



Oregon Railroad Manual

Delivery & Operations Division | Right of Way Section
July 2023

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Revision History

Table 1: Major Updates

Summary of Update	Revision Date
Manual removed from Right of Way Manual and established as a standalone document. Updates include: • Text edits. • Section restructuring. • Formatting.	April 2022
Added a Quality Management and Construction Section Modified communication protocol to connect Project Manager directly with Rail Safety Section	May 2023
Edited Quality Management Section to align with Statewide Quality Template	July 2023

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Section 1 – Introduction and Purpose

The state Right of Way Railroad program is in the Right of Way Section of the Engineering and Technical Services Branch of the Oregon Department of Transportation. The primary purpose of this program is to facilitate cooperation between road authorities and railroads to provide consistency and ongoing support to transportation projects statewide. A Road Authority is a governmental body (such as state, county, or city) which has responsibility over a highway or roadway that is affecting the railroad. The state utility and railroad liaison (SURL) and the state utility and rail specialist (SURS) have the primary roles of project delivery in the Right of Way Railroad program and often represent the road authority in a project's development when it affects railroad property or its improvements.

1-1 – Laws, Rules, Regulations

The state Railroad Program complies with the policies of the ODOT Right of Way Section, the ODOT Right of Way Manual, all applicable Oregon Revised Statutes, Oregon Administrative Rules, and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act).

When state and/or Federal Highway funds are involved in a project, the project will follow this program and comply with the rules and policies of ODOT, Federal Highway Administration, the Code of Federal Regulations (CFR) - 23 CFR 646 Railroads and 23 CFR 635.410 - Buy America requirements.

Section 2 – Roles and Responsibilities

2-1 – State Utility and Railroad Liaison (SURL)

The role of the SURL is to act as a statewide single point of contact with railroads in partnership with the state utility and rail analyst (SURS) for agreements, project delivery, acquisitions and other required coordination with the railroad. The SURL acts as a facilitator who will coordinate the road authority's project with the railroads when it affects railroad owned property or their operations. The SURL provides consistency regarding the road authority's interaction with railroads and to help bring the project to a successful conclusion. The SURL provides direct support to project teams in the development of all railroad agreements, including the acquisition of required right of way. The SURL is responsible for working with all region personnel when railroad property or operations are affected by a highway project.

2-2 – State Utility and Rail Specialist (SURS)

The role of the SURS in partnership with the SURL is to act as a statewide single point of contact with railroads for right of entries and license agreements. The SURS helps the SURL support project teams when working with railroads. The SURS facilitates project team members meeting the required railroad trainings so access to railroad facilities on an as-needed basis can be achieved, among other safety requirements.

Section 3 – Project Development

The SURL/SURS are responsible for supporting the region when railroad property or its operations are impacted by a highway project. As the state representative and single point of contact, the SURL/SURS are to work with the project leader and other region personnel to facilitate their interactions with the railroad for the success of the project. The SURL/SURS's involvement consists of, but is not limited to, the preparation of all providing a notice to proceed contracts/agreements, diagnostic reviews, submission of plans to the railroad, seeking and receiving railroad review and approvals, relocation or installation of railroad improvements, and submittal of the project certification.

The SURL/SURS will prepare and facilitate all required railroad agreements. When a highway project encroaches on railroad property and property rights are required, the SURL/SURS will perform the acquisition of the needed property in lieu of a Right of Way agent in coordination with a Right of Way senior agent/project manager. The SURL/SURS will assist local agency projects when requested.

3-1 – Project Initiation

When a transportation project falls within 500 feet of railroad property or affects active railroad operations an agreement with the railroad is required, and it is important that the project's leader contact the SURL or the SURS to inform them of potential impacts so the agreement writing process can begin. The SURL or the SURS will contact the railroad to start the project process. The SURL/SURS will also assist in the project's scoping efforts when requested.

3-2 – Diagnostic and Project Meetings

The project leader contacts the Rail Safety Section to schedule the in-person diagnostic meeting between the road authority, the project leader and project team members, and all project personnel involved. Official notes will be captured, typed, and distributed upon completion of the site visit.

When transportation projects affect or influence improvements located on railroad right of way, the affected improvements may require repair, upgrade, or relocation. Railroads generally require that their own personnel be used to perform any repairs, modifications, or relocation of their facilities.

The SURL/SURS will attend all Project Development Team meetings with rail involvement.

3-3 – Crossing Order Applications

A crossing order is required if there are any changes to the layout of the crossing as described in the crossing order application. If it is determined that a crossing order will be required, the project team will prepare a draft crossing order application and send it to the Rail Crossing project Team for approval. Rail crossing applications can be found at <https://www.oregon.gov/odot/MCT/Pages/Rail-Forms.aspx>.

The final application must include a preemptive plan sheet and civil drawings, be stamped by a registered engineer, and be signed and dated by the person with funding authority.

The Rail Crossing Safety Team will review the application, write the notice of proposed action (NPA) and send it to all applicable parties. The parties have 30 days to review the NPA and provide comments.

3-4 – Plan Reviews

The SURL/SURS review all project plans. The SURL/SURS send the railroad the project plans sheets that are specific to the areas affecting the railroad. Typically, this includes DAP/preliminary (30%), and final plans. The railroad will provide comments on each review set. Estimated rail plan review time is 45-60 days.

3-5 – Property Acquisition

The SURL is responsible for the acquisition of any railroad-owned property right needed for a transportation project. The SURL will work with the assigned Right of Way senior agent/project manager for the project and provide them with regular updates as to the status of acquisition. When acquiring a property right from a railroad, the acquisition process must follow the applicable Oregon Revised Statutes, Oregon Administrative Rules, the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act), and the ODOT Right of Way Manual. ORS 366.335 provides the right to acquire property owned by the railroad. The SURL is responsible for working with the region Right of Way manager or region Right of Way senior agent/project manager when:

- Providing input to a project's scope.
- Obtaining right of way entry for project related investigations.
- Obtaining legal descriptions and maps of the acquisition properties.
- Obtaining appraisals.
- Making and tracking acquisition offers.
- Identifying functional replacements and facilitating the relocation of railroad improvements when acquiring property rights from the railroad.

The acquisition of railroad owned property is to be considered in the certification of Right of Way required for all ODOT highway projects.

The SURL/SURS will provide the Right of Way senior agent/project manager with updates as to the status of the property acquisition.

Section 4 – Railroad Agreements

The SURL/SURS are responsible for the development and execution of all railroad agreements when a project impacts railroad-owned property or its operations. This may include but is not limited to Construction and Maintenance Agreements (C&M), supplemental agreements, service agreements, flagging agreements, Maintenance and Consent Letters (MCL), license agreements and Right of Entry (ROE).

The SURL/SURS will provide the project leader with updates as to the status of the agreement's execution and distribution.

4-1 – Maintenance and Consent Letter (MCL)

Following contact by the SURL/SURS, a MCL is provided by UPRR when ODOT is completing a maintenance only project and will not be changing the railroad footprint.

4-2 – Construction and Maintenance Agreement (C&M)

The C&M agreement is used to detail what each party is responsible to maintain during and after the project. It will also identify any reimbursement to the railroad, including permanent or temporary easements. The C&M agreement can be stripped down to be just a flagging agreement when just an ODOT flagging agreement is required.

4-3 – Rail Services Agreement

A service agreement is used to reimburse the Railroad for the work they are required to do such as upgrading crossing panels.

4-4 – License Agreement

UPRR issues a perpetual license agreement for a wireline or a pipeline crossing, encroachment, a modification or maintenance request.

4-5 – Right of Entry

A Temporary Occupancy Permit is a requirement of BNSF for survey, geotech investigation, environmental, etc. The SURS or SURL will provide the license tracking spreadsheet for the project team to fill out. Once this is filled out the project team will submit it to the UtilityandRailProgra@odot.oregon.gov for the SURS to complete the process.

Genesee Wyoming Railroad (GWRR) requires a right of entry when any work is within their right of way. GWRR also requires railroad protective liability insurance if a Contractor secures this coverage through the railroad in lieu of obtaining a private policy. Each comes with its own fee.

UPRR has two types of rights of entry, a temporary property access and a non-intrusive surveying permit. A temporary property access is for adjacent property work, and haul road access. A non-intrusive surveying permit is for boots on the ground with no excavation work.

Section 5 – Railroad Certification

Each project requires a railroad certification form. A draft railroad certification is required to be started at DAP on all projects regardless of railroad involvement to start railroad coordination early. The railroad certification form is completed by the SURL. Project teams should contact the SURL to have this filled out at DAP and then prior to PS&E. Completed railroad certification will be submitted by PS&E regardless of impacts to a railroad facility. On this form the SURL will select if there is any of the following:

- No railroad involvement.
- Railroad involvement.
- All railroad work will be completed prior to the start of construction.
- Arrangements are in place to have railroad work undertaken during construction.
- Railroad flagging.
- Project has easement acquisition.
- Type of agreement required.

Section 6 – Railroad Costs

When railroad improvements are affected by transportation projects, the railroad may be entitled to reimbursement of the costs to repair or relocate those improvements since those repairs must be completed by the railroad's forces. Only eligible improvements that are affected may receive reimbursement. The SURL/SURS will assist the project team in determining the relocation status of affected improvements and work with the railroad in the relocation or repair of them.

6-1 – Flagging Costs

For railroad safety, and to comply with FRA regulations, railroad flagging is required on most transportation projects when the project affects the land or improvements owned by a railroad, or the project work is within 25 feet. Like improvement relocation or repair, the railroad generally performs and arranges for all flagging efforts. Because rail protection is required during a project's construction, the reimbursement of flagging costs is generally paid by the project's construction unit. The SURL/SURS can assist the construction unit in determining if the flagging costs reported are actual costs incurred and can assist in any negotiations should a dispute occur with the railroad. See Section 4 for flagging agreement requirements.

6-2 – Notice to Proceed (NTP)

The NTP provides permission for the railroad to perform certain work. NTP is issued by the SURL before the railroad is to begin work or payment is made for any reimbursements. The project team will provide the SURL with sufficient funds for any reimbursement to the railroad.

6-3 – Recommendation of Payment

Reimbursement can only be made from a submitted invoice that is accompanied by sufficient supporting documentation showing actual costs spent. Only approved actual costs, additives rates, and overhead expenditures spent for the activity being reimbursed are eligible for reimbursement. Oregon law requires all approved reimbursable expenditures to be paid within 45 days of receiving a complete invoice and supporting documentation. The SURL and SURS review the expenditures and submit them to the deputy state Right of Way manager for authorization to make payment.

Section 7 – Railroad Construction

7-1 –Construction Requirements for all Railroads

The following information is generally required on projects that include railroad work:

- Railroad preconstruction conference with the RR is mandatory to begin.
- Contractor's safety training -Contact UtilityandRailProgra@odot.oregon.gov inbox to have this training set up for you if you are an ODOT employee.
 - UPRR safety badge: <https://erailsafe.everifile.com/>
 - [BNSF Safety Training: www.BNSFContractor.com](http://www.BNSFContractor.com);
 - [Genesee Wyoming: https://www.bistrainer.com/store/railpros-store/productdetails/genesee-and-wyoming-roadway-worker-protection-for-contractors-training](https://www.bistrainer.com/store/railpros-store/productdetails/genesee-and-wyoming-roadway-worker-protection-for-contractors-training)
 - [Only one person per crew needs to have this training.](#)
- [When working on railroad property the following is required:](#)
 - Applicable list of design & construction submittals approved by RR
 - Executed C&M agreement or MCL
 - Executed Right of Entry or Contractor's Endorsement
 - Required insurance certs
 - Project schedule- to be turned in weekly to include 4 weeks plan ahead
 - Safety Action Plan posted @ job site
 - Correct PPE per training- only orange vests
 - Fire prevention plan
 - Training badges on all personnel
- Flagging
 - The contractor is required to get subcontract in place for third party railroad flagging services for projects with UPRR.
https://www.up.com/real_estate/index.htm
 - For railroad flagging not UPRR see Section 6-1 above.

7-2 –Railroad Submittals

If submittals need to go to the RR for construction approvals, please reference the [Grade Separation Manual](#) for division of types (do not combine more than one submittal type) and send through the RE to the State Utility and Rail Liaison's (SURL) office.

The following are submittals that may be required:

- Cutting/shoring
- Setting girders

- Final inspection
- False work plan
- Demolition/ removal plan/ work sequence
- Containment Plan
- Erection plan
- Erosion control plan

Section 8 – Railroad Quality Management

8-1 – Quality Management

We recognize our success is determined, in part, by the quality of services and products we provide for our customers.

Assuring quality requires not only a commitment, but also a consistent systematic approach. The ODOT railroad quality control program endeavors to go beyond the review of work products to result in a continuous improvement of the processes and products associated with railroad services.

The ultimate goal of quality control is to achieve an overall quality of work in all endeavors that meets or exceeds the goals of the agency.

The QC process is not intended to relieve the project team from responsibility for their work products.

8-2 – Quality and Technical Standards

The [ODOT Project Delivery QA/QC Program website](#) provides an overview of the ODOT Project Delivery QA/QC Program, access to the quality standards of practice. The Project Delivery Statewide Quality Management Program Manual can be found there, as well as a listing of the quality plans and guidance documents, including the region Technical Center quality plans, the technical discipline quality plans, and the transportation project management statewide quality plan. There is also a listing of the associated quality forms and checklists.

8-3 – Roles and Responsibilities

The roles and responsibilities for implementing railroad quality management are described in this section.

Table 2: Railroad Quality Roles and Responsibilities

Roles	Responsibilities
State Utility and Railroad Liaison (SURL)	• The SURL is responsible for standards and policies, including the development of this manual, for railroad work throughout ODOT as well as for agency wide QA reviews. • They will work with the SURS to review all plans, specifications and agreements to ensure that the project moves forward.
State utility and rail specialist (SURS)	• The SURS is responsible for reviewing all plans, specifications and agreements to ensure that the project moves forward.
Right of Way HQ	• The deputy state row of way manager oversees the SURL, SURS and the headquarters process
Region management	• The management team of each region is ultimately responsible for the management of staff and resources within the region.

8-4 – Quality Control

8-4-1 – Quality Control Milestones

Table 3: Railroad Project Elements

Phase	Project Elements Requiring Team Review
Scoping Phase	Scoping Notes
Project Kickoff	DAP Narrative
DAP Phase	- Review of DAP Plans and Estimate - Start communication with the railroad
Preliminary Phase	- Review of Preliminary Plans - Start required agreements - Start required property acquisition
Advanced Phase	- Review of Advanced Plans - Advance Special Provisions
Final Phase	- Review of Final Plans - Final Special Provisions - Finalize Agreements - Railroad Certification
Construction Phase	- Railroad Precon 3-week look ahead schedule - Pay Invoices - Project Closeout

8-4-2 – Quality Control Reviews

The SURL and SURS is responsible for reviewing all plans, specifications and agreements to ensure that the project moves forward. The SURL certifies the QC steps are complete by signing the railroad certification.

8-4-3 – Authority of Reviewer

The SURL certifies the QC steps are complete by signing the railroad certification.

8-4-4 – Software, Tool, and Data Validation

Not applicable to railroad work.

8-4-5 – Quality Control Documentation

As project QC work is done, quality records are created that provide reviewable evidence documenting that quality work was done. These quality records also provide the basis for QA

reviews and/or audits (performed by professional auditors).

Quality records in ProjectWise are stored in their regular discipline or milestone directory, with either “QC” or “QA” in the document title or description, to facilitate searches for quality documentation. A set of quality files from each discipline or milestone folder in ProjectWise will be created in the ProjectWise “7_quality” folder. The set naming convention will use the discipline code RR as follows:

RR_K#####_RRCert_#

8-4-6 – QC Communications

The process described in this section defines the minimum level of communication and collaboration necessary to meet the requirements of the ODOT Railroad quality plan. Members of the project team are encouraged to freely communicate throughout the life of the project to assure a high level of service and quality and reduce significant amounts of rework, errors, or omissions.

Internal QC conversations start at DAP when the draft Railroad Certification is filled out and required railroad coordination is determined. During the final certification at PS&E, communication with the project leader and project team verifies that all railroad components have been completed. Since the Railroad Certification is the QC document, there are no external communications for QC.

8-5 – Quality Assurance

Quality assurance (QA) is a system undertaken to maximize the effectiveness of the quality program. The QA process will assist in measuring the effectiveness of the quality efforts in order to provide input into continuous improvement of the work and assist in identifying technical development needs.

8-5-1 – Quality Assurance Review Process

To achieve the goals stated above, the QA process will need to be objective, transparent, and effectively communicated.

The QA team will consist of the SURL, the SURS and the Deputy State Right of Way Manager.

Projects are candidates for review after they go to bid. Projects that have railroad problems in construction are likely candidates for selection. In general, projects selected for review will be selected by one of the following ways:

- By request from the regions. Based on documented concerns or known project issues, a region may request a QA review on any project.
- Randomly. Projects from throughout the regions will be selected randomly for QA review.

Project Review. An in-depth review of the project documentation will address how well the project met standards and the extent to which the QC process contributed to the success of the project. The results of the in-depth reviews will be collected and evaluated for inclusion in an annual summary report.

Completeness Review. Initial information on completed projects will be gathered from ProjectWise. The QA team will complete an initial review and evaluation, focused on the completeness and timeliness of the QC documentation, and will write up their findings and recommendations in a draft version of a short, project-specific report.

8-5-2 – Quality Assurance Documentation

Quality records in ProjectWise are stored in their regular discipline or milestone directory, with either “QC”, “QA”, or “QV” in the document title or description, to facilitate searches for quality documentation. A set of quality files from each discipline or milestone folder in ProjectWise will be created in the ProjectWise “7_quality” folder. The set naming convention for RR will be as follows:

RR_K#####_##

8-5-3 – QA Communications

Summary Report. The results from both the completeness and project reviews will be collected and summarized in an annual report. That report will not present specific projects but rather an analysis of issues and trends with respect to quality control and project success. The report will contain generalized findings and recommendations to share with the agency. The results of the in-depth reviews will be collected and evaluated for inclusion in an annual summary report.

Section 9 – References

- BNSF Public Projects Manual -
 - <http://www.bnsf.com/bnsf-resources/pdf/in-the-community/public-projects-manual-mtm.pdf>)
- Genesee Wyoming Project Manual
 - There is a manual reach out to the UtilityandRailProgra@odot.oregon.gov inbox to get a copy
- Union Pacific Railroad Public Projects Manual
 - https://www.up.com/cs/groups/public/@uprr/@corprel/documents/up_pdf_native_docs/pdf_up_public_projects_manual.pdf
- UPRR-BNSF Joint Guidelines for Railroad Grade Separation Projects Manual
 - <https://www.up.com/aboutup/re/index.htm>