[CompanyName]

[CompanyAddress] • [CompanyPhone]

Road Construction
Quality Assurance/Quality Control Plan

[ProjectName]
[ProjectNumber]

Management acceptance

This Road Construction Quality Assurance/Quality Control Plan has been reviewed and accepted.

Endorsed By: (Name / Title)	[QualityManagerName], Quality Manager		
Signature:	*[QualityManagerName]*	Date:	[Date]
Version	0	Notes	Initial Issue

PROJECT-SPECIFIC ROAD CONSTRUCTION QUALITY PLAN

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G. Road Construction Project Quality Specifications

Fulfilling customer contract expectations is a primary objective of the [CompanyName] Quality System. To ensure that customer expectations will be fulfilled, [CompanyName] clearly defines the requirements for each contract before it is approved.

The Project Manager ensures that the information in customer contracts clearly defines customer expectations and that the necessary details are provided to set requirements for construction.

[CompanyName] personnel, subcontractors, and suppliers are accountable for compliance to standards-based written specifications.

To achieve expectations reliably and consistently, specifications are clearly spelled out, not only for results but also for processes. Specifications apply to materials, work steps, qualified personnel and subcontractors and suppliers, safe work rules, and environmental work conditions.

Standards ensure that results are specified rather than left to discretionary practices.

All [CompanyName] construction activities comply with generally accepted good workmanship practices and industry standards.

Compliance with Road Construction Industry Standards

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

Description	Reference Standard No.	Reference Standard Title
Bedding for buried piping	AWWA C600	Installation of Ductile-Iron Water Mains and Their Appurtenances
Welding lengths of pipe together for bore holes	AWS D1.1/D1.1M	Structural Welding Code - Steel
Geotextile storing and handling	ASTM D 4873	Identification, Storage, and Handling of Geosynthetic Rolls and Samples
Shoring installation	EM 385-1-1	Safety and Health Requirements Manual
Precast prestressed concrete pile installation	PCI JR-382	Recommended Practice for Design, Manufacture and Installation of Prestressed Concrete Piling
Drilled shaft foundation installation	ACI 336.1	Specification for the Construction of Drilled Piers
Storage of bituminous paving mixtures	AASHTO M 156	Standard Specification for Requirements for Mixing Plants for Hot-Mixed, Hot-Laid Bituminous Paving Mixtures

H. INSPECTION AND TEST PLAN

[CompanyName] identifies inspections and tests that will be performed during the project. A test report is completed for each test. The test reports are then used for monitoring compliance to the plan and tracking results.

If independent laboratories are required to perform tests or quality inspections, we ensure that the laboratories are certified by a nationally recognized testing accreditation organization as appropriate for the scope of the inspection or test.

The Quality Inspection and Test Plan form lists inspections and tests (other than work task inspections) that will be performed on this project.

Results of inspections and tests will be recorded on the Inspection and Test Form.

Form exhibits are included as an exhibit in this subsection.

ROAD CONSTRUCTION INSPECTION AND TESTING STANDARDS

Inspection and testing standards that may apply to this project include those listed below.

Description	Reference Standard No.	Reference Standard Title
Binder and wearing course density tests	AASHTO T 230	Determining Degree of Pavement Compaction of Bituminous Aggregate Mixtures
Bituminous mix sieve analysis	AASHTO T 30	Standard Method of Test for Mechanical Analysis of Extracted Aggregate
Concrete cylinders for strength testing	ASTM C 31/C 31M	Standard Practice for Making and Curing Concrete Test Specimens in the Field
Grout consistency for pressure grouting operations	ASTM C 939	Flow of Grout for Preplaced-Aggregate Concrete (Flow Cone Method)
Concrete cylinders for strength testing	ASTM C172/C172M	Standard Practice for Sampling Freshly Mixed Concrete
Load tests of driven piles	ASTM D 1143/D 1143M	Piles Under Static Axial Compressive Load
Field in-place density of soil	ASTM D 1556	Density and Unit Weight of Soil in Place by the Sand-Cone Method
Bituminous mix stability and flow testing	ASTM D 1559	Resistance to Plastic Flow of Bituminous Mixtures Using Marshall Apparatus
Bearing capacities of soils	ASTM D 1586	Penetration Test and Split-Barrel Sampling of Soils
Field in-place density of soil	ASTM D 2167	Density and Unit Weight of Soil in Place by the Rubber Balloon Method
Bituminous mix extraction testing	ASTM D 2172	Quantitative Extraction of Bitumen from Bituminous Paving Mixtures
Pile lateral load tests for steel H-piles	ASTM D 3966	Standard Test Methods for Deep Foundations Under Lateral Load

Field in-place density of soil and drainage layer density	ASTM D 6938	Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
Samples for the determination of mix properties, thickness and density of the completed pavements	ASTM D 979	Sampling Bituminous Paving Mixtures
Binder and wearing course density tests	ASTM D2950/D2950M	Density of Bituminous Concrete in Place by Nuclear Methods
Rock and soil anchor performance testing	PTI DC35.1	Recommendations for Prestressed Rock and Soil Anchors

CONTROL OF INSPECTION, MEASURING, AND TEST EQUIPMENT

Inspection, measuring, and test equipment that will be controlled, calibrated, and maintained.

The Quality Manager evaluates the project requirements and determines if there are measuring devices that require controls to assure quality results.

For each type of device, the Quality Manager identifies:

- Restrictions for selection
- Limitations on use.
- Calibration requirements including the frequency of calibration. All calibrations must be traceable to national measurement standards.

When a measurement device is found not to conform to operating tolerances, the Quality Manager validates the accuracy of previous measurements.

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.

[CompanyName] Nonconformance Report		
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	☐Replace ☐ Repair ☐ Rework ☐ Use As-is Approval of disposition required by customer representative? Yes ☐ No ☐ Customer approval signature /date: _____	
Corrective Actions	☐Corrective actions completed Name/Date:_____ Customer acceptance of corrective actions required? Yes ☐ No ☐ Name/Date:_____	
Preventive Actions	☐Preventive actions completed Name/Date:_____	

INSPECTION CHECKLIST

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Exterior Improvements - Base Courses 32.11.00

Project:	Phase:	Contract#:	Subcontractor:	Crew:

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:

YES	NO	***Heightened Awareness Checkpoints***
☐	☐	Course material source and gradation approved by ENGINEER
☐	☐	Course materials from different sources and for different uses stockpiles separately
☐	☐	Drainage layer / piping outlets to surface or pervious area
☐	☐	Course material free of organic material// silt// clay// or other objectionable material
☐	☐	Aggregate evenly graded and not segregated
☐	☐	Base Course of even thickness and true to grade
☐	☐	Bituminous Base Course joints offset from underlying course joints
☐	☐	Edge material compacted and brought even with finished course surface
☐	☐	Sieve analysis// field density// and moisture content tests provided to ENGINEER
☐	☐	Finished surface free of irregularities// soft spots// debris// and excess moisture

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 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 problem*	*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*

For More Information:

Visit our Online Store at:

www.firsttimequalityplans.com

or

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