

## [CompanyName]

# Landscape Services Quality Manual

## Operating Policies of the [CompanyName] Quality System

Version: 20141228

Version	Version notes
20141228	Initial issue
Approval Signature and Date:President/ Date	

Documents provided by Superior Iron, Inc. disclose proprietary information as well as copyright information registered with the U.S. Patent and Trademark Office. Please hold these documents in confidence and do not share them with other organizations, even if you do not charge a fee. Submittal of documents does not transfer copyright ownership.

## QUALITY MANUAL

## **TABLE OF CONTENTS**

1. Quality System Management and Responsibilities	7
1.1. Overview	7
1.2. [CompanyName] Quality Policy	7
1.3. Quality Duties, Responsibilities, and Authority	7
1.4. Quality System Performance Measures	10
1.5. Customer Satisfaction Performance Measures	10
1.6. Exceptions	10
2. Project Quality Assurance/Quality Control Plan	11
2.1. Overview	11
2.2. [CompanyName] Project License and Qualification Requirements	
2.3. Project Personnel and Qualifications	
2.4. Project Quality Assurance/Quality Control Plan	
2.5. Identification of Quality Controlled Work Tasks	14
2.6. Project Quality Inspection and Test Plan	14
2.6. Project Quality Inspection and Test Plan  2.7. Project Quality Communications Plan	14
2.8. Project Quality Training Plan	14
2.9. Customer Training On Operation and Maintenance	14
2.10. Project Records and Documentation Plan	14
2.11. Project Audit Plan	15
3. Contract Specifications	
3.1. Overview	16
3.2. Contract Technical Specifications	
3.3. Contract Drawings	
3.4. Contract Submittals	
3.5. Customer Submittal Approval	18
3.6. Contract Warranty	
3.7. Contract Review and Approval	
4. Design Review and Control	20
4.1. Overview	20
4.2. Design Input Review	20
4.3. Project Design Quality Assurance/Quality Control Plan	20
4.4. Design Progress Reviews	21
4.5. Design Output Verification and Approval	21
5. Project-Specific Quality Standards	22
5.1. Overview	22
5.2. Regulatory Codes	22

23
22
23
24
24
24
25
26
26
26
27
28
28
29
29
29
30
30
30 30
30
31
31
33
33 <b> 34</b>
34
34
34
35
35
36
36
36
36
36
37
37
37
38
38
40

9.2. Nonconformances	40
9.3. Corrective Actions	41
10. Preventive Actions	42
10.1. Overview	42
10.2. Identify Preventive Actions for Improvement	42
10.3. Train Preventive Actions for Improvement	42
11. Quality System Audits	44
11.1. Overview	44
11.2. Project Quality System Audit	44
11.3. Company-wide Quality System Audit	44
12. Record and Document Controls	46
12.1. Overview	46
12.2. Quality System Documents	46
12.3. Document Controls	
12.4. Record Controls	
13. Appendix	49
13.1. Definitions of Terms	49
	52
Seleci	

## 5. Project-Specific Quality Standards

#### APPLICABLE REGULATIONS, INDUSTRY, and COMPANY STANDARDS

#### 5.1. OVERVIEW

[CompanyName] personnel and 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.

#### **5.2. REGULATORY CODES**

All [CompanyName] landscape services activities comply with the relevant regulations. The Quality Manager identifies regulatory requirements applicable to the jurisdictions served, including:

- Applicable Federal regulations
- Applicable State regulations
- Applicable building codes and local addenda to building codes
- Applicable Fire Code
- Applicable Fuel and Gas Code
- Applicable Mechanical Code
- Applicable Plumbing Code
- Additional regulations specified by the customer contract

The Quality Manager identifies regulatory requirements that apply to a specific project on the Project Quality Assurance/Quality Control Plan.

The Superintendent had jobsite access to relevant codes and government regulations.

#### **5.3. Industry Quality Standards**

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

The Quality Manager identifies supplemental requirements for industry standards that apply to a specific project on the Project Quality Assurance/Quality Control Plan when it is not otherwise specified by the contract, contract technical specifications, or approved drawings.

Regulatory Codes and Industry Standards						
Division	Description	Reference Standard No.	Reference Standard Title			
31	Geotextile storing and 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			
32	Sod placement	TPI GSS	Guideline Specifications to Turfgrass Sodding			
32	Pruning of exterior vegetation	TCIA Z133.1	American National Standard for Arboricultural Operations - Pruning, Repairing, Maintaining, and Removing Trees, and Cutting Brush - Safety Requirements			
32	Canopy pruning procedures	TCIA A300P1	ANSI A300 Part1: Tree Care Operations - Trees, Shrubs and Other Woody Plant Maintenance Standard Practices - Pruning			
32	Transplanting of vegetation	TCIA Z133.1	American National Standard for Arboricultural Operations - Pruning, Repairing, Maintaining, and Removing Trees, and Cutting Brush - Safety Requirements			

#### **5.4. MATERIAL AND EQUIPMENT SPECIFICATIONS**

The Quality Manager ensures that all types of materials and equipment that affect quality are identified and controlled.

The Quality Manager evaluates the expected use of materials and equipment and identifies types of materials and equipment that may affect project quality. For each item, the Quality Manager sets specifications for their intended use, including:

- Compliance to contract requirements
- Compliance to code and industry standards and listing requirements
- Structural integrity
- Performance
- Durability
- Appearance
- Product identification for traceability.

The Quality Manager identifies controlled material and equipment that apply to the project.

The Quality Manager ensures that purchase orders for listed materials and equipment include the relevant specifications as specified in section 6.7 Purchase Order Requirements.

Only approved materials are used in the landscape services process.

#### **5.5. WORK PROCESS SPECIFICATIONS**

The Quality Manager ensures that work processes are controlled to ensure that the specified requirements are met. When appropriate, the Quality Manager will specify project quality standards for work processes that may include:

References to documented procedures such as manufacturer's installation instructions

- Procedures for carrying out process steps
- Methods to monitor and control processes and characteristics
- Acceptability criteria for workmanship
- Tools, techniques and methods to be used to achieve the specified requirements.

#### 5.6. CONTROLLED MATERIAL IDENTIFICATION AND TRACEABILITY

The Quality Manager determines types of project materials that require quality controls.

For each type of quality controlled material, the Quality Manager determines lot control traceability requirements, if any, and specifies the means of lot identification. Identification methods may include physical labels, tags, markings and/or attached certification documents.

When lot controlled materials are received, the Superintendent verifies that materials have the specified lot identifications.

The Superintendent maintains lot identification at all production phases from receipt, through production, installation, or assembly, to final completion. Acceptable methods for preserving lot identification include physically preserving observable lot identifications, recording the lot identification on a work task quality inspection form or other work record, or collecting the physical lot identifier as a record along with supplemented with location.

If lot controlled materials are without lot identification, the Superintendent deems the materials as nonconforming and segregates them and/or clearly marks them to prevent inadvertent use. The Superintendent treats the material according to the company policy for nonconformances. Only the Quality Manager can re-identify or re-certify the materials.

#### 5.7. MEASURING DEVICE CONTROL AND CALIBRATION

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.

#### 5.8. [COMPANYNAME] QUALITY STANDARDS

[CompanyName] quality standards supplement contract requirements when they are necessary to ensure quality.

The Quality Manager identifies supplemental requirements for [CompanyName] Quality standards that apply to a specific project on the Project Quality Assurance/Quality Control Plan.

When [CompanyName] quality standards differ from industry standards or product manufacturer instructions, the Quality Manager justifies that the standard reliably achieves quality results and then documents the justification.

All [CompanyName] landscape services activities conform to the company quality standards.

#### 5.9. Application of Multiple Sources of Specifications

Should multiple sources of specifications apply to a work task, the higher level of specification applies. When there are equal levels of specifications that conflict, the specifications are applied in this order:

- Submittals approved by the customer
- Contract technical specifications
- Contract drawings
- Government regulations that exceed requirements of items below
- [CompanyName] quality specifications, including subcontract specifications
- [CompanyName] Quality Manual
- Product installation instructions
- Industry standards
- Generally accepted practices

Should multiple sources of conflicting specifications apply to a project, the Quality Manager defines the standards that apply to the specific project on the Project Quality Assurance/Quality Control Plan.

## 7. Process Controls

#### HOW WORK IS CARRIED OUT

#### 7.1. OVERVIEW

The landscape services process plan defines how project work is to be done and approved for the overall project. The landscape services process plan is communicated to all key personnel, subcontractors and suppliers in a startup meeting. As the project proceeds, work task plans provide additional details of how each individual work task is carried out. Work tasks planning meetings are used to communicate expectations of the work task plan to key personnel responsible for carrying out the work task.

#### 7.2. PROJECT STARTUP AND QUALITY CONTROL COORDINATION MEETING

Prior to the commencement of work, the Project Manager holds a meeting to discuss and coordinate how project work will be performed and controlled. Key personnel from [CompanyName], subcontractors and suppliers meet to review expectations for project quality results as well as quality assurance and quality control policies and procedures including:

- Key requirements of the project
- The Project Quality Assurance/Quality Control Plan
- Required quality inspections and tests
- The project submittal schedule
- Quality policies and heightened awareness of critical quality requirements
- Project organization chart and job responsibilities
- Methods of communication and contact information
- Location of project documents and records

#### 7.3. PREPARATORY PROJECT QUALITY ASSURANCE/QUALITY CONTROL PLAN PLANNING

#### 7.3.1. WORK TASK REQUIREMENTS REVIEW

In preparation for the start of an upcoming work task, the Superintendent reviews an integrated and coordinated set of documents that collectively define quality requirements for the work task including:

- Objectives and acceptance criteria of the work task
- Quality standards that apply to the work task
- Work instructions, process steps, and product installation instructions that apply to the work task
- Shop drawings
- Submittals
- Tools and equipment necessary to perform the work
- License, certification, or other qualification requirements of personnel assigned to work
- Required records of the process and resulting product
- The subcontractor contracted to perform the work, if applicable
- Customer contract requirements
- Required quality inspections and tests
- Method for clearly marking nonconformances to prevent inadvertent use
- Location of quality system records and documents
- Personnel training

#### 7.3.2. PREPARATORY SITE INSPECTION

The Superintendent also performs a quality inspection of the work area and:

- Assesses completion of required prior work
- Verifies field measurements
- Assures availability and receiving quality inspection status of required materials
- Identifies any nonconformances to the requirements for the work task to begin
- Identifies potential problems

#### 7.3.3. WORK TASK PREPARATORY QUALITY PLANNING MEETINGS

Prior to the start of a work task, the Superintendent conducts a meeting with key company, subcontractor personnel responsible for carrying out, supervising, or inspecting the work, and interested customer representatives.

During the meeting, the Superintendent communicates the work task quality requirements and reinforces heightened awareness for critical requirements. Topics for a work task quality plan meeting include:

- Conflicts that need resolution
- Required quality documents and a verification of availability to personnel carrying out, supervising, or inspecting the work task
- · Record keeping requirements and the availability of necessary forms
- Review methods and sequences of installation
- Special details and conditions
- Standards of workmanship
- Heightened awareness of critical quality requirements
- Quality risks
- Work tasks quality inspection form

#### 7.4. WEEKLY QUALITY PLANNING AND COORDINATION MEETINGS

The Superintendent conducts a meeting with key company, subcontractor and supplier personnel responsible for carrying out, supervising, or inspecting the work, and interested customer representatives.

The meeting is held on a nominal weekly schedule. During the meeting, the Superintendent facilitates coordination among the participants, communication among the participants, and reinforces heightened awareness for critical requirements.

The Superintendent maintains a record of the meeting event on the Daily Quality Control Report.

#### 7.5. PROCESS CONTROL STANDARDS

#### 7.5.1. JOB-READY START WORK STANDARDS

Work on a work task starts only when conditions do not adversely impact quality, comply with government regulations, contract technical specifications, industry standards, or product installation instructions.

The Quality Manager identifies supplemental start-work requirements that apply to a specific project when they are necessary to assure quality results.

#### 7.5.2. WORK IN PROCESS STANDARDS

Work is conducted only when conditions do not adversely impact quality; comply with government regulations, contract technical specifications, industry standards, or product installation instructions.

The Quality Manager identifies supplemental work in process requirements that apply to a specific project when they are necessary to assure quality results.

#### 7.5.3. PROTECTION OF COMPLETED WORK STANDARDS

[CompanyName] will preserve and protect work in process, completed work, component parts, materials, and when applicable, delivery to the destination so as to maintain so that compliance with project requirements and standards. This includes handling, storage, protection from natural elements, and reducing risks of damage.

Completed work is protected from damage as specified by government regulations, contract technical specifications, industry standards, or product installation instructions.

The Quality Manager identifies supplemental protection requirements that apply to a specific project when they are necessary to assure quality results.

#### 7.5.4. MATERIAL STORAGE

The Superintendent ensures all materials will be delivered, stored and handled in a manner that protects them from damage, moisture, dirt and intrusion of foreign materials.

Delivery of materials will be planned according to the work progress to minimize storage on site, where there are higher possibilities of damages and deterioration of materials.

Stored materials will be segregated to prevent cross contamination and limit losses should a delivery be rejected.

The Superintendent surveys stored materials during daily jobsite reviews and identifies any material that have incurred damage or otherwise become defective and therefore unfit for use.

#### 7.5.5. CONTROLLED USE OF MATERIALS

The Project Manager ensures that contracts and purchase orders are awarded only to outside organizations qualified to perform the work task and/or supply materials as required for the specific project.

Only approved materials are used in the landscape services process. Only approved materials are specified in purchase and/or subcontracts.

Materials that are defective, deteriorated, damaged, or not approved are not used. The Superintendent clearly marks such materials for non-use or otherwise holds them aside.

When customer-supplied materials are lost, damaged, or otherwise found unsuitable for use, the Superintendent reports such findings to the customer.

When subcontractor–supplied materials are damaged or otherwise found unsuitable for use, the Superintendent reports such findings to the subcontractor.

The Superintendent ensures that landscape services uses only materials specified in the contract technical specifications, contract drawings, and approved submittals. Substitutions are made only by agreement of the customer and documented by a change order (see section 2.1.3.6).

#### 7.5.6. CONTROLLED PRODUCT USE AND INSTALLATION

[CompanyName] landscape services activities conform to manufacturers' product use and installation instructions that apply to the landscape services process.

When installing a product, the Superintendent has access to all applicable product installation instructions.

#### 7.6. Daily Quality Control Report

The Superintendent records a summary of daily work activities. The report will include:

- Schedule Activities Completed
- General description of work activities in progress.
- Problems encountered, actions taken, problems, and delays
- Meetings held, participants, and decisions made
- Subcontractor and Supplier and Company Crews on site
- Visitors and purpose
- General Remarks
- Improvement Ideas
- Weather conditions

#### 7.7. MONTHLY QUALITY CONTROL REPORT

When a monthly quality control report is required by the Project Quality Plan, the Superintendent records a monthly status report. The report includes:

- A summary of work completed and work in progress
- Outstanding issues
- Issues resolved during the reporting period
- Outstanding potential change orders
- Project status with current project costs and estimated completion date
- A cost analysis summarizing actual costs to date and estimated future costs
- Project pictures as appropriate

## **14.** FORMS

[CompanyName] Controlled Materials Form	53
[CompanyName] Material Inspection and Receiving Report	54
[CompanyName] Daily Production Report	55
[CompanyName] Work Task Inspection Form	56
[CompanyName] Nonconformance Report	57



[CompanyName]  Material Inspection and Receiving Report									
				Version 20150128					
Contract ID	Contrac	t Name	Purchase Order No.		Supplier		Bill of Lading No.		Date
[ProjectNumber]	[Project	tName]							
	Stock/Part			Quantity				Conditional	
Item No.	No.	D	escription	Received	Condition	Marking	Accept	Use	Reject
					7				
Receiving Quality Control									
ACCEPTANCE  Listed items have been accepted by me or under my supervision  Conform to contract specifications EXCEPT as noted herein or on supporting documents.  Received in apparent good condition EXCEPT as noted  Signature of authorized person and date:									
EXCEPTIONS:									
EXCEPTIONS.									

## **LIST OF INCLUDED INSPECTION FORMS**

#### **EARTHWORK**

- Excavating and Fill
- Grading
- Clearing and Grubbing

#### **EXTERIOR IMPROVEMENTS**

- Irrigation
- Planting
- Selection Retaining Walls

Earthwork - Excavating and Fill 31.23.00								
Project: Phase:		Contract#:		Subcontractor:	Crew:			
Compliance Verification		FTQ 2TQ	Heightened	Awareness Checkpoints	<u> </u>			
☐ Compliance with initial job-			Underground	d Facilities are located	and marked			
ready requirements			<ul> <li>Prevent damage to Underground Facilities in equipment traffic areas</li> </ul>					
☐ Compliance with material inspection			Understand regulatory requirements for disposal of excavation water					
<ul> <li>Compliance with work in process firs article inspection requirements</li> </ul>	t		Prevent utilit structures	ty trenches fro directin	g muddy runoff into			
☐ Compliance with work in process		☐ ☐ Trenches allow for proper utility separation distances (horiz. +& vert.)						
inspection requirements	nenoction		Compaction as needed	/ moisture inspection	services are scheduled			
□ Compliance with Task completion inspection requirements □ □ Compact where utilities enter structures to present the complete of the complet					ctures to prevent			
☐ Compliance with inspection and test	plan		Do not back compacted	fill in excessive lifts that	at cannot be adequately			
☐ Compliance with safety policies and			Below grade backfilling	e walls are properly su	pported prior to adjacent			
Reported Nonconformances and incomp			Flowable Fil	urtenances and openir	gs nom muusion by			
	FTQ Scores at	nd Comp	letion Sign	-off				
Field Mgmt <u>91.45.01</u>		7						
Quality 5 4 3 2 1 Notes:	CO.,							
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 cont	ract drawings and specification		-conformances a n d					
Quality Score 5 = 100% NO problems	4 = 1 minor problems	3 = Hotsp	ot or 2-3 minor	2 = 6+ or major problems	1 = Excessive problems			
	4 = Late 4 = 1 minor problem	$3 = Late \hat{b}$ 3 = Hotsp	oy 1 day ot or 2-3 minor	2 = Late by 2 days 2= 4+ or major problem	I = Late more than 2 days I = Injury  Copyright 2012 First Time Quality			

	Exterior Improv	eme	ents	s - Irriga	tion 32.80.00	
Project:	Phase:	Contra	act#:		Subcontractor:	Crew:
Compliance Verification		FTQ	2TQ	<u>-</u>	Awareness Checkpoints	
<ul> <li>□ Compliance with initial ready requirements</li> <li>□ Compliance with mater</li> <li>□ Compliance with work article inspection requirement</li> <li>□ Compliance with work inspection requirement</li> <li>□ Compliance with Task requirements</li> <li>□ Compliance with inspe</li> <li>□ Compliance with safety</li> <li>Reported Nonconformance</li> </ul>	rial inspection and tests in process first irements in process its completion inspection action and test plan y policies and procedures			water syster Tubing// pip Irrigation pu vibration Sprinkler he All sprinkler flow Pop-up sprin System ope Service Mar OWNER ins system	ing// and fitting connecting// and fitting connecting securely mounted and throws accurate an heads / emitters exhibitantly retractional times set and huals supplied to OWN structed in use and ma	oit adequate pressure and of once system shuts off verified with OWNER
Field Mgmt <u>91.45.01</u>	FTQ Scores a	and C	omp	letion Sign	-off	
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 #:: Task has been has been verified complete and	d in compliance with contract drawings and specifica	Signe		-conformances a n d	Date:	
Quality Score         5 = 100% N           On-Time Score         5 = 0n Time           Safety Score         5 = 100% N	4 = Late	â	R = Late	oot or 2-3 minor by 1 day oot or 2-3 minor	2 = 6+ or major problems 2 = Late by 2 days 2= 4+ or major problem	I = Excessive problems I = Late more than 2 days I = Injury Copyright 2012 First Time Quality



For More Information:

Contact: Ed Caldeira

410-451-8006

www.firsttimequality.com

EdC@FirstTimeQuality.com