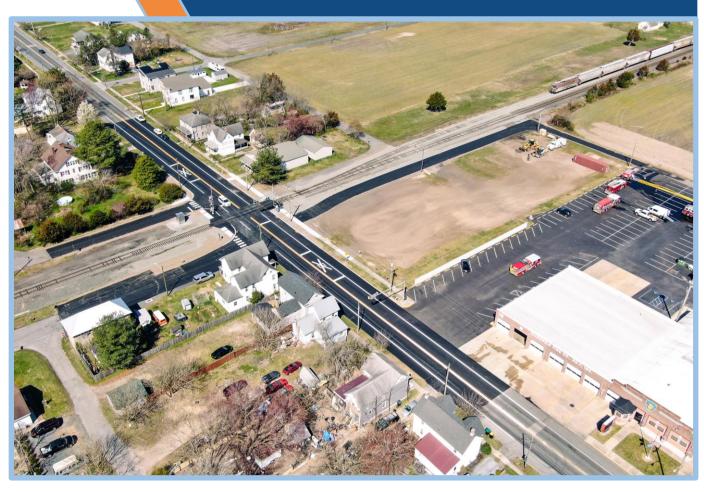
# DelDOT Railroad Coordination Manual



Prepared by: Delaware Department of Transportation May 2025



## Contents

1.0 Introduction	1-1
1.1 Purpose and Objectives of this Manual	1-1
1.2 Background	1-1
1.3 Importance of Railroad Coordination	1-2
1.4 Roles and Responsibilities in Railroad Coordination	1-4
1.4.3 Delaware Transit Corporation Coordinator 1.4.4 Consultants 1.4.5 Contractors.	1-5 1-5
1.5 Railroad Companies in Delaware	1-5
2.0 Laws, Regulations, Standards, and References	2-1
2.1 Purpose	2-1
2.2 Federal	2-1 2-1
2.2.3 Federal Highway Administration (FHWA)      2.2.4 American Association of State Highway and Transportation Officials (AASHTO)      2.2.5 American Railway Engineering and Maintenance-of-Way Association (AREMA)      2.2.6 Institute of Transportation Engineers (ITE)	2-1 2-1
2.3 State of Delaware	2-2
2.4 Railroad Companies	2-2
3.0 DelDOT Railroad Section	3-1
3.1 Purpose and Responsibilities	3-1
3.2 Railroad Agreements	3-1
3.3 DelDOT Railroad Section Projects	3-2
3.4 Inventory	
4.0 Capital Transportation Program Project Railroad Coordination	
4.1 Purpose	
4.2 Railroad Statement	<b>4-1</b> 4-1
4.3 Railroad Agreements	<b>4-2</b> 4-3 4-3
4.3.4 Temporary Crossing Agreement	4-3

4.3.5 Construction Agreement	4-3
4.4 Project Development	4-4
4.4.1 Initiation	
4.4.2 Scoping	4-4
4.4.3 Alternatives Development	
4.4.4 Survey	
4.4.5 Preliminary	
4.4.6 Semi-Final	
4.4.7 Final	
4.4.8 Plans, Specifications, and Estimate (PS&E)	4-7
4.5 Construction	4-7
4.5.1 Construction Agreements	
4.5.2 Pre-Construction Meeting	
4.5.3 Shop Drawing Review	4-8
4.5.4 Inspection	4-8
5.0 Short-Duration Activities	5-1
5.1 Purpose	5-1
5.2 Process	5-1
5.3 Project Development	5-2
6.0 Emergency Activities	6-1
6.1 Purpose	6-1
6.2 Process	6-1

#### **List of Appendices**

Appendix A
 Appendix B
 Appendix C
 Appendix D
 Appendix D
 Appendix E
 Appendix E
 Appendix E
 Appendix F
 Glossary of Acronyms and Terms

#### 1.0 Introduction

#### 1.1 Purpose and Objectives of this Manual

The information provided in the *DelDOT Railroad Coordination Manual* is intended to support the Delaware Department of Transportation (DelDOT) project managers with more consistency and predictability in projects that involve planning, designing, constructing, and maintaining DelDOT facilities that impact or are adjacent to railroad right-of-way (RR-ROW).

The objectives of this manual are to:

- Present the roles of the DelDOT Railroad Section and clarify the importance of railroad coordination.
- Identify laws, regulations, standards, and other reference information relevant to working with railroad companies.
- Explain when railroad agreements and statements are needed and the process for obtaining them.
- Establish a procedural framework for railroad coordination expected of DelDOT project managers.
- Establish a procedural framework for railroad coordination during emergencies.
- Provide standardized checklists, forms and flow charts to aid in consistency.

#### 1.2 Background

The property where rail facilities are located is typically owned by the railroad company. This includes where railroads cross DelDOT-owned roadways, either at-grade or grade-separated via bridge or tunnel. RR-ROW typically extends out 30 to 33 feet from either side of the railroad centerline, however this can vary by location and should be confirmed for each project location. Typically, the railroads were in place before the roadway, so the railroad companies have exclusive jurisdiction over any activity within this RR-ROW. If a DelDOT project or activity should occur within RR-ROW, it requires prior approval from and a signed agreement with the railroad company.

The DelDOT Railroad Section exclusively leads coordination efforts with freight railroad companies for DelDOT projects. Coordination with Amtrak and other passenger railroad companies is the responsibility of the Delaware Transit Corporation (DTC), as authorized by the Delaware Authority for Regional Transit (DART).

The priorities of railroad companies are to move freight and minimize risks in doing so. Railroad companies face greater risk and possible disruption to productivity when a project or personnel from another entity is within the RR-ROW and, therefore, are cautious about allowing such activities. Various types of agreements and training on a railroad company's operating and safety practices are typically required for activities within their RR-ROW.

Railroad companies are commonly challenged by staffing limitations leaving less time for coordination with other entities, such as DelDOT, who need their involvement when activities occur within the RR-ROW. Large national railroad companies tend to have a greater number of demands, so the coordination process may take longer. Smaller regional and local railroad companies and state-owned railroads tend to be more able to respond more quickly.

#### 1.3 Importance of Railroad Coordination

Railroad coordination is important to DelDOT projects for three primary reasons: to ensure safety of the railroad company and its workers, DelDOT personnel, contractors, and the traveling public; meet legal obligations to the railroad companies; and successfully deliver DelDOT projects.

Safety is the primary concern whenever a project involves work on or near a railroad. DelDOT employees and their contractors should take proper safety measures and adhere to the railroad company's requirements. For both safety and legal reasons, the DelDOT Railroad Section should be contacted prior to any activity within RR-ROW to determine the need for staff training, railroad agreements, or flagging operations at the discretion of the railroad company. Work that warrants coordination with a railroad company may include:

- Construction
- Maintenance
- Material or equipment storage
- Survey activities
- Inspection activities
- Entering RR-ROW at any time

DelDOT does not control what is required by the railroad companies. Notably, even when work is planned to occur outside RR-ROW, it may still affect drainage along the railroad or require material or equipment storage within RR-ROW and, therefore, may necessitate coordination with a railroad company.

One of the primary requisites for coordination is the Railroad Statement, which is required of all DelDOT projects. The DelDOT Railroad Section issues Railroad Statements prior to the plans, specifications, and estimate (PS&E) stage of a project to document whether projects require railroad involvement and the extent of the involvement. (See **Appendix A** for a sample Railroad Statement.)

Figure 1 summarizes the general coordination process for a Capital Transportation Program (CTP) project, particularly as it relates to producing the Railroad Statement. (More details are presented in **Chapter 4** and illustrated in **Appendix C: Railroad Projects Flow Charts.**)

Railroad Section continually involved to assess RR ROW impacts, from initiation through completion **Project** Survey Preliminary Semi-Final Final Initiation **Plans Engineering** (S/F) Design Design Is Railroad Involvement Required? Can work be completed under existing Railroad Section Maintenance Agreement? No Yes **Draft Railroad Statement:** CTP Project Team and RR Section Draft Railroad Statement: proceed toward a final design (See **Railroad Agreement** No Railroad Involvement Required Appendix C) CTP Project Team and RR Section

Figure 1: Coordination Process for CTP Project Design

proceed toward a final design (See Appendix C)

The DelDOT Railroad Section should be the single point of contact and coordinator with freight railroad companies for all DelDOT activities and projects. The existing relationships, professional understanding, and established communication channels between the DelDOT Railroad Section and railroad companies simplify and expedite the railroad coordination process and ensure that appropriate steps are taken. A Railroad Coordination Checklist (see Appendix B) has been created to identify project milestones from project development and design to construction.

Railroad coordination will impact a project's budget and may be critical to its schedule. DelDOT project managers should contact the DelDOT Railroad Section as the project scope is developed to determine whether railroad involvement is necessary so appropriate funding and scheduling can be anticipated.

If railroad involvement is necessary, the portion of the project that impacts the railroad will have to meet the criteria of the specific railroad company. The design and planning process can take approximately 24 months or longer, especially when RR-ROW is impacted. Though the DelDOT Railroad Section will help in coordinating reviews and planning, these steps can involve long review and coordination times, with no guaranteed date for a response. This delay can slow DelDOT's plan approvals and potentially impact the dates for bidding and construction. Once construction begins, if there is railroad involvement, the project should schedule time for shop drawing reviews by the railroad company, rail line outages, railroad-led flagging operations, and other railroad schedule changes.

Avoiding railroad involvement altogether is often preferable because of the complexities and uncertainties introduced to a project when a railroad company is involved. A more predictable project schedule sometimes outweighs higher project costs. The DelDOT Railroad Section can help identify how to avoid railroad impacts during the early planning stages of a project.

#### 1.4 Roles and Responsibilities in Railroad Coordination

This section describes the primary roles involved in railroad coordination, as well as the basic function and responsibilities of each role. These descriptions are meant only for the purposes of railroad coordination and are not a comprehensive outline of all roles and responsibilities on a project.

#### 1.4.1 DelDOT Railroad Section

The DelDOT Railroad Section coordinates all railroad impacts on DelDOT projects, determines whether the railroad company's involvement is required on a project, and is the point of contact between DelDOT, freight railroad companies, and DTC. The DelDOT Railroad Section manages all railroad work done through DelDOT projects, including railroad agreements, railroad projects, coordination between railroad companies and DelDOT project managers, design of rail improvements, evaluation of railroad company involvement, review of rail-related designs, inspection of work completed on or near RR-ROW, maintenance work on or near RR-ROW, and inventory of railroads.

Leveraging experience and existing relationships, the DelDOT Railroad Section facilitates the completion of projects with railroad involvement and supports the authorized entry and safe practices of DelDOT personnel working within or near the RR-ROW.

#### 1.4.2 DelDOT Project Managers

A DelDOT project manager is anyone who oversees the initiation, scoping, development, design, or construction of a DelDOT project or manages a DelDOT activity such as survey, maintenance, inspection, or inventory. DelDOT project managers are typically DelDOT employees, but the DelDOT project manager may also designate some of their project responsibilities to a consultant.

DelDOT project managers are responsible for communicating with the DelDOT Railroad Section to determine the extent of railroad coordination that will be necessary for their project. This includes obtaining a Railroad Statement for their project, which specifies the level of railroad involvement. If railroad coordination is needed on the project, the DelDOT project manager is responsible for assisting the DelDOT Railroad Section in coordinating with the railroad company. Identifying and planning for railroad involvement early in the project initiation and scoping stages enables the DelDOT project manager to take into account how railroad involvement will affect the project's budget and schedule.

For any DelDOT activity within RR-ROW, the DelDOT project manager should work through the DelDOT Railroad Section to obtain the necessary approvals, which may include railroad agreements, flagging services, and other requirements specified by the railroad company. Safety is a major concern whenever

work occurs within or adjacent to RR-ROW and DelDOT project managers should plan to follow proper safety requirements.

#### 1.4.3 Delaware Transit Corporation Coordinator

The DTC coordinator is the point of contact for coordination of all DelDOT activities and projects with passenger railroad companies. It is the DelDOT project manager's responsibility to coordinate directly with the DTC coordinator regarding projects that have passenger railroad involvement.

#### 1.4.4 Consultants

Consultants can perform design work on behalf of and at the direction of DelDOT project managers. As directed, they may perform any of the responsibilities of the DelDOT project manager but would still need to follow the required procedures for railroad coordination, if necessary.

Additionally, the DelDOT Railroad Section uses consultants to perform work on behalf of DelDOT at the DelDOT Railroad Section's direction. This work is performed through contracts established for DelDOT Railroad Section support.

#### 1.4.5 Contractors

Contractors perform construction work on behalf of and at the direction of DelDOT. Contractors should obtain their own construction agreements directly with the railroad company in order to enter and work within RR-ROW. This is separate from coordination with the railroad company during project development and design.

#### 1.5 Railroad Companies in Delaware

Many railroad companies operate within Delaware. National railroad companies work on a large scale across the country, regional companies have operations in Delaware and neighboring states, and local companies work exclusively within Delaware. The following is a list of the predominant railroad companies that own right-of-way or operate in Delaware. (The <u>Rail Lines Map on the DelDOT Gateway</u> provides an up-to-date database of railroad owners.)

Predominant railroad companies in Delaware (as of January 2025):

#### Freight:

- National
  - o CSX Transportation, Inc. (CSXT)
  - Norfolk Southern Corporation (NS)
- Regional
  - o Delmarva Central Railroad Company (DCR)
  - o East Penn Railroad, LLC (ESPN)
  - o Maryland and Delaware Railroad Company (MDDE)
- Local
  - o Delaware state-owned railroad (Operated by DCR)

#### Excursion/Recreation

Historic Red Clay Valley, Inc. (HRCV)/Wilmington and Western Railroad (WWRR)<sup>1</sup>

#### Passenger:

- National
  - o National Railroad Passenger Corporation (Amtrak)
- Regional
  - o Southeastern Pennsylvania Transportation Authority (SEPTA)

<sup>1</sup> HRCV is a recreational excursion railroad company and is subject to coordination through the DelDOT Railroad Section.

.

#### 2.0 Laws, Regulations, Standards, and References

#### 2.1 Purpose

The laws, regulations, standards, and references presented in this chapter are resources that may be helpful to DelDOT staff working on projects where work is in, near, or may impact RR-ROW. The list, which includes the most current version of each reference as of the date of this manual, is not intended to be exhaustive or govern design decisions. All designers and contractors have a responsibility to confirm with the DelDOT Railroad Section which references, including versions and editions, are the most pertinent to their project.

#### 2.2 Federal

#### 2.2.1 United States Code (USC)

- 23 USC § 130 (2012), Railway-Highway Crossings
- 23 USC § 148 (2012), Highway Safety Improvement Program

#### 2.2.2 Code of Federal Regulations (CFR)

- 23 CFR § 646, Railroads
- 23 CFR § 655, Traffic Operations
- 28 CFR § 36, Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities, The Americans with Disabilities Act (ADA)
- 49 CFR Chapter II, Federal Railroad Administration, Department of Transportation
- 49 CFR § 674, Rail Fixed Guideway Systems, State Safety Oversight

#### 2.2.3 Federal Highway Administration (FHWA)

- <u>Guidelines for the Design and Construction of Grade Separation Highway Structures over or under Railroads (April 2013)</u>
- Manual on Uniform Traffic Control Devices (MUTCD), 11<sup>th</sup> Edition, (December 2023)
- *Highway-Rail Crossing Handbook, 3<sup>rd</sup> Edition* (2019)

#### 2.2.4 American Association of State Highway and Transportation Officials (AASHTO)

- A Policy on Geometric Design of Highway and Streets ("The Green Book"), 7th Edition (2018)
- Guide for the Development of Bicycle Facilities. 5th Edition (2024)
- Roadside Design Guide, 4th Edition (2011)
- Guide for the Planning, Design and Operation of Pedestrian Facilities, 2<sup>nd</sup> Edition (2021)

#### 2.2.5 American Railway Engineering and Maintenance-of-Way Association (AREMA)

- Communications & Signals Manual (C&S), 2023 Edition (2023)
- Manual for Railway Engineering, 2020 Edition (2024)

#### 2.2.6 Institute of Transportation Engineers (ITE)

Preemption of Traffic Signals Near Railroad Crossings (RP-025D) (2021)

#### 2.3 State of Delaware

#### 2.3.1 Delaware Code

- 17 Del. C. Chapter 7, Railroad Crossings over Highways
- 17 Del. C. § 1310, Power of Railroads to Vacate Roads in Special Cases by Agreement

#### 2.3.2 Delaware Department of Transportation

- Bridge Design Manual, 2024 Edition
- Delaware Manual on Uniform Traffic Control Devices "DE MUTCD", 2011 Edition including Revision 3 (May 2018)
- Project Development Manual "PDM", July 2015 Edition
- Pedestrian Accessibility Standards for Facilities in the Public Right of Way, 2021 Edition
- Road Design Manual (2022)
- Traffic Design Manual, 2015 Edition

#### 2.4 Railroad Companies

In addition to the above references, DelDOT projects should also follow the regulations and standard specifications individual railroad companies have established for work within their right-of-way. DelDOT project managers should consult with the DelDOT Railroad Section for the current design standards applicable to their projects. DelDOT project managers can confirm railroad owners throughout the state by checking the Rail Lines Map on the DelDOT Gateway.

#### 3.0 DelDOT Railroad Section

#### 3.1 Purpose and Responsibilities

The DelDOT Railroad Section serves as DelDOT's single point of contact for all project coordination between DelDOT and freight railroad companies. For every DelDOT project, the DelDOT Railroad Section determines whether coordination with a railroad company is necessary and documents this decision in a DelDOT Railroad Statement. (See **Appendix A** for sample DelDOT Railroad Statement.)

The DelDOT Railroad Section facilitates reviews of planned railroad work, assists with scheduling, provides estimates for railroad work, and aids DelDOT project managers throughout the design process to determine the extent and cost of railroad company involvement. The DelDOT Railroad Section uses its knowledge of railroad standards, previous experience, and contacts with railroad companies to help manage railroad involvement on DelDOT projects. The DelDOT Railroad Section also helps coordinate with the railroad companies to obtain funding and schedule estimates for railroad impacts and to facilitate the development of any needed agreements between the railroad company and DelDOT as well as the development of Railroad Statements.

Coordination for some projects with railroad involvement can be simplified through the DelDOT Railroad Section's existing maintenance contracts and agreements that they hold with the railroad companies. These agreements are ongoing between DelDOT and the railroad companies and allow DelDOT to access RR-ROW for limited reasons. Activities covered by these agreements typically include short-term work, such as survey, roadway paving and pavement maintenance, sidewalk work, railroad signal upgrades, changes to signage, replacement of striping and other pavement markings, basic maintenance, and other similar work. The DelDOT Railroad Section handles the design, coordination, and construction of this short-term work. DelDOT project managers are encouraged to have early discussions with the DelDOT Railroad Section to identify whether work for their project can be performed under these master agreements.

The DelDOT Railroad Section also serves as the owner of the state-owned railroad system, which is operated by a third party. Coordination of projects involving these railroad corridors is managed by the DelDOT Railroad Section.

#### 3.2 Railroad Agreements

Before any DelDOT work can be performed in or near RR-ROW, the DelDOT Railroad Section should obtain a formal written agreement between the railroad company and DelDOT allowing access to the RR-ROW. The DelDOT Railroad Section maintains its own maintenance agreements and master agreements with the railroad companies. Master agreements provide the framework for individual project agreements and streamline coordination between DelDOT and the railroad companies, as they have already been approved by the engineering and legal sections of both parties.

No railroad agreement allows unlimited access to RR-ROW; all agreements will require ongoing coordination with the railroad company to ensure that the railroad company is aware of work and presence within the RR-ROW. See **Chapter 4** for information on the various types of railroad agreements and consult with the DelDOT Railroad Section for information on which type is appropriate.

#### 3.3 DelDOT Railroad Section Projects

The DelDOT Railroad Section supports projects that originate with other sections and also manages projects of its own.

#### 3.3.1 Pavement and Rehabilitation

The DelDOT Railroad Section can support Pavement and Rehabilitation Program projects through its existing maintenance contracts and agreements with the railroad companies. To ensure that all work within RR-ROW is done in accordance with railroad standards and to allow the overall pavement rehabilitation project to proceed without having to coordinate with the railroad companies, the DelDOT Railroad Section will generally establish a separate process for signing, striping, and pavement and rehabilitation improvements along the road within 130 feet of the railroad centerline.

The DelDOT project manager for pavement and rehabilitation projects should coordinate with the DelDOT Railroad Section to confirm maintenance contracts and agreements are available for the location and scope of their proposed improvements.

#### 3.3.2 Highway-Rail Grade Crossing (HRGX) Safety Program

The HRGX program, a subset of the federal aid Highway Safety Improvement Program (HSIP) managed by the DelDOT Traffic Safety Engineering Section, helps to identify safety improvements at railroad crossings. The DelDOT Traffic Safety Engineering Section conducts this process approximately once per year and improvements are developed based on historic crash data and benefit-cost ratios. Improvements generally include paving, pavement markings, warning signs, and signal upgrades. The DelDOT Railroad Section typically implements these improvements using its existing maintenance contracts and railroad agreements and coordinates with the railroad companies as necessary.

#### 3.4 Inventory

The DelDOT Railroad Section maintains an inventory of all railroads and all railroad/roadway crossings in Delaware. This information is kept in the Railroad Program Management (RPM) database. This web-based database houses all data necessary for the management of the state's railroad crossings, helping to centralize information and providing a streamlined mechanism for reporting and decision-making. The RPM includes the following information:

- Crossing number, location, and geometry
- Roadway name, road number, milepost, speed limits, and volume
- Railroad owner, branch, speed limits, and volume
- Notes on condition, crashes, upgrades, and maintenance

The RPM is currently managed and maintained by the DelDOT Railroad Section and available only to its own staff and consultants.

#### 4.0 Capital Transportation Program Project Railroad Coordination

#### 4.1 Purpose

This chapter describes the railroad coordination process for Capital Transportation Program (CTP) projects. Because CTP projects generally require the longest and most involved railroad coordination of all DelDOT projects, this process can serve as a framework for other railroad projects, which may only require some of the coordination steps outlined here.

Please refer to the Railroad Coordination Checklist in **Appendix B** and the Railroad Project Flow Charts in **Appendix C** for additional information on the railroad coordination process.

#### 4.2 Railroad Statement

A Railroad Statement is the official documentation of the DelDOT project manager's coordination with the DelDOT Railroad Section. It records the DelDOT Railroad Section's decision as to whether coordination is needed and what type. The Railroad Statement is typically issued after semi-final plans. A sample Railroad Statement is included in **Appendix A**.

The following sections describe the possible determinations of the Railroad Statement. A determination may include the requirement for both railroad flagging and a railroad agreement.

#### 4.2.1 No Railroad Involvement

The determination that the project does not need to be coordinated with any railroad companies can be reached in one of two ways:

- When the project does not affect any railroads. The DelDOT project manager should continue
  to include the DelDOT Railroad Section in all future plan submissions for review to ensure that
  final design changes do not require coordination with a railroad company. The DelDOT project
  manager should contact the DelDOT Railroad Section directly if the project scope or limits are
  altered in a way that could affect railroad involvement. In this case, an updated Railroad Statement
  with a different determination could be needed.
- When all railroad work on the project will be completed by the DelDOT Railroad Section under its existing maintenance agreements. This could apply to either capital or maintenance projects. In this case, the DelDOT project manager coordinates with the DelDOT Railroad Section to ensure that the project and the rail work have complementary designs and construction schedules. The railroad construction, which is typically completed ahead of the rest of the project construction, is funded through the railroad phase<sup>2</sup> of the project contract. The DelDOT Railroad Section will determine the appropriate funding amounts and communicate that to the DelDOT project manager to be included in the railroad component of the budget.

#### 4.2.2 Railroad Flagging Required

This determination is indicated on the Railroad Statement if certain aspects of the project will require the railroad company to provide flagging services. A flagging requirement could be triggered by long-term

<sup>&</sup>lt;sup>2</sup> In this case, "phase" refers to the budget component.

construction within or adjacent to RR-ROW where personnel, material, or equipment movement is anticipated to impact the railroad or by temporary impact of the railroad due to short-duration activities such as site visits, material or equipment movement, or maintenance on existing facilities.

The DelDOT project manager or construction manager, with the assistance of the DelDOT Railroad Section, needs to coordinate directly with the appropriate railroad company to schedule flagging services. The coordination will involve identifying windows of time during which the required project work can be scheduled. Scheduling flagging services can take longer than 14 days in some cases, so the DelDOT project manager should inform the DelDOT Railroad Section as soon as flagging is identified as a project need.

#### 4.2.3 Railroad Agreement Required

Determination that a railroad agreement is required means that the DelDOT project manager needs to work through the DelDOT Railroad Section to coordinate with the railroad company to obtain an agreement. Plan reviews will be required at various steps of the process, as outlined in later sections of this chapter. The final project PS&E package will not be ready until the railroad company provides their approval on the rail-related work by stamping the plans and approving the final Force Account Estimate (FAE) for inclusion in the project budget.

This determination also requires coordination of the construction schedule with the railroad company, which may result in the requirement to provide flagging services for construction activities.

#### 4.3 Railroad Agreements

After initial DelDOT Railroad Section coordination and through development of Railroad Statements, various railroad agreements are typically identified. The railroad agreement is the legally enforceable documentation reflecting decisions between the railroad company and DelDOT about activities associated with a project which has some kind of railroad impact. No agreement allows unlimited access to RR-ROW; all agreements will require ongoing coordination between DelDOT and the railroad company depending on the type of work or access required.

#### **4.3.1 Maintenance Agreement**

Maintenance agreements are existing ongoing contracts between DelDOT and the railroad company allowing DelDOT to perform specific types of work on the railroad company's property as needed. This work is typically short-duration activities, as discussed in **Chapter 5** of this manual. The DelDOT Railroad Section maintains several maintenance agreements with the various railroad companies so it can perform maintenance work within RR-ROW. A maintenance agreement is generally not location-specific, but rather broadly defines parameters of maintenance activities in any of a given railroad company's RR-ROW across the state.

Typical work performed under a maintenance agreement includes pavement rehabilitation, minor drainage improvements, and railroad flagging services. With a maintenance agreement in place and upon notifying the railroad company of intent to enter the RR-ROW, the DelDOT Railroad Section has then properly secured the right to proceed with this kind of work. However, if a DelDOT project is seeking to proceed with the aforementioned work, but there is no existing maintenance agreement with the railroad company,

other types of agreements will be necessary. To develop these other types of agreements, the DelDOT Railroad Section will require scope of work, project plans, location map, anticipated duration, timeframe of work, proposed personnel, proposed quantities, and a list of construction equipment required.

Like other agreements, maintenance agreements do not allow unlimited access to railroad property. DelDOT personnel or contractors are allowed to perform certain aspects of maintenance work, but other kinds of visits may require an additional agreement and/or proof of insurance. These visits may require additional levels of coordination such as arranging for railroad flagging services, coordinating gaps in the railroad schedule, and securing training and certifications for personnel entering the RR-ROW.

#### 4.3.2 Preliminary Engineering Agreement

Preliminary engineering agreements are established between DelDOT and the railroad company and document that the railroad company will require funding from DelDOT to work on the project throughout the design process. Refer to **Section 4.4.4** for additional information on preliminary engineering agreements during the survey phase of a project.

#### 4.3.3 Right-of-Entry Agreement

Right-of-entry agreements are contracts between DelDOT and the railroad companies allowing an easement for entry onto RR-ROW, which are always necessary for any activity within RR-ROW. These agreements outline what activities are approved and should include plans and location maps to illustrate anticipated activities. These activities may require additional agreements and coordination, as outlined above for maintenance agreements.

The process to obtain a right-of-entry agreement can take approximately 3 months, and first requires confirmation of existing RR-ROW with the DelDOT Railroad Section. The alternatives to this agreement are to obtain easements or RR-ROW from the railroad company, which is generally an extremely time-consuming process and should be avoided if possible.

#### 4.3.4 Temporary Crossing Agreement

Temporary crossing agreements are contracts with the railroad company allowing DelDOT personnel, equipment, or materials to cross the tracks at an existing railroad crossing or elsewhere on the railroad. Such agreements are typically needed for ongoing construction efforts that will require construction vehicles to go back and forth over the tracks. These agreements specify approved activities and timeframes and outline additional requirements such as proof of insurance, railroad flagging services, coordination with gaps in the railroad schedule, and training and certification for personnel entering RR-ROW. Obtaining a temporary crossing agreement can take approximately 1 month. **Appendix C-10** outlines the process associated with obtaining a temporary crossing agreement.

#### **4.3.5 Construction Agreement**

Construction agreements are contracts between the project contractor and the railroad company allowing the contractor to perform specific construction or maintenance activities within the RR-ROW. Refer to **Section 4.5.1** for additional information on construction agreements.

#### 4.4 Project Development

The *DelDOT Project Development Manual* (PDM) lays out the steps necessary for successful project development. This section of the *DelDOT Railroad Coordination Manual* attempts to highlight the portions of the project development process that involve railroad coordination.

DelDOT project managers should involve the DelDOT Railroad Section in each phase of project development. Some DelDOT sections or projects may have slightly different project development processes that do not require all steps of a typical CTP process. DelDOT project managers should explain the unique requirements of their project or of their section's project development process to the DelDOT Railroad Section early. The DelDOT Railroad Section can provide guidance on whether railroad coordination will be necessary for a project and can provide rough cost and schedule estimates. The DelDOT Railroad Section will use all pertinent project information in their coordination with the railroad company and document their determination in a Railroad Statement. This transparency keeps the coordination process moving smoothly and limits the potential for delay.

The annual Project Development meetings held by each DelDOT section are an ideal time to discuss potential railroad impacts on a project, even for projects that have not yet reached the initiation stage. A representative from the DelDOT Railroad Section attends each of these meetings which allows for early involvement. Refer to Annual Project Development Meeting flow chart found in **Appendix C-1**.

#### 4.4.1 Initiation

In the process of identifying project stakeholders and potential issues on a project, high priority should be given to locating nearby railroad corridors, railroad / roadway crossings, and RR-ROW. Railroad companies should be involved in projects not only when construction occurs directly on a railroad, but also when work needs to occur on or near RR-ROW, when planned work can affect railroad corridor drainage, and when DelDOT needs to store material and equipment on or near RR-ROW. Railroad coordination is a factor in creating the plan and schedule for critical milestones associated with a project.

At the initiation of the project, all known information should be communicated to the DelDOT Railroad Section, including project location and approximate scope. The DelDOT project manager should provide the DelDOT Railroad Section survey plans as soon as they are available.

#### **4.4.2 Scoping**

The project scoping process includes identifying which DelDOT specialty areas should participate in the project team. The DelDOT Railroad Section should always be considered in these early stages of planning, even if the only anticipated involvement is to confirm that there are no impacts to the railroad.

When railroad involvement is necessary, the DelDOT Railroad Section can provide initial estimates of the anticipated costs and schedule for railroad company coordination and work on the project. These estimates can include any of the following:

 Railroad company costs to review plans and other drawings during design and construction, provide flagging services for site visits, and other coordination efforts.

- Project costs for the DelDOT Railroad Section to assume design and construction of the railroad portion of the project.
- Additional project costs that may be required by the railroad company such as site monitoring, inspections, flagging services, and additional reviews.

#### **4.4.3** Alternatives Development

During the conceptual phase, DelDOT project managers should work with the DelDOT Railroad Section to develop alternative project approaches that avoid or minimize impacts to the railroads. These options may increase project cost, but they may also provide shorter, more reliable project timelines without the need for railroad coordination. The DelDOT Railroad Section can provide guidance on how various alternatives may affect the railroads and how much railroad company involvement would be necessary for each.

#### **4.4.4 Survey**

**Chapter 5** of this manual focuses on the railroad coordination involved with short-duration work activities such as survey, maintenance, and other site visits. DelDOT project managers should refer to this chapter and the Short Duration Projects flowchart in **Appendix C-9** before planning any site visits to make sure they obtain the appropriate right-of-entry agreements and satisfy other railroad company requirements. Right-of-entry agreements can take approximately 3 months to be processed by the railroad company.

Once survey plans are available, the DelDOT project manager should include the DelDOT Railroad Section on the departmental survey plan submission for review. At a minimum, the DelDOT Railroad Section can identify or verify RR-ROW and easements in the project area. Depending on the size, scope, and priority of the project, the affected railroad company may also receive this plan set for a review of property lines and project boundaries.

If the scope or location of the project dictates that an existing railroad agreement cannot be utilized to perform the necessary work, the project may require acquisition of RR-ROW, permanent easements, or temporary construction easements. The DelDOT project manager should work with both the DelDOT Railroad Section and the DelDOT Right-of-Way Section to begin the process. This process is lengthy and can take approximately 24 months to complete. As the PDM advises, real estate acquisition "can be controversial, expensive, and time consuming." Negotiations with a railroad company further complicate the lengthy legal discussions. Some of the standard language and conditions of acquiring RR-ROW or establishing easements may be covered under existing agreements, which the DelDOT Railroad Section will be able to identify. Each real estate acquisition is different; project managers should discuss effects on the project schedule with the DelDOT Railroad Section and DelDOT Right-of-Way Section on a case-by-case basis. Refer to Project Initiation and Scoping flow chart found in **Appendix C-2**.

At this phase, DelDOT project managers should also supply the DelDOT Railroad Section with any available project information to get more accurate estimates and more defined information on potential railroad impacts. Once it has been confirmed that a project will have railroad impacts, the DelDOT Railroad Section sends an initiation letter to the affected railroad company to initiate the project and establish a preliminary engineering agreement. This agreement establishes that the railroad company will require

funding to work on the project throughout design, including coordination and reviews that will need to be included in the DelDOT project budget. After this agreement is signed, which can take approximately 1 month for the railroad company to process, the railroad company will be able to review project plans and other documents. The DelDOT Railroad Section sends the preliminary engineering agreement to the DelDOT Chief Engineer and DelDOT Finance for execution. Once executed, the DelDOT Railroad Section will inform the DelDOT project manager to work with DelDOT Finance to set up the appropriate funding under the railroad phase of the project. Refer to Survey Plans Complete flow chart found in **Appendix C-3**.

#### 4.4.5 Preliminary

The DelDOT project manager should include the DelDOT Railroad Section on the departmental submission of preliminary plans for review. Depending on the size, scope, and priority of the project, the affected railroad company may receive this plan set and additional supporting documents for an initial review of scope, location, duration, timeframe, proposed personnel, quantities, and necessary equipment. The DelDOT project manager should include this information in the preliminary plan submittal to the DelDOT Railroad Section to be forwarded to the railroad company. The preliminary design review process can take approximately 6 months to complete.

The DelDOT Railroad Section will provide a rough cost estimate for the railroad work as a funding placeholder for the project's budget. This cost estimate can take approximately 1 month to generate. Refer to Preliminary Plans Complete flow chart found in **Appendix C-4**.

#### 4.4.6 Semi-Final

When semi-final plans are ready, the DelDOT project manager should include the DelDOT Railroad Section on the departmental semi-final plan submission for review along with the project scope, location maps, duration, timeframe, proposed personnel, proposed quantities, and necessary equipment. The DelDOT Railroad Section will send this plan set and additional information to the affected railroad company for review. As with most other reviews, this is an iterative process that can include multiple conversations and plan revisions. It can take approximately 6 months to receive feedback with each iteration of review, but the timeline will vary with the size of the project and the scope of railroad involvement.

With the information listed above, the DelDOT Railroad Section may also have enough information at this point to begin coordination with the railroad company for final design and construction by requesting a cost estimate from the railroad company which is used to set up a FAE, right-of-entry agreements, and temporary crossing agreements (if needed). Those processes usually take approximately 3 months.

The FAE will include anticipated costs for the remainder of the project life, including construction. The DelDOT project manager should work with the DelDOT Railroad Section and DelDOT Finance to include this estimate in the railroad phase of the project budget. The FAE includes the costs incurred by the railroad company that DelDOT should reimburse, such as for personnel, equipment, travel, design fees, construction fees, plan reviews, flagging services, utility relocation, inspection, and contingency. Refer to the sample FAE in **Appendix D**.

Costs associated with railroad involvement may change as the project develops. When they do, the DelDOT Railroad Section will update the DelDOT project manager, who should make the appropriate funding available through the railroad phase of the project budget.

Though the need for railroad involvement may already be apparent, the semi-final stage is typically when plans are developed enough for the DelDOT Railroad Section to provide a determination of the scope of railroad involvement. This information can be used to develop the project's Railroad Statement. The DelDOT Railroad Section typically issues a Railroad Statement once the FAE funding has been set up in the railroad phase. Refer to Semi-Final Plans Complete flow chart found in **Appendix C-5**.

#### 4.4.7 Final

The DelDOT project manager should include the DelDOT Railroad Section on the departmental submission of final plans. The DelDOT Railroad Section sends the railroad company this plan set for review. Like the semi-final plan review, this is an iterative process that can include multiple conversations and additional plan revisions. This process may take approximately 6 months. After this review, the railroad company should provide tentative approval of the plans. Refer to Final Plans Complete flow chart found in **Appendix C-6**.

#### 4.4.8 Plans, Specifications, and Estimate (PS&E)

By the time the project has reached PS&E, railroad involvement has already been determined. All comments have been addressed and plans are ready for final approval by the railroad company.

The DelDOT project manager needs to ensure that all agreements with the railroad company have been included with the other project agreements in the PS&E package. That package, along with a copy of the FAE, is submitted to the railroad company to obtain final signatures and approval. Return of a stamped plan set to DelDOT can take approximately 1 month. The DelDOT project manager can move on to preparations for bidding. Refer to PS&E flow chart found in **Appendix C-7**.

#### 4.5 Construction

There are further approvals needed and limitations on access to the RR-ROW during construction. The following requirements generally fall under the contractor's responsibilities and should be included with the standard railroad specifications and shop drawing direction in bid documents. The DelDOT construction manager is ultimately responsible for the timely completion of the project and should work with the DelDOT Railroad Section to confirm that all appropriate agreements are secured and railroad company requirements are followed during construction. Once construction begins, the project should schedule time for shop drawing reviews, railroad outages, railroad company-led flagging services, and other railroad schedule changes. Refer to Construction Post-bid flow chart found in **Appendix C-8**.

Railroad coordination is a complex process. The DelDOT project manager, with assistance from the DelDOT Railroad Section, should coordinate with DelDOT's construction staff to ensure they are aware of the requirements for work involving the railroad. It is recommended that notice to proceed for construction be withheld until the contractor has secured all railroad agreements and necessary insurance.

#### **4.5.1 Construction Agreements**

Construction agreements are contracts between the project contractor and the railroad company allowing the contractor access to the RR-ROW to perform specific construction or maintenance activities. This will require approved design plans and may include a monitoring plan to ensure that nearby railroad facilities are not affected by the work. It will outline activities allowed, timeframes, and additional requirements such as proof of insurance, arranging for railroad flagging services, coordinating gaps in the railroad schedule, and potentially securing training and certifications for personnel planning on entering the RR-ROW.

#### 4.5.2 Pre-Construction Meeting

DelDOT construction managers should ensure that the railroad company is included in pre-construction meetings. The railroad company may also require their own pre-construction meeting to review their requirements for the project. Topics for this meeting generally include:

- Review of agreements
- Site inspection
- Schedule
- Scope of work
- Appropriate contacts and personnel
- Safety and property protection standards
- Insurance requirements
- Shop drawing submission procedures, review timelines, and expectations
- Flagging and other railroad protective services

It can take approximately 3 months following the pre-construction meeting to secure the necessary construction agreements and insurance requirements from the railroad company.

#### 4.5.3 Shop Drawing Review

The railroad company will review and approve all shop drawings for equipment being installed within the RR-ROW. Like other reviews, shop drawing reviews are iterative and can include multiple conversations and revisions. Each review may take approximately 3 months. It is typically beneficial to have DelDOT engineers, and the DelDOT Railroad Section, review shop drawings prior to submitting to the railroad company. This prevents a back-and-forth review process. Expectations for shop drawing review timelines should be discussed at the pre-construction meeting.

#### 4.5.4 Inspection

After work in the RR-ROW is completed, the railroad company generally requires an independent inspection of the work, which is conducted by railroad company engineers or third parties of the railroad company's choice. The railroad company has final approval of the work performed within the RR-ROW. Passing these inspections is vitally important, as failure to pass can delay final acceptance of the project and add additional costs. The railroad company can require work to be redone and/or can have contractors removed from the RR-ROW.

#### **5.0 Short-Duration Activities**

#### **5.1 Purpose**

This chapter defines the steps necessary to obtain access to RR-ROW for short-duration activities such as survey, maintenance, inspections, and all other site visits. See **Chapter 6** for information on emergency activities within RR-ROW.

#### 5.2 Process

Regardless of the duration, impact, or necessity of the activity, any unapproved entry onto RR-ROW is considered trespassing and can be extremely dangerous. All entry onto RR-ROW requires proper approval for the specific activity to be performed from the railroad company, which should be coordinated through the DelDOT Railroad Section. All individual site visits onto RR-ROW require approval, even if there is an existing maintenance agreement in place between the railroad company and DelDOT covering approved activities. A discussion of maintenance agreements can be found in **Section 4.3.1** of this manual. The DelDOT project manager should contact the DelDOT Railroad Section in advance of any entry onto railroad property.

To begin the coordination process of obtaining a right-of-entry agreement, DelDOT project managers requesting access to RR-ROW should contact the DelDOT Railroad Section with the following information:

- Scope of work
- Plans (if applicable)
- Location maps
- Anticipated duration
- Timeframe of work
- Number of workers entering the RR-ROW
- Equipment usage
- Material storage

Drawings, plans, or maps may be helpful to outline the work to be performed and the areas that need to be accessed. DelDOT project managers should also consider how personnel and equipment will get to the work site to ensure that the approval process includes all work efforts in or near RR-ROW. The same information is required even if a current maintenance agreement exists; however, coordination may proceed more quickly with an existing maintenance agreement. Inclusion of this information is vital in securing an accurate FAE. A discussion of FAEs can be found in **Section 4.4.6** of this manual.

The DelDOT Railroad Section can identify which railroad company may be impacted, whether coordination with the railroad company is necessary, and what types of agreements are needed. See **Section 4.3** for information on different types of railroad agreements. In addition to an agreement, DelDOT may be required to:

- Obtain and provide proof of insurance
- Arrange for railroad flagging services
- Coordinate gaps in the railroad schedule
- Secure training and certification for personnel entering the RR-ROW

This coordination and approval process to obtain a right-of-entry agreement with the railroad company may take approximately 3 months, depending on the scope and duration of anticipated work. DelDOT project managers should coordinate with the DelDOT Railroad Section early in the project if they anticipate work within RR-ROW so they can avoid delays due to railroad coordination.

#### **5.3 Project Development**

While short-duration activities may not follow the standard project development template as laid out in the DelDOT PDM or **Chapter 4** of this manual, many of the steps still apply. DelDOT project managers should work with the DelDOT Railroad Section early in their project process to ensure smooth coordination and mitigate delays. The DelDOT project manager should coordinate with the DelDOT Railroad Section so they know whether plans will need to be developed, and, if so, inform the DelDOT Railroad Section regarding the plan status and submission schedule. Refer to Short Duration Projects flow chart found in **Appendix C-9**.

#### **6.0 Emergency Activities**

#### 6.1 Purpose

This chapter defines the process for handling emergency work within RR-ROW.

#### **6.2 Process**

Emergencies can and do occur. Although railroad companies have strict policies that affect review timeframes, review and approvals for railroad access may be expedited.

As soon as an emergency occurs in or near RR-ROW, the DelDOT Transportation Management Center (TMC) should be notified and will follow the steps described in the Railroad Incident Standard Operating Procedure (provided in **Appendix F**). First, the TMC will determine the extent of the emergency and will contact the local operators for the affected section of railroad. Then, the TMC will proceed to contact police, fire, or emergency medical services as necessary, if the notification to the TMC did not originate from one of these services. Then, the TMC will provide an alert to the DelDOT Railroad Section. The DelDOT Railroad Section is then able to begin coordination with the DelDOT project or construction manager responsible for the site, if there is an active DelDOT project in the area. Otherwise, they will lead coordination between the railroad company and DelDOT project manager responsible for any emergency work.

Early coordination with the railroad company is not only necessary to prevent DelDOT personnel from trespassing onto RR-ROW but is also vital to worker safety. Railroad movement can be unexpected, and schedules are ever-changing. Without coordination, all DelDOT personnel, materials, and equipment within RR-ROW would be in danger and could in turn endanger railroad personnel, equipment, and facilities.

Other procedures in this manual require official submittals and signed documents transmitted between the DelDOT Railroad Section and railroad company before any work can begin. Emergencies typically do not require as much documentation and wait times, at least in early phases. In emergency situations, the DelDOT project manager should wait for direction from the DelDOT Railroad Section to determine how to proceed. During the emergency, the DelDOT project or construction manager should communicate with the DelDOT Railroad Section, who will coordinate with the railroad company, providing updates on necessary work and schedules. The railroad company will want to resume its normal activities as soon as possible. Continued work after emergency conditions have been addressed is likely to require a more complete coordination process, as outlined in **Chapters 4 and 5** of this manual.

## Appendix A Railroad Statement 2025



#### STATE OF DELAWARE

#### DEPARTMENT OF TRANSPORTATION

800 BAY ROAD P.O. BOX 778 DOVER, DELAWARE 19903

SHANTÉ A. HASTINGS SECRETARY

#### RAILROAD STATEMENT

For

State Contract No.:		
Federal Aid No.:		
Project Title:		
The following railroad companies	maintain facilities wit	hin the contract limits:
Amtrak		Maryland & Delaware
CSX		Norfolk Southern
State of Delaware Delmarva Central		Wilmington & Western
East Penn		Delmarva Central
2000 - 01111		None
DOT Inventory No.:	No. Trains/Day:	Passenger Trains (Y / N):
follow requirements state	d in the DelDOT Maint octor shall coordinate r	agging required. The contractor shall cenance of Railroad Traffic Item in the railroad flagging with the DelDOT
complete and fully execute required for proper coordi shall follow requirements	ed. Railroad related wination with physical costated in the DelDOT Notes that the stated in the DelDOT Notes that the section in the section	annot begin work until the Agreement is york to be undertaken and completed as onstruction schedules. The Contractor Maintenance of Railroad Traffic Item in ate railroad flagging with the DelDOT
Approved As To Form:		

DATE

DelDOT Railroad Coordinator

# Appendix B Railroad Coordination Checklist

## Delaware Department of Transportation

## Railroad Coordination Checklist

Project Milestones - Development and Design								
-	Init	Scope	Alts	Survey	Prelim	Semi	Final	PS&E
DelDOT PM to work with DelDOT Railroad Section to identify railroad impacts within the project limits, nearby railroad corridor, rail/roadway crossings, work inside or near RR-ROW, work that will affect rail drainage, or the project will require material/equipment storage on/near RR-ROW	X	X	X	X	х	X	X	х
DelDOT PM to communicate with DelDOT Railroad Section regarding project scope, schedule, and budget	X	X	X	X	X	X	X	X
DelDOT PM to ensure project considers alternatives that avoid railroad impacts		X	X					
DelDOT PM to work with DelDOT Railroad Section to confirm whether rail work can be covered under existing Maintenance Agreement		X		X	X			
DelDOT PM to work with DelDOT Railroad Section to obtain Preliminary Engineering Agreement (Approximately 1-month process)				X				
DelDOT PM to ensure all site visits onto RR-ROW are completed only after obtaining Right-of-Entry Agreement and railroad flaggers have been arranged (Approximately 3-month process)				X				
DelDOT PM to include DelDOT Railroad Section on Department-wide plan submission				X	X	X	X	X
DelDOT PM to work with DelDOT Railroad Section and DelDOT Right-of-Way Section to acquire RR- ROW, Permanent Easement, or Temporary Construction Easement (if necessary) (Approximately 24-month process)				X				
DelDOT Railroad Section to provide railroad company with a copy of the Department-wide plan for review (Approximately 6-month process per review)					X	X	X	
DelDOT PM to work with DelDOT Railroad Section to get a rough cost estimate for railroad work, which can be used for project's cost estimate (Approximately 1-month process)		X			X			
DelDOT PM to work with DelDOT Railroad Section to set up a Force Account Estimate (FAE) with the railroad company and enter estimate into railroad phase of project budget (Approximately 3-month process)						X	X	X

Project Milestones - Development and Design								
	Init	Scope	Alts	Survey	Prelim	Semi	Final	PS&E
DelDOT Railroad Section issues Railroad Statement to the DelDOT PM						X		
DelDOT PM to work with DelDOT Railroad Section to get a Temporary Crossing Agreement (if necessary) (approximately 1-month process)						X		
Railroad company signs and stamps the plans, giving approval for the project to be constructed (approximately 1-month process)								X

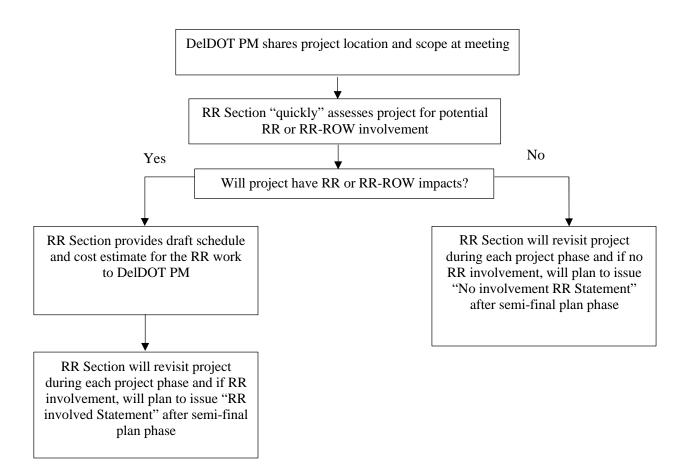
## Delaware Department of Transportation

# Railroad Coordination Checklist

Project Milestones - Construction				
	PreBid	PreCon	Const	Final
DelDOT PM to ensure all railroad requirements for project are discussed	X	X		
Contractor secures necessary construction agreements and insurance with the railroad company (Approximately 3-month process)		X		
DelDOT-led pre-construction meeting reviews railroad requirements for the project		X		
DelDOT-led pre-construction meeting reviews requirements for shop drawing reviews for the project		X		
Railroad-led pre-construction meeting reviews railroad requirements for the project (if necessary, at the discretion of the railroad company)		X		
DelDOT construction manager works with DelDOT Railroad Section to coordinate with railroad company regarding shop drawing reviews, rail line outages, scheduling flagging services, and railroad schedule changes (approximately 3-months per item)			X	
Railroad company performs independent inspections of work on the railroad (if constructed by a non-railroad contractor) and assumes ownership of constructed facilities				X

Appendix C Railroad Projects Flow Charts

# Appendix C-1 Annual Project Development Meeting



LEGEND

DelDOT = Delaware Department of Transportation

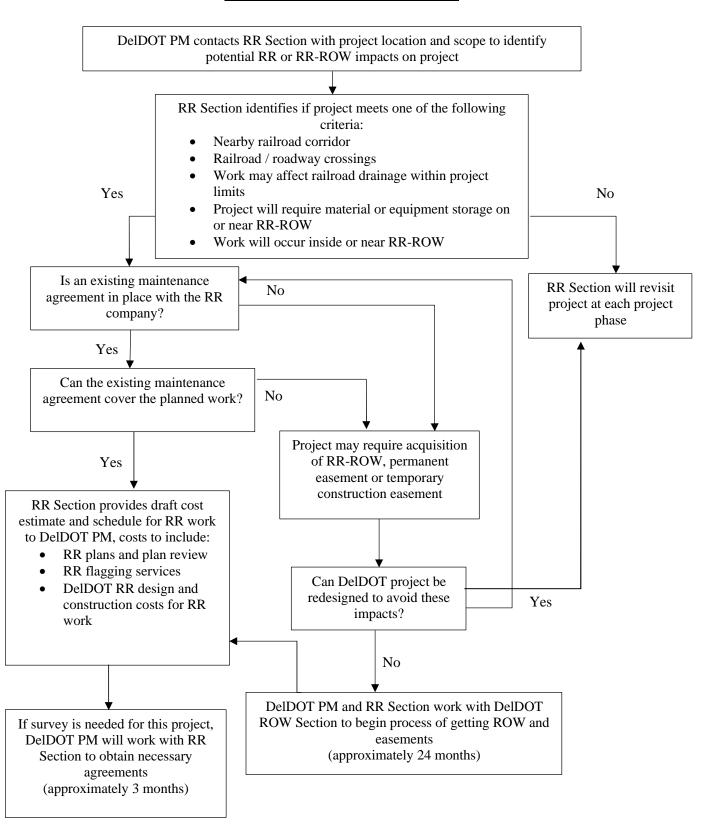
DelDOT PM = DelDOT project manager

RR Section = Delaware Department of Transportation Railroad Section

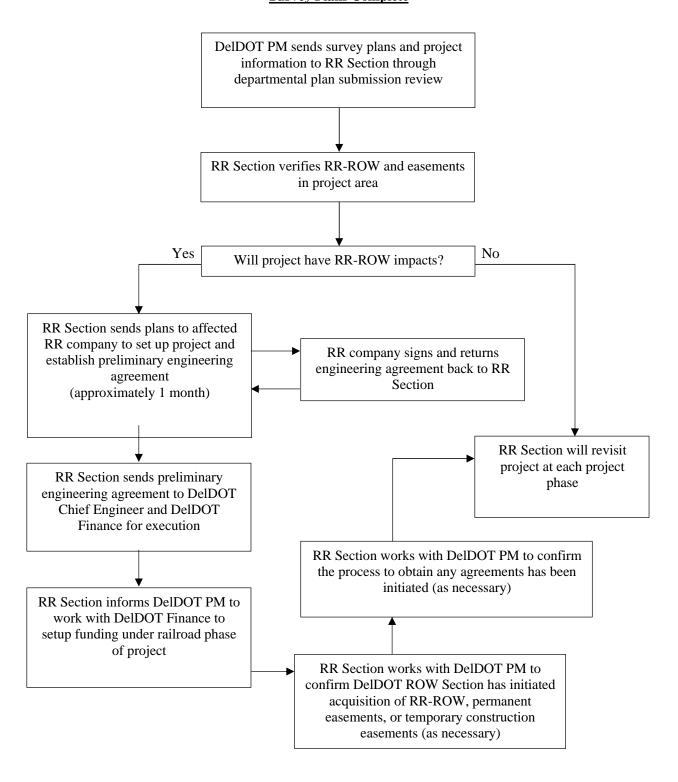
RR = Railroad

RR-ROW = Railroad company's right of way

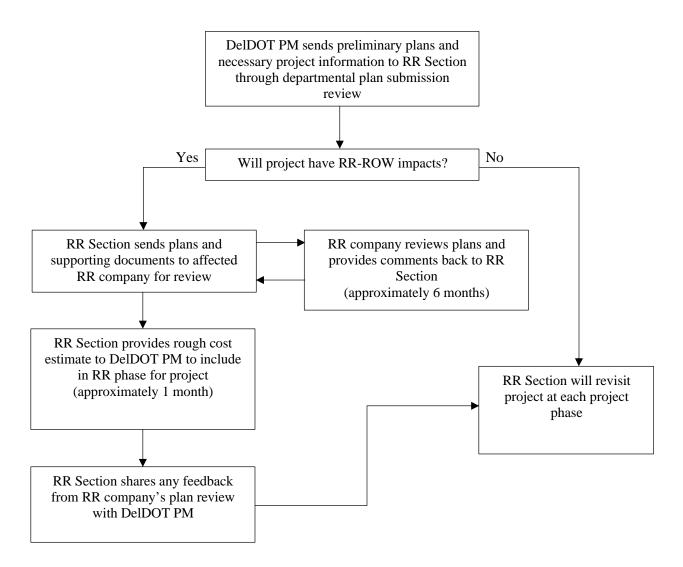
# Appendix C-2 DelDOT Project Initiation and Scoping



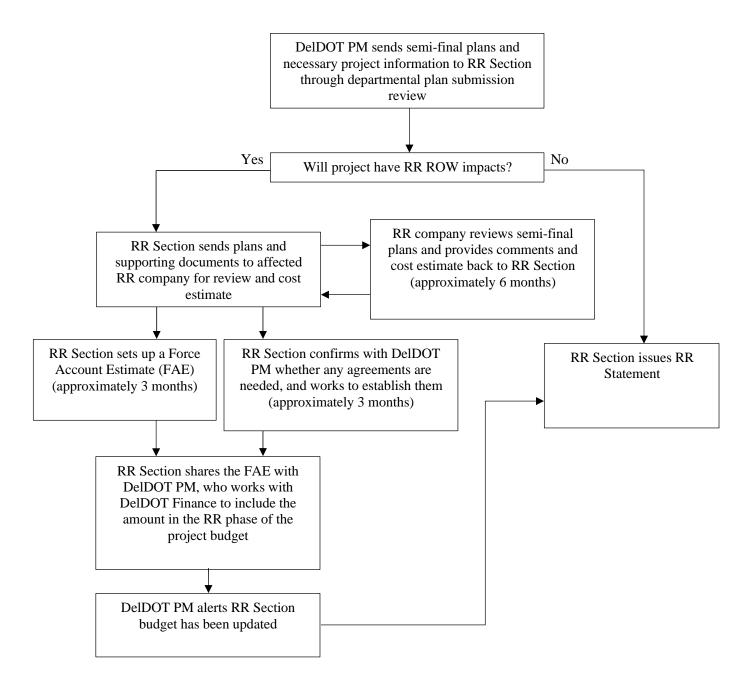
# Appendix C-3 DelDOT Plan Development: Survey Plans Complete



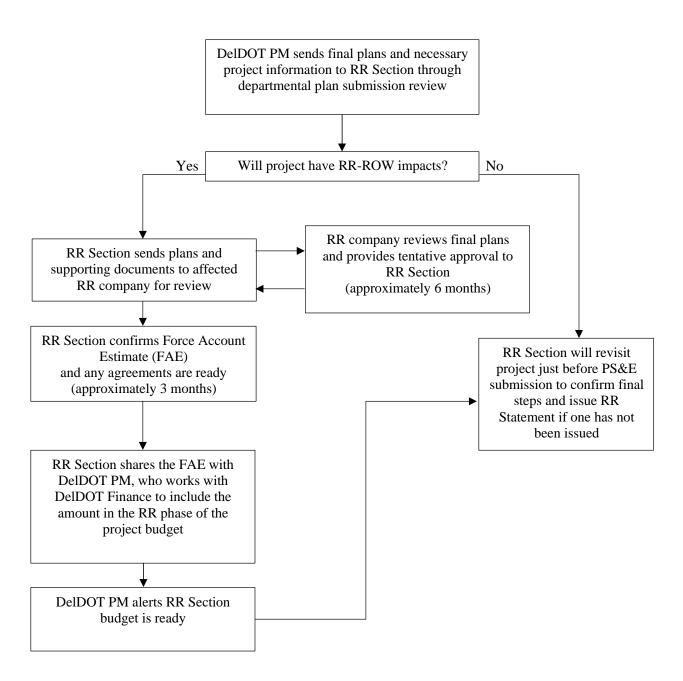
# Appendix C-4 DelDOT Plan Development: Preliminary Plans Complete



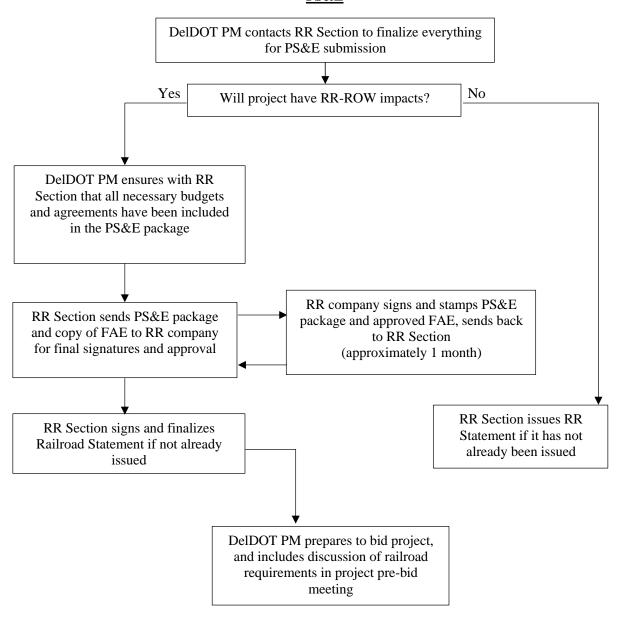
# Appendix C-5 DelDOT Plan Development: Semi-Final Plans Complete



## Appendix C-6 DelDOT Plan Development: Final Plans Complete

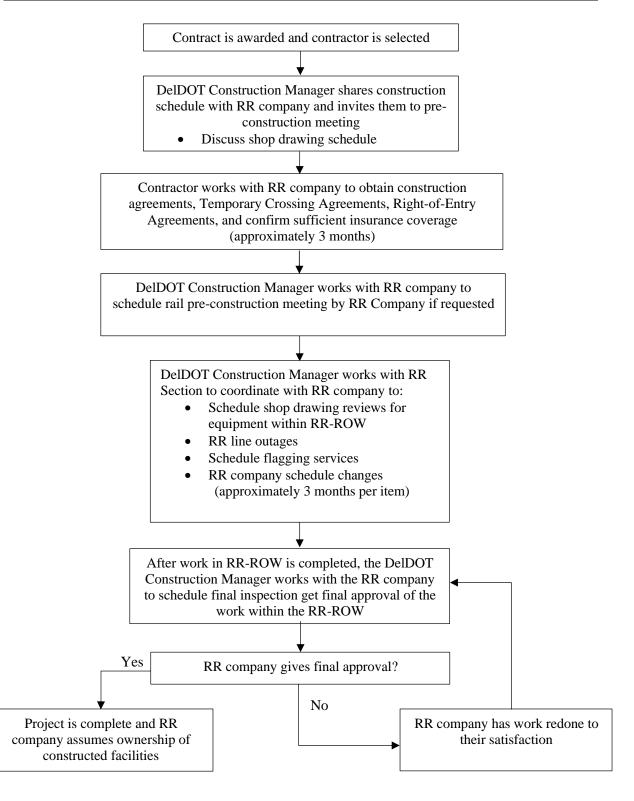


## Appendix C-7 DelDOT Plan Development: PS&E

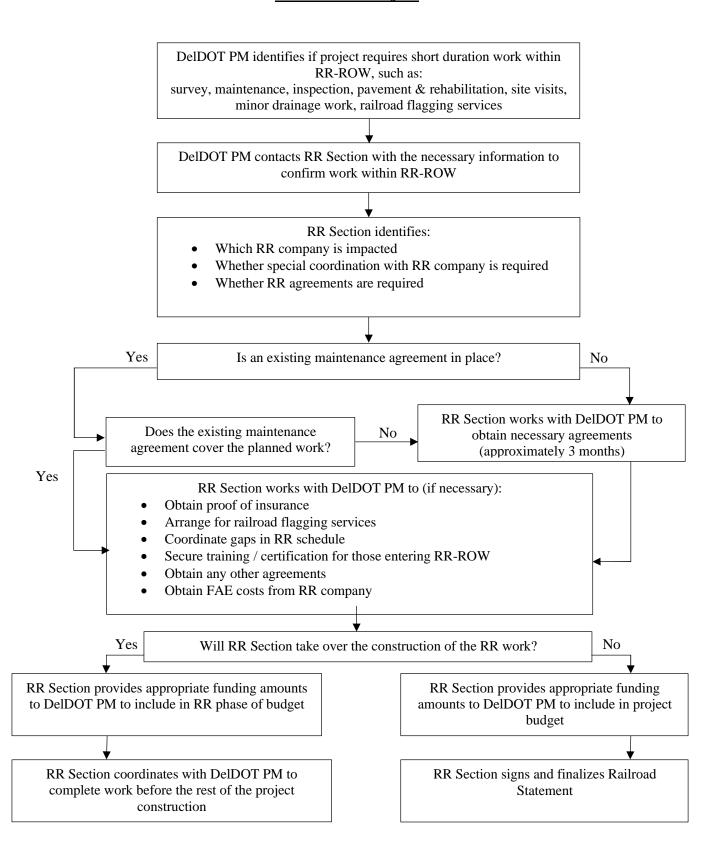


### Appendix C-8 Construction Post-bid Phase:

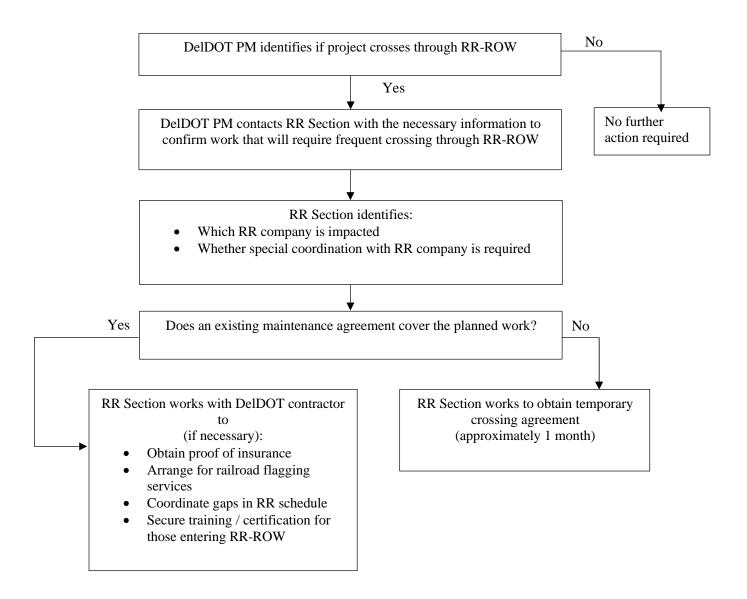
#### DelDOT Project Manager includes reading / discussion of RR requirements during pre-bid meeting



### Appendix C-9 Short Duration Projects



### Appendix C-10 Temporary Crossing Agreements



Appendix D
Sample Force Account Estimate (FAE)

### **Force Account Estimate**

		Railroad	d Company	
		Date:	. ,	
Ctata Drai Na			Fodoral Aid No.	
State Proj No: P3ID:			Federal Aid No:	
State Proj Title:				
DOT/AAR:			City / State:	
Road:			County:	
MilePost:				
	Rai	ilroad Purchases - C	Others	
Meals / Lodging:			\$0.00	
Rental Equipment:			\$0.00	
Construction Super	visor Vehicle:		\$0.00	
Purchases - Other	her Total: \$0.00  Railroad Materials, Labor and Additives  osts: \$0.00		\$0.00	
	Railroad	Materials, Labor an	d Additives	
Railroad PE Costs:			\$0.00	
Railroad Signal Co	ntractor:		\$0.00	
Railroad Contracto			\$0.00	
Railroad Flagging Costs:			\$0.00	
Railroad Inspection	):		\$0.00	
Railroad Roadway Contractor:			\$0.00	
Contingency			\$0.00	
Material & Labor Total:				\$0.00
		Railroad Costs:		\$0.00
		Additional Costs		
Consultant DE Coo	4.		<b>\$0.00</b>	
Consultant PE Cost:			\$0.00 \$0.00	
Utility Relocation Costs:			\$0.00	
MOT Costs:				
CE Costs: Roadway Traffic Signal Contractor:			\$0.00	
			\$0.00 \$0.00	
DelDOT/Consultan Construction Contin			\$0.00	
		Additional Total:		\$0.00
		7 daitional Fotali		ΨΟΙΟΟ
	Overall Project C	ost		\$0.00
Scrap / Salvage Credit				\$0.00

**Project Total:** 

\$0.00

### Appendix E Railroad Incident Procedure



### Railroad Incident Procedure

Revision Number: A.1

Draft Date: 11/6/2024 Implementation Date:

XX/XX/20XX

#### **Description:**

This SOP is to be utilized by the Transportation Management Center (TMC) when responding to reported incidents involving railroad crossings or equipment.

#### **Points of Contact:**

**Primary:** TMC Shift Supervisor

**Secondary:** TMC Manager

#### **Operating Procedure:**

When the TMC receives a report of a railroad incident, the following contact procedures shall be used:

**Step 1:** Identify the location of the incident, and which railroad company owns and operates the railroad line/crossing.

- 1. Access the TMC's Google Earth Files:
  - a. RxRNewCastle
  - b. RxRCentral
  - c. RxRSouth
  - d. RxRLines
- 2. Identify the location of the incident, and use the files to identify:
  - a. Operator of the rail line
  - b. Rail crossing number (if applicable)
  - c. Equipment that is damaged (if applicable)
  - d. Nearby roadways
  - e. Local rail contact information

**Step 2:** Make positive phone contact with the operator of the rail line to inform them of the incident. They will require the information identified in Step1.2.

- 1. Call the rail line.
- 2. If no one answers, leave a message and wait 5 minutes for a return call. Move on to Steps 3 and 4 during the 5-minute wait.
- 3. If the rail does not call back within 5 minutes, call them a second time.
- 4. If that person does not answer, do not leave a second message. Contact DelDOT's Railroad Coordinator.

**Step 3:** Identify the severity of the incident.



### Railroad Incident Procedure

Revision Number: A.1

Draft Date: 11/6/2024 Implementation Date:

- 1. For 'Traffic High Priority' incidents, including:
  - A train derailment or crash resulting in damage to a structure along the roadway.
  - Any incident involving significant damage to a structure carrying a rail line over a roadway, or a structure carrying a roadway over a rail line.
  - Any incident involving damage to a rail owned overhead truss structure.
  - a. Follow the SOP procedure for 'Traffic High Priority' incidents.
- 2. For 'Level 1' rail incidents, including:
  - Crashes between trains and vehicles, bicyclists, or pedestrians.
  - a. Radio 911 to initiate an emergency response or confirm it has already been initiated.
  - b. Make positive phone contact with the local maintenance yard.
    - i. Call the cell phone of the Primary contact for the area supervisor or assistant supervisor in which the incident occurred.
    - ii. If that person does not answer, leave a message and wait 5 minutes for a return call. iii. If the Primary contact does not call back within 5 minutes, call them a second time.
    - iv. If the Primary contact does not answer, do not leave a message. Contact the 1<sub>st</sub> back-up for the district in which the incident occurred.
    - v. If the 1<sub>st</sub> back-up does not answer, contact the 2<sub>nd</sub> back-up for the district in which the incident occurred.
    - vi. If the  $2_{nd}$  back-up does not answer, contact the District escalation contacts.
  - c. Make positive phone contact with DelDOT Safety.
    - i. Call the cell phone of the Primary contact for the district in which the incident occurred.
    - ii. If that person does not answer, leave a message and wait 5 minutes for a return call. iii. If the Primary contact does not call back within 5 minutes, call them a second time.
    - iv. If the Primary contact does not answer, do not leave a message. Contact the 1<sub>st</sub> back-up for the district in which the incident occurred.
    - v. If the  $1_{st}$  back-up does not answer, contact the  $2_{nd}$  back-up for the district in which the incident occurred.
    - vi. If the 2<sub>nd</sub> back-up does not answer, contact the DelDOT Chief Safety Officer (S-1).
    - vii. If the DelDOT Chief Safety Officer (S-1) does not answer, contact the DelDOT Safety Programs Manager (TR-5).
  - d. If an incident involves a HAZMAT concern, follow the SOP procedure for 'HAZMAT Related Call'.
  - e. Issue Incident Management Email only after a., b., c., and d. are complete.



### Railroad Incident Procedure

Revision Number: A.1

Draft Date: 11/6/2024 Implementation Date:

- 3. For 'Level 2' rail incidents, including:
  - Vehicles stuck on railroad tracks.
  - a. Radio 911 to initiate an emergency response and remove the vehicle from the tracks.
  - b. Follow the procedure for 2.b above, to initiate the local maintenance yard to urgently move the vehicle.
  - c. Issue Incident Management Email only after a. and b. are complete.
- 4. For 'Level 3' rail incidents, including:
  - Rail gates stuck in 'down' position.
  - Train stalled on tracks and blocking a crossing.
  - a. Follow the procedure for 2.b above, to make positive contact with the local maintenance yard to initiate the procedure for any road closures or detours.
  - b. Issue Incident Management Email only after a. is complete.
- 5. For 'Level 4' rail incidents, including:
  - Damaged or malfunctioning rail equipment.
  - a. Identify if the equipment is owned by DelDOT or by the rail company, if possible.
  - b. If equipment is DelDOT owned:
    - i. The TMC technician creates a CAD and a Maximo and puts as much information as possible in both. If this is during business hours proceed to Step 3.5.b.ii, if this is after business hours proceed to Step 3.5.b.iii.
    - ii. If this occurs during business hours the TMC will call for an ITS Maintenance Tech in the appropriate district and dispatch them to the location providing them as much information as possible concerning location, permit number and any relevant TACTICS information. The TMC technician will assign the dispatched ITS Maintenance Tech to the CAD and Maximo and place the Maximo Inprg (In Progress).
    - iii. If this occurs after business hours the TMC will call the on call ITS Maintenance Tech using the after-hour call-out procedure for the appropriate district and dispatch them to the location providing them as much information as possible concerning location, permit number and any relevant TACTICS information. The TMC technician will assign the dispatched ITS Maintenance Tech to the CAD and Maximo and place the Maximo Inprg (In Progress).
    - iv. When the ITS Maintenance Tech arrives the TMC will update the CAD unit status to 'Arrived'.
    - v. The ITS Maintenance Tech must call with their findings and actions.
      - 1. When the ITS Maintenance Tech calls, the TMC technician documents the findings and actions and the ticket can be closed in CAD. TMC technician will respond to complaint when it has been completed.



### Railroad Incident Procedure

Revision Number: A.1

Draft Date: 11/6/2024 Implementation Date:

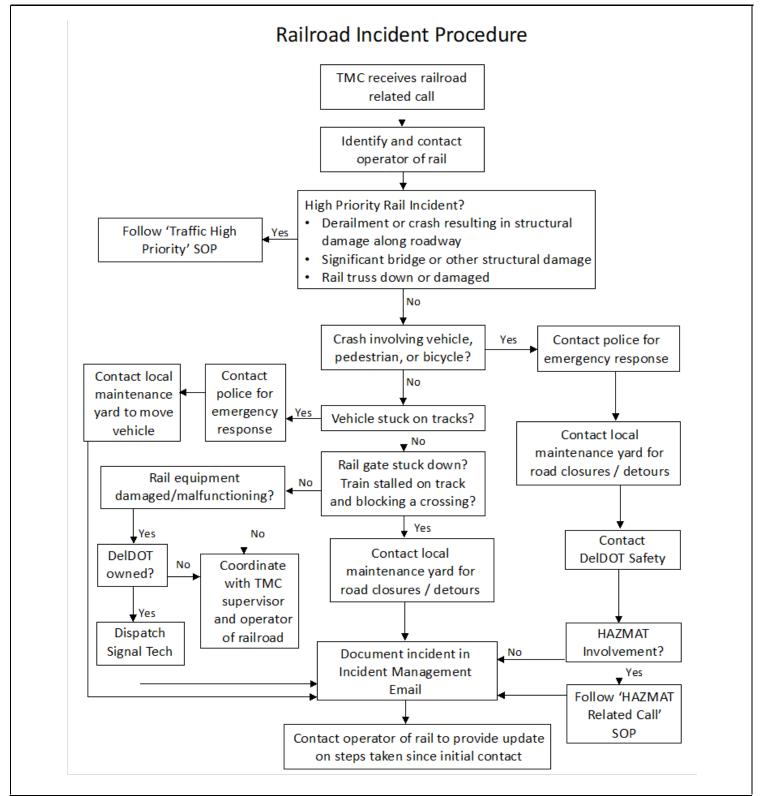
- 2. If they do not call
  - a. TMC Technician contacts ITS Maintenance Tech to follow-up.
  - b. TMC Technician confirms that has been repaired and closes CAD.
  - c. TMC Technician will respond to complaint when it has been completed.
- c. Issue Incident Management Email only if roadway crossing is closed as a result of the damage/malfunction.
- 6. To address all other rail-related issues, work with the TMC Shift Supervisor and/or TMC Manager as necessary.
- **Step 4:** Make positive phone contact with the operator of the rail line to update them on the steps taken since initial contact was made.
  - 1. Call the rail line.
  - 2. If no one answers, leave a message and wait 5 minutes for a return call.
  - 3. If the rail does not call back within 5 minutes, call them a second time.
  - 4. If that person does not answer, do not leave a second message. Contact DelDOT's Railroad Coordinator.



### Railroad Incident Procedure

Revision Number: A.1

Draft Date: 11/6/2024 Implementation Date:





### Railroad Incident Procedure

Revision Number: A.1

Draft Date: 11/6/2024 Implementation Date:

XX/XX/20XX

#### **DelDOT Personnel Assignments and Contact Information:**

Refer to the EOps Call-Out Safety Tab for DelDOT assignments and contact information.

#### **Deviation from Standard Operating Procedure:**

Deviation from these Standard Operating Procedures is not permitted without the approval of the DelDOT Railroad Coordinator or Program Manager. If there is an issue with personnel not responding in a timely fashion, the DelDOT Railroad Coordinator should be contacted immediately.

#### **Associated SOPs:**

- 1. Traffic High Priority Bridge & Overhead Sign Structure Procedure
- 2. Incident Management (IM) Email Notification Procedure
- 3. HAZMAT Related Call
- 4. Creating MAXIMO Work Orders
- 5. Telephone Etiquette
- 6. E-mail Etiquette

Date	
Date Operating Procedure	es. Failure to comply with
	Date



Revision Number: A.1

Draft Date: 11/6/2024 Implementation Date:

XX/XX/20XX

### Railroad Incident Procedure

Name	Initial	Date

## **Appendix F Glossary of Acronyms and Terms**

**AASHTO:** American Association of State Highway and Transportation Officials

ADA: Americans with Disabilities Act

AREMA: American Railway Engineering and Maintenance-of-Way Association

**CFR**: Code of Federal Regulations

CSX: Chessie Seaboard Consolidated

**CTP**: Capital Transportation Program

**DelDOT**: Delaware Department of Transportation

DCR: Delmarva Central Railroad

**DART:** Delaware Authority for Regional Transit

**DTC:** Delaware Transit Corporation

ESPN: East Penn Railroad

FAE: Force Account Estimate

FHWA: Federal Highway Administration

**HRGX**: Highway-Rail Grade Crossing

**ITE**: Institute of Transportation Engineers

MDDE: Maryland and Delaware Railroad

MUTCD: Manual on Uniform Traffic Control Devices

**NS:** Norfolk Southern

PDM: Project Development Manual

PS&E: Plans, Specifications, and Estimates

**Railroad**: the tracks and/or system of tracks on which trains operate

**Railroad company:** the business entity that owns or operates the railroad.

**Rail corridor**: the portion of a linear contiguous strip of real property which is used for rail service

**RPM**: Railroad Program Management

**RR-ROW:** Railroad right-of-way

**SEPTA**: Southeastern Pennsylvania Transit Authority

TMC: Transportation Management Center

**USC**: United States Code