessels) Checklist
- Filter Installation Checklist
- Fire Protection Installation Checklist
- Fired Heaters Installation Checklist
- Fireproofing Inspection Checklist
- Fireproofing Inspection Pre Construction Checklist
- Fireproofing Installation Checklist
- Fit-Up and Welding Checklist
- Furnace Mechanical Checklist
- Gas Detection Installation Checklist
- Gear Set Installation Checklist
- Grounding Installation Checklist
- Grouting Checklist
- Gypsum Drywall Checklist
- High Voltage Motors and Starters Checklist
- HVAC Inspection Checklist
- Instrument Field Loop Checklist
- Instrument Transmission Systems Checklist
- Instrument, Receptacle, Instrument, Distribution Panel Checklist
- Instrumentation Checklist
- Instrumentation Inspection Checklist
- Insulation Installation Checklist
- Irrigation System Controls Construction Checklist
- Lath and Plaster Checklist
- Lighting and HVAC Occupancy Sensors Construction Checklist
- Low Voltage Feeder Checklist
- Masonry Checklist
- MCC Installation Checklist
- Membrane Roofing Checklist
- Metal Doors and Frames Checklist
- Metal Roofing, Siding, Deck and Flashing Inspection Checklist
- Mixer Installation Checklist
- Motor Control Center Checklist
- Motors Checklist
- Non-Shrink Cementitious Grout Checklist
- Ongoing Project Operations Checklist
- Paint and Painted Surface Checklist
- Paint Installation Checklist
- Painting Checklist for Equipment and Piping
- Pile Foundations Checklist
- Pipe Field Installation Checklist

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- Piping Checklist
- Plumbing Systems and Components Checklist
- Post Weld Heat Treatment Checklist
- Power Panel Checklist
- Pre Fabricated Structural Wood Checklist
- Pre-Rock Punch Checklist
- Priming and Tack Coats Checklist
- Process Analyzer Field Installation Checklist
- Process Analyzer Shelter Field Installation Checklist
- Rack Panel Checkout Checklist
- Reciprocating Pump Installation Checklist
- Refractory Installation Checklist
- Resilient Flooring Checklist
- Road Construction Checklist
- Roofing Inspection Checklist
- Rotating Equipment Pre Start Checklist
- Rough Carpentry Checklist
- Shingles and Roofing Checklist
- Skid Mounted Equipment Installation Checklist
- Soil Analysis Checklist
- Soil Inspection Checklist
- Soils Checklist
- Special Concrete Construction Methods Checklist
- Stack Installation Checklist
- Structural Concrete Activities Checklist
- Structural Steel Fabrication Checklist
- Structural Steel Field Installation Checklist
- Structural Steel Final Acceptance Checklist
- Subgrades and Bases Checklist
- Switch Gear Checklist
- Switch Gear Installation (Above 600 Volts) Checklist
- Terrazzo Checklist
- Thermal Insulation Inspection Checklist
- Tile Checklist
- Turbine Installation Checklist
- Underground Conduit (Ductbank) Inspection Checklist
- UPS and Battery Systems Checklist
- Visual Welding Checklist
- Weld Preparation for NDE Testing Checklist
- Window Walls and Curtain Walls Checklist
- Wood Flooring Checklist

Education and Training

- Construction Case Study
- Construction Exam Answers Training
- Construction Exam Training
- Construction Industry Digest Guide

- Guided Bend Roller Jig Construction
- Turn of the Nut Application
- Underground Construction - Tunneling Guide

Forms

- 460V 3Ph Motor Circuits Inspection & Test Plan
- Alignment Certification Record
- Assured Equipment Ground Conductor Program Log
- Auger Cast Piling Inspection & Test Plan
- BAS Point to Point Verification Dynamic Testing Form
- Belt Drive Alignment Record
- Blowers Inspection & Test Plan
- Cable AC Test Sheet
- Cable DC Test Sheet
- Cable Reel Log
- Cable Test Record (5-15Kv) Form
- Cable Test Record (600 Volt) Form
- Cable Tray Inspection & Test Plan
- Caisson Inspection Record
- Calibration List Master
- Calibration Record
- Cement Batch Plant Evaluation Record
- Cementitious Grout Inspection Record
- Centrifugal Compressor Inspection Record
- Centrifugal Pump Installation Record
- Coating Inspection Record
- Compressors Inspection & Test Plan
- Concrete Compressive Strength Record
- Concrete Inspection Record
- Concrete Placement Log
- Concrete Pour Approval
- Concrete Pour Report
- Concrete Release Form
- Concrete Testing Laboratory Record
- Concrete Testing Log
- Conduit Inspection & Test Plan
- Construction Weekly Report
- Control of Batching and Mixing Inspection & Test Plan
- Control Valve Calibration Report
- Corrective Action Report
- Corrective Action Report Log
- Daily Auger Cast Pile Installation Record
- Daily Pipe Weld Quantity Report
- Daily Structural Weld Inspection Record
- DC High Potential Test Form
- DC High Potential Test Medium Voltage Cable Form
- DCS Loop Checkout Sheet - Digital Form
- DCS Motor Checkout Sheet

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- Demolition Release Permit
- Drilled Pile Installation Form
- Drilled Piling Inspection & Test Plan
- Drilled Pipe Daily Record
- Dry Type Transformer Inspection and Test Report
- Earthwork & Backfill Inspection & Test Plan
- Electrical Heat Trace Inspection & Test Plan
- Epoxy Grout Inspection & Test Plan
- Equipment Inspection Test Plan Summary Form
- Equipment Instrument Calibration Log
- Equipment Rental Control Record
- Equipment Rental Report
- Equipment Repair Report
- Equipment Start-up Witness Record
- Exchangers Inspection & Test Plan
- Fan Installation Record
- Fans Inspection & Test Plan
- Fiber Optic Inspection & Test Plan
- Field Change Request Form
- Field Density Installation Record
- Field Instruction
- Field Instruction Log
- Field Observation Record
- Filters Inspection & Test Plan
- Final Closing Authorization Record
- Final Loop Check Form
- Fireproofing Inspection & Test Plan
- Foundation Settlement Form
- Foundation Settlement Inspection & Test Plan
- Gear Set Inspection & Test Plan
- General Building Information & Contractor List
- Grading and Paving Punchlist Form
- Ground Cable Test Record
- Ground Continuity Construction Form
- Ground Electrode Test Record
- Ground Rod Inspection Form
- Grounding and Earthing Resistance Readings Record
- Hi-Pot Test (5-15kV) Record
- Hot Tap Inspection & Test Plan
- Hygienic Orbital Welder Log
- Hygienic Welder Qualification Report
- Illumination Level Measurements Form
- Instrument Calibration Certification Record
- Instrument Calibration Data Sheet
- Instrument Calibration Log
- Instrument Wiring Inspection & Test Plan
- Instrumentation Inspection & Test Plan
- Insulation Inspection & Test Plan
- Insulation Resistance Test Record (Power Cable)
- Lighting and Receptacles Systems Test Form
- Lighting Inspection & Test Plan
- Lighting Systems Installation Form
- Low, Medium, Hi Cable Inspection & Test Plan
- MCC Inspection & Test Plan
- MCC or BUS Bar Torque Sheet
- Mechanical Completion Certificate Form
- Megger Test Record (600 Volts & Below)
- Metering Pump Inspection & Test Plan
- Metering Pump Installation Record
- Mixers Inspection & Test Plan
- Motor and Controls Test Sheet
- Motor Checkout Sheet Form
- Motor Circuits Form
- Motor DC Megger Test Sheet
- Motor Test Record
- NDE Examination Release Document Pre Hydro
- NDE Reader Sheet
- NDE Request and Record
- NDE Subcontractor Evaluation Record
- Non Destructive Testing Report
- Non-Shrink Grout Inspection & Test Plan
- Orifice Plate Measurement Form
- Paint Application Form
- Panel and BUS Bar Test Sheet
- Pile Driving Inspection Record
- Pile Foundation Hammer Record
- Pipe Line Flushing Record
- Pipeline Test Report
- Piping Inspection & Test Plan
- Piping Turnover Package Index Form
- Post Heat Stress Request Form
- Post Hydro Punchlist Form
- Post Weld Heat Treatment Log
- Power Distribution Equipment Test Sheet 13.8 - 15 kV
- Pre Concrete Inspection List
- Pre Hydro Punchlist Form
- Pressure Relief and Safety Valve Inspection Report
- Pressure Test Report
- Pressure Vessel Inspection & Test Plan
- Process Analyzer Field Installation
- Rack - Panel Checkout Sheet
- Raised Flooring Inspection Record
- Reciprocating Compressor Inspection & Test Plan
- Reciprocating Compressor Inspection Record
- Reciprocating Compressor Installation Form
- Refractory Inspection & Test Plan
- Release to Heat Trace and Insulate Document
- Release to Hydro Test Document

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- Release to Paint Document
- Release to Punch Document
- Request for Information (RFI) Form
- Request for Information (RFI) Log
- Request for Information (RFI) Routing Sheet
- Rotating Equipment Alignment Record
- Rotating Equipment Inspection
- Sensor & Actuator Calibration Documentation Form
- Site-Specific Steel Erection Plan
- Skid Mounted Equipment Inspection & Test Plan
- Soils Testing Laboratory Evaluation Record
- Structural Bolting Test Report
- Structural Concrete Inspection & Test Plan
- Structural Steel Alignment Columns Form
- Structural Steel Inspection
- Structural Steel Inspection & Test Plan
- Switch Gear Inspection & Test Plan
- Tank Elevation Tolerance Record
- Tank Inspection & Test Plan
- Torque Wrench Calibration Log
- Transformer Test Sheet
- Traveler Construction
- Underground Pipe Inspection Record
- UPS & Batteries Inspection & Test Plan
- Vertical ANSI Pump Installation Record
- Vertical ANSI Pumps - Inspection & Test Plan
- Vertical Can Pump Inspection & Test Plan
- Weekly Meeting Notes Form
- Weld History Form
- Weld Repair Register
- Welder Individual Performance Record
- Welder Operator Performance Qualification Log
- Welder Performance Qualification Test Record
- Welder Qualification Maintenance Record
- Welder Random Radiography Control Log
- Welding Daily Report
- Welding Materials Requisition & Issue Ticket Form
- Closed-End Concrete Filled Pipe Piles
- Concrete and Grout
- Concrete Construction
- Concrete Repair
- Concrete Sampling and Testing
- Conduit
- Craftworkers Personal Tool Inventory Procedure
- Demolition Procedure
- Drilled Piling
- Drywall
- Earthwork and Backfill
- Electrical Heat Tracing Installation
- Electrical
- Equipment Rental Requirements and Forecasts Procedure
- Exchanger Installation Procedure
- Fiber Optic
- Field Fab and Erect Columns Towers, Pressure Vessels
- Field Fab and Erect Fired Heaters, Boilers and Incinerators
- Field Fabrication and Installation
- Field Offices and Temporary Buildings
- Filter Installation
- Fireproofing
- Float Platforms
- Foundation Settlement
- FRP Piping
- Furnace Installation
- Galvanizing
- Grading and Paving
- Grounding
- Hot Tap Procedure
- Hydrostatic Testing Procedure
- Inspection Test Plans
- Instrument Installation
- Instrument Wiring Installation
- Insulation
- Lighting
- Low Voltage Metal Enclosed Switchgear
- Low, Medium, and High Voltage Shielded and Non-Shielded
- Manifest for Contractor Owned Rental Equipment Procedure
- Manifest for Contractor Supply of Tools & Consumables Procedure
- Masonry
- MCC Installation
- Mechanical Equipment
- Painting

Policies and Procedures

- 460V 3PH Motor Circuits
- Auger-Cast Piling Procedure
- Batching, Mixing, and Delivery of Concrete
- Bolt Torquing
- Bulletin Boards
- Cable Tray
- Calibration of Test Equipment
- Carpentry and Finishes
- Cathodic Protection Installation

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- Pile Driving Equipment and Cofferdams
- Piping Installation
- Piping Pressure Testing
- Plumbing
- Pneumatic Testing
- Power Transformer Installation
- Power Transmission and Distribution
- Pressure Vessels
- Project Diary
- Radiographic and Ultrasonic Inspections
- Receptacles
- Refractory
- Reinforcing Steel (Rebar)
- Road Construction
- Rotating and Mechanical Equipment
- Service Testing Procedure
- Sitework
- Skid Mounted Equipment
- Stack Installation
- Structural Concrete Placement
- Structural Steel Materials
- Structural Steel Welding
- Structural Steel
- Switch Gear Installation Procedure
- Tank Erection
- Tank Installation
- Tank Repair
- Thermal and Moisture Protection
- Tube Rolling and Welding
- UPS System and Batteries
- Weld Preparation for Radiographic and Ultrasonic Examination Construction
- Welder Qualification
- Welding and Cutting
- Welding Control
- Welding Material Control Quality Procedure
- Welding Repair
- Welding Test Construction
- Welding Test Coupons
- Welding with NDT Requirements
- Windows