



Utility Construction/Telecommunications Essentials QA/QC Plan Sample

Good for smaller projects and bid qualifications

*Has All the Essential Elements of a well-founded
Quality Control Plan*

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[CompanyName]

Quality Assurance/Quality Control Plan

[ProjectName]

[ProjectNumber]

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Version	Version notes
20150309	Initial issue

Approved

[QualityManagerName], Quality Manager

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PROJECT-SPECIFIC CONSTRUCTION QUALITY PLAN

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B. KEY ELEMENTS OF THE CONSTRUCTION QUALITY PLAN

Key elements of the [CompanyName] Quality Assurance/Quality Control Plan include:

Quality Management and Responsibilities. [CompanyName] fully integrates its quality management system into the organizational structure and performance management systems for each project. We:

- Maintain a documented quality system consisting of a quality manual with policies and procedures.
- Tightly control exceptions to the quality system so company standards are applied uniformly to every project
- Systematically maintains quality system documents and records.

Quality Control Personnel. [CompanyName] fully integrates its quality management system into the organizational structure and performance management systems for each project. We:

- Appoint a Quality Manager, Superintendent, and Project Manager to each project, each with well-defined quality responsibilities and the authority to carry them out.
- Have well-defined quality responsibilities for every employee with specific quality responsibilities for key job positions.
- Plan project quality records and documentation that will be maintained.
- Tightly control exceptions to the quality system so company standards are applied uniformly to every project
- Enforce policies that monitor work conditions before and during work so that quality results are assured.

Project Quality Coordination and Communication. [CompanyName] tightly controls the construction process to ensure quality results. We:

- Plan quality communications through meetings, reporting requirements, and points of contact.
- Have a project startup meeting to communicate project goals and expectations.
- Conduct preparatory meetings in advance of each scheduled work task to communicate requirement details and coordinate work activities.

Quality Assurance Surveillance. [CompanyName] audits the quality system to assure it is operating effectively. We:

COMPLIANCE WITH INDUSTRY CONSTRUCTION STANDARDS

Codes that may apply to this project include those listed below.

Regulatory Codes and Industry Standards			
Division	Description	Reference Standard No.	Reference Standard Title
3	Construction and placement of forms, shoring and scaffolding	ACI MCP-2	Manual of Concrete Practice Part 2
3	Reinforcement fabrication shapes and dimensions	ACI 318M	Building Code Requirements for Structural Concrete and Commentary
3	Reinforcement Placement	ACI 318M	Building Code Requirements for Structural Concrete and Commentary
3	Reinforcement Splices	ACI 318M	Building Code Requirements for Structural Concrete and Commentary
3	Reinforcement Splice Welds	AWS D1.4 D1.4M	Structural Welding Code - Reinforcing Steel
3	Fiber Reinforcement mixing	ASTM C 1116/C 1116M	Standard Specification for Fiber-Reinforced Concrete
3	Installation details of stressing tendons and accessories.	ACI SP-66 and ACI 318M ACI 318	ACI Detailing Manual and Building Code Requirements for Structural Concrete and Commentary
3	Cold weather requirements	ASTM C 494/C 494M	Standard Specification for Chemical Admixtures for Concrete
3	Hot weather requirements	ACI 305R	Specification for Hot Weather Concreting
3	Prevention of plastic shrinkage cracking	ACI 305R	Specification for Hot Weather Concreting
3	Finish formed surface tolerances	ACI 117	Specifications for Tolerances for Concrete Construction and Materials and Commentary
5	Definitions of welding terms	AWS A3.0M/A3.0	Standard Welding Terms and Definitions
5	Workmanship and techniques for welded construction	AWS D1.1/D1.1M	Structural Welding Code – Steel
5	Welding standards	AWS B2.1/B2.1M	Specification for Welding Procedure and Performance Qualification
5	Framing and reinforcing openings through a steel deck	SDI DDP	Deck Damage and Penetrations
5	Placement of concrete on a metal deck	SDI 31	Design Manual for Composite Decks, Form Decks, and Roof Decks
5	Minimum spacings and edge distances for screws	AISI SG02-KIT	North American Specification for the Design of Cold-Formed Steel Structural Members
5	Installation of chimneys, vents, and smokestacks	NFPA 211	Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances
5	Install high-strength bolts		RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts"
5	Installation of bracing and permanent bracing and bridging	CFSEI	Field Installation Guide for Cold-Formed Steel Roof Trusses

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26	Splicing and general conductor installation	NFPA 70	National Electrical Code
26	Mounting height of wall-mounted outlet and switch boxes	ICC/ANSI A117.1	Accessible and Usable Buildings and Facilities
26	Install Control devices and protective devices	NFPA 70	National Electrical Code
26	Grounding and bonding	NFPA 70	National Electrical Code
26	Workmanship	NFPA 70	National Electrical Code
26	Telecommunications grounding	TIA-569	Commercial Building Standard for Telecommunications Pathways and Spaces
26	Telecommunications pathways	TIA J-STD-607	Commercial Building Grounding (Earthing) and Bonding Requirements for Telecommunications
26	Warning Sign placement	NFPA 70E	Standard for Electrical Safety in the Workplace
26	Lightning Protection installation	NFPA 780	Standard for the Installation of Lightning Protection Systems
31	Bedding for buried piping	AWWA C600	Installation of Ductile-Iron Water Mains and Their Appurtenances
31	Welding lengths of pipe together for bore holes	AWS D1.1/D1.1M	Structural Welding Code - Steel
31	Geotextile storing and handling	ASTM D 4873	Identification, Storage, and Handling of Geosynthetic Rolls and Samples
31	Shoring installation	EM 385-1-1	Safety and Health Requirements Manual
31	Precast prestressed concrete pile installation	PCI JR-382	Recommended Practice for Design, Manufacture and Installation of Prestressed Concrete Piling
31	Drilled shaft foundation installation	ACI 336.1	Specification for the Construction of Drilled Piers
31,33	Bedding for buried piping and DIP installation	AWWA C600	Installation of Ductile-Iron Water Mains and Their Appurtenances
31	Welding lengths of pipe together for bore holes	AWS D1.1/D1.1M	Structural Welding Code - Steel
31	Geotextile storing and handling	ASTM D 4873	Identification, Storage, and Handling of Geosynthetic Rolls and Samples
31	Shoring installation	EM 385-1-1	Safety and Health Requirements Manual
31	Precast prestressed concrete pile installation	PCI JR-382	Recommended Practice for Design, Manufacture and Installation of Prestressed Concrete Piling
31	Drilled shaft foundation installation	ACI 336.1	Specification for the Construction of Drilled Piers
33	Clay sewer pipe installation	ASTM C 12	Standard Practice for Installing Vitrified Clay Pipe Lines

I. CONSTRUCTION WORK TASK QUALITY INSPECTIONS

[CompanyName] identifies a list of work tasks, phases of production, which will be quality controlled.

WORK TASKS SERIES OF INSPECTIONS

Each work Task is subject to a series of inspections; before, during, and after the work is complete. Each inspection verifies compliance with full scope of the relevant specifications; not limited to checkpoints for heightened awareness.

- The initial task-ready inspection occurs when crews are ready to start work and ensures that work begins only when it does not adversely impact quality results.
- Incoming material inspections verify that materials are as specified and meet all requirements necessary to assure quality results.
- Work-in-process inspections continuously verify that work conforms to project specifications and workmanship expectations. Work continues only when it does not adversely impact quality results.
- At completion of the Task an inspection verifies that work, materials, and tests have been completed in accordance with project quality requirements. When appropriate, functional tests are performed.

Inspection results are recoded and maintained as part of the project files.

SPECIAL PROCESS INSPECTIONS

The Quality Manager identifies special processes where the results cannot be verified by subsequent inspection or testing and determines if continuous work in process inspections are required. For these special processes, a qualified inspector continuously inspects the work process.

MATERIAL QUALITY INSPECTION AND TESTS

Material quality inspections and tests ensure that purchased materials meet purchase contract quantity and quality requirements.

DAILY QUALITY CONTROL REPORT

J. QUALITY CONTROL OF CORRECTIONS, REPAIRS, AND NONCONFORMANCES

Should a problem occur in the quality of work, we systematically contain the issue and quickly make corrections. Our first action is to clearly mark the item by tape, tag, or other easily observable signal to prevent inadvertent cover-up.

Then we expedite a corrective action that brings the workmanship or material issue into conformance by repair, replacement, or rework. Previously completed work is reinspected for similar nonconformances. In the event that we cannot correct the item to meet contract specifications, the customer will be notified and customer approval of corrective actions is required before proceeding.

Fixing problems found is not sufficient. [CompanyName] systematically prevents recurrences to improve quality. First enhanced controls and management monitoring are put into place to assure work proceeds without incident. Then using a structured problem solving process, [CompanyName] identifies root causes and initiates solutions. Solutions may involve a combination of enhanced process controls, training, upgrading of personnel qualifications, improved processes, and/or the use of higher-grade materials. Follow-up ensures that a problem is completely resolved. If problems remain, the process is repeated.

Nonconformances and their resolution are recorded on a Nonconformance Report form. A Nonconformance Report form exhibit is included in this subsection.

Select Pages

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[CompanyName] Nonconformance Report <small>Version 20150309</small>		
Nonconformance Report Control ID	Project ID	Project Name
	[ProjectNumber]	[ProjectName]
Preparer Signature/ Submit Date		Quality Manager Signature / Disposition Date
Description of the requirement or specification		
Description of the nonconformance, location, affected area, and marking		
Disposition	<input type="checkbox"/> Replace <input type="checkbox"/> Repair <input type="checkbox"/> Rework <input type="checkbox"/> Use As-is	
	Approval of disposition required by customer representative? Yes <input type="checkbox"/> No <input type="checkbox"/> Customer approval signature /date: _____	
Corrective Actions	<input type="checkbox"/> Corrective actions completed Name/Date: _____ Customer acceptance of corrective actions required? Yes <input type="checkbox"/> No <input type="checkbox"/> Name/Date: _____	
Preventive Actions		
	<input type="checkbox"/> Preventive actions completed Name/Date: _____	

LIST OF INCLUDED INSPECTION FORMS

CONCRETE

- Cast Decks and Underlayment
- Concrete Placement
- Concrete Forming
- Concrete Reinforcing
- Grouting
- Precast Concrete
- Structural Concrete

EXTERIOR IMPROVEMENTS

- Base Courses

UTILITIES

- Public Water Utility Distribution Piping
- Sanitary Utility Sewerage Force Mains
- Sanitary Utility Sewerage Piping
- Water Utility Distribution Equipment

METALS

- Metal Decking
- Metal Railings
- Metal Stairs
- Structural Steel Framing

EARTHWORK

- Bored Piles
- Caissons
- Clearing and Grubbing
- Driven Piles
- Excavating and Fill
- Grading

Earthwork - Excavating and Fill 31.23.00

Project:	Phase:	Contract#:	Subcontractor:	Crew:
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Compliance Verification

- ☐ Compliance with initial job-ready requirements
- ☐ Compliance with material inspection and tests
- ☐ Compliance with work in process first article inspection requirements
- ☐ Compliance with work in process inspection requirements
- ☐ Compliance with Task completion inspection requirements
- ☐ Compliance with inspection and test plan
- ☐ Compliance with safety policies and procedures

Reported Nonconformances and incomplete items:

FTQ 2TQ Heightened Awareness Checkpoints

- ☐ ☐ Underground Facilities are located and marked
- ☐ ☐ Prevent damage to Underground Facilities in equipment traffic areas
- ☐ ☐ Understand regulatory requirements for disposal of excavation water
- ☐ ☐ Prevent utility trenches from directing muddy runoff into structures
- ☐ ☐ Trenches allow for proper utility separation distances (horiz. +& vert.)
- ☐ ☐ Compaction / moisture inspection services are scheduled as needed
- ☐ ☐ Compact where utilities enter structures to prevent settlement damage
- ☐ ☐ Do not backfill in excessive lifts that cannot be adequately compacted
- ☐ ☐ Below grade walls are properly supported prior to adjacent backfilling
- ☐ ☐ Protect appurtenances and openings from intrusion by Flowable Fill

FTQ Scores and Completion Sign-off

Field Mgmt.-91.45.01

Quality 5 4 3 2 1 *Notes:*

On-Time 5 4 3 2 1 *Notes:*

Safety 5 4 3 2 1 *Notes:*

Sign and date*: Cell # / ID #: _____ Signed: _____ Date: _____

Task has been has been verified complete and in compliance with contract drawings and specifications except for non-conformances and incomplete items reported above.

Quality Score

5 = 100% NO problems

4 = 1 minor problems

3 = Hotspot or 2-3 minor

2 = 6+ or major problems

1 = Excessive problems

On-Time Score

5 = On Time

4 = Late

3 = Late by 1 day

2 = Late by 2 days

1 = Late more than 2 days

Safety Score

5 = 100% NO problems

4 = 1 minor problem

3 = Hotspot or 2-3 minor

2 = 4+ or major problem

1 = Injury

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