

Project Delivery QA/QC Program Oregon Department of Transportation

July 2023

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This information can be made available in alternative format by contacting Kristie Gladhill, Project Delivery QA/QC Program Manager, 503-986-7130 or sending email to ODOTqualityProgram@odot.oregon.gov.

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Oregon Department of Transportation

Statewide Project Delivery Branch - Engineering & Technical Services Branch

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Date Published	Change made by	Section(s) Updated	Summary of what, why changed
7/5/2023	Kristie Gladhill, Project Delivery QA/QC Program manager	All	Move glossary to Appendix A and add roles and responsibilities Section 3. Clarify expectations and wording throughout. Add that consultant can request to use approved quality plan for another PA or contract (Section 4.1). Section 4.2 add how we will handle project-specific consultant quality plan requests. Updated layout of title page. Removed template section B-3.3.1 on design exceptions, that is a project delivery issue rather than quality.
1/20/2022	Kristie Gladhill	All	Initial version.

REVISION HISTORY (the current revision is first entry)

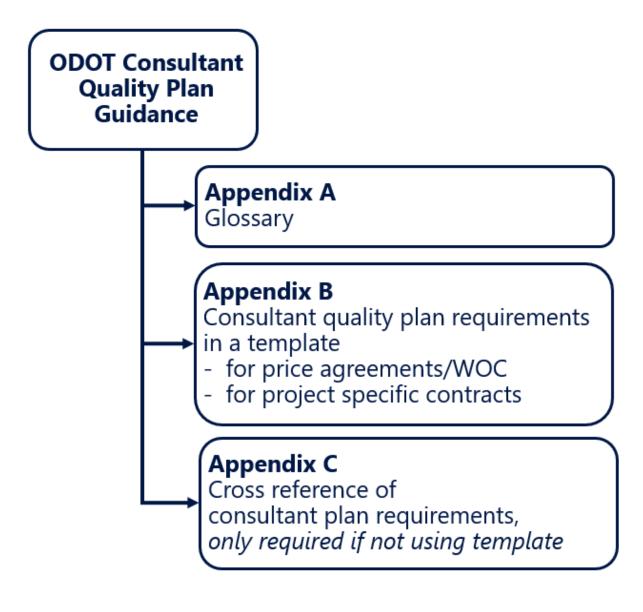
1. Consultant Quality Plan Overview

ODOT requires approved consultant quality plans for Architectural and Engineering (A&E) consultants before any services can be performed under a contract, or before a work order contract (WOC) is assigned under the price agreement (PA). For additional information, ODOT staff can refer to the internal quality SharePoint <u>FAQ site</u>.

The consultant quality plan verifies that the consultant has the capability and qualifications to meet quality requirements and provide documentation of quality efforts. Work performed by sub-consultants is covered under the quality plan of the prime consultant.

This document provides guidance for consultant quality plan standards and expectations and how consultant quality plan submittal, review, and approval are handled. Appendix A has the glossary. Appendix B provides the requirements of what must be included in the consultant quality plan and is formatted as a template for consultants to use to develop a quality plan. Appendix C is a required form for consultants who choose to provide their quality plan in an outline format different from the Appendix B template. Appendix C provides a form to crossreference sections in the consultant quality plan to the Appendix B template to indicate where all required information can be found to facilitate review and use of consultant quality plans.

Figure 1: ODOT Consultant Quality Plan Guidance



2. Quality Standards of Practice and Expectations

Consultants are required to meet or exceed the ODOT technical discipline and project management quality plan expectations for deliverables. ODOT quality expectations can be found in the applicable discipline quality plans, region technical center quality plans, the ODOT Delivered Local Agency Program (ODLAP) Quality Plan, and Project Delivery Quality Program Manual. The ODOT Project Delivery Quality program <u>website</u> provides an overview of the Project Delivery QA/QC program, access to the quality standards of practice and links to technical discipline quality documents, including quality plans and forms. ODOT is not specifying how the consultant completes their work, only the expected deliverable.

The consultant maintains ultimate responsibility for the quality of the deliverables they submit to ODOT. The consultant is responsible to perform their own QA/QC procedures, following their approved quality plan on file, while developing project deliverables. When consultants submit deliverables to ODOT, each deliverable submission should be complete and include deliverable quality records, certifying that they followed their QA/QC processes. All deliverable quality records will be made available virtually or in the consultant's office upon agency request.

ODOT review is not intended to replace or reduce the QC or QA responsibilities of the consultant. ODOT will review deliverables and identify issues that need correction; ODOT will not go into detail regarding how to make corrections. If issues are identified, consultants will make the necessary changes and resubmit for further review.

3. Roles and Responsibilities

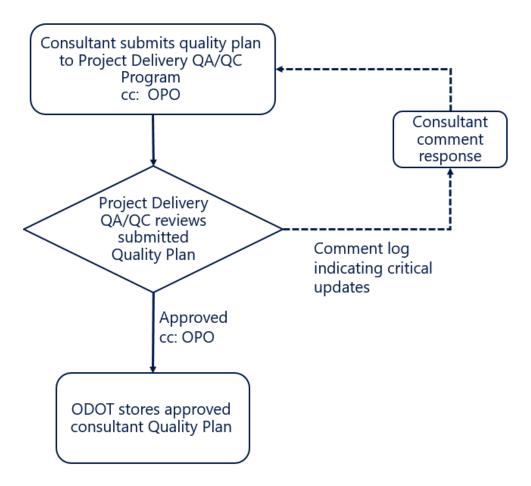
Table 1: Consultant Quality Plan Roles and Responsibilities

Roles	Responsibilities
Project Delivery QA/QC Program manager	 Serve as primary point of contact and decide whether consultant quality plan is required for a price agreement or contract. Serve as primary point of contact for a project specific consultant quality plan request; review approved requests to consider updates to the consultant quality plan guidance. Track and coordinate review and approval of consultant quality plans. Copy OPO contact on approvals of consultant quality plans. Post approved consultant quality plans on the internal quality program SharePoint site. Add approved consultant quality plans to the Project Delivery electronic archive (PDEA). Remove consultant quality plans from the PDEA following ODOT retention policies.
PCO, Project Controls Office	Assist in full review of submitted consultant quality plans.
OPO. ODOT Procurement Office	 Contact the Project Delivery QA/QC Program manager if there is a question whether a consultant quality plan is required for a price agreement or contract. Notify consultant that an approved consultant quality plan is required for a price agreement or contract. Coordinate with Project Delivery QA/QC Program regarding priority of review of consultant quality plan submittals, i.e., those firms with upcoming WOC's that need an approved consultant quality plan in place.
ODOT technical disciplines	• Provide discipline specific reviewers as needed for discipline specific content in submitted consultant quality plans.
Consultants providing A&E design work	 Submit a consultant quality plan to the Project Delivery QA/QC Program for approval. The consultant quality plan demonstrates that they have the capability to meet quality requirements for ODOT contract work. Follow their ODOT approved quality plan as they produce deliverables, doing both QC and QA. Meet or exceed the ODOT technical discipline quality plan expectations for deliverables. Meet applicable standards, manuals, directives and other procedural guidance for deliverables. Submit complete deliverables to ODOT, including deliverable quality records. Certify the quality of deliverables provided.

4. Consultant Quality Plan Submittal Process

Figure 2 provides an overview of the consultant quality plan review process. Further detail is given in sections 4.1 through 4.3.

Figure 2: Consultant Quality Plan Review Process



4.1. Quality Plan Submittal

Consultants submit a quality plan, or request that an already approved quality plan be used for another price agreement or contract, to ODOT's Project Delivery QA/QC Program email address, <u>ODOTQualityProgram@odot.oregon.gov</u>, and copy the OPO purchaser/single point of contact on the submittal. The scope that the consultant quality plan covers will be indicated on the quality plan signature page, i.e., full-service price agreement, engineering or technical discipline specific price agreements, or project specific.

Any consultant quality plan submitted to ODOT must provide information that addresses the requirements in each section of the Appendix B template. If not following the template, the consultant must submit Appendix C along with a copy of their quality plan. Appendix C provides a cross-reference indicating which sections of the submitted quality plan meet each of the required sections of the template. On the title and consultant approval page, instructions are in yellow highlighted text, which should be removed from a submitted plan.

The submitted consultant quality plan should be in PDF format and saved with navigation formatting bookmarks for the plan sections to provide easy navigation during review. Electronic signatures or "wet" signatures are acceptable on the title page. Your firm must provide a file that is not locked, since that interferes with comparison of re-submitted plans.

4.2. Quality Plan Review and Approval

The Project Delivery QA/QC Program will coordinate review of the submitted consultant quality plan and respond to the consultant via email. The Project Delivery QA/QC Program will attempt to respond to consultant quality plan submittals within ten working days of receipt; if more time is needed for review, the consultant will be given an estimate of when the review is expected to be completed. Review times assume consultant quality plans conform with ODOT quality management expectations by referring to applicable guidance documents. If discipline specific content is provided, additional review time may be necessary.

If the consultant quality plan is not approved, the ODOT reviewer will provide the consultant a review comment log. All comments are indicated to either be a "suggestion" (which is optional to change) or "critical to update". The consultant should respond to all comments in the comment log with a re-submittal. The consultant is expected to respond within ten business days with either a re-submittal or an estimate of when they expect to have a re-submittal.

If approved, the consultant will be notified via email and the OPO purchaser/single point of contact will be copied on the approval email. As stated in Section 1, an approved consultant quality plan has to be in place before a work order contract (WOC) will be assigned under the price agreement (PA). Approved quality plan documents are considered public documents.

4.3. Quality Plan Term and Updates

A consultant quality plan is approved for the term of the price agreement or applicable contract. ODOT reserves the right to request a project specific quality plan.

If an ODOT project manager wants to request a project specific consultant quality plan, they notify the Project Delivery QA/QC Program manager and OPO point of contact for the project contract, to explain why a project specific plan is requested. The Project Delivery QA/QC Program manager will work with the project manager and ODOT stakeholders (i.e., chief engineer, affected discipline leads, SPDB management) to provide a decision. The decision should be made prior to the procurement being released. The consultant will be required to have the project-specific quality plan approved prior to contract assignment. Project specific consultant quality plans are expected to be an exception rather than the norm.

ODOT requires the consultant to provide an updated quality plan for review if there are changes to their quality management processes or organizational structure while the price agreement is in effect.

ODOT reserves the right to require consultant quality plan updates throughout the price agreement term or applicable contract term. Reasons for updates could include, but are not limited to, an update to this guidance. Update requests will be made through the Project Delivery QA/QC Program and responded to within ten business days to indicate when ODOT can expect an updated plan submittal. Delay in getting an updated plan approved could hold up additional WOC assignments.

5. Agency QA Reviews

ODOT may, at any time, perform a QA review of the consultant's QA/QC documentation to verify that the appropriate procedures have been followed while developing the deliverable. At a minimum, this includes documentation of the QC process as outlined in the consultant quality plan. The goal of the review is to check that the consultant followed their approved quality plan.

Appendix A - Glossary

Table 2: Glossary of Terms, Titles, and Acronyms

Term	Explanation
A&E	Architectural and engineering
Agency	ODOT, the Oregon Department of Transportation
Deliverable	The work product and other output of the services required to be delivered by the consultant, as specified in the contract.
OPO	ODOT Procurement Office
PA	Price agreement
PCO	Project Controls Office
POR	Professional of record
QC	Quality control
QA	Quality assurance
Quality records	Quality documentation that shows quality processes were followed for work on a specific project, i.e., completed forms, checklists, reports, drawings, calculations, comment log, and records of quality reviews.
Quality standards of practice	Documentation of how quality management will be done for ODOT project delivery. ODOT's project delivery quality standards of practice include the Project Delivery Quality Program Manual; region and discipline quality plans; forms, checklists, templates and other guidance
SOW	Statement of work
WOC	Work order contract



Appendix B -Consultant Quality Plan Requirements Template

ODOT Consultant Quality Plan Guidance Project Delivery QA/QC Program Oregon Department of Transportation

July 2023

Title and Consultant Approval Page

Insert Consultant Logo

Insert consultant Name Quality Plan

Client: Oregon Department of Transportation (Agency)

Service Valid for: *Insert price agreement or contract*

Prepared by:

Signature	Print Name	Title	Date
Insert electronic or wet signature	Insert printed name	Insert printed title	<mark>Insert</mark> date

Approved by:

Insert electronic or wet signature	Insert printed name	Principal in charge	<mark>Insert</mark> date
Insert electronic or wet signature	Insert printed name	Quality manager	<mark>Insert</mark> date

B-1 Quality Management Approach

State your firm's quality management policy, philosophy, and description of overall approach to quality management.

B-2 Quality Management System

B-2.1 Organizational Structure

Provide an organizational chart that illustrates the quality management organizational structure, identifying all key quality related roles, including discipline(s) where subconsultants are likely needed to supplement your organization and how your firm will manage quality with them. Be sure to include the following:

- Principal in charge.
- Project manager(s).
- Quality control manager or supervisor.
- Project discipline manager(s).

This can be by role titles for the quality plans. For individual contracts the ODOT project manager can request names of the individuals filling key roles.

B-2.2 Roles and Responsibilities

List roles, responsibilities, and qualifications of those responsible for checking and verifying quality; including but not limited to preparers, drafters, quality reviewers, and subject matter experts. List by discipline. Include the quality control manager's role, responsibilities, and how that role provides an independent review of all deliverables.

B-2.3 Quality Training

Indicate what training your firm provides to staff on quality, to confirm that this quality plan is followed.

B-3 Quality Management Processes

B-3.1 Schedule

Describe how your firm will maintain an updated schedule that includes time allotted for QC, QA and deliverable certification.

B-3.2 Quality Standards

Indicate how your firm makes the most current version of applicable standards, manuals, directives and other procedural guidance available to all deliverable preparers and reviewers. In particular, describe how each discipline will know about and access the ODOT technical discipline websites and project delivery quality program website to access the ODOT statewide discipline quality plans, region technical center quality plans, ODOT Delivered Local Agency Program (ODLAP) Quality Plan, the Project Delivery Quality Program Manual and related guidance; and the A&E outsourcing task language library tool (DocuGen).

B-3.3 Quality Control

Describe the quality control procedures and reviews your firm has in place for consultant and sub-consultant deliverables to assure that they meet or exceed the ODOT quality expectations found in the statewide discipline quality plans, ODOT Delivered Local Agency Program (ODLAP) Quality Plan, region technical center quality plans, and Project Delivery Quality Program Manual and related guidance. In particular, describe the quality control procedures that:

- Confirm that those preparing deliverables are technically competent in that discipline.
- Confirm that reviewers are technically competent in the discipline they are reviewing and possess equal or greater qualification than the preparer(s).
- Describe how your firm will manage sub-consultant quality and confirm subconsultant products and deliverables have been reviewed and verified by the prime consultant firm prior to use in design and prior to submittal to ODOT. The prime is responsible for the quality of all deliverables provided under the contract.
- Describe how discipline-specific quality reviews will be performed on deliverables. Describe review requirements to identify and correct mistakes, oversights and logic errors. Quality check procedures should include:
 - How reviewer comments are responded to by the preparer.
 - How the reviewer checks back with preparer on whether they accept the response.
 - How they both come to agreement about any changes they made.
- Describe how inter-disciplinary review will be done to check consistency across the project.
- Describe how all documents will be checked for accuracy, i.e., quantity and quality, and completeness.
- Describe how these procedures are documented and checks that are in place to confirm that they are followed.

B-3.3.1 Software, Tool, and Data Validation

Describe the process of validating design software and spreadsheets to confirm that:

- The user understands the input requirements.
- Inputs and assumptions are documented.
- Processes are identified to validate data prior to use.
- Output is fully understood.

B-3.4 Quality Assurance

Describe the process your firm use to provide internal quality assurance reviews of deliverables.

B-3.5 Independent Subject Matter Expert Review

Describe the quality procedures your firm uses to complete a comprehensive, independent review by a "fresh set of eyes". ODOT expects this to be done prior to a deliverable submittal, by experienced and competent discipline subject matter experts (SME)— who are <u>not</u> working under the direction of the deliverable professional of record (POR) — to verify the following:

- Deliverables were produced according to applicable regulations, design standards, and ODOT manuals.
- Design documents provide for constructability and compatibility of materials.
- Deliverable content is accurate and complete.
- Deliverable documents have been reviewed for appearance, organization, readability and technical and grammatical correctness.
- Deliverable documents have been checked by the drafter or preparer, the designer or discipline professional, the checkers, and reviewers.
- Where required under contract, generally accepted engineering practices, or applicable law, documents have been stamped, signed, and dated by the responsible Oregon licensed design professional.

B-3.6 Certification of Deliverables

Describe how your firm will certify deliverables at milestones (or for discipline specific contracts, the final product), including:

- Conformance with contract requirements.
- Consistency across disciplines.
- All comments and issues have been addressed.
- QA/QC processes were followed.
- Quality records were developed and provided to ODOT. Examples of quality records are documents that are produced which attest to the quality of the submitted contract deliverables such as marked-up discipline checker and independent reviewer check prints, filled out and signed review checklists, comment log(s), comment resolution sheets, and evidence of quality check procedures.

Provide an example of the certification documentation that clearly covers each of the above points.

Note that any re-submittal requires re-certification.

B-3.7 Agency Review Comments

Define the procedures your firm uses to ensure that ODOT and local agency review comments are received, assigned for response, tracked, incorporated, addressed, and closed-out in the time frame requested by ODOT.

Describe how your firm uses the project comment log as a communication tool.

B-4 Quality Document Control

Identify and provide copies of quality forms or checklists your firm will use as evidence to assure quality (e.g., discipline checker and independent reviewer checklists, comment resolution sheets, etc.). Provide copies of all forms or checklists that materially depart from those provided in ODOT quality standards of practice. If your document control plan incorporates ODOT quality documents and forms, refer to them by title and form number (you can provide links) to confirm your firm is always referencing the most current copy.

Indicate how your firm will confirm compliance with ODOT's ProjectWise protocols for document naming, storage, and creating sets in the 7_Quality folder for discipline quality documents.



Appendix C -Cross-Reference of Consultant Quality Plan to ODOT Requirements

ODOT Consultant Quality Plan Guidance Project Delivery QA/QC Program Oregon Department of Transportation

July 2023

Title and Consultant Approval Page

Insert Consultant Logo

Insert consultant Name Quality Plan

Client: Oregon Department of Transportation (Agency)

Service Valid for: *Insert price agreement or contract*

Prepared by:

Signature	Print Name	Title	Date
Insert electronic or wet signature	Insert printed name	Insert printed title	<mark>Insert</mark> date

Approved by:

Insert electronic or wet signature	Insert printed name	Principal in charge	<mark>Insert</mark> date
Insert electronic or wet signature	Insert printed name	Quality manager	<mark>Insert</mark> date

ODOT Template Section	Consultant Quality Plan Section(s) covering the required template information
1. Quality Management Approach	
2. Quality Management System	
2.1. Organizational Structure	
2.2. Roles and Responsibilities	
2.3. Quality Training	
3. Quality Management Processes	
3.1. Project Schedule	
3.2. Quality Standards	
3.3. Quality Control	
3.3.1. Software, tool, and Data Validation	
3.4. Quality Assurance	
3.5. Independent SME Review	
3.6. Certification of Deliverables	
3.7. Agency Review Comments	
4. Quality Document Control	

Table C-3: Cross-reference of Consultant Quality Plan to ODOT Template (see Appendix B)

ODOT provides a safe and reliable multimodal transportation system that connects people and helps Oregon's communities and economy thrive.



www.oregon.gov/ODOT